



**DEFNE**

KALIP MALZEMELERİ SAN.TİC.A.Ş

**ÜRÜN**  
*Kataloğu*

2025

# HAKKIMIZDA

*About us*



2008 yılında, başta kalıp imalatçıları olmak üzere, metal işleme dayalı faaliyet gösteren tüm sanayi kuruluşlarına, en kaliteli ürünü, en uygun fiyatla ve tam zamanında teslim etmeyi, teknik destek ekibiyle iş ortaklarının maliyetlerini düşürmeyi, satış ve servis hizmetleriyle müşteri memnuniyetini en üst seviyede tutabilen bir çözüm ortağı olmayı hedefleyerek faaliyetlerimize başladık.

Zamanın en değerli sermaye olduğu bilinciyle, iş ortaklarımıza verdiğimiz hizmeti ve iş akış süreçlerini daha hızlı hale getirmek için yaptığımız yoğun çalışmaların sonucu olan ürün kataloğumuzu sizlere sunmanın mutluluğu içerisindeyiz.

Kataloğumuzun hazırlanmasında, iş ortaklarımızın satın alma ve üretim departmanlarının ihtiyaç duyduğu doğru ürünleri seçebilmeleri, ürünlerin teknik özellikleri hakkında bilgi alabilmeleri ve ürünlerimize kolayca ulaşabilmeleri amaçlanmıştır.

Sektörümüzdeki ve teknolojiadaki gelişmeleri yakından takip etmekle birlikte, sürekli kendimizi geliştirmek için sizlerden gelecek görüş ve önerileri çok önemsiyoruz.

Güveniniz ve teveccühünüz için teşekkür eder, birlikte büyüyerek daha uzun yıllar çalışmayı temenni ederiz.

Kataloğumuzun sektörümüze hayırlı olmasını dileriz...

Saygılarımızla  
Defne Kalıp Malzemeleri San. ve Tic. A.Ş.

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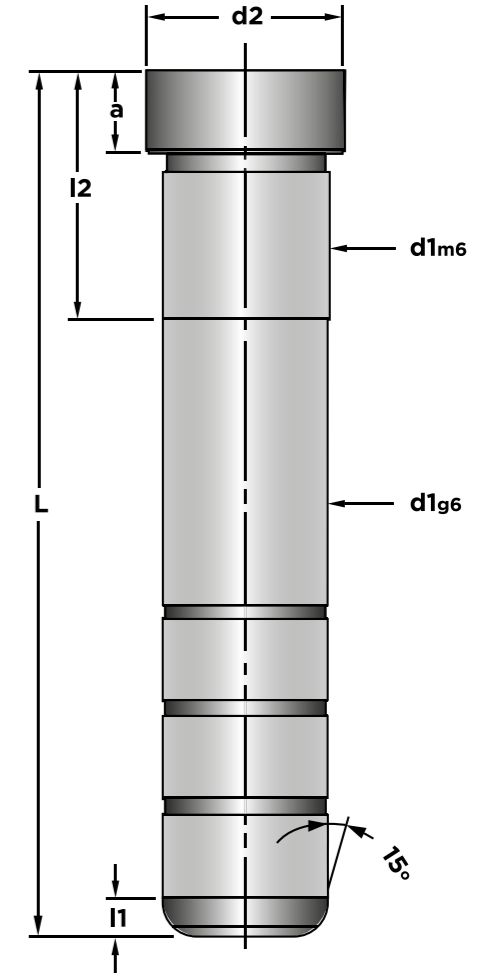
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**01. ŞAPKALI KOLONLAR**  
**GUIDE PILLAR**
**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** :  $62 \pm 2$  HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction

ÜRÜN KODU	l1	d2	a	l2	d1	l
01.01.0110_040	4	12	3	17	10	40
060						60
080				22		80
100				27		100
120						120
01.01.0112_040	4	16	6	17	12	40
060				22		60
080				27		80
100						100
120				36		120
140						140
160						160
01.01.0114_060	7	18	8	17	14	60
080				22		80
100				27		100
120				36		120
140						140
160				46		160
180						180
01.01.0116_040	7	20	8	22	16	40
060				27		60
080						80
100				36		100
120						120
140				46		140
160						160
180				56		180
200						200
01.01.0118_040	7	22	8	27	18	40
060						60
080				36		80
100						100
120				46		120
140						140
160				56		160
180						180
200						200



# 01\*

## KALIP ELEMANLARI

## 01. KALIP ELEMANLARI 01. KOLONLAR

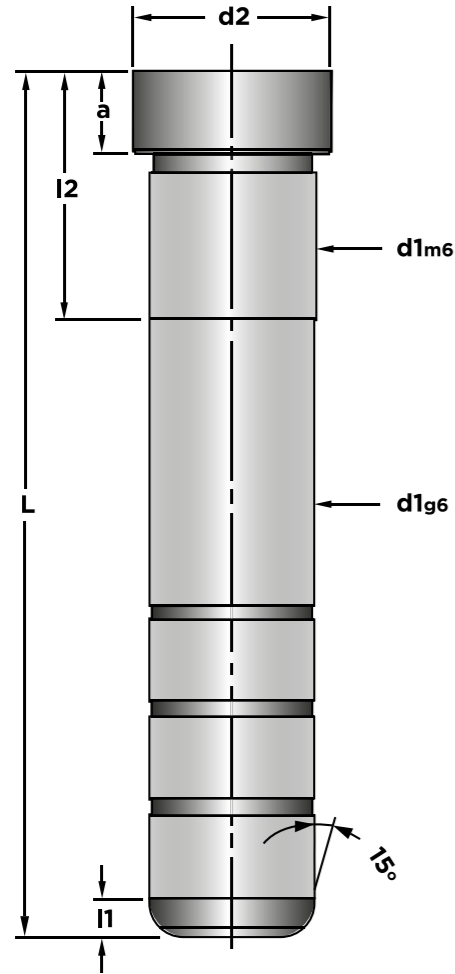


### 01. ŞAPKALI KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62 ± 2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	l1	d2	a	l2	d1	l
01.01.01.20_060	7	24	8	27	20	60
080						80
100				36		100
120						120
140						140
160				46		160
180						180
200				56		200
240				76		240
01.01.01.22_080	7	26	15	36	22	80
100						100
120						120
140						140
160				46		160
180				56		180
200						200
220						220
240				66		240
300						300
01.01.01.24_080	7	28	15	36	24	80
100						100
120						120
140						140
160				46		160
180				56		180
200						200
220						220
240				66		240
300						300
01.01.01.25_100	7	29	10	35	25	100
120						120
140						140
160						160
180						180
200						200
220						220
250						250
300						300



## 01. KALIP ELEMANLARI 01. KOLONLAR

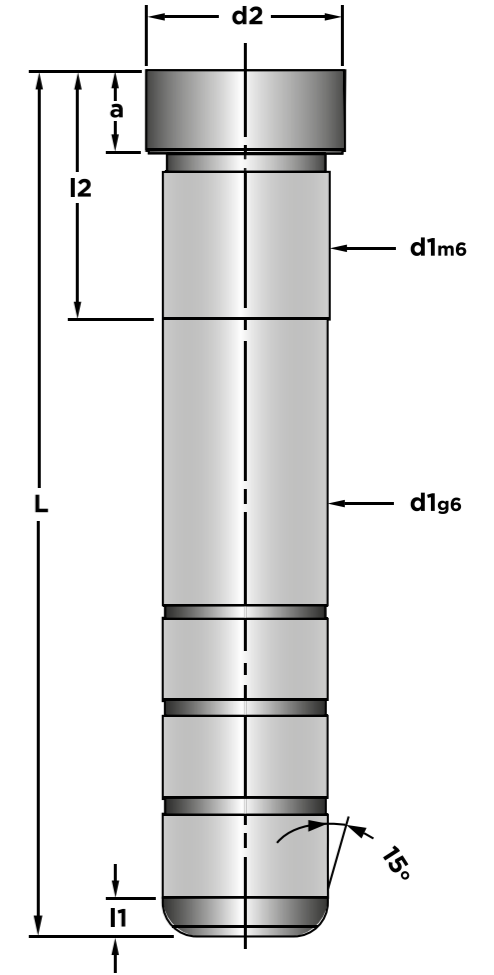
### 01. ŞAPKALI KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62 ± 2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction

ÜRÜN KODU	l1	d2	a	l2	d1	l
01.01.01.30_100	7	36	15	36	30	100
120						120
140						140
160				46		160
180				56		180
200				66		200
220						220
240						240
300				76		300
360						360
01.01.01.40_160	10	48	15	46	40	160
180				56		180
200				66		200
220						220
240						240
280				76		280
300						300
320						320
360						360
01.01.01.50_160	10	58	15	56	50	160
200						200
240						240
300				66		300
360				76		360



## 01. KALIP ELEMANLARI 01. KOLONLAR

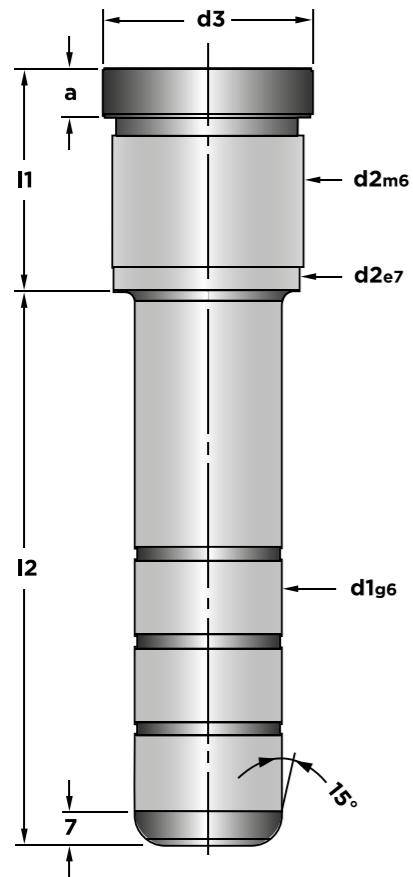
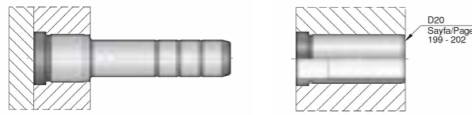


### 02. ŞAPKALI KADEMELİ KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.12_26_26	16	19	4	12	26	26
36						36
46						46
56						56
01.01.02.12_36_26	16	19	4	12	36	26
36						36
46						46
56						56
01.01.02.12_46_26	16	19	4	12	46	26
36						36
46						46
56						56
66						66
01.01.02.14_26_26	20	25	6	14	26	26
36						36
46						46
56						56
66						66
76						76
01.01.02.14_36_26	20	25	6	14	36	26
36						36
46						46
56						56
66						66
86						86
01.01.02.14_46_26	20	25	6	14	46	26
36						36
46						46
56						56
76						76
96						96
01.01.02.14_56_26	20	25	6	14	56	26
36						36
46						46
66						66
86						86
106						106

## 01. KALIP ELEMANLARI 01. KOLONLAR

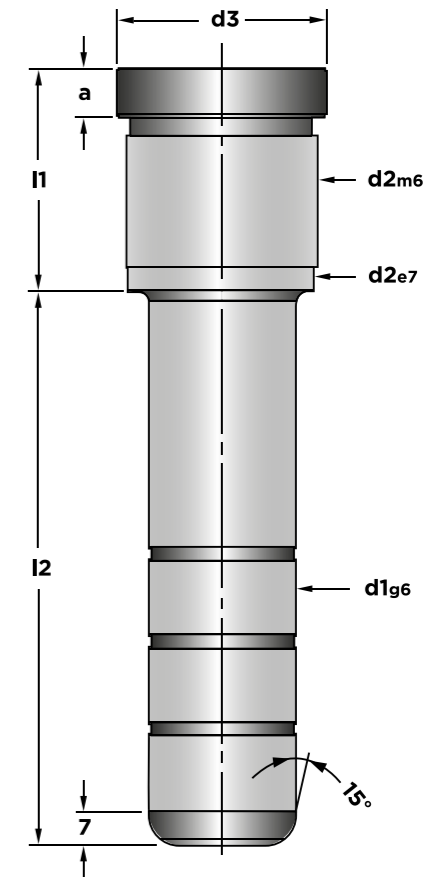
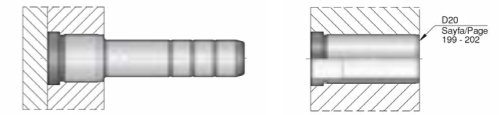


### 02. ŞAPKALI KADEMELİ KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62±2 HRC

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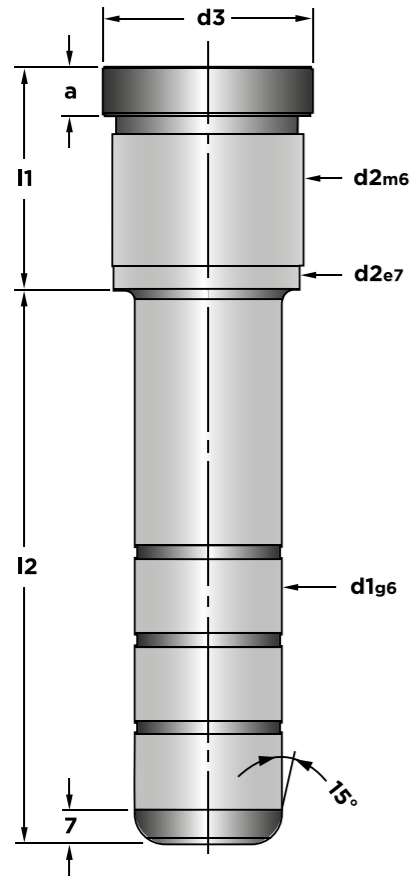
ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.16_26_26	24	28	6	16	26	26
36						36
46						46
56						56
76						76
96						96
01.01.02.16_36_26	24	28	6	16	36	26
36						36
46						46
56						56
66						66
86						86
106						106
01.01.02.16_46_26	24	28	6	16	46	26
36						36
46						46
56						56
66						66
76						76
96						96
116						116
01.01.02.16_56_26	24	28	6	16	56	26
36						36
46						46
56						56
66						66
76						76
96						96
116						116
01.01.02.16_66_26	24	28	6	16	66	26
36						36
46						46
56						56
66						66
76						76
86						86
106						106
116						116

## 01. KALIP ELEMANLARI 01. KOLONLAR



### 02. ŞAPKALI KADEMELİ KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)  
**Sertlik - Hardness** : 62±2 HRC  
**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



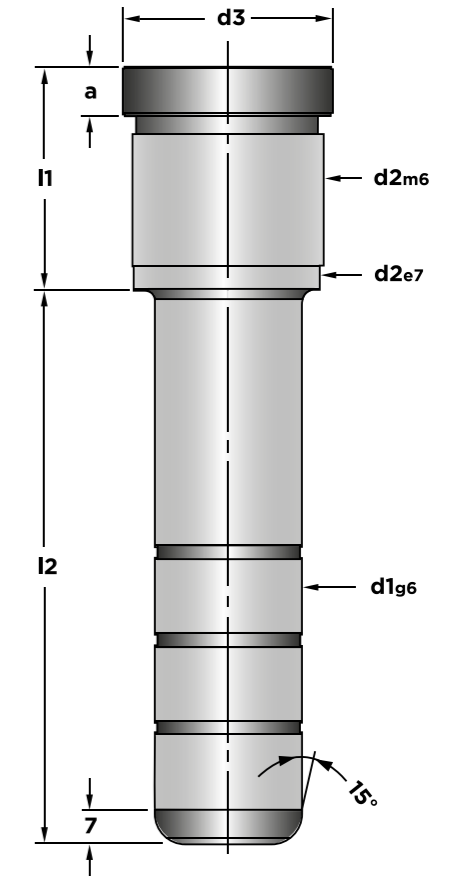
ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.16_76_26	24	28	6	16	76	26
36						36
46						46
56						56
66						66
76						76
96						96
116						116
01.01.02.16_86_26	24	28	6	16	86	26
36						36
46						46
56						56
66						66
76						76
96						96
116						116
01.01.02.18_26_26	26	31	6	18	26	26
36						36
46						46
56						56
66						66
86						86
01.01.02.18_36_26	26	31	6	18	36	26
36						36
46						46
56						56
66						66
86						86
106						106
01.01.02.18_46_26	26	31	6	18	46	26
36						36
46						46
56						56
66						66
86						86
106						106
126						126



## 01. KALIP ELEMANLARI 01. KOLONLAR

### 02. ŞAPKALI KADEMELİ KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)  
**Sertlik - Hardness** : 62±2 HRC  
**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.18_56_26	26	31	6	18	56	26
36						36
46						46
56						56
66						66
86						86
106						106
126						126
01.01.02.18_66_26	26	31	6	18	66	26
36						36
56						56
76						76
96						96
116						116
01.01.02.18_76_26	26	31	6	18	76	26
46						46
66						66
86						86
106						106
126						126
01.01.02.18_86_26	26	31	6	18	86	26
46						46
66						66
86						86
106						106
126						126
01.01.02.20_26_26	28	32	6	20	26	26
36						36
46						46
56						56
66						66
86						86

## 01. KALIP ELEMANLARI 01. KOLONLAR

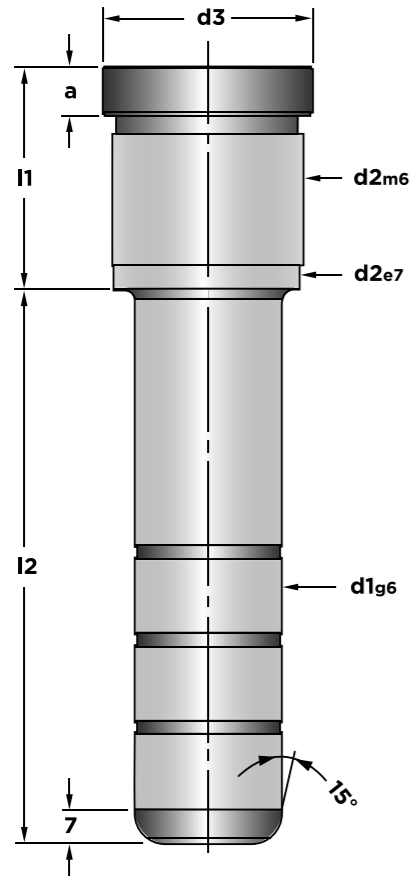


### 02. ŞAPKALI KADEMELİ KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

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**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.20_36_26	28	32	6	20	36	26
36						36
46						46
56						56
66						66
76						76
96						96
01.01.02.20_46_26	28	32	6	20	46	26
36						36
46						46
56						56
66						66
76						76
86						86
106						106
01.01.02.20_56_26	28	32	6	20	56	26
36						36
46						46
56						56
66						66
76						76
96						96
116						116
01.01.02.20_66_26	28	32	6	20	66	26
36						36
46						46
56						56
66						66
76						76
96						96
116						116
01.01.02.20_76_26	28	32	6	20	76	26
36						36
46						46
56						56
66						66
76						76
86						86
106						106
126						126

## 01. KALIP ELEMANLARI 01. KOLONLAR

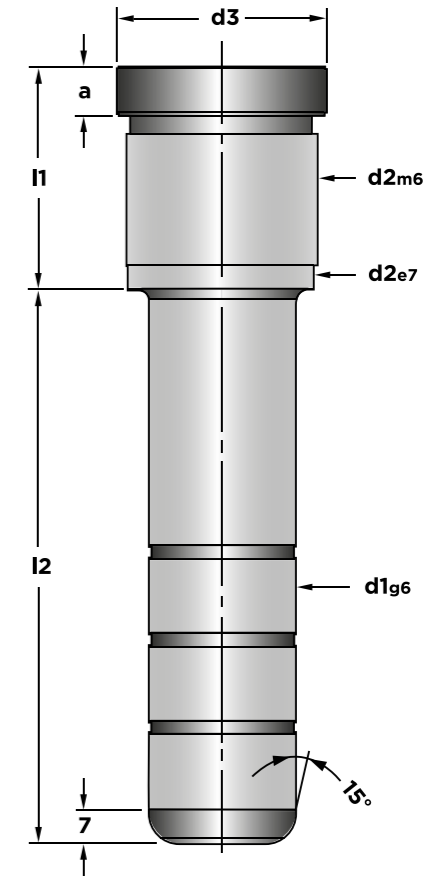
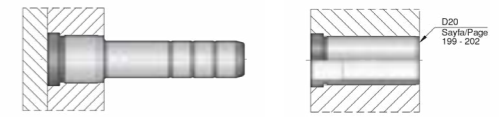


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**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

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**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.20_86_26	28	32	6	20	86	26
36						36
46						46
56						56
66						66
76						76
86						86
106						106
126						126
01.01.02.20_96_26	28	32	6	20	96	26
36						36
46						46
56						56
66						66
76						76
86						86
106						106
126						126
01.01.02.25_26_26	34	38	8	25	26	26
36						36
46						46
56						56
66						66
76						76
96						96
01.01.02.25_36_26	34	38	8	25	36	26
36						36
46						46
56						56
66						66
76						76
86						86
106						106
01.01.02.25_46_26	34	38	8	25	46	26
36						36
46						46
56						56
66						66
76						76
86						86
96						96
116						116



## 01. KALIP ELEMANLARI 01. KOLONLAR

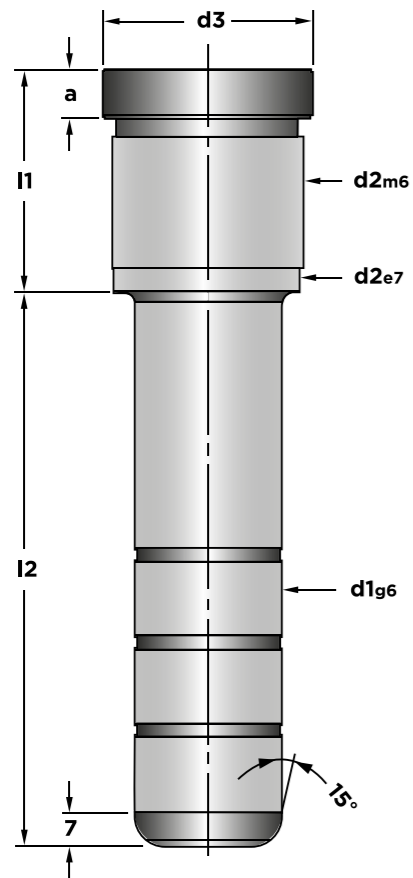


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**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

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**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.25_56_26	34	38	8	25	56	26
36						36
46						46
56						56
66						66
76						76
96						96
116						116
01.01.02.25_66_26	34	38	8	25	66	26
36						36
46						46
56						56
66						66
76						76
86						86
106						106
126						126
01.01.02.25_76_26	34	38	8	25	76	26
36						36
46						46
56						56
66						66
76						76
86						86
106						106
126						126
01.01.02.25_86_36	34	38	8	25	86	36
46						46
56						56
66						66
76						76
86						86
96						96
116						116
136						136



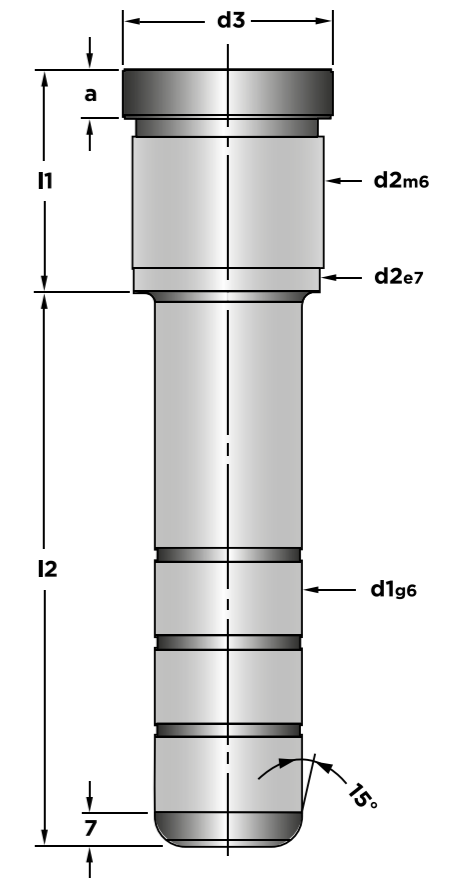
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**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.25_96_36	34	38	8	25	96	36
46						46
56						56
66						66
76						76
86						86
96						96
116						116
136						136
01.01.02.25_106_46	34	38	8	25	106	46
56						56
66						66
76						76
86						86
96						96
116						116
136						136
01.01.02.30_36_36	39	43	10	30	36	36
46						46
56						56
66						66
86						86
106						106
01.01.02.30_46_36	39	43	10	30	46	36
46						46
56						56
66						66
76						76
96						96
116						116
01.01.02.30_56_36	39	43	10	30	56	36
46						46
56						56
66						66
76						76
86						86
106						106
126						126

## 01. KALIP ELEMANLARI 01. KOLONLAR

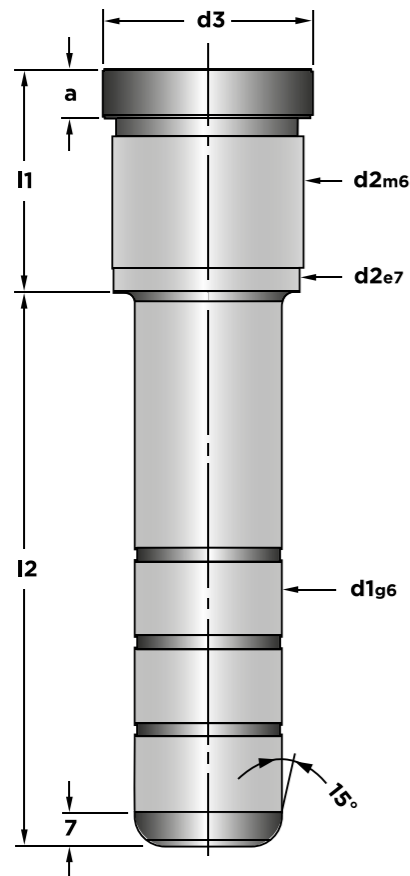


### 02. ŞAPKALI KADEMELİ KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.30_66_36	39	43	10	30	66	36
46						46
56						56
66						66
76						76
86						86
96						96
116						116
136						136
01.01.02.30_76_36	39	43	10	30	76	36
46						46
56						56
76						76
96						96
116						116
136						136
01.01.02.30_86_36	39	43	10	30	86	36
46						46
66						66
86						86
106						106
126						126
146						146
01.01.02.30_96_46	39	43	10	30	96	46
66						66
86						86
106						106
126						126
146						146
01.01.02.30_106_56	39	43	10	30	106	56
76						76
96						96
116						116
136						136



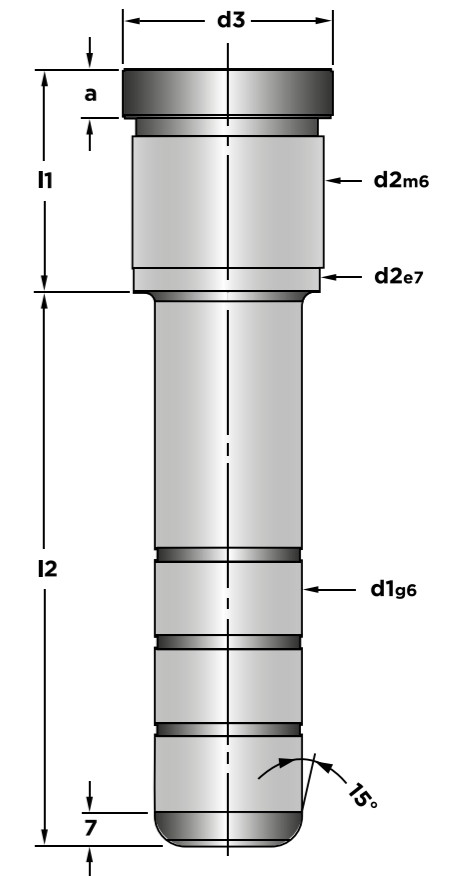
## 01. KALIP ELEMANLARI 01. KOLONLAR

### 02. ŞAPKALI KADEMELİ KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.30_116_56	39	43	10	30	116	56
76						76
96						96
116						116
136						136
01.01.02.40_56_56	54	58	10	40	56	56
86						86
106						106
126						126
156						156
186						186
01.01.02.40_66_66	54	58	10	40	66	66
96						96
116						116
136						136
166						166
196						196
01.01.02.40_76_76	54	58	10	40	76	76
106						106
126						126
146						146
166						166
196						196
216						216
01.01.02.40_86_86	54	58	10	40	86	86
126						126
146						146
176						176
206						206
226						226

## 01. KALIP ELEMANLARI 01. KOLONLAR

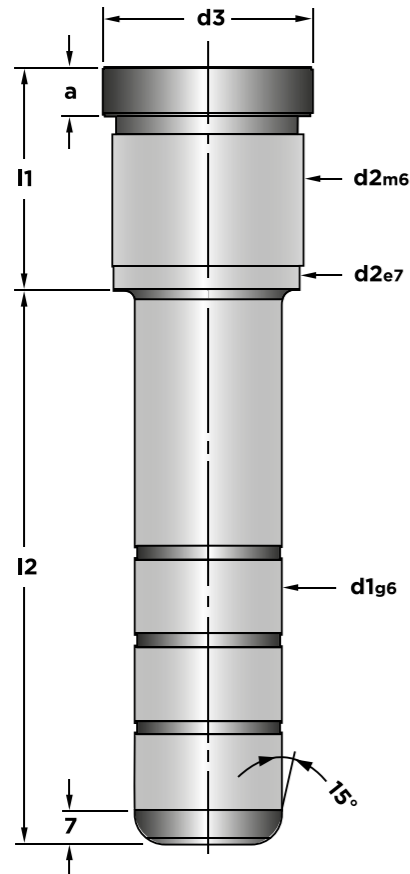


### 02. ŞAPKALI KADEMELİ KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d2	d3	a	d1	l1	l2
01.01.02.40_96_96	54	58	10	40	96	96
136						136
156						156
186						186
216						216
236						236
01.01.02.40_106_106	54	58	10	40	106	106
126						126
156						156
186						186
226						226
236						236
01.01.02.40_116_116	54	58	10	40	116	116
136						136
166						166
196						196
236						236
256						256
01.01.02.40_126_126	54	58	10	40	126	126
166						166
196						196
236						236
266						266
01.01.02.40_136_136	54	58	10	40	136	136
196						196
226						226
266						266



## 01. KALIP ELEMANLARI 01. KOLONLAR

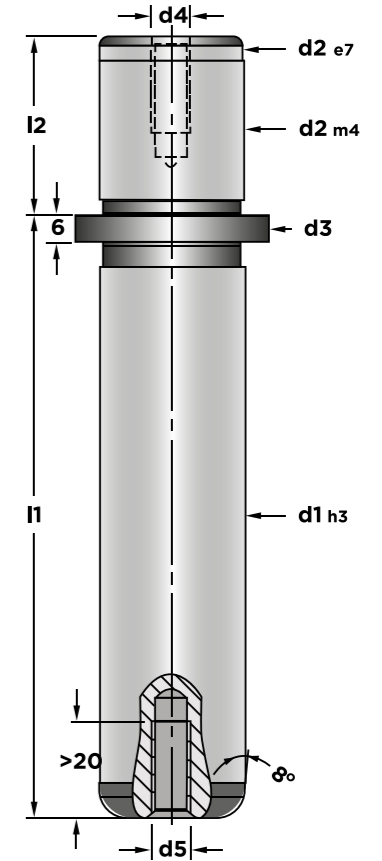
### 03. ORTADAN ŞAPKALI KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction

ÜRÜN KODU	d4	d5	d6	d3	d1	d2	l1	l2
01.01.03.16_100_20	M8	-	32	22	16	16	100	20
112_20							112	
125_20							125	
140_20							140	
160_20							160	
180_20							180	
200_20							200	
01.01.03.20_100_23	M8	M8	35	25	20	20	100	23
112_23							112	
125_23							125	
140_23							140	
160_23							160	
180_23							180	
200_23							200	
01.01.03.25_100_30	M8	M8	42	32	25	25	100	30
112_30							112	
125_30							125	
140_30							140	
160_30							160	
180_30							180	
200_30							200	
224_30							224	
250_30							250	
01.01.03.30_112_37	M8	M8	50	40	30	30	112	37
125_37							125	
140_37							140	
160_37							160	
180_37							180	
200_37							200	
224_37							224	
250_37							250	
280_37							280	
315_37							315	

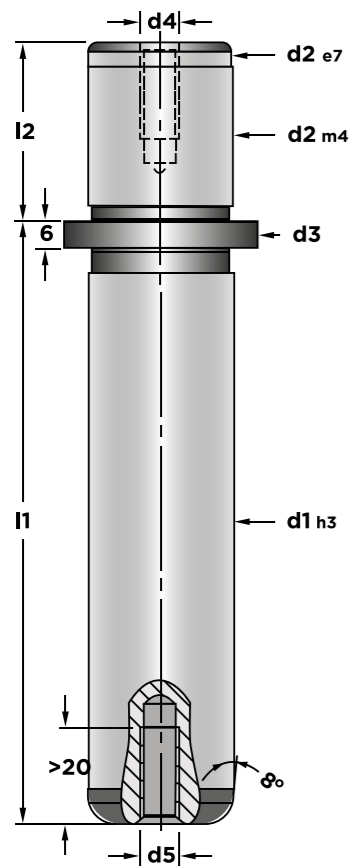


## 01. KALIP ELEMANLARI 01. KOLONLAR



### 03. ORTADAN ŞAPKALI KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)  
**Sertlik - Hardness** : 62±2 HRC  
**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	d4	d5	d6	d3	d1	d2	l1	l2
01.01.03.32_112_37	M8	M8	50	40	32	32	112	37
125_37							125	
140_37							140	
160_37							160	
180_37							180	
200_37							200	
224_37							224	
250_37							250	
280_37							280	
315_37							315	
01.01.03.40_125_37	M8	M8	60	50	40	40	125	37
140_37							140	
160_37							160	
180_37							180	
200_37							200	
224_37							224	
250_37							250	
280_37							280	
315_37							315	
355_37							355	
01.01.03.50_140_47	M8	M8	73	63	50	50	140	47
160_47							160	
180_47							180	
200_47							200	
224_47							224	
250_47							250	
280_47							280	
315_47							315	
355_47							355	
400_47							400	

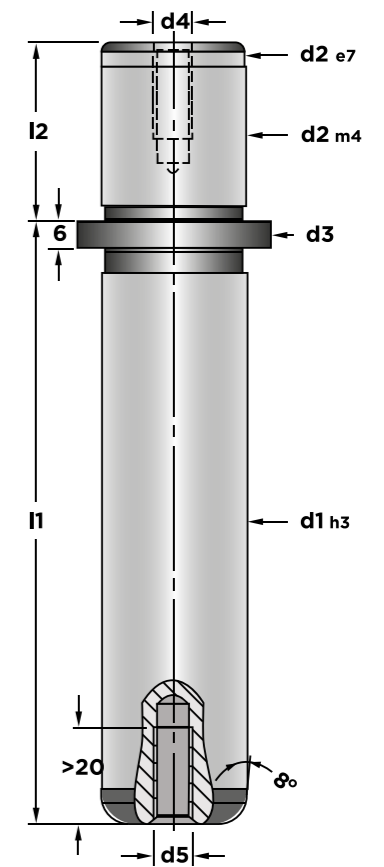


## 01. KALIP ELEMANLARI 01. KOLONLAR

### 03. ORTADAN ŞAPKALI KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)  
**Sertlik - Hardness** : 62±2 HRC  
**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction

ÜRÜN KODU	d4	d5	d6	d3	d1	d2	l1	l2
01.01.03.63_160_47	M8	M8	90	80	63	63	160	47
180_47							180	
200_47							200	
224_47							224	
250_47							250	
280_47							280	
315_47							315	
355_47							355	
400_47							400	
01.01.03.80_200_60	M12	M12	105	95	80	80	200	60
224_60							224	
250_60							250	
280_60							280	
315_60							315	
355_60							355	
400_60							400	



## 01. KALIP ELEMANLARI 01. KOLONLAR

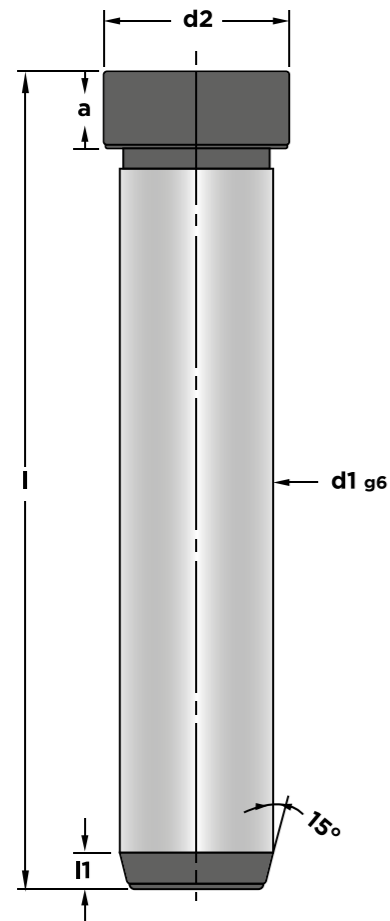


### 04. YAĞ KANALSIZ ŞAPKALI KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



ÜRÜN KODU	l1	d2	a	d1	l
01.01.04.12_040	4	16	6	12	40
060					60
080					80
100					100
120					120
140					140
160					160
01.01.04.14_060	7	18	8	14	60
080					80
100					100
120					120
140					140
160					160
180					180
01.01.04.16_060	7	20	8	16	60
080					80
100					100
120					120
140					140
160					160
180					180
200					200
01.01.04.18_080	7	22	8	18	80
100					100
120					120
140					140
160					160
180					180
200					200
240					240
01.01.04.20_060	7	24	8	20	60
080					80
100					100
120					120
140					140
160					160
180					180
200					200
240					240



## 01. KALIP ELEMANLARI 01. KOLONLAR

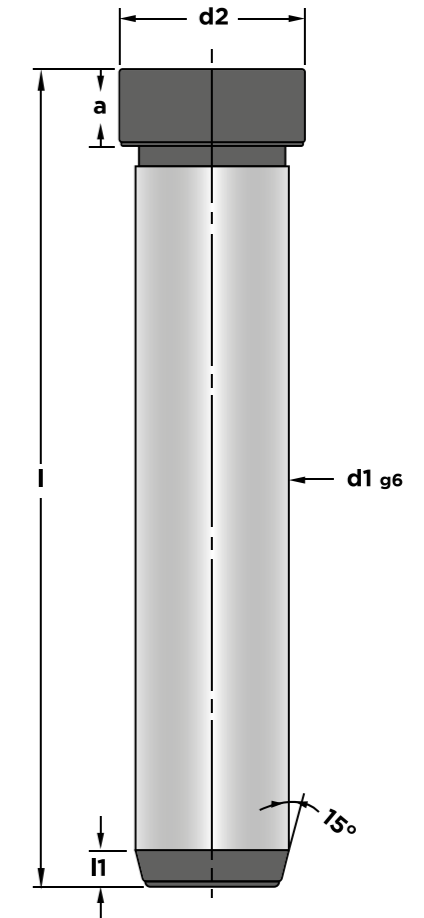
### 04. YAĞ KANALSIZ ŞAPKALI KOLONLAR GUIDE PILLAR

**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction

ÜRÜN KODU	l1	d2	a	d1	l
01.01.04.22_080	7	26	15	22	80
100					100
120					120
140					140
160					160
180					180
200					200
220					220
240					240
300					300
01.01.04.24_080	7	28	15	24	80
100					100
120					120
140					140
160					160
180					180
200					200
220					220
240					240
300					300
01.01.04.30_100	7	36	15	30	100
120					120
140					140
160					160
180					180
200					200
220					220
240					240
300					300
360					360
01.01.04.40_160	10	48	15	40	160
180					180
200					200
220					220
240					240
280					280
300					300
320					320
360					360

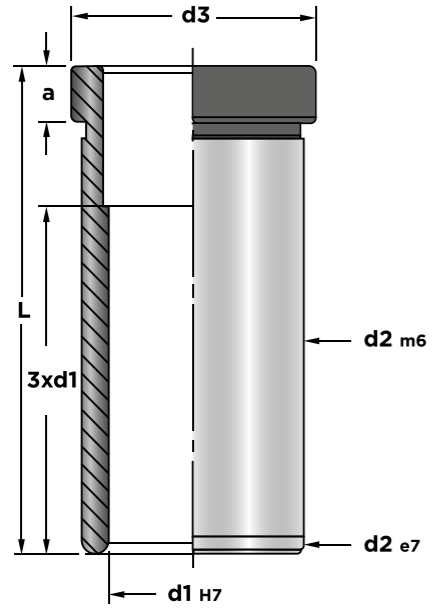


## 01. KALIP ELEMANLARI 02. BURÇLAR



### 01. ŞAPKALI BURÇLAR GUIDE BUSH

**Malzeme - Material** : Asil Çelik 1.7131 (16MnCr5)  
**Sertlik - Hardness** : 62±2 HRC  
**Isıl İşlem - Heat Treatment** : Sementasyon / Case Hardened



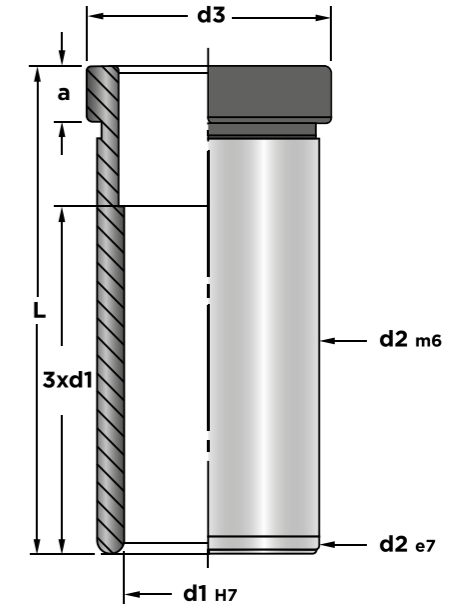
ÜRÜN KODU	a	d3	d2	d1	l
01.02.01.12_026	4	19	16	12	26
036					36
046					46
056					56
066					66
01.02.01.14_026	6	25	20	14	26
036					36
046					46
056					56
066					66
076					76
01.02.01.16_026	6	28	24	16	26
036					36
046					46
056					56
066					66
076					76
086					86
01.02.01.18_026	6	31	26	18	26
036					36
046					46
056					56
066					66
076					76
086					86
01.02.01.20_026	6	32	28	20	26
036					36
046					46
056					56
066					66
076					76
086					86
096					96



## 01. KALIP ELEMANLARI 02. BURÇLAR

### 01. ŞAPKALI BURÇLAR GUIDE BUSH

**Malzeme - Material** : Asil Çelik 1.7131 (16MnCr5)  
**Sertlik - Hardness** : 62±2 HRC  
**Isıl İşlem - Heat Treatment** : Sementasyon / Case Hardened



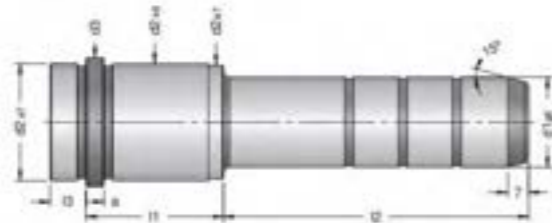
ÜRÜN KODU	a	d3	d2	d1	l
01.02.01.25_026	8	38	34	25	26
036					36
046					46
056					56
066					66
076					76
086					86
096					96
106					106
01.02.01.30_036	10	43	39	30	36
046					46
056					56
066					66
076					76
086					86
096					96
106					106
116					116
01.02.01.30_036	10	43	39	30	36
046					46
056					56
066					66
076					76
086					86
096					96
106					106
116					116
01.02.01.40_046	10	58	54	40	46
056					56
066					66
076					76
086					86
096					96
106					106
116					116
126					126
136					136
146					146

## 01. KALIP ELEMANLARI 02. BURÇLAR



### 05. KOLON KUYRUKLU ŞAPKALI KADEMELİ GUIDE PILLAR

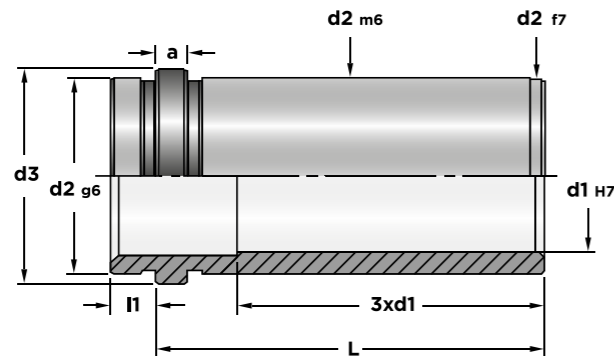
**Malzeme - Material** : Asil Çelik 1.1213 (Cf53)  
**Sertlik - Hardness** :  $62 \pm 2$  HRC  
**Isıl İşlem - Heat Treatment** : İndüksiyon / Induction



Ürün Kodu: 01.01.05.D1\_L1\_L2

### 02. KUYRUKLU ŞAPKALI BURÇLAR GUIDE BUSH

**Malzeme - Material** : Asil Çelik 1.7131 (16MnCr5)  
**Sertlik - Hardness** :  $62 \pm 2$  HRC  
**Isıl İşlem - Heat Treatment** : Sementasyon / Case Hardened



Ürün Kodu: 01.02.02.D1\_L

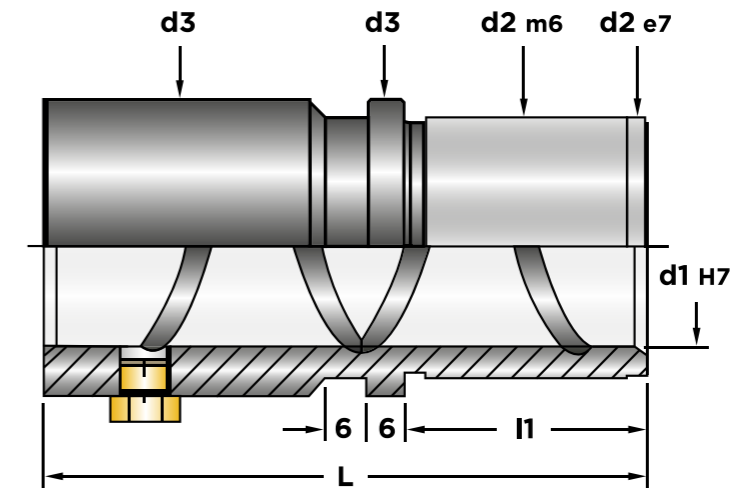
Detaylı bilgi için firmamız ile iletişime geçebilirsiniz.



## 01. KALIP ELEMANLARI 02. BURÇLAR

### 03. BURÇ ORTADAN ŞAPKALI GUIDE BUSH

**Malzeme - Material** : Asil Çelik 1.7131 (16MnCr5)  
**Sertlik - Hardness** :  $62 \pm 2$  HRC  
**Isıl İşlem - Heat Treatment** : Sementasyon / Case Hardened



ÜRÜN KODU	d2	d3	d6	d1	l	l1
01.02.03.16_59_23	30	32	42	16	59	23
20_70_26	28	34	44	20	70	26
20_70_36						36
25_80_26	34	39	49	25	80	26
25_80_36						36
30_90_36	39	44	54	30	90	36
30_90_46						46
40_100_36	50	54	64	40	100	36
40_108_36	58	65	75		108	36
40_100_46	50	54	64		100	46
50_120_46	60	64	74	50	120	46
50_120_56						56
50_127_56	70	75	85		127	56
63_130_56	80	87	97	63	130	56
63_150_56	85	95	105		150	56
80_150_60	105	115	125	80	150	60

## 01. KALIP ELEMANLARI 02. BURÇLAR

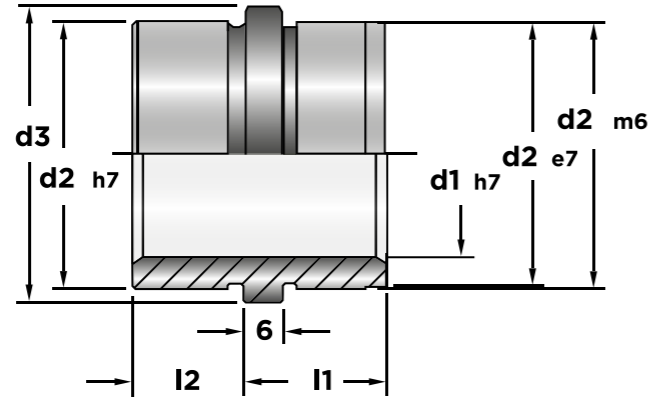


### 04. BURÇ ORTADAN FLANŞLI GUIDE BUSH

**Malzeme - Material** : Asil Çelik 1.7131 (16MnCr5)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : Sementasyon / Case Hardened



ÜRÜN KODU	d2	d3	l2	d1	l1
01.02.04.12_16	16	19	12	12	16
14_16	20	25	12	14	16
16_16	24	28	12	16	16
18_16	26	31	12	18	16
20_16	28	32	12	20	16
24_21	34	38	16	24	21
25_21	34	38	16	25	21
30_21	39	43	16	30	21



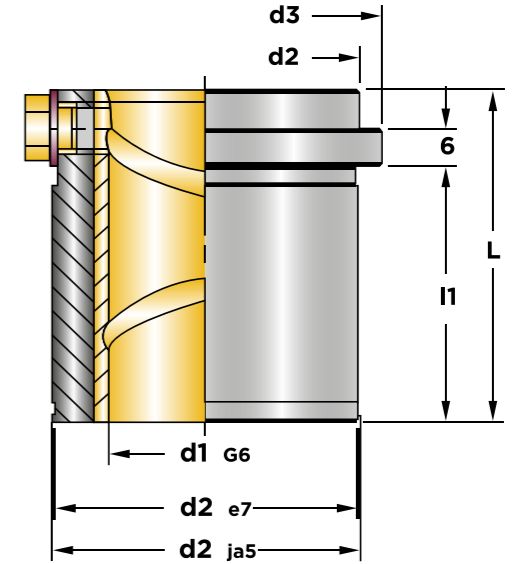
## 01. KALIP ELEMANLARI 02. BURÇLAR

### 05. BURÇ KISA BRONZ GEÇME GUIDE BUSH WITH BRONZE

**Malzeme - Material** : Bronz (Ck45)

**Sertlik - Hardness** : 52±2 HRC / HB≥180

ÜRÜN KODU	d2	d3	d1	l	l1
01.02.05.16_35_23	30	34	16	35	23
20_35_23			20	35	23
20_45_33				45	33
24_35_23	40	48	24	35	23
24_45_33				45	33
25_35_23			25	35	23
25_45_33				45	33
30_42_30	48	56	30	42	30
30_52_40				52	40
32_42_30			32	42	30
32_52_40				52	40
38_52_37	58	66	38	52	37
38_62_47				62	47
40_52_37			40	52	37
40_62_47				62	47
48_65_47	70	80	48	65	47
48_75_57				75	57
50_65_47			50	65	47
50_75_57				75	57
60_80_60	85	95	60	80	60
63_80_60			63	80	60
80_80_60	105	118	80	80	60



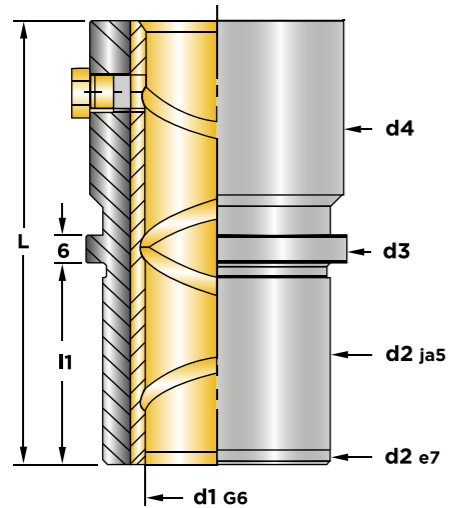


## 01. KALIP ELEMANLARI 02. BURÇLAR



### 06. BURÇ UZUN BRONZ GEÇME GUIDE BUSH WITH BRONZE

**Malzeme - Material** : Bronz (Ck45)  
**Sertlik - Hardness** : 52±2 HRC / HB≥180



ÜRÜN KODU	d4	d3	d2	d6	l1	l	d1
01.02.06.16_59_23	32	34	30	44	23	59	16
20_43_23	39	40	32	50	23	43	20
20_59_23						59	
20_59_33					33		
24_59_23	46	48	40	58	23	59	24
24_79_23						79	
24_79_33					33		
25_59_23	46	48	40	58	23	59	25
25_79_23						79	
25_79_33					33		
30_75_30	53	56	48	66	30	75	30
30_93_30					40		93
30_93_40					40		
32_75_30	53	56	48	66	30	75	32
32_93_30						93	
32_93_40					40		
38_82_37	63	66	58	76	37	82	38
38_108_37						108	
38_108_47					47		
40_82_37	63	66	58	76	37	82	40
40_108_37						108	
40_108_47					47		
48_97_47	77	80	70	90	47	97	48
48_127_47						127	
48_127_57					57		
50_97_47	77	80	70	90	47	97	50
50_125_47						125	
50_127_57					57		
60_116_60	92	95	85	105	60	116	60
60_150_60						150	
63_116_60	92	95	85	105	60	116	63
63_150_60						150	
80_120_60	115	118	105	128	60	120	80
80_150_60						150	

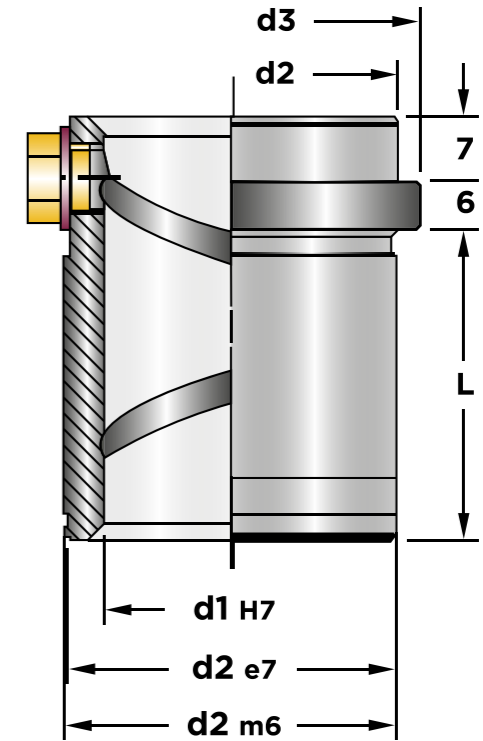


## 01. KALIP ELEMANLARI 02. BURÇLAR

### 07. BURÇ ÜSTTEN ŞAPKALI GUIDE BUSH

**Malzeme - Material** : Asil Çelik 1.7131 (16MnCr5)  
**Sertlik - Hardness** : 62±2 HRC  
**Isıl İşlem - Heat Treatment** : Sementasyon / Case Hardened

ÜRÜN KODU	d6	d3	d1	d2	l
01.02.07.16_30_23	44	34	16	30	23
20_28_26			20	28	26
25_34_26	49	39	25	34	26
30_39_26	54	44	30	39	26
30_39_36					36
40_50_36	64	54	40	50	36
40_50_46					46
40_58_46	75	65		58	
50_60_46	74	64	50	60	46
50_70_46	85	75		70	
63_85_46	105	95	63	85	46
63_85_56					56
80_105_60	125	115	80	105	60



## 01. KALIP ELEMANLARI 02. BURÇLAR

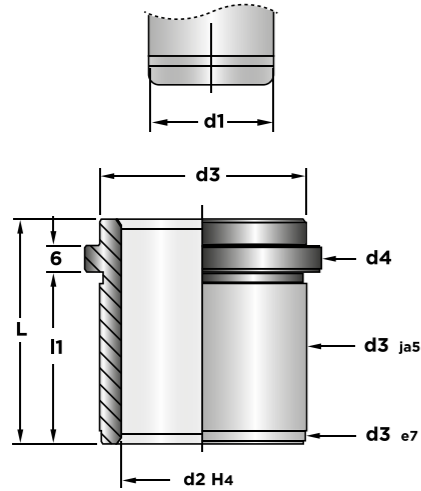


### 08. BURÇ BİLYALI ÜSTTEN ŞAPKALI GUIDE BUSH

**Malzeme - Material** : Asil Çelik 1.3505 (100Cr6)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : Sementasyon / Case Hardened



ÜRÜN KODU	d2	d3	d4	d6	d1	l	l1
01.02.08.15_35_23	21	30	34	44	15	35	23
15_45_33						45	33
16_35_23	22	30	34	44	16	35	23
16_45_33						45	33
19_35_23	25	32	40	50	19	35	23
19_45_33						45	33
20_35_23	26	32	40	50	20	35	23
20_45_33						45	33
24_35_23	30	40	48	58	24	35	23
24_45_33						45	33
25_35_23	31	40	48	58	25	35	23
25_45_33						45	33
30_42_30	38	48	56	66	30	42	30
30_52_40						52	40
32_42_30	40	48	56	66	32	42	30
32_52_40						52	40
38_52_37	46	58	66	76	38	52	37
38_62_47						62	47
40_52_37	48				40	52	37
40_62_47						62	47
48_65_47	56	70	80	90	48	65	47
48_75_57						75	57
50_65_47	58				50	65	47
50_75_57						75	57
60_80_60	68	85	95	105	60	80	60
63_80_60	71				63	80	60
80_80_60	92	105	115	125	60	80	80



## 01. KALIP ELEMANLARI 02. BURÇLAR

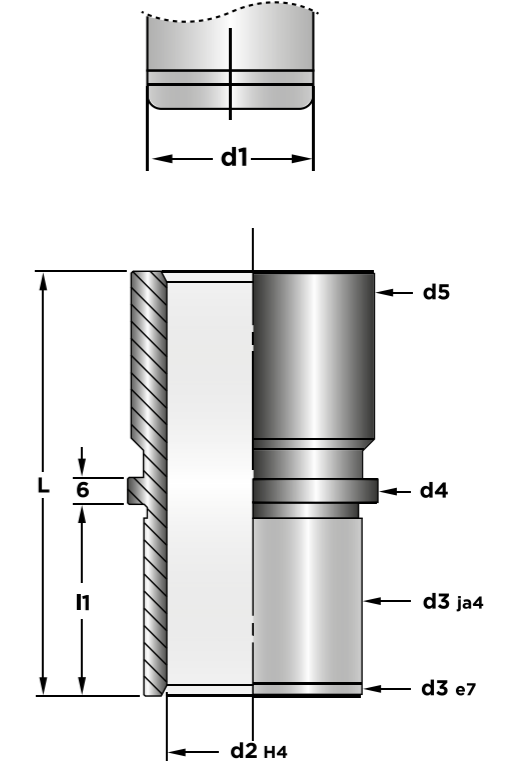
### 09. BURÇ BİLYALI GUIDE BUSH

**Malzeme - Material** : Asil Çelik 1.3505 (100Cr6)

**Sertlik - Hardness** : 62±2 HRC

**Isıl İşlem - Heat Treatment** : Sementasyon / Case Hardened

ÜRÜN KODU	d2	d3	d4	d5	d1	l	l1
01.02.09.15_43_23	21	30	34	32	15	43	23
15_59_23						59	
15_59_33							33
16_43_23	22	30	34	32	16	43	23
16_59_23						59	
16_59_33							33
19_43_23	25	32	40	39	19	43	23
19_59_23						59	
19_59_33							33
20_43_23	26	32	40	39	20	43	23
20_59_23						59	
20_59_33							33
24_59_23	30	40	48	46	24	59	23
24_79_23						79	
24_79_33							33
25_59_23	31	40	48	46	25	59	23
25_79_23						79	
25_79_33							33
30_75_30	38	48	56	53	30	75	30
30_93_30						93	
30_93_40							40
32_75_30	40	48	56	53	32	75	30
32_93_30						93	
32_93_40							40
38_82_37	46	58	66	63	38	82	37
38_108_37						108	
38_108_47							47
40_82_37	48	58	66	63	40	82	47
40_108_37						108	
40_108_47							47
48_97_47	56	70	80	77	48	97	47
48_127_47						127	
48_127_57							57
50_97_47	58	70	80	77	50	97	47
50_127_47						127	
50_127_57							57
60_116_60	68	85	95	92	60	116	60
60_150_60						150	
63_116_60	71	85	95	92	63	116	150
63_150_60						150	
80_120_60	92	105	115	112	80	120	150
80_150_60						150	

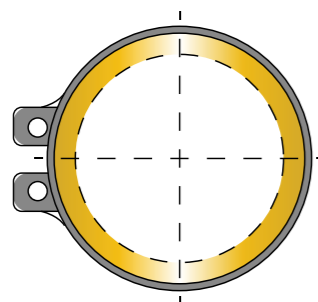
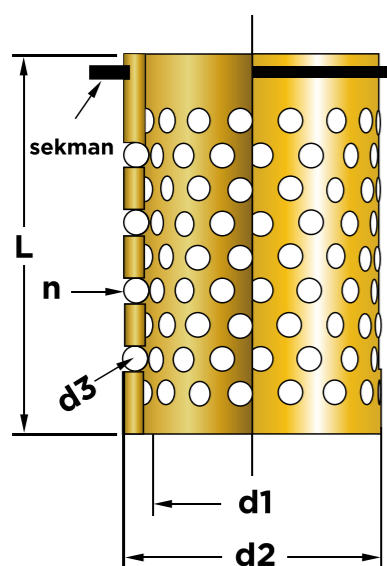


## 01. KALIP ELEMANLARI 02. BURÇLAR



### 10. BURÇ BİLYALİ KAFES BALL CAGE

**Malzeme - Material** : Ms58  
**Bilyalı Malzemesi** : 100Cr6 (1.3505)



ÜRÜN KODU	d2	d3	d1	l	Bilya Sayısı (n)
01.02.10.12_40	16	2	12	40	176
12_56				56	272
15_45	21	3	15	45	140
15_56				56	196
15_71				71	238
15_45	22	3	16	45	140
16_56				56	196
16_71				71	238
18_45	24	3	18	45	176
18_56				56	240
18_71				71	272
19_45	25	3	19	45	180
19_56				56	234
19_71				71	306
19_80				80	342
19_95				95	414
20_45	26	3	20	45	180
20_56				56	234
20_71				71	306
20_80				80	342
20_95				95	414
24_95	30	3	24	45	180
24_56				56	240
24_71				71	280
24_80				80	320
24_95				95	440
24_105				105	480
24_120				120	560
25_45	31	3	25	45	180
25_56				56	240
25_71				71	280
25_80				80	320
25_95				95	440
25_105				105	480
25_120				120	560

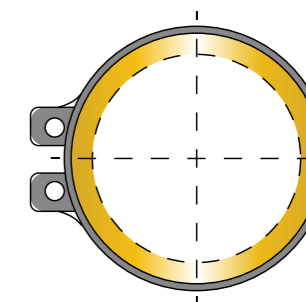
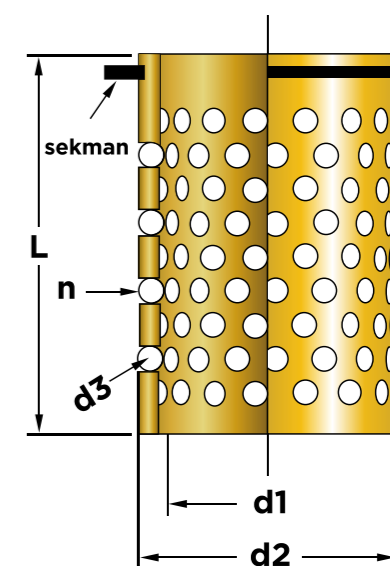


## 01. KALIP ELEMANLARI 02. BURÇLAR

### 10. BURÇ BİLYALİ KAFES BALL CAGE

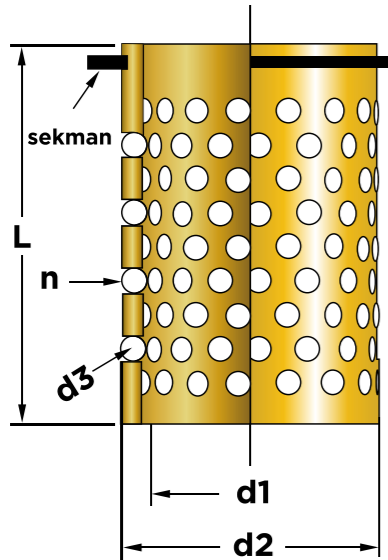
**Malzeme - Material** : Ms58  
**Bilyalı Malzemesi** : 100Cr6 (1.3505)

ÜRÜN KODU	d2	d3	d1	l	Bilya Sayısı (n)
01.02.10.30_45	38	4	30	45	140
30_56				56	180
30_75				75	240
30_80				80	280
30_95				95	340
30_105				105	380
30_120				120	420
30_140				140	500
32_45	40	4	32	45	140
32_56				56	180
32_75				75	240
32_80				80	280
32_95				95	340
32_105				105	380
32_120				120	420
32_140				140	500
38_56	46	4	38	56	216
38_71				71	288
38_80				80	336
38_95				95	408
38_105				105	456
38_120				120	528
38_140				140	624
38_160				160	720
40_56	48	4	40	56	216
40_71				71	288
40_80				80	336
40_95				95	408
40_105				105	456
40_120				120	528
40_140				140	624
40_160				160	720



10. BURÇ BİLYALİ KAFES  
BALL CAGE

Malzeme - Material : Ms58  
Bilyalı Malzemesi : 100Cr6 (1.3505)

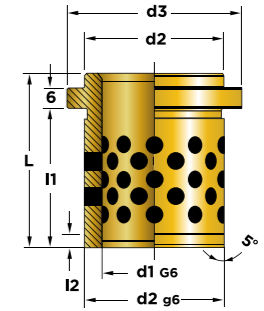


ÜRÜN KODU	d2	d3	d1	l	Bilya Sayısı (n)
01.02.10.48_71	56	4	48	71	360
48_80				80	390
48_95				95	480
48_105				105	540
48_120				120	600
48_140				140	720
48_160				160	840
50_71	58	4	50	71	360
50_80				80	390
50_95				95	480
50_105				105	540
50_120				120	600
50_140				140	720
50_160				160	840
60_85	68	4	60	85	504
60_95				95	558
60_105				105	612
60_120				120	720
60_140				140	828
60_160				160	972
63_85	71	4	63	85	504
63_95				95	558
63_105				105	612
63_120				120	720
63_140				140	828
63_160				160	972
80_120	92	6	80	120	286
80_140				140	330
80_160				160	374
80_180				180	462
80_200				200	506

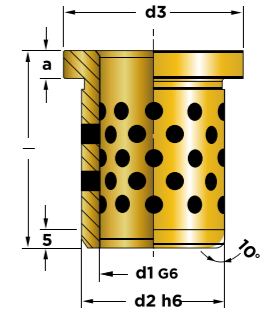
11. GRAFİTLİ BURÇLAR  
OILLESS GUIDE BUSH

Malzeme - Material : SAE 430B / Grafit  
Bilyalı Malzemesi : HB≥180

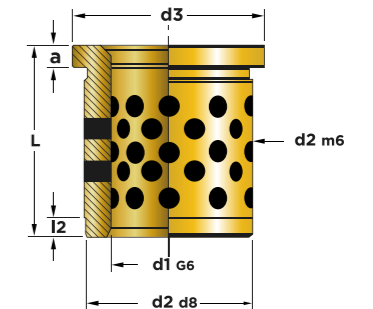
ÜRÜN KODU	d2	d3	l1	l2	d1	l
01.02.11.20_40.30.01	28	34	30	4	20	40
25_40.30.01	32	40	30	4	25	40
30_50.30.01	40	50	40	4	30	50
32_50.30.01	40	50	40	4	32	50
40_63.30.01	50	63	50	5	40	63
50_71.30.01	63	71	56	6	50	71
63_80.30.01	80	90	63	8	63	80
80_100.30.01	100	112	80	10	80	100
100_125.30.01	125	140	106	12	100	125
125_160.30.01	160	180	132	12	125	160



ÜRÜN KODU	d2	d3	a	d1	l
01.02.11.20_35.30.02	28	36	8	20	35
25_40.30.02	32	40	8	25	40
30_55.30.02	40	50	8	30	55
32_55.30.02	40	50	8	32	55
40_70.30.02	50	60	8	40	70
50_75.30.02	63	75	12	50	75
63_80.30.02	80	90	12	63	80
80_100.30.02	100	110	12	80	100
100_125.30.02	125	135	12	100	125

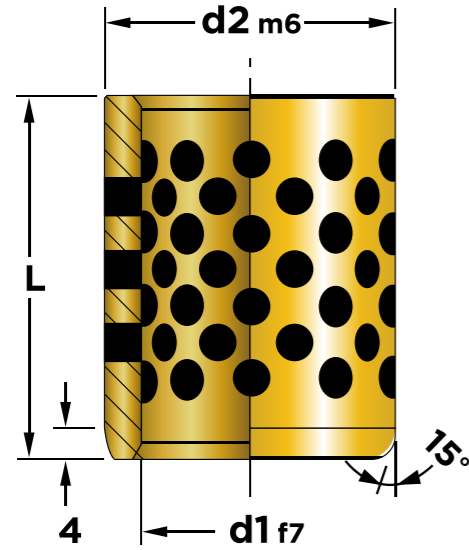


Sipariş Kodu	d2	d3	a	l2	d1	l
01.02.11.25_40.30.03	35	40	5	5	25	40
32_50.30.03	44	50	6	5	32	50
40_63.30.03	52	60	8	8	40	63
50_80.30.03	63	71	10	8	50	80
63_100.30.03	80	90	12	10	63	100
80_125.30.03	100	112	16	10	80	125
100_160.30.03	125	140	20	10	100	160



11. GRAFİTLİ BURÇLAR  
OILLESS GUIDE BUSH

Malzeme - Material : SAE 430B / Grafit  
Bilyalı Malzemesi : HB≥180

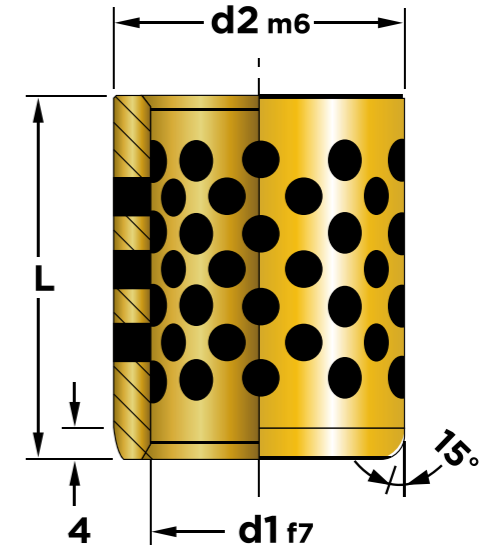


30.04			
ÜRÜN KODU	d1	l	d2
01.02.11.20_15_28.30.04	20	15	28
16_28.30.04		16	28
16_30.30.04		16	30
20_28.30.04		20	28
20_30.30.04		20	30
25_28.30.04		25	28
25_30.30.04		25	30
30_28.30.04		30	28
30_30.30.04		30	30
35_28.30.04		35	28
35_30.30.04		35	30
37_28.30.04		37	28
40_26.30.04		40	26
40_28.30.04		40	28
40_30.30.04		40	30
50_28.30.04		50	28

ÜRÜN KODU	d1	l	d2
01.02.11.25_16_33.30.04	25	16	33
16_35.30.04		16	35
20_33.30.04		20	33
20_35.30.04		20	35
25_33.30.04		25	33
25_35.30.04		25	35
30_33.30.04		30	33
30_35.30.04		30	35
35_33.30.04		35	33
35_35.30.04		35	35
40_33.30.04		40	33
40_35.30.04		40	35
47_33.30.04		47	33
50_32.30.04		50	32
50_33.30.04		50	33
50_35.30.04		50	35
60_33.30.04		60	33

11. GRAFİTLİ BURÇLAR  
OILLESS GUIDE BUSH

Malzeme - Material : SAE 430B / Grafit  
Bilyalı Malzemesi : HB≥180



30.04			
ÜRÜN KODU	d1	l	d2
01.02.11.30_20_38.30.04	30	20	38
20_40.30.04		20	40
25_38.30.04		25	38
25_40.30.04		25	40
30_38.30.04		30	38
30_40.30.04		30	40
35_38.30.04		35	38
35_40.30.04		35	40
40_38.30.04		40	38
40_40.30.04		40	40
50_38.30.04		50	38
50_40.30.04		50	40
60_38.30.04		60	38
60_40.30.04		60	40
60_42.30.04		60	42

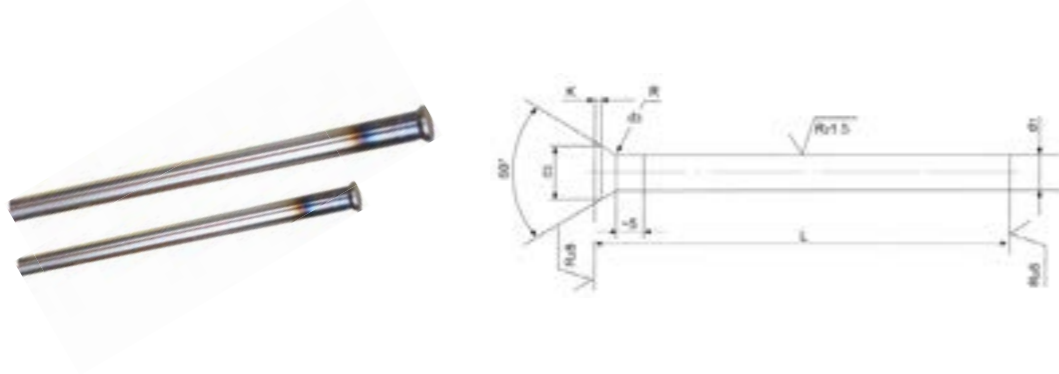
ÜRÜN KODU	d1	l	d2
01.02.11.40_20_50.30.04	40	20	50
25_50.30.04		25	50
25_55.30.04		25	55
30_50.30.04		30	50
30_55.30.04		30	55
35_50.30.04		35	50
35_55.30.04		35	55
40_50.30.04		40	50
40_55.30.04		40	55
50_50.30.04		50	50
50_55.30.04		50	55
60_50.30.04		60	50
60_55.30.04		60	55
70_50.30.04		70	50
77_50.30.04		77	50
80_50.30.04		80	50

## 01. KALIP ELEMANLARI 03. İTİCİ PİMLER



### 01. İTİCİ PİM HAVŞA BAŞLI ENJECTOR PIN HARDENED

**Malzeme - Material** : 1.(2516)  
**Gövde Sertliği - Shaft Hardness** : 64±2 HRC  
**Şapka Sertliği - Head Hardness** : 45±5 HRC



ÜRÜN KODU	D1 (mm)	D2 (mm)	K (mm)	L						
				80	100	125	160	200	250	
01.03.01.D1_L	1.0	1.8	0.5	•	•	•	•	•	•	
	1.5	2.2		•	•	•	•	•	•	
	2.0	3.0		•	•	•	•	•	•	
	2.5	3.5		•	•	•	•	•	•	
	3.0	4.5		•	•	•	•	•	•	
	3.5	5.0		•	•	•	•	•	•	
	4.0	5.5		•	•	•	•	•	•	
	4.5	6.0		•	•	•	•	•	•	
	5.0	6.5		•	•	•	•	•	•	
	5.5	7.0		•	•	•	•	•	•	
	6.0	8.0	1	•	•	•	•	•	•	
	6.5	9.0		•	•	•	•	•	•	
	7.0	10.0		•	•	•	•	•	•	
	7.5	11.0		•	•	•	•	•	•	
	8.0	12.0		•	•	•	•	•	•	
	8.5	13.0		•	•	•	•	•	•	
	9.0	14.0		•	•	•	•	•	•	
	9.5	15.0		•	•	•	•	•	•	
	10.0	16.0		1.5	•	•	•	•	•	•
	11.0	17.0			•	•	•	•	•	•
12.0	18.0	•	•		•	•	•	•		
13.0	19.0	•	•		•	•	•	•		
14.0	20.0	•	•		•	•	•	•		
16.0	22.0	•	•		•	•	•	•		

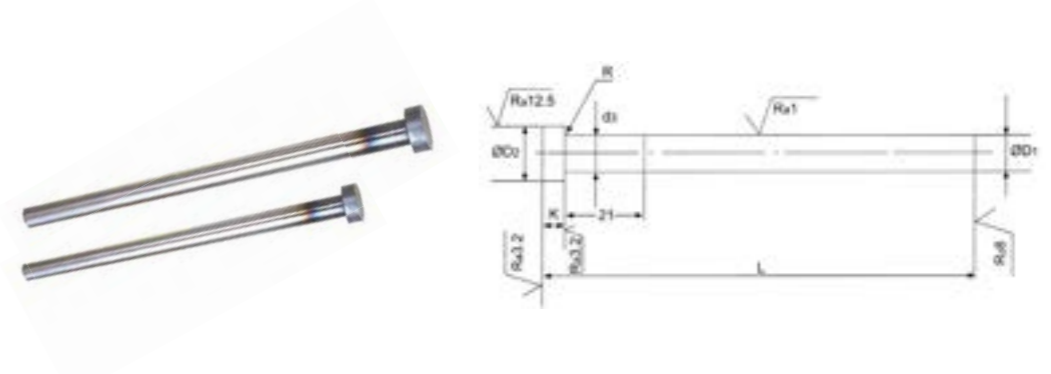
Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.



## 01. KALIP ELEMANLARI 03. İTİCİ PİMLER

### 02. İTİCİ PİM SİLİNDİR BAŞLI ENJECTOR PIN HARDENED

**Malzeme - Material** : 1.(2516)  
**Gövde Sertliği - Shaft Hardness** : 64±2 HRC  
**Şapka Sertliği - Head Hardness** : 45±5 HRC



ÜRÜN KODU	D1 (mm)	D2 (mm)	K (mm)	L																						
				100	125	160	200	250	315	400	500	630	800	1000												
01.03.02.D1_L	1.5	3.0	1.5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
	2.0	4.0	2.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	2.5	5.0	3.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	3.0	6.0		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	3.5	7.0		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	4.0	8.0		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	4.5	8.0		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	5.0	10.0		5.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	5.5	10.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	6.0	12.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	6.5	12.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	7.0	12.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	8.0	14.0	7.0		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	8.5	14.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	9.0	14.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	10.0	16.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	11.0	16.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	12.0	18.0		8.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	14.0	22.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	16.0	22.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	18.0	24.0			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	20.0	26.0			10.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	25.0	32.0	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

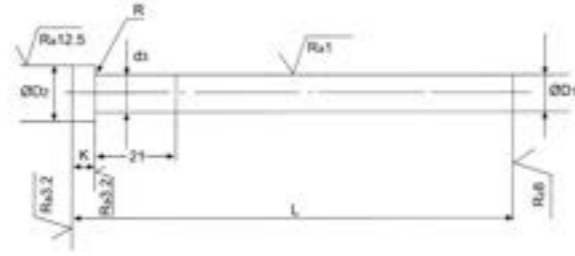
Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.

## 01. KALIP ELEMANLARI 03. İTİCİ PİMLER



### 03. İTİCİ PİM SİLİNDİR BAŞLI (NİTRASYONLU) ENJECTOR PIN HARDENED

**Malzeme - Material** : 1.(2344)  
**Gövde Sertliği - Shaft Hardness** : 65±2 HRC  
**Şapka Sertliği - Head Hardness** : 45±5 HRC



ÜRÜN KODU	D1 (mm)	D2 (mm)	K (mm)	L																
				100	125	160	200	250	315	400	500	630	800	1000						
01.03.03.D1_L	1.5	3.0	1.5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	2.0	4.0	2.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	2.5	5.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	3.0	6.0	3.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	3.5	7.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	4.0	8.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	4.5	8.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	5.0	10.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	5.5	10.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	6.0	12.0	5.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	6.5	12.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	7.0	12.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	8.0	14.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	8.5	14.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	9.0	14.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	10.0	16.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	11.0	16.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	12.0	18.0	7.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	14.0	22.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	16.0	22.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
18.0	24.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
20.0	26.0	8.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
25.0	32.0	10.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

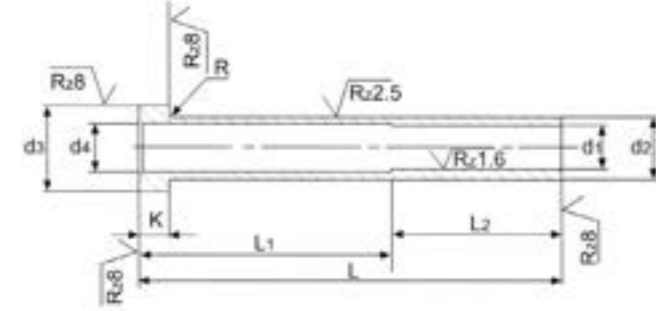
Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.



## 01. KALIP ELEMANLARI 03. İTİCİ PİMLER

### 04. BORU İTİCİ PİM ENJECTOR SLEEVES HARDENED

**Malzeme - Material** : WS  
**Gövde Sertliği - Shaft Hardness** : 60±2 HRC  
**Şapka Sertliği - Head Hardness** : 45±5 HRC



ÜRÜN KODU	D1 (mm)	D2 (mm)	L2 (mm)	D3 (mm)	K (mm)	L								
						75	100	125	150	175	200	225	250	
01.03.04.D1_D2_L	2.0	4.0	25	8	8.0	•	•	•	•	•	•	•	•	•
	2.5	5.0	35	10	10.0	•	•	•	•	•	•	•	•	•
	3.0	•	•	•	•	•	•	•	•	•	•	•	•	•
	3.5	6.0	45	12	12.0	•	•	•	•	•	•	•	•	•
	4.0	6.0	•	•	•	•	•	•	•	•	•	•	•	•
	5.0	8.0	•	14	14.0	•	•	•	•	•	•	•	•	•
	6.0	10.0	•	16	16.0	•	•	•	•	•	•	•	•	•
	8.0	12.0	•	20	20.0	•	•	•	•	•	•	•	•	•
	10.0	14.0	•	22	22.0	•	•	•	•	•	•	•	•	•
	12.0	16.0	•	•	•	•	•	•	•	•	•	•	•	•

Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.

## 01. KALIP ELEMANLARI 04. İTİCİ PİMLER

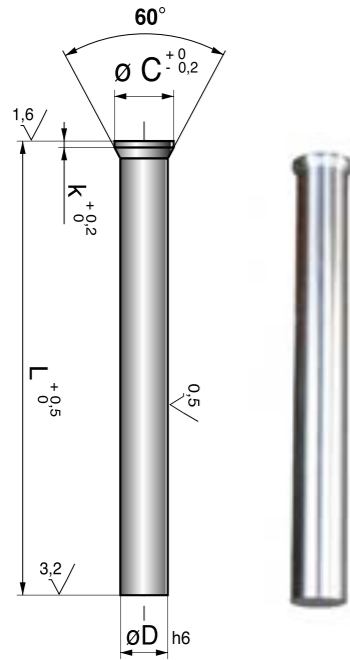


### 01. KALIP ZIMBASI HAVŞA BAŞLI CONICAL HEAD PUNCHES

**Malzeme - Material** : HSS / 3343 (S600)

**Gövde Sertliği - Shaft Hardness** : 64±2 HRC

**Şapka Sertliği - Head Hardness** : 45±5 HRC



ÜRÜN KODU	D(h6) (mm)	C (mm)	K (mm)	L			
				70	80	100	125
	0.5	0.9	0.2	•	•	•	
	0.6	1.1	0.2	•	•	•	
	0.7	1.3	0.2	•	•	•	
	0.8	1.4	0.4	•	•	•	
	0.9	1.6	0.4	•	•	•	
	1.0	1.8	0.5	•	•	•	
	1.1	1.8	0.5	•	•	•	
	1.2	2.0	0.5	•	•	•	
	1.3	2.0	0.5	•	•	•	
	1.4	2.2	0.5	•	•	•	
	1.5	2.2	0.5	•	•	•	
	1.6	2.5	0.5	•	•	•	
	1.7	2.5	0.5	•	•	•	
	1.8	2.8	0.5	•	•	•	
	1.9	2.8	0.5	•	•	•	
	2.0	3.0	0.5	•	•	•	
	2.1	3.2	0.5	•	•	•	
	2.2	3.2	0.5	•	•	•	
	2.3	3.5	0.5	•	•	•	
	2.4	3.5	0.5	•	•	•	
	2.5	3.5	0.5	•	•	•	
	2.6	4.0	0.5	•	•	•	
	2.7	4.0	0.5	•	•	•	
	2.8	4.0	0.5	•	•	•	
	2.9	4.0	0.5	•	•	•	
	3.0	4.5	0.5	•	•	•	•
	3.1	4.5	0.5	•	•	•	
	3.2	4.5	0.5	•	•	•	
	3.3	4.5	0.5	•	•	•	
	3.4	4.5	0.5	•	•	•	
	3.5	5.0	0.5	•	•	•	•
	3.6	5.0	0.5	•	•	•	
	3.7	5.0	0.5	•	•	•	
	3.8	5.0	0.5	•	•	•	
	3.9	5.0	0.5	•	•	•	
	4.0	5.5	0.5	•	•	•	•
	4.1	5.5	0.5	•	•	•	
	4.2	5.5	0.5	•	•	•	
	4.3	5.5	0.5	•	•	•	
	4.4	5.5	0.5	•	•	•	

Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.



## 01. KALIP ELEMANLARI 03. İTİCİ PİMLER

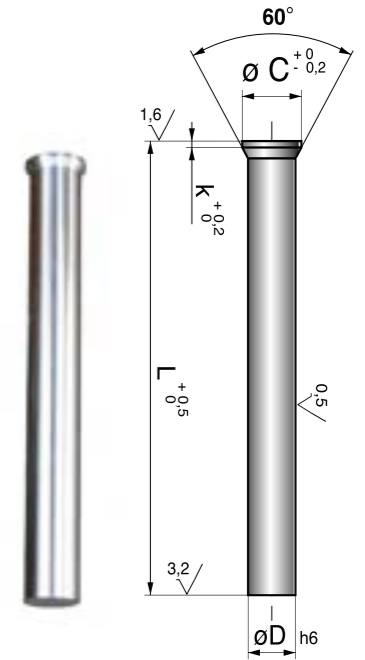
### 01. KALIP ZIMBASI HAVŞA BAŞLI CONICAL HEAD PUNCHES

**Malzeme - Material** : HSS / 3343 (S600)

**Gövde Sertliği - Shaft Hardness** : 64±2 HRC

**Şapka Sertliği - Head Hardness** : 45±5 HRC

ÜRÜN KODU	D(h6) (mm)	C (mm)	K (mm)	L			
				70	80	100	125
	4.5	6.0	0.5	•	•	•	•
	4.6	6.0	0.5	•	•	•	•
	4.7	6.0	0.5	•	•	•	•
	4.8	6.0	0.5	•	•	•	•
	4.9	6.0	0.5	•	•	•	•
	5.0	6.5	0.5	•	•	•	•
	5.1	6.5	0.5	•	•	•	•
	5.2	6.5	0.5	•	•	•	•
	5.3	6.5	0.5	•	•	•	•
	5.4	6.5	0.5	•	•	•	•
	5.5	7.0	0.5	•	•	•	•
	5.6	7.0	0.5	•	•	•	•
	5.7	7.0	0.5	•	•	•	•
	5.8	7.0	0.5	•	•	•	•
	5.9	7.0	0.5	•	•	•	•
	6.0	8.0	0.5	•	•	•	•
	6.1	8.0	0.5	•	•	•	•
	6.2	8.0	0.5	•	•	•	•
	6.3	8.0	0.5	•	•	•	•
	6.4	8.0	0.5	•	•	•	•
	6.5	9.0	1.0	•	•	•	•
	6.6	9.0	1.0	•	•	•	•
	6.7	9.0	1.0	•	•	•	•
	6.8	9.0	1.0	•	•	•	•
	6.9	9.0	1.0	•	•	•	•
	7.0	9.0	1.0	•	•	•	•
	7.1	9.0	1.0	•	•	•	•
	7.2	9.0	1.0	•	•	•	•
	7.3	9.0	1.0	•	•	•	•
	7.4	9.0	1.0	•	•	•	•
	7.5	10.0	1.0	•	•	•	•
	7.6	10.0	1.0	•	•	•	•
	7.8	10.0	1.0	•	•	•	•
	7.9	10.0	1.0	•	•	•	•
	8.0	10.0	1.0	•	•	•	•
	8.1	10.0	1.0	•	•	•	•
	8.2	10.0	1.0	•	•	•	•
	8.3	10.0	1.0	•	•	•	•
	8.4	10.0	1.0	•	•	•	•
	8.5	10.0	1.0	•	•	•	•



Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.



## 01. KALIP ELEMANLARI 04. İTİCİ PİMLER

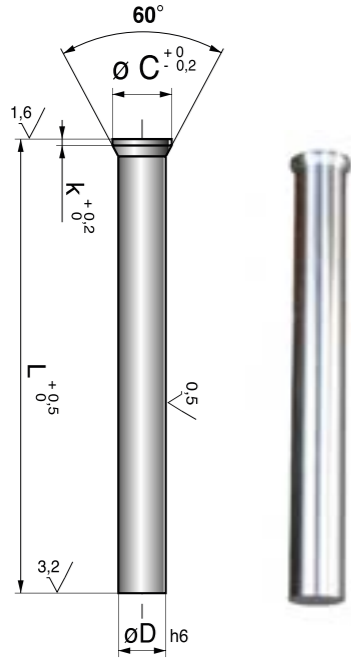


### 01. KALIP ZIMBASI HAVŞA BAŞLI CONICAL HEAD PUNCHES

**Malzeme - Material** : HSS / 3343 (S600)

**Gövde Sertliği - Shaft Hardness** : 64±2 HRC

**Şapka Sertliği - Head Hardness** : 45±5 HRC



ÜRÜN KODU	D(h6) (mm)	C (mm)	K (mm)	L			
				70	80	100	125
	8.6	11.0	1.0	•	•	•	
	8.7	11.0	1.0	•	•	•	
	8.8	11.0	1.0	•	•	•	
	8.9	11.0	1.0	•	•	•	
	9.0	11.0	1.0	•	•	•	•
	9.1	11.0	1.0	•	•	•	
	9.2	11.0	1.0	•	•	•	
	9.3	11.0	1.0	•	•	•	
	9.4	11.0	1.0	•	•	•	
	9.5	12.0	1.0	•	•	•	•
	9.6	12.0	1.0	•	•	•	
	9.7	12.0	1.0	•	•	•	
	9.8	12.0	1.0	•	•	•	
	9.9	12.0	1.0	•	•	•	
	10.0	12.0	1.0	•	•	•	•
	10.1	12.0	1.0	•	•	•	
	10.2	12.0	1.0	•	•	•	
	10.3	12.0	1.0	•	•	•	
	10.4	12.0	1.0	•	•	•	
01.04.01.D_L	10.5	13.0	1.0	•	•	•	•
	10.6	13.0	1.0	•	•	•	
	10.7	13.0	1.0	•	•	•	
	10.8	13.0	1.0	•	•	•	
	10.9	13.0	1.0	•	•	•	
	11.0	13.0	1.0	•	•	•	•
	11.1	13.0	1.0	•	•	•	
	11.2	13.0	1.0	•	•	•	
	11.3	13.0	1.0	•	•	•	
	11.4	13.0	1.0	•	•	•	
	11.5	14.0	1.0	•	•	•	•
	11.6	14.0	1.0	•	•	•	
	11.7	14.0	1.0	•	•	•	
	11.8	14.0	1.0	•	•	•	
	11.9	14.0	1.0	•	•	•	
	12.0	14.0	1.0	•	•	•	•
	12.1	14.0	1.0	•	•	•	
	12.2	14.0	1.0	•	•	•	
	12.3	14.0	1.0	•	•	•	
	12.4	14.0	1.0	•	•	•	
	12.5	15.0	1.0	•	•	•	•

Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.



## 01. KALIP ELEMANLARI 03. İTİCİ PİMLER

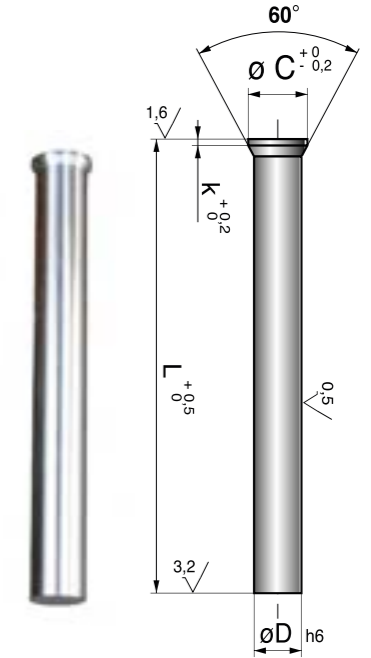
### 01. KALIP ZIMBASI HAVŞA BAŞLI CONICAL HEAD PUNCHES

**Malzeme - Material** : HSS / 3343 (S600)

**Gövde Sertliği - Shaft Hardness** : 64±2 HRC

**Şapka Sertliği - Head Hardness** : 45±5 HRC

ÜRÜN KODU	D(h6) (mm)	C (mm)	K (mm)	L			
				70	80	100	125
	12.6	15.0	1.0	•	•	•	
	12.7	15.0	1.0	•	•	•	
	12.8	15.0	1.0	•	•	•	
	12.9	15.0	1.0	•	•	•	
	13.0	15.0	1.0	•	•	•	•
	13.5	16.0	1.5	•	•	•	•
01.04.01.D_L	14.0	16.0	1.5	•	•	•	•
	15.0	17.0	1.5	•	•	•	•
	16.0	18.0	1.5	•	•	•	•
	17.0	19.0	1.5	•	•	•	•
	18.0	20.0	1.5	•	•	•	•
	19.0	21.0	1.5	•	•	•	•
	20.0	22.0	1.5	•	•	•	•



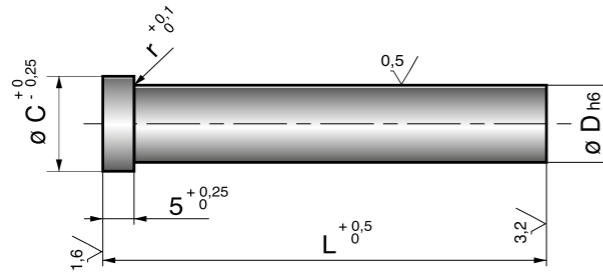
Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 02. KALIP ZIMBASI SİLİNDİR BAŞLI CYLINDRICAL HEAD PUNCHES

**Malzeme - Material** : HSS / 3343 (S600)  
**Gövde Sertliği - Shaft Hardness** : 64±2 HRC  
**Şapka Sertliği - Head Hardness** : 45±5 HRC



ÜRÜN KODU	D(h6) (mm)	C (mm)	K (mm)	L			
				70	80	100	125
01.04.02.D_L	3.0	5.0	3.0	•	•	•	•
	4.0	6.0	3.0	•	•	•	•
	5.0	8.0	5.0	•	•	•	•
	6.0	9.0	5.0	•	•	•	•
	8.0	11.0	5.0	•	•	•	•
	10.0	13.0	5.0	•	•	•	•
	13.0	16.0	5.0	•	•	•	•
	16.0	19.0	5.0	•	•	•	•
	20.0	23.0	5.0	•	•	•	•

Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 01. YEŞİL YAY (HAFİF YÜK) LIGHT LOAD

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.01.Y.10XL	10	25	5	10.0	7.5	75	10.0	100
	10	32	5	8.5	9.6	82	12.8	109
	10	38	5	6.8	11.4	78	15.2	103
	10	44	5	6.0	13.2	79	17.6	106
	10	51	5	5.0	15.3	77	20.4	102
	10	64	5	4.3	19.2	83	25.6	110
	10	76	5	3.2	22.8	73	30.4	97

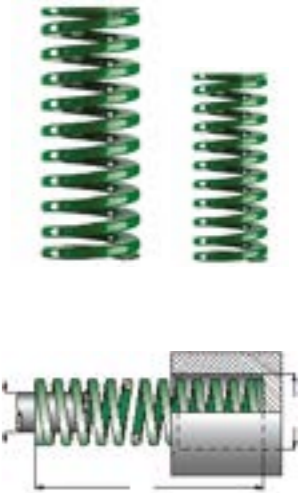
TEL KESİTİ 1.7X1.1

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.01.Y.13XL	12.5	25	6.3	17.9	7.5	134	10.0	179
	12.5	32	6.3	16.4	9.6	157	12.8	210
	12.5	38	6.3	13.6	11.4	155	15.2	207
	12.5	44	6.3	12.1	13.2	160	17.6	213
	12.5	51	6.3	11.4	15.3	174	20.4	233
	12.5	64	6.3	9.3	19.2	179	25.6	238
	12.5	76	6.3	7.1	22.8	162	30.4	216
	12.5	89	6.3	5.4	26.7	144	35.6	192
	12.5	102	6.3	4.6	30.6	141	40.8	188

TEL KESİTİ 2.3 X 1.5

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.01.Y.16XL	16.0	25	8.0	23.4	7.5	176	10.0	234
	16.0	32	8.0	22.9	9.6	220	12.8	293
	16.0	38	8.0	19.3	11.4	220	15.2	293
	16.0	44	8.0	17.1	13.2	226	17.6	301
	16.0	51	8.0	15.7	15.3	240	20.4	320
	16.0	64	8.0	10.7	19.2	205	25.6	274
	16.0	76	8.0	10.0	22.8	228	30.4	304
	16.0	89	8.0	8.6	26.7	230	35.6	306
	16.0	102	8.0	7.8	30.6	239	40.8	318
	16.0	115	8.0	7.0	34.5	242	46.0	322

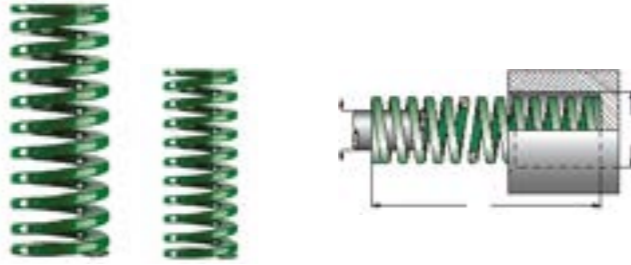
TEL KESİTİ 3.2 X 1.7



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 01. YEŞİL YAY ( HAFİF YÜK ) LIGHT LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.01.Y.20XL	20	25	10	55.8	7.5	419	10.0	558
	20	32	10	45.0	9.6	432	12.8	576
	20	38	10	33.3	11.4	380	15.2	506
	20	44	10	30.0	13.2	396	17.6	528
	20	51	10	24.5	15.3	375	20.4	500
	20	64	10	20.0	19.2	384	25.6	512
	20	76	10	16.0	22.8	365	30.4	486
	20	89	10	14.0	26.7	374	35.6	498
	20	102	10	12.0	30.6	367	40.8	490
	20	115	10	10.9	34.5	376	46.0	501
	20	127	10	9.5	38.1	362	50.8	483
	20	139	10	8.4	41.7	350	55.6	467
	20	152	10	7.5	45.6	342	60.8	456

TEL KESİTİ 4.0 x 2.1

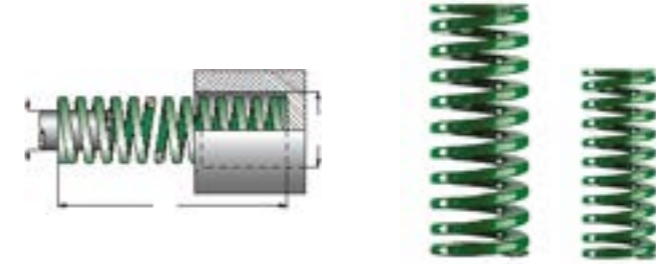
ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.01.Y.25XL	25	25	12.5	100	7.5	750	10.0	1000
	25	32	12.5	80.3	9.6	771	12.8	1028
	25	38	12.5	62.0	11.4	707	15.2	942
	25	44	12.5	52.9	13.2	698	17.6	931
	25	51	12.5	44.0	15.3	673	20.4	898
	25	64	12.5	35.2	19.2	676	25.6	901
	25	76	12.5	28.0	22.8	638	30.4	851
	25	89	12.5	24.0	26.7	641	35.6	854
	25	102	12.5	21.1	30.6	646	40.8	861
	25	115	12.5	18.7	34.5	645	46.0	860
	25	127	12.5	16.7	38.1	636	50.8	848
	25	139	12.5	15.3	41.7	638	55.6	851
	25	152	12.5	14.0	45.6	638	60.8	851
	25	178	12.5	12.5	53.4	668	71.2	890
	25	203	12.5	10.4	60.9	633	81.2	844

TEL KESİTİ 5.3 x 2.7



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 01. YEŞİL YAY ( HAFİF YÜK ) LIGHT LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.01.Y.32XL	32	38	16	94.0	11.4	1072	15.2	1429
	32	44	16	79.5	13.2	1049	17.6	1399
	32	51	16	67.0	15.3	1025	20.4	1367
	32	64	16	53.0	19.2	1018	25.6	1357
	32	76	16	44.0	22.8	1003	30.4	1338
	32	89	16	37.2	26.7	993	35.6	1324
	32	102	16	32.0	30.6	979	40.8	1306
	32	115	16	29.0	34.5	1001	46.0	1334
	32	127	16	25.0	38.1	953	50.8	1270
	32	139	16	23.0	41.7	959	55.6	1279
	32	152	16	21.5	45.6	980	60.8	1307
	32	178	16	18.2	53.4	972	71.2	1296
	32	203	16	15.8	60.9	962	81.2	1283
	32	254	16	12.5	76.2	953	101.6	1270
	32	305	16	10.3	91.5	942	122.0	1257

TEL KESİTİ 6.7 x 3.3

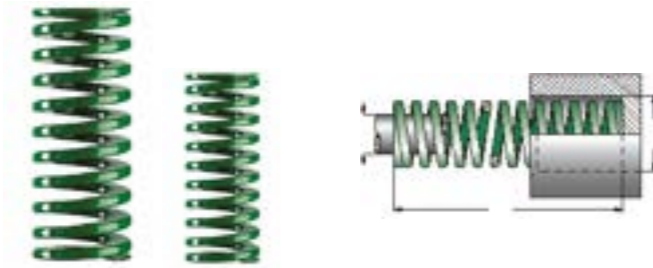
ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.01.Y.40XL	40	51	20	92.0	15.3	1408	20.4	1877
	40	64	20	73.0	19.2	1402	25.6	1869
	40	76	20	63.0	22.8	1436	30.4	1915
	40	89	20	51.0	26.7	1362	35.6	1816
	40	102	20	43.0	30.6	1316	40.8	1754
	40	115	20	39.6	34.5	1366	46.0	1822
	40	127	20	37.0	38.1	1410	50.8	1880
	40	139	20	32.0	41.7	1334	55.6	1779
	40	152	20	28.0	45.6	1277	60.8	1702
	40	178	20	25.2	53.4	1346	71.2	1794
	40	203	20	22.7	60.9	1382	81.2	1843
	40	254	20	17.0	76.2	1295	101.6	1727
	40	305	20	14.8	91.5	1354	122.0	1806

TEL KESİTİ 8.0 x 4.0

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 01. YEŞİL YAY (HAFİF YÜK) LIGHT LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.01.Y.50XL	50	64	25	150.0	19.2	2995	25.6	3994
	50	76	25	125.0	22.8	2850	30.4	3800
	50	89	25	109.0	26.7	2910	35.6	3880
	50	102	25	94.0	30.6	2876	40.8	3835
	50	115	25	81.0	34.5	2795	46.0	3726
	50	127	25	71.0	38.1	2705	50.8	3607
	50	139	25	66.5	41.7	2773	55.6	3697
	50	152	25	60.0	45.6	2736	60.8	3648
	50	178	25	52.0	53.4	2777	71.2	3702
	50	203	25	44.0	60.9	2680	81.2	3573
	50	229	25	38.2	68.7	2624	91.6	3499
	50	254	25	35.0	76.2	2667	101.6	3556
	50	305	25	28.5	91.5	2608	122.0	3477

TEL KESİTİ 11.1 x 5.5

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.01.Y.63XL	63	76	38	189.0	22.8	4309	30.4	5746
	63	89	38	158.0	26.7	4219	35.6	5625
	63	102	38	131.0	30.6	4009	40.8	5345
	63	115	38	116.0	34.5	4002	46.0	5336
	63	127	38	103.0	38.1	3924	50.8	5232
	63	152	38	84.3	45.6	3844	60.8	5125
	63	178	38	71.5	53.4	3818	71.2	5091
	63	203	38	61.7	60.9	3758	81.2	5010
	63	254	38	47.0	76.2	3581	101.6	4775
	63	305	38	38.2	91.5	3495	122.0	4660

TEL KESİTİ 11.6 x 7.7



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 02. MAVİ YAY (ORTA YÜK) MEDIUM LOAD

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 25%		MAX 37.5%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.02.M.10XL	10	25	5	16.0	6.3	100	9.4	150
	10	32	5	13.0	8.0	104	12.0	156
	10	38	5	11.9	9.5	113	14.3	170
	10	44	5	10.3	11.0	113	16.5	170
	10	51	5	8.9	12.8	113	19.1	170
	10	64	5	7.5	16.0	120	24.0	180
	10	76	5	5.3	19.0	101	28.5	151

TEL KESİTİ 1.8 X 1.2

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 25%		MAX 37.5%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.02.M.13XL	13	25	6.3	30	6.3	188	9.4	281
	13	32	6.3	24.8	8.0	198	12.0	298
	13	38	6.3	21.4	9.5	203	14.3	305
	13	44	6.3	18.5	11.0	204	16.5	305
	13	51	6.3	15.5	12.8	198	19.1	296
	13	64	6.3	12.1	16.0	194	24.0	290
	13	76	6.3	10.2	19.0	194	28.5	291
	13	89	6.3	8.4	22.3	187	33.4	280
	13	102	6.3	7.1	25.5	181	38.3	272

TEL KESİTİ 2.5 X 1.7

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 25%		MAX 37.5%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.02.M.16XL	16	25	8	49.4	6.3	309	9.4	463
	16	32	8	37.1	8.0	297	12.0	445
	16	38	8	33.9	9.5	322	14.3	483
	16	44	8	30.0	11.0	330	16.5	495
	16	51	8	26.4	12.8	337	19.1	505
	16	64	8	20.5	16.0	328	24.0	492
	16	76	8	17.8	19.0	338	28.5	507
	16	89	8	15.2	22.3	338	33.4	507
	16	102	8	13.5	25.5	344	38.3	516
	16	115	8	12.0	28.8	345	43.1	518

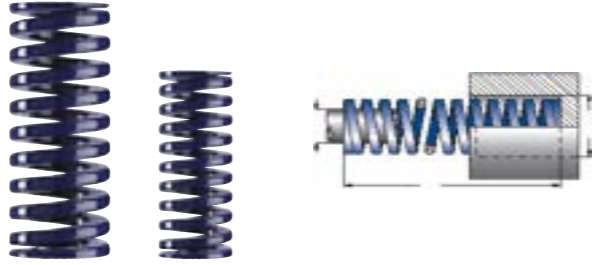
TEL KESİTİ 3.2 X 2.0



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 02. MAVİ YAY ( ORTA YÜK ) MEDIUM LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 25%		MAX 37.5%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.02.M.20XL	20	25	10	98.0	6.3	613	9.4	919
	20	32	10	72.6	8.0	581	12.0	871
	20	38	10	56.0	9.5	532	14.3	798
	20	44	10	47.5	11.0	523	16.5	784
	20	51	10	41.7	12.8	532	19.1	798
	20	64	10	32.3	16.0	517	24.0	775
	20	76	10	25.1	19.0	477	28.5	715
	20	89	10	22.0	22.3	490	33.4	734
	20	102	10	19.8	25.5	505	38.3	757
	20	115	10	18.1	28.8	520	43.1	781
	20	127	10	16.6	31.8	527	47.6	791
	20	139	10	15.1	34.8	525	52.1	787
	20	152	10	13.2	38.0	502	57.0	752

TEL KESİTİ 4.0 x 2.4

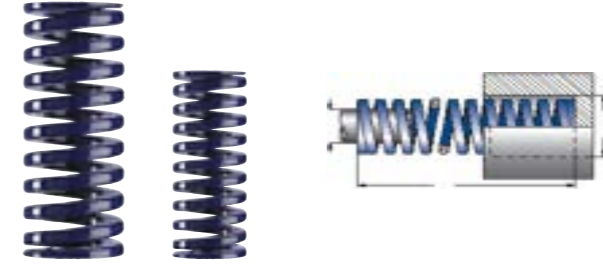
ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 25%		MAX 37.5%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.02.M.25XL	25	25	12.5	147.0	6.3	919	9.4	1378
	25	32	12.5	118.0	8.0	944	12.0	1416
	25	38	12.5	93.0	9.5	884	14.3	1325
	25	44	12.5	80.8	11.0	889	16.5	1333
	25	51	12.5	68.6	12.8	875	19.1	1312
	25	64	12.5	53.0	16.0	848	24.0	1272
	25	76	12.5	43.2	19.0	821	28.5	1231
	25	89	12.5	38.2	22.3	850	33.4	1275
	25	102	12.5	33.0	25.5	842	38.3	1262
	25	115	12.5	28.0	28.8	805	43.1	1208
	25	127	12.5	25.9	31.8	822	47.6	1233
	25	139	12.5	23.2	34.8	806	52.1	1209
	25	152	12.5	20.8	38.0	790	57.0	1186
	25	178	12.5	17.8	44.5	792	66.8	1188
	25	203	12.5	15.8	50.8	802	76.1	1203

TEL KESİTİ 5.3 X 3.1



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 02. MAVİ YAY ( ORTA YÜK ) MEDIUM LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 25%		MAX 37.5%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.02.M.32XL	32	38	16	185.0	9.5	1758	14.3	2636
	32	44	16	158.0	11.0	1738	16.5	2607
	32	51	16	134.0	12.8	1709	19.1	2563
	32	64	16	99.0	16.0	1584	24.0	2376
	32	76	16	80.5	19.0	1530	28.5	2294
	32	89	16	69.1	22.3	1537	33.4	2306
	32	102	16	58.8	25.5	1499	38.3	2249
	32	115	16	51.5	28.8	1481	43.1	2221
	32	127	16	44.8	31.8	1422	47.6	2134
	32	139	16	42.3	34.8	1470	52.1	2205
	32	152	16	37.8	38.0	1436	57.0	2155
	32	178	16	32.5	44.5	1446	66.8	2169
	32	203	16	28.9	50.8	1467	76.1	2200
	32	254	16	21.4	63.5	1359	95.3	2038
	32	305	16	18.3	76.3	1395	114.4	2093

TEL KESİTİ 6.8 X 4.0

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 25%		MAX 37.5%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.02.M.40XL	40	51	20	181.6	12.8	2315	19.1	3473
	40	64	20	140.0	16.0	2240	24.0	3360
	40	76	20	108.0	19.0	2052	28.5	3078
	40	89	20	90.7	22.3	2018	33.4	3027
	40	102	20	81.0	25.5	2066	38.3	3098
	40	115	20	71.8	28.8	2064	43.1	3096
	40	127	20	62.7	31.8	1991	47.6	2986
	40	139	20	57.5	34.8	1998	52.1	2997
	40	152	20	51.6	38.0	1961	57.0	2941
	40	178	20	44.1	44.5	1962	66.8	2944
	40	203	20	36.7	50.8	1863	76.1	2794
	40	254	20	30.1	63.5	1911	95.3	2867
	40	305	20	24.6	76.3	1876	114.4	2814

TEL KESİTİ 8.1 X 4.8

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 02. MAVİ YAY ( ORTA YÜK ) MEDIUM LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.02.M.50XL	50	64	25	209.0	16.0	3344	24.0	5016
	50	76	25	168.0	19.0	3192	28.5	4788
	50	89	25	140.0	22.3	3115	33.4	4673
	50	102	25	119.0	25.5	3035	38.3	4552
	50	115	25	106.0	28.8	3048	43.1	4571
	50	127	25	97.0	31.8	3080	47.6	4620
	50	139	25	87.0	34.8	3023	52.1	4535
	50	152	25	80.0	38.0	3040	57.0	4560
	50	178	25	69.5	44.5	3093	66.8	4639
	50	203	25	59.8	50.8	3035	76.1	4552
	50	254	25	43.9	63.5	2788	95.3	4181
	50	305	25	38.6	76.3	2943	114.4	4415

TEL KESİTİ 10.9 x 6.0

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 30%		MAX 40%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.02M.63XL	63	76	38	312.0	19.0	5928	28.5	8892
	63	89	38	260.0	22.3	5785	33.4	8678
	63	102	38	221.0	25.5	5636	38.3	8453
	63	115	38	187.0	28.8	5376	43.1	8064
	63	127	38	168.0	31.8	5334	47.6	8001
	63	152	38	136.0	38.0	5168	57.0	7752
	63	178	38	114.0	44.5	5073	66.8	7610
	63	203	38	100.0	50.8	5075	76.1	7613
	63	254	38	78.4	63.5	4978	95.3	7468
	63	305	38	64.7	76.3	4933	114.4	7400

TEL KESİTİ 11.5 x 9.3



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 03. KIRMIZI YAY ( AĞIR YÜK ) HEAVY LOAD

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 20%		MAX 30%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.03.K.10XL	10	25	5	22.1	5.0	111	7.5	166
	10	32	5	17.5	6.4	112	9.6	168
	10	38	5	17.1	7.6	130	11.4	195
	10	44	5	15.0	8.8	132	13.2	198
	10	51	5	12.8	10.2	131	15.3	196
	10	64	5	10.7	12.8	137	19.2	205
	10	76	5	7.5	15.2	114	22.8	171

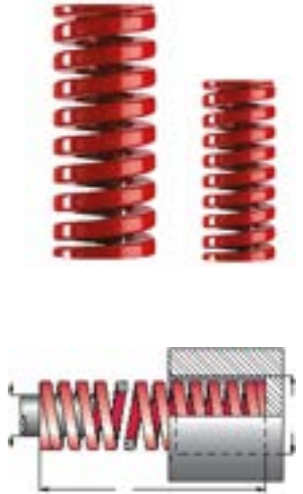
TEL KESİTİ 1.8 X 1.4

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 20%		MAX 30%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.03.K.13XL	13	25	6.3	42.1	5.0	211	7.5	316
	13	32	6.3	33.2	6.4	212	9.6	319
	13	38	6.3	29.3	7.6	223	11.4	334
	13	44	6.3	24.6	8.8	216	13.2	325
	13	51	6.3	19.6	10.2	200	15.3	300
	13	64	6.3	15.0	12.8	192	19.2	288
	13	76	6.3	13.2	15.2	201	22.8	301
	13	89	6.3	11.4	17.8	203	26.7	304
	13	102	6.3	9.4	20.4	192	30.6	288

TEL KESİTİ 2.4 X 2.0

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 20%		MAX 30%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.03.K.16XL	16	25	8	75.7	5.0	379	7.5	568
	16	32	8	52.8	6.4	338	9.6	507
	16	38	8	48.5	7.6	369	11.4	553
	16	44	8	42.8	8.8	377	13.2	565
	16	51	8	37.1	10.2	378	15.3	568
	16	64	8	30.3	12.8	388	19.2	582
	16	76	8	25.8	15.2	392	22.8	588
	16	89	8	21.7	17.8	386	26.7	579
	16	102	8	19.3	20.4	394	30.6	591
	16	115	8	17.0	23.0	391	34.5	587

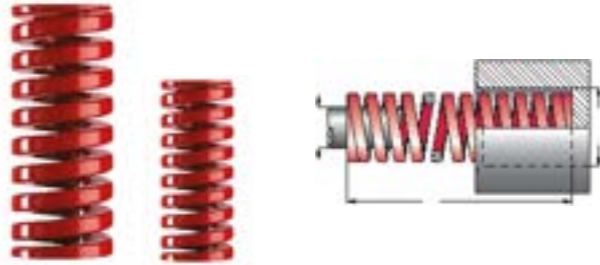
TEL KESİTİ 3.0 X 2.4



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 03. KIRMIZI YAY (AĞIR YÜK) HEAVY LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 20%		MAX 30%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.03.K.20XL	20	25	10	216.0	5.0	1080	7.5	1620
	20	32	10	168.0	6.4	1075	9.6	1613
	20	38	10	129.0	7.6	980	11.4	1471
	20	44	10	112.0	8.8	986	13.2	1478
	20	51	10	94.0	10.2	959	15.3	1438
	20	64	10	72.1	12.8	923	19.2	1384
	20	76	10	59.7	15.2	907	22.8	1361
	20	89	10	50.5	17.8	899	26.7	1348
	20	102	10	44.2	20.4	902	30.6	1353
	20	115	10	38.4	23.0	883	34.5	1325
	20	127	10	34.1	25.4	866	38.1	1299
	20	139	10	31.0	27.8	862	41.7	1293
	20	152	10	28.2	30.4	857	45.6	1286

TEL KESİTİ 4.0 x 3.2

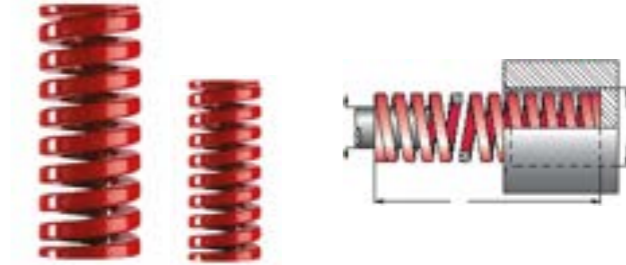
ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 20%		MAX 30%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.03.K.25XL	25	25	12.5	375.0	5.0	1875	7.5	2813
	25	32	12.5	297.0	6.4	1901	9.6	2851
	25	38	12.5	219.0	7.6	1664	11.4	2497
	25	44	12.5	187.0	8.8	1646	13.2	2468
	25	51	12.5	156.0	10.2	1591	15.3	2387
	25	64	12.5	123.0	12.8	1574	19.2	2362
	25	76	12.5	99.0	15.2	1505	22.8	2257
	25	89	12.5	84.0	17.8	1495	26.7	2243
	25	102	12.5	73.0	20.4	1489	30.6	2234
	25	115	12.5	65.0	23.0	1495	34.5	2243
	25	127	12.5	57.7	25.4	1466	38.1	2198
	25	139	12.5	52.7	27.8	1465	41.7	2198
	25	152	12.5	47.8	30.4	1453	45.6	2180
	25	178	12.5	41.0	35.6	1460	53.4	2189
	25	203	12.5	35.8	40.6	1453	60.9	2180

TEL KESİTİ 5.6 x 4.1



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 03. KIRMIZI YAY (AĞIR YÜK) HEAVY LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 20%		MAX 30%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.03.K.32XL	32	38	16	388.0	7.6	2949	11.4	4423
	32	44	16	324.0	8.8	2851	13.2	4277
	32	51	16	272.0	10.2	2774	15.3	4162
	32	64	16	212.0	12.8	2714	19.2	4070
	32	76	16	172.0	15.2	2614	22.8	3922
	32	89	16	141.0	17.8	2510	26.7	3765
	32	102	16	122.0	20.4	2489	30.6	3733
	32	115	16	107.0	23.0	2461	34.5	3692
	32	127	16	93.0	25.4	2362	38.1	3543
	32	139	16	86.0	27.8	2391	41.7	3586
	32	152	16	78.0	30.4	2371	45.6	3557
	32	178	16	67.2	35.6	2392	53.4	3588
	32	203	16	59.1	40.6	2399	60.9	3599
	32	254	16	46.4	50.8	2357	76.2	3536
	32	305	16	38.0	61.0	2318	91.5	3477

TEL KESİTİ 6.9 x 5.3

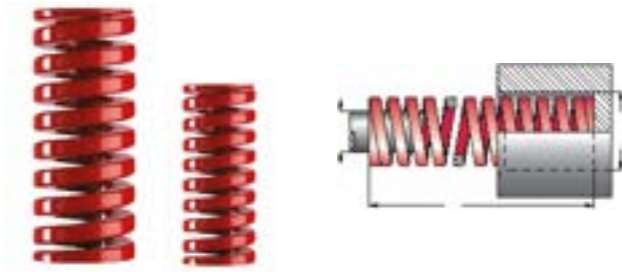
ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 20%		MAX 30%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.03.K.40XL	40	51	20	350.0	10.2	3570	15.3	5355
	40	64	20	269.0	12.8	3443	19.2	5165
	40	76	20	219.0	15.2	3329	22.8	4993
	40	89	20	190.0	17.8	3382	26.7	5073
	40	102	20	163.0	20.4	3325	30.6	4988
	40	115	20	142.0	23.0	3266	34.5	4899
	40	127	20	128.0	25.4	3251	38.1	4877
	40	139	20	115.0	27.8	3197	41.7	4796
	40	152	20	105.0	30.4	3192	45.6	4788
	40	178	20	89.0	35.6	3168	53.4	4753
	40	203	20	77.0	40.6	3126	60.9	4689
	40	254	20	61.0	50.8	3099	76.2	4648
	40	305	20	51.0	61.0	3111	91.5	4667

TEL KESİTİ 8.4 x 6.2

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 03. KIRMIZI YAY (AĞIR YÜK) HEAVY LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 20%		MAX 30%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.03.K.50XL	50	64	25	413.0	12.8	5286	19.2	7930
	50	76	25	339.0	15.2	5153	22.8	7729
	50	89	25	288.0	17.8	5126	26.7	7690
	50	102	25	245.0	20.4	4998	30.6	7497
	50	115	25	215.0	23.0	4945	34.5	7418
	50	127	25	192.0	25.4	4877	38.1	7315
	50	139	25	168.0	27.8	4670	41.7	7006
	50	152	25	154.0	30.4	4682	45.6	7022
	50	178	25	134.0	35.6	4770	53.4	7156
	50	203	25	117.0	40.6	4750	60.9	7125
	50	254	25	89.0	50.8	4521	76.2	6782
	50	305	25	73.0	61.0	4453	91.5	6680

