

ELLE SIKMALI MANDRENLER

TİP 500

ÖZELLİKLER

- MATKAP UÇLARININ SERİ OLARAK BAĞLANMASI VE YİNE AYNI ŞEKİLDE SÖKÜLMESİ İÇİN UYGUNDUR.
- ÇALIŞMA ESNASINDA AYAKLARDA OLUŞAN MOMENT OTOMATİK OLARAK SIKMA KUVVETİNİ ARTTIRIR.
- AYAKLAR YÜKSEK MUKAVEMETLİ ALAŞIMLI ÇELİKTE ÜRETİLMİŞ OLUP SERTLİK DEĞERİ 61 ± 2 HRC DİR.
- PARÇA DEĞİŞİMİ GEREKİRSE, PARÇALARI YEDEK OLARAK FİRMAMIZDAN TEMİN EDEBİLİRSİNİZ.



KOD	SIKMA KAPASİTESİ (mm)	BAĞLANTI TİPİ	DIŞ ÇAP (mm)	KAPALI BOY (mm)	AÇIK BOY (mm)	SIKMA MOMENTİ Nm	MAX. SALGI (mm)	FİYAT USD
CTM.510	0-10	B12	35	78	71	9	0,07	
CTM. 503	0-10	3/8-24	35	78	71	9	0,07	
CTM. 501	0-10	1/2-20	35	78	71	9	0,07	
CTM. 513	1-13	B16	42	96	87	12	0,07	
CTM. 533	1-13	3/8-24	42	96	87	12	0,07	
CTM. 531	1-13	1/2-20	42	96	87	12	0,07	
CTM. 515	1-16	B16	49	112	103	14	0,07	
CTM. 516	1-16	B18	49	112	103	14	0,07	
CTM. 561	1-16	1/2-20	49	112	103	14	0,07	
CTM. 565	1-16	5/8-16	49	112	103	14	0,07	
CTM. 520	5-20	B22	55	131	122	15	0,07	

ANAHTARLI MANDRENLER

TİP 600

ÖZELLİKLER

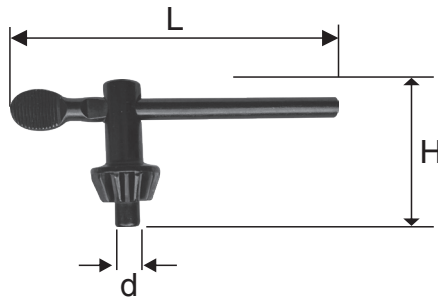
- ENDÜSTRİYEL HİZMET İÇİN BELİRLENEN STANDART ÖLÇÜLERDEDİR.
- DARBELERE VE AĞIR İŞ ORTAMINA DAYANIKLIDIR.
- SAĞ VE SOL YÖNLÜ OLARAK EMNİYETLE KULLANILABİLİR.
- ANAHTARI İLE BİRLİKTE TESLİM EDİLİR.



KOD	SIKMA KAPASİTESİ (mm)	BAĞLANTI TİPİ	DIŞ ÇAP (mm)	AÇIK BOY (mm)	KAPALI BOY (mm)	ANAHTAR KODU	FİYAT USD
CTM. 615	1-16	B16	56	80	100	S3	
CTM. 616	1-16	B18	56	80	100	S3	
CTM. 620	5-20	B22	65	92	114	S4	

ANAHTARLAR

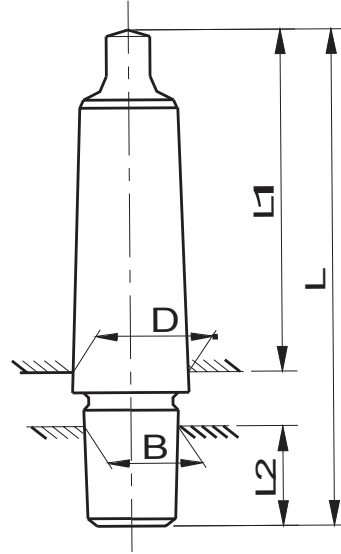
TİP 650



KOD	KODU	H (mm)	L (mm)	d (mm)	FİYAT USD
CTM. 653	S3	50	90	8	
CTM. 654	S4	54	110	9	

MANDREN SAPLARI

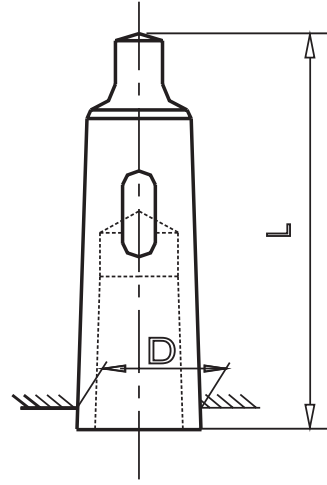
TİP 6000



ÖZELLİKLER

- MANDRENLERİN EN AZ SALGI İLE TEZGAHA BAĞLANABİLMELERİNİ SAĞLAR.
- KOMPLE SERTLEŞTİRİLİP TAŞLANMIŞTIR.
- KONİKLER ARASI MAX. SALGI : 0,01 mm

KOD	MK	B		D (mm)	L1 (mm)	L2 (mm)	L (mm)	FİYAT USD
		KONİK	ÖLÇÜ (mm)					
CTM. 6000	MK0	B10	10,095	9,045	56,5	14,5	79	
CTM. 6001	MK1	B10	10,095	12,065	62	14,5	86	
CTM. 6011	MK1	B12	12,065	12,065	62	18,5	89	
CTM. 6002	MK2	B10	10,095	17,780	75	14,5	103	
CTM. 6012	MK2	B12	12,065	17,780	75	18,5	106	
CTM. 6022	MK2	B16	15,733	17,780	75	24	110	
CTM. 6032	MK2	B18	17,780	17,780	75	32	117	
CTM. 6013	MK3	B12	12,065	23,825	94	18,5	125	
CTM. 6023	MK3	B16	15,733	23,825	94	24	133	
CTM. 6033	MK3	B18	17,780	23,825	94	32	140	
CTM. 6043	MK3	B22	21,793	23,825	94	40,5	147	
CTM. 6053	MK3	B24	23,825	23,825	94	50,5	158	
CTM. 6024	MK4	B16	15,733	31,267	117,5	24	158	
CTM. 6034	MK4	B18	17,780	31,267	117,5	32	168	
CTM. 6044	MK4	B22	21,793	31,267	117,5	40,5	175	
CTM. 6054	MK4	B24	23,825	31,267	117,5	50,5	185	
CTM. 6063	MK5	B18	17,780	44,399	149,5	50,5	185	
CTM. 6064	MK5	B22	21,793	44,399	149,5	50,5	185	
CTM. 6065	MK5	B24	23,825	44,399	149,5	50,5	185	



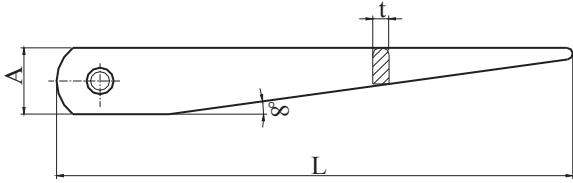
ÖZELLİKLER

- MORS KONİK ŞAFTLI TAKIMLARIN TEZGAHLARA VEYA BİRBİRLERİNE EN AZ SALGI İLE BAĞLANMALARINI SAĞLAYAN ADAPTÖRDÜR.
- KOMPLE SERTLEŞTİRİLİP TAŞLANMIŞTIR.
- DIŞ VE İÇ KONİK ARASINDAKİ MAX. SALGI : 0,01 mm

KOD	DIŞ KONİK	İÇ KONİK	D (mm)	D1 (iç konik) (mm)	L (mm)	FİYAT USD
CTM. 7121	MK2	MK1	17,780	12,065	92	
CTM. 7131	MK3	MK1	23,825	12,065	99	
CTM. 7132	MK3	MK2	23,825	17,780	112	
CTM. 7141	MK4	MK1	31,267	12,065	124	
CTM.7142	MK4	MK2	31,267	17,780	124	
CTM. 7143	MK4	MK3	31,267	23,825	140	
CTM. 7151	MK5	MK1	44,399	12,065	156	
CTM. 7152	MK5	MK2	44,399	17,780	156	
CTM. 7153	MK5	MK3	44,399	23,825	156	
CTM. 7154	MK5	MK4	44,399	31,267	171	
CTM. 7165	MK6	MK5	63,348	44,399	218	

MORS KAMALARI

TİP 7200



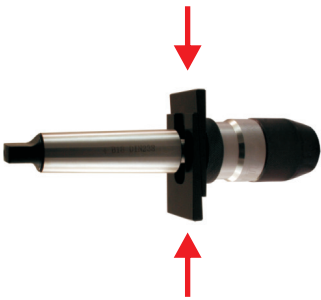
ÖZELLİKLER

- MORS KOVANLARININ VE MANDREN SAPLARININ BİRBİRLERİNDEN VEYA TEZGAHTAN KOLAYCA SÖKÜLMELERİNİ SAĞLAR
- SERTLİK: 35 ± 2 HRC

KOD	İLGİLİ KONİK	A (mm)	L (mm)	t (mm)	FİYAT EUR
7202	MK1/MK2	20	140	5	
7203	MK3	25	190	7	
7204	MK4	30	225	10	

MANDREN SÖKME KAMALARI

TİP 7500



ÖZELLİKLER

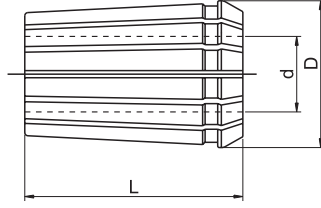
- MANDREN İLE MANDREN SAPINI BİRBİRİNDEN AYIRMAK İÇİN KULLANILIRLAR.
- SERTLİK: 35 ± 2 HRC
- TAKIM OLARAK TESLİM EDİLİR.
- 1 TAKIM 2 ADETTİR.

KOD	İLGİLİ KONİK	EN (mm)	BOY (mm)	KALINLIK (mm)	FİYAT EUR
7512	B12	30	58	8	
7516	B16	36	68	8	
7518	B18	42	75	8	
7522	B22	48	86	8	

OZ PENSLER

DIN 6388-B

ISO 10897



ÖZELLİKLER

- SIKMA KAPASİTESİ : 0,5 mm
- SERTLİK : 45-49 HRC
- SALGI : DIN 6388 / 1.SINIF

462 E PENSLER

D=35,05 mm / L=52 mm

KOD	d (mm)	SIKMA KAPASİTESİ (mm)	FİYAT USD
462E.3	3	3-2,5	
462E.4	4	4-3,5	
462E.5	5	5-4,5	
462E.6	6	6-5,5	
462E.7	7	7-6,5	
462E.8	8	8-7,5	
462E.9	9	9-8,5	
462E.10	10	10-9,5	
462E.11	11	11-10,5	
462E.12	12	12-11,5	
462E.13	13	13-12,5	
462E.14	14	14-13,5	
462E.15	15	15-14,5	
462E.16	16	16-15,5	
462E.17	17	17-16,5	
462E.18	18	18-17,5	
462E.19	19	19-18,5	
462E.20	20	20-19,5	
462E.21	21	21-20,5	
462E.22	22	22-21,5	
462E.23	23	23-22,5	
462E.24	24	24-23,5	
462E.25	25	25-24,5	

467 E PENSLER

D=43,7 mm / L=60 mm

KOD	d (mm)	SIKMA KAPASİTESİ (mm)	FİYAT USD
467E-3	3	3-2,5	
467E-4	4	4-3,5	
467E-5	5	5-4,5	
467E-6	6	6-5,5	
467E-7	7	7-6,5	
467E-8	8	8-7,5	
467E-9	9	9-8,5	
467E-10	10	10-9,5	
467E-11	11	11-10,5	
467E-12	12	12-11,5	
467E-13	13	13-12,5	
467E-14	14	14-13,5	
467E-15	15	15-14,5	
467E-16	16	16-15,5	
467E-17	17	17-16,5	
467E-18	18	18-17,5	
467E-19	19	19-18,5	
467E-20	20	20-19,5	
467E-21	21	21-20,5	
467E-22	22	22-21,5	
467E-23	23	23-22,5	
467E-24	24	24-23,5	
467E-25	25	25-24,5	
467E-26	26	26-25,5	
467E-27	27	27-26,5	
467E-28	28	28-27,5	
467E-29	29	29-28,5	
467E-30	30	30-29,5	
467E-31	31	31-30,5	
467E-32	32	32-31,5	

FİYAT USD

462 E PENS SETİ



SET İÇİNDE 16 ADET PENS VARDIR.

FİYAT USD

467 E PENS SETİ



SET İÇİNDE 16 ADET PENS VARDIR.

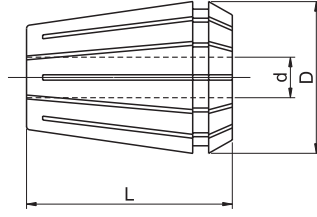
4	5	6	7	8	9	10	11
12	14	16	18	20	22	24	25

5	6	7	8	10	12	14	16
18	20	22	24	25	28	30	32

ER PENSLER

DIN 6499-B

ISO 15488



ÖZELLİKLER

- SIKMA KAPASİTESİ : 1 mm
- SERTLİK : 45-49 HRC
- SALGI : DIN 6499 / 1.SINIF

ER 8 PENSLER (4004E)

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

ER 16 PENSLER (426E)

D=17 mm / L=27,5 mm

ER 20 PENSLER (428E)

D=21 mm / L=31,5 mm

KOD	d (mm)	SIKMA KAPASİTESİ (mm)	FİYAT USD
ER8-1	1	1	
ER8-1,5	1,5	1,5	
ER8-2	2	2	
ER8-2,5	2,5	2,5	
ER8-3	3	3	
ER8-3,5	3,5	3,5	
ER8-4	4	4	
ER8-4,5	4,5	4,5	
ER8-5	5	5	

KOD	d (mm)	SIKMA KAPASİTESİ (mm)	FİYAT USD
ER16-2	2	2-1,5	
ER16-3	3	3-2	
ER16-4	4	4-3	
ER16-5	5	5-4	
ER16-6	6	6-5	
ER16-7	7	7-6	
ER16-8	8	8-7	
ER16-9	9	9-8	
ER16-10	10	10-9	

KOD	d (mm)	SIKMA KAPASİTESİ (mm)	FİYAT USD
ER20-2	2	2-1,5	
ER20-3	3	3-2	
ER20-4	4	4-3	
ER20-5	5	5-4	
ER20-6	6	6-5	
ER20-7	7	7-6	
ER20-8	8	8-7	
ER20-9	9	9-8	
ER20-10	10	10-9	
ER20-11	11	11-10	
ER20-12	12	12-11	
ER20-13	13	13-12	

ER 11 PENSLER (4008E)

D=11,5 mm / L=18 mm

KOD	d (mm)	SIKMA KAPASİTESİ (mm)	FİYAT USD
ER11-1	1	1-0,5	
ER11-2	2	2-1,5	
ER11-3	3	3-2,5	
ER11-4	4	4-3,5	
ER11-5	5	5-4,5	
ER11-6	6	6-5,5	
ER11-7	7	7-6,5	

FİYAT USD

ER11 PENS SETİ



SET İÇİNDE 7 ADET PENS VARDIR.

FİYAT USD

ER16 PENS SETİ



SET İÇİNDE 8 ADET PENS VARDIR.

FİYAT USD

ER20 PENS SETİ



SET İÇİNDE 12 ADET PENS VARDIR.

