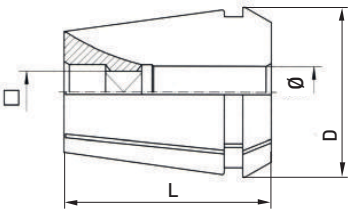
ER KILAVUZ PENSLERİ

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	

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	

ER 20 KILAVUZ PENSLERİ	
D=20,7 mm / L=31,5 mm	

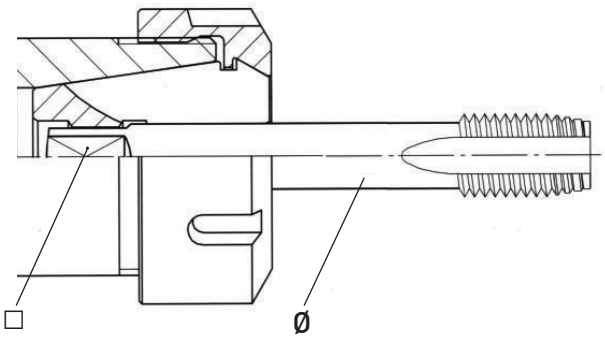
KOD	Ø (mm)	□ (mm)	FİYAT EUR
ER20-3,5x2,7	3,5	2,7	
ER20-4x3,2	4	3,2	
ER20-4,5x3,4	4,5	3,4	
ER20-6x4,9	6	4,9	
ER20-7x5,5	7	5,5	
ER20-8x6,3	8	6,3	
ER20-9x7,1	9	7,1	
ER20-10x8	10	8	
ER20-11x9	11	9	
ER20-12x9	12	9	

ER 25 KILAVUZ PENSLERİ	
D=25,7 mm / L=34 mm	

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

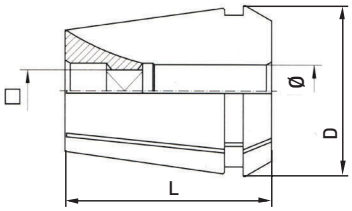


ER KILAVUZ PENSLERİ

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	

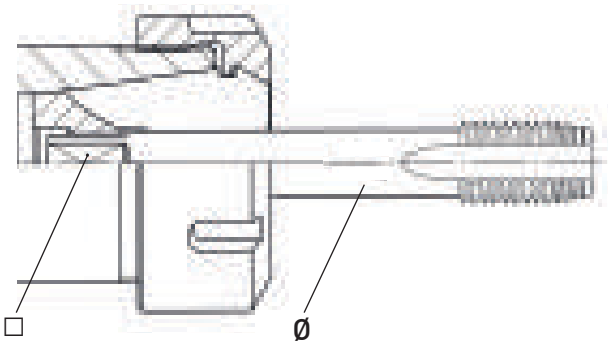
ER 40 KILAVUZ PENSLERİ

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



TEKERLEKLİ TAKIM ARABASI



KOD	TİP	TAKIM ADEDİ	EN (cm)	BOY (cm)	YÜKSEKLİK (cm)	FİYAT EUR
SK40.TAS	SK40/BT40/ISO40	40	60	70	120	
SK50.TAS	SK50/BT50/ISO50	40	60	70	120	

MASAÜSTÜ TAKIM SEHPASI

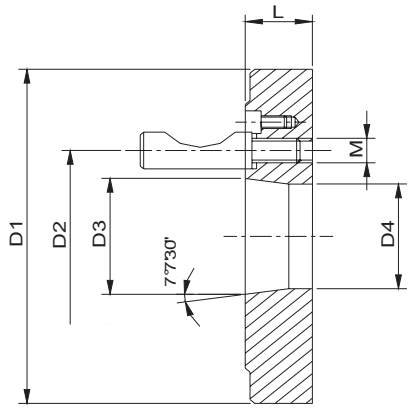


KOD	TİP	TAKIM ADEDİ	EN (cm)	BOY (cm)	YÜKSEKLİK (cm)	FİYAT EUR
SK40.MTS	SK40/BT40/ISO40	16	40	70	50	
SK50.MTS	SK50/BT50/ISO50	16	40	70	50	