TEL KESİTİ 11.3 x 7.4

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 20%		MAX 30%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.03K.63XL	63	76	38	630.0	15.2	9576	22.8	14364
	63	89	38	485.0	17.8	8633	26.7	12950
	63	102	38	434.0	20.4	8854	30.6	13280
	63	115	38	384.0	23.0	8832	34.5	13248
	63	127	38	349.0	25.4	8865	38.1	13297
	63	152	38	276.0	30.4	8390	45.6	12586
	63	178	38	237.0	35.6	8437	53.4	12656
	63	203	38	210.0	40.6	8526	60.9	12789
	63	254	38	165.0	50.8	8382	76.2	12573
	63	305	38	134.0	61.0	8174	91.5	12261

TEL KESİTİ 11.2 x 12.9



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 04. SARI YAY (EKSTRA AĞIR YÜK) EXTRA HEAVY LOAD

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 17%		MAX 25%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.04.S.10XL	10	25	5	36.8	4.3	156	6.3	230
	10	32	5	27.9	5.4	152	8.0	223
	10	38	5	23.7	6.5	153	9.5	225
	10	44	5	19.2	7.5	144	11.0	211
	10	51	5	16.5	8.7	143	12.8	210
	10	64	5	13.2	10.9	144	16.0	211
	10	76	5	10.9	12.9	141	19.0	207

TEL KESİTİ 1.9 X 1.5

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 17%		MAX 25%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.04.S.13XL	13	25	6.3	58.5	4.3	249	6.3	366
	13	32	6.3	43.9	5.4	239	8.0	351
	13	38	6.3	36.0	6.5	233	9.5	342
	13	44	6.3	30.3	7.5	227	11.0	333
	13	51	6.3	26.2	8.7	227	12.8	334
	13	64	6.3	21.2	10.9	231	16.0	339
	13	76	6.3	17.1	12.9	221	19.0	325
	13	89	6.3	14.5	15.1	219	22.3	323
	13	102	6.3	12.5	17.3	217	25.5	319

TEL KESİTİ 2.3 X 2.2

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 17%		MAX 25%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.04.S.16XL	16	25	8	118.0	4.3	502	6.3	738
	16	32	8	89.0	5.4	484	8.0	712
	16	38	8	72.1	6.5	466	9.5	685
	16	44	8	60.9	7.5	456	11.0	670
	16	51	8	52.3	8.7	453	12.8	667
	16	64	8	41.2	10.9	448	16.0	659
	16	76	8	34.1	12.9	441	19.0	648
	16	89	8	29.5	15.1	446	22.3	656
	16	102	8	25.6	17.3	444	25.5	653
	16	115	8	22.8	19.6	446	28.8	656

TEL KESİTİ 3.2 X 2.7

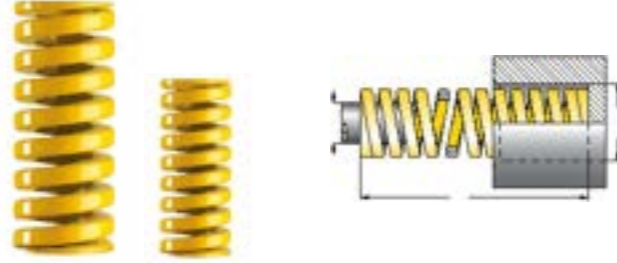




01. KALIP ELEMANLARI  
05. KALIP YAYLARI



04. SARI YAY (EKSTRA AĞIR YÜK)  
EXTRA HEAVY LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 17%		MAX 25%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.04.S.20XL	20	25	10	293.0	4.3	1245	6.3	1831
	20	32	10	224.0	5.4	1219	8.0	1792
	20	38	10	177.0	6.5	1143	9.5	1682
	20	44	10	149.0	7.5	1115	11.0	1639
	20	51	10	128.0	8.7	1110	12.8	1632
	20	64	10	99.0	10.9	1077	16.0	1584
	20	76	10	81.7	12.9	1056	19.0	1552
	20	89	10	69.5	15.1	1052	22.3	1546
	20	102	10	60.6	17.3	1051	25.5	1545
	20	115	10	53.0	19.6	1036	28.8	1524
	20	127	10	47.5	21.6	1026	31.8	1508
	20	139	10	43.0	23.6	1016	34.8	1494
	20	152	10	39.0	25.8	1008	38.0	1482

TEL KESİTİ 4.1 x 3.7

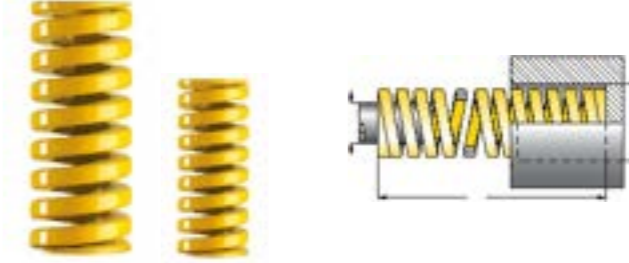
ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 17%		MAX 25%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.04.S.25XL	25	25	12.5	488.0	4.3	2098	6.3	3074
	25	32	12.5	374.4	5.4	2037	8.0	2995
	25	38	12.5	346.0	6.5	2235	9.5	3287
	25	44	12.5	244.0	7.5	1825	11.0	2684
	25	51	12.5	207.5	8.7	1799	12.8	2646
	25	64	12.5	161.0	10.9	1752	16.0	2525
	25	76	12.5	130.8	12.9	1690	19.0	2485
	25	89	12.5	110.5	15.1	1672	22.3	2459
	25	102	12.5	96.3	17.3	1670	25.5	2456
	25	115	12.5	85.7	19.6	1675	28.8	2464
	25	127	12.5	76.3	21.6	1647	31.8	2423
	25	139	12.5	69.5	23.6	1642	34.8	2415
	25	152	12.5	63.5	25.8	1641	38.0	2413
	25	178	12.5	53.9	30.3	1631	44.5	2399
	25	203	12.5	47.0	34.5	1622	50.8	2385

TEL KESİTİ 5.6 x 4.6



01. KALIP ELEMANLARI  
05. KALIP YAYLARI

04. SARI YAY (EKSTRA AĞIR YÜK)  
EXTRA HEAVY LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 17%		MAX 25%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.04.S.32XL	32	38	16	528.2	6.5	3412	9.5	5018
	32	44	16	424.4	7.5	3175	11.0	4668
	32	51	16	353.0	8.7	3061	12.8	4501
	32	64	16	269.2	10.9	2929	16.0	4307
	32	76	16	218.5	12.9	2823	19.0	4152
	32	89	16	180.3	15.1	2728	22.3	4012
	32	102	16	155.0	17.3	2688	25.5	3953
	32	115	16	140.0	19.6	2737	28.8	4025
	32	127	16	124.0	21.6	2677	31.8	3937
	32	139	16	112.0	23.6	2647	34.8	3898
	32	152	16	102.0	25.8	2636	38.0	3876
	32	178	16	88.2	30.3	2669	44.5	3925
	32	203	16	76.0	34.5	2623	50.8	3857
	32	254	16	60.8	43.2	2625	63.5	3861
	32	305	16	49.0	51.9	2541	76.3	3736

TEL KESİTİ 7.2 x 5.6

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 17%		MAX 25%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.04.S.40XL	40	51	20	628.0	8.7	5445	12.8	8007
	40	64	20	487.0	10.9	5299	16.0	7792
	40	76	20	379.0	12.9	4897	19.0	7201
	40	89	20	321.0	15.1	4857	22.3	7142
	40	102	20	281.0	17.3	4873	25.5	7166
	40	115	20	245.0	19.6	4790	28.8	7044
	40	127	20	221.0	21.6	4771	31.8	7017
	40	139	20	195.0	23.6	4602	34.8	6786
	40	152	20	168.0	25.8	4341	38.0	6384
	40	178	20	150.0	30.3	4545	44.5	6675
	40	203	20	132.0	34.5	4555	50.8	6699
	40	254	20	107.0	43.2	4620	63.5	6795
	40	305	20	87.8	51.9	4552	76.3	6695

TEL KESİTİ 8.7 x 7.3

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 04. SARI YAY (EKSTRA AĞIR YÜK) EXTRA HEAVY LOAD



ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 17%		MAX 25%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.04.S.50XL	50	64	25	709.0	10.9	7714	16.0	11344
	50	76	25	572.0	12.9	7390	19.0	10868
	50	89	25	475.0	15.1	7187	22.3	10569
	50	102	25	405.0	17.3	7023	25.5	10328
	50	115	25	352.0	19.6	6882	28.8	10120
	50	127	25	316.0	21.6	6882	31.8	10033
	50	139	25	289.0	23.6	6829	34.8	10043
	50	152	25	239.0	25.8	6176	38.0	9082
	50	178	25	216.0	30.3	6536	44.5	9612
	50	203	25	187.0	34.5	6453	50.8	9490
	50	254	25	153.0	43.2	6607	63.5	9716
	50	305	25	127.0	51.9	6585	76.3	9684

TEL KESİTİ 11.4 x 9.1

ÜRÜN KODU	D (mm)	L (mm)	d (mm)	Yük N/mm	XXL 17%		MAX 25%	
					KAPANMA (mm)	YÜK (N)	KAPANMA (mm)	YÜK (N)
01.05.04.S.63XL	63	76	38	842.0	12.9	10879	19.0	15998
	63	89	38	726.0	15.1	10984	22.3	16154
	63	102	38	656.0	17.3	11375	25.5	16728
	63	115	38	534.0	19.6	10440	28.8	15353
	63	127	38	480.0	21.6	10363	31.8	15240
	63	152	38	396.0	25.8	10233	38.0	15048
	63	178	38	335.0	30.3	10137	44.5	14908
	63	203	38	297.0	34.5	10249	50.8	15073
	63	254	38	235.0	43.2	10147	63.5	14923
	63	305	38	194.0	51.9	10059	76.3	14793

TEL KESİTİ 11.8 x 13.4

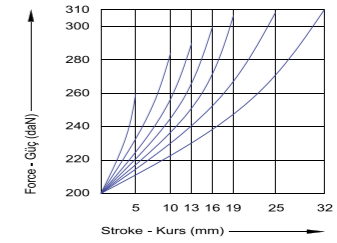


## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 05. GAZLI YAY SİSTEMLERİ

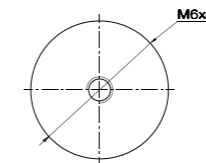
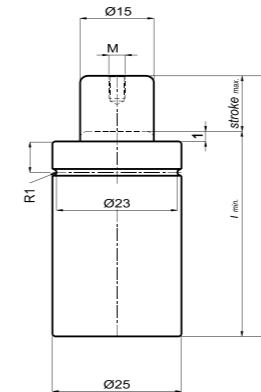
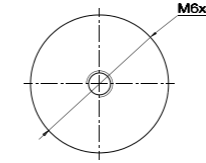
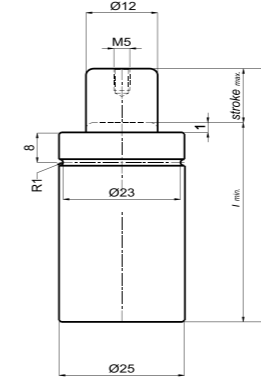
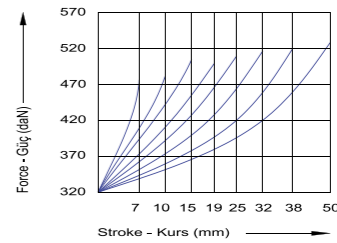
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	200	5	35	40
		10	40	50
		13	43	56
		16	46	62
		19	49	68
		25	55	80
		32	62	94

Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot  
Çalışma Sıcaklığı 0 °C - 80 °C



ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	320	7	37	44
		10	40	50
		15	45	60
		19	49	68
		25	55	80
		32	62	94
		38	68	106
		50	80	130

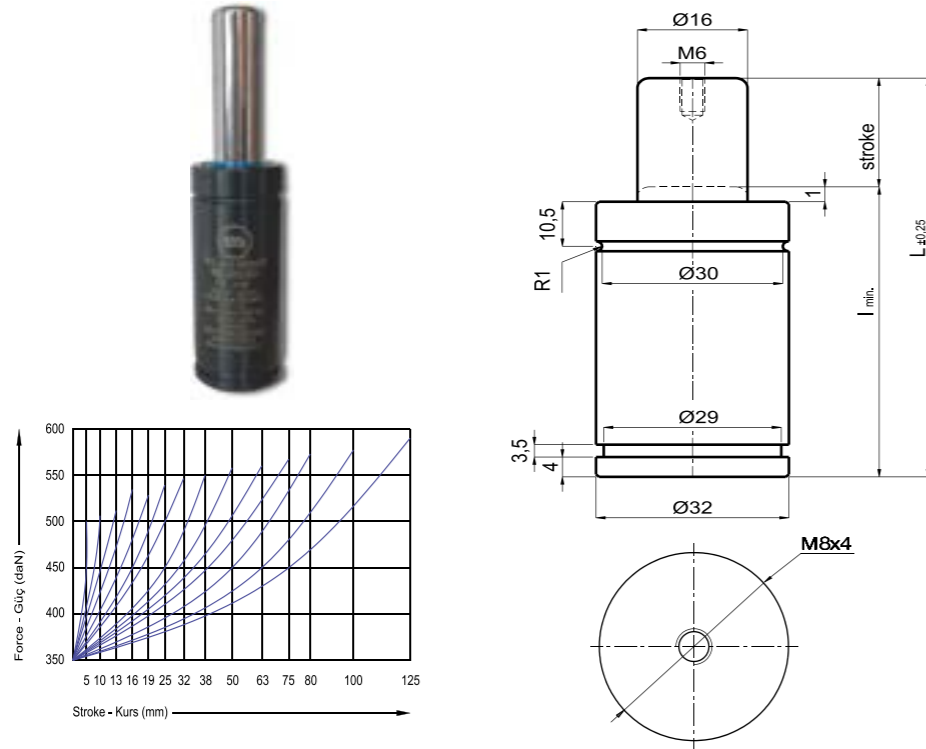
Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot  
Çalışma Sıcaklığı 0 °C - 80 °C



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 05. GAZLI YAY SİSTEMLERİ



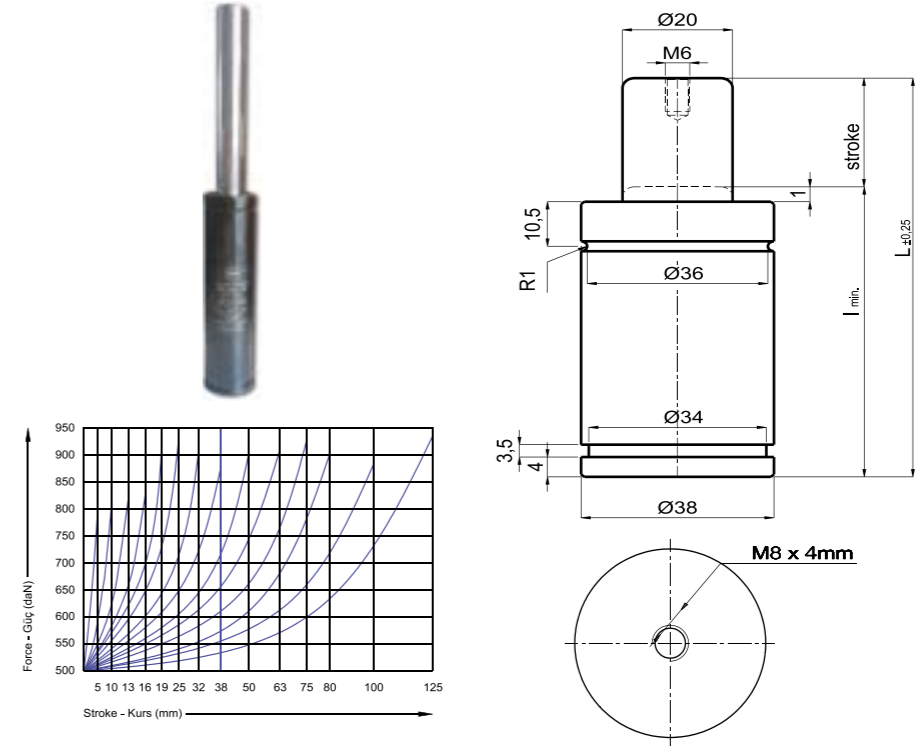
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	350	5	35	40
		10	40	50
		13	43	56
		16	46	62
		19	49	68
		25	55	80
		32	62	94
		38	68	106
		50	80	130
		63	93	156
		75	105	180
		80	110	190
		100	130	230
125	155	280		

Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 05. GAZLI YAY SİSTEMLERİ



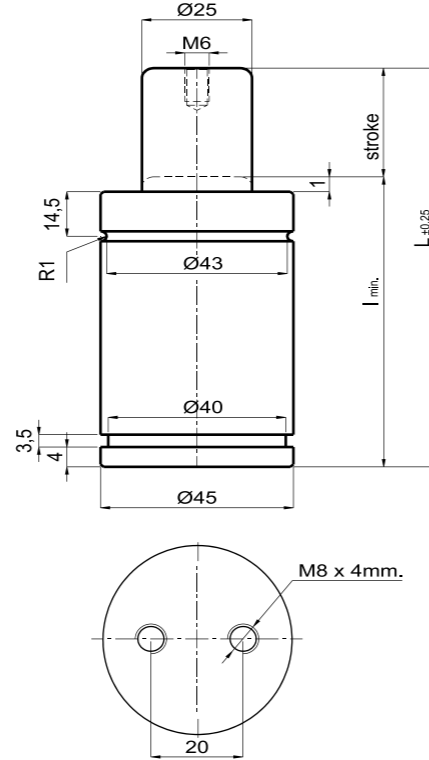
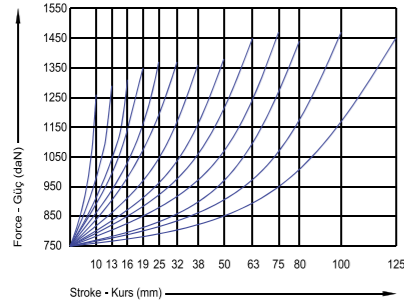
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	500	5	35	40
		10	40	50
		13	43	56
		16	46	62
		19	49	68
		25	55	80
		32	62	94
		38	68	106
		50	80	130
		63	93	156
		75	105	180
		80	110	190
		100	130	230
125	155	280		

Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 05. GAZLI YAY SİSTEMLERİ



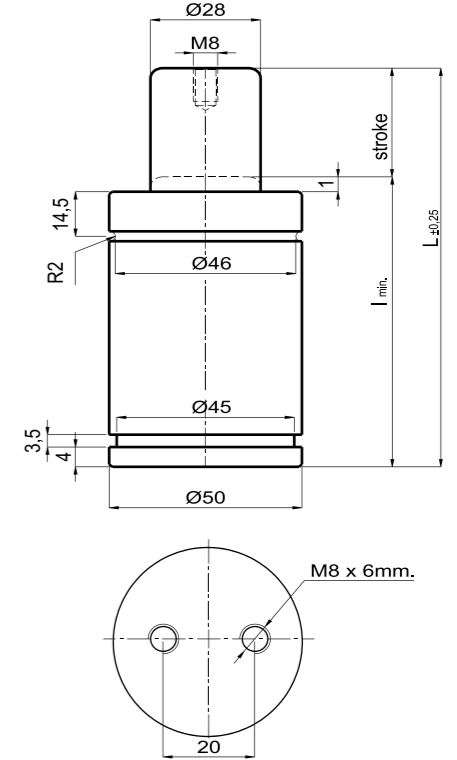
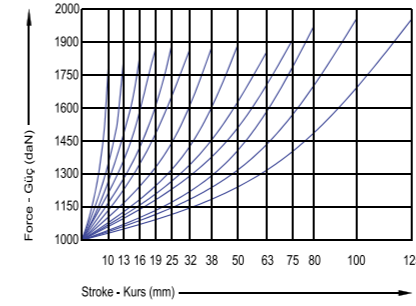
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	750	10	42	52
		13	45	58
		16	48	64
		19	51	70
		25	57	82
		32	64	96
		38	70	108
		50	82	132
		63	95	158
		75	107	182
		80	112	192
		100	132	232
125	157	282		

Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 05. GAZLI YAY SİSTEMLERİ



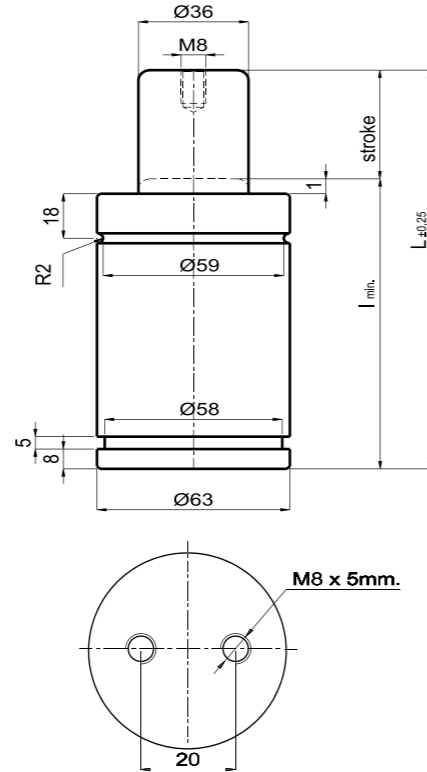
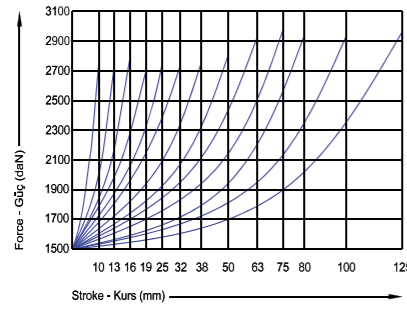
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	1000	10	48	58
		13	51	64
		16	54	70
		19	57	76
		25	63	88
		32	70	102
		38	76	114
		50	88	138
		63	101	164
		75	113	188
		80	118	198
		100	138	238
125	163	288		

Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 05. GAZLI YAY SİSTEMLERİ



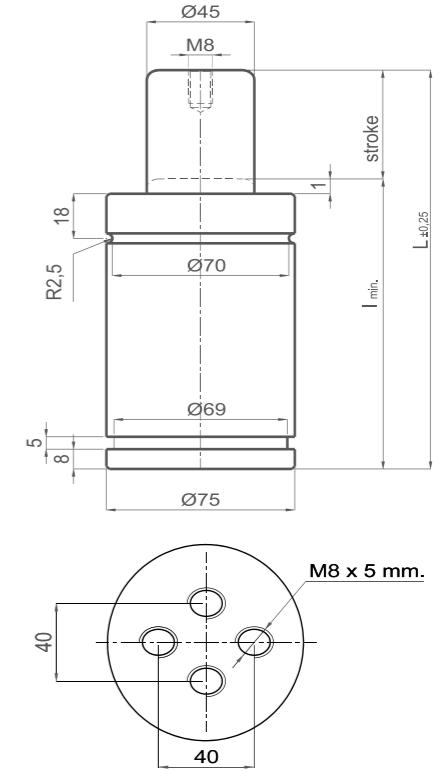
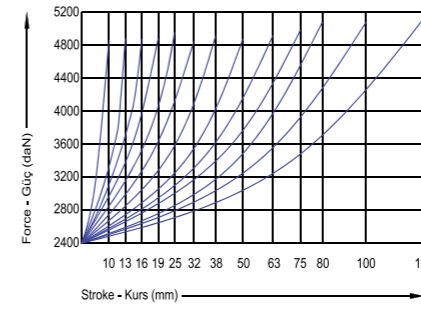
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	1500	10	54	64
		13	57	70
		16	60	76
		19	63	82
		25	69	94
		32	76	108
		38	82	120
		50	94	144
		63	107	170
		75	119	194
		80	124	204
		100	144	244
125	169	294		

Max. Dolu Basıncı 150 bar - Min. Dolu Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 05. GAZLI YAY SİSTEMLERİ



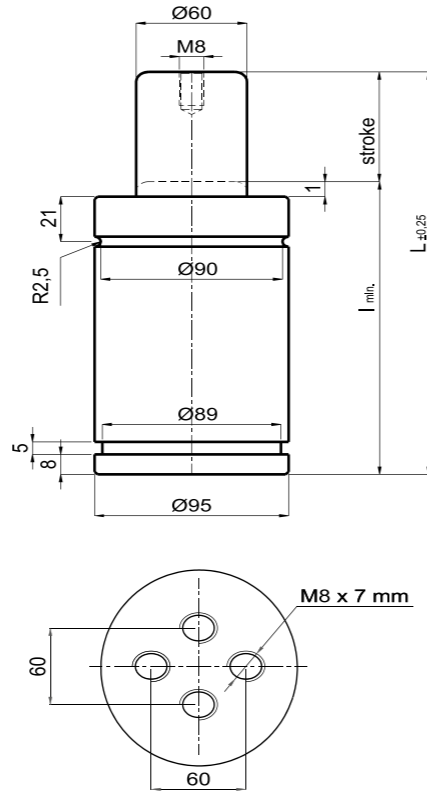
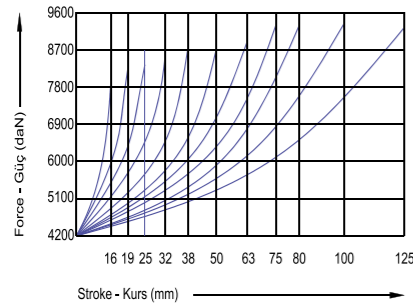
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	2400	10	55	65
		13	58	71
		16	61	77
		19	64	83
		25	70	95
		32	77	109
		38	83	121
		50	95	145
		63	108	171
		75	120	195
		80	125	205
		100	145	245
125	170	295		

Max. Dolu Basıncı 150 bar - Min. Dolu Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 05. GAZLI YAY SİSTEMLERİ



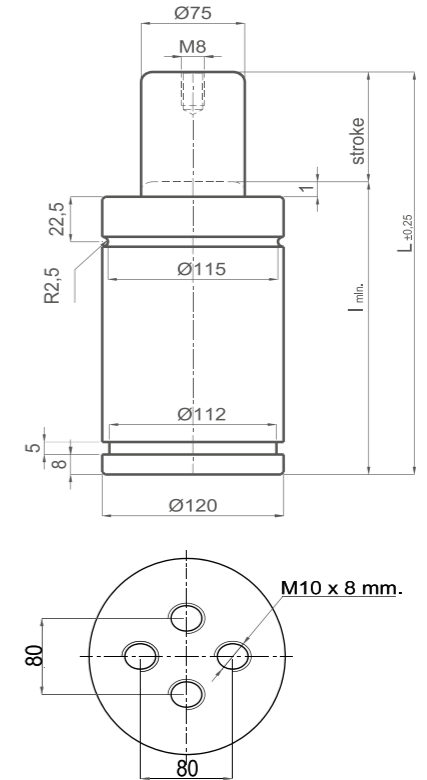
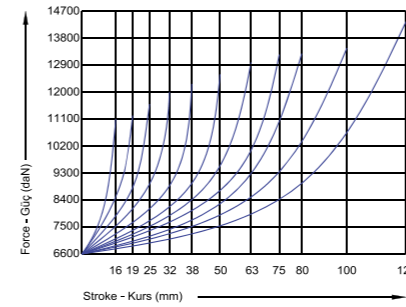
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	4200	16	81	97
		19	84	103
		25	90	115
		32	97	129
		38	103	141
		50	115	165
		63	128	191
		75	140	215
		80	145	225
		100	165	265
		125	190	315

Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 05. GAZLI YAY SİSTEMLERİ



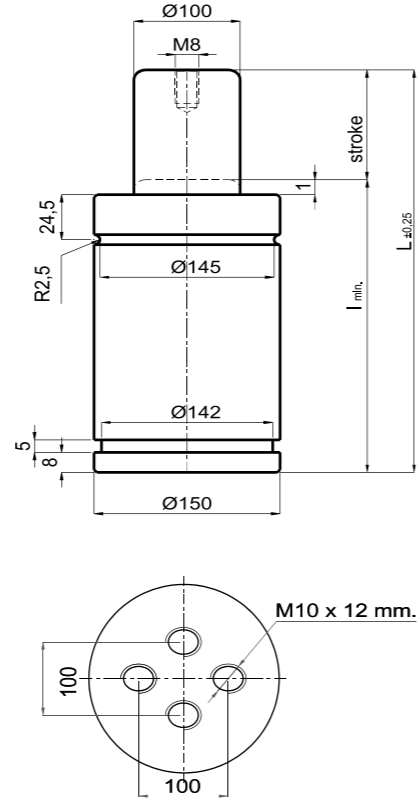
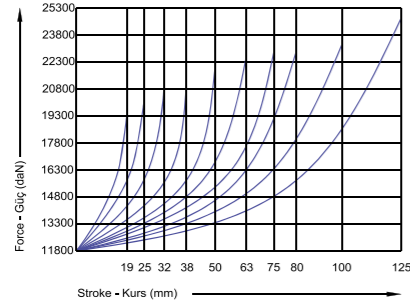
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	6600	16	91	107
		19	94	113
		25	100	125
		32	107	139
		38	113	151
		50	125	175
		63	138	201
		75	150	225
		80	155	235
		100	175	275
		125	200	325

Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 05. GAZLI YAY SİSTEMLERİ



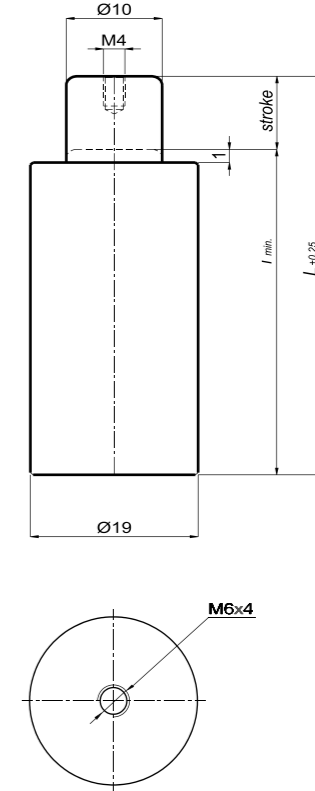
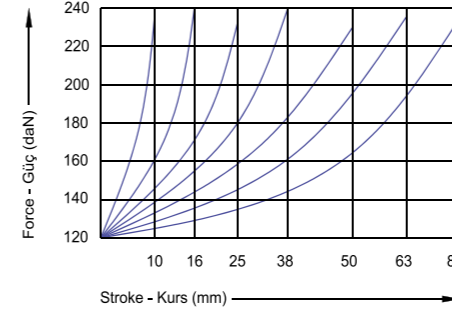
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.da.K.BS	11800	19	97	116
		25	103	128
		32	110	142
		38	116	154
		50	128	178
		63	141	204
		75	153	228
		80	158	238
		100	178	278
		125	203	328

Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C



## 01. KALIP ELEMANLARI 05. KALIP YAYLARI

### 05. GAZLI YAY SİSTEMLERİ



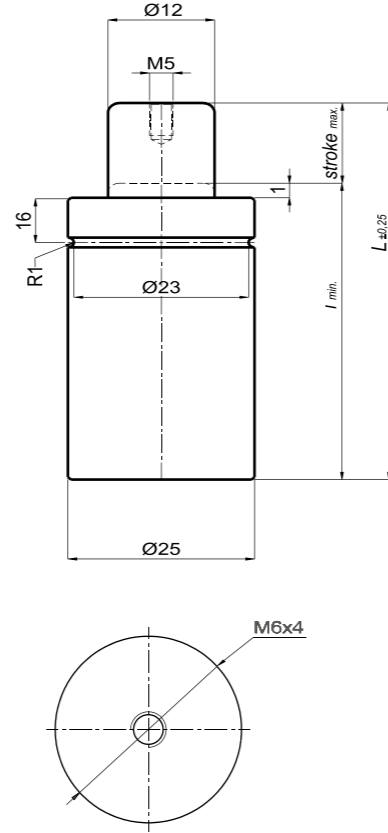
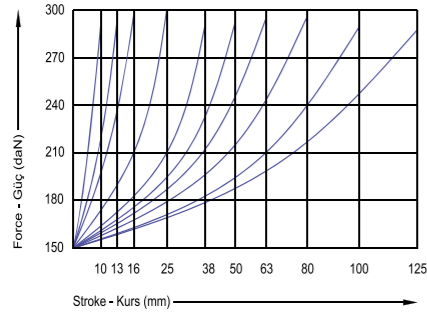
ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.19.K.HS	120	10	55	65
		16	61	77
		25	70	95
		38	83	121
		50	95	145
		63	108	171
		80	125	205

Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C

## 01. KALIP ELEMANLARI 05. KALIP YAYLARI



### 05. GAZLI YAY SİSTEMLERİ



ÜRÜN KODU	da (N)	K Kurs Stroke Max. (mm)	l Min. (mm)	L (mm)
01.05.05.25.K.HS	150	10	55	65
		13	59	71
		16	61	77
		25	70	95
		38	83	120
		50	95	145
		63	108	171
		80	125	205
		100	145	245
		125	170	295

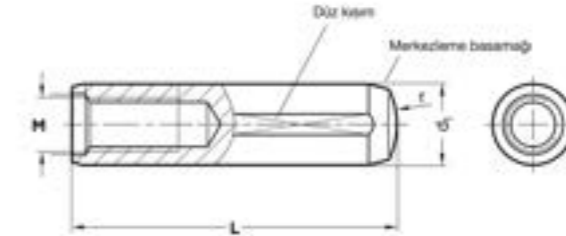
Max. Dolum Basıncı 150 bar - Min. Dolum Basıncı 25 bar  
Max. Çalışma Hızı 1.6 m/s - Kullanılacak Gaz Azot - Çalışma Sıcaklığı 0 °C - 80 °C



## 01. KALIP ELEMANLARI 06. MERKEZLEME EKİPMANLARI

### 01. ÇEKTİRMELİ TESPİT PİMLERİ DOWEL PINS

Malzeme - Material : 1.7131.(16MnCr5)  
Gövde Sertliği - Shaft Hardness : 60±2 HRC



ÜRÜN KODU	D (mm)	M	L																
			20	25	30	35	40	45	50	55	60	70	80	90	100	120	140	160	
01.06.01.D_L	5	3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	6	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	8	5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	10	6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	12	6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	14	8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	16	8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	20	10	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(+) ve (-) tolerans olarak üretilmektedir.

Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.



## 01. KALIP ELEMANLARI 06. MERKEZLEME EKİPMANLARI



### 02. DÜZ TESPİT PİMLERİ PLAIN CENTERING PIN

**Malzeme - Material** : 1.7131.(16MnCr5)  
**Gövde Sertliği - Shaft Hardness** : 60 ± 2 HRC



ÜRÜN KODU	D (mm)	L																	
		10	16	20	25	30	35	40	45	50	55	60	70	80	90	100	120	140	
01.06.02.D_L	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	10	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	12	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
14	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
16	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
20	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

(+) ve (-) tolerans olarak üretilmektedir.

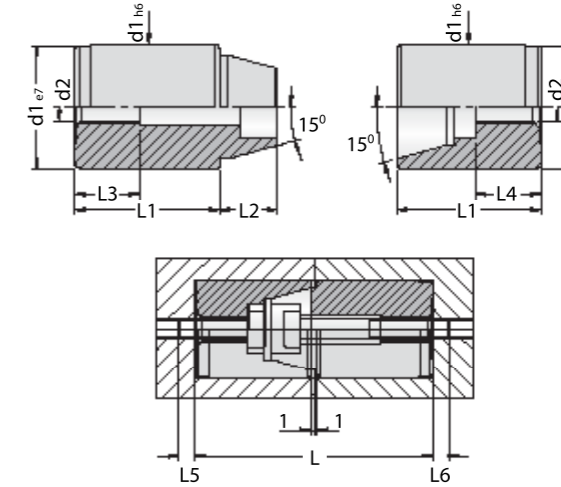
Tablo dışındaki özel ürünler için, firmamızdan termin talep ediniz.



## 01. KALIP ELEMANLARI 06. MERKEZLEME EKİPMANLARI

### 03. KONİK KİLİTLEME LOCATING UNIT

**Malzeme - Material** : 1.7131.(16MnCr5)  
**Sertlik - Hardness** : 62 ± 2 HRC  
**Isıl İşlem - Heat Treatment** : Sementasyon ( Case Hardened )



ÜRÜN KODU	D (mm)	M	L	L1	L2	L3	L4	L5	L6
01.06.03.D	12	4	34	16	4.5	9.6	8.6	8	7.5
	14	5	34	16	6	12.4	6	7.5	8
	16	5	34	16	6	12.4	5.8	7.5	8
	20	8	54	26	9	19.7	10.6	12	9.5
	25	8	54	26	10	19.7	9.2	11	11
	30	10	72	35	14	25	12.2	15	13
	32	10	72	35	14	25	12.2	15	13
	42	10	92	45	18	27	16.8	16	13

## 01. KALIP ELEMANLARI 07. YOLLUKLAR



### 01. PLASTİK ENJEKSİYON YOLLUKLARI SPRUE BUSHINGS

**Malzeme - Material** : 1.2344  
**Gövde Sertliği - Shaft Hardness** : 50±5



ÜRÜN KODU	D1 (mm)	D3 (mm)	K (mm)	L											
				50	65	75	85	95	105	115	125	135	150	200	
01.07.01.D1_L	12	4.3	20	•	•	•	•	•	•	•	•	•	•	•	•
	14	4.3	20	•	•	•	•	•	•	•	•	•	•	•	•
	16	4.3	20	•	•	•	•	•	•	•	•	•	•	•	•
	18	4.3	20	•	•	•	•	•	•	•	•	•	•	•	•

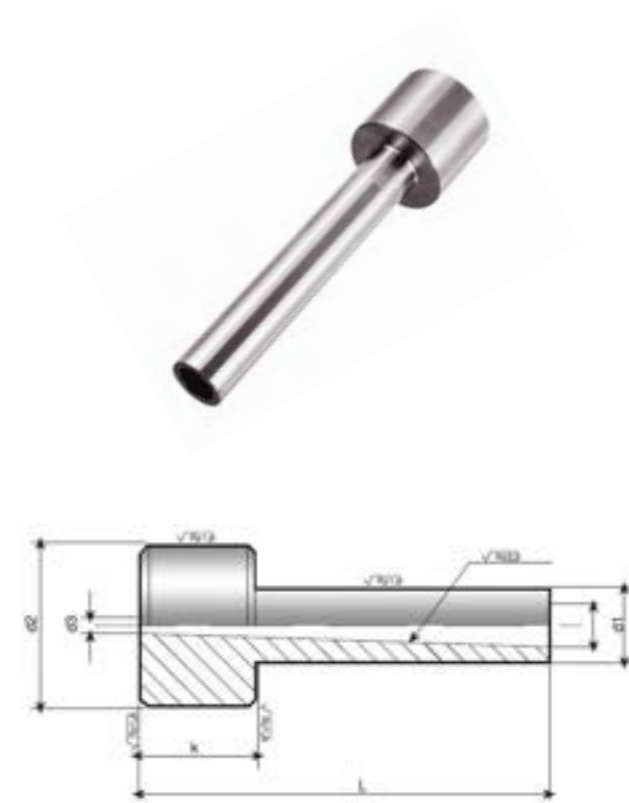
ÜRÜN KODU	D1 (mm)	D3 (mm)	K (mm)	L											
				50	65	75	85	95	105	115	125	135	150	200	
01.07.01.2.D1_L	12	3.3	20	•	•	•	•	•	•	•	•	•	•	•	•
	14	3.3	20	•	•	•	•	•	•	•	•	•	•	•	•
	16	3.3	20	•	•	•	•	•	•	•	•	•	•	•	•
	18	3.3	20	•	•	•	•	•	•	•	•	•	•	•	•



## 01. KALIP ELEMANLARI 07. YOLLUKLAR

### 02. METAL ENJEKSİYON YOLLUKLARI SPRUE BUSHINGS

**Malzeme - Material** : 1.2344  
**Gövde Sertliği - Shaft Hardness** : 60±2 HRC



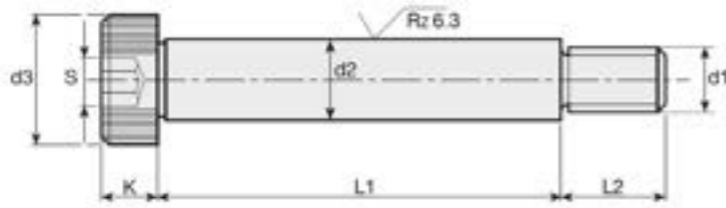
ÜRÜN KODU	D1 (mm)	D3 (mm)	K (mm)	L								
				50	65	75	85	95	105	115	125	
01.07.02.D1_L	12	6	25	•	•	•	•	•	•	•	•	•
	14	6	25	•	•	•	•	•	•	•	•	•
	16	6	25	•	•	•	•	•	•	•	•	•
	18	6	25	•	•	•	•	•	•	•	•	•

## 01. KALIP ELEMANLARI 08. YAY AYAR ÇİVATASI



### 01. STOP PİMİ RETAINER BOLD

Malzeme - Material : Alaşımli Çelik ( 12.9 )



ÜRÜN KODU 01.08.01.D1\_D2\_L

D1 (M)	D2 (mm)	D3 (mm)	L2 (mm)	K (mm)	L																		
					16	20	25	30	35	40	45	50	55	60	65	70	80	90	100	120			
5	6	10	9.5	4.5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
6	8	13	11.0	5.5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
8	10	16	13.0	7.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
10	12	18	16.0	8.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
12	16	24	18.0	10.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16	20	30	22.0	14.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
20	24	36	27.0	16.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



## 01. KALIP ELEMANLARI 09. KALIP TAKVİMLERİ

### 01. AY-OK 02. YIL-OK

### 03. AY-YIL-OK 04. GERİ DÖNÜŞÜM MÜHRESİ

Malzeme - Material : Paslanmaz Çelik



ÜRÜN KODU	D (mm)	l (mm)	Model
01.09.01.D	4	6-8	
	5	8	
	6	8	
	8	10	
	10	10	
	12	12	
	16	14	
20	14		

ÜRÜN KODU	D (mm)	l (mm)	Model
01.09.02.D	4	6-8	
	5	8	
	6	8	
	8	10	
	10	10	
	12	12	
	16	14	
20	14		

ÜRÜN KODU	D (mm)	l (mm)	Model
01.09.03.D	4	6-8	
	5	8	
	6	8	
	8	10	
	10	10	
	12	12	
	16	14	
20	14		

ÜRÜN KODU	D (mm)	l (mm)	Model
01.09.04.D	4	8	
	5	8	
	6	8	
	8	10	
	10	10	
	12	12	
	16	14	
20	14		

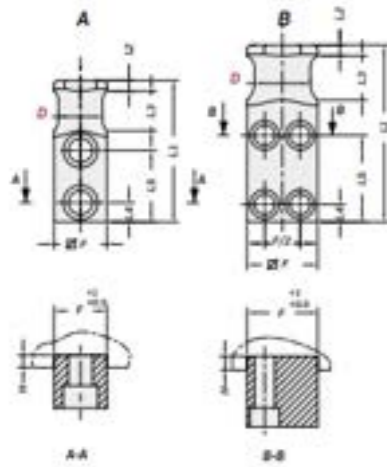
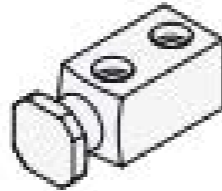
Montaj: Yumuşak metal ile yuvaya 0.02 sıklıkla sabitlenmelidir.

## 01. KALIP ELEMANLARI 10. KALIP TAŞIYICILAR



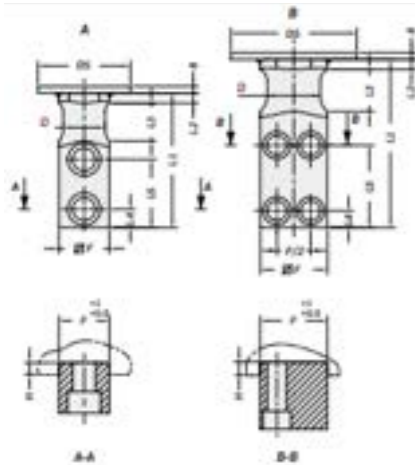
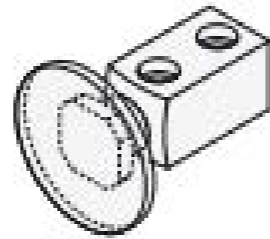
### 08. BRAKETLER LIFTING BRACKET

Malzeme - Material : CK45 ~ 900 N / mm<sup>2</sup>



ÜRÜN KODU 01.10.08.01\_D

D (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	F (mm)	H (mm)	Form	Max. Taş. (kg)
16	80	6	20	10	44	20	6	A	320
20	90	8	25	10	47	25	8	A	630
25	100	8	30	12	50	35	10	A	1250
32	120	10	32	16	62	40	10	A	2000
40	140	10	40	18	72	50	12	A	3200
50	160	12	45	22	81	60	14	A	5000
63	200	12	50	20	98	80	16	B	8000
80	250	15	65	25	125	100	18	B	12500
100	300	15	80	30	155	120	20	B	20000



ÜRÜN KODU 01.10.08.03\_D

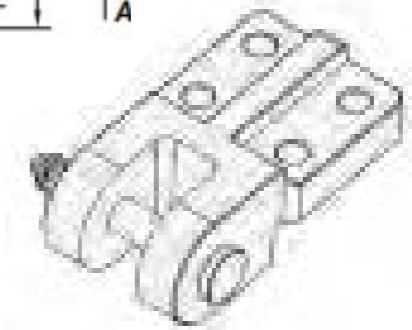
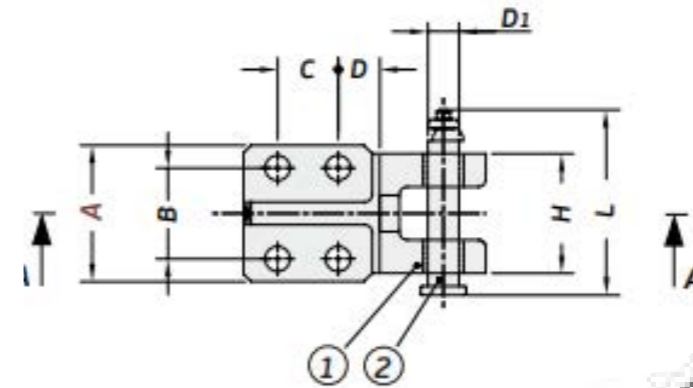
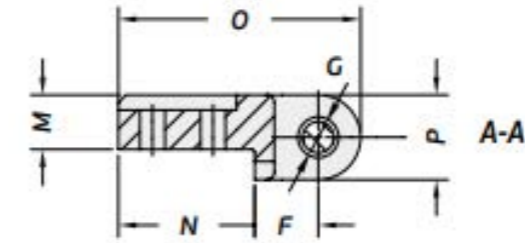
D (mm)	D5 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	F (mm)	H (mm)	Form	Max. Taş. (kg)
16	80	80	6	20	10	44	20	6	A	320
20	90	90	8	25	10	47	25	8	A	630
25	100	100	8	30	12	50	35	10	A	1250
32	120	120	10	32	16	62	40	10	A	2000
40	140	140	10	40	18	72	50	12	A	3200
50	160	160	12	45	22	81	60	14	A	5000
63	200	200	12	50	20	98	80	16	B	8000
80	250	250	15	65	25	125	100	18	B	12500
100	300	300	15	80	30	155	120	20	B	20000



## 01. KALIP ELEMANLARI 10. KALIP TAŞIYICILAR

### 08. BRAKETLER LIFTING BRACKET

Malzeme - Material : CK45 ~ 900 N / mm<sup>2</sup>



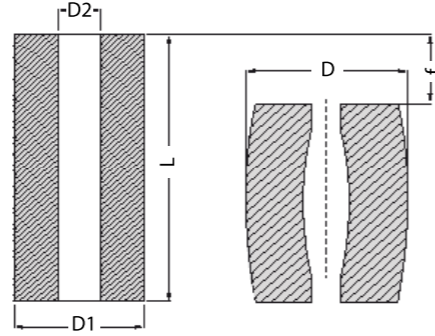
ÜRÜN KODU 01.10.08.05\_A

A (mm)	B (mm)	C (mm)	D (mm)	D1 (mm)	F (mm)	G (mm)	H (mm)	L (mm)	M (mm)	N (mm)	O (mm)	P (mm)	Max. Taş. (kg)
80	50	40	22.5	15.6	39	16	70	102.5	32	80	145	52	600
90	60	60	27.5	20.6	42	21	79	113.5	36	90	160	56	1000
100	65	65	32.5	25.6	60	26	90	128.5	50	120	215	70	2000

## 01. KALIP ELEMANLARI 11. VULKOLONLAR



### 01. DELİKLİ VULKOLON



ÜRÜN KODU	D (mm)	L (mm)	D1 (mm)
01.11.01.D.K	16	310	6.5
	20	310	8.5
	25	310	10.5
	32	310	13.5
	40	310	13.5
	50	310	17.0
	63	310	17.0
	80	310	21.0
	100	310	21.0
125	310	21.0	

■ Kırmızı Max. Esneme %25

ÜRÜN KODU	D (mm)	L (mm)	D1 (mm)
01.11.01.D.S	16	310	6.5
	20	310	8.5
	25	310	10.5
	32	310	13.5
	40	310	13.5
	50	310	17.0
	63	310	17.0
	80	310	21.0
	100	310	21.0
125	310	21.0	

■ Sarı Max. Esneme %30

### 02. DOLU VULKOLON

ÜRÜN KODU	D (mm)	L (mm)
01.11.02.D.K	16	310
	20	310
	25	310
	32	310
	40	310
	50	310
	63	310
	80	310
	100	310
125	310	

■ Kırmızı Max. Esneme %25

ÜRÜN KODU	D (mm)	L (mm)
01.11.02.D.S	16	310
	20	310
	25	310
	32	310
	40	310
	50	310
	63	310
	80	310
	100	310
125	310	

■ Sarı Max. Esneme %30



# 02\*

## KARBÜR KESİCİ TAKIMLAR

## 02. KARBÜR KESİCİ TAKIMLAR 01. DÜZ AĞIZLI FREZELER



### 01. STANDART BOY ENDMILLS - STANDARD



ÜRÜN KODU 02.01.01.D.L.X				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
1.0	40	3.0	4.0	4
1.0	50	3.0	6.0	4
1.5	40	4.5	4.0	4
1.5	50	4.5	6.0	4
2.0	40	6.5	4.0	4
2.0	50	6.5	6.0	4
2.5	40	6.5	4.0	4
3.0	40	9.0	3.0	4
3.0	50	9.0	6.0	4
4.0	50	12.0	4.0	4
4.0	50	12.0	6.0	4
5.0	50	15.0	5.0	4
5.0	50	15.0	6.0	4
6.0	50	16.0	6.0	4
6.0	60	20.0	6.0	4
8.0	64	20.0	8.0	4
10.0	70	22.0	10.0	4
10.0	75	22.0	10.0	4
12.0	75	25.0	12.0	4
14.0	90	32.0	14.0	4
16.0	90	32.0	16.0	4
18.0	100	38.0	18.0	4
20.0	100	38.0	20.0	4
22.0	100	40.0	22.0	4
25.0	100	40.0	25.0	4

Standard - 45/55 HRC

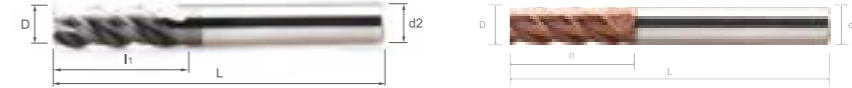
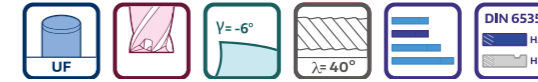
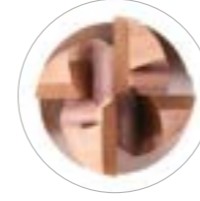
ÜRÜN KODU 02.01.05.D.L.A				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
1.0	40	3.0	4.0	4
1.0	50	3.0	6.0	4
1.5	40	4.5	4.0	4
1.5	50	4.5	6.0	4
2.0	40	6.5	4.0	4
2.0	50	6.5	6.0	4
2.5	40	6.5	4.0	4
3.0	40	9.0	3.0	4
3.0	50	9.0	6.0	4
4.0	50	12.0	4.0	4
4.0	50	12.0	6.0	4
5.0	50	15.0	5.0	4
5.0	50	15.0	6.0	4
6.0	50	16.0	6.0	4
6.0	60	20.0	6.0	4
8.0	64	20.0	8.0	4
10.0	70	22.0	10.0	4
10.0	75	22.0	10.0	4
12.0	75	25.0	12.0	4
14.0	90	32.0	14.0	4
16.0	90	32.0	16.0	4
18.0	100	38.0	18.0	4
20.0	100	38.0	20.0	4
22.0	100	40.0	22.0	4
25.0	100	40.0	25.0	4

Performance - 60/65 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 01. DÜZ AĞIZLI FREZELER

### 02. UZUN BOY ENDMILLS - LONG



ÜRÜN KODU 02.01.02.D.L.E				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
3.0	75	19	6.0	4
4.0	75	19	6.0	4
5.0	60	19	5.0	4
5.0	75	19	6.0	4
6.0	75	31	6.0	4
8.0	75	31	8.0	4
10.0	75	31	10.0	4
10.0	100	50	10.0	4
12.0	100	50	12.0	4
14.0	125	57	14.0	4
16.0	125	57	16.0	4
18.0	125	57	18.0	4
20.0	125	57	20.0	4

Standard - 45/55 HRC

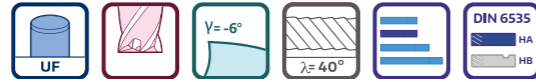
ÜRÜN KODU 02.01.02.D.L.A				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
3.0	75	19	6.0	4
4.0	75	19	6.0	4
5.0	60	19	5.0	4
5.0	75	19	6.0	4
6.0	75	31	6.0	4
8.0	75	31	8.0	4
10.0	75	31	10.0	4
10.0	100	50	10.0	4
12.0	100	50	12.0	4
14.0	125	57	14.0	4
16.0	125	57	16.0	4
18.0	125	57	18.0	4
20.0	125	57	20.0	4

Performance - 60/65 HRC

## 02. KARBÜR KESİCİ TAKIMLAR 01. DÜZ AĞIZLI FREZELER



### 03. EKSTA UZUN BOY ENDMILLS - EXTRA LONG



ÜRÜN KODU 02.01.03.D.L.E				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
3.0	100	25	6.0	4
4.0	100	31	6.0	4
5.0	100	31	5.0	4
5.0	100	31	6.0	4
6.0	100	38	6.0	4
8.0	100	41	8.0	4
10.0	125	57	10.0	4
12.0	150	75	12.0	4
14.0	150	75	14.0	4
16.0	150	75	16.0	4
18.0	150	75	18.0	4
20.0	150	75	20.0	4

Standard - 45/55 HRC

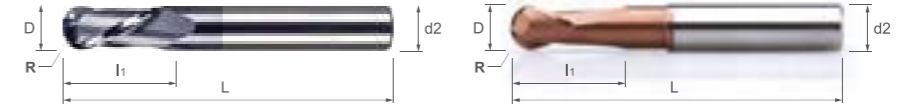
ÜRÜN KODU 02.01.03.D.L.A				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
3.0	100	25	6.0	4
4.0	100	31	6.0	4
5.0	100	31	5.0	4
5.0	100	31	6.0	4
6.0	100	38	6.0	4
8.0	100	41	8.0	4
10.0	125	57	10.0	4
12.0	150	75	12.0	4
14.0	150	75	14.0	4
16.0	150	75	16.0	4
18.0	150	75	18.0	4
20.0	150	75	20.0	4

Performance - 60/65 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 02. KÜRE AĞIZLI FREZELER

### 01. STANDART BOY BALLNOSE - STANDARD



ÜRÜN KODU 02.02.01.D.L.X				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
1.0	40	3.0	4.0	2
1.0	50	3.0	6.0	2
1.5	40	3.0	4.0	2
1.5	50	3.0	6.0	2
2.0	40	4.0	4.0	2
2.0	50	4.0	6.0	2
2.5	40	4.0	4.0	2
2.5	50	4.0	6.0	2
3.0	40	5.0	3.0	2
3.0	50	5.0	4.0	2
3.0	50	5.0	6.0	2
4.0	50	8.0	4.0	2
4.0	50	8.0	6.0	2
5.0	50	9.0	5.0	2
5.0	50	9.0	6.0	2
6.0	50	10.0	6.0	2
6.0	60	10.0	6.0	2
8.0	64	12.0	8.0	2
10.0	70	14.0	10.0	2
12.0	75	16.0	12.0	2
14.0	90	32.0	14.0	2
16.0	90	32.0	16.0	2
18.0	100	38.0	18.0	2
20.0	100	38.0	20.0	2
22.0	100	40.0	22.0	2
25.0	100	40.0	25.0	2

Standard - 45/55 HRC

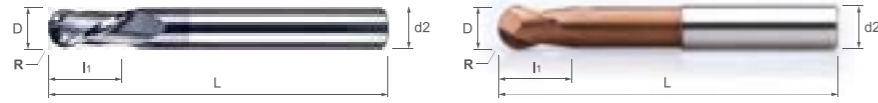
ÜRÜN KODU 02.02.01.D.L.A				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
1.0	40	3.0	4.0	2
1.0	50	3.0	6.0	2
1.5	40	3.0	4.0	2
1.5	50	3.0	6.0	2
2.0	40	4.0	4.0	2
2.0	50	4.0	6.0	2
2.5	40	4.0	4.0	2
2.5	50	4.0	6.0	2
3.0	40	5.0	3.0	2
3.0	50	5.0	4.0	2
3.0	50	5.0	6.0	2
4.0	50	8.0	4.0	2
4.0	50	8.0	6.0	2
5.0	50	9.0	5.0	2
5.0	50	9.0	6.0	2
6.0	50	10.0	6.0	2
6.0	60	10.0	6.0	2
8.0	64	12.0	8.0	2
10.0	70	14.0	10.0	2
12.0	75	16.0	12.0	2
14.0	90	32.0	14.0	2
16.0	90	32.0	16.0	2
18.0	100	38.0	18.0	2
20.0	100	38.0	20.0	2
22.0	100	40.0	22.0	2
25.0	100	40.0	25.0	2

Performance - 60/65 HRC

## 02. KARBÜR KESİCİ TAKIMLAR 02. KÜRE AĞIZLI FREZELER



### 02. UZUN BOY BALLNOSE - LONG



ÜRÜN KODU 02.02.02.D.L.X				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
1.0	75	3.0	4.0	2
1.0	75	3.0	6.0	2
1.5	75	3.0	4.0	2
1.5	75	3.0	6.0	2
2.0	75	4.0	4.0	2
2.0	75	4.0	6.0	2
2.5	75	4.0	4.0	2
2.5	75	4.0	6.0	2
3.0	60	5.0	3.0	2
3.0	75	5.0	6.0	2
4.0	60	8.0	4.0	2
4.0	75	8.0	6.0	2
5.0	60	9.0	5.0	2
5.0	75	9.0	6.0	2
6.0	75	10.0	6.0	2
8.0	75	12.0	8.0	2
10.0	75	14.0	10.0	2
10.0	100	14.0	10.0	2
12.0	100	16.0	12.0	2
14.0	125	32.0	14.0	2
16.0	125	32.0	16.0	2
18.0	125	38.0	18.0	2
20.0	125	38.0	20.0	2

Standard - 45/55 HRC

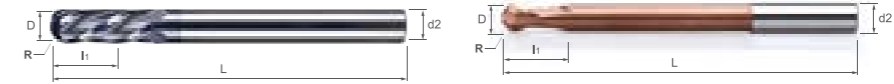
ÜRÜN KODU 02.02.02.D.L.A				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
1.0	75	3.0	4.0	2
1.0	75	3.0	6.0	2
1.5	75	3.0	4.0	2
1.5	75	3.0	6.0	2
2.0	75	4.0	4.0	2
2.0	75	4.0	6.0	2
2.5	75	4.0	4.0	2
2.5	75	4.0	6.0	2
3.0	60	5.0	3.0	2
3.0	75	5.0	6.0	2
4.0	60	8.0	4.0	2
4.0	75	8.0	6.0	2
5.0	60	9.0	5.0	2
5.0	75	9.0	6.0	2
6.0	75	10.0	6.0	2
8.0	75	12.0	8.0	2
10.0	75	14.0	10.0	2
10.0	100	14.0	10.0	2
12.0	100	16.0	12.0	2
14.0	125	32.0	14.0	2
16.0	125	32.0	16.0	2
18.0	125	38.0	18.0	2
20.0	125	38.0	20.0	2

Performance - 60/65 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 02. KÜRE AĞIZLI FREZELER

### 03. EKSTRA UZUN BOY BALLNOSE - EXTRA LONG



ÜRÜN KODU 02.02.03.D.L.X				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
3.0	100	5.0	3.0	4
3.0	100	5.0	6.0	4
4.0	100	8.0	4.0	4
4.0	100	8.0	6.0	4
5.0	100	9.0	5.0	4
5.0	100	9.0	6.0	4
6.0	100	10.0	6.0	4
6.0	150	10.0	6.0	4
8.0	100	12.0	8.0	4
8.0	150	12.0	8.0	4
10.0	125	14.0	10.0	4
10.0	150	14.0	10.0	4
12.0	125	16.0	12.0	4
12.0	150	16.0	12.0	4
14.0	150	32.0	14.0	4
14.0	200	32.0	14.0	4
16.0	150	32.0	16.0	4
16.0	200	32.0	16.0	4
18.0	150	38.0	18.0	4
18.0	200	38.0	18.0	4
20.0	150	38.0	20.0	4
20.0	200	38.0	20.0	4

Standard - 45/55 HRC

ÜRÜN KODU 02.02.03.D.L.A				
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z
3.0	100	5.0	3.0	2
3.0	100	5.0	6.0	2
4.0	100	8.0	4.0	2
4.0	100	8.0	6.0	2
5.0	100	9.0	5.0	2
5.0	100	9.0	6.0	2
6.0	100	10.0	6.0	2
6.0	150	10.0	6.0	2
8.0	100	12.0	8.0	2
8.0	150	12.0	8.0	2
10.0	125	14.0	10.0	2
10.0	150	14.0	10.0	2
12.0	125	16.0	12.0	2
12.0	150	16.0	12.0	2
14.0	150	32.0	14.0	2
14.0	200	32.0	14.0	2
16.0	150	32.0	16.0	2
16.0	200	32.0	16.0	2
18.0	150	38.0	18.0	2
18.0	200	38.0	18.0	2
20.0	150	38.0	20.0	2
20.0	200	38.0	20.0	2

Performance - 60/65 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 03. KÖŞE RADÜSLÜ FREZELER



### 01. STANDART BOY TORUS ENDMILLS - STANDARD



ÜRÜN KODU 02.03.01.D.L.R.X					
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z	R
3.0	50	9.0	3.0	4	R 0.3
3.0	50	9.0	3.0	4	R 0.5
4.0	50	12.0	4.0	4	R 0.3
4.0	50	12.0	4.0	4	R 0.5
4.0	50	12.0	4.0	4	R 1.0
5.0	50	15.0	5.0	4	R 0.3
5.0	50	15.0	5.0	4	R 0.5
5.0	50	15.0	5.0	4	R 0.1
6.0	50	16.0	6.0	4	R 0.3
6.0	50	16.0	6.0	4	R 0.5
6.0	50	16.0	6.0	4	R 1.0
8.0	64	20.0	8.0	4	R 0.3
8.0	64	20.0	8.0	4	R 0.5
8.0	64	20.0	8.0	4	R 1.0
10.0	70	22.0	10.0	4	R 0.3
10.0	70	22.0	10.0	4	R 0.5
10.0	70	22.0	10.0	4	R 1.0
10.0	70	22.0	10.0	4	R 2.0
12.0	75	25.0	12.0	4	R 0.5
12.0	75	25.0	12.0	4	R 1.0
12.0	75	25.0	12.0	4	R 2.0
16.0	90	32.0	16.0	4	R 0.5
16.0	90	32.0	16.0	4	R 1.0
16.0	90	32.0	16.0	4	R 2.0

Standard - 45/55 HRC

ÜRÜN KODU 02.03.01.D.L.R.A					
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z	R
3.0	50	9.0	3.0	4	R 0.3
3.0	50	9.0	3.0	4	R 0.5
4.0	50	12.0	4.0	4	R 0.3
4.0	50	12.0	4.0	4	R 0.5
4.0	50	12.0	4.0	4	R 1.0
5.0	50	15.0	5.0	4	R 0.3
5.0	50	15.0	5.0	4	R 0.5
5.0	50	15.0	5.0	4	R 0.1
6.0	50	16.0	6.0	4	R 0.3
6.0	50	16.0	6.0	4	R 0.5
6.0	50	16.0	6.0	4	R 1.0
8.0	64	20.0	8.0	4	R 0.3
8.0	64	20.0	8.0	4	R 0.5
8.0	64	20.0	8.0	4	R 1.0
10.0	70	22.0	10.0	4	R 0.3
10.0	70	22.0	10.0	4	R 0.5
10.0	70	22.0	10.0	4	R 1.0
10.0	70	22.0	10.0	4	R 2.0
12.0	75	25.0	12.0	4	R 0.5
12.0	75	25.0	12.0	4	R 1.0
12.0	75	25.0	12.0	4	R 2.0
16.0	90	32.0	16.0	4	R 0.5
16.0	90	32.0	16.0	4	R 1.0
16.0	90	32.0	16.0	4	R 2.0

Performance - 60/65 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 03. KÖŞE RADÜSLÜ FREZELER

### 02. UZUN BOY TORUS ENDMILLS - LONG



ÜRÜN KODU 02.03.02.D.L.R.X					
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z	R
3.0	75	5.0	6.0	4	R 0.3
3.0	75	5.0	6.0	4	R 0.5
4.0	75	8.0	6.0	4	R 0.3
4.0	75	8.0	6.0	4	R 0.5
5.0	75	9.0	6.0	4	R 0.3
5.0	75	9.0	6.0	4	R 0.5
6.0	75	10.0	6.0	4	R 0.3
6.0	75	10.0	6.0	4	R 0.5
6.0	75	10.0	6.0	4	R 1.0
8.0	75	12.0	8.0	4	R 0.3
8.0	75	12.0	8.0	4	R 0.5
8.0	75	12.0	8.0	4	R 1.0
10.0	75	14.0	10.0	4	R 0.5
10.0	75	14.0	10.0	4	R 1.0
10.0	75	14.0	10.0	4	R 2.0
10.0	100	14.0	10.0	4	R 0.5
10.0	100	14.0	10.0	4	R 1.0
10.0	100	14.0	10.0	4	R 2.0
12.0	100	16.0	12.0	4	R 0.5
12.0	100	16.0	12.0	4	R 1.0
12.0	100	16.0	12.0	4	R 2.0
16.0	125	22.0	16.0	4	R 0.5
16.0	125	22.0	16.0	4	R 1.0
16.0	125	22.0	16.0	4	R 2.0
16.0	125	22.0	16.0	4	R 3.0

Standard - 45/55 HRC

ÜRÜN KODU 02.03.02.D.L.R.A					
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z	R
3.0	75	5.0	6.0	4	R 0.3
3.0	75	5.0	6.0	4	R 0.5
4.0	75	8.0	6.0	4	R 0.3
4.0	75	8.0	6.0	4	R 0.5
5.0	75	9.0	6.0	4	R 0.3
5.0	75	9.0	6.0	4	R 0.5
6.0	75	10.0	6.0	4	R 0.3
6.0	75	10.0	6.0	4	R 0.5
6.0	75	10.0	6.0	4	R 1.0
8.0	75	12.0	8.0	4	R 0.3
8.0	75	12.0	8.0	4	R 0.5
8.0	75	12.0	8.0	4	R 1.0
10.0	75	14.0	10.0	4	R 0.5
10.0	75	14.0	10.0	4	R 1.0
10.0	75	14.0	10.0	4	R 2.0
10.0	100	14.0	10.0	4	R 0.5
10.0	100	14.0	10.0	4	R 1.0
10.0	100	14.0	10.0	4	R 2.0
12.0	100	16.0	12.0	4	R 0.5
12.0	100	16.0	12.0	4	R 1.0
12.0	100	16.0	12.0	4	R 2.0
16.0	125	22.0	16.0	4	R 0.5
16.0	125	22.0	16.0	4	R 1.0
16.0	125	22.0	16.0	4	R 2.0
16.0	125	22.0	16.0	4	R 3.0

Performance - 60/65 HRC

02. KARBÜR KESİCİ TAKIMLAR  
03. KÖŞE RADÜSLÜ FREZELER



05. UZUN BOY - SIRT DÜŞÜRMELİ  
TORUS ENDMILLS - LONG



ÜRÜN KODU 02.03.05.D.L.R.A					
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z	R
3.0	75	5.0	6.0	4	R 0.3
3.0	75	5.0	6.0	4	R 0.5
4.0	75	8.0	6.0	4	R 0.3
4.0	75	8.0	6.0	4	R 0.5
5.0	75	9.0	6.0	4	R 0.3
5.0	75	9.0	6.0	4	R 0.5
6.0	75	10.0	6.0	4	R 0.3
6.0	75	10.0	6.0	4	R 0.5
6.0	75	10.0	6.0	4	R 1.0
8.0	75	12.0	8.0	4	R 0.3
8.0	75	12.0	8.0	4	R 0.5
8.0	75	12.0	8.0	4	R 1.0
10.0	75	14.0	10.0	4	R 0.5
10.0	75	14.0	10.0	4	R 1.0
10.0	75	14.0	10.0	4	R 2.0
10.0	100	14.0	10.0	4	R 0.5
10.0	100	14.0	10.0	4	R 1.0
10.0	100	14.0	10.0	4	R 2.0
12.0	100	16.0	12.0	4	R 0.5
12.0	100	16.0	12.0	4	R 1.0
12.0	100	16.0	12.0	4	R 2.0
16.0	125	22.0	16.0	4	R 0.5
16.0	125	22.0	16.0	4	R 1.0
16.0	125	22.0	16.0	4	R 2.0
16.0	125	22.0	16.0	4	R 3.0

Standard - 60/65 HRC

02. KARBÜR KESİCİ TAKIMLAR  
03. KÖŞE RADÜSLÜ FREZELER



03. EKSTRA UZUN BOY  
TORUS ENDMILLS - EXTRA LONG



ÜRÜN KODU 02.03.03.D.L.R.X					
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z	R
3.0	100	5.0	6.0	4	R 0.3
3.0	100	5.0	6.0	4	R 0.5
4.0	100	8.0	6.0	4	R 0.3
4.0	100	8.0	6.0	4	R 0.5
5.0	100	9.0	6.0	4	R 0.3
5.0	100	9.0	6.0	4	R 0.5
6.0	100	10.0	6.0	4	R 0.3
6.0	100	10.0	6.0	4	R 0.5
6.0	100	10.0	6.0	4	R 1.0
8.0	100	12.0	8.0	4	R 0.3
8.0	100	12.0	8.0	4	R 0.5
8.0	100	12.0	8.0	4	R 1.0
10.0	125	14.0	10.0	4	R 0.5
10.0	125	14.0	10.0	4	R 1.0
10.0	125	14.0	10.0	4	R 2.0
12.0	150	16.0	12.0	4	R 0.5
12.0	150	16.0	12.0	4	R 1.0
12.0	150	16.0	12.0	4	R 2.0
16.0	150	22.0	16.0	4	R 0.5
16.0	150	22.0	16.0	4	R 1.0
16.0	150	22.0	16.0	4	R 2.0
16.0	150	22.0	16.0	4	R 3.0

Standard - 45/55 HRC

ÜRÜN KODU 02.03.03.D.L.R.A					
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z	R
3.0	100	5.0	6.0	4	R 0.3
3.0	100	5.0	6.0	4	R 0.5
4.0	100	8.0	6.0	4	R 0.3
4.0	100	8.0	6.0	4	R 0.5
5.0	100	9.0	6.0	4	R 0.3
5.0	100	9.0	6.0	4	R 0.5
6.0	100	10.0	6.0	4	R 0.3
6.0	100	10.0	6.0	4	R 0.5
6.0	100	10.0	6.0	4	R 1.0
8.0	100	12.0	8.0	4	R 0.3
8.0	100	12.0	8.0	4	R 0.5
8.0	100	12.0	8.0	4	R 1.0
10.0	125	14.0	10.0	4	R 0.5
10.0	125	14.0	10.0	4	R 1.0
10.0	125	14.0	10.0	4	R 2.0
12.0	150	16.0	12.0	4	R 0.5
12.0	150	16.0	12.0	4	R 1.0
12.0	150	16.0	12.0	4	R 2.0
16.0	150	22.0	16.0	4	R 0.5
16.0	150	22.0	16.0	4	R 1.0
16.0	150	22.0	16.0	4	R 2.0
16.0	150	22.0	16.0	4	R 3.0

Standard - 60/65 HRC

02. KARBÜR KESİCİ TAKIMLAR  
03. KÖŞE RADÜSLÜ FREZELER



06. EKSTRA UZUN BOY - SIRT DÜŞÜRMELİ  
TORUS ENDMILLS - EXTRA LONG



ÜRÜN KODU 02.03.06.D.L.R.A					
D (mm)	L (mm)	L1 (mm)	d2 (mm)	Z	R
3.0	100	5.0	6.0	4	R 0.3
3.0	100	5.0	6.0	4	R 0.5
4.0	100	8.0	6.0	4	R 0.3
4.0	100	8.0	6.0	4	R 0.5
5.0	100	9.0	6.0	4	R 0.3
5.0	100	9.0	6.0	4	R 0.5
6.0	100	10.0	6.0	4	R 0.3
6.0	100	10.0	6.0	4	R 0.5
6.0	100	10.0	6.0	4	R 1.0
8.0	100	12.0	8.0	4	R 0.3
8.0	100	12.0	8.0	4	R 0.5
8.0	100	12.0	8.0	4	R 1.0
10.0	125	14.0	10.0	4	R 0.5
10.0	125	14.0	10.0	4	R 1.0
10.0	125	14.0	10.0	4	R 2.0
12.0	150	16.0	12.0	4	R 0.5
12.0	150	16.0	12.0	4	R 1.0
12.0	150	16.0	12.0	4	R 2.0
16.0	150	22.0	16.0	4	R 0.5
16.0	150	22.0	16.0	4	R 1.0
16.0	150	22.0	16.0	4	R 2.0
16.0	150	22.0	16.0	4	R 3.0

Standard - 60/65 HRC



02. KARBÜR KESİCİ TAKIMLAR  
01. DÜZ AĞIZLI FREZELER

07. STANDART CHETTER FREE  
MULTICUT ENDMILLS - STANDARD



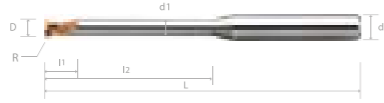
ÜRÜN KODU 02.01.07.D.L.CH				
D (mm)	L (mm)	L1 (mm)	D2 (mm)	Z
3.0	57	9.0	6.0	4
4.0	57	12.0	6.0	4
5.0	57	13.0	6.0	4
6.0	57	13.0	6.0	4
8.0	64	20.0	8.0	4
10.0	72	22.0	10.0	4
12.0	83	26.0	12.0	4
14.0	83	32.0	14.0	4
16.0	92	32.0	16.0	4
18.0	92	38.0	18.0	4
20.0	104	38.0	20.0	4

Standard - 45/55 HRC

02. KARBÜR KESİCİ TAKIMLAR  
03. KÖŞE RADÜSLÜ FREZELER



04. DALMA BOYLU FREZELER  
HI-FEED MILL TORUS LONG NECK



ÜRÜN KODU  
02.03.04.D.L2.R.HF

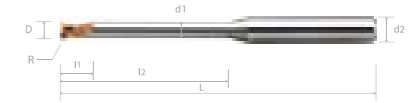
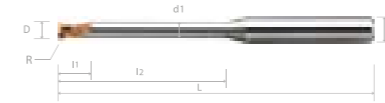
D (mm)	L (mm)	L1 (mm)	L2 (mm)	D1 (mm)	d2 (mm)	R	R	R	Z
1.0	50	1.0	4	0.95	6.0	R0.1	R0.2	R0.3	4
1.0	50	1.0	6	0.95	6.0	R0.1	R0.2	R0.3	4
1.0	50	1.0	8	0.95	6.0	R0.1	R0.2	R0.3	4
1.0	50	1.0	10	0.95	6.0	R0.1	R0.2	R0.3	4
1.0	50	1.0	12	0.95	6.0	R0.1	R0.2	R0.3	4
1.0	50	1.0	16	0.95	6.0	R0.1	R0.2	R0.3	4
1.0	60	1.0	20	0.95	6.0	R0.1	R0.2	R0.3	4
1.5	50	1.5	6	1.45	6.0	R0.1	R0.2	R0.3	4
1.5	50	1.5	8	1.45	6.0	R0.1	R0.2	R0.3	4
1.5	50	1.5	10	1.45	6.0	R0.1	R0.2	R0.3	4
1.5	50	1.5	12	1.45	6.0	R0.1	R0.2	R0.3	4
1.5	50	1.5	16	1.45	6.0	R0.1	R0.2	R0.3	4
1.5	60	1.5	20	1.45	6.0	R0.1	R0.2	R0.3	4
2.0	50	2.0	6	1.95	6.0	R0.2	R0.3	R0.5	4
2.0	50	2.0	8	1.95	6.0	R0.2	R0.3	R0.5	4
2.0	50	2.0	10	1.95	6.0	R0.2	R0.3	R0.5	4
2.0	50	2.0	12	1.95	6.0	R0.2	R0.3	R0.5	4
2.0	50	2.0	16	1.95	6.0	R0.2	R0.3	R0.5	4
2.0	60	2.0	20	1.95	6.0	R0.2	R0.3	R0.5	4
3.0	50	3.0	8	2.4	6.0	R0.2	R0.3	R0.5	4
3.0	50	3.0	10	2.4	6.0	R0.2	R0.3	R0.5	4
3.0	50	3.0	12	2.4	6.0	R0.2	R0.3	R0.5	4
3.0	50	3.0	16	2.4	6.0	R0.2	R0.3	R0.5	4
3.0	60	3.0	20	2.4	6.0	R0.2	R0.3	R0.5	4
3.0	75	3.0	30	2.4	6.0	R0.2	R0.3	R0.5	4
4.0	60	4.0	10	3.85	6.0	-	R0.3	R0.5	4
4.0	60	4.0	15	3.85	6.0	-	R0.3	R0.5	4
4.0	60	4.0	20	3.85	6.0	-	R0.3	R0.5	4
4.0	75	4.0	25	3.85	6.0	-	R0.3	R0.5	4
4.0	75	4.0	32	3.85	6.0	-	R0.3	R0.5	4
4.0	75	4.0	40	3.85	6.0	-	R0.3	R0.5	4

Performance - 60/65 HRC

02. KARBÜR KESİCİ TAKIMLAR  
03. KÖŞE RADIUSLU FREZELER



04. DALMA BOYLU FREZELER  
WITH LONG NECK



ÜRÜN KODU  
02.03.04.D.L2.R.X

D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	R	Z
0.5	0.7	2	50	0.45	4.0	R0.05	2
0.5	0.7	4	50	0.45	4.0	R0.05	2
0.5	0.7	6	50	0.45	4.0	R0.05	2
0.5	0.7	8	50	0.45	4.0	R0.05	2
1.0	1.0	6	50	0.95	4.0	R0.1	2
1.0	1.0	8	50	0.95	4.0	R0.1	2
1.0	1.0	10	50	0.95	4.0	R0.1	2
1.0	1.0	12	50	0.95	4.0	R0.1	2
1.0	1.0	14	50	0.95	4.0	R0.1	2
1.0	1.0	16	50	0.95	4.0	R0.1	2
1.5	1.5	6	50	1.45	4.0	R0.15	2
1.5	1.5	8	50	1.45	4.0	R0.15	2
1.5	1.5	10	50	1.45	4.0	R0.15	2
1.5	1.5	12	50	1.45	4.0	R0.15	2
1.5	1.5	14	50	1.45	4.0	R0.15	2
1.5	1.5	16	50	1.45	4.0	R0.15	2
1.5	1.5	20	60	1.45	4.0	R0.15	2
2.0	2.0	6	50	1.95	4.0	R0.2	2
2.0	2.0	8	50	1.95	4.0	R0.2	2
2.0	2.0	10	50	1.95	4.0	R0.2	2
2.0	2.0	12	50	1.95	4.0	R0.2	2
2.0	2.0	14	50	1.95	4.0	R0.2	2
2.0	2.0	16	50	1.95	4.0	R0.2	2
2.0	2.0	20	60	1.95	4.0	R0.2	2
2.0	2.0	25	75	1.95	4.0	R0.2	2
2.0	2.0	30	75	1.95	4.0	R0.2	2

Standart - 50/55 HRC

ÜRÜN KODU  
02.03.04.D.L2.R.A

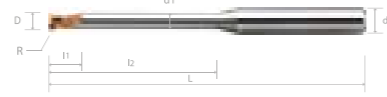
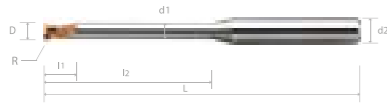
D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	R	Z
0.5	0.7	2	50	0.45	4.0	R0.05	2
0.5	0.7	4	50	0.45	4.0	R0.05	2
0.5	0.7	6	50	0.45	4.0	R0.05	2
0.5	0.7	8	50	0.45	4.0	R0.05	2
1.0	1.0	6	50	0.95	4.0	R0.1	2
1.0	1.0	8	50	0.95	4.0	R0.1	2
1.0	1.0	10	50	0.95	4.0	R0.1	2
1.0	1.0	12	50	0.95	4.0	R0.1	2
1.0	1.0	14	50	0.95	4.0	R0.1	2
1.0	1.0	16	50	0.95	4.0	R0.1	2
1.5	1.5	6	50	1.45	4.0	R0.15	2
1.5	1.5	8	50	1.45	4.0	R0.15	2
1.5	1.5	10	50	1.45	4.0	R0.15	2
1.5	1.5	12	50	1.45	4.0	R0.15	2
1.5	1.5	14	50	1.45	4.0	R0.15	2
1.5	1.5	16	50	1.45	4.0	R0.15	2
1.5	1.5	20	60	1.45	4.0	R0.15	2
2.0	2.0	6	50	1.95	4.0	R0.2	2
2.0	2.0	8	50	1.95	4.0	R0.2	2
2.0	2.0	10	50	1.95	4.0	R0.2	2
2.0	2.0	12	50	1.95	4.0	R0.2	2
2.0	2.0	14	50	1.95	4.0	R0.2	2
2.0	2.0	16	50	1.95	4.0	R0.2	2
2.0	2.0	20	60	1.95	4.0	R0.2	2
2.0	2.0	25	75	1.95	4.0	R0.2	2
2.0	2.0	30	75	1.95	4.0	R0.2	2

Performance - 60/65 HRC

## 02. KARBÜR KESİCİ TAKIMLAR 03. KÖŞE RADÜSLÜ FREZELER



### 04. DALMA BOYLU FREZELER WITH LONG NECK



ÜRÜN KODU 02.03.04.D.L2.R.X							
D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	R	Z
2.5	3.7	8	50	2.4	4.0	R0.3	2
2.5	3.7	10	50	2.4	4.0	R0.3	2
2.5	3.7	12	50	2.4	4.0	R0.3	2
2.5	3.7	14	50	2.4	4.0	R0.3	2
2.5	3.7	16	50	2.4	4.0	R0.3	2
2.5	3.7	18	60	2.4	4.0	R0.3	2
2.5	3.7	20	60	2.4	4.0	R0.3	2
2.5	3.7	25	75	2.4	4.0	R0.3	2
2.5	3.7	30	75	2.4	4.0	R0.3	2
3.0	4.5	8	50	2.85	6.0	R0.3	2
3.0	4.5	10	50	2.85	6.0	R0.3	2
3.0	4.5	12	50	2.85	6.0	R0.3	2
3.0	4.5	14	50	2.85	6.0	R0.3	2
3.0	4.5	16	60	2.85	6.0	R0.3	2
3.0	4.5	18	60	2.85	6.0	R0.3	2
3.0	4.5	20	60	2.85	6.0	R0.3	2
3.0	4.5	25	75	2.85	6.0	R0.3	2
4.0	4.5	10	60	3.85	6.0	R0.4	2
4.0	4.5	15	60	3.85	6.0	R0.4	2
4.0	4.5	20	60	3.85	6.0	R0.4	2
4.0	4.5	25	75	3.85	6.0	R0.4	2
4.0	4.5	30	75	3.85	6.0	R0.4	2
4.0	4.5	40	75	3.85	6.0	R0.4	2

**Standart - 50/55 HRC**

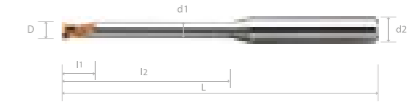
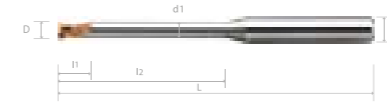
ÜRÜN KODU 02.03.04.D.L2.R.A							
D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	R	Z
2.5	3.7	8	50	2.4	4.0	R0.3	2
2.5	3.7	10	50	2.4	4.0	R0.3	2
2.5	3.7	12	50	2.4	4.0	R0.3	2
2.5	3.7	14	50	2.4	4.0	R0.3	2
2.5	3.7	16	50	2.4	4.0	R0.3	2
2.5	3.7	18	60	2.4	4.0	R0.3	2
2.5	3.7	20	60	2.4	4.0	R0.3	2
2.5	3.7	25	75	2.4	4.0	R0.3	2
2.5	3.7	30	75	2.4	4.0	R0.3	2
3.0	4.5	8	50	2.85	6.0	R0.3	2
3.0	4.5	10	50	2.85	6.0	R0.3	2
3.0	4.5	12	50	2.85	6.0	R0.3	2
3.0	4.5	14	50	2.85	6.0	R0.3	2
3.0	4.5	16	60	2.85	6.0	R0.3	2
3.0	4.5	18	60	2.85	6.0	R0.3	2
3.0	4.5	20	60	2.85	6.0	R0.3	2
3.0	4.5	25	75	2.85	6.0	R0.3	2
4.0	4.5	10	60	3.85	6.0	R0.4	2
4.0	4.5	15	60	3.85	6.0	R0.4	2
4.0	4.5	20	60	3.85	6.0	R0.4	2
4.0	4.5	25	75	3.85	6.0	R0.4	2
4.0	4.5	30	75	3.85	6.0	R0.4	2
4.0	4.5	40	75	3.85	6.0	R0.4	2

**Performance - 60/65 HRC**



## 02. KARBÜR KESİCİ TAKIMLAR 01. DÜZ AĞIZLI FREZELER

### 04. DALMA BOYLU FREZELER WITH LONG NECK



ÜRÜN KODU 02.01.04.D.L2.X						
D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	Z
0.5	0.7	2	50	0.45	4.0	2
0.5	0.7	4	50	0.45	4.0	2
0.5	0.7	6	50	0.45	4.0	2
0.6	0.9	4	50	0.55	4.0	2
0.6	0.9	6	50	0.55	4.0	2
0.8	1.2	4	50	0.75	4.0	2
0.8	1.2	6	50	0.75	4.0	2
0.8	1.2	8	50	0.75	4.0	2
1.0	1.5	6	50	0.95	4.0	2
1.0	1.5	8	50	0.95	4.0	2
1.0	1.5	10	50	0.95	4.0	2
1.0	1.5	12	50	0.95	4.0	2
1.0	1.5	14	50	0.95	4.0	2
1.0	1.5	16	50	0.95	4.0	2
1.5	2.3	6	50	1.45	4.0	2
1.5	2.3	8	50	1.45	4.0	2
1.5	2.3	10	50	1.45	4.0	2
1.5	2.3	12	50	1.45	4.0	2
1.5	2.3	14	50	1.45	4.0	2
1.5	2.3	16	50	1.45	4.0	2
1.5	2.3	20	60	1.45	4.0	2
2.0	3.0	6	50	1.95	4.0	2
2.0	3.0	8	50	1.95	4.0	2
2.0	3.0	10	50	1.95	4.0	2
2.0	3.0	12	50	1.95	4.0	2
2.0	3.0	14	50	1.95	4.0	2
2.0	3.0	16	50	1.95	4.0	2
2.0	3.0	20	60	1.95	4.0	2
2.0	3.0	25	75	1.95	4.0	2
2.0	3.0	30	75	1.95	4.0	2

**Standart - 50/55 HRC**

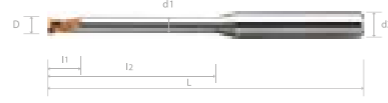
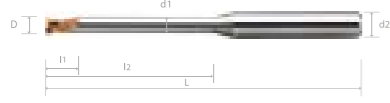
ÜRÜN KODU 02.01.04.D.L2.A						
D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	Z
0.5	0.7	2	50	0.45	4.0	2
0.5	0.7	4	50	0.45	4.0	2
0.5	0.7	6	50	0.45	4.0	2
0.6	0.9	4	50	0.55	4.0	2
0.6	0.9	6	50	0.55	4.0	2
0.8	1.2	4	50	0.75	4.0	2
0.8	1.2	6	50	0.75	4.0	2
0.8	1.2	8	50	0.75	4.0	2
1.0	1.5	6	50	0.95	4.0	2
1.0	1.5	8	50	0.95	4.0	2
1.0	1.5	10	50	0.95	4.0	2
1.0	1.5	12	50	0.95	4.0	2
1.0	1.5	14	50	0.95	4.0	2
1.0	1.5	16	50	0.95	4.0	2
1.5	2.3	6	50	1.45	4.0	2
1.5	2.3	8	50	1.45	4.0	2
1.5	2.3	10	50	1.45	4.0	2
1.5	2.3	12	50	1.45	4.0	2
1.5	2.3	14	50	1.45	4.0	2
1.5	2.3	16	50	1.45	4.0	2
1.5	2.3	20	60	1.45	4.0	2
2.0	3.0	6	50	1.95	4.0	2
2.0	3.0	8	50	1.95	4.0	2
2.0	3.0	10	50	1.95	4.0	2
2.0	3.0	12	50	1.95	4.0	2
2.0	3.0	14	50	1.95	4.0	2
2.0	3.0	16	50	1.95	4.0	2
2.0	3.0	20	60	1.95	4.0	2
2.0	3.0	25	75	1.95	4.0	2
2.0	3.0	30	75	1.95	4.0	2

**Performance - 60/65 HRC**

## 02. KARBÜR KESİCİ TAKIMLAR 01. DÜZ AĞIZLI FREZELER



### 04. DALMA BOYLU FREZELER WITH LONG NECK



#### ÜRÜN KODU 02.01.04.D.L2.X

D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	Z
2.5	3.7	8	50	2.4	4.0	2
2.5	3.7	10	50	2.4	4.0	2
2.5	3.7	12	50	2.4	4.0	2
2.5	3.7	14	50	2.4	4.0	2
2.5	3.7	16	50	2.4	4.0	2
2.5	3.7	18	60	2.4	4.0	2
2.5	3.7	20	60	2.4	4.0	2
2.5	3.7	25	75	2.4	4.0	2
2.5	3.7	30	75	2.4	4.0	2
3.0	4.5	8	50	2.85	6.0	2
3.0	4.5	10	50	2.85	6.0	2
3.0	4.5	12	50	2.85	6.0	2
3.0	4.5	14	50	2.85	6.0	2
3.0	4.5	16	60	2.85	6.0	2
3.0	4.5	18	60	2.85	6.0	2
3.0	4.5	20	60	2.85	6.0	2
3.0	4.5	25	75	2.85	6.0	2
4.0	4.5	10	60	3.85	6.0	2
4.0	4.5	15	60	3.85	6.0	2
4.0	4.5	20	60	3.85	6.0	2
4.0	4.5	25	75	3.85	6.0	2
4.0	4.5	30	75	3.85	6.0	2
4.0	4.5	40	75	3.85	6.0	2

Standart - 50/55 HRC

#### ÜRÜN KODU 02.01.04.D.L2.A

D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	Z
2.5	3.7	8	50	2.4	4.0	2
2.5	3.7	10	50	2.4	4.0	2
2.5	3.7	12	50	2.4	4.0	2
2.5	3.7	14	50	2.4	4.0	2
2.5	3.7	16	50	2.4	4.0	2
2.5	3.7	18	60	2.4	4.0	2
2.5	3.7	20	60	2.4	4.0	2
2.5	3.7	25	75	2.4	4.0	2
2.5	3.7	30	75	2.4	4.0	2
3.0	4.5	8	50	2.85	6.0	2
3.0	4.5	10	50	2.85	6.0	2
3.0	4.5	12	50	2.85	6.0	2
3.0	4.5	14	50	2.85	6.0	2
3.0	4.5	16	60	2.85	6.0	2
3.0	4.5	18	60	2.85	6.0	2
3.0	4.5	20	60	2.85	6.0	2
3.0	4.5	25	75	2.85	6.0	2
4.0	4.5	10	60	3.85	6.0	2
4.0	4.5	15	60	3.85	6.0	2
4.0	4.5	20	60	3.85	6.0	2
4.0	4.5	25	75	3.85	6.0	2
4.0	4.5	30	75	3.85	6.0	2
4.0	4.5	40	75	3.85	6.0	2

Performance - 60/65 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 02. KÜRE AĞIZLI FREZELER

### 04. DALMA BOYLU FREZELER WITH LONG NECK



#### ÜRÜN KODU 02.02.04.D.L2.X

D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	Z
0.2	0.2	1.5	50	0.15	4	2
0.3	0.3	2	50	0.25	4	2
0.4	0.4	1	50	0.35	4	2
0.4	0.4	2	50	0.35	4	2
0.4	0.4	4	50	0.35	4	2
0.5	0.4	2	50	0.45	4.0	2
0.5	0.4	4	50	0.45	4.0	2
0.5	0.4	6	50	0.45	4.0	2
0.6	0.5	2	50	0.55	4.0	2
0.6	0.5	4	50	0.55	4.0	2
0.6	0.5	6	50	0.55	4.0	2
0.6	0.5	8	50	0.55	4.0	2
0.8	0.6	2	50	0.75	4.0	2
0.8	0.6	4	50	0.75	4.0	2
0.8	0.6	6	50	0.75	4.0	2
0.8	0.6	8	50	0.75	4.0	2
0.8	0.6	10	50	0.75	4.0	2
1.0	0.8	6	50	0.95	4.0	2
1.0	0.8	8	50	0.95	4.0	2
1.0	0.8	10	50	0.95	4.0	2
1.0	0.8	12	50	0.95	4.0	2
1.0	0.8	14	50	0.95	4.0	2
1.0	0.8	16	50	0.95	4.0	2
1.0	0.8	20	60	0.95	4.0	2
1.5	1.2	6	50	1.45	4.0	2
1.5	1.2	8	50	1.45	4.0	2
1.5	1.2	10	50	1.45	4.0	2
1.5	1.2	12	50	1.45	4.0	2
1.5	1.2	14	50	1.45	4.0	2
1.5	1.2	16	50	1.45	4.0	2
1.5	1.2	18	60	1.45	4.0	2

Standart - 50/55 HRC

#### ÜRÜN KODU 02.02.04.D.L2.A

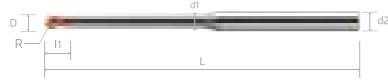
D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	Z
0.2	0.2	1.5	50	0.15	4	2
0.3	0.3	2	50	0.25	4	2
0.4	0.4	1	50	0.35	4	2
0.4	0.4	2	50	0.35	4	2
0.4	0.4	4	50	0.35	4	2
0.5	0.4	2	50	0.45	4.0	2
0.5	0.4	4	50	0.45	4.0	2
0.5	0.4	6	50	0.45	4.0	2
0.6	0.5	2	50	0.55	4.0	2
0.6	0.5	4	50	0.55	4.0	2
0.6	0.5	6	50	0.55	4.0	2
0.6	0.5	8	50	0.55	4.0	2
0.8	0.6	2	50	0.75	4.0	2
0.8	0.6	4	50	0.75	4.0	2
0.8	0.6	6	50	0.75	4.0	2
0.8	0.6	8	50	0.75	4.0	2
0.8	0.6	10	50	0.75	4.0	2
1.0	0.8	6	50	0.95	4.0	2
1.0	0.8	8	50	0.95	4.0	2
1.0	0.8	10	50	0.95	4.0	2
1.0	0.8	12	50	0.95	4.0	2
1.0	0.8	14	50	0.95	4.0	2
1.0	0.8	16	50	0.95	4.0	2
1.0	0.8	20	60	0.95	4.0	2
1.5	1.2	6	50	1.45	4.0	2
1.5	1.2	8	50	1.45	4.0	2
1.5	1.2	10	50	1.45	4.0	2
1.5	1.2	12	50	1.45	4.0	2
1.5	1.2	14	50	1.45	4.0	2
1.5	1.2	16	50	1.45	4.0	2
1.5	1.2	18	60	1.45	4.0	2

Performance - 60/65 HRC

## 02. KARBÜR KESİCİ TAKIMLAR 02. KÜRE AĞIZLI FREZELER



### 04. DALMA BOYLU FREZELER WITH LONG NECK



ÜRÜN KODU 02.02.04.D.L2.X						
D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	Z
2.0	1.6	6	50	1.95	4.0	2
2.0	1.6	8	50	1.95	4.0	2
2.0	1.6	10	50	1.95	4.0	2
2.0	1.6	12	50	1.95	4.0	2
2.0	1.6	14	50	1.95	4.0	2
2.0	1.6	16	50	1.95	4.0	2
2.0	1.6	20	60	1.95	4.0	2
2.0	1.6	25	75	1.95	4.0	2
2.0	1.6	30	75	1.95	4.0	2
3.0	2.4	8	50	2.85	6.0	2
3.0	2.4	10	50	2.85	6.0	2
3.0	2.4	16	60	2.85	6.0	2
3.0	2.4	20	60	2.85	6.0	2
3.0	2.4	25	75	2.85	6.0	2
3.0	2.4	30	75	2.85	6.0	2
3.0	2.4	35	75	2.85	6.0	2
4.0	3.2	10	50	3.85	6.0	2
4.0	3.2	16	60	3.85	6.0	2
4.0	3.2	20	60	3.85	6.0	2
4.0	3.2	25	75	3.85	6.0	2
4.0	3.2	30	75	3.85	6.0	2
4.0	3.2	40	100	3.85	6.0	2
4.0	3.2	50	100	3.85	6.0	2

Standart - 50/55 HRC

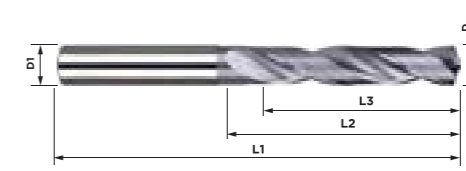
ÜRÜN KODU 02.02.04.D.L2.A						
D (mm)	L1 (mm)	L2 (mm)	L (mm)	D1 (mm)	d2 (mm)	Z
2.0	1.6	6	50	1.95	4.0	2
2.0	1.6	8	50	1.95	4.0	2
2.0	1.6	10	50	1.95	4.0	2
2.0	1.6	12	50	1.95	4.0	2
2.0	1.6	14	50	1.95	4.0	2
2.0	1.6	16	50	1.95	4.0	2
2.0	1.6	20	60	1.95	4.0	2
2.0	1.6	25	75	1.95	4.0	2
2.0	1.6	30	75	1.95	4.0	2
3.0	2.4	8	50	2.85	6.0	2
3.0	2.4	10	50	2.85	6.0	2
3.0	2.4	16	60	2.85	6.0	2
3.0	2.4	20	60	2.85	6.0	2
3.0	2.4	25	75	2.85	6.0	2
3.0	2.4	30	75	2.85	6.0	2
3.0	2.4	35	75	2.85	6.0	2
4.0	3.2	10	50	3.85	6.0	2
4.0	3.2	16	60	3.85	6.0	2
4.0	3.2	20	60	3.85	6.0	2
4.0	3.2	25	75	3.85	6.0	2
4.0	3.2	30	75	3.85	6.0	2
4.0	3.2	40	100	3.85	6.0	2
4.0	3.2	50	100	3.85	6.0	2

Performance - 60/65 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 04. KARBÜR MATKAPLAR

### 01. 3D KARBÜR MATKAPLAR 3D SOLID CARBIDE DRILLS



ÜRÜN KODU 02.04.01.D.3D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
3.0	62	20	14	6
3.1	62	20	14	6
3.2	62	20	14	6
3.3	62	20	14	6
3.4	62	20	14	6
3.5	62	20	14	6
3.6	62	20	14	6
3.7	62	20	14	6
3.8	66	24	17	6
3.9	66	24	17	6
4.0	66	24	17	6
4.1	66	24	17	6
4.2	66	24	17	6
4.3	66	24	17	6
4.4	66	24	17	6
4.5	66	24	17	6
4.6	66	24	17	6
4.7	66	24	17	6
4.8	66	28	20	6
4.9	66	28	20	6
5.0	66	28	20	6
5.1	66	28	20	6
5.2	66	28	20	6
5.3	66	28	20	6
5.4	66	28	20	6
5.5	66	28	20	6
5.6	66	28	20	6
5.7	66	28	20	6
5.8	66	28	20	6
5.9	66	28	20	6

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC

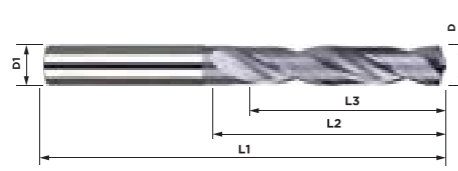
ÜRÜN KODU 02.04.01.D.3D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
6.0	66	28	20	6
6.1	79	34	24	8
6.2	79	34	24	8
6.3	79	34	24	8
6.4	79	34	24	8
6.5	79	34	24	8
6.6	79	34	24	8
6.7	79	34	24	8
6.8	79	34	24	8
6.9	79	34	24	8
7.0	79	34	24	8
7.1	79	41	29	8
7.2	79	41	29	8
7.3	79	41	29	8
7.4	79	41	29	8
7.5	79	41	29	8
7.6	79	41	29	8
7.7	79	41	29	8
7.8	79	41	29	8
7.9	79	41	29	8
8.0	79	41	29	8
8.1	89	47	35	10
8.2	89	47	35	10
8.3	89	47	35	10
8.4	89	47	35	10
8.5	89	47	35	10
8.6	89	47	35	10
8.7	89	47	35	10
8.8	89	47	35	10
8.9	89	47	35	10

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC

## 02. KARBÜR KESİCİ TAKIMLAR 04. KARBÜR MATKAPLAR



### 01. 3D KARBÜR MATKAPLAR 3D SOLID CARBIDE DRILLS



ÜRÜN KODU 02.04.01.D.3D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
9.0	89	47	35	10
9.1	89	47	35	10
9.2	89	47	35	10
9.3	89	47	35	10
9.4	89	47	35	10
9.5	89	47	35	10
9.6	89	47	35	10
9.7	89	47	35	10
9.8	89	47	35	10
9.9	89	47	35	10
10.0	89	47	35	10
10.1	102	55	40	12
10.2	102	55	40	12
10.3	102	55	40	12
10.4	102	55	40	12
10.5	102	55	40	12
10.6	102	55	40	12
10.7	102	55	40	12
10.8	102	55	40	12
10.9	102	55	40	12
11.0	102	55	40	12
11.1	102	55	40	12
11.2	102	55	40	12
11.3	102	55	40	12
11.4	102	55	40	12
11.5	102	55	40	12
11.6	102	55	40	12
11.7	102	55	40	12
11.8	102	55	40	12
11.9	102	55	40	12

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC

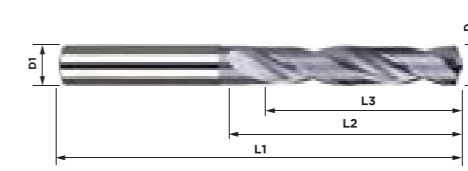
ÜRÜN KODU 02.04.01.D.3D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
12.0	102	55	40	12
12.1	107	60	43	14
12.2	107	60	43	14
12.3	107	60	43	14
12.4	107	60	43	14
12.5	107	60	43	14
12.6	107	60	43	14
12.7	107	60	43	14
12.8	107	60	43	14
12.9	107	60	43	14
13.0	107	60	43	14
13.1	107	60	43	14
13.2	107	60	43	14
13.3	107	60	43	14
13.4	107	60	43	14
13.5	107	60	43	14
13.7	107	60	43	14
14.0	107	60	43	14
14.5	115	65	45	16
15.0	115	65	45	16
15.5	115	65	45	16
16.0	115	65	45	16
16.5	123	73	51	18
17.0	123	73	51	18
17.5	123	73	51	18
18.0	123	73	51	18
18.5	131	79	55	20
19.0	131	79	55	20
19.5	131	79	55	20
20.0	131	79	55	20

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 04. KARBÜR MATKAPLAR

### 02. 5D KARBÜR MATKAPLAR 5D SOLID CARBIDE DRILLS



ÜRÜN KODU 02.04.02.D.5D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
3.0	66	28	23	6
3.1	66	28	23	6
3.2	66	28	23	6
3.3	66	28	23	6
3.4	66	28	23	6
3.5	66	28	23	6
3.6	66	28	23	6
3.7	66	28	23	6
3.8	74	36	29	6
3.9	74	36	29	6
4.0	74	36	29	6
4.1	74	36	29	6
4.2	74	36	29	6
4.3	74	36	29	6
4.4	74	36	29	6
4.5	74	36	29	6
4.6	74	36	29	6
4.7	74	36	29	6
4.8	82	44	35	6
4.9	82	44	35	6
5.0	82	44	35	6
5.1	82	44	35	6
5.2	82	44	35	6
5.3	82	44	35	6
5.4	82	44	35	6
5.5	82	44	35	6
5.6	82	44	35	6
5.7	82	44	35	6
5.8	82	44	35	6
5.9	82	44	35	6

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC

ÜRÜN KODU 02.04.02.D.5D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
6.0	82	44	35	6
6.1	91	53	43	8
6.2	91	53	43	8
6.3	91	53	43	8
6.4	91	53	43	8
6.5	91	53	43	8
6.6	91	53	43	8
6.7	91	53	43	8
6.8	91	53	43	8
6.9	91	53	43	8
7.0	91	53	43	8
7.1	91	53	43	8
7.2	91	53	43	8
7.3	91	53	43	8
7.4	91	53	43	8
7.5	91	53	43	8
7.6	91	53	43	8
7.7	91	53	43	8
7.8	91	53	43	8
7.9	91	53	43	8
8.0	91	53	43	8
8.1	103	61	49	10
8.2	103	61	49	10
8.3	103	61	49	10
8.4	103	61	49	10
8.5	103	61	49	10
8.6	103	61	49	10
8.7	103	61	49	10
8.8	103	61	49	10
8.9	103	61	49	10

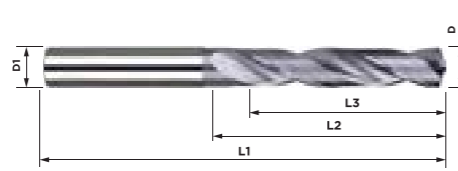
1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 04. KARBÜR MATKAPLAR



### 02. 5D KARBÜR MATKAPLAR 5D SOLID CARBIDE DRILLS



ÜRÜN KODU 02.04.02.D.5D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
9.0	103	61	49	10
9.1	103	61	49	10
9.2	103	61	49	10
9.3	103	61	49	10
9.4	103	61	49	10
9.5	103	61	49	10
9.6	103	61	49	10
9.7	103	61	49	10
9.8	103	61	49	10
9.9	103	61	49	10
10.0	103	61	49	10
10.1	118	71	56	12
10.2	118	71	56	12
10.3	118	71	56	12
10.4	118	71	56	12
10.5	118	71	56	12
10.6	118	71	56	12
10.7	118	71	56	12
10.8	118	71	56	12
10.9	118	71	56	12
11.0	118	71	56	12
11.1	118	71	56	12
11.2	118	71	56	12
11.3	118	71	56	12
11.4	118	71	56	12
11.5	118	71	56	12
11.6	118	71	56	12
11.7	118	71	56	12
11.8	118	71	56	12
11.9	118	71	56	12

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC

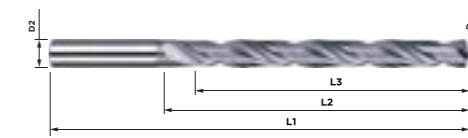
ÜRÜN KODU 02.04.02.D.5D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
12.0	118	71	56	12
12.1	124	77	60	14
12.2	124	77	60	14
12.3	124	77	60	14
12.4	124	77	60	14
12.5	124	77	60	14
12.6	124	77	60	14
12.7	124	77	60	14
12.8	124	77	60	14
12.9	124	77	60	14
13.0	124	77	60	14
13.1	124	77	60	14
13.2	124	77	60	14
13.3	124	77	60	14
13.4	124	77	60	14
13.5	124	77	60	14
13.7	124	77	60	14
14.0	124	77	60	14
14.5	133	83	63	16
15.0	133	83	63	16
15.5	133	83	63	16
16.0	133	83	63	16
16.5	143	93	71	18
17.0	143	93	71	18
17.5	143	93	71	18
18.0	143	93	71	18
18.5	153	101	77	20
19.0	153	101	77	20
19.5	153	101	77	20
20.0	153	101	77	20

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC



## 02. KARBÜR KESİCİ TAKIMLAR 04. KARBÜR MATKAPLAR

### 06. 8D KARBÜR MATKAPLAR İ.S.V. 8D SOLID CARBIDE DRILLS



ÜRÜN KODU 02.04.06.D.8D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
4.0	85	45	38	6
4.1	85	45	38	6
4.2	85	45	38	6
4.3	85	45	38	6
4.4	85	45	38	6
4.5	85	45	38	6
4.6	85	45	38	6
4.7	85	45	38	6
4.8	97	57	49	6
4.9	97	57	49	6
5.0	97	57	49	6
5.1	97	57	49	6
5.2	97	57	49	6
5.3	97	57	49	6
5.4	97	57	49	6
5.5	97	57	49	6
5.6	97	57	49	6
5.7	97	57	49	6
5.8	97	57	49	6
5.9	97	57	49	6
6.0	97	57	49	6
6.1	106	66	57	6
6.2	106	66	57	6
6.3	106	66	57	6
6.4	106	66	57	6
6.5	106	66	57	6
6.6	106	66	57	6
6.7	106	66	57	6
6.8	106	66	57	6
6.9	106	66	57	6

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC

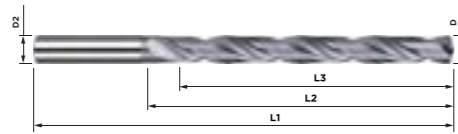
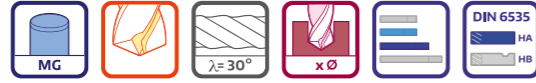
ÜRÜN KODU 02.04.6.D.8D				
D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
7.0	106	66	57	6
7.1	116	76	66	8
7.2	116	76	66	8
7.3	116	76	66	8
7.4	116	76	66	8
7.5	116	76	66	8
7.6	116	76	66	8
7.7	116	76	66	8
7.8	116	76	66	8
7.9	116	76	66	8
8.0	116	76	66	8
8.1	139	95	85	8
8.2	139	95	85	8
8.3	139	95	85	8
8.4	139	95	85	8
8.5	139	95	85	8
8.6	139	95	85	8
8.7	139	95	85	8
8.8	139	95	85	8
8.9	139	95	85	8
9.0	139	95	85	8
9.1	139	95	85	10
9.2	139	95	85	10
9.3	139	95	85	10
9.4	139	95	85	10
9.5	139	95	85	10
9.6	139	95	85	10
9.7	139	95	85	10
9.8	139	95	85	10
9.9	139	95	85	10

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC

02. KARBÜR KESİCİ TAKIMLAR  
04. KARBÜR MATKAPLAR



06. 8D KARBÜR MATKAPLAR İ.S.V.  
8D SOLID CARBIDE DRILLS



ÜRÜN KODU  
02.04.06.D.8D

D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
10.0	139	95	85	10
10.1	163	114	96	12
10.2	163	114	96	12
10.3	163	114	96	12
10.4	163	114	96	12
10.5	163	114	96	12
10.6	163	114	96	12
10.7	163	114	96	12
10.8	163	114	96	12
10.9	163	114	96	12
11.0	163	114	96	12
11.1	163	114	96	12
11.2	163	114	96	12
11.3	163	114	96	12
11.4	163	114	96	12
11.5	163	114	96	12
11.6	163	114	96	12
11.7	163	114	96	12
11.8	163	114	96	12
11.9	163	114	96	12
12.0	163	114	96	12
12.1	182	133	115	14
12.3	182	133	115	14
12.5	182	133	115	14
12.7	182	133	115	14
12.9	182	133	115	14
13.0	182	133	115	14

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC

ÜRÜN KODU  
02.04.6.D.8D

D (m7)	L1 (mm)	L2 (mm)	L3 (mm)	D2 (h6)
13.1	182	133	115	14
13.3	182	133	115	14
13.5	182	133	115	14
13.7	182	133	115	14
13.9	182	133	115	14
14.0	182	133	115	14
14.1	204	152	130	16
14.3	204	152	130	16
14.5	204	152	130	16
14.7	204	152	130	16
15.0	204	152	130	16
15.1	204	152	130	16
15.3	204	152	130	16
15.5	204	152	130	16
15.7	204	152	130	16
15.3	204	152	130	16
15.9	204	152	130	16
16.0	204	152	130	16
16.5	223	171	144	18
17.0	223	171	144	18
17.5	223	171	144	18
18.0	223	171	144	18
18.5	244	190	160	20
19.0	244	190	160	20
19.5	244	190	160	20
20.0	244	190	160	20

1.300 N/mm<sup>2</sup> + B0819 ≤ 36-52 HRC


03\*

UÇ BAĞLAMA  
ELEMENLARI

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS

90°	AFM90-AP..	Uç / Insert	Takım Kodu / Tool Code	
	AP.. 1003.. (For ISO)		AFM90-API0-D040-A16-Z04-H AFM90-API0-D040-A16-Z05-H AFM90-API0-D050-A22-Z06-H AFM90-API0-D050-A22-Z07-H AFM90-API0-D063-A22-Z06 AFM90-API0-D063-A22-Z07-H AFM90-API0-D063-A22-Z09 AFM90-API0-D080-A27-Z08-H AFM90-API0-D100-A32-Z09-H	
		AP.. 1604.. (For ISO)		AFM90-API6-D040-A16-Z04-H AFM90-API6-D050-A22-Z05-H AFM90-API6-D052-A22-Z05-H AFM90-API6-D063-A22-Z06-H AFM90-API6-D080-A27-Z07-H AFM90-API6-D100-A32-Z08-H AFM90-API6-D125-B40-Z09 AFM90-API6-D160-C40-Z10 AFM90-API6-D200-C60-Z12
			AP.. 1604. (For DJT)	AFM90-API6DJ-D050-A22-Z05-H AFM90-API6DJ-D063-A22-Z06-H AFM90-API6DJ-D080-A27-Z07-H
			AP.. 1604.. (For LMNA)	AFM90-API6L-D050-A22-Z05-H AFM90-API6L-D063-A22-Z06-H AFM90-API6L-D080-A27-Z07-H
			AP.. 1604.. (For PLBT)	AFM90-API6P-D040-A16-Z04-H AFM90-API6P-D050-A22-Z05-H AFM90-API6P-D063-A22-Z06-H AFM90-API6P-D080-A27-Z07-H AFM90-API6P-D100-A32-Z08-H
			AP.. 1604.. (For ACHTK)	AFM90-API6A-D050-A22-Z05-H AFM90-API6A-D063-A22-Z06-H AFM90-API6A-D080-A27-Z07-H AFM90-API6A-D100-A32-Z08-H AFM90-API6A-D125-B40-Z09
			AP.. 1604.. (For YG)	AFM90-API6Y-D040-A16-Z04-H AFM90-API6Y-D050-A22-Z05-H AFM90-API6Y-D063-A22-Z06-H AFM90-API6Y-D080-A27-Z07-H AFM90-API6Y-D100-A32-Z08-H


01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS


90°	AFM90-AP1705	Uç / Insert	Takım Kodu / Tool Code
	AP.. 1705.. (For TGTC-LMNA)		AFM90-API705-D050-A22-Z05-H AFM90-API705-D063-A22-Z06-H AFM90-API705-D080-A27-Z07-H AFM90-API705-D100-A32-Z08-H


90°	AFM90-AX1705	Uç / Insert	Takım Kodu / Tool Code
	AX.T 1235.. (For SMTM)		AFM90-AX1235-D040-A16-Z06-H AFM90-AX1235-D050-A22-Z07-H AFM90-AX1235-D063-A22-Z08-H AFM90-AX1235-D080-A27-Z10-H
		AX.T 1705.. (For SMTM)	AFM90-AX1705-D040-A16-Z04-H AFM90-AX1705-D050-A22-Z05-H AFM90-AX1705-D063-A22-Z06-H AFM90-AX1705-D080-A27-Z07-H AFM90-AX1705-D100-A32-Z08-H

90°	AFM90-BD..	Uç / Insert	Takım Kodu / Tool Code
	BDMT 11T3.. (For KYCR)		AFM90-BD11T3-D040-A16-Z04-H AFM90-BD11T3-D040-A16-Z05-H AFM90-BD11T3-D050-A22-Z05-H AFM90-BD11T3-D063-A22-Z06-H
		BDMT 1704.. (For KYCR)	AFM90-BD1704-D050-A22-Z04-H AFM90-BD1704-D050-A22-Z05-H AFM90-BD1704-D063-A22-Z06-H AFM90-BD1704-D080-A27-Z06-H AFM90-BD1704-D080-A27-Z07-H AFM90-BD1704-D100-A32-Z07-H

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS

90°	AFM90-AD1505	Uç / Insert	Takım Kodu / Tool Code
		<b>AD.. 1505..</b> (For ISCR)	AFM90-AD1505-D040-A16-Z04-H AFM90-AD1505-D050-A22-Z05-H AFM90-AD1505-D063-A22-Z06-H AFM90-AD1505-D080-A27-Z07-H AFM90-AD1505-D100-A32-Z08-H AFM90-AD1505-D125-B40-Z09

90°	AFM90-AD1505D	Uç / Insert	Takım Kodu / Tool Code
		<b>ADKT 150508</b> (For DJT)	AFM90-AD1505D-D050-A22-Z05-H AFM90-AD1505D-D063-A27-Z06-H AFM90-AD1505D-D080-A27-Z08-H AFM90-AD1505D-D100-A32-Z08-H AFM90-AD1505D-D125-B40-Z09

90°	AFM90-3P..	Uç / Insert	Takım Kodu / Tool Code
		<b>3PKT 1004..</b>	AFM90-3P1004-D040-A16-Z05-H AFM90-3P1004-D050-A22-Z06-H
		<b>3PKT 1505..</b> (For TGTC)	AFM90-3P1505-D050-A22-Z04-H AFM90-3P1505-D050-A22-Z05-H AFM90-3P1505-D063-A22-Z04-H AFM90-3P1505-D063-A22-Z06-H AFM90-3P1505-D080-A27-Z07-H AFM90-3P1505-D100-A32-Z08-H AFM90-3P1505-D125-B40-Z10
		<b>3PKT 1906..</b> (For TGTC)	AFM90-3P1906-D080-A27-Z07-H AFM90-3P1906-D100-A32-Z08-H AFM90-3P1906-D125-B40-Z10

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS

90°	AFM90-4N06	Uç / Insert	Takım Kodu / Tool Code
		<b>4NKT 0603..</b> (For TGTC)	AFM90-4N06-D040-A16-Z05-H AFM90-4N06-D050-A22-Z06-H

90°	AFM90-AN12	Uç / Insert	Takım Kodu / Tool Code
		<b>ANIX 1205..</b> (For ISCR)	AFM90-AN12-D040-A16-Z04-H AFM90-AN12-D050-A22-Z05-H AFM90-AN12-D063-A27-Z06-H

90°	AFM90-AN1607	Uç / Insert	Takım Kodu / Tool Code
		<b>AN.X 1607..</b> (For TGTC)	AFM90-AN1607-D050-A22-Z04-H AFM90-AN1607-D063-A22-Z06-H AFM90-AN1607-D080-A27-Z07-H AFM90-AN1607-D100-A32-Z08-H AFM90-AN1607-D125-B40-Z10

90°	AFM90-AO..	Uç / Insert	Takım Kodu / Tool Code
		<b>AO.. 1236..</b>	AFM90-AO1236-D050-A22-Z05-H
		<b>AO.. 1848..</b> (For MTSBSH)	AFM90-AO1848-D050-A22-Z05-H AFM90-AO1848-D063-A22-Z06-H

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS

90°	AFM90-AN..	Uç / Insert	Takım Kodu / Tool Code
		<b>ANGX 1105..</b>	AFM90-AN11-D040-A16-Z04-H
		<b>ANGX 150608 (For ZCC)</b>	AFM90-AN1506-D050-A22-Z04-H AFM90-AN1506-D063-A22-Z05-H AFM90-AN1506-D080-A27-Z06-H AFM90-AN1506-D100-A32-Z08-H AFM90-AN1506-D125-B40-Z12 AFM90-AN1506-D160-C40-Z14
45°	AFM90-AD10T3	Uç / Insert	Takım Kodu / Tool Code
		<b>ADMT 10T3.. (For WLTR)</b>	AFM90-490R08-D063-A22-Z06-H AFM90-490R14-D050-A22-Z04-H AFM90-490R14-D063-A22-Z05-H AFM90-490R14-D080-A27-Z07-H AFM90-490R14-D100-A32-Z07-H AFM90-490R14-D125-B40-Z08 AFM90-490R14-D160-C40-Z12 AFM90-490R14-D200-C60-Z16
45°	AFM45C-HN0905	Uç / Insert	Takım Kodu / Tool Code
		<b>HN.. 0905.. (For WDA)</b>	AFM45-HN0905-D050-A22-Z05-H AFM45-HN0905-D063-A22-Z06-H AFM45-HN0905-D080-A27-Z07-H AFM45L-HN0905-D100-A32-Z08-H AFM45-HN0905-D125-B40-Z10 AFM45L-HN0905-D125-B40-Z10 AFM45-HN0905-D160-C40-Z12 AFM45L-HN0905-D160-C40-Z12 AFM45-HN0905-D200-C60-Z16 AFM45L-HN0905-D200-C60-Z16
45°	AFM45-NN2007	Uç / Insert	Takım Kodu / Tool Code
		<b>NNMU 2007.. (For MTSBSh)</b>	AFM45-NN2007-D063-A22-Z05-H AFM45-NN2007-D080-A27-Z06-H AFM45-NN2007-D100-A32-Z07-H AFM45-NN2007-D125-B40-Z08 AFM45-NN2007-D160-C40-Z10

