iM TEKNİK

2026

ÜRÜN KATALOĞU / PRODUCT CATALOGUE

Kesici Takım ve Atölye Ekipmanları

Üretime değer katan seçimler.
Cutting tools, workholding and workshop equipment.



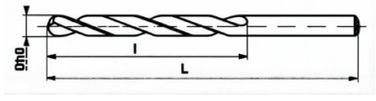
CNC / TAKIM / EKİPMAN



KESİCİ TAKIMLAR



BAĞLAMA SİSTEMLERİ



DELİK İŞLEME

info@imteknik.com / +90 (212) 501 51 52

www.imteknik.com

İşinize uygun seçim.
Üretiminize güçlü destek.

İMTEKNİK HAKKINDA

İmteknik olarak 10 yıllık kesici takım tecrübemizle CNC torna ve işleme merkezleri için takım desteği sağlıyoruz. Parçanıza, malzemenize ve işleme koşullarınıza uygun seçimi birlikte değerlendiriyoruz.

Kesici takımları stok olarak bünyemizde bulunduruyoruz. Standart ürünlere ek olarak özel takım, ekipman ve parça üreterek müşterilerimize zaman ve kaynak kazandırmaya odaklanıyoruz.

Talaşlı imalatın her safhasında verimlilik çalışması ve danışmanlığı yapıyoruz. Takım seçimini, operasyon sırasını ve bağlama koşullarını bir bütün olarak ele alıyoruz.

01

İhtiyacı anlayalım

Parça, malzeme ve operasyon bilgilerinizi paylaşın.

02

Takımı seçelim

Kodları, ölçüleri ve teknik uygunluğu birlikte değerlendirelim.

03

Stoku teyit edelim

Seçtiğiniz ürünün güncel temin durumunu birlikte netleştirelim.

ENGINEERING SUPPORT FOR YOUR PRODUCTION

With 10 years of cutting tool experience, İmteknik supports CNC lathes and machining centres. We help match tools to your part, material and operating conditions. Alongside cutting tools held in stock, we produce custom tools, equipment and parts, and provide machining efficiency consulting.

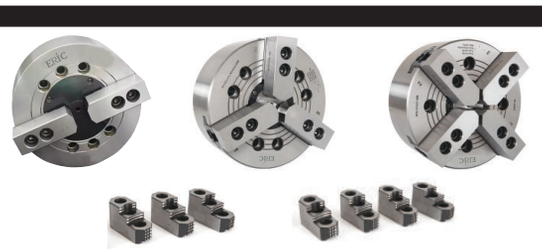
Share the product code and your application with us. We will review technical suitability and confirm current availability before ordering.

*TORNA AYNALARI
*İMALAT AYAKLI ve DİVİZÖR AYNALARI
*KEPENKLİ TORNA AYNALARI
*TORNA AYNASI YEDEK PARÇA
*TORNA AYNA FLANŞLARI



11-16

*2 AYAKLI CNC HİDROLİK AYNALAR
*3 AYAKLI CNC HİDROLİK AYNALAR
*4 AYAKLI CNC HİDROLİK AYNALAR
*SERT AYAKLAR
*BÜYÜK AÇIK MERKEZLİ CNC HİDROLİK AYNALAR



17-19

*DÖNER ve BORU PUNTALARI
*DEĞİŞTİRİLEBİLİR UÇLU DÖNER PUNTA SETİ
*SABİT PUNTALAR
*CNC ve DÖNER PUNTALAR
*MORS KONİK ve KOVANLAR
*MANDRENLER ve ADAPTÖRLER



21-25

*SİLİNDİR ŞAFTLI PENS TUTUCULAR
*SL (SİLİNDİR ŞAFTLI PENS TUTUCULAR
*SİLİNDİRİK ŞAFTLI İÇTEN ÇEKMELİ TUTUCULAR



26-27

*BT 30 TUTUCULAR
*BT 40 PENS TUTUCULARI ER TİP
*BT 40 ALIN KAMALI MALAFALAR
*BT 40 VELDON ve VİDALI TUTUCULAR
*BT 40 RULMANLI ve HİDROLİK TUTUCULAR



28-33

*BT 40 SK HASSAS TUTUCULAR
*SK HASSAS PENSLER
*BT 40 SDC İÇTEN ÇEKTİRMELİ TUTUCULAR
*BT 40 ve SİLİNDİR ŞAFTLI KILAVUZ TUTUCULAR
*ER PENSLER İÇİN YAYLI KILAVUZ ÇEKME BAŞLIĞI
*EMNİYET TİP KILAVUZ PENSLERİ



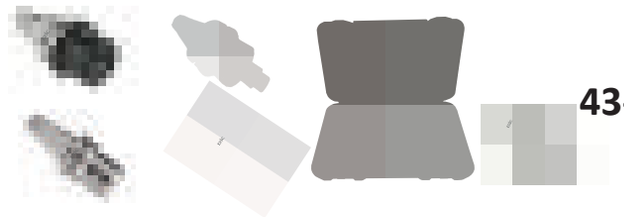
34-39

*BT 40 KAMALI MORS ADAPTÖRÜ
*BT 40 ÇEKTİRME CİVATALI MORS ADAPTÖRÜ
*BT 40 SHRİNK TUTUCULAR
*SHRİNK TUTUCU ISITMA MAKİNASI



40-42

*BBT 40 PENS BAŞLIĞI (ER TİPİ)
*BBT 40 VELDON TUCULAR
*BBT 40 ALIN KAMALI MALAFALAR
*BBT 40 VİDALI TUTUCULAR
*BBT 40 RULMANLI TUTUCU ve SETLERİ



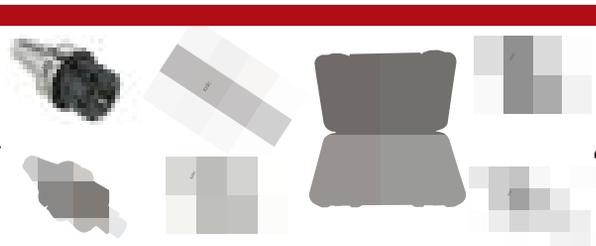
43-45

*BBT 40 KILAVUZ ÇEKME BAŞLIKLARI
*BBT 40 HİDROLİK TUTUCU ve SETLERİ
*BBT 40 SDC İÇTEN ÇEKTİRMELİ TUTUCULAR
*BBT 40 SK HASSAS TUTUCULAR
*BBT 40 SHRİNK TUTUCULAR



46-48

*BT 50 PENS BAŞLIĞI (ER TİPİ)
*BT 50 ALIN KAMALI TUTUCULAR
*BT 50 RULMANLI ve HİDROLİK TUTUCULAR
*BT 50 SDC ve SK HASSAS TUTUCULAR
*BT 50 KILAVUZ ÇEKME BAŞLIKLARI



49-53

*BBT 50 PENS BAŞLIĞI (ER TİPİ)
*BBT 50 ALIN KAMALI TUTUCULAR
*BBT 50 RULMANLI ve HİDROLİK TUTUCULAR
*BBT 50 SDC ve SK HASSAS TUTUCULAR
*BBT 50 KILAVUZ ÇEKME BAŞLIKLARI



54-58

*SK 40 PENS BAŞLIĞI (ER TİPİ)
*SK 40 ALIN KAMALI TUTUCULAR
*SK 40 RULMANLI, HİDROLİK TUTUCULAR
*SK 40 KILAVUZ ÇEKME BAŞLIKLARI
*SK 40 SDC ve SK HASSAS TUTUCULAR
*SK 40 SHRİNK TUTUCULAR



59-64

*İSO 40 PENS TUTUCULAR
*İSO 40 ALIN KAMALI MALAFALAR
*İSO 40 KAMALI MORS ADAPTÖRÜ
*İSO 40 ÇEKTİRMELİ MORS ADAPTÖRÜ
*MORS KONİK PENS BAŞLIĞI
*MORS KONİK PENS BAŞLIĞI ÇEKTİRMELİ



65-67

*HSK63A PENS BAŞLIKLARI ER TİP
*HSK63A ALIN KAMALI MALAFALAR
*HSK63A VİDALI TUTUCULAR
*HSK63A SDC ve SK HASSAS TUTUCULAR
*HSK63A HİROLİK, RULMANLI TUTUCU ve SETLERİ
*HSK63A SİHRİNK TUTUCULAR



68-73

*REDÜKSİYON KOVANLARI
*DELİK BÜYÜTME BARA SETLERİ
*DELİK BÜYÜTME BARA TAKIMI
*DELİK BÜYÜTME BAŞLIĞI
*DELİK BÜYÜTME MALAFASI



74-75

*ER PENSLER
*FREZE PENSLERİ
*PENS SETLERİ
*ER KILAVUZ PENSLERİ
*SIZDIRMAZ PENSLER



76-82

*TUTUCU ÇEKTİRME CİVATALARI (PULSTAD)
*UM TİP KAPAKLAR
*MİNİ TİP KAPAKLAR
*MONTAJ APARATLARI
*TUTUCU ANAHTARLARI



83-85

*HSS MATKAP UCU FULLY GROUND DIN338
*HSS-E COBALT ALTIN SERİ MATKAP UCU DIN338
*UZUN MATKAP UCU DIN340
*UZUN MATKAP UCU DIN1869 HSS GT-100 SERİSİ
*HSS KONİK SAPLI MATKAP UCU DIN345



86-92

*HSS KISA ve UZUN PARMAK FREZELER
*HSS KISA ve UZUN KABATALAŞ PARMAK FREZELER
*HSS EL RAYBALARI
*HSS MAKİNA RAYBALARI
*HSS KONİK SAPLI MAKİNA RAYBALARI



93-98

*HSS T-FREZELER
*HSS KÖŞE YUVARLAMA FREZELER
*KIRLANGIÇ FREZELER
*SABİT PİLOT FREZELERİ



99-101

*HSS HAVŞA FREZELER 90°- 60°
*HSS PUNTALAR
*HSS UZUN PUNTALAR
*HSS (Co5) PUNTALAR
*KADEMELİ SAÇ MATKAPLARI



102-104

*HSS TORNA KALEMLERİ
*TIRTIR
*HSS DAİRE TESTERELER
*KARBÜR DAİRE TESTERELER



105-109

*HSS TAKIM KILAVUZLAR
*HSS TİN KAPLI İNCE DİŞ KILAVUZLAR
*HSS TİN KAPLI KILAVUZLAR
*HSS-E (Co5) KILAVUZLAR
*HSS PASLANMAZ KILAVUZ
*HSS SOL MAKİNA KILAVUZLAR



110-115

*HSS ATLAMALI KILAVUZLAR
*HSS NPT KONİK KILAVUZLAR
*HSS GAZ DİŞ KILAVUZLAR
*HSS UNF ve UNC KILAVUZLAR
*HSS PAFTALAR
*TERS KILAVUZ SETLERİ



116-120

*DİŞ TAMİR SETLERİ
*HSS DİŞ TAMİR KILAVUZLAR APARATLARI
*DİŞ TAMİR APARATLARI
*DİŞ TAMİR YAYLAR
*KILAVUZ KOLLARI



121-124

*HSS-G KILAVUZLAR
*HSS-E (Co5) KILAVUZLAR
*HSS-E (Co5) TİN KAPLI KILAVUZLAR
*PASLANMAZ KILAVUZLAR
*TAKIM KILAVUZLARI
*OVALAMA YAĞ KANALLI ve GAZ DİŞ KILAVUZLAR



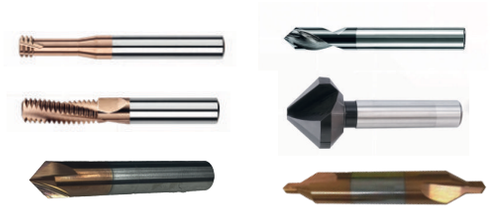
125-129

*METRİK VE GAZ DİŞ PAFTALAR
*HAVŞA FREZELERİ
*PUNTA VE ÇÜRÜTME MATKAPLARI
*RASPALAR
*DELME, KESME ve KÖPÜK YAĞI
*HSS-E (Co5) MAKİNA RAYBASI ve KARBÜR ÇİZECEK



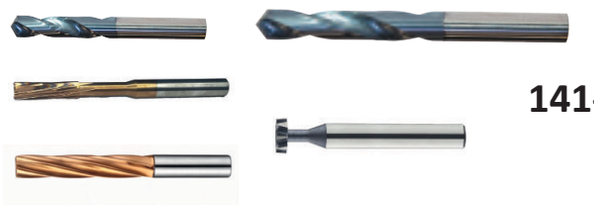
130-136

*KARBÜR DİŞ FREZELERİ
*KARBÜR KILAVUZLAR
*KARBÜR PAH KIRMA FREZELERİ 90°-120°
*KARBÜR NC PUNTALAR 90°-120°
*KARBÜR HAVŞA FREZELER
*KARBÜR PUNTA MATKAPLARI



138-140

*KARBÜR MATKAPLAR
*KARBÜR RAYBALAR
*KARBÜR T-YARIK FREZELERİ



141-144

45HRC

*KARBÜR DÜZ FREZELER
*KARBÜR DÜZ UZUN FREZELER
*KARBÜR KÜRE FREZELER
*KARBÜR KÖŞE RADÜS FREZELER



145-150

55HRC

*KARBÜR DÜZ FREZELER
*KARBÜR DÜZ UZUN FREZELER
*KARBÜR KÜRE FREZELER
*KARBÜR KÖŞE RADÜS FREZELER



151-156

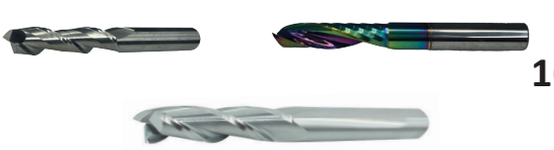
55HRC

*DALMA DÜZ KARBÜR FREZELER
*DALMA KÜRE KARBÜR FREZELER
*DALMA RADÜS KARBÜR FREZELER



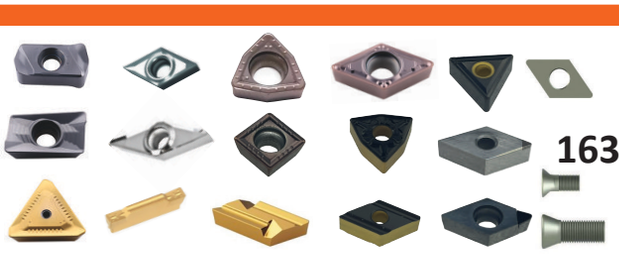
157-159

*2 AĞIZ ALÜMİNYUM KARBÜR FREZELER
*3 AĞIZ ALÜMİNYUM KARBÜR FREZELER
*TEK AĞIZ ALÜMİNYUM KARBÜR FREZELER



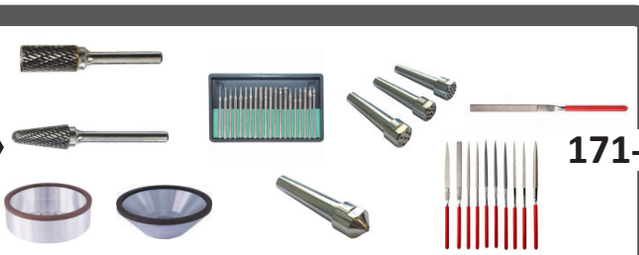
160-162

*ELMAS UÇLAR
*CBN ve PCD UÇLAR
*DİŞ ELMAS UÇLARI
*ELMAS UÇ ALTLIKLARI
*YILDIZ VİDALARI



163-170

*KARBÜR KALIPÇI FREZELER
*ELMAS ÇANAK TAŞLAR
*TAŞ DÜZELTME ELMASLARI
*SAPLI ELMAS TAŞLAR
*ELMAS EĞELER



171-176

*KALİBRASYONLU KUMPASLAR
*DİJİTAL KUMPASLAR
*MİKROMETRELER
*DİJİTAL MİKROMETRELER
*KOMPARATÖR SAATLERİ



177-182

*İÇ ve DIŞ ÇAP KOMPARATÖRLERİ
*SİLİNDİR KOMPARATÖR TAKIMLARI
*MİHENGİRLER
*MANYETİK AYAKLAR
*MANYETİK V YATAKLAR
*PROPLAR



183-186

*Z SIFIRLAMALAR
*3D TESTER
*GRANİT ve GÖNYE PLETİ
*ŞERİT SENTİLLER
*ÇELİK CETVELLER



187-191

*RADİUS, SENTİL ve DİŞ TARAKLARI
*PARALEL SETLER
*BLOK MASTARLARI
*AÇI ÖLÇERLER
*GÖNYELER
*HASSAS SU TERAZİLERİ



192-195

*ERKEK ve DİŞİ MASTARLAR
*ÇAPAK ALMA RASPALARI
*HARF ve RAKAM TAKIMLARI



196-198

*YATAY DİKEY DÖNER TABLALAR
*YATAK DİKEY İNDEKS DİVİZÖRLER
*NC DÖNER TABLA KARŞI PUNTA
*AÇILI DÖNER TABLALAR
*Z SIFIRLAMA ve PROPLAR
*MANYETİK TABANLI ÜRÜNLER

VERTEX



199-210

*5 EKSEN MAKİNA MENGENESİ
*HASSAS ÇAPRAZ SUPORTLAR
*FREZE MENGENELERİ
*ŞEKİLLENDİRME MENGENELERİ
*2 ve 3 AÇILI FREZE MENGENELERİ



211-215

*HİDROLİK MENGENELER
*NC MENGENELER
*TEL EREZYON MENGENELERİ
*PİMLİ ve VİDALI HASSAS MENGENELER



216-224

*PARALEL SETLER
*BORU ve SABİT PUNTALAR
*MANYETİK, DÖNER MANYETİK TABLALAR
*PAH KIRMA MAKİNALARI
*MATKAP ve FREZE BİLEME MAKİNALARI



225-236

*KALIP BAĞLAMA SETLERİ
*DİVİZÖR ve MANYETİK ALMA CİHAZI
*YATAY DİKEY SÜPER İNDEKS DİVİZÖR
*ÜNİVERSAL DİVİZÖR
*DÖNER AÇILI TABLA
*ÇAPRAZ SUPPORT
*KARŞI PUNTA
*MANYETİK TABLALAR
*MANYETİK KALDIRAÇLAR
*ELEKTRO MANYETİK TABLALAR



237-243

*SÜPER HASSAS MENGENELER
*MENGENE YEDEK PARÇALARI
*5 EKSEN MENGENELER
*POİNT PLAKALARI
*5 EKSEN MENGENE YEDEK PARÇALARI



244-250

*PİMLİ VE VİDALI HASSAS MENGENELER
*MATKAP MENGENELERİ
*FREZE MENGENELERİ
*SABİT TEZGAH MENGENELERİ
*ÇİFT ÇENELİ MENGENELER
*2 AÇILI VE 3 AÇILI MENGENELER



251-254

*MATKAP BİLEME MAKİNALARI
*FREZE BİLEME MAKİNALARI
*ÜNİVERSAL BİLEME MAKİNALARI
*MATKAP ve FREZE BİLEME MAKİNALARI
*MATKAP ve KILAVUZ BİLEME MAKİNALARI
*BİLEME YEDEK TAŞLARI



255-259

*ELEKTRİKLİ KILAVUZ ÇEKME MAKİNALARI
*MANYETİK TABLA
*HAVALI PAH KIRMA MAKİNASI
*PAH KIRMA UCU

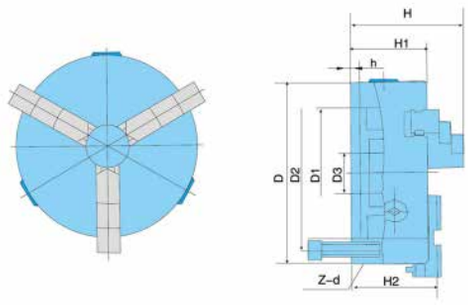


260-262

TORNA AYNALARI İŞ BAĞLAMA KAPASİTESİ

AYNA ÇAPI (mm)	DÜZ AYAK İLE				TERS AYAK İLE	
	d5 min.	d6 max.	d7 min.	d8 max.	d11 min.	d12 max.
80	2	22	25	70	22	63
100	2	30	30	90	30	80
125	3	40	38	125	38	110
160	3	55	50	160	55	145
200	4	85	65	200	65	200
250	6	110	80	250	90	250
315	10	140	95	315	100	315
400	15	210	120	400	120	400
500	25	280	150	500	150	500
630	50	350	170	630	170	630

TORNA AYNALARI



* TEKNİK BİLGİLER *

D	D1	D2	D3	H	H1	h	z-d	kg
80	55	66	16	66,5	50	4	3-M16	1,9
100	72	84	22	74,5	55	3	3-M	3,2
125	95	108	30	84,5	58	4	3-M8	5
160	130	142	45	94	65	5	3-M8	8,8
200	165	180	65	109	75	5	3-M10	15,5
250	206	226	80	120	80	5	3-M12	27,5
315	260	285	100	147,5	90	6	3-M16	47
400	340	368	130	173,5	100	6	3-M16	73
500	440	465	210	202	115	6	3-M16	121
630	545	586	252	220,5	135	7	3-M16	200

TORNA AYNASI 3 AYAK



KOD	ÖZELLİKLER
SAN.050/3	50/3
SAN.063/3	63/3
SAN.080/3	80/3
SAN.100/3	100/3
SAN.125/3	125/3
SAN.160/3	160/3
SAN.200/3	200/3
SAN.250/3	250/3
SAN.315/3	315/3
SAN.400/3	400/3
SAN.500/3	500/3
SAN.630/3	630/3

TORNA AYNASI 4 AYAK



KOD	ÖZELLİKLER
SAN.050/4	50/4
SAN.063/4	63/4
SAN.080/4	80/4
SAN.100/4	100/4
SAN.125/4	125/4
SAN.160/4	160/4
SAN.200/4	200/4
SAN.250/4	250/4
SAN.315/4	315/4
SAN.400/4	400/4
SAN.500/4	500/4
SAN.630/4	630/4

TORNA AYNALARI

İMALAT AYAKLI TORNA AYNASI 3 AYAKLI



KOD	ÖZELLİKLER
SANİ.160/3	160/3
SANİ.200/3	200/3
SANİ.250/3	250/3
SANİ.315/3	315/3
SANİ.400/3	400/3
SANİ.500/3	500/3
SANİ.630/3	630/3

İMALAT AYAKLI TORNA AYNASI 4 AYAKLI



KOD	ÖZELLİKLER
SANİ.160/4	160/4
SANİ.200/4	200/4
SANİ.250/4	250/4
SANİ.315/4	315/4
SANİ.400/4	400/4
SANİ.500/4	500/4
SANİ.630/4	630/4

DİVİZÖR TORNA AYNASI 3 AYAKLI



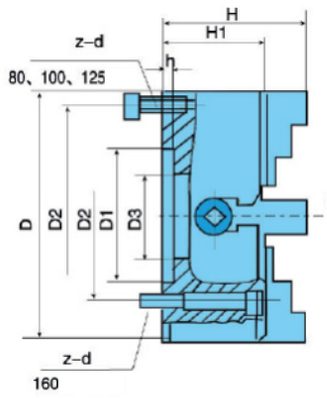
KOD	ÖZELLİKLER
SANDİ.125/3	125/3
SANDİ.160/3	160/3
SANDİ.200/3	200/3
SANDİ.250/3	250/3
SANDİ.315/3	315/3
SANDİ.400/3	400/3
SANDİ.500/3	500/3
SANDİ.630/3	630/3

DİVİZÖR TORNA AYNASI 4 AYAKLI



KOD	ÖZELLİKLER
SANDİ.125/4	125/4
SANDİ.160/4	160/4
SANDİ.200/4	200/4
SANDİ.250/4	250/4
SANDİ.315/4	315/4
SANDİ.400/4	400/4
SANDİ.500/4	500/4
SANDİ.630/4	630/4

KEPENKLİ TORNA AYNASI



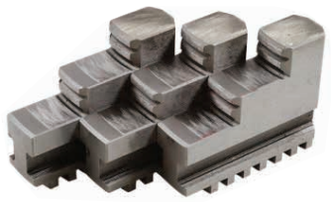


* **TEKNİK BİLGİLER** *

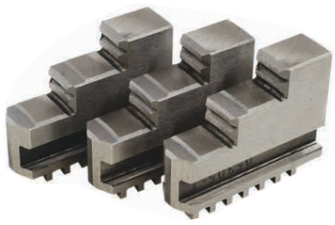
D	D1	D2	D3	H	H1	h	z-d	kg
160	65	95	55	93	65	5	4-M10	9
200	80	112	70	107,5	75	6	4-M10	15
250	110	130	100	131	90	6	4-M12	23
320	140	165	115	144	100	6	4-M16	40
400	160	185	125	157	110	8	4-M16	55
500	200	236	170	171	116	8	4-M20	102
630	220	258	180	195	128	10	4-M20	159
800	250	300	220	225	145	12	8-M20	263
1000	320	370	305	259	170	15	8-M20	425

KOD	ÖLÇÜ
SANK.160/4	160x4
SANK.200/4	200x4
SANK.250/4	250x4
SANK.320/4	320x4
SANK.400/4	400x4
SANK.500/4	500x4
SANK.630/4	630x4
SANK.800/4	800x4
SANK.1000/4	1000x4

TORNA AYNASI YEDEK PARÇALARI



3 AYAK DÜZ - TERS TAKIM



KOD	ÖZELLİKLER
SAYAKD080/3	80/3 Düz
SAYAKD100/3	100/3 Düz
SAYAKD125/3	125/3 Düz
SAYAKD160/3	160/3 Düz
SAYAKD200/3	200/3 Düz
SAYAKD250/3	250/3 Düz
SAYAKD315/3	315/3 Düz
SAYAKD400/3	400/3 Düz
SAYAKD500/3	500/3 Düz
SAYAKD630/3	630/3 Düz

KOD	ÖZELLİKLER
SAYAKT080/3	80/3 Ters
SAYAKT100/3	100/3 Ters
SAYAKT125/3	125/3 Ters
SAYAKT160/3	160/3 Ters
SAYAKT200/3	200/3 Ters
SAYAKT250/3	250/3 Ters
SAYAKT315/3	315/3 Ters
SAYAKT400/3	400/3 Ters
SAYAKT500/3	500/3 Ters
SAYAKT630/3	630/3 Ters



4 AYAK DÜZ - TERS TAKIM



KOD	ÖZELLİKLER
SAYAKD080/4	80/4 Düz
SAYAKD100/4	100/4 Düz
SAYAKD125/4	125/4 Düz
SAYAKD160/4	160/4 Düz
SAYAKD200/4	200/4 Düz
SAYAKD250/4	250/4 Düz
SAYAKD315/4	315/4 Düz
SAYAKD400/4	400/4 Düz
SAYAKD500/4	500/4 Düz
SAYAKD630/4	630/4 Düz

KOD	ÖZELLİKLER
SAYAKT080/4	80/4 Ters
SAYAKT100/4	100/4 Ters
SAYAKT125/4	125/4 Ters
SAYAKT160/4	160/4 Ters
SAYAKT200/4	200/4 Ters
SAYAKT250/4	250/4 Ters
SAYAKT315/4	315/4 Ters
SAYAKT400/4	400/4 Ters
SAYAKT500/4	500/4 Ters
SAYAKT630/4	630/4 Ters

PİNYON/ADET



KOD	ÖZELLİKLER
SPNY080	80 Ø
SPNY100	100 Ø
SPNY125	125 Ø
SPNY160	160 Ø
SPNY200	200 Ø
SPNY250	250 Ø
SPNY315	315 Ø
SPNY400	400 Ø
SPNY500	500 Ø

SALYANGOZ DİŞLİSİ



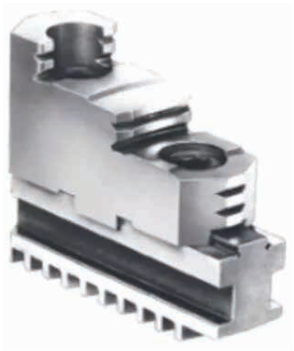
KOD	ÖZELLİKLER
SSLY080	80 Ø
SSLY100	100 Ø
SSLY125	125 Ø
SSLY160	160 Ø
SSLY200	200 Ø
SSLY250	250 Ø
SSLY315	315 Ø
SSLY400	400 Ø
SSLY500	500 Ø

TORNA AYNASI YEDEK PARÇALARI

İMALAT AYAKLI DÖNDÜRÜLEBİLİR AYAK TAKIMI

3'LÜ SET

KOD	EBAT
SAYAKİM160/3	160
SAYAKİM200/3	200
SAYAKİM250/3	250
SAYAKİM315/3	315
SAYAKİM400/3	400
SAYAKİM500/3	500
SAYAKİM630/3	630



İMALAT AYAKLI DÖNDÜRÜLEBİLİR AYAK TAKIMI

4'LÜ SET

KOD	EBAT
SAYAKİM160/4	160
SAYAKİM200/4	200
SAYAKİM250/4	250
SAYAKİM315/4	315
SAYAKİM400/4	400
SAYAKİM500/4	500
SAYAKİM630/4	630

YUMUŞAK AYAK TAKIMI

3'LÜ SET

KOD	EBAT
SAYAKY80/3	80
SAYAKY100/3	100
SAYAKY125/3	125
SAYAKY160/3	160
SAYAKY200/3	200
SAYAKY250/3	250
SAYAKY315/3	315



YUMUŞAK AYAK TAKIMI

4'LÜ SET

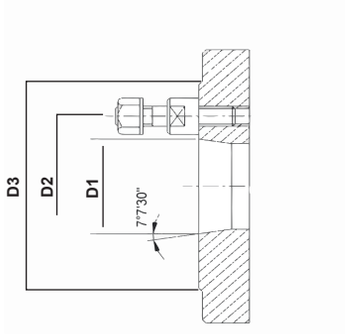
KOD	EBAT
SAYAKY80/4	80
SAYAKY100/4	100
SAYAKY125/4	125
SAYAKY160/4	160
SAYAKY200/4	200
SAYAKY250/4	250
SAYAKY315/4	315

YEDEK ANAHTAR



KOD	ÖZELLİKLER	KARESİ D (mm)
SANAH080	80 Ø	8
SANAH100	100 Ø	8
SANAH125	125 Ø	10
SANAH160	160 Ø	10
SANAH200	200 Ø	12
SANAH250	250 Ø	12
SANAH315	315 Ø	13
SANAH400	400 Ø	14
SANAH500	500 Ø	17
SANAH630	630 Ø	19

TORNA AYNA FLANŞLARI ve 2 AYAKLI CNC HİDROLİK AYNA



NO	C-5	C-6	C-8	C-11
D1	82,563	106,375	139,719	196,869
D2	104,8	133,4	171,4	235
D3	135	170	220	290

SOMUN SAPLAMALI



KOD	Ø ÖLÇÜ	NO
TF200C5	200	C-5
TF200C6	200	C-6
TF250C6	250	C-6
TF250C8	250	C-8
TF315C6	315	C-6
TF315C8	315	C-8
TF315C11	315	C-11
TF400C6	400	C-6
TF400C8	400	C-8
TF400C11	400	C-11
TF500C6	500	C-6
TF500C8	500	C-8
TF500C11	500	C-11

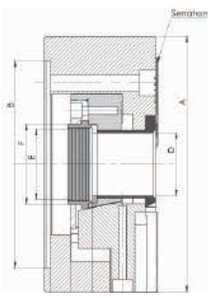
CAMLOCK SAPLAMALI



KOD	Ø ÖLÇÜ	NO
TFC200C5	200	C-5
TFC200C6	200	C-6
TFC250C6	250	C-6
TFC250C8	250	C-8
TFC315C6	315	C-6
TFC315C8	315	C-8
TFC315C11	315	C-11
TFC400C6	400	C-6
TFC400C8	400	C-8
TFC400C11	400	C-11
TFC500C6	500	C-6
TFC500C8	500	C-8
TFC500C11	500	C-11

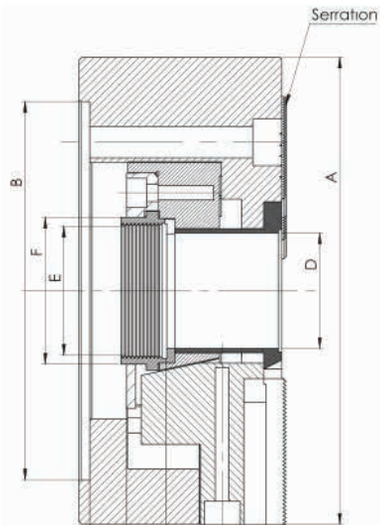
2 AYAKLI HİDROLİK AYNA





KOD	Ø ÖLÇÜ	B (mm)	D (mm)	E	F(mm)
2K05A04	5” * 2	110	33	M40X1,5	46,5
2K06A05	6” * 2	140	45	M55X2	60
2K08A06	8” * 2	170	52	M60X2	66
2K10A08	10” * 2	220	75	M85X2	94

3 AYAKLI HİDROLİK AYNA





KOD	Ø ÖLÇÜ	B (mm)	D (mm)	E	F(mm)
3K05A04	5” * 3	110	33	M40X1,5	46,5
3K06A05	6” * 3	140	45	M55X2	60
3K08A06	8” * 3	170	52	M60X2	66
3K10A08	10” * 3	220	75	M85X2	94
3K12A08	12” * 3	280	91	M100X2	108
3K15A08	15” * 3	300	120	M130X2	140

3 AYAKLI SERT AYAK

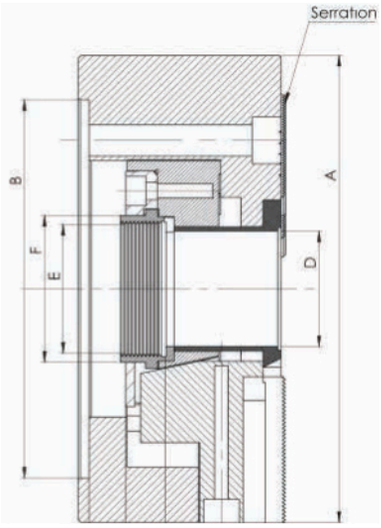
KOD	AÇIKLAMA
S3K06A05	6” * 3
S3K08A06	8” * 3
S3K10A08	10” * 3
S3K12A08	12” * 3
S3K15A08	15” * 3



CNC HİDROLİK AYNA

4 AYAKLI HİDROLİK AYNA





KOD	Ø ÖLÇÜ	B (mm)	D (mm)	E	F(mm)
4K05A04	5” * 4	110	33	M40X1,5	46,5
4K06A05	6” * 4	140	45	M55X2	60
4K08A06	8” * 4	170	52	M60X2	66
4K10A08	10” * 4	220	75	M85X2	94
4K12A08	12” * 4	280	91	M100X2	108
4K15A08	15” * 4	300	120	M130X2	140

4 AYAKLI SERT AYAK

KOD	AÇIKLAMA
S4K06A05	6” * 4
S4K08A06	8” * 4
S4K10A08	10” * 4
S4K12A08	12” * 4
S4K15A08	15” * 4

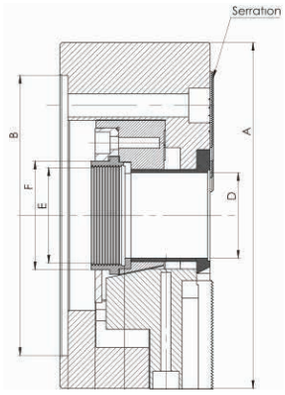


BÜYÜK AÇIK MERKEZLİ CNC HİDROLİK AYNA

BÜYÜK AÇIK MERKEZLİ

3 AYAKLI HİDROLİK AYNA



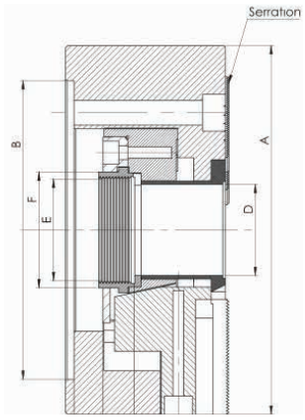


KOD	Ø ÖLÇÜ	B (mm)	D (mm)	E	F(mm)
BA3K06A05	6” * 3	140	52	M60X2	66
BA3K08A06	8” * 3	170	66	M75X2	81
BA3K10A08	10” * 3	220	85	M95X2	102

BÜYÜK AÇIK MERKEZLİ

4 AYAKLI HİDROLİK AYNA



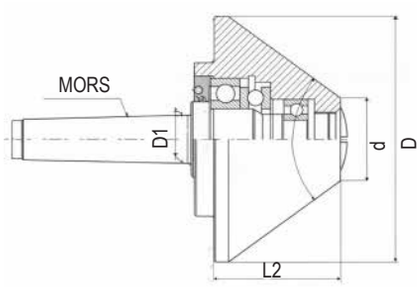


KOD	Ø ÖLÇÜ	B (mm)	D (mm)	E	F(mm)
BA4K06A05	6” * 4	140	52	M60X2	66
BA4K08A06	8” * 4	170	66	M75X2	81
BA4K10A08	10” * 4	220	85	M95X2	102

DÖNER ve BORU PUNTALARI

HASSAS BORU PUNTASI

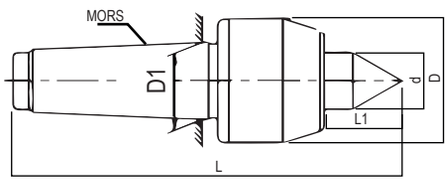




KOD	D (mm) ÇAP	MORS	D1 (mm)	d (mm)	L2 (mm)
DB03080	80	MK3	23,825	25	61
DB03100	100	MK3	23,825	32	57
DB04110	110	MK4	31,267	32	63
DB04140	140	MK4	31,267	58	80
DB05100	100	MK5	44,399	33	57
DB05140	140	MK5	44,399	58	80
DB05200	200	MK5	44,399	69	102
DB05250	250	MK5	44,399	110	107
DB06200	200	MK6	63,348	69	102
DB06250	250	MK6	63,348	110	107
DB06300	300	MK6	63,348	132	120

DÖNER PUNTA

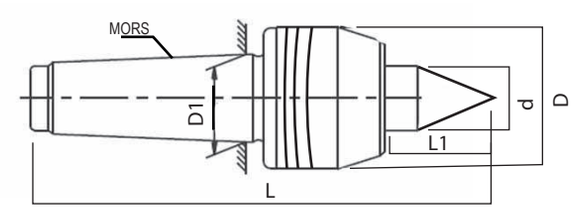




KOD	MORS	D1 (mm)	D (mm)	d (mm)	L (mm)	L1 (mm)	DEVİR d/d MAX
DP101	MK1	12,065	34	18	115	20	5000
DP102	MK2	17,778	45	25	145	26	5000
DP103	MK3	23,825	52	28	170	30	4200
DP104	MK4	31,2677	60	32	205,7	34,7	3200
DP105	MK5	44,399	77	45	254	45	2400
DP106	MK6	63,348	125	75	362	68,5	1600

AĞIR YÜK DÖNER PUNTA

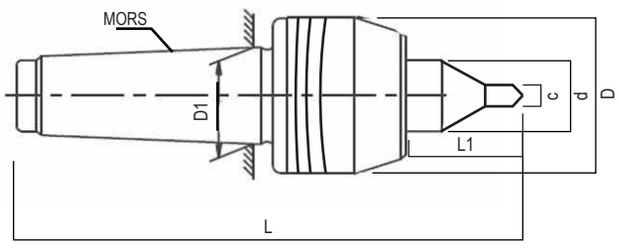




KOD	MORS	D1 (mm)	D (mm)	d (mm)	L (mm)	L1 (mm)	DEVİR d/d MAX
DPAY104	MK4	31,2677	55	35	194	37,5	3500
DPAY105	MK5	44,399	70	45	240	47	3500
DPAY106	MK6	63,348	90	60	318	62	3500

CNC DÖNER PUNTA İNCE UÇLU

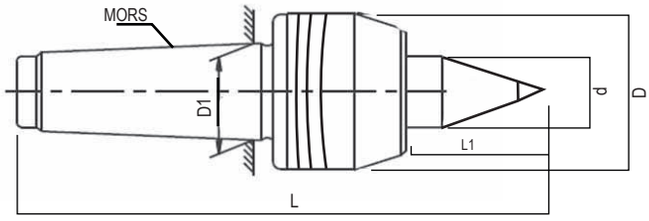




KOD	MORS	D1 (mm)	D (mm)	d (mm)	c (mm)	L (mm)	L1 (mm)	DEVİR d/d MAX
DPCF103	MK3	23,825	54	24	8	186	45	4000
DPCF104	MK4	31,267	64	28	12	216,5	65	3500
DPCF105	MK5	44,399	74	38	15	266	80	2500

CNC DÖNER PUNTA UZUN UÇLU





KOD	MORS	D1 (mm)	D (mm)	d (mm)	L (mm)	L1 (mm)	DEVİR d/d MAX
DPCC103	MK3	23,825	54	24	186	45	4000
DPCC104	MK4	31,267	64	28	216,5	65	3500
DPCC105	MK5	44,399	74	38	266	80	2500

DEĞİŞTİRİLEBİLİR UÇLU DÖNER PUNTA SETİ ve SABİT PUNTALAR

DEĞİŞTİRİLEBİLİR UÇLU DÖNER PUNTA SETİ

YENİ ÜRÜN

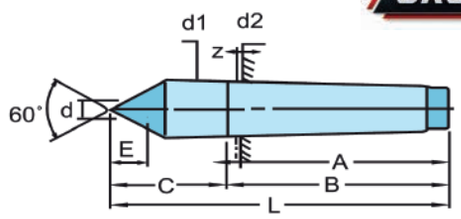
KOD	MORS
TDU103	MK3
TDU104	MK4
TDU105	MK5



HSS SABİT PUNTA

YENİ ÜRÜN



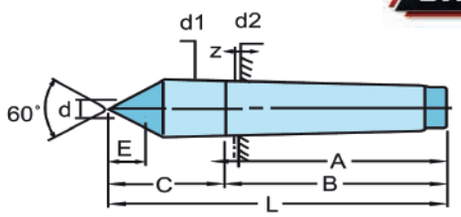


KOD	MORS	L (mm)	A (mm)	B (mm)	C (mm)	E (mm)	d2 (mm)	d1 (mm)	d (mm)
TSPMK2	MK2	100	69	67	31	8	17,780	18	6
TSPMK3	MK3	125	89	81	39	10	23,825	24,1	8
TSPMK4	MK4	155	109	102,5	46	14	31,267	31,6	10
TSPMK5	MK5	200	136	129,5	64	18	44,399	44,7	14
TSPMK6	MK6	270	190	182	80	30	63,648	63,8	18

ELMAS UÇLU SABİT PUNTA

YENİ ÜRÜN

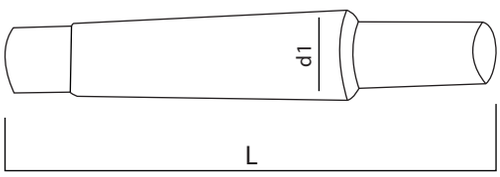




KOD	MORS	L (mm)	A (mm)	B (mm)	C (mm)	E (mm)	d2 (mm)	d1 (mm)	d (mm)
TSEPMK2	MK2	100	69	67	31	8	17,780	18	6
TSEPMK3	MK3	125	89	81	39	10	23,825	24,1	8
TSEPMK4	MK4	155	109	102,5	46	14	31,267	31,6	10
TSEPMK5	MK5	200	136	129,5	64	18	44,399	44,7	14
TSEPMK6	MK6	270	190	182	80	30	63,648	63,8	18

MORS KONİK





KOD	MODEL	MORS	d1 (mm)	L (mm)
T001102	10/2	MK2	17,77	101
T001122	12/2	MK2	17,77	101
T001162	16/2	MK2	17,77	112
T001182	18/2	MK2	17,77	120
T001222	22/2	MK2	17,77	128
T001123	12/3	MK3	23,82	124
T001163	16/3	MK3	23,82	131
T001183	18/3	MK3	23,82	139
T001223	22/3	MK3	23,82	147
T001164	16/4	MK4	31,26	156
T001184	18/4	MK4	31,26	164
T001224	22/4	MK4	31,26	172
T001244	24/4	MK4	31,26	181
T001185	18/5	MK5	44,39	140
T001225	22/5	MK5	44,39	172
T001245	24/5	MK5	44,39	181

MORS KOVAN



KOD	ÖZELLİK / BOY
T002121	2*1 108 mm
T002131	3*1 108 mm
T002132	3*2 108 mm
T002142	4*2 124 mm
T002143	4*3 122 mm
T002152	5*2 156 mm
T002153	5*3 156 mm
T002154	5*4 164 mm
T002165	6*5 178 mm

MANDRENLER



ANAHTARLI MANDREN VİDALI

KOD	ÖZELLİKLER
T003110	1,5 - 10 mm 1/2 - 20
T003111	1,5 - 10 mm 3/8 - 24
T003113	1,5 - 13 mm 1/2 - 20
T003114	1,5 - 13 mm 3/8 - 24
T003116	3,0 - 16 mm 1/2 - 20



ANAHTARLI MANDREN KONİK

KOD	ÖZELLİKLER
T004110	1,0 - 10 mm B12
T004113	1,0 - 13 mm B16
T004116	3,0 - 16 mm B16
T004118	3,0 - 16 mm B18
T004120	5,0 - 20 mm B22
T004125	5,0 - 25 mm B24



SUPRA ELLE SIKMA MANDREN

KOD	ÖZELLİKLER
T005110	1,0 - 10 mm B12
T005113	1,0 - 13 mm B16
T005116	1,0 - 16 mm B16
T005117	1,0 - 16 mm B18
T005120	5,0 - 20 mm B22



AĞIR HİZMET SUPRA ELLE SIKMA MANDREN

KOD	ÖZELLİKLER
T005216	1,0 - 16 mm B16
T005217	1,0 - 16 mm B18
T005220	5,0 - 20 mm B22

MANDREN ve ADAPTÖRLER



SUPRA PLASTİK MANDREN

KOD	ÖZELLİKLER
T006110	0,8 - 10 mm 1/2 - 20
T006111	0,8 - 10 mm 3/8 - 24
T006213	2,0 - 13 mm 1/2 - 20
T006214	2,0 - 13 mm 3/8 - 24



KİLİTLİ SUPRA MANDREN

KOD	ÖZELLİKLER
T007110	1,5 - 10 mm 3/8 - 24
T007113	1,5 - 13 mm 1/2 - 20



MANDREN ANAHTARI

KOD	ÖZELLİKLER
T007313	10 - 13 mm
T007316	16 mm
T007320	20 mm



SDS PLUS MANDREN ADAPTÖRÜ

KOD	ÖZELLİKLER
T007420	1/2 - 20 mm
T007424	3/8 - 24 mm

SİLİNDİR ŞAFTLI PENS TUTUCULARI

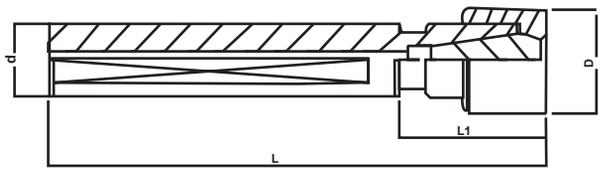


KOD	d (MM)	PENS	L (mm)	D (mm)	KAPAK	KAPASİTE (mm)
SV08ER08100	C8	ER8	100	12	mini	1-5
SV08ER08150	C8	ER8	150	12	mini	1-5
SV10ER08100	C10	ER8	100	12	mini	1-5
SV10ER08150	C10	ER8	150	12	mini	1-5
SV12ER11100	C12	ER11	100	16	mini	1-7
SV12ER11150	C12	ER11	150	16	mini	1-7
SV12ER11200	C12	ER11	200	16	mini	1-7
SV16ER11100	C16	ER11	100	16	mini	1-7
SV16ER11150	C16	ER11	150	16	mini	1-7
SV16ER1670	C16	ER16	70	22	mini	1-10
SV16ER16150	C16	ER16	150	22	mini	1-10
SV16ER16200	C16	ER16	200	22	mini	1-10
SV16ER20100	C16	ER20	100	28	mini	1-13
SV16ER20150	C16	ER20	150	28	mini	1-13
SV16ER20200	C16	ER20	200	28	mini	1-13
SV20ER1650	C20	ER16	50	22	mini	1-10
SV20ER16100	C20	ER16	100	22	mini	1-10
SV20ER16150	C20	ER16	150	22	mini	1-10
SV20ER16200	C20	ER16	200	22	mini	1-10
SV20ER2070	C20	ER20	70	28	mini	1-13
SV20ER20100	C20	ER20	100	28	mini	1-13
SV20ER20150	C20	ER20	150	28	mini	1-13
SV20ER20200	C20	ER20	200	28	mini	1-13
SV20ER2550	C20	ER25	50	42	um	1-16
SV20ER25100	C20	ER25	100	42	um	1-16
SV20ER25150	C20	ER25	150	42	um	1-16
SV20ER25200	C20	ER25	200	42	um	1-16
SV25ER2550	C25	ER25	50	42	um	1-16
SV25ER25100	C25	ER25	100	42	um	1-16
SV25ER25150	C25	ER25	150	42	um	1-16
SV25ER25200	C25	ER25	200	42	um	1-16
SV25ER32150	C25	ER32	150	50	um	1-20
SV25ER32200	C25	ER32	200	50	um	1-20
SV32ER25150	C32	ER25	150	42	um	1-16
SV32ER32100	C32	ER32	100	50	um	1-20
SV32ER32150	C32	ER32	150	50	um	1-20
SV32ER32200	C32	ER32	200	50	um	1-20
SV32ER40100	C32	ER40	100	63	um	1-26
SV32ER40150	C32	ER40	150	63	um	1-26
SV40ER32150	C40	ER32	150	50	um	1-20
SV40ER40100	C40	ER40	100	63	um	1-26
SV40ER40150	C40	ER40	150	63	um	1-26

SİLİNDİRİK ŞAFTLI PENS ve İÇTEN ÇEKTİRMELİ TUTUCULARI

SL (SİLİNDİR ŞAFTLI) PENS TUTUCULARI

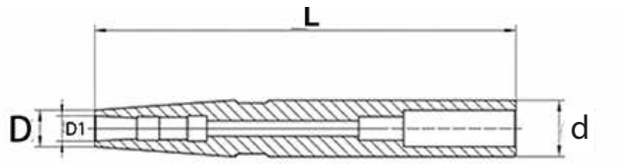




KOD	KAPASİTE (mm)	d(mm)	D(mm)	L(mm)	L1(mm)
SL16ER11M	1-7	16	16	76,60	16,60
SL16ER16M	1-10	16	22	86,60	26,60
SL20ER16M	1-10	20	22	86,60	26,60
SL20ER20M	1-13	20	28	97	32
SL25ER25UM	1-16	25	42	97	32
SL25ER32UM	2-20	25	50	102	32
SL32ER25UM	1-16	32	42	102	32
SL32ER32UM	2-20	32	50	108	38
SL32ER40UM	2-26	32	63	120	50
SL40ER32UM	2-20	40	50	108	38
SL40ER40UM	2-26	40	63	128	53

SİLİNDİRİK ŞAFTLI İÇTEN ÇEKMELİ TUTUCULARI

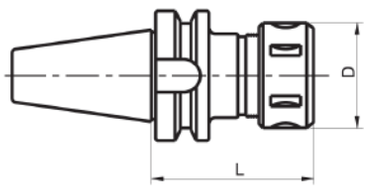




KOD	KAPASİTE (mm)	PENS	d(mm)	D(mm)	D1(mm)	L1(mm)
SV12SDC06100	2-6	SDC06	12	13	10	100
SV12SDC06150	2-6	SDC06	12	13	10	150
SV16SDC06150	2-6	SDC06	16	13	14	150
SV16SDC06200	2-6	SDC06	16	13	14	200
SV20SDC06150	2-6	SDC06	20	13	17	150
SV20SDC06200	2-6	SDC06	20	13	17	200
SV16SDC08150	3-8	SDC08	16	16	17	150
SV16SDC08200	3-8	SDC08	16	16	17	200
SV20SDC08150	3-8	SDC08	20	16	17	150
SV20SDC08200	3-8	SDC08	20	16	17	200

BT 30 TUTUCULAR



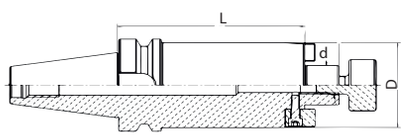


BT 30 PENS BAŞLIĞI (ER TİPİ)

* **M OLAN ÜRÜNLER MİNİ KAPAKTIR.**

KOD	L (mm)	D (mm)	PENS	KAPASİTE
BT30ER11M100	100	19	ER11	1-7
BT30ER16M060	60	22	ER16	1-10
BT30ER16M100	100	22	ER16	1-10
BT30ER25060	60	42	ER25	1-16
BT30ER25100	100	42	ER25	1-16
BT30ER32060	60	50	ER32	2-20
BT30ER32100	100	50	ER32	2-20
BT30ER40070	70	63	ER40	2-26
BT30ER40100	100	63	ER40	2-26

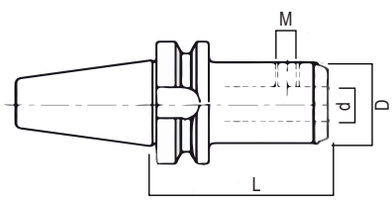




BT 30 ALIN KAMALI MALAFA

KOD	d (mm)	D (mm)	L (mm)
BT3016K45	16	38	45
BT3016K100	16	38	100
BT3022K45	22	48	45
BT3022K100	22	48	100
BT3027K55	27	58	55
BT3027K100	27	58	100





BT 30 VELDON TUTUCU

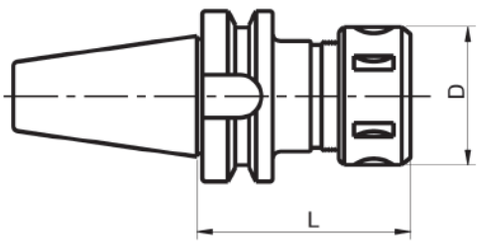
KOD	BAĞLAMA ÇAPI (d)	L (mm)	D (mm)	M VELDON CİVATASI
BT3006V50	6V	50	25	M6x10
BT3008V50	8V	50	28	M8x10
BT3010V50	10V	50	35	M10x12
BT3012V50	12V	50	42	M12x16
BT3016V63	16V	63	48	M14x16
BT3020V63	20V	63	52	M16x16
BT3025V63	25V	63	65	M18x20

BT 40 PENS TUTUCULAR

BT 40 PENS BAŞLIĞI (ER TİPİ)

* M OLAN ÜRÜNLER MİNİ KAPAKTIR.
* A OLAN ÜRÜNLER ALTI KÖŞE KAPAKTIR.





KOD	L (mm)	D (mm)	PENS	KAPASİTE
BT40ER11M100	100	19	ER11	1-7
BT40ER11M160	160	19	ER11	1-7
BT40ER16M060	60	22	ER16	1-10
BT40ER16M100	100	22	ER16	1-10
BT40ER16M160	160	22	ER16	1-10
BT40ER16M200	200	22	ER16	1-10
BT40ER16A060	60	32	ER16	1-10
BT40ER16A100	100	32	ER16	1-10
BT40ER20M060	60	28	ER20	1-13
BT40ER20M100	100	28	ER20	1-13
BT40ER20M160	160	28	ER20	1-13
BT40ER20A060	60	34	ER20	1-13
BT40ER20A100	100	34	ER20	1-13
BT40ER25060	60	42	ER25	1-16
BT40ER25100	100	42	ER25	1-16
BT40ER25160	160	42	ER25	1-16
BT40ER25200	200	42	ER25	1-16
BT40ER32060	60	50	ER32	2-20
BT40ER32100	100	50	ER32	2-20
BT40ER32160	160	50	ER32	2-20
BT40ER32200	200	50	ER32	2-20
BT40ER40080	80	63	ER40	2-26
BT40ER40100	100	63	ER40	2-26
BT40ER40160	160	63	ER40	2-26
BT40ER40200	200	63	ER40	2-26



BT 40 PENS BAŞLIĞI (OZ TİPİ)

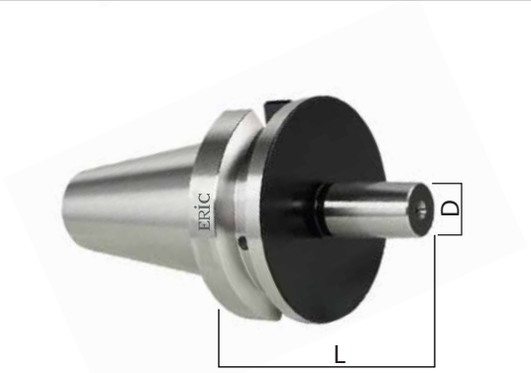
KOD	L BOY	D (mm)	KAPASİTE
BT40462E070	70	60	3-25
BT40462E100	100	60	3-25

BT 40 TUTUCULAR



BT 40 MANDRENLİ BAŞLIKLAR

KOD	ÖLÇÜ	D (mm)	L (mm)
BT40113	1-13	48	85
BT40116	1-16	53	100

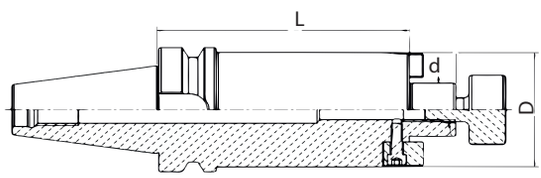


BT40 MANDREN MALAFALARI

KOD	ÖZELLİK	BAĞLAMA ÇAPI (D)	L (mm)
BT40B16	BT40	B16	56
BT40B18	BT40	B18	64

BT 40 ALIN KAMALI MALAFA



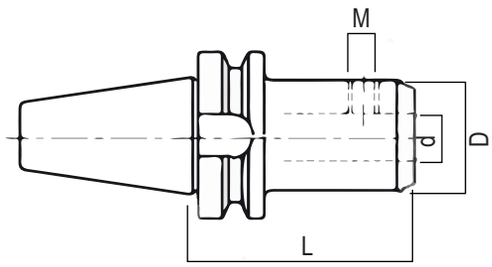


KOD	d (mm)	D (mm)	L (mm)
BT4016K55	16K	38	55
BT4016K100	16K	38	100
BT4016K160	16K	38	160
BT4016K200	16K	38	200
BT4022K55	22K	48	55
BT4022K100	22K	48	100
BT4022K160	22K	48	160
BT4022K200	22K	48	200
BT4027K55	27K	58	60
BT4027K100	27K	58	100
BT4027K160	27K	58	160
BT4027K200	27K	58	200
BT4032K60	32K	63	60
BT4032K100	32K	63	100
BT4032K160	32K	63	160
BT4032K200	32K	63	200
BT4040K60	40K	78	60
BT4040K100	40K	78	100
BT4040K160	40K	78	160
BT4040K200	40K	78	200

BT 40 TUTUCULAR

BT 40 VELDON TUTUCU



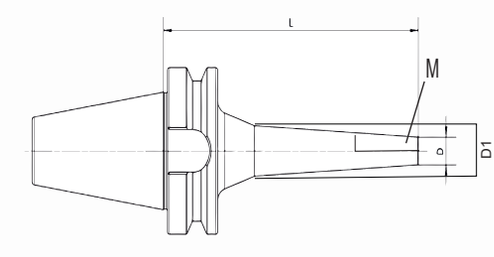


KOD	BAĞLAMA ÇAPI d	BOY L	D (mm)	M VELDON CİVATASI
BT4006V50	6V	50	25	M6x10
BT4006V100	6V	100	25	M6x10
BT4008V50	8V	50	28	M8x10
BT4008V100	8V	100	28	M8x10
BT4010V63	10V	63	35	M10x12
BT4010V100	10V	100	35	M10x12
BT4012V63	12V	63	42	M12x16
BT4012V100	12V	100	42	M12x16
BT4014V63	14V	63	44	M12x16
BT4014V100	14V	100	44	M12x16
BT4016V63	16V	63	48	M14x16
BT4016V100	16V	100	48	M14x16
BT4020V63	20V	63	52	M16x16
BT4020V160	20V	160	52	M16x16
BT4025V90	25V	90	65	M18x20
BT4025V160	25V	160	65	M18x20
BT4032V100	32V	100	72	M20x20
BT4032V160	32V	160	72	M20x20
BT4040V120	40V	120	80	M20x20
BT4040V160	40V	160	80	M20x20

HASSASİYET : 0.005

BT 40 VİDALI TUTUCU

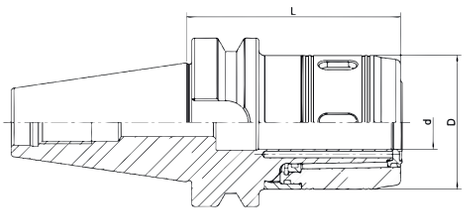




KOD	M	D (mm)	D1 (mm)	L BOY
BT40M10100	M10	18	18	100
BT40M12070	M12	23	23	70
BT40M12100	M12	23	23	100
BT40M12150	M12	23	34	150
BT40M16070	M16	29	29	70
BT40M16100	M16	29	29	100
BT40M16150	M16	29	29	150
BT40M16200	M16	29	40	200

BT 40 RULMANLI TUTUCULAR





BT 40 RULMANLI TUTUCU

* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	d (mm)	D (mm)	L (mm)
BT40C32105	32	72	105

RULMANLI TUTUCU YEDEK PENS



KOD	ÖZELLİK
PRC3203	C32 - 3 mm
PRC3204	C32 - 4 mm
PRC3205	C32 - 5 mm
PRC3206	C32 - 6 mm
PRC3208	C32 - 8 mm
PRC3210	C32 - 10 mm
PRC3212	C32 - 12 mm
PRC3214	C32 - 14 mm
PRC3216	C32 - 16 mm
PRC3218	C32 - 18 mm
PRC3220	C32 - 20 mm
PRC3225	C32 - 25 mm



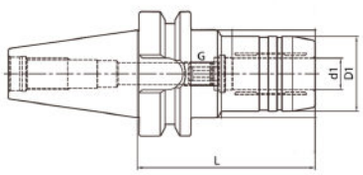
BT40 RULMANLI TUTUCU SET

* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	ÖZELLİK	PENS ÖLÇÜLERİ
BT40C20TK	BT40 - C20 TAKIM	(6-8-10-12-16)
BT40C25TK	BT40 - C25 TAKIM	(8-10-12-16-20)
BT40C32TK	BT40 - C32 TAKIM	(6-8-10-12-16-20-25)

BT 40 HİDROLİK TUTUCULAR





BT 40 HİDROLİK TUTUCU

* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	d1 (mm)	D1 (mm)	L (mm)	KAPASİTE
BT40H20090	20	42	90	3-20
BT40H32105	32	64	115	3-32

H20 HİDROLİK TUTUCU YEDEK PENS



KOD	ÖZELLİK
PH2003	H20 - 3 mm
PH2004	H20 - 4 mm
PH2005	H20 - 5 mm
PH2006	H20 - 6 mm
PH2008	H20 - 8 mm
PH2010	H20 - 10 mm
PH2012	H20 - 12 mm
PH2014	H20 - 14 mm
PH2016	H20 - 16 mm

H32 HİDROLİK TUTUCU YEDEK PENS



KOD	ÖZELLİK
PH3206	H32 - 6 mm
PH3208	H32 - 8 mm
PH3210	H32 - 10 mm
PH3212	H32 - 12 mm
PH3214	H32 - 14 mm
PH3216	H32 - 16 mm
PH3218	H32 - 18 mm
PH3220	H32 - 20 mm
PH3225	H32 - 25 mm



BT40 HİDROLİK TUTUCU SET

* DELİKLİ PULLSTUD İLE KULLANINIZ.