1-0,5	2-1,5	3-2,5	4-3,5	5-4,5	6-5,5	7-6,5

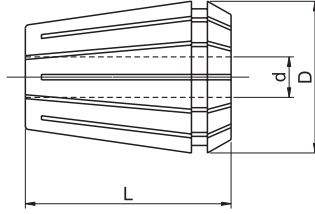
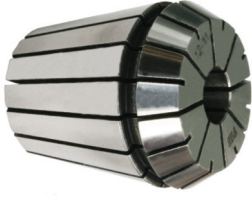
3-2	4-3	5-4	6-5	7-6	8-7	9-8	10-9

2-1	3-2	4-3	5-4	6-5	7-6
8-7	9-8	10-9	11-10	12-11	13-12

ER PENSLER

DIN 6499-B

ISO 15488



ÖZELLİKLER

- SIKMA KAPASİTESİ : 1 mm
- SERTLİK : 45-49 HRC
- SALGI : DIN 6499 / 1.SINIF

ER 25 PENSLER (430E)

D=26 mm / L=34 mm

ER 32 PENSLER (470E)

D=33 mm / L=40 mm

ER 40 PENSLER (472E)

D=41 mm / L=46 mm

KOD	d (mm)	SIKMA KAPASİTESİ (mm)	FİYAT USD
ER25-2	2	2-1,5	
ER25-3	3	3-2	
ER25-4	4	4-3	
ER25-5	5	5-4	
ER25-6	6	6-5	
ER25-7	7	7-6	
ER25-8	8	8-7	
ER25-9	9	9-8	
ER25-10	10	10-9	
ER25-11	11	11-10	
ER25-12	12	12-11	
ER25-13	13	13-12	
ER25-14	14	14-13	
ER25-15	15	15-14	
ER25-16	16	16-15	

KOD	d (mm)	SIKMA KAPASİTESİ (mm)	FİYAT USD
ER32-3	3	3-2	
ER32-4	4	4-3	
ER32-5	5	5-4	
ER32-6	6	6-5	
ER32-7	7	7-6	
ER32-8	8	8-7	
ER32-9	9	9-8	
ER32-10	10	10-9	
ER32-11	11	11-10	
ER32-12	12	12-11	
ER32-13	13	13-12	
ER32-14	14	14-13	
ER32-15	15	15-14	
ER32-16	16	16-15	
ER32-17	17	17-16	
ER32-18	18	18-17	
ER32-19	19	19-18	
ER32-20	20	20-19	

KOD	d (mm)	SIKMA KAPASİTESİ (mm)	FİYAT USD
ER40-3	3	3-2	
ER40-4	4	4-3	
ER40-5	5	5-4	
ER40-6	6	6-5	
ER40-7	7	7-6	
ER40-8	8	8-7	
ER40-9	9	9-8	
ER40-10	10	10-9	
ER40-11	11	11-10	
ER40-12	12	12-11	
ER40-13	13	13-12	
ER40-14	14	14-13	
ER40-15	15	15-14	
ER40-16	16	16-15	
ER40-17	17	17-16	
ER40-18	18	18-17	
ER40-19	19	19-18	
ER40-20	20	20-19	
ER40-21	21	21-20	
ER40-22	22	22-21	
ER40-23	23	23-22	
ER40-24	24	24-23	
ER40-25	25	25-24	
ER40-26	26	26-25	

FİYAT USD

ER25 PENS SETİ



SET İÇİNDE 12 ADET PENS VARDIR.

FİYAT USD

ER32 PENS SETİ



SET İÇİNDE 16 ADET PENS VARDIR.

FİYAT USD

ER40 PENS SETİ



SET İÇİNDE 16 ADET PENS VARDIR.

3-2	4-3	5-4	6-5	7-6	8-7
9-8	10-9	11-10	12-11	14-13	16-15

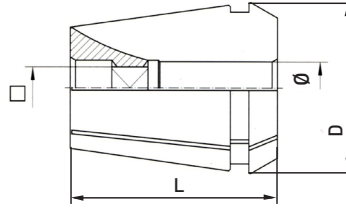
3-2	4-3	5-4	6-5	7-6	8-7
9-8	10-9	11-10	12-11	13-12	14-13
15-14	16-15	18-17	20-19		

4-3	5-4	6-5	7-6	8-7	9-8
10-9	12-11	14-13	16-15	18-17	20-19
22-21	24-23	25-24	26-25		

ER KILAVUZ PENSLERİ

DIN 6499-B

ISO 15488



ÖZELLİKLER

- SERTLİK : 45-49 HRC
- SALGI : DIN 6499 / 1.SINIF

ER 16 KILAVUZ PENSLERİ

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

ER 20 KILAVUZ PENSLERİ

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

ER 25 KILAVUZ PENSLERİ

D=25,7 mm / L=34 mm

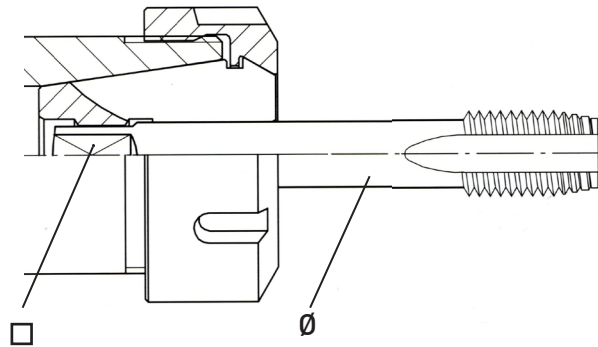
KOD	Ø (mm)	□ (mm)	FİYAT EUR
ER16-3,5x2,7	3,5	2,7	
ER16-4x3,2	4	3,2	
ER16-4,5x3,4	4,5	3,4	
ER16-6x4,9	6	4,9	
ER16-7x5,5	7	5,5	
ER16-8x6,3	8	6,3	

KOD	Ø (mm)	□ (mm)	FİYAT EUR
ER20-3,5x2,7	3,5	2,7	
ER20-4x3,2	4	3,2	
ER20-4,5x3,4	4,5	3,4	
ER20-6x4,9	6	4,9	
ER20-7x5,5	7	5,5	
ER20-8x6,3	8	6,3	
ER20-9x7,1	9	7,1	
ER20-10x8	10	8	
ER20-11x9	11	9	
ER20-12x9	12	9	

KOD	Ø (mm)	□ (mm)	FİYAT EUR
ER25-3,5x2,7	3,5	2,7	
ER25-4x3,2	4	3,2	
ER25-4,5x3,4	4,5	3,4	
ER25-6x4,9	6	4,9	
ER25-7x5,5	7	5,5	
ER25-8x6,3	8	6,3	
ER25-9x7,1	9	7,1	
ER25-10x8	10	8	
ER25-11x9	11	9	
ER25-12x9	12	9	
ER25-14x11,2	14	11,2	
ER25-16x12,5	16	12,5	

KILAVUZ ÖLÇÜLERİ VE STANDARTLAR

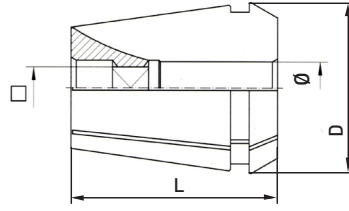
Ø x □ (mm)	STANDART
3,5x2,7	DIN
4x3,2	ISO / JIS
4,5x3,4	DIN
6x4,9	DIN
7x5,5	DIN / JIS
8x6,3	DIN / ISO
9x7,1	DIN / ISO
10x8	DIN / ISO
11x9	DIN
12x9	DIN
14x11,2	DIN / ISO / JIS
16x12,5	DIN / ISO



ER KILAVUZ PENSLERİ

DIN 6499-B

ISO 15488



ÖZELLİKLER

- SERTLİK: 45-49 HRC
- SALGI: DIN 6499 / 1.SINIF

ER 32 KILAVUZ PENSLERİ

D=32,7 mm / L=40 mm

KOD	Ø (mm)	□ (mm)	FİYAT EUR
ER32-3,5x2,7	3,5	2,7	
ER32-4x3,2	4	3,2	
ER32-4,5x3,4	4,5	3,4	
ER32-6x4,9	6	4,9	
ER32-7x5,5	7	5,5	
ER32-8x6,3	8	6,3	
ER32-9x7,1	9	7,1	
ER32-10x8	10	8	
ER32-11x9	11	9	
ER32-12x9	12	9	
ER32-14x11,2	14	11,2	
ER32-16x12,5	16	12,5	
ER32-18x14,5	18	14,5	
ER32-20x16	20	16	

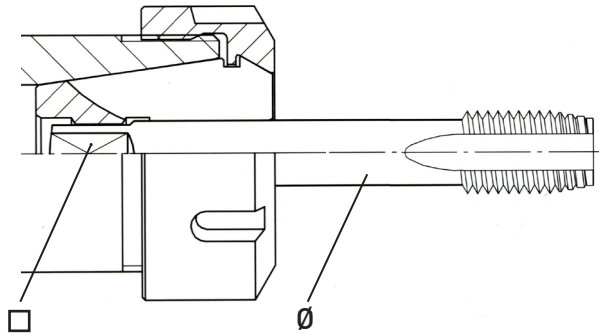
ER 40 KILAVUZ PENSLERİ

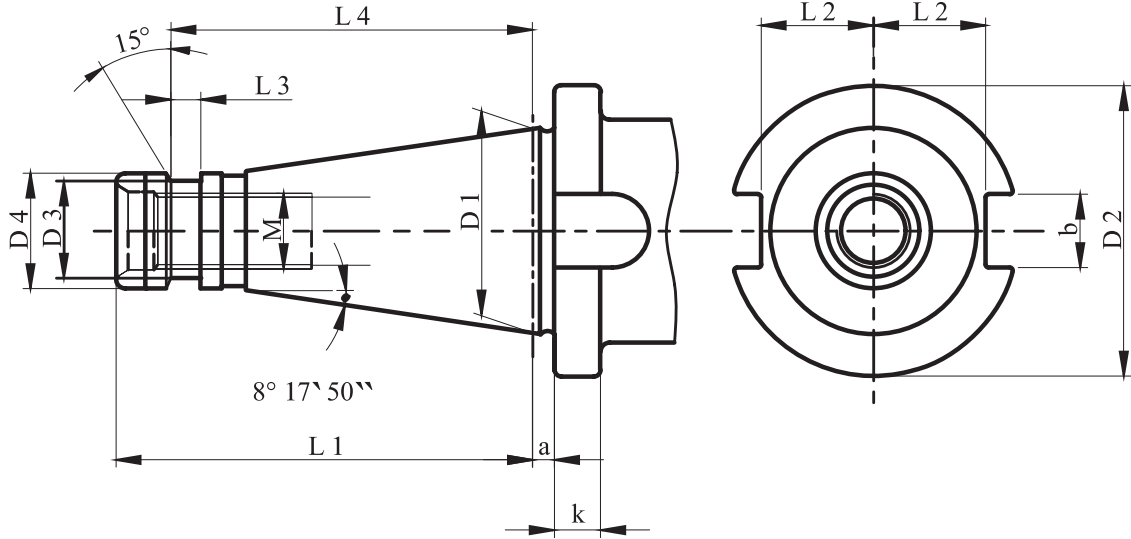
D=40,7 mm / L=46 mm

KOD	Ø (mm)	□ (mm)	FİYAT EUR
ER40-3,5x2,7	3,5	2,7	
ER40-4x3,2	4	3,2	
ER40-4,5x3,4	4,5	3,4	
ER40-6x4,9	6	4,9	
ER40-7x5,5	7	5,5	
ER40-8x6,3	8	6,3	
ER40-9x7,1	9	7,1	
ER40-10x8	10	8	
ER40-11x9	11	9	
ER40-12x9	12	9	
ER40-14x11,2	14	11,2	
ER40-16x12,5	16	12,5	
ER40-18x14,5	18	14,5	
ER40-20x16	20	16	
ER40-22x18	22	18	
ER40-25x20	25	20	

KILAVUZ ÖLÇÜLERİ VE STANDARTLAR

Ø x □ (mm)	STANDART
3,5x2,7	DIN
4x3,2	ISO / JIS
4,5x3,4	DIN
6x4,9	DIN
7x5,5	DIN / JIS
8x6,3	DIN / ISO
9x7,1	DIN / ISO
10x8	DIN / ISO
11x9	DIN
12x9	DIN
14x11,2	DIN / ISO / JIS
16x12,5	DIN / ISO
18x14,5	DIN / ISO
20x16	DIN / ISO
22x18	DIN
25x20	DIN





ISO	D1	D2 0 -0,4	D3	D4	M	a ±0,2	b H12	K ±0,15	L1	L2 max.	L3	L4
30	31,75	50	16,5	17,1	M12	1,6	16,1	8	68,4	16,2	-	-
40	44,45	63	21,1	25	M16	1,6	16,1	10	93,4	22,5	7	82
50	69,85	97,5	38	39,2	M24	3,2	25,7	12	126,8	35,3	-	-

ÖZELLİKLER

- MALZEME: ALAŞIMLI SEMENTE ÇELİĞİ- min. 900 N/mm²
- SERTLİK 56-60 HRC / SERTLİK DERİNLİĞİ 0,6-0,9 mm
- AÇI HASSASİYETİ: DIN 7178-1 / AT3
DIN 2080-1 / AT3

ISO PENS TAKIMLARI

DIN 2080

OZ TİP

ISO 2583



**DIN 6388-B
ISO 10897**

TAKIM KUTUSU İÇİNDEKİLER

- ISO / OZ PENS BAŞLIĞI (1 ADET)
- OZ PENS KAPAĞI (1 ADET)
- OZ ANAHTAR (1 ADET)
- OZ PENSLER (16 ADET)

KOD	KAPASİTE (mm)	KUTU İÇİNDEKİ PENSLERİN ÇAP ÖLÇÜLERİ (mm)	FİYAT EUR
ISO30.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
ISO40.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
ISO40.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	
ISO50.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
ISO50.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	

ISO PENS TAKIMLARI

DIN 2080

ER TİP

ISO 2583



**DIN 6499-B
ISO 15488**

TAKIM KUTUSU İÇİNDEKİLER

- ISO / ER PENS BAŞLIĞI (1 ADET)
- ER PENS KAPAĞI (1 ADET)
- ER ANAHTAR (1 ADET)
- ER PENSLER (16 ADET)

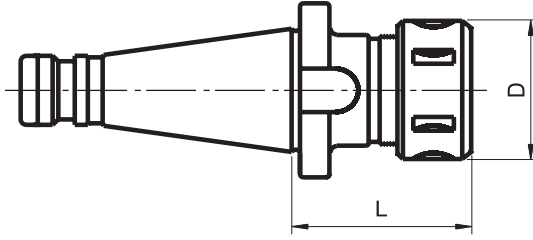
KOD	KAPASİTE (mm)	KUTU İÇİNDEKİ PENSLERİN ÇAP ÖLÇÜLERİ (mm)	FİYAT EUR
ISO30.ER32.T	3-20	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/13-12/14-13/15-14/16-15/18-17/20-19	
ISO40.ER32.T	3-20	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/13-12/14-13/15-14/16-15/18-17/20-19	
ISO40.ER40.T	4-26	4-3/5-4/6-5/7-6/8-7/9-8/10-9/12-11/14-13/16-15/18-17/20-19/22-21/24-23/25-24/26-25	
ISO50.ER40.T	4-26	4-3/5-4/6-5/7-6/8-7/9-8/10-9/12-11/14-13/16-15/18-17/20-19/22-21/24-23/25-24/26-25	

ISO PENS BAŞLIKLARI

DIN 2080

OZ TİP

ISO 2583



KAPAK İLE BİRLİKTE TESLİM EDİLİR.

DIN 6388
ISO 10897

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

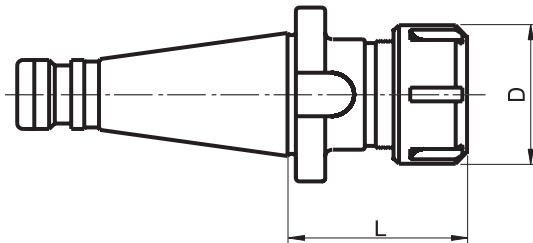
KOD	KONİK	KAPASİTE (mm)	L (mm)	D (mm)	FİYAT EUR
ISO30.462E	ISO 30	3-25	75	60	
ISO40.462E	ISO 40	3-25	65	60	
ISO40.462E.100	ISO 40	3-25	100	60	
ISO40.462E.125	ISO 40	3-25	125	60	
ISO40.462E.150	ISO 40	3-25	150	60	
ISO40.467E	ISO 40	3-32	95	72	
ISO50.462E	ISO 50	3-25	70	60	
ISO50.467E	ISO 50	3-32	70	72	

ISO PENS BAŞLIKLARI

DIN 2080

ER TİP

ISO 2583



KAPAK İLE BİRLİKTE TESLİM EDİLİR.

DIN 6499
ISO 15488

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

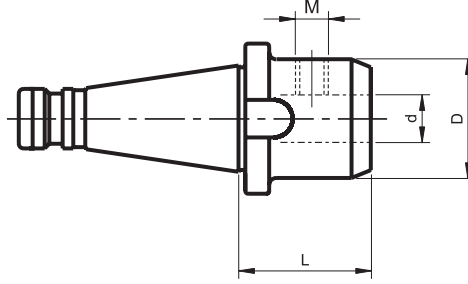
KOD	KONİK	KAPASİTE (mm)	L (mm)	D (mm)	FİYAT EUR
ISO30.ER32	ISO 30	2-20	50	50	
ISO40.ER32	ISO 40	2-20	50	50	
ISO40.ER32.100	ISO 40	2-20	100	50	
ISO40.ER40	ISO 40	2-26	60	63	
ISO40.ER40.100	ISO 40	2-26	100	63	
ISO50.ER40	ISO 50	2-26	60	63	
ISO50.ER40.100	ISO 50	2-26	100	63	

ISO VELDON TUTUCULAR

DIN 2080



DIN 1835-B VELDON CİVATALARI İLE BİRLİKTE TESLİM EDİLİR.