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS

43°	AFM43-OD0504	Uç / Insert	Takım Kodu / Tool Code
		<b>OD.. 0504.. (For WLTR)</b>	AFM43-OD0504-D040-A16-Z04-H AFM43-OD0504-D050-A22-Z05-H AFM43-OD0504-D063-A22-Z06-H AFM43-OD0504-D080-A27-Z07-H AFM43-OD0504-D100-A32-Z08-H
45°	AFM45.-ON0806	Uç / Insert	Takım Kodu / Tool Code
		<b>ON.. 0806.. (For ISO)</b>	AFM45-ON0806-D050-A22-Z04-H AFM45-ON0806-D063-A22-Z05-H AFM45-ON0806-D063-A22-Z06-H AFM45-ON0806-D063-A22-Z07-H AFM45-ON0806-D080-A27-Z06-H AFM45-ON0806-D080-A27-Z08-H AFM45-ON0806-D100-A32-Z07-H AFM45-ON0806-D100-A32-Z10 AFM45-ON0806-D100-A32-Z10-H AFM45L-ON0806-D100-A32-Z10-H AFM45-ON0806-D125-B40-Z08 AFM45L-ON0806-D125-B40-Z08 AFM45-ON0806-D100-A32-Z10 AFM45-ON0806-D160-C40-Z10 AFM45-ON0806-D125-B40-Z12 AFM45-ON0806-D200-C60-Z12 AFM45-ON0806-D160-C40-Z14 AFM45-ON0806-D250-C60-Z14
			AFM45C-ON0806-D063-A22-Z08 AFM45-ON0806-D315-D60-Z16 AFM45C-ON0806-D080-A27-Z10 AFM45C-ON0806-D100-A32-Z14-H AFM45C-ON0806-D125-B40-Z18 AFM45C-ON0806-D160-C40-Z22
43°	AFM43-ON0604	Uç / Insert	Takım Kodu / Tool Code
		<b>ON.. 0604.. (For ZCC)</b>	AFM43-ON0604-D050-A22-Z05-H AFM43-ON0604-D063-A22-Z06-H AFM43-ON0604-D080-A27-Z07-H AFM43-ON0604-D100-A32-Z08-H AFM43-ON0604-D125-B40-Z09


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FACE MILLING TOOLS

43°	AFM43C-OF07	Uç / Insert	Takım Kodu / Tool Code
		<b>OF.. 0704..</b> (For ISO)	AFM43C-OF07-D063-A22-Z04 AFM43C-OF07-D080-A27-Z05 AFM43C-OF07-D100-A32-Z06 AFM43C-OF07-D125-B40-Z08 AFM43C-OF07-D160-C40-Z09
43°	AFM43-OF05T3	Uç / Insert	Takım Kodu / Tool Code
		<b>OF.. 05T3..</b> (For ISO)	AFM43-OF05T3-D050-A22-Z05-H AFM43-OF05T3-D063-A22-Z06-H AFM43-OF05T3-D080-A27-Z07-H AFM43-OF05T3-D125-B40-Z09
43°	AFM43C-OD0605	Uç / Insert	Takım Kodu / Tool Code
		<b>OD.. 0605..</b> (For WL-TR-LMNA)	AFM43C-OD0605-D080-A27-Z06-H AFM43C-OD0605-D100-A32-Z07-H AFM43C-OD0605-D125-B40-Z08
44°	AFM44-ON0606	Uç / Insert	Takım Kodu / Tool Code
		<b>ONHX 0606..</b> (For KRLY)	AFM44-ON0606-D063-A22-Z06-H AFM44-ON0606-D080-A27-Z08-H AFM44-ON0606-D100-A32-Z10-H
66°	AFM66-PN0905	Uç / Insert	Takım Kodu / Tool Code
		<b>PNMU 0905..</b> (For KYCR)	AFM66-PN0905-D050-A22-Z05 AFM66-PN0905-D063-A22-Z06 AFM66-PN0905-D080-A27-Z08 AFM66-PN0905-D100-A32-Z10 AFM66-PN0905-D125-B40-Z12


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FACE MILLING TOOLS

67°	AFM67-PN1105	Uç / Insert	Takım Kodu / Tool Code
		<b>PNEG 1105..</b> (For ZCC)	AFM67-PN1105-D050-A22-Z05 AFM67-PN1105-D063-A22-Z06 AFM67-PN1105-D080-A27-Z08 AFM67-PN1105-D100-B32-Z10 AFM67-PN1105-D125-B40-Z12 AFM67-PN1105-D160-C40-Z14
45°	AFM45-SA1706	Uç / Insert	Takım Kodu / Tool Code
		<b>SAKU 1706..</b> (For CRTZT)	AFM45-SA1706-D080-A27-Z06-H AFM45-SA1706-D100-A32-Z07-H AFM45-SA1706-D125-B40-Z09
90°	AFM90-R390..	Uç / Insert	Takım Kodu / Tool Code
		<b>R390-11T3..</b> (For SNDVK)	AFM90-R390.11-D040-A16-Z05-H AFM90-R390.11-D050-A22-Z06-H AFM90-R390.11-D063-A22-Z07-H AFM90-R390.11-D080-A27-Z09-H
		<b>R390-1704..</b> (For SNDVK)	AFM90-R390.17-D040-A16-Z04-H AFM90-R390.17-D050-A22-Z05-H AFM90-R390.17-D063-A22-Z06-H AFM90-R390.17-D080-A27-Z07-H AFM90-R390.17-D100-A32-Z08-H AFM90-R390.17-D125-B40-Z09
		<b>R390-1806..</b> (For SNDVK)	AFM90-R390.18-D050-A22-Z04-H AFM90-R390.18-D063-A22-Z05-H AFM90-R390.18-D080-A27-Z06-H AFM90-R390.18-D100-A32-Z07-H AFM90-R390.18-D125-B40-Z08


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FACE MILLING TOOLS


90°	AFM90-R290.12	Uç / Insert	Takım Kodu / Tool Code
		<b>R290-12T3..</b> (For SNDVK)	AFM90-R290.12-D050-A22-Z04-H AFM90-R290.12-D063-A22-Z05-H AFM90-R290.12-D080-A27-Z07-H AFM90-R290.12-D100-A32-Z09-H AFM90-R290.12-D125-B40-Z11


90°	AFM90-SD..	Uç / Insert	Takım Kodu / Tool Code
		<b>SD.. 09M4..</b> (For KRLY)	AFM90-SD09M4-D040-A16-Z04-H AFM90-SD09M4-D050-A22-Z05-H AFM90-SD09M4-D063-A22-Z06-H AFM90-SD09M4-D063-A27-Z06-H AFM90-SD09M4-D080-A27-Z07-H
		<b>SD.. 1305..</b> (For KRLY)	AFM90-SD1305-D050-A22-Z04-H AFM90-SD1305-D063-A22-Z05-H AFM90-SD1305-D080-A27-Z06-H AFM90-SD1305-D100-A32-Z07-H AFM90-SD1305-D125-B40-Z08 AFM90-SD1305-D160-C40-Z10

90°	AFM90S-SD1204	Uç / Insert	Takım Kodu / Tool Code
		<b>SDMT 1204..</b> (For DJT)	AFM90S-SD1204-D050-A22-Z04-H AFM90S-SD1204-D063-A22-Z05-H AFM90S-SD1204-D080-A27-Z06-H AFM90S-SD1204-D100-A32-Z08-H AFM90S-SD1204-D125-B40-Z10 AFM90S-SD1204-D160-C40-Z12

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FACE MILLING TOOLS

45°	AFM45C-SN1206	Uç / Insert	Takım Kodu / Tool Code
		<b>SN.. 1206..</b> (For KRLYPL- BT-BHLR)	AFM45C-SN1206-D050-A22-Z04-H AFM45C-SN1206-D050-A22-Z05-H AFM45CL-SN1206-D050-A22-Z05-H AFM45C-SN1206-D063-A22-Z06-H AFM45C-SN1206-D063-A22-Z07-H AFM45CL-SN1206-D063-A22-Z07-H AFM45C-SN1206-D080-A27-Z07-H AFM45C-SN1206-D080-A27-Z08-H AFM45CL-SN1206-D080-A27-Z08-H AFM45C-SN1206-D100-A32-Z08-H AFM45C-SN1206-D100-A32-Z10-H AFM45CL-SN1206-D100-A32-Z10-H AFM45C-SN1206-D125-B40-Z11 AFM45CL-SN1206-D125-B40-Z11 AFM45C-SN1206-D160-C40-Z12 AFM45C-SN1206-D200-C60-Z14 AFM45CL-SN1206-D200-C60-Z14


45°	AFM45-SE..	Uç / Insert	Takım Kodu / Tool Code
		<b>SE.. 12T3..- R245-12T3..</b> (For ZCC-SND- VK)	AFM45-SE12-D050-A22-Z04-H AFM45L-SE12-D050-A22-Z04-H AFM45-SE12-D063-A22-Z05-H AFM45L-SE12-D063-A22-Z05-H AFM45-SE12-D080-A27-Z06-H AFM45L-SE12-D080-A27-Z06-H AFM45-SE12-D100-A32-Z07-H AFM45L-SE12-D100-A32-Z07-H AFM45-SE12-D125-B40-Z08 AFM45L-SE12-D125-B40-Z08 AFM45-SE12-D160-C40-Z10 AFM45L-SE12-D160-C40-Z10 AFM45-SE12-D200-C60-Z12


45°	AFM45-SE..	Uç / Insert	Takım Kodu / Tool Code
		<b>SE.. 14M4..</b> (For KRLY)	AFM45-SE14M4-D063-A22-Z04-H AFM45-SE14M4-D080-A27-Z05-H AFM45-SE14M4-D100-A32-Z05-H AFM45-SE14M4-D125-B40-Z06 AFM45-SE14M4-D160-C40-Z07

## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI



### 01. YÜZEY FREZELEME TAKIMLARI FACE MILLING TOOLS

45°	AFM45-SE13	Uç / Insert	Takım Kodu / Tool Code
		<b>SEMT 13T3..</b> (For SMTM-DJT)	AFM45-SE13-D050-A22-Z04-H AFM45-SE13-D063-A22-Z05-H AFM45-SE13-D080-A27-Z06-H AFM45S-SE13-D050-A22-Z05-H AFM45S-SE13-D063-A22-Z06-H AFM45S-SE13-D080-A27-Z08-H AFM45S-SE13-D100-A32-Z10-H AFM45S-SE13-D125-B40-Z12

45°	AFM45C-SN..	Uç / Insert	Takım Kodu / Tool Code
		<b>SN.. 12....</b> (For WTRLMN-ACHTK)	AFM45C-SN12..-D050-A22-Z04-H AFM45C-SN12..-D050-A22-Z05-H AFM45C-SN12..-D063-A22-Z06-H AFM45C-SN12..-D063-A22-Z07-H AFM45CL-SN12..-D063-A22-Z07-H AFM45C-SN12..-D080-A27-Z07-H AFM45C-SN12..-D080-A27-Z08-H AFM45CL-SN12..-D080-A27-Z08-H AFM45C-SN12..-D100-A32-Z08-H AFM45C-SN12..-D100-A32-Z10-H AFM45CL-SN12..-D100-A32-Z10-H AFM45C-SN12..-D125-B40-Z11 AFM45CL-SN12..-D125-B40-Z11 AFM45C-SN12..-D160-C40-Z12 AFM45C-SN12..-D200-C60-Z14 AFM45CL-SN12..-D200-C60-Z14


88°	AFM88-SN1305	Uç / Insert	Takım Kodu / Tool Code
		<b>SNMU 1305..</b> (For KYCR)	AFM88-SN1305-D050-A22-Z04 AFM88-SN1305-D050-A22-Z05 AFM88-SN1305-D063-A22-Z05 AFM88-SN1305-D063-A22-Z07 AFM88-SN1305-D080-A27-Z06 AFM88-SN1305-D080-A27-Z09 AFM88-SN1305-D100-A32-Z07 AFM88-SN1305-D100-A32-Z11 AFM88-SN1305-D125-B40-Z13




## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI

### 01. YÜZEY FREZELEME TAKIMLARI FACE MILLING TOOLS

88°	AFM88C-SN1206	Uç / Insert	Takım Kodu / Tool Code
		<b>SN.. 1206..</b> (For ISO)	AFM88C-SN1206-D040-A16-Z04-H AFM88C-SN1206-D050-A22-Z05-H AFM88C-SN1206-D063-A22-Z06-H AFM88C-SN1206-D080-A27-Z07-H AFM88C-SN1206-D100-A32-Z09-H AFM88C-SN1206-D125-B40-Z10
		<b>SN.. 12..</b> (For ISO)	AFM88C-SN12..-D050-A22-Z05-H AFM88C-SN12..-D063-A22-Z06-H AFM88C-SN12..-D080-A27-Z07-H AFM88C-SN12..-D100-A32-Z09-H


45°	AFM45C-SN12Z	Uç / Insert	Takım Kodu / Tool Code
		<b>SNEG 1205..</b> (For ZCC)	AFM45C-SN12Z-D050-A22-Z05-H AFM45C-SN12Z-D063-A22-Z06-H AFM45C-SN12Z-D080-A27-Z07-H AFM45C-SN12Z-D100-A32-Z09-H AFM45C-SN12Z-D125-B40-Z11 AFM45C-SN12Z-D160-C40-Z12 AFM45C-SN12Z-D200-C60-Z14

88°	AFM88C-SN12Z	Uç / Insert	Takım Kodu / Tool Code
		<b>SNEG 1205..</b> (For ZCC)	AFM88C-SN12Z-D063-A22-Z06-H AFM88C-SN12Z-D080-A27-Z07-H

90°	AFM90-SP09T3	Uç / Insert	Takım Kodu / Tool Code
		<b>SPMT 09T3..</b> (For SNDVK)	AFM90-SP09T3-D040-A16-Z05-H AFM90-SP09T3-D050-A22-Z06-H AFM90-SP09T3-D063-A22-Z07-H AFM90-SP09T3-D080-A27-Z08-H




01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS


90°	AFM90-SP1004	Uç / Insert	Takım Kodu / Tool Code
		<b>SPMT 1004.. XPMT 1004.. QPMR 1004.. QPMT 1004.. (For ISCR)</b>	AFM90-SP1004-D040-A16-Z04-H AFM90-SP1004-D050-A22-Z04-H AFM90-SP1004-D050-A22-Z06-H AFM90-SP1004-D063-A22-Z05-H AFM90-SP1004-D080-A27-Z07-H AFM90-SP1004-D100-A32-Z08-H


75°	AFM75C-SP12	Uç / Insert	Takım Kodu / Tool Code
		<b>SPKN 1203.. (For ISO)</b>	AFM75C-SP12-D050-A22-Z04 AFM75C-SP12-D063-A22-Z05 AFM75C-SP12-D080-A27-Z06 AFM75C-SP12-D100-A32-Z07 AFM75C-SP12-D125-B40-Z08 AFM75C-SP12-D160-C40-Z09 AFM75C-SP12-D200-C60-Z12

88°	AFM88-SN1306	Uç / Insert	Takım Kodu / Tool Code
		<b>SNGX 1306.. (For TGTC)</b>	AFM88-SN1306-D050-A22-Z05-H AFM88-SN1306-D063-A22-Z06-H AFM88-SN1306-D080-A27-Z07-H

89°	AFM89-SN1305I	Uç / Insert	Takım Kodu / Tool Code
		<b>SNMU 1305.. SNMU 1305.. OXMT 0705.. (For ISCR)</b>	AFM89-SN1305I-D040-A16-Z04-H AFM89-SN1305I-D050-A22-Z05-H AFM89-SN1305I-D063-A22-Z06-H AFM89-SN1305I-D063-A22-Z07-H AFM89-SN1305I-D080-A27-Z08-H AFM89-SN1305I-D100-A32-Z10-H

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS

90°	AFM90C-TP..	Uç / Insert	Takım Kodu / Tool Code
		<b>TP.. 1603 (For ISO)</b>	AFM90C-TP16-D050-A22-Z04 AFM90C-TP16-D063-A22-Z06 AFM90C-TP16-D080-A27-Z07 AFM90C-TP16-D100-A32-Z08 AFM90C-TP16-D125-B40-Z08
		<b>TP.. 2204 (For ISO)</b>	AFM90C-TP22-D063-A22-Z05 AFM90C-TP22-D080-A27-Z06 AFM90C-TP22-D100-A32-Z07 AFM90C-TP22-D125-B40-Z08 AFM90C-TP22-D160-C40-Z09 AFM90C-TP22-D200-C60-Z12 AFM90C-TP22-D250-C60-Z15 AFM90C-TP22-D315-D60-Z18

90°	AFM90-TN2207	Uç / Insert	Takım Kodu / Tool Code
		<b>TN.X 2207.. (For TGTC)</b>	AFM90-TN2207-D063-A22-Z04-H AFM90-TN2207-D080-A27-Z05-H AFM90-TN2207-D100-B32-Z06 AFM90-TN2207-D125-B40-Z08

90°	AFM90-WNG	Uç / Insert	Takım Kodu / Tool Code
		<b>WNGU 0403.. (For XTC-GSC)</b>	AFM90-WNG04-D040-A16-Z06-H AFM90-WNG04-D050-A22-Z05-H AFM90-WNG04-D050-A22-Z07-H AFM90-WNG04-D063-A22-Z06-H
		<b>WNGU 0806.. (For XTC-GSC)</b>	AFM90-WNG08-D050-A22-Z05-H AFM90-WNG08-D063-A22-Z06-H AFM90-WNG08-D080-A27-Z07-H AFM90-WNG08-D100-A32-Z07-H


90°	AFM90-TP2205	Uç / Insert	Takım Kodu / Tool Code
		<b>TPKT 2205.. (For TGTC)</b>	AFM90-TP2205-D063-A22-Z04 AFM90-TP2205-D080-A27-Z06 AFM90-TP2205-D100-A32-Z07 AFM90-TP2205-D125-B40-Z08 AFM90-TP2205-D160-C40-Z09 AFM90-TP2205-D200-C60-Z12

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FACE MILLING TOOLS

90°	AFM90-WN0806	Uç / Insert	Takım Kodu / Tool Code
		<b>WNMX 080608</b> (For KYCR-JD)	AFM90-WN0806-D050-A16-Z04-H AFM90-WN0806-D063-A22-Z05-H AFM90-WN0806-D080-A27-Z07-H

90°	AFM90-WN..	Uç / Insert	Takım Kodu / Tool Code
		<b>WNHU 0604..</b> (For ZCC)	AFM90-WN0604Z-D040-A16-Z04-H AFM90-WN0604Z-D050-A22-Z05-H AFM90-WN0604Z-D063-A22-Z06-H AFM90-WN0604Z-D080-A27-Z07-H AFM90-WN0604Z-D100-A32-Z09-H
		<b>WNHU 0806..</b> (For ZCC)	AFM90-WN0806Z-D050-A22-Z04-H AFM90-WN0806Z-D063-A22-Z05-H AFM90-WN0806Z-D080-A27-Z06-H AFM90-WN0806Z-D100-A32-Z08-H AFM90-WN0806Z-D125-B40-Z10 AFM90-WN0806Z-D160-C40-Z12

90°	AFM90-XN..	Uç / Insert	Takım Kodu / Tool Code
		<b>XNEX 0403..</b>	AFM90-XN0403-D040-A16-Z05-H
		<b>XNEX 0806..</b> (For SC)	AFM90-XN0806-D050-A22-Z04-H AFM90-XN0806-D063-A22-Z05-H AFM90-XN0806-D080-A27-Z07-H AFM90-XN0806-D100-A32-Z08-H

45°	AFM45C-XN0806	Uç / Insert	Takım Kodu / Tool Code
		<b>XNMU 0806..</b> (For DJT)	AFM45C-XN0806-D063-A22-Z05 AFM45C-XN0806-D080-A27-Z06 AFM45C-XN0806-D100-A32-Z08 AFM45C-XN0806-D125-B40-Z08 AFM45C-XN0806-D160-C40-Z10 AFM45C-XN0806-D200-C60-Z12


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FACE MILLING TOOLS

75°	AFM75-XO12	Uç / Insert	Takım Kodu / Tool Code
		<b>XO.. 1204..</b> (For SC)	AFM75-XO12-D050-A22-Z04-H AFM75-XO12-D063-A22-Z05-H AFM75-XO12-D080-A27-Z06-H

90°	AFM90-XO12	Uç / Insert	Takım Kodu / Tool Code
		<b>XO.. 1204..</b> (For SC)	AFM90-XO12-D040-A16-Z05-H AFM90-XO12-D050-A22-Z07-H AFM90-XO12-D063-A22-Z08-H AFM90-XO12-D080-A27-Z10-H AFM90-XO12-D100-A32-Z12-H


42°	AFM42C-XD0806	Uç / Insert	Takım Kodu / Tool Code
		<b>XDMW 0806..</b> (For DJT)	AFM42C-XD0806-D063-A27-Z04-H AFM42C-XD0806-D080-A27-Z05-H AFM42C-XD0806-D100-A32-Z06-H AFM42C-XD0806-D125-B40-Z07 AFM42C-XD0806-D160-C40-Z08 AFM42C-XD0806-D200-C60-Z09

45°	AFM45-XN0906	Uç / Insert	Takım Kodu / Tool Code
		<b>XNMU 0906..</b> (For TGTC)	AFM45-XN0906-D063-A22-Z06-H AFM45-XN0906-D080-A27-Z06-H AFM45-XN0906-D100-A32-Z07-H AFM45-XN0906-D125-B40-Z08

-°	AFMR-QP..	Uç / Insert	Takım Kodu / Tool Code
		<b>QP.. 10T3..</b> (For SMTM)	AFMR-QP10T3-D040-A16-Z04-H AFMR-QP10T3-D050-A22-Z05-H AFMR-QP10T3-D063-A22-Z06-H
		<b>QP.. 1204..</b> (For SMTM)	AFMR-QP1204-D050-A22-Z04-H AFMR-QP1204-D063-A22-Z05-H

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS


-°	AFMR-RC10T3	Uç / Insert	Takım Kodu / Tool Code
		RC.. 10T3.. (For ZCC)	AFMR-RC10T3-D040-A16-Z04-H AFMR-RC10T3-D050-A22-Z05-H AFMR-RC10T3-D063-A22-Z06-H


-°	AFMR-RC1204	Uç / Insert	Takım Kodu / Tool Code
		RC.. 1204.. (For SNDVK)	AFMR-RC1204-D040-A16-Z04-H AFMR-RC1204-D050-A22-Z05-H AFMR-RC1204-D052-A22-Z05-H AFMR-RC1204-D063-A22-Z06-H AFMR-RC1204-D063-A27-Z06-H AFMR-RC1204-D080-A27-Z07-H

-°	AFMRC-RD..	Uç / Insert	Takım Kodu / Tool Code
		RD..0702.. (For ISO)	AFMR-RD0702-D050-A22-Z06-H
		RD..0803.. (For ISO)	AFMR-RD0803-D050-A22-Z05-H
		RD..1003.. (For ISO)	AFMRC-RD1003-D040-A16-Z04-H AFMRC-RD1003-D050-A22-Z05-H AFMRC-RD1003-D052-A22-Z05 AFMRC-RD1003-D063-A22-Z06-H AFMRC-RD1003-D066-A22-Z07-H AFMRC-RD1003-D080-A27-Z07-H AFMRC-RD1003-D100-A32-Z08-H
		RD..1004.	AFMRC-RD1004-D063-A22-Z06-H
		RD..10T3.. (For ISO)	AFMRC-RD10T3-D040-A16-Z05-H AFMRC-RD10T3-D042-A16-Z05-H AFMRC-RD10T3-D050-A22-Z05-H AFMRC-RD10T3-D052-A22-Z05-H AFMRC-RD10T3-D052-A22-Z06-H AFMRC-RD10T3-D063-A22-Z06-H

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FACE MILLING TOOLS


-°	AFMRC-RD..	Uç / Insert	Takım Kodu / Tool Code
		RD..12T3.. (For ISO)	AFMRC-RD12T3-D040-A16-Z04-H AFMRC-RD12T3-D050-A22-Z05-H AFMRC-RD12T3-D052-A22-Z05-H AFMRC-RD12T3-D063-A22-Z06-H AFMRC-RD12T3-D066-A27-Z06-H AFMRC-RD12T3-D080-A27-Z07-H AFMRC-RD12T3-D100-A32-Z08-H AFMRC-RD12T3-D125-B40-Z09
		RD..1204.. (For ISO)	AFMRC-RD1204-D040-A16-Z04-H AFMRC-RD1204-D050-A22-Z05-H AFMRC-RD1204-D052-A22-Z05-H AFMRC-RD1204-D063-A22-Z06-H AFMRC-RD1204-D080-A27-Z07-H AFMRC-RD1204-D100-A32-Z07-H AFMRC-RD1204-D100-A32-Z08-H
		RD..1604.. (For ISO)	AFMRC-RD1604-D050-A22-Z04-H AFMRC-RD1604-D052-A22-Z04-H AFMRC-RD1604-D063-A22-Z05-H AFMRC-RD1604-D066-A22-Z05-H AFMRC-RD1604-D066-A27-Z05-H AFMRC-RD1604-D080-A27-Z06-H AFMRC-RD1604-D100-A32-Z07-H AFMRC-RD1604-D125-B40-Z07 AFMRC-RD1604-D160-C40-Z08

-°	AFMR-RP1204M	Uç / Insert	Takım Kodu / Tool Code
		RPMT 1204.. (For MTSBSH)	AFMR-RP1204M-D042-A16-Z04-H AFMR-RP1204M-D050-A22-Z04-H AFMR-RP1204M-D052-A22-Z05-H AFMR-RP1204M-D063-A22-Z05-H AFMR-RP1204M-D080-A27-Z06-H

-°	AFMR-RP..	Uç / Insert	Takım Kodu / Tool Code
		RPNX 10T3.. (For CRTZT)	AFMR-RP10T3-D063-A22-Z06-H AFMR-RP10T3-D080-A27-Z07-H
		RPNX 1204.. (For CRTZT)	AFMR-RP1204-D040-A16-Z04-H AFMR-RP1204-D080-A27-Z07-H

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS

-°	AFMR-RY..	Uç / Insert	Takım Kodu / Tool Code
		<b>RYMX 1004..</b> (For TGTC)	AFMR-RY10-D040-A16-Z04-H AFMR-RY10-D040-A16-Z05-H AFMR-RY10-D050-A22-Z05-H AFMR-RY10-D063-A22-Z06-H
		<b>RYMX 1205..</b> (For TGTC)	AFMR-RY12-D040-A16-Z04-H AFMR-RY12-D050-A22-Z05-H AFMR-RY12-D052-A22-Z05-H AFMR-RY12-D063-A22-Z06-H AFMR-RY12-D080-A27-Z06-H AFMR-RY12-D100-A32-Z07-H


-°	AHFM-BL..	Uç / Insert	Takım Kodu / Tool Code
		<b>BLMP 0603..</b> (For TGTC)	AHFM-BL0603-D040-A16-Z06-H AHFM-BL0603-D050-A22-Z07-H
		<b>BLMP 0904..</b> (For TGTC)	AHFM-BL0904-D040-A16-Z05-H AHFM-BL0904-D050-A22-Z06-H AHFM-BL0904-D063-A22-Z05-H AHFM-BL0904-D063-A22-Z07-H

-°	AHFM-BL1205	Uç / Insert	Takım Kodu / Tool Code
		<b>BLMP 1205..</b> (For TGTC)	AHFM-BL1205-D050-A22-Z03-H AHFM-BL1205-D063-A22-Z04-H AHFM-BL1205-D080-A27-Z05-H

-°	AHFM-EN1004	Uç / Insert	Takım Kodu / Tool Code
		<b>ENMU 1004..</b> (For DJT)	AHFM-EN1004-D050-A22-Z05-H AHFM-EN1004-D050-A22-Z06-H AHFM-EN1004-D052-A22-Z06-H AHFM-EN1004-D063-A22-Z06-H

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS


-°	AHFM-EP1003	Uç / Insert	Takım Kodu / Tool Code
		<b>EP.. 1003..</b> <b>ZPMT 1003..</b> <b>YPHW 1003..</b> (For DJT)	AHFM-EP1003-D050-A22-Z08-H AHFM-EP1003-D063-A22-Z08-H

-°	AHFMC-JD..	Uç / Insert	Takım Kodu / Tool Code
		<b>JDMW 1204..</b> (For MTSBSH)	AHFMC-JD1204-D052-A22-Z03-H AHFMC-JD1204-D052-A22-Z04-H AHFMC-JD1204-D063-A22-Z05-H AHFMC-JD1204-D080-A27-Z06-H AHFMC-JD1204-D100-A32-Z07-H
		<b>JDMW 1405..</b> (For MTSBSH)	AHFMC-JD1405-D052-A22-Z03-H AHFMC-JD1405-D063-A22-Z04-H


-°	AHFM-JD1003	Uç / Insert	Takım Kodu / Tool Code
		<b>JDMT 1003..</b> (For HTCH)	AHFM-JD1003-D040-A16-Z06-H AHFM-JD1003-D063-A22-Z08-H

-°	AHFM-LO03	Uç / Insert	Takım Kodu / Tool Code
		<b>LOGU 0303..</b> (For KYCR)	AHFM-LO03-D040-A16-Z06-H AHFM-LO03-D050-A22-Z07-H AHFM-LO03-D063-A22-Z09-H

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS

-°	AHFMC-SD1204	Uç / Insert	Takım Kodu / Tool Code
		<b>SD.. 1204..</b> (For ZCC)	AHFMC-SD1204-D050-A22-Z04-H AHFMC-SD1204-D063-A22-Z05-H AHFMC-SD1204-D080-A27-Z06-H AHFMC-SD1204-D100-A32-Z08-H

-°	AHFMC-SD1205	Uç / Insert	Takım Kodu / Tool Code
		<b>SD.. 1205..</b> (For HTCH)	AHFMC-SD1205-D052-A22-Z04-H AHFMC-SD1205-D052-A22-Z05-H AHFMC-SD1205-D63-A22-Z05-H AHFMC-SD1205-D066-A22-Z05-H AHFMC-SD1205-D066-A22-Z06-H AHFMC-SD1205-D080-A27-Z06-H

-°	AHFMC-SP1004	Uç / Insert	Takım Kodu / Tool Code
		<b>SPNW 1004..</b> (For DJT)	AHFMC-SP1004-D050-A22-Z05-H AHFMC-SP1004-D052-A22-Z05-H AHFMC-SP1004-D063-A22-Z06-H

-°	AHFMC-WD..	Uç / Insert	Takım Kodu / Tool Code
		<b>WD.W 06T3..</b> (For DJT)	AHFMC-WD06T3D-D042-A16-Z04-H AHFMC-WD06T3D-D050-A22-Z05-H AHFMC-WD06T3D-D052-A22-Z05-H
		<b>WD.W 0805..</b> (For DJT)	AHFMC-WD0805D-D052-A22-Z04-H AHFMC-WD0805D-D063-A22-Z05-H AHFMC-WD0805D-D063-A27-Z05-H AHFMC-WD0805D-D066-A27-Z05-H AHFMC-WD0805D-D080-A27-Z05 AHFMC-WD0805D-D100-A32-Z06
		<b>WD.W 10X6..</b> (For DJT)	AHFMC-WD10X6D-D125-B40-Z06 AHFMC-WD10X6D-D160-C40-Z07

01. YÜZEY FREZELEME TAKIMLARI  
FACE MILLING TOOLS

-°	AHFMC-SO1004	Uç / Insert	Takım Kodu / Tool Code
		<b>SOMT 1004..</b> (For KYCR)	AHFMC-SO1004-D050-A22-Z05-H AHFMC-SO1004-D063-A22-Z06-H AHFMC-SO1004-D080-A27-Z07-H

-°	AHFMC-WD..	Uç / Insert	Takım Kodu / Tool Code
		<b>WDMT 0804..</b> (For SMTM)	AHFMC-WD0804-D040-A16-Z04-H AHFMC-WD0804-D050-A22-Z04-H
		<b>WDMT 1205..</b> (For SMTM)	AHFMC-WD1205-D050-A22-Z04-H AHFMC-WD1205-D052-A22-Z04-H AHFMC-WD1205-D063-A22-Z05-H AHFMC-WD1205-D080-A27-Z06-H


-°	AHFMC-WN09T3	Uç / Insert	Takım Kodu / Tool Code
		<b>WNMX 09T3..</b> (For KRLY)	AHFMC-WN09T3-D040-A16-Z04-H AHFMC-WN09T3-D040-A16-Z04-H AHFMC-WN09T3-D050-A22-Z05-H AHFMC-WN09T3-D050-A22-Z05-H AHFMC-WN09T3-D063-A22-Z06

-°	AHFMC-WN0907	Uç / Insert	Takım Kodu / Tool Code
		<b>WNMU 0907..</b> (For DJT)	AHFMC-WN0907-D050-A22-Z04-H AHFMC-WN0907-D052-A22-Z04-H AHFMC-WN0907-D063-A22-Z05-H AHFMC-WN0907-D066-A27-Z05-H AHFMC-WN0907-D080-A27-Z06-H AHFMC-WN0907-D100-A32-Z07-H


02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-AP..	Uç / Insert	Takım Kodu / Tool Code
		<b>APMT 0602..</b> (For KRLY)	AEM90-AP06-D10-C10-L120-Z02 AEM90-AP06-D12-C12-L120-Z02
		<b>APMT 0903..</b> (For KRLY)	AEM90-AP0903-D16-C16-L150-Z02 AEM90-AP0903-D17-C16-L150-Z02 AEM90-AP0903-D20-C20-L150-Z02 AEM90-AP0903-D21-C20-L150-Z02 AEM90-AP0903-D25-C25-L150-Z03
		<b>APKT 09T3..</b> (For TGTC)	AEM90-AP09-D16-C16-L100-Z02-H AEM90-AP09-D16-C15-L150-Z02 AEM90-AP09-D16-W16-L150-Z02-H AEM90-AP09-D16-C16-L200-Z02-H AEM90-AP09-D17-C16-L150-Z02 AEM90-AP09-D17-C16-L180-Z02-H AEM90-AP09-D20-C20-L150-Z03-H AEM90-AP09-D20-C20-L200-Z03-H AEM90-AP09-D20-C20-L250-Z02-H AEM90-AP09-D21-C20-L150-Z03 AEM90-AP09-D21-C20-L180-Z02-H AEM90-AP09-D26-C25-L150-Z04
		<b>APKT 09T3..</b> (For TGTC)	AEM90-AP09-D16-C16-L100-Z02-H AEM90-AP09-D16-C15-L150-Z02 AEM90-AP09-D16-W16-L150-Z02-H AEM90-AP09-D16-C16-L200-Z02-H AEM90-AP09-D17-C16-L150-Z02 AEM90-AP09-D17-C16-L180-Z02-H AEM90-AP09-D20-C20-L150-Z03-H AEM90-AP09-D20-C20-L200-Z03-H AEM90-AP09-D20-C20-L250-Z02-H AEM90-AP09-D21-C20-L150-Z03 AEM90-AP09-D21-C20-L180-Z02-H AEM90-AP09-D26-C25-L150-Z04
		<b>AP. 1003..</b> (For ISO)	AEM90-AP10-D12-W16-L100-Z01-H AEM90-AP10-D12-W16-L150-Z01 AEM90-AP10-D14-W16-L100-Z01-H AEM90-AP10-D14-W16-L150-Z01 AEM90-AP10-D16-C16-L100-Z02-H AEM90-AP10-D16-W16-L85-Z02-H AEM90-AP10-D16-W16-L100-Z02-H AEM90-AP10-D16-W16-L150-Z02-H AEM90-AP10-D16-C16-L120-Z02-H AEM90-AP10-D16-C16-L150-Z02


02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-AP..	Uç / Insert	Takım Kodu / Tool Code
		<b>AP. 1003..</b> (For ISO)	AEM90-AP10-D16-C16-L150-Z02-H AEM90-AP10-D16-W16-L150-Z02 AEM90-AP10-D16-C16-L200-Z02 AEM90-AP10-D16-C16-L200-Z02-H AEM90-AP10-D16-C16-L250-Z02 AEM90-AP10-D17-C16-L150-Z02 AEM90-AP10-D18-W16-L100-Z02-H AEM90-AP10-D18-W16-L150-Z02 AEM90-AP10-D20-C19-L180-Z02 AEM90-AP10-D20-C20-L100-Z03-H AEM90-AP10-D20-W20-L90-Z03-H AEM90-AP10-D20-W20-L100-Z03-H AEM90-AP10-D20-C20-L120-Z03-H AEM90-AP10-D20-C20-L150-Z03 AEM90-AP10-D20-C20-L150-Z03-H AEM90-AP10-D20-W20-L150-Z03 AEM90-AP10-D20-C20-L200-Z02 AEM90-AP10-D20-C20-L200-Z03-H AEM90-AP10-D20-C20-L250-Z02 AEM90-AP10-D20-C20-L250-Z02-H AEM90-AP10-D20.5-C20-L90-Z03 AEM90-AP10-D21-C20-L150-Z03 AEM90-AP10-D21-W20-L150-Z03 AEM90-AP10-D21-C20-L200-Z03-H AEM90-AP10-D22-W20-L100-Z03-H AEM90-AP10-D22-W20-L150-Z03 AEM90-AP10-D22.5-W20-L150-Z03 AEM90-AP10-D23-W20-L150-Z03 AEM90-AP10-D24-W20-L150-Z03 AEM90-AP10-D25-W25-L100-Z04-H AEM90-AP10-D25-W25-L95-Z04-H AEM90-AP10-D25-W25-L150-Z04-H AEM90-AP10-D25-C25-L100-Z03-H AEM90-AP10-D25-W25-L100-Z03-H AEM90-AP10-D25-C25-L120-Z03-H AEM90-AP10-D25-C25-L150-Z03 AEM90-AP10-D25-W25-L150-Z03 AEM90-AP10-D25-C25-L200-Z02 AEM90-AP10-D25-C25-L200-Z03 AEM90-AP10-D25-C25-L250-Z02 AEM90-AP10-D26-C25-L200-Z04 AEM90-AP10-D30-C25-L100-Z04-H AEM90-AP10-D30-C25-L120-Z04-H AEM90-AP10-D30-C25-L150-Z04 AEM90-AP10-D32-C25-L100-Z04-H


02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-AP..	Uç / Insert	Takım Kodu / Tool Code
	AP.. 1003.. (For ISO)		AEM90-AP10-D32-C25-L120-Z04-H AEM90-AP10-D32-C25-L150-Z04 AEM90-AP10-D32-W25-L150-Z04 AEM90-AP10-D32-C32-L170-Z04 AEM90-AP10-D32-W25-L105-Z05-H AEM90-AP10-D32-C32-L130-Z05 AEM90-AP10-D32-W32-L150-Z04 AEM90-AP10-D40-W32-L150-Z05
	AP.. 1003.. (For DJT)		AEM90-AP10D-D16-W16-L150-Z02 AEM90-AP10D-D20-W20-L150-Z03 AEM90-AP10D-D25-W20-L150-Z03
	AP.. 1003.. (For B.OKE)		AEM90-AP100-D16-C15-L150-Z02 AEM90-AP100-D21-C20-L150-Z03 AEM90-AP100-D26-C25-L150-Z04 AEM90-AP100-D33-C32-L200-Z05
	AP.. 1003.. (For SMTM)		AEM90-AP10S-D16-W16-L150-Z02 AEM90-AP10S-D20-W20-L150-Z02 AEM90-AP10S-D25-W25-L150-Z03
	AP.. 11T3.. (For ZCC)		AEM90-AP11-D16-C16-L150-Z02 AEM90-AP11-D16-C16-L150-Z02-H AEM90-AP11-D16-W16-L150-Z02 AEM90-AP11-D16-W16-L150-Z02-H AEM90-AP11-D16-C16-L200-Z02 AEM90-AP11-D17-C16-L150-Z02 AEM90-AP11-D17-C16-L200-Z02 AEM90-AP11-D20-C20-L150-Z03 AEM90-AP11-D20-W20-L150-Z03 AEM90-AP11-D20-W20-L150-Z03-H AEM90-AP11-D20-C20-L200-Z03 AEM90-AP11-D21-C20-L150-Z03 AEM90-AP11-D21-W20-L150-Z03 AEM90-AP11-D21-W20-L150-Z03-H AEM90-AP11-D21-C20-L200-Z03 AEM90-AP11-D22-C20-L180-Z03-H AEM90-AP11-D25-C25-L150-Z03 AEM90-AP11-D25-W25-L150-Z03 AEM90-AP11-D25-W25-L150-Z03-H AEM90-AP11-D26-C25-L150-Z03 AEM90-AP11-D26-C24-L150-Z03 AEM90-AP11-D28-C25-L180-Z03-H AEM90-AP11-D32-W25-L150-Z04

02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-AP..	Uç / Insert	Takım Kodu / Tool Code
	APMT 1135.. (For ACHTK)		AEM90-AP11-D32-W32-L150-Z03-H AEM90-AP11-D32-W32-L150-Z04 AEM90-AP1135A-D14-C16-L150-Z01 AEM90-AP1135A-D16-C16-L150-Z02 AEM90-AP1135A-D16-C16-L200-Z02 AEM90-AP1135A-D16-C16-L250-Z02 AEM90-AP1135A-D17-C16-L180-Z02 AEM90-AP1135A-D20-C20-L150-Z03 AEM90-AP1135A-D20-C20-L200-Z02 AEM90-AP1135A-D21-C20-L180-Z02 AEM90-AP1135A-D25-C25-L200-Z03 AEM90-AP1135A-D26-C25-L250-Z02 AEM90-AP1135A-D33-C32-L250-Z02
	APMT 1135.. (For YG)		AEM90-AP1135Y-D16-W16-L150-Z02 AEM90-AP1135Y-D20-W20-L150-Z03 AEM90-AP1135Y-D25-W25-L150-Z03
	APMT 1135.. (For B.OKE)		AEM90-AP110-D16-C15-L150-Z02 AEM90-AP110-D21-C20-L150-Z03 AEM90-AP110-D26-C25-L150-Z04 AEM90-AP110-D33-C32-L200-Z05
	APKT 1135.. (For XTC-GSC)		AEM90-APK11G-D16-W16-L150-Z02 AEM90-APK11G-D20-W20-L150-Z03 AEM90-APK11G-D25-W25-L150-Z03
	AP.. 1135.. (For XTC-GSC)		AEM90-AP1135-D16-W16-L110-Z02-H AEM90-AP1135-D16-W16-L150-Z02 AEM90-AP1135-D20-W20-L125-Z03-H AEM90-AP1135-D20-W20-L150-Z03 AEM90-AP1135-D25-W25-L125-Z04-H AEM90-AP1135-D25-W25-L200-Z04-H AEM90-AP1135-D32-W32-L125-Z05-H AEM90-AP1135-D32-W32-L200-Z04-H
AP.. 1204.. (For TGTC)		AEM90-AP1204-D20-C20-L150-Z02 AEM90-AP1204-D21-C20-L150-Z02 AEM90-AP1204-D21-C20-L200-Z02 AEM90-AP1204-D22-C20-L200-Z02 AEM90-AP1204-D25-C25-L150-Z03 AEM90-AP1204-D25-C25-L250-Z03 AEM90-AP1204-D26-C25-L250-Z02 AEM90-AP1204-D32-C25-L150-Z03	

02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-AP..	Uç / Insert	Takım Kodu / Tool Code
	AP. 1604.. (For ISO)		AEM90-API6-D25-C20-L100-Z02 AEM90-API6-D25-W25-L100-Z02-H AEM90-API6-D25-W25-L150-Z02 AEM90-API6-D25-C25-L250-Z02 AEM90-API6-D28-W25-L100-Z03-H AEM90-API6-D28-W25-L150-Z03 AEM90-API6-D30-W25-L110-Z03-H AEM90-API6-D30-W25-L150-Z02 AEM90-API6-D30-W25-L150-Z03 AEM90-API6-D32-W32-L110-Z03-H AEM90-API6-D32-C32-L150-Z03 AEM90-API6-D32-W25-L150-Z03 AEM90-API6-D32-W32-L150-Z03 AEM90-API6-D32-W32-L150-Z03-H AEM90-API6-D32-C25-L200-Z03-H AEM90-API6-D32-C32-L250-Z02 AEM90-API6-D32-C32-L250-Z03 AEM90-API6-D35-W32-L150-Z03 AEM90-API6-D36-W32-L110-Z03-H AEM90-API6-D36-W32-L150-Z03 AEM90-API6-D40-W32-L110-Z04-H AEM90-API6-D40-C32-L150-Z04 AEM90-API6-D40-W32-L150-Z04 AEM90-API6-D40-C32-L250-Z02 AEM90-API6-D40-C32-L250-Z04
		AP. 1604.. (For DJT)	AEM90-API6DJ-D25-W25-L150-Z02 AEM90-API6DJ-D25-C25-L200-Z02 AEM90-API6DJ-D32-W32-L150-Z03 AEM90-API6DJ-D32-C32-L180-Z03 AEM90-API6DJ-D32-C32-L200-Z03
		AP. 1604.. (For LMN)	AEM90-API6L-D25-C25-L120-Z02-H AEM90-API6L-D25-C25-L150-Z02 AEM90-API6L-D25-C25-L200-Z02 AEM90-API6L-D25-C25-L250-Z02 AEM90-API6L-D32-C32-L120-Z03-H AEM90-API6L-D32-C32-L150-Z03 AEM90-API6L-D32-C32-L200-Z03 AEM90-API6L-D32-C32-L250-Z03 AEM90-API6L-D40-C32-L120-Z04-H AEM90-API6L-D40-C32-L150-Z04 AEM90-API6L-D40-C32-L200-Z04 AEM90-API6L-D40-C32-L250-Z04

02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-AP..	Uç / Insert	Takım Kodu / Tool Code
	AP. 1604.. (For PLBT)		AEM90-API6P-D25-W25-L100-Z02-H AEM90-API6P-D25-W25-L150-Z02 AEM90-API6P-D32-W32-L150-Z03 AEM90-API6P-D32-C32-L250-Z02 AEM90-API6P-D40-W32-L150-Z04
		AP. 1705.. (For TGTC)	AEM90-API705-D25-C25-L120-Z02 AEM90-API705-D26-C25-L200-Z02 AEM90-API705-D26-C25-L250-Z02 AEM90-API705-D26-C25-L300-Z02 AEM90-API705-D28-W25-L075-Z02 AEM90-API705-D32-C25-L150-Z03 AEM90-API705-D33-C32-L250-Z03 AEM90-API705-D33-C32-L300-Z02


90°	AEM90-AX..	Uç / Insert	Takım Kodu / Tool Code
	AX.T 0602.. (For TGTC)		AEM90-AX0602-D10-C09-L120-Z02 AEM90-AX0602-D10-C10-L080-Z02 AEM90-AX0602-D10-C10-L120-Z02 AEM90-AX0602-D12-C11-L120-Z02 AEM90-AX0602-D12-C12-L080-Z02 AEM90-AX0602-D12-C12-L120-Z02 AEM90-AX0602-D14-C12-L120-Z03 AEM90-AX0602-D16-W16-L120-Z04-H AEM90-AX0602-D16-W16-L150-Z04-H AEM90-AX0602-D20-W20-L120-Z05-H AEM90-AX0602-D20-W20-L150-Z05-H
		AX.T 0903.. (For TGTC)	AEM90-AX0903-D16-C16-L120-Z02 AEM90-AX0903-D16-C16-L180-Z02 AEM90-AX0903-D17-C16-L120-Z02 AEM90-AX0903-D17-C16-L180-Z02 AEM90-AX0903-D20-C20-L120-Z03 AEM90-AX0903-D20-C20-L200-Z02 AEM90-AX0903-D21-C20-L120-Z03 AEM90-AX0903-D21-C20-L200-Z02 AEM90-AX0903-D25-C25-L150-Z03 AEM90-AX0903-D25-C25-L250-Z02 AEM90-AX0903-D26-C25-L150-Z03



02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS


90°	AEM90-AX..	Uç / Insert	Takım Kodu / Tool Code
		<b>AX.T 1235.. (For SMTM)</b>	AEM90-AX1235-D16-C14-L120-Z02-H AEM90-AX1235-D16-C15-L145-Z02-H AEM90-AX1235-D16-C16-L100-Z02-H AEM90-AX1235-D16-C16-L140-Z02-H AEM90-AX1235-D16-C16-L145-Z02-H AEM90-AX1235-D16-C16-L150-Z02 AEM90-AX1235-D20-C19-L150-Z02-H AEM90-AX1235-D20-C20-L110-Z03-H AEM90-AX1235-D20-C20-L150-Z02 AEM90-AX1235-D20-C20-L150-Z02-H AEM90-AX1235-D20-C20-L150-Z03 AEM90-AX1235-D25-C20-L120-Z04-H AEM90-AX1235-D25-C20-L150-Z04-H AEM90-AX1235-D25-C24-L170-Z02-H AEM90-AX1235-D25-C25-L120-Z04-H AEM90-AX1235-D25-C25-L150-Z03 AEM90-AX1235-D25-C25-L170-Z02-H AEM90-AX1235-D25-W25-L100-Z04-H AEM90-AX1235-D32-C32-L130-Z05-H AEM90-AX1235-D32-C32-L180-Z02-H
		<b>AX.T 1705.. (For SMTM)</b>	AEM90-AX1705-D25-C25-L150-Z02 AEM90-AX1705-D28-W25-L115-Z02-H AEM90-AX1705-D32-C32-L150-Z03 AEM90-AX1705-D32-C32-L180-Z02-H

90°	AEM90-BD..	Uç / Insert	Takım Kodu / Tool Code
		<b>BDMT 11T3.. (For KYCR)</b>	AEM90-BD11T3-D16-C15-L180-Z02 AEM90-BD11T3-D16-C16-L100-Z02-H AEM90-BD11T3-D16-W16-L100-Z02-H AEM90-BD11T3-D16-W16-L150-Z02 AEM90-BD11T3-D16-C16-L160-Z02-H AEM90-BD11T3-D17-W16-L150-Z02 AEM90-BD11T3-D17-C16-L180-Z02 AEM90-BD11T3-D18-W16-L100-Z02 AEM90-BD11T3-D18-W16-L100-Z02-H AEM90-BD11T3-D18-W16-L100-Z02-H AEM90-BD11T3-D20-W16-L61-Z03 AEM90-BD11T3-D20-C20-L170-Z03-H AEM90-BD11T3-D20-W20-L81-Z03-H AEM90-BD11T3-D20-W20-L100-Z02-H AEM90-BD11T3-D20-W20-L100-Z03-H
		<b>BDMT 1704.. (For KYCR)</b>	AEM90-BD1704-D25-C25-L210-Z03-H AEM90-BD1704-D32-C32-L130-Z03-H AEM90-BD1704-D25-W25-L100-Z02-H AEM90-BD1704-D25-W25-L150-Z02 AEM90-BD1704-D32-W32-L110-Z03-H AEM90-BD1704-D32-W32-L130-Z03-H AEM90-BD1704-D32-W32-L150-Z03 AEM90-BD1704-D40-W32-L110-Z04-H AEM90-BD1704-D40-W32-L150-Z04

90°	AEM90-AZ11..	Uç / Insert	Takım Kodu / Tool Code
		<b>AZGT 1135.. (For ZCC)</b>	AEM90-AZ11-D12-W16-L90-Z01 AEM90-AZ11-D16-C16-L200-Z02 AEM90-AZ11-D16-W15-L170-Z02 AEM90-AZ11-D16-W16-L100-Z02 AEM90-AZ11-D16-W16-L150-Z02 AEM90-AZ11-D17-C16-L150-Z02 AEM90-AZ11-D17-C16-L180-Z02 AEM90-AZ11-D17-W16-L100-Z02 AEM90-AZ11-D18-W16-L120-Z02 AEM90-AZ11-D20-C20-L200-Z03

02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-BD..	Uç / Insert	Takım Kodu / Tool Code
		<b>BDMT 11T3.. (For KYCR)</b>	AEM90-BD11T3-D20-C20-L110-Z03-H AEM90-BD11T3-D25-C20-L120-Z03-H AEM90-BD11T3-D20-W20-L150-Z02 AEM90-BD11T3-D20-W20-L150-Z03 AEM90-BD11T3-D20-W20-L150-Z03-H AEM90-BD11T3-D21-W20-L150-Z03 AEM90-BD11T3-D21-C20-L200-Z02 AEM90-BD11T3-D22-W20-L090-Z02-H AEM90-BD11T3-D22-W20-L100-Z03-H AEM90-BD11T3-D25-W25-L100-Z03-H AEM90-BD11T3-D25-C25-L120-Z03-H AEM90-BD11T3-D25-W25-L150-Z03 AEM90-BD11T3-D26-W25-L150-Z03 AEM90-BD11T3-D26-C25-L250-Z02 AEM90-BD11T3-D32-W32-L110-Z04-H AEM90-BD11T3-D32-C32-L130-Z04-H AEM90-BD11T3-D32-W32-L150-Z04 AEM90-BD11T3-D40-W32-L110-Z04-H
		<b>BDMT 1704.. (For KYCR)</b>	AEM90-BD1704-D25-C25-L210-Z03-H AEM90-BD1704-D32-C32-L130-Z03-H AEM90-BD1704-D25-W25-L100-Z02-H AEM90-BD1704-D25-W25-L150-Z02 AEM90-BD1704-D32-W32-L110-Z03-H AEM90-BD1704-D32-W32-L130-Z03-H AEM90-BD1704-D32-W32-L150-Z03 AEM90-BD1704-D40-W32-L110-Z04-H AEM90-BD1704-D40-W32-L150-Z04

90°	AEM90-AZ11..	Uç / Insert	Takım Kodu / Tool Code
		<b>AZGT 1135.. (For ZCC)</b>	AEM90-AZ11-D12-W16-L90-Z01 AEM90-AZ11-D16-C16-L200-Z02 AEM90-AZ11-D16-W15-L170-Z02 AEM90-AZ11-D16-W16-L100-Z02 AEM90-AZ11-D16-W16-L150-Z02 AEM90-AZ11-D17-C16-L150-Z02 AEM90-AZ11-D17-C16-L180-Z02 AEM90-AZ11-D17-W16-L100-Z02 AEM90-AZ11-D18-W16-L120-Z02 AEM90-AZ11-D20-C20-L200-Z03


02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-AZ11..	Uç / Insert	Takım Kodu / Tool Code
		<b>AZGT 1135.. (For ZCC)</b>	AEM90-AZ11-D20-W19-L170-Z03 AEM90-AZ11-D20-W20-L110-Z02 AEM90-AZ11-D21-C20-L150-Z03 AEM90-AZ11-D21-C20-L180-Z03 AEM90-AZ11-D21-W20-L110-Z03 AEM90-AZ11-D22-C20-L150-Z02 AEM90-AZ11-D25-C24-L180-Z04 AEM90-AZ11-D25-W25-L110-Z04 AEM90-AZ11-D26-C25-L250-Z02 AEM90-AZ11-D26-W25-L120-Z03 AEM90-AZ11-D26-W25-L120-Z04 AEM90-AZ11-D28-C25-L180-Z03 AEM90-AZ11-D28-C25-L250-Z02 AEM90-AZ11-D33-W32-L130-Z04

90°	AEM90-ED..	Uç / Insert	Takım Kodu / Tool Code
		<b>EDPT 10T3.. (For KNMTL)</b>	AEM90-ED10T3-D16-W16-L120-Z02 AEM90-ED10T3-D20-W20-L120-Z02
		<b>EDPT 1404.. (For KNMTL)</b>	AEM90-ED1404-D20-W20-L150-Z02 AEM90-ED1404-D25-W25-L150-Z02 AEM90-ED1404-D30-C25-L150-Z03


90°	AEM90-LN15T6	Uç / Insert	Takım Kodu / Tool Code
		<b>LNGU 15T6.. (For KNMTL)</b>	AEM90-LN15T6-D25-W25-L150-Z02-H AEM90-LN15T6-D32-W32-L150-Z03-H AEM90-LN15T6-D40-W32-L150-Z03-H

02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-LN1006	Uç / Insert	Takım Kodu / Tool Code
		<b>LN.X 1006.. (For KRLY)</b>	AEM90-LN1006-D16-W16-L120-Z01-H AEM90-LN1006-D16-W16-L150-Z01 AEM90-LN1006-D18-W16-L120-Z02-H AEM90-LN1006-D20-W20-L120-Z02-H AEM90-LN1006-D20-W20-L150-Z02 AEM90-LN1006-D25-W25-L120-Z03-H AEM90-LN1006-D25-W25-L150-Z03 AEM90-LN1006-D32-W32-L120-Z04-H AEM90-LN1006-D32-W32-L150-Z04

90°	AEM90-R390..	Uç / Insert	Takım Kodu / Tool Code
		<b>R390-11T3.. (For SNDVK)</b>	AEM90-R390.11-D16-W16-L100-Z02-H AEM90-R390.11-D16-W16-L150-Z02 AEM90-R390.11-D16-W16-L150-Z02-H AEM90-R390.11-D20-W20-L090-Z02-H AEM90-R390.11-D20-W20-L100-Z03-H AEM90-R390.11-D20-W20-L150-Z03 AEM90-R390.11-D20-W20-L150-Z03-H AEM90-R390.11-D20-C20-L150-Z03 AEM90-R390.11-D22-W20-L090-Z02-H AEM90-R390.11-D25-C20-L150-Z03 AEM90-R390.11-D25-W25-L100-Z03-H AEM90-R390.11-D25-W25-L150-Z03 AEM90-R390.11-D25-W25-L150-Z03-H AEM90-R390.11-D30-W25-L150-Z04-H AEM90-R390.11-D32-C25-L200-Z03 AEM90-R390.11-D32-W32-L150-Z05-H
		<b>R390-1704.. (For SNDVK)</b>	AEM90-R390.17-D25-W25-L150-Z02 AEM90-R390.17-D25-W25-L150-Z02-H AEM90-R390.17-D30-W25-L150-Z03 AEM90-R390.17-D30-W25-L150-Z03-H AEM90-R390.17-D32-W32-L150-Z03-H
		<b>R390-1806.. (For SNDVK)</b>	AEM90-R390.18-D32-C32-L150-Z03 AEM90-R390.18-D40-C32-L150-Z04-H

02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-RT..	Uç / Insert	Takım Kodu / Tool Code
	<b>RT 0702..</b> (For SFTY)		AEM90-RT07-D10-W10-L120-Z02 AEM90-RT07-D12-C12-L120-Z02 AEM90-RT07-D12-W12-L120-Z02 AEM90-RT07-D14-W12-L120-Z02
	<b>RT 1003..</b> (For SFTY)		AEM90-RT10-D16-C15-L160-Z02 AEM90-RT10-D16-W16-L120-Z02-H AEM90-RT10-D16-W16-L150-Z02 AEM90-RT10-D16-C16-L200-Z02 AEM90-RT10-D17-W16-L160-Z02 AEM90-RT10-D17-C16-L200-Z02 AEM90-RT10-D18-W16-L120-Z02-H AEM90-RT10-D20-C19-L200-Z03 AEM90-RT10-D20-C20-L110-Z03 AEM90-RT10-D20-W20-L120-Z03-H AEM90-RT10-D20-W20-L150-Z03 AEM90-RT10-D20-C20-L200-Z03 AEM90-RT10-D21-W20-L200-Z03 AEM90-RT10-D22-W20-L120-Z03-H AEM90-RT10-D22-C20-L150-Z03 AEM90-RT10-D22-C20-L200-Z03 AEM90-RT10-D25-W25-L120-Z04-H AEM90-RT10-D25-W25-L150-Z04 AEM90-RT10-D25-C25-L200-Z04 AEM90-RT10-D26-C25-L250-Z04 AEM90-RT10-D32-W32-L120-Z05-H AEM90-RT10-D32-W32-L150-Z05 AEM90-RT10-D32-C32-L200-Z05 AEM90-RT10-D33-C32-L250-Z04
	<b>RT 1304..</b> (For SFTY)		AEM90-RT13-D32-C32-L250-Z04
	<b>RT 1604..</b> (For SFTY)		AEM90-RT16-D25-W25-L120-Z02-H AEM90-RT16-D25-W25-L150-Z02 AEM90-RT16-D25-C25-L200-Z02 AEM90-RT16-D32-W32-L120-Z03-H AEM90-RT16-D32-W32-L150-Z03 AEM90-RT16-D32-C32-L200-Z03 AEM90-RT16-D32-C32-L250-Z03 AEM90-RT16-D32-C32-L270-Z03 AEM90-RT16-D40-W32-L120-Z04-H AEM90-RT16-D40-W32-L150-Z04 AEM90-RT16-D40-C32-L200-Z04

02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-SE09	Uç / Insert	Takım Kodu / Tool Code
		<b>SEET 09T3..</b> (For ZCC)	AEM90-SE09-D25-C25-L120-Z03-H AEM90-SE09-D25-C25-L150-Z02 AEM90-SE09-D32-C32-L120-Z04-H AEM90-SE09-D32-C32-L150-Z03
		<b>SOMT 0803..</b> (For SMTM)	AEM90-SO0803-D20-C16-L110-Z02-H AEM90-SO0803-D25-C20-L110-Z02-H AEM90-SO0803-D32-C25-L120-Z03-H
		<b>SPGT 0602..</b> (For ZCC)	AEM90-SPGT0602-D16-W16-L150-Z02
		<b>SPGT 07T3..</b> (For ZCC)	AEM90-SPGT07T3-D20-W20-L150-Z03 AEM90-SPGT07T3-D25-W25-L150-Z03
		<b>SPGT 0904..</b> (For ZCC)	AEM90-SPGT0904-D30-W32-L150-Z03


02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-TNG10	Uç / Insert	Takım Kodu / Tool Code
		<b>TNGX 1004..</b> (For PRMT)	AEM90-TNG10-D20-W20-L90-Z02-H AEM90-TNG10-D20-W20-L90-Z03-H AEM90-TNG10-D20-C20-L125-Z02-H AEM90-TNG10-D20-C20-L125-Z03-H AEM90-TNG10-D20-C20-L150-Z03-H AEM90-TNG10-D21-C20-L200-Z03-H AEM90-TNG10-D25-C25-L150-Z03-H AEM90-TNG10-D25-W25-L100-Z03-H AEM90-TNG10-D25-W25-L100-Z04-H AEM90-TNG10-D25-C25-L150-Z04-H AEM90-TNG10-D25-C25-L170-Z04-H AEM90-TNG10-D26-C25-L250-Z04-H AEM90-TNG10-D28-W25-L100-Z04-H AEM90-TNG10-D32-W32-L110-Z04-H AEM90-TNG10-D32-W32-L110-Z05-H AEM90-TNG10-D32-C32-L170-Z04-H AEM90-TNG10-D32-C32-L170-Z05-H AEM90-TNG10-D33-C32-L250-Z05-H
		<b>TNGX 1606..</b> (For PRMT)	AEM90-TNG16-D25-C25-L170-Z02-H AEM90-TNG16-D25-C25-L170-Z02-H-80 AEM90-TNG16-D25-W25-L110-Z02-H AEM90-TNG16-D32-C32-L195-Z02-H AEM90-TNG16-D32-C32-L195-Z02-H-80 AEM90-TNG16-D32-C32-L195-Z03-H AEM90-TNG16-D32-W32-L110-Z03-H AEM90-TNG16-D35-C32-L195-Z04-H AEM90-TNG16-D40-W32-L120-Z04-H
90°	AEM90-WNG04..	Uç / Insert	Takım Kodu / Tool Code
		<b>WNGU 0403....</b> (For XTC GSC)	AEM90-WNG04-D20-W20-L81-Z02-H AEM90-WNG04-D20-W20-L81-Z03-H AEM90-WNG04-D20-C20-L170-Z02-H AEM90-WNG04-D20-C20-L170-Z03-H AEM90-WNG04-D25-W25-L88-Z03-H AEM90-WNG04-D25-W25-L88-Z04-H AEM90-WNG04-D25-C25-L170-Z02-H AEM90-WNG04-D25-C25-L170-Z03-H AEM90-WNG04-D32-W25-L100-Z05-H AEM90-WNG04-D32-W32-L100-Z05-H AEM90-WNG04-D32-C32-L170-Z03-H AEM90-WNG04-D32-C25-L170-Z04-H AEM90-WNG04-D32-C32-L170-Z04-H


02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-WNG04..	Uç / Insert	Takım Kodu / Tool Code
		<b>WNGU 0806..</b> (For XTC GSC)	AEM90-WNG08-D32-C32-L170-Z02-H AEM90-WNG08-D40-W32-L100-Z03-H AEM90-WNG08-D40-W40-L110-Z03-H AEM90-WNG08-D40-C32-L170-Z03-H
90°	AEM90-WN0604Z	Uç / Insert	Takım Kodu / Tool Code
		<b>WNHU 0604..</b> (For ZCC)	AEM90-WN0604Z-D25-W25-L150-Z02-H AEM90-WN0604Z-D32-W32-L150-Z03-H AEM90-WN0604Z-D40-W32-L150-Z04-H
90°	AEM90-XC13	Uç / Insert	Takım Kodu / Tool Code
		<b>XCHX 13T3..</b> (For SC)	AEM90-XC13-D20-W20-L150-Z02 AEM90-XC13-D25-W25-L150-Z03 AEM90-XC13-D32-W32-L150-Z04
90°	AEM90-XN..	Uç / Insert	Takım Kodu / Tool Code
		<b>XNEX 0403..</b> (For SC)	AEM90-XN0403-D16-C16-L100-Z01-H AEM90-XN0403-D22-C20-L110-Z03-H
		<b>XNEX 0806..</b> (For SC)	AEM90-XN0806-D32-C32-L110-Z02-H

02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS


90°	AEM90-XD11T3	Uç / Insert	Takım Kodu / Tool Code
		<b>XD.T 11T3.. (For CRTZT)</b>	AEM90-XD11T3-D16-W16-L150-Z02 AEM90-XD11T3-D17-C16-L150-Z02 AEM90-XD11T3-D20-W20-L150-Z03 AEM90-XD11T3-D21-C20-L080-Z03-H AEM90-XD11T3-D21-C20-L150-Z03 AEM90-XD11T3-D25-W25-L150-Z04 AEM90-XD11T3-D30-W25-L120-Z04 AEM90-XD11T3-D32-W32-L150-Z04 AEM90-XD11T3-D33-C20-L080-Z04-H


90°	AEM90-XO..	Uç / Insert	Takım Kodu / Tool Code
		<b>XO.. 0602.. (For SC)</b>	AEM90-XO06-D10-C12-L120-Z02 AEM90-XO06-D12-C12-L120-Z02
		<b>XO.. 0903.. (For SC)</b>	AEM90-XO09-D16-W16-L150-Z02 AEM90-XO09-D20-W20-L150-Z03
		<b>XO.. 1204.. (For SC)</b>	AEM90-XO12-D20-W20-L150-Z02 AEM90-XO12-D20-C20-L200-Z02 AEM90-XO12-D22-W20-L150-Z02 AEM90-XO12-D25-W25-L150-Z03 AEM90-XO12-D25-C25-L200-Z03 AEM90-XO12-D32-C25-L150-Z04 AEM90-XO12-D32-W32-L150-Z04 AEM90-XO12-D32-C32-L250-Z04

90°	AEM90-ZP13T3	Uç / Insert	Takım Kodu / Tool Code
		<b>ZPMT 13T3.. (For DJT)</b>	AEM90-ZP13T3-D26-C25-L200-Z02 AEM90-ZP13T3-D26-C25-L200-Z03 AEM90-ZP13T3-D26-C25-L250-Z02 AEM90-ZP13T3-D33-C32-L200-Z03 AEM90-ZP13T3-D33-C32-L250-Z03


02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

90°	AEM90-ZC1003	Uç / Insert	Takım Kodu / Tool Code
		<b>ZCMT 100308R (For DJT)</b>	AEM90-ZC1003-D16-C14-L150-Z02 AEM90-ZC1003-D16-C14-L200-Z02 AEM90-ZC1003-D16-C15-L150-Z02 AEM90-ZC1003-D16-C16-L150-Z02 AEM90-ZC1003-D17-C16-L150-Z02 AEM90-ZC1003-D17-C16-L200-Z02 AEM90-ZC1003-D20-C18-L150-Z03 AEM90-ZC1003-D20-C18-L200-Z02 AEM90-ZC1003-D20-C20-L150-Z03 AEM90-ZC1003-D20-C18-L200-Z03 AEM90-ZC1003-D21-C20-L150-Z02 AEM90-ZC1003-D21-C20-L150-Z03 AEM90-ZC1003-D21-C20-L200-Z03 AEM90-ZC1003-D25-C20-L150-Z03 AEM90-ZC1003-D25-C25-L150-Z03 AEM90-ZC1003-D26-C25-L170-Z03 AEM90-ZC1003-D26-C25-L200-Z03 AEM90-ZC1003-D32-C25-L180-Z04 AEM90-ZC1003-D33-C32-L200-Z04

-°	AEMR-QP..	Uç / Insert	Takım Kodu / Tool Code
		<b>QP.. 10T3.. (For SMTM)</b>	AEMR-QP10T3-D20-C20-L150-Z01-H AEMR-QP10T3-D25-C25-L120-Z02-H AEMR-QP10T3-D25-C25-L150-Z02-H AEMR-QP10T3-D25-C25-L170-Z02 AEMR-QP10T3-D32-C32-L150-Z03-H AEMR-QP10T3-D32-C32-L170-Z03 AEMR-QP1204-D25-C25-L150-Z02-H
		<b>QP.. 1204.. (For SMTM)</b>	

-°	AEMRC-RD..	Uç / Insert	Takım Kodu / Tool Code
		<b>RD.. 0501.. (For ISO)</b>	AEMR-RD0501-D08-W10-L100-Z01-H AEMR-RD0501-D10-W12-L100-Z02-H AEMR-RD0501-D12-W12-L120-Z02-H
		<b>RD.. 08T2.. (For ISO)</b>	AEMR-RD08T2-D16-W16-L150-Z02 AEMR-RD08T2-D20-W20-L150-Z02


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-°	AEMRC-RD..	Uç / Insert	Takım Kodu / Tool Code
	<b>RD.. 0803..</b> (For ISO)		AEMR-RD0803-D16-W16-L150-Z02 AEMR-RD0803-D16-C20-L200-Z02 AEMR-RD0803-D20-W20-L150-Z03
	<b>RD.. 1003..</b> (For ISO)		AEMRC-RD1003-D20-W20-L150-Z02 AEMRC-RD1003-D20-C20-L160-Z02 AEMRC-RD1003-D20-C20-L250-Z02 AEMRC-RD1003-D21-C20-L160-Z02 AEMRC-RD1003-D25-W25-L150-Z02 AEMRC-RD1003-D25-C25-L160-Z02 AEMRC-RD1003-D25-W25-L200-Z02 AEMRC-RD1003-D25-C25-L200-Z02 AEMRC-RD1003-D25-C25-L250-Z02 AEMRC-RD1003-D26-C25-L160-Z02 AEMRC-RD1003-D32-W32-L150-Z03 AEMRC-RD1003-D32-C32-L250-Z02 AEMRC-RD1003-D33-C32-L160-Z03 AEMRC-RD1003-D40-W32-L150-Z04 AEMRC-RD1003-D40-C32-L250-Z02
	<b>RD.. 10T3..</b> (For ISO)		AEMRC-RD10T3-D20-C20-L150-Z02 AEMRC-RD10T3-D20-C20-L150-Z02 AEMRC-RD10T3-D20-W20-L150-Z02 AEMRC-RD10T3-D20-C20-L180-Z02-H AEMRC-RD10T3-D21-C20-L200-Z02-H AEMRC-RD10T3-D25-C25-L150-Z02 AEMRC-RD10T3-D25-C32-L150-Z03 AEMRC-RD10T3-D25-W25-L150-Z02 AEMRC-RD10T3-D26-C25-L200-Z02-H AEMRC-RD10T3-D32-W32-L150-Z03 AEMRC-RD10T3-D32-C32-L150-Z04 AEMRC-RD10T3-D32-C25-L250-Z03-H
	<b>RD.. 12T3..</b> (For ISO)		AEMRC-RD12T3-D25-W25-L150-Z02 AEMRC-RD12T3-D25-W25-L200-Z02 AEMRC-RD12T3-D25-C25-L250-Z02 AEMRC-RD12T3-D25-C25-L300-Z02 AEMRC-RD12T3-D32-W32-L150-Z03 AEMRC-RD12T3-D32-C32-L250-Z02 AEMRC-RD12T3-D40-W32-L150-Z04 AEMRC-RD12T3-D40-C32-L250-Z02

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-°	AEMRC-RD..	Uç / Insert	Takım Kodu / Tool Code
	<b>RD.. 1204..</b> (For ISO)		AEMRC-RD1204-D32-C32-L160-Z03 AEMRC-RD1204-D32-C32-L200-Z02 AEMRC-RD1204-D32-W32-L160-Z03 AEMRC-RD1204-D33-C32-L160-Z03 AEMRC-RD1204-D32-C32-L160-Z03-H
	<b>RD.. 1604</b> (For ISO)		AEMRC-RD1604-D40-W32-L150-Z02
-°	AEMR-RP10T3	Uç / Insert	Takım Kodu / Tool Code
	<b>RPNX 10T3..</b> (For CRTZT)		AEMR-RP10T3-D25-W25-L125-Z02 AEMR-RP10T3-D25-W25-L150-Z02 AEMR-RP10T3-D32-W32-L150-Z03
-°	AEMR-RY..	Uç / Insert	Takım Kodu / Tool Code
	<b>RYMX 0803..</b>		AEMR-RY08-D16-W16-L150-Z02
	<b>RYMX 1004..</b> (For TGTC)		AEMR-RY10-D20-W20-L150-Z02 AEMR-RY10-D20-C20-L200-Z02 AEMR-RY10-D21-W20-L200-Z02-H AEMR-RY10-D25-W25-L150-Z02 AEMR-RY10-D25-W25-L150-Z03 AEMR-RY10-D26-W25-L200-Z02-H AEMR-RY10-D32-W32-L160-Z04-H
	<b>RYMX 1205..</b>		AEMR-RY12-D32-C25-L160-Z03

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-°	AEMR-RP..	Uç / Insert	Takım Kodu / Tool Code
	<b>RPMT 08T2..</b> (For MTSBSH)		AEMR-RP08T2M-D20-W20-L150-Z02-H AEMR-RP08T2M-D25-W25-L200-Z03-H
	<b>RPMT 10T3..</b> (For MTSBSH)		AEMR-RP10T3M-D25-W25-L200-Z02-H AEMR-RP10T3M-D32-W32-L200-Z03-H
	<b>RPMT 1204..</b> (For MTSBSH)		AEMR-RP1204M-D25-C25-L180-Z02 AEMR-RP1204M-D25-C25-L180-Z02-H AEMR-RP1204M-D32-W32-L150-Z03-H AEMR-RP1204M-D32-W32-L200-Z03-H AEMR-RP1204M-D36-C25-L160-Z03
	<b>RPMT 1606..</b> (For MTSBSH)		AEMR-RP1606M-D40-W32-L150-Z02-H AEMR-RP1606M-D40-W32-L200-Z02-H

-°	APMR-BNM..	Uç / Insert	Takım Kodu / Tool Code
	<b>BNM-120-S</b> (For DJT)		APMR-BNM12-D12-C12-L130
	<b>BNM-160-S</b> (For DJT)		APMR-BNM16-D16-C16-L175 APMR-BNM16-D16-C16-L200
	<b>BNM-200-S</b> (For DJT)		APMR-BNM20-D20-C20-L160 APMR-BNM20-D20-C20-L200 APMR-BNM20-D20-C20-L250
	<b>BNM-250-S</b> (For DJT)		APMR-BNM25-D25-C25-L160 APMR-BNM25-D25-C25-L200 APMR-BNM25-D25-C25-L250

-°	APMR-XP..	Uç / Insert	Takım Kodu / Tool Code
	<b>XPHT 16R0803</b> - (For ZCC)		APMR-XP16-D16-C16-L150
	<b>XPH T20R10T3</b> - (For ZCC)		APMR-XP20-D20-C20-L150
	<b>XPHT 25R1204</b> - (For ZCC)		APMR-XP25-D25-C25-L150

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-°	APMR-P32..	Uç / Insert	Takım Kodu / Tool Code
	<b>P3208</b> (For WLTR)		APMR-P3208-D08-C10-L110
	<b>P3210</b> (For WLTR)		APMR-P3210-D10-C10-L130 APMR-P3210-D10-C12-L130
	<b>P3212</b> (For WLTR)		APMR-P3212-D12-C12-L130
	<b>P3216</b> (For WLTR)		APMR-P3216-D16-C16-L175
	<b>P3220</b> (For WLTR)		APMR-P3220-D20-C20-L200
	<b>P3225</b> (For WLTR)		APMR-P3225-D25-C25-L200
	<b>P3232</b> (For WLTR)		APMR-P3232-D32-C32-L200

-°	APMR-RO..	Uç / Insert	Takım Kodu / Tool Code
	<b>ROHX 1203</b> (For ZCC)		APMR-RO12-D12-C12-L120 APMR-RO12-D12-C16-L160
	<b>ROHX 1604</b> (For ZCC)		APMR-RO16-D16-C16-L160 APMR-RO16-D16-C16-L200 APMR-RO16-D16-C20-L200
	<b>ROHX 2005</b> (For ZCC)		APMR-RO20-D20-C20-L160 APMR-RO20-D20-C20-L200 APMR-RO20-D20-C25-L220

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-°	AHFM-BL..	Uç / Insert	Takım Kodu / Tool Code
		<b>BLMP 0603.. (For TGTC)</b>	AHFM-BL0603-D16-C15-L150-Z02 AHFM-BL0603-D16-C16-L100-Z02-H AHFM-BL0603-D16-C16-L150-Z02 AHFM-BL0603-D17-C16-L150-Z02 AHFM-BL0603-D17-W16-L170-Z02 AHFM-BL0603-D17-W16-L170-Z02-H AHFM-BL0603-D17-C16-L200-Z02 AHFM-BL0603-D18-C16-L150-Z02 AHFM-BL0603-D18-W16-L150-Z02-H AHFM-BL0603-D20-C20-L130-Z03 AHFM-BL0603-D20-C20-L160-Z03 AHFM-BL0603-D21-W20-L200-Z03 AHFM-BL0603-D21-C20-L200-Z03 AHFM-BL0603-D22-W20-L150-Z03 AHFM-BL0603-D25-C25-L250-Z04 AHFM-BL0603-D26-W25-L200-Z04 AHFM-BL0603-D26-C25-L200-Z04 AHFM-BL0603-D26-C25-L250-Z04 AHFM-BL0603-D32-C32-L150-Z05 AHFM-BL0603-D32-C32-L200-Z05 AHFM-BL0603-D33-C32-L150-Z05 AHFM-BL0603-D33-C32-L200-Z05 AHFM-BL0603-D33-C32-L250-Z05
	<b>BLMP 0904..</b>		AHFM-BL0904-D28-W25-L180-Z03

-°	AHFM-BN10T3	Uç / Insert	Takım Kodu / Tool Code
		<b>BNGX 10T3.. (For PRMT)</b>	AHFM-BN10T3-D16-C16-L100-Z02-H AHFM-BN10T3-D16-C16-L150-Z02-H AHFM-BN10T3-D20-C20-L130-Z03-H AHFM-BN10T3-D20-C20-L130-Z04-H AHFM-BN10T3-D20-C20-L160-Z03-H AHFM-BN10T3-D25-C25-L140-Z04-H AHFM-BN10T3-D25-W25-L140-Z04-H AHFM-BN10T3-D25-C25-L140-Z05-H AHFM-BN10T3-D25-C25-L180-Z04-H AHFM-BN10T3-D32-C32-L150-Z05-H AHFM-BN10T3-D32-C32-L150-Z06-H AHFM-BN10T3-D35-C32-L200-Z06-H

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-°	AHFM-EO0602	Uç / Insert	Takım Kodu / Tool Code
		<b>EO.. 060210 ZOMT 060210 (For DJT)</b>	AHFM-EO0602-D10-C10-L080-Z02 AHFM-EO0602-D10-C09-L120-Z02 AHFM-EO0602-D10-C10-L120-Z02 AHFM-EO0602-D12-C12-L080-Z02 AHFM-EO0602-D12-C12-L080-Z03 AHFM-EO0602-D12-C11-L120-Z02 AHFM-EO0602-D12-C11-L120-Z03 AHFM-EO0602-D12-C12-L120-Z02 AHFM-EO0602-D12-C12-L120-Z03 AHFM-EO0602-D16-C16-L150-Z04

-°	AHFM-EP1003	Uç / Insert	Takım Kodu / Tool Code
		<b>EP.. 1003.. ZPMT 1003.. YPHW 1003.. (For DJT)</b>	AHFM-EP1003-D16-C16-L80-Z02-H AHFM-EP1003-D16-C16-L150-Z02-H AHFM-EP1003-D17-C16-L150-Z02-H AHFM-EP1003-D20-C20-L150-Z04-H AHFM-EP1003-D21-C20-L150-Z04-H AHFM-EP1003-D25-C25-L200-Z04-H AHFM-EP1003-D25-C25-L250-Z04-H

-°	AHFMC-JD1204	Uç / Insert	Takım Kodu / Tool Code
		<b>JDMW 1204.. (For MTSBSH)</b>	AHFMC-JD1204-D32-C32-L150-Z02 AHFMC-JD1204-D32-C32-L200-Z02 AHFMC-JD1204-D35-C32-L200-Z02 AHFMC-JD1204-D35-C32-L250-Z02



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-°	AHFM-EN1004	Uç / Insert	Takım Kodu / Tool Code
		<b>ENMU 1004.. (For DJT)</b>	AHFM-EN1004-D16-C15-L150-Z02 AHFM-EN1004-D16-C16-L150-Z02 AHFM-EN1004-D16-C16-L250-Z02 AHFM-EN1004-D17-C16-L150-Z02-H AHFM-EN1004-D17-C16-L150-Z02 AHFM-EN1004-D17-C16-L200-Z02 AHFM-EN1004-D18-C16-L150-Z02 AHFM-EN1004-D20-C20-L150-Z03 AHFM-EN1004-D20-C20-L250-Z03 AHFM-EN1004-D21-C20-L150-Z02 AHFM-EN1004-D21-C20-L150-Z03 AHFM-EN1004-D21-C20-L150-Z03-H AHFM-EN1004-D21-C20-L200-Z03 AHFM-EN1004-D22-C20-L150-Z03 AHFM-EN1004-D25-C25-L150-Z03 AHFM-EN1004-D25-C25-L150-Z04 AHFM-EN1004-D26-C25-L150-Z03 AHFM-EN1004-D26-C25-L150-Z04 AHFM-EN1004-D26-C25-L200-Z03 AHFM-EN1004-D26-C25-L200-Z03-H AHFM-EN1004-D26-C25-L250-Z03-H AHFM-EN1004-D28-C25-L200-Z04 AHFM-EN1004-D32-C32-L200-Z04 AHFM-EN1004-D33-C32-L200-Z04 AHFM-EN1004-D33-C32-L200-Z04-H

-°	AHFM-LN0303	Uç / Insert	Takım Kodu / Tool Code
		<b>LNMU 0303.. (For TNGLY)</b>	AHFM-LN0303-D16-C15-L150-Z02 AHFM-LN0303-D16-W16-L150-Z02-H AHFM-LN0303-D17-C16-L150-Z02-H AHFM-LN0303-D20-W20-L150-Z03-H AHFM-LN0303-D21-C20-L150-Z03 AHFM-LN0303-D25-W25-L150-Z04-H AHFM-LN0303-D26-C25-L150-Z04 AHFM-LN0303-D28-C25-L180-Z03 AHFM-LN0303-D33-C32-L200-Z05

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-°	AHFM-SP0735	Uç / Insert	Takım Kodu / Tool Code
		<b>SPMX 073505 (For MTSBSH)</b>	AHFM-SP0735-D16-C16-L160-Z02-H AHFM-SP0735-D17-C16-L160-Z02-H AHFM-SP0735-D20-C20-L160-Z03-H AHFM-SP0735-D21-C20-L160-Z03-H

-°	AHFM-LO03	Uç / Insert	Takım Kodu / Tool Code
		<b>LOGU 0303.. (For KYCR)</b>	AHFM-LO03-D16-C15-L160-Z02 AHFM-LO03-D16-C16-L100-Z02-F AHFM-LO03-D16-C16-L100-Z02 AHFM-LO03-D16-C16-L130-Z02-H AHFM-LO03-D16-C16-L160-Z02 AHFM-LO03-D16-C16-L160-Z02-H AHFM-LO03-D17-C16-L180-Z02 AHFM-LO03-D20-C20-L130-Z03 AHFM-LO03-D20-C20-L130-Z03-H AHFM-LO03-D20-C20-L160-Z03 AHFM-LO03-D20-C20-L160-Z03-H AHFM-LO03-D21-C20-L150-Z03-H AHFM-LO03-D21-C20-L200-Z03 AHFM-LO03-D21-C20-L200-Z03-H AHFM-LO03-D25-C25-L140-Z04-F AHFM-LO03-D25-C25-L140-Z04 AHFM-LO03-D25-C25-L180-Z04

-°	AHFM-LO03	Uç / Insert	Takım Kodu / Tool Code
		<b>LOGU 0303.. (For KYCR)</b>	AHFM-LO03-D26-C25-L250-Z04 AHFM-LO03-D32-C32-L200-Z05 AHFM-LO03-D33-C32-L250-Z05

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-°	AHFM-LP0102	Uç / Insert	Takım Kodu / Tool Code
		<b>LPGT 0102..</b> (For KYCR)	AHFM-LP0102-D10-C09-L120-Z02 AHFM-LP0102-D10-C10-L120-Z02 AHFM-LP0102-D12-C11-L120-Z02 AHFM-LP0102-D12-C12-L120-Z02

-°	AHFM.-SD..	Uç / Insert	Takım Kodu / Tool Code
		<b>SD.. 06T2..</b> (For ZCC)	AHFM-SD06T2-D16-C16-L100-Z02-H AHFM-SD06T2-D16-C16-L150-Z02-H AHFM-SD06T2-D16-C16-L200-Z02 AHFM-SD06T2-D17-C16-L150-Z02-H AHFM-SD06T2-D20-C20-L150-Z03-H AHFM-SD06T2-D20-C20-L200-Z03 AHFM-SD06T2-D21-C20-L150-Z03-H AHFM-SD06T2-D25-C25-L150-Z04-H AHFM-SD06T2-D26-C25-L150-Z04-H
		<b>SD.. 09T3..</b> (For ZCC)	AHFMC-SD09T3-D22-W20-L150-Z02 AHFMC-SD09T3-D25-C25-L150-Z02 AHFMC-SD09T3-D25-W25-L150-Z02 AHFM-SD09T3-D25-C25-L150-Z03 AHFMC-SD09T3-D28-C25-L150-Z02 AHFMC-SD09T3-D32-C32-L150-Z03 AHFMC-SD09T3-D32-W32-L150-Z03 AHFM-SD09T3-D32-C32-L150-Z04

-°	AHFM-SO0803	Uç / Insert	Takım Kodu / Tool Code
		<b>SOMW 0803..</b> (For KPTK)	AHFM-SO0803-D20-W20-L150-Z02 AHFM-SO0803-D25-W25-L150-Z03 AHFM-SO0803-D32-W32-L150-Z04

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-°	AHFM-WD..	Uç / Insert	Takım Kodu / Tool Code
		<b>WD.T 0503..</b> (For DJT)	AHFM-WD0503D-D20-C20-L150-Z02 AHFM-WD0503D-D21-C20-L150-Z02
		<b>WD.W 06T3..</b> (For DJT)	AHFMC-WD06T3D-D26-C25-L200-Z02 AHFMC-WD06T3D-D33-C32-L200-Z03

-°	AHFMC-WD..	Uç / Insert	Takım Kodu / Tool Code
		<b>WDMT 0603..</b> (For SMTM)	AHFM-WD0603-D16-C16-L150-Z02 AHFM-WD0603-D20-C20-L150-Z03
		<b>WDMT 0804..</b> (For SMTM)	AHFMC-WD0804-D25-C25-L150-Z02 AHFMC-WD0804-D32-C32-L150-Z03
		<b>WDMT 1205</b> (For SMTM)	AHFMC-WD1205-D32-C32-L150-Z02

-°	AHFM-WN..	Uç / Insert	Takım Kodu / Tool Code
		<b>WNMX 0603..</b> (For KRLY)	AHFM-WN0603-D16-C16-L110-Z02-H AHFM-WN0603-D16-C16-L150-Z02-H AHFM-WN0603-D17-C16-L150-Z02-H AHFM-WN0603-D20-C20-L150-Z02-H AHFM-WN0603-D20-C20-L200-Z02-H AHFM-WN0603-D21-C20-L150-Z02-H
		<b>WNMX 09T3..</b> (For KRLY)	AHFM-WN09T3-D25-W25-L120-Z02-H AHFML-WN09T3-D25-W25-L120-Z02-H AHFM-WN09T3-D25-C25-L200-Z02 AHFM-WN09T3-D32-W32-L120-Z03-H AHFM-WN09T3-D32-W32-L200-Z03-H AHFM-WN09T3-D35-W32-L200-Z04-H AHFM-WN09T3-D40-W32-L120-Z04-H AHFM-WN09T3-D40-C32-L200-Z04
		<b>WNMX 1305..</b> (For KRLY)	AHFM-WN1305-D32-C32-L150-Z02-H AHFM-WN1305-D32-C32-L200-Z02-H AHFM-WN1305-D40-C32-L200-Z03-H

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-°	AHFM-WO04T2	Uç / Insert	Takım Kodu / Tool Code
		<b>WOMW 04T2.. (For DJT)</b>	AHFM-WO04T2D-D16-C16-L150-Z02 AHFM-WO04T2D-D17-C16-L150-Z02

-°	AHFM-YO0602	Uç / Insert	Takım Kodu / Tool Code
		<b>YOHW 0602.. (For DJT)</b>	AHFM-YO0602-D10-C09-L120-Z02-F AHFM-YO0602-D10-C10-L080-Z02-F AHFM-YO0602-D10-C10-L120-Z02-F AHFM-YO0602-D10-C10-L120-Z02-H-F AHFM-YO0602-D10-C10-L120-Z02-H AHFM-YO0602-D12-C11-L120-Z02-F AHFM-YO0602-D12-C11-L120-Z02-H-F AHFM-YO0602-D12-C11-L120-Z02-H

-°	AHFM-YO0602	Uç / Insert	Takım Kodu / Tool Code
		<b>YOHW 0602.. (For DJT)</b>	AHFM-YO0602-D12-C11-L120-Z03-F AHFM-YO0602-D12-C12-L080-Z02-F AHFM-YO0602-D12-C12-L080-Z03-F AHFM-YO0602-D12-C12-L120-Z02-F AHFM-YO0602-D12-C12-L120-Z02-H AHFM-YO0602-D12-C12-L120-Z03-F AHFM-YO0602-D12-C12-L120-Z03-H

02. TAKMA UCLU PARMAK FREZE TAKIMLARI  
FACE MILLING TOOLS

-°	AHFM-YP1003	Uç / Insert	Takım Kodu / Tool Code
		<b>YPHW 1003.. (For DJT)</b>	AHFM-YP1003-D16-C15-L150-Z02-F AHFM-YP1003-D16-C15-L200-Z02-F AHFM-YP1003-D16-C16-L150-Z02-F AHFM-YP1003-D17-C16-L150-Z02-F AHFM-YP1003-D17-C16-L200-Z02-F AHFM-YP1003-D20-C18-L150-Z03-F AHFM-YP1003-D20-C18-L200-Z03-F AHFM-YP1003-D20-C20-L150-Z03-F AHFM-YP1003-D21-C20-L150-Z03-F AHFM-YP1003-D21-C20-L150-Z03-H AHFM-YP1003-D21-C20-L150-Z04-F AHFM-YP1003-D21-C20-L200-Z03-F AHFM-YP1003-D21-C20-L200-Z03 AHFM-YP1003-D25-C20-L150-Z04-F AHFM-YP1003-D25-C20-L200-Z04-F AHFM-YP1003-D25-C25-L150-Z04-F AHFM-YP1003-D26-C25-L150-Z04-F AHFM-YP1003-D26-C25-L150-Z04-H AHFM-YP1003-D26-C25-L200-Z03-F AHFM-YP1003-D26-C25-L200-Z04-F AHFM-YP1003-D33-C32-L200-Z04-F AHFM-YP1003-D33-C32-L250-Z04-F AHFM-YP1003-D33-C32-L300-Z04-F

## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI



### 03. VİDALI MODÜLER TAKIMLAR FACE MILLING TOOLS

90°	AEM90-AP..	Uç / Insert	Takım Kodu / Tool Code
	<b>AP.. 1003..</b> (For ISO)		AEM90-AP10-D16-M08-L30-Z02-H AEM90-AP10-D20-M10-L30-Z03-H AEM90-AP10-D25-M12-L35-Z03-H AEM90-AP10-D32-M16-L35-Z04-H AEM90-AP10-D40-M16-L43-Z05-H AEM90-AP10-D42-M16-L43-Z05-H
	<b>AP.. 1003..</b> (For DJT)		AEM90-AP10D-D16-M08-L30-Z02-H AEM90-AP10D-D20-M10-L30-Z03-H AEM90-AP10D-D25-M12-L35-Z03-H
	<b>AP.. 11T3..</b> (For ZCC)		AEM90-AP11-D16-M08-L30-Z02-H AEM90-AP11-D20-M10-L30-Z03-H AEM90-AP11-D25-M12-L35-Z03-H AEM90-AP11-D32-M16-L35-Z04-H AEM90-AP11-D40-M16-L43-Z05-H
	<b>AP.. 1604..</b> (For ISO)		AEM90-AP16-D25-M12-L43-Z02-H AEM90-AP16-D32-M16-L43-Z03-H AEM90-AP16-D40-M16-L43-Z04-H AEM90-AP16-D42-M16-L43-Z04-H
	<b>AP.. 1604..</b> (For DJT)		AEM90-AP16D-D25-M12-L43-Z02-H AEM90-AP16D-D32-M16-L43-Z03-H AEM90-AP16D-D40-M16-L43-Z04-H
	<b>AP.. 1604..</b> (For LMNA)		AEM90-AP16L-D25-M12-L43-Z02-H AEM90-AP16L-D32-M16-L43-Z03-H AEM90-AP16L-D40-M16-L43-Z04-H

90°	AEM90-AX..	Uç / Insert	Takım Kodu / Tool Code
	<b>AX.T 1235..</b> (For SMTM)		AEM90-AX1235-D16-M08-L30-Z02-H AEM90-AX1235-D20-M10-L30-Z03-H AEM90-AX1235-D25-M12-L35-Z04-H
	<b>AX.T 1705..</b> (For SMTM)		AEM90-AX1705-D25-M12-L43-Z02-H AEM90-AX1705-D32-M16-L43-Z02-H



## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI

### 03. VİDALI MODÜLER TAKIMLAR FACE MILLING TOOLS

90°	AEM90-BD11T3	Uç / Insert	Takım Kodu / Tool Code
		<b>BDMT 11T3..</b> (For KYCR)	AEM90-BD11T3-D16-M08-L25-Z02-H AEM90-BD11T3-D25-M12-L35-Z04-H AEM90-BD11T3-D32-M16-L40-Z05-H

90°	AEM90-AO1236	Uç / Insert	Takım Kodu / Tool Code
		<b>AO.. 1236..</b> (For MTSBSH)	AEM90-AO1236-D16-M08-L30-Z02 AEM90-AO1236-D20-M10-L35-Z03


90°	AEM90-AD1505D	Uç / Insert	Takım Kodu / Tool Code
		<b>ADKT 150508</b> (For DJT)	AEM90-AD1505D-D25-M12-L43-Z02-H AEM90-AD1505D-D32-M16-L43-Z03-H


## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI



### 03. VİDALI MODÜLER TAKIMLAR FACE MILLING TOOLS

90°	AEM90-DC..	Uç / Insert	Takım Kodu / Tool Code
		<b>DC.T 0702.</b> (For ISO)	AEM90-DC07-D20-M10-L30-Z02-H AEM90-DC07-D25-M12-L35-Z03-H AEM90-DC07-D32-M16-L43-Z04-H AEM90-DC07-D40-M16-L43-Z05-H
		<b>DC.T 11T3.</b> (For ISO)	AEM90-DC11-D32-M16-L43-Z03-H-F AEM90-DC11-D40-M16-L43-Z03-H-F

90°	AEM90-R390.11	Uç / Insert	Takım Kodu / Tool Code
		<b>R390-11T3</b> (For SNDVK)	AEM90-R390.11-D16-M08-L30-Z02-H AEM90-R390.11-D20-M10-L30-Z03-H AEM90-R390.11-D25-M12-L35-Z03-H AEM90-R390.11-D32-M16-L43-Z04-H

90°	AEM90-RT10	Uç / Insert	Takım Kodu / Tool Code
		<b>RT 1003.</b> (For SFTY)	AEM90-RT10-D16-M08-L20-Z02-H AEM90-RT10-D20-M10-L25-Z03-H AEM90-RT10-D25-M12-L30-Z04-H AEM90-RT10-D32-M16-L43-Z05-H AEM90-RT10-D42-M16-L43-Z06-H

90°	AEM90-WN0604Z	Uç / Insert	Takım Kodu / Tool Code
		<b>WNHU 0604.</b> (For ZCC)	AEM90-WN0604Z-D25-W25-L150-Z02-H AEM90-WN0604Z-D32-W32-L150-Z03-H AEM90-WN0604Z-D40-W32-L150-Z04-H



## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI


### 03. VİDALI MODÜLER TAKIMLAR FACE MILLING TOOLS


90°	AEM95-XD..	Uç / Insert	Takım Kodu / Tool Code
		<b>XDHW 0206.</b> (For DJT)	AEM95-XD0206-D16-M08-L23-Z02-H AEM95-XD0206-D16-M08-L23-Z02-H-F AEM95-XD0206-D20-M10-L30-Z03-H AEM95-XD0206-D20-M10-L30-Z03-H-F AEM95-XD0206-D25-M12-L35-Z03-H AEM95-XD0206-D25-M12-L35-Z03-H-F
		<b>XDHW 0310.</b> (For DJT)	AEM95C-XD0310-D35-M16-L43-Z03-H AEM95C-XD0310-D35-M16-L43-Z03-H-F AEM95C-XD0310-D42-M16-L43-Z04-H AEM95C-XD0310-D42-M16-L43-Z04-H-F

-°	AEMR-RD..	Uç / Insert	Takım Kodu / Tool Code
		<b>RD.. 0702</b> (For ISO)	AEMR-RD0702-D15-M08-L23-Z02-H AEMR-RD0702-D16-M08-L23-Z02-H AEMR-RD0702-D20-M10-L30-Z04-H AEMR-RD0702-D25-M12-L35-Z05-H AEMR-RD0702-D30-M16-L42-Z05-H AEMR-RD0702-D32-M16-L43-Z05-H AEMR-RD0702-D35-M16-L42-Z06-H AEMR-RD0702-D42-M16-L43-Z05-H AEMR-RD0702-D42-M16-L43-Z07-H AEMR-RD08T2-D16-M08-L23-Z02-H
		<b>RD.. 08T2</b> (For ISO)	AEMR-RD08T2-D16-M10-L23-Z02-H AEMR-RD08T2-D20-M10-L30-Z03-H AEMR-RD08T2-D25-M12-L35-Z04-H
		<b>RD.. 08T2</b> (For ISO)	AEMR-RD10T3-D25-M12-L35-Z03-H AEMR-RD10T3-D32-M16-L45-Z04-H
		<b>RD.. 0803</b> (For ISO)	AEMR-RD0803-D16-M08-L23-Z02-H AEMR-RD0803-D20-M10-L30-Z03-H AEMR-RD0803-D25-M12-L35-Z04-H
		<b>RD.. 1003</b> (For ISO)	AEMR-RD1003-D20-M10-L30-Z02-H AEMR-RD1003-D25-M12-L35-Z02-H AEMR-RD1003-D25-M12-L35-Z03-H AEMR-RD1003-D30-M16-L43-Z04-H AEMR-RD1003-D32-M16-L43-Z04-H AEMR-RD1003-D35-M16-L43-Z04-H AEMR-RD1003-D40-M16-L43-Z05-H AEMR-RD1003-D42-M16-L43-Z05-H


03. VİDALI MODÜLER TAKIMLAR  
FACE MILLING TOOLS

-°	AEMR-RD..	Uç / Insert	Takım Kodu / Tool Code
		<b>RD.. 1004</b> (For ISO)	AEMR-RD1004-D25-M12-L35-Z03-H AEMR-RD1004-D32-M16-L43-Z04-H
		<b>RD.. 12T3</b> (For ISO)	AEMR-RD12T3-D24-M12-L35-Z02-H AEMR-RD12T3-D25-M12-L35-Z02-H AEMR-RD12T3-D32-M16-L43-Z03-H AEMR-RD12T3-D35-M16-L43-Z03-H AEMR-RD12T3-D35-M16-L43-Z04-H AEMR-RD12T3-D40-M16-L43-Z04-H AEMR-RD12T3-D42-M16-L43-Z05-H
		<b>RD.. 1204</b> (For ISO)	AEMR-RD1204-D32-M16-L43-Z03-H AEMR-RD1204-D42-M16-L43-Z04-H
		<b>RD.. 1604</b> (For ISO)	AEMR-RD1604-D32-M16-L43-Z02-H AEMR-RD1604-D40-M16-L43-Z02-H AEMR-RD1604-D42-M16-L43-Z03-H

-°	AEMR-QP10T3	Uç / Insert	Takım Kodu / Tool Code
		<b>QP.. 10T3..</b> (For SMTM)	AEMR-QP10T3-D25-M12-L35-Z02-H AEMR-QP10T3-D32-M16-L43-Z03-H

-°	AEMR-RC10T3	Uç / Insert	Takım Kodu / Tool Code
		<b>RC.. 10T3..</b> (For ZCC)	AEMR-RC10T3-D25-M12-L35-Z03-H AEMR-RC10T3-D32-M16-L43-Z04-H AEMR-RC10T3-D40-M16-L43-Z05-H

03. VİDALI MODÜLER TAKIMLAR  
FACE MILLING TOOLS

-°	AEMR-RP..	Uç / Insert	Takım Kodu / Tool Code
		<b>RPMT 08T2..</b> (For MTSBSH)	AEMR-RP08T2M-D20-M10-L30-Z02-H
		<b>RPMT 10T3..</b> (For MTSBSH)	AEMR-RP10T3M-D25-M12-L35-Z02-H AEMR-RP10T3M-D32-M16-L43-Z03-H
		<b>RPMT 1204</b> (For MTSBSH)	AEMR-RP1204M-D32-M16-L43-Z03-H AEMR-RP1204M-D40-M16-L43-Z04-H


-°	AEMR-RP10T3	Uç / Insert	Takım Kodu / Tool Code
		<b>RPNX 10T3..</b> (For CRTZT)	AEMR-RP10T3-D25-M12-L35-Z02-H AEMR-RP10T3-D32-M16-L43-Z03-H
		<b>RPNX 1204..</b> (For CRTZT)	AEMR-RP1204-D32-M16-L43-Z03-H

-°	APMR-PR..	Uç / Insert	Takım Kodu / Tool Code
		<b>P3216</b> (For WLTR)	APMR-P3216-D16-M08-L25
		<b>P3220</b> (For WLTR)	APMR-P3220-D20-M10-L30
		<b>P3225</b> (For WLTR)	APMR-P3225-D25-M12-L35
		<b>P3232</b> (For WLTR)	APMR-P3232-D32-M16-L43


## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI



### 03. VİDALI MODÜLER TAKIMLAR FACE MILLING TOOLS

-°	APMR-XP..	Uç / Insert	Takım Kodu / Tool Code
		<b>XPHT 16R0803</b> (For ZCC)	APMR-XP16-D16-M08-L25
		<b>XPHT 20R10T3</b> (For ZCC)	APMR-XP20-D20-M10-L30
		<b>XPHT 25R1204</b> (For ZCC)	APMR-XP25-D25-M12-L40

-°	APMR-SWB..	Uç / Insert	Takım Kodu / Tool Code
		<b>SWB225HM-HS</b> (For DJT)	APMR-SWB225-D25-M12-L35
		<b>SWB230HM-HS</b> (For DJT)	APMR-SWB230-D30-M16-L43
		<b>SWB232HM-HS</b> (For DJT)	APMR-SWB232-D32-M16-L43


-°	AHFM-BL..	Uç / Insert	Takım Kodu / Tool Code
		<b>BLMP 0603</b> (For TGTC)	AHFM-BL0603-D20-M10-L30-Z03-H AHFM-BL0603-D25-M12-L35-Z04-H AHFM-BL0603-D32-M16-L40-Z05-H
		<b>BLMP 0904</b> (For TGTC)	AHFM-BL0904-D32-M16-L40-Z04-H AHFM-BL0904-D32-M16-L43-Z04-H AHFM-BL0904-D42-M16-L43-Z05-H




## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI

### 03. VİDALI MODÜLER TAKIMLAR FACE MILLING TOOLS

-°	AHFM-ED0702	Uç / Insert	Takım Kodu / Tool Code
		<b>EDMT 0702 - JDMT 070204</b> (For HTCH)	AHFM-ED0702-D12-M06-L20-Z03 AHFM-ED0702-D16-M08-L25-Z04-H AHFM-ED0702-D20-M10-L30-Z05-H AHFM-ED0702-D25-M12-L30-Z06-H AHFM-ED0702-D32-M16-L30-Z08-H

-°	AHFM-EN1004	Uç / Insert	Takım Kodu / Tool Code
		<b>ENMU 1004..</b> (For DJT)	AHFM-EN1004-D16-M08-L23-Z02-H AHFM-EN1004-D20-M10-L30-Z03-H AHFM-EN1004-D25-M12-L35-Z03-H AHFM-EN1004-D25-M12-L35-Z04-H AHFM-EN1004-D32-M16-L43-Z05-H AHFM-EN1004-D35-M16-L43-Z05-H AHFM-EN1004-D40-M16-L43-Z05-H AHFM-EN1004-D42-M16-L43-Z05-H

-°	AHFM-EP1003	Uç / Insert	Takım Kodu / Tool Code
		<b>EP. 1003.. ZPMT 1003.. YPHW 1003..</b> (For DJT)	AHFM-EP1003-D16-M08-L23-Z02 AHFM-EP1003-D16-M08-L23-Z02-H AHFM-EP1003-D20-M10-L30-Z03 AHFM-EP1003-D20-M10-L30-Z04-H AHFM-EP1003-D25-M12-L35-Z04-H AHFM-EP1003-D32-M16-L43-Z05-H AHFM-EP1003-D35-M16-L43-Z05-H AHFM-EP1003-D42-M16-L43-Z06-H

03. VİDALI MODÜLER TAKIMLAR  
FACE MILLING TOOLS

-°	AHFM-SD..	Uç / Insert	Takım Kodu / Tool Code
		<b>JDMW 1204.. (For MTSBSH)</b>	AHFM-SD1204-D32-M16-L43-Z02-H AHFM-SD1204-D42-M16-L43-Z03-H
		<b>SD.. 06T2.. (For ZCC)</b>	AHFM-SD1204-D32-M16-L43-Z02-H AHFM-SD1204-D42-M16-L43-Z03-H
		<b>SD.. 09T3.. (For ZCC)</b>	AHFM-SD09T3-D25-M12-L30-Z02-H AHFM-SD09T3-D32-M16-L43-Z03-H AHFM-SD09T3-D35-M16-L43-Z03-H AHFM-SD09T3-D40-M16-L43-Z04-H
		<b>SD.. 1204.. (For ZCC)</b>	AHFM-SD1204-D32-M16-L43-Z02-H AHFM-SD1204-D40-M16-L43-Z03-H
-°	AHFM-JD1204	Uç / Insert	Takım Kodu / Tool Code
		<b>JDMT 1003.. (For HTCH)</b>	AHFM-JD1003-D16-M08-L30-Z02-H AHFM-JD1003-D20-M10-L30-Z03-H
-°	AHFM-LN0303	Uç / Insert	Takım Kodu / Tool Code
		<b>LNMT 1003.. (For TNGLY)</b>	AHFM-LN0303-D25-M12-L35-Z04-H AHFM-LN0303-D32-M16-L43-Z05-H AHFM-LN0303-D42-M16-L43-Z06-H
-°	AHFM-LO03	Uç / Insert	Takım Kodu / Tool Code
		<b>LOGU 0303.. (For KYCR)</b>	AHFM-LO03-D20-M10-L30-Z04-H-F AHFM-LO03-D25-M12-L35-Z04-H-F AHFM-LO03-D25-M12-L35-Z04-H AHFM-LO03-D32-M16-L40-Z05-H-F AHFM-LO03-D32-M16-L40-Z05-H AHFM-LO03-D32-M16-L40-Z06-H-F AHFM-LO03-D32-M16-L40-Z06-H AHFM-LO03-D35-M16-L40-Z06-H AHFM-LO03-D42-M16-L40-Z05-H AHFM-LO03-D42-M16-L40-Z06-H

03. VİDALI MODÜLER TAKIMLAR  
FACE MILLING TOOLS

-°	AHFM-SO0803	Uç / Insert	Takım Kodu / Tool Code
		<b>SOMW 0803.. (For KPTK)</b>	AHFM-SO0803-D20-M10-L30-Z02-H AHFM-SO0803-D25-M12-L35-Z03-H AHFM-SO0803-D32-M16-L43-Z03-H AHFM-SO0803-D32-M16-L43-Z04-H AHFM-SO0803-D40-M16-L43-Z04-H
-°	AHFM-SP1004	Uç / Insert	Takım Kodu / Tool Code
		<b>SPNW 1004.. (For DJT)</b>	AHFM-SP1004-D25-M12-L35-Z02-H AHFM-SP1004-D32-M16-L43-Z03-H AHFM-SP1004-D35-M16-L43-Z03-H AHFM-SP1004-D42-M16-L43-Z04-H



03. VİDALI MODÜLER TAKIMLAR  
FACE MILLING TOOLS

-°	AHFM-WD..	Uç / Insert	Takım Kodu / Tool Code
		<b>WD.T 0503..</b> (For DJT)	AHFM-WD0503D-D20-M10-L30-Z02-H AHFM-WD0503D-D25-M12-L35-Z03-H AHFM-WD0503D-D32-M16-L43-Z04-H AHFM-WD0503D-D40-M16-L43-Z05-H
		<b>WD.W 06T3..</b> (For DJT)	AHFMC-WD06T3D-D35-M16-L43-Z03-H
		<b>WD.W 0805..</b> (For DJT)	AHFMC-WD0805D-D32-M16-L43-Z02-H


-°	AHFM-WD..	Uç / Insert	Takım Kodu / Tool Code
		<b>SOMT 1004..</b> (For KYCR)	AHFM-SO1004-D32-M16-L40-Z03-H AHFM-SO1004-D40-M16-L40-Z04-H AHFM-SO1004-D42-M16-L40-Z04-H

-°	AHFMC-WD0804	Uç / Insert	Takım Kodu / Tool Code
		<b>WDMT 0804..</b> (For SMTM)	AHFMC-WD0804-D25-M12-L35-Z02-H AHFMC-WD0804-D32-M16-L35-Z03-H

-°	AHFM-WN09T3	Uç / Insert	Takım Kodu / Tool Code
		<b>WNMX 09T3..</b> (For KRLY)	AHFM-WN09T3-D32-M16-L40-Z03-H AHFM-WN09T3-D35-M16-L40-Z04-H AHFM-WN09T3-D40-M16-L40-Z04-H

03. VİDALI MODÜLER TAKIMLAR  
FACE MILLING TOOLS

-°	AHFM-YP1003	Uç / Insert	Takım Kodu / Tool Code
		<b>YPHW 1003..</b> (For DJT)	AHFM-YP1003-D16-M08-L23-Z02-F AHFM-YP1003-D16-M08-L23-Z02-H-F AHFM-YP1003-D17-M08-L23-Z02-H-F AHFM-YP1003-D17-M08-L23-Z02-H AHFM-YP1003-D20-M10-L30-Z03-H-F AHFM-YP1003-D20-M10-L30-Z03-H AHFM-YP1003-D20-M10-L30-Z04-H AHFM-YP1003-D20-M10-L30-Z04-F AHFM-YP1003-D21-M10-L30-Z03-H-F AHFM-YP1003-D21-M10-L30-Z03-H AHFM-YP1003-D25-M12-L35-Z04-F AHFM-YP1003-D25-M12-L35-Z04-H AHFM-YP1003-D25-M12-L35-Z04-H-F AHFM-YP1003-D26-M12-L35-Z04-H-F AHFM-YP1003-D32-M16-L30-Z05-F AHFM-YP1003-D32-M16-L43-Z05-H-F AHFM-YP1003-D40-M16-L43-Z06-H-F AHFM-YP1003-D42-M16-L43-Z06-H-F

90°	AEM90-TNG10	Uç / Insert	Takım Kodu / Tool Code
		<b>TNGX 1004..</b> (For PRMT)	AEM90-TNG10-D20-M10-L26-Z02-H AEM90-TNG10-D20-M10-L26-Z03-H AEM90-TNG10-D21-M10-L25-Z03-H AEM90-TNG10-D25-M12-L33-Z03-H AEM90-TNG10-D25-M12-L33-Z04-H AEM90-TNG10-D26-M12-L30-Z04-H AEM90-TNG10-D32-M16-L43-Z04-H AEM90-TNG10-D32-M16-L43-Z05-H AEM90-TNG10-D33-M16-L43-Z05-H AEM90-TNG10-D35-M16-L43-Z05-H

-°	AEMR-RP10T3A	Uç / Insert	Takım Kodu / Tool Code
		<b>RPMW 10T3..</b> (For ACHTK)	AEMR-RP10T3A-D32-M16-L43-Z04-H AEMR-RP10T3A-D42-M16-L43-Z05-H

## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI



### 03. VİDALI MODÜLER TAKIMLAR FACE MILLING TOOLS

-°	AEMR-RP10T3K	Uç / Insert	Takım Kodu / Tool Code
		<b>RPMT 10T3.. (For KYCR)</b>	AEMR-RP10T3K-D32-M16-L43-Z04-H AEMR-RP10T3K-D42-M16-L43-Z05-H

-°	AHFM-SO0803P	Uç / Insert	Takım Kodu / Tool Code
		<b>SOEW 0803 (For PLBT)</b>	AHFM-SO0803P-D32-M16-L35-Z04-H AHFM-SO0803P-D42-M16-L35-Z05-H

90°	AEM90-XN043	Uç / Insert	Takım Kodu / Tool Code
		<b>XNEX 0403.. (For SC)</b>	AEM90-XN0403-D32-M16-L43-Z05-H AEM90-XN0403-D42-M16-L43-Z06-H

-°	AEMRC-RD10T3	Uç / Insert	Takım Kodu / Tool Code
		<b>RD.. 10T3 (For ISO)</b>	AEMRC-RD10T3-D20-M10-L30-Z02 AEMRC-RD10T3-D32-M16-L43-Z03-H



## 03. UÇ BAĞLAMA ELEMANLARI 01. FREZELEME TAKIMLARI


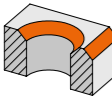
### 03. VİDALI MODÜLER TAKIMLAR FACE MILLING TOOLS

-°	AHFM-SD1205	Uç / Insert	Takım Kodu / Tool Code
		<b>SD.. 1205.. (For HTCH)</b>	AHFM-SD1205-D32-M16-L40-Z03-H AHFM-SD1205-D35-M16-L40-Z03-H AHFM-SD1205-D40-M16-L43-Z03-H AHFM-SD1205-D42-M16-L43-Z03-H

-°	AHFM-SP0735	Uç / Insert	Takım Kodu / Tool Code
		<b>SPMX 073505 (For MTSBH)</b>	AHFM-SP0735-D16-M08-L23-Z02-H AHFM-SP0735-D20-M10-L30-Z03-H AHFM-SP0735-D25-M12-L35-Z04-H

-°	AHFM-SP0945	Uç / Insert	Takım Kodu / Tool Code
		<b>SPMX 094506 (For MTSBH)</b>	AHFM-SP0945-D32-M16-L43-Z04-H AHFM-SP0945-D35-M16-L43-Z04-H AHFM-SP0945-D42-M16-L43-Z05-H

07. TAKMA UCLU HAVŞA FREZELER  
CHAMFERING TOOLS

-°	ACM..-TC..	Uç / Insert	Takım Kodu / Tool Code
	TC.T 16T304		ACM10-TC16-D17X22-W16-L90-Z01
			ACM15-TC16-D17X24-W16-L90-Z01
			ACM15-TC16-D22X29-W16-L100-Z01
			ACM15-TC16-D30X37-W20-L100-Z02
			ACM15-TC16-D35X42-W20-L100-Z03
			ACM15-TC16-D52X59-W25-L110-Z03
			ACM17.5-TC16-D17X25-W16-L90-Z01
			ACM18.5-TC16-D21.3X30-W20-L100-Z02
			ACM20-TC16-D12X22-W16-L100-Z01
			ACM20-TC16-D17X27-W16-L100-Z01
			ACM20-TC16-D23X33-W20-L100-Z02
			ACM20-TC16-D28X38-W20-L100-Z02
			ACM20-TC16-D35X45-W20-L100-Z03
			ACM20-TC16-D39X49-W20-L100-Z03
			ACM20-TC16-D45X55-W25-L110-Z03
ACM20-TC16-D51X61-W25-L110-Z03			
ACM22.5-TC16-D17X28-W16-L100-Z01			
ACM25-TC16-D17X29-W16-L100-Z01			
ACM30-TC16-D6X20-W16-L100-Z01			
ACM30-TC16-D15X30-W16-L100-Z01			
ACM30-TC16-D17.5X32.5-W20-L100-Z02			
ACM30-TC16-D20X35-W16-L100-Z02			
ACM30-TC16-D30X45-W20-L100-Z02			
ACM30-TC16-D35X50-W20-L100-Z03			
ACM30-TC16-D45X60-W25-L110-Z03			
ACM40-TC16-D18X37-W20-L100-Z02			
TC.T 090204	ACM45-TC09-D7X18-W16-L100-Z02		
TC.T 110204	ACM45-TC11-D11X24-W16-L100-Z02		
	TC.T 16T304		ACM45-TC16-D5X26-W16-L100-Z01
			ACM45-TC16-D10X31-W16-L100-Z02
			ACM45-TC16-D10X31-W20-L100-Z02
			ACM45-TC16-D18X39-W16-L100-Z02
			ACM45-TC16-D18X39-W20-L100-Z02
			ACM45-TC16-D20X41-W20-L100-Z02
			ACM45-TC16-D30X51-W20-L100-Z02
			ACM50-TC16-D16X39-W20-L100-Z03
			ACM55-TC16-D16X40-W20-L100-Z03
			ACM62-TC16-D14X40-W20-L100-Z03
ACM72-TC16-D14X42-W20-L100-Z03			

07. TAKMA UCLU HAVŞA FREZELER  
CHAMFERING TOOLS

45°	ACM45-SP11	Uç / Insert	Takım Kodu / Tool Code			
	SPGT 110408 (For ZCC)		ACM45-SP1104-D12x26-W20-L150-Z01			
			ACM45-SP1104-D25x39-W25-L150-Z02			
	-°	ACBM..	Uç / Insert			
				Takım Kodu / Tool Code		
					CC.. 0602.. (For ISO)	ACBM-CC06-D17X6-W16-L150-Z02
					ACBM-CC06-D18X7-W16-L100-Z02-H	
ACBM-CC06-D18X7-W16-L160-Z02-H						
ACBM-CC06-D20X9-W20-L100-Z02-H						
ACBM-CC06-D20X9-W20-L160-Z02-H						
CC.. 09T3.. (For ISO)	ACBM-CC09-D26X8.5-W25-L130-Z02-H					
ACBM-CC09-D26X8.5-W25-L200-Z02						
ACBM-CC09-D30X12.5-W32-L130-Z02-H						
ACBM-CC09-D33X15.5-W32-L130-Z02-H						
ACBM-CC09-D33X15.5-W32-L200-Z2						
SPMG 0602.. (For TGTC)	ACBM-SP06-D15X4-W16-L160-Z02-H					
	-°	AHM..-AP16..	Uç / Insert			
				Takım Kodu / Tool Code		
AP.. 1604.. (For ISO)	AHM15-AP16-D35x93-A27-Z0306-H					
AHM30-AP16-D35x87-A27-Z0306-H						
AHM45-AP16-D35x77-A27-Z0306-H						
AHM60-AP16-D35x65-A22-Z0306-H						
AHM75-AP16-D35x50-A22-Z0306-H						
	60°	ATM60..	Uç / Insert			
				Takım Kodu / Tool Code		
					TBGT 060102	ATM60-TB0601-D13-C10-L150-Z02-H
					TC.T 090202	ATM60-TC0902-D20.5-C16-L150-Z02-H
TC.T 110202	ATM60-TC1102-D26-C20-L150-Z03-H					
TC.T 16T304 (For ISO)	ATM60-TC16T3-D32-C25-L150-Z02-H					
ATM60-TC16T3-D40-C32-L250-Z03-H						