AYNA FLANŞLARI CAMLOCK SAPLAMALI

DIN 55029





ÖZELLİKLER

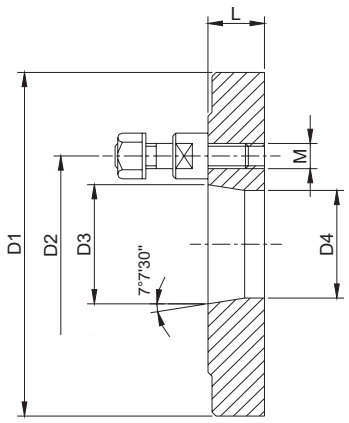
- DÖKÜM GÖVDELİDİR.
- SAPLAMALARI İLE BİRLİKTE TESLİM EDİLİR.
- AYNALARIN TORNA TEZGAHLARINA BAĞLANABİLMESİ İÇİN ADAPTÖR GÖREVİ YAPARLAR.
- BU BAĞLANTIDAN İYİ SONUÇ ALABİLMEK İÇİN TORNA AYNASI VE FLANŞLARIN KULLANIM TALİMATLARINA EKSİKSİZ OLARAK UYMANIZI ÖNERİRİZ.
- AYNA FLANŞLARININ HASSAS OLARAK İŞLENMİŞ 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	45	M20x1,5	6	
400.11.C		11	235	196,869	192,5	45	M22x1,5	6	
500.6.C	500	6	133,4	106,375	103	40	M16x1,5	6	
500.8.C		8	171,4	139,719	136	45	M20x1,5	6	
500.11.C		11	235	196,869	192,5	45	M22x1,5	6	

AYNA FLANŞLARI SAPLAMA VE SOMUNLU

DIN 55027





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.

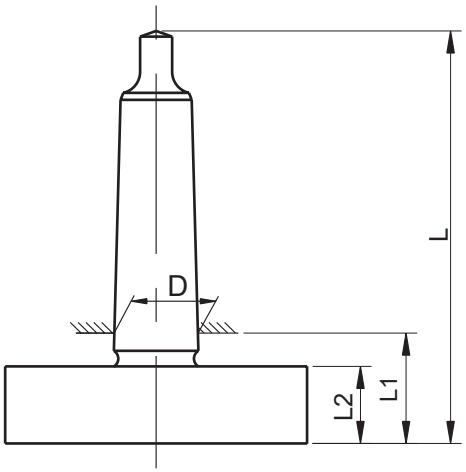
KOD	D1 (mm)	NO	D2 (mm)	D3 (mm)	D4 (mm)	L (mm)	M (mm)	SAPLAMA ADEDİ	FİYAT EUR
160.4.F	160	4	82,55	63,525	60,6	25	M10	3	
160.5.F		5	104,8	82,563	79,4	25	M10	4	
160.6.F		6	133,4	106,375	103	25	M12	4	
200.5.F	200	5	104,8	82,563	79,4	25	M10	4	
200.6.F		6	133,4	106,375	103	25	M12	4	
200.8.F		8	171,4	139,719	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	
500.6.F	500	6	133,4	106,375	103	36	M12	4	
500.8.F		8	171,4	139,719	136	40	M16	4	
500.11.F		11	235	196,869	192,5	40	M20	6	

MORSLU FLANŞLAR

DIN 228 FORM B

TİP 6100





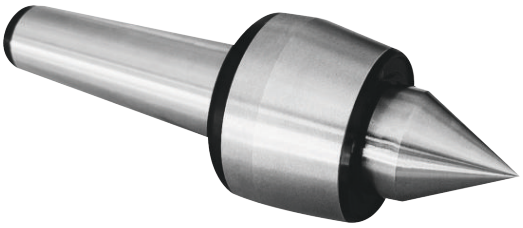
ÖZELLİKLER

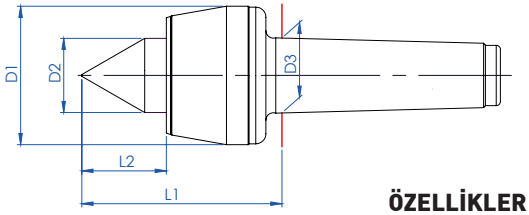
- MORSLU FLANŞLAR, AYNALARIN TEZGAHLARA MİNİMUM SALGI İLE BAĞLANMASINI SAĞLARLAR.
- KABA İŞLENMİŞ OLAN TARAF AYNA ÖLÇÜLERİNE UYGUN OLARAK DELİNİP TORNALANDIKTAN SONRA AYNANIN BAĞLANMASI GERÇEKLEŞTİRİLİR.
- MORSLU TARAF SERTLEŞTİRİLMİŞ VE TAŞLANMIŞ OLUP, AYNA TARAFI SERTLEŞTİRİLMEMİŞTİR.