DIN 6359
DIN 1835-B

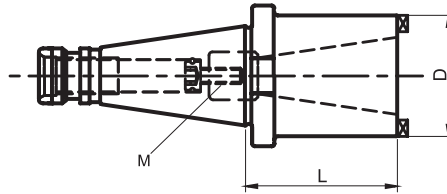
ISO 2583

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	d (mm)	L (mm)	D (mm)	VELDON CİVATASI	CİVATA ADEDİ	FİYAT EUR
ISO40.06.V	ISO 40	6	50	25	M6x10	1	
ISO40.08.V	ISO 40	8	50	28	M8x10	1	
ISO40.10.V	ISO 40	10	50	35	M10x12	1	
ISO40.12.V	ISO 40	12	50	42	M12x16	1	
ISO40.14.V	ISO 40	14	50	44	M12x16	1	
ISO40.16.V	ISO 40	16	63	48	M14x16	1	
ISO40.18.V	ISO 40	18	63	50	M14x16	1	
ISO40.20.V	ISO 40	20	63	52	M16x16	1	
ISO40.25.V	ISO 40	25	80	64	M18x2x20	2	
ISO40.32.V	ISO 40	32	80	72	M20x2x20	2	
ISO40.40.V	ISO 40	40	90	80	M20x2x20	2	
ISO50.20.V	ISO 50	20	63	52	M16x16	1	
ISO50.25.V	ISO 50	25	80	64	M18x2x20	2	
ISO50.32.V	ISO 50	32	80	72	M20x2x20	2	
ISO50.40.V	ISO 50	40	90	80	M20x2x20	2	

ISO REDÜKSİYON - ÇEKTİRME CİVATALI

DIN 2080



- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

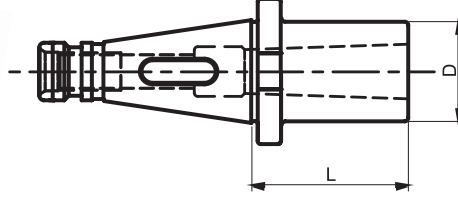
ISO 2583

KOD	KONİK	İÇ KONİK	L (mm)	D (mm)	M (mm)	FİYAT EUR
ISO40.30	ISO 40	ISO 30	50	50	M12	
ISO40.40	ISO 40	ISO 40	100	63	M16	
ISO50.40	ISO 50	ISO 40	50	70	M16	

ISO KAMALI MORS ADAPTÖRÜ

DIN 2080

ISO 2583



DIN 6383

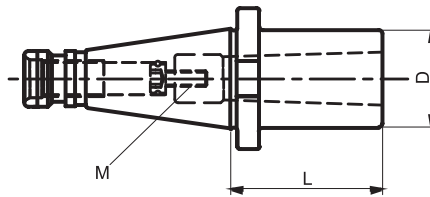
- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	İÇ KONİK	D (mm)	L (mm)	FİYAT EUR
ISO40.K.MK1	ISO 40	MK1	25	50	
ISO40.K.MK2	ISO 40	MK2	32	50	
ISO40.K.MK3	ISO 40	MK3	40	65	
ISO40.K.MK4	ISO 40	MK4	48	95	
ISO50.K.MK3	ISO 50	MK3	40	65	
ISO50.K.MK4	ISO 50	MK4	48	70	
ISO50.K.MK5	ISO 50	MK5	63	105	

ISO ÇEKTİRME CİVATALI MORS ADAPTÖRÜ

DIN 2080

ISO 2583



DIN 6364

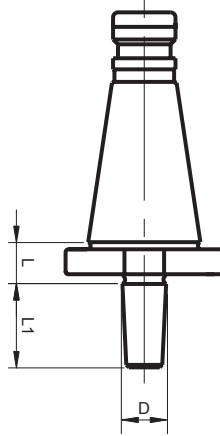
- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	İÇ KONİK	D (mm)	L (mm)	M (mm)	FİYAT EUR
ISO40.C.MK1	ISO 40	MK1	25	50	M6	
ISO40.C.MK2	ISO 40	MK2	32	50	M10	
ISO40.C.MK3	ISO 40	MK3	40	65	M12	
ISO40.C.MK4	ISO 40	MK4	63	95	M16	

ISO MANDREN MALAFALARI

DIN 2080

ISO 2583



DIN 238

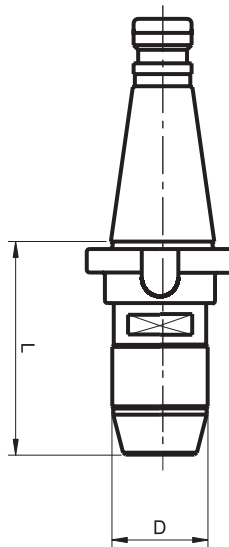
- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	MANDREN KONİĞİ	D (mm)	L (mm)	L1 (mm)	FİYAT EUR
ISO40.B16	ISO 40	B16	15,733	17	24	
ISO40.B18	ISO 40	B18	17,780	17	32	

ISO MANDREN Lİ BAŞLIKLAR

DIN 2080

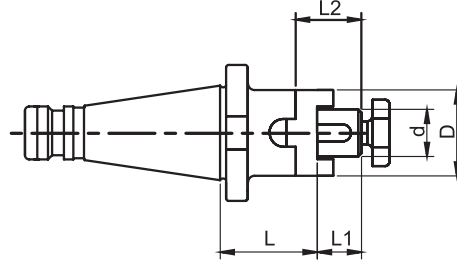
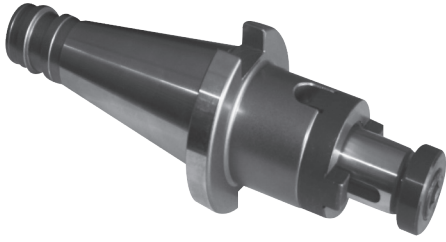
ISO 2583



ÖZELLİKLER

- ELLE VE ANAHTARLA SIKILIP ÇÖZÜLEBİLİR.
- SALGI: MAX. 0,06 mm

KOD	KONİK	SIKMA KAPASİTESİ (mm)	D (mm)	L (mm)	FİYAT EUR
ISO40.1.13	ISO 40	1-13	42	80	
ISO40.1.16	ISO 40	1-16	49	100	



ALIN CİVATASI, TIRNAKLI PUL VE
KAMA İLE BİRLİKTE TESLİM EDİLİR.

DIN 6358

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	FİYAT EUR
ISO40.16.K	ISO 40	16	32	52	17	27	
ISO40.22.K	ISO 40	22	40	52	19	31	
ISO40.27.K	ISO 40	27	48	52	21	33	
ISO40.32.K	ISO 40	32	58	52	24	38	
ISO40.40.K	ISO 40	40	70	52	27	41	
ISO50.16.K	ISO 50	16	32	55	17	27	
ISO50.22.K	ISO 50	22	40	55	19	31	
ISO50.27.K	ISO 50	27	48	55	21	33	
ISO50.32.K	ISO 50	32	58	55	24	38	
ISO50.40.K	ISO 50	40	70	55	27	41	
ISO50.50.K	ISO 50	50	85	55	30	46	
ISO50.60.K	ISO 50	60	97	55	50	66	

BT PENS TAKIMLARI

MAS 403 - BT/JIS B 6339

OZ TİP



**DIN 6388-B
ISO 10897**

TAKIM KUTUSU İÇİNDEKİLER

- BT / OZ PENS BAŞLIĞI (1 ADET)
- OZ PENS KAPAĞI (1 ADET)
- OZ ANAHTAR (1 ADET)
- OZ PENSLER (16 ADET)
- BT ÇEKTİRME CİVATASI (1 ADET)

KOD	KAPASİTE (mm)	KUTU İÇİNDEKİ PENSLERİN ÇAP ÖLÇÜLERİ (mm)	FİYAT EUR
BT40.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
BT40.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	
BT50.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	

BT PENS TAKIMLARI

MAS 403 - BT/JIS B 6339

ER TİP



**DIN 6499-B
ISO 15488**

TAKIM KUTUSU İÇİNDEKİLER

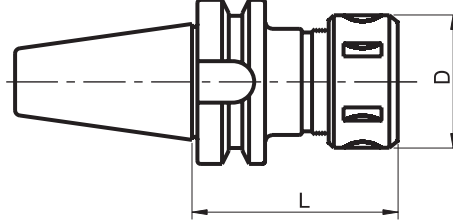
- BT / ER PENS BAŞLIĞI (1 ADET)
- ER PENS KAPAĞI (1 ADET)
- ER ANAHTAR (1 ADET)
- ER PENSLER (16 ADET)
(ER25 TİPLERDE 12 ADETTİR.)
- BT ÇEKTİRME CİVATASI (1 ADET)

KOD	KAPASİTE (mm)	KUTU İÇİNDEKİ PENSLERİN ÇAP ÖLÇÜLERİ (mm)	FİYAT EUR
BT30.ER25.T	2-16	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/14-13/16-15	
BT30.ER32.T	3-20	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/13-12/14-13/15-14/16-15/18-17/20-19	
BT40.ER25.T	2-16	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/14-13/16-15	
BT40.ER32.T	3-20	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/13-12/14-13/15-14/16-15/18-17/20-19	
BT40.ER40.T	4-26	4-3/5-4/6-5/7-6/8-7/9-8/10-9/12-11/14-13/16-15/18-17/20-19/22-21/24-23/25-24/26-25	
BT50.ER40.T	4-26	4-3/5-4/6-5/7-6/8-7/9-8/10-9/12-11/14-13/16-15/18-17/20-19/22-21/24-23/25-24/26-25	

ER TİP



KAPAK İLE BİRLİKTE TESLİM EDİLİR.



**DIN 6499
ISO 15488**

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

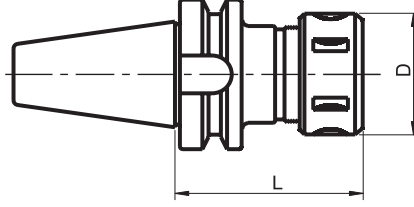
KOD	KONİK	KAPASİTE (mm)	L (mm)	D (mm)	FİYAT EUR
BT30.ER11.100	BT30	1-7	100	19	
BT30.ER16	BT30	1-10	60	28 (32)	
BT30.ER16.100	BT30	1-10	100	28 (32)	
BT30.ER25	BT30	1-16	60	42	
BT30.ER25.100	BT30	1-16	100	42	
BT30.ER32	BT30	2-20	60	50	
BT30.ER32.100	BT30	2-20	100	50	
BT30.ER32.0M*	BT30	2-20	60	50	
BT30.ER40	BT30	2-26	70	63	
BT30.ER40.100	BT30	2-26	100	63	
BT40.ER11.100	BT40	1-7	100	19	
BT40.ER11.160	BT40	1-7	160	19	
BT40.ER16	BT40	1-10	60	28 (32)	
BT40.ER16.100	BT40	1-10	100	28 (32)	
BT40.ER16.160	BT40	1-10	160	28 (32)	
BT40.ER25	BT40	1-16	60	42	
BT40.ER25.100	BT40	1-16	100	42	
BT40.ER25.160	BT40	1-16	160	42	
BT40.ER32	BT40	2-20	60	50	
BT40.ER32.100	BT40	2-20	100	50	
BT40.ER32.160	BT40	2-20	160	50	
BT40.ER40	BT40	2-26	80	63	
BT40.ER40.100	BT40	2-26	100	63	
BT40.ER40.160	BT40	2-26	160	63	
BT50.ER32	BT50	2-20	70	50	
BT50.ER32.100	BT50	2-20	100	50	
BT50.ER32.160	BT50	2-20	160	50	
BT50.ER40	BT50	2-26	80	63	
BT50.ER40.100	BT50	2-26	100	63	
BT50.ER40.160	BT50	2-26	160	63	

* OM TİPLERİ AHŞAP İŞLEYEN MARANGOZ CNC TEZGAHLARI İÇİNDİR.

BT PENS BAŞLIKLARI

MAS 403 - BT/JIS B 6339

ÖZ TİP



**DIN 6388
ISO 10897**

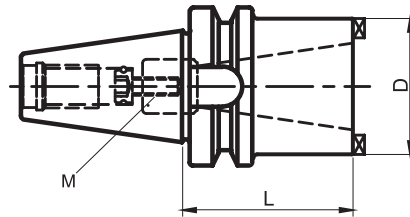
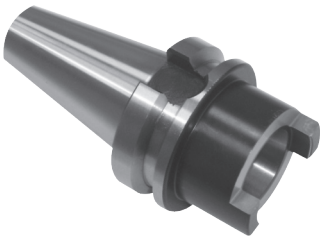
- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KAPAK İLE BİRLİKTE TESLİM EDİLİR.

KOD	KONİK	KAPASİTE (mm)	L (mm)	D (mm)	FİYAT EUR
BT40.462E	BT40	3-25	70	60	
BT40.462E.100	BT40	3-25	100	60	
BT40.467E	BT40	3-32	90	72	
BT50.462E	BT50	3-25	90	60	
BT50.467E	BT50	3-32	90	72	

BT REDÜKSİYON- ÇEKTİRME CİVATALI

MAS 403-BT / JIS B 6339



ÖZELLİKLER

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

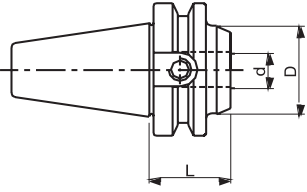
KOD	KONİK	İÇ KONİK	L (mm)	D (mm)	M (mm)	FİYAT EUR
BT40.IS030	BT40	ISO 30	60	50	M12	
BT40.IS040	BT40	ISO 40	100	63	M16	
BT50.IS040	BT50	ISO 40	70	70	M16	



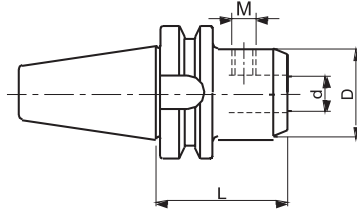
DIN 1835-B VELDON CİVATALARI İLE BİRLİKTE TESLİM EDİLİR.

DIN 6359
DIN 1835-B
DIN 6535-HB

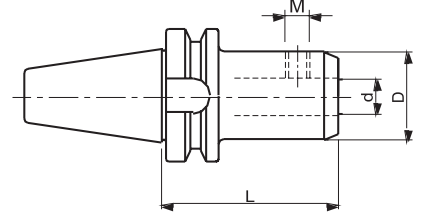
- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm



TİP 1 (KISA BOY)



TİP 2 (NORMAL BOY)



TİP 3 (UZUN BOY)

KOD	KONİK	d (mm)	L (mm)	D (mm)	VELDON CİVATASI	CİVATA ADEDİ	TİP	FIYAT EUR
BT30.12.V	BT30	12	50	42	M12x16	1	2	
BT30.14.V	BT30	14	50	44	M12x16	1	2	
BT30.16.V	BT30	16	63	48	M14x16	1	2	
BT30.16.V.100	BT30	16	100	48	M14x16	1	3	
BT30.18.V	BT30	18	63	50	M14x16	1	2	
BT30.18.V.100	BT30	18	100	50	M14x16	1	3	
BT30.20.V	BT30	20	63	52	M16x16	1	2	
BT30.20.V.100	BT30	20	100	52	M16x16	1	3	
BT40.06.V	BT40	6	50	25	M6x10	1	2	
BT40.06.V.100	BT40	6	100	25	M6x10	1	3	
BT40.08.V	BT40	8	50	28	M8x10	1	2	
BT40.08.V.100	BT40	8	100	28	M8x10	1	3	
BT40.10.V	BT40	10	63	35	M10x12	1	2	
BT40.10.V.100	BT40	10	100	35	M10x12	1	3	
BT40.12.V	BT40	12	63	42	M12x16	1	2	
BT40.12.V.100	BT40	12	100	42	M12x16	1	3	
BT40.14.V	BT40	14	63	44	M12x16	1	2	
BT40.14.V.100	BT40	14	100	44	M12x16	1	3	
BT40.16.V.35	BT40	16	35	48	M14x16	1	1	
BT40.16.V	BT40	16	63	48	M14x16	1	2	



BT VELDON TUTUCULAR

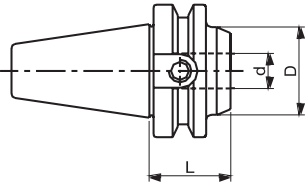
MAS403-BT/JISB6339



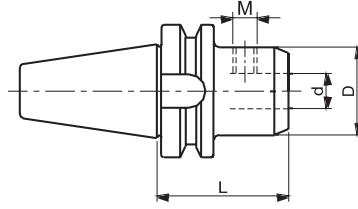
DIN 1835-B VELDON CİVATALARI İLE BİRLİKTE TESLİM EDİLİR.

