



KALIP ve İŞ PARÇASI BAĞLAMA SİSTEMLERİ
Mold and Workpiece Clamping Systems

**Bağlama ekipmanlarında
kalite üretiyoruz..**

"We produce quality in clamping equipment"





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DEĞERLİ MÜŞTERİMİZ;

ER-EL MAKİNA YEDEK PARÇA İMALATI SAN. VE TİC. LTD ŞTİ. olarak 1989 'dan beri kalıp bağlama ve işleme ekipmanlarında bizi güven ve kalitenin simgesi haline getiren ürünler üretmekteyiz. Geçen yıllar içinde mevcut kapasite ve toplam istihdam alanında sürekli artan bir çizgiyle her geçen gün daha sağlam ve emin adımlarla ilerleyen ER-EL; bugün başta Avrupa ülkeleri olmak üzere 45'i aşkın ülkeye ihracat yapmaktadır.

Her biri ayrı değer ve öneme sahip olan müşterilerimizin ihtiyaç ve taleplerine uygun çözümler sunmak amacıyla faaliyet gösteren ARGE bölümümüz ürün çeşitliliğini arttırmaya yönelik çalışmalarını büyük bir özveriyle sürdürmektedir. Katma değerli, kaliteli ve güvenli ürünler üretmek adına yatırımlarını arttırarak verimli, sürdürülebilir bir yol izleyen firmamız; 2004 yılında ISO 9001:2015 Kalite Yönetim Sistemini kurarak var olan kalitesini belgelendirmiştir. Akabinde ISO14001:2015 Çevre Yönetim Sistemi, ISO 45001:2018 İş Sağlığı ve Güvenliği Yönetim Sistemi ve CE sertifikalarına sahip olarak buna uygun üretim yapmaktadır.

Bugün itibari ile Kalıp & İş parçası Bağlama Ekipmanları, İşleme Sistemlerinde 4500'ü aşan hemen teslim stok ürünü çeşitleriyle konusunda lider ve üretici firma olmanın gururunu yaşamaktayız.

Standart üretimlerimiz dışında proje bazlı fikstür imalatımız da mevcuttur. Başta Savunma & Havacılık Sanayi olmak üzere, Otomotiv, Beyaz Eşya, Ağır Makine ve Silah Sanayi sektörleri gibi Sanayinin güzide firmalarında; iş parçasına özel tasarım yapıp ürettiğimiz mekanik, pnömatik ve hidrolik fikstür ürünleri kullanılmaktadır. Sistem verimini optimize eden ürün grubumuzla; dünyaca kabul görmüş, alanında geçerliliğe sahip standartlarda üretmeye devam etmekteyiz.

Firmamız 2017 yılında taşındığı yeni fabrikasında; üretim tesisi ve yönetim binası alanında dinamik ve uzman kadrosu ile gerek standart, gerek proje bazlı fikstür çözümleri ile müşteri memnuniyeti için üstün performans ile çalışmaktadır.

Uzun yıllardır ülkemizde ve Yurtdışında kalıp bağlama elemanları üreticisi olarak sektöre hizmet veren MİKSAN Hızlı Bağlama Sistemleri firması satın alınarak ER-EL Kalıp Bağlama ve İşleme Sistemleri firmamız bünyesine katılmıştır. Bir ER-EL markası olan MİKSAN ürünleri; firmamız kalite ve güvencesiyle hizmet vermeye devam edecektir.

Siz değerli müşterilerimize ER-EL'e olan güveninizden dolayı teşekkür eder, aynı istikrar ve güvenle uzun yıllar çalışmayı temenni ederiz.

Saygılarımızla;
ER-EL Yönetimi

OUR ESTEEMED CUSTOMER;

ER-EL MACHINE SPARE PARTS MANUFACTURING INDUSTRY CO.LTD. Since 1989, we have been producing products that make us a symbol of trust and quality in mold clamping and processing equipment. Over the years, ER-EL has progressed more and more confidently with its increasing capacity and total employment. Today, it export to more than 45 countries, mainly European countries.

Our R & D department, which operates to provide solutions that meet the needs and demands of our customers, each of which has a distinct value and importance, continues its efforts to increase the product variety with great devotion. Our company follows an efficient, sustainable way by increasing its investments in order to produce value added, quality and safe products; In 2004, it established ISO 9001:2015 Quality Management System and documented its existing quality. The company has ISO14001:2015 Environmental Management System, ISO 45001:2018 Occupational Health and Safety Management System.

As of today, we are proud to be the leader and manufacturer company in the field of mold & workpiece clamping equipment and processing systems, over 4500 fast immediate delivery stock products.

In addition to our standard production, we also produce project-based special fixture apparatus. Especially in Defense & Aviation Industry, Automotive, White Goods, Heavy Machinery and Weapon Industry sectors such as industry-renowned companies; mechanical, pneumatic and hydraulic fixture products that we design and produce for the workpiece are used. With our product group optimizing system efficiency; we continue to produce world-accepted standards that are valid in the field.

Our company moved to the new factory in 2017; with its dynamic and expert staff in the field of production facility and management building, it works with superior performance for customer satisfaction with both standard and project based fixture solutions.

MIKSAN Fast Coupling Systems company which has been serving to the sector as a manufacturer of mold fasteners in our country and abroad for many years has been purchased as of and ER-EL Mold Clamping and Processing Systems has joined our company. MIKSAN products which are an ER-EL brand; Our company will continue to serve with quality and assurance.

We would like to thank you, our esteemed customers for your trust in ER-EL and hope to work for many years with the same stability and confidence.

Kind regards;
ER-EL Directors

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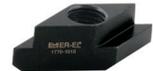
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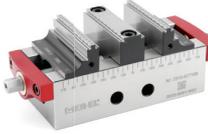


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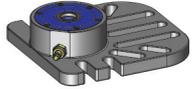
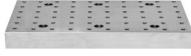
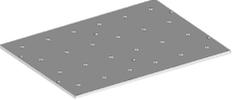
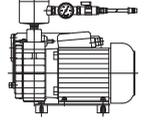
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|---|---|--|--|---|
| <p>Nr. 2474 S. 252</p> <p>NEW</p>  | <p>Nr. 2475 S. 254</p>  | <p>Nr. 2480 S. 254</p>  | <p>Nr. 2481 S. 255</p>  | <p>Nr. 2482 S. 256</p>  |
| <p>Nr. 2483 S. 256</p>  | <p>Nr. 2490 S. 259</p>  | <p>Nr. 2510 S. 259</p>  | <p>Nr. 2530 S. 260</p>  | <p>Nr. 2550 S. 260</p>  |
| <p>Nr. 2557 S. 262</p>  | <p>Nr. 2560 S. 262</p>  | <p>Nr. 2563 S. 262</p>  | <p>Nr. 2565 S. 263</p>  | <p>Nr. 2567 S. 263</p>  |
| <p>Nr. 2570 S. 265</p>  | <p>Nr. 2590 S. 265</p>  | <p>Nr. 2600 S. 266</p>  | <p>Nr. 2600 S. 267</p>  | <p>Nr. 2610 S. 268</p>  |
| <p>Nr. 2630 S. 268</p>  | <p>Nr. 2650 S. 269</p>  | <p>Nr. 2670 S. 270</p>  | <p>Nr. 2690 S. 270</p>  | <p>Nr. 2710 S. 271</p>  |
| <p>Nr. 2730 S. 272</p>  | <p>Nr. 2750 S. 272</p>  | <p>Nr. 2770 S. 273</p>  | <p>Nr. 2790 S. 273</p>  | <p>Özel Fikstürler Special Fixtures S. 274 - 275</p> |
| <p>Özel Sipariş Oluşturma Şablonları Create A Special Order Template S. 276</p> | <p>Doğru - Yanlış Kullanımlar Right - Wrong Use S. 277 - 278 - 279</p> | <p>Pres Tezgahı / Hızlı Kalıp Değiştirme Sistem Bilgi Formu Press Machine / Quick Die Change System Information Form S. 280</p> | <p>Enjeksiyon Tezgahı / Hızlı Kalıp Değiştirme Sistem Bilgi Formu Injection Machine/Quick Die Change System Information Form S. 281</p> | |

5-EKSEN BLOK BAĞLAMA

5-AXIS CLAMPING BLOCK

Kombinasyon

- Modüler montaj özelliği ve 5 kenar işlem yapabilme kabiliyetiyle CNC Yatay işleme, CNC Dik işleme, CNC 5 eksen T-Kanallı ve Delikli tezgah tablalarında kullanılır.

Combination

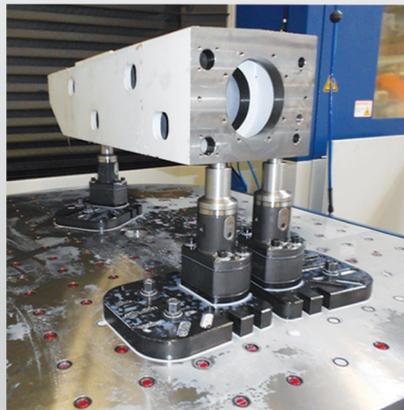
- Its modular assembly and 5 edge ability, it can be used on CNC Horizontal, CNC Vertical CNC 5 Axis machines with T-Slots and rasterized plates.

Özellikler

- 5 kenara operasyon kolaylığı
- Yükseltilebilir özellik
- Değişken sabitleme olanakları
- Adetli işlerde tekrarlanabilir hassasiyet
- Yüksek sıkma kuvveti

Features

- Ease at 5 axis operations
- Height adjusting feature
- Variable fixing possibility
- Repeating precision at mass production
- High clamping force

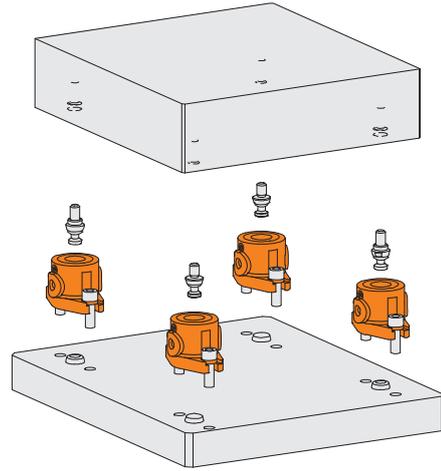
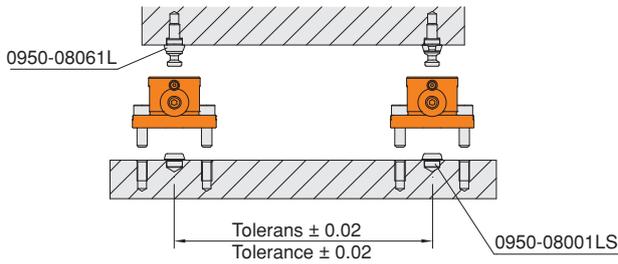
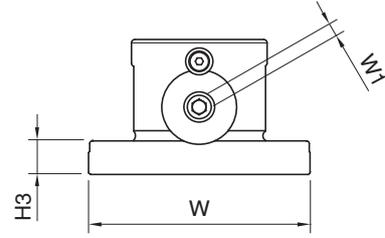
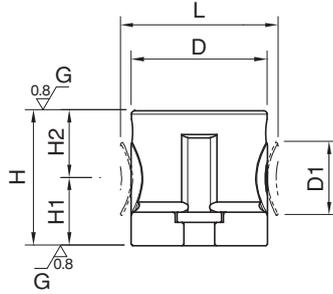
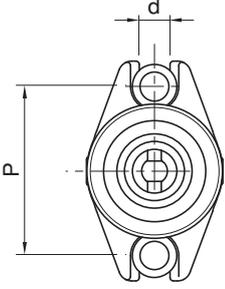


| Referans Nr. | D | H (±0.01) | D1 | L | H1 | H2 | W | H3 | d | P | W1 | Sıkma Kuvveti Clamping Force Kgf | İzin Verilen Tork Allowable Screw Torque (N-m) | (g) |
|--------------|----|--------------|----|------|------|------|-----|----|-----|-----|----|--|---|------|
| 0950-06025 | 30 | 25 | 15 | 34.5 | 12.5 | 12.5 | 54 | 7 | 6.6 | 42 | 3 | 500 | 4 | 100 |
| 0950-08040 | 40 | 40 | 22 | 46 | 20 | 20 | 65 | 10 | 9 | 50 | 4 | 800 | 8 | 300 |
| 0950-12063 | 60 | 63 | 32 | 69 | 33 | 30 | 95 | 15 | 13 | 75 | 6 | 1500 | 22 | 1400 |
| 0950-16080 | 80 | 80 | 44 | 91 | 40 | 40 | 130 | 20 | 17 | 130 | 8 | 2500 | 50 | 3300 |

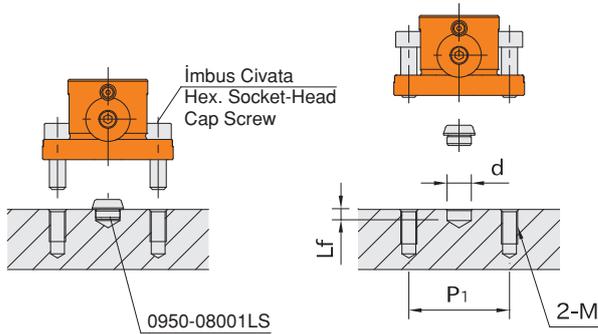


Ürün Nr. 0950 5-Eksen Blok Baęlama

Product Nr. 0950 5-Axis Clamping Block



Uygulama Örneęi / Application Example



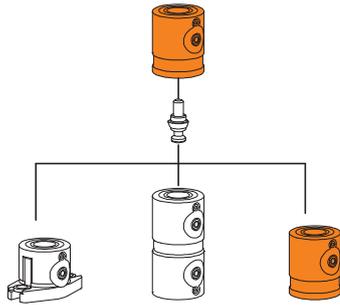
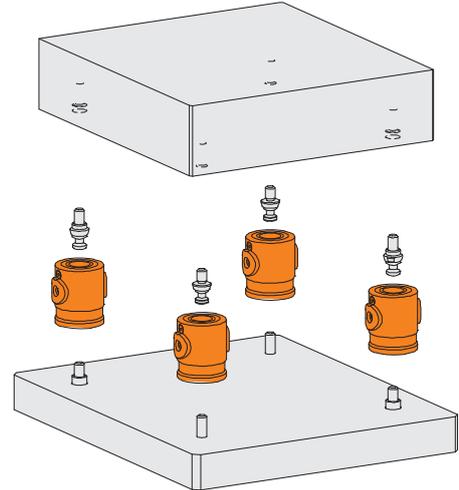
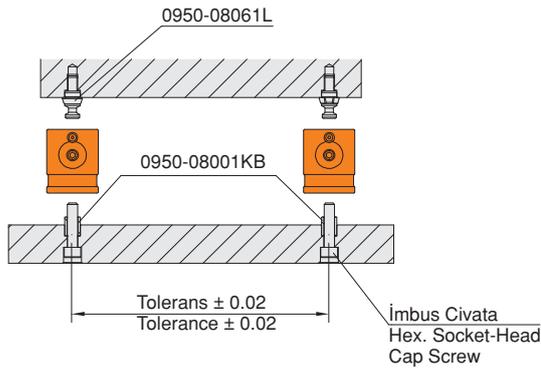
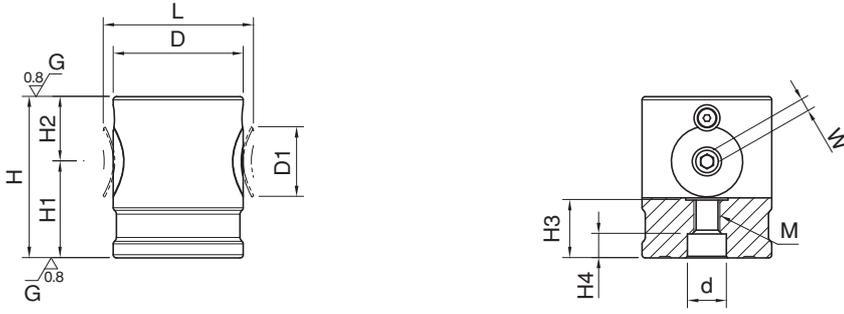
| Referans Nr. | d (H7) | Lf | M | P1 |
|--------------|-----------|-----|-----|-----|
| 0950-06025 | 8 | 5.5 | M6 | 42 |
| 0950-08040 | 12 | 5.5 | M8 | 50 |
| 0950-12063 | 18 | 6.5 | M12 | 75 |
| 0950-16080 | 22 | 8 | M16 | 100 |

| Referans Nr. | D | H (±0.01) | D1 | L | H1 | H2 | H3 | d (H7) | H4 | M | W | Sıkma Kuvveti Clamping Force Kgf | İzin Verilen Tork Allowable Screw Torque (N-m) | (g) |
|--------------|----|--------------|----|------|------|------|------|-----------|------|-----|---|--|---|------|
| 0950-06032 | 30 | 32 | 15 | 34.5 | 19.5 | 12.5 | 11.5 | 8 | 5 | M6 | 3 | 500 | 4 | 200 |
| 0950-08050 | 40 | 50 | 22 | 46 | 30 | 20 | 18 | 12 | 7.5 | M8 | 4 | 800 | 8 | 500 |
| 0950-12080 | 60 | 80 | 32 | 69 | 50 | 30 | 25 | 18 | 10.5 | M12 | 6 | 1500 | 22 | 1600 |
| 0950-16100 | 80 | 100 | 44 | 91 | 60 | 40 | 31 | 22 | 12.5 | M16 | 8 | 2500 | 50 | 3800 |

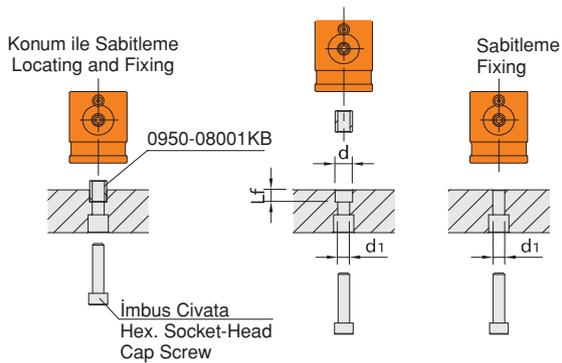


Ürün Nr. 0950 5-Eksen Blok Bağlama Yükseltme

Product Nr. 0950 5-Axis Clamping Block Extension



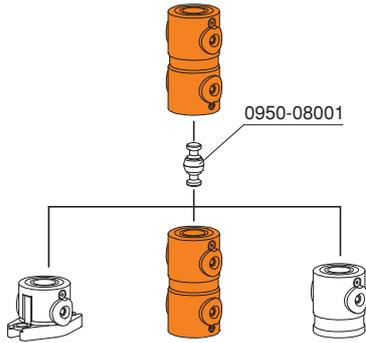
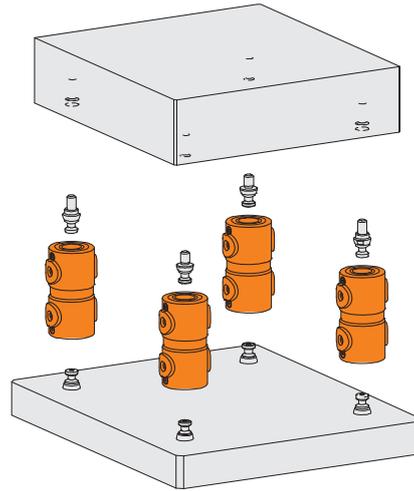
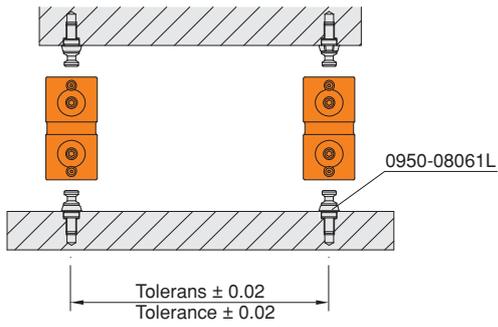
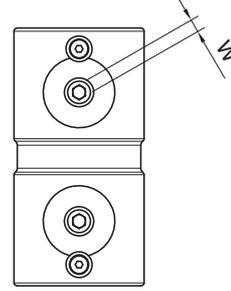
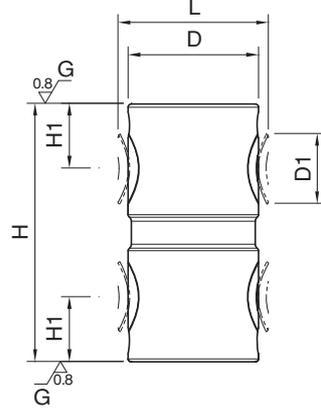
Uygulama Örneği / Application Example



| Referans Nr. | d (H7) | Lf | d1 (+0.2) 0 |
|--------------|-----------|------|-------------------|
| 0950-06032 | 8 | 6.5 | 6 |
| 0950-08050 | 12 | 8.5 | 8 |
| 0950-12080 | 18 | 12.5 | 12 |
| 0950-16100 | 22 | 16.5 | 16 |

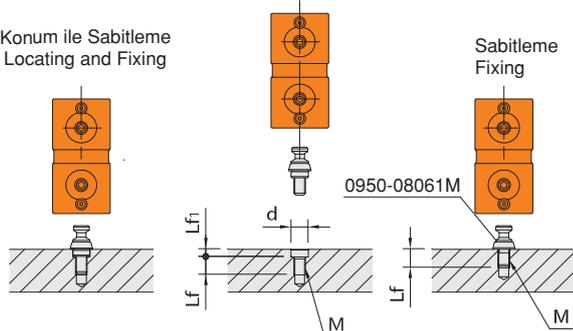
| Referans Nr. | D | H (±0.01) | D1 | L | H1 | W | Sıkma Kuvveti Clamping Force Kgf | izin Verilen Tork Allowable Screw Torque (N-m) | (g) |
|--------------|----|-----------|----|------|------|---|----------------------------------|--|------|
| 0950-06050 | 30 | 50 | 15 | 34.5 | 12.5 | 3 | 500 | 4 | 200 |
| 0950-08080 | 40 | 80 | 22 | 46 | 20 | 4 | 800 | 8 | 700 |
| 0950-12125 | 60 | 125 | 32 | 69 | 30 | 6 | 1500 | 22 | 2600 |
| 0950-16160 | 80 | 160 | 44 | 91 | 40 | 8 | 2500 | 50 | 5800 |

Ürün Nr. 0950 5-Eksen Blok Baęlama
Product Nr. 0950 5-Axis Clamping Block



Uygulama Örneęi / Application Example

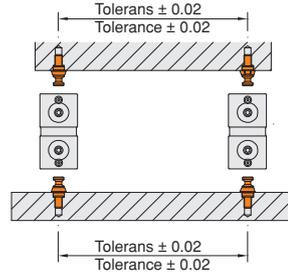
Konum ile Sabitleme
Locating and Fixing



Sabitleme
Fixing

| Referans Nr. | d (H7) | Lf | Lf1 | M |
|--------------|--------|----|-----|-----|
| 0950-06050 | 8 | 9 | 5.5 | M6 |
| 0950-08080 | 12 | 13 | 5.5 | M8 |
| 0950-12125 | 18 | 19 | 6.5 | M12 |
| 0950-16160 | 22 | 23 | 8 | M16 |

| Referans Nr. | M | D1 (g6) | L2 | L1 | D | L | D2 | D3 | W | $\frac{g}{g}$ |
|--------------|-----|---------|-----|----|------|------|----|-----|-----|---------------|
| 0950-06001L | M6 | 8 | 5 | 13 | 11.5 | 10 | 8 | 4.8 | 2.5 | 6 |
| 0950-08061L | M6 | 10 | 5 | 17 | 15.5 | 16.5 | 11 | 6.5 | 3 | 17 |
| 0950-08001L | M8 | 12 | 5 | 17 | 15.5 | 16.5 | 11 | 6.5 | 3 | 20 |
| 0950-12081L | M8 | 12 | 5 | 17 | 24.5 | 25 | 16 | 9.5 | 5 | 52 |
| 0950-12001L | M12 | 18 | 6 | 24 | 24.5 | 25 | 16 | 9.5 | 5 | 70 |
| 0950-16121L | M12 | 18 | 6 | 24 | 31.5 | 33 | 21 | 13 | 6 | 125 |
| 0950-16001L | M16 | 22 | 7.5 | 30 | 31.5 | 33 | 21 | 13 | 6 | 150 |

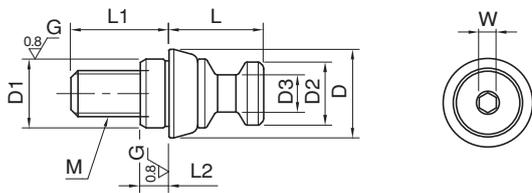


Ürün Nr. 0950 5-Eksen Blok Bağlama Çektirme Civatası

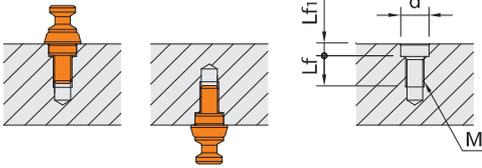
• Tolerans ± 0.02

Product Nr. 0950 5-Axis Clamping Block Puller Bolt

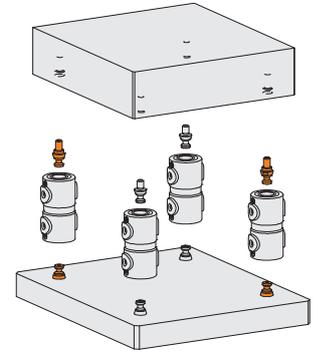
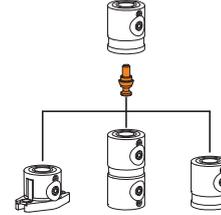
• Tolerance ± 0.02



Uygulama Örneği Application Example



| Referans Nr. | d (H7) | Lf | Lf1 | M |
|--------------|--------|----|-----|-----|
| 0950-06001L | 8 | 9 | 5.5 | M6 |
| 0950-08061L | 10 | 13 | 5.5 | M6 |
| 0950-08001L | 12 | 13 | 5.5 | M8 |
| 0950-12081L | 12 | 13 | 5.5 | M8 |
| 0950-12001L | 18 | 19 | 6.5 | M12 |
| 0950-16121L | 18 | 23 | 6.5 | M12 |
| 0950-16001L | 22 | 23 | 8 | M16 |



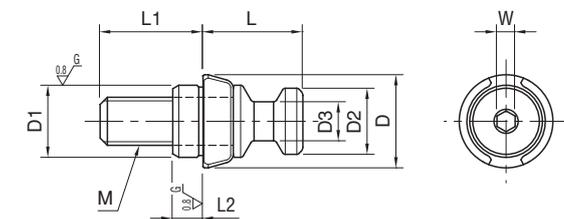
5-Eksen Blok Bağlama Çektirme Civatası

5-Axis Clamping Block Puller Bolt

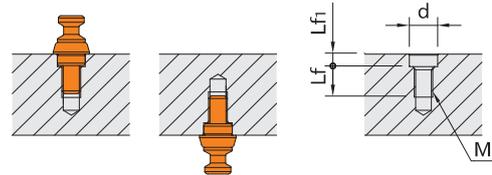
| Referans Nr. | M | D1 (g6) | L2 | L1 | D | L | D2 | D3 | W | $\frac{g}{g}$ |
|--------------|-----|---------|-----|----|------|------|----|-----|---|---------------|
| 0950-08061D | M6 | 10 | 5 | 17 | 15.5 | 16.5 | 11 | 6.5 | 3 | 17 |
| 0950-08001D | M8 | 12 | 5 | 17 | 15.5 | 16.5 | 11 | 6.5 | 3 | 20 |
| 0950-12081D | M8 | 12 | 5 | 17 | 24.5 | 25 | 16 | 9.5 | 5 | 51 |
| 0950-12001D | M12 | 18 | 6 | 24 | 24.5 | 25 | 16 | 9.5 | 5 | 70 |
| 0950-16121D | M12 | 18 | 6 | 24 | 31.5 | 33 | 21 | 13 | 6 | 123 |
| 0950-16001D | M16 | 22 | 7.5 | 30 | 31.5 | 33 | 21 | 13 | 6 | 150 |

Ürün Nr. 0950 5-Eksen Blok Bağlama Çektirme Civatası

Product Nr. 0950 5-Axis Clamping Block Puller Bolt



Uygulama Örneği Application Example



| Referans Nr. | d (H7) | Lf | Lf1 | M |
|--------------|--------|----|-----|-----|
| 0950-08061D | 10 | 13 | 5.5 | M6 |
| 0950-08001D | 12 | 13 | 5.5 | M8 |
| 0950-12081D | 12 | 13 | 5.5 | M8 |
| 0950-12001D | 18 | 19 | 6.5 | M12 |
| 0950-16121D | 18 | 23 | 6.5 | M12 |
| 0950-16001D | 22 | 23 | 8 | M16 |



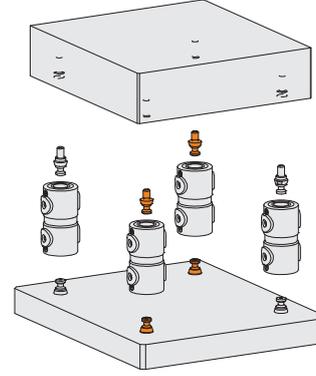
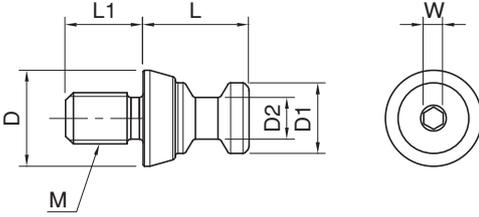
| Referans Nr. | M | L1 | D | L | D1 | D2 | W |  |
|--------------|-----|----|----|------|----|-----|-----|---|
| 0950-06001M | M6 | 8 | 11 | 10 | 8 | 4.8 | 2.5 | 5 |
| 0950-08061M | M6 | 9 | 15 | 16.5 | 11 | 6.5 | 3 | 13 |
| 0950-08001M | M8 | 12 | 15 | 16.5 | 11 | 6.5 | 3 | 16 |
| 0950-12081M | M8 | 12 | 24 | 25 | 16 | 9.5 | 5 | 46 |
| 0950-12001M | M12 | 18 | 24 | 25 | 16 | 9.5 | 5 | 57 |
| 0950-16121M | M12 | 18 | 31 | 33 | 21 | 13 | 6 | 108 |
| 0950-16001M | M16 | 22 | 31 | 33 | 21 | 13 | 6 | 125 |

Ürün Nr. 0950 5-Eksen Blok Bağlama Çektirme Civatası

- Tolerans ± 0.2

Product Nr. 0950 5-Axis Clamping Block Puller Bolt

- Tolerance ± 0.2



5-Eksen Blok Bağlama Çektirme Civatası

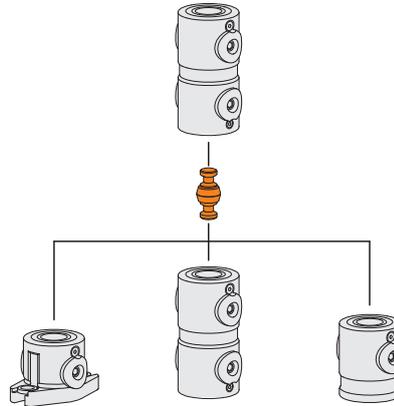
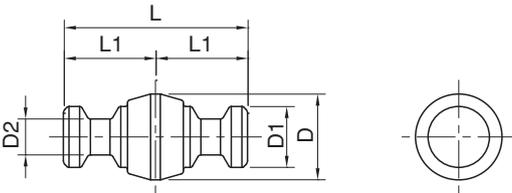
| Referans Nr. | D | L | D1 | D2 | L1 |  |
|--------------|------|----|----|-----|------|---|
| 0950-08001 | 15.5 | 33 | 11 | 6.5 | 16.5 | 24 |
| 0950-12001 | 24.5 | 50 | 16 | 9.5 | 25 | 85 |
| 0950-16001 | 31.5 | 66 | 21 | 13 | 33 | 190 |

Ürün Nr. 0950 5-Eksen Blok Bağlama Çektirme Civatası

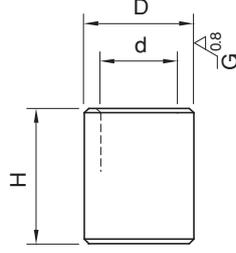
- Tekrarlama Konumlaması 0.2

Product Nr. 0950 5-Axis Clamping Block Puller Bolt

- Locating Repeatability is 0.2

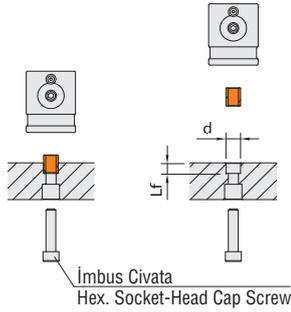


| Referans Nr. | d | D (h6) | H | $\frac{G}{d}$ (g) |
|--------------|------|--------|----|-------------------|
| 0950-06001KB | 6 | 8 | 11 | 2 |
| 0950-08001KB | 8.5 | 12 | 15 | 7 |
| 0950-12001KB | 12.5 | 18 | 22 | 22 |
| 0950-16001KB | 16.5 | 22 | 28 | 35 |

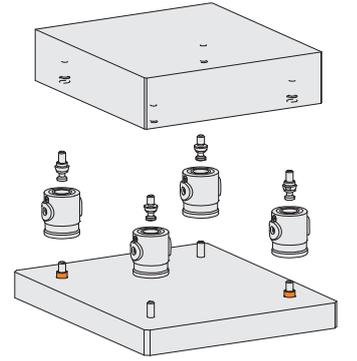
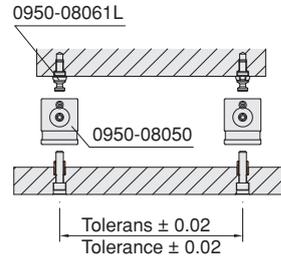


Ürün Nr. 0950 5-Eksen Blok Bağlama Konumlama Burcu
• Tolerans ± 0.02

Product Nr. 0950 5-Axis Clamping Block Locating Bushings
• Tolerance ± 0.02



| Referans Nr. | d (H7) | Lf |
|--------------|--------|------|
| 0950-06001KB | 8 | 6.5 |
| 0950-08001KB | 12 | 8.5 |
| 0950-12001KB | 18 | 12.5 |
| 0950-16001KB | 22 | 16.5 |



| Referans Nr. | D1 $\begin{matrix} -0.02 \\ -0.05 \end{matrix}$ | D | H | H1 | M | $\frac{G}{d}$ (g) |
|--------------|---|------|----|-----|-----|-------------------|
| 0950-06001LS | 8 | 11.5 | 4 | 5 | M6 | 4 |
| 0950-08001LS | 12 | 15.5 | 5 | 5 | M8 | 8 |
| 0950-12001LS | 18 | 24.5 | 8 | 6 | M12 | 27 |
| 0950-16001LS | 22 | 31.5 | 10 | 7.5 | M16 | 51 |
| 0950-06001SM | 8 | 11.5 | 4 | 5 | M6 | 4 |
| 0950-08001SM | 12 | 15.5 | 5 | 5 | M8 | 8 |
| 0950-12001SM | 18 | 24.5 | 8 | 6 | M12 | 27 |
| 0950-16001SM | 22 | 31.5 | 10 | 7.5 | M16 | 51 |

5-Eksen Blok Bağlama Konumlama Burcu

5-Axis Clamping Block Locating Bushings

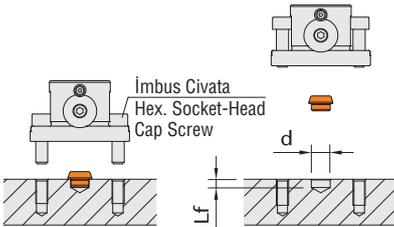
Ürün Nr. 0950 5-Eksen Blok Bağlama Konumlama Burcu

- Taşlanmış Tolerans ± 0.02
- Standart Tolerans $^{+0.1}_0$

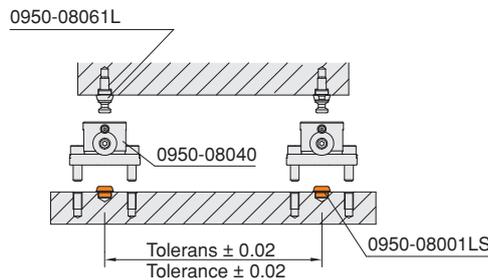
Product Nr. 0950 5-Axis Clamping Block Locating Bushings

- Stoning Tolerans ± 0.02
- Standard Tolerance $^{+0.1}_0$

Uygulama Örneği / Application Example



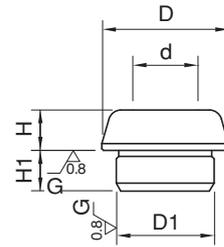
| Referans Nr. | d (H7) | Lf |
|--------------|--------|-----|
| 0950-06001LS | 8 | 5.5 |
| 0950-08001LS | 12 | 5.5 |
| 0950-12001LS | 18 | 6.5 |
| 0950-16001LS | 22 | 8 |



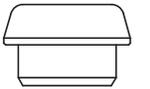
LS
Taşlanmış
Stoning



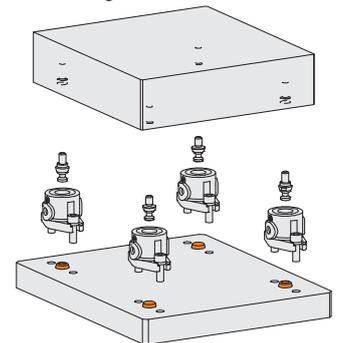
SM
Standart
Standard



L
Taşlanmış
Stoning



S
Standart
Standard



HIZLI KALIP DEĞİŞTİRME SİSTEMİ

QUICK MOLD CHANGE SYSTEM



HIZLI KALIP DEĞİŞTİRME SİSTEMİ
(ENJEKSİYON)

QUICK MOLD CHANGE SYSTEM
(INJECTION)

HIZLI KALIP DEĞİŞTİRME SİSTEMİ
(PRES)

QUICK DIE CHANGE SYSTEM
(PRESS)



Hızlı Kalıp Değişirme Sistemi

Kalıpların hızlı değiştiği, modellerin çeşitli ve üretim adetlerinin (talep miktarlarının) az olduğu zamanlarda kalıp değişirme süresini azaltıp iş güvenliğini sağlamaktır. Bu durumda **hızlı kalıp değişirme sistemine geçmenin tam vaktidir.**

Uygulama

- Pres - hidrolik pres - enjeksiyon
- Değişik otomatik makina bağlama sistemi

Application

- Press - hydraulic press - injection
- Different automatic machine clamp system

Quick Die Change System

It's an era for making high frequency of die changing with multiple patterns and small quantity. In order to save die changing time and ensure operational safety, it is just in time to apply Quick Die Change System.

Elektronik Operasyon Kontrol Paneli Electronic Control Operation Panel

- Makineye bağlanmak için interlock kontrol switch donanımlıdır.
- It is equipped with interlock control switch for connecting to the machine.
- Oluşabilecek herhangi bir operasyon hatasını engellemek için güvenlik kontrol aygıtı ile birlikte tasarlanmıştır.
- It is designed with safety control device which prevents any operation error.
- PLC Uygulama mevcuttur.
- PLC Application available.

Kalıp Kaldırma / Die Lifter

Model: DL - DB - DLS - DBS - DLP - DBP

- Hidrolik tipi, yaylı tipi, pnömomatik tipi.
- Hydraulic type, spring type, pneumatic type.
- T veya U kanala kurulum.
- Install in the T-slot or U-slot.



Kalıp Kaydırma Kolu / Die Arm

Model: RC - RD - RE/RF - RS - RSM

- Tezgah pleyti üzerine kalıp kolayca itilebilir veya çekilebilir.
- Can pull out and push in the die from the plate easily.
- Kaydırma kolunun 4 ayrı modeli vardır.
- There are 4 different models of die arm.

Hava Tahrikli Hidrolik Pompa Ünitesi Air Driven Hydraulic Pump Unit

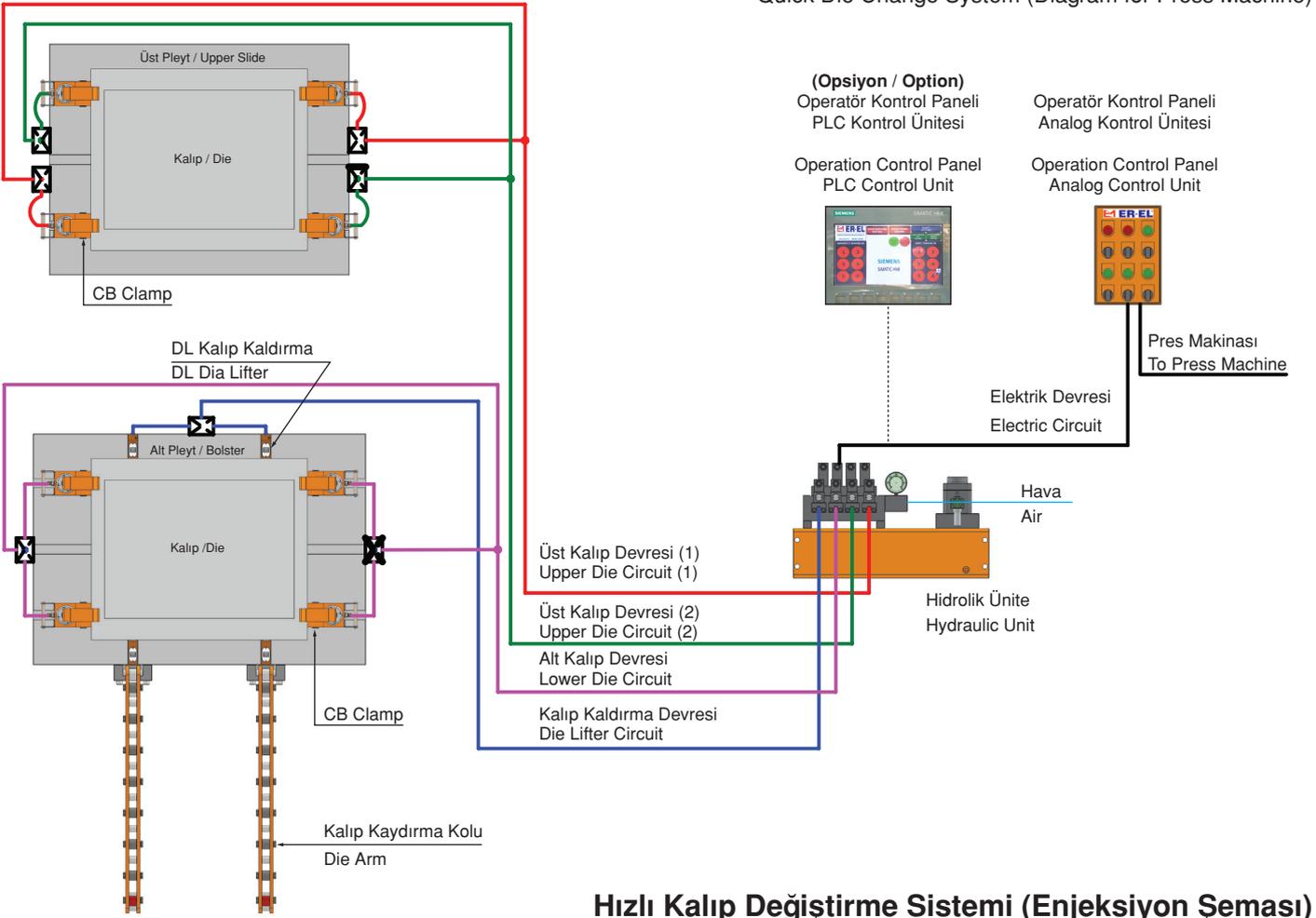
- Makinelerde basınç denetleme ve interlock özelliği.
- Capable of pressure inspection and interlocking with machines.
- Aygıtlar arası eşit seviyede hareket operasyon güvenliğini sağlar.
- The movements between each device will be pinned down mutually in order to ensure operational safety.

Kalıp Pabucu / Die Clamp

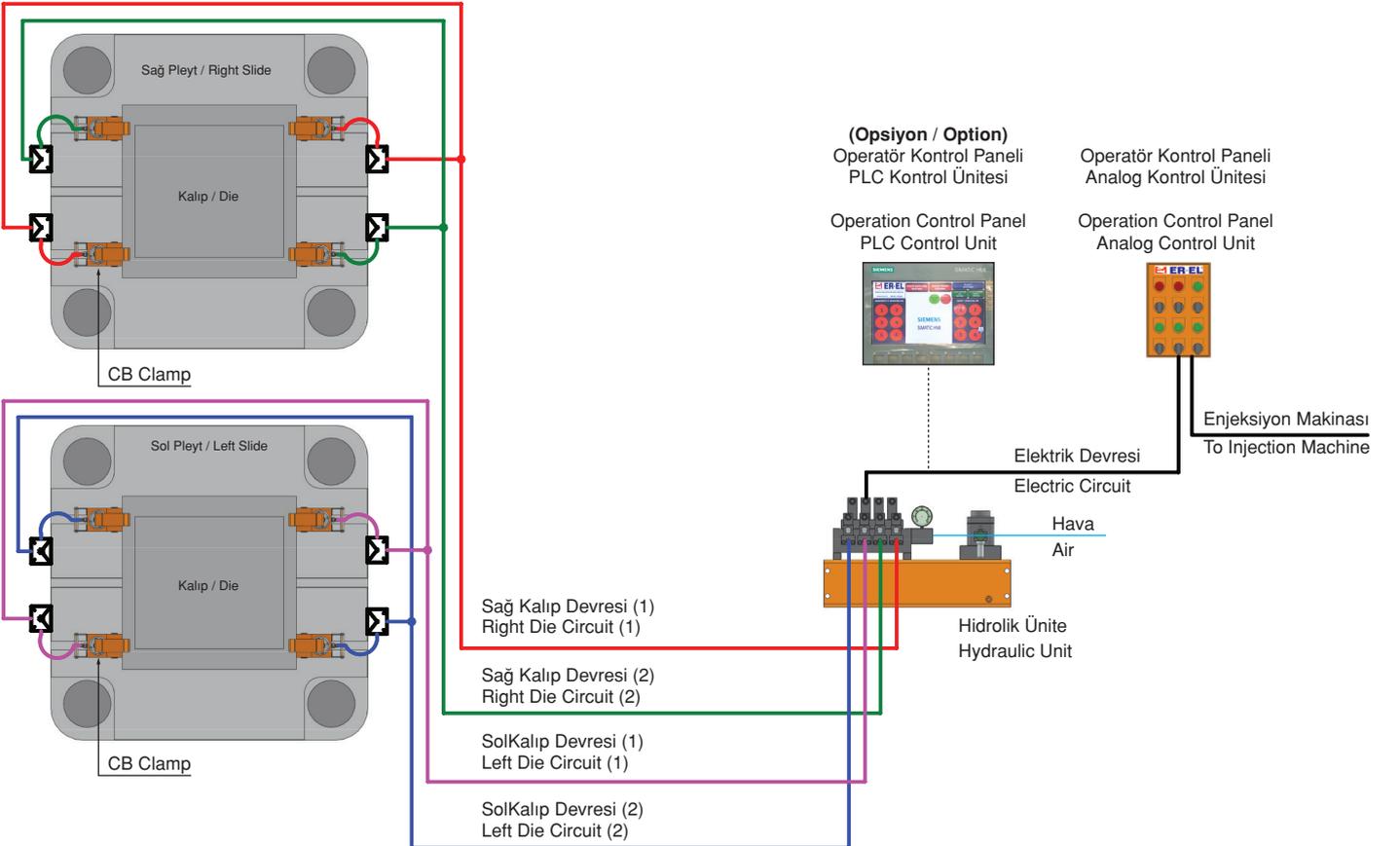
Model : CA - CAS - CV - CC - CB - CBS - CD

- Kalıbı bağlamak için civata kullanılan geleneksel metodların yerini alır.
- Replacing the traditional method which uses screws to fix dies.
- Ürün T-Kanal pleytli tezgahlarda kullanılır.
- Using T-Slots to lock or fix directly on the plate.





Hızlı Kalıp Değişirme Sistemi (Enjeksiyon Şeması)

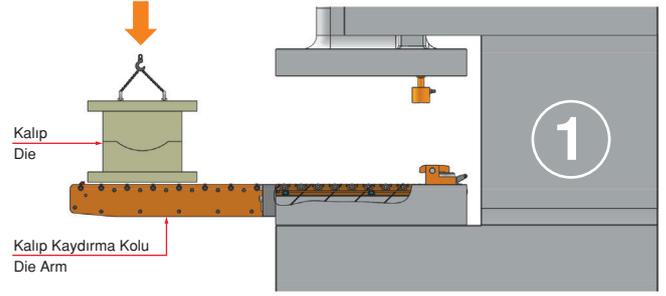


Kalıbı yükleyin.

Bir vinç veya forklift kullanarak kalıbı yükleyin.
Kalıp kaydırma kolu ile kolay yükleme imkanı sağlar.

Load the die

Load the die using a crane or forklift.
The pre-rollers enable easy loading.

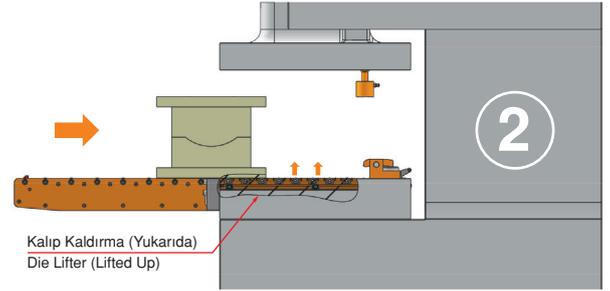


Kalıbı pleyte aktarın.

Kalıp kaydırma kolu kalıp kaldırımlarla kalıbı hareket ettirmek için çok az kuvvet gerekir. Kalıp kaldırımları T - / U - kanallarına yerleştirilmiştir. Kalıp kaldırma: Hidrolik basınç **ON**

Transfer the die to the bolster.

With the pre-rollers and die lifters, minimal force is required to move the die. Die lifters are set in the T - / U - slots. Die Lifter : Hydraulic pressure **ON**

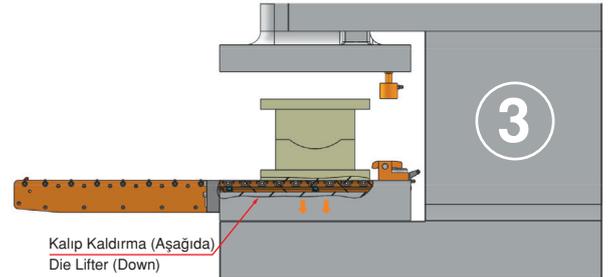


Pleytin üzerinde kalıbı ayarlayın.

Kontrol panelinden butona basarak kalıp kaldırmacı indirilir ve kalıp pleyte temas eder. Kalıp Kaldırma : Hidrolik Basınç **OFF**

Set the die on the bolster.

With push-button operation, the die lifter releases and the die makes contact with the bolster. Die Lifter : Hydraulic Pressure **OFF**

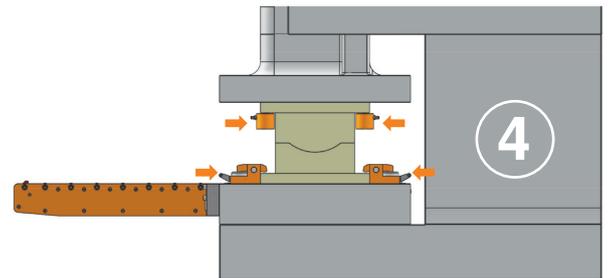


Hidrolik pabuçları ayarlayın.

Hidrolik pabuçları kalıba göre ayarlayın. Hidrolik pabuçları T kanalları üzerine kaydırarak kalıba yaklaştırın. Hidrolik Pabuç : Hidrolik Basınç **OFF**

Set the automatic clamps.

Set the slide to the bottom dead center . Slide automatic clamps on the T -slot and bring them near the die. Hydraulic Clamp : Hydraulic Pressure **OFF**

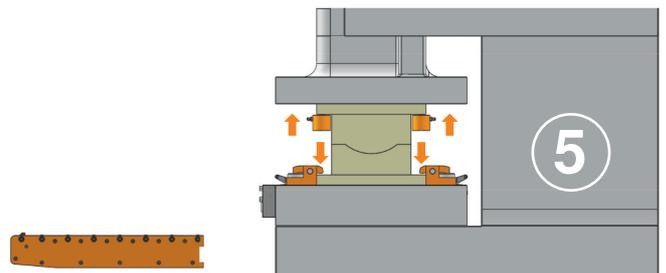


Kalıbı kilitle.

Kontrol panelinden butona basarak hidrolik pabuçlarla kalıbı kilitleyin. Güvenlik onayından sonra kalıp kaydırma kolu çıkarılabilir. Hidrolik Pabuç : Hidrolik Basınç **ON**

Lock the die.

With push-button operation, automatic clamps lock the die. After safety confirmation, the pre-roller can be removed. Hydraulic Clamp : Hydraulic Pressure **ON**



| Model | | CA-1 | CA-2 | CA-4 | CA-6 | CA-10 | CA-16 | CA-25 |
|--|-----|------|------|------|------|-------|-------|-------|
| Bağlama kapasitesi Capacity of clamp | Ton | 1 | 2 | 4 | 6 | 10 | 16 | 25 |
| Toplam strok (X) Total stroke (X) | mm | 6 | 8 | 8 | 8 | 8 | 8 | 8 |
| Pabuç strok (Y) Stroke of clamp (Y) | mm | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| Muhafaza edilen strok (Z) Preserved stroke (Z) | mm | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| Silindirin toplam hacmi Total volumn of cylinder | cc | 3 | 7 | 13 | 21 | 32 | 54 | 76 |
| Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H) | mm | ±1.5 | ±2 | ±2 | ±2 | ±2 | ±2 | ±2 |

Hidrolik basınç / Hydraulic pressure : 250kgf/cm²

| Referans Nr. | ØF | E | ØG | ØJ | H+d max. | L max. | a min. | K | P |
|--------------|-----|-----|----|----|----------|--------|--------|-----|-------|
| 1010-CA01 | 44 | 48 | 12 | 30 | 60 | 12 | 8 | 9.5 | PT1/8 |
| 1010-CA02 | 53 | 52 | 16 | 48 | 80 | 17 | 12 | 12 | PT1/8 |
| 1010-CA04 | 65 | 58 | 23 | 58 | 90 | 20 | 16 | 15 | PT1/4 |
| 1010-CA06 | 82 | 65 | 30 | 64 | 100 | 25 | 18 | 15 | PT1/4 |
| 1010-CA10 | 99 | 71 | 38 | 78 | 110 | 30 | 22 | 15 | PT1/4 |
| 1010-CA16 | 126 | 82 | 45 | 88 | 120 | 38 | 28 | 17 | PT1/4 |
| 1010-CA25 | 150 | 100 | 55 | 98 | 140 | 45 | 36 | 23 | PT1/4 |

Ürün Nr. 1010 Hidrolik Pabuç Model CA

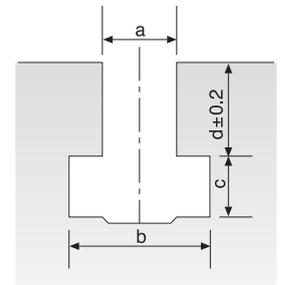
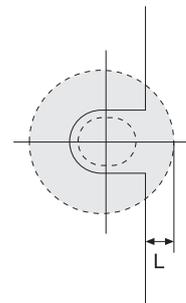
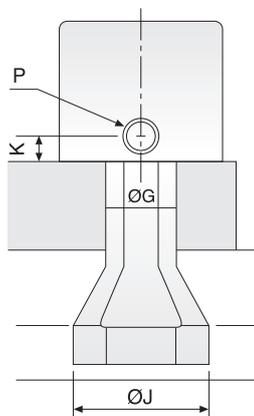
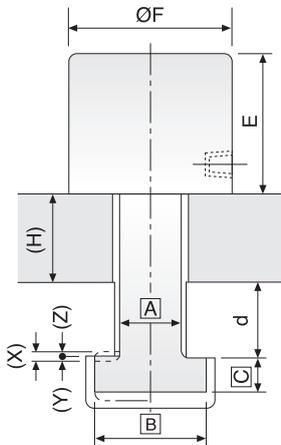
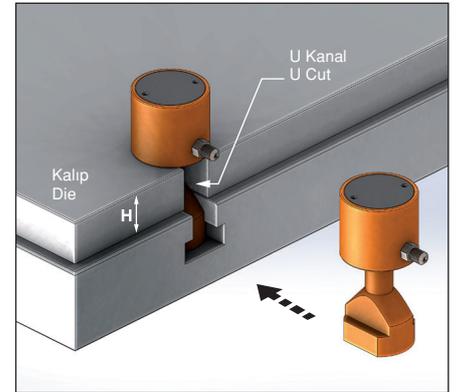
- Pabuç ölçüleri (A), (B) ve (C) T-Kanala bağlı olarak belirlenir.
- Eğer pabuç ölçüsü (H+d) yukarıdaki maksimum değerlerden fazla ise, özel tasarım olarak kabul edilir.
- Standart Sıcaklık : 60°

Product Nr. 1010 Hydraulic Clamp Model CA

- The sizes of clamps (A),(B) and (C) are made based on the size of T slot.
- If the thickness of clamp (H+d) is more than the max. value listed on the left, it will be regarded as special pattern.
- Standard Temperature : 60°



- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.



L: Pabuç için şablonun uzunluğu
L: Template's length for clamp

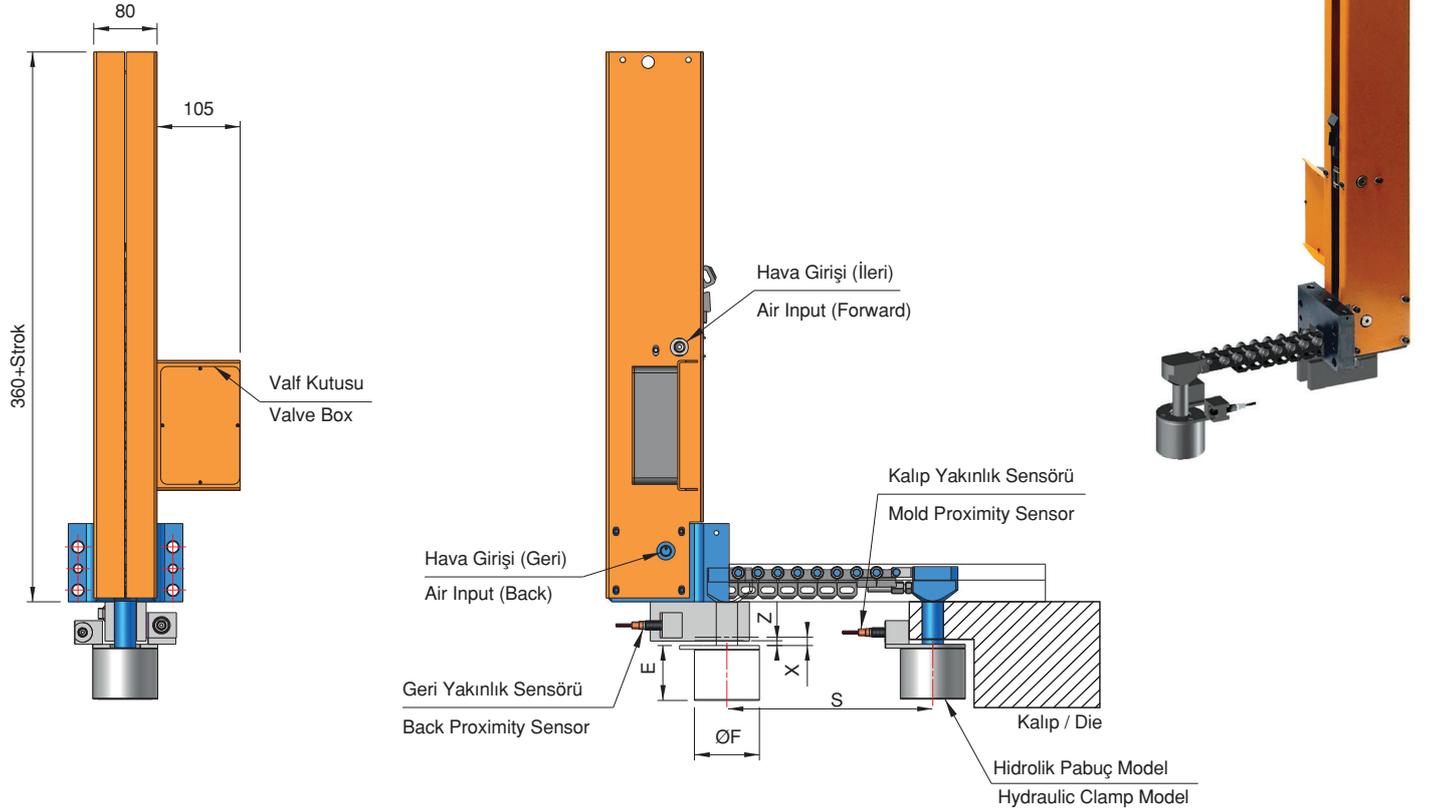
| Referans Nr. |  | Bağlanma Kapasitesi Capacity of Clamp | Strok Mesafesi Traveling Stroke (S) | Sürme Hızı Traveling Speed m/sec. | X | Z | ØF | E |
|--------------|---|--|--|--------------------------------------|---|---|-----|----|
| 1010-CAS04 | 28 - 32 | 27 | - | 1 | 8 | 4 | 65 | 62 |
| 1010-CAS06 | 28 - 32 | 36 | - | 1 | 8 | 4 | 82 | 69 |
| 1010-CAS10 | 28 - 32 | 42 | - | 1 | 8 | 4 | 99 | 75 |
| 1010-CAS16 | 28 - 32 | 51 | - | 1 | 8 | 4 | 126 | 86 |

Ürün Nr. 1010 Pnömatik Slayt Konsol Model CAS

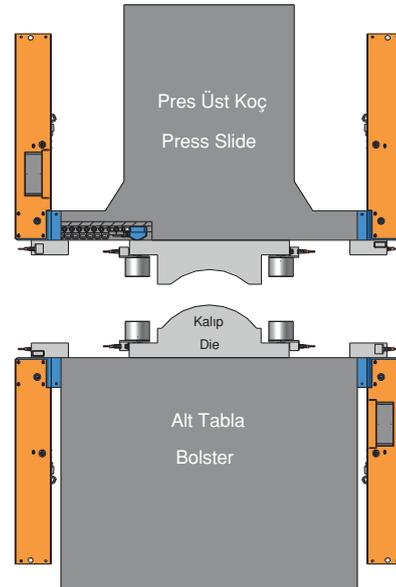
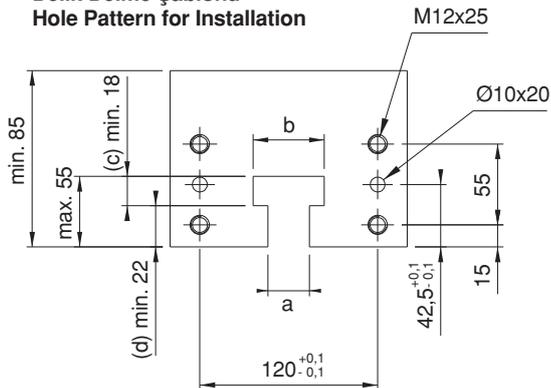
- Satın almadan önce strok mesafesini bildiriniz.
- Hidrolik Pabuç Basınç 250kgf/cm²
- Pnömatik Slayt Konsol Hava Barı Max. 10 bar

Product Nr. 1010 Pneumatic Slide Console Model CAS

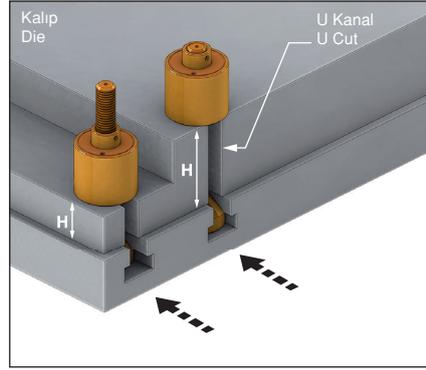
- Please inform the stroke distance before purchase
- Hydraulic clamp pressure 250kgf/cm²
- Pneumatic Slide Console Air Bar Max.



Delik Delme Şablonu Hole Pattern for Installation



| Model | | CV-4 | CV-6 | CV-10 |
|--|-----|------|------|-------|
| Bağlama kapasitesi Capacity of clamp | Ton | 4 | 6 | 10 |
| Toplam strok (X) Total stroke (X) | mm | 8 | 8 | 8 |
| Pabuç strok (Y) Stroke of clamp (Y) | mm | 4 | 4 | 4 |
| Muhafaza edilen strok (Z) Preserved stroke (Z) | mm | 4 | 4 | 4 |
| Silindirin toplam hacmi Total volumn of cylinder | cc | 13 | 21 | 32 |
| Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H) | mm | ±2 | ±2 | ±2 |



Hidrolik basınç / Hydraulic pressure : 250kg/cm²

| Referans Nr. | | A | B | C | D | E | H min-max | F | L | M | Max. L1 | ØG | ØJ | K | P |
|------------------|----|------|----|----|-----|----|--------------|----|-----|-----|---------|----|----|----|--------|
| 1010-CV042020125 | 20 | 19.6 | 32 | 12 | 85 | 70 | 35-20 | 65 | 125 | M20 | 125 | 20 | 58 | 15 | PT 1/4 |
| 1010-CV042020160 | 20 | 19.6 | 32 | 12 | 110 | 70 | 70-30 | 65 | 160 | M20 | 160 | 20 | 58 | 15 | PT 1/4 |
| 1010-CV042022125 | 22 | 21.6 | 35 | 14 | 85 | 70 | 33-18 | 65 | 125 | M20 | 125 | 20 | 58 | 15 | PT 1/4 |
| 1010-CV042022160 | 22 | 21.6 | 35 | 14 | 110 | 70 | 68-28 | 65 | 160 | M20 | 160 | 20 | 58 | 15 | PT 1/4 |
| 1010-CV062424125 | 24 | 23.6 | 40 | 16 | 85 | 77 | 24-16 | 82 | 125 | M24 | 125 | 24 | 64 | 15 | PT 1/4 |
| 1010-CV062424160 | 24 | 23.6 | 40 | 16 | 110 | 77 | 59-26 | 82 | 160 | M24 | 160 | 24 | 64 | 15 | PT 1/4 |
| 1010-CV062428125 | 28 | 27.6 | 44 | 18 | 85 | 77 | 20-12 | 82 | 125 | M24 | 125 | 24 | 64 | 15 | PT 1/4 |
| 1010-CV062428160 | 28 | 27.6 | 44 | 18 | 110 | 77 | 55-22 | 82 | 160 | M24 | 160 | 24 | 64 | 15 | PT 1/4 |
| 1010-CV102727160 | 28 | 27.6 | 46 | 18 | 110 | 83 | 50-23 | 99 | 160 | M27 | 160 | 27 | 78 | 15 | PT 1/4 |
| 1010-CV102727200 | 28 | 27.6 | 46 | 18 | 125 | 83 | 90-48 | 99 | 200 | M27 | 200 | 27 | 78 | 15 | PT 1/4 |
| 1010-CV102732160 | 32 | 31.6 | 50 | 20 | 110 | 83 | 45-18 | 99 | 160 | M27 | 160 | 27 | 78 | 15 | PT 1/4 |
| 1010-CV102732200 | 32 | 31.6 | 50 | 20 | 125 | 83 | 85-43 | 99 | 200 | M27 | 200 | 27 | 78 | 15 | PT 1/4 |
| 1010-CV103036160 | 36 | 35.6 | 56 | 23 | 110 | 83 | 41-14 | 99 | 160 | M27 | 160 | 27 | 88 | 15 | PT 1/4 |
| 1010-CV103036200 | 36 | 35.6 | 56 | 23 | 135 | 83 | 81-39 | 99 | 200 | M27 | 200 | 27 | 88 | 15 | PT 1/4 |

Ürün Nr. 1010 Hidrolik Pabuç Model CV

- Vidalanarak mesafe ayarı yapılabilir.
- Standart Sıcaklık : 60°

Product Nr. 1010 Hydraulic Clamp Model CV

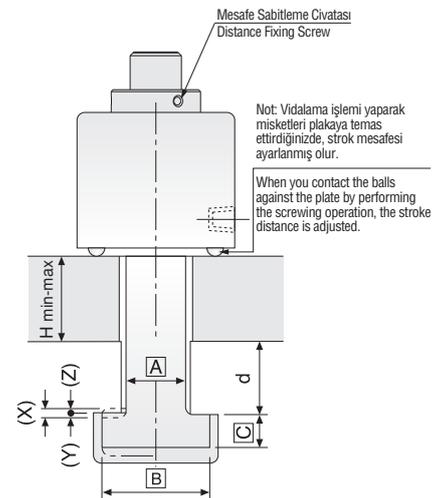
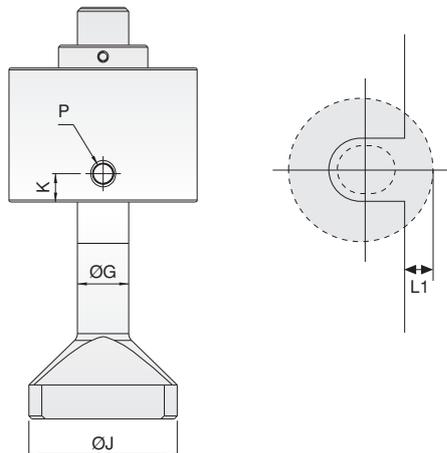
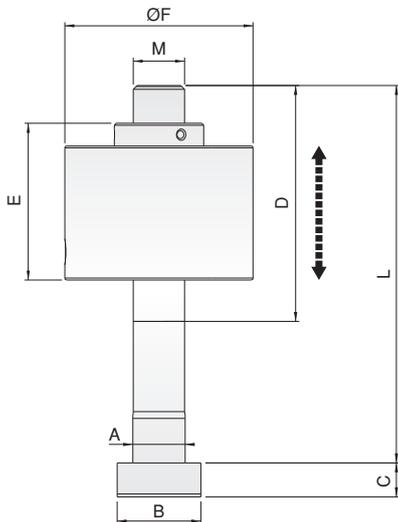
- Screw-distance adjustment can be made.
- Standard Temperature : 60°

Önemli Not

(Z) Muhafaza edilen strok ayar değişikliğinde kontrol edilmeli

Notes

The set stroke (Z) must be checked when changing the settings.



| Model | | CC-1 | CC-2 | CC-4 | CC-6 | CC-10 |
|--|-----|------|------|------|------|-------|
| Bağlama kapasitesi Capacity of clamp | Ton | 1 | 2 | 4 | 6 | 10 |
| Toplam strok (X) Total stroke (X) | mm | 9 | 9 | 9 | 12 | 12 |
| Pabuç strok (Y) Stroke of clamp (Y) | mm | 4 | 4 | 4 | 4 | 4 |
| Muhafaza edilen strok (Z) Preserved stroke (Z) | mm | 5 | 5 | 5 | 8 | 8 |
| Silindirin toplam hacmi Total volumn of cylinder | cc | 3 | 7.5 | 13 | 21 | 38 |
| Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H) | mm | ±1.5 | ±2 | ±2 | ±2 | ±2 |



- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.

Hidrolik basınç / Hydraulic pressure : 250kgf/cm²

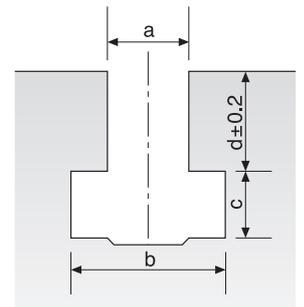
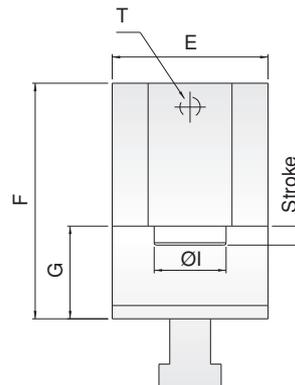
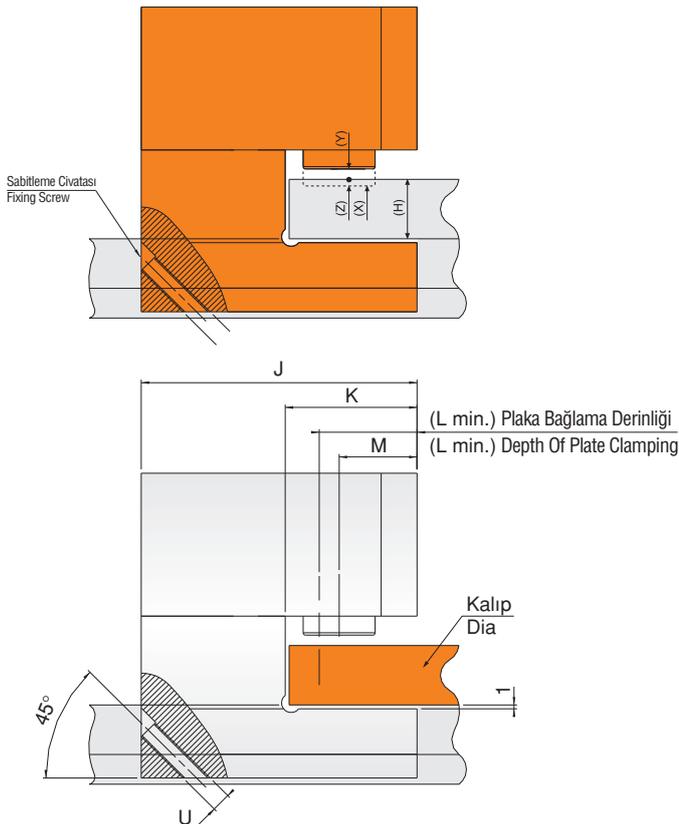
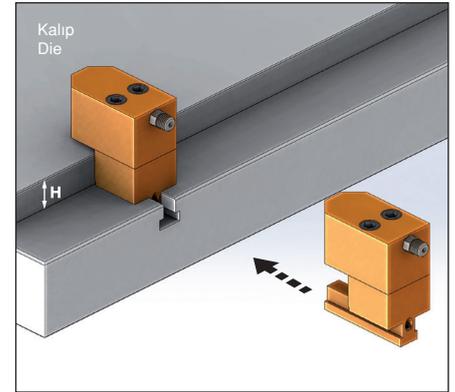
| Referans Nr. | H min. - max | A min. | C min. | E | F | G | I | J | K | L min. | M | T | U |
|--------------|-----------------|-----------|-----------|-----|------|------|-------|-----|----|-----------|------|-----|-----|
| 1015-CC01 | 20 | 10 | 6.5 | 43 | G+43 | H+9 | Ø16 | 75 | 33 | 27 | 21.5 | 1/8 | M5 |
| 1015-CC02 | 25 | 14 | 10 | 50 | G+50 | H+9 | Ø18 | 91 | 43 | 30 | 25 | 1/8 | M5 |
| 1015-CC04 | 25 | 18 | 12 | 65 | G+60 | H+9 | Ø30 | 115 | 55 | 40 | 32.5 | 1/8 | M8 |
| 1015-CC06 | 35 | 22 | 14 | 80 | G+65 | H+12 | Ø37.5 | 130 | 65 | 48 | 40 | 1/4 | M10 |
| 1015-CC10 | 40 | 24 | 16 | 100 | G+82 | H+12 | Ø50 | 160 | 85 | 60 | 49 | 1/4 | M12 |

Ürün Nr. 1015 Hidrolik Pabuç Model CC

- Pabuç ölçüleri (A),(B),(C) ve (D) T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°

Product Nr. 1015 Hydraulic Clamp Model CC

- The sizes of clamps(A),(B),(C) and (D) are made based on the size of T-slot.
- Standard Temperature : 60°



| Referans Nr. | H min. - max Mesafe Ayarlı Distance Adjustable | A min. | C min. | E | G | I | J | K | L min. | M | T | U |
|--------------|--|-----------|-----------|-----|------|-------|-----|----|-----------|------|-----|-----|
| 1015-CCM01 | 20-30 | 10 | 6.5 | 43 | H+9 | Ø16 | 75 | 33 | 27 | 21.5 | 1/8 | M5 |
| 1015-CCM02 | 25-35 | 14 | 10 | 50 | H+9 | Ø18 | 91 | 43 | 30 | 25 | 1/8 | M5 |
| 1015-CCM04 | 25-35 | 18 | 12 | 65 | H+9 | Ø30 | 115 | 55 | 40 | 32.5 | 1/8 | M8 |
| 1015-CCM06 | 35-45 | 22 | 14 | 80 | H+12 | Ø37.5 | 130 | 65 | 48 | 40 | 1/4 | M10 |
| 1015-CCM10 | 40-50 | 24 | 16 | 100 | H+12 | Ø50 | 160 | 85 | 60 | 49 | 1/4 | M12 |



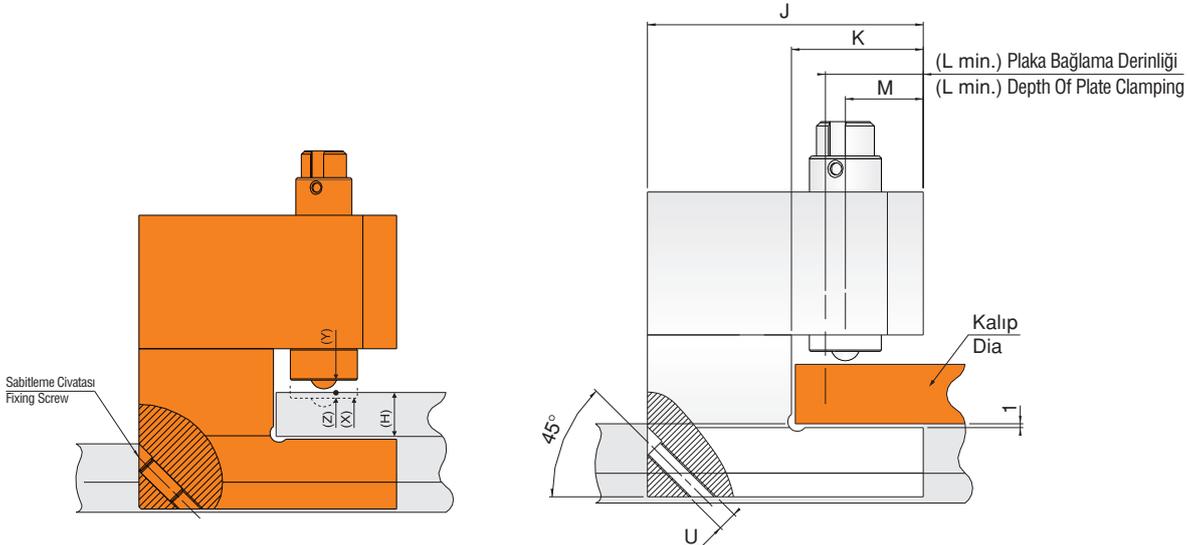
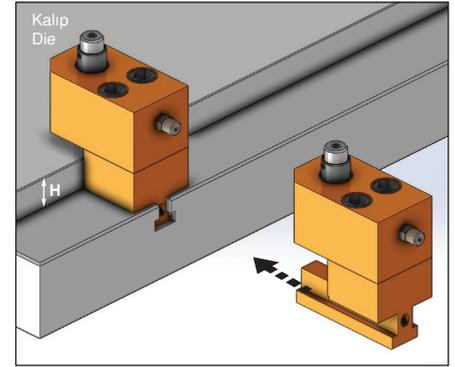
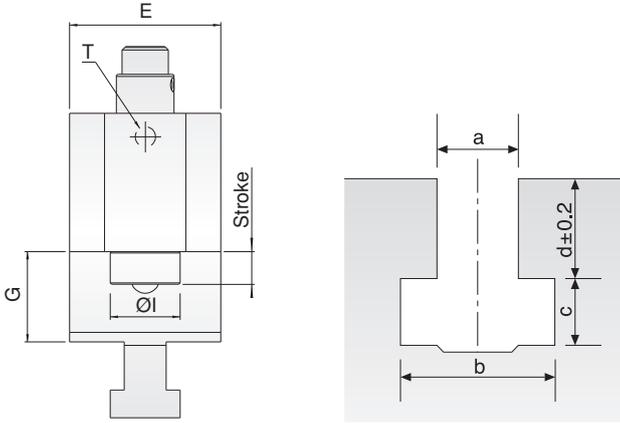
Ürün Nr. 1015 Hidrolik Pabuç Model CCM

- Pabuç ölçüleri (A),(B),(C) ve (D) T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°

Product Nr. 1015 Hydraulic Clamp Model CCM

- The sizes of clamps(A),(B),(C) and (D) are made based on the size of T-slot.
- Standard Temperature : 60°

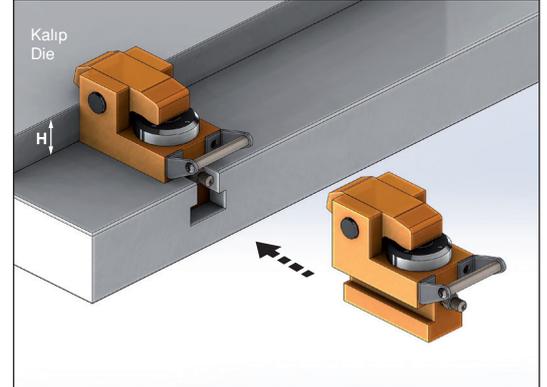
- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.



| Referans Nr. | L | K | J | H min. | H+d min. max | E min. | F | G | a min. | C min. | P |
|--------------|------|-----|------|--------|--------------|--------|-----|----|--------|--------|-------|
| 1015-CB01 | 74.5 | 60 | 14.5 | 25 | 100 | 42 | 44 | 20 | 10 | 6.5 | PT1/8 |
| 1015-CB02 | 110 | 90 | 20 | 25 | 100 | 73 | 68 | 32 | 14 | 10 | PT1/4 |
| 1015-CB04 | 134 | 110 | 24 | 25 | 130 | 77 | 79 | 40 | 18 | 12 | PT1/4 |
| 1015-CB06 | 159 | 130 | 29 | 30 | 150 | 92 | 96 | 46 | 22 | 14 | PT1/4 |
| 1015-CB10 | 189 | 159 | 30 | 40 | 140 | 114 | 117 | 54 | 24 | 16 | PT1/4 |
| 1015-CB16 | 230 | 200 | 30 | 40 | 130 | 126 | 129 | 58 | 28 | 20 | PT1/4 |
| 1015-CB25 | 265 | 235 | 30 | 45 | 120 | 148 | 156 | 70 | 36 | 23 | PT1/4 |



| Model | CB-1 | CB-2 | CB-4 | CB-6 | CB-10 | CB-16 | CB-25 |
|---|-------|-------|-------|-------|--------|--------|--------|
| | CBL-1 | CBL-2 | CBL-4 | CBL-6 | CBL-10 | CBL-16 | CBL-25 |
| Bağlama kapasitesi Capacity of clamp | 1 | 2 | 4 | 6 | 10 | 16 | 25 |
| Toplam strok (X) Total stroke (X) | 6 | 8 | 8 | 8 | 8 | 8 | 8 |
| Pabuç strok (Y) Stroke of clamp (Y) | 2.5 | 3 | 3 | 3 | 3 | 3 | 3 |
| Muhafaza edilen strok (Z) Preserved stroke (Z) | 3.5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Silindirin toplam hacmi Total volumn of cylinder | 3 | 7.5 | 13 | 21 | 38 | 55 | 98 |
| Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H) | ±1.5 | ±2 | ±2 | ±2 | ±2 | ±2 | ±2 |



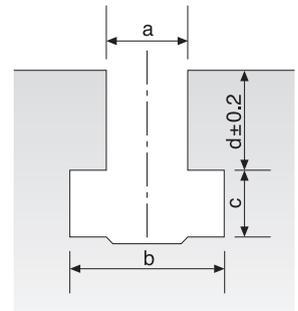
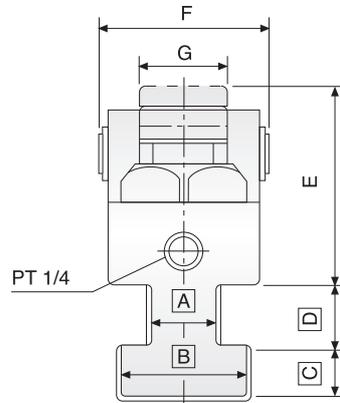
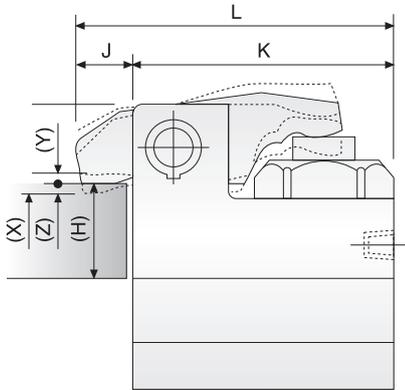
Ürün Nr. 1015 Hidrolik Pabuç Model CB

- Pabuç ölçüleri (A),(B),(C) ve (D) T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°
- Hidrolik basınç 250kgf/cm²

Product Nr. 1015 Hydraulic Clamp Model CB

- The sizes of clamps(A),(B),(C) and (D) are made based on the size of T-slot.
- Standard Temperature : 60°
- Hydraulic pressure : 250kgf/cm²

- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.



| Referans Nr. | L | K | J | H min. | H+d min. max | E min. | F | G | a min. | C min. | P |
|--------------|-----|-----|----|--------|--------------|--------|-----|----|--------|--------|-------|
| 1015-CBL04 | 134 | 110 | 24 | 25 | 130 | 77 | 79 | 40 | 18 | 12 | PT1/4 |
| 1015-CBL06 | 159 | 130 | 29 | 30 | 150 | 92 | 96 | 46 | 22 | 14 | PT1/4 |
| 1015-CBL10 | 189 | 159 | 30 | 40 | 140 | 114 | 117 | 54 | 24 | 16 | PT1/4 |
| 1015-CBL16 | 230 | 200 | 30 | 40 | 130 | 126 | 129 | 58 | 28 | 20 | PT1/4 |
| 1015-CBL25 | 265 | 235 | 30 | 45 | 120 | 148 | 156 | 70 | 36 | 23 | PT1/4 |

Hidrolik Pabuç Model CBL

Hydraulic Clamp Model CBL



Ürün Nr. 1015 Hidrolik Pabuç Model CBL

- Pabuç ölçüleri (A),(B),(C) ve (D) T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°
- Hidrolik basınç 250kgf/cm²

Product Nr. 1015 Hydraulic Clamp Model CBL

- The sizes of clamps(A),(B),(C) and (D) are made based on the size of T-slot.
- Standard Temperature : 60°
- Hydraulic pressure : 250kgf/cm²

Note
Kilitleme seçeneekli

Note
With locking option

| Model | | CBS-1 | CBS-2 | CBS-4 | CBS-6 | CBS-10 | CBS-16 | CBS-25 |
|--|-----|-------|-------|-------|-------|--------|--------|--------|
| Bağlama kapasitesi Capacity of clamp | Ton | 1 | 2 | 4 | 6 | 10 | 16 | 25 |
| Toplam strok (X) Total stroke (X) | mm | 6 | 8 | 8 | 8 | 8 | 8 | 8 |
| Pabuç strok (Y) Stroke of clamp (Y) | mm | 2.5 | 3 | 3 | 3 | 3 | 3 | 3 |
| Muhafaza edilen strok (Z) Preserved stroke (Z) | mm | 3.5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Silindirin toplam hacmi Total volumn of cylinder | cc | 3 | 7.5 | 13 | 21 | 38 | 55 | 98 |
| Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H) | mm | ±1.5 | ±2 | ±2 | ±2 | ±2 | ±2 | ±2 |
| Strok Mesafesi (S) Traveling Stroke (S) | | | | | | | | |

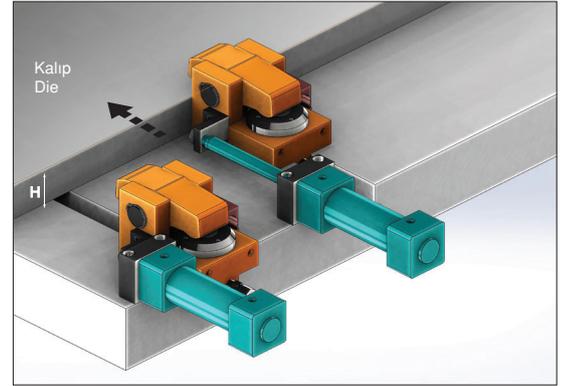


- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.

Satın almadan önce strok mesafesini bildiriniz.
Hidrolik Basınç : 250kgf/cm²

Please inform the stroke distance before purchase.
Hydraulic pressure : 250kgf/cm²

| Referans Nr. | L | K | J | H min. | H+d min. max | E min. | F | G | a min. | C min. | P |
|--------------|------|-----|------|--------|--------------|--------|-----|----|--------|--------|-------|
| 1015-CBS01 | 74.5 | 60 | 14.5 | 25 | 100 | 42 | 44 | 20 | 10 | 6.5 | PT1/8 |
| 1015-CBS02 | 110 | 90 | 20 | 25 | 100 | 73 | 68 | 32 | 14 | 10 | PT1/4 |
| 1015-CBS04 | 134 | 110 | 24 | 25 | 130 | 77 | 79 | 40 | 18 | 12 | PT1/4 |
| 1015-CBS06 | 159 | 130 | 29 | 30 | 150 | 92 | 96 | 46 | 22 | 14 | PT1/4 |
| 1015-CBS10 | 189 | 159 | 30 | 40 | 140 | 114 | 117 | 54 | 24 | 16 | PT1/4 |
| 1015-CBS16 | 230 | 200 | 30 | 40 | 130 | 126 | 129 | 58 | 28 | 20 | PT1/4 |
| 1015-CBS25 | 265 | 235 | 30 | 45 | 120 | 148 | 156 | 70 | 36 | 23 | PT1/4 |



Ürün Nr. 1015 Hidrolik Pabuç Model CBS

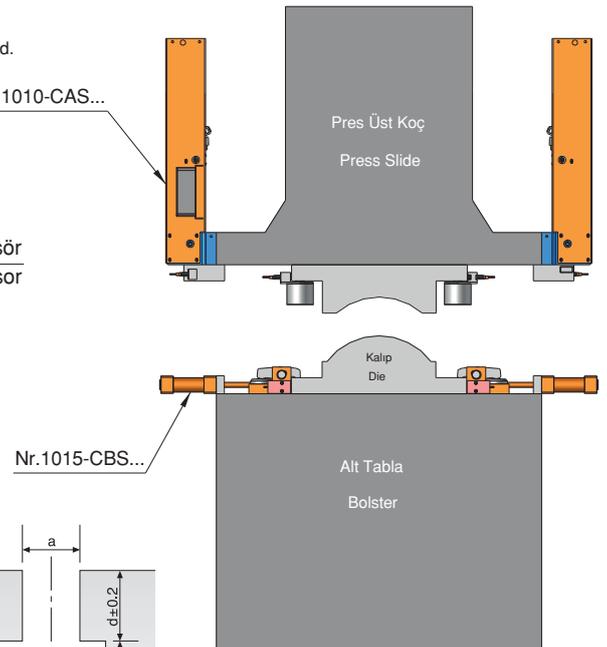
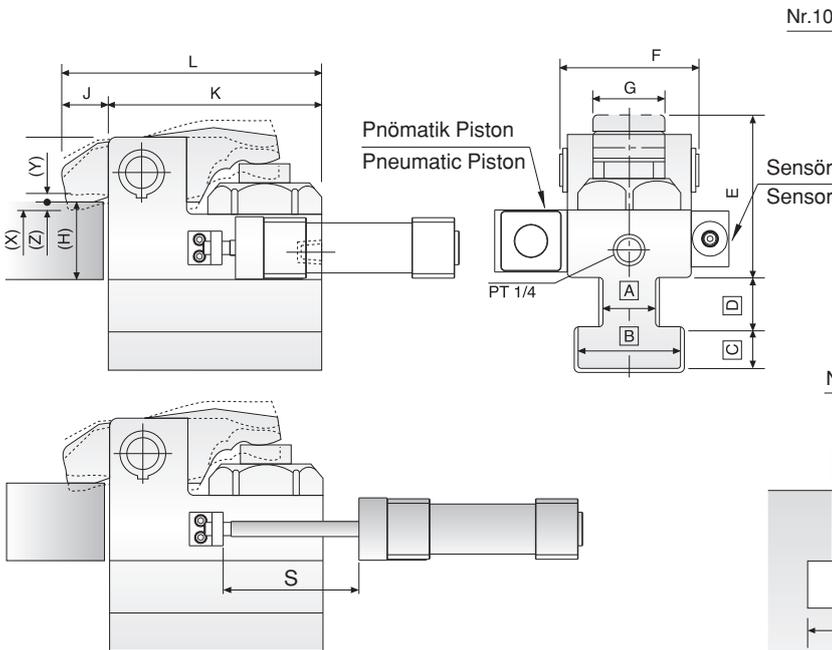
- Pabuç ölçüleri (A),(B),(C) ve (D)
- T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°

Product Nr. 1015 Hydraulic Clamp Model CBS

- The sizes of clamps(A),(B),(C) and (D)
- are made based on the size of T-slot.
- Standard Temperature : 60°

Not
Otomatik komut ile ilerler.

Note
Proceeds with automatic command.



| Model | | CD-2 | CD-4 | CD-6 | CD-10 | CD-16 | CD-25 |
|--|-----|------|------|------|-------|-------|-------|
| Bağlama kapasitesi Capacity of clamp | Ton | 2 | 4 | 6 | 10 | 16 | 25 |
| Toplam strok (X) Total stroke (X) | mm | 8 | 8 | 8 | 8 | 8 | 8 |
| Pabuç strok (Y) Stroke of clamp (Y) | mm | 3 | 3 | 3 | 3 | 3 | 3 |
| Muhafaza edilen strok (Z) Preserved stroke (Z) | mm | 5 | 5 | 5 | 5 | 5 | 5 |
| Silindirin toplam hacmi Total volumn of cylinder | cc | 7.5 | 13 | 21 | 38 | 55 | 98 |
| Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H) | mm | ±2 | ±2 | ±2 | ±2 | ±2 | ±2 |



Hidrolik basınç / Hydraulic pressure : 250kgf/cm²

| Referans Nr. | A | B | C | D | E min. | F | G | W | N max. | T |
|--------------|----|----|-----|-----|--------|-----|----|-----|--------|---------|
| 1015-CD02 | 12 | 20 | 80 | 98 | 90 | 76 | 30 | 124 | 25 | M10x20D |
| 1015-CD04 | 12 | 25 | 100 | 109 | 93 | 87 | 30 | 135 | 30 | M12x24D |
| 1015-CD06 | 15 | 30 | 120 | 126 | 109 | 104 | 30 | 152 | 35 | M12x24D |
| 1015-CD10 | 15 | 35 | 150 | 148 | 131 | 124 | 36 | 174 | 40 | M14x28D |
| 1015-CD16 | 20 | 40 | 200 | 166 | 142 | 138 | 44 | 200 | 50 | M18x36D |
| 1015-CD25 | 20 | 45 | 235 | 200 | 163 | 168 | 48 | 240 | 60 | M22x45D |

Ürün Nr. 1015 Hidrolik Pabuç Model CD

• Standart Sıcaklık : 60°

Product Nr. 1015 Hydraulic Clamp Model CD

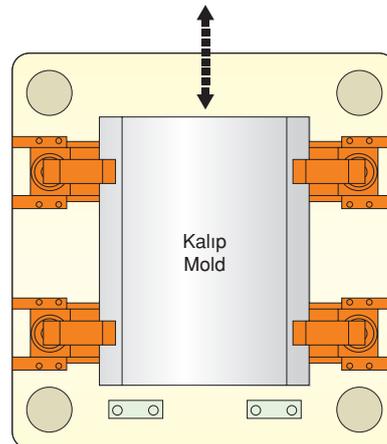
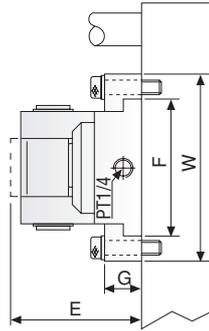
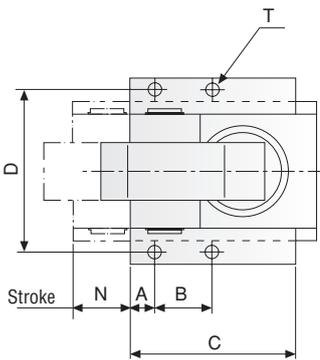
• Standard Temperature : 60°

Not

Pleyti dişli tezgahlarda kullanım olanağı sağlar.

Note

It can be used in machines with holes on the plate.



| Model | | CG-4 | CG-6 | CG-10 | CG-16 | CG-25 | CG-50 |
|---|-----|------|------|-------|-------|-------|-------|
| Bağlama kapasitesi Capacity of clamp | Ton | 4 | 6 | 10 | 16 | 25 | 50 |
| Yay kuvveti Retaining force | Ton | 0.80 | 1.2 | 2 | 3.2 | 5 | 10 |
| Muhafaza edilen strok (Z) Preserved stroke (Z) | mm | 1.5 | 1.5 | 2 | 2 | 2 | 2 |

Hidrolik basınç / Hydraulic pressure : 250kgf/cm²

- Satın almadan önce kalıp tabanı kalınlığını (H) bildiriniz.
- Please thickness (H) of the template for the die when purchasing.



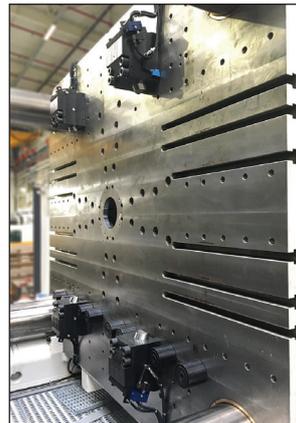
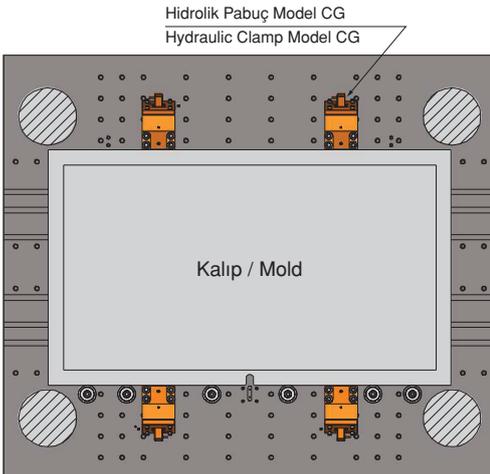
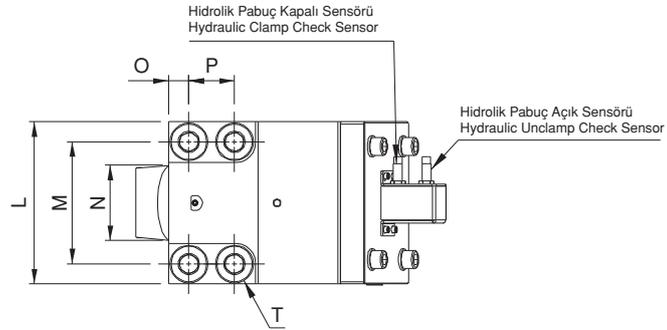
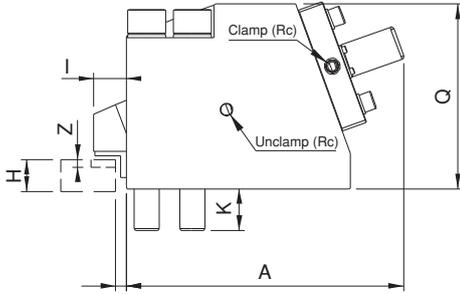
| Referans Nr. | I | J | K | L | M | N | O | P | Rc | H | T |
|--------------|----|---|----|-----|-----|-----|----|----|-----|----|-----|
| 1015-CG04 | 17 | 2 | 27 | 90 | 62 | 35 | 14 | - | 1/4 | 25 | M16 |
| 1015-CG06 | 19 | 3 | 33 | 110 | 76 | 45 | 17 | - | 1/4 | 30 | M20 |
| 1015-CG10 | 23 | 3 | 36 | 135 | 95 | 50 | 20 | - | 1/4 | 30 | M24 |
| 1015-CG16 | 28 | 5 | 33 | 138 | 104 | 60 | 17 | 40 | 1/4 | 30 | M20 |
| 1015-CG25 | 33 | 5 | 40 | 170 | 130 | 75 | 20 | 50 | 1/4 | 40 | M24 |
| 1015-CG50 | 35 | 5 | 50 | 215 | 162 | 100 | 27 | 60 | 3/8 | 50 | M33 |

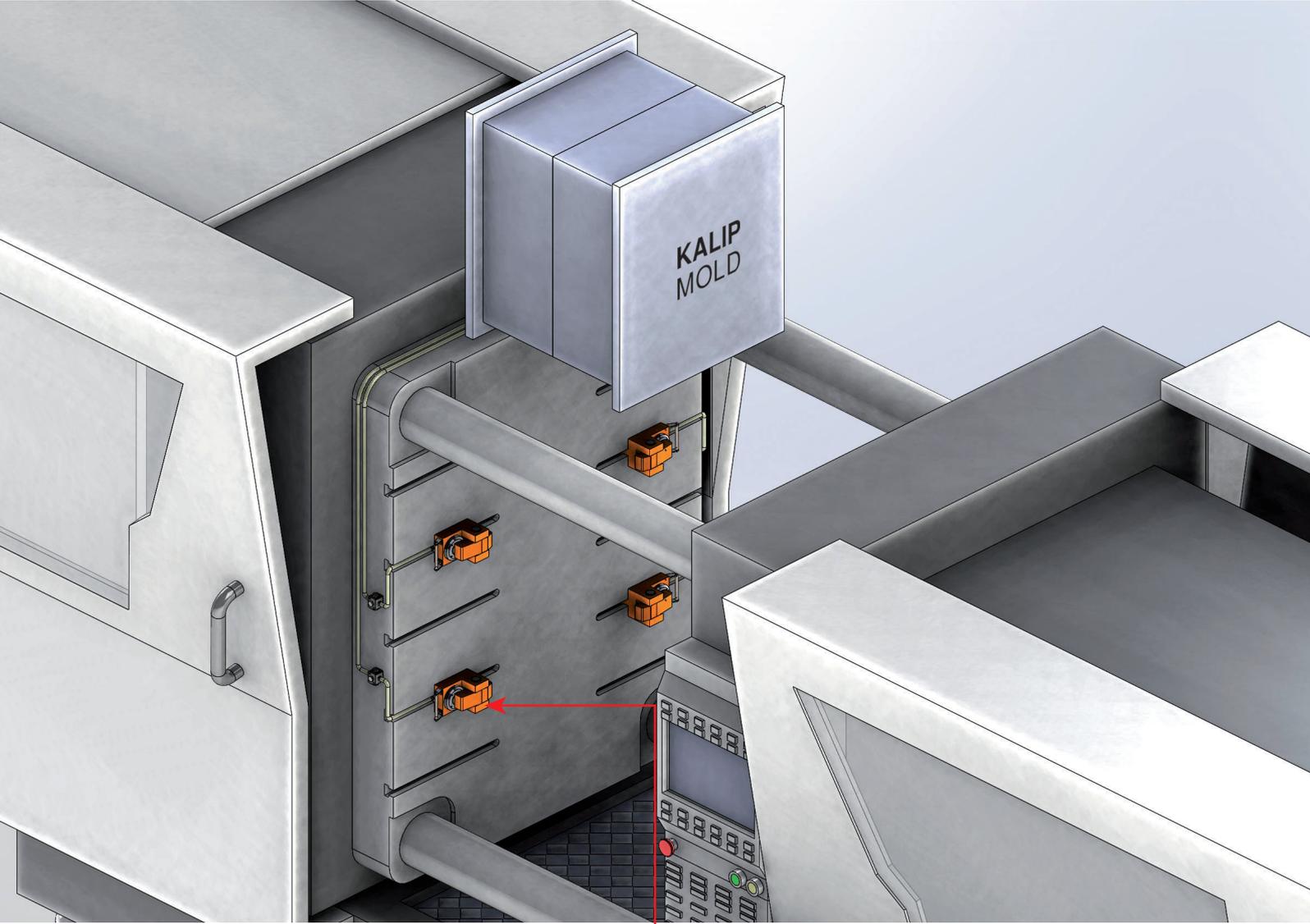
Ürün Nr. 1015 Hidrolik Pabuç Model CG

- Standart Sıcaklık : 60°

Product Nr. 1015 Hydraulic Clamp Model CG

- Standard Temperature : 60°





Hidrolik Pabuç Modelleri / Hydraulic Clamp Models



Model CA



Model CV



Model CC



Model CCM



Model CB



Model CBL



Model CBS



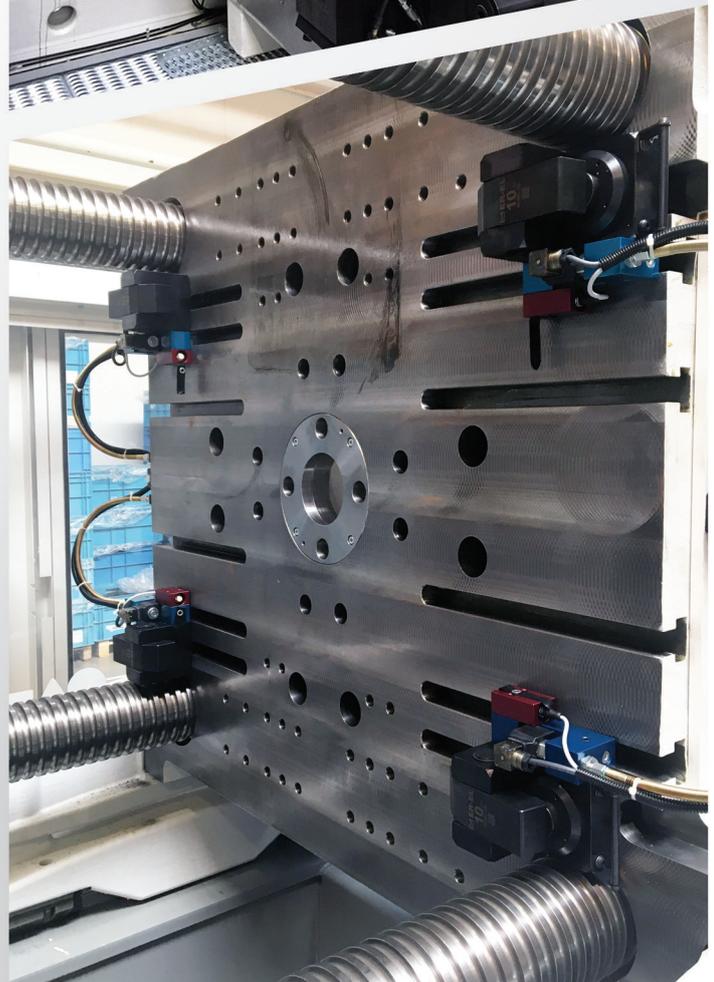
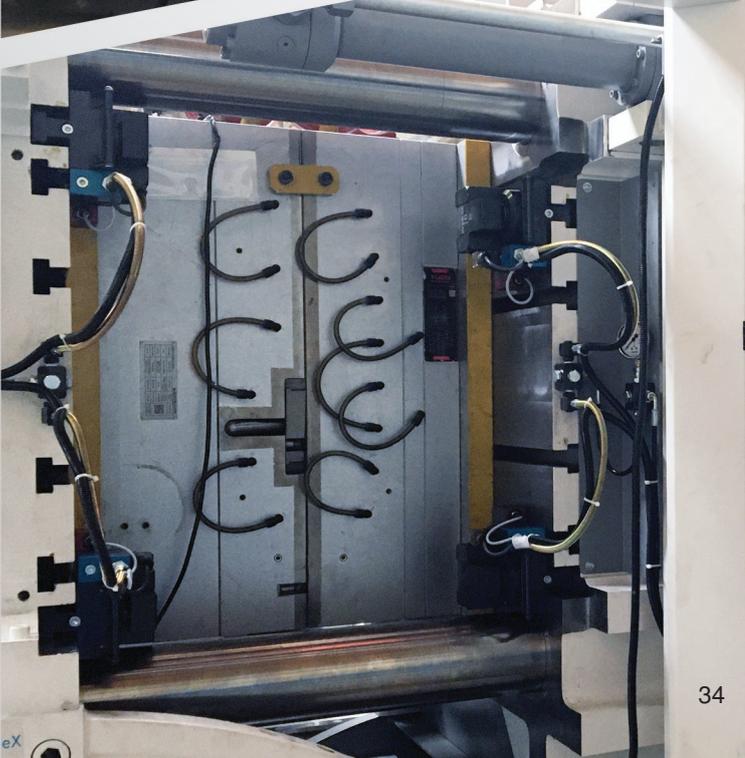
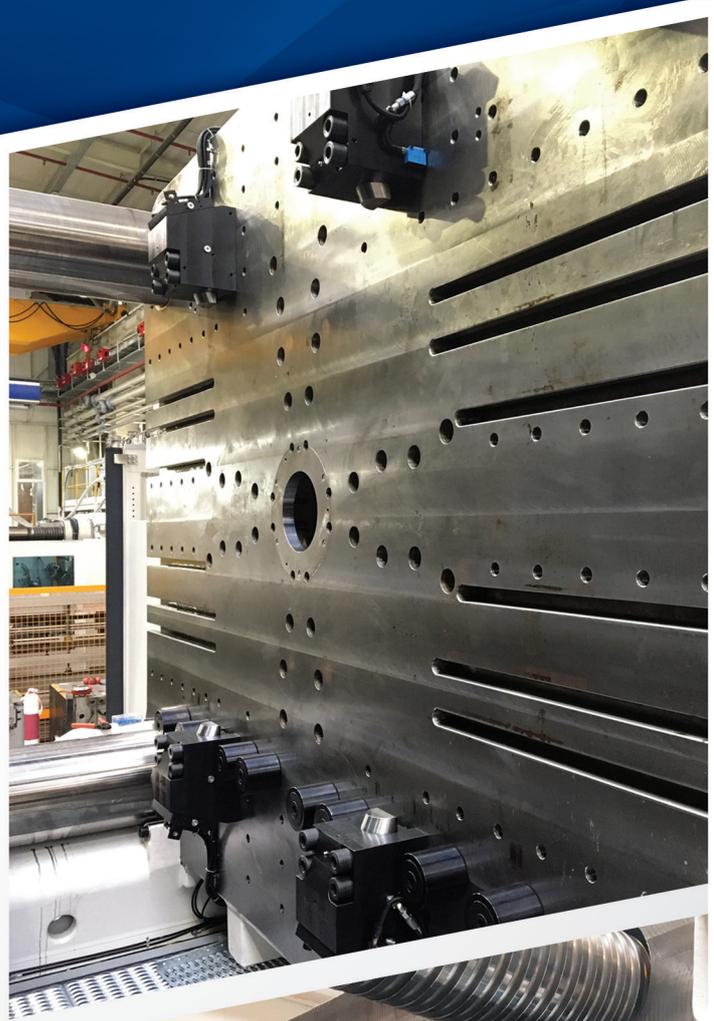
Model CD



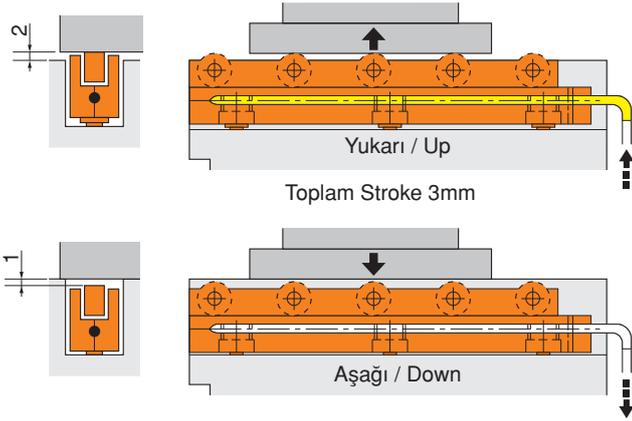
Model CG

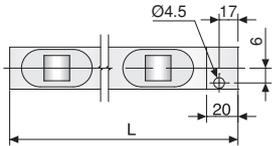
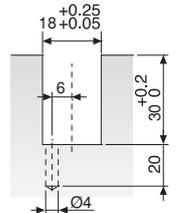
HIZLI KALIP DEĞİŞTİRME SİSTEMİ

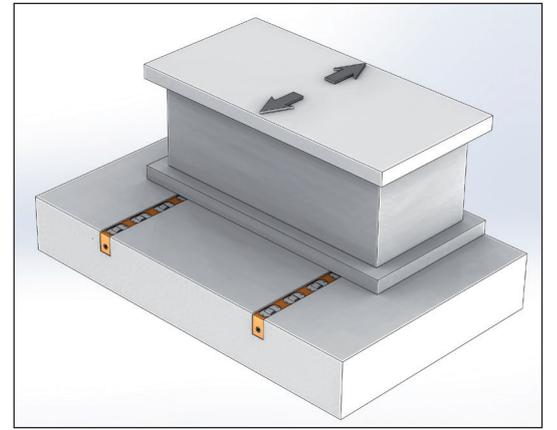
QUICK MOLD CHANGE SYSTEM







| | |
|---|--|
| Dış Ölçüler Outline Dimensions | <p>□18 Serisi / Serial</p>  |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |



Model DL Hareket Yönü
Model DL Movement Direction

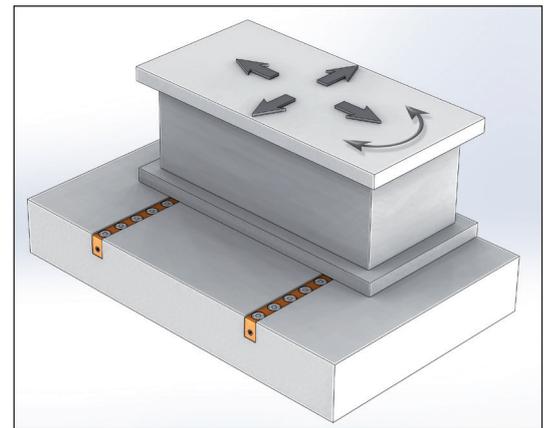
| Referans Nr. | L | □18 | | | | Hid. Silindir Hyd. cylinder | Piston | Kapasite Capacity kg |
|--------------|------|------------------------|----------------------------|------------------------|----------------------------|--------------------------------|--------|----------------------------|
| | | Rulo Roller (DL) | Kapasite Capacity kg | Misket Ball (DB) | Kapasite Capacity kg | | | |
| 1020-0200 | 200 | 3 | 300 | 5 | 250 | 2 | 560 | |
| 1020-0300 | 300 | 5 | 500 | 7 | 350 | 2 | 560 | |
| 1020-0400 | 400 | 6 | 600 | 10 | 500 | 3 | 840 | |
| 1020-0500 | 500 | 8 | 800 | 12 | 600 | 3 | 840 | |
| 1020-0600 | 600 | 9 | 900 | 15 | 750 | 4 | 1120 | |
| 1020-0700 | 700 | 11 | 1100 | 17 | 850 | 4 | 1120 | |
| 1020-0800 | 800 | 12 | 1200 | 20 | 1000 | 5 | 1400 | |
| 1020-0900 | 900 | 14 | 1400 | 22 | 1100 | 5 | 1400 | |
| 1020-1000 | 1000 | 15 | 1500 | 25 | 1250 | 6 | 1680 | |

Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB

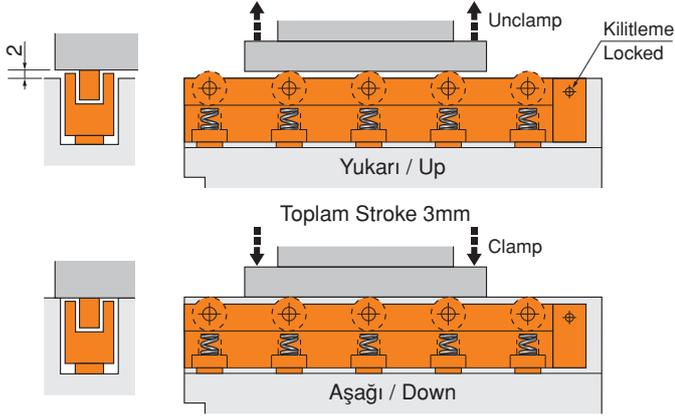
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm²

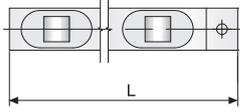
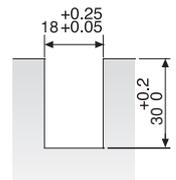
Product Nr. 1020 Die Lifter Hydraulic Model DL-DB

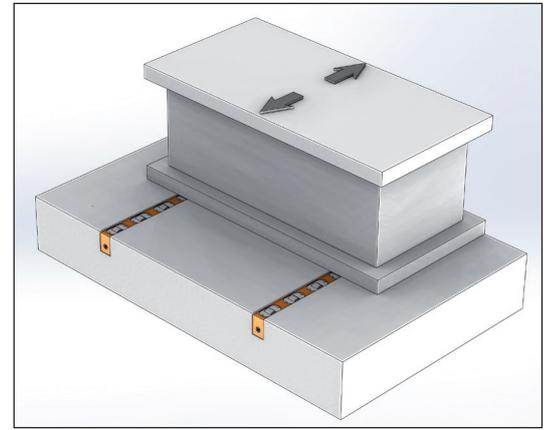
- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm²



Model DB Hareket Yönü
Model DB Movement Direction



| | |
|--|--|
| Dış Ölçüler Outline Dimensions | D□18 Serisi / Serial |
| |  |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |

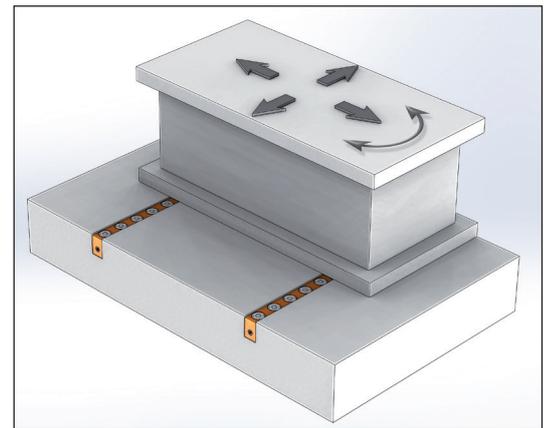


Model DLS Hareket Yönü
Model DLS Movement Direction

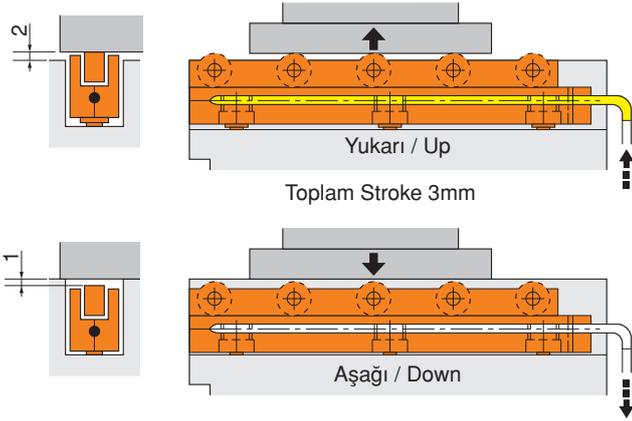
| Referans Nr. | L | D□18 | | | | | |
|--------------|------|-------------------|---|----------------------|-------------------|---|----------------------|
| | | DLS18 | | | DBS18 | | |
| | | Rulo Roller (DLS) |  | Kapasite Capacity kg | Misket Ball (DBS) |  | Kapasite Capacity kg |
| 1022-0200 | 200 | 3 | 4 | 200 | 5 | 6 | 150 |
| 1022-0300 | 300 | 5 | 6 | 300 | 7 | 8 | 200 |
| 1022-0400 | 400 | 6 | 7 | 350 | 10 | 11 | 275 |
| 1022-0500 | 500 | 8 | 9 | 450 | 12 | 13 | 325 |
| 1022-0600 | 600 | 9 | 10 | 500 | 15 | 16 | 400 |
| 1022-0700 | 700 | 11 | 12 | 600 | 17 | 18 | 450 |
| 1022-0800 | 800 | 12 | 13 | 650 | 20 | 21 | 525 |
| 1022-0900 | 900 | 14 | 15 | 750 | 22 | 23 | 575 |
| 1022-1000 | 1000 | 15 | 16 | 800 | 25 | 26 | 650 |

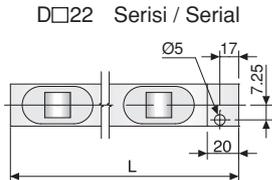
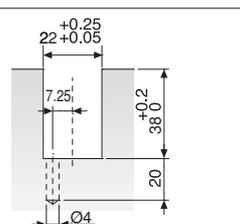
Ürün Nr. 1022 Yaylı Kalıp Kaldırma Model DLS-DBS
• Standart Sıcaklık : 60°

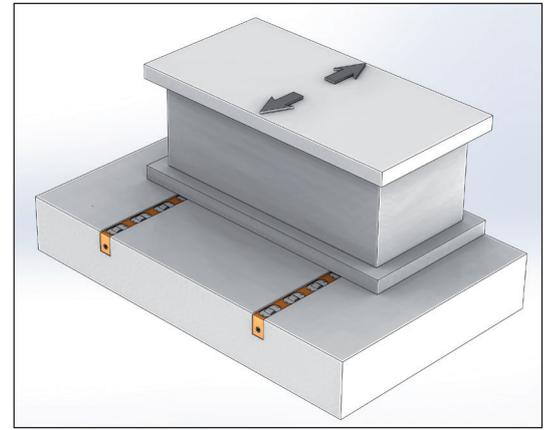
Product Nr. 1022 Die Lifter Spring Model DLS-DBS
• Standard Temperature : 60°



Model DBS Hareket Yönü
Model DBS Movement Direction



| | |
|---|---|
| Dış Ölçüler Outline Dimensions | <p>D□22 Serisi / Serial</p>  |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |



Model DL Hareket Yönü
Model DL Movement Direction

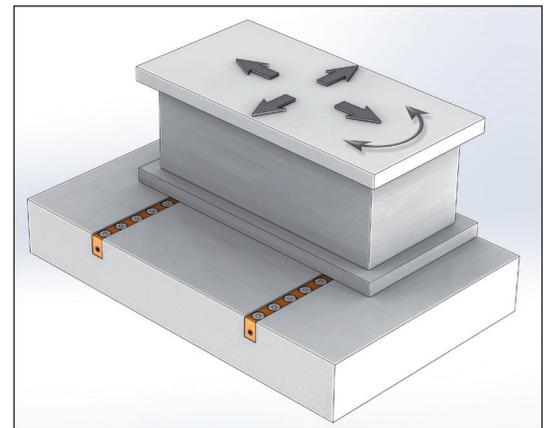
| Referans Nr. | L | D□22 | | | | Hid. Silindir Hyd. cylinder | |
|-----------------|------|------------------------|----------------------------|------------------------|----------------------------|--------------------------------|----------------------------|
| | | DL22 | | DB22 | | Piston | Kapasite Capacity kg |
| | | Rulo Roller (DL) | Kapasite Capacity kg | Misket Ball (DB) | Kapasite Capacity kg | | |
| 1020-0200 | 200 | 3 | 480 | 5 | 400 | 2 | 1000 |
| 1020-0300 | 300 | 5 | 800 | 7 | 560 | | |
| 1020-0400 | 400 | 6 | 960 | 10 | 800 | | |
| 1020-0500 | 500 | 8 | 1280 | 12 | 960 | 3 | 1500 |
| 1020-0600 | 600 | 9 | 1440 | 15 | 1200 | | |
| 1020-0700 | 700 | 11 | 1760 | 17 | 1360 | 4 | 2000 |
| 1020-0800 | 800 | 12 | 1920 | 20 | 1600 | | |
| 1020-0900 | 900 | 14 | 2240 | 22 | 1760 | 5 | 2500 |
| 1020-1000 | 1000 | 15 | 2400 | 25 | 2000 | | |

Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB

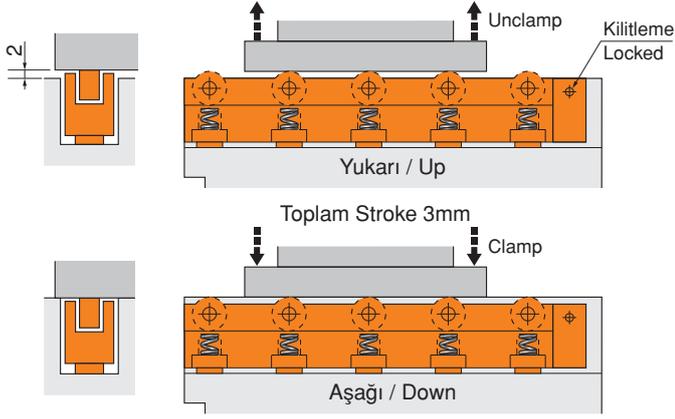
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm²

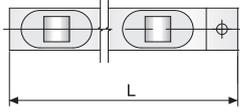
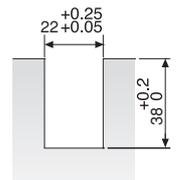
Product Nr. 1020 Die Lifter Hydraulic Model DL-DB

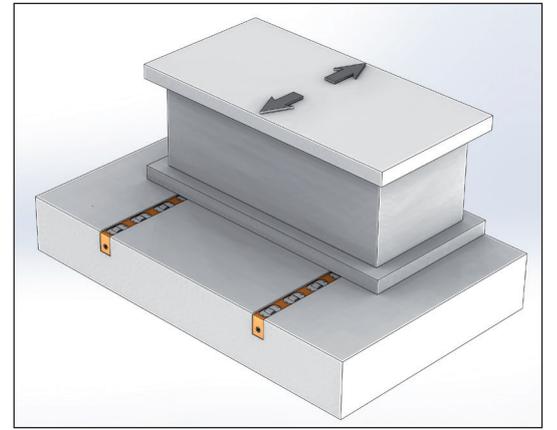
- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm²



Model DB Hareket Yönü
Model DB Movement Direction



| | |
|---|--|
| Dış Ölçüler Outline Dimensions | D□22 Serisi / Serial |
| |  |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |

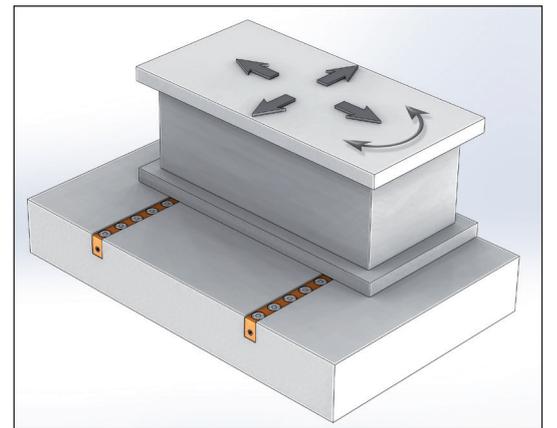


Model DLS Hareket Yönü
Model DLS Movement Direction

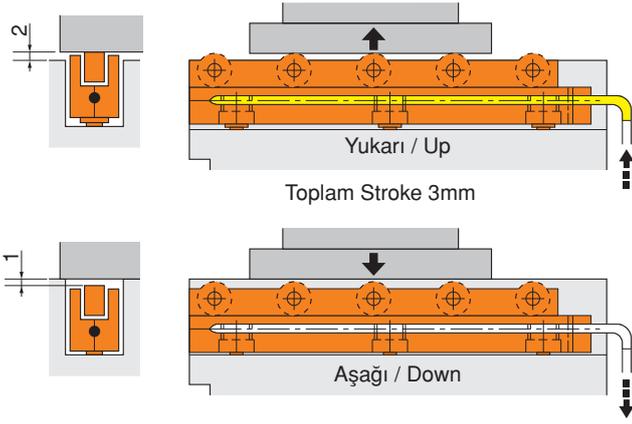
| Referans Nr. | L | D□22 | | | | | |
|-----------------|------|-------------------------|---|----------------------------|-------------------------|---|----------------------------|
| | | DLS22 | | | DBS22 | | |
| | | Rulo Roller (DLS) |  | Kapasite Capacity kg | Misket Ball (DBS) |  | Kapasite Capacity kg |
| 1022-0200 | 200 | 3 | 4 | 320 | 5 | 6 | 240 |
| 1022-0300 | 300 | 5 | 6 | 480 | 7 | 8 | 320 |
| 1022-0400 | 400 | 6 | 7 | 560 | 10 | 11 | 440 |
| 1022-0500 | 500 | 8 | 9 | 720 | 12 | 13 | 520 |
| 1022-0600 | 600 | 9 | 10 | 800 | 15 | 16 | 640 |
| 1022-0700 | 700 | 11 | 12 | 960 | 17 | 18 | 720 |
| 1022-0800 | 800 | 12 | 13 | 1040 | 20 | 21 | 840 |
| 1022-0900 | 900 | 14 | 15 | 1200 | 22 | 23 | 920 |
| 1022-1000 | 1000 | 15 | 16 | 1280 | 25 | 26 | 1040 |

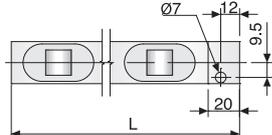
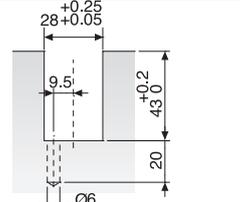
Ürün Nr. 1022 Yaylı Kalıp Kaldırma Model DLS-DBS
• Standart Sıcaklık : 60°

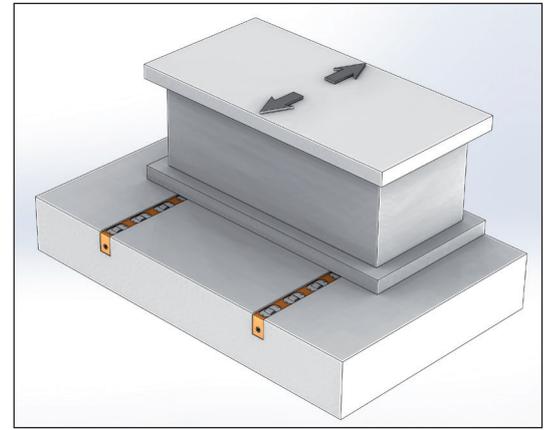
Product Nr. 1022 Die Lifter Spring Model DLS-DBS
• Standard Temperature : 60°



Model DBS Hareket Yönü
Model DBS Movement Direction

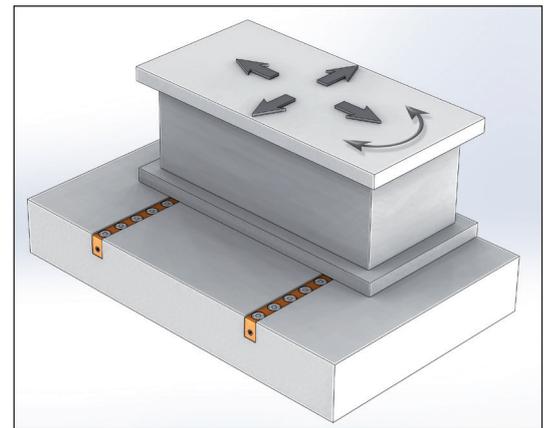


| | |
|---|--|
| Dış Ölçüler Outline Dimensions | D□28 Serisi / Serial |
| |  |
| Plejt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |



Model DL Hareket Yönü
Model DL Movement Direction

| Referans Nr. | L | D□28 | | | | Hid. Silindir Hyd. cylinder | |
|--------------|------|------------------|----------------------|------------------|----------------------|-----------------------------|----------------------|
| | | Rulo Roller (DL) | Kapasite Capacity kg | Misket Ball (DB) | Kapasite Capacity kg | Piston | Kapasite Capacity kg |
| 1020-0200 | 200 | 3 | 750 | 5 | 625 | 2 | 1270 |
| 1020-0300 | 300 | 5 | 1250 | 7 | 875 | 2 | 1270 |
| 1020-0400 | 400 | 6 | 1500 | 10 | 1250 | 3 | 1905 |
| 1020-0500 | 500 | 8 | 2000 | 12 | 1500 | 4 | 2540 |
| 1020-0600 | 600 | 9 | 2250 | 15 | 1875 | 4 | 2540 |
| 1020-0700 | 700 | 11 | 2750 | 17 | 2125 | 5 | 3175 |
| 1020-0800 | 800 | 12 | 3000 | 20 | 2500 | 5 | 3175 |
| 1020-0900 | 900 | 14 | 3500 | 22 | 2750 | 6 | 3810 |
| 1020-1000 | 1000 | 15 | 3750 | 25 | 3125 | 6 | 3810 |
| 1020-1100 | 1100 | 16 | 4000 | 27 | 3375 | 7 | 4445 |
| 1020-1200 | 1200 | 17 | 4250 | 30 | 3750 | 7 | 4445 |
| 1020-1300 | 1300 | 18 | 4500 | 32 | 4000 | 8 | 5080 |
| 1020-1400 | 1400 | 19 | 4750 | 35 | 4375 | 8 | 5080 |
| 1020-1500 | 1500 | 20 | 5000 | 37 | 4625 | 9 | 5715 |
| 1020-1600 | 1600 | 22 | 5500 | 40 | 5000 | 9 | 5715 |
| 1020-1700 | 1700 | 24 | 6000 | 42 | 5250 | 10 | 6350 |
| 1020-1800 | 1800 | 25 | 6250 | 45 | 5625 | 10 | 6350 |
| 1020-1900 | 1900 | 27 | 6750 | 47 | 5875 | 11 | 6985 |



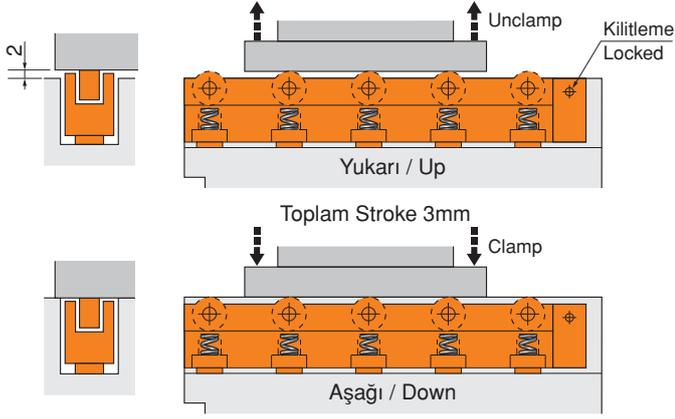
Model DB Hareket Yönü
Model DB Movement Direction

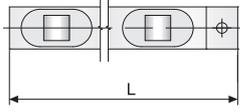
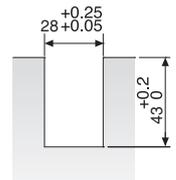
Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB

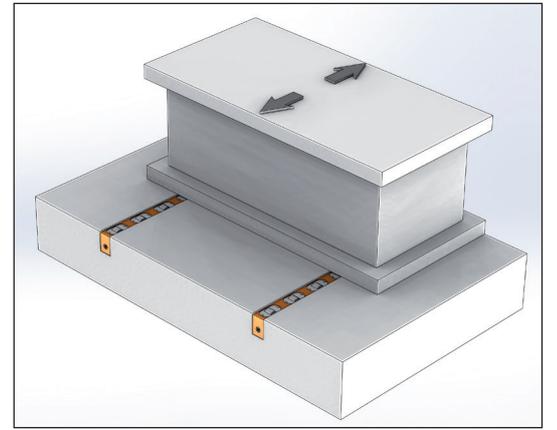
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm²

Product Nr. 1020 Die Lifter Hydraulic Model DL-DB

- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm²

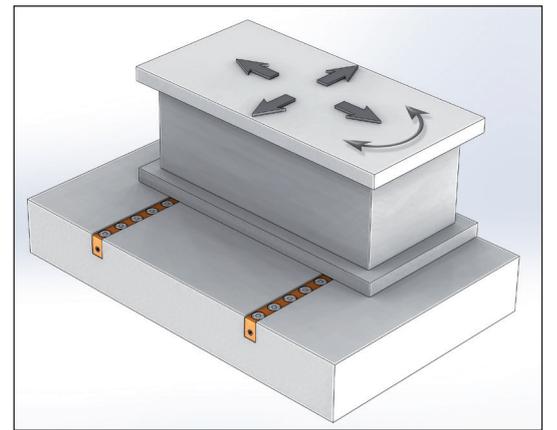


| | |
|---|---|
| Dış Ölçüler Outline Dimensions | D□28 Serisi / Serial  |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |



Model DLS Hareket Yönü
Model DLS Movement Direction

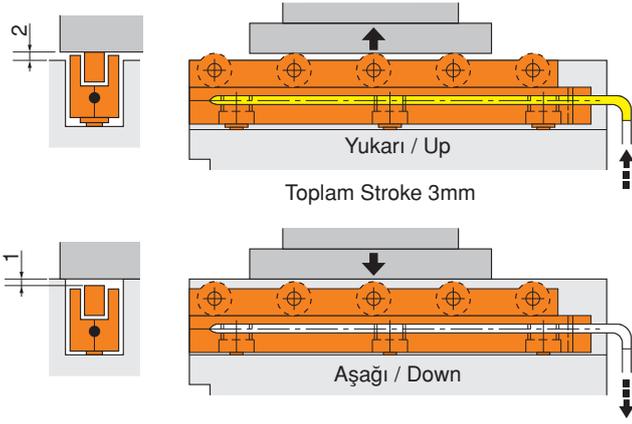
| Referans Nr. | L | D□28 | | | | | |
|--------------|------|-------------------|---|----------------------|-------------------|---|----------------------|
| | | DLS28 | | | DBS28 | | |
| | | Rulo Roller (DLS) |  | Kapasite Capacity kg | Misket Ball (DBS) |  | Kapasite Capacity kg |
| 1022-0200 | 200 | 3 | 4 | 500 | 5 | 5 | 315 |
| 1022-0300 | 300 | 5 | 6 | 750 | 7 | 7 | 441 |
| 1022-0400 | 400 | 6 | 7 | 875 | 10 | 10 | 630 |
| 1022-0500 | 500 | 8 | 9 | 1125 | 12 | 12 | 756 |
| 1022-0600 | 600 | 9 | 10 | 1250 | 15 | 15 | 945 |
| 1022-0700 | 700 | 11 | 12 | 1500 | 17 | 17 | 1071 |
| 1022-0800 | 800 | 12 | 13 | 1625 | 20 | 20 | 1260 |
| 1022-0900 | 900 | 14 | 15 | 1875 | 22 | 22 | 1386 |
| 1022-1000 | 1000 | 15 | 16 | 2000 | 25 | 25 | 1575 |
| 1022-1100 | 1100 | 16 | 17 | 2125 | 27 | 27 | 1701 |
| 1022-1200 | 1200 | 17 | 18 | 2250 | 30 | 30 | 1890 |
| 1022-1300 | 1300 | 18 | 19 | 2375 | 32 | 32 | 2016 |
| 1022-1400 | 1400 | 19 | 20 | 2500 | 35 | 35 | 2205 |
| 1022-1500 | 1500 | 20 | 21 | 2625 | 37 | 37 | 2331 |
| 1022-1600 | 1600 | 22 | 23 | 2875 | 40 | 40 | 2520 |
| 1022-1700 | 1700 | 24 | 25 | 3125 | 42 | 42 | 2646 |
| 1022-1800 | 1800 | 25 | 26 | 3250 | 45 | 45 | 2835 |
| 1022-1900 | 1900 | 27 | 28 | 3500 | 47 | 47 | 2961 |

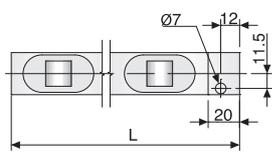
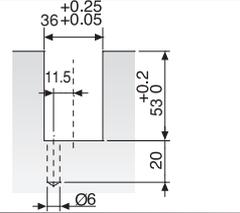


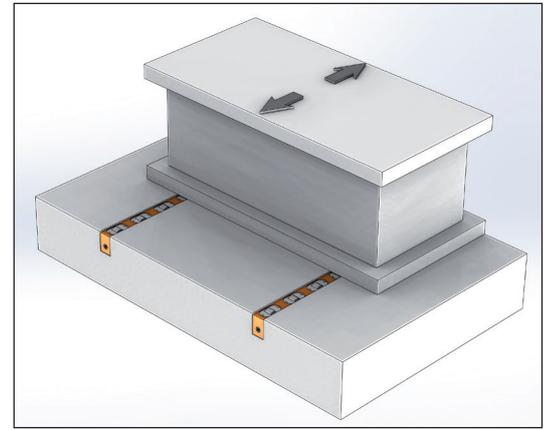
Model DBS Hareket Yönü
Model DBS Movement Direction

Ürün Nr. 1022 Yaylı Kalıp Kaldırma Model DLS-DBS
• Standart Sıcaklık : 60°

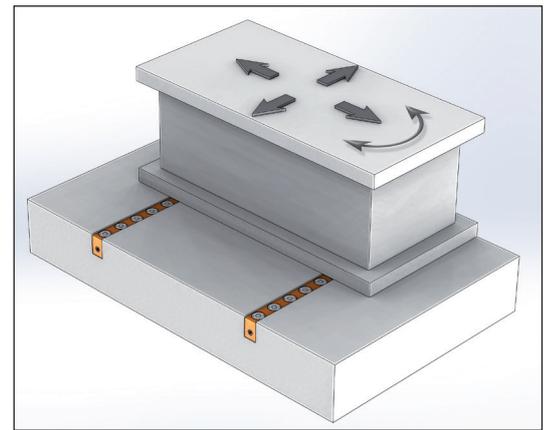
Product Nr. 1022 Die Lifter Spring Model DLS-DBS
• Standard Temperature : 60°



| | |
|---|--|
| Dış Ölçüler Outline Dimensions | D□36 Serisi / Serial |
| |  |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |



Model DL Hareket Yönü
Model DL Movement Direction



Model DB Hareket Yönü
Model DB Movement Direction

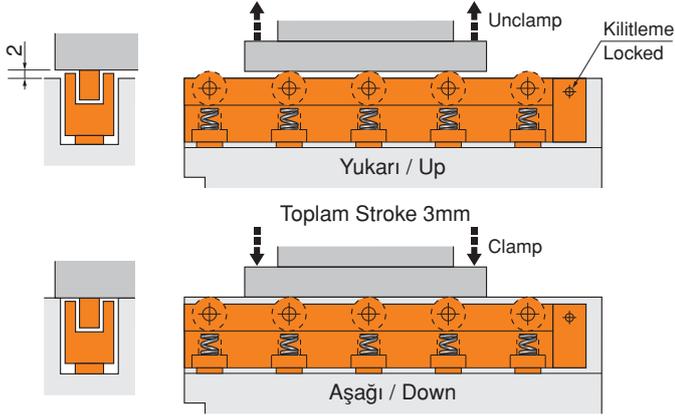
| Referans Nr. | L | D□36 | | | | Hid. Silindir Hyd. cylinder | |
|--------------|------|------------------|----------------------|------------------|----------------------|-----------------------------|----------------------|
| | | Rulo Roller (DL) | Kapasite Capacity kg | Misket Ball (DB) | Kapasite Capacity kg | Piston | Kapasite Capacity kg |
| 1020-0200 | 200 | 3 | 1200 | 5 | 1000 | 2 | 1900 |
| 1020-0300 | 300 | 5 | 2000 | 7 | 1400 | 3 | 2850 |
| 1020-0400 | 400 | 6 | 2400 | 10 | 2000 | 4 | 3800 |
| 1020-0500 | 500 | 8 | 3200 | 12 | 2400 | 5 | 4750 |
| 1020-0600 | 600 | 9 | 3600 | 15 | 3000 | 6 | 5700 |
| 1020-0700 | 700 | 11 | 4400 | 17 | 3400 | 7 | 6650 |
| 1020-0800 | 800 | 12 | 4800 | 20 | 4000 | 8 | 7600 |
| 1020-0900 | 900 | 14 | 5600 | 22 | 4400 | 9 | 8550 |
| 1020-1000 | 1000 | 15 | 6000 | 25 | 5000 | 10 | 9500 |
| 1020-1100 | 1100 | 16 | 6400 | 27 | 5400 | 11 | 10450 |
| 1020-1200 | 1200 | 17 | 6800 | 30 | 6000 | 12 | 11400 |
| 1020-1300 | 1300 | 18 | 7200 | 32 | 6400 | | |
| 1020-1400 | 1400 | 19 | 7600 | 35 | 7000 | | |
| 1020-1500 | 1500 | 20 | 8000 | 37 | 7400 | | |
| 1020-1600 | 1600 | 22 | 8800 | 40 | 8000 | | |
| 1020-1700 | 1700 | 24 | 9600 | 42 | 8400 | | |
| 1020-1800 | 1800 | 25 | 10000 | 45 | 9000 | | |
| 1020-1900 | 1900 | 27 | 10800 | 47 | 9400 | | |

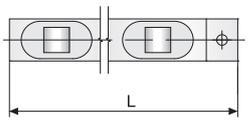
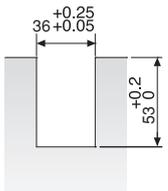
Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB

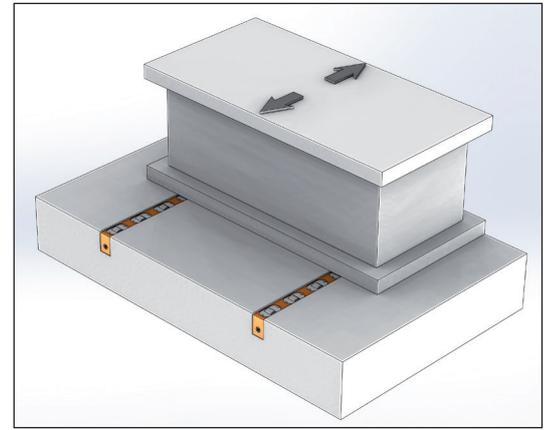
- Standart Sıcaklık : 60°
- Hidrolik Baskınç : 250kgf/cm²

Product Nr. 1020 Die Lifter Hydraulic Model DL-DB

- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm²

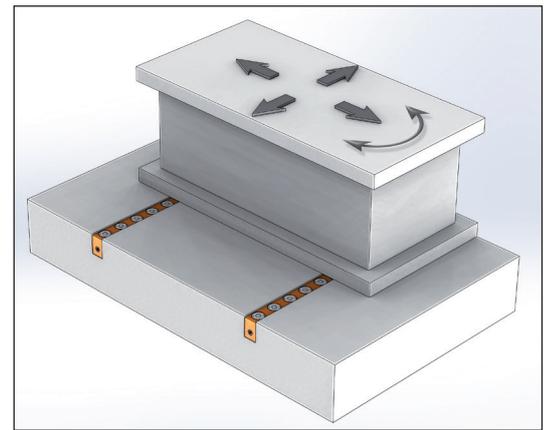


| | |
|---|--|
| Dış Ölçüler Outline Dimensions | D□36 Serisi / Serial |
| |  |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |



Model DLS Hareket Yönü
Model DLS Movement Direction

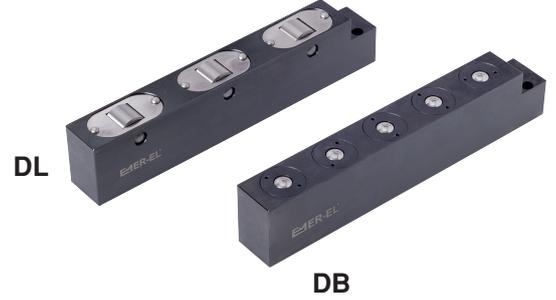
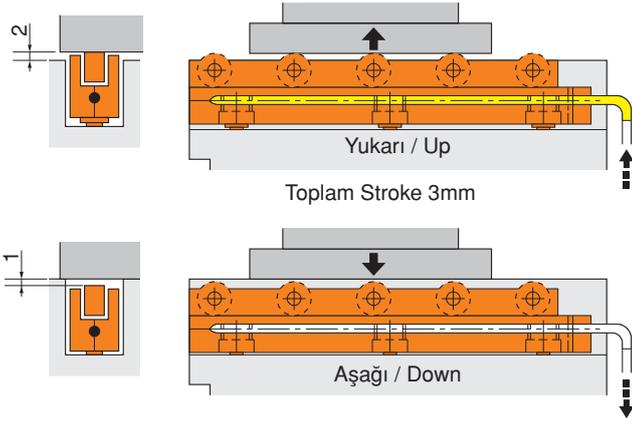
| Referans Nr. | L | D□36 | | | | | |
|--------------|------|-------------------|---|----------------------|-------------------|---|----------------------|
| | | DLS36 | | | DBS36 | | |
| | | Rulo Roller (DLS) |  | Kapasite Capacity kg | Misket Ball (DBS) |  | Kapasite Capacity kg |
| 1022-0200 | 200 | 3 | 3 | 600 | 5 | 5 | 500 |
| 1022-0300 | 300 | 5 | 5 | 1000 | 7 | 7 | 700 |
| 1022-0400 | 400 | 6 | 6 | 1200 | 10 | 10 | 1000 |
| 1022-0500 | 500 | 8 | 8 | 1600 | 12 | 12 | 1200 |
| 1022-0600 | 600 | 9 | 9 | 1800 | 15 | 15 | 1500 |
| 1022-0700 | 700 | 11 | 11 | 2200 | 17 | 17 | 1700 |
| 1022-0800 | 800 | 12 | 12 | 2400 | 20 | 20 | 2000 |
| 1022-0900 | 900 | 14 | 14 | 2800 | 22 | 22 | 2200 |
| 1022-1000 | 1000 | 15 | 15 | 3000 | 25 | 25 | 2500 |
| 1022-1100 | 1100 | 16 | 16 | 3200 | 27 | 27 | 2700 |
| 1022-1200 | 1200 | 17 | 17 | 3400 | 30 | 30 | 3000 |
| 1022-1300 | 1300 | 18 | 18 | 3600 | 32 | 32 | 3200 |
| 1022-1400 | 1400 | 19 | 19 | 3800 | 35 | 35 | 3500 |
| 1022-1500 | 1500 | 20 | 20 | 4000 | 37 | 37 | 3700 |
| 1022-1600 | 1600 | 22 | 22 | 4400 | 40 | 40 | 4000 |
| 1022-1700 | 1700 | 24 | 24 | 4800 | 42 | 42 | 4200 |
| 1022-1800 | 1800 | 25 | 25 | 5000 | 45 | 45 | 4500 |
| 1022-1900 | 1900 | 27 | 27 | 5400 | 47 | 47 | 4700 |

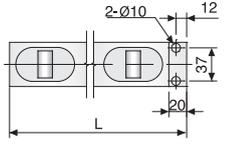
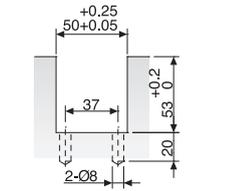
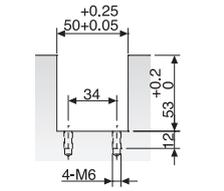