01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

75°	TCBNR / L	T Sistem	75°	TDHNR / L	T Sistem
		2525 M16			2525 M11 2020 K15 2525 M15 3232 P15
75°	TCKNR / L	T Sistem	93°	TDJNR / L	T Sistem
		2020 K12 2525 M12 3232 P12 2525 M16 3232 P16			1616 H11 2020 K11 2525 M11 2020 K15 2525 M15 3232 P15 4040 S15 2020 K1504 2525 M1504 3232 P1504 4040 S1504
95°	TCLNR / L	T Sistem	50°	TCMNN	T Sistem
		2020 K12 2525 M12 3232 P12 4040 S12 5050 S12 2525 M16 3232 P16			1616 H12 2020 K12 2525 M12 3232 P12 2525 M16 3232 P16
50°	TCMNN	T Sistem	62.5°	TDNNN	T Sistem
		1616 H12 2020 K12 2525 M12 3232 P12 2525 M16 3232 P16			1616 H11 2020 K11 2525 M11 2020 K15 2525 M15 3232 P15
40°	TCZNN	T Sistem	45°	TSDNN	T Sistem
		2020 K12 2525 M12 3232 P12 2525 M16 3232 P16			1616 H12 2020 K12 2525 M12 3232 P12 3232 P15

01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

75°	TSKNR / L	T Sistem	2020 K12 2525 M12 3232 P12 3232 P15
107.5°	TVHNR / L	T Sistem	2020 K16 2525 M16 3232 P16
45°	TSSNR / L	T Sistem	2020 K12 2525 M12 3232 P12 2525 M15 3232 P15
93°	TVJNR / L	T Sistem	2020 K16 2525 M16 3232 P16
60°	TTENN	T Sistem	2020 K16 2525 M16 3232 P16 2525 M22 3232 P22
72.5°	TVVNN	T Sistem	2020 K16 2525 M16 3232 P16
90°	TTGNR / L	T Sistem	2020 K16 2525 M16 3232 P16 2525 M22 3232 P22 4040 S22
95°	TWLNR / L	T Sistem	1616 H06 2020 K06 2525 M06 2020 K08 2525 M08 3232 P08 4040 S08
93°	TTJNR / L	T Sistem	2020 K16 2525 M16 3232 P16 2525 M22 3232 P22
60°	MTENN	M Sistem	2020 K16 2525 M16 3232 P16 2525 M22 3232 P22 4040 S22

01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

43°	MTJNR / L	M Sistem	2020 K16 2525 M16 3232 P16 2525 M22 3232 P22 4040 S22
50°	PCMNN	T Sistem	2020 K12C 2525 M12C 3232 P19C 4040 S19C 4040 S25C
95°	MWLNR / L	M Sistem	1616 H06 2020 K06 2525 M06 2020 K08 2525 M08 3232 P08
93°	PDJNR / L	T Sistem	1616 H11 2020 K11 2525 M11 2020 K15C 2525 M15C 3232 P15C 4040 S15C
50°	MWMNN	M Sistem	1616 H06 2020 K06 2525 M06 2020 K08 2525 M08 3232 P08
62.5°	PDNNN	P Sistem	1616 H11 2020 K11 2525 M11 2020 K15C 2525 M15C 3232 P15C
95°	PCLNR / L	P Sistem	1616 H09 2020 K09 2525 M09 1616 H12 2020 K12C 2525 M12C 3232 P12C 2525 M16C 3232 P16C 2525 M19C 3232 P19C 4040 S19C 4040 S25C 5050 S25C
75°	PSBNR / L	P Sistem	1616 H09 2020 K12C 2525 M12C 3232 P12C 2525 M15 3232 P15C 3232 P19C 4040 S19C 4040 S25C 5050 S25C

01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

75°	PCBNR / L	P Sistem
		2020 K12C 2525 M12C 3232 P12C 2525 M16C 3232 P16C 3232 P19C 4040 S19C 4040 S25C
45°	PSDNN	P Sistem
		1616 H09 2020 K12C 2525 M12C 3232 P12C 2525 M15C 3232 P19C 4040 S25C
75°	PSKNR / L	P Sistem
		2020 K09 2020 K12C 2525 M12C 3232 P12C 2525 M15C 3232 P15C 3232 P19C 4040 S19C 4040 S25C 5050 S25C
45°	PSSNR / L	P Sistem
		1616 H09 2020 K09 2020 K12C 2525 M12C 3232 P12C 3232 P15C 3232 P19C 4040 S19C 4040 S25C

90°	PTFNR / L	P Sistem
		1616 H16 2020 K16 2525 M16 3232 P16 2525 M22C 3232 P22C
90°	PTGNR / L	P Sistem
		1616 H16 2020 K16 2525 M16 2525 M22C 3232 P22C
93°	PTJNR / L	P Sistem
		1616 H16 2020 K16 2525 M16 3232 P16 2525 M22C 3232 P22C 4040 S27
60°	PTTNR / L	P Sistem
		1616 H16 2020 K16 2525 M16 3232 P16 2525 M22C 3232 P22C
95°	PWLNR / L	M Sistem
		1616 H06 2020 K06 2525 M06 1616 H08 2020 K08C 2525 M08C 3232 P08C

01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

93°	PDJCR/L	P Sistem
		1010 K11-S 1212 K11-S 1616 K11-S
93°	CKJNR / L	C Sistem
		2020 K16 2525 M16 3232 P16 4040 S16
95°	CCLNR / L	C Sistem
		2525 M1207C 3232 P1207C 2525 M1607C
-°	CRDCN	C Sistem
		2525 M06CV 3225 P06CV 4040 S06CV 2525 M09CV 3225 P09CV 4040 S09CV 2525 M12CV 3225 P12CV 4040 S12CV
-	CRDCR / L	C Sistem
		3225 P06CV 3225 P09CV 3225 P12CV

93°	CRDCN	C Sistem
		3232 P06CVK 4040 R06CVK 3232 P09CVK 4040 R09CVK 3232 P12CVK 4040 R12CVK
93°	CDJNR / L	C Sistem
		2525 M1107C 2525 M1507C 3232 P1507C
62.5°	CDNNN	C Sistem
		2525 M1107C
45°	CSDNN	C Sistem
		2525 M1207C 3232 P1207C
75°	CSKNR / L	C Sistem
		2525 M1207C 3232 P1207C

01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

75°	CSRNR / L	C Sistem
		2525 M1207C 3232 P1207C
45°	CSSNR / L	C Sistem
		2525 M1207C 3232 P1207C
93°	CTJNR / L	C Sistem
		2525 M1607C 3232 P1607C
90°	SCACR / L	S Sistem
		0808 E06 1010 E06 1212 F09 1616 H09 2020 K09 2020 K12 2525 M12-Z 2525 M12
50°	SCMCN	S Sistem
		0808 E06 1010 E06 1212 F06 1212 F09 1616 H09 2020 K12 2525 M12

95°	SCLCR / L	S Sistem
		0808 E06 1010 E06 1212 F06 1010 E09 1212 F09 1616 H09 2020 K09 2525 M09 1616 H12 2020 K12-Z 2020 K12 2525 M12-Z 2525 M12
107.5°	SDHCR / L	S Sistem
		0808 E07 1010 E07 1212 F07 1616 H07 1616 H11 2020 K11 2525 M 11 3232 P11
93°	SDJCR / L	S Sistem
		0808 E07 1010 E07 1212 F07 1616 H07 1616 H11 2020 K11 2525 M 11 3232 P11
62.5°	SDNCN	S Sistem
		0808 E07 1010 E07 1212 F07 1616 H07 1616 H11 2020 K11 2525 M 11 3232 P11

01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

-°	SRDCR / L	S Sistem
		3232 P12C
-°	SRDCN	S Sistem
		1616 H06 2020 K06 2525 M06 1616 H08C 2020 K08C 2525 M08C 1616 H10C 2020 K10C 2525 M10C 3232 P10C 2020 K12C 2525 M12C 3232 P12C 2525 M16C 3232 P16C 2525 M20C 3232 P20C 3232 P25C 3232 P32C
-°	SRGCR / L	S Sistem
		1616 H06 2020 K06 1616 H08C 2020 K08C 2525 M08C 1616 H10C 2020 K10C 2525 M10C 3232 P10C 2020 K12C 2525 M12C 3232 P12C

20°	SRHCR / L	S Sistem
		2525 K06 2525 K08 2525 K10 2525 K12 2525 K16
-°	SRXCR / L	S Sistem
		3232 X08C 3232 X10C 3232 X12C
45°	SSDCN	S Sistem
		1212 F09 1616 H09-Z 1616 H09 2020 K09-Z 2020 K09 1616 H12-Z 1616 H12 2020 K12 2525 M12
90°	STGCR / L	S Sistem
		0808 E09 1010 E09 1212 F11 1616 H11 1616 H16 2020 K16 2525 M16 3232 P16

01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

45°	SSSCR / L	S Sistem
		1212 F09 1616 H09-Z 1616 H09 2020 K09-Z 2020 K09 1616 H12 2020 K12-Z 2020 K12 2525 M12-Z 2525 M12

90°	STFCR / L	S Sistem
		0808 E09 1010 E09 1212 F11 1616 H11 1616 H16 2020 K16 2525 M16 3232 P16

93°	STJCR / L	S Sistem
		0808 E09 1010 E09 1212 F11 1616 H11 1616 H16 2020 K16 2525 M16 3232 P16

90°	STCCN	S Sistem
		0808 E09 1010 E09 1212 F11 1616 H11 2020 K16 2525 M16 3232 P16

93°	STUCR / L	S Sistem
		0808 E09 1010 E09 1212 F11 1616 H11 2020 K16 2525 M16 3232 P16

107.5°	SVHBR / L	S Sistem
		1212 F11 1616 H11 2020 K11 2020 K16 2525 M16 3232 P16

107.5°	SVHCR / L	S Sistem
		1212 F11 1616 H11 2020 K11 2020 K16 2525 M16 3232 P16

93°	SVJBR / L	S Sistem
		1212 F11 1616 H11 2020 K11 1616 H16 2020 K16 2525 M16 3232 P16

93°	SVJCR / L	S Sistem
		1212 F11 1616 H11 2020 K11 2525 M11 1212 F16 2020 K16 2525 M16 3232 P16

01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

72.5°	SVVBN	S Sistem
		1212 F11 1616 H11 2020 K11 2020 K16 2525 M16 3232 P16

72.5°	SVVCN	S Sistem
		1212 F11 1616 H11 2020 K11 2020 K16 2525 M16 3232 P16

90°	SCACR / L	S Sistem
		0808 X06-S 1010 K06-S 1212 G06-S 1212 K06-S 1212 K09-S 1616 K09-S 2020 K09-S

90°	SDACR / L	S Sistem
		0808 X07-S 1010 K07-S 1212 K07-S 1616 F07-S 1616 K07-S 1212 K11-S 1616 F11-S 1616 K11-S 2020 K11-S

91°	STGCR / L	S Sistem
		1216 K11-S 1616 K11-S 1216 K16-S 1616 K16-S

95°	SCLCR / L	S Sistem
		0808 X06-S 1010 X06-S 1212 G06-S 1212 X06-S 1212 K06-S 1616 F06-S 1616 X06-S 1212 G09-S 1212 X09-S 1616 F09-S 1616 G09-S 1616 X09-S 2020 X09-S

93°	SDJCR / L	S Sistem
		0808 X07-S 1010 X07-S 1212 G07-S 1212 X07-S 1616 F07-S 1616 X07-S 2020 X07-S 1212 G11-S 1212 X11-S 1212 K11-S 1616 F11-S 1616 X11-S 1616 K11-S 2020 X11-S



01. DIŞ ÇAP TORNALAMA KATERLERİ  
EXTERNAL TURNING TOOLHOLDERS

90°	SVACR / L	S Sistem
		1010 K11-S 1212 K11-S 1616 K11-S 2020 K11-S 1212 K16-S 1616 K16-S

93°	SVJBR / L	S Sistem
		1616 K11-S

93°	SVJCR / L	S Sistem
		0808 X11-S 1010 K11-S 1212 K11-S 1616 K11-S

-	ASTB	SEC Tools
		1212-L84-H 1616-L90-H

93°	SDJCR / L	SEC Tools
		12X43.3-07 12X43.3-07-H 16X43.3-07 16X43.3-07-H 12X43.3-11 12X43.3-11-H 16X43.3-11 16X43.3-11-H

93°	SVJCR / L	SEC Tools
		12-43.3-11 12-43.3-11-H 16-43.3-11 16-43.3-11-H

-	SER/L-	SEC Tools
		12x43.3-11 16x43.3-11 16x43.3-16

02. DELİK İÇİ TORNALAMA KATERLERİ  
BORING BARS

95°	TCLNR / L	T Sistem
		S25S TCLNR/L 09-Z S25S TCLNR/L 09 S25S TCLNR/L 12-Z S25S TCLNR/L 12 S32T TCLNR/L 12 S40U TCLNR/L 12 S50V TCLNR/L 12 S32T TCLNR/L 16 S40U TCLNR/L 16 S50V TCLNR/L 16 A25R TCLNR/L 12 A40T TCLNR/L 12 A50V TCLNR/L 12

62.5°	TD-NR / L	T Sistem
		S32T TD-NR/L 15 S40U TD-NR/L 15 S50V TD-NR/L 15

107.5°	TDQNR / L	T Sistem
		S25S TDQNR/L 11-Z S25S TDQNR/L 11 S32T TDQNR/L 11 S25S TDQNR/L 15 S32T TDQNR/L 15 S40U TDQNR/L 15 S50V TDQNR/L 15

93°	TDUNR / L	T Sistem
		S25S TDUNR/L 11-Z S25S TDUNR/L 11 S32T TDUNR/L 11 S25S TDUNR/L 15 S32T TDUNR/L 15 S40U TDUNR/L 15 S50V TDUNR/L 15 A40T TDUNR/L 15

75°	TSKNR / L	T Sistem
		S25S TSKNR/L 12-Z S25S TSKNR/L 12 S32T TSKNR/L 12 S40U TSKNR/L 12

60°	TT-NR / L	T Sistem
		S25S TT-NR/L 16-Z S25S TT-NR/L 16 S32T TT-NR/L 16

93°	TTUNR / L	T Sistem
		S25S TTUNR/L 16-Z S25S TTUNR/L 16 S32T TTUNR/L 16 S25S TTUNR/L 22 S32T TTUNR/L 22 S40U TTUNR/L 22 S50V TTUNR/L 22

93°	TVUNR / L	T Sistem
		S25S TVUNR/L 16 S32T TVUNR/L 16 S40U TVUNR/L 16

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95°	TWLNR / L	T Sistem
		S25S TWLNR/L06-Z S25S TWLNR/L06 S32T TWLNR/L06 S25S TWLNR/L08-Z S25S TWLNR/L08 S32T TWLNR/L08 S40U TWLNR/L08 S50V TWLNR/L08 A32S TWLNR/L 08 A40T TWLNR/L 08 A50U TWLNR/L 08

-	CTFPR / L	C Sistem
		S16R CTFPR/L 16 S20S CTFPR/L 16 S25T CTFPR/L 16

93°	CKUNR / L	C Sistem
		S25S CKUNR/L 16 S32T CKUNR/L 16 S40U CKUNR/L 16 S50V CKUNR/L 16

95°	MCLNR / L	M Sistem
		S20R MCLNR/L 12 S25S MCLNR/L 12-Z S25S MCLNR/L 12 S32T MCLNR/L 12

93°	MDUNR / L	M Sistem
		S20R MDUNR/L 11 S25S MDUNR/L 11 S25S MDUNR/L 15-Z S25S MDUNR/L 15 S32T MDUNR/L 15 S40U MDUNR/L 15 S50V MDUNR/L 15

90°	MTFNR / L	M Sistem
		S20R MTFNR/L 16 S25S MTFNR/L 16 S32T MTFNR/L 16 S40U MTFNR/L 16 S32T MTFNR/L 22 S40U MTFNR/L 22 S50V MTFNR/L 22

60°	MT-NR / L	M Sistem
		S20R MT-NR/L 16 S25S MT-NR/L 16-Z S25S MT-NR/L 16 S32T MT-NR/L 16 S40U MT-NR/L 16 S32T MT-NR/L 22 S40U MT-NR/L 22 S50U MT-NR/L 22

107.5°	MTQNR / L	M Sistem
		S20R MTQNR/L 16 S25S MTQNR/L 16-Z S25S MTQNR/L 16 S32T MTQNR/L 16 S40U MTQNR/L 16 S32T MTQNR/L 22 S40U MTQNR/L 22 S50V MTQNR/L 22

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BORING BARS

93°	MTUNR / L	T Sistem
		S20R MTUNR/L 16 S25S MTUNR/L 16-Z S25S MTUNR/L 16 S32T MTUNR/L 16 S40U MTUNR/L 16 S50V MTUNR/L 16 S32T MTUNR/L 22 S40U MTUNR/L 22 S50V MTUNR/L 22

95°	MWLNR / L	T Sistem
		S16P MWLNR/L06 S20R MWLNR/L06 S25S MWLNR/L06 S25S MWLNR/L08-Z S25S MWLNR/L08 S20R MWLNR/L08 S32T MWLNR/L08 S40U MWLNR/L08

95°	PCLNR / L	P Sistem
		S16P PCLNR/L 09 S20R PCLNR/L 09 S25S PCLNR/L 09 S25S PCLNR/L 12C S32T PCLNR/L 12C S40U PCLNR/L 12C S50V PCLNR/L 12C S32T PCLNR/L 16C S40U PCLNR/L 16C S50V PCLNR/L 16C S40U PCLNR/L 19C S50V PCLNR/L 19C A20P PCLNR/L 09 A25R PCLNR/L 12C A25S PCLNR/L 12C A32S PCLNR/L 12C A32T PCLNR/L 12C

95°	PCLNR / L	P Sistem
		A40T PCLNR/L 12C A50U PCLNR/L 12C A32S PCLNR/L 16C A40T PCLNR/L 16C A50U PCLNR/L 16C A40T PCLNR/L 19C A50U PCLNR/L 19C

107.5°	PDQNR / L	P Sistem
		S20R PDQNR/L 11 S25S PDQNR/L 11 S32T PDQNR/L 15 S40U PDQNR/L 15 S50V PDQNR/L 15 S32T PDQNR/L1504 S40U PDQNR/L1504 S50V PDQNR/L1504 A20P PDQNR/L 11 A25R PDQNR/L 11 A32S PDQNR/L 15 A40T PDQNR/L 15 A50U PDQNR/L 15 A32S PDQNR/L1504 A40T PDQNR/L1504

93°	PDUNR / L	P Sistem
		S20R PDUNR/L 11 S25S PDUNR/L 11 S25S PDUNR/L 15 S32T PDUNR/L 15 S40U PDUNR/L 15 S50V PDUNR/L 15 A20P PDUNR/L 11 A25R PDUNR/L 11 A25S PDUNR/L 11 A32S PDUNR/L 11 A32S PDUNR/L 15 A40T PDUNR/L 15 A50U PDUNR/L 15

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93°	PDXNR / L	P Sistem
		S32T PDXNR/L 15 S40U PDXNR/L 15 S50V PDXNR/L 15

90°	PTFNR / L	P Sistem
		A25R PTFNR/L 16C A32S PTFNR/L 16C

75°	PSKNR / L	P Sistem
		S25S PSKNR/L 12C S32T PSKNR/L 12C S40U PSKNR/L 12C S50V PSKNR/L 12C S32T PSKNR/L 15C S40U PSKNR/L 15C S50V PSKNR/L 15C A25R PSKNR/L 12C A32S PSKNR/L 12C A40T PSKNR/L 12C A50U PSKNR/L 12C A32S PSKNR/L 15C A40T PSKNR/L 15C A50U PSKNR/L 15C

95°	PWLNR / L	P Sistem
		S20R PWLNR/L 06 S25S PWLNR/L 06 S32T PWLNR/L 06 S25S PWLNR/L 08C S32T PWLNR/L 08C S40U PWLNR/L08C S50V PWLNR/L 08C A16M PWLNR/L 06 A20P PWLNR/L 06 A25R PWLNR/L 06 A32S PWLNR/L 06 A40T PWLNR/L06C A25R PWLNR/L 08C A32S PWLNR/L 08C A40T PWLNR/L08C A50U PWLNR/L08C

93°	PTUNR / L	P Sistem
		S16P PTUNR/L 16 S20R PTUNR/L 16 S25S PTUNR/L 16C S32T PTUNR/L 16C S40U PTUNR/L 16C S32T PTUNR/L 22C S40U PTUNR/L 22C S50V PTUNR/L 22C A16M PTUNR/L 16 A20P PTUNR/L 16 A25R PTUNR/L 16C A32S PTUNR/L 16C A40T PTUNR/L 16C A32S PTUNR/L 22C A40T PTUNR/L 22C

90°	SCFCR / L	S Sistem
		S08H SCFCR/L 06 S10K SCFCR/L 06 S12K SCFCR/L 06 S16P SCFCR/L 09 S16M SCFCR/L 09 S20R SCFCR/L 09 S25S SCFCR/L 09-Z S25S SCFCR/L 09 S25S SCFCR/L 12

02. DELİK İÇİ TORNALAMA KATERLERİ  
BORING BARS

62.5°	SD-CR / L	S Sistem
		S10K SD-CR/L 07 S12K SD-CR/L 07 S16P SD-CR/L 07 S20R SD-CR/L 07 S16P SD-CR/L 11 S20R SD-CR/L 11 S25S SD-CR/L 11-Z S25S SD-CR/L 11 S32T SD-CR/L 11 S40U SD-CR/L 11

117.5°	SDPCR / L	S Sistem
		S10K SDPCR/L 07 S12K SDPCR/L 07 S16P SDPCR/L 11 S20R SDPCR/L 11 S25S SDPCR/L 11

-°	SRGCR / L	S Sistem
		S16P SRGCR/L08 S20R SRGCR/L08 S25S SRGCR/L08C S32T SRGCR/L08C S40U SRGCR/L08C A16M SRGCR/L08 A20P SRGCR/L08 A25R SRGCR/L08C A32S SRGCR/L08C A40T SRGCR/L08C

95°	SCLCR / L	S Sistem
		S0608H SCLCR/L03 S0608H SCLCR/L06 S08H SCLCR/L 06 S10K SCLCR/L 06 S12K SCLCR/L 06 S1216P SCLCR/L 06 S16P SCLCR/L 06 S12K SCLCR/L 09 S1416P SCLCR/L 09 S16P SCLCR/L 09 S1620R SCLCR/L 09 S20R SCLCR/L 09 S25S SCLCR/L 09-Z S25S SCLCR/L 09 S32T SCLCR/L 09 S25S SCLCR/L 12-Z S25S SCLCR/L 12 S32T SCLCR/L 12 S40U SCLCR/L 12 A08H SCLCR/L 06 A10H SCLCR/L 06 A12H SCLCR/L 06 A16M SCLCR/L 09 A20P SCLCR/L 09 A25R SCLCR/L 09 A32S SCLCR/L 09 A25R SCLCR/L 12

107.5°	SDQCR / L	S Sistem
		S10K SDQCR/L 07 S12K SDQCR/L 07 S16P SDQCR/L 07 S20R SDQCR/L 07 S16P SDQCR/L 11 S20R SDQCR/L 11 S25S SDQCR/L 11-Z S25S SDQCR/L 11 S32T SDQCR/L 11 S40U SDQCR/L 11 A10H SDQCR/L 07 A12H SDQCR/L 07 A16M SDQCR/L 07 A20P SDQCR/L 07 A16M SDQCR/L 11 A20P SDQCR/L 11 A25R SDQCR/L 11 A32S SDQCR/L 11

02. DELİK İÇİ TORNALAMA KATERLERİ  
BORING BARS

93°	SDUCR / L	S Sistem
		S0810K SDUCR/L 07 S10K SDUCR/L 07 S12K SDUCR/L 07 S1216P SDUCR/L 07 S1416P SDUCR/L 07 S16P SDUCR/L 07 S20R SDUCR/L 07 S1416P SDUCR/L 11 S16P SDUCR/L 11 S1620R SDUCR/L 11 S20R SDUCR/L 11 S25S SDUCR/L 11-Z S25S SDUCR/L 11 S25T SDUCR/L 11 S32T SDUCR/L 11 S40U SDUCR/L 11 S50V SDUCR/L 11 A0810H SDUCR/L07 A10H SDUCR/L 07 A12H SDUCR/L 07 A16M SDUCR/L 07 A20P SDUCR/L 07 A16M SDUCR/L 11 A20P SDUCR/L 11 A25R SDUCR/L 11 A25T SDUCR/L 11 A32S SDUCR/L 11 A50U SDUCR/L 11

93°	SDXCR / L	S Sistem
		S12K SDXCR/L 07 S16P SDXCR/L 07 S20R SDXCR/L 07 S16P SDXCR/L 11 S20R SDXCR/L 11 S25S SDXCR/L 11 S32T SDXCR/L 11 S40U SDXCR/L 11 A12H SDXCR/L 07 A16M SDXCR/L 07 A20P SDXCR/L 07 A16M SDXCR/L 11 A20P SDXCR/L 11 A25R SDXCR/L 11 A32S SDXCR/L 11

60°	ST-CR / L	S Sistem
		S12K ST-CR/L 11 S16P ST-CR/L 11 S20R ST-CR/L 11 S16P ST-CR/L 16 S20R ST-CR/L 16 S25S ST-CR/L 16-Z S25S ST-CR/L 16 S32T ST-CR/L 16 S40U ST-CR/L 16

90°	STFCR / L	S Sistem
		S0610F STFCR/L 06 S08H STFCR/L 06 S10K STFCR/L 09 S12K STFCR/L 09 S12K STFCR/L 11 S16P STFCR/L 11 S20R STFCR/L 11 S16P STFCR/L 16 S20R STFCR/L 16 S25S STFCR/L 16-Z S25S STFCR/L 16 S32T STFCR/L 16 A10H STFCR/L 11 A12H STFCR/L 11 A16M STFCR/L 11

45°	SSSCR / L	S Sistem
		S16P SSSCR/L 09 S20R SSSCR/L 09 S25S SSSCR/L 09 S25S SSSCR/L 09-Z S25S SSSCR/L 12 S32T SSSCR/L 12 S40U SSSCR/L 12

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BORING BARS

93°	STUCR / L	S Sistem
		S10K STUCR/L 09 S12K STUCR/L 09 S12K STUCR/L 11 S16P STUCR/L 11 S20R STUCR/L 11 S16P STUCR/L 16 S20R STUCR/L 16 S25S STUCR/L 16 S32T STUCR/L 16 S40U STUCR/L 16 A10H STUCR/L 09 A12H STUCR/L 09 A12H STUCR/L 11 A16M STUCR/L 11 A20P STUCR/L 11 A16M STUCR/L 16 A20P STUCR/L 16 A25R STUCR/L 16 A32S STUCR/L 16

93°	STUPR / L	S Sistem
		S08H STUPR/L0802 S10K STUPR/L 1103 S12K STUPR/L 1103 S12M STUPR/L 1103 S16P STUPR/L 1103 S16R STUPR/L 1103 A20R STUPR/L 1103

93°	SVJBR / L	S Sistem
		S25S SVJBR/L 16 S32T SVJBR/L 16 S40U SVJBR/L 16

93°	SVJCR / L	S Sistem
		S12K SVJCR/L 11 S16P SVJCR/L 11 S20R SVJCR/L 11 A12H SVJCR/L 11 A16M SVJCR/L 11 A20P SVJCR/L 11

107.5°	SVQBR / L	S Sistem
		S16P SVQBR/L 11 S20R SVQBR/L 11 S25S SVQBR/L 16-Z S25S SVQBR/L 16 S32T SVQBR/L 16 S40U SVQBR/L 16 A20Q SVQBR/L 11 A20Q SVQBR/L 16 A25S SVQBR/L 16 A32S SVQBR/L 16

107.5°	SVQCR / L	S Sistem
		S16P SVQCR/L 11 S20R SVQCR/L 11 S25S SVQCR/L 16 S32T SVQCR/L 16 S40U SVQCR/L 16 A16M SVQCR/L 11 A20P SVQCR/L 11 A25R SVQCR/L 16 A32S SVQCR/L 16 A40T SVQCR/L 16

93°	SVUBR / L	S Sistem
		S16P SVUBR/L 11 S20R SVUBR/L 11 S25S SVUBR/L 16-Z S25S SVUBR/L 16 S32T SVUBR/L 16 S40U SVUBR/L 16 A20Q SVUBR/L 16 A32S SVUBR/L 16

02. DELİK İÇİ TORNALAMA KATERLERİ  
BORING BARS

93°	SVUCR / L	S Sistem
		S16P SVUCR/L 11 S20R SVUCR/L 11 S25S SVUCR/L 16-Z S25S SVUCR/L 16 S32T SVUCR/L 16 S40U SVUCR/L 16 A12K SVUCR/L 07 A20Q SVUCR/L 11 A25R SVUCR/L 16

95°	SCLCR / L	S Sistem Karbür Şaftlı
		C04G SCLCR/L 03 C05H SCLCR/L 03 C06J SCLCR/L 04 C07K SCLCR/L 04 C06J SCLCR/L 06 E08K SCLCR/L 06 E10M SCLCR/L 06 E12Q SCLCR/L 06 E16R SCLCR/L 09 E20S SCLCR/L 09

93°	SVXBR / L	S Sistem
		S16P SVXBR/L 1102 S20R SVXBR/L 1102 S16P SVXBR/L 11 S20R SVXBR/L 11 S25S SVXBR/L 16 S32T SVXBR/L 16 S40U SVXBR/L 16

93°	SDUCR / L	S Sistem Karbür Şaftlı
		E10M SDUCR/L 07 E12Q SDUCR/L 07 E16R SDUCR/L 11 E20S SDUCR/L 11

95°	SWLCR	S Sistem
		S0608H SWLCR 03 S0810K SWLCR 03

90°	STFCR/L	S Sistem
		E10M STFCR/L 09 E12Q STFCR/L 09 E12Q STFCR/L 11

93°	SWUBR	S Sistem
		S0610H SWUBR 06 S08H SWUBR 06-5.5 S08H SWUBL 06-5.5 S08H SWUBR 06-7

93°	STUPR/L	S Sistem
		E12Q STUPR/L 1103 E16R STUPR/L 1103

03. DIŞ ÇAP KANAL KATERLERİ  
EXTERNAL GROOVING TOOLHOLDERS

AKKO (AGD) / KRLY - JD (MGM.) UCUNA UYGUNDUR  
COMPATIBLE WITH AKKO (AGD) / KRLY - JD (MGM.)  
INSERT



ADKT-K-R/L-1212-1.5-T15  
ADKT-K-R/L-2020-1.5-T15  
ADKT-K-R/L-1212-2-T15  
ADKT-K-R/L-1616-2-T10  
ADKT-K-R/L-1616-2-T15  
ADKT-K-R/L-2020-2-T15  
ADKT-K-R/L-2525-2-T15  
ADKT-K-R/L-3232-2-T15  
ADKT-K-R/L-1212-3-T15  
ADKT-K-R/L-1616-3-T15  
ADKT-K-R/L-2020-3-T20  
ADKT-K-R/L-2020-3-R28  
ADKT-K-R/L-2525-3-R15  
ADKT-K-R/L-2525-3-T22  
ADKT-K-R/L-3232-3-T22  
ADKT-K-R/L-2020-4-T20  
ADKT-K-R/L-2020-4-R25  
ADKT-K-R/L-2525-4-T18  
ADKT-K-R/L-2525-4-T22  
ADKT-K-R/L-3232-4-T22  
ADKT-K-R/L-2020-5-T20  
ADKT-K-R/L-2525-5-T18  
ADKT-K-R/L-2525-5-T25  
ADKT-K-R/L-3232-5-T25  
ADKT-K-R/L-2525-6-T25  
ADKT-K-R/L-3232-6-T25  
ADKT-K-R/L-3232-8-T32

KRLY (KG..) UCUNA UYGUNDUR  
COMPATIBLE WITH KRLY (KG..) INSERT



ADKT-KG-R/L-2020-2-T15  
ADKT-KG-R/L-2525-2-T8  
ADKT-KG-R/L-2525-2-T15  
ADKT-KG-R/L-2525-2-T17  
ADKT-KG-R/L-1616-3-T20  
ADKT-KG-R/L-2020-3-T20  
ADKT-KG-R/L-2525-3-T10  
ADKT-KG-R/L-2525-3-T13  
ADKT-KG-R/L-2525-3-T22  
ADKT-KG-R/L-2020-4-T20  
ADKT-KG-R/L-2525-4-T10  
ADKT-KG-R/L-2525-4-T16

KRLY (KG..) UCUNA UYGUNDUR  
COMPATIBLE WITH KRLY (KG..) INSERT



ADKT-KG-R/L-2525-4-T22  
ADKT-KG-R/L-2525-5-T12  
ADKT-KG-R/L-2525-5-T15  
ADKT-KG-R/L-2525-5-T25  
ADKT-KG-R/L-2525-6-T25

HRN (S229) UCUNA UYGUNDUR  
COMPATIBLE WITH HRN (S229) INSERT



ADKT-H-R/L-2020-3-T20  
ADKT-H-R/L-2525-3-T22  
ADKT-H-R/L-2525-3-T26  
ADKT-H-R/L-2020-4-T20  
ADKT-H-R/L-2525-4-T22  
ADKT-H-R/L-3232-4-T22  
ADKT-H-R/L-2020-5-T20  
ADKT-H-R/L-2525-5-T25  
ADKT-H-R/L-2525-6-T25

HRN (S224-S223) UCUNA UYGUNDUR  
COMPATIBLE WITH HRN (S224-S223) INSERT



ADKT-HK-R/L-1616-2-T15  
ADKT-HK-R/L-2020-2-T15  
ADKT-HK-R/L-2525-2-T15  
ADKT-HK-R/L-2020-3-T20  
ADKT-HK-R/L-2525-3-T22  
ADKT-HK-R/L-2020-4-T20  
ADKT-HK-R/L-2525-4-T22  
ADKT-HS223-R/L-2020-2-T15  
ADKT-HS223-R/L-2020-3-T17

ZCC (ZQMX) UCUNA UYGUNDUR  
COMPATIBLE WITH ZCC (ZQMX) INSERT



ADKT-ZCCI-R/L-2020-3-T20  
ADKT-ZCCI-R/L-2525-3-T22  
ADKT-ZCCI-R/L-2020-4-T20  
ADKT-ZCCI-R/L-2525-4-T22

03. DIŞ ÇAP KANAL KATERLERİ  
EXTERNAL GROOVING TOOLHOLDERS

ZCC (Z..D) UCUNA UYGUNDUR  
COMPATIBLE WITH ZCC (Z..D) INSERT



ADKT-ZCC2-R/L-1616-2-T15  
ADKT-ZCC2-R/L-2020-2-T7  
ADKT-ZCC2-R/L-2020-2-T15  
ADKT-ZCC2-R/L-2525-2-T15  
ADKT-ZCC2-R/L-1616-2.5-T15  
ADKT-ZCC2-R/L-2020-2.5-T17  
ADKT-ZCC2-R/L-2525-2.5-T15  
ADKT-ZCC2-R/L-1616-3-T15  
ADKT-ZCC2-R/L-1616-3-T17  
ADKT-ZCC2-R/L-1616-3-T20  
ADKT-ZCC2-R/L-2020-3-T12  
ADKT-ZCC2-R/L-2020-3-T20  
ADKT-ZCC2-R/L-2020-3-R21  
ADKT-ZCC2-R/L-2020-3-R25  
ADKT-ZCC2-R/L-2525-3-T12  
ADKT-ZCC2-R/L-2525-3-T22  
ADKT-ZCC2-R/L-2525-3-R30  
ADKT-ZCC2-R/L-2020-4-T12  
ADKT-ZCC2-R/L-2020-4-T20  
ADKT-ZCC2-R/L-2525-4-T12  
ADKT-ZCC2-R/L-2525-4-T22  
ADKT-ZCC2-R/L-2020-5-T12  
ADKT-ZCC2-R/L-2020-5-T20  
ADKT-ZCC2-R/L-2525-5-T12  
ADKT-ZCC2-R/L-2525-5-T25  
ADKT-ZCC2-R/L-3232-5-T25  
ADKT-ZCC2-R/L-2020-6-T20  
ADKT-ZCC2-R/L-2525-6-T25  
ADKT-ZCC2-R/L-3232-6-T25  
ADKT-ZCC2-R/L-3232-6-T30

KNMTL (A4.) UCUNA UYGUNDUR  
COMPATIBLE WITH KNMTL (A4.) INSERT



ADKT-KM-R/L-2020-2-T15  
ADKT-KM-R/L-2525-2-T15  
ADKT-KM-R/L-2020-3-T20  
ADKT-KM-R/L-2525-3-T22  
ADKT-KM-R/L-2525-4-T22

ISCR (DGN-GRP-GIM-GIP-GTN-DCE) UCUNA UYGUNDUR  
COMPATIBLE WITH ISCR (DGN-GRP-GIM-GIP-GTN-DCE)  
INSERT



ADKT-I-R/L-1212-2-T15  
ADKT-I-R/L-1616-2-T15  
ADKT-I-R/L-2020-2-T15  
ADKT-I-R/L-2525-2-T15  
ADKT-I-R/L-3232-2-T15  
ADKT-I-R/L-1212-3-T15  
ADKT-I-R/L-1616-3-T15  
ADKT-I-R/L-2020-3-T12  
ADKT-I-R/L-2020-3-T20  
ADKT-I-R/L-2525-3-T12  
ADKT-I-R/L-2525-3-T22  
ADKT-I-R/L-3232-3-T22  
ADKT-I-R/L-2020-4-T20  
ADKT-I-R/L-2525-4-T12  
ADKT-I-R/L-2525-4-T22  
ADKT-I-R/L-3232-4-T25  
ADKT-I-R/L-2020-5-T20  
ADKT-I-R/L-2525-5-T12  
ADKT-I-R/L-2525-5-T25  
ADKT-IG-R/L-1616-3-T18  
ADKT-IG-R/L-2020-3-T12  
ADKT-IG-R/L-2020-3-R20  
ADKT-IG-R/L-2525-3-T12  
ADKT-IG-R/L-2525-3-T22  
ADKT-IGI-R/L-2020-2-T15  
ADKT-IGI-R/L-2525-2-T15  
ADKT-IGI-R/L-1616-3-T15  
ADKT-IGI-R/L-2020-3-T20  
ADKT-IGI-R/L-2525-3-T9  
ADKT-IGI-R/L-2525-3-T22  
ADKT-IGI-R/L-2525-4-T22  
ADKT-IGI-R/L-2525-5-T25  
ADKT-IGI-R/L-2525-8-T25  
ADKT-IGI-R/L-2525-8-T30  
ADKT-IGTN-R/L-2525-5-T25  
ADKT-IDC-R/L-1616-2-D35  
ADKT-IDC-R/L-2020-2-R23  
ADKT-IDC-R/L-2525-2-R23  
ADKT-IDC-R/L-1616-3-D35  
ADKT-IDC-R/L-2525-3-T21

03. DIŞ ÇAP KANAL KATERLERİ  
EXTERNAL GROOVING TOOLHOLDERS

ISCR (TGM.) UCUNA UYGUNDUR  
COMPATIBLE WITH ISCR (TGM.) INSERT



ADKT-ITG-R/L-2020-3-T8  
ADKT-ITG-R/L-2525-3-T8  
ADKT-ITG-R/L-3232-3-T8  
ADKT-ITG-R/L-2020-4-T9  
ADKT-ITG-R/L-2525-4-T17  
ADKT-ITG-R/L-3232-4-T17  
ADKT-ITG-R/L-3232-5-T25

SNDVK (123) UCUNA UYGUNDUR  
COMPATIBLE WITH SNDVK (123) INSERT



ADKT-123-R/L-1212-1.5-R15  
ADKT-123-R/L-1616-1.5-R15  
ADKT-123-R/L-2012-1.5-R15  
ADKT-123-R/L-1616-2-T15  
ADKT-123-R/L-2020-2-T8  
ADKT-123-R/L-2020-2-T15  
ADKT-123-R/L-2525-2-T8  
ADKT-123-R/L-2525-2-T15  
ADKT-123-R/L-3232-2-T15  
ADKT-123-R-1616-3-T10  
ADKT-123-R/L-1616-3-T15  
ADKT-123-R-2020-3-T10  
ADKT-123-R-2020-3-T15  
ADKT-123-R/L-2020-3-T20  
ADKT-123-R-2525-3-T10  
ADKT-123-R-2525-3-T15  
ADKT-123-R/L-2525-3-T22  
ADKT-123-R/L-2020-4-T20  
ADKT-123-R-2525-4-T13  
ADKT-123-R/L-2525-4-T22  
ADKT-123-R/L-3232-4-T25  
ADKT-123-R/L-2020-5-T20  
ADKT-123-R/L-2525-5-T25  
ADKT-123-R/L-3232-6-T15

SNDVK (151.2) UCUNA UYGUNDUR  
COMPATIBLE WITH SNDVK (151.2) INSERT



ADKT-151.22-R/L-1616-2-T15  
ADKT-151.22-R/L-2020-2-T15  
ADKT-151.22-R/L-2525-2-T15  
ADKT-151.22-R/L-1616-3-T15  
ADKT-151.22-R/L-2020-3-T20  
ADKT-151.22-R/L-2525-3-T22  
ADKT-151.22-R/L-1616-4-T15  
ADKT-151.22-R/L-2020-4-T20  
ADKT-151.22-R/L-2525-4-T22  
ADKT-151.22-R/L-2020-5-T20  
ADKT-151.22-R/L-2525-5-T25

SNDVK (151.2) UCUNA UYGUNDUR  
COMPATIBLE WITH SNDVK (151.2) INSERT



ADKT-151.23-R/L-1616-2-T15  
ADKT-151.23-R/L-2020-2-T15  
ADKT-151.23-R/L-2525-2-T15  
ADKT-151.23-R/L-1616-2.5-T15  
ADKT-151.23-R/L-2020-2.5-T15  
ADKT-151.23-R/L-2525-2.5-T15  
ADKT-151.23-R/L-1212-3-T15  
ADKT-151.23-R/L-1616-3-T15  
ADKT-151.23-R/L-2020-3-T20  
ADKT-151.23-R/L-2525-3-T20  
ADKT-151.23-R/L-2525-3-T22  
ADKT-151.23-R/L-1616-4-T15  
ADKT-151.23-R/L-2020-4-T20  
ADKT-151.23-R/L-2525-4-T22  
ADKT-151.23-R/L-2020-5-T20

AKKO (AGD) / KRLY - JD (MGM.) UCUNA UYGUNDUR  
COMPATIBLE WITH AKKO (AGD) / KRLY - JD  
(MGM.) INSERT



İçten Soğutma Kanallı Dış Çap Kanal  
Açma Takımları  
ADKT-K-R/L-2020-3-T20-H  
ADKT-K-R/L-2525-3-T22-H  
ADKT-K-R/L-2020-4-T20-H  
ADKT-K-R/L-2525-4-T22-H  
ADKT-K-R/L-2525-5-T25-H

03. DIŞ ÇAP KANAL KATERLERİ  
EXTERNAL GROOVING TOOLHOLDERS

ARN (LOMR.) UCUNA UYGUNDUR  
COMPATIBLE WITH ARN  
(LOMR.) INSERT



ADKT-ARN-R/L-2020-2-T15  
ADKT-ARN-R/L-2525-2-T15  
ADKT-ARN-R/L-2020-3-T20  
ADKT-ARN-R/L-2525-3-T22

XTC-GSC UCUNA UYGUNDUR  
COMPATIBLE WITH XTC-GSC INSERT



ADKT-GB-R/L-1212-3  
ADKT-GB-R/L-1616-3  
ADKT-GB-R/L-2020-3

NTK UCUNA UYGUNDUR  
COMPATIBLE WITH NTK INSERT



ADKT-TGF-R/L-1616-3  
ADKT-TGF-R/L-2020-3  
ADKT-TGF-R/L-2525-3

TGTC (TD.) UCUNA UYGUNDUR  
COMPATIBLE WITH TGTC (TD.) INSERT



ADKT-TD-R/L-1212-2-T15  
ADKT-TD-R/L-1616-2-T8  
ADKT-TD-R/L-1616-2-T15  
ADKT-TD-R/L-2020-2-T9  
ADKT-TD-R/L-2020-2-T15  
ADKT-TD-R/L-2020-2-T17  
ADKT-TD-R/L-2020-2-T20  
ADKT-TD-R/L-2525-2-T8  
ADKT-TD-R/L-2525-2-T17

TGTC (TD.) UCUNA UYGUNDUR  
COMPATIBLE WITH TGTC (TD.) INSERT



ADKT-TD-R/L-1212-3-T15  
ADKT-TD-R/L-1616-3-T15  
ADKT-TD-R/L-2020-3-T12  
ADKT-TD-R/L-2020-3-T20  
ADKT-TD-R/L-2020-3-T25  
ADKT-TD-R/L-2020-3-T30  
ADKT-TD-R/L-2525-3-T9  
ADKT-TD-R/L-2525-3-T12  
ADKT-TD-R/L-2525-3-T22  
ADKT-TD-R/L-2525-3-T25  
ADKT-TD-R/L-2525-3-T30  
ADKT-TD-R/L-3232-3-T25  
ADKT-TD-R/L-2525-4-T10  
ADKT-TD-R/L-2525-4-T15  
ADKT-TD-R/L-2525-4-T22  
ADKT-TD-R/L-2525-4-T25  
ADKT-TD-R/L-2525-4-T30  
ADKT-TD-R/L-2525-5-T25

TGTC (RD.) UCUNA UYGUNDUR  
COMPATIBLE WITH TGTC (RD.) INSERT



ADKT-RD-R/L-1616-2-T17  
ADKT-RD-R/L-2020-2-T17  
ADKT-RD-R/L-2525-2-T17  
ADKT-RD-R/L-1616-3-T20  
ADKT-RD-R/L-2020-3-T25  
ADKT-RD-R/L-2525-3-T25  
ADKT-RD-R/L-2020-4-T30  
ADKT-RD-R/L-2525-4-T30

SMTM (WCF.) UCUNA UYGUNDUR  
COMPATIBLE WITH SMTM (WCF.) INSERT



ADKT-SWC-R/L-2020-2-T25  
ADKT-SWC-R/L-2020-3-T25

03. DIŞ ÇAP KANAL KATERLERİ  
EXTERNAL GROOVING TOOLHOLDERS

TNGLY (DGM) UCUNA UYGUNDUR  
COMPATIBLE WITH TNGLY (DGM) INSERT



ADKT-TG-R/L-1616-2-R17  
ADKT-TG-R/L-2020-2-T8  
ADKT-TG-R/L-2020-2-R12  
ADKT-TG-R/L-2020-2-R17  
ADKT-TG-R/L-2525-2-R12  
ADKT-TG-R/L-2525-2-R17  
ADKT-TG-R/L-1616-3-T20  
ADKT-TG-R/L-2020-3-T12  
ADKT-TG-R/L-2020-3-T20  
ADKT-TG-R/L-2525-3-T9  
ADKT-TG-R/L-2525-3-T20  
ADKT-TG-R/L-2525-3-R25  
ADKT-TG-R/L-2525-4-T15  
ADKT-TG-R/L-2525-4-T20  
ADKT-TG-R/L-2525-4-T25  
ADKT-TG-R/L-2525-5-T12  
ADKT-TG-R/L-2525-5-T25  
ADKT-TG-R/L-2525-5-T32

SMTM (GCM) UCUNA UYGUNDUR  
COMPATIBLE WITH SMTM (GCM) INSERT



ADKT-SGC-R/L-1212-2-R15  
ADKT-SGC-R/L-1616-2-R15  
ADKT-SGC-R/L-2020-2-R20  
ADKT-SGC-R/L-2525-2-R20  
ADKT-SGC-R/L-1212-3-R15  
ADKT-SGC-R/L-1616-3-T12  
ADKT-SGC-R/L-1616-3-R15  
ADKT-SGC-R/L-2020-3-R22  
ADKT-SGC-R/L-2525-3-R15  
ADKT-SGC-R/L-2525-3-R22  
ADKT-SGC-R/L-2525-4-R25

HRN (S312) UCUNA UYGUNDUR  
COMPATIBLE WITH HRN (S312) INSERT



ADKT-H22-R/L-1616-(05-2)-T4  
ADKT-H22-R/L-2020-(05-2)-T4  
ADKT-H22-R/L-2020-(05-2)-T6x20  
ADKT-H22-R/L-2525-(05-2)-T4  
ADKT-H22-R/L-2525-(05-2)-T6x20

WLTR (GX16-GX24) UCUNA UYGUNDUR COMPATIBLE  
WITH WLTR (GX16-GX24) INSERT



ADKT-WGX16-R/L-2020-2-R16  
ADKT-WGX16-R/L-2525-2-R16  
ADKT-WGX24-R/L-2020-3-T20  
ADKT-WGX24-R/L-2525-3-T22  
ADKT-WGX24-R/L-3232-3-T22  
ADKT-WGX24-R/L-2525-4-T22  
ADKT-WGX24-R/L-2525-5-T25  
ADKT-WGX24-R/L-3232-5-T25

PLBT (GP) UCUNA UYGUNDUR  
COMPATIBLE WITH PLBT (GP) INSERT



ADKT-GP-R/L-2020-2-T15  
ADKT-GP-R/L-2525-2-T15  
ADKT-GP-R/L-2020-3-T20  
ADKT-GP-R/L-2525-3-T22  
ADKT-GP-R/L-2525-4-T22  
ADKT-GP-R/L-2525-5-T25

CRTZT (GX24.) UCUNA UYGUNDUR  
COMPATIBLE WITH CRTZT (GX24.) INSERT



ADKT-CD-R/L-2020-3-R20  
ADKT-CD-R/L-2525-3-R23

LMNA (GCTX) UCUNA UYGUNDUR  
COMPATIBLE WITH LMNA (GCTX) INSERT



ADKT-LGC-R/L-1616-2-D40  
ADKT-LGC-R/L-2020-2-D40  
ADKT-LGC-R/L-2525-2-D40  
ADKT-LGC-R/L-1616-3-T20  
ADKT-LGC-R/L-2020-3-T20  
ADKT-LGC-R/L-2525-3-T20

03. DIŞ ÇAP KANAL KATERLERİ  
EXTERNAL GROOVING TOOLHOLDERS

MTSBH UCUNA UYGUNDUR  
COMPATIBLE WITH MTSBH



ADKT-GY2-R/L-2525-2-R20  
ADKT-GY2-R/L-2525-3-R20  
ADKT-GY2-R/L-2525-4-T25  
ADKT-GY2-R/L-2525-5-T25

KRLY (KG.) UCUNA UYGUNDUR  
COMPATIBLE WITH KRLY (KG.) INSERT



ADKT-KG-R/L-1212-2-R12-K-S  
ADKT-KG-R/L-1616-2-R16-K-S  
ADKT-KG-R/L-1212-3-R12-K-S  
ADKT-KG-R/L-1616-3-R16-K-S

TGTC (TD.) UCUNA UYGUNDUR  
COMPATIBLE WITH TGTC (TD.) INSERT



ADKT-TD-R/L-1010-2-R10-K-S  
ADKT-TD-R/L-1212-2-T12-K-S  
ADKT-TD-R/L-1616-2-T16-K-S  
ADKT-TD-R/L-1212-3-T12-K-S  
ADKT-TD-R/L-1616-3-T16-K-S

ISCR (DGN) UCUNA UYGUNDUR  
COMPATIBLE WITH ISCR (DGN) INSERT



ADKT-I-R/L-0808-2-R10-S  
ADKT-I-R/L-1010-2-R10-K-S  
ADKT-I-R/L-1212-2-R12-K-S  
ADKT-I-R/L-1616-2-R16-K-S  
ADKT-I-R/L-1616-3-R16-K-S

AKKO (AGD) / KRLY - JD (MGM.) UCUNA UYGUNDUR  
COMPATIBLE WITH AKKO (AGD) / KRLY - JD (MGM.)  
INSERT



ADKT-K-R/L-1212-2-R12-K-S  
ADKT-K-R/L-1616-2-R16-K-S  
ADKT-K-R/L-1212-3-R12-K-S  
ADKT-K-R/L-1616-3-R16-K-S

WLTR (GX16-GX24) UCUNA UYGUNDUR  
COMPATIBLE WITH WLTR (GX16-GX24) INSERT



ADKT-WGX16-R/L-1212-2-R12-K-S  
ADKT-WGX16-R/L-1616-2-R16-K-S  
ADKT-WGX24-R/L-1616-3-R16-K-S

ZCC (Z..D) UCUNA UYGUNDUR  
COMPATIBLE WITH ZCC (Z..D) INSERT



ADKT-ZCC2-R/L-1010-2-T12-K-S  
ADKT-ZCC2-R/L-1212-2-T12-K-S  
ADKT-ZCC2-R/L-1616-2-R16-K-S  
ADKT-ZCC2-R/L-1212-3-T12-K-S

TGTC (RD.) UCUNA UYGUNDUR  
COMPATIBLE WITH TGTC (RD.)  
INSERT



ADKT-RD-R/L-1212-2-T12-K-S  
ADKT-RD-R/L-1616-2-T17-K-S  
ADKT-RD-R/L-1212-3-T12-K-S

04. İÇ ÇAP KANAL KATERLERİ  
INTERNAL GROOVING TOOLHOLDERS

SNDVK (MB) UCUNA UYGUNDUR  
COMPATIBLE WITH SNDVK (MB) INSERT



Mini Kanal Kateri

AIKT-MB07-A16-090-15  
AIKT-MB07-A16-090-22  
AIKT-MB09-A16-090-19  
AIKT-MB09-A16-110-40  
AIKT-MB09-A16-095-28

KRLY (KG..) UCUNA UYGUNDUR  
COMPATIBLE WITH KRLY (KG..) INSERT



Delik İçi Kanal Açma Takımları

AIKT-KG-R/L-25-2-T7  
AIKT-KG-R/L-20-3-T6.5-H  
AIKT-KG-R/L-25-3-T7  
AIKT-KG-R/L-40-3-T8  
AIKT-KG-R/L-25-4-T8

AKKO (AGD) / KRLY - JD (MGM.) UCUNA UYGUNDUR  
COMPATIBLE WITH AKKO (AGD) / KRLY - JD (MGM.)  
INSERT



Delik İçi Kanal Açma Takımları

AIKT-K-R/L-16-2-T4  
AIKT-K-R/L-20-2-T4  
AIKT-K-R/L-25-2-T6  
AIKT-K-R/L-20-3-T6  
AIKT-K-R/L-20-3-T7  
AIKT-K-R/L-25-3-T6  
AIKT-K-R/L-25-3-T10  
AIKT-K-R/L-32-3-T6  
AIKT-K-R/L-32-3-T12  
AIKT-K-R/L-40-3-T6  
AIKT-K-R/L-40-3-T12  
AIKT-K-R/L-20-4-T6  
AIKT-K-R/L-20-4-T7  
AIKT-K-R/L-25-4-T6  
AIKT-K-R/L-25-4-T10  
AIKT-K-R/L-32-4-T6  
AIKT-K-R/L-32-4-T12  
AIKT-K-R/L-40-4-T6  
AIKT-K-R/L-40-4-T12  
AIKT-K-R/L-25-5-T7  
AIKT-K-R/L-32-5-T7  
AIKT-K-R/L-40-5-T7  
AIKT-K-R/L-40-5-T12

TGTC (RD.) UCUNA UYGUNDUR  
COMPATIBLE WITH TGTC (RD.) INSERT



Delik İçi Kanal Açma Takımları

AIKT-RD-R/L-16-2-T6  
AIKT-RD-R/L-20-2-T6  
AIKT-RD-R/L-25-2-T6  
AIKT-RD-R/L-16-3-T6  
AIKT-RD-R/L-20-3-T6  
AIKT-RD-R/L-25-3-T6  
AIKT-RD-R/L-32-3-T6  
AIKT-RD-R/L-20-4-T6  
AIKT-RD-R/L-25-4-T6  
AIKT-RD-R/L-32-4-T6

TNGLY (DGM) UCUNA UYGUNDUR  
COMPATIBLE WITH TNGLY (DGM) INSERT



Delik İçi Kanal Açma Takımları

AIKT-TG-R/L-20-2-T6  
AIKT-TG-R/L-20-3-T6  
AIKT-TG-R/L-25-3-T8  
AIKT-TG-R/L-32-3-T10  
AIKT-TG-R/L-32-3-T12  
AIKT-TG-R/L-32-4-T10  
AIKT-TG-R/L-32-5-T10



04. İÇ ÇAP KANAL KATERLERİ  
INTERNAL GROOVING TOOLHOLDERS

HRN (S229) UCUNA UYGUNDUR  
COMPATIBLE WITH HRN (S229) INSERT



Delik İçi Kanal Açma Takımları

AIKT-H-R/L-25-3-T8  
AIKT-H-R/L-32-3-T7  
AIKT-H-R/L-40-3-T7  
AIKT-H-R/L-25-4-T8  
AIKT-H-R/L-32-4-T7  
AIKT-H-R/L-40-4-T7  
AIKT-H-R/L-25-5-T8  
AIKT-H-R/L-32-5-T7  
AIKT-H-R/L-40-5-T7

HRN (S224-S223) UCUNA UYGUNDUR  
COMPATIBLE WITH HRN (S224-S223) INSERT



Delik İçi Kanal Açma Takımları

AIKT-HK-R/L-20-2-T6  
AIKT-HK-R/L-25-2-T6  
AIKT-HK-R/L-20-3-T6  
AIKT-HK-R/L-25-3-T6  
AIKT-HK-R/L-32-3-T6  
AIKT-HK-R/L-20-4-T6  
AIKT-HK-R/L-25-4-T6  
AIKT-HK-R/L-32-4-T6  
AIKT-HS223-R/L-20-2-T5  
AIKT-HS223-R/L-25-2-T5  
AIKT-HS223-R/L-20-3-T6  
AIKT-HS223-R/L-25-3-T6

SNDVK (154.91) UCUNA UYGUNDUR  
COMPATIBLE WITH SNDVK (154.91) INSERT



Delik İçi Kanal Açma Takımları

AIKT-154.91-R/L-16-3-T3  
AIKT-154.91-R/L-20-3-T4  
AIKT-154.91-R/L-25-3-T4  
AIKT-154.91-R/L-25-5-T5  
AIKT-154.91-R/L-32-5-T5

ZCC (Z.D) UCUNA UYGUNDUR  
COMPATIBLE WITH ZCC (Z.D) INSERT



Delik İçi Kanal Açma Takımları

AIKT-ZCC2-R/L-16-2-T4  
AIKT-ZCC2-R/L-20-3-T5  
AIKT-ZCC2-R/L-20-3-T8  
AIKT-ZCC2-R/L-25-3-T5  
AIKT-ZCC2-R/L-25-3-T10  
AIKT-ZCC2-R/L-32-3-T6  
AIKT-ZCC2-R/L-32-3-T8  
AIKT-ZCC2-R/L-32-3-T13  
AIKT-ZCC2-R/L-40-3-T12  
AIKT-ZCC2-R/L-25-4-T6  
AIKT-ZCC2-R/L-32-4-T7  
AIKT-ZCC2-R/L-32-4-T8  
AIKT-ZCC2-R/L-32-4-T10  
AIKT-ZCC2-R/L-32-5-T7  
AIKT-ZCC2-R/L-32-5-T8  
AIKT-ZCC2-R/L-40-5-T8  
AIKT-ZCC2-R/L-40-5-T10

SNDVK (123) UCUNA UYGUNDUR  
COMPATIBLE WITH SNDVK (123) INSERT



Delik İçi Kanal Açma Takımları

AIKT-123-R/L-20-2-T6  
AIKT-123-R/L-25-2-T6  
AIKT-123-R/L-32-2-T7  
AIKT-123-R/L-20-3-T6  
AIKT-123-R/L-25-3-T7  
AIKT-123-R/L-32-3-T9  
AIKT-123-R/L-20-4-T8  
AIKT-123-R/L-25-4-T7  
AIKT-123-R/L-32-4-T7  
AIKT-123-R/L-32-4-T10  
AIKT-123-R/L-25-5-T8  
AIKT-123-R/L-32-5-T11

04. İÇ ÇAP KANAL KATERLERİ  
INTERNAL GROOVING TOOLHOLDERS

SNDVK UCUNA UYGUNDUR  
COMPATIBLE WITH SNDVK INSERT



Delik İçi Kanal Açma Takımları

AIKT-151.23-R/L-20-2-T6  
AIKT-151.23-R/L-20-2.5-T6  
AIKT-151.22-R/L-25-3-T6  
AIKT-151.22-R/L-25-3-T6-H

ISCR (TGM.) UCUNA UYGUNDUR  
COMPATIBLE WITH ISCR (TGM.) INSERT



Delik İçi Kanal Açma Takımları

AIKT-ITG-R/L-16-3-T6-H  
AIKT-ITG-R/L-20-3-T6-H  
AIKT-ITG-R/L-25-3-T8-H  
AIKT-ITG-R/L-32-3-T8-H  
AIKT-ITG-R/L-20-4-T6-H  
AIKT-ITG-R/L-25-4-T7-H  
AIKT-ITG-R/L-25-4-T9-H  
AIKT-ITG-R/L-32-4-T11-H  
AIKT-ITG-R/L-40-4-T11-H  
AIKT-ITG-R/L-32-6.35-T175-H

ISCR (DGN) UCUNA UYGUNDUR  
COMPATIBLE WITH ISCR (DGN) INSERT



Delik İçi Kanal Açma Takımları

AIKT-I-R/L-20-3-T5  
AIKT-I-R/L-25-3-T6

ISCR (DGN-GRP) UCUNA UYGUNDUR  
COMPATIBLE WITH ISCR (DGN-GRP) INSERT



Delik İçi Kanal Açma Takımları

AIKT-IG-R/L-25-4-T10-H  
AIKT-IG-R/L-32-4-T10-H  
AIKT-IG-R/L-40-4-T12-H  
AIKT-IG-R/L-25-5-T10-H  
AIKT-IG-R/L-32-5-T10-H  
AIKT-IG-R/L-40-5-T12-H  
AIKT-IG-R/L-50-5-T12-H

ISCR (GİMİY-GİPİ) UCUNA UYGUNDUR  
COMPATIBLE WITH ISCR (GİMİY-GİPİ) INSERT



Delik İçi Kanal Açma Takımları

AIKT-IGI-R/L-20-3-T4  
AIKT-IGI-R/L-25-3-T5  
AIKT-IGI-R/L-32-3-T5  
AIKT-IGI-R/L-40-3-T5  
AIKT-IGI-R/L-20-4-T4  
AIKT-IGI-R/L-25-5-T10  
AIKT-IGI-R/L-25-5-T10-H  
AIKT-IGI-R/L-25-5-T15  
AIKT-IGI-R/L-25-5-T15-H

ISCR (GEPI) UCUNA UYGUNDUR  
COMPATIBLE WITH ISCR (GEPI) INSERT



Delik İçi Kanal Açma Takımları

AIKT-IGE-R/L-10-2-T3-H  
AIKT-IGE-R/L-16-2-T3-D11.5  
AIKT-IGE-R/L-16-2-T3-D11.5-H  
AIKT-IGE-R/L-16-2-T2.5-H  
AIKT-IGE-R/L-16-3-T2.5-H  
AIKT-IGE-R/L-16-3-T2.5-D20

04. İÇ ÇAP KANAL KATERLERİ  
INTERNAL GROOVING TOOLHOLDERS

SMTM (GCM) UCUNA UYGUNDUR COMPATIBLE WITH SMTM (GCM) INSERT	
	Delik İçi Kanal Açma Takımları
	AIKT-SGC-R-25-3-T6 AIKT-SGC-R-32-3-T6 AIKT-SGC-R-40-3-T6

PLBT (GP.) UCUNA UYGUNDUR COMPATIBLE WITH PLBT (GP.) INSERT	
	Delik İçi Kanal Açma Takımları
	AIKT-GP-R/L-20-2-T4 AIKT-GP-R/L-25-2-T6 AIKT-GP-R/L-20-3-T6 AIKT-GP-R/L-25-3-T6 AIKT-GP-R/L-32-3-T6 AIKT-GP-R/L-20-4-T6 AIKT-GP-R/L-25-4-T6 AIKT-GP-R/L-32-4-T6

ZCC (QC..) UCUNA UYGUNDUR COMPATIBLE WITH ZCC (QC..) INSERT	
	Delik İçi Kanal Açma Takımları
	AIKT-QC11-R/L-20-(0.5-1.8) AIKT-QC16-R/L-20-(0.5-2.5) AIKT-QC22-R/L-25-(2.5-3.3) AIKT-QC22-R/L-25-(3.3-4.8)

PLBT (GP.) UCUNA UYGUNDUR COMPATIBLE WITH PLBT (GP.) INSERT	
	Delik İçi Kanal Açma Takımları
	AIKT-GP-R/L-20-2-T4 AIKT-GP-R/L-25-2-T6 AIKT-GP-R/L-20-3-T6 AIKT-GP-R/L-25-3-T6 AIKT-GP-R/L-32-3-T6 AIKT-GP-R/L-20-4-T6 AIKT-GP-R/L-25-4-T6 AIKT-GP-R/L-32-4-T6

KNMTL (A4.) UCUNA UYGUNDUR COMPATIBLE WITH KNMTL (A4.) INSERT	
	Delik İçi Kanal Açma Takımları
	AIKT-KM-R/L-20-2-T7 AIKT-KM-R/L-20-3-T7 AIKT-KM-R/L-25-3-T10 AIKT-KM-R/L-32-3-T12 AIKT-KM-R/L-40-3-T12 AIKT-KM-R/L-20-4-T7 AIKT-KM-R/L-32-4-T12.2-H

TGTC (TD.) UCUNA UYGUNDUR COMPATIBLE WITH TGTC (TD.) INSERT	
	Delik İçi Kanal Açma Takımları
	AIKT-TD-R-16-2-T8.5-H AIKT-TD-R-20-3-T6-H AIKT-TD-R-25-3-T6-H AIKT-TD-R-32-3-T5-H AIKT-TD-R/L-20-4-T10-H AIKT-TD-R/L-25-4-T10-H AIKT-TD-R/L-32-4-T10-H

05. ALIN KANAL KATERLERİ  
FACE GROOVING TOOLHOLDERS

AKKO (AGD) / KRLY - JD (MGM.) UCUNA UYGUNDUR COMPATIBLE WITH AKKO (AGD) / KRLY - JD (MGM.) INSERT	
	Dış Çap Alın Kanal Açma Takımları
	AAKT-K-R/L-2525-34-45-3-T17 AAKT-K-R/L-2525-39-55-3-T17 AAKT-K-R/L-2525-49-80-3-T17 AAKT-K-R/L-2525-70-110-3-T17 AAKT-K-R/L-2525-100-150-3-T17 AAKT-K-R/L-2525-80-180-3-T32 AAKT-K-R/L-2525-175-215-3-T22 AAKT-K-R/L-2525-700-800-3-T17 AAKT-K-R/L-2525-50-85-4-T22 AAKT-K-R/L-2525-70-110-4-T22 AAKT-K-R/L-2525-100-150-4-T22 AAKT-K-R/L-2525-80-180-4-T32 AAKT-K-R/L-2525-180-800-4-T32 AAKT-K-R/L-2525-70-110-5-T25 AAKT-K-R/L-2525-100-150-5-T25 AAKT-K-R/L-2525-80-180-5-T32 AAKT-K-R/L-2525-140-200-5-T25 AAKT-K-R/L-2525-180-800-5-T40 AAKT-K-R/L-2525-60-100-6-T25 AAKT-K-R/L-2525-60-100-6-T35 AAKT-K-R/L-2525-100-200-6-T25 AAKT-K-R/L-2525-100-200-6-T35 AAKT-K-R/L-2525-100-200-6-T45 AAKT-K-R/L-2525-140-300-6-T35 AAKT-K-R/L-2525-180-360-6-T40 AAKT-K-R/L-2525-140-300-8-T35 AAKT-K-R/L-3232-140-350-8-T35

KRLY - JD (KG.) UCUNA UYGUNDUR COMPATIBLE WITH KRLY - JD (KG.) INSERT	
	Dış Çap Alın Kanal Açma Takımları
	AAKT-KG-R/L-2525-44-70-4-T22 AAKT-KG-R/L-2525-60-120-4-T22 AAKT-KG-R/L-2525-112-200-4-T22

ZCC (Z.D) UCUNA UYGUNDUR COMPATIBLE WITH ZCC (Z.D) INSERT	
	Dış Çap Alın Kanal Açma Takımları
	AAKT-ZCC2-R/L-2525-140-180-2-T4 AAKT-ZCC2-R/L-2525-35-45-3-T17 AAKT-ZCC2-R/L-2525-39-55-3-T17 AAKT-ZCC2-R/L-2525-49-80-3-T17 AAKT-ZCC2-R/L-2525-70-110-3-T15 AAKT-ZCC2-R/L-2525-70-110-3-T15 AAKT-ZCC2-R/L-2525-70-110-3-T17 AAKT-ZCC2-R/L-2525-100-150-3-T17 AAKT-ZCC2-R/L-2525-100-150-3-T22 AAKT-ZCC2-R/L-2525-40-60-4-T22 AAKT-ZCC2-R/L-2525-100-150-4-T22 AAKT-ZCC2-R/L-2525-72-110-4-T22 AAKT-ZCC2-R/L-2525-100-150-4-T22 AAKT-ZCC2-R/L-2525-140-200-4-T22 AAKT-ZCC2-R/L-2525-55-95-5-T25 AAKT-ZCC2-R/L-2525-85-140-5-T25 AAKT-ZCC2-R/L-2525-130-200-5-T25 AAKT-ZCC2-R/L-2525-190-400-5-T25 AAKT-ZCC2-R/L-2525-190-400-5-T35 AAKT-ZCC2-R/L-2525-200-500-5-T17 AAKT-ZCC2-R/L-2525-60-110-6-T15 AAKT-ZCC2-R/L-3232-160-400-6-T25

SMTM UCUNA UYGUNDUR COMPATIBLE WITH SMTM INSERT	
	Dış Çap Alın Kanal Açma Takımları
	AAKT-SGC-R/L-2020-22-53-3-T13 AAKT-SGC-R/L-2525-80-100-3-T8 AAKT-SGC-R/L-2525-40-65-4-T12 AAKT-SGC-R/L-2525-80-140-4-T8

WLTR UCUNA UYGUNDUR COMPATIBLE WITH WLTR INSERT	
	Dış Çap Alın Kanal Açma Takımları
	AAKT-WGX24-R/L-2525-58-100-6-T32 AAKT-WGX24-R/L-2525-88-180-6-T32


05. ALIN KANAL KATERLERİ  
FACE GROOVING TOOLHOLDERS

ISCR (DGN-GRP) UCUNA UYGUNDUR COMPATIBLE WITH ISCR (DGN-GRP) INSERT	
	<p><b>Dış Çap Alın Kanal Açma Takımları</b></p> <p>AAKT-IG-R/L-2525-40-60-4-T25 AAKT-IG-R/L-2525-52-80-4-T25 AAKT-IG-R/L-2525-70-110-4-T28 AAKT-IG-R/L-2525-100-150-4-T25 AAKT-IG-R/L-2525-110-200-4-T28 AAKT-IG-R/L-2525-110-200-4-T32 AAKT-IG-R/L-2525-180-800-4-T28 AAKT-IG-R/L-2525-70-110-5-T32 AAKT-IG-R/L-2525-110-200-5-T9 AAKT-IG-R/L-2525-110-200-5-T32 AAKT-IG-R/L-2525-180-800-5-T32 AAKT-IG-R/L-2525-58-100-6-T32 AAKT-IG-R/L-2525-88-180-6-T32</p>

ZCC (Z..D) UCUNA UYGUNDUR COMPATIBLE WITH ZCC (Z..D) INSERT	
	<p><b>L Tip Alın Kanal Açma Takımları</b></p> <p>ALKT-ZCC2-R/L-2525-35-45-3-T10 ALKT-ZCC2-R/L-2525-39-55-3-T10 ALKT-ZCC2-R/L-2525-35-∞-3-T4 ALKT-ZCC2-R/L-2525-40-60-4-T14 ALKT-ZCC2-R/L-2525-52-80-4-T14 ALKT-ZCC2-R/L-2525-72-110-4-T14 ALKT-ZCC2-R/L-2525-100-230-4-T14 ALKT-ZCC2-R/L-2525-40-∞-4-T4</p>

06. KESME VE DERİN KANAL AÇMA LAMALARI  
BLADES FOR PARTING AND DEEP GROOVING

ISCR (DGN-GRP) UCUNA UYGUNDUR / COMPATIBLE WITH ISCR (DGN-GRP) INSERT	
	<p>AKL-I-26-2 AKL-I-32-2 AKL-I-26-3 AKL-I-32-3 AKL-I-26-4 AKL-I-32-4</p>

TGTC (TD.) UCUNA UYGUNDUR COMPATIBLE WITH TGTC (TD.) INSERT	
	<p>AKL-TD-32-2 AKL-TD-26-3 AKL-TD-32-3 AKL-TD-26-4 AKL-TD-32-5</p>

SNDVK (123) UCUNA UYGUNDUR COMPATIBLE WITH SNDVK (123) INSERT	
	<p>AKL-I23-32-2 AKL-I23-32-3 AKL-I23-32-4</p>

SMTM (GCM) UCUNA UYGUNDUR COMPATIBLE WITH SMTM (GCM) INSERT	
	<p>AKL-SGC-26-3 AKL-SGC-32-3</p>

06. KESME VE DERİN KANAL AÇMA LAMALARI  
BLADES FOR PARTING AND DEEP GROOVING

ZCC UCUNA UYGUNDUR COMPATIBLE WITH ZCC INSERT	
	<p>AKL-ZCC2-32-3 AKL-ZCC2-32-4 AKL-ZCC2-32-5</p>

WLTR UCUNA UYGUNDUR COMPATIBLE WITH WLTR INSERT	
	<p>AKL-SX-32-3 AKL-SX-32-4 AKL-SX-32-5 AKL-SX-32-6</p>

KRLY UCUNA UYGUNDUR COMPATIBLE WITH KRLY INSERT	
	<p>AKL-SP-26-2 AKL-SP-26-3 AKL-SP-32-3 AKL-SP-32-4</p>




AKKO, KRLY (MGM..) UCUNA UYGUNDUR COMPATIBLE WITH AKKO, KRLY (MGM..) INSERT	
	<p>AKL-K-32-2 AKL-K-32-3 AKL-K-32-4</p>

07. LAMA BLOKLARI  
GROOVING BLADES

ALBU	
	<p><b>Kesme ve Derin Kanal Açma Lama Bloğu</b></p> <p>ALBU-20-26 ALBU-20-32 ALBU-25-26 ALBU-25-32 ALBU-32-32</p>

ALBU	
	<p><b>Kesme ve Derin Kanal Açma Lama Bloğu</b></p> <p>ALBU-20-32-H ALBU-25-32-H ALBU-32-32-H</p>

08. DIŞ ÇAP DIŞ ÇEKME KATERLERİ  
EXTERNAL AND INTERNAL  
THREADING TOOLHOLDERS

SER / L	SER / L
 <p>Dış Çap Diş Açma İşviçre Tipi Kayar Otomat Makina Katerleri</p> <p>1010 K11-S 1212 K11-S 1212 K16-S</p>	 <p>Dış Çap Diş Açma</p> <p>0808 E11 1010 E11 1212 F 11 1616 H11 2020 H11 1616 H16C 2020 K16C 2525 M16C 3232 P16C 2525 M22C 3232 P22C 4040 S22C 2525 M16C-T 2525 M22C-T 2020 K16C-S 2525 M16C-S 3232 P16C-S</p>
SER / L	SER / L
 <p>Dış Çap Diş Açma</p> <p>1616 H16 2020 K16 2525 M16 3232 P16 2525 M22 3232 P22 4040 S22 2525 M27 3232 P27 4040 S27</p>	

09. DELİK İÇİ DIŞ ÇEKME KATERLERİ  
INTERNAL THREADING TOOLHOLDERS

SIR / L	TIR / L
 <p>S12X05H 06 S16X05H 06 S16X07M 08 S10H 11 S12K 11 S16X10M 11 S16X13M 11 S16M 11 A16X13M 16 S16X13M 16 S16M 16 S20X16P 16 A20X16P 16 S20P 16</p> <p>S25R 16C S32S 16C S40T 16C S50U 16C S20P 22 S25R 22C S32S 22C S40T 22C S50U 22C S25R 16C-T S32S 16C-T S25R 22C-T S32S 22C-T S40T 27V T08</p>	 <p>A20P 16 A25R 16 A32S 16 A40T 16 S25R 16 S32S 16 S40T 16 S50U 16 S25R 22 S32S 22 S40T 22 S50U 22 S32S 27 S40T 27 S50U 27</p>

01. 2D UDRİLLER  
DRILLING AND HOLEMAKING TOOLS

D2	TAKMA UÇLU MATKAPLAR / U-DRILL SYSTEM	
	WCMX - (AKKO)	WCM - (ISO)
	<p>ATUM 16XD2 WCM. 030208 ATUM 16.5XD2 WCM. 030208 ATUM 17XD2 WCM. 030208 ATUM 17.5XD2 WCM. 030208 ATUM 18XD2 WCM. 030208 ATUM 18.5XD2 WCM. 030208 ATUM 19XD2 WCM. 030208 ATUM 19.5XD2 WCM. 030208 ATUM 20XD2 WCM. 040208 ATUM 20.5XD2 WCM. 040208 ATUM 21XD2 WCM. 040208 ATUM 21.5XD2 WCM. 040208 ATUM 22XD2 WCM. 040208 ATUM 22.5XD2 WCM. 040208 ATUM 23XD2 WCM. 040208 ATUM 23.5XD2 WCM. 040208 ATUM 24XD2 WCM. 050308 ATUM 24.5XD2 WCM. 050308 ATUM 25XD2 WCM. 050308 ATUM 25.5XD2 WCM. 050308 ATUM 26XD2 WCM. 050308 ATUM 26.5XD2 WCM. 050308 ATUM 27XD2 WCM. 050308 ATUM 27.5XD2 WCM. 050308 ATUM 28XD2 WCM. 050308 ATUM 28.5XD2 WCM. 050308 ATUM 29XD2 WCM. 050308 ATUM 29.5XD2 WCM. 050308 ATUM 30XD2 WCM. 06T308 ATUM 31XD2 WCM. 06T308</p>	<p>ATUM 32XD2 WCM. 06T308 ATUM 33XD2 WCM. 06T308 ATUM 34XD2 WCM. 06T308 ATUM 35XD2 WCM. 06T308 ATUM 36XD2 WCM. 06T308 ATUM 37XD2 WCM. 06T308 ATUM 38XD2 WCM. 06T308 ATUM 39XD2 WCM. 06T308 ATUM 40XD2 WCM. 06T308 ATUM 41XD2 WCM. 06T308 ATUM 42XD2 WCM. 06T308 ATUM 43XD2 WCM. 06T308 ATUM 44XD2 WCM. 06T308 ATUM 45XD2 WCM. 080412 ATUM 46XD2 WCM. 080412 ATUM 47XD2 WCM. 080412 ATUM 48XD2 WCM. 080412 ATUM 49XD2 WCM. 080412 ATUM 50XD2 WCM. 080412 ATUM 51XD2 WCM. 080412 ATUM 52XD2 WCM. 080412 ATUM 53XD2 WCM. 080412 ATUM 54XD2 WCM. 080412 ATUM 55XD2 WCM. 080412 ATUM 56XD2 WCM. 080412 ATUM 57XD2 WCM. 080412 ATUM 58XD2 WCM. 080412 ATUM 59XD2 WCM. 080412 ATUM 60XD2 WCM. 080412</p>

## 01. 2D UDRİLLER

### DRILLING AND HOLEMAKING TOOLS

D2	TAKMA UÇLU MATKAPLAR / U-DRILL SYSTEM	
	SP. - SPMX (AKKO) - SPMG (TGTC)	
	ATUM 12.5XD2 SP. 050204 ATUM 13XD2 SP. 050204 ATUM 13.5XD2 SP. 050204 ATUM 14XD2 SP. 050204 ATUM 14.5XD2 SP. 050204 ATUM 15XD2 SP. 050204 ATUM 15.5XD2 SP. 060204 ATUM 16XD2 SP. 060204 ATUM 16.5XD2 SP. 060204 ATUM 17XD2 SP. 060204 ATUM 17.5XD2 SP. 060204 ATUM 18XD2 SP. 060204 ATUM 18.5XD2 SP. 060204 ATUM 19XD2 SP. 060204 ATUM 19.5XD2 SP. 060204 ATUM 20XD2 SP. 060204 ATUM 20.5XD2 SP. 060204 ATUM 21XD2 SP. 060204 ATUM 21.5XD2 SP. 060204 ATUM 22XD2 SP. 07T308 ATUM 22XD2 SP. 07T308-32 ATUM 22.5XD2 SP. 07T308 ATUM 23XD2 SP. 07T308 ATUM 23XD2 SP. 07T308-32 ATUM 23.5XD2 SP. 07T308 ATUM 24XD2 SP. 07T308 ATUM 24XD2 SP. 07T308-32 ATUM 24.5XD2 SP. 07T308 ATUM 25XD2 SP. 07T308 ATUM 25XD2 SP. 07T308-32 ATUM 25.5XD2 SP. 07T308 ATUM 26XD2 SP. 07T308	ATUM 26XD2 SP. 07T308-32 ATUM 26.5XD2 SP. 07T308 ATUM 27XD2 SP. 07T308 ATUM 27XD2 SP. 07T308-32 ATUM 27.5XD2 SP. 07T308 ATUM 28XD2 SP. 090408 ATUM 28XD2 SP. 090408-32 ATUM 28.5XD2 SP. 090408 ATUM 29XD2 SP. 090408 ATUM 29XD2 SP. 090408-32 ATUM 29.5XD2 SP. 090408 ATUM 30XD2 SP. 090408 ATUM 31XD2 SP. 090408 ATUM 32XD2 SP. 090408 ATUM 33XD2 SP. 090408 ATUM 34XD2 SP. 110408 ATUM 35XD2 SP. 110408 ATUM 36XD2 SP. 110408 ATUM 37XD2 SP. 110408 ATUM 38XD2 SP. 110408 ATUM 39XD2 SP. 110408 ATUM 40XD2 SP. 110408 ATUM 41XD2 SP. 110408 ATUM 42XD2 SP. 140512 ATUM 43XD2 SP. 140512 ATUM 44XD2 SP. 140512 ATUM 45XD2 SP. 140512 ATUM 46XD2 SP. 140512 ATUM 47XD2 SP. 140512 ATUM 48XD2 SP. 140512 ATUM 49XD2 SP. 140512 ATUM 50XD2 SP. 140512

## 02. 3D UDRİLLER

### DRILLING AND HOLEMAKING TOOLS

D3	TAKMA UÇLU MATKAPLAR / U-DRILL SYSTEM	
	WCMX - (AKKO) WCM - (ISO)	
	ATUM 16XD3 WCM. 030208 ATUM 16.5XD3 WCM. 030208 ATUM 17XD3 WCM. 030208 ATUM 17.5XD3 WCM. 030208 ATUM 18XD3 WCM. 030208 ATUM 18.5XD3 WCM. 030208 ATUM 19XD3 WCM. 030208 ATUM 19.5XD3 WCM. 030208 ATUM 20XD3 WCM. 040208 ATUM 20.5XD3 WCM. 040208 ATUM 21XD3 WCM. 040208 ATUM 21.5XD3 WCM. 040208 ATUM 22XD3 WCM. 040208 ATUM 22.5XD3 WCM. 040208 ATUM 23XD3 WCM. 040208 ATUM 23.5XD3 WCM. 040208 ATUM 24XD3 WCM. 050308 ATUM 24.5XD3 WCM. 050308 ATUM 25XD3 WCM. 050308 ATUM 25.5XD3 WCM. 050308 ATUM 26XD3 WCM. 050308 ATUM 26.5XD3 WCM. 050308 ATUM 27XD3 WCM. 050308 ATUM 27.5XD3 WCM. 050308 ATUM 28XD3 WCM. 050308 ATUM 28.5XD3 WCM. 050308 ATUM 29XD3 WCM. 050308 ATUM 29.5XD3 WCM. 050308 ATUM 30XD3 WCM. 06T308 ATUM 30.5XD3 WCM. 06T308 ATUM 31XD3 WCM. 06T308 ATUM 31.5XD3 WCM. 06T308 ATUM 32XD3 WCM. 06T308 ATUM 32.5XD3 WCM. 06T308 ATUM 33XD3 WCM. 06T308 ATUM 33.5XD3 WCM. 06T308 ATUM 34XD3 WCM. 06T308 ATUM 34.5XD3 WCM. 06T308	ATUM 35XD3 WCM. 06T308 ATUM 35.5XD3 WCM. 06T308 ATUM 36XD3 WCM. 06T308 ATUM 36.5XD3 WCM. 06T308 ATUM 37XD3 WCM. 06T308 ATUM 37.5XD3 WCM. 06T308 ATUM 38XD3 WCM. 06T308 ATUM 38.5XD3 WCM. 06T308 ATUM 39XD3 WCM. 06T308 ATUM 39.5XD3 WCM. 06T308 ATUM 40XD3 WCM. 06T308 ATUM 40.5XD3 WCM. 06T308 ATUM 41XD3 WCM. 06T308 ATUM 41.5XD3 WCM. 06T308 ATUM 42XD3 WCM. 06T308 ATUM 42.5XD3 WCM. 06T308 ATUM 43XD3 WCM. 06T308 ATUM 43.5XD3 WCM. 06T308 ATUM 44XD3 WCM. 06T308 ATUM 44.5XD3 WCM. 06T308 ATUM 45XD3 WCM. 080412 ATUM 45.5XD3 WCM. 080412 ATUM 46XD3 WCM. 080412 ATUM 47XD3 WCM. 080412 ATUM 48XD3 WCM. 080412 ATUM 49XD3 WCM. 080412 ATUM 50XD3 WCM. 080412 ATUM 51XD3 WCM. 080412 ATUM 52XD3 WCM. 080412 ATUM 53XD3 WCM. 080412 ATUM 54XD3 WCM. 080412 ATUM 55XD3 WCM. 080412 ATUM 56XD3 WCM. 080412 ATUM 57XD3 WCM. 080412 ATUM 58XD3 WCM. 080412 ATUM 59XD3 WCM. 080412 ATUM 60XD3 WCM. 080412

02. 3D UDRİLLER

DRILLING AND HOLEMAKING TOOLS

D3	TAKMA UÇLU MATKAPLAR / U-DRILL SYSTEM	
	SP. - SPMX (AKKO) - SPMG (TGTC)	
	ATUM 12.5XD3 SP. 050204 ATUM 13XD3 SP. 050204 ATUM 13.5XD3 SP. 050204 ATUM 14XD3 SP. 050204 ATUM 14.5XD3 SP. 050204 ATUM 15XD3 SP. 050204 ATUM 15.5XD3 SP. 060204 ATUM 16XD3 SP. 060204 ATUM 16.5XD3 SP. 060204 ATUM 17XD3 SP. 060204 ATUM 17.5XD3 SP. 060204 ATUM 18XD3 SP. 060204 ATUM 18.5XD3 SP. 060204 ATUM 19XD3 SP. 060204 ATUM 19.5XD3 SP. 060204 ATUM 20XD3 SP. 060204 ATUM 20.5XD3 SP. 060204 ATUM 21XD3 SP. 060204 ATUM 21.5XD3 SP. 060204 ATUM 22XD3 SP. 07T308 ATUM 22XD3 SP. 07T308-32 ATUM 22.5XD3 SP. 07T308 ATUM 23XD3 SP. 07T308 ATUM 23XD3 SP. 07T308-32 ATUM 23.5XD3 SP. 07T308 ATUM 24XD3 SP. 07T308 ATUM 24XD3 SP. 07T308-32 ATUM 24.5XD3 SP. 07T308 ATUM 25XD3 SP. 07T308 ATUM 25XD3 SP. 07T308-32 ATUM 25.5XD3 SP. 07T308 ATUM 26XD3 SP. 07T308 ATUM 26XD3 SP. 07T308-32 ATUM 26.5XD3 SP. 07T308 ATUM 27XD3 SP. 07T308 ATUM 27XD3 SP. 07T308-32 ATUM 27.5XD3 SP. 07T308 ATUM 28XD3 SP. 090408 ATUM 28XD3 SP. 090408-32 ATUM 28.5XD3 SP. 090408 ATUM 29XD3 SP. 090408	ATUM 29XD3 SP. 090408-32 ATUM 29.5XD3 SP. 090408 ATUM 30XD3 SP. 090408 ATUM 30.5XD3 SP. 090408 ATUM 31XD3 SP. 090408 ATUM 31.5XD3 SP. 090408 ATUM 32XD3 SP. 090408 ATUM 32.5XD3 SP. 090408 ATUM 33XD3 SP. 090408 ATUM 33.5XD3 SP. 090408 ATUM 34XD3 SP. 110408 ATUM 34.5XD3 SP. 110408 ATUM 35XD3 SP. 110408 ATUM 35.5XD3 SP. 110408 ATUM 36XD3 SP. 110408 ATUM 36.5XD3 SP. 110408 ATUM 37XD3 SP. 110408 ATUM 37.5XD3 SP. 110408 ATUM 38XD3 SP. 110408 ATUM 38.5XD3 SP. 110408 ATUM 39XD3 SP. 110408 ATUM 39.5XD3 SP. 110408 ATUM 40XD3 SP. 110408 ATUM 40.5XD3 SP. 110408 ATUM 41XD3 SP. 110408 ATUM 41.5XD3 SP. 110408 ATUM 42XD3 SP. 140512 ATUM 42.5XD3 SP. 140512 ATUM 43XD3 SP. 140512 ATUM 43.5XD3 SP. 140512 ATUM 44XD3 SP. 140512 ATUM 44.5XD3 SP. 140512 ATUM 45XD3 SP. 140512 ATUM 45.5XD3 SP. 140512 ATUM 46XD3 SP. 140512 ATUM 47XD3 SP. 140512 ATUM 48XD3 SP. 140512 ATUM 49XD3 SP. 140512 ATUM 50XD3 SP. 140512 ATUM 51XD3 SP. 140512 ATUM 52XD3 SP. 140512


03. 4D UDRİLLER

DRILLING AND HOLEMAKING TOOLS

D4	TAKMA UÇLU MATKAPLAR / U-DRILL SYSTEM	
	WCMX - (AKKO) WCM - (ISO)	
	ATUM 16XD4 WCM. 030208 ATUM 17XD4 WCM. 030208 ATUM 17.5XD4 WCM. 030208 ATUM 18XD4 WCM. 030208 ATUM 19XD4 WCM. 030208 ATUM 20XD4 WCM. 040208 ATUM 21XD4 WCM. 040208 ATUM 22XD4 WCM. 040208 ATUM 22.5XD4 WCM. 040208 ATUM 23XD4 WCM. 040208 ATUM 24XD4 WCM. 050308 ATUM 25XD4 WCM. 050308 ATUM 26XD4 WCM. 050308 ATUM 26.5XD4 WCM. 050308 ATUM 27XD4 WCM. 050308 ATUM 28XD4 WCM. 050308 ATUM 28.5XD4 WCM. 050308 ATUM 29XD4 WCM. 050308 ATUM 30XD4 WCM. 06T308 ATUM 31XD4 WCM. 06T308 ATUM 32XD4 WCM. 06T308	ATUM 33XD4 WCM. 06T308 ATUM 33.5XD4 WCM. 06T308 ATUM 34XD4 WCM. 06T308 ATUM 35XD4 WCM. 06T308 ATUM 36XD4 WCM. 06T308 ATUM 37XD4 WCM. 06T308 ATUM 38XD4 WCM. 06T308 ATUM 38.5XD4 WCM. 06T308 ATUM 39XD4 WCM. 06T308 ATUM 40XD4 WCM. 06T308 ATUM 41XD4 WCM. 06T308 ATUM 42XD4 WCM. 06T308 ATUM 43XD4 WCM. 06T308 ATUM 44XD4 WCM. 06T308 ATUM 45XD4 WCM. 080412 ATUM 46XD4 WCM. 080412 ATUM 47XD4 WCM. 080412 ATUM 48XD4 WCM. 080412 ATUM 49XD4 WCM. 080412 ATUM 50XD4 WCM. 080412

03. 4D UDRİLLER


DRILLING AND HOLEMAKING TOOLS

D4	TAKMA UÇLU MATKAPLAR / U-DRILL SYSTEM	
	SP. - SPMX (AKKO) - SPMG (TGTC)	
	ATUM 13XD4 SP. 050204 ATUM 14XD4 SP. 050204 ATUM 14.5XD4 SP. 050204 ATUM 15XD4 SP. 050204 ATUM 16XD4 SP. 060204 ATUM 17XD4 SP. 060204 ATUM 17.5XD4 SP. 060204 ATUM 18XD4 SP. 060204 ATUM 19XD4 SP. 060204 ATUM 19.5XD4 SP. 060204 ATUM 20XD4 SP. 060204 ATUM 21XD4 SP. 060204 ATUM 22XD4 SP. 07T308 ATUM 23XD4 SP. 07T308 ATUM 23.5XD4 SP. 07T308 ATUM 24XD4 SP. 07T308 ATUM 25XD4 SP. 07T308 ATUM 26XD4 SP. 07T308 ATUM 27XD4 SP. 07T308 ATUM 27.5XD4 SP. 07T308	ATUM 28XD4 SP. 090408 ATUM 29XD4 SP. 090408 ATUM 30XD4 SP. 090408 ATUM 31XD4 SP. 090408 ATUM 32XD4 SP. 090408 ATUM 33XD4 SP. 090408 ATUM 33.5XD4 SP. 090408 ATUM 34XD4 SP. 110408 ATUM 35XD4 SP. 110408 ATUM 36XD4 SP. 110408 ATUM 37XD4 SP. 110408 ATUM 38XD4 SP. 110408 ATUM 39XD4 SP. 110408 ATUM 40XD4 SP. 110408 ATUM 41XD4 SP. 110408 ATUM 42XD4 SP. 140512 ATUM 43XD4 SP. 140512 ATUM 44XD4 SP. 140512 ATUM 46XD4 SP. 140512

04. 5D UDRİLLER

DRILLING AND HOLEMAKING TOOLS


D5	TAKMA UÇLU MATKAPLAR / U-DRILL SYSTEM	
	WCMX - (AKKO) WCM - (ISO)	
	ATUM 20XD5 WCM. 040208 ATUM 21XD5 WCM. 040208 ATUM 22XD5 WCM. 040208 ATUM 23XD5 WCM. 040208 ATUM 24XD5 WCM. 050308 ATUM 25XD5 WCM. 050308 ATUM 26XD5 WCM. 050308 ATUM 27XD5 WCM. 050308 ATUM 28XD5 WCM. 050308 ATUM 29XD5 WCM. 050308	ATUM 30XD5 WCM. 06T308 ATUM 31XD5 WCM. 06T308 ATUM 32XD5 WCM. 06T308 ATUM 33XD5 WCM. 06T308 ATUM 34XD5 WCM. 06T308 ATUM 35XD5 WCM. 06T308 ATUM 37XD5 WCM. 06T308 ATUM 38XD5 WCM. 06T308 ATUM 46XD5 WCM. 080412

D5	TAKMA UÇLU MATKAPLAR / U-DRILL SYSTEM	
	SP. - SPMX (AKKO) - SPMG (TGTC)	
	ATUM 13XD5 SP. 050204 ATUM 14XD5 SP. 050204 ATUM 14.5XD5 SP. 050204 ATUM 15XD5 SP. 060204 ATUM 16XD5 SP. 060204 ATUM 17XD5 SP. 060204 ATUM 17XD5 SP. 060204-32 ATUM 18XD5 SP. 060204 ATUM 19XD5 SP. 060204 ATUM 20XD5 SP. 060204 ATUM 21XD5 SP. 060204 ATUM 22XD5 SP. 07T308 ATUM 22XD5 SP. 07T308-32 ATUM 23XD5 SP. 07T308	ATUM 23XD5 SP. 07T308-32 ATUM 24XD5 SP. 07T308-32 ATUM 25XD5 SP. 07T308 ATUM 25XD5 SP. 07T308-32 ATUM 26XD5 SP. 07T308 ATUM 26XD5 SP. 07T308-32 ATUM 27XD5 SP. 07T308 ATUM 27XD5 SP. 07T308-32 ATUM 28XD5 SP. 090408-32 ATUM 29XD5 SP. 090408-32 ATUM 30XD5 SP. 090408 ATUM 31XD5 SP. 090408 ATUM 32XD5 SP. 090408 ATUM 33XD5 SP. 090408

05. UDRİL ADAPTÖRLERİ

DRILLING AND HOLEMAKING TOOLS

ADCR	DELİK PAHLAMA BİLEZİĞİ / DRILL CHAMFERING RING TOOLS	
	Takım Kodu / Tool Code	
	ADCR-120-VB1103	ADCR-215-VB1103
	ADCR-125-VB1103	ADCR-220-VB1103
	ADCR-130-VB1103	ADCR-225-VB1103
	ADCR-135-VB1103	ADCR-230-VB1103
	ADCR-140-VB1103	ADCR-235-VB1103
	ADCR-145-VB1103	ADCR-240-VB1103
	ADCR-150-VB1103	ADCR-245-VB1103
	ADCR-155-VB1103	ADCR-250-VB1103
	ADCR-160-VB1103	ADCR-255-VB1103
	ADCR-165-VB1103	ADCR-260-VB1103
	ADCR-170-VB1103	ADCR-265-VB1103
	ADCR-175-VB1103	ADCR-270-VB1103
	ADCR-180-VB1103	ADCR-275-VB1103
	ADCR-185-VB1103	ADCR-280-VB1103
	ADCR-190-VB1103	ADCR-285-VB1103
	ADCR-195-VB1103	ADCR-290-VB1103
	ADCR-200-VB1103	ADCR-295-VB1103
	ADCR-205-VB1103	ADCR-300-VB1103
	ADCR-210-VB1103	

AET	EKSANTRİK U-DRILL ADAPTÖRÜ / EXCENTRIC ADAPTOR FOR U-DRILLS	
	Takım Kodu / Tool Code	
	AET-2025	Ø+0.4 - Ø-0.2 ARASINDA ONDALIKLI OLARAK AYARLANABİLİR  ÖR: Ø25 TAKIM = 24,8 25,4 ARASI AYARLANABİLİR. CAN BE ADJUSTABLE BETWEEN Ø+0.4 - Ø-0.2 AS DECIMAL.  FOR EXAMPLE: Ø25 TOOL; CAN BE ADJUSTABLE BETWEEN 24,8 25,4
	AET-2532	
	AET-3240	

01. DELİK BÜYÜTME SETİ

DRILLING AND HOLEMAKING TOOLS

DELİK PAHLAMA BİLEZİĞİ / DRILL CHAMFERING RING TOOLS		
	Takım Kodu / Tool Code	D min-D max
	ABHR-D18x22-W16-L90-CC06	18-22
	ABHR-D18x22-W16-L150-CC06	18-22
	ABHR-D18x22-W16-L200-CC06	18-22
	ABHR-D22x28-W20-L100-CC06	22-28
	ABHR-D22x28-W20-L150-CC06	22-28
	ABHR-D22x28-W20-L200-CC06	22-28
	ABHR-D28x38-W20-L110-CC06	28-38
	ABHR-D28x38-W20-L160-CC06	28-38
	ABHR-D28x38-W20-L230-CC06	28-38
	ABHR-D36x50-W25-L120-CC06	36-50
	ABHR-D36x50-W25-L170-CC06	36-50
	ABHR-D36x50-W25-L250-CC06	36-50
	ABHR-D36x50-W25-L120-CC09	36-50
	ABHR-D36x50-W25-L170-CC09	36-50
	ABHR-D36x50-W25-L250-CC09	36-50
	ABHR-D50x68-W32-L140-CC09	50-68
	ABHR-D50x68-W32-L200-CC09	50-68
	ABHR-D50x68-W32-L280-CC09	50-68
	ABHR-D50x68-W32-L140-CC12	50-68
ABHR-D50x68-W32-L200-CC12	50-68	
ABHR-D50x68-W32-L280-CC12	50-68	
ABHR-D68x90-W32-L160-CC12	68-90	
ABHR-D68x90-W32-L210-CC12	68-90	
ABHR-D68x90-W32-L280-CC12	68-90	
ABHR-D90x120-W32-L140-CC12	90-120	
ABHR-D90x120-W40-L200-CC12	90-120	
ABHR-D90x120-W40-L300-CC12	90-120	
ABHR-D120x160-W40-L210-CC12	120-160	
ABHR-D120x160-W40-L300-CC12	120-160	
ABHR-D160x200-W40-L210-B-CC12	160-200	
ABHR-D160x200-W40-L300-B-CC12	160-200	



02. DELİK BÜYÜTME GÖVDESİ  
DRILLING AND HOLEMAKING TOOLS

AYARLI KABA DELİK İŞLEME BARA GÖVDESİ  
/ ADJUSTABLE ROUGH BORING HEADS BODY

Takım Kodu / Tool Code	Kartuş / Cartridge
ABHRS-D16x42-W16-L90	AK. 18-22
ABHRS-D16x102-W16-L150	AK. 18-22
ABHRS-D16x152-W16-L200	AK. 18-22
ABHRS-D20x50-W20-L100	AK. 22-28
ABHRS-D20x100-W20-L150	AK. 22-28
ABHRS-D20x150-W20-L200	AK. 22-28
ABHRS-D25x60-W20-L110	AK. 28-38
ABHRS-D25x110-W20-L160	AK. 28-38
ABHRS-D25x180-W20-L230	AK. 28-38
ABHRS-D32x64-W25-L120	AK. 36-50
ABHRS-D32x114-W25-L170	AK. 36-50
ABHRS-D32x194-W25-L250	AK. 36-50
ABHRS-D32x64-W25-L120	AK. 36-50-09
ABHRS-D32x114-W25-L170	AK. 36-50-09
ABHRS-D32x194-W25-L250	AK. 36-50-09
ABHRS-D40x80-W32-L140	AK. 50-68
ABHRS-D40x140-W32-L200	AK. 50-68
ABHRS-D40x220-W32-L280	AK. 50-68
ABHRS-D40x80-W32-L140	AK. 50-68-12
ABHRS-D40x140-W32-L200	AK. 50-68-12
ABHRS-D40x220-W32-L280	AK. 50-68-12
ABHRS-D50x100-W32-L160	AK. 68-90
ABHRS-D50x150-W32-L210	AK. 68-90
ABHRS-D50x220-W32-L280	AK. 68-90
ABHRS-D63x80-W32-L140	AK. 90-120
ABHRS-D63x130-W40-L200	AK. 90-120
ABHRS-D63x230-W40-L300	AK. 90-120
ABHRS-D80x140-W40-L210	AK. 120-160
ABHRS-D80x230-W40-L300	AK. 120-160
ABHRS-D80x140-W40-L210	AK. 160-200
ABHRS-D80x230-W40-L300	AK. 160-200



03. DELİK BÜYÜTME BARA KARTUŞLARI  
DRILLING AND HOLEMAKING TOOLS

AYARLI KABA DELİK İŞLEME BARA KARTUŞLARI  
/ ADJUSTABLE ROUGH BORING HEADS CARTRIDGE

Takım Kodu / Tool Code	Ölçü Aralığı-Boring Range
AKSR 18-22	18-22
AKSR 22-28	22-28
AKSR 28-38	28-38
AKSR 36-50	36-50
AKSR 36-50-09	36-50
AKSR 50-68	50-68
AKSR 50-68-12	50-68
AKSR 68-90	68-90
AKSR 90-120	90-120
AKSR 120-160	120-160
AKSR 160-200	160-200



AYARLI KABA DELİK İŞLEME BARA KARTUŞLARI  
/ ADJUSTABLE ROUGH BORING HEADS CARTRIDGE

Takım Kodu / Tool Code	Ölçü Aralığı-Boring Range
AKCR 28-38	28-38
AKCR 36-50	36-50
AKCR 36-50-09	36-50
AKCR 50-68	50-68
AKCR 50-68-12	50-68
AKCR 68-90	68-90
AKCR 90-120	90-120
AKCR 120-160	120-160
AKCR 160-200	160-200



**01. DIN 338**
**SİLİNDİRİK SAPLI MATKAP UCU**

HSS	DIN 338	TS ISO 235	N	 118°	h8		
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ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)	ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.01.MTE.07000040	0.40	20	5	04.01.01.MTE.00010320	3.20	65	36
04.01.01.MTE.07000050	0.50	22	6	04.01.01.MTE.00010330	3.30	65	36
04.01.01.MTE.07000060	0.60	24	7	04.01.01.MTE.00010340	3.40	70	39
04.01.01.MTE.07000070	0.70	28	9	04.01.01.MTE.00000350	3.50	70	39
04.01.01.MTE.07000080	0.80	30	10	04.01.01.MTE.00010360	3.60	70	39
04.01.01.MTE.07000090	0.90	32	11	04.01.01.MTE.00010370	3.70	70	39
04.01.01.MTE.07000100	1.00	34	12	04.01.01.MTE.00010380	3.80	75	43
04.01.01.MTE.07000110	1.10	36	14	04.01.01.MTE.00010390	3.90	75	43
04.01.01.MTE.07000120	1.20	38	16	04.01.01.MTE.00000400	4.00	75	43
04.01.01.MTE.07000130	1.30	38	16	04.01.01.MTE.00010410	4.10	75	43
04.01.01.MTE.07000140	1.40	40	18	04.01.01.MTE.00010420	4.20	75	43
04.01.01.MTE.07000150	1.50	40	18	04.01.01.MTE.00010430	4.30	80	47
04.01.01.MTE.07000160	1.60	43	20	04.01.01.MTE.00010440	4.40	80	47
04.01.01.MTE.07000170	1.70	43	20	04.01.01.MTE.00000450	4.50	80	47
04.01.01.MTE.07000180	1.80	46	22	04.01.01.MTE.00010460	4.60	80	47
04.01.01.MTE.07000190	1.90	46	22	04.01.01.MTE.00010470	4.70	80	47
04.01.01.MTE.00000200	2.00	49	24	04.01.01.MTE.00010480	4.80	86	52
04.01.01.MTE.00010210	2.10	49	24	04.01.01.MTE.00010490	4.90	86	52
04.01.01.MTE.00010220	2.20	53	27	04.01.01.MTE.00000500	5.00	86	52
04.01.01.MTE.00010230	2.30	53	27	04.01.01.MTE.00010510	5.10	86	52
04.01.01.MTE.00010240	2.40	57	30	04.01.01.MTE.00010520	5.20	86	52
04.01.01.MTE.00000250	2.50	57	30	04.01.01.MTE.00010530	5.30	86	52
04.01.01.MTE.00010260	2.60	57	30	04.01.01.MTE.00010540	5.40	93	57
04.01.01.MTE.00010270	2.70	61	33	04.01.01.MTE.00000550	5.50	93	57
04.01.01.MTE.00010280	2.80	61	33	04.01.01.MTE.00010560	5.60	93	57
04.01.01.MTE.00010290	2.90	61	33	04.01.01.MTE.00010570	5.70	93	57
04.01.01.MTE.00000300	3.00	61	33	04.01.01.MTE.00010580	5.80	93	57
04.01.01.MTE.00010310	3.10	65	36	04.01.01.MTE.00010590	5.90	93	57

# 04\*

# HSS GRUBU

01. DIN 338  
SİLİNDİRİK SAPLI MATKAP UCU

ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.01.MTE.00000600	6.00	93	57
04.01.01.MTE.00010610	6.10	101	63
04.01.01.MTE.00010620	6.20	101	63
04.01.01.MTE.00010630	6.30	101	63
04.01.01.MTE.00010640	6.40	101	63
04.01.01.MTE.00000650	6.50	101	63
04.01.01.MTE.00010660	6.60	101	63
04.01.01.MTE.00010670	6.70	101	63
04.01.01.MTE.00010680	6.80	109	69
04.01.01.MTE.00010690	6.90	109	69
04.01.01.MTE.00000700	7.00	109	69
04.01.01.MTE.00010710	7.10	109	69
04.01.01.MTE.00010720	7.20	109	69
04.01.01.MTE.00010730	7.30	109	69
04.01.01.MTE.00010740	7.40	109	69
04.01.01.MTE.00000750	7.50	109	69
04.01.01.MTE.00010760	7.60	117	75
04.01.01.MTE.00010770	7.70	117	75
04.01.01.MTE.00010780	7.80	117	75
04.01.01.MTE.00010790	7.90	117	75
04.01.01.MTE.00000800	8.00	117	75
04.01.01.MTE.00010810	8.10	117	75
04.01.01.MTE.00010820	8.20	117	75
04.01.01.MTE.00010830	8.30	117	75
04.01.01.MTE.00010840	8.40	117	75
04.01.01.MTE.00000850	8.50	117	75
04.01.01.MTE.00010860	8.60	125	81
04.01.01.MTE.00010870	8.70	125	81
04.01.01.MTE.00010880	8.80	125	81
04.01.01.MTE.00010890	8.90	125	81
04.01.01.MTE.00000900	9.00	125	81
04.01.01.MTE.00010910	9.10	125	81
04.01.01.MTE.00010920	9.20	125	81
04.01.01.MTE.00010930	9.30	125	81
04.01.01.MTE.00010940	9.40	125	81

ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.01.MTE.00000950	9.50	125	81
04.01.01.MTE.00010960	9.60	133	87
04.01.01.MTE.00010970	9.70	133	87
04.01.01.MTE.00010980	9.80	133	87
04.01.01.MTE.00010990	9.90	133	87
04.01.01.MTE.00001000	10.00	133	87
04.01.01.MTE.00011010	10.10	133	87
04.01.01.MTE.00011020	10.20	133	87
04.01.01.MTE.00011030	10.30	133	87
04.01.01.MTE.00011040	10.40	133	87
04.01.01.MTE.00001050	10.50	133	87
04.01.01.MTE.00011060	10.60	133	87
04.01.01.MTE.00011070	10.70	142	94
04.01.01.MTE.00011080	10.80	142	94
04.01.01.MTE.00011090	10.90	142	94
04.01.01.MTE.00001100	11.00	142	94
04.01.01.MTE.00011110	11.10	142	94
04.01.01.MTE.00011120	11.20	142	94
04.01.01.MTE.00011130	11.30	142	94
04.01.01.MTE.00011140	11.40	142	94
04.01.01.MTE.00001150	11.50	142	94
04.01.01.MTE.00011160	11.60	142	94
04.01.01.MTE.00011170	11.70	142	94
04.01.01.MTE.00011180	11.80	142	94
04.01.01.MTE.00011190	11.90	151	101
04.01.01.MTE.00001200	12.00	151	101
04.01.01.MTE.00011210	12.10	151	101
04.01.01.MTE.00011220	12.20	151	101
04.01.01.MTE.00011230	12.30	151	101
04.01.01.MTE.00011240	12.40	151	101
04.01.01.MTE.00001250	12.50	151	101
04.01.01.MTE.00011260	12.60	151	101
04.01.01.MTE.00011270	12.70	151	101
04.01.01.MTE.00011280	12.80	151	101
04.01.01.MTE.00011290	12.90	151	101

01. DIN 338  
SİLİNDİRİK SAPLI MATKAP UCU

ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.01.MTE.00001300	13.00	151	101
04.01.01.MTE.00011310	13.10	151	101
04.01.01.MTE.00011320	13.20	151	101
04.01.01.MTE.07001330	13.30	160	108
04.01.01.MTE.07001340	13.40	160	108
04.01.01.MTE.07001350	13.50	160	108
04.01.01.MTE.07001360	13.60	160	108
04.01.01.MTE.07001370	13.70	160	108
04.01.01.MTE.07001380	13.80	160	108
04.01.01.MTE.07001390	13.90	160	108
04.01.01.MTE.07001400	14.00	160	108
04.01.01.MTE.07001410	14.10	169	114
04.01.01.MTE.07001420	14.20	169	114
04.01.01.MTE.07001430	14.30	169	114
04.01.01.MTE.07001440	14.40	169	114
04.01.01.MTE.07001450	14.50	169	114
04.01.01.MTE.07001460	14.60	169	114
04.01.01.MTE.07001470	14.70	169	114
04.01.01.MTE.07001480	14.80	169	114
04.01.01.MTE.07001490	14.90	169	114
04.01.01.MTE.07001500	15.00	169	114
04.01.01.MTE.07001510	15.10	178	120
04.01.01.MTE.07001520	15.20	178	120
04.01.01.MTE.07001530	15.30	178	120
04.01.01.MTE.07001540	15.40	178	120
04.01.01.MTE.07001550	15.50	178	120
04.01.01.MTE.07001560	15.60	178	120
04.01.01.MTE.07001570	15.70	178	120
04.01.01.MTE.07001580	15.80	178	120
04.01.01.MTE.07001590	15.90	178	120
04.01.01.MTE.07001600	16.00	178	120
04.01.01.MTE.07001610	16.10	184	125
04.01.01.MTE.07001620	16.20	184	125
04.01.01.MTE.07001630	16.30	184	125
04.01.01.MTE.07001640	16.40	184	125

ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.01.MTE.07001650	16.50	184	125
04.01.01.MTE.07001660	16.60	184	125
04.01.01.MTE.07001670	16.70	184	125
04.01.01.MTE.07001680	16.80	184	125
04.01.01.MTE.07001700	17.00	184	125
04.01.01.MTE.07001710	17.10	191	130
04.01.01.MTE.07001720	17.20	191	130
04.01.01.MTE.07001730	17.30	191	130
04.01.01.MTE.07001750	17.50	191	130
04.01.01.MTE.07001770	17.70	191	130
04.01.01.MTE.07001780	17.80	191	130
04.01.01.MTE.07001790	17.90	191	130
04.01.01.MTE.07001800	18.00	191	130
04.01.01.MTE.07001820	18.20	198	135
04.01.01.MTE.07001830	18.30	198	135
04.01.01.MTE.07001840	18.40	198	135
04.01.01.MTE.07001850	18.50	198	135
04.01.01.MTE.07001860	18.60	198	135
04.01.01.MTE.07001900	19.00	198	135
04.01.01.MTE.07001910	19.10	205	140
04.01.01.MTE.07001950	19.50	205	140
04.01.01.MTE.07001970	19.70	205	140
04.01.01.MTE.07001980	19.80	205	140
04.01.01.MTE.07002000	20.00	205	140
04.01.01.MTE.02102050	20.50	213	145
04.01.01.MTE.02102100	21.00	213	145
04.01.01.MTE.02102150	21.50	221	150
04.01.01.MTE.02102200	22.00	221	150
04.01.01.MTE.02102250	22.50	229	155
04.01.01.MTE.02102300	23.00	229	155
04.01.01.MTE.02102350	23.50	229	155
04.01.01.MTE.02102400	24.00	236	160
04.01.01.MTE.02102450	24.50	236	160
04.01.01.MTE.02102500	25.00	236	160

## 04. HSS GRUBU 01. MATKAP UCLARI



### 02. DIN 338 ALTIN SERİ SİLİNDİRİK SAPLI MATKAP UCU

HSS-E %5 Co	DIN 338	TS ISO 235	ÖZEL	135°	h8		
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ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)	ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.02.MTE.05000100	1.00	34	12	04.01.02.MTE.05000380	3.80	75	43
04.01.02.MTE.05000110	1.10	36	14	04.01.02.MTE.05000390	3.90	75	43
04.01.02.MTE.05000120	1.20	38	16	04.01.02.MTE.05000400	4.00	75	43
04.01.02.MTE.05000130	1.30	38	16	04.01.02.MTE.05000410	4.10	75	43
04.01.02.MTE.05000140	1.40	40	18	04.01.02.MTE.05000420	4.20	75	43
04.01.02.MTE.05000150	1.50	40	18	04.01.02.MTE.05000430	4.30	80	47
04.01.02.MTE.05000160	1.60	43	20	04.01.02.MTE.05000440	4.40	80	47
04.01.02.MTE.05000170	1.70	43	20	04.01.02.MTE.05000450	4.50	80	47
04.01.02.MTE.05000180	1.80	46	22	04.01.02.MTE.05000460	4.60	80	47
04.01.02.MTE.05000190	1.90	46	22	04.01.02.MTE.05000470	4.70	80	47
04.01.02.MTE.05000200	2.00	49	24	04.01.02.MTE.05000480	4.80	86	52
04.01.02.MTE.05000210	2.10	49	24	04.01.02.MTE.05000490	4.90	86	52
04.01.02.MTE.05000220	2.20	53	27	04.01.02.MTE.05000500	5.00	86	52
04.01.02.MTE.05000230	2.30	53	27	04.01.02.MTE.05000510	5.10	86	52
04.01.02.MTE.05000240	2.40	57	30	04.01.02.MTE.05000520	5.20	86	52
04.01.02.MTE.05000250	2.50	57	30	04.01.02.MTE.05000530	5.30	86	52
04.01.02.MTE.05000260	2.50	57	30	04.01.02.MTE.05000540	5.40	93	57
04.01.02.MTE.05000270	2.70	61	33	04.01.02.MTE.05000550	5.50	93	57
04.01.02.MTE.05000280	2.80	61	33	04.01.02.MTE.05000560	5.60	93	57
04.01.02.MTE.05000290	2.90	61	33	04.01.02.MTE.05000570	5.70	93	57
04.01.02.MTE.05000300	3.00	61	33	04.01.02.MTE.05000580	5.80	93	57
04.01.02.MTE.05000310	3.10	65	36	04.01.02.MTE.05000590	5.90	93	57
04.01.02.MTE.05000320	3.20	65	36	04.01.02.MTE.05000600	6.00	93	57
04.01.02.MTE.05000330	3.30	65	36	04.01.02.MTE.05000610	6.10	101	63
04.01.02.MTE.05000340	3.40	70	39	04.01.02.MTE.05000620	6.20	101	63
04.01.02.MTE.05000350	3.50	70	39	04.01.02.MTE.05000630	6.30	101	63



## 04. HSS GRUBU 01. MATKAP UCLARI

### 02. DIN 338 ALTIN SERİ SİLİNDİRİK SAPLI MATKAP UCU

HSS-E %5 Co	DIN 338	TS ISO 235	ÖZEL	135°	h8		
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ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)	ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.02.MTE.05000640	6.40	101	63	04.01.02.MTE.05001050	10.50	133	87
04.01.02.MTE.05000650	6.50	101	63	04.01.02.MTE.05001080	10.80	142	94
04.01.02.MTE.05000670	6.70	101	63	04.01.02.MTE.05001100	11.00	142	94
04.01.02.MTE.05000680	6.80	109	69	04.01.02.MTE.05001150	11.50	142	94
04.01.02.MTE.05000690	6.90	109	69	04.01.02.MTE.05001160	11.60	142	94
04.01.02.MTE.05000700	7.00	109	69	04.01.02.MTE.05001180	11.80	142	94
04.01.02.MTE.05000720	7.20	109	69	04.01.02.MTE.05001200	12.00	151	101
04.01.02.MTE.05000730	7.30	109	69	04.01.02.MTE.05001250	12.50	151	101
04.01.02.MTE.05000750	7.50	109	69	04.01.02.MTE.05001300	13.00	151	101
04.01.02.MTE.05000770	7.70	117	75	04.01.02.MTE.05001350	13.50	160	108
04.01.02.MTE.05000780	7.80	117	75	04.01.02.MTE.05001400	14.00	160	108
04.01.02.MTE.05000800	8.00	117	75	04.01.02.MTE.05001450	14.50	169	114
04.01.02.MTE.05000810	8.10	117	75	04.01.02.MTE.05001500	15.00	169	114
04.01.02.MTE.05000820	8.20	117	75	04.01.02.MTE.05001550	15.50	178	120
04.01.02.MTE.05000850	8.50	117	75	04.01.02.MTE.05001600	16.00	178	120
04.01.02.MTE.05000880	8.80	125	81	04.01.02.MTE.05001650	16.50	184	125
04.01.02.MTE.05000900	9.00	125	81	04.01.02.MTE.05001700	17.00	184	125
04.01.02.MTE.05000920	9.20	125	81	04.01.02.MTE.05001750	17.50	191	130
04.01.02.MTE.05000930	9.30	125	81	04.01.02.MTE.05001800	18.00	191	130
04.01.02.MTE.05000950	9.50	125	81	04.01.02.MTE.05001850	18.50	198	135
04.01.02.MTE.05000980	9.80	133	87	04.01.02.MTE.05001900	19.00	198	135
04.01.02.MTE.05001000	10.00	133	87	04.01.02.MTE.05001950	19.50	205	140
04.01.02.MTE.05001020	10.20	133	87	04.01.02.MTE.05002000	20.00	205	140