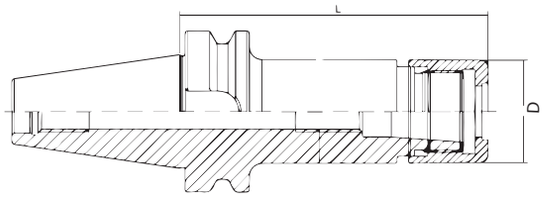
KOD	ÖZELLİK / Pens Ölçüleri
BT40H20TK	BT40 - H20 (6-8-10-12-16)
BT40H32TK	BT40 - H32 (6-8-10-12-16-20-25)

BT 40 SK HASSAS TUTUCULAR ve PENS

HASSASİYET : 0.005

BT 40 SK HASSAS TUTUCU





KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)
BT40SK06090	BT40-SK06	1-6	90	19,5
BT40SK06150	BT40-SK06	1-6	150	19,5
BT40SK10060	BT40-SK10	1-10	60	27,10
BT40SK10090	BT40-SK10	1-10	90	27,10
BT40SK10150	BT40-SK10	1-10	150	27,10
BT40SK16090	BT40-SK16	2-16	90	40,10
BT40SK16150	BT40-SK16	2-16	150	40,10

SK06 (HASSAS) PENS

HASSASİYET : 0.005

KOD	ÖZELLİK
PSK0601	SK06 - 1mm
PSK0602	SK06 - 2mm
PSK0603	SK06 - 3mm
PSK0604	SK06 - 4mm
PSK0605	SK06 - 5mm
PSK0606	SK06 - 6mm





SK10 (HASSAS) PENS

HASSASİYET : 0.005

KOD	ÖZELLİK
PSK1002	SK-10 - 2mm
PSK1003	SK-10 - 3mm
PSK1004	SK-10 - 4mm
PSK1005	SK-10 - 5mm
PSK1006	SK-10 - 6mm
PSK1007	SK-10 - 7mm
PSK1008	SK-10 - 8mm
PSK1009	SK-10 - 9mm
PSK1010	SK-10 - 10mm

SK16 (HASSAS) PENS

HASSASİYET : 0.005

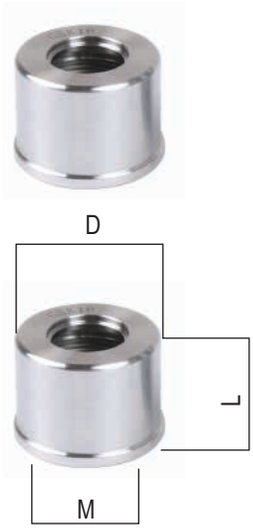


KOD	ÖZELLİK
PSK1603	SK-16 - 3mm
PSK1604	SK-16 - 4mm
PSK1605	SK-16 - 5mm
PSK1606	SK-16 - 6mm
PSK1608	SK-16 - 8mm
PSK1610	SK-16 - 10mm
PSK1612	SK-16 - 12mm
PSK1614	SK-16 - 14mm
PSK1616	SK-16 - 16mm



SK HASSAS ANAHTAR

KOD	ÖZELLİK	ÇAP Ø
GSK06ANH	SK06 - ANAHTARI	19,5
GSK10ANH	SK10 - ANAHTARI	27
GSK16ANH	SK16 - ANAHTARI	40



SK HASSAS KAPAK

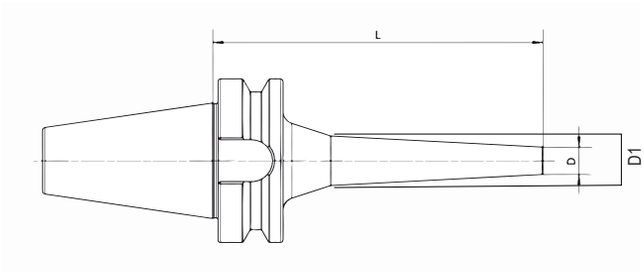
KOD	ÖLÇÜ	D (mm)	L (mm)	M (mm)
SK06K	SK06	19,5	19	M 15,5 x 1,0
SK10K	SK10	27,10	20	M 21,5 x 1,0
SK16K	SK16	40,10	24	M 32 x 1,5

BT 40 İÇTEN ÇEKTİRMELİ TUTUCULAR

HASSASİYET : 0.005

BT 40 SDC İÇTEN ÇEKTİRMELİ TUTUCU





KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)	D1 (mm)
BT40SDC06090	BT40 SDC 06	3-6	90	14	19,50
BT40SDC06150	BT40 SDC 06	3-6	150	14	25,50
BT40SDC08090	BT40 SDC 08	3-8	90	22	28,50
BT40SDC08150	BT40 SDC 08	3-8	150	22	33,50
BT40SDC12090	BT40 SDC 12	4-12	90	34	41,00
BT40SDC12150	BT40 SDC 12	4-12	150	34	45,00

HASSASİYET : 0.005

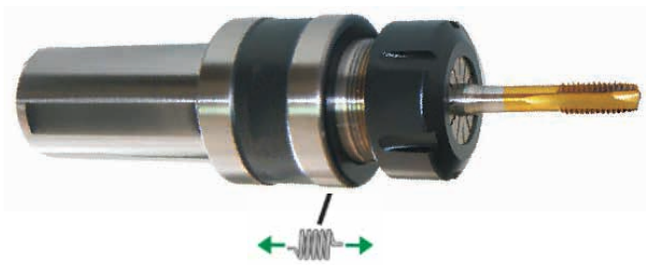
SDC PENS



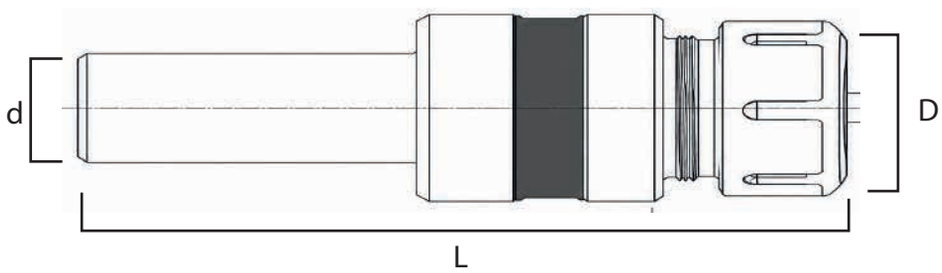
KOD	ÖZELLİK	L (mm)	d (mm)
PSDC0603	SDC06 - 3 mm	36	9
PSDC0604	SDC06 - 4 mm	36	9
PSDC0605	SDC06 - 5 mm	36	9
PSDC0606	SDC06 - 6 mm	36	9
PSDC0803	SDC08 - 3 mm	45	15
PSDC0804	SDC08 - 4 mm	45	15
PSDC0806	SDC08 - 6 mm	45	15
PSDC0808	SDC08 - 8 mm	45	15
PSDC1204	SDC12 - 4 mm	60	22
PSDC1206	SDC12 - 6 mm	60	22
PSDC1208	SDC12 - 8 mm	60	22
PSDC1210	SDC12 - 10 mm	60	22
PSDC1212	SDC12 - 12 mm	60	22

ER PENSLER İÇİN YAYLI KILAVUZ ÇEKME BAŞLIĞI

YAYLI KILAVUZ ÇEKME BAŞLIĞI





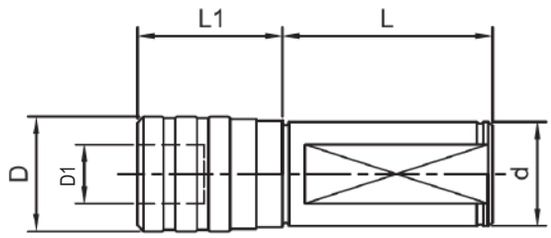


KOD	KAPASİTE (mm)	d(mm)	D(mm)	L(mm)	KAPAK
KCSL16ER11M	ER11	16	16	100	mini
KCSL16ER16M	ER16	16	22	100	mini
KCSL16ER20M	ER20	16	28	100	mini
KCSL20ER16M	ER16	20	22	100	mini
KCSL20ER20M	ER20	20	28	100	mini
KCSL20ER25UM	ER25	20	42	100	um
KCSL25ER25UM	ER25	25	42	100	um
KCSL25ER32UM	ER32	25	50	100	um
KCSL32ER25UM	ER25	32	42	100	um
KCSL32ER32UM	ER32	32	50	100	um
KCSL32ER40UM	ER40	32	63	100	um
KCSL40ER32UM	ER32	40	50	100	um
KCSL40ER40UM	ER40	40	63	100	um

BT 40 ve SİLİNDİR ŞAFTLI KILAVUZ TUTUCULAR

SİLİDİR ŞAFTLI KILAVUZ ÇEKME BAŞLIĞI

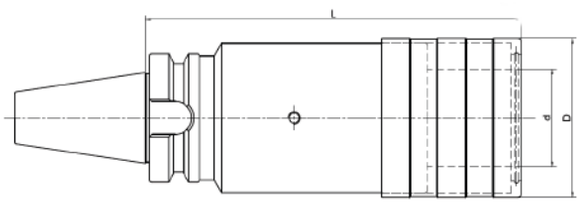




KOD	d (mm)	KAPASİTE	D1 (mm)	D (mm)	L (mm)	L1 (mm)
SV20KC312	20	M2-M14	19	36,5	60	45
SV25KC312	25	M2-M14	19	36,5	60	45
SV25KC820	25	M5-M24	31	54	60	45
SV32KC820	32	M5-M24	31	54	75	40

BT40 KILAVUZ ÇEKME BAŞLIĞI





KOD	KAPASİTE	d (mm)	D (mm)	L (mm)
BT40KC312	M2-M14	19	36,5	67
BT40KC820	M5-M24	31	54	94

EMNİYETLİ TİP KILAVUZ ADAPTÖRÜ 19



KOD	KILAVUZ ÖLÇÜSÜ	KILAVUZ SAPI ∅	□
P31202	M2	2.8	2.1
P31203	M3	3.5	2.7
P31204	M4	4.5	3.4
P31205	M5	6.0	4.9
P31206	M6	6.0	4.9
P31208	M8	8.0	6.2
P31210	M10	10.0	8.0
P31212	M12	9.0	7.0
P31214	M14	11.0	9.0

*DIN376 - DIN374

ÖZEL EMNİYETLİ TİP KILAVUZ ADAPTÖRÜ 19



KOD	KILAVUZ ÖLÇÜSÜ	KILAVUZ SAPI ∅	□
P31304	M4	2.8	2.1
P31305	M5	3.5	2.7
P31306	M6	4.5	3.4
P31308	M8	6.0	4.9
P31310	M10	7.0	5.5

EMNİYETLİ TİP KILAVUZ ADAPTÖRÜ 31



KOD	KILAVUZ ÖLÇÜSÜ	KILAVUZ SAPI ∅	□	
P82005	M5	6.0	4.9	
P82006	M6	6.0	4.9	
P82008	M8	8.0	6.2	
P82010	M10	10.0	8.0	
P82012	M12	9.0	7.0	
P82014	M14	11.0	9.0	
P82016	M16	12.0	9.0	
P82018	M18	14.0	11.0	
P82020	M20	16.0	12.0	
P82022	M22	18.0	14.5	
P82024	M24	18.0	14.5	
P82027	M27	20.0	16.0	
P82030	M30	22.0	18.0	
P82033	M33	25.0	20.0	
P82036	M36	28.0	22.0	
*DIN376 - DIN374 - ÖZEL EMNİYETLİ TİP ADAPTÖR				
P82110	M10	7,0	5,5	

EMNİYET TİPİ KILAVUZ ADAPTÖRÜ YÜKSELTİCİ

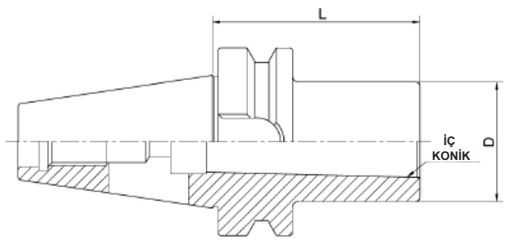


KOD	AÇIKLAMA
KC312820	∅19x ∅31YÜKSELTİCİ

BT 40 TUTUCULAR

BT 40 KAMALI MORS ADAPTÖRÜ

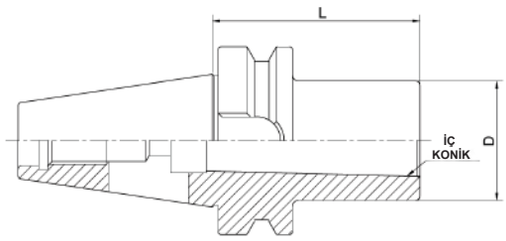




KOD	İÇ KONİK	D (mm)	L (mm)
BT40KMK1	MK1	25	50
BT40KMK2	MK2	32	50
BT40KMK3	MK3	40	70
BT40KMK4	MK4	48	95

BT 40 ÇEKTİRME CİVATALI MORS ADAPTÖRÜ



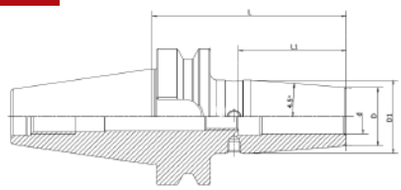


KOD	İÇ KONİK	D (mm)	L (mm)
BT40CMK1	MK1	25	50
BT40CMK2	MK2	32	50
BT40CMK3	MK3	40	70
BT40CMK4	MK4	63	95

BT 40 SHRİNK TUTUCULAR

BT 40 SHRİNK TUTUCU (KALIN CİDARLI 4,5°)

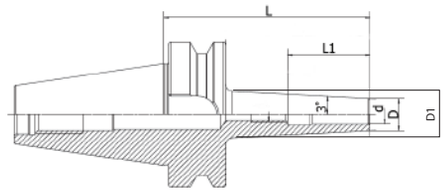




KOD	d (mm)	D (mm)	D1 (mm)	L (mm)	L1 (mm)
BT40SF03090	3	15	20	90	-
BT40SF04090	4	15	20	90	-
BT40SF05090	5	15	20	90	-
BT40SF06090	6	21	27	90	36
BT40SF08090	8	21	27	90	36
BT40SF10090	10	24	31	90	42
BT40SF12090	12	24	31	90	47
BT40SF16090	16	27	34	90	50
BT40SF20090	20	33	40	90	52
BT40SF25100	25	44	53	100	58
BT40SF03160	3	15	25	160	-
BT40SF04160	4	15	25	160	-
BT40SF05160	5	15	25	160	-
BT40SF06160	6	21	32	160	36
BT40SF08160	8	21	32	160	36
BT40SF10160	10	24	34	160	42
BT40SF12160	12	24	34	160	47
BT40SF16160	16	27	42	160	50
BT40SF20160	20	33	51	160	52
BT40SF25160	25	44	53	160	58

BT40 SHRİNK TUTUCU (İNCE CİDARLI 3°)





KOD	d (mm)	D (mm)	D1 (mm)	L (mm)	L1 (mm)
BT40SFS03090	3	9	13	90	-
BT40SFS04090	4	10	16	90	-
BT40SFS05090	5	12	17	90	-
BT40SFS06090	6	12	18	90	36
BT40SFS08090	8	14	20	90	36
BT40SFS10090	10	16	22	90	42
BT40SFS12090	12	18	24	90	47
BT40SFS16090	16	22	28	90	50
BT40SFS20090	20	27	33	90	54
BT40SFS25100	25	30	-	100	57
BT40SFS03160	3	9	21	160	-
BT40SFS04160	4	10	22	160	-
BT40SFS05160	5	12	24	160	-
BT40SFS06160	6	12	25	160	36
BT40SFS08160	8	14	27	160	36
BT40SFS10160	10	16	29	160	42
BT40SFS12160	12	18	31	160	47
BT40SFS16160	16	22	35	160	50
BT40SFS20160	20	27	40	160	54
BT40SFS25160	25	30	-	160	57

SHRİNK TUTUCU ISITMA MAKİNALARI



T420001



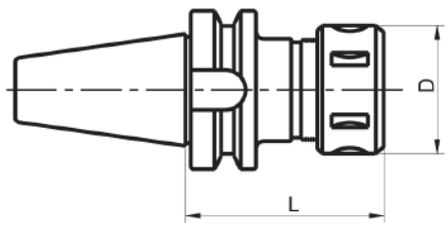
T420002

KOD	T420001	T420002
KULLANILAN TUTUCULAR	BT30-BBT30-SK30 BT40-BBT40-SK40 BT50-BBT50-SK50 HSK63	BT30-BBT30-SK30 BT40-BBT40-SK40 BT50-BBT50-SK50 HSK63
TUTUCU ISITMA ÇAP ARALIĞI	Ø 3-25 mm	Ø 3-32 mm
MALZEME BAĞLAMA YÜKSEKLİĞİ (h)	15-420 mm	60-400 mm
MOTOR	5 KW	5 KW
GÜÇ	220 V 50 HZ	220 V 50 HZ
ÖZELLİKLER	*HAVA İLE SOĞUTMA *MANUEL KALDIRMA *MANDALLI KİTLEME *DİJİTAL EKRAN FİZİKSEL DÜĞMELER. *TAKIM ÖLÇÜLERİNE GÖRE, MANUEL ISITMA VE SOĞUTMA AYARI.	*HAVA İLE SOĞUTMA *MANUEL KALDIRMA *TEK TUŞLA KENDİNİ KİLİTLEME *LCD DOKUNMATİK EKRAN *MAKİNE HAFIZASINDA Kİ ÜRÜNLER SEÇİLDİĞİNDE, TAKIM ÖLÇÜLERİNE GÖRE ISITMA ve SOĞUTMA AYARLARI OTOMATİK OLARAK YAPILIR.
AĞIRLIK	22 kg	30 kg
BOYUT	450x400x600	540x440x760

BBT 40 TUTUCULAR

BBT 40 PENS BAŞLIĞI (ER TİPİ)

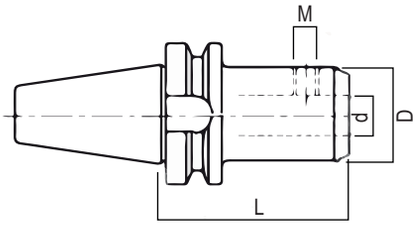




KOD	L (mm)	D (mm)	PENS	KAPASİTE
BBT40ER11100	100	19	ER11	1-7
BBT40ER11150	150	19	ER11	1-7
BBT40ER16060	60	22	ER16	1-10
BBT40ER16100	100	22	ER16	1-10
BBT40ER16150	150	22	ER16	1-10
BBT40ER20060	60	28	ER20	1-13
BBT40ER20100	100	28	ER20	1-13
BBT40ER20150	150	28	ER20	1-13
BBT40ER25060	60	42	ER25	1-16
BBT40ER25100	100	42	ER25	1-16
BBT40ER25150	150	42	ER25	1-16
BBT40ER32060	60	50	ER32	2-20
BBT40ER32100	100	50	ER32	2-20
BBT40ER32150	150	50	ER32	2-20
BBT40ER40080	80	63	ER40	2-26
BBT40ER40100	100	63	ER40	2-26
BBT40ER40150	150	63	ER40	2-26

BBT 40 VELDON TUTUCU





KOD	BAĞLAMA ÇAPI d	BOY L	D (mm)	M VELDON CİVATASI
BBT4006V50	6V	50	25	M6x10
BBT4008V50	8V	50	28	M8x10
BBT4010V63	10V	63	35	M10x12
BBT4012V63	12V	63	42	M12x16
BBT4014V63	14V	63	44	M12x16
BBT4016V63	16V	63	48	M14x16
BBT4020V63	20V	63	52	M16x16
BBT4025V90	25V	90	65	M18x20
BBT4032V100	32V	100	72	M20x20
BBT4040V120	40V	120	80	M20x20

BBT 40 TUTUCULAR

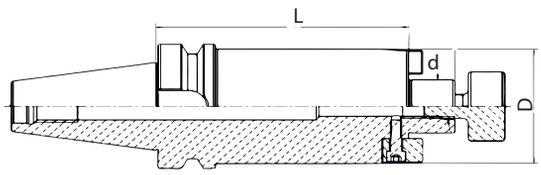
BBT 40 MANDRENLİ BAŞLIKLAR



KOD	ÖLÇÜ	D (mm)	L (mm)
BBT40113	1-13	48	85
BBT40116	1-16	53	100

BBT 40 ALIN KAMALI MALAFA





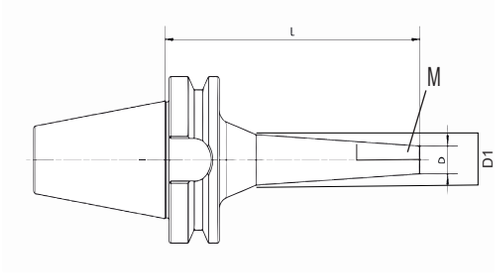
KOD	d (mm)	D (mm)	L (mm)
BBT4016K45	16K	38	45
BBT4016K100	16K	38	100
BBT4016K150	16K	38	150
BBT4022K60	22K	48	60
BBT4022K100	22K	48	100
BBT4022K150	22K	48	150
BBT4027K60	27K	58	60
BBT4027K100	27K	58	100
BBT4027K150	27K	58	150
BBT4032K60	32K	63	60
BBT4032K100	32K	63	100
BBT4032K150	32K	63	150
BBT4040K60	40K	78	60
BBT4040K100	40K	78	100
BBT4040K150	40K	78	150

BBT 40 TUTUCULAR



HASSASİYET : 0.005

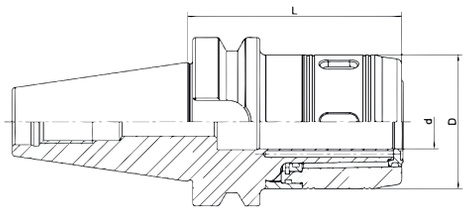
BBT 40 VİDALI TUTUCU



KOD	M	D (mm)	D1 (mm)	L BOY
BBT40M10100	M10	18	32	100
BBT40M12070	M12	21	25	70
BBT40M12100	M12	21	32	100
BBT40M12150	M12	21	36	150
BBT40M16070	M16	29	34	70
BBT40M16100	M16	29	34	100
BBT40M16150	M16	29	38	150
BBT40M16200	M16	29	40	200

BBT 40 RULMANLI TUTUCU





* YEDEK PENSLERİ SAYFA 32' DE.

* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	d (mm)	D (mm)	L (mm)
BBT40C32105	32	72	105



BBT40 RULMANLI TUTUCU SET

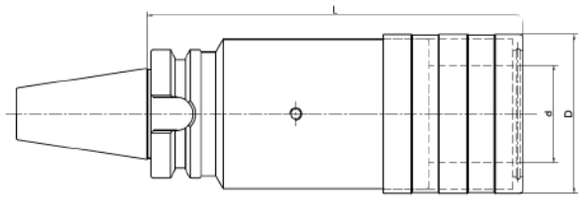
* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	ÖZELLİK	PENS ÖLÇÜLERİ
BBT40C32TK	BBT40 - C32 TAKIM	(6-8-10-12-16-20-25)

BBT 40 TUTUCULAR

BBT40 KILAVUZ ÇEKME BAŞLIĞI

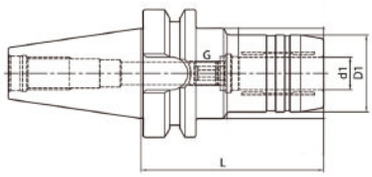




KOD	KAPASİTE	d (mm)	D (mm)	L (mm)
BBT40KC312	M2-M14	19	36,5	67
BBT40KC820	M5-M24	31	54	94

BBT 40 HİDROLİK TUTUCU





* YEDEK PENSLERİ SAYFA 33' DE.
* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	d1 (mm)	D1 (mm)	L (mm)	KAPASİTE
BBT40H20090	20	42	90	3-20
BBT40H32105	32	64	115	3-32



BBT40 HİDROLİK TUTUCU SET

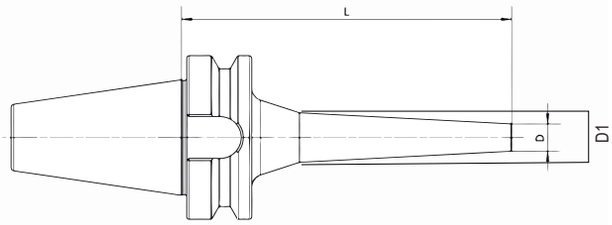
* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	ÖZELLİK / Pens Ölçüleri
BBT40H20TK	BBT40 - H20 (6-8-10-12-16)
BBT40H32TK	BBT40 - H32 (6-8-10-12-16-20-25)

HASSASİYET : 0.005

BBT 40 SDC İÇTEN ÇEKTİRMELİ TUTUCU





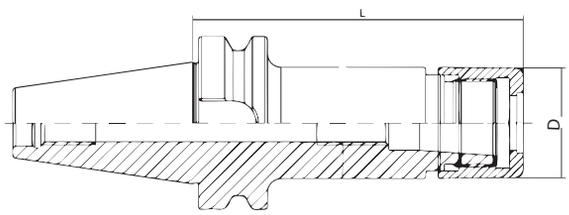
* YEDEK PENSLERİ SAYFA 36' DA.

KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)	D1 (mm)
BBT40SDC06090	BBT40 SDC 06	3-6	90	14	19,50
BBT40SDC06150	BBT40 SDC 06	3-6	150	14	25,50
BBT40SDC08090	BBT40 SDC 08	3-8	90	22	28,50
BBT40SDC08150	BBT40 SDC 08	3-8	150	22	33,50
BBT40SDC12090	BBT40 SDC 12	4-12	90	34	41,00
BBT40SDC12150	BBT40 SDC 12	4-12	150	34	45,00

HASSASİYET : 0.005

BBT 40 SK HASSAS TUTUCU





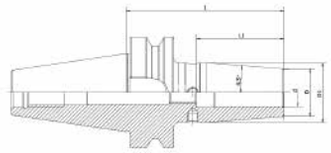
* YEDEK PENSLERİ SAYFA 34-35' DE.

KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)
BBT40SK06090	BBT40-SK06	1-6	90	19,5
BBT40SK06150	BBT40-SK06	1-6	150	19,5
BBT40SK10090	BBT40-SK10	1-10	90	27,10
BBT40SK10150	BBT40-SK10	1-10	150	27,10
BBT40SK16090	BBT40-SK16	2-16	90	40,10
BBT40SK16150	BBT40-SK16	2-16	150	40,10

BBT 40 SHRİNK TUTUCULAR

BBT40 SHRİNK TUTUCU (KALIN CİDARLI 4,5°)

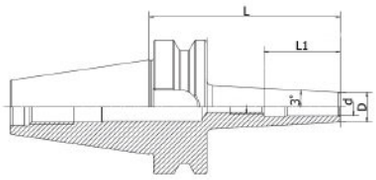




KOD	d (mm)	D (mm)	D1 (mm)	L (mm)	L1 (mm)
BBT40SF03090	3	15	20	90	-
BBT40SF04090	4	15	20	90	-
BBT40SF05090	5	15	20	90	-
BBT40SF06090	6	21	27	90	36
BBT40SF08090	8	21	27	90	36
BBT40SF10090	10	24	31	90	42
BBT40SF12090	12	24	31	90	47
BBT40SF16090	16	27	34	90	50
BBT40SF20090	20	33	40	90	52
BBT40SF25100	25	44	53	100	58
BBT40SF03160	3	15	25	160	-
BBT40SF04160	4	15	25	160	-
BBT40SF05160	5	15	25	160	-
BBT40SF06160	6	21	32	160	36
BBT40SF08160	8	21	32	160	36
BBT40SF10160	10	24	34	160	42
BBT40SF12160	12	24	34	160	47
BBT40SF16160	16	27	42	160	50
BBT40SF20160	20	33	51	160	52
BBT40SF25160	25	44	53	160	58

BBT40 SHRİNK TUTUCU (İNCE CİDARLI 3°)



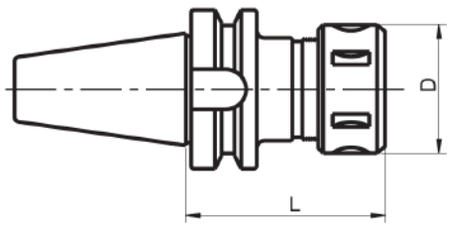


KOD	d (mm)	D (mm)	L (mm)	L1 (mm)
BBT40SFS03090	3	9	90	-
BBT40SFS04090	4	10	90	-
BBT40SFS05090	5	12	90	-
BBT40SFS06090	6	12	90	36
BBT40SFS08090	8	14	90	36
BBT40SFS10090	10	16	90	42
BBT40SFS12090	12	18	90	47
BBT40SFS16090	16	22	90	50
BBT40SFS20090	20	26	90	54
BBT40SFS25100	25	30	100	57
BBT40SFS03160	3	9	160	-
BBT40SFS04160	4	10	160	-
BBT40SFS05160	5	12	160	-
BBT40SFS06160	6	12	160	36
BBT40SFS08160	8	14	160	36
BBT40SFS10160	10	16	160	42
BBT40SFS12160	12	18	160	47
BBT40SFS16160	16	22	160	50
BBT40SFS20160	20	26	160	54
BBT40SFS25160	25	30	160	57

BT 50 PENS BAŞLIĞI (ER TİPİ)

* M OLAN ÜRÜNLER MİNİ KAPAKTIR.

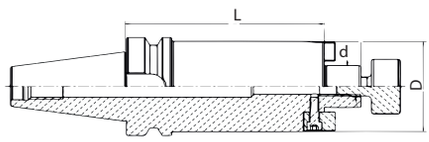




KOD	L (mm)	D (mm)	PENS	KAPASİTE
BT50ER16M100	100	22	ER16	1-16
BT50ER16M160	160	22	ER16	1-10
BT50ER16M200	200	22	ER16	1-10
BT50ER25100	100	42	ER25	1-16
BT50ER25160	160	42	ER25	1-16
BT50ER25200	200	42	ER25	1-16
BT50ER32100	100	50	ER32	2-20
BT50ER32160	160	50	ER32	2-20
BT50ER32200	200	50	ER32	2-20
BT50ER40100	100	63	ER40	2-26
BT50ER40160	160	63	ER40	2-26
BT50ER40200	200	63	ER40	2-26
BT50462E100	100	60	462E	3-25

BT 50 ALIN KAMALI MALAFA



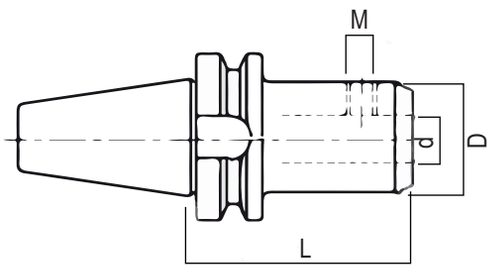


KOD	d (mm)	d (mm)	L (mm)
BT5016K100	16K	38	100
BT5016K160	16K	38	160
BT5016K200	16K	38	200
BT5016K250	16K	38	250
BT5016K350	16K	38	350
BT5022K100	22K	48	100
BT5022K160	22K	48	160
BT5022K200	22K	48	200
BT5022K250	22K	48	250
BT5022K350	22K	48	350
BT5027K100	27K	58	100
BT5027K160	27K	58	160
BT5027K200	27K	58	200
BT5027K250	27K	58	250
BT5027K350	27K	58	350
BT5032K100	32K	63	100
BT5032K160	32K	63	160
BT5032K200	32K	63	200
BT5032K250	32K	63	250
BT5032K350	32K	63	350
BT5040K100	40K	78	100
BT5040K160	40K	78	160
BT5040K200	40K	78	200

BT 50 TUTUCULAR

BT 50 VELDON TUTUCU



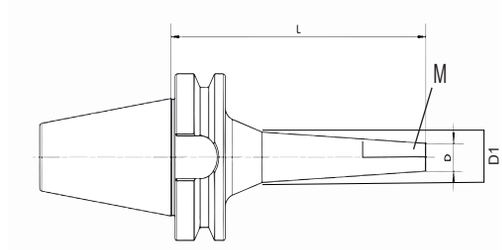


KOD	BAĞLAMA ÇAPI d	L (mm)	D (mm)	M VELDON CİVATASI
BT5006V63	6V	63	25	M6x10
BT5006V160	6V	160	25	M6x10
BT5008V63	8V	63	28	M8x10
BT5008V160	8V	160	28	M8x10
BT5010V70	10V	70	35	M10x12
BT5010V160	10V	160	35	M10x12
BT5012V70	12V	70	42	M12x16
BT5012V160	12V	160	42	M12x16
BT5016V80	16V	80	48	M14x16
BT5016V160	16V	160	48	M14x16
BT5020V80	20V	80	52	M16x16
BT5020V160	20V	160	52	M16x16
BT5025V100	25V	100	65	M18x20
BT5025V160	25V	160	65	M18x20
BT5032V105	32V	105	72	M20x20
BT5032V160	32V	160	72	M20x20
BT5040V105	40V	105	80	M20x20
BT5040V160	40V	160	80	M20x20

HASSASİYET : 0.005

BT 50 VİDALI TUTUCU



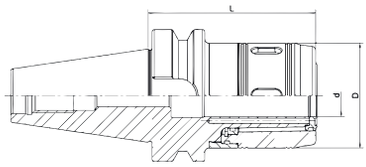


KOD	M	D (mm)	D1 (mm)	L (mm)
BT50M12100	M12	21	32	100
BT50M12150	M12	21	32	150
BT50M12200	M12	21	32	200
BT50M12300	M12	21	40	300
BT50M16100	M16	29	34	100
BT50M16150	M16	29	38	150
BT50M16200	M16	29	38	200
BT50M16300	M16	29	45	300

BT 50 RULMANLI TUTUCU

* DELİKLİ PULLSTUD İLE KULLANINIZ.
* YEDEK PENSLERİ SAYFA 32'DE.





KOD	d (mm)	D (mm)	L (mm)	KAPASİTE
BT50C32105	32	72	105	3-32



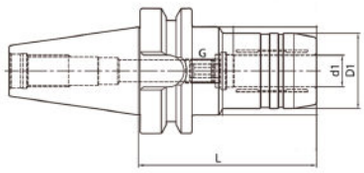
BT50 RULMANLI TUTUCU SET

* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	ÖZELLİK	PENS ÖLÇÜLERİ
BT50C32TK	BT50 - C32 TAKIM	(6-8-10-12-16-20-25)

BT 50 HİDROLİK TUTUCU





* YEDEK PENSLERİ SAYFA 33'DE.
* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	d1 (mm)	D1 (mm)	L (mm)	KAPASİTE
BT50H20120	20	42	120	3-20
BT50H32120	32	64	120	3-32



BT50 HİDROLİK TUTUCU SET

* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	ÖZELLİK / Pens Ölçüleri
BT50H20TK	BT50 - H20 (6-8-10-12-16)
BT50H32TK	BT50 - H32 (6-8-10-12-16-20-25)

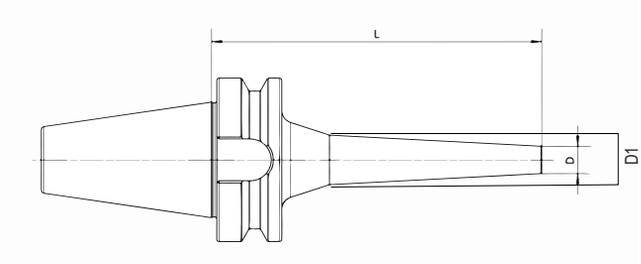
BT 50 TUTUCULAR

HASSASİYET : 0.005

BT 50 SDC İÇTEN ÇEKTİRMELİ TUTUCU

* YEDEK PENSLERİ SAYFA 36'DA.





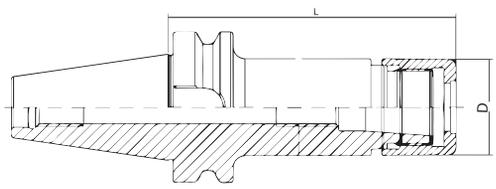
KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)	D1 (mm)
BT50SDC06100	BT50 SDC 06	3-6	100	14	19,50
BT50SDC06150	BT50 SDC 06	3-6	150	14	25,50
BT50SDC08100	BT50 SDC 08	3-8	100	22	28,50
BT50SDC08150	BT50 SDC 08	3-8	150	22	33,50
BT50SDC12100	BT50 SDC 12	4-12	100	34	41,00
BT50SDC12150	BT50 SDC 12	4-12	150	34	45,00

HASSASİYET : 0.005

BT 50 SK HASSAS TUTUCU

* YEDEK PENSLERİ SAYFA 34-35'DE.

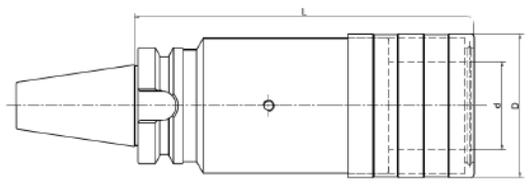




KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)
BT50SK10100	BT50-SK10	1-10	100	27,10
BT50SK10150	BT50-SK10	1-10	150	27,10
BT50SK16100	BT50-SK16	2-16	100	40,10
BT50SK16150	BT50-SK16	2-16	150	40,10

BT50 KILAVUZ ÇEKME BAŞLIĞI





KOD	KAPASİTE	d (mm)	D (mm)	L (mm)
BT50KC312	M2-M14	19	36,5	67
BT50KC820	M5-M24	31	54	94

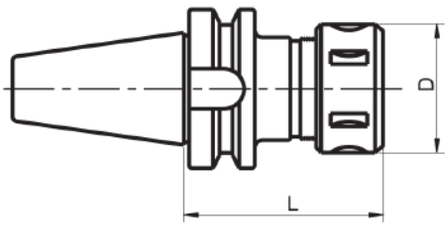
BT 50 MANDRENLİ BAŞLIKLAR



KOD	ÖLÇÜ	D (mm)	L (mm)
BT50113	1-13	48	85
BT50116	1-16	53	100

BBT 50 TUTUCULAR





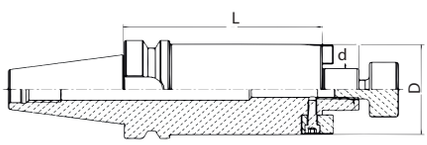
BBT 50 PENS BAŞLIĞI (ER TİPİ)

* M OLAN ÜRÜNLER MİNİ KAPAKTIR.

KOD	L (mm)	D (mm)	PENS	KAPASİTE
BBT50ER16M100	100	22	ER16	1-16
BBT50ER16M150	150	22	ER16	1-10
BBT50ER25100	100	42	ER25	1-16
BBT50ER25150	150	42	ER25	1-16
BBT50ER32100	100	50	ER32	2-20
BBT50ER32150	150	50	ER32	2-20
BBT50ER40100	100	63	ER40	2-26
BBT50ER40150	150	63	ER40	2-26

BBT 50 ALIN KAMALI MALAFA



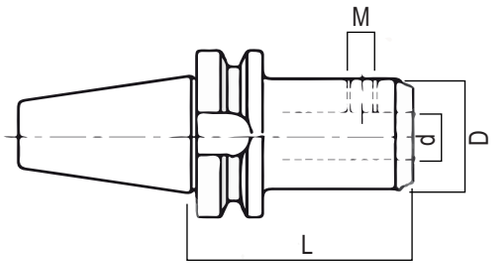


KOD	d (mm)	d (mm)	L (mm)
BBT5016K100	16K	38	100
BBT5016K150	16K	38	150
BBT5016K200	16K	38	200
BBT5016K250	16K	38	250
BBT5022K100	22K	48	100
BBT5022K150	22K	48	150
BBT5022K200	22K	48	200
BBT5022K250	22K	48	250
BBT5022K350	22K	48	350
BBT5027K100	27K	58	100
BBT5027K150	27K	58	150
BBT5027K200	27K	58	200
BBT5027K250	27K	58	250
BBT5027K350	27K	58	350
BBT5032K100	32K	63	100
BBT5032K150	32K	63	150
BBT5032K200	32K	63	200
BBT5032K250	32K	63	250
BBT5032K350	32K	63	350
BBT5040K100	40K	78	100
BBT5040K150	40K	78	150
BBT5040K200	40K	78	200

BBT 50 TUTUCULAR

BBT 50 VELDON TUTUCU



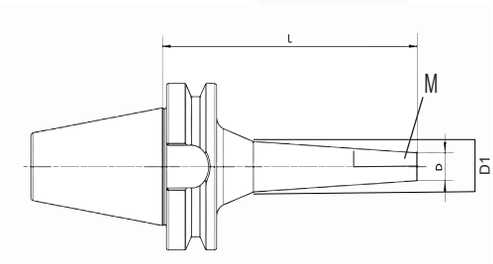


KOD	BAĞLAMA ÇAPI d	L (mm)	D (mm)	M VELDON CİVATASI
BBT5006V63	6V	63	25	M6x10
BBT5006V160	6V	160	25	M6x10
BBT5008V63	8V	63	28	M8x10
BBT5008V160	8V	160	28	M8x10
BBT5010V70	10V	70	35	M10x12
BBT5010V160	10V	160	35	M10x12
BBT5012V70	12V	70	42	M12x16
BBT5012V160	12V	160	42	M12x16
BBT5016V80	16V	80	48	M14x16
BBT5016V160	16V	160	48	M14x16
BBT5020V80	20V	80	52	M16x16
BBT5020V160	20V	160	52	M16x16
BBT5025V100	25V	100	65	M18x20
BBT5025V160	25V	160	65	M18x20
BBT5032V105	32V	105	72	M20x20
BBT5032V160	32V	160	72	M20x20
BBT5040V105	40V	105	80	M20x20
BBT5040V160	40V	160	80	M20x20

HASSASİYET : 0.005

BBT 50 VİDALI TUTUCU





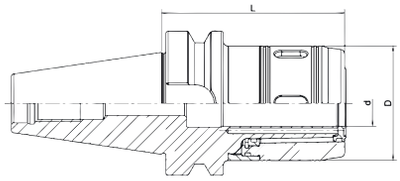
KOD	M	D (mm)	D1 (mm)	L (mm)
BBT50M12100	M12	21	32	100
BBT50M12150	M12	21	32	150
BBT50M12200	M12	21	32	200
BBT50M12300	M12	21	40	300
BBT50M16100	M16	29	34	100
BBT50M16150	M16	29	38	150
BBT50M16200	M16	29	38	200
BBT50M16300	M16	29	45	300

BBT 50 TUTUCULAR

BBT 50 RULMANLI TUTUCU

* DELİKLİ PULLSTUD İLE KULLANINIZ.
* YEDEK PENSLERİ SAYFA 32'DE.





KOD	d (mm)	D (mm)	L (mm)
BBT50C32105	32	72	105



BBT50 RULMANLI TUTUCU SET

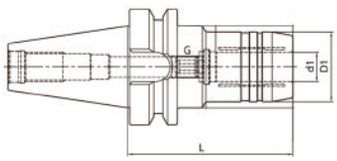
* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	ÖZELLİK	PENS ÖLÇÜLERİ
BBT50C32TK	BBT50 - C32 TAKIM	(6-8-10-12-16-20-25)

BBT 50 HİDROLİK TUTUCU

* DELİKLİ PULLSTUD İLE KULLANINIZ.
* YEDEK PENSLERİ SAYFA 33'DE.





KOD	d1 (mm)	D1 (mm)	L (mm)	KAPASİTE
BBT50H32120	32	64	120	3-22



BBT50 HİDROLİK TUTUCU SET

* DELİKLİ PULLSTUD İLE KULLANINIZ.

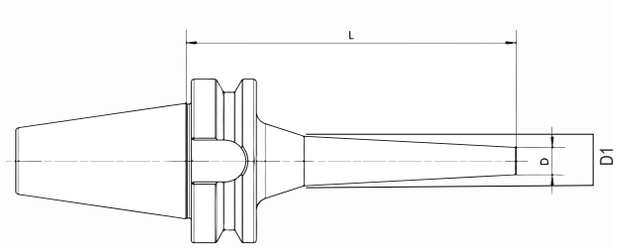
KOD	ÖZELLİK / Pens Ölçüleri
BBT50H32TK	BBT50 - H32 (6-8-10-12-16-20-25)

HASSASİYET : 0.005

BBT 50 SDC İÇTEN ÇEKTİRMELİ TUTUCU

* YEDEK PENSLERİ SAYFA 36'DA.





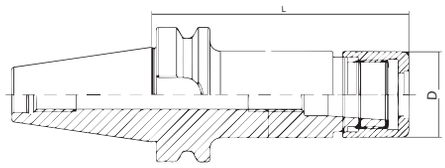
KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)	D1 (mm)
BBT50SDC06100	BT50 SDC 06	3-6	100	14	19,50
BBT50SDC06150	BT50 SDC 06	3-6	150	14	25,50
BBT50SDC08100	BT50 SDC 08	3-8	100	22	28,50
BBT50SDC08150	BT50 SDC 08	3-8	150	22	33,50
BBT50SDC12100	BT50 SDC 12	4-12	100	34	41,00
BBT50SDC12150	BT50 SDC 12	4-12	150	34	45,00

HASSASİYET : 0.005

BBT 50 SK HASSAS TUTUCU

* YEDEK PENSLERİ SAYFA 34-35'DE.



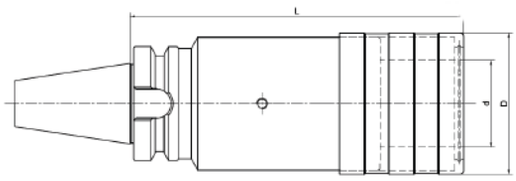


KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)
BBT50SK10100	BBT50-SK10	1-10	100	27,10
BBT50SK10150	BBT50-SK10	1-10	150	27,10
BBT50SK16100	BBT50-SK16	2-16	100	40,10
BBT50SK16150	BBT50-SK16	2-16	150	40,10

BBT 50 TUTUCULAR

BBT50 KILAVUZ ÇEKME BAŞLIĞI





KOD	KAPASİTE	d (mm)	D (mm)	L (mm)
BBT50KC312	M2-M14	19	36,5	67
BBT50KC820	M5-M24	31	54	94

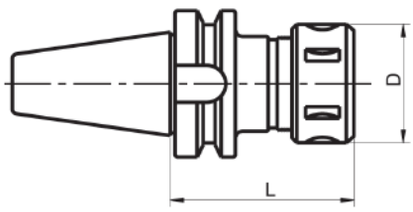
BBT 50 MANDRENLİ BAŞLIKLAR



KOD	ÖLÇÜ	D (mm)	L (mm)
BBT50113	1-13	48	85
BBT50116	1-16	53	100

SK 40 PENS BAŞLIĞI (ER TİPİ)

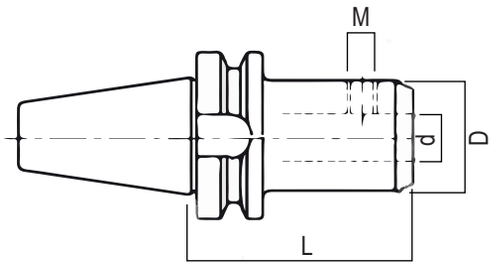




KOD	L (mm)	D (mm)	PENS	KAPASİTE
SK40ER16070	70	22	ER16	1-10
SK40ER16100	100	22	ER16	1-10
SK40ER20070	70	28	ER20	1-13
SK40ER20100	100	28	ER20	1-13
SK40ER25070	70	42	ER25	1-16
SK40ER25100	100	42	ER25	1-16
SK40ER32070	70	50	ER32	2-20
SK40ER32100	100	50	ER32	2-20
SK40ER40080	80	63	ER40	2-26
SK40ER40100	100	63	ER40	2-26

SK 40 VELDON TUTUCU





KOD	BAĞLAMA ÇAPI d	BOY L	D (mm)	M VELDON CİVATASI
SK4006V50	6V	50	25	M6x10
SK4008V50	8V	50	28	M8x10
SK4010V63	10V	63	35	M10x12
SK4012V63	12V	63	42	M12x16
SK4014V63	14V	63	44	M12x16
SK4016V63	16V	63	48	M14x16
SK4020V63	20V	63	52	M16x16
SK4025V90	25V	90	65	M18x20
SK4032V100	32V	100	72	M20x20
SK4040V120	40V	120	80	M20x20

SK 40 TUTUCULAR

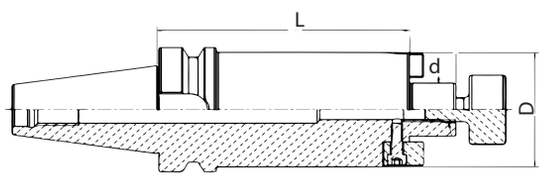
SK 40 MANDRENLİ BAŞLIKLAR



KOD	ÖLÇÜ	D (mm)	L (mm)
SK40113	1-13	48	85
SK40116	1-16	53	100

SK 40 ALIN KAMALI MALAFA





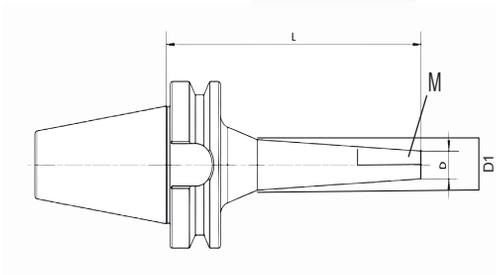
KOD	d (mm)	D (mm)	L (mm)
SK4016K55	16K	38	55
SK4016K100	16K	38	100
SK4022K55	22K	48	55
SK4022K100	22K	48	100
SK4027K55	27K	58	55
SK4027K100	27K	58	100
SK4032K55	32K	63	55
SK4032K100	32K	63	100
SK4040K55	40K	78	55
SK4040K100	40K	78	100

SK 40 TUTUCULAR



HASSASİYET : 0.005

SK 40 VİDALI TUTUCU

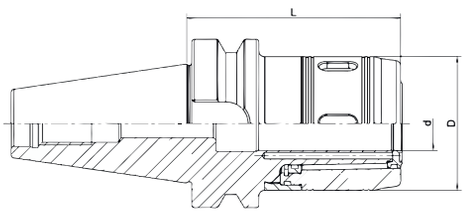


KOD	M	D (mm)	D1 (mm)	L BOY
SK40M10100	M10	18	32	100
SK40M12070	M12	21	25	70
SK40M12100	M12	21	32	100
SK40M12150	M12	21	36	150
SK40M16070	M16	29	34	70
SK40M16100	M16	29	34	100
SK40M16150	M16	29	42	150
SK40M16200	M16	29	45	200

SK 40 RULMANLI TUTUCU

* DELİKLİ PULLSTUD İLE KULLANINIZ.
* YEDEK PENSLERİ SAYFA 32'DE.





KOD	d (mm)	D (mm)	L (mm)
SK40C32105	32	72	105



SK 40 RULMANLI TUTUCU SET

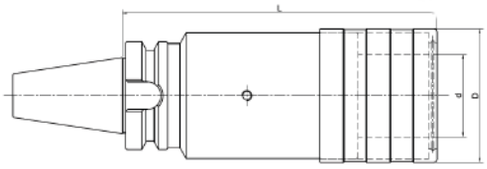
* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	ÖZELLİK	PENS ÖLÇÜLERİ
SK40C32TK	SK40 - C32 TAKIM	(6-8-10-12-16-20-25)

SK 40 TUTUCULAR

SK40 KILAVUZ ÇEKME BAŞLIĞI



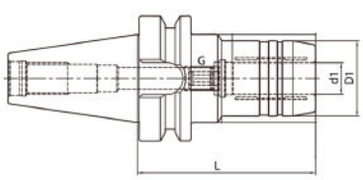


KOD	KAPASİTE	d (mm)	D (mm)	L (mm)
SK40KC312	M2-M14	19	36,5	67
SK40KC820	M5-M24	31	54	94

SK 40 HİDROLİK TUTUCU

* DELİKLİ PULLSTUD İLE KULLANINIZ.
* YEDEK PENSLERİ SAYFA 33'DE.





KOD	d1 (mm)	D1 (mm)	L (mm)	KAPASİTE
SK40H20090	20	42	90	3-20
SK40H32105	32	64	115	3-22



SK 40 HİDROLİK TUTUCU SET

* DELİKLİ PULLSTUD İLE KULLANINIZ.

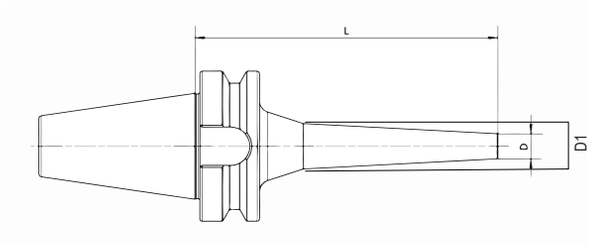
KOD	ÖZELLİK / Pens Ölçüleri
SK40H20TK	SK40 - H20 (6-8-10-12-16)
SK40H32TK	SK40 - H32 (6-8-10-12-16-20-25)

HASSASİYET : 0.005

SK 40 SDC İÇTEN ÇEKTİRMELİ TUTUCU

* YEDEK PENSLERİ SAYFA 36'DA.





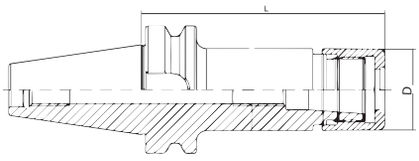
KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)	D1 (mm)
SK40SDC06090	SK40 SDC 06	3-6	90	14	19,50
SK40SDC06150	SK40 SDC 06	3-6	150	14	25,50
SK40SDC08090	SK40 SDC 08	3-8	90	22	28,50
SK40SDC08150	SK40 SDC 08	3-8	150	22	33,50
SK40SDC12090	SK40 SDC 12	4-12	90	34	41,00
SK40SDC12150	SK40 SDC 12	4-12	150	34	45,00

HASSASİYET : 0.005

SK 40 SK HASSAS TUTUCU

* YEDEK PENSLERİ SAYFA 34-35'DE.





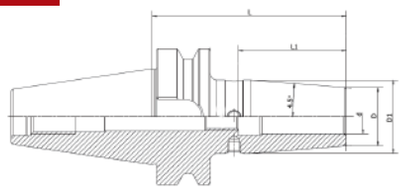
KOD	ÖZELLİK	KAPASİTE	L (mm)	D (mm)
SK40SK06090	SK40-SK06	1-6	90	19,5
SK40SK06150	SK40-SK06	1-6	150	19,5
SK40SK10090	SK40-SK10	1-10	90	27,10
SK40SK10150	SK40-SK10	1-10	150	27,10
SK40SK16090	SK40-SK16	2-16	90	40,10
SK40SK16150	SK40-SK16	2-16	150	40,10

SK 40 SHRİNK TUTUCULAR

SK 40 SHRİNK TUTUCU (KALIN CİDARLI 4,5°)

YENİ ÜRÜN



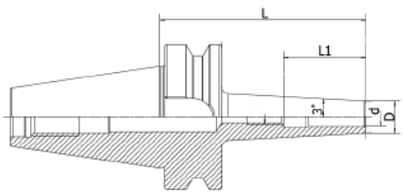


KOD	d (mm)	D (mm)	D1 (mm)	L (mm)	L1 (mm)
SK40SF03090	3	15	20	90	-
SK40SF04090	4	15	20	90	-
SK40SF05090	5	15	20	90	-
SK40SF06090	6	21	27	90	36
SK40SF08090	8	21	27	90	36
SK40SF10090	10	24	31	90	42
SK40SF12090	12	24	31	90	47
SK40SF16090	16	27	34	90	50
SK40SF20090	20	33	40	90	52
SK40SF25090	25	44	53	100	58
SK40SF03160	3	15	25	160	-
SK40SF04160	4	15	25	160	-
SK40SF05160	5	15	25	160	-
SK40SF06160	6	21	32	160	36
SK40SF08160	8	21	32	160	36
SK40SF10160	10	24	34	160	42
SK40SF12160	12	24	34	160	47
SK40SF16160	16	27	42	160	50
SK40SF20160	20	33	51	160	52
SK40SF25160	25	44	53	160	58

SK 40 SHRİNK TUTUCU (İNCE CİDARLI 3°)

YENİ ÜRÜN





KOD	d (mm)	D (mm)	L (mm)	L1 (mm)
SK40SFS03090	3	9	90	-
SK40SFS04090	4	10	90	-
SK40SFS05090	5	12	90	-
SK40SFS06090	6	12	90	36
SK40SFS08090	8	14	90	36
SK40SFS10090	10	16	90	42
SK40SFS12090	12	18	90	47
SK40SFS16090	16	22	90	50
SK40SFS03160	3	9	160	-
SK40SFS04160	4	10	160	-
SK40SFS05160	5	12	160	-
SK40SFS06160	6	12	160	36
SK40SFS08160	8	14	160	36
SK40SFS10160	10	16	160	42
SK40SFS12160	12	18	160	47
SK40SFS16160	16	22	160	50

İSO 40 PENS TUTUCULAR



İSO 40 PENS BAŞLIĞI (ER TİPİ)

KOD	L (mm)	D (mm)	PENS	KAPASİTE
İSO40ER20100	100	34	ER20	1-13
İSO40ER25100	100	42	ER25	1-16
İSO40ER32060	60	50	ER32	2-20
İSO40ER40070	70	63	ER40	2-26



İSO 40 PENS BAŞLIĞI (OZ TİPİ)

KOD	L BOY	D (mm)	KAPASİTE
İSO30462E075	75	60	3-25
İSO40462E065	60	60	3-25
İSO40462E100	100	60	3-25
İSO50462100	100	60	3-25



İSO 40 ALIN KAMALI MALAFA

KOD	d (mm)	D (mm)	L (mm)
İSO4016K55	16K	38	55
İSO4022K55	22K	48	55
İSO4027K55	27K	58	55
İSO4032K55	32K	63	55
İSO4040K55	40K	78	55



İSO 40 MANDRENLİ BAŞLIKLAR

KOD	ÖLÇÜ	D (mm)	L (mm)
İSO40113	1-13	48	85
İSO40116	1-16	53	100



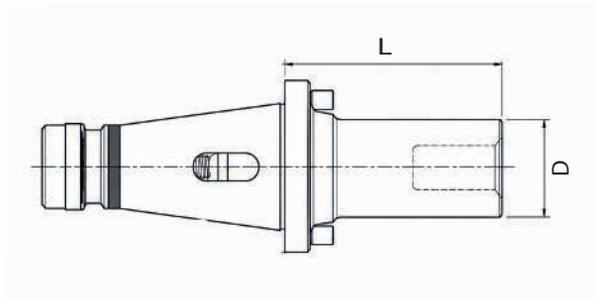
İSO 40 MANDREN MALAFALARI

KOD	ÖZELLİK	BAĞLAMA ÇAPI (D)	L (mm)
İSO40B16	İSO40	B16	56
İSO40B18	İSO40	B18	64

İSO 40 TUTUCULAR

İSO 40 KAMALI MORS ADAPTÖRÜ

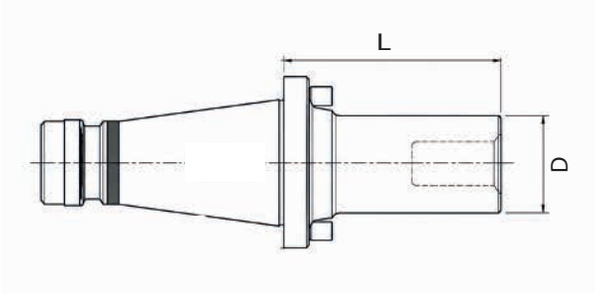




KOD	İÇ KONİK	D (mm)	L (mm)
İSO40KMK1	MK1	25	50
İSO40KMK2	MK2	32	50
İSO40KMK3	MK3	40	70
İSO40KMK4	MK4	48	95

İSO 40 ÇEKTİRME CİVATALI MORS ADAPTÖRÜ



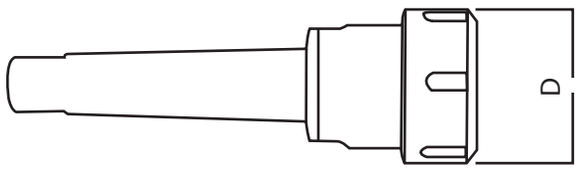


KOD	İÇ KONİK	D (mm)	L (mm)
İSO40CMK1	MK1	25	50
İSO40CMK2	MK2	32	50
İSO40CMK3	MK3	40	70
İSO40CMK4	MK4	63	95

MORS KONİK PENS BAŞLIKLARI

MORS KONİK PENS BAŞLIĞI

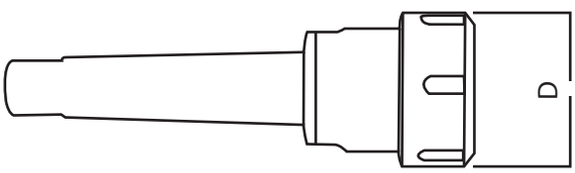




KOD	KONİK	PENS	KAPASİTE (mm)	D (mm)
MK3ER32	MK3	ER32	2-20	50
MK3ER40	MK3	ER40	2-26	63
MK3462E	MK3	462E	3-25	60
MK4ER32	MK4	ER32	2-20	50
MK4ER40	MK4	ER40	2-26	63
MK4462E	MK4	462E	3-25	60
MK5ER32	MK5	ER32	2-20	50
MK5ER40	MK5	ER40	2-26	63
MK5462E	MK5	462E	3-25	60

MORS KONİK PENS BAŞLIĞI ÇEKTİRMELİ

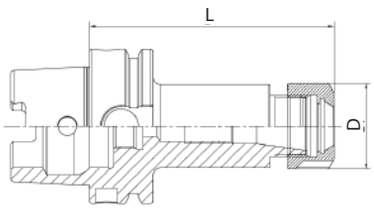




KOD	KONİK	PENS	KAPASİTE (mm)	D (mm)
CMK3ER32	MK3	ER32	2-20	50
CMK3ER40	MK3	ER40	2-26	63
CMK3462E	MK3	462E	3-25	60
CMK4ER32	MK4	ER32	2-20	50
CMK4ER40	MK4	ER40	2-26	63
CMK4462E	MK4	462E	3-25	60
CMK5ER32	MK5	ER32	2-20	50
CMK5ER40	MK5	ER40	2-26	63
CMK5462E	MK5	462E	3-25	60

HSK63A PENS BAŞLIĞI (ER TİPİ)

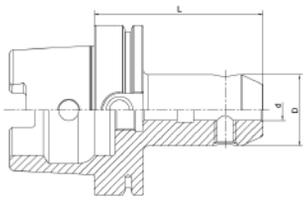




KOD	D (mm)	L (mm)	KAPASİTE
HSK63AER11100	16	100	1-7
HSK63AER11160	16	160	1-7
HSK63AER16100	22	100	1-10
HSK63AER16160	22	160	1-10
HSK63AER25100	42	100	2-16
HSK63AER25160	42	160	2-16
HSK63AER32100	50	100	3-20
HSK63AER32160	50	160	3-20
HSK63AER40100	63	100	4-26
HSK63AER40160	63	160	4-26

HSK63A VELDON TUTUCULAR



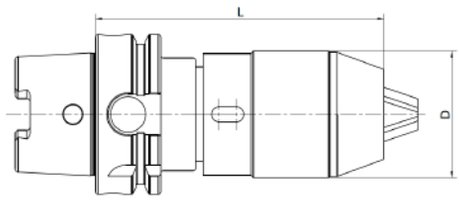


KOD	d (mm)	D (mm)	L (mm)
HSK63A06V65	6	25	65
HSK63A08V65	8	28	65
HSK63A10V65	10	35	65
HSK63A12V80	12	42	80
HSK63A16V80	16	48	80
HSK63A20V100	20	52	100
HSK63A25V110	25	65	110
HSK63A32V110	32	72	110
HSK63A40V125	40	80	125

HSK63A TUTUCULAR

HSK63A MADRENLİ BAŞLIKLAR

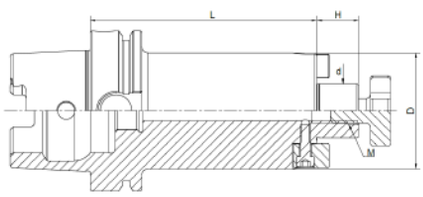




KOD	D (mm)	L (mm)	KAPASİTE
HSK63A113130	48	130	1-13
HSK63A116140	53	140	3-16

HSK63A ALIN KAMALI MALAFA

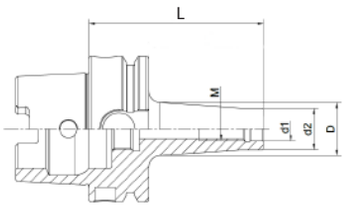




KOD	d (mm)	D (mm)	H (mm)	L (mm)	M (mm)
HSK63A16K50	16	38	17	50	M8
HKS63A16K100	16	38	17	100	M8
HSK63A16K160	16	38	17	160	M8
HSK63A22K50	22	48	19	50	M10
HSK63A22K100	22	48	19	100	M10
HSK63A22K160	22	48	19	160	M10
HSK63A27K60	27	58	21	60	M12
HSK63A27K100	27	58	21	100	M12
HSK63A27K160	27	58	21	160	M12
HSK63A32K60	32	78	24	60	M16
HSK63A32K100	32	78	24	100	M16
HSK63A32K160	32	78	24	160	M16
HSK63A40K60	40	88	27	60	M20
HSK63A40K100	40	88	27	100	M20
HSK63A40K160	40	88	27	160	M20

HSK63A VİDALI TUTUCU



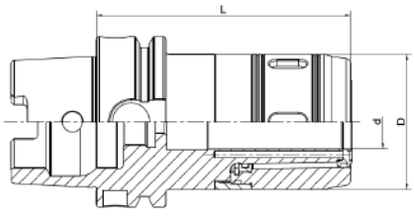


KOD	M (mm)	d1 (mm)	d2 (mm)	D (mm)	L (mm)
HSK63AM10100	10	10,5	18	32	100
HSK63AM12100	12	12,5	21	33	100
HSK63AM12150	12	12,5	21	40	150
HSK63AM16100	16	17	29	36	100
HSK63AM16150	16	17	29	42,5	150

HSK63A RULMANLI TUTUCU

* DELİKLİ PULLSTUD İLE KULLANINIZ.
* YEDEK PENSLERİ SAYFA 32'DE.





KOD	d (mm)	D (mm)	L (mm)	KAPASİTE
HSK63AC32120	32	72	120	3-25; 32



HSK63A RULMANLI TUTUCU SET

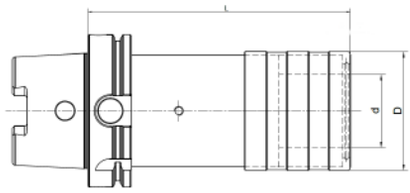
* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	PENS ÖLÇÜLERİ
HSK63AC32TK	6-8-10-12-16-20-25

HSK63A TUTUCULAR

HSK63A KILAVUZ ÇEKME BAŞLIĞI



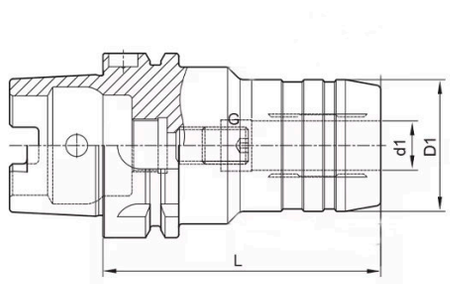


KOD	d (mm)	D (mm)	L (mm)	KAPASİTE
HSK63AKC312	19	36	102	M3-14
HSK63AKC820	31	53	140	M5-24

HSK63A HİDROLİK TUTUCU

* DELİKLİ PULLSTUD İLE KULLANINIZ.
* YEDEK PENSLERİ SAYFA 33'DE.





KOD	d1 (mm)	D1 (mm)	L (mm)	KAPASİTE
HSK63AH2090	20	42	90	3-20 mm



HSK63A HİDROLİK TUTUCU SET

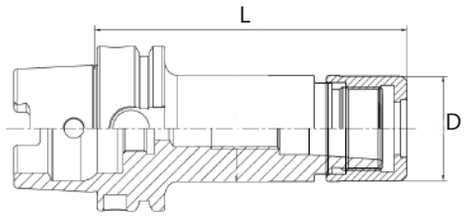
* DELİKLİ PULLSTUD İLE KULLANINIZ.

KOD	PENS ÖLÇÜLERİ
HSK63AH20TK	6-8-10-12-16

HSK63A SK HASSAS TUTUCULAR

* YEDEK PENSLERİ SAYFA 34-35'DE.



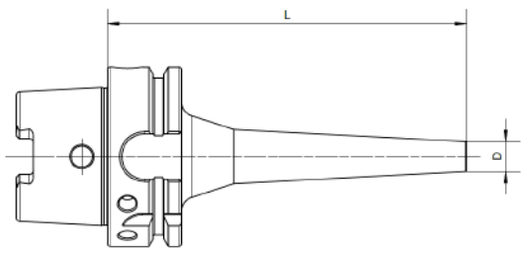


KOD	D (mm)	L (mm)	KAPASİTE
HSK63ASK10090	27,1	90	2-10
HSK63ASK10150	27,1	150	2-10
HSK63ASK16090	40	90	3-16
HSK63ASK16150	40	150	3-16

HSK63A SDC İÇTEN ÇEKTİRMELİ TUTUCU

* YEDEK PENSLERİ SAYFA 36'DA.