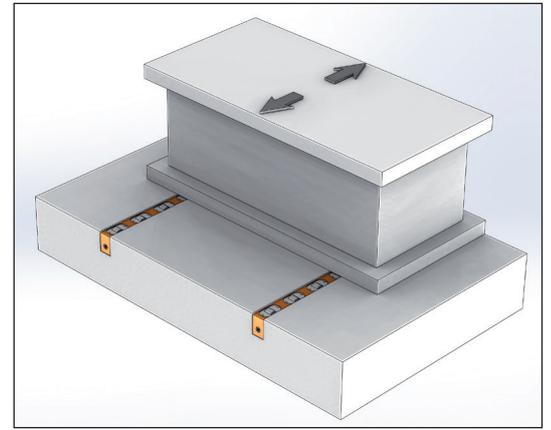
Model DBS Hareket Yönü
Model DBS Movement Direction

Ürün Nr. 1022 Yaylı Kalıp Kaldırma Model DLS-DBS
• Standart Sıcaklık : 60°

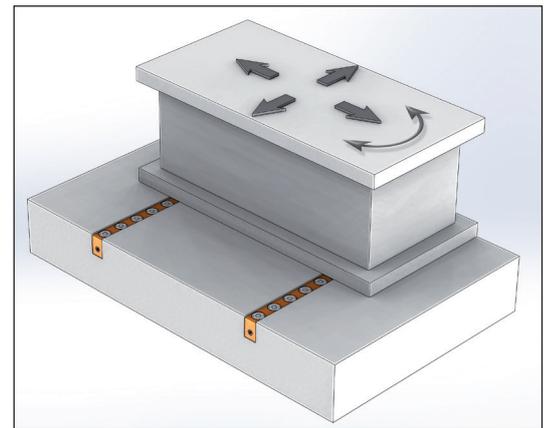
Product Nr. 1022 Die Lifter Spring Model DLS-DBS
• Standard Temperature : 60°



| Dış Ölçüler Outline Dimensions | D□50 Serisi / Serial DL50-2100'den önce | D□50 Serisi / Serial DL50-2100'den sonra |
|---|--|--|
| | |  |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |  |



Model DL Hareket Yönü
Model DL Movement Direction



Model DB Hareket Yönü
Model DB Movement Direction

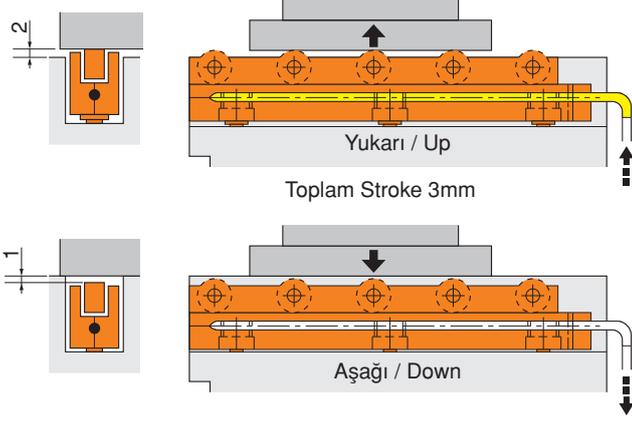
| Referans Nr. | L | D□50 | | | | Hid. Silindir Hyd. cylinder | |
|-----------------|------|------------------------|----------------------------|------------------------|----------------------------|--------------------------------|----------------------------|
| | | DL50 | | DB50 | | Piston | Kapasite Capacity kg |
| | | Rulo Roller (DL) | Kapasite Capacity kg | Misket Ball (DB) | Kapasite Capacity kg | | |
| 1020-0200 | 200 | 2 | 1000 | 4 | 1000 | | |
| 1020-0300 | 300 | 3 | 1500 | 6 | 1500 | 2 | 2400 |
| 1020-0400 | 400 | 4 | 2000 | 9 | 2250 | | |
| 1020-0500 | 500 | 5 | 2500 | 11 | 2750 | 3 | 3600 |
| 1020-0600 | 600 | 6 | 3000 | 13 | 3250 | | |
| 1020-0700 | 700 | 7 | 3500 | 16 | 4000 | 4 | 4800 |
| 1020-0800 | 800 | 8 | 4000 | 18 | 4500 | | |
| 1020-0900 | 900 | 9 | 4500 | 20 | 5000 | 5 | 6000 |
| 1020-1000 | 1000 | 10 | 5000 | 23 | 5750 | | |
| 1020-1100 | 1100 | 11 | 5500 | 25 | 6250 | 6 | 7200 |
| 1020-1200 | 1200 | 12 | 6000 | 27 | 6750 | | |
| 1020-1300 | 1300 | 13 | 6500 | 29 | 7250 | 7 | 8400 |
| 1020-1400 | 1400 | 14 | 7000 | 31 | 7750 | | |
| 1020-1500 | 1500 | 15 | 7500 | 33 | 8250 | 8 | 9600 |
| 1020-1600 | 1600 | 16 | 8000 | 35 | 8750 | | |
| 1020-1700 | 1700 | 17 | 8500 | 38 | 9500 | 9 | 10800 |
| 1020-1800 | 1800 | 18 | 9000 | 40 | 10000 | | |
| 1020-1900 | 1900 | 19 | 9500 | 42 | 10500 | 10 | 12000 |
| 1020-2000 | 2000 | 20 | 10000 | 44 | 11000 | | |
| 1020-2100 | 2100 | 21 | 10500 | 46 | 11500 | 11 | 13200 |
| 1020-2200 | 2200 | 22 | 11000 | 48 | 12000 | | |
| 1020-2300 | 2300 | 23 | 11500 | 50 | 12500 | 12 | 14400 |
| 1020-2400 | 2400 | 24 | 12000 | 52 | 13000 | | |
| 1020-2500 | 2500 | 25 | 12500 | 54 | 13500 | | |

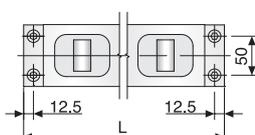
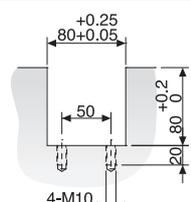
Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB

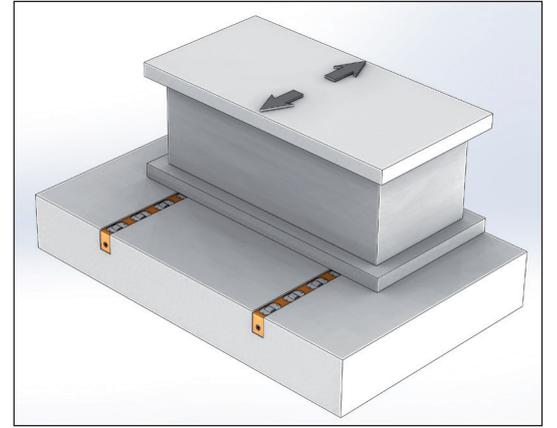
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm²

Product Nr. 1020 Die Lifter Hydraulic Model DL-DB

- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm²



| | |
|---|---|
| Dış Ölçüler Outline Dimensions | DL80 Serisi / Serial  |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) |  |



Model DL Hareket Yönü
Model DL Movement Direction

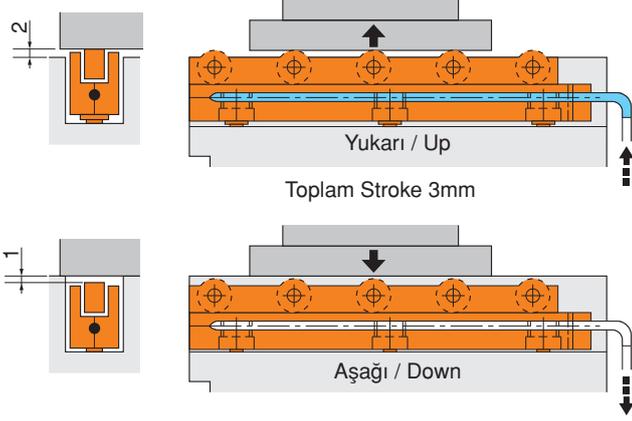
| Referans Nr. | L | DL80 | | | |
|--------------|------|------------------|----------------------|--------------------------------|----------------------|
| | | DL80 | | Hid. Silindir Hyd. cylinder | |
| | | Rulo Roller (DL) | Kapasite Capacity kg | Piston | Kapasite Capacity kg |
| 1020-0200 | 200 | - | - | - | - |
| 1020-0300 | 300 | - | - | - | - |
| 1020-0400 | 400 | - | - | - | - |
| 1020-0500 | 500 | 5 | 3250 | 2 | 600 |
| 1020-0600 | 600 | 6 | 3900 | | |
| 1020-0700 | 700 | 7 | 4550 | 3 | 9000 |
| 1020-0800 | 800 | 8 | 5200 | | |
| 1020-0900 | 900 | 9 | 5850 | | |
| 1020-1000 | 1000 | 10 | 6500 | 4 | 12000 |
| 1020-1100 | 1100 | 11 | 7150 | | |
| 1020-1200 | 1200 | 12 | 7800 | | |
| 1020-1300 | 1300 | 13 | 8450 | | |
| 1020-1400 | 1400 | 14 | 9100 | 5 | 15000 |
| 1020-1500 | 1500 | 15 | 9750 | | |
| 1020-1600 | 1600 | 16 | 10400 | 6 | 18000 |
| 1020-1700 | 1700 | 17 | 11050 | | |
| 1020-1800 | 1800 | 18 | 11700 | | |
| 1020-1900 | 1900 | 19 | 12350 | | |
| 1020-2000 | 2000 | 20 | 13000 | | |
| 1020-2100 | 2100 | 21 | 13650 | | |
| 1020-2200 | 2200 | 22 | 14300 | | |
| 1020-2300 | 2300 | 23 | 14950 | | |
| 1020-2400 | 2400 | 24 | 15600 | | |
| 1020-2500 | 2500 | 25 | 16250 | 8 | 24000 |

Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL

- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm²

Product Nr. 1020 Die Lifter Hydraulic Model DL

- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm²

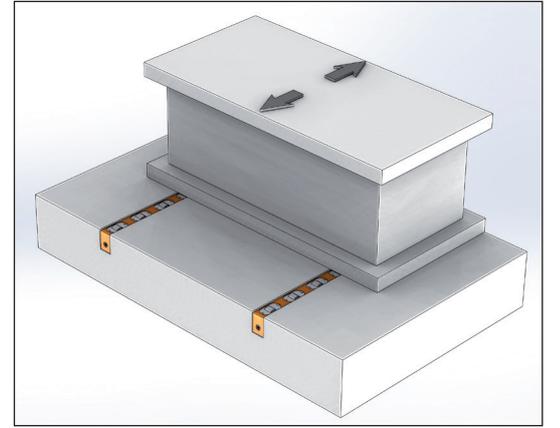


DLP

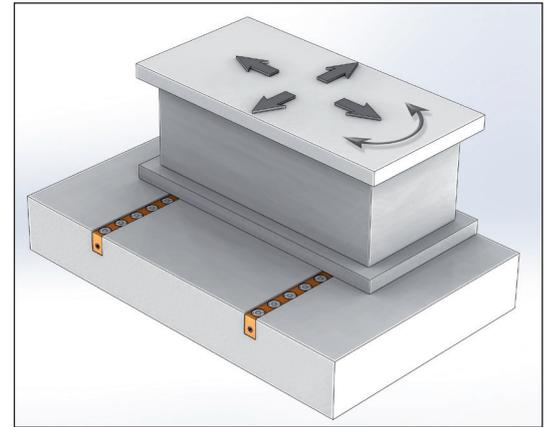


DBP

| | |
|---|-----------------------|
| Dış Ölçüler Outline Dimensions | D□□36 Serisi / Serial |
| | |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) | |



Model DLP Hareket Yönü
Model DLP Movement Direction

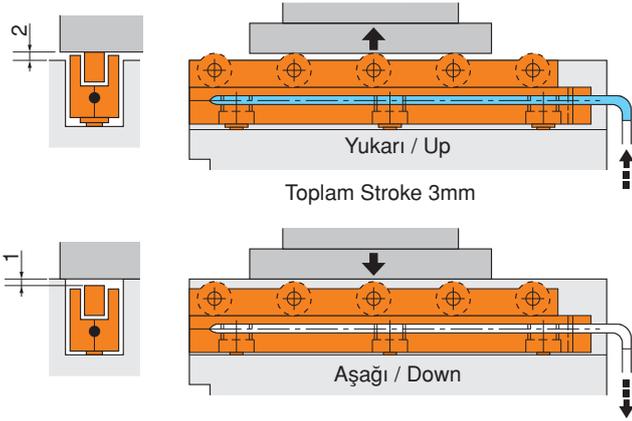


Model DBP Hareket Yönü
Model DBP Movement Direction

| Referans Nr. | L | D□□36 | | | | | | |
|--------------|------|-------------------|-------------------|---|----------------|-----------------|-----------------|--------|
| | | DLP36 | DBP36 | Pnömatik Silindir Pneumatic cylinder | | | | Piston |
| | | Rulo Roller (DLP) | Misket Ball (DBP) | 6 Bar Kapasite | 8 Bar Kapasite | 10 Bar Kapasite | 12 Bar Kapasite | |
| 1023-0200 | 200 | 3 | 4 | 196 | 260 | 328 | 392 | 4 |
| 1023-0300 | 300 | 4 | 6 | 294 | 390 | 492 | 588 | 6 |
| 1023-0400 | 400 | 6 | 8 | 392 | 520 | 656 | 736 | 8 |
| 1023-0500 | 500 | 8 | 10 | 490 | 650 | 820 | 980 | 10 |
| 1023-0600 | 600 | 9 | 13 | 637 | 845 | 1066 | 1274 | 13 |
| 1023-0700 | 700 | 11 | 15 | 735 | 975 | 1230 | 1470 | 15 |
| 1023-0800 | 800 | 12 | 18 | 882 | 1170 | 1476 | 1764 | 18 |
| 1023-0900 | 900 | 14 | 20 | 980 | 1300 | 1640 | 1960 | 20 |
| 1023-1000 | 1000 | 15 | 22 | 1078 | 1430 | 1804 | 2156 | 22 |
| 1023-1100 | 1100 | 16 | 25 | 1225 | 1625 | 2050 | 2450 | 25 |
| 1023-1200 | 1200 | 17 | 27 | 1323 | 1755 | 2214 | 2646 | 27 |
| 1023-1300 | 1300 | 18 | 30 | 1470 | 1950 | 2460 | 2940 | 30 |
| 1023-1400 | 1400 | 19 | 31 | 1519 | 2015 | 2542 | 3038 | 31 |
| 1023-1500 | 1500 | 20 | 34 | 1666 | 2210 | 2788 | 3332 | 34 |
| 1023-1600 | 1600 | 22 | 36 | 1764 | 2340 | 2952 | 3528 | 36 |
| 1023-1700 | 1700 | 24 | 38 | 1862 | 2470 | 3116 | 3724 | 38 |
| 1023-1800 | 1800 | 25 | 41 | 2009 | 2665 | 3362 | 4018 | 41 |
| 1023-1900 | 1900 | 27 | 43 | 2107 | 2795 | 3526 | 4214 | 43 |

Ürün Nr. 1023 Pnömatik Kalıp Kaldırma Model DLP-DBP
• Standart Sıcaklık : 60°

Product Nr. 1023 Die Lifter Pneumatic Model DLP-DBP
• Standard Temperature : 60°

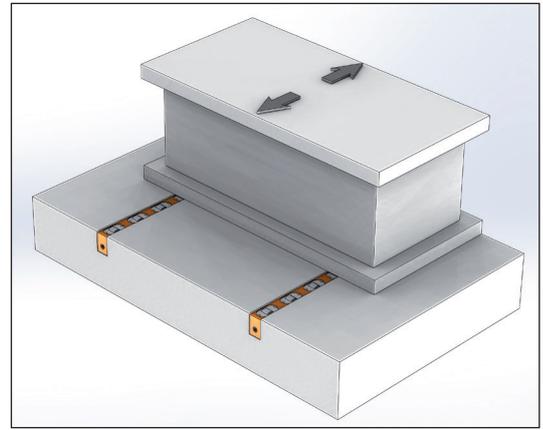


DLP

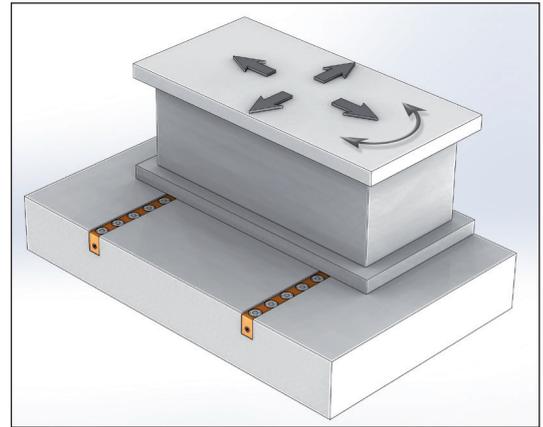


DBP

| Dış Ölçüler Outline Dimensions | D□□50 Serisi / Serial DL50-2100'den önce | D□□50 Serisi / Serial DL50-2100'den sonra |
|---|---|--|
| | | |
| Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot) | | |



Model DLP Hareket Yönü
Model DLP Movement Direction



Model DBP Hareket Yönü
Model DBP Movement Direction

| Referans Nr. | L | D□□50 | | | | | | |
|-----------------|------|-------------------------|-------------------------|---|-------------------|--------------------|--------------------|--------|
| | | Rulo Roller (DLP) | Misket Ball (DBP) | Pnömatik Silindir Pneumatic cylinder | | | | Piston |
| | | | | 6 Bar Kapasite | 8 Bar Kapasite | 10 Bar Kapasite | 12 Bar Kapasite | |
| 1023-0200 | 200 | 2 | 3 | 291 | 387 | 486 | 582 | 3 |
| 1023-0300 | 300 | 3 | 5 | 388 | 516 | 648 | 776 | 4 |
| 1023-0400 | 400 | 4 | 8 | 582 | 774 | 972 | 1164 | 6 |
| 1023-0500 | 500 | 5 | 9 | 679 | 903 | 1134 | 1358 | 7 |
| 1023-0600 | 600 | 6 | 11 | 873 | 1161 | 1458 | 1746 | 9 |
| 1023-0700 | 700 | 7 | 14 | 1067 | 1419 | 1782 | 2134 | 11 |
| 1023-0800 | 800 | 8 | 15 | 1164 | 1548 | 1944 | 2328 | 12 |
| 1023-0900 | 900 | 9 | 17 | 1358 | 1806 | 2268 | 2716 | 14 |
| 1023-1000 | 1000 | 10 | 20 | 1552 | 2064 | 2592 | 3104 | 16 |
| 1023-1100 | 1100 | 11 | 22 | 1746 | 2322 | 2916 | 3492 | 18 |
| 1023-1200 | 1200 | 12 | 24 | 1843 | 2451 | 3078 | 3686 | 19 |
| 1023-1300 | 1300 | 13 | 26 | 2037 | 2709 | 3402 | 4074 | 21 |
| 1023-1400 | 1400 | 14 | 27 | 2134 | 2838 | 3564 | 4268 | 22 |
| 1023-1500 | 1500 | 15 | 29 | 2328 | 3096 | 3888 | 4656 | 24 |
| 1023-1600 | 1600 | 16 | 31 | 2522 | 3354 | 4212 | 5044 | 26 |
| 1023-1700 | 1700 | 17 | 33 | 2619 | 3483 | 4374 | 5238 | 27 |
| 1023-1800 | 1800 | 18 | 35 | 2813 | 3741 | 4698 | 5626 | 29 |
| 1023-1900 | 1900 | 19 | 37 | 3007 | 3999 | 5022 | 6014 | 31 |
| 1023-2000 | 2000 | 20 | 40 | 3201 | 4257 | 5346 | 6402 | 33 |
| 1023-2100 | 2100 | 21 | 41 | 3298 | 4386 | 5508 | 6596 | 34 |
| 1023-2200 | 2200 | 22 | 42 | 3492 | 4644 | 5832 | 6984 | 36 |
| 1023-2300 | 2300 | 23 | 46 | 3686 | 4902 | 6156 | 7372 | 38 |
| 1023-2400 | 2400 | 24 | 48 | 3783 | 5031 | 6318 | 7566 | 39 |
| 1023-2500 | 2500 | 25 | 50 | 3977 | 5289 | 6642 | 7954 | 41 |

Ürün Nr. 1023 Pnömatik Kalıp Kaldırma Model DLP-DBP
• Standart Sıcaklık : 60°

Product Nr. 1023 Die Lifter Pneumatic Model DLP-DBP
• Standard Temperature : 60°

| Referans Nr. | d | Kapasite kg | e | t | l | d1 |  (g) |
|---------------|----|-------------|----|-----|----|----|---|
| 1022-DLSD0050 | 20 | 50 | 25 | 3.5 | 31 | 10 | 45 |
| 1022-DLSD0080 | 24 | 80 | 30 | 4 | 39 | 14 | 75 |
| 1022-DLSD0125 | 30 | 125 | 35 | 5 | 45 | 20 | 140 |
| 1022-DLSD0200 | 40 | 200 | 50 | 6 | 54 | 30 | 375 |
| 1022-DLSDD050 | 20 | 50 | - | - | 30 | 10 | 35 |
| 1022-DLSDD080 | 24 | 80 | - | - | 38 | 14 | 70 |
| 1022-DLSDD125 | 30 | 125 | - | - | 44 | 20 | 130 |
| 1022-DLSDD200 | 40 | 200 | - | - | 53 | 30 | 240 |

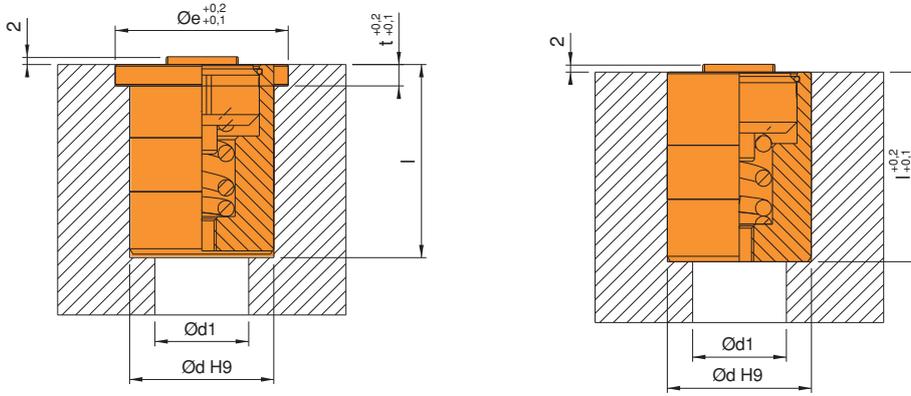


DLSD



DLSDD

Ürün Nr. 1022 Yaylı Silindir Kalıp Kaldırma Model DLS
Product Nr. 1022 Die Lifter Spring Cylinder Model DLS



Yaylı Silindir Kalıp Kaldırma Model DBS

Die Lifter Spring Cylinder Model DBS

| Referans Nr. | d | Kapasite kg | e | t | l | d1 |  (g) |
|---------------|----|-------------|----|-----|----|----|---|
| 1022-DBSD0025 | 20 | 25 | 25 | 3.5 | 31 | 10 | 45 |
| 1022-DBSD0040 | 24 | 40 | 30 | 4 | 39 | 14 | 85 |
| 1022-DBSD0063 | 30 | 63 | 35 | 5 | 45 | 20 | 150 |
| 1022-DBSD0100 | 40 | 100 | 50 | 6 | 54 | 30 | 350 |
| 1022-DBSDD025 | 20 | 25 | - | - | 30 | 10 | 40 |
| 1022-DBSDD040 | 24 | 40 | - | - | 38 | 14 | 80 |
| 1022-DBSDD063 | 30 | 63 | - | - | 44 | 20 | 140 |
| 1022-DBSDD100 | 40 | 100 | - | - | 53 | 30 | 325 |

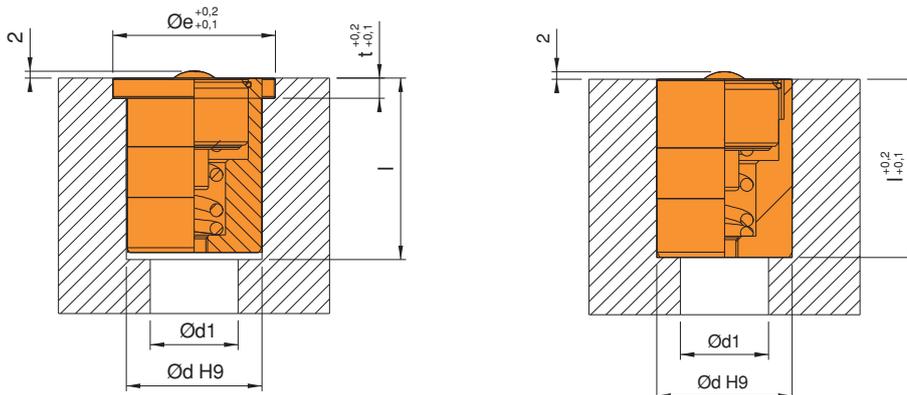


DBSD



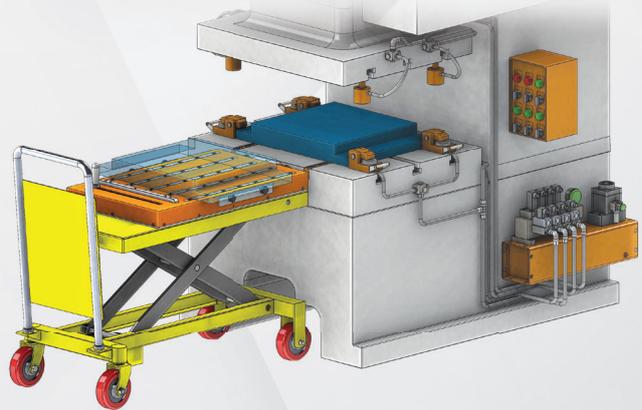
DBSDD

Ürün Nr. 1022 Yaylı Silindir Kalıp Kaldırma Model DBS
Product Nr. 1022 Die Lifter Spring Cylinder Model DBS



KALIP YÜKLEME TABLASI

MOLD TRANSPORT TRAY



Kalıp Yükleme Tablası Uygulamaları / Mold Transport Tray Applications



Kalıp Yükleme Tablası
Mold Transport Tray



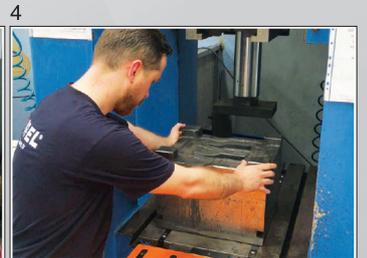
Kalıp Yükleme Tablası (Arabalı)
Mold Transport Tray (Trolley)



Kalıp Yükleme Tablası (Elektrikli Forklift)
Mold Transport Tray (Electric Forklift)



Kalıp Yükleme Tablası (Forklift)
Mold Transport Tray (Forklift)



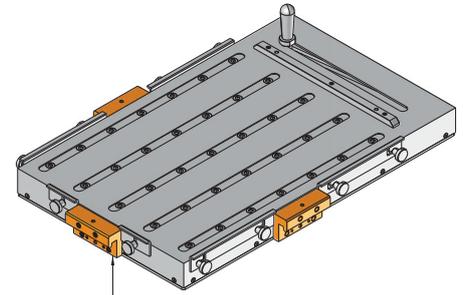
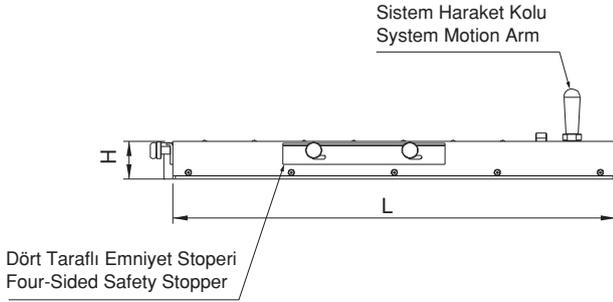
| Referans Nr. | A | L2 | H | L | Kapasite Capacity | (kg) |
|--------------|-----|-----|----|-----|-------------------|------|
| 1024-500670 | 500 | 670 | 71 | 818 | 1 Ton / Tone | 113 |

Ürün Nr. 1024 Kalıp Yükleme Tablası

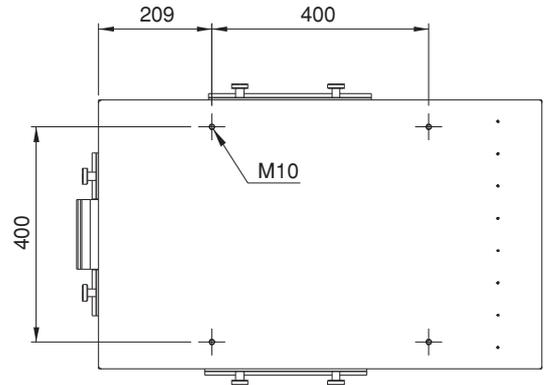
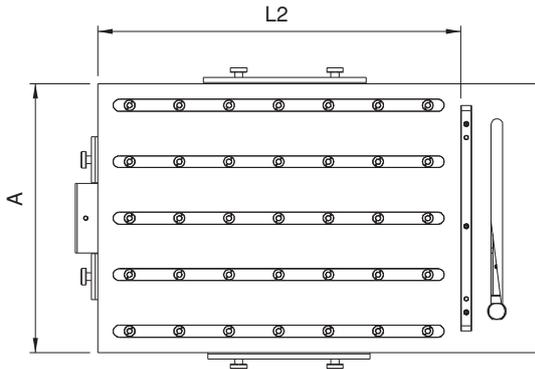
- Ağırlığı 1 tona kadar olan kalıpları, pres tablasına veya raflara yerleştirmek için yükleme esnasında hareket ettirilmek istendiğinde, yüzey temasını azaltır. Böylece rahatlıkla, çok fazla güce ihtiyaç duymadan hızlı ve pratik şekilde kalıbı yükleme olanağı sağlamaktadır.
- Kalıp arabasına veya forklift araçlarına montaj özelliği ile birlikte kolaylıkla sabitlenip kullanılabilir.

Product Nr. 1024 Mold Transport Tray

- Molds up to 1 ton weight, it reduces surface contact when it is desired to be moved during loading to be placed on the press table or shelves. Thus, it provides the possibility of loading the mold easily and quickly without the need for much power.
- It can be mounted on mold cart or forklifts and can be easily used.



Taşıma Arabası ve Benzer Ekipmanlar için Montaj Delikleri
Mounting Holes For Transport Tray and Similar Equipment



Kalıp Yükleme Tablası Uygulamaları / Mold Transport Tray Applications



Kalıp Yükleme Tablası
Mold Transport Tray



Kalıp Yükleme Tablası (Arabalı)
Mold Transport Tray (Trolley)



Kalıp Yükleme Tablası (Elektrikli Forklift)
Mold Transport Tray (Electric Forklift)



Kalıp Yükleme Tablası (Forklift)
Mold Transport Tray (Forklift)

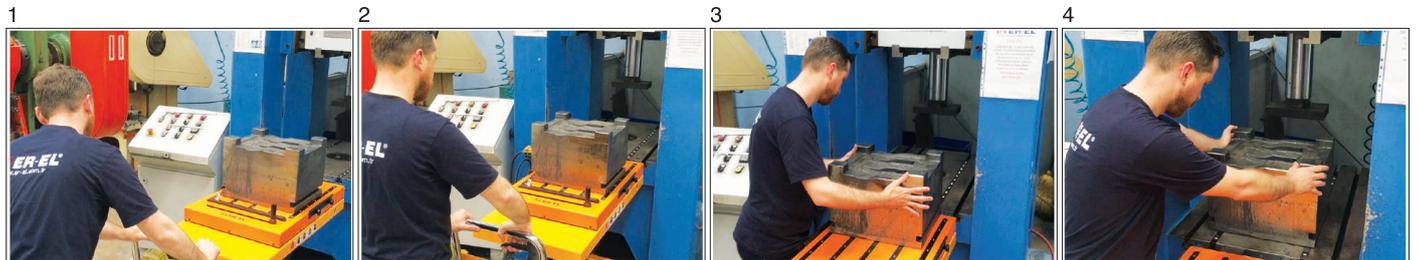
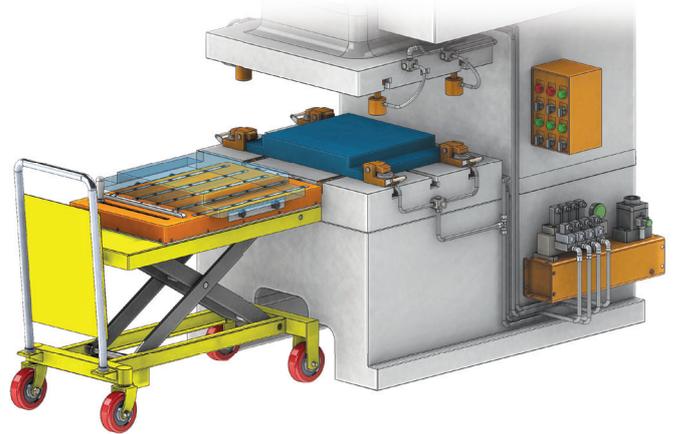
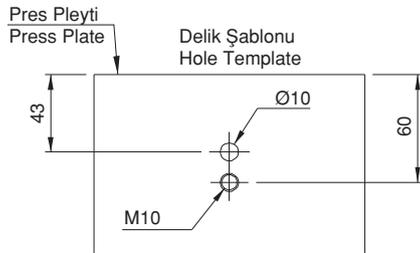
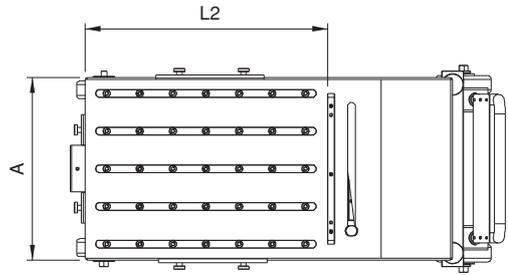
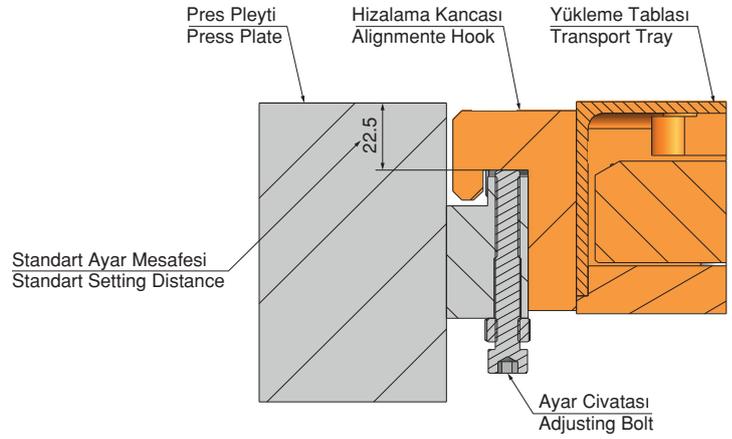
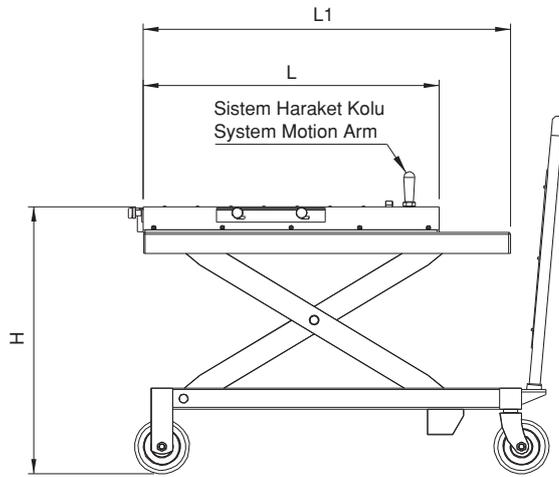
| Referans Nr. | A | L2 | H (min. - max.) | L | L1 | Kapasite Capacity | (kg) |
|--------------|-----|-----|-----------------|-----|------|-------------------|------|
| 1024-500671 | 500 | 670 | 480 - 1050 | 818 | 1015 | 1 Ton / Tone | 250 |

Ürün Nr. 1024 Kalıp Yükleme Tablası (Arabalı)

- Ağırlığı 1 tona kadar olan kalıpları, pres tablasına veya raflara yerleştirmek için yükleme esnasında hareket ettirilmek istendiğinde, yüzey temasını azaltır. Böylece rahatlıkla, çok fazla güce ihtiyaç duymadan hızlı ve pratik şekilde kalıbı yükleme olanağı sağlamaktadır.

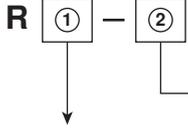
Product Nr. 1024 Mold Transport Tray (Trolley)

- Molds up to 1 ton weight, it reduces surface contact when it is desired to be moved during loading to be placed on the press table or shelves. Thus, it provides the possibility of loading the mold easily and quickly without the need for much power.

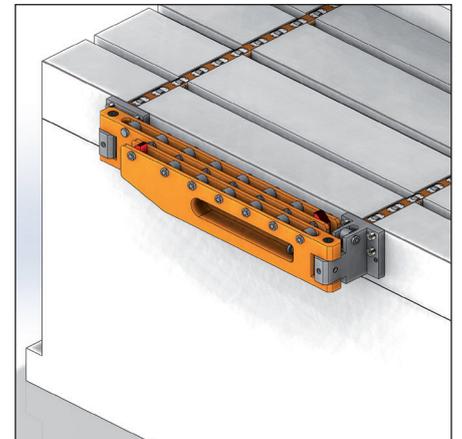
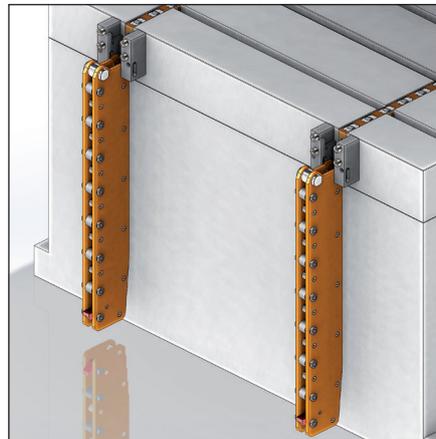
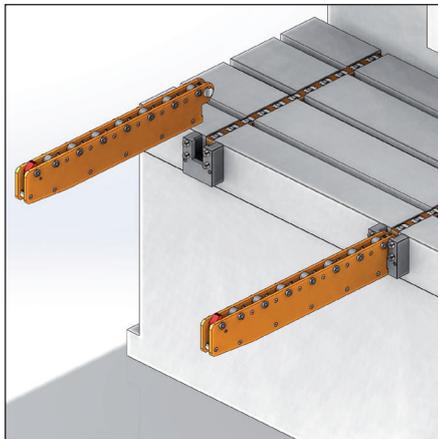
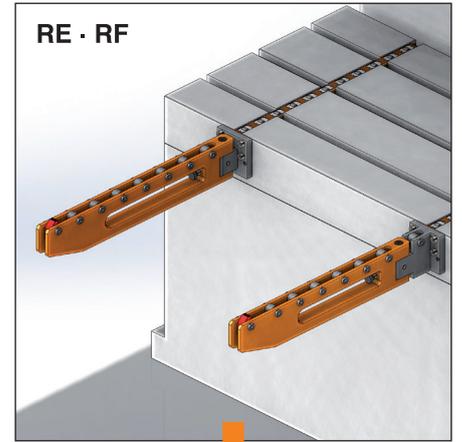
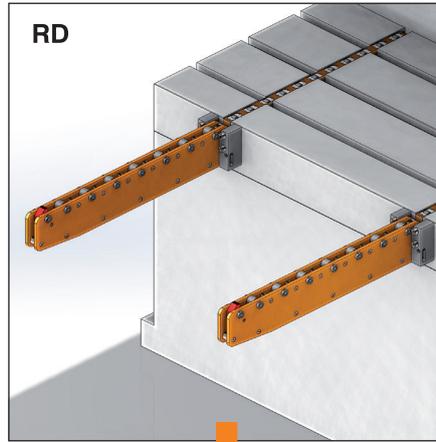
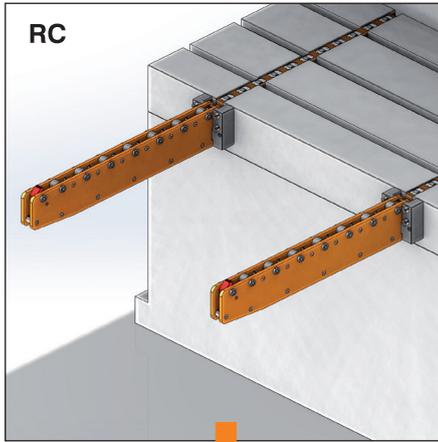
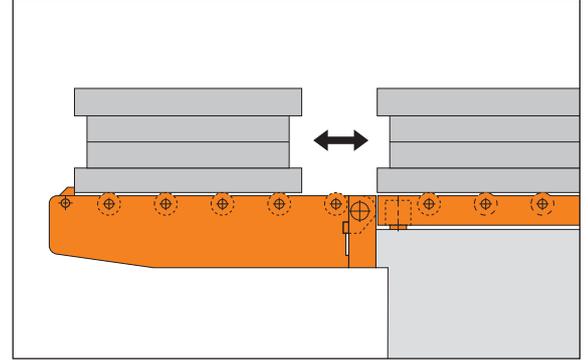


Model RC - RD - RE/RF

Model Seçimi / Model Selection



| Model | Saklama Metodu / Storage Method | Tanımlama / Specification |
|-------|------------------------------------|---------------------------|
| C | Demonte / Dismantling | 580 mm |
| D | Asmalı / Hanging | 760 mm |
| E | Katlamalı (kısa) / Folding (short) | 880 mm |
| F | Katlamalı (uzun) / Folding (long) | 990 mm |



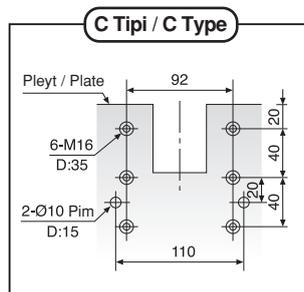
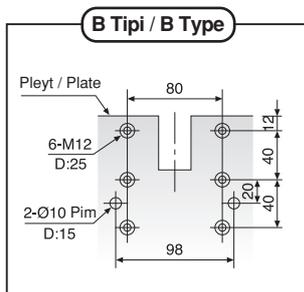
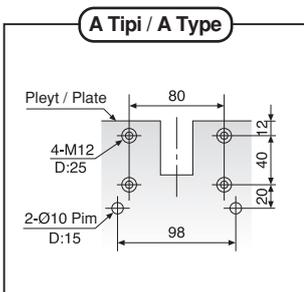
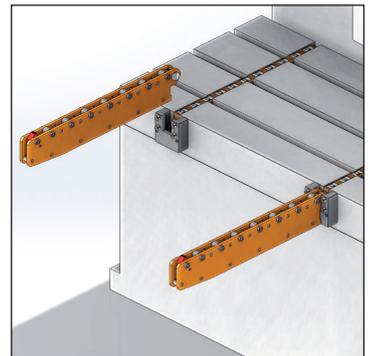
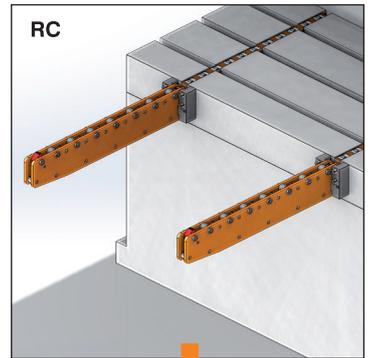
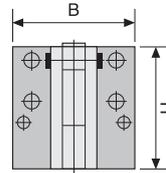
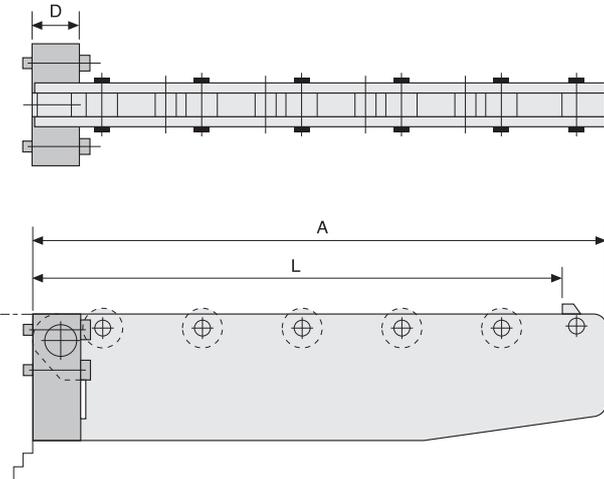
| Referans Nr. | Destek Modeli Model of Support | İhtiyaç Duyulan Kalıp uzunluğu Length Needed of the Die L(mm) | Max. Kapasite Max. Capacity (kgf) | Top. Uzunluk Total Length A (mm) | Destek ölçüleri Size of Support | | | Kurulum İçin Delik Şekilleri Hole Pattern For Installation | Silindir sayısı Number of Roller |
|--------------|-----------------------------------|--|--------------------------------------|-------------------------------------|------------------------------------|-----|-----|---|-------------------------------------|
| | | | | | D | B | H | | |
| 1025-RC580 | RC-12 | 500 | 800 | 550 | 48 | 115 | 118 | A Tipi / A Type | 5 |
| 1025-RC760 | RC-12 | 700 | 600 | 750 | 48 | 115 | 118 | A Tipi / A Type | 7 |
| 1025-RC880 | RC-16 | 800 | 800 | 850 | 48 | 115 | 158 | B Tipi / B Type | 8 |
| 1025-RC990 | RC-20 | 900 | 900 | 950 | 48 | 115 | 188 | B Tipi / B Type | 9 |
| 1027-RC05125 | RC-14H | 500 | 1250 | 550 | 55 | 130 | 138 | C Tipi / C Type | 7 |
| 1027-RC05160 | RC-16H | 500 | 1600 | 550 | 55 | 130 | 158 | C Tipi / C Type | 7 |
| 1027-RC05200 | RC-18H | 500 | 2000 | 550 | 55 | 130 | 178 | C Tipi / C Type | 7 |
| 1027-RC07125 | RC-14H | 700 | 1250 | 750 | 55 | 130 | 138 | C Tipi / C Type | 9 |
| 1027-RC07160 | RC-16H | 700 | 1600 | 750 | 55 | 130 | 158 | C Tipi / C Type | 9 |
| 1027-RC07200 | RC-18H | 700 | 2000 | 750 | 55 | 130 | 178 | C Tipi / C Type | 9 |
| 1027-RC08125 | RC-16H | 800 | 1250 | 850 | 55 | 130 | 158 | C Tipi / C Type | 10 |
| 1027-RC08160 | RC-18H | 800 | 1600 | 850 | 55 | 130 | 178 | C Tipi / C Type | 10 |
| 1027-RC08200 | RC-20H | 800 | 2000 | 850 | 55 | 130 | 188 | C Tipi / C Type | 10 |
| 1027-RC09160 | RC-22H | 900 | 1600 | 950 | 55 | 130 | 218 | C Tipi / C Type | 11 |

Ürün Nr. 1027 Kalıp Kaydırma Kolu Model RC

Product Nr. 1027 Die Arm Model RC

Model RC (Demonte / Dismantling)

- RC modelinde, kol ve destek ayrı olarak kullanılabilir.
- The arm itself and the support in Model RC can be used separately.



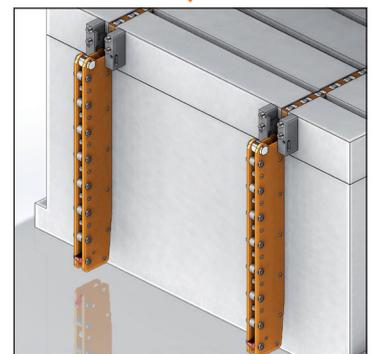
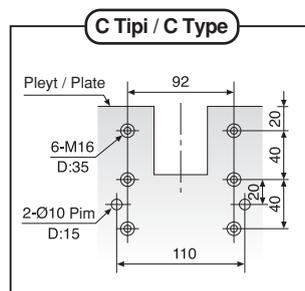
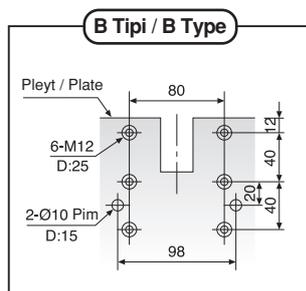
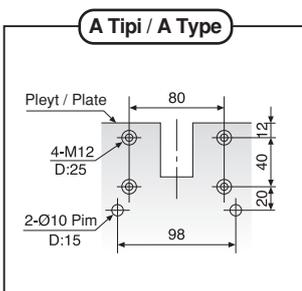
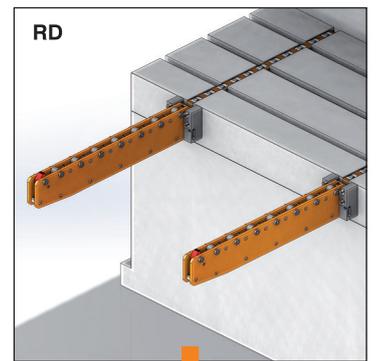
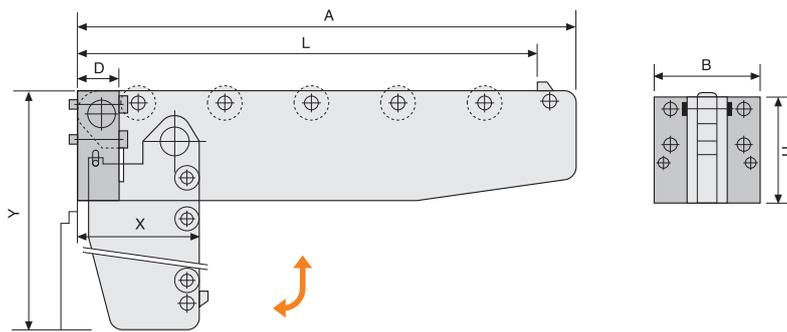
| Referans Nr. | İhtiyaç Duyulan Kalıp uzunluğu Length Needed of the Die L(mm) | Max. Kapasite Max. Capacity (kgf) | Top. Uzunluk Total Length A (mm) | Asma Ölçüleri Size of Hanging | | Destek Ölçüleri Size of Support | | | Kurulum için Delik Şekilleri Hole Pattern For Installation | Silindir sayısı Number of Roller |
|--------------|--|--------------------------------------|-------------------------------------|----------------------------------|------|------------------------------------|-----|-----|---|-------------------------------------|
| | | | | X | Y | D | B | H | | |
| 1030-RD580 | 500 | 800 | 550 | 140 | 620 | 52 | 115 | 118 | A Tipi / A Type | 5 |
| 1030-RD760 | 700 | 600 | 750 | 140 | 820 | 52 | 115 | 118 | A Tipi / A Type | 7 |
| 1030-RD880 | 800 | 800 | 850 | 180 | 960 | 52 | 115 | 158 | B Tipi / B Type | 8 |
| 1030-RD990 | 900 | 900 | 950 | 220 | 1100 | 52 | 115 | 188 | B Tipi / B Type | 9 |
| 1030-RD05125 | 500 | 1250 | 550 | 170 | 645 | 62 | 130 | 138 | C Tipi / C Type | 7 |
| 1030-RD05160 | 500 | 1600 | 550 | 190 | 670 | 62 | 130 | 158 | C Tipi / C Type | 7 |
| 1030-RD05200 | 500 | 2000 | 550 | 210 | 675 | 62 | 130 | 178 | C Tipi / C Type | 7 |
| 1030-RD07125 | 700 | 1250 | 750 | 170 | 840 | 62 | 130 | 138 | C Tipi / C Type | 9 |
| 1030-RD07160 | 700 | 1600 | 750 | 190 | 865 | 62 | 130 | 158 | C Tipi / C Type | 9 |
| 1030-RD07200 | 700 | 2000 | 750 | 210 | 890 | 62 | 130 | 178 | C Tipi / C Type | 9 |
| 1030-RD08125 | 800 | 1250 | 850 | 190 | 960 | 62 | 130 | 158 | C Tipi / C Type | 10 |
| 1030-RD08160 | 800 | 1600 | 850 | 210 | 985 | 62 | 130 | 178 | C Tipi / C Type | 10 |
| 1030-RD08200 | 800 | 2000 | 850 | 220 | 995 | 62 | 130 | 188 | C Tipi / C Type | 10 |
| 1030-RD09160 | 900 | 1600 | 950 | 250 | 1130 | 62 | 130 | 218 | C Tipi / C Type | 11 |

Ürün Nr. 1030 Kalıp Kaydırma Kolu Model RD

Product Nr. 1030 Die Arm Model RD

Model RD (Asmalı / Hanging)

- RD modelinin asma uzunluğu (Y) zemin ve plaka arasındaki yükseklik farkından daha düşük olmalıdır.
- The hanging length (Y) of Model RD should be less than the height between the plate and the ground



| Referans Nr. | İhtiyaç Duyulan Kalıp uzunluğu Length Needed of the Die L (mm) | Max. Kapasite Max. Capacity (kgf) | Top. Uzunluk Total Length A (mm) | Kurulum için Gerekli Minimum Mesafe Min. Distance for Installation C (mm) | Katlı Haliyle Ölçüler Size of Fold Down | | Destek ölçüleri Size of Support | | Silindir Sayısı Number of Roller | M | N | Kurulum için Delik Şekilleri Hole Pattern For Installation |
|--------------|--|-----------------------------------|----------------------------------|---|---|-----|---------------------------------|-----|----------------------------------|----|-----|--|
| | | | | | X | Y | B | H | | | | |
| 1033-RERF580 | 500 | 800 | 550 | 525 | 90 | 150 | 115 | 118 | 5 | 57 | 120 | A Tipi / A Type |
| 1033-RERF760 | 700 | 600 | 750 | 725 | 90 | 150 | 115 | 118 | 7 | 57 | 120 | A Tipi / A Type |
| 1033-RERF880 | 800 | 800 | 850 | 825 | 90 | 150 | 115 | 158 | 8 | 57 | 120 | B Tipi / B Type |
| 1033-RERF990 | 900 | 900 | 950 | 925 | 90 | 150 | 115 | 188 | 9 | 57 | 120 | B Tipi / B Type |

Ürün Nr. 1033 Kalıp Kaydırma Kolu Model RE-RF

- İş bittiğinde sağa veya sola katlanabilir.

Product Nr. 1033 Die Arm Model RE-RF

- Itself can be turned left or right for storage.

| Referans Nr. | İhtiyaç Duyulan Kalıp uzunluğu Length Needed of the Die L (mm) | Max. Kapasite Max. Capacity (kgf) | Top. Uzunluk Total Length A (mm) | Kurulum için Gerekli Minimum Mesafe Min. Distance for Installation C (mm) | Katlı Haliyle Ölçüler Size of Fold Down | | Destek ölçüleri Size of Support | | Silindir Sayısı Number of Roller | M | N | Kurulum için Delik Şekilleri Hole Pattern For Installation |
|----------------|--|-----------------------------------|----------------------------------|---|---|-----|---------------------------------|-----|----------------------------------|----|-----|--|
| | | | | | X | Y | B | H | | | | |
| 1035-RERF05160 | 500 | 1600 | 550 | 525 | 105 | 170 | 130 | 158 | 7 | 74 | 140 | C Tipi / C Type |
| 1035-RERF05200 | 500 | 2000 | 550 | 525 | 105 | 170 | 130 | 178 | 7 | 74 | 140 | C Tipi / C Type |
| 1035-RERF07160 | 700 | 1600 | 750 | 725 | 105 | 170 | 130 | 158 | 9 | 74 | 140 | C Tipi / C Type |
| 1035-RERF07200 | 700 | 2000 | 750 | 725 | 105 | 170 | 130 | 178 | 9 | 74 | 140 | C Tipi / C Type |
| 1035-RERF08160 | 800 | 1600 | 850 | 825 | 105 | 170 | 130 | 178 | 10 | 74 | 140 | C Tipi / C Type |
| 1035-RERF08200 | 800 | 2000 | 850 | 825 | 105 | 170 | 130 | 188 | 10 | 74 | 140 | C Tipi / C Type |
| 1035-RERF09160 | 900 | 1600 | 950 | 925 | 105 | 170 | 130 | 218 | 11 | 74 | 140 | C Tipi / C Type |
| 1035-RERF09200 | 900 | 2000 | 950 | 925 | 105 | 170 | 130 | 248 | 11 | 74 | 140 | C Tipi / C Type |

Ürün Nr. 1035 Kalıp Kaydırma Kolu Model RE-RF

- İş bittiğinde sağa veya sola katlanabilir.
- RE ve RF Modellerinin kurulduğu mesafe (C) mesafesinden daha büyük olmalıdır.

Product Nr. 1035 Die Arm Model RE-RF

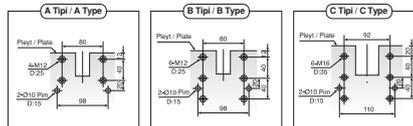
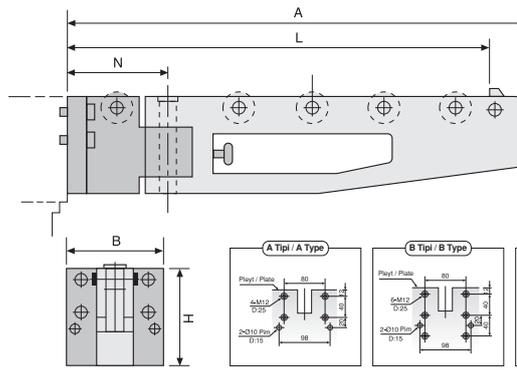
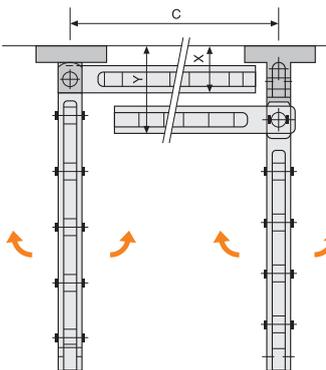
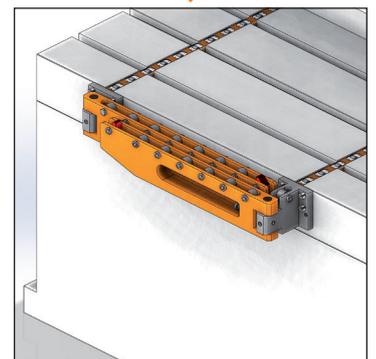
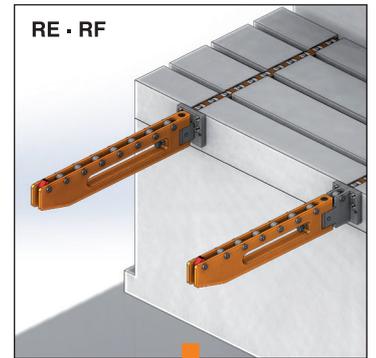
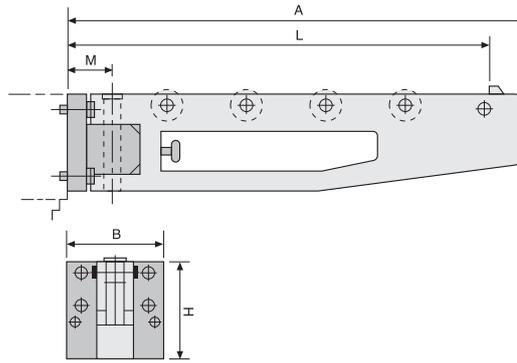
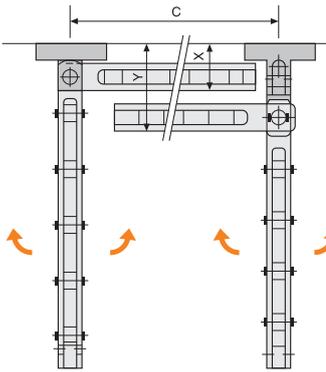
- Itself can be turned left or right for storage.
- The distance for installing the two arms of Model RE and RF should be more than the distance between the installations (C)



Model RE
Katlamalı / Folding



Model RF
Katlamalı / Folding

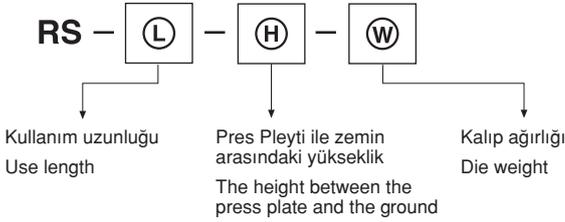


Model RS (Destekli / Supporter)

Not
Proje özel üretimidir.

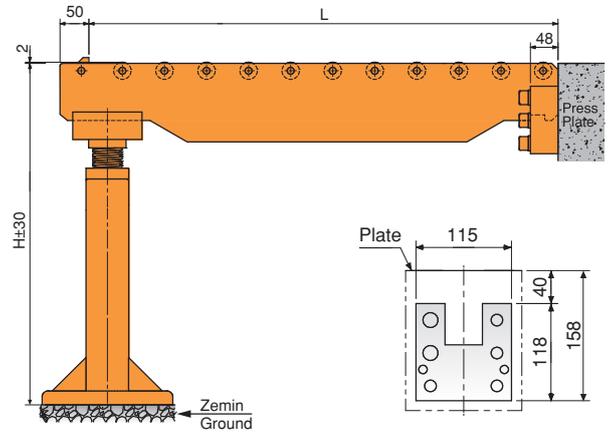
Note
Project is special produce.

Model Seçimi / Model Selection

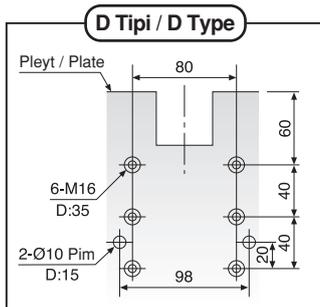


Ürün Nr. 1037 Kalıp Kaydırma Kolu Model RS (Ağır Yük) Product Nr. 1037 Die Arm Model RS (Heavy Duty)

- Sipariş verirken yukarıdaki bilgileri bildirmeniz gerekmektedir.
- Delik işleminde (D) tipi destek ölçülerini kullanın.
- Please clearly indicate the above information while ordering.
- Adopt (D) type to install hole pattern.



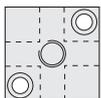
RS MODEL DELİK DELME ŞABLONU RS MODEL HOLE PATTERN FOR INSTALLATION



Aksesuarlar

Accessories

Bağlayıcı Tüp
Tube Connector
Referans Nr.
1036-BT



Fır Döndü
Swivel
Referans Nr.
1036-FD



Döner Eklemler
Rotary Joint
Referans Nr.
1036-DE



Pabuç Askısı
Clamp Bracket
Referans Nr.
1036-CACV



Pabuç Askısı
Clamp Bracket
Referans Nr.
1036-CB



Pompa Kabini
Pump Cabin
Referans Nr.
1036-PK



Model RSM (Destekli / Supporter)

Not
Proje özel üretimidir.

Note
Project is special produce.

**Model Seçimi / Model Selection**

RSM — (L) — (H) — (W)

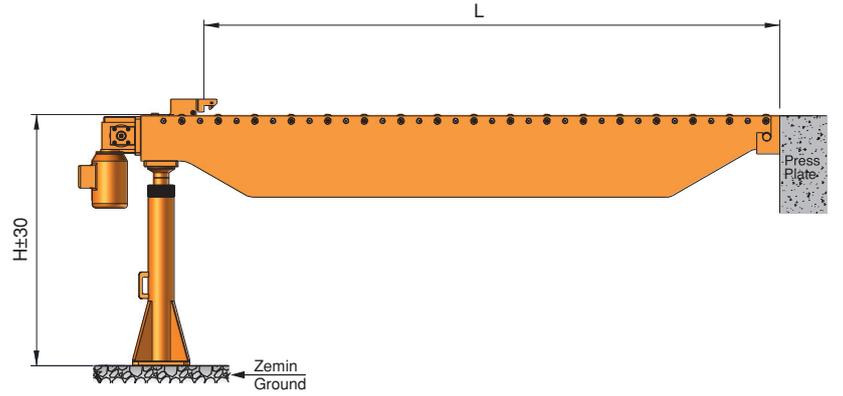
Kullanım uzunluğu
Use length

Pres Pleyti ile zemin
arasındaki yükseklik
The height between the
press plate and the ground

Kalıp ağırlığı
Die weight

Ürün Nr. 1038 Motorlu Kalıp Kaydırma Kolu Model RSM (Ağır Yük)**Product Nr. 1038 Motor-Driven Die Arm Console Set - Model RSM (Heavy Duty)**

- Sipariş verirken yukarıdaki bilgileri bildirmeniz gerekmektedir.
- Please clearly indicate the above information while ordering.



| Referans Nr. | L1 | L2 | H | (kg) |
|----------------|-----|-----|-----|-------|
| 1040-PB0801P1V | 250 | 225 | 367 | 15.55 |
| 1040-PB0801P2V | 310 | 285 | 367 | 18.55 |
| 1040-PB0801P3V | 428 | 403 | 367 | 21.50 |
| 1040-PB0801P4V | 487 | 462 | 367 | 24.70 |
| 1040-PC1202P2V | - | 397 | 367 | - |
| 1040-PJ1202P4V | 660 | - | 500 | - |

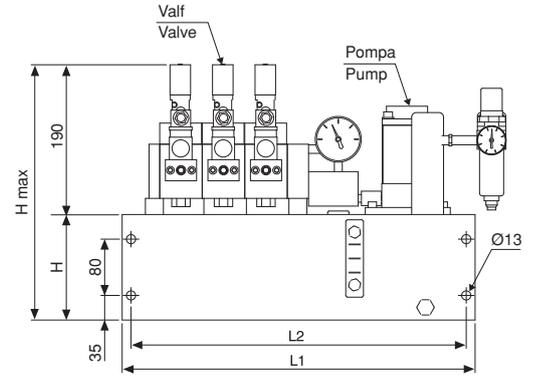
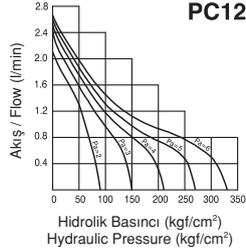
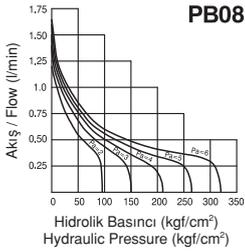


Ürün Nr. 1040 Hava Tahrikli Hidrolik Pompa Ünitesi

- Hidrolik Pompa hava tahriklidir. Hidrolik basınç ayarlanan seviyeye geldiğinde pompalamayı tasarruf etmek için keser. Diğer taraftan, çalışma basıncı azalırsa, pompa devamlılığı sağlamak için otomatik olarak basınç verir.
- Devre kontrol sistemi olası kaçakları denetleme ve engelleme fonksiyonuyla tasarlanmıştır. Pnömatik basınç devre dışı kalsa bile hidrolik basınç kalır.
- Basınç denetleme ve makinelere bağlanma özelliği vardır.
- CA ve CB-16 veya 25 bağlama pabuçlarıyla uygulama yapıldığında, PC12 model pompa kullanılması önerilir.
- Kapasite 350 max. Bar
- Basınç kontrol valfli

Product Nr. 1040 Air Driven Hydraulic Pump Unit

- The hydraulic pump is driven by air. Once the hydraulic pressure reaches the pressure setting, it stops pumping which is energy saving. Meanwhile, if the working pressure reduces, the pump would supply pressure automatically to keep working pressure continuously.
- The circuit control system is designed with the function of checking and avoiding oil leakage. If pneumatic pressure out, the hydraulic pressure still maintains.
- It is capable of pressure inspection and connecting to machines.
- It is suggested to adopt pump model PC12 when used with clamp model CA&CB-16 or 25.
- Capacity 350 max. bar
- Pressure control valve



| Referans Nr. | Devreli Circuits |
|--------------|------------------|
| 1041-QDC01 | 1 |
| 1041-QDC02 | 2 |
| 1041-QDC03 | 3 |
| 1041-QDC04 | 4 |
| 1041-QMC04 | 4 |

Kontrol Ünitesi

Control Unit



Ürün Nr. 1041 Kontrol Ünitesi

- QDC Pres kontrol ünitesi
- QMC Enjeksiyon kontrol ünitesi

Product Nr. 1041 Control Unit

- QDC Press control unit
- QMC Injection control unit

| Referans Nr. |
|--------------|
| 1041-PLCSMS |
| 1041-PLCGMT |

Ürün Nr. 1041 PLC Kontrol Ünitesi

- PLC Kontrol Ünitesi Katagori 4
- PLC Kontrol Ünitesi

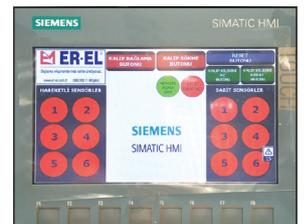
Product Nr. 1041 PLC Control Unit

- PLC Control Unit Category 4
- PLC Control Unit



PLC Kontrol Ünitesi

PLC Control Unit



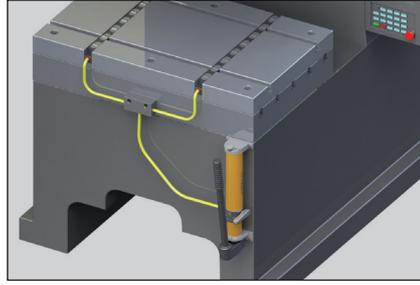
| |
|-----------------|
| Referans Nr. |
| 1040-PB0101 |

Ürün Nr. 1040 Hidrolik El Pompası

- Sadece kalıp kaldırma kullanıldığında alternatif olarak hidrolik el pompası kullanılabilir.
- 250 Bar

Product Nr. 1040 Hydraulic Hand Pump

- If only the die lifter is used, the usage of a manual hydraulic pump can alternatively be used.
- 250 Bar



Alternatif Sistem
Alternative Systems



Ayak Pedallı Hidro-Pnömatik Pompa

Foot Pedal Hydropneumatic Pump

| Referans Nr. | Tank Yağ Kapasitesi Working Pressure | Aktif Yağ Miktarı Reservoir Capacity | Pompa Tipi Usable Oil | litre/dk. 50/700 bar lt./min. 50/700 bar | Hava Barı Air requirement min-max | Hava Tüketimi Air Consumption | Basınç Barı Pressure Rating | Yağ Çıkış Bağlantısı Connection Thread | Yağ Dolu Ağırlık Weight incl. Oil | Ölçüler Sizes mm |
|-----------------|---|---|--------------------------------|---|--|--|--------------------------------------|---|--|------------------------|
| 1040-PA0202 | 1500 cm ³ | 1000 cm ³ | Tek Etkili Single Stage | 600/110 cm ³ | 5-7 | 250 l/d | 50-700 | 3/8 NPT | 12 kg | 262x190x186 |

Ürün Nr. 1040 Ayak Pedallı Hidro-Pnömatik Pompa

- Ayak pedallı kullanımda hidro-pnömatik bir sistem ile daha kolay-rijit kullanımı olur.
- Ayak pedallı tek hareketle 5-6 bar ile çalışan sistem devreye girer ve insan kuvveti yerine kaldırıcılara yağı iletmeye-boşaltma görevini yapar sadece.
- Minimum 5 bar hava ile 700 bar hidrolik yağ basıncı üreten hidropnömatik ayak pompaları çok farklı alanlarda kullanılabilir; hidrolik silindireler, kalıp kaldırıcılar, preslerin çalışma alanlarında.

Product Nr. 1040 Foot Pedal Hydro-Pneumatic Pump

- With foot pedal operation, hydro-pneumatic system makes it easier to use rigid.
- The foot pedal is operated with 5-6 bar in one movement and the system is activated and instead of manpower, it only serves to transfer oil to lifters.
- Hydropneumatic foot pumps producing 700 bar hydraulic oil pressure with minimum 5 bar air can be used in many different fields ; operating hydraulic cylinders, pullers, mold lifters and presses.



| Referans Nr. | Valf Valve | Akış - Flow | | bar |
|-----------------|---------------|-------------|---------|-----|
| | | (l/min) | (l/min) | |
| 1040-1P1VD | 1 | 6 | 14 | 100 |
| 1040-1P2VD | 2 | 6 | 14 | 100 |
| 1040-1P3VD | 3 | 6 | 14 | 100 |
| 1040-1P4VD | 4 | 6 | 14 | 100 |

Ürün Nr. 1040 Elektrikli Hidrolik Pompa Ünitesi

- Doğrudan bağlantı sisteme uygundur.
- Satın almadan önce (l/dk.) akış hızını belirtiniz.

Product Nr. 1040 Electric Hydraulic Pump Unit

- It is suitable for direct connection system.
- Please, you specify about flow speed (l/minute) before make purchase.

Elektrikli Hidrolik Pompa Ünitesi

Electric Hydraulic Pump Unit



| Referans Nr. | Maksimum Basınç Maximum Pressure | Maks. Operasyon Basıncı Max Operation Pressure | Hidrolik Sıvı Akışı Hydraulic fluid expelled l/min | Yağ Tankı Kapasitesi Oli Tank Capacity | Yağ Oil |
|--------------|-------------------------------------|---|---|---|----------|
| 1040-06ABP | 36 | 6 Kg/cm ² | 16 | 5 lt | ISO-VG68 |
| 1040-10ABP | 60 | 6 Kg/cm ² | 10 | 5 lt | ISO-VG68 |
| 1040-25ABP | 150 | 6 Kg/cm ² | 5 | 5 lt | ISO-VG68 |
| 1040-44ABP | 250 | 6 Kg/cm ² | 3 | 5 lt | ISO-VG68 |

Ürün Nr. 1040 Hava Tahrikli Hidrolik Pompa Ünitesi

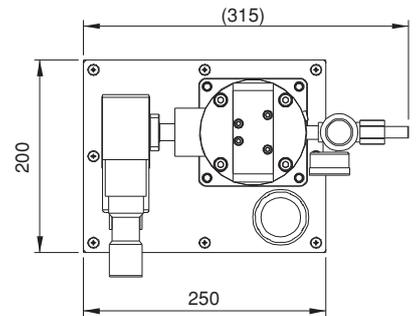
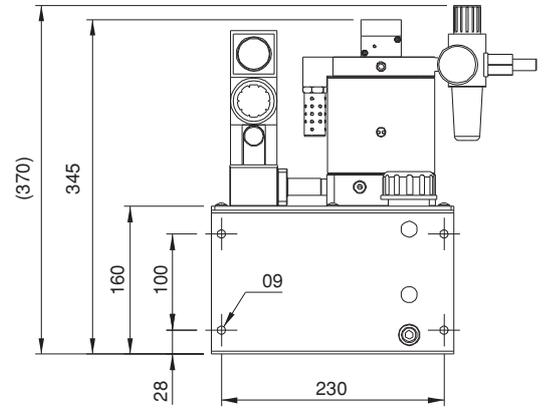
- Hidrolik güçlendirici pompası, basınç çıkışına güç olarak silindirlere hidrolik basınç kaynağını üretmek üzere hava ile tahrik edilir. Pompanın akış hızı oranın geleneksel bir güçlendiriciden daha büyüktür. Silindirlerin strok aksiyonlarında sürekli basınç yükseltmesinde sınırlama yoktur.
- Basınç ayarı; hava basınç ayar valfi tarafından yapılmıştır. Basınç istenen değere ulaştığında sürücü derhal durur. Bu durumda basınç düşerse pompa otomatik olarak basıncı engelleyecektir. Özellikle uzun süre hidrolik sıkma uygulaması için ideal serilerdir. Ayrıca enerji tasarrufu sağlayan uygun ve ekonomik olup yağ sıcaklığı artmaz.
- Çift pompa uygulandığında, yükseltme basıncı oranını seçebilirsiniz. Özellikle yüksek ve alçak basınç gerektiren aparat ve fiştür birlikte operasyonlarında kullanımı için uygundur.
- A Tipi:** ISO onaylı manifold ve solenoid valf ile donatılmıştır. Tek etkili veya çift etkili hidrolik silindir için geçerlidir. Dahili kaçak problemini iyileştirmek ve hava pompasının ömrünü uzatmak için HDV yön kontrol değeri ile donatılmıştır.
- B Tipi:** Çalışma kontrolü için manuel bir sürgülü valfe bağlanmasına izin veren PT bağlantı noktalarına sahip boru bloğu ile donatılmıştır.
- Yerden tasarruf ve rahat kurulum için azaltılmış yağ tankı hacmi.

Product Nr. 1040 Air Driven Hydraulic Pump Unit

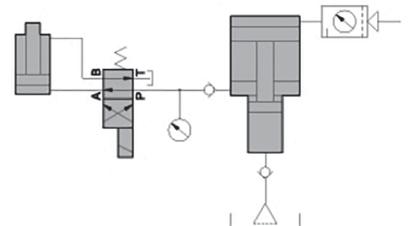
- The booster pump is driven by air to output hydraulic pressure for a power source for hydraulic cylinder. Its flow rate is bigger than than of a conventional booter. Continuous pressure boosting and no limitation of booster stroke for the acting cylinder.
- Pressure adjustment is made by an air pressure regulation valve. Once pressure reaches the desired value drive stops immediately. In case pressure drops the pump will compensate pressure automatically. The series is especially ideal for long time hydraulic clamping application. Also features energy saving no oil temperature growth economical and convenient.
- When double-pump is applied you can select the boost pressure ratio. It is especially suitable for jig and fixture which requires high and low pressure operation together.
- A Type:** Equipped with ISO approved manifold and solenoid valve. Applicable for single-acting or double-acting hydraulic cylinder. Equipped with HDV direction control valve to improve internal leakage problem and ensure the service life of air pump.
- B Type:** Equipped with pipe block with P.T ports permitting for connecting to a manual contort valve for operation control.
- Reduced oil tank volume for space saving and convenient installation

Not
Hidrolik komponentler için kullanıma uygundur.
Volt Tipi : AC110V, AC220V, DC12V, DC24V

Note
Suitable for use with hydraulic components
Coil Type : AC110V, AC220V, DC12V, DC24V



Devre Şeması Circuit Diagram



| Referans Nr. | Arttırılmış Destek Multiple Boost | Yüksek Basınç Çıkışı High Pressure Output | A | B | C | ØD | E1 | E2 | F1 | F2 | F3 | H | ØK | ØM | N | PT |
|--------------|-----------------------------------|---|-----|-----|----|----|----|----|----|----|----|---|----|----|----|-------|
| 1040-HB0906 | 9 | 6cc | 157 | 107 | 50 | 46 | 58 | 72 | 43 | 56 | 55 | 7 | 7 | 11 | 71 | PT1/4 |
| 1040-HB0510 | 5 | 10cc | 157 | 107 | 50 | 46 | 58 | 72 | 43 | 56 | 55 | 7 | 7 | 11 | 71 | PT1/4 |
| 1040-HB3515 | 3.5 | 15cc | 157 | 107 | 50 | 46 | 58 | 72 | 43 | 56 | 55 | 7 | 7 | 11 | 71 | PT1/4 |
| 1040-HB0822 | 8 | 22cc | 210 | 139 | 71 | 58 | 82 | 95 | 62 | 80 | 70 | 9 | 9 | 14 | 96 | PT1/4 |
| 1040-HB0535 | 5 | 35cc | 210 | 139 | 71 | 58 | 82 | 95 | 62 | 80 | 70 | 9 | 9 | 14 | 96 | PT1/4 |
| 1040-HB3845 | 3.8 | 45cc | 210 | 139 | 71 | 58 | 82 | 95 | 62 | 80 | 70 | 9 | 9 | 14 | 96 | PT1/4 |



| M6 Yükseklik L mm M6 Length L mm | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|----|----|----|----|----|----|----|
| Başlangıç Basıncı Start Pressure kg/cm | 20 | 25 | 30 | 35 | 40 | 45 | 50 |

Max Operasyon Basıncı
Max. Operation pressure 50kg/cm

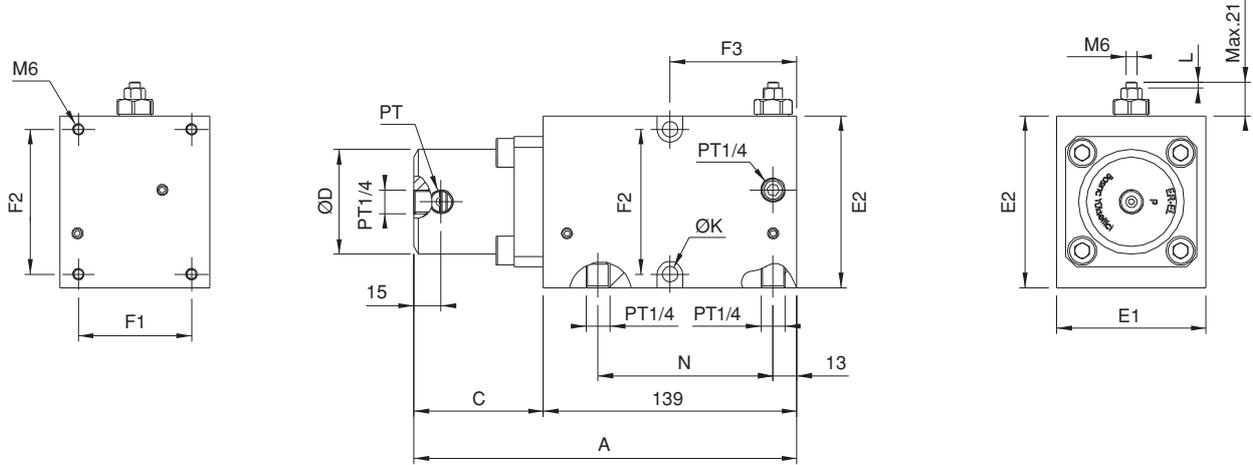
Ayarlanan basınç 30kg/cm
Pressure set at 30kg/cm

Ürün Nr. 1040 Hidrolik Basınç Yükseltici

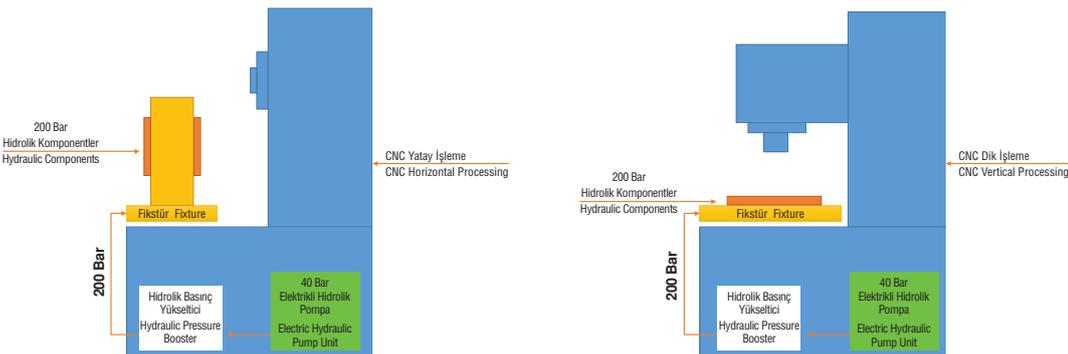
- Bu ünitenin yapısına hidrolik sıralı bir valf bağlanmıştır. Çalıştırırken, silindire yağ yapabilir ve çift basınçta olmasını sağlar ve sıralı vananın hareket etmesine izin verir ve çok sayıda yükseltme basıncı sağlar.
- Hidrolik özel amaçlı makine ve düşük basınç devresinde MC kelepçe için uygundur. Devreye monte edilmiş bir solenoid valfe ihtiyacı vardır ve sonra HB süper şarj cihazını kullanabilir. Süper şarj cihazı otomatik olarak düşük yağ basıncından yüksek yağ basıncına dönüştürülebilir ve yüksek basınçta sıkma elde edilebilir.

Product Nr. 1040 Hydraulic Pressure Booster

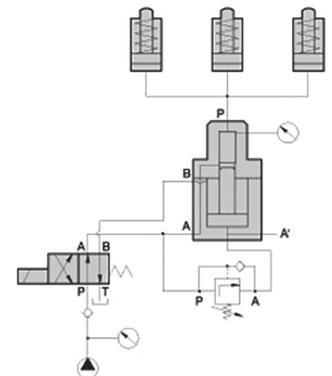
- A hydraulic sequential valve is attached to the structure of this unit. When operating, it may oil to cylinder and makes it be at the dual pressure and let the sequential valve act and then it will provide multiple boosting pressure.
- It's fit for hydraulic special purpose machine and MC clamp in low pressure circuit, It needs a solenoid valve installed in the circuit and then it will be able to operate HB super-charger. The super-charger may be converted automatically from low oil-pressure to high oil-pressure and obtain a high pressure clamping.



Uygulama Örneği / Application Example

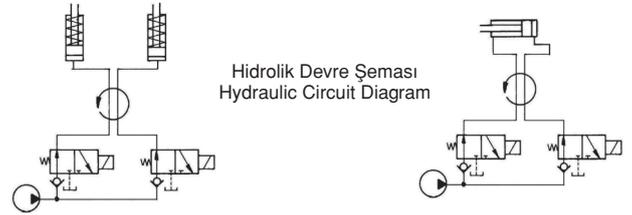
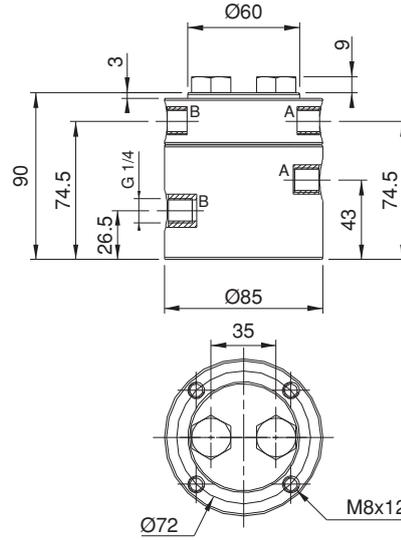
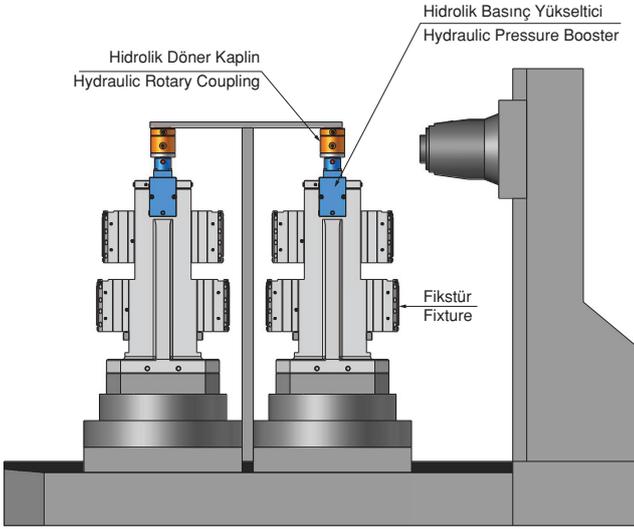


Devre Şeması Circuit Diagram



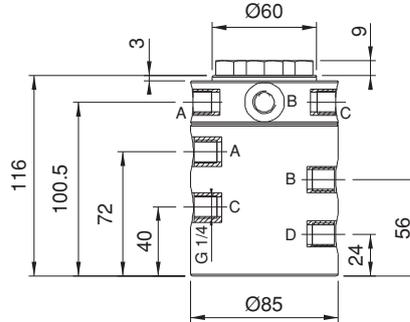
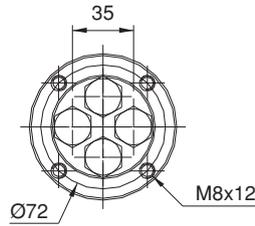
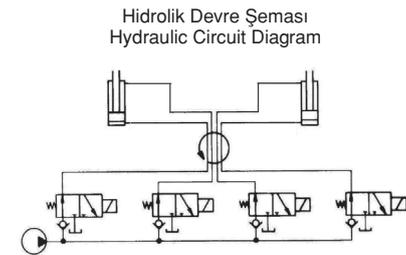
| Referans Nr. | Çıkış Sayısı Number of Outlets | Hız Speed | Max. bar | |
|--------------|-----------------------------------|-----------|----------|-----|
| 1040-02 | 2 | 5.0 m/sn | 300 | 2.3 |

Ürün Nr. 1040 Hidrolik Döner Kaplin
Product Nr. 1040 Hydraulic Rotary Coupling



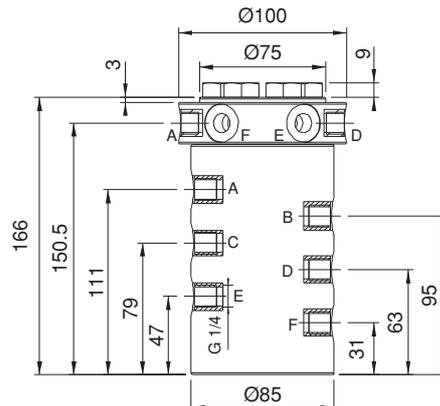
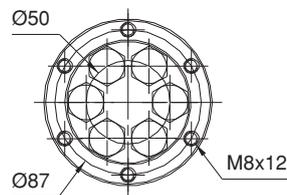
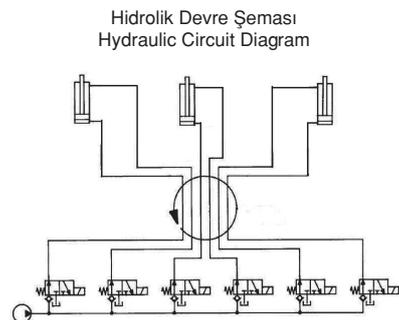
| Referans Nr. | Çıkış Sayısı Number of Outlets | Hız Speed | Max. bar | |
|--------------|-----------------------------------|-----------|----------|-----|
| 1040-04 | 4 | 5.0 m/sn | 300 | 2.8 |

Ürün Nr. 1040 Hidrolik Döner Kaplin
Product Nr. 1040 Hydraulic Rotary Coupling



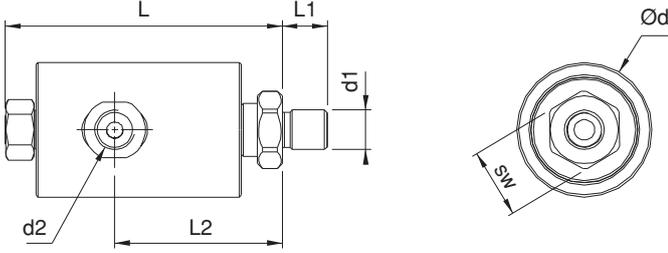
| Referans Nr. | Çıkış Sayısı Number of Outlets | Hız Speed | Max. bar | |
|--------------|-----------------------------------|-----------|----------|-----|
| 1040-06 | 6 | 5.0 m/sn | 300 | 4.2 |

Ürün Nr. 1040 Hidrolik Döner Kaplin
Product Nr. 1040 Hydraulic Rotary Coupling

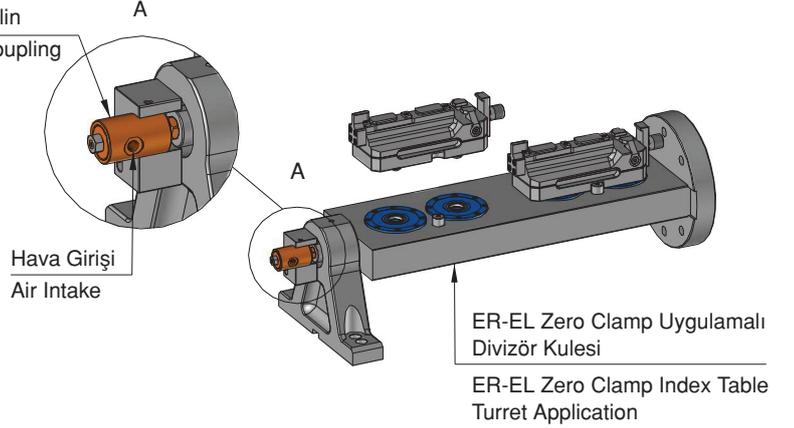


| Referans Nr. | d | d1 | d2 | L | L1 | L2 | Bar | sw | (g) |
|--------------|----|-----|-----|------|----|------|-----|----|-----|
| 1040-001P | 33 | 1/8 | 1/8 | 67,5 | 11 | 40,8 | 7 | 17 | 200 |

Ürün Nr. 1040 Pnömatik Döner Caplin
Product Nr. 1040 Pneumatic Rotary Coupling



Pnömatik Döner Caplin
Pneumatic Rotary Coupling



| Referans Nr. | d | d1 | L | L1 | sw | Bar Kapasitesi Bar Capacity (MPa) | Yağ Kapasitesi Oil Capacity (cm ³) | (kg) |
|--------------|-----|-----|-----|----|----|---|--|------|
| 1040-070 | 58 | 1/4 | 108 | 16 | 40 | 7 | 12,8 | 1,3 |
| 1040-100 | 66 | 1/4 | 108 | 14 | 45 | 10 | 17,6 | 1,6 |
| 1040-200 | 100 | 1/4 | 141 | 16 | 45 | 20 | 16,3 | 4,5 |
| 1040-250 | 100 | 1/4 | 141 | 16 | 45 | 25 | 13,6 | 4,5 |

NEW

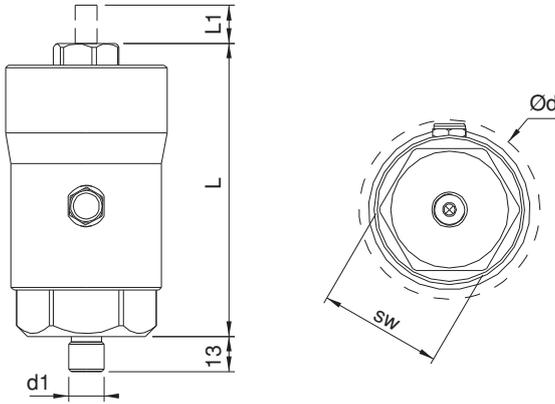


Ürün Nr. 1040 Hidrolik Yaylı Akümülatör

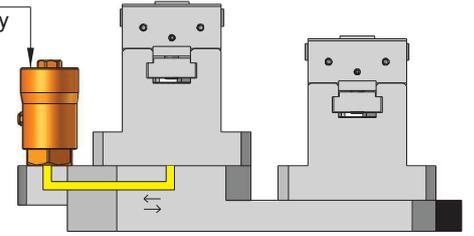
- Hidrolik fişstür ve aparatlarda kullanılan hidrolik ekipmanların veya komponentlerin yağ kaçaklarında basınç desteği sağlayarak ani düşüşlerini önleyen ve hidrolik yağın basınçla depolanmasını sağlayan, Yaylı Akümülatör seviye göstergesi ile aktif olarak çalışmayı veya sızıntılardaki eksilmeyi seviye çubuğu ile tespit edebilirsiniz.

Product Nr. 1040 Hydraulic Spring Battery

- It helps to prevent oil leaks, sudden drops of the hydraulic oils by providing pressure support for hydraulic equipments and or components that are used with hydraulic fixtures and apparatus / devices by storing hydraulic oil. The spring battery gives you the opportunity to be able to monitorize the active working and the drop of leak / flow

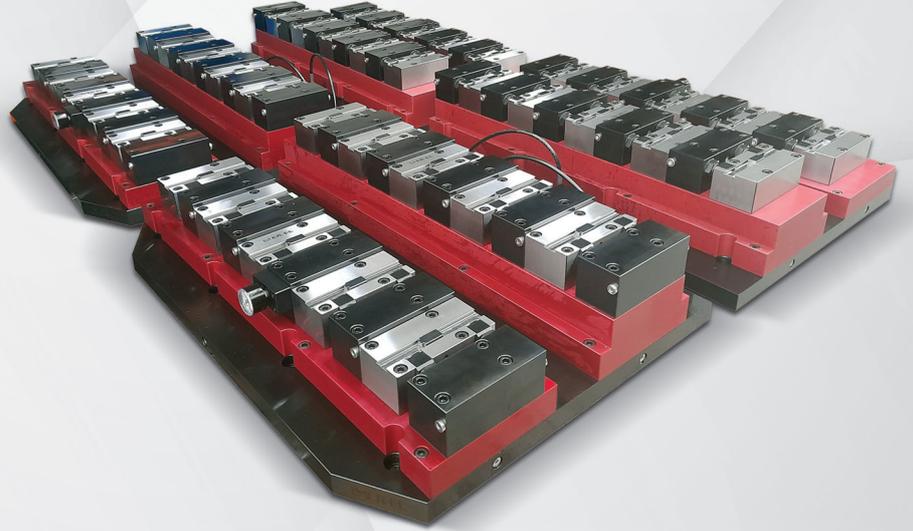
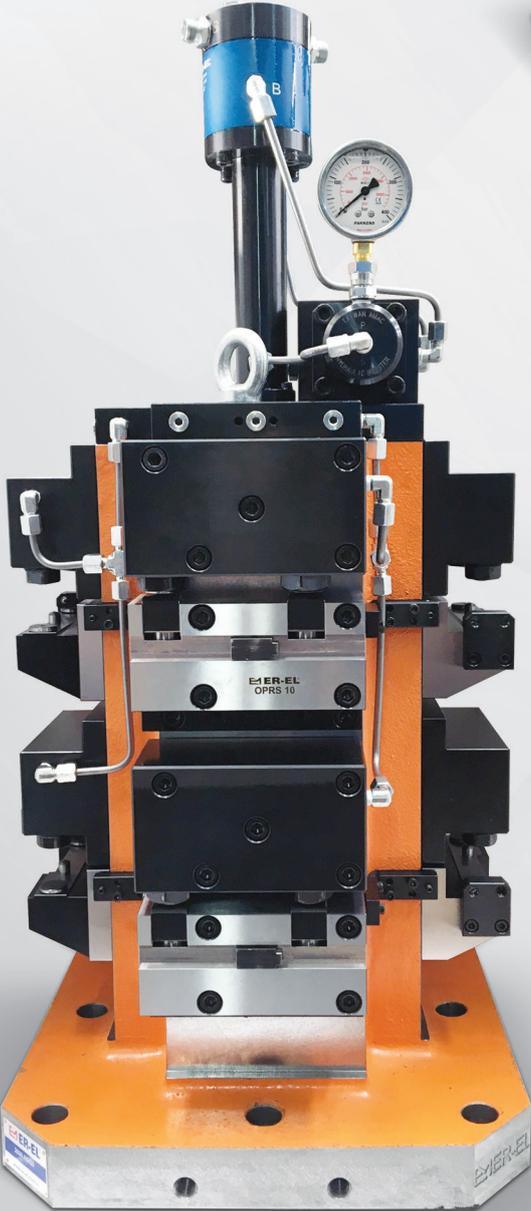


Hidrolik Yaylı Akümülatör
Hydraulic Spring Battery



HİDROLİK FİKSTÜR UYGULAMALARI

HYDRAULIC FIXTURE APPLICATION



HİDROLİK KOMPONENTLER

HYDRAULIC COMPONENTS



Uygulama

Bir işparçası takım ile işlenirken, işparçasının operatör tarafından yerleştirilmesi - alınmasına olanak yoksa ve daha yüksek bağlama kuvvetine ihtiyaç duyuyorsa, hidrolik dönmeli bağlama silindiri en iyi seçim olacaktır.

Fonksiyon

Bu silindir çekme özelliğine sahiptir. Toplam bağlama stroku, dönme ve çekme strokuna eşittir.

Tip

Bu silindir aşağı doğru baskı yapar. Saat yönüne ve ters istikametine çift hareketli çeşidi vardır. Standart 90° olup, fonksiyonel 0°-45° ve 60° açılara sahiptir. Bağlama şekline tek kol veya çift kol dahildir. Bağlama türüne dişli tip ve o-ring keçeli manifoldlu tipi için alttan flanşlı dahildir.

Malzeme

Ana gövdenin malzemesi alüminyum alaşımıdır.



Application

When machining a workpiece by means of a machine tool, a hydraulic swing clamping cylinder will be your best choice if the placing and taking of the workpiece are not allowed to be interfered by the clasper and need a larger clamping force.

Function

This cylinder belongs to a pull cylinder of which the total stroke is equal to the sum of a swing stroke and a clamping stroke, and is usually used within the clamping stroke.

Type

This swing cylinder belongs to a double-acting type which is operated mainly in a downward pressing manner, including clockwise swing and counterclockwise swing; standard angle is 90°, and optional angles include 0°, 45°, 60°; clamping means includes single arm or double arms; the mounting manner includes threaded type and lower flange type for manifold mounting with O-ring seal.

Material

This material of the main body is aluminum alloy.

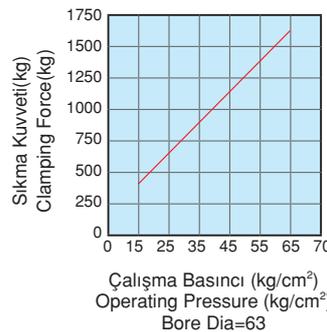
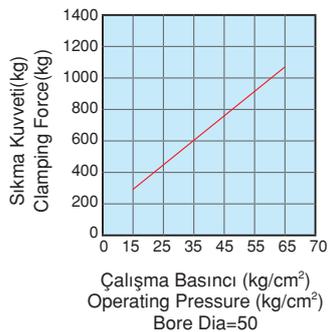
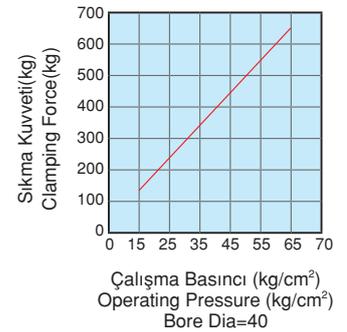
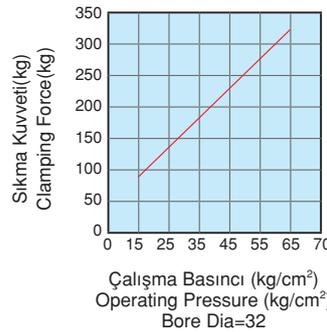
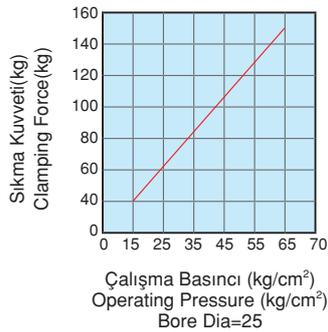


Sipariş örneği / Ordering example

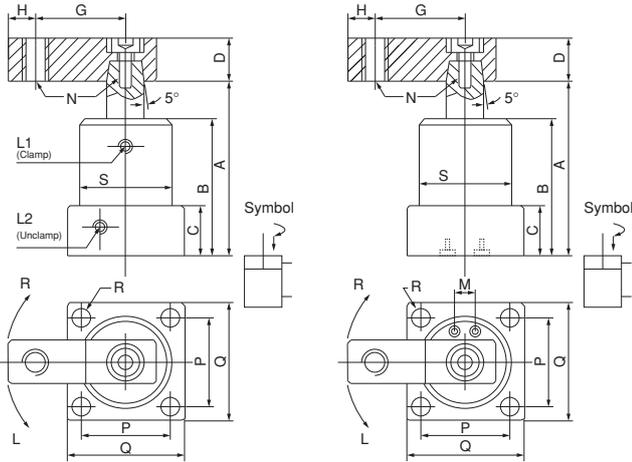
| Referans Nr. | NHS | T | D | L - | 40 | x 90° - |
|--------------|-----------------------|-------------------------|---------------------------------------|--------------------------------------|----------------------------|---------------------------------|
| | Temel No. Base No. | Tip / Type | Kol Tipi / Arm Type | Dönüş İstikameti Swivel Direction | Piston Ø | Açı / Angle |
| | | Flanş Flange | D: Çift Hareket D: Double Arm | L: Sol L: Left | 25 32 40 50 63 | 0° 45° 60° 90° 180° |
| | | T: Dişli T: Threaded | Boş: Tek Hareket Blank: Single Arm | R: Sağ R: Right | | |

Değişik hidrolik basınçlar altında teorik bağlama gücünü gösteren şematik tablolar

Schematic view showing a theoretical clamping force under different hydraulic pressure:



| Referans Nr. | Bağlama Tipi Mounting Type | Bağlama Kolu Clamping Arm | Max. Basınç Max. Pressure | Normal Basınç Normal Pres. | Hareket Tipi Acting Type | Dönme Açısı Swivel Angle | Dönme Strok Swivel Stroke (mm) | Bağlama Strok Clamp. Str. (mm) | Delik Çapı / Bore Diameter Ø (mm) | Piston Çubuğu Piston Rod Ø | Bağl. Gücü/Clamp Force (25kg/cm ²) | A (mm) Sökme Unclamp | B (mm) | C (mm) | D (mm) | G (mm) | H (mm) | L1 Bağlama / Clamp L2 Sökme / Unclamp | N (mm) | P (mm) | Q (mm) | R (mm) | S (mm) | Çeşitli O-Ring Manifold O-Ring | M (mm) | F (mm) | Ağırlık Weight (kg) |
|--------------|-------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|-------------------------------|---|-------------------------|--------|--------|--------|--------|--------|--|----------|--------|--------|--------|--------|-----------------------------------|--------|--------|------------------------|
| 1043-NHS025 | Flanş / Bottom Flange | Tel Kol / Single Arm | 70 kg/cm ² | 20-45 kg/cm ² | Çift Hareketli / Double Acting | 90° (0° 45°, 60°, 180°) ± 2° | 12 | 14 | 25 | 18 | 59 | 100 | 70 | 23 | 25.4 | 50 | 10 | 1/8 PF | M10 x1.5 | 40 | 50 | Ø 6.5 | Ø 45 | S4 | 18 | 15 | 0.8 |
| 1043-NHS032 | | | | | | 14 | 15 | 32 | 20 | 125 | 111 | 76 | 25 | 25.4 | 55 | 10 | 1/8 PF | M10 x1.5 | 44 | 55 | Ø 6.5 | Ø 50 | S4 | 24 | 17 | 1.0 | |
| 1043-NHS040 | | | | | | 14 | 15 | 40 | 20 | 200 | 113.6 | 80 | 27 | 25.4 | 55 | 10 | 1/8 PF | M10 x1.5 | 48 | 62 | Ø 8.5 | Ø 54 | S4 | 26 | 20 | 1.1 | |
| 1043-NHS050 | | | | | | 14 | 15 | 50 | 20 | 400 | 114.5 | 80 | 27 | 25.4 | 55 | 10 | 1/8 PF | M10 x1.5 | 57 | 74 | Ø 8.5 | Ø 65 | S4 | 30 | 25 | 1.4 | |
| 1043-NHS063 | | | | | | 14 | 15 | 63 | 25 | 600 | 118 | 85 | 32 | 32 | 75 | 11 | 1/8 PF | M12 x1.75 | 70 | 88 | Ø 10.5 | Ø 80 | S4 | 40 | 30 | 2.3 | |



Ürün Nr. 1043 Hidrolik Dönmeli Bağlama Product Nr. 1043 Hydraulic Swing Clamp

NHS – Flanşlı Uyarılama, Tek Kol Borulu veya Manifoldlu

NHS – Flange Version, Single Arm With Pipe or the Manifold

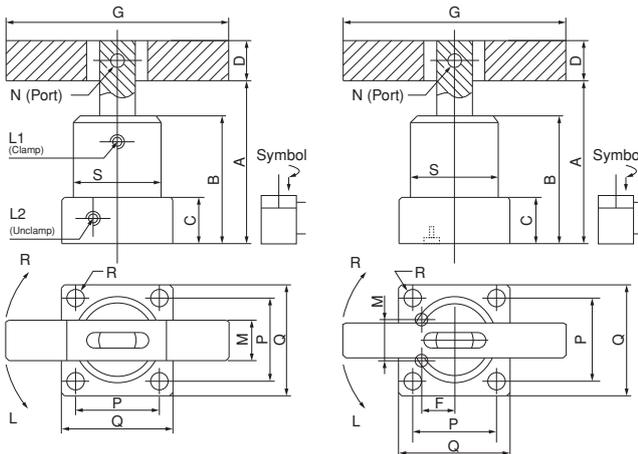
- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



Hidrolik Dönmeli Bağlama

Hydraulic Swing Clamp

| Referans Nr. | Bağlama Tipi Mounting Type | Bağlama Kolu Clamping Arm | Max. Basınç Max. Pressure | Normal Basınç Normal Pres. | Hareket Tipi Acting Type | Dönme Açısı Swivel Angle | Dönme Strok Swivel Stroke (mm) | Bağlama Strok Clamp. Str. (mm) | Delik Çapı / Bore Diameter Ø (mm) | Piston Çubuğu Piston Rod Ø | Bağl. Gücü/Clamp Force (25kg/cm ²) | A (mm) Sökme Unclamp | B (mm) | C (mm) | D (mm) | G (mm) | H (mm) | L1 Bağlama / Clamp L2 Sökme / Unclamp | N (mm) | P (mm) | Q (mm) | R (mm) | S (mm) | Çeşitli O-Ring Manifold O-Ring | M (mm) | F (mm) | Ağırlık Weight (kg) |
|--------------|-------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|-------------------------------|---|-------------------------|--------|--------|--------|--------|--------|--|--------|--------|--------|--------|--------|-----------------------------------|--------|--------|------------------------|
| 1045-NHSD025 | Flanş / Bottom Flange | Çift Kol / Double Arm | 70 kg/cm ² | 20-45 kg/cm ² | Çift Hareketli / Double Acting | 90° (0° 45°, 60°, 180°) ± 2° | 12 | 14 | 25 | 18 | 59 | 100 | 70 | 23 | 19 | 100 | 1/8 PF | Ø 8 | 40 | 50 | Ø 6.5 | Ø 45 | S4 | 18 | 15 | 0.9 | |
| 1045-NHSD032 | | | | | | 14 | 15 | 32 | 20 | 125 | 111 | 76 | 25 | 22 | 120 | 1/8 PF | Ø 8 | 44 | 55 | Ø 6.5 | Ø 50 | S4 | 24 | 17 | 1.1 | | |
| 1045-NHSD040 | | | | | | 14 | 15 | 40 | 20 | 200 | 113.6 | 80 | 27 | 22 | 120 | 1/8 PF | Ø 8 | 48 | 62 | Ø 8.5 | Ø 54 | S4 | 26 | 20 | 1.2 | | |
| 1045-NHSD050 | | | | | | 14 | 15 | 50 | 20 | 400 | 114.5 | 80 | 27 | 22 | 120 | 1/8 PF | Ø 8 | 57 | 74 | Ø 8.5 | Ø 65 | S4 | 30 | 25 | 1.5 | | |
| 1045-NHSD063 | | | | | | 14 | 15 | 63 | 25 | 600 | 118 | 85 | 32 | 25.4 | 140 | 1/8 PF | Ø 10 | 70 | 88 | Ø 10.5 | Ø 80 | S4 | 40 | 30 | 2.5 | | |



Ürün Nr. 1045 Hidrolik Dönmeli Bağlama Product Nr. 1045 Hydraulic Swing Clamp

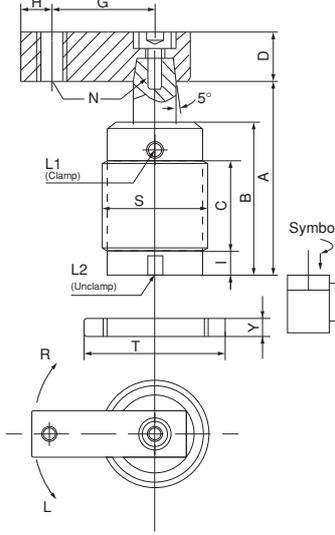
NHSD – Flanşlı Uyarılama, Çift Kol Borulu veya Manifoldlu

NHSD – Flange Version, Double Arms With Pipe or the Manifold

- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



| Referans Nr. | Bağlama Tipi Mounting Type | Bağlama Kolu Clamping Arm | Max. Basıncı Max. Pressure | Normal Basıncı Normal Pres. | Hareket Tipi Acting Type | Dönme Açısı Swivel Angle | Dönme Strok Swivel Stroke (mm) | Bağlama Strok Clamp. Str. (mm) | Delik Çapı / Bore Diameter Ø (mm) | Piston Çubuğu Piston Rod Ø | Bağl. Gücü/Clamp Force (25kg/cm ²) | A (mm) Sökme Unclamp | B (mm) | C (mm) | D (mm) | G (mm) | H (mm) | I (mm) | L1 Bağlama / Clamp L2 Sökme / Unclamp | N (mm) | S (mm) | T (mm) Korta Sım. 2.ad. T (mm) 2 pcs/set | Y (mm) | Ağırlık Weight (kg) | |
|--------------|-------------------------------|------------------------------|-------------------------------|--------------------------------|--------------------------------|------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|-------------------------------|---|-------------------------|--------|--------|--------|--------|--------|--------|--|-----------|-------------|---|---------|------------------------|------|
| 1047-NHTS025 | Dişli Gövde / Threaded Body | Tek Kol / Single Arm | 70 kg/cm ² | 20-45 kg/cm ² | Çift Hareketli / Double Acting | 90° (0° 45°, 60°, 180°) ± 2° | 12 | 14 | 25 | 18 | 59 | 100 | 70 | 35 | □ | 25.4 | 50 | 10 | 9 | 1/8 PF | M10 x1.5 | M45 x1.5 | Ø 65 | 10 | 0.8 |
| 1047-NHTS032 | | | | | | | 14 | 15 | 32 | 20 | 125 | 111 | 76 | 45 | □ | 25.4 | 55 | 10 | 9 | 1/8 PF | M10 x1.5 | M50 x1.5 | Ø 70 | 11 | 1.1 |
| 1047-NHTS040 | | | | | | | 14 | 15 | 40 | 20 | 200 | 113.6 | 80 | 45 | □ | 25.4 | 55 | 10 | 9 | 1/8 PF | M10 x1.5 | M55 x1.5 | Ø 75 | 11 | 1.25 |
| 1047-NHTS050 | | | | | | | 14 | 14 | 50 | 20 | 400 | 120 | 87 | 50 | □ | 25.4 | 55 | 10 | 9 | 1/8 PF | M10 x1.5 | M65 x1.5 | Ø 85 | 12 | 1.7 |



Ürün Nr. 1047 Hidrolik Dönmeli Bağlama Product Nr. 1047 Hydraulic Swing Clamp

NHTS – Dişli Uyarlama, Tek Kol
Borulu

NHTS – Threaded Version, Single Arm
With Pipe

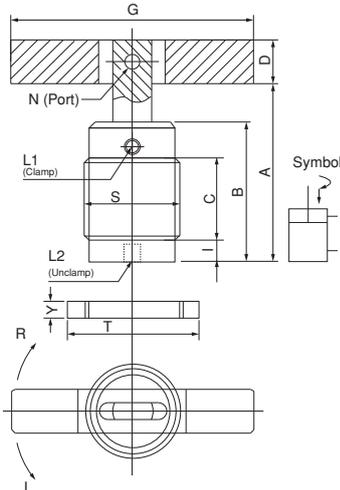
- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



Hidrolik Dönmeli Bağlama

Hydraulic Swing Clamp

| Referans Nr. | Bağlama Tipi Mounting Type | Bağlama Kolu Clamping Arm | Max. Basıncı Max. Pressure | Normal Basıncı Normal Pres. | Hareket Tipi Acting Type | Dönme Açısı Swivel Angle | Dönme Strok Swivel Stroke (mm) | Bağlama Strok Clamp. Str. (mm) | Delik Çapı / Bore Diameter Ø (mm) | Piston Çubuğu Piston Rod Ø | Bağl. Gücü/Clamp Force (25kg/cm ²) | A (mm) Sökme Unclamp | B (mm) | C (mm) | D (mm) | G (mm) | I (mm) | L1 Bağlama / Clamp L2 Sökme / Unclamp | N (mm) | S (mm) | T (mm) Korta Sım. 2.ad. T (mm) 2 pcs/set | Y (mm) | Ağırlık Weight (kg) | |
|---------------|-------------------------------|------------------------------|-------------------------------|--------------------------------|--------------------------------|------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|-------------------------------|---|-------------------------|--------|--------|--------|--------|--------|--|-----------|--------|---|---------|------------------------|------|
| 1050-NHTSD025 | Dişli Gövde / Threaded Body | Çift Kol / Double Arm | 70 kg/cm ² | 20-45 kg/cm ² | Çift Hareketli / Double Acting | 90° (0° 45°, 60°, 180°) ± 2° | 12 | 14 | 25 | 18 | 59 | 100 | 70 | 35 | □ | 19 | 100 | 9 | 1/8 PT | Ø 8 | M45 x1.5 | Ø 65 | 10 | 0.9 |
| 1050-NHTSD032 | | | | | | | 14 | 15 | 32 | 20 | 125 | 111 | 76 | 45 | □ | 22 | 120 | 10 | 1/8 PT | Ø 8 | M50 x1.5 | Ø 70 | 11 | 1.2 |
| 1050-NHTSD040 | | | | | | | 14 | 15 | 40 | 20 | 200 | 113.6 | 80 | 45 | □ | 22 | 120 | 10 | 1/8 PT | Ø 8 | M55 x1.5 | Ø 75 | 11 | 1.4 |
| 1050-NHTSD050 | | | | | | | 14 | 14 | 50 | 20 | 400 | 120 | 87 | 50 | □ | 22 | 120 | 10 | 1/8 PT | Ø 8 | M65 x1.5 | Ø 85 | 12 | 1.85 |



Ürün Nr. 1050 Hidrolik Dönmeli Bağlama Product Nr. 1050 Hydraulic Swing Clamp

NHTSD – Dişli Uyarlama, Çift Kol
Borulu

NHTSD – Threaded Version, Double Arms
With Pipe

- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



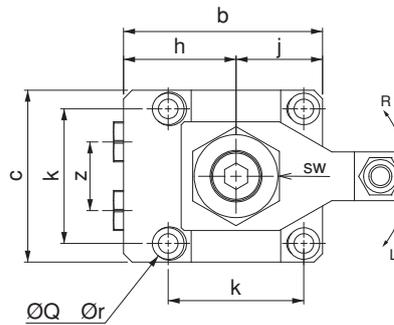
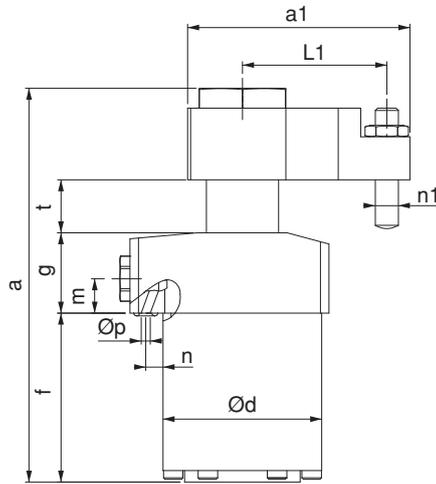
| Referans Nr. | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (mm) | J (mm) | K (mm) | M (mm) | N (mm) | P (mm) | Q (mm) | R (mm) | T (mm) | Z (mm) | A1 (mm) | L1 (mm) | N1 (mm) | (kg) |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|------|
| 1051-VS035 | 129 | 61 | 51 | 48 | 80 | 52 | 28 | 35.5 | 25.5 | 40 | 12 | 30 | 3 | 9.5 | 5.5 | 16 | 22 | 65.5 | 42 | M6 | 0.84 |
| 1051-VS042 | 146 | 69 | 60 | 55 | 87 | 59 | 28 | 39 | 30 | 47 | 12 | 33.5 | 3 | 11 | 6.5 | 18.5 | 24 | 77 | 50 | M8 | 1.25 |
| 1051-VS050 | 153 | 81 | 70 | 65 | 93 | 63 | 30 | 46 | 35 | 55 | 13 | 39.5 | 5 | 11 | 6.5 | 20 | 30 | 91.5 | 56.5 | M10 | 1.86 |
| 1051-VS060 | 179 | 92 | 80 | 75 | 108 | 71 | 37 | 52 | 40 | 63 | 16 | 45 | 5 | 14 | 8.5 | 23.5 | 32 | 105 | 65 | M12 | 2.86 |
| 1051-VS074 | 192 | 107 | 95 | 90 | 114 | 74 | 40 | 59.5 | 47.5 | 75 | 16 | 52.5 | 5 | 17.5 | 10.5 | 25 | 37 | 127 | 75 | M16 | 4.75 |

| Referans Nr. | Silindir Alan cm ² Cylinder Area cm ² | Toplam Strok Total Stroke | Sıkma Strok Clamp Stroke | Dönme Strok Swivel Stroke | Silindir Hacmi cm ³ /Sıkma Cylinder Volume cm ³ /Clamp | Silindir Hacmi cm ³ /Boşta Cylinder Volume cm ³ /Release | Maximum Çalışma Basıncı 70 kg/cm ² Clamping Force at 70 kg/cm ² | Min./Max. Çalışma Basıncı kg/cm ² Min./Max. Operating Pressure kg/cm ² | Çalışma Sıcaklığı Operating Temperature | 90° Dönme Açısı Toleransı 90° Swing Angle Tolerance | Sıkma Salıncak Pozisyon Tekrarı Clamp-Swing Position Repeat Tolerance |
|--------------|--|------------------------------|-----------------------------|------------------------------|---|---|---|--|--|--|--|
| 1051-VS035 | 5.8 | 22 | 8 | 14 | 12.8 | 21.2 | 405 | 5 - 70 | 0-70° | 90±2° | 0.5° |
| 1051-VS042 | 8.9 | 25 | 10 | 15 | 22.4 | 34.6 | 625 | 5 - 70 | 0-70° | 90±2° | 0.5° |
| 1051-VS050 | 12.6 | 26 | 10 | 16 | 32.7 | 51.0 | 880 | 5 - 70 | 0-70° | 90±2° | 0.5° |
| 1051-VS060 | 18.4 | 29 | 12 | 17 | 53.3 | 82.0 | 1285 | 5 - 70 | 0-70° | 90±2° | 0.5° |
| 1051-VS074 | 27.1 | 30 | 12 | 18 | 81.3 | 129.0 | 1896 | 5 - 70 | 0-70° | 90±2° | 0.5° |

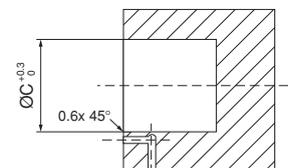
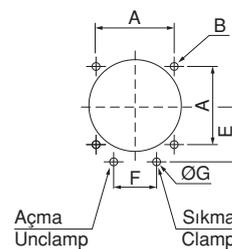
Ürün Nr. 1051 Hidrolik Dönmeli Bağlama

Product Nr. 1051 Hydraulic Swing Clamp

Borulu ve Manifodlu With Pipe and the Manifold



| Referans Nr. | A | B | C | E | F | G |
|--------------|----|-----|----|------|----|---|
| 1051-VS035 | 40 | M5 | 48 | 30 | 22 | 3 |
| 1051-VS042 | 47 | M6 | 55 | 33.5 | 24 | 3 |
| 1051-VS050 | 55 | M6 | 65 | 39.5 | 30 | 5 |
| 1051-VS060 | 63 | M8 | 75 | 45 | 32 | 5 |
| 1051-VS074 | 75 | M10 | 90 | 52.5 | 37 | 5 |



| Referans Nr. | Toplam Tork Total Stroke (mm) | Sıkma Torku Lock Stroke (mm) | Ekstra Tork Extra Stroke (mm) | Max. Basınç Max. operating pressure kg/cm | Min. Basınç Min. operating pressure kg/cm | Sıkma Kuvveti Clamping Force (at 70 kg/cm ²) | Çalışma Isısı Operating Temperature | (kg) |
|--------------|-------------------------------|------------------------------|-------------------------------|---|---|--|-------------------------------------|------|
| 1052-VT25S | 23.5 | 20.5 | 3 | 70 | 20 | 280kg | 0 - 70°C | 0.60 |
| 1052-VT32S | 26 | 23 | 3 | 70 | 20 | 448kg | 0 - 70°C | 0.92 |
| 1052-VT40S | 29.5 | 26.5 | 3 | 70 | 20 | 700kg | 0 - 70°C | 1.86 |
| 1052-VT50S | 35 | 32 | 3 | 70 | 20 | 1092kg | 0 - 70°C | 2.34 |
| 1052-VT63S* | 41 | 38 | 3 | 70 | 20 | 1736kg | 0 - 70°C | 3.90 |



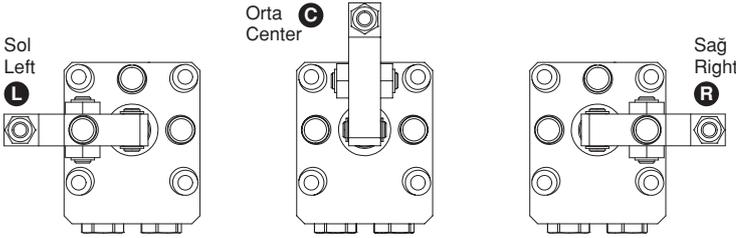
Ürün Nr. 1052 Hidrolik Üstten Bağlama

- 1052-VT63S kodlu ürün manifoldlu ve yağ giriş, yağ dönüşlüdür.

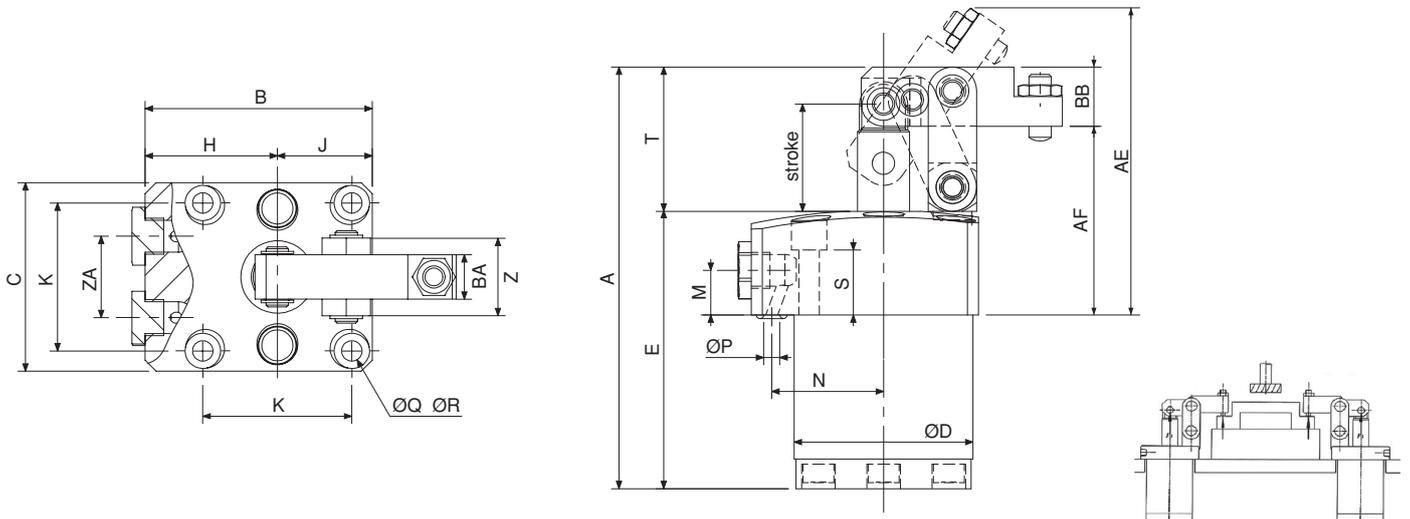
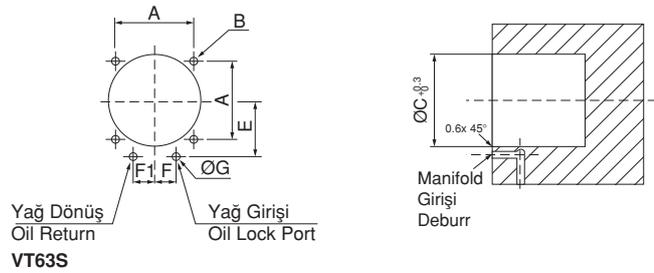
Product Nr. 1052 Hydraulic Above Clamp

- 1052-VT63S coded products manifold and oil flow, oil is reflexive.

Borulu ve Manifoldlu With Pipe and the Manifold



| Referans Nr. | A | B | C | E | F | G |
|--------------|----|--------|----|------|------|---|
| 1052-VT25S | 40 | M5x0.8 | 48 | 30 | 11 | 3 |
| 1052-VT32S | 47 | M6 | 55 | 33.5 | 12 | 3 |
| 1052-VT40S | 55 | M6 | 65 | 39.5 | 15 | 5 |
| 1052-VT50S | 63 | M8 | 75 | 45 | 16 | 5 |
| 1052-VT63S | 75 | M10 | 90 | 52.5 | 18.5 | 5 |



| Referans Nr. | A | B | C | D | E | H | J | K | M | N | S | T | Z | part | ZA | Bağlama Pabucu Clamping Arm | | | | ØQ | ØR |
|--------------|-------|-------|-----|----|-----|------|------|----|----|------|------|------|----|------|----|-----------------------------|------|----|----|------|-----|
| | | | | | | | | | | | | | | | | AE | AF | BA | BB | | |
| 1052-VT25S | 114 | 61 | 51 | 48 | 75 | 35.5 | 25.5 | 40 | 12 | 30 | 17.5 | 35 | 21 | G1/8 | 22 | 92.4 | 51 | 12 | 16 | 9.5 | 5.5 |
| 1052-VT32S | 132.5 | 69 | 60 | 55 | 87 | 39 | 30 | 47 | 12 | 33.5 | 15 | 37.5 | 28 | G1/8 | 24 | 101.9 | 53.5 | 16 | 20 | 11 | 6.8 |
| 1052-VT40S | 147 | 81 | 70 | 65 | 93 | 46 | 35 | 55 | 13 | 39.5 | 15.5 | 45 | 37 | G1/4 | 30 | 111.4 | 59 | 19 | 25 | 11 | 6.8 |
| 1052-VT50S | 175 | 94.5 | 85 | 75 | 108 | 52 | 42.5 | 63 | 16 | 45 | 19.5 | 55 | 40 | G1/4 | 32 | 130.8 | 72 | 22 | 32 | 14 | 9 |
| 1052-VT63S | 207 | 109.5 | 100 | 90 | 128 | 59.5 | 50 | 75 | 16 | 52.5 | 19 | 64.5 | 49 | G3/8 | 37 | 146.5 | 81 | 25 | 38 | 17.5 | 11 |

Açıklama

Bu dişli-gövde bağlama silindiri itme koşullu ve iş parçasını güvenle bağlamak için belirli bir strok aralığında çalışır. Dişli gövde bağlama silindirinin montaj şekli, önerilen ölçülerde aşağıdaki çizimde belirtilmiştir. Bu montaj da yağ sızıntısını önlemek için teflon pul kullanılır.

Description

This threaded-body clamping cylinder is applied to a condition of knocking-out, and applies a clamping force on a workpiece within a stroke in order to secure the workpiece. The mounting manner for this threaded-body clamping cylinder is shown as the following drawing illustrating suggested dimensions of devices, and this mounting needs a Teflon packing in order to avoid oil leakage.

Sipariş Örneği / Ordering example

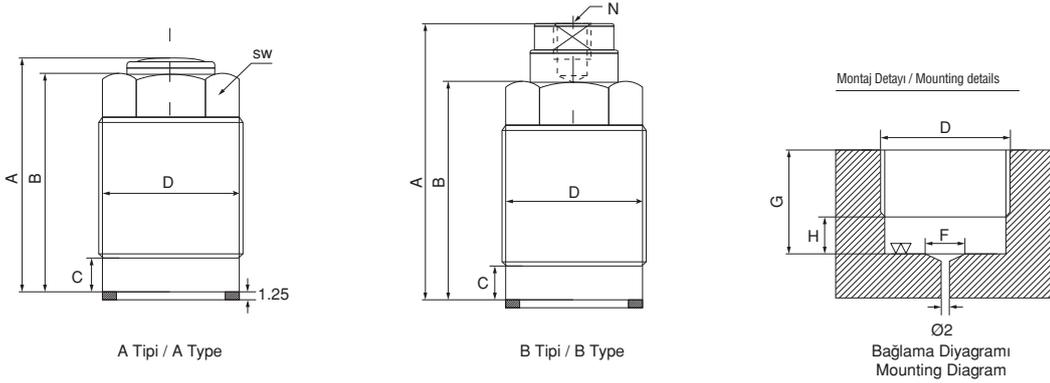
Nr. 1053 TC **12** **A**
 Temel No. Piston Ø Seri / Series
 Base No.



A Tipi / A Type



B Tipi / B Type



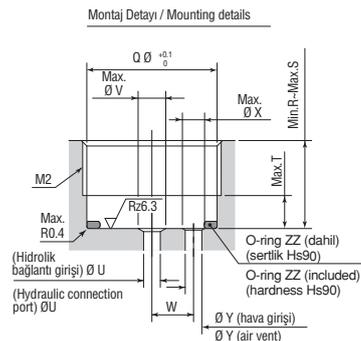
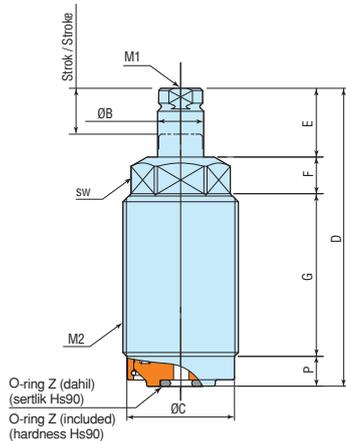
| Referans Nr. | Çalışma Yağı Basıncı Operating Oil Pressure | Hareket Tipi Acting Type | Strok Stroke S (mm) | Piston Çubuğu Piston Rod Ø (mm) | Bağl. Gücü/Clamp Force (200kg/cm ²) | A (mm) | B (mm) | C (mm) | D (mm) | F (mm) | G (mm) | H (mm) | N (mm) | sw | Ağırlık Weight (kg) |
|--------------|--|-------------------------------|------------------------|------------------------------------|--|--------|--------|--------|-------------|--------|--------|--------|---------|----|------------------------|
| 1053-TC12A | 20-350 kg/cm ² | Tek Hareketli / Single Acting | 10 | 12 | 200 (kg) | 38 | 36 | 7 | M22 x1.5 | 12 | 16 | 6 | - | 17 | 0.07 |
| 1053-TC16A | | | 12 | 16 | 400 (kg) | 46.5 | 44.5 | 8 | M26 x1.5 | 16 | 20 | 7 | - | 22 | 0.14 |
| 1053-TC-20A | | | 15 | 20 | 620 (kg) | 56 | 54 | 8 | M30 x1.5 | 20 | 24 | 7 | - | 24 | 0.22 |
| 1053-TC25A | | | 16 | 25 | 980 (kg) | 57 | 55 | 11 | M38 x1.5 | 25 | 28 | 10 | - | 32 | 0.37 |
| 1053-TC12B | | | 10 | 12 | 200 (kg) | 45 | 36 | 7 | M22 x1.5 | 12 | 16 | 6 | M6x1 | 17 | 0.08 |
| 1053-TC16B | | | 12 | 16 | 400 (kg) | 52 | 44.5 | 8 | M26 x1.5 | 16 | 20 | 7 | M6x1 | 22 | 0.15 |
| 1053-TC20B | | | 15 | 20 | 620 (kg) | 64.5 | 54 | 8 | M30 x1.5 | 20 | 24 | 7 | M8x1.25 | 24 | 0.24 |
| 1053-TC25B | | | 16 | 25 | 980 (kg) | 67 | 55 | 11 | M38 x1.5 | 25 | 28 | 10 | M8x1.25 | 32 | 0.4 |

| Referans Nr. | Strok Stroke (mm) | Silindir Forsu(kN) / Cylinder Force(kN) | | | | Silindir iç çap (mm) Cyl. inner dia. (mm) | Çubuç Çapı (mm) Rod dia. (mm) | Etkili Alan (cm ²) Effec. area(cm ²) | Max. Yağ akış alanı (l/min) Max. oil flow rate(l/min) | Silindir kapa. (cm ³) Cylinder cap. (cm ³) | | ² Yay geri çekiş gücü (N) ² Return spring force (N) | Sıkma Kuvveti Clamp Force (200g/cm ²) |
|--------------|-------------------|--|--|---|---|--|----------------------------------|---|--|---|------|--|---|
| | | Hidrolik Basınç Hydraulic Press. 3.5 MPa | Hidrolik Basınç Hydraulic Press. 7 MPa | Hidrolik Basınç Hydraulic Press. 25 MPa | Hidrolik Basınç Hydraulic Press. 35 MPa | | | | | 0.5 | 0.9 | | |
| 1055-CMD02 | 5 | 0.3 | 0.5 | 2.1 | 2.9 | 16 | 10 | 0.84 | 0.25 | 0.5 | 0.9 | 30~56 | 245 |
| 1055-CMD03 | 10 | 0.3 | 0.5 | 2.1 | 2.9 | 16 | 10 | 0.84 | 0.25 | 0.5 | 0.9 | 30~56 | 245 |
| 1055-CMD04 | 5 | 0.4 | 0.9 | 3.4 | 4.8 | 18 | 10 | 1.37 | 0.41 | 0.7 | 1.4 | 43~77 | 351 |
| 1055-CMD05 | 10 | 0.4 | 0.9 | 3.4 | 4.8 | 18 | 10 | 1.37 | 0.41 | 0.7 | 1.4 | 43~77 | 351 |
| 1055-CMD06 | 10 | 0.7 | 1.5 | 5.6 | 7.9 | 22 | 12 | 2.29 | 0.69 | 2.3 | 4.6 | 65~120 | 533 |
| 1055-CMD07 | 20 | 0.7 | 1.5 | 5.6 | 7.9 | 22 | 12 | 2.29 | 0.69 | 2.3 | 4.6 | 65~120 | 533 |
| 1055-CMD10 | 10 | 1.2 | 2.5 | 9.3 | 13 | 28 | 16 | 3.76 | 1.13 | 3.8 | 7.5 | 100~193 | 828 |
| 1055-CMD11 | 20 | 1.2 | 2.5 | 9.3 | 13 | 28 | 16 | 3.76 | 1.13 | 3.8 | 7.5 | 100~193 | 828 |
| 1055-CMD20 | 10 | 2 | 4.3 | 15.8 | 22.2 | 36 | 20 | 6.40 | 1.92 | 6.4 | 12.8 | 170~267 | 1400 |
| 1055-CMD21 | 20 | 2 | 4.3 | 15.8 | 22.2 | 36 | 20 | 6.40 | 1.92 | 6.4 | 12.8 | 170~267 | 1400 |

| Referans Nr. | Strok (mm) Stroke (mm) | B | C | D | E | F | G | (Yassılar arasında sv genişliği) (hex width across flats) sw | (Üç kesim dişli) (tip section thread) M1 | (Dişli gövde) (threaded body) M2 | P | Q | R | S | T | (Hidrolik bağlantı girişi) (hydraulic connection port) U | V | W | X | Y | O-ring Z | O-ring ZZ |
|--------------|---------------------------|----|------|-----|----|------|------|--|--|--|-----|------|----|------|-----|--|---|-----|---|---|----------|-----------|
| | | | | | | | | | | | | | | | | | | | | | | |
| CMD02 | 5 | 10 | 20.3 | 51 | 10 | 7.5 | 27 | 17 | M6×1 depth 11 | M22 ×1.5 | 6.5 | 20.5 | 13 | 32.5 | 5.5 | 3 | 5 | 7 | 4 | 3 | P6 | AS568-017 |
| CMD03 | 10 | 10 | 20.3 | 65 | 15 | 7.5 | 36 | 17 | M6×1 depth 11 | M22 ×1.5 | 6.5 | 20.5 | 13 | 41.5 | 5.5 | 3 | 5 | 7 | 4 | 3 | P6 | AS568-017 |
| CMD04 | 5 | 10 | 23.3 | 51 | 10 | 8 | 26.5 | 19 | M6×1 depth 11 | M25 ×1.5 | 6.5 | 23.5 | 14 | 32 | 5.5 | 3 | 5 | 7.5 | 4 | 3 | P6 | AS568-019 |
| CMD05 | 10 | 10 | 23.3 | 65 | 15 | 8 | 35.5 | 19 | M6×1 depth 11 | M25 ×1.5 | 6.5 | 23.5 | 14 | 41 | 5.5 | 3 | 5 | 7.5 | 4 | 3 | P6 | AS568-019 |
| CMD06 | 10 | 12 | 28.3 | 69 | 16 | 9.5 | 35.5 | 24 | M8×1.25 depth 18 | M30 ×1.5 | 8 | 28.5 | 15 | 42.5 | 7 | 3 | 5 | 9.5 | 4 | 3 | P6 | AS568-022 |
| CMD07 | 20 | 12 | 28.3 | 96 | 26 | 9.5 | 52.5 | 24 | M8×1.25 depth 18 | M30 ×1.5 | 8 | 28.5 | 15 | 59.5 | 7 | 3 | 5 | 9.5 | 4 | 3 | P6 | AS568-022 |
| CMD10 | 10 | 16 | 34.3 | 73 | 17 | 11.5 | 35.5 | 30 | M10×1.5 depth 20 | M36 ×1.5 | 9 | 34.5 | 17 | 43.5 | 8 | 4 | 5 | 12 | 4 | 3 | P6 | AS568-026 |
| CMD11 | 20 | 16 | 34.3 | 101 | 27 | 11.5 | 53.5 | 30 | M10×1.5 depth 20 | M36 ×1.5 | 9 | 34.5 | 17 | 61.5 | 8 | 4 | 5 | 12 | 4 | 3 | P6 | AS568-026 |
| CMD20 | 10 | 20 | 46.3 | 80 | 19 | 13.5 | 35.5 | 41 | M12×1.75 depth 22 | M48 ×1.5 | 12 | 46.5 | 20 | 46.5 | 11 | 6 | 7 | 15 | 4 | 3 | P8 | AS568-031 |
| CMD21 | 20 | 20 | 46.3 | 109 | 29 | 13.5 | 54.5 | 41 | M12×1.75 depth 22 | M48 ×1.5 | 12 | 46.5 | 20 | 65.5 | 11 | 6 | 7 | 15 | 4 | 3 | P8 | AS568-031 |

Ürün Nr. 1055 Hidrolik Çekme Dişli Silindir

Product Nr. 1055 Hydraulic Pull Cylinder



| Referans Nr. | Kuvvet Desteği 70kg / cm ² Supporting Force | Strok Stroke | Max Basınç Max. Pressure | Normal Basınç Normal Pressure | Temas Kuvveti Contact force | A | B | C | D | E | F | G | H | I | J | K | M | N | O | P | Q | R | S | CA | CB | CC | Ağırlık Weight (kg) | |
|--------------|---|-----------------|-----------------------------|----------------------------------|--------------------------------|-----|----|-----|------|----|---|----|----|----|------|------|-----|---------|---------|----|------|----|--------|----------|----------|-------|------------------------|------|
| 1056-WST26BL | 200 kg | 6 | 105 kg / cm ² | 25 - 70 kg / cm ² | 0.67 | 66 | 48 | 6.5 | 9 | 5 | 4 | 24 | 9 | 10 | - | - | - | M6 x9D | - | 24 | 26 | 10 | M26 x1 | M26 x1 | 20-30 | 2 | 0.20 | |
| 1056-WST30BL | 300 kg | 8 | | | 0.96 | 73 | 53 | 9.5 | 9 | 7 | 4 | 4 | 27 | 8 | 10 | - | - | - | M6 x9D | - | 28 | 30 | 10 | M30 x1.5 | M26 x1.5 | 20-50 | 9 | 0.25 |
| 1056-WST36BL | 360 kg | 8 | | | 2.12 | 69 | 50 | 9.5 | 8 | 7 | 4 | 4 | 32 | 11 | 10 | - | - | - | M8 x11D | - | 34.2 | 36 | 13 | M36 x1.5 | M26 x1.5 | 20-48 | 8 | 0.35 |
| 1056-WSU40BL | 360 kg | 8 | | | 1.82 | 67 | 31 | 25 | 14.5 | 7 | 4 | - | 11 | 12 | 22.5 | 31.5 | 5.5 | M10 x8 | 26 | 34 | 45 | 13 | Ø40 | Ø40 | - | - | 0.60 | |
| 1056-WSU48BL | 720 kg | 10 | | | 2.16 | 75 | 39 | 23 | 13.5 | 9 | 4 | - | 12 | 11 | 25.5 | 35.5 | 5.5 | M10 x8 | 30 | 40 | 51 | 14 | Ø48 | Ø48 | - | - | 0.80 | |
| 1056-WSU55BL | 840 kg | 12 | | | 1.33 | 85 | 45 | 23 | 11.5 | 11 | 6 | - | 15 | 14 | 30.5 | 39 | 6.8 | M10 x10 | 33.5 | 47 | 60 | 18 | Ø55 | Ø55 | - | - | 1.40 | |
| 1056-WSU65BL | 1200 kg | 14 | | | 1.05 | 101 | 56 | 27 | 14.5 | 12 | 6 | - | 17 | 14 | 35 | 46 | 6.8 | M10 x10 | 40.5 | 55 | 70 | 20 | Ø55 | Ø55 | - | - | 2.20 | |

Ürün Nr. 1056 Hidrolik İş Parçası Desteği

Product Nr. 1056 Hydraulic Work Support

İş Parçası Desteği

- Hidrolik basınç aralığı 25-70 kg/cm², borulu ve manifoldlu montaj seçeneği vardır.
- Giriş ağızı küçük olduğundan dolayı pistonun yükselme hızını azaltır, iş parçasına olan temasının şok ve toleransını azaltır.

Önemli Notlar

- Hidrolik yağın saflığı: İş parçası desteğinin iç parçaları hassas olduğundan ve ürünün ömrünü etkileyeceğinden hidrolik yağın saflığı çok önemlidir, kötü yağ kullanımı destek kuvvetini etkiler.
- Silindir gövdenin temizlenmesi: Her işlemten sonra hava tabancasıyla temizleyiniz.
- Lütfen iş parçası desteğinin deformasyona uğramaması için aşağıdaki konulara dikkat ediniz.
 - A: Piston mili üzerine, merkezi kaçık kuvvet uygulamayınız.
 - B: Belirtilen kuvvet desteği üzerinde güç uygulamayınız.
 - C: Piston kilitlendikten sonra çevirme işlemi yapmayınız.



WSU

WST

Work Support Low Pressure

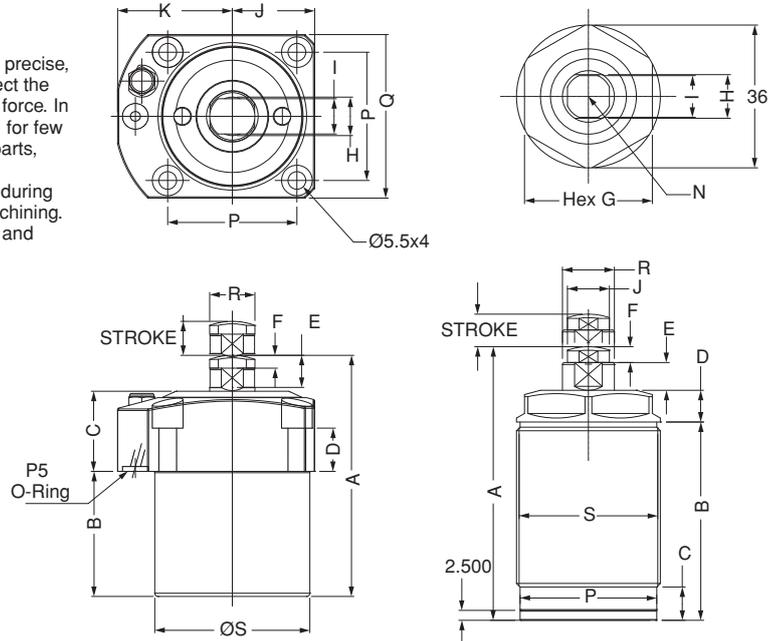
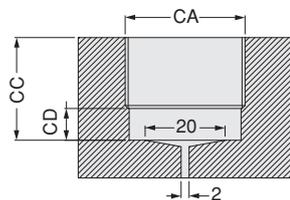
- The operating range is 25-70 kg/cm², the mounting type includes thread body and upper flange, and we have piping mounting and manifold mounting in upper flange type.
- Inlet orifice is smaller, so it can reduce the speed of plunger when it is rising, it can reduce the impact onto workpiece, and reduce the tolerance which is caused by instant shock.

The important issue when you use work support

- The purity of hydraulic oil: the inner parts installed in work support are very precise, so the purity of hydraulic oil becomes a very important issue which can affect the life cycle of work support, bad quality of oil will cause to lose its supporting force. In usual, the work support will work well again after we clean the hydraulic oil, for few conditions, we need to disassemble the work support and clean the inner parts, even we need to replace oil seal.
- Clean the cylinder body: the metal impurity is possible going into the collet during the action, please make sure to clean by using an air gun after each machining.
- Please avoid the following condition, otherwise the collet will be deformed, and plunger will not work, or will lose supporting force.

- A: Apply eccentric force onto plunger.
- B: Apply an load which exceeds the estimated supporting force.
- C: To turn the plunger when it is locked at supporting position

Montaj Detayı / Mounting Details



| Referans Nr. | Çalışma Özelliği Advane Method | Kuvvet Desteği 20 Mpa Supporting Force | Strok Stroke | Max. Basıncı Max. Pressure | Min. Basıncı Min. Pressure | Normal Basıncı Normal Pressure | Çalışma Sıcaklığı Operating Temperature | Temas Kuvveti / kg Contact force | A | B | C | C1 | D | D1 | D2 | E | F | H1 | H2 | K | L | Q | U1 | U2 | O (O-ring) | Port | Ağırlık Weight (kg) | | |
|--------------|-----------------------------------|---|-----------------|-------------------------------|-------------------------------|-----------------------------------|--|-------------------------------------|-------|------|------|------|----------|------|------|----|------|------|----------|----------|------|------|------|------|---------------|------|------------------------|---|------|
| 1056-WS16A | Yay Spring | 600 kgf | 8 | 35 Mpa | 5 Mpa | 21 Mpa | 0° ~ +70° | - | 85.1 | 75.4 | 64.5 | 23.9 | M35 x1.5 | 38.1 | 60.5 | 16 | 12.4 | 11.2 | 7.6 | M10 x1.5 | 4.5 | - | 41.1 | 23.9 | - | - | 0.60 | | |
| 1056-WS16B | Hidrolik Hydraulic | 600 kgf | 8 | | | | | 2.35 | 99.3 | 89.7 | 78.7 | 27.4 | M35 x1.5 | 38.1 | 60.5 | 16 | 12.4 | 14.2 | 17.8 | M10 x1.5 | 4.5 | - | 41.1 | 23.9 | - | - | - | - | 0.60 |
| 1056-WS30A | Yay Spring | 800 kgf | 13 | | | | | - | 105 | 92 | 83 | 25 | M60 x1.5 | 64 | 64 | 25 | 19 | 12.5 | - | M10 x1.5 | - | - | 52 | 52 | P7 | G1/8 | 1.80 | | |
| 1056-WS25B | Hidrolik Hydraulic | 800 kgf | 10.4 | | | | | 6.25 | 102.1 | 91.7 | 77.5 | 26.5 | M50 x1.5 | 64 | 64 | 25 | 19 | 14 | 17.5 | M16 x2 | 6 | 24.5 | 50 | 50 | P7 | G1/8 | 1.80 | | |
| 1056-WS38A | Yay Spring | 1200 kgf | 10.4 | | | | | - | 96.5 | 86.1 | 74.9 | 24.9 | M68 x1.5 | 69.9 | 82.6 | 39 | 25.4 | 12.2 | 10.2 | M20 x2.5 | 6.1 | 27.4 | 55.4 | 55.4 | P10 | G1/8 | 2.20 | | |
| 1056-WS38B | Hidrolik Hydraulic | 1200 kgf | 10.4 | | | | | 8.86 | 102.1 | 91.7 | 78 | 26.4 | M68 x1.5 | 69.9 | 82.6 | 38 | 25.4 | 13.2 | M20 x2.5 | 6.1 | 27.4 | 55.4 | 55.4 | P10 | G1/8 | 2.20 | | | |

Ürün Nr. 1056 Hidrolik İş Parçası Desteği

Açıklama

İş parçası desteği işlem esnasında vibrasyonu düşürmek ve deformasyonu engellemek için kullanılır.