## 04. HSS GRUBU 01. MATKAP UCLARI



### 03. DIN 340 SİLİNDİRİK SAPLI UZUN MATKAP UCU



HSS	DIN 340	TS ISO 494	N	118°	h8					
<b>ÜRÜN KODU</b>				<b>d1 (mm)</b>	<b>L1 (mm)</b>	<b>L2 (mm)</b>	<b>ÜRÜN KODU</b>	<b>d1 (mm)</b>	<b>L1 (mm)</b>	<b>L2 (mm)</b>
04.01.03.MTE.07200100				1.00	56	33	04.01.03.MTE.07200680	6.80	156	102
04.01.03.MTE.07200150				1.50	70	45	04.01.03.MTE.07200700	7.00	156	102
04.01.03.MTE.07200170				1.70	76	50	04.01.03.MTE.07200720	7.20	156	102
04.01.03.MTE.07200180				1.80	80	53	04.01.03.MTE.07200750	7.50	156	102
04.01.03.MTE.07200200				2.00	85	56	04.01.03.MTE.07200760	7.60	165	109
04.01.03.MTE.07200240				2.40	95	62	04.01.03.MTE.07200770	7.70	165	109
04.01.03.MTE.07200250				2.50	95	62	04.01.03.MTE.07200780	7.80	165	109
04.01.03.MTE.07200270				2.70	100	66	04.01.03.MTE.07200800	8.00	165	109
04.01.03.MTE.07200280				2.80	100	66	04.01.03.MTE.07200820	8.20	165	109
04.01.03.MTE.07200300				3.00	100	66	04.01.03.MTE.07200850	8.50	165	109
04.01.03.MTE.07200310				3.10	106	69	04.01.03.MTE.07200880	8.80	175	115
04.01.03.MTE.07200320				3.20	106	69	04.01.03.MTE.07200900	8.90	175	115
04.01.03.MTE.07200330				3.30	106	69	04.01.03.MTE.07200920	9.00	175	115
04.01.03.MTE.07200350				3.50	112	73	04.01.03.MTE.07200950	9.50	175	115
04.01.03.MTE.07200380				3.80	119	78	04.01.03.MTE.07200980	9.80	184	121
04.01.03.MTE.07200400				4.00	119	78	04.01.03.MTE.07201000	10.00	184	121
04.01.03.MTE.07200420				4.20	119	78	04.01.03.MTE.07201020	10.20	184	121
04.01.03.MTE.07200430				4.30	126	82	04.01.03.MTE.07201050	10.50	184	121
04.01.03.MTE.07200450				4.50	126	82	04.01.03.MTE.07201100	11.00	195	128
04.01.03.MTE.07200480				4.80	132	87	04.01.03.MTE.07201150	11.50	195	128
04.01.03.MTE.07200500				5.00	132	87	04.01.03.MTE.07201170	11.70	195	128
04.01.03.MTE.07200520				5.20	132	87	04.01.03.MTE.07201180	11.80	195	128
04.01.03.MTE.07200550				5.50	139	91	04.01.03.MTE.07201200	12.00	205	134
04.01.03.MTE.07200580				5.80	139	91	04.01.03.MTE.07201250	12.50	205	134
04.01.03.MTE.07200600				6.00	139	91	04.01.03.MTE.07201300	13.00	205	134
04.01.03.MTE.07200620				6.20	148	97	04.01.03.MTE.07201350	13.50	214	140
04.01.03.MTE.07200650				6.50	148	97	04.01.03.MTE.07201400	14.00	214	140



## 04. HSS GRUBU 01. MATKAP UCLARI

### 03. DIN 340 SİLİNDİRİK SAPLI UZUN MATKAP UCU

ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.03.MTE.07201450	14.50	220	144
04.01.03.MTE.07201500	15.00	220	144
04.01.03.MTE.07201550	15.50	227	149
04.01.03.MTE.07201600	16.00	227	149
04.01.03.MTE.07201650	16.50	235	154
04.01.03.MTE.07201700	17.00	235	154

ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.03.MTE.07201750	17.50	241	158
04.01.03.MTE.07201800	18.00	241	158
04.01.03.MTE.07201850	18.50	247	162
04.01.03.MTE.07201900	19.00	247	162
04.01.03.MTE.07201950	19.50	254	166
04.01.03.MTE.07202000	20.00	254	166

### 05. DIN 1869-1 SİLİNDİRİK SAPLI EKSTRA UZUN MATKAP UCU



HSS	DIN 1869 Nr.1	TS ISO 3292	N	118°	h8					
<b>ÜRÜN KODU</b>				<b>d1 (mm)</b>	<b>L1 (mm)</b>	<b>L2 (mm)</b>	<b>ÜRÜN KODU</b>	<b>d1 (mm)</b>	<b>L1 (mm)</b>	<b>L2 (mm)</b>
04.01.05.MTE.07500200				2.00	125	85	04.01.05.MTE.07500800	8.00	240	165
04.01.05.MTE.07500250				2.50	140	95	04.01.05.MTE.07500850	8.50	240	165
04.01.05.MTE.07500300				3.00	150	100	04.01.05.MTE.07500900	9.00	250	175
04.01.05.MTE.07500350				3.50	165	115	04.01.05.MTE.07500950	9.50	250	175
04.01.05.MTE.07500400				4.00	175	120	04.01.05.MTE.07501000	10.00	265	185
04.01.05.MTE.07500420				4.20	175	120	04.01.05.MTE.07501050	10.50	265	185
04.01.05.MTE.07500450				4.50	185	125	04.01.05.MTE.07501100	11.00	280	195
04.01.05.MTE.07500500				5.00	195	135	04.01.05.MTE.07501150	11.50	280	195
04.01.05.MTE.07500550				5.50	205	140	04.01.05.MTE.07501200	12.00	295	205
04.01.05.MTE.07500600				6.00	205	140	04.01.05.MTE.07501250	12.50	295	205
04.01.05.MTE.07500650				6.50	215	150	04.01.05.MTE.07501300	13.00	295	205
04.01.05.MTE.07500700				7.00	225	155	04.01.05.MTE.07501400	14.00	305	215
04.01.05.MTE.07500750				7.50	225	155	04.01.05.MTE.07501500	15.00	320	220

HSS	DIN 1869 Nr.1	TS ISO 3292	N	118°	h8					
<b>ÜRÜN KODU</b>				<b>d1 (mm)</b>	<b>L1 (mm)</b>	<b>L2 (mm)</b>	<b>ÜRÜN KODU</b>	<b>d1 (mm)</b>	<b>L1 (mm)</b>	<b>L2 (mm)</b>
04.01.05.MTE.07500800				8.00	240	165	04.01.05.MTE.07500800	8.00	240	165
04.01.05.MTE.07500850				8.50	240	165	04.01.05.MTE.07500850	8.50	240	165
04.01.05.MTE.07500900				9.00	250	175	04.01.05.MTE.07500900	9.00	250	175
04.01.05.MTE.07500950				9.50	250	175	04.01.05.MTE.07500950	9.50	250	175
04.01.05.MTE.07501000				10.00	265	185	04.01.05.MTE.07501000	10.00	265	185
04.01.05.MTE.07501050				10.50	265	185	04.01.05.MTE.07501050	10.50	265	185
04.01.05.MTE.07501100				11.00	280	195	04.01.05.MTE.07501100	11.00	280	195
04.01.05.MTE.07501150				11.50	280	195	04.01.05.MTE.07501150	11.50	280	195
04.01.05.MTE.07501200				12.00	295	205	04.01.05.MTE.07501200	12.00	295	205
04.01.05.MTE.07501250				12.50	295	205	04.01.05.MTE.07501250	12.50	295	205
04.01.05.MTE.07501300				13.00	295	205	04.01.05.MTE.07501300	13.00	295	205
04.01.05.MTE.07501400				14.00	305	215	04.01.05.MTE.07501400	14.00	305	215
04.01.05.MTE.07501500				15.00	320	220	04.01.05.MTE.07501500	15.00	320	220

## 04. HSS GRUBU 01. MATKAP UCLARI



### 06. DIN 1869 - 2 SİLİNDİRİK SAPLI EKSTRA UZUN MATKAP UCU

HSS	DIN 1869 Nr.2	TS ISO 3292	N	118°	h8		
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ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)	ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.06.MTE.07530300	3.00	190	130	04.01.06.MTE.07530850	8.50	305	210
04.01.06.MTE.07530350	3.50	210	145	04.01.06.MTE.07530900	9.00	320	220
04.01.06.MTE.07530400	4.00	220	150	04.01.06.MTE.07531000	10.00	340	235
04.01.06.MTE.07530550	5.50	260	180	04.01.06.MTE.07531050	10.50	340	235
04.01.06.MTE.07530600	6.00	260	180	04.01.06.MTE.07531100	11.00	365	250
04.01.06.MTE.07530650	6.50	275	190	04.01.06.MTE.07531150	11.50	365	250
04.01.06.MTE.07530700	7.00	290	200	04.01.06.MTE.07531200	12.00	375	260
04.01.06.MTE.07530800	8.00	305	210				

### 07. DIN 1869 - 3 SİLİNDİRİK SAPLI EKSTRA UZUN MATKAP UCU

HSS	DIN 1869 Nr.3	TS ISO 3292	N	118°	h8		
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ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)	ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)
04.01.07.MTE.07560300	3.00	235	160	04.01.07.MTE.07560850	8.50	390	265
04.01.07.MTE.07560400	4.00	280	190	04.01.07.MTE.07560900	9.00	410	280
04.01.07.MTE.07560500	5.00	315	210	04.01.07.MTE.07560950	9.50	410	280
04.01.07.MTE.07560550	5.50	330	225	04.01.07.MTE.07561000	10.00	430	295
04.01.07.MTE.07560700	7.00	370	250	04.01.07.MTE.07561050	10.50	430	295
04.01.07.MTE.07560750	7.50	370	250	04.01.07.MTE.07561100	11.00	455	310
04.01.07.MTE.07560800	8.00	390	265				



## 04. HSS GRUBU 01. MATKAP UCLARI

### 08. DIN 345 MORS KONİK MORS KONİK SAPLI MATKAP UCU

HSS	DIN 345	TS ISO 235	N	118°	h8		
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ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)	M.K No	ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)	M.K No
04.01.08.MTE.07401400	14.00	189	108	1	04.01.08.MTE.04002650	26.50	286	165	3
04.01.08.MTE.07401500	15.00	112	114	2	04.01.08.MTE.04002700	27.00	291	170	3
04.01.08.MTE.07401550	15.50	218	120	2	04.01.08.MTE.04002750	27.50	291	170	3
04.01.08.MTE.07401600	16.00	218	120	2	04.01.08.MTE.04002800	28.00	291	170	3
04.01.08.MTE.07401650	16.50	223	125	2	04.01.08.MTE.04002850	28.50	296	175	3
04.01.08.MTE.07401700	17.00	223	125	2	04.01.08.MTE.04002900	29.00	296	175	3
04.01.08.MTE.07401750	17.50	228	130	2	04.01.08.MTE.04002950	29.50	296	175	3
04.01.08.MTE.07401800	18.00	228	130	2	04.01.08.MTE.04003000	30.00	296	175	3
04.01.08.MTE.07401850	18.50	233	135	2	04.01.08.MTE.04003050	30.50	301	180	3
04.01.08.MTE.07401900	19.00	233	135	2	04.01.08.MTE.04003100	31.00	301	180	3
04.01.08.MTE.07401950	19.50	238	140	2	04.01.08.MTE.04003150	31.50	301	180	3
04.01.08.MTE.07402000	20.00	238	140	2	04.01.08.MTE.04003200	32.00	334	185	4
04.01.08.MTE.04002050	20.50	243	145	2	04.01.08.MTE.04003250	32.50	334	185	4
04.01.08.MTE.04002100	21.00	243	145	2	04.01.08.MTE.04003300	33.00	334	185	4
04.01.08.MTE.04002150	21.50	248	150	2	04.01.08.MTE.04003350	33.50	339	190	4
04.01.08.MTE.04002200	22.00	248	150	2	04.01.08.MTE.04003400	34.00	339	190	4
04.01.08.MTE.04002250	22.50	253	155	2	04.01.08.MTE.04003450	34.50	339	190	4
04.01.08.MTE.04002300	23.00	253	155	2	04.01.08.MTE.04003500	35.00	339	190	4
04.01.08.MTE.04002350	23.50	276	155	3	04.01.08.MTE.04003550	35.50	334	185	4
04.01.08.MTE.04002400	24.00	281	160	3	04.01.08.MTE.04003600	36.00	334	185	4
04.01.08.MTE.04002450	24.50	281	160	3	04.01.08.MTE.04003650	36.50	339	200	4
04.01.08.MTE.04002500	25.00	281	160	3	04.01.08.MTE.04003700	37.00	339	200	4
04.01.08.MTE.04002550	25.50	286	165	3	04.01.08.MTE.04003750	37.50	349	200	4
04.01.08.MTE.04002600	26.00	286	165	3	04.01.08.MTE.04003800	38.00	349	200	4
					04.01.08.MTE.04003850	38.50	354	205	4
					04.01.08.MTE.04003900	39.00	359	210	4
					04.01.08.MTE.04003950	39.50	359	210	4
					04.01.08.MTE.04004000	40.00	359	210	4
					04.01.08.MTE.04004050	40.50	359	210	4
					04.01.08.MTE.04004100	41.00	359	210	4
					04.01.08.MTE.04004150	41.50	359	210	4
					04.01.08.MTE.04004200	42.00	359	210	4
					04.01.08.MTE.04004250	42.50	359	210	4
					04.01.08.MTE.04004300	43.00	359	210	4
					04.01.08.MTE.04004350	43.50	359	210	4
					04.01.08.MTE.04004400	44.00	359	210	4
					04.01.08.MTE.04004450	44.50	359	210	4
					04.01.08.MTE.04004500	45.00	359	210	4
					04.01.08.MTE.04004550	45.50	359	210	4
					04.01.08.MTE.04004600	46.00	359	210	4
					04.01.08.MTE.04004650	46.50	359	210	4
					04.01.08.MTE.04004700	47.00	359	210	4
					04.01.08.MTE.04004750	47.50	359	210	4
					04.01.08.MTE.04004800	48.00	359	210	4
					04.01.08.MTE.04004850	48.50	359	210	4
					04.01.08.MTE.04004900	49.00	359	210	4
					04.01.08.MTE.04004950	49.50	359	210	4
					04.01.08.MTE.04005000	50.00	369	220	4

## 04. HSS GRUBU 01. MATKAP UCLARI



### 9. DIN 341

#### MORS KONİK SAPLI UZUN MATKAP UCU



ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)	M.K No	ÜRÜN KODU	d1 (mm)	L1 (mm)	L2 (mm)	M.K No
04.01.09.MTE.07301200	12.00	215	134	1	04.01.09.MTE.04422350	23.50	319	198	3
04.01.09.MTE.07301250	12.50	215	134	1	04.01.09.MTE.04422400	24.00	327	206	3
04.01.09.MTE.07301300	13.00	215	134	1	04.01.09.MTE.04422450	24.50	327	206	3
04.01.09.MTE.07301350	13.50	223	142	1	04.01.09.MTE.04422500	25.00	327	206	3
04.01.09.MTE.07301400	14.00	223	142	1	04.01.09.MTE.04422550	25.50	335	214	3
04.01.09.MTE.07301450	14.50	245	147	2	04.01.09.MTE.04422600	26.00	335	214	3
04.01.09.MTE.07301500	15.00	245	147	2	04.01.09.MTE.04422650	26.50	335	214	3
04.01.09.MTE.07301600	16.00	251	153	2	04.01.09.MTE.04422700	27.00	343	222	3
04.01.09.MTE.07301700	17.00	257	159	2	04.01.09.MTE.04422750	27.50	343	222	3
04.01.09.MTE.07301800	18.00	263	165	2	04.01.09.MTE.04422800	28.00	343	222	3
04.01.09.MTE.07301900	19.00	269	171	2	04.01.09.MTE.04422850	28.50	351	230	3
04.01.09.MTE.07302000	20.00	275	177	2	04.01.09.MTE.04422900	29.00	351	230	3
04.01.09.MTE.04422050	20.50	282	184	2	04.01.09.MTE.04422950	29.50	351	230	3
04.01.09.MTE.04422100	21.00	282	184	2	04.01.09.MTE.04423000	30.00	351	230	3
04.01.09.MTE.04422150	21.50	289	191	2	04.01.09.MTE.04423100	31.00	360	239	3
04.01.09.MTE.04422200	22.00	289	191	2	04.01.09.MTE.04423200	32.00	397	248	4
04.01.09.MTE.04422250	22.50	296	198	2	04.01.09.MTE.04423300	33.00	397	248	4
04.01.09.MTE.04422300	23.00	296	198	2					



## 04. HSS GRUBU 01. MATKAP UCLARI

### 10. DIN 333

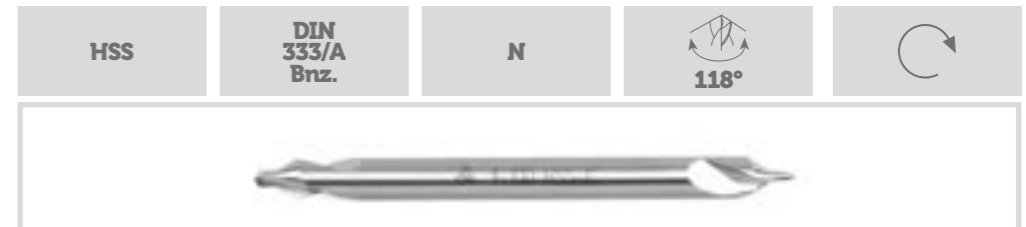
#### PUNTA MATKABI - FORM A



ÜRÜN KODU	d1 (mm)	d2 (f9)mm	L1 (mm)	L2 (mm)	ÜRÜN KODU	d1 (mm)	d2 (f9)mm	L1 (mm)	L2 (mm)
04.01.10.MTE.10010100	1.00	3.15	31.50	1.3	04.01.10.MTE.10010400	4.00	10.0	56.0	5.0
04.01.10.MTE.10010125	1.25	3.15	31.50	1.6	04.01.10.MTE.10010500	5.00	12.5	63.0	6.3
04.01.10.MTE.10010160	1.60	4.00	35.5	2.0	04.01.10.MTE.10010630	6.30	16.0	71.0	8.0
04.01.10.MTE.10010200	2.00	5.00	40.0	2.5	04.01.10.MTE.10010800	8.00	20.0	80.0	10.1
04.01.10.MTE.10010250	2.50	6.30	45.0	3.1	04.01.10.MTE.10011000	10.00	25.0	100.0	12.8
04.01.10.MTE.10010315	3.15	8.00	50.0	3.9	04.01.10.MTE.10011250	12.50	31.5	125.0	16.5

### 11. DIN 333

#### PUNTA MATKABI UZUN HSS



ÜRÜN KODU	d1 (mm)	d2 (f9)mm	L1 (mm)	L2 (mm)	ÜRÜN KODU	d1 (mm)	d2 (f9)mm	L1 (mm)	L2 (mm)
04.01.11.MTE.10420100	2.00	6.0	100	2.5	04.01.11.MTE.10420120	2.00	6.00	120	2.5
04.01.11.MTE.10425100	2.50	8.0	100	3.1	04.01.11.MTE.10425120	2.50	8.00	120	3.1
04.01.11.MTE.10430100	3.00	8.0	100	3.7	04.01.11.MTE.10430120	3.00	8.00	120	3.7
04.01.11.MTE.10440100	4.00	10.0	100	5.0	04.01.11.MTE.10440120	4.00	10.00	120	5.0
04.01.11.MTE.10450100	5.00	12.5	100	6.3	04.01.11.MTE.10450120	5.00	12.50	120	6.3

01. DÜZ MAKİNA KLAVUZLARI METRİK DİŞ  
METRİK NORMAL VİDALI EĞİK AĞIZ BİLEMELİ

HSS	DIN 371/B	TS 82/4	M	60°	6H	
ÜRÜN KODU	d1 mm	P adim	L1 mm	L2 mm	d2 mm	k (h12) mm
04.02.01.MTE.05710250	M2.5	0.45	50	9	2.8	2.1
04.02.01.MTE.05710300	M 3	0.50	56	10	3.5	2.7
04.02.01.MTE.05710400	M 4	0.70	63	12	4.5	3.4
04.02.01.MTE.05710500	M 5	0.80	70	14	6.0	4.9
04.02.01.MTE.05710600	M 6	1.00	80	16	6.0	4.9
04.02.01.MTE.05710800	M 8	1.25	90	18	8.0	6.2
04.02.01.MTE.05711000	M10	1.50	100	20	10.0	8.0
04.02.01.MTE.05711200	M12	1.75	110	24	12.0	9.0

HSS-E	DIN 376/B	TS 82/5	M	60°	6H	
ÜRÜN KODU	d1 mm	P adim	L1 mm	L2 mm	d2 mm	k (h12) mm
04.02.01.MTE.05770600	M 6	1.00	80	16	4.5	3.4
04.02.01.MTE.05770800	M 8	1.25	90	18	6.0	4.9
04.02.01.MTE.05771000	M10	1.50	100	20	7.0	5.5
04.02.01.MTE.05771200	M12	1.75	110	24	9.0	7.0
04.02.01.MTE.05771400	M14	2.00	110	26	11.0	9.0
04.02.01.MTE.05771600	M16	2.00	110	28	12.0	9.0
04.02.01.MTE.05771800	M18	2.50	125	30	14.0	11.0
04.02.01.MTE.05772000	M20	2.50	140	32	16.0	12.0
04.02.01.MTE.05772200	M22	2.50	140	32	18.0	14.5
04.02.01.MTE.05772400	M24	3.00	160	34	18.0	14.5
04.02.01.MTE.05772700	M27	3.00	160	38	20.0	16.0
04.02.01.MTE.05773000	M30	3.50	180	45	22.0	18.0


01. DÜZ MAKİNA KLAVUZLARI METRİK DİŞ  
UNIVERSAL - EĞİK AĞIZ BİLEMELİ

GALAKSİ - M						
HSS-E	B 3,5-5,5	EAB	60°	ISO2 6H		
DIN - 371						
ÜRÜN KODU	d1 mm	P adim	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.01.MTE.0000030T	M 3	0.50	56	10	3.5	2.7
04.02.01.MTE.0000040T	M 4	0.70	63	12	4.5	3.4
04.02.01.MTE.0000050T	M 5	0.80	70	14	6.0	4.9
04.02.01.MTE.0000060T	M 6	1.00	80	16	6.0	4.9
04.02.01.MTE.0000080T	M 8	1.25	90	18	8.0	6.2
04.02.01.MTE.0000100T	M10	1.50	100	20	10.0	8.0
04.02.01.MTE.0000120T	M12	1.75	110	24	12.0	9.0

DIN - 376						
ÜRÜN KODU	d1 mm	P adim	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.01.MTE.0002120T	M12	1.75	110	24	9	7
04.02.01.MTE.0002140T	M14	2.00	110	26	11	9
04.02.01.MTE.0002160T	M16	2.00	110	28	12	9
04.02.01.MTE.0002180T	M18	2.50	125	30	14	11
04.02.01.MTE.0002200T	M20	2.50	140	32	16	12




01. DÜZ MAKİNA KLAVUZLARI METRİK DİŞ  
ÇELİK - EĞİK AĞIZ BİLEMELİ

NEPTÜN - M						
HSS-E	B 3,5-5,5	EAB	60°	ISO2 6HX	TIN	
						
DIN - 371						
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.01.MTE.01010300	M 3	0.50	56	10	3.5	2.7
04.02.01.MTE.01010400	M 4	0.70	63	12	4.5	3.4
04.02.01.MTE.01010500	M 5	0.80	70	14	6.0	4.9
04.02.01.MTE.01010600	M 6	1.00	80	16	6.0	4.9
04.02.01.MTE.01010800	M 8	1.25	90	18	8.0	6.2
04.02.01.MTE.01011000	M 10	1.50	100	20	10.0	8.0
04.02.01.MTE.01011200	M 12	1.75	110	24	12.0	9.0

DIN - 376						
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.01.MTE.01111200	M 12	1.75	110	24	9	7
04.02.01.MTE.01111400	M 14	2.00	110	26	11	9
04.02.01.MTE.01111600	M 16	2.00	110	28	12	9
04.02.01.MTE.01111800	M 18	2.50	125	30	14	11
04.02.01.MTE.01112000	M 20	2.50	140	32	16	12

01. DÜZ MAKİNA KLAVUZLARI METRİK DİŞ  
INOX PASLANMAZ - EĞİK AĞIZ BİLEMELİ

VENÜS - M						
HSS-E	B 3,5-5,5	EAB	60°	ISO2 6HX	TIN	
						
DIN - 371						
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.01.MTE.0200030T	M 3	0.50	56	10	3.5	2.7
04.02.01.MTE.0200040T	M 4	0.70	63	12	4.5	3.4
04.02.01.MTE.0200050T	M 5	0.80	70	14	6.0	4.9
04.02.01.MTE.0200060T	M 6	1.00	80	16	6.0	4.9
04.02.01.MTE.0200080T	M 8	1.25	90	18	8.0	6.2
04.02.01.MTE.0200100T	M 10	1.50	100	20	10.0	8.0
04.02.01.MTE.0200120T	M 12	1.75	110	24	12.0	9.0

DIN - 376						
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.01.MTE.0210120T	M 12	1.75	110	24	9	7
04.02.01.MTE.0210140T	M 14	2.00	110	26	11	9
04.02.01.MTE.0210160T	M 16	2.00	110	28	12	9
04.02.01.MTE.0210180T	M 18	2.50	125	30	14	11
04.02.01.MTE.0210200T	M 20	2.50	140	32	16	12

04. HSS GRUBU  
02. MAKİNA KLAVUZLARI



01. DÜZ MAKİNA KLAVUZLARI METRİK DİŞ  
DÖKÜM - DÜZ KANATLI

MARS - M



DIN - 371

ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm	matkap çapı
04.02.01.MTE.02500300	M 3	0.50	56	10	3.5	2.7	2.5
04.02.01.MTE.02500400	M 4	0.70	63	12	4.5	3.4	3.3
04.02.01.MTE.02500500	M 5	0.80	70	14	6.0	4.9	4.2
04.02.01.MTE.02500600	M 6	1.00	80	16	6.0	4.9	5.0
04.02.01.MTE.02500800	M 8	1.25	90	18	8.0	6.2	6.8
04.02.01.MTE.02501000	M 10	1.50	100	20	10.0	8.0	8.5
04.02.01.MTE.02501200	M 12	1.75	110	24	12.0	9.0	10.2

DIN - 376

ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm	matkap çapı
04.02.01.MTE.02601200	M 12	1.75	110	24	9	7	10.2
04.02.01.MTE.02601400	M 14	2.00	110	26	11	9	12.0
04.02.01.MTE.02601600	M 16	2.00	110	28	12	9	14.0
04.02.01.MTE.02601800	M 18	2.50	125	30	14	11	15.5
04.02.01.MTE.02602000	M 20	2.50	140	32	16	12	17.5



04. HSS GRUBU  
02. MAKİNA KLAVUZLARI

01. DÜZ MAKİNA KLAVUZLARI METRİK DİŞ  
50/55 HRc DÜZ KANALLI

MERKÜR - M



DIN - 371

ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm	matkap çapı
04.02.01.MTE.24500600	M 6	1.00	80	10	6.0	4.9	5.1
04.02.01.MTE.24500800	M 8	1.25	90	12	8.0	6.2	6.9
04.02.01.MTE.24501000	M 10	1.50	100	14	10.0	8.0	8.6
04.02.01.MTE.24501200	M 12	1.75	110	16	12.0	9.0	10.3

02. DÜZ MAKİNA KLAVUZLARI İNCE DİŞ  
METRİK İNCE VİDALI EĞİK AĞIZ BİLEMELİ

HSS-E	DIN 374/B	TS 82/6	MF	60°	6H	
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ÜRÜN KODU	d1 mm	P adim	L1 mm	L2 mm	d2 mm	k (h12) mm
04.02.02.MTE.05740603	M 6	0.50	80	14	4.5	3.4
04.02.02.MTE.05740604	M 6	0.75	80	14	4.5	3.4
04.02.02.MTE.05740804	M 8	0.75	90	22	6.0	4.9
04.02.02.MTE.05740805	M 8	1.00	90	22	6.0	4.9
04.02.02.MTE.05741005	M 10	1.00	90	20	7.0	5.5
04.02.02.MTE.05741000	M 10	1.25	100	20	7.0	5.5
04.02.02.MTE.05741205	M 12	1.00	100	22	9.0	7.0
04.02.02.MTE.05741200	M 12	1.25	100	22	9.0	7.0
04.02.02.MTE.05741206	M 12	1.50	100	22	9.0	7.0
04.02.02.MTE.05741405	M 14	1.00	100	22	11.0	9.0
04.02.02.MTE.05741400	M 14	1.25	100	22	11.0	9.0
04.02.02.MTE.05741406	M 14	1.50	100	22	11.0	9.0
04.02.02.MTE.05741605	M 16	1.00	100	22	12.0	9.0
04.02.02.MTE.05741606	M 16	1.50	100	22	12.0	9.0
04.02.02.MTE.05741805	M 18	1.00	110	25	14.0	11.0
04.02.02.MTE.05741806	M 18	1.50	110	25	14.0	11.0
04.02.02.MTE.05742005	M 20	1.00	125	25	16.0	12.0
04.02.02.MTE.05742006	M 20	1.50	125	25	16.0	12.0
04.02.02.MTE.05742206	M 22	1.50	125	25	18.0	14.5
04.02.02.MTE.05742406	M 24	1.50	140	28	18.0	14.5
04.02.02.MTE.05742706	M 27	1.50	140	28	20.0	16.0
04.02.02.MTE.05742806	M 28	1.50	140	28	20.0	16.0
04.02.02.MTE.05743206	M 32	1.50	150	28	22.0	18.0

03. HELİS MAKİNA KLAVUZLARI METRİK DİŞ  
METRİK NORMAL VİDALI HELİS KANALLI

HSS-E	DIN 371/C	TS 82/4	M	60°	6H	R35°	
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ÜRÜN KODU	d1 mm	P adim	L1 mm	L2 mm	d2 mm	k (h12) mm
04.02.03.MTE.05790607	M 2	0.40	45	8	2.8	2.1
04.02.03.MTE.05790608	M 2.5	0.45	50	9	2.8	2.1
04.02.03.MTE.05790133	M 3	0.50	56	10	3.5	2.7
04.02.03.MTE.05790134	M 4	0.70	63	12	4.5	3.4
04.02.03.MTE.05790135	M 5	0.80	70	14	6.0	4.9
04.02.03.MTE.05790136	M 6	1.00	80	16	6.0	4.9
04.02.03.MTE.05790137	M 8	1.25	90	18	8.0	6.2
04.02.03.MTE.05790138	M 10	1.50	100	20	10.0	8.0
04.02.03.MTE.05790139	M 12	1.75	110	24	12.0	9.0

HSS-E	DIN 376/C	TS 82/5	M	60°	6H	R35°	
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ÜRÜN KODU	d1 mm	P adim	L1 mm	L2 mm	d2 mm	k (h12) mm
04.02.03.MTE.05790252	M 5	0.80	70	8	3.5	2.7
04.02.03.MTE.05790253	M 6	1.00	80	10	4.5	3.4
04.02.03.MTE.05790255	M 8	1.25	90	12	6.0	4.9
04.02.03.MTE.05790257	M 10	1.50	100	14	7.0	5.5
04.02.03.MTE.05790259	M 12	1.75	110	16	9.0	7.0
04.02.03.MTE.05790260	M 14	2.00	110	18	11.0	9.0
04.02.03.MTE.05790261	M 16	2.00	110	20	12.0	9.0
04.02.03.MTE.05790262	M 18	2.50	125	22	14.0	11.0
04.02.03.MTE.05790263	M 20	2.50	140	22	16.0	12.0
04.02.03.MTE.05790264	M 22	2.50	140	24	18.0	14.5
04.02.03.MTE.05790265	M 24	3.00	160	28	18.0	14.5
04.02.03.MTE.05790407	M 27	3.00	160	30	20.0	16.0
04.02.03.MTE.05790267	M 30	3.50	180	35	22.0	18.0
04.02.03.MTE.05790402	M 33	3.50	180	35	25.0	20.0
04.02.03.MTE.05790268	M 36	4.00	200	44	28.0	22.0

03. HELİS MAKİNA KLAVUZLARI METRİK DİŞ  
UNIVERSAL - 40° HELİS KANALLI

GALAKSİ - M						
HSS-E	C 2-3	R40°	60°	ISO2 6H		
						
DIN - 371						
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.03.MTE.0001030T	M 3	0.50	56	6	3.5	2.7
04.02.03.MTE.0001040T	M 4	0.70	63	7	4.5	3.4
04.02.03.MTE.0001050T	M 5	0.80	70	8	6.0	4.9
04.02.03.MTE.0001060T	M 6	1.00	80	10	6.0	4.9
04.02.03.MTE.0001080T	M 8	1.25	90	12	8.0	6.2
04.02.03.MTE.0001100T	M 10	1.50	100	14	10.0	8.0
04.02.03.MTE.0001120T	M 12	1.75	110	16	12.0	9.0

DIN - 376						
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.03.MTE.0003120T	M 12	1.75	110	16	9	7
04.02.03.MTE.0003140T	M 14	2.00	110	18	11	9
04.02.03.MTE.0003160T	M 16	2.00	110	20	12	9
04.02.03.MTE.0003180T	M 18	2.50	125	22	14	11
04.02.03.MTE.0003200T	M 20	2.50	140	22	16	12

03. HELİS MAKİNA KLAVUZLARI METRİK DİŞ  
ÇELİK - 45° HELİS KANALLI

NEPTÜN - M						
HSS-E	C 2-3	R45°	60°	ISO2 6HX		TiN
						
DIN - 371						
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.03.MTE.01020300	M 3	0.50	56	6	3.5	2.7
04.02.03.MTE.01020400	M 4	0.70	63	7	4.5	3.4
04.02.03.MTE.01020500	M 5	0.80	70	8	6.0	4.9
04.02.03.MTE.01020600	M 6	1.00	80	10	6.0	4.9
04.02.03.MTE.01020800	M 8	1.25	90	12	8.0	6.2
04.02.03.MTE.01021000	M 10	1.50	100	14	10.0	8.0
04.02.03.MTE.01021200	M 12	1.75	110	16	12.0	9.0

DIN - 376						
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.03.MTE.01121200	M 12	1.75	110	16	9	7
04.02.03.MTE.01121400	M 14	2.00	110	18	11	9
04.02.03.MTE.01121600	M 16	2.00	110	20	12	9
04.02.03.MTE.01121800	M 18	2.50	125	22	14	11
04.02.03.MTE.01122000	M 20	2.50	140	22	16	12

03. HELİS MAKİNA KLAVUZLARI METRİK DİŞ  
INOX - PASLANMAZ 45° HELİS KANALLI

VENÜS - M



DIN - 371

ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.03.MTE.0201030T	M 3	0.50	56	6	3.5	2.7
04.02.03.MTE.0201040T	M 4	0.70	63	7	4.5	3.4
04.02.03.MTE.0201050T	M 5	0.80	70	8	6.0	4.9
04.02.03.MTE.0201060T	M 6	1.00	80	10	6.0	4.9
04.02.03.MTE.0201080T	M 8	1.25	90	12	8.0	6.2
04.02.03.MTE.0201100T	M 10	1.50	100	14	10.0	8.0
04.02.03.MTE.0201120T	M 12	1.75	110	16	12.0	9.0

DIN - 376

ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm
04.02.03.MTE.0211120T	M 12	1.75	110	16	9	7
04.02.03.MTE.0211140T	M 14	2.00	110	18	11	9
04.02.03.MTE.0211160T	M 16	2.00	110	20	12	9
04.02.03.MTE.0211180T	M 18	2.50	125	22	14	11
04.02.03.MTE.0211200T	M 20	2.50	140	22	16	12

03. HELİS MAKİNA KLAVUZLARI METRİK DİŞ  
DÖKÜM - 45° HELİS KANALLI

MARS - M



DIN - 371

ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm	matkap çapı
04.02.03.MTE.02510300	M 3	0.50	56	10	3.5	2.7	2.5
04.02.03.MTE.02510400	M 4	0.70	63	12	4.5	3.4	3.3
04.02.03.MTE.02510500	M 5	0.80	70	14	6.0	4.9	4.2
04.02.03.MTE.02510600	M 6	1.00	80	16	6.0	4.9	5.0
04.02.03.MTE.02510800	M 8	1.25	90	18	8.0	6.2	6.8
04.02.03.MTE.02511000	M 10	1.50	100	20	10.0	8.0	8.5
04.02.03.MTE.02511200	M 12	1.75	110	24	12.0	9.0	10.2

DIN - 376

ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm	matkap çapı
04.02.03.MTE.02611200	M 12	1.75	110	24	9	7	10.2
04.02.03.MTE.02611400	M 14	2.00	110	26	11	9	12.0
04.02.03.MTE.02611600	M 16	2.00	110	28	12	9	14.0
04.02.03.MTE.02611800	M 18	2.50	125	30	14	11	15.5
04.02.03.MTE.02612000	M 20	2.50	140	32	16	12	17.5

03. HELİS MAKİNA KLAVUZLARI METRİK DİŞ  
ISI DİRENÇLİ Ti-Ni - TOOLOX 15° HELİS KANALLI

SATÜRN - M



PM

DIN - 371

ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm	matkap çapı
04.02.03.MTE.24000300	M 3	0.50	56	10	3.5	2.7	2.5
04.02.03.MTE.24000400	M 4	0.70	63	12	4.5	3.4	3.3
04.02.03.MTE.24000500	M 5	0.80	70	14	6.0	4.9	4.2
04.02.03.MTE.24000600	M 6	1.00	80	16	6.0	4.9	5.0
04.02.03.MTE.24000800	M 8	1.25	90	18	8.0	6.2	6.8
04.02.03.MTE.24001000	M 10	1.50	100	20	10.0	8.0	8.5
04.02.03.MTE.24001200	M 12	1.75	110	24	12.0	9.0	10.2

DIN - 376

ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm	matkap çapı
04.02.03.MTE.24101200	M 12	1.75	110	24	9	7	10.2
04.02.03.MTE.24101400	M 14	2.00	110	26	11	9	12.0
04.02.03.MTE.24101600	M 16	2.00	110	28	12	9	14.0
04.02.03.MTE.24101800	M 18	2.50	125	30	14	11	15.5
04.02.03.MTE.24102000	M 20	2.50	140	32	16	12	17.5

04. HELİS MAKİNA KLAVUZLARI İNCE DİŞ  
METRİK İNCE VİDALI HELİS KANALLI



ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	k (h12) mm
04.02.04.MTE.05790565	M 6	0.75	80	8	4.5	3.4
04.02.04.MTE.05790682	M 8	0.75	80	10	6.0	4.9
04.02.04.MTE.05790490	M 8	1.00	90	10	6.0	4.9
04.02.04.MTE.05790336	M 10	1.00	90	12	7.0	5.5
04.02.04.MTE.05790390	M 10	1.25	100	12	7.0	5.5
04.02.04.MTE.05790391	M 12	1.00	100	14	9.0	7.0
04.02.04.MTE.05790392	M 12	1.25	100	14	9.0	7.0
04.02.04.MTE.05790006	M 12	1.50	100	14	9.0	7.0
04.02.04.MTE.05790393	M 14	1.00	100	16	11.0	9.0
04.02.04.MTE.05790394	M 14	1.25	100	16	11.0	9.0
04.02.04.MTE.05790292	M 14	1.50	100	16	11.0	9.0
04.02.04.MTE.05790680	M 16	1.00	100	18	12.0	9.0
04.02.04.MTE.05790712	M 16	1.25	100	18	12.0	9.0
04.02.04.MTE.05790338	M 16	1.50	100	18	12.0	9.0
04.02.04.MTE.05790676	M 18	1.00	110	20	14.0	11.0
04.02.04.MTE.05790287	M 18	1.50	110	20	14.0	11.0
04.02.04.MTE.05790612	M 18	2.00	125	20	14.0	11.0
04.02.04.MTE.05790591	M 20	1.00	125	22	16.0	12.0
04.02.04.MTE.05790340	M 20	1.50	125	22	16.0	12.0
04.02.04.MTE.05790637	M 20	2.00	140	22	16.0	12.0
04.02.04.MTE.05790679	M 22	1.00	125	25	18.0	14.5
04.02.04.MTE.05790186	M 22	1.50	125	25	18.0	14.5
04.02.04.MTE.05790551	M 24	1.50	140	25	18.0	14.5
04.02.04.MTE.05790441	M 24	2.00	140	25	18.0	14.5
04.02.04.MTE.05790721	M 26	1.50	140	25	18.0	14.5
04.02.04.MTE.05790683	M 27	1.50	140	25	20.0	16.0
04.02.04.MTE.05790692	M 27	2.00	140	25	20.0	16.0
04.02.04.MTE.05790553	M 30	1.50	150	25	22.0	18.0
04.02.04.MTE.05790759	M 30	2.00	150	25	22.0	18.0

04. HSS GRUBU  
02. MAKİNA KLAVUZLARI



05. DÜZ MAKİNA KLAVUZLARI GAZ DİŞ  
WHITWORTH BORU VİDALI DÜZ KANALLI

HSS-E	DIN 5156/C	BSP	55°	↻			
							
ÜRÜN KODU	d1 BSP	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm	matkap çapı
04.02.05.MTE.09580973	G 1/8"	28	90	20	7.0	5.5	9.20
04.02.05.MTE.09581316	G 1/4"	19	100	22	11.0	9.0	12.40
04.02.05.MTE.09581666	G 3/8"	19	100	22	12.0	9.0	15.90
04.02.05.MTE.09582095	G 1/2"	14	125	25	16.0	12.0	19.90
04.02.05.MTE.09582644	G 3/4"	14	140	28	20.0	16.0	25.40
04.02.05.MTE.09583325	G 1"	11	160	30	25.0	20.0	32.00

HSS-E	DIN 5156/B	BSP	55°	↻			
							
ÜRÜN KODU	d1 BSP	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm	matkap çapı
04.02.05.MTE.09570973	G 1/8"	28	90	20	7.0	5.5	9.20
04.02.05.MTE.09571316	G 1/4"	19	100	22	11.0	9.0	12.40
04.02.05.MTE.09571666	G 3/8"	19	100	22	12.0	9.0	15.90
04.02.05.MTE.09572095	G 1/2"	14	125	25	16.0	12.0	19.90
04.02.05.MTE.09572644	G 3/4"	14	140	28	20.0	16.0	25.40



04. HSS GRUBU  
02. MAKİNA KLAVUZLARI

06. HELİS MAKİNA KLAVUZLARI GAZ DİŞ  
WHITWORTH BORU VİDALI HELİS KANALLI

HSS-E	DIN 5156/C	BSP	55°	R35°	↻		
							
ÜRÜN KODU	d1 BSP	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm	matkap çapı
04.02.06.MTE.09420074	G 1/8"	28	90	12	7.0	5.5	9.20
04.02.06.MTE.09420053	G 1/4"	19	100	16	11.0	9.0	12.40
04.02.06.MTE.09420054	G 3/8"	19	100	18	12.0	9.0	15.90
04.02.06.MTE.09420061	G 1/2"	14	125	22	16.0	12.0	19.90
04.02.06.MTE.09420055	G 3/4"	14	140	23	20.0	16.0	25.40
04.02.06.MTE.09420058	G 1"	11	160	28	25.0	20.0	32.00

## 04. HSS GRUBU 02. MAKİNA KLAVUZLARI



### 07. DÜZ MAKİNA KLAVUZLARI UNC / UNF

#### USA NORMAL VİDALI DÜZ KANALLI - UNC

HSS-E	DIN 2183/C Bnz.	UNC	60°	2B	↻		
ÜRÜN KODU	d1 UNC	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm	matkap çapı
04.02.07.MTE.05950635	1/4"	20	80	19	4.5	3.4	5.20
04.02.07.MTE.05950794	5/16"	18	90	22	6.0	4.9	6.60
04.02.07.MTE.05950952	3/8"	16	100	24	7.0	5.5	8.00
04.02.07.MTE.05951111	7/16"	14	100	24	8.0	6.2	9.40
04.02.07.MTE.05951270	1/2"	13	110	29	9.0	7.0	10.80
04.02.07.MTE.05951429	9/16"	12	110	30	11.0	9.0	12.20
04.02.07.MTE.05951587	5/8"	11	110	32	12.0	9.0	13.50
04.02.07.MTE.05951905	3/4"	10	125	34	14.0	11.0	16.50
04.02.07.MTE.05952222	7/8"	9	140	34	18.0	14.5	19.50
04.02.07.MTE.05952540	1"	8	160	38	20.0	16.0	22.25

#### USA İNCE VİDALI DÜZ KANALLI - UNF

HSS-E	DIN 2183/C Bnz.	UNF	60°	2B	↻		
ÜRÜN KODU	d1 UNF	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm	matkap çapı
04.02.07.MTE.05980635	1/4"	28	80	19	4.5	3.4	5.50
04.02.07.MTE.05980794	5/16"	24	90	22	6.0	4.9	6.90
04.02.07.MTE.05980952	3/8"	24	100	24	7.0	5.5	8.50
04.02.07.MTE.05981111	7/16"	20	100	24	8.0	6.2	9.90
04.02.07.MTE.05981270	1/2"	20	110	29	9.0	7.0	11.50
04.02.07.MTE.05981429	9/16"	18	110	30	11.0	9.0	12.90
04.02.07.MTE.05981587	5/8"	18	110	32	12.0	9.0	14.50
04.02.07.MTE.05981905	3/4"	16	125	34	14.0	11.0	17.50
04.02.07.MTE.05982222	7/8"	14	140	34	18.0	14.5	20.50
04.02.07.MTE.05982540	1"	12	160	38	20.0	16.0	23.25



## 04. HSS GRUBU 02. MAKİNA KLAVUZLARI

### 08. HELİS MAKİNA KLAVUZLARI UNC / UNF

#### USA NORMAL VİDALI HELİS KANALLI - UNC

HSS-E	DIN 2183/C Bnz.	UNC	60°	2B	R35°	↻	
ÜRÜN KODU	d1 UNC	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm	matkap çapı
04.02.08.MTE.05990037	1/4"	20	80	12	4.5	3.4	5.20
04.02.08.MTE.05990009	5/16"	18	90	14	6.0	4.9	6.60
04.02.08.MTE.05990008	3/8"	16	100	16	7.0	5.5	8.00
04.02.08.MTE.05990003	7/16"	14	100	16	8.0	6.2	9.40
04.02.08.MTE.05990006	1/2"	13	110	20	9.0	7.0	10.80
04.02.08.MTE.05990021	9/16"	12	110	22	11.0	9.0	12.20
04.02.08.MTE.05990022	5/8"	11	110	22	12.0	9.0	13.50
04.02.08.MTE.05990031	3/4"	10	125	28	14.0	11.0	16.50
04.02.08.MTE.05990065	7/8"	9	140	28	18.0	14.5	19.50
04.02.08.MTE.05990066	1"	8	160	32	20.0	16.0	22.25

#### USA İNCE VİDALI HELİS KANALLI - UNF

HSS-E	DIN 2183/C Bnz.	UNC	60°	2B	R35°	↻	
ÜRÜN KODU	d1 UNF	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm	matkap çapı
04.02.08.MTE.05990014	1/4"	28	80	12	4.5	3.4	5.50
04.02.08.MTE.05990038	5/16"	24	90	14	6.0	4.9	6.90
04.02.08.MTE.05990015	3/8"	24	100	16	7.0	5.5	8.50
04.02.08.MTE.05990023	7/16"	20	100	16	8.0	6.2	9.90
04.02.08.MTE.05990024	1/2"	20	110	20	9.0	7.0	11.50
04.02.08.MTE.05990025	9/16"	18	110	22	11.0	9.0	12.90
04.02.08.MTE.05990022	5/8"	18	110	22	12.0	9.0	14.50
04.02.08.MTE.05990032	3/4"	16	125	22	14.0	11.0	17.50
04.02.08.MTE.05990051	7/8"	14	140	28	18.0	14.5	20.50
04.02.08.MTE.05990078	1"	12	160	32	20.0	16.0	23.25



09. OVALAMA MAKİNA KLAVUZLARI METRİK DİŞ  
OVALAMA - YAĞ KANALLI

GALAKSİ							
HSS-E	C 2-3	60°	6HX				TiN
							
DIN - 371							
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm	matkap çapı
04.02.09.MTE.0550030T	M 3	0.50	56	10	3.5	2.7	2.80
04.02.09.MTE.0550040T	M 4	0.70	63	12	4.5	3.4	3.70
04.02.09.MTE.0550050T	M 5	0.80	70	14	6.0	4.9	4.65
04.02.09.MTE.0550060T	M 6	1.00	80	16	6.0	4.9	5.60
04.02.09.MTE.0550080T	M 8	1.25	90	18	8.0	6.2	7.45
04.02.09.MTE.0550100T	M 10	1.50	100	20	10.0	8.0	9.35
04.02.09.MTE.0550120T	M 12	1.75	110	24	12.0	9.0	11.25

DIN - 376							
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	a (h12) mm	matkap çapı
04.02.09.MTE.0560120T	M 12	1.75	110	16	9	7	2.80
04.02.09.MTE.0560140T	M 14	2.00	110	18	11	9	3.70
04.02.09.MTE.0560160T	M 16	2.00	110	20	12	9	4.65
04.02.09.MTE.0560180T	M 18	2.50	125	22	14	11	5.60
04.02.09.MTE.0560200T	M 20	2.50	140	22	16	12	7.45

01. EL KLAVUZLARI METRİK DİŞ  
METRİK NORMAL VİDALI 3'LÜ TAKIM



HSS	DIN 352	TS 82/1	M	60°	6H	
ÜRÜN KODU						
d1 mm	P adım	L1 mm	L2 mm	d2 mm	k (h12) mm	
04.03.01.MTE.00040200	M 2	0.40	36	8	2.8	2.1
04.03.01.MTE.00040250	M 2.5	0.45	40	9	2.8	2.1
04.03.01.MTE.00040300	M 3	0.50	40	11	3.5	2.7
04.03.01.MTE.00040350	M 3.5	0.60	45	13	4.0	3.0
04.03.01.MTE.00040400	M 4	0.70	45	13	4.5	3.4
04.03.01.MTE.00040450	M 4.5	0.75	50	16	6.0	4.9
04.03.01.MTE.00040500	M 5	0.80	50	16	6.0	4.9
04.03.01.MTE.00040600	M 6	1.00	56	19	6.0	4.9
04.03.01.MTE.00040700	M 7	1.00	56	19	6.0	4.9
04.03.01.MTE.00040800	M 8	1.25	63	22	6.0	4.9
04.03.01.MTE.00040900	M 9	1.25	63	22	7.0	5.5
04.03.01.MTE.00041000	M 10	1.50	70	24	7.0	5.5
04.03.01.MTE.00041100	M 11	1.50	70	24	8.0	6.2
04.03.01.MTE.00041200	M 12	1.75	75	28	9.0	7.0
04.03.01.MTE.00041400	M 14	2.00	80	30	11.0	9.0
04.03.01.MTE.00041600	M 16	2.00	80	32	12.0	9.0
04.03.01.MTE.00041800	M 18	2.50	95	34	14.0	11.0
04.03.01.MTE.00042000	M 20	2.50	95	34	16.0	12.0
04.03.01.MTE.00042200	M 22	2.50	100	34	18.0	14.5
04.03.01.MTE.00042400	M 24	3.00	110	38	18.0	14.5
04.03.01.MTE.00042600	M 26	3.00	110	38	20.0	16.0
04.03.01.MTE.00042700	M 27	3.00	110	38	20.0	16.0
04.03.01.MTE.00042800	M 28	3.00	110	38	20.0	16.0
04.03.01.MTE.00043000	M 30	3.50	125	45	22.0	18.0
04.03.01.MTE.00043300	M 33	3.50	125	50	25.0	20.0
04.03.01.MTE.00043600	M 36	4.00	150	56	28.0	22.0

04. HSS GRUBU  
03. EL KLAVUZLARI



02. EL KLAVUZLARI İNCE DİŞ  
METRİK İNCE VİDALI 2'Lİ TAKIM



HSS	DIN 2181	TS 82/2	MF	60°	6H	
ÜRÜN KODU	d1 mm	P adım	L1 mm	L2 mm	d2 mm	k (h12) mm
04.03.02.MTE.02030604	M 6	0.75	56	14	6	4.9
04.03.02.MTE.02030804	M 8	0.75	56	18	6	4.9
04.03.02.MTE.02030805	M 8	1.00	63	22	6	4.9
04.03.02.MTE.02031000	M 10	1.25	70	24	7	5.5
04.03.02.MTE.02031005	M 10	1.00	63	20	7	5.5
04.03.02.MTE.02031200	M 12	1.25	70	22	9	7.0
04.03.02.MTE.02031205	M 12	1.00	70	22	9	7.0
04.03.02.MTE.02031206	M 12	1.50	70	22	9	7.0
04.03.02.MTE.02031400	M 14	1.25	70	22	11	9.0
04.03.02.MTE.02031405	M 14	1.00	70	22	11	9.0
04.03.02.MTE.02031406	M 14	1.50	70	22	11	9.0
04.03.02.MTE.02031605	M 16	1.00	70	22	12	9.0
04.03.02.MTE.02031606	M 16	1.50	70	22	12	9.0
04.03.02.MTE.02031805	M 18	1.00	80	22	14	11.0
04.03.02.MTE.02031806	M 18	1.50	80	22	14	11.0
04.03.02.MTE.02031808	M 18	2.00	80	22	14	11.0
04.03.02.MTE.02032005	M 20	1.00	80	22	16	12.0
04.03.02.MTE.02032006	M 20	1.50	80	22	16	12.0
04.03.02.MTE.02032008	M 20	2.00	80	22	16	12.0
04.03.02.MTE.02032205	M 22	1.00	80	22	18	14.5
04.03.02.MTE.02032206	M 22	1.50	80	22	18	14.5
04.03.02.MTE.02032208	M 22	2.00	80	22	18	14.5
04.03.02.MTE.02032405	M 24	1.00	90	22	18	14.5
04.03.02.MTE.02032406	M 24	1.50	90	22	18	14.5
04.03.02.MTE.02032408	M 24	2.00	90	22	18	14.5



04. HSS GRUBU  
03. EL KLAVUZLARI

03. EL KLAVUZLARI GAZ DİŞ  
WHITWORTH BORU VİDALI 2'Lİ TAKIM



HSS	DIN 5157	TS 82/3	BSP	55°		
ÜRÜN KODU	d1 BSP	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm
04.03.03.MTE.02300973	G 1/8"	28	63	19	7	5.5
04.03.03.MTE.02301316	G 1/4"	19	70	21	11	9.0
04.03.03.MTE.02301666	G 3/8"	19	70	21	12	9.0
04.03.03.MTE.02302095	G 1/2"	14	80	22	16	12.0
04.03.03.MTE.02302291	G 5/8"	14	80	22	18	14.5
04.03.03.MTE.02302644	G 3/4"	14	90	22	20	16.0
04.03.03.MTE.02303020	G 7/8"	14	90	22	22	18.0
04.03.03.MTE.02303325	G 1"	11	100	25	25	20.0
04.03.03.MTE.02304191	G1 1/4"	11	125	31	32	24.0
04.03.03.MTE.02304780	G1 1/2"	11	140	31	36	29.0
04.03.03.MTE.02305375	G1 3/4"	11	140	33	40	32.0
04.03.03.MTE.02305961	G 2"	11	160	37	40	35.0

04. EL KLAVUZLARI WITHWORTH  
WHITWORTH NORMAL VİDALI 3'LÜ TAKIM

HSS	MTE	BSW	55°	↻		
						
ÜRÜN KODU	d1 BSW	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm
04.03.04.MTE.00100317	W1/8"	40	40	11	3.5	2.7
04.03.04.MTE.00100397	W5/32"	32	45	13	4.5	3.4
04.03.04.MTE.00100476	W3/16"	24	50	16	6.0	4.9
04.03.04.MTE.00100556	W7/32"	24	50	16	6.0	4.9
04.03.04.MTE.00100635	W1/4"	20	50	19	6.0	4.9
04.03.04.MTE.00100794	W5/16"	18	56	22	6.0	4.9
04.03.04.MTE.00100952	W3/8"	16	70	24	7.0	5.5
04.03.04.MTE.00101111	W7/16"	14	70	24	8.0	6.2
04.03.04.MTE.00101270	W1/2"	12	75	29	9.0	7.0
04.03.04.MTE.00101429	W9/16"	12	80	30	11.0	9.0
04.03.04.MTE.00101587	W5/8"	11	80	32	12.0	9.0
04.03.04.MTE.00101905	W3/4"	10	95	40	14.0	11.0
04.03.04.MTE.00102222	W7/8"	9	100	40	18.0	14.5
04.03.04.MTE.00102540	W1"	8	110	50	20.0	16.0

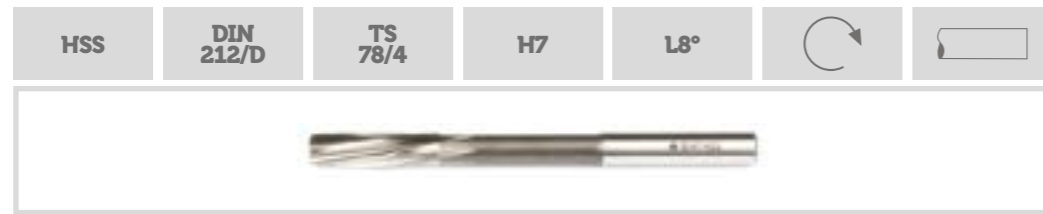
05. EL KLAVUZLARI UNC/UNF  
USA NORMAL VİDALI 3'LÜ TAKIM - UNC

HSS	MTE	UNC	60°	2B	↻	
						
ÜRÜN KODU	d1 UNC	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm
04.03.05.MTE.00140635	1/4"	20	50	19	6.0	4.9
04.03.05.MTE.00140794	5/16"	18	56	22	6.0	4.9
04.03.05.MTE.00140952	3/8"	16	70	24	7.0	5.5
04.03.05.MTE.00141111	7/16"	14	70	24	8.0	6.2
04.03.05.MTE.00141270	1/2"	13	75	29	9.0	7.0
04.03.05.MTE.00141429	9/16"	12	80	30	11.0	9.0
04.03.05.MTE.00141587	5/8"	11	80	32	12.0	9.0
04.03.05.MTE.00141905	3/4"	10	95	40	14.0	11.0

USA İNCE VİDALI 2'Lİ TAKIM - UNF

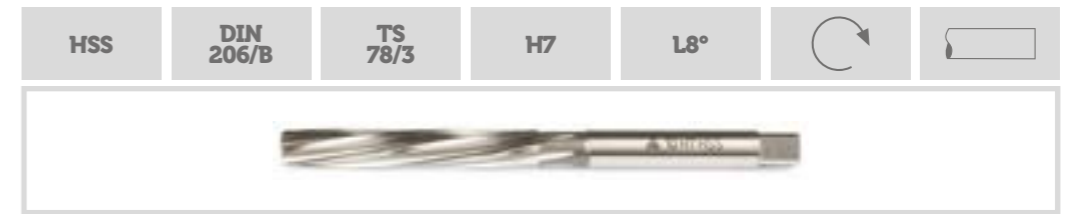
HSS	DIN 2181	TS 82/2	UNF	60°	2B	↻
						
ÜRÜN KODU	d1 UNC	P adım G/Inch	L1 mm	L2 mm	d2 mm	k (h12) mm
04.03.05.MTE.02060635	1/4"	28	50	16	6.0	4.9
04.03.05.MTE.02060794	5/16"	24	56	22	6.0	4.9
04.03.05.MTE.02060952	3/8"	24	63	20	7.0	5.5
04.03.05.MTE.02061111	7/16"	20	63	20	8.0	6.2
04.03.05.MTE.02061270	1/2"	20	70	22	9.0	7.0
04.03.05.MTE.02061429	9/16"	18	70	22	11.0	9.0
04.03.05.MTE.02061587	5/8"	18	70	22	12.0	9.0
04.03.05.MTE.02061905	3/4"	16	80	22	14.0	11.0

01. MAKİNA RAYBALARI DIN 212/B  
SİLİNDİRİK SAPLI






ÜRÜN KODU	d1 mm	d2 (h9) mm	L1 mm	L2 mm	ÜRÜN KODU	d1 mm	d2 (h9) mm	L1 mm	L2 mm
04.04.01.MTE.03010200	2.0	2.0	49	11	04.04.01.MTE.03011100	11.0	10	142	41
04.04.01.MTE.03010250	2.5	2.5	57	14	04.04.01.MTE.03011150	11.5	10	142	41
04.04.01.MTE.03010300	3.0	3.0	61	15	04.04.01.MTE.03011200	12.0	10	151	44
04.04.01.MTE.03010350	3.5	3.5	70	18	04.04.01.MTE.03011250	12.5	10	151	44
04.04.01.MTE.03010400	4.0	4.0	75	19	04.04.01.MTE.03011300	13.0	10	151	44
04.04.01.MTE.03010450	4.5	4.5	80	21	04.04.01.MTE.03011350	13.5	12.5	160	47
04.04.01.MTE.03010500	5.0	5.0	86	23	04.04.01.MTE.03011400	14.0	12.5	160	47
04.04.01.MTE.03010550	5.5	5.6	93	26	04.04.01.MTE.03011450	14.5	12.5	162	50
04.04.01.MTE.03010600	6.0	5.6	93	26	04.04.01.MTE.03011500	15.0	12.5	162	50
04.04.01.MTE.03010650	6.5	6.3	101	28	04.04.01.MTE.03011550	15.5	12.5	170	52
04.04.01.MTE.03010700	7.0	7.1	109	31	04.04.01.MTE.03011600	16.0	12.5	170	52
04.04.01.MTE.03010750	7.5	7.1	109	31	04.04.01.MTE.03011650	16.5	14	175	54
04.04.01.MTE.03010800	8.0	8.0	117	33	04.04.01.MTE.03011700	17.0	14	175	54
04.04.01.MTE.03010850	8.5	8.0	117	33	04.04.01.MTE.03011750	17.5	14	182	56
04.04.01.MTE.03010900	9.0	9.0	125	36	04.04.01.MTE.03011800	18.0	14	182	56
04.04.01.MTE.03010950	9.5	9.0	125	36	04.04.01.MTE.03011850	18.5	16	189	58
04.04.01.MTE.03011000	10.0	10.0	133	38	04.04.01.MTE.03011900	19.0	16	189	58
04.04.01.MTE.03011050	10.5	10.0	133	38	04.04.01.MTE.03012000	20.0	16	195	60

02. EL RAYBALARI DIN 206/B  
SİLİNDİRİK SAPLI






ÜRÜN KODU	d1 mm	L1 mm	L2 mm	k mm	ÜRÜN KODU	d1 mm	L1 mm	L2 mm	k mm
04.04.02.MTE.01010200	2.0	50	25	1.60	04.04.02.MTE.01011150	11.5	142	71	9.00
04.04.02.MTE.01010250	2.5	58	29	2.10	04.04.02.MTE.01011200	12.0	152	76	10.00
04.04.02.MTE.01010300	3.0	62	31	2.24	04.04.02.MTE.01011250	12.5	152	76	10.00
04.04.02.MTE.01010350	3.5	71	35	2.70	04.04.02.MTE.01011300	13.0	152	76	10.00
04.04.02.MTE.01010400	4.0	76	38	3.15	04.04.02.MTE.01011350	13.5	163	81	11.20
04.04.02.MTE.01010450	4.5	81	41	3.55	04.04.02.MTE.01011400	14.0	163	81	11.20
04.04.02.MTE.01010500	5.0	87	44	4.00	04.04.02.MTE.01011450	14.5	163	81	11.20
04.04.02.MTE.01010550	5.5	93	17	4.50	04.04.02.MTE.01011500	15.0	163	81	11.20
04.04.02.MTE.01010600	6.0	93	17	4.50	04.04.02.MTE.01011550	15.5	175	87	12.50
04.04.02.MTE.01010650	6.5	100	50	5.00	04.04.02.MTE.01011600	16.0	175	87	12.50
04.04.02.MTE.01010700	7.0	107	54	5.60	04.04.02.MTE.01011650	16.5	175	87	12.50
04.04.02.MTE.01010750	7.5	107	54	5.60	04.04.02.MTE.01011700	17.0	175	87	12.50
04.04.02.MTE.01010800	8.0	115	58	6.30	04.04.02.MTE.01011750	17.5	188	93	14.00
04.04.02.MTE.01010850	8.5	115	58	6.30	04.04.02.MTE.01011800	18.0	188	93	14.00
04.04.02.MTE.01010900	9.0	124	62	7.10	04.04.02.MTE.01011850	18.5	188	93	14.00
04.04.02.MTE.01010950	9.5	125	62	7.10	04.04.02.MTE.01011900	19.0	188	93	14.00
04.04.02.MTE.01011000	10.0	133	66	8.00	04.04.02.MTE.01011950	19.5	201	100	16.00
04.04.02.MTE.01011050	10.5	133	66	8.00	04.04.02.MTE.01012000	20.0	201	100	16.00
04.04.02.MTE.01011100	11.0	142	71	9.00					

03. KONİK SAPLI RAYBALAR DIN 208/B  
MORS KONİK SAPLI MAKİNA RAYBASI

HSS	DIN 212/D	TS 78/4	H7	L8°					
									
ÜRÜN KODU	d1 mm	L1 mm	L2 mm	Mors Konik No	ÜRÜN KODU	d1 mm	L1 mm	L2 mm	Mors Konik No
04.04.03.MTE.02010800	8	156	33	1	04.04.03.MTE.02011700	17	214	54	2
04.04.03.MTE.02011000	10	168	38	1	04.04.03.MTE.02011800	18	219	56	2
04.04.03.MTE.02011100	11	175	41	1	04.04.03.MTE.02011900	19	223	58	2
04.04.03.MTE.02011200	12	182	44	1	04.04.03.MTE.02012000	20	228	60	2
04.04.03.MTE.02011300	13	182	44	1	04.04.03.MTE.02012200	22	237	64	2
04.04.03.MTE.02011400	14	189	47	1	04.04.03.MTE.02012400	24	268	68	3
04.04.03.MTE.02011500	15	204	50	2	04.04.03.MTE.02012500	25	268	68	3
04.04.03.MTE.02011600	16	210	52	2	04.04.03.MTE.02012800	28	277	71	3

04. PİM RAYBALARI DIN 9  
1/50 KONİK PİM DELİĞİ RAYBASI

HSS	DIN 8/B	TS 78/1	H7	L8°			
							
ÜRÜN KODU	d1 mm	d2 mm	d3 mm	L1 mm	L2 mm	L3 mm	k mm
04.04.04.MTE.00010300	3.0	2.9	4.06	80	58	5	3.00
04.04.04.MTE.00010400	4.0	3.9	5.26	93	68	5	3.80
04.04.04.MTE.00010500	5.0	4.9	6.36	100	73	5	4.90
04.04.04.MTE.00010600	6.0	5.9	8.00	135	105	5	6.20
04.04.04.MTE.00010800	8.0	7.9	10.80	180	145	5	8.00
04.04.04.MTE.00011000	10.0	9.9	13.40	215	175	5	10.00

01. METRİK DIŞ  
METRİK NORMAL VİDALI PAFTA LOKMASI

HSS	DIN EN 22 568	TS 3600/1	M			6g
						
ÜRÜN KODU	d1 mm	P adım	d2 (f9)mm	h1 mm		
04.05.01.MTE.10020200	M 2.0	0.40	16	5		
04.05.01.MTE.10020250	M 2.5	0.45	16	5		
04.05.01.MTE.10020300	M 3.0	0.50	20	5		
04.05.01.MTE.10020350	M 3.5	0.60	20	5		
04.05.01.MTE.10020400	M 4.0	0.70	20	5		
04.05.01.MTE.10020500	M 5.0	0.80	20	7		
04.05.01.MTE.10020600	M 6.0	1.00	20	7		
04.05.01.MTE.10020700	M 7.0	1.00	25	9		
04.05.01.MTE.10020800	M 8.0	1.25	25	9		
04.05.01.MTE.10020900	M 9.0	1.25	25	9		
04.05.01.MTE.10021000	M 10.0	1.50	30	11		
04.05.01.MTE.10021200	M 12.0	1.75	38	14		
04.05.01.MTE.10021400	M 14.0	2.00	38	14		
04.05.01.MTE.10021600	M 16.0	2.00	45	18		
04.05.01.MTE.10021800	M 18.0	2.50	45	18		
04.05.01.MTE.10022000	M 20.0	2.50	45	18		
04.05.01.MTE.10022200	M 22.0	2.50	55	22		
04.05.01.MTE.10022400	M 24.0	3.00	55	22		
04.05.01.MTE.10022700	M 27.0	3.00	65	25		
04.05.01.MTE.10023000	M 30.0	3.50	65	25		

## 04. HSS GRUBU 05. PAFTALAR



### 02. METRİK İNCE DİŞ METRİK İNCE VİDALI PAFTA LOKMASI

HSS	DIN EN 22 568	TS 3600/2	MF	60°	6g				
ÜRÜN KODU	d1 mm	P adım	d2 (f9)mm	h1 mm	ÜRÜN KODU	d1 mm	P adım	d2 (f9)mm	h1 mm
04.05.02.MTE.10030604	M 6	0.75	20	7	04.05.02.MTE.10031406	M 14	1.50	38	10
04.05.02.MTE.10030805	M 8	1.00	25	9	04.05.02.MTE.10031605	M 16	1.00	45	14
04.05.02.MTE.10031005	M 10	1.00	30	11	04.05.02.MTE.10031606	M 16	1.50	45	14
04.05.02.MTE.10031000	M 10	1.25	30	11	04.05.02.MTE.10031806	M 18	1.50	45	14
04.05.02.MTE.10031205	M 12	1.00	38	10	04.05.02.MTE.10032006	M 20	1.50	45	14
04.05.02.MTE.10031200	M 12	1.25	38	10	04.05.02.MTE.10032206	M 22	1.50	55	16
04.05.02.MTE.10031206	M 12	1.50	38	10	04.05.02.MTE.10032406	M 24	1.50	55	16
04.05.02.MTE.10031405	M 14	1.00	38	10	04.05.02.MTE.10033006	M 30	1.50	65	18
04.05.02.MTE.10031400	M 14	1.25	38	10					

### 03. GAZ DİŞ WHITWORTH BORU VİDALI PAFTA LOKMASI

HSS	DIN EN 24 231	TS 3600/3	BSP	60°
ÜRÜN KODU	d1 BSP	P adım G/Inch	d2 (f9)mm	h1 mm
04.05.03.MTE.10080973	G 1/8"	28	30	11
04.05.03.MTE.10081316	G 1/4"	19	38	10
04.05.03.MTE.10081666	G 3/8"	19	45	14
04.05.03.MTE.10082095	G 1/2"	14	45	14
04.05.03.MTE.10082644	G 3/4"	14	55	16
04.05.03.MTE.10083325	G 1"	11	65	18



## 04. HSS GRUBU 05. PAFTALAR

### 04. UNC USA NORMAL VİDALI PAFTA LOKMASI - UNC

HSS	DIN EN 22 568	UNC	60°	2A
ÜRÜN KODU	d1 UNC	P adım G/Inch	d2 (f9)mm	h1 mm
04.05.04.MTE.10060635	1/4"	20	20	7
04.05.04.MTE.10060794	5/16"	18	25	9
04.05.04.MTE.10060952	3/8"	16	30	11
04.05.04.MTE.10061111	7/16"	14	30	11
04.05.04.MTE.10061270	1/2"	13	38	14
04.05.04.MTE.10061429	9/16"	12	38	14
04.05.04.MTE.10061587	5/8"	11	45	18
04.05.04.MTE.10061905	3/4"	10	45	18
04.05.04.MTE.10062222	7/8"	9	55	22
04.05.04.MTE.10062540	1"	8	55	22

### 05. UNF USA İNCE VİDALI PAFTA LOKMASI - UNF

HSS	DIN EN 22 568	UNF	60°	2B
ÜRÜN KODU	d1 UNF	P adım G/Inch	d2 (f9)mm	h1 mm
04.05.05.MTE.10070635	1/4"	28	20	7
04.05.05.MTE.10070794	5/16"	24	25	9
04.05.05.MTE.10070952	3/8"	24	30	11
04.05.05.MTE.10071111	7/16"	20	30	11
04.05.05.MTE.10071270	1/2"	20	38	10
04.05.05.MTE.10071429	9/16"	18	38	10
04.05.05.MTE.10071587	5/8"	18	45	14
04.05.05.MTE.10071905	3/4"	16	45	14
04.05.05.MTE.10072222	7/8"	14	55	16
04.05.05.MTE.10072540	1"	12	55	16

06. WHITWORTH

WHITWORTH NORMAL VİDALI PAFTA LOKMASI

HSS	DIN EN 22 568	BSW	55°	
				
ÜRÜN KODU	d1 BSW	P adım G/Inch	d2 (f9)mm	h1 mm
04.05.06.MTE.10040317	W 1/8"	40	20	5
04.05.06.MTE.10040397	W 5/32"	32	20	7
04.05.06.MTE.10040476	W 3/16"	24	20	7
04.05.06.MTE.10040635	W 1/4"	20	20	7
04.05.06.MTE.10040794	W 5/16"	18	25	9
04.05.06.MTE.10040952	W 3/8"	16	30	11
04.05.06.MTE.10041111	W 7/16"	14	30	11
04.05.06.MTE.10041270	W 1/2"	12	38	14
04.05.06.MTE.10041429	W 9/16"	12	38	14
04.05.06.MTE.10041587	W 5/8"	11	45	18
04.05.06.MTE.10041905	W 3/4"	10	45	18
04.05.06.MTE.10041222	W 7/8"	9	55	22
04.05.06.MTE.10042540	W 1"	8	55	22

01. 90 DERECE



3 AĞIZLI SİLİNDİRİK SAPLI HAVŞA FREZE - 90°

HSS	DIN 335/C	TS 3751/10			
					
ÜRÜN KODU	d1 mm	d2 mm	d3 mm	L1 mm	L2 mm
04.06.01.MTE.13120630	6.3	5.0	1.5	45	5.0
04.06.01.MTE.13120830	8.3	6.0	2.0	50	6.0
04.06.01.MTE.13121040	10.4	6.0	2.5	50	7.1
04.06.01.MTE.13121240	12.4	8.0	2.8	56	8.0
04.06.01.MTE.13121650	16.5	10.0	3.2	60	10.0
04.06.01.MTE.13122050	20.5	10.0	3.5	63	12.5
04.06.01.MTE.13122500	25.0	10.0	3.8	67	15.0
04.06.01.MTE.13123150	31.5	18.0	4.2	71	18.0

HSS	DIN 335/C			TIN	
					
ÜRÜN KODU	d1 mm	d2 mm	d3 mm	L1 mm	L2 mm
04.06.01.MTE.13120630T	6.3	5.0	1.5	45	5.0
04.06.01.MTE.13120830T	8.3	6.0	2.0	50	6.0
04.06.01.MTE.13121040T	10.4	6.0	2.5	50	7.1
04.06.01.MTE.13121240T	12.4	8.0	2.8	56	8.0
04.06.01.MTE.13121650T	16.5	10.0	3.2	60	10.0
04.06.01.MTE.13122050T	20.5	10.0	3.5	63	12.5
04.06.01.MTE.13122500T	25.0	10.0	3.8	67	15.0
04.06.01.MTE.13123150T	31.5	18.0	4.2	71	18.0




01. STANDART BOY

SİLİNDİRİK SAPLI PARMAK FREZE - KISA BN

HSS (%8 Co)	DIN 844	TS 303/20	BN	js14		
						
ÜRÜN KODU	d1 mm	d2 mm	L1 mm	L2 mm	Z kanal sayısı	
04.07.01.MTE.76180200	2.0	6	51	7	3	
04.07.01.MTE.76180250	2.5	6	52	8	3	
04.07.01.MTE.76180300	3.0	6	52	8	3	
04.07.01.MTE.76180350	3.5	6	54	10	3	
04.07.01.MTE.76180400	4.0	6	55	11	4	
04.07.01.MTE.76180450	4.5	6	55	11	4	
04.07.01.MTE.76180500	5.0	6	57	13	4	
04.07.01.MTE.76180550	5.5	6	57	13	4	
04.07.01.MTE.76180600	6.0	6	57	13	4	
04.07.01.MTE.76180650	6.5	10	66	16	4	
04.07.01.MTE.76180700	7.0	10	66	16	4	
04.07.01.MTE.76180750	7.5	10	66	16	4	
04.07.01.MTE.76180800	8.0	10	69	19	4	
04.07.01.MTE.76180850	8.5	10	69	19	4	
04.07.01.MTE.76180900	9.0	10	69	19	4	
04.07.01.MTE.76180950	9.5	10	69	19	4	
04.07.01.MTE.76181000	10.0	10	72	22	4	
04.07.01.MTE.76181050	10.5	12	79	22	4	
04.07.01.MTE.76181100	11.0	12	79	22	4	
04.07.01.MTE.76181150	11.5	12	79	22	4	
04.07.01.MTE.76181200	12.0	12	83	26	4	
04.07.01.MTE.76181250	12.5	12	83	26	4	
04.07.01.MTE.76181300	13.0	12	83	26	4	
04.07.01.MTE.76181400	14.0	12	83	26	4	

01. STANDART BOY




SİLİNDİRİK SAPLI PARMAK FREZE - KISA BN

HSS (%8 Co)	DIN 844	TS 303/20	BN	js14		
						
ÜRÜN KODU	d1 mm	d2 mm	L1 mm	L2 mm	Z kanal sayısı	
04.07.01.MTE.76181500	15.0	12	83	26	4	
04.07.01.MTE.76181600	16.0	16	92	32	4	
04.07.01.MTE.76181700	17.0	16	92	32	4	
04.07.01.MTE.76181800	18.0	16	92	32	4	
04.07.01.MTE.76181900	19.0	16	92	32	4	
04.07.01.MTE.76182000	20.0	20	104	38	4	
04.07.01.MTE.57182100	21.0	20	104	38	5	
04.07.01.MTE.57182200	22.0	20	104	38	5	
04.07.01.MTE.57182300	23.0	20	104	38	5	
04.07.01.MTE.57182400	24.0	25	121	45	5	
04.07.01.MTE.57182500	25.0	25	121	45	5	
04.07.01.MTE.57182600	26.0	25	121	45	5	
04.07.01.MTE.57182700	27.0	25	121	45	5	
04.07.01.MTE.57182800	28.0	25	121	45	5	
04.07.01.MTE.57182900	29.0	25	121	45	5	
04.07.01.MTE.57183000	30.0	25	121	45	5	
04.07.01.MTE.57183200	32.0	32	133	53	6	
04.07.01.MTE.57183300	33.0	32	133	53	6	
04.07.01.MTE.57183400	34.0	32	133	53	6	
04.07.01.MTE.57183500	35.0	32	133	53	6	
04.07.01.MTE.57183600	36.0	32	133	53	6	
04.07.01.MTE.57183800	38.0	40	155	63	6	
04.07.01.MTE.57184000	40.0	40	155	63	6	



02. UZUN BOY

SİLİNDİRİK SAPLI PARMAC FREZE - UZUN BN

HSS-E (%8 Co)	DIN 844	TS 303/20	BN	js14		
						
ÜRÜN KODU	d1 mm	d2 mm	L1 mm	L2 mm	z kanal sayısı	
04.07.02.MTE.76220200	2.0	6	54	10	3	
04.07.02.MTE.76220250	2.5	6	56	12	3	
04.07.02.MTE.76220300	3.0	6	56	12	3	
04.07.02.MTE.76220400	4.0	6	63	19	4	
04.07.02.MTE.76220500	5.0	6	68	24	4	
04.07.02.MTE.76220600	6.0	6	68	24	4	
04.07.02.MTE.76220700	7.0	10	80	30	4	
04.07.02.MTE.76220800	8.0	10	88	38	4	
04.07.02.MTE.76220900	9.0	10	88	38	4	
04.07.02.MTE.76221000	10.0	10	95	45	4	
04.07.02.MTE.76221100	11.0	12	102	45	4	
04.07.02.MTE.76221200	12.0	12	110	53	4	
04.07.02.MTE.76221300	13.0	12	110	53	4	
04.07.02.MTE.76221400	14.0	12	110	53	4	
04.07.02.MTE.76221500	15.0	12	110	53	4	
04.07.02.MTE.76221600	16.0	16	123	63	4	
04.07.02.MTE.76221700	17.0	16	123	63	4	
04.07.02.MTE.76221800	18.0	16	123	63	4	
04.07.02.MTE.76221900	19.0	16	123	63	4	
04.07.02.MTE.76222000	20.0	20	141	75	4	
04.07.02.MTE.57222200	22.0	20	141	75	5	
04.07.02.MTE.57222400	24.0	25	166	90	5	
04.07.02.MTE.57222500	25.0	25	166	90	5	
04.07.02.MTE.57222600	26.0	25	166	90	5	
04.07.02.MTE.57222800	28.0	25	166	90	5	
04.07.02.MTE.57223000	30.0	25	166	90	5	
04.07.02.MTE.57223200	32.0	32	186	106	6	

03. KABATAŞ FREZELER


SİLİNDİRİK SAPLI PARMAC FREZE - KISA BNR

HSS-E (%8 Co)	DIN 844	TS 303/20	BNR	js14		
						
ÜRÜN KODU	d1 mm	d2 mm	L1 mm	L2 mm	z kanal sayısı	
04.07.03.MTE.77330800	8.0	10	69	19	4	
04.07.03.MTE.77331000	10.0	10	72	22	4	
04.07.03.MTE.77331200	12.0	12	83	26	4	
04.07.03.MTE.77331400	14.0	12	83	26	4	
04.07.03.MTE.77331600	16.0	16	92	32	4	
04.07.03.MTE.77331800	18.0	16	92	32	4	
04.07.03.MTE.77332000	20.0	20	104	38	4	
04.07.03.MTE.73332200	22.0	20	104	38	5	
04.07.03.MTE.73332400	24.0	25	121	45	5	


SİLİNDİRİK SAPLI PARMAC FREZE - UZUN BNR

HSS-E (%8 Co)	DIN 844	TS 303/20	BNR	js14		
						
ÜRÜN KODU	d1 mm	d2 mm	L1 mm	L2 mm	z kanal sayısı	
04.07.04.MTE.77390800	8.0	10	88	38	4	
04.07.04.MTE.77391000	10.0	10	95	45	4	
04.07.04.MTE.77391200	12.0	12	110	53	4	
04.07.04.MTE.77391400	14.0	12	110	53	4	
04.07.04.MTE.77391600	16.0	16	123	63	4	
04.07.04.MTE.77391800	18.0	16	123	63	4	
04.07.04.MTE.77392000	20.0	20	141	75	4	
04.07.04.MTE.73392200	22.0	20	141	75	5	
04.07.04.MTE.73392400	24.0	25	166	90	5	

01. KARE KESİT KALEMLER

HSS-E (%10 Co)	DIN 4964/B	TS 95/1
		
ÜRÜN KODU	b mm	L mm
04.08.01.MTE.00606063	6	63
04.08.01.MTE.00606080	6	80
04.08.01.MTE.00606100	6	100
04.08.01.MTE.00606125	6	125
04.08.01.MTE.00606160	6	160
04.08.01.MTE.00808063	8	63
04.08.01.MTE.00808080	8	80
04.08.01.MTE.00808100	8	100
04.08.01.MTE.00808125	8	125
04.08.01.MTE.00808160	8	160
04.08.01.MTE.00808200	8	200
04.08.01.MTE.01010100	10	100
04.08.01.MTE.01010125	10	125
04.08.01.MTE.01010160	10	160
04.08.01.MTE.01010200	10	200
04.08.01.MTE.01212100	12	100
04.08.01.MTE.01212125	12	125
04.08.01.MTE.01212160	12	160
04.08.01.MTE.01212200	12	200
04.08.01.MTE.01414100	14	100
04.08.01.MTE.01414125	14	125
04.08.01.MTE.01414160	14	160
04.08.01.MTE.01414200	14	200
04.08.01.MTE.01616125	16	125
04.08.01.MTE.01616160	16	160
04.08.01.MTE.01616200	16	200
04.08.01.MTE.01818160	18	160
04.08.01.MTE.01818200	18	200
04.08.01.MTE.02020160	20	160
04.08.01.MTE.02020200	20	200

02. TRAPEZ KESİT KALEMLER

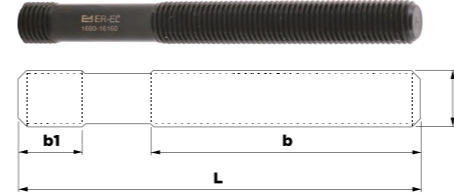
HSS-E (%10 Co)	DIN 4964/E	TS 95/1		
				
ÜRÜN KODU	b mm	h mm	L mm	Kenarlarının Oranı h:b
04.08.02.MTE.11025125	2.5	10	125	4.0:1
04.08.02.MTE.11025160	2.5	10	160	4.0:1
04.08.02.MTE.11230100	3.0	12	100	4.0:1
04.08.02.MTE.11230125	3.0	12	125	4.0:1
04.08.02.MTE.11230160	3.0	12	160	4.0:1
04.08.02.MTE.11640125	4.0	16	125	4.0:1
04.08.02.MTE.11640160	4.0	16	160	4.0:1
04.08.02.MTE.12050160	5.0	20	160	4.0:1
04.08.02.MTE.12050200	5.0	20	200	4.0:1
04.08.02.MTE.12560100	6.0	25	100	4.0:1
04.08.02.MTE.12560160	6.0	25	160	4.0:1
04.08.02.MTE.12560200	6.0	25	200	4.0:1

03. YUVARLAK KESİT KALEMLER

HSS-E (%10 Co)	DIN 4964/A	TS 95/1			
					
ÜRÜN KODU	d1 mm	L mm	ÜRÜN KODU	d1 mm	L mm
04.08.03.MTE.20005080	5	80	04.09.03.MTE.20010125	10	125
04.08.03.MTE.20005100	5	100	04.09.03.MTE.20010160	10	160
04.08.03.MTE.20006080	6	80	04.09.03.MTE.20012100	12	100
04.08.03.MTE.20006100	6	100	04.09.03.MTE.20012125	12	125
04.08.03.MTE.20008080	8	80	04.09.03.MTE.20012160	12	160
04.08.03.MTE.20008100	8	100	04.09.03.MTE.20014100	14	100
04.08.03.MTE.20008125	8	125	04.09.03.MTE.20014125	14	125
04.08.03.MTE.20010080	10	80	04.09.03.MTE.20014160	14	160
04.08.03.MTE.20010100	10	100	04.09.03.MTE.20016125	16	125

01. DÜZ SAPLAMALAR NR. 1690  
STRAIGHT STUD

Ürün - Material : DIN6379  
Kalite - Quality : 10.9  
Kaplama - Coating : Siyah / Black



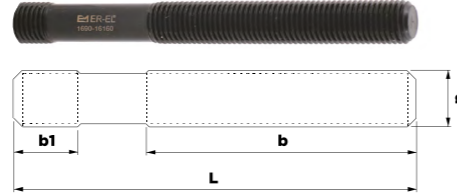
ÜRÜN KODU	dxL	b1	b	Sıkma Verileri		(g)
				Nm	kN	
05.01.01.1690_08040	x40		20			10
05.01.01.1690_08063	x63		40			15
05.01.01.1690_08080	M8 x80	11	50	36	27	20
05.01.01.1690_08100	x100		63			30
05.01.01.1690_08125	x125		75			35
05.01.01.1690_08160	x160		100			45
05.01.01.1690_10050	x50		25			20
05.01.01.1690_10063	x63		32			25
05.01.01.1690_10080	x80		50			35
05.01.01.1690_10100	M10 x100	13	63	67	43	45
05.01.01.1690_10125	x125		75			55
05.01.01.1690_10160	x160		100			70
05.01.01.1690_10200	x200		125			95
05.01.01.1690_12050	x50		25			35
05.01.01.1690_12063	x63		32			40
05.01.01.1690_12080	x80		50			55
05.01.01.1690_12100	M12 x100	15	63	120	63	70
05.01.01.1690_12125	x125		75			90
05.01.01.1690_12160	x160		100			115
05.01.01.1690_12200	x200		125			140
05.01.01.1690_14063	x63		32			60
05.01.01.1690_14080	x80		50			75
05.01.01.1690_14100	x100		63			95
05.01.01.1690_14125	M14 x125	17	75	191	86	120
05.01.01.1690_14160	x160		100			150
05.01.01.1690_14200	x200		125			195
05.01.01.1690_14250	x250		160			240

# 05\*

## İŞ BAĞLAMA ELEMANLARI

01. DÜZ SAPLAMALAR NR. 1690  
STRAIGHT STUD

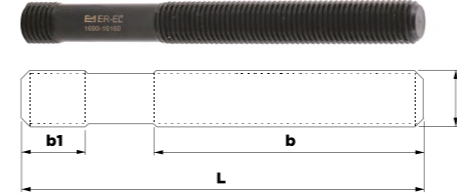
Ürün - Material : DIN6379  
Kalite - Quality : 10.9  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	dxL	b1	b	Sıkma Verileri		(g)
				Nm	kN	
05.01.01.1690_16063	x63		32			85
05.01.01.1690_16080	x80		50			105
05.01.01.1690_16100	x100		63			130
05.01.01.1690_16125	x125		75			160
05.01.01.1690_16160	x160		100			205
05.01.01.1690_16200	x200	19	125	302	118	260
05.01.01.1690_16250	x250		160			325
05.01.01.1690_16315	x315		180			405
05.01.01.1690_16400						
05.01.01.1690_16500	x500		315			650
05.01.01.1690_18080	x80		50			130
05.01.01.1690_18100	x100		60			160
05.01.01.1690_18125	x125		75			200
05.01.01.1690_18160	x160	23	100	405	144	260
05.01.01.1690_18200	x200		125			320
05.01.01.1690_18250	x250		150			400
05.01.01.1690_18315	x315		180			510
05.01.01.1690_20080	x80		32			155
05.01.01.1690_20100	x100		60			200
05.01.01.1690_20125	x125		70			250
05.01.01.1690_20160	x160	27	100	580	184	330
05.01.01.1690_20200	x200		125			400
05.01.01.1690_20250	x250		160			510
05.01.01.1690_20315	x315		200			640
05.01.01.1690_20400	x400		250			815
05.01.01.1690_20500	x500		315			1020

01. DÜZ SAPLAMALAR NR. 1690  
STRAIGHT STUD

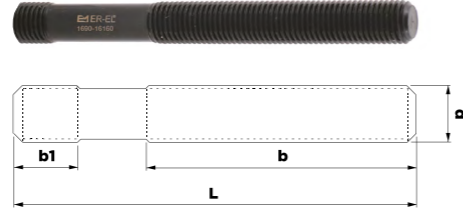
Ürün - Material : DIN6379  
Kalite - Quality : 10.9  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	dxL	b1	b	Sıkma Verileri		(g)
				Nm	kN	
05.01.01.1690_22100	x100		45			250
05.01.01.1690_22125	x125		70			305
05.01.01.1690_22160	x160		100			400
05.01.01.1690_22200	M22 x200	31	125	772	228	500
05.01.01.1690_22250	x250		160			620
05.01.01.1690_22315	x315		180			780
05.01.01.1690_22400	x400		250			1010
05.01.01.1690_24100	x100		45			290
05.01.01.1690_24125	x125		70			365
05.01.01.1690_24160	x160		100			470
05.01.01.1690_24200	x200		125			580
05.01.01.1690_24250	M24 x250	35	160	994	265	730
05.01.01.1690_24315	x315		200			920
05.01.01.1690_24400	x400		250			1170
05.01.01.1690_24500	x500		315			1470
05.01.01.1690_24630	x630		315			1860
05.01.01.1690_30125	x125		56			570
05.01.01.1690_30200	x200		125			910
05.01.01.1690_30250	x250		160			1150
05.01.01.1690_30315	M30 x315	43	200	1930	421	1435
05.01.01.1690_30500	x500		315			2315
05.01.01.1690_30700	x700		400			3215
05.01.01.1690_301000	x1000		400			4700

01. DÜZ SAPLAMALAR NR. 1690  
STRAIGHT STUD

Ürün - Material : DIN6379  
Kalite - Quality : 10.9  
Kaplama - Coating : Siyah / Black



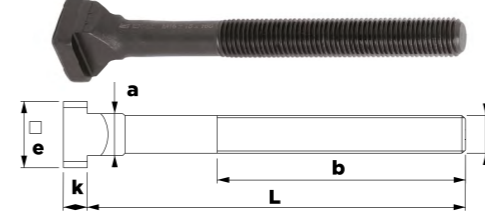
ÜRÜN KODU	dxL	b1	b	Sıkma Verileri		(g)
				Nm	kN	
05.01.01.1690_36160	x160		80			1100
05.01.01.1690_36200	x200		125			1340
05.01.01.1690_36250	x250		160			1710
05.01.01.1690_36315	M36 x315	51	200	3378	614	2150
05.01.01.1690_36400	x400		250			2700
05.01.01.1690_36500	x500		315			3450
05.01.01.1690_36700	x700		400			4750
05.01.01.1690_42315	x315		200			2950
05.01.01.1690_42400	M42 x400	59	250	5415	843	3750
05.01.01.1690_42500	x500		315			4690

Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.

02. TAYAKLI NR. 1590  
T-SLOT BOLT

Ürün - Material : DIN787  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black

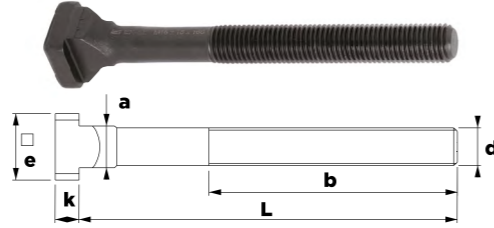


ÜRÜN KODU	dx	xL	b	a	e	k	Sıkma Verileri		(g)
							Nm	kN	
05.01.02.1590_0606025		x25	15						8
05.01.02.1590_0606040	M6x6	x40	28	5.7	10	4	17	17	11
05.01.02.1590_0606063		x63	40						15
05.01.02.1590_0808032		x32	22						13
05.01.02.1590_0808050	M8x8	x50	35	7.7	12	6	43	32	16
05.01.02.1590_0808080		x80	50						20
05.01.02.1590_1010040		x40	23						35
05.01.02.1590_1010063	M10x10	x63	45	9.7	15	6	76	51	45
05.01.02.1590_1010080		x80	50						60
05.01.02.1590_1010100		x100	60						70
05.01.02.1590_1012050		x50	35						50
05.01.02.1590_1012063		x63	40						60
05.01.02.1590_1012080		x80	55						65
05.01.02.1590_1012100	M10x12	x100	60	11.7	18	7	79	51	75
05.01.02.1590_1012125		x125	75						90
05.01.02.1590_1012160		x160	90						105
05.01.02.1590_1012200		x200	120						120
05.01.02.1590_1212050		x50	35						65
05.01.02.1590_1212063		x63	40						70
05.01.02.1590_1212080		x80	55						80
05.01.02.1590_1212100	M12x12	x100	65	11.7	18	7	141	74	100
05.01.02.1590_1212125		x125	75						110
05.01.02.1590_1212160		x160	100						140
05.01.02.1590_1212200		x200	120						160

02. TAYAKLI NR. 1590

T-SLOT BOLT

Ürün - Material : DIN787  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black

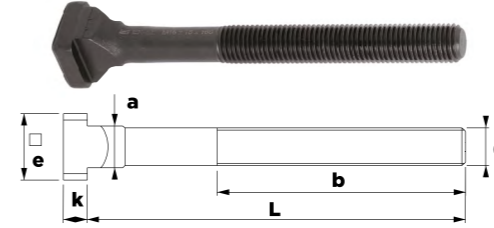


ÜRÜN KODU	dx	a	xL	b	a	e	k	Sıkma Verileri		(g)
								Nm	kN	
05.01.02.1590_1214050			x50	35						80
05.01.02.1590_1214063			x63	45						90
05.01.02.1590_1214080			x80	55						100
05.01.02.1590_1214100	M12x14		x100	65	13.7	22	8	141	74	110
05.01.02.1590_1214125			x125	75						135
05.01.02.1590_1214160			x160	100						160
05.01.02.1590_1214200			x200	120						180
05.01.02.1590_1416063			x63	45						115
05.01.02.1590_1416080			x80	55						140
05.01.02.1590_1416100			x100	65						160
05.01.02.1590_1416125	M14x16		x125	75	15.7	25	9	223	101	180
05.01.02.1590_1416160			x160	100						220
05.01.02.1590_1416200			x200	120						255
05.01.02.1590_1416250			x250	150						300
05.01.02.1590_161663			x63	45						140
05.01.02.1590_161680			x80	55						160
05.01.02.1590_1616100			x100	65						190
05.01.02.1590_1616125	M16x16		x125	85	15.7	25	9	354	138	225
05.01.02.1590_1616160			x160	100						270
05.01.02.1590_1616200			x200	120						315
05.01.02.1590_1616250			x250	150						380
05.01.02.1590_1618063			x63	45						170
05.01.02.1590_1618080			x80	55						185
05.01.02.1590_1618100			x100	65						220
05.01.02.1590_1618125	M16x18		x125	85	17.7	28	10	354	138	245
05.01.02.1590_1618160			x160	100						295
05.01.02.1590_1618200			x200	120						340
05.01.02.1590_1618250			x250	150						405

02. TAYAKLI NR. 1590

T-SLOT BOLT

Ürün - Material : DIN6379  
Kalite - Quality : 10.9  
Kaplama - Coating : Siyah / Black

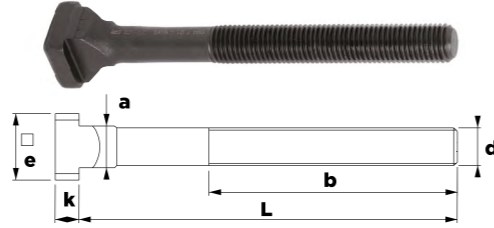


ÜRÜN KODU	dx	a	xL	b	a	e	k	Sıkma Verileri		(g)
								Nm	kN	
05.01.02.1590_1820080			x80	55						260
05.01.02.1590_1820100			x100	65						290
05.01.02.1590_1820125			x125	85						340
05.01.02.1590_1820160	M18x20		x160	110	19.7	32	12	474	169	390
05.01.02.1590_1820200			x200	125						455
05.01.02.1590_1820250			x250	150						535
05.01.02.1590_1820315			x315	190						650
05.01.02.1590_2020080			x80	55						300
05.01.02.1590_2020100			x100	65						330
05.01.02.1590_2020125			x125	85						380
05.01.02.1590_2020160	M20x20		x160	110	19.7	32	12	679	215	450
05.01.02.1590_2020200			x200	125						535
05.01.02.1590_2020250			x250	160						635
05.01.02.1590_2020315			x315	190						760
05.01.02.1590_2022080			x80	55						345
05.01.02.1590_2022100			x100	65						380
05.01.02.1590_2022125			x125	85						435
05.01.02.1590_2022160	M20x22		x160	110	21.7	35	14	679	215	500
05.01.02.1590_2022200			x200	125						590
05.01.02.1590_2022250			x250	150						695
05.01.02.1590_2022315			x315	190						820
05.01.02.1590_2224080			x80	55						465
05.01.02.1590_2224100			x100	65						515
05.01.02.1590_2224125			x125	85						580
05.01.02.1590_2224160	M22x24		x160	110	23.7	40	16	903	266	660
05.01.02.1590_2224200			x200	125						775
05.01.02.1590_2224250			x250	150						805
05.01.02.1590_2224315			x315	190						1050

02. T AYAKLI NR. 1590

T-SLOT BOLT

Ürün - Material : DIN787  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black

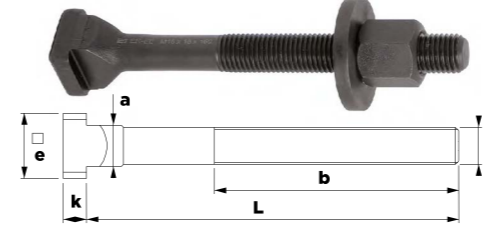


ÜRÜN KODU	dx	xL	b	a	e	k	Sıkma Verileri		(g)
							Nm	kN	
05.01.02.1590_2424100		x100	70						550
05.01.02.1590_2424125		x125	85						630
05.01.02.1590_2424160		x160	110						725
05.01.02.1590_2424200	M24x24	x200	125	23.7	40	16	1163	310	850
05.01.02.1590_2424250		x250	150						990
05.01.02.1590_2424315		x315	190						1180
05.01.02.1590_2424400		x400	240						1410
05.01.02.1590_2428100		x100	70						660
05.01.02.1590_2428125		x125	85						730
05.01.02.1590_2428160		x160	110						820
05.01.02.1590_2428200	M24x28	x200	125	27.7	44	18	1163	310	950
05.01.02.1590_2428250		x250	150						1090
05.01.02.1590_2428315		x315	190						1300
05.01.02.1590_2428400		x400	240						1530
05.01.02.1590_2428500		x500	290						1800
05.01.02.1590_3036125		x125	80						1280
05.01.02.1590_3036160		x160	110						1440
05.01.02.1590_3036200	M30x36	x200	135	35.6	54	22	2258	493	1620
05.01.02.1590_3036250		x250	150						1880
05.01.02.1590_3036315		x315	200						2150
05.01.02.1590_3036500		x500	300						3010
05.01.02.1590_3642160		x160	100						2260
05.01.02.1590_3642250	M36x42	x250	175	41.6	65	26	3953	719	2890
05.01.02.1590_3642400		x400	250						4010
05.01.02.1590_3642600		x600	340						5900
05.01.02.1590_4248160		x160	100						3550
05.01.02.1590_4248250	M42x48	x250	175	47.6	75	30	6337	986	4530
05.01.02.1590_4248400		x400	250						6160

03. T AYAKLI SAPLAMA + SOMUN + PUL NR. 1610

T-SLOT BOLT WITH  
NUT AND WASHER

Ürün - Material : DIN 787  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black

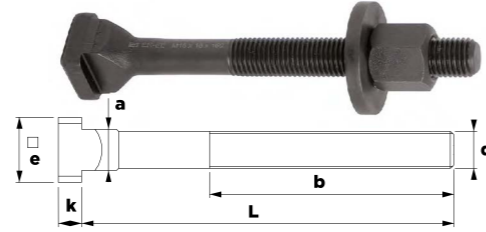


ÜRÜN KODU	dx	xL	b	a	e	k	Sıkma Verileri		(g)
							Nm	kN	
05.01.03.1610_0606025		x25	15						19
05.01.03.1610_0606040	M6x6	x40	28	5.7	10	4	17	17	25
05.01.03.1610_0606063		x63	40						36
05.01.03.1610_0808032		x32	22						39
05.01.03.1610_0808050	M8x8	x50	35	7.7	12	6	43	32	45
05.01.03.1610_0808080		x80	50						56
05.01.03.1610_1010040		x40	23						65
05.01.03.1610_1010063	M10x10	x63	45	9.7	15	6	79	51	80
05.01.03.1610_1010080		x80	50						90
05.01.03.1610_1010100		x100	60						110
05.01.03.1610_1012050		x50	35						85
05.01.03.1610_1012063		x63	40						95
05.01.03.1610_1012080		x80	55						100
05.01.03.1610_1012100	M10x12	x100	60	11.7	18	7	79	51	110
05.01.03.1610_1012125		x125	75						125
05.01.03.1610_1012160		x160	90						140
05.01.03.1610_1012200		x200	120						160
05.01.03.1610_1212050		x50	35						120
05.01.03.1610_1212063		x63	40						128
05.01.03.1610_1212080		x80	55						140
05.01.03.1610_1212100	M12x12	x100	65	11.7	18	7	141	74	160
05.01.03.1610_1212125		x125	75						170
05.01.03.1610_1212160		x160	100						195
05.01.03.1610_1212200		x200	120						220
05.01.03.1610_1214050		x50	35						140
05.01.03.1610_1214063	M12x14	x63	45	13.7	22	8	141	74	150
05.01.03.1610_1214080		x80	55						155

03. T AYAKLI SAPLAMA + SOMUN + PUL NR. 1610

T-SLOT BOLT WITH  
NUT AND WASHER

Ürün - Material : DIN787  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black

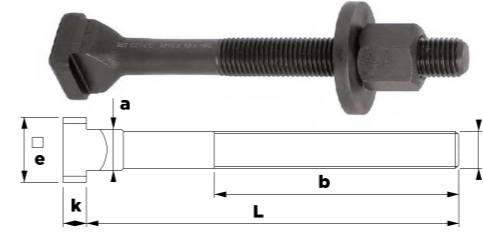


ÜRÜN KODU	dx	xL	b	a	e	k	Sıkma Verileri		(g)
							Nm	kN	
05.01.03.1610_1214100	M12x14	x100	65	13.7	22	8	141	74	175
05.01.03.1610_1214125		x125	75						195
05.01.03.1610_1214160		x160	100						220
05.01.03.1610_1214200		x200	120						240
05.01.03.1610_1416063	M14x16	x63	45	15.7	25	9	223	101	200
05.01.03.1610_1416080		x80	55						230
05.01.03.1610_1416100		x100	65						245
05.01.03.1610_1416125		x125	75						270
05.01.03.1610_1416160		x160	100						310
05.01.03.1610_1416200		x200	120						340
05.01.03.1610_1416250	x250	150	390						
05.01.03.1610_1616063	M16x16	x63	45	15.7	25	9	354	138	260
05.01.03.1610_1616080		x80	55						285
05.01.03.1610_1616100		x100	65						310
05.01.03.1610_1616125		x125	85						345
05.01.03.1610_1616160		x160	100						385
05.01.03.1610_1616200		x200	120						435
05.01.03.1610_1616250	x250	150	505						
05.01.03.1610_1618063	M16x18	x63	45	17.7	28	10	354	138	290
05.01.03.1610_1618080		x80	55						305
05.01.03.1610_1618100		x100	65						340
05.01.03.1610_1618125		x125	85						370
05.01.03.1610_1618160		x160	100						415
05.01.03.1610_1618200		x200	120						460
05.01.03.1610_1618250	x250	150	525						
05.01.03.1610_1820080	M18x20	x80	55	19.7	32	12	474	169	405
05.01.03.1610_1820100		x100	65						435
05.01.03.1610_1820125		x125	85						480

03. T AYAKLI SAPLAMA + SOMUN + PUL NR. 1610

T-SLOT BOLT WITH  
NUT AND WASHER

Ürün - Material : DIN 787  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black



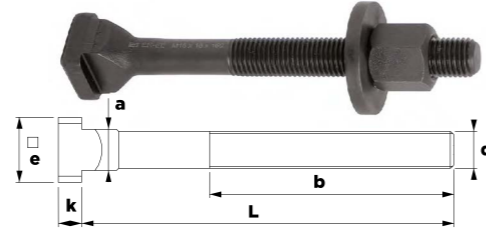
ÜRÜN KODU	dx	xL	b	a	e	k	Sıkma Verileri		(g)
							Nm	kN	
05.01.03.1610_1820160	M18x20	x160	110	19.7	32	12	474	169	535
05.01.03.1610_1820200		x200	125						610
05.01.03.1610_1820250		x250	150						680
05.01.03.1610_1820315		x315	190						790
05.01.03.1610_2020080	M20x20	x80	55	19.7	32	12	679	215	480
05.01.03.1610_2020100		x100	65						515
05.01.03.1610_2020125		x125	85						570
05.01.03.1610_2020160		x160	110						635
05.01.03.1610_2020200		x200	125						725
05.01.03.1610_2020250		x250	160						820
05.01.03.1610_2020315	x315	190	950						
05.01.03.1610_2022080	M20x22	x80	55	21.7	35	14	679	215	530
05.01.03.1610_2022100		x100	65						565
05.01.03.1610_2022125		x125	85						620
05.01.03.1610_2022160		x160	110						690
05.01.03.1610_2022200		x200	125						775
05.01.03.1610_2022250		x250	150						880
05.01.03.1610_2022315	x315	190	1050						
05.01.03.1610_2224080	M22x24	x80	55	23.7	40	16	903	266	700
05.01.03.1610_2224100		x100	65						740
05.01.03.1610_2224125		x125	85						805
05.01.03.1610_2224160		x160	110						890
05.01.03.1610_2224200		x200	125						1000
05.01.03.1610_2224250		x250	150						1115
05.01.03.1610_2224315	x315	190	1280						



03. T AYAKLI SAPLAMA + SOMUN + PUL NR. 1610

T-SLOT BOLT WITH  
NUT AND WASHER

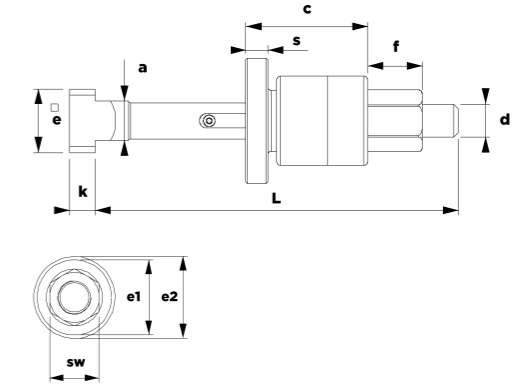
Ürün - Material : DIN787  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	dx	xL	b	a	e	k	Sıkma Verileri		(g)
							Nm	kN	
05.01.03.1610_2424100		x100	70						885
05.01.03.1610_2424125		x125	85						970
05.01.03.1610_2424160		x160	110						1060
05.01.03.1610_2424200	M24x24	x200	125	23.7	40	16	1163	310	1180
05.01.03.1610_2424250		x250	150						1320
05.01.03.1610_2424315		x315	190						1515
05.01.03.1610_2424400		x400	240						1750
05.01.03.1610_2428100		x100	70						1000
05.01.03.1610_2428125		x125	85						1065
05.01.03.1610_2428160		x160	110						1150
05.01.03.1610_2428200	M24x28	x200	125	27.7	44	18	1163	310	1280
05.01.03.1610_2428250		x250	150						1425
05.01.03.1610_2428315		x315	190						1640
05.01.03.1610_2428400		x400	240						1870
05.01.03.1610_2428500		x500	290						2170
05.01.03.1610_3036125		x125	80						1900
05.01.03.1610_3036160		x160	110						2065
05.01.03.1610_3036200	M30x36	x200	135	35.6	54	22	2258	493	2250
05.01.03.1610_3036250		x250	150						2500
05.01.03.1610_3036315		x315	200						2770
05.01.03.1610_3036500		x500	300						3630
05.01.03.1610_3642160		x160	100						3310
05.01.03.1610_3642250	M36x42	x250	175	41.6	65	26	3953	719	3930
05.01.03.1610_3642400		x400	250						5010
05.01.03.1610_3642600		x600	340						6900
05.01.03.1610_4248160		x160	100						4600
05.01.03.1610_4248250	M42x48	x250	175	47.6	75	30	6337	986	5600
05.01.03.1610_4248400		x400	250						7200

04. KOMBİNE T AYAKLI NR. 1630  
COMBINED T-SLOT BOLT

Ürün - Material : Nr. 1630  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	dx	xL	a	e	k	h-H	e1	e2	c	s	f	sw	Sıkma Verileri		(g)
													Nm	kN	
05.01.04.1630_2020200	M20x20x200		21.7	35	14	25-75	49	69	92	12	30	30	679	215	1635
05.01.04.1630_2022250	M20x22x250		21.7	35	14	70-120	49	69	92	12	30	30	679	215	1720
05.01.04.1630_2424200	M24x24x200		23.7	40	16	25-75	53	74	92	12	30	36	1163	310	2075
05.01.04.1630_2424250	M24x24x250		23.7	40	16	70-120	53	74	92	12	30	36	1163	310	2250
05.01.04.1630_2428200	M24x28x200		27.7	44	18	25-75	53	74	92	12	30	36	1163	310	2180
05.01.04.1630_2428250	M24x28x250		27.7	44	18	70-120	53	74	92	12	30	36	1163	310	2340
05.01.04.1630_3036200	M30x36x200		35.6	54	22	25-75	68	88	94	14	30	46	2258	493	3660
05.01.04.1630_3036250	M30x36x250		35.6	54	22	70-120	68	88	94	14	30	46	2258	493	3910

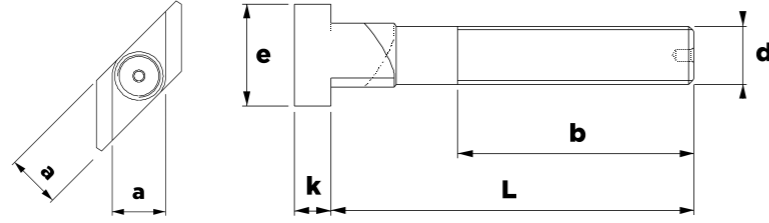
Ağır preslerde, büyük kalıplarda çalışma esnasında vibrasyondan kaynaklanan olabilecek gevşemeyi somunun kontra sıkma yapısından dolayı önler

Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.

05. DERECELİ T AYAKLI NR. 1650  
GRADED T-SLOT BOLT

Ürün - Material : Nr. 1650  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black



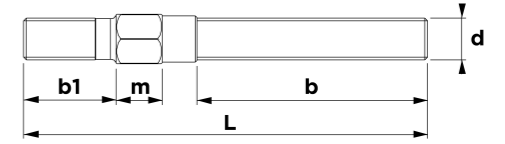
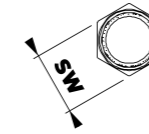
ÜRÜN KODU	dx	xL	b	a	e	k	Sıkma Verileri		(g)
							Nm	kN	
05.01.05.1650_1214050		x50	35						70
05.01.05.1650_1214080	M12x14	x80	55	13.7	22	8	141	74	100
05.01.05.1650_1214125		x125	75						120
05.01.05.1650_1618063		x63	45						160
05.01.05.1650_1618100	M16x18	x100	65	17.7	28	10	354	138	220
05.01.05.1650_1618160		x160	100						280
05.01.05.1650_2022080		x80	55						330
05.01.05.1650_2022125	M20x22	x125	85	21.7	35	14	679	215	430
05.01.05.1650_2022200		x200	120						570
05.01.05.1650_2428100		x100	70						650
05.01.05.1650_2428125	M24x28	x125	85	27.7	44	18	1163	310	770
05.01.05.1650_2428250		x250	150						1150

Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.

06. ANAHTAR AĞIZLI NR. 1670  
WRENCH MOUTH STUD

Ürün - Material : Nr. 1670  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black

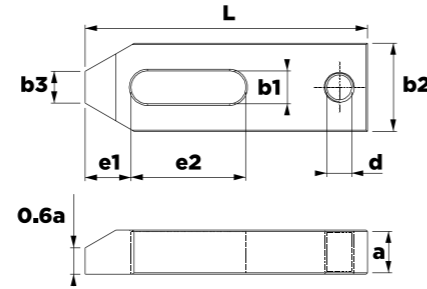


ÜRÜN KODU	d	L	b	b1	m	sw	Sıkma Verileri		(g)
							Nm	kN	
05.01.06.1670_12130	M12	130	65	24	14	14	120	63	160
05.01.06.1670_12160		160	90						185
05.01.06.1670_14130	M14	130	65	28	15	15	191	86	216
05.01.06.1670_14160		160	90						246
05.01.06.1670_16140	M16	140	70	32	16	17	302	118	310
05.01.06.1670_16160		160	95						340
05.01.06.1670_18150	M18	150	70	35	19	19	405	144	395
05.01.06.1670_18180		180	95						450
05.01.06.1670_20150	M20	150	70	40	22	22	580	184	520
05.01.06.1670_20180		180	95						575
05.01.06.1670_22150	M22	150	70	40	22	24	772	228	610
05.01.06.1670_22180		180	95						705
05.01.06.1670_24170	M24	170	75						875
05.01.06.1670_24205		205	105	47	22	27	994	265	990
05.01.06.1670_24250		250	140						1125
05.01.06.1670_30250	M30	250	135	55	32	36	1930	421	1950
05.01.06.1670_30315		315	195						2260

01. DESTEK DELİKLİ DÜZ NR. 1330

STRAIGHT CLAMP WITH SUPPORT HOLE

Ürün - Material : Nr. 1330  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

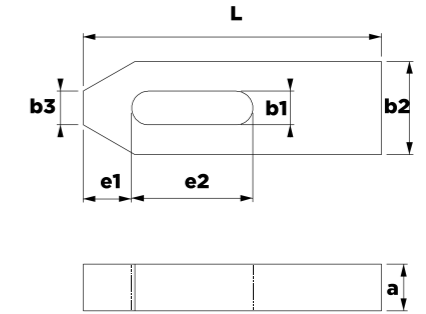


ÜRÜN KODU	L	b1	metrik	whit worth	a	b2	b3	e1	e2	d	(g)
05.02.01.1330_06050	50	6.6	M6	1/4	10	20	8	10	20	M8	50
05.02.01.1330_08060	60	9	M8	5/16	12	25	10	13	22	M8	105
05.02.01.1330_10080	80	11	M10	3/8	15	30	12	15	30	M10	210
05.02.01.1330_12100	100	14.5	M12-M14	1/2	20	40	14	21	40	M12	465
05.02.01.1330_12125	125	14.5	M12-M14	1/2	20	40	14	21	50	M12	590
05.02.01.1330_16125	125	18.5	M16-M18	5/8	25	50	18	26	45	M16	930
05.02.01.1330_16160	160	18.5	M16-M18	5/8	25	50	18	26	65	M16	1200
05.02.01.1330_20160	160	22.5	M20-M22	3/4	30	60	22	30	60	M20	1710
05.02.01.1330_20200	200	22.5	M20-M22	3/4	30	60	22	30	80	M20	2170
05.02.01.1330_20250	250	22.5	M20-M22	3/4	35	70	30	30	100	M20	3885
05.02.01.1330_24160	160	26	M24	1	30	70	26	35	60	M24	1965
05.02.01.1330_24200	200	26	M24	1	35	70	26	35	80	M24	2920
05.02.01.1330_24250	250	26	M24	1	35	70	26	35	100	M24	3720
05.02.01.1330_24315	315	26	M24	1	40	80	35	35	100	M24	6435
05.02.01.1330_30250	250	33	M30	1 1/4	40	80	34	45	100	M24	4825
05.02.01.1330_30315	315	33	M30	1 1/4	50	80	34	45	130	M24	7665
05.02.01.1330_36400	400	43	M36-M42	1 1/2	58	100	43	100	150	M30	14490

02. DESTEK DELİKSİZ DÜZ NR. 1350

WRENCH MOUTH STUD

Ürün - Material : Nr. 1670 / DIN 6314  
Kalite - Quality : 12.9  
Kaplama - Coating : Siyah / Black

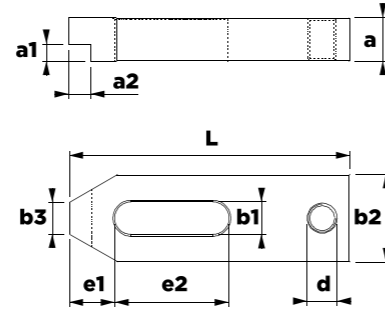


ÜRÜN KODU	L	b1	metrik	whit worth	a	b2	b3	e1	e2	(g)
05.02.02.1350_06050	50	6,6	M6	1/4	10	20	8	10	20	60
05.02.02.1350_08060	60	9	M8	5/16	12	25	10	13	22	110
05.02.02.1350_10080	80	11	M10	3/8	15	30	12	15	30	185
05.02.02.1350_12100	100	14,5	M12-M14	1/2	20	40	14	21	40	480
05.02.02.1350_12125	125	14,5	M12-M14	1/2	20	40	14	21	50	610
05.02.02.1350_16125	125	18,5	M16-M18	5/8	25	50	18	26	45	980
05.02.02.1350_16160	160	18,5	M16-M18	5/8	25	50	18	26	65	1240
05.02.02.1350_20160	160	22,5	M20-M22	3/4	30	60	22	30	60	1795
05.02.02.1350_20200	200	22,5	M20-M22	3/4	30	60	22	30	80	2255
05.02.02.1350_24200	200	26	M24	1	30	70	26	35	80	2570
05.02.02.1350_24250	250	26	M24	1	35	70	26	35	100	3875
05.02.02.1350_30250	250	33	M30	1 1/4	40	80	34	45	100	4990
05.02.02.1350_30315	315	33	M30	1 1/4	50	80	34	45	130	7885
05.02.02.1350_36400	400	43	M36-M42	1 1/2	60	100	43	100	150	14450

### 03. KADEMELİ DESTEK DÜZ PABUÇ NR. 1370

#### STRAIGHT CLAMP WITH STEPPED SUPPORT HOLE

Ürün - Material : Nr. 1370  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	L	b1	metrik	whit worth	a	b2	a1xa2	b3	e1	e2	d	(g)
05.02.03.1370_10080	80	11	M10	3/8	15	30	5x8	12	15	30	M10	180
05.02.03.1370_12100	100	14.5	M12-M14	1/2	20	40	8x10	14	21	40	M12	410
05.02.03.1370_12125	125	14.5	M12-M14	1/2	20	40	8x10	14	21	50	M12	590
05.02.03.1370_16125	125	18.5	M16-M18	5/8	25	50	10x12.5	18	26	45	M16	910
05.02.03.1370_16160	160	18.5	M16-M18	5/8	25	50	10x12.5	18	26	65	M16	1180
05.02.03.1370_20160	160	22.5	M20-M22	3/4	30	60	12x15	22	30	60	M20	1575
05.02.03.1370_20200	200	22.5	M20-M22	3/4	30	60	12x15	22	30	80	M20	2150
05.02.03.1370_24160	160	26	M24	1	30	70	12x15	26	35	60	M24	1800
05.02.03.1370_24200	200	26	M24	1	35	70	14x17	26	35	80	M24	2875
05.02.03.1370_24250	250	26	M24	1	35	70	14x17	26	35	100	M24	3500

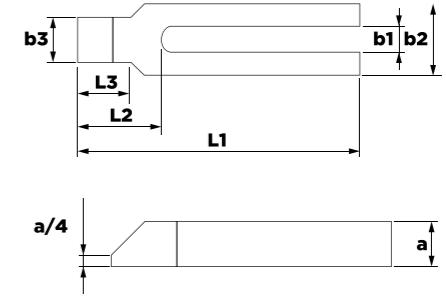
Kısıtlı alanlarda yükseklikten kazanma amaçlı kullanılır.

This product is used in restricted areas with the purpose of gaining height.