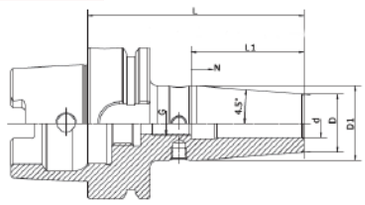


KOD	D (mm)	L (mm)	KAPASİTE
HSK63ASDC06090	14	90	1-6
HSK63ASDC06150	14	150	1-6
HSK63ASDC08090	22	90	1-10
HSK63ASDC08150	22	150	1-10
HSK63ASDC12120	34	120	1-12
HSK63ASDC12150	34	150	1-12

HSK63A SHRİNK TUTUCULAR

HSK63A SHRİNK TUTUCU (KALIN CİDARLI 4,5°)

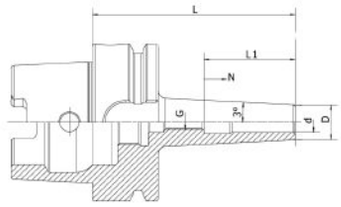




KOD	d (mm)	D (mm)	D1 (mm)	L (mm)	L1 (mm)
HSK63ASF03090	3	15	20	90	-
HSK63ASF04090	4	15	20	90	-
HSK63ASF05090	5	15	20	90	-
HSK63ASF06090	6	21	27	90	36
HSK63ASF08090	8	21	27	90	36
HSK63ASF10090	10	24	31	90	42
HSK63ASF12090	12	24	31	90	47
HSK63ASF16090	16	27	34	90	50
HSK63ASF20090	20	33	40	90	52
HSK63ASF25090	25	44	53	90	58
HSK63ASF03160	3	15	25	160	-
HSK63ASF04160	4	15	25	160	-
HSK63ASF05160	5	15	25	160	-
HSK63ASF06160	6	21	32	160	36
HSK63ASF08160	8	21	32	160	36
HSK63ASF10160	10	24	34	160	42
HSK63ASF12160	12	24	34	160	47
HSK63ASF16160	16	27	42	160	50
HSK63ASF20160	20	33	51	160	52
HSK63ASF25160	25	44	53	160	58

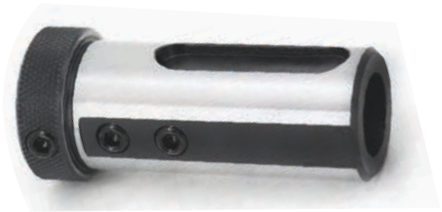
HSK63A SHRİNK TUTUCU (İNCE CİDARLI 3°)

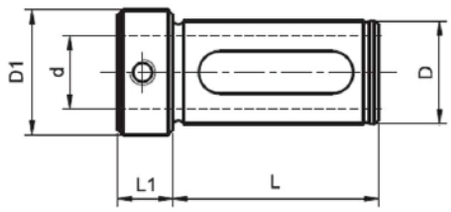




KOD	d (mm)	D (mm)	L (mm)	L1 (mm)
HSK63ASFS03090	3	9	90	-
HSK63ASFS04090	4	10	90	-
HSK63ASFS05090	5	12	90	-
HSK63ASFS06090	6	12	90	36
HSK63ASFS08090	8	14	90	36
HSK63ASFS10090	10	16	90	42
HSK63ASFS12090	12	18	90	47
HSK63ASFS16090	16	22	90	50
HSK63ASFS20090	20	26	90	54
HSK63ASFS03160	3	9	160	-
HSK63ASFS04160	4	10	160	-
HSK63ASFS05160	5	12	160	-
HSK63ASFS06160	6	12	160	36
HSK63ASFS08160	8	14	160	36
HSK63ASFS10160	10	16	160	42
HSK63ASFS12160	12	18	160	47
HSK63ASFS16160	16	22	160	50
HSK63ASFS20160	20	26	160	54

REDÜKSİYON KOVANI (silindirik şaft için)





KOD	D (mm)	d (mm)	D1 (mm)	L1 (mm)	L (mm)
T007505	20	6	20	5	40
T007506		8			
T007507		10			
T007508		12			
T007509		16			
T007700-1	25	6	32	13	50
T007700		8			
T007701		10			
T007702		12			
T007703		16			
T007704		20			
T007705-1	32	6	39	14	70
T007705		8			
T007706		10			
T007707		12			
T007708		16			
T007709		20			
T007710		25			
T007711-1	40	6	46,5	15	80
T007711		8			
T007712		10			
T007713		12			
T007714		16			
T007715		20			
T007716		25			
T007717		32			
T007720-1	50	6	58	15	90
T007720		8			
T007721		10			
T007722		12			
T007723		16			
T007724		20			
T007725		25			
T007726		32			
T007727		40			

REDÜKSİYON KOVANI (mors konik için)

KOD	D (mm)	d (mm)	D1 (mm)	L1 (mm)	L (mm)
T007750	32	MK1	39	14	70
T007751		MK2			
T007752		MK3			
T007753	40	MK1	46.5	15	80
T007754		MK2			
T007755		MK3			
T007756		MK4			

BARA TAKIMLARI



DELİK BÜYÜTME BARA SETİ

KOD	ÖZELLİK	İŞLEME ARALIĞI mm
T007800	F1-12 / İSO 40	10-125
T007801	F1-18 / İSO 40	12-225
T007802	F1-12 / BT 40	10-125
T007803	F1-18 / BT 40	12-225



DELİK BÜYÜTME BARA TAKIMI

KOD	ÖZELLİK	İŞLEME ARALIĞI mm
T007810	F1 - 12	10-125
T007811	F1 - 18	12-225
T007812	F1 - 25	15-320



DELİK BÜYÜTME BAŞLIĞI

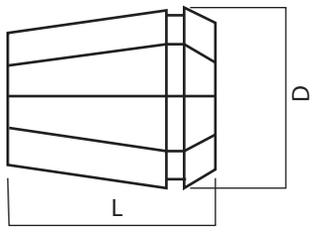
KOD	ÖZELLİK	İŞLEME ARALIĞI mm
T007820	F1 - 12	10-125
T007821	F1 - 18	12-225
T007822	F1 - 25	15-320



DELİK BÜYÜTME MALAFASI

KOD	ÖZELLİK
T007830	İSO 30
T007831	İSO 40
T007832	İSO 50
T007833	BT 30
T007834	BT 40
T007835	BT 50
T007836	MK 3
T007837	MK 4
T007838	MK 5

ER PENSLER





ER 8 PENSLER

D= 8,5 mm / L= 13,6 mm

KOD	ÖZELLİKLER
PER801	ER8 - 1 mm (0,8-1)
PER802	ER8 - 2 mm (1,5-2)
PER803	ER8 - 3 mm (2,5-3)
PER804	ER8 - 4 mm (3,5-4)
PER805	ER8 - 5 mm (4,5-5)

ER 11 PENSLER

D= 11,5 mm / L= 18 mm

KOD	ÖZELLİKLER
PER1101	ER11 - 1 mm (0,8-1)
PER1102	ER11 - 2 mm (1,5-2)
PER1103	ER11 - 3 mm (2-3)
PER1104	ER11 - 4 mm (3-4)
PER1105	ER11 - 5 mm (4-5)
PER1106	ER11 - 6 mm (5-6)
PER1107	ER11 - 7 mm (6-7)
PER1108	ER11 - 8 mm (7-8)

ER 20 PENSLER

D= 21 mm / L= 31,5 mm

KOD	ÖZELLİKLER
PER2001	ER20 - 1 mm (0,5-1)
PER2002	ER20 - 2 mm (1,5-2)
PER2003	ER20 - 3 mm (2-3)
PER2004	ER20 - 4 mm (3-4)
PER2005	ER20 - 5 mm (4-5)
PER2006	ER20 - 6 mm (5-6)
PER2007	ER20 - 7 mm (6-7)
PER2008	ER20 - 8 mm (7-8)
PER2009	ER20 - 9 mm (8-9)
PER2010	ER20 - 10 mm (9-10)
PER2011	ER20 - 11 mm (10-11)
PER2012	ER20 - 12 mm (11-12)
PER2013	ER20 - 13 mm (12-13)
PER2014	ER20 - 14 mm (13-14)
PER2016	ER20 - 16 mm (15-16)

ER 16 PENSLER

D= 17 mm / L= 27,5 mm

KOD	ÖZELLİKLER
PER1601	ER16 - 1 mm (0,8-1)
PER1602	ER16 - 2 mm (1,5-2)
PER1603	ER16 - 3 mm (2-3)
PER1604	ER16 - 4 mm (3-4)
PER1605	ER16 - 5 mm (4-5)
PER1606	ER16 - 6 mm (5-6)
PER1607	ER16 - 7 mm (6-7)
PER1608	ER16 - 8 mm (7-8)
PER1609	ER16 - 9 mm (8-9)
PER1610	ER16 - 10 mm (9-10)
PER1612	ER16 - 12 mm 11-12

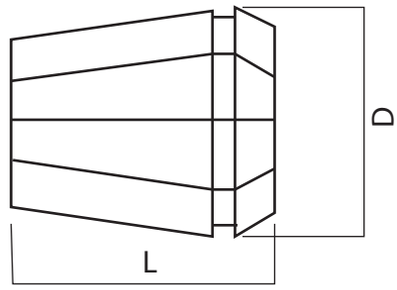
ER 25 PENSLER

D= 26 mm / L= 34 mm

KOD	ÖZELLİKLER
PER2501	ER25 - 1 mm (0,5-1)
PER2502	ER25 - 2 mm (1,5-2)
PER2503	ER25 - 3 mm (2-3)
PER2504	ER25 - 4 mm (3-4)
PER2505	ER25 - 5 mm (4-5)
PER2506	ER25 - 6 mm (5-6)
PER2507	ER25 - 7 mm (6-7)
PER2508	ER25 - 8 mm (7-8)
PER2509	ER25 - 9 mm (8-9)
PER2510	ER25 - 10 mm (9-10)
PER2511	ER25 - 11 mm (10-11)
PER2512	ER25 - 12 mm (11-12)
PER2513	ER25 - 13 mm (12-13)
PER2514	ER25 - 14 mm (13-14)
PER2515	ER25 - 15 mm (14-15)
PER2516	ER25 - 16 mm (15-16)
PER2520	ER25 - 20 mm (19-20)

ER PENSLER





ER 32 PENSLER

D= 33 mm / L= 40 mm

KOD	ÖZELLİKLER
PER3201	ER32 - 1 mm (0,5-1)
PER3202	ER32 - 2 mm (1,5-2)
PER3203	ER32 - 3 mm (2-3)
PER3204	ER32 - 4 mm (3-4)
PER3205	ER32 - 5 mm (4-5)
PER3206	ER32 - 6 mm (5-6)
PER3207	ER32 - 7 mm (6-7)
PER3208	ER32 - 8 mm (7-8)
PER3209	ER32 - 9 mm (8-9)
PER3210	ER32 - 10 mm (9-10)
PER3211	ER32 - 11 mm (10-11)
PER3212	ER32 - 12 mm (11-12)
PER3213	ER32 - 13 mm (12-13)
PER3214	ER32 - 14 mm (13-14)
PER3215	ER32 - 15 mm (14-15)
PER3216	ER32 - 16 mm (15-16)
PER3217	ER32- 17 mm (16-17)
PER3218	ER32 - 18 mm (17-18)
PER3219	ER32 - 19 mm (18-19)
PER3220	ER32 - 20 mm (19-20)
PER3222	ER32 - 22 mm (21-22)
PER3225	ER32 - 25 mm (24-25)

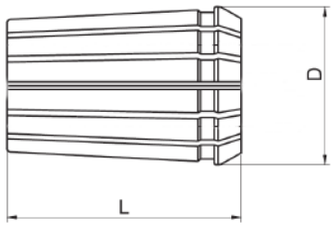
ER 40 PENSLER

D= 41 mm / L= 46 mm

KOD	ÖZELLİKLER
PER4001	ER40 - 1 mm (0,5-1)
PER4002	ER40 - 2 mm (1,5-2)
PER4003	ER40 - 3 mm (2-3)
PER4004	ER40 - 4 mm (3-4)
PER4005	ER40 - 5 mm (4-5)
PER4006	ER40 - 6 mm (5-6)
PER4007	ER40 - 7 mm (6-7)
PER4008	ER40 - 8 mm (7-8)
PER4009	ER40 - 9 mm (8-9)
PER4010	ER40 - 10 mm (9-10)
PER4011	ER40 - 11 mm (10-11)
PER4012	ER40 - 12 mm (11-12)
PER4013	ER40 - 13 mm (12-13)
PER4014	ER40 - 14 mm (13-14)
PER4015	ER40 - 15 mm (14-15)
PER4016	ER40 - 16 mm (15-16)
PER4017	ER40 - 17 mm (16-17)
PER4018	ER40 - 18 mm (17-18)
PER4019	ER40 - 19 mm (18-19)
PER4020	ER40 - 20 mm (19-20)
PER4021	ER40 - 21 mm (20-21)
PER4022	ER40 - 22 mm (21-22)
PER4023	ER40 - 23 mm (22-23)
PER4024	ER40 - 24 mm (23-24)
PER4025	ER40 - 25 mm (24-25)
PER4026	ER40 - 26 mm (25-26)
PER4030	ER40 - 30 mm (29-30)
PER4032	ER40 - 32 mm (31-32)







PENS TAKIMI

KOD	ÖZELLİKLER
PER08TK	PER08TK 5 PARÇA 1-2-3-4-5
PER11TK	ER11 5 PARÇA 3-4-5-6-7
PER16TK	ER16 8 PARÇA 3-4-5-6-7-8-9-10
PER20TK	ER20 11 PARÇA 3-4-5-6-7-8-9-10-11-12-13
PER25TK	ER25 15 PARÇA 2-3-4-5-6-7-8-9-10-11-12-13-14-15-16
PER32TK	ER32 18 PARÇA 3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20
PER40TK	ER40 23 PARÇA 4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26
P462TK	462 / OZ25 16 PARÇA 4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25
P467TK	467 / OZ32 16 PARÇA 5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32

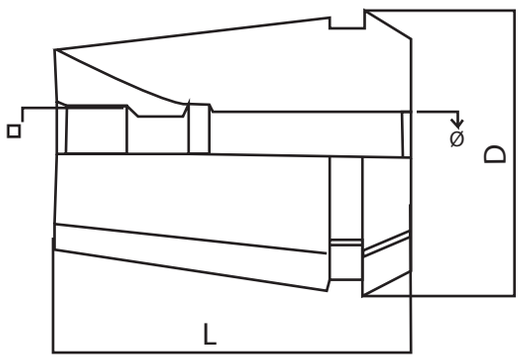
462 PENSLER

D= 35,05 mm / L= 52 mm

KOD	ÖZELLİKLER
P462-2	OZ25 - 2 mm (1,5-2)
P462-3	OZ25 - 3 mm (2-3)
P462-4	OZ25 - 4 mm (3-4)
P462-5	OZ25 - 5 mm (4-5)
P462-6	OZ25 - 6 mm (5-6)
P462-7	OZ25 - 7 mm (6-7)
P462-8	OZ25 - 8 mm (7-8)
P462-9	OZ25 - 9 mm (8-9)
P462-10	OZ25 - 10 mm (9-10)
P462-11	OZ25 - 11 mm (10-11)
P462-12	OZ25 - 12 mm (11-12)
P462-13	OZ25 - 13 mm (12-13)
P462-14	OZ25 - 14 mm (13-14)
P462-15	OZ25 - 15 mm (14-15)
P462-16	OZ25 - 16 mm (15-16)
P462-17	OZ25 - 17 mm (16-17)
P462-18	OZ25 - 18 mm (17-18)
P462-19	OZ25 - 19 mm (18-19)
P462-20	OZ25 - 20 mm (19-20)
P462-21	OZ25 - 21 mm (20-21)
P462-22	OZ25 - 22 mm (21-22)
P462-23	OZ25 - 23 mm (22-23)
P462-24	OZ25 - 24 mm (23-24)
P462-25	OZ25 - 25 mm (24-25)
P462-26	OZ25 - 26 mm (25-26)

ER KILAVUZ PENSLER





ER 16 KILAVUZ PENSLERİ

D=16,7 mm / L=27,5 mm

KOD	Ø (mm)	□ (mm)
TGER16035	3,5	2,7
TGER16040	4	3,2
TGER16045	4,5	3,4
TGER16060	6	4,9
TGER16070	7	5,5
TGER16080	8	6,3

ER 20 KILAVUZ PENSLERİ

D=20,7 mm / L=31,5 mm

KOD	Ø (mm)	□ (mm)
TGER20035	3,5	2,7
TGER20040	4	3,2
TGER20045	4,5	3,4
TGER20060	6	4,9
TGER20070	7	5,5
TGER20080	8	6,3
TGER20090	9	7,1
TGER20100	10	8
TGER20110	11	9
TGER20120	12	9

ER 25 KILAVUZ PENSLERİ

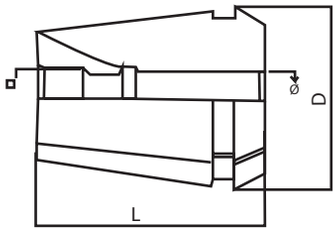
D=25,7 mm / L=34 mm

KOD	Ø (mm)	□ (mm)
TGER25035	3,5	2,7
TGER25040	4	3,2
TGER25045	4,5	3,4
TGER25060	6	4,9
TGER25070	7	5,5
TGER25080	8	6,3
TGER25090	9	7,1
TGER25100	10	8
TGER25110	11	9
TGER25120	12	9
TGER25140	14	11,2
TGER25160	16	12,5

KARE ÖLÇÜSÜ Ø x □ (mm)	KILAVUZ DETAYI
3,5x2,7	DIN371 M3-DIN376 M5
4x3,2	ISO M4/M5 - JIS M3/M3,5
4,5x3,4	DIN371 M4 - DIN376 M6
6x4,9	DIN371 M4,5/M5/M6 DIN 374/376 M8
7x5,5	DIN371 M7 DIN374/376 M9-M10 JIS M9-M10
8x6,3	DIN371 M8 ISO M8-M10- 7/16" - 5/16"
9x7,1	DIN374/376 M12 ISO M12 - 1/2"
10x8	DIN371 M10 ISO M10 - 3/8"
11x9	DIN374/376 M14 - 9/16"
12x9	DIN374/376 M16 - 5/8"
14x11,2	DIN374/376 M18 - JIS M18 ISO M18-M20 3/4"
16x12,5	DIN374/376 M20
18x14,5	DIN374/376 M22 - M24 - 7/8 '' ISO M24 - 1"
20x16	DIN 374/376 M27 - 1 '' ISO M27-M30 - 1 1/8"
22x18	DIN 374/376 M30 - 1 1/8"
25x20	DIN 374*376 M33 - 1 1/4" ISO M36



ER KILAVUZ PENSLER



ER 32 KILAVUZ PENSLERİ

D=32,7 mm / L=40 mm

KOD	Ø (mm)	□ (mm)
TGER32035	3,5	2,7
TGER32040	4	3,2
TGER32045	4,5	3,4
TGER32060	6	4,9
TGER32070	7	5,5
TGER32080	8	6,3
TGER32090	9	7,1
TGER32100	10	8
TGER32110	11	9
TGER32120	12	9
TGER32140	14	11,2
TGER32160	16	12,5
TGER32180	18	14,5
TGER32200	20	16

ER 40 KILAVUZ PENSLERİ

D=40,7 mm / L=46 mm

KOD	Ø (mm)	□ (mm)
TGER40035	3,5	2,7
TGER40040	4	3,2
TGER40045	4,5	3,4
TGER40060	6	4,9
TGER40070	7	5,5
TGER40080	8	6,3
TGER40090	9	7,1
TGER40100	10	8
TGER40110	11	9
TGER40120	12	9
TGER40140	14	11,2
TGER40160	16	12,5
TGER40180	18	14,5
TGER40200	20	16
TGER40220	22	18
TGER40250	25	20

KARE ÖLÇÜSÜ Ø x □ (mm)	KILAVUZ DETAYI
3,5x2,7	DIN371 M3-DIN376 M5
4x3,2	ISO M4/M5 - JIS M3/M3,5
4,5x3,4	DIN371 M4 - DIN376 M6
6x4,9	DIN371 M4,5/M5/M6 DIN 374/376 M8
7x5,5	DIN371 M7 DIN374/376 M9-M10 JIS M9-M10
8x6,3	DIN371 M8 ISO M8-M10- 7/16" - 5/16"
9x7,1	DIN374/376 M12 ISO M12 - 1/2"
10x8	DIN371 M10 ISO M10 - 3/8"
11x9	DIN374/376 M14 - 9/16"
12x9	DIN374/376 M16 - 5/8"
14x11,2	DIN374/376 M18 - JIS M18 ISO M18-M20 3/4"
16x12,5	DIN374/376 M20
18x14,5	DIN374/376 M22 - M24 - 7/8 '' ISO M24 - 1"
20x16	DIN 374/376 M27 - 1 '' ISO M27-M30 - 1 1/8"
22x18	DIN 374/376 M30 - 1 1/8"
25x20	DIN 374*376 M33 - 1 1/4" ISO M36

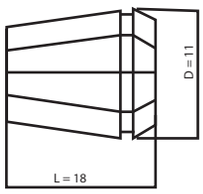




SIZDIRMAZ PENSLER

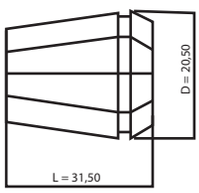


ERC11 SIZDIRMAZ PENSLER



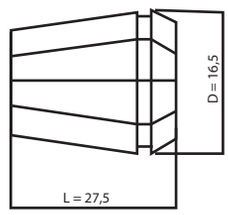
KOD	ÖZELLİKLER
TERC1103	ER11-3 (2-3)
TERC1104	ER11-4 (3-4)
TERC1105	ER11-5 (4-5)
TERC1106	ER11-6 (5-6)

ERC20 SIZDIRMAZ PENSLER



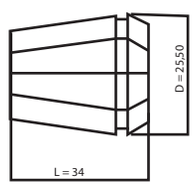
KOD	ÖZELLİKLER
TERC2003	ER20 - 3 (2-3)
TERC2004	ER20 - 4 (3-4)
TERC2005	ER20 - 5 (4-5)
TERC2006	ER20 - 6 (5-6)
TERC2007	ER20 - 7 (6-7)
TERC2008	ER20 - 8 (7-8)
TERC2009	ER20 - 9 (8-9)
TERC2010	ER20 - 10 (9-10)
TERC2011	ER20 - 11 (10-11)
TERC2012	ER20 - 12 (11-12)
TERC2013	ER20 - 13 (12-13)

ERC16 SIZDIRMAZ PENSLER



KOD	ÖZELLİKLER
TERC1603	ER16-3 (2-3)
TERC1604	ER16-4 (3-4)
TERC1605	ER16-5 (4-5)
TERC1606	ER16-6 (5-6)
TERC1607	ER16-7 (6-7)
TERC1608	ER16-8 (7-8)
TERC1609	ER16-9 (8-9)
TERC1610	ER16-10 (9-10)

ERC25 SIZDIRMAZ PENSLER

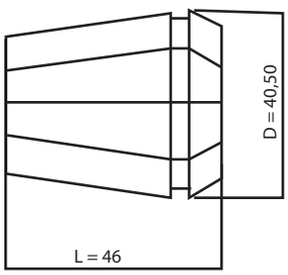


KOD	ÖZELLİKLER
TERC2503	ER25 - 3 (2-3)
TERC2504	ER25 - 4 (3-4)
TERC2505	ER25 - 5 (4-5)
TERC2506	ER25 - 6 (5-6)
TERC2507	ER25 - 7 (6-7)
TERC2508	ER25 - 8 (7-8)
TERC2509	ER25 - 9 (8-9)
TERC2510	ER25 - 10 (9-10)
TERC2511	ER25 - 11 (10-11)
TERC2512	ER25 - 12 (11-12)
TERC2513	ER25 - 13 (12-13)
TERC2514	ER25 - 14 (13-14)
TERC2515	ER25 - 15 (14-15)
TERC2516	ER25 - 16 (15-16)

SIZDIRMAZ PENSLER

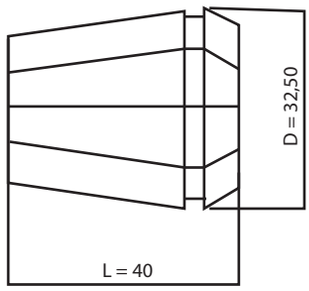


ERC32 PENSLER



KOD	ÖZELLİKLER
TERC3203	ER32 - 3 (2-3)
TERC3204	ER32 - 4 (3-4)
TERC3205	ER32 - 5 (4-5)
TERC3206	ER32 - 6 (5-6)
TERC3207	ER32 - 7 (6-7)
TERC3208	ER32 - 8 (7-8)
TERC3209	ER32 - 9 (8-9)
TERC3210	ER32 - 10 (9-10)
TERC3211	ER32 - 11 (10-11)
TERC3212	ER32 - 12 (11-12)
TERC3213	ER32 - 13 (12-13)
TERC3214	ER32 - 14 (13-14)
TERC3215	ER32 - 15 (14-15)
TERC3216	ER32 - 16 (15-16)
TERC3217	ER32- 17 (16-17)
TERC3218	ER32 - 18 (17-18)
TERC3219	ER32 - 19 (18-19)
TERC3220	ER32 - 20 (19-20)

ERC40 PENSLER

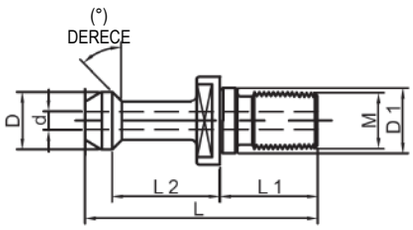


KOD	ÖZELLİKLER
TERC4003	ER40 - 3 (2-3)
TERC4004	ER40 - 4 (3-4)
TERC4005	ER40 - 5 (4-5)
TERC4006	ER40 - 6 (5-6)
TERC4007	ER40 - 7 (6-7)
TERC4008	ER40 - 8 (7-8)
TERC4009	ER40 - 9 (8-9)
TERC4010	ER40 - 10 (9-10)
TERC4011	ER40 - 11 (10-11)
TERC4012	ER40 - 12 (11-12)
TERC4013	ER40 - 13 (12-13)
TERC4014	ER40 - 14 (13-14)
TERC4015	ER40 - 15 (14-15)
TERC4016	ER40 - 16 (15-16)
TERC4017	ER40- 17 (16-17)
TERC4018	ER40 - 18 (17-18)
TERC4019	ER40 - 19 (18-19)
TERC4020	ER40 - 20 (19-20)
TERC4021	ER40 - 21 (20-21)
TERC4022	ER40 - 22 (21-22)
TERC4023	ER40 - 23 (22-23)
TERC4024	ER40 - 24 (23-24)
TERC4025	ER40 - 25 (24-25)
TERC4026	ER40 - 26 (25-26)

TUTUCU ÇEKTİRME CİVATALARI (PULSTAD)

BT ÇEKTİRME CİVATALARI

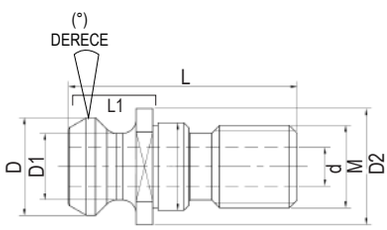




KOD	(°) DERECE	İÇTEN SU VERME	D (mm)	D1 (mm)	d (mm)	M	L (mm)	L1 (mm)	L2 (mm)
BT30CV	45	DELİKSİZ	11	12,50	-	M12	43	20	18
BT30CVS	45	DELİKLİ	11	12,50	4,50	M12	43	20	18
BT40CV	45	DELİKSİZ	15	17	-	M16	60	25	28
BT40CVS	45	DELİKLİ	15	17	3,30	M16	60	25	28
BT40CVMAZ	45	DELİKLİ	18,976	17	7	M16	44,106	25	14,026
BT50CV	45	DELİKSİZ	23	25	-	M24	85	40	35
BT50CVS	45	DELİKLİ	23	25	8,50	M24	85	40	35

SK40-CAT40- İSO7388 ÇEKTİRME CİVATALARI

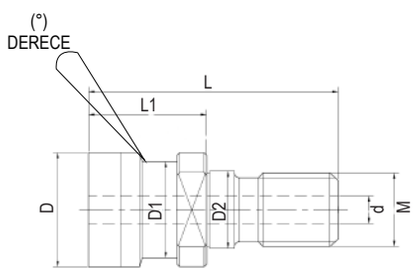




KOD	(°) DERECE	İÇTEN SU VERME	D (mm)	D1 (mm)	d (mm)	M	D2 (mm)	L (mm)	L1 (mm)
SK40CV	15	DELİKLİ	19	14	7	M16	22	54	26
7388BCV	45	DELİKLİ	18,95	12,95	7,35	M16	22	44,40	16,40
7388CV	45	DELİKLİ	18,97	14	7	M16	22	54	26
CAT40CV	45	DELİKLİ	18,796	12,446	7	5/8”-11	23,50	38,10	16,256
MAZCAT40CV	45	DELİKLİ	18,796	12,446	7	M16	22	41,256	16,256

İSO ÇEKTİRME CİVATALARI





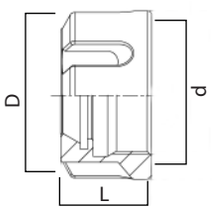
KOD	(°) DERECE	İÇTEN SU VERME	D (mm)	D1 (mm)	d (mm)	M	D2 (mm)	L (mm)	L1 (mm)
İSO40CV	15	DELİKLİ	25	21,10	7	M16	17	53	25,10
İSO50CV	-	-	39,60	30,20	7	M24	25	65,10	25,10



MORS KAMASI

KOD	ÖZELLİKLER
T007501	MK1/2
T007502	MK3
T007503	MK4

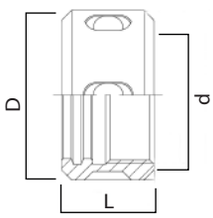




ER UM KAPAK

KOD	D (mm)	L (mm)	d (mm)
ER16UM	32	17,5	M22x1,5
ER20UM	35	19	M25x1,5
ER25UM	42	20	M32x1,5
ER32UM	50	22,5	M40x1,5
ER40UM	63	25,5	M50x1,5

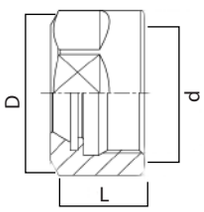




OZ KAPAK

KOD	D (mm)	L (mm)	d (mm)
462UM	60	30	M48x2,0
467UM	72	33,5	M60x2,5

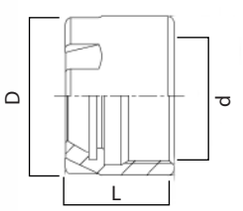




ER PENS KAPAK - ANAHTAR AĞIZLI

KOD	D (mm)	L (mm)	d (mm)
ER11KA	19	11,3	M14x0,75
ER16KA	28	17,5	M22x1,5
ER20KA	34	19	M25x1,5





ER PENS KAPAK - MİNİ TİP

KOD	D (mm)	L (mm)	d (mm)
ER8KM	12	10	M10x0,75
ER11KM	16	12	M13x0,75
ER16KM	22	18	M19x1
ER20KM	28	19	M24x1
ER25KM	35	20	M30x1



MONTAJ APARATI

KOD	ÖLÇÜ	AÇIKLAMA
T007601	BT30	DÖKÜM GÖVDE
T007602	BT40	DÖKÜM GÖVDE
T007603	BT50	DÖKÜM GÖVDE
T007604	BT40	ALUMİN. GÖVDE
T007605	BT50	ALUMİN.GÖVDE



ÇELİK MONTAJ APARATI

KOD	AÇIKLAMA
T007606	BT 40-HSK63A



ER ANAHTAR

KOD	ÖZELLİKLER
ER16ANH	ER16
ER20ANH	ER 20
ER25ANH	ER 25
ER32ANH	ER 32
ER40ANH	ER 40



OZ ANAHTAR

KOD	ÖZELLİKLER
462ANH	OZ 25 462
467ANH	OZ 32 467

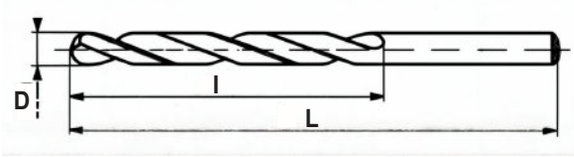


ER ANAHTAR MİNİ TİP

KOD	ÖZELLİKLER
ER8ANHM	ER 8
ER11ANHM	ER 11
ER16ANHM	ER 16
ER20ANHM	ER 20
ER25ANHM	ER 25

HSS MATKAP UCU FULLY GROUND DIN338



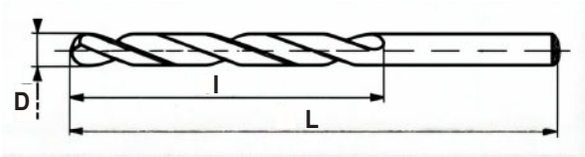


KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T3380010F	1,0	34	12	10
T3380011F	1,1	36	14	10
T3380012F	1,2	38	16	10
T3380013F	1,3	38	16	10
T3380014F	1,4	40	18	10
T3380015F	1,5	40	18	10
T3380016F	1,6	43	20	10
T3380017F	1,7	43	20	10
T3380018F	1,8	46	22	10
T3380019F	1,9	46	22	10
T3380020F	2,0	49	24	10
T3380021F	2,1	49	24	10
T3380022F	2,2	53	27	10
T3380023F	2,3	53	27	10
T3380024F	2,4	57	30	10
T3380025F	2,5	57	30	10
T3380026F	2,6	57	30	10
T3380027F	2,7	61	33	10
T3380028F	2,8	61	33	10
T3380029F	2,9	61	33	10
T3380030F	3,0	61	33	10
T3380031F	3,1	65	36	10
T3380032F	3,2	65	36	10
T3380033F	3,3	65	36	10
T3380034F	3,4	70	39	10
T3380035F	3,5	70	39	10
T3380036F	3,6	70	39	10
T3380037F	3,7	70	39	10
T3380038F	3,8	75	43	10
T3380039F	3,9	75	43	10
T3380040F	4,0	75	43	10
T3380041F	4,1	75	43	10
T3380042F	4,2	75	43	10
T3380043F	4,3	80	47	10
T3380044F	4,4	80	47	10
T3380045F	4,5	80	47	10
T3380046F	4,6	80	47	10
T3380047F	4,7	80	47	10
T3380048F	4,8	86	52	10
T3380049F	4,9	86	52	10
T3380050F	5,0	86	52	10
T3380051F	5,1	86	52	10
T3380052F	5,2	86	52	10
T3380053F	5,3	86	52	10
T3380054F	5,4	93	57	10

KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T3380055F	5,5	93	57	10
T3380056F	5,6	93	57	10
T3380057F	5,7	93	57	10
T3380058F	5,8	93	57	10
T3380059F	5,9	93	57	10
T3380060F	6,0	93	57	10
T3380061F	6,1	101	63	10
T3380062F	6,2	101	63	10
T3380063F	6,3	101	63	10
T3380064F	6,4	101	63	10
T3380065F	6,5	101	63	10
T3380066F	6,6	101	63	10
T3380067F	6,7	101	63	10
T3380068F	6,8	109	69	10
T3380069F	6,9	109	69	10
T3380070F	7,0	109	69	10
T3380071F	7,1	109	69	10
T3380072F	7,2	109	69	10
T3380073F	7,3	109	69	10
T3380074F	7,4	109	69	10
T3380075F	7,5	109	69	10
T3380076F	7,6	117	75	10
T3380077F	7,7	117	75	10
T3380078F	7,8	117	75	10
T3380079F	7,9	117	75	10
T3380080F	8,0	117	75	10
T3380081F	8,1	117	75	10
T3380082F	8,2	117	75	10
T3380083F	8,3	117	75	10
T3380084F	8,4	117	75	10
T3380085F	8,5	117	75	10
T3380086F	8,6	125	81	5
T3380087F	8,7	125	81	5
T3380088F	8,8	125	81	5
T3380089F	8,9	125	81	5
T3380090F	9,0	125	81	5
T3380091F	9,1	125	81	5
T3380092F	9,2	125	81	5
T3380093F	9,3	125	81	5
T3380094F	9,4	125	81	5
T3380095F	9,5	125	81	5
T3380096F	9,6	133	87	5
T3380097F	9,7	133	87	5
T3380098F	9,8	133	87	5
T3380099F	9,9	133	87	5

HSS MATKAP UCU FULLY GROUND DIN338



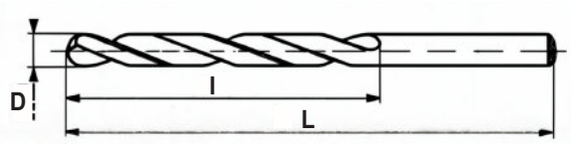


KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T3380100F	10,0	133	87	5
T3380101F	10,1	133	87	5
T3380102F	10,2	133	87	5
T3380103F	10,3	133	87	5
T3380104F	10,4	133	87	5
T3380105F	10,5	133	94	5
T3380106F	10,6	133	94	5
T3380107F	10,7	142	94	5
T3380108F	10,8	142	94	5
T3380109F	10,9	142	94	5
T3380110F	11,0	142	94	5
T3380111F	11,1	142	94	5
T3380112F	11,2	142	94	5
T3380113F	11,3	142	94	5
T3380114F	11,4	142	94	5
T3380115F	11,5	142	94	5
T3380116F	11,6	142	94	5
T3380117F	11,7	142	94	5
T3380118F	11,8	142	94	5
T3380119F	11,9	151	101	5
T3380120F	12,0	151	101	5
T3380121F	12,1	151	101	5
T3380122F	12,2	151	101	5
T3380123F	12,3	151	101	5
T3380124F	12,4	151	101	5
T3380125F	12,5	151	101	5
T3380126F	12,6	151	101	5
T3380127F	12,7	151	101	5
T3380128F	12,8	151	101	5
T3380129F	12,9	151	101	5
T3380130F	13,0	151	101	5
T3380131F	13,1	151	101	1
T3380132F	13,2	151	101	1
T3380133F	13,3	160	108	1
T3380134F	13,4	160	108	1
T3380135F	13,5	160	108	1
T3380136F	13,6	160	108	1
T3380137F	13,7	160	108	1
T3380138F	13,8	160	108	1
T3380139F	13,9	160	108	1
T3380140F	14,0	160	108	1
T3380141F	14,1	169	114	1
T3380142F	14,2	169	114	1
T3380143F	14,3	169	114	1
T3380144F	14,4	169	114	1

KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T3380145F	14,5	169	114	1
T3380146F	14,6	169	114	1
T3380147F	14,7	169	114	1
T3380148F	14,8	169	114	1
T3380149F	14,9	169	114	1
T3380150F	15,0	169	114	1
T3380151F	15,1	169	120	1
T3380152F	15,2	178	120	1
T3380153F	15,3	178	120	1
T3380154F	15,4	178	120	1
T3380155F	15,5	178	120	1
T3380156F	15,6	178	120	1
T3380157F	15,7	178	120	1
T3380158F	15,8	178	120	1
T3380159F	15,9	178	120	1
T3380160F	16,0	178	120	1
T3380165F	16,5	184	125	1
T3380170F	17,0	184	125	1
T3380175F	17,5	191	130	1
T3380180F	18,0	191	130	1
T3380185F	18,5	198	135	1
T3380190F	19,0	198	135	1
T3380195F	19,5	205	140	1
T3380200F	20,0	205	140	1
T3380205F	20,5	205	145	1
T3380210F	21,0	205	145	1
T3380215F	21,5	210	150	1
T3380220F	22,0	210	150	1
T3380225F	22,5	215	155	1
T3380230F	23,0	215	155	1
T3380235F	23,5	220	160	1
T3380240F	24,0	220	160	1
T3380245F	24,5	220	160	1
T3380250F	25,0	220	160	1

HSS-E COBALT ALTIN SERİ MATKAP UCU DIN338





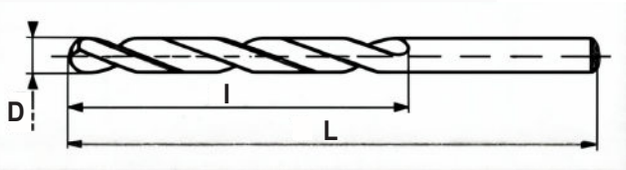
KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T3380005CO	0,5	22	6	10
T3380006CO	0,6	24	7	10
T3380007CO	0,7	28	9	10
T3380008CO	0,8	30	10	10
T3380009CO	0,9	32	11	10
T3380010CO	1,0	34	12	10
T3380011CO	1,1	36	14	10
T3380012CO	1,2	38	16	10
T3380013CO	1,3	38	16	10
T3380014CO	1,4	40	18	10
T3380015CO	1,5	40	18	10
T3380016CO	1,6	43	20	10
T3380017CO	1,7	43	20	10
T3380018CO	1,8	46	22	10
T3380019CO	1,9	46	22	10
T3380020CO	2,0	49	24	10
T3380021CO	2,1	49	24	10
T3380022CO	2,2	53	27	10
T3380023CO	2,3	53	27	10
T3380024CO	2,4	57	30	10
T3380025CO	2,5	57	30	10
T3380026CO	2,6	57	30	10
T3380027CO	2,7	61	33	10
T3380028CO	2,8	61	33	10
T3380029CO	2,9	61	33	10
T3380030CO	3,0	61	33	10
T3380031CO	3,1	65	36	10
T3380032CO	3,2	65	36	10
T3380033CO	3,3	65	36	10
T3380034CO	3,4	70	39	10
T3380035CO	3,5	70	39	10
T3380036CO	3,6	70	39	10
T3380037CO	3,7	70	39	10
T3380038CO	3,8	75	43	10
T3380039CO	3,9	75	43	10
T3380040CO	4,0	75	43	10
T3380041CO	4,1	75	43	10
T3380042CO	4,2	75	43	10
T3380043CO	4,3	80	47	10
T3380044CO	4,4	80	47	10
T3380045CO	4,5	80	47	10
T3380046CO	4,6	80	47	10
T3380047CO	4,7	80	47	10
T3380048CO	4,8	86	52	10
T3380049CO	4,9	86	52	10

KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T3380050CO	5,0	86	52	10
T3380051CO	5,1	86	52	10
T3380052CO	5,2	86	52	10
T3380053CO	5,3	86	52	10
T3380054CO	5,4	93	57	10
T3380055CO	5,5	93	57	10
T3380056CO	5,6	93	57	10
T3380057CO	5,7	93	57	10
T3380058CO	5,8	93	57	10
T3380059CO	5,9	93	57	10
T3380060CO	6,0	93	57	10
T3380061CO	6,1	101	63	10
T3380062CO	6,2	101	63	10
T3380063CO	6,3	101	63	10
T3380064CO	6,4	101	63	10
T3380065CO	6,5	101	63	10
T3380066CO	6,6	101	63	10
T3380067CO	6,7	101	63	10
T3380068CO	6,8	109	69	10
T3380069CO	6,9	109	69	10
T3380070CO	7,0	109	69	10
T3380071CO	7,1	109	69	10
T3380072CO	7,2	109	69	10
T3380073CO	7,3	109	69	10
T3380074CO	7,4	109	69	10
T3380075CO	7,5	109	69	10
T3380076CO	7,6	117	75	10
T3380077CO	7,7	117	75	10
T3380078CO	7,8	117	75	10
T3380079CO	7,9	117	75	10
T3380080CO	8,0	117	75	10
T3380081CO	8,1	117	75	10
T3380082CO	8,2	117	75	10
T3380083CO	8,3	117	75	10
T3380084CO	8,4	117	75	10
T3380085CO	8,5	117	75	10
T3380086CO	8,6	125	81	5
T3380087CO	8,7	125	81	5
T3380088CO	8,8	125	81	5
T3380089CO	8,9	125	81	5
T3380090CO	9,0	125	81	5
T3380091CO	9,1	125	81	5
T3380092CO	9,2	125	81	5
T3380093CO	9,3	125	81	5
T3380094CO	9,4	125	81	5

HSS-E COBALT ALTIN SERİ MATKAP UCU DIN338



KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T3380095CO	9,5	125	81	5
T3380096CO	9,6	133	87	5
T3380097CO	9,7	133	87	5
T3380098CO	9,8	133	87	5
T3380099CO	9,9	133	87	5
T3380100CO	10,0	133	87	5
T3380101CO	10,1	133	87	5
T3380102CO	10,2	133	87	5
T3380103CO	10,3	133	87	5
T3380104CO	10,4	133	87	5
T3380105CO	10,5	133	94	5
T3380106CO	10,6	133	94	5
T3380107CO	10,7	142	94	5
T3380108CO	10,8	142	94	5
T3380109CO	10,9	142	94	5
T3380110CO	11,0	142	94	5
T3380111CO	11,1	142	94	5
T3380112CO	11,2	142	94	5
T3380113CO	11,3	142	94	5
T3380114CO	11,4	142	94	5
T3380115CO	11,5	142	94	5
T3380116CO	11,6	142	94	5
T3380117CO	11,7	142	94	5
T3380118CO	11,8	142	94	5
T3380119CO	11,9	151	101	5
T3380120CO	12,0	151	101	5
T3380121CO	12,1	151	101	5
T3380122CO	12,2	151	101	5
T3380123CO	12,3	151	101	5
T3380124CO	12,4	151	101	5
T3380125CO	12,5	151	101	5
T3380126CO	12,6	151	101	5
T3380127CO	12,7	151	101	5
T3380128CO	12,8	151	101	5
T3380129CO	12,9	151	101	5
T3380130CO	13,0	151	101	5
T3380131CO	13,1	151	101	1
T3380132CO	13,2	151	101	1
T3380133CO	13,3	160	108	1
T3380134CO	13,4	160	108	1
T3380135CO	13,5	160	108	1
T3380136CO	13,6	160	108	1
T3380137CO	13,7	160	108	1
T3380138CO	13,8	160	108	1
T3380139CO	13,9	160	108	1

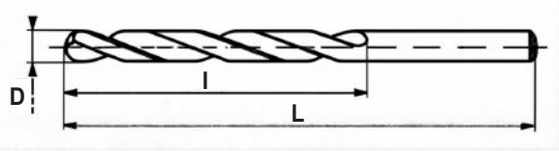


KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T3380140CO	14,0	160	108	1
T3380141CO	14,1	169	114	1
T3380142CO	14,2	169	114	1
T3380143CO	14,3	169	114	1
T3380144CO	14,4	169	114	1
T3380145CO	14,5	169	114	1
T3380146CO	14,6	169	114	1
T3380147CO	14,7	169	114	1
T3380148CO	14,8	169	114	1
T3380149CO	14,9	169	114	1
T3380150CO	15,0	169	114	1
T3380151CO	15,1	169	120	1
T3380152CO	15,2	178	120	1
T3380153CO	15,3	178	120	1
T3380154CO	15,4	178	120	1
T3380155CO	15,5	178	120	1
T3380156CO	15,6	178	120	1
T3380157CO	15,7	178	120	1
T3380158CO	15,8	178	120	1
T3380159CO	15,9	178	120	1
T3380160CO	16,0	178	120	1
T3380165CO	16,5	184	125	1
T3380170CO	17,0	184	125	1
T3380175CO	17,5	191	130	1
T3380180CO	18,0	191	130	1
T3380185CO	18,5	198	135	1
T3380190CO	19,0	198	135	1
T3380195CO	19,5	205	140	1
T3380200CO	20,0	205	140	1

UZUN MATKAP UCU DIN340
HSS TAŞLANMIŞ

DIN340 HSS TAŞLANMIŞ



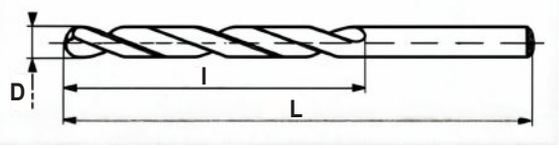


KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T340010	1,0	56	33	10
T340015	1,5	70	45	10
T340020	2,0	85	56	10
T340025	2,5	95	62	10
T340030	3,0	100	66	10
T340032	3,2	106	69	10
T340033	3,3	106	69	10
T340035	3,5	112	73	10
T340040	4,0	119	78	10
T340042	4,2	119	78	10
T340045	4,5	126	82	10
T340050	5,0	132	87	10
T340052	5,2	134	90	10
T340055	5,5	139	91	10
T340060	6,0	139	91	10
T340065	6,5	148	97	10
T340070	7,0	156	102	10
T340075	7,5	156	102	10
T340080	8,0	165	109	10
T340085	8,5	165	109	10
T340090	9,0	175	115	10

KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
T340095	9,5	175	115	10
T340100	10,0	184	121	5
T340105	10,5	184	121	5
T340110	11,0	195	128	5
T340115	11,5	195	128	5
T340120	12,0	205	134	5
T340125	12,5	205	134	5
T340130	13,0	205	134	5
T340135	13,5	214	140	1
T340140	14,0	214	140	1
T340145	14,5	220	144	1
T340150	15,0	220	144	1
T340155	15,5	227	149	1
T340160	16,0	227	149	1
T340165	16,5	235	154	1
T340170	17,0	235	154	1
T340175	17,5	241	158	1
T340180	18,0	241	158	1
T340185	18,5	247	162	1
T340190	19,0	247	162	1
T340195	19,5	254	166	1
T340200	20,0	254	166	1

DIN 340 HSS GT-100 SERİSİ





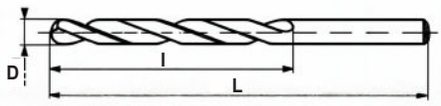
KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
TGT340010	1,0	56	33	10
TGT340015	1,5	70	45	10
TGT340020	2,0	85	56	10
TGT340025	2,5	95	62	10
TGT340030	3,0	100	66	10
TGT340032	3,2	106	69	10
TGT340033	3,3	106	69	10
TGT340035	3,5	112	73	10
TGT340040	4,0	119	78	10
TGT340042	4,2	119	78	10
TGT340045	4,5	126	82	10
TGT340050	5,0	132	87	10
TGT340052	5,2	134	90	10
TGT340055	5,5	139	91	10
TGT340060	6,0	139	91	10
TGT340065	6,5	148	97	10
TGT340070	7,0	156	102	10
TGT340075	7,5	156	102	10
TGT340080	8,0	165	109	10
TGT340085	8,5	165	109	10
TGT340090	9,0	175	115	10

KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
TGT340095	9,5	175	115	10
TGT340100	10,0	184	121	5
TGT340105	10,5	184	121	5
TGT340110	11,0	195	128	5
TGT340115	11,5	195	128	5
TGT340120	12,0	205	134	5
TGT340125	12,5	205	134	5
TGT340130	13,0	205	134	5
TGT340135	13,5	214	140	1
TGT340140	14,0	214	140	1
TGT340145	14,5	220	144	1
TGT340150	15,0	220	144	1
TGT340155	15,5	227	149	1
TGT340160	16,0	227	149	1
TGT340165	16,5	235	154	1
TGT340170	17,0	235	154	1
TGT340175	17,5	241	158	1
TGT340180	18,0	241	158	1
TGT340185	18,5	247	162	1
TGT340190	19,0	247	162	1
TGT340195	19,5	254	166	1
TGT340200	20,0	254	166	1

UZUN MATKAP UCU DIN1869
HSS GT-100 SERİSİ

1869-1 GT-100 SERİSİ



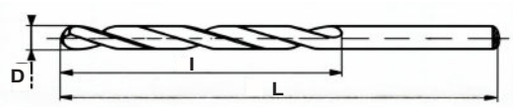


KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
1T1869010	1,0	96	60	10
1T1869015	1,5	120	80	10
1T1869020	2,0	125	85	10
1T1869025	2,5	140	95	10
1T1869030	3,0	150	100	10
1T1869032	3,2	150	100	10
1T1869033	3,3	150	100	10
1T1869035	3,5	165	115	10
1T1869040	4,0	175	120	10
1T1869042	4,2	180	125	10
1T1869045	4,5	185	125	10
1T1869050	5,0	195	135	10
1T1869052	5,2	195	135	10
1T1869055	5,5	205	140	10
1T1869060	6,0	205	140	10

KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
1T1869065	6,5	215	150	10
1T1869068	6,8	215	150	10
1T1869070	7,0	225	155	10
1T1869075	7,5	225	155	10
1T1869080	8,0	240	165	10
1T1869085	8,5	240	165	10
1T1869090	9,0	250	175	10
1T1869095	9,5	250	175	5
1T1869100	10,0	265	185	5
1T1869105	10,5	265	185	5
1T1869110	11,0	280	195	5
1T1869115	11,5	280	195	5
1T1869120	12,0	295	205	5
1T1869125	12,5	295	205	5
1T1869130	13,0	295	205	5

1869-2 GT-100 SERİSİ



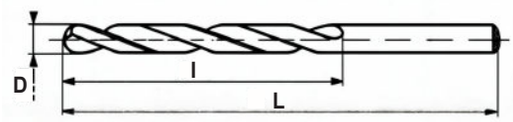


KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
2T1869010	1,0	115	80	10
2T1869015	1,5	135	90	10
2T1869020	2,0	160	110	10
2T1869025	2,5	180	120	10
2T1869030	3,0	190	130	10
2T1869032	3,2	200	135	10
2T1869035	3,5	210	145	10
2T1869040	4,0	220	150	10
2T1869042	4,2	220	150	10
2T1869045	4,5	235	160	10
2T1869050	5,0	245	170	10
2T1869052	5,2	245	170	10
2T1869055	5,5	260	180	10
2T1869060	6,0	260	180	10

KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
2T1869065	6,5	275	190	10
2T1869070	7,0	290	200	10
2T1869075	7,5	290	200	10
2T1869080	8,0	305	210	10
2T1869085	8,5	305	210	10
2T1869090	9,0	320	220	10
2T1869095	9,5	320	220	5
2T1869100	10,0	340	235	5
2T1869105	10,5	340	235	5
2T1869110	11,0	365	250	5
2T1869115	11,5	365	250	5
2T1869120	12,0	375	260	5
2T1869125	12,5	375	260	5
2T1869130	13,0	375	260	5

1869-3 GT-100 SERİSİ



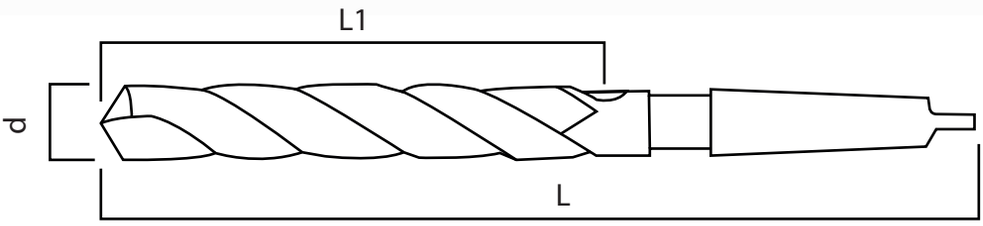


KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
3T1869020	2,0	200	135	10
3T1869025	2,5	225	150	10
3T1869030	3,0	235	160	10
3T1869032	3,2	250	171	10
3T1869035	3,5	265	180	10
3T1869040	4,0	280	190	10
3T1869042	4,2	280	190	10
3T1869045	4,5	295	200	10
3T1869050	5,0	315	210	10
3T1869052	5,2	315	210	10
3T1869055	5,5	330	225	10
3T1869060	6,0	330	225	10
3T1869065	6,5	350	235	10

KOD	D (mm)	L (mm)	l (mm)	PAKET ADEDİ
3T1869070	7,0	370	250	10
3T1869075	7,5	370	250	10
3T1869080	8,0	390	265	10
3T1869085	8,5	390	265	10
3T1869090	9,0	410	280	10
3T1869095	9,5	410	280	5
3T1869100	10,0	430	295	5
3T1869105	10,5	430	295	5
3T1869110	11,0	455	310	5
3T1869115	11,5	455	310	5
3T1869120	12,0	480	330	5
3T1869125	12,5	480	330	5
3T1869130	13,0	480	330	5

HSS KONİK SAPLI MATKAP UCU DIN345

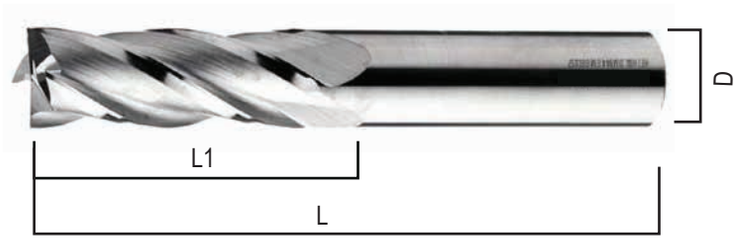




KOD	d (mm) ÖLÇÜ	L (mm)	L1 (mm)	MK
T345150	15,0	212	114	2
T345155	15,5	218	120	2
T345160	16,0	218	120	2
T345165	16,5	223	125	2
T345170	17,0	223	125	2
T345175	17,5	228	130	2
T345180	18,0	228	130	2
T345185	18,5	233	135	2
T345190	19,0	233	135	2
T345195	19,5	238	140	2
T345200	20,0	238	140	2
T345205	20,5	243	145	2
T345210	21,0	243	150	2
T345215	21,5	248	150	2
T345220	22,0	248	150	2
T345225	22,5	253	155	2
T345230	23,0	253	155	2
T345235	23,5	276	155	3
T345240	24,0	281	160	3
T345245	24,5	281	160	3
T345250	25,0	281	160	3
T345255	25,5	286	165	3
T345260	26,0	286	165	3
T345265	26,5	286	165	3
T345270	27,0	291	170	3
T345275	27,5	291	170	3
T345280	28,0	291	175	3
T345285	28,5	296	175	3
T345290	29,0	296	175	3

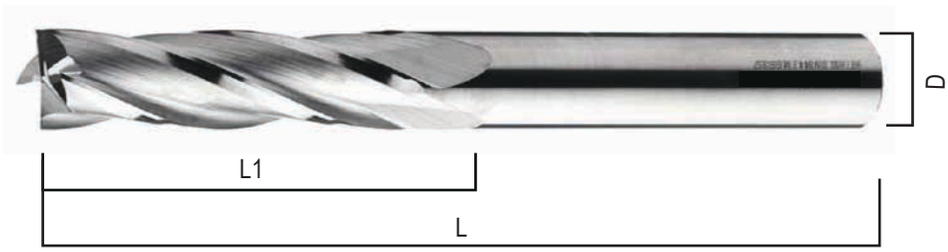
KOD	d (mm) ÖLÇÜ	L (mm)	L1 (mm)	MK
T345295	29,5	296	175	3
T345300	30,0	296	175	3
T345305	30,5	301	180	3
T345310	31,0	301	180	3
T345315	31,5	301	180	3
T345320	32,0	334	185	4
T345325	32,5	334	185	4
T345330	33,0	334	185	4
T345335	33,5	334	190	4
T345340	34,0	339	190	4
T345345	34,5	339	190	4
T345350	35,0	339	190	4
T345355	35,5	339	195	4
T345360	36,0	344	195	4
T345365	36,5	344	195	4
T345370	37,0	344	195	4
T345375	37,5	344	200	4
T345380	38,0	349	200	4
T345385	38,5	349	200	4
T345390	39,0	349	200	4
T345395	39,5	349	200	4
T345400	40,0	349	205	4
T345405	40,5	354	205	4
T345410	41,0	354	205	4
T345415	41,5	354	205	4
T345420	42,0	354	205	4
T345450	45,0	359	215	4
T345500	50,0	369	225	4

HSS PARMAK FREZELER



DIN 844

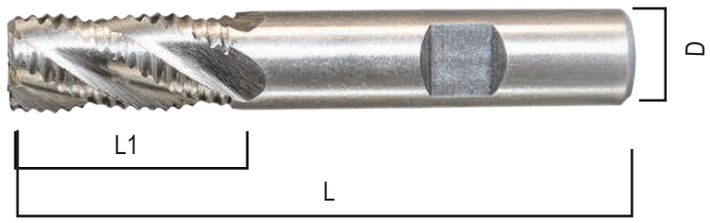
KOD	D (mm)	L1 (mm)	L (mm)	ŞAFT
TP844020	2	7	51	6
TP844025	2,5	8	52	6
TP844030	3	9	52	6
TP844040	4	11	55	6
TP844050	5	13	57	6
TP844060	6	13	57	6
TP844070	7	16	66	10
TP844080	8	19	69	10
TP844090	9	19	69	10
TP844100	10	22	72	10
TP844110	11	22	79	12
TP844120	12	26	83	12
TP844130	13	26	83	12
TP844140	14	26	83	12
TP844150	15	26	83	12
TP844160	16	32	92	16
TP844170	17	32	92	16
TP844180	18	32	92	16
TP844190	19	32	92	16
TP844200	20	38	104	20
TP844220	22	38	104	20
TP844240	24	45	121	25
TP844250	25	45	121	25
TP844260	26	45	121	25
TP844280	28	45	121	25
TP844300	30	45	121	25
TP844320	32	53	133	32



DIN 844

KOD	D (mm)	L1 (mm)	L (mm)	ŞAFT
TPU844020	2	12	56	6
TPU844030	3	12	56	6
TPU844040	4	19	63	6
TPU844050	5	24	68	6
TPU844060	6	24	68	6
TPU844070	7	30	80	10
TPU844080	8	38	88	10
TPU844090	9	38	88	10
TPU844100	10	45	95	10
TPU844110	11	45	102	12
TPU844120	12	53	110	12
TPU844140	14	53	110	12
TPU844150	15	53	110	12
TPU844160	16	63	123	16
TPU844180	18	63	123	16
TPU844200	20	75	141	20
TPU844220	22	75	141	20
TPU844240	24	90	166	25
TPU844250	25	90	166	25
TPU844260	26	90	166	25
TPU844280	28	90	166	25
TPU844300	30	90	166	25
TPU844320	32	106	186	32

HSS KABATALAŞ PARMAK FREZELER



KOD	D (mm)	L1 (mm)	L (mm)	ŞAFT
TK844060	6	13	57	6
TK844070	7	16	66	10
TK844080	8	19	59	10
TK844090	9	19	59	10
TK844100	10	22	72	10
TK844110	11	22	79	12
TK844120	12	26	83	12
TK844130	13	26	83	12
TK844140	14	26	83	12
TK844150	15	26	83	12
TK844160	16	32	92	16
TK844170	17	32	92	16
TK844180	18	32	92	16
TK844190	19	32	92	16
TK844200	20	38	104	20
TK844220	22	38	104	20
TK844240	24	45	121	25
TK844250	25	45	121	25
TK844260	26	45	121	25
TK844280	28	45	121	25
TK844300	30	45	121	25
TK844320	32	53	133	32
TK844340	34	53	133	32
TK844350	35	53	133	32

HSS UZUN KABATALAŞ PARMAK FREZELER



KOD	D (mm)	L1 (mm)	L (mm)	ŞAFT
TKU844060	6	24	68	6
TKU844070	7	30	80	10
TKU844080	8	38	88	10
TKU844090	9	38	88	10
TKU844100	10	45	95	10
TKU844110	11	45	102	12
TKU844120	12	53	110	12
TKU844130	13	53	110	12
TKU844140	14	53	110	12
TKU844150	15	53	110	12
TKU844160	16	63	123	16
TKU844170	17	63	123	16
TKU844180	18	63	123	16
TKU844190	19	63	123	16
TKU844200	20	75	141	20
TKU844220	22	75	141	20
TKU844240	24	90	166	25
TKU844250	25	90	166	25
TKU844260	26	90	166	25
TKU844280	28	90	166	25
TKU844300	30	90	166	25
TKU844320	32	106	186	32
TKU844340	34	106	186	32
TKU844350	35	106	186	32

HSS EL ve MAKİNA RAYBASI H7

SİLİNDİR SAPLI EL RAYBASI HSS H7

DIN 206B



KOD	D (mm)	L1 (mm)	L (mm)
T206030	3	31	62
T206040	4	38	76
T206050	5	44	87
T206060	6	47	93
T206070	7	54	107
T206080	8	58	115
T206090	9	62	124
T206100	10	66	133
T206110	11	71	142
T206120	12	76	152
T206130	13	76	152
T206140	14	81	163
T206150	15	81	163
T206160	16	87	175
T206170	17	87	175
T206180	18	93	188
T206190	19	93	188
T206200	20	100	201
T206210	21	100	201
T206220	22	107	215
T206230	23	107	215
T206240	24	115	231
T206250	25	115	231
T206260	26	115	231
T206270	27	124	247
T206280	28	124	247
T206300	30	124	247

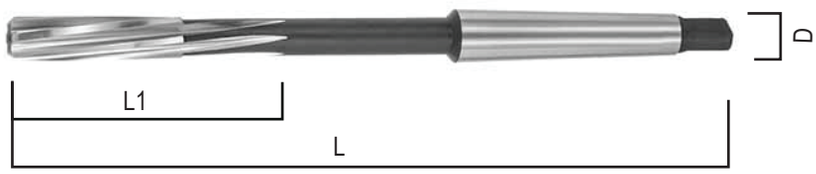
SİLİNDİR SAPLI MAKİNA RAYBASI HSS H7

DIN 212B



KOD	D (mm)	L1 (mm)	L (mm)
T212030	3	15	61
T212040	4	19	75
T212050	5	23	86
T212060	6	26	93
T212070	7	31	109
T212080	8	33	117
T212090	9	36	125
T212100	10	38	133
T212110	11	41	142
T212120	12	44	151
T212130	13	44	151
T212140	14	47	160
T212150	15	50	162
T212160	16	52	170
T212170	17	54	175
T212180	18	56	182
T212190	19	58	189
T212200	20	60	190
T212210	21	60	225
T212220	22	60	225
T212230	23	60	240
T212240	24	60	240
T212250	25	60	245
T212260	26	60	250
T212270	27	65	270
T212280	28	65	270
T212290	29	65	280
T212300	30	70	280

HSS KONİK SAPLI MAKİNA RAYBASI H7

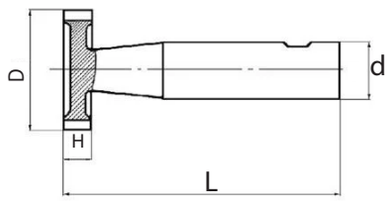


DIN 208B

KOD	D (mm)	L1 (mm)	L (mm)
T208050	5	25	135
T208060	6	26	138
T208070	7	31	150
T208080	8	33	156
T208090	9	36	162
T208100	10	38	168
T208110	11	41	175
T208120	12	44	182
T208130	13	44	182
T208140	14	47	189
T208150	15	50	204
T208160	16	52	210
T208170	17	54	214
T208180	18	56	219
T208190	19	58	223
T208200	20	60	228
T208210	21	62	232
T208220	22	64	237
T208230	23	66	241
T208240	24	66	264
T208250	25	68	268
T208260	26	70	273
T208270	27	71	277
T208280	28	71	277
T208290	29	73	281
T208300	30	73	281
T208310	31	77	317
T208320	32	77	317
T208330	33	78	321
T208340	34	78	321
T208350	35	78	321
T208360	36	79	325
T208370	37	81	329
T208380	38	81	329
T208390	39	82	329
T208400	40	82	333
T208450	45	90	335
T208500	50	95	350

HSS T FREZELER

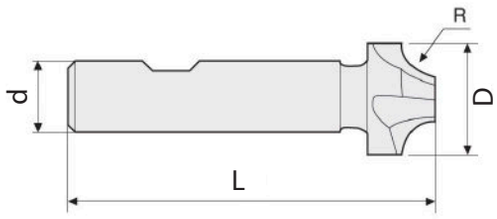




KOD	D (mm)	H (mm)	L (mm)	d (mm)	DİŞ SAYISI
TRF10502	10,5	2	50	6	6
TRF10525	10,5	2,5	50	6	6
TRF10503	10,5	3	50	6	6
TRF13502	13,5	2	56	8	6
TRF13503	13,5	3	56	8	6
TRF13504	13,5	4	56	8	6
TRF16502	16,5	2	56	10	6
TRF16503	16,5	3	56	10	6
TRF16504	16,5	4	56	10	6
TRF16505	16,5	5	56	10	6
TRF19503	19,5	3	56	12	8
TRF19504	19,5	4	56	12	8
TRF19505	19,5	5	56	12	8
TRF19506	19,5	6	56	12	8
TRF22504	22,5	4	56	12	8
TRF22505	22,5	5	63	12	8
TRF22506	22,5	6	63	12	8
TRF22508	22,5	8	63	12	8
TRF25505	25,5	5	63	12	10
TRF25506	25,5	6	63	12	10
TRF28506	28,5	6	63	12	10
TRF28508	28,5	8	63	12	10
TRF28510	28,5	10	71	12	10
TRF32506	32,5	6	71	16	10
TRF32507	32,5	7	71	16	10
TRF32508	32,5	8	71	16	10
TRF32510	32,5	10	71	16	10
TRF38508	38,5	8	71	16	10
TRF45508	45,5	8	71	20	12
TRF45510	45,5	10	71	20	12

HSS KÖŞE YUVARLAMA FREZELERİ



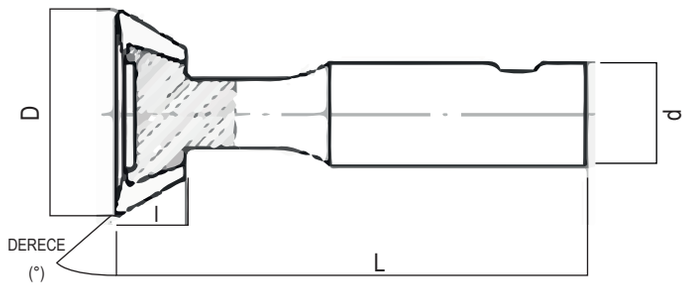


KOD	R (mm)	D (mm)	L (mm)	d (mm)	DİŞ SAYISI
TKV10010	1	9	60	10	4
TKV10015	1,5	9	60	10	4
TKV10020	2	10	60	10	4
TKV10025	2,5	11	60	10	4
TKV10030	3	12	60	12	4
TKV10035	3,5	13	60	12	4
TKV10040	4	14	60	12	4
TKV10045	4,5	15	60	12	4
TKV10050	5	16	60	12	4
TKV10055	5,5	19	67	16	4
TKV10060	6	20	67	16	4
TKV10065	6,5	21	71	16	4
TKV10070	7	22	71	16	4
TKV10075	7,5	23	71	16	4
TKV10080	8	24	71	16	4
TKV10085	8,5	25	85	25	4
TKV10100	10	28	85	25	4
TKV10120	12	34	90	25	4

KIRLANGIÇ ve SABİT PİLOT FREZELERİ

KIRLANGIÇ FREZE DIN 1833A



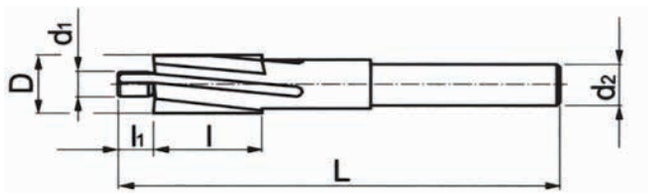


*** HSSE CO5**

KOD	DERECE (°)	D (mm)	l (mm)	L (mm)	d (mm)	DİŞ SAYISI
TK45016	45°	16	4	60	12	10
TK45020	45°	20	5	63	12	10
TK45025	45°	25	6,3	67	12	10
TK45032	45°	32	8	71	16	12
TK60016	60°	16	6,3	60	12	10
TK60020	60°	20	8	63	12	10
TK60025	60°	25	10	67	12	10
TK60032	60°	32	12,5	71	16	12

SABİT PİLOTLU HAVŞA FREZE HSS



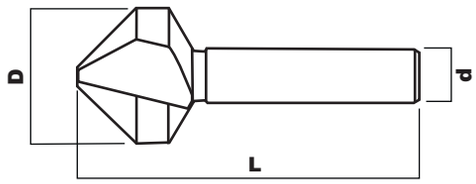


KOD	CİVATA	D (mm)	d1 (mm)	d2 (mm)	L (mm)	1 (mm)	ı (mm)
T37303	M3	6	3,2	5	71	14	4
T37304	M4	8	4,3	5	71	14	4
T37305	M5	10	5,3	8	80	18	6
T37306	M6	11	6,4	8	80	18	6
T37308	M8	15	8,4	12,5	100	22	8
T37310	M10	18	10,5	12,5	100	22	10
T37312	M12	20	13	12,5	100	22	12
T37314	M14	24	15	12,5	100	22	14
T37316	M16	24	15	12,5	100	22	16

HSS HAVŞA FREZELERİ

HAVŞA FREZE 90º

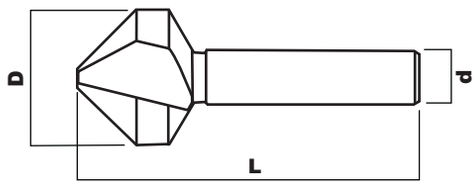




KOD	D (mm)	d (mm)	L (mm)
T335083	8,3	50	6
T335104	10,4	50	8
T335124	12,4	56	10
T335160	16,0	60	10
T335165	16,5	60	10
T335200	20,0	63	10
T335205	20,5	63	10
T335250	25,0	67	10
T335255	25,5	67	10
T335300	30,0	71	10
T335350	35,0	80	12
T335400	40,0	80	12
T335500	50,0	85	12

HAVŞA FREZE 60°



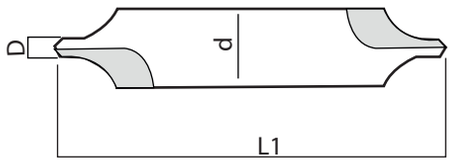


KOD	D (mm)	d (mm)	L (mm)
T334080	8	6	50
T334100	10	8	50
T334125	12,5	8	56
T334160	16	10	60
T334200	20	10	63
T334250	25	12	67
T334300	30	12	71
T334400	40	12	80

HSS PUNTA MATKAP UÇLARI

PUNTA MATKABI DIN 333A - HSS

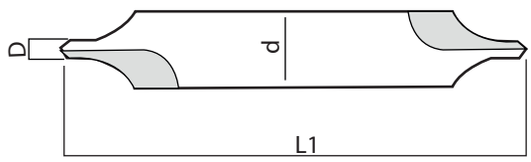




KOD	D (mm) ÖLÇÜ	d (mm)	L1 (mm)
T333A100	1,00	3,15	31,50
T333A125	1,25	3,15	31,50
T333A160	1,60	4,00	35,5
T333A200	2,00	5,00	40,0
T333A250	2,50	6,30	45,0
T333A315	3,15	8,00	50,0
T333A400	4,00	10,00	56,0
T333A500	5,00	12,50	63,0
T333A630	6,30	16,00	71,0
T333A800	8,00	20,00	80,0
T333A1000	10,00	25,00	100,0

UZUN PUNTA MATKABI DIN 333A - HSS



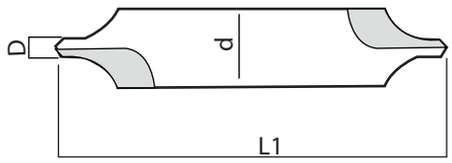


KOD	D (mm) ÖLÇÜ	d (mm)	L1 (mm)
T333U200	2,00	5,00	76
T333U250	2,50	6,30	102
T333U315	3,15	8,00	102
T333U400	4,00	10,00	127
T333U500	5,00	12,50	127
T333U630	6,30	16,00	127

PUNTA MATKABI DIN 333A - HSS CO5

*** COBALTLI**

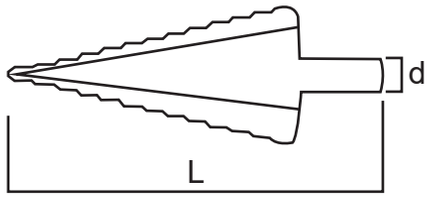




KOD	ÖLÇÜ	GÖBEK ÇAPI
TCO333A200	2,00	5,00
TCO333A250	2,50	5,00
TCO333A315	3,15	8,00
TCO333A400	4,00	10,00
TCO333A500	5,00	12,50
TCO333A630	6,30	1600
TCO333A800	8,00	20,00
TCO333A1000	10,00	25,00

KADEMELİ SAÇ MATKAPLARI





KOD	ÖLÇÜ	L (mm)	d (mm)	EBAT ÖLÇÜLERİ (mm)
T4170420	4-20 mm x 2 mm	70	8	4-6-8-10-12-16-18-20
T4170636	6-36 mm x 3 mm	100	10	6-8-10-12-16-18-20-22-24-26-28-30-32-34-36
T4170439	4-39 mm x 3 mm	100	10	4-6-8-10-12-16-18-20-22-24-26-28-30-32-34-36-39