KOD	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	

DÖNER PUNTALAR NORMAL UÇLU

TİP 100





ÖZELLİKLER

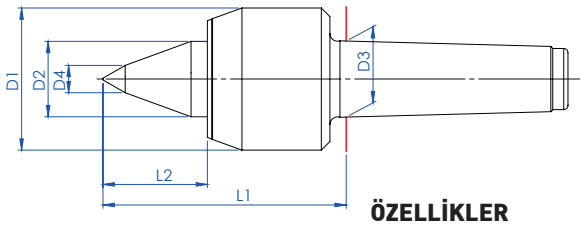
- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ : 60-62 HRc
- SALGI : MAX. 0,008 mm

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





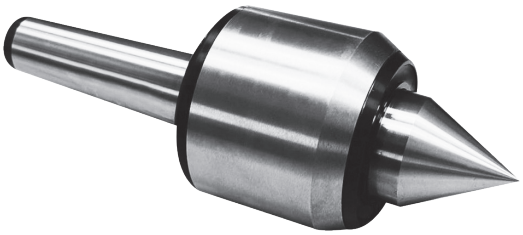
ÖZELLİKLER

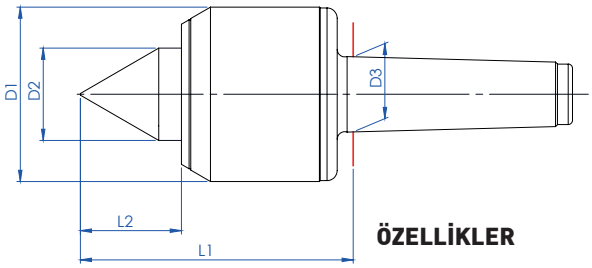
- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ : 60-62 HRc
- SALGI : MAX. 0,008 mm

KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L1 (mm)	L2 (mm)	DEVİR d/d (max)	PARÇA AĞIRLIĞI Kg (max)	FİYAT EUR
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

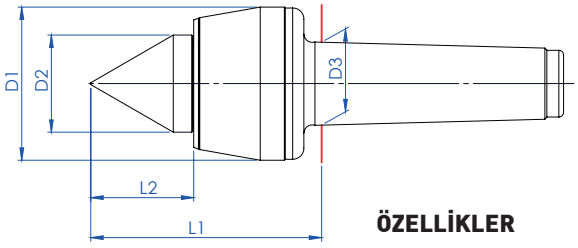
- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ : 60-62 HRc
- SALGI : MAX. 0,008 mm

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

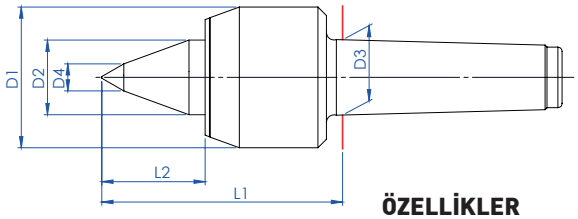
- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ : 60-62 HRc
- SALGI : MAX. 0,008 mm

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





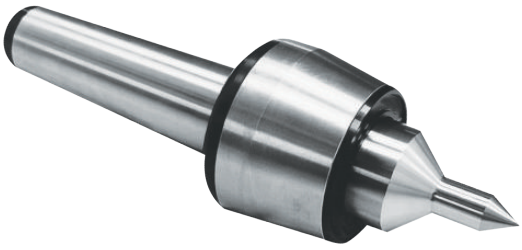
ÖZELLİKLER

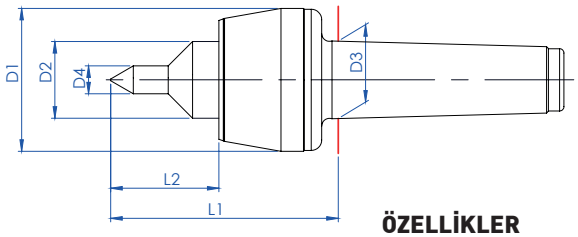
- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ : 60-62 HRc
- SALGI : MAX. 0,008 mm