### 04. ÇATAL PABUÇLAR NR. 1320

#### BIFURCATED CLAMP

Ürün - Material : Nr. 1320  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

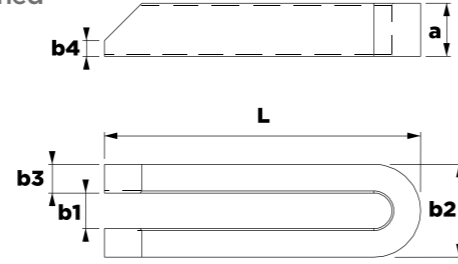


ÜRÜN KODU	b1	L1	metrik	whit worth	a	b2	b3	L2	L3	(g)
05.02.04.1320_08100	9	100	M8	5/16	15	30	16	32	18	240
05.02.04.1320_10125	11	125	M10	3/8	20	30	20	38	24	380
05.02.04.1320_12160	14.5	160	M12-M14	1/2	25	40	24	47	30	800
05.02.04.1320_12200	14.5	200	M12-M14	1/2	25	40	24	47	30	950
05.02.04.1320_16200	18.5	200	M16-M18	5/8	30	50	28	57	36	1500
05.02.04.1320_16250	18.5	250	M16-M18	5/8	30	50	28	57	36	1850
05.02.04.1320_20250	22.5	250	M20-M22	3/4	40	60	35	68	45	2900
05.02.04.1320_20315	22.5	315	M20-M22	3/4	40	60	35	68	45	3600
05.02.04.1320_24250	26	250	M24	1	40	70	43	83	56	3400
05.02.04.1320_24315	26	315	M24	1	40	70	43	83	56	4300
05.02.04.1320_30315	33	315	M30	1 1/4	50	80	50	88	56	6000
05.02.04.1320_30400	33	400	M30	1 1/4	50	80	50	88	56	7300

04. ÇATAL PABUÇLAR NR. 1390

STRAIGHT CLAMP WITH STEPPED SUPPORT HOLE

Ürün - Material : Nr. 1390 / DIN 6315B  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

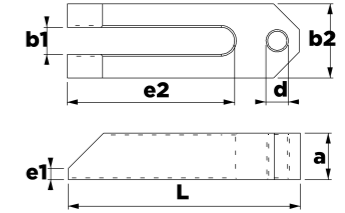


ÜRÜN KODU	L	b1	metrik	whit worth	a	b2	b3	b4	(g)
05.02.04.1390_06060	60	6.6	M6	1/4	12	19	6.2	3	65
05.02.04.1390_08080	80	9	M8	5/16	15	25	8	4	140
05.02.04.1390_10100	100	11	M10	3/8	20	30	9.5	5	240
05.02.04.1390_12125	125	14.5	M12-M14	1/2	25	38	12	6	700
05.02.04.1390_12160	160	14.5	M12-M14	1/2	25	38	12	6	915
05.02.04.1390_12200	200	14.5	M12-M14	1/2	25	38	12	6	1235
05.02.04.1390_16160	160	18.5	M16-M18	5/8	27	48	15	8	945
05.02.04.1390_16200	200	18.5	M16-M18	5/8	27	48	15	8	1215
05.02.04.1390_16250	250	18.5	M16-M18	5/8	37	48	15	10	2000
05.02.04.1390_20200	200	22.5	M20-M22	3/4	37	52	15	10	1650
05.02.04.1390_20250	250	22.5	M20-M22	3/4	37	62	20	10	2765
05.02.04.1390_20315	315	22.5	M20-M22	3/4	37	62	20	10	3510
05.02.04.1390_20500	500	22.5	M20-M22	3/4	47	62	20	10	7200
05.02.04.1390_24200	200	26	M24	1	37	66	20	10	2260
05.02.04.1390_24250	250	26	M24	1	37	66	20	10	2740
05.02.04.1390_24315	315	26	M24	1	37	66	20	10	3515
05.02.04.1390_24500	500	26	M24	1	47	66	20	10	7100
05.02.04.1390_30250	250	33	M30	1 1/4	47	73	20	12	3500
05.02.04.1390_30315	315	33	M30	1 1/4	47	73	20	12	4190
05.02.04.1390_30400	400	33	M30	1 1/4	47	73	20	12	5735
05.02.04.1390_30600	600	33	M30	1 1/4	46	73	20	12	8455
05.02.04.1390_301000	1000	33	M30	1 1/4	57	93	30	12	28000
05.02.04.1390_36400	400	40	M36	1 1/2	57	100	30	12	10800
05.02.04.1390_36600	600	40	M36	1 1/2	57	100	30	12	16500
05.02.04.1390_42600	600	43	M42	1 1/2	77	123	40	12	28800

05. ÇATAL DESTEK PABUÇ NR. 1410

BIFURCATED CLAMP WITH SUPPORT HOLE

Ürün - Material : Nr. 1410  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah Kaplama / Black Coating

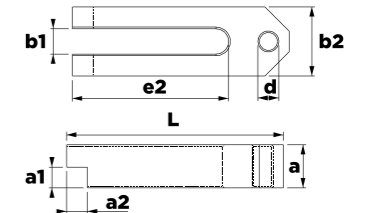


ÜRÜN KODU	L	b1	metrik	whit worth	a	e1	e2	b2	d	(g)
05.02.05.1410_10100	100	11	M10	3/8	20	5	70	30	M10	260
05.02.05.1410_12125	125	14.5	M12-14	1/2	25	6	90	40	M12	560
05.02.05.1410_16160	160	18.5	M16-18	5/8	30	8	110	50	M16	1230
05.02.05.1410_20200	200	22.5	M20-22	3/4	40	10	135	60	M20	1490

06. KADEMELİ ÇATAL DESTEK PABUÇ NR. 1400

BIFURCATED CLAMP WITH STEPPED SUPPORT HOLE

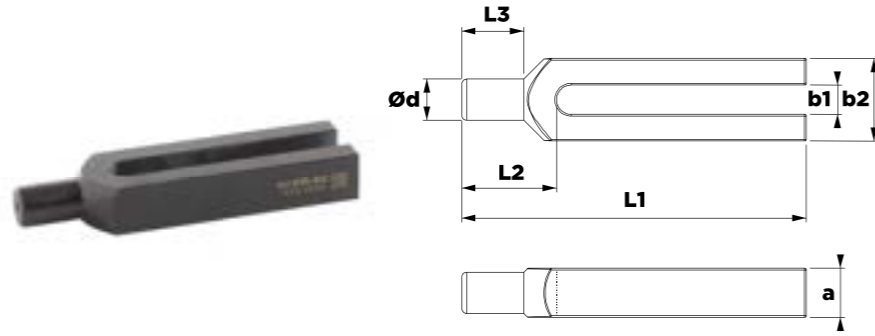
Ürün - Material : Nr. 1400  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah Kaplama / Black Coating



ÜRÜN KODU	L	b1	metrik	whit worth	a	e2	a1xa2	b2	d	(g)
05.02.05.1410_10100	100	11	M10	3/8	20	70	10x10	30	M10	260
05.02.05.1410_12125	125	14.5	M12-14	1/2	25	90	12x12	40	M12	565
05.02.05.1410_16160	160	18.5	M16-18	5/8	30	110	15x15	50	M16	1235
05.02.05.1410_20200	200	22.5	M20-22	3/4	40	135	20x20	60	M20	2460

07. SİLİNDİR BAŞLI ÇATAL PABUÇ NR. 1470  
FORKED CLAMP WITH PIN HEAD

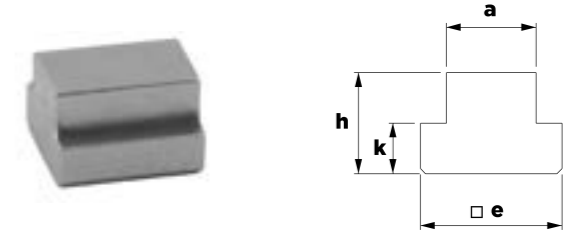
Ürün - Material : Nr. 1470  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	L1	b1	Pin Head		a	b2	Ød	L2	L3	(g)
			metrik	whit worth						
05.02.07.1470_08100	100	9	M8	5/6	15	30	12	30	18	180
05.02.07.1470_10125	125	11	M10	3/8	20	30	16	36	24	290
05.02.07.1470_12160	160	14.5	M12-M14	1/2	25	40	20	45	30	715
05.02.07.1470_12200	200	14.5	M12-M14	1/2	25	40	20	45	30	815
05.02.07.1470_16200	200	18.5	M16-M18	5/8	30	50	24	55	36	1210
05.02.07.1470_16250	250	18.5	M16-M18	5/8	30	50	24	55	36	1550
05.02.07.1470_20250	250	22.5	M20-M22	3/4	40	60	30	65	45	2680
05.02.07.1470_20315	315	22.5	M20-M22	3/4	40	60	30	65	45	3435
05.02.07.1470_24250	250	26	M24	1	40	70	38	80	56	3060
05.02.07.1470_24315	315	26	M24	1	40	70	38	80	56	4120
05.02.07.1470_30315	315	34	M30	1 1/4	50	80	45	85	56	5600
05.02.07.1470_30400	400	34	M30	1 1/4	50	80	45	85	56	7135

08. T PABUÇ DELİKSİZ NR. 1730  
T-NUT WITHOUT HOLE

Ürün - Material : Nr. 1730  
: İsteğe göre delik delme diş çekme uygulanabilir.

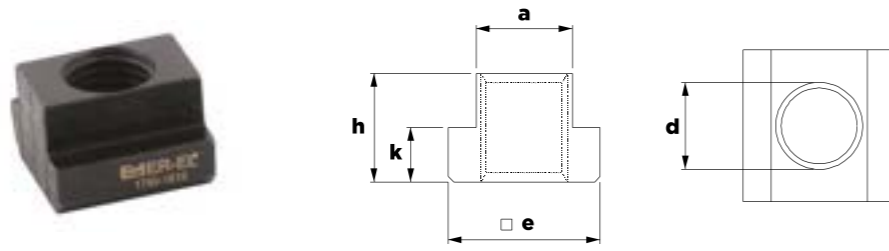




ÜRÜN KODU	a	a	e	h	k	(g)
05.02.08.1730_06	6	5.7	10	8	4	4
05.02.08.1730_08	8	7.7	13	10	6	10
05.02.08.1730_10	10	9.7	15	12	6	16
05.02.08.1730_12	12	11.7	18	14	7	27
05.02.08.1730_14	14	13.7	22	16	8	50
05.02.08.1730_16	16	15.7	25	18	9	70
05.02.08.1730_18	18	17.7	28	20	10	95
05.02.08.1730_20	20	19.7	32	24	12	150
05.02.08.1730_22	22	21.7	35	28	14	210
05.02.08.1730_24	24	23.7	40	32	16	310
05.02.08.1730_28	28	27.7	44	36	18	430
05.02.08.1730_36	36	35.6	54	44	22	800
05.02.08.1730_42	42	41.6	65	52	26	1400

08. T PABUÇ NR. 1750

T-NUT

Ürün - Material : Nr. 1750 / DIN 508  
Kalite - Quality : Kalite 10 / Quality 10  
Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

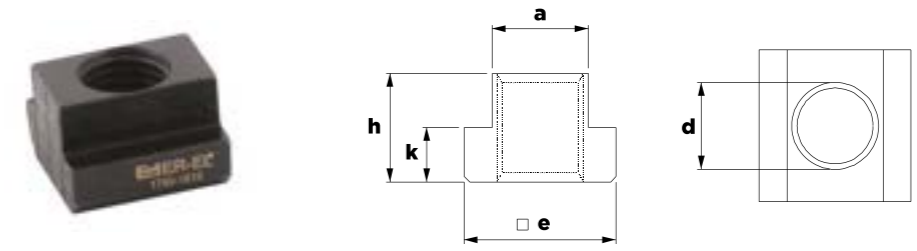




ÜRÜN KODU	dx 	a	e	h	k	 (g)
05.02.08.1750_0506	M5x6	5.7	10	8	4	4
05.02.08.1750_0608	M6x8	7.7	13	10	6	10
05.02.08.1750_0810	M8x10	9.7	15	12	6	12
05.02.08.1750_0812	M8x12*	11.7	18	14	7	22
05.02.08.1750_1012	M10x12	11.7	18	14	7	20
05.02.08.1750_0814	M8x14*	13.7	22	16	8	40
05.02.08.1750_1014	M10x14*	13.7	22	16	8	37
05.02.08.1750_1214	M12x14	13.7	22	16	8	30
05.02.08.1750_0816	M8x16*	15.7	25	18	9	60
05.02.08.1750_1016	M10x16*	15.7	25	18	9	55
05.02.08.1750_1216	M12x16*	15.7	25	18	9	55
05.02.08.1750_1416	M14x16	15.7	25	18	9	45
05.02.08.1750_0818	M8x18*	17.7	28	20	10	90
05.02.08.1750_1018	M10x18*	17.7	28	20	10	87
05.02.08.1750_1218	M12x18*	17.7	28	20	10	80
05.02.08.1750_1418	M14x18*	17.7	28	20	10	75
05.02.08.1750_1618	M16x18	17.7	28	20	10	65
05.02.08.1750_1620	M16x20*	19.7	32	24	12	115
05.02.08.1750_1820	M18x20	19.7	32	24	12	105
05.02.08.1750_1622	M16x22*	21.7	35	28	14	170

08. T PABUÇ NR. 1750

T-NUT

Ürün - Material : Nr. 1750 / DIN 508  
Kalite - Quality : Kalite 10 / Quality 10  
Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



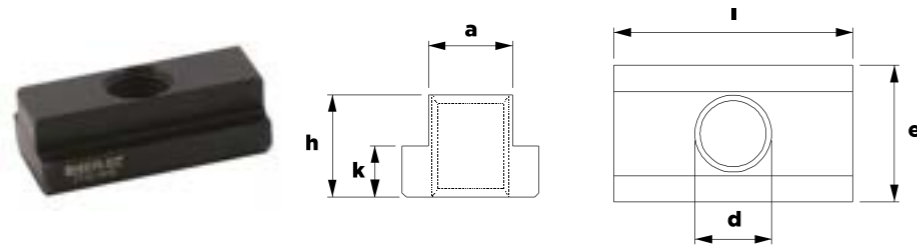
ÜRÜN KODU	dx 	a	e	h	k	 (g)
05.02.08.1750_1822	M18x22*	21.7	35	28	14	160
05.02.08.1750_2022	M20x22	21.7	35	28	14	150
05.02.08.1750_1624	M16x24*	23.7	40	32	16	260
05.02.08.1750_2024	M20x24*	23.7	40	32	16	240
05.02.08.1750_2224	M22x24	23.7	40	32	16	220
05.02.08.1750_1628	M16x28*	27.7	44	36	18	375
05.02.08.1750_2028	M20x28*	27.7	44	36	18	350
05.02.08.1750_2228	M22x28*	27.7	44	36	18	330
05.02.08.1750_2428	M24x28	27.7	44	36	18	330
05.02.08.1750_2436	M24x36*	35.6	54	44	22	665
05.02.08.1750_3036	M30x36	35.6	54	44	22	585
05.02.08.1750_3642	M36x42	41.6	65	52	26	1025
05.02.08.1750_4248	M42x48	47.6	75	60	30	1600



T-Pabucun mukavemeti için disli kısmının tümüne vidalama yapılması gerekir.

Screwing must be done on the entire thread part for the endurance of T-Nut.

09. UZUN T PABUÇ NR. 1710  
LONG T-NUT

Ürün - Material : Nr. 1710  
Kalite - Quality : Kalite 10 / Quality 10  
Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

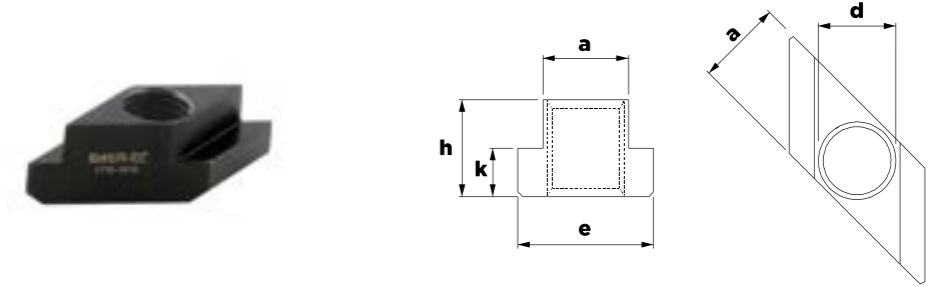




ÜRÜN KODU	dx 	a	e	l	h	k	 (g)
05.02.09.1710_0608	M6x8	7.7	13	26	10	6	14
05.02.09.1710_0810	M8x10	9.7	15	30	12	6	25
05.02.09.1710_1012	M10x12	11.7	18	36	14	7	49
05.02.09.1710_1214	M12x14	13.7	22	44	16	8	82
05.02.09.1710_1416	M14x16	15.7	25	50	18	9	120
05.02.09.1710_1618	M16x18	17.7	28	56	20	10	165
05.02.09.1710_1820	M18x20	19.7	32	64	24	12	260
05.02.09.1710_2022	M20x22	21.7	35	70	28	14	365
05.02.09.1710_2224	M22x24	23.7	40	80	32	16	535
05.02.09.1710_2428	M24x28	27.7	44	88	36	18	745
05.02.09.1710_3036	M30x36	35.6	54	108	44	22	1390

Hassas makina pleytlerinde T-Kanalı korur.  
This clamp protects T-Slot in sensitive machine plates.

10. DERECELİ T PABUÇ NR. 1770  
GRADED T-NUT

Ürün - Material : Nr. 1770  
Kalite - Quality : Kalite 10 / Quality 10  
Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



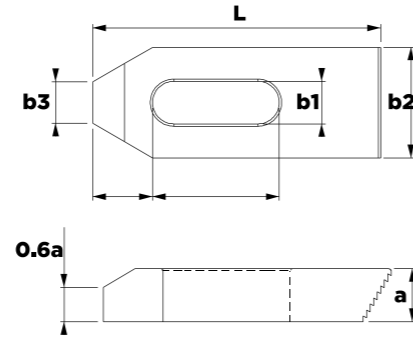
ÜRÜN KODU	dx 	a	e	h	k	 (g)
05.02.10.1770_0710	M8x10	9.7	15	12	6	10
05.02.10.1770_1012	M10x12	11.7	18	14	7	15
05.02.10.1770_1014	M10x14*	13.7	22	16	8	30
05.02.10.1770_1214	M12x14	13.7	22	16	8	25
05.02.10.1770_1416	M14x16	15.7	25	18	9	40
05.02.10.1770_1018	M10x18*	17.7	28	20	10	70
05.02.10.1770_1618	M16x18	17.7	28	20	10	60
05.02.10.1770_1620	M16x20*	19.7	32	24	12	95
05.02.10.1770_1820	M18x20	19.7	32	24	12	90
05.02.10.1770_1622	M16x22*	21.7	35	28	14	135
05.02.10.1770_2022	M20x22	21.7	35	28	14	125
05.02.10.1770_1628	M16x28*	27.7	44	36	18	330
05.02.10.1770_2028	M20x28*	27.7	44	36	18	295
05.02.10.1770_2428	M24x28	27.7	44	36	18	265

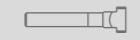


T-Kanal pleytlerde üstten T-Kanala  
girip bağlama özelliği vardır.  
It has the feature of making the coupling by entering  
T-Slot plates from the top.



11. MERDİVEN DIŞLI PABUÇ NR. 1290  
SERRATED THREAD CLAMP

Ürün - Material : Nr. 1290  
Kalite - Quality : Kalite 10 / Quality 10  
Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

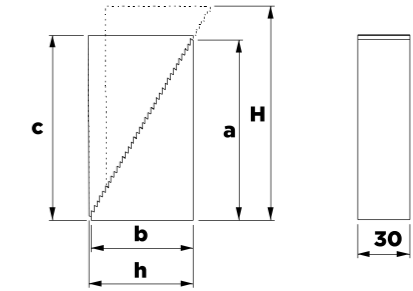



ÜRÜN KODU	L	b1			a	b2	b3	e1	e2	 (g)
05.02.11.1290_06050	50	6.6	M6	1/4	10	20	8	10	20	50
05.02.11.1290_06080	80	6.6	M6	1/4	10	20	8	10	30	95
05.02.11.1290_08060	60	9	M8	5/16	12	25	10	13	22	100
05.02.11.1290_08100	100	9	M8	5/16	12	25	10	13	45	170
05.02.11.1290_10080	80	11	M10	3/8	15	30	12	15	30	190
05.02.11.1290_10100	100	11	M10	3/8	15	30	12	15	45	225
05.02.11.1290_12100	100	14.5	M12-M14	1/2	20	40	14	21	45	435
05.02.11.1290_12125	125	14.5	M12-M14	1/2	20	40	14	21	55	580
05.02.11.1290_16125	125	18.5	M16-M18	5/8	25	50	18	26	55	855
05.02.11.1290_16160	160	18.5	M16-M18	5/8	25	50	18	26	65	1175

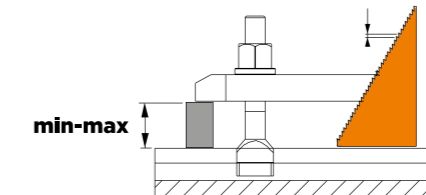
Nr. 1310 Merdiven destek ile kullanılır.  
Product is used with Nr. 1310 Serrated Support.

12. MERDİVEN DIŞ DESTEK PABUÇ NR. 1310  
SERRATED THREAD SUPPORT

Ürün - Material : Nr. 1310  
Kaplama - Coating : Siyah / Black



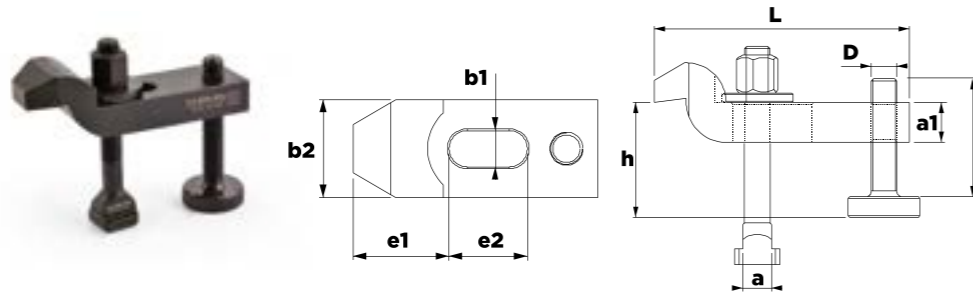
ÜRÜN KODU	h-H	a	b	c	min-max	 (g)
05.02.12.1310_01	37-85	57	35	60	0-40	505
05.02.12.1310_02	48-112	73	45	76	0-60	825
05.02.12.1310_03	58-139	90	55	93	0-75	1250
05.02.12.1310_04	66-165	108	64	111	0-90	685



Nr. 1290 Merdiven dış pabuç ile kullanılır.  
Product is used with Nr. 1290 Serrated Thread Clamp.

13. DESTEK CİVATALI KOMBİNE Z PABUÇ NR. 1190  
COMBINED COUPLING Z-CLAMP  
WITH ADJUSTABLE SUPPORT BOLT

Ürün - Material : Nr. 1190



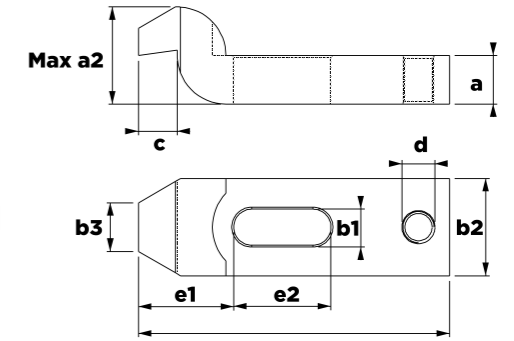
ÜRÜN KODU	L	Nr.1450		e1	e2	b1	Nr.1610	h	Nr.1490 D x F	(g)
		a1	b2							
05.02.13.1190_1010100	10	15	30	32	32	11	M10x10x80	26-50	M10x42	405
05.02.13.1190_1212125	12	20	40	40	40	14.5	M12x12x100	33-60	M12x50	870
05.02.13.1190_1214125	14	20	40	40	40	14.5	M12x14x100	37-60	M12x50	890
05.02.13.1190_1616160	16	25	50	49	50	18.5	M16x16x125	41-75	M16x62	1785
05.02.13.1190_1618160	18	25	50	49	50	18.5	M16x18x125	41-75	M16x62	1810
05.02.13.1190_2020200	20	30	60	55	70	22.5	M20x20x160	46-75	M20x62	3105
05.02.13.1190_2022200	22	30	60	55	70	22.5	M20x22x160	46-75	M20x62	3155
05.02.13.1190_2424200	24	35	70	72	60	26	M24x24x200	52-95	M24x81	4695
05.02.13.1190_2428200	28	35	70	72	60	26	M24x28x200	52-95	M24x81	4790

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

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

14. Z DESTEK PABUÇ NR. 1450  
Z-TYPE CLAMP WITH SUPPORT HOLE

Ürün - Material : Nr. 1450 / DIN 6316  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



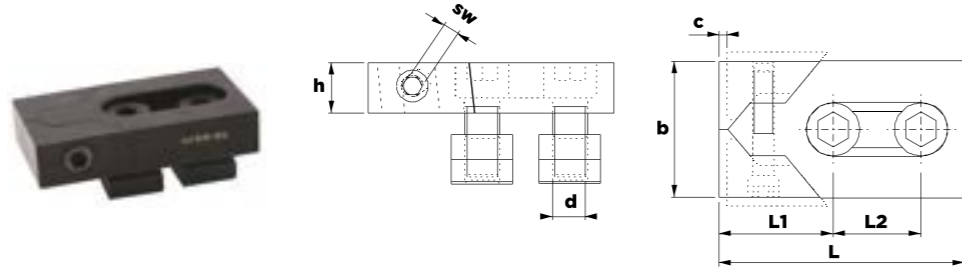
ÜRÜN KODU	L	b1	metrik		a	a2	b2	b3	c	e1	e2	d	(g)
			metrik	whit worth									
05.02.14.1450_06060	60	6.6	M6	1/4	10	20	20	10	8	20	20	M8	80
05.02.14.1450_08080	80	9	M8	5/16	12	24	25	12	9	25	25	M8	170
05.02.14.1450_10100	100	11	M10	3/8	15	30	30	15	12	32	32	M10	245
05.02.14.1450_12125	125	14.5	M12-M14	1/2	19	40	38	20	16	40	40	M12	600
05.02.14.1450_16125	125	18.5	M16-M18	5/8	24	50	48	25	20	49	40	M16	925
05.02.14.1450_16160	160	18.5	M16-M18	5/8	24	50	48	25	20	49	50	M16	1205
05.02.14.1450_20160	160	22.5	M20-M22	3/4	29	58	58	30	24	55	55	M20	1705
05.02.14.1450_20200	200	22.5	M20-M22	3/4	29	58	58	30	24	55	70	M20	2145
05.02.14.1450_24160	160	26	M24	1	33	70	70	35	28	53	55	M24	2110
05.02.14.1450_24200	200	26	M24	1	33	70	70	35	28	72	60	M24	3070
05.02.14.1450_24250	250	26	M24	1	33	70	70	35	28	72	80	M24	3710
05.02.14.1450_30250	250	33	M30	1 1/4	38	80	77	40	40	91	80	M24	4635
05.02.14.1450_30315	315	33	M30	1 1/4	48	100	77	40	40	91	100	M24	7050

Yükseklikten kazanma ve somun  
geçişlerinde avantaj sağlar.

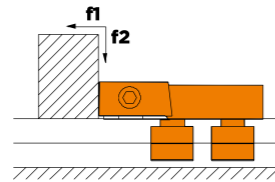
This product provides advantage to gain from  
the height and in the passings of the bolt.

15. ÇİFT ÇENELİ YANDAN SIKMA NR. 2110  
SIDE PRESS CLAMP WITH DOUBLE CLAW

Ürün - Material : Nr. 2110  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	a	c	h	b	L	L1	L2	sw	d	sıkma kuvveti		g
										f1Kgf	f2Kgf	
05.02.15.2110_12	12	3	20	40	80	39	26	6	M10	1600	60	415
05.02.15.2110_14	14	3	20	40	80	39	26	6	M10	2200	90	425
05.02.15.2110_16	16	4	25	50	100	46	34	8	M14	3200	120	785
05.02.15.2110_18	18	4	25	50	100	46	34	8	M14	3600	140	810
05.02.15.2110_20	20	4	25	50	100	46	34	8	M14	3600	140	850
05.02.15.2110_22	22	5	28.5	78	140	65	50	10	M20	3600	140	2275
05.02.15.2110_24	24	5	28.5	78	140	65	50	10	M20	3600	140	2360
05.02.15.2110_28	28	5	28.5	78	140	65	50	10	M20	4000	160	2500

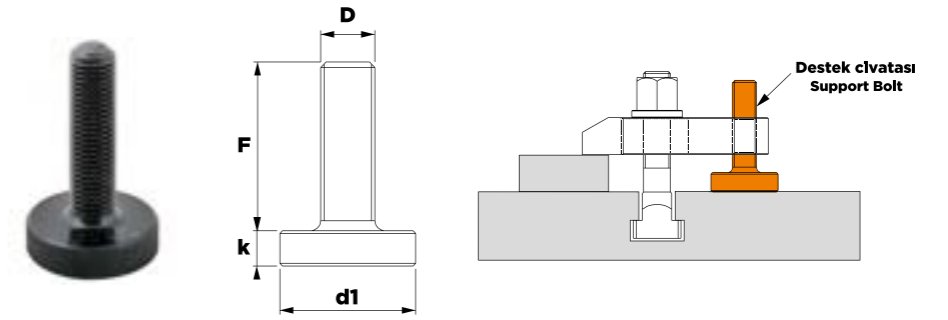


İş parçasını dayama ve pleyt yönünde sıkar,  
pabucun yapısından dolayı kuvvetli sıkma yapar.

Product clamps the work piece in the direction of rest and plate.  
It achieves powerful clamping because of the clamp's structure.

16. PABUÇ DESTEK CİVATASI NR. 1490  
CLAMP SUPPORT BOLT

Ürün - Material : Nr. 1490  
Kaplama - Coating : Siyah / Black

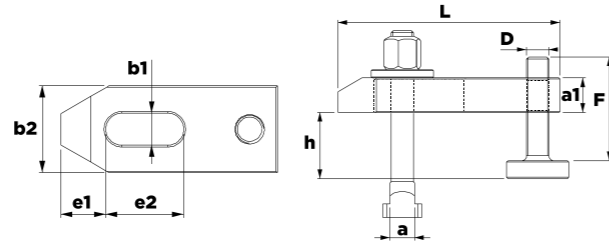


ÜRÜN KODU	D x F	d1	k	g
05.02.16.1490_08032	M8x32	25	8	40
05.02.16.1490_10042	M10x42	30	8	60
05.02.16.1490_12050	M12x50	36	10	110
05.02.16.1490_12095	M12x95	36	10	150
05.02.16.1490_16062	M16x62	45	13	240
05.02.16.1490_16097	M16x97	45	13	285
05.02.16.1490_16117	M16x117	45	13	310
05.02.16.1490_20062	M20x62	50	13	320
05.02.16.1490_20097	M20x97	50	13	390
05.02.16.1490_20117	M20x117	50	13	430
05.02.16.1490_24081	M24x81	50	14	445
05.02.16.1490_24116	M24x116	50	14	555
05.02.16.1490_30180	M30x180	70	24	1650

17. AYARLI BAĞLANTI PABUÇ SET NR. 1170

COMBINED COUPLING CLAMPS WITH ADJUSTABLE  
SUPPORT BOLT

Ürün - Material : Nr. 1170



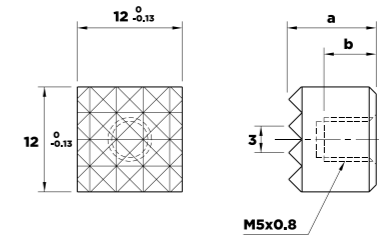
ÜRÜN KODU	a	L	Nr.1330		e1	e2	b1	Nr.1610	h	Nr.1490 D x F	(g)
			a1	b2							
05.02.17.1170_1010080	10	80	15	30	15	30	11	M10x10x80	10-35	M10x42	370
05.02.17.1170_1212100	12	100	20	40	21	40	14.5	M12x12x100	12-40	M12x50	740
05.02.17.1170_1212125	12	125	20	40	21	50	14.5	M12x12x160	12-85	M12x95	940
05.02.17.1170_1214100	14	100	20	40	21	40	14.5	M12x14x100	12-40	M12x50	705
05.02.17.1170_1214125	14	125	20	40	21	50	14.5	M12x14x160	12-85	M12x95	965
05.02.17.1170_1616125	16	125	25	50	26	45	18.5	M16x16x125	15-50	M16x62	1115
05.02.17.1170_1616160	16	160	25	50	26	65	18.5	M16x16x160	15-85	M16x97	1870
05.02.17.1170_1618125	18	125	25	50	26	45	18.5	M16x18x125	15-50	M16x62	1540
05.02.17.1170_1618160	18	160	25	50	26	65	18.5	M16x18x160	15-85	M16x97	1900
05.02.17.1170_2020160	20	160	30	60	30	60	22.5	M20x20x160	15-45	M20x62	1675
05.02.17.1170_2020200	20	200	30	60	30	80	22.5	M20x20x200	15-80	M20x97	3295
05.02.17.1170_2022160	22	160	30	60	30	60	22.5	M20x22x160	15-45	M20x62	2730
05.02.17.1170_2022200	22	200	30	60	30	80	22.5	M20x22x200	15-80	M20x97	3340
05.02.17.1170_2424160	24	160	30	70	35	60	26.5	M24x24x160	16-60	M24x81	3465
05.02.17.1170_2424200	24	200	30	70	35	80	26.5	M24x24x200	16-95	M24x116	4660
05.02.17.1170_2428160	28	160	30	70	35	60	26.5	M24x28x160	16-60	M24x81	5560
05.02.17.1170_2428200	28	200	30	70	35	80	26.5	M24x28x200	16-95	M24x116	4755

Ürün DIN 650 T-Kanala uyumludur.  
Product is suitable to DIN 650 T-Slot.

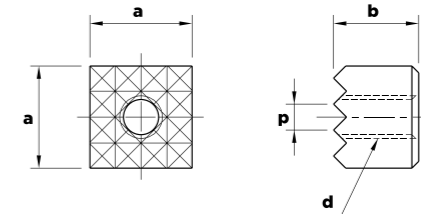
18. BASKI PABUCU NR. 1287

PRESSURE PAD

Ürün - Material : Nr. 1287  
Kalite - Quality : Sertleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



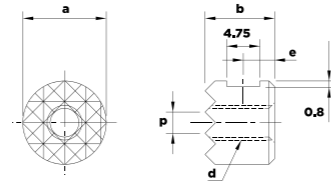
ÜRÜN KODU	a 0 (-0.13)	b	(g)
05.02.18.1287_CT9120	12	7.8	13



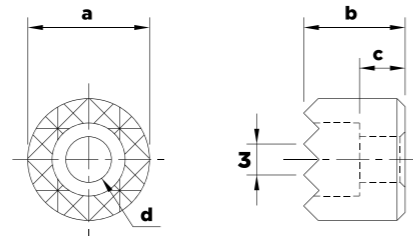
ÜRÜN KODU	a 0 (-0.13)	b 0 (-0.13)	d	p	(g)
05.02.18.1287_HS9102	10	12	M5x0.8	2.3	7.5
05.02.18.1287_HS9122	12	12	M5x0.8	3	11
05.02.18.1287_HS9160	16	12	M6x1	3	17
05.02.18.1287_HS9202	20	12	M5x0.8	3	33.5
05.02.18.1287_HS9252	25	12	M6x1	3	53

18. BASKI PABUCU NR. 1288  
PRESSURE PAD

Ürün - Material : Nr. 1288



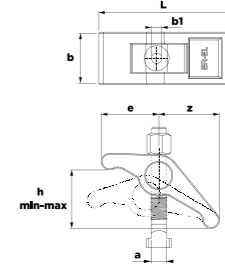
ÜRÜN KODU	a 0 (-0.13)	b 0 (-0.13)	d	e	p	(g)
05.02.18.1288_HS102	10	12	M5x0.8	6	2.3	6
05.02.18.1288_HS122	12	12	M5x0.8	6	3	9
05.02.18.1288_HS162	16	12	M6x1	6	3	15
05.02.18.1288_HS202	20	12	M6x1	6	3	25
05.02.18.1288_HS252	25	12	M6x1	6	3	40



ÜRÜN KODU	a 0 (-0.13)	b 0 (-0.13)	c	d	(g)
05.02.18.1288_HS122C	12	12	6.5	M4	8
05.02.18.1288_HS162C	16	12	6.5	M4	15
05.02.18.1288_HS202C	20	12	6.5	M5	23
05.02.18.1288_HS252C	25	12	6.5	M6	38

19. DESTEKSİZ ASKI PABUCU NR. 1270  
UNSUPPORTED SUSPENSION CLAMP

Ürün - Product : Nr. 1270  
Malzeme - Material : Dövme çelik / Forged Steel  
Pabuç Malzeme - Clamp Hardness : Sertleştirilmiş / Hardened  
Kalite - Quality : Civata 12.9 / Bolt 12.9  
Kaplama - Coating : Çinko Kaplama / Zinc Coating



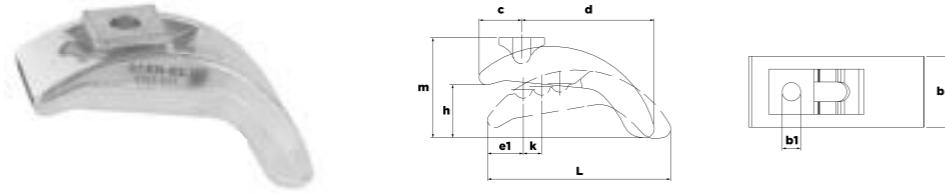
ÜRÜN KODU	a	h min-max	DIN 787	b1	e	z	L	b	(g)
05.02.19.1270_1012	12	0-45	M10x12x100	11	48	61	109	40	660
05.02.19.1270_1214	14	0-45	M12x14x100	13	48	61	109	40	705
05.02.19.1270_1416	16	0-55	M14x16x125	15	57	72	129	50	1190
05.02.19.1270_1618	18	0-55	M16x18x125	17	57	72	129	50	1265

Destek kullanmadan 0-55 mm arası  
kullanım imkanı sağlar.

Product provides using between 0-55 mm  
without using support.

20. KADEMELİ BAĞLAMA PABUCU NR. 1205  
STEPPED COUPLING CLAMP

Ürün - Product : Nr. 1205  
Malzeme - Material : Dövme Çelik / Forged Steel  
Kaplama - Coating : Çinko / Zinc



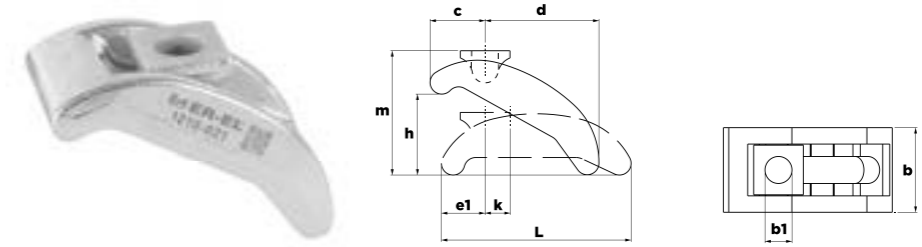
ÜRÜN KODU	b1	a	DIN 787	m	h	b x L	c	d	e1	k x3	(g)
05.02.20.1205_017	17	16-18	-	93	15-50	65x165	39	128	30	17	2100
05.02.20.1205_021	21	20-22	-	111	20-65	75x189	43	146	33	19	3200
05.02.20.1205_025	25	24-28	-	126	20-75	85x213	49	164	39	21	4500
05.02.20.1205_31	31	36	-	143.5	20-85	95x238	56	182	46	23	6300
05.02.20.1205_016	17	16	M16x16x125	93	15-50	65x165	39	128	30	17	2500
05.02.20.1205_018	17	18	M16x18x125	93	15-50	65x165	39	128	30	17	2500
05.02.20.1205_020	21	20	M20x20x160	111	20-65	75x189	43	146	33	19	3900
05.02.20.1205_022	21	22	M20x22x160	111	20-65	75x189	43	146	33	19	3900
05.02.20.1205_024	25	24	M24x24x200	126	20-75	85x213	49	164	39	21	5700
05.02.20.1205_028	25	28	M24x28x200	126	20-75	85x213	49	164	39	21	5700
05.02.20.1205_036	31	36	M30x36x250	143.5	20-85	95x238	56	182	46	23	8800

Destek kullanmadan 15-85mm arası kullanım imkanı sağlar.

It provides using between 15-85 mm without supporting.

20. KADEMELİ BAĞLAMA PABUCU NR. 1210  
STEPPED COUPLING CLAMP

Ürün - Product : Nr. 1210  
Malzeme - Material : Sertleştirilmiş / Hardened  
: Dövme Çelik / Forged Steel  
Kaplama - Coating : Çinko / Zinc



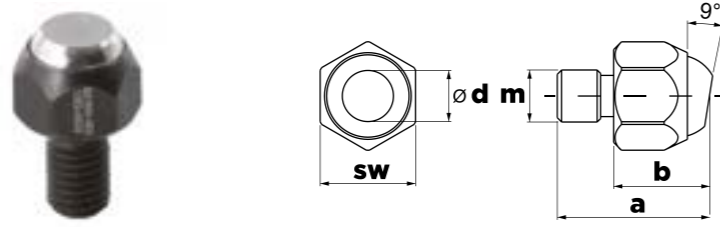
ÜRÜN KODU	b1	a	DIN 787	m	h	b x L	c	d	e1	k x3	(g)
05.02.20.1210_013	13	12-14	-	52	0-40	40x90	28	48	23	14	340
05.02.20.1210_017	17	16-18	-	80	0-60	58x130	38	74	29	18	990
05.02.20.1210_021	21	20-22	-	98	0-75	68x140	46	80	32	20	1450
05.02.20.1210_025	25	24-28	-	110	0-90	78x175	52	100	39	24	2360
05.02.20.1210_012	13	12	M12x12x100	52	0-40	40x90	28	48	23	14	400
05.02.20.1210_014	13	14	M12x14x100	52	0-40	40x90	28	48	23	14	420
05.02.20.1210_016	17	16	M16x16x160	80	0-60	58x130	38	74	29	18	1140
05.02.20.1210_018	17	18	M16x18x160	80	0-60	58x130	38	74	29	18	1145
05.02.20.1210_020	21	20	M20x20x200	98	0-75	68x140	46	80	32	20	1560

Destek kullanmadan 0-75mm arası kullanım imkanı sağlar.

It provides using between 0-75 mm without supporting.

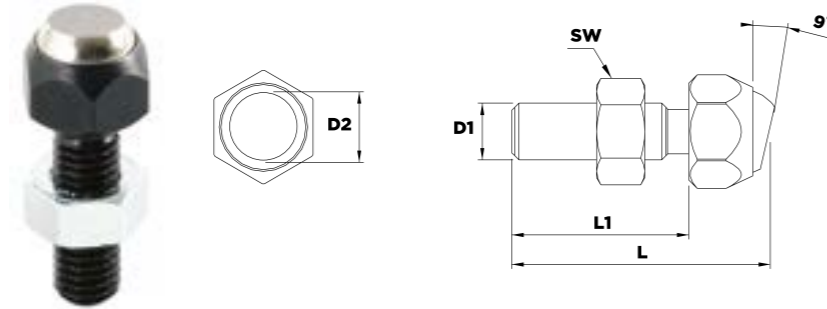
23. OYNAR BAŞLI BASKI PABUCU NR. 1282 DÜZ  
PIVOTING HEAD PAD PRINTING

Ürün - Product : Nr. 1282  
Malzeme - Material : Serleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	a	b	m	d	sw	(g)
05.02.23.1282_0825	25	12	M8	8	14	10
05.02.23.1282_1030	30	17	M10	10	17	30
05.02.23.1282_1235	35	22	M12	12	22	60
05.02.23.1282_1642	42	26	M16	14	27	125

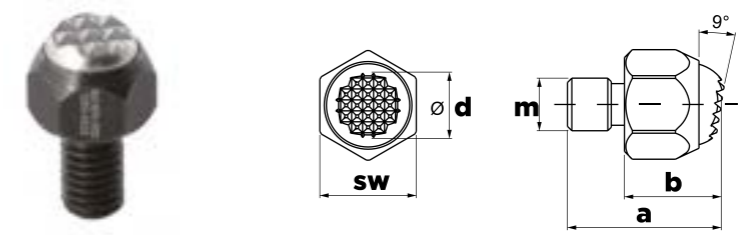
23. OYNAR BAŞLI BASKI PABUCU UZUN NR. 1282 DÜZ



ÜRÜN KODU	d1	d2	L	L1	sw	(g)
05.02.23.1282_25D	M8	8	36.6	25	13	26
05.02.23.1282_30D	M10	10	45.7	30	17	42
05.02.23.1282_35D	M12	12	50.7	35	17	53
05.02.23.1282_40D	M16	14	60.7	40	24	117
05.02.23.1282_50D	M20	14	77.3	50	30	240

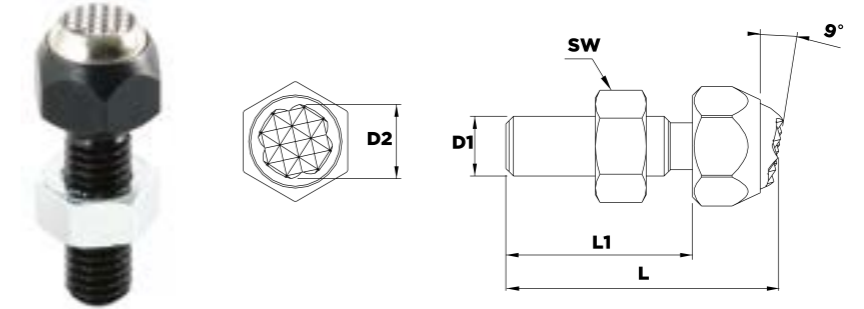
23. OYNAR BAŞLI BASKI PABUCU NR. 1283 TIRTILLI  
PIVOTING HEAD PAD PRINTING

Ürün - Product : Nr. 1283  
Malzeme - Material : Serleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	a	b	m	d	sw	(g)
05.02.23.1283_0825	25	12	M8	8	14	10
05.02.23.1283_1030	30	17	M10	10	17	30
05.02.23.1283_1235	35	22	M12	12	22	60
05.02.23.1283_1642	42	26	M16	14	27	120

23. OYNAR BAŞLI BASKI PABUCU UZUN NR. 1283 TIRTILLI

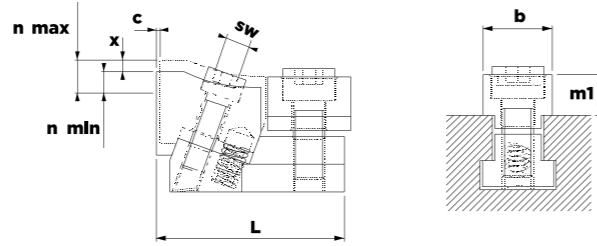


ÜRÜN KODU	d1	d2	L	L1	sw	(g)
05.02.23.1282_25D	M8	8	36.6	25	13	26
05.02.23.1282_30D	M10	10	45.7	30	17	42
05.02.23.1282_35D	M12	12	50.7	35	17	53
05.02.23.1282_40D	M16	14	60.7	40	24	117
05.02.23.1282_50D	M20	14	77.3	50	30	240

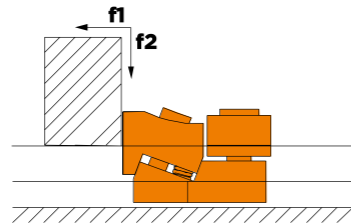
## 24. PENÇE PABUÇ NR. 2170

### JAW CLAMP

Ürün - Product : Nr. 2170  
Malzeme - Material : Serleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU	c	n		x	L	b	m1	sw	sıkma kuvveti		(g)
		min	max						f1 kgf	f2 kgf	
05.02.24.2170_12	12	2	2	6	46	21	10	5	500	60	120
05.02.24.2170_14	14	2.5	2.5	7.5	51	26	10	6	550	70	200
05.02.24.2170_16	16	3	2.5	8.5	61	27.5	12	6	800	90	290
05.02.24.2170_18	18	3	2	8	67	35	13	8	900	100	420
05.02.24.2170_20	20	4	2.5	11	8.5	78	13	10	1200	140	640
05.02.24.2170_22	22	4.5	2.5	12	9.5	87	13	10	1600	190	830



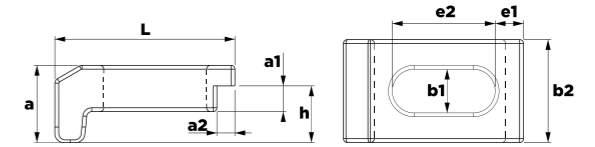
İş parçasını dayama ve pleyt yönüne sıkar.  
T-Kanal içinde çalışması yükseklik avantajı sağlar.  
DIN 650 T-Kanala uyumludur.

This product clamps the workpiece in the  
direction of resting and plate  
It's working in T-Slot provides height advantage  
It is in compliance with DIN 650 T-Slot

## 25. PLAKA SIKMA PABUÇ NR. 1387

### PLATE SLIDING CLAMP

Ürün - Product : Nr. 1387  
Malzeme - Material : Serleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

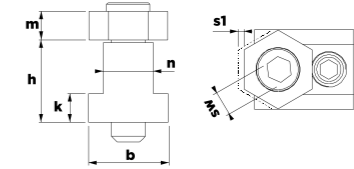


ÜRÜN KODU	L	b1	metrik		a	b2	a1xa2	e1	e2	h	(g)
			metrik	whit worth							
05.02.25.1387_12070	70	13	M12	1/2	21.5	40	8x6	11	40	14	255
05.02.25.1387_16070	70	17	M16	5/8	29.5	40	10x7	11	40	22	290

## 27. YANDAN SIKMA PABUÇ NR. 2150

### IN-SLOT SIDE CLAMP

Ürün - Product : Nr. 2150  
Malzeme - Material : Serleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

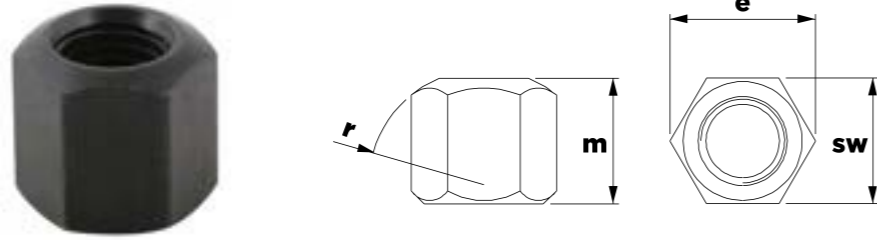


ÜRÜN KODU	s1	m	sw	L	h	k	n	b	sıkma kuvveti		
									kgf	(g)	
05.02.27.2150_08	8	1.4	5	4	23	9.5	6	7.7	13	310	25
05.02.27.2150_10	10	1.4	5	4	23	14	6	9.7	15	310	35
05.02.27.2150_12	12	1.2	7	5	28	15	7	11.7	18	340	60
05.02.27.2150_14	14	1.7	7	7	30	22	8	13.7	22	800	95
05.02.27.2150_16	16	1.7	10	8	30	22	9	15.7	25	1500	130
05.02.27.2150_18	18	2	10	8	35	28	10	17.7	28	1500	190
05.02.27.2150_20	20	2.5	13	10	40	32	12	19.7	32	2000	290
05.02.27.2150_22	22	2.5	13	12	45	38	14	21.7	35	2000	390



01. TAKVİYELİ SOMUN NR. 1790  
HEXAGON NUT

Ürün - Product : Nr. 1790 / DIN 6330B  
Malzeme - Material : Serleştirilmiş / Hardened  
Kalite - Quality : 10  
Kaplama - Coating : Siyah / Black



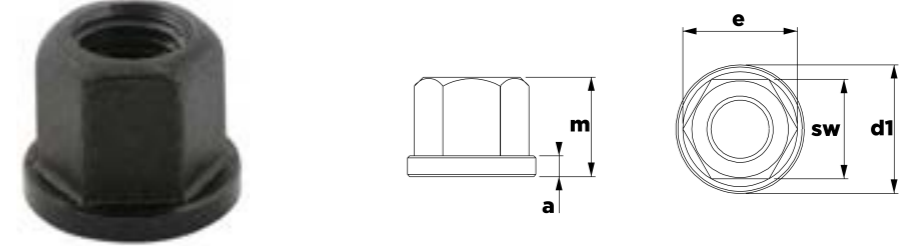
ÜRÜN KODU		sw	e	m	r	(g)
05.03.01.1790_06	M6	10	11.5	9	9	5
05.03.01.1790_08	M8	13	15	12	12	9
05.03.01.1790_10	M10	17	19.6	15	15	20
05.03.01.1790_12	M12	19	21.9	18	17	25
05.03.01.1790_14	M14	22	25.4	21	20	40
05.03.01.1790_16	M16	24	27.7	24	22	55
05.03.01.1790_18	M18	27	31.2	27	24	80
05.03.01.1790_20	M20	30	34.6	30	27	110
05.03.01.1790_22	M22	32	36.9	33	30	130
05.03.01.1790_24	M24	36	41.5	36	32	190
05.03.01.1790_30	M30	46	53.1	45	41	400
05.03.01.1790_36	M36	55	63.5	54	50	680
05.03.01.1790_42	M42	65	75	63	58	1150

Düz yüzey DIN 6340 pul ile kullanılır  
Radüslü yüzey DIN 6319D ve DIN 6319G pullar ile kullanılır.

Flat surface is used with DIN 6340 Washer  
This nut is used with Rad-top surface DIN 6319D and DIN 6319G washers

02. PULLU SOMUN NR. 1810  
NUT WITH WASHER

Ürün - Product : Nr. 1810 / DIN 6331  
Malzeme - Material : Serleştirilmiş / Hardened  
Kalite - Quality : 10  
Kaplama - Coating : Siyah / Black

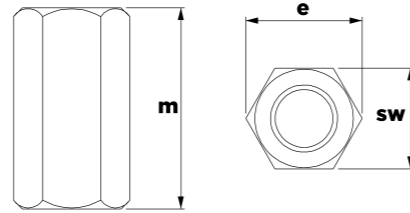


ÜRÜN KODU		sw	e	m	a	d1	(g)
05.03.02.1810_08	M8	13	14.7	12	3.5	18	12
05.03.02.1810_10	M10	17	19.2	15	4	22	25
05.03.02.1810_12	M12	19	21.5	18	4	25	30
05.03.02.1810_14	M14	22	24.9	21	4.5	28	50
05.03.02.1810_16	M16	24	27.2	24	5	31	65
05.03.02.1810_18	M18	27	30.6	27	5	34	90
05.03.02.1810_20	M20	30	34	30	6	37	130
05.03.02.1810_22	M22	32	36.3	33	6	40	155
05.03.02.1810_24	M24	36	40.8	36	6	45	220
05.03.02.1810_30	M30	46	52.3	45	8	58	465
05.03.02.1810_36	M36	55	62	54	10	68	500
05.03.02.1810_42	M42	65	75	63	12	80	1340

### 03. UZATMA SOMUNLARI NR. 1830

#### EXTENSION NUT

**Ürün - Product** : Nr. 1830 / DIN 6334  
**Malzeme - Material** : Serleştirilmiş / Hardened  
**Kalite - Quality** : 10  
**Kaplama - Coating** : Siyah / Black



ÜRÜN KODU		sw	e	m	(g)
05.03.03.1830_06	M6	10	11.7	18	8
05.03.03.1830_08	M8	13	15	24	19
05.03.03.1830_10	M10	17	19.6	30	40
05.03.03.1830_12	M12	19	21.6	36	55
05.03.03.1830_14	M14	22	25.4	42	90
05.03.03.1830_16	M16	24	27.7	48	115
05.03.03.1830_18	M18	27	31.2	54	165
05.03.03.1830_20	M20	30	34.6	60	230
05.03.03.1830_22	M22	32	36.9	66	245
05.03.03.1830_24	M24	36	41.5	72	400
05.03.03.1830_30	M30	46	53.1	90	840
05.03.03.1830_36	M36	55	63.5	108	1430
05.03.03.1830_42	M42	65	75	126	2330

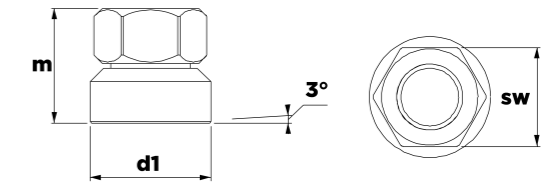
**DIN 787 T-Ayaklı saplama ve DIN 6379 düz saplamalarda uzatma amaçlı kullanılır.**

**It is used in DIN 787 T-Studs and DIN 6379 Straight Studs as extension.**

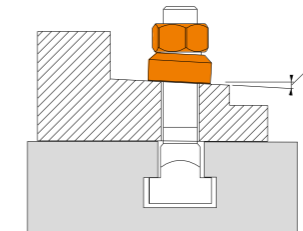
### 04. OYNAR BAŞLI PULLU SOMUN NR. 1850

#### BALL HEAD NUT

**Ürün - Product** : Nr. 1810  
**Malzeme - Material** : Serleştirilmiş / Hardened  
**Kalite - Quality** : 10  
**Kaplama - Coating** : Siyah / Black



ÜRÜN KODU		sw	d1	m	(g)
05.03.04.1850_08	M8	13	17	14	10
05.03.04.1850_10	M10	17	21	18	30
05.03.04.1850_12	M12	19	24	22	40
05.03.04.1850_16	M16	24	30	28	70
05.03.04.1850_20	M20	30	36	35	140
05.03.04.1850_24	M24	36	44	43	260



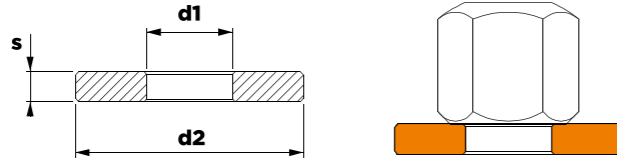
**Açılı yüzeylerde pulun kendi içindeki hareketinden dolayı kullanım avantajı sağlar.**

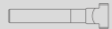

**It provides advantage for using on angled surfaces due to the movement of the washer within itself.**

## 01. KALIN PUL NR. 1870

### WASHER

**Ürün - Product** : Nr. 1870 / DIN 6340  
**Malzeme - Material** : Serleştirilmiş / Hardened  
**Kaplama - Coating** : Siyah / Black

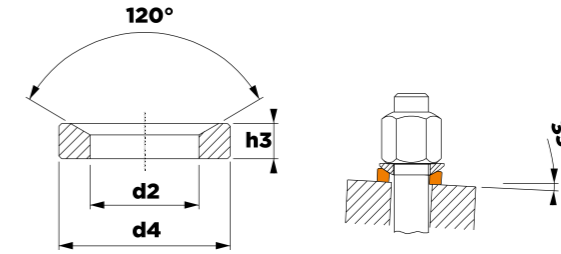


ÜRÜN KODU			d1	d2	s	 (g)
	metrik	with worth				
05.04.01.1870_06	M6	1/4	6.4	17	3	6
05.04.01.1870_08	M8	5/16	8.4	23	4	10
05.04.01.1870_10	M10	3/8	10.5	28	4	16
05.04.01.1870_12	M12	1/2	13	35	5	30
05.04.01.1870_14	M14	-	15	40	5	40
05.04.01.1870_16	M16	5/8	17	45	6	60
05.04.01.1870_18	M18	-	19	45	6	60
05.04.01.1870_20	M20	3/4	21	50	6	70
05.04.01.1870_22	M22	7/8	23	50	8	90
05.04.01.1870_24	M24	7/8	25	60	8	140
05.04.01.1870_30	M30	1 1/8	31	68	10	215
05.04.01.1870_36	M36	1 1/4	38	80	12	360
05.04.01.1870_42	M42	1 1/2	44	98	15	640

## 02. DERECELİ PUL NR. 1910

### GRADED WASHER

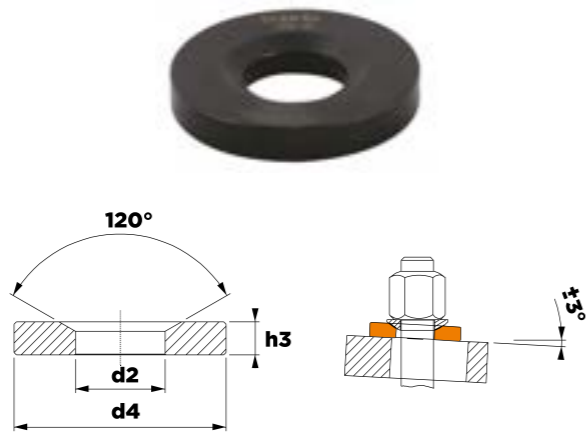
**Ürün - Product** : Nr. 1910 / DIN 6319D  
**Malzeme - Material** : Serleştirilmiş / Hardened  
**Kaplama - Coating** : Siyah / Black

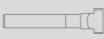



ÜRÜN KODU		max KN	d2	d4	h3	 (g)
05.04.02.1910_06	M6	9	7.1	12	2.8	2
05.04.02.1910_08	M8	17	9.6	17	3.5	4
05.04.02.1910_10	M10	26	12	21	4.2	6.5
05.04.02.1910_12	M12	38	14.2	24	5	10
05.04.02.1910_14	M14	53	16.5	28	5.6	10
05.04.02.1910_16	M16	73	19	30	6.2	15
05.04.02.1910_20	M20	117	23.2	36	7.5	25
05.04.02.1910_24	M24	168	28	44	9.5	55
05.04.02.1910_30	M30	269	35	56	12	120
05.04.02.1910_36	M36	394	42	68	15	220
05.04.02.1910_42	M42	542	49	78	18	365

04. DERECELİ PUL NR. 1930  
GRADED WASHER

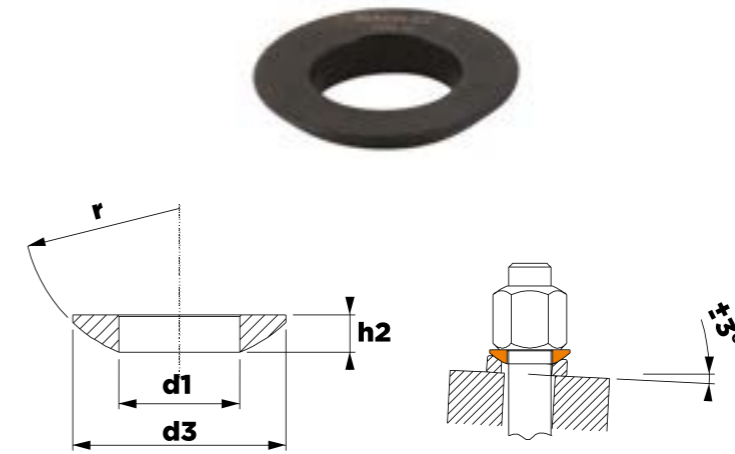
Ürün - Product : Nr. 1930 / DIN 6319G  
Malzeme - Material : Serleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

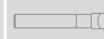



ÜRÜN KODU		d2	d4	h3	
					(g)
05.04.04.1930_06	M6	7.1	17	4	5.5
05.04.04.1930_08	M8	9.6	24	5	13
05.04.04.1930_10	M10	12	30	5	19
05.04.04.1930_12	M12	14.2	36	6	32
05.04.04.1930_14	M14	16.5	40	6	45
05.04.04.1930_16	M16	19	44	7	65
05.04.04.1930_20	M20	23.2	50	8	90
05.04.04.1930_24	M24	28	59	10	150
05.04.04.1930_30	M30	35	68	10	180
05.04.04.1930_36	M36	42	79	12	285
05.04.04.1930_42	M42	49	100	15	640

05. RADÜSLÜ PUL NR. 1890  
RAD-TOP WASHER

Ürün - Product : Nr. 1910 / DIN 6319C  
Malzeme - Material : Serleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black

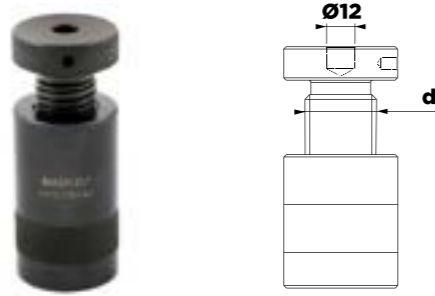


ÜRÜN KODU		d1	d3	h2	r	
						(g)
05.04.05.1890_06	M6	6.4	12	2.3	9	1.5
05.04.05.1890_08	M8	8.4	17	3.2	12	2.5
05.04.05.1890_10	M10	10.5	21	4.0	15	5
05.04.05.1890_12	M12	13	24	4.6	17	7
05.04.05.1890_14	M14	15	28	5.0	22	10
05.04.05.1890_16	M16	17	30	5.3	22	15
05.04.05.1890_20	M20	21	36	6.3	27	20
05.04.05.1890_24	M24	25	44	8.2	32	40
05.04.05.1890_30	M30	31	56	11.2	41	95
05.04.05.1890_36	M36	37	68	14.0	50	190
05.04.05.1890_42	M42	43	78	17.0	58	297

## 01. VİDALI YÜKSELTİCİ NR. 1510

### GRADED WASHER

Ürün - Product : Nr. 1930 / DIN 6319G  
Malzeme - Material : Serleştirilmiş / Hardened  
Kaplama - Coating : Siyah / Black



ÜRÜN KODU		d				
05.05.01.1510_100140	23-30	M16	34	32	1000	140
05.05.01.1510_140220	40-60	M16	34	32	1800	250
05.05.01.1510_210330	42-52	Tr 30x4	50	50	6000	570
05.05.01.1510_023030	50-70	Tr 30x4	50	50	6000	680
05.05.01.1510_260430	70-100	Tr 30x4	50	50	6000	960
05.05.01.1510_040060	100-140	Tr 30x4	50	50	6000	1395
05.05.01.1510_042052	140-220	Tr 30x4	54	54	6000	2285
05.05.01.1510_050070	210-330	Tr 30x6	58	58	8000	3950
05.05.01.1510_070100	260-430	Tr 30x6	68	68	8000	7250

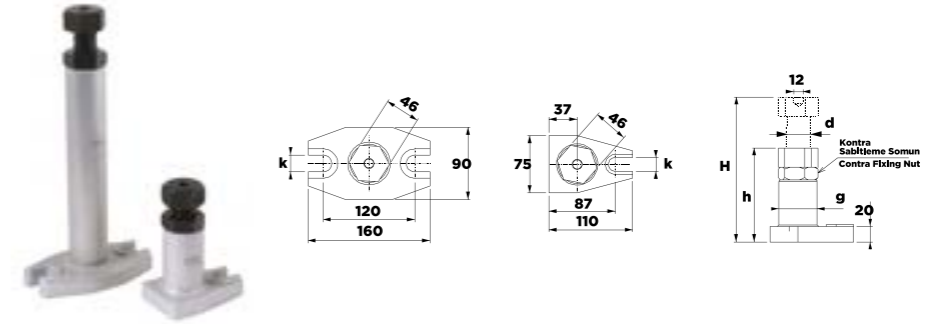
Nr. 1510 yükselticiler DIN 6314-6315-6316 pabuçlarda yükseltici destek amaçlı kullanılır. Hareketli parça üstünde bulunan Ø12mm delik Referans Nr. 1555-1560-1565-1570-1575 yükselticiler üst üste ve farklı amaçlı kullanılır.

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

## 02. VİDALI YÜKSELTİCİ NR. 1550

### TRAPEZE THREAD LIFTER SUPPORT

Ürün - Product : Nr. 1550






ÜRÜN KODU		d	g	k		
05.05.02.1550_100	100-140	Tr-30x6	49	18	6000	2.05
05.05.02.1550_140	140-200	Tr-30x6	49	18	6000	2.45
05.05.02.1550_200	200-320	Tr-30x6	49	22	4000	3.90
05.05.02.1550_320	320-550	Tr-30x6	49	22	2500	5.15

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

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

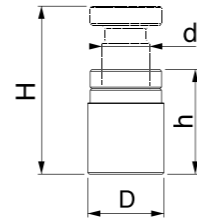
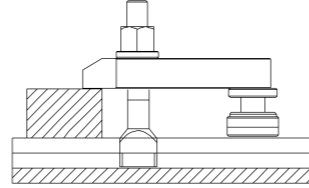
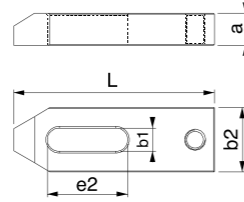
01. VİDALI YÜKSELTİCİ SET NR. 1990

SCREWED COUPLING SET WITH LIFTER




ÜRÜN KODU				d x L	DIN 6379
05.06.01.1990_1012	M10x12	265x255	6.44	M10x80-100-160-200	
05.06.01.1990_1214	M12x14	305x255	8.72	M12x80-100-160-200	
05.06.01.1990_1416	M14x16	435-255	12.98	M14x80-100-160-200	
05.06.01.1990_1618	M16x18	435-255	16.30	M16x80-100-160-200	
05.06.01.1990_1820	M18x20	495x255	17.82	M18x80-100-160-200	
05.06.01.1990_2022	M20x22	540x255	23.10	M20x100-125-160-200	



Nr.	L	b1		a	e2	b2
1330	80	11	M10	15	30	30
1330	100	14.5	M12-M14	20	40	40
1330	125	14.5	M12-M14	20	40	40
1330	125	18.5	M16-M18	25	45	50
1330	160	18.5	M16-M18	25	65	50
1330	160	22.5	M20-M22	30	60	60
1330	200	22.5	M20-M22	30	80	60



Nr.	h	H	d	D
1510	23	30	M16	34
1510	40	60	M16	34
1510	70	100	Tr 30x4	50
1510	100	140	Tr 30x4	50

Nr.												
12	M10	M10	M10	M10	M10	<table border="1"> <thead> <tr> <th>Nr.</th> <th>a</th> <th>12-14</th> </tr> </thead> <tbody> <tr> <td>1950</td> <td>16-18</td> <td>20-22</td> </tr> </tbody> </table>	Nr.	a	12-14	1950	16-18	20-22
Nr.	a	12-14										
1950	16-18	20-22										
14	M12	M12	M12	M12	M12							
16	M14	M14	M14	M14	M14							
18	M16	M16	M16	M16	M16							
20	M18	M18	M18	M18	M18							
22	M20	M20	M20	M20	M20							

Ürün: 52 Parça Vida Yükselticili İş Bağlama Set




- 6 adet DIN 508 T-Pabuç (M20x22'de 4 adet)
- 16 adet DIN 6379 saplama
- 6 adet DIN 6330B takviyeli somun
- 4 adet DIN 6331 pullu somun
- 2 adet Nr. 1830 uzatma somun
- 4 adet DIN 6340 kalın pul
- 4 adet Nr. 1330 destek delikli pabuç
- 8 adet Nr. 1510 vida diş yükseltici destek
- 1 adet Nr. 1950 T-Kanal temizleyici
- 1 adet statik boyalı çelik set

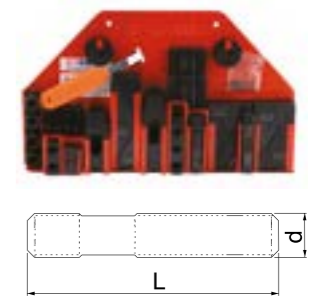
Product: 52 piece set of Screwed Coupling Set with Lifter


- 6 pieces of DIN 508 T-Nut (M20x22 4 piece)
- 16 pieces of DIN 6379 Stud
- 6 pieces of DIN 6330B Supported Nut
- 4 pieces of DIN 6331 Nut with Washer
- 2 pieces of No. 1830 Extension Nut
- 4 pieces of DIN 6340 Thick Washer
- 4 pieces of No. 1330 Clamp with Support Hole
- 8 pieces of No. 1510 Screw Thread Lifter Support
- 1 piece of No. 1950 T-Slot Scraper
- 1 piece of Steel Set with Statical Paint

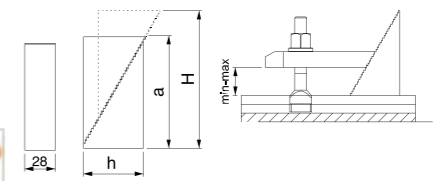
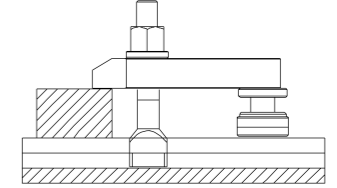
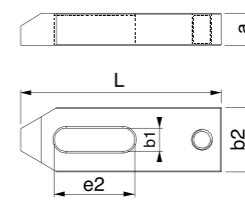
02. YÜKSELTİCİ MERDİVEN SET NR. 2010

COUPLING SET WITH SERRATED HELL BLOCK

ÜRÜN KODU				d x L	DIN 6379
05.06.02.2010_1012	M10x12	330x255	7.27	M10x80-100-160-200	
05.06.02.2010_1214	M12x14	380x255	9.26	M12x80-100-160-200	
05.06.02.2010_1416	M14x16	435x255	12.29	M14x80-100-160-200	
05.06.02.2010_1618	M16x18	435x255	15.62	M16x80-100-160-200	
05.06.02.2010_1820	M18x20	495x255	18.00	M18x80-100-160-200	



Nr.	L	b1		a	e2	b2
1290	80	11	M10	15	30	30
1290	100	11	M10	15	45	30
1290	100	14.5	M12-M14	20	45	40
1290	125	14.5	M12-M14	20	55	40
1290	125	18.5	M16-M18	25	65	50
1290	160	18.5	M16-M18	25	65	50



Nr.												
12	M10	M10	M10	M10	M10	<table border="1"> <thead> <tr> <th>Nr.</th> <th>a</th> <th>12-14</th> </tr> </thead> <tbody> <tr> <td>1950</td> <td>16-18</td> <td>20-22</td> </tr> </tbody> </table>	Nr.	a	12-14	1950	16-18	20-22
Nr.	a	12-14										
1950	16-18	20-22										
14	M12	M12	M12	M12	M12							
16	M14	M14	M14	M14	M14							
18	M16	M16	M16	M16	M16							
20	M18	M18	M18	M18	M18							

Nr.	h-H	a	min-max
1310	37-85	57	0-40
1310	48-112	73	0-60
1310	58-139	90	0-75
1310	66-165	108	0-90

Ürün: 52 Parça Merdiven Destekli İş Bağlama Set

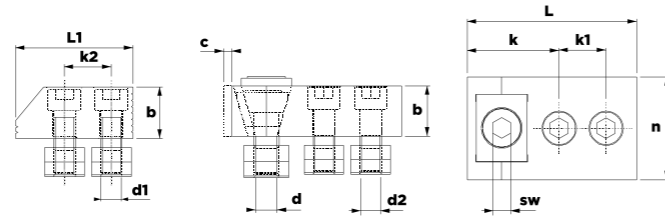
- 6 adet DIN 508 T-Pabuç
- 16 adet DIN 6379 saplama
- 6 adet DIN 6330B takviyeli somun
- 4 adet DIN 6331 pullu somun
- 2 adet 1830 uzatma somun
- 4 adet DIN 6340 kalın pul
- 4 adet Nr.1290 merdiven pabuç
- 8 adet Nr. 1310 merdiven diş destek
- 1 adet Nr. 1950 T-Kanal temizleyici
- 1 adet statik boyalı çelik set

Product: 52 piece set of Coupling Set with Serrated Hell Block

- 6 pieces of DIN 508 T-Nut (M20x22 4 piece)
- 16 pieces of DIN 6379 Stud
- 6 pieces of DIN 6330B Supported Nut
- 4 pieces of DIN 6331 Nut with Washer
- 2 pieces of No. 1830 Extension Nut
- 4 pieces of DIN 6340 Thick Washer
- 4 pieces of No. 1290 Serrated Clamp
- 8 pieces of No. 1310 Clamp with Support Hole
- 1 piece of No. 1950 T-Slot Scraper
- 1 piece of Steel Set with Statical Paint

03. DERECELİ YANDAN SIKMA SET NR. 2030  
GRADED SIDE WRENCH SET

ÜRÜN KODU	a	c	L	b	n	k	k1	k2	L1	d	d1	d2	sw	sıkma kuvveti kgf	tork değeri N-m	(g)
05.06.03.2030_14	14	5	90	23	47	47	26	26	65	M12	M12	M12	10	2000	35	3490
05.06.03.2030_16	16	5	90	23	47	47	26	26	65	M12	M12	M12	10	2000	35	3670
05.06.03.2030_18	18	5	95	28	57	52	26	26	65	M12	M12	M12	10	2000	35	5000
05.06.03.2030_20	20	5	95	28	57	52	26	26	65	M12	M12	M12	10	2000	35	5355
05.06.03.2030_22	22	5	95	28	57	52	26	26	65	M12	M12	M12	10	2000	35	5720
05.06.03.2030_24	24	5	95	28	57	52	26	26	65	M12	M12	M12	10	2000	35	6190
05.06.03.2030_28	28	5	95	28	57	52	26	26	65	M12	M12	M12	10	2000	35	6650

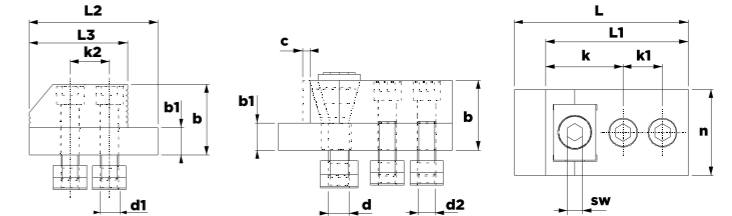


SET İÇİNDEKİLER / THE SET CONSISTS OF						
PARÇA PART						
ADET QUANTITY	2	2	10	10	1	1



04. DERECELİ YANDAN SIKMA PARALEL SET NR. 2050  
GRADED SIDE WRENCH SET (WITH PARALLEL)

ÜRÜN KODU	a	c	L	L1	L2	L3	b	b1	n	k	k1	k2	d	d1	d2	sw	sıkma kuvveti kgf	tork değeri N-m	(g)
05.06.04.2050_14	14	5	110	90	85	65	41	18	47	47	26	26	M12	M12	M12	6	1000	15	5920
05.06.04.2050_16	16	5	110	90	85	65	41	18	47	47	26	26	M12	M12	M12	6	1000	15	6210
05.06.04.2050_18	18	5	115	95	85	65	46	18	57	52	26	26	M12	M12	M12	8	1250	20	8090
05.06.04.2050_20	20	5	115	95	85	65	46	18	57	52	26	26	M12	M12	M12	8	1250	20	8440
05.06.04.2050_22	22	5	115	95	85	65	46	18	57	52	26	26	M12	M12	M12	8	1250	20	8825
05.06.04.2050_24	24	5	115	95	85	65	46	18	57	52	26	26	M12	M12	M12	8	1250	20	10080
05.06.04.2050_28	28	5	115	95	85	65	46	18	57	52	26	26	M12	M12	M12	8	1250	20	10750



SET İÇİNDEKİLER / THE SET CONSISTS OF						
PARÇA PART						
ADET QUANTITY	2	2	10	10	2	1

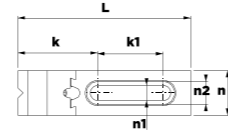
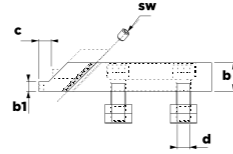
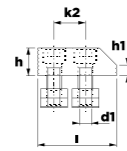


05. İŞ BAĞLAMA ELEMANLARI  
06. BAĞLAMA SETLERİ



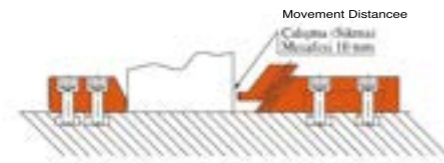
05. KIZAKLI YANDAN SIKMA SET NR. 2070  
SLIDING SIDE WRENCH SET

ÜRÜN KODU	a	c	L	b	b1	n	n1	n2	k	k1	k2	sw	ı	h	h1	d	d1	sıkma kuvveti kgf	tork değeri N-m	(g)
05.06.05.2070_14	14	10	142	24	8	37	12.5	18.5	65	54	26	6	65	23	10	M12	M12	850	15	3575
05.06.05.2070_16	16	10	142	24	8	37	12.5	18.5	65	54	26	6	65	23	10	M12	M12	850	15	3710
05.06.05.2070_18	18	14	145	28	10	48	12.5	18.5	74	56	26	8	65	28	11	M12	M12	1000	35	5215
05.06.05.2070_20	20	14	145	28	10	48	12.5	18.5	74	56	26	8	65	28	11	M12	M12	1000	35	5400
05.06.05.2070_22	22	14	145	28	10	48	12.5	18.5	74	56	26	8	65	28	11	M12	M12	1000	35	5610



SET İÇİNDEKİLER / THE SET CONSISTS OF

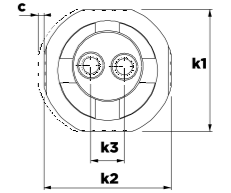
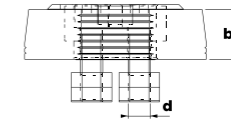
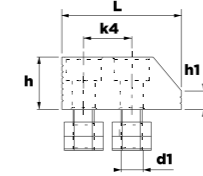
PARÇA PART						
ADET QUANTITY	2	2	8	8	2	1



05. İŞ BAĞLAMA ELEMANLARI  
06. BAĞLAMA SETLERİ

06. KOLLU YANDAN SIKMA SET NR. 2090  
ARMED SIDE PRESS SET

ÜRÜN KODU	a	c	b	k1	k2	k3	k4	L	h	h1	d	d1	sıkma kuvveti kgf	(g)
05.06.06.2090_14	14	3.5	30	95	99	26	26	65	28	10	M12	M12	3500	7925
05.06.06.2090_16	16	3.5	30	95	99	26	26	65	28	10	M12	M12	3500	8490
05.06.06.2090_18	18	3.5	30	95	99	26	26	65	28	10	M12	M12	3500	4610
05.06.06.2090_20	20	3.5	30	95	99	26	26	65	28	10	M12	M12	3500	8850
05.06.06.2090_22	22	3.5	30	95	99	26	26	65	28	10	M12	M12	3500	9030
05.06.06.2090_24	24	3.5	30	95	99	26	26	65	28	10	M12	M12	3500	9490
05.06.06.2090_28	28	3.5	30	95	99	26	26	65	28	10	M12	M12	3500	9800



SET İÇİNDEKİLER / THE SET CONSISTS OF

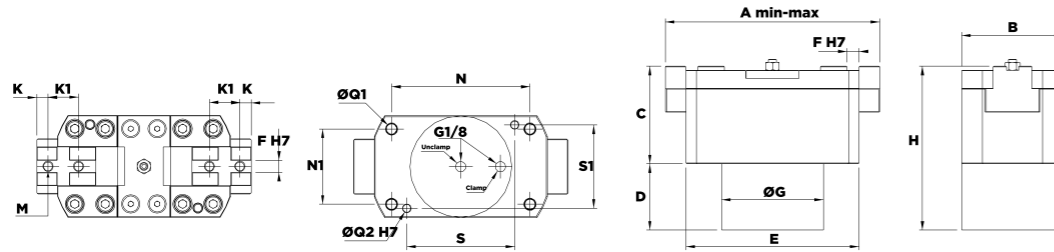
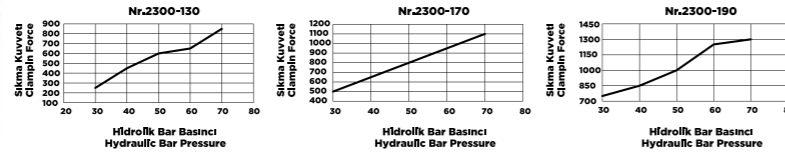
PARÇA PART						
ADET QUANTITY	2	2	1	8	8	1





01. 2300 MENGENELER  
HYDRAULIC CENTERING VICE

ÜRÜN KODU	A min-max	Strok	B	C	D	E	F	ØG	H	K	K1	N	N1	S	S1	M	Q1	Q2	(kg)
05.07.01.2300_130	142-162	10x2	90	83	60	130	10	86	143	9	22	76	64	106	60	M8	11	6	8.50
05.07.01.2300_170	170-210	20x2	100	96	78	170	12	98	174	11	30	136	74	106	80	M10	11	8	14
05.07.01.2300_190	202-242	20x2	125	101	80	190	16	121	181	11	36	144	96	110	100	M12	13	8	21



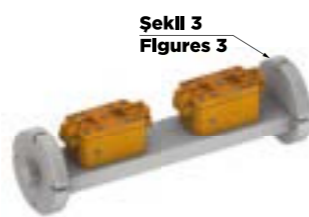
Şekil 1  
Figures 1



Şekil 2  
Figures 2

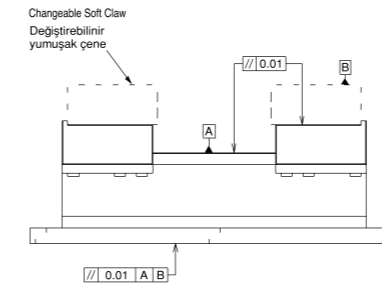
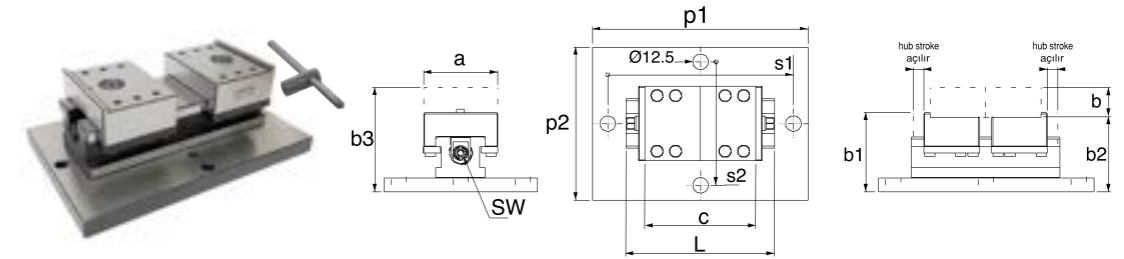


Şekil 3  
Figures 3

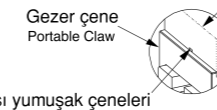


02. 2310 MENGENELER  
STEEL VICE WITH DOUBLE OPENING

ÜRÜN KODU	a	L	c	açılır opens 2 x mm	iş bağlama kapasitesi mm	b	b1	b2 ±0.02	b3	p1	p2	s1	s2	sıkma kuvveti kgf	tork değeri N-m	sw	(kg)
05.07.02.2310_060	60	120	90	20	120	235	705	675	91	174	124	150	100	800	45	9	7
05.07.02.2310_078	78	180	130	30	180	33	97	93	126	224	124	200	100	1500	110	12	14
05.07.02.2310_100	100	220	154	38	220	35	99	95	130	274	174	250	150	1500	110	12	22
05.07.02.2310_125	125	260	174	47	260	38	108	103	141	324	174	300	150	2000	190	14	35
05.07.02.2310_157	157	350	208	75	350	46	123	118	164	424	224	400	200	2200	210	17	65

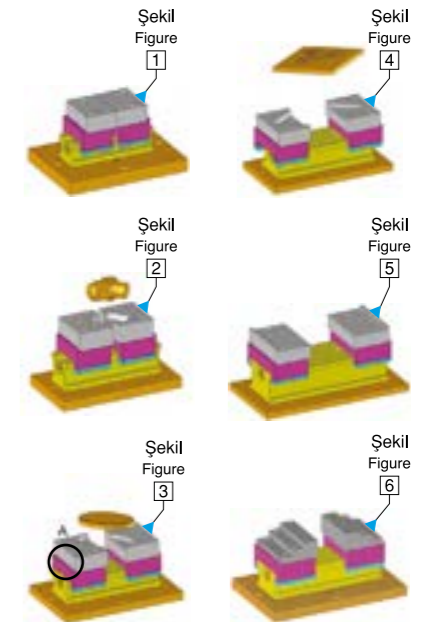


Değiştirilebilir  
Yumuşak Çene  
Changeable Soft Claw



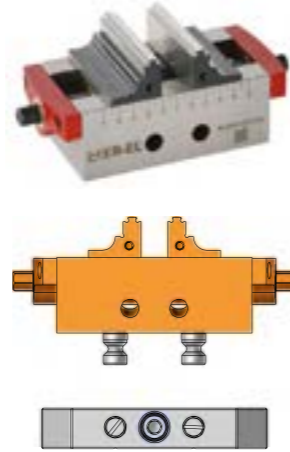
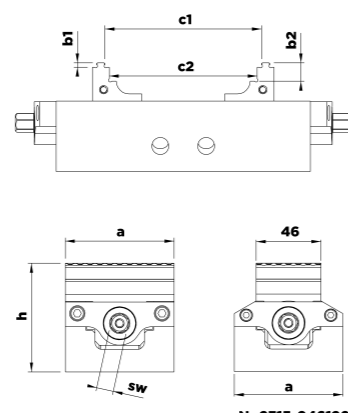
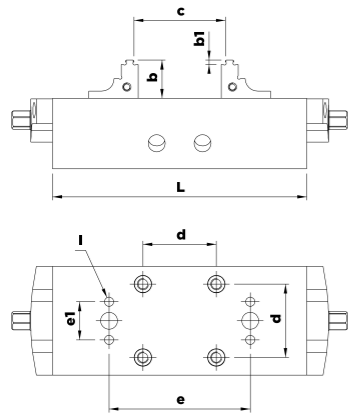
Gezer çene  
Portable Claw

Gezer çene kaması yumuşak çeneleri söküp takma hassasiyeti ±0.02 dir  
Demounting and mounting of portable jaw wedge soft claws is ±0.02.



03. 2315 MENGENELER  
5-AXIS VICE

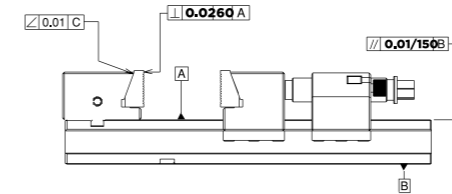
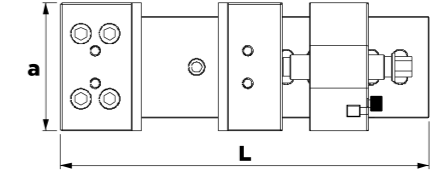
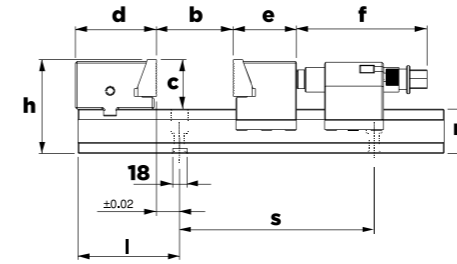
ÜRÜN KODU	a	h	L	c	c1	c2	b	b1	b2	e	e1	i	d	Kombinasyon	Kombinasyon	Silma Kuvveti	Nm	sw	(kg)
05.07.03.2315-046120	77	77	120	6-63	45-100	39-95	27	3	13	100	25	M5	52	2315-08	2315-052	1000	50	12	3.00
05.07.03.2315-046160	77	77	160	6-103	45-140	39-135	27	3	13	100	25	M5	52	2315-08	2315-052	1000	50	12	3.90
05.07.03.2315-077105	77	77	105	6-40	72-85	66-80	27	3	13	80	27	M6	52	2315-08	2315-052	1400	70	12	3.30
05.07.03.2315-077130	77	77	130	6-65	72-110	66-105	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	3.50
05.07.03.2315-077160	77	77	160	6-95	72-140	66-135	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	4.40
05.07.03.2315-077180	77	77	180	6-115	72-160	66-155	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	4.80
05.07.03.2315-077210	77	77	210	6-145	72-190	66-185	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	5.50
05.07.03.2315-097105	97	77	105	6-40	72-85	66-80	27	3	13	80	27	M6	52	2315-08	2315-052	1400	70	12	6.50
05.07.03.2315-097130	97	77	130	6-65	72-110	66-105	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	6.70
05.07.03.2315-097160	97	77	160	6-95	72-140	66-135	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	7.60
05.07.03.2315-097180	97	77	180	6-115	72-160	66-155	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	8.00
05.07.03.2315-097210	97	77	210	6-145	72-190	66-185	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	8.70
05.07.03.2315-125160	125	92	160	6-70	92-138	86-130	32	3	13	100	35	M8	96	2315-10	2315-096	2000	100	14	9.50
05.07.03.2315-125210	125	92	210	6-120	92-188	86-180	32	3	13	100	35	M8	96	2315-10	2315-096	2000	100	14	11.50
05.07.03.2315-125260	125	92	260	6-170	92-238	86-230	32	3	13	150	35	M8	96	2315-10	2315-096	2000	100	14	13.70
05.07.03.2315-125310	125	92	310	6-220	92-288	86-280	32	3	13	150	35	M8	96	2315-10	2315-096	2000	100	14	15.80
05.07.03.2315-125360	125	92	360	6-270	92-338	86-330	32	3	13	150	35	M8	96	2315-10	2315-096	2000	100	14	17.50



Nr.2315-046120  
Nr.2315-046160

04. 2330 MENGENELER  
MECHANICAL STEEL VICE

ÜRÜN KODU	a	b	c	L	d	e	f	h	i	n	s	silma kuvveti kgf	tork değeri N-m	(kg)
05.07.04.2330_127160	127	0-160	60	422	99	78	160	115	125	55	200	4500	170	28
05.07.04.2330_157200	157	0-200	60	462	99	78	160	115	150	55	200	4500	170	46
05.07.04.2330_157300	157	0-300	60	562	99	78	160	115	150	55	250	4500	170	51
05.07.04.2330_197300	197	0-300	60	562	99	78	160	115	150	55	250	4500	170	66
05.07.04.2330_197400	197	0-400	60	662	99	78	160	115	150	55	350	4500	170	73
05.07.04.2330_197500	197	0-500	60	762	99	78	160	115	150	55	250/250	4500	170	80
05.07.04.2330_197600	197	0-600	60	862	99	78	160	115	150	55	250-250	4500	170	86

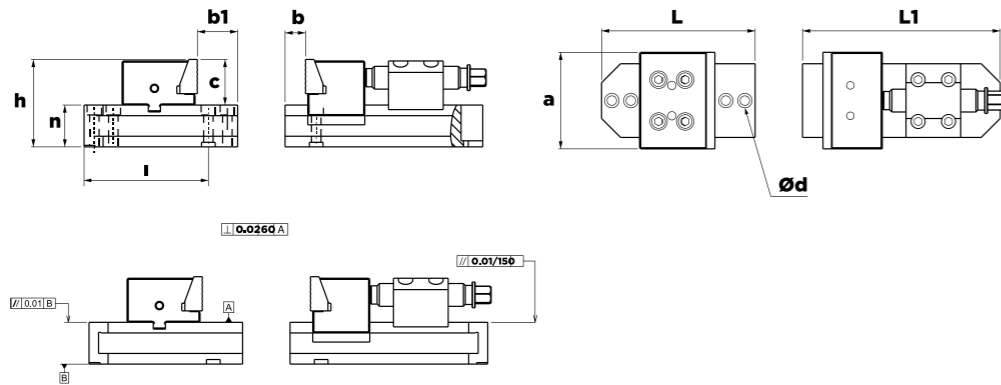


## 05. İŞ BAĞLAMA ELEMANLARI 07. MENGENELER



### 05. 2345 MENGENELER MODULER MECHANICAL STEEL VICE

ÜRÜN KODU	a	L	L1	b1	b	c	h	ı	n	Ød	sıkma kuvveti kgf	tork değeri N-m	(kg)
05.07.05.2345_127	127	202	260	53	0-58	60	115	163.5	55	12.5	4500	170	28

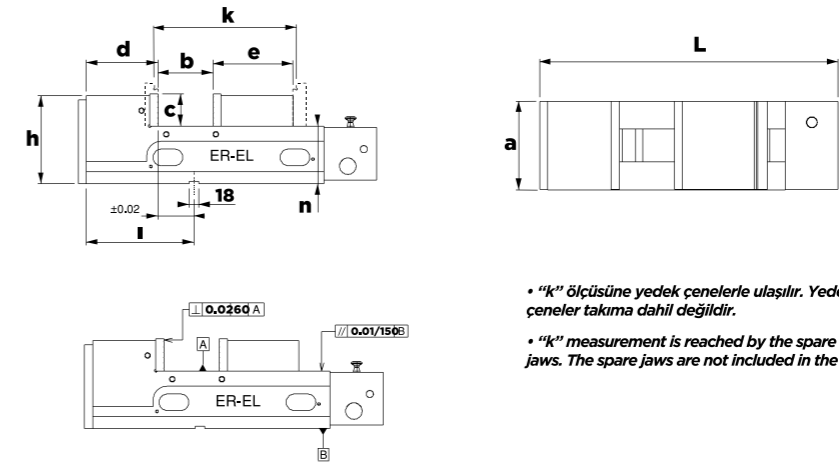


## 05. İŞ BAĞLAMA ELEMANLARI 07. MENGENELER



### 06. 2350 MENGENELER PNEUMATIC VICE

ÜRÜN KODU	a	b	c	k	L	d	e	h	ı	n	sıkma kuvveti kgf	hareket mes.	(kg)
05.07.06.2350_160E	160	160	58	310	530	130	145	160	190	105	2000	4	62

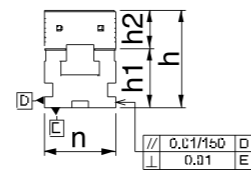
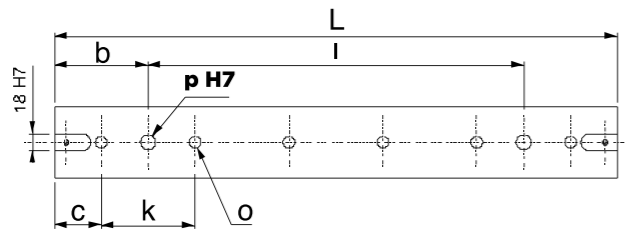
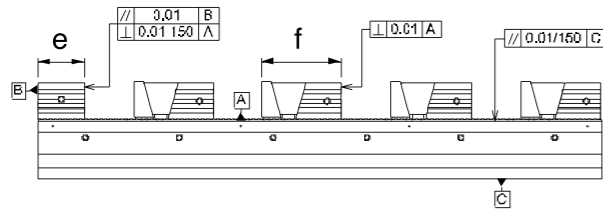


- "k" ölçüsüne yedek çenelerle ulaşılır. Yedek çeneler takıma dahil değildir.
- "k" measurement is reached by the spare jaws. The spare jaws are not included in the set.



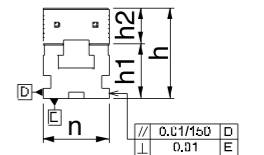
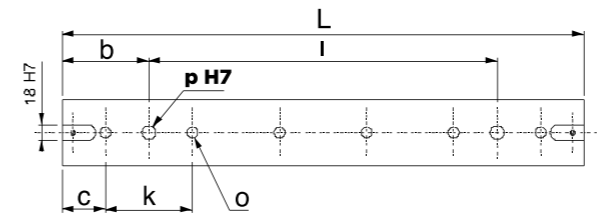
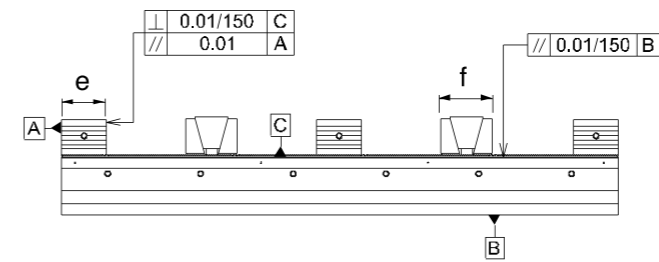
07. 2430 MENGENELER  
MULTI JAWED WRENCH TOOLING

ÜRÜN KODU	L	n	h1	h2	h	o	e	f	b	c	k	ı	p H7	standart bağlama adedi	sıkma kuvveti kgf	tork değeri N-m	(kg)
05.07.07.2430_055300	300	55	50	32	72	125	36	65	100	50	100	100	18	2	1750	25	9
05.07.07.2430_055500	500	55	50	32	72	125	36	65	100	50	100	300	18	4	1750	25	15
05.07.07.2430_075400	400	75	65	37	102	125	48	77	100	50	100	200	18	2	2000	35	20
05.07.07.2430_075600	600	75	65	37	102	125	48	77	100	50	100	400	18	4	2000	35	33
05.07.07.2430_100400	400	100	65	37	102	125	48	80	100	50	100	200	18	2	2500	50	27
05.07.07.2430_100600	600	100	65	37	102	125	48	80	100	50	100	400	18	3	2500	50	41



08. 2435 MENGENELER  
MULTI JAWED WRENCH TOOLING

ÜRÜN KODU	L	n	h1	h2	h	o	e	f	b	c	k	ı	p H7	standart bağlama adedi	sıkma kuvveti kgf	tork değeri N-m	(kg)
05.07.08.2435_055300	300	55	50	32	82	125	36	45	100	50	100	100	18	2	1750	25	8
05.07.08.2435_055500	500	55	50	32	82	125	36	45	100	50	100	300	18	4	1750	25	14
05.07.08.2435_075400	400	75	65	37	102	125	48	52	100	50	100	200	18	2	2000	35	19
05.07.08.2435_075600	600	75	65	37	102	125	48	52	100	50	100	400	18	4	2000	35	32
05.07.08.2435_100400	400	100	65	37	102	125	48	52	100	50	100	200	18	2	2500	50	26
05.07.08.2435_100600	600	100	65	37	102	125	48	52	100	50	100	400	18	4	2500	50	40

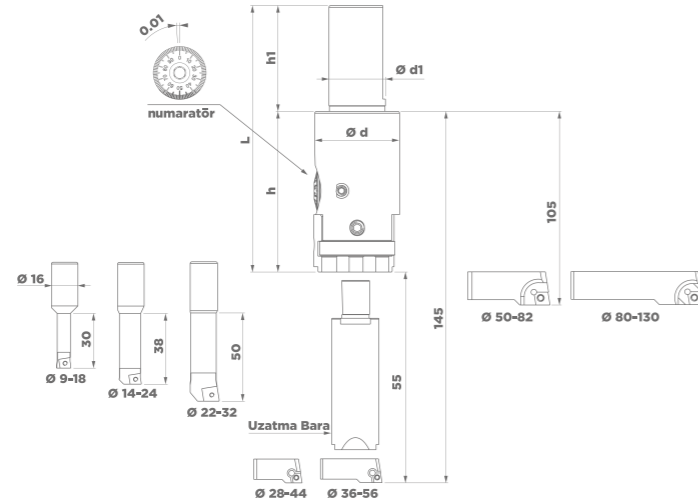


01. HASSAS DELİK İŞLEME APARATI NR. 2385  
PRECISION HOLE MAKING TOOL

ÜRÜN KODU	d	d1	h	h1	L	(kg)
05.09.01.2385_130	48	32	91	60	151	3.05

Ürün Nr. 2385 Hassas Delik İşleme Aparatı

• Ürün 0.01 işleme hassasiyetli olup 9mm'den 130mm çapa 145 mm derinliğe işlem yapabilir değiştirilebilir bara ve kartuş özelliği ile mükemmel kullanıma sahiptir.



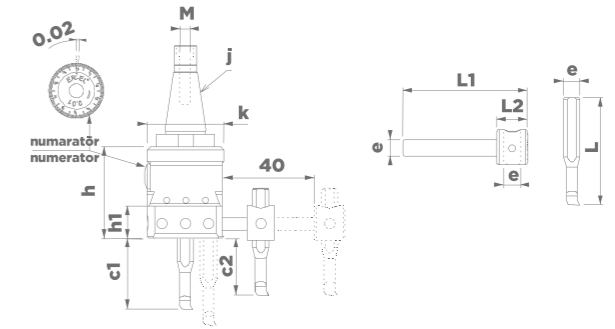
ÜRÜN KODU	Cinsi Type	Uç Tipi Type of Inserts	Devir Rotation	İlerleme Progress	ap
05.09.03.2386_00918	09-18 Bara	CCMT 06	2700 d/dk	F 75	01-0.5mm
05.09.03.2386_01424	14-24 Bara	CCMT 06	2500 d/dk	F 75	01-0.5mm
05.09.03.2386_02232	22-32 Bara	CCMT 09	2000 d/dk	F 50	01-1mm
05.09.03.2386_02844	28-44 Kartus	CCMT 06	1800 d/dk	F 60	01-1mm
05.09.03.2386_03656	36-56 Kartus	CCMT 06	1500 d/dk	F 65	01-1.5mm
05.09.03.2386_05082	50-82 Kartus	CCMT 09	1500 d/dk	F 70	01-2mm
05.09.03.2386_80130	80-130 Kartus	CCMT 09	360 d/dk	F 75	2mm
05.09.03.2386_00055	Uzatma Bara	-	400 d/dk	F 75	15mm

02. DELİK BÜYÜTME APARATI NR. 2390  
HOLE MACHINING APPARATUS

ÜRÜN KODU	J x M	k	h	h1	e	L	L1	L2	(g)
05.09.02.2390_010	ISO30-M12	83	99	35	18	85	128	26	6030
05.09.02.2390_015	ISO40-M16	83	99	35	18	85	128	26	6555
05.09.02.2390_020	ISO50-M24	83	99	35	18	85	128	26	9110
05.09.02.2390_025	BT40-M16	83	99	35	18	85	128	26	6900
05.09.02.2390_030	BT50-M24	83	99	35	18	95	128	26	9840
05.09.02.2390_035	SK40-M16	83	99	35	18	95	128	26	6750
05.09.02.2390_040	SK50-M24	83	99	35	18	95	128	26	8970
05.09.02.2390_045	MK4-M16	83	99	35	18	132	128	26	6180
05.09.02.2390_050	MK4 Kamalı	83	99	35	18	132	128	26	6880
05.09.02.2390_055	MK5-M20	83	99	35	18	132	128	26	7785
05.09.02.2390_060	MK5 Kamalı	83	99	35	18	132	128	26	7450



ÜRÜN KODU	L	L1	e	Kesici uç tipi Cutting Edge type	(g)
2395-1	85	-	18	DCMT 07	112
2395-2	95	-	18	DCMT 07	130
2395-3	132	-	18	DCMT 07	200
2395-4	-	128	18	-	360



Ø	c1		Devir dk. Revolution per minute
	min	max	
18	95	50	400-450
18	95	63	400-450
20	100	100	170-220

Ürünün kazağındaki alt deliklerine baralar takarak 18mm'den 100mm çapa kadar büyütme 0-100mm kadar derinliğe inebilir.

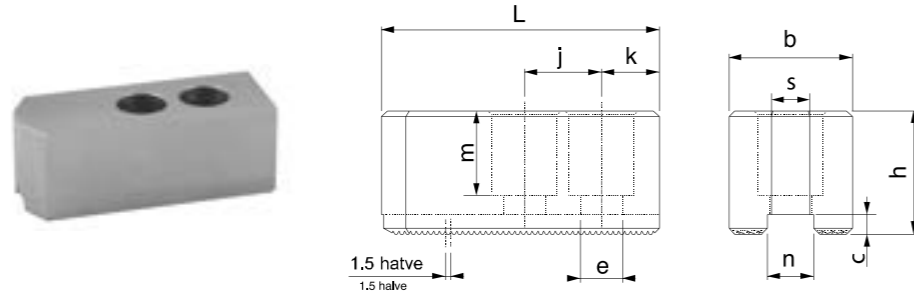
Ø	c2		Devir dk. Revolution per minute
	min	max	
95	210	55	90-170
95	210	65	90-170

Ürünün kazağındaki yan deliğe ara vasatı takarak, şekilde görüldüğü gibi 95mm'den - 210mm çapa kadar büyütme, 0-65mm kadar derinliğe inebilir.



01. YUMUŞAK AYAK STANDART NR. 2770  
CNC LATHE CHUCK SOFT PODOUS

ÜRÜN KODU	inch	hatve halve	L	b	h	n t7	c	k	j	e	m	s	Ø min	(g)
05.10.01.2770_0612	6" inch	15x60	72	32	32	12	5	15	20	11	22	10	6.5	1460
05.10.01.2770_0814	8" inch	15x60	98	37	37	14	5	24	25	13	22	14	8.5	2785
05.10.01.2770_1016	10" inch	15x60	110	42	42	16	5	30	30	13	29	14	10	4060
05.10.01.2770_1218	12" inch	15x60	130	50	52	18	5	39	30	15	32	17	12	6510
05.10.01.2770_1221	12" inch	15x60	130	50	52	21	5	39	30	17	32	19	12	6575



02. YUMUŞAK AYAK YÜKSEK NR. 2775  
CNC LATHE CHUCK SOFT PODOUS

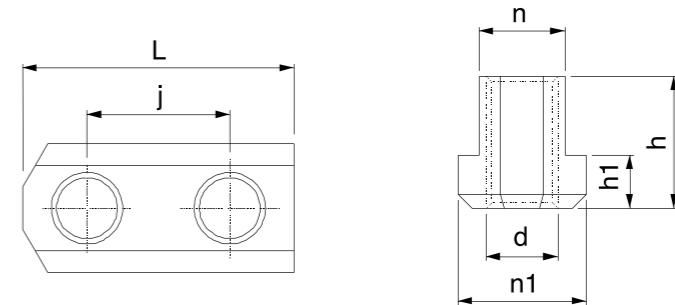
ÜRÜN KODU	inch	hatve halve	L	b	h	n t7	c	k	j	e	m	s	Ø min	(g)
05.10.02.2775_0612	6" inch	15x60	72	28	37	12	5	15	20	11	17	10	6.5	1415
05.10.02.2775_0814	8" inch	15x60	95	35	67	14	5	24	25	13	19	14	8.5	4465
05.10.02.2775_1016	10" inch	15x60	110	38	77	16	5	30	30	13	19	14	10	6850
05.10.02.2775_1218	12" inch	15x60	130	48	77	18	5	39	30	15	23	17	12	10075
05.10.02.2775_1221	12" inch	15x60	130	48	77	21	5	39	30	17	23	19	12	9600

03. YUMUŞAK AYAK T PABUÇ NR. 2790  
CNC LATHE CHUCK SOFT PODOUS T-NUT

Ürün - Material : Nr. 2790  
Kalite - Quality : Sertleştirilmiş  
Kaplama - Coating : Siyah / Black

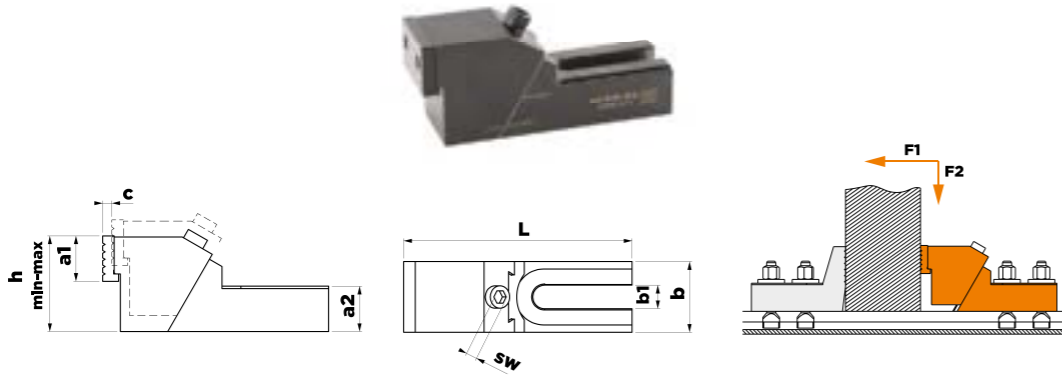
6" - 8" - 10" - 12" inch aynalar için

ÜRÜN KODU	inch	L	h	n t6	n1	h1	d	j	(g)
05.10.01.2770_0612	6" inch	38	18.5	12	18	7.5	M10	20	55
05.10.01.2770_0814	8" inch	45	21.5	14	21	8.5	M12	25	85
05.10.01.2770_1016	10" inch	52	21.5	16	22	8.5	M12	30	115
05.10.01.2770_1218	12" inch	55	33.5	18	26.5	13.5	M14	30	225
05.10.01.2770_1221	12" inch	55	27	21	29	13.5	M16	30	210

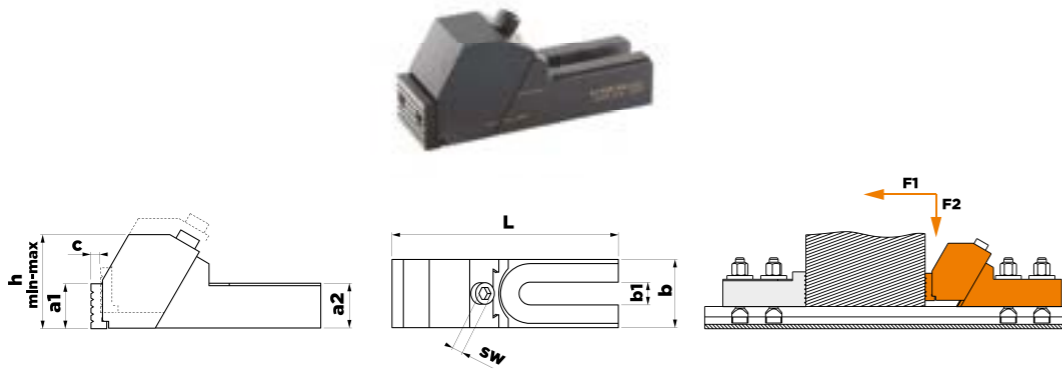


01. BLOK YANDAN SIKMA NR. 2095  
BLOCK SIDE PRESS

ÜRÜN KODU		a1	a2	b	b1	c	h min-max	L	sw	Nm	F1 sıkma kuvveti	F2 sıkma kuvveti	 (kg)
05.11.01.2095_571	14-16-18	37	37	57	19	8	78-98	185	10	30	2250	350	3.68
05.11.01.2095_572	20-22-24-28	37	45	76	26	11	98-118	240	14	55	3000	450	7.66

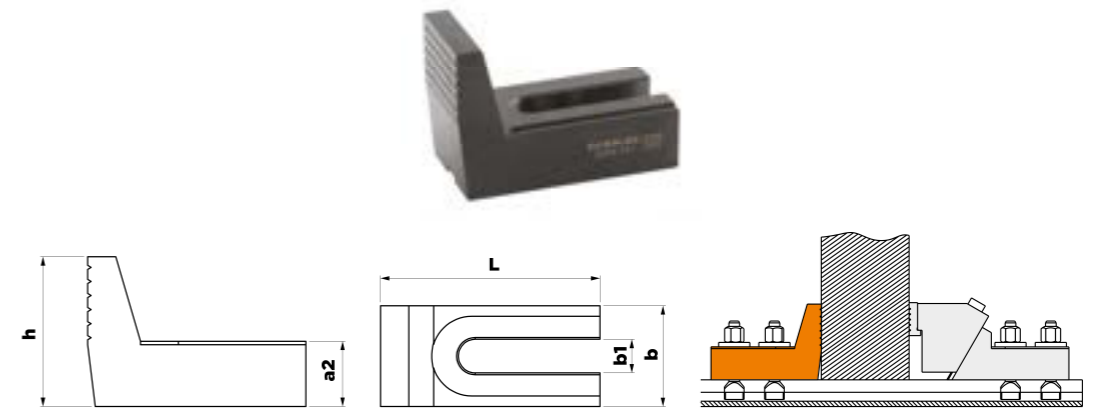


ÜRÜN KODU		a1	a2	b	b1	c	h min-max	L	sw	Nm	F1 sıkma kuvveti	F2 sıkma kuvveti	 (kg)
05.11.01.2095_761	14-16-18	37	37	57	19	8	78-98	185	10	30	2250	350	3.6
05.11.01.2095_762	20-22-24-28	37	45	76	26	11	98-118	240	14	55	3000	450	6.7

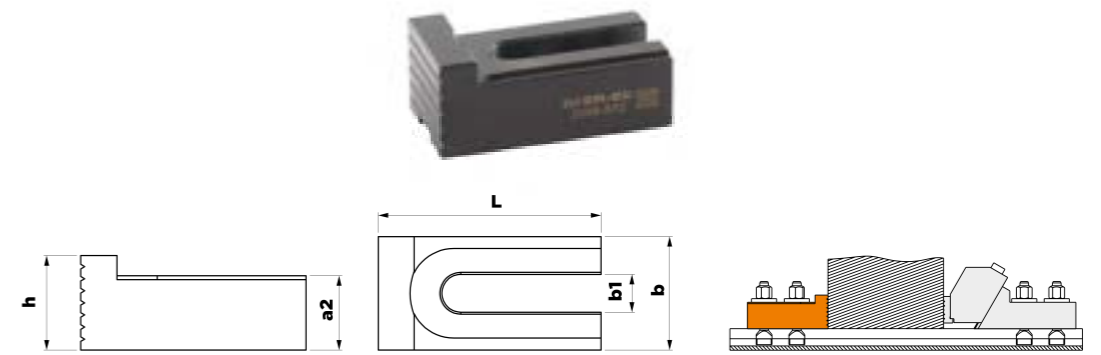


02. BLOK YANDAN SIKMA DAYAMA NR. 2098  
BLOCK STOPPER SIDE PRESS

ÜRÜN KODU		a2	b	b1	h	L	 (kg)
05.11.02.2098_571	14-16-18	37	57	19	85	124	2.025
05.11.02.2098_572	20-22-24-28	45	76	26	105	154	4.185

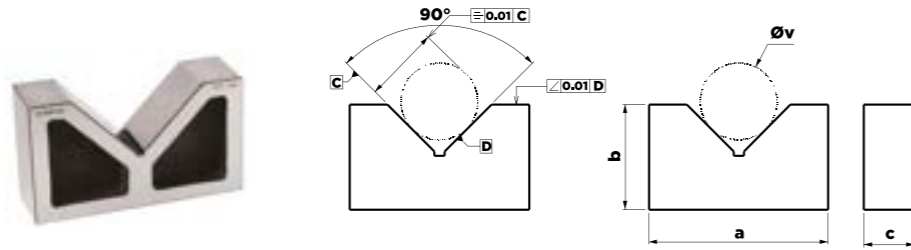


ÜRÜN KODU		a2	b	b1	h	L	 (kg)
05.11.02.2098_761	14-16-18	37	57	19	47	112	2.800
05.11.02.2098_762	20-22-24-28	45	76	26	49	140	4.185



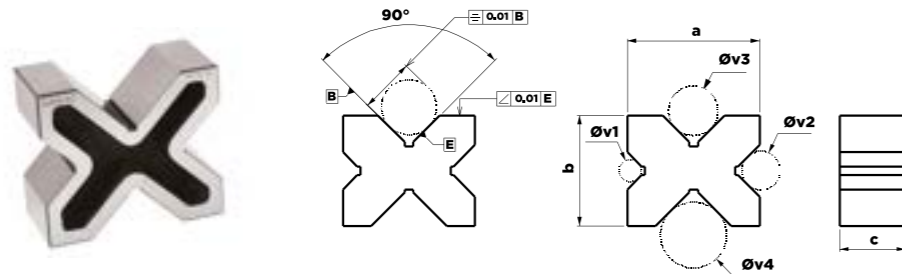
01. V YATAK NR. 2270  
V-CLAMPING BLOCK

ÜRÜN KODU	a	b	c	Ø		(g)
				min	max	
05.12.01.2270_140	140	82	40	20	110	1980
05.12.01.2270_204	204	115	66	15	150	6150



02. XV YATAK NR. 2290  
XV-CLAMPING BLOCK

ÜRÜN KODU	a	b	c	Øv1		Øv2		Øv3		Øv4		(g)
				min	max	min	max	min	max	min	max	
05.12.02.2290_120	120	100	60	12	40	12	60	12	75	12	90	1980
05.12.02.2290_150	152	132	74	15	80	15	95	15	110	15	120	6150



01. T KANAL TEMİZLEYİCİ NR. 1950  
T-SLOT SCRAPER

ÜRÜN KODU	a	(kg)
05.13.01.1950_1214	12-14	25
05.13.01.1950_1618	16-18	45
05.13.01.1950_2022	20-22	45
05.13.01.1950_2428	24-28	70

Ürün Nr. 1950 T-Kanal Temizleyici

- T-Kanalları temizlemek için kullanılır.