KADEMELİ SAÇ MATKAP SET

KOD	SET İÇERİĞİ (mm)
T417SET	4-12 / 4-20 / 4-30



HSS TORNA KALEMLERİ

4 KÖŞELİ HSS TORNA KALEMİ



KOD	AÇIKLAMA
T30101	6 * 6 * 150 mm
T30102	6 * 6 * 200 mm
T30103	8 * 8 * 150 mm
T30104	8 * 8 * 200 mm
T30105	10 * 10 * 150 mm
T30106	10 * 10 * 200 mm
T30107	12 * 12 * 150 mm
T30108	12 * 12 * 200 mm
T30109	14 * 14 * 200 mm
T30110	16 * 16 * 200 mm
T30111	18 * 18 * 200 mm
T30112	20 * 20 * 200 mm

HSS TRAPEZ KESKİ KALEMİ (Zaviyeli)



KOD	AÇIKLAMA
T31101	3 mm*12 - (1/2) *160
T31102	3 mm*16 - (5/8) *160
T31103	3 mm*20 - (3/4) *160
T31104	4 mm*12 - (1/2) *160
T31105	4 mm*16 - (5/8) *160
T31106	4 mm*20 - (3/4) *160
T31107	4 mm*22 - (7/8) *160

HSS LAMA KESME KALEMİ

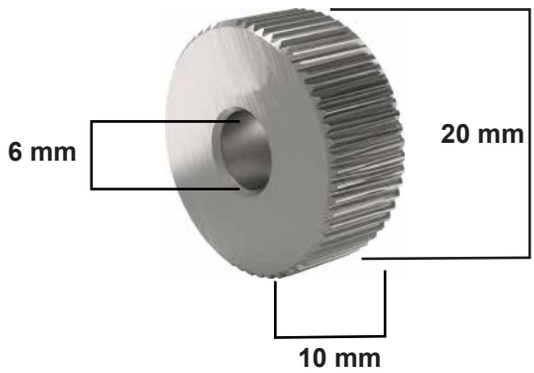


KOD	AÇIKLAMA
T31201	1/2 - 4*160 mm
T31202	5/8 - 4*160 mm
T31203	3/4 - 4*160 mm
T31204	7/8 - 4*160 mm

DÜZ TIRTIR

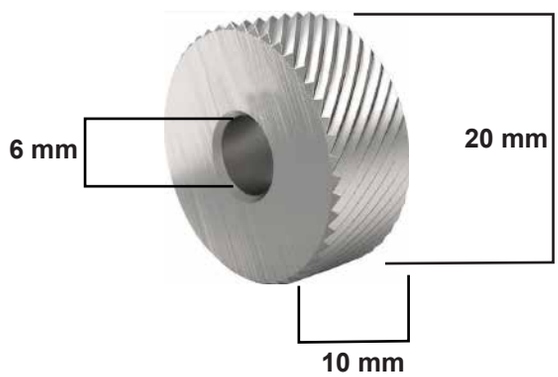
YENİ ÜRÜN

KOD	HATVE
TTIRD06	0,6
TTIRD08	0,8
TTIRD10	1,0
TTIRD12	1,2
TTIRD16	1,6
TTIRD18	1,8
TTIRD20	2,0



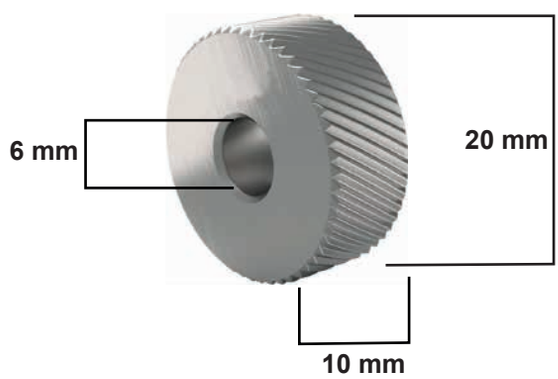
SOL TIRTIR

KOD	HATVE
TTIRL06	0,6
TTIRL08	0,8
TTIRL10	1,0
TTIRL12	1,2
TTIRL16	1,6
TTIRL18	1,8
TTIRL20	2,0



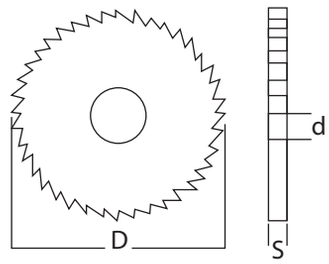
SAĞ TIRTIR

KOD	HATVE
TTIRR06	0,6
TTIRR08	0,8
TTIRR10	1,0
TTIRR12	1,2
TTIRR16	1,6
TTIRR18	1,8
TTIRR20	2,0



HSS DAİRE TESTERELER



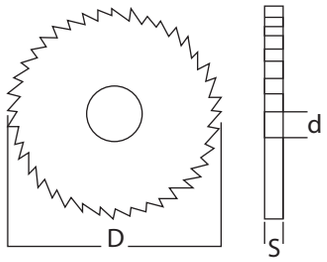


KOD	DxS	d	Z
T50001	32x1,0	8	48
T50002	32x1,2	8	48
T50003	32x1,5	8	48
T50004	32x1,6	8	48
T50005	32x2,0	8	48
T50006	32x3,0	8	32
T50007	32x4,0	8	32
T50008	32x5,0	8	32
T50009	40x0,2	10	128
T50010	40x0,3	10	100
T50011	40x0,4	10	128
T50012	40x0,5	10	80
T50013	40x0,6	10	80
T50014	40x0,7	10	80
T50015	40x0,8	10	80
T50016	40x0,9	10	80
T50017	40x1,0	10	64
T50018	40x1,2	10	64
T50019	40x1,5	10	64
T50020	40x1,6	10	64
T50021	40x2,0	10	48
T50022	40x2,5	10	48
T50023	40x3,0	10	48
T50024	50x0,2	13	128
T50025	50x0,3	13	128
T50026	50x0,4	13	100
T50027	50x0,5	13	100
T50028	50x0,6	13	100
T50029	50x0,7	13	100
T50030	50x0,8	13	80
T50031	50x0,9	13	80
T50032	50x1,0	13	80
T50033	50x1,2	13	80
T50034	50x1,5	13	64
T50035	50x1,6	13	64
T50036	50x2,0	13	64

KOD	DxS	d	Z
T50037	50x2,5	13	64
T50038	50x3,0	13	48
T50039	50x4,0	13	48
T50040	50x5,0	13	48
T50041	63x0,2	16	128
T50042	63x0,3	16	128
T50043	63x0,4	16	128
T50044	63x0,5	16	128
T50045	63x0,6	16	100
T50046	63x0,7	16	100
T50047	63x0,8	16	100
T50048	63x0,9	16	100
T50049	63x1,0	16	100
T50050	63x1,2	16	100
T50051	63x1,5	16	80
T50052	63x1,6	16	80
T50053	63x2,0	16	80
T50054	63x2,5	16	64
T50055	63x3,0	16	64
T50056	63x3,5	16	64
T50057	63x4,0	16	64
T50058	63x5,0	16	48
T50059	63x6,0	16	48
T50060	80x0,3	22	160
T50061	80x0,4	22	160
T50062	80x0,5	22	128
T50063	80x0,6	22	128
T50064	80x0,7	22	128
T50065	80x0,8	22	128
T50066	80x0,9	22	128
T50067	80x1,0	22	100
T50068	80x1,2	22	100
T50069	80x1,4	22	100
T50070	80x1,5	22	100
T50071	80x1,6	22	100
T50072	80x2,0	22	80

HSS DAİRE TESTERELER



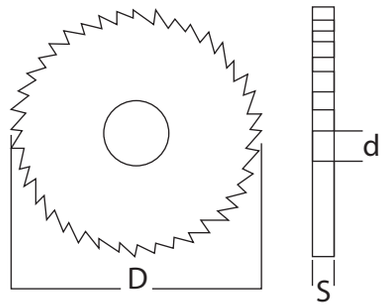


KOD	DxS	d	Z
T50073	80x2,5	22	80
T50074	80x3,0	22	80
T50075	80x3,5	22	80
T50076	80x4,0	22	64
T50077	80x5,0	22	64
T50078	80x6,0	22	64
T50079	100x0,5	22	160
T50080	100x0,6	22	160
T50081	100x0,7	22	160
T50082	100x0,8	22	128
T50083	100x0,9	22	128
T50084	100x1,0	22	128
T50085	100x1,2	22	128
T50086	100x1,5	22	128
T50087	100x1,6	22	100
T50088	100x2,0	22	100
T50089	100x2,5	22	100
T50090	100x3,0	22	80
T50091	100x3,5	22	80
T50092	100x4,0	22	80
T50093	100x5,0	22	80
T50094	100x6,0	22	64
T50095	125x0,6	22	160
T50096	125x0,8	22	160
T50097	125x1,0	22	160
T50098	125x1,2	22	128
T50099	125x1,5	22	128
T50100	125x1,6	22	128
T50101	125x2,0	22	128
T50102	125x2,5	22	100
T50103	125x3,0	22	100
T50104	125x3,5	22	100
T50105	125x4,0	22	100
T50106	125x5,0	22	80
T50107	125x6,0	22	80

KOD	DxS	d	Z
T50108	160x1,0	32	160
T50109	160x1,2	32	160
T50110	160x1,4	32	80
T50111	160x1,6	32	160
T50112	160x2,0	32	128
T50113	160x2,5	32	128
T50114	160x3,0	32	128
T50115	160x3,5	32	128
T50116	160x4,0	32	100
T50117	160x5,0	32	100
T50118	160x6,0	32	100
T50119	200x1,0	32	200
T50120	200x1,2	32	200
T50121	200x1,5	32	200
T50122	200x1,6	32	200
T50123	200x2,0	32	160
T50124	200x2,5	32	160
T50125	200x3,0	32	128
T50126	200x3,5	32	128
T50127	200x4,0	32	128
T50128	200x4,5	32	128
T50129	200x5,0	32	128
T50130	200x6,0	32	100
T50131	250x2,0	32	200
T50132	250x2,5	32	200
T50133	250x3,0	32	200
T50134	250x4,0	32	160
T50135	250x5,0	32	160
T50136	275x2,5	32	220
T50137	275x3,0	32	160
T50138	275x4,0	32	160
T50139	275x5,0	32	160
T50140	300x3,0	32	160
T50141	300x4,0	32	160
T50142	300x5,0	32	160

KARBÜR DAİRE TESTERELER

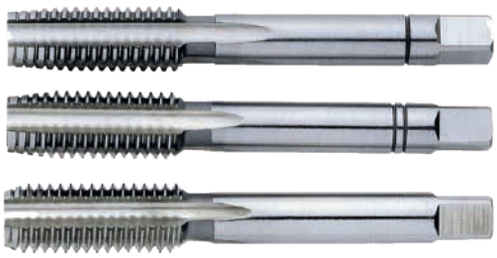


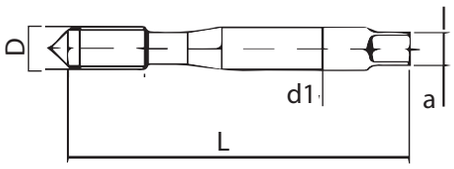


KOD	DxS	d	Z
T51001	30x0,5	10	80
T51002	30x0,6	10	80
T51003	30x0,7	10	80
T51004	30x0,8	10	80
T51005	30x0,9	10	80
T51006	30x1,0	10	64
T51007	30x1,2	10	64
T51008	30x1,5	10	64
T51009	30x1,6	10	64
T51010	30x2,0	10	48
T51011	30x2,5	10	48
T51012	30x3,0	10	48
T51013	40x0,2	10	128
T51014	40x0,3	10	100
T51015	40x0,4	10	100
T51016	40x0,5	10	80
T51017	40x0,6	10	80
T51018	40x0,7	10	80
T51019	40x0,8	10	80
T51020	40x1,0	10	64
T51021	40x1,2	10	64
T51022	40x1,5	10	64
T51023	40x1,6	10	64
T51024	40x2,0	10	48
T51025	40x2,5	10	48

KOD	DxS	d	Z
T51026	40x3,0	10	48
T51027	50x1,0	13	80
T51028	50x1,5	13	64
T51029	50x2,0	13	64
T51030	50x2,5	13	64
T51031	50x3,0	13	48
T51032	63x1,0	16	100
T51033	63x1,5	16	80
T51034	63x2,0	16	64
T51035	63x2,5	16	64
T51036	63x3,0	16	64
T51037	63x3,5	16	64
T51038	80x1,0	22	100
T51039	80x1,5	22	100
T51040	80x2,0	22	80
T51041	80x2,5	22	80
T51042	80x3,0	22	80
T51043	80x3,5	22	80
T51044	100x1,0	22	128
T51045	100x1,5	22	128
T51046	100x2,0	22	100
T51047	100x2,5	22	100
T51048	100x3,0	22	80
T51049	100x3,5	22	80

HSS 3'LÜ METRİK EL TAKIM KILAVUZU DIN 352



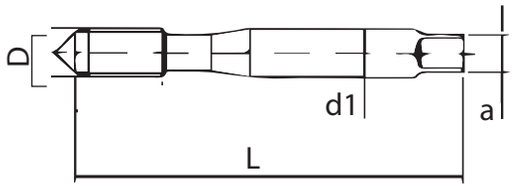


	KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
DIN 352	T35203	M3	0,5	40	3,5	2,7	2,5
	T35204	M4	0,7	45	4,5	3,4	3,3
	T35205	M5	0,8	50	6	4,9	4,2
	T35206	M6	1	56	6	4,9	5
	T35208	M8	1,25	63	6	4,9	6,8
	T35210	M10	1,5	70	7	5,5	8,5
	T35212	M12	1,75	75	9	7	10,2
	T35214	M14	2	80	11	9	12
	T35216	M16	2	80	12	9	14
	T35218	M18	2,5	95	14	11	15,5
	T35220	M20	2,5	95	16	12	17,5
	T35222	M22	2,5	100	18	14,5	19,5
	T35224	M24	3	110	18	14,5	21
	T35227	M27	3	110	20	16	24
	T35230	M30	3,5	125	22	18	26,5

HSS KILAVUZLAR

HSS TİN KAPLI DÜZ MAKİNA KILAVUZU

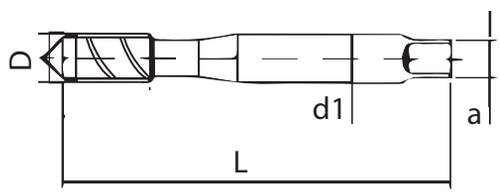




	KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
DIN371 B	T371B03T	M3	0,5	56	3,5	2,7	2,5
	T371B04T	M4	0,7	63	4,5	3,4	3,3
	T371B05T	M5	0,8	70	6	4,9	4,2
	T371B06T	M6	1	80	6	4,9	5
	T371B08T	M8	1,25	90	8	6,2	6,8
	T371B10T	M10	1,5	100	10	8	8,5
DIN376 B	T376B12T	M12	1,75	110	9	7	10,2
	T376B14T	M14	2	110	11	9	12
	T376B16T	M16	2	110	12	9	14
	T376B18T	M18	2,5	125	14	11	15,5
	T376B20T	M20	2,5	140	16	12	17,5
	T376B22T	M22	2,5	140	18	14,5	19,5
	T376B24T	M24	3	160	18	14,5	21
	T376B27T	M27	3	160	20	16	24
	T376B30T	M30	3,5	180	22	18	26,5

HSS TİN KAPLI HELİS MAKİNA KILAVUZU

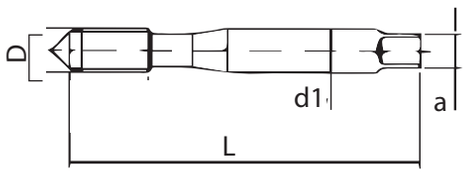




	KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
DIN371 B	T371C03T	M3	0,5	56	3,5	2,7	2,5
	T371C04T	M4	0,7	63	4,5	3,4	3,3
	T371C05T	M5	0,8	70	6	4,9	4,2
	T371C06T	M6	1	80	6	4,9	5
	T371C08T	M8	1,25	90	8	6,2	6,8
	T371C10T	M10	1,5	100	10	8	8,5
DIN376 B	T376C12T	M12	1,75	110	9	7	10,2
	T376C14T	M14	2	110	11	9	12
	T376C16T	M16	2	110	12	9	14
	T376C18T	M18	2,5	125	14	11	15,5
	T376C20T	M20	2,5	140	16	12	17,5
	T376C22T	M22	2,5	140	18	14,5	19,5
	T376C24T	M24	3	160	18	14,5	21
	T376C27T	M27	3	160	20	16	24
	T376C30T	M30	3,5	180	22	18	26,5

HSS-E COBALT TIAIN KAPLI DÜZ MAKİNA KILAVUZU

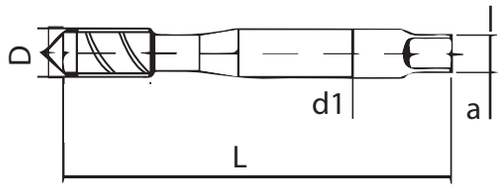




	KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
DIN371 B	T4060030	M3	0,5	56	3,5	2,7	2,5
	T4060040	M4	0,7	63	4,5	3,4	3,3
	T4060050	M5	0,8	70	6	4,9	4,2
	T4060060	M6	1	80	6	4,9	5
	T4060080	M8	1,25	90	8	6,2	6,8
	T4060100	M10	1,5	100	10	8	8,5
DIN376 B	T4060120	M12	1,75	110	9	7	0,2
	T4060140	M14	2	110	11	9	12
	T4060160	M16	2	110	12	9	14
	T4060180	M18	2,5	125	14	11	15,5
	T4060200	M20	2,5	140	16	12	17,5

HSS-E COBALT TIAIN KAPLI HELİS MAKİNA KILAVUZU



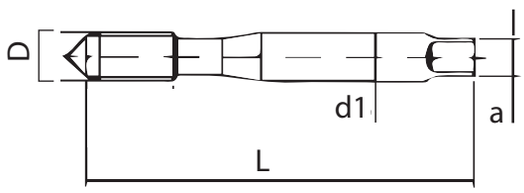


	KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
DIN371 B	T4070030	M3	0,5	56	3,5	2,7	2,5
	T4070040	M4	0,7	63	4,5	3,4	3,3
	T4070050	M5	0,8	70	6	4,9	4,2
	T4070060	M6	1	80	6	4,9	5
	T4070080	M8	1,25	90	8	6,2	6,8
	T4070100	M10	1,5	100	10	8	8,5
DIN376 B	T4070120	M12	1,75	110	9	7	0,2
	T4070140	M14	2	110	11	9	12
	T4070160	M16	2	110	12	9	14
	T4070180	M18	2,5	125	14	11	15,5
	T4070200	M20	2,5	140	16	12	17,5

PASLANMAZ DÜZ KILAVUZ

YENİ ÜRÜN



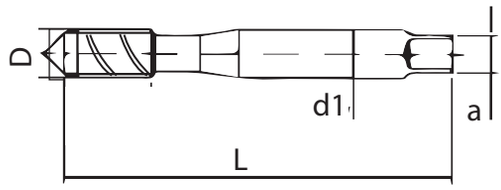


	KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
DIN371 B	TİNO371B03	M3	0,5	56	3,5	2,7	2,5
	TİNO371B04	M4	0,7	63	4,5	3,4	3,3
	TİNO371B05	M5	0,8	70	6	4,9	4,2
	TİNO371B06	M6	1	80	6	4,9	5
	TİNO371B08	M8	1,25	90	8	6,2	6,8
	TİNO371B10	M10	1,5	100	10	8	8,5
DIN376 B	TİNO376B12	M12	1,75	110	9	7	10,2
	TİNO376B14	M14	2	110	11	9	12
	TİNO376B16	M16	2	110	12	9	14
	TİNO376B18	M18	2,5	125	14	11	15,5
	TİNO376B20	M20	2,5	140	16	12	17,5

PASLANMAZ HELİS KILAVUZ

YENİ ÜRÜN

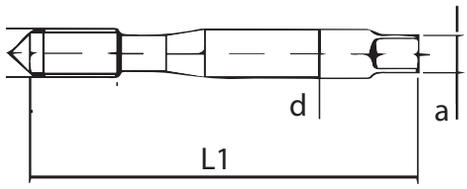




	KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
DIN371 C	TİNO371C03	M3	0,5	56	3,5	2,7	2,5
	TİNO371C04	M4	0,7	63	4,5	3,4	3,3
	TİNO371C05	M5	0,8	70	6	4,9	4,2
	TİNO371C06	M6	1	80	6	4,9	5
	TİNO371C08	M8	1,25	90	8	6,2	6,8
	TİNO371C10	M10	1,5	100	10	8	8,5
DIN376 C	TİNO376C12	M12	1,75	110	9	7	10,2
	TİNO376C14	M14	2	110	11	9	12
	TİNO376C16	M16	2	110	12	9	14
	TİNO376C18	M18	2,5	125	14	11	15,5
	TİNO376C20	M20	2,5	140	16	12	17,5

SOL MAKİNA KILAVUZU DÜZ HSS

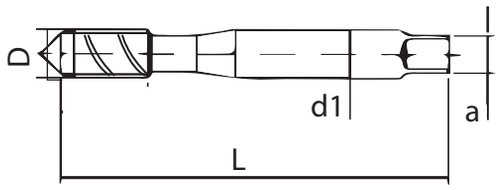




KOD	ÖLÇÜ	DİŞ HATVESİ	L1 (mm)	d (mm)	a (mm)
TLH371B03	M3	0,5	56	3,5	2,7
TLH371B04	M4	0,7	63	4,5	3,4
TLH371B05	M5	0,8	70	6	4,9
TLH371B06	M6	1	80	6	4,9
TLH371B08	M8	1,25	90	8	6,2
TLH371B10	M10	1,5	100	10	8
TLH376B12	M12	1,75	110	9	7
TLH376B14	M14	2	110	11	9
TLH376B16	M16	2	110	12	9
TLH376B18	M18	2,5	125	14	11
TLH376B20	M20	2,5	140	16	12

SOL MAKİNA KILAVUZU HELİS HSS



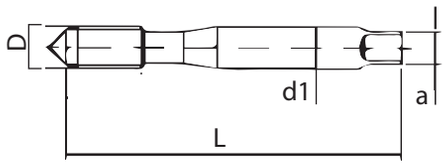


KOD	ÖLÇÜ	DİŞ HATVESİ	L1 (mm)	D1 (mm)	a (mm)
TLH371C03	M3	0,5	56	3,5	2,7
TLH371C04	M4	0,7	63	4,5	3,4
TLH371C05	M5	0,8	70	6	4,9
TLH371C06	M6	1	80	6	4,9
TLH371C08	M8	1,25	90	8	6,2
TLH371C10	M10	1,5	100	10	8
TLH376C12	M12	1,75	110	9	7
TLH376C14	M14	2	110	11	9
TLH376C16	M16	2	110	12	9
TLH376C18	M18	2,5	125	14	11
TLH376C20	M20	2,5	140	16	12

HSS İNCE DİŞ KILAVUZLAR

HSS TİN KAPLI İNCE DİŞ DÜZ MAKİNA KILAVUZU



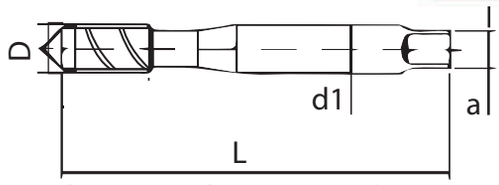


	KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
DIN 371	T40500675	M6	0,75	80	4,5	3,4	5,2
	T40500810	M8	1	90	6	4,9	7
	T40501010	M10	1	90	7	5,5	9
	T40501025	M10	1,25	100	7	5,5	8,8
DIN 376	T40501210	M12	1	100	9	7	11
	T40501225	M12	1,25	100	9	7	10,8
	T40501250	M12	1,5	100	9	7	10,5
	T40501410	M14	1	100	11	9	13
	T40501425	M14	1,25	100	11	9	12,8
	T40501450	M14	1,5	100	11	9	12,5
	T40501610	M16	1	100	12	9	15
	T40501650	M16	1,5	100	12	9	14,5
	T40501810	M18	1	110	14	11	17
	T40501850	M18	1,5	110	14	11	16,5
	T40502010	M20	1	125	16	12	19
	T40502050	M20	1,5	125	16	12	18,5

HSS TİN KAPLI İNCE DİŞ HELİS MAKİNA KILAVUZU

YENİ ÜRÜN



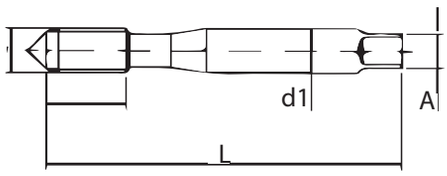


	KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
DIN 371	T40400675	M6	0,75	80	4,5	3,4	5,2
	T40400810	M8	1	90	6	4,9	7
	T40401010	M10	1	90	7	5,5	9
	T40401025	M10	1,25	100	7	5,5	8,8
DIN 376	T40401210	M12	1	100	9	7	11
	T40401225	M12	1,25	100	9	7	10,8
	T40401250	M12	1,5	100	9	7	10,5
	T40401410	M14	1	100	11	9	13
	T40401425	M14	1,25	100	11	9	12,8
	T40401450	M14	1,5	100	11	9	12,5
	T40401610	M16	1	100	12	9	15
	T40401650	M16	1,5	100	12	9	14,5
	T40401810	M18	1	110	14	11	17
	T40401850	M18	1,5	110	14	11	16,5
	T40402010	M20	1	125	16	12	19
	T40402050	M20	1,5	125	16	12	18,5

HSS ATLAMALI ve NPT KONİK KILAVUZLARI

HSS ATLAMALI KILAVUZ

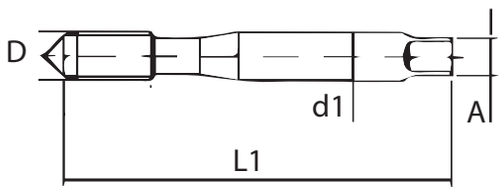




	KOD	ÖLÇÜ	DİŞ HATVESİ	L (mm)	d1 (mm)	A (mm)
DIN 371	TAT371B03	M3	0,5	56	3,5	2,7
	TAT371B04	M4	0,7	63	4,5	3,4
	TAT371B05	M5	0,8	70	6	4,9
	TAT371B06	M6	1	80	6	4,9
	TAT371B08	M8	1,25	90	8	6,2
	TAT371B10	M10	1,5	100	10	8
DIN 376	TAT376B12	M12	1,75	110	9	7
	TAT376B14	M14	2	110	11	9
	TAT376B16	M16	2	110	12	9

HSS NPT KONİK KILAVUZ



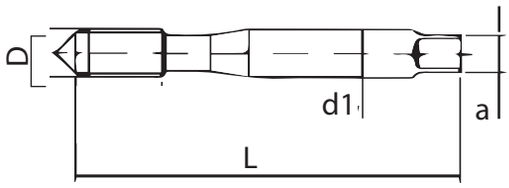


KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L1 (mm)	d1 (mm)	A (mm)	MATKAP ÇAPI
TNPT416018	NPT 1/8	27	54	11	8,3	8,4
TNPT416014	NPT 1/4	18	62	14	10,7	11,1
TNPT416038	NPT 3/8	18	65	18	13,50	14,4
TNPT416012	NPT 1/2	14	80	17,50	13	17,8
TNPT416034	NPT 3/4	14	82	23	17,20	23
TNPT416100	NPT 1	11,50	95	28,50	21,40	29

HSS GAZ DİŞ MAKİNA KILAVUZLARI

GAZ DİŞ MAKİNA KILAVUZU DÜZ



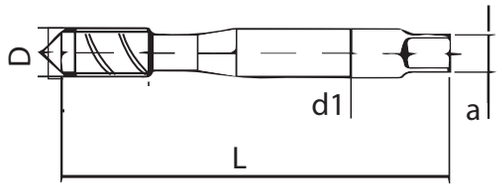


DIN 5156 G

KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a (mm)	DİŞ SAYISI
T4080018	G 1/8”	28	90	7	5,5	3
T4080014	G 1/4”	19	100	11	9	3
T4080038	G 3/8”	19	100	12	9	4
T4080012	G 1/2”	14	125	16	12	4
T4080058	G 5/8”	14	125	18	14,5	4
T4080034	G 3/4”	14	140	22	18	4
T4080078	G 7/8”	14	150	22	18	4
T4080100	G 1”	11	160	25	20	4
T4081114	G 1. 1/4	11	170	32	24	4
T4081112	G1. 1/2”	11	190	36	29	6
T4080200	G2”	11	220	45	35	6

GAZ DİŞ MAKİNA KILAVUZU HELİS



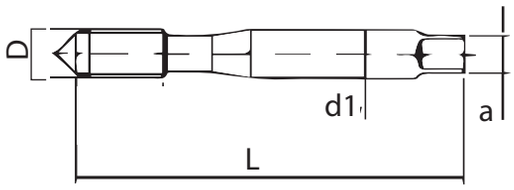


DIN 5156 G

KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a (mm)	DİŞ SAYISI
T4100018	G 1/8”	28	90	7	5,5	3
T4100014	G 1/4”	19	100	11	9	3
T4100038	G 3/8”	19	100	12	9	4
T4100012	G 1/2”	14	125	16	12	4
T4100058	G 5/8”	14	125	18	14,5	4
T4100034	G 3/4”	14	140	22	18	4
T4100078	G 7/8”	14	150	22	18	4
T4100100	G 1”	11	160	25	20	4
T4101114	G 1. 1/4	11	170	32	24	4
T4101112	G1. 1/2”	11	190	36	29	6
T4100200	G2”	11	220	45	35	6

UNF DÜZ MAKİNA KILAVUZU



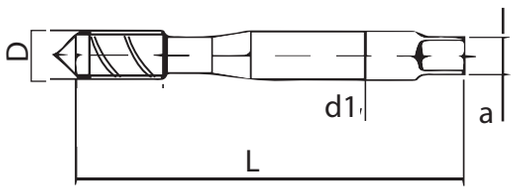


UNF DIN 371

KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
T413014	UNF 1/4	28	80	7	5,5	5,5
T413516	UNF 5/16	24	90	8	6,2	6,9
T413038	UNF 3/8	24	100	9	7	8,5
T413716	UNF 7/16	20	100	8	6,2	9,9
T413012	UNF 1/2	20	100	9	7	11,5
T413916	UNF 9/16	18	100	11	9	12,9
T413058	UNF 5/8	18	100	12	9	14,5
T413034	UNF 3/4	16	110	14	11	17,5
T413078	UNF 7/8	14	125	18	14,5	20,5
T413100	UNF 1	12	125	20	16	23,25

UNF HELİS MAKİNA KILAVUZU





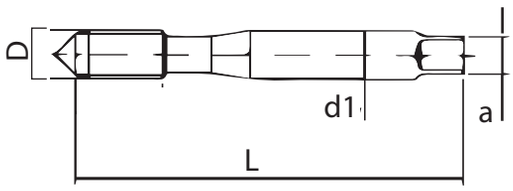
UNF DIN 371

KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
T414014	UNF 1/4	28	80	7	5,5	5,5
T414516	UNF 5/16	24	90	8	6,2	6,9
T414038	UNF 3/8	24	100	9	7	8,5
T414716	UNF 7/16	20	125	8	6,2	9,9
T414012	UNF 1/2	20	125	9	7	11,5
T414916	UNF 9/16	18	140	11	9	12,9
T414058	UNF 5/8	18	150	12	9	14,5
T414034	UNF 3/4	16	160	14	11	17,5
T414078	UNF 7/8	14	170	18	14,5	20,5
T414100	UNF 1	12	170	20	16	23,25

HSS UNC MAKİNA KILAVUZLARI

UNC DÜZ MAKİNA KILAVUZU



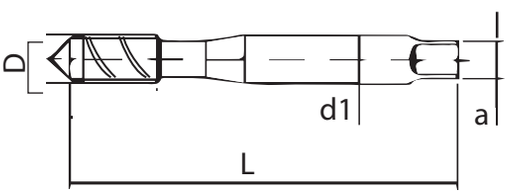


UNC DIN 371

KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
T415014	UNC 1/4	20	80	7	5,5	5,2
T415516	UNC 5/16	18	90	8	6	6,6
T415038	UNC 3/8	16	100	9	7	8
T415716	UNC 7/16	14	100	8	6,2	9,9
T415012	UNC 1/2	13	110	9	7	10,8
T415916	UNC 9/16	12	110	11	9	12,2
T415058	UNC 5/8	11	110	12	9	13,50
T415034	UNC 3/4	10	125	14	11	16,50
T415078	UNC 7/8	9	140	18	14,5	19,50
T415100	UNC 1	8	160	20	16	22,25

UNC HELİS MAKİNA KILAVUZU





UNC DIN 371

KOD	ÖLÇÜ (D)	DİŞ HATVESİ	L (mm)	d1 (mm)	a mm	MATKAP ÇAPI
T416014	UNC 1/4	20	80	7	5,5	5,2
T416516	UNC 5/16	18	90	8	6,2	6,6
T416038	UNC 3/8	16	100	9	7	8
T416716	UNC 7/16	14	100	8	6,2	9,9
T416012	UNC 1/2	13	110	9	7	10,8
T416916	UNC 9/16	12	110	11	9	12,2
T416058	UNC 5/8	11	110	12	9	13,50
T416034	UNC 3/4	10	125	14	11	16,50
T416078	UNC 7/8	9	140	18	14,5	19,50
T416100	UNC 1	8	160	20	16	22,25

HSS PAFTALAR ve TERS KILAVUZ SETLERİ

METRİK PAFTALAR DIN 223



	KOD	ÖLÇÜ	HATVE	DIŞ ÇAP	KALINLIK
DIN 223	T223M03	M3	0,50	20,00	5,00
	T223M04	M4	0,70	20,00	5,00
	T223M05	M5	0,80	20,00	7,00
	T223M06	M6	1,00	20,00	7,00
	T223M08	M8	1,25	25,00	9,00
	T223M10	M10	1,50	30,00	11,00
	T223M12	M12	1,75	38,00	14,00
	T223M14	M14	2,00	38,00	14,00
	T223M16	M16	2,00	45,00	18,00
	T223M18	M18	2,50	45,00	18,00
	T223M20	M20	2,50	45,00	18,00
	T223M22	M22	2,50	55,00	22,00
	T223M24	M24	3,00	55,00	22,00
	T223M27	M27	3,00	65,00	22,00
	T223M30	M30	3,50	65,00	22,00

GAZ DİŞİ PAFTA DIN5158



	KOD	ÖLÇÜ	HATVE	DIŞ ÇAP	KALINLIK
DIN 5158	T4090018	G 1/8″	28	30	11
	T4090014	G 1/4″	19	38	10
	T4090038	G 3/8″	19	45	14
	T4090012	G 1/2″	14	45	14
	T4090058	G 5/8″	14	55	16
	T4090034	G 3/4″	14	55	16
	T4090078	G 7/8″	14	65	18
	T4090100	G 1″	11	65	18

TERS KILAVUZ SETİ



KOD	ÖLÇÜM ARALIĞI
T007901	5 PARÇA (3-19mm)
T007902	6 PARÇA (3-22mm)

DİŞ TAMİR SETLERİ

DİŞ TAMİR SET



KOD	ÖLÇÜ	YAY ADEDİ
THELM020TK	M2x0,4	20
THELM025TK	M2,5x0,45	20
THELM030TK	M3x0,5	20
THELM035TK	M3,5x0,6	20
THELM040TK	M4x0,7	20
THELM050TK	M5x0,8	20
THELM060TK	M6x1	20
THELM080TK	M8x1,25	20
THELM100TK	M10x1,5	10
THELM120TK	M12x1,75	10
THELM140TK	M14x2	10
THELM160TK	M16x2	3
THELM180TK	M18x2,5	3
THELM200TK	M20x2,5	3

DİŞ TAMİR SET M5 - M12



KOD	ÖLÇÜ
THELM5-M12TK	M5-M6-M8-M10-M12

HSS DİŞ TAMİR KILAVUZLAR ve APARATLARI

METRİK DİŞ TAMİR KILAVUZLARI VE APARATLARI







ÖLÇÜ	DİŞ HATVESİ	DÜZ KILAVUZ KOD	TAKMA APARATI	KIRMA APARATI KOD
M2	0,40	THK02040	———	———
M2,5	0,45	THK02545	———	———
M3	0,50	THK03050	THT03050	THKR03050
M4	0,70	THK04070	THT04070	THKR04070
M5	0,80	THK05080	THT05080	THKR05080
M6	1,00	THK06100	THT06100	THKR06100
M7	1,00	THK07100	THT07100	THKR07100
M8	1,25	THK08125	THT08125	THKR08125
M9	1,25	THK09125	THT09125	THKR09125
M10	1,50	THK10150	THT10150	THKR10150
M11	1,50	THK11150	THT11150	THKR11150
M12	1,75	THK12175	THT12175	THKR12175
M14	2,00	THK14200	THT14200	THKR14200
M16	2,00	THK16200	THT16200	THKR16200
M18	2,50	THK18250	THT18250	THKR18250
M20	2,50	THK20250	THT20250	THKR20250

İNCE DİŞ DİŞ TAMİR KILAVUZLARI

ÖLÇÜ	DİŞ HATVESİ	DÜZ KILAVUZ KOD
M8	1,00	THK08100
M10	1,00	THK10100
M10	1,25	THK10125
M12	1,00	THK12100
M12	1,25	THK12125
M12	1,50	THK12150
M14	1,00	THK14100
M14	1,25	THK14125
M14	1,50	THK14150
M16	1,00	THK16100
M16	1,25	THK16125
M16	1,50	THK16150
M18	1,00	THK18100
M18	1,50	THK18150
M20	1,00	THK20100
M20	1,50	THK20150



DİŞ TAMİR YAYLAR

METRİK YAYLAR



ÖLÇÜ	DİŞ HATVESİ	1D KOD	1D	1,5D KOD	1,5D	2D KOD	2D	MATKAP ÇAPLAR	PAKET ADEDİ
M2	0,40	1DHLM02040		15DHLM02040		2DHLM02040		2,1	100
M2,5	0,45	1DHLM02545		15DHLM02545		2DHLM02545		2,6	100
M3	0,50	1DHLM03050		15DHLM03050		2DHLM03050		3,2	100
M4	0,70	1DHLM04070		15DHLM04070		2DHLM04070		4,2	50
M5	0,80	1DHLM05080		15DHLM05080		2DHLM05080		5,2	50
M6	1,00	1DHLM06100		15DHLM06100		2DHLM06100		6,3	50
M7	1,00	1DHLM07100		15DHLM07100		2DHLM07100		7,3	25
M8	1,25	1DHLM08125		15DHLM08125		2DHLM08125		8,3	25
M9	1,25	1DHLM09125		15DHLM09125		2DHLM09125		9,3	25
M10	1,50	1DHLM10150		15DHLM10150		2DHLM10150		10,4	25
M11	1,50	1DHLM11150		15DHLM11150		2DHLM11150		11,4	10
M12	1,75	1DHLM12175		15DHLM12175		2DHLM12175		12,4	10
M14	2,00	1DHLM14200		15DHLM14200		2DHLM14200		14,5	10
M16	2,00	1DHLM16200		15DHLM16200		2DHLM16200		16,5	10
M18	2,50	1DHLM18250		15DHLM18250		2DHLM18250		18,6	10
M20	2,50	1DHLM20250		15DHLM20250		2DHLM20250		20,6	10

İNCE DİŞ YAYLAR



ÖLÇÜ	DİŞ HATVESİ	1D KOD	1D	1,5D KOD	1,5D	2D KOD	2D	MATKAP ÇAPLAR	PAKET ADEDİ
M8	1,00	1DHLM08100		15DHLM08100		2DHLM08100		8,3	25
M10	1,00	1DHLM10100		15DHLM10100		2DHLM10100		10,3	25
M10	1,25	1DHLM10125		15DHLM10125		2DHLM10125		10,3	25
M12	1,00	1DHLM12100		15DHLM12100		2DHLM12100		12,3	10
M12	1,25	1DHLM12125		15DHLM12125		2DHLM12125		12,3	10
M12	1,50	1DHLM12150		15DHLM12150		2DHLM12150		12,4	10
M14	1,00	1DHLM14100		15DHLM14100		2DHLM14100		14,3	10
M14	1,25	1DHLM14125		15DHLM14125		2DHLM14125		14,4	10
M14	1,50	1DHLM14150		15DHLM14150		2DHLM14150		14,4	10
M16	1,00	1DHLM16100		15DHLM16100		2DHLM16100		16,4	10
M16	1,25	1DHLM16125		15DHLM16125		2DHLM16125		16,4	10
M16	1,50	1DHLM16150		15DHLM16150		2DHLM16150		16,4	10
M18	1,00	1DHLM18100		15DHLM18100		2DHLM18100		18,5	10
M18	1,50	1DHLM18150		15DHLM18150		2DHLM18150		18,5	10
M20	1,00	1DHLM20100		15DHLM20100		2DHLM20100		20,5	10
M20	1,50	1DHLM20150		15DHLM20150		2DHLM20150		20,5	10

KILAVUZ KOLLARI



KILAVUZ KOLU

KOD	ÖLÇÜM ARALIĞI
T201	NO 0 M1 - M 8
T202	NO 1 M3 - M 10
T203	NO 1,5 M4 - M 10
T204	NO 2 M4 - M 12
T205	NO 3 M5 - M 20
T206	NO 4 M9 - M 27
T207	NO 5 M13 - M32



ÇELİK KILAVUZ KOLU

KOD	ÖLÇÜM ARALIĞI
T211	NO 1 M3 - M 10
T212	NO 2 M4 - M 12
T213	NO 3 M5 - M 20
T214	NO 4 M9 - M 27
T215	NO 5 M13 - M32



PAFTA KOLU

KOD	ÖLÇÜM ARALIĞI
T301	NO 20 M4 - M6
T302	N0 25 M7 - M9
T303	NO 30 M10 - M11
T304	NO 38 M12 - M14
T305	NO 45 M16 - M20
T306	NO 55 M22 - M24
T307	NO 65 M27 - M36
T308	NO 75 M38 - M42
T309	NO 90 M45 - M52
T310	NO 105 M54 - M63



CIRCIRLI KILAVUZ KOLU (KISA)

KOD	ÖLÇÜM ARALIĞI
T101	NO 1 M 3 - M 8
T102	NO 2 M5 - M 12



CIRCIRLI KILAVUZ KOLU (UZUN)

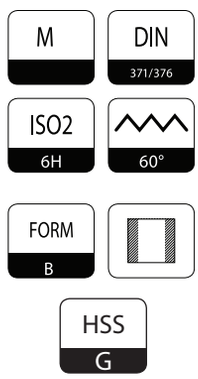
KOD	ÖLÇÜM ARALIĞI
T103	NO 10 M 3 - M 8
T104	NO 20 M 5 - M 12

Baustahl Structual low alloy steel		Aut. Stahl Free cut - ting steel	Verg. Stahl Heat treat- able Steel	Werkzeug- stahl Tool Steel	Rostfr. Stahl Stainl. Steel	Temperguss Malleable cast iron	Aluminium		Kupfer Copper	Th. Plaste Therm. mat
							langspan long chip	kurzspan short chip		
< 500 N/mm²	< 800 N/mm²	< 1.000 N/mm²	< 1.200 N/mm²	< 1.200 N/mm²	< 1.000 N/mm²	Guss	Al	Al	Cu	K

DÜZ KILAVUZ



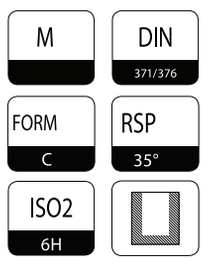
	KOD	Ø ÇAP	HATVE	TAM BOY	KESME BOYU	KARE ÖLÇÜSÜ
DIN 371B	4140 03 00300	M3	0,50	56	11	2,7
	4140 03 00400	M4	0,70	63	13	3,4
	4140 03 00500	M5	0,80	70	16	4,9
	4140 03 00600	M6	1,00	80	19	4,9
	4140 03 00800	M8	1,25	90	22	6,2
	4140 03 01000	M10	1,50	100	24	8,0
DIN 376	4141 03 01200	M12	1,75	110	29	7,0
	4141 03 01400	M14	2,00	110	30	9,0
	4141 03 01600	M16	2,00	110	32	9,0
	4141 03 01800	M18	2,50	125	34	11,0
	4141 03 02000	M20	2,50	140	34	12,0
	4141 03 02200	M22	2,50	140	34	14,5
	4141 03 02400	M24	3,00	160	38	14,5



HELİS KILAVUZ



	KOD	Ø ÇAP	HATVE	TAM BOY	KESME BOYU	KARE ÖLÇÜSÜ
DIN 371 RSP	4150 03 00300	M3	0,50	56	5	2,7
	4150 03 00400	M4	0,70	63	7	3,4
	4150 03 00500	M5	0,80	70	8	4,9
	4150 03 00600	M6	1,00	80	10	4,9
	4150 03 00800	M8	1,25	90	13	6,2
	4150 03 01000	M10	1,50	100	15	8,0
DIN 376	4151 03 01200	M12	1,75	110	18	7,0
	4151 03 01400	M14	2,00	110	20	9,0
	4151 03 01600	M16	2,00	110	22	9,0
	4151 03 01800	M18	2,50	125	25	11,0
	4151 03 02000	M20	2,50	140	25	12,0
	4151 03 02200	M22	2,50	140	27	14,5
	4151 03 02400	M24	3,00	160	30	14,5



HSS-E KILAVUZLAR

Baustahl Structual low alloy steel		Aut. Stahl Free cut - ting steel	Verg. Stahl Heat treat-able Steel	Werkzeug-stahl Tool Steel	Rostfr. Stahl Stainl. Steel	Temperguss Malleable cast iron	Aluminium		Kupfer Copper	Th. Plaste Therm. mat
							langspan long chip	kurzspan short chip		
< 500 N/mm²	< 800 N/mm²	< 1.000 N/mm²	< 1.200 N/mm²	< 1.200 N/mm²	< 1.000 N/mm²	Guss	Al	Al	Cu	K

DÜZ KILAVUZ



	KOD	Ø ÇAP	HATVE	TAM BOY	KESME BOYU	KARE ÖLÇÜSÜ
DIN 371B	4142 03 00200	M 2	0,40	45	8	2,1
	4142 03 00250	M 2,5	0,45	50	9	2,1
	4142 03 00300	M 3	0,50	56	11	2,7
	4142 03 00400	M 4	0,70	63	13	3,4
	4142 03 00500	M 5	0,80	70	16	4,9
	4142 03 00600	M 6	1,00	80	19	4,9
	4142 03 00700	M 7	1,00	80	19	5,5
	4142 03 00800	M 8	1,25	90	22	6,2
	4142 03 01000	M 10	1,50	100	24	8,0
DIN 376B	4143 03 01200	M 12	1,75	110	29	7,0
	4143 03 01400	M 14	2,00	110	30	9,0
	4143 03 01600	M 16	2,00	110	32	9,0
	4143 03 01800	M 18	2,50	125	34	11,0
	4143 03 02000	M 20	2,50	140	34	12,0
	4143 03 02200	M 22	2,50	140	34	14,5
	4143 03 02400	M 24	3,00	160	38	14,5
	4143 03 02700	M 27	3,00	160	38	16,0
	4143 03 03000	M 30	3,00	180	45	18,0
	4143 03 03300	M 33	3,50	180	50	20,0
	4143 03 03600	M 36	4,00	200	56	22,0

M | DIN 371/376 | ISO2 6H | 60° | FORM B | HSS-E Co5

HELİS KILAVUZ



	KOD	Ø ÇAP	HATVE	TAM BOY	KESME BOYU	KARE ÖLÇÜSÜ
DIN 371C	4152 03 00200	M 2	0,40	45	6	2,1
	4152 03 00250	M 2,5	0,45	50	6	2,1
	4152 03 00300	M 3	0,50	56	5	2,7
	4152 03 00400	M 4	0,70	63	7	3,4
	4152 03 00500	M 5	0,80	70	8	4,9
	4152 03 00600	M 6	1,00	80	10	4,9
	4152 03 00800	M 8	1,25	90	13	6,2
	4152 03 01000	M 10	1,50	100	15	8,0
DIN 376C	4153 03 01200	M 12	1,75	110	18	7,0
	4153 03 01400	M 14	2,00	110	20	9,0
	4153 03 01600	M 16	2,00	110	22	9,0
	4153 03 01800	M 18	2,50	125	25	11,0
	4153 03 02000	M 20	2,50	140	25	12,0
	4153 03 02200	M 22	2,50	140	27	14,5
	4153 03 02400	M 24	3,00	160	30	14,5
	4153 03 02700	M 27	3,00	160	30	16,0
	4153 03 03000	M 30	3,00	180	35	18,0
	4153 03 03300	M 33	3,50	180	35	20,0
	4153 03 03600	M 36	4,00	200	40	22,0

M | DIN 371/376 | ISO2 6H | FORM C | HSS-E Co5 | RSP 35°

HSS-E (Co5) TİN KAPLI KILAVUZLAR

M | DIN 371/376 | HSS-E Co5 | ISO2 6H | 60° | B | 3 x D | TiN

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 4.1	2.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	1.4 – 1.6	2.1 – 2.5	4.2
4147 · 4148	●	●	◈				●				

HSS-E (Co5) TİN KAPLI DÜZ KILAVUZLAR



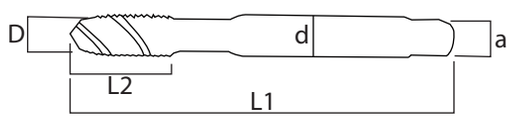


	KOD	D (mm) ÖLÇÜ	L1 (mm)	L2 (mm)	d (mm)	a (mm)
DIN 371	4147 03 00300	M 3 x 0,5	56	11	3,5	2,7
	4147 03 00400	M 4 x 0,7	63	13	4,5	3,4
	4147 03 00500	M 5 X 0,8	70	16	6,0	4,9
	4147 03 00600	M 6 x 1	80	19	6,0	4,9
	4147 03 00800	M 8 x 1,25	90	22	8,0	6,2
	4147 03 01000	M 10 x 1,50	100	24	10,0	8,0
DIN 376	4148 03 01200	M 12 x 1,75	110	29	9,0	7,0
	4148 03 01400	M 14 x 2	110	30	11,0	9,0
	4148 03 01600	M 16 x 2	110	32	12,0	9,0
	4148 03 01800	M 18 x 2,5	125	34	14,0	11,0
	4148 03 02000	M 20 x 2,5	140	34	16,0	12,0
	4148 03 02200	M 22 x 2,5	140	34	18,0	14,5
	4148 03 02400	M 24 x 3	160	38	18,0	14,5

HSS-E (Co5) TİN KAPLI HELİS KILAVUZLAR

FORM C | 2,5 x D





	KOD	D (mm) ÖLÇÜ	L1 (mm)	L2 (mm)	d (mm)	a (mm)
DIN 371	4157 03 00300	M 3 x 0,5	56	5	3,5	2,7
	4157 03 00400	M 4 x 0,7	63	7	4,5	3,4
	4157 03 00500	M 5 X 0,8	70	8	6,0	4,9
	4157 03 00600	M 6 x 1	80	10	6,0	4,9
	4157 03 00800	M 8 x 1,25	90	13	8,0	6,2
	4157 03 01000	M 10 x 1,50	100	15	10,0	8,0
DIN 376	4158 03 01200	M 12 x 1,75	110	18	9,0	7,0
	4158 03 01400	M 14 x 2	110	20	11,0	9,0
	4158 03 01600	M 16 x 2	110	22	12,0	9,0
	4158 03 01800	M 18 x 2,5	125	25	14,0	11,0
	4158 03 02000	M 20 x 2,5	140	25	16,0	12,0
	4158 03 02200	M 22 x 2,5	140	27	18,0	14,5
	4158 03 02400	M 24 x 3	160	30	18,0	14,5

PASLANMAZ KILAVUZLAR

Baustahl Structual low alloy steel		Aut. Stahl Free cut - ting steel	Verg. Stahl Heat treat- able Steel	Werkzeug- stahl Tool Steel	Rostfr. Stahl Stainl. Steel	Temperguss Malleable cast iron	Aluminium		Kupfer Copper	Th. Plaste Therm. mat
							langspan long chip	kurzspan short chip		
< 500 N/mm²	< 800 N/mm²	< 1.000 N/mm²	< 1.200 N/mm²	< 1.200 N/mm²	< 1.000 N/mm²	Guss	Al	Al	Cu	K

PASLANMAZ DÜZ KILAVUZ



	KOD	Ø ÇAP	HATVE	TAM BOY	KESME BOYU	KARE ÖLÇÜSÜ
DIN 371B	4144 03 00300	M 3	0,50	56	11	2,7
	4144 03 00400	M 4	0,70	63	13	3,4
	4144 03 00500	M 5	0,80	70	16	4,9
	4144 03 00600	M 6	1,00	80	19	4,9
	4144 03 00800	M 8	1,25	90	22	6,2
	4144 03 01000	M 10	1,50	100	24	8,0
DIN 376B	4145 03 01200	M 12	1,75	110	29	7,0
	4145 03 01400	M 14	2,00	110	30	9,0
	4145 03 01600	M 16	2,00	110	32	9,0
	4145 03 01800	M 18	2,50	125	34	11,0
	4145 03 02000	M 20	2,50	140	34	12,0
	4145 03 02200	M 22	2,50	140	34	14,50
	4145 03 02400	M 24	3,00	160	38	14,50



PASLANMAZ HELİS KILAVUZ



	KOD	Ø ÇAP	HATVE	TAM BOY	KESME BOYU	KARE ÖLÇÜSÜ
DIN 371C	4154 03 00300	M 3	0,50	56	5	2,7
	4154 03 00400	M 4	0,70	63	7	3,4
	4154 03 00500	M 5	0,80	70	8	4,9
	4154 03 00600	M 6	1,00	80	10	4,9
	4154 03 00800	M 8	1,25	90	13	6,2
	4154 03 01000	M 10	1,50	100	15	8,0
DIN 376C	4155 03 01200	M 12	1,75	110	18	7,0
	4155 03 01400	M 14	2,00	110	20	9,0
	4155 03 01600	M 16	2,00	110	22	9,0
	4155 03 01800	M 18	2,50	125	25	11,0
	4155 03 02000	M 20	2,50	140	25	12,0
	4155 03 02200	M 22	2,50	140	27	14,5
	4155 03 02400	M 24	3,00	160	30	14,5



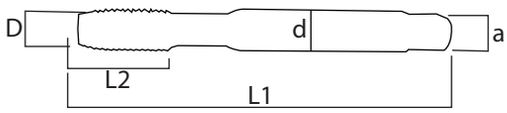
HSS-E (Co5) TİN KAPLI OVALAMA YAĞ KANALLI ve GAZ DİŞ KILAVULAR

M | DIN 371/376 | HSS-E Co5 | TiN | C | ISO2 6H | 60° | >1,5 x D | >1,5 x D

Code	P					M	K	N			
	1.1	2.1	3.1	4.1	5.1	1.1 – 2.1	1.1 – 4.2	1.1	1.4 – 1.5	2.1	4.2
4245	●	●	⊛			⊛		⊛	⊛	⊛	

OVALAMA KILAVUZU (YAĞ KANALLI)





	KOD	D (mm) ÖLÇÜ	MATKAP ÇAPI	L1 (mm)	L2 (mm)	d (mm)	a (mm)
DIN 371	4245 03 00300	M 3 x 0,5	2,80	56	11	3,5	2,7
	4245 03 00400	M 4 x 0,7	3,70	63	13	4,5	3,4
	4245 03 00500	M 5 X 0,8	4,65	70	16	6,0	4,9
	4245 03 00600	M 6 x 1	5,55	80	19	6,0	4,9
	4245 03 00800	M 8 x 1,25	7,40	90	22	8,0	6,2
	4245 03 01000	M 10 x 1,50	9,30	100	24	10,0	8,0
DIN 376	4245 03 01200	M 12 x 1,75	11,20	110	29	9,0	7,0
	4245 03 01400	M 14 x 2	13,10	110	30	11,0	9,0
	4245 03 01600	M 16 x 2	15,10	110	32	12,0	9,0

Baustahl Structual low alloy steel		Aut. Stahl Free cut - ting steel	Verg. Stahl Heat treat- able Steel	Werkzeug- stahl Tool Steel	Rostfr. Stahl Stainl. Steel	Temperguss Malleable cast iron	Aluminium		Kupfer Copper	Th. Plaste Therm. mat
							langspan long chip	kurzspan short chip		
< 500 N/mm²	< 800 N/mm²	< 1.000 N/mm²	< 1.200 N/mm²	< 1.200 N/mm²	< 1.000 N/mm²	Guss	Al	Al	Cu	K
●	⊛						⊛			⊛

DÜZ GAZ DİŞ KILAVUZ



G BSP | DIN 5157 | HSS G | FORM C | 55°

	KOD	Ø ÇAP	HATVE	TAM BOY	KESME BOYU	KARE ÖLÇÜSÜ
DIN 5157	4132 03 00018	G 1/8"	28	63	20	5,5
	4132 03 00014	G 1/4"	19	70	22	9,0
	4132 03 00038	G 3/8"	19	70	22	9,0
	4132 03 00012	G 1/2"	14	80	22	12,0
	4132 03 00034	G 3/4"	14	90	22	16,0
	4132 03 00100	G 1"	11	100	25	20,0
	4132 03 00114	G 1.1/4"	11	125	40	24,0
	4132 03 00112	G 1.1/2"	11	140	40	29,0
	4132 03 00200	G 2"	11	160	40	35,0

Baustahl Structual low alloy steel		Aut. Stahl Free cut - ting steel	Verg. Stahl Heat treat- able Steel	Werkzeug- stahl Tool Steel	Rostfr. Stahl Stainl. Steel	Temperguss Malleable cast iron	Aluminium		Kupfer Copper	Th. Plaste Therm. mat
							langspan long chip	kurzspan short chip		
< 500 N/mm²	< 800 N/mm²	< 1.000 N/mm²	< 1.200 N/mm²	< 1.200 N/mm²	< 1.000 N/mm²	Guss	Al	Al	Cu	K



M	DIN	HSS	ISO2		800
	352	G	6H	60°	N/mm²

	KOD	Ø ÇAP	HATVE	TAM BOY	KESME BOYU	KARE ÖLÇÜSÜ
DIN 352	4100 11 00200	M 2	0,40	36	8,0	2,1
	4100 11 00250	M 2,5	0,45	40	9,0	2,1
	4100 11 00300	M 3	0,50	40	11,0	2,7
	4100 11 00350	M 3,5	0,50	40	11,0	2,7
	4100 11 00400	M 4	0,70	45	13,0	3,4
	4100 11 00500	M 5	0,80	50	16,0	4,9
	4100 11 00600	M 6	1,00	50	19,0	4,9
	4100 11 00700	M 7	1,00	50	19,0	4,9
	4100 11 00800	M 8	1,25	56	22,0	4,9
	4100 11 00900	M 9	1,25	56	22,0	4,9
	4100 11 01000	M 10	1,50	70	24,0	5,5
	4100 11 01200	M 12	1,75	75	29,0	7,0
	4100 11 01400	M 14	2,00	80	30,0	9,0
	4100 11 01600	M 16	2,00	80	32,0	9,0
	4100 11 01800	M 18	2,50	95	40,0	11,0
	4100 11 02000	M 20	2,50	95	40,0	12,0
	4100 11 02200	M 22	2,50	10	40,0	14,5
	4100 11 02400	M 24	3,00	110	50,0	14,5
	4100 11 02700	M 27	3,00	110	50,0	16,0
	4100 11 03000	M 30	3,50	125	56,0	18,0
	4100 11 03300	M 33	3,50	125	56,0	20,0
	4100 11 03600	M 36	3,50	150	63,0	22,0

METRİK PAFTA



M	DIN EN 22568	HSS G	FORM B	Tol. 6g	60°	800 N/mm²

	KOD	Ø ÇAP	HATVE	DIŞ ÇAP	KALINLIK
DIN 223	4200 11 00200	M 2	0,40	16,00	5,00
	4200 11 00250	M 2,5	0,45	16,00	5,00
	4200 11 00300	M 3	0,50	20,00	5,00
	4200 11 00400	M 4	0,70	20,00	5,00
	4200 11 00500	M 5	0,80	20,00	7,00
	4200 11 00600	M 6	1,00	20,00	7,00
	4200 11 00800	M 8	1,25	25,00	9,00
	4200 11 01000	M 10	1,50	30,00	11,00
	4200 11 01200	M 12	1,75	38,00	14,00
	4200 11 01400	M 14	2,00	38,00	14,00
	4200 11 01600	M 16	2,00	45,00	18,00
	4200 11 01800	M 18	2,50	45,00	18,00
	4200 11 02000	M 20	2,50	45,00	18,00

GAZ DİŞ PAFTA



G BSP	DIN EN 24231	HSS G	FORM B	55°	800 N/mm²

	KOD	Ø ÇAP	HATVE	DIŞ ÇAP	KALINLIK
DIN 24231	4203 11 00018	G 1/8”	28	30	11
	4203 11 00014	G 1/4”	19	38	10
	4203 11 00038	G 3/8”	19	45	14
	4203 11 00012	G 1/2”	14	45	14
	4203 11 00058	G 5/8”	14	55	16
	4203 11 00034	G 3/4”	14	55	16
	4203 11 00078	G 7/8”	14	65	18
	4203 11 00100	G 1”	11	65	18
	4203 11 00114	G 1.1/4”	11	75	20
	4203 11 00112	G 1.1/2”	11	90	22
	4203 11 00200	G 2”	11	105	22

HAVŞA FREZELERİ

Code	< 800 N/mm²	< 1.100 N/mm²	< 1.400 N/mm²	INOX	Ti	Guss	Al	Cu	Ms	K
1700	●						●	●	◔	●
1702	●	●	●	●	◔	◔	◔	●	●	●

HAVŞA FREZE



DIN 335C | HSS G | 90° | CBN

KOD	Ø ÇAP	BAŞLANGIÇ ÇAPI	ŞAFT	TAM BOY	HAVŞA ÇAPI
DIN 335					
1700 03 06390	6,3	1,5	5	45	M3
1700 03 08390	8,3	2,0	6	50	M4
1700 03 10490	10,4	2,5	6	50	M5
1700 03 12490	12,4	2,8	8	56	M6
1700 03 16590	16,5	3,2	10	60	M8
1700 03 20590	20,5	3,5	10	63	M10
1700 03 25090	25,0	3,8	10	67	M12
1700 03 31090	31,0	4,2	12	71	M16

PASLANMAZ HAVŞA FREZE



***Sert Çelik ve Paslanmaz İçin Uygundur.

DIN 335C | HSS-E Co5 | 90° | CBN | TiALN

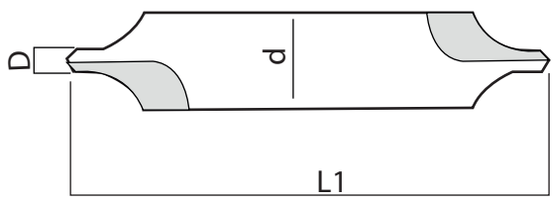
KOD	Ø ÇAP	BAŞLANGIÇ ÇAPI	ŞAFT	TAM BOY	HAVŞA ÇAPI
DIN 335					
1702 03 06390	6,3	1,5	5	45	M3
1702 03 08390	8,3	2,0	6	50	M4
1702 03 10490	10,4	2,5	6	50	M5
1702 03 12490	12,4	2,8	8	56	M6
1702 03 16590	16,5	3,2	10	60	M8
1702 03 20590	20,5	3,5	10	63	M10
1702 03 25090	25,0	3,8	10	67	M12
1702 03 31090	31,0	4,2	12	71	M16

DIN 333 | HSS G | FORM A/60°

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 4.2	1.1 – 1.6	2.1 – 2.6	4.2	1.1 – 2.6
1600	●				●	●	●	●	

HSS PUNTA MATKABI

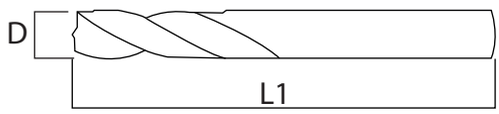




KOD	D (mm) ÖLÇÜ	d (mm)	L1 (mm)
1600 03 00160	1,60	4,00	35,5
1600 03 00200	2,00	5,00	40,0
1600 03 00250	2,50	6,30	45,0
1600 03 00315	3,15	8,00	50,0
1600 03 00400	4,00	10,00	56,0
1600 03 00500	5,00	12,50	63,0
1600 03 00630	6,30	16,00	71,0
1600 03 00800	8,00	20,00	80,0
1600 03 01000	10,00	25,00	100,0

PUNTA ÇÜRÜTME MATKAP UCU HSS-E (Co5)





DIN 1897 | HSS-E Co5 | 1200 N/mm²

KOD	D (mm) ÖLÇÜ	L1 (mm)
1801 03 00600	6	66
1801 03 00700	7	74
1801 03 00800	8	79
1801 03 01000	10	89

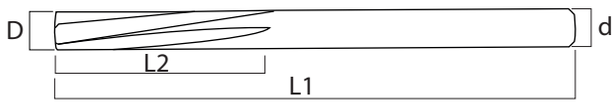
HSS-E (Co5) MAKİNA RAYBASI ve KARBÜR ÇİZECEK

DIN 212 | HSS-E Co5 | FORM B/D | 45° | 7-9° | R | Tol. H7

Code	P			M	K	N			S
	1.1 – 2.1	3.1 – 4.1	5.1	1.1 – 4.1	1.1 – 2.2 / 4.1 – 4.2	1.1 – 1.3	2.1 – 2.6	4.1 – 4.2	1.1 – 2.6
1673	●	⊛		⊛	●	●	●	⊛	⊛

HSS-E (Co5) MAKİNA RAYBASI





KOD	D (mm) ÖLÇÜ	L1 (mm)	L2 (mm)	d (mm)	AĞIZ SAYISI
1673 03 00300	3	61	15	3,0	4
1673 03 00400	4	75	19	4,0	4
1673 03 00500	5	86	23	5,0	6
1673 03 00600	6	93	26	6,0	6
1673 03 00700	7	109	30	7,0	6
1673 03 00800	8	117	32	8,0	6
1673 03 00900	9	125	36	9,0	6
1673 03 01000	10	133	38	10,0	6
1673 03 01100	11	142	41	10,0	8
1673 03 01200	12	151	44	10,0	8
1673 03 01300	13	151	44	10,0	8
1673 03 01400	14	160	47	12,5	8
1673 03 01500	15	162	50	12,5	8
1673 03 01600	16	170	52	12,5	8
1673 03 01700	17	175	54	14,0	8
1673 03 01800	18	182	56	14,0	8
1673 03 01900	19	189	58	16,0	8
1673 03 02000	20	195	60	16,0	8

KARBÜR ÇİZECEK



KOD	L (mm)	KUTU ADEDİ
9600 15 00140	140	10

KOD	SABİT BIÇAK
1653 07 00001	
KOD	**DEĞİŞTİRİLEBİLİR BIÇAK**
1654 07 00001	

ÜÇGEN KAZIYICI

KOD	DEĞİŞTİRİLEBİLİR BIÇAK
1656 03 00002	
KOD	**YEDEK BIÇAK**
1661 03 00001	

ÇİFT UÇLU RASPA

KOD	ÇİFT UÇLU RASPA	
1655 03 00001		
	R 12	PAKET ADEDİ
1655 03 00002		2

DELME, KESME ve KÖPÜK YAĞI

DELME ve KESME YAĞI



*Delme, havşa açma, diş açma, raybalama için kesme yağı,
kesme, tornalama ve frezeleme.
*Daha yüksek kesme hızları, Daha uzun takım ömrü, Çok iyi yüzey kalitesi, Kenarların oluşmasını önler, Minimum miktarda yağlama, Klor ve mineral yağ içermez, Doğal hammaddelere dayalı.