DIN 6359
DIN 1835-B
DIN 6535-HB

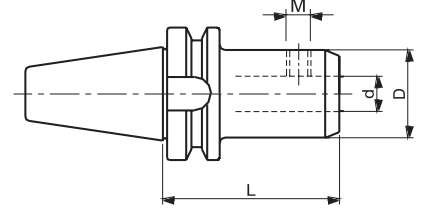
- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm



TİP 1 (KISA BOY)



TİP 2 (NORMAL BOY)

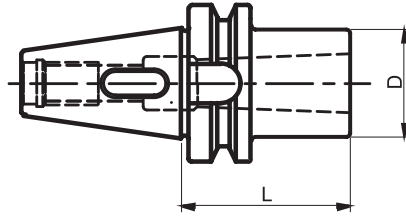


TİP 3 (UZUN BOY)

KOD	KONİK	d (mm)	L (mm)	D (mm)	VELDON CİVATASI	CİVATA ADEDİ	TİP	FİYAT EUR
BT40.16.V.100	BT40	16	100	48	M14x16	1	3	
BT40.18.V	BT40	18	63	50	M14x16	1	2	
BT40.18.V.100	BT40	18	100	50	M14x16	1	3	
BT40.20.V.35	BT40	20	35	50	M14x12	1	1	
BT40.20.V	BT40	20	63	52	M16x16	1	2	
BT40.20.V.100	BT40	20	100	52	M16x16	1	3	
BT40.25.V.35	BT40	25	35	60	M14x12	1	1	
BT40.25.V	BT40	25	90	65	M18x2x20	2	2	
BT40.32.V	BT40	32	100	72	M20x2x20	2	2	
BT40.40.V	BT40	40	120	80	M20x2x20	2	2	
BT50.16.V	BT50	16	80	48	M14x16	1	2	
BT50.18.V	BT50	18	80	50	M14x16	1	2	
BT50.20.V	BT50	20	80	52	M16x16	1	2	
BT50.20.V.160	BT50	20	160	52	M16x16	1	3	
BT50.25.V	BT50	25	100	65	M18x2x20	2	2	
BT50.25.V.160	BT50	25	160	65	M18x2x20	2	3	
BT50.32.V	BT50	32	105	72	M20x2x20	2	2	
BT50.32.V.160	BT50	32	160	72	M20x2x20	2	3	
BT50.40.V	BT50	40	110	80	M20x2x20	2	2	
BT50.40.V.160	BT50	40	160	80	M20x2x20	2	3	

BT KAMALI MORS ADAPTÖRÜ

MAS 403- BT/JIS B 6339



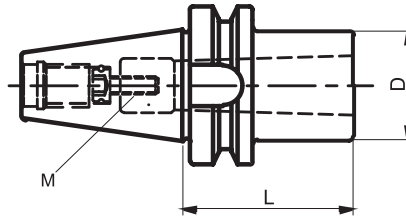
DIN 6383

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	İÇ KONİK	D (mm)	L (mm)	FİYAT EUR
BT40.K.MK1	BT40	MK1	25	50	
BT40.K.MK2	BT40	MK2	32	50	
BT40.K.MK3	BT40	MK3	40	70	
BT40.K.MK4	BT40	MK4	48	95	
BT50.K.MK3	BT50	MK3	40	65	
BT50.K.MK4	BT50	MK4	48	95	
BT50.K.MK5	BT50	MK5	63	105	

BT ÇEKTİRME CİVATALI MORS ADAPTÖRÜ

MAS 403-BT/JIS B 6339



DIN 6364

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

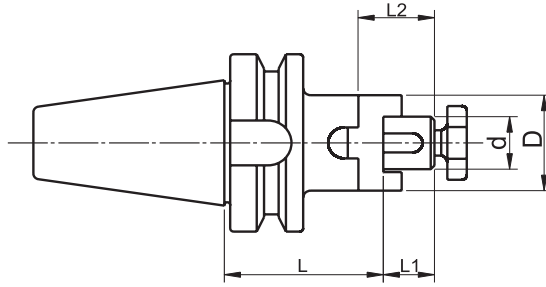
KOD	KONİK	İÇ KONİK	D (mm)	L (mm)	M (mm)	FİYAT EUR
BT40.C.MK1	BT40	MK1	25	50	M6	
BT40.C.MK2	BT40	MK2	32	50	M10	
BT40.C.MK3	BT40	MK3	40	70	M12	
BT40.C.MK4	BT40	MK4	63	95	M16	

BT KOMBİNE MALAFALAR

MAS 403 - BT / JIS B 6339



ALIN CİVATASI, TIRNAKLI PUL VE
KAMA İLE BİRLİKTE TESLİM EDİLİR.



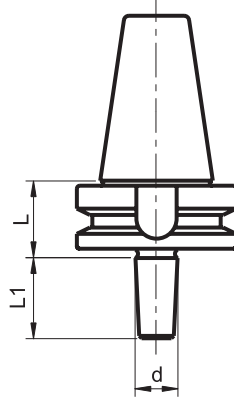
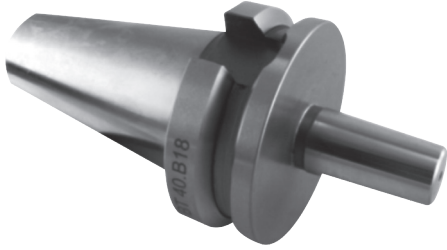
DIN 6358

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	FİYAT EUR
BT30.16.K	BT30	16	32	45	17	27	
BT30.22.K	BT30	22	40	47	19	31	
BT30.22.K.100	BT30	22	40	100	19	31	
BT30.27.K	BT30	27	48	49	21	33	
BT40.16.K	BT40	16	32	55	17	27	
BT40.16.K.100	BT40	16	32	100	17	27	
BT40.16.K.160	BT40	16	32	160	17	27	
BT40.22.K	BT40	22	40	55	19	31	
BT40.22.K.100	BT40	22	40	100	19	31	
BT40.22.K.160	BT40	22	40	160	19	31	
BT40.27.K	BT40	27	48	55	21	33	
BT40.27.K.100	BT40	27	48	100	21	33	
BT40.27.K.160	BT40	27	48	160	21	33	
BT40.32.K	BT40	32	58	60	24	38	
BT40.32.K.100	BT40	32	58	100	24	38	
BT40.32.K.160	BT40	32	58	160	24	38	
BT40.40.K	BT40	40	70	60	27	41	
BT40.40.K.100	BT40	40	70	100	27	41	
BT40.40.K.160	BT40	40	70	160	27	41	
BT50.16.K	BT50	16	32	70	17	27	
BT50.16.K.100	BT50	16	32	100	17	27	
BT50.16.K.160	BT50	16	32	160	17	27	
BT50.22.K	BT50	22	40	70	19	31	
BT50.22.K.100	BT50	22	40	100	19	31	
BT50.22.K.160	BT50	22	40	160	19	31	
BT50.27.K	BT50	27	48	70	21	33	
BT50.27.K.100	BT50	27	48	100	21	33	
BT50.27.K.160	BT50	27	48	160	21	33	
BT50.32.K	BT50	32	58	70	24	38	
BT50.32.K.100	BT50	32	58	100	24	38	
BT50.32.K.160	BT50	32	58	160	24	38	
BT50.40.K	BT50	40	70	70	27	41	
BT50.40.K.100	BT50	40	70	100	27	41	
BT50.40.K.160	BT50	40	70	160	27	41	
BT50.50.K	BT50	50	85	75	30	46	
BT50.60.K	BT50	60	98	75	50	66	

BT MANDREN MALAFALARI

MAS403-BT / JIS B 6339



DIN 238

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	MANDREN KONİĞİ	d (mm)	L (mm)	L1 (mm)	FİYAT EUR
BT40.B16	BT40	B16	15,733	32	24	
BT40.B18	BT40	B18	17,780	32	32	

BT MANDRENLİ BAŞLIKLAR

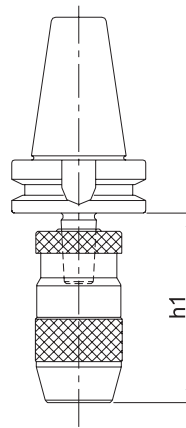
MAS403-BT / JIS B 6339

ÖZELLİKLER

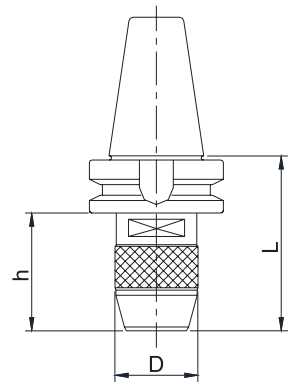
- ELLE VE ANAHTARLA SIKILIP ÇÖZÜLEBİLİR
- SALGI: MAX. 0,06 mm



MANDREN MALAFASI İLE BAĞLAMA



MANDRENLİ BAŞLIK

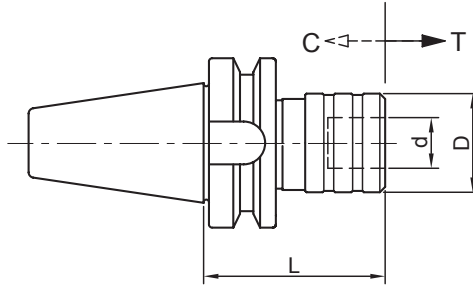


MANDRENLİ BAŞLIK İLE DAHA KISA h MESAFESİ SAĞLANIR.

KOD	KONİK	KAPASİTE (mm)	D (mm)	L (mm)	h (mm)	FİYAT EUR
BT40.1.13	BT40	1-13	42	85	58	
BT40.1.16	BT40	1-16	49	100	73	

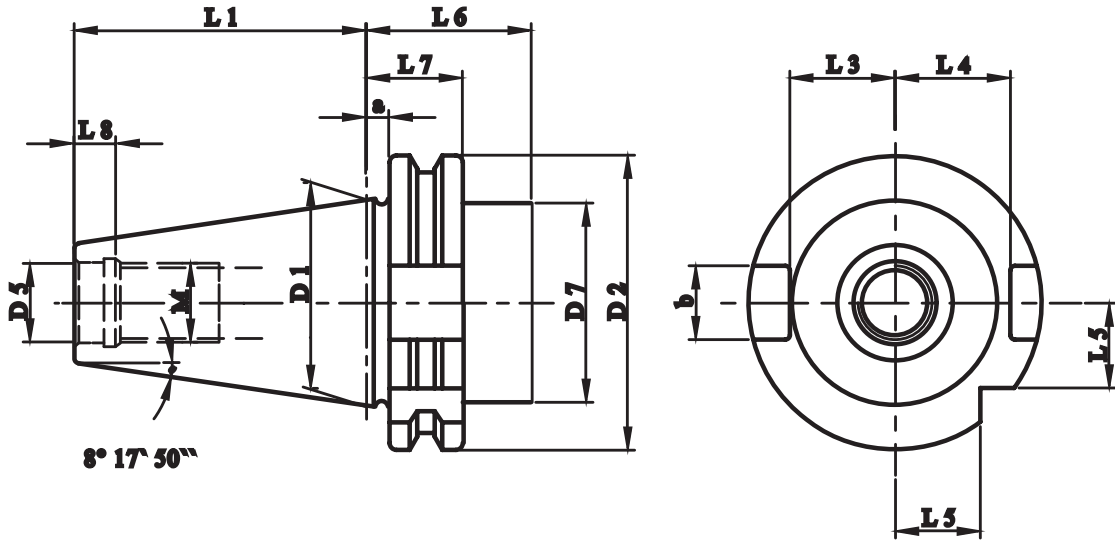
BT KILAVUZ ÇEKME BAŞLIĞI - GİRİŞ VE ÇIKIŞ KOMPANZELİ

MAS 403 - BT / JIS B 6339



- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3

KOD	KONİK	KAPASİTE	d (mm)	D (mm)	L (mm)	C-T (mm)	FİYAT EUR
BT40.KCB.1	BT40	M3-M12	19	36,5	67	7,5-7,5	
BT40.KCB.2	BT40	M8-M20	31	54	94	12,5-12,5	
BT40.KCB.3	BT40	M14-M33	48	78	145	20-20	
BT50.KCB.1	BT50	M3-M12	19	36,5	77	7,5-7,5	
BT50.KCB.2	BT50	M8-M20	31	54	102	12,5-12,5	
BT50.KCB.3	BT50	M14-M33	48	78	145	20-20	



SK	D1	D2 0 -0,1	D5 H7	M 6H	a ±0,1	b +0,2 0	L1 0 -0,3	L3 0 -0,3	L4 0 -0,3	L5 0 -0,3	L6 min.	L7 0 -0,1	L8 max.	D7 max.
30	31,75	50	13	M12	3,2	16,1	47,8	16,3	18,8	15	35	19,1	6	45
40	44,45	63,55	17	M16	3,2	16,1	68,4	22,7	25	18,5	35	19,1	8,7	50
50	69,85	97,50	25	M24	3,2	25,7	101,75	35,5	37,7	30	35	19,1	12	80

ÖZELLİKLER

- MALZEME: ALAŞIMLI SEMENTE ÇELİĞİ- min. 900 N/mm²
- SERTLİK 56-60 HRC / SERTLİK DERİNLİĞİ 0,6-0,9 mm
- AÇI HASSASİYETİ: DIN 7178-1 / AT3
DIN 2080-1 / AT3

SK PENS TAKIMLARI

DIN 69871

OZ TİP



**DIN 6388-B
ISO 10897**

TAKIM KUTUSU İÇİNDEKİLER

- SK / OZ PENS BAŞLIĞI (1 ADET)
- OZ PENS KAPAĞI (1 ADET)
- OZ ANAHTAR (1 ADET)
- OZ PENSLER (16 ADET)
- SK ÇEKTİRME CİVATASI (1 ADET)

KOD	KAPASİTE (mm)	KUTU İÇİNDEKİ PENSLERİN ÇAP ÖLÇÜLERİ (mm)	FİYAT EUR
SK40.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
SK40.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	
SK50.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	

SK PENS TAKIMLARI

DIN 69871

ER TİP



**DIN 6499-B
ISO 15488**

TAKIM KUTUSU İÇİNDEKİLER :

- SK / ER PENS BAŞLIĞI (1 ADET)
- ER PENS KAPAĞI (1 ADET)
- ER ANAHTAR (1 ADET)
- ER PENSLER (16 ADET)
(ER25 TİPLERDE 12 ADETTİR.)
- SK ÇEKTİRME CİVATASI

KOD	KAPASİTE (mm)	KUTU İÇİNDEKİ PENSLERİN ÇAP ÖLÇÜLERİ (mm)	FİYAT EUR
SK30.ER25.T	2-16	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/14-13/16-15	
SK30.ER32.T	3-20	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/13-12/14-13/15-14/16-15/18-17/20-19	
SK40.ER25.T	2-16	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/14-13/16-15	
SK40.ER32.T	3-20	3-2/4-3/5-4/6-5/7-6/8-7/9-8/10-9/11-10/12-11/13-12/14-13/15-14/16-15/18-17/20-19	
SK40.ER40.T	4-26	4-3/5-4/6-5/7-6/8-7/9-8/10-9/12-11/14-13/16-15/18-17/20-19/22-21/24-23/25-24/26-25	
SK50.ER40.T	4-26	4-3/5-4/6-5/7-6/8-7/9-8/10-9/12-11/14-13/16-15/18-17/20-19/22-21/24-23/25-24/26-25	

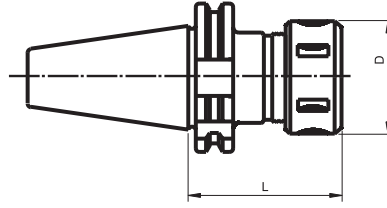
SK PENS BAŞLIKLARI

DIN 69871

OZ TİP



KAPAK İLE BİRLİKTE TESLİM EDİLİR.



DIN 6388
ISO 10897

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	KAPASİTE (mm)	D (mm)	L (mm)	FİYAT EUR
SK40.462E	SK40	3-25	60	70	
SK40.462E.100	SK40	3-25	60	100	
SK40.467E	SK40	3-32	72	90	

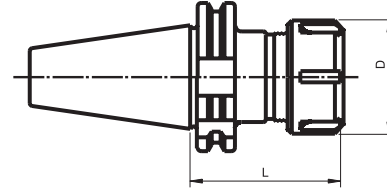
SK PENS BAŞLIKLARI

DIN 69871

ER TİP



KAPAK İLE BİRLİKTE TESLİM EDİLİR.