Product Nr. 1950 T-Slot Scraper

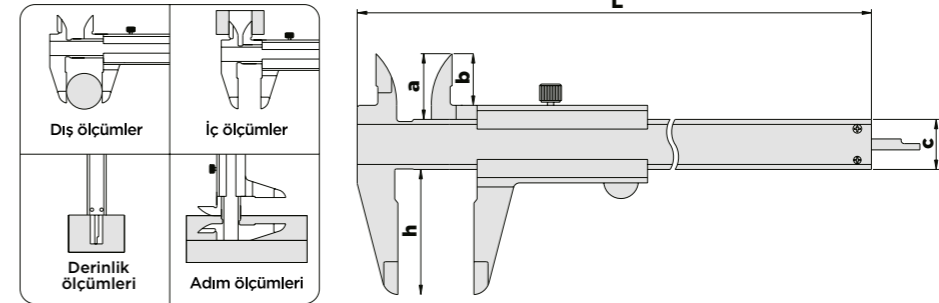
- This scraper is used to clean T-Slots





01. DIŞ ÇAP KUMPASLARI  
VERNIER CALIPER

- DIN862
- Krom kaplama okuma yüzeyi
- Paslanmaz çelik



Okuma 0,02mm/0,001"

ÜRÜN KODU	Aralık	Hassasiyet	a	b	c	h	L
06.01.01.150_0,02	0-150mm / 0-6"	± 0,03mm	20,5	15,5	16	40	235
06.01.01.200_0,02	0-200mm / 0-8"	± 0,03mm	23,5	19	16	50	290
06.01.01.300_0,02	0-300mm / 0-12"	± 0,03mm	27,5	22	20	64	414

Okuma 0,05mm/1/128"

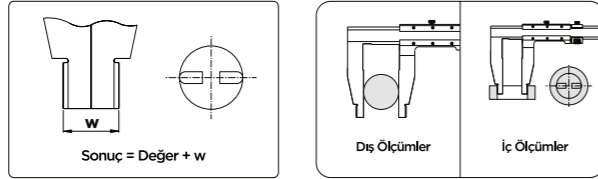
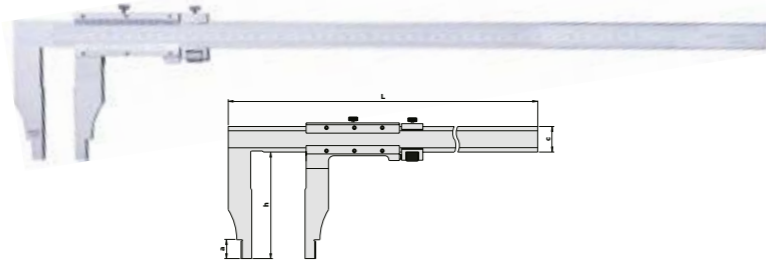
ÜRÜN KODU	Aralık	Hassasiyet	a	b	c	h	L
06.01.01.150_0,05	0-150mm / 0-6"	± 0,05mm	20,5	15,5	16	40	235
06.01.01.200_0,05	0-200mm / 0-8"	± 0,05mm	23,5	19	16	50	290
06.01.01.300_0,05	0-300mm / 0-12"	± 0,05mm	27,5	22	20	64	414

# 06\*

## ÖLÇÜM ALETLERİ

01. DIŞ ÇAP KUMPAKLARI  
VERNIER CALIPER

- Hassas ayarlamalı
- Paslanmaz çelik
- Krom kaplama okuma yüzeyi



Okuma 0,02mm/0,001"

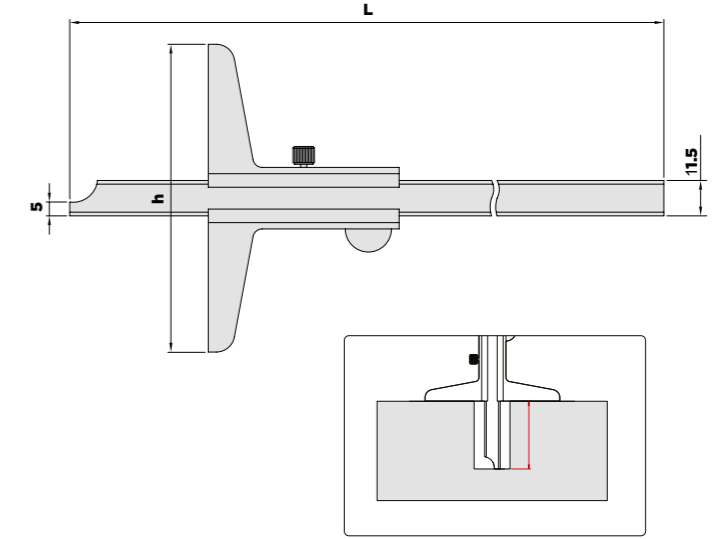
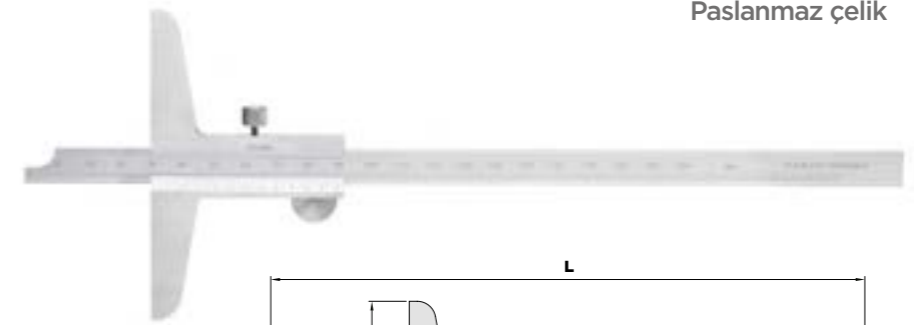
ÜRÜN KODU	Aralık	Hassasiyet	a	c	h	w	L
06.01.01.500_0,02	0-500mm/0-20"	± 0,05mm	18	24	100	20	670
06.01.01.600_0,02	0-600mm/0-24"	± 0,05mm	18	24	100	20	770
06.01.01.800_0,02	0-800mm/0-32"	± 0,08mm	24	32	140	20	1216
06.01.01.1000_0,02	0-1000mm/0-40"	± 0,08mm	24	42	180	20	1830
06.01.01.1500_0,02	0-1500mm/0-60"	± 0,11mm	24	42	200	20	2320
06.01.01.2000_0,02	0-2000mm/0-80"	± 0,14mm	24	32	150	20	1020

Okuma 0,05mm/0,001"

ÜRÜN KODU	Aralık	Hassasiyet	a	c	h	w	L
06.01.01.500_0,05	0-500mm/0-20"	± 0,08mm	18	24	100	20	670
06.01.01.600_0,05	0-600mm/0-24"	± 0,08mm	18	24	100	20	770
06.01.01.1000_0,05	0-1000mm/0-40"	± 0,10mm	24	42	180	20	1830
06.01.01.1500_0,05	0-1500mm/0-60"	± 0,15mm	24	42	200	20	2320
06.01.01.2000_0,05	0-2000mm/0-80"	± 0,20mm	24	32	140	20	1216

02. DERİNLİK KUMPAKLARI  
VERNIER DEPTH CALIPER

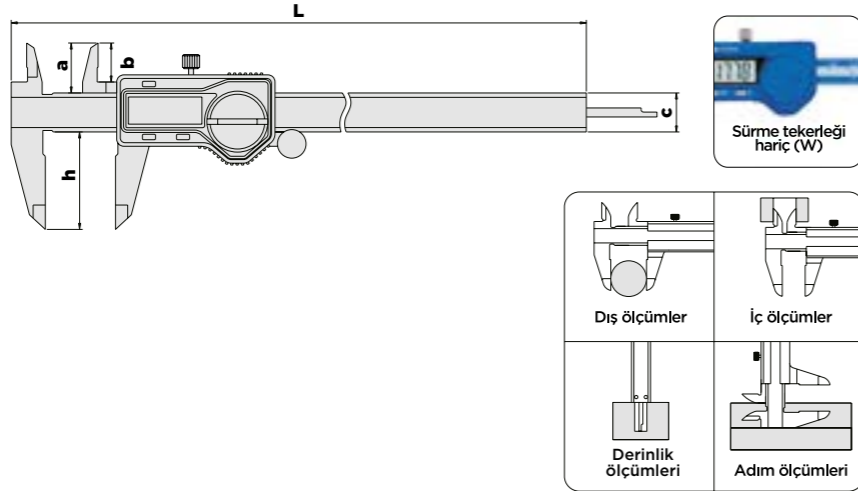
- Okuma: 0,02mm
- Krom kaplama okuma yüzeyi
- Paslanmaz çelik



ÜRÜN KODU	Aralık	Hassasiyet	h	L
06.01.02.150_0,02	0-150mm	± 0,03mm	100	245
06.01.02.200_0,02	0-200mm	± 0,03mm	100	282
06.01.02.300_0,02	0-300mm	± 0,04mm	100	382
06.01.02.500_0,02	0-500mm	± 0,05mm	150	585

01. DIŞ ÇAP KUMPASLARI  
DIGITAL CALIPER

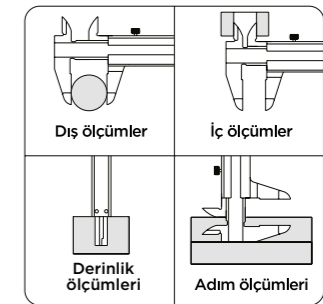
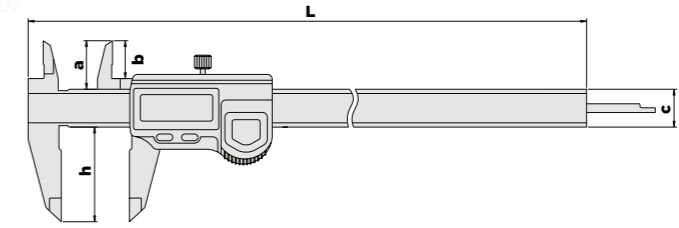
- Çözünürlük: 0,01mm/0,0005"
- Butonlar: on/off, zero, mm/inç. ABS
- Otomatik açma/kapama
- DIN 862 / Paslanmaz çelik



ÜRÜN KODU	Aralık	Hassasiyet	a	b	c	h	L
06.02.01.150	0- 150mm/0-6"	± 0,03mm	21	16	16	40	236
06.02.01.200	0-200mm/0-8"	± 0,03mm	24	19	16	50	286
06.02.01.300	0-300mm/0-12"	± 0,03mm	25	20,5	16	60	400
06.02.01.150W	0-150mm/0-6"	± 0,03mm	21	16	16	40	236
06.02.01.200W	0-200mm/0-8"	± 0,03mm	24	19	16	50	286
06.02.01.300W	0-300mm/0-12"	± 0,03mm	25	20,5	16	60	400

01. DIŞ ÇAP KUMPASLARI-IP67  
IP67 DIGITAL CALIPER

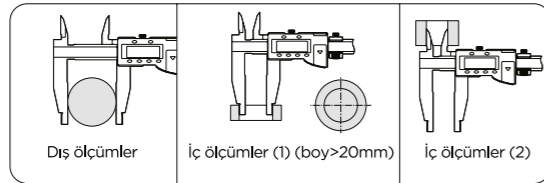
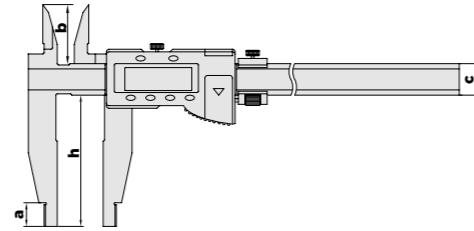
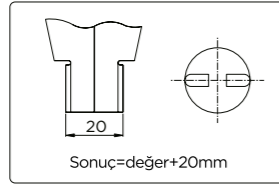
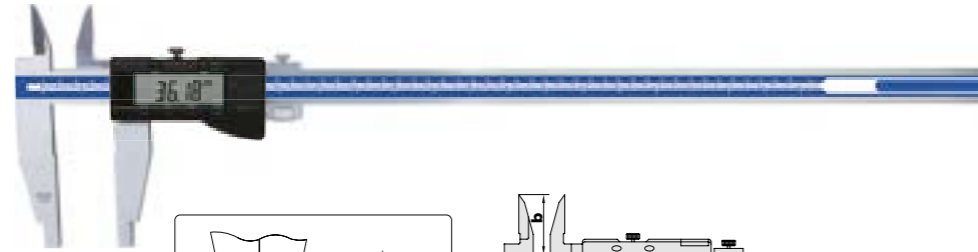
- IP67 Koruma
- Mutlak sistem
- Çözünürlük: 0,01mm/0,0005"
- Butonlar: on/off, zero, mm/inç, ABS
- Otomatik açma/kapama



ÜRÜN KODU	Aralık	Hassasiyet	a	b	c	h	L
06.02.01.150_IP67	0-150mm/0-6"	± 0,03mm	21	16,5	16	40	236
06.02.01.200_IP67	0-200mm/0-8"	± 0,03mm	24	20	16	50	286
06.02.01.300_IP67	0-300mm/0-12"	± 0,03mm	25	20,5	16	60	400

01. DIŞ ÇAP KUMPASLARI  
DIGITAL CALIPER

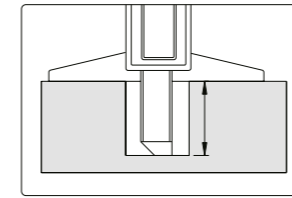
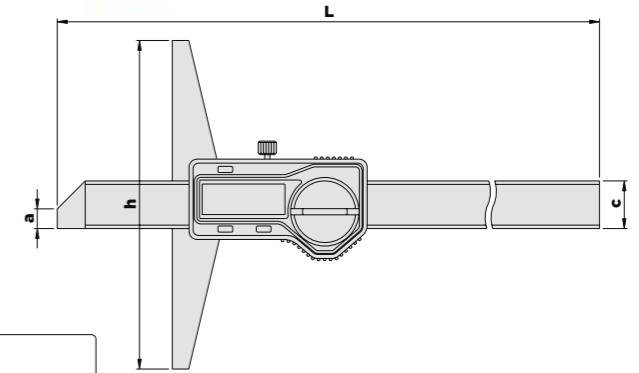
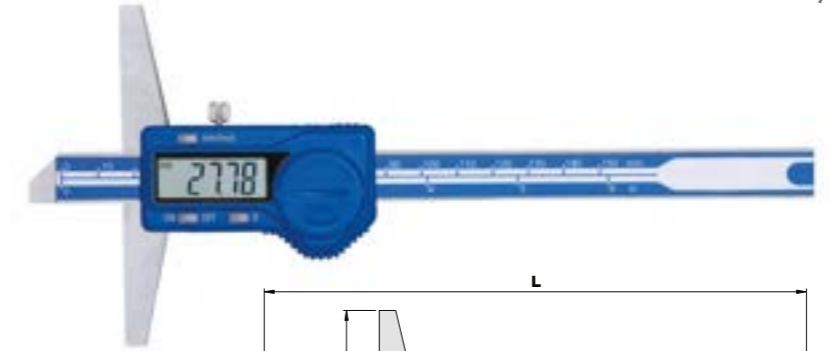
- Çözünürlük: 0,01mm/0,0005"
- Butonlar: on/off, zero, mm/inç. ABS, değer setleme
- Otomatik açma/kapama
- Paslanmaz çelik



ÜRÜN KODU	Aralık	Hassasiyet	a	b	c	h
06.02.01.500_100	0-500mm/0-20"	± 0,05mm	18	45	24	100
06.02.01.500_150	0-500mm/0-20"	± 0,06mm	18	45	24	150
06.02.01.500_200	0-500mm/0-20"	± 0,06mm	24	45	32	200
06.02.01.600_100	0-600mm/0-24"	± 0,05mm	18	45	24	100
06.02.01.600_150	0-600mm/0-24"	± 0,06mm	18	45	24	150
06.02.01.600_200	0-600mm/0-24"	± 0,06mm	24	45	32	200
06.02.01.1000_150	0-1000mm/0-40"	± 0,08mm	24	60	32	150
06.02.01.1000_200	0-1000mm/0-40"	± 0,08mm	24	60	32	200
06.02.01.1500_150	0-1500mm/0-60"	± 0,11mm	24	60	42	150
06.02.01.1500_200	0-1500mm/0-60"	± 0,12mm	24	60	42	200

02. DERİNLİK KUMPASLARI  
DIGITAL DEPTH CALIPER

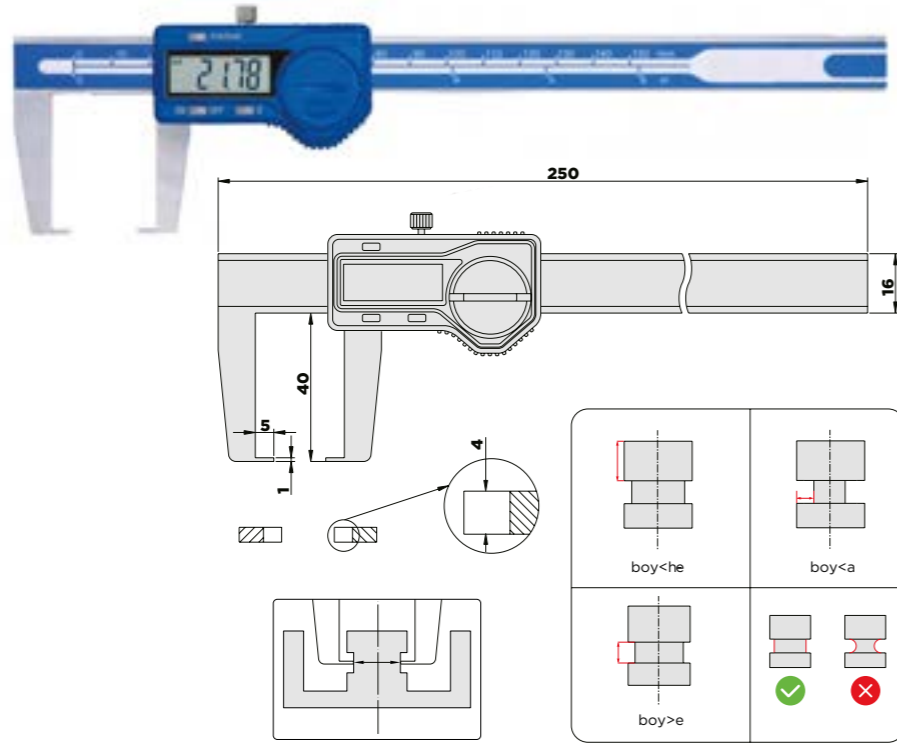
- Çözünürlük: 0,01mm/0,0005"
- Butonlar: on/off, zero, mm/inç
- Veri çıkışı (Kablo kodu: 100-11 veya 100-12)
- Otomatik açma/kapama
- Paslanmaz çelik



ÜRÜN KODU	Aralık	Hassasiyet	a	c	h	L
06.02.02.150	0-150mm/0-6"	± 0,03mm	6	14.5	100	230
06.02.02.200	0-200mm/0-8"	± 0,03mm	6	14.5	100	280
06.02.02.300	0-300mm/0-12"	± 0,04mm	6	14.5	150	380
06.02.02.500	0-500mm/0-20"	± 0,05mm	7	15	150	585

### 03. DIŞ ÇAP KANAL KUMPASLARI DIGITAL OUTSIDE NECK CALIPER

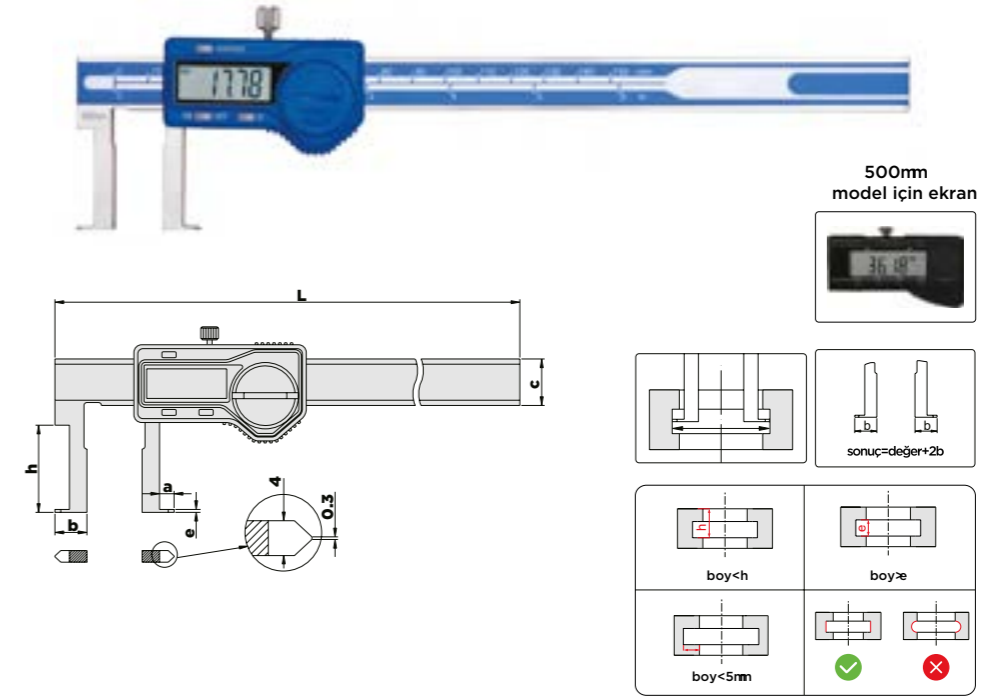
- Et kalınlığı ve kanal ölçümleri için
- Çözünürlük: 0,01mm/0,0005"
- Butonlar: on/off, zero, mm/inç
- Otomatik açma/kapama
- Paslanmaz çelik
- Veri çıkışı



ÜRÜN KODU	Aralık	Hassasiyet	a	c	e	h	L
06.02.03.150	0-150mm/0-6"	± 0,05mm	9	16	1,5	80	310
06.02.03.200	0-200mm/0-8"	± 0,05mm	10	16	1,5	60	410
06.02.03.300	0-300mm/0-12"	± 0,06mm	12	24	2	150	490

### 04. İÇ ÇAP KANAL KUMPASLARI DIGITAL DEPTH CALIPER

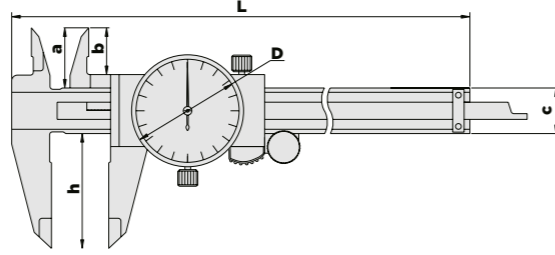
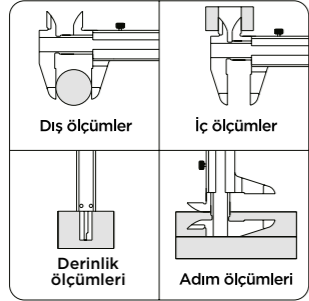
- Kanal ölçümleri için
- Çözünürlük: 0,01mm/0,0005"
- Butonlar: on/off, zero, mm/inç
- Veri çıkışı
- Otomatik açma/kapama
- Paslanmaz çelik



ÜRÜN KODU	Aralık	Hassasiyet	a	b	c	e	h	L
06.02.04.150	22-150mm	± 0,04mm	5	11	16	1	30	250
06.02.04.200	25-200mm	± 0,04mm	5	12,5	16	1	40	310
06.02.04.300	30-300mm	± 0,05mm	5	15	17	1,5	50	410
06.02.04.150	35-150mm	± 0,06mm	6	17,5	16	1,5	60	250
06.02.04.200	40-200mm	± 0,06mm	7	20	16	2,5	70	310
06.02.04.300	50-300mm	± 0,07mm	8	25	16	2,5	80	410
06.02.04.500	80-500mm	± 0,08mm	16	40	24	5,2	150	680

01. DIŞ ÇAP KUMPASLARI  
DIAL CALIPER

- Darbeye dayanıklı saat
- Paslanmaz çelik



Okuma 0,01mm

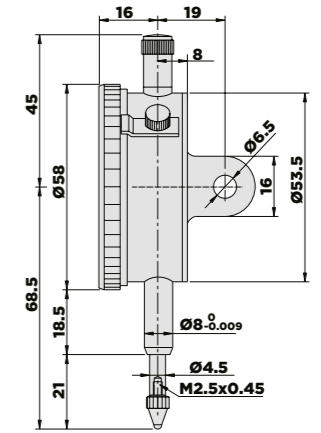
ÜRÜN KODU	Aralık	Hassasiyet	a	b	c	h	D	L
06.03.01.150_0,01	0-150mm	± 0,03mm	21	16,5	16	40	Ø39	233
06.03.01.200_0,01	0-200mm	± 0,03mm	24	19	16	50	Ø39	288
06.03.01.300_0,01	0-300mm	± 0,04mm	30	25	20	64	Ø44	390

Okuma 0,02mm

ÜRÜN KODU	Aralık	Hassasiyet	a	b	c	h	D	L
06.03.01.150_0,02	0-150mm	± 0,03mm	21	16,5	16	40	Ø39	233
06.03.01.200_0,02	0-200mm	± 0,03mm	24	19	16	50	Ø39	288
06.03.01.300_0,02	0-300mm	± 0,04mm	30	25	20	64	Ø44	390

01. KOMPARATÖR SAATLERİ  
DIAL INDICATOR

- Okuma: 0,01mm
- Limit göstergesi
- Her tur 0.2mm
- Kilitleme vidası



Uç (Opsiyonel)



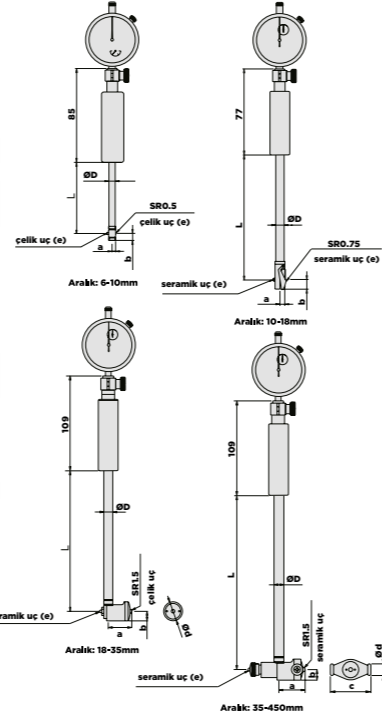
Uygulama



ÜRÜN KODU	Aralık	Kapak	Hassasiyet	Histerezis	Skala
06.04.01.0-3_0-01_k	3mm	kulaklı	14µm	3µm	0-100
06.04.01.0-5_0-01_k	5mm	kulaklı	16µm	3µm	0-100
06.04.01.0-10_0-01_k	10mm	kulaklı	17µm	3µm	0-100
06.04.01.0-3_0-01_d	3mm	düz	14µm	3µm	0-100
06.04.01.0-5_0-01_d	5mm	düz	16µm	3µm	0-100
06.04.01.0-10_0-01_d	10mm	düz	17µm	3µm	0-100

02. SİLİNDİR KOMPARATÖR SETLERİ  
PRECISION DIAL BORE GAUGE

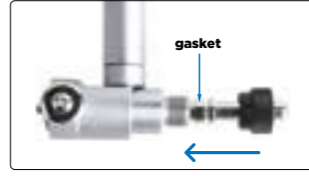
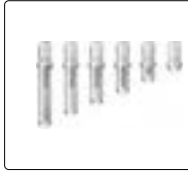
- Ahşap sapı ısı iletimini izole eder
- Opsiyonel aksesuar 531 serisi set mastarı



Ölçüm uçları (dahil)

Pul (dahil)

Seramik uç (e)

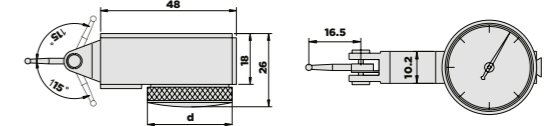


ÜRÜN KODU	Aralık (mm)	Mekanik saat	Uçlar	Pul	Hassasiyet	Tekrarlına bilirlilik	a	b	c	Ød	ØD	e	L
06.04.02.6_10	6-10	Aralık: 3mm Okuma: 0,01mm	9 Adet	2 Adet	± 0,012mm	3µm	3.6	5.7	/	/	45	SR1	48
06.04.02.10_18	10-18		9 Adet	2 Adet	± 0,012mm	3µm	5.6	7.8	/	/	6	SR1	105
06.04.02.18_35	18-35		9 Adet	2 Adet	± 0,015mm	3µm	12.2	6.4	/	127	9	SR1	141
06.04.02.35_60	35-60	Aralık: 10mm Okuma: 0,01mm	6 Adet	4 Adet	± 0,018mm	3µm	26	9	27	13	128	SR2	141
06.04.02.50_100	50-100		11 Adet	4 Adet	± 0,018mm	3µm	26	9	35	13	128	SR2	141
06.04.02.50_160	50-160		12 Adet	4 Adet	± 0,018mm	3µm	26	9	35	13	128	SR2	141
06.04.02.100_160	100-160		12 Adet	4 Adet	± 0,018mm	3µm	26	9	35	13	128	SR2	141
06.04.02.160_250	160-250		5 Adet	5 Adet	± 0,018mm	3µm	56.5	13	74.5	15	14.5	SR35	400
06.04.02.250_450	250-450	5 Adet	5 Adet	± 0,018mm	3µm	86.5	15	101.5	15	14.5	SR35	400	

ÜRÜN KODU	Aralık	Saat	Hassasiyet	Tekrarlına bilirlilik	İçeriği
06.04.02.35_160	35-160mm	Aralık: 10mm Okuma: 0,01mm	35-50mm ± 0,018mm 50-160mm ± 0,018mm	0,003mm	35-50mm uç (saat ve tutucu hariç) 50-160mm silindirik komparatörü
06.04.02.18_160	18-160mm	Aralık: 10mm Okuma: 0,01mm	18-35mm ± 0,015mm 35-60mm ± 0,018mm 50-160mm ± 0,018mm	0,003mm	18-35mm silindirik komparatörü 35-60mm (saat hariç) 50-160mm (saat hariç)

03. SALGI KOMPARATÖRLERİ  
DIAL TEST INDICATOR

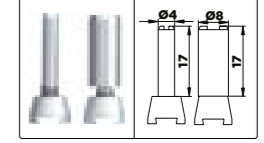
- Anti-manyetik bakır gövde
- Bağlantı aparatı: Ø4mm ve Ø8mm



Uygulama



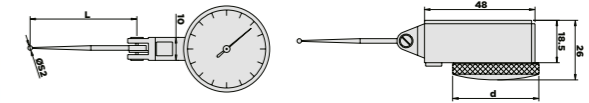
Bağlantı aparatları dahil



ÜRÜN KODU	Aralık	Saat çapı (d)	Okuma	Uç	Hassasiyet	Histerezis	Skala
06.04.03.0-0,8_0,01_1	0.8mm	Ø30mm	0.01mm	karbür	13µm	3µm	0-40-0
06.04.03.0-0,8_0,01_2	0.8mm	Ø37.5mm	0.01mm	karbür	13µm	3µm	0-40-0

03. SALGI KOMPARATÖRLERİ  
DIAL TEST INDICATOR

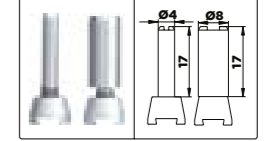
- Anti-manyetik bakır gövde
- Bağlantı aparatı: Ø4mm ve Ø8mm



Uygulama



Bağlantı aparatları dahil



ÜRÜN KODU	Aralık	Saat çapı (d)	Okuma	Uç	Hassasiyet	Histerezis	Skala	L
06.04.03.0-0,8_0,01_K	0.8mm	Ø37.5mm	0.01mm	karbür	13µm	3µm	0-40-0	30.5
06.04.03.0-0,8_0,01_Y	0.8mm	Ø37.5mm	0.01mm	yakut	13µm	9µm	0-40-0	46.4

03. SALGI KOMPARATÖR YEDEKLERİ  
STYLI FOR DIALTEST INDICATOR



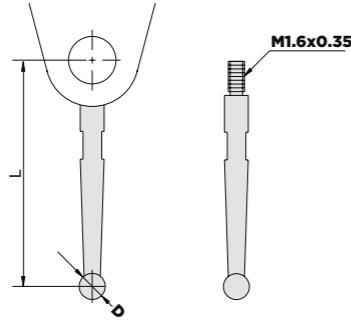
260-002-02



260-010-01



260-009-01



ÜRÜN KODU	Salgi saati	Materyel	D (mm)	L (mm)
06.04.03. 260-001-01		çelik	SØ1	16.5
06.04.03. 260-002-02		karbür	SØ2	16.5
06.04.03. 260-003-02	06.04.03.0-0,8_0,01_1	karbür	SØ3	16.5
06.04.03. 260-010-01	06.04.03.0-0,8_0,01_2	yakut	SØ2	16.5
06.04.03. 260-009-01	06.04.03.0-0,8_0,01_K	yakut	SØ2	15
06.04.03. 260-010-02	06.04.03.0-0,8_0,01_Y	yakut	SØ2	30.5
06.04.03. 260-010-03		yakut	SØ2	46.4

01. KOMPARATÖR SAATLERİ  
DIGITAL INDICATOR

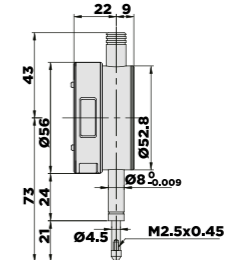
- Butonlar: tolerans girişi, preset değeri, inch/mm çevrimi, ölçüm yönü, max./min./aralık ölçümü, mutlak/inkremental ölçümü
- Otomatik kapanma
- Düz ve kulaklı kapak



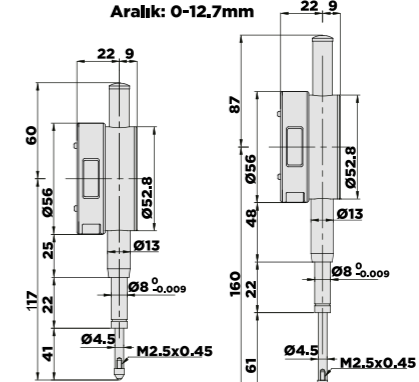
Uç (opsiyonel)



Uygulama



Aralık: 0-12,7mm



Aralık: 0-25.4mm

Aralık: 0-50.8mm

Okuma 0.001mm/0.0005"

ÜRÜN KODU	Aralık	Hassasiyet	Histerezis
06.05.01.0-12.7_001	12.7mm/0.5"	5µm	2µm
06.05.01.0-25.4_001	25.4mm/1"	5µm	3µm
06.05.01.0-50.8_001	50.8mm/2"	6µm	3µm

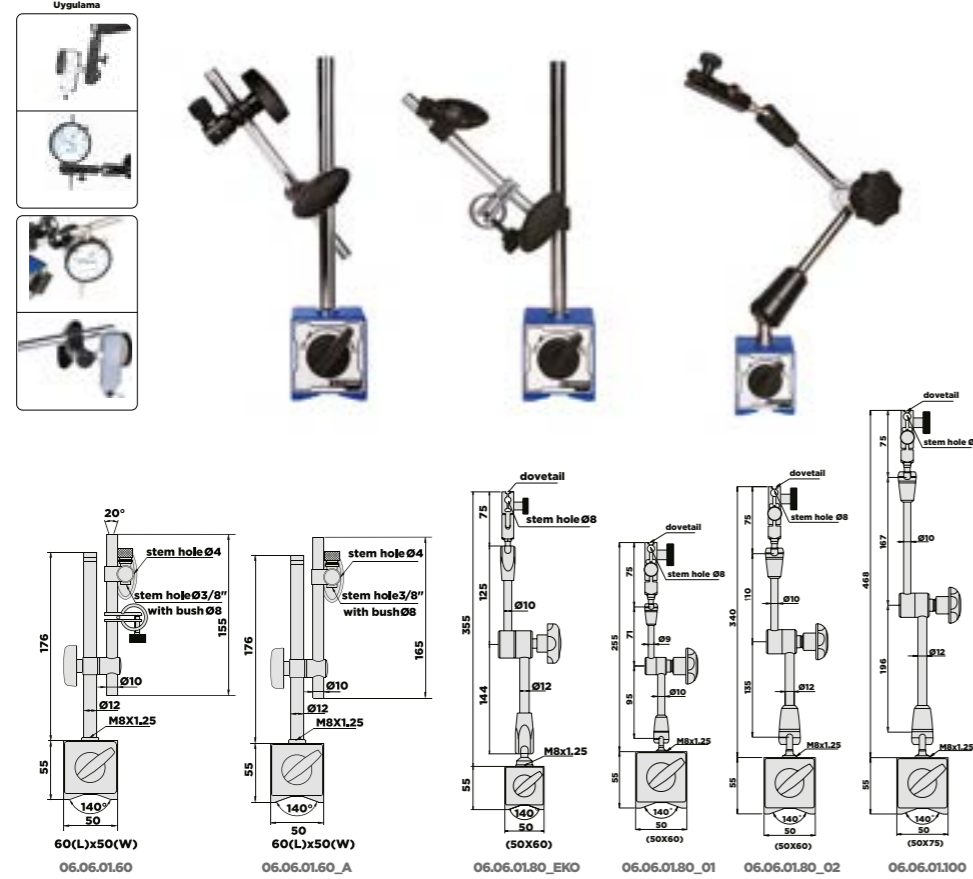
Okuma 0.01mm/0.0005"

ÜRÜN KODU	Aralık	Hassasiyet	Histerezis
06.05.01.0-12.7_01	12.7mm/0.5"	20µm	10µm
06.05.01.0-25.4_01	25.4mm/1"	20µm	10µm
06.05.01.0-50.8_01	50.8mm/2"	30µm	10µm



01. ÜNİVERSAL MANYETİK AYAKLAR  
MAGNETIC STAND

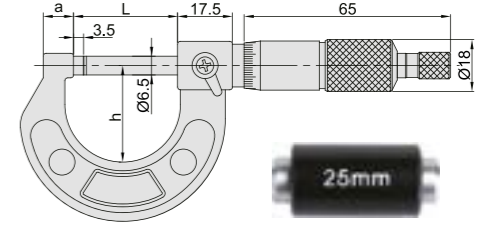
- Kompresör ve salgı saatlerini bağlamak için
- V-yatak taban



ÜRÜN KODU	Delik Çapı	Manyetik kuvvet	İnce ayarlı
06.06.01.60	Ø8mm, Ø4mm, 3/8"	60kgf	Var
06.06.01.60_A	Ø8mm, Ø4mm, 3/8"	60kgf	Yok
06.06.01.80_01	Ø8mm, Ø4mm, 3/8"	80kgf	Var
06.06.01.80_02	Ø8mm, Ø4mm, 3/8"	80kgf	Var
06.06.01.80_EKO	Ø8mm, Ø4mm, 3/8"	80kgf	Var
06.06.01.100	Ø8mm, Ø4mm, 3/8"	100kgf	Var

01. DIŞ ÇAP MİKROMETRELERİ  
OUTSIDE MICROMETER

- Okuma: 0,01mm
- Karbür ölçüm yüzeyleri
- Kilitleme vidası
- Setleme mastarı dahil



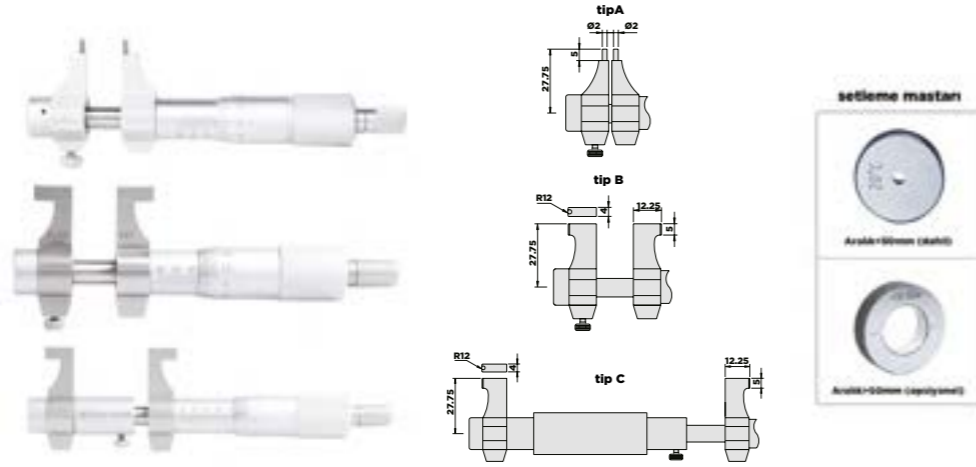
ÜRÜN KODU	Aralık	Hassasiyet	a	h	L	Mastar (dahil)
06.07.01.0-25_0,01	0-25mm	4µm	9	29	32	-
06.07.01.25-50_0,01	25-50mm	4µm	9	39	58	25mm
06.07.01.50-75_0,01	50-75mm	5µm	10	53	83	50mm
06.07.01.75-100_0,01	75-100mm	5µm	10	65	109	75mm
06.07.01.100-125_0,01	100-125mm	6µm	11.5	76	133	100mm
06.07.01.125-150_0,01	125-150mm	6µm	11.5	88	159	125mm
06.07.01.150-175_0,01	150-175mm	7µm	11.5	101	185	150mm
06.07.01.175-200_0,01	175-200mm	7µm	11.5	114	210	175mm
06.07.01.200-225_0,01	200-225mm	8µm	11.5	126	235	200mm
06.07.01.225-250_0,01	225-250mm	8µm	12	139	260	225mm
06.07.01.250-275_0,01	250-275mm	9µm	12.5	151	286	250mm
06.07.01.275-300_0,01	275-300mm	9µm	12.5	164	311	275mm



ÜRÜN KODU	Aralık	Toplam Adet	İçeren Mikrometreler	Mastar (dahil)
06.07.03.0_150_0,01	0-150mm	6 Adet	0-25, 25-50, 50-75, 75-100, 100-125, 125-150mm	25, 50, 75, 100, 125mm

02. İÇ ÇAP MİKROMETRELERİ  
INSIDE MICROMETER

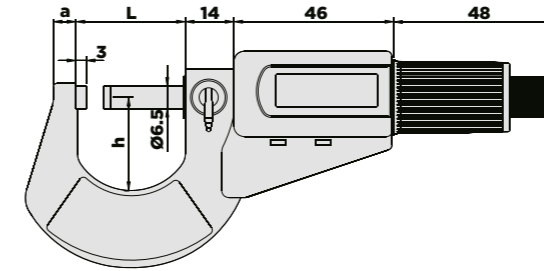
- Okuma: 0.01
- Karbür ölçüm yüzeyleri
- Kilitleme vidası



ÜRÜN KODU	Aralık	Hassasiyet	Tip	Setleme Masterı
06.07.02.5_30	5-30mm	5µm	A	5mm
06.07.02.25_50	25-50mm	6µm	B	25mm
06.07.02.50_75	50-75mm	7µm	C	opsiyonel
06.07.02.75_100	75-100mm	8µm	C	opsiyonel
06.07.02.100_125	100-125mm	9µm	C	opsiyonel
06.07.02.125_150	125-150mm	9µm	C	opsiyonel
06.07.02.150_175	150-175mm	10µm	C	opsiyonel
06.07.02.175_200	175-200mm	10µm	C	opsiyonel
06.07.02.200_225	200-225mm	11µm	C	opsiyonel
06.07.02.225_250	225-250mm	11µm	C	opsiyonel
06.07.02.250_275	250-275mm	12µm	C	opsiyonel
06.07.02.275_300	275-300mm	14µm	C	opsiyonel

01. DIŞ ÇAP MİKROMETRELERİ  
DIGITAL OUTSIDE MICROMETER

- Çözünürlük: 0.001mm/0.00005"
- Butonlar: on/off/set, ABS/INC/UNIT
- Karbür ölçüm yüzeyleri
- Kilitleme vidası
- Setleme masterı dahil



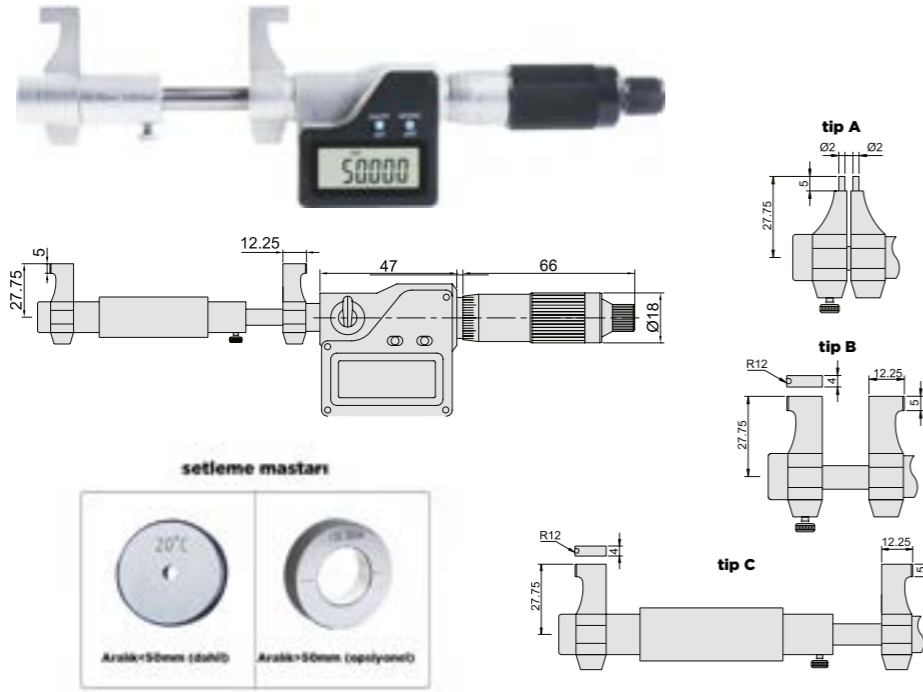
Setleme masterları (dahil)



ÜRÜN KODU	Aralık	Hassasiyet	a	h	L	Master (dahil)
06.08.01.0_25_0,001	0-25mm/0-1"	±2µm	6	275	32	-
06.08.01.25_50_0,001	25-50mm/1-2"	±2µm	8	37	57	25mm
06.08.01.50_75_0,001	50-75mm/2-3"	±3µm	8	50	82	50mm
06.08.01.75_100_0,001	75-100mm/3-4"	±3µm	10	61	107	75mm
06.08.01.100_125_0,001	100-125mm/4-5"	±3µm	10	73	132	100mm
06.08.01.125_150_0,001	125-150mm/5-6"	±3µm	10	85	157	125mm
06.08.01.150_175_0,001	150-175mm/6-7"	±4µm	21	104	182	150mm
06.08.01.175_200_0,001	175-200mm/7-8"	±4µm	21	117	207	175mm

## 02. İÇ ÇAP MİKROMETRELERİ DIGITAL INSIDE MICROMETER

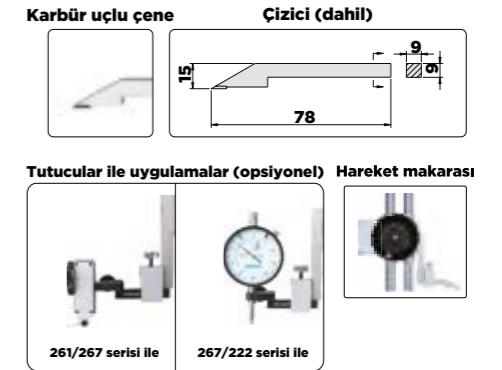
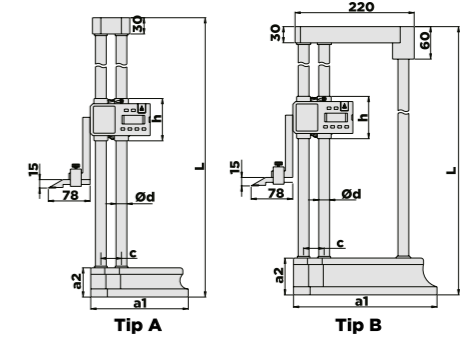
- Okuma: 0.01
- Mikrometre kafası hareketi: 13mm
- Hassasiyet:  $(3+n+L/50)\mu\text{m}$ , n: mil sayısı, L: maks.boy
- Setleme mastarı dahil
- Karbür ölçüm yüzeyleri



ÜRÜN KODU	Aralık	Hassasiyet	Tip	Setleme Mastarı
06.08.02.5_30	5-30mm/0.2-1.2"	$\pm 5\mu\text{m}$	A	dahil
06.08.02.25_50	25-50mm/1-2"	$\pm 6\mu\text{m}$	B	dahil
06.08.02.50_75	50-75mm/2-3"	$\pm 7\mu\text{m}$	C	opsiyonel
06.08.02.75_100	75-100mm/3-4"	$\pm 8\mu\text{m}$	C	opsiyonel
06.08.02.100_125	100-125mm/4-5"	$\pm 9\mu\text{m}$	C	opsiyonel
06.08.02.125_150	125-150mm/5-6"	$\pm 9\mu\text{m}$	C	opsiyonel
06.08.02.150_175	150-175mm/6-7"	$\pm 10\mu\text{m}$	C	opsiyonel
06.08.02.175_200	175-200mm/7-8"	$\pm 10\mu\text{m}$	C	opsiyonel

## 01. DİJİTAL MİHENGİRLER DIGITAL HEIGHT GAGE

- Çözünürlük: 0.001mm/0.00005"
- Butonlar: on/off, inch/mm, ABS/INC setleme
- Karbür uçlu çizici
- Paslanmaz çelik gövde
- Makaralı
- Opsiyonel aksesuar: 267 serisi tutucu

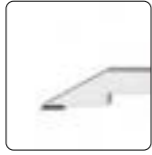


ÜRÜN KODU	Aralık	Tip	Hassasiyet	a1	a2	c	Ød	h	L
06.09.01.0_300	0-300mm/0-12"	A	$\pm 0.04\text{mm}$	135	43	33	15	84	475
06.09.01.0_600	0-600mm/0-24"	A	$\pm 0.05\text{mm}$	180	54	38	20	88	810
06.09.01.0_1000	0-1000mm/0-40"	B	$\pm 0.05\text{mm}$	265	68	38	20	88	1230

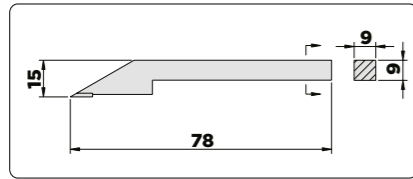
## 02. MEKANİK MİHENGİRLER VERNIER HEIGHT GAGE

- Okuma: 0.02mm/0.001"
- Sıfırlama için ana cetveli hareket ettir
- Karbür uçlu çizici
- Paslanmaz çelik (taban hariç)
- Krom kaplama okuma yüzeyi
- Büyütücü ile
- Opsiyonel aksesuar: 267 serisi tutucu

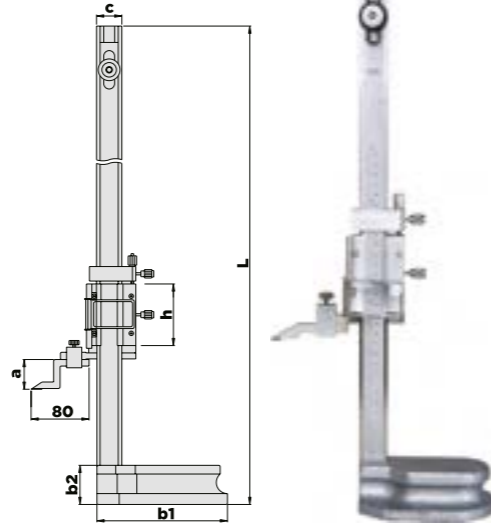
Karbür çeneler



Çizici (dahil)



Tutucular ile uygulamalar



ÜRÜN KODU	Aralık	Hassasiyet	a	b1	b2	c	h	L
06.09.02.0_300	0-300mm/0-12"	±0.04mm	30	135	43	28	75	545
06.09.02.0_600	0-600mm/0-24"	±0.05mm	41	180	54	35	85	870

## 01. 3 EKSEN SIFIRLAMA PROBU MEKANİK HAIMER 3D

IP 67 sızdırmazlık koruması •



ÜRÜN KODU	Prob Ucu	Şaft (mm)	Prob Ucu (mm)	Ekran Doğruluğu (mm)	Gövde (mm)	Sapsız Uzunluk (mm)
06.10.01.80.360.00.FHN	80.360.00	20	4	0,01	65	113

## 12. PROB YEDEKLERİ HAIMER 3D

Mekanik ve dijital 3D taster için uygundur •



ÜRÜN KODU	HAIMER Kod	Prob Ucu	Tam boy (mm)
06.12.01.80.362.00	80.362.00	4	27
06.12.01.80.363.00	80.363.00	8	69

01. MEKANİK PROB



ÜRÜN KODU	Açıklama
06.11.01.NC.04.10	MEKANİK PROB (Ø4)
06.11.01.NC-TO4.10	TİN KAPLI MEKANİK PROB (Ø4)
06.11.01.NC-28.10	T PROB (Ø 28)
06.11.01.NC-T28.10	KAPLAMALI ANTİ MANYETİK T PROB (Ø 28)

02. IŞIKLI PROB / 03. IŞIKLI SESLİ PROB

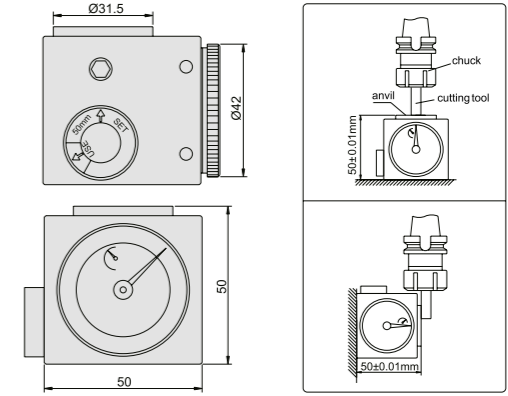


ÜRÜN KODU	Açıklama	Ölçü
06.11.02.20_160	IŞIKLI PROB	20x160
06.11.03.20_160	IŞIKLI SESLİ PROB	20x160

04. Z SIFIRLAMA PROBU

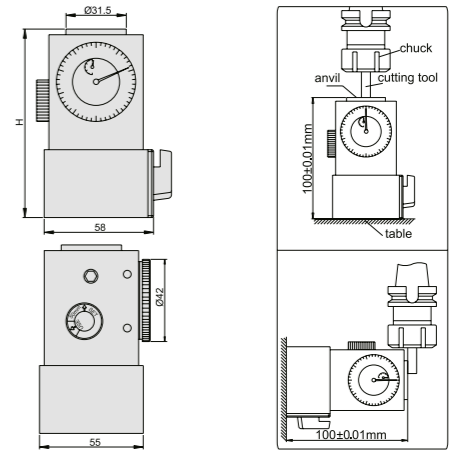
ZERO SET

Manyetik taban •



ÜRÜN KODU	Hassasiyet
06.11.04.50	±10µm

Açma/kapamalı manyetik taban •



ÜRÜN KODU	Yükseklik	Hassasiyet	Kuvvet
06.11.04.100	100mm	±10µm	9N

## 01. KIL GÖNYE

- Hassas taşlanmış sert paslanmaz çelikten imal edilmiştir.
- Hassasiyet DIN 875 normunda.
- Kalibrasyon sertifikası



ÜRÜN KODU	Boyut	Karesellik
06.13.01.050_40	50x40mm	00
06.13.01.075_50	75x50mm	00
06.13.01.100_70	100x70mm	00
06.13.01.150_100	150x100mm	00
06.13.01.200_130	200x130mm	00
06.13.01.250_160	250x160mm	00
06.13.01.300_200	300x200mm	00

## 02. ŞAPKALI GÖNYE



ÜRÜN KODU	Boyut	Karesellik
06.13.02.75_50	75x50mm	1
06.13.02.100_70	100x70mm	1
06.13.02.150_100	150x100mm	1
06.13.02.200_130	200x130mm	1
06.13.02.250_160	250x160mm	1
06.13.02.300_200	300x200mm	1
06.13.02.400_265	400 x 265 mm	-
06.13.02.500_330	500 x 330 mm	-

## 03. DÜZ GÖNYE



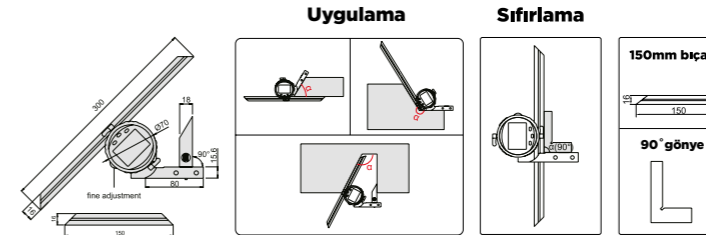
ÜRÜN KODU	Boyut	Karesellik
06.13.03.50_40	50x40mm	0
06.13.03.75_50	75x50mm	0
06.13.03.100_70	100x70mm	0
06.13.03.150_100	150x100mm	0
06.13.03.200_130	200x130mm	0
06.13.03.250_165	250x165mm	0
06.13.03.300_200	300x200mm	0

## 04. AÇILI GÖNYE

ÜRÜN KODU	Boy (mm)	Uzunluk (mm)
06.13.04.80_120	80	120
06.13.04.120_150	120	150
06.13.04.150_200	150	200
06.13.04.200_300	200	300
06.13.04.300_500	300	500



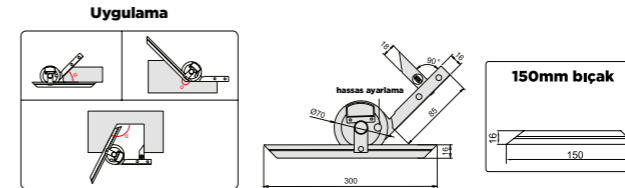
## 05. DİJİTAL AÇI ÖLÇER GÖNYE



ÜRÜN KODU	Aralık	Çözünürlük	Hassasiyet
06.13.05.0_360	0-360°	10"/0.005°	±5'



## 06. MERCEKLI AÇI ÖLÇER GÖNYE



ÜRÜN KODU	Aralık	Hassasiyet
06.13.06.0_360	0-360°	±5'



## 01. ÇELİK CETVEL



ÜRÜN KODU	Boy (mm)	Genişlik (mm)	Kalınlık (mm)
06.14.01.150_15	150	15	0,50
06.14.01.200_20	200	20	0,75
06.14.01.300_25	300	25	0,70
06.14.01.500_30	500	30	0,85
06.14.01.1000_20	1000	20	0,70
06.14.01.1000_30	1000	30	0,95
06.14.01.1500_38	1500	38	1,40
06.14.01.2000_38	2000	38	1,70

## 15. MASTARLAR

### 02. FİLLER ÇAKISI

- Yay çeliğinden sertleştirilmiş
- 100mm Nikel kaplamalı



ÜRÜN KODU	Yaprak sayısı	Set içeriği (mm)	Tam boy (mm)
06.15.02.0,05_1,00_8_100	8 yaprak	0.05-0.5	100
06.15.02.0,05_1,00_13_100	13 yaprak	0.05-1.00	100
06.15.02.0,05_1,00_20_100	20 yaprak	0.05-1.00	100
06.15.02.0,05_1,00_20_200	20 yaprak	0.05-1.00	200
06.15.02.0,05_1,00_20_300	20 yaprak	0.05-1.00	300
06.15.02.0,05_1,00_20_500	20 yaprak	0.05-1.00	500
06.15.02.0,05_1,00_21_100	21 yaprak	0.05-2.00	100
06.15.02.0,03_1,00_32_100	32 yaprak	0.03-1.00	100

## 01. BANT FİLLER

- Sertleştirilmiş yay çeliği
- Çapaksız kenarlar
- Düzenli aralıklarla (mm) ve (inch) olarak markalanmış
- 12.7mm genişlik, 5 metre uzunluk



ÜRÜN KODU	Boy (m)	Genişlik (mm)	Kalınlık (mm)
06.15.01.0,01	5m	13mm	0.01
06.15.01.0,02	5m	13mm	0.02
06.15.01.0,03	5m	13mm	0.03
06.15.01.0,04	5m	13mm	0.04
06.15.01.0,05	5m	13mm	0.05
06.15.01.0,06	5m	13mm	0.06
06.15.01.0,07	5m	13mm	0.07
06.15.01.0,08	5m	13mm	0.08
06.15.01.0,09	5m	13mm	0.09
06.15.01.0,10	5m	13mm	0.10
06.15.01.0,15	5m	13mm	0.15
06.15.01.0,20	5m	13mm	0.20
06.15.01.0,25	5m	13mm	0.25
06.15.01.0,30	5m	13mm	0.30
06.15.01.0,35	5m	13mm	0.35
06.15.01.0,40	5m	13mm	0.40
06.15.01.0,50	5m	13mm	0.50
06.15.01.0,60	5m	13mm	0.60
06.15.01.0,70	5m	13mm	0.70
06.15.01.0,80	5m	13mm	0.80
06.15.01.0,90	5m	13mm	0.90
06.15.01.1,00	5m	13mm	1.00

### 03. HALKA STANDART DIŞ MASTAR STANDARD THREAD RING GAUGE

- Grade 6g
- ISO 1502
- Sertlik HRC60-62



ÜRÜN KODU (GEÇER)	ÜRÜN KODU (GEÇMEZ)	Ölçü (mm)
06.15.03.532-002-01	06.15.03.533-002-01	M2x0.4
06.15.03.532-002-21	06.15.03.533-002-21	M2.2x0.45
06.15.03.532-002-51	06.15.03.533-002-51	M2.5x0.45
06.15.03.532-003-01	06.15.03.533-003-01	M3x0.5
06.15.03.532-003-51	06.15.03.533-003-51	M3.5x0.6
06.15.03.532-004-01	06.15.03.533-004-01	M4x0.7
06.15.03.532-005-01	06.15.03.533-005-01	M5x0.8
06.15.03.532-006-01	06.15.03.533-006-01	M6x1
06.15.03.532-008-01	06.15.03.533-008-01	M8x1.25
06.15.03.532-010-01	06.15.03.533-010-01	M10x1.5
06.15.03.532-012-01	06.15.03.533-012-01	M12x1.75
06.15.03.532-014-01	06.15.03.533-014-01	M14x2
06.15.03.532-016-01	06.15.03.533-016-01	M16x2
06.15.03.532-018-01	06.15.03.533-018-01	M18x2.5
06.15.03.532-020-01	06.15.03.533-020-01	M20x2.5
06.15.03.532-022-01	06.15.03.533-022-01	M22x2.5
06.15.03.532-024-01	06.15.03.533-024-01	M24x3
06.15.03.532-027-01	06.15.03.533-027-01	M27x3
06.15.03.532-030-01	06.15.03.533-030-01	M30x3.5
06.15.03.532-033-01	06.15.03.533-033-01	M33x3.5
06.15.03.532-036-01	06.15.03.533-036-01	M36x4
06.15.03.532-042-01	06.15.03.533-042-01	M42x4.5
06.15.03.532-048-01	06.15.03.533-048-01	M48x5
06.15.03.532-052-01	06.15.03.533-052-01	M52x5
06.15.03.532-060-01	06.15.03.533-060-01	M60x5.5

### 03. HALKA İNCE DIŞ MASTAR FINE THREAD RING GAUGE

- Grade 6g
- ISO 1502
- Sertlik HRC60-62



ÜRÜN KODU (GEÇER)	ÜRÜN KODU (GEÇMEZ)	Ölçü (mm)	ÜRÜN KODU (GEÇER)	ÜRÜN KODU (GEÇMEZ)	Ölçü (mm)
06.15.03.534-002-01	06.15.03.535-002-01	M2x0.25	06.15.03.534-010-03	06.15.03.535-010-03	M10x1
06.15.03.534-002-21	06.15.03.535-002-21	M2.2x0.25	06.15.03.534-010-04	06.15.03.535-010-04	M10x1.25
06.15.03.534-002-51	06.15.03.535-002-51	M2.5x0.35	06.15.03.534-011-02	06.15.03.535-011-02	M11x0.75
06.15.03.534-003-01	06.15.03.535-003-01	M3x0.35	06.15.03.534-011-03	06.15.03.535-011-03	M11x1
06.15.03.534-003-51	06.15.03.535-003-51	M3.5x0.35	06.15.03.534-012-01	06.15.03.535-012-01	M12x0.5
06.15.03.534-004-01	06.15.03.535-004-01	M4x0.5	06.15.03.534-012-02	06.15.03.535-012-02	M12x0.75
06.15.03.534-005-01	06.15.03.535-005-01	M5x0.5	06.15.03.534-012-03	06.15.03.535-012-03	M12x1
06.15.03.534-006-01	06.15.03.535-006-01	M6x0.5	06.15.03.534-012-04	06.15.03.535-012-04	M12x1.25
06.15.03.534-006-02	06.15.03.535-006-02	M6x0.75	06.15.03.534-012-05	06.15.03.535-012-05	M12x1.5
06.15.03.534-007-01	06.15.03.535-007-01	M7x0.5	06.15.03.534-014-01	06.15.03.535-014-01	M14x0.5
06.15.03.534-007-02	06.15.03.535-007-02	M7x0.75	06.15.03.534-014-02	06.15.03.535-014-02	M14x0.75
06.15.03.534-008-01	06.15.03.535-008-01	M8x0.5	06.15.03.534-014-03	06.15.03.535-014-03	M14x1
06.15.03.534-008-02	06.15.03.535-008-02	M8x0.75	06.15.03.534-014-04	06.15.03.535-014-04	M14x1.25
06.15.03.534-008-03	06.15.03.535-008-03	M8x1	06.15.03.534-014-05	06.15.03.535-014-05	M14x1.5
06.15.03.534-009-01	06.15.03.535-009-01	M9x0.5	06.15.03.534-016-01	06.15.03.535-016-01	M16x0.5
06.15.03.534-009-02	06.15.03.535-009-02	M9x0.75	06.15.03.534-016-02	06.15.03.535-016-02	M16x0.75
06.15.03.534-009-03	06.15.03.535-009-03	M9x1	06.15.03.534-016-03	06.15.03.535-016-03	M16x1
06.15.03.534-010-01	06.15.03.535-010-01	M10x0.5	06.15.03.534-016-04	06.15.03.535-016-04	M16x1.5
06.15.03.534-010-02	06.15.03.535-010-02	M10x0.75			



### 03. HALKA İNCE DİŞ MASTAR FINE THREAD RING GAUGE

- Grade 6g
- ISO 1502
- Sertlik HRC60-62



ÜRÜN KODU (GEÇER)	ÜRÜN KODU (GEÇMEZ)	Ölçü (mm)	ÜRÜN KODU (GEÇER)	ÜRÜN KODU (GEÇMEZ)	Ölçü (mm)
06.15.03.534-018-01	06.15.03.535-018-01	M18x0.5	06.15.03.534-027-01	06.15.03.535-027-01	M27x0.75
06.15.03.534-018-02	06.15.03.535-018-02	M18x0.75	06.15.03.534-027-02	06.15.03.535-027-02	M27x1
06.15.03.534-018-03	06.15.03.535-018-03	M18x1	06.15.03.534-027-03	06.15.03.535-027-03	M27x1.5
06.15.03.534-018-04	06.15.03.535-018-04	M18x1.5	06.15.03.534-027-04	06.15.03.535-027-04	M27x2
06.15.03.534-018-05	06.15.03.535-018-05	M18x2	06.15.03.534-030-01	06.15.03.535-030-01	M30x0.75
06.15.03.534-020-01	06.15.03.535-020-01	M20x0.5	06.15.03.534-030-02	06.15.03.535-030-02	M30x1
06.15.03.534-020-02	06.15.03.535-020-02	M20x0.75	06.15.03.534-030-03	06.15.03.535-030-03	M30x1.5
06.15.03.534-020-03	06.15.03.535-020-03	M20x1	06.15.03.534-030-04	06.15.03.535-030-04	M30x2
06.15.03.534-020-04	06.15.03.535-020-04	M20x1.5	06.15.03.534-030-05	06.15.03.535-030-05	M30x3
06.15.03.534-020-05	06.15.03.535-020-05	M20x2	06.15.03.534-033-01	06.15.03.535-033-01	M33x0.75
06.15.03.534-022-01	06.15.03.535-022-01	M22x0.5	06.15.03.534-033-02	06.15.03.535-033-02	M33x1
06.15.03.534-022-02	06.15.03.535-022-02	M22x0.75	06.15.03.534-033-03	06.15.03.535-033-03	M33x1.5
06.15.03.534-022-03	06.15.03.535-022-03	M22x1	06.15.03.534-033-04	06.15.03.535-033-04	M33x2
06.15.03.534-022-04	06.15.03.535-022-04	M22x1.5	06.15.03.534-033-05	06.15.03.535-033-05	M33x3
06.15.03.534-022-05	06.15.03.535-022-05	M22x2	06.15.03.534-036-01	06.15.03.535-036-01	M36x1
06.15.03.534-024-01	06.15.03.535-024-01	M24x0.75	06.15.03.534-036-02	06.15.03.535-036-02	M36x1.5
06.15.03.534-024-02	06.15.03.535-024-02	M24x1	06.15.03.534-036-03	06.15.03.535-036-03	M36x2
06.15.03.534-024-03	06.15.03.535-024-03	M24x1.5	06.15.03.534-036-04	06.15.03.535-036-04	M36x3
06.15.03.534-024-04	06.15.03.535-024-04	M24x2			

### 04. TAMPON STANDART DİŞ MASTAR STANDARD THREAD PLUG GAUGE

- Grade 6H
- ISO 1502
- Sertlik HRC60-62



ÜRÜN KODU	Ölçü (mm)	ÜRÜN KODU	Ölçü (mm)
06.15.04.542-002-01	M2x0.4	06.15.04.542-018-01	M18x2.5
06.15.04.542-002-21	M2.2x0.45	06.15.04.542-020-01	M20x2.5
06.15.04.542-002-51	M2.5x0.45	06.15.04.542-022-01	M22x2.5
06.15.04.542-003-01	M3x0.5	06.15.04.542-024-01	M24x3
06.15.04.542-003-02	M3.5x0.6	06.15.04.542-027-01	M27x3
06.15.04.542-004-01	M4x0.7	06.15.04.542-030-01	M30x3.5
06.15.04.542-005-01	M5x0.8	06.15.04.542-033-01	M33x3.5
06.15.04.542-006-01	M6x1	06.15.04.542-036-01	M36x4
06.15.04.542-007-01	M7x1	06.15.04.542-039-01	M39x4
06.15.04.542-008-01	M8x1.25	06.15.04.542-042-01	M42x4.5
06.15.04.542-009-01	M9x1.25	06.15.04.542-045-01	M45x4.5
06.15.04.542-010-01	M10x1.5	06.15.04.542-048-01	M48x5
06.15.04.542-011-01	M11x1.5	06.15.04.542-052-01	M52x5
06.15.04.542-012-01	M12x1.75	06.15.04.542-056-01	M56x5.5
06.15.04.542-014-01	M14x2	06.15.04.542-060-01	M60x5.5
06.15.04.542-016-01	M16x2		

04. TAMPON MASTAR  
FINE THREAD PLUG GAUGE

- Grade 6g
- ISO 1502
- Sertlik HRC60-62



ÜRÜN KODU	Ölçü (mm)	ÜRÜN KODU	Ölçü (mm)
06.15.04.543-002-01	M2x0.25	06.15.04.543-012-04	M12x1.25
06.15.04.543-002-21	M2.2x0.25	06.15.04.543-012-05	M12x1.5
06.15.04.543-002-31	M2.5x0.35	06.15.04.543-014-01	M14x0.5
06.15.04.543-003-01	M3x0.35	06.15.04.543-014-02	M14x0.75
06.15.04.543-003-02	M3.5x0.35	06.15.04.543-014-03	M14x1
06.15.04.543-004-01	M4x0.5	06.15.04.543-014-04	M14x1.25
06.15.04.543-005-01	M5x0.5	06.15.04.543-014-05	M14x1.5
06.15.04.543-006-01	M6x0.5	06.15.04.543-016-01	M16x0.5
06.15.04.543-006-02	M6x0.75	06.15.04.543-016-02	M16x0.75
06.15.04.543-007-01	M7x0.5	06.15.04.543-016-03	M16x1
06.15.04.543-007-02	M7x0.75	06.15.04.543-016-04	M16x1.5
06.15.04.543-008-01	M8x0.5	06.15.04.543-018-01	M18x0.5
06.15.04.543-008-02	M8x0.75	06.15.04.543-018-02	M18x0.75
06.15.04.543-008-03	M8x1	06.15.04.543-018-03	M18x1
06.15.04.543-009-01	M9x0.5	06.15.04.543-018-04	M18x1.5
06.15.04.543-009-02	M9x0.75	06.15.04.543-018-05	M18x2
06.15.04.543-009-03	M9x1	06.15.04.543-020-01	M20x0.5
06.15.04.543-010-01	M10x0.5	06.15.04.543-020-02	M20x0.75
06.15.04.543-010-02	M10x0.75	06.15.04.543-020-03	M20x1
06.15.04.543-010-03	M10x1	06.15.04.543-020-04	M20x1.5
06.15.04.543-010-04	M10x1.25	06.15.04.543-020-05	M20x2
06.15.04.543-011-01	M11x0.5	06.15.04.543-022-01	M22x0.5
06.15.04.543-011-02	M11x0.75	06.15.04.543-022-02	M22x0.75
06.15.04.543-011-03	M11x1	06.15.04.543-022-03	M22x1
06.15.04.543-012-01	M12x0.5	06.15.04.543-022-04	M22x1.5
06.15.04.543-012-02	M12x0.75	06.15.04.543-022-05	M22x2
06.15.04.543-012-03	M12x1	06.15.04.543-024-01	M24x0.75

04. TAMPON MASTAR  
FINE THREAD PLUG GAUGE

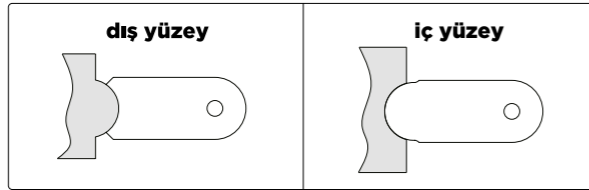
- Grade 6H
- ISO 1502
- Sertlik HRC60-62



ÜRÜN KODU	Ölçü (mm)	ÜRÜN KODU	Ölçü (mm)
06.15.04.543-024-02	M24x1	06.15.04.543-042-04	M42x3
06.15.04.543-024-03	M24x1.5	06.15.04.543-042-05	M42x4
06.15.04.543-024-04	M24x2	06.15.04.543-045-01	M45x1
06.15.04.543-027-01	M27x0.75	06.15.04.543-045-02	M45x1.5
06.15.04.543-027-02	M27x1	06.15.04.543-045-03	M45x2
06.15.04.543-027-03	M27x1.5	06.15.04.543-045-04	M45x3
06.15.04.543-027-04	M27x2	06.15.04.543-045-05	M45x4
06.15.04.543-030-01	M30x0.75	06.15.04.543-048-01	M48x1
06.15.04.543-030-02	M30x1	06.15.04.543-048-02	M48x1.5
06.15.04.543-030-03	M30x1.5	06.15.04.543-048-03	M48x2
06.15.04.543-030-04	M30x2	06.15.04.543-048-04	M48x3
06.15.04.543-030-05	M30x3	06.15.04.543-048-05	M48x4
06.15.04.543-033-01	M33x0.75	06.15.04.543-052-01	M52x1
06.15.04.543-033-02	M33x1	06.15.04.543-052-02	M52x1.5
06.15.04.543-033-03	M33x1.5	06.15.04.543-052-03	M52x2
06.15.04.543-033-04	M33x2	06.15.04.543-052-04	M52x3
06.15.04.543-033-05	M33x3	06.15.04.543-052-05	M52x4
06.15.04.543-036-01	M36x1	06.15.04.543-056-01	M56x1
06.15.04.543-036-02	M36x1.5	06.15.04.543-056-02	M56x1.5
06.15.04.543-036-03	M36x2	06.15.04.543-056-03	M56x2
06.15.04.543-036-04	M36x3	06.15.04.543-056-04	M56x3
06.15.04.543-039-01	M39x1	06.15.04.543-056-05	M56x4
06.15.04.543-039-02	M39x1.5	06.15.04.543-060-01	M60x1
06.15.04.543-039-03	M39x2	06.15.04.543-060-02	M60x1.5
06.15.04.543-039-04	M39x3	06.15.04.543-060-03	M60x2
06.15.04.543-042-01	M42x1	06.15.04.543-060-04	M60x3
06.15.04.543-042-02	M42x1.5	06.15.04.543-060-05	M60x4
06.15.04.543-042-03	M42x2		

05. RADIUS MASTARI  
RADIUS GAUGE

- Radyüs kontrolü
- İç ve dış ölçüm yüzeyleri



ÜRÜN KODU	Aralık	Adet	Hassasiyet	Radyus ölçüleri (mm)
06.15.05.R1_7	1 - 7mm	17x2	±0.03mm	1, 1.25, 1.5, 1.75, 2, 2.25, 2.5, 2.75, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7
06.15.05.R7.5_15	7.5 - 15mm	16x2	±0.035mm	7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14, 14.5, 15
06.15.05.R15.5_25	15.5 - 25mm	15x2	±0.042mm	15.5, 16, 16.5, 17, 17.5, 18, 18.5, 19, 19.5, 20, 21, 22, 23, 24, 25

06. JOHNSON MASTARI  
CARBIDE GAUGE BLOCK SET

- Çelikten yapılmıştır
- ISO 3650
- Kalibrasyon sertifikası
- Kod tanımı
- 512- □□□ - □X
- 0: kalite 0
- 1: kalite 1
- 2: kalite 2



ÜRÜN KODU	Kalite	Adet
06.15.06.512-112-00	0	112
06.15.06.512-112-01	1	112
06.15.06.512-112-02	2	112

ÜRÜN KODU	Mastar adedi	Set dağılımı		
		Ölçü (mm)	Adım (mm)	Adet
06.15.06.112	122	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		1.6-1.9	0.1	4
		0.5-24.5	0.5	49
		30-100	10	8
06.15.06.112	112	25.-75	50	2
		1.0005		1
		1.001-1.009	0.001	9
06.15.06.112	103	1.01-1.49	0.01	49
		0.5-24.5	0.5	49
		25-100	25	4
		1.005		1
06.15.06.112	88	1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
		10-100	10	10
		1.005		1

ÜRÜN KODU	Mastar adedi	Set dağılımı		
		Ölçü (mm)	Adım (mm)	Adet
06.15.06.112	87	1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
		10-100	10	10
06.15.06.112	83	0.5		1
		1		1
		1.005		1
		1.01-1.49	0.01	4
		1.5-1.9	0.1	49
		2-9.5	0.5	5
06.15.06.112	76	10-100	10	16
		1.005		1
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
06.15.06.112	56	10-40	10	4
		50-100	25	3
		0.5		1
		1.001-1.009	0.001	9
		1.01-1.09	0.01	9
06.15.06.112	56	1.1-1.9	0.1	9
		1-24	1	24
		25-100	25	4
		1.005		1
		1.01-1.49	0.01	49

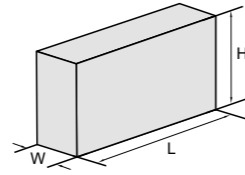
## 06. ÖLÇÜM ALETLERİ 15. MASTARLAR



### 06. JOHNSON MASTARI CARBIDE GAUGE BLOCK SET

- Çelikten yapılmıştır
- ISO 3650
- Kalibrasyon sertifikası
- Kod tanımı

512- □□□ - □X  
0: kalite 0  
1: kalite 1  
2: kalite 2



ÜRÜN KODU	Mastar adedi	Set dağılımı		
		Ölçü (mm)	Adım (mm)	Adet
06.15.06.112	47	1.005		1
		1.01-1.09	0.001	9
		1.1-1.9	0.1	9
		1-24	1	24
		25-100	25	4
06.15.06.112	47	1.005		1
		1.01-1.19	0.01	19
		1.2-1.9	0.1	8
		1-9	1	9
		10-100	10	10
06.15.06.112	46	1.001-1.009	0.001	9
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-9	1	9
		10.100	10	10
06.15.06.112	38	1.005		1
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-9	1	9
		10-100	10	10

Boy (L)	W	H
0.5mm ≥ L ≤ 10mm	9mm	30mm
L > 10mm	9mm	35mm

ÜRÜN KODU	Mastar adedi	Set dağılımı		
		Ölçü (mm)	Adım (mm)	Adet
06.15.06.112	34	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-5	1	5
		10		1
06.15.06.112	32	1.005		1
		1.01-1.09	0.001	9
		1.1-1.9	0.1	9
		1-9	1	9
		10-30	10	3
06.15.06.112	8	50		1
		125-175	25	3
		200-250	50	2
		300-500	100	3



## 06. ÖLÇÜM ALETLERİ 15. MASTARLAR

### 07. DİŞ TARAĞI

METRİK / INCH

ÜRÜN KODU	Adet
06.15.07.	52 Parça



## 06. ÖLÇÜM ALETLERİ 16. PLEYTLER

### 01. GRANİT PLEYT DIN 876/1



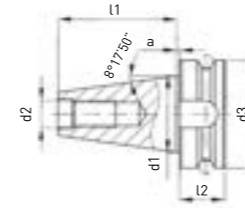
ÜRÜN KODU	Boy (mm)	En (mm)	Yükseklik (mm)	Ağırlık (mm)
06.16.400_250_30	400	250	80	30
06.16.630_400_80	630	400	100	80
06.16.800_500_150	800	500	130	150
06.16.1000_630_280	1000	630	150	280
06.16.1200_800_360	1200	800	160	360
06.16.1600_1000_1080	1600	1000	200	1080
06.16.2000_1000_1360	2000	1000	200	1360

Tutuculardaki konik hassasiyeti AT3 standardındadır.

Pens başlıklarındaki pens yuvası ile dış konik arası salgı max. 5

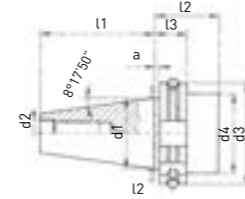


## MAS 403 (BT)



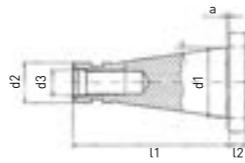
Konik	a +/- 0.2	d1	d2	d3 0/-0.1	l2	l1 +/-0.02
BT30	2	31.75	M12	46	20	48.4
BT40	2	44.45	M16	63	25	65.4
BT50	3	69.85	M24	100	35	101.8

## DIN 69871 (SK)



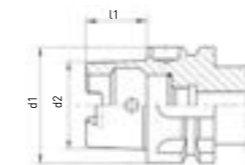
Konik	a +/- 0.2	d1	d2	d3 0/-0.1	d4 max.	l2 min.	l3 0/-0.1	l1 0/0.3
SK30	3.2	31.75	M12	50.0	44	35	19.1	47.8
SK40	3.2	44.45	M16	63.55	50	35	19.1	69.4
SK50	3.2	69.85	M24	97.5	80	35	19.1	101.75

## DIN 2080 (ISO)



Konik	a +/- 0.2	d1	d2	d3 0/-0.1	d4 max.	l2 min.	l3 0/-0.1	l1 0/0.3
ISO30	3.2	31.75	M12	50.0	44	35	19.1	47.8
ISO40	3.2	44.45	M16	63.55	50	35	19.1	69.4
ISO50	3.2	69.85	M24	97.5	80	35	19.1	101.75

## DIN69893 A (HSK)



Konik	d1	d2	l1
HSK50	50	38	25
HSK63	63	48	32
HSK80	80	60	40

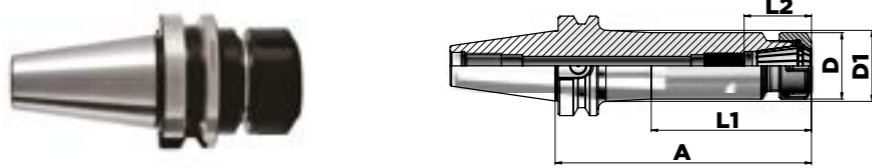
# 07\*

# HASSAS TUTUCULAR

## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI



### 01. ER TİPİ PENS BAŞLIKLARI MAS 403 BT



Konik	a +/- 0.2	d1	d2	d3 0/-0.1	l2	l1 +/-0.02
BT30	2	31.75	M12	46	20	48.4
BT40	2	44.45	M16	63	25	65.4
BT50	3	69.85	M24	100	35	101.8

ÜRÜN KODU	Konik	L	D	Pens tipi Ø Sıkma aralığı
07.01.01.BT-30 ER16-60	BT30	60	28	ER16 Ø 1-10mm
07.01.01.BT-30 ER25-60	BT30	60	42	ER25 Ø 2-16mm
07.01.01.BT-30 ER32-70	BT30	70	50	ER32 Ø 3-20mm

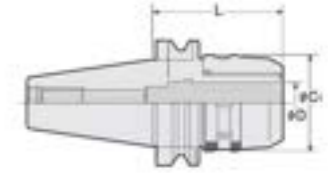
ÜRÜN KODU	Konik	L	D	Pens tipi Ø Sıkma aralığı
07.01.01.BT-40 ER16-70	BT40	70	28	ER16 Ø 1-10mm
07.01.01.BT-40 ER16-100	BT40	100	28	ER16 Ø 1-10mm
07.01.01.BT-40 ER16-130	BT40	130	22	ER16 Ø 1-10mm
07.01.01.BT-40 ER20-70	BT40	70	34	ER20 Ø 2-13mm
07.01.01.BT-40 ER20-100	BT40	100	34	ER20 Ø 2-13mm
07.01.01.BT-40 ER25-70	BT40	70	42	ER25 Ø 2-16mm
07.01.01.BT-40 ER25-100	BT40	100	42	ER25 Ø 2-16mm
07.01.01.BT-40 ER32-70	BT40	70	50	ER32 Ø 3-20mm
07.01.01.BT-40 ER32-100	BT40	100	50	ER32 Ø 3-20mm
07.01.01.BT-40 ER40-80	BT40	80	63	ER40 Ø 4-26mm
07.01.01.BT-40 ER40-100	BT40	100	63	ER40 Ø 4-26mm

ÜRÜN KODU	Konik	L	D	Pens tipi Ø Sıkma aralığı
07.01.01.BT-50 ER32-70	BT50	70	50	ER32 Ø 3-20mm
07.01.01.BT-50 ER32-100	BT50	100	50	ER32 Ø 3-20mm
07.01.01.BT-50 ER40-100	BT50	100	63	ER40 Ø 4-26mm
07.01.01.BT-50 ER40-150	BT50	150	63	ER40 Ø 4-26mm



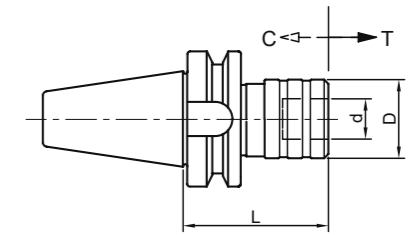
## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI

### 02. BİLYALI PENS BAŞLIKLARI MAS 403 BT



ÜRÜN KODU	C1	D	L
07.01.02.BT40-C32-105	75	32	105
07.01.02.BT50-C32-115	75	32	115

### KILAVUZ ÇEKME BAŞLIĞI MAS 403 BT

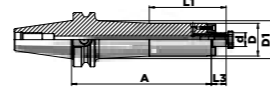


ÜRÜN KODU	Konik	Kapasite	d (mm)	D (mm)	L (mm)	C-T (mm)
07.07.01.BT40-KCB01	BT40	M3-M12	19	36,5	67	7,5-7,5
07.07.01.BT40-KCB02	BT40	M5-M24	31	54	94	12,5-12,5
07.07.01.BT50-KCB01	BT 50	M3-M12	19	36,5	77	7,5-7,5
07.07.01.BT50-KCB02	BT 50	M5-M24	31	54	102	12,5-12,5

## 07. HASSAS TUTUCULAR 02. MALAFALAR



### 01. ALIN KAMALI MALAFA MAS 403 BT



ÜRÜN KODU	Konik	D	D1	L
07.02.01.BT-30 16	BT30	12	40	40
07.02.01.BT-30 22	BT30	22	48	40

ÜRÜN KODU	Konik	D	D1	L
07.02.01.BT-40 16	BT40	16	40	40
07.02.01.BT-40 16-100	BT40	16	40	100
07.02.01.BT-40 22	BT40	22	48	45
07.02.01.BT-40 22-100	BT40	22	48	100
07.02.01.BT-40 22-120	BT40	22	48	120
07.02.01.BT-40 22-160	BT40	22	48	160
07.02.01.BT-40 22-200	BT40	22	48	200
07.02.01.BT-40 27	BT40	27	60	45
07.02.01.BT-40 27-100	BT40	27	60	100
07.02.01.BT-40 27-120	BT40	27	60	120
07.02.01.BT-40 27-160	BT40	27	60	160
07.02.01.BT-40 27-200	BT40	27	60	200
07.02.01.BT-40 32	BT40	32	78	50
07.02.01.BT-40 40	BT40	40	89	55

ÜRÜN KODU	Kod	D	D1	L
07.02.01.BT-50 16-160	BT50	16	40	160
07.02.01.BT-50 22-160	BT50	22	48	160
07.02.01.BT-50 22-200	BT50	22	48	200
07.02.01.BT-50 22-250	BT50	22	48	250
07.02.01.BT-50 22-300	BT50	22	48	300
07.02.01.BT-50 27-160	BT50	27	60	160
07.02.01.BT-50 27-200	BT50	27	60	200
07.02.01.BT-50 27-250	BT50	27	60	250
07.02.01.BT-50 27-300	BT50	27	60	300
07.02.01.BT-50 32-160	BT50	32	78	160
07.02.01.BT-50 32-200	BT50	32	78	200
07.02.01.BT-50 32-250	BT50	32	78	250
07.02.01.BT-50 40-100	BT50	40	89	100



## 07. HASSAS TUTUCULAR 02. MALAFALAR

### 02. VİDALI MALAFA MAS 403 BT



ÜRÜN KODU	M	A	d	D	D1
07.02.02.BT40-M06-100	M6	102	6,5	10	22,5
07.02.02.BT40-M06-150	M6	150	6,5	10	25
07.02.02.BT40-M08-100	M8	102	8,5	13	23
07.02.02.BT40-M08-150	M8	150	8,5	13	25
07.02.02.BT40-M10-100	M10	102	10,5	18	28
07.02.02.BT40-M10-150	M10	150	10,5	18	32
07.02.02.BT40-M12-075	M12	75	12,5	21	24
07.02.02.BT40-M12-100	M12	102	12,5	21	31
07.02.02.BT40-M16-075	M16	77	17	29	34
07.02.02.BT40-M16-100	M16	102	17	29	34

## 07. HASSAS TUTUCULAR 02. MALAFALAR



### 03. MANDREN MALAFASI MAS 403 BT



ÜRÜN KODU	Konik	D	L
07.02.03.BT-40 B16	BT40	B16	25
07.02.03.BT-40 B18	BT40	B18	25

### 04. MANDRENLİ MALAFA MAS 403 BT

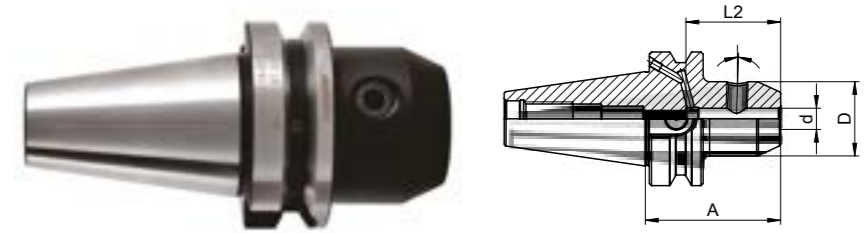


ÜRÜN KODU	Konik	Kapasite (mm)	D (mm)	L (mm)	h (mm)
07.02.03.BT-40 B16	BT40	1-13	42	85	58
07.02.03.BT-40 B18	BT40	1-16	49	100	73



## 07. HASSAS TUTUCULAR 03. VELDON TUTUCULAR

### VELDON TUTUCULAR MAS 403 BT



ÜRÜN KODU	Konik	D1	D	L
07.03.02.BT40 W6-50	BT40	6	25	50
07.03.02.BT40 W8-63	BT40	8	28	63
07.03.02.BT40 W10-63	BT40	10	35	63
07.03.02.BT40 W12-63	BT40	12	42	63
07.03.02.BT40 W12-100	BT40	12	42	100
07.03.02.BT40 W14-63	BT40	14	44	63
07.03.02.BT40 W16-70	BT40	16	48	70
07.03.02.BT40 W20-70	BT40	20	52	70
07.03.02.BT40 W20-100	BT40	20	52	100
07.03.02.BT40 W25-90	BT40	25	65	90
07.03.02.BT40 W32-100	BT40	32	72	100
07.03.02.BT40 W40-120	BT40	40	80	120

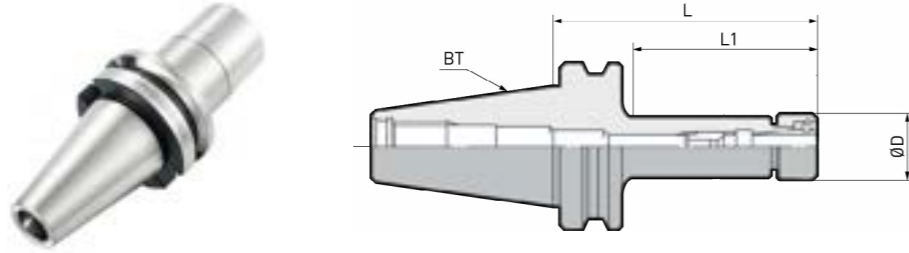
ÜRÜN KODU	Kod	D1	D	L
07.03.03.BT50 W16-105	BT50	16	48	105
07.03.03.BT50 W20-105	BT50	20	52	105
07.03.03.BT50 W25-105	BT50	25	65	105
07.03.03.BT50 W32-105	BT50	32	72	105
07.03.03.BT50 W40-105	BT50	40	80	105



## 07. HASSAS TUTUCULAR 04. HASSAS PENS BAŞLIKLARI

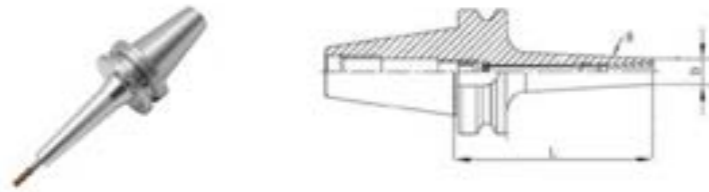


### HASSAS PENS BAŞLIKLARI MAS 403 BT



ÜRÜN KODU	L (mm)	L1(mm)	D (mm)	Model
07.04.01.BT30-GSK16-060	60	40	40	GSK16
07.04.02.BT40-GSK16-90	90	65	40	GSK16
07.04.02.BT40-GSK16-120	120	95	40	GSK16

### HASSAS PENS BAŞLIKLARI MAS 403 BT

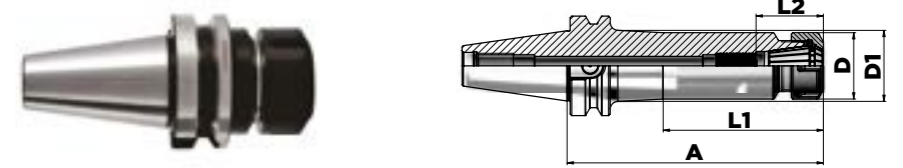


ÜRÜN KODU	L (mm)	D (mm)	Sıkma aralığı (mm)	Model
07.04.04.BT40-SDC6-100	100	14,5	3 - 6	SDC6
07.04.04.BT40-SDC6-150	150	14,5	3 - 6	SDC6
07.04.04.BT40-SDC12-100	100	34	3 - 12	SDC12
07.04.04.BT40-SDC12-150	150	34	3 - 12	SDC12



## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI

### 01. ER TİPİ PENS BAŞLIKLARI MAS 403 BBT



Konik	a +/- 0.2	d1	d2	d3 0/-0.1	l2	l1 +/- 0.02
BBT 30	2	31.75	M12	46	20	48.4
BBT 40	2	44.45	M16	63	25	65.4
BBT 50	3	69.85	M24	100	35	101.8

ÜRÜN KODU	Konik	L	D	Pens tipi Ø Sıkma aralığı
07.01.01.BBT-30 ER16-60	BBT 30	60	28	ER16 Ø 1-10mm
07.01.01.BBT-30 ER25-60	BBT 30	60	42	ER25 Ø 2-16mm
07.01.01.BBT-30 ER32-70	BBT 30	70	50	ER32 Ø 3-20mm

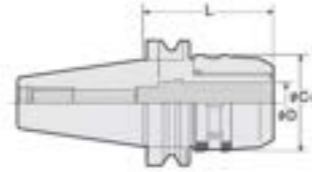
ÜRÜN KODU	Konik	L	D	Pens tipi Ø Sıkma aralığı
07.01.01.BBT-40 ER16-70	BBT 40	70	28	ER16 Ø 1-10mm
07.01.01.BBT-40 ER16-100	BBT 40	100	28	ER16 Ø 1-10mm
07.01.01.BBT-40 ER16-130	BBT 40	130	22	ER16 Ø 1-10mm
07.01.01.BBT-40 ER20-70	BBT 40	70	34	ER20 Ø 2-13mm
07.01.01.BBT-40 ER20-100	BBT 40	100	34	ER20 Ø 2-13mm
07.01.01.BBT-40 ER25-70	BBT 40	70	42	ER25 Ø 2-16mm
07.01.01.BBT-40 ER25-100	BBT 40	100	42	ER25 Ø 2-16mm
07.01.01.BBT-40 ER32-70	BBT 40	70	50	ER32 Ø 3-20mm
07.01.01.BBT-40 ER32-100	BBT 40	100	50	ER32 Ø 3-20mm
07.01.01.BBT-40 ER40-80	BBT 40	80	63	ER40 Ø 4-26mm
07.01.01.BBT-40 ER40-100	BBT 40	100	63	ER40 Ø 4-26mm

ÜRÜN KODU	Konik	L	D	Pens tipi Ø Sıkma aralığı
07.01.01.BBT-50 ER32-70	BBT50	70	50	ER32 Ø 3-20mm
07.01.01.BBT-50 ER32-100	BBT50	100	50	ER32 Ø 3-20mm
07.01.01.BBT-50 ER40-100	BBT50	100	63	ER40 Ø 4-26mm
07.01.01.BBT-50 ER40-150	BBT50	150	63	ER40 Ø 4-26mm

## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI

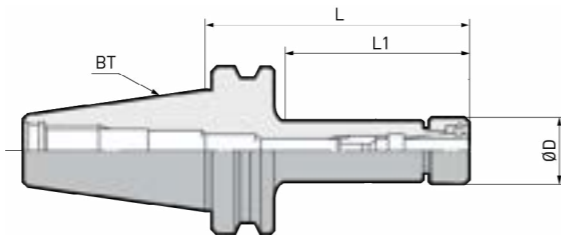


### 02. BİLYALI PENS BAŞLIKLARI MAS 403 BBT



ÜRÜN KODU	C1	D	L
07.01.02.BBT40-C32-105	75	32	105
07.01.02.BBT50-C32-115	75	32	115

### HASSAS PENS BAŞLIKLARI MAS 403 BBT

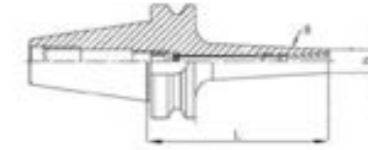


ÜRÜN KODU	L (mm)	L1(mm)	D (mm)	Model
07.04.01.BBT30-GSK16-060	60	40	40	GSK16
07.04.02.BBT40-GSK16-90	90	65	40	GSK16
07.04.02.BBT40-GSK16-120	120	95	40	GSK16



## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI

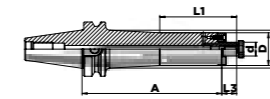
### HASSAS PENS BAŞLIKLARI MAS 403 BBT



ÜRÜN KODU	L (mm)	D (mm)	Sıkma aralığı (mm)	Model
07.04.04.BBT40-SDC6-100	100	14,5	3 - 6	SDC6
07.04.04.BBT40-SDC6-150	150	14,5	3 - 6	SDC6
07.04.04.BBT40-SDC12-100	100	34	3 - 12	SDC12
07.04.04.BBT40-SDC12-150	150	34	3 - 12	SDC12

### 02. MALAFALAR

### 01. ALIN KAMALI MALAFA MAS 403 BBT



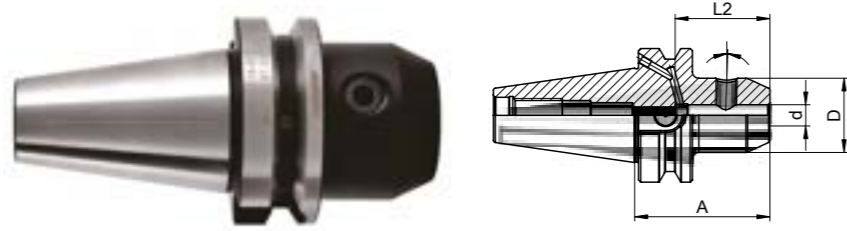
ÜRÜN KODU	Konik	D	D1	L
07.02.01.BBT-30 16	BBT30	12	40	40
07.02.01.BBT-30 22	BBT30	22	48	40

ÜRÜN KODU	Konik	D	D1	L
07.02.01.BBT-40 16	BBT40	16	40	40
07.02.01.BBT-40 16-100	BBT40	16	40	100
07.02.01.BBT-40 22	BBT40	22	48	45
07.02.01.BBT-40 22-100	BBT40	22	48	100
07.02.01.BBT-40 22-120	BBT40	22	48	120
07.02.01.BBT-40 22-160	BBT40	22	48	160
07.02.01.BBT-40 22-200	BBT40	22	48	200
07.02.01.BBT-40 27	BBT40	27	60	45
07.02.01.BBT-40 27-100	BBT40	27	60	100
07.02.01.BBT-40 27-120	BBT40	27	60	120
07.02.01.BBT-40 27-160	BBT40	27	60	160
07.02.01.BBT-40 27-200	BBT40	27	60	200
07.02.01.BBT-40 32	BBT40	32	78	50
07.02.01.BBT-40 40	BBT40	40	89	55

07. HASSAS TUTUCULAR  
03. VELDON TUTUCULAR



VELDON TUTUCULAR  
MAS 403 BBT



ÜRÜN KODU	Konik	D1	D	L
07.03.02.BBT40 W6-50	BBT40	6	25	50
07.03.02.BBT40 W8-63	BBT40	8	28	63
07.03.02.BBT40 W10-63	BBT40	10	35	63
07.03.02.BBT40 W12-63	BBT40	12	42	63
07.03.02.BBT40 W12-100	BBT40	12	42	100
07.03.02.BBT40 W14-63	BBT40	14	44	63
07.03.02.BBT40 W16-70	BBT40	16	48	70
07.03.02.BBT40 W20-70	BBT40	20	52	70
07.03.02.BBT40 W20-100	BBT40	20	52	100
07.03.02.BBT40 W25-90	BBT40	25	65	90
07.03.02.BBT40 W32-100	BBT40	32	72	100
07.03.02.BBT40 W40-120	BBT40	40	80	120



07. HASSAS TUTUCULAR  
01. PENS BAŞLIKLARI

01. ER TİPİ PENS BAŞLIKLARI  
DIN 69871 (SK)



Konik	a +/- 0.2	d1	d2	d3 0/-0.1	l2	l1 +/-0.02
SK30	2	31.75	M12	46	20	48.4
SK40	2	44.45	M16	63	25	65.4

ÜRÜN KODU	Konik	L	D	Pens tipi Ø Sıkma aralığı
07.01.01.SK-30 ER16-60	SK30	60	28	ER16 Ø 1-10mm
07.01.01.SK-30 ER25-60	SK30	60	42	ER25 Ø 2-16mm
07.01.01.SK-30 ER32-70	SK30	70	50	ER32 Ø 3-20mm

ÜRÜN KODU	Konik	L	D	Pens tipi Ø Sıkma aralığı
07.01.01.SK-40 ER16-70	SK40	70	28	ER16 Ø 1-10mm
07.01.01.SK-40 ER16-100	SK40	100	28	ER16 Ø 1-10mm
07.01.01.SK-40 ER16-130	SK40	130	22	ER16 Ø 1-10mm
07.01.01.SK-40 ER20-70	SK40	70	34	ER20 Ø 2-13mm
07.01.01.SK-40 ER20-100	SK40	100	34	ER20 Ø 2-13mm
07.01.01.SK-40 ER25-70	SK40	70	42	ER25 Ø 2-16mm
07.01.01.SK-40 ER25-100	SK40	100	42	ER25 Ø 2-16mm
07.01.01.SK-40 ER32-70	SK40	70	50	ER32 Ø 3-20mm
07.01.01.SK-40 ER32-100	SK40	100	50	ER32 Ø 3-20mm
07.01.01.SK-40 ER40-80	SK40	80	63	ER40 Ø 4-26mm
07.01.01.SK-40 ER40-100	SK40	100	63	ER40 Ø 4-26mm

## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI



### 02. BİLYALI PENS BAŞLIKLARI DIN 69871 (SK)



ÜRÜN KODU	D1	D	L
07.01.02.SK40-C32-105	75	32	105
07.01.02.SK50-C32-115	75	32	115

### 02. MALAFALAR 03. MANDREN MALAFASI DIN 69871 (SK)



ÜRÜN KODU	Konik	D1	L1	A
07.02.03.SK-40 B16	SK40	B16	24	26
07.02.03.SK-40 B18	SK40	B18	32	42



## 07. HASSAS TUTUCULAR 02. MALAFALAR

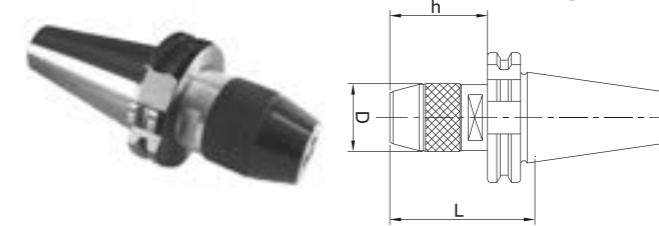


### 01. ALIN KAMALI MALAFA DIN 69871 (SK)

ÜRÜN KODU	Konik	D	D1	L
07.02.01.SK-30 16	SK30	12	40	40
07.02.01.SK-30 22	SK30	22	48	40

ÜRÜN KODU	Konik	D	D1	L
07.02.01.SK-40 16	SK40	16	40	40
07.02.01.SK-40 16-100	SK40	16	40	100
07.02.01.SK-40 22	SK40	22	48	45
07.02.01.SK-40 22-100	SK40	22	48	100
07.02.01.SK-40 22-120	SK40	22	48	120
07.02.01.SK-40 22-160	SK40	22	48	160
07.02.01.SK-40 22-200	SK40	22	48	200
07.02.01.SK-40 27	SK40	27	60	45
07.02.01.SK-40 27-100	SK40	27	60	100
07.02.01.SK-40 27-120	SK40	27	60	120
07.02.01.SK-40 27-160	SK40	27	60	160
07.02.01.SK-40 27-200	SK40	27	60	200
07.02.01.SK-40 32	SK40	32	78	50
07.02.01.SK-40 40	SK40	40	89	55

### 04. MANDRENLİ MALAFALAR DIN 69871 (SK)



ÜRÜN KODU	Konik	Kapasite (mm)	D (mm)	L (mm)	h (mm)
07.02.03.SK-40 B16	SK40	1 - 13	42	85	58
07.02.03.SK-40 B18	SK40	1 - 16	49	100	73

## 07. HASSAS TUTUCULAR 03. VELDON TUTUCULAR



### VELDON TUTUCULAR DIN 69871 (SK)



ÜRÜN KODU	Konik	D1	D	L
0703.02.SK40 W6-50	SK40	6	25	50
0703.02.SK40 W8-63	SK40	8	28	63
0703.02.SK40 W10-63	SK40	10	35	63
0703.02.SK40 W12-63	SK40	12	42	63
0703.02.SK40 W12-100	SK40	12	42	100
0703.02.SK40 W14-63	SK40	14	44	63
0703.02.SK40 W16-70	SK40	16	48	70
0703.02.SK40 W20-70	SK40	20	52	70
0703.02.SK40 W20-100	SK40	20	52	100
0703.02.SK40 W25-90	SK40	25	65	90
0703.02.SK40 W32-100	SK40	32	72	100
0703.02.SK40 W40-120	SK40	40	80	120



## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI

### 01. ER TİPİ PENS BAŞLIKLARI DIN 2080 (ISO)



ÜRÜN KODU	Konik	A	D	Pens tipi Ø Sıkma aralığı
0701.01.ISO-40 ER25-60	ISO40	60	42	ER25 Ø 2-16mm
0701.01.ISO-40 ER32-70	ISO40	70	50	ER32 Ø 3-20mm
0701.01.ISO-40 ER40-80	ISO40	80	63	ER40 Ø 4-26mm

### 03. 462-E / 04. 467-E DIN 2080 (ISO)



ÜRÜN KODU	Konik	A	D	Pens tipi Ø Sıkma aralığı
0701.03.ISO40 462 E	ISO40	70	60	462-E Ø 2-25mm
0701.04.ISO40 467 E	ISO40	80	72	467-E Ø 4-32mm

## 07. HASSAS TUTUCULAR 02. MALAFALAR



### ALIN KAMALI MALAFA DIN 2080 (ISO)



ÜRÜN KODU	Konik	d	A	D	L3
07.02.01.ISO-40 16-30	ISO40 FM16	16	30	38	17
07.02.01.ISO-40 22-30	ISO40 FM22	22	30	48	19
07.02.01.ISO-40 27-30	ISO40 FM27	27	30	60	21
07.02.01.ISO-40 32-50	ISO40 FM32	32	50	78	24
07.02.01.ISO-40 40-50	ISO40 FM40	40	50	88	27

### 03. VELDON TUTUCULAR DIN 2080 (ISO)



ÜRÜN KODU	Konik	d	A	D	L2
07.03.05.ISO40 W12	ISO40	12	50	42	51
07.03.05.ISO40 W16	ISO40	16	63	48	54
07.03.05.ISO40 W20	ISO40	20	63	52	56
07.03.05.ISO40 W25	ISO40	25	80	63	64
07.03.05.ISO40 W32	ISO40	32	80	72	68
07.03.05.ISO40 W40	ISO40	40	90	80	78



## 07. HASSAS TUTUCULAR 02. MALAFALAR

### 03. MANDREN MALAFASI DIN 2080 (ISO)



ÜRÜN KODU	Konik	D1	L1	A
07.02.03.ISO-40 B16	ISO40	B16	24	18
07.02.03.ISO-40 B18	ISO40	B18	32	18

### KAMALI MORS ADAPTÖRÜ DIN 2080 (ISO)



ÜRÜN KODU	Konik	MK	A	D
07.02.01.ISO-40 MK1	ISO40	1	50	25
07.02.01.ISO-40 MK2	ISO40	2	50	32
07.02.01.ISO-40 MK3	ISO40	3	65	40
07.02.01.ISO-40 MK4	ISO40	4	95	48

## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI



### PENS BAŞLIĞI DIN 69893 (HSK 63)



ÜRÜN KODU	Konik	L	D	Pens tipi Ø Sıkma aralığı
07.01.01.HSK63 ER16	HSK63 ER16	100	28	ER16 Ø 1-10mm
07.01.01.HSK63 ER25	HSK63 ER25	100	42	ER25 Ø 2-16mm
07.01.01.HSK63 ER32	HSK63 ER32	100	50	ER32 Ø 3-20mm
07.01.01.HSK63 ER40	HSK63 ER40	100	63	ER40 Ø 4-26mm

### KAMALI MORS KONİK PENS BAŞLIĞI DIN 228



ÜRÜN KODU	Konik	A	D	Pens tipi Ø Sıkma aralığı
07.01.03.MK4-462E-84	MK4 462E	84	60	ER25 Ø 2-25mm
07.01.03.MK4-467E-94	MK4 467E	94	72	ER32 Ø 3-32mm

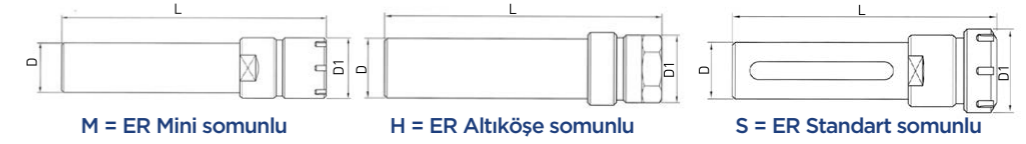


## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI

### SİLİNDİRİK SAPLI PENS BAŞLIĞI ER TİPİ

Kodun sonundaki harf somun tipini belirtir

- M=ER Mini somunlu
- H=ER Altıköşe somunlu
- S=ER Standart somunlu



ÜRÜN KODU	D	D1	L	Pens tipi Ø Sıkma aralığı
07.01.01.C8-ER8M-055	8	12	55	ER8 Ø 1-5mm
07.01.01.C8-ER8M-100	8	12	100	ER8 Ø 1-5mm
07.01.01.C10-ER8M-100	10	12	100	ER8 Ø 1-5mm
07.01.01.C10-ER8M-150	10	12	150	ER8 Ø 1-5mm
07.01.01.C12-ER8M-100	12	12	100	ER8 Ø 1-5mm
07.01.01.C12-ER8M-120	12	12	120	ER8 Ø 1-5mm



ÜRÜN KODU	D	D1	L	Pens tipi Ø Sıkma aralığı
07.01.01.C12-ER11M-100	12	16	80	ER11 Ø 1-7mm
07.01.01.C16-ER11M-115	16	16	115	ER11 Ø 1-7mm
07.01.01.C16-ER11M-130	16	16	130	ER11 Ø 1-7mm
07.01.01.C16-ER11M-150	16	16	150	ER11 Ø 1-7mm



ÜRÜN KODU	D	D1	L	Pens tipi Ø Sıkma aralığı
07.01.01.C20-ER16M-100	20	22	100	ER16 Ø 1-10mm
07.01.01.C20-ER16M-150	20	22	150	ER16 Ø 1-10mm
07.01.01.C20-ER16M-200	20	22	200	ER16 Ø 1-10mm
07.01.01.C20-ER16M-250	20	22	250	ER16 Ø 1-10mm



ÜRÜN KODU	D	D1	L	Pens tipi Ø Sıkma aralığı
07.01.01.C25-ER20A-100	25	34	100	ER20 Ø 2-13mm
07.01.01.C20-ER20M-120	20	28	120	ER20 Ø 2-13mm
07.01.01.C20-ER20M-150	20	28	150	ER20 Ø 2-13mm

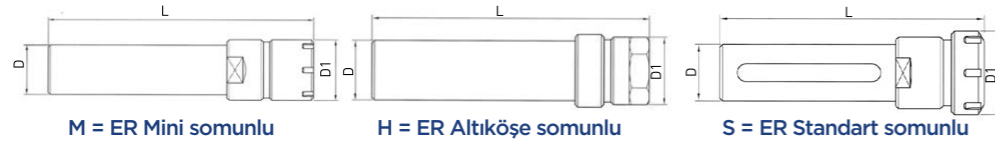


## 07. HASSAS TUTUCULAR 01. PENS BAŞLIKLARI



### SİLİNDİRİK SAPLI PENS BAŞLIĞI ER TİPİ

- Kodun sonundaki harf somun tipini belirtir  
M=ER Mini somunlu  
H=ER Altköşe somunlu  
S=ER Standart somunlu



ÜRÜN KODU	D	D1	L	Pens tipi Ø Sıkma aralığı
07.01.01.C25-ER25M-150	25	35	150	ER25 Ø 2-16mm
07.01.01.C25-ER25UM-100	25	42	100	ER25 Ø 2-16mm
07.01.01.C32-ER25UM-100	32	42	100	ER25 Ø 2-16mm
07.01.01.C32-ER25UM-150	32	42	150	ER25 Ø 2-16mm



ÜRÜN KODU	D	D1	L	Pens tipi Ø Sıkma aralığı
07.01.01.C25-ER32UM-100	25	50	100	ER32 Ø 3-20mm
07.01.01.C32-ER32UM-060	32	50	60	ER32 Ø 3-20mm
07.01.01.C32-ER32UM-100	32	50	100	ER32 Ø 3-20mm
07.01.01.C40-ER32UM-100	40	50	100	ER32 Ø 3-20mm

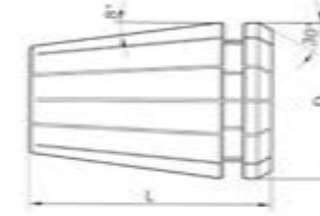


ÜRÜN KODU	D	D1	L	Pens tipi Ø Sıkma aralığı
07.01.01.C32-ER40UM-050	32	63	50	ER40 Ø 4-26mm
07.01.01.C40-ER40UM-085	40	63	85	ER40 Ø 4-26mm
07.01.01.C40-ER40UM-150	40	63	150	ER40 Ø 4-26mm



## 07. HASSAS TUTUCULAR 10. PENSLER

### 01. ER TİPİ PENSLELER (Ø 1-5 MM) ER 8



#### TEKNİK DETAY

D	8.5 mm
L	13 mm
TUTMA ARALIĞI	1.0 - 5.0 mm
TUTMA KAPASİTESİ	0.5 mm

#### ER 8 CLASS 1

ÜRÜN KODU	Aralık Ø
07.10.01.ER-8 1,0mm	1.0 - 0.5
07.10.01.ER-8 1,5mm	1.5 - 1.0
07.10.01.ER-8 2,0mm	2.0 - 1.5
07.10.01.ER-8 2,5mm	2.5 - 2.0
07.10.01.ER-8 3,0mm	3.0 - 2.5
07.10.01.ER-8 3,5mm	3.5 - 3.0
07.10.01.ER-8 4,0mm	4.0 - 3.5
07.10.01.ER-8 4,5mm	4.5 - 4.0
07.10.01.ER-8 5,0mm	5.0 - 4.5

### 06. PENS SETLERİ

#### 01. ER TİPİ PENS TAKIMLARI - ER 8 (Ø 1 - 5 MM 9 ADET) / ER 8



#### ER 8 COLLET SET CLASS 1

ÜRÜN KODU	Açıklama
07.06.01.ER8	9 Adet ER8 pens Class 1 Ø 1 - 5 mm arası 0.5 mm atlamalı plastik kutuda



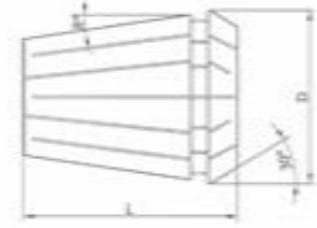
01. ER TİPİ PENSLER (Ø1-7 MM)

ER 11

TEKNİK DETAY	
D	11.5 mm
L	18 mm
TUTMA ARALIĞI	1.0 - 7.0 mm
TUTMA KAPASİTESİ	0.5 mm

ER 11 CLASS 1	
ÜRÜN KODU	Aralık Ø
07.10.01.ER-11 1,0mm	1.0 - 0.5
07.10.01.ER-11 1,5mm	1.5 - 1.0
07.10.01.ER-11 2,0mm	2.0 - 1.5
07.10.01.ER-11 2,5mm	2.5 - 2.0
07.10.01.ER-11 3,0mm	3.0 - 2.5
07.10.01.ER-11 3,5mm	3.5 - 3.0
07.10.01.ER-11 4,0mm	4.0 - 3.5
07.10.01.ER-11 4,5mm	4.5 - 4.0
07.10.01.ER-11 5,0mm	5.0 - 4.5
07.10.01.ER-11 5,5mm	5.5 - 5.0
07.10.01.ER-11 6,0mm	6.0 - 5.5
07.10.01.ER-11 6,5mm	6.5 - 6.0
07.10.01.ER-11 7,0mm	7.0 - 6.5



06. PENS SETLERİ

01. ER TİPİ PENS TAKIMLARI - ER11 (Ø1 - 7 MM 13 PARÇA) / ER 11

ER 11 COLLET SET CLASS 1	
ÜRÜN KODU	Açıklama
07.06.01.ER11	13 Adet ER11 pens Class 1 Ø1 - 7 mm arası 0.5 mm atlamalı plastik kutuda



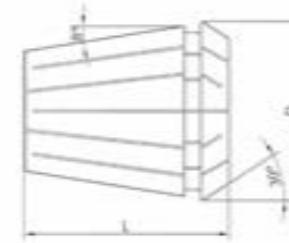
01. ER TİPİ PENSLER (Ø1-10 MM)

ER 16

TEKNİK DETAY	
D	17 mm
L	27.5 mm
TUTMA ARALIĞI	1.0 - 10 mm
TUTMA KAPASİTESİ	1.0 mm

ER 16 CLASS 1	
ÜRÜN KODU	Aralık Ø
07.10.01.ER-16 1,0mm	1.0 - 0.5
07.10.01.ER-16 2,0mm	2.0 - 1.5
07.10.01.ER-16 3,0mm	3.0 - 2.5
07.10.01.ER-16 4,0mm	4.0 - 3.0
07.10.01.ER-16 5,0mm	5.0 - 4.0
07.10.01.ER-16 6,0mm	6.0 - 5.0
07.10.01.ER-16 7,0mm	7.0 - 6.0
07.10.01.ER-16 8,0mm	8.0 - 7.0
07.10.01.ER-16 9,0mm	9.0 - 8.0
07.10.01.ER-16 10,0mm	10.0 - 9.0



06. PENS SETLERİ

01. ER TİPİ PENS TAKIMLARI - (Ø 1-10 MM 10 ADET) / ER 16

ER 16 COLLET SET CLASS 1	
ÜRÜN KODU	Açıklama
07.06.01.ER16	10 Adet ER16 pens Class 1 Ø1 - 10 mm arası 1.0 mm atlamalı plastik kutuda



## 07. HASSAS TUTUCULAR 10. PENSLER



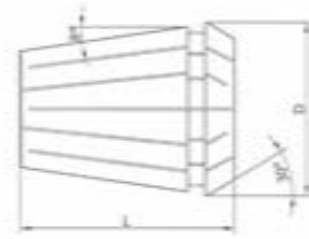
### 01. ER TİPİ PENSLER (Ø 2 - 13 MM)

ER 20

TEKNİK DETAY	
D	21 mm
L	31.5 mm
TUTMA ARALIĞI	2.0 - 13 mm
TUTMA KAPASİTESİ	1.0 mm

ER 20 CLASS 1	
ÜRÜN KODU	Aralık Ø
07.10.01.ER-20 1,0mm	
07.10.01.ER-20 2,0mm	2.0 - 1.5
07.10.01.ER-20 3,0mm	3.0 - 2.5
07.10.01.ER-20 4,0mm	4.0 - 3.0
07.10.01.ER-20 5,0mm	5.0 - 4.0
07.10.01.ER-20 6,0mm	6.0 - 5.0
07.10.01.ER-20 7,0mm	7.0 - 6.0
07.10.01.ER-20 8,0mm	8.0 - 7.0
07.10.01.ER-20 9,0mm	9.0 - 8.0
07.10.01.ER-20 10,0mm	10.0 - 9.0
07.10.01.ER-20 11,0mm	11.0 - 10.0
07.10.01.ER-20 12,0mm	12.0 - 11.0
07.10.01.ER-20 13,0mm	13.0 - 12.0



### 06. PENS SETLERİ

#### 01. ER TİPİ PENS TAKIMLARI - ER20 (Ø 2 - 13 MM 12 ADET) / ER 20

ER 20 COLLET SET CLASS 1	
ÜRÜN KODU	Açıklama
07.06.01.ER20	10 Adet ER20 pens Class 1 Ø 1 - 10 mm arası 1.0 mm atlamalı plastik kutuda



## 07. HASSAS TUTUCULAR 10. PENSLER

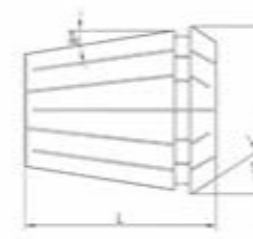
### 01. ER TİPİ PENSLER (Ø 1 - 16 MM)