KOD	İÇERİK	KUTU ADEDİ
9690 15 00023	250 ml	1

YÜKSEK PERFORMANSLI KÖPÜK DELME ve KESME YAĞI

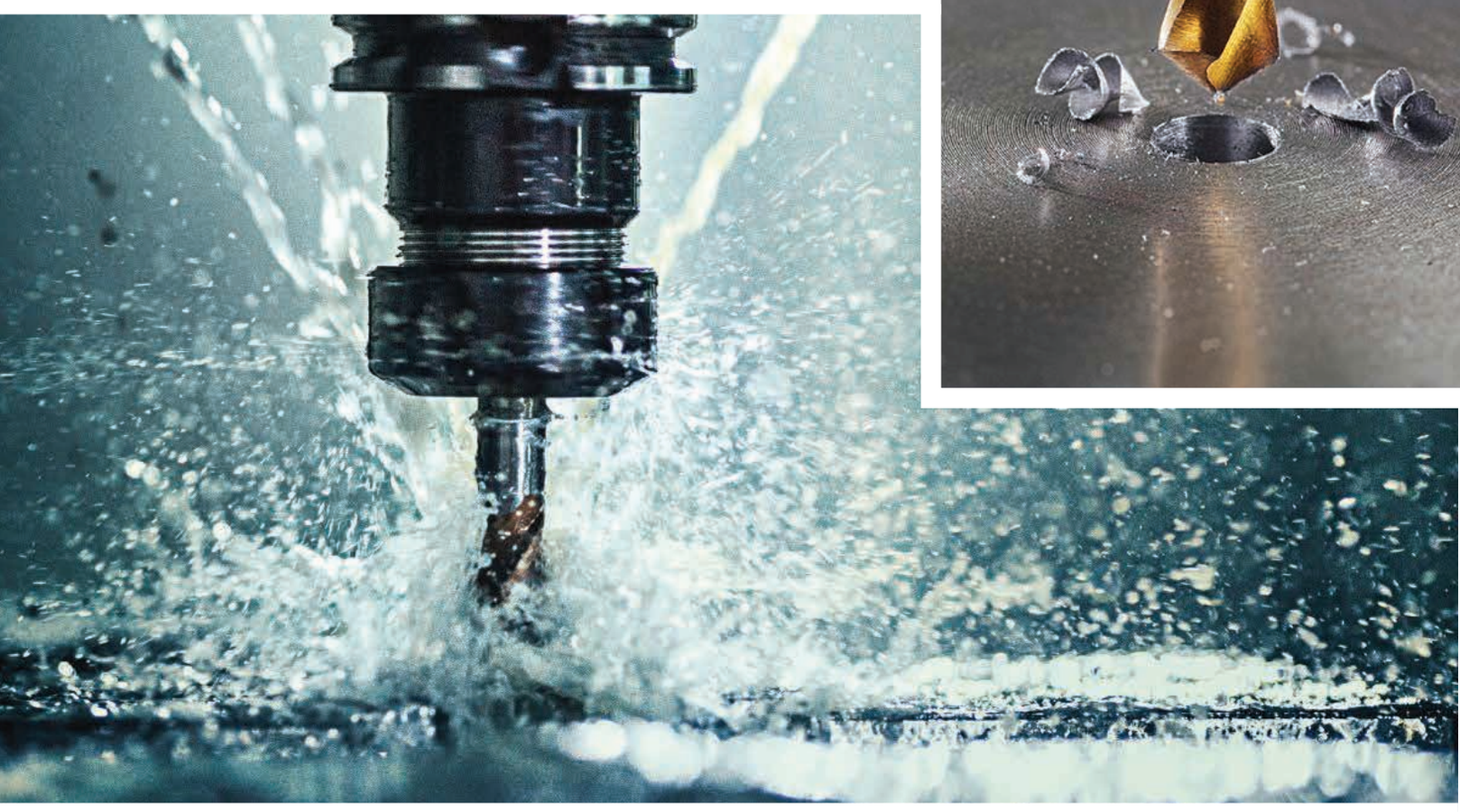


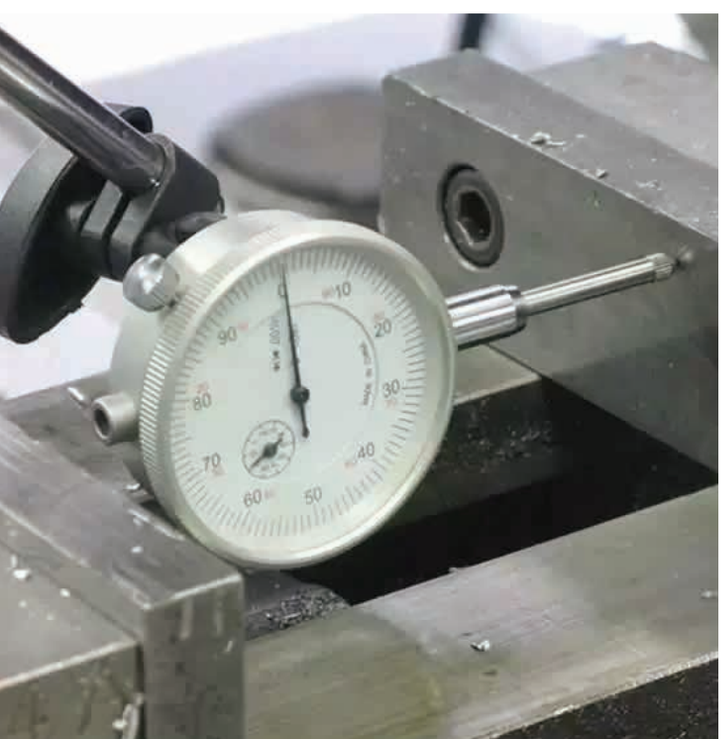
*Delme, havşa açma, diş açma, raybalama, testereleme, tornalama ve frezeleme için özel YÜKSEK PERFORMANSLI kesme köpüğü.
*Daha yüksek kesme hızları, Daha uzun takım ömrü, Çok iyi yüzey kalitesi, Takım üzerinde iyi yapışma (damlama yok), Yapışmaz, Mineral yağ ve silikon içermez, Suyla yıkanabilir.

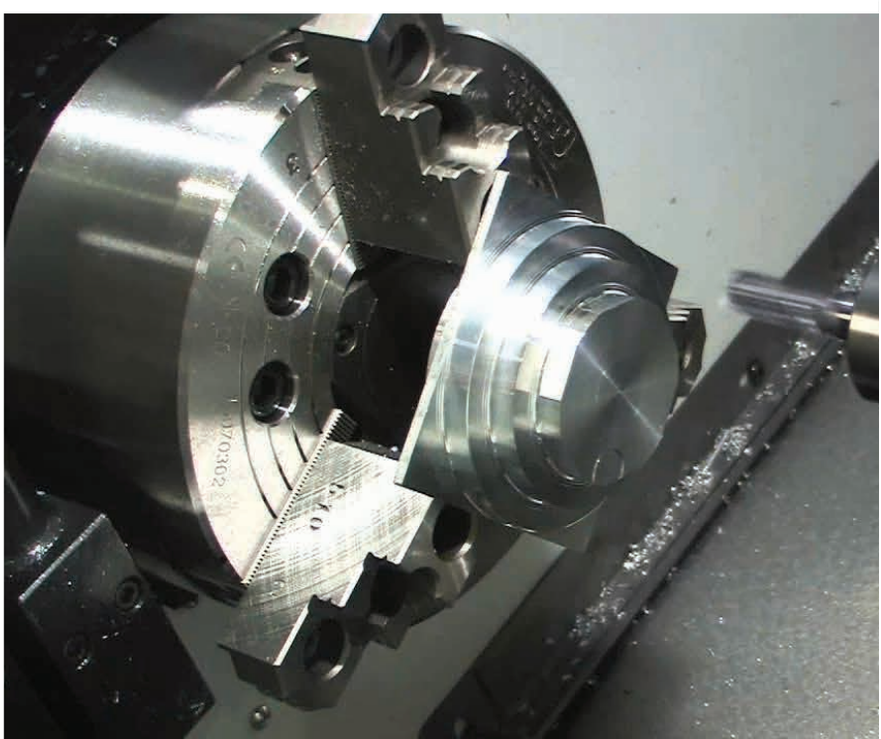
KOD	İÇERİK	KUTU ADEDİ
9690 15 00024	400 ml	1







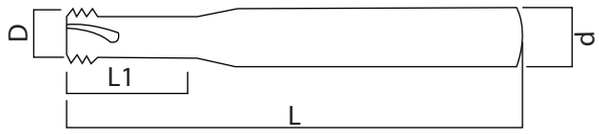




KARBÜR DİŞ FREZELERİ

KARBÜR 3 DİŞLİ DİŞ FREZESİ

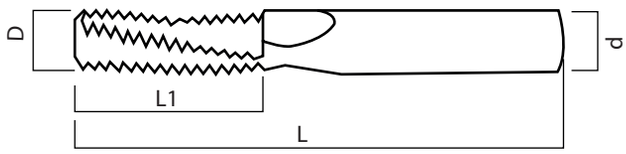




KOD	ÖLÇÜ	DİŞ HATVESİ	D (mm)	d (mm)	L1 (mm)	L (mm)
T412016	M1,6	0,35	1,2	4	3,5	50
T412020	M2	0,4	1,55	4	4,3	50
T412025	M2,5	0,45	1,95	4	5,3	50
T412030	M3	0,50	2,40	4	6,6	50
T412035	M3,5	0,60	2,75	4	7,6	50
T412040	M4	0,70	3,15	4	8,6	50
T412050	M5	0,80	3,90	4	10,5	50
T412060	M6	1	4,80	6	14	57
T412080	M8	1,25	5,95	6	16,5	57
T412100	M10	1,50	7,95	8	22	60
T412120	M12	1,75	9,90	10	27	70
T412140	M14-16	2	11,60	12	33	75
T412180	M18-20	2,50	14,90	16	44	75

KARBÜR HAVŞALI DİŞ FREZESİ

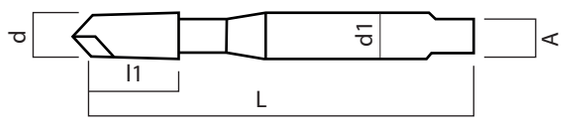




KOD	ÖLÇÜ	DİŞ HATVESİ	D (mm)	d (mm)	L1 (mm)	L (mm)
T411030	M3	0,50	2,4	4	6	50
T411040	M4	0,70	3,15	4	8,4	50
T411050	M5	0,80	3,90	4	10,4	50
T411060	M6	1	4,80	6	12	57
T411080	M8	1,25	5,90	6	16,2	57
T411100	M10	1,50	7,9	8	19,50	65
T411120	M12	1,75	9,9	10	25	70
T411140	M14	2	11,6	12	30	75
T411160	M16	2	11,6	12	30	75
T411180	M18	2,50	13,9	14	40	90
T411200	M20	2,50	13,9	14	40	90

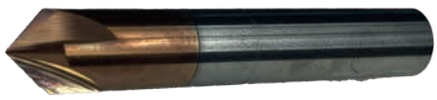
KARBÜR DÜZ KILAVUZ



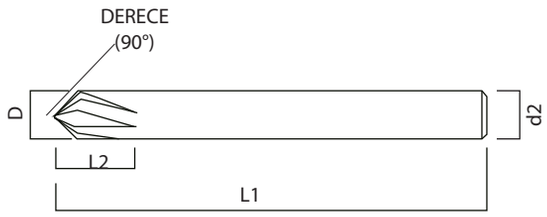


KOD	d	DİŞ HATVESİ	DIN	L (mm)	L1 (mm)	D1 (mm)	A (mm)
TK371BM03	M3	0,5	371	56	11	3,5	2,7
TK371BM04	M4	0,7	371	63	13	4,5	3,4
TK371BM05	M5	0,8	371	70	16	6	4,9
TK371BM06	M6	1,00	371	80	19	6	4,9
TK371BM08	M8	1,25	371	90	22	8	6,2
TK371BM10	M10	1,50	371	100	24	10	8
TK376BM12	M12	1,75	376	110	29	9	3

KARBÜR PAH KIRMA FREZESİ 90°

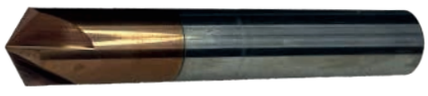


55 HRC

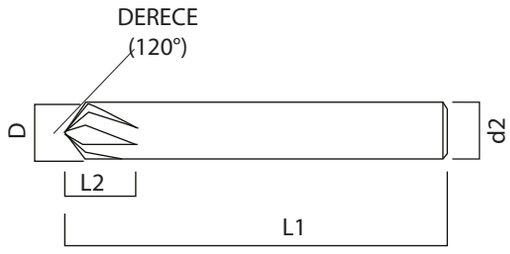


KOD	D (mm)	L2 (mm)	L1 (mm)	d2 (mm)	DERECE (°)	DİŞ SAYISI
TKP09004	4	9	50	6	90°	4
TKP09006	6	15	50	6	90°	4
TKP09008	8	15	60	8	90°	4
TKP09010	10	21	75	10	90°	4
TKP09012	12	25	75	12	90°	4

KARBÜR PAH KIRMA FREZESİ 120°



55 HRC

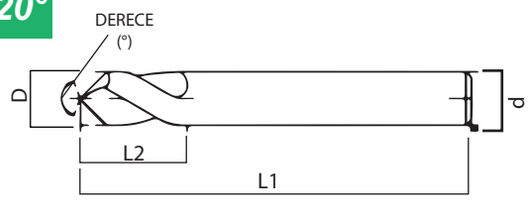


KOD	D (mm)	L2 (mm)	L1 (mm)	d2 (mm)	DERECE (°)	DİŞ SAYISI
TKP12004	4	9	50	6	120°	4
TKP12006	6	15	50	6	120°	4
TKP12008	8	15	60	8	120°	4
TKP12010	10	21	75	10	120°	4
TKP12012	12	25	75	12	120°	4

KARBÜR TAKIMLAR

KARBÜR NC PUNTA MATKABI 90° ve 120°

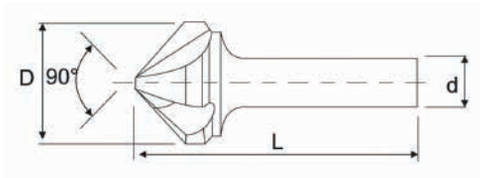




KOD	D (mm)	d (mm)	L1 (mm)	L2 (mm)	DERECE (°)
TNC09004	4	4	50	10	90°
TNC09005	5	5	50	12	90°
TNC09006	6	6	50	13	90°
TNC09008	8	8	50	16	90°
TNC09010	10	10	75	20	90°
TNC09012	12	12	75	24	90°
TNC12004	4	4	50	10	120°
TNC12005	5	5	50	12	120°
TNC12006	6	6	50	13	120°
TNC12008	8	8	50	16	120°
TNC12010	10	10	75	20	120°
TNC12012	12	12	75	24	120°

KARBÜR HAVŞA FREZE 90°

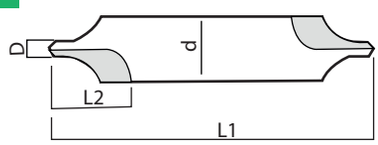




KOD	D (mm)	d (mm)	L (mm)
TK335120	12	8	46
TK335165	16,5	10	60
TK335205	20,5	10	63
TK335250	25	10	66
TK335310	31	12	71

KARBÜR PUNTA MATKABI 55HRC





KOD	D (mm)	d (mm)	L1 (mm)	L2 (mm)
TK33302	2	6	50	2,5
TK33325	2,5	6	50	3
TK33303	3	6	50	3,5
TK33304	4	10	60	5
TK33305	5	10	60	6,5
TK33306	6	10	60	7,5

KARBÜR MATKAP UCU 4XD



KOD	ÖLÇÜ (mm)	KESME BOYU (mm)	TAM BOY (mm)	ŞAFT (mm)
TK4D010	1	6	24	1
TK4D015	1,5	8	30	1,5
TK4D020	2	12	38	2
TK4D025	2,5	14	43	2,5
TK4D030	3	16	46	3
TK4D032	3,2	18	49	3,2
TK4D035	3,5	20	52	3,5
TK4D040	4	22	55	4
TK4D042	4,2	22	55	4,2
TK4D045	4,5	24	58	4,5
TK4D050	5	26	62	5
TK4D052	5,2	26	62	5,2
TK4D055	5,5	28	66	5,5
TK4D060	6	28	66	6
TK4D062	6,2	31	70	6,2
TK4D065	6,5	31	70	6,5
TK4D068	6,8	34	74	6,8
TK4D070	7	34	74	7
TK4D075	7,5	34	74	7,5
TK4D080	8	37	79	8
TK4D085	8,5	37	79	8,5
TK4D090	9	40	84	9
TK4D095	9,5	40	84	9,5
TK4D100	10	43	89	10
TK4D102	10,2	43	89	10,2
TK4D105	10,5	43	89	10,5
TK4D110	11	47	95	11
TK4D115	11,5	47	95	11,5
TK4D120	12	51	102	12
TK4D125	12,5	51	102	12,5
TK4D130	13	51	102	13
TK4D135	13,5	51	107	13,5
TK4D140	14,0	54	107	14,0
TK4D145	14,5	56	111	14,5
TK4D150	15,0	56	111	15,0
TK4D155	15,5	58	115	15,5
TK4D160	16,0	58	115	16,0
TK4D165	16,5	58	123	16,5
TK4D170	17,0	58	123	17,0
TK4D175	17,5	62	123	17,5
TK4D180	18,0	62	123	18,0
TK4D185	18,5	64	131	18,5
TK4D190	19,0	64	131	19,0
TK4D195	19,5	66	131	19,5
TK4D200	20,0	66	131	20,0

KARBÜR MATKAPLAR

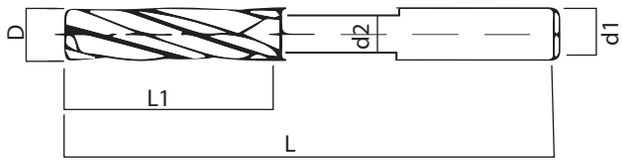
KARBÜR MATKAP UCU DIN338 (8XD)



KOD	ÖLÇÜ (mm)	KESME BOYU (mm)	TAM BOY (mm)	ŞAFT (mm)
TK338010	1	12	34	1
TK338015	1,5	18	40	1,5
TK338020	2	24	49	2
TK338025	2,5	30	57	2,5
TK338030	3	33	61	3
TK338032	3,2	33	65	3,2
TK338035	3,5	39	70	3,5
TK338040	4	43	75	4
TK338042	4,2	43	75	4,2
TK338045	4,5	47	80	4,5
TK338050	5	52	86	5
TK338052	5,2	52	90	5,2
TK338055	5,5	57	93	5,5
TK338060	6	57	93	6
TK338062	6,2	63	101	6,2
TK338065	6,5	63	101	6,5
TK338068	6,8	69	109	6,8
TK338070	7	69	109	7
TK338075	7,5	69	109	7,5
TK338080	8	75	117	8
TK338085	8,5	75	117	8,5
TK338090	9	81	125	9
TK338095	9,5	81	125	9,5
TK338100	10	87	133	10
TK338102	10,2	87	133	10,2
TK338105	10,5	87	133	10,5
TK338110	11	94	142	11
TK338115	11,5	94	142	11,5
TK338120	12	101	151	12
TK338125	12,5	101	151	12,5
TK338130	13	110	160	13
TK338135	13,5	110	165	13,5
TK338140	14	110	165	14
TK338145	14,5	114	170	14,5
TK338150	15	114	170	15
TK338155	15,5	120	178	15,5
TK338160	16	120	178	16
TK338165	16,5	125	184	16,5
TK338170	17	125	184	17
TK338175	17,5	130	191	17,5
TK338180	18	130	191	18
TK338185	18,5	135	200	18,5
TK338190	19	135	200	19
TK338195	19,5	140	200	19,5
TK338200	20	140	200	20

KARBÜR RAYBA H7 55HRC

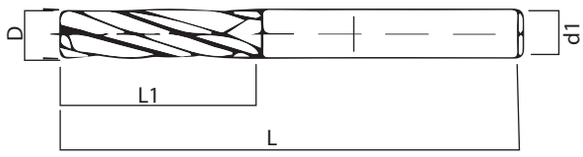




KOD	D (mm)	d1 (mm)	d2 (mm)	L (mm)	L1 (mm)	DİŞ SAYISI
TKAR020	2	2	1,5	58	12	4
TKAR025	2,5	3	2	58	12	4
TKAR030	3	4	2,5	58	12	4
TKAR035	3,5	6	3	63	15	4
TKAR040	4	6	3,5	63	18	6
TKAR045	4,5	6	3,5	70	20	6
TKAR050	5	6	4	75	22	6
TKAR055	5,5	6	4,5	75	22	6
TKAR060	6	6	5	93	26	6
TKAR065	6,5	6	5,5	93	26	6
TKAR070	7	8	6	93	26	6
TKAR080	8	8	7	93	28	6
TKAR090	9	10	8	100	35	6
TKAR100	10	10	9	100	35	6
TKAR110	11	12	10	100	35	6
TKAR120	12	12	11	110	35	6
TKAR140	14	14	13	110	35	6
TKAR160	16	16	15	110	35	8

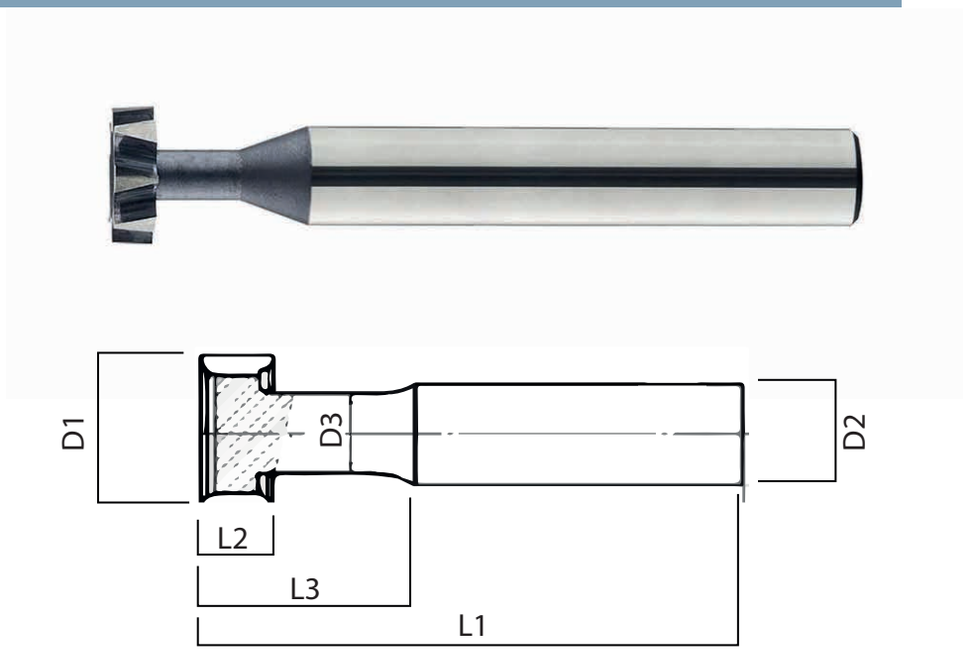
KARBÜR DÜZ ŞAFTLI RAYBA H7 55HRC





KOD	D (mm)	d1 (mm)	L (mm)	L1 (mm)	DİŞ SAYISI
TKSR020	2	2	50	15	4
TKSR030	3	3	50	20	4
TKSR040	4	4	50	25	6
TKSR050	5	5	60	30	6
TKSR060	6	6	60	30	6
TKSR080	8	8	75	40	6
TKSR100	10	10	100	50	6
TKSR120	12	12	100	50	6

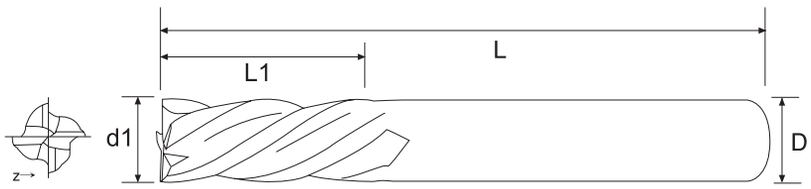
KARBÜR T-YARIK FREZELERİ



KOD	D1 (mm)	L2 (mm)	L3 (mm)	D3 (mm)	L1 (mm)	D2 (mm)	DİŞ SAYISI
TKTF04510	4,5	1	15	3	50	6	6
TKTF07515	7,5	1,5	15	4	50	6	6
TKTF07520	7,5	2	15	4	50	6	6
TKTF10520	10,5	2	15	5	50	6	6
TKTF10525	10,5	2,5	15	5	50	6	6
TKTF10530	10,5	3	20	5	50	6	6
TKTF13530	13,5	3	20	8	56	10	8
TKTF13540	13,5	4	20	8	56	10	8
TKTF16530	16,5	3	20	10	56	12	8
TKTF16540	16,5	4	20	10	56	12	8
TKTF16550	16,5	5	20	10	56	12	8
TKTF19530	19,5	3	20	12	56	14	10
TKTF19540	19,5	4	20	12	56	14	10
TKTF19550	19,5	5	20	12	56	14	10
TKTF22540	22,5	4	20	12	63	14	10
TKTF22550	22,5	5	20	12	63	14	10
TKTF22560	22,5	6	20	12	63	14	10
TKTF25550	25,5	5	20	14	63	16	10
TKTF25560	25,5	6	20	14	63	16	10
TKTF25570	25,5	7	20	14	63	16	10
TKTF25580	25,5	8	20	14	63	16	10
TKTF28550	28,5	5	20	16	63	18	10
TKTF28560	28,5	6	20	16	63	18	10
TKTF28570	28,5	7	20	16	63	18	10
TKTF28580	28,5	8	20	16	63	18	10

DÜZ KARBÜR FREZE

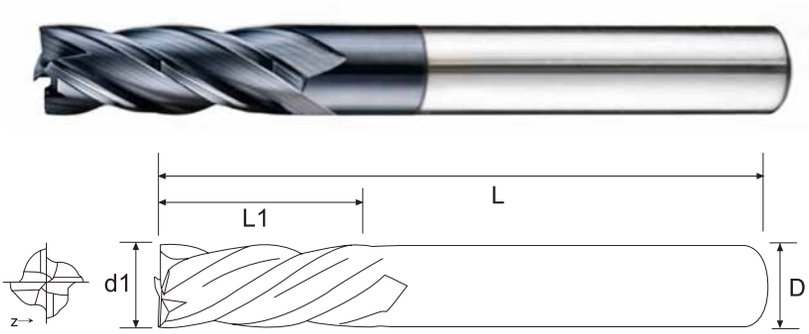




KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ
4F0050100	1 mm	50	4	4
4F0050150	1,5 mm	50	4	4
4F0050200	2 mm	50	6	4
4F0050250	2,5 mm	50	8	4
4F0050300	3 mm	50	8	3
4F0050350	3,5 mm	50	10	4
4F0050400	4 mm	50	10	4
4F0050450	4,5 mm	50	12	6
4F0050500	5 mm	50	13	5
4F0050550	5,5 mm	50	15	6
4F0050600	6 mm	50	15	6
4F0060700	7 mm	60	18	8
4F0060800	8 mm	60	20	8
4F0075900	9 mm	75	23	10
4F0751000	10 mm	75	25	10
4F0751100	11 mm	75	28	12
4F0751200	12 mm	75	30	12
4F1001400	14 mm	100	45	14
4F1001600	16 mm	100	45	16
4F1001800	18 mm	100	45	18
4F1002000	20 mm	100	45	20

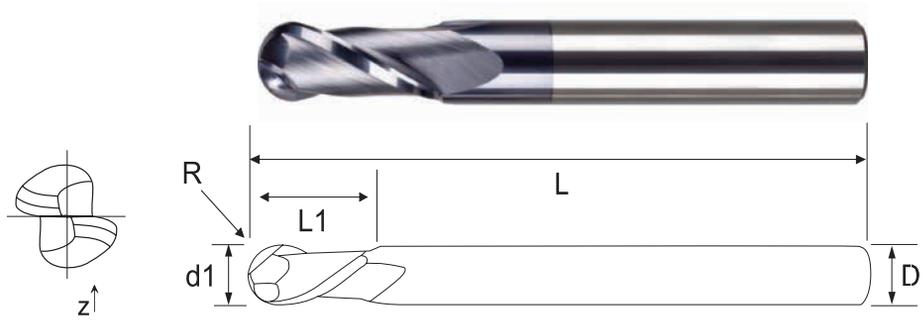
KARBÜR FREZE 45HRC

DÜZ UZUN KARBÜR FREZE



KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ
4FU0075300	3 mm	75	12	3
4FU0075400	4 mm	75	16	4
4FU0075500	5 mm	75	20	5
4FU0075600	6 mm	75	25	6
4FU0075800	8 mm	75	28	8
4FU0100300	3 mm	100	15	3
4FU0100400	4 mm	100	20	4
4FU0100500	5 mm	100	25	5
4FU0100600	6 mm	100	30	6
4FU0100800	8 mm	100	35	8
4FU1001000	10 mm	100	40	10
4FU1001200	12 mm	100	45	12
4FU1500800	8 mm	150	50	8
4FU1501000	10 mm	150	50	10
4FU1501200	12 mm	150	60	12
4FU1501400	14 mm	150	60	14
4FU1501600	16 mm	150	60	16
4FU1501800	18 mm	150	70	18
4FU1502000	20 mm	150	75	20

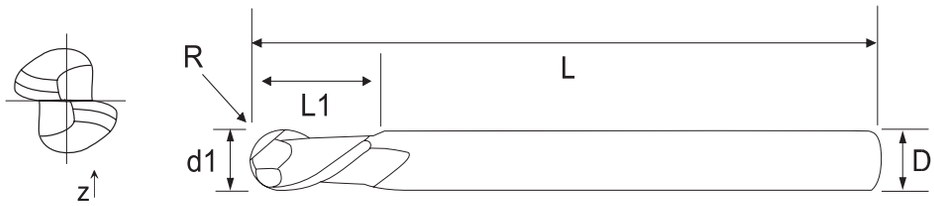
KÜRE KARBÜR FREZE



KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ
2FK0050100	1 mm	50	2	4
2FK0050150	1,5 mm	50	4	4
2FK0050200	2 mm	50	4	4
2FK0050250	2,5 mm	50	6	4
2FK0050300	3 mm	50	6	4
2FK0050400	4 mm	50	8	4
2FK0050500	5 mm	50	10	5
2FK0050600	6 mm	50	12	6
2FK0060800	8 mm	60	16	8
2FK0751000	10 mm	75	20	10
2FK0751200	12 mm	75	24	12
2FK1001400	14 mm	100	28	14
2FK1001600	16 mm	100	32	16
2FK1002000	20 mm	100	40	20

KÜRE UZUN KARBÜR FREZE

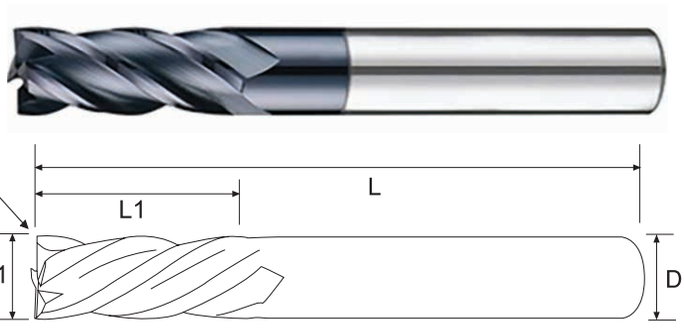




KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ	
2FKU0075200	2 mm	75	5	4	
2FKU0075300	3 mm	75	6	3	
2FKU0075400	4 mm	75	8	4	
2FKU0075500	5 mm	75	10	5	
2FKU0075600	6 mm	75	12	6	
2FKU0100500	5 mm	100	10	5	
2FKU0100600	6 mm	100	12	6	
2FKU0100800	8 mm	100	16	8	
2FKU1001000	10 mm	100	20	10	
2FKU1001200	12 mm	100	24	12	

KARBÜR FREZE 45HRC

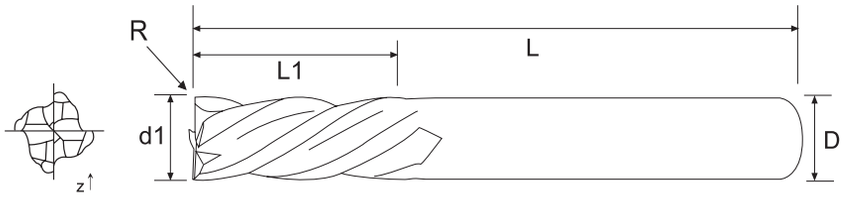
KARBÜR KÖŞE RADÜS FREZE



KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ	
4FR0250200	2R02 mm	50	5	4	
4FR0550200	2R05 mm	50	5	4	
4FR0550300	3R05 mm	50	8	3	
4FR0150300	3R1 mm	50	8	3	
4FR0550400	4R05 mm	50	10	4	
4FR0150400	4R1 mm	50	10	4	
4FR0550500	5R05 mm	50	13	5	
4FR0150500	5R1 mm	50	13	5	
4FR0550600	6R05 mm	50	15	6	
4FR0150600	6R1 mm	50	15	6	
4FR0560800	8R05 mm	60	20	8	
4FR0160800	8R1 mm	60	20	8	
4FR5751000	10R05mm	75	25	10	
4FR1751000	10R1 mm	75	25	10	
4FR5751200	12R05mm	75	30	12	
4FR1751200	12R1 mm	75	30	12	

UZUN KARBÜR KÖŞE RADÜS FREZE

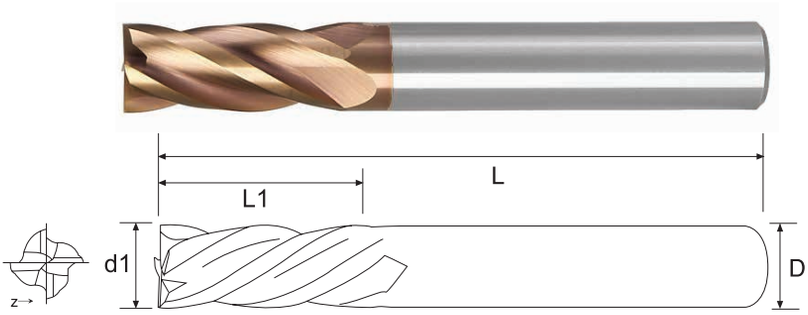




KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ	
4FUR0575600	6R05 mm	75	25	6	
4FUR0175600	6R1 mm	75	25	6	
4FUR0575800	8R05 mm	75	28	8	
4FUR0175800	8R1 mm	75	28	8	
4FUR5100600	6R05 mm	100	30	6	
4FUR1100600	6R1 mm	100	30	6	
4FUR5100800	8R05 mm	100	35	8	
4FUR1100800	8R1 mm	100	35	8	
4FUR51001000	10R05 mm	100	40	10	
4FUR11001000	10R1 mm	100	40	10	
4FUR51001200	12R05 mm	100	45	12	
4FUR11001200	12R1 mm	100	45	12	

KARBÜR FREZE 55HRC

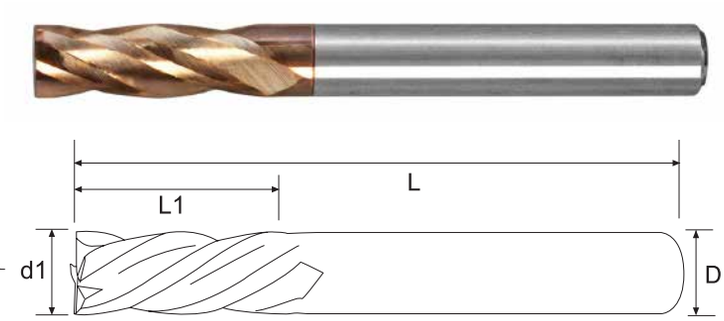
DÜZ KARBÜR FREZE





KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ	
4F550050100	1 mm	50	4	4	
4F550050150	1,5 mm	50	4	4	
4F550050200	2 mm	50	6	4	
4F550050250	2,5 mm	50	8	4	
4F550050300	3 mm	50	8	3	
4F550050400	4 mm	50	10	4	
4F550050500	5 mm	50	13	5	
4F550050600	6 mm	50	15	6	
4F550060800	8 mm	60	20	8	
4F550751000	10 mm	75	25	10	
4F550751200	12 mm	75	30	12	
4F551001400	14 mm	100	45	14	
4F551001600	16 mm	100	45	16	
4F551001800	18 mm	100	45	18	
4F551002000	20 mm	100	45	20	

DÜZ UZUN KARBÜR FREZE

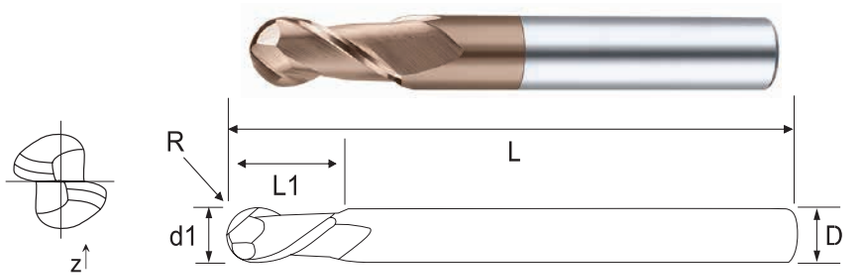




KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ
4FU550075300	3 mm	75	12	3
4FU550075400	4 mm	75	16	4
4FU550075500	5 mm	75	20	5
4FU550075600	6 mm	75	25	6
4FU550075800	8 mm	75	28	8
4FU550100300	3 mm	100	15	3
4FU550100400	4 mm	100	20	4
4FU550100500	5 mm	100	25	5
4FU550100600	6 mm	100	30	6
4FU550100800	8 mm	100	35	8
4FU551001000	10 mm	100	40	10
4FU551001200	12 mm	100	45	12
4FU551500800	8 mm	150	50	8
4FU551501000	10 mm	150	50	10
4FU551501200	12 mm	150	60	12
4FU551501400	14 mm	150	60	14
4FU551501600	16 mm	150	60	16
4FU551501800	18 mm	150	70	18
4FU551502000	20 mm	150	75	20

KARBÜR FREZE 55HRC

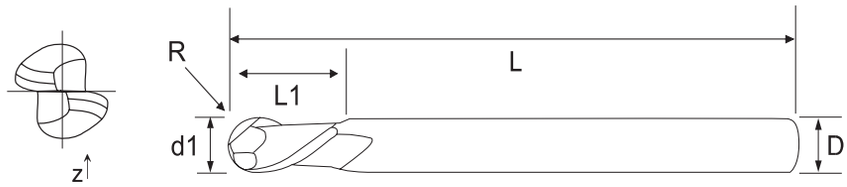
KÜRE KARBÜR FREZE



KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ
2FK550050100	1 mm	50	2	4
2FK550050150	1,5 mm	50	4	4
2FK550050200	2 mm	50	4	4
2FK550050250	2,5 mm	50	6	4
2FK550050300	3 mm	50	6	4
2FK550050400	4 mm	50	8	4
2FK550050500	5 mm	50	10	5
2FK550050600	6 mm	50	12	6
2FK550060800	8 mm	60	16	8
2FK550751000	10 mm	75	20	10
2FK550751200	12 mm	75	24	12
2FK551001400	14 mm	100	28	14
2FK551001600	16 mm	100	32	16
2FK551002000	20 mm	100	40	20

KÜRE UZUN KARBÜR FREZE

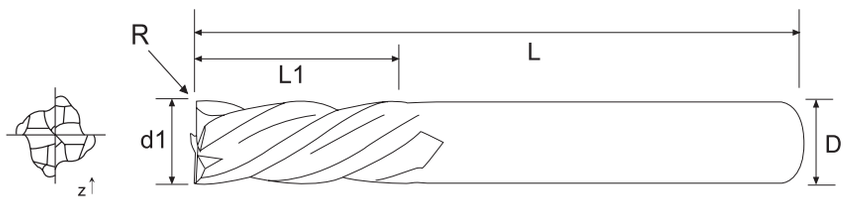




KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ	
2FKU550075200	2 mm	75	5	4	
2FKU550075300	3 mm	75	6	3	
2FKU550075400	4 mm	75	8	4	
2FKU550075500	5 mm	75	10	5	
2FKU550075600	6 mm	75	12	6	
2FKU550100500	5 mm	100	10	7	
2FKU550100600	6 mm	100	12	6	
2FKU550100800	8 mm	100	16	8	
2FKU551001000	10 mm	100	20	10	
2FKU551001200	12 mm	100	24	12	

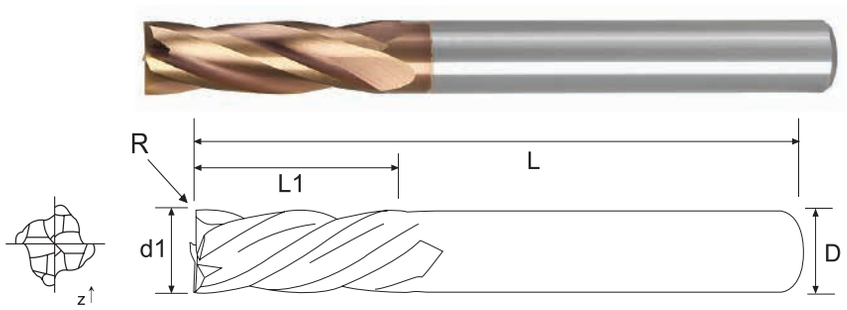
KARBÜR KÖŞE RADÜS FREZE





KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ	
4FR550250200	2R02 mm	50	5	4	
4FR550550200	2R05 mm	50	5	4	
4FR550550300	3R05 mm	50	8	3	
4FR550150300	3R1 mm	50	8	3	
4FR550550400	4R05 mm	50	10	4	
4FR550150400	4R1 mm	50	10	4	
4FR550550500	5R05 mm	50	13	5	
4FR550150500	5R1 mm	50	13	5	
4FR550550600	6R05 mm	50	15	6	
4FR550150600	6R1 mm	50	15	6	
4FR550560800	8R05 mm	60	20	8	
4FR550160800	8R1 mm	60	20	8	
4FR555751000	10R05 mm	75	25	10	
4FR551751000	10R1 mm	75	25	10	
4FR555751200	12R05 mm	75	30	12	
4FR551751200	12R1 mm	75	30	12	

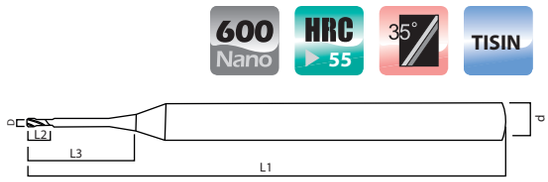
UZUN KARBÜR KÖŞE RADÜS FREZE



KOD	ÇAP d1Ø	TAM BOY L	KESME BOY L1	ŞAFT DØ	
4FUR550575600	6R05 mm	75	25	6	
4FUR550175600	6R1 mm	75	25	6	
4FUR550575800	8R05 mm	75	28	8	
4FUR550175800	8R1 mm	75	28	8	
4FUR555100600	6R05 mm	100	30	6	
4FUR551100600	6R1 mm	100	30	6	
4FUR555100800	8R05 mm	100	35	8	
4FUR551100800	8R1 mm	100	35	8	
4FUR5551001000	10R05 mm	100	40	10	
4FUR5511001000	10R1 mm	100	40	10	
4FUR5551001200	12R05 mm	100	45	12	
4FUR5511001200	12R1 mm	100	45	12	

DALMA BOYLU MİKRO DÜZ KARBÜR PARMAK FREZE

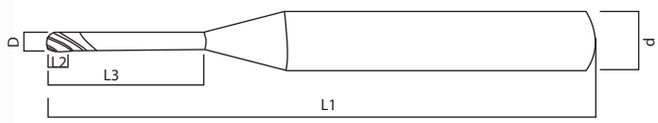




KOD	D (mm)	L2 (mm)	L3 (mm)	L1 (mm)	d (mm)	DİŞ SAYISI
Mİ050250	0,5	1	2	50	4	2
Mİ050350	0,5	1	3	50	4	2
Mİ050450	0,5	1	4	50	4	2
Mİ100450	1	3	4	50	4	2
Mİ100650	1	3	6	50	4	2
Mİ100850	1	3	8	50	4	2
Mİ101050	1	3	10	50	4	2
Mİ101250	1	3	12	50	4	2
Mİ101650	1	3	16	50	4	2
Mİ102050	1	3	20	50	4	2
Mİ150450	1,5	4,5	4	50	4	2
Mİ150650	1,5	4,5	6	50	4	2
Mİ150850	1,5	4,5	8	50	4	2
Mİ151050	1,5	4,5	10	50	4	2
Mİ151250	1,5	4,5	12	50	4	2
Mİ151650	1,5	4,5	16	50	4	2
Mİ152050	1,5	4,5	20	50	4	2
Mİ200450	2	6	4	50	4	2
Mİ200650	2	6	6	50	4	2
Mİ200850	2	6	8	50	4	2
Mİ201050	2	6	10	50	4	2
Mİ201250	2	6	12	50	4	2
Mİ201650	2	6	16	50	4	2
Mİ202050	2	6	20	50	4	2
Mİ300850	3	3	8	50	4	2
Mİ301050	3	3	10	50	4	2
Mİ301250	3	3	12	50	4	2
Mİ301650	3	3	16	50	4	2
Mİ302050	3	3	20	50	4	2

DALMA BOYLU MİKRO KÜRE KARBÜR PARMAK FREZE

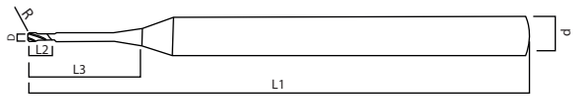




KOD	D (mm)	L2 (mm)	L3 (mm)	L1 (mm)	d (mm)	DİŞ SAYISI
MİR050250	0,5	1	2	50	4	2
MİR050350	0,5	1	3	50	4	2
MİR050450	0,5	1	4	50	4	2
MİR050650	0,5	1	6	50	4	2
MİR100650	1	2	6	50	4	2
MİR100850	1	2	8	50	4	2
MİR101050	1	2	10	50	4	2
MİR101250	1	2	12	50	4	2
MİR101650	1	2	16	50	4	2
MİR102050	1	2	20	50	4	2
MİR150650	1,5	3	6	50	4	2
MİR150850	1,5	3	8	50	4	2
MİR151050	1,5	3	10	50	4	2
MİR151250	1,5	3	12	50	4	2
MİR151650	1,5	3	16	50	4	2
MİR152050	1,5	3	20	50	4	2
MİR200650	2	4	6	50	4	2
MİR200850	2	4	8	50	4	2
MİR201050	2	4	10	50	4	2
MİR201250	2	4	12	50	4	2
MİR201650	2	4	16	50	4	2
MİR202050	2	4	20	50	4	2

DALMA BOYLU MİKRO KÖŞE RADÜS PARMAK FREZE





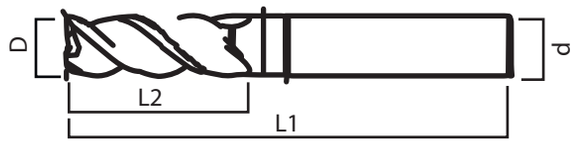


KOD	D (mm)	L2 (mm)	L3 (mm)	L1 (mm)	d (mm)	R	DİŞ SAYISI
MİR01100650	1	2	6	50	4	0,10	2
MİR01100850	1	2	8	50	4	0,10	2
MİR01101050	1	2	10	50	4	0,10	2
MİR01101250	1	2	12	50	4	0,10	2
MİR01101650	1	2	16	50	4	0,10	2
MİR01102050	1	2	20	50	4	0,10	2
MİR02100650	1	2	6	50	4	0,20	2
MİR02100850	1	2	8	50	4	0,20	2
MİR02101050	1	2	10	50	4	0,20	2
MİR02101250	1	2	12	50	4	0,20	2
MİR02101650	1	2	16	50	4	0,20	2
MİR02102050	1	2	20	50	4	0,20	2
MİR01200650	2	4	6	50	4	0,10	2
MİR01200850	2	4	8	50	4	0,10	2
MİR01201050	2	4	10	50	4	0,10	2
MİR01201250	2	4	12	50	4	0,10	2
MİR01201650	2	4	16	50	4	0,10	2
MİR01202050	2	4	20	50	4	0,10	2
MİR02200650	2	4	6	50	4	0,20	2
MİR02200850	2	4	8	50	4	0,20	2
MİR02201050	2	4	10	50	4	0,20	2
MİR02201250	2	4	12	50	4	0,20	2
MİR02201650	2	4	16	50	4	0,20	2
MİR02202050	2	4	20	50	4	0,20	2
MİR02300650	3	6	6	50	4	0,20	2
MİR02300850	3	6	8	50	4	0,20	2
MİR02301050	3	6	10	50	4	0,20	2
MİR02301250	3	6	12	50	4	0,20	2
MİR02301650	3	6	16	50	4	0,20	2
MİR02302050	3	6	20	50	4	0,20	2
MİR05300650	3	6	6	50	4	0,50	2
MİR05300850	3	6	8	50	4	0,50	2
MİR05301050	3	6	10	50	4	0,50	2
MİR05301250	3	6	12	50	4	0,50	2
MİR05301650	3	6	16	50	4	0,50	2
MİR05302050	3	6	20	50	4	0,50	2

KARBÜR ALÜMİNYUM FREZELER

2 AĞIZ ALÜMİNYUM KARBÜR FREZE

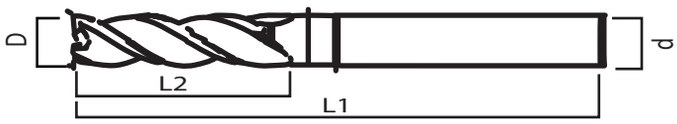




KOD	D (mm)	d (mm)	L1 (mm)	L2 (mm)
TAL05001	1	4	50	3
TAL05002	2	4	50	6
TAL05003	3	3	50	9
TAL05004	4	4	50	12
TAL05005	5	5	50	15
TAL05006	6	6	50	18
TAL06008	8	8	60	24
TAL07510	10	10	75	30
TAL07512	12	12	75	36
TAL10014	14	14	100	45
TAL10016	16	16	100	45
TAL10018	18	18	100	45
TAL10020	20	20	100	45

2 AĞIZ UZUN ALÜMİNYUM KARBÜR FREZE

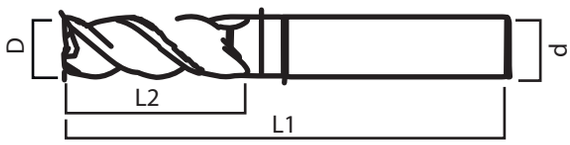




KOD	D (mm)	d (mm)	L1 (mm)	L2 (mm)
TUAL10003	3	3	100	15
TUAL10004	4	4	100	25
TUAL10005	5	5	100	25
TUAL10006	6	6	100	30
TUAL10008	8	8	100	40
TUAL10010	10	10	100	40
TUAL10012	12	12	100	45
TUAL15010	10	10	150	50
TUAL15012	12	12	150	60
TUAL15014	14	14	150	65
TUAL15016	16	16	150	65
TUAL15018	18	18	150	70
TUAL15020	20	20	150	70

3 AĞIZ ALÜMİNYUM KARBÜR FREZE

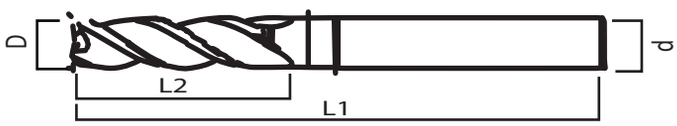




KOD	D (mm)	d (mm)	L1 (mm)	L2 (mm)
T3AL05001	1	4	50	3
T3AL05002	2	4	50	6
T3AL05003	3	3	50	9
T3AL05004	4	4	50	12
T3AL05005	5	5	50	15
T3AL05006	6	6	50	18
T3AL06008	8	8	60	24
T3AL07510	10	10	75	30
T3AL07512	12	12	75	36
T3AL10014	14	14	100	45
T3AL10016	16	16	100	45
T3AL10018	18	18	100	45
T3AL10020	20	20	100	45

3 AĞIZ UZUN ALÜMİNYUM KARBÜR FREZE

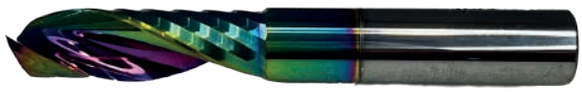


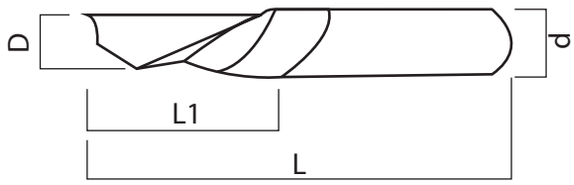


KOD	D (mm)	d (mm)	L1 (mm)	L2 (mm)
T3UAL10003	3	3	100	15
T3UAL10004	4	4	100	25
T3UAL10005	5	5	100	25
T3UAL10006	6	6	100	30
T3UAL10008	8	8	100	40
T3UAL10010	10	10	100	40
T3UAL10012	12	12	100	45
T3UAL15010	10	10	150	50
T3UAL15012	12	12	150	60
T3UAL15014	14	14	150	65
T3UAL15016	16	16	150	65
T3UAL15018	18	18	150	70
T3UAL15020	20	20	150	70

TEK AĞIZ ALÜMİNYUM KARBÜR FREZE

HRC ▶ 55





KOD	D (mm)	d (mm)	L (mm)	L1 (mm)	DİŞ SAYISI
TA1K224503	3,175	3,175	45	22	1
TA1K224504	4	4	45	22	1
TA1K325504	4	4	55	32	1
TA1K175006	6	6	50	17	1
TA1K255006	6	6	50	25	1
TA1K326006	6	6	60	32	1
TA1K256508	8	8	65	25	1
TA1K326508	8	8	65	32	1
TA1K326510	10	10	65	32	1

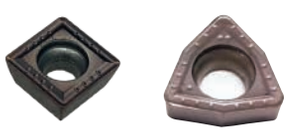
ELMAS UÇ

FREZELEME UÇLARI



KOD	AÇIKLAMA
KU70101	APKT 1035PDSR TAL3007
KU70100	APMT 1135PDER TAL3007
KU70102	APKT 1604PDER-XM TAL3007
KU70102-1	APMT 1604PDER TAL3007
KU70125	RDMT 0802MOTN TAL3007
KU70103	RDHX 1003MO TAL3007
KU70103-1	RDHX 12T3MO TAL3007
KU70104	RDMW 1204M0 TAL3007
KU70105	EPNN 0603 TAL3007
KU70106	TPKN 1603PDTR TAL3007
KU70107	TPXR 2204PDSKR TAL3007
KU70108	TPKN 2204PDTR TAL3007
KU70109	SEKT 1204 TAL3007
KU70110	SDMT 1205 TAL3007
KU70126	LOGU 0303ER-GM TAL3007
KU70111	LNMU 0303 TAL3007
KU70112	BLMP 0603 TAL3007
KU70113	BLMP 0904 TAL3007
KU70114	WNMU 0806 TAL3007
KU70115	SNMX 1205 TAL3007
KU70116	3PKT 1004 TAL3007
KU70117	3PKT 1505 TAL3007
KU70118	JDMT 070204 TAL3007
KU70119	4NKT 060308 TAL3007
KU70120	RT 070204 TAL3007
KU70121	RT 100308 TAL3007
KU70122	XDHW 060210 TAL3007
KU70123	XDHW 09T310 TAL3007
KU70124	ONMU 050505 TAL3007

U - DRİLL UÇLARI



KOD	AÇIKLAMA
KU73101	SPMG 050204 SK TAL3007
KU73102	SPMG 060204 SK TAL3007
KU73103	SPMG 07T308 SK TAL3007
KU73104	SPMG 090408 SK TAL3007
KU73105	SPMG 110408 SK TAL3007
KU73106	WCMX 030208 SK TAL3007
KU73107	WCMX 040208 SK TAL3007
KU73108	WCMX 050308 SK TAL3007
KU73109	WCMX 06T308 SK TAL3007
KU73110	WCMX 080412 SK TAL3007

ALÜMİNYUM UÇLARI



KOD	AÇIKLAMA
KU72101	DCGT 070202 ALU TAL4000
KU72102	DCGT 070204 ALU TAL4000
KU72103	DCGT 070208 ALU TAL4000
KU72104	DCGT 11T302 ALU TAL4000
KU72105	DCGT 11T304 ALU TAL4000
KU72106	DCGT 11T308 ALU TAL4000
KU72107	CCGT 060202 ALU TAL4000
KU72108	CCGT 060204 ALU TAL4000
KU72109	CCGT 09T304 ALU TAL4000
KU72110	CCGT 09T308 ALU TAL4000
KU72111	VCGT 160402 ALU TAL4000
KU72112	VCGT 160404 ALU TAL4000
KU72113	VCGT 160408 ALU TAL4000
KU72114	APKT 10035 ALU TAL4000
KU72115	APKT 1604 ALU TAL4000
KU72116	WNMG 080404 ALU TAL4000
KU72117	WNMG 080408 ALU TAL4000
KU72118	TCGT 16T304 ALU TAL4000
KU72119	TCGT 16T308 ALU TAL4000

KESME UÇLARI



KOD	AÇIKLAMA
KU74101	MGMN 150-G TAL3007
KU74102	MGMN 200-G TAL3007
KU74103	MGMN 300-M TAL3007
KU74104	MGMN 400-M TAL3007
KU74105	MGMN 500-M TAL3007
KU74106	MGMN 600-M TAL3007
KU74107	MRMN 200-M TAL3007
KU74108	MRMN 300-M TAL3007
KU74109	MRMN 400-M TAL3007
KU74110	MRMN 500-M TAL3007
KU74111	MGGN 200-R8 TAL3007
KU74112	MGGN 300-R8 TAL3007
KU74113	MGGN 400-R8 TAL3007
KU74114	MGGN 500-R8 TAL3007
KU74119	MGGN 200-R15 TAL3007
KU74120	MGGN 300-R15 TAL3007
KU74121	MGGN 400-R15 TAL3007
KU74122	MGGN 500-R15 TAL3007
KU74115	MGGN 200 TAL4000
KU74116	MGGN 300 TAL4000
KU74117	MGGN 400 TAL4000
KU74118	MGGN 500 TAL4000

TORNALAMA UÇLARI

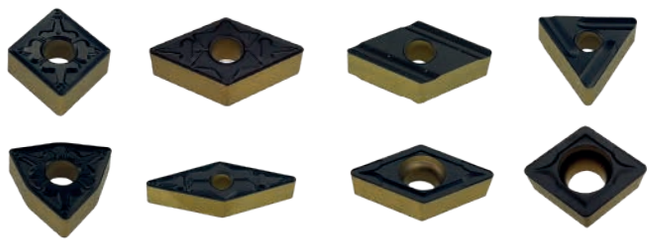


KOD	AÇIKLAMA
KU71100R	KNUX 160405R11 TAL3007
KU71100L	KNUX 160405L11 TAL3007
KU71101	CNMG 120404 TAL3007
KU71102	CNMG 120408 TAL3007
KU71103	DNMG 150604 TAL3007
KU71104	DNMG 150608 TAL3007
KU71105	DNMG 150612 TAL3007
KU71106	SNMG 120404 TAL3007
KU71107	SNMG 120408 TAL3007
KU71108	TNMG 160404 TAL3007
KU71109	TNMG 160408 TAL3007
KU71109-1	TNMG 160412 TAL3007
KU71110	TNMG 220404 TAL3007
KU71111	TNMG 220408 TAL3007
KU71112	TNMG 220412 TAL3007
KU71113	WNMG 080404 TAL3007
KU71114	WNMG 080408 TAL3007
KU71115	WNMG 080412 TAL3007
KU71116	CCMT 060202 TAL3007
KU71117	CCMT 060204 TAL3007
KU71118	CCMT 060208 TAL3007
KU71119	CCMT 09T304 TAL3007
KU71120	CCMT 09T308 TAL3007

KOD	AÇIKLAMA
KU71121	CCMT 120404 TAL3007
KU71122	CCMT 120408 TAL3007
KU71123	DCMT 070202 TAL3007
KU71124	DCMT 070204 TAL3007
KU71125	DCMT 070208 TAL3007
KU71126	DCMT 11T304 TAL3007
KU71127	DCMT 11T308 TAL3007
KU71128	VBMT 160404 TAL3007
KU71129	VBMT 160408 TAL3007
KU71130	VBMT 160412 TAL3007
KU71131	VNMG 160404 TAL3007
KU71132	VNMG 160408 TAL3007
KU71142	TCMT 090204 TAL3007
KU71143	TCMT 090208 TAL3007
KU71133	TCMT 110202 TAL3007
KU71134	TCMT 110204 TAL3007
KU71135	TCMT 110208 TAL3007
KU71136	TCMT 16T304 TAL3007
KU71137	TCMT 16T308 TAL3007
KU71138	SCMT 09T304 TAL3007
KU71139	SCMT 09T308 TAL3007
KU71140	SCMT 120404 TAL3007
KU71141	SCMT 120408 TAL3007

TORNALAMA UÇLARI

* ÇELİK SERİSİ
* SERT ÇELİK İÇİN ÇİFT KAPLAMA



KOD	AÇIKLAMA
KU82001	CNMG 120404 TAL7010
KU82002	CNMG 120408 TAL7010
KU82003	DNMG 150604 TAL7010
KU82004	DNMG 150608 TAL7010
KU82005	DNMG 150612 TAL7010
KU82006	DNMG 150604R-S TAL7010
KU82007	DNMG 150608R-S TAL7010
KU82009	DNMG 150604L-S TAL7010
KU82010	DNMG 150608L-S TAL7010
KU82012	TNMG 160404 TAL7010
KU82013	TNMG 160408 TAL7010
KU82014	TNMG 160404R-S TAL7010
KU82015	TNMG 160408R-S TAL7010
KU82016	TNMG 160404L-S TAL7010
KU82017	TNMG 160408L-S TAL7010
KU82018	TNMG 220404 TAL7010
KU82019	TNMG 220408 TAL7010
KU82020	WNMG 080404 TAL7010
KU82021	WNMG 080408 TAL7010
KU82022	WNMG 080404R-S TAL7010
KU82023	WNMG 080408R-S TAL7010
KU82024	WNMG 080404L-S TAL7010
KU82025	WNMG 080408L-S TAL7010
KU82026	VNMG 160404 TAL7010
KU82027	VNMG 160408 TAL7010
KU82028	DCMT 11T304 TAL7010
KU82029	DCMT 11T308 TAL7010
KU82030	CCMT 09T304 TAL7010
KU82031	CCMT 09T308 TAL7010
KU82032	CCMT 120404 TAL7010
KU82033	CCMT 120408 TAL7010

TORNALAMA UÇLARI

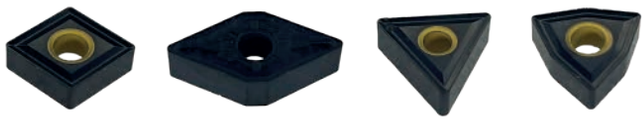
* ÇELİK SERİSİ



KOD	AÇIKLAMA
KU81001	WNMG 080404 TAL7000
KU81002	WNMG 080408 TAL7000
KU81003	DNMG 150604 TAL7000
KU81004	DNMG 150608 TAL7000
KU81005	DNMG 150612 TAL7000
KU81006	TNMG 220404 TAL7000
KU81007	TNMG 220408 TAL7000
KU81008	TNMG 220412 TAL7000

TORNALAMA UÇLARI

* DÖKÜM SERİSİ

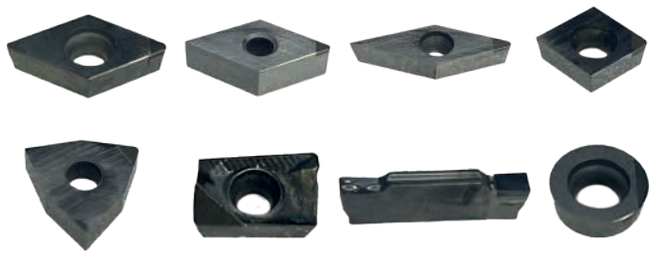


KOD	AÇIKLAMA
KU83001	CNMG 120404 TAL5060
KU83002	CNMG 120408 TAL5060
KU83003	CNMG 120412 TAL5060
KU83004	DNMG 150604 TAL5060
KU83005	DNMG 150608 TAL5060
KU83006	DNMG 150612 TAL5060
KU83007	SNMG 120404 TAL5060
KU83008	SNMG 120408 TAL5060
KU83009	SNMG 120412 TAL5060
KU83010	TNMG 160404 TAL5060
KU83011	TNMG 160408 TAL5060
KU83012	TNMG 160412 TAL5060
KU83013	WNMG 080404 TAL5060
KU83014	WNMG 080408 TAL5060
KU83015	WNMG 080412 TAL5060
KU83016	VNMG 160404 TAL5060
KU83017	VNMG 160408 TAL5060
KU83018	DCMT 11T304 TAL5060
KU83019	DCMT 11T308 TAL5060
KU83020	CCMT 09T304 TAL5060
KU83021	CCMT 09T308 TAL5060
KU83022	CCMT 120404 TAL5060
KU83023	CCMT 120408 TAL5060

ELMAS UÇ

CBN

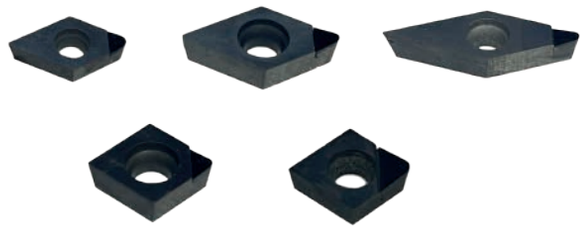
* CBN SERT ÇELİK İÇİN



KOD	AÇIKLAMA
KU84001	DCMT 070204 CBN
KU84002	DCMT 070208 CBN
KU84003	DCMT 11T304 CBN
KU84004	DCMT 11T308 CBN
KU84005	DNMG 150604 CBN
KU84006	DNMG 150608 CBN
KU84007	VBMT 160404 CBN
KU84008	VBMT 160408 CBN
KU84009	CCMT 060204 CBN
KU84010	CCMT 060208 CBN
KU84011	CCMT 09T304 CBN
KU84012	CCMT 09T308 CBN
KU84013	CCMT 120404 CBN
KU84014	CCMT 120408 CBN
KU84015	WNMG 080404 CBN
KU84016	WNMG 080408 CBN
KU84017	APKT 10003 PDTR CBN
KU84018	APKT 160408 CBN
KU84019	MGMN 200 CBN
KU84020	MGMN 300 CBN
KU84021	MGMN 400 CBN
KU84022	RDMT 1003 CBN
KU84023	RDMT 12T3 CBN

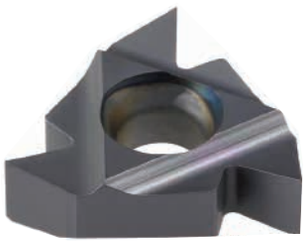
PCD

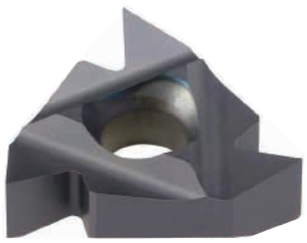
* PCD ALÜMİNYUM PARLATMA İÇİN



KOD	AÇIKLAMA
KU85001	DCMT 070204 PCD
KU85002	DCMT 070208 PCD
KU85003	DCMT 11T304 PCD
KU85004	DCMT 11T308 PCD
KU85005	VBMT 160404 PCD
KU85006	VBMT 160408 PCD
KU85007	CCMT 060204 PCD
KU85008	CCMT 060208 PCD
KU85009	CCMT 09T304 PCD
KU85010	CCMT 09T308 PCD
KU85011	CCMT 120404 PCD
KU85012	CCMT 120408 PCD

DİŞ AÇMA UÇLARI



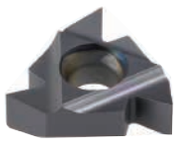


KOD	AÇIKLAMA
KU77101	11 ER AG60 İSO TAL3007
KU77101-1	11 ER AG55 İSO TAL3007
KU77102	11 ER 0,50 İSO TAL3007
KU77103	11 ER 0,75 İSO TAL3007
KU77104	11 ER 1,00 İSO TAL3007
KU77105	11 ER 1,25 İSO TAL3007
KU77106	11 ER 1,50 İSO TAL3007
KU77107	11 ER 1,75 İSO TAL3007
KU77107-1	11 ER 2,00 İSO TAL3007
KU77108	16 ER 0,50 İSO TAL3007
KU77109	16 ER 0,75 İSO TAL3007
KU77110	16 ER 1,00 İSO TAL3007
KU77111	16 ER 1,25 İSO TAL3007
KU77112	16 ER 1,50 İSO TAL3007
KU77113	16 ER 1,75 İSO TAL3007
KU77114	16 ER 2,00 İSO TAL3007
KU77115	16 ER 2,50 İSO TAL3007
KU77116	16 ER 3,00 İSO TAL3007
KU77116-1	16 ER 3,50 İSO TAL3007
KU77117	16 ER AG60 İSO TAL3007
KU77118	22 ER 3,50 İSO TAL3007
KU77119	22 ER 4,00 İSO TAL3007
KU77120	22 ER 4,50 İSO TAL3007
KU77121	22 ER 5,00 İSO TAL3007
KU77122	22 ER 6,00 İSO TAL3007
KU77123	22 ER AG60 İSO TAL3007

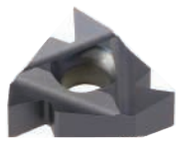
KOD	AÇIKLAMA
KU78101	11 IR AG60 İSO TAL3007
KU78101-1	11 IR AG55 İSO TAL3007
KU78102	11 IR 0,50 İSO TAL3007
KU78103	11 IR 0,75 İSO TAL3007
KU78104	11 IR 1,00 İSO TAL3007
KU78105	11 IR 1,25 İSO TAL3007
KU78106	11 IR 1,50 İSO TAL3007
KU78107	11 IR 1,75 İSO TAL3007
KU78107-1	11 IR 2,00 İSO TAL3007
KU78108	16 IR 0,50 İSO TAL3007
KU78109	16 IR 0,75 İSO TAL3007
KU78110	16 IR 1,00 İSO TAL3007
KU78111	16 IR 1,25 İSO TAL3007
KU78112	16 IR 1,50 İSO TAL3007
KU78113	16 IR 1,75 İSO TAL3007
KU78114	16 IR 2,00 İSO TAL3007
KU78115	16 IR 2,50 İSO TAL3007
KU78116	16 IR 3,00 İSO TAL3007
KU78116-1	16 IR 3,50 İSO TAL3007
KU78117	16 IR AG60 İSO TAL3007
KU78118	22 IR 3,50 İSO TAL3007
KU78119	22 IR 4,00 İSO TAL3007
KU78120	22 IR 4,50 İSO TAL3007
KU78121	22 IR 5,00 İSO TAL3007
KU78122	22 IR 6,00 İSO TAL3007
KU78123	22 IR AG60 İSO TAL3007

ELMAS UÇ

DİŞ AÇMA UÇLARI - WHITWORTH

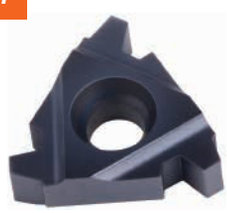


KOD	AÇIKLAMA
KU79101	16 ER 8 W TAL3007
KU79101-1	16 ER 10 W TAL3007
KU79102	16 ER 11 W TAL3007
KU79102-1	16 ER 12 W TAL3007
KU79103	16 ER 14 W TAL3007
KU79104	16 ER 16 W TAL3007
KU79104-1	16 ER 18 W TAL3007
KU79105	16 ER 19 W TAL3007
KU79106	16 ER 20 W TAL3007
KU79107	16 ER AG 55 W TAL3007
KU80001	22 ER AG 55 W TAL3007