DIN 6499
ISO 15488

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	KAPASİTE (mm)	D (mm)	L (mm)	FİYAT EUR
SK30.ER11.100	SK30	1-7	19	100	
SK30.ER16	SK30	1-10	28	60	
SK30.ER16.100	SK30	1-10	28	100	
SK30.ER25	SK30	1-16	42	60	
SK30.ER32	SK30	2-20	50	63	
SK30.ER32.0M*	SK30	2-20	50	60	
SK40.ER11.100	SK40	1-7	19	100	
SK40.ER11.160	SK40	1-7	19	160	
SK40.ER16	SK40	1-10	28	60	
SK40.ER16.100	SK40	1-10	28	100	
SK40.ER16.160	SK40	1-10	28	160	
SK40.ER25	SK40	1-16	42	60	
SK40.ER25.100	SK40	1-16	42	100	
SK40.ER25.160	SK40	1-16	42	160	
SK40.ER32	SK40	2-20	50	70	
SK40.ER32.0M*	SK40	2-20	50	70	
SK40.ER32.100	SK40	2-20	50	100	
SK40.ER32.160	SK40	2-20	50	160	
SK40.ER40	SK40	2-26	63	80	
SK40.ER40.100	SK40	2-26	63	100	
SK40.ER40.160	SK40	2-26	63	160	

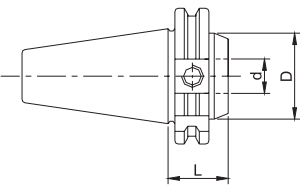
* OM TİPLERİ AHŞAP İŞLEYEN MARANGOZ CNC TEZGAHLARI İÇİNDİR.



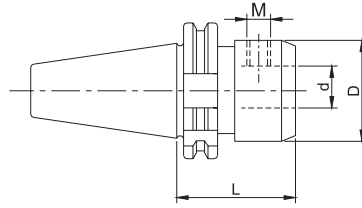
DIN 1835-B VELDON CİVATALARI İLE BİRLİKTE TESLİM EDİLİR.

DIN 6359
DIN 1835-B
DIN 6535-HB

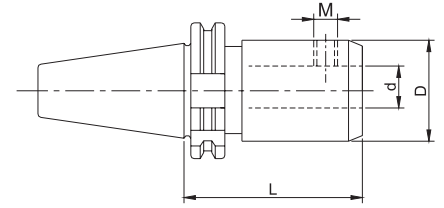
- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm



TİP 1 (KISA BOY)



TİP 2 (NORMAL BOY)

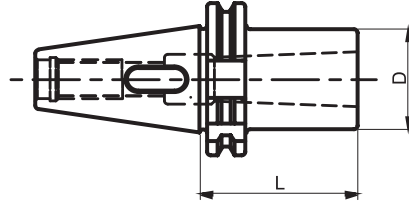


TİP 3 (UZUN BOY)

KOD	KONİK	d (mm)	L (mm)	D (mm)	VELDON CİVATASI	CİVATA ADEDİ	TİP	FİYAT EUR
SK40.06.V	SK40	6	50	25	M6x10	1	2	
SK40.06.V.100	SK40	6	100	25	M6x10	1	3	
SK40.08.V	SK40	8	50	28	M8x10	1	2	
SK40.08.V.100	SK40	8	100	28	M8x10	1	3	
SK40.10.V	SK40	10	50	35	M10x12	1	2	
SK40.10.V.100	SK40	10	100	35	M10x12	1	3	
SK40.12.V	SK40	12	50	42	M12x16	1	2	
SK40.12.V.100	SK40	12	100	42	M12x16	1	3	
SK40.14.V	SK40	14	50	44	M12x16	1	2	
SK40.14.V.100	SK40	14	100	44	M12x16	1	3	
SK40.16.V.35	SK40	16	35	45	M14x16	1	1	
SK40.16.V	SK40	16	63	48	M14x16	1	2	
SK40.16.V.100	SK40	16	100	48	M14x16	1	3	
SK40.18.V	SK40	18	63	50	M14x16	1	2	
SK40.18.V.100	SK40	18	100	50	M14x16	1	3	
SK40.20.V.35	SK40	20	35	45	M14x12	1	1	
SK40.20.V	SK40	20	63	52	M16x16	1	2	
SK40.20.V.100	SK40	20	100	52	M16x16	1	3	
SK40.25.V.35	SK40	25	35	50	M14x12	1	1	
SK40.25.V	SK40	25	100	65	M18x2x20	2	2	
SK40.32.V	SK40	32	100	72	M20x2x20	2	2	
SK40.40.V	SK40	40	120	80	M20x2x20	2	2	

SK KAMALI MORS ADAPTÖRÜ

DIN 69871



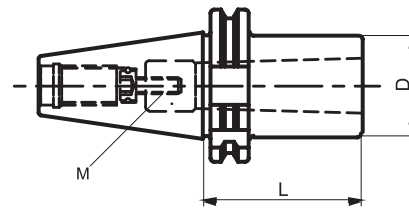
DIN 6383

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	İÇ KONİK	D (mm)	L (mm)	FİYAT EUR
SK40.K.MK1	SK40	MK1	25	50	
SK40.K.MK2	SK40	MK2	32	50	
SK40.K.MK3	SK40	MK3	40	70	
SK40.K.MK4	SK40	MK4	48	95	
SK50.K.MK3	SK50	MK3	40	65	
SK50.K.MK4	SK50	MK4	48	95	
SK50.K.MK5	SK50	MK5	63	105	

SK ÇEKTİRME ÇİVATALI MORS ADAPTÖRÜ

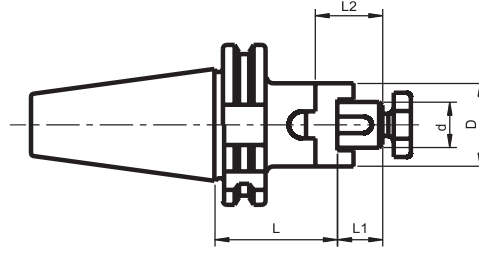
DIN 69871



DIN 6364

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	İÇ KONİK	L (mm)	D (mm)	M (mm)	FİYAT EUR
SK40.C.MK1	SK40	MK1	50	25	M6	
SK40.C.MK2	SK40	MK2	50	32	M10	
SK40.C.MK3	SK40	MK3	70	40	M12	
SK40.C.MK4	SK40	MK4	95	63	M16	



ALIN CİVATASI, TIRNAKLI PUL VE
KAMA İLE BİRLİKTE TESLİM EDİLİR.

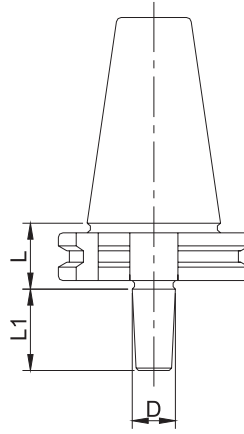
DIN 6358

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	FİYAT EUR
SK30.16.K	SK30	16	32	50	17	27	
SK30.22.K	SK30	22	40	50	19	31	
SK30.22.K.100	SK30	22	40	100	19	31	
SK30.27.K	SK30	27	48	55	21	33	
SK40.16.K	SK40	16	32	55	17	27	
SK40.16.K.100	SK40	16	32	100	17	27	
SK40.16.K.160	SK40	16	32	160	17	27	
SK40.22.K	SK40	22	40	55	19	31	
SK40.22.K.100	SK40	22	40	100	19	31	
SK40.22.K.160	SK40	22	40	160	19	31	
SK40.27.K	SK40	27	48	55	21	33	
SK40.27.K.100	SK40	27	48	100	21	33	
SK40.27.K.160	SK40	27	48	160	21	33	
SK40.32.K	SK40	32	58	60	24	38	
SK40.32.K.100	SK40	32	58	100	24	38	
SK40.32.K.160	SK40	32	58	160	24	38	
SK40.40.K	SK40	40	70	60	27	41	
SK40.40.K.100	SK40	40	70	100	27	41	
SK40.40.K.160	SK40	40	70	160	27	41	
SK50.16.K	SK50	16	32	55	17	27	
SK50.22.K	SK50	22	40	55	19	31	
SK50.27.K	SK50	27	48	55	21	33	
SK50.32.K	SK50	32	58	55	24	38	
SK50.40.K	SK50	40	70	55	27	41	
SK50.50.K	SK50	50	85	70	30	46	
SK50.60.K	SK50	60	98	70	50	66	

SK MANDREN MALAFALARI

DIN 69871



DIN 238

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	MANDREN KONİĞİ	L (mm)	D (mm)	L1 (mm)	FİYAT EUR
SK40.B16	SK40	B16	24	15,733	24	
SK40.B18	SK40	B18	24	17,780	32	

SK MANDRENLİ BAŞLIKLAR

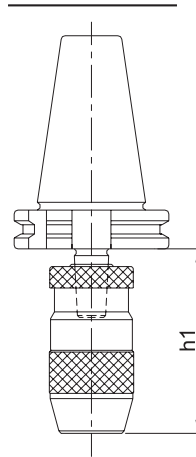
DIN 69871

ÖZELLİKLER

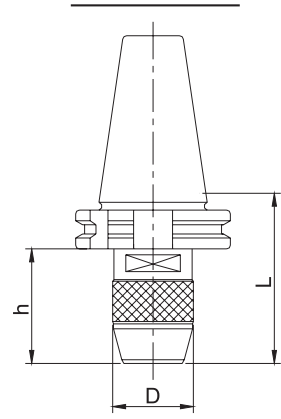
- ELLE VE ANAHTARLA SIKILIP ÇÖZÜLEBİLİR
- SALGI: MAX. 0,06 mm



MANDREN MALAFASI İLE BAĞLAMA



MANDRENLİ BAŞLIK

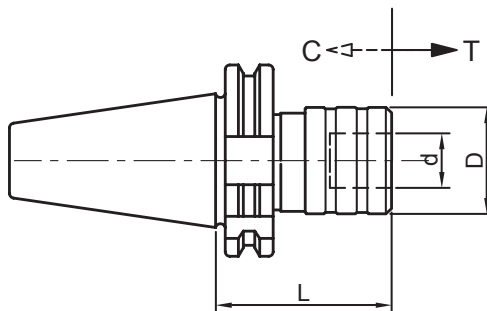
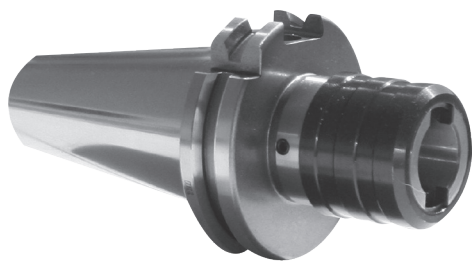


MANDRENLİ BAŞLIK İLE DAHA KISA h MESAFESİ SAĞLANIR.

KOD	KONİK	KAPASİTE (mm)	L (mm)	D (mm)	h (mm)	FİYAT EUR
SK40.1.13	SK40	1-13	80	42	61	
SK40.1.16	SK40	1-16	95	49	76	

SK KILAVUZ ÇEKME BAŞLIĞI - GİRİŞ VE ÇIKIŞ KOMPANZELİ

DIN 69871

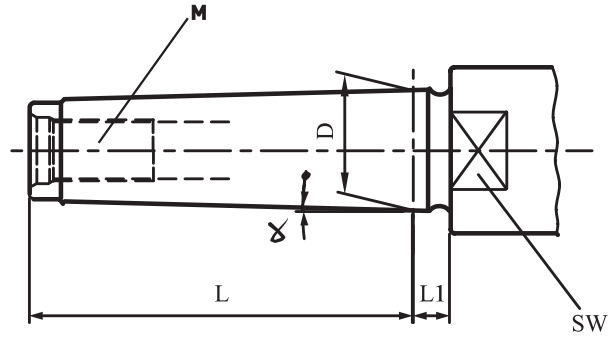


- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
DIN 2080-1/AT3

KOD	KONİK	KAPASİTE	d (mm)	D (mm)	L (mm)	C-T (mm)	FİYAT EUR
SK40.KCB.1	SK40	M3-M12	19	36,5	63	7,5-7,5	
SK40.KCB.2	SK40	M8-M20	31	54	97	12,5-12,5	
SK40.KCB.3	SK40	M14-M33	48	78	145	20-20	
SK50.KCB.1	SK50	M3-M12	19	36,5	60	7,5-7,5	
SK50.KCB.2	SK50	M8-M20	31	54	87	12,5-12,5	
SK50.KCB.3	SK50	M14-M33	48	78	145	20-20	

DIN 228A -ÇEKTİRMELİ

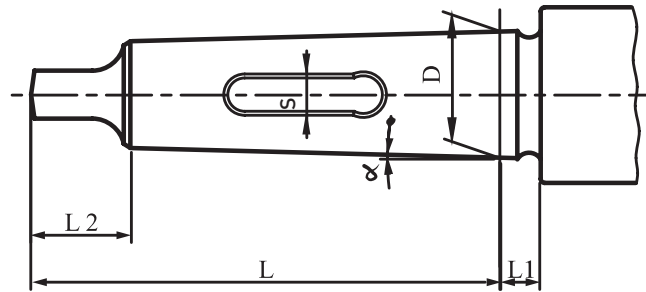
DIN 2207



MK	α	D	L	L1	SW	M
2	1°25'50"	17,780	64	5	-	M10
3	1°26'16"	23,825	81	5	24	M12
4	1°29'15"	31,267	102,5	6,5	32	M16
5	1°30'26"	44,399	129,5	6,5	45	M20

DIN 228 B -KAMALI

DIN 1806



MK	α	D	L	L1	S
2	1°25'50"	17,780	75	5	-
3	1°26'16"	23,825	94	5	8,3
4	1°29'15"	31,267	117,5	6,5	8,3
5	1°30'26"	44,399	149,5	6,5	12,4

ÖZELLİKLER

- MALZEME: ALAŞIMLI SEMENTE ÇELİĞİ- min. 900 N/mm²
- SERTLİK 56-60 HRC / SERTLİK DERİNLİĞİ 0,6-0,9 mm
- AÇI HASSASİYETİ: DIN 7178-1 / AT3

MK PENS TAKIMLARI - ÇEKTİRMELİ

DIN228 FORM A

OZ TİP

DIN 2207



DIN 6388-B
ISO 10897

TAKIM KUTUSU İÇİNDEKİLER

- MK / OZ ÇEKTİRMELİ PENS BAŞLIĞI (1 ADET)
- OZ PENS KAPAĞI (1 ADET)
- OZ ANAHTAR (1 ADET)
- OZ PENSLER (16 ADET)

KOD	KAPASİTE (mm)	KUTU İÇİNDEKİ PENSLERİN ÇAP ÖLÇÜLERİ (mm)	FİYAT EUR
MK3.C.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
MK4.C.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
MK4.C.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	
MK5.C.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
MK5.C.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	

MK PENS TAKIMLARI - KAMALI

DIN228 FORM B

OZ TİP

DIN 1806



DIN 6388-B
ISO 10897

TAKIM KUTUSU İÇİNDEKİLER

- MK / OZ KAMALI PENS BAŞLIĞI (1 ADET)
- OZ PENS KAPAĞI (1 ADET)
- OZ ANAHTAR (1 ADET)
- OZ PENSLER (16 ADET)

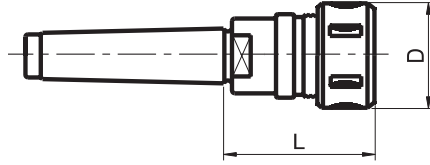
KOD	KAPASİTE (mm)	KUTU İÇİNDEKİ PENSLERİN ÇAP ÖLÇÜLERİ (mm)	FİYAT EUR
MK3.K.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
MK4.K.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
MK4.K.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	
MK5.K.462E.T	4-25	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-25	
MK5.K.467E.T	5-32	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	

MK PENS BAŞLIKLARI - ÇEKTİRMELİ

DIN 228 FORM A

OZ TİP

DIN 2207



KAPAK İLE BİRLİKTE TESLİM EDİLİR.

**DIN 6388
ISO 10897**

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
- SALGI: MAX. 0,006 mm

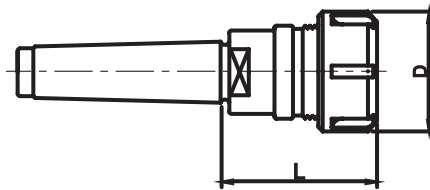
KOD	KONİK	KAPASİTE (mm)	L (mm)	D (mm)	FİYAT EUR
MK3.C.462E	MK3	3-25	92	60	
MK4.C.462E	MK4	3-25	78	60	
MK4.C.467E	MK4	3-32	109	72	
MK5.C.462E	MK5	3-25	74	60	
MK5.C.467E	MK5	3-32	88	72	

MK PENS BAŞLIKLARI - ÇEKTİRMELİ

DIN 228 FORM A

ER TİP

DIN 2207



KAPAK İLE BİRLİKTE TESLİM EDİLİR.