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	800	

DÖNER PUNTALAR İNCE UÇLU

TİP 120





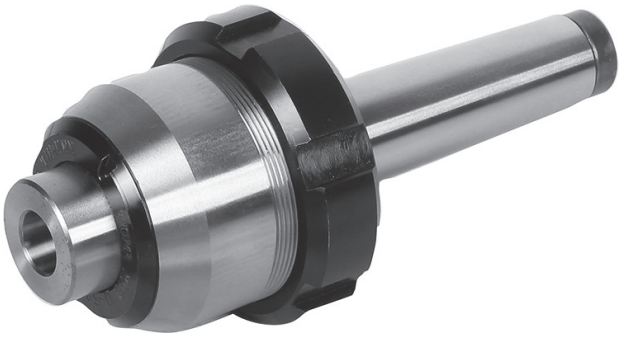
ÖZELLİKLER

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

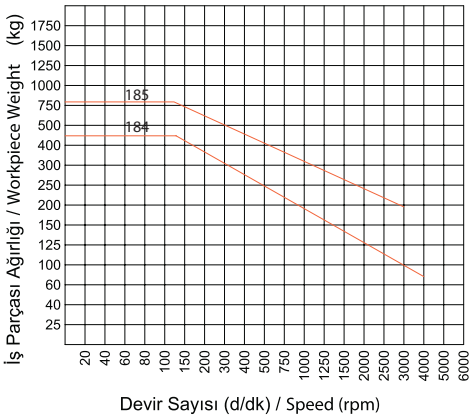
KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L1 (mm)	L2 (mm)	DEVİR d/d (max)	PARÇA AĞIRLIĞI Kg (max)	FİYAT EUR
124	MK4	68	34,5	31,267	15	112	50	3500	450	
125	MK5	82	44	44,399	16	130	62	2500	800	

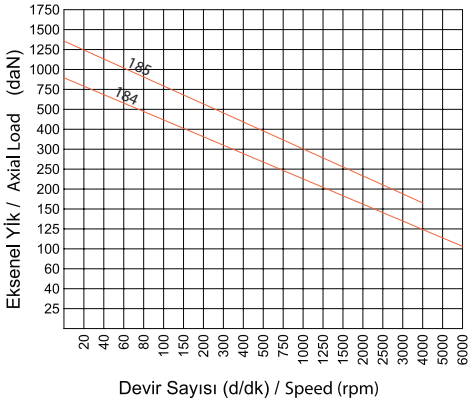
DEĞİŞTİRİLEBİLİR UÇLU HASSAS DÖNER PUNTALAR

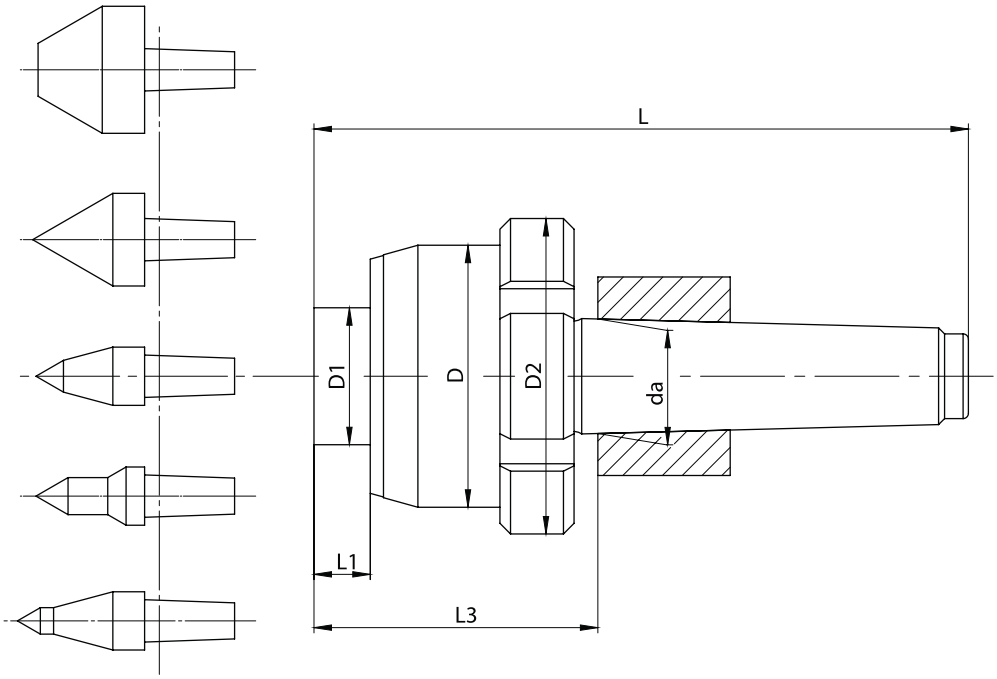
TİP 180











KOD	KONİK	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	

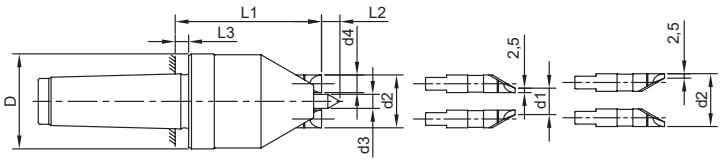
YEDEK UÇLAR İÇİN FİYAT VE TESLİM ALINIZ.