KOD	AÇIKLAMA
KU79108	16 IR 8 W TAL3007
KU79108-1	16 IR 10 W TAL3007
KU79109	16 IR 11 W TAL3007
KU79109-1	16 IR 12 W TAL3007
KU79110	16 IR 14 W TAL3007
KU79111	16 IR 16 W TAL3007
KU79111-1	16 IR 18 W TAL3007
KU79112	16 IR 19 W TAL3007
KU79113	16 IR 20 W TAL3007
KU79114	16 IR AG 55 W TAL3007
KU80101	22 IR AG 55 W TAL3007

TRAPEZ DİŞ UÇLARI



KOD	AÇIKLAMA
KU75101	16 ER TR 1,00 TAL3007
KU75102	16 ER TR 1,50 TAL3007
KU75103	16 ER TR 2,00 TAL3007
KU75104	16 ER TR 2,50 TAL3007
KU75105	16 ER TR 3,00 TAL3007
KU75106	22 ER TR 3,50 TAL3007
KU75107	22 ER TR 4,00 TAL3007
KU75108	22 ER TR 5,00 TAL3007
KU75109	22 ER TR 6,00 TAL3007
KU75110	16 IR TR 1,00 TAL3007
KU75111	16 IR TR 1,50 TAL3007
KU75112	16 IR TR 2,00 TAL3007
KU75113	16 IR TR 2,50 TAL3007
KU75114	16 IR TR 3,00 TAL3007
KU75115	22 IR TR 3,50 TAL3007
KU75116	22 IR TR 4,00 TAL3007
KU75117	22 IR TR 5,00 TAL3007
KU75118	22 IR TR 6,00 TAL3007

SEKMAN KANAL AÇMA UÇLARI



KOD	AÇIKLAMA
KU76101	16 ER / IL 1,00 TAL3007
KU76102	16 ER / IL 1,10 TAL3007
KU76103	16 ER / IL 1,20 TAL3007
KU76104	16 ER / IL 1,30 TAL3007
KU76105	16 ER / IL 1,40 TAL3007
KU76106	16 ER / IL 1,50 TAL3007
KU76107	16 ER / IL 1,60 TAL3007
KU76108	16 ER / IL 1,70 TAL3007
KU76109	16 ER / IL 1,80 TAL3007
KU76110	16 ER / IL 1,90 TAL3007
KU76111	16 ER / IL 2,00 TAL3007
KU76112	16 IR / EL 1,00 TAL3007
KU76113	16 IR / EL 1,10 TAL3007
KU76114	16 IR / EL 1,20 TAL3007
KU76115	16 IR / EL 1,30 TAL3007
KU76116	16 IR / EL 1,40 TAL3007
KU76117	16 IR / EL 1,50 TAL3007
KU76118	16 IR / EL 1,60 TAL3007
KU76119	16 IR / EL 1,70 TAL3007
KU76120	16 IR / EL 1,80 TAL3007
KU76121	16 IR / EL 1,90 TAL3007
KU76122	16 IR / EL 2,00 TAL3007

ELMAS ALTLIK UÇLARI

DNMG ALTLIK



KOD	AÇIKLAMA
KU90001	DNMG 15
KU90002	DNMG 15

TNMG ALTLIK



KOD	AÇIKLAMA
KU90020	TNMG 16 PİMLİ
KU90022	TNMG 16 VİDALI
KU90021	TNMG 22

DCMT ALTLIK



KOD	AÇIKLAMA
KU90040	DCMT 11
KU90041	DCMT 11

DİŞ ALTLIKLARI



KOD	AÇIKLAMA
KU90080	ER 22 - S SİSTEM
KU90081	IR 22 - S SİSTEM
KU90082	ER 16 ALTLIK
KU90083	IR 16 ALTLIK

DİŞ ALTLIKLARI



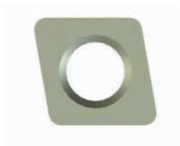
KOD	AÇIKLAMA
KU90085	16 IR - ER ALTLIK

CCMT ALTLIK

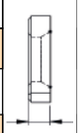


KOD	AÇIKLAMA
KU90100	CCMT 09 - S SİSTEM
KU90101	CCMT 12 - S SİSTEM

CNMG ALTLIK



KOD	AÇIKLAMA
KU90010	CNMG 12
KU90013	CNMG 12
KU90011	CNMG 16 4,76mm
KU90014	CNMG 16 4,77mm
KU90012	CNMG 19 4,76mm
KU90015	CNMG 19 4,77mm



WNMG ALTLIK



KOD	AÇIKLAMA
KU90030	WNMG 08
KU90031	WNMG 08 PİMLİ
KU90032	WNMG 08

VBMT ALTLIK



KOD	AÇIKLAMA
KU90050	VBMT 16
KU90051	VBMT 16
KU90052	VBMT 16

KNUX SAĞ-SOL ALTLIK



KOD	AÇIKLAMA
KU90060	KNUX 16 SAĞ C SİSTEM
KU90070	KNUX 16 SOL C SİSTEM
KU90110	KNUX 16 SAĞ
KU90111	KNUX 16 SOL

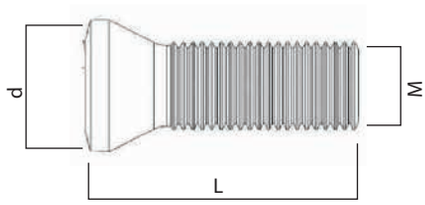
SNMG ALTLIK



KOD	AÇIKLAMA
KU90090	SNMG 12 - T SİSTEM
KU90091	SNMG 15 - T SİSTEM
KU90092	SNMG 19 - T SİSTEM

YILDIZ ve ALTLIK VİDALARI





KOD	M (mm)	L (mm)	d (mm)
KU91001	M 1,8	4,2	2,4
KU91002	M 2	4	2,85
KU91003	M 2	5	2,85
KU91004	M 2,2	5	3
KU91005	M 2,2	6	3
KU91006	M 2,5	5	3,5
KU91007	M 2,5	6	3,5
KU91008	M 2,5	7	3,5
KU91009	M 2,5	10	3,5
KU91010	M 3	7	4
KU91011	M 3	8	4
KU91012	M 3	8	4,5
KU91013	M 3	9	4
KU91014	M 3	10	4
KU91015	M 3,5	8	4,8
KU91016	M 3,5	8	5,3
KU91017	M 3,5	10	5,3
KU91018	M 3,5	11	4,8
KU91019	M 3,5	12	5,3
KU91020	M 3,5	14	5,3
KU91021	M 3,5	14	4,8
KU91022	M 4	9	5,5
KU91023	M 4	10	5,8
KU91024	M 4	11	6,5
KU91025	M 4	14	6,5
KU91026	M 4	16	6,5
KU91027	M 4	16	7
KU91028	M 4,5	12	6,9
KU91029	M 5	12	7
KU91030	M 5	15	7

BUKSE VİDA



KOD	AÇIKLAMA
KU91031	M 5 x 0,5 x 3,5
KU91032	M 6 x 0,75 x 4

BASKI CİVATASI



KOD	AÇIKLAMA
KU91033	M 6 x 0,75 TPKN 16
KU91034	M 8 x 1 TPKN 22

KARBÜR KALIPÇI FREZE



A FORMLU

KOD	d1	d2	L2	L1
TA061606	6	6	16	65
TA082006	8	6	20	65
TA102006	10	6	20	65
TA122506	12	6	25	65
TA162506	16	6	25	65

B FORMLU

KOD	d1	d2	L2	L1
TB061606	6	6	16	65
TB082006	8	6	20	65
TB102006	10	6	20	65
TB122506	12	6	25	65
TB162506	16	6	25	65





C FORMLU

KOD	d1	d2	L2	L1
TC061606	6	6	16	65
TC082006	8	6	20	65
TC102006	10	6	20	65
TC122506	12	6	25	65
TC162506	16	6	25	65

D FORMLU

KOD	d1	d2	L2	L1
TD060506	6	6	5	65
TD080706	8	6	7	65
TD100906	10	6	9	65
TD121006	12	6	10	65
TD161406	16	6	14	65





E FORMLU

KOD	d1	d2	L2	L1
TE061006	6	6	10	65
TE081306	8	6	13	65
TE101606	10	6	16	65
TE122006	12	6	20	65
TE162506	16	6	25	65

KARBÜR KALIPÇI FREZE



F FORMLU

KOD	d1	d2	L2	L1
TF061806	6	6	18	65
TF082006	8	6	20	65
TF102006	10	6	20	65
TF122506	12	6	25	65
TF162506	16	6	25	65

G FORMLU

KOD	d1	d2	L2	L1
TG061806	6	6	18	65
TG082006	8	6	20	65
TG102006	10	6	20	65
TG122506	12	6	25	65
TG162506	16	6	25	65





H FORMLU

KOD	d1	d2	L2	L1
TH061806	6	6	18	65
TH082006	8	6	20	65
TH102506	10	6	25	65
TH123206	12	6	32	65
TH163606	16	6	36	65

L FORMLU

KOD	d1	d2	L2	L1
TL061606	6	6	16	65
TL082206	8	6	22	65
TL102506	10	6	25	65
TL122806	12	6	28	65
TL163306	16	6	33	65

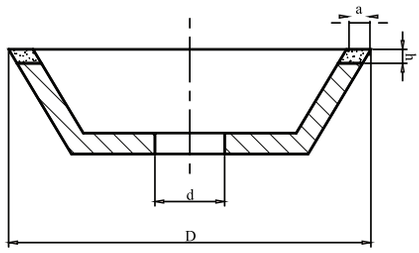




M FORMLU

KOD	d1	d2	L2	L1
TM061806	6	6	18	65
TM082006	8	6	20	65
TM102006	10	6	20	65
TM122506	12	6	25	65
TM162506	16	6	25	65





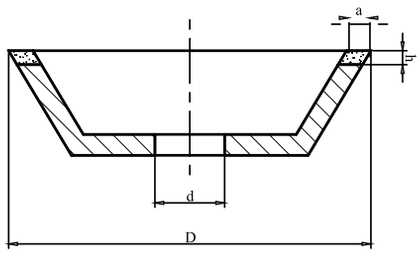
ELMAS ÇANAK TAŞ KONİK C75

KOD	D	d	a	h
T350075	75	20	5	3
T350100	100	20	5	3
T350125	125	32	5	3
T350150	150	32	5	3



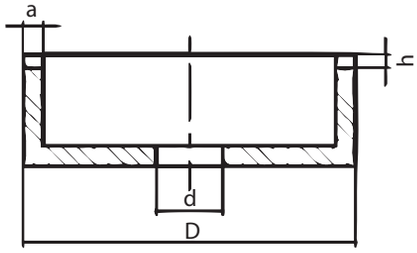
YENİ ÜRÜN

ELMAS ÇANAK TAŞ KONİK C75 (10mm GENİŞLİK)



KOD	D	d	a	h
T353100	100	20	10	3
T353125	125	32	10	3
T353150	150	32	10	3

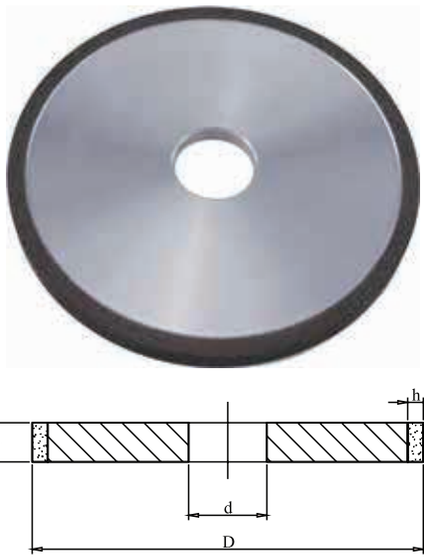




ELMAS ÇANAK TAŞ DİK C75

KOD	D	d	a	h
T352075	75	20	5	3
T352100	100	20	5	3
T352125	125	20	5	3

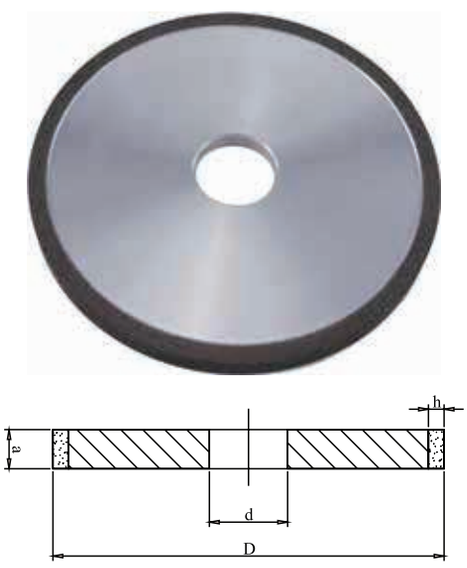
ELMAS ÇANAK TAŞLAR



ELMAS ÇANAK TAŞ DİSK C75

KOD	D	d	a	h
T351075	75	20	6	3
T351100	100	20	8	4
T351125	125	20	8	4
T351150	150	32	8	4
T351175	175	32	10	4
T351200	200	32	10	4

YENİ ÜRÜN



ELMAS ÇANAK TAŞ DİSK C75 (20mm GENİŞLİK)

KOD	D	d	a	h
T354100	100	20	20	4
T354125	125	20	20	4
T354150	150	32	20	4
T354175	175	32	20	4
T354200	200	32	20	4

TAŞ DÜZELTME ELMASI, SAPLI ELMAS TAŞ

ÇOKLU TAŞ DÜZELTME ELMASI

KOD	KARAT	MK	ELMAS
TTA099075	0,75	1	7
TTA099100	1,0	1	12
TTA099150	1,5	1	24



KARE TİP TAŞ DÜZELTME ELMASI

YENİ ÜRÜN

KOD	ELMAS
TTA098100	72



TAŞ DÜZELTME ELMASI

KOD	KARAT	MK
TTA100030	0,3	1
TTA100050	0,5	1
TTA100075	0,75	1
TTA100100	1,0	1
TTA100150	1,5	1
TTA100200	2,0	1
TTA100250	2,5	1
TTA100300	3,0	1
TTA100400	4,0	1



SAPLI ELMAS TAŞ

KOD	SET İÇERİĞİ
TTA098020	3,0 mm 20 ADET / TK
TTA098030	3,0 mm 30 ADET / TK



ELMAS EĞELER

LAMA ELMAS EĞE

KOD	ŞAFT (mm)	GENİŞLİK (mm)	KALINLIK (mm)	BOY (mm)
TEE1403DZ	3	5,60	1,50	140
TEE1604DZ	4	7,90	1,70	160
TEE1805DZ	5	10,30	1,90	180



ÜÇGEN ELMAS EĞE



KOD	ŞAFT (mm)	GENİŞLİK (mm)	KALINLIK (mm)	BOY (mm)
TEE1403UC	3	4,00	3,50	140
TEE1604UC	4	4,90	4,30	160
TEE1805UC	5	6,00	5,50	180

YUVARLAK ELMAS EĞE

KOD	ŞAFT (mm)	KALINLIK (mm)	BOY (mm)
TEE1403YV	3	3,20	140
TEE1604YV	4	4,20	160
TEE1805YV	5	5,00	180



BALIK SIRTI ELMAS EĞE



KOD	ŞAFT (mm)	GENİŞLİK (mm)	KALINLIK (mm)	BOY (mm)
TEE1403BS	3	5,70	1,90	140
TEE1604BS	4	6,90	2,40	160
TEE1805BS	5	9,10	3,10	180

KARE ELMAS EĞE

KOD	ŞAFT (mm)	KALINLIK (mm)	BOY (mm)
TEE1403KR	3	3,10x3,10	140
TEE1604KR	4	4,20x4,20	160
TEE1805KR	5	4,50x4,50	180

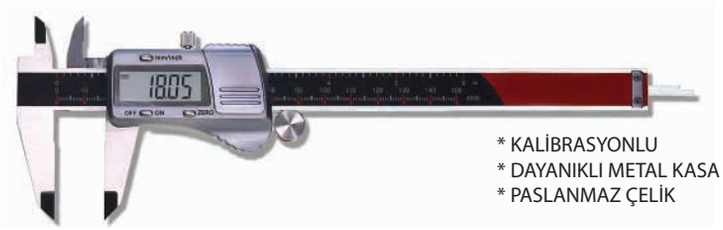




ELMAS EĞE SETLERİ

KOD	BOY (mm)	KESİCİ BOY (mm)	ŞAFT (mm)	ADET
TEE1403ST	140	70	3	5
TEE1604ST	160	50	4	5
TEE1604ST-10	160	50	4	10
TEE1805ST	180	70	5	5

KALİBRASYONLU KUMPASLAR



* KALİBRASYONLU
* DAYANIKLI METAL KASA
* PASLANMAZ ÇELİK

EKSTRA KALİTELİ METAL KASA DİJİTAL KUMPAS

KOD	ÖLÇÜM ARALIĞI
T10150DM	150 * 0,01
T10200DM	200 * 0,01
T10300DM	300 * 0,01



* KALİBRASYONLU
* PÜSKÜRTME SUYUNA, YAĞ ve TOZA KARŞI IP54 KORUMA
* PASLANMAZ ÇELİK

ABSOLUTE IP54 DİJİTAL KUMPAS

KOD	ÖLÇÜM ARALIĞI
T10150IP54	150 * 0,01
T10200IP54	200 * 0,01
T10300IP54	300 * 0,01

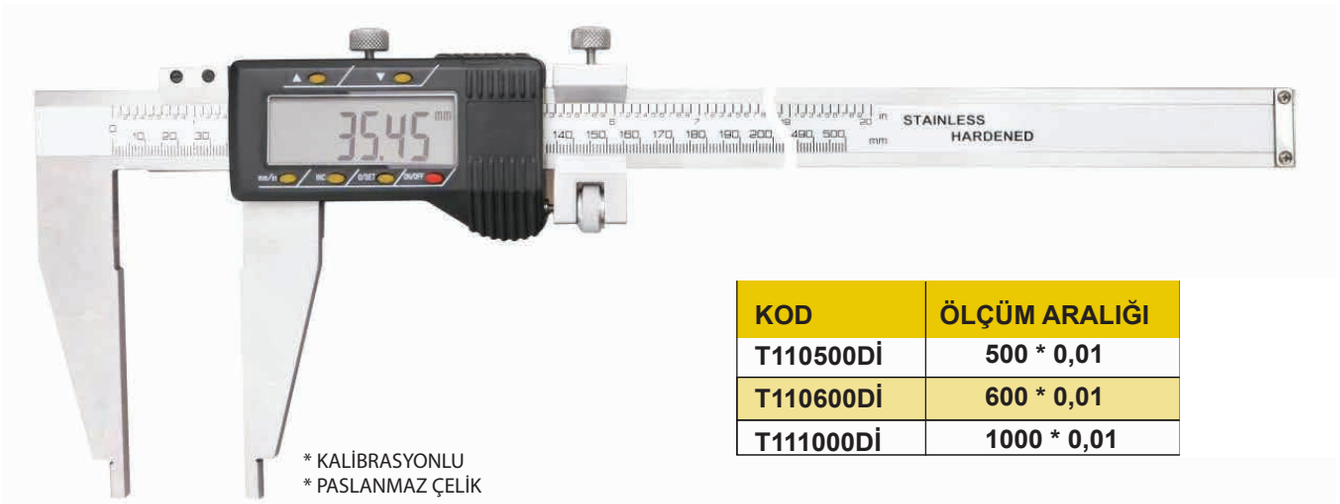


* KALİBRASYONLU
* SU, YAĞ ve TOZA KARŞI IP67 KORUMA
* PASLANMAZ ÇELİK
* PRO ENDÜSTRİ AMAÇLI KULLANIM

IP67 PRO DİJİTAL KUMPAS

KOD	ÖLÇÜM ARALIĞI
T10150IP67	150 * 0,01
T10200IP67	200 * 0,01
T10300IP67	300 * 0,01

AĞIR HİZMET DİJİTAL KUMPAS



* KALİBRASYONLU
* PASLANMAZ ÇELİK

KOD	ÖLÇÜM ARALIĞI
T110500Dİ	500 * 0,01
T110600Dİ	600 * 0,01
T111000Dİ	1000 * 0,01

MEKANİK KUMPASLAR

MEKANİK KUMPAS



KOD	ÖLÇÜM ARALIĞI
T111002	100 * 0,02
T111005	100 * 0,05
T111502	150 * 0,02
T111505	150 * 0,05
T112002	200 * 0,02
T112005	200 * 0,05
T113005	300 * 0,05

MONOBLOK MEKANİK KUMPAS



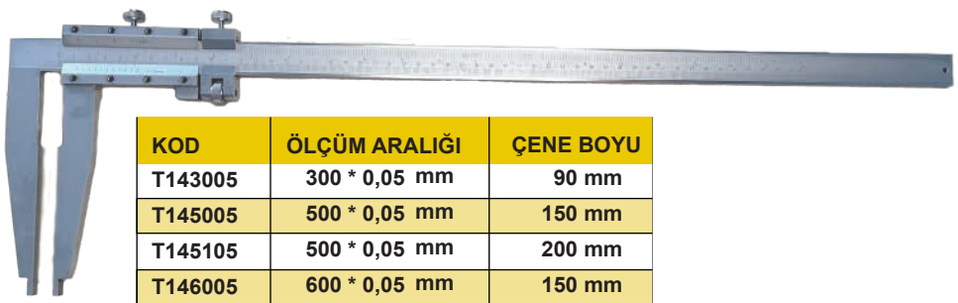
KOD	ÖLÇÜM ARALIĞI
T121505	150 * 0,05
T122005	200 * 0,05
T123005	300 * 0,05

MEKANİK KUMPAS TEK ÇENE



KOD	ÖLÇÜM ARALIĞI	ÇENE BOYU
T135005	500 * 0,05 mm	100 mm
T136005	600 * 0,05 mm	100 mm
T1310005	1000 * 0,05 mm	125 mm
T1315005	1500 * 0,05 mm	125 mm
T1320005	2000 * 0,05 mm	150 mm

UZUN ÇENE KUMPAS



KOD	ÖLÇÜM ARALIĞI	ÇENE BOYU
T143005	300 * 0,05 mm	90 mm
T145005	500 * 0,05 mm	150 mm
T145105	500 * 0,05 mm	200 mm
T146005	600 * 0,05 mm	150 mm
T146105	600 * 0,05 mm	200 mm
T1410005	1000 * 0,05 mm	150 mm
T1411055	1000 * 0,05 mm	200 mm

DERİNLİK KUMPASI



KOD	ÖLÇÜM ARALIĞI
T151502	150 * 0,02
T152002	200 * 0,02
T153002	300 * 0,02

DİJİTAL KUMPASLAR

DİJİTAL KUMPAS BÜYÜK EKRAN



KOD	ÖLÇÜM ARALIĞI
T11100DU	100 * 0,01
T11150DU	150 * 0,01
T11200DU	200 * 0,01
T11300DU	300 * 0,01

DİJİTAL KUMPAS METAL EKRAN



KOD	ÖLÇÜM ARALIĞI
T11150DM	150 * 0,01
T11200DM	200 * 0,01
T11300DM	300 * 0,01

DİJİTAL KUMPAS



KOD	ÖLÇÜM ARALIĞI
T11150MİT	150 * 0,01 mm
T11200MİT	200 * 0,01 mm
T11300MİT	300 * 0,01 mm

DİJİTAL DERİNLİK KUMPASI



KOD	ÖLÇÜM ARALIĞI
T15150D	150 * 0,01 mm
T15200D	200 * 0,01 mm
T15300D	300 * 0,01 mm

SAATLİ KUMPAS



KOD	ÖLÇÜM ARALIĞI
T11150SA	150 * 0,02
T11200SA	200 * 0,02
T11300SA	300 * 0,02

MİKROMETRELER

DIŞ ÇAP MİKROMETRESİ

KOD	ÖZELLİK / BOY
T160025	0-25 * 0,01 MM
T160050	25-50 * 0,01 MM
T160075	50-75 * 0,01 MM
T160100	75-100 * 0,01 MM
T160125	100-125 * 0,01 MM
T160150	125-150 * 0,01 MM
T160175	150-175 * 0,01 MM
T160200	175-200 * 0,01 MM
T160225	200-225 * 0,01 MM
T160250	225-250 * 0,01 MM
T160275	250-275 * 0,01 MM
T160300	275-300 * 0,01 MM
T160400	300-400 * 0,01 MM
T160500	400-500 * 0,01 MM
T160600	500-600 * 0,01 MM



MİKROMETRE SETİ (4) PARÇA



KOD	ÖLÇÜM ARALIĞI
T160100SET	0-100mm

MİKROMETRE SETİ (6) PARÇA



KOD	ÖLÇÜM ARALIĞI
T160150SET	0-150mm

DİŞLİ MİKROMETRESİ (ŞAPKALI)



KOD	ÖLÇÜM ARALIĞI
T160025SPK	0 - 25 * 0,01

NUMARATÖRLÜ MİKROMETRE



KOD	ÖLÇÜM ARALIĞI
T160025NUM	0 - 25 * 0,01
T160050NUM	25 - 50 * 0,01

DİJİTAL DIŞ ÇAP MİKROMETRESİ



KOD	ÖLÇÜM ARALIĞI
T160025DJT	0 - 25 * 0,001
T160050DJT	25 - 50 * 0,001
T160075DJT	50 - 75 * 0,001
T160100DJT	75 - 100 * 0,001

İÇ ÇAP MİKROMETRESİ



KOD	ÖLÇÜM ARALIĞI
T160030IC	5 - 30 * 0,01
T160050IC	25 - 50 * 0,01
T160075IC	50 - 75 * 0,01
T160100IC	75 - 100 * 0,01

DERİNLİK MİKROMETRESİ



KOD	ÖLÇÜM ARALIĞI
T160100DRN	0 - 100 * 0,01
T160150DRN	0 - 150 * 0,01

DELİK İÇİ UZATMA MİKROMETRE



KOD	ÖLÇÜM ARALIĞI
T160150DU	50 - 150 * 0,01
T160250DU	50 - 250 * 0,01
T160600DU	50 - 600 * 0,01

KOMPARATÖR SAATİ



KOD	ÖLÇÜM ARALIĞI
T170010K	0,10 * 0,01 (kulaklı)
T170010	0,10 * 0,01 (kulaksız)

KOMPARATÖR SAATİ (UZUN ÇUBUKLU)



KOD	ÖLÇÜM ARALIĞI
T170020	0 - 20 * 0,01 * 20
T170030	0 - 30 * 0,01 * 30
T170050	0 - 50 * 0,01 * 50

SALGI KOMPARATÖR SAATİ



KOD	ÖLÇÜM ARALIĞI
T170008SLG	0,08 * 0,01
T170008SLGU	0,08 * 0,01 - (30 mm Uzun)

DİJİTAL KOMPARATÖR SAATİ



KOD	ÖLÇÜM ARALIĞI
T1700127DJT	0 - 12,7 * 0,01
T1700127DJTM	0 - 12,7 * 0,001 (Mikronlu)

CEP TİPİ KALINLIK KOMPARATÖRÜ



KOD	ÖLÇÜM ARALIĞI
T180010CEP	0 - 10 * 0,1 * 15
T180020CEP	0 - 20 * 0,1 * 20

BORU KALINLIK KOMPARATÖRÜ



KOD	ÖLÇÜM ARALIĞI
T180010BR	0 - 10 * 0,01

RULMANLI KALINLIK KOMPARATÖRÜ



KOD	ÖLÇÜM ARALIĞI
T180010RUL	0 - 10 * 0,01 * 100

İÇ ÇAP KOMPARATÖRÜ



KOD	ÖLÇÜM ARALIĞI
T181535	15 - 35 * 0,01
T183555	35 - 55 * 0,01
T185575	55 - 75 * 0,01

DIŞ ÇAP KOMPARATÖRÜ



KOD	ÖLÇÜM ARALIĞI
T180020	0-20 * 0,01 MM
T182040	20-40 * 0,01 MM
T184060	40-60 * 0,01 MM



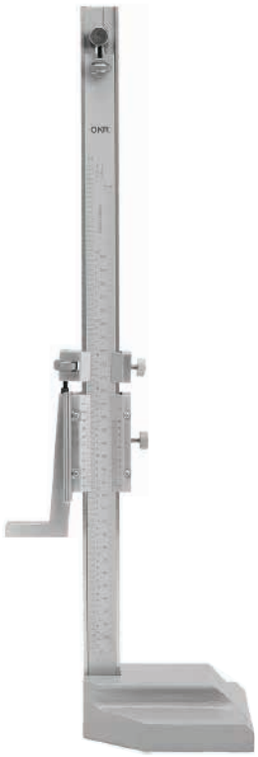
SİLİNDİR KOMPARATÖR TAKIMI

KOD	ÖLÇÜM ARALIĞI
T191018	10 - 18 * 0,01
T191835	18 - 35 * 0,01
T193550	35 - 50 * 0,01
T1950160	50 - 160 * 0,01
T19160250	160 - 250 * 0,01
T19250450	250 - 450 * 0,01

SİLİNDİR KOMPARATÖR TAKIMI

KOD	ÖLÇÜM ARALIĞI
T191018U	10 - 18 * 0,01
T191835U	18 - 35 * 0,01
T193550U	35 - 50 * 0,01
T1950160U	50 - 160 * 0,01
T19160250U	160 - 250 * 0,01
T19250450U	250 - 450 * 0,01





MERCEKLİ YÜKSEKLİK MİHENGİRİ

KOD	ÖLÇÜM ARALIĞI
T200300	0 - 300 * 0,02
T200500	0 - 500 * 0,02
T200600	0 - 600 * 0,02

SAATLİ YÜKSEKLİK MİHENGİRİ



KOD	ÖLÇÜM ARALIĞI
T200300SA	0 - 300 * 0,02
T200500SA	0 - 500 * 0,02
T200600SA	0 - 600 * 0,02

DİJİTAL YÜKSEKLİK MİHENGİRİ



KOD	ÖLÇÜM ARALIĞI
T200300DJT	0 - 300 * 0,01
T200500DJT	0 - 500 * 0,01
T200600DJT	0 - 600 * 0,01

PARALEL V-YATAK ve MANYETİK V-YATAK ÇİFT ÖLÇÜM İÇİN

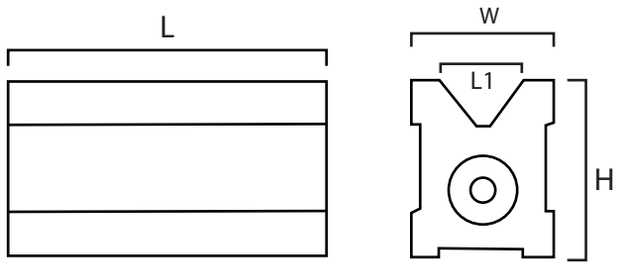
PARALEL V-YATAK



KOD	UZUNLUK (mm)	YÜKSEKLİK (mm)	KAPASİTE (mm)
T21PAR44	44	41	35
T21PAR70	70	44	41

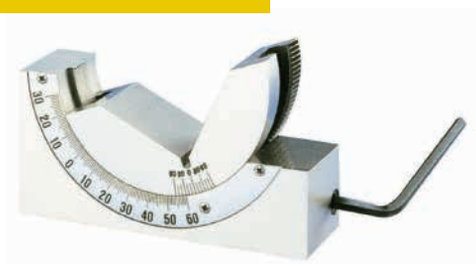
MANYETİK V-YATAK ÇİFT ÖLÇÜM İÇİN

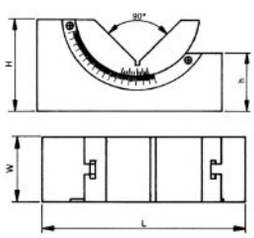




KOD	L (mm)	W (mm)	H (mm)	L1 (mm)	AĞIRLIK (kg)
T21CİF70	70	40	50	30	1x2
T21CİF100	100	50	80	60	3x2

AYARLANABİLİR V-YATAK

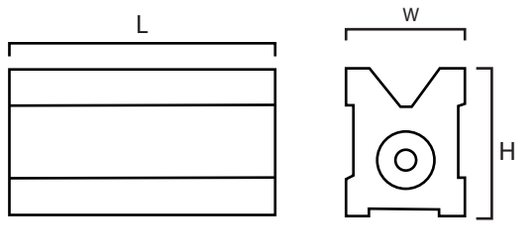




KOD	H (mm)	W (mm)	L (mm)	h (mm)	AĞIRLIK (kg)
T21AYA48	48	30	102	28	0,9

MANYETİK V YATAĞI





KOD	L (mm)	W (mm)	H (mm)	AĞIRLIK (kg)
T21MANV70	70	60	75	2
T21MANV100	100	70	96	3

MANYETİK AYAK



KOD	ÖLÇÜM ARALIĞI
T21MAN60	Manyetik Komparatör Ay. 60 Kgs.

UNİVERSAL MANYETİK AYAK



KOD	ÖLÇÜM ARALIĞI
T21MANU60	Universal Manyetik Ayak 60 Kg.

MEKANİK PROP



KOD	AÇIKLAMA
T22MPR	MEKANİK PROP

IŞIKLI SESLİ PROP



KOD	AÇIKLAMA
T22ISP	20 * 160 mm

ANTİMANYETİK T PROP



KOD	AÇIKLAMA	
T22TPRA	T PROP	28

ANTİ MANYETİK PROP



KOD	AÇIKLAMA
T22MPRA	ANTİ MANYETİK PROP

Z SIFIRLAMA (SAATLİ)



KOD	ÖLÇÜ (mm)	HASSASİYET (mm)
T22ZSFR050	50 mm	0,01
T22ZSFR100	100 mm	0,01

SAATLİ Z SIFIRLAMA (50 mm) KARE



KOD	ÖLÇÜ (mm)	HASSASİYET (mm)
T22KARE050	50	0,01

DİJİTAL Z SIFIRLAMA APARATI (50 mm)

YENİ ÜRÜN



KOD	ÖLÇÜ (mm)	HASSASİYET (mm)
T22ZDİJ050	50 mm	0,01

IŞIKLI Z SIFIRLAMA APARATI (50 mm)

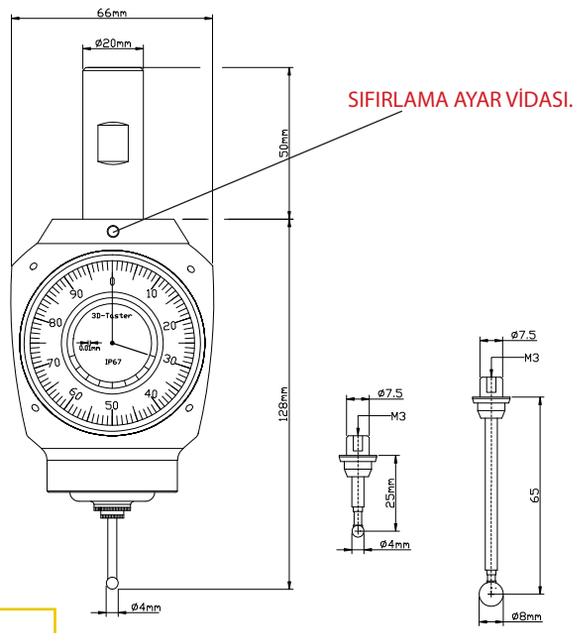
YENİ ÜRÜN



KOD	ÖLÇÜ (mm)	HASSASİYET (mm)
T22Z151050	50	0,01

3D TESTER (3 BOYUTLU ÖLÇÜM İÇİN)





YEDEK UÇLAR;



KOD	HASSASİYET	KOMPLE BOY (SAPSIZ)	AÇIKLAMA
TTES0010	0,01 mm	178 mm	3D TESTER MEKANİK
TTES0020	0,01 mm	-	Ø4 KISA UÇ
TTES0021	0,01 mm	-	Ø8 UZUN UÇ

- Universal 3D-Sensor, frezeleme ve EDM makineleri (yalıtılmış prop) için kullanılan çok duyarlı ve hassas bir ölçü aletidir. 3D-Tester bir alet tutucuya kenetli ve bir frezeleme miline eklidir.
- Bir kere makinenin miline kenetlendiğinde taşma tamamen sıfıra ayarlanabilir. Bu sayede işlenecek parçanın köşelerinin üzerindeki mil ekseninin kesin konumu bulunabilir. Bu, sıfırların ayarlanmasının ve uzunlukların ölçülmesinin hızlı ve kolayca yapılmasını sağlar. 3D-Tester ile X, Y ve Z olmak üzere tüm eksenlere ulaşılabilir.
- Kadranlı mikrometre sıfırı gösterdiğinde, mil ekseni tam olarak işlenecek parçanın köşesinde durur. Sadece 3D-Tester köşelerin ilk denemede bulunabilmesini sağlar. prop çapının hesaplanmasına gerek yoktur, yalnızca sıfırlayın yeter! Matematiksel hesaplamalara dair tüm sorunlar ortadan kalktı, operatör hataları azaldı. 3D-Tester hızlı ve kolaydır, üretken zamanı ve operatör duyarlılığını arttırır.
- Aletin duyarlılığı sayesinde makinenin üzerindeki parçaları denetleyebilirsiniz. ibrişim mengenesiyle, deliğin merkezini, köşeleri bulun ve parçaları belirleyin – bunların tümü 3D-Tester ile mümkün. Ünitenin tümüyle test edilmiş ön ayar kırıcı noktaları ile bağlantılı çok uzun bir aşırı çalışma mesafesi vardır, bu da sensörün ömrünü uzatır.
- Tüm Universal 3D-Tester'lar tek tek test edilmiştir ve maksimum ölçüm duyarlılığına ulaşmak için ayarlanmıştır.

GRANİT ve GÖNYE PLEYTİ

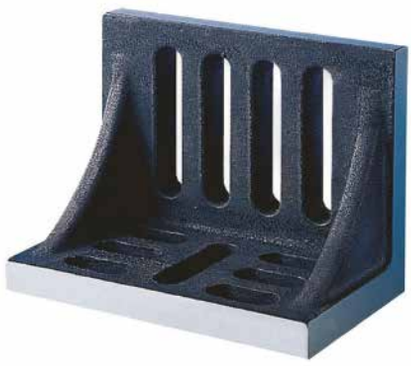
GRANİT PLEYTİ

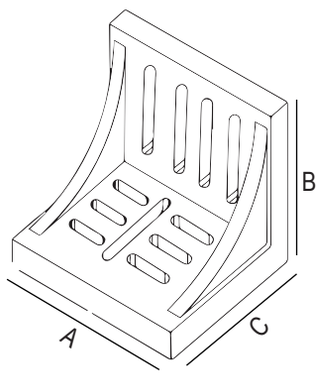
*DIN876/1



KOD	En	Boy	Yükseklik	Ağırlık
T4020200	200	300	70	20
T4020250	250	400	80	30
T4020400	400	630	100	80
T4020500	500	800	130	150
T4020630	630	1000	150	280
T4020800	800	1200	160	360
T4021000	1000	1600	200	1080
T4022000	1000	2000	200	1360

GÖNYE PLEYTİ



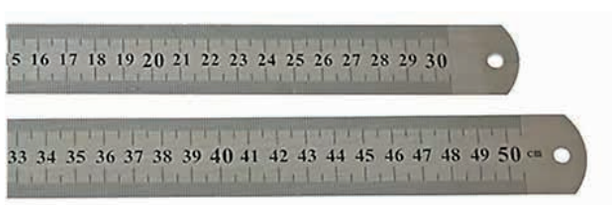


KOD	A (MM)	B (mm)	C (mm)	Ağırlık (kg)
T450250	250	200	150	10
T450300	300	230	200	13



ŞERİT SENTİL

KOD	ÖLÇÜ (mm)	EN (mm)	BOY(mm)
TS100001	0,01	13	5000
TS100002	0,02	13	5000
TS100003	0,03	13	5000
TS100004	0,04	13	5000
TS100005	0,05	13	5000
TS100006	0,06	13	5000
TS100007	0,07	13	5000
TS100008	0,08	13	5000
TS100009	0,09	13	5000
TS100010	0,10	13	5000
TS100015	0,15	13	5000
TS100020	0,20	13	5000
TS100025	0,25	13	5000
TS100030	0,30	13	5000
TS100035	0,35	13	5000
TS100040	0,40	13	5000
TS100045	0,45	13	5000
TS100050	0,50	13	5000
TS100060	0,60	13	5000
TS100070	0,70	13	5000
TS100080	0,80	13	5000
TS100090	0,90	13	5000
TS100100	1,00	13	5000



PASLANMAZ ÇELİK CETVEL

KOD	BOY (mm)	GENİŞLİK (mm)	KALINLIK (mm)
TS11015150	150	19	0,50
TS11020200	200	26	0,75
TS11025300	300	26	0,70
TS11030500	500	26	0,85
TS11030100	1000	28	0,95
TS11038150	1500	38	1,40
TS11038200	2000	38	1,70

RADİUS MASTARI



KOD	ÖLÇÜM ARALIĞI
T230107	1 * 7 * 0,5 mm
T230715	7,5 * 15 * 0,5 mm
T231525	15,5 * 25 * 0,5 mm

SENTİL FİLLER ÇAKISI



KOD	ÖLÇÜM ARALIĞI
T231100	0,05 - 1*100 mm

DİŞ TARAĞI (Metrik ve İnch)



KOD	AÇIKLAMA
T230052	52 PARÇALI KOMBİNE SET

PARALEL SET



KOD	ÖLÇÜM ARALIĞI
T2415007	150 MM 7 ÇİFT 6*10-6*12*8*14-12*18-12*24-16*36-16*38
T2415005	150*5 MM 14 ÇİFT 14-16-18*20-22-24-26-28-30-32-35-40-45-50 MM
T2415010	150*10 MM 14 ÇİFT 14-16-18*20-22-24-26-28-30-32-35-40-45-50 MM

BLOK MASTAR SETİ



KOD	AÇIKLAMA
T240047	47 PARÇALI SET (1,005-1,01-1,02-1,03-1,04-1,05-1,06-1,07- 1,08-1,09-1,10-1,11-1,12-1,13-1,14-1,15-1,16- 1,17-1,18-1,19-1,20-1,30-1,40-1,50-1,60-1,70- 1,80-1,90-1-2-3-4-5-6-7-8-9-10-20-30-40-50-60- 70-80-90-100)
T240087	87 PARÇALI SET (1,001-1,002-1,003-1,004-1,005-1,006-1,007- 1,008-1,009-1,01-1,02-1,03-1,04-1,05-1,06-1,07- 1,08-1,09-1,10-1,11-1,12-1,13-1,14-1,15-1,16-1,17- 1,18-1,19-1,20-1,21-1,22-1,23-1,24-1,25-1,26-1,27- 1,28-1,29-1,30-1,31-1,32-1,33-1,34-1,35-1,36-1,37- 1,38-1,39-1,40-1,41-1,42-1,43-1,44-1,45-1,46-1,47-1,48- 1,49-0,5-1-1,5-2-2,5-3-3,5-4-4,5-5-5,5-6-6,5-7-7,5-8- 8,5-9-9,5-10-20-30-40-50-60-70-80-90-100
T240112	112 PARÇALI SET (1,0005-1,001-1,002-1,003-1,004-1,005-1,006-1,007- 1,008-1,009-1,01-1,02-1,03-1,04-1,05-1,06-1,07- 1,08-1,09-1,10-1,11-1,12-1,13-1,14-1,15-1,16-1,17- 1,18-1,19-1,20-1,21-1,22-1,23-1,24-1,25-1,26-1,27- 1,28-1,29-1,30-1,31-1,32-1,33-1,34-1,35-1,36-1,37- 1,38-1,39-1,40-1,41-1,42-1,43-1,44-1,45-1,46-1,47-1,48- 1,49-0,5-1-1,5-2-2,5-3-3,5-4-4,5-5-5,5-6-6,5-7-7,5-8- 8,5-9-9,5-10-10,5-11-11,5-12-12,5-13-13,5-14-14,5- 15-15,5-16-16,5-17-17,5-18-18,5-19-19,5-20-20,5-21- 21,5-22-22,5-23-23,5-24-24,5-25-25-50-75-100)



AÇI ÖLÇER

KOD	ÖLÇÜM ARALIĞI
T2580120	80 * 120 mm
T25120150	120 * 150 mm
T25150200	150 * 200 mm



DERECELİ MERCEKLİ GÖNYE (3 PARÇALI)

KOD	ÖLÇÜM ARALIĞI
T250010	0 - 10 * 0,01 mm 0 - 360 DERECE

KIL GÖNYE - DIN 875/1



KOD	ÖLÇÜM ARALIĞI
T26040050	40 * 50 mm
T26050075	50 * 75 mm
T26070100	70 * 100 mm
T26100150	100 * 150 mm
T26130200	130 * 200 mm
T26165250	165 * 250 mm
T26200300	200 * 300 mm

ŞAPKASIZ GÖNYE - DIN 875/1



KOD	ÖLÇÜM ARALIĞI
T27040050	40 * 50 mm
T27050075	50 * 75 mm
T27070100	70 * 100 mm
T27100150	100 * 150 mm
T27130200	130 * 200 mm
T27165250	165 * 250 mm

ŞAPKALI GÖNYE - DIN 875/1



KOD	ÖLÇÜM ARALIĞI
T28040050	40 * 50 mm
T28050075	50 * 75 mm
T28070100	70 * 100 mm
T28100150	100 * 150 mm
T28130200	130 * 200 mm
T28160250	160 * 250 mm
T28200300	200 * 300 mm
T28250400	250 * 400 mm
T28330500	330 * 500 mm

HASSAS SU TERAZİSİ



KOD	ÖLÇÜM ARALIĞI
T290100	100*0,02 mm
T290150	150*0,02 mm
T290200	200*0,02 mm
T290250	250*0,02 mm

KARE HASSAS SU TERAZİSİ



KOD	ÖLÇÜM ARALIĞI
T290100K	100*0,02 mm
T290150K	150*0,02 mm
T290200K	200*0,02 mm
T290250K	250*0,02 mm

METRİK ERKEK VE DİŞİ MASTAR



ÖLÇÜ	DİŞ HATVESİ	ERKEK VİDA MASTARI (6H) KOD	DİŞİ VİDA MASTARI(6g) KOD
M2	0,40	T31020	T33020
M2,5	0,45	T31025	T33025
M3	0,50	T31030	T33030
M3,5	0,60	T31035	T33035
M4	0,70	T31040	T33040
M5	0,80	T31050	T33050
M6	1,00	T31060	T33060
M7	1,00	T31070	T33070
M8	1,25	T31080	T33080
M9	1,25	T31090	T33090
M10	1,50	T31100	T33100
M12	1,75	T31120	T33120
M14	2,00	T31140	T33140
M16	2,00	T31160	T33160
M18	2,50	T31180	T33180
M20	2,50	T31200	T33200

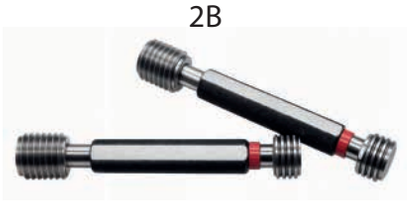
İNCE DİŞ ERKEK VE DİŞİ MASTAR



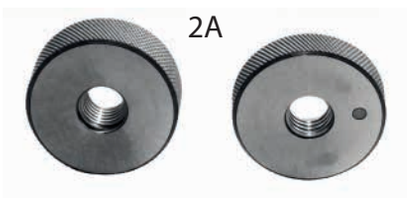
ÖLÇÜ	DİŞ HATVESİ	ERKEK VİDA MASTARI (6H) KOD	DİŞİ VİDA MASTARI(6g) KOD
M4	0,50	T310405	T330450
M5	0,50	T310505	T330550
M6	0,75	T310675	T330675
M8	0,75	T310875	T330875
M8	1,00	T310810	T330810
M10	0,75	T311075	T331075
M10	1,00	T311001	T331001
M10	1,25	T311025	T331025
M12	1,00	T311210	T331210
M12	1,25	T311225	T331225
M12	1,50	T311215	T331215
M14	1,00	T311410	T331410
M14	1,25	T311425	T331425
M14	1,50	T311415	T331415
M16	1,00	T311610	T331610
M16	1,50	T311615	T331615
M18	1,00	T311810	T331810
M18	1,50	T311815	T331815
M20	1,00	T312010	T332010
M20	1,50	T312015	T332015

UNF ERKEK ve DİŞİ MASTAR

2B



2A



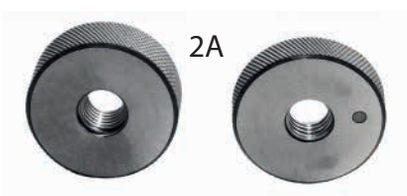
ÖLÇÜ	DİŞ HATVESİ	ERKEK VİDA MASTARI (6H) KOD	DİŞİ VİDA MASTARI(6g) KOD
UNF1/4	28	T31NF0014	T33NF0014
UNF5/16	24	T31NF0516	T33NF0516
UNF3/8	24	T31NF0038	T33NF0038
UNF7/16	20	T31NF0716	T33NF0716
UNF1/2	20	T31NF0012	T33NF0012
UNF9/16	18	T31NF0916	T33NF0916
UNF5/8	18	T31NF0058	T33NF0058
UNF3/4	16	T31NF0034	T33NF0034
UNF7/8	14	T31NF0078	T33NF0078
UNF1	12	T31NF1012	T33NF1012
UNF1	14	T31NF1014	T33NF1014

UNC ERKEK ve DİŞİ MASTAR

2B



2A



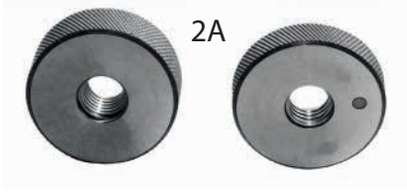
ÖLÇÜ	DİŞ HATVESİ	ERKEK VİDA MASTARI (6H) KOD	DİŞİ VİDA MASTARI(6g) KOD
UNC1/4	20	T31NC0014	T33NC0014
UNC5/16	18	T31NC0516	T33NC0516
UNC3/8	16	T31NC0038	T33NC0038
UNC7/16	14	T31NC0716	T33NC0716
UNC1/2	13	T31NC0012	T33NC0012
UNC9/16	12	T31NC0916	T33NC0916
UNC5/8	11	T31NC0058	T33NC0058
UNC3/4	10	T31NC0034	T33NC0034
UNC7/8	9	T31NC0078	T33NC0078
UNC1	8	T31NC1008	T33NC1008

GAZ DİŞ ERKEK ve DİŞİ MASTAR

2B



2A



ÖLÇÜ	DİŞ HATVESİ	ERKEK VİDA MASTARI (6H) KOD	DİŞİ VİDA MASTARI(6g) KOD
G1/8	28	T31G0018	T33G0018
G1/4	19	T31G0014	T33G0014
G3/8	19	T31G0038	T33G0038
G1/2	14	T31G0012	T33G0012
G5/8	14	T31G0058	T33G0058
G3/4	14	T31G0034	T33G0034
G7/8	14	T31G0078	T33G0078
G1	11	T31G1000	T33G1000
G1 1/4	11	T31G0114	T33G0114
G1 1/2	11	T31G0112	T33G0112
G2	11	T31G2000	T33G2000
G2 1/2	11	T31G0212	T33G0212
G3	11	T31G3000	T33G3000



ÇAPAK ALMA RASPA SETİ

KOD	ÖZELLİK
T007850	10'LU SET



YEDEK BIÇAK

KOD	ÖZELLİK
T007850-1	E100 UZUN
T007851	E200 UZUN
T007851-1	E300 UZUN



ÇAPAK ALMA RASPA SAPLARI

KOD	ÖZELLİK
T007852	PLASTİK GÖVDE
T007854	ALÜMİNYUM GÖVDE



ÇELİK RAKAM TAKIMI

KOD	Ölçü
T400015	1,5 mm
T400020	2 mm
T400030	3 mm
T400040	4 mm
T400050	5 mm
T400060	6 mm
T400080	8 mm
T400100	10 mm
T400120	12 mm



ÇELİK HARF TAKIMI

KOD	Ölçü
T401015	1,5 mm
T401020	2 mm
T401030	3 mm
T401040	4 mm
T401050	5 mm
T401060	6 mm
T401080	8 mm
T401100	10 mm
T401120	12 mm

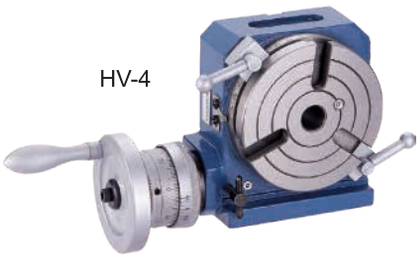
YATAY - DİKEY DÖNER TABLA



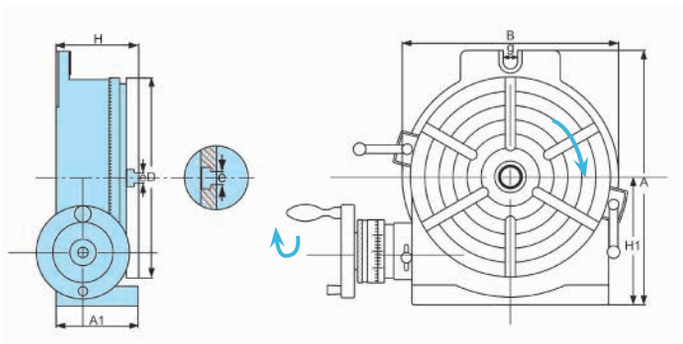
HV-6, 8, 10, 12, 14, 16



New Model



HV-4



KOD	TABLA			TABAN ÖLÇÜSÜ			T-KANAL UZUNLUĞU		BAĞLANTI YUVASI	DÖNER TABLA İÇİN YÜK KAPASİTESİ		MERKEZ KONİĞİ	BRÜT AĞIRLIK TAHTA KUTU (T) KARTON (K)	
	DIŞ ÇAP		YÜKSEKLİK	H1	A	B	e	TİP	g	YATAY	DİKEY			
	A1	D	H											
HV-4	58	110	72	80	138	118	11		17	35 Kg	18 Kg	MK2	(K)	7.5 Kg
HV-6	78	150	80	102	205	163	11		17	40 Kg	20 Kg	MK2	(K)	12.7 Kg
HV-8	100	205	102	135	265	219	14		17	80 Kg	40 Kg	MK3	(K)	26.2 Kg
HV-10	106	254	109	163	321	276	14		17	90 Kg	50 Kg	MK3	(K)	37.3 Kg
HV-12	123	305	125	194	388	330	16		18	120 Kg	60 Kg	MK4	(T)	69.8 Kg
HV-14	123	353	125	225	445	389	16		18	130 Kg	70 Kg	MK4	(T)	90.3 Kg
HV-16	128	406	130	258	503	435	16		18	140 Kg	70 Kg	MK4	(T)	123.1 Kg

KARŞI PUNTA



TS2-TS3-TS4



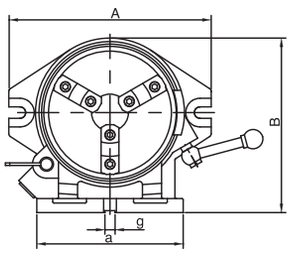
TS-1

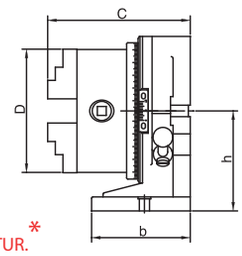
KOD	AYAR ARALIĞI		UYGUN OLDUĞU MODEL	AĞIRLIK (Kg)
	EN YÜKSEK	EN DÜŞÜK		
TS-1	108	80	HV-4, HV-6, VSI-4, VSI-5, BS-0, VUT-6, VU-100, VU-150	3.9
TS-2	145	115	BS-1, CC-6, CS-6, HV-8	5.5
TS-3	200	130	CS-8, HV-10, HV-12, CC-8, VUT-10, VUT-12, VU-200	8.1
TS-4	260	182	HV-14, HV-16	11.9

YATAY - DİKEY İNDEKS DİVİZÖR









* PAKET İÇERİĞİNDE *
3 AYAKLI AYNA / MASKELEME PLAKALARI 2-3-4-6-8-12 MEVCUTTUR.

KOD	DİVİZÖR NO.	A	B	C	D	a	b	h	TERS AYAK	KILAVUZ DELİĞİ g	DÜZ AYAK	DELİK ÇAPI (TARET)	DELİK ÇAPI (AYNA)	AĞIRLIK (Kg)
CC-6	2,3,4,6 8,12,24	253	225	179	160	187	115	130	Ø55~145	16	Ø3~160	44	44	(K) 29.5
CC-8	2,3,4,6 8,12,24	318	274	209	200	230	155	157	Ø65~200	16	Ø4~200	63	58	(K) 51.5

YATAY - DİKEY SÜPER İNDEKS DİVİZÖR



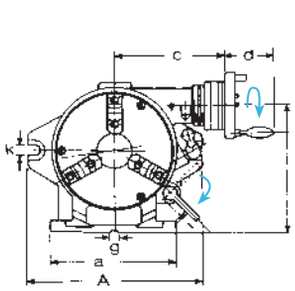


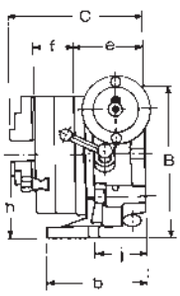
STANDART AKSESUARLAR







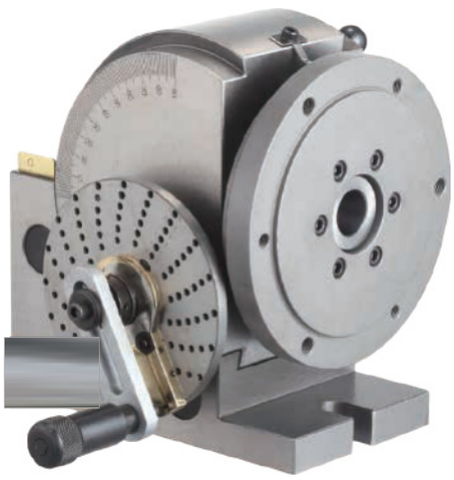




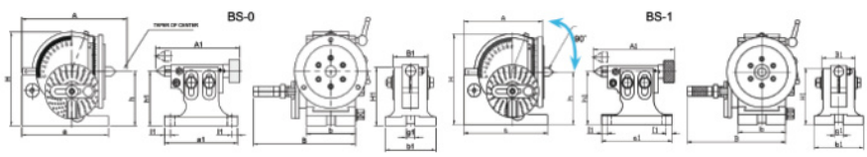
* PAKET İÇERİĞİNDE *
3 AYAKLI AYNA / 10"/250MM YÜZEY PLAKASI
MASKELEME PLAKALARI 2-3-4-6-8-12 MEVCUTTUR.

KOD	DİVİZÖR SAYISI	AYNA				YÜZEY PLAKASI		A	B	C	a
		DIŞ ÇAP	İÇ AYAK	DIŞ AYAK	İÇ ÇAP	DIŞ ÇAP	KALINLIK				
CS-6	2,3,4,6 8,12,24	167 VSK-6	Ø4~42	Ø10~156	44	203	50	250	235	221	220
CS-8	2,3,4,6 8,12,24	210 VSK-8	Ø4~62	Ø10~180	63	254	58	310	285	243	225

YARI ÜNİVERSAL DİVİZÖR



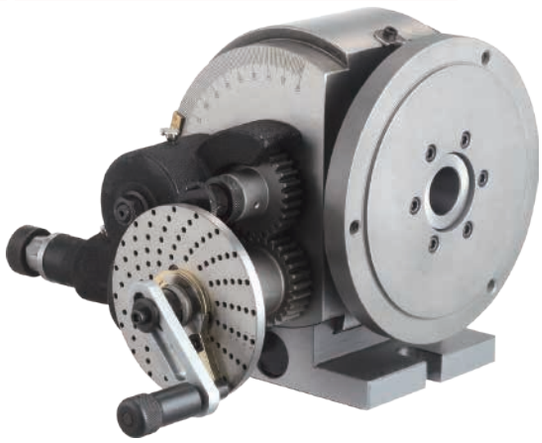
KOD	AĞIRLIK (Kg)	BAĞLANABİLİR AYNA ÖLÇÜSÜ
BS-0	20	Ø 125
BS-1	33	Ø 160



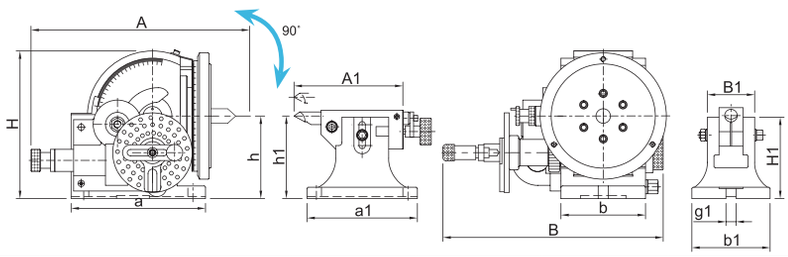
KOD	A	B	H	I	a	b	g	h	MERKEZ KONİĞİ	MİL DELİĞİ ÇAPI
BS-0	177	188	173	13	160	91	16	100	MK-2	18
BS-1	245	230	220	19	205	114	16	128	MK-3	20

KOD	A1	B1	H1	I1	a1	h1	b1	g1
BS-0	155-180	64	107	11	134	80-108	94	16
BS-1	170-195	64	150	11	155	150-115	110	16

ÜNİVERSAL DİVİZÖR



KOD	AĞIRLIK (Kg)	BAĞLANABİLİR AYNA ÖLÇÜSÜ
BS-2	65	Ø 160 & Ø 200



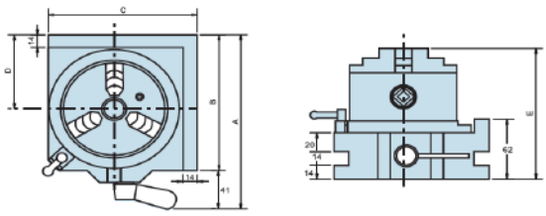
KOD	A	B	H	I	a	b	g	h	MERKEZ KONİĞİ	MİL YUVASI
BS-2	365	272	236	132.7	213	134	16	134	MK-4	25.4

KOD	A1	B1	H1	h1	a1	b1	g1
BS-2	205~255	86	139	132.7	175	124	16

YATAY DİKEY İNDEKS DİVİZÖR ve NC DÖNER TABLA KARŞI PUNTA

YATAY DİKEY İNDEKS DİVİZÖR





*YATAY-DİKEY KULLANIM
*FREZELEME ve MATKAP MAKİNALARINA UYGUNDUR.

PAKET İÇERİĞİNDE

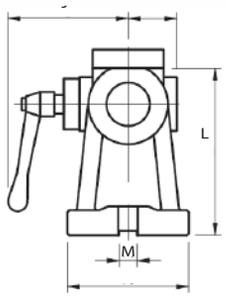
VSI-4 : 3 AYAKLI 100mm
VIS-5 : 3 AYAKLI 125mm

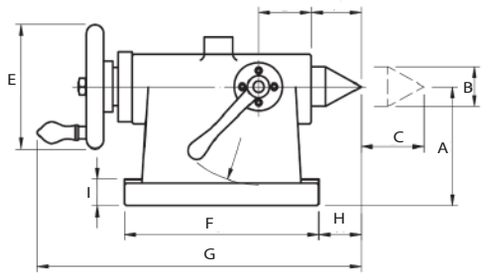
KOD	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	DELİK ÇAPI	AĞIRLIK (kg)
VSI-4	187	146	146	80	135	Ø 30	10,5
VSI-5	202	161	161	87	142	Ø 30	14,5

NC DÖNER TABLA KARŞI PUNTA



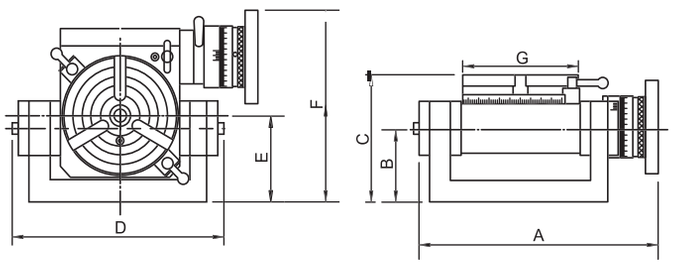


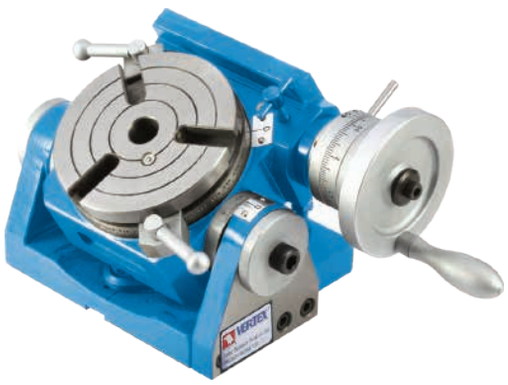




KOD	UYGUN MODEL	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	FxM (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	L (mm)
TS-135	VNCM-150	135	Ø45	55	Ø14	125	215x120	332	25	25	109	-	164
TS-135-MK3		135			Ø14	125	215x120	332	25	25	109	-	164
TS-160	VNCM-220 VNCX-10 VNCM-250	160			Ø18	140	230x130	356	30	30	129	53	193
TS-160-MK3					Ø18	140	230x130	356	30	30	129	53	193
TS-210	VNCM-320	210			Ø18	140	230x146	356	30	30	129	53	243
TS-210-MK3					Ø18	140	230x146	356	30	30	129	53	243

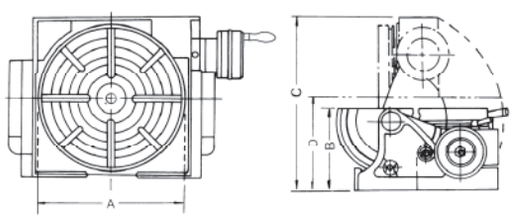
ÜNİVERSAL AÇILI DÖNER TABLA





KOD	A	B	C	D	E	F	G	UYGUN **KARŞI PUNTA**	UYGUN **DİVİZÖR PLEYT**	AĞIRLIK (Kg)
VU-100	228	68	117	202	80	177	110	TS-1	DP-1	13,5
VU-150	266	75	140	246	90	216	150	TS-1	DP-1	21,5
VU-200	429	111	177	432	141	283	205	TS-3	DP-2	46,0

KOD	VU-300
TABLA ÇAPI (A)	
TABLA YÜKSEKLİĞİ (YATAY) (B)	
TABLA YÜKSEKLİĞİ (DİKEY) (C)	
MERKEZ DELİK	
DELİK YÜKSEKLİĞİ (DİKEY) (D)	
DİREKT İNDEKSLEME	
DİŞLİ ORANI	
BRÜT AĞIRLIK	
NET AĞIRLIK	
FİYAT USD	



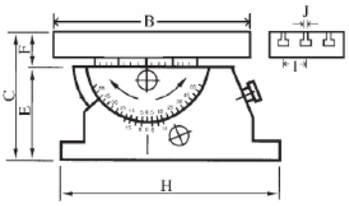


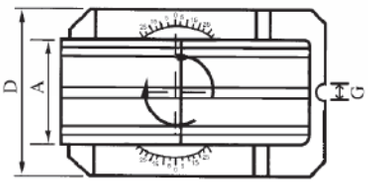
ÜNİVERSAL AÇILI TABLA

*VMV VE VDV TİP MENGENE İLE 3 AYAKLI AYNA TAKILABİLİR.
*YATAY 360°, DİKEY 45° HAREKET KABİLİYETLİ.
*PARALELLİK ±0,02 mm
*KARESELLİK ±0,02 mm







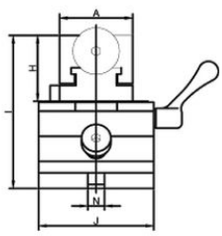


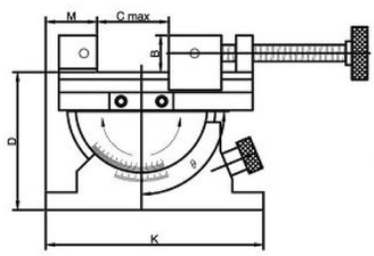
KOD	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	AĞIRLIK (kg)
VUA-408	100	200	133	110	83	50	16	182	30	12	15
VUA-510	126	250	133	110	83	50	16	182	40	12	18,1

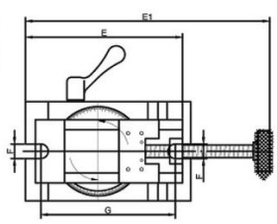
HASSAS ÜNİVERSAL AÇILI MENGENE

*YATAY 360°, DİKEY 45° HAREKET KABİLİYETLİ.
*TOLERANS
*MENGENE TABAN PARALELLİĞİ.
*KARESELLİK





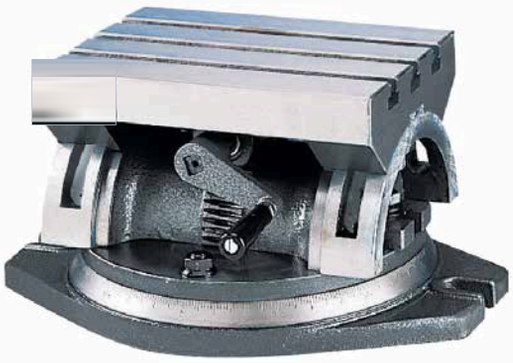


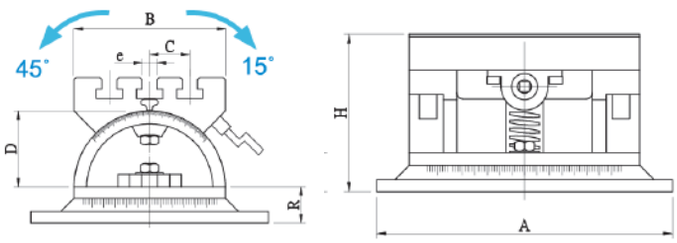


KOD	A (mm)	B (mm)	C AÇILIM	D (mm)	E (mm)	E1 (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	M (mm)	N (mm)	AĞIRLIK (kg)
VUA-3	70	31	80	115	173	291	16	156	63	146	110	182	43	16	12
VUA-4	88	35	100	132	193	346	16	156	83	167	110	182	29	16	15

KOD
VUA-3
VUA-4

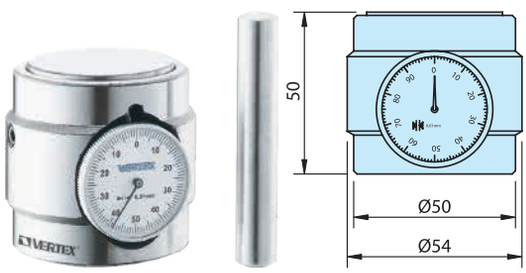
360° 2 AÇILI TABLA





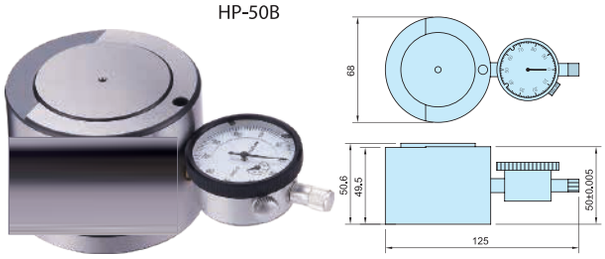
KOD	TABLA			T-YUVA			R (mm)	AĞIRLIK (kg)
	A (mm)	B (mm)	H (mm)	e (mm)	C (mm)	D (mm)		
VP-250S	290	180	206	16	50	105	52	36
VP-380S	390	360	255	16	68	127	60	86

Z SIFIRLAMA SAATLERİ



HP-50A

HP-50B

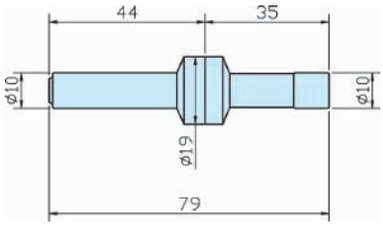


KOD	YÜKSEKLİK	STİL	AĞIRLIK (Kg)
HP-50A	50 mm	STANDART TİP	1,1
HP-50B	50 mm	STANDART TİP	1,7

PROP

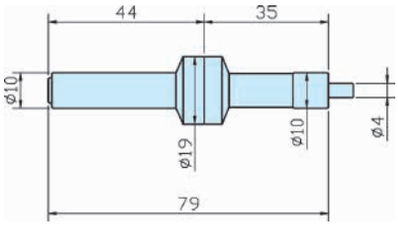


VPS-301 ÇELİK
VPS-301S PASLANMAZ



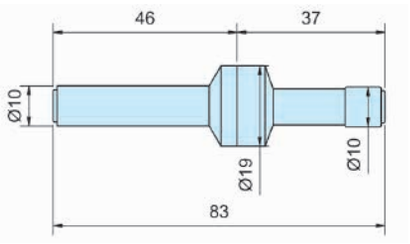


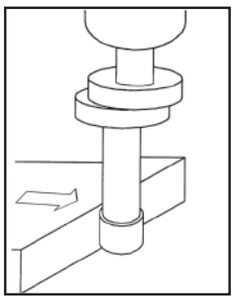
VPS-302 ÇELİK
VPS-302S PASLANMAZ



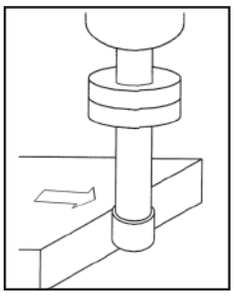


VPS-302C SERAMİK

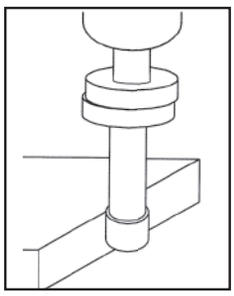




PROBU YAKLAŞIK 500 RPM'DE ÇALIŞTIRDIKTAN SONRA, İŞ PARÇASINI YAK - LAŞTIRIN. PROP EŞ EKSENLİ OLANA KADAR İŞ PARÇASINI YAKLAŞTIRMAYA DEVAM EDİN.