**DIN 6499
ISO 15488**

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	KAPASİTE (mm)	L (mm)	D (mm)	FİYAT EUR
MK2.C.ER25	MK2	1-16	52	42	
MK2.C.ER32	MK2	2-20	60	50	
MK3.C.ER25	MK3	1-16	52	42	
MK3.C.ER32	MK3	2-20	70	50	
MK3.C.ER40	MK3	2-26	82	63	
MK4.C.ER32	MK4	2-20	62	50	
MK4.C.ER40	MK4	2-26	82	63	

MK PENS BAŞLIKLARI - KAMALI

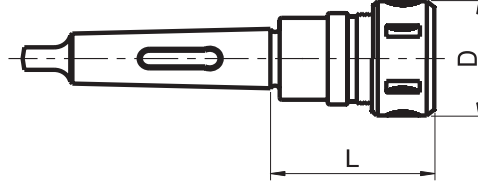
DIN 228 FORM B

ÖZ TİP

DIN 1806



KAPAK İLE BİRLİKTE TESLİM EDİLİR.



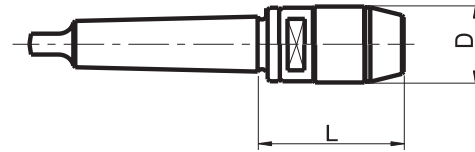
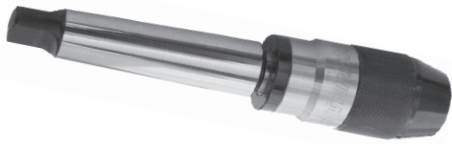
DIN 6388
ISO 10897

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
(Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
- SALGI: MAX. 0,006 mm

KOD	KONİK	KAPASİTE (mm)	L (mm)	D (mm)	FİYAT EUR
MK3.K.462E	MK3	3-25	77	60	
MK4.K.462E	MK4	3-25	78	60	
MK4.K.467E	MK4	3-32	89	72	
MK5.K.462E	MK5	3-25	74	60	
MK5.K.467E	MK5	3-32	88	72	

MK MANDRENLİ BAŞLIKLAR

DIN228 FORM B



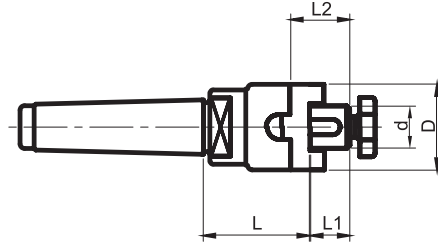
ÖZELLİKLER

- ELLE VE ANAHTARLA SIKILIP ÇÖZÜLEBİLİR.
- SALGI: MAX. 0,06 mm

KOD	KONİK	KAPASİTE (mm)	D (mm)	L (mm)	FİYAT EUR
MK3.0-10	MK3	0-10	35	75	
MK3.1-13	MK3	1-13	42	85	
MK3.1-16	MK3	1-16	49	100	
MK3.4-20	MK3	4-20	55	110	
MK4.1-13	MK4	1-13	42	85	
MK4.1-16	MK4	1-16	49	100	
MK4.4-20	MK4	4-20	55	115	

MK KOMBİNE MALAFALAR - ÇEKTİRMELİ

DIN 228 FORM A



DIN 2207

DIN 6358

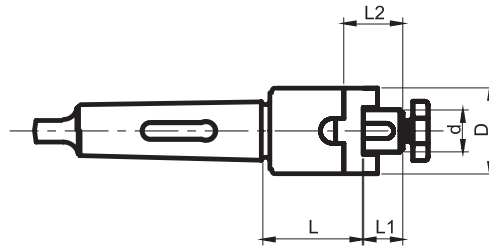
- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
- SALGI: MAX. 0,006 mm

ALIN ÇİVATASI, TIRNAKLI PUL VE KAMA İLE BİRLİKTE TESLİM EDİLİR.

KOD	KONİK	d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	FİYAT EUR
MK4.C.16.K	MK4	16	32	50	17	27	
MK4.C.22.K	MK4	22	40	50	19	31	
MK4.C.27.K	MK4	27	48	60	21	33	
MK4.C.32.K	MK4	32	58	60	24	38	
MK4.C.40.K	MK4	40	70	65	27	41	
MK5.C.16.K	MK5	16	32	60	17	27	
MK5.C.22.K	MK5	22	40	60	19	31	
MK5.C.27.K	MK5	27	48	65	21	33	
MK5.C.32.K	MK5	32	58	70	24	38	
MK5.C.40.K	MK5	40	70	70	27	41	

MK KOMBİNE MALAFALAR - KAMALI

DIN 228 FORM B



DIN 1806

DIN 6358

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC (Derinlik 0,6-0,9 mm)
- AÇI: DIN 7178-1/AT3
- SALGI: MAX. 0,006 mm

ALIN ÇİVATASI, TIRNAKLI PUL VE KAMA İLE BİRLİKTE TESLİM EDİLİR.

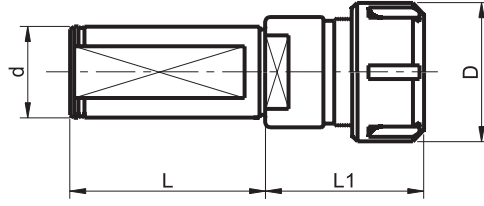
KOD	KONİK	d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	FİYAT EUR
MK4.K.16.K	MK4	16	32	50	17	27	
MK4.K.22.K	MK4	22	40	50	19	31	
MK4.K.27.K	MK4	27	48	50	21	33	
MK4.K.32.K	MK4	32	58	60	24	38	
MK4.K.40.K	MK4	40	70	60	27	41	
MK5.K.16.K	MK5	16	32	50	17	27	
MK5.K.22.K	MK5	22	40	50	19	31	
MK5.K.27.K	MK5	27	48	50	21	33	
MK5.K.32.K	MK5	32	58	50	24	38	
MK5.K.40.K	MK5	40	70	50	27	41	

C PENS BAŞLIKLARI - SİLİNDİRİK ŞAFTLI

ER TİPİ



KAPAK İLE BİRLİKTE TESLİM EDİLİR.



DIN 6499
ISO 15488

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
- SALGI: MAX. 0,006 mm

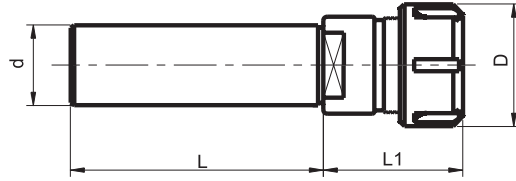
KOD	KAPASİTE (mm)	d (mm)	D (mm)	L (mm)	L1 (mm)	FİYAT EUR
C.25.ER32	2-20	25	50	50	53	
C.32.ER25	1-16	32	42	60	42	
C.32.ER32	2-20	32	50	60	38	
C.32.ER40	2-26	32	63	60	59,5	
C.40.ER32	2-20	40	50	70	38	
C.40.ER40	2-26	40	63	70	59,5	

CY PENS BAŞLIKLARI - SİLİNDİRİK ŞAFTLI

ER TİPİ



KAPAK İLE BİRLİKTE TESLİM EDİLİR.



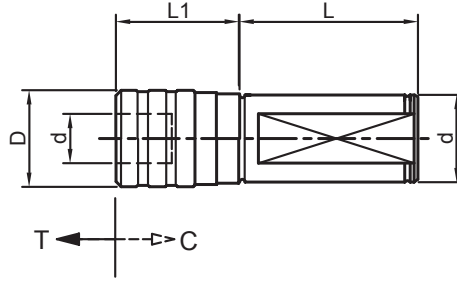
DIN 6499
ISO 15488

- MALZEME: 20 Mn Cr5
- SERTLİK: 58 ± 2 HRC
- SALGI: MAX. 0,006 mm

KOD	KAPASİTE (mm)	d (mm)	AA (mm)	D (mm)	L (mm)	L1 (mm)	FİYAT EUR
CY.16.ER11.100	1-07	16	17	19	100	26,5	
CY.16.ER16.70	1-10	16	19	28 (32)	70	36,5	
CY.16.ER16.150	1-10	16	19	28 (32)	150	36,5	
CY.16.ER20.100	1-13	16	22	34 (35)	100	46,5	
CY.20.ER16.50	1-10	20	19	28 (32)	50	30,5	
CY.20.ER16.70	1-10	20	19	28 (32)	70	30,5	
CY.20.ER16.100	1-10	20	19	28 (32)	100	30,5	
CY.20.ER16.150	1-10	20	19	28 (32)	150	30,5	
CY.20.ER20.100	1-13	20	22	34 (35)	100	46,5	
CY.20.ER25.50	1-16	20	28	42	50	47	
CY.20.ER25.100	1-16	20	28	42	100	47	
CY.25.ER25.50	1-16	25	28	42	50	47	
CY.25.ER25.100	1-16	25	28	42	100	47	
CY.25.ER25.150	1-16	25	28	42	150	47	
CY.25.ER32.150	2-20	25	36	50	150	53	
CY.32.ER25.150	1-16	32	28	42	150	42	
CY.32.ER32.150	2-20	32	36	50	150	38	

C KILAVUZ ÇEKME BAŞLIĞI - GİRİŞ VE ÇIKIŞ KOMPANZELİ

TİP 7400

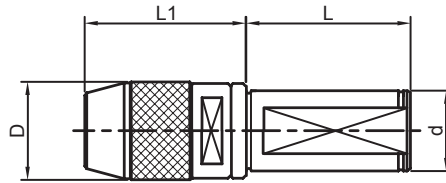


ÖZELLİKLER

- CNC TORNALARDA SORUNSUZ KILAVUZ ÇEKMEK İÇİN KULLANILIR

KOD	KONİK	KAPASİTE	d (mm)	D (mm)	L (mm)	L ₁ (mm)	C-T (mm)	FİYAT EUR
C25.KCB.1	25	M3-M12	19	36,5	60	45	7,5-7,5	
C25.KCB.2	25	M8-M20	31	54	60	45	12,5-12,5	
C32.KCB.1	32	M3-M12	19	36,5	75	40	7,5-7,5	
C32.KCB.2	32	M8-M20	31	54	75	40	12,5-12,5	
C32.KCB.3	32	M14-M33	48	78	75	40	20-20	

C MANDRENLİ BAŞLIK



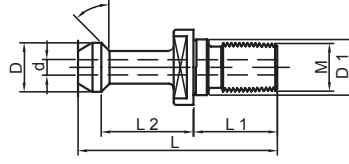
ÖZELLİKLER

- ELLE VE ANAHTARLA SIKILIP ÇÖZÜLEBİLİR.
- SALGI: MAX. 0,06 mm

KOD	KAPASİTE (mm)	d (mm)	D (mm)	L (mm)	L ₁ (mm)	FİYAT EUR
C25.0.10	0-10	25	35	50	78	
C25.1.13	1-13	25	42	50	88	
C32.1.13	1-13	32	42	60	88	
C32.1.16	1-16	32	49	60	105	
C32.4.20	4-20	32	55	60	115	
C40.1.16	1-16	40	49	70	105	
C40.4.20	4-20	40	55	70	115	

BT ÇEKTİRME CİVATALARI

MAS 403 - BT / JIS B 6339



BT BAŞLIKLAR İÇİNDİR

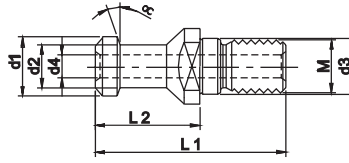
- MALZEME: 20 Mn Cr5
- SERTLİK: 56 ± 2 HRC

A TİPLER SU KANALLIDIR.

KOD	∠	TİP	D(mm)	D1(mm)	d (mm)	M	L (mm)	L1 (mm)	L2 (mm)	FİYAT EUR
BT30.CV.1.B	45°	B	11	12,5	-	M12	43	20	18	
BT40.CV.1.B	45°	B	15	17	-	M16	60	25	28	
BT40.CV.1.A		A	15	17	3,3	M16	60	25	28	
BT50.CV.1.B	45°	B	23	25	-	M24	85	40	35	
BT50.CV.1.A		A	23	25	8,5	M24	85	40	35	
BT40.CV.2.B	60°	B	15	17	-	M16	60	25	28	
BT50.CV.2.B		B	23	25	-	M24	85	40	35	

SK ÇEKTİRME CİVATALARI

DIN 69872 A/B



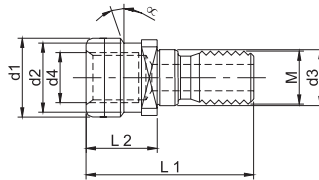
SK BAŞLIKLAR İÇİNDİR

- MALZEME: 20 Mn Cr5
- SERTLİK: 56 ± 2 HRC

A TİPLER SU KANALLIDIR.

KOD	∠	TİP	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	M	L1 (mm)	L2 (mm)	FİYAT EUR
SK30.CV.B	15°	B	13	9	13	-	M12	44	24	
SK40.CV.B	15°	B	19	14	17	-	M16	54	26	
SK40.CV.A		A	19	14	17	7	M16	54	26	
SK50.CV.B	15°	B	28	21	25	-	M24	74	34	
SK50.CV.A		A	28	21	25	11,5	M24	74	34	

ISO / DIN 2080 ÇEKTİRME CİVATALARI




BU ÇEKTİRME CİVATALARI BT, SK VE CV BAŞLIKLARIN DIN2079 FENER MİLLERİNE BAĞLANABİLMELERİ İÇİN ADAPTÖR GÖREVİ YAPARLAR .

- MALZEME: 20 Mn Cr5
- SERTLİK: 56 ± 2 HRC

KOD	∠	d1 (mm)	d2 (mm)	d3 (mm)	L1 (mm)	L2 (mm)	FİYAT EUR
ISO 40.BT	15°	25	21	17	56	28	
ISO 40.SK		25	21	17	53	25	
ISO 50.BT	-	39	32	25	65	25	


OZ ANAHTARLAR

DIN1810A

 <p>DIN 6388/D OZ PENS KAPAKLARI İÇİNDİR.</p>	KOD	SIKMA KAPASİTESİ (mm)	KALINLIK (mm)	BOY (mm)	FİYAT EUR
	462E.A	58-62	8	210	
	467E.A	68-75	8	210	


ER ANAHTARLAR

DIN 6499

 <p>DIN 6499 ER PENS KAPAKLARI İÇİNDİR.</p>	KOD	SIKMA KAPASİTESİ (mm)	KALINLIK (mm)	BOY (mm)	FİYAT EUR
	ER16.A	32	5	163	
	ER20.A	35	5	180	
	ER25.A	42	6	206	
	ER32.A	50	6	253	
	ER40.A	63	8	284	


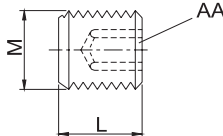
ER ANAHTARLAR (MİNİ TİP)

DIN 6499

 <p>DIN 6499 ER PENS KAPAKLARI İÇİNDİR.</p>	KOD	SIKMA KAPASİTESİ (mm)	ÇAP (mm)	FİYAT EUR
	ER8.A.M	1-5	12	
	ER11.A.M	1-7	16	
	ER16.A.M	1-10	22	

VELDON CİVATASI

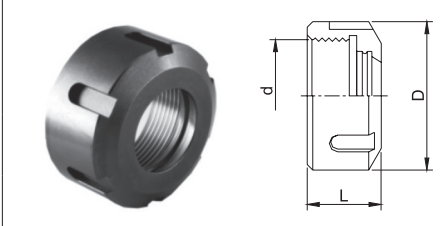
DIN 1835 - B

  <p>MALZEME DAYANIM SINIFI: 10,9 / DIN 267</p>	KOD	İLGİLİ MALAFA ÇAPI	M (mm)	L (mm)	AA (mm)	FİYAT EUR
	M6.V	6	M6	10	3	
	M8.V	8	M8	10	4	
	M10.V	10	M10	12	5	
	M12.V	12-14	M12	16	6	
	M14.V	16-18	M14	16	6	
	M16.V	20	M16	16	8	
	M18.V	25	M18X2	20	10	
	M20.V	32-40	M20X2	20	10	

PENS KAPAKLARI

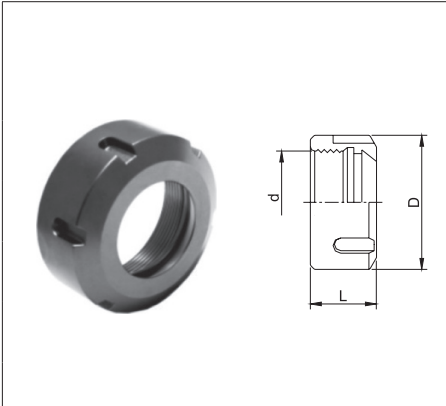
OZ PENS KAPAKLARI

DIN6388-D / ISO10897

	KOD	SIKMA KAPASİTESİ (mm)	d (mm)	D (mm)	L (mm)	FİYAT EUR
	462E.K	3-25	M48X2	60	30	
	467E.K	3-32	M60X2,5	72	33,5	