Türleri

A tipi : Yayla itme; Piston milini en yüksek pozisyondayken iş parçası pozisyonu ayarlanır.

B tipi : Yağ basıncıyla itme; Piston milini en alçak pozisyonda iken iş parçası pozisyonu ayarlanır.

Product Nr. 1056 Hydraulic Work Support

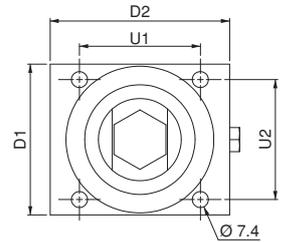
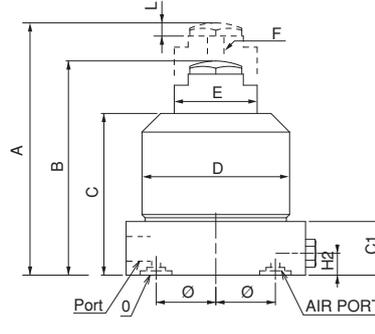
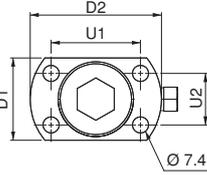
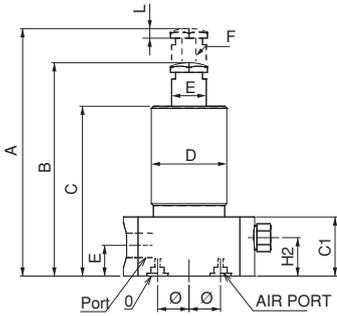
Description

Hydraulic work support is used for avoiding deformation and decreasing vibration during machining.

Types

A type : knocking-out with a spring; the spring is used to control a contact force when the knocking out rod (piston rod) extends to a highest knocking-out position and contacts the workpiece.

B type : Knocking-out with oil pressure; when the knocking-out rod is at lowest position, it is operated by means of oil pressure and is knocked out when being filled with oil and uses a spring to control the contact force with the workpiece.



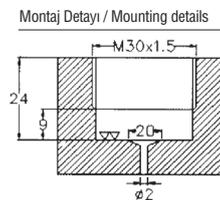
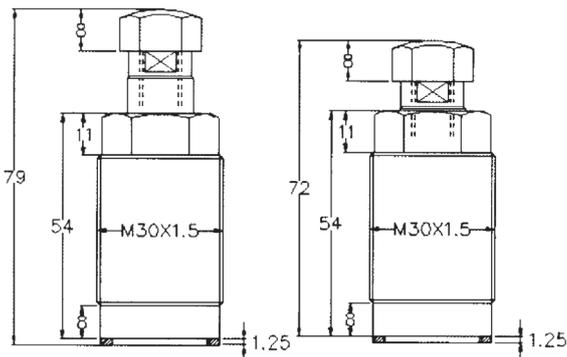
| Referans Nr. | Çalışma Yağ Basıncı Operating Oil Pressure | Hareket Tipi Acting Type | Strok Stroke | Piston Çubuğu Piston Rod Ø (mm) | Kuvvet Desteği 200kg/cm² Supporting Force | Temas Kuvveti / kg Contact force | A | B | C | D | E | F | Ağırlık Weight (kg) |
|--------------|---|-----------------------------|-----------------|------------------------------------|---|-------------------------------------|----|----|---|----------|----|---|------------------------|
| 1056-SP16A | 100-350 kg/cm² | Yaylı Spring | 8 | 16 | 210 kg | - | 79 | 54 | 8 | M30 x1.5 | 11 | 8 | 0.30 |
| 1056-SP16B | 100-350 kg/cm² | Hidrolik Hydraulic | 8 | 16 | 210 kg | 2.35 | 72 | 54 | 8 | M30 x1.5 | 11 | 8 | 0.30 |

Hidrolik İş Parçası Desteği

Hydraulic Work Support

Ürün Nr. 1056 Hidrolik İş Parçası Desteği

Product Nr. 1056 Hydraulic Work Support



SP16A

SP16B

| Referans Nr. | Piston Ø D (mm) | Rod Ø d (mm) | Force to pull at 100 bar (kgf) | Force to pull at 400 bar (kgf) | Spring return force, min. (N) | Oil volume per 10 mm stroke (cm ³) | a (mm) | b (mm) | c (mm) | f (mm) | g (mm) | h (mm) | k (mm) | m (mm) | n (mm) | o | p | r (mm) | s (mm) | t (mm) | SW (mm) | Strok ± 1 (mm) | l ± 1 (mm) | Ağırlık Weight (kg) |
|--------------|-----------------|--------------|--------------------------------|--------------------------------|-------------------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|--------|--------|--------|---------|----------------|------------|---------------------|
| 1057-010016 | 16 | 10 | 110 | 500 | 40 | 1.22 | 60 | 35 | 22 | 30 | 6.5 | 30 | 17.5 | 16.5 | 11 | M6x12 | G1/4 | - | 40 | 22 | 8 | 8 | 78 | 0.8 |
| 1057-010025 | 25 | 16 | 270 | 1100 | 140 | 2.90 | 65 | 45 | 27 | 50 | 8.5 | 33 | 22.5 | 18 | 11 | M10x15 | G1/4 | - | 50 | 30 | 13 | 8 | 91 | 1.2 |
| 1057-010032 | 32 | 20 | 460 | 2000 | 195 | 4.90 | 75 | 55 | 35 | 55 | 10.5 | 38 | 27.5 | 22 | 11 | M12x15 | G1/4 | - | 55 | 35 | 17 | 10 | 110 | 1.8 |
| 1057-010040 | 40 | 25 | 730 | 3500 | 270 | 7.65 | 85 | 63 | 35 | 63 | 10.5 | 40 | 31.5 | 24 | 11 | M16x25 | G1/4 | 4 | 63 | 40 | - | 10 | 114 | 2.6 |
| 1057-010050 | 50 | 32 | 1100 | 4700 | 440 | 11.60 | 100 | 75 | 35 | 76 | 13 | 44 | 37.5 | 27 | 13 | M20x25 | G1/4 | 4 | 76 | 45 | - | 12 | 125 | 3.8 |
| 1057-010063 | 63 | 40 | 1790 | 7500 | 430 | 18.60 | 125 | 95 | 44 | 95 | 17 | 50 | 47.5 | 26 | 17 | M27x40 | G1/2 | 4 | 95 | 65 | - | 12 | 146 | 6.7 |
| 1057-010080 | 80 | 50 | 2920 | 12400 | 760 | 30.63 | 160 | 120 | 46 | 120 | 21 | 60 | 60 | 34 | 21 | M30x40 | G1/2 | 5 | 120 | 80 | - | 12 | 193 | 12.8 |

Ürün Nr. 1057 Çekme Tipi Silindir

• Uzunluk ve açı ölçüleri DIN 7168-m'ye göre dir.

Product Nr. 1057 Pull-Type Cylinder

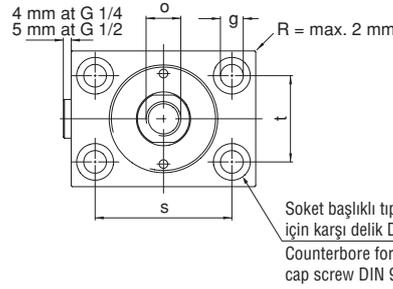
• Tolerances for length and angle dimensions as per DIN 7168-m

Önemli Notlar

Eğer sinterli metalin hava filtresinden silindirin içine, agresif talaş kaldırmadan dolayı, yağ veya soğutma suyu girme olasılığı var ise, bir hava deliği hortumunu bağlanıp korunaklı bir pozisyona yerleştirilmeli.

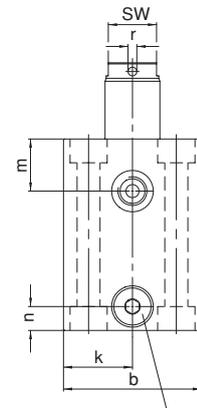
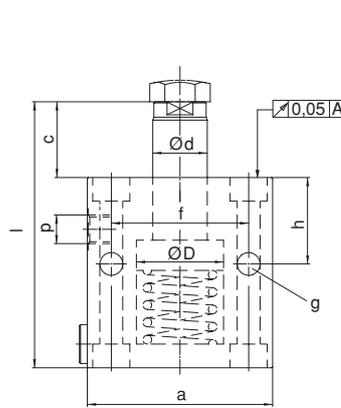
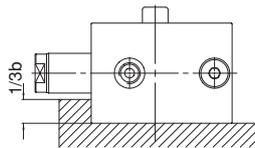
Important notes

If there is a possibility that aggressive cutting lubricants and coolants penetrate through the sintered metal air filter into the cylinder's interior, a vent hose has to be connected and be placed in a protected position.



250 barı aşan çalışma basınçlarında silindirler önden destekli olmalıdır.

Cylinders must be supported at the front for operating pressures exceeding 250 bar



Sinter metalden hava filtreli soket yeri
Bleeding by plug with sintered metal air filter

Uygulama

Bir işparçası takım ile işlenirken, işparçasının operatör tarafından yerleştirilmesi - alınmasına olanak yoksa ve daha yüksek bağlama kuvvetine ihtiyaç duyuyorsa, pnömatik dönmeli bağlama silindiri en iyi seçim olacaktır.

Fonksiyon

Bu silindir çekme özelliğine sahiptir. Toplam bağlama stroku, dönme ve çekme strokuna eşittir.

Tip

Bu silindir aşağı doğru baskı yapar. Saat yönüne ve ters istikametine çift hareketli çeşidi vardır. Standart 90° olup, fonksiyonel 0°-45° ve 60° açılara sahiptir. Bağlama şekline tek kol veya çift kol dahildir. Bağlama türüne dişli tip ve o-ring keçeli manifoldlu tipi için alttan flanşlı dahildir.

Malzeme

Ana gövdenin malzemesi alüminyum alaşımıdır.



Application

When machining a workpiece by means of a machine tool, a pneumatic swing clamping cylinder will be your best choice if the placing and taking of the workpiece are not allowed to be interfered by the clammer and need a larger clamping force.

Function

This cylinder belongs to a pull cylinder of which the total stroke is equal to the sum of a swing stroke and a clamping stroke, and is usually used within the clamping stroke.

Type

This swing cylinder belongs to a double-acting type which is operated mainly in a downward pressing manner, including clockwise swing and counterclockwise swing; standard angle is 90°, and optional angles include 0°, 45°, 60°; clamping means includes single arm or double arms; the mounting manner includes threaded type and lower flange type for manifold mounting with O-ring seal.

Material

This material of the main body is aluminum alloy.

Sipariş örneği / Ordering example

Referans Nr.

NAS

Temel No.
Base No.

T

Tip / Type

Flanş
Flange

T: Dişli
T: Threaded

D

Kol Tipi / Arm Type

D: Çift Hareket
D: Double Arm

Boş: Tek Hareket
Blank: Single Arm

L -

Dönüş İstikameti

Swivel Direction

L: Sol
L: Left

R: Sağ
R: Right

40

Piston Ø

25
32
40
50
63

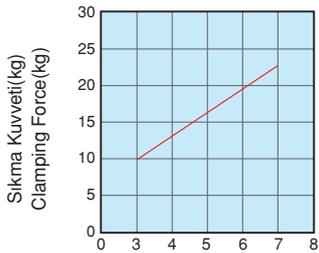
x 90° -

Açı / Angle

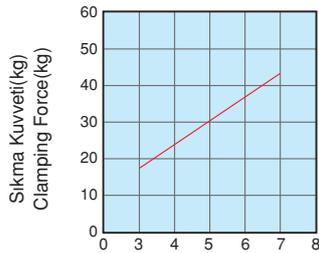
0°
45°
60°
90°
180°

Değişik hidrolik basınçlar altında teorik bağlama gücünü gösteren şematik tablolar

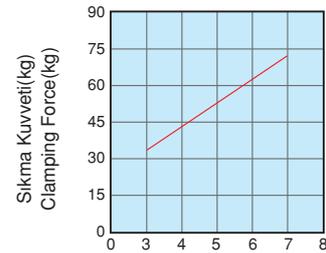
Schematic view showing a theoretical clamping force under different hydraulic pressure:



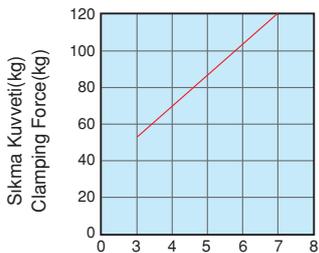
Çalışma Basıncı (kg/cm²)
Operating Pressure (kg/cm²)
Bore Dia=25



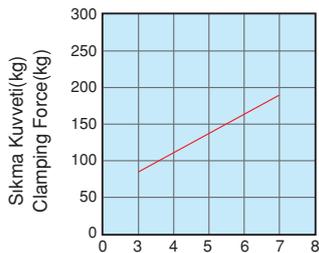
Çalışma Basıncı (kg/cm²)
Operating Pressure (kg/cm²)
Bore Dia=32



Çalışma Basıncı (kg/cm²)
Operating Pressure (kg/cm²)
Bore Dia=40

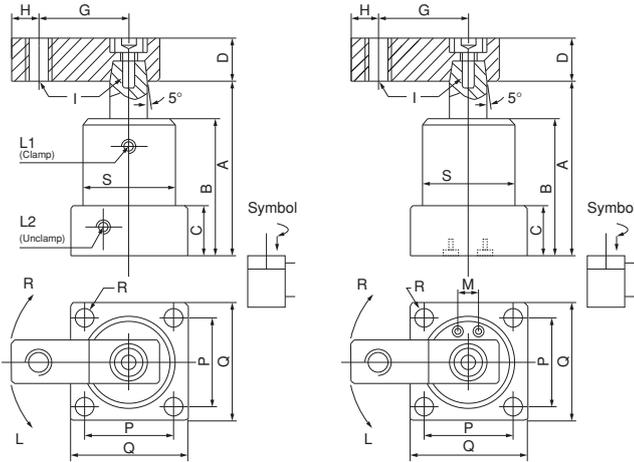


Çalışma Basıncı (kg/cm²)
Operating Pressure (kg/cm²)
Bore Dia=50



Çalışma Basıncı (kg/cm²)
Operating Pressure (kg/cm²)
Bore Dia=63

| Referans Nr. | Bağlama Tipi Mounting Type | Bağlama Kolu Clamping Arm | Max. Basınç Max. Pressure | Normal Basınç Normal Pres. | Hareket Tipi Acting Type | Dönme Açısı Swivel Angle | Dönme Strok Swivel Stroke (mm) | Bağlama Strok Clamp Str. (mm) | Delik Çapı / Bore Diameter Ø (mm) | Piston Çubuğu Piston Rod Ø | Bağl. Gücü/Clamp Force (kg/cm ²) | A (mm) Sökme Unclamp | B (mm) | C (mm) | D (mm) | G (mm) | H (mm) | L1 Bağlama / Clamp L2 Sökme / Unclamp | I (mm) | P (mm) | Q (mm) | R (mm) | S (mm) | M (mm) | F (mm) | Ağırlık Weight (kg) |
|--------------|-------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|------------------------------|-----------------------------------|----------------------------------|--------------------------------------|-------------------------------|---|-------------------------|--------|--------|--------|--------|--------|--|--------|--------|--------|--------|--------|--------|--------|------------------------|
| 1058-NAS025 | Flanş / Bottom Flange | Tel Kol / Single Arm | 7 kg/cm ² | 4-6 kg/cm ² | Çift Hareketli / Double Acting | 90° (0° 45°, 60°, 180°) ± 2° | 12 | 14 | 25 | 14 | 16 | 95.5 | 65.5 | 23 | □ 16 | 30 | 8 | M5 | M6 | 30 | 40 | Ø 4.5 | Ø 35 | 18 | 12.5 | 0.40 |
| 1058-NAS032 | | | | | | | 12 | 14 | 32 | 16 | 30 | 102.5 | 71 | 23 | □ 19 | 50 | 9 | 1/8 PF | M8 | 44 | 54 | 6.5 | Ø 50 | 22 | 17 | 0.70 |
| 1058-NAS040 | | | | | | | 12 | 15 | 40 | 16 | 50 | 106 | 75 | 26 | □ 19 | 50 | 9 | 1/8 PF | M8 | 48 | 58 | 6.5 | Ø 55 | 26 | 19.5 | 0.85 |
| 1058-NAS050 | | | | | | | 14 | 15 | 50 | 20 | 85 | 113 | 80 | 26 | □ 25.4 | 70 | 10 | 1/8 PF | M10 | 55 | 68 | 8.5 | Ø 65 | 30 | 24 | 1.30 |
| 1058-NAS063 | | | | | | | 14 | 15 | 63 | 20 | 140 | 119 | 86 | 30 | □ 25.4 | 70 | 10 | 1/8 PF | M10 | 64 | 80 | 8.5 | Ø 70 | 40 | 20 | 1.80 |



Ürün Nr. 1058 Pnömatik Dönmeli Bağlama
Product Nr. 1058 Pneumatic Swing Clamp

NAS – Flanşlı Uyarılama, Tek Kol Borulu veya Manifoldlu

NAS – Flange Version, Single Arm With Pipe or the Manifold

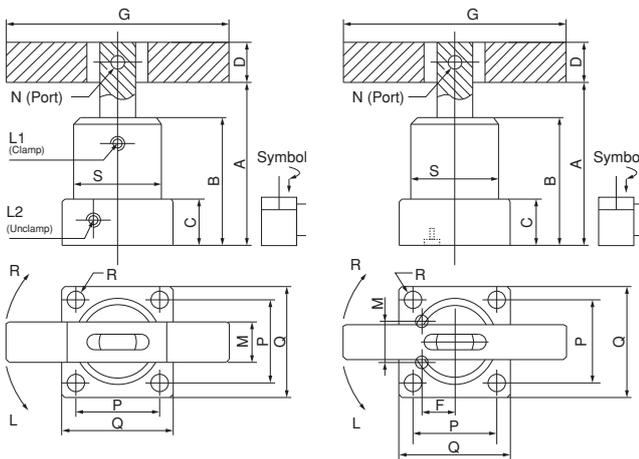
- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



Pnömatik Dönmeli Bağlama

Pneumatic Swing Clamp

| Referans Nr. | Bağlama Tipi Mounting Type | Bağlama Kolu Clamping Arm | Max. Basınç Max. Pressure | Normal Basınç Normal Pres. | Hareket Tipi Acting Type | Dönme Açısı Swivel Angle | Dönme Strok Swivel Stroke (mm) | Bağlama Strok Clamp Str. (mm) | Delik Çapı / Bore Diameter Ø (mm) | Piston Çubuğu Piston Rod Ø | Bağl. Gücü/Clamp Force (kg/cm ²) | A (mm) Sökme Unclamp | B (mm) | C (mm) | D (mm) | G (mm) | H (mm) | L1 Bağlama / Clamp L2 Sökme / Unclamp | N (mm) | P (mm) | Q (mm) | R (mm) | S (mm) | M (mm) | F (mm) | Ağırlık Weight (kg) |
|--------------|-------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|------------------------------|-----------------------------------|----------------------------------|--------------------------------------|-------------------------------|---|-------------------------|--------|--------|--------|--------|--------|--|--------|--------|--------|--------|--------|--------|--------|------------------------|
| 1058-NASD032 | Flanş / Bottom Flange | Çift Kol / Double Arm | 7 kg/cm ² | 4-6 kg/cm ² | Çift Hareketli / Double Acting | 90° (0° 45°, 60°, 180°) ± 2° | 12 | 14 | 32 | 16 | 30 | 102.5 | 71 | 23 | □ 19 | 100 | 1/8 PF | Ø 8 | 44 | 54 | 6.5 | Ø 50 | 22 | 17 | 0.80 | |
| 1058-NASD040 | | | | | | | 12 | 15 | 40 | 16 | 50 | 106 | 75 | 26 | □ 19 | 100 | 1/8 PF | Ø 8 | 48 | 58 | 6.5 | Ø 55 | 26 | 19.5 | 0.95 | |
| 1058-NASD050 | | | | | | | 14 | 15 | 50 | 20 | 85 | 113 | 80 | 26 | □ 22 | 120 | 1/8 PF | Ø 8 | 55 | 68 | 8.5 | Ø 65 | 30 | 24 | 1.40 | |
| 1058-NASD063 | | | | | | | 14 | 15 | 63 | 25 | 140 | 119 | 86 | 30 | □ 22 | 120 | 1/8 PF | Ø 8 | 64 | 80 | 8.5 | Ø 75 | 40 | 29 | 1.90 | |



Ürün Nr. 1058 Pnömatik Dönmeli Bağlama
Product Nr. 1058 Pneumatic Swing Clamp

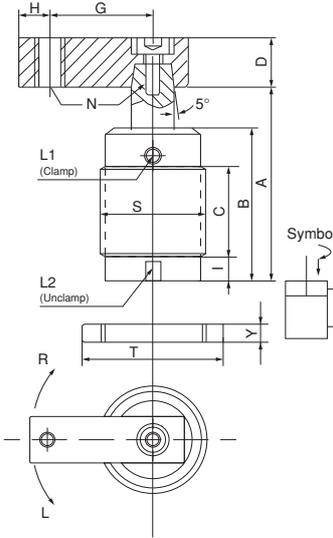
NASD – Flanşlı Uyarılama, Çift Kol Borulu veya Manifoldlu

NASD – Flange Version, Double Arms With Pipe or the Manifold

- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



| Referans Nr. | Bağlama Tipi Mounting Type | Bağlama Kolu Clamping Arm | Max. Basınç Max. Pressure | Normal Basınç Normal Pres. | Hareket Tipi Acting Type | Dönme Açısı Swivel Angle | Dönme Strok Swivel Stroke (mm) | Bağlama Strok Clamp. Str. (mm) | Delik Çapı / Bore Diameter Ø (mm) | Piston Çubuğu Piston Rod Ø | Bağl. Gücü/Clamp Force (kg/cm ²) | A (mm) Sökme Unclamp | B (mm) | C (mm) | D (mm) | G (mm) | H (mm) | I (mm) | L1 Bağlama / Clamp L2 Sökme / Unclamp | N (mm) | S (mm) | T (mm) Kona. Sm. 2 ad. T (mm) 2 pcs/set | Y (mm) | Ağırlık Weight (kg) |
|--------------|-------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|-----------------------------|-----------------------------------|-----------------------------------|--------------------------------------|-------------------------------|---|-------------------------|--------|--------|---------|--------|--------|--------|--|-------------|-------------|--|--------|------------------------|
| 1058-NATS025 | Dişli Gövde / Threaded Body | Tek Kol / Single Arm | 7 kg/cm ² | 4-6 kg/cm ² | Çift Hareketli / Double Acting | 90° ± 2° | 14 | 14 | 25 | 14 | 16 | 104 | 70 | 35 | □ 16 | 50 | 6 | 10 | M5 | M6 x1 | M40 x1.5 | Ø 58 | 9 | 0.80 |
| 1058-NATS032 | | | | | | | 14 | 16 | 32 | 16 | 30 | 113 | 79 | 40 | □ 19 | 60 | 9 | 13 | 1/8 PF | M8 x1.25 | M50 x1.5 | Ø 70 | 11 | 1.10 |
| 1058-NATS040 | | | | | | | 14 | 15 | 40 | 16 | 50 | 116 | 83 | 45 | □ 19 | 70 | 9 | 13 | 1/8 PF | M8 x1.25 | M55 x1.5 | Ø 75 | 11 | 1.25 |
| 1058-NATS050 | | | | | | | 14 | 14 | 50 | 20 | 80 | 120 | 87 | 50 | □ 25 | 80 | 10 | 13 | 1/8 PF | M12 x1.5 | M65 x1.5 | Ø 85 | 12 | 1.70 |
| 1058-NATS063 | | | | | | | 15 | 15 | 63 | 20 | 140 | 127 | 92 | 56 | □ 25 | 90 | 10 | 13 | 1/8 PF | M12 x1.5 | M80 x1.5 | Ø 105 | 15 | 2.20 |


Ürün Nr. 1058 Pnömatik Dönmeli Bağlama
Product Nr. 1058 Pneumatic Swing Clamp

NATS – Dişli Uyarılama, Tek Kol Borulu

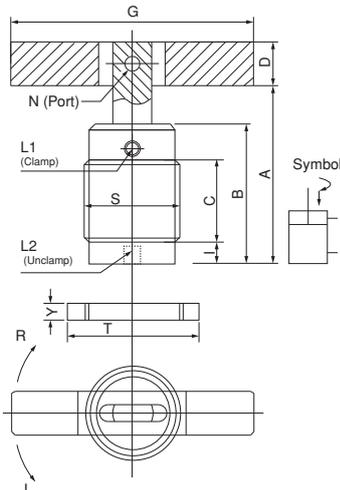
NATS – Threaded Version, Single Arm With Pipe

- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.


Pnömatik Dönmeli Bağlama

Pneumatic Swing Clamp

| Referans Nr. | Bağlama Tipi Mounting Type | Bağlama Kolu Clamping Arm | Max. Basınç Max. Pressure | Normal Basınç Normal Pres. | Hareket Tipi Acting Type | Dönme Açısı Swivel Angle | Dönme Strok Swivel Stroke (mm) | Bağlama Strok Clamp. Str. (mm) | Delik Çapı / Bore Diameter Ø (mm) | Piston Çubuğu Piston Rod Ø | Bağl. Gücü/Clamp Force (kg/cm ²) | A (mm) Sökme Unclamp | B (mm) | C (mm) | D (mm) | G (mm) | H (mm) | I (mm) | L1 Bağlama / Clamp L2 Sökme / Unclamp | N (mm) | S (mm) | T (mm) Kona. Sm. 2 ad. T (mm) 2 pcs/set | Y (mm) | Ağırlık Weight (kg) |
|---------------|-------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|-----------------------------|-----------------------------------|-----------------------------------|--------------------------------------|-------------------------------|---|-------------------------|--------|--------|---------|--------|--------|-----------|--|-------------|---------|--|--------|------------------------|
| 1058-NATSD032 | Dişli Gövde / Threaded Body | Çift Kol / Double Arm | 7 kg/cm ² | 4-6 kg/cm ² | Çift Hareketli / Double Acting | 90° (0° 45° 60° 180°) ± 2° | 14 | 16 | 32 | 16 | 30 | 113 | 79 | 40 | □ 19 | 100 | 13 | 1/8 PT | Ø 8 | M50 x1.5 | Ø 70 | 11 | 1.10 | |
| 1058-NATSD040 | | | | | | | 14 | 15 | 40 | 16 | 50 | 116 | 83 | 45 | □ 19 | 100 | 13 | 1/8 PT | Ø 8 | M55 x1.5 | Ø 75 | 11 | 1.30 | |
| 1058-NATSD050 | | | | | | | 14 | 14 | 50 | 20 | 85 | 120 | 77 | 50 | □ 22 | 120 | 13 | 1/8 PT | Ø 8 | M65 x1.5 | Ø 85 | 12 | 1.80 | |


Ürün Nr. 1058 Pnömatik Dönmeli Bağlama
Product Nr. 1058 Pneumatic Swing Clamp

NATSD – Dişli Uyarılama, Çift Kol Borulu

NATSD – Threaded Version, Double Arms With Pipe

- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



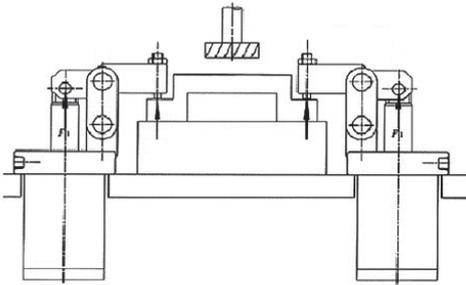
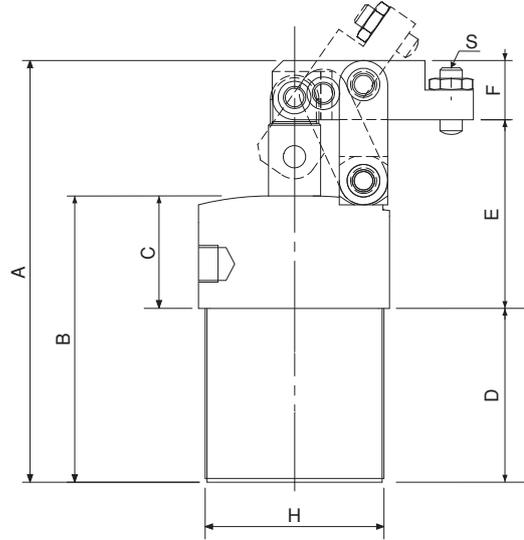
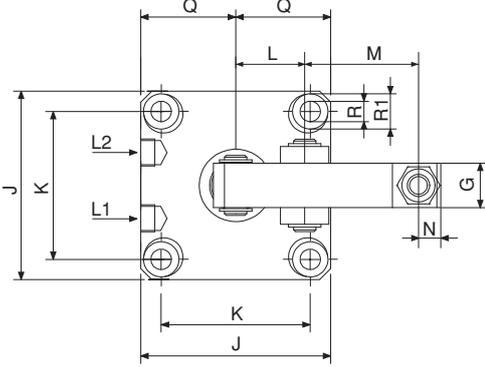
| Referans Nr. | Çalışma Basıncı Operating Pressure | Çalışma Isısı Temperature Range | Bağlama Tipi Mounting Type | Strok Stroke (mm) | Delik Çapı / Bore Diameter Ø (mm) | Piston Çubuğu Piston Rod Ø (mm) | Sıkma Kuvveti Clamping Force (kg) | A | B | C | D | E | F | G | H | I | J | K | L | M | O | N | P | Q | R | R1 | S | L1 Bağlama / Clamp L2 Sökme / Unclamp | Ağırlık Weight (kg) |
|--------------|---------------------------------------|------------------------------------|--|----------------------|--------------------------------------|------------------------------------|--------------------------------------|-------|------|----|------|----|----|----|-------------|-----|----|----|------|----|----|----|------|------|-----|----|--------------|--|------------------------|
| 1058-PLCU25 | 4-10 kgf/cm ² | -10° ~ +80° | Üst Flans ve Dişli Gövde Upper Flange & Threaded Body | 22 | Ø 25 | Ø 14 | 27 | 128.5 | 86.5 | 25 | 61.5 | 50 | 17 | 16 | M40 x1.5 | 60 | 50 | 37 | 18 | 23 | 23 | 7 | 35 | 25 | 5.5 | 9 | M6 x1 | M5 x0.8 | 0.60 |
| 1058-PLCU32 | | | | 28 | Ø 32 | Ø 16 | 40 | 149.5 | 97.5 | 25 | 72.5 | 57 | 20 | 18 | M50 x1.5 | 70 | 60 | 45 | 22 | 30 | 23 | 8 | 40 | 30 | 6.5 | 11 | M8 x1.25 | G 1/8 | 1.00 |
| 1058-PLCU40 | | | | 30 | Ø 40 | Ø 16 | 66 | 157.5 | 97.5 | 25 | 72.5 | 60 | 25 | 20 | M55 x1.5 | 75 | 65 | 50 | 24 | 32 | 26 | 10 | 42.5 | 32.5 | 6.5 | 11 | M8 x1.25 | G 1/8 | 1.20 |
| 1058-PLCU50 | | | | 30 | Ø 50 | Ø 20 | 105 | 174 | 104 | 25 | 79 | 65 | 30 | 22 | M65 x1.5 | 88 | 75 | 58 | 27.5 | 36 | 32 | 14 | 50.5 | 37.5 | 8.5 | 14 | M12 x1.75 | G 1/8 | 2.00 |
| 1058-PLCU63 | | | | 30 | Ø 63 | Ø 20 | 166 | 179 | 105 | 25 | 80 | 69 | 30 | 22 | M80 x1.5 | 108 | 90 | 70 | 32 | 42 | 35 | 14 | 63 | 45 | 8.5 | 14 | M12 x1.75 | G 1/8 | 2.70 |

Ürün Nr. 1058 Pnömatik Üstten Bağlama

Product Nr. 1058 Pneumatic Above Clamp



Borulu / With Pipe

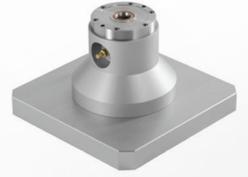


ER-EL ZERO CLAMP UYGULAMALARI

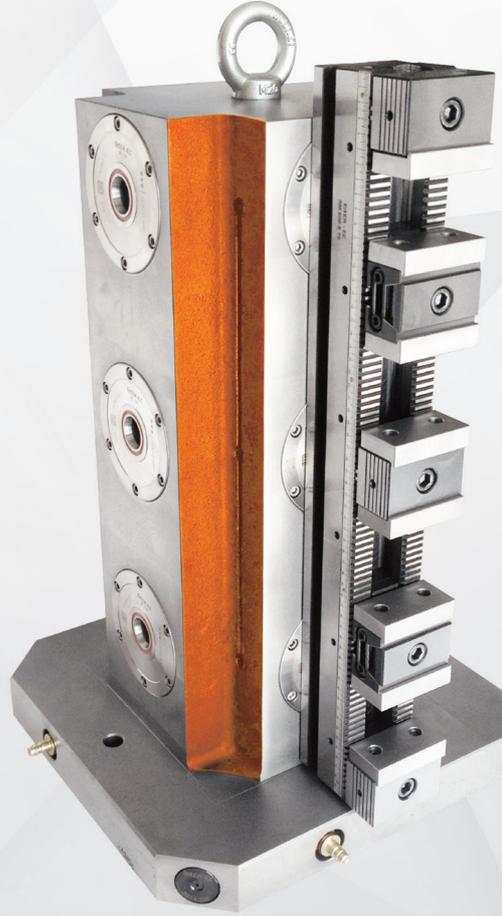
ER-EL ZERO CLAMP APPLICATION



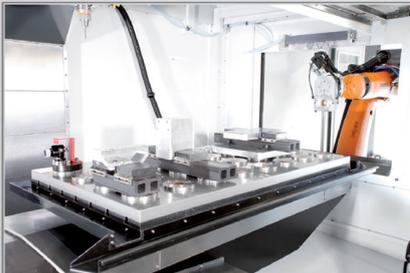
Tekrarlanabilen Hassasiyetin
Doruk Noktası
0,005 Tekrarlanabilen Hassasiyet
0,005 Repeat Accuracy



Nr. 2475



Nr. 2480





ER-EL[®] ZERO CLAMP

Zero Point Clamping Systems



Ø90
1250 kgf



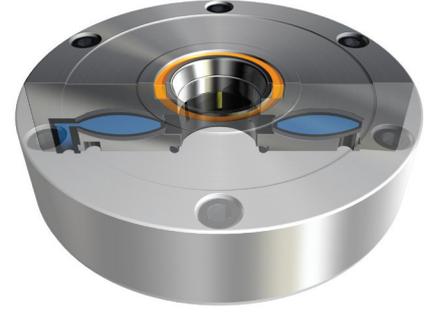
Ø120
2500 kgf



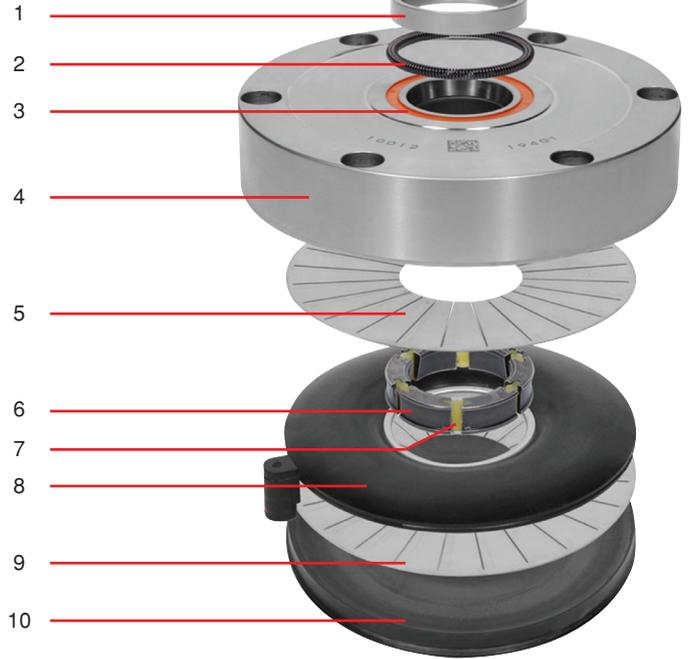
Ø138
4000 kgf



Ø190
6000 kgf

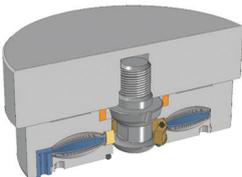
**Açıklama / Description**

- 1- Sertleştirilmiş çelik konik / Hardened steel cone
- 2- Radyal Yay / Radial spring
- 3- NBR kauçuk / NBR rubber
- 4- Ayna gövdesi / Chuck housing
- 5- Bağlama plakası / Clamping sheets
- 6- Kilitleme ünitesi / Locking unit
- 7- Ayraç (Elastomer) / Spacer (Elastomer)
- 8- Hava hortumu / Air hose
- 9- Bağlama plakaları / Clamping sheets
- 10- Gövde kapağı / Housing cover



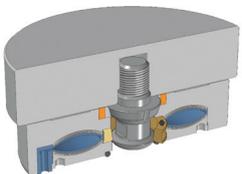
Plaka açık vaziyetteki ZeroClamp aynasına yerleştirilir.

The pallet is placed on the opened ZeroClamp chuck.



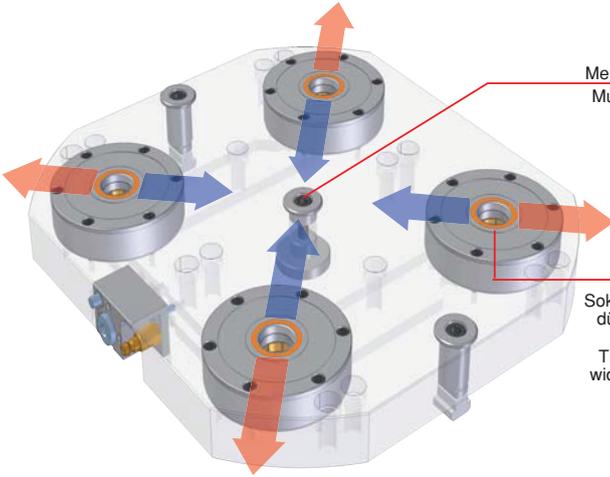
Hava hortumu içindeki hava basıncı sayesinde, yaylı elemanlar kilitleme ünitesini (bağlama plakalarını) açık tutar.

The spring elements keep the locking unit (clamping wedges) open with the help of the air pressure inside the air hose.



Hava hortumunun serbest bırakılması gövde içerisindeki kilitleme ünitesinin yerleşmesini ve sıkılmasını sağlar.

Venting the air hose results in the positioning and clamping of the clamp bolt in the chuck.



Merkez Sıfır Noktası / Absolute ZeroPoint
Mutlak ZeroPoint Termal bozulma daima merkez noktasına doğru yönlendirilir.

Thermal distortion is always directed towards the central point.

Hassas Konik / Precision cone

Soketin yaylı koniği HSK ilkesi kullanılarak düz yüzlere doğru hafifçe genişletilmiştir.

The sprung taper of the socket is slightly widened to flat faces using HSK principle.

- ZeroPoint : Termal değişim her zaman merkez eksene doğru dengelenir.
- Çekterme civatalarının konumu $\pm 0.1\text{mm}$ 'lik hatalara kadar dengelenebilir.
- Hassas bağlama konileri düşük titreşimli çalışmalara karşı sabittir.
- Özel kılıç şeklinde saplamalar veya çözme/kızaklı saplamalar gerekli değildir.

- Absolute ZeroPoint: Compensation for thermal change is always towards centre axis
- Clamping stud location errors of up to $\pm 0.1\text{mm}$ can be compensated for
- Precision clamping cones are free from play for low-vibration operation
- Special sword studs or loose/sliding studs are not required

HSK Prensipleri

Geleneksel sistemler merkezleme için silindirik bir oturma yüzeyi ya da sert bir konik kullanır. Silindirik oturma yüzeylerin her zaman bir oynama alanına ihtiyacı vardır (örneğin: 25 H5 tutucu / 25 h5 civata). Böyle bir alan 0.018 kadar çıkabilir. Konik oturmada koniğin şeklinin kusursuz olması gerekir. Aksi takdirde civatalar çok büyük olması durumunda, palet çıkar, veya oynama silindirik bir sistemdeki gibi olacaktır.

Zero Clamp sıfır noktası bağlama sisteminin işlevi, içi boş bir konik HSK sapına benzemektedir. Bu sistemde ince duvarlı konik, yüzeyi tam olarak oturma noktasının hatlarıyla eşleşene kadar deforme edilir.

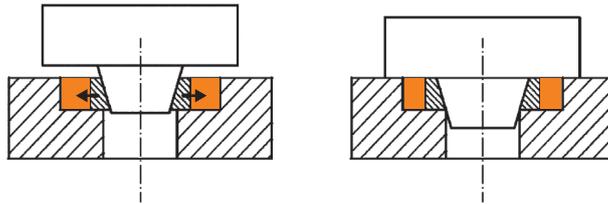
Zero Clamp sıfır noktası sıkma sistemi, yüzey ve konik temas kullanımıyla aynı şekilde çalışır. Konik çekilirken, oturma halkası minimal genişlemiş olacaktır. Böylece düzlem oturma noktası ile temas halinde paletin içinde veya iş parçasında herhangi bir oynama ortadan kalkar.

HSK Principle

Traditional systems use either a cylindrical seat or a rigid cone for centring. A cylindrical seat always requires some amount of play (i.e. 25 H5 holder / 25 h5 bolt). Play in such a combination may be as much as 0.018. With a conical fit the cone must be shaped precisely. Otherwise the pallet will protrude if the bolts are too large, or else the play will be the same as in a cylindrical system.

The function of the Zero Clamp zero point clamping system resembles that of a hollow cone HSK shank. In this system the thin-walled cone is deformed as it is drawn in until its surface exactly matches the contours of the seat.

Zero Clamp zero point clamping system works the same way, using face and taper contact. While the cone is being drawn in, the seat ring will be widened minimally. Within the pallet or the workpiece in contact with the plane seat and so any play is eliminated.



Karşılaştırma İşlemleri / Comparison Processes

Geleneksel kurulum süreci

Setup Process

Gerekli zaman / Required Time

%100

1. Tablanın temas yüzeylerini temizleyin / Clean the table's contact surfaces
2. Sıkma civatalarını ayarlayın / Adjust the clamping bolts
3. Hizala / Alignment
4. Sıkma vidaları ile sabitleyin / Secure with clamping screws
5. Sıfır noktalarını kontrol edin / Check the zero points
6. Programını başlatın. Programı Sonlandırın / Start the program, End the program

ER-EL Zero Clamp kurulum süreci

ER-EL Zero Clamp installation process

Gerekli zaman / Required Time

%10

1. Zero Clamp Temas yüzeylerini temizleyin / Clean the Zero Clamp contact surfaces
- 2.
3. Aradaki büyük zaman faktörü tamamen atlandı! / Biggest time factor completely omitted!
- 4.
- 5.
6. Programını başlatın, Programı sonlandırın / Start the program, End the program

| ZeroClamp Benzersiz Özellikleri ZeroClamp Unique Features | Benzer Ürünlerdeki Sistemler Competitor Systems |
|---|--|
| <p>Basit düzeni ile tasarım tescilli patent Sadece birkaç basit bileşenle son derece güvenilir bir tasarım sağlar. Hatta talaş bile ünitenin fonksiyonunu etkilemez.</p> <p>Patent-registered design with a simple layout. Just a few simple components provide an extremely reliable desing. Even swarf will not affect the function of the clamping unit.</p> | <p>Bilyeli burç, piston, valf vs. gibi karışık mekanizmalar. Talaş ile tıkanığında bloke olma veya arızalanma riski vardır.</p> <p>Complex mechanics using ball cages, pistons, valves, etc. When contaminated with swarf there is a risk of blockage and/or malfunction.</p> |
| <p>HSK prensibi nedeniyle yüksek hassasiyet Sıkma civatası, geri çekildiğinde, aynanın konik halka elastik kısmı genişletilip, 0.005 mm'den biraz daha az bir tekrarlama ile mükemmel ve son derece hassas bir uyum sağlayacaktır.</p> <p>High precision due to the HSK principle When retracting the clamping bolt, the elastic part of the taper ring of the chuck will be slightly expanded providing a perfect and extremely accurate fit with a repeatability of less than 0.005</p> | <p>Normalde hafif bir kaydırma işlemi gerekir (örn.Civata ve desteklerde 32 mm h5/H5). Bu örnekte minimum boşluk 0 µm oysa maksimum 0.022'dir. Böylece iddia edilen tekrarlanabilirliğin elde edilmesi (0.005) zor olması gerekir.</p> <p>Normally a light sliding fit is required (e.g. 32 mm h5/H5 for bolts and mountings). In this particular case the minimum backlash is 0 µm whereas the maximum is 0.022 So the claimed repeatability (0.005) must be difficult to achieve.</p> |
| <p>Termal sabitlik Termal etkiler ve/veya mikro sapmalar, konik gövde tarafından (HSK prensibi) eşitlenir. Gövde halkaları her zaman bağlama merkezindeki hataları eşitler. (Döner tablada, plaka merkezi her zaman makinenin merkez çizgisinde kalır).</p> <p>Thermal stability Thermal effects and/or micro deviations are compensated for by the hollow shank taper (HSK) principle. The taper rings always compensate for the errors to the centre of the clamping position. (On a rotary table the centre of a pallet always remains on the centre line of the machine).</p> | <p>Üç farklı civata tasarımı olan sabit sistem. Termal etkiler ve/veya mikro sapmalar sıfır civatasından kaynaklı asimetrik dengelere sebep verir. (Döner tablada, plaka merkezi makinenin merkez çizgisinden itilerek uzaklaşır).</p> <p>Fixed system with three different bolt designs. Thermal effects and/or micro deviations will cause asymmetrical off sets originating from the zero bolt. (On a rotary table, the centre of a pallet will be pushed away from the centre line of the machine).</p> |
| <p>Sadece bir tip bağlama civatası gerektirir. Pim deliğine takılması gereken sadece tek tip civata bağlanması gerektiğinden çok daha basit kullanımlıdır.</p> <p>Only one type of clamping bolt required. Far simpler to manage as only one type of bolt needs to be screwed into the pin bore.</p> | <p>Genelde üç farklı tip civata gerektirir. (sıfırlama civatası, yüzer veya kılıç civata, serbest civata). Çok komplike, her fikstürün kurulumda, nereye ve hangi açıda pozisyonlanması gerektiği talimatlarla belirlenmek zorunda. Yani hata riski yüksektir.</p> <p>Generally three different types of bolts required (zero bolt, floating or sword bolt, free bolt). Very complicated, each fixture needs to be documented with set up instructions, showing which bolt has to be mounted where and in which angular position. So there is a high risk of errors.</p> |
| <p>Kendinden kilitli değildir Tezgaah bindirme söz konusu olursa, bağlama ekipmanı fikstürleri yol verip, makine aynasını koruma ihtimalini yaratır. Enerji kaynağı hava yollarının tıkanması söz konusu olursa, sıkıştırma vidaları fikstürün sökülmesine izin verir.</p> <p>No self-locking. In case of a crash, the fixture or the clamping device can give way, possibly saving the machine spindle. In the case of damage to the airways for energy supply, forcing screws will allow the removal of the fixture.</p> | <p>Tezgaah bindirme sözkonusu olursa, kendinden kilitlenmeli sistemler mümkün olan en büyük hasara sebep olur. Güç kaynağının kesilmesi sözkonusu olduğunda ise, çoğunlukla plakanın sökülmesi için fikstürün tamamen bozulması gerekir.</p> <p>In case of a crash self-locking systems will cause the worst possible damage. In the case of a power loss, in most cases the fixture will have to be completely destroyed in order to be able to remove the pallet.</p> |
| <p>Eğilme yok Düzen ve tasarım bağlama civatalarının eğilmesini engeller. Eğimli pozisyonlar veya dengesiz yüklerde bile, merkez oyuktaki yüksek dengeden dolayı kolay sökülme işlemleri.</p> <p>No tilting Layout and design will prevent any tilting of the clamping bolts. Easy joining and removal even in inclined positions or with an unbalanced load with a large off set of the centre of gravity.</p> | <p>Silindirik veya konik bağlama civatalarının minimalde konik olmalarından dolayı, sökülme işlemleri, paralel konumda çok hassas olarak yapılmalı. Ağır asimetrik elemanların sökülmesi daima sorunlu olacaktır.</p> <p>Joining and removal must be carried out in precisely defined and parallel positions as the cylindrical or tapered clamping bolts used have a minimal taper. The removal of heavy asymmetric components will always cause problems.</p> |
| <p>Düşük montaj yüksekliği olan pnömatik sistem Bağlaması yay vasıtasıyla, serbest bırakılması hava basıncıyla. Standart hava basıncıyla bile yüksek bağlama gücü olan patentli tasarımıdır.</p> <p>Pneumatic system with low installation height Clamping via spring assembly, unclamping by means of compressed air. Patented design for very high clamping force even with standard air-pressures.</p> | <p>Hidrolik sistemlerin sistemden dolayı dezavantajları vardır: pompa, boru, çarpışma, sızıntı, akma, vs. Ayrıca, hidrolik sistemlerin kurulumu pnömatik sistemlerinkinden daha maliyetli olduğu tespit edilmiştir.</p> <p>Hydraulic systems have disadvantages determined by the system: pump, duct, collision, leakage, bleeding, etc. Also, installation costs tend to be more expensive compared to pneumatic systems.</p> |

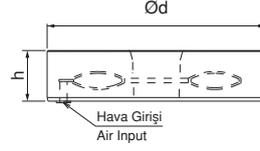
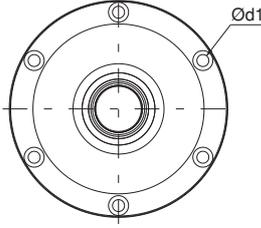
| Referans Nr. | d | h | d1 | | sıkma kuvveti clamping force Kgf |  (g) |
|--------------|-----|----|---|----|--|--|
| | | |  | Nm | | |
| 1060-090 | 90 | 22 | M4 | 5 | 1250 | 730 |
| 1060-120 | 120 | 28 | M6 | 14 | 2500 | 1840 |
| 1060-138 | 138 | 33 | M8 | 35 | 4000 | 2860 |
| 1060-190 | 190 | 38 | M8 | 35 | 6000 | 5460 |

Ürün Nr. 1060 ER-EL Zero Clamp Gövde

- Min. Bar 5.5
- Max. Bar 8

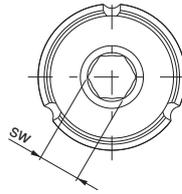
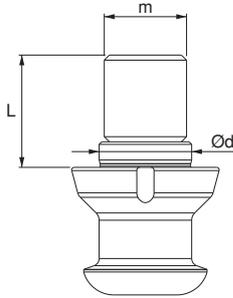
Product Nr. 1060 ER-EL Zero Clamp Body

- Min. Bar 5.5
- Max. Bar 8


Çektirme Civatası

Pull Stud

| Referans Nr. | m | L | d | sw | Nm |  (g) |
|--------------|-----|----|-------|----|-----|--|
| | | | | | | |
| 1065-12016 | M16 | 22 | 18 k6 | 8 | 170 | 97 |
| 1065-13816 | M16 | 30 | 25 k6 | 8 | 170 | 235 |
| 1065-19024 | M24 | 36 | 30 k6 | 10 | 400 | 460 |

Ürün Nr. 1065 Çektirme Civatası
Product Nr. 1065 Pull Stud

Gövde Talaş Koruyucu

Body Chip Protector

| Referans Nr. | Zero |  (g) |
|--------------|------|--|
| 1067-090 | 90 | 29 |
| 1067-120 | 120 | 85 |
| 1067-138 | 138 | 202 |
| 1067-190 | 190 | 398 |

Ürün Nr. 1067 Gövde Talaş Koruyucu
Product Nr. 1067 Body Chip Protector

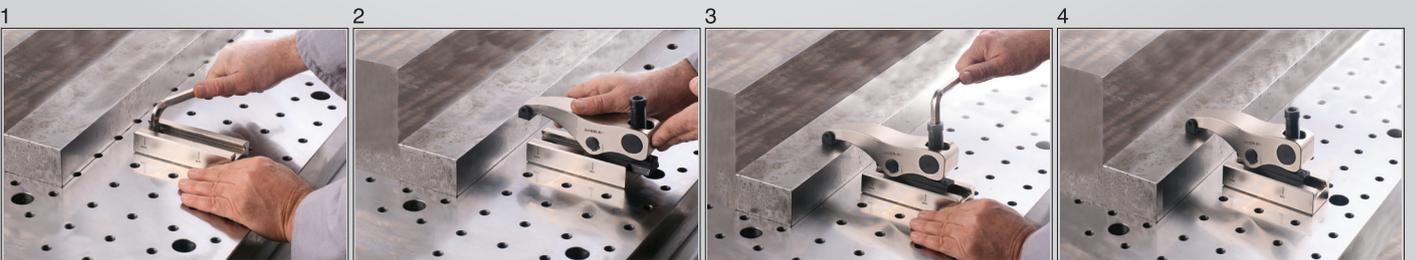

BAĞLAMA PABUÇLARI

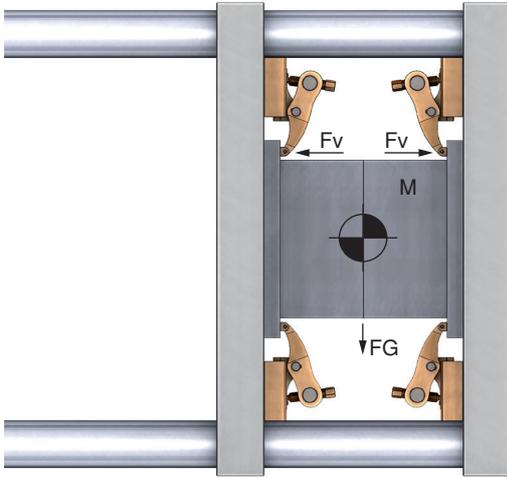
CLAMPING COMPONENTS



KIZAKLI KOMBİNE BAĞLAMA PABUCU UYGULAMALARI

COMBINED SLIDING CLAMP APPLICATION



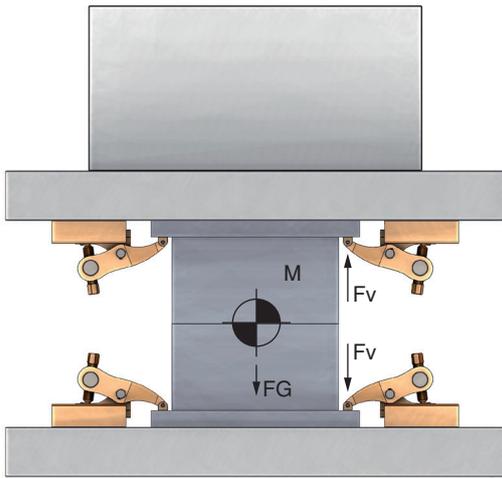


Enjeksiyon Kalıpları İçin Uygulama Örneği

Power Clamp For Injection Moulding

Hesaplama Formülü / Formula Calculator

| | |
|---|---|
| $\frac{M \times FG}{1000} = \text{kN}$ | $\frac{2500 \times 9.81}{1000} = 24.52 \text{ kN}$ |
| $\frac{\text{kN}}{\mu} = \text{Sonuç / Result}$ | $\frac{24.52}{0.14} = 175.14 \text{ kN}$ |
| $\frac{\text{Sonuç}}{Fv} = \text{Bağlama Sayısı / Number of Clamp}$ | $\frac{175.14 \text{ kN}}{25 \text{ kN}} = 7 \text{ Bağlama / Clamp}$ 8 adet kullanın 8 pcs Use |



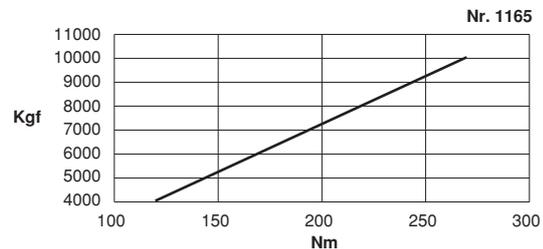
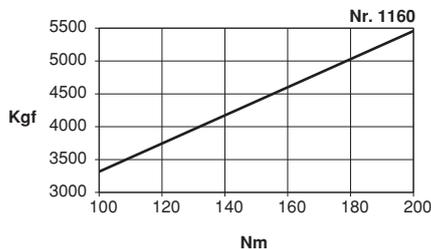
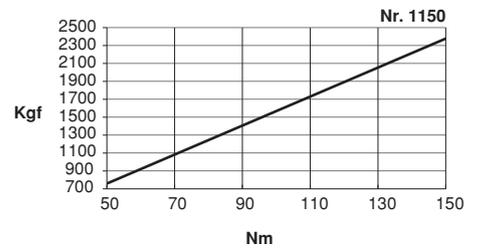
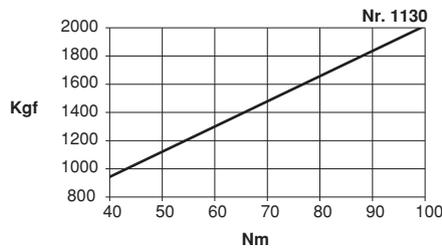
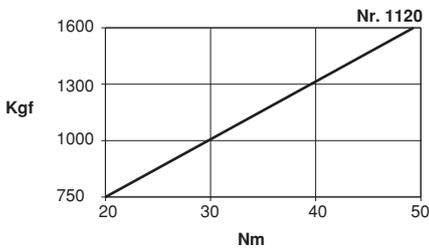
Pres Kalıpları İçin Uygulama Örneği

Power Clamp For Press Moulding

Hesaplama Formülü / Formula Calculator

| | |
|---|--|
| $\frac{M \times FG}{1000} = \text{kN}$ | $\frac{5000 \times 9.81}{1000} = 49.050 \text{ kN}$ |
| $\frac{\text{kN}}{\mu} = \text{Sonuç / Result}$ <small>(Üst Kalıp %60) (Alt Kalıp %40)</small> | $\frac{49.05}{0.14} = 350.35 \text{ kN}$ <small>(%60 Üst Kalıp= 210.21) (%40 Alt Kalıp= 140.14)</small> |
| $\frac{\text{Sonuç}}{Fv} = \text{Bağlama Sayısı / Number of Clamp}$ <small>(Üst Kalıp)</small> | $\frac{210.21 \text{ kN}}{25 \text{ kN}} = 8 \text{ Bağlama Sayısı / 8 Number of Clamp}$ |
| $\frac{\text{Sonuç}}{Fv} = \text{Bağlama Sayısı / Number of Clamp}$ <small>(Alt Kalıp)</small> | $\frac{140.14 \text{ kN}}{25 \text{ kN}} = 5.6 \text{ Bağlama / Clamp}$ 6 adet kullanın 6 pcs Use |

K.K.S.P Kuvvet Diyagramı / Force Diagram



| Referans Nr. | a | m | h | | s | s1 | e1 | d | sw | L | e | b | c | Sıkma Kuvveti Clamping Force Kgf | Nm |  |
|--------------|----|-----|-----|-----|-------|----|-----|-----|----|-----|------|----|----|--|----|---|
| | | | min | max | | | | | | | | | | | | |
| 1120-014 T | 14 | M12 | 0 | 50 | 12-66 | 25 | 100 | M14 | 8 | 104 | 35.5 | 38 | 13 | 1600 | 50 | 1740 |
| 1120-016 T | 16 | M12 | 0 | 50 | 12-66 | 25 | 100 | M14 | 8 | 104 | 35.5 | 38 | 13 | 1600 | 50 | 1755 |
| 1120-018 T | 18 | M12 | 0 | 50 | 12-66 | 25 | 100 | M14 | 8 | 104 | 35.5 | 38 | 13 | 1600 | 50 | 1785 |
| 1120-014 LT | 14 | M12 | 0 | 50 | 12-81 | 25 | 100 | M14 | 8 | 130 | 35.5 | 38 | 13 | 1600 | 50 | 1980 |
| 1120-016 LT | 16 | M12 | 0 | 50 | 12-81 | 25 | 100 | M14 | 8 | 130 | 35.5 | 38 | 13 | 1600 | 50 | 1995 |
| 1120-018 LT | 18 | M12 | 0 | 50 | 12-81 | 25 | 100 | M14 | 8 | 130 | 35.5 | 38 | 13 | 1600 | 50 | 2000 |

Ürün Nr. 1120-(T) Kızaklı Kombine Bağlama Pabucu

- (a) 14-18 T-Kanalda M12 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-50 mm.
- İleri-geri hareket mesafesi 54mm'dir. Sıkma Kuvveti 1600 kgf.

Ürün Nr. 1120-(LT) Kızaklı Kombine Bağlama Pabucu

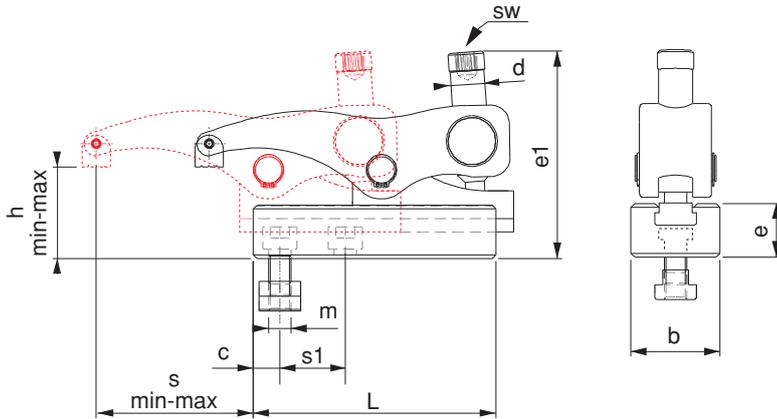
- (a) 14-18 T-Kanalda M12 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-50 mm.
- İleri-geri hareket mesafesi 69mm'dir. Sıkma Kuvveti 1600 kgf.

Product Nr. 1120-(T) Combined Sliding Clamp

- (a) 14-18 is used in T-Slot and M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-50mm
- Back and forth movement distance is 54mm. Clamping force is 1600 kgf.

Product Nr. 1120-(LT) Combined Sliding Clamp

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- Height clamping gap of the piece is 0-50mm
- Back and forth movement distance is 69mm. Clamping force is 1600 kgf.



UYGULAMA;

- 1- Alt kızağı iş parçasına uygun şekle getir sabitle
- 2- Üst gövdeyi kızağa sür, istenilen pozisyona getir
- 3- Pabuç imbus civatasıyla iş parçasını sabitle
- 4- Parça işlenmek için hazır

APPLICATION;

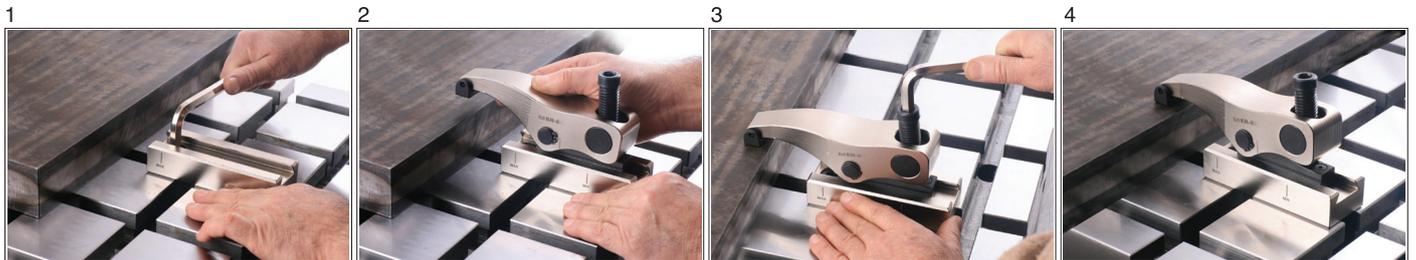
- 1- Slide cradle is brought to suitable form with the work piece and then it is fixed
- 2- Upper body is driven to the slide and it is brought to desired position
- 3- Work piece is fixed with the imbus bolt of the clamp
- 4- Then the work piece becomes ready to be machined.

Kullanım Alanı

Enjeksiyon makineleri presler, freze tezgahları, matkap tezgahları ve çeşitli sanayi makineleri

Area of Use

Injection Machines, Presses, Milling Machines, Drilling Machines and various Industrial Machines



| Referans Nr. | a | m | h | | s | s1 | e1 | d | sw | L | e | b | c | Sıkma Kuvveti Clamping Force Kgf | Nm |  (g) |
|--------------|----|-----|-----|-----|--------|----|-----|-----|----|-----|----|----|------|----------------------------------|-----|---|
| | | | min | max | | | | | | | | | | | | |
| 1130-014 T | 14 | M12 | 0 | 60 | 15-83 | 30 | 113 | M18 | 10 | 130 | 39 | 48 | 17,5 | 2000 | 100 | 3040 |
| 1130-016 T | 16 | M12 | 0 | 60 | 15-83 | 30 | 113 | M18 | 10 | 130 | 39 | 48 | 17,5 | 2000 | 100 | 3055 |
| 1130-018 T | 18 | M16 | 0 | 60 | 15-83 | 30 | 113 | M18 | 10 | 130 | 39 | 48 | 17,5 | 2000 | 100 | 3085 |
| 1130-020 T | 20 | M16 | 0 | 60 | 15-83 | 30 | 113 | M18 | 10 | 130 | 39 | 48 | 17,5 | 2000 | 100 | 3135 |
| 1130-022 T | 22 | M16 | 0 | 60 | 15-83 | 30 | 113 | M18 | 10 | 130 | 39 | 48 | 17,5 | 2000 | 100 | 3150 |
| 1130-014 LT | 14 | M12 | 0 | 60 | 15-107 | 30 | 113 | M18 | 10 | 170 | 39 | 48 | 17,5 | 2000 | 100 | 3820 |
| 1130-016 LT | 16 | M12 | 0 | 60 | 15-107 | 30 | 113 | M18 | 10 | 170 | 39 | 48 | 17,5 | 2000 | 100 | 3835 |
| 1130-018 LT | 18 | M16 | 0 | 60 | 15-107 | 30 | 113 | M18 | 10 | 170 | 39 | 48 | 17,5 | 2000 | 100 | 3865 |
| 1130-020 LT | 20 | M16 | 0 | 60 | 15-107 | 30 | 113 | M18 | 10 | 170 | 39 | 48 | 17,5 | 2000 | 100 | 3915 |
| 1130-022 LT | 22 | M16 | 0 | 60 | 15-107 | 30 | 113 | M18 | 10 | 170 | 39 | 48 | 17,5 | 2000 | 100 | 3930 |

Ürün Nr. 1130-(T) Kızaklı Kombine Bağlama Pabucu

- (a) 14-22 T-Kanalda M12 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-60 mm.
- İleri-geri hareket mesafesi 68mm'dir. Sıkma Kuvveti 2000 kgf.

Ürün Nr. 1130-(LT) Kızaklı Kombine Bağlama Pabucu

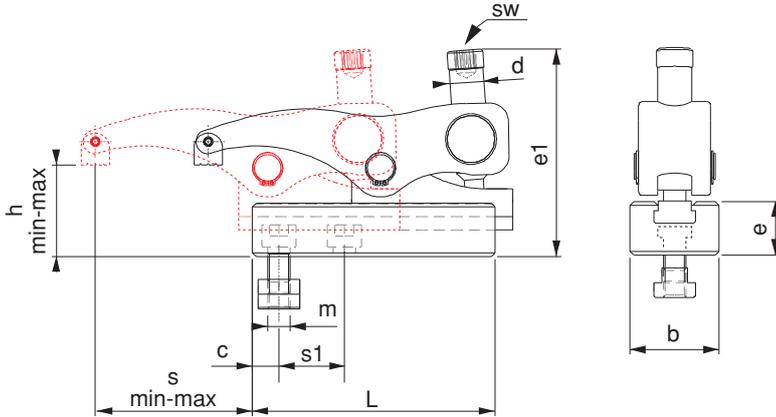
- (a) 14-22 T-Kanalda M12 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-60 mm.
- İleri-geri hareket mesafesi 92mm'dir. Sıkma Kuvveti 2000 kgf.

Product Nr. 1130-(T) Combined Sliding Clamp

- (a) 14-22 is used in T-Slot and M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-60mm.
- Back and forth movement distance is 68mm. Clamping force is 2000 kgf.

Product Nr. 1130-(LT) Combined Sliding Clamp

- (a) 14-22 is used in T-Slot and M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-60mm.
- Back and forth movement distance is 92mm. Clamping force is 2000 kgf.


UYGULAMA;

- 1- Alt kızıağı iş parçasına uygun şekle getir sabitle
- 2- Üst gövdeyi kızıağa sür, istenilen pozisyona getir
- 3- Pabuç imbus civatasıyla iş parçasını sabitle
- 4- Parça işlenmek için hazır

APPLICATION;

- 1- Slide cradle is brought to suitable form with the work piece and then it is fixed
- 2- Upper body is driven to the slide and it is brought to desired position
- 3- Work piece is fixed with the imbus bolt of the clamp
- 4- Then the work piece becomes ready to be machined.

Kullanım Alanı

Enjeksiyon makineleri presler, freze tezgahları, matkap tezgahları ve çeşitli sanayi makineleri

Area of Use

Injection Machines, Presses, Milling Machines, Drilling Machines and various Industrial Machines



| Referans Nr. | a | m | h | | s | s1 | e1 | d | sw | L | e | b | c | Sıkma Kuvveti Clamping Force Kgf | Nm |  (g) |
|--------------|----|-----|-----|-----|--------|----|-----|-----|----|-----|----|----|------|----------------------------------|-----|---|
| | | | min | max | | | | | | | | | | | | |
| 1150-118 T | 18 | M16 | 0 | 65 | 18-96 | 35 | 125 | M20 | 12 | 140 | 43 | 55 | 19,5 | 2500 | 150 | 4410 |
| 1150-120 T | 20 | M16 | 0 | 65 | 18-96 | 35 | 125 | M20 | 12 | 140 | 43 | 55 | 19,5 | 2500 | 150 | 4460 |
| 1150-122 T | 22 | M20 | 0 | 65 | 18-96 | 35 | 125 | M20 | 12 | 140 | 43 | 55 | 19,5 | 2500 | 150 | 4515 |
| 1150-124 T | 24 | M20 | 0 | 65 | 18-96 | 35 | 125 | M20 | 12 | 140 | 43 | 55 | 19,5 | 2500 | 150 | 4615 |
| 1150-128 T | 28 | M20 | 0 | 65 | 18-96 | 35 | 125 | M20 | 12 | 140 | 43 | 55 | 19,5 | 2500 | 150 | 4715 |
| 1150-118 LT | 18 | M16 | 0 | 65 | 18-128 | 35 | 125 | M20 | 12 | 200 | 43 | 55 | 19,5 | 2500 | 150 | 5770 |
| 1150-120 LT | 20 | M16 | 0 | 65 | 18-128 | 35 | 125 | M20 | 12 | 200 | 43 | 55 | 19,5 | 2500 | 150 | 5830 |
| 1150-122 LT | 22 | M20 | 0 | 65 | 18-128 | 35 | 125 | M20 | 12 | 200 | 43 | 55 | 19,5 | 2500 | 150 | 5885 |
| 1150-124 LT | 24 | M20 | 0 | 65 | 18-128 | 35 | 125 | M20 | 12 | 200 | 43 | 55 | 19,5 | 2500 | 150 | 5985 |
| 1150-128 LT | 28 | M20 | 0 | 65 | 18-128 | 35 | 125 | M20 | 12 | 200 | 43 | 55 | 19,5 | 2500 | 150 | 6000 |

Ürün Nr. 1150-(T) Kızaklı Kombine Bağlama Pabucu

- (a) 18-28 T-Kanalda M16 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-65mm.
- İleri-geri hareket mesafesi 78mm'dir. Sıkma Kuvveti 2500 kgf.

Ürün Nr. 1150-(LT) Kızaklı Kombine Bağlama Pabucu

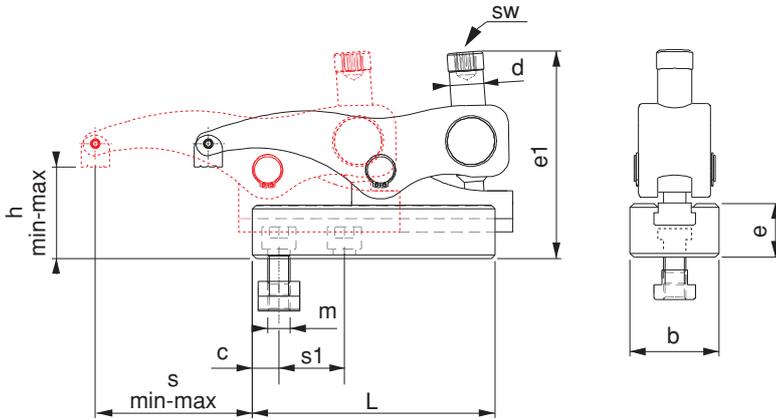
- (a) 18-28 T-Kanalda M16 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-65mm.
- İleri-geri hareket mesafesi 110mm'dir. Sıkma Kuvveti 2500 kgf.

Product Nr. 1150-(T) Combined Sliding Clamp

- (a) 18-28 is used in T-Slot and M16 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-65mm.
- Back and forth movement distance is 78mm. Clamping force is 2500 kgf.

Product Nr. 1150-(LT) Combined Sliding Clamp

- (a) 18-28 is used in T-Slot and M16 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-65mm.
- Back and forth movement. distance is 110mm. Clamping force is 2500 kgf.


UYGULAMA;

- 1- Alt kızıağı iş parçasına uygun şekle getir sabitle
- 2- Üst gövdeyi kızıağa sür, istenilen pozisyona getir
- 3- Pabuç imbus civatasıyla iş parçasını sabitle
- 4- Parça işlenmek için hazır

APPLICATION;

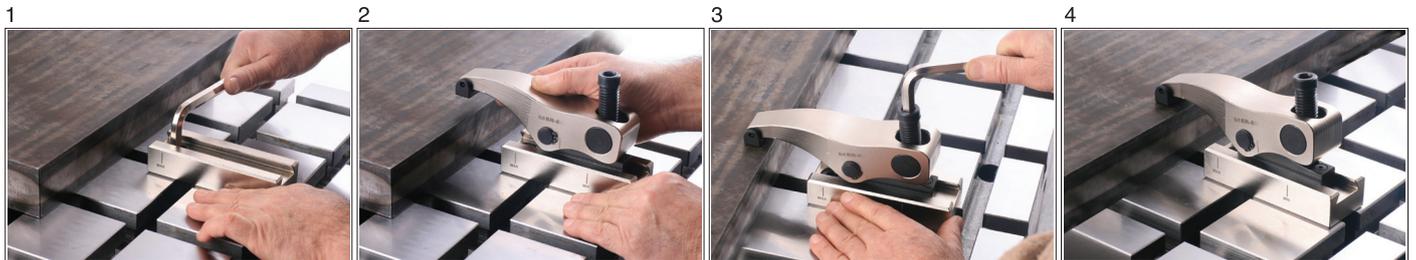
- 1- Slide cradle is brought to suitable form with the work piece and then it is fixed
- 2- Upper body is driven to the slide and it is brought to desired position
- 3- Work piece is fixed with the imbus bolt of the clamp
- 4- Then the work piece becomes ready to be machined.

Kullanım Alanı

Enjeksiyon makineleri presler, freze tezgahları, matkap tezgahları ve çeşitli sanayi makineleri

Area of Use

Injection Machines, Presses, Milling Machines, Drilling Machines and various Industrial Machines



| Referans Nr. | a | m | h | | s | s1 | e1 | d | SW | | L | e | b | c | Sıkma Kuvveti Clamping Force Kgf | Nm | g |
|--------------|----|-----|-----|-----|--------|------|-----|-----|----|----|-----|----|----|----|----------------------------------|-----|-------|
| | | | min | max | | | | | | | | | | | | | |
| 1160-222 T | 22 | M20 | 20 | 80 | 17-92 | 41.5 | 175 | M24 | 12 | 24 | 178 | 55 | 74 | 24 | 5500 | 200 | 9030 |
| 1160-224 T | 24 | M20 | 20 | 80 | 17-92 | 41.5 | 175 | M24 | 12 | 24 | 178 | 55 | 74 | 24 | 5500 | 200 | 9120 |
| 1160-228 T | 28 | M24 | 20 | 80 | 17-92 | 41.5 | 175 | M24 | 12 | 24 | 178 | 55 | 74 | 24 | 5500 | 200 | 9180 |
| 1160-236 T | 36 | M24 | 20 | 80 | 17-92 | 41.5 | 175 | M24 | 12 | 24 | 178 | 55 | 74 | 24 | 5500 | 200 | 9600 |
| 1160-222 LT | 22 | M20 | 20 | 80 | 25-148 | 41.5 | 175 | M24 | 12 | 24 | 256 | 55 | 74 | 24 | 5500 | 280 | 12110 |
| 1160-224 LT | 24 | M20 | 20 | 80 | 25-148 | 41.5 | 175 | M24 | 12 | 24 | 256 | 55 | 74 | 24 | 5500 | 280 | 12210 |
| 1160-228 LT | 28 | M24 | 20 | 80 | 25-148 | 41.5 | 175 | M24 | 12 | 24 | 256 | 55 | 74 | 24 | 5500 | 280 | 12270 |
| 1160-236 LT | 36 | M24 | 20 | 80 | 25-148 | 41.5 | 175 | M24 | 12 | 24 | 256 | 55 | 74 | 24 | 5500 | 280 | 12310 |
| 1165-222 T | 22 | M20 | 30 | 80 | 34-92 | 41.5 | 194 | M24 | 12 | 24 | 205 | 55 | 85 | 24 | 10000 | 270 | 11820 |
| 1165-224 T | 24 | M20 | 30 | 80 | 34-92 | 41.5 | 194 | M24 | 12 | 24 | 205 | 55 | 85 | 24 | 10000 | 270 | 11900 |
| 1165-228 T | 28 | M24 | 30 | 80 | 34-92 | 41.5 | 194 | M24 | 12 | 24 | 205 | 55 | 85 | 24 | 10000 | 270 | 11960 |
| 1165-236 T | 36 | M24 | 30 | 80 | 34-92 | 41.5 | 194 | M24 | 12 | 24 | 205 | 55 | 85 | 24 | 10000 | 270 | 12000 |

Ürün Nr. 1160-(T) Kızaklı Kombine Bağlama Pabucu

- (a) 22-36 T-Kanalda M20-M24 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 20-80mm.
- İleri-geri hareket mesafesi 75mm'dir. Sıkma Kuvveti 5500 kgf.

Ürün Nr. 1160-(LT) Kızaklı Kombine Bağlama Pabucu

- (a) 22-36 T-Kanalda M20-M24 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 20-80mm.
- İleri-geri hareket mesafesi 123mm'dir. Sıkma Kuvveti 5500 kgf.

Ürün Nr. 1165-(T) Kızaklı Kombine Bağlama Pabucu

- (a) 22-36 T-Kanalda M20-M24 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 30-80mm.
- İleri-geri hareket mesafesi 58mm'dir. Sıkma Kuvveti 10000 kgf.

Product Nr. 1160-(T) Combined Sliding Clamp

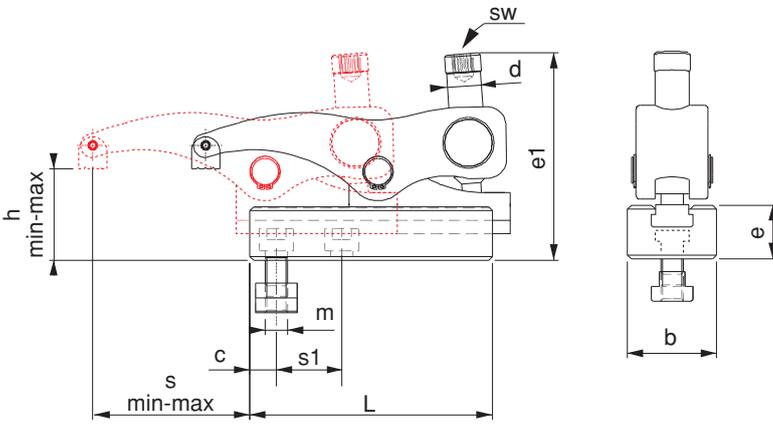
- (a) 22-36 is used in T-Slot and M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 20-80mm.
- Back and forth movement distance is 75mm. Clamping force is 5500 kgf.

Product Nr. 1160-(LT) Combined Sliding Clamp

- (a) 22-36 is used in T-Slot and M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 20-80mm.
- Back and forth movement distance is 123mm. Clamping force is 5500 kgf.

Product Nr. 1165-(T) Combined Sliding Clamp

- (a) 22-36 is used in T-Slot and M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 30-80mm.
- Back and forth movement distance is 58mm. Clamping force is 10000 kgf.


UYGULAMA;

- 1- Alt kızıağı iş parçasına uygun şekle getir sabitle
- 2- Üst gövdeyi kızıağa sür, istenilen pozisyona getir
- 3- Pabuç imbus civatasıyla iş parçasını sabitle
- 4- Parça işlenmek için hazır

APPLICATION;

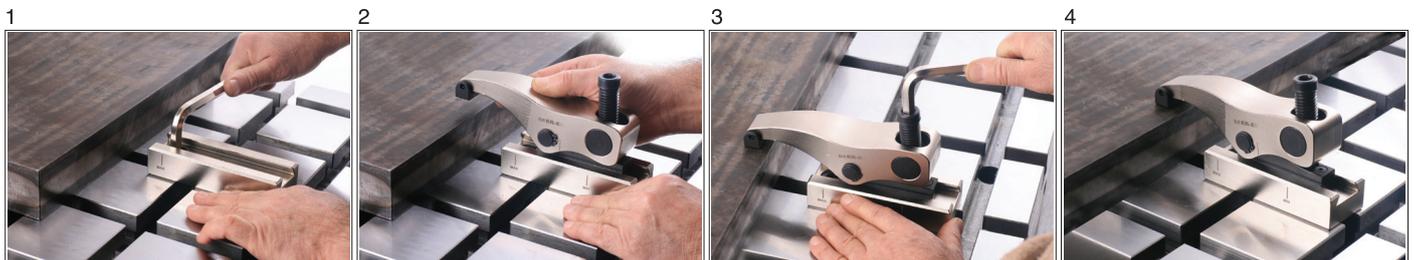
- 1- Slide cradle is brought to suitable form with the work piece and then it is fixed
- 2- Upper body is driven to the slide and it is brought to desired position
- 3- Work piece is fixed with the imbus bolt of the clamp
- 4- Then the work piece becomes ready to be machined.

Kullanım Alanı

Enjeksiyon makineleri presler, freze tezgahları, matkap tezgahları ve çeşitli sanayi makineleri

Area of Use

Injection Machines, Presses, Milling Machines, Drilling Machines and various Industrial Machines



| Referans Nr. |  | h | | s | s1 | e1 | d | sw | L | e | b | c | k | Sıkma Kuvveti Clamping Force Kgf | Nm |  |
|--------------|---|-----|-----|-------|----|-----|-----|----|-----|------|----|----|----|--|----|---|
| | | min | max | | | | | | | | | | | | | |
| 1120-010 M | M10 | 0 | 50 | 12-66 | 25 | 100 | M14 | 8 | 104 | 35.5 | 38 | 13 | 20 | 1600 | 50 | 1740 |
| 1120-012 M | M12 | 0 | 0 | 12-66 | 25 | 100 | M14 | 8 | 104 | 35.5 | 38 | 13 | 20 | 1600 | 50 | 1755 |
| 1120-010 LM | M10 | 0 | 50 | 12-81 | 25 | 100 | M14 | 8 | 130 | 35.5 | 38 | 13 | 20 | 1600 | 50 | 1980 |
| 1120-012 LM | M12 | 0 | 50 | 12-81 | 25 | 100 | M14 | 8 | 130 | 35.5 | 38 | 13 | 20 | 1600 | 50 | 1995 |

Ürün Nr. 1120-(M) Kızaklı Kombine Bağlama Pabucu

- M10-M12 diş deliklerde (1120-310)-(1120-312) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-50 mm.
- İleri-geri hareket mesafesi 54mm'dir. Sıkma Kuvveti 1600 kgf.

Ürün Nr.1120-(LM) Kızaklı Kombine Bağlama Pabucu

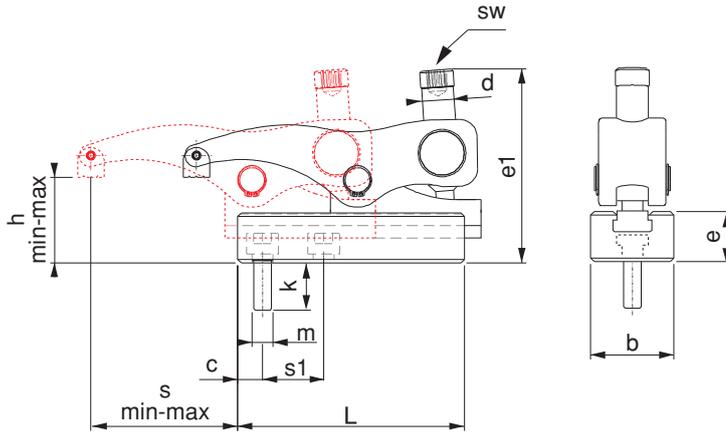
- M10-M12 diş deliklerde (1120-310)-(1120-312) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-50 mm.
- İleri-geri hareket mesafesi 69mm'dir. Sıkma Kuvveti 1600 kgf.

Product Nr. 1120-(M) Combined Sliding Clamp

- In the outer holes M10-M12 are used with the Reference Nr. imbus bolt (1120-310)-(1120-312)
- Height clamping gap of the piece is 0-50mm.
- Back and forth movement distance is 54mm. Clamping force is 1600 kgf.

Product Nr.1120-(LM) Combined Sliding Clamp

- In the outer holes M10-M12 are used with the Reference Nr. imbus bolt (1120-310)-(1120-312)
- Height clamping gap of the piece is 0-50mm.
- Back and forth movement distance is 69mm. Clamping force is 1600 kgf.



1120-... M



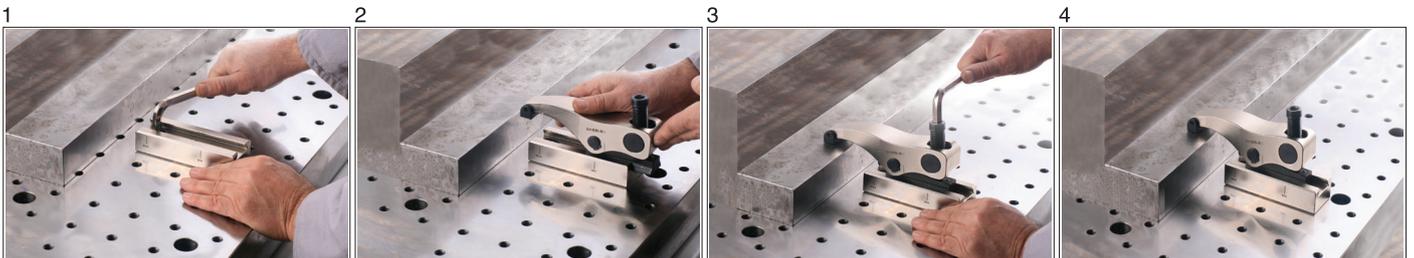
1120-... LM

AVANTAJLARI;

- 1600 kgf - 2000 kgf sıkma kuvveti
- Delik ve T-Kanalda kullanım
- Kızak üzerinde kaydırarak değişik pozisyonlarda sabitleme
- imbus civatasıyla desteksiz yüksek ve düşük mesafeleri sıkır
- Pratik yapısından dolayı hızlı ve kolay şekilde bağlama sağlar

ADVANTAGES

- 1600 kgf - 2000 kgf Clamping Force.
- Usings in the hole and T-Slot.
- Ability to be fixed in verious positions by sliding on the slide.
- It clamps high and low distances without support with the imbus bolt.
- It provides rapid and easy connection due to it's practical structure.



| Referans Nr. |  | h | | s | s1 | e1 | d | sw | L | e | b | c | k | Sıkma Kuvveti Clamping Force Kgf | Nm |  |
|--------------|---|-----|-----|--------|----|-----|-----|----|-----|----|----|------|----|----------------------------------|-----|---|
| | | min | max | | | | | | | | | | | | | |
| 1130-012 M | M12 | 0 | 60 | 15-83 | 30 | 113 | M18 | 10 | 130 | 39 | 48 | 17,5 | 22 | 2000 | 100 | 3040 |
| 1130-016 M | M16 | 0 | 60 | 15-83 | 30 | 113 | M18 | 10 | 130 | 39 | 48 | 17,5 | 26 | 2000 | 100 | 3055 |
| 1130-012 LM | M12 | 0 | 60 | 15-107 | 30 | 113 | M18 | 10 | 170 | 39 | 48 | 17,5 | 22 | 2000 | 100 | 3820 |
| 1130-016 LM | M16 | 0 | 60 | 15-107 | 30 | 113 | M18 | 10 | 170 | 39 | 48 | 17,5 | 26 | 2000 | 100 | 3835 |

Ürün Nr. 1130-(M) Kızaklı Kombine Bağlama Pabucu

- M12-M16 dış deliklerde (1130-412)-(1130-416) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-60 mm.
- İleri-geri hareket mesafesi 68mm'dir. Sıkma Kuvveti 2000 kgf.

Ürün Nr. 1130-(LM) Kızaklı Kombine Bağlama Pabucu

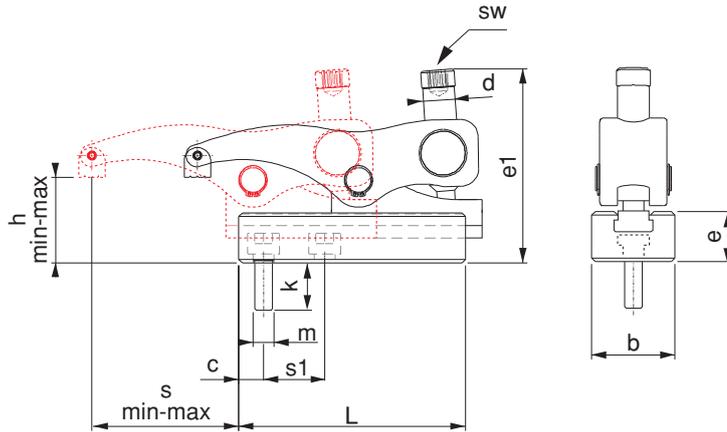
- M12-M16 dış deliklerde (1130-412)-(1130-416) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-60 mm.
- İleri-geri hareket mesafesi 92mm'dir. Sıkma Kuvveti 2000 kgf.

Product Nr. 1130-(M) Combined Sliding Clamp

- In the outer holes M12-M16 are used with the Reference Nr. imbus bolt (1130-412)-(1130-416)
- Height clamping gap of the piece is 0-60mm.
- Back and forth movement distance is 68mm. Clamping force is 2000 kgf.

Product Nr. 1130-(LM) Combined Sliding Clamp

- In the outer holes M12-M16 are used with the Reference Nr. imbus bolt (1130-412)-(1130-416)
- Height clamping gap of the piece is 0-60mm.
- Back and forth movement distance is 92mm. Clamping force is 2000 kgf.

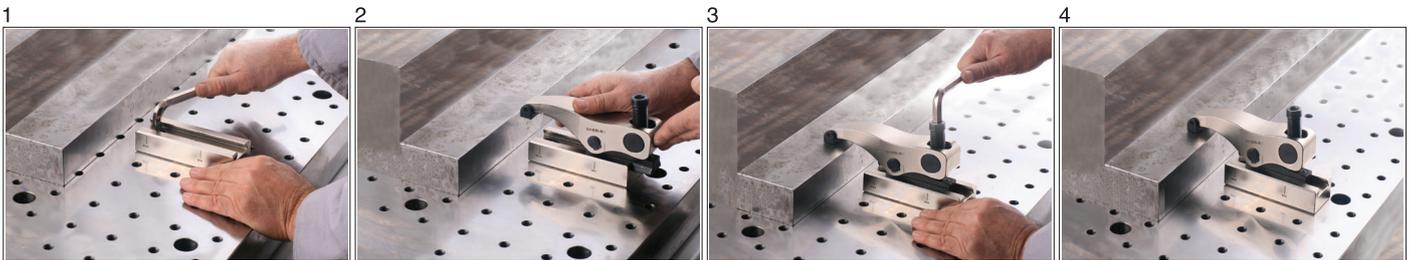


AVANTAJLARI;

- 1600 kgf - 2000 kgf sıkma kuvveti
- Delik ve T-Kanalda kullanım
- Kızak üzerinde kaydırarak değişik pozisyonlarda sabitleme
- imbus civatasıyla desteksiz yüksek ve düşük mesafeleri sıkar
- Pratik yapısından dolayı hızlı ve kolay şekilde bağlama sağlar

ADVANTAGES

- 1600 kgf - 2000 kgf Clamping Force.
- Usings in the hole and T-Slot.
- Ability to be fixed in various positions by sliding on the slide.
- It clamps high and low distances without support with the imbus bolt.
- It provides rapid and easy connection due to its practical structure.



| Referans Nr. |  | h | | s | s1 | e1 | d | sw | L | e | b | c | k | Sıkma Kuvveti Clamping Force Kgf | Nm |  |
|--------------|---|-----|-----|--------|----|-----|-----|----|-----|----|----|------|----|----------------------------------|-----|---|
| | | min | max | | | | | | | | | | | | | |
| 1150-116 M | M16 | 0 | 65 | 18-96 | 35 | 125 | M20 | 12 | 140 | 43 | 55 | 19.5 | 26 | 2500 | 150 | 4340 |
| 1150-118 M | M18 | 0 | 65 | 18-96 | 35 | 125 | M20 | 12 | 140 | 43 | 55 | 19.5 | 30 | 2500 | 150 | 4360 |
| 1150-120 M | M20 | 0 | 65 | 18-96 | 35 | 125 | M20 | 12 | 140 | 43 | 55 | 19.5 | 30 | 2500 | 150 | 4370 |
| 1150-116 LM | M16 | 0 | 65 | 18-128 | 35 | 125 | M20 | 12 | 200 | 43 | 55 | 19.5 | 26 | 2500 | 150 | 5770 |
| 1150-118 LM | M18 | 0 | 65 | 18-128 | 35 | 125 | M20 | 12 | 200 | 43 | 55 | 19.5 | 30 | 2500 | 150 | 5830 |
| 1150-120 LM | M20 | 0 | 65 | 18-128 | 35 | 125 | M20 | 12 | 200 | 43 | 55 | 19.5 | 30 | 2500 | 150 | 5885 |

Ürün Nr. 1150-(M) Kızaklı Kombine Bağlama Pabucu

- M16-M18-M20 diş deliklerde (1150-516)-(1150-518)-(1160-520) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-65mm.
- İleri-geri hareket mesafesi 78mm'dir. Sıkma Kuvveti 2500 kgf.

Ürün Nr. 1150-(LM) Kızaklı Kombine Bağlama Pabucu

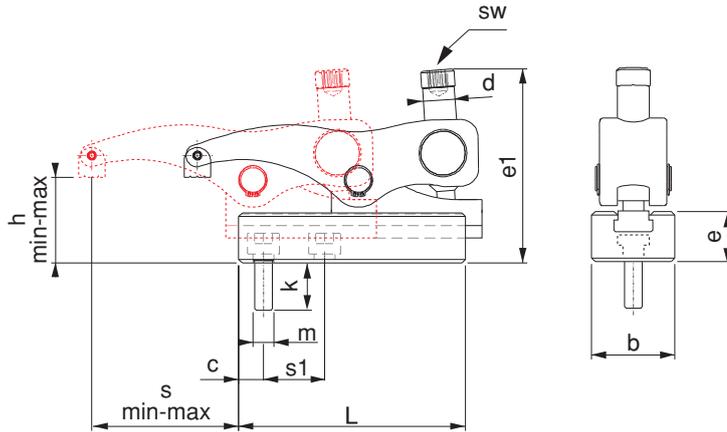
- M16-M18-M20 diş deliklerde (1150-516)-(1150-518)-(1160-520) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-65mm.
- İleri-geri hareket mesafesi 110mm'dir. Sıkma Kuvveti 2500 kgf.

Product Nr. 1150-(M) Combined Sliding Clamp

- In the outer holes M16-M18-M20 are used with the Reference Nr. imbus bolt (1150-516)-(1150-518)-(1150-520).
- Height clamping gap of the piece is 0-65mm.
- Back and forth movement distance is 78mm. Clamping force is 2500 kgf.

Product Nr. 1150-(LM) Combined Sliding Clamp

- In the outer holes M16-M18-M20 are used with the Reference Nr. imbus bolt (1150-516)-(1150-518)-(1150-520).
- Height clamping gap of the piece is 0-65mm.
- Back and forth movement distance is 110mm. Clamping force is 2500 kgf.



1150-... M



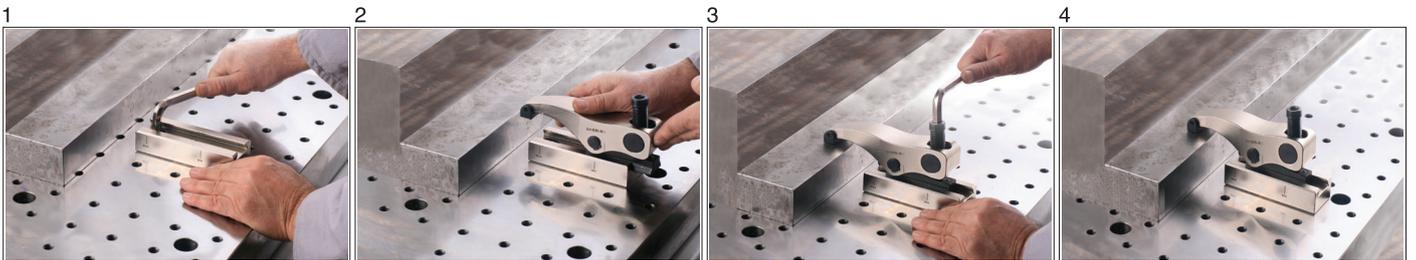
1150-... LM

AVANTAJLARI;

- 1600 kgf - 2000 kgf sıkma kuvveti
- Delik ve T-Kanalda kullanım
- Kızak üzerinde kaydırarak değişik pozisyonlarda sabitleme
- imbus civatasıyla desteksiz yüksek ve düşük mesafeleri sıkar
- Pratik yapısından dolayı hızlı ve kolay şekilde bağlama sağlar

ADVANTAGES

- 1600 kgf - 2000 kgf Clamping Force.
- Usings in the hole and T-Slot.
- Ability to be fixed in various positions by sliding on the slide.
- It clamps high and low distances without support with the imbus bolt.
- It provides rapid and easy connection due to its practical structure.



| Referans Nr. | m | h | | s | s1 | e1 | d | SW | | L | e | b | c | k | Sıkma Kuvveti Clamping Force Kgf | Nm | (g) |
|--------------|------|-----|-----|--------|------|-----|-----|----|----|-----|----|----|----|----|----------------------------------|-----|-------|
| | | min | max | | | | | | | | | | | | | | |
| 1160-220 M | M20 | 20 | 80 | 17-92 | 41.5 | 175 | M24 | 12 | 24 | 178 | 55 | 74 | 24 | 34 | 5500 | 200 | 8880 |
| 1160-222 M | M22 | 20 | 80 | 17-92 | 41.5 | 175 | M24 | 12 | 24 | 178 | 55 | 74 | 24 | 38 | 5500 | 200 | 8900 |
| 1160-224 M | M24 | 20 | 80 | 17-92 | 41.5 | 175 | M24 | 12 | 24 | 178 | 55 | 74 | 24 | 44 | 5500 | 200 | 8920 |
| 1160-230 M | M30* | 20 | 80 | 17-92 | 41.5 | 175 | M24 | 12 | 24 | 178 | 55 | 74 | 24 | 51 | 5500 | 200 | 9110 |
| 1160-220 LM | M20 | 20 | 80 | 25-148 | 41.5 | 175 | M24 | 12 | 24 | 256 | 55 | 74 | 24 | 34 | 5500 | 280 | 12110 |
| 1160-222 LM | M22 | 20 | 80 | 25-148 | 41.5 | 175 | M24 | 12 | 24 | 256 | 55 | 74 | 24 | 38 | 5500 | 280 | 12210 |
| 1160-224 LM | M24 | 20 | 80 | 25-148 | 41.5 | 175 | M24 | 12 | 24 | 256 | 55 | 74 | 24 | 44 | 5500 | 280 | 12270 |
| 1160-230 LM | M30* | 20 | 80 | 25-148 | 41.5 | 175 | M24 | 12 | 24 | 256 | 55 | 74 | 24 | 51 | 5500 | 280 | 12310 |
| 1165-220 M | M20 | 30 | 80 | 34-92 | 41.5 | 215 | M24 | 12 | 24 | 205 | 55 | 85 | 24 | 34 | 10000 | 270 | 11820 |
| 1165-222 M | M22 | 30 | 80 | 34-92 | 41.5 | 215 | M24 | 12 | 24 | 205 | 55 | 85 | 24 | 38 | 10000 | 270 | 11900 |
| 1165-224 M | M24 | 30 | 80 | 34-92 | 41.5 | 215 | M24 | 12 | 24 | 205 | 55 | 85 | 24 | 44 | 10000 | 270 | 11960 |
| 1165-230 M | M30* | 30 | 80 | 34-92 | 41.5 | 215 | M24 | 12 | 24 | 205 | 55 | 85 | 24 | 51 | 10000 | 270 | 12000 |

Ürün Nr. 1160-(M) Kızaklı Kombine Bağlama Pabucu

- M20-M22-M24-M30 dış deliklerde(1160-620)-(1160-622) (1160-624)-(1160-724)-(1160-730) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 20-80mm.
- İleri-geri hareket mesafesi 75mm'dir. Sıkma Kuvveti 5500 kgf.

Ürün Nr. 1160-(LM) Kızaklı Kombine Bağlama Pabucu

- M20-M22-M24-M30 dış deliklerde(1160-620)-(1160-622) (1160-624)-(1160-724)-(1160-730) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 20-80mm.
- İleri-geri hareket mesafesi 123mm'dir. Sıkma Kuvveti 5500 kgf.

Ürün Nr. 1165-(M) Kızaklı Kombine Bağlama Pabucu

- M20-M22-M24-M30 dış deliklerde(1160-620)-(1160-622) (1160-624)-(1160-724)-(1160-730) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 30-80mm.
- İleri-geri hareket mesafesi 58mm'dir. Sıkma Kuvveti 10000 kgf.

Not: Nr.1160-230M - Nr.1165-230M kodlu ürünün alt T-Kızaklı gövdesindeki civata yeri standart değildir. Civata yeri bu ürüne özel işlenmektedir.

Product Nr. 1160-(M) Combined Sliding Clamp

- In the outer holes M20-M22-M24-M30 are used with the Reference Nr. imbus bolt (1160-620)-(1160-622)-(1160-624)-(1160-724)-(1160-730)
- Height clamping gap of the piece is 20-80mm.
- Back and forth movement distance is 75mm. Clamping force is 5500 kgf.

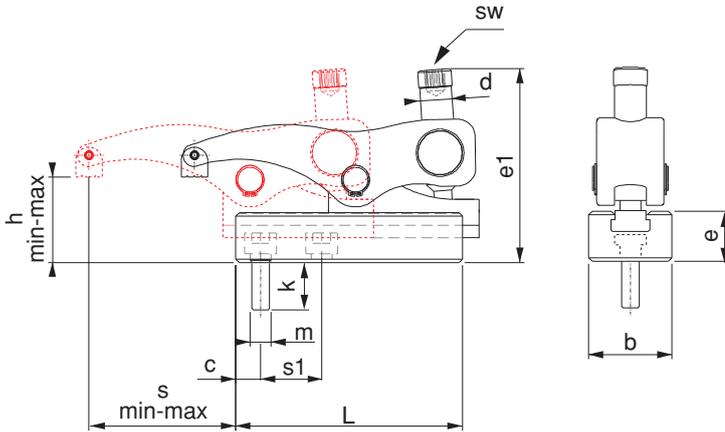
Product Nr. 1160-(LM) Combined Sliding Clamp

- In the outer holes M20-M22-M24-M30 are used with the Reference Nr. imbus bolt (1160-620)-(1160-622)-(1160-624)-(1160-724)-(1160-730)
- Height clamping gap of the piece is 20-80mm.
- Back and forth movement distance is 123mm. Clamping force is 5500 kgf.

Product Nr. 1165-(M) Combined Sliding Clamp

- In the outer holes M20-M22-M24-M30 are used with the Reference Nr. imbus bolt (1160-620)-(1160-622)-(1160-624)-(1160-724)-(1160-730)
- Height clamping gap of the piece is 30-80mm.
- Back and forth movement distance is 58mm. Clamping force is 10000 kgf.

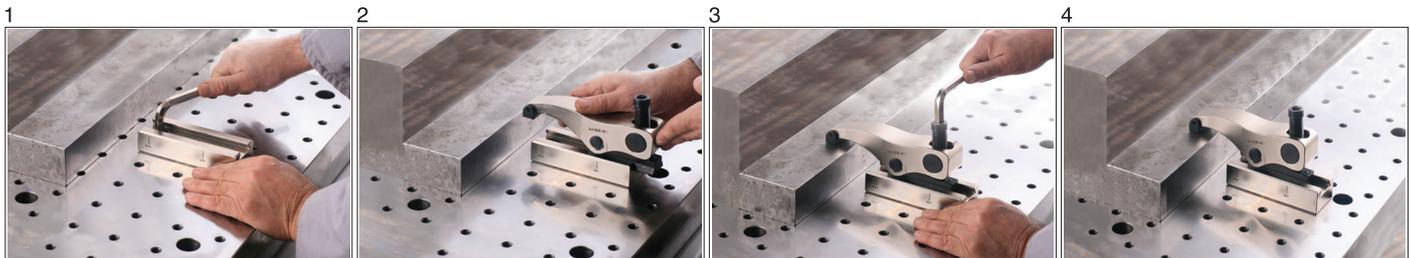
Note: The drilling for cylinder head screw of the support element for 1160-230M - Nr.1165-230M is not standard. It is specially manufactured for this product.


AVANTAJLARI;

- 1600 kgf - 2000 kgf sıkma kuvveti
- Delik ve T-Kanalda kullanım
- Kızak üzerinde kaydırarak değişik pozisyonlarda sabitleme
- imbus civatasıyla desteksiz yüksek ve düşük mesafeleri sıkır
- Pratik yapısından dolayı hızlı ve kolay şekilde bağlama sağlar

ADVANTAGES

- 1600 kgf - 2000 kgf Clamping Force.
- Usings in the hole and T-Slot.
- Ability to be fixed in various positions by sliding on the slide.
- It clamps high and low distances without support with the imbus bolt.
- It provides rapid and easy connection due to it's practical structure.



| Referans Nr. | a | m | h | | s | e1 | e2 | d | SW | L | b | e3 | c |  (g) |
|--------------|----|-----|-----|-----|-------|-----|------|-----|----|-----|----|----|----|--|
| | | | min | max | | | | | | | | | | |
| 1120-014 DT | 14 | M12 | 36 | 86 | 12-66 | 136 | 71.5 | M14 | 8 | 104 | 38 | 38 | 13 | 2540 |
| 1120-016 DT | 16 | M12 | 36 | 86 | 12-66 | 136 | 71.5 | M14 | 8 | 104 | 38 | 38 | 13 | 2540 |
| 1120-018 DT | 18 | M12 | 36 | 86 | 12-66 | 136 | 71.5 | M14 | 8 | 104 | 38 | 38 | 13 | 2540 |
| 1120-014 LDT | 14 | M12 | 36 | 86 | 12-81 | 136 | 71.5 | M14 | 8 | 130 | 38 | 38 | 13 | 2980 |
| 1120-016 LDT | 16 | M12 | 36 | 86 | 12-81 | 136 | 71.5 | M14 | 8 | 130 | 38 | 38 | 13 | 2995 |
| 1120-018 LDT | 18 | M12 | 36 | 86 | 12-81 | 136 | 71.5 | M14 | 8 | 130 | 38 | 38 | 13 | 3000 |

Ürün Nr. 1120-(DT) Alt Destekli

- M12 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 36-86mm.
- İleri-geri hareket mesafesi 54mm'dir. Sıkma Kuvveti 1600 kgf.

Ürün Nr. 1120-(LDT) Alt Destekli

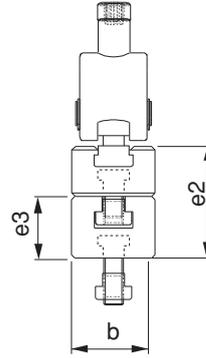
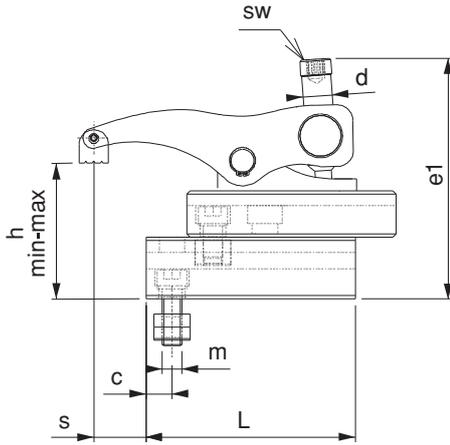
- M12 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 36-86mm.
- İleri-geri hareket mesafesi 69mm'dir. Sıkma Kuvveti 1600 kgf.

Product Nr. 1120-(DT) Bottom Supported

- M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 36-86mm
- Back and forth movement distance is 54mm. Clamping force is 1600 kgf.

Product Nr. 1120-(LDT) Bottom Supported

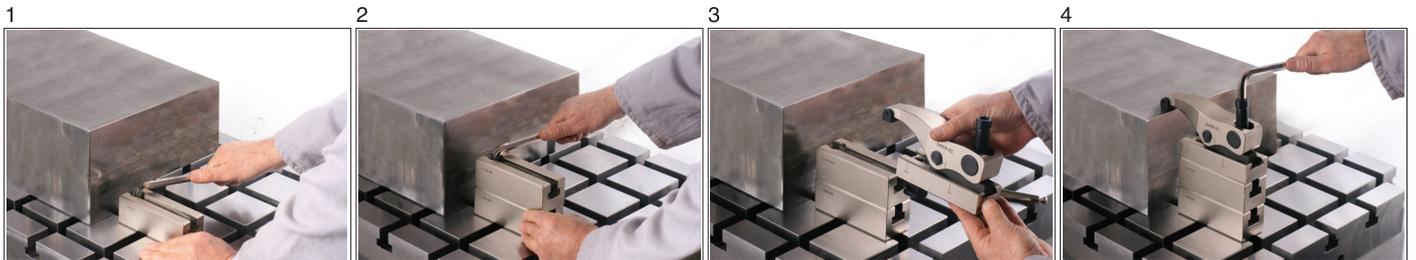
- M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 36-86mm.
- Back and forth movement distance is 69mm. Clamping force is 1600 kgf.


UYGULAMA;

- 1- Alt desteği iş parçasına uygun şekle getir sabitle
- 2- K.K.S.P destekler artırılarak istenilen mesafeye ulaşılır
- 3- K.K.S.P imbus civata ile T-Pabuca karşılık T-Kanala tak istenilen pozisyona getir.
- 4- Pabuç imbus civatasıyla iş parçasını sabitle

APPLICATION

- 1- Bottom support is brought to suitable form with the work piece and then it is fixed.
- 2- Desired distance is reached by increasing K.K.S.P supports
- 3- K.K.S.P. is applied in T-Slot with imbus bolt against T-Nut
- 4- Work piece is fixed with the imbus bolt of the clamp



| Referans Nr. | a | m | h | | s | e1 | e2 | d | SW | L | b | e3 | c | (g) |
|--------------|----|-----|-----|-----|--------|-----|----|-----|----|-----|----|----|------|------|
| | | | min | max | | | | | | | | | | |
| 1130-014 DT | 14 | M12 | 45 | 105 | 15-83 | 158 | 83 | M18 | 10 | 130 | 48 | 45 | 17.5 | 4750 |
| 1130-016 DT | 16 | M12 | 45 | 105 | 15-83 | 158 | 83 | M18 | 10 | 130 | 48 | 45 | 17.5 | 4775 |
| 1130-018 DT | 18 | M16 | 45 | 105 | 15-83 | 158 | 83 | M18 | 10 | 130 | 48 | 45 | 17.5 | 4805 |
| 1130-020 DT | 20 | M16 | 45 | 105 | 15-83 | 158 | 83 | M18 | 10 | 130 | 48 | 45 | 17.5 | 4885 |
| 1130-022 DT | 22 | M16 | 45 | 105 | 15-83 | 158 | 83 | M18 | 10 | 130 | 48 | 45 | 17.5 | 4905 |
| 1130-014 LDT | 14 | M12 | 45 | 105 | 15-107 | 158 | 83 | M18 | 10 | 170 | 48 | 45 | 17.5 | 5970 |
| 1130-016 LDT | 16 | M12 | 45 | 105 | 15-107 | 158 | 83 | M18 | 10 | 170 | 48 | 45 | 17.5 | 5985 |
| 1130-018 LDT | 18 | M16 | 45 | 105 | 15-107 | 158 | 83 | M18 | 10 | 170 | 48 | 45 | 17.5 | 6015 |
| 1130-020 LDT | 20 | M16 | 45 | 105 | 15-107 | 158 | 83 | M18 | 10 | 170 | 48 | 45 | 17.5 | 6045 |
| 1130-022 LDT | 22 | M16 | 45 | 105 | 15-107 | 158 | 83 | M18 | 10 | 170 | 48 | 45 | 17.5 | 6080 |

Ürün Nr. 1130-(DT) Alt Destek

- M12 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 45-105mm
- İleri-geri hareket mesafesi 68mm'dir. Sıkma Kuvveti 2000 kgf.

Ürün Nr. 1130-(LDT) Alt Destek

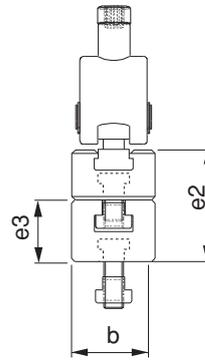
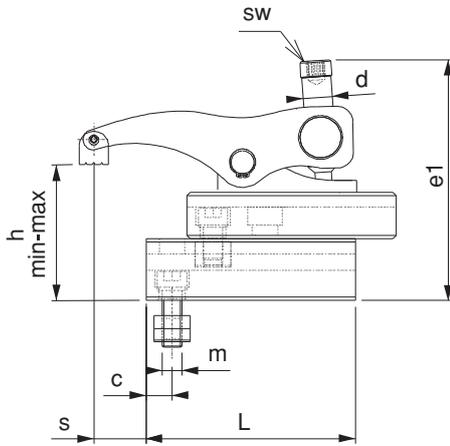
- M12 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 45-105mm
- İleri-geri hareket mesafesi 92mm'dir. Sıkma Kuvveti 2000 kgf.

Product Nr. 1130-(DT) Bottom Supported

- M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 45-105mm
- Back and forth movement distance is 68mm. Clamping force is 2000 kgf.

Product Nr. 1130-(LDT) Bottom Supported

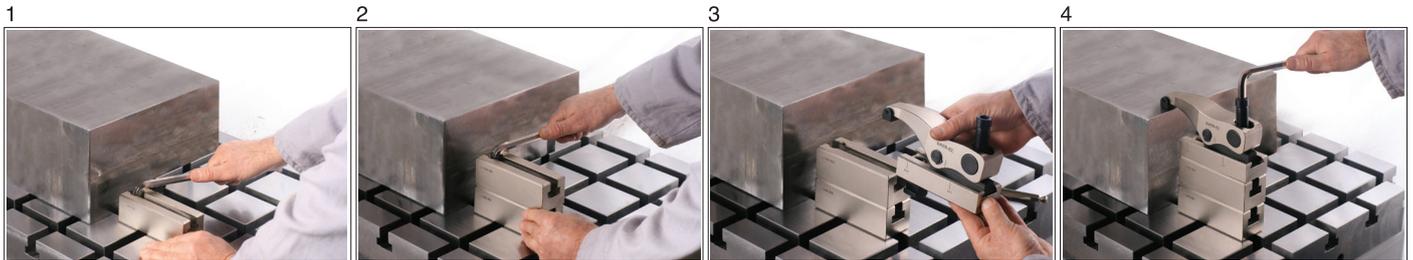
- M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 45-105mm
- Back and forth movement distance is 92mm. Clamping force is 2000 kgf.


UYGULAMA;

- 1- Alt desteği iş parçasına uygun şekle getir sabitle
- 2- K.K.S.P destekler artırılarak istenilen mesafeye ulaşılır
- 3- K.K.S.P imbus civata ile T-Pabuca karşılık T-Kanala tak istenilen pozisyona getir.
- 4- Pabuç imbus civatasıyla iş parçasını sabitle

APPLICATION

- 1- Bottom support is brought to suitable form with the work piece and then it is fixed.
- 2- Desired distance is reached by increasing K.K.S.P supports
- 3- K.K.S.P is applied in T-Slot with imbus bolt against T-Nut
- 4- Work piece is fixed with the imbus bolt of the clamp



| Referans Nr. | a | m | h | | s | e1 | e2 | d | SW | L | b | e3 | c |  (g) |
|--------------|----|-----|-----|-----|--------|-----|----|-----|----|-----|----|----|------|--|
| | | | min | max | | | | | | | | | | |
| 1150-118 DT | 18 | M16 | 48 | 113 | 18-96 | 173 | 90 | M20 | 12 | 140 | 55 | 48 | 19.5 | 6625 |
| 1150-120 DT | 20 | M16 | 48 | 113 | 18-96 | 173 | 90 | M20 | 12 | 140 | 55 | 48 | 19.5 | 6690 |
| 1150-122 DT | 22 | M20 | 48 | 113 | 18-96 | 173 | 90 | M20 | 12 | 140 | 55 | 48 | 19.5 | 6750 |
| 1150-124 DT | 24 | M20 | 48 | 113 | 18-96 | 173 | 90 | M20 | 12 | 140 | 55 | 48 | 19.5 | 6840 |
| 1150-128 DT | 28 | M20 | 48 | 113 | 18-96 | 173 | 90 | M20 | 12 | 140 | 55 | 48 | 19.5 | 6960 |
| 1150-118 LDT | 18 | M16 | 48 | 113 | 18-128 | 173 | 90 | M20 | 12 | 200 | 55 | 48 | 19.5 | 8770 |
| 1150-120 LDT | 20 | M16 | 48 | 113 | 18-128 | 173 | 90 | M20 | 12 | 200 | 55 | 48 | 19.5 | 8830 |
| 1150-122 LDT | 22 | M20 | 48 | 113 | 18-128 | 173 | 90 | M20 | 12 | 200 | 55 | 48 | 19.5 | 8885 |
| 1150-124 LDT | 24 | M20 | 48 | 113 | 18-128 | 173 | 90 | M20 | 12 | 200 | 55 | 48 | 19.5 | 8985 |
| 1150-128 LDT | 28 | M20 | 48 | 113 | 18-128 | 173 | 90 | M20 | 12 | 200 | 55 | 48 | 19.5 | 9000 |

Ürün Nr. 1150-(DT) Alt Destekli

- M16 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 48-113mm
- İleri-geri hareket mesafesi 78mm'dir. Sıkma Kuvveti 2500 kgf.

Ürün Nr. 1150-(LDT) Alt Destekli

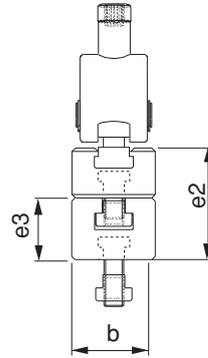
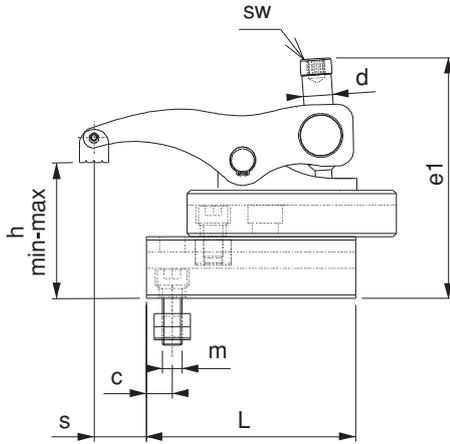
- M16 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 48-113mm
- İleri-geri hareket mesafesi 110mm'dir. Sıkma Kuvveti 2500 kgf.

Product Nr. 1150-(DT) Bottom Supported

- M16 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 48-113mm
- back-and- forth movement distance is 78mm. Clamping force is 2500 kgf.

Product Nr. 1150-(LDT) Bottom Supported

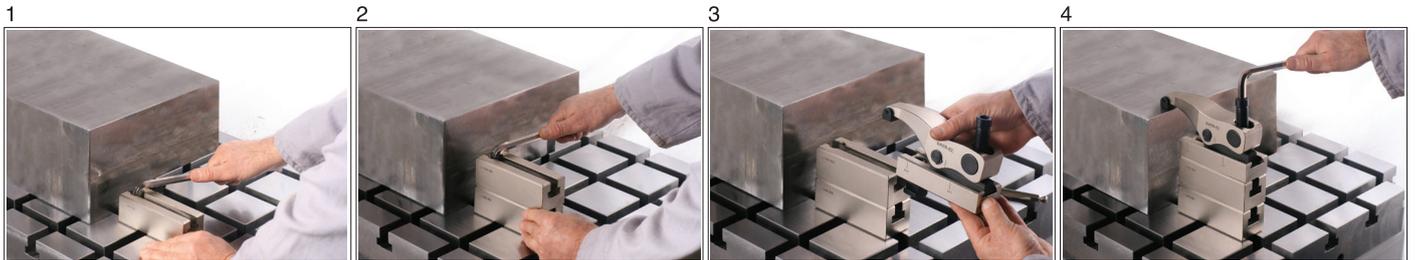
- M16 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 48-113mm
- back-and- forth movement distance is 110mm. Clamping force is 2500 kgf.


UYGULAMA;

- 1- Alt desteği iş parçasına uygun şekle getir sabitle
- 2- K.K.S.P destekler artırılarak istenilen mesafeye ulaşılır
- 3- K.K.S.P imbus civata ile T-Pabuca karşılık T-Kanala tak istenilen pozisyona getir.
- 4- Pabuç imbus civatasıyla iş parçasını sabitle

APPLICATION

- 1- Bottom support is brought to suitable form with the work piece and then it is fixed.
- 2- Desired distance is reached by increasing K.K.S.P supports
- 3- K.K.S.P is applied in T-Slot with imbus bolt against T-Nut
- 4- Work piece is fixed with the imbus bolt of the clamp



| Referans Nr. | a | m | h | | s | e1 | e2 | d | SW | | L | b | e3 | c | (g) |
|--------------|----|-----|-----|-----|--------|-----|-----|-----|----|----|-----|----|----|----|-------|
| | | | min | max | | | | | | | | | | | |
| 1160-222 DT | 22 | M20 | 79 | 139 | 17-92 | 235 | 114 | M24 | 12 | 24 | 178 | 74 | 59 | 24 | 13330 |
| 1160-224 DT | 24 | M20 | 79 | 139 | 17-92 | 235 | 114 | M24 | 12 | 24 | 178 | 74 | 59 | 24 | 13465 |
| 1160-228 DT | 28 | M24 | 79 | 139 | 17-92 | 235 | 114 | M24 | 12 | 24 | 178 | 74 | 59 | 24 | 13580 |
| 1160-236 DT | 36 | M24 | 79 | 139 | 17-92 | 235 | 114 | M24 | 12 | 24 | 178 | 74 | 59 | 24 | 13890 |
| 1160-222 LDT | 22 | M20 | 79 | 139 | 25-148 | 235 | 114 | M24 | 12 | 24 | 256 | 74 | 59 | 24 | 17910 |
| 1160-224 LDT | 24 | M20 | 79 | 139 | 25-148 | 235 | 114 | M24 | 12 | 24 | 256 | 74 | 59 | 24 | 18210 |
| 1160-228 LDT | 28 | M24 | 79 | 139 | 25-148 | 235 | 114 | M24 | 12 | 24 | 256 | 74 | 59 | 24 | 18270 |
| 1160-236 LDT | 36 | M24 | 79 | 139 | 25-148 | 235 | 114 | M24 | 12 | 24 | 256 | 74 | 59 | 24 | 18310 |

Ürün Nr. 1160-(DT) Alt Destekli

- M20-M24 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı: 79-139mm
- İleri-geri hareket mesafesi 75mm'dir. Sıkma Kuvveti 5500 kgf.

Product Nr. 1160-(DT) Bottom Supported

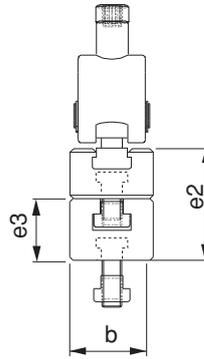
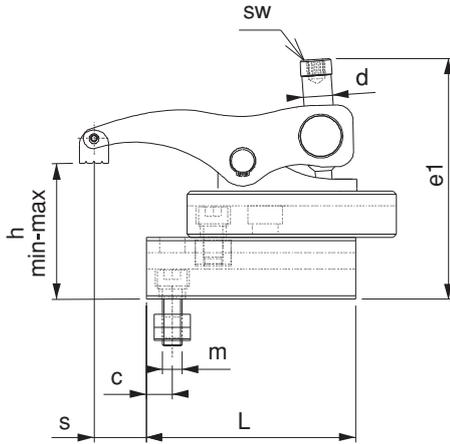
- M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 79-139mm
- Back and forth movement distance is 75mm. Clamping force is 5500 kgf.

Ürün Nr. 1160-(LDT) Alt Destekli

- M20-M24 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı: 79-139mm
- İleri-geri hareket mesafesi 123mm'dir. Sıkma Kuvveti 5500 kgf.

Product Nr. 1160-(LDT) Bottom Supported

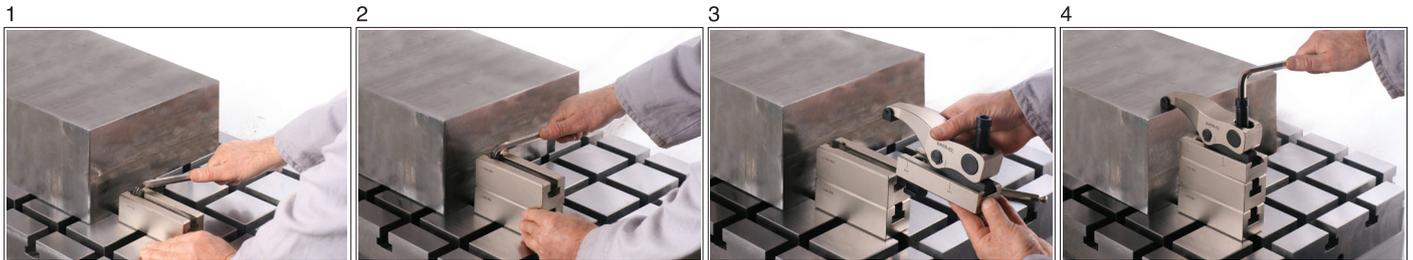
- M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 79-139mm
- Back and forth movement distance is 123mm. Clamping force is 5500 kgf.


UYGULAMA;

- 1- Alt desteği iş parçasına uygun şekle getir sabitle
- 2- K.K.S.P destekler artırılarak istenilen mesafeye ulaşılır
- 3- K.K.S.P imbus civata ile T-Pabuca karşılık T-Kanala tak istenilen pozisyona getir.
- 4- Pabuç imbus civatasıyla iş parçasını sabitle

APPLICATION

- 1- Bottom support is brought to suitable form with the work piece and then it is fixed.
- 2- Desired distance is reached by increasing K.K.S.P supports
- 3- K.K.S.P is applied in T-Slot with imbus bolt against T-Nut
- 4- Work piece is fixed with the imbus bolt of the clamp



| Referans Nr. | h | | SW | | (g) |
|--------------|-----|-----|---|---|------|
| | min | max |  |  | |
| 1120-0050 | 0 | 50 | 8 | - | 860 |
| 1120-0051 | 0 | 50 | 8 | - | 1050 |
| 1130-0060 | 0 | 60 | 10 | - | 1680 |
| 1130-0061 | 0 | 60 | 10 | - | 2150 |
| 1150-0062 | 0 | 65 | 12 | - | 2565 |
| 1150-0063 | 0 | 65 | 12 | - | 3360 |
| 1160-2080 | 20 | 80 | 12 | 24 | 5050 |
| 1160-2081 | 20 | 80 | 12 | 24 | 6900 |
| 1165-3080 | 20 | 80 | - | 24 | 6850 |

Ürün Nr. 1120-1130-1150-1160-1165
Üst Kızak Grubu

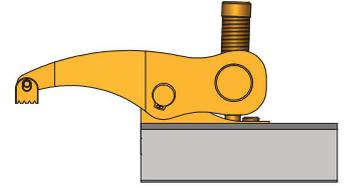
- Üst Kızak Grubu: Dövme Çelik
- Sertleştirilmiş

Product Nr. 1120-1130-1150-1160-1165
Upper Slide Group

- Upper Slide Group: Forged Steel
- Hardened

Üst Kızak Grubu

Upper Slide Group



| Referans Nr. | g |  | L | b | e | (g) |
|--------------|-------------------|--|-----|----|------|------|
| | | | | | | |
| 1120-045 | M10 M12 | 14-18 | 104 | 38 | 35.5 | 750 |
| 1120-145 | M10 M12 | 14-18 | 130 | 38 | 39 | 950 |
| 1130-047 | M12 M16 | 18-28 | 130 | 48 | 39 | 1275 |
| 1130-147 | M12 M16 | 18-28 | 170 | 48 | 39 | 1700 |
| 1150-053 | M16 M18 M20 | 18-28 | 140 | 55 | 42 | 1700 |
| 1150-153 | M16 M18 M20 | 18-28 | 200 | 55 | 42 | 2500 |
| 1160-074 | M20 M22 M24 | 22-28 | 178 | 74 | 55 | 3650 |
| 1160-075 | M30* | 36 | 178 | 74 | 55 | 3650 |
| 1160-174 | M20 M22 M24 | 22-28 | 256 | 74 | 55 | 5400 |
| 1160-175 | M30* | 36 | 256 | 74 | 55 | 5400 |
| 1165-085 | M20 M22 M24 | 36 | 205 | 85 | 55 | 5300 |
| 1165-086 | M30* | 36 | 205 | 85 | 55 | 5300 |

Ürün Nr. 1120-1130-1150-1160-1165
Alt T-Kızaklı Gövde

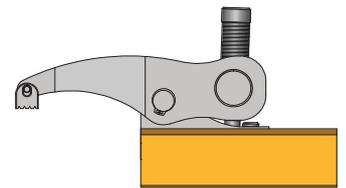
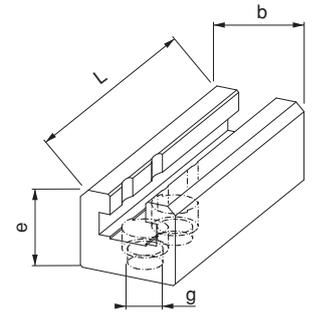
- Sertleştirilmiş

Product Nr. 1120-1130-1150-1160-1165
Body with Bottom T-Slide

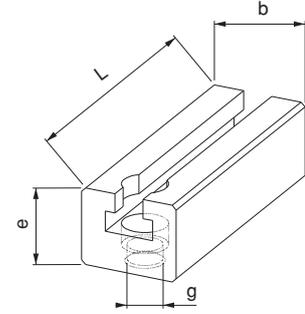
- Hardened

T-Kızaklı Gövde

Body with Bottom T-Slide



| Referans Nr. | g | a | L | b | e | (g) |
|--------------|-------------------|----|-----|----|----|------|
| 1120-040 | M10 M12 | 14 | 104 | 38 | 38 | 820 |
| 1120-140 | M10 M12 | 14 | 130 | 38 | 38 | 1030 |
| 1130-045 | M12 M16 | 14 | 130 | 48 | 45 | 1630 |
| 1130-145 | M12 M16 | 14 | 170 | 48 | 45 | 2150 |
| 1150-048 | M16 M18 M20 | 18 | 140 | 55 | 48 | 2070 |
| 1150-148 | M16 M18 M20 | 18 | 200 | 55 | 48 | 3000 |
| 1160-059 | M20 M22 M24 | 28 | 178 | 74 | 59 | 3980 |
| 1160-159 | M20 M22 M24 | 28 | 256 | 74 | 59 | 5800 |



Ürün Nr. 1120-1130-1150-1160

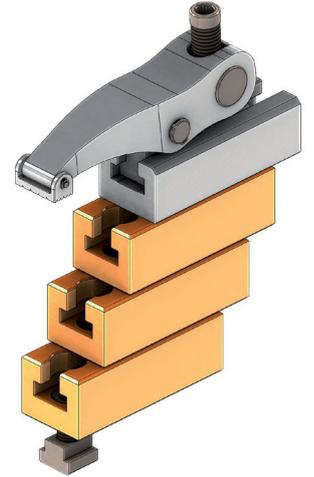
Alt Destek

• Sertleştirilmiş

Product Nr. 1120-1130-1150-1160

Bottom Support

• Hardened

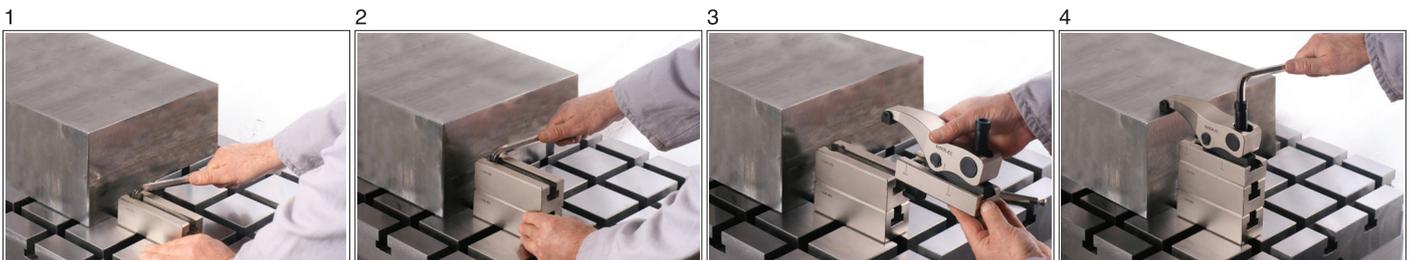
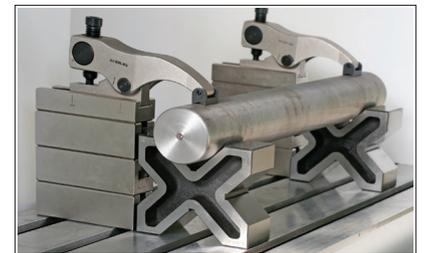


UYGULAMA;

- 1- Alt desteği iş parçasına uygun şekle getir sabitle
- 2- K.K.S.P destekler artırılarak istenilen mesafeye ulaşılır
- 3- K.K.S.P imbus civata ile T-Pabuca karşılık T-Kanala tak istenilen pozisyona getir.
- 4- Pabuç imbus civatasıyla iş parçasını sabitle

APPLICATION

- 1- Bottom support is brought to suitable form with the work piece and then it is fixed.
- 2- Desired distance is reached by increasing K.K.S.P supports
- 3- K.K.S.P is applied in T-Slot with imbus bolt against T-Nut
- 4- Work piece is fixed with the imbus bolt of the clamp



| Referans Nr. | m | L | SW | |  |
|--------------|-----|-----|----|----|---|
| 1120-0714 | M14 | 72 | 8 | - | 138 |
| 1130-0818 | M18 | 83 | 10 | - | 235 |
| 1150-0920 | M20 | 96 | 12 | - | 360 |
| 1160-1024 | M24 | 134 | 12 | 24 | 795 |
| 1165-1124 | M24 | 149 | - | 24 | 950 |

Ürün Nr. 1120-1130-1150-1160-1165 Pabuç Kaldırma Civata ve Somunu

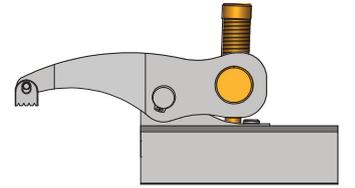
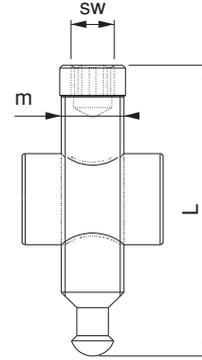
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1120-1130-1150-1160-1165 Clamp Lifting Bolt and Nut

- Hardened
- Black Coating

Pabuç Kaldırma Civata ve Somunu

Clamp Lifting Bolt and Nut



| Referans Nr. | m | L | d | sw |  |
|--------------|------|----|------|----|--|
| 1120-310 | M10 | 29 | 16.5 | 8 | 28 |
| 1120-312 | M12 | 29 | 16.5 | 8 | 34 |
| 1130-412 | M12 | 30 | 20.5 | 10 | 45 |
| 1130-416 | M16 | 34 | 20.5 | 10 | 75 |
| 1150-516 | M16 | 34 | 24.5 | 12 | 75 |
| 1150-518 | M18 | 38 | 24.5 | 12 | 90 |
| 1150-520 | M20 | 38 | 24.5 | 12 | 105 |
| 1160-620 | M20 | 45 | 34 | 12 | 170 |
| 1160-622 | M22 | 49 | 34 | 12 | 217 |
| 1160-624 | M24 | 45 | 34 | 12 | 390 |
| 1160-724 | M24 | 55 | 34 | 12 | 405 |
| 1160-730 | M30* | 66 | 38.5 | 12 | 450 |
| 1165-820 | M20 | 45 | 34 | 12 | 170 |
| 1165-822 | M22 | 49 | 34 | 12 | 217 |
| 1165-824 | M24 | 45 | 34 | 12 | 390 |
| 1165-924 | M24 | 55 | 34 | 12 | 405 |
| 1165-930 | M30* | 66 | 38.5 | 12 | 400 |

Ürün Nr. 1120-1130-1150-1160-1165 Sabitleme İmbus Civatası

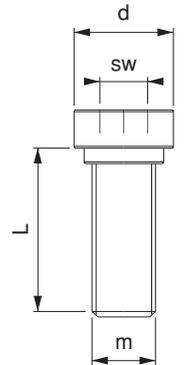
- M12-M16-M18-M20 dış delikler için
- Kalite 10.9
- Siyah kaplama

Product Nr. 1120-1130-1150-1160-1165 Imbus Bolt for Fixing

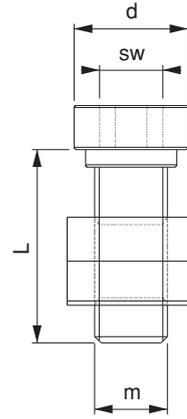
- For M12-M16-M18-M20 thread holes
- Quality 10.9
- Black Coating

Sabitleme İmbus Civatası

Imbus Bolt for Fixing



| Referans Nr. |  | m | L | d | sw |  |
|--------------|---|-----|----|------|----|---|
| 1120-512 | 12 | M10 | 29 | 16.5 | 8 | 48 |
| 1120-514* | 14 | M12 | 29 | 16.5 | 8 | 54 |
| 1130-614* | 14 | M12 | 30 | 20.5 | 10 | 80 |
| 1130-616 | 16 | M12 | 30 | 20.5 | 10 | 100 |
| 1130-618 | 18 | M16 | 30 | 20.5 | 10 | 130 |
| 1130-620 | 20 | M16 | 36 | 20.5 | 10 | 180 |
| 1130-622 | 22 | M16 | 36 | 20.5 | 10 | 220 |
| 1150-718* | 18 | M16 | 34 | 24.5 | 12 | 145 |
| 1150-720 | 20 | M16 | 34 | 24.5 | 12 | 190 |
| 1150-722 | 22 | M20 | 42 | 24.5 | 12 | 260 |
| 1150-724 | 24 | M20 | 42 | 24.5 | 12 | 350 |
| 1150-728 | 28 | M20 | 42 | 24.5 | 12 | 470 |
| 1160-822 | 22 | M20 | 45 | 34 | 12 | 320 |
| 1160-824 | 24 | M20 | 45 | 34 | 12 | 410 |
| 1160-826* | 28 | M24 | 45 | 34 | 12 | 550 |
| 1160-828 | 28 | M24 | 55 | 34 | 12 | 580 |
| 1160-832 | 32 | M24 | 61 | 34 | 12 | 603 |
| 1160-836 | 36 | M24 | 66 | 38.5 | 12 | 865 |
| 1165-922 | 22 | M20 | 45 | 34 | 12 | 320 |
| 1165-924 | 24 | M20 | 45 | 34 | 12 | 410 |
| 1165-926* | 28 | M24 | 45 | 34 | 12 | 550 |
| 1165-928 | 28 | M24 | 55 | 34 | 12 | 580 |
| 1165-932 | 32 | M24 | 61 | 34 | 12 | 603 |
| 1165-936 | 36 | M24 | 66 | 38.5 | 12 | 865 |



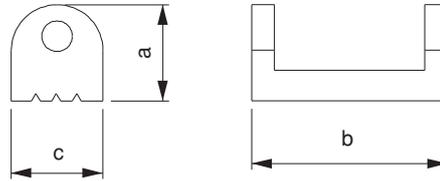
Ürün Nr. 1120-1130-1150-1160-1165 Sabitleme İmbus Civata ve T-Pabuç

- (a) 14-28 T-Kanal sabitleme imbus civata ve T-Pabuç DIN 508
- Kalite 10.9
- Siyah Kaplama
- Yıldızlı olan kodlar alt destek civatalarıdır.

Prod. Nr. 1120-1130-1150-1160-1165 Fixing Imbus Bolt and T-Nut

- (a) 14-28 T-Slot fixing imbus bolt and T-Nut DIN 508
- Quality 10.9
- Black Coating
- Star-marked codes are bottom support bolts.

| Referans Nr. | a | b | c |  |
|--------------|------|------|----|---|
| 1120-DP | 13.5 | 26.5 | 12 | 15 |
| 1120-BSP | 15.5 | 26.5 | 12 | 18 |
| 1120-ESP | 18 | 26.5 | 12 | 21 |
| 1130-DP | 17 | 32 | 15 | 20 |
| 1130-BSP | 19 | 32 | 15 | 30 |
| 1130-ESP | 22 | 32 | 15 | 30 |
| 1150-DP | 19 | 38 | 18 | 40 |
| 1150-BSP | 21 | 38 | 18 | 40 |
| 1150-ESP | 25 | 38 | 18 | 50 |
| 1160-DP | 22 | 44 | 22 | 55 |
| 1160-BSP | 25 | 44 | 22 | 70 |
| 1160-ESP | 28 | 44 | 22 | 80 |
| 1165-DP | 22 | 44 | 22 | 55 |
| 1165-BSP | 25 | 44 | 22 | 70 |
| 1165-ESP | 28 | 44 | 22 | 80 |



Ön Baskı Pabucu

Front Press Clamp



Ürün Nr. 1120-1130-1150-1160-1165 Ön Baskı Pabucu

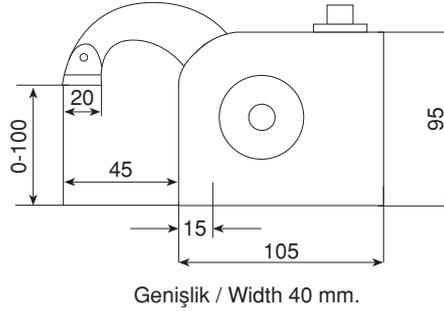
- Ürün DP : Düz parça sıkma
- Ürün BSP: Boyuna silindirik sıkma
- Ürün ESP: Enine silindirik sıkma
- Siyah Kaplama

Prod. Nr. 1120-1130-1150-1160-1165 Front Press Clamp

- Product DP : Straight piece clamping
- Product BSP: Longitudinal cylinder clamping
- Product ESP: Lateral cylinder clamping
- Black Coating

| Referans Nr. | a | Sıkma Kuvveti Clamping Force (Kgf) | Nm | (kg) |
|---------------|----|------------------------------------|-----|------|
| 1168-MB101112 | 12 | 1000 | 160 | 1.70 |
| 1168-MB101114 | 14 | 1000 | 160 | 1.70 |
| 1168-MB101116 | 16 | 1000 | 160 | 1.70 |
| 1168-MB101118 | 18 | 1000 | 160 | 1.70 |
| 1168-MB101120 | 20 | 1000 | 160 | 1.70 |

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp

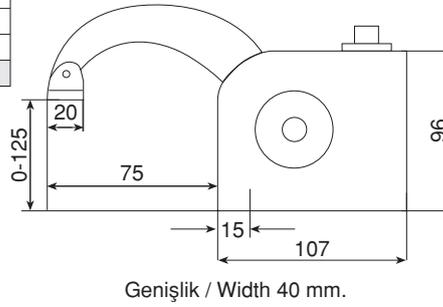


Kombine Bağlama Pabucu

Combined Clamp

| Referans Nr. | a | Sıkma Kuvveti Clamping Force (Kgf) | Nm | (kg) |
|----------------|----|------------------------------------|-----|------|
| 1168-MBU103112 | 12 | 1000 | 160 | 1.80 |
| 1168-MBU103114 | 14 | 1000 | 160 | 1.80 |
| 1168-MBU103116 | 16 | 1000 | 160 | 1.80 |
| 1168-MBU103118 | 18 | 1000 | 160 | 1.80 |
| 1168-MBU103120 | 20 | 1000 | 160 | 1.80 |

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp

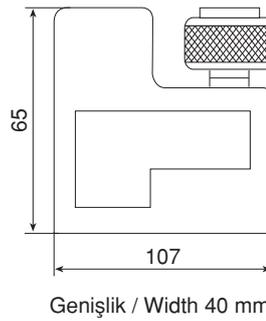


Kombine Bağlama Pabucu Alt Destek

Combined Clamp Bottom Support

| Referans Nr. | a | (kg) |
|--------------|----|------|
| 1168-MK1021 | 16 | 1.80 |

Ürün Nr. 1168 Kombine Bağlama Pabucu Alt Destek
Product Nr. 1168 Combined Clamp Bottom Support

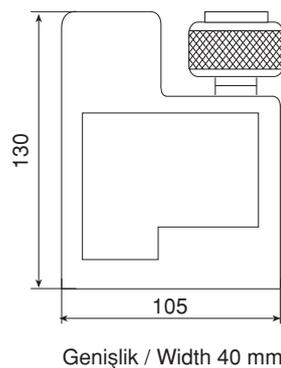


Kombine Bağlama Pabucu Alt Destek

Combined Clamp Bottom Support

| Referans Nr. | a | (kg) |
|--------------|----|------|
| 1168-MK1022 | 16 | 1.10 |

Ürün Nr. 1168 Kombine Bağlama Pabucu Alt Destek
Product Nr. 1168 Combined Clamp Bottom Support

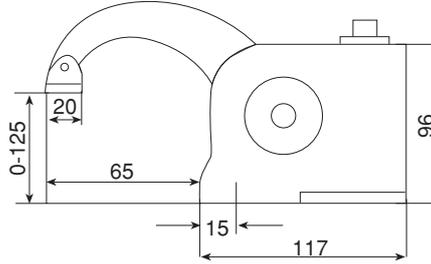


Uygulama Örneği
Example Application



| Referans Nr. | a | Sıkma Kuvveti Clamping Force (Kgf) | Nm | (kg) |
|----------------|----|------------------------------------|-----|------|
| 1168-MFB204112 | 12 | 1000 | 160 | 1.70 |
| 1168-MFB204114 | 14 | 1000 | 160 | 1.70 |
| 1168-MFB204116 | 16 | 1000 | 160 | 1.70 |
| 1168-MFB204118 | 18 | 1000 | 160 | 1.70 |
| 1168-MFB204120 | 20 | 1000 | 160 | 1.70 |

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp



Genişlik / Width 40 mm.



Kombine Bağlama Pabucu Alt Destek

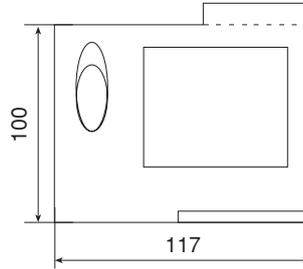
Combined Clamp Bottom Support

| Referans Nr. | a | (kg) |
|----------------|----|------|
| 1168-MFK204212 | 12 | 0.80 |
| 1168-MFK204214 | 14 | 0.80 |
| 1168-MFK204216 | 16 | 0.80 |
| 1168-MFK204218 | 18 | 0.80 |
| 1168-MFK204220 | 20 | 0.80 |

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp



Uygulama Örneği
Example Application



Genişlik / Width 40 mm.

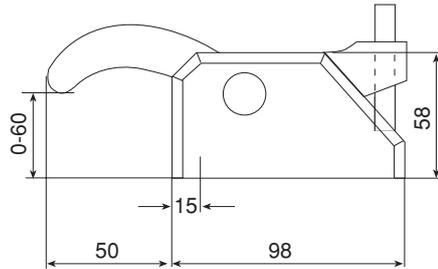


Kombine Bağlama Pabucu

Combined Clamp

| Referans Nr. | a | Sıkma Kuvveti Clamping Force (Kgf) | Nm | (kg) |
|----------------|----|------------------------------------|-----|------|
| 1168-MEP501116 | 16 | 2000 | 110 | 2.80 |
| 1168-MEP501118 | 18 | 2000 | 110 | 2.80 |
| 1168-MEP501120 | 20 | 2000 | 110 | 2.80 |
| 1168-MEP501122 | 22 | 2000 | 110 | 2.80 |
| 1168-MEP501124 | 24 | 2000 | 110 | 2.80 |

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp



Genişlik / Width 72 mm.