PROP İŞ PARÇASINA DOKUNDUĞUNDA TEK BİR BÖLÜM İÇİNDE GÖRÜLÜR.

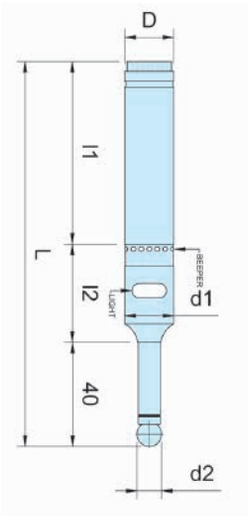


MALAFA ve PROP EŞ EKSENLİ OLDUĞUNDA FENER MİLİ ÖLÇÜM YÜZEYİN DEN 5 mm MESAFEDEDİR.

KOD	MALZEME	SERTLİK	AĞIRLIK (Kg)
VPS-301	ALAŞIMLI ÇELİK	HRC 56°	0.06
VPS-302		HRC 56°	0.05
VPS-301S	PASLANMAZ	HRC 60°	0.06
VPS-302S		HRC 60°	0.06
VPS-302C	SERAMİK	HRC 60°	0.06

IŞIKLI SESLİ PROP

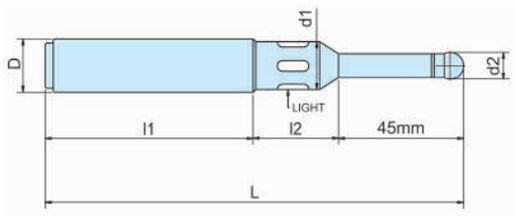




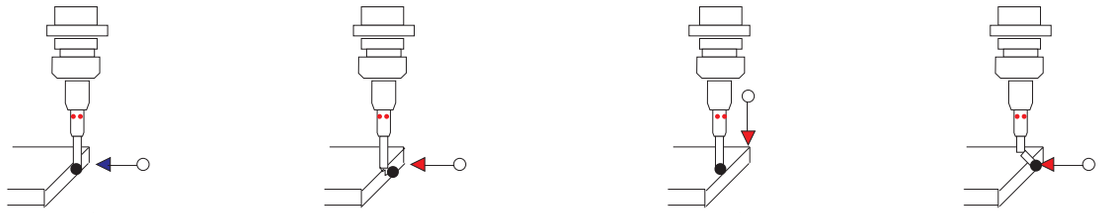
KOD	D	d1	d2	L	l1	l2	PİL TİPİ	AĞIRLIK (kg)
VPS-20B	Ø20	18	10	160	79	41	UM-5#(SP) x1ADET/12V	0.4
VPS-32B	Ø32	18	10	160	79	41		0.7

IŞIKLI PROPLAR





KOD	D	d1	d2	L	l1	L2	PİL TİPİ	AĞIRLIK (kg)
VPS-20	Ø20	16	10	157	77	35	UM-5#(SP) x2P/R1./1,5V	0.4
VPS-32	Ø32	16	10	157	71	41		0.7



MANYETİK TABANLI ÜRÜNLER



VML-M
MANYETİK AYAKLI BÜYÜTEÇ



VMB-06
MANYETİK TABANLI ESNEK KOL



VMB-12
12 mm DELİKLİ TAŞ DÜZELTME MANYETİK TABAN
(TAŞ DÜZELTME DAHİL DEĞİL)



VMB-00
KÜÇÜK BOY MANYETİK TABAN



VMB-11
BÜYÜK BOY MANYETİK TABAN

KOD	TABAN ÖLÇÜLERİ BxExY	TUTMA GÜCÜ (kg)	ANA KOL 0.DxL	AĞIRLIK (kg)
VMB-06	60x50x55	80	Ø16x208	1,6
VMB-00	60x50x55	80	--	1,1
VMB-11	117x50x55	140	--	2,1
VMB-12	60x50x55	80	--	1,1
VML-M	60x50x55	80	Ø15x325	1,7

HALOJEN TEZGAH LAMBASI



KOD	GİRİŞ VOLTAJI	LAMBA	AĞIRLIK (kg)
VHL-20F	110V-220V	12V	1,1

MANYETİK AYAKLAR



VMB-B | VMB-01 | VMB-02 | VMB-03

UNIVERSAL MANYETİK AYAK



VMB-70 | VMB-106 | VMB-106H

KOD	AYAK ÖLÇÜLERİ BxExY	TUTMA GÜCÜ (kg)	SABİT KOL ÇAPxBOY	HAREKETLİ KOL ÇAPxBOY	AĞIRLIK (kg)
VMB-B	60x50x55	80	Ø12x173	Ø10x162	1,6
VMB-01	60x50x55	80	Ø12x176	Ø10x150	1,6
VMB-02	60x50x55	80	Ø12x171	Ø10x153	1,6
VMB-03	115x50x55	130	Ø20x310	Ø14x200	3,9
VMB-70	73x50x55	100	Ø25x128	Ø25x116	1,7
VMB-106	73x50x55	100	Ø25x125	Ø25x125	1,9
VMB-106H	73x50x55	100	Ø25x125	Ø25x125	2,2

MANYETİK TABANLI ÜRÜNLER



VMF-112
MİNİ MANYETİK AYAK



VH-70
MİNİ MANYETİK AYAK



VMH-63
MANYETİK AYAKLI
METAL SULAMA
HORTUMU (1 HORTUM)



VMS-1/4
VMS-3/8
SULAMA HORTUMU



VMH-54
MANYETİK AYAKLI
PLASTİK SULAMA
HORTUMU (2 HORTUM)



VMH-62
MANYETİK AYAKLI
PLASTİK SULAMA
HORTUMU (3 HORTUM)



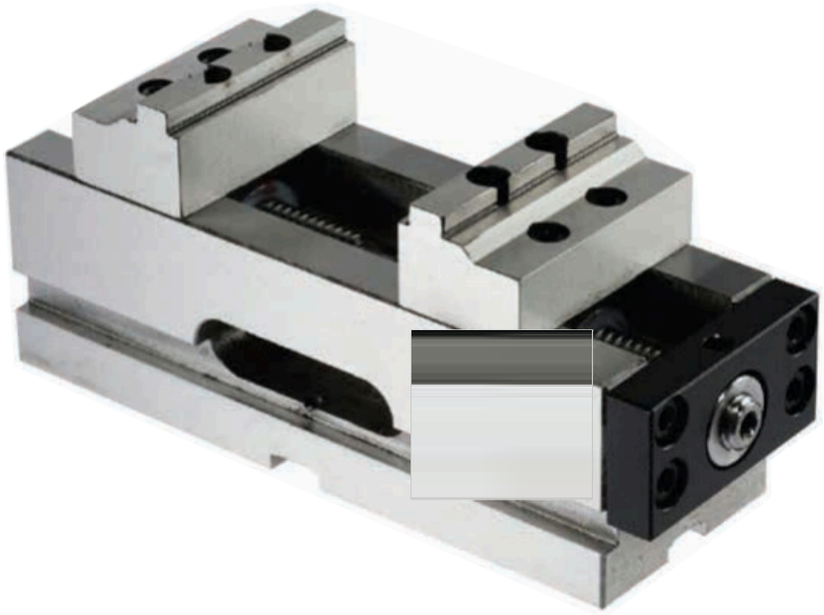
VMH-64
MANYETİK AYAKLI
METAL SULAMA
HORTUMU (2 HORTUM)

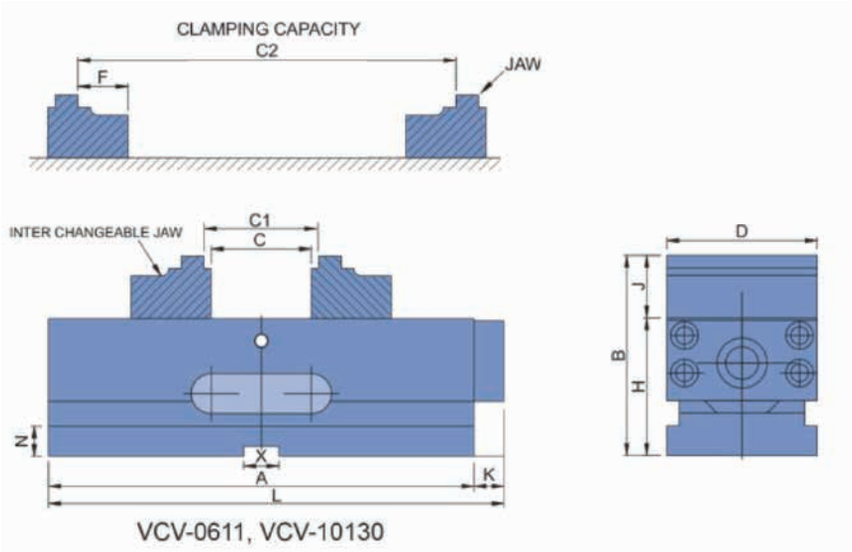


VMH-65
MANYETİK AYAKLI
METAL SULAMA
HORTUMU (3 HORTUM)

KOD	AYAK ÖLÇÜLERİ LxWxH	TUTMA GÜCÜ (kg)	SABİT KOL ÇAPxBOY	HAREKETLİ KOL ÇAPxBOY	AĞIRLIK (kg)
VMF-112	34,5x30x35	30	Ø20x70	Ø20x65	0,6
VH-70	31x31x32	15	Ø10x70	Ø6x90	0,4
VMS-1/4	--	--	Ø11x320	HORTUM DİŞİ 1/4	0,2
VMS-3/8	--	--	Ø15x370	HORTUM DİŞİ 3/8	0,4
VMH-54	60x50x55	80	Ø16x330	2 ADET HORTUM	1,4
VMH-62	60x50x55	80	Ø16x330	3 ADET HORTUM	1,5
VMH-63	60x50x55	80	Ø11x330	1 ADET HORTUM	1,6
VMH-64	60x50x55	80	Ø11x330	2 ADET HORTUM	2
VMH-65	60x50x55	80	Ø11x330	3 ADET HORTUM	2,2

5 EKSEN MAKİNA MENGENESİ





VCV-0611, VCV-10130

KOD	A	B	C AÇILIM	Açılma Kapasitesi		D	F	H	J	K	N	X	L	MAKS. Kapanma Gücü	Ağırlık
				C1	C2										
VCV-0611	170	80	106	112	45-140	61	20	55	25	15	14	14	185	500	5
VCV-10130	240	120	132	140	62-192	101	30	80	40	20	21	16	260	1000	18,5
VCV-15180	290	120	180	188	62-242	151	30	80	40	22	21	16	312	1000	24,5

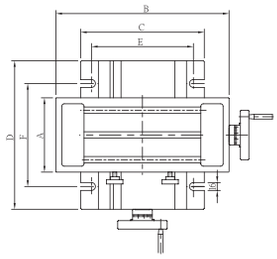
HASSAS ÇAPRAZ SUPORT

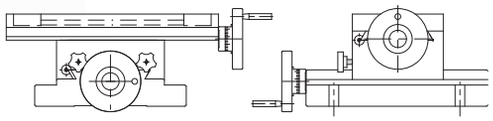


VCT-407



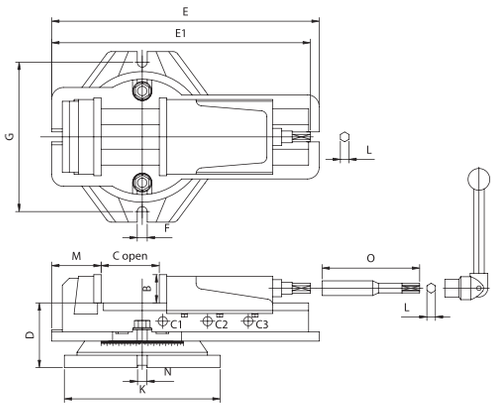
VCT-514

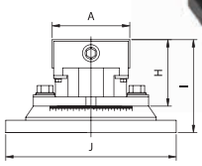




KOD	A	B	C	D	E	F	HAREKET	T YUVA	TOPLAM YÜKSEKLİK	ÖLÇEK ORANI	MAX. YÜK (Kg)	AĞIRLIK (Kg)
VCT-407	100	180	130	100	115	50	50x80	3/8"	100	2.5 mm/0.02	35	12
VCT-514	150	350	250	300	206	208	156x170	3/8"	134	4 mm/0.02	105	33.5
VCT-820	200	500	300	400	250	290	200x250	3/8"	155	4 mm/0.02	140	72
VCT-1024	250	600	400	500	340	430	250x300	1/2"	210	4 mm/0.02	175	141

UZUN TİP SÜPER OPEN MENGENE





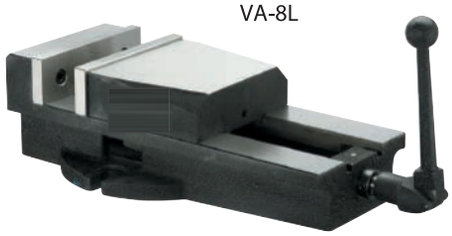


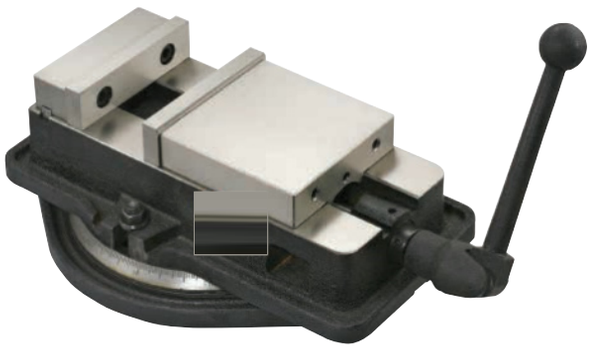
KOD	A	B	C AÇILIM	AÇILMA KAPASİTESİ C1	C2	C3	D	E	E1	F	G
VJ-400	110	38	185	0-65	52-129	116-185	97	386	516	15	240
VJ-500	132	48	245	0-78	70-158	150-245	110	455	580	17	255
VJ-600	154	56	305	0-111	97-211	197-305	118	546	722	17	255

KOD	H	I	J	K	L	M	N	O	MAX. KAPANMA GÜCÜ (Kg)	AĞIRLIK (Kg)
VJ-400	96	135	270	238	14,5	90	16	156	1500	25
VJ-500	113	158	290	265	14,5	85	16	166	1500	34
VJ-600	131	175	290	265	19	111	16	200	1500	46

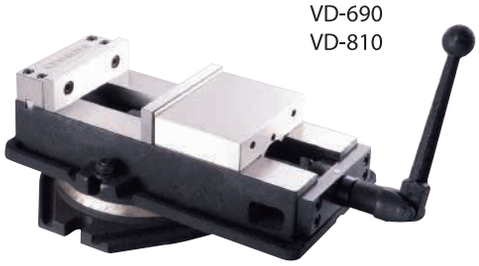
FREZE MENGENELERİ

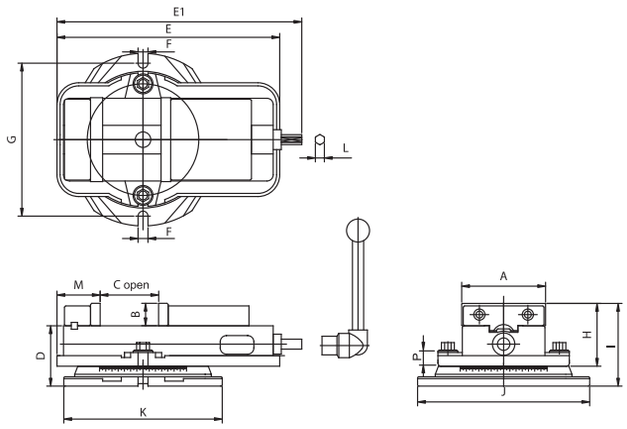
VA-8L

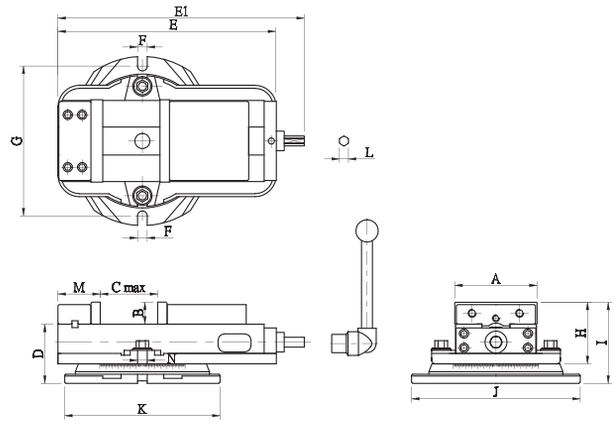




VD-690
VD-810



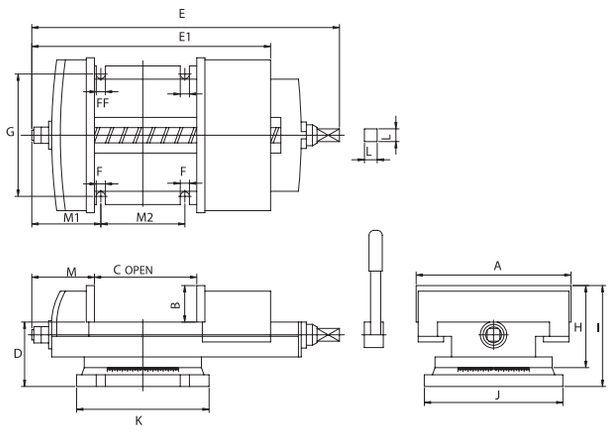




KOD	A	B	C AÇILIM	D	E	E1	F	G	H	I	J	K	L	M	N	P	MAX. KAPANMA GÜCÜ (Kg)	AĞIRLIK (Kg)
VA-4	106	36	103	90	324	351	13	211	96	126	242	228	14,5	75	16	15	1500	20
VA-5	135	36	110	97	359	394	17	246	101	133	277	255	14,5	85	16	15	2000	30
VA-6	155	46	150	110	422	452	20	288	118	158	326	302	19	95	16	17	2500	42
VA-8	210	60	197	129	553	583	19	355	145	190	395	366	19	105	16	19	3000	80
VA-8L	208	64	260	138	510	561	17	310	157	202	375	282	19	71	16	19	3000	73
VD-675	160	49	190	110	445	478	19	296	121	160	333	305	19	80	16	17	2500	42
VD-690	155	46	230	110	450	480	20	288	118	158	326	302	19	67	16	17	2300	43
VD-810	205	62	275	129	555	615	19	378	147	191	420	377	19	79	16	17	3000	76

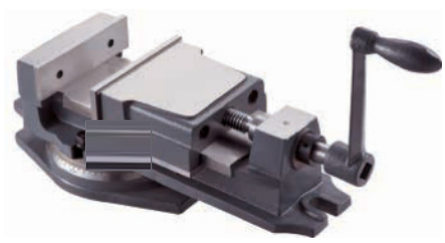
ŞEKİLLENDİRME MENGENESİ



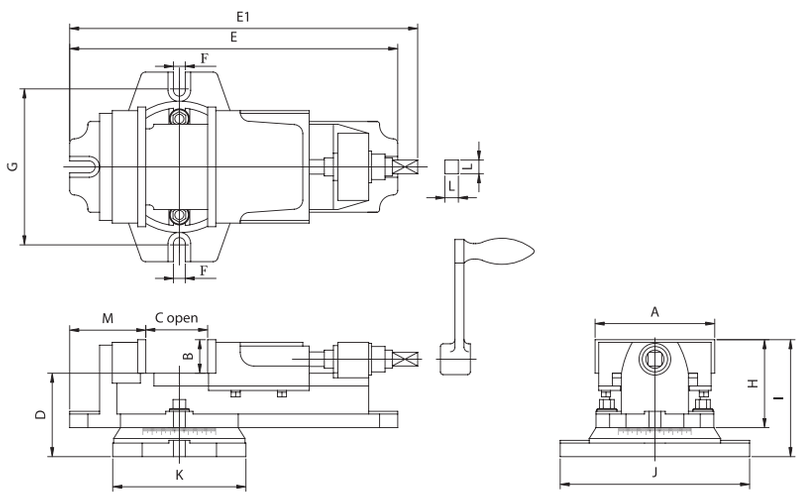


KOD	A	B	C AÇILIM	D	E	E1	F	G	H	I	J	K	L	M	M1	M2	MAX.KAPANMA GÜCÜ (Kg)	AĞIRLIK (Kg)
VSM-12	304	72	290	126	604	560	18	240	161	198	272	260	25	123	135	165	800	84
VSM-16	405	96	415	145	763	738	20	292	200	241	336	336	25	135	143	248	1000	142
VSM-20	508	95	505	150	902	871	21	288	204	245	336	336	25	169	211	246	1200	200

K TİPİ FREZE MENGENESİ



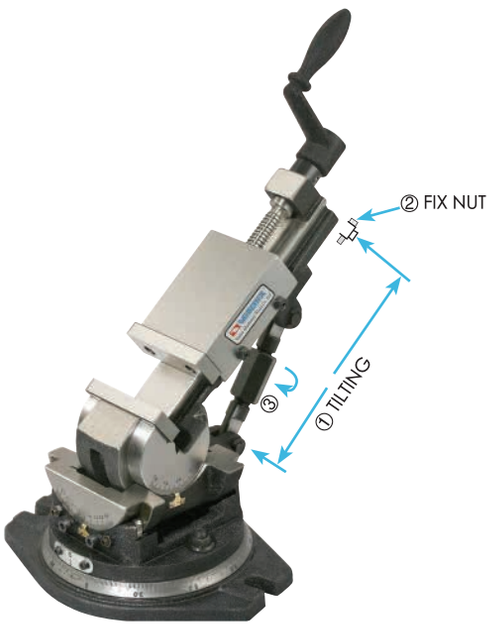


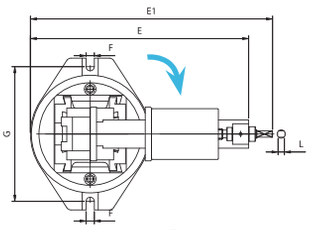


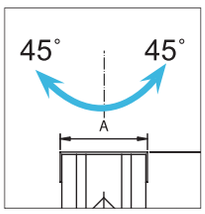
KOD	A	B	C AÇILIM	D	E	E1	F	G	H	I	J	K	L	M	MAX.KAPANMA GÜCÜ (Kg)	AĞIRLIK (Kg)
VK-4	104	36	62	76	293	310	13	145	83	113	176	122	15	65	900	10
VK-5	132	37	80	92	362	384	13	172	97	129	209	147	15	84	900	16
VK-6	154	43	112	105	442	473	15	209	108	148	260	181	16,5	90	1000	27
VK-8	204	63	146	127	579	609	18	312	148	190	350	234	21	122	1400	59

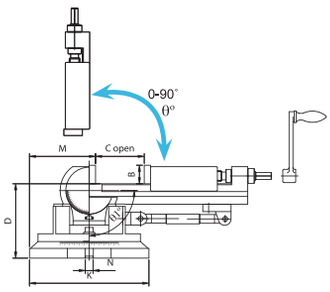
2 ve 3 AÇILI FREZE MENGENELERİ

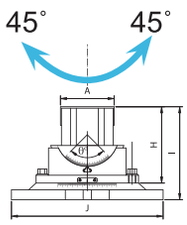
3 AÇILI MAKİNA MENGENESİ







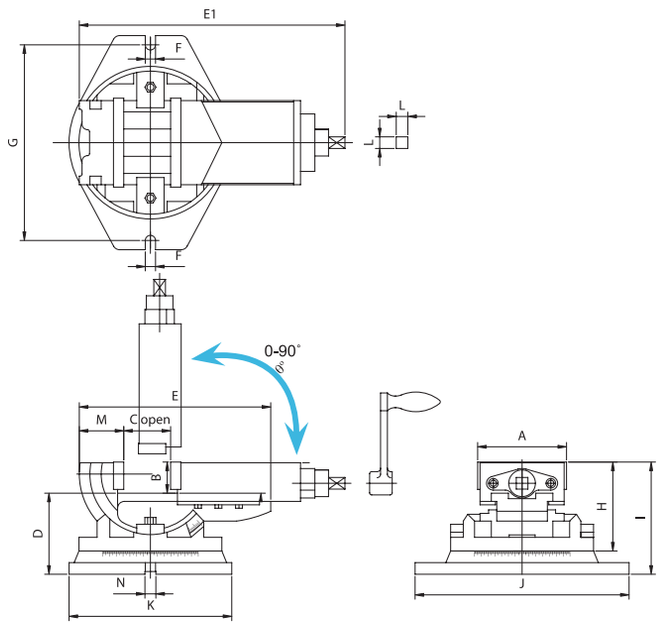




KOD	A	B	C AÇILIM	D	E	E1	F	G	H	I	J	K	L	M	N	θ	θ_1	MAX. KAPANMA GÜCÜ (Kg)
VW-3	80	31	85	126	335	370	15	210	127	157	240	185	10	95	16	-45°~45°	-0°~90°	800
VW-4	110	38	116	152	448	497	17	276	157	190	311	245	13	135	16	-45°~45°	-0°~90°	1000
VW-5	135	40	145	170	530	580	17	310	173	210	358	271	13	140	16	-45°~45°	-0°~90°	1600

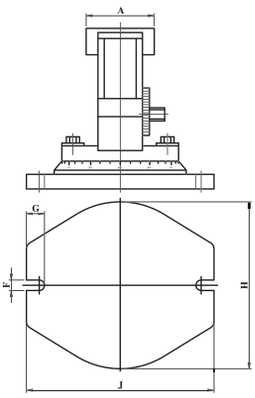
2 AÇILI MAKİNA MENGENESİ

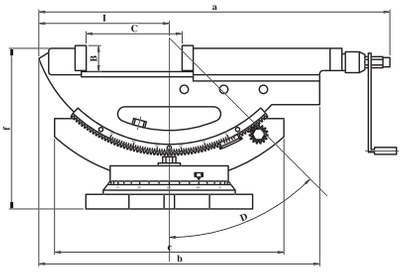




KOD	A	B	C AÇILIM	D	E	E1	F	G	H	I	J	K	L	M	N	θ	MAX. KAPANMA GÜCÜ (Kg)	AĞIRLIK (Kg)
VWT-5	130	46	100	118	280	415	15	286	130	164	313	238	17	65	16	0°~90°	900	(K) 31.7
VWT-6A	160	51	120	140	360	510	17	293	150	191	328	252	17	83	16	0°~90°	1600	(K) 47

2 AÇILI MAKİNA MENGENESİ

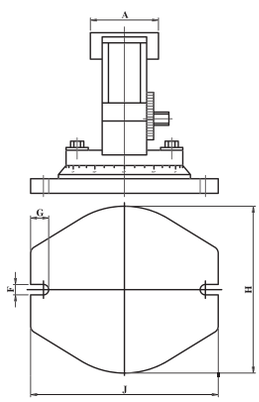


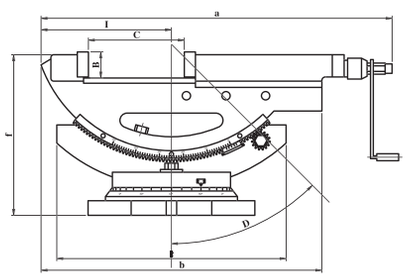


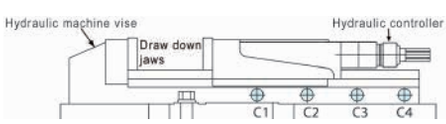


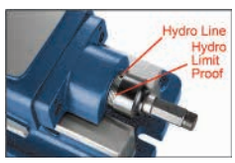
KOD	A	B	C AÇILIM	D	E	F	G	H	I	J	a	b	c	f	MAX. KAPANMA GÜCÜ (Kg)	AĞIRLIK (Kg)
VWT-4B	110	36	220	50°	15	15	26	240	185	270	500	404	335	230	1200	(K) 33.3
VWT-6B	154	54	350	50°	20	19	28	300	246	330	800	585	415	290	1600	(T) 80

2 AÇILI HİDROLİK MAKİNA MENGENESİ









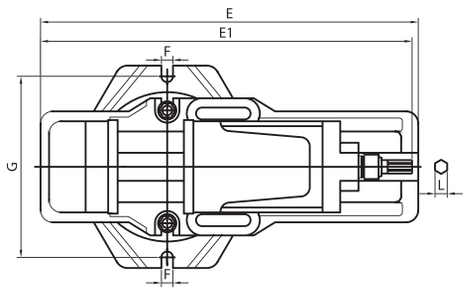
DETAYLAR

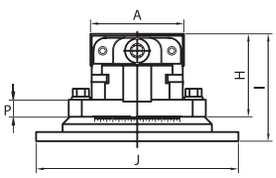
KOD	A	B	C AÇILIM	D	E	F	G	H	I	J	a	b	c	f	MAX. KAPANMA GÜCÜ (Kg)	AĞIRLIK (Kg)
VHT-4	110	36	170	50°	15	15	26	240	185	270	500	404	335	230	2500	(T) 33.3
VHT-6	154	54	300	50°	20	19	28	300	246	330	800	585	415	290	4500	(T) 88

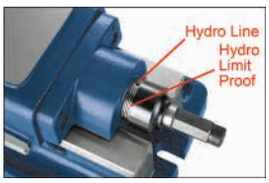
HİDROLİK MENGENELERİ

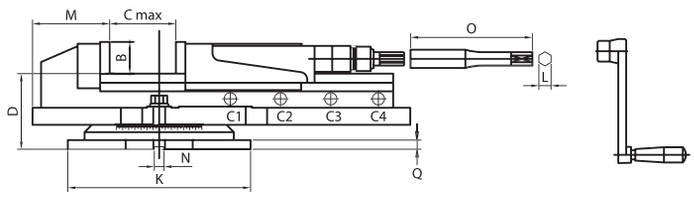


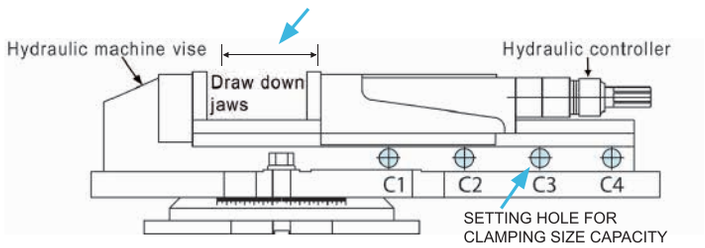








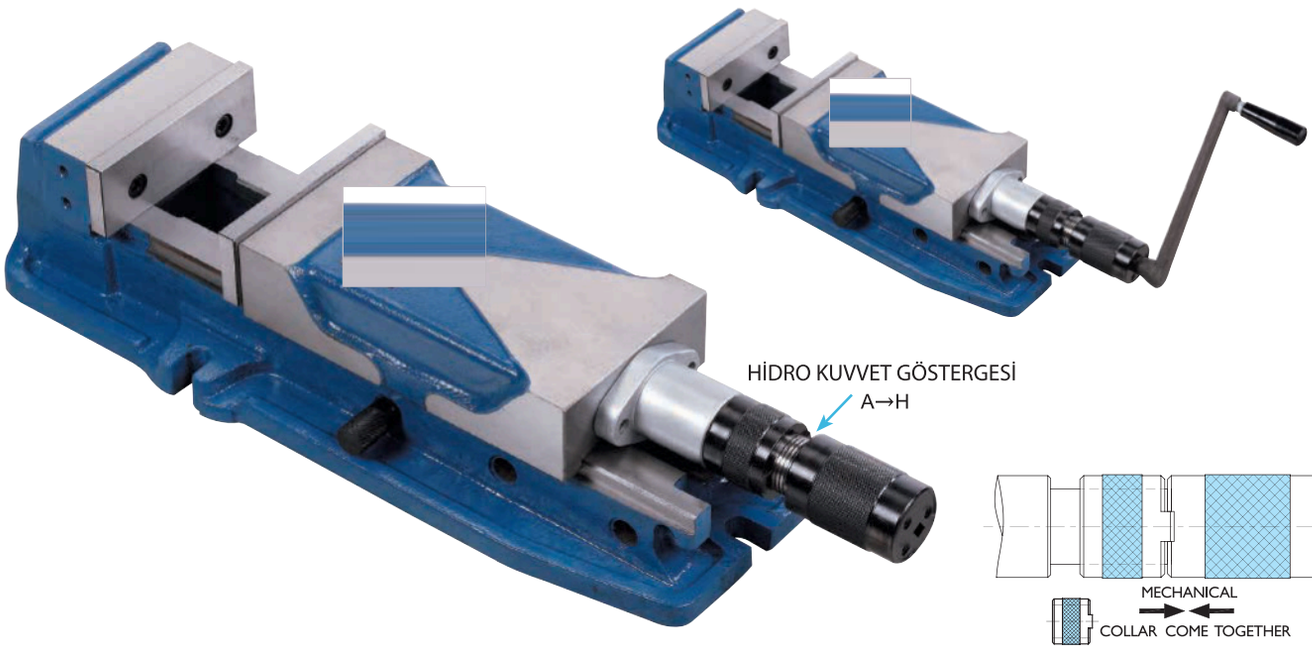


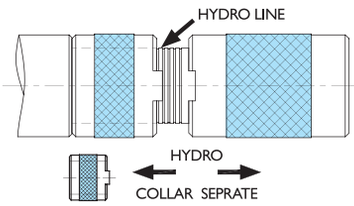


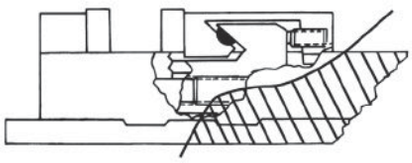
KOD	A	B	C AÇILIM	AÇILMA KAPASİTESİ C1	C2	C3	C4	D	E	E1	F
VH-4	108	36	175	0-63	61-120	118-175	----	98	443	583	14
VH-5	132	48	220	0-75	73-150	148-210	----	113	550	703	17
VH-6	151	52	300	0-100	98-200	198-300	----	124	620	800	19
VH-8	204	62	300	0-100	98-200	198-300	----	144	680	857	17
VH-8L	204	62	400	0-100	98-200	198-300	298-400	144	795	950	17

KOD	G	H	I	J	K	L	M	N	O	P	MAX. KAPANMA GÜCÜ (Kg)	AĞIRLIK (Kg)
VH-4	235	95	135	270	240	14	110	16	156	22	2500	28
VH-5	253	118	161	290	263	19	124	16	165	22	4500	47
VH-6	298	136	176	332	300	19	126	16	200	30	4500	63
VH-8	342	162	206	375	350	19	155	16	200	30	7500	110
VH-8L	342	262	206	375	350	19	155	16	200	30	7500	108

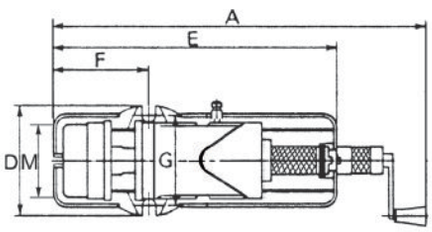
HİDROLİK MAKİNA MENGENELERİ

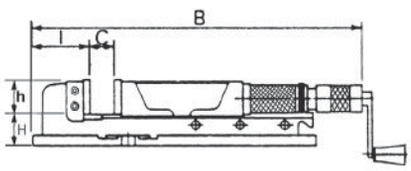






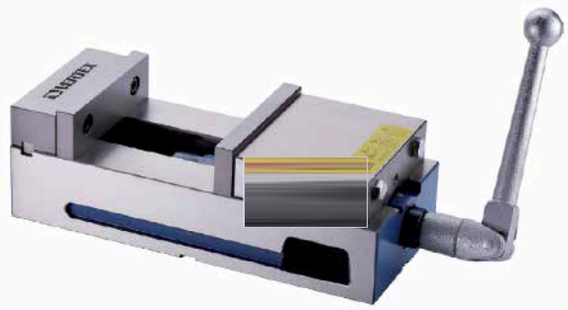
MEKANİK KULLANIM
PİRİNÇ, ALÜMİNYUM, PLASTİK,
ÇELİK ve DÖKÜM İŞLEME İÇİN
UYGUNDUR.



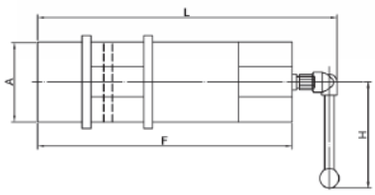


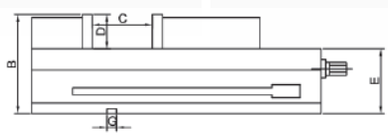
KOD	A	B	C AÇILIM	D	E	F	G	H	I	M	h	w	MAX. KAPANMA GÜCÜ (Kg)	AĞIRLIK (Kg)
VHO-5	695 920	545 775	0-220	190	505	180	160	74	105	130	55	130	3500	36,5
VHO-6	750 1060	600 915	0-300	240	625	208	196	80	125	160	58	160	4000	59,1
VHO-8	830 1140	700 1015	0-310	280	700	265	240	100	165	200	63	200	5000	94,3

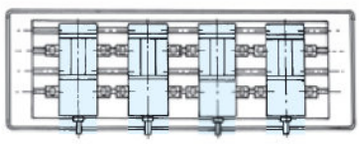
LOCK-FIXED II HASSAS MAKİNA MENGENESİ









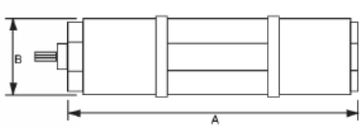


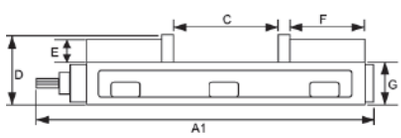
KOD	A (mm)	B (mm)	C AÇILIM	D (mm)	E (mm)	F (mm)	G (mm)	L (mm)	H (mm)	MAX. KAPANMA	AĞIRLIK (kg)
VMC-4	108	100	110	36	63	283	16	374	202	1500 kg	14,2
VMC-6	156	120	142	46	74	370	16	472	221	2500 kg	29,8

BİRLEŞİK HASSAS MENGENE

*YÜKSEK HASSASİYET.
*YÜKSEK AÇILIM KAPASİTESİ.
*OTOMATİK MERKEZLEME.
*KABA VE ŞEKİLSİZ PARÇALAR UYGUN.



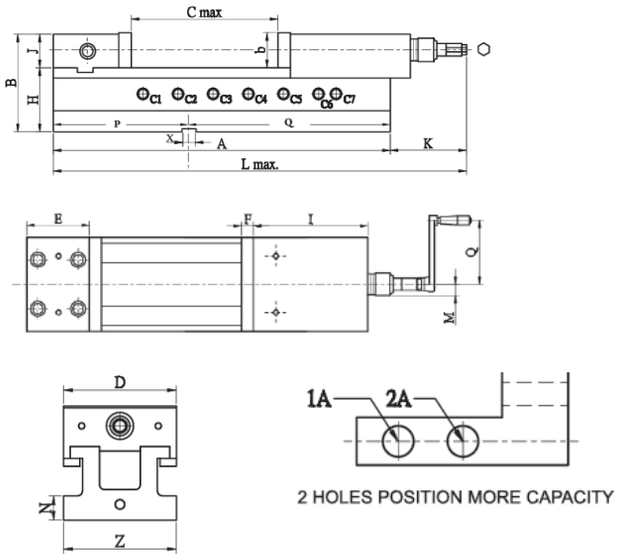




KOD	A (mm)	A1 (mm)	B (mm)	C AÇILIM	D (mm)	E (mm)	F (mm)	G (mm)	MAX. KAPANMA	AĞIRLIK (kg)
VCV-44	420	469	108	185	98	36	102	62	450 kg	17,7

NC HİDROLİK MAKİNA MENGENESİ





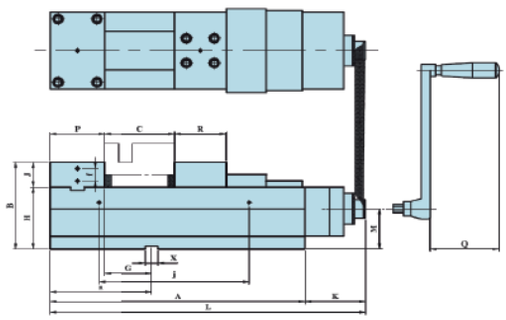
*AKMA VE DARBE DAYANIMI YÜKSEKTİR
*HİDRO İTİCİ SİSTEM MİNİMUM GÜÇ İLE MAKSİMUM KAPANMA BASINCI SAĞLAR

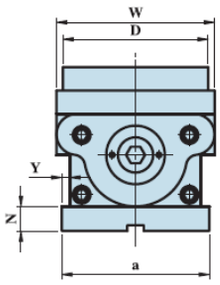
KOD	C AÇILIM	BASMA KUVVETİ (kn)	L max	AÇILMA KAPASİTELERİ							
				-	C1	C2	C3	C4	C5	C6	C7
VNC-100H	205	25	464	1A	2-30	57-90	115-146	173-205	-	-	-
				2A	0-3	28-60	86-116	145-175	-	-	-
VNC-125H	225	40	556	1A	10-46	70-106	130-166	190-226	-	-	-
				2A	0-12	38-72	98-132	158-192	-	-	-
VNC-160H	309	50	684	1A	13-70	93-150	173-230	253-310	-	-	-
				2A	0-30	53-110	133-190	213-270	-	-	-
VNC-160LH	509	50	884	1A	13-70	93-150	173-230	253-310	333-390	410-470	450-510
				2A	0-30	53-110	133-190	213-270	293-350	370-430	410-470

KOD	A (mm)	B (mm)	D (mm)	E (mm)	F (mm)	b (mm)	H (mm)	J (mm)	N (mm)	I (mm)	Z (mm)	X (mm)	P (mm)	Q (mm)	AĞIRLIK (kg)
VNC-100H	380	107	100	67	13	38	70	37	24	133	100	14	152	228	19
VNC-125H	432	126	124	85	15	45	82	44	27	147	125	18	174	258	37
VNC-160H	550	148	159	102	18	54	95	53	27	189	160	18	219	331	63
VNC-160LH	750	148	159	102	18	54	95	53	27	189	160	18	219	531	77

MEKANİK MC MENGENE







*HIZLI KAPANMA ve KİLİTLEME SİSTEMİ KOLAY KULLANIMLIDIR.
*YÜKSEK KAPANMA GÜCÜ.
*MAFSAL DESTEKLİ MEKANİZMA İŞLEME PARÇASINI, İÇ YAPISINDAKİ DİSK YAYI İLE ESNEK BİÇİMDE TUTTUĞU SÜRECE TİTREŞİM ve ŞOKLARA KARŞI SÜREKLİ BİR KAPANMA GÜCÜ SAĞLAR.

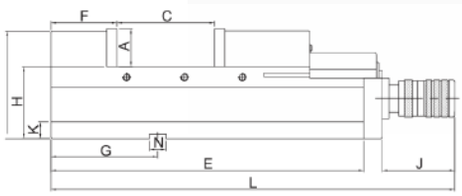
KOD	A (mm)	B (mm)	a (mm)	D (mm)	P (mm)	R (mm)	G (mm)	H (mm)	J (mm)	K (mm)	L (mm)
VQC-125	366	140	126	124,5	78	74	66	100	40	86	452
VQC-160	456	165	161	159,5	86	86	58	120	45	98	554
VQC-160L	536	165	162	160	86	86	58	120	45	98	634
VQC-200L	616	180	202	200	102	98	74	120	70	95	711

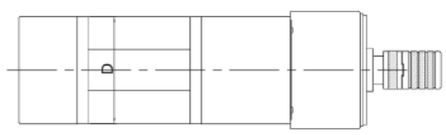
KOD	M (mm)	N (mm)	Q (mm)	W (mm)	X (mm)	Y (mm)	ÇENE AÇILIMI	f (mm)	J (mm)	n (mm)
VQC-125	65	21	74	135	18	7	205	20	216	145
VQC-160	78	21	94	170	18	7	275	20	286	145
VQC-160L	78	21	94	174	18	7	355	20	286	145
VQC-200L	75	21	96	217	18	7	405	20	386	177

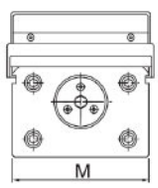
KOD	ÇENE	ÇENE AÇILIMI	B	BASMA KUVVETİ (kn)	KOD
	H	C			
VQC-125	40	205	140	40	40,4
VQC-160	45	275	165	60	72,3
VQC-160L	45	355	165	60	78,6
VQC-200L	70	450	190	60	108

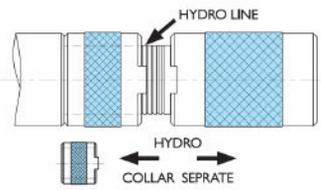
HİDROLİK MC MENGENE

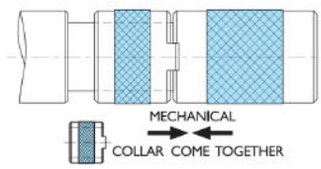












*TOLERANS 0,01/100 mm.
*SERTLİK HRC45.
*SINIRSIZ HİDROLİK SIKMA GÜCÜ.
*SABİT AÇILI DİZAYNI SAYESİNDE YATAY-DİKEY KESİMLERDE ve İŞLEME MERKEZLERİNDE UYGUN KULLANIM.

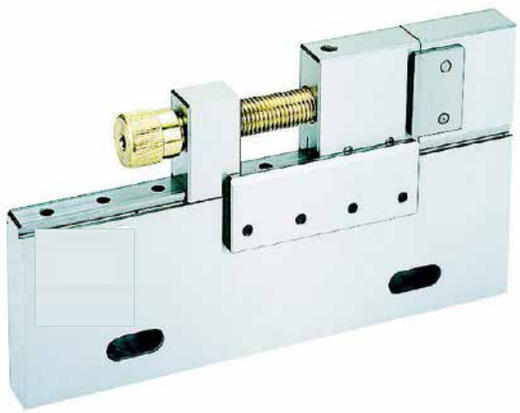
KOD	A (mm)	B (mm)	C AÇILIM	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)	BASMA KUVVETİ (kn)	AĞIRLIK (kg)
VMC-100HV	48	130	125	100	340	80	125	85	110	15	470	101	16	3000	27
VMC-130HV	55	147	180	130	405	85	150	95	110	21	535	131	18	4000	40
VMC-160HV	58	168	240	160	495	100	165	105	110	21	625	161	18	5000	58
VMC-200HV	61	170	280	200	570	108	190	110	110	21	700	201	18	6000	87

KOD
VMC-100HV
VMC-130HV
VMC-160HV
VMC-200HV

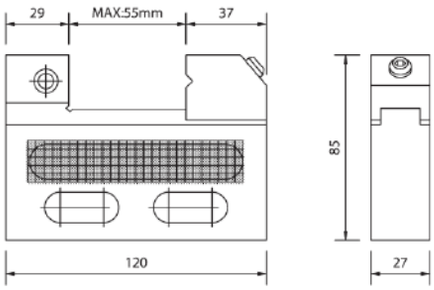
TEL EROZYON MENGENESİ (PASLANMAZ)

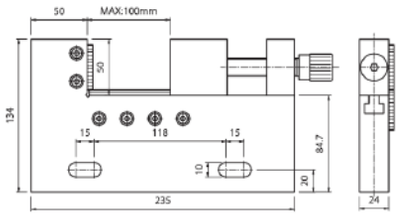


VSTV-50W



VSTV-100W



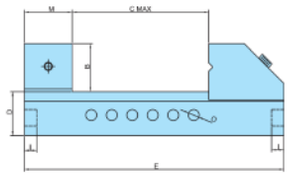


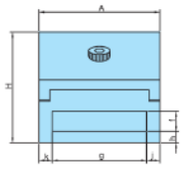
*EROZYON KESME TEZLARINDA KULLANILIR.
*TÜM PARÇALAR PASLANMAZ ÇELİK ve YÜKSEK EROZYONA DİRENÇLİ OLARAK İMAL EDİLMİŞTİR
*MALZEME SUS440

KOD	PARALELLİK	KARASELLİK	AÇILIM	KALINLIK	ÇENE DERİNLİĞİ	AĞIRLIK (kg)	SERTLİK
VSTV-50W	±0,002/100	±0,002/100	55	27	25	1,4	HRC54°±2°
VSTV-100W	±0,002/100	±0,002/100	100	24	50	4,88	HRC54°±2°

PİMLİ HASSAS TEZGAH MENGENESİ



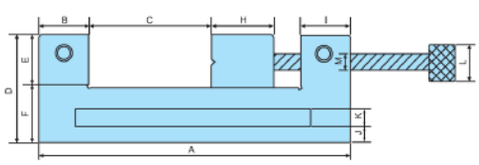


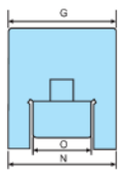


KOD	A (mm)	B (mm)	C AÇILIM	D (mm)	E (mm)	I (mm)	f (mm)	g (mm)	h (mm)	j (mm)	k (mm)	H (mm)	M (mm)	O (mm)	SERTLİK	AĞIRLIK (kg)
VMV-15	36	20	40	20	100	5	8	24	5	6	6	40	20	6	HRC54°±2°	0,9
VMV-20	47	29	70	28	150	5	10	37	6	5	5	57	30	8	HRC54°±2°	2
VMV-25	62	34	84	28	170	7	10	52	6	5	5	62	30	8	HRC54°±2°	3,3
VMV-30	72	34	98	32	190	9	12	56	7	8	8	66	35	8	HRC54°±2°	4,5
VMV-35	88	45	125	40	230	12	12	64	11	12	12	85	40	10	HRC54°±2°	7
VMV-40	98	45	130	40	235	12	12	64	11	17	17	85	40	10	HRC54°±2°	8,9
VMV-50	125	50	150	50	287	12	13	73	14	26	26	100	50	14	HRC54°±2°	15,5
VMV-60	150	50	200	50	330	12	14	76	14	37	37	100	50	14	HRC54°±2°	21,4

VİDALI HASSAS TEZGAH MENGENESİ





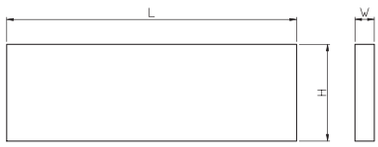


KOD	A (mm)	B (mm)	C AÇILIM	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)	O (mm)	SERTLİK	AĞIRLIK (kg)
VDV-20	155	25	55	54	25	29	48	45	25	10	10	35	16	48	19	HRC54°±2°	2,5
VDV-25	176	25	75	60	30	30	63	45	25	10	11	40	16	63	26	HRC54°±2°	3,9
VDV-30	181	30	71	70	30	40	73	52	25	14	13	50	19	73	26	HRC54°±2°	5,7
VDV-35	250	35	121	73	38	35	88	55	35	11	12	55	25	88	30	HRC54°±2°	9,2
VDV-40	250	35	121	73	38	35	98	55	35	12	12	55	25	98	30	HRC54°±2°	10,1

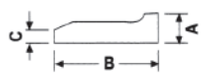
KOD
VDV-20
VDV-25
VDV-30
VDV-35
VDV-40

PARALEL SET 9 ÇİFT



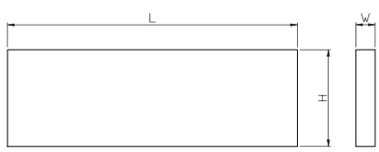


HASSASİYET 0,01 mm

GÖVDE ÖLÇÜSÜ WxHxLxAdet	KAPANMA ÖLÇÜSÜ AxBxCxLxAdet
5x16x100x2	15x31x2.5x200x2 
6x18x100x2	
8x24x100x2	
10x30x100x2	
12x36x150x2	
14x48x150x2	
18x60x150x2	
22x62x150x2	
KOD	VP-100

PARALEL SET 14 ÇİFT (KALINLIK 8,5 mm)



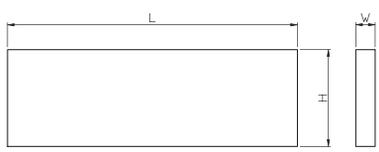


HASSASİYET 0,01 mm

WxHxLxAdet	
8,5x14x150x2	8,5x28x150x2
8,5x16x150x2	8,5x30x150x2
8,5x18x150x2	8,5x32x150x2
8,5x20x150x2	8,5x35x150x2
8,5x22x150x2	8,5x40x150x2
8,5x24x150x2	8,5x45x150x2
8,5x26x150x2	8,5x50x150x2
KOD	VP-118A

PARALEL SET 14 ÇİFT (KALINLIK 10 mm)





HASSASİYET 0,01 mm

WxHxLxAdet	
10x14x150x2	10x28x150x2
10x16x150x2	10x30x150x2
10x18x150x2	10x32x150x2
10x20x150x2	10x35x150x2
10x22x150x2	10x40x150x2
10x24x150x2	10x45x150x2
10x26x150x2	10x50x150x2
KOD	VP-128A

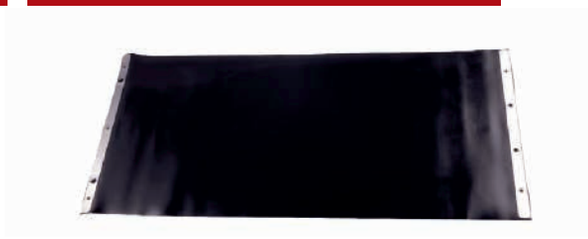
KALIP BAĞLAMA SETİ ve KÖRÜKLÜ MAKİNA KORUYUCU

52 PARÇA KALIP BAĞLAMA SETİ

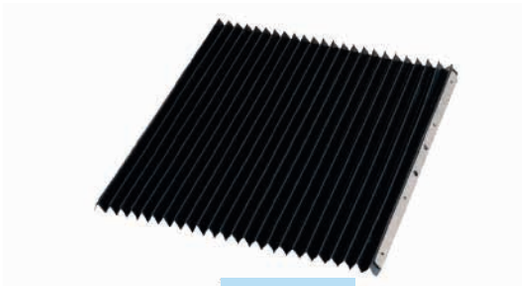


KOD	TABLA YUVASI	CİVATA ÖLÇÜSÜ	AĞIRLIK (Kg)
CK-08	10	M8-1.25P	7,4 (K)
CK-10	12	M10-1.25P	7.6 (K)
CK-12A	14	M12-1.75P	9.4 (K)
CK-14	16	M14-2.0P	11.1 (K)
CK-16	18	M16-2.0P	12.6 (K)
CK-18	20	M18-2.5P	25.3 (K)
CK-20	22	M20-2.5P	27 (K)

KÖRÜKLÜ MAKİNA KORUYUCU



B TİP



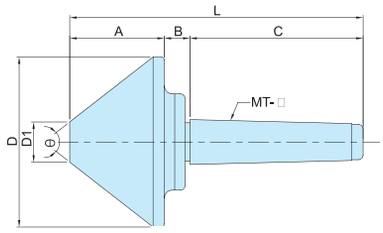
F TİP

F: ÖN TARAF İÇİN (X)
B: ARKA TARAF İÇİN (Y) (FREZE)
B SERİSİ KAUÇUK DÜZELTİLMİŞ TİPTİR.

KOD	WxL	UYGUN OLAN MAKİNA	AĞIRLIK (kg)
VGC-3833F	380x330	1,5#	0,3
VGC-3860F	380x600	1,6# -1,7#	0,6
VGC-4550F	450x500	1,6#	0,7
VGC-3775B	370x750	1,5#	0,7
VGC-4585B	450x850	1,6# - 1,7#	1,1
VGC-6085B	600x850	2,0#	2

BORU PUNTASI

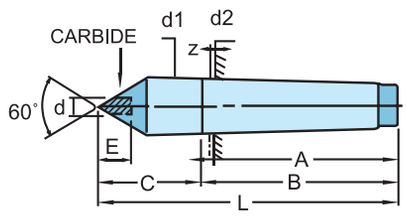




KOD	ÖLÇÜ	A	B	C	D	D1	L	MAX.HIZ R.P.M.	θ	100 RPM'DE YÜK KAPASİTESİ (Kg)	AĞIRLIK (Kg)
VLC-433	MK3x3"	52	18	86	78	15	156	3300	60°	400	1.6
VLC-434	MK3x4"	59	16	86	106	25	161	3000	70°	500	2.8
VLC-443	MK4x3"	52	18	108	78	15	178	3300	60°	400	1.8
VLC-444	MK4x4"	59	16	108	106	25	183	3000	70°	500	3.1
VLC-445	MK4x5"	73	12	108	128	40	193	2000	70°	650	4.9
VLC-446	MK4x6"	88	12	108	156	45	208	1900	70°	800	7.7
VLC-448	MK4x8"	98	12	108	206	81	218	1500	75°	1300	15.4
VLC-455	MK5x5"	73	12	136	128	40	221	2000	70°	650	5.8
VLC-456	MK5x6"	88	12	136	156	45	236	1900	70°	800	8.6
VLC-458	MK5x8"	98	12	136	206	81	246	1500	75°	1600	15.7
VLC-568	MK6x8"	103	13	185	206	54	298	1800	75°	3000	15.8

ELMAS UÇLU SABİT PUNTA

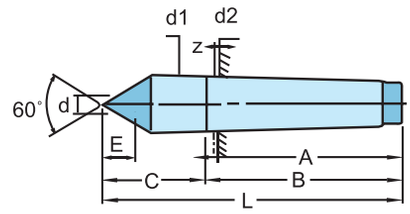




KOD	ÖLÇÜ	L	A	B	C	E	d2	d1	d	AĞIRLIK (Kg)
VLC-112	MK2	100	69	67	31	8	17.780	18.0	6	0.2
VLC-113	MK3	125	89	81	39	10	23.825	24.1	8	0.4
VLC-114	MK4	155	109	102.5	46	14	31.267	31.6	10	0.8
VLC-115	MK5	200	136	129.5	64	18	44.399	44.7	14	2.1
VLC-116	MK6	270	190	182	80	30	63.648	63.8	18	5.7

HSS SABİT PUNTA



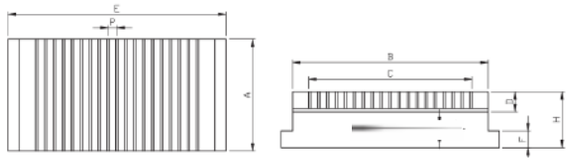


KOD	ÖLÇÜ	L	A	B	C	E	d2	d1	d	AĞIRLIK (Kg)
VLC-126	MK2	100	69	67	31	8	17.780	18.0	6	0.2
VLC-127	MK3	125	89	81	39	10	23.825	24.1	8	0.4
VLC-128	MK4	155	109	102.5	46	14	31.267	31.6	10	0.8
VLC-129	MK5	200	136	129.5	64	18	44.399	44.7	14	2.1
VLC-130	MK6	270	190	182	80	30	63.648	63.8	18	5.7

MANYETİK TABLALAR

MANYETİK TABLA (18 KGF)

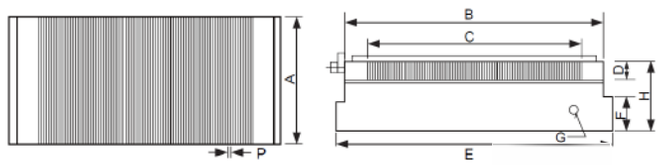




KOD	ÖLÇÜLER	TABLA ÖLÇÜLERİ				KUTUP HATVESİ	TABLA SABİTLEME YÜZEYİ			YÜKSEKLİK H	AĞIRLIK (kg)
		A (mm)	B (mm)	C (mm)	D (mm)	P (mm)	G (mm)	E (mm)	F (mm)		
VG-407	100x175	100	175	146	20	8(2+6)	8	187	15	50	7,2
VG-510	125x250	125	250	206	20	8(2+6)	8	262	15	50	15
VG-606	150x150	150	150	116	20	8(2+6)	8	162	15	50	9
VG-612	150x300	150	300	256	20	8(2+6)	8	318	15	50	18,5
VG-614	150x350	150	350	306	20	8(2+6)	8	368	15	50	20,9
VG-618	150x450	150	450	406	20	8(2+6)	8	468	15	50	27,5
VG-816	200x400	200	400	365	20	8(2+6)	8	418	15	50	32
VG-818	200x450	200	450	406	20	8(2+6)	8	468	15	50	36,3
VG-820	200x500	200	500	456	20	8(2+6)	8	518	15	50	40,4
VG-1020	250x500	250	500	456	20	8(2+6)	8	518	15	50	50,3
VG-1224	300x600	300	600	550	18	8(2+6)	8	620	15	48	73,5

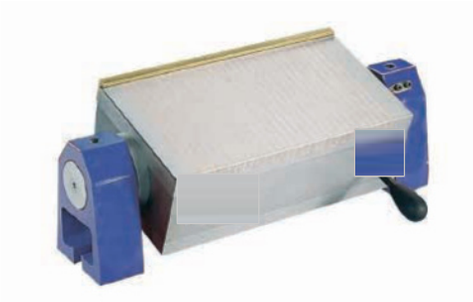
İNCE ÇİZGİLİ MANYETİK TABLA (19 KGF)

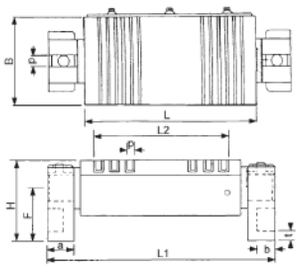




KOD	ÖLÇÜLER	TABLA ÖLÇÜLERİ				KUTUP HATVESİ	TABLA SABİTLEME YÜZEYİ			G	YÜKSEKLİK H	AĞIRLIK (kg)
		A (mm)	B (mm)	C (mm)	D (mm)	P (mm)	A (mm)	E (mm)	F (mm)			
VGF-1018B	100x175	100	175	146	18	5(1+4)	100	195	15	8	50	7,7
VGF-1515B	150x150	150	150	116	18	5(1+4)	150	175	15	8	50	10
VGF-1530B	150x300	150	300	256	18	5(1+4)	150	320	15	8	50	18,8
VGF-1535B	150x350	150	350	306	18	5(1+4)	150	370	15	8	50	21,6
VGF-1545B	150x450	150	450	406	18	5(1+4)	150	470	15	8	50	27,4
VGF-2040B	200x400	200	400	356	18	5(1+4)	200	420	15	8	50	32,3
VGF-2045B	200x450	200	450	406	18	5(1+4)	200	470	15	8	50	36,3

DÖNER MANYETİK TABLA (18KGF)

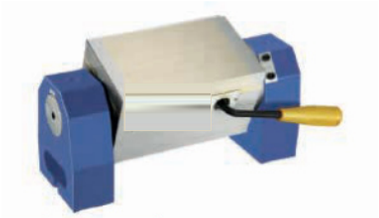


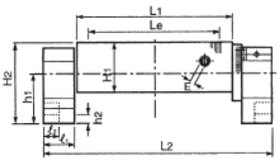


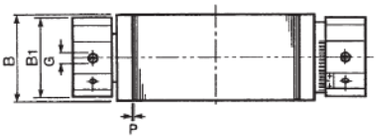
KOD	ÖLÇÜLER	TABLA ÖLÇÜLERİ			KUTUP HATVESİ	AYAK ÖLÇÜLERİ						YÜKSEKLİK H	AĞIRLIK (kg)
		B (mm)	L (mm)	L2 (mm)	P (mm)	a (mm)	b (mm)	t (mm)	F (mm)	L1 (mm)	d (mm)		
VLU-510B	125x250	125	250	191	8,5 (2,5+6)	50	35	17	96	380	16	150	33,2
VLU-612B	150x300	150	300	245	8,5 (2,5+6)	50	35	17	96	430	16	150	44,5
VLU-618B	150x450	150	450	414	8(2+6)	50	27	15	90	565	-	145	43

İNCE ÇİZGİLİ DÖNER MANYETİKLİ TABLA (17KGF)

(0°-90°) ARALIĞINDAKİ TAŞLAMALARA UYGUNDUR.







KOD	ÖLÇÜLER	TABLA ÖLÇÜLERİ				KUTUP HATVESİ	UZUNLUK	AYAK ÖLÇÜLERİ						YÜKSEKLİK H	AĞIRLIK (kg)
		B (mm)	L1 (mm)	L2 (mm)	H1 (mm)	P (mm)	L2 (mm)	B (mm)	1 (mm)	2 (mm)	G (mm)	h1 (mm)	h2 (mm)		
VLU-407BF	100x175	100	175	125	78	2 (1+1,5)	293	100	50	25	16	103	50	145	19
VLU-510BF	125x250	125	250	200	78	2 (1+1,5)	368	100	50	25	16	103	50	145	27
VLU-612BF	150x300	150	300	246	78	2 (1+1,5)	418	100	50	25	16	103	50	145	31
VLU-614BF	150x350	150	350	296	78	2 (1+1,5)	468	100	50	25	16	103	50	145	37
VLU-618BF	150x450	150	450	396	78	2 (1+1,5)	568	100	50	25	16	103	50	145	43

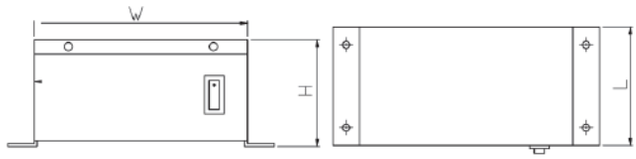
KOD
VLU-407BF
VLU-510BF
VLU-612BF
VLU-614BF
VLU-618BF

MANYETİKK ALMA CİHAZLARI

MANYETİK ALMA CİHAZI

*GİRİŞ VOLTAJI 110-220 VAC'DİR.
*TAKIMLARIN, MATKAPLARIN KOLAYCA MANYETİĞİNİ ALIR.