TIRNAKLI PUNTALAR (BASMA ÇAPI 15mm-30mm)

TİP 320



MEKANİK KİLİTLEMELİ



SALGISI 0,02 mm' YE KADAR AYARLANABİLİR.

MİL VE TIRNAKLARDA SERTLİK : 60-63 HRC

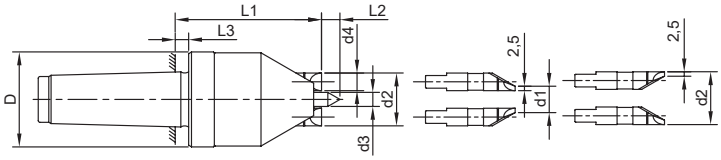
KOD	KONİK	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	TORNALAMA ÇAPI (mm)		D (mm)	L1 (mm)	L2 (mm)	L3 (mm)	TIRNAK SAYISI	FİYAT EUR
						MİN.	MAX.						
323	MK3	15	30	8	10	16	60	54	80	7,5	5	3+3	
324	MK4	15	30	8	10	16	60	54	80	7,5	5	3+3	
325	MK5	15	30	8	10	16	60	54	80	7,5	5	3+3	

TIRNAKLI PUNTALAR (BASMA ÇAPI 24mm-45mm)

TİP 340



MEKANİK KİLİTLEMELİ



SALGISI 0,02 mm' YE KADAR AYARLANABİLİR.

MİL VE TIRNAKLARDA SERTLİK : 60-63 HRC

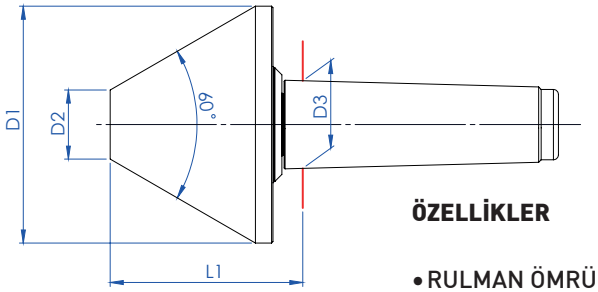
KOD	KONİK	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	TORNALAMA ÇAPI (mm)		D (mm)	L1 (mm)	L2 (mm)	L3 (mm)	TIRNAK SAYISI	FİYAT EUR
						MİN.	MAX.						
344	MK4	24	45	17	13	25	90	69	94	15	5	6+6	
345	MK5	24	45	17	13	25	90	69	94	15	5	6+6	

YEDEK TIRNAK VE MİL İÇİN FİYAT VE TESLİM ALINIZ.

BORU PUNTALARI 60 DERECE UÇ AÇILI

TİP 200





ÖZELLİKLER

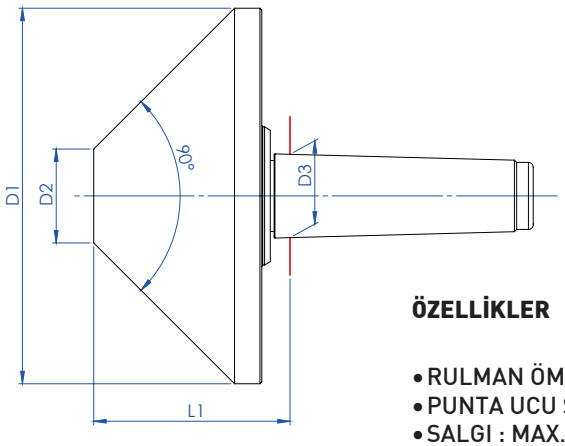
- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ : 60-62 HRc
- SALGI : MAX. 0,001 mm

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	82	3000	300	
213	MK3	100	30	23.825	85	2400	500	
204	MK4	120	35	31.267	95	2400	500	
205	MK5	120	35	44.399	97,5	1800	600	
214	MK4	140	45	31.267	107,5	2400	500	
215	MK5	140	45	44.399	109,5	1800	600	
225	MK5	170	50	44.399	129,5	1500	800	

BORU PUNTALARI 90 DERECE UÇ AÇILI

TİP 210/230





ÖZELLİKLER

- RULMAN ÖMRÜ 2000 İŞ SAATİDİR.
- PUNTA UCU SERTLİĞİ : 60-62 HRc
- SALGI : MAX. 0,001 mm

KOD	KONİK	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	DEVİR d/d (max)	İŞ PARÇASI AĞIRLIĞI Kg (max)	FİYAT EUR
236	MK4	200	45	31,267	107,5	2400	500	
235	MK5	200	50	44,399	104,5	1200	1000	
206	MK6	200	50	63,348	108	1000	1250	
216	MK6	250	70	63,348	148,5	800	1500	