Kombine Bağlama Pabucu Alt Destek

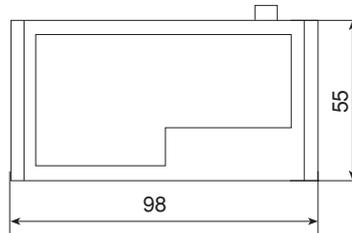
Combined Clamp Bottom Support

| Referans Nr. | a | (kg) |
|--------------|----|------|
| 1168-MPK5022 | 18 | 0.90 |

Ürün Nr. 1168 Kombine Bağlama Pabucu Alt Destek
Product Nr. 1168 Combined Clamp Bottom Support



Uygulama Örneği
Example Application



Genişlik / Width 72 mm.



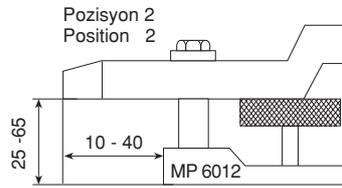
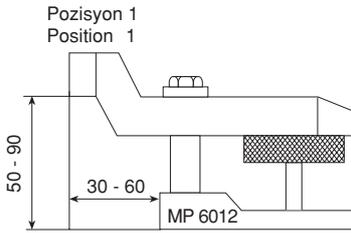
| Referans Nr. |  | Sıkma Kuvveti Clamping Force (Kgf) | Nm |  |
|---------------|---|---------------------------------------|-----|---|
| 1168-MP601214 | 14 | 2000 | 130 | 2.50 |
| 1168-MP601216 | 16 | 2000 | 130 | 2.50 |
| 1168-MP601218 | 18 | 2000 | 130 | 2.50 |
| 1168-MP601220 | 20 | 2000 | 130 | 2.50 |

Ürün Nr. 1168 Kombine Bağlama Pabucu

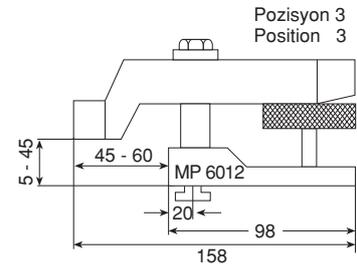
- Pabucun çift taraflı kullanım özelliği; kendi içinde bulunan yükseltici desteği ile kısıtlı alanlarda kullanım kolaylığı sağlar.

Product Nr. 1168 Combined Clamp

- Double-sided usage of the clamp and it's stepped lifter provides using advantage in restricted areas



Genişlik / Width 60 mm.



Kombine Bağlama Pabucu Alt Destek

Combined Clamp Bottom Support

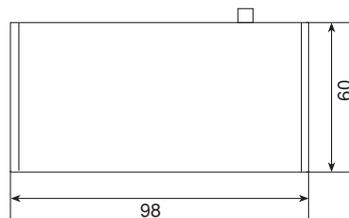
| Referans Nr. |  |  |
|---------------|---|---|
| 1168-MY602114 | 14 | 0.60 |
| 1168-MY602116 | 16 | 0.60 |
| 1168-MY602118 | 18 | 0.60 |
| 1168-MY602120 | 20 | 0.60 |

Ürün Nr. 1168 Kombine Bağlama Pabucu Alt Destek

Product Nr. 1168 Combined Clamp Bottom Support



Uygulama Örneği
Example Application



Genişlik / Width 58 mm.

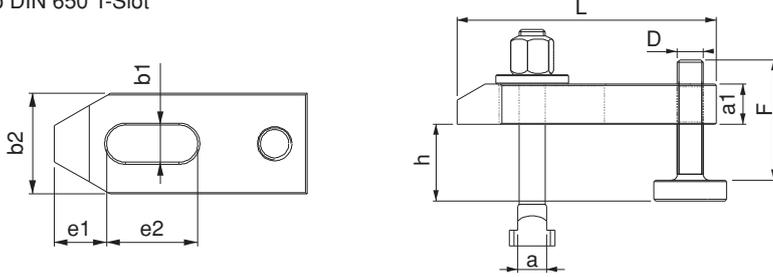
| Referans Nr. |  | L | Nr.1330 | | e1 | e2 | b1 | Nr.1610 | h | Nr.1490 D x F |  |
|--------------|---|-----|---------|----|----|----|------|------------|-------|------------------|---|
| | | | a1 | b2 | | | | | | | |
| 1170-1010080 | 10 | 80 | 15 | 30 | 15 | 30 | 11 | M10x10x80 | 10-35 | M10x42 | 370 |
| 1170-1212100 | 12 | 100 | 20 | 40 | 21 | 40 | 14.5 | M12x12x100 | 12-40 | M12x50 | 740 |
| 1170-1212125 | 12 | 125 | 20 | 40 | 21 | 50 | 14.5 | M12x12x160 | 12-85 | M12x95 | 940 |
| 1170-1214100 | 14 | 100 | 20 | 40 | 21 | 40 | 14.5 | M12x14x100 | 12-40 | M12x50 | 705 |
| 1170-1214125 | 14 | 125 | 20 | 40 | 21 | 50 | 14.5 | M12x14x160 | 12-85 | M12x95 | 965 |
| 1170-1616125 | 16 | 125 | 25 | 50 | 26 | 45 | 18.5 | M16x16x125 | 15-50 | M16x62 | 1115 |
| 1170-1616160 | 16 | 160 | 25 | 50 | 26 | 65 | 18.5 | M16x16x160 | 15-85 | M16x97 | 1870 |
| 1170-1618125 | 18 | 125 | 25 | 50 | 26 | 45 | 18.5 | M16x18x125 | 15-50 | M16x62 | 1540 |
| 1170-1618160 | 18 | 160 | 25 | 50 | 26 | 65 | 18.5 | M16x18x160 | 15-85 | M16x97 | 1900 |
| 1170-2020160 | 20 | 160 | 30 | 60 | 30 | 60 | 22.5 | M20x20x160 | 15-45 | M20x62 | 1675 |
| 1170-2020200 | 20 | 200 | 30 | 60 | 30 | 80 | 22.5 | M20x20x200 | 15-80 | M20x97 | 3295 |
| 1170-2022160 | 22 | 160 | 30 | 60 | 30 | 60 | 22.5 | M20x22x160 | 15-45 | M20x62 | 2730 |
| 1170-2022200 | 22 | 200 | 30 | 60 | 30 | 80 | 22.5 | M20x22x200 | 15-80 | M20x97 | 3340 |
| 1170-2424160 | 24 | 160 | 30 | 70 | 35 | 60 | 26.5 | M24x24x160 | 16-60 | M24x81 | 3465 |
| 1170-2424200 | 24 | 200 | 30 | 70 | 35 | 80 | 26.5 | M24x24x200 | 16-95 | M24x116 | 4660 |
| 1170-2428160 | 28 | 160 | 30 | 70 | 35 | 60 | 26.5 | M24x28x160 | 16-60 | M24x81 | 5560 |
| 1170-2428200 | 28 | 200 | 30 | 70 | 35 | 80 | 26.5 | M24x28x200 | 16-95 | M24x116 | 4755 |

Ürün Nr. 1170 Ayarlanabilir Destek Civatalı Kombine Bağlama Pabuçu

- Ürün DIN 650 T-Kanala uyumludur.

Product Nr. 1170 Combined Coupling Clamp with Adjustable Support Bolt

- Product is suitable to DIN 650 T-Slot



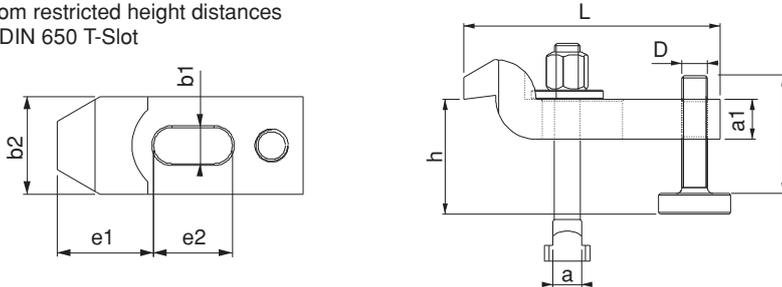
| Referans Nr. |  | L | Nr.1450 | | e1 | e2 | b1 | Nr.1610 | h | Nr.1490 D x F |  |
|--------------|---|-----|---------|----|----|----|------|------------|-------|------------------|---|
| | | | a1 | b2 | | | | | | | |
| 1190-1010100 | 10 | 100 | 15 | 30 | 32 | 32 | 11 | M10x10x80 | 26-50 | M10x42 | 405 |
| 1190-1212125 | 12 | 125 | 20 | 40 | 40 | 40 | 14.5 | M12x12x100 | 33-60 | M12x50 | 870 |
| 1190-1214125 | 14 | 125 | 20 | 40 | 40 | 40 | 14.5 | M12x14x100 | 37-60 | M12x50 | 890 |
| 1190-1616160 | 16 | 160 | 25 | 50 | 49 | 50 | 18.5 | M16x16x125 | 41-75 | M16x62 | 1785 |
| 1190-1618160 | 18 | 160 | 25 | 50 | 49 | 50 | 18.5 | M16x18x125 | 41-75 | M16x62 | 1810 |
| 1190-2020200 | 20 | 200 | 30 | 60 | 55 | 70 | 22.5 | M20x20x160 | 46-75 | M20x62 | 3105 |
| 1190-2022200 | 22 | 200 | 30 | 60 | 55 | 70 | 22.5 | M20x22x160 | 46-75 | M20x62 | 3155 |
| 1190-2424200 | 24 | 200 | 35 | 70 | 72 | 60 | 26 | M24x24x200 | 52-95 | M24x81 | 4695 |
| 1190-2428200 | 28 | 200 | 35 | 70 | 72 | 60 | 26 | M24x28x200 | 52-95 | M24x81 | 4790 |

Ürün Nr. 1190 Ayarlanabilir Destek Civatalı Kombine Bağlama Z-Pabuçu

- Kısıtlı yükseklik mesafelerinden kazanma amaçlı kullanılır.
- Ürün DIN 650 T-Kanala uyumludur.

Product Nr. 1190 Combined Coupling Z-Clamp with Adjustable Support Bolt

- This is used to gain from restricted height distances
- Product is suitable to DIN 650 T-Slot



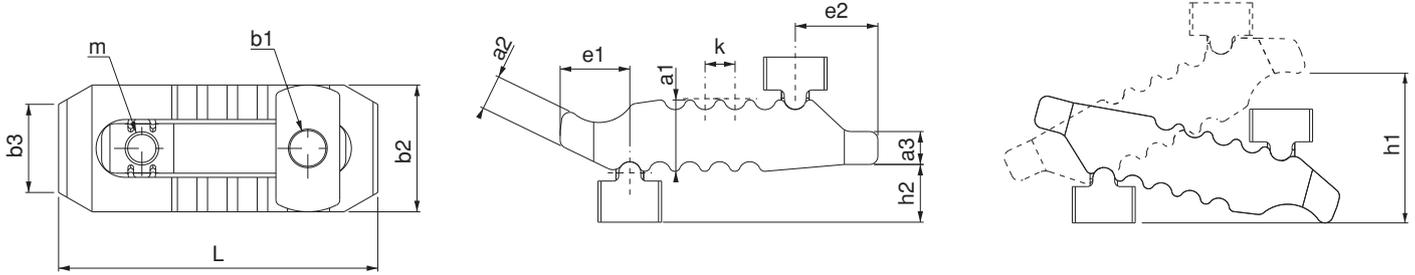
| Referans Nr. |  | a1 | a2 | a3 | b2xL | b3 | e1 | e2 | h2 | k | b1 | m | h1 | kgf |  |
|--------------|---|----|------|----|--------|----|----|----|------|----|----|-----|-------|------|---|
| 1195-44115 | 10-12-14 | 27 | 12.5 | 12 | 44x115 | 30 | 25 | 30 | 21 | 11 | 13 | M12 | 0-55 | 3000 | 506 |
| 1195-55150 | 12-14-16-18 | 36 | 18 | 17 | 55x150 | 41 | 35 | 36 | 23 | 12 | 17 | M16 | 0-70 | 4000 | 1382 |
| 1195-63187 | 16-18-20-22 | 42 | 25 | 20 | 63x187 | 30 | 44 | 44 | 32.5 | 14 | 21 | M20 | 0-80 | 6000 | 2241 |
| 1195-70235 | 20-22-24-28 | 51 | 36.5 | 24 | 70x235 | 30 | 60 | 47 | 34 | 17 | 25 | M20 | 0-100 | 7500 | 3550 |

Ürün Nr. 1195 Çift Taraflı Bağlama Pabucu

- Malzeme: Dövme Çelik
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1195 Coupling Clamps Double Sided

- Material: Forged Steel
- Hardened
- Black coating



Kombine Çift Taraflı Bağlama Pabucu

Combined Coupling Clamps Double Sided

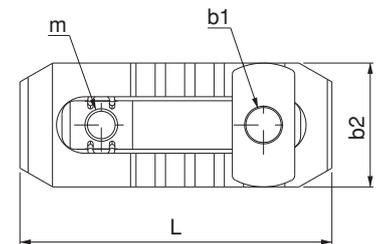
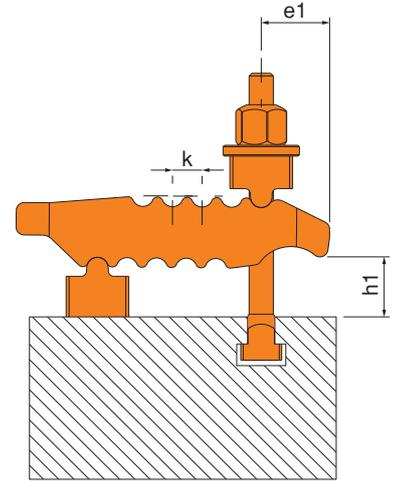
| Referans Nr. | b1 | b2xL | e1 | h1 | k | m |  |  | Sıkma Kuvveti Clamping Force kgf |  |
|--------------|----|--------|----|-------|----|-----|---|---|--|---|
| 1195-1010100 | 13 | 44x115 | 25 | 0-55 | 11 | M12 | 10 | M10x10x100 | 2500 | 613 |
| 1195-1212125 | 13 | 44x115 | 25 | 0-55 | 11 | M12 | 12 | M12x12x125 | 3000 | 686 |
| 1195-1214125 | 13 | 44x115 | 25 | 0-55 | 11 | M12 | 14 | M12x14x125 | 3000 | 705 |
| 1195-1212160 | 17 | 55x150 | 35 | 0-70 | 12 | M16 | 12 | M12x12x160 | 3500 | 1591 |
| 1195-1214160 | 17 | 55x150 | 35 | 0-70 | 12 | M16 | 14 | M12x14x160 | 3500 | 1610 |
| 1195-1616160 | 17 | 55x150 | 35 | 0-70 | 12 | M16 | 16 | M16x16x160 | 4000 | 1798 |
| 1195-1618160 | 17 | 55x150 | 35 | 0-70 | 12 | M16 | 18 | M16x18x160 | 4000 | 1818 |
| 1195-1616200 | 21 | 63x187 | 44 | 0-80 | 14 | M20 | 16 | M16x16x200 | 5500 | 2715 |
| 1195-1618200 | 21 | 63x187 | 44 | 0-80 | 14 | M20 | 18 | M16x18x200 | 5500 | 3018 |
| 1195-2020200 | 21 | 63x187 | 44 | 0-80 | 14 | M20 | 20 | M20x20x200 | 6000 | 3018 |
| 1195-2022200 | 21 | 63x187 | 44 | 0-80 | 14 | M20 | 22 | M20x22x200 | 6000 | 3060 |
| 1195-2020250 | 25 | 70x235 | 60 | 0-100 | 17 | M20 | 20 | M20x20x250 | 7000 | 4368 |
| 1195-2022250 | 25 | 70x235 | 60 | 0-100 | 17 | M20 | 22 | M20x22x250 | 7000 | 4410 |
| 1195-2424250 | 25 | 70x235 | 60 | 0-100 | 17 | M20 | 24 | M24x24x250 | 7500 | 4895 |
| 1195-2428250 | 25 | 70x235 | 60 | 0-100 | 17 | M20 | 28 | M24x28x250 | 7500 | 4966 |

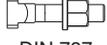
Ürün Nr. 1195 Kombine Çift Taraflı Bağlama Pabucu

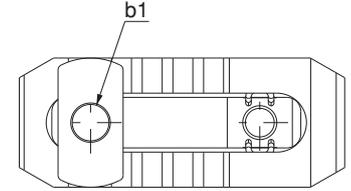
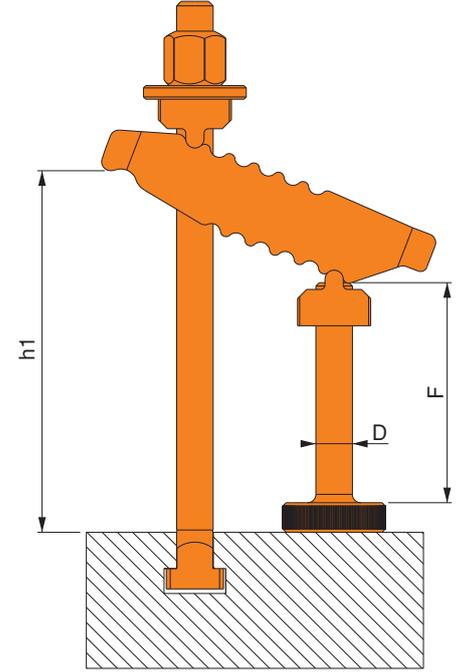
- Ürün DIN 650 T-Kanala uyumludur.

Product Nr. 1195 Combined Coupling Clamps Double Sided

- Product is suitable to DIN 650 T-Slot



| Referans Nr | B1 | D x F |  DIN 787 | h1 |
|------------------|----|--------|--|--------|
| 1195-10101005013 | 13 | M12x50 | M10x10x100 | 15-31 |
| 1195-12121605013 | 13 | M12x50 | M12x12x160 | 15-97 |
| 1195-12141605013 | 13 | M12x50 | M12x14x160 | 15-97 |
| 1195-12122006217 | 17 | M16x62 | M12x12x200 | 18-126 |
| 1195-12142006217 | 17 | M16x62 | M12x14x200 | 18-126 |
| 1195-16162006217 | 17 | M16x62 | M16x16x200 | 18-126 |
| 1195-16182006217 | 17 | M16x62 | M16x18x200 | 18-126 |
| 1195-12122009717 | 17 | M16x97 | M12x12x200 | 18-120 |
| 1195-12142009717 | 17 | M16x97 | M12x14x200 | 18-120 |
| 1195-16162509717 | 17 | M16x97 | M16x16x250 | 39-161 |
| 1195-16182509717 | 17 | M16x97 | M16x18x250 | 39-161 |
| 1195-16162506221 | 21 | M20x62 | M16x16x250 | 18-129 |
| 1195-16182506221 | 21 | M20x62 | M16x18x250 | 18-129 |
| 1195-20202506221 | 21 | M20x62 | M20x20x250 | 18-129 |
| 1195-20222506221 | 21 | M20x62 | M20x22x250 | 18-129 |
| 1195-16162509721 | 21 | M20x97 | M16x16x250 | 18-151 |
| 1195-16182509721 | 21 | M20x97 | M16x18x250 | 18-151 |
| 1195-20203159721 | 21 | M20x97 | M20x20x315 | 42-184 |
| 1195-20223159721 | 21 | M20x97 | M20x22x315 | 42-184 |
| 1195-20203156225 | 25 | M20x62 | M20x20x315 | 21-147 |
| 1195-20223156225 | 25 | M20x62 | M20x22x315 | 21-147 |
| 1195-24243156225 | 25 | M20x62 | M24x24x315 | 21-147 |
| 1195-24283156225 | 25 | M20x62 | M24x28x315 | 21-147 |
| 1195-20203159725 | 25 | M20x97 | M20x20x315 | 21-182 |
| 1195-20223159725 | 25 | M20x97 | M20x22x315 | 21-182 |
| 1195-24243159725 | 25 | M20x97 | M24x24x315 | 21-182 |
| 1195-24283159725 | 25 | M20x97 | M24x28x315 | 21-182 |


Ürün Nr. 1195 Kombine Çift Taraflı Bağlama Pabucu

• Ürün DIN 650 T-Kanala uyumludur.

Product Nr. 1195 Combined Coupling Clamps Double Sided

• Product is suitable to DIN 650 T-Slot

| Referans Nr. | | DIN 787 | b1 | b2xL | d | e1 | e2 | h | |
|--------------|-------|------------|----|--------|----|----|----|------|------|
| 1200-50140 | 16-18 | - | 17 | 50x140 | 60 | 30 | 55 | 75 | 900 |
| 1200-60175 | 20-22 | - | 21 | 60x175 | 80 | 40 | 70 | 85 | 1600 |
| 1200-12125 | 12 | M12x12x125 | 17 | 50x140 | 60 | 30 | 55 | 0-50 | 1070 |
| 1200-14125 | 14 | M12x14x125 | 17 | 50x140 | 60 | 30 | 55 | 0-55 | 1080 |
| 1200-16160 | 16 | M16x16x160 | 17 | 50x140 | 60 | 30 | 55 | 0-75 | 1270 |
| 1200-18160 | 18 | M16x18x160 | 17 | 50x140 | 60 | 30 | 55 | 0-75 | 1280 |
| 1200-20200 | 20 | M20x20x200 | 21 | 60x175 | 80 | 40 | 70 | 0-85 | 2300 |
| 1200-22200 | 22 | M20x22x200 | 21 | 60x175 | 80 | 40 | 70 | 0-85 | 2370 |

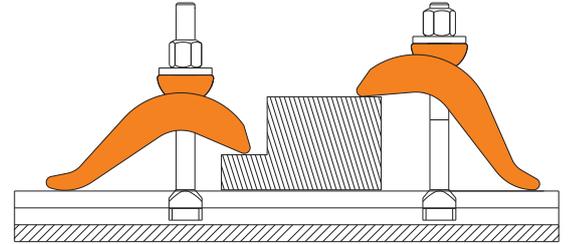
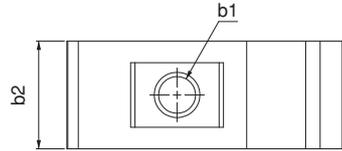
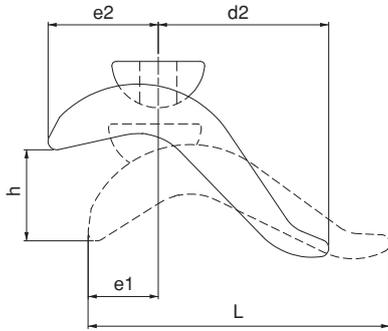


Ürün Nr. 1200 S-Bağlama Pabucu

- Malzeme: Dövme Çelik
- Çinko Kaplama

Product Nr. 1200 S-Coupling Clamp

- Material: Forged Steel
- Zinc Coating



Kademeli Bağlama Pabucu

Stepped Coupling Clamp

| Referans Nr. | b1 | | DIN 787 | m | h | b x L | c | d | e1 | k x3 | |
|--------------|----|-------|------------|-------|-------|--------|----|-----|----|------|------|
| 1205-017 | 17 | 16-18 | - | 93 | 15-50 | 65x165 | 39 | 128 | 30 | 17 | 2100 |
| 1205-021 | 21 | 20-22 | - | 111 | 20-65 | 75x189 | 43 | 146 | 33 | 19 | 3200 |
| 1205-025 | 25 | 24-28 | - | 126 | 20-75 | 85x213 | 49 | 164 | 39 | 21 | 4500 |
| 1205-031 | 31 | 36 | - | 143.5 | 20-85 | 95x238 | 56 | 182 | 46 | 23 | 6300 |
| 1205-016 | 17 | 16 | M16x16x125 | 93 | 15-50 | 65x165 | 39 | 128 | 30 | 17 | 2500 |
| 1205-018 | 17 | 18 | M16x18x125 | 93 | 15-50 | 65x165 | 39 | 128 | 30 | 17 | 2500 |
| 1205-020 | 21 | 20 | M20x20x160 | 111 | 20-65 | 75x189 | 43 | 146 | 33 | 19 | 3900 |
| 1205-022 | 21 | 22 | M20x22x160 | 111 | 20-65 | 75x189 | 43 | 146 | 33 | 19 | 3900 |
| 1205-024 | 25 | 24 | M24x24x200 | 126 | 20-75 | 85x213 | 49 | 164 | 39 | 21 | 5700 |
| 1205-028 | 25 | 28 | M24x28x200 | 126 | 20-75 | 85x213 | 49 | 164 | 39 | 21 | 5700 |
| 1205-036 | 31 | 36 | M30x36x250 | 143.5 | 20-85 | 95x238 | 56 | 182 | 46 | 23 | 8800 |

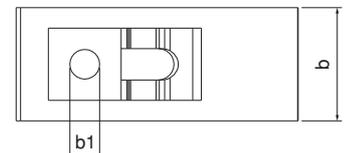
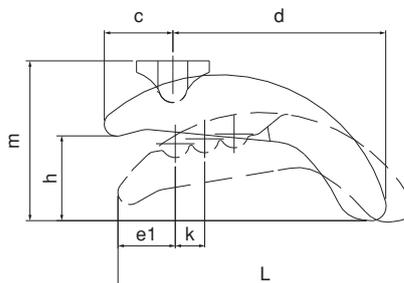


Ürün Nr. 1205 Kademeli Bağlama Pabucu

- Destek kullanmadan 15-85mm arası kullanım imkanı sağlar
- Malzeme: Dövme Çelik
- Çinko Kaplama

Product Nr. 1205 Stepped Coupling Clamp

- It provides using between 15-85 mm without supporting.
- Material: Forged Steel
- Zinc Coating



| Referans Nr. | b1 | a | DIN 787 | m | h | b x L | c | d | e1 | k x4 | (g) |
|--------------|----|-------|------------|-----|------|--------|----|-----|----|------|------|
| 1210-013 | 13 | 12-14 | - | 52 | 0-40 | 40x90 | 28 | 48 | 23 | 14 | 340 |
| 1210-017 | 17 | 16-18 | - | 80 | 0-60 | 58x130 | 38 | 74 | 29 | 18 | 990 |
| 1210-021 | 21 | 20-22 | - | 98 | 0-75 | 68x140 | 46 | 80 | 32 | 20 | 1450 |
| 1210-025 | 25 | 24-28 | - | 110 | 0-90 | 78x175 | 52 | 100 | 39 | 24 | 2360 |
| 1210-012 | 13 | 12 | M12x12x100 | 52 | 0-40 | 40x90 | 28 | 48 | 23 | 14 | 400 |
| 1210-014 | 13 | 14 | M12x14x100 | 52 | 0-40 | 40x90 | 28 | 48 | 23 | 14 | 420 |
| 1210-016 | 17 | 16 | M16x16x160 | 80 | 0-60 | 58x130 | 38 | 74 | 29 | 18 | 1140 |
| 1210-018 | 17 | 18 | M16x18x160 | 80 | 0-60 | 58x130 | 38 | 74 | 29 | 18 | 1145 |
| 1210-020 | 21 | 20 | M20x20x200 | 98 | 0-75 | 68x140 | 46 | 80 | 32 | 20 | 1560 |

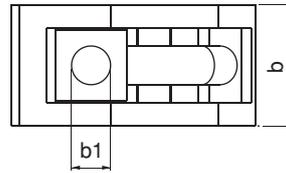
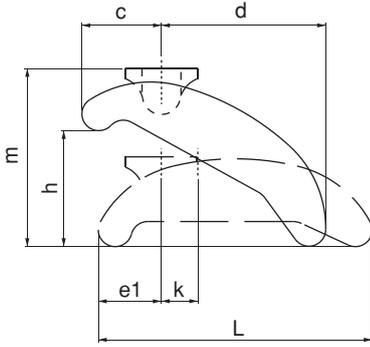


Ürün Nr. 1210 Kademeli Bağlama Pabucu

- Destek kullanmadan 0-75mm arası kullanım imkanı sağlar
- Malzeme: Dövme Çelik
- Sertleştirilmiş
- Çinko Kaplama

Product Nr. 1210 Stepped Coupling Clamp

- It provides using between 0-75 mm without supporting
- Material: Forged Steel
- Hardened
- Zinc Coating



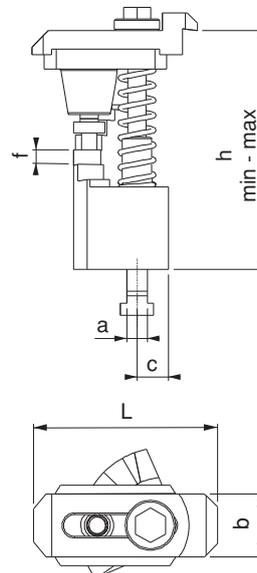
| Referans Nr. | a | h min - max | f | c | L | b | (g) |
|--------------|----------------|-------------|----|----|-----|----|------|
| 1230-01 | 14-16-18-20-22 | 40 - 80 | 5 | 16 | 110 | 38 | 1200 |
| 1230-02 | | 70 - 125 | 10 | 16 | 110 | 38 | 1490 |
| 1230-03 | | 120 - 175 | 10 | 18 | 110 | 38 | 2700 |
| 1230-04 | | 170 - 225 | 10 | 23 | 110 | 38 | 4260 |

Ürün Nr. 1230 Basamaklı Kombine Pabuç

- Pabucun çift taraflı kullanım özelliği; basamaklı yükselticisi ile kısıtlı alanlarda kullanım avantajı sağlar.
- DIN 650 T-Kanala uyumludur.
- Pabuç malzeme: Sertleştirilmiş
- Civata 10.9 kalite
- Gövde statik boyalı diğer parçalar siyah kaplama

Product Nr. 1230 Stepped Combined Clamp

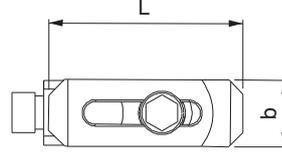
- Double-sided usage of the clamp provides using advantage in restricted areas
- Product is suitable to DIN 650 T-Slot
- Clamp Material: Hardened
- Bolt Quality: 10.9
- Body is statically painted and the other parts are black coating



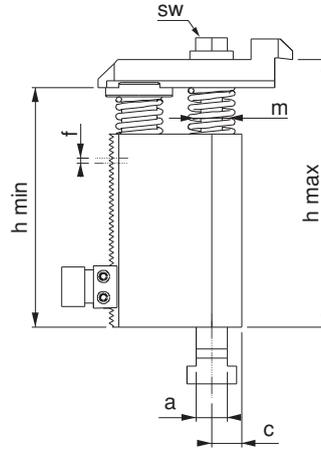
| Referans Nr. |  | h min-max | f | c | L | b | m | sw | Sıkma Kuvveti Clamping Force Kgf | Nm |  (g) |
|--------------|---|--------------|---|----|-----|----|-----|----|--|----|--|
| 1250 - 02 | 14-16-18-20-22 | 80-137 | 3 | 17 | 110 | 38 | M12 | 19 | 2250 | 85 | 2015 |
| 1250 - 03 | | 125-224 | 3 | 17 | 110 | 38 | M12 | 19 | 2250 | 85 | 2910 |
| 1250 - 04 | | 160-300 | 3 | 17 | 110 | 38 | M12 | 19 | 2250 | 85 | 3665 |

Ürün Nr. 1250 Kombine Bağlama Pabuçu

- Pabucun çift taraflı kullanım özelliği; kendi içinde bulunan kademeli yükseltici desteği ile kısıtlı alanlarda kullanım kolaylığı sağlar.
- DIN 650 T-Kanala uyumludur.
- Pabuç Malzeme: Sertleştirilmiş
- Civata 10.9 kalite
- Siyah kaplama


Product Nr. 1250 Combined Coupling Clamp

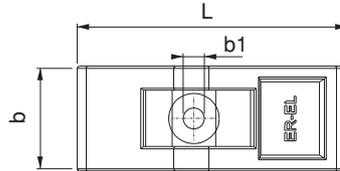
- Double-sided usage of the clamp and its stepped lifter's support provides using advantage in restricted areas
- It is suitable to DIN 650 T-Slot
- Clamp Hardness: Hardened
- Bolt Quality: 10.9
- Black coating



| Referans Nr. |  | h min-max |  DIN 787 | b1 | e | z | L | b |  (g) |
|--------------|---|--------------|--|----|----|----|-----|----|--|
| 1270-1012 | 12 | 0-45 | M10x12x100 | 11 | 48 | 61 | 109 | 40 | 660 |
| 1270-1214 | 14 | 0-45 | M12x14x100 | 13 | 48 | 61 | 109 | 40 | 705 |
| 1270-1416 | 16 | 0-55 | M14x16x125 | 15 | 57 | 72 | 129 | 50 | 1190 |
| 1270-1618 | 18 | 0-55 | M16x18x125 | 17 | 57 | 72 | 129 | 50 | 1265 |

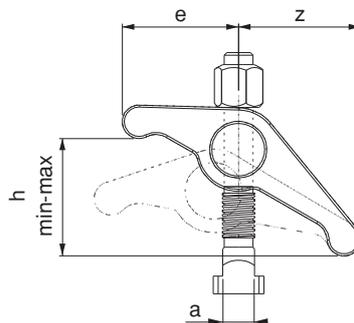
Ürün Nr. 1270 Desteksiz Askı Pabuçu

- Destek kullanmadan 0-55 mm arası kullanım imkanı sağlar.
- Malzeme: Dövme çelik
- Pabuç Malzeme: Sertleştirilmiş
- Civata 12.9 kalite
- Çinko Kaplama


Desteksiz Askı Pabuçu
 Unsupported Suspension Clamp

Product Nr. 1270 Unsupported Suspension Clamp

- Product provides using between 0-55 mm without using support
- Material: Forged Steel
- Clamp Hardness: Hardened
- Bolt Quality: 12.9
- Zinc Coating



| Referans Nr. | a | b | c | d | e | m | sw | m1 | İmbus | sıkma kuvveti clamping force Kgf | Tork Değeri Allowable Screw Torque (N-m) | (g) |
|--------------|----|----|----|----|----|-----|----|-----|-------|--|---|-----|
| 1275-3012 | 30 | 28 | 16 | 40 | 23 | M12 | 30 | M8 | M10 | 750 | 20 | 300 |
| 1275-5012 | 50 | 32 | 20 | 45 | 40 | M12 | 36 | M12 | M12 | 1000 | 30 | 500 |
| 1275-5016 | 50 | 32 | 20 | 45 | 40 | M16 | 36 | M12 | M12 | 1000 | 30 | 510 |
| 1275-6016 | 60 | 40 | 25 | 45 | 45 | M16 | 41 | M16 | M16 | 1250 | 45 | 750 |

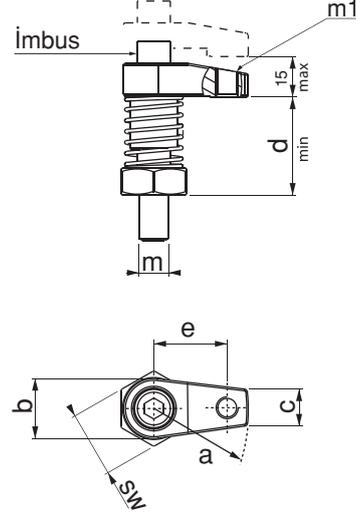
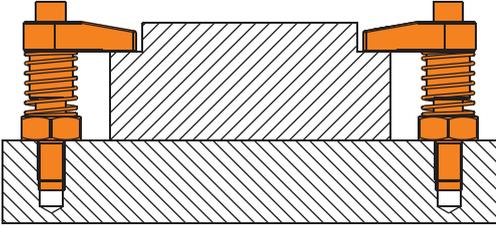


Ürün Nr. 1275 Kombine Burçlu Pabuç

- Kısıtlı alanlarda çalışma özelliği
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1275 Combined Clamp With Bush

- Function working in restricted areas
- Hardened
- Black coating



Kombine Burçlu Pabuç

Combined Clamp With Bush

| Referans Nr. | a | Ø b h7 | c | d | e | f | g | m | m1 | j | sıkma kuvveti clamping force Kgf | (g) |
|--------------|----|-----------|----|----|----|----|----|-----|-----|----|--|-----|
| 1280-3010 | 30 | 22 | 58 | 80 | 28 | 16 | 30 | M10 | M8 | 23 | 750 | 220 |
| 1280-5012 | 50 | 26 | 70 | 90 | 32 | 20 | 40 | M12 | M12 | 40 | 1100 | 400 |
| 1280-6016 | 60 | 32 | 74 | 95 | 40 | 25 | 40 | M16 | M16 | 45 | 1250 | 610 |

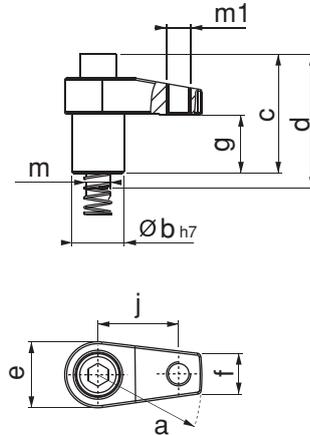


Ürün Nr. 1280 Kombine Burçlu Pabuç

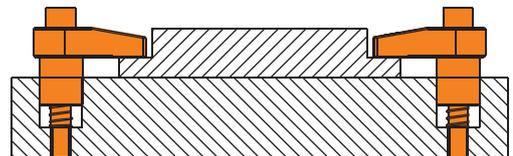
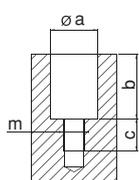
- Kısıtlı alanlarda çalışma özelliği
plaka üstüne uygulama seçeneği
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1280 Combined Clamp With Bush

- Function working in restricted areas and
variety application at plate
- Hardened
- Black coating



| Referans Nr. | a (F7) | b | c | m |
|--------------|-----------|----|----|-----|
| 1280-3010 | 22 | 30 | 20 | M10 |
| 1280-5012 | 26 | 40 | 25 | M12 |
| 1280-6016 | 32 | 40 | 25 | M16 |



| Referans Nr. | a | b | m | d | sw | Maksimum Yük Maximum Load Kgf | (g) |
|--------------|----|----|-----|----|----|-------------------------------------|-----|
| 1282-0825 | 25 | 12 | M8 | 8 | 14 | 800 | 10 |
| 1282-1030 | 30 | 17 | M10 | 10 | 17 | 800 | 30 |
| 1282-1235 | 35 | 22 | M12 | 12 | 22 | 1500 | 60 |
| 1282-1642 | 42 | 26 | M16 | 14 | 27 | 2500 | 125 |

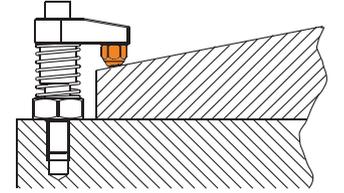
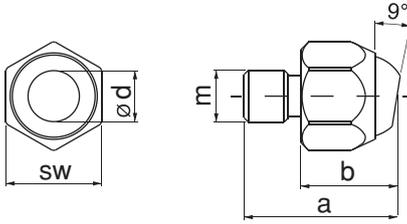


Ürün Nr. 1282 Oynar Başlı Baskı Pabucu

- Dereceli temiz yüzeyler için
- Nr.1275 ve 1280 ürünlerle uyumludur.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1282 Moving Head Press Clamp

- Graded clean surfaces.
- It is applicable with Nr. 1275 and 1280
- Hardened
- Black coating



Oynar Başlı Baskı Pabucu (Uzun)

| Referans Nr. | d1 | d2 | L | L1 | sw | Maksimum Yük Maximum Load Kgf | (g) |
|--------------|-----|----|------|----|----|-------------------------------------|-----|
| 1282-25D | M8 | 8 | 36.6 | 25 | 13 | 800 | 26 |
| 1282-30D | M10 | 10 | 45.7 | 30 | 17 | 800 | 42 |
| 1282-35D | M12 | 12 | 50.7 | 35 | 17 | 1500 | 53 |
| 1282-40D | M16 | 14 | 60.7 | 40 | 24 | 2500 | 117 |
| 1282-50D | M20 | 14 | 77.3 | 50 | 30 | 4000 | 240 |

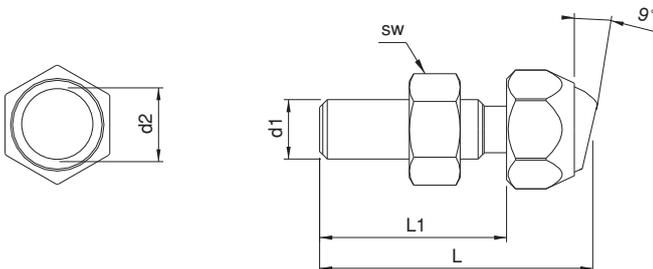


Ürün Nr. 1282 Oynar Başlı Baskı Pabucu (Uzun)

- Dereceli temiz yüzeyler için
- Nr.1275 ve 1280 ürünlerle uyumludur.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1282 Moving Head Press Clamp (Long)

- Graded clean surfaces.
- It is applicable with Nr. 1275 and 1280
- Hardened
- Black coating



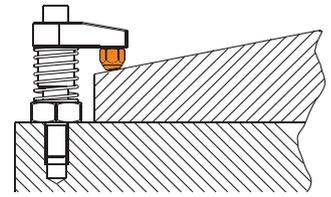
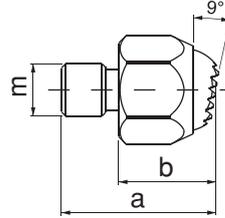
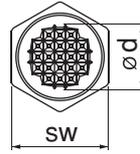
| Referans Nr. | a | b | m | d | sw | Maksimum Yük Maximum Load Kgf | (g) |
|--------------|----|----|-----|----|----|-------------------------------------|-----|
| 1283-0825 | 25 | 12 | M8 | 8 | 14 | 800 | 10 |
| 1283-1030 | 30 | 17 | M10 | 10 | 17 | 800 | 30 |
| 1283-1235 | 35 | 22 | M12 | 12 | 22 | 1500 | 60 |
| 1283-1642 | 42 | 26 | M16 | 14 | 27 | 2500 | 120 |

Ürün Nr. 1283 Oynar Başlı Baskı Pabucu

- Dereceli ve bozuk yüzeyler için baskı yüzeyi tırtıllı olarak tasarlanmıştır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1283 Moving Head Press Clamp

- Its clamping surface is designed with bead graded bad surfaces.
- Hardened
- Black coating



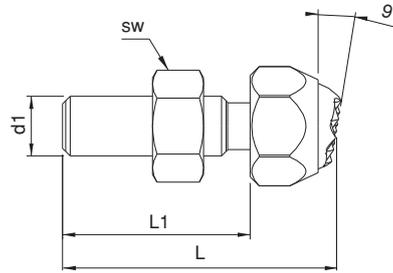
| Referans Nr. | d1 | d2 | L | L1 | sw | Maksimum Yük Maximum Load Kgf | (g) |
|--------------|-----|----|------|----|----|-------------------------------------|-----|
| 1283-25T | M8 | 8 | 36.6 | 25 | 13 | 800 | 26 |
| 1283-30T | M10 | 10 | 45.7 | 30 | 17 | 800 | 42 |
| 1283-35T | M12 | 12 | 50.7 | 35 | 17 | 1500 | 53 |
| 1283-40T | M16 | 14 | 60.7 | 40 | 24 | 2500 | 117 |
| 1283-50T | M20 | 14 | 77.3 | 50 | 30 | 4000 | 240 |

Ürün Nr. 1283 Oynar Başlı Baskı Pabucu (Uzun)

- Dereceli ve bozuk yüzeyler için baskı yüzeyi tırtıllı olarak tasarlanmıştır.
- Nr.1275 ve 1280 ürünlerle uyumludur.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1283 Moving Head Press Clamp (Long)

- Its clamping surface is designed with bead graded bad surfaces.
- It is applicable with Nr. 1275 and 1280
- Hardened
- Black coating



Oynar Başlı Baskı Pabucu (Uzun)

Yükseltme Kovanı

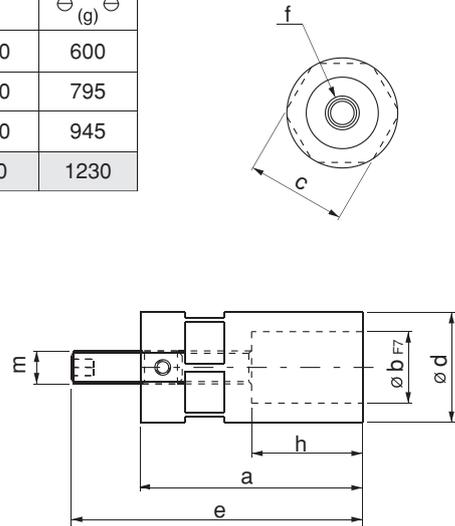
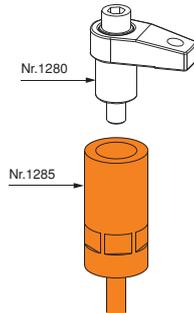
| Referans Nr. | a | b F7 | c | d | e | f | m | h | (g) |
|--------------|-----|---------|----|----|-----|-----|-----|----|------|
| 1285-12080 | 80 | 26 | 36 | 40 | 110 | M12 | M12 | 40 | 600 |
| 1285-12100 | 100 | 26 | 36 | 40 | 130 | M12 | M12 | 40 | 795 |
| 1285-16080 | 80 | 32 | 46 | 50 | 110 | M16 | M16 | 40 | 945 |
| 1285-16100 | 100 | 32 | 46 | 50 | 130 | M16 | M16 | 40 | 1230 |

Ürün Nr. 1285 Yükseltme Kovanı

- Nr.1280 ürün ile yüksek parça bağlamalarda kullanılır
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1285 Support to The Hive

- It is used together with Nr. 1280 for clamping high pieces.
- Hardened
- Black coating



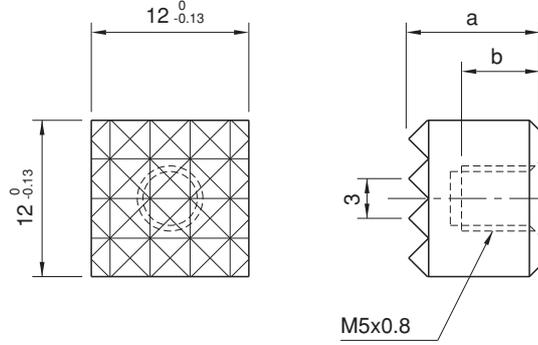
| Referans Nr. | a ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | b | (g) |
|--------------|---|-----|-----|
| 1287-CT9120 | 12 | 7.8 | 13 |

Ürün Nr. 1287 Baskı Pabucu

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1287 Pressure Pad

- Hardened
- Black coating



| Referans Nr. | a ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | b ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | d | p | (g) |
|--------------|---|---|--------|-----|------|
| 1287-HS9102 | 10 | 12 | M5x0.8 | 2.3 | 7.5 |
| 1287-HS9122 | 12 | 12 | M5x0.8 | 3 | 11 |
| 1287-HS9160 | 16 | 12 | M6x1 | 3 | 17 |
| 1287-HS9202 | 20 | 12 | M5x0.8 | 3 | 33.5 |
| 1287-HS9252 | 25 | 12 | M6x1 | 3 | 53 |

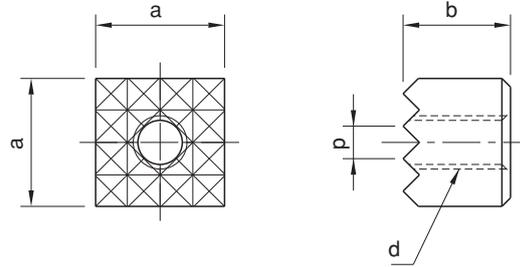
Ürün Nr. 1287 Baskı Pabucu

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1287 Pressure Pad

- Hardened
- Black coating

Baskı Pabucu



| Referans Nr. | a ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | b ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | c | d | (g) |
|--------------|---|---|-----|----|-----|
| 1287-HS9122C | 12 | 12 | 6.5 | M4 | 10 |
| 1287-HS9160C | 16 | 12 | 6.5 | M4 | 16 |
| 1287-HS9202C | 20 | 12 | 5.5 | M5 | 31 |
| 1287-HS9252C | 25 | 12 | 4.5 | M6 | 49 |

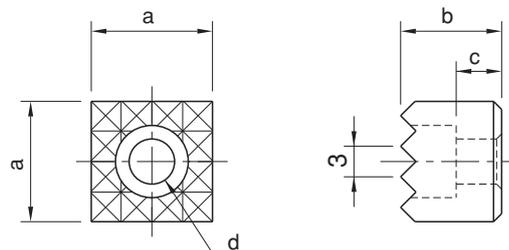
Ürün Nr. 1287 Baskı Pabucu

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1287 Pressure Pad

- Hardened
- Black coating

Baskı Pabucu



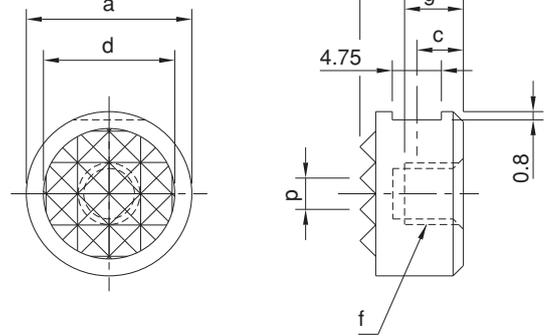
| Referans Nr. | a ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | b ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | c | d | f | g | p | (g) |
|--------------|---|---|---|------|--------|-----|-----|-----|
| 1288-CT102 | 10 | 12 | 6 | 7.9 | M5x0.8 | 8 | 2.3 | 6 |
| 1288-CT122 | 12 | 12 | 6 | 9.5 | M5x0.8 | 8 | 3 | 9 |
| 1288-CT162 | 16 | 12 | 6 | 12.7 | M6x1 | 7.8 | 3 | 17 |
| 1288-CT202 | 20 | 12 | 6 | 15.9 | M6x1 | 7.8 | 3 | 28 |
| 1288-CT252 | 25 | 12 | 6 | 19.1 | M6x1 | 7.8 | 3 | 43 |

Ürün Nr. 1288 Baskı Pabucu

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1288 Pressure Pad

- Hardened
- Black coating



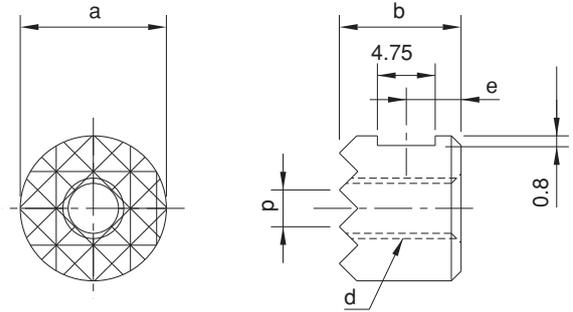
| Referans Nr. | a ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | b ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | d | e | p | (g) |
|--------------|---|---|--------|---|-----|-----|
| 1288-HS102 | 10 | 12 | M5x0.8 | 6 | 2.3 | 6 |
| 1288-HS122 | 12 | 12 | M5x0.8 | 6 | 3 | 9 |
| 1288-HS162 | 16 | 12 | M6x1 | 6 | 3 | 15 |
| 1288-HS202 | 20 | 12 | M6x1 | 6 | 3 | 25 |
| 1288-HS252 | 25 | 12 | M6x1 | 6 | 3 | 40 |

Ürün Nr. 1288 Baskı Pabucu

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1288 Pressure Pad

- Hardened
- Black coating


Baskı Pabucu

Pressure Pad

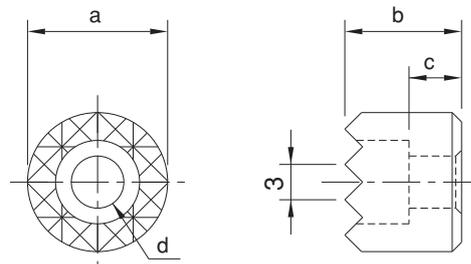
| Referans Nr. | a ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | b ($\begin{smallmatrix} 0 \\ -0.13 \end{smallmatrix}$) | c | d | (g) |
|--------------|---|---|-----|----|-----|
| 1288-HS122C | 12 | 12 | 6.5 | M4 | 8 |
| 1288-HS162C | 16 | 12 | 6.5 | M4 | 15 |
| 1288-HS202C | 20 | 12 | 5.5 | M5 | 23 |
| 1288-HS252C | 25 | 12 | 4.5 | M6 | 38 |

Ürün Nr. 1288 Baskı Pabucu

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1288 Pressure Pad

- Hardened
- Black coating


Baskı Pabucu

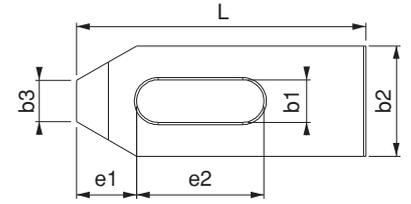
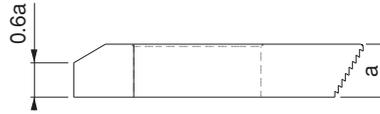
Pressure Pad

| Referans Nr. | L | b1 | metrik | | a | b2 | b3 | e1 | e2 | g |
|--------------|-----|------|-----------|------|----|----|----|----|----|------|
| | | | whitworth | | | | | | | |
| 1290-06050 | 50 | 6.6 | M6 | 1/4 | 10 | 20 | 8 | 10 | 20 | 50 |
| 1290-06080 | 80 | | | | | | | | 30 | 95 |
| 1290-08060 | 60 | 9 | M8 | 5/16 | 12 | 25 | 10 | 13 | 22 | 100 |
| 1290-08100 | 100 | | | | | | | | 45 | 170 |
| 1290-10080 | 80 | 11 | M10 | 3/8 | 15 | 30 | 12 | 15 | 30 | 190 |
| 1290-10100 | 100 | | | | | | | | 45 | 225 |
| 1290-12100 | 100 | 14.5 | M12-M14 | 1/2 | 20 | 40 | 14 | 21 | 45 | 435 |
| 1290-12125 | 125 | | | | | | | | 55 | 580 |
| 1290-16125 | 125 | 18.5 | M16-M18 | 5/8 | 25 | 50 | 18 | 26 | 55 | 855 |
| 1290-16160 | 160 | | | | | | | | 65 | 1175 |



Ürün Nr. 1290 Merdiven Diş Bağlama Pabucu

- Nr. 1310 Merdiven destek ile kullanılır
- Sertleştirilmiş
- Siyah Kaplama



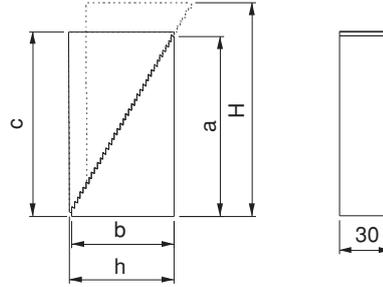
Product Nr. 1290 Serrated Thread Clamp

- Product is used with Nr. 1310 Serrated Support
- Hardened
- Black Coating

Merdiven Diş Destek

Serrated Thread Support

| Referans Nr. | h-H | a | b | c | min-max | g |
|--------------|--------|-----|----|-----|---------|------|
| 1310-01 | 37-85 | 57 | 35 | 60 | 0-40 | 505 |
| 1310-02 | 48-112 | 73 | 45 | 76 | 0-60 | 825 |
| 1310-03 | 58-139 | 90 | 55 | 93 | 0-75 | 1250 |
| 1310-04 | 66-165 | 108 | 64 | 111 | 0-90 | 685 |

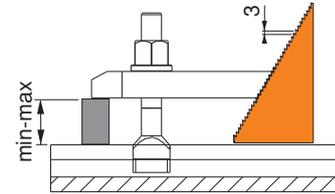


Ürün Nr. 1310 Merdiven Diş Destek

- Nr. 1290 Merdiven diş pabuç ile kullanılır
- Siyah Kaplama

Product Nr. 1310 Serrated Thread Support

- Product is used with Nr. 1290 Serrated Thread Clamp
- Black Coating



| Referans Nr. | b1 | L1 | metrik | | a | b2 | b3 | L2 | L3 | g |
|--------------|------|-----|-----------|-------|----|----|----|----|----|------|
| | | | whitworth | | | | | | | |
| 1320-08100 | 9 | 100 | M8 | 5/16 | 15 | 30 | 16 | 32 | 18 | 240 |
| 1320-10125 | 11 | 125 | M10 | 3/8 | 20 | 30 | 20 | 38 | 24 | 380 |
| 1320-12160 | 14.5 | 160 | M12-M14 | 1/2 | 25 | 40 | 24 | 47 | 30 | 800 |
| 1320-12200 | 14.5 | 200 | M12-M14 | 1/2 | 25 | 40 | 24 | 47 | 30 | 950 |
| 1320-16200 | 18.5 | 200 | M16-M18 | 5/8 | 30 | 50 | 28 | 57 | 36 | 1500 |
| 1320-16250 | 18.5 | 250 | M16-M18 | 5/8 | 30 | 50 | 28 | 57 | 36 | 1850 |
| 1320-20250 | 22.5 | 250 | M20-M22 | 3/4 | 40 | 60 | 35 | 68 | 45 | 2900 |
| 1320-20315 | 22.5 | 315 | M20-M22 | 3/4 | 40 | 60 | 35 | 68 | 45 | 3600 |
| 1320-24250 | 26 | 250 | M24 | 1 | 40 | 70 | 43 | 83 | 56 | 3400 |
| 1320-24315 | 26 | 315 | M24 | 1 | 40 | 70 | 43 | 83 | 56 | 4300 |
| 1320-30315 | 33 | 315 | M30 | 1 1/4 | 50 | 80 | 50 | 88 | 56 | 6000 |
| 1320-30400 | 33 | 400 | M30 | 1 1/4 | 50 | 80 | 50 | 88 | 56 | 7300 |

Çatal Pabuç

Bifurcated Clamp

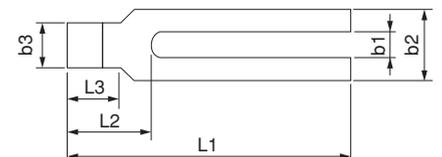


Ürün Nr. 1320 Çatal Pabuç

- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1320 Bifurcated Clamp

- Hardened
- Black Coating



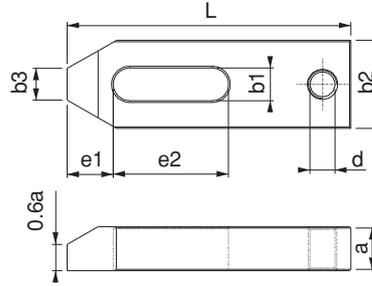
| Referans Nr. | L | b1 | metrik | | a | b2 | b3 | e1 | e2 | d | (g) |
|--------------|-----|------|---------|-----------|----|-----|----|-----|-----|-----|-------|
| | | | metrik | whitworth | | | | | | | |
| 1330-06050 | 50 | 6,6 | M6 | 1/4 | 10 | 20 | 8 | 10 | 20 | M8 | 50 |
| 1330-08060 | 60 | 9 | M8 | 5/16 | 12 | 25 | 10 | 13 | 22 | M8 | 105 |
| 1330-10080 | 80 | 11 | M10 | 3/8 | 15 | 30 | 12 | 15 | 30 | M10 | 210 |
| 1330-12100 | 100 | 14,5 | M12-M14 | 1/2 | 20 | 40 | 14 | 21 | 40 | M12 | 465 |
| 1330-12125 | 125 | | | | | | | 21 | 50 | | 590 |
| 1330-16125 | 125 | 18,5 | M16-M18 | 5/8 | 25 | 50 | 18 | 26 | 45 | M16 | 930 |
| 1330-16160 | 160 | | | | | | | 26 | 65 | | 1200 |
| 1330-20160 | 160 | 22,5 | M20-M22 | 3/4 | 30 | 60 | 22 | 30 | 60 | M20 | 1710 |
| 1330-20200 | 200 | | | | | | | 30 | 80 | | 2170 |
| 1330-20250 | 250 | | | | | | | 35 | 70 | | 3885 |
| 1330-24160 | 160 | 26 | M24 | 1 | 30 | 70 | 26 | 60 | 60 | M24 | 1965 |
| 1330-24200 | 200 | | | | | | | 80 | 80 | | 2920 |
| 1330-24250 | 250 | | | | | | | 100 | 100 | | 3720 |
| 1330-24315 | 315 | | | | | | | 100 | 100 | | 6435 |
| 1330-30250 | 250 | | | | | | | 33 | M30 | | 1 1/4 |
| 1330-30315 | 315 | 130 | 130 | 7665 | | | | | | | |
| 1330-36400 | 400 | 43 | M36-M42 | 1 1/2 | 58 | 100 | 43 | | | 100 | |

Ürün Nr. 1330 Destek Delikli Düz Pabuç

- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1330 Straight Clamp with Support Hole

- Hardened
- Black Coating



| Referans Nr. | L | b1 | metrik | | a | b2 | b3 | e1 | e2 | (g) | |
|--------------|-----|------|---------|-----------|----|----|----|-----|---------|------|-------|
| | | | metrik | whitworth | | | | | | | |
| 1350-06050 | 50 | 6,6 | M6 | 1/4 | 10 | 20 | 8 | 10 | 20 | 60 | |
| 1350-08060 | 60 | 9 | M8 | 5/16 | 12 | 25 | 10 | 13 | 22 | 110 | |
| 1350-10080 | 80 | 11 | M10 | 3/8 | 15 | 30 | 12 | 15 | 30 | 185 | |
| 1350-12100 | 100 | 14,5 | M12-M14 | 1/2 | 20 | 40 | 14 | 21 | 40 | 480 | |
| 1350-12125 | 125 | | | | | | | 21 | 50 | | 610 |
| 1350-16125 | 125 | 18,5 | M16-M18 | 5/8 | 25 | 50 | 18 | 26 | 45 | 980 | |
| 1350-16160 | 160 | | | | | | | 26 | 65 | | 1240 |
| 1350-20160 | 160 | 22,5 | M20-M22 | 3/4 | 30 | 60 | 22 | 30 | 60 | 1795 | |
| 1350-20200 | 200 | | | | | | | 30 | 80 | | 2255 |
| 1350-24200 | 200 | | | | | | | 35 | 70 | | 26 |
| 1350-24250 | 250 | 100 | 100 | 3875 | | | | | | | |
| 1350-30250 | 250 | 33 | M30 | 1 1/4 | 40 | 80 | 34 | 45 | 100 | 4990 | |
| 1350-30315 | 315 | | | | | | | 130 | 130 | | 7885 |
| 1350-36400 | 400 | | | | | | | 43 | M36-M42 | | 1 1/2 |

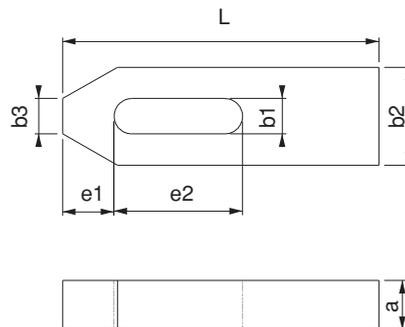
DIN 6314

Ürün Nr. 1350 Düz Pabuç

- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1350 Straight Clamp

- Hardened
- Black Coating



Düz Pabuç

Straight Clamp

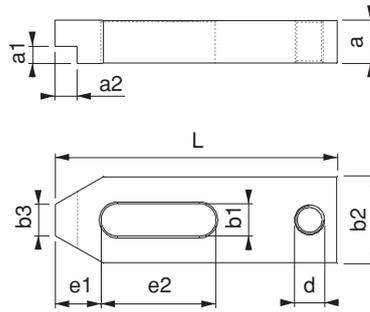
| Referans Nr. | L | b1 | metrik | | a | b2 | a1xa2 | b3 | e1 | e2 | d | (g) |
|--------------|-----|------|--------|-----------|----|----|---------|----|----|----|-----|------|
| | | | metrik | whitworth | | | | | | | | |
| 1370-10080 | 80 | 11 | M10 | 3/8 | 15 | 30 | 5x8 | 12 | 15 | 30 | M10 | 180 |
| 1370-12100 | 100 | 14.5 | M12-14 | 1/2 | 20 | 40 | 8x10 | 14 | 21 | 40 | M12 | 410 |
| 1370-12125 | 125 | | | | | | | | | | | 590 |
| 1370-16125 | 125 | 18.5 | M16-18 | 5/8 | 25 | 50 | 10x12.5 | 18 | 26 | 45 | M16 | 910 |
| 1370-16160 | 160 | | | | | | | | | | | 1180 |
| 1370-20160 | 160 | 22.5 | M20-22 | 3/4 | 30 | 60 | 12x15 | 22 | 30 | 60 | M20 | 1575 |
| 1370-20200 | 200 | | | | | | | | | | | 2150 |
| 1370-24160 | 160 | 26 | M24 | 1 | 30 | 70 | 12x15 | 26 | 35 | 60 | M24 | 1800 |
| 1370-24200 | 200 | | | | | | | | | | | 2875 |
| 1370-24250 | 250 | | | | | | | | | | | 3500 |

Ürün Nr. 1370 Kademeli Destek Delikli Düz Pabuç

- Kısıtlı alanlarda yükseklikten kazanma amaçlı kullanılır.
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1370 Straight Clamp with Stepped Support Hole

- This product is used in restricted areas with the purpose of gaining height
- Hardened
- Black Coating



| Referans Nr. | L | b1 | metrik | | a | b2 | b3 | b4 | (g) |
|--------------|------|------|---------|-----------|----|-----|-----|----|-------|
| | | | metrik | whitworth | | | | | |
| 1390-06060 | 60 | 6.6 | M6 | 1/4 | 12 | 19 | 6.2 | 3 | 65 |
| 1390-08080 | 80 | 9 | M8 | 5/16 | 15 | 25 | 8 | 4 | 140 |
| 1390-10100 | 100 | 11 | M10 | 3/8 | 20 | 30 | 9.5 | 5 | 240 |
| 1390-12125 | 125 | 14.5 | M12-M14 | 1/2 | 25 | 38 | 12 | 6 | 700 |
| 1390-12160 | 160 | | | | | | | | 915 |
| 1390-12200 | 200 | 18.5 | M16-M18 | 5/8 | 27 | 48 | 15 | 8 | 1235 |
| 1390-16160 | 160 | | | | | | | | 945 |
| 1390-16200 | 200 | | | | | | | | 1215 |
| 1390-16250 | 250 | 22.5 | M20-M22 | 3/4 | 37 | 52 | 15 | 10 | 2000 |
| 1390-20200 | 200 | | | | | | | | 1650 |
| 1390-20250 | 250 | | | | | | | | 2765 |
| 1390-20315 | 315 | | | | | | | | 3510 |
| 1390-20500 | 500 | 26 | M24 | 1 | 37 | 66 | 20 | 10 | 7200 |
| 1390-24200 | 200 | | | | | | | | 2260 |
| 1390-24250 | 250 | | | | | | | | 2740 |
| 1390-24315 | 315 | | | | | | | | 3515 |
| 1390-24500 | 500 | | | | | | | | 7100 |
| 1390-30250 | 250 | 33 | M30 | 1 1/4 | 47 | 73 | 20 | 12 | 3500 |
| 1390-30315 | 315 | | | | | | | | 4190 |
| 1390-30400 | 400 | | | | | | | | 5735 |
| 1390-30600 | 600 | | | | | | | | 8455 |
| 1390-301000 | 1000 | 40 | M36 | 1 1/2 | 57 | 93 | 30 | 12 | 28000 |
| 1390-36400 | 400 | | | | | | | | 10800 |
| 1390-36600 | 600 | | | | | | | | 16500 |
| 1390-42600 | 600 | 43 | M42 | 1 1/2 | 77 | 123 | 40 | 12 | 28800 |

DIN 6315B

Ürün Nr. 1390 Çatal Pabuç

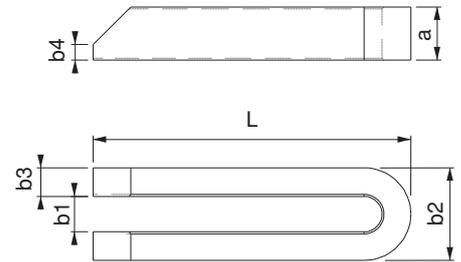
- Kademeli yüzeylerde şekilli iş parçalarının bağlanmasında pabuçun yapısı itibarı ile kolaylık sağlar
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1390 Bifurcated Clamp

- Due to the structure of the clamp, this product provides convenience for the couplings of formed work pieces on graded surfaces
- Hardened
- Black Coating

Çatal Pabuç

Bifurcated Clamp



| Referans Nr. | L | b1 | metrik | | a | b2 | a1xa2 | e1 | e2 | h | (g) |
|--------------|----|----|--------|-----------|------|----|-------|----|----|----|-----|
| | | | metrik | whitworth | | | | | | | |
| 1387-12070 | 70 | 13 | M12 | 1/2 | 21.5 | 40 | 8x6 | 11 | 40 | 14 | 255 |
| 1387-16070 | 70 | 17 | M16 | 5/8 | 29.5 | 40 | 10x7 | 11 | 40 | 22 | 290 |

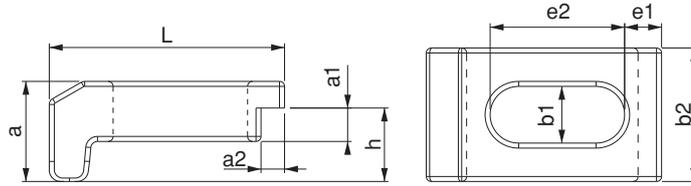


Ürün Nr. 1387 Plaka Sıkma Pabucu

- Yükselticisiz çalışma özelliği avantajı sağlar
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1387 Plate Sliding Clamp

- Provides the advantage of working without support.
- Hardened
- Black coating



Kademeli Destek Delikli Çatal Pabuç

Bifurcated Clamp with Stepped Support Hole

| Referans Nr. | L | b1 | metrik | | a | e2 | a1xa2 | b2 | d | (g) |
|--------------|-----|------|--------|-----------|----|-----|-------|----|-----|------|
| | | | metrik | whitworth | | | | | | |
| 1400-10100 | 100 | 11 | M10 | 3/8 | 20 | 70 | 10x10 | 30 | M10 | 260 |
| 1400-12125 | 125 | 14.5 | M12-14 | 1/2 | 25 | 90 | 12x12 | 40 | M12 | 565 |
| 1400-16160 | 160 | 18.5 | M16-18 | 5/8 | 30 | 110 | 15x15 | 50 | M16 | 1235 |
| 1400-20200 | 200 | 22.5 | M20-22 | 3/4 | 40 | 135 | 20x20 | 60 | M20 | 2460 |



Ürün Nr. 1400 Kademeli Destek Delikli Çatal Pabuç

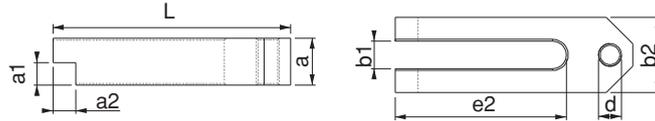
- Sertleştirilmiş
- Siyah Kaplama

Kademeli ve kısıtlı alanlarda kullanım avantajı sağlar.

It provides usage advantage in gradual and limited areas.

Product Nr. 1400 Bifurcated Clamp with stepped support Hole

- Hardened
- Black Coating



Destek Delikli Çatal Pabuç

Bifurcated Clamp with Support Hole

| Referans Nr. | L | b1 | metrik | | a | e1 | e2 | b2 | d | (g) |
|--------------|-----|------|--------|-----------|----|----|-----|----|-----|------|
| | | | metrik | whitworth | | | | | | |
| 1410-10100 | 100 | 11 | M10 | 3/8 | 20 | 5 | 70 | 30 | M10 | 260 |
| 1410-12125 | 125 | 14.5 | M12-14 | 1/2 | 25 | 6 | 90 | 40 | M12 | 560 |
| 1410-16160 | 160 | 18.5 | M16-18 | 5/8 | 30 | 8 | 110 | 50 | M16 | 1230 |
| 1410-20200 | 200 | 22.5 | M20-22 | 3/4 | 40 | 10 | 135 | 60 | M20 | 1490 |



Ürün Nr. 1410 Destek Delikli Çatal Pabuç

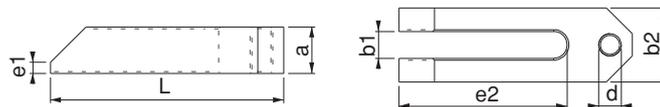
- Sertleştirilmiş
- Siyah Kaplama

Kademeli parçalarda ileri sıkmalarda hareket ve kullanım avantajı sağlar.

It provides usage advantage for gradual parts during forward tightenings.

Product Nr. 1410 Bifurcated clamp with support hole

- Hardened
- Black Coating

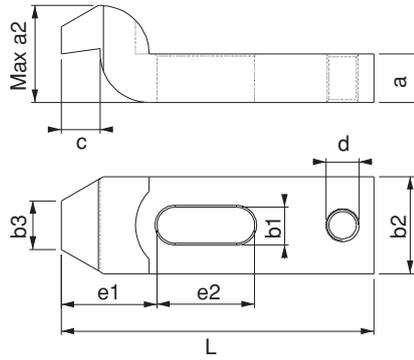


| Referans Nr. | L | b1 | metrik | | a | a2 | b2 | b3 | c | e1 | e2 | d |  |
|--------------|-----|------|---------|-----------|----|-----|----|----|----|----|-----|-----|---|
| | | | metrik | whitworth | | | | | | | | | |
| 1450-06060 | 60 | 6.6 | M6 | 1/4 | 10 | 20 | 20 | 10 | 8 | 20 | 20 | M8 | 80 |
| 1450-08080 | 80 | 9 | M8 | 5/16 | 12 | 24 | 25 | 12 | 9 | 25 | 25 | M8 | 170 |
| 1450-10100 | 100 | 11 | M10 | 3/8 | 15 | 30 | 30 | 15 | 12 | 32 | 32 | M10 | 245 |
| 1450-12125 | 125 | 14.5 | M12-M14 | 1/2 | 19 | 40 | 38 | 20 | 16 | 40 | 40 | M12 | 600 |
| 1450-16125 | 125 | 18.5 | M16-M18 | 5/8 | 24 | 50 | 48 | 25 | 20 | 49 | 40 | M16 | 925 |
| 1450-16160 | 160 | | | | | | | | | | 50 | | 1205 |
| 1450-20160 | 160 | 22.5 | M20-M22 | 3/4 | 29 | 58 | 58 | 30 | 24 | 55 | 55 | M20 | 1705 |
| 1450-20200 | 200 | | | | | | | | | | 70 | | 2145 |
| 1450-24160 | 160 | | | | | | | | | 53 | 55 | | 2110 |
| 1450-24200 | 200 | 26 | M24 | 1 | 33 | 70 | 70 | 35 | 28 | 72 | 60 | M24 | 3070 |
| 1450-24250 | 250 | | | | | | | | | 72 | 80 | | 3710 |
| 1450-30250 | 250 | 33 | M30 | 1 1/4 | 38 | 80 | 77 | 40 | 40 | 91 | 80 | M24 | 4635 |
| 1450-30315 | 315 | | | | 48 | 100 | | | | | 100 | | 7050 |

DIN 6316

Ürün Nr. 1450 Destek Delikli Z-Bağlama Pabucu

- Yükseklikten kazanma ve somun geçişlerinde avantaj sağlar
- Sertleştirilmiş
- Siyah Kaplama



Product Nr. 1450 Z-Type Cranked Clamp with Support Hole

- This product provides advantage to gain from the height and in the passings of the bolt
- Hardened
- Black Coating



Silindir Başlı Çatal Pabuç

Forked Clamp with Pin Head

| Referans Nr. | L1 | b1 | metrik | | a | b2 | Ød | L2 | L3 |  |
|--------------|-----|------|---------|-----------|----|----|----|----|----|---|
| | | | metrik | whitworth | | | | | | |
| 1470-08100 | 100 | 9 | M8 | 5/6 | 15 | 30 | 12 | 30 | 18 | 180 |
| 1470-10125 | 125 | 11 | M10 | 3/8 | 20 | 30 | 16 | 36 | 24 | 290 |
| 1470-12160 | 160 | 14.5 | M12-M14 | 1/2 | 25 | 40 | 20 | 45 | 30 | 715 |
| 1470-12200 | 200 | | | | | | | | | 815 |
| 1470-16200 | 200 | 18.5 | M16-M18 | 5/8 | 30 | 50 | 24 | 55 | 36 | 1210 |
| 1470-16250 | 250 | | | | | | | | | 1550 |
| 1470-20250 | 250 | 22.5 | M20-M22 | 3/4 | 40 | 60 | 30 | 65 | 45 | 2680 |
| 1470-20315 | 315 | | | | | | | | | 3435 |
| 1470-24250 | 250 | 26 | M24 | 1 | 40 | 70 | 38 | 80 | 56 | 3060 |
| 1470-24315 | 315 | | | | | | | | | 4120 |
| 1470-30315 | 315 | 34 | M30 | 1 1/4 | 50 | 80 | 45 | 85 | 56 | 5600 |
| 1470-30400 | 400 | | | | | | | | | 7135 |

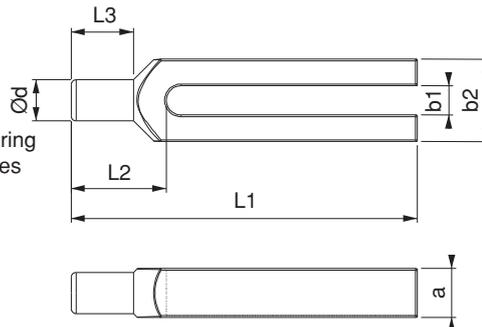
DIN 6315C

Ürün Nr. 1470 Silindir Başlı Çatal Pabuç

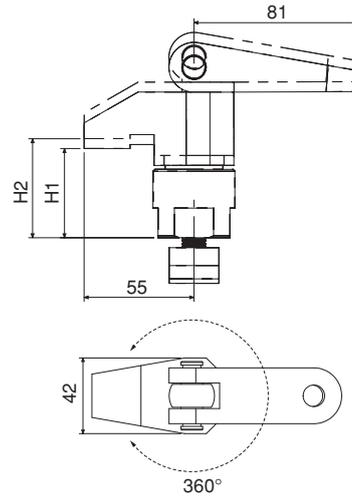
- Muhtelif iş parçalarının delikli yüzeylerine girerek iş parçasını sabitler
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1470 Forked Clamp with Pin Head

- This product fixes the work pieces by entering in the holed surfaces of various work pieces
- Hardened
- Black Coating



| Referans Nr. | | H1 - H2 (mm) | Sıkma Kuvveti Clamping Force Kgf | |
|--------------|----------------|--------------|----------------------------------|------|
| 1472-02530 | 14-16-18-20-22 | 25 - 30 | 1000 | 1000 |
| 1472-03035 | | 30 - 35 | 1000 | 1150 |
| 1472-03540 | | 35 - 40 | 1000 | 1225 |
| 1472-04045 | | 40 - 45 | 1000 | 1245 |
| 1472-04550 | | 45 - 50 | 1000 | 1275 |

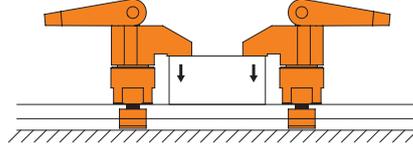


Ürün Nr. 1472 Üstten Bağlama

- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1472 Above Clamping

- Hardened
- Black Coating



| Referans Nr. | P(N) | D | H (0 -1) | D1 | H1 | A Haraket Travel | d (+0.1 0) | |
|--------------|------|----|----------|----|------|------------------|------------|----|
| 1473-06002 | 76 | 10 | 11 | 6 | 10.7 | 1 | 10 | 4 |
| 1473-08002 | 102 | 12 | 13 | 8 | 13.9 | 1.3 | 12 | 8 |
| 1473-10002 | 204 | 16 | 17 | 10 | 16.7 | 1.6 | 16 | 16 |

Sıkıştırma Pimi

Spring Locating Pins

Ürün Nr. 1473 Sıkıştırma Pimi

Özellikler

- Geçici bir iş bağlama profili için idealdir.

Not

- Pimin hareket etmesi için gerekli olan minimum "P" değeri
- Parça : 90 °C'ye kadar

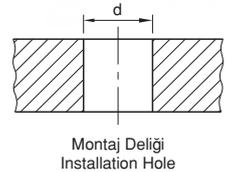
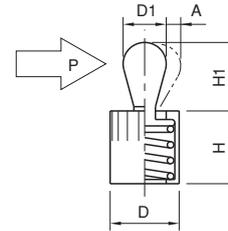
Product Nr. 1473 Spring Locating Pins

Features

- Ideal for temporary clamping of low-profile workpieces.

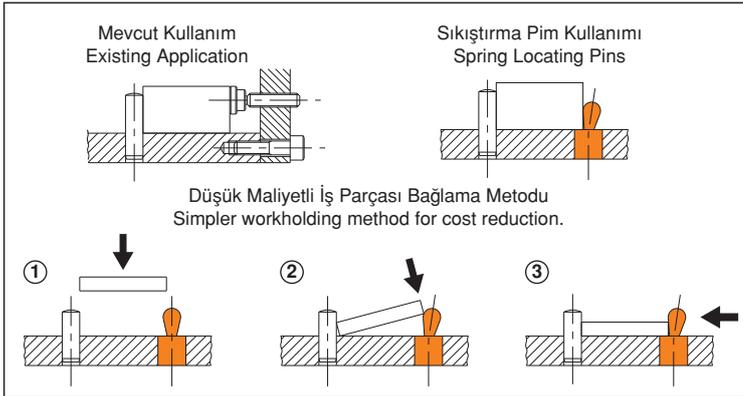
Note

- The stated value "P" denotes the minimum force needed to move the pin.
- Heat resistance : 90 °C

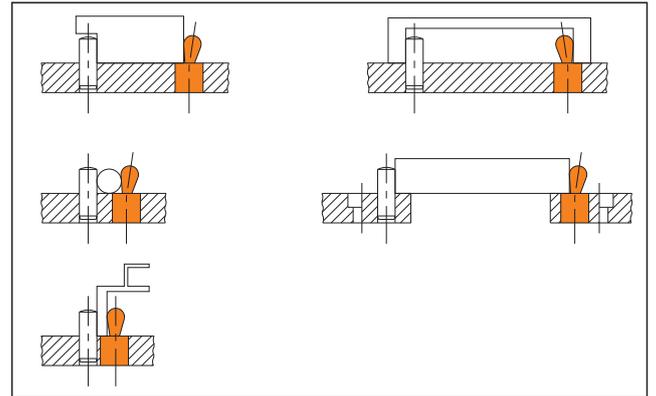


Montaj Deliği
Installation Hole

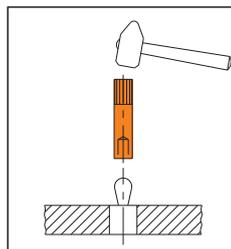
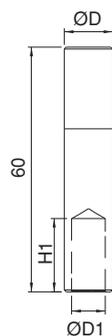
Kullanım Şekli / How To Use



Çeşitli Uygulamalar / Application Examples



| Referans Nr. | ØD | ØD1 | H1 | |
|--------------|----|------|----|----|
| 1473-06 | 10 | 6,2 | 15 | 30 |
| 1473-08 | 12 | 8,2 | 18 | 45 |
| 1473-10 | 16 | 10,2 | 21 | 80 |



Kullanım Şekli
How To Use

Sıkıştırma Pimi Montaj Aparatı

Spring Locating Pins Installation Tool



Ürün Nr. 1473 Sıkıştırma Pimi Montaj Aparatı

Product Nr. 1473 Spring Locating Pins Installation Tool

| Referans Nr. | S | d (F7) | H2 | D1 | H (±0.01) | D | M | Dp | R |
|--------------|-----|--------|----|----|-----------|----|-----|----|-----|
| 1474-06000 | 2 | 12 | 10 | 28 | 50 | 65 | M8 | 40 | 160 |
| 1474-08000 | 2.5 | 16 | 12 | 34 | 63 | 80 | M10 | 50 | 180 |

| Referans Nr. | D2 | H1 | İzin Verilen Yük (N) Allowable Operating Load (N) | Sıkma Kuvveti Clamping Force Kgf | Önerilen Kalınlık Toleransı Recommended Workpiece Thickness Tolerance | (kg) |
|--------------|----|----|--|-------------------------------------|--|------|
| 1474-06000 | 26 | 36 | 600 | 600 | ±0.5 | 1.2 |
| 1474-08000 | 28 | 45 | 600 | 800 | ±0.8 | 2.2 |

Ürün Nr. 1474 Tek Dokunuş Pimli Bağlama

- Siyah Kaplama

Product Nr. 1474 Pull Clamps

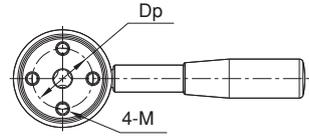
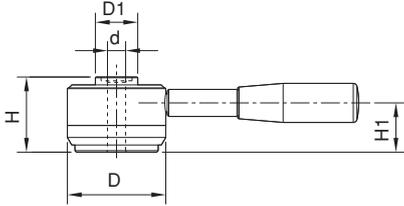
- Black coating

Not

- Pimler ve çektirme civataları ayrıca sipariş edilir.

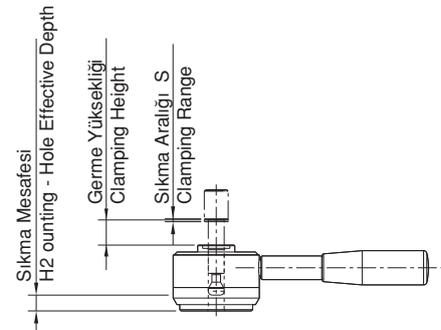
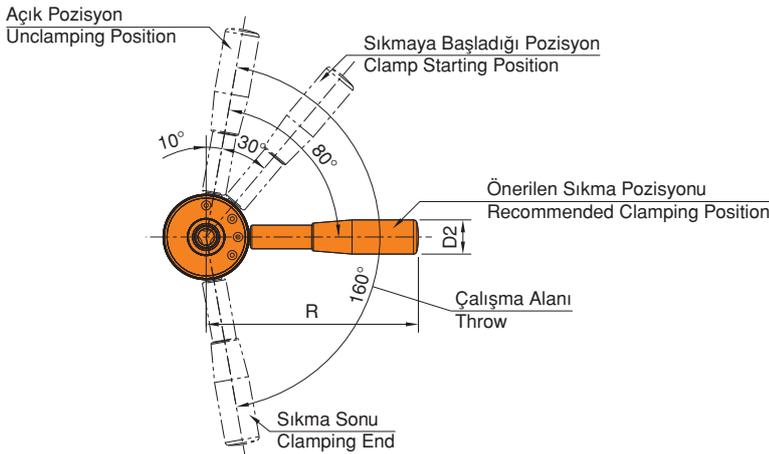
Note

- Clamping Pins or Screws must be ordered separately.



Kol, üç ayrı noktadan bağlanabilir. Bağlama pozisyonu 3 opsiyonlu.

The handle can be removed by loosening the locking screw. To keep the handle mounted permanently, make sure that the locking screw is fully tightened. 3 options of handle mounting position.



| Referans Nr. | D2 (f7) | D1 (f7) | L (By 0.1mm) | D | L2 | L1 | L3 | D3 | M | M1 | (g) |
|--------------|---------|---------|--------------|----|----|----|------|-----|----|----|-----------|
| 1475-00012 | 12 | 12 | 0<L<100 | 18 | 23 | 38 | 21.5 | 6.5 | M8 | M8 | 70 ~ 160 |
| 1475-00016 | 16 | 16 | 0<L<100 | 24 | 23 | 38 | 21.5 | 6.5 | M8 | M8 | 175 ~ 265 |

Ürün Nr. 1475 Tek Dokunuş Bağlama Pimi

- Pim**
- Sertlik: İndüksiyon
 - Taşlama

- Kafa**
- Siyah Kaplama

Product Nr. 1475 Clamping Pins

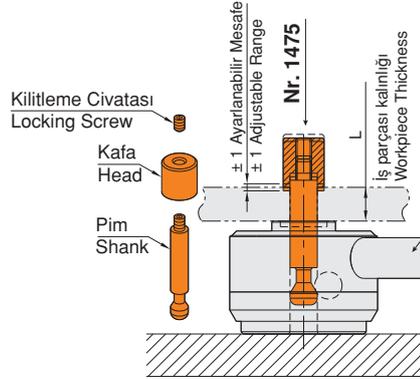
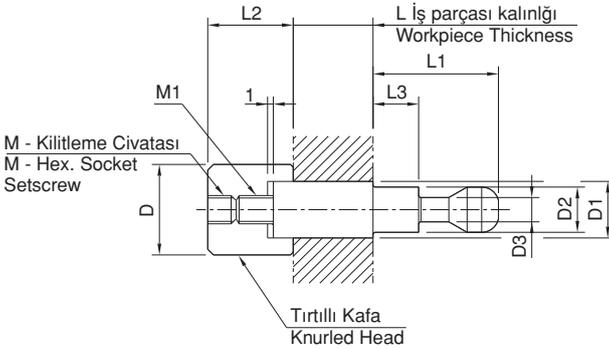
- Shank**
- Hardness: Induction
 - Precision ground

- Head**
- Black coating



- Not**
- Talebe göre üretim.

- Note**
- Custom Clamping Pins are available on request.



Kullanım Şekli / How To Use

Nr. 1474

L İş parçası kalınlığında ± 1mm ayarlanabilir.
L dimension is adjustable by ± 1mm to fit actual workpiece thickness.

Tek Dokunuş Bağlama Civatası

Clamping Screws

| Referans Nr. | D1 | M | L1 | L | D | L2 | L3 | D2 | W | L4 | (g) |
|--------------|----|-----|----|----|----|------|----|-----|----|----|-----|
| 1476-00012 | 12 | M12 | 13 | 38 | 20 | 21.5 | 2 | 6.5 | 10 | 4 | 40 |
| 1476-00016 | 12 | M16 | 17 | 38 | 20 | 21.5 | 2 | 6.5 | 10 | 4 | 55 |

Ürün Nr. 1476 Tek Dokunuş Bağlama Civatası

- Siyah Kaplama

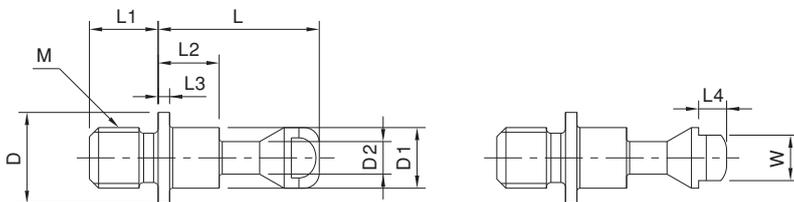
Product Nr. 1476 Clamping Screws

- Black coating

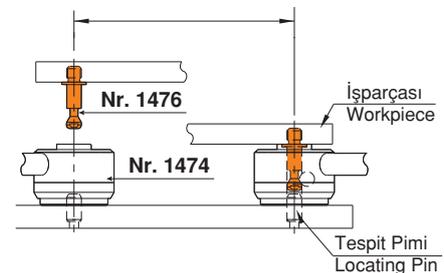


- Not**
- Özel bağlama vidalar (farklı vida boyları) istek üzerine üretim yapılır.

- Note**
- Special Clamping Screws (different screw thread sizes) are available on request.



Çektirme civataları önerilen aralık toleransında olmalı
Recommended Spacing Tolerance in Use of Clamping Screws

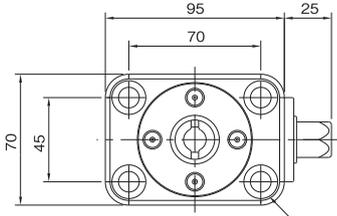


| Referans Nr. | Sıkma Kuvveti Clamping Force Kgf | Tork N-m | (kg) |
|--------------|--|-------------|------|
| 1477-00012 | 1200 | 40 | 2.3 |

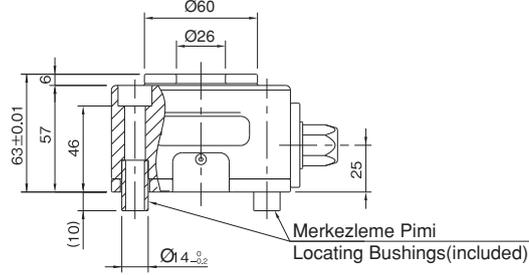


Ürün Nr. 1477 Pimli Bağlama

Product Nr. 1477 Power-tool Actuated Block Pull Clamps



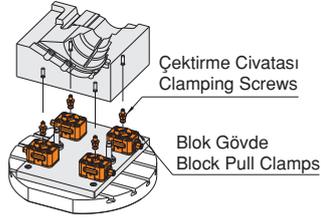
Sabitlenme Civata Yeri
For M10 Cap Screws



Merkezleme Pimi
Locating Bushings(included)

1. 5 Eksen İşleme için İdeal Kullanım
İş parçasının bütün açık yüzeylerini işleme olanağı sağlar.

1. Ideal for 5-Axis Machining
Block Pull Clamps mount under a workpiece making its surfaces to be machined fully open for the cutting tool. This allows completing multiple machining processes at a time.

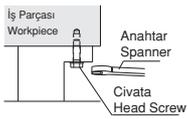


2. Daha iyi işlenebilirlik
Blok çekme ile daha kolay iş bağlama ve klasik yöntemden daha kullanışlıdır.

2. Better Workability
Block Pull Clamps allow fastening a workpiece easily, unlike the conventional method of fastening with hexagon head screws from below.

3. Uzun Anahtar Ünite Kullanımı
Birden fazla farklı parçaları işleme olanağı sağlar.

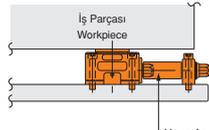
3. Actuated Remote-Control Units
If used in conjunction with Power-Tool Actuated Remote-Control Units, Block Pull Clamps can be installed at the best possible position under the workpiece.



Mevcut Uygulama
Conventional Method

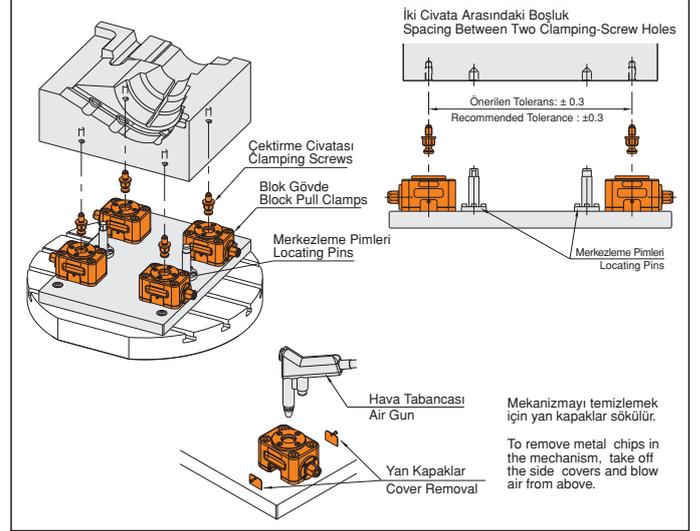


Çektirme Civatası ile Uygulama
Application with pull stud



Uzun Anahtar Aktuatörü Ünitesi
Power-Tool Actuated Remote-Control Unit

Kullanım Şekli / How To Use



Bağlama Civatası
Clamping Screws

| Referans Nr. | M | L | (g) |
|--------------|-----|----|-----|
| 1478-00012 | M12 | 21 | 75 |
| 1478-00016 | M16 | 28 | 98 |

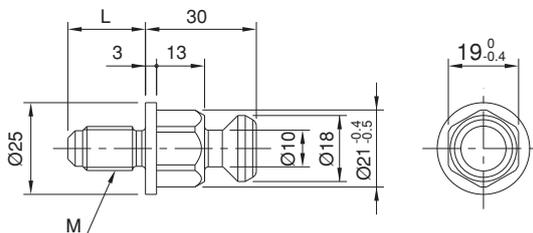


Ürün Nr. 1478 Bağlama Civatası

- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1478 Clamping Screws

- Hardened
- Black coating



| Referans Nr. | M | S | Bağlanma Kuvveti Clamping Force (kN)* | Kabul Edilebilir Sıkma Torku Allowable Tightening Torque (N.m) | (kg) |
|--------------|----------|----|--|---|------|
| 1477-PTPD112 | M12x1.75 | 18 | 10 | 27 | 7.6 |
| 1477-PTPD116 | M16x2.00 | 21 | 15 | 45 | 7.6 |

- Darbeli Anahtarla kullanmak için bağlama kuvvetinin ve kabul edilebilir sıkma torkunun %50'sinden azını kullanın.
- To operate with an impact wrench, use less than 50% of the clamping force and allowable tightening torque.

Ürün Nr. 1477 Somunlu 5 Eksen Blok Bağlama

- Gövde**
- S45C çelik
 - Siyah Oksit Kaplama

- Altıgen Başlık**
- SCM440 çelik
 - Sertleştirilmiş
 - Siyah Oksit Kaplama

- Yükseltici**
- S45C Çelik
 - Sertleştirilmiş
 - HRC 39-45
 - Siyah Oksit Kaplama

- Pabuç Civatası**
- SCM415 çelik
 - Sertleştirilmiş
 - Siyah Oksit Kaplama

Product Nr. 1477 Nutrunner Pull Clamps

- Body**
- S45C steel
 - Black oxide finished

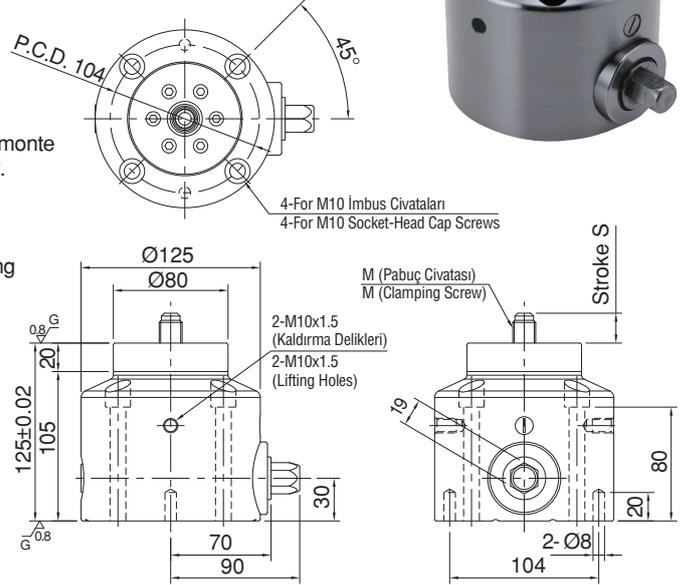
- Hex. Head**
- SCM440 steel
 - Induction hardened
 - Black oxide finished

- Riser**
- S45C steel
 - Quenched and tempered
 - HRC 39-45
 - Black oxide finished

- Clamping Screw**
- SCM415 steel
 - Carburized-hardened
 - Black oxide finished

★ Kilit Nokta
Pabuç civatalarının monte edilmesi gerekmiyor.

★ Key Point
No need for mounting clamping screws.



- Note**
- Bu iş desteği bir darbeli ahantar ile kullanılabilir. Darbeli anahtar torku ayarlayabilmelidir.
 - Pabuç Civataları servis parçaları olarak bulunmaktadır.

- Note**
- This work support can be operated with an impact wrench. Use an impact wrench that can set the torque.
 - Clamping screws are available as maintenance parts.

- Özellikler**
- Gövdeye entegre edilmiş olan pabuç civatası iş parçasındaki civata deliğini çekerek iş parçasını bağlar.

- Features**
- The clamping screw integrated with the body clamps the workpiece by pulling in the tapped hole on the workpiece.

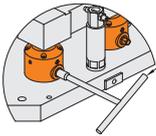
- Monte Deliği Boyutları**
- Birden çok çekme pabucu kullanırken merkez ekseninin aralık toleransı ±0.05 olmalıdır.
 - Bir iş parçasının üzerindeki civata deliklerinin aralık toleransı ±0.2 olmalıdır.

- Mounting Hole Dimension**
- For using multiple pull clamps, the spacing tolerance of the central axes should be ±0.05
 - The spacing tolerance for tapped holes on a workpiece should be ±0.2.

Kullanım Şekli / How To Use

- Otomatik bir üretim aşında bir somun sıkma aletiyle kullanıma idealdir.
- Bu pabuç manuel olarak da kullanılabilir.
- Bağlanıp bırakma işlemini pabucun altıgen başına bir iş parçası monte edip çevirmek kadar kolaydır.

- Ideal for use with a nut runner for automated production line.
- This clamp can be also operated manually.
- Clamping/unclamping can be done simply by mounting a workpiece and turning the hex. head.

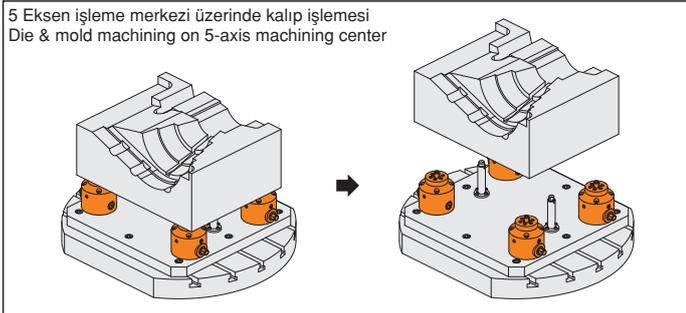
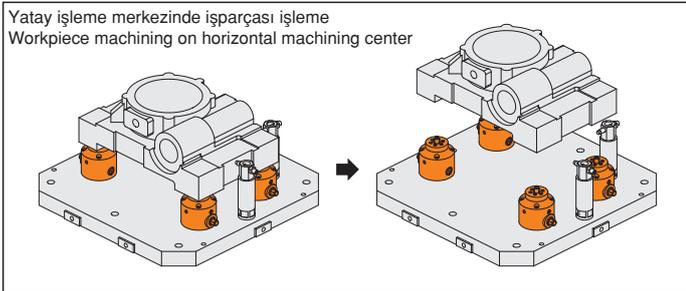


T-Kol Soket Anahtarı

T-Handle Socket Wrench

Bu pabuç T-Kol Soket Anahtarı kullanılarak manuel bir şekilde bağlanıp bırakabilir. Manuel bırakma için anahtarı pabuç tık edene kadar çevirin ve pabuç civatası iş parçasını bırakır

This clamp can also be clamped/unclamped manually using a T-handle socket wrench. For manual unclamping, turn the wrench until the clamp clicks, and the clamping screw releases a workpiece.



| Referans Nr. | Sıkma Yüksekliği Clamping Height | | | | Sıkma Torku Clamping Stroke | L2 | L3 | L1 | L4 | W | L | H4 | B | Dp |
|--------------|---|---------------------|---|---------------------|--------------------------------|----|----|----|------|----|----|----|------|----|
| | Finiş Yüzey Temas Finished Surface Contact | | Kaba Yüzey Temas Rough Surface Contact | | | | | | | | | | | |
| | Min. | Max. | Min. | Max. | | | | | | | | | | |
| 1479-0618 | 21.8 (21.8-24.8) | 23.8 (23.8-26.8) | 21.4 (21.4-24.4) | 23.4 (23.4-26.4) | 3 | 22 | 6 | 26 | 11.5 | 36 | 18 | 6 | 4.3 | 27 |
| 1479-0823 | 30.3 (30.3-34.3) | 32.3 (32.3-36.3) | 31.2 (31.2-35.2) | 33.2 (33.2-37.2) | 4 | 30 | 8 | 35 | 15.3 | 45 | 23 | 8 | 5.3 | 34 |
| 1479-1030 | 30.5 (30.5-34.5) | 37 (37-41) | 31.5 (31.5-35.5) | 38 (38-42) | 4 | 37 | 8 | 45 | 20.7 | 65 | 30 | 12 | 8.4 | 48 |
| 1479-1240 | 34.5 (34.5-39.5) | 44 (44-49) | 37 (37-42) | 46.5 (46.5-51.5) | 5 | 45 | 8 | 55 | 25.4 | 85 | 40 | 15 | 10.5 | 64 |

| Referans Nr. | H | D | W1 | W2 | H2 | H1 | M1 | H3 | W3 | M | Sıkma Kuvveti Clamping Force Kgf | İzin Verilen Tork Allowable Screw Torque (N-m) |  (g) |
|--------------|------|----|----|------|----|----|-----|------|----|-----|-------------------------------------|---|---|
| 1479-0618 | 56.5 | 18 | 8 | 4.3 | 10 | 29 | M4 | 22.8 | 10 | M6 | 230 | 6 | 94 |
| 1479-0823 | 73.5 | 23 | 10 | 5.3 | 14 | 39 | M5 | 28.5 | 13 | M8 | 360 | 10.5 | 210 |
| 1479-1030 | 91 | 30 | 16 | 8.4 | 18 | 48 | M8 | 45.5 | 17 | M10 | 600 | 30 | 515 |
| 1479-1240 | 114 | 40 | 20 | 10.4 | 22 | 58 | M10 | 57 | 19 | M12 | 750 | 45 | 1100 |

Ürün Nr. 1479 Dönmeli Üstten Bağlama

Gövde

- Sertleştirilmiş
- Siyah Kaplama

Sıkma Mili

- Siyah Kaplama

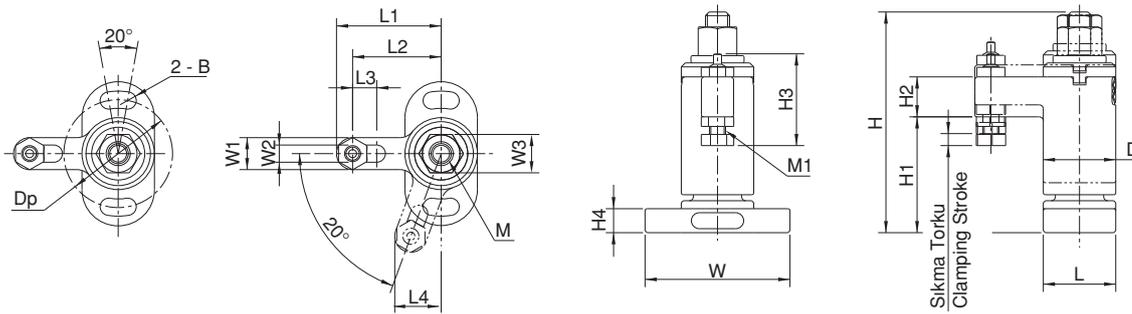
Product Nr. 1479 Swing Clamps For Torque Control

Body

- Hardened
- Black coating

Clamping Spindle

- Black coating



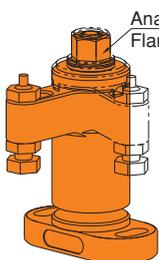
Not

- Bağlama işlemini tork anahtarı ile yapın.

Note

- Make the fastening with a torque wrench.

Kullanım Şekli / How To Use

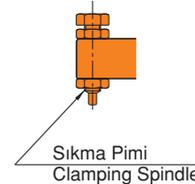


Anahtar Yeri
Flange Nut

Ürün pozisyon aldıktan sonra bağlama işlemi yapın

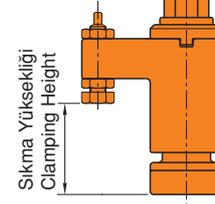
Turning the flange nut allows the clamp arm to swing into position for clamping.

Kaba Yüzey Temas
Rough Surface Contact



Sıkma Pimi
Clamping Spindle

Finiş Yüzey Temas
Finished Surface Contact



Sıkma Yüksekliği
Clamping Height

| Referans Nr. | H1 | S | S1 | M | L2 | L1 | W | L | H4 | d | P | H | D | W1 | H2 | W2 | H3 |
|--------------|----|----|----|-----|----|----|-----|----|----|----|----|-----|----|----|----|----|----|
| 1480-00012 | 80 | 10 | 11 | M12 | 55 | 66 | 90 | 50 | 15 | 11 | 70 | 139 | 50 | 22 | 30 | 19 | 29 |
| 1480-00016 | 95 | 10 | 15 | M16 | 65 | 79 | 100 | 60 | 20 | 13 | 80 | 165 | 60 | 28 | 35 | 24 | 35 |

| Referans Nr. | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N - m) | Sıkıştırma Yönü Clamping Direction |  (kg) |
|--------------|--|--|---------------------------------------|--|
| 1480-00012 | 600 | 28 | Saat Yönünde Clockwise | 1.6 |
| 1480-00016 | 1000 | 55 | Saat Yönünde Clockwise | 2.9 |



Ürün Nr. 1480 Dönmeli Üstten Bağlama

Gövde

- Sertleştirilmiş
- Siyah Kaplama

Sıkma Pabucu

- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1480 Swing Clamps

Body

- Hardened
- Black coating

Clamping Arm

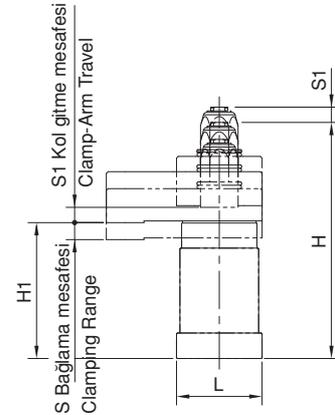
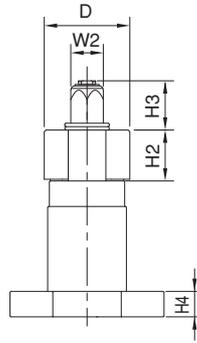
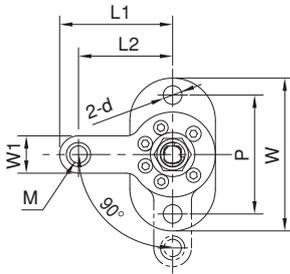
- Hardened
- Black coating

Özellikler

- Hızlı bağlama için üründe sıkma anahtarına tepkili mekanizma vardır.
- Kısa bir harekette bağlama işlemi yapar.

Features

- The clamp arm swings in swift response to the turning speed of an impact wrench, for quick clamping.
- A short clamp-arm travel allows quick clamping.



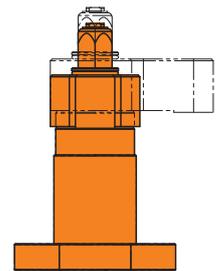
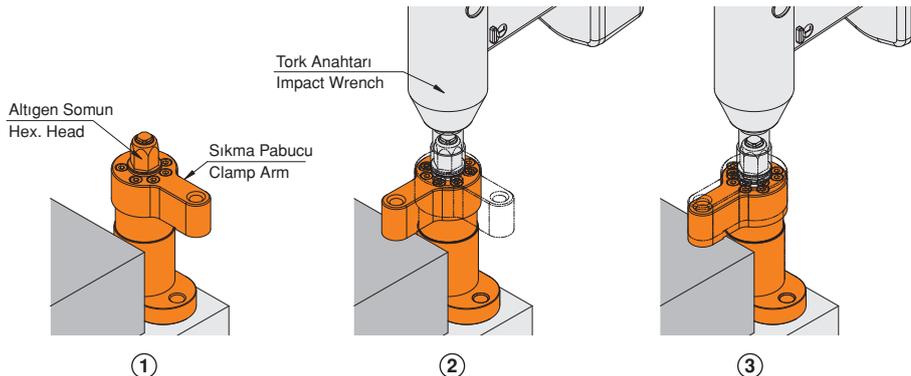
Not

- Bağlama işlemini kesinlikle tork anahtarı ile teknik tabloda verilen tork değerine uygun sıkma işlemi yapınız.

Note

- Do not use applying higher torque than allowable for a long period of time, to avoid damage. Using a torque-settable impact wrench is recommended.

Kullanım Şekli / How To Use



Robot hareketleri için spiral dönmeli bağlama
For robotized production lines, use Spiral-Acting Swing Clamps.

| Referans Nr. | Sıkma Yüksekliği Clamping Height | | | | Sıkma Torku Clamping Stroke | İnme Torku Advance Stroke | L2 | L3 | L1 | L4 | W | L | H5 | B |
|--------------|---|---------------|---|---------------|--------------------------------|------------------------------|----|----|----|------|----|----|----|------|
| | Finiş Yüzey Temas Finished Surface Contact | | Kaba Yüzey Temas Rough Surface Contact | | | | | | | | | | | |
| | Min. | Max. | Min. | Max. | | | | | | | | | | |
| 1481-0100R | 22.8 | 24.8 | 22.4 | 24.4 | 1.0 | 0.8 | 22 | 6 | 26 | 11.5 | 36 | 18 | 6 | 4.3 |
| 1481-0100L | (22.3 - 23.3) | (24.3 - 25.3) | (21.9 - 22.9) | (23.9 - 24.9) | | | | | | | | | | |
| 1481-0150R | 31.3 | 33.3 | 32.2 | 34.2 | 1.4 | 1.1 | 30 | 8 | 35 | 15.3 | 45 | 23 | 8 | 5.3 |
| 1481-0150L | (30.6-32) | (32.6-34) | (31.5-32.9) | (33.5-34.9) | | | | | | | | | | |
| 1481-0200R | 32.5 | 39 | 33.5 | 40 | 1.5 | 1.4 | 37 | 8 | 45 | 20.7 | 65 | 30 | 12 | 8.4 |
| 1481-0200L | (31.7-33.2) | (38.2-39.7) | (32.7-34.2) | (39.2-40.7) | | | | | | | | | | |
| 1481-0300R | 36.5 | 46 | 39 | 48.5 | 1.9 | 1.7 | 45 | 8 | 55 | 25.4 | 85 | 40 | 15 | 10.5 |
| 1481-0300L | (33.5-37.4) | (45-46.9) | (38-39.9) | (47.5-49.4) | | | | | | | | | | |

| Referans Nr. | Dp | H | D | W1 | W2 | H3 | H2 | M | H4 | R | A | H1 | İzin Verilen Çalışma Yüğü Allowable Operating Load (N) | Sıkma Kuvveti Clamping Force Kgf | (g) |
|--------------|----|-----|----|----|------|----|----|-----|------|-----|----|------|---|-------------------------------------|------|
| 1481-0100R | 27 | 49 | 18 | 8 | 4.3 | 10 | 30 | M4 | 22.8 | 50 | 15 | 45.8 | 100 | 110 | 112 |
| 1481-0100L | | | | | | | | | | | | | | | |
| 1481-0150R | 34 | 66 | 23 | 10 | 5.3 | 14 | 40 | M5 | 28.5 | 63 | 20 | 61.3 | 150 | 180 | 250 |
| 1481-0150L | | | | | | | | | | | | | | | |
| 1481-0200R | 48 | 82 | 30 | 16 | 8.4 | 18 | 50 | M8 | 45.5 | 80 | 26 | 76.5 | 200 | 220 | 570 |
| 1481-0200L | | | | | | | | | | | | | | | |
| 1481-0300R | 64 | 100 | 40 | 20 | 10.4 | 22 | 60 | M10 | 57 | 100 | 33 | 93 | 300 | 350 | 1200 |
| 1481-0300L | | | | | | | | | | | | | | | |

Ürün Nr. 1481 Tek Dokunuş Dönmeli Üstten Bağlama

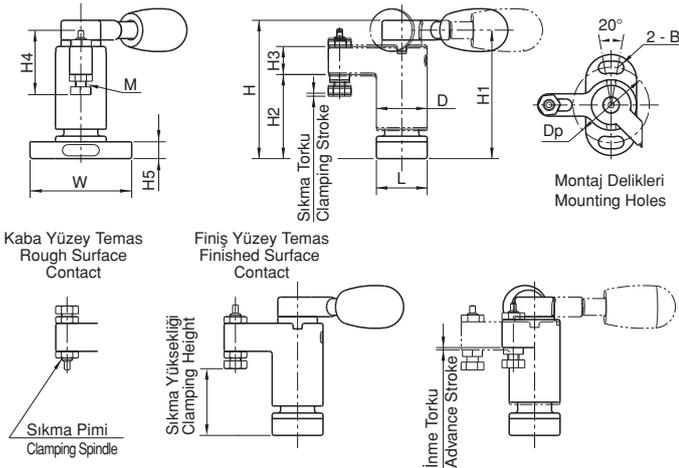
- Gövde**
- Sertleştirilmiş
 - Siyah Kaplama

- Sıkma Mili**
- Siyah Kaplama

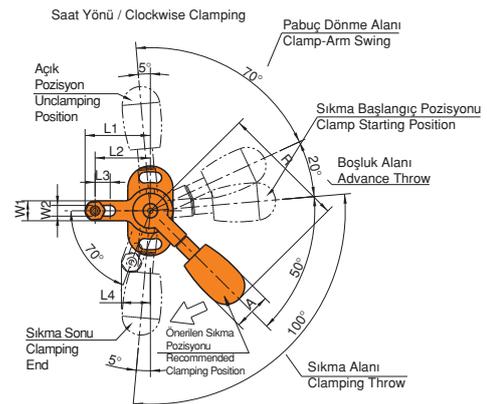
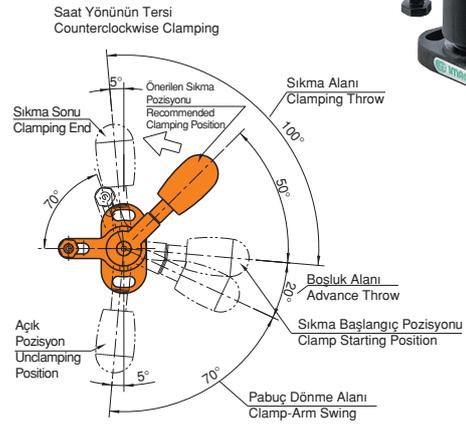
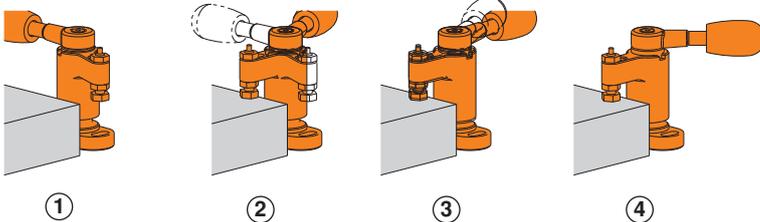
Product Nr. 1481 Swing Clamps

- Body**
- Hardened
 - Black coating

- Clamping Spindle**
- Black coating



Kullanım Şekli / How To Use



| Referans Nr. | Sıkma Yüksekliği Clamping Height | | | | Sıkma Torqu Clamping Stroke | İnme Torqu Advance Stroke | L2 | L3 | L1 | L4 | W | L | H5 | B |
|--------------|---|---------------------|---|---------------------|--------------------------------|------------------------------|----|----|----|------|----|----|----|------|
| | Finiş Yüzey Temas Finished Surface Contact | | Kaba Yüzey Temas Rough Surface Contact | | | | | | | | | | | |
| | Min. | Max. | Min. | Max. | | | | | | | | | | |
| 1482-0150R | 31.3 (30.8-31.8) | 33.3 (32.8-33.8) | 32.2 (31.7-32.7) | 34.2 (33.7-34.7) | 1 | 1.5 | 30 | 8 | 35 | 15.3 | 45 | 23 | 8 | 5.3 |
| 1482-0150L | | | | | | | | | | | | | | |
| 1482-0200R | 32.5 (31.9-33.1) | 39 (38.4-39.6) | 33.5 (32.9-34.1) | 40 (39.4-40.6) | 1.2 | 1.8 | 37 | 8 | 45 | 20.7 | 65 | 30 | 12 | 8.4 |
| 1482-0200L | | | | | | | | | | | | | | |
| 1482-0300R | 36.5 (35.7-37.2) | 46 (45.2-46.7) | 39 (38.2-39.7) | 48.5 (47.7-39.2) | 1.5 | 2.3 | 45 | 8 | 55 | 25.4 | 85 | 40 | 15 | 10.5 |
| 1482-0300L | | | | | | | | | | | | | | |

| Referans Nr. | Dp | H | D | W1 | W2 | H3 | H2 | M | H4 | R | A | H1 | İzin Verilen Çalışma Yüğü Allowable Operating Load (N) | Sıkma Kuvveti Clamping Force Kgf |  |
|--------------|----|-----|----|----|------|----|----|-----|------|-----|----|-----|---|-------------------------------------|---|
| 1482-0150R | 34 | 131 | 23 | 10 | 5.3 | 14 | 40 | M5 | 28.5 | 63 | 19 | 68 | 150 | 150 | 272 |
| 1482-0150L | | | | | | | | | | | | | | | |
| 1482-0200R | 48 | 167 | 30 | 16 | 8.4 | 18 | 50 | M8 | 45.5 | 80 | 24 | 87 | 200 | 210 | 625 |
| 1482-0200L | | | | | | | | | | | | | | | |
| 1482-0300R | 64 | 207 | 40 | 20 | 10.4 | 22 | 60 | M10 | 57 | 100 | 30 | 107 | 300 | 280 | 1340 |
| 1482-0300L | | | | | | | | | | | | | | | |

Ürün Nr. 1482 Tek Dokunuş Dönmeli Üstten Bağlama

Gövde

- Sertleştirilmiş
- Siyah Kaplama

Sıkma Mili

- Siyah Kaplama

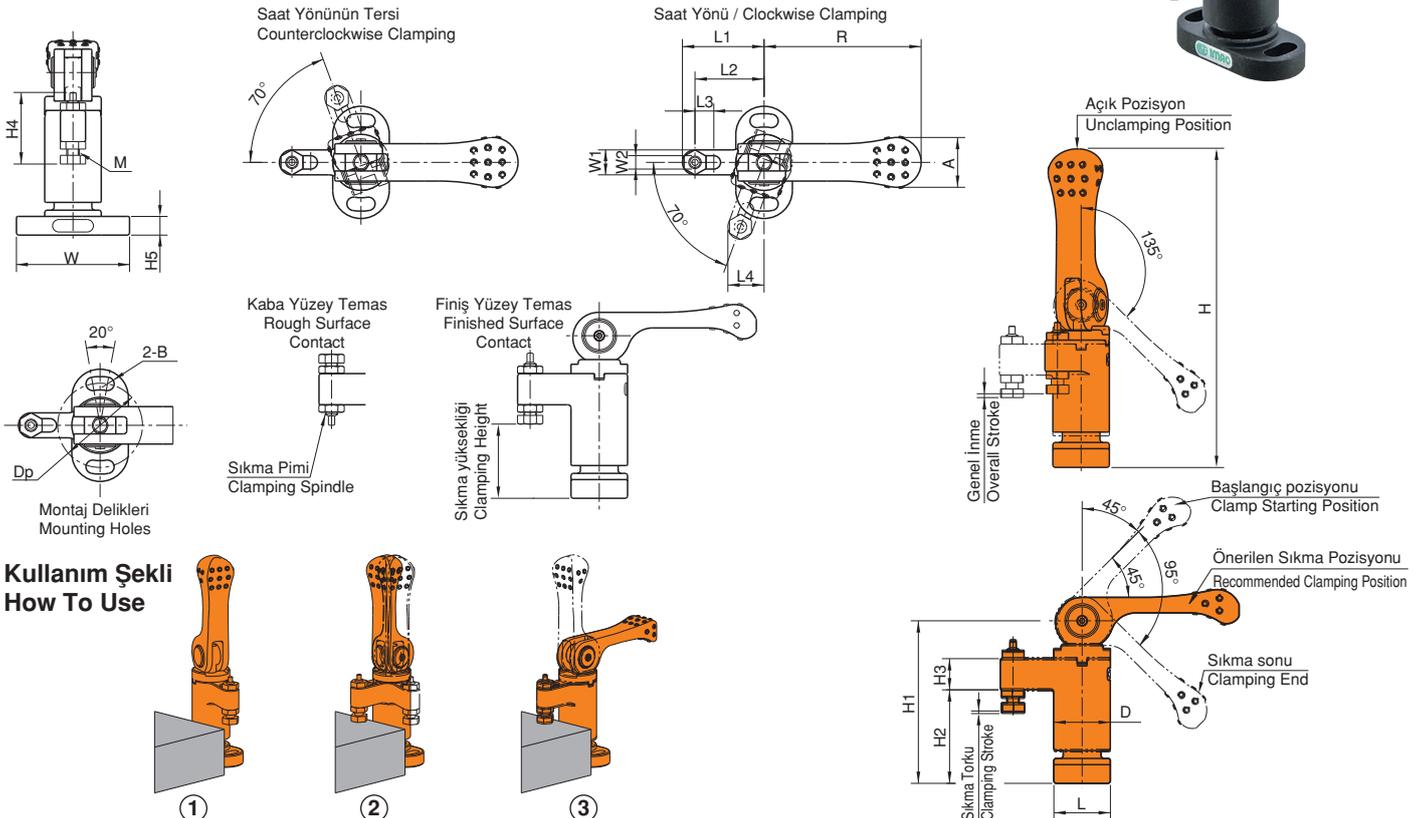
Product Nr. 1482 Swing Clamps With Cam Handle

Body

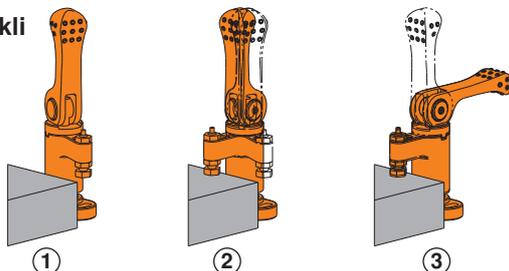
- Hardened
- Black coating

Clamping Spindle

- Black coating



**Kullanım Şekli
How To Use**



| Referans Nr. | Sıkma Yüksekliği Clamping Height | | | | Sıkma Torku Clamping Stroke | L2 | L5 | W | L | H4 | d | P | H | L1 | L3 | W1 |
|--------------|---|-----------------|---|-----------------|--------------------------------|----|----|----|----|----|-----|----|-----|------|----|----|
| | Finiş Yüzey Temas Finished Surface Contact | | Kaba Yüzey Temas Rough Surface Contact | | | | | | | | | | | | | |
| | Min. | Max. | Min. | Max. | | | | | | | | | | | | |
| 1483-03240 | 32 (32-29.5) | 40 (40-37.5) | 35 (35-32.5) | 43 (43-40.5) | 2.5 | 20 | 11 | 42 | 18 | 8 | 5.5 | 32 | 81 | 25.5 | 25 | 26 |
| 1483-03748 | 37 (37-33.5) | 48 (48-44.5) | 42 (42-38.5) | 53 (53-49.5) | 3.5 | 25 | 14 | 52 | 22 | 10 | 6.6 | 40 | 100 | 32 | 31 | 32 |

| Referans Nr. | W2 | H2 | H1 | M | H3 | R | H5 | L4 | Ayarlanabilir Kol Adjustable Handles | İzin Verilen Yük (N) Allowable Operating Load (N) | Sıkma Kuvveti Clamping Force Kgf | Sıkma Mekanizması Clamping Mechanism |  (g) |
|--------------|----|----|----|----|------|----|----|----|---|--|-------------------------------------|---|--|
| 1483-03240 | 22 | 10 | 45 | M6 | 24 | 40 | 47 | 16 | FKF8-BR | 170 | 240 | Vida Screw | 242 |
| 1483-03748 | 28 | 12 | 55 | M8 | 30.5 | 65 | 63 | 20 | FKF8-BR | 210 | 420 | Vida Screw | 490 |

Ürün Nr. 1483 Tek Dokunuş Üstten Bağlama

Gövde

- Sertleştirilmiş
- Siyah Kaplama

Sıkma Mili

- Siyah Kaplama

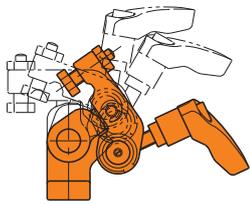
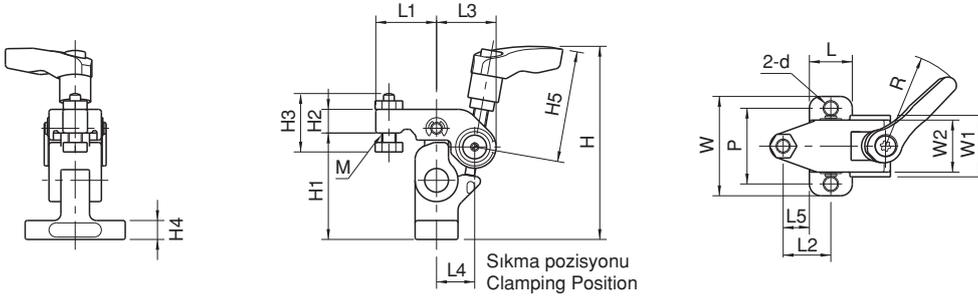
Product Nr. 1483 One-Touch Above Clamping

Body

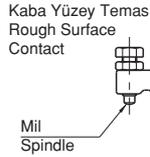
- Hardened
- Black coating

Clamping Spindle

- Black coating

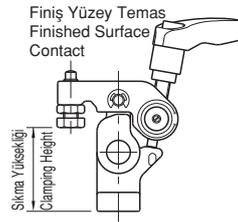


Açık Pozisyon
Unclamped



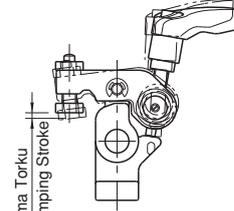
Kaba Yüzey Temas
Rough Surface Contact

Mil
Spindle



Finiş Yüzey Temas
Finished Surface Contact

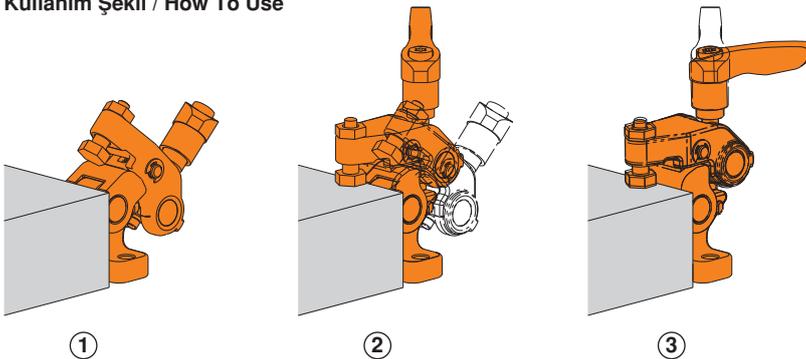
Sıkma Yüksekliği
Clamping Height



Sıkma Torku
Clamping Stroke

Ayarlanabilir Mesafe
Clamping Throw

Kullanım Şekli / How To Use



| Referans Nr. | A | B | C | D | E | F | G (g6) | H | J (h6) | K | L | M | N | P (±0.02) | Q | R |
|--------------|----|----|----|----|----|----|--------|----|--------|---|----|----|----|-----------|----|----|
| 1484-06501 | 65 | 57 | 10 | 47 | 39 | 70 | 28 | 12 | 6 | 5 | 19 | M6 | 42 | 26 | 32 | 25 |
| 1484-09001 | 90 | 72 | 15 | 57 | 46 | 95 | 42 | 14 | 8 | 7 | 23 | M8 | 60 | 36 | 38 | 28 |

| Referans Nr. | T | U | V | W | Z | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N - m) | (kg) |
|--------------|----|----|---|----|-----|----------------------------------|--|------|
| 1484-06501 | 15 | 18 | 4 | M4 | M8 | 400 | 60 | 1.1 |
| 1484-09001 | 17 | 22 | 6 | M5 | M10 | 600 | 100 | 2.6 |

Ürün Nr. 1484 Dış Çap Bağlama

Product Nr. 1484 Outer Diameter Clamp

Teknik Özellikler

- Parça tekrarlaması hassasiyeti: ±0.03
- Yumuşak ayak tekrarlaması hassasiyeti : ±0.02

Not

- İş parçası olmadan kilit civatasını sıkmayın.
- Çeneye izin verildiğinden daha derin işlemeyin.

İçindekiler

- 1 adet kilitleme pulu
- 1 adet elmas pim
- 1 imbus civata

Technical Data

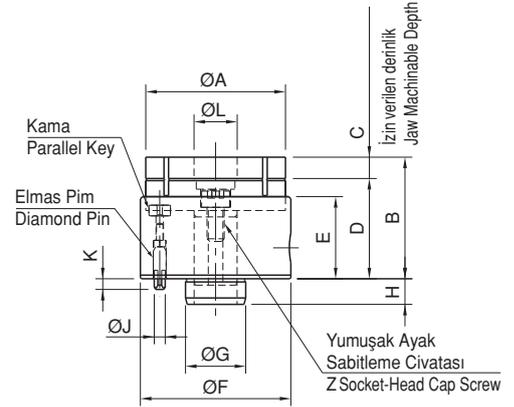
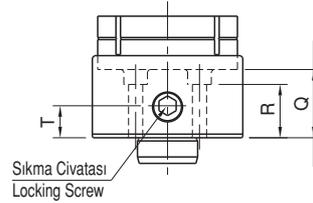
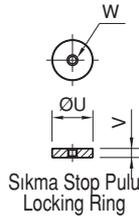
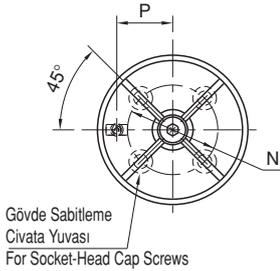
- Part locating repeatability: ±0.03
- Jaw locating repeatability: ±0.02

Notes

- Never tighten the locking screw without a part mounted, to avoid damage and deformation
- Do not machine the jaw deeper than allowed.

Included

- 1 of locking ring
- 1 of diamond pin
- 1 of socket-head cap screw



Yumuşak Ayak Jaws

| Referans Nr. | A | B | C | D | E | F | G | H | J | K | (g) |
|--------------|----|----|----|----|----|----|----|---|----|-----|-----|
| 1485-06501 | 65 | 25 | 10 | 15 | 19 | 28 | 18 | 4 | M4 | M10 | 170 |
| 1485-09001 | 90 | 34 | 15 | 19 | 23 | 39 | 22 | 6 | M5 | M12 | 470 |

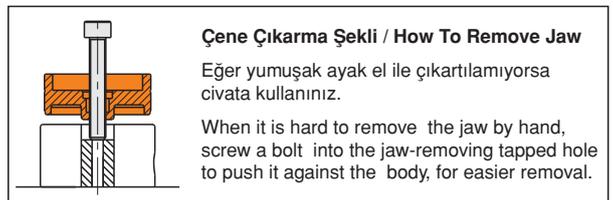
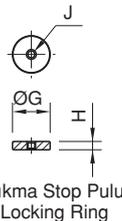
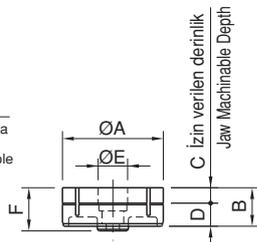
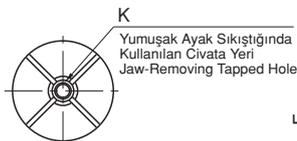
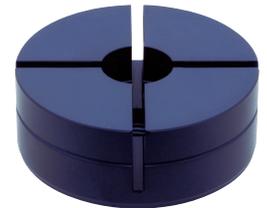
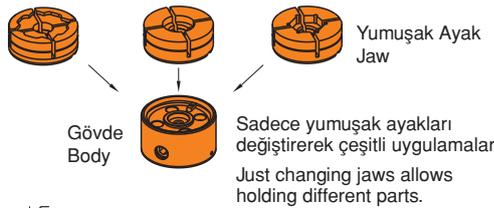
Ürün Nr. 1485 Yumuşak Ayak

- Malzeme: A7075

Product Nr. 1485 Jaws

- Material: A7075

Özellik / Feature



Çene Çıkarma Şekli / How To Remove Jaw

Eğer yumuşak ayak el ile çıkartılamıyorsa civata kullanınız.

When it is hard to remove the jaw by hand, screw a bolt into the jaw-removing tapped hole to push it against the body, for easier removal.

| Referans Nr. | d | h (±0.01) | d1 (g6) | h1 | M | h2 | dp | p (±0.02) | w | h3 | M1 | İzin Verilen Vida Torku Allowable Screw Torque (N·m) | (kg) |
|------------------|-----|--------------|------------|----|-----|----|-----|--------------|----|----|----------|--|------|
| 1486-CP125.06501 | 65 | 25 | 28 | 12 | M6 | 27 | 42 | 22 | 8 | 12 | M8x1.25 | 15 | 0.8 |
| 1486-CP125.09001 | 90 | 30 | 42 | 14 | M8 | 30 | 60 | 30 | 8 | 14 | M10x1.5 | 25 | 1.7 |
| 1486-CP125.12001 | 120 | 35 | 55 | 18 | M10 | 33 | 80 | 43 | 10 | 16 | M10x1.5 | 40 | 3.5 |
| 1486-CP125.16001 | 160 | 40 | 63 | 24 | M12 | 36 | 110 | 60 | 10 | 18 | M12x1.75 | 40 | 7.1 |

| Uygun Çene / Proper Jaws | | | | | |
|--|---|--------------------------------|---|---|--------------------------------|
| Dış Form Tutamağı İçin / For External Form Holding | | | İç Form Tutamağı İçin / For Internal Form Holding | | |
| Referans Nr. | Sıkma Kuvveti Clamping Force (kN) | Sıkma Torku Clamping Torque | Referans Nr. | Sıkma Kuvveti Clamping Force (kN) | Sıkma Torku Clamping Torque |
| 1486-CP126.06501 | 4.5 | Ø 0.3 | 1486-CP127.06501 | 4.5 | Ø 0.3 |
| 1486-CP126.09001 | 7 | | 1486-CP127.09001 | 7 | |
| 1486-CP126.12001 | 10 | | 1486-CP127.12001 | 10 | |
| 1486-CP126.16001 | 12 | | 1486-CP127.16001 | 10 | |



Ürün Nr. 1486 İç ve Dış Çap Bağlama

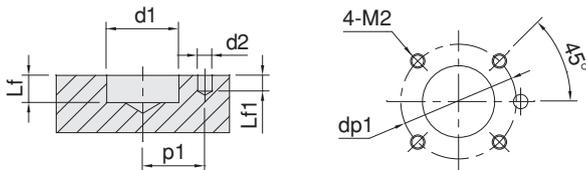
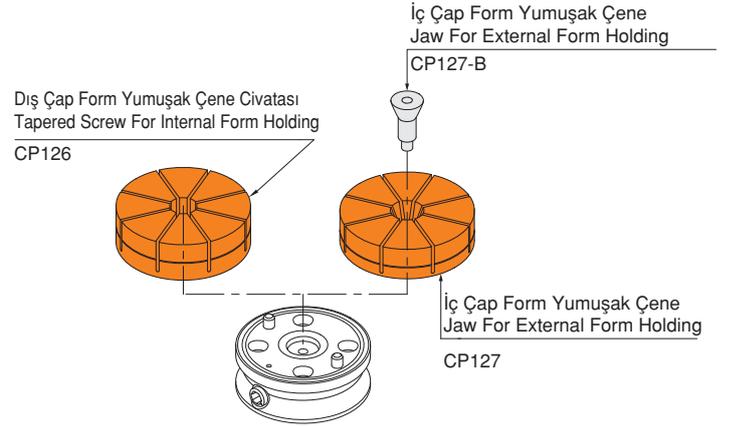
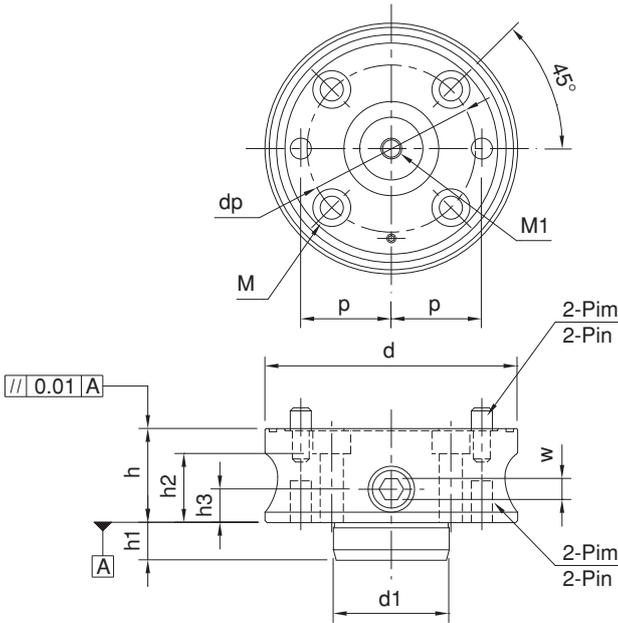
- Nikel Kaplama
- Parça Tekrarlanabilirlik ±0.03
- Yumuşak Ayak Tekrarlanabilirlik ±0.03

Product Nr. 1486 Inner and Outer Diameter Clamp

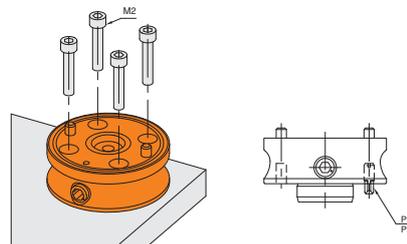
- Nickel Coating
- Part locating repeatability: ±0.03
- Jaw locating repeatability: ±0.03

Not: Yumuşak Ayak Ayrı Sipariş Verilir.

Note: Jaws must be ordered separately.



| Referans Nr. | d1 (H7) | Lf | d2 (G7) | Lf1 | p1 (±0.02) | M2 | dp1 |
|------------------|------------|----|------------|-----|---------------|----------|-----|
| 1486-CP125.06501 | 28 | 13 | 6 | 6 | 22 | M 6x1 | 42 |
| 1486-CP125.09001 | 42 | 15 | 8 | 8 | 30 | M 8x1.25 | 60 |
| 1486-CP125.12001 | 55 | 19 | 10 | 11 | 43 | M10x1.5 | 80 |
| 1486-CP125.16001 | 63 | 25 | 12 | 13 | 60 | M12x1.75 | 110 |



Pim Ölçüleri / Pin Dimensions

| Referans Nr. | Çap Diameter |
|------------------|-----------------|
| 1486-CP125.06501 | Ø 6h6 |
| 1486-CP125.09001 | Ø 8h6 |
| 1486-CP125.12001 | Ø 10h6 |
| 1486-CP125.16001 | Ø 12h6 |

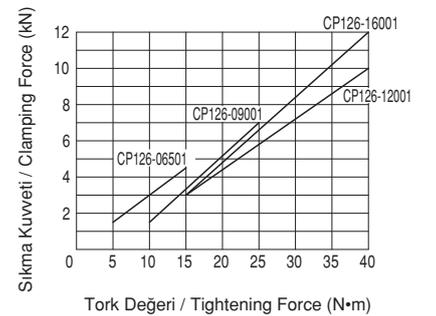
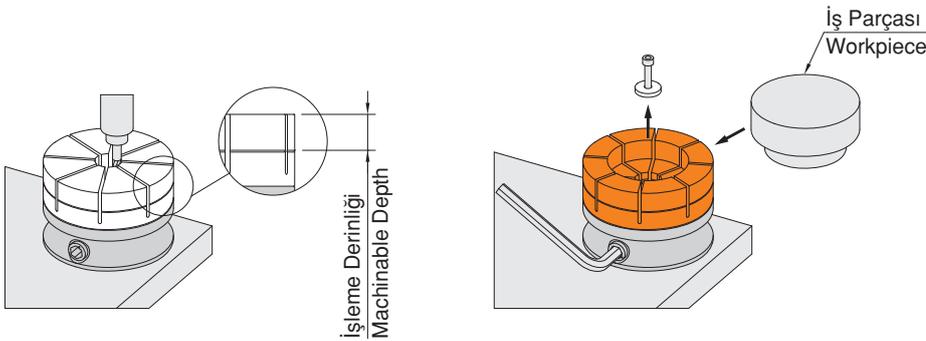
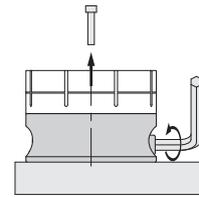
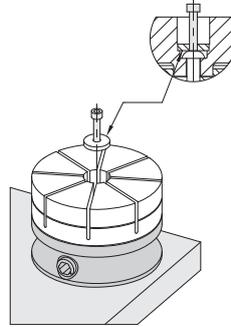
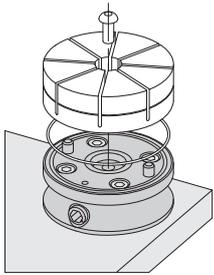
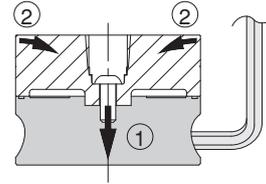
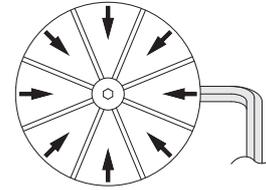
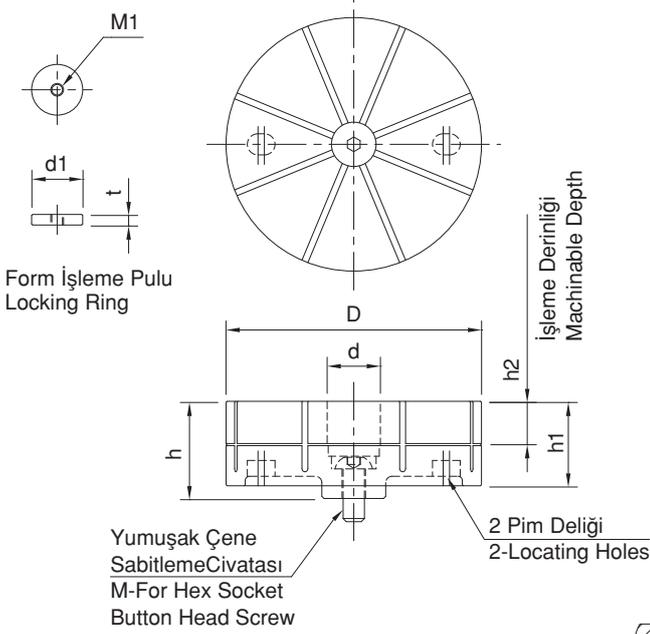
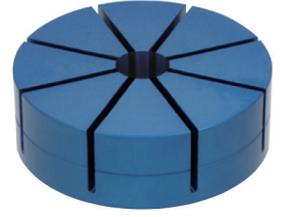
| Referans Nr. | D | d | h1 | h2 | M | h | M | d1 | t |  (g) |
|------------------|-----|----|----|----|--------|----|----|----|---|---|
| 1486-CP126.06501 | 65 | 21 | 25 | 10 | M8x20 | 29 | M5 | 20 | 4 | 200 |
| 1486-CP126.09001 | 90 | 25 | 35 | 15 | M10x20 | 40 | M6 | 24 | 5 | 500 |
| 1486-CP126.12001 | 120 | 25 | 40 | 20 | M10x25 | 46 | M6 | 24 | 5 | 1100 |
| 1486-CP126.16001 | 160 | 29 | 45 | 25 | M12x25 | 52 | M8 | 28 | 6 | 2200 |

Ürün Nr. 1486 Dış Çap Form Yumuşak Çene

- Malzeme: Alüminyum A7075
- Mavi kaplama
- Sıkma Torku 0.15mm

Product Nr. 1486 Outer Diameter Soft Jaw

- Material: Aluminum A7075
- Blue coating
- Clamping Torque 0.15mm



| Referans Nr. | D | h1 | h2 | h | (g) |
|------------------|-----|----|----|------|------|
| 1486-CP127.06501 | 65 | 25 | 10 | 28.5 | 200 |
| 1486-CP127.09001 | 90 | 30 | 15 | 34.5 | 400 |
| 1486-CP127.12001 | 120 | 35 | 20 | 40.5 | 900 |
| 1486-CP127.16001 | 160 | 40 | 25 | 46.5 | 1900 |

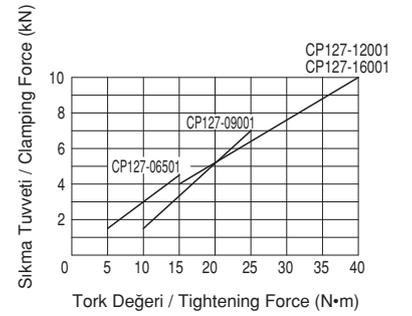
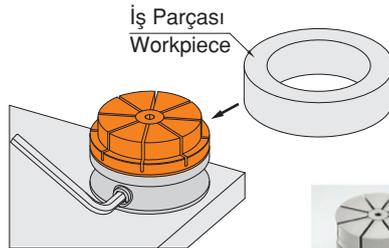
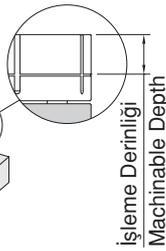
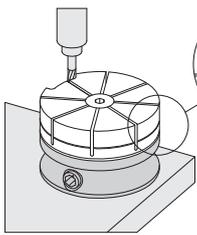
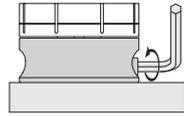
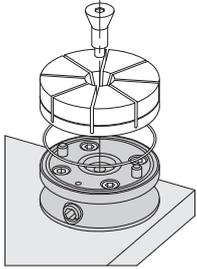
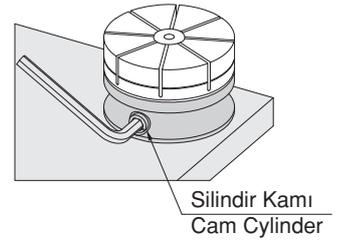
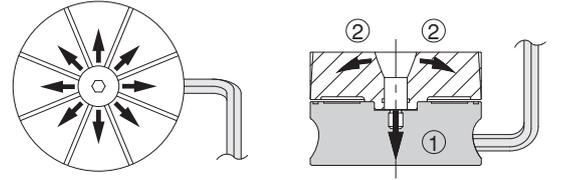
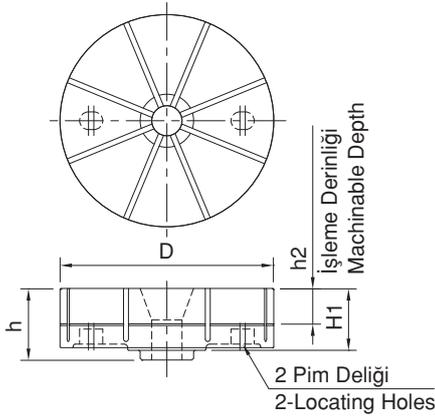


Ürün Nr. 1486 İç Çap Form Yumuşak Çene

- Malzeme: Alüminyum A7075
- Gümüş kaplama
- Sıkma Torku 0.15mm

Product Nr. 1486 Inner Diameter Soft Jaw

- Material: Aluminum A7075
- Silver coating
- Clamping Torque 0.15mm



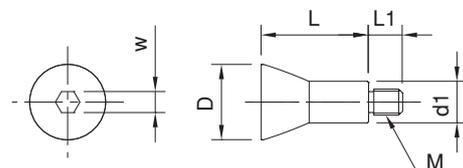
| Referans Nr. | D | L | M | L1 | d1 | w | (g) |
|-------------------|------|----|-----|----|------|----|-----|
| 1486-CP127.06501B | 22.5 | 29 | M8 | 10 | 13.2 | 6 | 50 |
| 1486-CP127.09001B | 27 | 35 | M10 | 11 | 16 | 8 | 80 |
| 1486-CP127.12001B | 29 | 41 | M10 | 13 | 16 | 8 | 100 |
| 1486-CP127.16001B | 33 | 47 | M12 | 14 | 18 | 10 | 150 |

Ürün Nr. 1486 İç Çap Form Yumuşak Çene Civatası

- Gümüş kaplama

Product Nr. 1486 Inner Diameter Soft Jaw Bolt

- Silver coating



| Referans Nr. | Uyumlu İşparçası Çapı Adaptable Workpiece Dia* | D1 | H1 | H | H2 | D ₀ (-0.05) | D2 | M | L | Dp | D3 | H3 | d |
|--------------|---|------|------|------|-----|---------------------------|------|------------|------|------|------|------|------|
| 1486-MBOD1 | Ø2.5 - Ø15.9 | 19.1 | 22.9 | 35.6 | 4.6 | 23.9 | 38.1 | M3x0.5-16L | 6.8 | 29 | 50.8 | 25.4 | 20.1 |
| 1486-MBOD2 | Ø5.1 - Ø45.7 | 49.5 | 32.4 | 48.3 | 5.1 | 55.9 | 76.2 | M5x0.8-22L | 11.1 | 63.8 | 88.9 | 36.2 | 50.5 |

- Önerilen Çene Sıkıştırmasına dikkat ederek çene işparçasının çapına göre işleyin.
- Machine the jaw to the workpiece diameter with attention to the Recommended Jaw Compression.

| Referans Nr. | Sıkma Kuvveti Clamping Force (kN) | Kabul Edilebilir Sıkma Torku Allowable Tightening Torque (N.m) | Önerilen Çene Sıkıştırması Recommended Jaw Compression | Kabul Edilebilir Çene Sıkıştırması Allowable Jaw Compression | (g) |
|--------------|--------------------------------------|---|---|---|-----|
| 1486-MBOD1 | 17.3 | 81.5 | 0.07 | 0.38 | 200 |
| 1486-MBOD2 | 17.8 | 135.5 | 0.1 | 0.64 | 960 |

| Referans Nr. | (g) | Proper MBOD Clamps |
|---------------|-----|--------------------|
| 1486-MBOD1-01 | 130 | MBOD-1 |
| 1486-MBOD2-01 | 740 | MBOD-2 |

★ Kilit Nokta

Kompakt tasarım ve yüksek bağlama kuvveti 02.5mm küçüklüğünde ve uzun işparçalarına uyumludur

★ Key Point

Compact design with high clamping force Applicable to small workpieces of 02.5mm and long workpieces

**Ürün Nr. 1486
Merkezeleme Pabucu**

- Çene**
- S17C Çelik
 - Florlu Plastik Kaplama

- Başlık**
- A6061 alüminyum
 - Sert anodize edilmiş

**Product Nr. 1486
Concentric OD Clamps**

- Jaw**
- S17C Steel
 - Fluoroplastic coated

- Cap**
- A6061 aluminum
 - Hard anodized

Özellikler

- Yüksek şeklindeki çeneler yüksek bir bağlama kuvveti açığa çıkarır.
- İşlenebilir çene işparçalarına geniş bir bağlanma alanıyla işlenerek her tür şeklindeki işparçasına bağlanabilir ve uzun işparçalarını tutabilir.