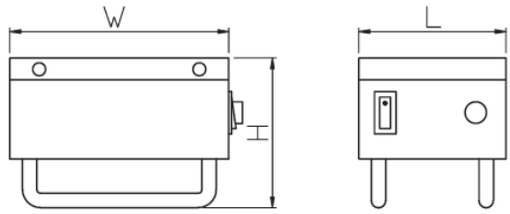




KOD	GİRİŞ VOLTAJI	KAPASİTE	ÇALIŞMA YÜZEYİ	YÜKSEKLİK	ÇEVRİM ORANI	AĞIRLIK (kg)
VDM-8	AC- 110V	210VA	160x110	100	50%	4,5
VDM-11	AC- 220V	550VA	200x280	130	100%	16

MİNİ TİP MANYETİK ALMA CİHAZI

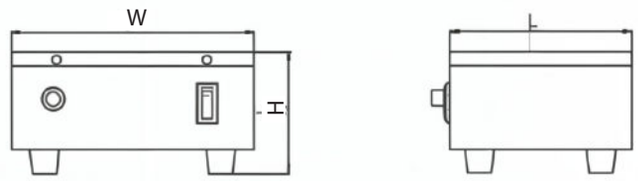




KOD	GİRİŞ VOLTAJI	KAPASİTE	ÇALIŞMA YÜZEYİ	YÜKSEKLİK	ÇEVRİM ORANI	AĞIRLIK (kg)
VDM-9	AC- 110V-220V	110VA	123x83	83	90%	1,8

LÜKS TİP MANYETİK ALMA CİHAZI





KOD	GİRİŞ VOLTAJI	KAPASİTE	BOYUT			ÇEVRİM ORANI	AĞIRLIK (kg)
			L (mm)	W (mm)	H (mm)		
VDM-68	AC- 110V-220V	AC-330VA	140	195	110	100%	7,4

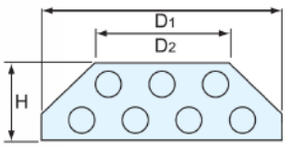
MANYETİK AYIRICI



VMS-9B



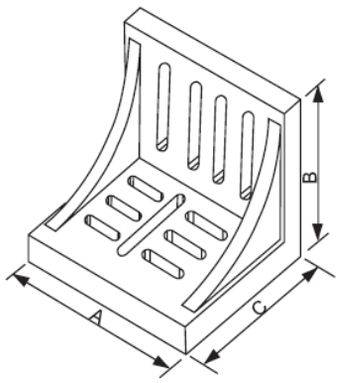
VMS-7B



KOD	D1 (mm)	D2 (mm)	H (mm)	TÜP ÖLÇÜLERİ	AĞIRLIK (kg)
VMS-7B	175	112	75	Ø22,2x180	2,4
VMS-9B	218	156	75	Ø22,2x230	3,8

GÖNYE PLEYTİ





KOD	A (mm)	B (mm)	C (mm)	AĞIRLIK (kg)
VR-6	150	126	115	3,8
VR-8	202	150	126	7,4
VR-10	250	202	126	12,1
VR-12	300	228	202	23,7

PAH KIRMA MAKİNALARI



KOD
VCF-500
VCF-500W
VCF-500F

VCF-500
AKSESUAR : KESİCİ FREZE UCU SPUN422
UÇ : SPPN 1203

VCF SERİSİ ÖZELLİKLERİ

- KOLAY KULLANIM, VASIFSIZ ELEMANLARA UYGUN
- ÇELİK, DÖKME DEMİR, DEMİR DIŞI METALLER,PLASTİK, AKRİLİK VS MALZEMELERİN HER BOYU İŞLENEBİLİR

500 : DEĞİŞTİRİLEBİLİR KARBÜR UÇLAR ve BIÇAK MALİYETİ DÜŞÜRÜP, ÜRETİM KAPASİTESİNİ ARTIRIR.

500W : ÇANAK TAŞ YA DA FLANŞ SAYESİNDE SICAK İŞLENMİŞ PARÇALARA PAH KIRMA İŞLEMİ GERÇEKLEŞTİRİLEBİLİR.

500F : YÜZEY FREZELEME PRENSİBİNE GÖRE ÇALIŞIR. PAH KIRMA İŞLEMİ YÜZEYİ, FREZELEME MAKİNASI İLE AYNIDIR.



VCF-500W
AKSESUAR : ÇANAK TAŞ 100Øx50x17Ø



VCF-500F
AKSESUAR : KESİCİ FREZE UCU
UÇ : SEKN 1203

TEKNİK BİLGİ

	500	500W	500F
GEREKLİ ALAN	500 x 320mm	500 x 440mm	500 x 220mm
AĞIRLIK (Kg)	28.5	29.1	29
VOLTAJ	3Ø 220V ve 1Ø 110V/220V 50HZ/60HZ 3Ø 380V/415V		
MOTOR ÇIKIŞI	0.7KW		
HIZ	3500 r.p.m		
RAY YUVASI UZUNLUĞU	500mm	500 mm	500 mm
PAH YÜKSEKLİĞİ	0-3 mm		
PAH AÇISI	15°~45° (AYARLANABİLİR)	45°	45°

PAH KIRMA MAKİNALARI



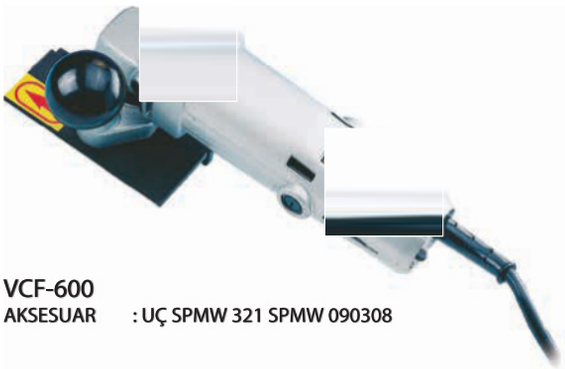
KOD
VCF-500S
VCF-600
VCF-700

VCF-500S
AKSESUAR : FLAP DİSK 165Øx22Ø

VCF ÖZELLİKLERİ

500S : FLAP DİSK KULLANILIR
SERT ve RİJİT MALZEMELERDE UYGUNDUR
600 : KOLAYCA TAŞINIR ve AĞIR PARÇALARIN İŞLENMESİNİ KOLAYLAŞTIRIR
700 : TAŞINABİLİRDİR. DEMİR ve DEMİR ALAŞIMLARI ÖZELLİKLE ÇELİK VE DÖKME DEMİR İÇİN UYGUNDUR

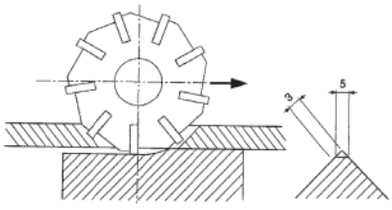
KARE ŞEKİLLİ TUNGSTEN KARBÜR UÇ OLAN ISO1203SPUN KULLANILIR. BASİTLEŞTİRİLMİŞ KULLANIMI VASIFSIZ ELEMANLAR İÇİN UYGUNDUR



VCF-600
AKSESUAR : UÇ SPMW 321 SPMW 090308



VCF-700
AKSESUAR : FREZE



TEKNİK BİLGİ

	VCF-500S	VCF-600	VCF-700
GEREKLİ ALAN	330 x 410 mm	500 x 440 mm	500 x 220 mm
AĞIRLIK (Kg)	26	3.7	14
VOLTAJ	3Ø220V ve 1Ø110V/220V 3Ø380V/415V 50HZ/60HZ		
MOTOR ÇIKIŞI	0.7KW		0.37KW
HIZ	3500 r.p.m	12000 r.p.m	3500 r.p.m
RAY YUVASI UZUNLUĞU	320 mm	100 mm	200 mm
PAH YÜKSEKLİĞİ	0-3 mm	0-3 mm	0-7 mm
PAH AÇISI	45°	45°	15° ~ 45° AYARLANABİLİR

ÜNİVERSAL BİLEME MAKİNASI



- HSS ve KARBÜR'DEN ÜRETİLMİŞ NEGATİF AÇILI , RADYUSLU DAHİL ÇOK ÇEŞİTLİ KESİCİ UÇLARIN TAŞLANMASINDA KULLANILIR.
- POZİSYONLU UNIVERSAL İNDEKS KAFASI İLE HERHANGİ BİR AÇI ve ŞEKLİN TAŞLANMASINI SAĞLAR.
- FREZE, MATKAP, KALEM VS TAŞLANABİLMESİ İÇİN 100-3600 DEVİR ARASI ÇALIŞTIRILABİLİR.
- ÖZEL APARATLARIN KURULUMU ve KULLANIMI OLDUKÇA BASİTTİR.

MAX. TAŞLAMA ÇAPI Ø25
TEPE AÇISI 0°-180°
KANAL AÇISI 0°- 45°
NEGATİF AÇI 0°-26°
TAŞLAMA MİLİ 3600 RPM
ÇANAK TAŞ 100x50x20 mm
MOTOR 1/3 HP 220V50/90HZ
NET AĞIRLIK 45 Kg
BRÜT AĞIRLIK 58 Kg
MAKİNA ÖLÇÜLERİ BxExY 45x40x35 cm
KUTU ÖLÇÜLERİ BxExY 55x45x47 cm

KOD
U2

KOD
U2-E
U2-T
U2-L
U2-D 100
U2-B KAYIŞ
U2-G ÇANAK TAŞ
U2-R 200

STANDART AKSESUARLAR

TAŞ DÜZELTME ELMASI	1 PARÇA
TAŞ FLANŞI (BAĞLI)	1 PARÇA
ÇANAK TAŞ	1 PARÇA (U2-G)
PENS Ø4,6,8,10,12 mm	5 PARÇA
MERKEZLEME ÇUBUĞU	1 PARÇA
TAHRİK KAYIŞI	1 PARÇA
KİLİTLEME PİMİ	1 PARÇA
ALETLER	1 SET

OPSİYONEL AKSESUARLAR

MATKAP BİLEME APARATI U2-T
FREZE BİLEME APARATI U2-E
TAKIM TAŞLAMA APARATI U2-L
ÇANAK TAŞ BALANS STANDI
LBS-100
ELMAS ÇANAK TAŞ U2-D
SUNİ REÇİNELİ ve CBN ÇANAK TAŞ U2-R
EXTRA PENSLER 1, 2, 2.5, 3, 5, 7, 9, 16, 18, 20, 25mm
VE 1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8").

■ L:120 ■ D:28 ■ d:20 ■ G:2.0P ■ HASSASİYET: ±0.02MM

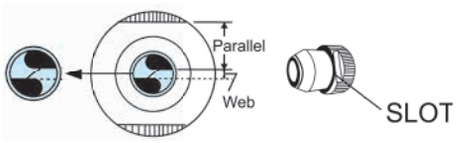
■ α:17°30' ■ AĞIRLIK:0.18KGS ■ SERTLİK: HRC47°

U2-E FREZE BİLEME APARATI	U2-T MATKAP BİLEME APARATI
 AĞIRLIK : 2Kg	 AĞIRLIK : 0.9Kg
U2-L TORNA TAKIM TAŞLAMA APARATI	**ELMAS ÇANAK TAŞ SUNİ REÇİNELİ & CBN ÇANAK TAŞ**
 AĞIRLIK : 2Kg	U2-D  AĞIRLIK: 0.7Kg U2-R  AĞIRLIK: 0.5Kg

MATKAP BİLEME MAKİNALARI



VDG-13A



- MATKAP UÇLARININ BİLENMESİ İÇİN KULLANILIR.
- HASSAS ve KULLANIMI BASİTTİR.
- MATKAP UÇLARI HIZLI BİR ŞEKİLDE BİLENEBİLİR.
- ±0,05 mm HASSASİYET GARANTİLİDİR.
- GÜÇLÜ MOTORU 2 SAAT ÇALIŞMAYI DESTEKLER.
- KARBÜR ve HSS DAHİL HER TÜRLÜ MATKAP İÇİN UYGUNDUR.

- KARBÜR BİLEME TAŞI İLE BİRLİKTE TESLİM EDİLİR
- KARBÜR TAŞ İLE HSS ÜRÜN BİLENMEZ
- HSS ÜRÜNLER İÇİN TAŞ TEMİN EDİLEBİLİR



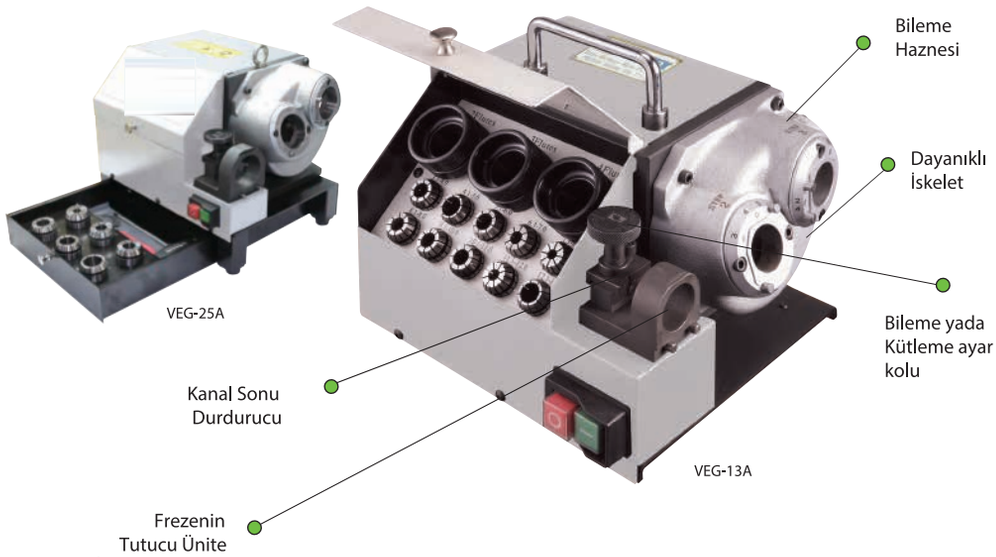
VDG-25

KOD	MATKAP ÇAPI	UÇ AÇISI	GÜÇ KAYNAĞI	MOTOR GÜCÜ	BİLEYİCİ	NET AĞIRLIK	ÖLÇÜLER
VDG-13A	Ø2.0- Ø13.0	90°- 140°	AC-110 veya 220 1PH	5100R.P.M.	SDC #200	9.7 Kgs	W282xD185xH110 mm
VDG-25	Ø12- Ø25	100° -136°	AC-110 veya 220 1PH	5300 R.P.M.	SDC #200	29 Kgs	W380xD240xH200 mm

ÇANAK TAŞ

KOD	BİLENECEK MALZEME	TANE BÜYÜKLÜĞÜ	FİYAT USD
VDG-13B	HSS	CBN200	
VDG-13D	KARBÜR	SDC200	
VDG-25B	HSS	CBN200	
VDG-25D	KARBÜR	SDC200	

FREZE BİLEME MAKİNALARI



- 2,3,4, AĞIZLI FREZELERİ BİLEMEK İÇİN KULLANILIR.
- HASSAS ve KOLAY KULLANIM SAĞLAR.
- FREZELER HIZLI BİR ŞEKİLDE BİLENEBİLİR.
- ±0,02 mm HASSASİYET GARANTİLİDİR.

- KARBÜR BİLEME TAŞI İLE BİRLİKTE TESLİM EDİLİR
- KARBÜR TAŞ İLE HSS ÜRÜN BİLENMEZ
- HSS ÜRÜNLER İÇİN TAŞ TEMİN EDİLEBİLİR

KOD	VEG-13A	VEG-25A
FREZE ÇAP ARALIĞI		
MOTOR		
HIZ		
GÜÇ		
EKSENEL AÇI		
STANDART AKSESUARLAR		
PAKET ÖLÇÜLERİ		
AĞIRLIK (Kg)		
FİYAT USD		

YEDEK AKSESUARLAR

KOD	BİLEME TAŞI	KULLANILACAĞI MAZEME	AĞIRLIK (Kg)
VEG-13BS	CBN 300x1 (Ø4 ~ 6mm için)	H.S.S	0,35
VEG-13BL	CBN 270x1 (Ø7 ~ 13mm için)	H.S.S	0,35
VEG-13DS	SDC 300x1 (Ø4 ~ 6mm için)	KARBÜR	0,35
VEG-13DL	SDC 270x1 (Ø7 ~ 13mm için)	KARBÜR	0,35
VEG-25BSV	CBN 150x1 (Ø12 ~ 25mm için)	H.S.S	0,85
VEG-25DSV	SDC 150x1 (Ø12 ~ 25mm için)	KARBÜR	0,85

KALIP BAĞLAMA SETİ MERDİVENLİ TİP



KOD	TABLA YUVASI	CİVATA ÖLÇÜSÜ	AĞIRLIK (kg)
T300M10	12	M10-1,5	7,60
T300M12	14	M12- 1,75	9,50
T300M14	16	M14 - 2,0	11,10
T300M16	18	M16 - 2,0	12,70
T300M18	20	M18 - 2,5	25,30

VİDALI YÜKSELTİCİLİ KALIP BAĞLAMA SETİ 52 PARÇA

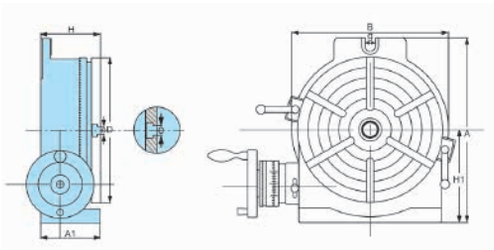


KOD	TABLA YUVASI	CİVATA ÖLÇÜSÜ	AĞIRLIK (kg)
T301M10	12	M10-1,5	10,10
T301M12	14	M12- 1,75	12,50
T301M14	16	M14 - 2,0	14,50
T301M16	18	M16 - 2,0	16,70

YATAY DİKEY DÖNER TABLA ve YATAY DİKEY SÜPER İNDEKS DİVİZÖRLER

YATAY DİKEY DÖNER TABLA DİVİZÖR





KOD	TABLA			TABAN ÖLÇÜSÜ			T-KANAL UZUNLUĞU		BAĞLANTI YUVASI	DÖNER TABLA İÇİN YÜK KAPASİTESİ		MERKEZ KONİĞİ	BRÜT AĞIRLIK TAHTA KUTU (T) KARTON (K)
	DIŞ ÇAP		YÜKSEKLİK	H1	A	B	e	TİP	g	YATAY	DİKEY		
	A1	D	H										
T305200	100	205	102	135	265	219	14	⊛	17	80 Kg	40 Kg	MK3	(K) 26.2 Kg
T305250	106	254	109	163	321	276	14	⊛	17	90 Kg	50 Kg	MK3	(K) 37.3 Kg
T305320	123	305	125	194	388	330	16	⊛	18	120 Kg	60 Kg	MK4	(T) 69.8 Kg
T305400	128	406	130	258	503	435	16	⊛	18	140 Kg	70 Kg	MK4	(T) 123.1 Kg

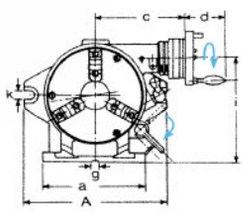
YATAY DİKEY SÜPER İNDEKS DİVİZÖR

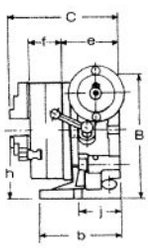
YENİ ÜRÜN



STANDART AKSESUARLAR







* PAKET İÇERİĞİNDE *
3 AYAKLI AYNA / 10"/250MM YÜZEY PLAKASI
MASKELEME PLAKALARI 2-3-4-6-8-12 MEVCUTTUR.

KOD	DİVİZÖR SAYISI	AYNA				YÜZEY PLAKASI		A	B	C	a
		DIŞ ÇAP	İÇ AYAK	DIŞ AYAK	İÇ ÇAP	DIŞ ÇAP	KALINLIK				
TCS6	2,3,4,6 8,12,24	167 VSK-6	Ø4~42	Ø10~156	44	203	50	250	235	221	220
TCS8	2,3,4,6 8,12,24	210 VSK-8	Ø4~62	Ø10~180	63	254	58	310	285	243	225

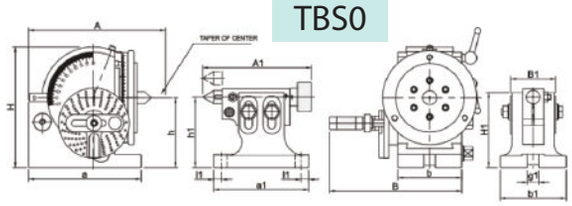
ÜNİVERSAL DİVİZÖR

YENİ ÜRÜN

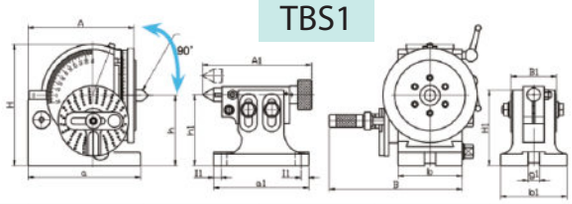




TBS0

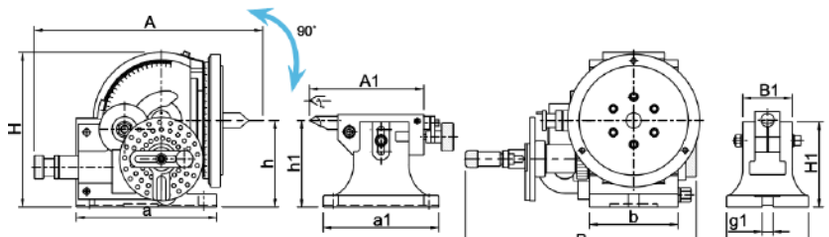


TBS1



KOD	A	B	H	I	a	b	g	h	MERKEZ KONİĞİ	MİL DELİĞİ ÇAPI
TBS0	177	188	173	13	160	91	16	100	MK-2	18
TBS1	245	230	220	19	205	114	16	128	MK-3	20

KOD	A1	B1	H1	I1	a1	h1	b1	g1
TBS0	155-180	64	107	11	134	80-108	94	16
TBS1	170-195	64	150	11	155	150-115	110	16



TBS2

KOD	A	B	H	I	a	b	g	h	MERKEZ KONİĞİ	MİL YUVASI
TBS2	365	272	236	132.7	213	134	16	134	MK-4	25.4

KOD	A1	B1	H1	h1	a1	b1	g1
TBS2	205~255	86	139	132.7	175	124	16

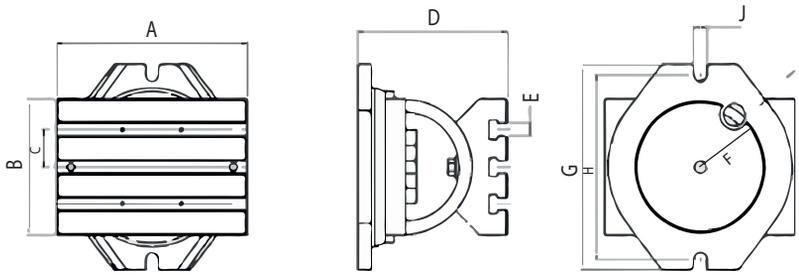
KOD	AĞIRLIK (kg)	BAĞLANABİLİR AYNA ÖLÇÜSÜ (Ø)
TBS0	20	125
TBS1	33	160
TBS2	65	160 ve 200

DÖNER AÇILI TABLA
ve ÇAPRAZ SUPPORT

DÖNER AÇILI TABLA

YENİ ÜRÜN

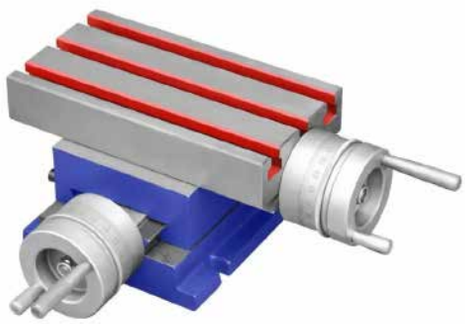


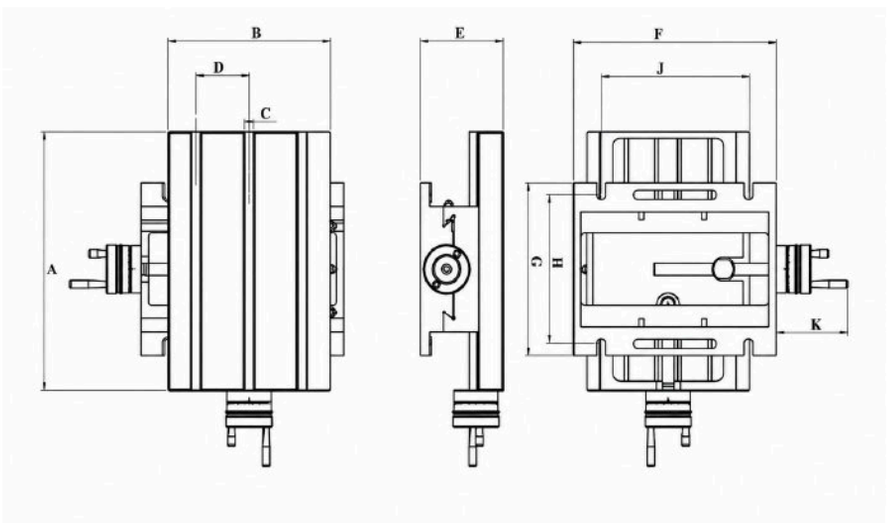


KOD	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)
T317255	255	180	50	200	16	124	272	246	16
T317300	300	240	65	232	16	162	350	305	16

ÇAPRAZ SUPPORT

YENİ ÜRÜN





KOD	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	K (mm)
T316185	185	100	10	35	102	170	130	115	96
T316330	330	220	12	72	115	275	220	190	96
T316600	600	240	12	72	125	335	276	240	144

KARŞI PUNTA ve MANYETİK KALDIRAÇ

KARŞI PUNTA



YENİ ÜRÜN

KOD	AYAR ARALIĞI		UYGUN OLDUĞU MODELLER	AĞIRLIK (kg)
	EN YÜKSEK	EN DÜŞÜK		
TTS1	131	80	HV-4, HV-6, VSI-4, VSI-5, BS-0, VUT-6, VU-100, VU-150	3,9
TTS2	210	115	BS-1, CC-6, CS-6, HV-8	5,5
TTS3	300	130	CS-8, HV-10, HV-12, CC-8, VUT-10, VUT-12, VU-200	8,1



MANYETİK KALDIRAÇ

KOD	KAPASİTE (kg)
MY0100	100
MY0300	300
MY0600	600
MY1000	1000
MY2000	2000
MY3000	3000

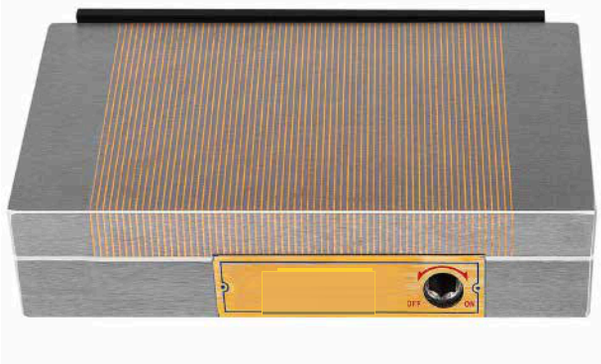
MANYETİK KALDIRAÇ KOLU

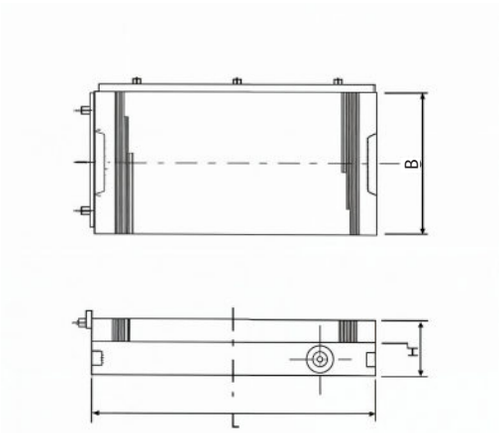


KOD	KAPASİTE (kg)
MY0100KL	100
MY0300KL	300
MY0600KL	600
MY1000KL	1000
MY2000KL	2000
MY3000KL	3000

MANYETİK TABLALAR ve MANYETİK ALMA CİHAZI

KUVVETLİ MANYETİK TABLA 12KGF





KOD	B (mm)	L (mm)	H (mm)	NET AĞIRLIK
MY150300	150	300	48	16,8 KG
MY150450	150	450	48	25,20 KG
MY200400	200	400	53	31,80 KG
MY200450	200	450	53	36,80 KG
MY200500	200	500	53	41,60 KG
MY200600	200	600	53	50 KG
MY250500	250	500	58	53,50 KG
MY300500	300	500	58	68,50 KG
MY300600	300	600	58	77 KG
MY400800	400	800	58	91 KG

YUVARLAK MANYETİK TABLA 12KGF



KOD	ÇAP ÖLÇÜSÜ (mm)	YÜKSEKLİK (mm)
MYY0160	160	50
MYY0200	200	55
MYY0250	250	80
MYY0300	300	80

MANYETİK ALMA CİHAZI



KOD	EN (mm)	BOY (mm)	YÜKSEKLİK (mm)	GİRİŞ VOLTAJI
T450100	120	165	90	220V

ELEKTROMANYETİK TABLALAR

ELEKTROMANYETİK TABLA



ÖZELLİKLER

- ÇOK KUVVETLİ TUTUCU MANYETİK TABLA, FREZELEME VE TAŞLAMA İŞLEMLERİNDE İŞ PARÇASI İŞLEMEK İÇİN KULLANILIR
- AÇIK POZİSYONDA GÜÇ KESİLSE BİLE UZUN SÜRE MANYETİK ÖZELLİĞİNİ KORUYARAK ÇALIŞMAYA DEVAM EDER
- EN GÜÇLÜ MAKİNA TAKIMLARI İÇİN BİLE UYGUNDUR
- İŞ PARÇASINI TUTARKEN DIŞ GÜÇ KAYNAKLARINDAN TAMAMEN BAĞIMSIZDIR. ELEKTRİK KESİNTİLERİNDE TAMAMEN GÜVENLİDİR
- HASSASİYETİ SICAKLIKTAN ASLA ETKİLENMEZ
- İŞ PARÇASININ BAĞLANMASI ÇOK KOLAY VE UYGUNDUR, KISA SÜREDE BAĞLANIR
- TABLA İÇİN ÜZERİNDE YAPILAN İŞLEME GÖRE UYGUN BLOKLAR İSTEĞE GÖRE TEMİN EDİLİR

KOD	UZUNLUK (mm)	GENİŞLİK (mm)	YÜKSEKLİK (mm)	KUTUP SAYISI	AĞIRLIK (Kg)
T302329	329	392	68	16	65
T302491	491	392	68	24	95
T302609	609	392	68	32	125
T302771	771	392	68	40	155
T302933	933	304	68	36	140

ELEKTROMANYETİK TABLA
ÇOK KUTUPLU KUVVETLİ



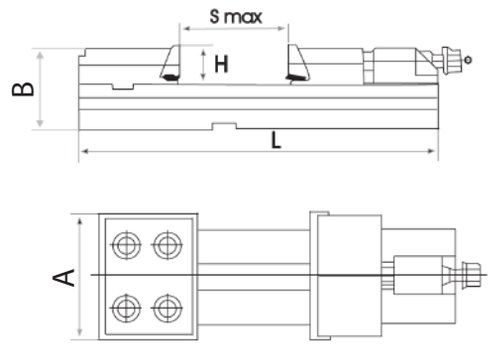
* DAHA FAZLA KUTUP SAYISI OLDUĞU İÇİN DAHA GÜÇLÜ ÇEKİM KUVVETİ SAĞLAR *

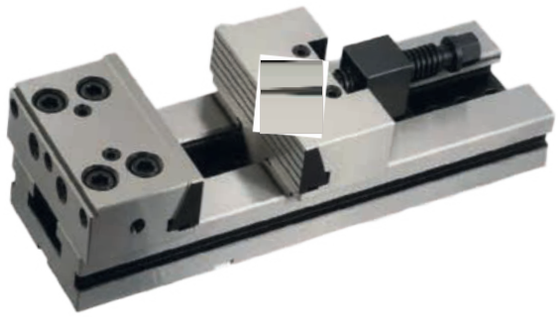
ÖZELLİKLER

- ÇOK KUVVETLİ TUTUCU MANYETİK TABLA, FREZELEME VE TAŞLAMA İŞLEMLERİNDE İŞ PARÇASI İŞLEMEK İÇİN KULLANILIR
- AÇIK POZİSYONDA GÜÇ KESİLSE BİLE UZUN SÜRE MANYETİK ÖZELLİĞİNİ KORUYARAK ÇALIŞMAYA DEVAM EDER
- EN GÜÇLÜ MAKİNA TAKIMLARI İÇİN BİLE UYGUNDUR
- İŞ PARÇASINI TUTARKEN DIŞ GÜÇ KAYNAKLARINDAN TAMAMEN BAĞIMSIZDIR. ELEKTRİK KESİNTİLERİNDE TAMAMEN GÜVENLİDİR
- HASSASİYETİ SICAKLIKTAN ASLA ETKİLENMEZ
- İŞ PARÇASININ BAĞLANMASI ÇOK KOLAY VE UYGUNDUR, KISA SÜREDE BAĞLANIR
- ORTA ,BÜYÜK VE SERT PARÇALARDA BİLE AĞIR İŞLEMEYE UYGUNDUR
- TABLA İÇİN ÜZERİNDE YAPILAN İŞLEME GÖRE UYGUN BLOKLAR İSTEĞE GÖRE TEMİN EDİLİR

KOD	UZUNLUK (mm)	GENİŞLİK (mm)	YÜKSEKLİK (mm)	KUTUP SAYISI	AĞIRLIK (Kg)
T403329	329	392	68	20	65
T403491	491	392	68	30	95
T403609	609	392	68	40	125
T403771	771	392	68	50	155

SÜPER HASSAS TEZGAH MENGENESİ





KOD	A (mm)	H (mm)	B (mm)	S max (mm)	L (mm)	BASMA KUVVETİ (kg)	AĞIRLIK
GT125150	125	40	85	150	345	3000	12,7
GT150200	150	50	105	200	420	5000	25,6
GT150300	150	50	105	300	520	5000	29,5
GT175200	175	60	120	200	455	6000	33,8
GT175300	175	60	120	300	555	6000	42,5
GT175400	175	60	120	400	655	6000	51,2
GT200300	200	65	135	300	595	10000	64,0
GT200400	200	65	135	400	695	10000	71,0
GT200500	200	65	135	500	795	10000	78,0
GT200600	200	65	135	600	895	10000	85,0
GT300400	300	80	160	400	735	12000	100,0
GT300500	300	80	160	500	835	12000	120,0

HAREKETLİ ÇENE PLEYTİ



KOD	ÖLÇÜ
GT150HC	150mm
GT175HC	175mm
GT200HC	200mm
GT300HC	300mm

SABİT ÇENE PLEYTİ



KOD	ÖLÇÜ
GT150SC	150mm
GT175SC	175mm
GT200SC	200mm
GT300SC	300mm

MENGENE YEDEK PARÇALARI

HAREKETLİ ÇENE



KOD	ÖLÇÜ
GT125HA	125mm
GT150HA	150mm
GT175HA	175mm
GT200HA	200mm
GT300HA	300mm

SABİT ÇENE



KOD	ÖLÇÜ
GT125SA	125mm
GT150SA	150mm
GT175SA	175mm
GT200SA	200mm
GT300SA	300mm

VİDA BLOĞU



KOD	ÖLÇÜ
GT125VD	125mm
GT150VD	150mm
GT175VD	175mm
GT200VD	200mm
GT300VD	300mm

MENGENE VİDASI



KOD	ÖLÇÜ
GT125MV	125mm
GT150MV	150mm
GT175MV	175mm
GT200MV	200mm
GT300MV	300mm

KİLİTLEME CİVATASI



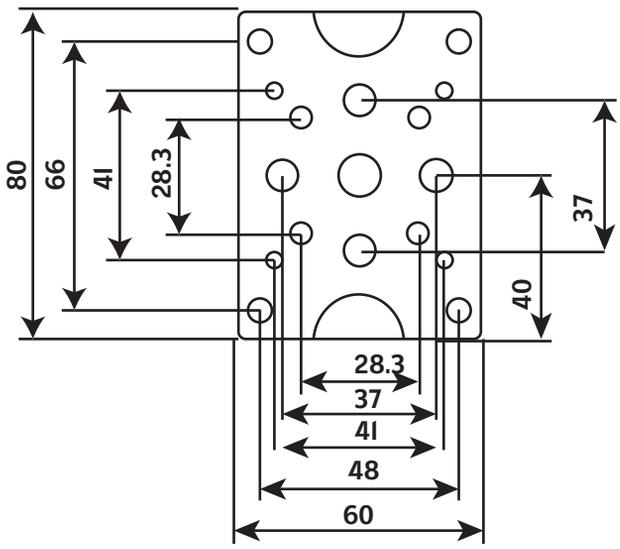
KOD	ÖLÇÜ
GT125KC	125mm
GT150KC	150mm
GT175KC	175mm
GT200KC	200mm
GT300KC	300mm

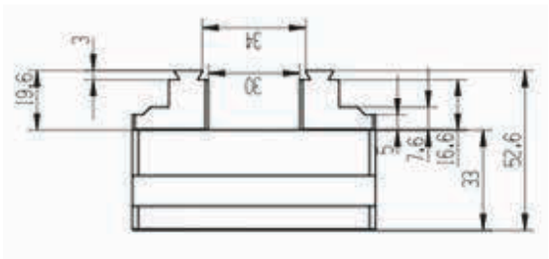
MENGENE KOLU



KOD	ÖLÇÜ
GT125MK	125mm
GT150MK	150mm
GT175MK	175mm
GT200MK	200mm
GT300MK	300mm

5 EKSEN MENGENE



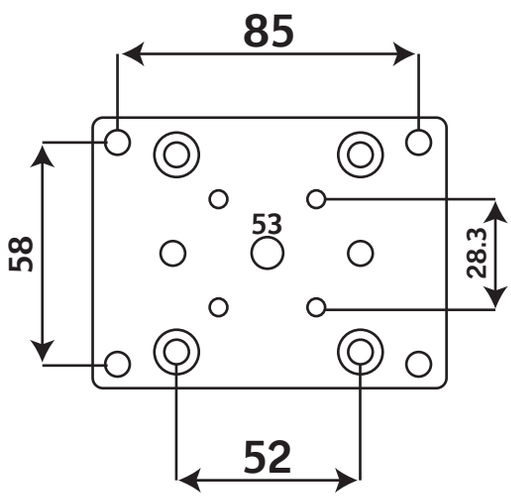


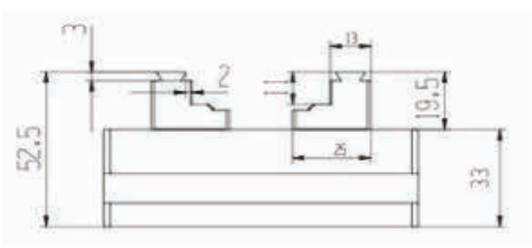


***MAX. SIKMA TORK ; 20 NM**

KOD	ÖLÇÜM ARALIĞI	ÜRÜN ÖLÇÜSÜ
T301060080	6 - 60 mm	80*60*52,50 mm

5 EKSEN MENGENE



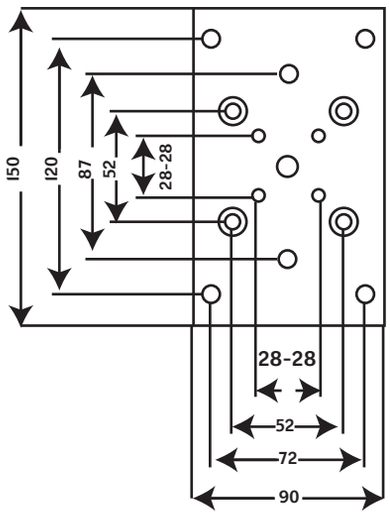


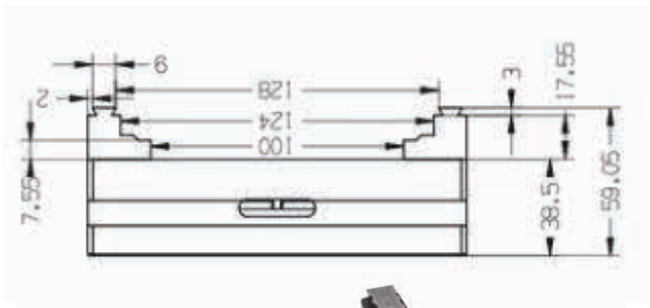


***MAX. SIKMA TORK ; 30 NM**

KOD	ÖLÇÜM ARALIĞI	ÜRÜN ÖLÇÜSÜ	
T301070100	6 - 80 mm	100*70*52,50 mm	

5 EKSEN MENGENE



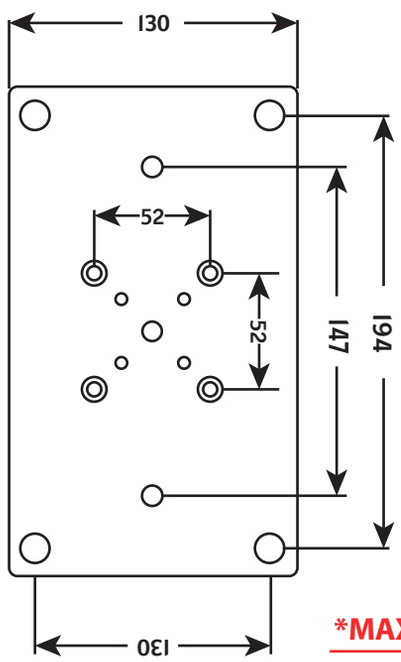


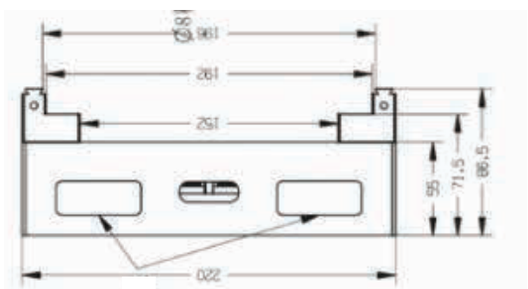


*MAX. SIKMA TORK ; 40 NM

KOD	ÖLÇÜM ARALIĞI	ÜRÜN ÖLÇÜSÜ
T301090150	6 - 130 mm	150*90*57 mm

5 EKSEN MENGENE







*MAX. SIKMA TORK ; 70 NM

KOD	ÖLÇÜM ARALIĞI	ÜRÜN ÖLÇÜSÜ
T301130220	6 - 196 mm	220*130*86,50 mm

5 EKSEN MENGENESİ YEDEK ÇENE

***2 Lİ SET OLARAK SATILIR.**



KOD	ÖLÇÜ (mm)	UYUMLU MENGENE KODU
T304001	60	T301060080
T304002	70	T301070100
T304003	90	T301090150
T304004	130	T301130220

5 EKSEN MENGENESİ YEDEK VİDALI MİLİ

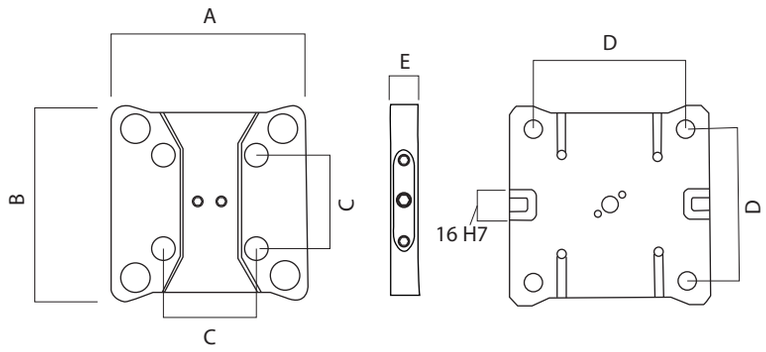


KOD	UYUMLU MENGENE KODU
T304005	T301060080
T304006	T301070100
T304007	T301090150
T304008	T301130220

5 EKSEN MENGENE POİNT PLAKALARI

HIZLI KONUMLANDIRMA POİNT PLAKA (D52xD52 mm)





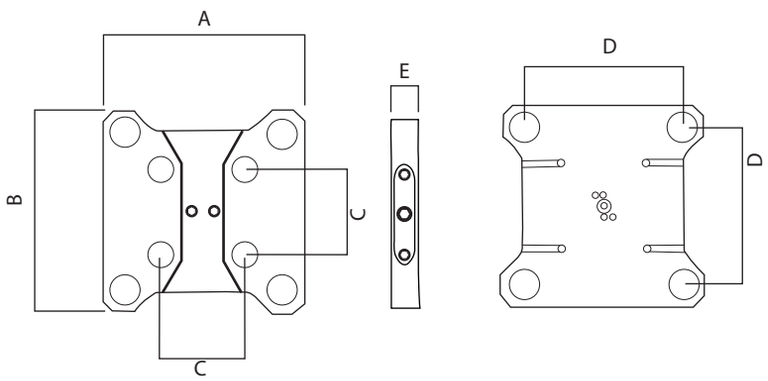




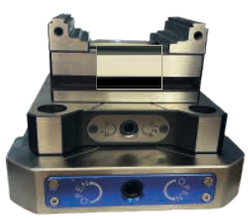
KOD	A (mm)	B(mm)	C(mm)	D(mm)	E(mm)	PULSTAT
T30305235	108	108	52	82	25	M8 12 H7

HIZLI KONUMLANDIRMA POİNT ADAPTÖR PLAKASI (D52xD96 mm)







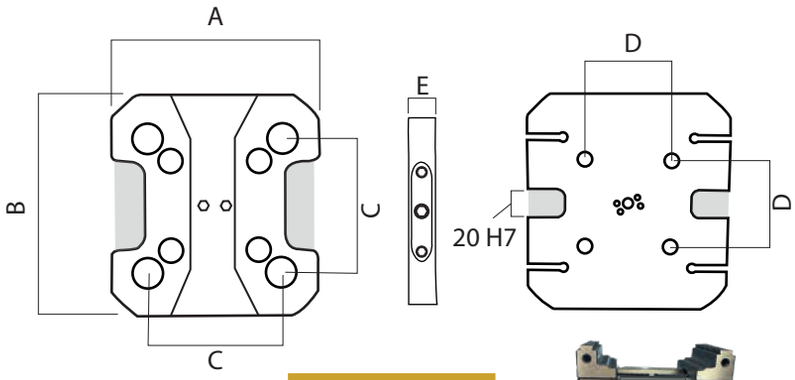


KOD	A (mm)	B(mm)	C(mm)	D(mm)	E(mm)	PULSTAT
T30305260	124	124	52	96	25	M8 12 H7 M10 16 H7

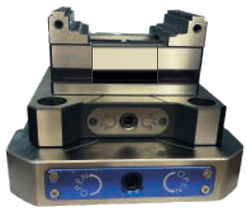
5 EKSEN MENGENE POİNT PLAKALARI

HIZLI KONUMLANDIRMA POİNT PLAKA (D96xD96 mm)



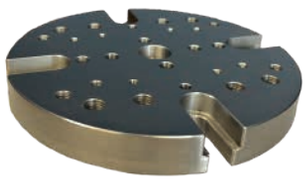


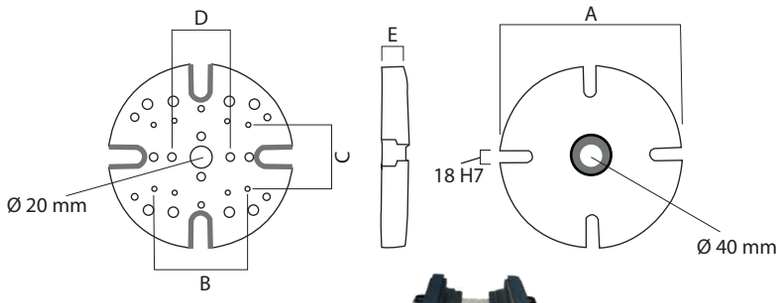


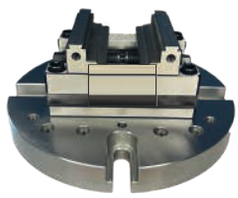


KOD	A (mm)	B(mm)	C(mm)	D(mm)	E(mm)	PULSTAT
T30305296	150	160	96	64	30	M10 16 H7

5 EKSEN MENGENE DÖNER TABLA



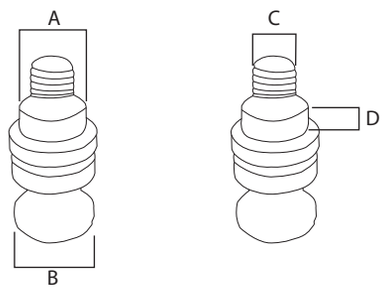




KOD	A (mm)	B(mm)	C(mm)	D(mm)	E(mm)	UYUMLU MENGENE KOD
T30300170	170	85	58	53	20	T301070100

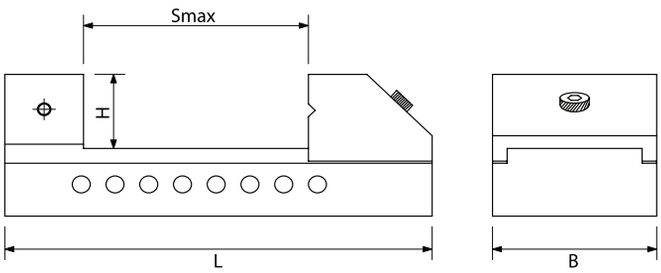
PULSTAD





KOD	A (mm)	B(mm)	C(mm)	D(mm)
T303M8	12 h7	15	M8	5
T303M10	16 h7	19	M10	5

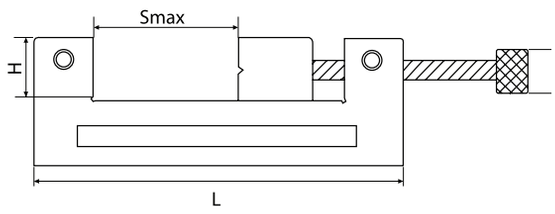
PİMLİ HASSAS MENGENE





KOD	B (mm)	H (mm)	S max. (mm)	L (mm)	AĞIRLIK (Kg)
T395QKG050	50	25	65	140	3
T395QKG073	73	35	100	190	4,1
T395QKG100	100	45	125	245	10
T395QKG125	125	50	160	285	18
T395QKG150	150	60	200	370	20

VİDALI HASSAS MENGENE

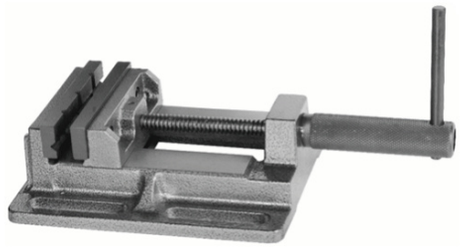




KOD	B (mm)	H (mm)	S max. (mm)	L (mm)	AĞIRLIK (Kg)
T395QGG050	50	25	65	155	3
T395QGG073	73	35	100	210	5
T395QGG100	100	45	125	260	13
T395QGG125	125	50	160	300	19,5
T395QGG150	150	60	200	400	22,5

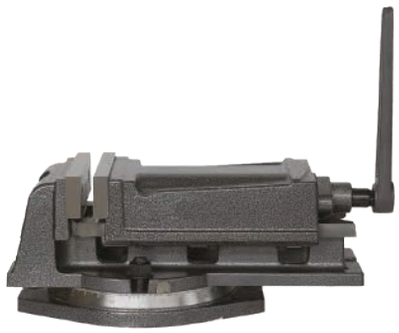
MENGENELER

ALMAN MODELİ MATKAP MENGENESİ



KOD	ÇENE GENİŞLİĞİ	ÇENE YÜKSEKLİĞİ	MAXIMUM AÇILMA	AĞIRLIK
T300100	100	30	125	3
T300125	125	35	150	4
T300150	150	40	175	6
T300200	200	45	225	8

FREZE MENGENESİ



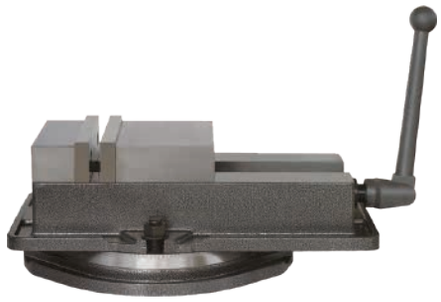
KOD	ÇENE GENİŞLİĞİ	ÇENE YÜKSEKLİĞİ	MAXIMUM AÇILMA	AĞIRLIK
T310136	136	36	170	15
T310160	160	51	180	22
T310200	200	64	220	36
T310250	250	64	280	53
T310320	320	81	360	77
T310400	400	90	430	125

SABİT TEZGAH MENGENESİ



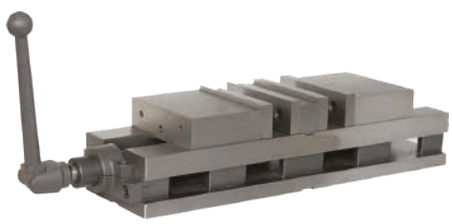
KOD	AÇIKLAMA
T315075	75mm
T315100	100mm
T315125	125mm
T315150	150mm
T315200	200mm

HASSAS FREZE MENGENESİ AĞIR TİP



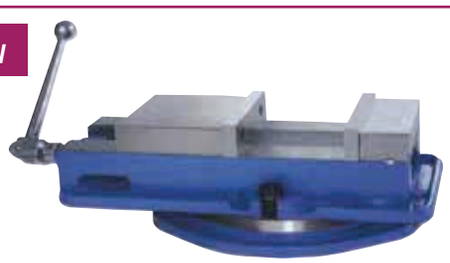
KOD	ÇENE GENİŞLİĞİ	ÇENE YÜKSEKLİĞİ	MAXIMUM AÇILMA	AĞIRLIK
T330100	100	32	100	20
T330125	125	40	125	20
T330160	160	45	170	45
T330200	200	50	210	85

ÇİFT ÇENELİ MENGENE



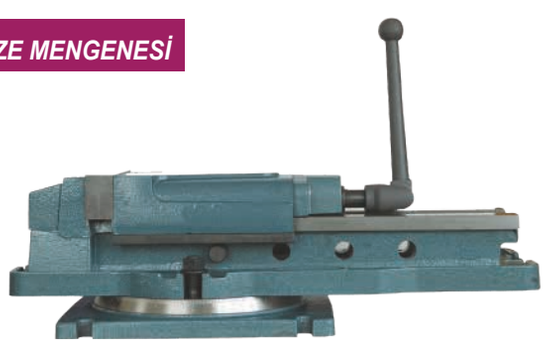
KOD	ÇENE GENİŞLİĞİ	ÇENE YÜKSEKLİĞİ	MAXIMUM AÇILMA	AĞIRLIK
T340100M	100	35	76	22
T340125M	160	50	100	43

HASSAS FREZE MENGENESİ SUPER OPEN



KOD	ÇENE GENİŞLİĞİ	ÇENE YÜKSEKLİĞİ	MAXIMUM AÇILMA	AĞIRLIK
T350160	160	45	190	40

ÇOK AÇILIMLI AĞIR İŞ İÇİN UYGUN FREZE MENGENESİ



KOD	ÇENE GENİŞLİĞİ	ÇENE YÜKSEKLİĞİ	MAXIMUM AÇILMA
T360152	152	52	320
T360320	320	81	390
T360400	400	85	430

MENGENELER

ÜÇ AÇILI MENGENE



KOD	ÇENE GENİŞLİĞİ	ÇENE YÜKSEKLİĞİ	MAXIMUM AÇILMA	AĞIRLIK
T370105	105	40	110	31
T370125	125	40	125	35
T370135	135	45	145	40

İKİ AÇILI MENGENE



KOD	ÇENE GENİŞLİĞİ	ÇENE YÜKSEKLİĞİ	MAXIMUM AÇILMA	AĞIRLIK
T380125	125	46	140	22
T380160	160	50	120	43

CNC FREZE MENGENESİ



KOD	ÇENE GENİŞLİĞİ	ÇENE YÜKSEKLİĞİ	MAXIMUM AÇILMA
T390100	100	34	100
T390150	150	45	150

MATKAP BİLEME MAKİNALARI

*HSS BİLEME TAŞI İLE BİRLİKTE TESLİM EDİLİR.
*HSS TAŞ İLE KARBÜR ÜRÜN BİLENMEZ.



- Bu makine portatiftir, hassas ve dayanıklıdır, Tayvan'da üretilen elmas taşlama taşları kullanılmıştır.
- Uç açısını (tepe açısı), ön kesme kenarını (pozitif eğim açısı), talaş kanalını (arka açı) keskinleştirebilir ve merkez enine bıçağın boyutu isteğe göre ayarlanabilir.



KOD	TMB13-Z13
BİLEME ARALIĞI	ø3-ø13
NOKTA AÇISI	90°-140°
GÜÇ	AC, 220V 10%
MOTOR	120W/4800RPM
BOYUT	36x21x19 mm
AĞIRLIK	9 KG



KOD	TMB20-Z20
BİLEME ARALIĞI	ø3-ø20
NOKTA AÇISI	95°-140°
GÜÇ	AC, 220V 10%
MOTOR	180W/4800RPM
BOYUT	43x22x21 mm
AĞIRLIK	14 KG



KOD	TMB26-Z26
BİLEME ARALIĞI	ø13-ø26
NOKTA AÇISI	95°-140°
GÜÇ	AC, 220V 10%
MOTOR	250W/4400RPM
BOYUT	43x23x21 mm
AĞIRLIK	25 KG

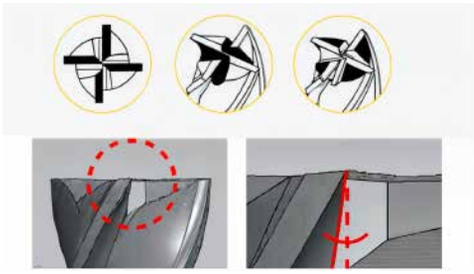


BİLEME TAŞI

KOD	BİLENECEK MALZEME	KULLANILACAK CİHAZ KODU
TMB13-CZ13	HSS (CBN)	TMB13-Z13
TMB13-SZ13	KARBÜR (SDC)	TMB13-Z13
TMB20-CZ20	HSS (CBN)	TMB20-Z20
TMB20-SZ20	KARBÜR (SDC)	TMB20-Z20
TMB26-CZ26	HSS (CBN)	TMB26-Z26
TMB26-SZ26	KARBÜR (SDC)	TMB26-Z26

FREZE BİLEME MAKİNALARI

*KARBÜR BİLEME TAŞI İLE BİRLİKTE TESLİM EDİLİR.
*KARBÜR TAŞ İLE HSS ÜRÜN BİLENMEZ.





- Bu makine portatiftir, hassas ve dayanıklıdır, Tayvan'da üretilen elmas taşlama taşları kullanılmıştır.
- 2,3,4 ve 6 ağızlı parmak frezelerin bilenmesinde kullanılır.

KOD	TFM14-X3
BİLEME ARALIĞI	ø4-ø14
GÜÇ	AC, 220V 10%
MOTOR	180W/4800RPM
BOYUT	35x23x24 mm
AĞIRLIK	15 KG



KOD	TFM20-X3A
BİLEME ARALIĞI	ø4-ø20
GÜÇ	AC, 220V 10%
MOTOR	220W/4800RPM
BOYUT	35x23x24 mm
AĞIRLIK	16 KG



KOD	TFM30-X5
BİLEME ARALIĞI	ø12-ø30
GÜÇ	AC, 220V 10%
MOTOR	250W/4400RPM
BOYUT	40x28x31 mm
AĞIRLIK	28 KG



BİLEME TAŞI

KOD	BİLENECEK MALZEME	KULLANILACAK CİHAZ KODU
TFM14-CX3	HSS (CBN)	TFM14-X3
TFM14-SX3	KARBÜR (SDC)	TFM14-X3
TFM20-CX3A	HSS (CBN)	TFM20-X3A
TFM20-SX3A	KARBÜR (SDC)	TFM20-X3A
TFM30-CX5	HSS (CBN)	TFM30-X5
TFM30-SX5	KARBÜR (SDC)	TFM30-X5

ÜNİVERSAL BİLEME MAKİNALARI



KOD	TBU2
PENS ÇAPI	ø3-ø16
MOTOR	220V / 380V 1/3HP 50 HZ
HIZ	5300RPM
TAŞLAMA TEKERLEĞİ	ø100x50xø20
BOYUT	550x450x470 mm
AĞIRLIK	46KG

U2;

- HSS ve Karbür'den üretilmiş negatif açılı, radiuslü dahil çok çeşitli kesici uçların taşlanmasında kullanılır.
- Pozisyonlu universal indeks kafası ile herhangi bir açı ve şeklin taşlanmasını sağlar.
- Freze, matkap, kalem vs taşlanabilmesi için 100-3600 devir arası çalıştıralabilir.



KOD	TBU3
PENS ÇAPI	ø3-ø16
MOTOR	220V / 380V 1/3HP 50 HZ
HIZ	5300RPM
TAŞLAMA TEKERLEĞİ	ø100x50xø20
BOYUT	550x450x470 mm
AĞIRLIK	46KG

U3;

- HSS ve Karbür'den üretilmiş negatif açılı, radiuslü dahil çok çeşitli kesici uçların taşlanmasında kullanılır.
- Pozisyonlu universal indeks kafası ile herhangi bir açı ve şeklin taşlanmasını sağlar.
- Freze, matkap, kalem vs taşlanabilmesi için 100-3600 devir arası çalıştırılabilir.

Universal bıçak bileyici ayrıca matkapları, torna kalemlerini ve parmak frezeleri bilemek için ekipman ve cihazlara sahiptir.

U2



U3



BİLEME TAŞI

KOD	BİLENECEK MALZEME	KULLANILACAK CİHAZ KODU
TBU2-B	HSS- KARBÜR	TBU2
TBU3-B	HSS- KARBÜR	TBU3



MATKAP ve FREZE BİLEME MAKİNASI

KOD	TMFB14-F4	
MODEL	**FREZE**	**MATKAP**
BİLEME ARALIĞI	ø4-ø14	ø3-ø13
NOKTA AÇISI	0°- 3°	100°- 135°
GÜÇ	220V/180W	
MOTOR	4800RPM	
TAŞLAMA TEKERLEĞİ	CBN - SDC	
BOYUT	35x23x30	
AĞIRLIK	21 KG	
FİYAT USD		

- MATKAP VE PARMAK FREZE BİLEMESİ İÇİNDİR.Makine sayısını azaltmak için tek bir makine olarak tasarlanmıştır. Kullanımı rahat, verimli ve hızlıdır.

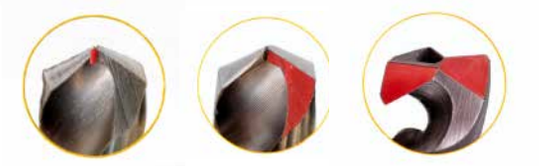


MATKAP ve FREZE BİLEME MAKİNASI

KOD	TMFB30-F6	
MODEL	**FREZE**	**MATKAP**
BİLEME ARALIĞI	ø12-ø30	ø13-ø30
NOKTA AÇISI	0°- 3°	95°- 135°
GÜÇ	220V / 250W	
MOTOR	4800RPM	
TAŞLAMA TEKERLEĞİ	CBN - SDC	
BOYUT	45x34x38	
AĞIRLIK	47 KG	
FİYAT USD		

- MATKAP VE PARMAK FREZE BİLEMESİ İÇİNDİR.Makine sayısını azaltmak için tek bir makine olarak tasarlanmıştır. Kullanımı rahat, verimli ve hızlıdır.







MATKAP ve KILAVUZ BİLEME MAKİNASI

KOD	TKMB14-A5	
MODEL	**KILAVUZ**	**MATKAP**
BİLEME ARALIĞI	M5-M20	ø4-ø14
NOKTA AÇISI	5°- 30°	100°- 135°
GÜÇ	220V/180W	
MOTOR	4800RPM	
TAŞLAMA TEKERLEĞİ	CBN - SDC	
BOYUT	35x29,5x28	
AĞIRLIK	21 KG	
FİYAT USD		

● KILAVUZ VE MATKAP BİLEMESİ İÇİNDİR.Makine sayısını azaltmak için tek bir makine olarak tasarlanmıştır. Kullanımı rahat, verimli ve hızlıdır.



BİLEME TAŞI

KOD	BİLENECEK ÜRÜN	BİLENECEK MALZEME	KULLANILACAK CİHAZ KODU
TMFB14-MCF4	MATKAP	HSS (CBN)	TMFB14-F4
TMFB14-MSF4	MATKAP	KARBÜR (SDC)	TMFB14-F4
TMFB14-FCF4	FREZE	HSS (CBN)	TMFB14-F4
TMFB14-FSF4	FREZE	KARBÜR (SDC)	TMFB14-F4
TMFB30-MCF6	MATKAP	HSS (CBN)	TMFB30-F6
TMFB30-MSF6	MATKAP	KARBÜR (SDC)	TMFB30-F6
TMFB30-FCF6	FREZE	HSS (CBN)	TMFB30-F6
TMFB30-FSF6	FREZE	KARBÜR (SDC)	TMFB30-F6
TKMB14-MCA5	MATKAP	HSS (CBN)	TKMB14-A5
TKMB14-MSA5	MATKAP	KARBÜR (SDC)	TKMB14-A5
TKMB14-KCA5	KILAVUZ	HSS (CBN)	TKMB14-A5
TKMB14-KSA5	KILAVUZ	KARBÜR (SDC)	TKMB14-A5

ELEKTRİKLİ KILAVUZ ÇEKME MAKİNALARI



TÜRKÇE MENÜ

Sehpa ayrıca temin edilir.

SEHPA

KOD	TKC0001
ÖLÇÜLER	800x500 mm

KOD	TKC0212
ÖLÇÜ	M3-M12
PENSLER	DIN 371 : M3 / M4 / M5-M6 / M8 / M10 / DIN376 : M12
DEVİR	0-600 RPM
MOTOR GÜCÜ	600W
VOLTAj	220V / 50HZ
AĞIRLIK	33 KG

KOD	TKC0316
ÖLÇÜ	M3-M16
PENSLER	DIN 371 : M3 / M4 / M5-M6 / M8 / M10 / DIN 376 : M12 / M14 / M16
DEVİR	0-312 RPM
MOTOR GÜCÜ	600W
VOLTAj	220V / 50HZ
AĞIRLIK	33 KG

ELEKTRİKLİ KILAVUZ ÇEKME MAKİNALARI



TÜRKÇE MENÜ

Sehpa ayrıca temin edilir.

SEHPA

KOD	TKC0002
ÖLÇÜLER	900x600 mm

KOD	TKC0624
ÖLÇÜ	M6-M24
PENSLER	DIN 371 : M6 / M8 / M10 / DIN376 : M12 / M14 / M16 / M18-20 / M22 / M24
DEVİR	0-180 RPM
MOTOR GÜCÜ	1200W
VOLTAj	220V / 50HZ
AĞIRLIK	50 KG

KOD	TKC0630
ÖLÇÜ	M6-M30
PENSLER	DIN 371 : M6 / M8 / M10 / DIN376 : M12 / M14 / M16 / M18-20 / M22 / M24 / M30
DEVİR	0-150 RPM
MOTOR GÜCÜ	1200W
VOLTAj	220V / 50HZ
AĞIRLIK	53 KG

KOD	TKC0636
ÖLÇÜ	M6-M36
PENSLER	DIN 371 : M6 / M8 / M10 / DIN376 : M12 / M14 / M16 / M18-20 / M22 / M24 / M30 / M33 / M36
DEVİR	0-125 RPM
MOTOR GÜCÜ	1200W
VOLTAj	220V / 50HZ
AĞIRLIK	55 KG

MANYETİK TABLA ve PAH KIRMA MAKİNASI

KILAVUZ ÇEKME MAKİNASI MANYETİK TABLASI

* BU ÜRÜN PORTATİFTİR.
* KILAVUZ MAKİNALARININ ALTINA TAKILARAK HIZLICA MONTAJ İMKANI SAĞLAR.
* BU SAYEDE KILAVUZ MAKİNASINI İSTEDİĞİNİZ YERE TAŞIMA İMKANI SUNAR.
* KILAVUZ ÇEKİLECEK PARÇANIN BAŞINDA İŞLEM YAPABİLİRSİNİZ.





KOD	AÇIKLAMA	UYUMLU KILAVUZ ÇEKME MAKİNA KODU
TKC0300	300 kg	TKC0212 TKC0316
TKC0600	600 kg	TKC0624 TKC0630 TKC0636

HAVALI PAH KIRMA MAKINASI



KOD	:	THA100
PAH AÇISI	:	C0.1 - C3.5
DERİNLİK	:	0.1 - 1.5 mm
DEVİR	:	35.000 rpm
ÇALIŞMA BASINCI	:	0.4 - 0.8 mpa
ELMAS UÇ	:	TPMT080204

PAH KIRMA UCU



KOD	AÇIKLAMA
KU80010	TPMT 080204

Doğru ürün seçimi, doğru bilgilerle başlar.

Talebinizi değerlendirirken aşağıdaki bilgiler, uygulamanıza uygun çözümü daha hızlı belirlememize yardımcı olur.

01 Ürün kodu ve adet

Katalogdaki ürün kodunu, ihtiyaç duyduğunuz ölçüyü ve adedi iletin.

Product code, size and quantity.

02 Parça ve malzeme

İşlenecek malzemeyi ve parça özelliklerini paylaşın. Uygunsa teknik resim ekleyin.

Workpiece material and relevant drawing.

03 Operasyon ve tezgâh

Tornalama, frezeleme veya delik işleme operasyonunu; bağlama ve arayüz bilgilerini belirtin.

Machining operation, machine and interface.

04 Üretim hedefi

Kalite, takım ömrü veya çevrim süresi beklentinizi paylaşın.

Quality, tool life or cycle-time objectives.

İM TEKNİK

Üretiminizi konuşalım.

Let’s talk production.

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