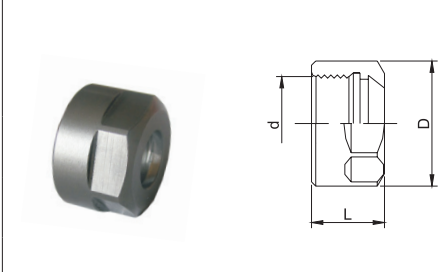
ER PENS KAPAKLARI

DIN 6499 / ISO15488

	KOD	SIKMA KAPASİTESİ (mm)	d (mm)	D (mm)	L (mm)	FİYAT EUR
	ER16.K	1-10	M22x1,5	32	17,5	
	ER20.K	1-13	M25x1,5	35	19	
	ER25.K	1-16	M32x1,5	42	20	
	ER32.K	2-20	M40x1,5	50	22,5	
	ER40.K	2-26	M50x1,5	63	25,5	

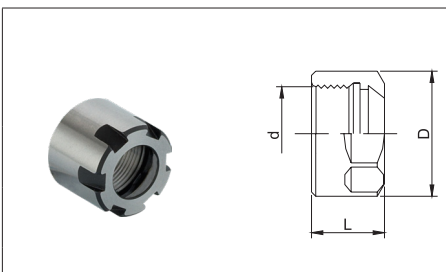
ER PENS KAPAKLARI - ANAHTAR AĞIZLI

DIN 6499 / ISO 15488

	KOD	SIKMA KAPASİTESİ (mm)	d (mm)	D (mm)	L (mm)	FİYAT EUR
	ER11.KA	1-7	M14x0,75	19	11,3	
	ER16.KA	1-10	M22x1,5	28	17,5	
	ER20.KA	1-13	M25x1,5	34	19	

ER PENS KAPAKLARI - MİNİ TİP

DIN 6499 / ISO 15488

	KOD	SIKMA KAPASİTESİ (mm)	d (mm)	D (mm)	L (mm)	FİYAT EUR
	ER8.K.M	1-5	M10x0,75	12	9	
	ER11.K.M	1-7	M13x0,75	16	12	
	ER16.K.M	1-10	M19x1	22	18	

ALIN CİVATASI

TARAMA MALAFALARINDA VE KOMBİNE MALAFALARDA KULLANILIR.

KOD	İLGİLİ MALAFA ÇAPI	d (mm)	D (mm)	L (mm)	K (mm)	AA (mm)	FİYAT EUR
TC 16	16	M8	20	16	7	6	
TC 22	22	M10	28	18	8	8	
TC 27	27	M12	35	22	9	10	
TC 32	32	M16	42	26	10	14	
TC 40	40	M20	52	30	11	17	
TC 50	50	M24	62	40	13	19	
TC 60	60	M30	73	45	15	22	

TIRNAKLI PUL

KOMBİNE MALAFALAR İÇİNDİR.

DIN 6366

KOD	İLGİLİ MALAFA ÇAPI	d (mm)	D (mm)	b (mm)	FİYAT EUR
TP 16	16	16	32	8	
TP 22	22	22	40	10	
TP 27	27	27	48	12	
TP 32	32	32	58	14	
TP 40	40	40	68	16	
TP 50	50	50	84	18	
TP 60	60	60	98	20	

KAMA

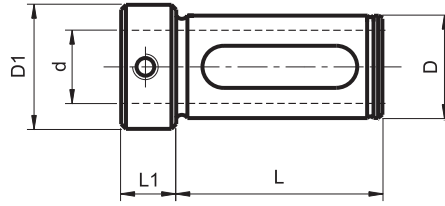
KOMBİNE MALAFALAR İÇİNDİR.

DIN 6885/A

KOD	İLGİLİ MALAFA ÇAPI	b (mm)	h (mm)	L (mm)	FİYAT EUR
TK 16	16	4	4	20	
TK 22	22	6	6	22	
TK 27	27	7	7	25	
TK 32	32	8	7	28	
TK 40	40	10	8	32	
TK 50	50	12	8	36	
TK 60	60	14	9	50	

REDÜKSİYON KOVANLARI - SİLİNDİRİK ŞAFTLAR İÇİN

TİP 7400



ÖZELLİKLER

• CNC TORNALARDA DELİK KATERLERİNİ VE SİLİNDİRİK ŞAFTLI TAKIMLARI BAĞLAMAK İÇİN KULLANILIR.

• SALGI: MAX.0,01 mm

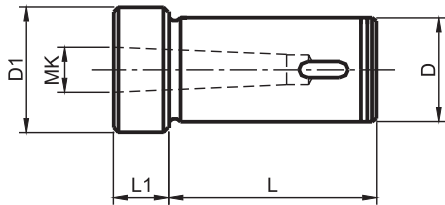
BAĞLAMA CİVATALARIYLA BİRLİKTE TESLİM EDİLİR.

*** SU KANALLIDIR.**

KOD	D (mm)	d (mm)	D1 (mm)	L1 (mm)	L (mm)	FİYAT EUR
7420	25	8	32	13	50	
7421		10				
7422		12				
7424		16				
7425		20				
7430	32	8	39	14	70	
7431		10				
7432		12				
7434		16				
7435		20				
7436		25				
7440	40	8	46,5	15	80	
7441		10				
7442		12				
7444		16				
7445		20				
7446		25				
7447		32				

REDÜKSİYON KOVANLARI - MORS KONİK ŞAFTLAR İÇİN

TİP 7300



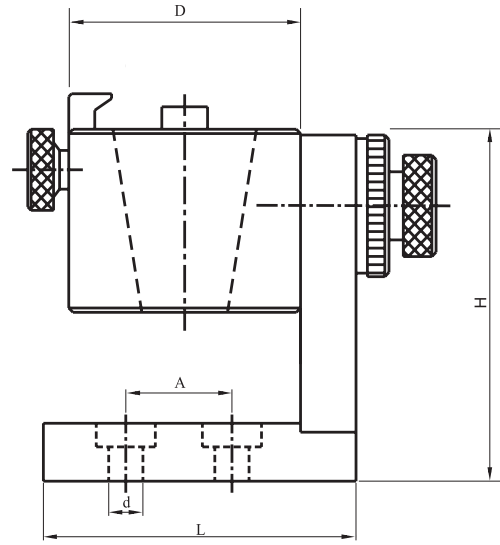
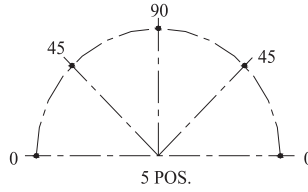
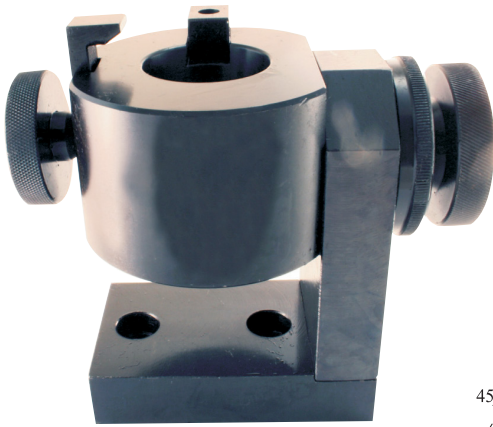
ÖZELLİKLER

• CNC TORNALARDA KONİK ŞAFTLI TAKIMLARI BAĞLAMAK İÇİNDİR.

• SALGI: MAX.0,01 mm

KOD	D (mm)	MK	D1 (mm)	L1 (mm)	L (mm)	FİYAT EUR
7331	32	MK1	39	14	70	
7332		MK2				
7333		MK3				
7341	40	MK1	46,5	15	80	
7342		MK2				
7343		MK3				
7344		MK4				

MONTAJ APARATLARI (ÇELİK)

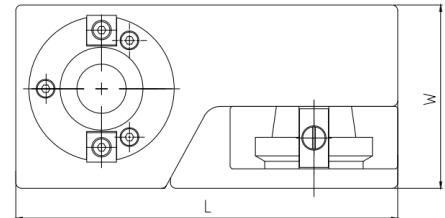
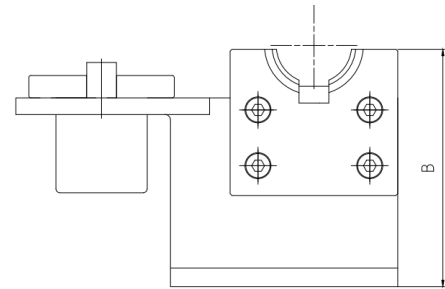
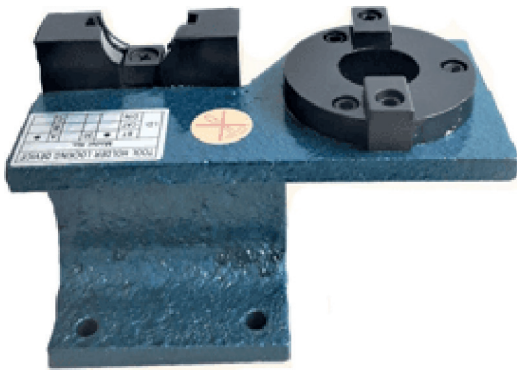


ÖZELLİKLER

- SAĞA VE SOLA 90 DERECE DÖNDÜRÜLEBİLİR.
HER 45 DERECE VE 90 DERECEDE SABİTLENEBİLİR.

KOD	TİP	D (mm)	d (mm)	H (mm)	A (mm)	L (mm)	FİYAT EUR
SK.30	SK 30	88	11	127	50	105	
SK.40	SK 40	93	11	127	50	105	
SK.50	SK 50	118	11	172	50	105	

MONTAJ APARATLARI (DÖKÜM)



KOD	TİP	L (mm)	W (mm)	B (mm)	AĞIRLIK (Kg)	FİYAT USD
CTM.SK.30	SK 30	205	98,5	128	3,7	
CTM.SK.40	SK 40	205	98,5	128	3,8	
CTM.SK.50	SK 50	275	150	198	11,4	

TEKERLEKLİ TAKIM ARABASI

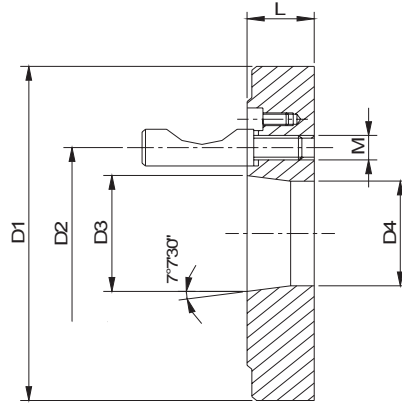


KOD	TİP	TAKIM ADEDİ	EN (cm)	BOY (cm)	YÜKSEKLİK (cm)	FİYAT EUR
SK30.TAS	SK30/BT30/ISO30	45	60	70	120	
SK40.TAS	SK40/BT40/ISO40	45	60	70	120	
SK50.TAS	SK50/BT50/ISO50	45	60	70	120	

MASAÜSTÜ TAKIM SEHPASI



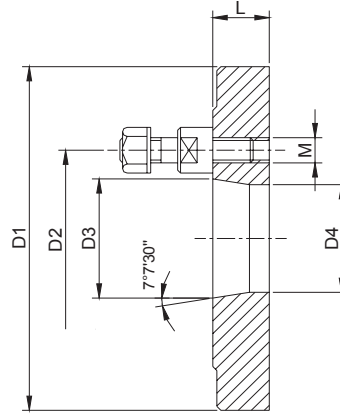
KOD	TİP	TAKIM ADEDİ	EN (cm)	BOY (cm)	YÜKSEKLİK (cm)	FİYAT EUR
SK30.MTS	SK30/BT30/ISO30	12	40	70	50	
SK40.MTS	SK40/BT40/ISO40	12	40	70	50	
SK50.MTS	SK50/BT50/ISO50	12	40	70	50	



ÖZELLİKLER

- DÖKÜM GÖVDELİDİR.
- SAPLAMALARI İLE BİRLİKTE TESLİM EDİLİR.
- AYNALARIN TORNA TEZGAHLARINA BAĞLANABİLMESİ İÇİN ADAPTÖR GÖREVİ YAPARLAR.
- BU BAĞLANTIDAN İYİ SONUÇ ALABİLMEK İÇİN TORNA AYNASI VE FLANŞLARIN KULLANIM TALİMATLARINA EKSİKSİZ OLARAK UYMANIZI ÖNERİRİZ.
- AYNA FLANŞLARININ HASSAS OLARAK İŞLENMİŞ OLAN TEZGAH TARAFI, MONTAJA HAZIR HALDEDİR. AYNANIN BAĞLANACAĞI TARAF İSE KABA OLARAK BIRAKILMIŞ OLUP MONTAJ ESNASINDA KULLANICI TARAFINDAN İŞLENECEKTİR.

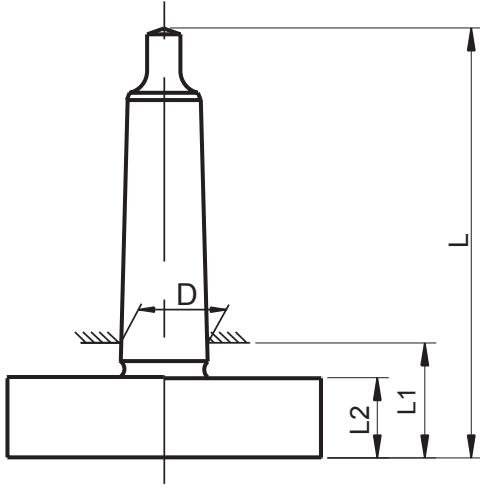
KOD	D1 (mm)	NO	D2 (mm)	D3 (mm)	D4 (mm)	L (mm)	M (mm)	SAPLAMA ADEDİ	FİYAT EUR
160.4.C	160	4	82,55	63,525	60,6	25	M12x1	3	
160.5.C		5	104,8	82,563	79,4	28	M12x1	6	
160.6.C		6	133,4	106,375	103	33	M16x1,5	6	
200.5.C	200	5	104,8	82,563	79,4	28	M12x1	6	
200.6.C		6	133,4	106,375	103	33	M16x1,5	6	
200.8.C		8	171,4	139,719	136	38	M20x1,5	6	
250.5.C	250	5	104,8	82,563	79,4	33	M12x1	6	
250.6.C		6	133,4	106,375	103	33	M16x1,5	6	
250.8.C		8	171,4	139,719	136	38	M20x1,5	6	
315.6.C	315	6	133,4	106,375	103	35	M16x1,5	6	
315.8.C		8	171,4	139,719	136	38	M20x1,5	6	
315.11.C		11	235	196,869	192,5	44	M22x1,5	6	
400.6.C	400	6	133,4	106,375	103	40	M16x1,5	6	
400.8.C		8	171,4	139,719	136	40	M20x1,5	6	
400.11.C		11	235	196,869	192,5	45	M22x1,5	6	
500.8.C	500	8	171,4	139,719	136	45	M20x1,5	6	
500.11.C		11	235	196,869	192,5	45	M22x1,5	6	



ÖZELLİKLER

- DÖKÜM GÖVDELİDİR.
- SAPLAMA VE SOMUNLARI İLE BİRLİKTE TESLİM EDİLİR.
- AYNALARIN TORNA TEZGAHLARINA BAĞLANABİLMESİ İÇİN ADAPTÖR GÖREVİ YAPARLAR
- BU BAĞLANTIDAN İYİ SONUÇ ALABİLMEK İÇİN TORNA AYNASI VE FLANŞLARIN KULLANIM TALİMATLARINA EKSİKSİZ OLARAK UYMANIZI ÖNERİRİZ.
- AYNA FLANŞLARININ HASSAS OLARAK İŞLENMİŞ OLAN TEZGAH TARAFI, MONTAJA HAZIR HALDEDİR. AYNANIN BAĞLANACAĞI TARAF İSE KABA OLARAK BIRAKILMIŞ OLUP MONTAJ ESNASINDA KULLANICI TARAFINDAN İŞLENECEKTİR.