Features

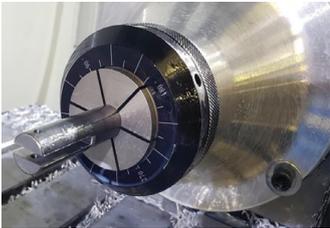
- Collet-shaped jaws generate high clamping force.
- The machinable jaw can clamp any shape of workpieces and hold long workpieces with a wide clamping area by machining completely through.

Not

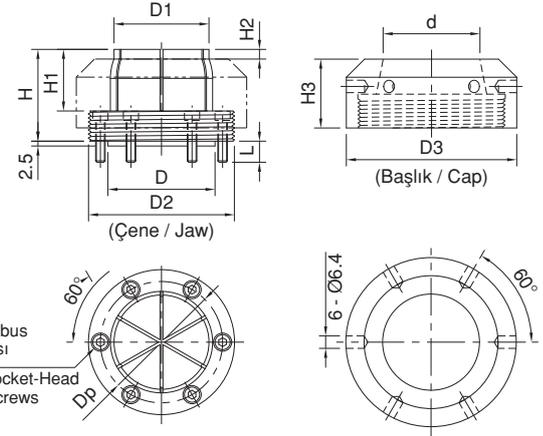
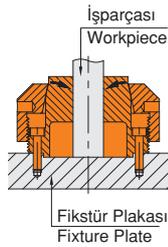
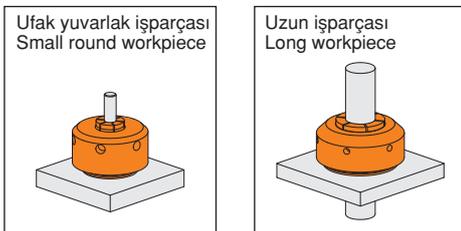
- Deformasyon ve hasarı önlemek için iş parçasını takmadan önce başlığı sıkmayın.

Note

- Do not tighten the cap without the workpiece to prevent damage and deformation.



Kullanım Örneği / Application Example



Teknik Bilgi / Technical Information

Başlığın üzerindeki göstergeler tork anahtar kullanmadan tork kontrolü yapabilmeniz için rotasyon açısını gösterir.

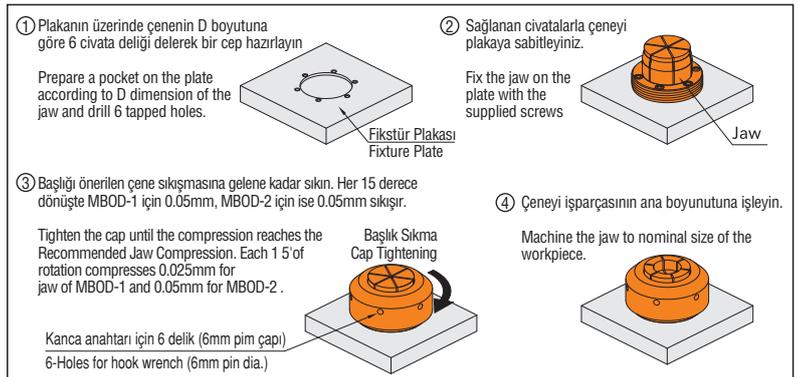
Indicators on the cap are guides to read the rotation degree for torque control without a torque wrench.

| Sıkma Torku Tightening Torque (N.m) | MBOD-1 | | MBOD-2 | |
|--|--------------------------------------|--|--------------------------------------|--|
| | Dönüş Derecesi ** Rotation Degree | Bağlanma Kuvveti Clamping Force(kN) | Dönüş Derecesi ** Rotation Degree | Bağlanma Kuvveti Clamping Force(kN) |
| 13.5 | 43° | 2.9 | 20° | 1.8 |
| 27 | 66° | 5.8 | 31° | 3.6 |
| 40.5 | 88° | 8.7 | 37° | 5.3 |
| 54 | 111° | 11.6 | 44° | 7.1 |
| 68 | 133° | 14.5 | 49° | 8.9 |
| 81.5 | 165° | 17.3 | 53° | 10.7 |
| 95 | - | - | 56° | 12.5 |
| 108.5 | - | - | 60° | 14.2 |
| 122 | - | - | 65° | 16 |
| 135.5 | - | - | 67° | 17.8 |

- ** 0 derece pabucun işparçasıyla ilk temas ettiği yerdir.
** 0° is when the clamp first contacts the workpiece.

Fix the jaw on the plate with the supplied screws.

Kullanım Şekli / How To Use



| Referans Nr. | D | | H | H1 | R | H2 | | L1 | Uygun Civatalar Proper Cap Screws | Sıkma Kuvveti Clamping Force Kgf |  (g) |
|--------------|------|------|----|-----|-------|------|------|-----|--------------------------------------|-------------------------------------|--|
| | min. | max. | | | | min. | max. | | | | |
| 1487-04001 | 19.5 | 24 | 9 | 2.5 | R9.5 | 8 | 2.6 | 9.4 | M4 | 200 | 20 |
| 1487-06001 | 23.5 | 29 | 13 | 4 | R11.5 | 11.5 | 5 | 13 | M6 | 500 | 45 |
| 1487-08001 | 28.5 | 36 | 17 | 5.5 | R14 | 15 | 6 | 19 | M8 | 900 | 90 |

Ürün Nr. 1487 Delik İçi Bağlama

- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1487 I.D. Holding Clamps

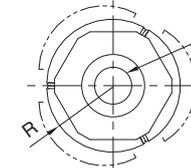
- Hardened
- Black coating

Özellik

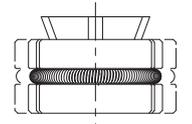
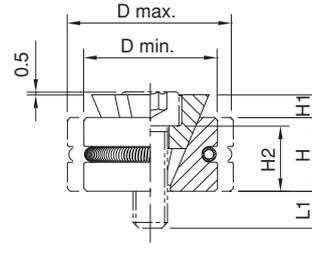
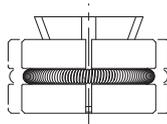
- Bu pabuçlar iş parçasını iç çaptan sıkma işlemi yapar.
- Kamanın konik yapısından dolayı güçlü bir bağlama yapar.
- Uzun strok özelliği ile dökülmüş deliklerde ve kaba deliklerde kullanım olanağı sağlar.

Feature

- These clamps hold the inside diameter of the workpiece.
- The wedge construction allows powerfully clamping the workpiece.
- Long clamping stroke is ideal for holding as-cast or roughly-finished holes.



Sabitleme Civata Yeri
For Hex Socket-Head Cap Screws



Kullanım Şekli / How To Use



Açık Konum
Unclamping Mode

Kapalı Konum
Clamping Mode

İş parçasını sıkma anında çizgi halinde temas eder. Finit delikler için tavsiye edilmez. Delik içinde deforme olabilir.

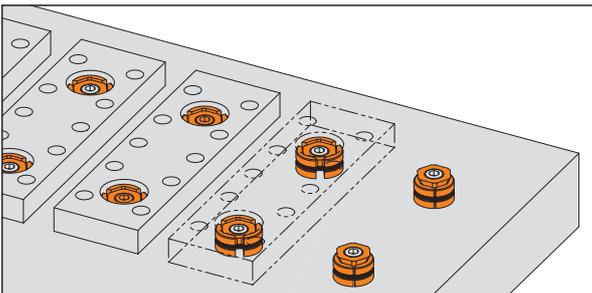
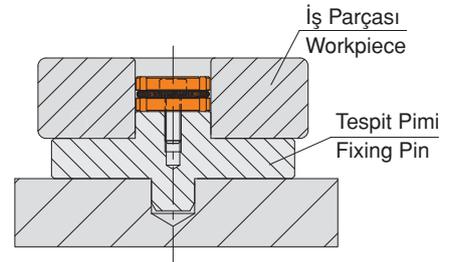
The clamp makes a line contact with the workpiece at the clamping mode. This contact can mar the surface of the workpiece depending on its materials, and using these clamps for accurately finished holes is not recommended.

Not

- Doğru bir merkezleme işlemi aşağıdaki görsel gibidir.

Notes

- For accurate locating, use these clamps with a locator as shown below.



2'li bağlama uygulama örneğidir.

Example of application where two I.D. Holding Clamps are used.

| Referans Nr. | d | | h | | h1 | M | L1 | W | Sıkma Kuvveti Clamping Force kgf | Tork Değeri Allowable Screw Torque (N - m) |  (g) |
|--------------|------|------|--------|--------|------|-------|------|-----|----------------------------------|--|---|
| | min. | max. | d min. | d max. | | | | | | | |
| 1487-04001A | 8 | 10.3 | 5.5 | 4.6 | 0.9 | M4x12 | 7.3 | 2.5 | 900 | 2.1 | 3 |
| 1487-05001A | 10 | 12.3 | 6.4 | 5.6 | 1.1 | M5x15 | 9.1 | 3. | 1500 | 4.3 | 5 |
| 1487-06001A | 12 | 16.3 | 8.6 | 7 | 1.3 | M6x18 | 11.2 | 4. | 2100 | 7.3 | 9 |
| 1487-08001A | 16 | 22 | 11.5 | 9.4 | 1.6 | M8x25 | 16.2 | 5 | 4000 | 18 | 22 |
| 1487-04001B | 8 | 10.3 | 5.5 | 4.6 | 5.1 | M4x12 | 7.1 | 3 | 1500 | 2.7 | 4 |
| 1487-05001B | 10 | 12.3 | 6.4 | 5.6 | 6.2 | M5x15 | 9 | 4 | 2500 | 5.4 | 7 |
| 1487-06001B | 12 | 16.3 | 8.6 | 7 | 7.9 | M6x18 | 10.6 | 5 | 5000 | 9.1 | 11 |
| 1487-08001B | 16 | 22 | 11.5 | 9.4 | 10.4 | M8x25 | 15.4 | 6 | 9000 | 25 | 28 |



Ürün Nr. 1487 Delik İçi Bağlama

- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1487 I.D. Holding Clamps

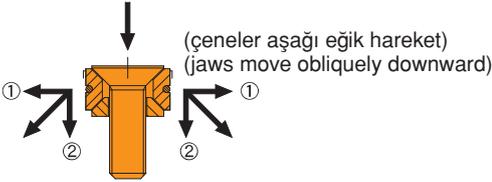
- Hardened
- Black coating

Özellik

- Bu bağlamalar / clampers iş parçasının iç çapından tutar.
- İş parçasını Kama Konstrüksiyon güçlü sıkmasını sağlar.
- Uzun sıkma stroku döküm veya kabaca bitmiş delikleri tutmak için idealdir.

Features

- These clamps hold the inside diameter of the workpiece.
- The wedge construction allows powerfully clamping in the workpiece.
- Long clamping stroke is ideal for holding as-cast or roughly-finished holes.



- ① İş parçasına karşı yatay basınç
Horizontal pressure against workpiece
- ② İş parçasının yükselmesini engelleyen dikey basınç.
Vertical pressure preventing workpiece lift

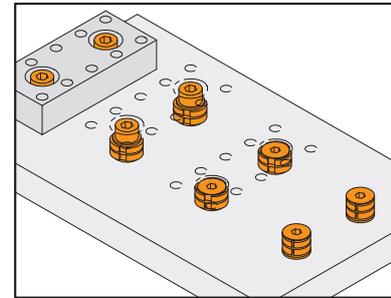
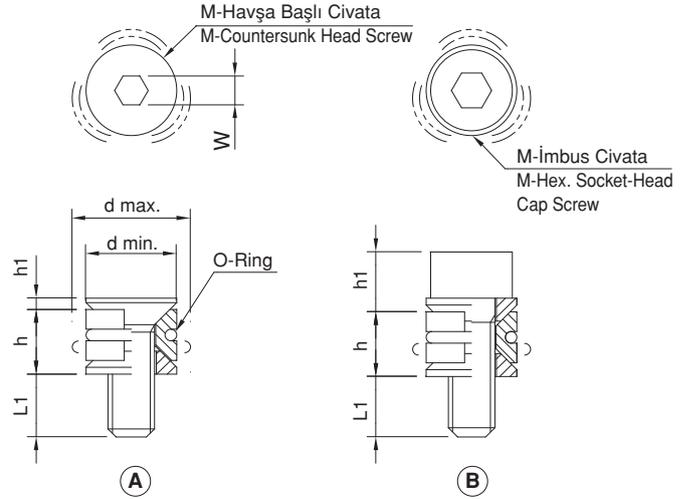
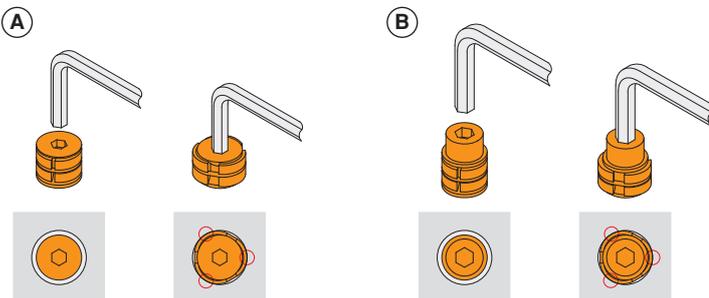
Kullanım Şekli / How To Use

Not

- Pabuç iş parçasını sıkma modundayken bağlantı hattına temas eder. Kendi meteryallerine bağlı iş parçası yüzeyini işaretleyebilirsiniz ama bitmiş / finish delikler için bu pabuçların kullanılması tavsiye edilmez.

Notes

- The clamp makes a line contact with the workpiece at the clamping mode. This contact can mark the surface of the workpiece depending on its materials and using these clamps for accurately finished holes is not recommended.



Delik içi bağlamaların kullanıldığı iki kompakt uygulamalardan örnek.

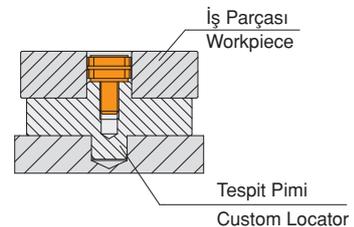
Example of applications where two compact ID holding clamps are used.

Not

- Aşağıda gösterildiği gibi doğru yer tespiti için, bir konum belirleyici ile bu pabuçları kullanın.

Notes

- For accurate locating, use these clamps with a locator as shown below.



| Referans Nr. | Ayarlanabilir İş parçası çapları Adaptable Workpiece Dia. | d1 | d2 | h2 | h1 | d (_{-0.05}) | h | M | L | w | M1 | L1 | dp | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N - m) | İzin Verilen Boşluk Recommended Range of Expansion of Dia | İzin Verilen Açılma Çapı Allowable Expansion of Dia | (g) |
|--------------|--|-------|------|------|------|---------------------------|------|-----|------|----|----|----|-------|--|--|--|--|------|
| 1488-00004 | Ø7.1-Ø12.4 | 12.4 | 7.1 | 15 | 16 | 29.72 | 21.8 | M4 | 7.2 | 3 | M3 | 6 | 21 | 420 | 5 | 0.07 | 0.13 | 45 |
| 1488-00006 | Ø12.2-Ø14.2 | 14.2 | 12.2 | 15 | 19 | 31.5 | 24.9 | M6 | 11.2 | 5 | M3 | 6 | 23.1 | 440 | 17 | 0.08 | 0.23 | 60 |
| 1488-00008 | Ø13.5-Ø20 | 20 | 13.5 | 15 | 19 | 37.5 | 24.9 | M8 | 13.2 | 6 | M3 | 6 | 29 | 1100 | 34 | 0.08 | 0.30 | 95 |
| 1488-00010 | Ø18-Ø27 | 27 | 18 | 17.5 | 22.2 | 50 | 28.6 | M10 | 16.3 | 8 | M4 | 7 | 39.4 | 2000 | 60 | 0.08 | 0.35 | 190 |
| 1488-00012 | Ø23-Ø35.3 | 35.3 | 23 | 20.6 | 25.4 | 56 | 31.8 | M12 | 20.3 | 10 | M4 | 7 | 45.5 | 2600 | 150 | 0.08 | 0.35 | 300 |
| 1488-0016A | Ø29.3-Ø42 | 42 | 29.3 | 27 | 31.8 | 69.5 | 39.6 | M16 | 21.4 | 14 | M5 | 13 | 55.9 | 4400 | 280 | 0.08 | 0.35 | 570 |
| 1488-0016B | Ø29.3-Ø51.5 | 51.5 | 29.3 | 27 | 31.8 | 75.5 | 39.6 | M16 | 21.4 | 14 | M5 | 13 | 63.9 | 4400 | 280 | 0.08 | 0.35 | 750 |
| 1488-0016C | Ø29.3-Ø77.7 | 77.7 | 29.3 | 32.3 | 37.6 | 107.5 | 45.5 | M16 | 19.3 | 14 | M6 | 14 | 92.6 | 4400 | 280 | 0.15-0.4 | 0.60 | 1800 |
| 1488-0016D | Ø29.3-Ø103 | 103 | 29.3 | 32.3 | 37.6 | 132.9 | 45.5 | M16 | 19.3 | 14 | M6 | 14 | 118.1 | 4400 | 280 | 0.15-0.4 | 0.60 | 2900 |
| 1488-0016E | Ø29.3-Ø175 | 175 | 29.3 | 32.3 | 37.6 | 132.9 | 45.5 | M16 | 19.3 | 14 | M6 | 14 | 118.1 | 4400 | 280 | 0.15-0.4 | 0.80 | 6500 |
| 1488-0016F | Ø29.3-Ø250.2 | 250.2 | 29.3 | 32.3 | 37.6 | 152.4 | 45.5 | M16 | 19.3 | 14 | M6 | 14 | 133.4 | 2600 | 170 | 0.15-0.4 | 0.80 | 4800 |

Ürün Nr. 1488 Delik İçi Bağlama

Gövde

- Siyah Kaplama

Civata

- Sertleştirilmiş

Özellik

- Delik çapından tutma işlemi yapar
- Mükemmel kullanımıyla birden fazla sıkma seçeneği sağlar
- Sağ tarafta görüldüğü gibi hidrolik çekme ile de kullanım olanağı sağlar.
- İş parçasına göre ayarlama olanağı sağlar

Not

- İşlenmiş olan parçaların köşeleri minimum 0.5 köşe olmalı. Radüs olabildiğince büyük olmalı
- İş parçasının deliği radüse denk gelirse burç kullanın
- İsteğe bağlı dış çap ölçü değişikliği yapabiliriz.

Product Nr. 1488 I.D. Holding Clamps

Body

- Black coating

Tapered Screw

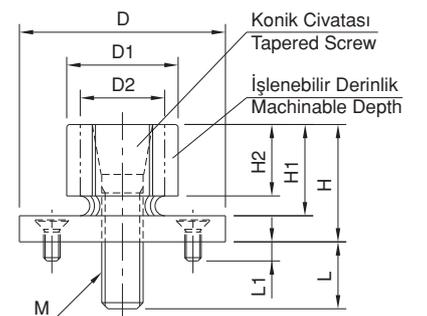
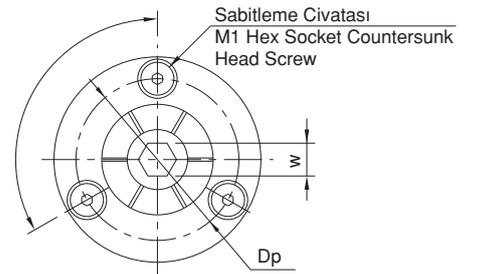
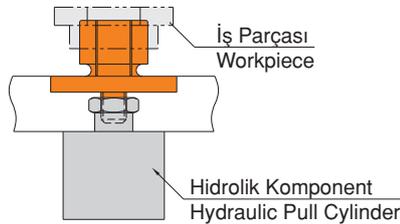
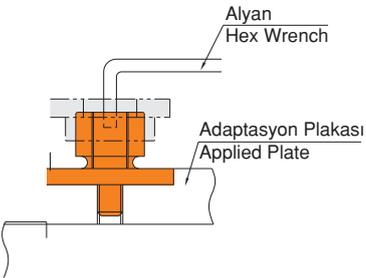
- Hardened

Features

- Can hold workpieces on an inside diameter.
- Perfect for multiple-parts holding arrangement.
- Using hydraulic pull cylinders to clamp instead of using hex wrenches allows automation.
- Can be machinable to suit your workpieces.

Notes

- The minimum radius of corners at the machined part should be 0.5mm for clamping small workpieces. To prevent stress concentration on these corners, make the radius as large as possible.
- If the radius will interfere with the bottom of the workpiece bore, we suggest a ring or rest-pads be fixed to the flange.



| Referans Nr. | Uyumlu İşparçası Çapı Adaptable Workpiece Dia* | Bağlama Kuvveti Clamping Force (N) | Kabul Edilebilir Civata Torku Allowable Screw Torque(N•m) | Önerilen Çap Genişletme Aralığı Recommended Expansion Range of Dia ** | Kabul Edilebilir Çap Genişlemesi Allowable Expansion of Dia. |  |
|--------------|---|---------------------------------------|--|--|---|---|
| 1488-MBSIDM | φ17.8 ~ φ28.7 | 15,000 | 47 | 0.02 ~ 0.18 | 0.30 | 358 |
| 1488-MBSIDL | φ17.8 ~ φ53.3 | 15,000 | 47 | 0.02 ~ 0.18 | 0.30 | 720 |

* Pabucunuzu işparçanıza uyması için işlemeniz gerekir.

** Özel boyutlu işparçalarının çapını işlemek için önerilen sıkma torku 13.5 N.m dir.

* You need to machine the clamp to suit the diameter of your workpieces.

** The recommended tightening torque to machine the diameter for custom fit is 13.5N•m.

**Ürün Nr. 1488
Delik İçi Bağlama**

Gövde
• SUM24L Çelik
• Siyah Oksit Kaplama

Silindir Kam
• SCM440 Çelik
• Siyah Oksit Kaplama
• HRC 39~45

Konik Kilit Pimi
• SCM440 Çelik
• Florlu Plastik Kaplama
• HRC 52

Yay
• SWP

**Product Nr. 1488
Side Lock ID Holding Clamps**

Body
• SUM24L Steel
• Black oxide finished

Cam cylinder
• SCM440 steel
• Black oxide finished
• HRC 39~45

Tapered Plunger
• SCM440 steel
• Fluoroplastic coated
• HRC 52

Spring
• SWP

NEW



**MBSID-M
(Değirmen Versiyonu)
(Mill Version)**



**MBSID-L
(Çark Versiyonu)
(Lathe Version)**

Not

- Hasar ve deformasyonu önlemek için iş parçası olmadan pabuç civatasını sıkmayın
- Küçük işparçalarını bağlamak için işlenmiş kısımdaki köşelerin minimum yarıçapı 0.5mm olmalıdır. Bu köşelerdeki stres konsantrasyonunu önlemek için köşelerin yarıçapını olabildiğince büyük yapın.
- Eğer yarıçap işparçasının alt çapıyla çakışıyorsa başlığı bir pabuç halkası vb. bir parçayla sabitlemenizi öneririz.

Note

- Do not tighten the clamp screw without the workpiece set to prevent damage and deformation.
- The minimum radius of corners at the machined part should be 0.5mm for clamping small workpieces. To prevent stress concentration on these corners, make the radius as large as possible.
- If the radius will interfere with the bottom of the workpiece bore, we suggest a ring or rest-pads be fixed to the flange.

Özellikler

- Yandaki soket başlı kam silindirini çevirerek işparçalarını bir iç çapla tutabilirsiniz.
- Çok parçalı bir tutma düzeni için bire birdir.
- İşparçalarınıza uygun olması için işlenebilirler.

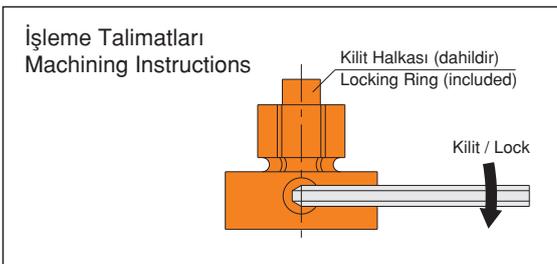
Features

- Can hold workpieces on an inside diameter by turning a socket head cam cylinder on the side.
- Perfect for multiple-parts holding arrangement.
- Can be machinable to suit your workpieces.

Çıralanmış Parçalar / Furnished Parts

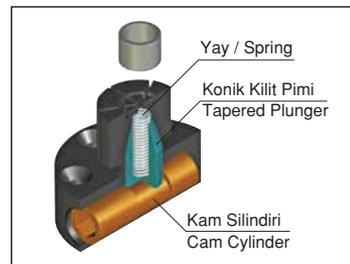
- 1 Kilit Halkası / 1 of locking ring

Kullanım Şekli / How To Use



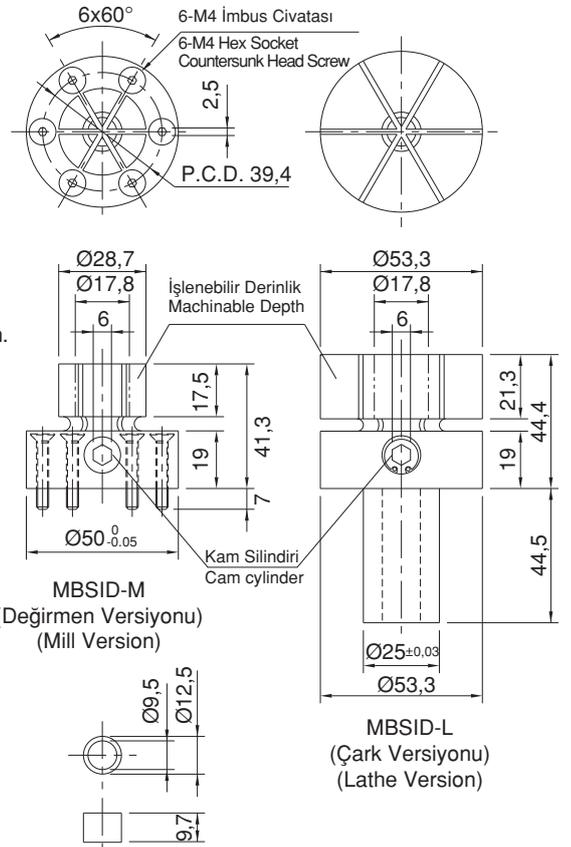
Kilit halkasını üst taraftaki kanala yerleştirip pabucu çap boyutuna göre işleyin.

Insert the locking ring to the groove of the upper surface and clamp it, and then machine the clamp to your bore size.



Kam Silindirini her iki tarafa döndürmek de pabucu genişletir. (Saat yönü ve Saat yönünün tersi)

Rotating the cam cylinder both clockwise and counterclockwise expands the clamp.



Kilit Halkası / Locking Ring

| Referans Nr. | Sıkma Kuvveti Clamping Force (N) | Kaldırma Kuvveti Lifting Force (N) | (g) |
|----------------|-------------------------------------|---------------------------------------|-----|
| 1489-0840R.06 | 600 | 100 | 220 |
| 1489-0840R.06N | 700 | - | 215 |

0840R.06

0840R.06N

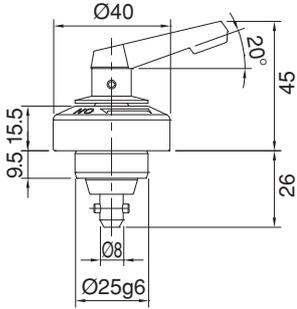
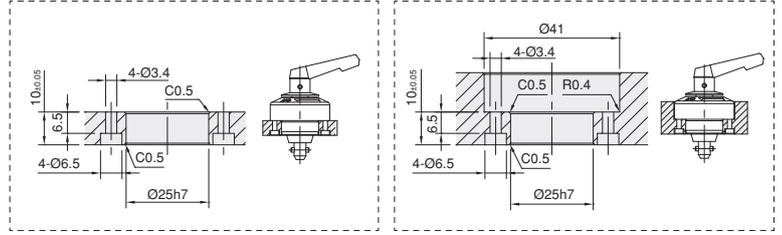
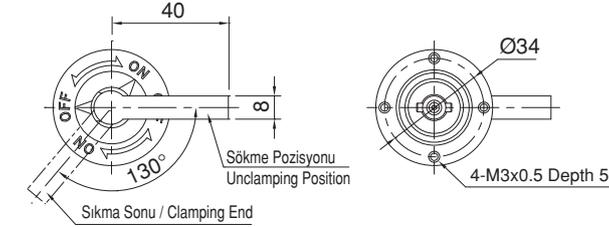


Ürün Nr. 1489 Tek Dokunuş Bağlama

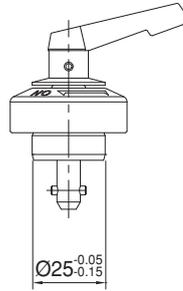
• Siyah Kaplama

Product Nr. 1489 Single Touch Clamp

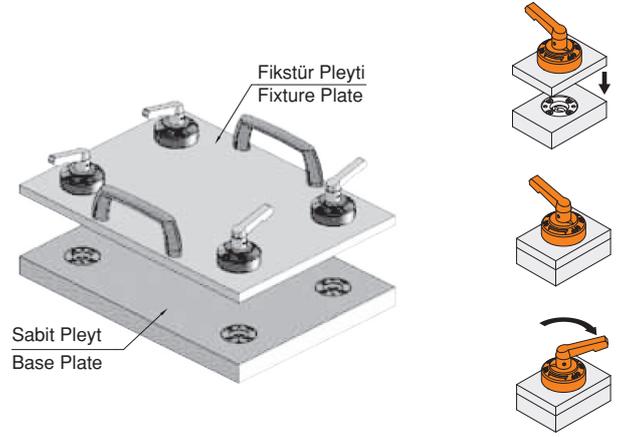
• Black coating



0840R.06



0840R.06N



| Referans Nr. | (g) |
|--------------|-----|
| 1489-0840R | 32 |

Ürün Nr. 1489 Tek Dokunuş Bağlama Burcu

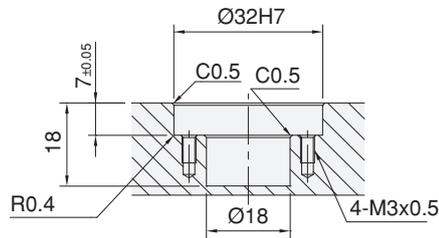
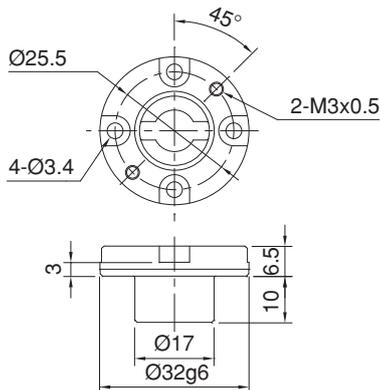
• Siyah Kaplama

Product Nr. 1489 Single Touch Clamping Bush

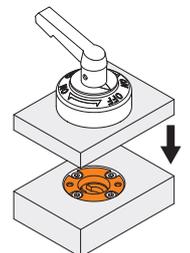
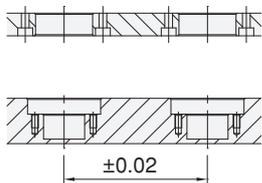
• Black coating

Tek Dokunuş Bağlama Burcu

Single Touch Clamping Bush



Tolerans / Tolerance ±0.02



| Referans Nr. | D (g6) | H | D1 | H1 | M | H2 | M1 | Dp | Kaldırma Kuvveti Lifting Force (N) | (g) |
|--------------|--------|-----|----|----|----|----|--------|------|---------------------------------------|------|
| 1489-16032K | 32 | 6.5 | 20 | 7 | M3 | 3 | M3x0.5 | 25.5 | 110 | 60 |
| 1489-25050K | 50 | 10 | 32 | 9 | M4 | 5 | M4x0.7 | 42 | 180 | 160 |
| 1489-38070K | 70 | 15 | 48 | 14 | M5 | 9 | M5x0.8 | 60 | 400 | 508 |
| 1489-56095K | 95 | 22 | 70 | 21 | M6 | 15 | M6x1.0 | 84 | 690 | 1451 |

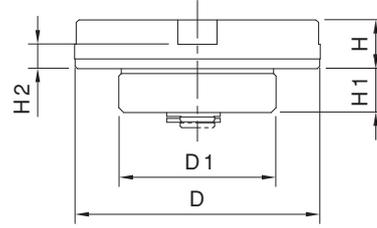
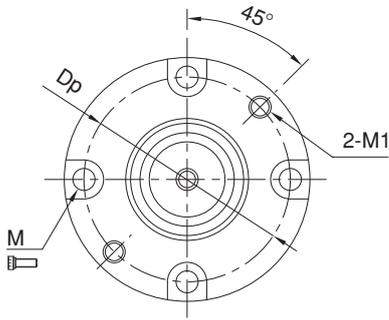


Ürün Nr. 1489 Konumlama Burcu (Kapalı)

- Kaldırma kuvveti hareketli konik burcu yukarı itmek için yay kuvvetini kullanır.(N)
- Vidalar doğru sırayla sıkılmadığında tekrarlanabilirlik 0.01 aşabilir.
- Toplam yük, maksimum yük kapasitesini aşıyorsa, tekrarlanabilirlik 0.01 aşabilir.

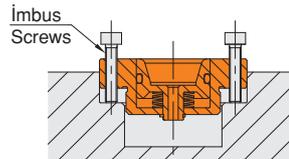
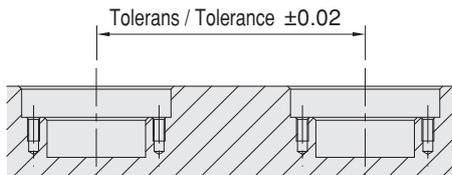
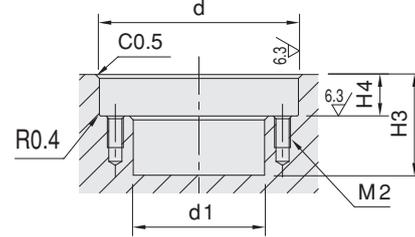
Product Nr. 1489 Positioning Bush (Blind)

- The lifting force is the power of the inner spring of the body to push up the movable tapered bushing.(N)
- If the screws are not tightened in the correct order, the locating repeatability may exceed 0.01
- If the total load exceeds the maximum loading capacity, the locating repeatability may exceed 0.01

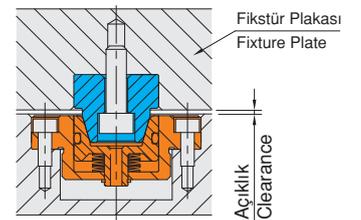
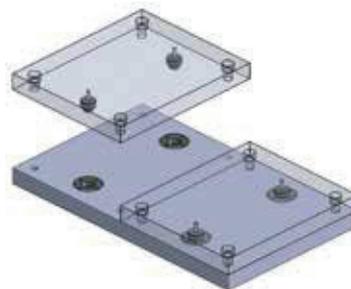
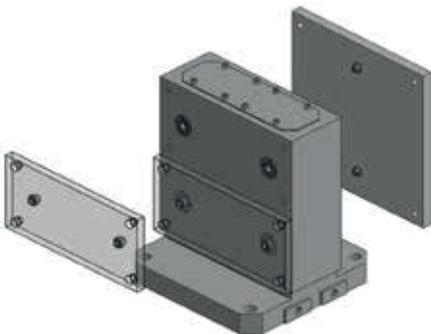


Montaj Detayı / Mounting Details

| Referans Nr. | d (H7) | H4 (±0.05) | d1 | H3 | M |
|--------------|--------|------------|----|----|--------|
| 1489-16032 | 32 | 7 | 21 | 18 | M3x0.5 |
| 1489-25050 | 50 | 10.5 | 33 | 24 | M4x0.7 |
| 1489-38070 | 70 | 15.5 | 49 | 35 | M5x0.8 |
| 1489-56095 | 95 | 22.5 | 71 | 51 | M6x1.0 |



Uygulama Örneği / Application Example

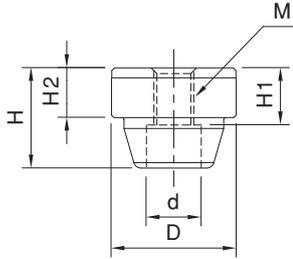


| Referans Nr. | D (g6) | H2 | H | M | H1 | d | (g) |
|--------------|--------|-----|------|----------|------|----|-----|
| 1489-16032 | 16 | 5.5 | 11.5 | M5x0.80 | 6 | 8 | 18 |
| 1489-25050 | 25 | 10 | 20 | M8x1.25 | 11.5 | 11 | 49 |
| 1489-38070 | 38 | 15 | 29.5 | M10x1.50 | 18 | 14 | 176 |
| 1489-56095 | 56 | 22 | 43.5 | M16x2.00 | 28.5 | 20 | 569 |



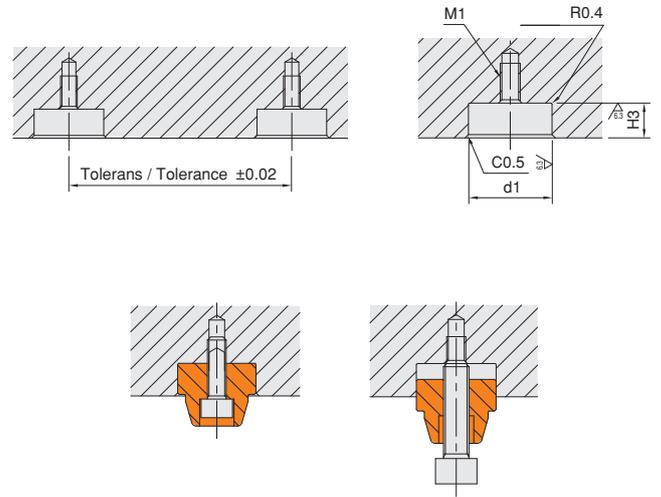
Ürün Nr. 1489 Konumlama Pimi

Product Nr. 1489 Positioning Pin



Montaj Detayı / Mounting Details

| Referans Nr. | d1 (H7) | H3 (±0.05) | M1 |
|--------------|---------|------------|----------|
| 1489-16032 | 16 | 6 | M4x0.7 |
| 1489-25050 | 25 | 10.5 | M6x1.00 |
| 1489-38070 | 38 | 15.5 | M8x1.25 |
| 1489-56095 | 56 | 22.5 | M12x1.75 |



Konumlama Pimi Kapağı

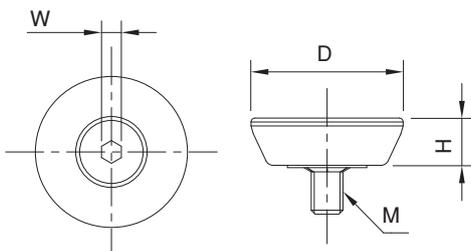
Positioning Pin Cover

| Referans Nr. | D | H | M | W | (g) |
|--------------|----|---|--------|-----|-----|
| 1489-16032P | 12 | 4 | M3x0.5 | 2 | 3 |
| 1489-25050P | 19 | 6 | M4x0.7 | 2.5 | 5 |
| 1489-38070P | 29 | 7 | M5x0.8 | 3 | 14 |
| 1489-56095P | 44 | 8 | M6x1.0 | 4 | 35 |

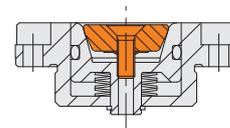


Ürün Nr. 1489 Konumlama Pimi Kapağı

Product Nr. 1489 Positioning Pin Cover



Montaj Detayı / Mounting Details



| Referans Nr. | D | H | H1 | M | Kaldırma Kuvveti Lifting Force (N) | (g) |
|--------------|--|----|----|----------|---------------------------------------|-----|
| 1489-12025A | 25 ^{+0.028} / _{+0.018} | 16 | 8 | M8x1.25 | 540 | 46 |
| 1489-15032A | 32 ^{+0.031} / _{+0.021} | 20 | 9 | M10x1.50 | 600 | 92 |
| 1489-20045A | 45 ^{+0.031} / _{+0.021} | 26 | 11 | M14x1.50 | 780 | 230 |

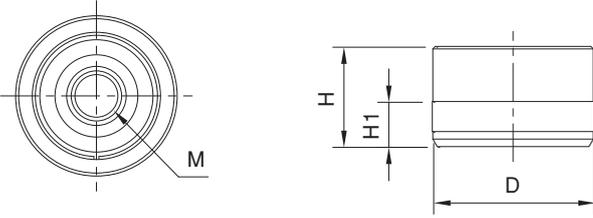


Ürün Nr. 1489 Konumlama Burcu (Açık)

- Kaldırma kuvveti hareketli konik burcu yukarı itmek için yay kuvvetini kullanır.(N)
- Vidalar doğru sırayla sıkılmadığında tekrarlanabilirlik 0.01 aşabilir.
- Toplam yük, maksimum yük kapasitesini aşıyorsa, tekrarlanabilirlik 0.01 aşabilir.

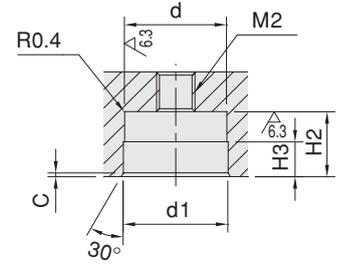
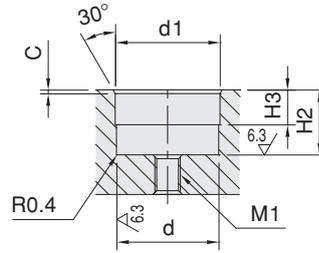
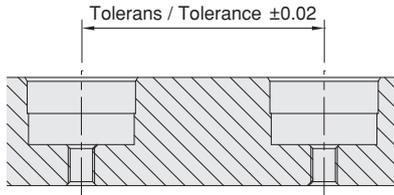
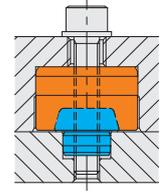
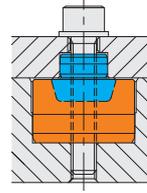
Product Nr. 1489 Flex Locator Bushings (Through)

- The lifting force is the power of the inner spring of the body to push up the movable tapered bushing.(N)
- If the screws are not tightened in the correct order, the locating repeatability may exceed 0.01
- If the total load exceeds the maximum loading capacity, the locating repeatability may exceed 0.01

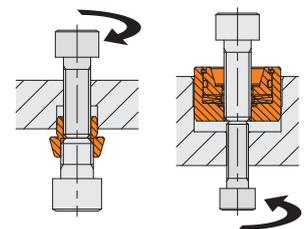
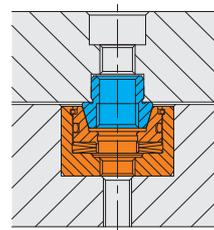
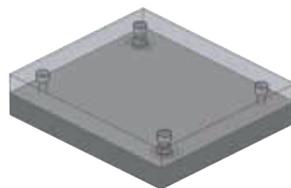
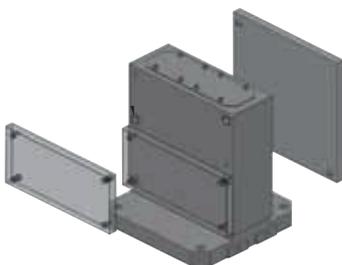


Montaj Detayı / Mounting Details

| Referans Nr. | d (H6) | H2 (±0.05) | d1 | H3 | M1 | M2 |
|--------------|--------|------------|------|----|----------|----------|
| 1489-12025 | 25 | 16.5 | 25.2 | 8 | M6x1.00 | M10x1.50 |
| 1489-15032 | 32 | 20.5 | 32.2 | 11 | M8x1.25 | M12x1.75 |
| 1489-20045 | 45 | 26.5 | 45.2 | 15 | M12x1.75 | M16x2.00 |



Uygulama Örneği / Application Example

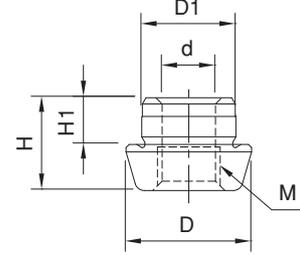


| Referans Nr. | D1 (p6) | H1 | D | H | M | d |  |
|--------------|---------|-----|----|----|----------|------|---|
| 1489-12025 | 12 | 4.5 | 15 | 10 | M10x1.50 | 8.5 | 6 |
| 1489-15032 | 15 | 7.5 | 20 | 15 | M12x1.75 | 10.2 | 16 |
| 1489-20045 | 20 | 10 | 30 | 20 | M16x2.00 | 14 | 47 |



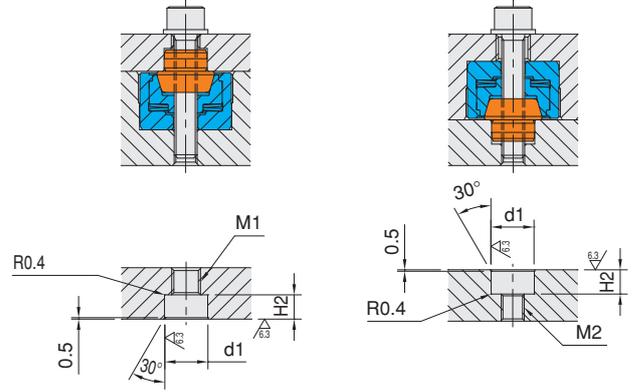
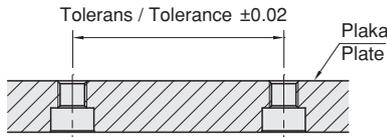
Ürün Nr. 1489 Konumlama Pimi

Product Nr. 1489 Positioning Pin



Montaj Detayı / Mounting Details

| Referans Nr. | d (H6) | H2 | M1 | M2 |
|--------------|--------|-----|----------|----------|
| 1489-12025 | 12 | 5.5 | M8x1.25 | M6x1.00 |
| 1489-15032 | 15 | 8.5 | M10x1.50 | M8x1.25 |
| 1489-20045 | 20 | 11 | M14x1.50 | M12x1.75 |



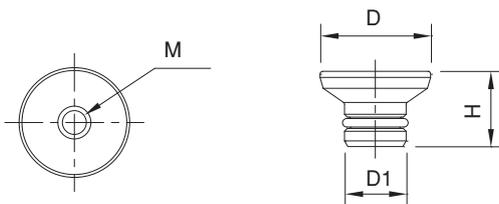
| Referans Nr. | D | H | D1 | M |  |
|--------------|----|----|----|--------|---|
| 1489-12025P | 15 | 10 | 9 | M4x0.7 | 2 |
| 1489-15032P | 19 | 13 | 11 | M5x0.8 | 5 |
| 1489-20045P | 29 | 18 | 16 | M6x1.0 | 17 |

Ürün Nr. 1489 Konumlama Pimi Kapağı

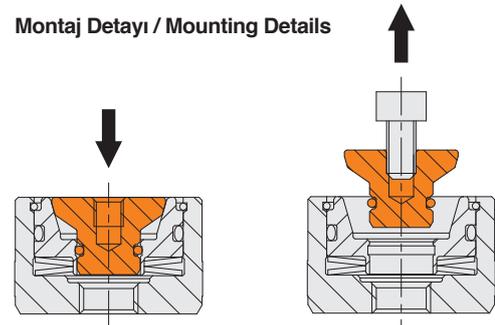
Product Nr. 1489 Positioning Pin Cover

Konumlama Pimi Kapağı

Positioning Pin Cover



Montaj Detayı / Mounting Details



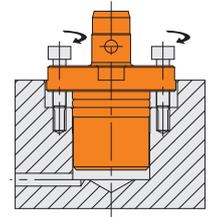
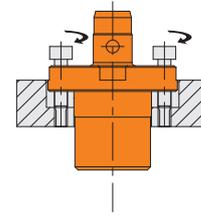
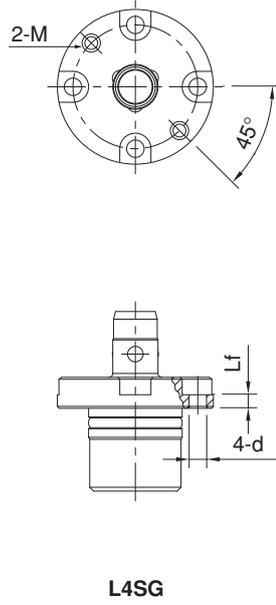
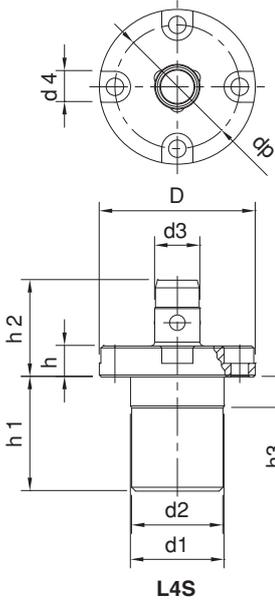
| Referans Nr. | d1 g6 | h3 | d2 | h1 | D | h | d3 (h8) | h2 | d | Lf | d4 | dp | M | Hava Basıncı Air Pressure (MPa) | Sıkma Kuvveti Clamping Force (N) | (g) |
|--------------|-------|-----|------|------|----|-----|---------|----|-----|-----|-----|----|--------|---------------------------------------|--|-----|
| 1489-18L4S | 24 | 8 | 23.4 | 29.5 | 40 | 8 | 12 | 11 | 4.5 | 3.5 | 8 | 32 | - | 0.5 | 250 | 154 |
| 1489-26L4S | 32 | 8.5 | 31.4 | 31.7 | 51 | 9.5 | 16 | 16 | 5.5 | 4 | 9.5 | 41 | - | 0.5 | 350 | 289 |
| 1489-18L4SG | 24 | 8 | 23.4 | 29.5 | 40 | 8 | 12 | 11 | 4.5 | 3.5 | 8 | 32 | M4x0.7 | 0.5 | 250 | 136 |
| 1489-26L4SG | 32 | 8.5 | 31.4 | 31.7 | 51 | 9.5 | 16 | 16 | 5.5 | 4 | 9.5 | 41 | M5x0.8 | 0.5 | 350 | 252 |

Ürün Nr. 1489 Pnömatik Bağlama

- Nikel Kaplama
- Tekrarlama Hassasiyeti $\pm 10\mu\text{m}$

Product Nr. 1489 Pneumatic Clamp

- Nickel Coating
- Repeat Accuracy $\pm 10\mu\text{m}$


Pnömatik Bağlama Burç

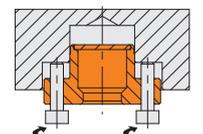
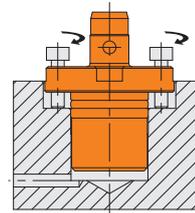
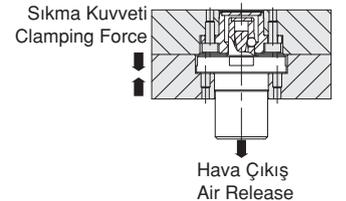
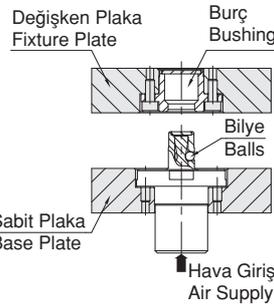
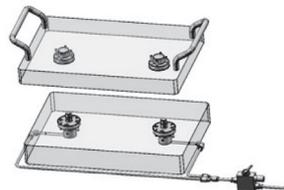
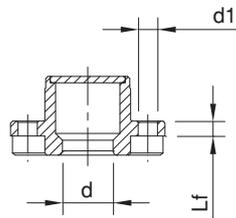
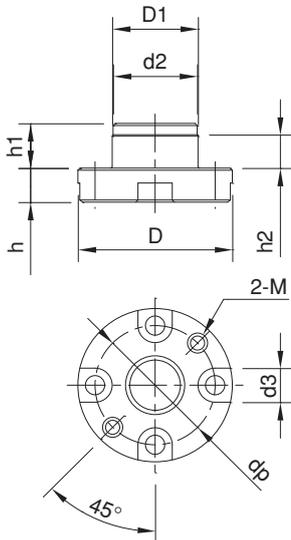
| Referans Nr. | D1 g6 | h2 | d2 | h1 | D | h | d e7 | d1 | Lf | d3 | M | dp | (g) |
|--------------|-------|-----|------|------|----|-----|------|-----|-----|-----|--------|----|-----|
| 1489-18BU | 20 | 7.5 | 19.6 | 10.5 | 36 | 8 | 12.1 | 4.5 | 3.5 | 8 | M4x0.7 | 28 | 57 |
| 1489-26BU | 25 | 7 | 24.6 | 11 | 44 | 9.5 | 16.1 | 5.5 | 4 | 9.5 | M5x0.8 | 34 | 97 |

Ürün Nr. 1489 Pnömatik Bağlama Burç

- Nikel Kaplama
- Tekrarlama Hassasiyeti $\pm 10\mu\text{m}$

Product Nr. 1489 Pneumatic Clamping Bush

- Nickel Coating
- Repeat Accuracy $\pm 10\mu\text{m}$

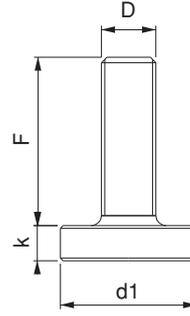


DESTEKLER

SUPPORTS



| Referans Nr. | D x F | d1 | k |  |
|--------------|---------|----|----|---|
| 1490-08032 | M8x32 | 25 | 8 | 40 |
| 1490-10042 | M10x42 | 30 | 8 | 60 |
| 1490-12050 | M12x50 | 36 | 10 | 110 |
| 1490-12095 | M12x95 | 36 | 10 | 150 |
| 1490-16062 | M16x62 | 45 | 13 | 240 |
| 1490-16097 | M16x97 | 45 | 13 | 285 |
| 1490-16117 | M16x117 | 45 | 13 | 310 |
| 1490-20062 | M20x62 | 50 | 13 | 320 |
| 1490-20097 | M20x97 | 50 | 13 | 390 |
| 1490-20117 | M20x117 | 50 | 13 | 430 |
| 1490-24081 | M24x81 | 50 | 14 | 445 |
| 1490-24116 | M24x116 | 50 | 14 | 555 |
| 1490-30180 | M30x180 | 70 | 24 | 1650 |

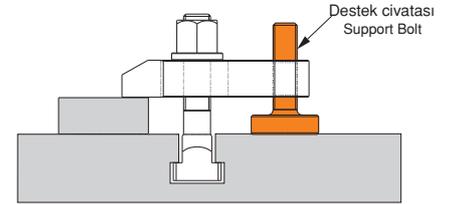


Ürün Nr. 1490 Pabuç Destek Civatası

- Siyah Kaplama

Product Nr. 1490 Clamp Support Bolt

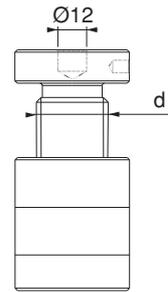
- Black Coating



| Referans Nr. |  | d |  |  |  kgf |  |
|--------------|---|---------|---|---|---|---|
| 1510-023030 | 23-30 | M16 | 34 | 32 | 1000 | 140 |
| 1510-040060 | 40-60 | M16 | 34 | 32 | 1800 | 250 |
| 1510-042052 | 42-52 | Tr 30x4 | 50 | 50 | 6000 | 570 |
| 1510-050070 | 50-70 | Tr 30x4 | 50 | 50 | 6000 | 680 |
| 1510-070100 | 70-100 | Tr 30x4 | 50 | 50 | 6000 | 960 |
| 1510-100140 | 100-140 | Tr 30x4 | 50 | 50 | 6000 | 1395 |
| 1510-140220 | 140-220 | Tr 30x4 | 54 | 54 | 6000 | 2285 |
| 1510-210330 | 210-330 | Tr 30x6 | 58 | 58 | 8000 | 3950 |
| 1510-260430 | 260-430 | Tr 30x6 | 68 | 68 | 8000 | 7250 |

Trapez Diş Yükseltici Destek

Trapeze Thread Lifter Support



Ürün Nr. 1510 Trapez Diş Yükseltici Destek

- Nr. 1510 yükselticiler DIN 6314-6315-6316 pabuçlarda yükseltici destek amaçlı kullanılır.
- Hareketli parça üstünde bulunan Ø12mm delik Referans Nr. 1555-1560-1565-1570-1575 yükselticiler üst üste ve farklı amaçlı kullanılır
- Siyah Kaplama
- Destek Civatası : Sertleştirilmiş

Product Nr. 1510 Trapeze Thread Lifter Support

- Nr.1510 Lifters are used in DIN 6314-6315-6316 clamps as the lifter support
- Hole with Ø12mm taking place on the moving part are used with the lifters with the Reference Nr.1 555-1560-1565-1570-1575 on top of each other and also used with different purpose.
- Black Coating
- Support Bolt : Hardened



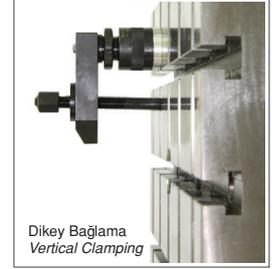
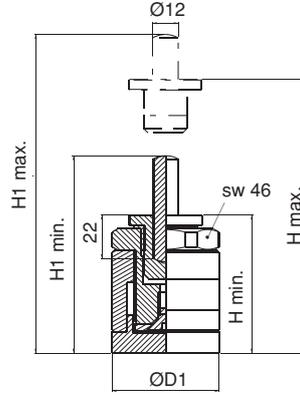
| Referans Nr. | H min. | H max. | D1 | Ø12x50 H1 min.- H1 max. | Ø12x80 H1 min.- H1 max. | ↓ Kgf | ↑ (g) |
|--------------|--------|--------|----|-------------------------------|-------------------------------|-------|-------|
| 1515-065085 | 65 | 85 | 50 | 93-113 | 123-143 | 3000 | 810 |
| 1515-085125 | 85 | 125 | 50 | 113-153 | 143-183 | 3000 | 1050 |

Ürün Nr. 1515 Manyetik Vidalı Yükseltici

- Ürün manyetik olduğundan dolayı kendi ağırlığını taşıdığı için yatay bağlamalarda özellikle enjeksiyon makinelerinde kullanım avantajı sağlar.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1515 Magnetic Screw Booster

- Because of magnetic it holds its own weight. Therefore it provides using advantage in horizontal clamping especially on injection machines.
- Hardened
- Black coating



Modüler Manyetik Yükseltici

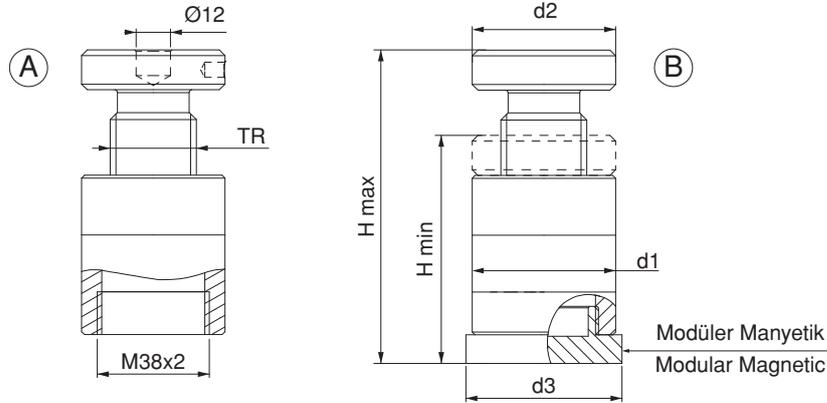
| Referans Nr. | H min-max. A | H min-max. B | TR | d1 | d2 | d3 | ↓ kgf | ↑ (g) |
|--------------|-----------------|-----------------|------|----|----|------|-------|-------|
| 1517-04262 | 42-52 | 52-62 | 30x4 | 50 | 50 | 53.5 | 6000 | 700 |
| 1517-05080 | 50-70 | 60-80 | 30x4 | 50 | 50 | 53.5 | 6000 | 770 |
| 1517-70110 | 70-100 | 80-110 | 30x4 | 50 | 50 | 53.5 | 6000 | 1050 |

Ürün Nr. 1517 Modüler Manyetik Yükseltici

- Siyah Kaplama

Product Nr. 1517 Modüler Magnetic Booster

- Black coating



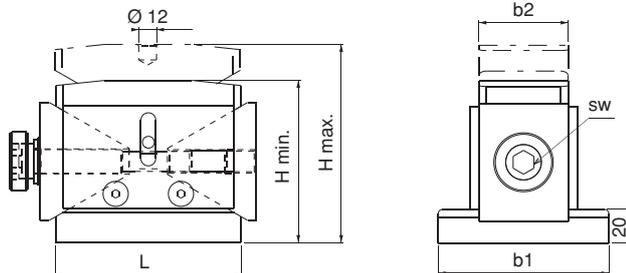
| Referans Nr. | H min. | H max. | b1 | b2 | L | sw | ↑ kgf | ↑ (g) |
|--------------|--------|--------|-----|----|-----|----|-------|-------|
| 1520-050063 | 50 | 63 | - | 40 | 63 | 8 | 4000 | 1890 |
| 1520-100125 | 100 | 125 | 115 | 60 | 125 | 14 | 10000 | 9910 |
| 1520-170190 | 170 | 190 | 145 | 80 | 175 | 22 | 25000 | 28480 |

Ürün Nr. 1520 Blok Destek

- Ürün Özellikle ağır parçaların desteklenmesi ve kaldırılması için tasarlanmıştır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1520 Support Block

- Designed for supporting and lifting of heavy work pieces
- Hardened
- Black coating



Blok Destek Support Block



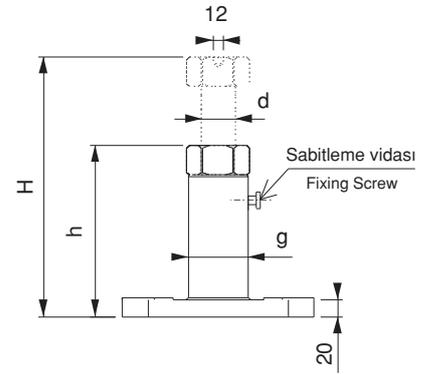
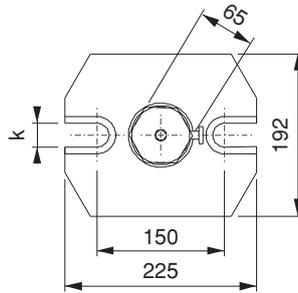
| Referans Nr. |  | d | g | k |  kgf |  (kg) |
|--------------|---|--------|----|----|---|--|
| 1530-200 | 200-300 | Tr40x7 | 69 | 28 | 8000 | 10.0 |
| 1530-280 | 280-460 | Tr40x7 | 69 | 28 | 6000 | 11.8 |
| 1530-430 | 430-750 | Tr40x7 | 69 | 28 | 5000 | 14.2 |
| 1530-710 | 710-1250 | Tr40x7 | 69 | 28 | 4000 | 20.9 |

Ürün Nr. 1530 Büyük Boy Yükseltici Destek

- Yüksek parçalarda kullanım amaçlı trapez diş yükseltici destek
- Gövde statik boyalı. Altı köşede bulunan Ø12mm delik
- Referans Nr. 1555-1560-1565-1570-1575 ürünlerle kullanıldığında farklı kullanım avantajı sağlar.

Product Nr. 1530 King Size Lifter Support

- This is a trapeze thread lifting support having the purpose of using with High Pieces.
- Body and statical painting. It provides different usage advantages when Ø12mm hole is used with 1555-1560-1565-1570-1575 reference numbered products taking place.



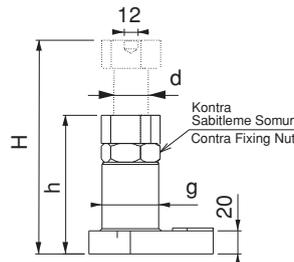
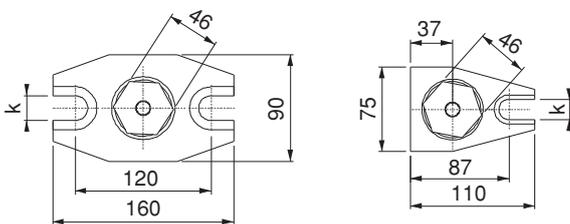
| Referans Nr. |  | d | g | k |  kgf |  (kg) |
|--------------|---|--------|----|----|---|--|
| 1550-100 | 100-140 | Tr30x6 | 49 | 18 | 6000 | 2.05 |
| 1550-140 | 140-200 | Tr30x6 | 49 | 18 | 6000 | 2.45 |
| 1550-200 | 200-320 | Tr30x6 | 49 | 22 | 4000 | 3.90 |
| 1550-320 | 320-550 | Tr30x6 | 49 | 22 | 2500 | 5.15 |

Ürün Nr. 1550 Büyük Boy Yükseltici Destek

- Yüksek parçalarda kullanım amaçlı trapez diş yükseltici destek
- Gövde statik boyalı. Altı köşede bulunan Ø12mm delik
- Referans Nr. 1555-1560-1565-1570-1575 ürünlerle kullanıldığında farklı kullanım avantajı sağlar.

Product Nr. 1530 King Size Lifter Support

- This is a trapeze thread lifting support having the purpose of using with High Pieces.
- Body and statical painting. It provides different usage advantages when Ø12mm hole is used with 1555-1560-1565-1570-1575 reference numbered products taking place.



| Referans Nr. | h | Ø d |  |
|--------------|----|-----|---|
| 1555 | 10 | 37 | 75 |

Bu ürünler Nr. 1510-1517-1530-1550 ürünler ile kullanılır
These products are used with the product Nos 1510-1517-1530-1550 taking place.

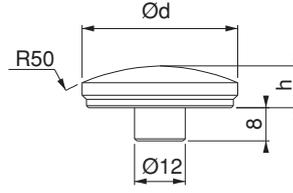
Radüslü Destek Rad-top Support

Ürün Nr. 1555 Trapez Diş Yükseltici Radüslü Destek

- Açılı yüzeylerde kullanım kolaylığı sağlar
- Siyah Kaplama

Product Nr. 1555 Trapeze Thread Lifter Rad-top Support

- This part provides usage convenience on angled surfaces
- Black Coating



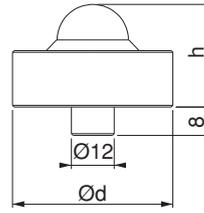
| Referans Nr. | h | Ø d |  Kgf |  |
|--------------|----|-----|---|---|
| 1560 | 25 | 45 | 3000 | 220 |

Ürün Nr. 1560 Trapez Diş Yükseltici Bilyalı Destek

- Bozuk yüzeylerde kullanım kolaylığı sağlar
- Siyah Kaplama

Product Nr. 1560 Trapeze Thread Lifter Ball Support

- This part provides usage convenience on irregular surfaces
- Black Coating



Bilyalı Destek Ball Support

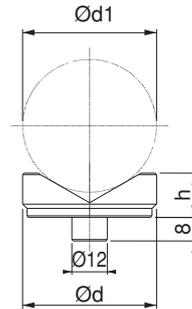
| Referans Nr. | h | Ø d | Ø d1 | |  |
|--------------|----|-----|------|-----|--|
| | | | min | max | |
| 1565 | 15 | 45 | 10 | 50 | 130 |

Ürün Nr. 1565 Trapez Diş Yükseltici V-Yatak

- Silindirik parçalarda V yatak desteği
- Siyah Kaplama

Product Nr. 1565 Trapeze Thread Lifter V-Clamping Block

- V clamping block support for cylindrical pieces
- Black Coating



V-Yatak V-Clamping Block



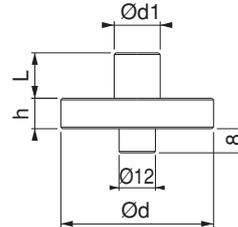
| Referans Nr. | h | Ø d | Ø d1 | L |  |
|--------------|----|-----|------|----|---|
| 1570 | 12 | 50 | 15 | 20 | 220 |

Ürün Nr. 1570 Trapez Diş Yükseltici Pimli Destek

- Şekilli parçalarda araya giderek destek sağlar
- Siyah Kaplama

Product Nr. 1570 Trapeze Thread Lifter Pin Support

- This part provides support for formed pieces by entering in between
- Black Coating



Pimli Destek Pin Support



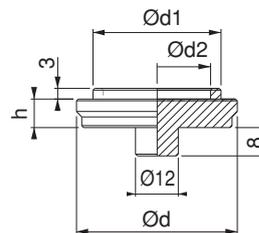
| Referans Nr. | h | Ø d | Ø d1 | Ø d2 |  |
|--------------|---|-----|------|------|---|
| 1575 | 8 | 45 | 35.8 | 30 | 105 |

Ürün Nr. 1575 TDY Ara Merkezleme Vasatı

- Trapez diş yükselticiler üst üste kullanıldığında ara merkezleme vasatı olarak kullanılır
- Siyah Kaplama

Product Nr. 1575 TDY Intermediary Centering Mean

- This part is used as Intermediary Centering Mean when used with Trapeze Thread Lifters
- Black Coating



Ara Merkezleme Vasatı Intermediary Centering Mean



| Referans Nr. | H | S | M1 | D | L | W | R | A | H2 | M | H1 | P |
|--------------|----|----|------------------------------|----|----|----|----|----|----|----|----|----|
| 1588-05001 | 24 | 5 | M 5x0.8 Derinlik / Depth 8 | 10 | 52 | 25 | 40 | 14 | 14 | M4 | 19 | 15 |
| 1588-06001 | 29 | 6 | M 6x1 Derinlik / Depth 10 | 12 | 58 | 30 | 50 | 16 | 18 | M5 | 22 | 18 |
| 1588-08001 | 37 | 8 | M 8x1.25 Derinlik / Depth 15 | 16 | 75 | 38 | 63 | 19 | 23 | M6 | 25 | 24 |
| 1588-10001 | 42 | 10 | M10x1.5 Derinlik / Depth 15 | 19 | 85 | 45 | 80 | 24 | 26 | M8 | 30 | 28 |

| Referans Nr. | L1 | L2 | L3 | Kam Kolları / Parça Numarası Cam Handles / Part Number | Kabul Edilebilir Yük Allowable Oper. Load (N)* | Destek Kapasitesi Support Capacity (kN) | Piston Yay Kuvveti Piston Spring Force (N) | Kilitleme Mekanizması Locking Mechanism |  |
|--------------|----|------|----|---|---|--|---|--|---|
| 1588-05001 | 36 | 8 | 8 | QLCA-04 | 80 | 0.5 | 0 ~ 6 | Spiral Kam / Kam Açısı: 4° | 213 |
| 1588-06001 | 39 | 9.5 | 10 | QLCA-05 | 100 | 0.7 | 0 ~ 6 | | 335 |
| 1588-08001 | 51 | 12 | 12 | QLCA-06 | 150 | 0.9 | 0 ~ 7 | Spiral Cam / Cam Angle: 4° | 738 |
| 1588-10001 | 56 | 14.5 | 15 | QLCA-08 | 200 | 1.2 | 1 ~ 11 | | 1110 |

* Kolu kullanabilmek için kabul edilebilir yük / * Allowable load to operate the handle

Ürün Nr. 1588 Pistonlu Tek Dokunuş Destek

- | | |
|---|--|
| <p>Gövde</p> <ul style="list-style-type: none"> S45C çelik Siyah oksit kaplama <p>Piston</p> <ul style="list-style-type: none"> SK95 çelik Sertleştirilmiş Siyah oksit kaplama | <p>Kilitleme Pimi</p> <ul style="list-style-type: none"> S45C çelik Sertleştirilmiş Siyah oksit kaplama <p>Kol</p> <ul style="list-style-type: none"> SCM440 çelik Sertleştirilmiş Siyah oksit kaplama |
|---|--|

Product Nr. 1588 Work Supports With Cam Handle

- | | |
|--|--|
| <p>Body</p> <ul style="list-style-type: none"> S45C steel Black oxide finish <p>Piston</p> <ul style="list-style-type: none"> SK95 steel Quenched and tempered Black oxide finish | <p>Locking Pin</p> <ul style="list-style-type: none"> S45C steel Quenched and tempered Black oxide finish <p>Handle</p> <ul style="list-style-type: none"> SCM440 steel Quenched and tempered Black oxide finish |
|--|--|

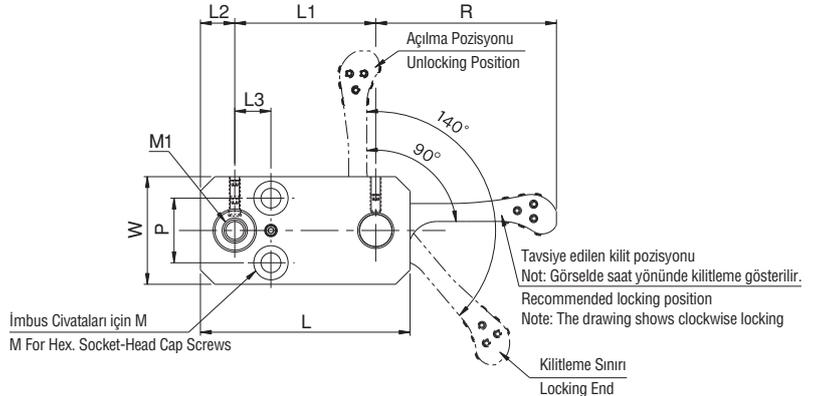
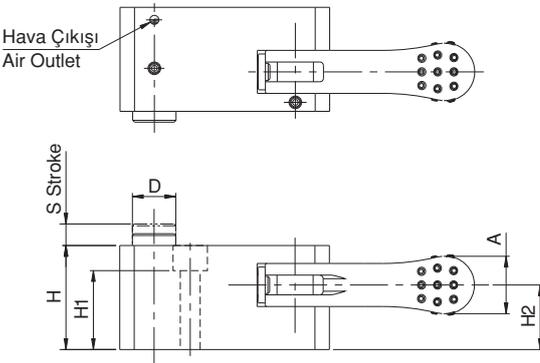


Not

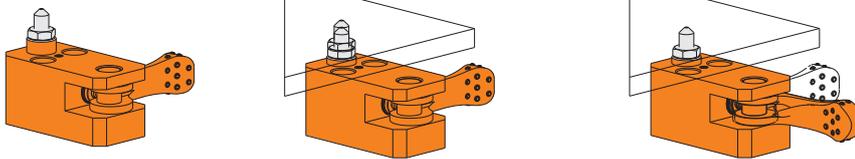
- Destek ucunu milin içinden civata yerine takınca hasarı önlemek için mili sıkıştırıp sabitleyin.

Note

- When you attach a support tip to the tapped hole through the shaft, tighten the shaft and fix it to prevent damage.



Kullanım Şekli / How To Use



1. Açık
İşparçası yüklenmemiş
1. Unlocked
No workpiece loaded

2. İşparçası Yükleme
Bir işparçası yüklendiğinde piston alçalır.
2. Workpiece Loading
Load a workpiece, and the piston lowers.

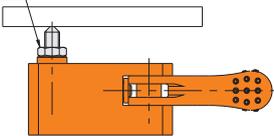
3. Kilitleme
Pistonu kilitlemek için kolu çevirin.
3. Locking
Turn the handle to lock the piston.

Özellikler / Features

Cihazın içindeki disk yayı gevşek kilitlemeyi önler. The built-in disc spring prevents loosened locking.

Kol Kilitleme Pozisyonunu Ayarlama
Adjusting Handle Locking Position

Destek Ucu / Support Tip



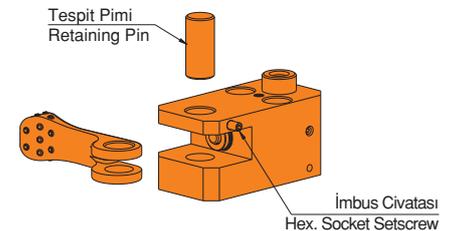
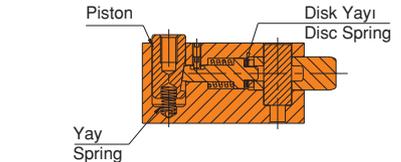
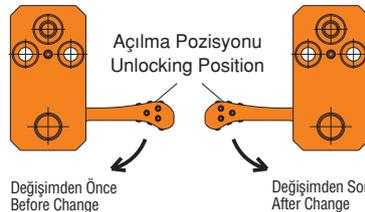
Gövdedeki projeksiyon miktarı S strockunun yarısı olunca kol önerilen kilitleme pozisyonuna gelir. Uygulamanızı destek ucunu iş parçası ile bu pozisyonda temas edecek şekilde tasarlayın.

When the projection amount from the body is 1/2 of the stroke S, the handle comes to the recommended locking position. Design your application as the support tip contacts the workpiece at this position.

Kilitleme Yönünü Değiştirme
Changing Locking Direction

Tespit pimini çıkarmak için imbus civatalarını gevşetin. Kolu başaşağı döndürüp yeniden takın.

Loosen the hex. socket setscrew to remove the retaining pin. Turn the handle upside down and put it in position again.



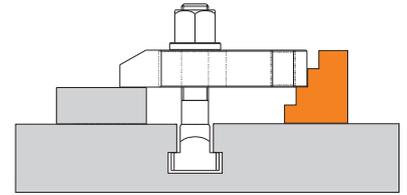
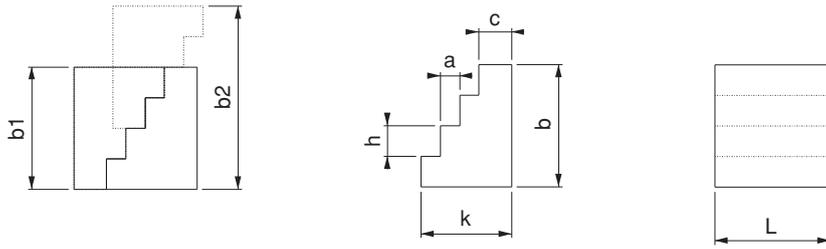
| Referans Nr. | h | a | c | k | b | L | b1 | b2 |  |
|--------------|----|----|----|----|----|----|----|-----|---|
| 1580-050 | 13 | 8 | 13 | 37 | 52 | 50 | 52 | 78 | 460 |
| 1580-060 | 16 | 10 | 17 | 47 | 64 | 60 | 64 | 96 | 860 |
| 1580-070 | 19 | 13 | 18 | 57 | 76 | 70 | 76 | 114 | 1420 |

Ürün Nr. 1580 Basamaklı Destek

- Siyah Kaplama

Product Nr. 1580 Stepped Support

- Black Coating



Merdiven Diş Kombine Destek

Serrated Thread Combined Support

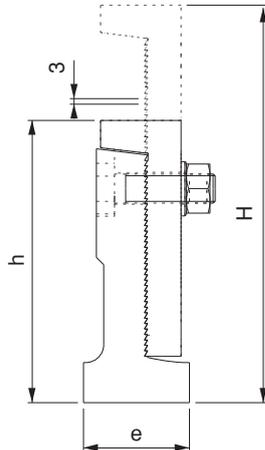
| Referans Nr. | h-H | e |  kgf |  |
|--------------|---------|-------|---|---|
| 1585-050 | 110-152 | 48x48 | 4000 | 1120 |
| 1585-060 | 155-221 | 60x58 | 5000 | 2710 |
| 1585-080 | 220-340 | 80x78 | 6000 | 6560 |

Ürün Nr. 1585 Merdiven Diş Kombine Destek

- Yükseltme aralığı (hatve) 3mm'dir
- Siyah Kaplama

Product Nr. 1585 Serrated Thread Combined Support

- Lifting gap (screw pitch) is 3 millimeters
- Black Coating



| Referans Nr. | H | S | D | D1 | M | L | W | H1 | D2 | L1 | L2 | L3 | M1 |
|--------------|----|---|----|----|--------------------------|-----|----|----|----|----|------|----|----------|
| 1588-08040 | 40 | 4 | 25 | 16 | M 8x1.25 12 Derin / Deep | 80 | 40 | 31 | 32 | 22 | 23.5 | 8 | M 8x1.25 |
| 1588-10050 | 50 | 5 | 32 | 20 | M10x1.5 15 Derin / Deep | 95 | 50 | 39 | 40 | 25 | 28 | 9 | M10x1.5 |
| 1588-12060 | 60 | 6 | 38 | 24 | M12x1.75 18 Derin / Deep | 115 | 60 | 47 | 50 | 32 | 35.5 | 12 | M12x1.75 |

| Referans Nr. | H2 | d | P | P1 | L4 | M2 | Kaldırma Kuvveti (N) Lifting Force (N) | Kabul Edilebilir Cıvata Torku Allowable Screw Torque (N*m) | Yük Kapasite Load Capacity (N) | (kg) |
|--------------|----|-----|----|----|----|--------|---|---|-----------------------------------|------|
| 1588-08040 | 18 | 5.5 | 40 | 25 | 10 | M4x0.7 | 700 | 1 | 8,000 | 0.82 |
| 1588-10050 | 23 | 6.5 | 50 | 30 | 15 | M5x0.8 | 800 | 1.5 | 12,800 | 1.52 |
| 1588-12060 | 28 | 9 | 60 | 40 | 15 | M5x0.8 | 900 | 2 | 18,500 | 2.67 |

Ürün Nr. 1588 Ayarlanabilir Yükseltici Destek

Product Nr. 1588 Extendable Work Supports



Gövde

- S45C çelik
- Siyah oksit kaplama

Mil

- S45C çelik
- Sertleştirilmiş
- Siyah oksit kaplama

Body

- S45C steel
- Black oxide finish

Spindle

- S45C steel
- Quenched and tempered
- Black oxide finish

Piston & Kilitleme Pimi

- SK95 çelik
- Sertleştirilmiş
- Siyah oksit kaplama

Tokmak

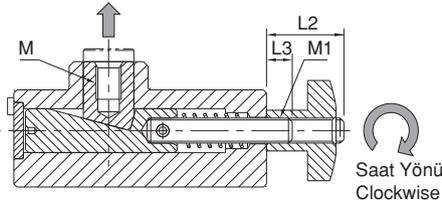
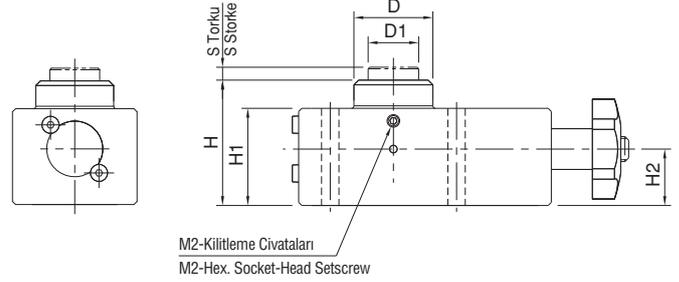
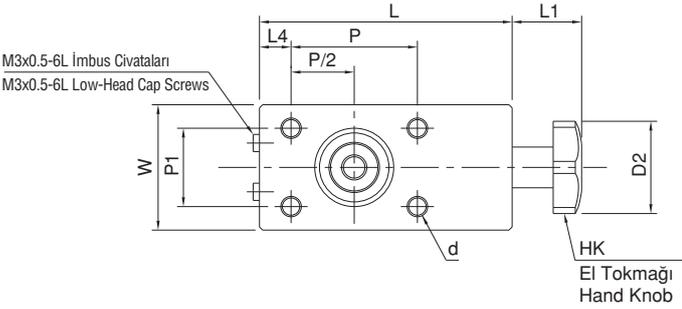
- FC200 döküm
- Krom Kaplama

Piston & Locking Pin

- SK95 steel
- Quenched and tempered
- Black oxide finish

Knob

- FC200 cast iron
- Chrome plated



Sabitleme pimini kaldırmak için tokmağı saat yönünde döndürün.
Sabitleme pimini indirmek için tokmağı saat yönünün tersine döndürüp sabitleme pimini itin.

Turn the hand knob clockwise to raise the locking pin.
Turn the hand knob counterclockwise and push the locking pin to lower the locking pin.

Kullanım Şekli / How To Use

Geleneksel Metod

- Anahtar kullanarak ağır yükseklik ayarı
- Kısıtlı yerleşme alanı

Conventional Method

- Cumbersome height adjustment with a wrench
- Limited positioning area

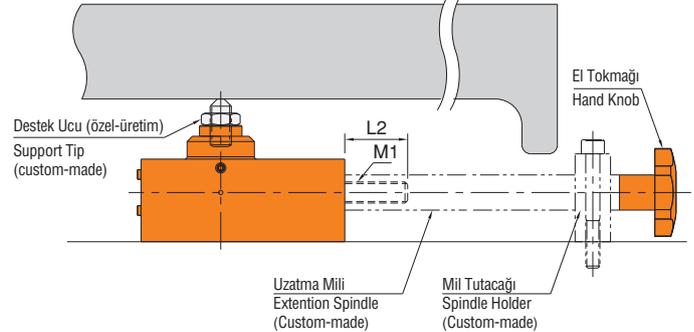
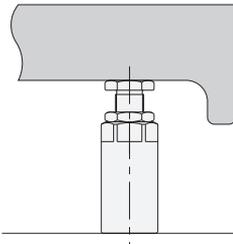


Uzatılabilir İş Desteği Metodu

- El Tokmağı kullanarak kolay yükseklik ayarı
- Esnek yerleşme alanı

Extendable Work Support Method

- Easy height adjustment with a hand knob
- Flexible positioning



- Uzatma mili takmak parçanın yüksekliğini kolayca değiştirmeyi sağlar.
- Yukarıdaki tabloda belirtildiği gibi bağlantı için kullanılan uzatma mili için bir civata deliği sağlayın.
- Connecting an extension spindle allows adjusting the part height with ease.
- Provide a tapped hole for the extension spindle for connection, as specified in chart above.

| Referans Nr. | H | M1 | D | L | W | W1 | L1 | M | Dp | L2 | H1 | H2 | d |
|--------------|----|---------------------------|----|-----|----|----|----|-----|----|----|----|----|---|
| 1588-PTNS112 | 57 | M12x1.75 Derin / Depth 24 | 26 | 90 | 62 | 32 | 32 | M8 | 50 | 35 | 48 | 40 | 6 |
| 1588-PTNS116 | 72 | M16x2.00 Derin / Depth 32 | 33 | 115 | 75 | 35 | 42 | M10 | 60 | 42 | 61 | 50 | 8 |

| Referans Nr. | P | L3 | H3 | Kabul Edilebilir Sıkma Torku (N.m)* Allowable Tightening Torque (N.m)* | Destek Kapasitesi Support Capacity (kN)* | Piston Yay Kuvveti Piston Spring Force (N) | (kg) |
|--------------|----|----|----|---|---|---|------|
| 1588-PTNS112 | 36 | 35 | 12 | 40 | 5 | 15~30 | 2.4 |
| 1588-PTNS116 | 48 | 45 | 16 | 80 | 10 | 15~35 | 4.8 |

* Darbeli Anahtarla kullanmak için kabul edilebilir sıkma torku ve destek kapasitesinin %50'sinden azını kullanın.

* To operate with an impact wrench, use less than 50% of the allowable tightening torque and support capacity.

Ürün Nr. 1588 Pistonlu Ayarlı Destek

Gövde

- S50C çelik
- Siyah Oksit Kaplama

Altıgen Başlık / Sabitleme Mili

- SCM435 çelik
- Sertleştirilmiş
- Siyah Oksit Kaplama

Piston

- SK95 çelik
- Sertleştirilmiş
- Siyah Oksit Kaplama

Product Nr. 1588 Nutrunner Work Supports

Body

- S50C steel
- Black oxide finished

Hex. Head / Locking Shaft

- SCM435 steel
- Quenched and tempered
- Black oxide finished

Piston

- SK95 steel
- Quenched and tempered
- Black oxide finished

★ Kilit Nokta

İşparçasının titmesini ve sapmasını önler

Sağlanan Ürünler

PTNS1-12:

2 paralel pim, Ø6 (h7)x20L
Civata delikleri için 1 THP12 Koruyucu Tıpa

PTNS1-16:

2 paralel pim, Ø8 (h7)x25L
Civata delikleri için 1 THP16 Koruyucu Tıpa

★ Key Point

Prevent workpiece vibration and deflection.

Supplied With

PTNS1-12:

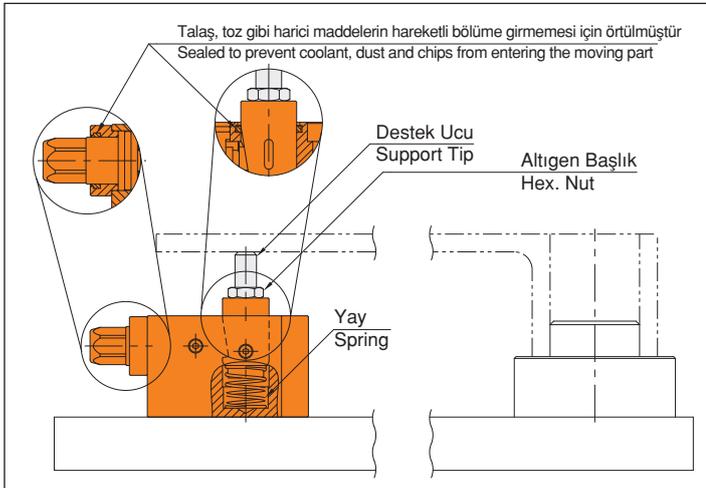
2 of parallel pin, Ø6 (h7)x20L
1 of THP12 Protection Plugs
For Tapped Holes

PTNS1-16:

2 of parallel pin, Ø8 (h7)x25L
1 of THP16 Protection Plugs
For Tapped Holes

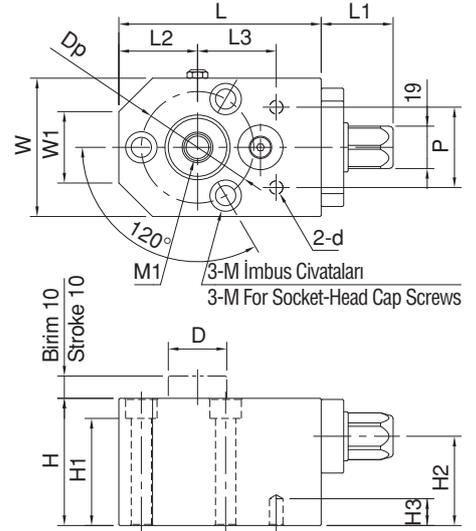
Kullanım Şekli / How To Use

- Otomatik bir üretim ağında bir somun sıkma aletiyle kullanıma uygundur.
- Bu iş desteği manuel bir şekilde de sıkılabilir.
- Ideal for use with a nut runner for automated production line.
- This work support can be also tightened manually.



- Piston bir işparçası koyunca alçalır. Altıgen başlığı döndürerek pistonu kilitleyin.
- İşparçasının titreşim sapmasını önleyin.
- Load a workpiece, and the piston lowers. Turn the hex. head to lock the piston.
- Prevent workpiece vibration and deflection.

NEW



Not

- Bu iş desteği bir darbeli ahantar ile kullanılabilir. Darbeli anahtar torku ayarlayabilmelidir.
- Pistonun civata deliğine bir destek ucu bağlarken hasarı önlemek için pistonun sıkı kalmasını sağlayın.

Note

- This work support can be operated with an impact wrench. Be sure to use an impact wrench that can set the torque.
- When attaching a support tip to the tapped hole of the piston, keep the piston tightened to prevent damage.

Özellikler

- Yüksek destek kapasitesi ağır işleme makinalarının kullanımını mümkün kılar.

Referans

- Civata delikleri için THP 12 ve THP16 Koruyucu Tıparlar
- PTRC1 Uzatma Birimi

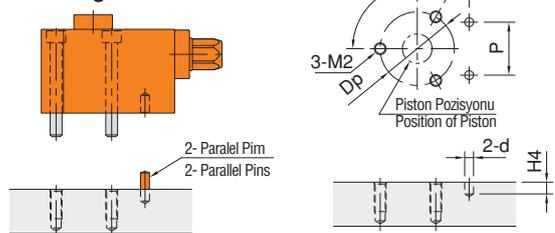
Features

- High support capacity allows heavy duty machining.

Reference

- THP12 THP16 Protection plugs for tapped holes
- PTRC1 Extension Units

Monte Deliği Boyutları Mounting Hole Dimension

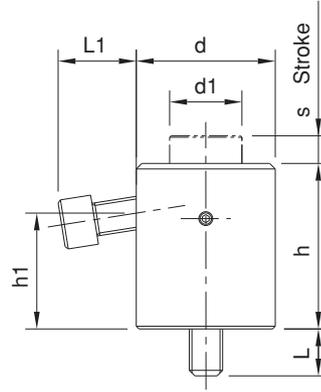
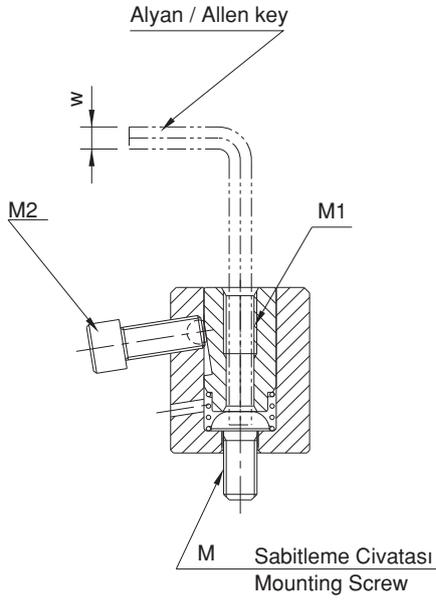


| Referans Nr. | M2 | Dp | d (+0.1) | P (±0.05) | L3 (+0.1) | H4 |
|--------------|----------|----|-------------|--------------|--------------|----|
| PTNS1-12 | M8x1.25 | 50 | 6 | 36 | 35 | 9 |
| PTNS1-16 | M10x1.50 | 60 | 8 | 48 | 45 | 10 |

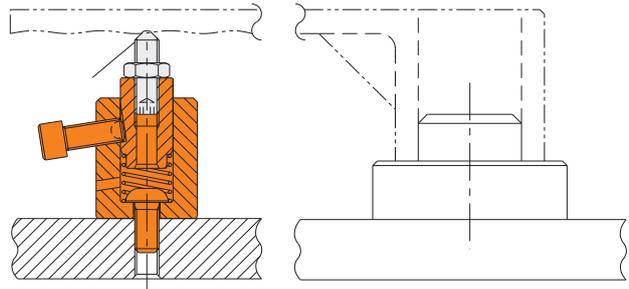
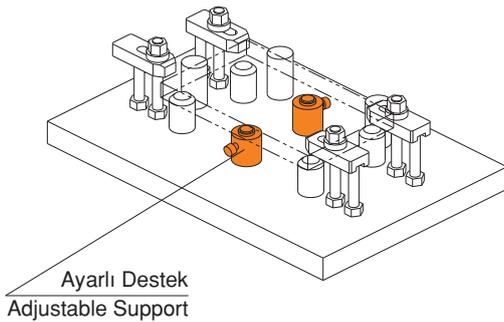
| Referans Nr. | h | s | M1 | d1 | d | M | L | w | h1 | L1 | M2 | İzin Verilen Vida Torku Allowable Screw Torque(Nm) | Destek Kapasitesi Support Capacity (kgf) | Piston Yay Kuvveti Piston Spring Force (N) | (g) |
|--------------|----|----|--------|----|----|-----|----|----|------|------|--------|---|---|---|-------|
| 1588-060 | 33 | 6 | M6x12 | 14 | 28 | M6 | 10 | 4 | 22 | 14.1 | M6x16 | 7.5 | 400 | 10~22 | 150 |
| 1588-080 | 42 | 10 | M8x16 | 19 | 35 | M8 | 15 | 5 | 28.5 | 18.8 | M8x20 | 14 | 600 | 10~27 | 300 |
| 1588-100 | 50 | 10 | M10x20 | 22 | 42 | M10 | 14 | 6 | 34 | 23.8 | M10x25 | 18 | 750 | 14~28 | 540 |
| 1588-120 | 60 | 10 | M12x24 | 26 | 50 | M12 | 17 | 8 | 42 | 28.5 | M12x30 | 22 | 900 | 15~30 | 865 |
| 1588-160 | 70 | 10 | M16x32 | 33 | 60 | M16 | 22 | 10 | 47 | 26.5 | M12x30 | 25 | 900 | 15~35 | 1.390 |

Ürün Nr. 1588 Ayarlı Destek
• Siyah kaplama

Product Nr. 1588 Adjustable Support
• Black coating



Uygulama Örneği / Application Example



CİVATALAR

BOLTS



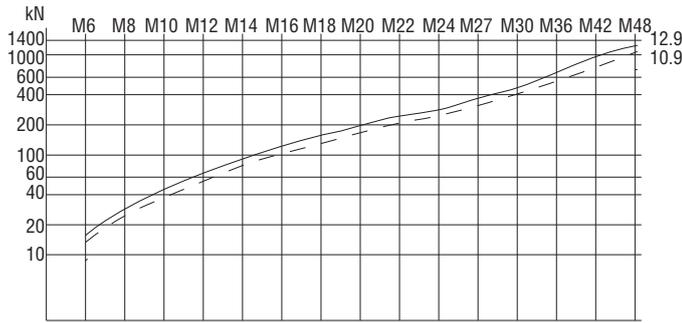
| | Kalite Dayanım Sınıfları Quality Strength Classes | | |
|---|--|------|------|
| | 10 | 10.9 | 12.9 |
| DIN 787  | - | - | X |
| DIN 6379  | - | X | - |
| DIN 6330B DIN 6331 Nr. 1830  | X | - | - |
| Sembol gerilme mukavemeti [N/mm ²] Nominal tensile strength [N/mm ²] | 1000 | 1000 | 1200 |
| Minimum akma noktası [N/mm ²] Minimum yield point [N/mm ²] | - | 900 | 1080 |

Çizelge Özelliklerinin Açıklanması:

- **İzin Verilen Civata Yükü** : Maksimum gerilim yükü ve vida hesabı alınarak vurgu yapıldı. Aktif kuvvetler, akma noktası, sadece güvenlik için %80 kullanılır.
- **İzin Verilen Ön Gerilme Kuvveti** : Yük, vida ve somun uygulamasında, tablodaki rakamların sürtünmeye karşılık, itme yüzeyleri ve parçanın $\mu = 0,14$ sürtünme kat sayısı geçerlidir.
- **İzin Verilen Ön Gerilme Kuvveti Yağlı Hesaplama** : Yük, vida ve somun uygulamasında, parçanın $\mu = 0,1$ sürtünme kat sayısı hesaplanmalıdır.

Explanation Of Table Characteristics:

- **Permissible Bolt Load** : is the maximum tension load, the screw can be stressed with taking into account all active forces. The yield point is only utilized to 80% for safety.
- **Permissible Pre-stress Force** : is the load, the screw can be pre-stressed at most, when tightening the matching nut. Figures of table are valid for a friction of $\mu = 0,14$ in thrust faces and thread, corresponding to the friction of greased medium faces.
- **Allowed pretension with oil calculation** : At an application with screws and nuts, the load must be calculated with a $\mu = 0,1$ frictional factor of the workpiece.



Standart Anahtar İle Öngerilme Kuvveti
Pre-stress Force With Standard Spanner

Civata ve Somun İçin Mukavemet 10.9 ve 12.9 Kalite ve Momentleri / Strength Figures And Torques For Bolts And Nuts:

| Diş / Threads | Kalite Quality | M6 | M8 | M10 | M12 | M14 | M16 | M18 | M20 | M22 | M24 | M27 | M30 | M36 | M42 | M48 | |
|---|-------------------|---------|-------|--------|--------|-----|--------|------|--------|------|--------|-----|--------|--------|--------|---------|---|
| Hatve / Pitch of thread | mm | 1 | 1.25 | 1.50 | 1.75 | 2 | 2 | 2.50 | 2.50 | 2.50 | 3 | 3 | 3.50 | 4 | 4.50 | 5 | |
| Somun / Nuts | | | | | | | | | | | | | | | | | |
| Sertlik / Hardness DIN 6330 / 6331 / 6334 | HRC | 10 | 28-32 | | | | | | | | | | | | | | |
| Test Kuvveti (AS x Sp) Test force DIN EN 20898-2 | kN | 10 | 20.9 | 38.1 | 60 | 88 | 121 | 165 | 203 | 260 | 321 | 374 | 486 | 595 | 866 | - | - |
| "T" Pabuç DIN 508 / Nr. 1710 Nuts for T-Slots DIN 508 / Nr. 1710 | | | | | | | | | | | | | | | | | |
| Ölçü / Size | | M6x8 | M8x10 | M10x12 | M12x14 | - | M16x18 | - | M20x22 | - | M24x28 | - | M30x36 | M36x42 | M42x48 | M48x54 | |
| Sertlik / Hardness | HRC | 22 - 30 | | | | | | | | | | | | | | | |
| Test Kuvveti / Test Force | kN | 16 | 29 | 46 | 67 | - | 128 | - | 196 | - | 282 | - | 448 | 653 | 653 | 653 | |
| Civata / Bolts | | | | | | | | | | | | | | | | | |
| Sertlik / Hardness | HRC | 10.9 | | | | | | | | | | | | | | 32 - 39 | |
| | | 12.9 | | | | | | | | | | | | | | 39 - 44 | |

Sıkma Verileri / Tightening Data

| Minimum Kırılma Kuvveti Minimum Breaking Force (AS x Rm) | kN | 10.9 | 21 | 38 | 60 | 88 | (120) | (163) | (200) | (255) | (315) | (367) | (477) | (583) | (850) | (1165) | (1531) | |
|--|--|------|------|---------------------|------|-----------------------|-------|--------------------------|-------|--|-------|-------|-------|-------|-------|--------|--------|--------|
| | | 12.9 | (24) | (45) | 71 | 103 | (140) | 192 | (234) | 299 | (370) | 431 | (560) | (684) | (997) | (1367) | (1797) | |
| İzin verilen civata yükü max. Verim noktası % 80 | Permissible bolt load max. 80% of yield point | kN | 10.9 | 14 | 27 | 43 | 63 | 86 | 118 | 144 | 184 | 228 | 265 | 345 | 421 | 614 | 843 | 1107 |
| | | | 12.9 | 17 | 32 | 51 | 74 | 101 | 138 | 169 | 215 | 266 | 310 | 404 | 493 | 719 | 986 | 1296 |
| (X Sp AS) Test kuvveti DIN ISO 898, bölüm 1 | Test force (AS x Sp) to DIN EN ISO 898, part 1 | kN | 10.9 | 17 | 30 | 48 | 70 | (96) | (130) | (159) | (203) | (252) | (293) | (381) | (466) | (678) | (930) | (1222) |
| | | | 12.9 | (20) | (35) | 56 | 82 | (112) | 152 | (186) | 238 | (294) | 342 | (445) | (544) | (792) | (1087) | (1428) |
| İzin verilen ön gerilme kuvveti max. Verim % 90 Nokta ve sürtünme $\mu = 0,14$ | Permissible pre-stress force max. 90% of yield Point and friction $\mu = 0,14$ | kN | 10.9 | 13 | 25 | 38 | 55 | 77 | 107 | 130 | 167 | 208 | 240 | 315 | 384 | 561 | 773 | 1018 |
| | | | 12.9 | 15 | 29 | 44 | 65 | 91 | 125 | 152 | 196 | 243 | 281 | 369 | 449 | 657 | 904 | 1191 |
| Gerilme öncesi müsadde edilen tork değeri Kuvvet ve sürtünme $\mu = 0,14$ | Required torque for permissible pre-stress Force and friction $\mu = 0,14$ | Nm | 10.9 | 14 | 36 | 67 | 120 | 191 | 302 | 405 | 580 | 772 | 994 | 1455 | 1930 | 3378 | 5415 | 8162 |
| | | | 12.9 | 17 | 43 | 79 | 141 | 223 | 354 | 474 | 679 | 903 | 1163 | 1703 | 2258 | 3953 | 6337 | 9571 |
| Müsadde edilen kol uzunluğu ön gerilme kuvveti | Required length for lever to achieve permissible pre-stress force | mm | 10.9 | 42 | 90 | 175 | 300 | 450 | 700 | 920 | 1200 | 1560 | - | - | - | - | - | - |
| | | | 12.9 | 51 | 110 | 210 | 360 | 550 | 830 | 1100 | 1470 | 1860 | - | - | - | - | - | - |
| Standart anahtar ile tork değeri elde etmek mümkündür | Possible torque to obtain with standard spanner, resulting | Nm | - | 60 | 80 | 90 | 100 | 110 | 125 | 140 | 150 | 170 | 185 | 225 | 240 | 300 | 330 | 410 |
| Öngerilme kuvveti | Pre-stress force | kN | - | 54 | 53 | 48 | 43 | 43 | 43 | 43 | 42 | 42 | 43 | 45 | 43 | 45 | 46 | 50 |
| Bu öngerilme kuvveti ile tehlikesi var | With this pre-stress force there is danger of | | 10.9 | Kırılma breakage | | kalıcı deformasyon | | permanent deformation | | hareket kuvvetinin başlangıcında bağlama ünitesinin gevşemesi loosening of clamping unit at start of motive force | | | | | | | | |
| | | | 12.9 | | | | | | | | | | | | | | | |

As = Sembolik kesit mm²
As = Nominal cross section in mm²

Sp = Min. N / mm² cinsinden sıkma kuvveti
Sp = min. Clamping force in N/mm²

Rm = Min. N/mm² yük faktörü
Rm = min. load factor in N/mm²

μ = sürtünme
 μ = friction

| Referans Nr. | dx | x L | b | a | e | k | Sıkma Verileri Tightening Data | | |
|--------------|--------|------|-----|------|----|----|-----------------------------------|-----|-----|
| | | | | | | | Nm | kN | |
| 1590-0606025 | | x25 | 15 | | | | | | 8 |
| 1590-0606040 | M6x6 | x40 | 28 | 5.7 | 10 | 4 | 17 | 17 | 11 |
| 1590-0606063 | | x63 | 40 | | | | | | 15 |
| 1590-0808032 | | x32 | 22 | | | | | | 13 |
| 1590-0808050 | M8x8 | x50 | 35 | 7.7 | 12 | 6 | 43 | 32 | 16 |
| 1590-0808080 | | x80 | 50 | | | | | | 20 |
| 1590-1010040 | | x40 | 23 | | | | | | 35 |
| 1590-1010063 | M10x10 | x63 | 45 | 9.7 | 15 | 6 | 79 | 51 | 45 |
| 1590-1010080 | | x80 | 50 | | | | | | 60 |
| 1590-1010100 | | x100 | 60 | | | | | | 70 |
| 1590-1012050 | | x50 | 35 | | | | | | 50 |
| 1590-1012063 | | x63 | 40 | | | | | | 60 |
| 1590-1012080 | | x80 | 55 | | | | | | 65 |
| 1590-1012100 | M10x12 | x100 | 60 | 11.7 | 18 | 7 | 79 | 51 | 75 |
| 1590-1012125 | | x125 | 75 | | | | | | 90 |
| 1590-1012160 | | x160 | 90 | | | | | | 105 |
| 1590-1012200 | | x200 | 120 | | | | | | 120 |
| 1590-1212050 | | x50 | 35 | | | | | | 65 |
| 1590-1212063 | | x63 | 40 | | | | | | 70 |
| 1590-1212080 | | x80 | 55 | | | | | | 80 |
| 1590-1212100 | M12x12 | x100 | 65 | 11.7 | 18 | 7 | 141 | 74 | 100 |
| 1590-1212125 | | x125 | 75 | | | | | | 110 |
| 1590-1212160 | | x160 | 100 | | | | | | 140 |
| 1590-1212200 | | x200 | 120 | | | | | | 160 |
| 1590-1214050 | | x50 | 35 | | | | | | 80 |
| 1590-1214063 | | x63 | 45 | | | | | | 90 |
| 1590-1214080 | | x80 | 55 | | | | | | 100 |
| 1590-1214100 | M12x14 | x100 | 65 | 13.7 | 22 | 8 | 141 | 74 | 110 |
| 1590-1214125 | | x125 | 75 | | | | | | 135 |
| 1590-1214160 | | x160 | 100 | | | | | | 160 |
| 1590-1214200 | | x200 | 120 | | | | | | 180 |
| 1590-1416063 | | x63 | 45 | | | | | | 115 |
| 1590-1416080 | | x80 | 55 | | | | | | 140 |
| 1590-1416100 | | x100 | 65 | | | | | | 160 |
| 1590-1416125 | M14x16 | x125 | 75 | 15.7 | 25 | 9 | 223 | 101 | 180 |
| 1590-1416160 | | x160 | 100 | | | | | | 220 |
| 1590-1416200 | | x200 | 120 | | | | | | 255 |
| 1590-1416250 | | x250 | 150 | | | | | | 300 |
| 1590-1616063 | | x63 | 45 | | | | | | 140 |
| 1590-1616080 | | x80 | 55 | | | | | | 160 |
| 1590-1616100 | | x100 | 65 | | | | | | 190 |
| 1590-1616125 | M16x16 | x125 | 85 | 15.7 | 25 | 9 | 354 | 138 | 225 |
| 1590-1616160 | | x160 | 100 | | | | | | 270 |
| 1590-1616200 | | x200 | 120 | | | | | | 315 |
| 1590-1616250 | | x250 | 150 | | | | | | 380 |
| 1590-1618063 | | x63 | 45 | | | | | | 170 |
| 1590-1618080 | | x80 | 55 | | | | | | 185 |
| 1590-1618100 | | x100 | 65 | | | | | | 220 |
| 1590-1618125 | M16x18 | x125 | 85 | 17.7 | 28 | 10 | 354 | 138 | 245 |
| 1590-1618160 | | x160 | 100 | | | | | | 295 |
| 1590-1618200 | | x200 | 120 | | | | | | 340 |
| 1590-1618250 | | x250 | 150 | | | | | | 405 |
| 1590-1820080 | | x80 | 55 | | | | | | 260 |
| 1590-1820100 | | x100 | 65 | | | | | | 290 |
| 1590-1820125 | | x125 | 85 | | | | | | 340 |
| 1590-1820160 | M18x20 | x160 | 110 | 19.7 | 32 | 12 | 474 | 169 | 390 |
| 1590-1820200 | | x200 | 125 | | | | | | 455 |
| 1590-1820250 | | x250 | 150 | | | | | | 535 |
| 1590-1820315 | | x315 | 190 | | | | | | 650 |
| 1590-2020080 | | x80 | 55 | | | | | | 300 |
| 1590-2020100 | | x100 | 65 | | | | | | 330 |
| 1590-2020125 | | x125 | 85 | | | | | | 380 |
| 1590-2020160 | M20x20 | x160 | 110 | 19.7 | 32 | 12 | 679 | 215 | 450 |
| 1590-2020200 | | x200 | 125 | | | | | | 535 |
| 1590-2020250 | | x250 | 160 | | | | | | 635 |
| 1590-2020315 | | x315 | 190 | | | | | | 760 |
| 1590-2022080 | | x80 | 55 | | | | | | 345 |
| 1590-2022100 | | x100 | 65 | | | | | | 380 |
| 1590-2022125 | | x125 | 85 | | | | | | 435 |
| 1590-2022160 | M20x22 | x160 | 110 | 21.7 | 35 | 14 | 679 | 215 | 500 |
| 1590-2022200 | | x200 | 125 | | | | | | 590 |
| 1590-2022250 | | x250 | 150 | | | | | | 695 |
| 1590-2022315 | | x315 | 190 | | | | | | 820 |

| Referans Nr. | dx | x L | b | a | e | k | Sıkma Verileri Tightening Data | | |
|--------------|--------|------|-----|------|----|----|-----------------------------------|-----|------|
| | | | | | | | Nm | kN | |
| 1590-2224080 | | x80 | 55 | | | | | | 465 |
| 1590-2224100 | | x100 | 65 | | | | | | 515 |
| 1590-2224125 | | x125 | 85 | | | | | | 580 |
| 1590-2224160 | M22x24 | x160 | 110 | 23.7 | 40 | 16 | 903 | 266 | 660 |
| 1590-2224200 | | x200 | 125 | | | | | | 775 |
| 1590-2224250 | | x250 | 150 | | | | | | 805 |
| 1590-2224315 | | x315 | 190 | | | | | | 1050 |
| 1590-2424100 | | x100 | 70 | | | | | | 550 |
| 1590-2424125 | | x125 | 85 | | | | | | 630 |
| 1590-2424160 | | x160 | 110 | | | | | | 725 |
| 1590-2424200 | M24x24 | x200 | 125 | 23.7 | 40 | 16 | 1163 | 310 | 850 |
| 1590-2424250 | | x250 | 150 | | | | | | 990 |
| 1590-2424315 | | x315 | 190 | | | | | | 1180 |
| 1590-2424400 | | x400 | 240 | | | | | | 1410 |
| 1590-2428100 | | x100 | 70 | | | | | | 660 |
| 1590-2428125 | | x125 | 85 | | | | | | 730 |
| 1590-2428160 | | x160 | 110 | | | | | | 820 |
| 1590-2428200 | M24x28 | x200 | 125 | 27.7 | 44 | 18 | 1163 | 310 | 950 |
| 1590-2428250 | | x250 | 150 | | | | | | 1090 |
| 1590-2428315 | | x315 | 190 | | | | | | 1300 |
| 1590-2428400 | | x400 | 240 | | | | | | 1530 |
| 1590-2428500 | | x500 | 290 | | | | | | 1800 |
| 1590-3036125 | | x125 | 80 | | | | | | 1280 |
| 1590-3036160 | | x160 | 110 | | | | | | 1440 |
| 1590-3036200 | M30x36 | x200 | 135 | 35.6 | 54 | 22 | 2258 | 493 | 1620 |
| 1590-3036250 | | x250 | 150 | | | | | | 1880 |
| 1590-3036315 | | x315 | 200 | | | | | | 2150 |
| 1590-3036500 | | x500 | 300 | | | | | | 3010 |
| 1590-3642160 | | x160 | 100 | | | | | | 2260 |
| 1590-3642250 | | x250 | 175 | | | | | | 2890 |
| 1590-3642400 | M36x42 | x400 | 250 | 41.6 | 65 | 26 | 3953 | 719 | 4010 |
| 1590-3642600 | | x600 | 340 | | | | | | 5900 |
| 1590-4248160 | | x160 | 100 | | | | | | 3550 |
| 1590-4248250 | M42x48 | x250 | 175 | 47.6 | 75 | 30 | 6337 | 986 | 4530 |
| 1590-4248400 | | x400 | 250 | | | | | | 6160 |

DIN 787
Ürün Nr. 1590 T-Ayaklı Saplama

- Kalite 12.9
- Siyah kaplama

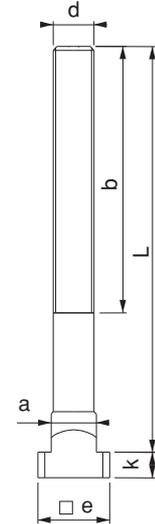
Product Nr. 1590 T-Slot Bolt

- Quality 12.9
- Black coating


 Loctite
8150

Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.



| Referans Nr. | dx | x L | b | a | e | k | Sıkma Verileri | | Tightening Data | Tightening Data |
|--------------|--------|------|-----|------|----|----|----------------|-----|-----------------|-----------------|
| | | | | | | | Nm | kN | | |
| 1610-0606025 | | x25 | 15 | | | | | | | 19 |
| 1610-0606040 | M6x6 | x40 | 28 | 5.7 | 10 | 4 | 17 | 17 | | 25 |
| 1610-0606063 | | x63 | 40 | | | | | | | 36 |
| 1610-0808032 | | x32 | 22 | | | | | | | 39 |
| 1610-0808050 | M8x8 | x50 | 35 | 7.7 | 12 | 6 | 43 | 32 | | 45 |
| 1610-0808080 | | x80 | 50 | | | | | | | 56 |
| 1610-1010040 | | x40 | 23 | | | | | | | 65 |
| 1610-1010063 | M10x10 | x63 | 45 | 9.7 | 15 | 6 | 79 | 51 | | 80 |
| 1610-1010080 | | x80 | 50 | | | | | | | 90 |
| 1610-1010100 | | x100 | 60 | | | | | | | 110 |
| 1610-1012050 | | x50 | 35 | | | | | | | 85 |
| 1610-1012063 | | x63 | 40 | | | | | | | 95 |
| 1610-1012080 | | x80 | 55 | | | | | | | 100 |
| 1610-1012100 | M10x12 | x100 | 60 | 11.7 | 18 | 7 | 79 | 51 | | 110 |
| 1610-1012125 | | x125 | 75 | | | | | | | 125 |
| 1610-1012160 | | x160 | 90 | | | | | | | 140 |
| 1610-1012200 | | x200 | 120 | | | | | | | 160 |
| 1610-1212050 | | x50 | 35 | | | | | | | 120 |
| 1610-1212063 | | x63 | 40 | | | | | | | 128 |
| 1610-1212080 | | x80 | 55 | | | | | | | 140 |
| 1610-1212100 | M12x12 | x100 | 65 | 11.7 | 18 | 7 | 141 | 74 | | 160 |
| 1610-1212125 | | x125 | 75 | | | | | | | 170 |
| 1610-1212160 | | x160 | 100 | | | | | | | 195 |
| 1610-1212200 | | x200 | 120 | | | | | | | 220 |
| 1610-1214050 | | x50 | 35 | | | | | | | 140 |
| 1610-1214063 | | x63 | 45 | | | | | | | 150 |
| 1610-1214080 | | x80 | 55 | | | | | | | 155 |
| 1610-1214100 | M12x14 | x100 | 65 | 13.7 | 22 | 8 | 141 | 74 | | 175 |
| 1610-1214125 | | x125 | 75 | | | | | | | 195 |
| 1610-1214160 | | x160 | 100 | | | | | | | 220 |
| 1610-1214200 | | x200 | 120 | | | | | | | 240 |
| 1610-1416063 | | x63 | 45 | | | | | | | 200 |
| 1610-1416080 | | x80 | 55 | | | | | | | 230 |
| 1610-1416100 | | x100 | 65 | | | | | | | 245 |
| 1610-1416125 | M14x16 | x125 | 75 | 15.7 | 25 | 9 | 223 | 101 | | 270 |
| 1610-1416160 | | x160 | 100 | | | | | | | 310 |
| 1610-1416200 | | x200 | 120 | | | | | | | 340 |
| 1610-1416250 | | x250 | 150 | | | | | | | 390 |
| 1610-1616063 | | x63 | 45 | | | | | | | 260 |
| 1610-1616080 | | x80 | 55 | | | | | | | 285 |
| 1610-1616100 | | x100 | 65 | | | | | | | 310 |
| 1610-1616125 | M16x16 | x125 | 85 | 15.7 | 25 | 9 | 354 | 138 | | 345 |
| 1610-1616160 | | x160 | 100 | | | | | | | 385 |
| 1610-1616200 | | x200 | 120 | | | | | | | 435 |
| 1610-1616250 | | x250 | 150 | | | | | | | 505 |
| 1610-1618063 | | x63 | 45 | | | | | | | 290 |
| 1610-1618080 | | x80 | 55 | | | | | | | 305 |
| 1610-1618100 | | x100 | 65 | | | | | | | 340 |
| 1610-1618125 | M16x18 | x125 | 85 | 17.7 | 28 | 10 | 354 | 138 | | 370 |
| 1610-1618160 | | x160 | 100 | | | | | | | 415 |
| 1610-1618200 | | x200 | 120 | | | | | | | 460 |
| 1610-1618250 | | x250 | 150 | | | | | | | 525 |
| 1610-1820080 | | x80 | 55 | | | | | | | 405 |
| 1610-1820100 | | x100 | 65 | | | | | | | 435 |
| 1610-1820125 | | x125 | 85 | | | | | | | 480 |
| 1610-1820160 | M18x20 | x160 | 110 | 19.7 | 32 | 12 | 474 | 169 | | 535 |
| 1610-1820200 | | x200 | 125 | | | | | | | 610 |
| 1610-1820250 | | x250 | 150 | | | | | | | 680 |
| 1610-1820315 | | x315 | 190 | | | | | | | 790 |
| 1610-2020080 | | x80 | 55 | | | | | | | 480 |
| 1610-2020100 | | x100 | 65 | | | | | | | 515 |
| 1610-2020125 | | x125 | 85 | | | | | | | 570 |
| 1610-2020160 | M20x20 | x160 | 110 | 19.7 | 32 | 12 | 679 | 215 | | 635 |
| 1610-2020200 | | x200 | 125 | | | | | | | 725 |
| 1610-2020250 | | x250 | 160 | | | | | | | 820 |
| 1610-2020315 | | x315 | 190 | | | | | | | 950 |
| 1610-2022080 | | x80 | 55 | | | | | | | 530 |
| 1610-2022100 | | x100 | 65 | | | | | | | 565 |
| 1610-2022125 | | x125 | 85 | | | | | | | 620 |
| 1610-2022160 | M20x22 | x160 | 110 | 21.7 | 35 | 14 | 679 | 215 | | 690 |
| 1610-2022200 | | x200 | 125 | | | | | | | 775 |
| 1610-2022250 | | x250 | 150 | | | | | | | 880 |
| 1610-2022315 | | x315 | 190 | | | | | | | 1050 |

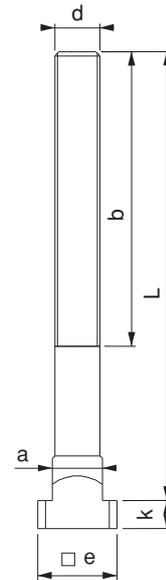
| Referans Nr. | dx | x L | b | a | e | k | Sıkma Verileri | | Tightening Data | Tightening Data |
|--------------|--------|------|-----|------|----|----|----------------|-----|-----------------|-----------------|
| | | | | | | | Nm | kN | | |
| 1610-2224080 | | x80 | 55 | | | | | | | 700 |
| 1610-2224100 | | x100 | 65 | | | | | | | 740 |
| 1610-2224125 | | x125 | 85 | | | | | | | 805 |
| 1610-2224160 | M22x24 | x160 | 110 | 23.7 | 40 | 16 | 903 | 266 | | 890 |
| 1610-2224200 | | x200 | 125 | | | | | | | 1000 |
| 1610-2224250 | | x250 | 150 | | | | | | | 1115 |
| 1610-2224315 | | x315 | 190 | | | | | | | 1280 |
| 1610-2424100 | | x100 | 70 | | | | | | | 885 |
| 1610-2424125 | | x125 | 85 | | | | | | | 970 |
| 1610-2424160 | M24x24 | x160 | 110 | 23.7 | 40 | 16 | 1163 | 310 | | 1060 |
| 1610-2424200 | | x200 | 125 | | | | | | | 1180 |
| 1610-2424250 | | x250 | 150 | | | | | | | 1320 |
| 1610-2424315 | | x315 | 190 | | | | | | | 1515 |
| 1610-2424400 | | x400 | 240 | | | | | | | 1750 |
| 1610-2428100 | | x100 | 70 | | | | | | | 1000 |
| 1610-2428125 | | x125 | 85 | | | | | | | 1065 |
| 1610-2428160 | M24x28 | x160 | 110 | 27.7 | 44 | 18 | 1163 | 310 | | 1150 |
| 1610-2428200 | | x200 | 125 | | | | | | | 1280 |
| 1610-2428250 | | x250 | 150 | | | | | | | 1425 |
| 1610-2428315 | | x315 | 190 | | | | | | | 1640 |
| 1610-2428400 | | x400 | 240 | | | | | | | 1870 |
| 1610-2428500 | | x500 | 290 | | | | | | | 2170 |
| 1610-3036125 | | x125 | 80 | | | | | | | 1900 |
| 1610-3036160 | | x160 | 110 | | | | | | | 2065 |
| 1610-3036200 | M30x36 | x200 | 135 | 35.6 | 54 | 22 | 2258 | 493 | | 2250 |
| 1610-3036250 | | x250 | 150 | | | | | | | 2500 |
| 1610-3036315 | | x315 | 200 | | | | | | | 2770 |
| 1610-3036500 | | x500 | 300 | | | | | | | 3630 |
| 1610-3642160 | | x160 | 100 | | | | | | | 3310 |
| 1610-3642250 | | x250 | 175 | | | | | | | 3930 |
| 1610-3642400 | M36x42 | x400 | 250 | 41.6 | 65 | 26 | 3953 | 719 | | 5010 |
| 1610-3642600 | | x600 | 340 | | | | | | | 6900 |
| 1610-4248160 | | x160 | 100 | | | | | | | 4600 |
| 1610-4248250 | M42x48 | x250 | 175 | 47.6 | 75 | 30 | 6337 | 986 | | 5600 |
| 1610-4248400 | | x400 | 250 | | | | | | | 7200 |

DIN 787
Ürün Nr. 1610 Somunlu Pullu T-Ayaklı Saplama

- Kalite 12.9
- Siyah kaplama

Product Nr. 1610 T-Slot Bolt with Nut and Washer

- Quality 12.9
- Black coating

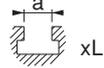


Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.



Loctite 8150

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.

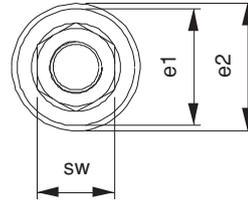
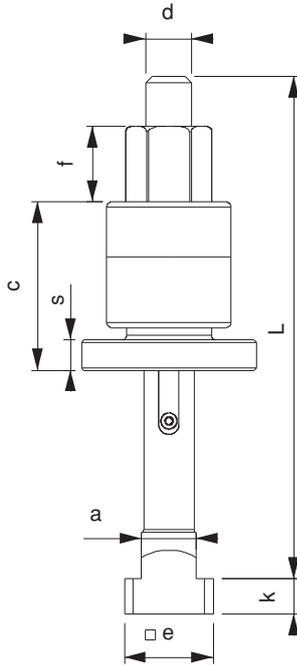
| Referans Nr. | dx  xL | a | e | k | h-H | e1 | e2 | c | s | f | sw | Sıkma Verileri Tightening Data | |  |
|--------------|---|------|----|----|--------|----|----|----|----|----|----|-----------------------------------|-----|---|
| | | | | | | | | | | | | Nm | kN | |
| 1630-2022200 | M20x22x200 | 21.7 | 35 | 14 | 25-75 | 49 | 69 | 92 | 12 | 30 | 30 | 679 | 215 | 1635 |
| 1630-2022250 | M20x22x250 | 21.7 | 35 | 14 | 70-120 | 49 | 69 | 92 | 12 | 30 | 30 | 679 | 215 | 1720 |
| 1630-2424200 | M24x24x200 | 23.7 | 40 | 16 | 25-75 | 53 | 74 | 92 | 12 | 30 | 36 | 1163 | 310 | 2075 |
| 1630-2424250 | M24x24x250 | 23.7 | 40 | 16 | 70-120 | 53 | 74 | 92 | 12 | 30 | 36 | 1163 | 310 | 2250 |
| 1630-2428200 | M24x28x200 | 27.7 | 44 | 18 | 25-75 | 53 | 74 | 92 | 12 | 30 | 36 | 1163 | 310 | 2180 |
| 1630-2428250 | M24x28x250 | 27.7 | 44 | 18 | 70-120 | 53 | 74 | 92 | 12 | 30 | 36 | 1163 | 310 | 2340 |
| 1630-3036200 | M30x36x200 | 35.6 | 54 | 22 | 25-75 | 68 | 88 | 94 | 14 | 30 | 46 | 2258 | 493 | 3660 |
| 1630-3036250 | M30x36x250 | 35.6 | 54 | 22 | 70-120 | 68 | 88 | 94 | 14 | 30 | 46 | 2258 | 493 | 3910 |

Ürün Nr. 1630 Kombine T-Ayaklı Saplama

- Ağır preslerde, büyük kalıplarda çalışma esnasında vibrasyondan kaynaklanan olabilecek gevşemeyi somunun kontra sıkma yapısından dolayı önler
- Kalite 12.9
- Siyah kaplama

Product Nr. 1630 Combined T-Slot Bolt

- Because of it's contra tightening structure, it prevents loosening which may be generated by the vibration during working with heavy presses and big moulds.
- Quality 12.9
- Black coating

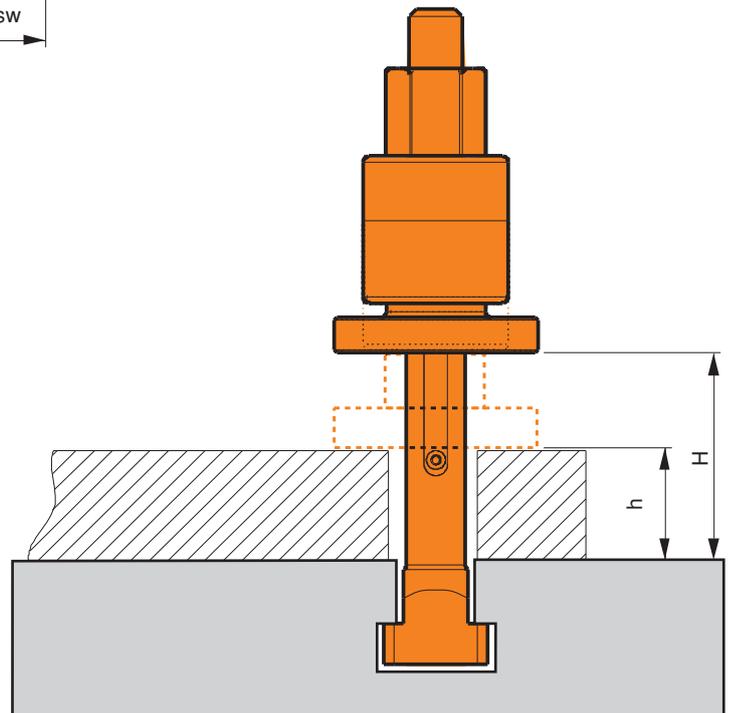


Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

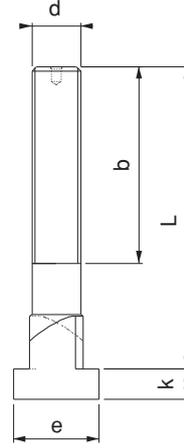
Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.



Loctite
8150



| Referans Nr. | dx | x L | b | a | e | k | Sıkma Verileri Tightening Data | | |
|--------------|--------|------|-----|------|----|----|-----------------------------------|-----|------|
| | | | | | | | Nm | kN | |
| 1650-1214050 | | x50 | 35 | | | | | | 70 |
| 1650-1214080 | M12x14 | x80 | 55 | 13.7 | 22 | 8 | 141 | 74 | 100 |
| 1650-1214125 | | x125 | 75 | | | | | | 120 |
| 1650-1618063 | | x63 | 45 | | | | | | 160 |
| 1650-1618100 | M16x18 | x100 | 65 | 17.7 | 28 | 10 | 354 | 138 | 220 |
| 1650-1618160 | | x160 | 100 | | | | | | 280 |
| 1650-2022080 | | x80 | 55 | | | | | | 330 |
| 1650-2022125 | M20x22 | x125 | 85 | 21.7 | 35 | 14 | 679 | 215 | 430 |
| 1650-2022200 | | x200 | 120 | | | | | | 570 |
| 1650-2428100 | | x100 | 70 | | | | | | 650 |
| 1650-2428125 | M24x28 | x125 | 85 | 27.7 | 44 | 18 | 1163 | 310 | 770 |
| 1650-2428250 | | x250 | 150 | | | | | | 1150 |

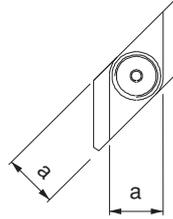


Ürün Nr. 1650 Dereceli T-Ayaklı Saplama

- T-Kanal pleytlerde üstten T-Kanala girip bağlama özelliği vardır
- Kalite 12.9
- Siyah kaplama

Product Nr. 1650 Graded T-Slot Bolt

- In T-Slot plates it has the feature of making the coupling by entering T-Slot the top.
- Quality 12.9
- Black coating



Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.



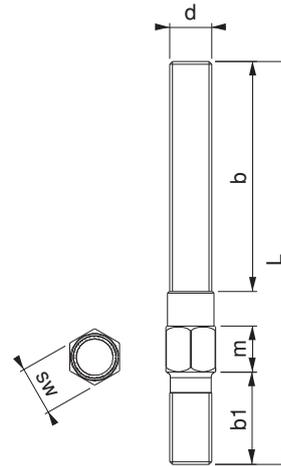
Loctite
8150

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.

| Referans Nr. | d | L | b | b1 | m | sw | Sıkma Verileri Tightening Data | | |
|--------------|-----|-----|-----|----|----|----|-----------------------------------|-----|------|
| | | | | | | | Nm | kN | |
| 1670-12130 | | 130 | 65 | | | | | | 160 |
| 1670-12160 | M12 | 160 | 90 | 24 | 14 | 14 | 120 | 63 | 185 |
| 1670-14130 | | 130 | 65 | | | | | | 216 |
| 1670-14160 | M14 | 160 | 90 | 28 | 15 | 15 | 191 | 86 | 246 |
| 1670-16140 | | 140 | 70 | | | | | | 310 |
| 1670-16160 | M16 | 160 | 95 | 32 | 16 | 17 | 302 | 118 | 340 |
| 1670-18150 | | 150 | 70 | | | | | | 395 |
| 1670-18180 | M18 | 180 | 95 | 35 | 19 | 19 | 405 | 144 | 450 |
| 1670-20150 | | 150 | 70 | | | | | | 520 |
| 1670-20180 | M20 | 180 | 95 | 40 | 22 | 22 | 580 | 184 | 575 |
| 1670-22150 | | 150 | 70 | | | | | | 610 |
| 1670-22180 | M22 | 180 | 95 | 40 | 22 | 24 | 772 | 228 | 705 |
| 1670-24170 | | 170 | 75 | | | | | | 875 |
| 1670-24205 | M24 | 205 | 105 | 47 | 22 | 27 | 994 | 265 | 990 |
| 1670-24250 | | 250 | 140 | | | | | | 1125 |
| 1670-30250 | | 250 | 135 | | | | | | 1950 |
| 1670-30315 | M30 | 315 | 195 | 55 | 32 | 36 | 1930 | 421 | 2260 |

Anahtar Ağızlı Saplama

Wrench Mouth Stud



Ürün Nr. 1670 Anahtar Ağızlı Saplama

- Kullanım alanı; Enjeksiyon makinalarında ve M12-14-16-18-20-22-24-30 diş açılmış pleytlerde kullanılır.
- Kalite 10.9
- Siyah kaplama

Product Nr. 1670 Wrench Mouth Stud

- Area of Use: This stud is used in injection machines and in plates with M12-14-16-18-20-22-24-30 threads
- Quality 10.9
- Black coating



Loctite
8150

Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.



| Referans Nr. | d x L | b1 | b | Sıkma Verileri Tightening Data | |  (g) |
|--------------|-------|------|------|-----------------------------------|-----|--|
| | | | | Nm | kN | |
| 1690-08040 | M8 | 11 | 20 | 36 | 27 | 10 |
| 1690-08063 | | | 40 | | | 15 |
| 1690-08080 | | | 50 | | | 20 |
| 1690-08100 | | | 63 | | | 30 |
| 1690-08125 | | | 75 | | | 35 |
| 1690-08160 | | | 100 | | | 45 |
| 1690-10050 | M10 | 13 | 25 | 67 | 43 | 20 |
| 1690-10063 | | | 32 | | | 25 |
| 1690-10080 | | | 50 | | | 35 |
| 1690-10100 | | | 63 | | | 45 |
| 1690-10125 | | | 75 | | | 55 |
| 1690-10160 | | | 100 | | | 70 |
| 1690-10200 | 125 | 95 | | | | |
| 1690-12050 | M12 | 15 | 25 | 120 | 63 | 35 |
| 1690-12063 | | | 32 | | | 40 |
| 1690-12080 | | | 50 | | | 55 |
| 1690-12100 | | | 63 | | | 70 |
| 1690-12125 | | | 75 | | | 90 |
| 1690-12160 | | | 100 | | | 115 |
| 1690-12200 | 125 | 140 | | | | |
| 1690-14063 | M14 | 17 | 32 | 191 | 86 | 60 |
| 1690-14080 | | | 50 | | | 75 |
| 1690-14100 | | | 63 | | | 95 |
| 1690-14125 | | | 75 | | | 120 |
| 1690-14160 | | | 100 | | | 150 |
| 1690-14200 | | | 125 | | | 195 |
| 1690-14250 | 160 | 240 | | | | |
| 1690-16063 | M16 | 19 | 32 | 302 | 118 | 85 |
| 1690-16080 | | | 50 | | | 105 |
| 1690-16100 | | | 63 | | | 130 |
| 1690-16125 | | | 75 | | | 160 |
| 1690-16160 | | | 100 | | | 205 |
| 1690-16200 | | | 125 | | | 260 |
| 1690-16250 | 160 | 325 | | | | |
| 1690-16315 | 180 | 405 | | | | |
| 1690-16500 | 315 | 650 | | | | |
| 1690-18080 | M18 | 23 | 50 | 405 | 144 | 130 |
| 1690-18100 | | | 60 | | | 160 |
| 1690-18125 | | | 75 | | | 200 |
| 1690-18160 | | | 100 | | | 260 |
| 1690-18200 | | | 125 | | | 320 |
| 1690-18250 | | | 150 | | | 400 |
| 1690-18315 | 180 | 510 | | | | |
| 1690-20080 | M20 | 27 | 32 | 580 | 184 | 155 |
| 1690-20100 | | | 60 | | | 200 |
| 1690-20125 | | | 70 | | | 250 |
| 1690-20160 | | | 100 | | | 330 |
| 1690-20200 | | | 125 | | | 400 |
| 1690-20250 | | | 160 | | | 510 |
| 1690-20315 | 200 | 640 | | | | |
| 1690-20400 | 250 | 815 | | | | |
| 1690-20500 | 315 | 1020 | | | | |
| 1690-22100 | M22 | 31 | 45 | 772 | 228 | 250 |
| 1690-22125 | | | 70 | | | 305 |
| 1690-22160 | | | 100 | | | 400 |
| 1690-22200 | | | 125 | | | 500 |
| 1690-22250 | | | 160 | | | 620 |
| 1690-22315 | | | 180 | | | 780 |
| 1690-22400 | 250 | 1010 | | | | |
| 1690-24100 | M24 | 35 | 45 | 994 | 265 | 290 |
| 1690-24125 | | | 70 | | | 365 |
| 1690-24160 | | | 100 | | | 470 |
| 1690-24200 | | | 125 | | | 580 |
| 1690-24250 | | | 160 | | | 730 |
| 1690-24315 | | | 200 | | | 920 |
| 1690-24400 | 250 | 1170 | | | | |
| 1690-24500 | 315 | 1470 | | | | |
| 1690-24630 | 315 | 1860 | | | | |
| 1690-30125 | M30 | 43 | 56 | 1930 | 421 | 570 |
| 1690-30200 | | | 125 | | | 910 |
| 1690-30250 | | | 160 | | | 1150 |
| 1690-30315 | | | 200 | | | 1435 |
| 1690-30500 | | | 315 | | | 2315 |
| 1690-30700 | | | 400 | | | 3215 |
| 1690-301000 | x1000 | 400 | 4700 | | | |

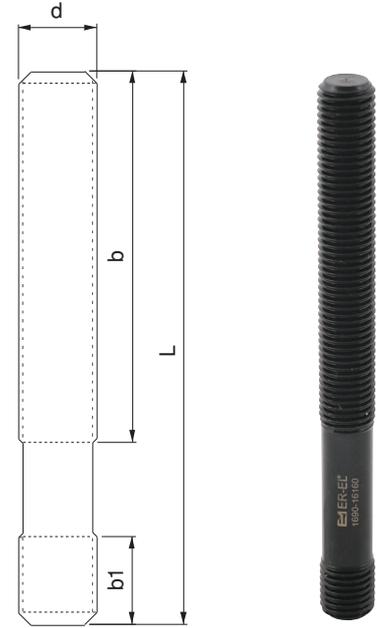
| Referans Nr. | d x L | b1 | b | Sıkma Verileri Tightening Data | |  (g) |
|--------------|-------|------|-----|-----------------------------------|-----|--|
| | | | | Nm | kN | |
| 1690-36160 | M36 | 51 | 80 | 3378 | 614 | 1100 |
| 1690-36200 | | | 125 | | | 1340 |
| 1690-36250 | | | 160 | | | 1710 |
| 1690-36315 | | | 200 | | | 2150 |
| 1690-36400 | | | 250 | | | 2700 |
| 1690-36500 | | | 315 | | | 3450 |
| 1690-36700 | 400 | 4750 | | | | |
| 1690-42315 | M42 | 59 | 200 | 5415 | 843 | 2950 |
| 1690-42400 | | | 250 | | | 3750 |
| 1690-42500 | | | 315 | | | 4690 |

DIN 6379
Ürün Nr. 1690 Düz Saplama

- Kalite 10.9
- Siyah kaplama

Product Nr. 1690 Straight Stud

- Quality 10.9
- Black coating



Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.



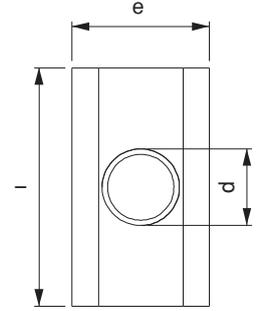
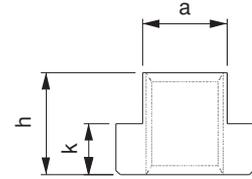
| Referans Nr. |  | a | e | l | h | k |  |
|--------------|---|------|----|-----|----|----|---|
| 1710-0608 | M6x8 | 7.7 | 13 | 26 | 10 | 6 | 14 |
| 1710-0810 | M8x10 | 9.7 | 15 | 30 | 12 | 6 | 25 |
| 1710-1012 | M10x12 | 11.7 | 18 | 36 | 14 | 7 | 49 |
| 1710-1214 | M12x14 | 13.7 | 22 | 44 | 16 | 8 | 82 |
| 1710-1416 | M14x16 | 15.7 | 25 | 50 | 18 | 9 | 120 |
| 1710-1618 | M16x18 | 17.7 | 28 | 56 | 20 | 10 | 165 |
| 1710-1820 | M18x20 | 19.7 | 32 | 64 | 24 | 12 | 260 |
| 1710-2022 | M20x22 | 21.7 | 35 | 70 | 28 | 14 | 365 |
| 1710-2224 | M22x24 | 23.7 | 40 | 80 | 32 | 16 | 535 |
| 1710-2428 | M24x28 | 27.7 | 44 | 88 | 36 | 18 | 745 |
| 1710-3036 | M30x36 | 35.6 | 54 | 108 | 44 | 22 | 1390 |

Ürün Nr. 1710 Uzun T-Pabuç

- Hassas makina pleytlerinde T-Kanalı korur
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

Product Nr. 1710 Long T-Nut

- This clamp protects T-Slot in sensitive machine plates
- Hardened
- Black coating
- Quality 10



| Referans Nr. |  | a | e | h | k |  |
|--------------|---|------|----|----|----|---|
| 1730-06 | 6 | 5.7 | 10 | 8 | 4 | 4 |
| 1730-08 | 8 | 7.7 | 13 | 10 | 6 | 10 |
| 1730-10 | 10 | 9.7 | 15 | 12 | 6 | 16 |
| 1730-12 | 12 | 11.7 | 18 | 14 | 7 | 27 |
| 1730-14 | 14 | 13.7 | 22 | 16 | 8 | 50 |
| 1730-16 | 16 | 15.7 | 25 | 18 | 9 | 70 |
| 1730-18 | 18 | 17.7 | 28 | 20 | 10 | 95 |
| 1730-20 | 20 | 19.7 | 32 | 24 | 12 | 150 |
| 1730-22 | 22 | 21.7 | 35 | 28 | 14 | 210 |
| 1730-24 | 24 | 23.7 | 40 | 32 | 16 | 310 |
| 1730-28 | 28 | 27.7 | 44 | 36 | 18 | 430 |
| 1730-36 | 36 | 35.6 | 54 | 44 | 22 | 800 |
| 1730-42 | 42 | 41.6 | 65 | 52 | 26 | 1400 |

Ürün Nr. 1730 Deliksiz T-Pabuç

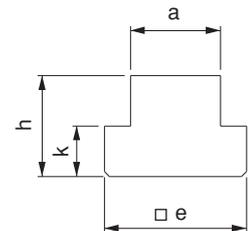
- İsteğe göre delik delme dış çekme uygulanabilir

Product Nr. 1730 T-Nut without Hole

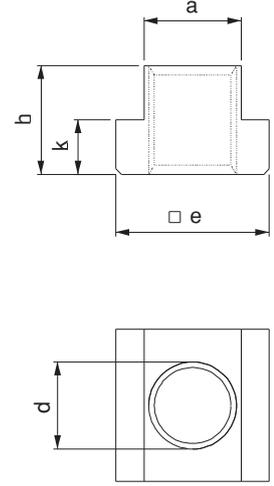
- Arbitrary thread cutting can be applied

Deliksiz T-Pabuç

T-Nut without Hole



| Referans Nr. | dx  | a | e | h | k |  (g) |
|--------------|--|------|----|----|----|--|
| 1750-0506 | M5x6 | 5.7 | 10 | 8 | 4 | 4 |
| 1750-0608 | M6x8 | 7.7 | 13 | 10 | 6 | 10 |
| 1750-0810 | M8x10 | 9.7 | 15 | 12 | 6 | 12 |
| 1750-0812 | M8x12* | 11.7 | 18 | 14 | 7 | 22 |
| 1750-1012 | M10x12 | | | | | 20 |
| 1750-0814 | M8x14* | | | | | 40 |
| 1750-1014 | M10x14* | 13.7 | 22 | 16 | 8 | 37 |
| 1750-1214 | M12x14 | | | | | 30 |
| 1750-0816 | M8x16* | | | | | 60 |
| 1750-1016 | M10x16* | 15.7 | 25 | 18 | 9 | 55 |
| 1750-1216 | M12x16* | | | | | 55 |
| 1750-1416 | M14x16 | | | | | 45 |
| 1750-0818 | M8x18* | | | | | 90 |
| 1750-1018 | M10x18* | 17.7 | 28 | 20 | 10 | 87 |
| 1750-1218 | M12x18* | | | | | 80 |
| 1750-1418 | M14x18* | | | | | 75 |
| 1750-1618 | M16x18 | | | | | 65 |
| 1750-1620 | M16x20* | 19.7 | 32 | 24 | 12 | 115 |
| 1750-1820 | M18x20 | | | | | 105 |
| 1750-1622 | M16x22* | | | | | 170 |
| 1750-1822 | M18x22* | 21.7 | 35 | 28 | 14 | 160 |
| 1750-2022 | M20x22 | | | | | 150 |
| 1750-1624 | M16x24* | 23.7 | 40 | 32 | 16 | 260 |
| 1750-2024 | M20x24* | | | | | 240 |
| 1750-2224 | M22x24 | | | | | 220 |
| 1750-1628 | M16x28* | | | | | 375 |
| 1750-2028 | M20x28* | 27.7 | 44 | 36 | 18 | 350 |
| 1750-2228 | M22x28* | | | | | 330 |
| 1750-2428 | M24x28 | | | | | 330 |
| 1750-2436 | M24x36* | 35.6 | 54 | 44 | 22 | 665 |
| 1750-3036 | M30x36 | | | | | 585 |
| 1750-3642 | M36x42 | 41.6 | 65 | 52 | 26 | 1025 |
| 1750-4248 | M42x48 | 47.6 | 75 | 60 | 30 | 1600 |


DIN 508
Ürün Nr. 1750 T-Pabuç

- T-Pabucun mukavemeti için dişi kısmının tümüne vidalama yapılması gerekir
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

Product Nr. 1750 T-Nut

- Screwing must be done on the entire thread part for the endurance of T-Nut
- Hardened
- Black coating
- Quality 10

| Referans Nr. | dx  | a | e | h | k |  (g) |
|--------------|--|------|----|----|----|--|
| 1770-0810 | M8x10 | 9.7 | 15 | 12 | 6 | 10 |
| 1770-1012 | M10x12 | 11.7 | 18 | 14 | 7 | 15 |
| 1770-1014 | M10x14* | 13.7 | 22 | 16 | 8 | 30 |
| 1770-1214 | M12x14 | | | | | 25 |
| 1770-1416 | M14x16 | 15.7 | 25 | 18 | 9 | 40 |
| 1770-1018 | M10x18* | 17.7 | 28 | 20 | 10 | 70 |
| 1770-1618 | M16x18 | | | | | 60 |
| 1770-1620 | M16x20* | 19.7 | 32 | 24 | 12 | 95 |
| 1770-1820 | M18x20 | | | | | 90 |
| 1770-1622 | M16x22* | 21.7 | 35 | 28 | 14 | 135 |
| 1770-2022 | M20x22 | | | | | 125 |
| 1770-1628 | M16x28* | 27.7 | 44 | 36 | 18 | 330 |
| 1770-2028 | M20x28* | | | | | 295 |
| 1770-2428 | M24x28 | | | | | 265 |

Ürün Nr. 1770 Dereceli T-Pabuç

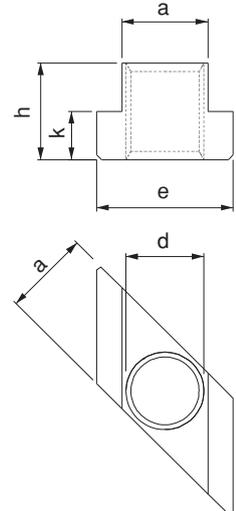
- T-Kanal pleyterde üstten T-Kanala girip bağlama özelliği vardır
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

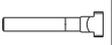
Product Nr. 1770 Graded T-Nut

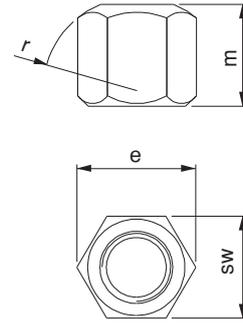
- It has the feature of making the coupling by entering T-Slot plates from the top
- Hardened
- Black coating
- Quality 10

Dereceli T-Pabuç

Graded T-Nut



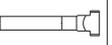
| Referans Nr. |  | sw | e | m | r |  |
|--------------|---|----|------|----|----|---|
| 1790-06 | M6 | 10 | 11.5 | 9 | 9 | 5 |
| 1790-08 | M8 | 13 | 15 | 12 | 12 | 9 |
| 1790-10 | M10 | 17 | 19.6 | 15 | 15 | 20 |
| 1790-12 | M12 | 19 | 21.9 | 18 | 17 | 25 |
| 1790-14 | M14 | 22 | 25.4 | 21 | 20 | 40 |
| 1790-16 | M16 | 24 | 27.7 | 24 | 22 | 55 |
| 1790-18 | M18 | 27 | 31.2 | 27 | 24 | 80 |
| 1790-20 | M20 | 30 | 34.6 | 30 | 27 | 110 |
| 1790-22 | M22 | 32 | 36.9 | 33 | 30 | 130 |
| 1790-24 | M24 | 36 | 41.5 | 36 | 32 | 190 |
| 1790-30 | M30 | 46 | 53.1 | 45 | 41 | 400 |
| 1790-36 | M36 | 55 | 63.5 | 54 | 50 | 680 |
| 1790-42 | M42 | 65 | 75 | 63 | 58 | 1150 |

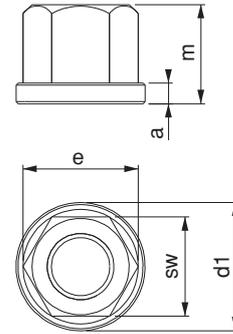

DIN 6330B
Ürün Nr. 1790 Takviyeli Somun

- Düz yüzey DIN 6340 pul ile kullanılır
- Radüslü yüzey DIN 6319D ve DIN 6319G pullar ile kullanılır
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

Product Nr. 1790 Hexagon Nut

- Flat surface is used with DIN 6340 Washer
- This nut is used with Rad-top surface DIN 6319D and DIN 6319G washers
- Hardened
- Black Coating
- Quality 10

| Referans Nr. |  | sw | e | m | a | d1 |  |
|--------------|---|----|------|----|-----|----|---|
| 1810-08 | M8 | 13 | 14.7 | 12 | 3.5 | 18 | 12 |
| 1810-10 | M10 | 17 | 19.2 | 15 | 4 | 22 | 25 |
| 1810-12 | M12 | 19 | 21.5 | 18 | 4 | 25 | 30 |
| 1810-14 | M14 | 22 | 24.9 | 21 | 4.5 | 28 | 50 |
| 1810-16 | M16 | 24 | 27.2 | 24 | 5 | 31 | 65 |
| 1810-18 | M18 | 27 | 30.6 | 27 | 5 | 34 | 90 |
| 1810-20 | M20 | 30 | 34 | 30 | 6 | 37 | 130 |
| 1810-22 | M22 | 32 | 36.3 | 33 | 6 | 40 | 155 |
| 1810-24 | M24 | 36 | 40.8 | 36 | 6 | 45 | 220 |
| 1810-30 | M30 | 46 | 52.3 | 45 | 8 | 58 | 465 |
| 1810-36 | M36 | 55 | 62 | 54 | 10 | 68 | 500 |
| 1810-42 | M42 | 65 | 75 | 63 | 12 | 80 | 1340 |


Pullu Somun

Nut with Washer

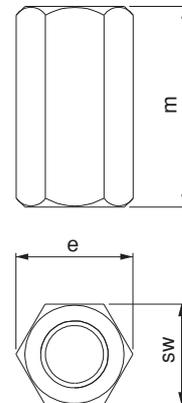

DIN 6331
Ürün Nr. 1810 Pullu Somun

- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

Product Nr. 1810 Nut with Washer

- Hardened
- Black Coating
- Quality 10

| Referans Nr. |  | sw | e | m |  |
|--------------|---|----|------|-----|---|
| 1830-06 | M6 | 10 | 11.7 | 18 | 8 |
| 1830-08 | M8 | 13 | 15 | 24 | 19 |
| 1830-10 | M10 | 17 | 19.6 | 30 | 40 |
| 1830-12 | M12 | 19 | 21.6 | 36 | 55 |
| 1830-14 | M14 | 22 | 25.4 | 42 | 90 |
| 1830-16 | M16 | 24 | 27.7 | 48 | 115 |
| 1830-18 | M18 | 27 | 31.2 | 54 | 165 |
| 1830-20 | M20 | 30 | 34.6 | 60 | 230 |
| 1830-22 | M22 | 32 | 36.9 | 66 | 245 |
| 1830-24 | M24 | 36 | 41.5 | 72 | 400 |
| 1830-30 | M30 | 46 | 53.1 | 90 | 840 |
| 1830-36 | M36 | 55 | 63.5 | 108 | 1430 |
| 1830-42 | M42 | 65 | 75 | 126 | 2330 |


Uzatma Somun

Extension Nut


DIN 6334
Ürün Nr. 1830 Uzatma Somun

- DIN 787 T-Ayaklı saplama ve DIN 6379 düz saplamalarda uzatma amaçlı kullanılır
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

Product Nr. 1830 Extension Nut

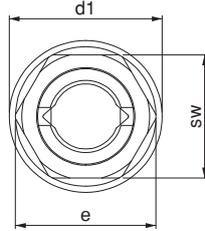
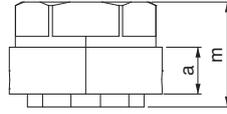
- It is used in DIN 787 T-Studs and DIN 6379 Straight Studs as extension
- Hardened
- Black Coating
- Quality 10

| Referans Nr. | metrik | a | d1 | e | m | sw | (g) |
|--------------|--------|------|------|------|------|----|-----|
| 1840-16 | M16 | 11.5 | 34 | 30.7 | 27.5 | 27 | 105 |
| 1840-20 | M20 | 14 | 44 | 38.8 | 33 | 34 | 210 |
| 1840-24 | M24 | 18.5 | 50.4 | 46 | 35 | 41 | 365 |



Ürün Nr. 1840 Hızlı Somun

- Somun açık konumda uzun dişlerde hızlı ilerleme kolaylığı sağlar.
- Sertleştirilmiş
- Çinko Kaplama
- Kalite 10



Product Nr. 1840 Quick Nut

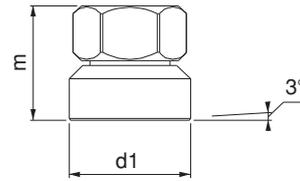
- Enables fast sliding on long threads, with nut at open position.
- Hardened
- Zinc Coating
- Quality 10



Oynar Başlı Pullu Somun

Ball Head Nut

| Referans Nr. | sw | d1 | m | (g) | |
|--------------|-----|----|----|-----|-----|
| 1850-08 | M8 | 13 | 17 | 14 | 10 |
| 1850-10 | M10 | 17 | 21 | 18 | 30 |
| 1850-12 | M12 | 19 | 24 | 22 | 40 |
| 1850-16 | M16 | 24 | 30 | 28 | 70 |
| 1850-20 | M20 | 30 | 36 | 35 | 140 |
| 1850-24 | M24 | 36 | 44 | 43 | 260 |

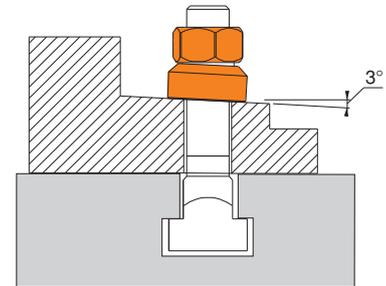
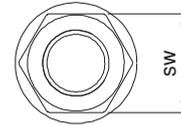


Ürün Nr. 1850 Oynar Başlı Pullu Somun

- Açılı yüzeylerde pulun kendi içindeki hareketinden dolayı kullanım avantajı sağlar
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

Product Nr. 1850 Ball Head Nut

- It provides advantage for using on angled surfaces due to the movement of the washer within itself
- Hardened
- Black Coating
- Quality 10



| Referans Nr. | metrik | | d1 | d2 | s | (g) |
|--------------|-----------|-------|------|----|----|-----|
| | whitworth | | | | | |
| 1870-06 | M6 | 1/4 | 6.4 | 17 | 3 | 6 |
| 1870-08 | M8 | 5/16 | 8.4 | 23 | 4 | 10 |
| 1870-10 | M10 | 3/8 | 10.5 | 28 | 4 | 16 |
| 1870-12 | M12 | 1/2 | 13 | 35 | 5 | 30 |
| 1870-14 | M14 | - | 15 | 40 | 5 | 40 |
| 1870-16 | M16 | 5/8 | 17 | 45 | 6 | 60 |
| 1870-18 | M18 | - | 19 | 45 | 6 | 60 |
| 1870-20 | M20 | 3/4 | 21 | 50 | 6 | 70 |
| 1870-22 | M22 | 7/8 | 23 | 50 | 8 | 90 |
| 1870-24 | M24 | 7/8 | 25 | 60 | 8 | 140 |
| 1870-30 | M30 | 1 1/8 | 31 | 68 | 10 | 215 |
| 1870-36 | M36 | 1 1/4 | 38 | 80 | 12 | 360 |
| 1870-42 | M42 | 1 1/2 | 44 | 98 | 15 | 640 |

DIN 6340

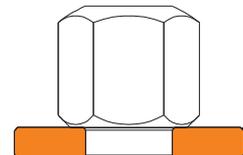
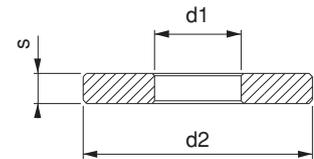
Ürün Nr. 1870 Pul

- Sertleştirilmiş
- Siyah kaplama

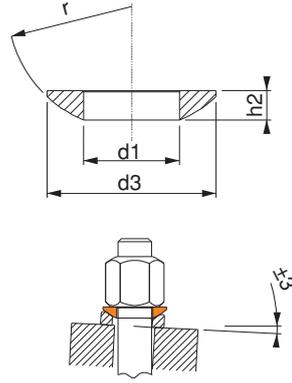
Product Nr. 1870 Washer

- Hardened
- Black Coating

Pul Washer



| Referans Nr. |  | d1 | d3 | h2 | r |  |
|--------------|---|------|----|------|----|---|
| 1890-06 | M6 | 6.4 | 12 | 2.3 | 9 | 1.5 |
| 1890-08 | M8 | 8.4 | 17 | 3.2 | 12 | 2.5 |
| 1890-10 | M10 | 10.5 | 21 | 4.0 | 15 | 5 |
| 1890-12 | M12 | 13 | 24 | 4.6 | 17 | 7 |
| 1890-14 | M14 | 15 | 28 | 5.0 | 22 | 10 |
| 1890-16 | M16 | 17 | 30 | 5.3 | 22 | 15 |
| 1890-20 | M20 | 21 | 36 | 6.3 | 27 | 20 |
| 1890-24 | M24 | 25 | 44 | 8.2 | 32 | 40 |
| 1890-30 | M30 | 31 | 56 | 11.2 | 41 | 95 |
| 1890-36 | M36 | 37 | 68 | 14.0 | 50 | 190 |
| 1890-42 | M42 | 43 | 78 | 17.0 | 58 | 297 |



DIN 6319C

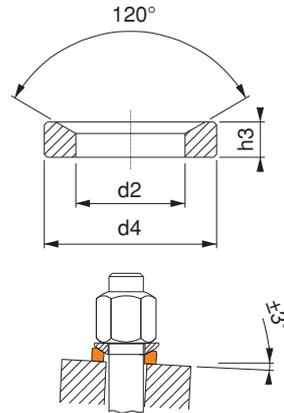
Ürün Nr. 1890 Radüslü Pul

- DIN 6319D DIN 6319G pullar ile açılı yüzeylerde kullanılır
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1890 Rad-top Washer

- This washer is used with DIN 6319G washers on angled surfaces
- Hardened
- Black Coating

| Referans Nr. |  | max. KN | d2 | d4 | h3 |  |
|--------------|---|---------|------|----|-----|---|
| 1910-06 | M6 | 9 | 7.1 | 12 | 2.8 | 2 |
| 1910-08 | M8 | 17 | 9.6 | 17 | 3.5 | 4 |
| 1910-10 | M10 | 26 | 12 | 21 | 4.2 | 6.5 |
| 1910-12 | M12 | 38 | 14.2 | 24 | 5 | 10 |
| 1910-14 | M14 | 53 | 16.5 | 28 | 5.6 | 10 |
| 1910-16 | M16 | 73 | 19 | 30 | 6.2 | 15 |
| 1910-20 | M20 | 117 | 23.2 | 36 | 7.5 | 25 |
| 1910-24 | M24 | 168 | 28 | 44 | 9.5 | 55 |
| 1910-30 | M30 | 269 | 35 | 56 | 12 | 120 |
| 1910-36 | M36 | 394 | 42 | 68 | 15 | 220 |
| 1910-42 | M42 | 542 | 49 | 78 | 18 | 365 |



Dereceli Pul

Graded Washer



DIN 6319D

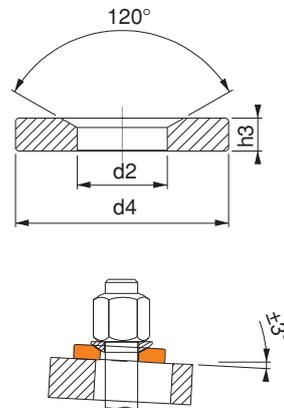
Ürün Nr. 1910 Dereceli Pul

- DIN 6319C radüslü pul ile açılı yüzeylerde kullanılır
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1910 Graded Washer

- This washer is used with DIN 6319C rad-top washers on angled surfaces
- Hardened
- Black Coating

| Referans Nr. |  | d2 | d4 | h3 |  |
|--------------|---|------|-----|----|---|
| 1930-06 | M6 | 7.1 | 17 | 4 | 5.5 |
| 1930-08 | M8 | 9.6 | 24 | 5 | 13 |
| 1930-10 | M10 | 12 | 30 | 5 | 19 |
| 1930-12 | M12 | 14.2 | 36 | 6 | 32 |
| 1930-14 | M14 | 16.5 | 40 | 6 | 45 |
| 1930-16 | M16 | 19 | 44 | 7 | 65 |
| 1930-20 | M20 | 23.2 | 50 | 8 | 90 |
| 1930-24 | M24 | 28 | 59 | 10 | 150 |
| 1930-30 | M30 | 35 | 68 | 10 | 180 |
| 1930-36 | M36 | 42 | 79 | 12 | 285 |
| 1930-42 | M42 | 49 | 100 | 15 | 640 |



Dereceli Pul

Graded Washer



DIN 6319G

Ürün Nr. 1930 Dereceli Pul

- DIN 6319C radüslü pul ile açılı yüzeylerde kullanılır
- DIN 6319D ye göre daha büyük çaplı deliklerde kullanılır
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1930 Graded Washer

- This washer is used with DIN 6319C rad-top washers on angled surfaces
- According to DIN 6319D, it is used in the holes with bigger diameter
- Hardened
- Black Coating



| Referans Nr. |  |  |
|--------------|---|---|
| 1950-1214 | 12-14 | 25 |
| 1950-1618 | 16-18 | 45 |
| 1950-2022 | 20-22 | 45 |
| 1950-2428 | 24-28 | 70 |

**Ürün Nr. 1950 T-Kanal Temizleyici**

- T-Kanalları temizlemek için kullanılır

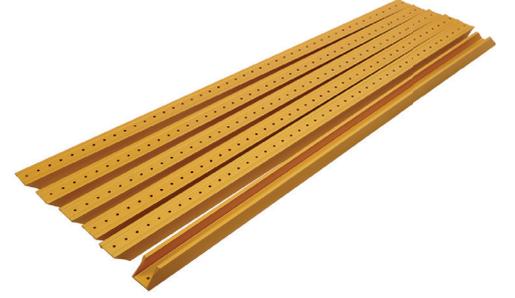
Product Nr. 1950 T-Slot Scraper

- This scraper is used to clean T-Slots

| Referans Nr | Genişlik Width (mm) | Boy Length (mm) | Miktar Quantity |
|-------------|---------------------|-----------------|-----------------|
| 1955-T010 | 10 | 300 | 6 |
| 1955-T012 | 12 | 400 | 6 |
| 1955-T014 | 14 | 400 | 6 |
| 1955-T016 | 16 | 400 | 6 |
| 1955-T018 | 18 | 450 | 6 |
| 1955-T181 | 18 | 1000 | 5 |
| 1955-T205 | 20 | 500 | 10 |
| 1955-T020 | 20 | 1000 | 5 |
| 1955-T022 | 22 | 1000 | 5 |
| 1955-T024 | 24 | 1000 | 5 |
| 1955-T028 | 28 | 1000 | 5 |
| 1955-T036 | 36 | 1000 | 5 |

T-Kanal Koruyucu

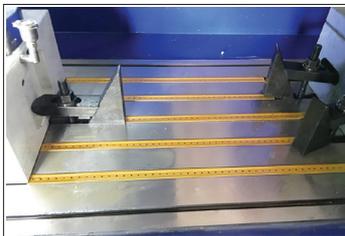
Milling T-Slot Cover

**Ürün Nr. 1955 T-Kanal Koruyucu**

- T-Kanal aralarını gereksiz talaş dolmasını kirlenmesini önler. T-Kanalınızı korur ve temizliğini kolaylaştırır.
- Malzeme: Alüminyum

Product Nr. 1955 Milling T-Slot Cover

- It prevents unnecessary shavings filling and become dirty. It is used to clean T-Slots.
- Material: Aluminum



| | | |
|--------------|---|---|
| Referans Nr. |  |  |
| 1960-110 | 14-16-18-20 | 1160 |

Ürün Nr. 1960 Modüler T-Blok

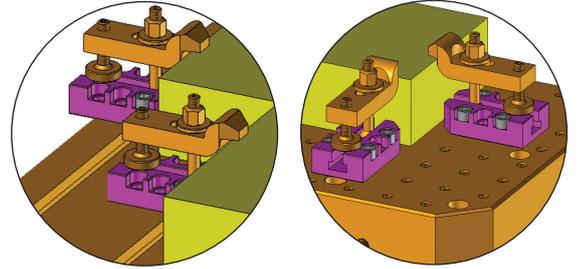
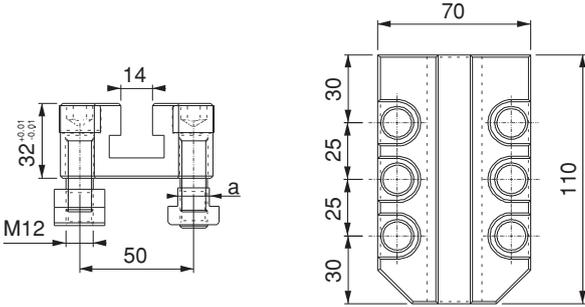
- Sertleştirilmiş
- Siyah kaplama

Tezgaah pleytine bağlanacak iş parçasının orantısız duruşunda pleytin uygun bir yerine sabitlenerek iş parçasını bağlamada kolaylık sağlar.


Product Nr. 1960 Modular T-Block

- Hardened
- Black coating

It provides convenience to fix the work piece on a suitable place of the plate during the non-proportional stopping of the work piece to be applied on the plate of the bench



| Referans Nr. |  | Ø D | Ø d | L | L1 |  |
|--------------|---|-----|------|----|----|---|
| 1970-10 | M10 | 27 | 10.5 | 35 | 20 | 65 |
| 1970-12 | M12 | 27 | 12.5 | 40 | 33 | 70 |
| 1970-14 | M14 | 28 | 14.5 | 40 | 30 | 60 |
| 1970-16 | M16 | 37 | 16.5 | 45 | 30 | 110 |
| 1970-18 | M18 | 37 | 18.5 | 45 | 40 | 115 |
| 1970-20 | M20 | 37 | 21 | 45 | 42 | 105 |
| 1970-22 | M22 | 37 | 23 | 45 | 45 | 120 |
| 1970-24 | M24 | 45 | 25 | 50 | 45 | 170 |

Ürün Nr. 1970 Pabuç Kaldırma Yaylı Pul

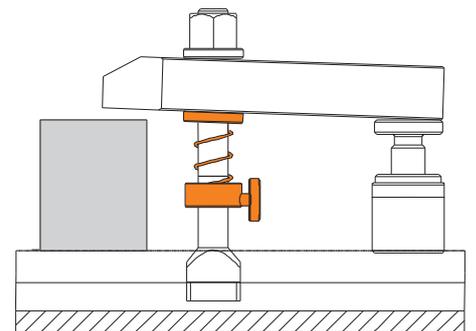
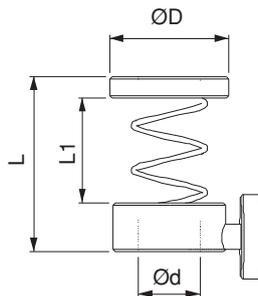
- Bağlama ve sökme işleminde pabucu dengeli şekilde kaldırarak çalışma kolaylığı sağlar
- Siyah kaplama

Pabuç Kaldırma Yaylı Pul

for Lifting the Washer


Product Nr. 1970 Springed Washer for Lifting the Washer

- This washer provides convenience of using in coupling and dismantling processes by lifting the clamp evenly
- Black coating



SETLER SETS



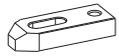
| Referans Nr. |  |  |  (kg) | DIN 6379 d x L |
|--------------|---|---|--|---------------------|
| 1990-1012 | M10x12 | 265x255 | 6.44 | M10x80-100-160-200 |
| 1990-1214 | M12x14 | 305x255 | 8.72 | M12x80-100-160-200 |
| 1990-1416 | M14x16 | 435-255 | 12.98 | M14x80-100-160-200 |
| 1990-1618 | M16x18 | 435-255 | 16.30 | M16x80-100-160-200 |
| 1990-1820 | M18x20 | 495x255 | 17.82 | M18x80-100-160-200 |
| 1990-2022 | M20x22 | 540x255 | 23.10 | M20x100-125-160-200 |

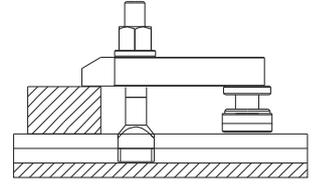
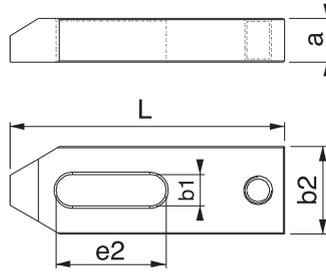

Ürün Nr. 1990 Vidalı Yükselticili Bağlama Set

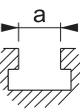
- Tabla üzerine iş parçası ve aparatların hızlı ve güvenli bir şekilde bağlanması için çelik mamülden üretilmiş parçalardan oluşan bağlama seti

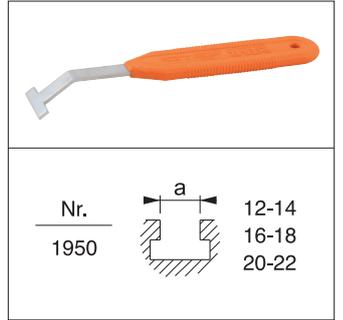
Product Nr. 1990 Screwed Coupling Set with Lifter

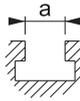
- This is the coupling set produced from steel product in order to couple the work piece or apparatuses on the table in a rapid and safe way.

| Nr. | L | b1 |  | a | e2 | b2 |
|------|-----|------|---|----|----|----|
| 1330 | 80 | 11 | M10 | 15 | 30 | 30 |
| 1330 | 100 | 14.5 | M12-M14 | 20 | 40 | 40 |
| 1330 | 125 | 18.5 | M16-M18 | 25 | 45 | 50 |
| 1330 | 160 | 22.5 | M20-M22 | 30 | 60 | 60 |

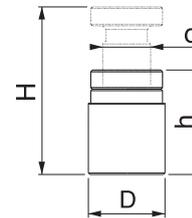


|  |  DIN 508 |  DIN 6330 B |  Nr 1830 |  DIN 6331 |  DIN 6340 |
|---|---|--|---|--|--|
| 12 | M10 | M10 | M10 | M10 | M10 |
| 14 | M12 | M12 | M12 | M12 | M12 |
| 16 | M14 | M14 | M14 | M14 | M14 |
| 18 | M16 | M16 | M16 | M16 | M16 |
| 20 | M18 | M18 | M18 | M18 | M18 |
| 22 | M20 | M20 | M20 | M20 | M20 |



| Nr. |  | |
|------|---|-------------------------|
| 1950 | | 12-14 16-18 20-22 |

| Nr. | h | H | d | D |
|------|-----|-----|---------|----|
| 1510 | 23 | 30 | M16 | 34 |
| 1510 | 40 | 60 | M16 | 34 |
| 1510 | 70 | 100 | Tr 30x4 | 50 |
| 1510 | 100 | 140 | Tr 30x4 | 50 |


Ürün: 52 Parça Vida Yükselticili İş Bağlama Set

- 6 adet DIN 508 T-Pabuç (M20x22'de 4 adet)
- 16 adet DIN 6379 saplama
- 6 adet DIN 6330B takviyeli somun
- 4 adet DIN 6331 pullu somun
- 2 adet Nr. 1830 uzatma somun
- 4 adet DIN 6340 kalın pul
- 4 adet Nr. 1330 destek delikli pabuç
- 8 adet Nr. 1510 vida diş yükseltici destek
- 1 adet Nr. 1950 T-Kanal temizleyici
- 1 adet statik boyalı çelik set
- Not: M20 VBS'de somun ve pul 4'er adet
M10-12 VBS'de 1510 yükseltici 6 adet konulmaktadır.

Product: 52 piece set of Screwed Coupling Set with Lifter

- 6 pieces of DIN 508 T-Nut (M20x22 4 piece)
- 16 pieces of DIN 6379 Stud
- 6 pieces of DIN 6330B Supported Nut
- 4 pieces of DIN 6331 Nut with Washer
- 2 pieces of No. 1830 Extension Nut
- 4 pieces of DIN 6340 Thick Washer
- 4 pieces of No. 1330 Clamp with Support Hole
- 8 pieces of No. 1510 Screw Thread Lifter Support
- 1 piece of No. 1950 T-Slot Scraper
- 1 piece of Steel Set with Statical Paint
- Note: 1990-2022= Hexagon nut and washer = 4 pcs
1990-1012 and 1990-1214= 1510 support 6 pcs

| Referans Nr. |  |  |  | DIN 6379  |
|--------------|---|---|---|---|
| 2010-1012 | M10x12 | 330x255 | 7.27 | M10x80-100-160-200 |
| 2010-1214 | M12x14 | 380x255 | 9.26 | M12x80-100-160-200 |
| 2010-1416 | M14x16 | 435x255 | 12.29 | M14x80-100-160-200 |
| 2010-1618 | M16x18 | 435x255 | 15.62 | M16x80-100-160-200 |
| 2010-1820 | M18x20 | 495x255 | 18.00 | M18x80-100-160-200 |



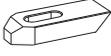
Ürün Nr. 2010 Merdiven Yükselticili Bağlama Set

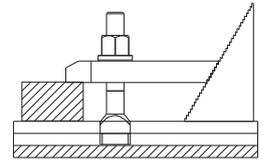
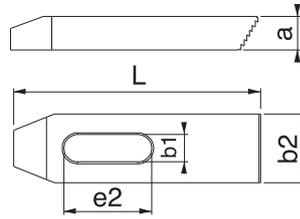
- Tabla üzerine iş parçası ve aparatların hızlı ve güvenli bir şekilde bağlanması için çelik mamülden üretilmiş parçalardan oluşan bağlama seti.

Product Nr. 2010 Coupling Set with Serrated Hell Block

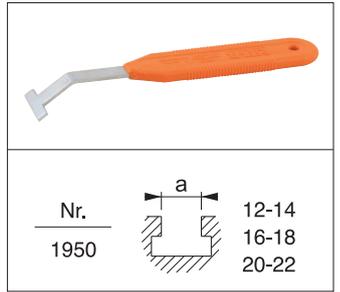
- This is the coupling set produced from steel product in order to couple the work piece or apparatuses on the table in a rapid and safe way.



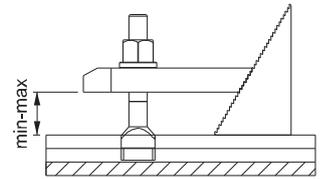
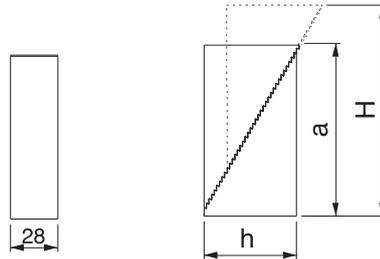
| Nr. | L | b1 |  | a | e2 | b2 |
|------|------------|------|---|----|----------|----|
| 1290 | 80 100 | 11 | M10 | 15 | 30 45 | 30 |
| 1290 | 100 125 | 14.5 | M12-M14 | 20 | 45 55 | 40 |
| 1290 | 125 160 | 18.5 | M16-M18 | 25 | 65 65 | 50 |



|  |  |  |  |  |  |
|---|---|---|---|---|---|
| | DIN 508 | DIN 6330 B | Nr 1830 | DIN 6331 | DIN 6340 |
| 12 | M10 | M10 | M10 | M10 | M10 |
| 14 | M12 | M12 | M12 | M12 | M12 |
| 16 | M14 | M14 | M14 | M14 | M14 |
| 18 | M16 | M16 | M16 | M16 | M16 |
| 20 | M18 | M18 | M18 | M18 | M18 |



| Nr. | h-H | a | min-max |
|------|--------|-----|---------|
| 1310 | 37-85 | 57 | 0-40 |
| 1310 | 48-112 | 73 | 0-60 |
| 1310 | 58-139 | 90 | 0-75 |
| 1310 | 66-165 | 108 | 0-90 |



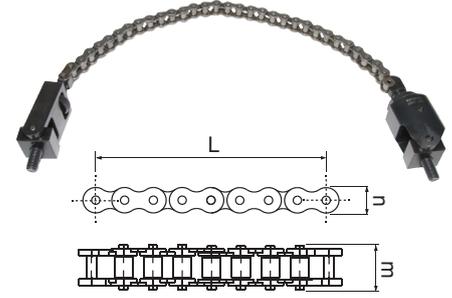
Ürün: 52 Parça Merdiven Destekli İş Bağlama Set

- 6 adet DIN 508 T-Pabuç
- 16 adet DIN 6379 saplama
- 6 adet DIN 6330B takviyeli somun
- 4 adet DIN 6331 pullu somun
- 2 adet 1830 uzatma somun
- 4 adet DIN 6340 kalın pul
- 4 adet Nr.1290 merdiven pabuç
- 8 adet Nr. 1310 merdiven diş destek
- 1 adet Nr. 1950 T-Kanal temizleyici
- 1 adet statik boyalı çelik set

Product: 52 piece set of Coupling Set with Serrated Hell Block

- 6 pieces of DIN 508 T-Nut (M20x22 4 piece)
- 16 pieces of DIN 6379 Stud
- 6 pieces of DIN 6330B Supported Nut
- 4 pieces of DIN 6331 Nut with Washer
- 2 pieces of No. 1830 Extension Nut
- 4 pieces of DIN 6340 Thick Washer
- 4 pieces of No. 1290 Serrated Clamp
- 8 pieces of No. 1310 Clamp with Support Hole
- 1 piece of No. 1950 T-Slot Scraper
- 1 piece of Steel Set with Statical Paint

| Referans Nr. | | | Tork Torque Nm | Sıkma Kuvveti Clamping Force kgf | L | m | n | (g) |
|--------------|-----|-------------|----------------|----------------------------------|------|----|----|------|
| 2020-120125 | M12 | 14-16-18 | 45 | 1500 | 125 | 20 | 15 | 1414 |
| 2020-120250 | M12 | | 45 | 1500 | 250 | 20 | 15 | 1528 |
| 2020-120500 | M12 | | 45 | 1500 | 500 | 20 | 15 | 1755 |
| 2020-121000 | M12 | | 45 | 1500 | 1000 | 20 | 15 | 2210 |
| 2020-160125 | M16 | 18-20-22-24 | 90 | 4000 | 125 | 33 | 21 | 3495 |
| 2020-160250 | M16 | | 90 | 4000 | 250 | 33 | 21 | 3810 |
| 2020-160500 | M16 | | 90 | 4000 | 500 | 33 | 21 | 4480 |
| 2020-161000 | M16 | | 90 | 4000 | 1000 | 33 | 21 | 5820 |


Ürün Nr. 2020 Zincirli Sıkma

- Silindirik ve oval iş parçalarının bağlanabilmesi için tasarlanmıştır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2020 Fixture Chain

- It is designed for clamping of cylinder and oval workpieces.
- Hardened
- Black coating

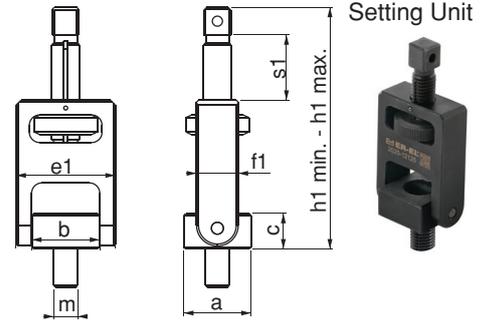
| Referans Nr. | | a | b | c | e1 | f1 | h1 min | h1 max | m | s1 | Sıkma Kuvveti Clamping Force kgf | (g) |
|--------------|-------------|----|----|----|----|----|--------|--------|-----|----|----------------------------------|------|
| 2020-12125 | 14-16-18 | 36 | 36 | 18 | 49 | 21 | 96 | 125 | M12 | 35 | 1500 | 580 |
| 2020-16162 | 18-20-22-24 | 37 | 44 | 25 | 64 | 29 | 117 | 162 | M16 | 45 | 4000 | 1275 |

Ürün Nr. 2020 Ayar Ünitesi

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2020 Setting Unit

- Hardened
- Black coating



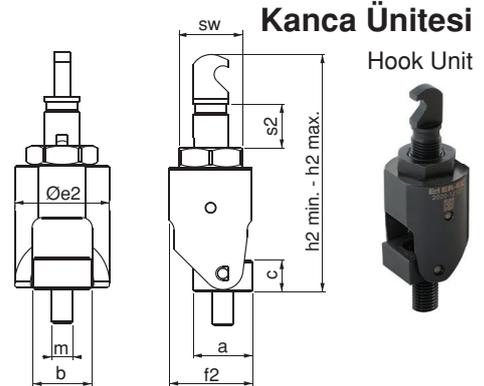
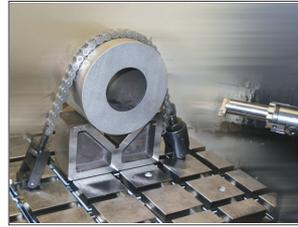
| Referans Nr. | | a | b | c | e2 | f2 | h2 min | h2 max | m | s2 | sw | Tork Torque Nm | Sıkma Kuvveti Clamping Force kgf | (g) |
|--------------|-------------|----|----|----|----|----|--------|--------|-----|----|----|----------------|----------------------------------|------|
| 2020-12127 | 14-16-18 | 36 | 36 | 18 | 54 | 49 | 111 | 127 | M12 | 16 | 36 | 45 | 1500 | 945 |
| 2020-16170 | 18-20-22-24 | 37 | 44 | 25 | 70 | 62 | 140 | 170 | M16 | 30 | 46 | 90 | 4000 | 1890 |

Ürün Nr. 2020 Kanca Ünitesi

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2020 Hook Unit

- Hardened
- Black coating



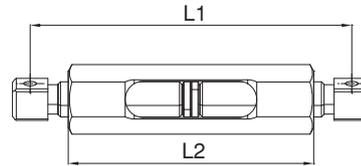
| Referans Nr. | L1 | L2 | (g) |
|--------------|---------|-----|-----|
| 2020-127 | 127-173 | 97 | 350 |
| 2020-164 | 164-225 | 126 | 800 |

Ürün Nr. 2020 Zincir Soketi

- Zincir burkulmalarını önlemek için kullanılır
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2020 Chain Socket

- Used to prevent chain buckling.
- Hardened
- Black coating



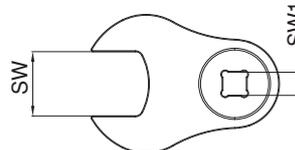
| Referans Nr. | SW | SW1 | (g) |
|--------------|----|-----|-----|
| 2020-36 | 36 | 1/2 | 320 |
| 2020-46 | 46 | 1/2 | 520 |

Ürün Nr. 2020 Tork Anahtarı Soketi

- Tork anahtarı için kullanılır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2020 Torque Wrench Socket

- Used to for torque wrench.
- Hardened
- Black coating


Tork Anahtarı Soketi

Torque Wrench Socket



YANDAN BAĞLAMA PABUÇLAR

SIDE CLAMPS



| Referans Nr. |  | c | L | b | n | k | k1 | k2 | L1 | d | d1 | d2 | sw | sıkma kuvveti clamping force Kgf | Tork Değeri Allowable Screw Torque (N-m) |  |
|--------------|---|---|----|----|----|----|----|----|----|-----|-----|-----|----|--|--|---|
| 2030-14 | 14 | 5 | 90 | 23 | 47 | 47 | 26 | 26 | 65 | M12 | M12 | M12 | 10 | 2000 | 35 | 3490 |
| 2030-16 | 16 | | | | | | | | | | | | | | | 3670 |
| 2030-18 | 18 | | | | | | | | | | | | | | | 5000 |
| 2030-20 | 20 | | | | | | | | | | | | | | | 5355 |
| 2030-22 | 22 | | | | | | | | | | | | | | | 5720 |
| 2030-24 | 24 | | | | | | | | | | | | | | | 6190 |
| 2030-28 | 28 | | | | | | | | | | | | | | | 6650 |

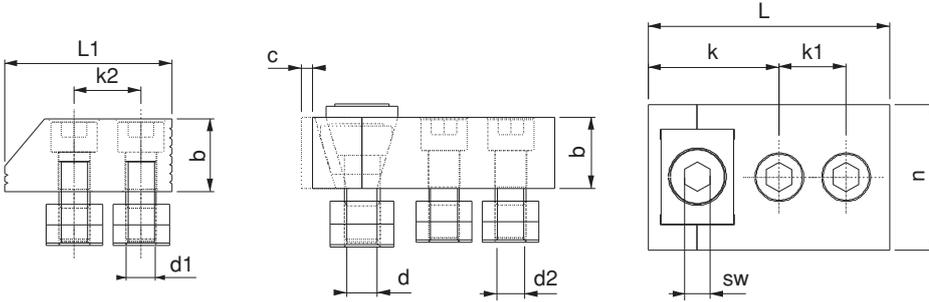


Ürün Nr. 2030 Dereceli Yandan Bağlama Set

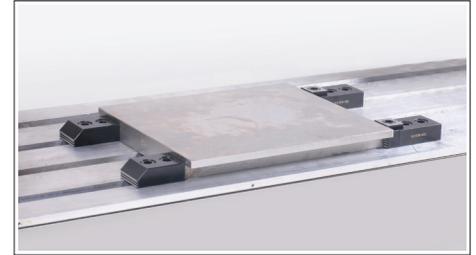
- İş parçasını dayama yönünde sıkıldığında parçanın özgün yapısını değişikliğe sebep vermez
- Sertleştirilmiş
- Siyah kaplama
- Plastik kutuda set

Product Nr. 2030 Graded side Wrench Set

- When the product clamps the work piece in the direction of rest, it does not cause alteration in the genuine structure of the piece.
- Hardened
- Black coating
- Set is in the plastic box



| Set İçindekiler / The set consists of | | | | | | |
|---------------------------------------|---|---|---|---|---|--|
| Parça Part |  |  |  |  |  |  |
| Adet Quantity | 2 | 2 | 10 | 10 | 1 | 1 |



Dereceli Yandan Bağlama Gövde

| Referans Nr. |  |
|--------------|---|
| 2035-14 | 14 |
| 2035-16 | 16 |
| 2035-18 | 18 |
| 2035-20 | 20 |
| 2035-22 | 22 |
| 2035-24 | 24 |
| 2035-28 | 28 |



Dereceli Yandan Bağlama Dayama

| Referans Nr. |  |
|--------------|---|
| 2040-14 | 14 |
| 2040-16 | 16 |
| 2040-18 | 18 |
| 2040-20 | 20 |
| 2040-22 | 22 |
| 2040-24 | 24 |
| 2040-28 | 28 |

Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilir.

Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.



| Referans Nr. | a | c | L | L1 | L2 | L3 | b | b1 ±0.01 | n | k | k1 | k2 | d | d1 | d2 | sw | sıkma kuvveti clamping force Kgf | Tork Doğeri Screw Torque (N-m) | (g) |
|--------------|----|---|-----|----|----|----|----|-------------|----|----|----|----|-----|-----|-----|----|--|--|-------|
| 2050-14 | 14 | 5 | 110 | 90 | 85 | 65 | 41 | 18 | 47 | 47 | 26 | 26 | M12 | M12 | M12 | 6 | 1000 | 15 | 5920 |
| 2050-16 | 16 | | | | | | | | | | | | | | | | | | 6210 |
| 2050-18 | 18 | | | | | | | | | | | | | | | | | | 8090 |
| 2050-20 | 20 | | | | | | | | | | | | | | | | | | 8440 |
| 2050-22 | 22 | 5 | 115 | 95 | 85 | 65 | 46 | 18 | 57 | 52 | 26 | 26 | M12 | M12 | M12 | 8 | 1250 | 20 | 8825 |
| 2050-24 | 24 | | | | | | | | | | | | | | | | | | 10080 |
| 2050-28 | 28 | | | | | | | | | | | | | | | | | | 10750 |



Ürün Nr. 2050 Dereceli Yandan Bağlama (Paralelli) Set

- İş parçasını dayama yönünde sıkıldığında parçanın özgün yapısını değişikliğe sebep vermez.

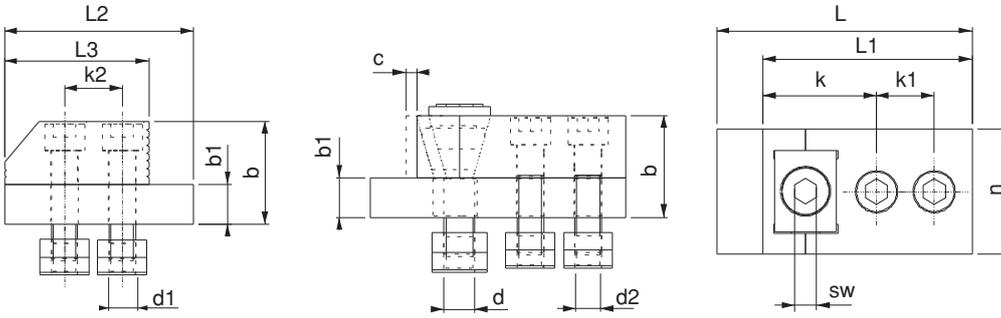
Paralelli oluşundan dolayı işlenen parçaya delik işlemi uygulanabilir.

- Sertleştirilmiş
- Siyah kaplama
- Plastik kutuda set

Product Nr. 2050 Graded side Wrench Set (With Parallel)

- When the product clamps the work piece in the direction of rest, it does not cause alteration in the genuine structure of the piece. Because of being with parallel, hole process can be applied on the machined piece.

- Hardened
- Black coating
- Set is in the plastic box



| Set İçindekiler / The set consists of | | | | | | |
|---------------------------------------|---|---|----|----|---|---|
| Parça Part | | | | | | |
| Adet Quantity | 2 | 2 | 10 | 10 | 2 | 1 |



Dereceli Yandan Bağlama (Paralelli) Gövde

| Referans Nr. | a |
|--------------|----|
| 2055-14 | 14 |
| 2055-16 | 16 |
| 2055-18 | 18 |
| 2055-20 | 20 |
| 2055-22 | 22 |
| 2055-24 | 24 |
| 2055-28 | 28 |



Dereceli Yandan Bağlama (Paralelli) Dayama

| Referans Nr. | a |
|--------------|----|
| 2060-14 | 14 |
| 2060-16 | 16 |
| 2060-18 | 18 |
| 2060-20 | 20 |
| 2060-22 | 22 |
| 2060-24 | 24 |
| 2060-28 | 28 |

Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilir.

Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.



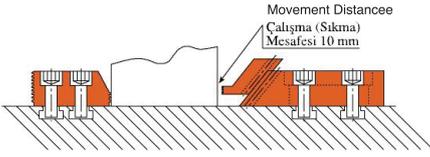
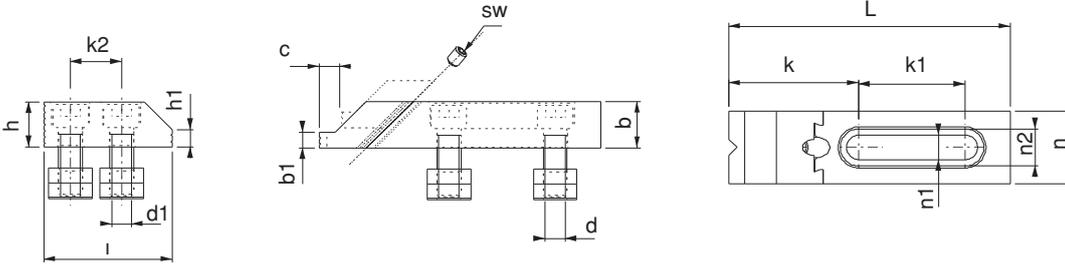
| Referans Nr. | | c | L | b | b1 | n | n1 | n2 | k | k1 | k2 | sw | i | h | h1 | d | d1 | sıkma kuvveti clamping force Kgf | Tork Değeri Allowable Screw Torque (N-m) | |
|--------------|----|----|-----|----|----|----|------|------|----|----|----|----|----|----|----|-----|-----|--|--|------|
| 2070-14 | 14 | 10 | 142 | 24 | 8 | 37 | 12.5 | 18.5 | 65 | 54 | 26 | 6 | 65 | 23 | 10 | M12 | M12 | 850 | 15 | 3575 |
| 2070-16 | 16 | | | | | | | | | | | | | | | | | | | 3710 |
| 2070-18 | 18 | 14 | 145 | 28 | 10 | 48 | 12.5 | 18.5 | 74 | 56 | 26 | 8 | 65 | 28 | 11 | M12 | M12 | 1000 | 35 | 5215 |
| 2070-20 | 20 | | | | | | | | | | | | | | | | | | | 5400 |
| 2070-22 | 22 | | | | | | | | | | | | | | | | | | | 5610 |

Ürün Nr. 2070 Kızaklı Yandan Bağlama Set

- Hareketli çenenin kızaklı yapısından dolayı iş parçasını dayama ve pleyt yönüne sıkar. Çenenin geniş hareketi iş parçasını bağlama ve sökmede kolaylık sağlar.
- DIN 650 T-Kanala uyumludur
- Çene Sertlik : Sertleştirilmiş
- Siyah kaplama
- Plastik kutuda set

Product Nr. 2070 Sliding Side Wrench Set

- Because of the sliding structure of the moving jaw it clamps the work piece in the direction of resting and plate.
- Wide movement of the jaw provides convenience in coupling and dismantling of the workpiece.
- It is in compliance with DIN 650 T-Slot
- Hardness of jaw: Hardened
- Black coating
- Set is in the plastic box



Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilir.

Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.

Set İçindekiler / The set consists of

| Parça Part | | | | | | |
|---------------|---|---|---|---|---|---|
| Adet Quantity | 2 | 2 | 8 | 8 | 2 | 1 |



Kızaklı Yandan Bağlama Gövde

Sliding Side Wrench Body

| Referans Nr. | |
|--------------|----|
| 2075-14 | 14 |
| 2075-16 | 16 |
| 2075-18 | 18 |
| 2075-20 | 20 |
| 2075-22 | 22 |
| 2075-24 | 24 |
| 2075-28 | 28 |



Kızaklı Yandan Bağlama Dayama

Sliding Side Wrench Pluggable

| Referans Nr. | |
|--------------|----|
| 2040-14 | 14 |
| 2040-16 | 16 |
| 2040-18 | 18 |
| 2040-20 | 20 |
| 2040-22 | 22 |
| 2040-24 | 24 |
| 2040-28 | 28 |



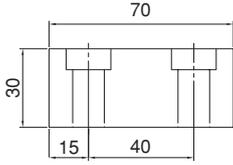
| Referans Nr. |  | Sıkma Kuvveti Clamping Force (Kgf) | Nm |  |
|----------------|---|---------------------------------------|----|---|
| 2070-MBS701214 | 14 | 2500 | 60 | 3.14 |
| 2070-MBS701216 | 16 | 2500 | 60 | 3.14 |
| 2070-MBS701218 | 18 | 2500 | 60 | 3.14 |
| 2070-MBS701220 | 20 | 2500 | 60 | 3.14 |

Ürün Nr. 2070 Yandan Bağlama Set

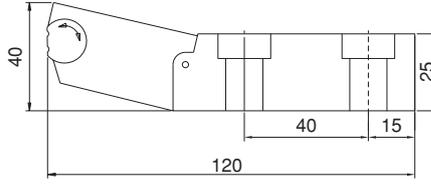
- Maşallı tasarımıyla düz olmayan yüzeylerde dahi mevcut yüzey şeklini alarak emniyetli bağlama yapar.

Product Nr. 2070 Side Wrench Set

- With its articulated design, it makes safe bonding even on uneven surfaces by taking the existing surface shape.



Genişlik / Width 40 mm.



Genişlik / Width 40 mm.



Yandan Bağlama Gövde

Side Press Body

| Referans Nr. |  |  |
|---------------|---|---|
| 2070-MS701114 | 14 | 0.87 |
| 2070-MS701116 | 16 | 0.87 |
| 2070-MS701118 | 18 | 0.87 |
| 2070-MS701120 | 20 | 0.87 |

Ürün Nr. 2070 Yandan Bağlama Gövde

- Maşallı tasarımıyla düz olmayan yüzeylerde dahi mevcut yüzey şeklini alarak emniyetli bağlama yapar.

Product Nr. 2070 Side Press Body

- With its articulated design, it makes safe bonding even on uneven surfaces by taking the existing surface shape.



Yandan Bağlama Dayama

Side Press Stopper

| Referans Nr. |  |  |
|---------------|---|---|
| 2070-MD702114 | 14 | 0.65 |
| 2070-MD702116 | 16 | 0.65 |
| 2070-MD702118 | 18 | 0.65 |
| 2070-MD702120 | 20 | 0.65 |

Ürün Nr. 2070 Yandan Bağlama Dayama

Product Nr. 2070 Side Press Stopper



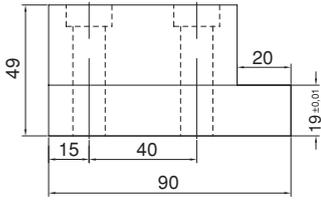
| Referans Nr. |  | Sıkma Kuvveti Clamping Force (Kgf) | Nm |  |
|----------------|---|---------------------------------------|----|---|
| 2070-MBS801114 | 14 | 2500 | 60 | 6.15 |
| 2070-MBS801116 | 16 | 2500 | 60 | 6.15 |
| 2070-MBS801118 | 18 | 2500 | 60 | 6.15 |
| 2070-MBS801120 | 20 | 2500 | 60 | 6.15 |

Ürün Nr. 2070 Yandan Bağlama (Paralelli) Set

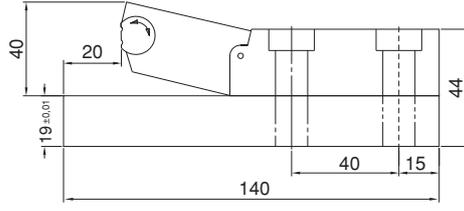
- Mafsallı tasarımıyla düz olmayan yüzeylerde dahi mevcut yüzey şeklini alarak emniyetli bağlama yapar.

Product Nr. 2070 Side Wrench Set (With Parallel)

- With its articulated design, it makes safe bonding even on uneven surfaces by taking the existing surface shape.



Genişlik / Width 40 mm.



Genişlik / Width 40 mm.



| Referans Nr. |  |  |
|---------------|---|---|
| 2070-MS801214 | 14 | 1.86 |
| 2070-MS801216 | 16 | 1.86 |
| 2070-MS801218 | 18 | 1.86 |
| 2070-MS801220 | 20 | 1.86 |

Ürün Nr. 2070 Yandan Bağlama Gövde

- Mafsallı tasarımıyla düz olmayan yüzeylerde dahi mevcut yüzey şeklini alarak emniyetli bağlama yapar.

Product Nr. 2070 Side Press Body

- With its articulated design, it makes safe bonding even on uneven surfaces by taking the existing surface shape.

Yandan Bağlama Gövde

Side Press Body



| Referans Nr. |  |  |
|---------------|---|---|
| 2070-MD802214 | 14 | 1.18 |
| 2070-MD802216 | 16 | 1.18 |
| 2070-MD802218 | 18 | 1.18 |
| 2070-MD802220 | 20 | 1.18 |

Ürün Nr. 2070 Yandan Bağlama Dayama

Product Nr. 2070 Side Press Stopper

Yandan Bağlama Dayama

Side Press Stopper



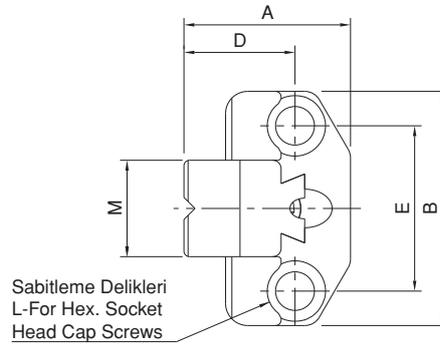
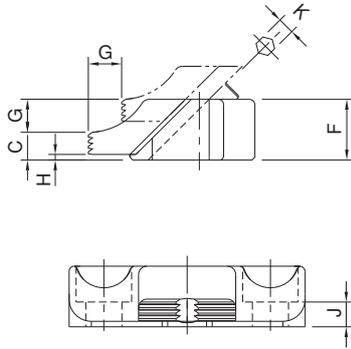
| Referans Nr. | A | B | C | D | E | F | G | H | J | K | L | M | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N-m) |  |
|--------------|------|-----|-----|----|----|----|----|-----|----|---|-----|----|--|--|---|
| 2072-08016 | 39.5 | 65 | 7.5 | 25 | 45 | 16 | 7 | 1.5 | 7 | 4 | M8 | 25 | 400 | 8 | 160 |
| 2072-12022 | 60 | 85 | 10 | 40 | 60 | 22 | 12 | 2 | 9 | 6 | M12 | 35 | 900 | 26 | 450 |
| 2072-16030 | 77 | 100 | 14 | 50 | 70 | 30 | 14 | 2 | 13 | 8 | M16 | 40 | 1700 | 60 | 900 |

Ürün Nr. 2072 Yandan Bağlama

- Siyah Kaplama

Product Nr. 2072 Side Clamps

- Black Coating


Yandan Bağlama

Side Clamps

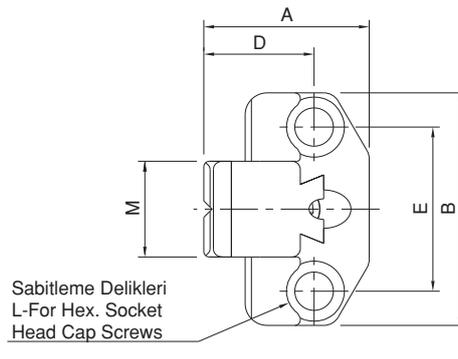
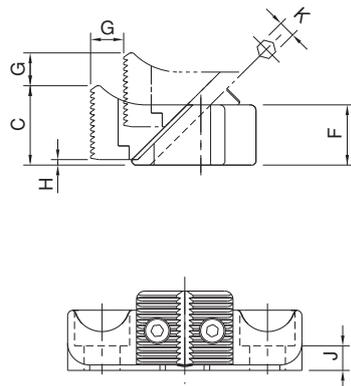
| Referans Nr. | A | B | C | D | E | F | G | H | J | K | L | M | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N-m) |  |
|--------------|------|-----|------|----|----|----|----|-----|----|---|-----|----|--|--|---|
| 2073-08016 | 39.5 | 65 | 19.5 | 25 | 45 | 16 | 7 | 1.5 | 7 | 4 | M8 | 25 | 400 | 8 | 180 |
| 2073-12022 | 60 | 85 | 29 | 40 | 60 | 22 | 12 | 2 | 9 | 6 | M12 | 35 | 900 | 26 | 500 |
| 2073-16030 | 77 | 100 | 38 | 50 | 70 | 30 | 14 | 2 | 13 | 8 | M16 | 40 | 1700 | 60 | 1010 |

Ürün Nr. 2073 Yandan Bağlama

- Çene Sertlik: Sertleştirilmiş
- Siyah Kaplama

Product Nr. 2073 Side Clamps

- Hardness of jaw: Hardened
- Black Coating



| Referans Nr. | A | B | C | D | E | F | G | H | J | K | L | M | N |
|--------------|----|----|----|----|------|-----|------|----|----|----|----|----|----------|
| 2077-08001 | 44 | 32 | 20 | 8 | 28.5 | 4 | 26.5 | 23 | 7 | 15 | 19 | 10 | M8x1.25 |
| 2077-10001 | 54 | 40 | 25 | 10 | 35 | 5 | 33 | 29 | 9 | 16 | 24 | 12 | M10x1.5 |
| 2077-12001 | 62 | 46 | 30 | 12 | 39.5 | 5.5 | 37.5 | 35 | 11 | 17 | 27 | 14 | M12x1.75 |

| Referans Nr. | P | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N-m) | (g) |
|--------------|----|--|--|-----|
| 2077-08001 | 6 | 350 | 45 | 160 |
| 2077-10001 | 8 | 550 | 55 | 310 |
| 2077-12001 | 10 | 700 | 70 | 490 |

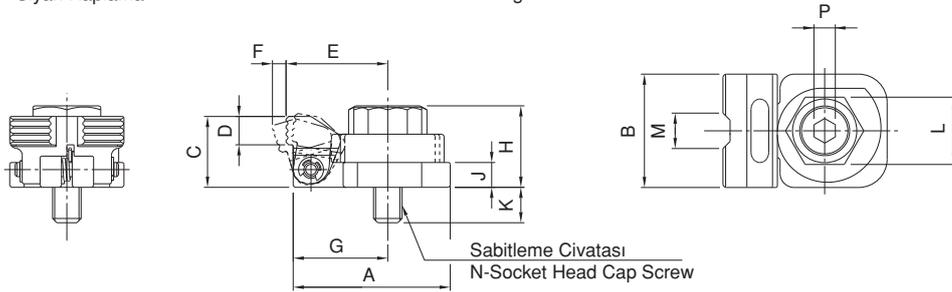


Ürün Nr. 2077 Yandan Bağlama

- Siyah Kaplama

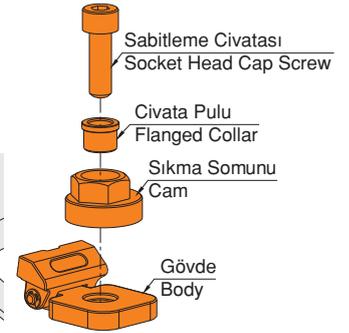
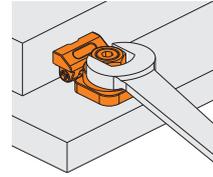
Product Nr. 2077 Side Clamps

- Black Coating



Kullanım Şekli / How To Use

- Önce parçayı sabitleyip sonra anahtar ile sıkma işlemi yapılır.
- Secure the body and the flanged collar with a socket head cap screw, and then turn the the cam with a wrench to clamp a workpiece.



Yandan Bağlama

Side Clamps

| Referans Nr. | a | A | H | L | S | Sıkma Kuvveti Clamping Force Kgf | (g) |
|--------------|----|----|----|-----|---|--|------|
| 2080-014 | 14 | 61 | 57 | 108 | 5 | 1500 | 1850 |
| 2080-016 | 16 | 61 | 57 | 108 | 5 | 1500 | 1850 |
| 2080-018 | 18 | 61 | 57 | 108 | 5 | 1500 | 1850 |
| 2080-020 | 20 | 61 | 57 | 108 | 5 | 1500 | 1850 |
| 2080-022 | 22 | 61 | 57 | 108 | 5 | 1500 | 1850 |
| 2080-024 | 24 | 61 | 57 | 108 | 5 | 1500 | 1850 |
| 2080-028 | 28 | 61 | 57 | 108 | 5 | 1500 | 1850 |



Ürün Nr. 2080 Yandan Bağlama

- Vida kaldırması ile dikey ve yatay sıkma kuvveti sağlamakta.

Gövde

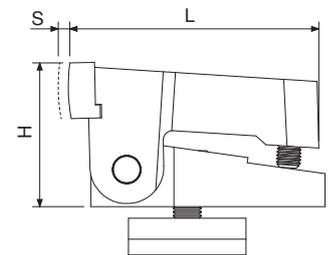
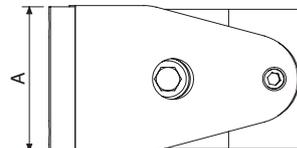
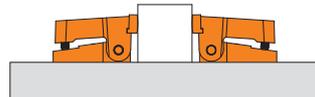
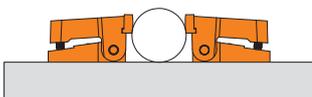
- Statik Boya
- Çene
- Sertleştirilmiş

Product Nr. 2080 Side Clamps

- Vertical down thrust and horizontal clamping force available simultaneously with the operation of leverage screw

Body

- Statical Painting
- Jaw
- Hardened



| Referans Nr. |  | c | b | k1 | k2 | k3 | k4 | L | h | h1 | d | d1 | sıkma kuvveti clamping force Kgf |  (g) |
|--------------|---|-----|----|----|----|----|----|----|----|----|-----|-----|--|--|
| 2090-14 | 14 | 3.5 | 30 | 95 | 99 | 26 | 26 | 65 | 28 | 10 | M12 | M12 | 3500 | 7925 |
| 2090-16 | 16 | | | | | | | | | | | | | 8490 |
| 2090-18 | 18 | | | | | | | | | | | | | 4610 |
| 2090-20 | 20 | | | | | | | | | | | | | 8850 |
| 2090-22 | 22 | | | | | | | | | | | | | 9030 |
| 2090-24 | 24 | | | | | | | | | | | | | 9490 |
| 2090-28 | 28 | | | | | | | | | | | | | 9800 |

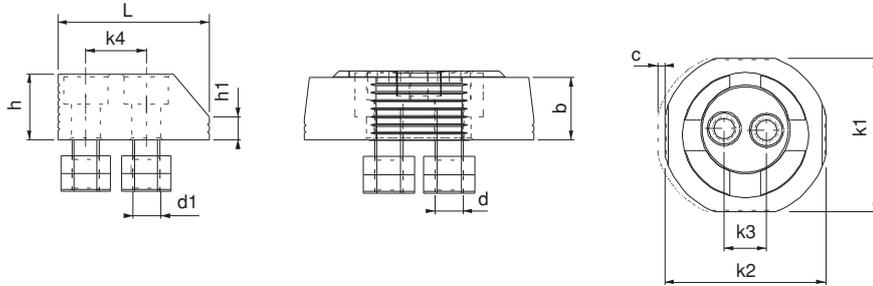


Ürün Nr. 2090 Kollu Yandan Bağlama Set

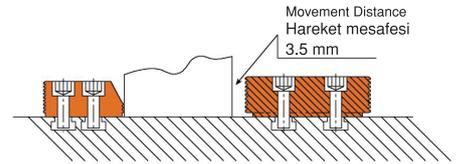
- Ürünün eksantrik çalışma sistemi saat yönünde sıkıldığında iş parçasını dayama ve pleyt yönüne özel dizayn anahtarı ile yüksek kuvvette sıkır.
- 1-Kollu yandan sıkma pabucunun eksantrik hareketi 3.5 mm'dir.
- 2-Ürün iş parçasına 1.5 - 2 mm yakınlaştırılır.
- 3-10 mm alyan ile imbus civataları sabitlenir.
- 4-Ürünü anahtarı ile saat yönünde çevirerek iş parçasını sabitleme işlemi gerçekleştirilir.
- DIN 650 T-Kanala uyumludur
- Somun Sertlik : Sertleştirilmiş
- Siyah kaplama
- Plastik kutuda set

Product Nr. 2090 Armed Side Press Set

- When the eccentric working system of the product is tightened clockwise, it clamps the work piece with high force in the direction of resting and plate with it's special designed wrench.
- 1-Eccentric movement of Armed Side Clamp 3.5 mm.
- 2-It brings the product 1.5 - 2mm close to the work piece
- 3-Imbus bolts are fixed with 10mm allen.
- 4-Fixing of the work piece is implemented by turning the product clockwise with the wrench.
- It is in compliance with DIN 650 T-Slot
- Hardness of nut: Hardened
- Black coating
- Set is in the plastic box



| Set İçindekiler / The set consists of | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|
| Parça Part |  |  |  |  |  |  |  |
| Adet Quantity | 2 | 2 | 1 | 8 | 8 | 1 | 1 |



Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilir.
Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.

| Referans Nr. |  |
|--------------|---|
| 2090-114 | 14 |
| 2090-116 | 16 |
| 2090-118 | 18 |
| 2090-120 | 20 |
| 2090-122 | 22 |
| 2090-124 | 24 |
| 2090-128 | 28 |

Kollu Yandan Bağlama Gövde

Armed Side Press Body



| Referans Nr. |  |
|--------------|---|
| 2040-14 | 14 |
| 2040-16 | 16 |
| 2040-18 | 18 |
| 2040-20 | 20 |
| 2040-22 | 22 |
| 2040-24 | 24 |
| 2040-28 | 28 |

Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilir.
Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.

Kollu Yandan Bağlama Dayama

Armed Side Press Pluggable



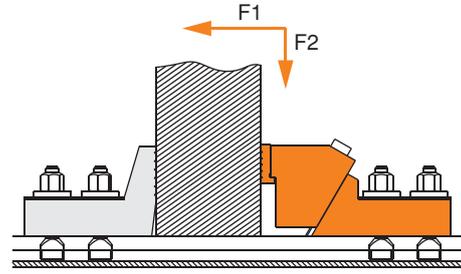
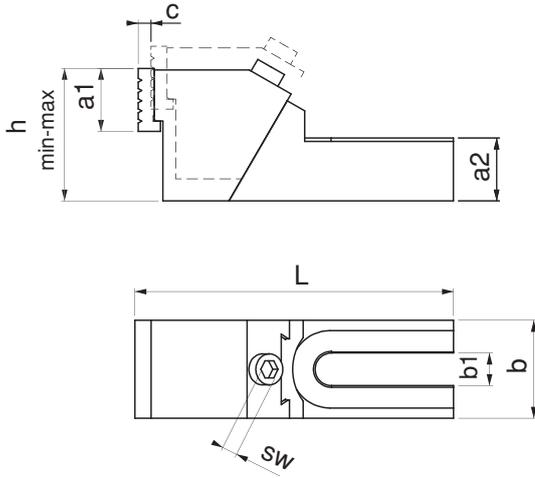
| Referans Nr. |  | a1 | a2 | b | b1 | c | h min-max | L | sw | Nm | F1 Sıkma kuvveti Clamping force Kgf | F2 Sıkma kuvveti Clamping force Kgf |  (kg) |
|--------------|---|----|----|----|----|----|-----------|-----|----|----|-------------------------------------|-------------------------------------|--|
| 2095-571 | 14-16-18 | 37 | 37 | 57 | 19 | 8 | 78-92 | 185 | 10 | 30 | 2250 | 350 | 3.68 |
| 2095-761 | 20-22-24-28 | 37 | 45 | 76 | 26 | 11 | 98-118 | 240 | 14 | 55 | 3000 | 450 | 7.66 |

Ürün Nr. 2095 Blok Yandan Bağlama

- İş parçasını dayama ve pleyt yönüne sıkır özellikle yüksek iş parçaları için tasarlanmıştır
- Çene Sertlik: Sertleştirilmiş
- Siyah kaplama

Product Nr. 2095 Block Side Press

- It clamps the workpieces in clamp rest direction and plate direction, it is designed especially for high workpieces.
- Hardness of jaw: Hardened
- Black coating



Blok Yandan Bağlama

Block Side Press

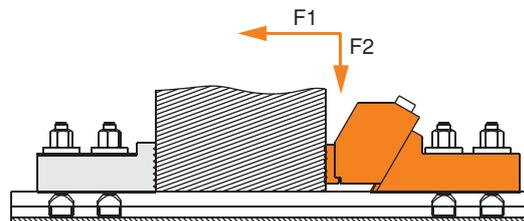
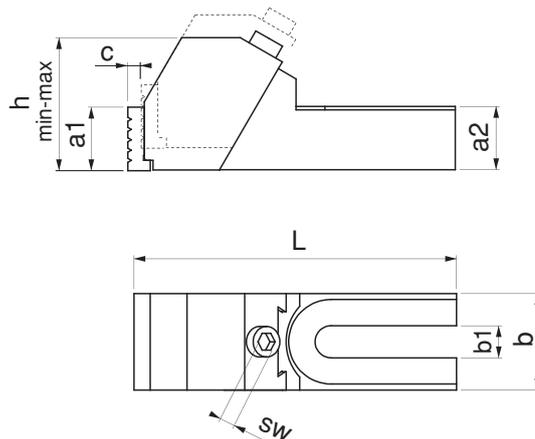
| Referans Nr. |  | a1 | a2 | b | b1 | c | h min-max | a1 min-max | L | sw | Nm | F1 Sıkma kuvveti Clamping force Kgf | F2 Sıkma kuvveti Clamping force Kgf |  (kg) |
|--------------|---|----|----|----|----|----|-----------|------------|-----|----|----|-------------------------------------|-------------------------------------|--|
| 2095-572 | 14-16-18 | 37 | 37 | 57 | 19 | 8 | 76-98 | 37-57 | 185 | 10 | 30 | 2250 | 350 | 3.6 |
| 2095-762 | 20-22-24-28 | 37 | 45 | 76 | 26 | 11 | 98-118 | 37-57 | 240 | 14 | 55 | 3000 | 450 | 6.7 |

Ürün Nr. 2095 Blok Yandan Bağlama

- İş parçasını dayama ve pleyt yönüne sıkır büyük plakaların bağlanabilmesi için tasarlanmıştır
- Çene Sertlik: Sertleştirilmiş
- Siyah kaplama

Product Nr. 2095 Block Side Press

- It clamps the workpieces in clamp rest direction and plate direction, it is designed for clamping big plates.
- Hardness of jaw: Hardened
- Black coating



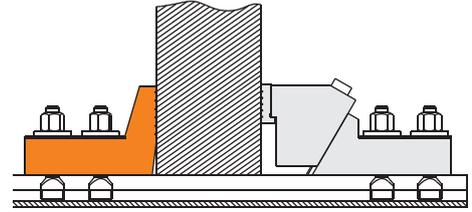
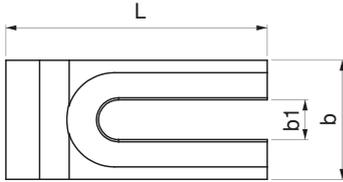
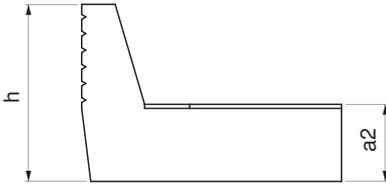
| Referans Nr. |  | a2 | b | b1 | h | L |  (kg) |
|--------------|---|----|----|----|-----|-----|---|
| 2098-571 | 14-16-18 | 37 | 57 | 19 | 85 | 124 | 2.025 |
| 2098-761 | 20-22-24-28 | 45 | 76 | 26 | 105 | 154 | 4.185 |

Ürün Nr. 2098 Blok Yandan Bağlama Dayaması

- 2095-571 ve 761 pabuçlar için dayama olarak tasarlanmıştır.
- Siyah kaplama

Product Nr. 2098 Block Stopper Side Press

- It is designed as clamp rest for clamps 2095-571 and 761.
- Black coating



Blok Yandan Bağlama Dayaması

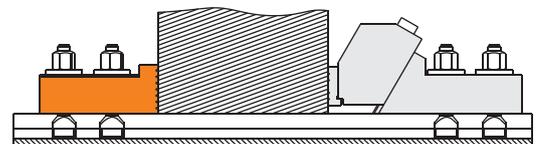
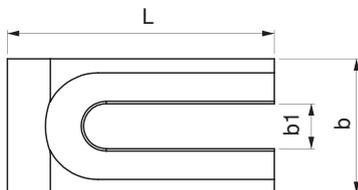
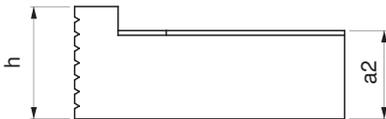
| Referans Nr. |  | a2 | b | b1 | h | L |  (kg) |
|--------------|---|----|----|----|----|-----|---|
| 2098-572 | 14-16-18 | 37 | 57 | 19 | 47 | 112 | 2.800 |
| 2098-762 | 20-22-24-28 | 45 | 76 | 26 | 49 | 140 | 4.185 |

Ürün Nr. 2098 Blok Yandan Bağlama Dayaması

- 2095-572 ve 762 pabuçlar için dayama olarak tasarlanmıştır.
- Siyah kaplama

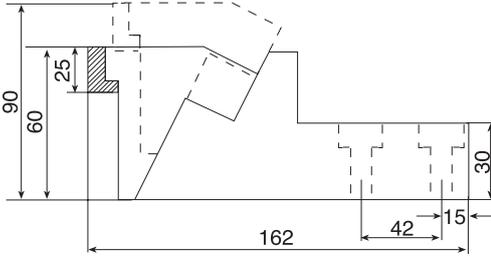
Product Nr. 2098 Block Stopper Side Press

- It is designed as clamp rest for clamps 2095-572 and 762.
- Black coating



| Referans Nr. |  | Sıkma Kuvveti Clamping Force (Kgf) | Nm |  |
|----------------|---|---------------------------------------|----|---|
| 2105-MYB404114 | 14 | 3000 | 55 | 2.80 |
| 2105-MYB404116 | 16 | 3000 | 55 | 2.80 |
| 2105-MYB404118 | 18 | 3000 | 55 | 2.80 |
| 2105-MYB404120 | 20 | 3000 | 55 | 2.80 |
| 2105-MYB404122 | 22 | 3000 | 55 | 2.80 |
| 2105-MYB404124 | 24 | 3000 | 55 | 2.80 |

Ürün Nr. 2105 Blok Yandan Bağlama
Product Nr. 2105 Block Side Press

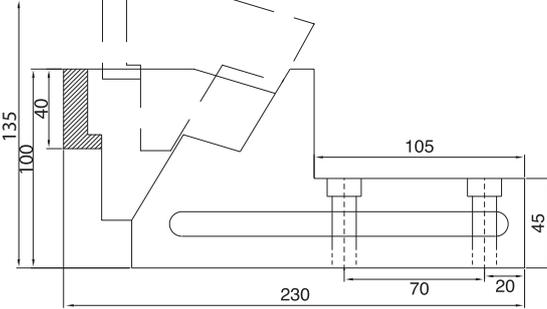


Genişlik / Width 54 mm.



| Referans Nr. |  | Sıkma Kuvveti Clamping Force (Kgf) | Nm |  |
|----------------|---|---------------------------------------|----|---|
| 2105-MYB901120 | 20 | 3000 | 55 | 6.85 |
| 2105-MYB901122 | 22 | 3000 | 55 | 6.85 |
| 2105-MYB901124 | 24 | 3000 | 55 | 6.85 |
| 2105-MYB901128 | 28 | 3000 | 55 | 6.85 |

Ürün Nr. 2105 Blok Yandan Bağlama
Product Nr. 2105 Block Side Press

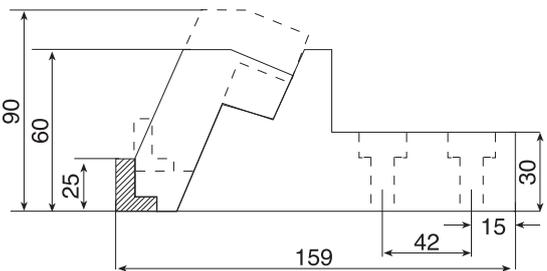


Genişlik / Width 68 mm.

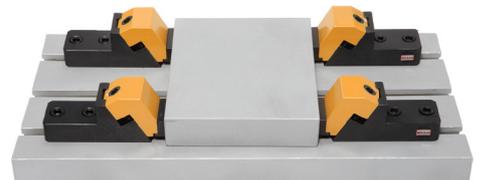


| Referans Nr. |  | Sıkma Kuvveti Clamping Force (Kgf) | Nm |  |
|----------------|---|---------------------------------------|----|---|
| 2105-MYB303114 | 14 | 3000 | 55 | 2.80 |
| 2105-MYB303116 | 16 | 3000 | 55 | 2.80 |
| 2105-MYB303118 | 18 | 3000 | 55 | 2.80 |
| 2105-MYB303120 | 20 | 3000 | 55 | 2.80 |
| 2105-MYB303122 | 22 | 3000 | 55 | 2.80 |
| 2105-MYB303124 | 24 | 3000 | 55 | 2.80 |

Ürün Nr. 2105 Blok Yandan Bağlama
Product Nr. 2105 Block Side Press

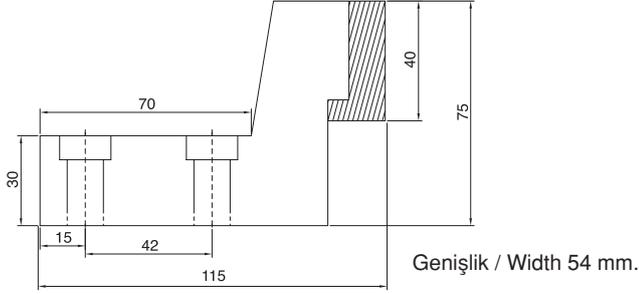


Genişlik / Width 54 mm.



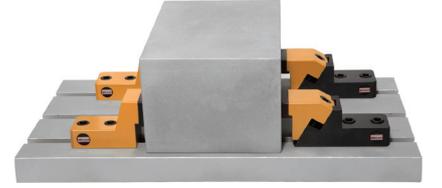
| Referans Nr. | a | (kg) |
|---------------|----|------|
| 2105-MD404214 | 14 | 1.86 |
| 2105-MD404216 | 16 | 1.86 |
| 2105-MD404218 | 18 | 1.86 |
| 2105-MD404220 | 20 | 1.86 |
| 2105-MD404222 | 22 | 1.86 |
| 2105-MD404224 | 24 | 1.86 |

Ürün Nr. 2105 Blok Yandan Bağlama Dayaması
Product Nr. 2105 Block Stopper Side Press



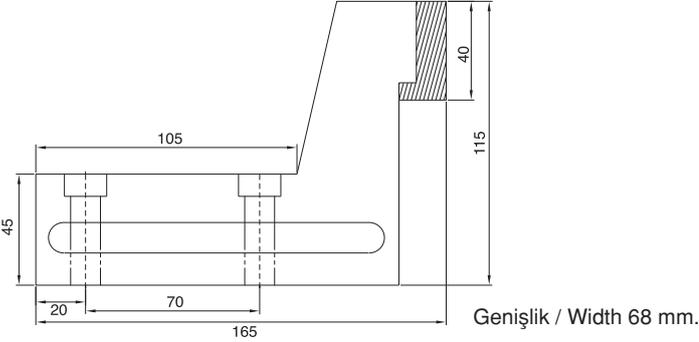
Blok Yandan Bağlama Dayaması

Block Stopper Side Press



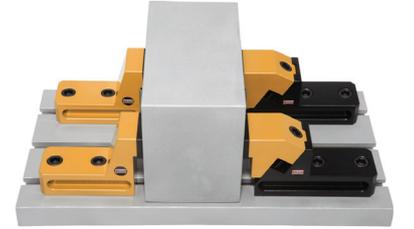
| Referans Nr. | a | (kg) |
|---------------|----|------|
| 2105-MD902120 | 20 | 4.50 |
| 2105-MD902122 | 22 | 4.50 |
| 2105-MD902124 | 24 | 4.50 |
| 2105-MD902128 | 28 | 4.50 |

Ürün Nr. 2105 Blok Yandan Bağlama Dayaması
Product Nr. 2105 Block Stopper Side Press



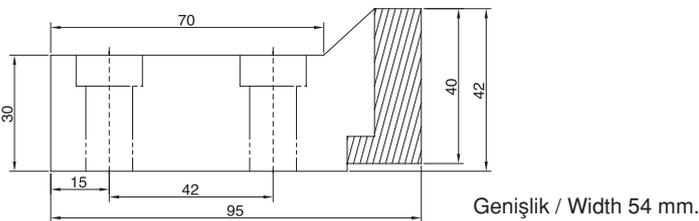
Blok Yandan Bağlama Dayaması

Block Stopper Side Press



| Referans Nr. | a | (kg) |
|---------------|----|------|
| 2105-MD303214 | 14 | 1.17 |
| 2105-MD303216 | 16 | 1.17 |
| 2105-MD303218 | 18 | 1.17 |
| 2105-MD303220 | 20 | 1.17 |
| 2105-MD303222 | 22 | 1.17 |
| 2105-MD303224 | 24 | 1.17 |

Ürün Nr. 2105 Blok Yandan Bağlama Dayaması
Product Nr. 2105 Block Stopper Side Press



Blok Yandan Bağlama Dayaması

Block Stopper Side Press



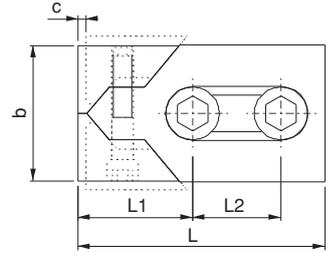
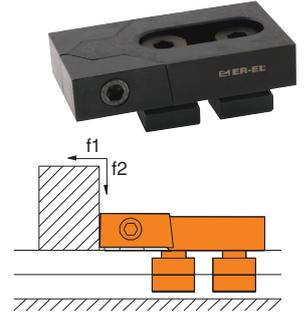
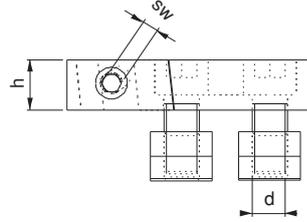
| Referans Nr. | a | c | h | b | L | L1 | L2 | sw | d | Sıkma Kuvveti Clamping Force | | (g) |
|--------------|----|---|------|----|-----|----|----|----|-----|------------------------------|--------|------|
| | | | | | | | | | | f1 Kgf | f2 Kgf | |
| 2110-12 | 12 | 3 | 20 | 40 | 80 | 39 | 26 | 6 | M10 | 1600 | 60 | 415 |
| 2110-14 | 14 | | | | | | | | | 2200 | 90 | 425 |
| 2110-16 | 16 | | | | | | | | | 3200 | 120 | 785 |
| 2110-18 | 18 | 4 | 25 | 50 | 100 | 46 | 34 | 8 | M14 | 3600 | 140 | 810 |
| 2110-20 | 20 | | | | | | | | | 3600 | 140 | 850 |
| 2110-22 | 22 | | | | | | | | | 3600 | 140 | 2275 |
| 2110-24 | 24 | 5 | 28.5 | 78 | 140 | 65 | 50 | 10 | M20 | 3600 | 140 | 2360 |
| 2110-28 | 28 | | | | | | | | | 4000 | 160 | 2500 |

Ürün Nr. 2110 Çift Çeneli Yandan Bağlama

- İş parçasını dayama ve pleyt yönünde sıkır, pabucun yapısından dolayı kuvvetli sıkma yapar.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2110 Side Press Clamp with Double Claw

- Product clamps the work piece in the direction of rest and plate.
- It achieves powerful clamping because of the clamp's structure.
- Hardened
- Black coating



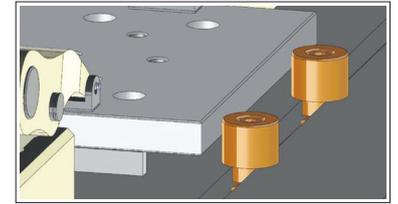
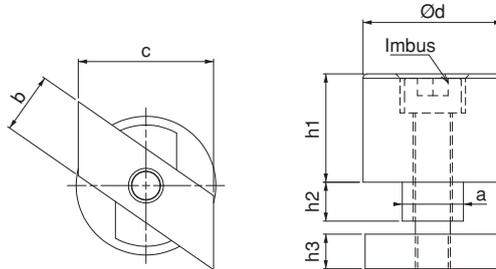
| Referans Nr. | a | a h6 | b -0.6 | C DIN 650 | d ±0.01 | h1 ±0.01 | h1 ±0.02 | h2 | h3 | ISO 4762 | (g) |
|--------------|----|---------|--------|-----------|---------|----------|----------|----|----|----------|-----|
| | | | | | | | | | | | |
| 2120-1450 | 14 | 0-0.011 | 14 | 24 | 32 | - | 50 | 9 | 8 | M8x60 | 355 |
| 2120-1825 | 18 | 0-0.011 | 18 | 30 | 40 | 25 | - | 15 | 10 | M10x40 | 360 |
| 2120-1850 | 18 | 0-0.011 | 18 | 30 | 40 | - | 50 | 15 | 10 | M10x65 | 600 |
| 2120-2225 | 22 | 0-0.013 | 22 | 38 | 40 | 25 | - | 15 | 14 | M10x50 | 410 |
| 2120-2250 | 22 | 0-0.013 | 22 | 38 | 40 | - | 50 | 15 | 14 | M10x75 | 650 |

Ürün Nr. 2120 Silindir Dayama

- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 2120 Cylinder Pluggable

- Hardened
- Black coating



Silindir Dayama

Cylinder Pluggable

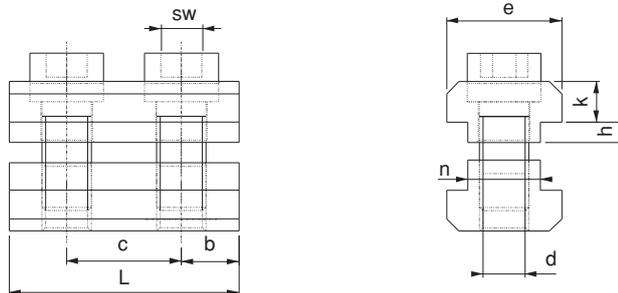
| Referans Nr. | a | n | e | c | d | b | h | k | L | sw | (g) |
|--------------|----|------|----|----|-----|------|---|----|----|----|------|
| | | | | | | | | | | | |
| 2130-14 | 14 | 13.7 | 22 | 22 | M8 | 11 | 4 | 8 | 44 | 6 | 180 |
| 2130-16 | 16 | 15.7 | 25 | 25 | M12 | 12.5 | 5 | 9 | 50 | 10 | 270 |
| 2130-18 | 18 | 17.7 | 28 | 28 | M12 | 14 | 5 | 10 | 56 | 10 | 355 |
| 2130-20 | 20 | 19.7 | 32 | 32 | M16 | 16 | 5 | 12 | 64 | 14 | 570 |
| 2130-22 | 22 | 21.7 | 35 | 35 | M16 | 17.5 | 6 | 14 | 70 | 14 | 770 |
| 2130-24 | 24 | 23.7 | 40 | 40 | M20 | 20 | 6 | 16 | 80 | 17 | 1180 |
| 2130-28 | 28 | 27.7 | 44 | 44 | M20 | 22 | 6 | 18 | 88 | 17 | 1560 |

Ürün Nr. 2130 Dayama

- Dayama referans alma, uzunlamasına ve enlemesine kullanılır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2130 Clamp Rest

- Clamp Rest is used for reference taking, longitudinal and cross-wise.
- Hardened
- Black coating



Dayama

Clamp Rest

| Referans Nr. | Stopersiz Kullanım In Use Without Slip Stopper | | Stoperli Kullanım In Use With Slip Stopper | |  (kg) |
|--------------|---|--|---|--|---|
| | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N-m) | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N-m) | |
| 2135-1260 | 2900 | 38 | 6900 | 90 | 2.4 |

M12 civata için 4 adet pul dahildir.
4 washers for M12 bolts are included.

Ürün Nr. 2135 Yandan Bağlama

Gövde

- Malzeme: Dökme Demir
- Siyah kaplama

Çene

- Sertleştirilmiş
- Siyah Kaplama

Civata

- Sertlik: İndüksiyon
- Siyah Kaplama

Product Nr. 2135 Side Clamps

Body

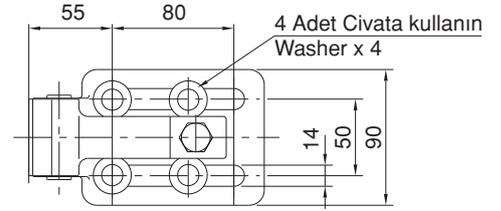
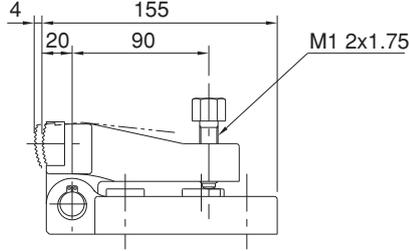
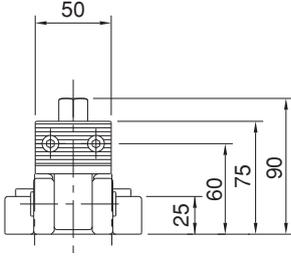
- Material: Cast Iron
- Black coating

Jaw

- Hardened
- Black coating

Bolt

- Hardness: Induction
- Black coating



Yandan Bağlama

Side Clamps

| Referans Nr. | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N-m) |  (kg) |
|--------------|--|--|---|
| 2137-16060 | 5800 | 150 | 2.9 |

M12 ve M16 vidalar için 2 adet dereceli pul dahildir.
2 spherical washers for both M12 and M16 screws are included.

Ürün Nr. 2137 Yandan Bağlama

Gövde

- Malzeme: Dökme Demir
- Siyah kaplama

Çene

- Sertleştirilmiş
- Siyah Kaplama

Civata

- Sertlik: İndüksiyon
- Siyah Kaplama

Product Nr. 2137 Side Clamps

Body

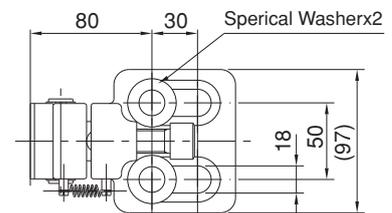
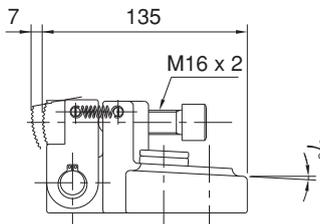
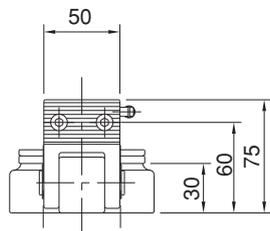
- Material: Cast Iron
- Black coating

Jaw

- Hardened
- Black coating

Bolt

- Hardness: Induction
- Black coating



| Referans Nr. | W1 | W2 | H1 | H2 | M | P1 | H4 | L4 | W | L3 | H5 | d | L5 | P |
|--------------|----|----|----|----|--------|----|----|----|-----|----|----|-----|----|----|
| 2139-32150 | 45 | 15 | 27 | 18 | M4x0.7 | 30 | 18 | 13 | 75 | 20 | 8 | 6.6 | 3 | 60 |
| 2139-40200 | 60 | 20 | 33 | 22 | M5x0.8 | 40 | 22 | 17 | 100 | 26 | 10 | 8.6 | 4 | 80 |

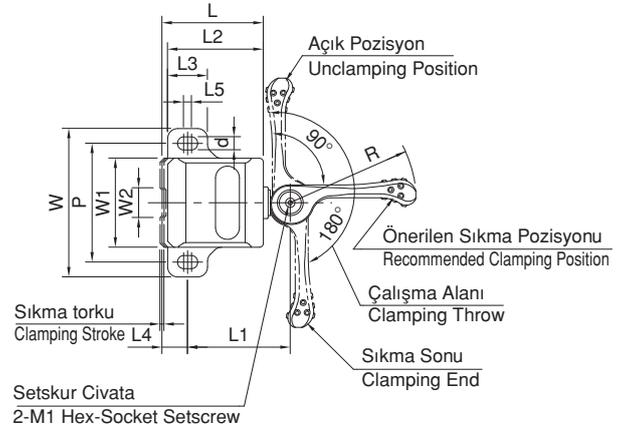
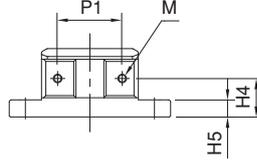
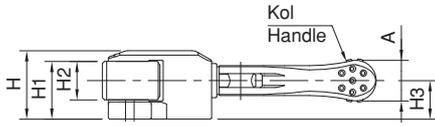
| Referans Nr. | H | L | L2 | R | L1 | H3 | M1 |
|--------------|----|----|----|----|------|----|--------|
| 2139-32150 | 32 | 51 | 48 | 63 | 51.5 | 18 | M4x0.7 |
| 2139-40200 | 40 | 67 | 63 | 80 | 67 | 22 | M5x0.8 |

| Referans Nr. | A | Sıkma Torku Clamping Stroke | Çalışma Yüğü Operating Load (N) | Sıkma Kuvveti Clamping Force Kgf |  |
|--------------|----|--------------------------------|------------------------------------|-------------------------------------|---|
| 2139-32150 | 19 | 1.6 | 150 | 200 | 620 |
| 2139-40200 | 24 | 2.2 | 200 | 300 | 1360 |



Ürün Nr. 2139 Tek Dokunuş Yandan Bağlama
• Siyah kaplama

Product Nr. 2139 Cam Edge Clamps
• Black coating

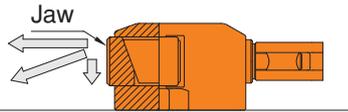


Özellikler

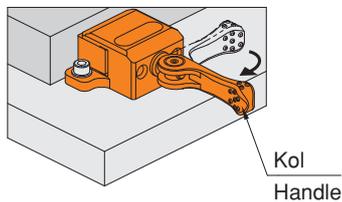
- Kol ile tek dokunuşta sıkma.
- Finiş işlerde mükemmel bağlama.
- Parçanın kalkmaması için çeneyi aşağı ve ileri iter.

Features

- The cam handle allows fast clamping in single operation.
- Precision-ground jaw is perfect for clamping the workpiece on its finished surface.
- In clamping, the jaw provides downward force to prevent part lift.



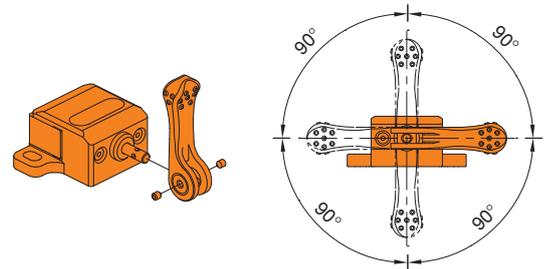
Kullanım Şekli How To Use



Kol Konumunu Değiştirme 90 derece 4 opsiyonlu kullanım

Changing Handle Position

The handle shaft has 4 countersinks which are provided every 90° for 4 options of handle position



| Referans Nr. | Sıkma Torku Clamping Stroke | W1 | W2 | H3 | H4 | L2 | W | L | H2 | d | P | H5 | L1 |
|--------------|--------------------------------|----|----|----|----|----|----|------|----|-----|----|----|------|
| 2141-00010 | 1 | 38 | 8 | 6 | 3 | 15 | 45 | 33.5 | 10 | 5.2 | 36 | 5 | 30.5 |
| 2141-00015 | 2 | 60 | 12 | 9 | 5 | 22 | 70 | 50 | 15 | 8.2 | 55 | 7 | 46 |

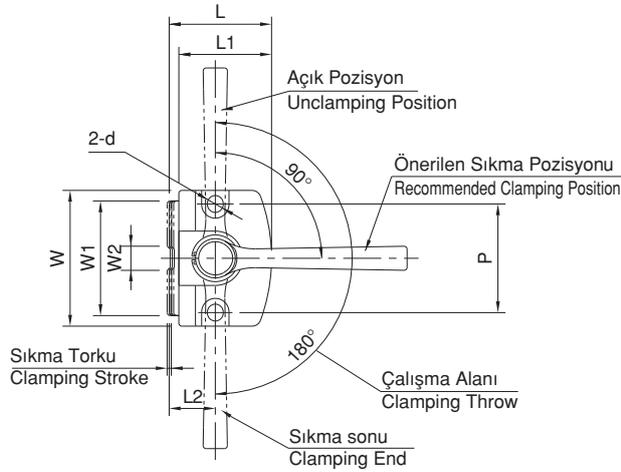
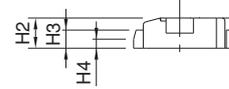
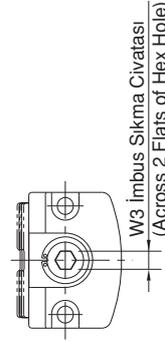
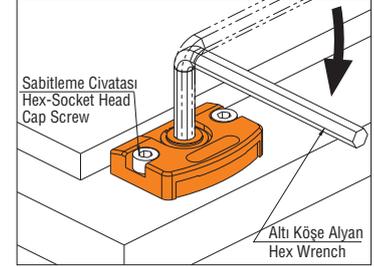
| Referans Nr. | H | D | H1 | R | A | W3 | M1 | İzin Verilen Tork Allowable Screw Torque (N m) | Sıkma Kuvveti Clamping Force Kgf | |
|--------------|----|----|----|-----|----|----|--------|---|--|-----|
| 2141-00010 | 30 | 13 | 20 | 63 | 12 | 6 | M4x0.7 | 10 | 400 | 85 |
| 2141-00015 | 46 | 19 | 30 | 100 | 18 | 10 | M5x0.8 | 27 | 600 | 290 |

Ürün Nr. 2141 Yandan Bağlama

- Gövde**
- Siyah kaplama
- Çene**
- Sertleştirilmiş
 - Siyah Kaplama

Product Nr. 2141 Side Clamps

- Body**
- Black coating
- Jaw**
- Hardened
 - Black coating


Kullanım Şekli / How To Use


| Referans Nr. | S | W | W1 | H1 | L1 | P | D (h7) | H2 | M | L | H | T | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N-m) | |
|--------------|---|----|----|----|------|----|-----------|----|-----|----|----|-----|--|---|-----|
| 2143-08015 | 3 | 25 | 10 | 25 | 21.5 | 10 | 6 | 7 | M8 | 32 | 15 | 1.6 | 700 | 25 | 115 |
| 2143-10019 | 4 | 30 | 11 | 32 | 26 | 12 | 6 | 7 | M10 | 40 | 19 | 2 | 850 | 50 | 225 |
| 2143-12023 | 5 | 35 | 12 | 38 | 33 | 16 | 8 | 10 | M12 | 50 | 23 | 2.3 | 2000 | 90 | 390 |
| 2143-16025 | 6 | 40 | 14 | 45 | 40 | 20 | 10 | 10 | M16 | 60 | 25 | 3.2 | 3000 | 150 | 640 |

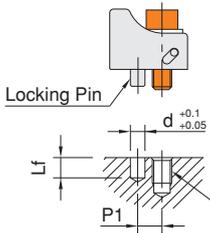
Yandan Bağlama

Ürün Nr. 2143 Yandan Bağlama

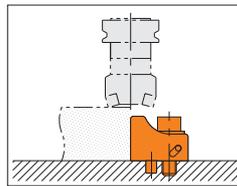
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 2143 Side Clamps

- Hardened
- Black coating

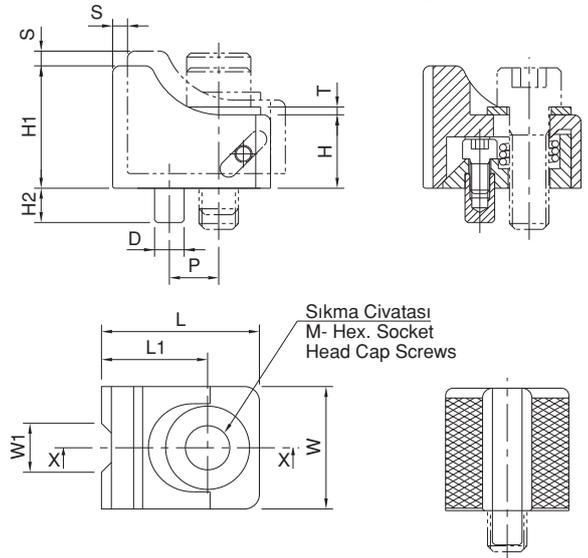
Kurulum ve Kullanım Şekli / How To Use and Install


| Nr. | M1 | d | Lf | P1 |
|-------------|-----|----|----|----|
| CP107-08015 | M 8 | 6 | 8 | 10 |
| CP107-10019 | M10 | 6 | 8 | 12 |
| CP107-12023 | M12 | 8 | 11 | 16 |
| CP107-16025 | M16 | 10 | 11 | 20 |



Üst tarafta görüldüğü gibi sabitlemek için bir pim, bir civata deliği gerekli.

Drill a cap-screw hole and a locking-pin hole as specified on the up.



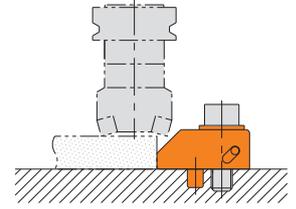
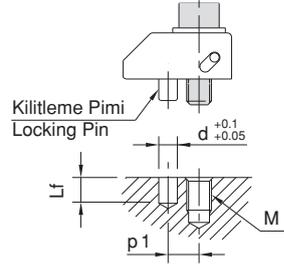
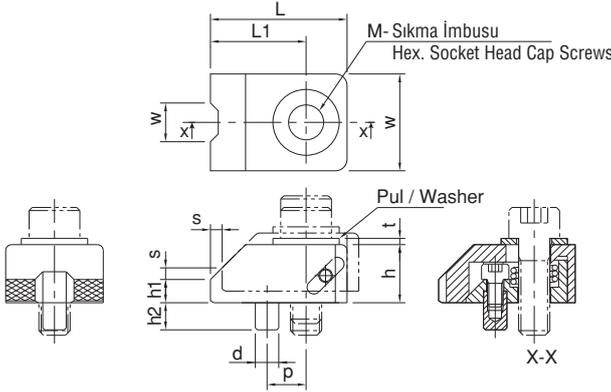
| Referans Nr. | s | w | w1 | h1 | L1 | P | d (h7) | h2 | M | L | h | t | Sıkma Kuvveti Clamping Force (N) | izin Verilen Tork Allowable Screw Torque (N-m) | (g) |
|--------------|---|----|----|----|------|----|--------|----|-----|----|----|-----|----------------------------------|--|-----|
| 2144-08015 | 3 | 25 | 10 | 6 | 24.5 | 10 | 6 | 7 | M8 | 35 | 15 | 1.6 | 7.000 | 25 | 100 |
| 2144-10019 | 4 | 30 | 11 | 8 | 29 | 12 | 6 | 7 | M10 | 43 | 19 | 2 | 8.500 | 50 | 185 |
| 2144-12023 | 5 | 35 | 12 | 9 | 37 | 16 | 8 | 10 | M12 | 54 | 23 | 2.3 | 20.000 | 90 | 320 |
| 2144-16025 | 6 | 40 | 14 | 10 | 45 | 20 | 10 | 10 | M16 | 65 | 25 | 3.2 | 30.000 | 150 | 520 |

Ürün Nr. 2144 Yandan Bağlama

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2144 Side Clamp

- Hardened
- Black coating



Uygulama Örneği / Application Example

| Referans Nr. | M1 | d | Lf | p1 |
|--------------|-----|----|----|----|
| 2144-08015 | M 8 | 6 | 8 | 10 |
| 2144-10019 | M10 | 6 | 8 | 12 |
| 2144-12023 | M12 | 8 | 11 | 16 |
| 2144-16025 | M16 | 10 | 11 | 20 |

Düşük Profil Pabuçlar

Low-Profile Clamps

| Referans Nr. | W | H | Sıkma Torku Clamping Stroke | H1 | L1 | P | Lf | M | W1 | Sıkma Kuvveti Clamping Force kN | izin Verilen Tork Allowable Screw Torque (N-m) | (g) |
|---------------|------|-----|-----------------------------|------|------|------|----|-----------------|----|---------------------------------|--|-----|
| 2146-MBSC025A | 9.5 | 1.9 | 0.19 | 3.6 | 9.5 | 3.8 | 7 | M2.5 x 0.45- 8L | 2 | 2.8 | 1.8 | 3 |
| 2146-MBSC004A | 12.7 | 2.5 | 0.4 | 4.8 | 12.7 | 5.1 | 10 | M4 x 0.7 -12L | 3 | 6.6 | 5.6 | 7 |
| 2146-MBSC010A | 25.4 | 6.4 | 1.2 | 11.4 | 25.4 | 10.2 | 20 | M10 x 1.5 -25L | 8 | 17 | 40.6 | 65 |
| 2146-MBSC012A | 38.1 | 9.5 | 1.9 | 16.3 | 38.1 | 15.2 | 20 | M12 x 1.75-30L | 10 | 50 | 145 | 200 |

| Referans Nr. | W | H | Sıkma Torku Clamping Stroke | H1 | L1 | P | Lf | M | W1 | Sıkma Kuvveti Clamping Force kN | izin Verilen Tork Allowable Screw Torque (N-m) | (g) |
|---------------|------|-----|-----------------------------|------|------|------|----|-----------------|----|---------------------------------|--|-----|
| 2146-MBSC025B | 9.5 | 1.9 | 0.19 | 3.6 | 9.5 | 3.8 | 7 | M2.5 x 0.45- 8L | 2 | 2.8 | 1.8 | 3 |
| 2146-MBSC004B | 12.7 | 2.5 | 0.4 | 4.8 | 12.7 | 5.1 | 10 | M4 x 0.7 -12L | 3 | 6.6 | 5.6 | 7 |
| 2146-MBSC010B | 25.4 | 6.4 | 1.2 | 11.4 | 25.4 | 10.2 | 20 | M10 x 1.5 -25L | 8 | 17 | 40.6 | 65 |
| 2146-MBSC012B | 38.1 | 9.5 | 1.9 | 16.3 | 38.1 | 15.2 | 20 | M12 x 1.75-30L | 10 | 50 | 145 | 200 |

Ürün Nr. 2146

- Sertleştirilmiş
- Siyah oksit kaplama

Product Nr. 2146

- Hardened
- Black oxide coating

Özellikler:

- Basit ve kompakt tasarımı ince iş parçalarının bağlaması için mükemmeldir.
- MBSC-A'nın bıçak kenarı sıkı sıkıştırmaya izin verir. MBSC-B ve MBSC-C iş parçasının bitmiş yüzeyinde bağlamak için mükemmeldir.
- Pabuçlar bağlanmadığında, bağlama kenarı o-ring tarafından kaldırılır.
- MBSC-TC yüksek tutma kuvveti sağlamak için tungsten karbür kaplı bağlama kenarına sahiptir.

Features:

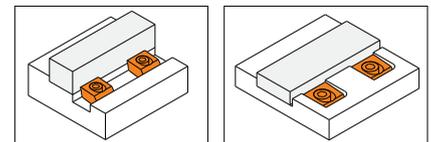
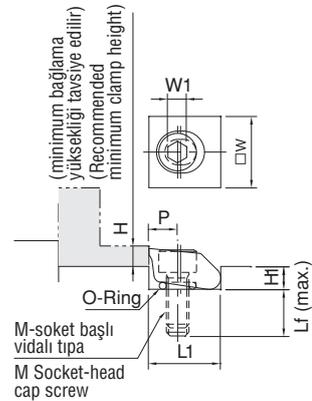
- Simple and compact design is perfect for clamping thin workpieces.
- The knife edge of MBSC -A allows firm clamping. MBSC -B and MBSC -C are perfect for clamping the workpiece on its finished surface.
- When the clamp is unclamped, the clamping edge is lifted by the O-ring.
- MBSC -TC has tungsten carbide coated clamping edge to provide high holding force.

Kurulum Talimatları

- 1- Pabuç için bir yuva açın.
- 2- Tıpa vidası için bir delik açın ve kılavuzlayın.
- 3- Pabuçu monte edin ve gevşek bir şekilde fiğstürüne vidalayın. Bu adımda, iş parçalarının takılması/çıkarılması için O-ring tarafından oluşturulan bir boşluk vardır.
- 4- İş parçasını yerleştirin ve tıpa vidasını sıkın.

Installation Instructions

1. Machine a slot for the clamp.
2. Drill and tap a hole for the cap screw.
3. Assemble the clamp and loosely screw to fixture. At this step, there is a clearance created by the O-ring for installation/removal of workpieces.
4. Insert workpiece and tighten cap screw.



MBSC...A



MBSC...B

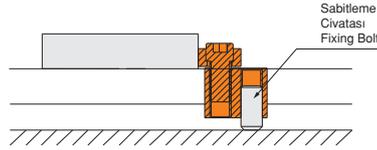
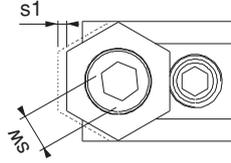
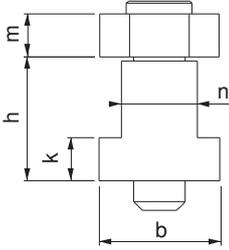
| Referans Nr. | | s1 | m | sw | L | h | k | n | b | Sıkma Kuvveti Clamping Force | |
|--------------|----|-----|----|----|----|-----|----|------|----|------------------------------|-----|
| | | | | | | | | | | kgf | (g) |
| 2150-08 | 8 | 1.4 | 5 | 4 | 23 | 9.5 | 6 | 7.7 | 13 | 310 | 25 |
| 2150-10 | 10 | 1.4 | 5 | 4 | 23 | 14 | 6 | 9.7 | 15 | 310 | 35 |
| 2150-12 | 12 | 1.2 | 7 | 5 | 28 | 15 | 7 | 11.7 | 18 | 340 | 60 |
| 2150-14 | 14 | 1.7 | 7 | 7 | 30 | 22 | 8 | 13.7 | 22 | 800 | 95 |
| 2150-16 | 16 | 1.7 | 10 | 8 | 30 | 22 | 9 | 15.7 | 25 | 1500 | 130 |
| 2150-18 | 18 | 2 | 10 | 8 | 35 | 28 | 10 | 17.7 | 28 | 1500 | 190 |
| 2150-20 | 20 | 2.5 | 13 | 10 | 40 | 32 | 12 | 19.7 | 32 | 2000 | 290 |
| 2150-22 | 22 | 2.5 | 13 | 12 | 45 | 38 | 14 | 21.7 | 35 | 2000 | 390 |

Ürün Nr. 2150 Kanal İçi Yandan Bağlama

- Ürünün T-Gövdesi tamamıyla tezgah kanalına girer. Sadece ürünün eksantrik başlığı tabla yüzeyinde kaldığı için ince parçalarda sıkma kolaylığı sağlar.
- DIN 650 T-Kanala uyumludur
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2150 In-slot Side Clamp

- T-Slot of the product enters in the slot of the bench completely. Since only the eccentric headpiece remains on the surface of the table, this provides easy clamping of the thin pieces.
- It is in compliance with DIN 650 T-Slot
- Hardened
- Black coating



Yandan Bağlama Pençe Pabuç

Jaw Clamp

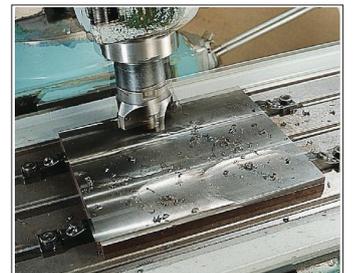
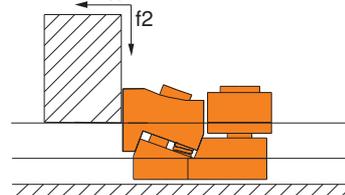
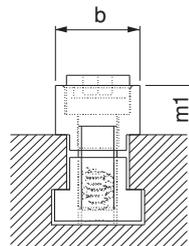
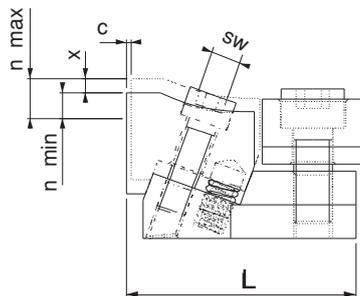
| Referans Nr. | | c | n | | x | L | b | m1 | sw | Sıkma Kuvveti Clamping Force | | |
|--------------|----|-----|-----|-----|-----|----|------|------|----|------------------------------|--------|-----|
| | | | min | max | | | | | | f1 kgf | f2 kgf | |
| 2170-12 | 12 | 2 | 2 | 6 | 4 | 46 | 21 | 10 | 5 | 500 | 60 | 120 |
| 2170-14 | 14 | 2.5 | 2.5 | 7.5 | 5 | 51 | 26 | 10 | 6 | 550 | 70 | 200 |
| 2170-16 | 16 | 3 | 2.5 | 8.5 | 6 | 61 | 27.5 | 12 | 6 | 800 | 90 | 290 |
| 2170-18 | 18 | 3 | 2 | 8 | 6 | 67 | 35 | 13 | 8 | 900 | 100 | 420 |
| 2170-20 | 20 | 4 | 2.5 | 11 | 8.5 | 78 | 38 | 13 | 10 | 1200 | 140 | 640 |
| 2170-22 | 22 | 4.5 | 2.5 | 12 | 9.5 | 87 | 39 | 16.5 | 10 | 1600 | 190 | 830 |

Ürün Nr. 2170 Yandan Bağlama Pençe Pabuç

- İş parçasını dayama ve pleyt yönüne sıkar
- T-Kanal içinde çalışması yükseklik avantajı sağlar
- DIN 650 T-Kanala uyumludur
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2170 Jaw Clamp

- This product clamps the workpiece in the direction of resting and plate
- It's working in T-Slot provides height advantage
- It is in compliance with DIN 650 T-Slot
- Hardened
- Black coating



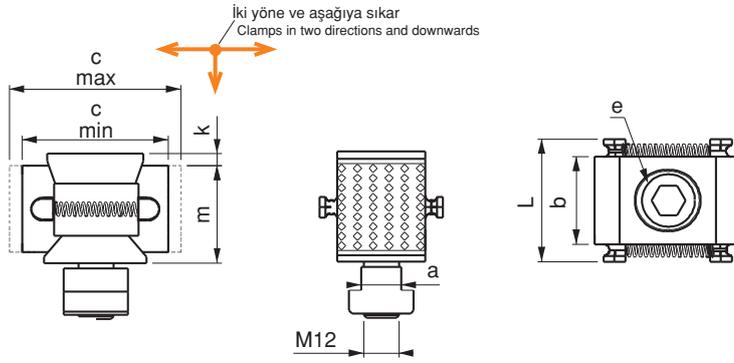
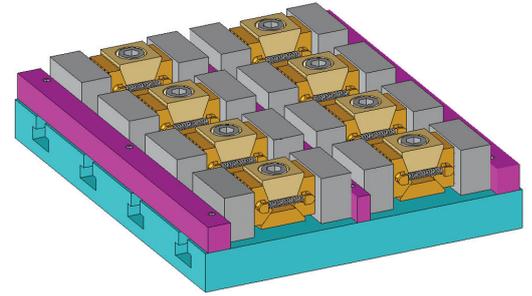
| Referans Nr. | c | |  | m | k | b | L | e DIN 912 | Nm | Sıkma Kuvveti Clamping Force kgf |  (g) |
|--------------|-----|-----|---|----|---|----|----|--------------|----|--|--|
| | min | max | | | | | | | | | |
| 2190-5055 | 50 | 55 | 14-16-18-20-22 | 35 | 4 | 30 | 42 | M12 | 35 | 1750 | 390 |

Ürün Nr. 2190 Çift Açılır Yandan Bağlama

- Bir noktadan iki yöne ve pleyt yönüne doğru sıkma işlemi yapar.
- M12 diş pleytlerde ve (a) 14-16-18-20-22 T-Kanal ölçülerinde kullanılır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2190 Side Press with Double Opening

- This product makes press process from one point to two directions and towards the direction of the plate.
- It is used in M12 thread plates and (a) 14-16-18-20-22 T-Slot measurings
- Hardened
- Black coating



Çift Açılır Yandan Bağlama

Side Press with Double Opening

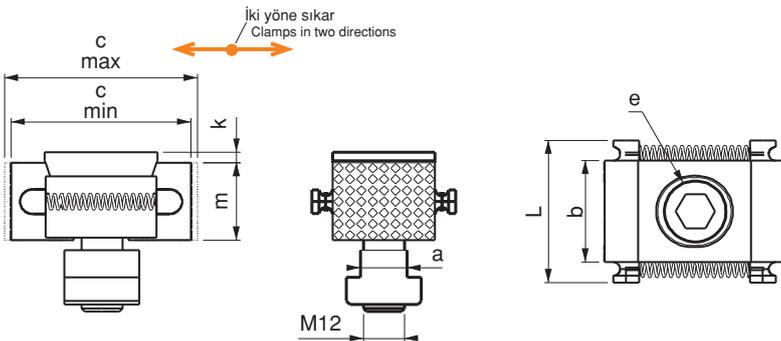
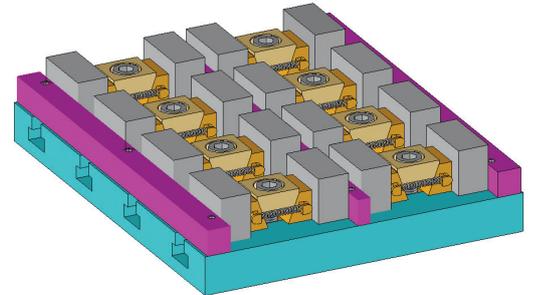
| Referans Nr. | c | |  | m | k | b | L | e DIN 912 | Nm | Sıkma Kuvveti Clamping Force kgf |  (g) |
|--------------|-----|-----|---|----|---|----|----|--------------|----|--|--|
| | min | max | | | | | | | | | |
| 2210-4954 | 49 | 54 | 14-16-18-20-22 | 23 | 4 | 30 | 42 | M12 | 30 | 1500 | 280 |

Ürün Nr. 2210 Çift Açılır Yandan Bağlama

- Bir noktadan iki yöne sıkma işlemi yapar.
- M12 diş pleytlerde ve (a) 14-16-18-20-22 T-Kanal ölçülerinde kullanılır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2210 Side Press with Double Opening

- This product makes press process from one point to two directions.
- It is used in M12 thread plates and (a) 14-16-18-20-22 T-Slot measurings
- Hardened
- Black coating



| Referans Nr. | h x b x L | tolerans tolerance h | tolerans tolerance b |  (kg) | Adet Piece |
|--------------|-----------|----------------------|----------------------|--|------------|
| 2230-028 | 14x10x150 | ±0.01 | ±0.01 | 10.8 | 2 |
| | 16x10x150 | | | | 2 |
| | 18x10x150 | | | | 2 |
| | 20x10x150 | | | | 2 |
| | 22x10x150 | | | | 2 |
| | 24x10x150 | | | | 2 |
| | 26x10x150 | | | | 2 |
| | 28x10x150 | | | | 2 |
| | 30x10x150 | | | | 2 |
| | 32x10x150 | | | | 2 |
| | 35x10x150 | | | | 2 |
| | 40x10x150 | | | | 2 |
| | 45x10x150 | | | | 2 |
| 50x10x150 | 2 | | | | |

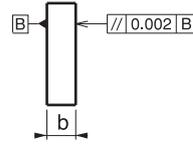
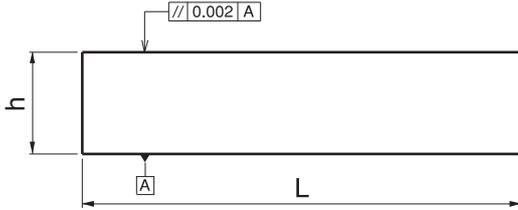


Ürün Nr. 2230 Paralel Set-28

- Ürün iş parçalarının paralel bağlanmasında ve hassas işlenmesinde altlık olarak kullanılır.
- 28 parça
- Sertleştirilmiş
- Ahşap kutuda set

Product Nr. 2230 Paralel Set-28

- This product is used for parallel coupling of the workpieces and as the base for sensitive machinings of the work pieces.
- 28 pieces.
- Hardened
- Set is in the wooden box



Paralel Set

Paralel Set

| Referans Nr. | h x b x L | tolerans tolerance h | tolerans tolerance b |  (kg) | Adet Piece |
|--------------|-----------|----------------------|----------------------|--|------------|
| 2250-016 | 20x6x100 | ±0.01 | ±0.01 | 10.6 | 2 |
| | 23x8x100 | | | | 2 |
| | 28x10x100 | | | | 2 |
| | 36x12x150 | | | | 2 |
| | 42x14x150 | | | | 2 |
| | 48x16x150 | | | | 2 |
| | 58x18x150 | | | | 2 |
| | 65x22x150 | | | | 2 |

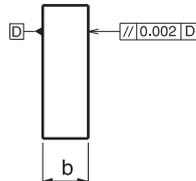
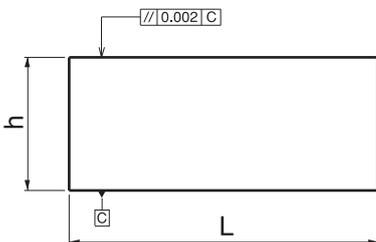


Ürün Nr. 2250 Paralel Set-16

- Ürün iş parçalarının paralel bağlanmasında ve hassas işlenmesinde altlık olarak kullanılır.
- 16 parça
- Sertleştirilmiş
- Ahşap kutuda set

Product Nr. 2250 Paralel Set-16

- This product is used for parallel coupling of the workpieces and as the base for sensitive machinings of the work pieces.
- 16 pieces.
- Hardened
- Set is in the wooden box



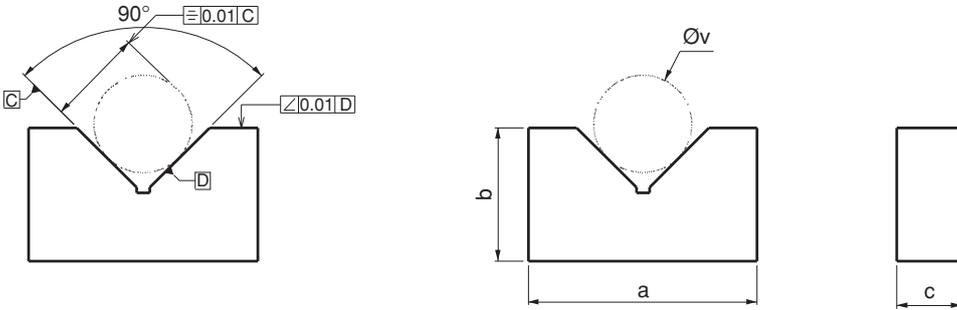
| Referans Nr. | a | b | c | Øv | |  (g) |
|--------------|-----|-----|----|-----|-----|---|
| | | | | min | max | |
| 2270-140 | 140 | 82 | 40 | 20 | 110 | 1980 |
| 2270-204 | 204 | 115 | 66 | 15 | 150 | 6150 |

Ürün Nr. 2270 V-Yatak

- Malzeme : Döküm
- Silindir parçaların paralel bağlanmasında ve hassas işlenmesinde altlık olarak kullanılır.
- İkilili takım

Product Nr. 2270 V-Clamping Block

- Material: Casting
- This product is used in parallel couplings of cylindrical pieces and it is also used as the base for sensitive machinings of the workpieces.
- Set of two pieces



| Referans Nr. | a | b | c | Øv1 | | Øv2 | | Øv3 | | Øv4 | |  (g) |
|--------------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | | min | max | min | max | min | max | min | max | |
| 2290-120 | 120 | 100 | 60 | 12 | 40 | 12 | 60 | 12 | 75 | 12 | 90 | 2840 |
| 2290-150 | 152 | 132 | 74 | 15 | 80 | 15 | 95 | 15 | 110 | 15 | 120 | 4975 |

XV-Yatak

XV-Clamping Block

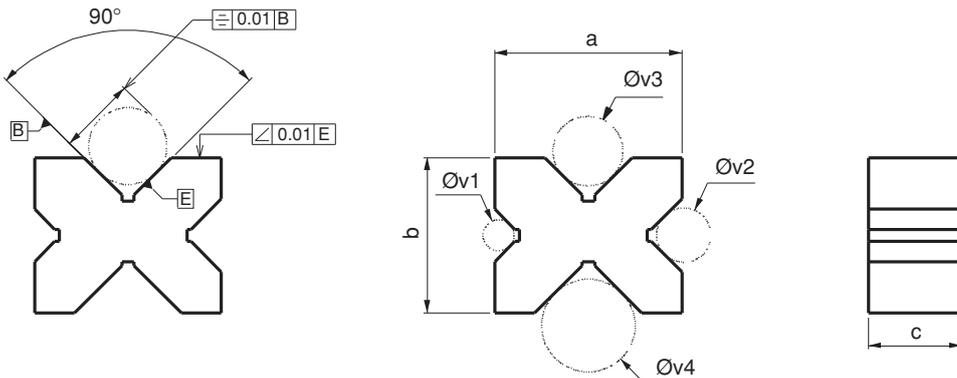


Ürün Nr. 2290 XV-Yatak

- Malzeme : Döküm
- Silindir parçaların paralel bağlanmasında hassas işlenmesinde altlık olarak kullanılır, X formunda olmasından dolayı 4 ayrı yüzeyi kullanma avantajı sağlar.
- İkilili takım

Product Nr. 2290 XV-Clamping Block

- Material: Casting
- This product is used in parallel couplings of cylindrical pieces and it is also used as the base for sensitive machinings of the workpieces. It provides using advantage in 4 different surfaces because of being in X form.
- Set of two pieces



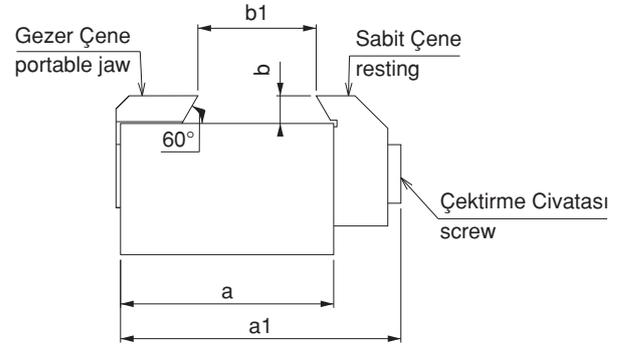
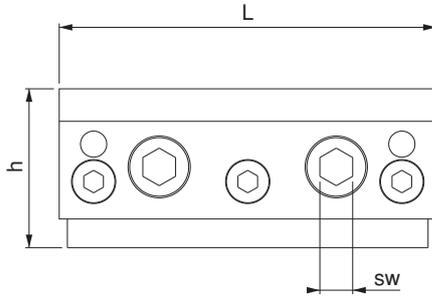
| Referans Nr. | L | h | a | a1 | b | b1 | sw |  (g) |
|--------------|-----|----|----|------|-----|-------|----|---|
| 2295-090 | 90 | 39 | 55 | 73 | 7 | 21-35 | 8 | 1480 |
| 2295-115 | 115 | 49 | 65 | 82.5 | 8.5 | 31-42 | 10 | 2690 |
| 2295-130 | 130 | 56 | 75 | 98 | 10 | 37-48 | 12 | 4160 |

Ürün Nr. 2295 CNC 5 Eksen Parça Bağlama Aparatı

- İş parçasına kırılmaç yuva açılarak aparata bağlanır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2295 CNC 5 Axis Clamping Parts Apparatus

- Apparatus is connected at workpiece, swallow nest opening.
- Hardened
- Black coating



CNC 5 Eksen Parça Bağlama Takozu

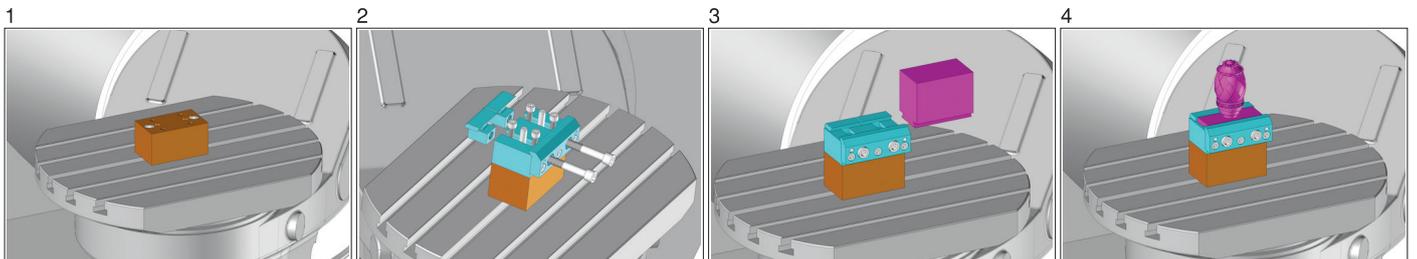
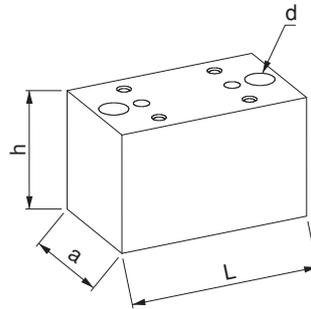
| Referans Nr. | a | h | L | d |  (g) |
|--------------|----|----|-------|-----|---|
| 2297-090 | 55 | 58 | 87 | M10 | 2110 |
| 2297-115 | 65 | 68 | 110 | M12 | 3750 |
| 2297-130 | 75 | 80 | 126.5 | M12 | 5830 |

Ürün Nr. 2297 CNC 5 Eksen Parça Bağlama Takozu

- Sertleştirilmiş
- Siyah kaplama

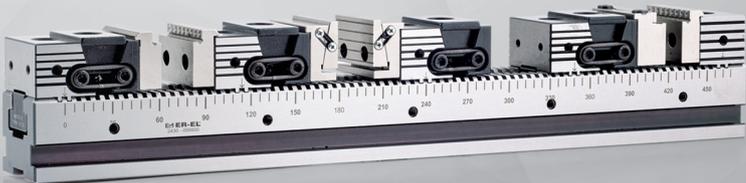
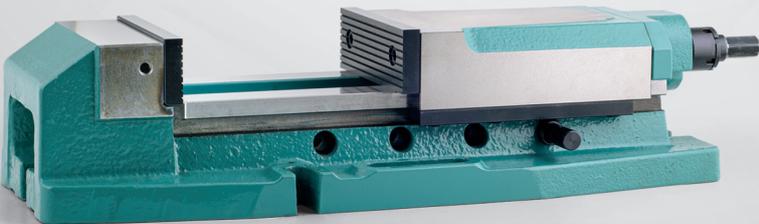
Product Nr. 2297 CNC 5 Axis Clamping Parts Wedge

- Hardened
- Black coating



MENGENELER

VICES



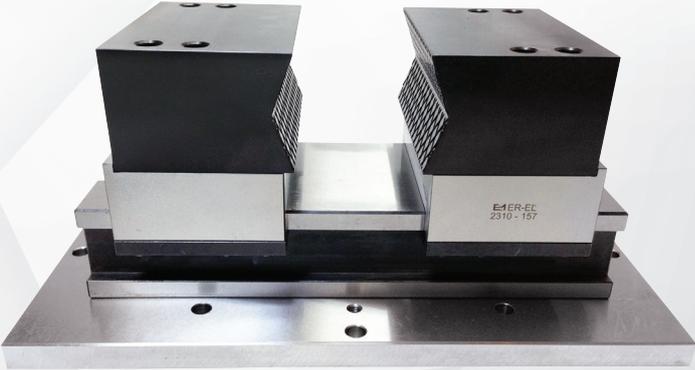
MEKANİK ÇELİK MENGENE UYGULAMASI

MECHANICAL STEEL
VICE APPLICATION

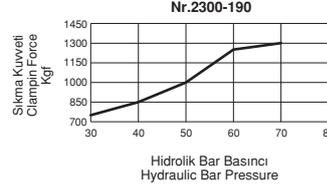
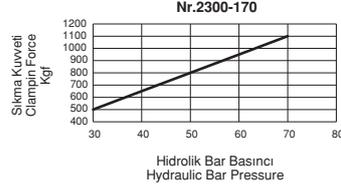
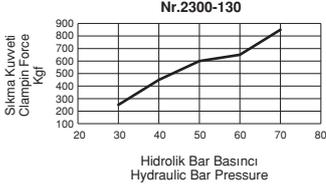


MENGENE UYGULAMALARI

VICE APPLICATIONS



| Referans Nr. | A min-max | Strok | B | C | D | E | F | ØG | H | K | K1 | N | N1 | S | S1 | M | Q1 | Q2 |  (kg) |
|--------------|-----------|-------|-----|-----|----|-----|----|-----|-----|----|----|-----|----|-----|-----|-----|----|----|--|
| 2300-130 | 142-162 | 10x2 | 90 | 83 | 60 | 130 | 10 | 86 | 143 | 9 | 22 | 76 | 64 | 106 | 60 | M8 | 11 | 6 | 8.50 |
| 2300-170 | 170-210 | 20x2 | 100 | 96 | 78 | 170 | 12 | 98 | 174 | 11 | 30 | 136 | 74 | 106 | 80 | M10 | 11 | 8 | 14 |
| 2300-190 | 202-242 | 20x2 | 125 | 101 | 80 | 190 | 16 | 121 | 181 | 11 | 36 | 144 | 96 | 110 | 100 | M12 | 13 | 8 | 21 |

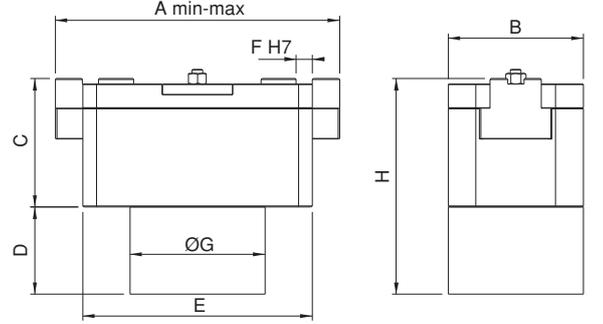
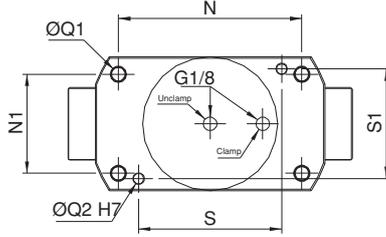
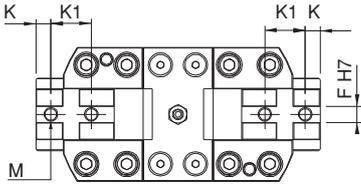


Ürün Nr. 2300 Hidrolik Çift Açılır Mengene

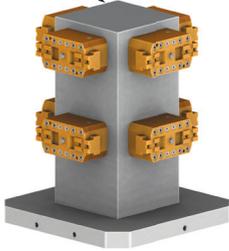
- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir. Diğer özelliği ise yumuşak çenelere işlenecek parçanın formu uygulanabilir. (1-2-3 şekillerde görüldüğü gibi.)
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Sistem hidrolik çalışır
- Yağ giriş - Yağ dönüş
- Siyah Kaplama

Product Nr. 2300 Hydraulic Centering Vice

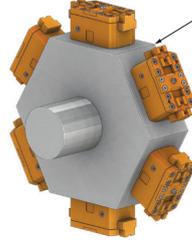
- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diameter measurements as it implements this process without changing the center. It's other characteristic is to apply the form of the piece to be machined with soft claws (as seen in Figures: 1-2 and 3).
- Entire moving surface is sensitively grinded and hardened.
- Hydraulic system works
- Oil inlet - Oil outlet
- Black coating



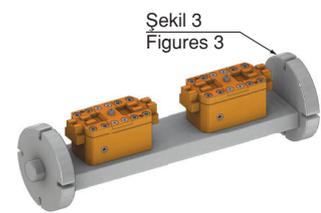
Şekil 1
Figures 1



Şekil 2
Figures 2



Şekil 3
Figures 3



| Referans Nr. | A min-max | Strok | Pneumatic Bar | Sıkma Kuvveti Clamping Force kgf |  (kg) |
|--------------|-----------|-------|---------------|----------------------------------|--|
| 2307-0188 | 0-188 | 8.5x2 | 6 | 750 | 18.5 |

Pnömatik Çift Açılır Mengene

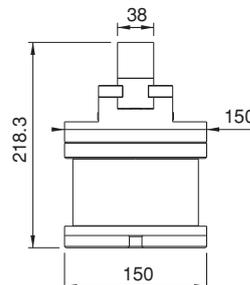
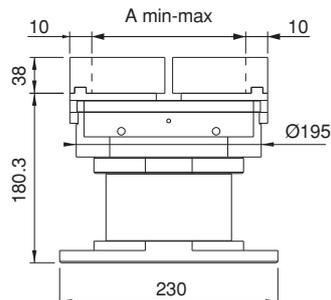
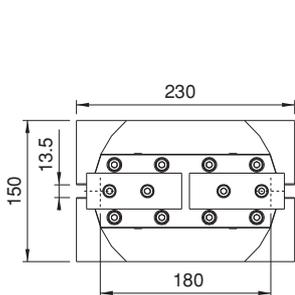
Pneumatic Centering Vice

Ürün Nr. 2307 Pnömatik Çift Açılır Mengene

- Sistem pnömatik çalışır.

Product Nr. 2307 Pneumatic Centering Vice

- Pneumatic system works



| Referans Nr. | a | L | c | açılır opens 2 x mm | iş bağlama kapasitesi Work Piece Coupling Capacity (mm) | b | b1 | b2 ±0,02 | b3 | p1 | p2 | s1 | s2 | Sıkma Kuvveti Clamping Force kgf | Tork Değeri Allowable Screw Torque (N-m) | Kombinasyon Combination | Kombinasyon Combination | sw | (kg) |
|--------------|-----|-----|-----|---------------------|---|------|------|----------|-----|-----|-----|-----|-----|----------------------------------|--|-------------------------|-------------------------|----|------|
| 2310-060 | 60 | 120 | 90 | 20 | 120 | 23.5 | 70.5 | 67.5 | 91 | 174 | 124 | 150 | 100 | 800 | 45 | 2315-08 | 2315-052 | 9 | 7 |
| 2310-078 | 78 | 180 | 130 | 30 | 180 | 33 | 97 | 93 | 126 | 224 | 124 | 200 | 100 | 1500 | 110 | 2315-08 | 2315-052 | 12 | 14 |
| 2310-100 | 100 | 220 | 154 | 38 | 220 | 35 | 99 | 95 | 130 | 274 | 174 | 250 | 150 | 1500 | 110 | 2315-10 | 2315-096 | 12 | 22 |
| 2310-125 | 125 | 260 | 174 | 47 | 260 | 38 | 108 | 103 | 141 | 324 | 174 | 300 | 150 | 2000 | 190 | 2315-10 | 2315-096 | 14 | 35 |
| 2310-157 | 157 | 350 | 208 | 75 | 350 | 46 | 123 | 118 | 164 | 424 | 224 | 400 | 200 | 2200 | 210 | 2315-10 | 2315-096 | 17 | 65 |

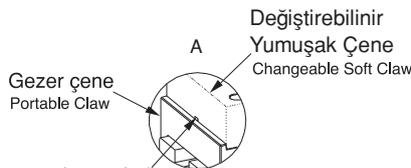
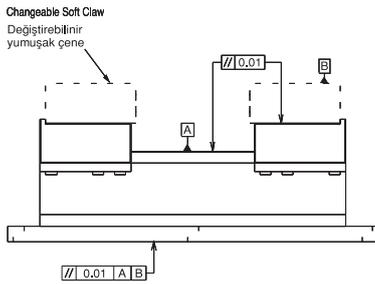
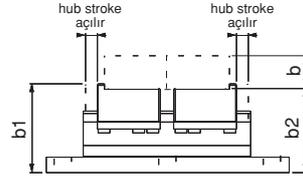
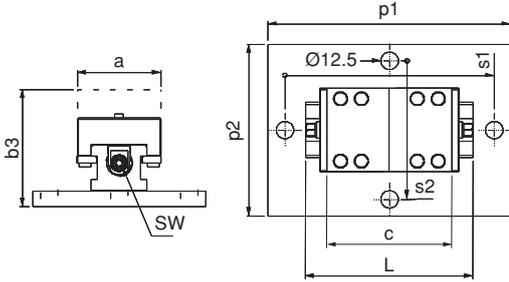
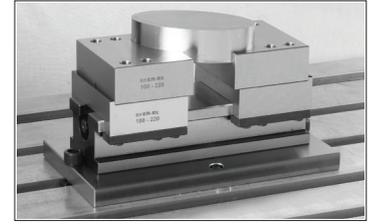
Ürün Nr. 2310 Çift Açılır Çelik Mengene

- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir. Diğer özelliği ise yumuşak çenelere işlenecek parçanın formu uygulanabilir (1-2-3-4-5-6 şekillerde görüldüğü gibi.)
- Kullanım alanı: CNC ve mekanik frezeler, taşlama, matkap gibi çeşitli sanayi makinalarında kullanılır.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Çeneleri ayrı olarak satın almanız gerekir.
- Siyah Kaplama

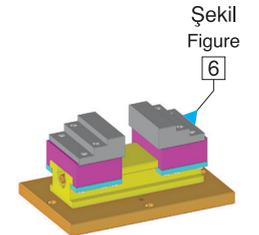
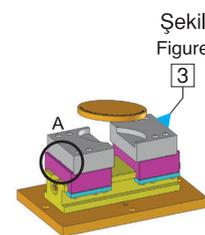
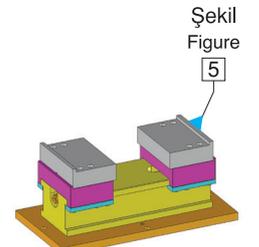
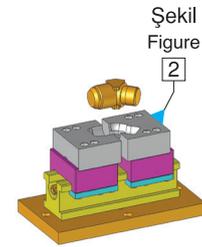
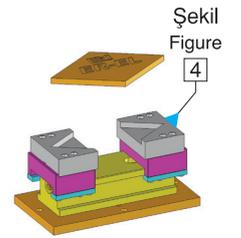
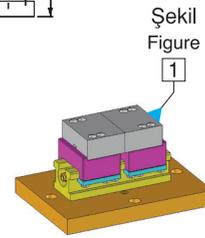


Product Nr. 2310 Steel Vice with Double Opening

- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diameter measurements as it implements this process without changing the center. It's other characteristic is to apply the form of the piece to be machined with soft claws (as seen in Figures: 1-2-3-4-5 and 6).
- Area of Using: This product is used in various industry machines such as CNC and mechanical milling machines, grinding and auger.
- Entire moving surface is sensitively grinded and hardened.
- You need to purchase jaws separate.
- Black coating



Gezer çene kaması yumuşak çeneleri söküp takma hassasiyeti ± 0.02 dir
Demounting and mounting of portable jaw wedge soft claws is ± 0.02 .



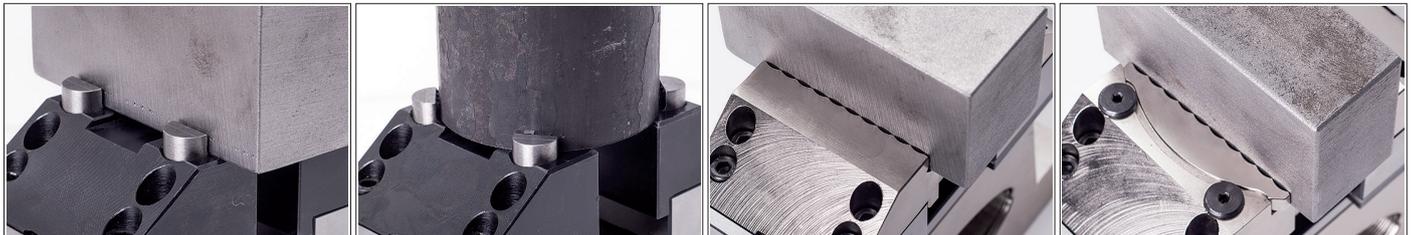
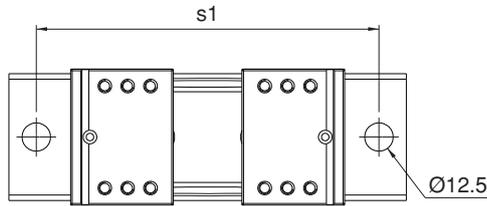
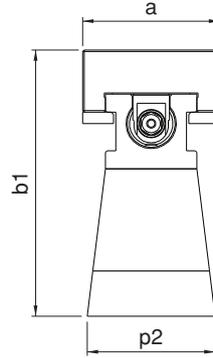
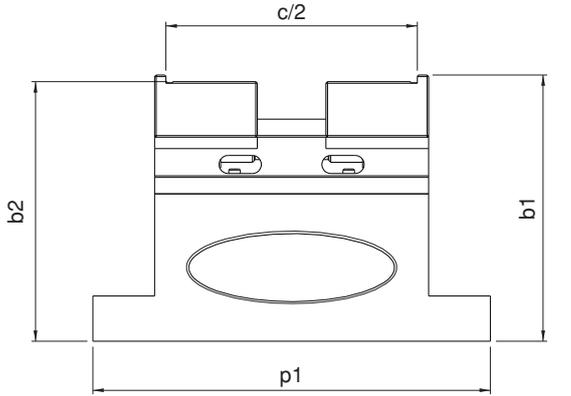
| Referans Nr. | a | L | c/2 | açılır opens 2 x mm | b1 | b2 ±0,02 | p1 | p2 | s1 | Sıkma Kuvveti Clamping Force kgf | Tork Değeri Allowable Screw Torque (N-m) | sw | (kg) |
|--------------|-----|-----|-----|---------------------|-------|----------|-----|------|-----|----------------------------------|--|----|------|
| 2315-060 | 60 | 120 | 90 | 20 | 117.5 | 114.5 | 174 | 56 | 150 | 800 | 45 | 9 | 4.1 |
| 2315-078 | 78 | 180 | 130 | 30 | 159 | 155 | 224 | 73.5 | 200 | 1500 | 110 | 12 | 10 |
| 2315-100 | 100 | 220 | 154 | 38 | 159 | 155 | 274 | 95 | 250 | 1500 | 110 | 12 | 17.2 |

Ürün Nr. 2315 Çift Açılır 5-Eksen Mengene

- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir.
- Kullanım alanı: CNC ve CNC 5-Eksen sanayi makinalarında kullanılır.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Çeneleri ayrı olarak satın almanız gerekir.
- Siyah Kaplama

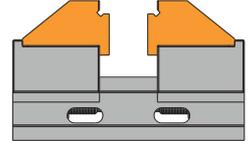
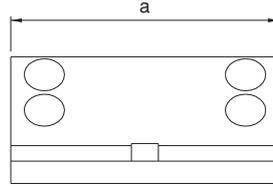
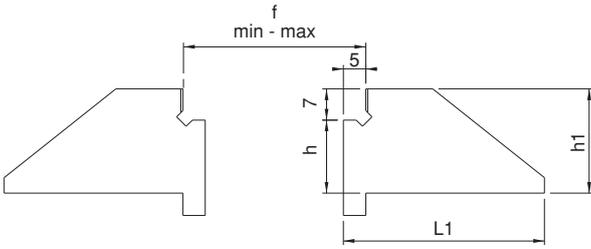
Product Nr. 2315 Double Opening 5-Axis Vice

- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diameter measurements as it implements this process without changing the center.
- Area of Using: This product is used in various industry machines such as CNC and CNC 5-Axis mechanical milling machines,
- Entire moving surface is sensitevely grinded and hardened.
- You need to purchase jaws separate.
- Black coating



| Referans Nr. | f min-max | h | h1 | L1 | a |
|---------------|-----------|------|------|-----|-----|
| 2310-23150601 | 10-50 | 16.5 | 23.5 | 45 | 60 |
| 2310-23150781 | 10-70 | 26 | 33 | 65 | 78 |
| 2310-23151001 | 10-86 | 28 | 35 | 77 | 100 |
| 2310-23151251 | 10-104 | 31 | 38 | 87 | 125 |
| 2310-23151571 | 10-160 | 39 | 46 | 104 | 157 |

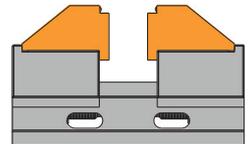
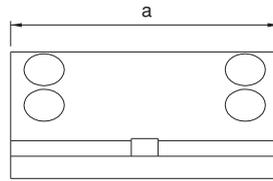
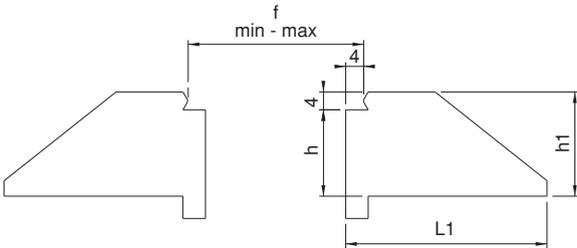
- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



Nr.2310 ve Nr.2315 Kodlu Ürünlerle Uyumludur.

| Referans Nr. | f min-max | h | h1 | L1 | a |
|---------------|-----------|------|------|-----|-----|
| 2310-23150602 | 8-48 | 20.5 | 23.5 | 45 | 60 |
| 2310-23150782 | 8-68 | 29 | 33 | 65 | 78 |
| 2310-23151002 | 8-84 | 31 | 35 | 77 | 100 |
| 2310-23151252 | 8-102 | 34 | 38 | 87 | 125 |
| 2310-23151572 | 8-158 | 46 | 46 | 104 | 157 |

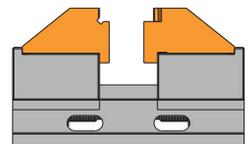
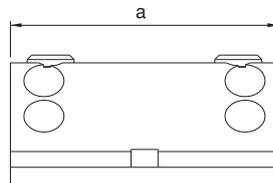
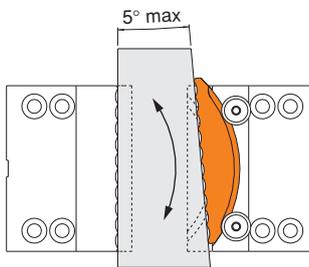
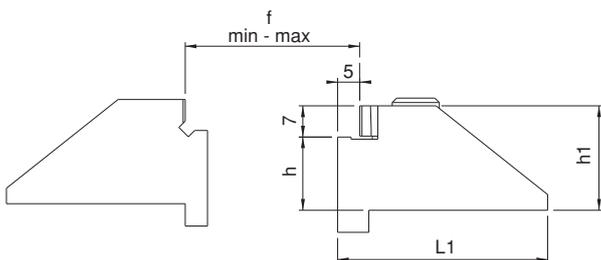
- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



Nr.2310 ve Nr.2315 Kodlu Ürünlerle Uyumludur.

| Referans Nr. | f min-max | h | h1 | L1 | a |
|---------------|-----------|------|------|----|-----|
| 2310-23150603 | 10-50 | 16.5 | 23.5 | 47 | 60 |
| 2310-23150783 | 10-70 | 26 | 33 | 67 | 78 |
| 2310-23151003 | 10-86 | 28 | 35 | 79 | 100 |

- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating

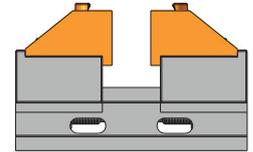
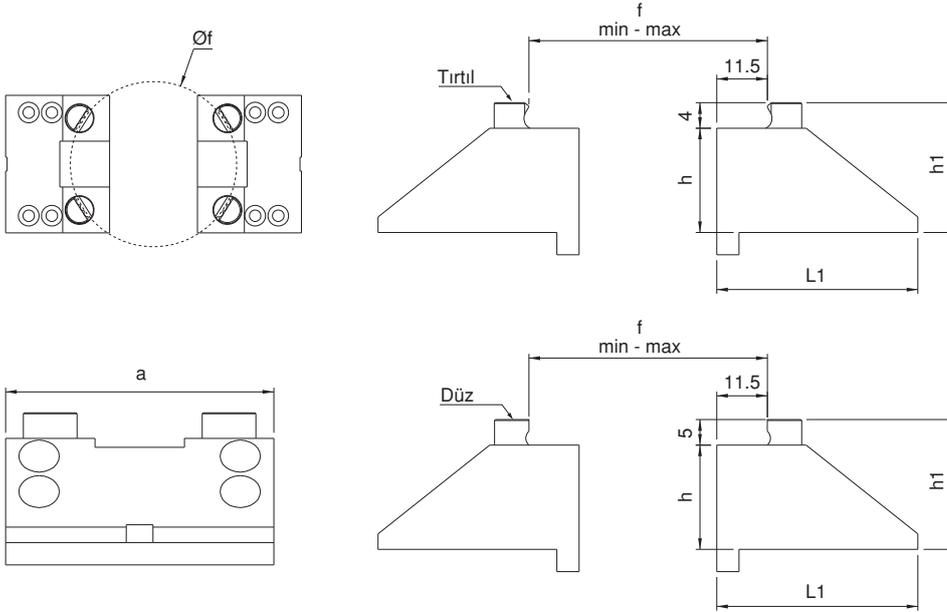


Nr.2310 ve Nr.2315 Kodlu Ürünlerle Uyumludur.

| Referans Nr. | f | | h | h1 | L1 | a |
|---------------|--------|-------|------|------|----|-----|
| | min | max | | | | |
| 2310-23150604 | 46-72 | 23-63 | 23.5 | 27.5 | 45 | 60 |
| 2310-23150784 | 59-95 | 23-83 | 33 | 37 | 65 | 78 |
| 2310-23151004 | 77-124 | 23-99 | 35 | 39 | 77 | 100 |

- Satın almadan önce çene özelliğini belirtiniz. (Tırtıl veya Düz)
- Sertleştirilmiş
- Siyah Kaplama

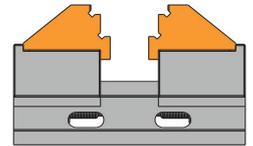
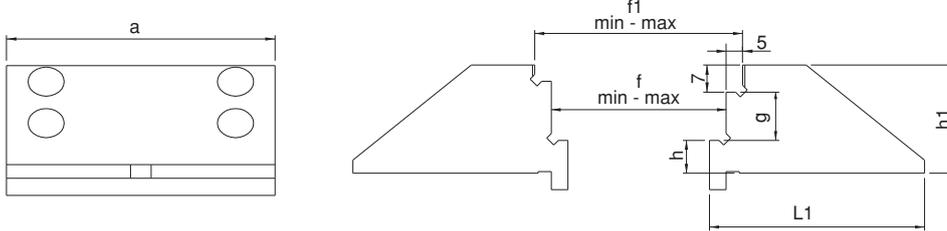
- You should specify the jaw feature before make purchase. (Serrated or Straight)
- Hardened
- Black Coating



Nr.2310 ve Nr.2315 Kodlu Ürünlerle Uyumludur.

| Referans Nr. | f min-max | f1 min-max | h | h1 | g | L1 | a |
|---------------|-----------|------------|----|----|----|-----|-----|
| | | | | | | | |
| 2310-23150785 | 10-70 | 20-80 | 10 | 33 | 16 | 65 | 78 |
| 2310-23151005 | 10-86 | 20-96 | 10 | 35 | 18 | 77 | 100 |
| 2310-23151255 | 10-104 | 20-114 | 10 | 38 | 21 | 87 | 125 |
| 2310-23151575 | 10-160 | 20-170 | 10 | 46 | 29 | 104 | 157 |

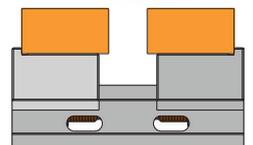
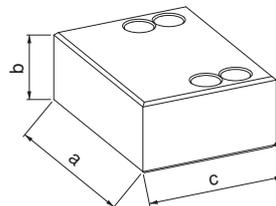
- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



Nr.2310 ve Nr.2315 Kodlu Ürünlerle Uyumludur.

| Referans Nr. | a | b | c |
|---------------|-----|------|-----|
| 2310-23150606 | 60 | 23.5 | 45 |
| 2310-23150786 | 78 | 33 | 65 |
| 2310-23151006 | 100 | 35 | 77 |
| 2310-23151256 | 125 | 38 | 87 |
| 2310-23151576 | 157 | 46 | 104 |

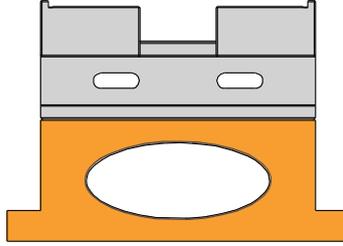
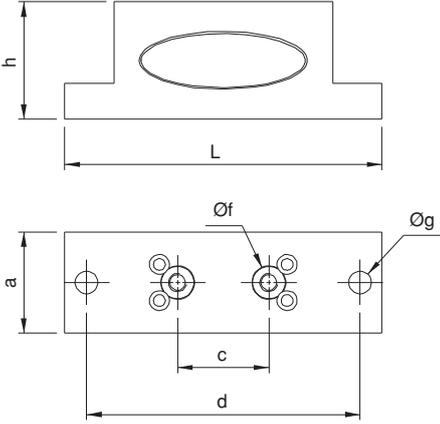
Yumuşak Çene
Soft Jaw



Nr.2310 ve Nr.2315 Kodlu Ürünlerle Uyumludur.