KOD	D1 (mm)	NO	D2 (mm)	D3 (mm)	D4 (mm)	L (mm)	M (mm)	SAPLAMA ADEDİ	FİYAT EUR
160.4.F	160	4	85	63,525	60,6	25	M10	3	
160.5.F		5	104,8	82,563	79,4	25	M10	4	
160.6.F		6	133,4	106,375	103	25	M12	4	
200.5.F	200	5	104,8	82,563	79,4	25	M10	4	
200.6.F		6	133,4	106,375	103	25	M12	4	
200.8.F		8	171,4	139,719	136	25	M16	4	
250.5.F	250	5	104,8	82,563	79,4	30	M10	4	
250.6.F		6	133,4	106,375	103	30	M12	4	
250.8.F		8	171,4	139,719	136	30	M16	4	
315.6.F	315	6	133,4	106,375	103	35	M12	4	
315.8.F		8	171,4	139,719	136	35	M16	4	
315.11.F		11	235	196,869	192,5	35	M20	6	
400.6.F	400	6	133,4	106,375	103	36	M12	4	
400.8.F		8	171,4	139,719	136	36	M16	4	
400.11.F		11	235	196,869	192,5	36	M20	6	
500.8.F	500	8	171,4	139,719	136	40	M16	4	
500.11.F		11	235	196,869	192,5	40	M20	6	



ÖZELLİKLER

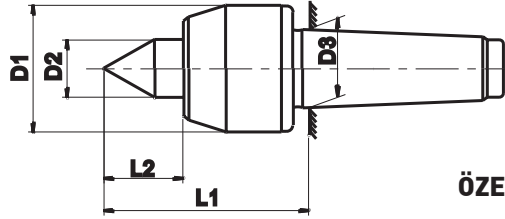
- MORSLU FLANŞLAR, AYNALARIN TEZGAHLARA MİNİMUM SALGI İLE BAĞLANMASINI SAĞLARLAR.
- KABA İŞLENMİŞ OLAN TARAF AYNA ÖLÇÜLERİNE UYGUN OLARAK DELİNİP TORNALANDIKTAN SONRA AYNANIN BAĞLANMASI GERÇEKLEŞTİRİLİR.
- MORSLU TARAF SERTLEŞTİRİLMİŞ VE TAŞLANMIŞ OLUP, AYNA TARAFI SERTLEŞTİRİLMEMİŞTİR.

SİP.NR.	DIŞ ÇAP (mm)	MK	D (mm)	L (mm)	L1 (mm)	L2 (mm)	FİYAT EUR
6102	80	2	17,780	104	27	18	
6103		3	23,825	123	29	18	
6104		4	31,267	147	30	18	
6113	100	3	23,825	123	29	18	
6114		4	31,267	147	30	18	
6123	125	3	23,825	125	31	20	
6124		4	31,267	149	32	20	
6133	160	3	23,825	125	31	20	
6134		4	31,267	149	32	20	
6135**		5	44,399	183	33	20	

**** : DIN 228/A FORMUNDADIR**

DÖNER PUNTALAR - NORMAL UÇLU

TİP 100



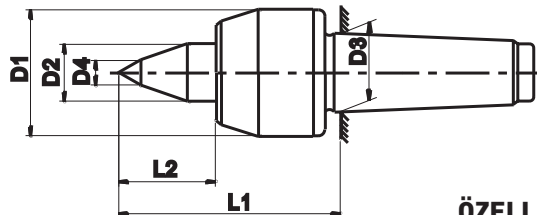
ÖZELLİKLER

- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ: 60-62 HRC
- SALGI: MAX. 0,008 mm

KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	DEVİR d/d (max)	PARÇA AĞIRLIĞI KG (max)	FİYAT EUR
102	MK2	48	21.5	17.780	74	26	6000	150	
103	MK3	57	25	23.825	86.5	31	4300	300	
104	MK4	68	34.5	31.267	102	40	3500	600	
105	MK5	82	44	44.399	118.5	50	2500	1100	
106	MK6	103	54.5	63.348	148	60	1900	2000	

DÖNER PUNTALAR - KOPYE UÇLU

TİP 110



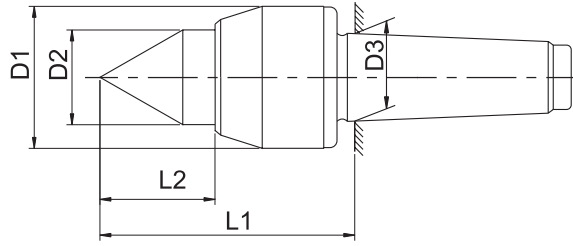
ÖZELLİKLER

- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ 60-62 HRC
- SALGI: MAX. 0,008mm

KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L1 (mm)	L2 (mm)	DEVİR d/d (max)	PARÇA AĞIRLIĞI KG (max)	FİYAT EUR
114	MK4	68	34,5	31.267	12	112	50	3500	450	
115	MK5	82	44	44.399	15	130	62	2500	850	

DÖNER PUNTALAR - AĞIR YÜK

TİP 170



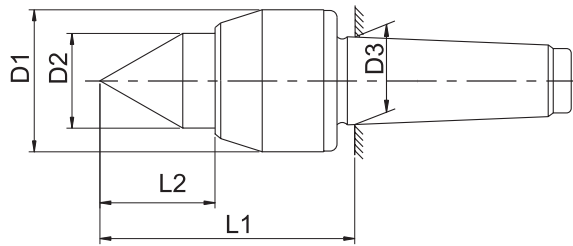
ÖZELLİKLER

- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ 60-62 HRC
- SALGI: MAX. 0,008 mm

KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	DEVİR d/d (max)	PARÇA AĞIRLIĞI KG (max)	FİYAT EUR
174	MK4	83	44,5	31.267	135.5	50	3800	800	
175	MK5	103	54,5	44.399	161	60	3000	2000	
176	MK6	115	59,5	63.348	178	67.5	2600	3500	

DÖNER PUNTALAR - BÜYÜK MİL ÇAPLI

TİP 150



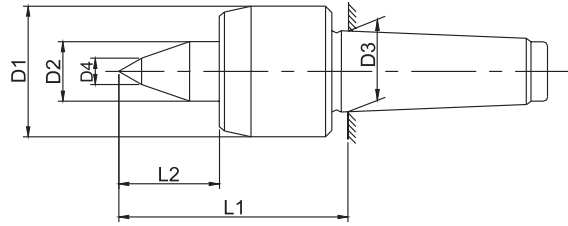
ÖZELLİKLER

- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ 60-62 HRC
- SALGI: MAX. 0,008 mm

KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	DEVİR d/d (max)	PARÇA AĞIRLIĞI KG (max)	FİYAT EUR
154	MK4	68	40	31.267	106	44	3500	600	
155	MK5	82	52	44.399	123,5	55	2500	1000	

DÖNER PUNTALAR - CNC TORNALAR İÇİN

TİP 140



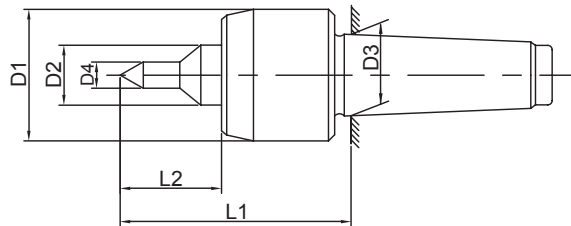
ÖZELLİKLER

- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ 60-62 HRC
- SALGI: MAX. 0,008 mm

KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L1 (mm)	L2 (mm)	DEVİR d/d (max)	PARÇA AĞIRLIĞI KG (max)	FİYAT EUR
144	MK4	68	34,5	31.267	15	122	48,5	5000	500	
145	MK5	83	44	44.399	16	142	61	4000	850	

DÖNER PUNTALAR - İNCE UÇLU

TİP 120



ÖZELLİKLER

- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ 60-62 HRC
- SALGI: MAX. 0,008 mm

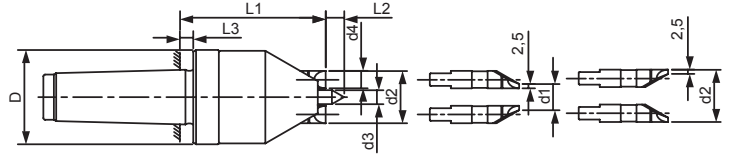
KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L1 (mm)	L2 (mm)	DEVİR d/d (max)	PARÇA AĞIRLIĞI KG (max)	FİYAT EUR
124	MK4	68	34,5	31.267	15	112	50	3500	450	
125	MK5	82	44	44.399	16	130	62	2500	800	

TIRNAKLI PUNTALAR - BASMA ÇAPI 15 MM - 30 MM

TİP 320

SALGISI 0,02 mm' YE KADAR AYARLANABİLİR.

MEKANİK KİLİTLEMELİ



3 ADET YEDEK TIRNAK İLE BİRLİKTE TESLİM EDİLİR.

MİL VE TIRNAKLARDA SERTLİK: 60-63 HRC

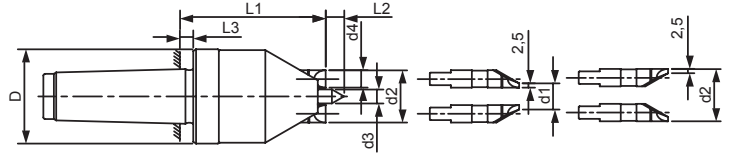
KOD	KONİK	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	TORNALAMA ÇAPI (mm)		D (mm)	L1 (mm)	L2 (mm)	L3 (mm)	TIRNAK SAYISI	FİYAT EUR
						MİN.	MAX.						
323	MK3	15	30	8	10	16	60	54	80	7,5	5	3+3	
324	MK4	15	30	8	10	16	60	54	80	7,5	5	3+3	
325	MK5	15	30	8	10	16	60	54	80	7,5	5	3+3	

TIRNAKLI PUNTALAR - BASMA ÇAPI 24 MM - 45 MM

TİP 340

SALGISI 0,02 mm' YE KADAR AYARLANABİLİR.

MEKANİK KİLİTLEMELİ



6 ADET YEDEK TIRNAK İLE BİRLİKTE TESLİM EDİLİR.

MİL VE TIRNAKLARDA SERTLİK: 60-63 HRC

KOD	KONİK	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	TORNALAMA ÇAPI (mm)		D (mm)	L1 (mm)	L2 (mm)	L3 (mm)	TIRNAK SAYISI	FİYAT EUR
						MİN.	MAX.						
344	MK4	24	45	17	13	25	90	69	94	15	5	6+6	
345	MK5	24	45	17	13	25	90	69	94	15	5	6+6	



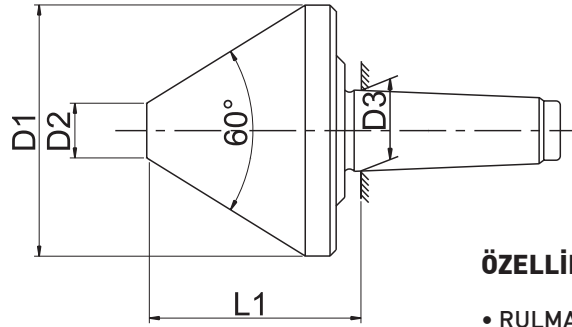
İŞ PARÇASI ÜZERİNDEKİ PUNTA DELİĞİNİN VEYA ALIN PROFİLİNİN DURUMUNA GÖRE BASINÇ BASIT OLARAK AYARLANABİLİR.



TIRNAKLAR VEYA MİLİN DEFORME OLMASI HALİNDE PARÇALAR EKONOMİK VE PRATİK OLARAK DEĞİŞTİRİLEBİLİR.

BORU PUNTALARI - 60 DERECE UÇ AÇILI

TİP 200



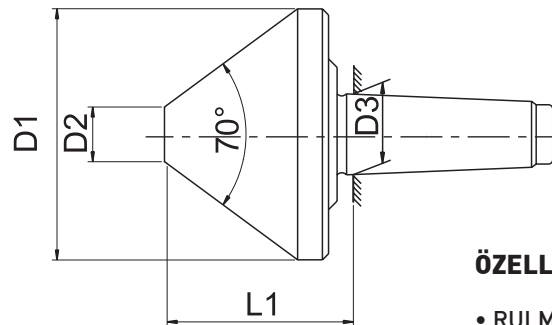
ÖZELLİKLER

- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ 60-62 HRC
- SALGI: MAX. 0,01 mm

KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	DEVİR d/d (max)	İŞ PARÇASI AĞIRLIĞI KG (MAX.)	FİYAT EUR
203	MK3	80	25	23.825	70	3000	300	
213	MK3	100	32	23.825	85	2400	500	
204	MK4	120	38	31.267	90	2400	500	
205	MK5	120	38	44.399	90	2400	500	
224	MK4	140	40	31,267	105	1800	600	
225	MK5	140	40	44,399	105	1800	600	
215	MK5	170	50	44.399	100	1500	1000	

BORU PUNTALARI - 70 DERECE UÇ AÇILI

TİP 210/230



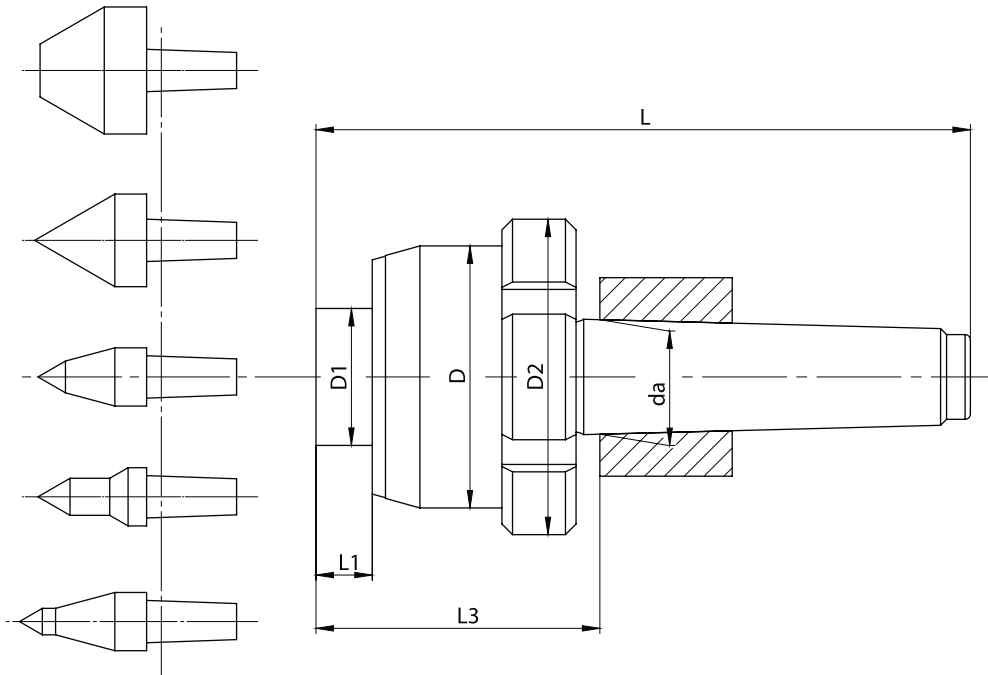
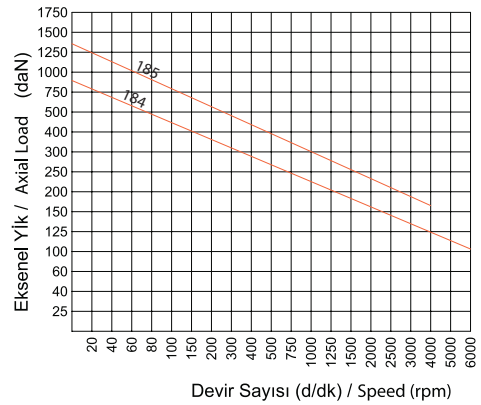
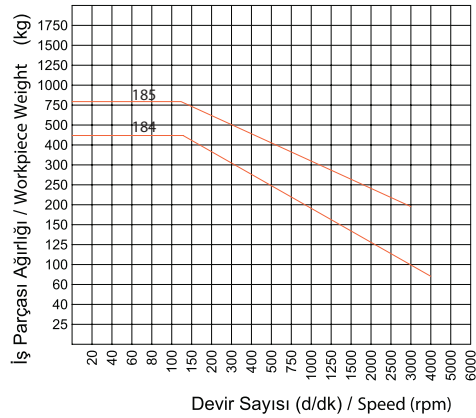
ÖZELLİKLER

- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ 60-62 HRC
- SALGI: MAX. 0,01 mm

KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	DEVİR d/d (max)	İŞ PARÇASI AĞIRLIĞI KG (MAX.)	FİYAT EUR
235	MK5	200	70	44.399	125	800	1000	
216	MK6	250	75	63.348	147	800	1500	

DEĞİŞTİRİLEBİLİR UÇLU HASSAS DÖNER PUNTALAR

TİP 180



KOD	KONİK MK	D (mm)	D1 (mm)	D2 (mm)	da (mm)	L (mm)	L1 (mm)	L3 (mm)	FİYAT EUR
184	MK4	68	35	85	31,267	183	12,5	81	
185	MK5	68	35	85	44,399	226	12,5	87	