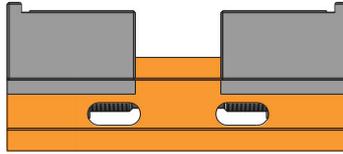
| Referans Nr. | a | h | L | c | Øf H7 | d | Øg |  |
|--------------|----|----|-----|-----|-------|-----|------|---|
| 2315-060P | 56 | 65 | 174 | 50 | 18 | 150 | 12.5 | 2.4 |
| 2315-078P | 74 | 80 | 224 | 100 | 18 | 200 | 12.5 | 4.9 |
| 2315-100P | 96 | 80 | 274 | 100 | 18 | 250 | 12.5 | 8.7 |

Alt Yükseltme Plakası
Lower Raising Plate



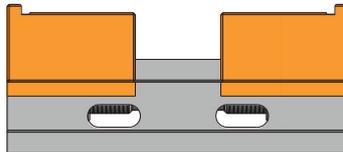
| Referans Nr. |
|-----------------|
| 2310-2315-060AG |
| 2310-2315078AG |
| 2310-2315100AG |
| 2310-2315125AG |
| 2310-2315157AG |

Alt Gövde
Sub-body



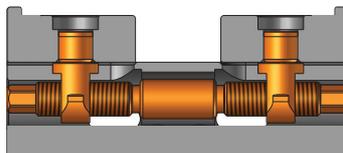
| Referans Nr. |
|----------------|
| 2310-2315060GÇ |
| 2310-2315078GÇ |
| 2310-2315100GÇ |
| 2310-2315125GÇ |
| 2310-2315157GÇ |

Gezer Çene
Portable Jaw



| Referans Nr. |
|---------------|
| 2310-2315060M |
| 2310-2315078M |
| 2310-2315100M |
| 2310-2315125M |
| 2310-2315157M |

Mil
Pin



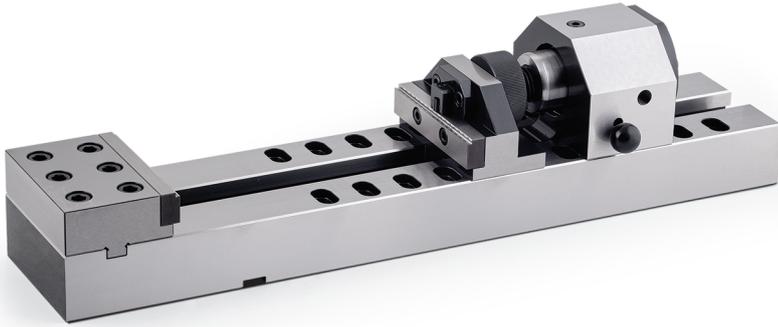
5-EKSEN MENGENE 5-AXIS VICE

Tırnaklı çenelerin 3mm yerden parçayı bağlama avantajıyla malzemenin 5 yüzeyini işleme olanağı sağlamaktadır. Kompak yapısı ile ideal bir kullanıma sahiptir. Aynı zamanda kolay bir şekilde çeneleri 180° ters çevirerek parça bağlama kapasitesini arttırabilirsiniz.

5-face-machining of workpieces possible. Ideal handling by compactness. The clamping jaws can be turned 180° and thereby enable a higher clamping capacity.

- 5 yüzey işleme
- Minimum malzeme hırdası
- Ön Presleme teknolojisi sayesinde düşük sıkma kuvvetiyle bile mükemmel tutma performansı
- ER-EL Point Clamp kombinasyonu ile yüksek tekrarlamaya uygunluğu
- Kolay ve esnek bir kullanım

- 5-face-machining
- Minimal scrap
- Highest holding power at low actuation forces through form-closure clamping
- High repeatability in combination with ER-EL Point Clamp
- Easy and flexibel application



ÖN ŞEKİLLENDİRME MENGENESİ PRE-FORM VICE

Ön şekillendirme mengenesi sayesinde malzemelerinize tırnaklar açarak kütleli malzemelerin 5-Eksen mengenede daha mükemmel tutma performansı sağlar. Yüksek tutma gücü gerektiren iş parçaları için ön şekillendirme mengenesi önerilir. 6mm den 355mm'ye kadar sıkma aralığına sahiptir.

For workpieces needed higher holding power is recommended Pre-Form Vice. Clamping range is 6-355 mm.

ER-EL POINT CLAMP

Dikey işleme, yatay işleme merkezlerinde 3-4-5 eksenli CNC Makinalarında ve divizörler de kullanılabilir. Kurulum süresini azaltıp Sanayeler içinde ER-EL Point Clamp ile yüksek hassasiyette mengenerinin ve mengene yönlerini değiştirebilir. Ayrıca aparatlarınızı değişimlerini de sağlayabilirsiniz. Nr.2315-052 ER-EL Point Clamp ile 046-077-097 Mengenerinin adaptasyonunu sağlar. Nr.2315-096 ER-EL Point Clamp ile 125'lik mengene çeşitlerinin adaptasyonunu sağlayabilir. Ayrıca Nr.2315-096 Point Clamp üzerine, Nr.2315-5296 ER-EL Point Clamp merkez değiştirme adaptörünü kullanarak 046-077-097 mengeneride bağlamak için modülerlik sağlayabilirsiniz.

Kombinasyon:

Nr.2315-052 ile Nr.2315-046
Nr.2315-052 ile Nr.2315-077
Nr.2315-052 ile Nr.2315-097

Nr.2315-096 ile Nr.2315-125
Nr.2315-096 ile Nr.2315-5296

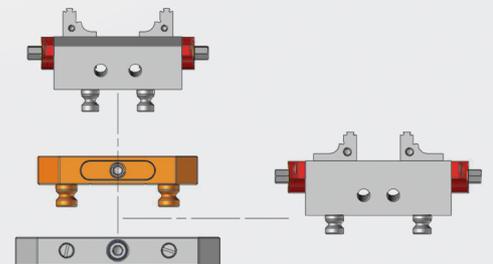
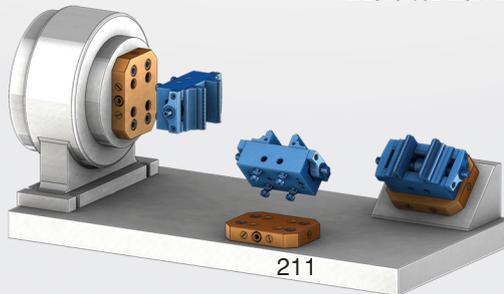
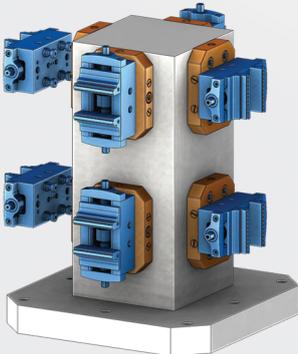


Application for horizontal machining center, vertical machining center, 3-4-5 axis CNC machines and CNC-Divisor. With ER-EL Point Clamp you can change your precision vices and the direction of the vices in a few seconds. Device change is also possible.

Combinations:

Nr.2315-052 with Nr.2315-046
Nr.2315-052 with Nr.2315-077
Nr.2315-052 with Nr.2315-097

Nr.2315-096 with Nr.2315-125
Nr.2315-096 with Nr.2315-5296



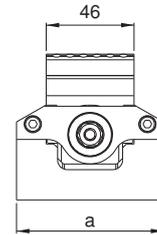
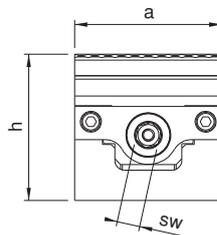
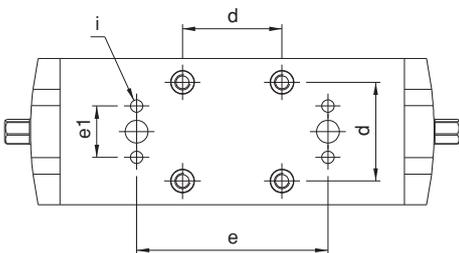
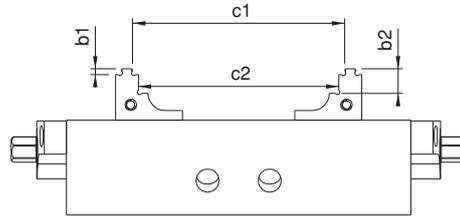
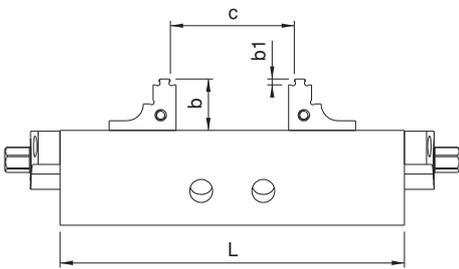
| Referans Nr. | a | h | L | c | c1 | c2 | b | b1 | b2 | e | e1 | i | d | Kombinasyon Combination | Kombinasyon Combination | Sıkma Kuveti Clamping Force Kgf | Nm | sw | (kg) |
|--------------|-----|----|-----|-------|--------|--------|----|----|----|-----|----|----|----|-------------------------|-------------------------|---------------------------------|-----|----|-------|
| 2315-046120 | 77 | 77 | 120 | 6-63 | 45-100 | 39-95 | 27 | 3 | 13 | 100 | 25 | M5 | 52 | 2315-08 | 2315-052 | 1000 | 50 | 12 | 3.00 |
| 2315-046160 | 77 | 77 | 160 | 6-103 | 45-140 | 39-135 | 27 | 3 | 13 | 100 | 25 | M5 | 52 | 2315-08 | 2315-052 | 1000 | 50 | 12 | 3.90 |
| 2315-077105 | 77 | 77 | 105 | 6-40 | 72-85 | 66-80 | 27 | 3 | 13 | 80 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 3.30 |
| 2315-077130 | 77 | 77 | 130 | 6-65 | 72-110 | 66-105 | 27 | 3 | 13 | 100 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 3.50 |
| 2315-077160 | 77 | 77 | 160 | 6-95 | 72-140 | 66-135 | 27 | 3 | 13 | 100 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 4.40 |
| 2315-077180 | 77 | 77 | 180 | 6-115 | 72-160 | 66-155 | 27 | 3 | 13 | 100 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 4.80 |
| 2315-077210 | 77 | 77 | 210 | 6-145 | 72-190 | 66-185 | 27 | 3 | 13 | 100 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 5.50 |
| 2315-097105 | 97 | 77 | 105 | 6-40 | 72-85 | 66-80 | 27 | 3 | 13 | 80 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 6.50 |
| 2315-097130 | 97 | 77 | 130 | 6-65 | 72-110 | 66-105 | 27 | 3 | 13 | 100 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 6.70 |
| 2315-097160 | 97 | 77 | 160 | 6-95 | 72-140 | 66-135 | 27 | 3 | 13 | 100 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 7.60 |
| 2315-097180 | 97 | 77 | 180 | 6-115 | 72-160 | 66-155 | 27 | 3 | 13 | 100 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 8.00 |
| 2315-097210 | 97 | 77 | 210 | 6-145 | 72-190 | 66-185 | 27 | 3 | 13 | 100 | 27 | M6 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 8.70 |
| 2315-125160 | 125 | 92 | 160 | 6-70 | 92-138 | 86-130 | 32 | 3 | 13 | 100 | 35 | M8 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 9.50 |
| 2315-125210 | 125 | 92 | 210 | 6-120 | 92-188 | 86-180 | 32 | 3 | 13 | 100 | 35 | M8 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 11.50 |
| 2315-125260 | 125 | 92 | 260 | 6-170 | 92-238 | 86-230 | 32 | 3 | 13 | 150 | 35 | M8 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 13.70 |
| 2315-125310 | 125 | 92 | 310 | 6-220 | 92-288 | 86-280 | 32 | 3 | 13 | 150 | 35 | M8 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 15.80 |
| 2315-125360 | 125 | 92 | 360 | 6-270 | 92-338 | 86-330 | 32 | 3 | 13 | 150 | 35 | M8 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 17.50 |

Ürün Nr. 2315 5-Eksen Mengene

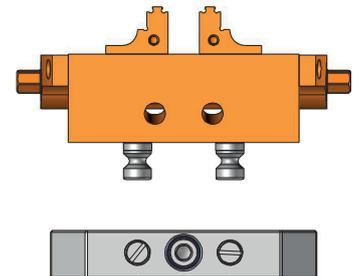
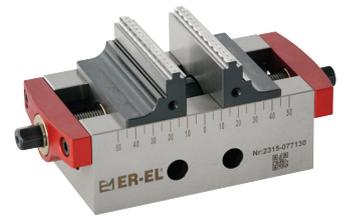
- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir.
- Kullanım alanı: CNC ve CNC 5-Eksen sanayi makinelerinde kullanılır.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Tırnaklı çenelerin 3mm yerden parçayı bağlama avantajıyla malzemenin 5 yüzeyini işleme olanağı sağlamaktadır. Kompak yapısı ile ideal bir kullanıma sahiptir. Aynı zamanda kolay bir şekilde çeneleri 180° ters çevirerek parça bağlama kapasitesini artırabilirsiniz.
- Siyah Kaplama

Product Nr. 2315 5-Axis Vice

- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diameter measurements as it implements this process without changing the center.
- Area of Using: This product is used in various industry machines such as CNC and CNC 5-Axis mechanical milling machines,
- Entire moving surface is sensitively grinded and hardened.
- 5-face-machining of workpieces possible Ideal handling by compactness The clamping jaws can be turned 180° and thereby enable a higher clamping capacity.
- Black coating



Nr.2315-046120
 Nr.2315-046160

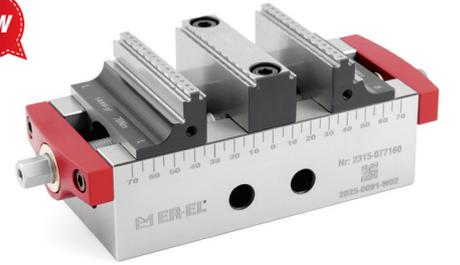


| Referans Nr. | a | h | L | c | c1 | b | b1 | f | d | Kombinasyon Combination | Kombinasyon Combination | Sıkma Kuvveti Clamping Force Kgf | Nm | sw | (kg) |
|--------------|-----|----|-----|-------|--------|----|----|----|----|-------------------------|-------------------------|----------------------------------|-----|----|-------|
| 2315-077130D | 77 | 77 | 130 | 6-24 | 29-46 | 27 | 3 | 17 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 4.00 |
| 2315-077160D | 77 | 77 | 160 | 6-39 | 29-62 | 27 | 3 | 17 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 4.90 |
| 2315-077180D | 77 | 77 | 180 | 6-49 | 29-72 | 27 | 3 | 17 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 5.30 |
| 2315-077210D | 77 | 77 | 210 | 6-64 | 29-87 | 27 | 3 | 17 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 6.00 |
| 2315-097130D | 97 | 77 | 130 | 6-24 | 29-46 | 27 | 3 | 17 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 7.35 |
| 2315-097160D | 97 | 77 | 160 | 6-39 | 29-62 | 27 | 3 | 17 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 8.25 |
| 2315-097180D | 97 | 77 | 180 | 6-49 | 29-72 | 27 | 3 | 17 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 8.65 |
| 2315-097210D | 97 | 77 | 210 | 6-64 | 29-87 | 27 | 3 | 17 | 52 | 2315-08 | 2315-052 | 1400 | 70 | 12 | 9.35 |
| 2315-125160D | 125 | 92 | 160 | 6-23 | 39-56 | 32 | 3 | 24 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 10.80 |
| 2315-125210D | 125 | 92 | 210 | 6-48 | 39-81 | 32 | 3 | 24 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 12.80 |
| 2315-125260D | 125 | 92 | 260 | 6-73 | 39-106 | 32 | 3 | 24 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 15.00 |
| 2315-125310D | 125 | 92 | 310 | 6-98 | 39-131 | 32 | 3 | 24 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 20.10 |
| 2315-125360D | 125 | 92 | 360 | 6-123 | 39-156 | 32 | 3 | 24 | 96 | 2315-10 | 2315-096 | 2000 | 100 | 14 | 18.80 |

Ürün Nr. 2315 5-Eksen Mengene (Double)

- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir.
- Kullanım alanı: CNC ve CNC 5-Eksen sanayi makinalarında kullanılır.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Tırnaklı çenelerin 3mm yerden parçayı bağlama avantajıyla malzemenin 5 yüzeyini işleme olanağı sağlamaktır. Kompak yapısı ile ideal bir kullanıma sahiptir. Aynı zamanda kolay bir şekilde çeneleri 180° ters çevirerek parça bağlama kapasitesini arttırabilirsiniz.
- Siyah Kaplama

NEW



Product Nr. 2315 5-Axis Vice (Double)

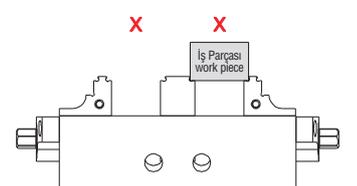
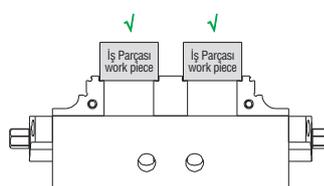
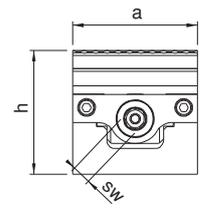
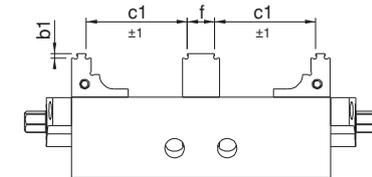
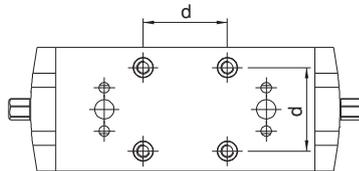
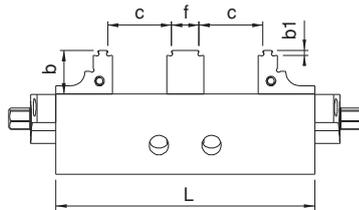
- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diametermeasurements as it implements this process without changing the center.
- Area of Using: This product is used in various industry machines such as CNC and CNC 5-Axis mechanical milling machines,
- Entire moving surface is sensitively grinded and hardened.
- 5-face-machining of workpieces possible Ideal handling by compact ness The clamping jaws can be turned 180° and thereby enable a higher clamping capacity.
- Black coating

Önemli Not:

5-Eksen Mengene (Double) Sadece Çekirme Civatası ile bağlama yapılabilir.

Important Note:

5-Axis Vice (Double) Clamping can only be done with a puller bolt.



| Referans Nr. | a | L | h | b | b1 | b2 | c | sw | d | Kombinasyon Combination | Nm | (kg) |
|--------------|-----|-----|----|-----|----|-----|----|----|----|-------------------------|----|------|
| 2315-052 | 116 | 150 | 27 | 100 | 50 | - | 52 | 8 | 12 | 2315-08 | 30 | 2.9 |
| 2315-096 | 156 | 192 | 27 | 150 | 50 | 100 | 96 | 8 | 12 | 2315-10 | 30 | 5.5 |


Ürün Nr. 2315 ER-EL Point Clamp

- Dikey işleme, yatay işleme merkezlerinde 3-4-5 eksenli CNC Makinalarında ve divizörler de kullanılabilir. Kurulum süresini azaltıp Saniyeler içinde ER-EL Point Clamp ile yüksek hassasiyette mengeleriniz ve mengene yönlerini değiştirebilir. Ayrıca aparatlarınızı değişimlerini de sağlayabilirsiniz. Nr.2315-052 ER-EL Point Clamp ile 046-077-097 Mengenerin adaptasyonunu sağlar. Nr.2315-096 ER-EL Point Clamp ile 125'lik mengene çeşitlerinin adaptasyonunu sağlayabilir.

Kombinasyon:

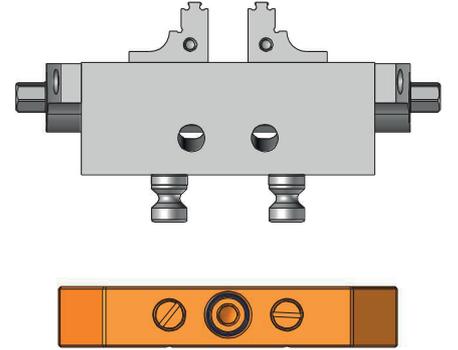
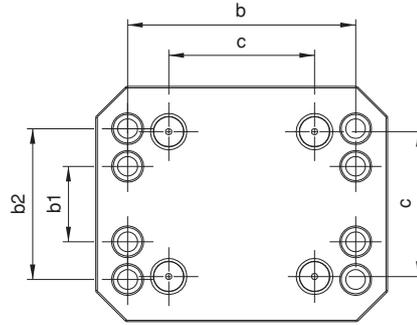
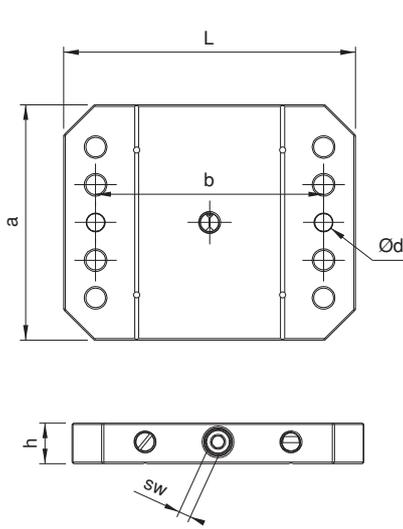
Nr.2315-052 ile Nr.2315-046
 Nr.2315-052 ile Nr.2315-077
 Nr.2315-052 ile Nr.2315-097

Product Nr. 2315 ER-EL Point Clamp

- Application for horizontal machining center, vertical machining center, 3-4-5 axis CNC machines and CNC-Divisor. With ER-EL Point Clamp you can change your precision vices and the direction of the vices in a few seconds.

Combinations:

Nr.2315-052 with Nr.2315-046
 Nr.2315-052 with Nr.2315-077
 Nr.2315-052 with Nr.2315-097



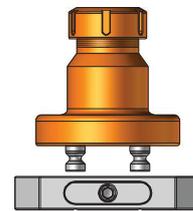
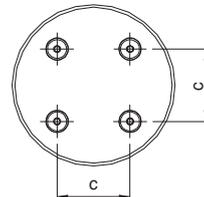
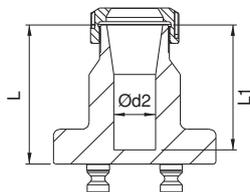
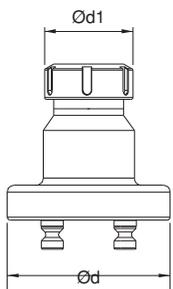
| Referans Nr. | c | d | d1 | d2 | L | L1 | (kg) |
|--------------|----|-----|----|----|-----|----|------|
| 2315-052ER40 | 52 | 116 | 63 | 30 | 100 | 90 | 3,1 |
| 2315-096ER40 | 96 | 156 | 63 | 30 | 100 | 90 | 5,7 |

Ürün Nr. 2315 Point Clamp ER40 Tutucu

- Point Clamp ER40 Tutucu ile silindirik tip parçalarını Pens sistemi ile bağlama yaparak Point Clamp İsteminde hızlı değişimler sağlayabilirsiniz.

Product Nr. 2315 Point Clamp ER40 Holder

- Clamping your Point Clamp ER40 holder to clip systems gives you the opportunity to make swift changes.



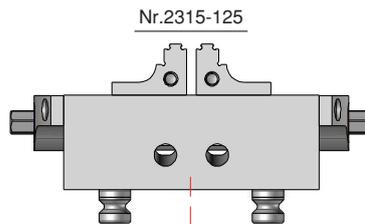
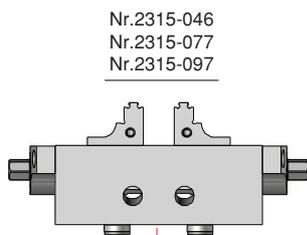
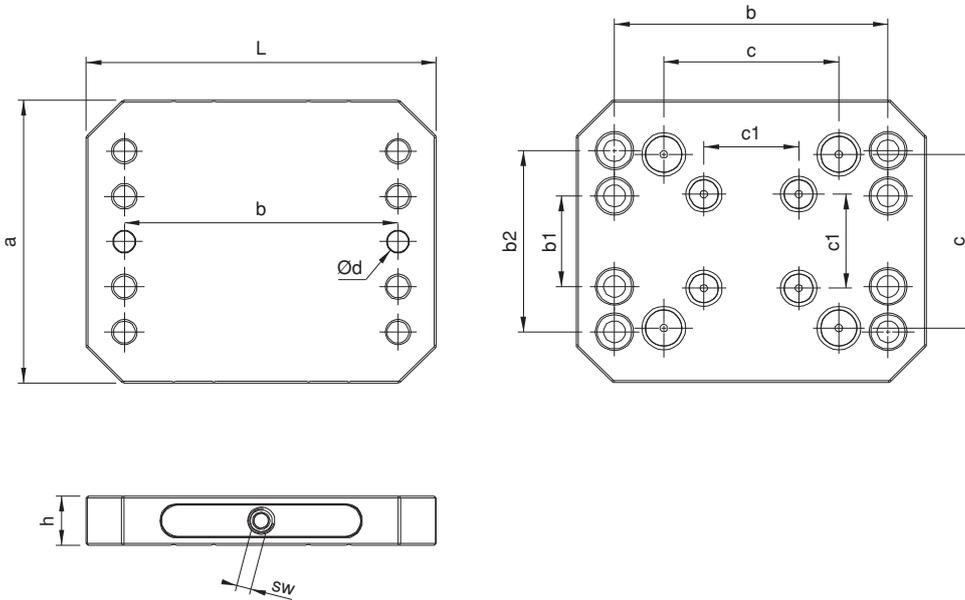
| Referans Nr. | a | L | h | b | b1 | b2 | c | c1 | sw | d | Kombinasyon Combination | Nm | (kg) |
|--------------|-----|-----|----|-----|----|-----|----|----|----|----|-------------------------|----|------|
| 2315-096052 | 156 | 192 | 27 | 150 | 50 | 100 | 96 | 52 | 8 | 12 | 2315-08 2315-10 | 30 | 5.3 |


Ürün Nr. 2315 ER-EL Point Clamp (Çift Merkezli)

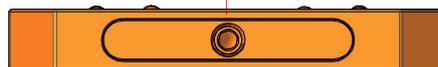
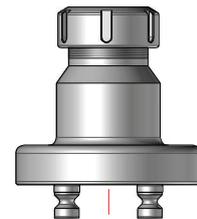
- Dikey işleme, yatay işleme merkezlerinde 3-4-5 eksenli CNC Makinalarında ve divizörler de kullanılabilir. Kurulum süresini azaltıp saniyeler içinde ER-EL Point Clamp (Çift Merkezli) ile yüksek hassasiyette mengenerinizi ve mengene yönlerini değiştirebilir. Ayrıca aparatlarınızı değiştirmenizi de sağlayabilirsiniz. ER-EL Point Clamp (Çift Merkezli) ile (Nr2315) 046-077-097 Mengenerinin ve 2315-125'lik mengene çeşitlerinin adaptasyonunu sağlayabilirsiniz.

Product Nr. 2315 ER-EL Point Clamp (Double-Centered)

- It can be used in 3-4-5 axis CNC machines, vertical and horizontal machining centers, and on dividers. The ER-EL Point Clamp (Double-Centered) reduces setup time and allows you to change the directions of your vices and vice jaws with high precision in just seconds. Additionally, it enables the change of your fixtures. With the ER-EL Point Clamp (Double-Centered), you can ensure compatibility with vices (Nr2315) 046-077-097 and 2315-125 vices.



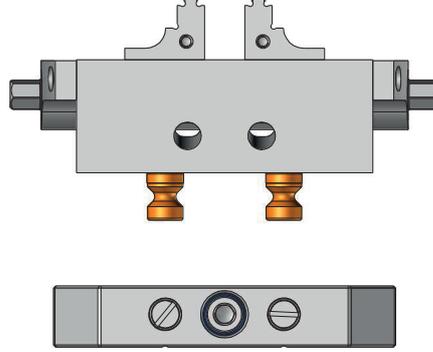
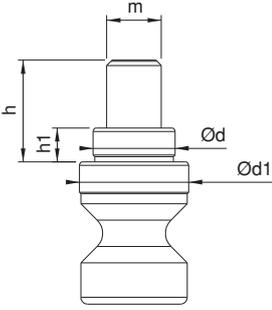
Nr.2315-052ER40
Nr.2315-096ER40



| Referans Nr. | m | h | h1 | d | d1 | Kombinasyon Combination | (g) |
|--------------|-----|----|----|----|----|-------------------------|-----|
| 2315-08 | M8 | 15 | 5 | 12 | 16 | 2315-052 | 35 |
| 2315-10 | M10 | 15 | 5 | 16 | 20 | 2315-096 | 50 |

Ürün Nr. 2315 Çektirme Civatası

Product Nr. 2315 Pull Stud



Çektirme Civatası (Faturalı)

Puller Bolt With (Stopper)

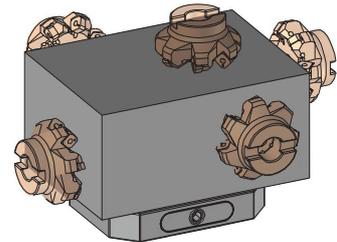
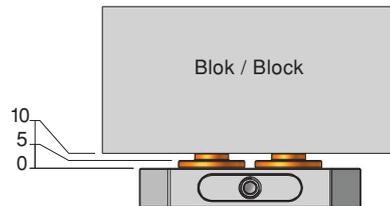
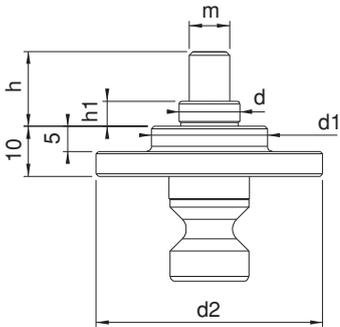
| Referans Nr. | m | h | h1 | d | d1 | d2 | Kombinasyon Combination | (g) |
|--------------|-----|----|----|----|----|----|-------------------------|-----|
| 2315-08F | M8 | 20 | 5 | 12 | 23 | 45 | 2315-052 | 110 |
| 2315-10F | M10 | 20 | 5 | 16 | 27 | 52 | 2315-096 | 150 |

Ürün Nr. 2315 Çektirme Civatası (Faturalı)

- Blok tipi parçalarınızı Çektirme Civatası (Faturalı) ile Point Clamp İsteminde bağlama yaparak iş parçalarının beş yüzeyini de işleme olanığı sağlar.

Product Nr. 2315 Puller Bolt With (Stopper)

- Clamping your block type tools to Point Clamp Systems with your Puller Bolt (with Stopper) gives you the opportunity to use all five sides of your work piece.



| Referans Nr. | a | L | h | c | c1 | sw | Nm | Kombinasyon Combination | (kg) |
|--------------|-----|-----|----|----|----|----|----|-------------------------|------|
| 2315-5296 | 116 | 150 | 27 | 52 | 96 | 8 | 30 | 2315-096 | 2.90 |



Ürün Nr. 2315 ER-EL Point Clamp Merkez Değişirme Adaptörü

• Nr.2315-096 Point Clamp üzerine, Nr.2315-5296 ER-EL Point Clamp merkez deęiřtirme adaptörünü kullanarak 046-077-097 mngeneride baęlamak için modülerlik sağlayabilirsiniz.

Kombinasyon:

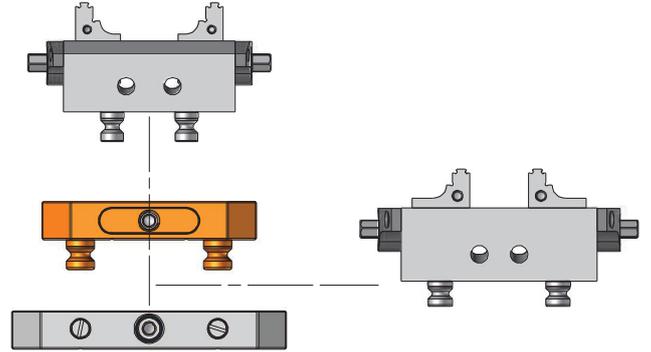
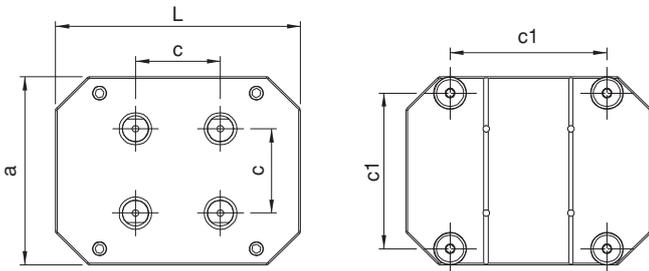
Nr.2315-096 ile Nr.2315-125
Nr.2315-096 ile Nr.2315-5296

Product Nr. 2315 ER-EL Point Clamp Center Change Adapter

• Device change is also possible.

Combinations:

Nr.2315-096 with Nr.2315-125
Nr.2315-096 with Nr.2315-5296



5-Eksen Mengene Yükseltmesi

5-Axis Vice Bottom Support

| Referans Nr. | h | a | L | b | g | c | f Kombinasyon Combination | Kombinasyon Combination | d | e | (kg) |
|--------------|----|-----|-----|-----|------|----|---------------------------------|----------------------------|-----|----|------|
| 2315-04680 | 80 | 97 | 226 | 200 | 12,5 | 52 | 2315-08 | 2315-046 | 100 | 18 | 6.8 |
| 2315-07780 | 80 | 97 | 226 | 200 | 12,5 | 52 | 2315-08 | 2315-077 | 100 | 18 | 7 |
| 2315-09780 | 80 | 117 | 226 | 200 | 12,5 | 52 | 2315-08 | 2315-097 | 100 | 18 | 8.6 |
| 2315-12580 | 80 | 145 | 278 | 250 | 12,5 | 96 | 2315-10 | *2315-125 | 150 | 18 | 13.3 |
| 2315-12581 | 80 | 145 | 380 | 350 | 12,5 | 96 | 2315-10 | **2315-125 | 150 | 18 | 21.3 |



Ürün Nr. 2315 5- Eksen Mengene Yükseltmesi

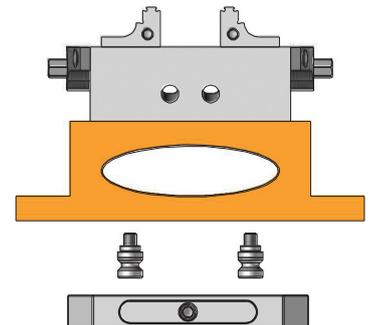
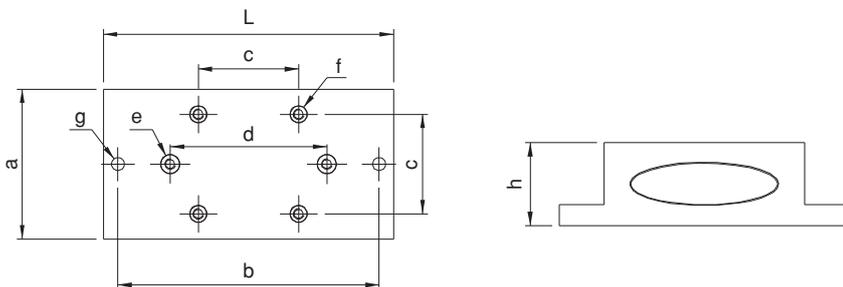
Product Nr. 2315 5-Axis Vice Bottom Support

Kombinasyon:

Nr.2315-12580 5-Eksen mengene yükseltmesi,
*Nr.2315-125160 ve Nr.2315-125210 kodlu mengenede kullanılır.
Nr.2315-12581 5-Eksen mengene yükseltmesi,
**Nr.2315-125260, Nr.2315-125310 ve Nr.2315-125360 kodlu mengenede kullanılır.

Combinations:

Nr.2315-12580 is needed for the vice
*Nr.2315-125160 and Nr.2315-125210
Nr.2315-12581 is needed for the vice
**Nr.2315-125260, Nr.2315-125310 and Nr.2315-125360



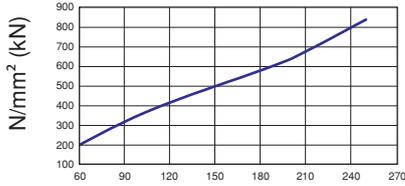
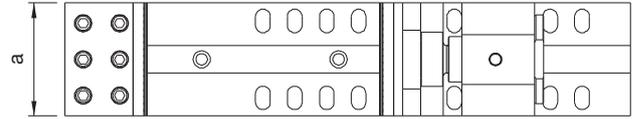
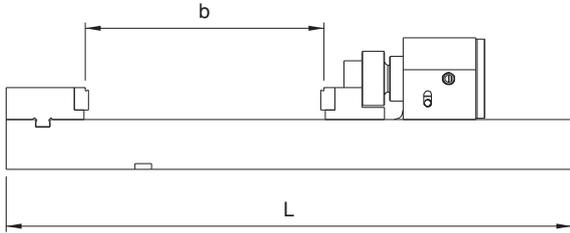
| Referans Nr. | a | b | L |  |
|--------------|-----|-----|-----|---|
| 2315-340 | 125 | 340 | 620 | 44 |

Ürün Nr. 2315 Ön Şekillendirme Mengenesi

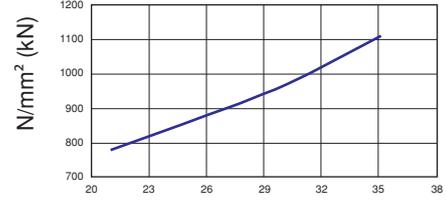
- Ön şekillendirme mengenesi sayesinde malzemelerinize tırnaklar açarak kütleli malzemelerinize 5-Eksen megenede daha mükemmel tutma performansı sağlar. Yüksek tutma gücü gerektiren iş parçaları için ön şekillendirme mengenesi önerilir. 6mm den 355mm'ye kadar sıkma aralığına sahiptir.
- Pompa ünitesi dahil, arabalı set olarak satılmaktadır.
- Sadece mengene olarak talep edebilirsiniz.

Product Nr. 2315 Pre-Form Vice

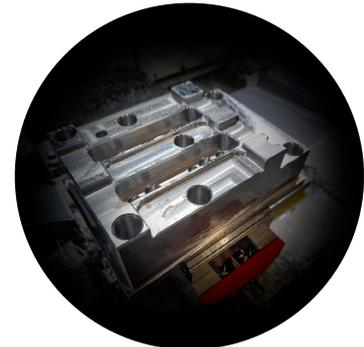
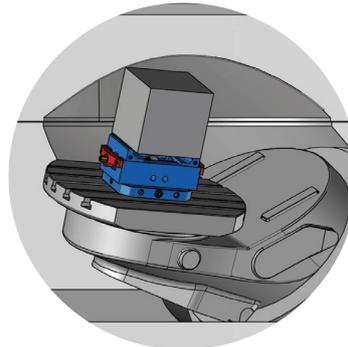
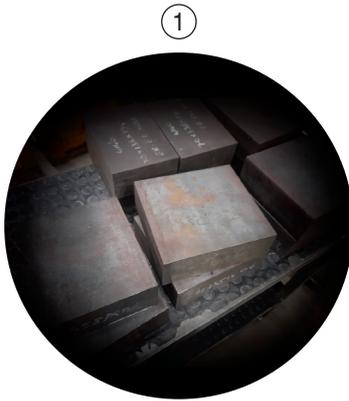
- Thanks to the pre-forming vise, it can engrave impressions on your mass materials and provide better holding performance in the 5-Axis vise.
- Pre-Form Vice is recommended for workpieces that require high holding power.
- Its clamping range is from 6mm to 355mm.
- It is sold as a car set including the pump unit.
- You can request it as Just Vice.



HB



HRC



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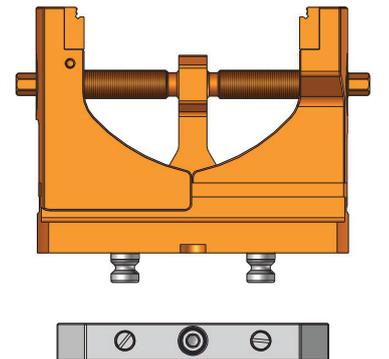
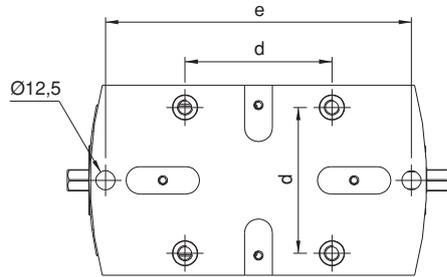
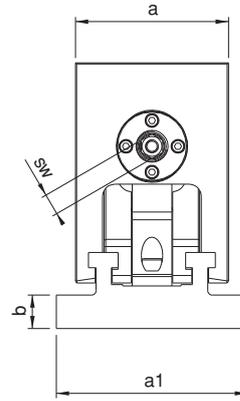
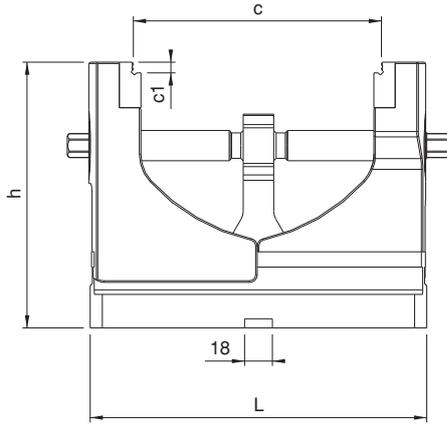
| Referans Nr. | a | a1 | h | L | c | c1 | b | e | d | Sıkma Kuvveti Clamping Force Kgf | Nm | sw | Kombinasyon Combination | Kombinasyon Combination | (kg) |
|--------------|-----|-----|-----|-----|--------|----|----|-----|----|--|-----|----|----------------------------|----------------------------|-------|
| 2315-100160 | 100 | 125 | 175 | 220 | 30-160 | 7 | 22 | 200 | 96 | 3000 | 130 | 14 | 2315-10 | 2315-096 | 13.70 |
| 2315-130225 | 130 | 155 | 175 | 285 | 30-225 | 7 | 22 | 250 | 96 | 3000 | 130 | 14 | 2315-10 | 2315-096 | 20.50 |

Ürün Nr. 2315 Yüksek 5-Eksen Mengene

- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir.
- Kullanım alanı: CNC ve CNC 5-Eksen sanayi makinalarında kullanılır.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Siyah Kaplama

Product Nr. 2315 High 5-Axis Vice

- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diameter measurements as it implements this process without changing the center.
- Area of Using: This product is used in various industry machines such as CNC and CNC 5-Axis mechanical milling machines,
- Entire moving surface is sensitively grinded and hardened.
- Black coating



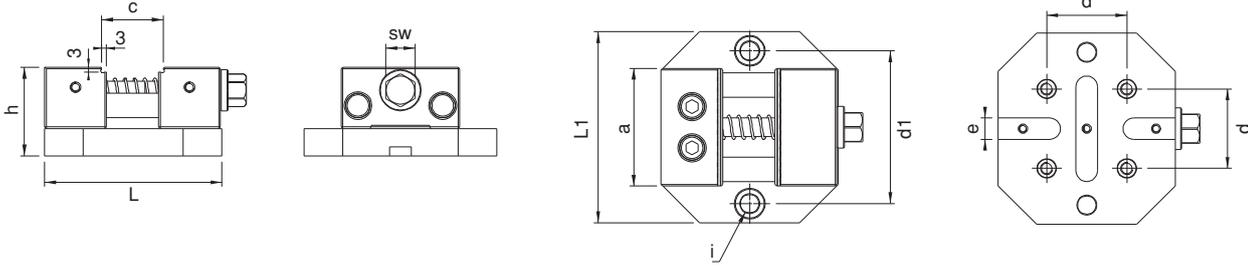
| Referans Nr. | a | h | c | L | L1 | d | d1 | e | sw | Sıkma Kuvveti Clamping Force Kgf | i |  |  |  |
|--------------|----|----|------|-----|-----|----|-----|----|----|--|-----|---|---|---|
| 2315-040 | 77 | 58 | 6-40 | 115 | 125 | 52 | 100 | 14 | 17 | 1000 | M12 | 2315-052 | 2315-08 | 3.80 |

Ürün Nr. 2315 Kompak Mengene (Tek Yön)

- Pratik kullanımı ve minyatür yapısından dolayı dar olan alanlarda çoklu iş parçası bağlamak için avantaj sağlar.
- Çalışma Toleransı 0,1

Product Nr. 2315 Axis Vice (One Sided)

- Due to its practical use and miniature build, it gives you the opportunity to clamp your multi-work pieces even in small spaces.
- Working Tolerance 0,1



Eksen Mengene (Çift Yön Plakalı)

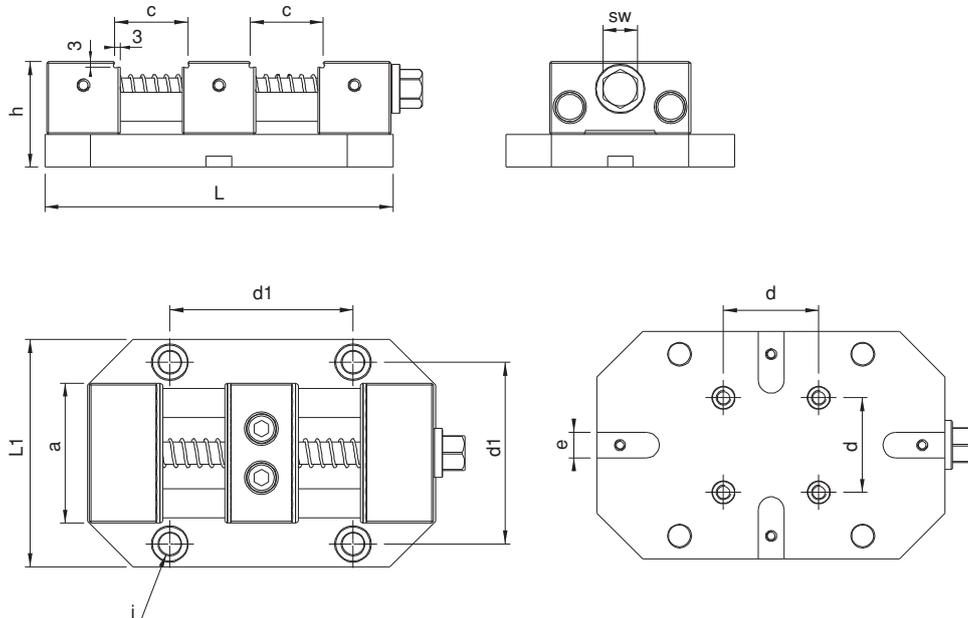
| Referans Nr. | a | h | c | L | L1 | d | d1 | e | sw | Sıkma Kuvveti Clamping Force Kgf | i |  |  |  |
|--------------|----|----|------|-----|-----|----|-----|----|----|--|-----|---|---|---|
| 2315-080 | 77 | 58 | 6-40 | 190 | 125 | 52 | 100 | 14 | 17 | 1000 | M12 | 2315-052 | 2315-08 | 6.10 |

Ürün Nr. 2315 Kompak Mengene (Çift Yön)

- Pratik kullanımı minyatür yapısından dolayı dar olan alanlarda çoklu iş parçası bağlamak için avantaj sağlayan, yapısı ile beraber iki iş parçası da bağlama olanağı sağlamaktadır.
- En önemli özelliği parça ölçülerinde fark olsa bile sıkma işlemini sağlamaktadır.
- Çalışma Toleransı 0,1

Product Nr. 2315 Axis Vice (Two Sided)

- In addition to its practical use and miniature build, it gives you the opportunity to clamp your multi-work pieces even in small spaces, it also provides you the opportunity to clamp two work pieces.
- Its best feature is that you can clamp to different size pieces at the same time.
- Working Tolerance 0,1



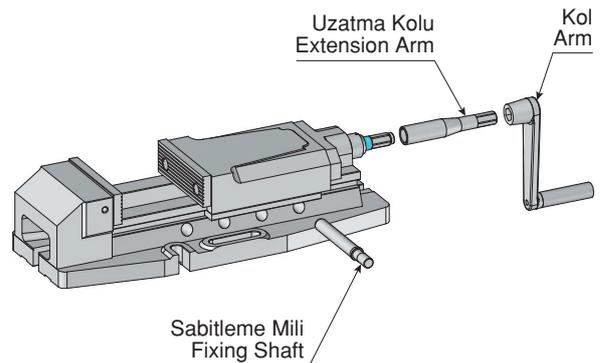
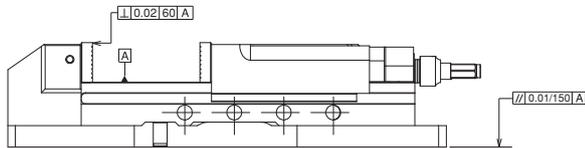
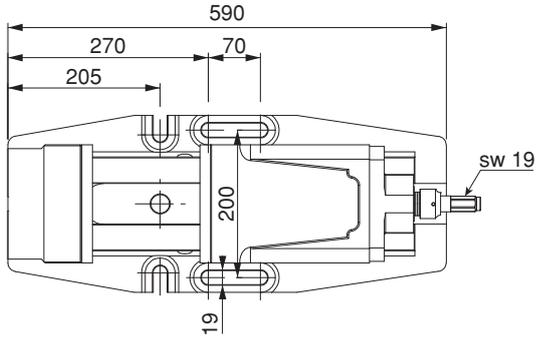
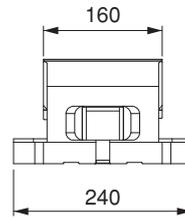
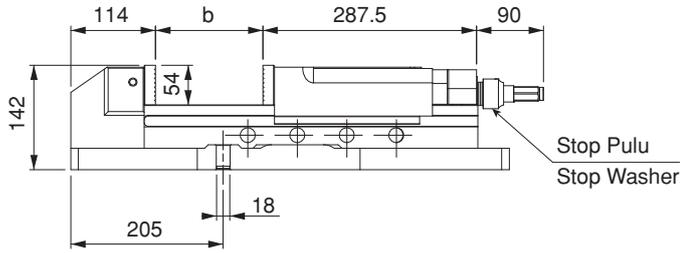
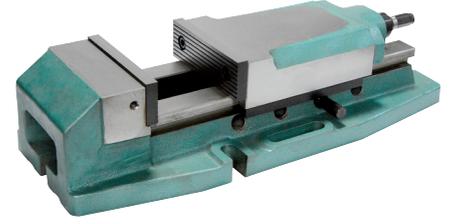
| Referans Nr. | b | Sıkma Kuvveti Clamping Force kgf |  (kg) |
|--------------|-------|----------------------------------|--|
| 2320-160200 | 0-200 | 4500 | 60 |

Ürün Nr. 2320 Hidrolik Mengene

- Kullanım alanı: CNC ve mekanik frezeler, matkap tezgahları, çeşitli sanayi makineleri.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

Product Nr. 2320 Hydraulic Vice

- Area of Using: CNC and mechanical milling machines, drilling machines, various industrial machines
- Entire moving surface is sensitively grinded and hardened.



| Referans Nr. | a | b | c | L | d | e | f | h | i | n | s | Sıkma Kuvveti Clamping Force kgf | Tork Değeri Allowable Screw Torque (N-m) | (kg) |
|--------------|-----|-------|----|-----|----|----|-----|-----|-----|----|---------|----------------------------------|--|------|
| 2330-127160 | 127 | 0-160 | 60 | 422 | 99 | 78 | 160 | 115 | 125 | 55 | 200 | 4500 | 170 | 28 |
| 2330-157200 | 157 | 0-200 | 60 | 462 | 99 | 78 | 160 | 115 | 150 | 55 | 200 | 4500 | 170 | 46 |
| 2330-157300 | 157 | 0-300 | 60 | 562 | 99 | 78 | 160 | 115 | 150 | 55 | 250 | 4500 | 170 | 51 |
| 2330-197300 | 197 | 0-300 | 60 | 562 | 99 | 78 | 160 | 115 | 150 | 55 | 250 | 4500 | 170 | 66 |
| 2330-197400 | 197 | 0-400 | 60 | 662 | 99 | 78 | 160 | 115 | 150 | 55 | 350 | 4500 | 170 | 73 |
| 2330-197500 | 197 | 0-500 | 60 | 762 | 99 | 78 | 160 | 115 | 150 | 55 | 250/250 | 4500 | 170 | 80 |
| 2330-197600 | 197 | 0-600 | 60 | 862 | 99 | 78 | 160 | 115 | 150 | 55 | 250-250 | 4500 | 170 | 86 |

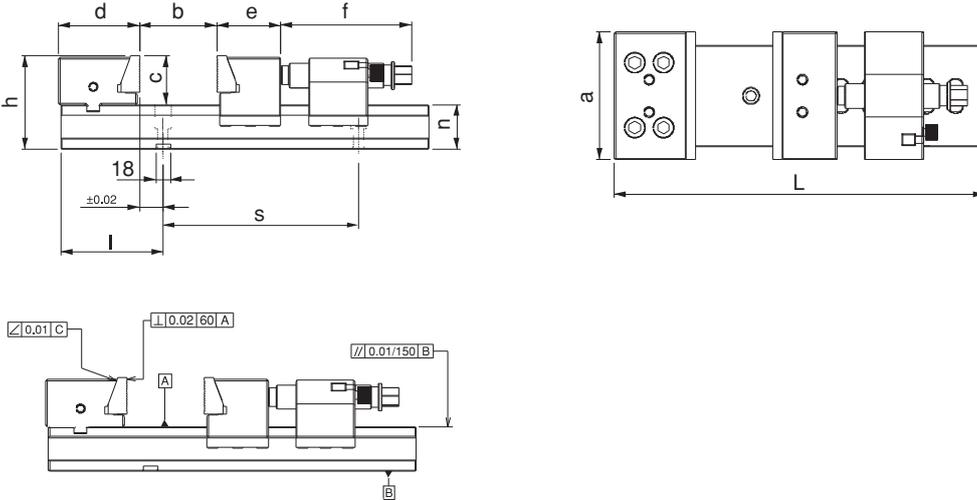


Ürün Nr. 2330 Mekanik Çelik Mengene

- Mekanik çelik mengene sertleştirilmiş ve hassas taşlanmış olarak mükemmel kullanıma sahiptir. Kullanım özelliği işlenecek malzemeyi sabitlerken sabit ve hareketli çenelerde bulunan modüler çeneler yaylı sisteminden dolayı malzemeyi mengene tabanına doğru çeker ve güvenli çalışma sağlar. Kamalı sabitleme özelliğiyle hareketli çene mesafesi hızlı ayarlanabilir, kolay kullanılır.
- Kullanım alanı: CNC ve mekanik frezeler, taşlama ve matkap tezgahları, çeşitli sanayi makineleri
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

Product Nr. 2330 Mechanical Steel Vice

- Mechanical Steel Vice is hardened and it has excellent way of using because of being sensitively grinded. It's usage characteristic fixes the material to be machined and at the same time it pulls the material to the base of the vice because of having sprung system of modular jaws taking place in the moving jaws. Entire moving surface is sensitively grinded. With it's wedged fixing characteristic, moving jaw distance can be adjusted rapidly and can be used with convenience.
- Area of Using: CNC and mechanical milling machines, grinding and drilling machines, various industrial machines
- Entire moving surface is sensitively grinded and hardened.

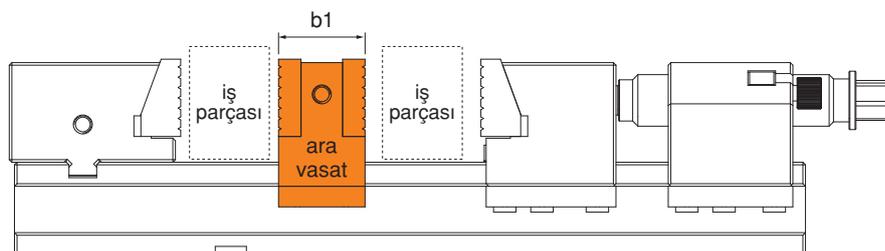


2'li Bağlama İçin Ara Vasat

Medium Part to Connect Two Work Piece

| Referans Nr. | b1 | (kg) |
|--------------|----|------|
| 2330-127 | 50 | 3.1 |
| 2330-157 | 50 | 3.8 |
| 2330-197 | 50 | 4.7 |

Not: Çoklu bağlamalar için aravasat
Notes: To be able to clamp several workpieces, intermediate pieces are required.





| Referans Nr. | a | b | c | L | d | e | f | h | i | n | s | Sıkma Kuvveti Clamping Force kgf | Bar | Strok Mesafesi Stroke length (mm) | (kg) |
|--------------|-----|-------|----|-----|----|----|-----|-----|-----|----|---------|----------------------------------|-----|-----------------------------------|------|
| 2330-127160H | 127 | 0-160 | 60 | 422 | 99 | 78 | 160 | 115 | 125 | 55 | 200 | 4000 | 250 | 5 | 28 |
| 2330-157200H | 157 | 0-200 | 60 | 462 | 99 | 78 | 160 | 115 | 150 | 55 | 200 | 4000 | 250 | 5 | 46 |
| 2330-157300H | 157 | 0-300 | 60 | 562 | 99 | 78 | 160 | 115 | 150 | 55 | 250 | 4000 | 250 | 5 | 51 |
| 2330-197300H | 197 | 0-300 | 60 | 562 | 99 | 78 | 160 | 115 | 150 | 55 | 250 | 4000 | 250 | 5 | 66 |
| 2330-197400H | 197 | 0-400 | 60 | 662 | 99 | 78 | 160 | 115 | 150 | 55 | 350 | 4000 | 250 | 5 | 73 |
| 2330-197500H | 197 | 0-500 | 60 | 762 | 99 | 78 | 160 | 115 | 150 | 55 | 250/250 | 4000 | 250 | 5 | 80 |
| 2330-197600H | 197 | 0-600 | 60 | 862 | 99 | 78 | 160 | 115 | 150 | 55 | 250-250 | 4000 | 250 | 5 | 86 |



Ürün Nr. 2330 Hidrolik Çelik Mengene

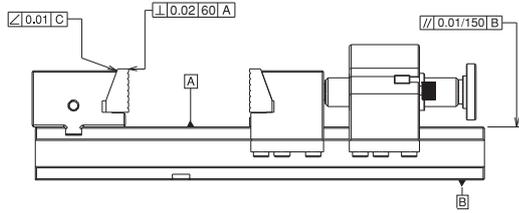
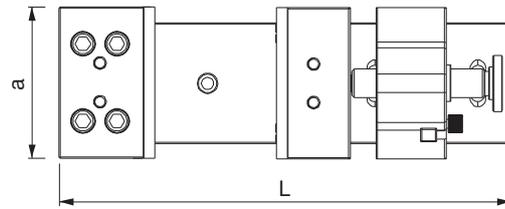
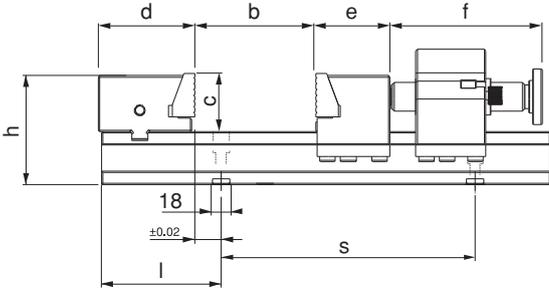
- Mekanik Çelik Mengene Hassasiyetinde iş parçası bağlamak artık daha pratik. Hidrolik Çelik Mengene ister düğme operasyonu ile ister otomasyon operasyonu ile çalışmalarınızda 250 bar hidrolik basınç ile iş parçalarınızı kolay bir şekilde bağlama işlemi yapabilirsiniz. Bünyenizde Mekanik Çelik Mengene mevcut ise Hidrolik Sisteme dönüştürme istediğinizde Hidrolik Gezer Somun temin ettiğinizde 250 bar hidrolik basınç verildiğinde sistemi kullanmaya başlayabilirsiniz.

Product Nr. 2330 Hydraulic Steel Vice

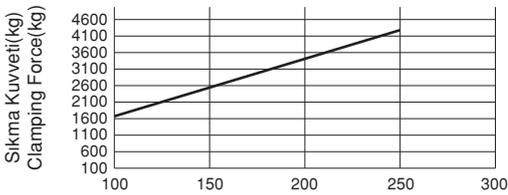
- Mechanical Steel Vice Precision workpiece clamping is now more practical. Hydraulic Steel Vice can easily clamp your workpieces with 250 bar hydraulic pressure in your work with either button operation or automation operation. If you have a Mechanical Steel Vice in your facility, when you want to convert it to a Hydraulic System, you can supply a Hydraulic Portable Nut and when 250 bar hydraulic pressure is given, you can start using the system.

Not: Hidrolik Ünite ve Kontrol ünitesi dahil değildir.

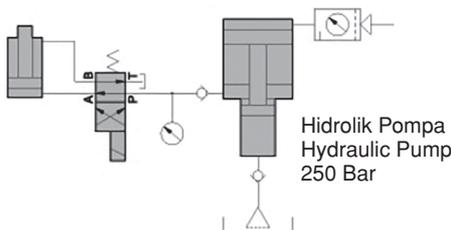
Note: Hydraulic Unit and Control unit are not included.



Hidrolik Pompa dahil değildir.
Hydraulic Pump Not Included.



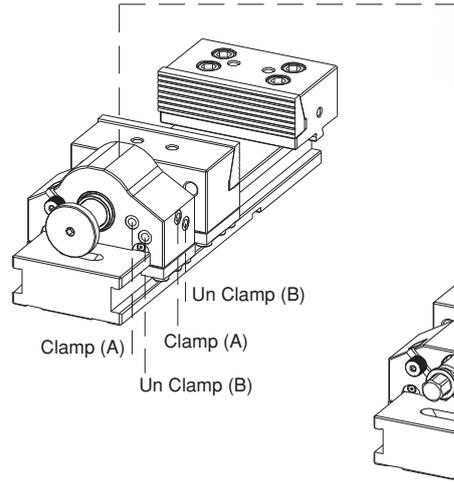
Hidrolik Bar Basıncı
Hydraulic Bar Pressure



Mekanik Çelik Mengenenizi Hidrolik Sisteme Çevirmek için Gezer Somunu değiştirmeniz yeterlidir.
Convert your Mechanical Steel Vice to hydraulic system, simply replace the portable nut.



Nr.2330-127GSH
Nr.2330-157GSH
Nr.2330-197GSH



Önerilen Hidrolik Pompa Kodu
Recommended Hydraulic Pump Code
Referans Nr.1040-44ABP

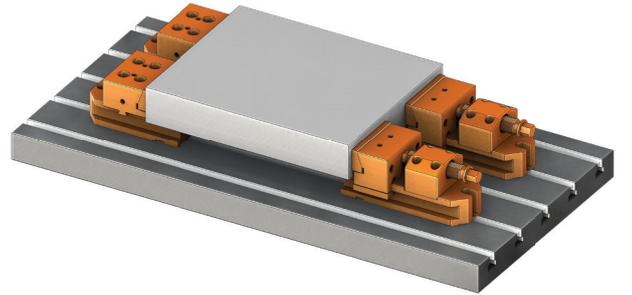
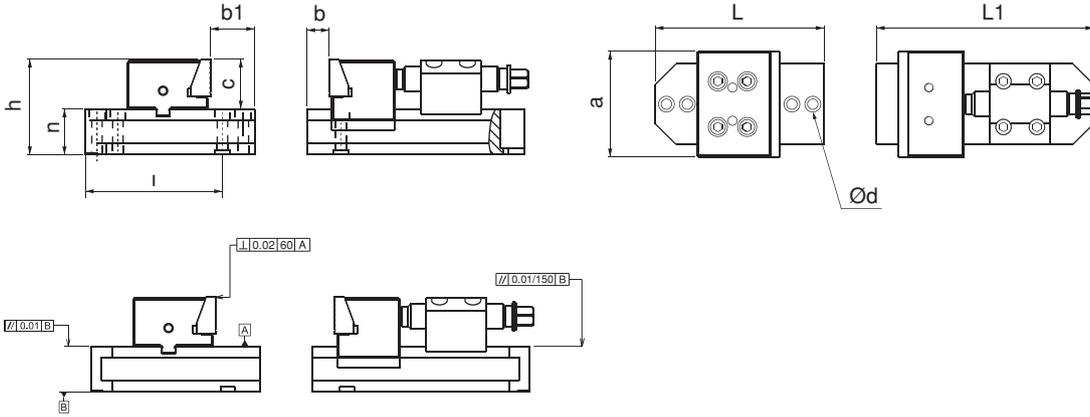
| Referans Nr. | a | L | L1 | b1 | b | c | h | i | n | Ød | sıkma kuvveti clamping force kgf | Tork Değeri Allowable Screw Torque (N-m) |  (kg) |
|--------------|-----|-----|-----|----|------|----|-----|-------|----|------|--|---|---|
| 2345-127 | 127 | 202 | 260 | 53 | 0-58 | 60 | 115 | 163.5 | 55 | 12.5 | 4500 | 170 | 28 |


Ürün Nr. 2345 Modüler Mekanik Çelik Mengene

- Ürün çenelerinin hareketli oluşu iş parçasını karşıya ve aşağıya çekerek sıkar. Mengenenin iki parçalı ve paralel oluşu büyük iş parçalarını bağlamada delik diş vs. gibi işlemlerde kolaylık sağlar.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

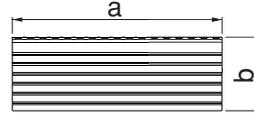
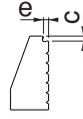
Product Nr. 2345 Modular Mechanical Steel Vice

- Because of sliding clamping jaws it clamps the workpieces in opposite direction and down. The vice consists of two parts and it is parallel which provides clamping big tools, threading and similar processes easy.
- Entire moving surface is sensitively grinded and hardened.



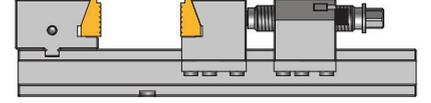
NEW

| Referans Nr. | a | b | c | d | e | f |  |
|--------------|-----|----|---|---|---|---|---|
| 2332-127 | 127 | 45 | 3 | - | 3 | - | 760 |
| 2332-157 | 157 | 45 | 3 | - | 3 | - | 935 |
| 2332-197 | 197 | 45 | 3 | - | 3 | - | 1180 |

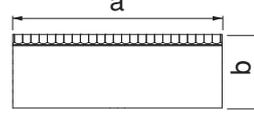
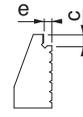


Ürün Nr. 2332 Mekanik Çelik Mengene Faturalı Çene
Product Nr. 2332 Mechanical Steel Vice Jaws with Stopper

- Sertleştirilmiş
- Hardened

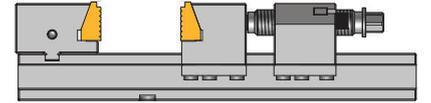


| Referans Nr. | a | b | c | d | e | f |  |
|--------------|-----|----|---|---|---|---|--|
| 2333-127 | 127 | 45 | 7 | - | 5 | - | 760 |
| 2333-157 | 157 | 45 | 7 | - | 5 | - | 935 |
| 2333-197 | 197 | 45 | 7 | - | 5 | - | 1180 |

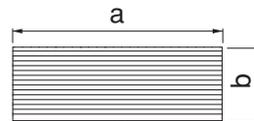


Ürün Nr. 2333 Mekanik Çelik Mengene Faturalı Çene
Product Nr. 2333 Mechanical Steel Vice Jaws with Stopper

- Sertleştirilmiş
- Hardened

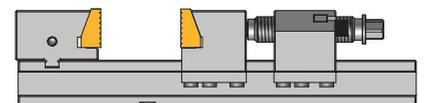


| Referans Nr. | a | b | c | d | e | f |  |
|--------------|-----|----|---|---|---|---|---|
| 2334-127 | 127 | 45 | - | - | - | - | 765 |
| 2334-157 | 157 | 45 | - | - | - | - | 960 |
| 2334-197 | 197 | 45 | - | - | - | - | 1185 |

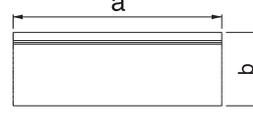


Ürün Nr. 2334 Mekanik Çelik Mengene Düz Çene
Product Nr. 2334 Mechanical Steel Vice with Straight Jaw

- Sertleştirilmiş
- Hardened

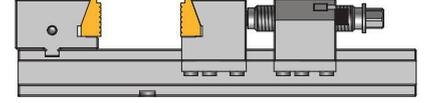


| Referans Nr. | a | b | c | d | e | f |  |
|--------------|-----|----|---|---|---|---|---|
| 2335-127 | 127 | 45 | 7 | - | 5 | - | 760 |
| 2335-157 | 157 | 45 | 7 | - | 5 | - | 935 |
| 2335-197 | 197 | 45 | 7 | - | 5 | - | 1180 |

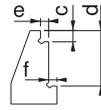


Ürün Nr. 2335 Mekanik Çelik Mengene Faturalı Çene
Product Nr. 2335 Mechanical Steel Vice Jaws with Stopper

- Sertleştirilmiş • Hardened

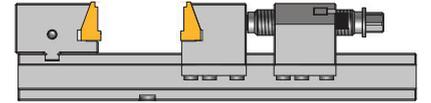


| Referans Nr. | a | b | c | d | e | f |  |
|--------------|-----|----|---|----|---|---|--|
| 2340-127 | 127 | 45 | 7 | 34 | 5 | 5 | 950 |
| 2340-157 | 157 | 45 | 7 | 34 | 5 | 5 | 1010 |
| 2340-197 | 197 | 45 | 7 | 34 | 5 | 5 | 1290 |

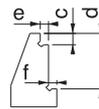


Ürün Nr. 2340 Mekanik Çelik Mengene Faturalı Çene
Product Nr. 2340 Mechanical Steel Vice Jaws with Stopper

- Sertleştirilmiş • Hardened

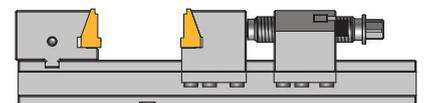


| Referans Nr. | a | b | c | d | e | f |  |
|--------------|-----|----|---|----|---|---|---|
| 2336-127 | 127 | 45 | 7 | 34 | 5 | 5 | 950 |
| 2336-157 | 157 | 45 | 7 | 34 | 5 | 5 | 1010 |
| 2336-197 | 197 | 45 | 7 | 34 | 5 | 5 | 1290 |



Ürün Nr. 2340 Mekanik Çelik Mengene Faturalı Çene
Product Nr. 2340 Mechanical Steel Vice Jaws with Stopper

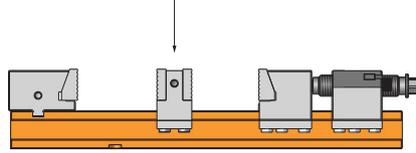
- Sertleştirilmiş • Hardened



| Referans Nr. |
|-----------------|
| 2330-127160AG |
| 2330-157200AG |
| 2330-157300AG |
| 2330-197300AG |
| 2330-197400AG |
| 2330-197500AG |
| 2330-197600AG |

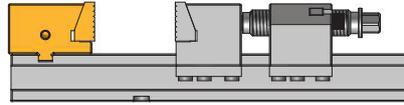
Ürün Nr. 2330 Alt Gövde
Product Nr. 2330 Sub-body

Not: Çoklu bağlamalar için aravasat
Notes: To be able to clamp several workpieces,
intermediate pieces are required.



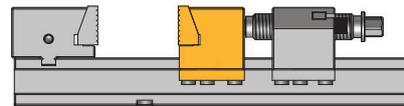
| Referans Nr. |
|-----------------|
| 2330-127SÇ |
| 2330-157SÇ |
| 2330-197SÇ |

Ürün Nr. 2330 Sabit Çene
Product Nr. 2330 Fixed Jaw



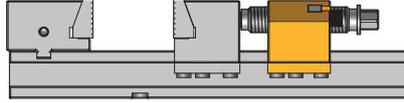
| Referans Nr. |
|-----------------|
| 2330-127GÇ |
| 2330-157GÇ |
| 2330-197GÇ |

Ürün Nr. 2330 Gezer Çene
Product Nr. 2330 Portable Jaw



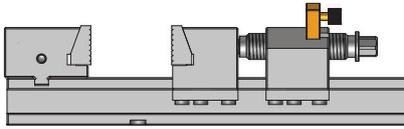
| Referans Nr. |
|-----------------|
| 2330-127GS |
| 2330-157GS |
| 2330-197GS |

Ürün Nr. 2330 Gezer Somun
Product Nr. 2330 Portable nut



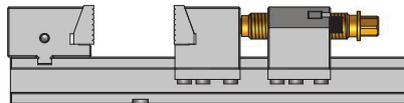
| Referans Nr. |
|-----------------|
| 2330-127SK |
| 2330-157SK |
| 2330-197SK |

Ürün Nr. 2330 Stop Kaması
Product Nr. 2330 Wedge of Stop



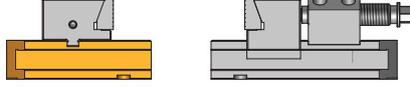
| Referans Nr. |
|-----------------|
| 2330-127157197M |

Ürün Nr. 2330 Mil
Product Nr. 2330 Pin

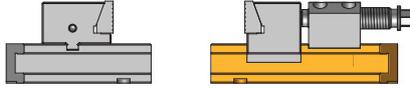


Referans
Nr.

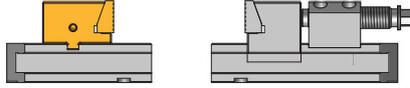
2345-127SAG

Ürün Nr. 2345 Sabit Alt Gövde
Product Nr. 2345 Fixed Sub-bodyReferans
Nr.

2345-127GAG

Ürün Nr. 2345 Gezer Alt Gövde
Product Nr. 2345 Portable Sub-bodyReferans
Nr.

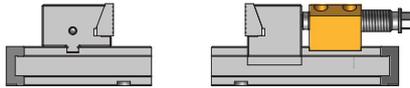
2345-127SÇ

Ürün Nr. 2345 Sabit Çene
Product Nr. 2345 Fixed JawReferans
Nr.

2345-127GÇ

Ürün Nr. 2345 Gezer Çene
Product Nr. 2345 Portable JawReferans
Nr.

2345-127SS

Ürün Nr. 2345 Sabit Somun
Product Nr. 2345 Fixed NutReferans
Nr.

2330-127157197M

Ürün Nr. 2330 Mil
Product Nr. 2330 Pin

| Referans Nr. | a | b | c | k | L | d | e | h | i | n ±0.01 | sıkma kuvveti clamping force kgf | haraket mesafesi Moving Distance Torque | (kg) |
|--------------|-----|-----|----|-----|-----|-----|-----|-----|-----|------------|--|---|------|
| 2350-160E | 160 | 160 | 58 | 310 | 530 | 130 | 145 | 160 | 190 | 105 | 2000 | 4 | 62 |

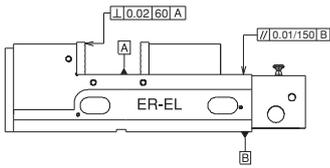
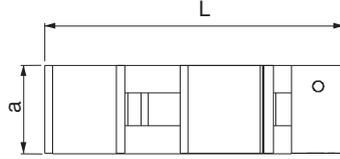
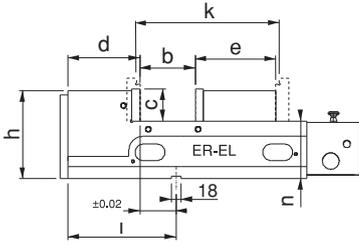


Ürün Nr. 2350 Pnömatik Mengene 160E

- 6 Bar hava ile çalışır. Pnömatik yapısından dolayı sıkma-açma işlemlerinde hız kazandırır.
- 2000 kgf sıkma kuvvetiyle iş parçasını sabitler. İsteğe bağlı bar ayar butonuyla sıkma kuvveti ayarlanabilir.
- Kullanım alanı: CNC ve mekanik frezeler, matkap tezgahları, çeşitli sanayi makineleri.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

Product Nr. 2350 Pneumatic Vice 160E

- It works with 6 Bar Air. It provides speed in clamping-opening processes because of it's pneumatic structure.
- It fixes the workpiece with it's 2000 kgf clamping force. Clamping force can be adjusted with it arbitrary bar adjustment button.
- Area of Using: CNC and mechanical milling machines, drilling machines, various industrial machines
- Entire moving surface is sensitively grinded and hardened.



- "k" ölçüsüne yedek çenelerle ulaşılır. Yedek çeneler takıma dahil değildir.
- "k" measurement is reached by the spare jaws. The spare jaws are not included in the set.



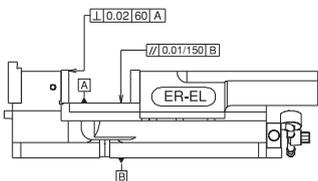
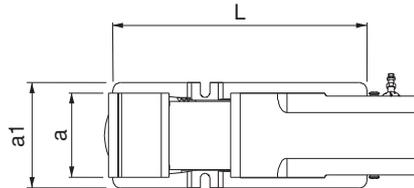
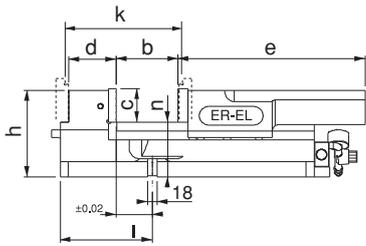
| Referans Nr. | a | a1 | b | c | k | L | d | e | h | i | n ±0.01 | sıkma kuvveti clamping force kgf | haraket mesafesi Moving Distance Torque | (kg) |
|--------------|-----|-----|-----|----|-----|-----|----|-----|-----|-----|------------|--|---|------|
| 2370-051 | 130 | 188 | 60 | 58 | 135 | 327 | 64 | 209 | 160 | - | 105 | 1100 | 4 | 37 |
| 2370-052 | 130 | 185 | 140 | 63 | 225 | 400 | 69 | 300 | 160 | 173 | 105 | 2200 | 4 | 44 |
| 2370-053 | 160 | 201 | 200 | 63 | 300 | 485 | 93 | 353 | 166 | 170 | 105 | 3300 | 4 | 63 |
| 2370-054 | 200 | 240 | 250 | 63 | 360 | 530 | 93 | 410 | 166 | 185 | 105 | 4100 | 4 | 81 |

Ürün Nr. 2370 Pnömatik Mengene B

- 6 Bar hava ile çalışır. Pnömatik yapısından dolayı sıkma-açma işlemlerinde hız kazandırır.
- 1100 kgf ile 4100 kgf sıkma kuvvetiyle iş parçasını sabitler. İsteğe bağlı bar ayar butonuyla sıkma kuvveti ayarlanabilir.
- Kullanım alanı: CNC ve mekanik frezeler, matkap tezgahları, çeşitli sanayi makineleri.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

Product Nr. 2370 Pneumatic Vice B

- It works with 6 Bar Air. It provides speed in clamping-opening processes because of it's pneumatic structure.
- It fixes the workpiece with it's 1100 kgf and 4100 kgf clamping force. Clamping force can be adjusted with it arbitrary bar adjustment button.
- Area of Using: CNC and mechanical milling machines, drilling machines, various industrial machines
- Entire moving surface is sensitively grinded and hardened.



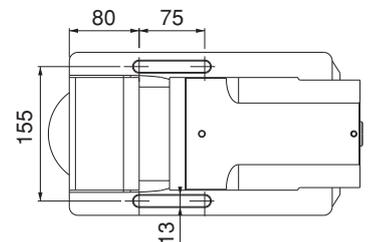
- "k" ölçüsüne yedek çenelerle ulaşılır. Yedek çeneler takıma dahil değildir.
- "k" measurement is reached by the spare jaws. The spare jaws are not included in the set.

Pnömatik Mengene

Pneumatic Vice



2370-051 Detay / Detail



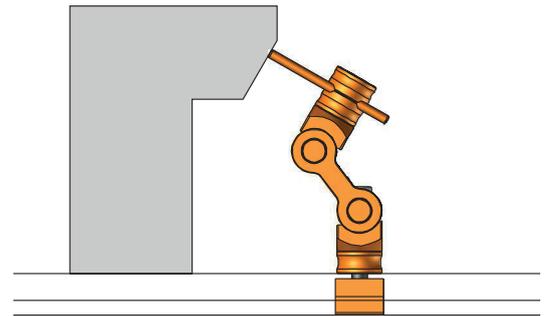
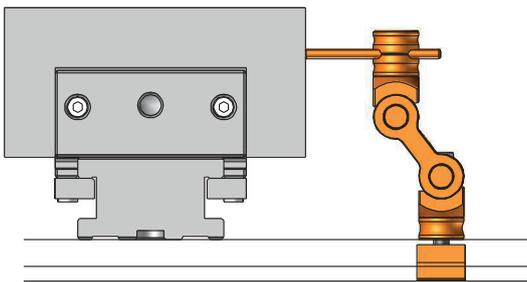
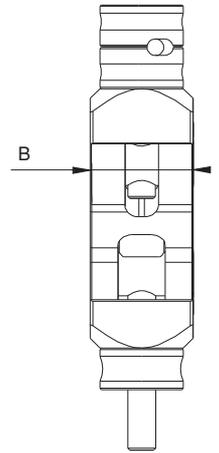
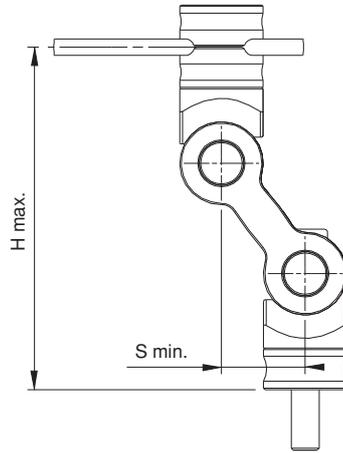
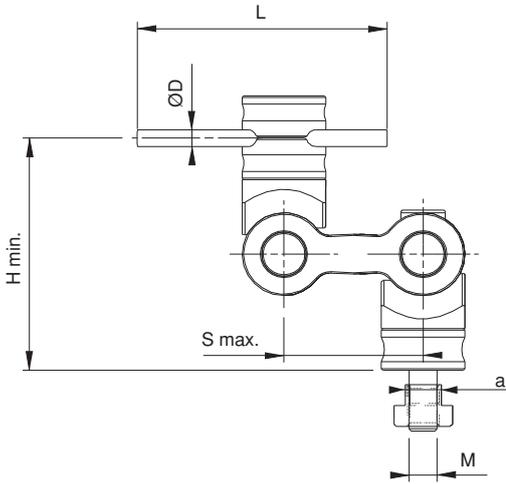
| Referans Nr. |  | H min. - max. | L | ØD | S min. - max. | B | M |  |
|--------------|---|---------------|----|----|---------------|----|-----|---|
| 2377-12512 | 12 | 85-125 | 90 | 6 | 30-50 | 37 | M10 | 780 |
| 2377-12514 | 14 | 85-125 | 90 | 6 | 30-50 | 37 | M10 | 780 |
| 2377-12516 | 16 | 85-125 | 90 | 6 | 30-50 | 37 | M10 | 780 |
| 2377-12518 | 18 | 85-125 | 90 | 6 | 30-50 | 37 | M10 | 780 |
| 2377-16512 | 12 | 85-165 | 90 | 6 | 50-95 | 37 | M10 | 865 |
| 2377-16514 | 14 | 85-165 | 90 | 6 | 50-95 | 37 | M10 | 865 |
| 2377-16516 | 16 | 85-165 | 90 | 6 | 50-95 | 37 | M10 | 865 |
| 2377-16518 | 18 | 85-165 | 90 | 6 | 50-95 | 37 | M10 | 865 |

Ürün Nr. 2377 5D Dayama

- 5 Eksen ayarlama özelliği ile makinalarda ve montaj çalışmalarında hızlı ve esnek şekilde kolay kullanım olanağı sağlar.

Ürün Nr. 2377 5D Pluggable

- With its 5 axis adjustment feature, it provides fast and flexible usage in machines and assembly works.


Uygulama Örnekleri / Example Application

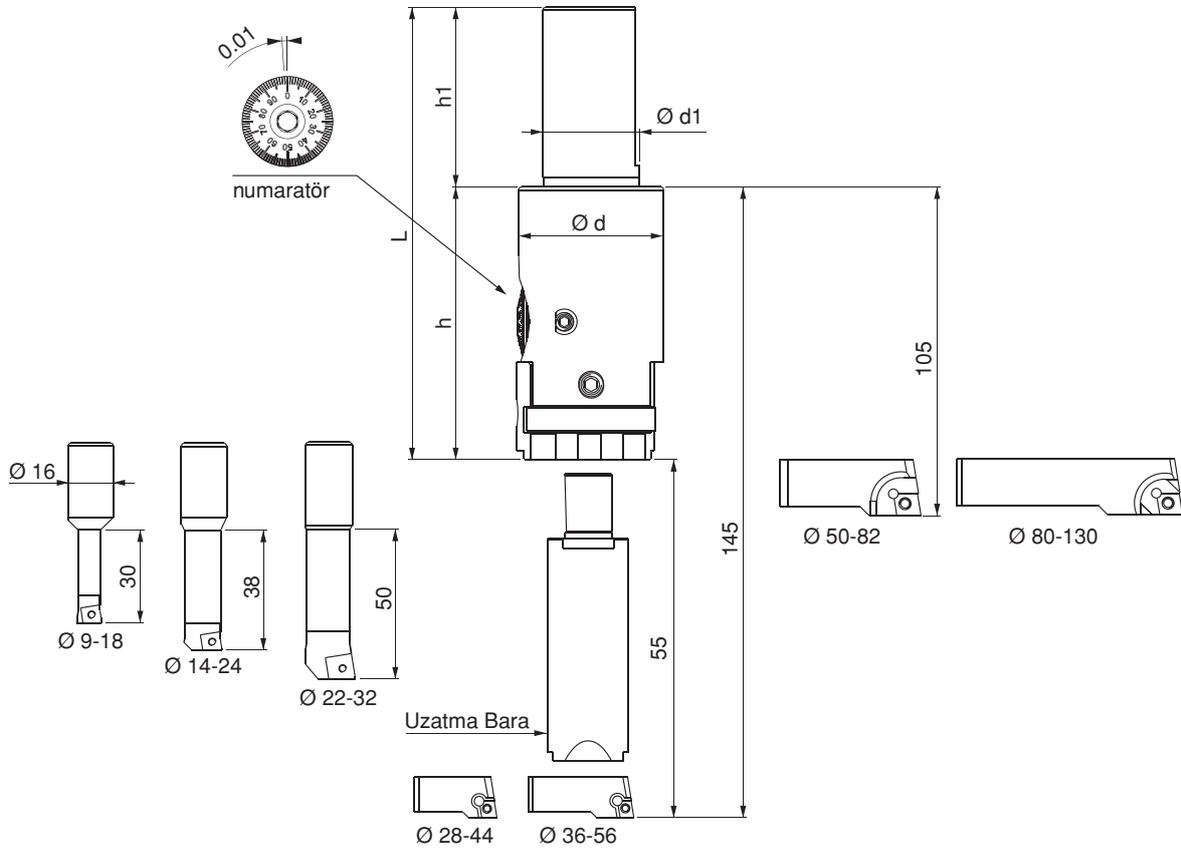

| Referans Nr. | d | d1 | h | h1 | L | (kg) |
|--------------|----|----|----|----|-----|------|
| 2380-130 | 48 | 32 | 91 | 60 | 151 | 3.05 |

Ürün Nr. 2380 Hassas Delik İşleme Aparatı

- Ürün 0.02 işleme hassasiyetli olup 9mm'den 130mm çapa 145 mm derinliğe işlem yapabilir değiştirilebilir bara ve kartuş özelliği ile mükemmel kullanıma sahiptir.

Product Nr. 2380 Precision Hole Making Tool

- It works with 0.02 sensitivity in diameter 9-130 mm and 145 mm depth. Because of replaceable function kater and cartouche it is perfect in using.



Not:
Ø52 den sonra
gövdeyle 105 mm
uzatma barayla
145 mm
derinliğe ulaşır.

Note; from diameter 52: It reaches 105 mm depth with its slot and 145 mm depth with its extended kater

| Referans Nr. | Cinsi Type | Uç Tipi Type of Inserts | Devir Rotation | İlerleme Progress | ap |
|--------------|---------------|-------------------------|----------------|-------------------|--------------|
| 2386-00918 | 09-18 Bara | CCMT 06 | 2700 d/dk. | F 75 | 0.1 - 0.5 mm |
| 2386-01424 | 14-24 Bara | CCMT 06 | 2500 d/dk. | F 75 | 0.1 - 0.5 mm |
| 2386-02232 | 22-32 Bara | CCMT 09 | 2000 d/dk. | F 50 | 0.1 - 1 mm |
| 2386-02844 | 28-44 Kartuş | CCMT 06 | 1800 d/dk. | F 60 | 0.1 - 1 mm |
| 2386-03656 | 36-56 Kartuş | CCMT 06 | 1500 d/dk. | F 65 | 0.1 - 1.5 mm |
| 2386-05082 | 50-82 Kartuş | CCMT 09 | 1500 d/dk. | F 70 | 0.1 - 2 mm |
| 2386-80130 | 80-130 Kartuş | CCMT 09 | 360 d/dk. | F 75 | 2 mm |
| 2386-00055 | Uzatma Bara | - | 400 d/dk. | F 75 | 1.5 mm |

| Referans Nr. | J x M | k | h | h1 | e | L | L1 | L2 | (g) |
|--------------|------------|----|----|----|----|------|-----|----|------|
| 2390-010 | ISO30-M12 | 83 | 99 | 35 | 18 | 85 | 128 | 26 | 6030 |
| 2390-015 | ISO40-M16 | | | | | | | | 6555 |
| 2390-020 | ISO50-M24 | | | | | | | | 9110 |
| 2390-025 | BT40 - M16 | | | | | | | | 6900 |
| 2390-030 | BT50 - M24 | | | | | | | | 9840 |
| 2390-035 | SK40- M16 | | | | | | | | 6750 |
| 2390-040 | SK50- M24 | | | | | 8970 | | | |
| 2390-045 | MK4 - M16 | | | | | 6180 | | | |
| 2390-050 | MK4 Kamalı | | | | | 6880 | | | |
| 2390-055 | MK5 - M20 | | | | | 7785 | | | |
| 2390-060 | MK5 Kamalı | | | | | 7450 | | | |

Ürün Nr. 2390 Delik İşleme Aparatı

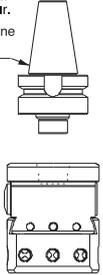
- Ürün 0.02 işleme hassasiyetli olup 18mm'den 210mm'ye kadar işlem yapabilir.
- Modüler sistem oluşu kullanım için kolaylık sağlar.
- Tutucu değiştirilerek CNC ve Mekanik tezgahlarda kullanım avantajı sağlar.
- Ürün, 4 ad. delik barası, 1 ad. T-Kanal temizleyici ile ahşap kutudadır.
- Değiştirilebilir Tutucular:
- ISO-30-40-50 BT40-50 SK40-50 MK4-5 ile kullanım imkanı.

Product Nr. 2390 Hole Machining Apparatus

- Product has 0.02 machining sensitivity and it can implement processes from 18mm to 210mm.
- It's modular system structure provides convenience in using.
- It provides the possibility of using in CNC and Mechanical benches by changing the holder.
- The product takes place in a wooden box with it's 4 hole bar, 1 T-Slot scraper.
- Changeable Holders:
- Possibility to be used with ISO30-40-50 BT 40-50 SK40-50 MK4-5.

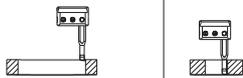


Modülerdir, sabitleme işlemi saat yönüne doğru vidalanarak yapılır. It is modular. Fixing process is done screwing towards clockwise



| Referans Nr. | L | L1 | e | Kesici uç tipi Cutting Edge type | (g) |
|--------------|-----|-----|----|----------------------------------|-----|
| 2395-1 | 85 | - | 18 | DCMT 07 | 112 |
| 2395-2 | 95 | - | 18 | DCMT 07 | 130 |
| 2395-3 | 132 | - | 18 | DCMT 07 | 200 |
| 2395-4 | - | 128 | 18 | - | 360 |

| min | Ø | max | c1 | devir dk. Revolution per minute |
|-----|---|-----|-----|---------------------------------|
| 18 | | 95 | 50 | 400-450 |
| 18 | | 95 | 63 | 400-450 |
| 20 | | 100 | 100 | 170-220 |

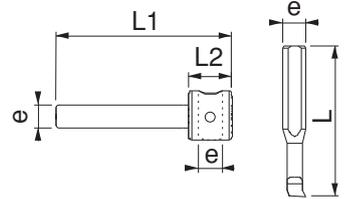
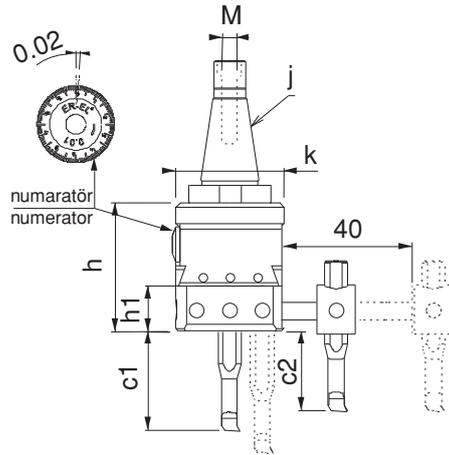


- Ürünün kazağındaki alt deliklerine baraları takarak 18mm'den 100mm çapa kadar büyütme 0-100mm kadar derinliğe inebilir.
- It is possible to have enlargement from 18mm to 100mm by attaching bars to the bottom holes taking place in the slide of the product and it can go down to depth up to 0-100mm.

| min | Ø | max | c1 | devir dk. Revolution per minute |
|-----|---|-----|----|---------------------------------|
| 95 | | 210 | 55 | 90-170 |
| 95 | | 210 | 65 | 90-170 |



- Ürünün kazağındaki yan deliğe ara vasatı takarak, şekilde görüldüğü gibi 95mm'den - 210mm çapa kadar büyütme, 0-65mm kadar derinliğe inebilir
- By applying intermediary means to the side hole of the product's slide, it is possible to have enlargement from 95mm to 210mm and it can go down to depth up to 0-65mm as seen in the figure.



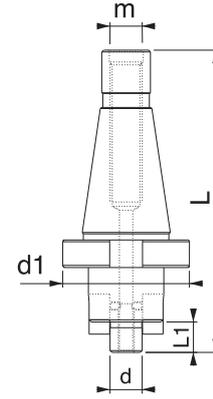
| Referans Nr. | ISO | d | d1 | L | L1 | m |  |
|--------------|--------|----|------|-----|----|-----|---|
| 2410-3016 | ISO 30 | 16 | 48 | 125 | 17 | M12 | 665 |
| 2410-3022 | ISO 30 | 22 | 48 | 125 | 19 | M12 | 760 |
| 2410-3027 | ISO 30 | 27 | 48 | 125 | 21 | M12 | 790 |
| 2410-3032 | ISO 30 | 32 | 63.5 | 125 | 22 | M12 | 1020 |
| 2410-4016 | ISO 40 | 16 | 63.5 | 153 | 17 | M16 | 1170 |
| 2410-4027 | ISO 40 | 27 | 63.5 | 153 | 19 | M16 | 1360 |
| 2410-4040 | ISO 40 | 40 | 73.5 | 153 | 27 | M16 | 1795 |
| 2410-5016 | ISO 50 | 16 | 98 | 195 | 17 | M24 | 3250 |
| 2410-5022 | ISO 50 | 22 | 98 | 195 | 19 | M24 | 3350 |
| 2410-5032 | ISO 50 | 32 | 98 | 195 | 24 | M24 | 3590 |

Ürün Nr. 2410 ISO 30-40-50
Freze Tarama Kafa Tutucusu

- Sertleştirilmiş
- Hassas taşlama

Product Nr. 2410 ISO 30-40-50
Milling Machine Hatching Headpiece Holder

- Hardened
- Sensitive Grinding



Freze Tarama Başlığı Tutucusu

Milling Machine Hatching Headpiece Holder

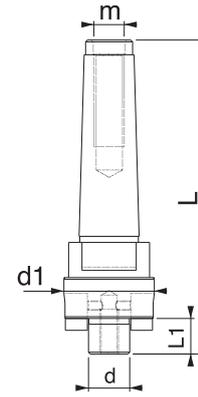
| Referans Nr. | MK | d | d1 | L | L1 | m |  |
|--------------|------|----|------|-----|----|-----|---|
| 2415-0416 | MK 4 | 16 | 40 | 168 | 17 | M16 | 945 |
| 2415-0422 | MK 4 | 22 | 48 | 168 | 19 | M16 | 1010 |
| 2415-0427 | MK 4 | 27 | 53 | 168 | 21 | M16 | 1135 |
| 2415-0432 | MK 4 | 32 | 63.5 | 168 | 24 | M16 | 1255 |
| 2415-0516 | MK 5 | 16 | 63.5 | 208 | 17 | M20 | 2145 |
| 2415-0522 | MK 5 | 22 | 63.5 | 208 | 19 | M20 | 2375 |
| 2415-0527 | MK 5 | 27 | 63.5 | 208 | 21 | M20 | 2360 |
| 2415-0532 | MK 5 | 32 | 63.5 | 208 | 24 | M20 | 2500 |
| 2415-0540 | MK 5 | 40 | 73.5 | 208 | 27 | M20 | 2700 |

Ürün Nr. 2415 MK4-MK5
Freze Tarama Kafa Tutucusu

- Sertleştirilmiş
- Hassas taşlama

Product Nr. 2415 MK4-MK5
Milling Machine Hatching Headpiece Holder

- Hardened
- Sensitive Grinding



Freze Tarama Başlığı

Milling Machine Hatching Headpiece

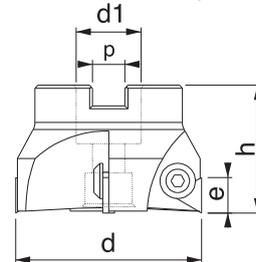
| Referans Nr. | d | h | d1 | p | e |  | Kesici uç tipi Cutting Edge type |  |
|--------------|-----|----|----|------|----|---|-------------------------------------|---|
| 2420-0804 | 80 | 52 | 32 | 14.5 | 22 | 4 | TPKN | 800 |
| 2420-1005 | 100 | 52 | 32 | 14.5 | 22 | 5 | TPKN | 1320 |

Ürün Nr. 2420 Freze Tarama Başlığı

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2420 Milling Machine Hatching Headpiece

- Hardened
- Black Coating



| Referans Nr. | d | Metrik | Alyan Allen |
|--------------|----------|---------|-------------|
| 2420-06 | 40-50-63 | M6x0.75 | 4 |
| 2420-08 | 80-100 | M8x1 | 5 |

Ürün Nr. 2420 Yedek Baskı Vidası

- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2420 Spare Press Screw

- Hardened
- Black Coating

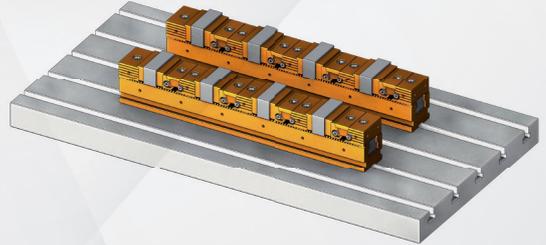
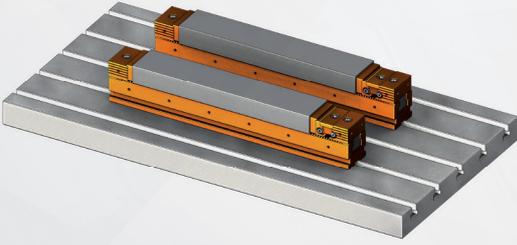
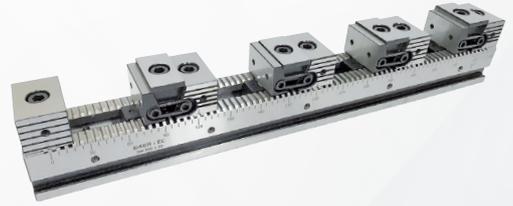


ÇOK ÇENELİ SERİ MENGENELER

MULTI JAWED WRENCH TOOLING

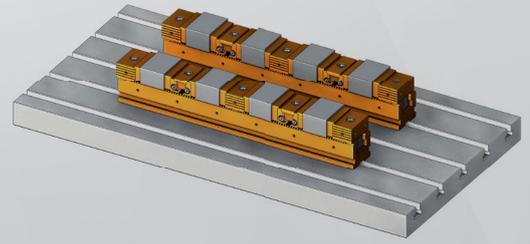
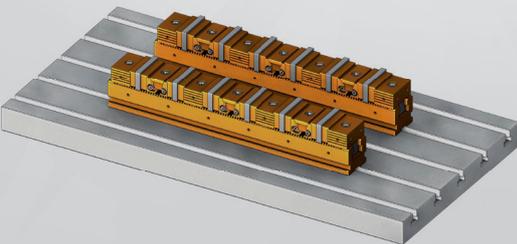
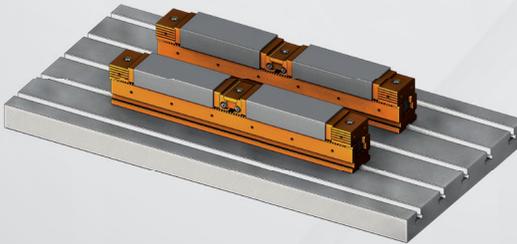
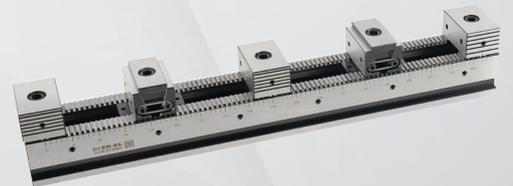
Çok Çeneli Seri Mengene Tek Yöne Sıkma Şekli

One Direction Clamping of Multi Jawed Wrench Tooling



Çok Çeneli Seri Mengene Çift Yöne Sıkma Şekli

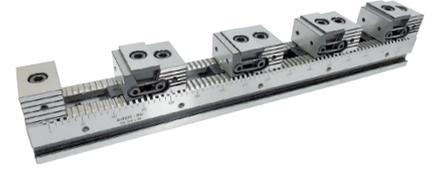
Two Direction Clamping of Multi Jawed Wrench Tooling



| Referans Nr. | L | n | h1 | h2 | h | o | e | f | b | c | k | ı | p H7 | Standart Bağlama Adedi Coupling Piece | Sıkma Kuvveti Clamping Force kgf | Tork Değeri Allowable Screw Torque (N-m) | (kg) |
|--------------|-----|-----|----|----|-----|------|----|----|-----|----|-----|-----|------|--|--|---|------|
| 2430-055300 | 300 | 55 | 50 | 32 | 72 | 12.5 | 36 | 65 | 100 | 50 | 100 | 100 | 18 | 2 | 1750 | 25 | 9 |
| 2430-055500 | 500 | 55 | 50 | 32 | 72 | 12.5 | 36 | 65 | 100 | 50 | 100 | 300 | 18 | 4 | | | 15 |
| 2430-075400 | 400 | 75 | 65 | 37 | 102 | 12.5 | 48 | 77 | 100 | 50 | 100 | 200 | 18 | 2 | 2000 | 35 | 20 |
| 2430-075600 | 600 | 75 | 65 | 37 | 102 | 12.5 | 48 | 77 | 100 | 50 | 100 | 400 | 18 | 4 | | | 33 |
| 2430-100400 | 400 | 100 | 65 | 37 | 102 | 12.5 | 48 | 80 | 100 | 50 | 100 | 200 | 18 | 2 | 2500 | 50 | 27 |
| 2430-100600 | 600 | 100 | 65 | 37 | 102 | 12.5 | 48 | 80 | 100 | 50 | 100 | 400 | 18 | 3 | | | 41 |

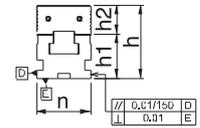
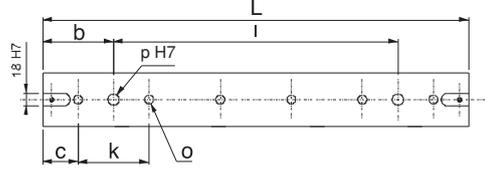
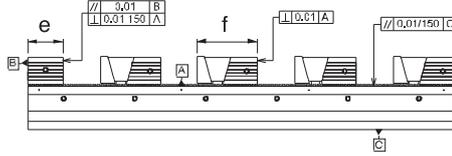
Ürün Nr. 2430 Çok Çeneli Seri Mengene

- Ürüne birden fazla iş bağlama imkanı sağlar. Çeneler modülerdir, istenen ölçüye ayarlanır.
- Gruplara bağlanan yumuşak ayaklara iş parçası formu uygulanabilir.
- Hassas taşlama
- Çeneleri ayrı olarak satın almanız gerekir.



Product Nr. 2430 Multi Jawed Wrench Tooling

- It provides the attachments of more than one workpieces to the product. Jaws are modular and can be adjusted to the desired measurement.
- Form of the workpiece can be applied on the soft legs connected to the groups.
- Sensitive Grinding
- You need to purchase jaws separate.



| Referans Nr. | GEZER ÇENE İLE İŞ PARÇASI BAĞLAMA ADETLERİ / Numbers of Portable Jaw with Workpiece Couplings | | | | |
|--------------|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | 1 İş parçası 1 Workpiece | 2 İş parçası 2 Workpiece | 3 İş parçası 3 Workpiece | 4 İş parçası 4 Workpiece | 5 İş parçası 5 Workpiece |
| 2430-055300 | 196mm | 65mm | 22mm | - | - |
| 2430-055500 | 394mm | 165mm | 88mm | 50mm | 26mm |
| 2430-075400 | 268mm | 95mm | 38mm | - | - |
| 2430-075600 | 472mm | 197mm | 106mm | 60mm | 32mm |
| 2430-100400 | 265mm | 93mm | 35mm | - | - |
| 2430-100600 | 469mm | 195mm | 103mm | 57mm | 30mm |

Not: İş bağlama adetleri ölçülerinde yumuşak ayak dahil değildir.

Note: It does not include binding units of measure soft feet in business.



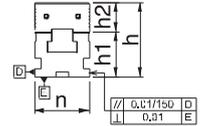
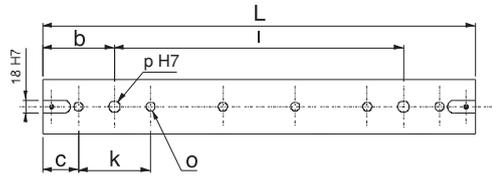
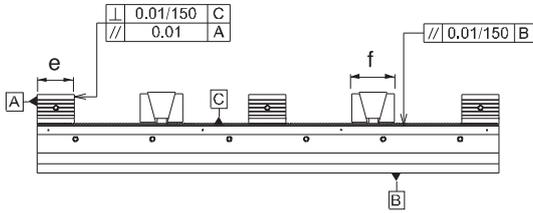
| Referans Nr. | L | n | h1 | h2 | h | o | e | f | b | c | k | ı | p H7 | Standart Bağlama Adedi Coupling Piece | Sıkma Kuvveti Clamping Force Kgf | Tork Değeri Allowable Screw Torque (N-m) |  (kg) |
|--------------|-----|-----|----|----|-----|------|----|----|-----|----|-----|-----|------|--|--|---|---|
| 2435-055300 | 300 | 55 | 50 | 32 | 82 | 12.5 | 36 | 45 | 100 | 50 | 100 | 100 | 18 | 2 | 1750 | 25 | 8 |
| 2435-055500 | 500 | 55 | 50 | 32 | 82 | 12.5 | 36 | 45 | 100 | 50 | 100 | 300 | 4 | 14 | | | |
| 2435-075400 | 400 | 75 | 65 | 37 | 102 | 12.5 | 48 | 52 | 100 | 50 | 100 | 200 | 18 | 2 | 2000 | 35 | 19 |
| 2435-075600 | 600 | 75 | 65 | 37 | 102 | 12.5 | 48 | 52 | 100 | 50 | 100 | 400 | 4 | 32 | | | |
| 2435-100400 | 400 | 100 | 65 | 37 | 102 | 12.5 | 48 | 52 | 100 | 50 | 100 | 200 | 18 | 2 | 2500 | 50 | 26 |
| 2435-100600 | 600 | 100 | 65 | 37 | 102 | 12.5 | 48 | 52 | 100 | 50 | 100 | 400 | 4 | 40 | | | |

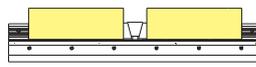
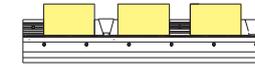
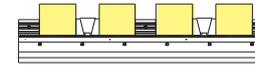
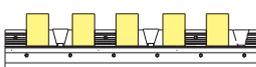
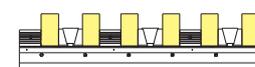
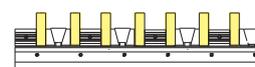
Ürün Nr. 2435 Çok Çeneli Seri Mengene

- Çift açılır bağlama modelidir.
- Çeneleri ayrı olarak satın almanız gerekir.

Product Nr. 2435 Multi Jawed Wrench Tooling

- Double opening clamp model.
- You need to purchase jaws separate.



| Referans Nr. | ÇİFT AÇILIR ÇENE İLE İŞ PARÇASI BAĞLAMA ADETLERİ / Numbers of Double Opening Jaw with Workpiece Couplings | | |
|--------------|---|--|---|
| | 2 İş parçası 2 Workpiece | 3 İş parçası 3 Workpiece | 4 İş parçası 4 Workpiece |
| 2435-055300 |  75mm |  37mm |  16mm |
| 2435-055500 | 173mm | 103mm | 66mm |
| 2435-075400 | 107mm | 55mm | 28mm |
| 2435-075600 | 209mm | 123mm | 79mm |
| 2435-100400 | 104mm | 53mm | 26mm |
| 2435-100600 | 206mm | 121mm | 77mm |
| | 5 İş parçası 5 Workpiece | 6 İş parçası 6 Workpiece | 7 İş parçası 7 Workpiece |
| 2435-055300 |  - |  - |  - |
| 2435-055500 | 45mm | 30mm | 20mm |
| 2435-075400 | 13mm | - | - |
| 2435-075600 | 54mm | 45mm | 24mm |
| 2435-100400 | 12mm | - | - |
| 2435-100600 | 52mm | 34mm | 22mm |

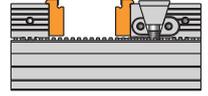
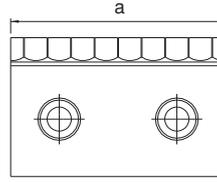
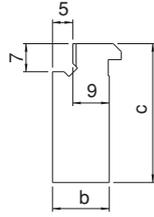
Not: İş bağlama aletleri ölçülerinde yumuşak ayak dahil değildir.

Note: It does not include binding units of measure soft feet in business.



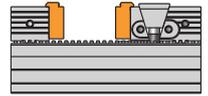
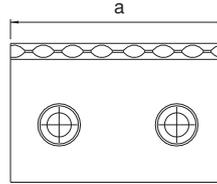
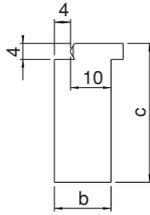
| Referans Nr. | a | b | c |
|---------------|----|----|----|
| 2430-24350551 | 53 | 14 | 34 |
| 2430-24350751 | 73 | 14 | 39 |
| 2430-24351001 | 98 | 14 | 39 |

- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



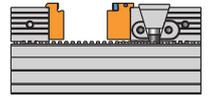
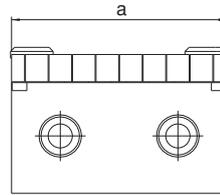
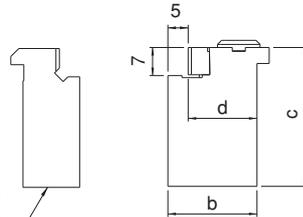
| Referans Nr. | a | b | c |
|---------------|----|----|----|
| 2430-24350552 | 53 | 14 | 34 |
| 2430-24350752 | 73 | 14 | 39 |
| 2430-24351002 | 98 | 14 | 39 |

- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



| Referans Nr. | a | b | c | d |
|---------------|----|----|----|----|
| 2430-24350553 | 53 | 22 | 34 | 17 |
| 2430-24350753 | 73 | 25 | 39 | 20 |
| 2430-24351003 | 98 | 25 | 39 | 20 |

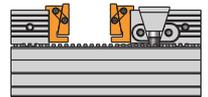
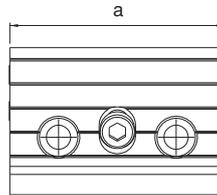
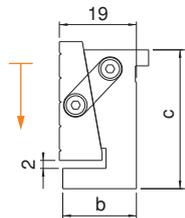
- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



2430-24350551
2430-24350751
2430-24351001

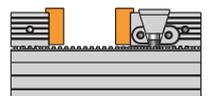
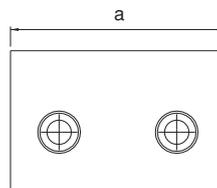
| Referans Nr. | a | b | c |
|---------------|----|----|----|
| 2430-24350554 | 53 | 19 | 34 |
| 2430-24350754 | 73 | 19 | 39 |
| 2430-24351004 | 98 | 19 | 39 |

- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



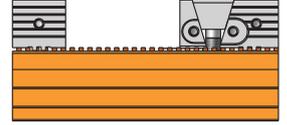
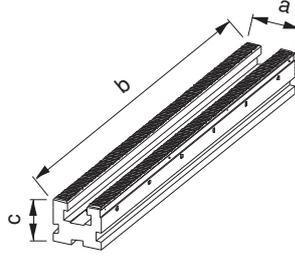
| Referans Nr. | a | b | c |
|---------------|----|----|----|
| 2430-24350555 | 53 | 14 | 34 |
| 2430-24350755 | 73 | 14 | 39 |
| 2430-24351005 | 98 | 14 | 39 |

- Seri Mengene Yumuşak Çene**
Serial Vice Soft Jaw



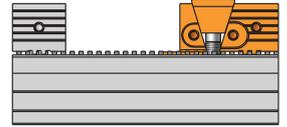
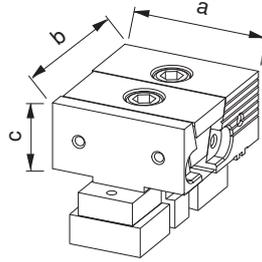
| Referans Nr. | a | b | c |
|-------------------|-----|-----|----|
| 2430-2435055300AG | 55 | 300 | 50 |
| 2430-2435055500AG | 55 | 500 | 50 |
| 2430-2435075400AG | 75 | 400 | 65 |
| 2430-2435075600AG | 75 | 600 | 65 |
| 2430-2435100400AG | 100 | 400 | 65 |
| 2430-2435100600AG | 100 | 600 | 65 |

Seri Mengene Alt Gövde
Serial Vice Sub-Body



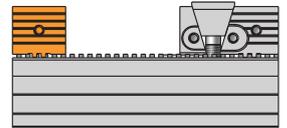
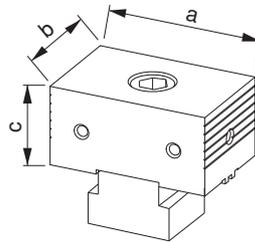
| Referans Nr. | a | b | c |
|----------------|----|----|----|
| 2430-2435055GÇ | 54 | 65 | 32 |
| 2430-2435075GÇ | 74 | 77 | 37 |
| 2430-2435100GÇ | 99 | 80 | 37 |

Seri Mengene Gezer Çene
Serial Vice Portable Jaw



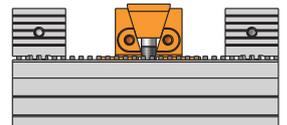
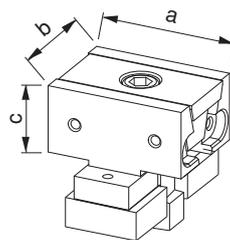
| Referans Nr. | a | b | c |
|----------------|----|----|----|
| 2430-2435055DA | 54 | 36 | 32 |
| 2430-2435075DA | 74 | 48 | 37 |
| 2430-2435100DA | 99 | 48 | 37 |

Seri Mengene Dayama
Serial Vice Resting



| Referans Nr. | a | b | c |
|----------------|----|----|----|
| 2430-2435055ÇA | 54 | 45 | 32 |
| 2430-2435075ÇA | 74 | 52 | 37 |
| 2430-2435100ÇA | 99 | 52 | 37 |

Seri Mengene Çift Açılır
Serial Vice Double Opening



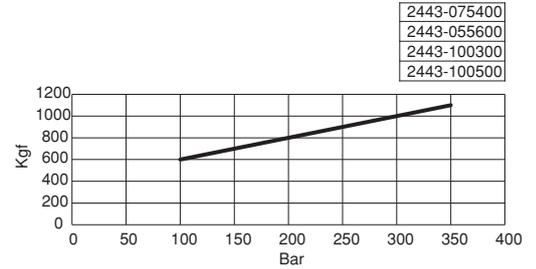
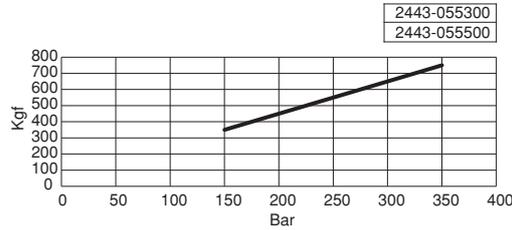
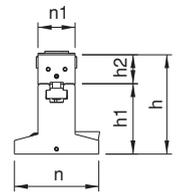
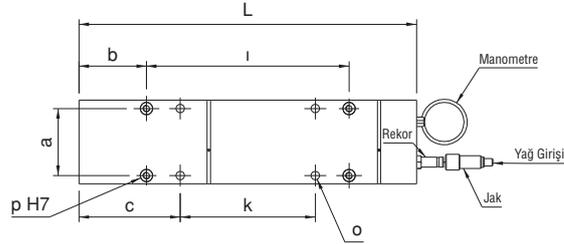
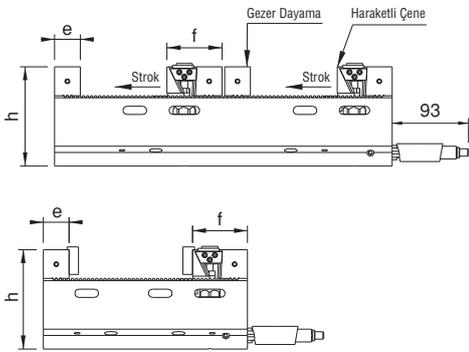
| Referans Nr. | L | n | n1 | h | h1 | h2 | o | e | f | a | b | c | k | ı | p H7 | Standart bağlama adedi Coupling Piece | Stroke | Sıkma Kuvveti Clamping Force Kgf |
|--------------|-----|-----|-----|-----|-----|----|------|----|------|-----|-----|-----|-----|-----|------|--|--------|--|
| 2443-055300 | 300 | 125 | 55 | 148 | 105 | 43 | 12.5 | 38 | 81.5 | 100 | 50 | 100 | 100 | 200 | 18 | 1 | 8 | 750 |
| 2443-055500 | 500 | 125 | 55 | 148 | 105 | 43 | 12.5 | 38 | 81.5 | 100 | 100 | 150 | 200 | 300 | 18 | 2 | 8 | 750 |
| 2443-075400 | 400 | 175 | 75 | 158 | 115 | 43 | 12.5 | 48 | 88 | 150 | 50 | 100 | 200 | 300 | 18 | 2 | 8 | 1100 |
| 2443-075600 | 600 | 175 | 75 | 158 | 115 | 43 | 12.5 | 48 | 88 | 150 | 100 | 150 | 300 | 400 | 18 | 2 | 8 | 1100 |
| 2443-100400 | 400 | 175 | 100 | 158 | 115 | 43 | 12.5 | 48 | 88 | 150 | 50 | 100 | 200 | 300 | 18 | 2 | 8 | 1100 |
| 2443-100600 | 600 | 175 | 100 | 158 | 115 | 43 | 12.5 | 48 | 88 | 150 | 100 | 150 | 300 | 400 | 18 | 2 | 8 | 1100 |

Ürün Nr. 2443 Hidrolik Çok Çeneli Seri Mengene

- Satın almadan önce bağlama adetlerini belirtiniz
- Çeneleri ayrı olarak satın almanız gerekir.

Product Nr. 2443 Hydraulic Multi Jawed Wrench Tooling

- Please, you specify about number of clamping before you make purchase.
- You need to purchase jaws separate.



| Referans Nr. | GEZER ÇENE İLE İŞ PARÇASI BAĞLAMA ADETLERİ / Numbers of Portable Jaw with Workpiece Couplings | | |
|--------------|---|--------------------------|--------------------------|
| | 1 İş parçası 1 Workpiece | 2 İş parçası 2 Workpiece | 3 İş parçası 3 Workpiece |
| 2443-055300 | 182 mm | - | - |
| 2443-055500 | 380 mm | 128 mm | - |
| 2443-075400 | 270 mm | 68 mm | - |
| 2443-075600 | 475 mm | 170 mm | 68 mm |
| 2443-100400 | 270 mm | 68 mm | - |
| 2443-100600 | 475 mm | 170 mm | 68 mm |

Not: İş bağlama adetleri ölçülerinde yumuşak ayak dahil değildir.

Note: It does not include binding units of measure soft feet in business.



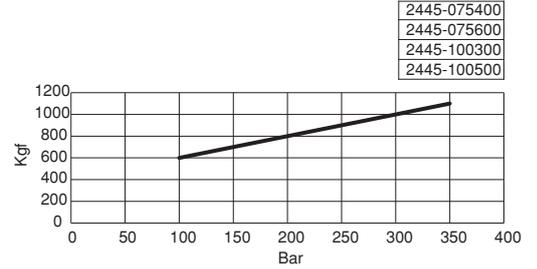
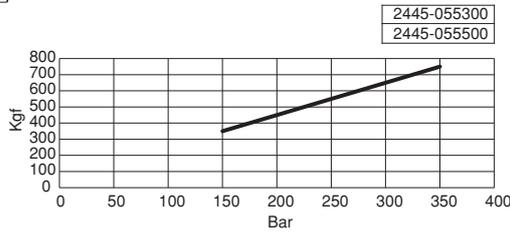
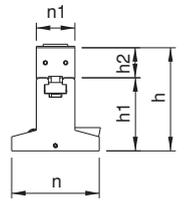
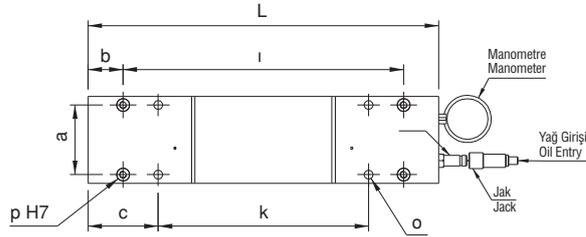
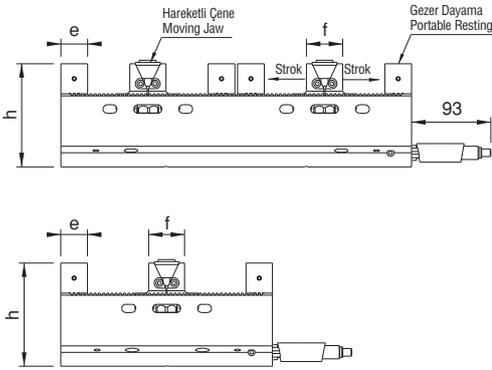
| Referans Nr. | L | n | n1 | h | h1 | h2 | o | e | f | a | b | c | k | i | p H7 | Standart Bağlama Adedi Coupling Piece | Stroke | Sıkma Kuvveti Clamping Force Kgf |
|--------------|-----|-----|-----|-----|-----|----|------|----|------|-----|-----|-----|-----|-----|------|---------------------------------------|--------|----------------------------------|
| 2445-055300 | 300 | 125 | 55 | 148 | 105 | 43 | 12.5 | 38 | 51.5 | 100 | 50 | 100 | 100 | 200 | 18 | 2 | 8x2 | 750 |
| 2445-055500 | 500 | 125 | 55 | 148 | 105 | 43 | 12.5 | 38 | 51.5 | 100 | 100 | 150 | 200 | 400 | 18 | 4 | 8x2 | 750 |
| 2445-075400 | 400 | 175 | 75 | 158 | 115 | 43 | 12.5 | 48 | 51.5 | 150 | 50 | 100 | 200 | 300 | 18 | 2 | 8x2 | 1100 |
| 2445-075600 | 600 | 175 | 75 | 158 | 115 | 43 | 12.5 | 48 | 51.5 | 150 | 100 | 150 | 300 | 500 | 18 | 4 | 8x2 | 1100 |
| 2445-100400 | 400 | 175 | 100 | 158 | 115 | 43 | 12.5 | 48 | 51.5 | 150 | 50 | 100 | 200 | 300 | 18 | 2 | 8x2 | 1100 |
| 2445-100600 | 600 | 175 | 100 | 158 | 115 | 43 | 12.5 | 48 | 51.5 | 150 | 100 | 150 | 300 | 500 | 18 | 4 | 8x2 | 1100 |

Ürün Nr. 2445 Hidrolik Çok Çeneli Seri Mengene

• Çeneleri ayrı olarak satın almanız gerekir.

Product Nr. 2445 Hydraulic Multi Jawed Wrench Tooling

• You need to purchase jaws separate.



| Referans Nr. | ÇİFT AÇILIR ÇENE İLE İŞ PARÇASI BAĞLAMA ADETLERİ Numbers of Double Opening Jaw with Workpiece Couplings | |
|--------------|--|--------------------------|
| | 2 İş parçası 2 Workpiece | 4 İş parçası 4 Workpiece |
| 2445-055300 | 87 mm | - |
| 2445-055500 | - | 60 mm |
| 2445-075400 | 125 mm | - |
| 2445-075600 | - | 75 mm |
| 2445-100400 | 125 mm | - |
| 2445-100600 | - | 75 mm |



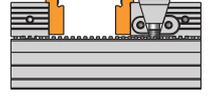
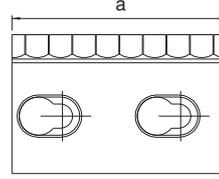
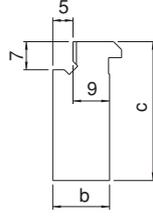
Not: İş bağlama adetleri ölçülerinde yumuşak ayak dahil değildir.

Note: It does not include binding units of measure soft feet in business.



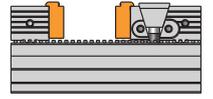
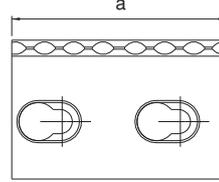
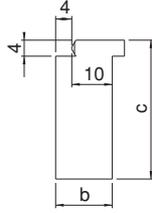
| Referans Nr. | a | b | c |
|---------------|-----|----|----|
| 2443-24450551 | 55 | 14 | 38 |
| 2443-24450751 | 75 | 14 | 38 |
| 2443-24451001 | 100 | 14 | 38 |

- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



| Referans Nr. | a | b | c |
|---------------|-----|----|----|
| 2443-24450552 | 55 | 14 | 38 |
| 2443-24450752 | 75 | 14 | 38 |
| 2443-24451002 | 100 | 14 | 38 |

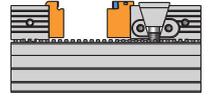
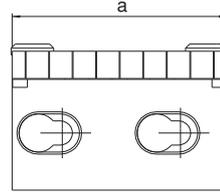
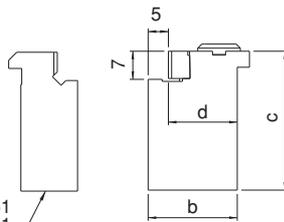
- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



| Referans Nr. | a | b | c | d |
|---------------|-----|----|----|----|
| 2443-24450553 | 55 | 22 | 38 | 17 |
| 2443-24450753 | 75 | 25 | 38 | 20 |
| 2443-24451003 | 100 | 25 | 38 | 20 |

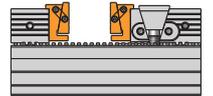
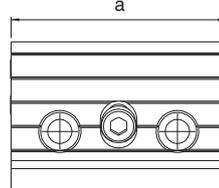
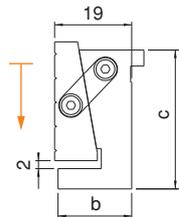
- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating

2443-24450551
2443-24450751
2443-24451001



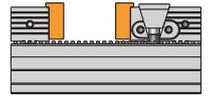
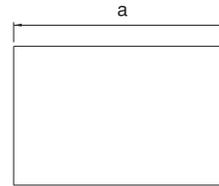
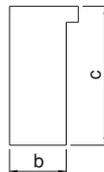
| Referans Nr. | a | b | c |
|---------------|-----|----|----|
| 2443-24450554 | 55 | 19 | 38 |
| 2443-24450754 | 75 | 19 | 38 |
| 2443-24451004 | 100 | 19 | 38 |

- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating



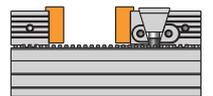
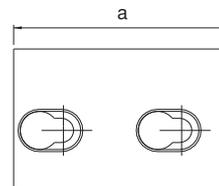
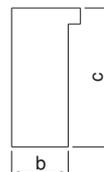
| Referans Nr. | a | b | c |
|---------------|-----|----|----|
| 2443-24450555 | 55 | 14 | 45 |
| 2443-24450755 | 75 | 14 | 45 |
| 2443-24451005 | 100 | 14 | 45 |

Yumuşak Çene Soft Jaw



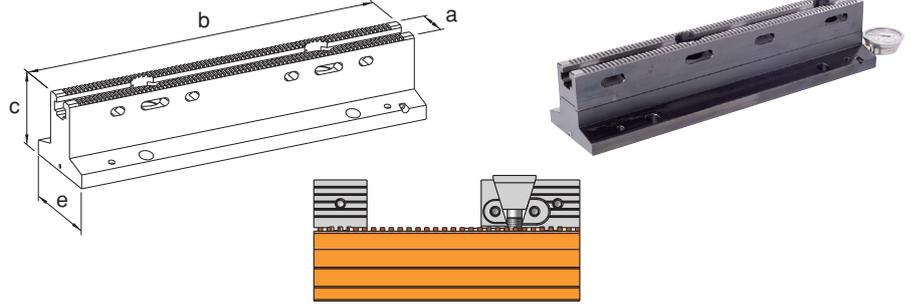
| Referans Nr. | a | b | c |
|---------------|-----|----|----|
| 2443-24450556 | 55 | 14 | 45 |
| 2443-24450756 | 75 | 14 | 45 |
| 2443-24451006 | 100 | 14 | 45 |

Yumuşak Çene Soft Jaw



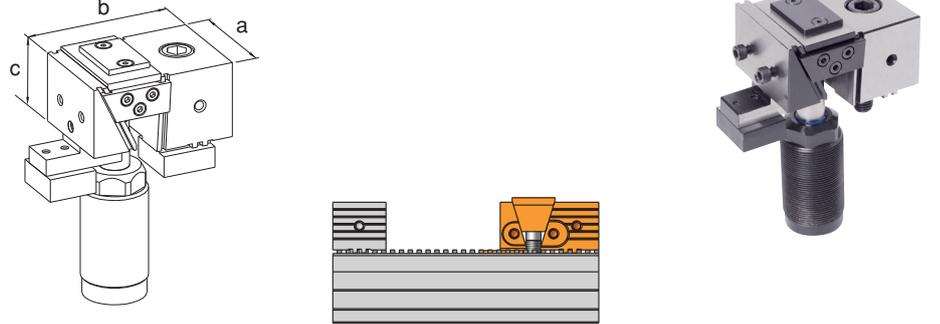
| Referans Nr. | a | b | c | e |
|---------------|-----|-----|-----|-----|
| 2443-055300AG | 55 | 300 | 105 | 125 |
| 2443-055500AG | 55 | 500 | 105 | 125 |
| 2443-075400AG | 75 | 400 | 115 | 175 |
| 2443-075600AG | 75 | 600 | 115 | 175 |
| 2443-100400AG | 100 | 400 | 115 | 175 |
| 2443-100600AG | 100 | 600 | 115 | 175 |

Hidrolik Alt Gövde Hydraulic Sub-body



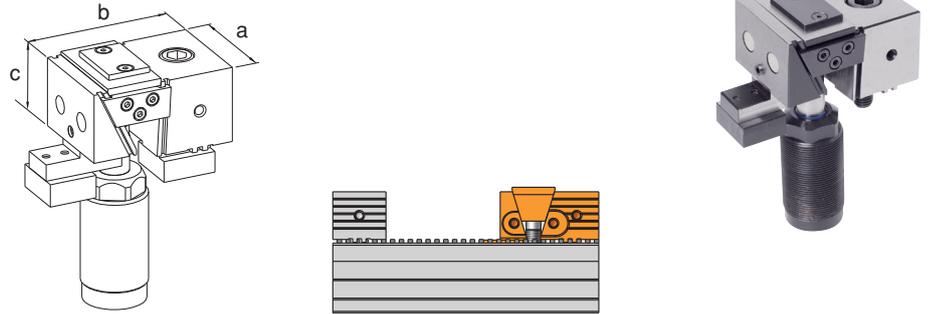
| Referans Nr. | a | b | c |
|--------------|-----|------|----|
| 2443-055HÇ | 55 | 81.5 | 43 |
| 2443-075HÇ | 75 | 88 | 43 |
| 2443-100HÇ | 100 | 88 | 43 |

Hareketli Çene Moving Jaw



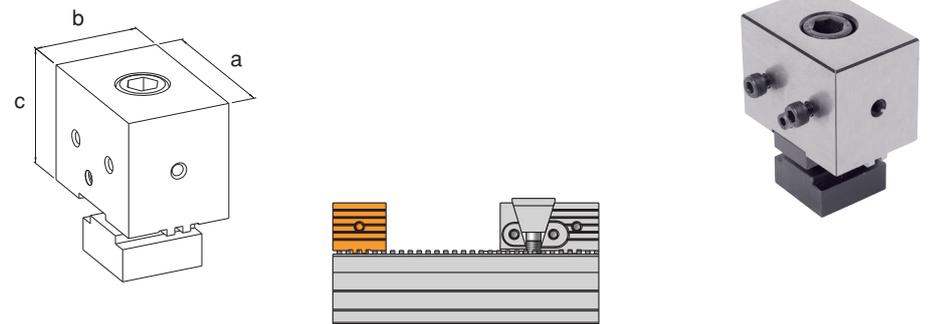
| Referans Nr. | a | b | c |
|--------------|-----|------|----|
| 2443-055MHÇ | 55 | 81.5 | 43 |
| 2443-075MHÇ | 75 | 88 | 43 |
| 2443-100MHÇ | 100 | 88 | 43 |

Manyetik Hareketli Çene Moving Jaw



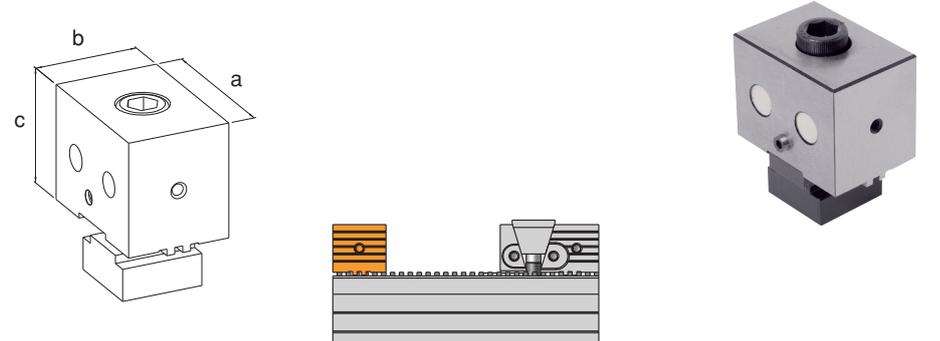
| Referans Nr. | a | b | c |
|----------------|-----|----|----|
| 2443-2445055GD | 55 | 38 | 43 |
| 2443-2445075GD | 75 | 48 | 43 |
| 2443-2445100GD | 100 | 48 | 43 |

Gezer Dayama Portable Resting



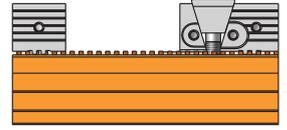
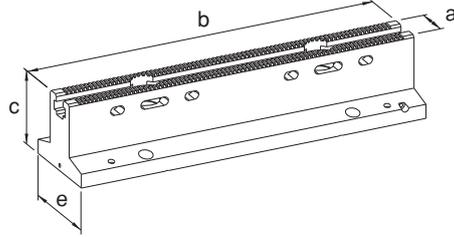
| Referans Nr. | a | b | c |
|-----------------|-----|----|----|
| 2443-2445055MGD | 55 | 38 | 43 |
| 2443-2445075MGD | 75 | 48 | 43 |
| 2443-2445100MGD | 100 | 48 | 43 |

Manyetik Gezer Dayama Magnetic Portable Resting



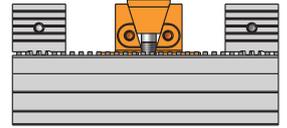
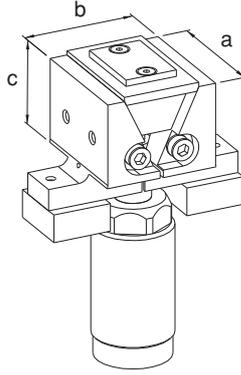
| Referans Nr. | a | b | c | e |
|---------------|-----|-----|-----|-----|
| 2445-055300AG | 55 | 300 | 105 | 125 |
| 2445-055500AG | 55 | 500 | 105 | 125 |
| 2445-075400AG | 75 | 400 | 115 | 175 |
| 2445-075600AG | 75 | 600 | 115 | 175 |
| 2445-100400AG | 100 | 400 | 115 | 175 |
| 2445-100600AG | 100 | 600 | 115 | 175 |

Hidrolik Alt Gövde
Hydraulic Sub-body



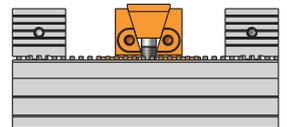
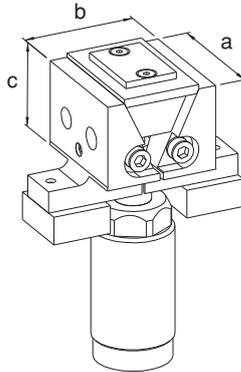
| Referans Nr. | a | b | c |
|--------------|-----|------|----|
| 2445-055HÇ | 55 | 51.5 | 43 |
| 2445-075HÇ | 75 | 51.5 | 43 |
| 2445-100HÇ | 100 | 51.5 | 43 |

Hareketli Çene
Moving Jaw



| Referans Nr. | a | b | c |
|--------------|-----|------|----|
| 2445-055MHÇ | 55 | 51.5 | 43 |
| 2445-075MHÇ | 75 | 51.5 | 43 |
| 2445-100MHÇ | 100 | 51.5 | 43 |

Manyetik Hareketli Çene
Magnetic Moving Jaw



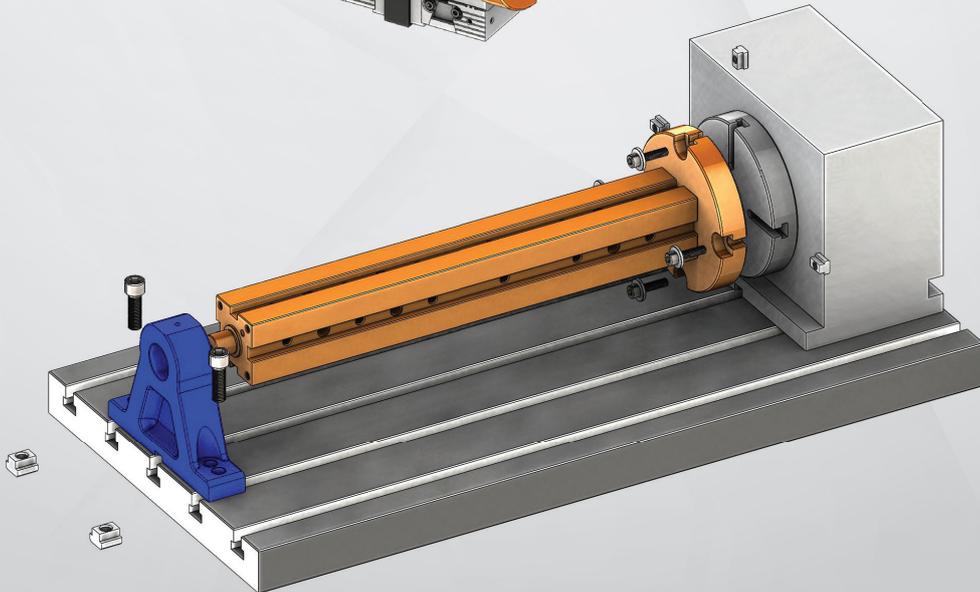
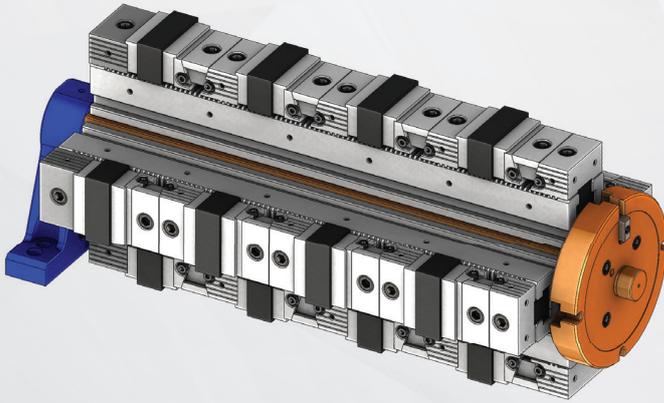
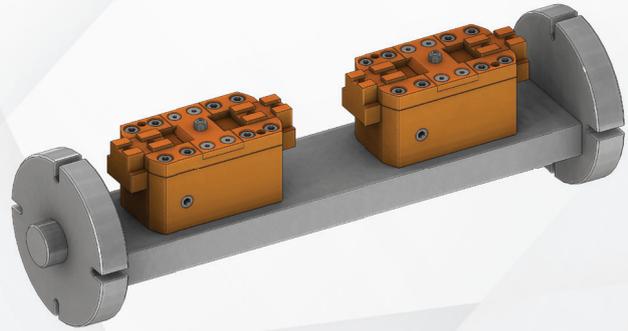
HİDROLİK EKİPMANLAR

HYDRAULIC EQUIPMENTS



DİVİZÖR KULELERİ

INDEX TABLE TURRETS



| Referans Nr. | L | i | f | n | b | k | c | e | s | Ø16H7 j | Ø16H7 j1 | (kg) |
|--------------|-------|-----|----|---|-----|----|----|----|----|---------|----------|-------|
| 2450-415L | 503.5 | 415 | 45 | - | 125 | 35 | 31 | 30 | 72 | 100 | 100 | 29.25 |
| 2450-615L | 703.5 | 615 | 50 | - | 160 | 35 | 31 | 30 | 90 | 100 | 300 | 46.75 |

Ürün Nr. 2450 Divizör Kulesi (Dikdörtgen)

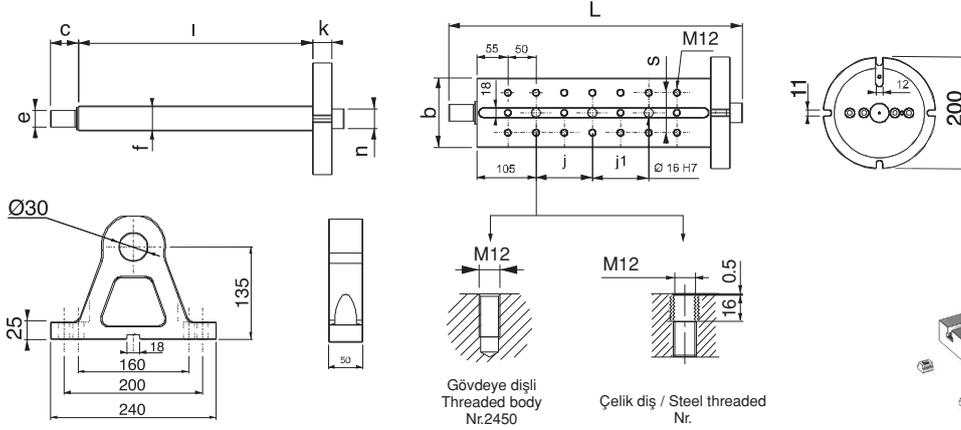
- Divizör kulesi dik işleme tezgahlarında divizöre bağlanarak, dördüncü eksenini 360 derece kullanma imkanı sağlar.
- Divizör kulesi üzerine iş parçası direk bağlanabildiği gibi, mengene grupları veya farklı aparatlarda kullanılır.
- Siparişte divizör marka model numarasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.
- Malzeme : Döküm



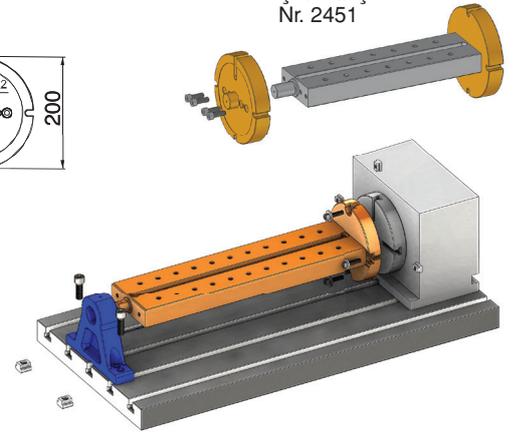
Yatak = Nr.2460

Product Nr. 2450 Index Table Turret (Rectangular)

- Index Table Turret is connected to the index table of vertical machining benches and this application provides the possibility to use the fourth axis in 360 degrees.
- Workpiece taking place on the Index Table Turret can be applied directly and at the same time it can be used in vice groups and with different apparatuses.
- Please, let the dividing brand, model number in the order.
- The lower plate is available for the center height.
- Material : Casting



Çift Flanşlı
Nr. 2451



| Referans Nr. | L | i | n | k | e | c | Ø16H7 j | Ø16H7 j1 | (kg) |
|--------------|-----|-----|---|----|----|----|---------|----------|------|
| 2470-415K | 502 | 415 | - | 35 | 30 | 31 | 100 | 100 | 33 |
| 2470-615K | 702 | 615 | - | 35 | 30 | 31 | 100 | 300 | 42 |

Ürün Nr. 2470 Divizör Kulesi (Kare)

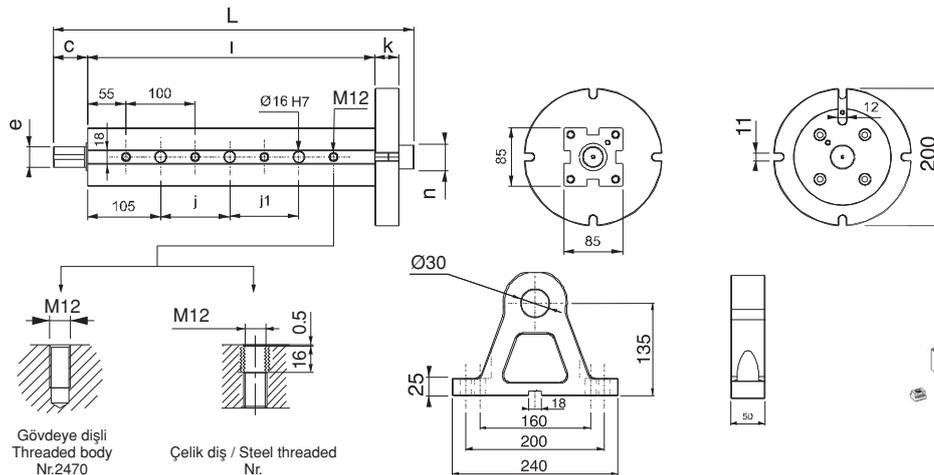
- Divizör kulesi dik işleme tezgahlarında divizöre bağlanarak, dördüncü eksenini 360 derece kullanma imkanı sağlar.
- Divizör kulesi üzerine iş parçası direk bağlanabildiği gibi, mengene grupları veya farklı aparatlarda kullanılır.
- Siparişte divizör marka model numarasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.
- Malzeme : Döküm



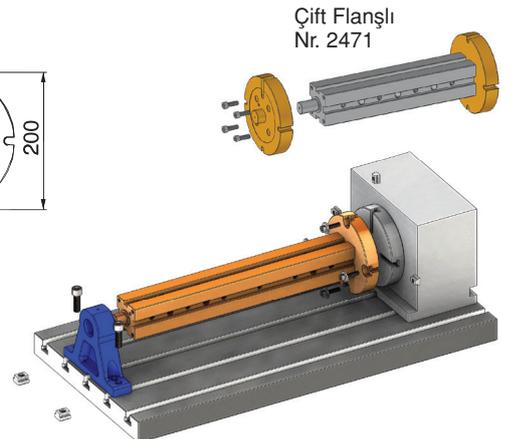
Yatak = Nr.2460

Product Nr. 2470 Index Table Turret (Square)

- Index Table Turret is connected to the index table of vertical machining benches and this application provides the possibility to use the fourth axis with 360 degrees.
- Workpiece taking place on the Index Table Turret can be applied directly and at the same time it can be used in vice groups and with different apparatuses.
- Material : Casting



Çift Flanşlı
Nr. 2471



| Referans Nr. | L | i | f | n | b | k | c | Kombinasyon Combination | (kg) |
|--------------|-----|-----|----|---|-----|----|----|----------------------------|-------|
| 2471-415052 | 505 | 415 | 50 | - | 160 | 35 | 52 | 2315-052 | 35,05 |
| 2471-415096 | 505 | 415 | 50 | - | 160 | 35 | 52 | 2315-096 | 40,25 |
| 2471-615052 | 705 | 615 | 50 | - | 160 | 35 | 96 | 2315-052 | 55,45 |
| 2471-615096 | 705 | 615 | 50 | - | 160 | 35 | 96 | 2315-096 | 63,25 |

Ürün Nr. 2471 Point Clamp Divizör Kulesi

- Point Clamp Divizör kulesi dik işleme tezgahlarında divizöre bağlanarak, dördüncü eksenini 360 derece kullanma imkanı sağlamakla beraber Point Clampler sayesinde Nr.2315 Mengene veya farklı aparat gruplarının hızlı değişimini sağlayabilirsiniz.
- Siparişte divizör marka model numarasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.

Product Nr. 2471 Point Clamp Index Table Turret

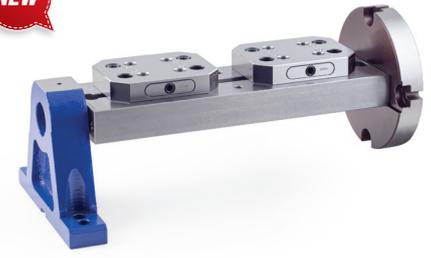
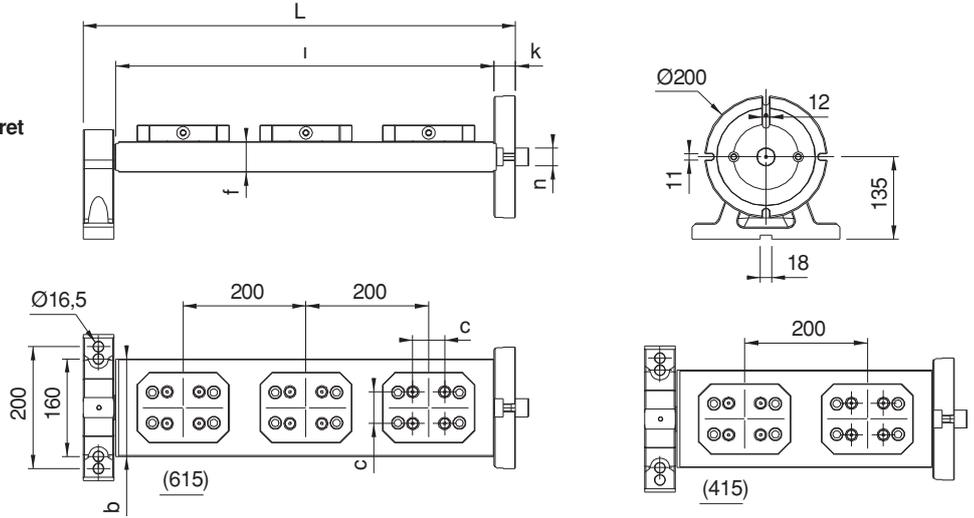
- Point Clamp Index Table Turret can be connected to the Index Table Turret in horizontal clamping machines, providing the possibility of using the fourth axis 360 degrees, and with Point Clamps, it provides an opportunity to quickly change Nr.2315 Vise or different apparatus groups.
- Please indicate the brand and model of the Index Table Turret while purchasing.
- Bottom plates are available for boosting the center.

Not

- Talebe göre merkez değişikliği yapılabilir.

Note

- The center can be changed by request.



Point Clamp Divizör Kulesi (Yekpare)

Point Clamp Index Table Turret (Standalone)

| Referans Nr. | L | i | f | n | b | k | c | (kg) |
|--------------|-----|-----|----|---|-----|----|----|------|
| 2472-415052 | 505 | 415 | 54 | - | 116 | 35 | 52 | 32,5 |
| 2472-415096 | 505 | 415 | 54 | - | 116 | 35 | 96 | 32,5 |
| 2472-615052 | 705 | 615 | 54 | - | 158 | 35 | 52 | 40,5 |
| 2472-615096 | 705 | 615 | 54 | - | 158 | 35 | 96 | 40,5 |

Ürün Nr. 2471 Point Clamp Divizör Kulesi

- Point Clamp Divizör kulesi dik işleme tezgahlarında divizöre bağlanarak, dördüncü eksenini 360 derece kullanma imkanı sağlamakla beraber Point Clampler sayesinde Nr.2315 Mengene veya farklı aparat gruplarının hızlı değişimini sağlayabilirsiniz.
- Point Clamp sistemi direk gövdeye uygulandığından size mesafe kazandırır.
- Siparişte divizör marka model numarasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.

Product Nr. 2471 Point Clamp Index Table Turret (Standalone)

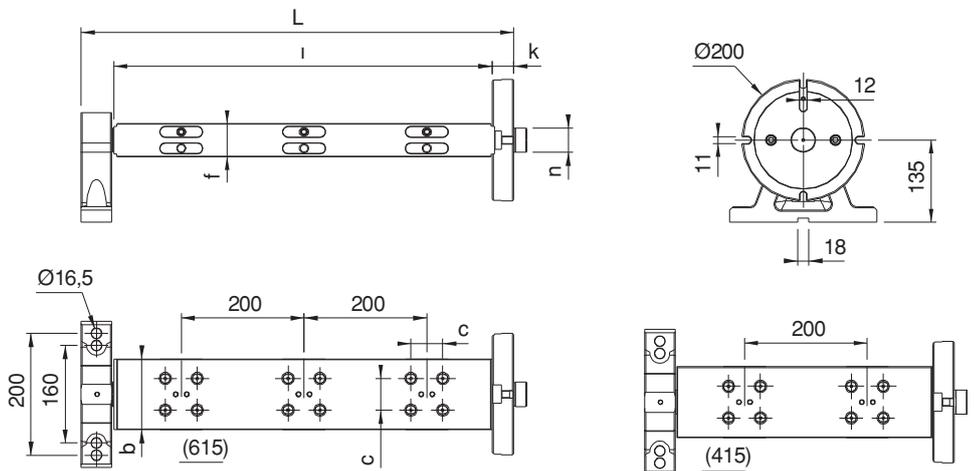
- Point Clamp Index Table Turret can be connected to the Index Table Turret in horizontal clamping machines, providing the possibility of using the fourth axis 360 degrees, and with Point Clamps, it provides an opportunity to quickly change Nr.2315 Vise or different apparatus groups.
- Please indicate the brand and model of the Index Table Turret while purchasing.
- Bottom plates are available for boosting the center.

Not

- Talebe göre merkez değişikliği yapılabilir.

Note

- The center can be changed by request.



| Referans Nr. | L | ı | f | n | b | k |  | Sıkma Kuvveti Clamping Force Kgf |  (kg) |
|--------------|-----|-----|----|---|-----|----|---|--|---|
| 2472-415090 | 505 | 415 | 50 | - | 125 | 35 | Ø90 | 2x1250=2500 kgf | 30,31 |
| 2472-615090 | 705 | 615 | 50 | - | 160 | 35 | Ø90 | 4x1250=2500 kgf | 32,17 |

NEW



Ürün Nr. 2472 Zero Clamp Divizör Kulesi

- Zero Clamp Divizör kulesi dik işleme tezgahlarında divizöre bağlanarak, dördüncü eksenini 360 derece kullanma imkanı sağlamakla beraber Zero Clampler sayesinde Farklı aparat gruplarınızın hızlı değişimini sağlayabilirsiniz.
- Hava bağlantısı sürekli takılı kalması isteniyorsa mutlaka belirtilmeli
- Sipariste divizör marka model numarasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.

Ürün Nr. 2472 Point Clamp Index Table Turret

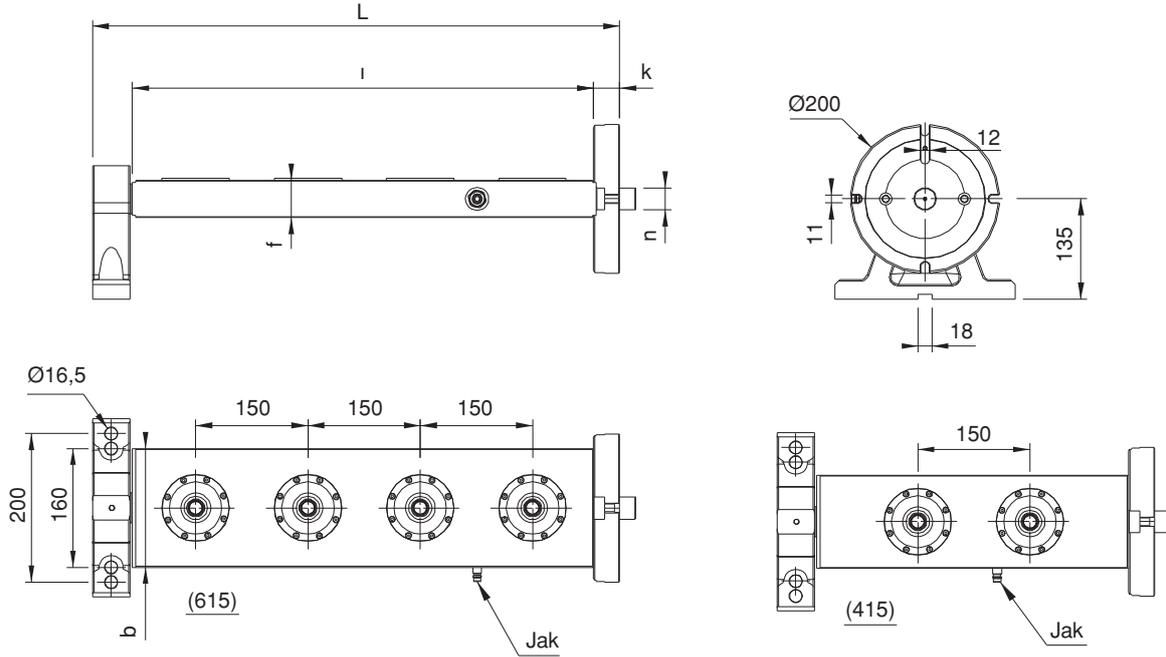
- With the ability to be connected to the divisor tower on vertical machining workbenches, the Zero Clamp Divisor enables the utilization of the fourth axis in a full 360-degree range. Additionally, thanks to the Zero Clamp, you can achieve quick changes between different fixture groups. If it is desired for the air connection to remain continuously attached, it must be explicitly specified.
- Please provide the brand and model number of the divisor in the order.
- Bottom plates are available for bed center height.

Not

- Talebe göre merkez değişikliği yapılabilir.

Note

- The center can be changed by request.



| Referans Nr. | L | k | k1 | n | d | h | c | sw | Nm | Kombinasyon Combination | Kombinasyon Combination | (kg) |
|---------------|-----|----|----|---|-----|----|----|----|----|-------------------------|---|------|
| 2473-0052200L | 245 | 34 | 20 | - | 200 | 23 | 52 | 8 | 30 | 2315-08 | 2315-046... 2315-077... 2315-097... | 20,9 |

NEW

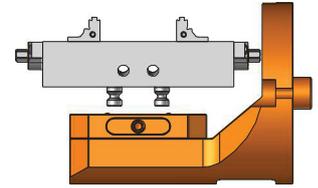
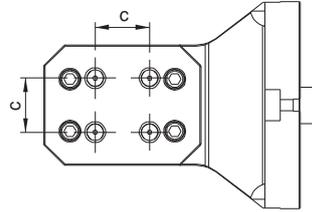
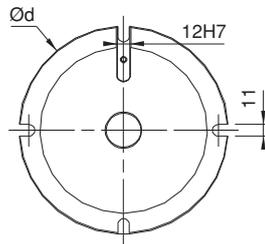
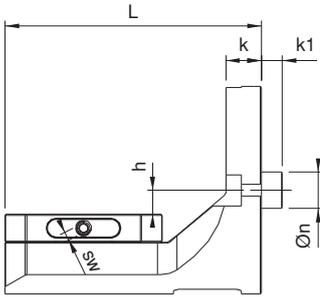


Ürün Nr. 2473 L Divizör Kulesi Point Clamp

- 5-Eksen mengene, Point clamp ve L Divizör Kulesi sistemi bir araya geldiğinde, karmaşık geometriye sahip parçaları tek kurulumda işleyebilmek mümkün oluyor. Aynı zamanda operasyon sayısının da azaltabilirsiniz.
- Malzeme: Çelik

Product Nr. 2473 Index Table Turret Point Clamp

- 5 Axis Vice, Point Clamp and L Index Table Turret system come together, it is possible to process parts with complex geometry in a single setup. You can also reduce the number of operations.
- Material: Steel



L Divizör Kulesi Point Clamp

L Index Table Turret Point Clamp

| Referans Nr. | L | k | k1 | n | d | h | c | c1 | sw | Nm | Kombinasyon Combination | Kombinasyon Combination | (kg) |
|---------------|-----|----|----|---|-----|----|-----|----|----|----|-------------------------|--|------|
| 2473-0096250L | 296 | 34 | 20 | - | 250 | 35 | - | 96 | 8 | 30 | 2315-10 | 2315-125 | 39,5 |
| 2373-9652250L | 296 | 34 | 20 | - | 250 | 35 | 52t | 96 | 8 | 30 | 2315-10 | 2315-046 2315-077 2315-097 2315-125 | 39,5 |

NEW



Ürün Nr. 2473 L Divizör Kulesi Point Clamp

- 5-Eksen mengene, Point clamp ve L Divizör Kulesi sistemi bir araya geldiğinde, karmaşık geometriye sahip parçaları tek kurulumda işleyebilmek mümkün oluyor. Aynı zamanda operasyon sayısının da azaltabilirsiniz.
- Malzeme: Çelik

Product Nr. 2473 Index Table Turret Point Clamp

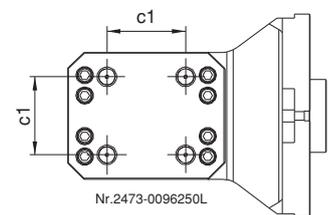
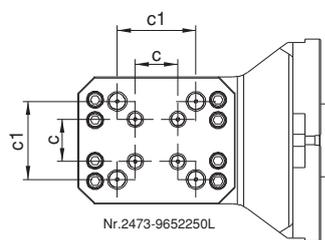
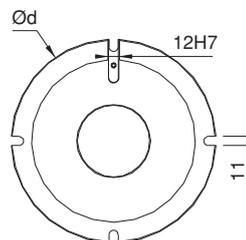
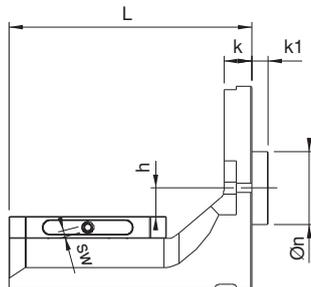
- 5 Axis Vice, Point Clamp and L Index Table Turret system come together, it is possible to process parts with complex geometry in a single setup. You can also reduce the number of operations.
- Material: Steel

Önemli Not:

- 2315-125310 ve 2315-125360 mingeneler kombinasyona uygun değildir.

Important Note:

- 2315-125310 and 2315-125360 Vices are not suitable for combination.



Nr.2473-9652250L

Nr.2473-0096250L

| Referans Nr. | L | L1 | h | h1 | i | a | b | c | Kombinasyon Combination | Kombinasyon Combination | sw | Nm | (kg) |
|--------------|-----|-----|-----|----|----|-----|----|----|-------------------------|---|----|----|------|
| 2473-0052B | 218 | 143 | 215 | 75 | 40 | 116 | 14 | 52 | 2315-08 | 2315-046... 2315-077... 2315-097... | 8 | 30 | 17,8 |

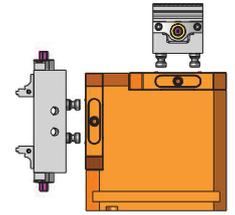
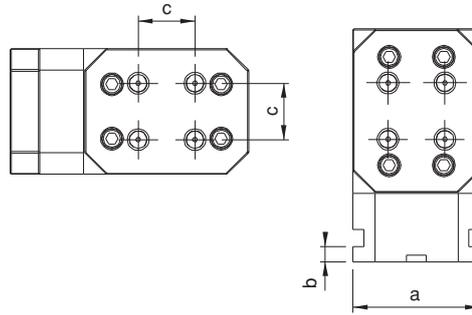
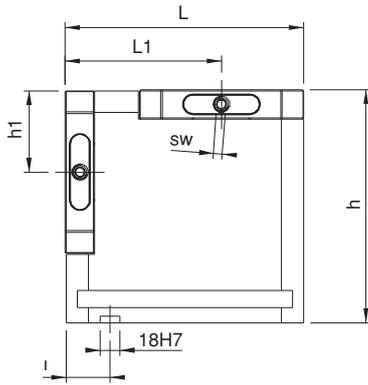


Ürün Nr. 2315 Blok Point Clamp

- Verimlilik, hassasiyet ve parçayı sökmekten mengene ile pozisyon değişmesi durumlarında 5-Eksen mengene ile Point clamp sistemi bir araya geldiğinde, karmaşık geometriye sahip parçaları tek kurulumda işleyebilmek mümkün oluyor. Bu tür bir kombinasyon; tekrarlanabilirlik ve montaj kolaylığı avantajlarını elde edebilirsiniz.
- Blok Malzeme: Alüminyum

Product Nr. 2315 Block Point Clamp

- Efficiency, precision and position changes with a vise without disassembling the part when a 5-axis vise is combined with a Point clamp system, it is possible to machine parts with complex geometry in a single setup. Such a combination can achieve the advantages of repeatability and ease of assembly.
- Block Material: Aluminum



| Referans Nr. | L | L1 | h | h1 | i | a | b | c | c1 | Kombinasyon Combination | Kombinasyon Combination | sw | Nm | (kg) |
|--------------|-----|-----|-----|----|----|-----|----|----|----|-------------------------|--|----|----|------|
| 2473-0096B | 264 | 168 | 265 | 96 | 40 | 156 | 14 | - | 96 | 2315-10 | 2315-125... | 8 | 30 | - |
| 2473-9652B | 264 | 168 | 265 | 96 | 40 | 156 | 14 | 52 | 96 | 2315-08 2015-10 | 2315-046... 2315-077... 2315-097... 2315-125... | 8 | 30 | 30,6 |

Blok Point Clamp

Block Point Clamp



Ürün Nr. 2315 Blok Point Clamp

- Verimlilik, hassasiyet ve parçayı sökmekten mengene ile pozisyon değişmesi durumlarında 5-Eksen mengene ile Point clamp sistemi bir araya geldiğinde, karmaşık geometriye sahip parçaları tek kurulumda işleyebilmek mümkün oluyor. Bu tür bir kombinasyon; tekrarlanabilirlik ve montaj kolaylığı avantajlarını elde edebilirsiniz.
- Blok Malzeme: Alüminyum

Product Nr. 2315 Block Point Clamp

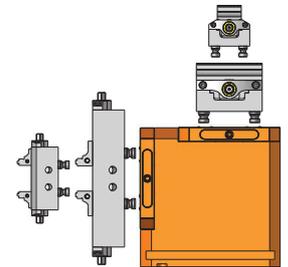
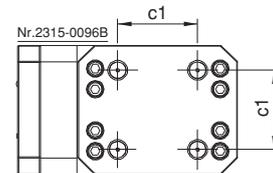
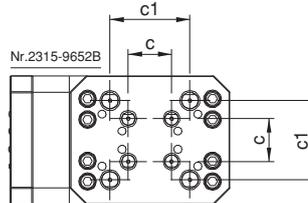
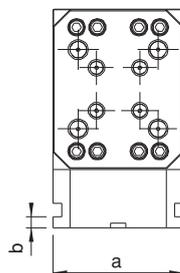
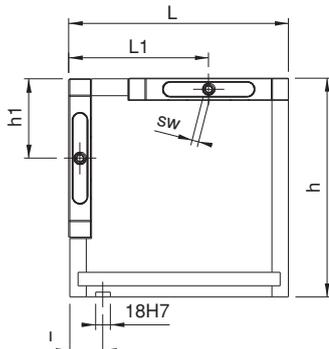
- Efficiency, precision and position changes with a vise without disassembling the part when a 5-axis vise is combined with a Point clamp system, it is possible to machine parts with complex geometry in a single setup. Such a combination can achieve the advantages of repeatability and ease of assembly.
- Block Material: Aluminum

Önemli Not:

- 2315-125310 ve 2315-125360 mingeneler dikey Kombinasyona uygun değildir.
- Özel yapılabilir.

Important Note:

- 2315-125310 and 2315-125360 Vices are not suitable for Vertical Combination.
- Can be custom made.



| Referans Nr. | c | h | a | b | L | L1 | n | n1 | T-Slot |
|--------------|-----|-----|----|-----|-----|-----|----|----|--------|
| 2474-200 | 200 | 135 | 18 | 100 | 130 | 100 | 30 | 31 | 12H7 |
| 2474-250 | 250 | 185 | 18 | 125 | 130 | 100 | 50 | 51 | 12H7 |

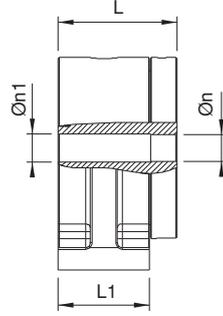
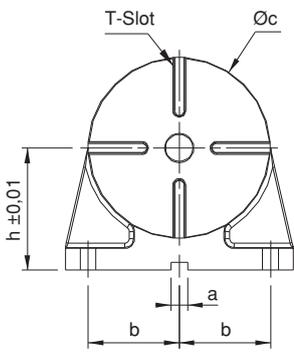


Ürün Nr. 2474 Divizör Yatağı (Frensiz)

- Divizör yatağı, CNC makinelerinde kullanılan önemli bir bileşendir.
- Divizörler, iş parçalarını belirli açılarda döndürerek hassas işleme işlemlerini mümkün kılar.
- Divizör yatakları ise bu döner hareketin düzgün ve stabil bir şekilde gerçekleşmesini sağlar.

Product Nr. 2474 Bearing Of Indexing Head (Unclamped)

- Bearing of Indexing head is an important component used in CNC machines.
- The indexing head enables precision machining operations by rotating the workpieces at specific angles.
- Bearing of Indexing head ensure that this rotary movement is smooth and stable.


 Divizör Yatağı
Bearing Of Indexing Head

 Divizör Kısmı
Indexing Head Part

 Divizör Kulesi veya Aparat
Index Table Turret Or Apparatus

HİDROLİK FİKSTÜR UYGULAMALARI

HYDRAULIC FIXTURE APPLICATIONS



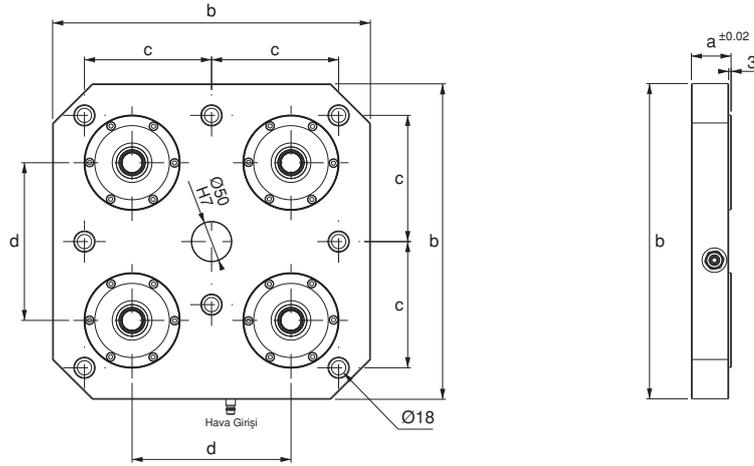
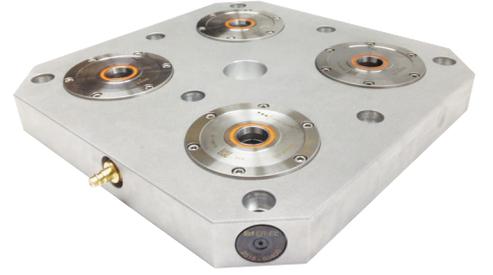
| Referans Nr. | a | b | c | d | Zero Clamp adet / pcs. |  | Sıkma Kuvveti Clamping Force Kgf |  (kg) |
|--------------|----|-----|-----|-----|------------------------|---|----------------------------------|--|
| 2475-50400 | 50 | 400 | 160 | 200 | 4 | Ø120 | 4x2500=10000 kgf | 24 |
| 2475-50500 | 50 | 500 | 200 | 350 | 4 | Ø120 | 4x2500=10000 kgf | 30 |
| 2475-50630 | 50 | 630 | 250 | 200 | 6 | Ø120 | 6x2500=15000 kgf | 44 |

Ürün Nr. 2475 ER-EL Zero Clamp Uygulamalı Tabla

• Malzeme: Alüminyum

Product Nr. 2475 ER-EL Zero Clamp Plate Application

• Material: Aluminium



- Ürünün uygulama alanı çizelgede sunulan ile sınırlı değildir. Farklı uygulamalarda yapılabilir.
- Product application area is not limited to the alues given in tables. Various applications are possible.

ER-EL Zero Clamp Uygulamalı Kule

ER-EL Zero Clamp Turret Application

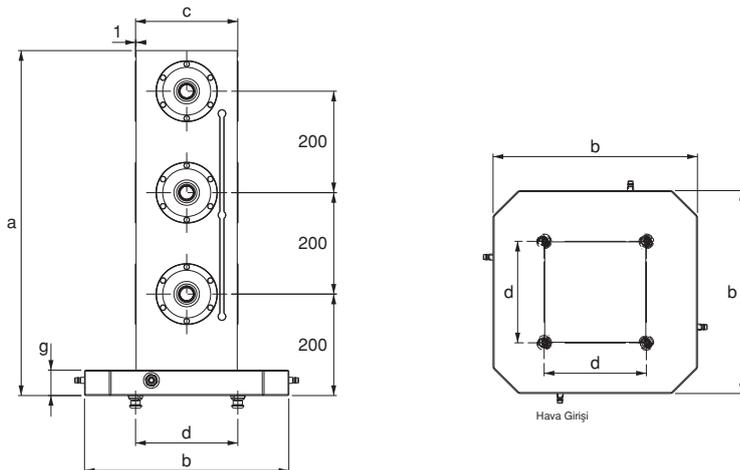
| Referans Nr. | a | b | c | d | g | Zero Clamp adet / pcs. |  | Sıkma Kuvveti Clamping Force Kgf |  (kg) |
|--------------|-----|-----|-----|-----|----|------------------------|---|----------------------------------|--|
| 2480-400200 | 680 | 400 | 200 | 200 | 50 | 12 | Ø120 | 3x2500=7500 kgf | 100 |
| 2480-500200 | 680 | 500 | 200 | 350 | 50 | 12 | Ø120 | 3x2500=7500 kgf | 111 |
| 2480-630250 | 680 | 630 | 250 | 200 | 50 | 12 | Ø138 | 3x4000=12000 kgf | 178 |

Ürün Nr. 2480 ER-EL Zero Clamp Uygulamalı Kule

• Malzeme: Alüminyum

Product Nr. 2480 ER-EL Zero Clamp Turret Application

• Material: Aluminium

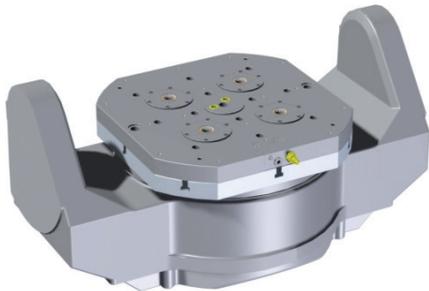
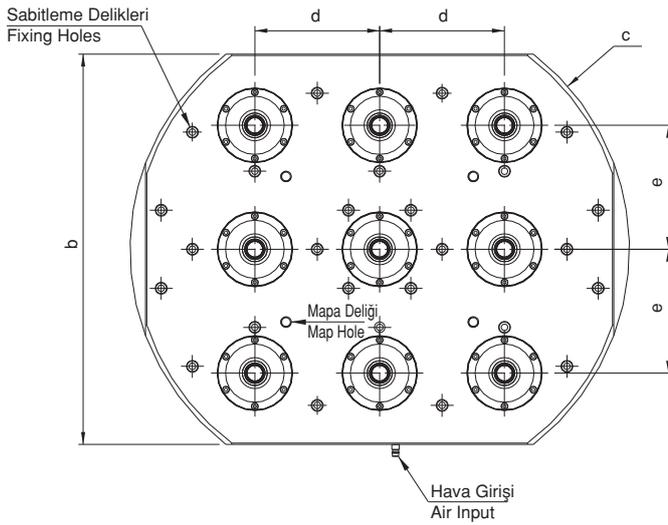
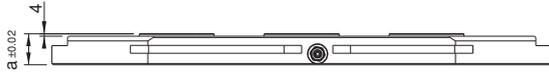


- Ürünün uygulama alanı çizelgede sunulan ile sınırlı değildir. Farklı uygulamalarda yapılabilir.
- Product application area is not limited to the alues given in tables. Various applications are possible.

| Referans Nr. | a | b | c | d | e |  |  |
|--------------|----|-----|-----|-----|-----|---|---|
| 2481-50630 | 50 | 630 | 800 | 200 | 200 | Ø120 | 60 |

Ürün Nr. 2481 5-Eksen Zero Clamp Tabla
• Malzeme: Alüminyum

Product Nr. 2481 5-Axis Zero Clamp Plate
• Material: Aluminium



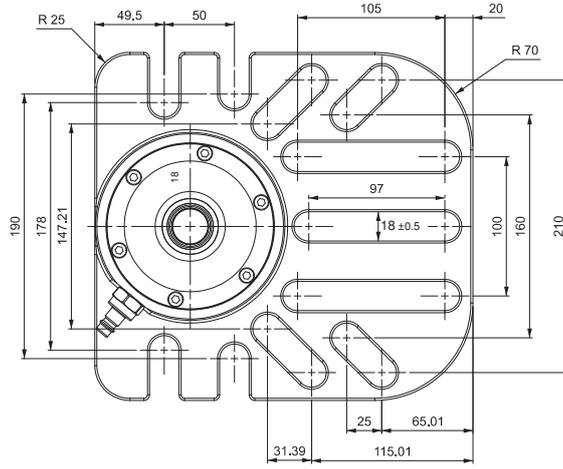
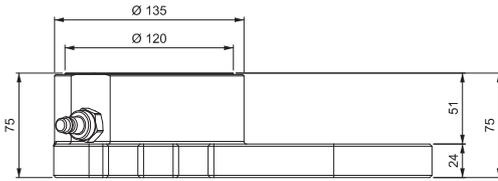
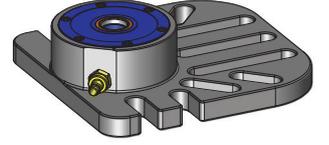
| Referans Nr. | Sıkma Kuvveti Clamping Force Kgf |  (kg) |
|--------------|--|---|
| 2482-0120 | 2500 | 13.4 |

Ürün Nr. 2482 Modüler Zero Clamp

- Siyah Kaplama
- Taşlama

Product Nr. 2482 Modular Zero Clamp

- Black coating
- Stoning



| Referans Nr. | a | b | c | d | e | h | h1 | Sıkma Kuvveti Clamping Force Kgf |  (kg) |
|--------------|-----|-----|-----|-----|----|----|----|--|---|
| 2483-0090 | 105 | 90 | 220 | 160 | 13 | 50 | 36 | 1250 | 4.2 |
| 2483-0120 | 135 | 120 | 180 | 130 | 13 | 65 | 51 | 2500 | 8.4 |
| 2483-0138 | 160 | 138 | 250 | 200 | 17 | 80 | 61 | 4000 | 15.7 |

Ürün Nr. 2483 Modüler Zero Clamp

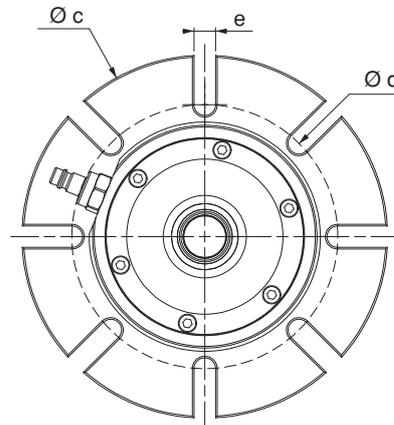
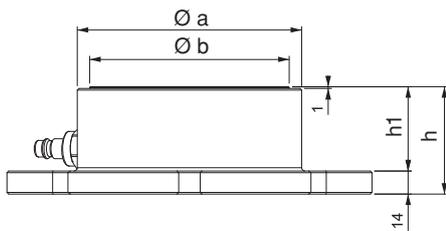
- Siyah Kaplama
- Taşlama

Product Nr. 2483 Modular Zero Clamp

- Black coating
- Stoning

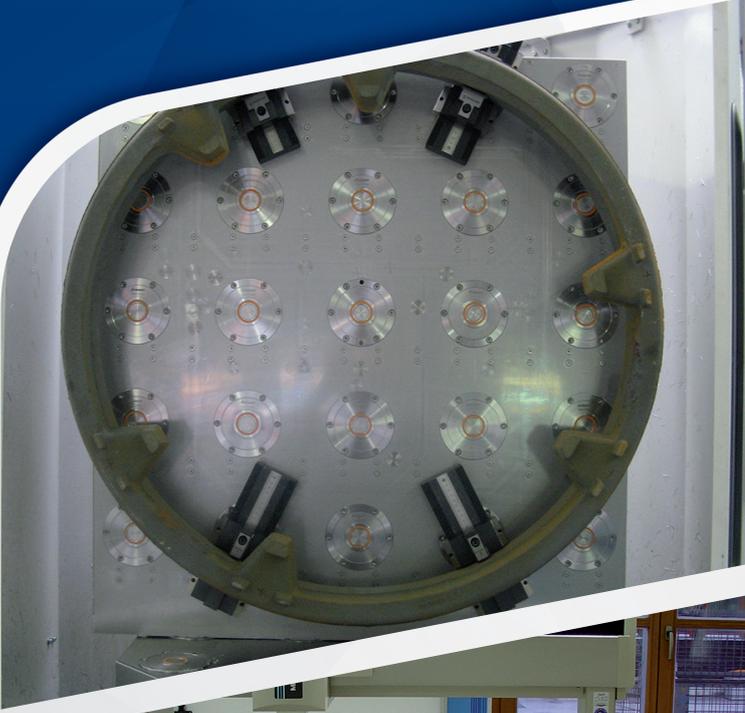
Modüler Zero Clamp

Modular Zero Clamp



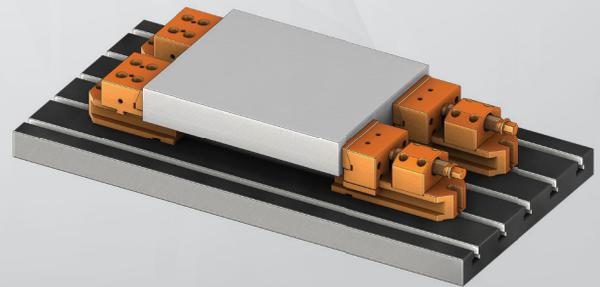
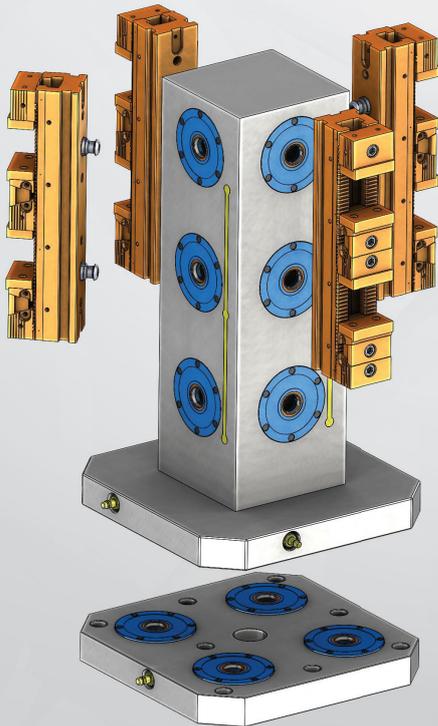
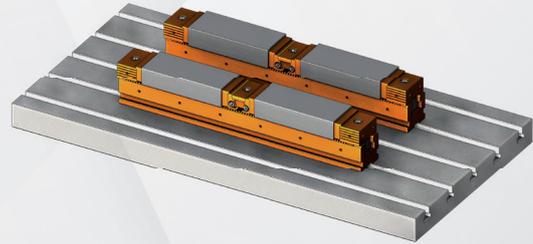
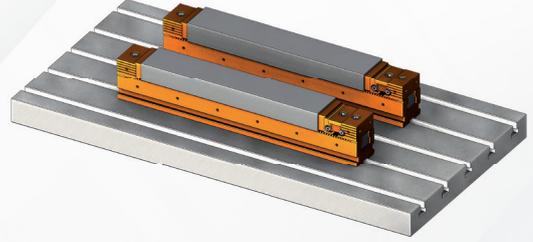
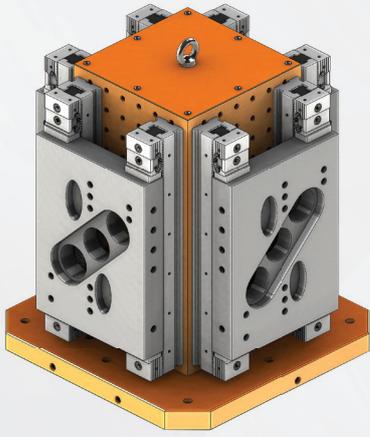
ZERO CLAMP UYGULAMA ÖRNEKLERİ

ZERO CLAMP APPLICATION
EXAMPLES

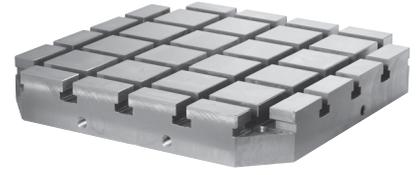


KULE ve SERİ MENGENE UYGULAMALARI

*TOWER and MULTI JAWED WRENCH
TOOLING APPLICATIONS*



| Referans Nr. | a ±0.02 | b | c | d | e | f | g | h ±0.02 | (kg) |
|--------------|------------|-----|-----|----|-----|----|-----|------------|------|
| 2490-7540014 | 75 | 400 | 320 | 14 | 55 | 18 | 160 | 80 | 71 |
| 2490-7550014 | 75 | 500 | 400 | 14 | 75 | 18 | 200 | 100 | 115 |
| 2490-7563014 | 75 | 630 | 500 | 14 | 100 | 18 | 250 | 125 | 188 |
| 2490-7540018 | 75 | 400 | 320 | 18 | 55 | 18 | 160 | 80 | 65 |
| 2490-7550018 | 75 | 500 | 400 | 18 | 75 | 18 | 200 | 100 | 107 |
| 2490-7563018 | 75 | 630 | 500 | 18 | 100 | 18 | 250 | 125 | 178 |

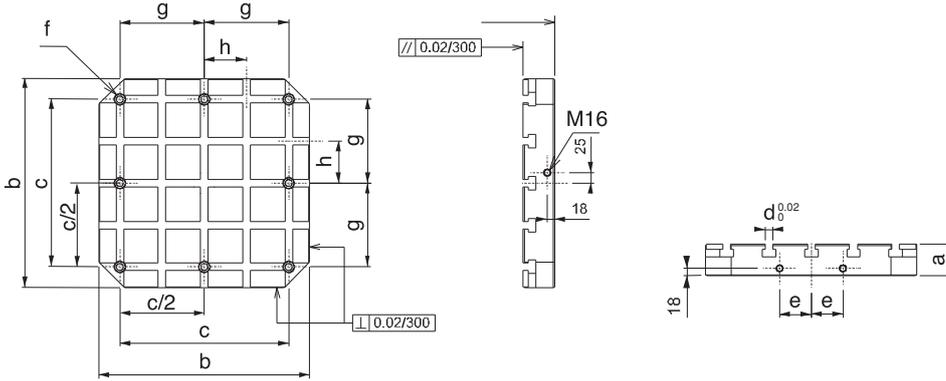


Ürün Nr. 2490 Yatay İşleme Tablası (T-Kanallı)

- Malzeme : Döküm
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüsü 14mm - 18mm DIN 650 standartındadır.

Product Nr. 2490 Horizontal Clamping Pallet (with T-Slot)

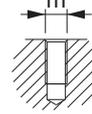
- Material : Casting
- It is in compliance with Standard Coupling Equipment.
- T-Slot measurement of 14mm - 18mm is in DIN 650 Standard.



| Referans Nr. | a ±0.02 | b | c | d | e | m | (kg) |
|--------------|------------|-----|-----|-----|----|-----|------|
| 2510-7540012 | 75 | 400 | 320 | 55 | 25 | M12 | 80 |
| 2510-7550012 | 75 | 500 | 400 | 75 | 25 | M12 | 127 |
| 2510-7563012 | 75 | 630 | 500 | 100 | 40 | M12 | 204 |
| 2510-7540016 | 75 | 400 | 320 | 55 | 25 | M16 | 79 |
| 2510-7550016 | 75 | 500 | 400 | 75 | 25 | M16 | 125 |
| 2510-7563016 | 75 | 630 | 500 | 100 | 40 | M16 | 200 |

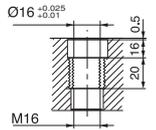
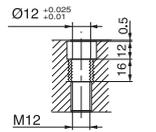
CNC Yatay İşleme Tablası

CNC Horizontal Clamping Pallet



Gövdeye dişli
Referans Nr. 2510

Threaded body
Reference No. 2510



Çelik burçlu
Referans Nr. 2520

Steel bush
Reference No. 2520

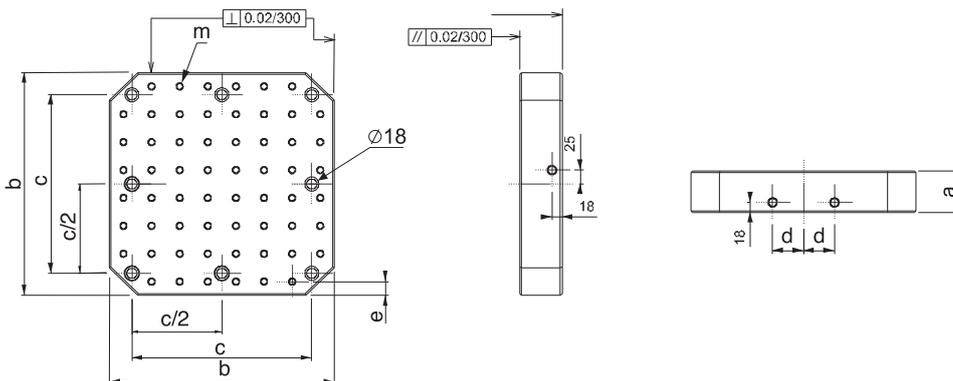
| Referans Nr. | a ±0.02 | b | c | d | e | m | (kg) |
|--------------|------------|-----|-----|-----|----|-----|------|
| 2520-7540012 | 75 | 400 | 320 | 55 | 25 | M12 | 80 |
| 2520-7550012 | 75 | 500 | 400 | 75 | 25 | M12 | 127 |
| 2520-7563012 | 75 | 630 | 500 | 100 | 40 | M12 | 204 |
| 2520-7540016 | 75 | 400 | 320 | 55 | 25 | M16 | 79 |
| 2520-7550016 | 75 | 500 | 400 | 75 | 25 | M16 | 125 |
| 2520-7563016 | 75 | 630 | 500 | 100 | 40 | M16 | 200 |

Ürün Nr. 2510 - 2520 Yatay İşleme Tablası (Dişli)

- Malzeme : Döküm
- Standart bağlama ekipmanlarına uyumludur.
- Yüzeyinde M12 - M16 diş merkez aralığı 50 ± 0.02
- Nr. 2510 Gövdeye dişli
- Nr. 2520 Çelik burçlu

Product Nr. 2510 - 2520 Horizontal Clamping Pallet (with Grid Threaded)

- Material : Casting
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02 .
- Nr. 2510 Threaded body
- Nr. 2520 Steel bush



| Referans Nr. | a | b | Ød | c | e | f | t | (kg) |
|--------------|-----|------|----|----|---|---|-----|------|
| 2530-040012 | 400 | 600 | 18 | 50 | - | - | M12 | 73 |
| 2530-050012 | 500 | 600 | 18 | 50 | - | - | M12 | 112 |
| 2530-060012 | 600 | 800 | 18 | 50 | - | - | M12 | 162 |
| 2530-140012 | 400 | 800 | 18 | 50 | - | - | M12 | 119 |
| 2530-145012 | 450 | 900 | 18 | 50 | - | - | M12 | 151 |
| 2530-150012 | 500 | 1000 | 18 | 50 | - | - | M12 | 173 |

| Referans Nr. | a | b | Ød | c | e | f | t | (kg) |
|--------------|-----|------|----|----|---|---|-----|------|
| 2530-040016 | 400 | 600 | 18 | 50 | - | - | M16 | 87 |
| 2530-050016 | 500 | 600 | 18 | 50 | - | - | M16 | 108 |
| 2530-060016 | 600 | 800 | 18 | 50 | - | - | M16 | 155 |
| 2530-140016 | 400 | 800 | 18 | 50 | - | - | M16 | 115 |
| 2530-145016 | 450 | 900 | 18 | 50 | - | - | M16 | 146 |
| 2530-150016 | 500 | 1000 | 18 | 50 | - | - | M16 | 171 |

| Referans Nr. | a | b | Ød | c | e | f | t | (kg) |
|--------------|-----|------|----|----|---|---|-----|------|
| 2540-040012 | 400 | 600 | 18 | 50 | - | - | M12 | 73 |
| 2540-050012 | 500 | 600 | 18 | 50 | - | - | M12 | 112 |
| 2540-060012 | 600 | 800 | 18 | 50 | - | - | M12 | 162 |
| 2540-140012 | 400 | 800 | 18 | 50 | - | - | M12 | 119 |
| 2540-145012 | 450 | 900 | 18 | 50 | - | - | M12 | 151 |
| 2540-150012 | 500 | 1000 | 18 | 50 | - | - | M12 | 173 |

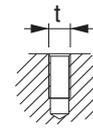
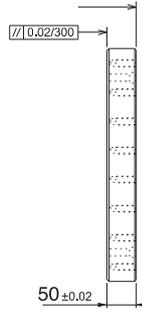
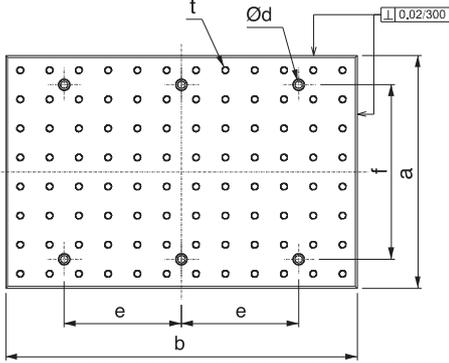
| Referans Nr. | a | b | Ød | c | e | f | t | (kg) |
|--------------|-----|------|----|----|---|---|-----|------|
| 2540-040016 | 400 | 600 | 18 | 60 | - | - | M16 | 87 |
| 2540-050016 | 500 | 600 | 18 | 60 | - | - | M16 | 108 |
| 2540-060016 | 600 | 800 | 18 | 60 | - | - | M16 | 155 |
| 2540-140016 | 400 | 800 | 18 | 60 | - | - | M16 | 115 |
| 2540-145016 | 450 | 900 | 18 | 60 | - | - | M16 | 146 |
| 2540-150016 | 500 | 1000 | 18 | 60 | - | - | M16 | 171 |

Ürün Nr. 2530 - 2540 CNC Dik İşleme Pleyti (Dişli)

- Malzeme : Döküm
- Standart bağlama ekipmanlarına uyumludur.
- Yüzeyinde M12-M16 diş Merkez aralığı 50 ± 0.02
- Nr. 2530 Gövdeye dişli
- Nr. 2540 Çelik burçlu

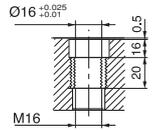
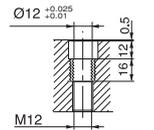
Product Nr. 2530 - 2540 CNC Vertical Processing Plate (with Threaded)

- Material : Casting
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02 .
- Nr. 2530 Threaded body
- Nr. 2540 Steel bush



Gövdeye dişli
Referans Nr. 2530

Threaded body
Reference No. 2530



Çelik burçlu
Referans Nr. 2540

Steel bush
Reference No. 2540

CNC Dik İşleme Pleyti

CNC Vertical Processing Plate

| Referans Nr. | a | b | c | d | e | f | Øg | h | ı | j | (kg) |
|--------------|-----|------|----|----|----|-----|----|---|---|----|------|
| 2550-040014 | 400 | 600 | 60 | 14 | 50 | 100 | 18 | - | - | 50 | 90 |
| 2550-050014 | 500 | 600 | 60 | 14 | 50 | 100 | 18 | - | - | 50 | 115 |
| 2550-060014 | 600 | 800 | 60 | 14 | 50 | 100 | 18 | - | - | 50 | 198 |
| 2550-140014 | 400 | 800 | 60 | 14 | 50 | 100 | 18 | - | - | 50 | 120 |
| 2550-145014 | 450 | 900 | 60 | 14 | 75 | 100 | 18 | - | - | 50 | 162 |
| 2550-150014 | 500 | 1000 | 60 | 14 | 50 | 100 | 18 | - | - | 50 | 199 |

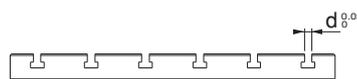
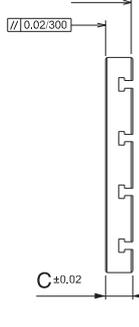
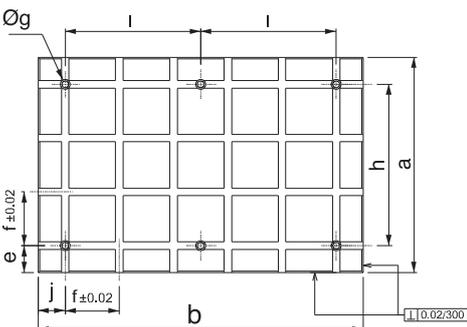
| Referans Nr. | a | b | c | d | e | f | Øg | h | ı | j | (kg) |
|--------------|-----|------|----|----|----|-----|----|---|---|----|------|
| 2550-040018 | 400 | 600 | 75 | 18 | 50 | 100 | 18 | - | - | 50 | 108 |
| 2550-050018 | 500 | 600 | 75 | 18 | 50 | 100 | 18 | - | - | 50 | 135 |
| 2550-060018 | 600 | 800 | 75 | 18 | 50 | 100 | 18 | - | - | 50 | 216 |
| 2550-140018 | 400 | 800 | 75 | 18 | 50 | 100 | 18 | - | - | 50 | 143 |
| 2550-145018 | 450 | 900 | 75 | 18 | 75 | 100 | 18 | - | - | 50 | 183 |
| 2550-150018 | 500 | 1000 | 75 | 18 | 50 | 100 | 18 | - | - | 50 | 225 |

Ürün Nr. 2550 Dik İşleme Pleyti (T-Kanalı)

- Malzeme : Döküm
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüsü 14mm - 18mm DIN 650 standartındadır.

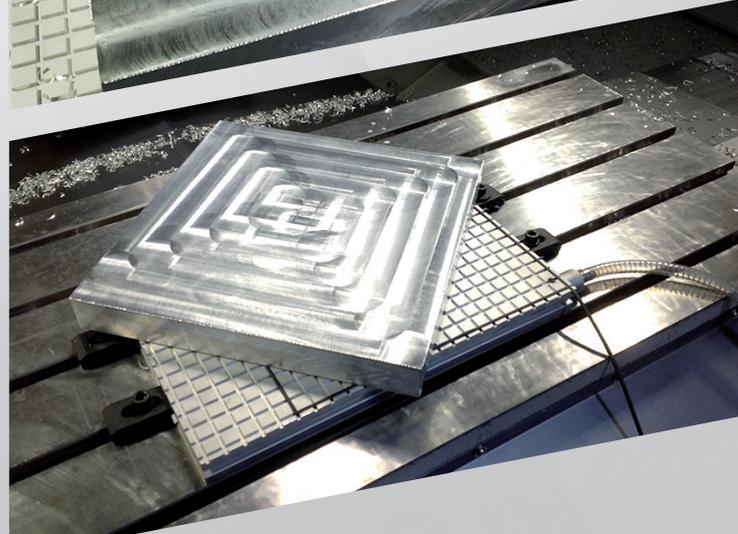
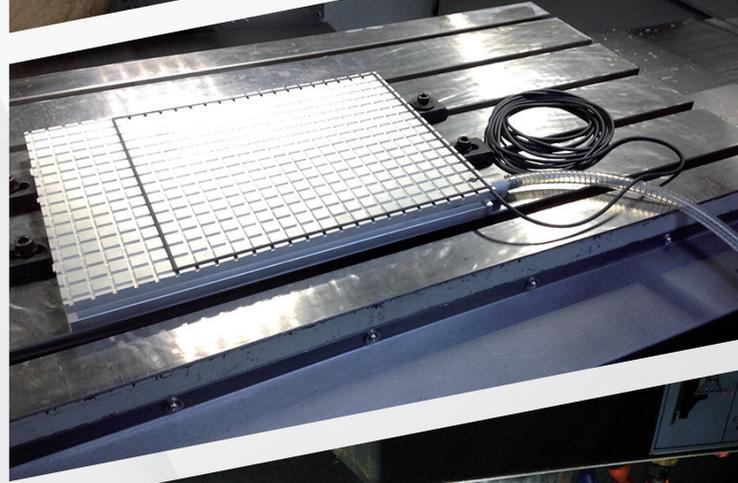
Product Nr. 2550 CNC Vertical Processing Plate (with T-Slot)

- Material : Casting
- It is in compliance with Standard Coupling Equipment.
- T-Slot is in the standard of 14mm - 18mm DIN 650.



VAKUMLU TABLA UYGULAMALARI

VACUUM PLATE APPLICATION



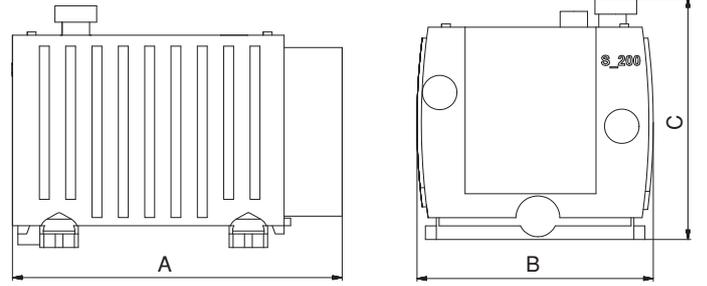
| Referans Nr. | m ³ /h | Volt | Vakum Gücü End Press. | Kw | Hz | A | B | C | (kg) |
|--------------|-------------------|------|-----------------------|------|----|-----|-----|------|------|
| 2557-022 | 22 | 400 | 150-50 mbar | 0.83 | 50 | 463 | 432 | 602 | 45.5 |
| 2557-045 | 45 | 400 | 150-50 mbar | 1.20 | 50 | 515 | 572 | 743 | 57 |
| 2557-065 | 65 | 400 | 150-50 mbar | 2.40 | 50 | 515 | 572 | 743 | 72 |
| 2557-100 | 100 | 400 | 150-50 mbar | 3.85 | 50 | 525 | 620 | 920 | 110 |
| 2557-150 | 150 | 400 | 150-50 mbar | 4.00 | 50 | 710 | 845 | 1100 | 200 |
| 2557-198 | 198 | 400 | 150-50 mbar | 5.50 | 50 | 710 | 845 | 1100 | 220 |
| 2557-232 | 232 | 400 | 150-50 mbar | 7.50 | 50 | 710 | 845 | 1100 | 240 |

Ürün Nr. 2557 Pompa Ünitesi

• Su ve talaş ayrıştırıcı sistem

Product Nr. 2557 Pump Unit

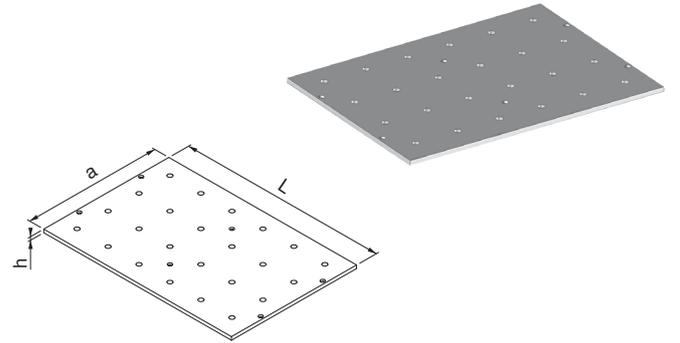
• Water and chip parser system



Adaptasyon Tablası

Adaption Plate

| Referans Nr. | a | L | h |
|--------------|-----|-----|----|
| 2560-200300 | 200 | 300 | 10 |
| 2560-300400 | 300 | 400 | 10 |
| 2560-400400 | 400 | 400 | 10 |
| 2560-400600 | 400 | 600 | 10 |
| 2560-600900 | 600 | 900 | 10 |



Ürün Nr. 2560 Adaptasyon Tablası Product Nr. 2560 Adaption Plate

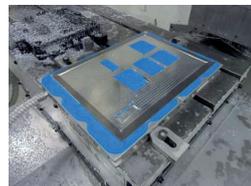
Mavi Vakum Ped

Blue Vacuum Pad

| Referans Nr. |  |
|--------------|---|
| 2563-200300 | 200x300 |

Ürün Nr. 2563 Mavi Vakum Ped

Product Nr. 2563 Blue Vacuum Pad



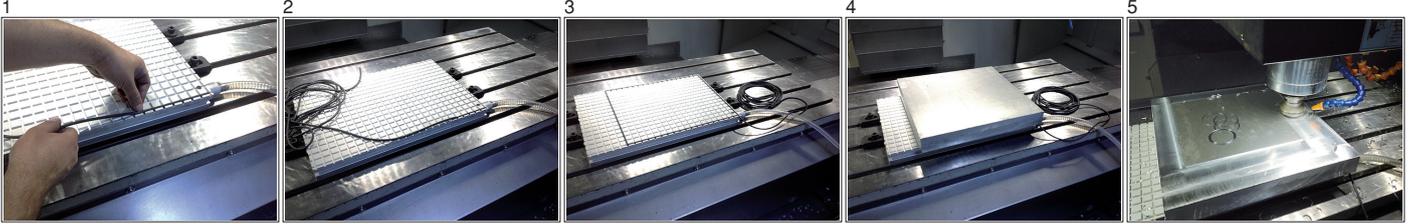
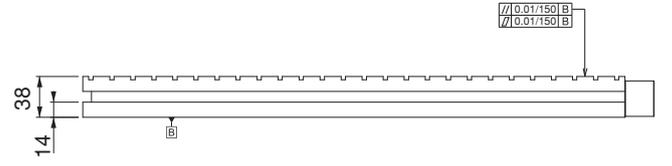
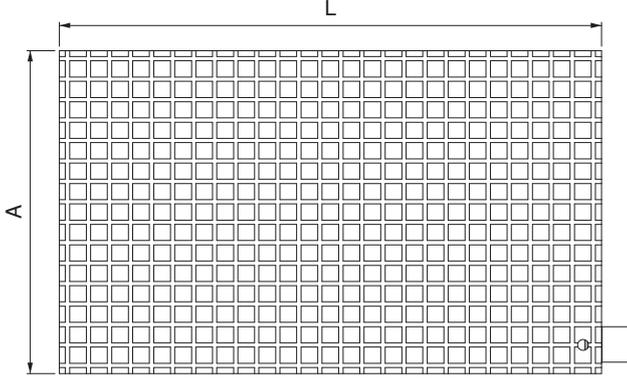
| Referans Nr. | A | L | Kare Aralığı Square Range | Pompa Ünitesi / Pump Unit | | (kg) |
|--------------|-----|-----|------------------------------|---------------------------|--------------|----------|
| | | | | Nr. | Nr. | |
| 2565-200300 | 200 | 300 | 20 | *2557-022 | *2567-095969 | 6.20 |
| 2565-300400 | 300 | 400 | 20 | *2557-022 | *2567-095969 | 12.30 |
| 2565-400400 | 400 | 400 | 20 | *2557-022 | *2567-082115 | 16.40 |
| 2565-400600 | 400 | 600 | 20 | *2557-022 | *2567-082115 | 24.60 |
| 2565-600900 | 600 | 900 | 20 | *2557-022 | *2567-080156 | 55.40 |


Ürün Nr. 2565 Vakumlu Pleyt

- Malzeme: Döküm
- *Pompa ünitesini ayrı olarak satın almanız gerekir.

Product Nr. 2565 Vacuum Plate

- Material : Casting
- *You need to purchase Pump unit separate.


Vakum Pompası

Vacuum Pump

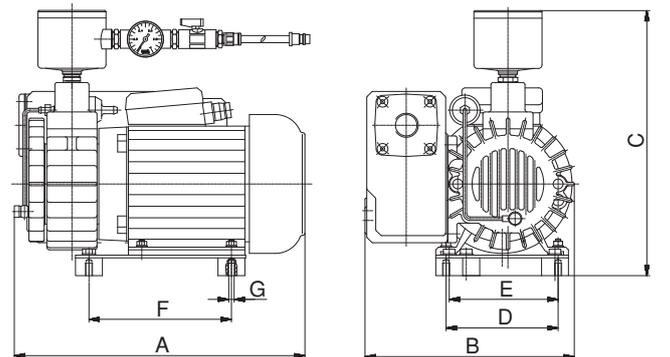
| Referans Nr. | m ³ /h | Volt | Hz | Vakum Gücü End Press. | Kw | RPM | DB | Oil | A | B | C | D | E | F | G | |
|--------------|-------------------|------|----|--------------------------|------|--------------|----|------|-----|-----|-----|-----|-----|-----|----|------|
| | | | | | | | | | | | | | | | | (kg) |
| 2567-095969 | 10 | 230 | 50 | 20 mbar | 0.37 | 3000 1/2 min | 59 | 0.3l | 301 | 234 | 297 | 100 | 83 | 150 | M8 | 24 |
| 2567-281548 | 10 | 400 | 50 | 20 mbar | 0.37 | 3000 1/2 min | 59 | 0.3l | 301 | 234 | 297 | 100 | 83 | 150 | M8 | 24 |
| 2567-082115 | 16 | 230 | 50 | 20 mbar | 0.55 | 3000 1/2 min | 60 | 0.3l | 301 | 234 | 297 | 100 | 83 | 150 | M8 | 10.3 |
| 2567-082116 | 16 | 400 | 50 | 20 mbar | 0.55 | 3000 1/2 min | 60 | 0.3l | 301 | 234 | 297 | 100 | 83 | 150 | M8 | 10.3 |
| 2567-080156 | 21 | 230 | 50 | 20 mbar | 0.75 | 3000 1/2 min | 62 | 0.5l | 401 | 223 | 254 | 131 | 127 | 210 | M8 | 22 |
| 2567-080078 | 21 | 400 | 50 | 20 mbar | 0.75 | 3000 1/2 min | 62 | 0.5l | 401 | 223 | 254 | 131 | 127 | 210 | M8 | 22 |

Ürün Nr. 2567 Vakum Pompası

- Kuru sistem

Product Nr. 2567 Vacuum Pump

- Dry system

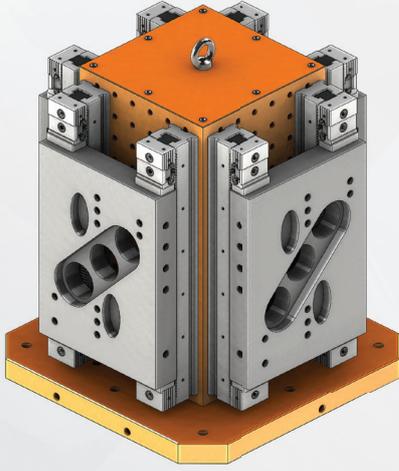
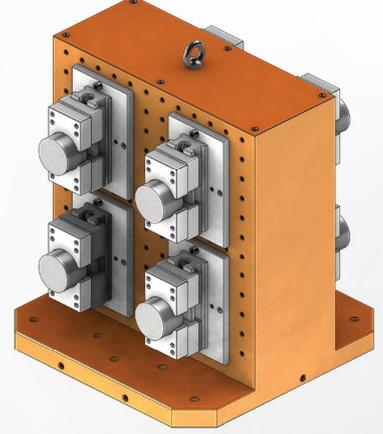


CNC YATAY İŞLEME KULELERİ

CNC HORIZONTAL CLAMPING CUBE

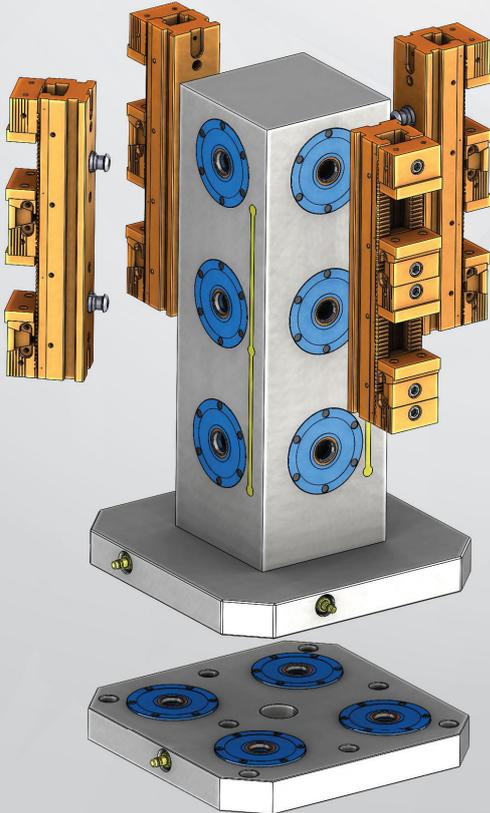
Nr.2670 Dikdörtgen kuleye
Nr.2310 çift açılır mengenerle
iş parçası bağlama şekli.

Nr.2670 clamping cube
with Nr.2310 vice applications



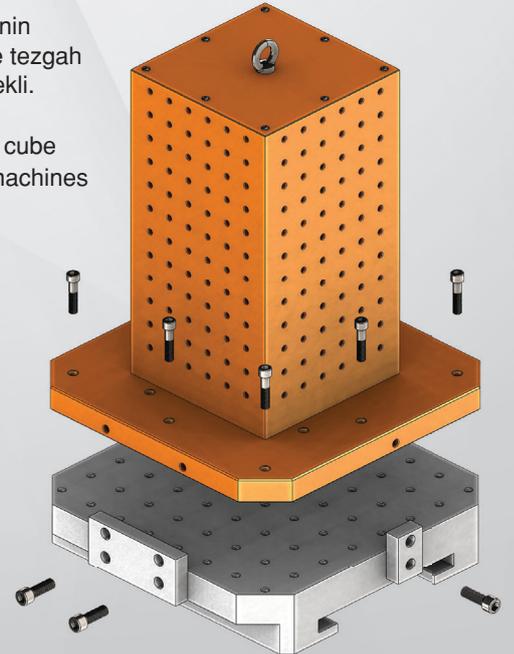
Nr.2650 kare kuleye
Nr.2430 mengenerle
iş parçası bağlama şekli

Nr.2650 clamping cube
with Nr.2430 vice applications



Nr.2650 kare kulenin
CNC yatay işleme tezgah
pleytine montaj şekli.

Nr.2650 clamping cube
CNC Horizontal machines
applications



| Referans Nr. | a | b | c | d | e | f | g | h | Ø1 | j | k | s | s1 | (kg) |
|--------------|-----|-----|-----|-----|-----|-----|----|----|----|-----|-----|----|-----|------|
| 2570-30012 | 300 | 300 | 220 | 100 | 250 | 90 | 40 | 30 | 18 | M12 | 75 | 25 | 170 | 50 |
| 2570-40012 | 400 | 400 | 280 | 160 | 320 | 90 | 40 | 30 | 18 | M12 | 75 | 30 | 240 | 88 |
| 2570-50012 | 500 | 500 | 345 | 200 | 400 | 90 | 50 | 35 | 18 | M12 | 75 | 35 | 300 | 175 |
| 2570-63012 | 630 | 630 | 435 | 250 | 500 | 100 | 50 | 40 | 18 | M12 | 105 | 40 | 360 | 298 |
| 2570-30016 | 300 | 300 | 220 | 100 | 250 | 90 | 40 | 30 | 18 | M16 | 75 | 25 | 170 | 45 |
| 2570-40016 | 400 | 400 | 280 | 160 | 320 | 90 | 40 | 30 | 18 | M16 | 75 | 30 | 240 | 84 |
| 2570-50016 | 500 | 500 | 345 | 200 | 400 | 90 | 50 | 35 | 18 | M16 | 75 | 35 | 300 | 170 |
| 2570-63016 | 630 | 630 | 435 | 250 | 500 | 100 | 50 | 40 | 18 | M16 | 105 | 40 | 360 | 293 |

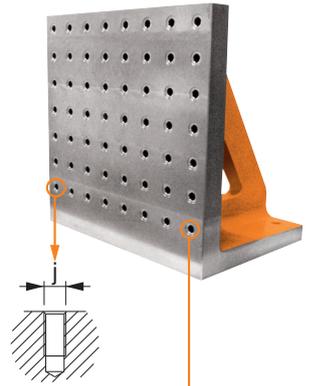
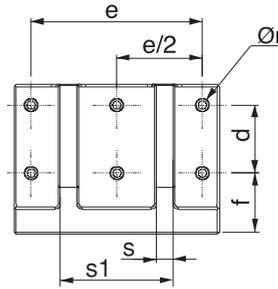
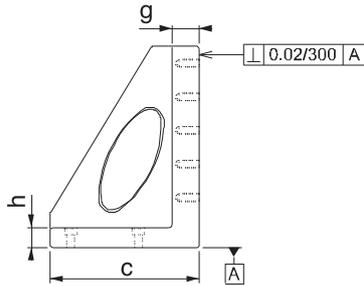
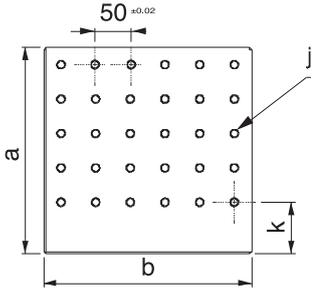
| Referans Nr. | a | b | c | d | e | f | g | h | Ø1 | | k | s | s1 | (kg) |
|--------------|-----|-----|-----|-----|-----|-----|----|----|----|-----|-----|----|-----|------|
| 2575-30012 | 300 | 300 | 220 | 100 | 250 | 90 | 40 | 30 | 18 | M12 | 75 | 25 | 170 | 50 |
| 2575-40012 | 400 | 400 | 280 | 160 | 320 | 90 | 40 | 30 | 18 | M12 | 75 | 30 | 240 | 88 |
| 2575-50012 | 500 | 500 | 345 | 200 | 400 | 90 | 50 | 35 | 18 | M12 | 75 | 35 | 300 | 175 |
| 2575-63012 | 630 | 630 | 435 | 250 | 500 | 100 | 50 | 40 | 18 | M12 | 105 | 40 | 360 | 298 |
| 2575-30016 | 300 | 300 | 220 | 100 | 250 | 90 | 60 | 30 | 18 | M16 | 75 | 25 | 170 | 60 |
| 2575-40016 | 400 | 400 | 280 | 160 | 320 | 90 | 60 | 30 | 18 | M16 | 75 | 30 | 240 | 111 |
| 2575-50016 | 500 | 500 | 345 | 200 | 400 | 90 | 60 | 35 | 18 | M16 | 75 | 35 | 300 | 176 |
| 2575-63016 | 630 | 630 | 435 | 250 | 500 | 100 | 65 | 40 | 18 | M16 | 105 | 40 | 360 | 313 |

Ürün Nr. 2570 - 2575 L Gönye (Dişli)

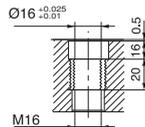
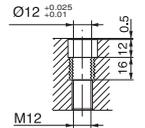
- Malzeme : Döküm
- CNC yatay ve diik işleme tezgahlarında kullanılır.
- Standart bağlama ekipmanlarına uyumludur.
- Yüzeyinde M12 - M16 diş merkez aralığı 50 ±0.02
- Nr. 2570 Gövdeye dişli
- Nr. 2575 Çelik burçlu

Product Nr. 2570 - 2575 L Setsquare (with Threaded)

- Material : Casting
- It is used in CNC Horizontal end Vertical processing benches.
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Nr. 2570 Threaded body
- Nr. 2575 Steel bush



Gövdeye dişli
Referans Nr. 2570
Threaded body
Reference No. 2570



Çelik burçlu
Referans Nr. 2575
Steel bush
Reference No. 2575

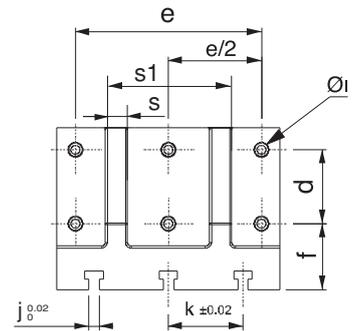
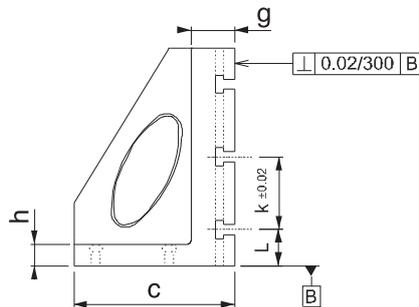
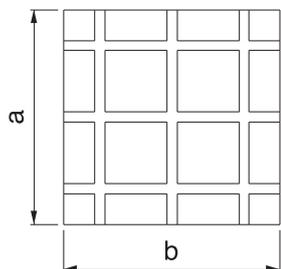
| Referans Nr. | a | b | c | d | e | f | g | h | Ø1 | j | k | L | s | s1 | (kg) |
|--------------|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|----|----|-----|------|
| 2590-30014 | 300 | 300 | 220 | 100 | 250 | 90 | 60 | 30 | 18 | 14 | 100 | 50 | 25 | 170 | 50 |
| 2590-40014 | 400 | 400 | 300 | 160 | 320 | 90 | 60 | 30 | 18 | 14 | 100 | 50 | 30 | 240 | 100 |
| 2590-50014 | 500 | 500 | 350 | 200 | 400 | 90 | 60 | 35 | 18 | 14 | 100 | 50 | 35 | 300 | 185 |
| 2590-63014 | 630 | 630 | 450 | 250 | 500 | 100 | 65 | 40 | 18 | 14 | 125 | 65 | 40 | 360 | 315 |
| 2590-30018 | 300 | 300 | 220 | 100 | 250 | 90 | 60 | 30 | 18 | 18 | 100 | 50 | 25 | 170 | 50 |
| 2590-40018 | 400 | 400 | 300 | 160 | 320 | 90 | 60 | 30 | 18 | 18 | 100 | 50 | 30 | 240 | 98 |
| 2590-50018 | 500 | 500 | 350 | 200 | 400 | 90 | 60 | 35 | 18 | 18 | 100 | 50 | 35 | 300 | 174 |
| 2590-63018 | 630 | 630 | 450 | 250 | 500 | 100 | 65 | 40 | 18 | 18 | 125 | 65 | 40 | 360 | 286 |

Ürün Nr. 2590 L Gönye (T-Kanalı)

- Malzeme : Döküm
- CNC yatay ve diik işleme tezgahlarında kullanılır.
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüleri 14mm - 18mm DIN 650 standartındadır.

Product Nr. 2590 L Setsquare (with T-Slot)

- Material : Casting
- It is used in CNC Horizontal end Vertical processing benches.
- It is in compliance with Standard Coupling Equipment.
- T-Slot is in the standard of 14mm - 18mm DIN 650.



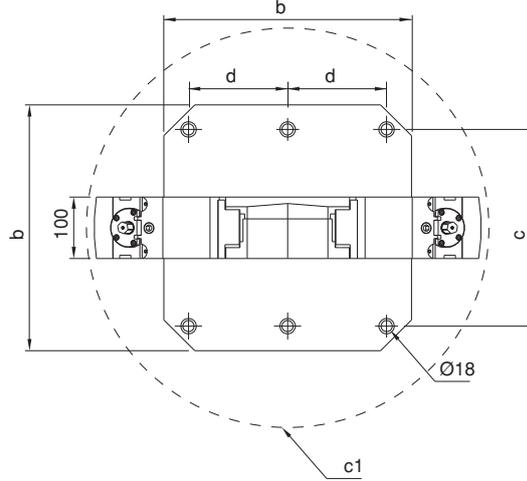
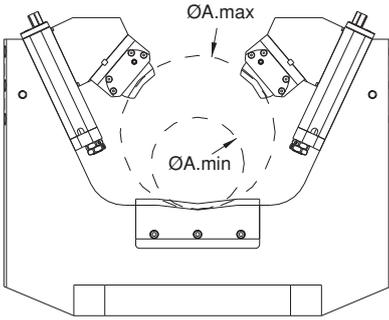
| Referans Nr. | b | d | c | c1 | A min. | A max. | Sıkma Kuvveti Clamping Force Kgf | Nm |
|--------------|-----|-----|-----|----|--------|--------|----------------------------------|-----|
| 2600-400400 | 400 | 160 | 320 | - | - | - | 5000 | 135 |
| 2600-500500 | 500 | 200 | 400 | - | - | - | 5000 | 135 |
| 2600-630630 | 630 | 250 | 500 | - | - | - | 5000 | 135 |

Ürün Nr. 2600 Çatal Kule

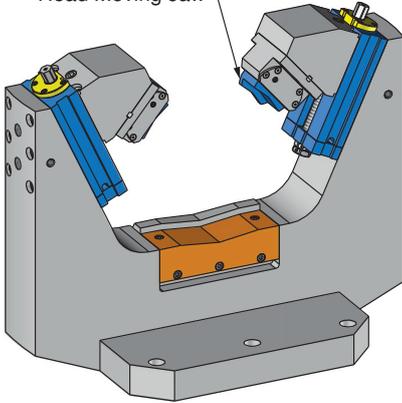
- Kullanım alanı: CNC yatay işleme, Borvekt tezgahlarında silindirik parçaların iki yüzeyinde işleme kolaylığı sağlar.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

Product Nr. 2600 Fork Tower

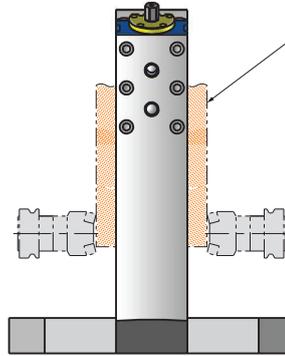
- Application area: Provides better operation on both sides of cylindric workpieces on cnc horizontal machines and bohrwerks.
- Entire moving surface is sensitively grinded and hardened.



Oynar Başlı Çene
Head Moving Jaw



İş Parçası
Workpiece



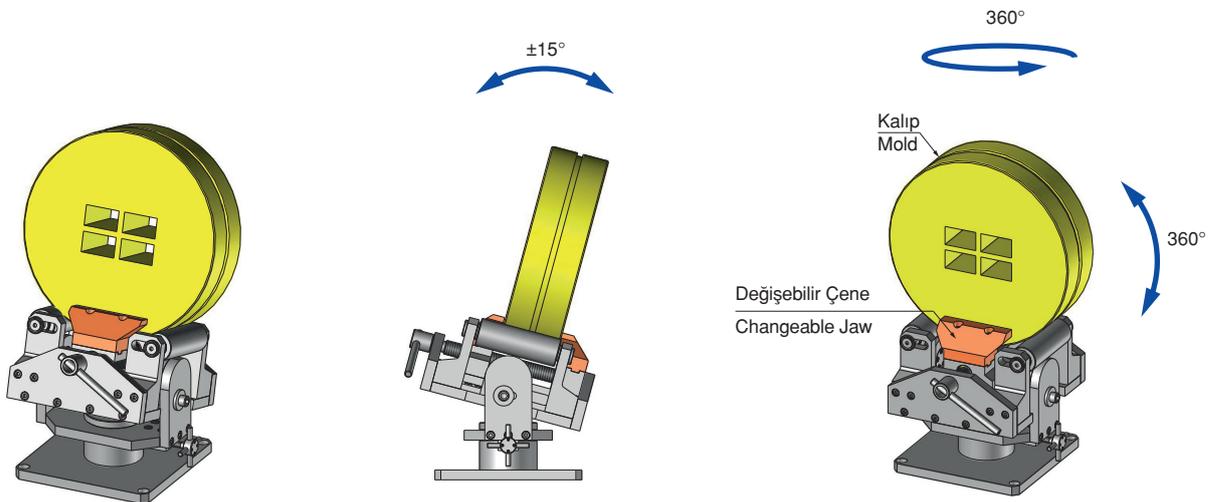
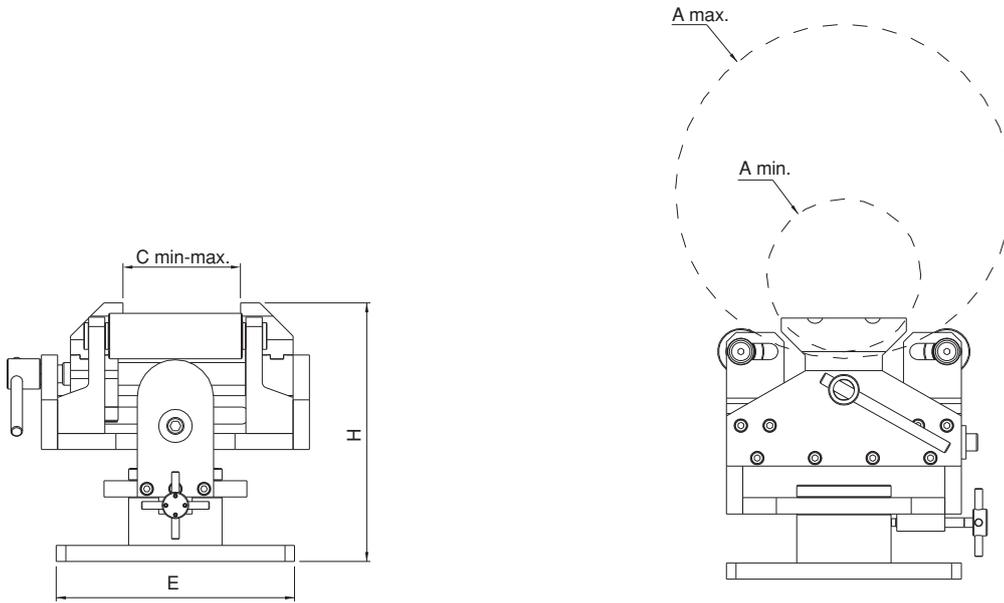
| Referans Nr. | E | H | C min. | C max. | A min. | A max. | Sıkma Kuvveti Clamping Force kgf |
|--------------|-----|-----|--------|--------|--------|--------|----------------------------------|
| 2600-160350 | 250 | 275 | 0 | 130 | 160 | 350 | 2500 |

Ürün Nr. 2600 Ekstrüzyon Kalıbı Tesviye Mengenesi

• Özellikler: Ekstrüzyon kalıplarını tesviye ederken operatörün bedensel zorlanmasını önemli ölçüde azaltır. kalıbın kendi ekseninde 360° dönmesi diğer sabit mengenalere göre parçayı döndürme ve her yerine müdahale kolaylığı sağlar.

Product Nr. 2600 Extrusion Mold Leveling Vice

• Specifications: Significantly reduces operator strain when smoothing extrusion mould. The 360° rotation of the mold on its own axis makes it easy to rotate the part and intervene in all parts relative to other fixed vices.



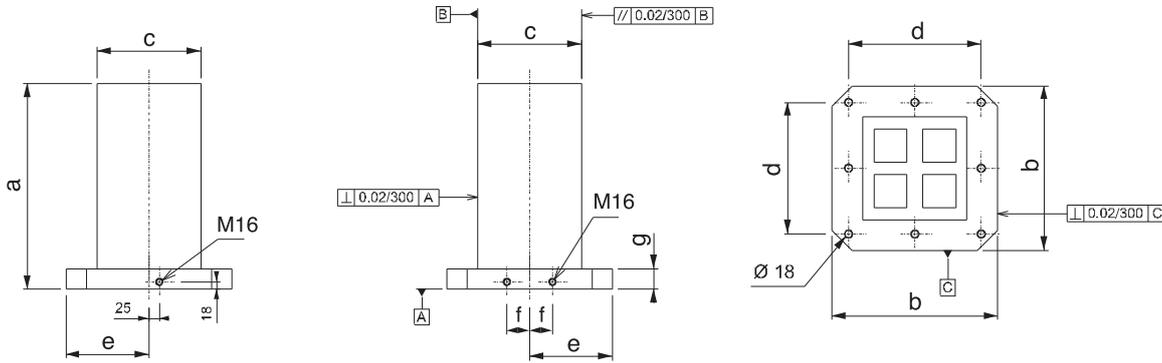
| Referans Nr. | a | b | c | d | e | f | g |  |
|--------------|-----|-----|-----|-----|-----|-----|----|--|
| 2610-400250 | 500 | 400 | 250 | 320 | 200 | 55 | 50 | 180 |
| 2610-500300 | 600 | 500 | 300 | 400 | 250 | 75 | 50 | 240 |
| 2610-630350 | 700 | 630 | 350 | 500 | 315 | 100 | 50 | 390 |

Ürün Nr. 2610 Yatay İşleme Kulesi Kare

- İsteğe göre uygulama yapılabilmesi için yüzeyler deliksizdir.
- Malzeme : Döküm

Product Nr. 2610 Horizontal Processing Cube Square

- Application on the surface according to desired way.
- Material : Casting



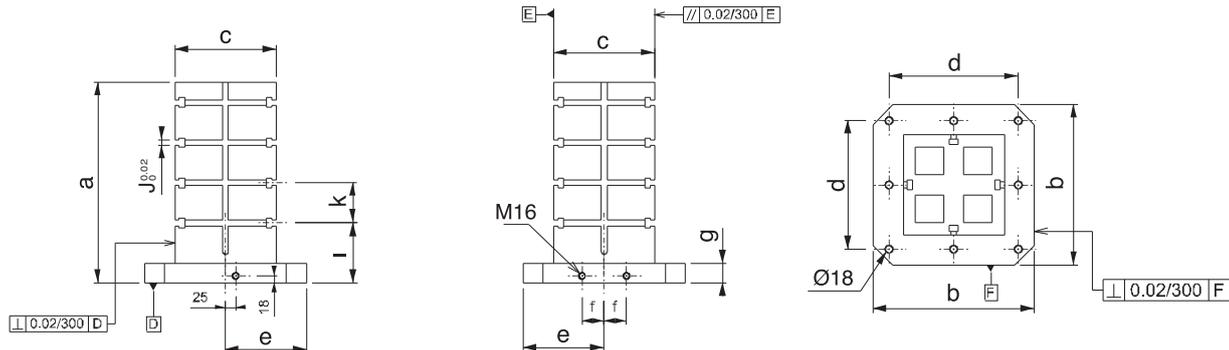
| Referans Nr. | a | b | c | d | e | f | g | ı | k | J (_{0,02}) |  |
|---------------|-----|-----|-----|-----|-----|-----|----|-----|-----|--------------------------|--|
| 2630-40025014 | 500 | 400 | 250 | 320 | 200 | 55 | 50 | 150 | 100 | 14 | 165 |
| 2630-50030014 | 600 | 500 | 300 | 400 | 250 | 75 | 50 | 150 | 100 | 14 | 227 |
| 2630-63035014 | 700 | 630 | 350 | 500 | 315 | 100 | 50 | 150 | 125 | 14 | 375 |
| 2630-40025018 | 500 | 400 | 250 | 320 | 200 | 55 | 50 | 150 | 100 | 18 | 155 |
| 2630-50030018 | 600 | 500 | 300 | 400 | 250 | 75 | 50 | 150 | 100 | 18 | 223 |
| 2630-63035018 | 700 | 630 | 350 | 500 | 315 | 100 | 50 | 150 | 125 | 18 | 370 |

Ürün Nr. 2630 Yatay İşleme Kulesi Kare (T-Kanallı)

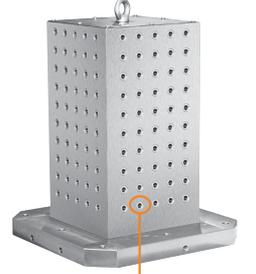
- Dört yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüsü 14mm - 18mm DIN 650 standartındadır.
- Malzeme : Döküm

Product Nr. 2630 Horizontal Processing Cube Square (with T-Slot)

- Workpiece can be applied on four faces.
- It is in compliance with Standard Coupling Equipment.
- T-Slot is in the standard of 14mm - 18mm DIN 650.
- Material : Casting



| Referans Nr. | a | b | c | d | e | f | g | | |
|---------------|-----|-----|-----|-----|-----|-----|----|-----|----------|
| 2650-40025012 | 500 | 400 | 250 | 320 | 200 | 55 | 50 | M12 | (kg) 170 |
| 2650-50030012 | 600 | 500 | 300 | 400 | 250 | 75 | 50 | M12 | 230 |
| 2650-63035012 | 700 | 630 | 350 | 500 | 315 | 100 | 50 | M12 | 380 |
| 2650-40025016 | 500 | 400 | 250 | 320 | 200 | 55 | 50 | M16 | 168 |
| 2650-50030016 | 600 | 500 | 300 | 400 | 250 | 75 | 50 | M16 | 228 |
| 2650-63035016 | 700 | 630 | 350 | 500 | 315 | 100 | 50 | M16 | 376 |

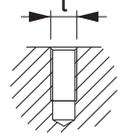
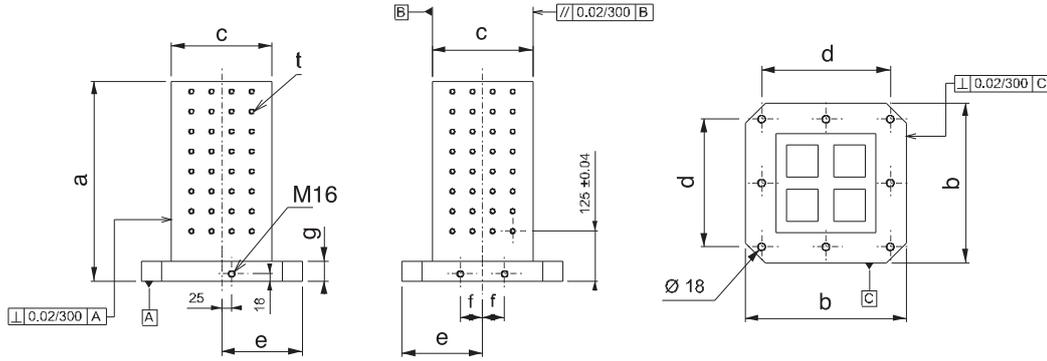


Ürün Nr. 2650 Yatay İşleme Kulesi Kare (Dişli)

- Malzeme : Döküm
- Dört yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- Her yüzeye M12 - M16 diş merkez aralığı 50mm ± 0.02
- Gövdeye dişli

Product Nr. 2650 Horizontal Processing Cube Square (with Threaded)

- Material : Casting
- Workpiece can be applied on four faces.
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02 .
- Threaded body



Gövdeye dişli
Threaded body

CNC Yatay İşleme Kulesi

CNC Horizontal Processing Cube

| Referans Nr. | a | b | c | d | e | f | g | | |
|---------------|-----|-----|-----|-----|-----|-----|----|-----|----------|
| 2660-40025012 | 500 | 400 | 250 | 320 | 200 | 55 | 50 | M12 | (kg) 170 |
| 2660-50030012 | 600 | 500 | 300 | 400 | 250 | 75 | 50 | M12 | 230 |
| 2660-63035012 | 700 | 630 | 350 | 500 | 315 | 100 | 50 | M12 | 380 |
| 2660-40025016 | 500 | 400 | 250 | 320 | 200 | 55 | 50 | M16 | 168 |
| 2660-50030016 | 600 | 500 | 300 | 400 | 250 | 75 | 50 | M16 | 228 |
| 2660-63035016 | 700 | 630 | 350 | 500 | 315 | 100 | 50 | M16 | 376 |

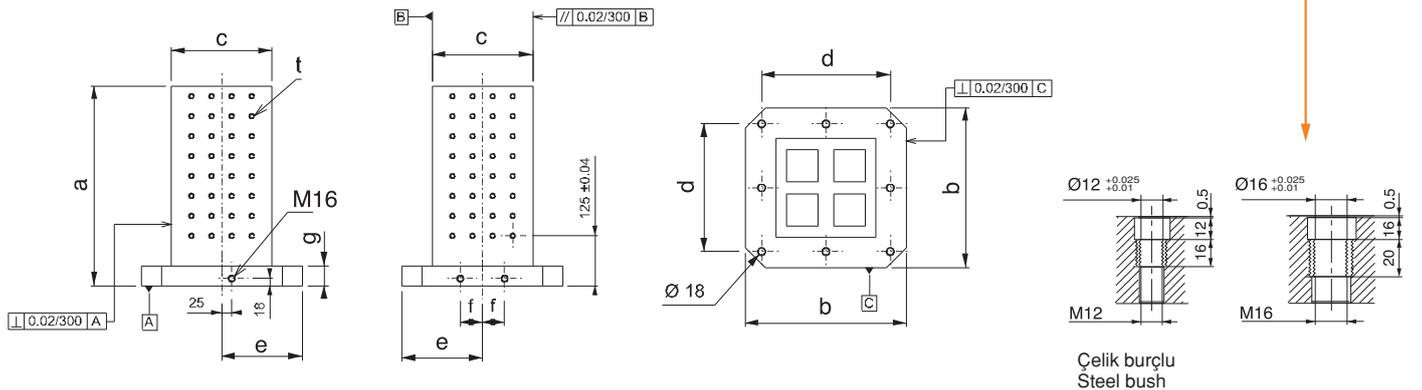


Ürün Nr. 2660 Yatay İşleme Kulesi Kare (Çelik Burçlu)

- Malzeme : Döküm
- Dört yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- Her yüzeye M12 - M16 diş merkez aralığı 50mm ± 0.02
- Çelik burçlu

Product Nr. 2660 Horizontal Processing Cube Square (with Steel Bush)

- Material : Casting
- Workpiece can be applied on four faces.
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02 .
- Steel bush



Çelik burçlu
Steel bush

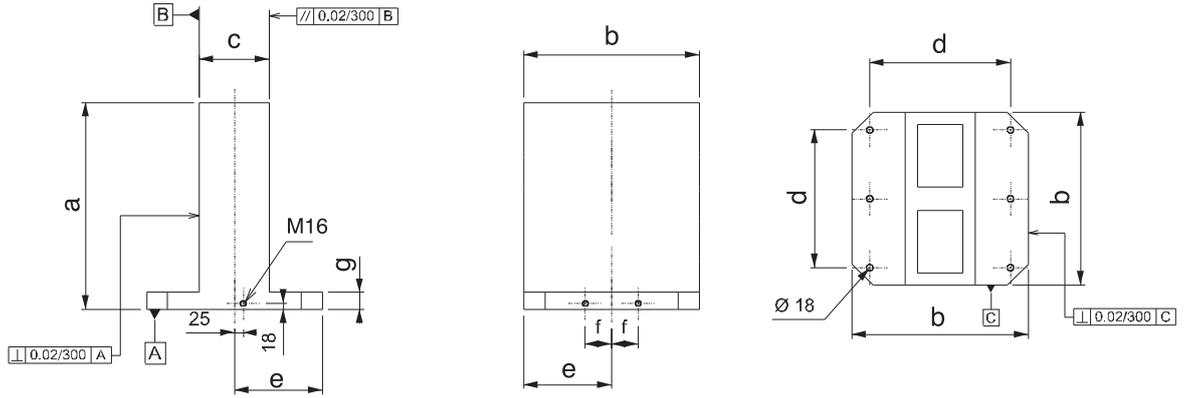
| Referans Nr. | a | b | c | d | e | f | g | (kg) |
|--------------|-----|-----|-----|-----|-----|-----|----|------|
| 2670-400150 | 500 | 400 | 150 | 320 | 200 | 55 | 50 | 175 |
| 2670-500200 | 600 | 500 | 200 | 400 | 250 | 75 | 50 | 265 |
| 2670-630250 | 700 | 630 | 250 | 500 | 315 | 100 | 50 | 484 |

Ürün Nr. 2670 Yatay İşleme Kulesi Dikdörtgen

- İsteğe göre uygulama yapılabilmesi için yüzeyler deliksizdir.
- Malzeme : Döküm

Product Nr. 2670 Horizontal Processing Cube Rectangular

- Application on the surface according to desired way.
- Material : Casting



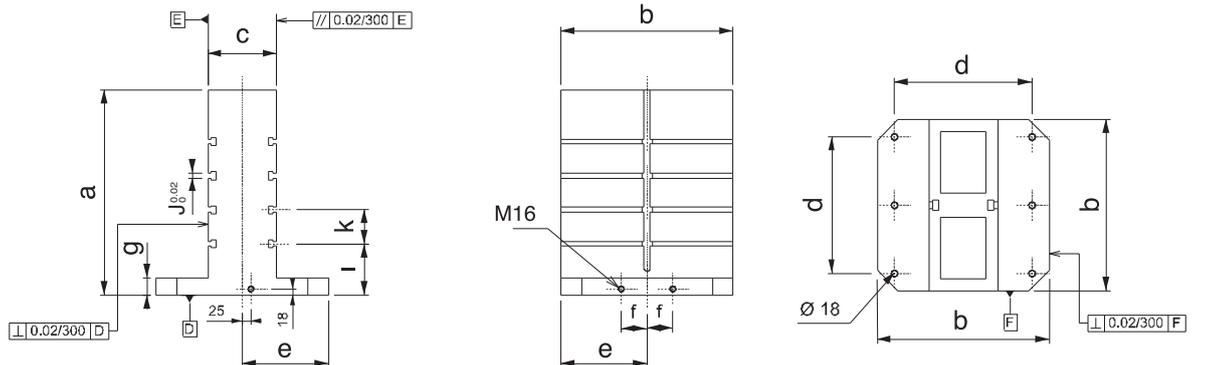
| Referans Nr. | a | b | c | d | e | f | g | l | k (±0.02) | J (0.02) | (kg) |
|---------------|-----|-----|-----|-----|-----|-----|----|-----|-----------|----------|------|
| 2690-40015014 | 500 | 400 | 150 | 320 | 200 | 55 | 50 | 150 | 100 | 14 | 165 |
| 2690-50020014 | 600 | 500 | 200 | 400 | 250 | 75 | 50 | 150 | 100 | 14 | 240 |
| 2690-63025014 | 700 | 630 | 250 | 500 | 315 | 100 | 50 | 150 | 125 | 14 | 455 |
| 2690-40015018 | 500 | 400 | 150 | 320 | 200 | 55 | 50 | 150 | 100 | 18 | 152 |
| 2690-50020018 | 600 | 500 | 200 | 400 | 250 | 75 | 50 | 150 | 100 | 18 | 238 |
| 2690-63025018 | 700 | 630 | 250 | 500 | 315 | 100 | 50 | 150 | 125 | 18 | 450 |

Ürün Nr. 2690 Yatay İşleme Kulesi Dikdörtgen (T-Kanallı)

- İki yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüsü 14mm - 18mm DIN 650 standartındadır.
- Malzeme : Döküm

Product Nr. 2690 Horizontal Processing Cube Rectangular (with T-Slot)

- Workpiece can be applied on four faces.
- It is in compliance with Standard Coupling Equipment.
- T-Slot is in the standard of 14mm - 18mm DIN 650.
- Material : Casting



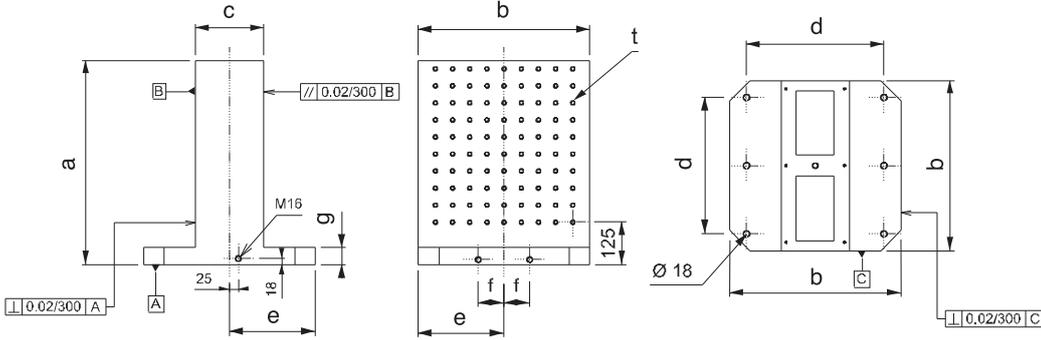
| Referans Nr. | a | b | c | d | e | f | g | t | (kg) |
|---------------|-----|-----|-----|-----|-----|-----|----|-----|------|
| 2710-40015012 | 500 | 400 | 150 | 320 | 200 | 55 | 50 | M12 | 170 |
| 2710-50020012 | 600 | 500 | 200 | 400 | 250 | 75 | 50 | M12 | 250 |
| 2710-63025012 | 700 | 630 | 250 | 500 | 315 | 100 | 50 | M12 | 475 |
| 2710-40015016 | 500 | 400 | 150 | 320 | 200 | 55 | 50 | M16 | 164 |
| 2710-50020016 | 600 | 500 | 200 | 400 | 250 | 75 | 50 | M16 | 248 |
| 2710-63025016 | 700 | 630 | 250 | 500 | 315 | 100 | 50 | M16 | 470 |

Ürün Nr. 2710 Yatay İşleme Kulesi Dikdörtgen (Dişli)

- Malzeme : Döküm
- İki yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- İki yüzeye M12 - M16 diş merkez aralığı 50mm ±0.02
- Gövdeye dişli

Product Nr. 2710 Horizontal Processing Cube Rectangular (with Threaded)

- Material : Casting
- Workpiece can be applied on two faces.
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Threaded body



Gövdeye dişli
Threaded body

CNC Yatay İşleme Kulesi

CNC Horizontal Processing Cube

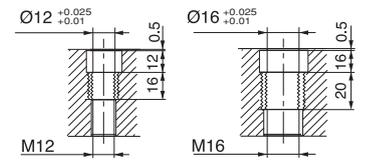
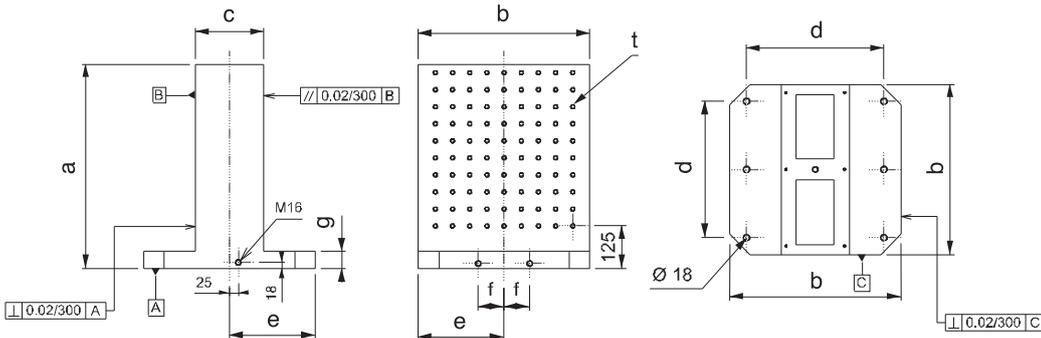
| Referans Nr. | a | b | c | d | e | f | g | t | (kg) |
|---------------|-----|-----|-----|-----|-----|-----|----|-----|------|
| 2720-40015012 | 500 | 400 | 150 | 320 | 200 | 55 | 50 | M12 | 170 |
| 2720-50020012 | 600 | 500 | 200 | 400 | 250 | 75 | 50 | M12 | 250 |
| 2720-63025012 | 700 | 630 | 250 | 500 | 315 | 100 | 50 | M12 | 475 |
| 2720-40015016 | 500 | 400 | 150 | 320 | 200 | 55 | 50 | M16 | 164 |
| 2720-50020016 | 600 | 500 | 200 | 400 | 250 | 75 | 50 | M16 | 248 |
| 2720-63025016 | 700 | 630 | 250 | 500 | 315 | 100 | 50 | M16 | 470 |

Ürün Nr. 2720 Yatay İşleme Kulesi Dikdörtgen (Çelik Burçlu)

- Malzeme : Döküm
- İki yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- İki yüzeye M12 - M16 diş merkez aralığı 50mm ±0.02
- Çelik burçlu

Product Nr. 2720 Horizontal Processing Cube Rectangular (with Steel Bush)

- Material : Casting
- Workpiece can be applied on two faces.
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Steel bush



Çelik burçlu
Steel bush

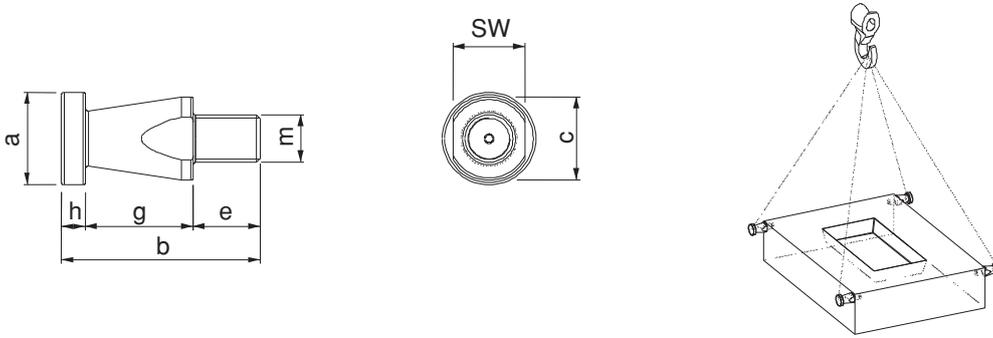
| Referans Nr. | m | a | b | c | sw | e | g | h | Bir mabanın taşıma kuvveti Lifting Force of one Ringbolt Kgf |  (g) |
|--------------|-----|----|----|----|----|----|----|----|--|--|
| 2730-016 | M16 | 39 | 85 | 35 | 30 | 30 | 45 | 10 | 660 | 370 |
| 2730-020 | M20 | 39 | 85 | 35 | 30 | 30 | 45 | 10 | 1000 | 390 |

Ürün Nr. 2730 Kalıp Taşıma Mapası

- Bağlama ölçüsü M16 - M20
- Siyah Kaplama

Product Nr. 2730 Ringbolt for Mould Carrying

- Coupling Measurement: M16 - M20
- Black Coating



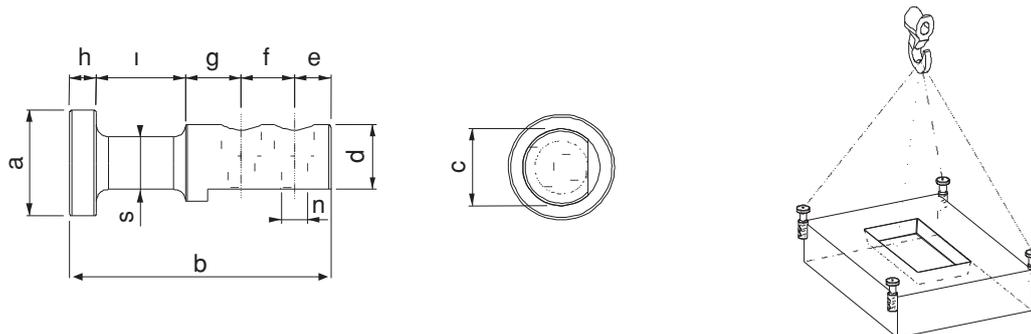
| Referans Nr. | a | b | c | d | e | f | g | h | i | n | s | Bir mabanın taşıma kuvveti Lifting Force of one Ringbolt Kgf |  (g) |
|--------------|----|-----|----|----|----|----|----|----|----|----|----|--|--|
| 2750-044 | 44 | 108 | 32 | 27 | 15 | 22 | 23 | 11 | 37 | 11 | 22 | 400 | 525 |

Ürün Nr. 2750 Kalıp Taşıma Mapası

- Bağlama civata ölçüsü DIN 912 M10x35 inbus
- Siyah Kaplama

Product Nr. 2750 Ringbolt for Mould Carrying

- Coupling Bolt Measurement: DIN 912 M10x35 Inbus
- Black Coating



| Referans Nr. | inch | hatve halve | L | b | h | n t7 | c | k | j | e | m | s | Ø min | (g) |
|--------------|----------|-------------|-----|----|----|---------|---|----|----|----|----|----|----------|-------|
| 2770-0612 | 6" inch | 1.5x60 | 72 | 32 | 32 | 12 | 5 | 15 | 20 | 11 | 22 | 10 | 6.5 | 1460 |
| 2770-0814 | 8" inch | 1.5x60 | 98 | 37 | 37 | 14 | 5 | 24 | 25 | 13 | 22 | 14 | 8.5 | 2785 |
| 2770-1016 | 10" inch | 1.5x60 | 110 | 42 | 42 | 16 | 5 | 30 | 30 | 13 | 29 | 14 | 10 | 4060 |
| 2770-1218 | 12" inch | 1.5x60 | 130 | 50 | 52 | 18 | 5 | 39 | 30 | 15 | 32 | 17 | 12 | 6510 |
| 2770-1221 | 12" inch | 1.5x60 | 130 | 50 | 52 | 21 | 5 | 39 | 30 | 17 | 32 | 19 | 12 | 6575 |
| 2775-0612 | 6" inch | 1.5x60 | 72 | 28 | 37 | 12 | 5 | 15 | 20 | 11 | 17 | 10 | 6.5 | 1415 |
| 2775-0814 | 8" inch | 1.5x60 | 95 | 35 | 67 | 14 | 5 | 24 | 25 | 13 | 19 | 14 | 8.5 | 4465 |
| 2775-1016 | 10" inch | 1.5x60 | 110 | 38 | 77 | 16 | 5 | 30 | 30 | 13 | 19 | 14 | 10 | 6850 |
| 2775-1218 | 12" inch | 1.5x60 | 130 | 48 | 77 | 18 | 5 | 39 | 30 | 15 | 23 | 17 | 12 | 10075 |
| 2775-1221 | 12" inch | 1.5x60 | 130 | 48 | 77 | 21 | 5 | 39 | 30 | 17 | 23 | 19 | 12 | 9600 |

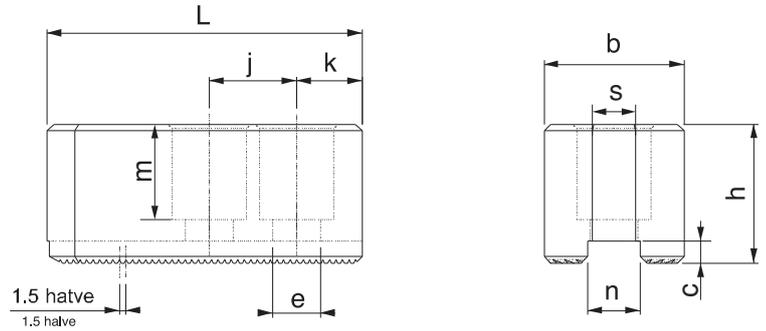


Ürün Nr. 2770 - 2775 CNC Torna Yumuşak Ayak

- 6" - 8" - 10" - 12" inch aynalar için

Product Nr. 2770 - 2775 CNC Lathe Chuck Soft Podous

- For chucks of 6" - 8" - 10" and 12"



CNC Torna Yumuşak Ayak T-Pabucu

CNC Lathe Chuck Soft Podous T-Nut

| Referans Nr. | inch | L | h | n T6 | n1 | h1 | d | j | (g) |
|--------------|----------|----|------|---------|------|------|-----|----|-----|
| 2790-0610 | 6" inch | 38 | 18.5 | 12 | 18 | 7.5 | M10 | 20 | 55 |
| 2790-0812 | 8" inch | 45 | 21.5 | 14 | 21 | 8.5 | M12 | 25 | 85 |
| 2790-1012 | 10" inch | 52 | 21.5 | 16 | 22 | 8.5 | M12 | 30 | 115 |
| 2790-1214 | 12" inch | 55 | 33.5 | 18 | 26.5 | 13.5 | M14 | 30 | 225 |
| 2790-1216 | 12" inch | 55 | 27 | 21 | 29 | 13.5 | M16 | 30 | 210 |

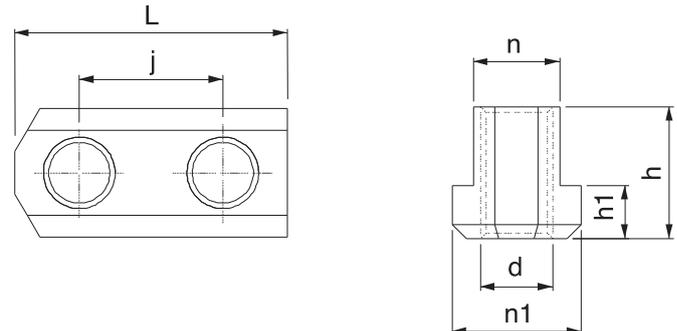


Ürün Nr. 2790 CNC Torna Yumuşak Ayak T-Pabucu

- 6" - 8" - 10" - 12" inch aynalar için
- Sertleştirilmiş
- Siyah Kaplama

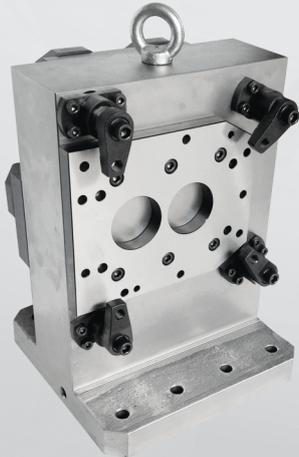
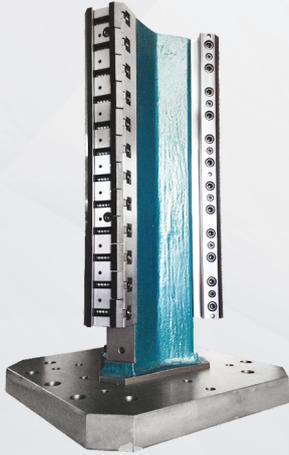
Product Nr. 2790 CNC Lathe Chuck Soft Podous T-Nut

- For chucks of 6" - 8" - 10" and 12"
- Hardened
- Black Coating



PROJE BAZLI FIKSTÜR UYGULAMALAR

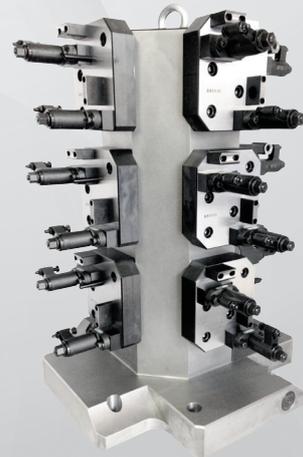
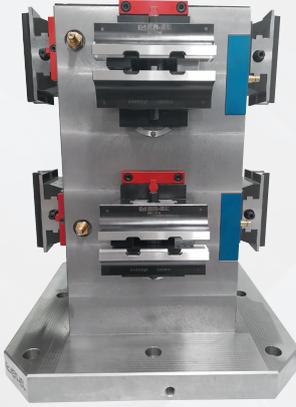
SPECIAL PROJECT FIXTURE APPLICATIONS



Not : Her nevi iş parçasını bağlamak için mekanik, pnömatik ve hidrolik fikstür uygulamaları yapılmaktadır.
Note : To connect all kinds of workpiece, mechanical, pneumatic and hydraulic fixture applications are made.

PROJE BAZLI FIKSTÜR UYGULAMALAR

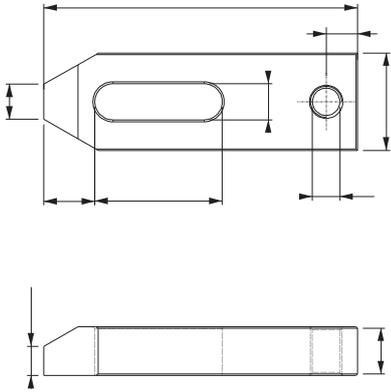
SPECIAL PROJECT FIXTURE APPLICATIONS



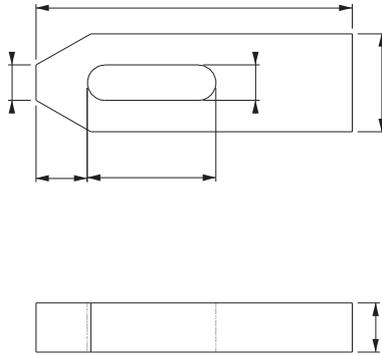
Not : Her nevi iş parçasını bağlamak için mekanik, pnömatik ve hidrolik fikstür uygulamaları yapılmaktadır.
Note : To connect all kinds of workpiece, mechanical, pneumatic and hydraulic fixture applications are made.

Özel Sipariş Oluşturma Şablonları / Create A Special Order Template

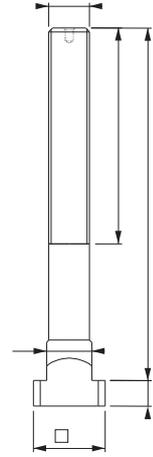
Nr.1330 Destek Delikli Düz Pabuç



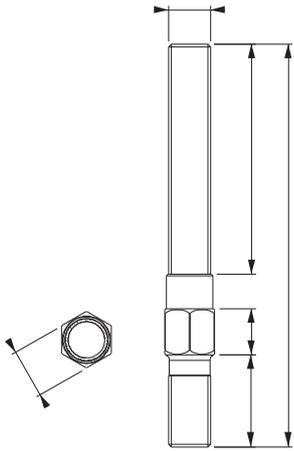
Nr.1350 Düz Pabuç



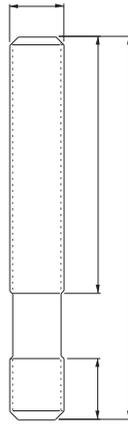
Nr.1590 T-Ayaklı Saplama



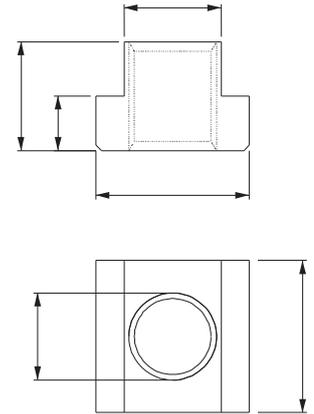
Nr.1670 Anahtar Ağızlı Saplama



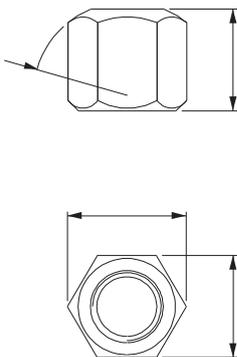
Nr.1690 Düz Saplama



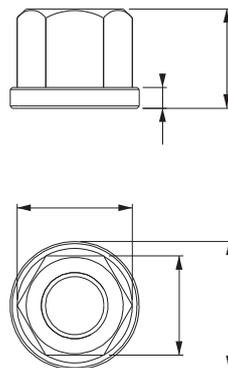
Nr.1750 T-Pabuç



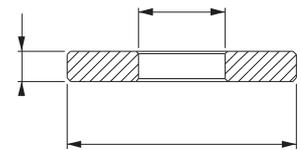
Nr.1790 Takviyeli Somun



Nr.1810 Pullu Somun

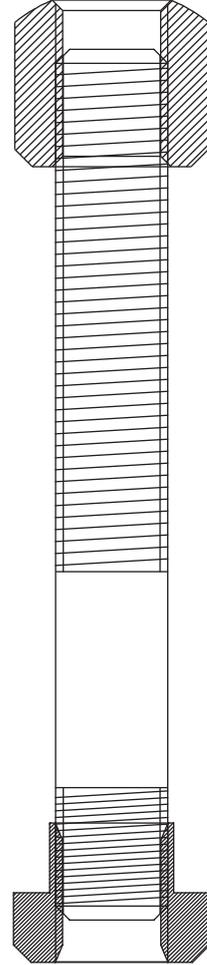
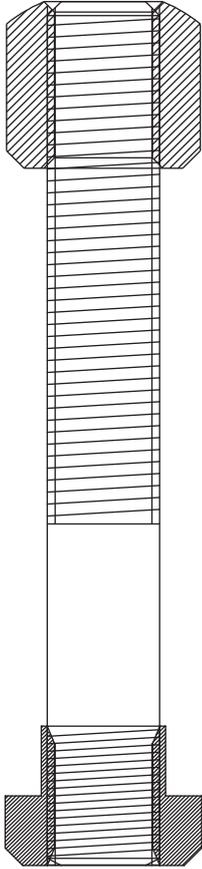


Nr.1870 Pul



DOĞRU - YANLIŞ KULLANIM

RIGHT - WRONG USE

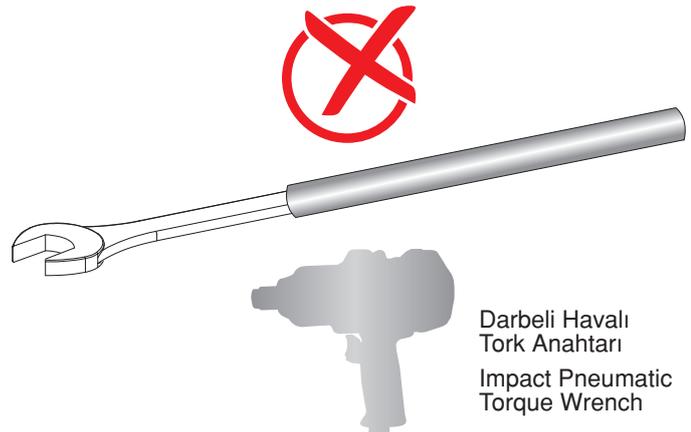
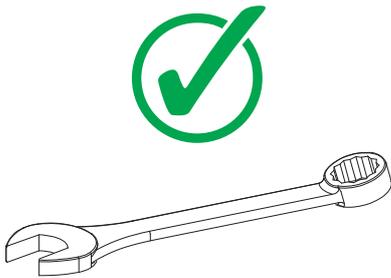
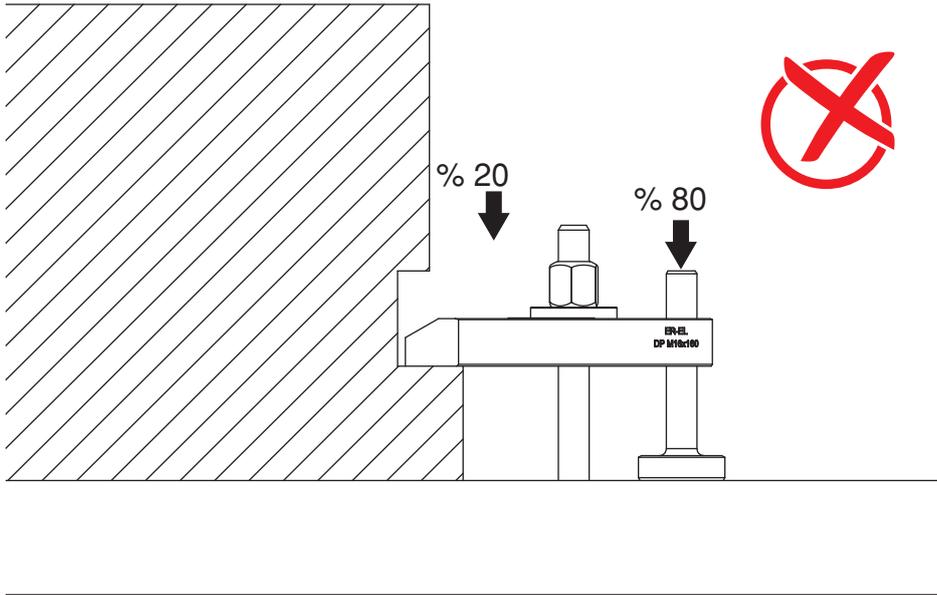
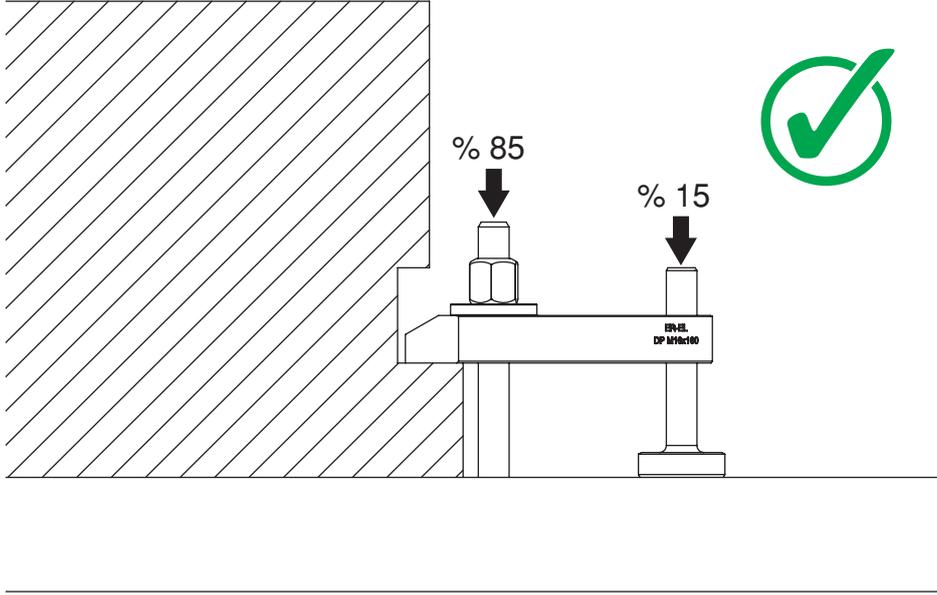


Modüler Kullanımlarda
Saplamanın Takviyeli Somuna ve
T-Pabuça Komple Vidalanmasına
Dikkat Ediniz..!

Make sure that in the use of
modular Hexagon Nut and T-Nut is
screwed fully into the Stud.

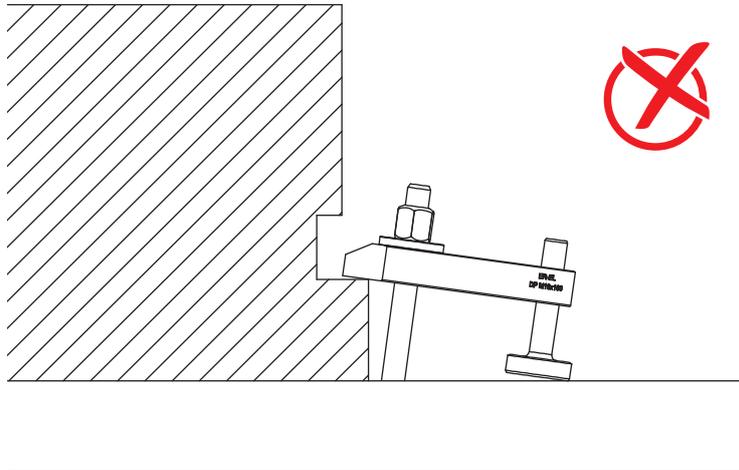
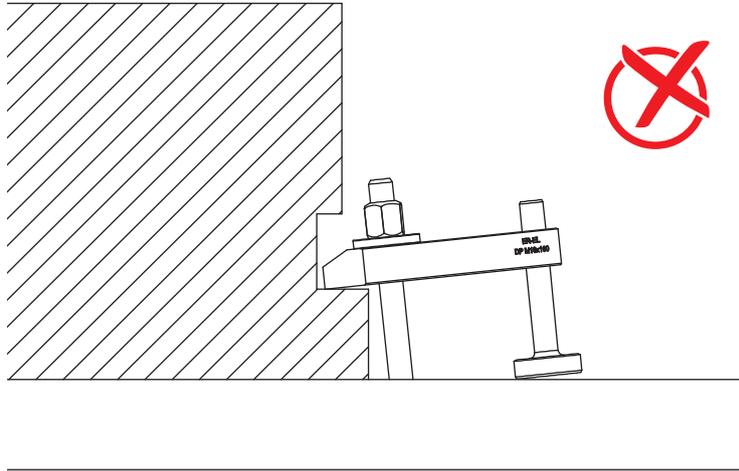
DOĞRU - YANLIŞ KULLANIM

RIGHT - WRONG USE



DOĞRU - YANLIŞ KULLANIM

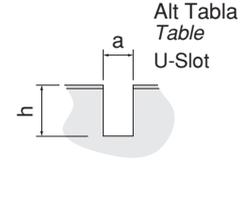
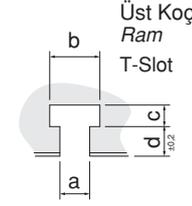
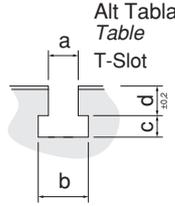
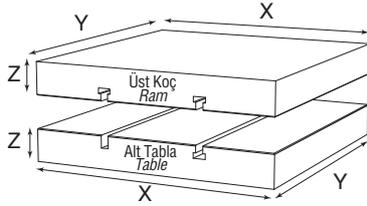
RIGHT - WRONG USE



Tarih / Date:...../...../.....

| | |
|--|---|
| Firma İsmi : Company Name : | |
| İletişim Tel & Adres : Contact Tel & Address : | |
| Yetkili Kişi : Authorized Person : | |
| Pres Tonajı : Press Tonnage : | kN |
| Marka / Model / Tipi : Marke / Modell / Type : | |
| Kalıp Prosesi : Moulding Process : | Kesme Kalıbı <input type="checkbox"/> Cutting Mould <input type="checkbox"/> |
| Sıvama Kalıbı <input type="checkbox"/> : Casting Mould <input type="checkbox"/> | Kalıp Referans No : Mold Reference No : |

Pres Pleyt Ölçüleri
Press Plate Measurements



| Üst Koç / Ram | mm |
|---------------|----|
| X | |
| Y | |
| Z | |

| Alt Tabla / Table | mm |
|-------------------|----|
| X | |
| Y | |
| Z | |

| mm | |
|---------------|--|
| a | |
| d | |
| b | |
| c | |
| Merkez Ölçüsü | |
| Adet | |

| mm | |
|---------------|--|
| a | |
| d | |
| b | |
| c | |
| Merkez Ölçüsü | |
| Adet | |

| mm | |
|---------------|--|
| a | |
| h | |
| Merkez Ölçüsü | |
| Adet | |

Kalıp Çalışma Isısı :
Mold Working Heat :

Kalıp Taşıma Şekli :
Mold Transportation Shape:

Hidrolik Pabuç Bilgileri / Hydraulic Clamp Information

Model CA



Model CB



Hidrolik Kalıp Kaldırma Bilgileri / Die Lifter Hydraulic Information



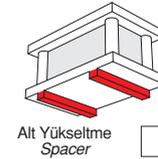
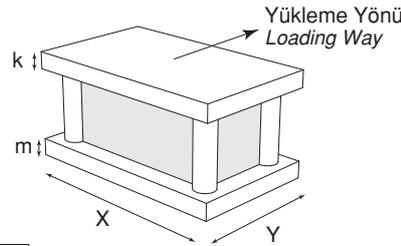
Model DL



Model DB

Kalıp Bilgileri
Die Information

| | En Küçük Kalıp Smallest Tool (mm) | En Büyük Kalıp Biggest Tool (mm) |
|---|---|--|
| X | | |
| Y | | |
| m | | |
| k | | |



Alt Yükseltme
Spacer



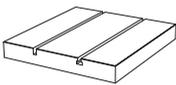
Hurda & Parça Açıklığı
Scrap & Part Clearance

Düz Plaka
Flat Plate

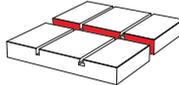
Yuva Slot

Maksimum Kalıp Ağırlığı (kg)
Maximum mould weight (kg)

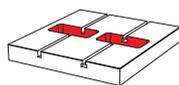
Pres Pleyt Bilgileri / Plate Press Information



Tek Tabla
Single Table



İkili Tabla
Double Table

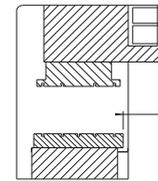


Hurda ve Parça Açıklığı
Table with Holes

Özel Durumlar
Particular Cases

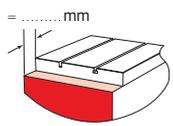
Diğer (çizim, resim ekleyiniz)
Other (attached drawing, pictures)

Pres Balkonlu / Press Bulge

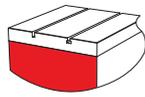


Balkon Ölçüsü
Bulge Measurement

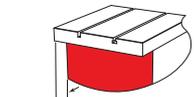
Tabla Pozisyonu / Position Table



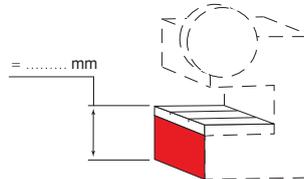
Küçük
Smaller



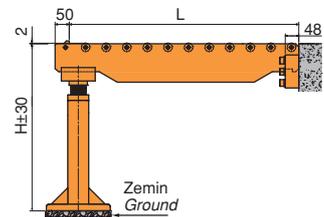
Ucu Ucuna
Flushing



Geniş
Larger



Kalıp Kaydırma Kolu Bilgileri
Die Arm Informations:

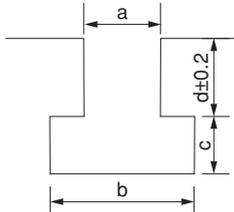


Komple kurulum sistem istiyor:
Company wants whole system setup?

Evet.....
Yes

Hayır.....
No

Tarih: / Date:...../...../.....

| | | | |
|--|--|---|---|
| Firma İsmi : Company Name : | | | |
| İletişim Tel & Adres : Contact Tel & Address : | | | |
| Yetkili Kişi : Authorized Person : | | | |
| Enjeksiyon Tonajı / Injection tonnage : | | | |
| Marka/Model/Tipi : Marke/Modell/Type : | | Kalıp Referans No: Mold Reference No: | |
| Enjeksiyon çalışma Bilgileri Injection working information: | | Sol Left | Sağ Right |
| Enjeksiyon Pleyt Ölçüleri Injection Plate Measurements | | X:..... Y:..... | X:..... Y:..... |
| Enjeksiyon Tork Mesafesi : Injection Torque Distance: | | | |
| Tezgahta *DİŞ* *THREAD* in Machine | | Evet Yes | Hayır No |
| Tezgahta *DİŞ* var ise merkez aralığı : If there is thread in the machine, center interval : | | Ölçüsü..... its measure | |
| Enjeksiyon "T" Kanalı Şekli T-channel shape of Injection | | Sol Left | Sağ Right |
| | |  |  |
| Enjeksiyon T-Kanal Ölçüsü: T-channel measure of Injection: | |  | |
| Sol Tabla Left Table: | | A:..... B:..... C:..... D:..... | |
| Sağ Tabla Right Table: | | A:..... B:..... C:..... D:..... | |
| Kanal Merkez Aralığı : Center interval of channel : | | | |
| Çalışma Isısı : Working Heat : | | | |
| Hidrolik Pabuç Bilgileri Hydraulic Clamp Informations: | | | |
| Kalıp Ağırlığı : Weight of Mold : | | Kalıp Plaka Kalınlığı: Mold Plate Thickness: | Sol Left H:.... Sağ Right H:.... |
| Komple kurulum sistem istiyor: Company wants whole system setup? | | Evet Yes | Hayır No |
| BU KISIM ER-EL tarafından doldurulacaktır This part will be filled in by ER-EL | | | |
| Sistemde Kullanılacak Ekipmanları Model / Kod Bilgileri : Model / code information of the equipment to be used in the system: | | | |

ER-EL®

ER-EL MAKİNA YEDEK PARÇA İML. SAN. VE TİC. LTD. ŞTİ.

KATALOG ve BROŞÜRLERİMİZ
CATALOGUE and BROSHURE



Genel Ürün Kataloğu
General Product Catalogue



Genel Ürün Broşürü
General Product Brochure



MIKSAN bir
ER-EL markasıdır.

MIKSAN Ürün Broşürü
MIKSAN Product Brochure



Hızlı Kalıp Değişirme Sistemi Broşürü
Quick Mold Change System Brochure



Manyetik Hızlı Kalıp Bağlama Sistemi
Magnetic Quick Mold Clamping System



Bağlama Pabuçları Broşürü
Clamping Components Brochure



Yandan Bağlama Ekipmanları ve Setler Broşürü
Side Clamp Equipments And Setst Brochure



Fisktürler ve Hidrolik Ekipmanlar Broşürü
Fixtures and Hydraulic Equipment Brochure



Kalıp Yükleme Tablası Broşürü
Mold Transport Tray Brochure



Mengene Broşürü
Vice Brochure



CNC İşleme Kuleleri Broşürü
CNC Processing Towers Brochure

T.C. TÜRK PATENT ENSTİTÜSÜ
MARKA TESCİL BELGESİ
ER-EL
TÜRK PATENT (®) ENSTİTÜSÜ

T.C. TÜRK PATENT ENSTİTÜSÜ
MARKA YENİLEME BELGESİ
ER-EL MAKİNA YEDEK PARÇA İMALATI SAN. VE TİC. LİMİTED ŞİRKETİ
TÜRK PATENT (®) ENSTİTÜSÜ

T.C. TÜRK PATENT VE MARKA KURULUMU
MARKA TESCİL BELGESİ SURETİ
MİKSAN
Marka No : 19734 - Ticaret

Marka Sahibi ER-EL MAKİNA YEDEK PARÇA İMALATI SANAYİ VE TİCARET LİMİTED ŞİRKETİ
Marka No : TR 2016/06834
Marka Türü : 07
Marka Sınıfı : 07
Marka İçeriği : Metal işleme, sanayi kalıplarında, hidrolik takım tezgahlarında kullanılan hort bulaşma sistemleri; (Baskılerde ve operatörler, metal ve plastik enjektörün malzemelerinde, her çeşit preslerde kullanılan kalıplar bulaşma püskürtür, ayrıca işleme araçları, kesme ve tıraşlama bulaşma püskürtür, hidrolik, mekanik, potansiyel bulaşma püskürtür ve aksesuarları).

İbne Marka İK. deti 25/03/1995 tarihinde tescil edilmiştir. 25/03/2015 tarihinden itibaren ON YIL süreyle yenilenmiştir.

TÜRK PATENT

T.C. TÜRK PATENT VE MARKA KURULUMU
MARKA TESCİL BELGESİ
ER-EL
Marka No : 2017/3083 - Ticaret

Marka Sahibi ER-EL MAKİNA YEDEK PARÇA İMALATI SANAYİ VE TİCARET LİMİTED ŞİRKETİ
Marka No : TR 2017/3083
Marka Türü : 07
Marka Sınıfı : 07
Marka İçeriği : İşleme.

İbne Marka 17/04/2017 tarihinden itibaren ON YIL süreyle 20/10/2017 tarihinde tescil edilmiştir.

TÜRK PATENT

TÜRK PATENT
MARKA TESCİL BELGESİ
No: 2021/160574 - Ticaret - Hizmet

ER-EL Fikstür

Marka Sahibi ER-EL MAKİNA YEDEK PAR.İML.SAN.VE TİC.LTD.ŞTİ.
Marka No : 2021/160574
Marka Türü : Hizmet
Marka Sınıfı : 06, 07, 25

Bu marka, 6799 sayılı Sınai Mülkiyet Kanunu kapsamında, 11.11.2021 tarihinden itibaren 10 yıl süreyle korunmak üzere, 22.06.2022 tarihinde tescil edilmiştir.

TÜRK PATENT

TRB INTERNATIONAL
SERTİFİKA
ER-EL MAKİNA YEDEK PARÇA İMALATI SAN. VE TİC. LTD. ŞTİ.
ÇERKEŞİ OSB MAH. İMEŞ 3 BULV. NO:14 DİLOVAŞI KOCaelİ
ISO 9001:2015
KALIP BAĞLAMA İŞYERLERİ VE MAKİNA YEDEK PARÇALARI İMALATI VE SATIŞI FAALİYETLERİ

IAF **DAKKS**

TRB INTERNATIONAL
SERTİFİKA
ER-EL MAKİNA YEDEK PARÇA İMALATI SAN. VE TİC. LTD. ŞTİ.
ÇERKEŞİ OSB MAH. İMEŞ 3 BULV. NO:14 DİLOVAŞI KOCaelİ
ISO 14001:2015
KALIP BAĞLAMA İŞYERLERİ VE MAKİNA YEDEK PARÇALARI İMALATI VE SATIŞI FAALİYETLERİ

IAF **DAKKS**

TRB INTERNATIONAL
SERTİFİKA
ER-EL MAKİNA YEDEK PARÇA İMALATI SAN. VE TİC. LTD. ŞTİ.
ÇERKEŞİ OSB MAH. İMEŞ 3 BULV. NO:14 DİLOVAŞI KOCaelİ
ISO 45001:2018
KALIP BAĞLAMA İŞYERLERİ VE MAKİNA YEDEK PARÇALARI İMALATI VE SATIŞI FAALİYETLERİ

IAF **DAKKS**

CERTIFICATION
Certificate
CE
EC UYUMLULUK BEYANI
CE CERTIFICATE OF CONFORMITY
KURULUŞ ADI/ŞİRKETİ
ER-EL MAKİNA YEDEK PARÇA İML. SAN. VE TİC. LTD. ŞTİ.
İBNE MARKA
ÇERKEŞİ OSB MAH. İMEŞ 3 BULVARI NO:14 - 41455 DİLOVAŞI / KOCaelİ / TURKEY

PRODUCT DESCRIPTION / ÜRÜN TANIMI : Milling and Transport Equipment / İşleme Bulaşma ve Yıkama Ekipmanları
APPLICABLE EC DIRECTIVES / UYUMLULUK YÖNTEMLERİ : ER-EL
GENERAL PRODUCT SAFETY DIRECTIVES /GENEL GÜVENLİK YÖNTEMLERİ : ER-EL

CERTIFICATE NUMBER / SERTİFİKA NO : 20220302019-2022
CERTIFICATE ISSUE DATE / SERTİFİKA YAYIN TARİHİ : 22.03.2022
CERTIFICATE VALIDITY DATE / SERTİFİKA GEÇERLİLİK TARİHİ : 22.03.2024

TRB INTERNATIONAL İMZA

TÜRK PATENT
FAYDALI MODEL BELGESİ
No: TR 2019/09468 Y
Buluş Başlığı
KALIP YÜKLEME TABLASINDA GELİŞTİRME
Faydalı Model Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Bu belge, 6799 sayılı Sınai Mülkiyet Kanunu kapsamında 25/06/2019 tarihinden itibaren 10 yıl süre ile korunmak üzere 26/07/2021 tarihinde verilmiştir.

Prof. Dr. Hüseyin İZZET Başkan

TÜRK PATENT
FAYDALI MODEL BELGESİ
No: TR 2017/02807 Y
Buluş Başlığı
MİKASAR MEKEMME
Faydalı Model Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Bu belge, 6799 sayılı Sınai Mülkiyet Kanununun Geçici 1 no'lu maddesiyle Madde 531 sayılı Bakanlar Kurulu Kararıyla İhtisap Kurum Kurulmasında Kararname tasarruflarıyla 24/11/2017 tarihinden itibaren 10 yıl süre ile korunmak üzere 21/10/2019 tarihinde verilmiştir.

Prof. Dr. Hüseyin İZZET Başkan

TÜRK PATENT
FAYDALI MODEL BELGESİ
No: TR 2017/06471 Y
Buluş Başlığı
YATAY İŞLEME TEZGAHINI İÇİN GEZELİ ÇATAL KULE
Faydalı Model Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Bu belge, 6799 sayılı Sınai Mülkiyet Kanunu kapsamında 03/05/2017 tarihinden itibaren 10 yıl süre ile korunmak üzere 21/11/2019 tarihinde verilmiştir.

Prof. Dr. Hüseyin İZZET Başkan

CERTIFICATION
Certificate
CE
EC UYUMLULUK BEYANI
CE CERTIFICATE OF CONFORMITY
KURULUŞ ADI/ŞİRKETİ
ER-EL MAKİNA YEDEK PARÇA İML. SAN. VE TİC. LTD. ŞTİ.
İBNE MARKA
ÇERKEŞİ OSB MAH. İMEŞ 3 BULVARI NO:14 - 41455 DİLOVAŞI / KOCaelİ / TURKEY

PRODUCT DESCRIPTION / ÜRÜN TANIMI : Milling and Transport Equipment / İşleme Bulaşma ve Yıkama Ekipmanları
APPLICABLE EC DIRECTIVES / UYUMLULUK YÖNTEMLERİ : ER-EL
GENERAL PRODUCT SAFETY DIRECTIVES /GENEL GÜVENLİK YÖNTEMLERİ : ER-EL

CERTIFICATE NUMBER / SERTİFİKA NO : 20220302019-2022
CERTIFICATE ISSUE DATE / SERTİFİKA YAYIN TARİHİ : 22.03.2022
CERTIFICATE VALIDITY DATE / SERTİFİKA GEÇERLİLİK TARİHİ : 22.03.2024

TRB INTERNATIONAL İMZA

TÜRK PATENT
TASARIM TESCİL BELGESİ SURETİ
No: 2014 02138
Tasarım Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

TÜRK PATENT
TASARIM YENİLEME BELGESİ
No: 2016 09088
Tasarım Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Prof. Dr. Hüseyin İZZET Başkan

TÜRK PATENT
TASARIM YENİLEME BELGESİ
No: 2016 06834
Tasarım Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

TÜRK PATENT
TASARIM TESCİL BELGESİ
No: 2021 012341
Tasarım Sahibi
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TÜRK PATENT
TASARIM TESCİL BELGESİ
No: 2021 012272
Tasarım Sahibi
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TÜRK PATENT
TASARIM YENİLEME BELGESİ
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Tasarım Sahibi
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TÜRK PATENT
TASARIM TESCİL BELGESİ SURETİ
No: 2005 01694
Tasarım Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

TÜRK PATENT
TASARIM TESCİL BELGESİ
No: 2021 012456
Tasarım Sahibi
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