ER 25

TEKNİK DETAY	
D	26 mm
L	34 mm
TUTMA ARALIĞI	2.0 - 16mm
TUTMA KAPASİTESİ	1.0mm

ER 25 CLASS 1	
ÜRÜN KODU	Aralık Ø
07.10.01.ER-25 2,0mm	2.0 - 1.5
07.10.01.ER-25 3,0mm	3.0 - 2.5
07.10.01.ER-25 4,0mm	4.0 - 3.0
07.10.01.ER-25 5,0mm	5.0 - 4.0
07.10.01.ER-25 6,0mm	6.0 - 5.0
07.10.01.ER-25 7,0mm	7.0 - 6.0
07.10.01.ER-25 8,0mm	8.0 - 7.0
07.10.01.ER-25 9,0mm	9.0 - 8.0
07.10.01.ER-25 10,0mm	10.0 - 9.0
07.10.01.ER-25 11,0mm	11.0 - 10.0
07.10.01.ER-25 12,0mm	12.0 - 11.0
07.10.01.ER-25 13,0mm	13.0 - 12.0
07.10.01.ER-25 14,0mm	14.0 - 13.0
07.10.01.ER-25 15,0mm	15.0 - 14.0
07.10.01.ER-25 16,0mm	16.0 - 15.0



### 06. PENS SETLERİ

#### 01. ER TİPİ PENS TAKIMLARI - (Ø 2 - 16 MM 15 ADET) / ER 25

ER 25 COLLET SET CLASS 1	
ÜRÜN KODU	Açıklama
07.06.01.ER25	15 Adet ER25 pens Class 1 Ø 2 - 16 mm arası 1.0 mm atlamalı plastik kutuda



## 07. HASSAS TUTUCULAR 10. PENSLER

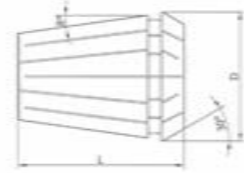


### 01. ER TİPİ PENSLER (Ø 2 - 20 MM)

#### ER 32

TEKNİK DETAY	
D	33 mm
L	40 mm
TUTMA ARALIĞI	2.0 - 20.0 mm
TUTMA KAPASİTESİ	1.0 mm

ER 32 CLASS 1	
ÜRÜN KODU	Aralık Ø
07.10.01.ER-32 2,0mm	2.0 - 1.5
07.10.01.ER-32 3,0mm	3.0 - 2.5
07.10.01.ER-32 4,0mm	4.0 - 3.0
07.10.01.ER-32 5,0mm	5.0 - 4.0
07.10.01.ER-32 6,0mm	6.0 - 5.0
07.10.01.ER-32 7,0mm	7.0 - 6.0
07.10.01.ER-32 8,0mm	8.0 - 7.0
07.10.01.ER-32 9,0mm	9.0 - 8.0
07.10.01.ER-32 10,0mm	10.0 - 9.0
07.10.01.ER-32 11,0mm	11.0 - 10.0
07.10.01.ER-32 12,0mm	12.0 - 11.0
07.10.01.ER-32 13,0mm	13.0 - 12.0
07.10.01.ER-32 14,0mm	14.0 - 13.0



ER 32 CLASS 1	
ÜRÜN KODU	Aralık Ø
07.10.01.ER-32 15,0mm	15.0 - 14.0
07.10.01.ER-32 16,0mm	16.0 - 15.0
07.10.01.ER-32 17,0mm	17.0 - 16.0
07.10.01.ER-32 18,0mm	18.0 - 17.0
07.10.01.ER-32 19,0mm	19.0 - 18.0
07.10.01.ER-32 20,0mm	20.0 - 19.0

### 06. PENS SETLERİ

#### 01. ER TİPİ PENS TAKIMLARI - ER32 (Ø 3 - 20 MM 18 ADET) / ER 32

ER 32 COLLET SET CLASS 1	
ÜRÜN KODU	Açıklama
07.06.01.ER32	18 Adet ER32 pens Class 1 Ø 3 - 20 mm arası 1.0 mm atlamalı plastik kutuda

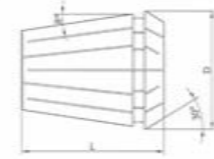


## 07. HASSAS TUTUCULAR 10. PENSLER

### 01. ER TİPİ PENSLER (Ø 3 - 26 MM)

#### ER 40

TEKNİK DETAY	
D	41 mm
L	46 mm
TUTMA ARALIĞI	3.0 - 26mm
TUTMA KAPASİTESİ	1.0mm



ER 40 CLASS 1	
ÜRÜN KODU	Aralık Ø
07.10.01.ER-40 18,0mm	18.0 - 17.0
07.10.01.ER-40 19,0mm	19.0 - 18.0
07.10.01.ER-40 20,0mm	20.0 - 19.0
07.10.01.ER-40 21,0mm	21.0 - 20.0
07.10.01.ER-40 22,0mm	22.0 - 21.0
07.10.01.ER-40 23,0mm	23.0 - 22.0
07.10.01.ER-40 24,0mm	24.0 - 23.0
07.10.01.ER-40 25,0mm	25.0 - 24.0
07.10.01.ER-40 26,0mm	26.0 - 25.0
07.10.01.ER-40 30,0mm	30.0 - 29.0

ER 40 CLASS 1	
ÜRÜN KODU	Aralık Ø
07.10.01.ER-40 3,0mm	3.0 - 2.5
07.10.01.ER-40 4,0mm	4.0 - 3.0
07.10.01.ER-40 5,0mm	5.0 - 4.0
07.10.01.ER-40 6,0mm	6.0 - 5.0
07.10.01.ER-40 7,0mm	7.0 - 6.0
07.10.01.ER-40 8,0mm	8.0 - 7.0
07.10.01.ER-40 9,0mm	9.0 - 8.0
07.10.01.ER-40 10,0mm	10.0 - 9.0
07.10.01.ER-40 11,0mm	11.0 - 10.0
07.10.01.ER-40 12,0mm	12.0 - 11.0
07.10.01.ER-40 13,0mm	13.0 - 12.0
07.10.01.ER-40 14,0mm	14.0 - 13.0
07.10.01.ER-40 15,0mm	15.0 - 14.0
07.10.01.ER-40 16,0mm	16.0 - 15.0
07.10.01.ER-40 17,0mm	17.0 - 16.0

### 06. PENS SETLERİ

#### 01. ER TİPİ PENS TAKIMLARI - (Ø 4 - 26 MM 23 ADET) / ER 40

ER 40 COLLET SET CLASS 1	
ÜRÜN KODU	Açıklama
07.06.01.ER40	23 Adet ER40 pens Class 1 Ø 4 - 26 mm arası 1.0 mm atlamalı plastik kutuda

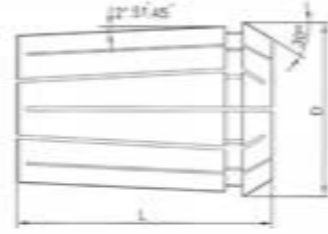


## 07. HASSAS TUTUCULAR 10. PENSLER



### PENSLER (Ø 3 - 25 MM)

OZ - 462 E



#### TEKNİK DETAY

<b>D</b>	35.05 mm
<b>L</b>	52 mm
<b>α</b>	2° 51' 45"
<b>β</b>	30
<b>TUTMA ARALIĞI</b>	4.0 - 25.0 mm
<b>TUTMA KAPASİTESİ</b>	0.5 mm

#### DIN 6388B-25 CLASS 1

ÜRÜN KODU	Aralık Ø
07.10.01.462E 3.0mm	3.0-2.5
07.10.01.462E 4.0mm	4.0-3.5
07.10.01.462E 5.0mm	5.0-4.5
07.10.01.462E 6.0mm	6.0-5.5
07.10.01.462E 7.0mm	7.0-6.5
07.10.01.462E 8.0mm	8.0-7.5
07.10.01.462E 9.0mm	9.0-8.5
07.10.01.462E 10.0mm	10.0-9.5
07.10.01.462E 11.0mm	11.0-10.5
07.10.01.462E 12.0mm	12.0-11.5
07.10.01.462E 13.0mm	13.0-12.5
07.10.01.462E 14.0mm	14.0-13.5

#### DIN 6388B-25 CLASS 1

ÜRÜN KODU	Aralık Ø
07.10.01.462E 15.0mm	15.0-14.5
07.10.01.462E 16.0mm	16.0-15.5
07.10.01.462E 17.0mm	17.0-16.5
07.10.01.462E 18.0mm	18.0-17.5
07.10.01.462E 19.0mm	19.0-18.5
07.10.01.462E 20.0mm	20.0-19.5
07.10.01.462E 21.0mm	21.0-20.5
07.10.01.462E 22.0mm	22.0-21.5
07.10.01.462E 23.0mm	23.0-22.5
07.10.01.462E 24.0mm	24.0-23.5
07.10.01.462E 25.0mm	25.0-24.5

### 06. PENS SETLERİ

PENS TAKIMLARI - (Ø 4 - 25 MM 23 ADET) / OZ - 462 E

#### OZ 25 COLLET SET

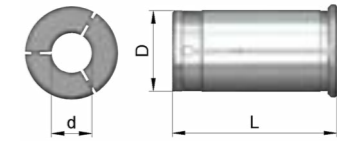
ÜRÜN KODU	Açıklama
07.06.01.462E	23 Adet DIN6388B - 25 pens Ø 4 - 25 mm arası 1.0 mm atlamalı plastik kutuda



## 07. HASSAS TUTUCULAR 10. PENSLER

### 02. BİLYALI PENSLER

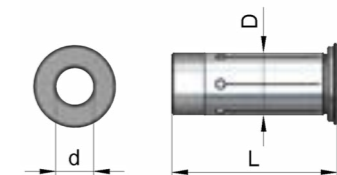
C32



ÜRÜN KODU	d	D	L
07.10.02.C32-04	4	32	65
07.10.02.C32-05	5	32	65
07.10.02.C32-06	6	32	65
07.10.02.C32-08	8	32	65
07.10.02.C32-10	10	32	65
07.10.02.C32-12	12	32	65
07.10.02.C32-14	14	32	65
07.10.02.C32-16	16	32	65
07.10.02.C32-18	18	32	65
07.10.02.C32-20	20	25	66
07.10.02.C32-25	25	25	66

### 05. HİDROLİK PENSLER

D20



ÜRÜN KODU	d	D	L
07.10.04.D20 3	3	20	53
07.10.04.D20 4	4	20	53
07.10.04.D20 5	5	20	53
07.10.04.D20 6	6	20	53
07.10.04.D20 8	8	20	53
07.10.04.D20 10	10	20	53
07.10.04.D20 12	12	20	53
07.10.04.D20 14	14	20	53
07.10.04.D20 16	16	20	53

03. GSK TİPİ PENSLER

GSK10



ÜRÜN KODU	d	d1	d2	d3	d4	L	L1	L2	L3
07.10.02.10-02	2	15.45	12	9.5	11.8	30.5	21.1	5.1	2.4
07.10.02.10-03	3	15.45	12	9.5	11.8	30.5	21.1	5.1	2.4
07.10.02.10-04	4	15.45	12	9.5	11.8	30.5	21.1	5.1	2.4
07.10.02.10-05	5	15.45	12	9.5	11.8	30.5	21.1	5.1	2.4
07.10.02.10-06	6	15.45	12	9.5	11.8	30.5	21.1	5.1	2.4
07.10.02.10-08	8	15.45	12	9.5	11.8	30.5	21.1	5.1	2.4
07.10.02.10-10	10	15.45	12	9.5	11.8	30.5	21.1	5.1	2.4

GSK16



ÜRÜN KODU	d	d1	d2	d3	d4	L	L1	L2	L3
07.10.02.16-03	3	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-04	4	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-05	5	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-06	6	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-08	8	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-09	9	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-10	10	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-11	11	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-12	12	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-14	14	24.52	18.8	15.5	19	45	32.4	7.5	2.5
07.10.02.16-16	16	24.52	18.8	15.5	19	45	32.4	7.5	2.5

04. SDC TİPİ PENSLER

SDC6



ÜRÜN KODU	d	D1	L1	D2	L
07.10.02.06-03	3	10.2	9	8	37.5
07.10.02.06-04	4	10.2	12	8	37.5
07.10.02.06-05	5	10.2	15	8	37.5
07.10.02.06-06	6	10.2	20	8	37.5

SDC12



ÜRÜN KODU	d	D1	L1	D2	L
07.10.02.12-03	3	18.2	9	14.5	57.5
07.10.02.12-04	4	18.2	12	14.5	57.5
07.10.02.12-05	5	18.2	15	14.5	57.5
07.10.02.12-06	6	18.2	20	14.5	57.5
07.10.02.12-08	8	18.2	26	14.5	57.5
07.10.02.12-010	10	18.2	30	14.5	57.5
07.10.02.12-012	12	18.2	34	14.5	57.5

## 07. HASSAS TUTUCULAR 08. PULLSTADLAR



### 01. TYPE MAS 403 BT / BT30 / BT40 / BT50



ÜRÜN KODU	KONİK	M	D	D1	L	L1	°
07.08.01.M12 45° L43	BT30	M12	16,5	11	43	23	45°
07.08.02.M16 45° L60	BT40	M16	23	15	60	35	45°
07.08.02.M16 60° L60	BT40	M16	23	15	60	35	60°
07.08.02.M16 90° L60	BT40	M16	23	15	60	35	90°
07.08.03.M24 45° L85	BT50	M24	38	23	85	45	45°

### 02. TYPE MAS 403 BT / BT40 / BT50 - İÇTEN SOĞUTMALI

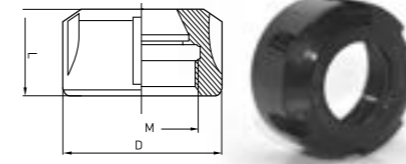


ÜRÜN KODU	KONİK	M	D	D1	L	L1	°
07.08.02.M16 45° L60S	BT40	M16	23	15	60	35	45°
07.08.02.M24 45° L85S	BT50	M24	38	23	85	45	45°



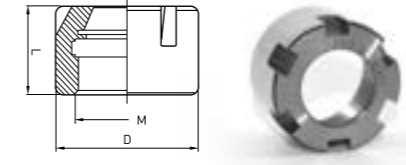
## 07. HASSAS TUTUCULAR 09. PENS SOMUNLARI

### 01. ER TİPİ STANDART SOMUN



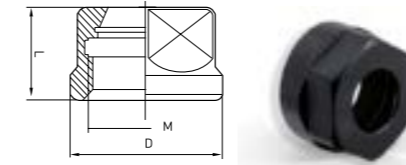
ÜRÜN KODU	ER TİPİ	D	L	M
07.09.01.ER 16-UM	ER 16 - UM	32	17,5	M 22*1,5
07.09.01.ER 20-UM	ER 20 - UM	35	19	M 25*1,5
07.09.01.ER 25-UM	ER 25 - UM	42	20	M 32*1,5
07.09.01.ER 32-UM	ER 32 - UM	50	22,5	M 40*1,5
07.09.01.ER 40-UM	ER 40 - UM	63	25,5	M 50*1,5

### 01. ER TİPİ MİNİ SOMUN



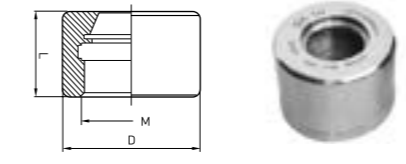
ÜRÜN KODU	ER TİPİ	D	L	M
07.09.01.ER8-M	ER 8 - M	12	11	M10*0,75
07.09.01.ER11-M	ER 11 - M	16	11,8	M13*0,75
07.09.01.ER16-M	ER 16 - M	22	19	M19*1
07.09.01.ER20-M	ER 20 - M	28	19	M24*1
07.09.01.ER25-M	ER 25 - M	35	20	M30*1

### 01. ER TİPİ ALTİKÖŞE SOMUN



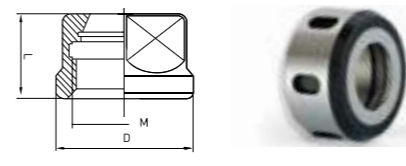
ÜRÜN KODU	ER TİPİ	D	L	M
07.09.01.ER 11-A	ER 11-A	19	13,5	M 14*0,75
07.09.01.ER 16-A	ER 16-A	28	17	M 22*1,5
07.09.01.ER 20-A	ER 20-A	34	19	M 25*1,5

### 02. GSK TİPİ SOMUN



ÜRÜN KODU	ER TİPİ	D	L	M
07.09.02.10	GSK10	27	18	M 21*1
07.09.02.16	GSK16	40	25	M 32*1,5

### 03. 462-E / 467-E



ÜRÜN KODU	ER TİPİ	D	L	M
07.09.03.462E	462E-NUT	60	33	M 48*2
07.09.03.467E	467E-NUT	72	35	M 60*2,5

## 07. HASSAS TUTUCULAR 11. ANAHTARLAR



### 01. ER TİPİ STANDART ANAHTAR

ÜRÜN KODU	ER TİPİ	
07.11.01.ER 16-UM	ER16 - UM	
07.11.01.ER 20-UM	ER20 - UM	
07.11.01.ER 25-UM	ER25 - UM	
07.11.01.ER 32-UM	ER32 - UM	
07.11.01.ER 40-UM	ER40 - UM	



### 01. ER TİPİ MİNİ ANAHTAR

ÜRÜN KODU	ER TİPİ	
07.11.01.ER8 1-5 MİNİ	ER8 - M	
07.11.01.ER11 1-7 MİNİ	ER11 - M	
07.11.01.ER16 1-10 MİNİ	ER16 - M	
07.11.01.ER20 1-13 MİNİ	ER20 - M	
07.11.01.ER25 1-16 MİNİ	ER25 - M	



### 02. GSK TİPİ ANAHTAR

ÜRÜN KODU	ER TİPİ	
07.11.02.GSK10	GSK10	
07.11.02.GSK16	GSK16	



### 03. AY ANAHTAR

ÜRÜN KODU	ER TİPİ	
07.11.03.462-E	462 - E	
07.11.03.467-E	467 - E	



## 07. HASSAS TUTUCULAR 14. KLAVUZ TUTUCULAR



### 01. KTE-01

ÜRÜN KODU	M	D	d	L1	Ø	□
07.07.01.M 3 3,5X19	M3	32	19	24	3,5	2,7
07.07.01.M-3.5-4X19	M3,5	32	19	24	4	3
07.07.01.M 4 4,5X19	M4	32	19	24	4,5	3,4
07.07.01.M 5 6X19	M5	32	19	24	6	4,9
07.07.01.M 6 6X19	M6	32	19	24	6	4,9
07.07.01.M 8 8X19	M8	32	19	24	8	6,2
07.07.01.M-10-7X19	M10	32	19	24	7	5,5
07.07.01.M-10-10X19	M10	32	19	24	10	8
07.07.01.M-12-9X48	M12	32	19	24	9	7
07.07.01.M-14-11X19	M14	32	19	24	11	9



### 02. KTE-02

ÜRÜN KODU	M	D	d	L1	Ø	□
07.07.02.M 5 6X31	M5	50	31	31	6	4,9
07.07.02.M 6 6X31	M6	50	31	31	6	4,9
07.07.02.M 8 8X31	M8	50	31	31	8	6,2
07.07.02.M 10 7X31	M10	50	31	31	7	5,5
07.07.02.M 10 10X31	M10	50	31	31	10	8
07.07.02.M 12 9X31	M12	50	31	31	9	7
07.07.02.M 14 11X31	M14	50	31	31	11	9
07.07.02.M 16 12X31	M16	50	31	31	12	9
07.07.02.M 18 14X31	M18	50	31	31	14	11
07.07.02.M 20 16X31	M20	50	31	31	16	12
07.07.02.M 22 18X31	M22	50	31	31	18	14,5
07.07.02.M 24 18X31	M24	50	31	31	18	14,5

G2.5

G VALUE

20.000

X. RPM

Ø16

AX. DIA

Ø16

LANT SYSTE



MILLING



DRILLING



REAMING



CHAMFERING

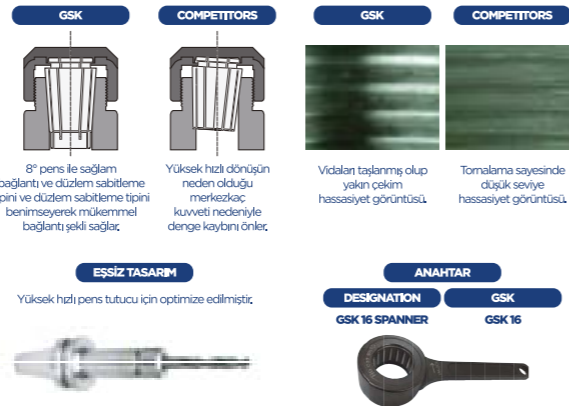
BT40-SK40 - GSK 16 - 90  
 SPINDLE GREAT SPEED SILM COLLET CHUCK TOOL DIA. LENGTH

# GSK 16-90 HASSAS TUTUCU SET



## ÖZELLİKLERİ

- G2.5 hassasiyetinde 20.000 RPM'ye kadar balans alınmıştır.
- Yüksek hızlı işlemler takım verimliliğini artırır.
- 8° pensi ile işlem sırasında takımların titreşimini en aza indirir.
- Yüksek hassasiyette olduğundan işleme stabilitesi optimize edilmiştir.
- Kapak pense eşit şekilde baskı uygular.
- Takım sıkma kapasitesi: Ø3 - Ø16 mm



# 008\*

# ELMAS UCLAR





01. 90° FREZE UCLARI

APKT - APMT



ÜRÜN KODU	Ürün Adı	Kalite												
08.01.01.APK10. 08.01.01.APK16. 08.01.01.APM11. 08.01.01.APM16.	APKT 1003PDER APKT 1604PDER APMT 1135PDER APMT 1604PDER	<table border="1"><tr><td>P</td><td>M</td><td>K</td><td>N</td><td>S</td><td>H</td></tr><tr><td>●</td><td>●</td><td>○</td><td>○</td><td>●</td><td>○</td></tr></table>	P	M	K	N	S	H	●	●	○	○	●	○
P	M	K	N	S	H									
●	●	○	○	●	○									

3PKT



ÜRÜN KODU	Ürün Adı	Kalite												
08.01.01.3P10. 08.01.01.3P10.S 08.01.01.3P15. 08.01.01.3P15.S	3PKT 100408R-M 3PKT 100408R-M 3PKT 150508R-M 3PKT 150508R-M	<table border="1"><tr><td>P</td><td>M</td><td>K</td><td>N</td><td>S</td><td>H</td></tr><tr><td>●</td><td>●</td><td>○</td><td>○</td><td>●</td><td>○</td></tr></table>	P	M	K	N	S	H	●	●	○	○	●	○
P	M	K	N	S	H									
●	●	○	○	●	○									

ANKX



ÜRÜN KODU	Ürün Adı	Kalite												
08.01.01.AN12. 08.01.01.AN16.	ANKX 120708R ANKX 160708R	<table border="1"><tr><td>P</td><td>M</td><td>K</td><td>N</td><td>S</td><td>H</td></tr><tr><td>●</td><td>●</td><td>○</td><td>○</td><td>○</td><td>○</td></tr></table>	P	M	K	N	S	H	●	●	○	○	○	○
P	M	K	N	S	H									
●	●	○	○	○	○									

## 08. ELMAS UCLAR 01. FREZE UCLARI



### WNGU

ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.WN.08.	WNGU 080608 GM	P M K N S H ● ● ○ ○ ● ●



### 02. 3 KÖŞE FREZE UCLARI

### TPKN

ÜRÜN KODU	Ürün Adı	Kalite
08.01.02.TP.16. 08.01.02.TP.22.	TPKN 1603PDSR TPKN 2204PDSR	P M K N S H ● ● ○ ○ ○ ○



### 03. 4 KÖŞELİ FREZE UCLARI

### SEMT

ÜRÜN KODU	Ürün Adı	Kalite
08.01.03.SE.13.4225 08.01.03.SE.13.4325	SEMT 13T3AGEN SEMT 13T3AGEN	P M K N S H ● ● ○ ○ ○ ○



### SPKR

ÜRÜN KODU	Ürün Adı	Kalite
08.01.03..SP1203	SPKR 1203 EDER	P M K N S H ● ● ○ ○ ○ ○



## 08. ELMAS UCLAR 01. FREZE UCLARI

### 04. 8 KÖŞELİ FREZE UCLARI

### SNMU

ÜRÜN KODU	Ürün Adı	Kalite
08.01.04.SN.12.A 08.01.04.SN.12.Z	SNMU 1206 ANEN SNMU 1206 ZNEN	P M K N S H ● ● ○ ○ ○ ○



### OFKT

ÜRÜN KODU	Ürün Adı	Kalite
08.01.04.OF.05.	OFKT 05T3 AFTN	P M K N S H ● ● ○ ○ ○ ○



### ODMT

ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.OD.06.	ODMT 060508	P M K N S H ● ● ○ ○ ○ ○



### 05. BONGUK FREZE UCLARI

### RDEW

ÜRÜN KODU	Ürün Adı	Kalite
08.01.05.RD.07. 08.01.05.RD.08. 08.01.05.RD.10. 08.01.05.RD.12. 08.01.05.RD.16.	RDEW 0702 MOT RDEW 0803 MOT RDEW 1003 MOT RDEW 1204 MOT RDEW 1604 MOT	P M K N S H ● ● ○ ○ ○ ○



## 08. ELMAS UCLAR 01. FREZE UCLARI



### RCET

ÜRÜN KODU	Ürün Adı	Kalite
08.01.05.RC.10. 08.01.05.RC.12. 08.01.05.RC.16. 08.01.05.RC.20.	RCET 10T3 MO RCET 1204 MO RCET 1606 MO RCET 2006 MO	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



### 06. FİNİŞ UCLARI

#### QTD-S-T

ÜRÜN KODU	Ürün Adı	Kalite
08.01.06.QT.12. 08.01.06.QT.16. 08.01.06.QT.20. 08.01.06.QT.25.	QTD 1203-S-T QTD 1604-S-T QTD 2005-S-T QTD 2506-S-T	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



#### QTD

ÜRÜN KODU	Ürün Adı	Kalite
08.01.06.QT.12. 08.01.06.QT.16. 08.01.06.QT.20. 08.01.06.QT.25.	QTD 1203 QTD 1604 QTD 2005 QTD 2506	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



## 08. ELMAS UCLAR 01. FREZE UCLARI

### 07. HI-FEED UCLARI

#### LNMU

ÜRÜN KODU	Ürün Adı	Kalite
08.01.07.LN.09. 08.01.07.LN.12.	LNMU 090603 LNMU 120705	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



#### SDMT

ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.SD.12.	SDMT 120512	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



#### WNMX

ÜRÜN KODU	Ürün Adı	Kalite
aaa	WNMX 09T312NN-MM WNMX 09T312NN-MM	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



#### WDMT

ÜRÜN KODU	Ürün Adı	Kalite
08.01.07.WD.12.	WDMT 1205 ZDTR	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●





01. TORNA UCLARI

CCMT



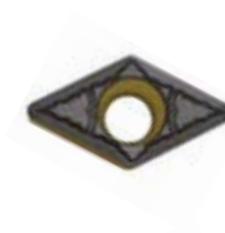
ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.CC.06..04 08.02.01.CC.09..04 08.02.01.CC.09.08	CCMT 060204 CCMT 09T304 CCMT 09T308	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ○ ● ● ●

CNMG



ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.CN.12..08 08.02.01.CN.19..12	CNMG 120408 CNMG 190612	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ○ ● ● ●

DCMT



ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.DC.07.04 08.02.01.DC.11.04 08.02.01.DC.11.08	DCMT 070204 DCMT 11T304 DCMT 11T308	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ○ ● ● ●



ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.DC.11.04 08.02.01.DC.11.08	DCMT 11T304 DCMT 11T308	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.DC.11.04 08.02.01.DC.11.08	DCMT 11T304 DCMT 11T308	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●

## 08. ELMAS UCLAR 02. TORNA UCLARI



### DNMG

ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.DN.15..04 08.02.01.DN.15..08	DNMG 150604 DNMG 150608	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.DN.15..04 08.02.01.DN.15..08	DNMG 150604 DNMG 150608	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



### KNUX

ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.KN.16..L 08.02.01.KN.16..R	KNUX 160405L11 KNUX 160405R11	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



### TNMG

ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.TN.16..04 08.02.01.TN.16..08 08.02.01.TN.22..08	TNMG 160404 TNMG 160408 TNMG 220408	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



### VBMT

ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.VB.16..04 08.02.01.VB.16..08	VBMT 160404 VBMT 160408	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



## 08. ELMAS UCLAR 02. TORNA UCLARI

### WNMG

ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.WN.08..04 08.02.01.WN.08..08	WNMG 080404 WNMG 080408	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.WN.08..04 08.02.01.WN.08..08	WNMG 080404 WNMG 080408	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.WN.08..04 08.02.01.WN.08..08	WNMG 080404 WNMG 080408	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



### ALÜMİNYUM

ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.CC.06..04 08.02.01.CC.09..04 08.02.01.CC.09..08	CCGX 060204 CCGX 09T304 CCGX 09T308	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.DC.07..04 08.02.01.DC.11..04 08.02.01.DC.11..08	DCGX 070204 DCGX 11T304 DCGX 11T308	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



ÜRÜN KODU	Ürün Adı	Kalite
08.02.01.VC.16..04 08.02.01.VC.16..08	VCGX 160404 VCGX 160408	<b>P</b> <b>M</b> <b>K</b> <b>N</b> <b>S</b> <b>H</b> ● ● ● ● ● ●



02. KESME UCLARI

GKD - MT

ÜRÜN KODU	Ürün Adı	Kalite
08.02.02.GKD.2.	GKD 2002-MT	
08.02.02.GKD.3.	GKD 3004-MT	
08.02.02.GKD.4.	GKD 4004-MT	
08.02.02.GKD.5.	GKD 5004-MT	
08.02.02.GKD.6.	GKD 6008-MT	



GKD - MR

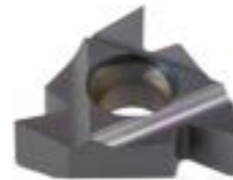
ÜRÜN KODU	Ürün Adı	Kalite
08.02.02.GKD.2.K	GKD 2010-MR	
08.02.02.GKD.3.K	GKD 3015-MR	
08.02.02.GKD.4.K	GKD 4020-MR	
08.02.02.GKD.5.K	GKD 5025-MR	



03. DIŞ UCLARI

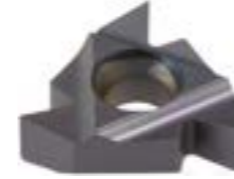
11 ER ISO

ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.11.ER.1.00	11ER 1.00 ISO	
08.02.03.11.ER.1.25	11ER 1.25 ISO	
08.02.03.11.ER.1.50	11ER 1.50 ISO	
08.02.03.11.ER.AG60	11ER AG 60	



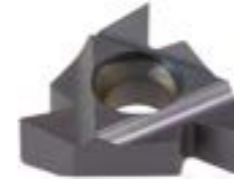
11 IR ISO

ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.11.IR.1.50	11IR 1.50 ISO	
08.02.03.11.IR.1.75	11IR 1.75 ISO	
08.02.03.11.IR.2.00	11IR 2.00 ISO	
08.02.03.11.IR.A60	11IR AG 60	



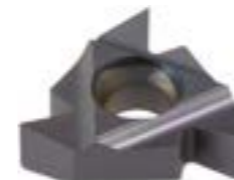
16 ER ISO

ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.16.ER.1.00	16ER 1.00 ISO	
08.02.03.16.ER.1.25	16ER 1.25 ISO	
08.02.03.16.ER.1.50	16ER 1.50 ISO	
08.02.03.16.ER.1.75	16ER 1.75 ISO	
08.02.03.16.ER.2.00	16ER 2.00 ISO	
08.02.03.16.ER.2.50	16ER 2.50 ISO	
08.02.03.16.ER.3.00	16ER 3.00 ISO	
08.02.03.16.ER.AG55	16ER AG 55	
08.02.03.16.ER.AG60	16ER AG 60	



16 IR ISO

ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.16.IR.1.00	16IR 1.00 ISO	
08.02.03.16.IR.1.25	16IR 1.25 ISO	
08.02.03.16.IR.1.50	16IR 1.50 ISO	
08.02.03.16.IR.1.75	16IR 1.75 ISO	
08.02.03.16.IR.2.00	16IR 2.00 ISO	
08.02.03.16.IR.2.50	16IR 2.50 ISO	
08.02.03.16.IR.3.00	16IR 3.00 ISO	
08.02.03.16.IR.AG55	16IR AG 55	
08.02.03.16.IR.AG60	16IR AG 60	

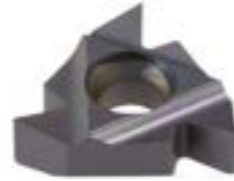


## 08. ELMAS UCLAR 02. TORNA UCLARI



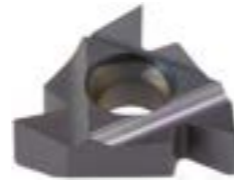
### 16ERW

ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.16.ER.11W	16ER 11W	
08.02.03.16.ER.12W	16ER 12W	
08.02.03.16.ER.14W	16ER 14W	
08.02.03.16.ER.16W	16ER 16W	
08.02.03.16.ER.18W	16ER 18W	
08.02.03.16.ER.19W	16ER 19W	
08.02.03.16.ER.20W	16ER 20W	
08.02.03.16.ER.28W	16ER 28W	



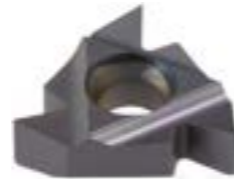
### 16IRW

ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.16.IR.11W	16IR 11W	
08.02.03.16.IR.12W	16IR 12W	
08.02.03.16.IR.14W	16IR 14W	
08.02.03.16.IR.16W	16IR 16W	
08.02.03.16.IR.18W	16IR 18W	
08.02.03.16.IR.19W	16IR 19W	
08.02.03.16.IR.20W	16IR 20W	
08.02.03.16.IR.28W	16IR 28W	



### 22ERISO

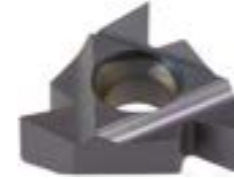
ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.22.ER.3.5	22ER 3.50 ISO	
08.02.03.22.ER.4.0	22ER 4.00 ISO	
08.02.03.22.ER.4.5	22ER 4.50 ISO	
08.02.03.22.ER.5.0	22ER 5.00 ISO	
08.02.03.22.ER.6.0	22ER 6.00 ISO	
08.02.03.22.ER.N55	22ER AG55	
08.02.03.22.ER.N60	22ER AG60	



## 08. ELMAS UCLAR 02. TORNA UCLARI

### 22IR ISO

ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.22.IR.3.5	22IR 3.50 ISO	
08.02.03.22.IR.4.0	22IR 4.00 ISO	
08.02.03.22.IR.4.5	22IR 4.50 ISO	
08.02.03.22.IR.5.0	22IR 5.00 ISO	
08.02.03.22.IR.6.0	22IR 6.00 ISO	
08.02.03.22.IR.N55	22IR N55	
08.02.03.22.IR.N60	22IR N60	



### 16ER-22ERTR

ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.16.ER.3.00	16ER 3.00 TR	
08.02.03.22.ER.4.00	22ER 4.00 TR	
08.02.03.22.ER.5.00	22ER 5.00 TR	
08.02.03.22.ER.6.00	22ER 6.00 TR	



### 16IR-22IRTR

ÜRÜN KODU	Ürün Adı	Kalite
08.02.03.16.IR.3.00	16IR 3.00 TR	
08.02.03.22.IR.4.00	22IR 4.00 TR	
08.02.03.22.IR.5.00	22IR 5.00 TR	
08.02.03.22.IR.6.00	22IR 6.00 TR	





### 01. 3 KÖŞELİ UDRİL UCLARI

WCMT



ÜRÜN KODU	Ürün Adı	Kalite
08.03.01.WC.03.	WCMT 030208	P M K N S H
08.03.01.WC.04.	WCMT 040208	P M K N S H
08.03.01.WC.05.	WCMT 050308	P M K N S H
08.03.01.WC.06.	WCMT 06T308	P M K N S H
08.03.01.WC.08	WCMT 080412	P M K N S H

### 02. 4 KÖŞELİ UDRİL UCLARI

SPMG



ÜRÜN KODU	Ürün Adı	Kalite
08.03.02.SP.05.	SPMG 050204	P M K N S H
08.03.02.SP.06.	SPMG 060204	P M K N S H
08.03.02.SP.07.	SPMG 07T308	P M K N S H
08.03.02.SP.09.	SPMG 090408	P M K N S H
08.03.02.SP.11.	SPMG 110408	P M K N S H
08.03.02.SP.14.	SPMG 140512	P M K N S H





### 01. SUPRA MANDRENLER

#### ÖZELLİKLER:

- Matkap uçlarının seri olarak bağlanması ve yine aynı şekilde sökülmesi için uygundur.
- Çalışma esnasında ayaklarda oluşan moment otomatik olarak sıkma kuvvetini artırır.
- Ayaklar yüksek mukavemetli alaşımlı çelikten üretilmiş olup sertlik değeri 61 ± 2 HRr'dir.
- Parça değişim gerekirse, parçaları yedek olarak firmamızdan temin edebilirsiniz.

ÜRÜN KODU	Sıkma Kapasitesi (mm)	Bağlantı Tipi	Dış Çap (mm)	Kapalı Boy (mm)	Açık Boy (mm)	Sıkma Momenti (Nm)	± Max. Salgı (mm)
09.01.01.0-10.B12	0 - 10	B12	35	78	71	9	0,07
09.01.01.1-13.B16	1 - 13	B16	42	96	87	12	0,07
09.01.01.1-16.B16	1 - 16	B16	49	112	103	14	0,07
09.01.01.1-16.B18	1 - 16	B18	49	112	103	14	0,07
09.01.01.5-20.B22	5 - 20	B22	55	131	122	15	0,07



### 02. ANAHTARLI MANDRENLER

#### ÖZELLİKLER:

- Endüstriyel hizmet için belirlenen standart ölçülerdedir.
- Darbelere ve ağır iş ortamına dayanıklıdır.
- Sağ ve sol yönlü olarak emniyetle kullanılabilir.
- Anahtarları ile birlikte teslim edilir.

ÜRÜN KODU	Sıkma Kapasitesi (mm)	Bağlantı Tipi	Dış Çap (mm)	Kapalı Boy (mm)	Açık Boy (mm)	Anahtar Kodu (Nm)
09.01.02.1-16.B16	1 - 16	B16	56	100	80	S3
09.01.02.1-16.B18	1 - 16	B18	56	100	80	S3
09.01.02.1-20.B22	1 - 20	B22	65	114	92	S4
09.01.02.1-26.B24	1 - 26	B24	80	150	120	S4



### 03. MANDREN ANAHTARLARI

ÜRÜN KODU	Kodu	H (mm)	L (mm)	d (mm)
09.01.03.S3	S3	50	90	8
09.01.03.S4	S4	54	110	9

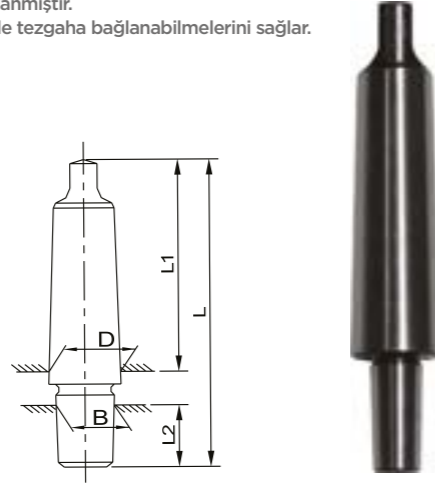
# 09\*

# GENEL HIRDAVAT GRUBU

## 04. MANDREN SAPLARI

### ÖZELLİKLER:

- Konikler arası max. salgı: 0,01mm
- Komple sertleştirilmiş taşlanmıştır.
- Mandrenlerin en az salgı ile tezgaha bağlanabilmelerini sağlar.

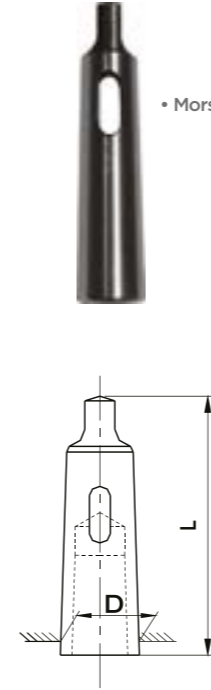


ÜRÜN KODU	MK DIN 228-B	B		D (mm)	L1 (mm)	L2 (mm)	L (mm)
		Konik	Ölçü (mm)				
09.01.04.MK1.B10	MK1	B10	10,095	12,065	62	14,5	86
09.01.04.MK1.B12	MK1	B12	12,065	12,065	62	18,5	89
09.01.04.MK2.B10	MK2	B10	10,095	17,780	75	14,5	103
09.01.04.MK2.B12	MK2	B12	12,065	17,780	75	18,5	106
09.01.04.MK2.B16	MK2	B16	15,733	17,780	75	24	110
09.01.04.MK2.B18	MK2	B18	17,780	17,780	75	32	117
09.01.04.MK3.B12	MK3	B12	12,065	23,825	94	18,5	125
09.01.04.MK3.B16	MK3	B16	15,733	23,825	94	24	133
09.01.04.MK3.B18	MK3	B18	17,780	23,825	94	32	140
09.01.04.MK3.B22	MK3	B22	21,793	23,825	94	40,5	147
09.01.04.MK3.B24	MK3	B24	23,825	23,825	94	50,5	158
09.01.04.MK4.B16	MK4	B16	15,733	31,267	117,5	24	158
09.01.04.MK4.B18	MK4	B18	17,780	31,267	117,5	32	168
09.01.04.MK4.B22	MK4	B22	21,793	31,267	117,5	40,5	175
09.01.04.MK4.B24	MK4	B24	23,825	31,267	117,5	50,5	185

## 05. MORS KOVANLARI

### ÖZELLİKLER:

- Mors konik şaftlı takımların tezgahlara veya birbirlerine en az salgı ile bağlanmalarını sağlayan adaptördür.
- Komple sertleştirilmiş taşlanmıştır.
- Dış ve iç konik arasındaki max. salgı: 0,01mm

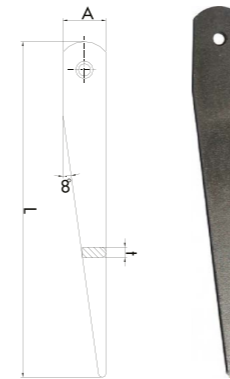


ÜRÜN KODU	Dış Konik	İç Konik	D (mm)	D1 (mm)	L (mm)
09.01.05.MK2.MK1	MK2	MK1	17,780	12,065	92
09.01.05.MK3.MK1	MK3	MK1	23,825	12,065	99
09.01.05.MK3.MK2	MK3	MK2	23,825	17,780	112
09.01.05.MK4.MK1	MK4	MK1	31,267	12,065	124
09.01.05.MK4.MK2	MK4	MK2	31,267	17,780	124
09.01.05.MK4.MK3	MK4	MK3	31,267	23,825	140
09.01.05.MK5.MK1	MK5	MK1	44,399	12,065	156
09.01.05.MK5.MK2	MK5	MK2	44,399	17,780	156
09.01.05.MK5.MK3	MK5	MK3	44,399	23,825	156
09.01.05.MK5.MK4	MK5	MK4	44,399	31,267	171
09.01.05.MK6.MK5	MK6	MK5	63,348	44,399	218

## 06. MORS KAMALARI

### ÖZELLİKLER:

- Mors kovanlarının ve mandren saplarının birbirlerinden veya tezgahtan kolayca sökülmesini sağlar
- Sertlik: 35 ± 2HRC



ÜRÜN KODU	İlgili Konik	A (mm)	L (mm)	t (mm)
09.01.06.MK1.MK2	MK1/MK2	20	140	5
09.01.06.MK3	MK3	25	190	7
09.01.06.MK4	MK4	30	225	10

## 09. GENEL HIRDAVAT GRUBU 01. MANDRENLER VE AKSESUARLARI



### 07. MANDREN SÖKME KAMALARI

#### ÖZELLİKLER:

- Mandren ile mandren sapını birbirinden ayırmak için kullanılırlar.
- Sertlik: 35±2HRC
- Takım olarak teslim edilir. 1 takım 2 adettir.

ÜRÜN KODU	İlgili Konik	En (mm)	Boy (mm)	Kalınlık (mm)
09.01.07.B12	B12	30	58	8
09.01.07.B16	B16	36	68	8
09.01.07.B18	B18	42	75	8
09.01.07.B22	B22	48	86	8



### 02. TORNA AYNALARI VE AKSESUARLARI

#### 01. 3 AYAKLI TORNA AYNALARI

#### ÖZELLİKLER:

- 3 Ayaklı
- Torna aynaları
- Döküm gövdeli
- 3 ZG standart aksesuarlar

- 1) Düz ayak - 1 takım / 3 adet
- 2) Ters ayak - 1 takım / 3 adet
- 3) Anahtar - 1 adet
- 4) Flanş bağlama civatası 3 adet



ÜRÜN KODU	Ayna Çapı (mm)
09.02.01.80.3	80/3
09.02.01.100.3	100/3
09.02.01.125.3	125/3
09.02.01.160.3	160/3
09.02.01.200.3	200/3
09.02.01.250.3	250/3
09.02.01.315.3	315/3
09.02.01.400.3	400/3

#### 02. 4 AYAKLI TORNA AYNALARI

#### ÖZELLİKLER:

- 4 Ayaklı
- Torna aynaları
- Döküm gövdeli
- 4 ZG standart aksesuarlar

- 1) Düz ayak - 1 takım / 4 adet
- 2) Ters ayak - 1 takım / 4 adet
- 3) Anahtar - 1 adet
- 4) Flanş bağlama civatası 3 adet



ÜRÜN KODU	Ayna Çapı (mm)
09.02.02.80.4	80/4
09.02.02.100.4	100/4
09.02.02.125.4	125/4
09.02.02.160.4	160/4
09.02.02.200.4	200/4
09.02.02.250.4	250/4
09.02.02.315.4	315/4
09.02.02.400.4	400/4

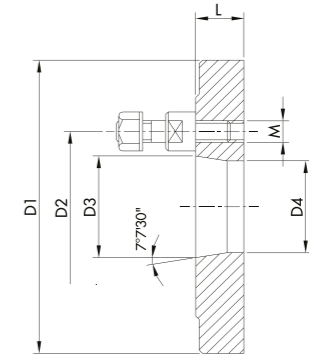


## 09. GENEL HIRDAVAT GRUBU 02. TORNA AYNALARI VE AKSESUARLARI

### 03. AYNA FLANŞLARI VE SAPLAMA SOMUNLARI

#### ÖZELLİKLER:

- Döküm gövdelidir.
- Aynaların torna tezgahlarına bağlanabilmesi için adaptör görevi yaparlar.
- Bu bağlantıdan iyi sonuç alabilmek için torna aynası ve flanşların kullanım talimatlarına eksiksiz olarak uymanızı öneririz.
- Ayna flanşlarının hassas olarak işlenmiş olan tezgah tarafı, montaja hazır haldedir. Aynanın bağlanacağı taraf ise kaba olarak bırakılmış olup montaj esnasında kullanıcı tarafından işlenecektir.
- Saplama ve somunları ile birlikte teslim edilir.



ÜRÜN KODU	D1 (mm)	No	D2 (mm)	D3 (mm)	D4 (mm)	L (mm)	M (mm)	Saplama Adedi
09.02.03.160.4	160	4	85	63,525	60,6	25	M10	4
09.02.03.160.5	160	5	104,8	82,563	79,4	25	M10	4
09.02.03.160.6	160	6	133,4	106,375	103	25	M12	4
09.02.03.200.5	200	5	104,8	82,563	79,4	25	M10	4
09.02.03.200.6	200	6	133,4	106,375	103	25	M12	4
09.02.03.200.8	200	8	171,4	139,719	136	25	M16	4
09.02.03.250.5	250	5	104,8	82,563	79,4	30	M10	4
09.02.03.250.6	250	6	133,4	106,375	103	30	M12	4
09.02.03.250.8	250	8	171,4	139,719	136	30	M16	4
09.02.03.315.6	315	6	133,4	106,375	103	35	M12	4
09.02.03.315.8	315	8	171,4	139,719	136	35	M16	4
09.02.03.315.11	315	11	235	196,869	192,5	35	M20	6
09.02.03.400.6	400	6	133,4	106,375	103	36	M12	4
09.02.03.400.8	400	8	171,4	139,719	136	36	M16	4
09.02.03.400.11	400	11	235	196,869	192,5	36	M20	6
09.02.03.500.8	500	8	171,4	139,719	136	40	M16	4
09.02.03.500.11	500	11	235	196,869	192,5	40	M20	6

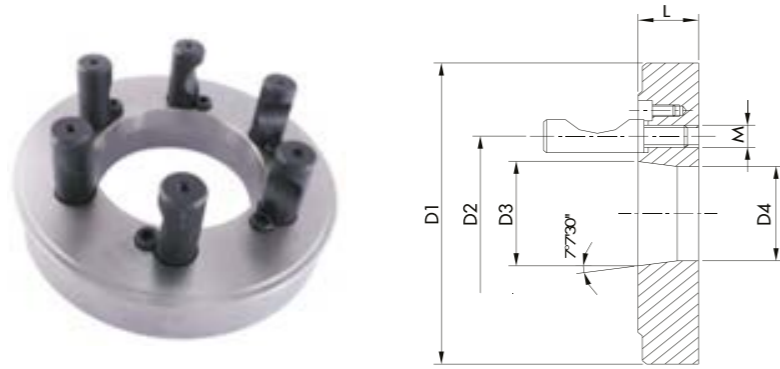
## 09. GENEL HIRDAVAT GRUBU 02. TORNA AYNALARI VE AKSESUARLARI



### 04. AYNA FLANŞLARI - CAMLOCK SAPLAMALI

#### ÖZELLİKLER:

- Döküm gövdelidir.
- Aynaların torna tezgahlarına bağlanabilmesi için adaptör görevi yaparlar.
- Bu bağlantıdan iyi sonuç alabilmek için torna aynası ve flanşların kullanım talimatlarına eksiksiz olarak uymanızı öneririz.
- Ayna flanşlarının hassas olarak işlenmiş olan tezgah tarafı, montaja hazır haldedir. Aynanın bağlanacağı taraf ise kaba olarak bırakılmış olup montaj esnasında kullanıcı tarafından işlenecektir.
- Saplamaları ile birlikte teslim edilir.



ÜRÜN KODU	D1 (mm)	No	D2 (mm)	D3 (mm)	D4 (mm)	L (mm)	M (mm)	Saplama Adedi
09.02.04.160.4	160	4	82,55	63,525	60,6	25	M12x1	6
09.02.04.160.5	160	5	104,8	82,563	79,4	28	M12x1	6
09.02.04.160.6	160	6	133,4	106,375	103	33	M16x1,5	6
09.02.04.200.5	200	5	104,8	82,563	79,4	28	M12x1	6
09.02.04.200.6	200	6	133,4	106,375	103	33	M16x1,5	6
09.02.04.200.8	200	8	171,4	139,719	136	38	M20x1,5	6
09.02.04.250.5	250	5	104,8	82,563	79,4	33	M12x1	6
09.02.04.250.6	250	6	133,4	106,375	103	33	M16x1,5	6
09.02.04.250.8	250	8	171,4	139,719	136	38	M20x1,5	6
09.02.04.315.6	315	6	133,4	106,375	103	35	M16x1,5	6
09.02.04.315.8	315	8	171,4	139,719	136	38	M20x1,5	6
09.02.04.315.11	315	11	235	196,869	192,5	44	M22x1,5	6
09.02.04.400.6	400	6	133,4	106,375	103	40	M16x1,5	6
09.02.04.400.8	400	8	171,4	139,719	136	40	M20x1,5	6
09.02.04.400.11	400	11	235	196,869	192,5	45	M22x1,5	6
09.02.04.500.8	500	8	171,4	139,719	136	45	M20x1,5	6
09.02.04.500.11	500	11	235	196,869	192,5	45	M22x1,5	6

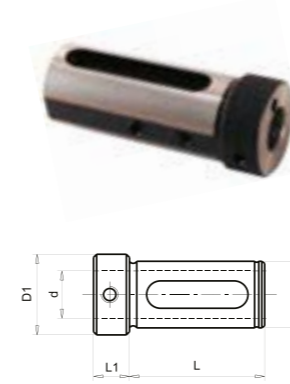


## 09. GENEL HIRDAVAT GRUBU 02. TORNA AYNALARI VE AKSESUARLARI

### 05. REDÜKSİYON KOVANLARI

#### ÖZELLİKLER:

- Cnc tornalarda delik katerlerini ve silindirik shaftlı takımları bağlamak için kullanılır.
- Salgı: max.0,01mm
- Bağlama civatalı ile birlikte teslim edilir.

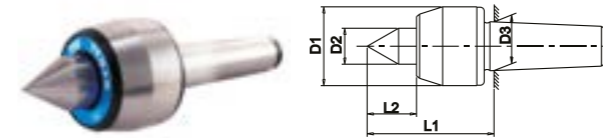


ÜRÜN KODU	D (mm)	d (mm)	D1 (mm)	L1 (mm)	L (mm)
09.02.05.25.8	25	8	39	14	75
09.02.05.25.10	25	10	39	14	75
09.02.05.25.12	25	12	39	14	75
09.02.05.25.16	25	16	39	14	75
09.02.05.25.20	25	20	39	14	75
09.02.05.32.8	32	8	39	14	75
09.02.05.32.10	32	10	39	14	75
09.02.05.32.12	32	12	39	14	75
09.02.05.32.16	32	16	39	14	75
09.02.05.32.20	32	20	46,5	15	46,5
09.02.05.32.25	32	25	46,5	15	46,5
09.02.05.40.8	40	8	46,5	15	46,5
09.02.05.40.10	40	10	46,5	15	46,5
09.02.05.40.12	40	12	46,5	15	46,5
09.02.05.40.16	40	16	46,5	15	46,5
09.02.05.40.20	40	20	46,5	15	46,5
09.02.05.40.25	40	25	46,5	15	46,5
09.02.05.40.32	40	32	46,5	15	46,5

### 06. DÖNER PUNTALAR - NORMAL UCLU

#### ÖZELLİKLER:

- Rulman ömrü 2000 iş saatidir.
- Punta ucu sertliği: 60-62 hRc
- Salgı: max. 0,01mm



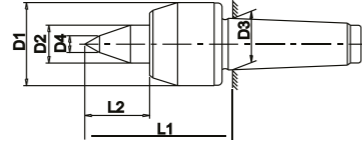
ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	Devir d/d (max)	Parça Ağırlığı kg (max)
09.02.06.MK2	MK2	45	20	17,780	65	24	6000	150
09.02.06.MK3	MK3	60	25	23,825	83	31	4300	250
09.02.06.MK4	MK4	70	32	31,267	102	40	3500	600
09.02.06.MK5	MK5	90	40	44,399	128	50	2500	1000
09.02.06.MK6	MK6	105	50	63,348	151	57	2000	1900

## 09. GENEL HIRDAVAT GRUBU 02. TORNA AYNALARI VE AKSESUARLARI



### 07. DÖNER PUNTALAR - KOPYE UCLU

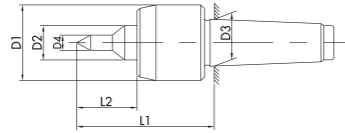
- ÖZELLİKLER:**
- Rulman ömrü 2000 iş saatidir.
  - Punta ucu sertliği: 60-62 hRc
  - Salgı: max. 0,01mm



ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L1 (mm)	L2 (mm)	Devir d/d (max)	Parça Ağırlığı kg (max)
09.02.07.MK4	MK4	70	32	31,267	12	115	51	3500	400
09.02.07.MK5	MK5	90	40	44,399	15	140	60	2500	800

### 08. DÖNER PUNTALAR - İNCE UÇLU

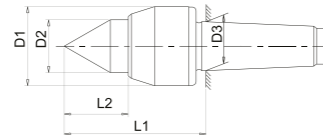
- ÖZELLİKLER:**
- Rulman ömrü 2000 iş saatidir.
  - Punta ucu sertliği: 60-62 hRc
  - Salgı: max. 0,01mm



ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L1 (mm)	L2 (mm)	Devir d/d (max)	Parça Ağırlığı kg (max)
09.02.08.MK4	MK4	70	32	31,267	12	115	51	3500	300
09.02.08.MK5	MK5	90	40	44,399	15	140	60	2500	600

### 09. DÖNER PUNTALAR - BÜYÜK MİL ÇAPLI

- ÖZELLİKLER:**
- Rulman ömrü 2000 iş saatidir.
  - Punta ucu sertliği: 60-62 hRc
  - Salgı: max. 0,01mm



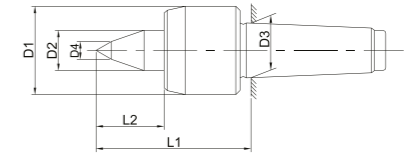
ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	Devir d/d (max)	Parça Ağırlığı kg (max)
09.02.09.MK4	MK4	70	48	31,267	107	52	3500	600
09.02.09.MK5	MK5	90	56	44,399	131	61	2500	1000



## 09. GENEL HIRDAVAT GRUBU 02. TORNA AYNALARI VE AKSESUARLARI

### 10. DÖNER PUNTALAR - CNC TORNALAR İÇİN

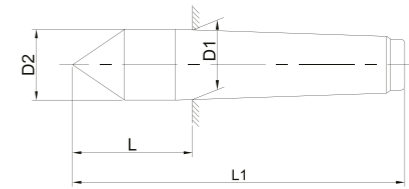
- ÖZELLİKLER:**
- Rulman ömrü 2000 iş saatidir.
  - Punta ucu sertliği: 60-62 hRc
  - Salgı: max. 0,01mm



ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L1 (mm)	L2 (mm)	Devir d/d (max)	Parça Ağırlığı kg (max)
09.02.10.MK4	MK4	70	32	31,267	12	115	50	5000	500
09.02.10.MK5	MK5	90	40	44,399	15	140	60	4000	800

### 11. SABİT PUNTALAR

- ÖZELLİKLER:**
- Komple sertleştirilip taşlanmıştır.
  - Punta ucu sertliği: 60-62 hRc
  - Salgı: max. 0,01mm



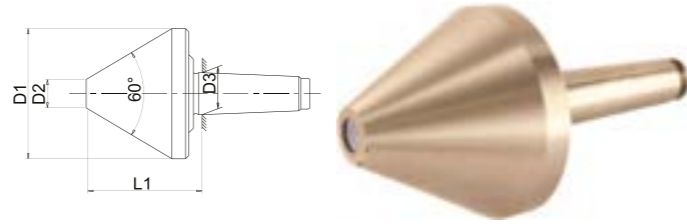
ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	L (mm)	L1 (mm)
09.02.11.MK2	MK2	17,780	18	36	100
09.02.11.MK3	MK3	23,825	24,1	44	125
09.02.11.MK4	MK4	31,267	31,6	57,5	160
09.02.11.MK5	MK5	44,399	44,7	70,5	200
09.02.11.MK6	MK6	63,348	63,8	88	270

## 09. GENEL HIRDAVAT GRUBU 02. TORNA AYNA LARI VE AKSESUAR LARI



### 12. BORU PUNTALARI / 60°

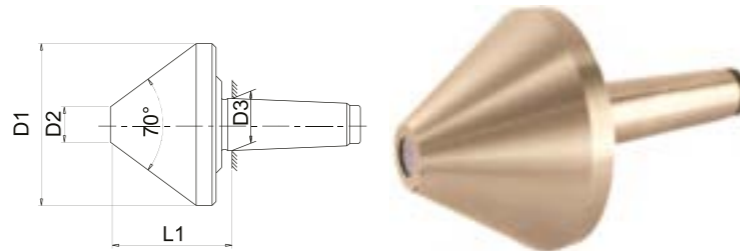
- ÖZELLİKLER:**
- Rulman ömrü 2000 iş saatidir.
  - Punta ucu sertliği: 60-62 hRc
  - Salgı: max. 0,01mm



ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	Devir d/d (max)	Parça Ağırlığı kg (max)
09.02.12.MK3.80	MK3	80	25	23,825	70	3000	300
09.02.12.MK3.100	MK3	100	32	23,825	85	2400	500
09.02.12.MK4.120	MK4	120	38	31,267	90	2400	500
09.02.12.MK5.120	MK5	120	38	44,399	90	2400	500
09.02.12.MK4.140	MK4	140	40	31,267	105	1800	600
09.02.12.MK5.140	MK5	140	40	44,399	105	1800	600
09.02.12.MK5.170	MK5	170	50	44,399	100	1500	1000

### 13. BORU PUNTALARI / 70°

- ÖZELLİKLER:**
- Rulman ömrü 2000 iş saatidir.
  - Punta ucu sertliği: 60-62 hRc
  - Salgı: max. 0,01mm

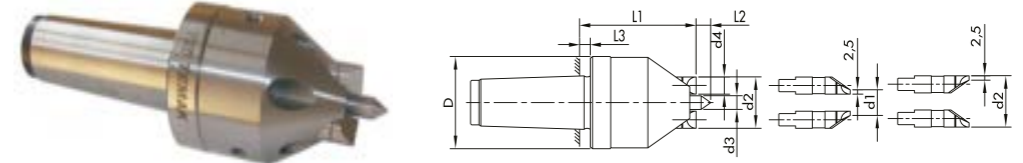


ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	Devir d/d (max)	Parça Ağırlığı kg (max)
09.02.13.MK5.200	MK5	200	70	44,399	125	800	1000
09.02.13.MK6.250	MK6	250	75	63,348	147	800	1500



## 09. GENEL HIRDAVAT GRUBU 02. TORNA AYNA LARI VE AKSESUAR LARI

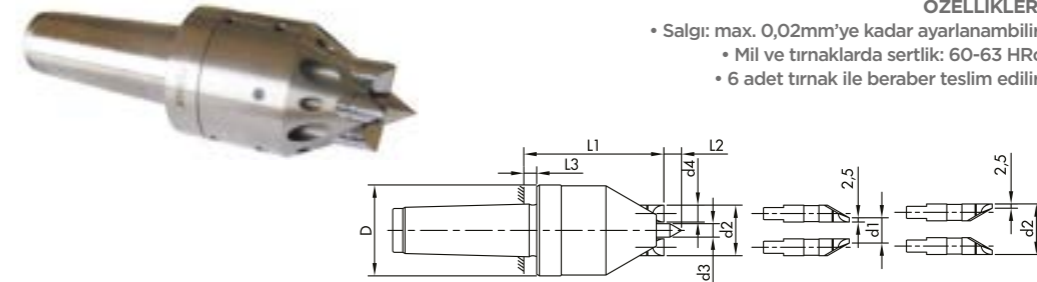
### 14. TIRNAKLI PUNTA - BASMA ÇAPI 15-30



ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	Tornalama çapı		D (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Tırnak Sayısı
						min.	max.					
09.02.14.MK3	MK3	15	30	8	10	10	10	54	80	7,5	5	3+3
09.02.14.MK4	MK4	15	30	8	10	10	10	54	80	7,5	5	3+3
09.02.14.MK5	MK5	15	30	8	10	10	10	54	80	7,5	5	3+3

### 15. TIRNAKLI PUNTA - BASMA ÇAPI 24-45

- ÖZELLİKLER:**
- Salgı: max. 0,02mm'ye kadar ayarlanabilir.
  - Mil ve tırnaklarda sertlik: 60-63 HRC
  - 6 adet tırnak ile beraber teslim edilir.



ÜRÜN KODU	Konik	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	Tornalama çapı		D (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Tırnak Sayısı
						min.	max.					
09.02.15.MK4	MK4	24	45	17	13	25	90	69	94	15	5	6+6
09.02.15.MK5	MK5	24	45	17	13	25	90	69	94	15	5	6+6



İş parçası üzerindeki punta deliğinin veya alın profilinin durumuna göre basınç basit olarak ayarlanabilir.



Tırnaklar veya milin deforme olması halinde parçalar ekonomik ve pratik olarak değiştirilebilir.

## 09. GENEL HIRDAVAT GRUBU 03. DÖNER TABLALAR VE AKSESUARLARI



### 01. YATAY - DİKEY DÖNER TABLALAR

#### ÖZELLİKLER:

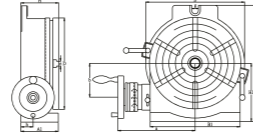
- Yüksek yoğunluklu meehanik'ten üretilmiştir ve mükemmel kalite ve devamlılık için "heidenhain" elektronik cihazlarla test edilmiştir.
- Mil hassas biçimde yataklanmıştır. Bu da ağır yüklerde sağlamlık sağlar.
- Salyangoz sertleştirilmiş ve taşlanmıştır. Dişli oranı 90:1'dir.
- Çalışma tablası tam 360° derecelendirilmiştir. Kolun her bir turu tablayı 4° hareket ettirir.
- Mikro ayar 1'er dakika olarak derecelendirilmiştir. Vernierli skala 10 saniyeye kadar ayar imkanı sağlar.
- Bu döner tablalar mükemmel performansları, pratik dizaynları ve uygun fiyatlarından dolayı çok tercih edilir.
- Kullanım alanları dairesel işleme, açılal işleme, baralama vs gibi oldukça geniştir.

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



ÖZEL AKSESUARLAR

HV-4



ÜRÜN KODU	TABLA			TABAN ÖLÇÜSÜ			T-KANAL UZUNLUĞU		BAĞLANTI YUVASI	DÖNER TABLA İÇİN YÜK KAPASİTESİ		Merkez Koniği	Brüt ağırlık Tahta kutu (T) Karton (K)	
	Dış Çap	Yükseklik	H	H1	A	B	e	TİP		g	Yatay			Dikey
09.03.16.HV4	58	110	72	80	138	118	11	⊕	---	35kg	18kg	MK2	(K)	7,5kg
09.03.01.HV6	78	150	80	102	205	163	11	⊕	17	40kg	20kg	MK2	(K)	12,7kg
09.03.01.HV8	100	205	102	135	265	219	14	⊕	17	80kg	40kg	MK3	(K)	26,2kg
09.03.01.HV10	106	254	109	163	321	276	14	⊕	17	90kg	50kg	MK3	(K)	37,3kg
09.03.01.HV12	123	305	125	194	388	330	16	⊕	18	120kg	60kg	MK4	(K)	69,8kg
09.03.01.HV14	123	353	125	225	445	389	16	⊕	18	130kg	70kg	MK4	(K)	90,3kg
09.03.01.HV16	128	406	130	258	435	435	16	⊕	18	140kg	70kg	MK4	(T)	123,1kg

Madde	Test Konusu	Sapma (inch) (mm)
1	Kapanma yüzeyi düzlemselliği	.0006" (0.015mm)
2	Kapanma yüzeyinin tabana göre paralellliği	.0008" (0.02mm)
3	Kapanma yüzeyinin açılı yüzüne göre kareselliği	.0008" (0.02mm)
4	Kapanma yüzeyinin gerçek salgısı	.0006" (0.015mm)
5	Merkez deliğinin delik sınırındaki gerçek salgısı	.0008" (0.02mm)
6	Doğrudan indeks mekanizmasının indeks hassasiyeti toplam maksimum sapması	45"



## 09. GENEL HIRDAVAT GRUBU 03. DÖNER TABLALAR VE AKSESUARLARI

### 05. DİVİZÖR YEDEKLERİ-PLAKALAR

1 SET İÇEREN  
1 KARTON

DP SET, İNDEKS PLAKA, KRANK KOLU,  
3 ADET VİDA, SEKTÖR VE U-PUL İÇERİR  
BRÜT AĞIRLIK: 3,5kg



A-PLAKA	15, 16, 17, 18, 19, 20
B-PLAKA	21, 23, 27, 29, 31, 33
C-PLAKA	37, 39, 41, 43, 47, 49

ÜRÜN KODU	Uygun Model	Ağırlık
09.03.05.DP-1	HV-4, HV-6, VUT-6, VU-100, 150	1,4kg
09.03.05.DP-2	HV -8, VU-200	4,5kg
09.03.05.DP-3	HV - 10, 12, 14, 16 VUT - 10 RT - 12	4,6kg
09.03.05.DP-4	CS - 6, 8	4,6kg
09.03.05.DP-5	VU - 300	4,6kg

A-PLAKA	26, 30, 34, 38, 41, 44, 47, 51, 57, 28, 32, 37, 39, 43, 46, 49, 53, 59
B-PLAKA	61, 67, 71, 77, 81, 87, 91, 97, 63, 69, 73, 79, 83, 89, 93, 99

### 06. DİVİZÖR YEDEKLERİ - KARŞI PUNTA



ÜRÜN KODU	Ayar aralığı		Uygun olduğu model	Brüt ağırlık
	En yüksek	En düşük		
09.03.06.TS-1	108	108	HV-4, HV-6, VSI-4, VSI-5, BS-0, VUT-6, VU-100, VU-150	3,9
09.03.06.TS-2	145	115	BS-1, CC-6, CS-6, HV-8	5,5
09.03.06.TS-3	200	130	CS-8, HV-10, HV-12, CC-8, VUT-10, VUT-12, VU-200	8,1
09.03.06.TS-4	260	190	HV-14, HV-16	11,9

## 09. GENEL HIRDAVAT GRUBU 03. DÖNER TABLALAR VE AKSESUARLARI



### 02. YATAY - DİKEY İNDEKS DİVİZÖR

#### ÖZELLİKLER:

CS8, 3 AYAKLI AYNA İLE BİRLİKTE

MASKELEME PLAKASI & YÜZEY PLAKASI

Bu ürün süper indeks ile salyangoz dişli indeksin avantajlarını birleştirir. Freze, bara ya da başka bir makineye takıldığında salyangoz tahrik mekanizması sayesinde tekil indeks ve indirekt indeks işlemlerini gerçekleştirebilir. Salyangoz tahriği devre dışı bırakılarak 24 delikli ana plakanın 2,3,4,6,8,12 ve 24'e bölme işlemi yapılması sağlanabilir. Ayna çıkarıldığında yatay-dikey tip döner tabla olarak kullanılabilir. Dişli oranı 1:90'dır. Operasyon kolu 1 dakika olarak derecelendirilmiştir. 10 saniye hassasiyetine kadar okuma yapılabilir.

\* Süper indeks divizörler, 3 ayaklı ayna, 10"/250mm yüzey plakası, maskeleme plakaları 2,3,4,6,8,12 ile birlikte gelir.



ÖZEL AKSESUARLAR  
DÖNER TABLA İLE AYNIYDUR.

CS-8'İN GÖVDESİ, YÜZEY  
PLAKASI VE DİVİZÖR İLE  
UYUMLUDUR.

ÜRÜN KODU	Divizör sayısı	Ayna				Yüzey plakası		A	B	C	a
		Dış çap	İç ayak	Dış ayak	İç çap	Dış çap	Kalınlık				
09.03.02.CS6	2, 3, 4, 6, 8, 12, 24	167 VSK-6	4 - 42	10 - 156	44	203	50	250	235	221	220
09.03.02.CS8	2, 3, 4, 6, 8, 12, 24	210 VSK-8	4 - 62	10 - 180	63	310	58	310	285	243	225

ÜRÜN KODU	b	c	d	e	f	Klavuz deliği	h	i	İ	k	Brüt ağırlık
						g					
09.03.02.CS6	150	184	82	112	66	16	123	186	80	18	(T) 44,5
09.03.02.CS8	160	201	82	125	75	16	155	232	80	18	(T) 71,5

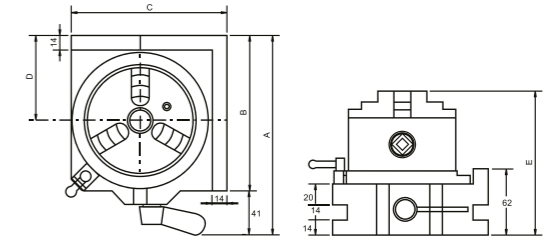


## 09. GENEL HIRDAVAT GRUBU 03. DÖNER TABLALAR VE AKSESUARLARI

### 03. YATAY - DİKEY İNDEKS DİVİZÖR EKONOMİK

#### ÖZELLİKLER:

- Büyük kapasitesi (Ø3-Ø100) ile pens sisteminden daha iyidir.
  - Basit ve hızlı operasyon 15°'lik 24 delikli plaka.
- Açısal indeksleme için tabla ölçüğü 1°'dir. Tabla deliği 30mm'dir.
  - Yatay - dikey kullanım.
- Frezeleme ve matkap makinalarına uygundur.



ÜRÜN KODU	A	B	C	D	E	KG
09.03.03.VSI-4	187	146	146	80	165	10.5
09.03.03.VSI-5	202	161	161	87	142	14.5

### 04. HASSAS ÇAPRAZ SUPPORT

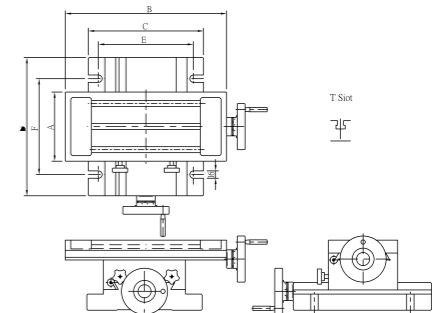
#### ÖZELLİKLER:

- Malzeme: FC-30 üstü
- Hassasiyet: 0,02/100mm
- Hareketli yüzeyler ısı işleme tabii tutulmuş ve hassas taşlanmıştır.
- Ölçüm tablası olarak kullanılabilir.



VCT - 407

VCT - 514



ÜRÜN KODU	A	B	C	E	F	Hareket	T yuva	Toplam yükseklik	Ölçek oranı	Paket ölçüleri E*B*Y	Ağırlık
09.03.04.VCT-407	100	180	130	100	115	50*80	3/8"	100	2.5mm/0.02	290*240*140	12
09.03.04.VCT-514	150	350	250	300	206	156*170	3/8"	134	4mm/0.02	510*450*240	33.5
09.03.04.VCT-820	200	500	300	400	250	200*250	3/8"	155	4mm/0.02	640*520*200	72
09.03.04.VCT-1024	250	600	400	500	340	250*300	1/2"	210	4mm/0.02	790*680*310	141



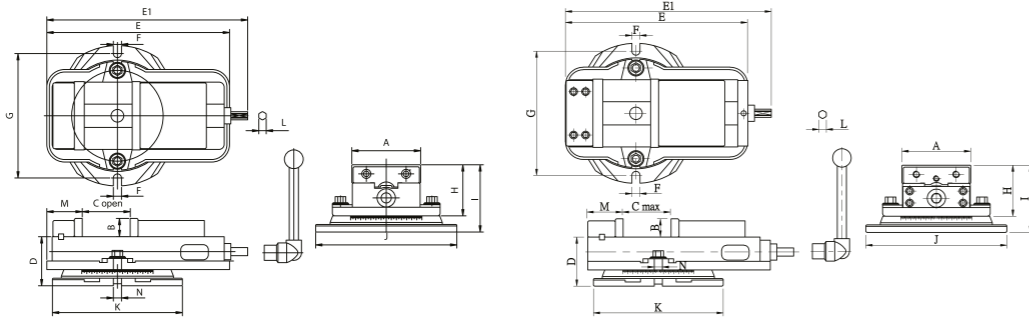
## 09. GENEL HIRDAVAT GRUBU 04. MENGENELER VE AKSESUARLARI



### 01. FREZE MENGENESİ

#### ÖZELLİKLER:

- Çeneler ve hareketli yüzeyler sertleştirilmiş ve taşlanmıştır.
- Maksimum kapama gücü sağlar.
- Hassas ve sağlamdır.
- Bu mengene sıkılan kolun hareketli çene içerisindeki yarım-daireyi sıkıştırması ile yatay gücün hareketli çeneyi aşağı bastırmasını sağlayacak şekilde dizayn edilmiştir. Bu sayede işlenen parça çenelerin üst kısmında olsa bile yukarı kalkmaz.
- 4 adet yerleşim pozisyonu daha geniş çene açılımı sağlar.
- Yeni modeller VD-675 ve VD-690 ile VA-8L'nin iki önemli farkı vardır. Birincisi daha geniş açılma kapasiteleri ikincisi ise yeni sabit çenedeki esnemenin büyük bağlantı elemanları ile %50 azaltılmış olmasıdır.
- Hassasiyeti 0,02mm'dir.



ÜRÜN KODU	A	B	C	D	E	E1	F	G	H	I	J	K	L	M	N	Kapanma gücü max.(kg)	Ağırlık (kg)
09.04.01.VA-4	106	36	103	90	324	351	13	211	96	126	242	228	14,5	75	-	1500	20
09.04.01.VA-5	135	36	110	97	359	394	16	246	101	133	277	255	14,5	85	-	2000	30
09.04.01.VA-6	155	46	142	110	422	452	20	288	118	158	326	302	19	95	-	2500	42
09.04.01.VA-8	210	60	197	129	553	583	17	355	145	190	395	366	19	105	16	3000	80
09.04.01.VA-8L	208	64	260	138	510	561	17	310	157	202	375	282	19	71	16	3000	73
09.04.01.VD-675	160	49	190	110	445	479	19	296	121	160	333	305	19	80	16	2500	42
09.04.01.VD-690	208	64	260	138	510	561	17	310	157	202	375	282	19	17	-	3000	73
09.04.01.VD-810	155	46	230	110	450	480	24	288	118	158	326	302	19	67	20	2300	43

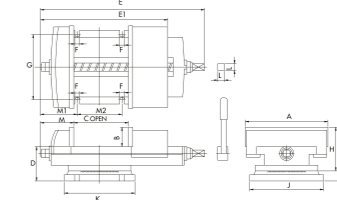


## 09. GENEL HIRDAVAT GRUBU 04. MENGENELER VE AKSESUARLARI

### 02. ŞEKİLLENDİRME VE FREZE MENGESİ

#### ÖZELLİKLER:

- Yüksek gerilimli dökme demirden imal edilmiştir.
- Geniş açılabilir çeneleri ve yüksek kavrama gücü ile ağır iş kesme ve ağır iş frezeleme operasyonlarında büyük parçaları tutmak için uygundur.

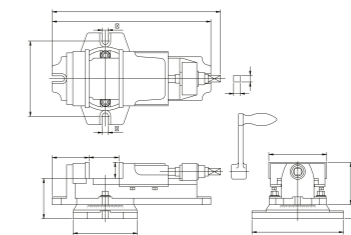


ÜRÜN KODU	A	B	C	D	E	F	G	H	I	J	K	L	M	M1	M2	Kapanma gücü max.(kg)	Ağırlık (kg)
09.04.02.VSM-12	304	72	290	126	604	18	240	161	198	272	260	25	123	135	165	800	84
09.04.02.VSM-16	405	96	415	145	763	20	292	200	241	336	260	25	135	143	248	1000	142
09.04.02.VSM-20	508	95	505	150	902	21	288	204	245	336	260	25	169	211	246	1200	200

### 03. K TİPİ FREZE MENGENESİ

#### ÖZELLİKLER:

- Yüksek hassasiyet ve kaliteli işçiliği ile ekipmanların pratik bir parçasıdır.
- Gövde, hareketli çene ve tabla sık taneli yüksek mukavemetli dökme demirden imal edilmiştir.
- Ağır işler ve sürekli hassasiyet için üretilmiştir.
- Çene pleytleri sertleştirilmiş ve taşlanmış takım çeliğinden imal edilmiştir.
- En uygun kullanım yerleri frezeleme, delme ve taşlamadır.
- Hassasiyeti 0,02mm'dir.



ÜRÜN KODU	A	B	C	D	E	E1	F	G	H	I	J	K	L	M	Kapanma gücü max.(kg)	Ağırlık (kg)
09.04.03.VK-4	104	36	62	76	293	310	13	145	83	113	176	122	15	65	900	10
09.04.03.VK-5	130	37	82	92	362	384	13	172	97	129	209	147	15	84	900	16
09.04.03.VK-6	152	43	112	105	442	479	15	209	108	148	260	181	16,5	90	1000	27
09.04.03.VK-8	204	63	149	127	579	609	18	312	148	190	350	234	21	122	1400	58

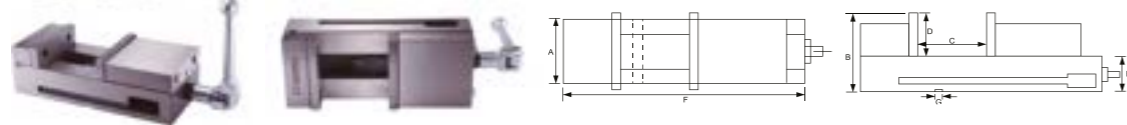
## 09. GENEL HIRDAVAT GRUBU 04. MENGENELER VE AKSESUARLARI



### 04. LOCK - FIXED HASSAS MAKİNA MENGENESİ

#### ÖZELLİKLER:

- Bu mengene sıkılan kolun hareketli çene içerisindeki yarım daireyi sıkıştırması ile yatay gücün hareketli çeneyi aşağı bastırmasını sağlayacak şekilde dizayn edilmiştir.
- Birden fazla mingenenin seri kullanımına dair çizim aşağıda verilmiştir.

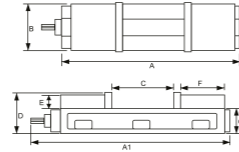


ÜRÜN KODU	A	B	C	D	E	F	G	Kapanma gücü max.(kg)	Ağırlık (kg)
09.04.04.VMC-4	108	100	100	37	63	285	16	1500	142
09.04.04.VMC-6	156	120	142	46	74	368	16	2500	298

### 05. BİLEŞİK HASSAS MENGENE

#### ÖZELLİKLER:

- Otomatik, hızlı ve güvenli merkezleme. Kaba, şekilsiz ve düzensiz parçalara uygundur.
- Kompakt dizayn ve yüksek hassasiyet.

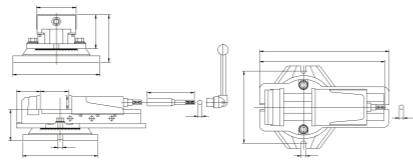


ÜRÜN KODU	A	A1	B	C	D	E	F	G	Ağırlık (kg)
09.04.05.VCV-44	415	462	102	195	95	30	102	60	177

### 06. UZUN TİP SÜPER OPEN MENGENE

#### ÖZELLİKLER:

- Hidrolik sistem hariç VH-TİP ile aynı özelliklere sahiptir. Hassasiyet 0,002mm'dir.
- VJ-400 çene açılımı 190mm, VJ-500 çene açılımı 235mm, VJ-600 çene açılımı 310mm.



ÜRÜN KODU	A	B	C	Açılma Kaasitesi			D	E	E1	F	G	H	I	J	K	L	M	N	O	Kapanma gücü max.(kg)	Ağırlık (kg)
				C1	C2	C3															
09.04.06.VJ-400	110	38	190	0-65	52-129	116-190	97	386	516	15	240	96	135	270	238	14,5	90	16	156	1500	25
09.04.06.VJ-500	132	48	235	0-78	70-158	150-235	110	455	580	17	255	113	158	290	265	14,5	85	16	166	1500	34
09.04.06.VJ-600	154	56	310	0-111	97-211	197-310	118	546	722	17	255	131	175	290	265	19	111	16	200	1500	46

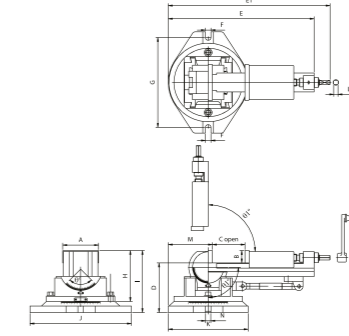


## 09. GENEL HIRDAVAT GRUBU 04. MENGENELER VE AKSESUARLARI

### 07. AÇILI MENGENE / 3 AÇILI

#### ÖZELLİKLER:

- Mengene 3 doğrultuda ayarlanabilir. Tabla 360° dönebilir yatay - dikey yönde 90° hareket edebilir. Ayrıca sağa sola her iki yöne 45° ayarlanabilir. Her yön hareketinde işlem parçası sağlam biçimde tutulur.
- Bölgesel olarak vidanın kapanan kısmı özel bir malzemeden üretilmiş yatak vasıtasıyla güçlendirilmiştir.

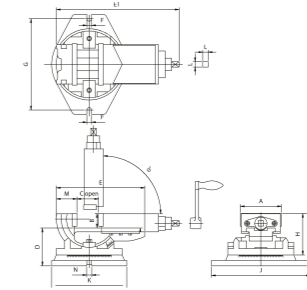


ÜRÜN KODU	A	B	C	D	E	E1	F	G	H	I	J	K	L	M	N	θ	θ	Kapanma gücü max.(kg)	Ağırlık (kg)
09.04.07.VW-3	80	31	35	126	335	370	15	210	127	157	240	185	10	95	16	-45°-45°	-0°-90°	800	(K)16,7
09.04.07.VW-4	110	38	115	152	448	497	17	276	157	190	311	245	13	135	16	-45°-45°	-0°-90°	1000	(K)32,7
09.04.07.VW-5	135	40	150	170	530	580	17	310	173	210	358	271	13	140	16	-45°-45°	-0°-90°	1600	(K)49,4

### 07. AÇILI MENGENE / 2 AÇILI

#### ÖZELLİKLER:

- Ağır dökme demir gövde, her iki doğrultuda ölçek, Z doğrultusunda 360°'lik tabla, dikey ve yatay 90°'lik hareket.



ÜRÜN KODU	A	B	C	D	E	E1	F	G	H	I	J	K	L	M	N	θ	Kapanma gücü max.(kg)	Ağırlık (kg)
09.04.07.VWT-5	130	46	95	118	280	415	15	286	130	164	313	238	17	65	16	-0°-90°	900	(K)31,7
09.04.07.VWT-6A	160	51	125	140	360	510	17	293	150	191	328	252	17	83	16	-0°-90°	1600	(K)47

## 09. GENEL HIRDAVAT GRUBU 04. MENGENELER VE AKSESUARLARI



### 08. HİDROLİK MENGENE

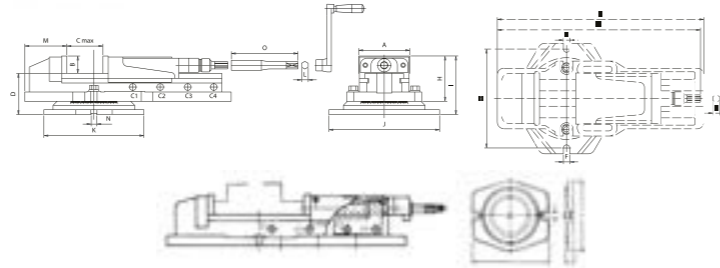
#### ÖZELLİKLER:

- Kitlenme önleyici yeni sistem yanlış güç ayarı nedeni ile oluşan kitlenmeleri önler.
- Sağlam yapısı sayesinde delme, frezeleme, taşlama gibi bir çok işlemde kullanılabilmesini sağlar.
- Yalıtılmış mili kir ve çapağa karşı korunaklıdır. Kayma yatakları sertleştirilmiş ve taşlanmıştır.
- Hidrolik sistemi minimum güç ile maksimum kapanma basıncı sağlar.
- Hızlı kapanma ve kitlenme kolay kullanım sağlar.
- Hassasiyeti 0,02mm'dir. Tabla ya da tablasız olabilir.
- Hidrolik itici sistemi 1 yıl kullanım garantilidir.
- 68 Nolu hidrolik yağ kullanılır. Hidrolik itici sistem arızalarına karşı kullanım klavuzuna bakınız.



YENİ DİZAYN: AYARLANABİLİR BASINÇ  
ALÜMİNYUM, PLASTİK, PİRİNÇ VE ÇELİK  
İŞLEMLERİNE UYGUNDUR.

HİDROLİK KONTROL ÜNİTESİ  
SABİT BASINÇ ELDE EDİLMESİNİ SAĞLAR.



ÜRÜN KODU	A	B	C	Açılma Kapasitesi				D	E	E1	F	G	H	I	J	K	L	M	N	O	Kapanma gücü max.(kg)	Ağırlık (kg)
				C1	C2	C3	C4															
09.04.08.VH-4	108	36	175	0-63	55-120	112-175	---	98	443	583	14	235	95	135	270	240	14	110	16	156	2500	28
09.04.08.VH-5	132	48	220	0-75	72-150	146-220	---	113	550	703	17	253	118	161	290	263	19	124	16	165	4500	47
09.04.08.VH-6	151	52	300	0-100	97-200	197-300	---	124	620	800	19	298	136	176	332	300	19	126	16	200	4500	63
09.04.08.VH-8	204	62	300	0-100	94-200	194-300	---	144	680	857	17	342	162	206	375	350	19	155	16	200	7500	110
09.04.08.VH-8L	204	62	400	0-100	94-200	194-300	295-400	144	795	950	17	342	262	206	375	350	19	155	16	200	7500	125

#### DÖNER TABLA

ÜRÜN KODU	a	b	c	d	Ağırlık (kg)
aaa	280	210	28	16	4
	297	267	33	16	7
	335	310	36	19	10
	373	355	41	19	16

#### MAX. AÇILMA KAPASİTELERİ

ÜRÜN KODU	C1	C2	C3	C4
09.04.08.VH-4	0-63	55-120	112-175	---
09.04.08.VH-5	0-75	72-150	146-220	---
09.04.08.VH-6	0-100	97-200	197-300	---
09.04.08.VH-8	0-100	94-200	194-300	---
09.04.08.VH-8L	0-100	94-200	194-300	295-400

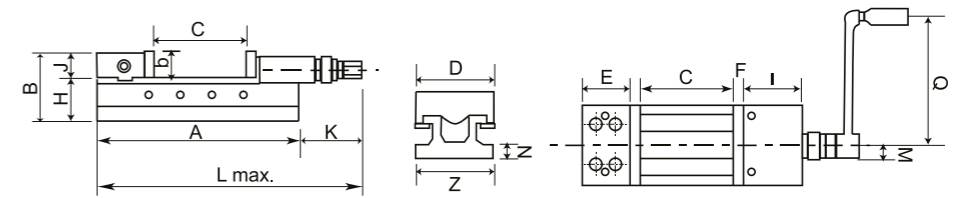


## 09. GENEL HIRDAVAT GRUBU 04. MENGENELER VE AKSESUARLARI

### 09. NC HİDRO MAKİNA MENGENESİ

#### ÖZELLİKLER:

- Hidro itici sistem minimum güç ile maksimum kapanma basıncı sağlar. Kayma yatakları taşlanmış ve sertleştirilmiştir.
- Kompakt yapıdadır. Kapama kapasitesi harikadır. Akma ve darbe dayanımı yüksektir.
- Gövde FCD60 sünek dökme demirden üretilmiştir.
- Frezeden delmeye, taşlamaya birçok operasyona uygun olarak yapılandırılmıştır.

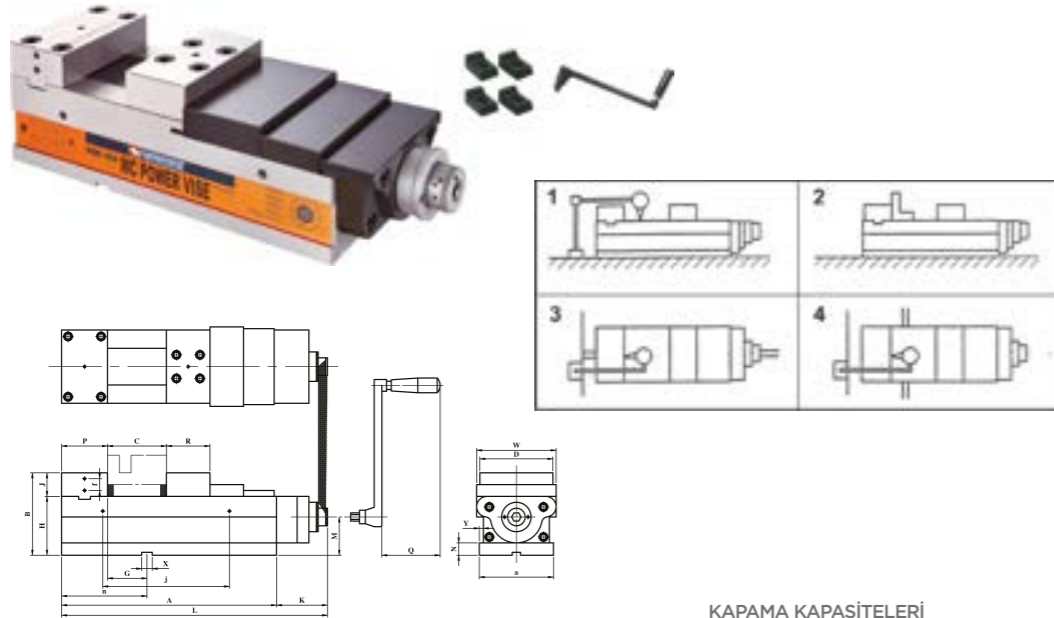


ÜRÜN KODU	max. açılım C	kapanma gücü KN	L max.	A	B	D	E	F	b	H	J	N	I	Z	Ağırlık (kg)
09.04.09.MNC-100H	205	25	464	380	1035	99,6	67	13	34	70	335	24	133	100	19
09.04.09.MNC-125H	225	40	556	432	126	124,6	85	15	45	82	44	27	147	125	37,08
09.04.09.MNC-160H	309	50	684	550	148	159,6	102	18	54	95	53	27	189	160	63
09.04.09.MNC-160LH	509	50	884	750	148	159,6	102	18	54	95	53	27	189	160	77,7

## 10. MEKANİK MC MENGENE

### ÖZELLİKLER:

- Kompakt dizayn. Rijit ve yüksek kapama gücü. Mafsal destekli mekanizma işleme parçasını, iç yapısındaki disk yayı ile esnek biçimde tuttuğu sürece titreşim ve şoklara karşı sürekli bir kapama gücü sağlar. Yüksek kapama gücü.
- Geniş çene darbe aralığı. Darbe ve akmaya dirençlidir.
- Gövde FCD60 yüksek kaliteli sünek dökme demirden imal edilmiştir.
- Hareketli kayma yatakları sertleştirilmiş ve taşlanmıştır, iç mekanizması talaş ve kire karşı korunmuştur.
- Hızlı kapanma ve kilitleme sistemi ile kolay kullanımlıdır.



KAPAMA KAPASİTELERİ

TEST DETAYLARI			KAPAMA KAPASİTELERİ					
NO	TEST CİNSİ (HER 100mm için)	Garanti edilen değerler	Kod	Çene açılım		H	Max. kapanma gücü	Ağırlık (kg)
				H	C			
1	Paralellik: Hareketli yüzey ile taban yatağı	0,01/100 mm	VQC-125	40	205	140	40	40,4
2	Karesellik: Hareketli yüzey ile çene pleyti	0,02/100 mm	VQC-160	45	275	165	60	72,3
3	Karesellik: Çene pleyti yatağındaki anahtar yolları	0,02/100 mm	VQC-160L	45	355	165	60	78,6
4	Paralellik: Hareketli yüzeydeki test bloğu ile yatak yüzeyi	0,02/100 mm	VQC-200L	70	405	190	60	108

ÜRÜN KODU	A	B	a	D	P	R	G	H	J	K	L	M	N	Q	W	X	Y	Çene açılım C	f	J	n
09.04.10.VQC-125	366	140	126	124,5	78	74	66	100	40	86	452	65	21	74	135	18	7	205	20	216	145
09.04.10.VQC-160	456	165	161	159,5	86	86	58	120	45	98	554	78	21	94	170	18	7	275	20	286	145
09.04.10.VQC-160L	536	160	162	160	86	86	58	115	45	98	634	78	21	94	174	18	7	355	20	286	145
09.04.10.VQC-200L	616	180	202	200	102	98	74	110	70	95	711	75	21	96	217	18	7	405	20	286	177

## 11. HİDROLİK MC MENGENE

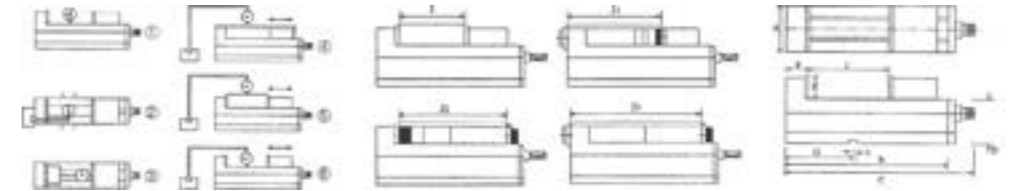
### ÖZELLİKLER:

- Çok kuvvetli hassas hidrolik mengene, yatay ve dikey yönlü ağır işlemler için uygundur.
- Parçaların yukarı kalkmasını önlemek amacıyla çenelerde aşağı doğru basan yarım daire segmenti kullanılmıştır.
- Gerilimi alınmış dökme demirden üretilmiştir. Kullanılan malzeme kesme işlemleri esnasında hassas bir dayanıklılık sağlar.
- Hareketli yüzeyler 45 HRC'ye kadar sertleştirilmiştir. Bu sayede yüksek dayanıklılık ve hassasiyet elde edilmiştir.
- Ayar vidası sayesinde herhangi bir anda hareketli çene istenen hassasiyete ayarlanabilir.
- Daha geniş açılım sağlamak amacıyla 4 farklı pozisyona ayarlanabilir.



HASSASİYET TESTİ STANDARTLARI

NO	KONU	JIS SEVİYE 1 DEĞERİ	GARANTİ EDİLEN DEĞERLER
1	Yan kanallar ile yatak hassasiyeti	0,020/100 mm	0,010/100 mm
2	Taban kama kanalları ile çenelerin hassasiyeti	0,020/100 mm	0,015/100 mm
3	Çenelerin birbirine göre paralelligi,	0,020/100 mm	0,020/100 mm
4	Tam açılım anında test bloğunun mengene tabanına göre paralelligi	0,050/100 mm	0,030/100 mm
5	Mengene yatağının yüzeyinin tabana göre paralelligi	0,020/100 mm	0,015/100 mm



ÜRÜN KODU	A	B	C	D	E	F	G	I	Max. Çene Açılımı				Kapanma Gücü	Ağırlık
									J	J1	J2	J3		
09.04.10.VMC-100HV	101	340	470	85	48	80	125	16	125	190	230	320	4000 kgf	27 kg
09.04.10.VMC-130HV	131	405	535	95	55	85	150	18	180	240	290	380	5000 kgf	40 kg
09.04.10.VMC-160HV	161	495	625	105	58	100	165	18	240	320	360	470	6500 kgf	58 kg
09.04.10.VMC-200HV	201	570	700	110	63	108	190	18	280	360	420	540	8000 kgf	87 kg

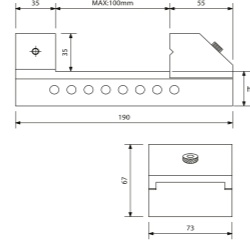
## 09. GENEL HIRDAVAT GRUBU 04. MENGENELER VE AKSESUARLARI



### 12. PİMLİ HASSAS MENGENE

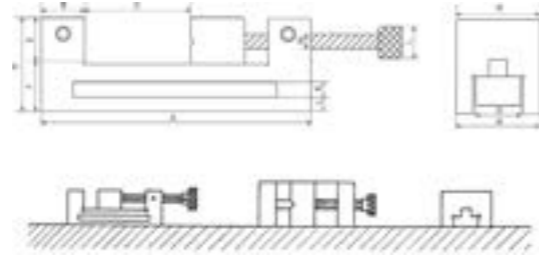
#### ÖZELLİKLER:

- Sertleştirilmiş hassas zemin. Parça mengene üzerine, yanına veya kenarına hassas şekilde bağlanabilir.
- Karesellik ve paralellik  $\pm 0,005$
- Mengene işlemlerinde ister tabanı, ister kenarları, ister köşeleri üstünde dursun, zemini korur.



ÜRÜN KODU	Malzeme	Uzunluk	Genişlik	Çene açıklığı	Çene yüksekliği	Yükseklik	h	Sertlik	Ağırlık (kg)
09.04.12.MV-15	SK2	100	36	40	40	45	25	HRC54°±2°	0.9
09.04.12.MV-20	SK2	150	48	75	75	57	28	HRC54°±2°	2
09.04.12.MV-25	SK2	170	63	90	90	62	28	HRC54°±2°	3.3
09.04.12.MV-30	SK2	190	73	100	100	67	32	HRC54°±2°	4.5
09.04.12.MV-35	SK2	225	88	125	125	84.5	40	HRC54°±2°	7
09.04.12.MV-40	SK2	230	98	125	125	85	40	HRC54°±2°	8.9
09.04.12.MV-50	SK2	287	125	150	150	100	50	HRC54°±2°	15.5
09.04.12.MV-60	S50C	330	150	200	200	100.5	50	HRC54°±2°	21.4

### 13. VİDALI HASSAS MENGENE



ÜRÜN KODU	Tolerans ±0.004mm, ±0.005mm,		Çene yüksekliği	Çene açıklığı	Genişlik	E	F	G	H	I	J	K	L	M	N	O	Yükseklik	Sertlik	Ağırlık (kg)
	Malzeme	Uzunluk																	
09.04.13.DV-20	SK2	155	25	60	54	29	25	25	45	25	10	35	16	48	12	54	HRC54°±2°	25	
09.04.13.DV-25	SK2	176	25	75	60	30	30	30	45	25	10	40	16	63	28	60	HRC54°±2°	3.9	
09.04.13.DV-30	SK2	181	30	74	70	40	30	30	52	25	14	50	19	73	26	70	HRC54°±2°	5.7	
09.04.13.DV-35	SK2	250	35	125	73	35	38	38	55	35	11	12	55	25	88	30	73	HRC54°±2°	9.2
09.04.13.DV-40	SK2	250	35	125	73	35	38	38	55	35	12	12	55	25	98	30	73	HRC54°±2°	10.1



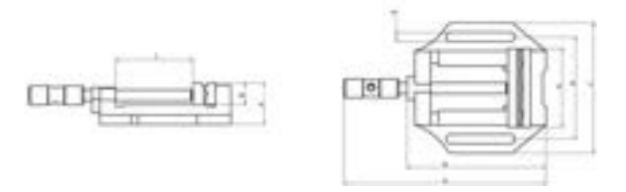
## 09. GENEL HIRDAVAT GRUBU 04. MENGENELER VE AKSESUARLARI

### 14. HASSAS SABİT TEZGAH MENGENELERİ



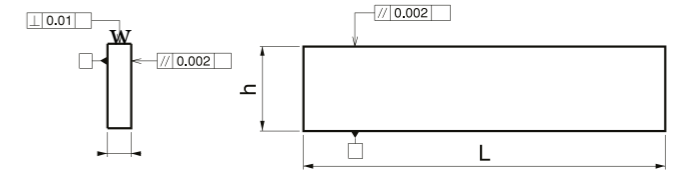
ÜRÜN KODU	Çene genişliği (mm)	Açılım (mm)	Boğaz (mm)	Örs boyutu (mm)	Sıkma Kuvveti (KN)	Kg
09.04.14.100	100	90	58	48x46	15 KN	5
09.04.14.125	125	115	66	55x52	20 KN	9
09.04.14.150	150	125	75	67x62	25 KN	14
09.04.14.200	200	175	93	87x80	30 KN	25

### 15. MATKAP MENGENELERİ



ÜRÜN KODU	A	B	C	D	E	F	G	H	J	Kg
09.04.15.100	260	175	162	128	100	12	56	27	90	3.5
09.04.15.125	300	204	182	150	125	12	64	33	110	4.5
09.04.15.150	328	232	208	170	150	12	68	33	135	5.5
09.04.15.200	400	300	248	210	200	12	72	39	190	11

### 16. PARALEL SETLER



ÜRÜN KODU	Boy (mm)	Kalınlık (mm)	Adet	Ölçüler (mm)
09.04.16.7	150	-	7 çift	6x10-6x12-8x14-12x18-12x24-16x36-16x38
09.04.16.14-5	150	5	14 çift	14-16-18-20-22-24-26-28-30-32-35-40-45-50
09.04.16.14-10	150	10	14 çift	14-16-18-20-22-24-26-28-30-32-35-40-45-50

## 01. IŞIKLI VE SESLİ PROBLAR

### ÖZELLİKLER:

- Ölçüm sırasında döndürmeye gerek yoktur.
- Kırmızı ışık kırmızı renkli yapıştırıcı ile yapıştırılmıştır. Kırmızı ışık yanarken aynı anda ses çıkarır.
- Sudan etkilenmezken ışığını da korur. Işık görüş alanı dışında ise sesli uyarı kullanıcıyı uyarır.
- Hassasiyet 0,005mm içersindedir.

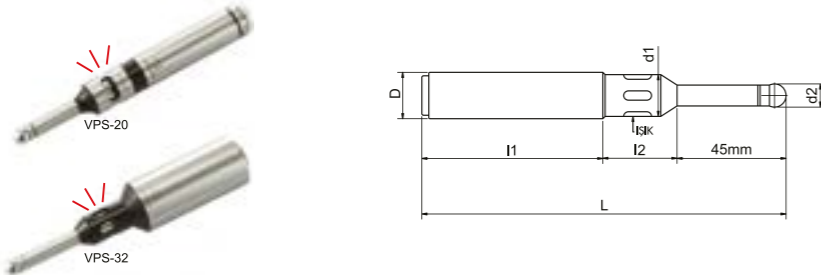


ÜRÜN KODU	D	d1	d2	L	l1	l2	PİL TİPİ	Ağırlık (kg)
09.05.01.20	Ø20	18	10	160	79	41	UM-5#(SP)	0.4
09.05.01.32	Ø32	18	10	160	79	41	*1Adet/12V	0.7

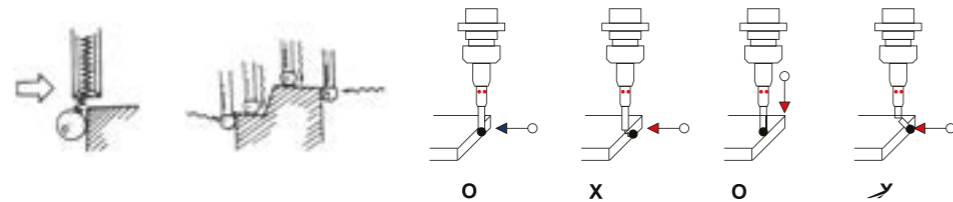
## 02. IŞIKLI PROBLAR

### ÖZELLİKLER:

- Yüksek hassasiyetli sensörleri vardır. Kırmızı ışık rahatça görülebilir.
- Bitiş yüzeyinin yeri, dış çap, iç çap gibi birçok ölçü büyük etkinlikle saptanabilir.
- Prop ucundaki top cihaza bir yay vasıtasıyla bağlanmıştır. Bu sayede fazla hareket avantajı sağlanır.
- Top merkez noktaya döndüğünde yüksek hassasiyetli ölçüm elde edilir.

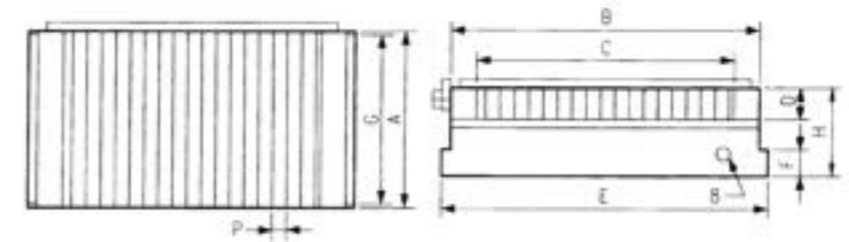


ÜRÜN KODU	D	d1	d2	L	l1	l2	PİL TİPİ	Ağırlık (kg)
09.05.02.20	20	16	10	157	77	35	UM-5#(SP)	0.4
09.05.02.32	32	16	10	157	71	41	*2P/R1/15V	0.7



## 01. KOLLU MANYETİK TABLALAR KALIN ÇİZGİLİ

ÖZEL OLARAK İŞLENMİŞ HASSAS YÜZEY



ÜRÜN KODU	Ölçü	Tabla ölçüleri				Kutup hatvesi	Tabla sabitleme yüzeyi			Yükseklik	Ağırlık (kg)
		A	B	C	D		P	G	E		
09.06.01.100.175	100x175	100	175	146	20	8(2+6)	100	187	15	50	72
09.06.01.125.250	125x250	125	250	206	20	8(2+6)	125	262	15	50	15
09.06.01.150.300	150x300	150	300	256	20	8(2+6)	150	318	15	50	185
09.06.01.150.350	150x350	150	350	306	20	8(2+6)	150	368	15	50	209
09.06.01.150.450	150x450	150	450	406	20	8(2+6)	150	468	15	50	275
09.06.01.200.400	200x400	200	400	365	20	8(2+6)	200	418	15	50	32
09.06.01.200.450	200x450	200	450	406	20	8(2+6)	200	468	15	50	36.3
09.06.01.200.500	200x500	200	500	456	20	8(2+6)	200	518	15	50	40.4
09.06.01.250.500	250x500	250	500	456	20	8(2+6)	250	518	15	50	50.3
09.06.01.150.150	150x150	150	150	116	20	8(2+6)	150	162	15	50	9
09.06.01.300.600	300x600	300	600	550	18	8(2+6)	300	620	15	48	73.5

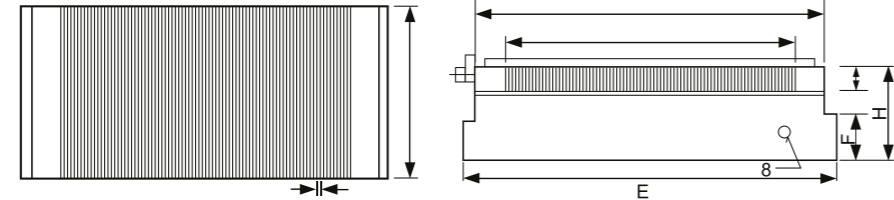
## 02. KOLLU MANYETİK TABLALAR İNCE ÇİZGİLİ

### ÖZELLİKLER:

- İnce ve hafif olması çok yönlü kullanım sağlar.
- Sık kutuplu olması, bu modelde, tablayı ince ve küçük parçalar için uygun kılar.
- Tabla yüzeyi benzer tiplere göre daha geniş manyetikleşmiş alan sağlar.

### UYGULAMA:

Bu yeni ince tip tabla, 50mm yükseklik, taşlama işlemlerine, ince saclara ve küçük iş parçalarına uygundur. Geniş bir uygulama alanı vardır ve tabla üzerinde geniş bir manyetik alan oluşturur.



ÜRÜN KODU	Ölçü	Tabla ölçüleri				Kutup hatvesi	Tabla sabitleme yüzeyi				Yükseklik	Ağırlık (kg)
		A	B	C	D		P	G	E	F		
09.06.02.100.175	100X175	100	175	146	18	5(1+4)	100	195	15	50	77	
09.06.02.150.150	150X150	150	150	116	18	5(1+4)	150	175	15	50	10	
09.06.02.150.300	150X300	150	300	256	18	5(1+4)	150	320	15	50	188	
09.06.02.150.350	150X350	150	350	306	18	5(1+4)	150	370	15	50	216	
09.06.02.150.450	150X450	150	450	406	18	5(1+4)	150	470	15	50	274	
09.06.02.200.400	200X400	200	400	356	18	5(1+4)	200	420	15	50	323	
09.06.02.200.450	200X450	200	450	406	18	5(1+4)	200	470	15	50	363	

## 03. ELEKTROMANYETİK TABLALAR

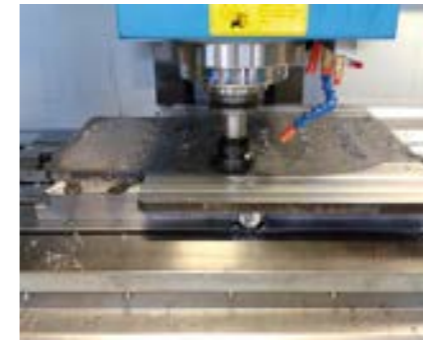
### ÖZELLİKLER:

Çok kuvvetli tutucu manyetik tabla, frezeleme ve taşlama işlemlerinde iş parçası işlemek için kullanılır açık pozisyonda güç kesilse bile uzun süre manyetik özelliğini koruyarak çalışmaya devam eder en güçlü makina takımları için bile uygundur. İş parçasını tutarken dış güç kaynaklarından tamamen bağımsızdır. Elektrik kesintilerinde tamamen güvenlidir. Hassasiyeti sıcaklıktan asla etkilenmez, iş parçasının bağlanması çok kolay ve uygundur, kısa sürede bağlanır. Orta, büyük ve sert parçalarda bile ağır işleme uygundur. Tabla için üzerinde yapılan işleme göre uygun bloklar isteğe göre temin edilir.



KONTROL ÜNİTESİ FİYATA DAHİLDİR.  
MANYETİK TABLALAR KONTROL ÜNİTESİZ KESİNLİKLE ÇALIŞTIRILAMAZ

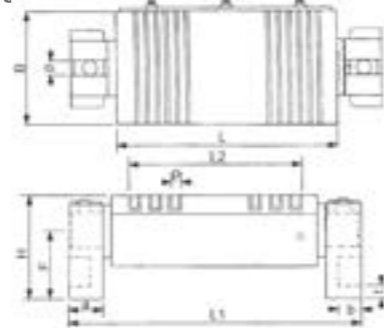
ÜRÜN KODU	Uzunluk (mm)	Genişlik (mm)	Yükseklik (mm)	Kutup Sayısı	Ağırlık (kg)
09.06.03.329.392	329	392	68	16	65
09.06.03.392.491	491	392	68	24	95
09.06.03.392.609	609	392	68	32	125
09.06.03.392.771	771	392	68	40	155
09.06.03.304.933	933	304	68	36	140



## 09. GENEL HIRDAVAT GRUBU 06. MANYETİK TABLALAR



### 04. DÖNER MANYETİK TABLALAR KALIN ÇİZGİLİ

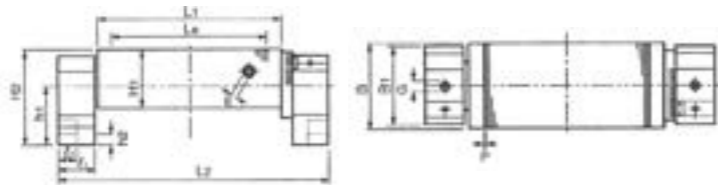


ÜRÜN KODU	Ölçü	Tabla ölçüleri			Kutup hatvesi P	a	b	t	F	L1	d	Yükseklik H	Ağırlık (kg)
		B	L	L2									
09.06.04.125.250	125x250	125	250	191	85 (25+6)	50	35	17	96	380	16	150	332
09.06.04.150.300	150x300	150	300	245	85 (25+6)	50	35	17	96	430	16	150	445
09.06.04.150.450	150x450	150	450	414	8 (2+6)	50	27	15	90	565	-	145	43

### 05. DÖNER MANYETİK TABLALAR İNCE ÇİZGİLİ

#### ÖZELLİKLER:

- Ölçeklendirilmiş döner şaftı herhangi bir açıda çalışmasını sağlar.
- Açma kapama sırasında yüzey hassasiyeti değişmez.
- Sık kutuplu yapısı ince ve küçük parçaların taşınmasına imkan sağlar.



ÜRÜN KODU	Ölçü	Tabla ölçüleri			Kutup hatvesi P	Uzunluk		Ayak ölçüleri				Yükseklik H2	Ağırlık (kg)	
		B	L	L2		L2	b	l1	l2	G	h1			h2
09.06.05.100.175	100x175	100	175	125	2 (1+15)	293	100	50	25	16	103	50	145	19
09.06.05.125.250	125x250	125	250	200	2 (1+15)	368	100	50	25	16	103	50	145	27
09.06.05.150.300	150x300	150	300	245	2 (1+15)	412	100	50	25	16	103	50	145	31
09.06.05.150.350	150x350	150	350	296	2 (1+15)	468	100	50	25	16	103	50	145	37
09.06.05.150.450	150x450	150	450	396	2 (1+15)	568	100	50	25	16	103	50	145	43



## 09. GENEL HIRDAVAT GRUBU 07. MANYETİK AYIRICILAR

### 01. SEPARATÖRLER

#### ÖZELLİKLER:

- Manyetik ayırıcı bar ünitesi kuvvetli mıknatıstan imal edilmiştir. Temel kullanım amacı; kimya, plastik ve çeşitli alanlarda toz ve küçük taneli hammadde içerir. İçindeki metal artıkları ayırmak üretim verimliliği sağlamaktadır.
- Kolay montaj sayesinde birçok alanda kullanılır.



VMS-9B



VMS-7B

ÜRÜN KODU	Ölçü	Ağırlık (kg)
09.07.01.175.112.75	180x170x75	24
09.07.01.218.156.75	239x220x65	38

### 08. MANYETİK ALMA CİHAZLARI

#### 01. MASA TİPİ

#### ÖZELLİKLER:

- Giriş voltajı 110-220 VAC'dir. Açma kapama düğmesi mevcuttur. Takımların, matkapların kolayca manyetiğini alır.



ÜRÜN KODU	Giriş voltajı	Kapasite	Çalışma yüzeyi	Yükseklik	Ağırlık (kg)	Çevrim oranı
09.08.01.160.110	AC-110V	210VA	160x110	100	4,5	50%
09.08.01.200.280	AC-220V	550VA	200x280	30	16	100%

#### 02. PORTATİF TİPİ



VDM-8, 11



PORTATİF KULLANIM

ÜRÜN KODU	Giriş voltajı	Kapasite	Çalışma yüzeyi	Yükseklik	Ağırlık (kg)	Çevrim oranı
09.08.02.123.83	AC-110V 220V	110VA	123x83	83	18	90%



## 01. DEĞİŞTİRİLEBİLİR KARBÜR UCLU - AYARLI

SPMN 1203



VCF-500

AKSESUAR: KESİCİ FREZE UCU SPUN422

### PRATİK

- Universal uygulama
- Basit kullanım
- Hızlı, hassas, verimli
- Zaman kazandırır

### ÜRÜN KODU

09.09.01.VCF-500  
09.09.02.VCF-500F  
09.09.03.VCF-500W

## 02. DEĞİŞTİRİLEBİLİR KARBÜR UCLU-SABİT



VCF-500W

AKSESUAR: ÇANAK TAŞ Ø100\*50\*Ø17

### VCF SERİSİ ÖZELLİKLER

- Kolay kullanım: Vasıfsız elemanlara uygun
- Çelik, dökme demir, demir dişi metaller, plastik, akrilik vs. malzemelerin her boyu işlenebilir.
- 500: Değiştirilebilir karbür uçlar ve bıçak maliyeti düşürüp, üretim kapasitesini artırır.
- 500w: Çanak taş ya da flanş sayesinde sıcak işlenmiş parçaların pah kırma işlemi gerçekleştirilebilir.
- 500f: Yüzey frezeleme prensibine göre çalışır.
- Pah kırma işlemi yüzeyi, frezeleme makinesi ile aynıdır.

## 03. DEĞİŞTİRİLEBİLİR ÇANAK TAŞI



VCF-500F

AKSESUAR: KESİCİ FREZE UCU (SEKN 1203)

Teknik bilgi			
<b>Gerekli alan</b>	500 500*320m/m	500W 500*440m/m	500F 500*220m/m
<b>Ağırlık (kg)</b>	285	291	29
<b>Voltaaj</b>	3Ø 220V ve 1Ø 110V/220V 50HZ/60HZ 3Ø 380V/415V		
<b>Motor çıkışı</b>	0,7 KW		
<b>Hız</b>	3500 rpm		
<b>Ray yuvası uzunluğu</b>	500 mm	500 mm	500 mm
<b>Pah yüksekliği</b>	0-3 mm		
<b>Pah açısı</b>	15° - 45° (ayarlanabilir)	45°	45°

## 04. DEĞİŞTİRİLEBİLİR FLAP DİSKLİ



VCF-500S

AKSESUAR: FLAP DİSK 165Ø\*22Ø

### ÜRÜN KODU

09.09.04.VCF-500S  
09.09.05.VCF-600  
09.09.06.VCF-700

### PRATİK

- Flap disk kullanılır
- Çelik ve serleştirilmiş dökme demir için uygundur.
- Yumuşak demir ve alüminyum için uygun değildir.
- Düzensiz parçalarda kullanılırsa oluşan yüzey güçsüz olabilir.

### VCF SERİSİ ÖZELLİKLER

- 500S: Flap disk kullanılır.
- Sert ve rijit malzemelerde uygundur.
- 600: Kolayca taşınır ve ağır parçaların işlenmesini kolaylaştırır.
- 700: Taşınabilir, demir ve demir alaşımları özellikle çelik ve dökme demir için uygundur.
- Kare şekilli tungsten karbür uc olan ISO 1203SPUN kullanılır. Basitleştirilmiş kullanımı vasıfsız elemanlar için uygundur.

## 05. PORTATİF TİP HAFİF YÜK



VCF-600

AKSESUAR: UC SPMW 090308

## 06. PORTATİF TİP AĞIR YÜK



VCF-700

AKSESUAR: FREZE

Teknik bilgi			
<b>Gerekli alan</b>	VCF-500S 330*410mm	VCF-600 500*440mm	VCF-700 500*220mm
<b>Ağırlık (kg)</b>	26	37	14
<b>Voltaaj</b>	3Ø 220V ve 1Ø 110V/220V 3Ø 380V/415V 50HZ/60HZ		
<b>Motor çıkışı</b>	0,7 KW		0,37 KW
<b>Hız</b>	3500 rpm	12000 rpm	3500 rpm
<b>Ray yuvası uzunluğu</b>	320 mm	100 mm	200 mm
<b>Pah yüksekliği</b>	0-3 mm	0-3 mm	0-7 mm
<b>Pah açısı</b>	45°	45°	15° - 45° (ayarlanabilir)

## 09. GENEL HIRDAVAT GRUBU 10. BİLEME MAKİNALARI VE YEDEKLERİ

**DEFNE**

### 01. FREZE BİLEME MAKİNASI

#### ÖZELLİKLER:

- 2,3,4 ağızlı frezeleri bilmek için kullanılır. Hassas ve kolay kullanım sağlar. Frezeleri hızlı bir şekilde bileyebilir.
- $\pm 0,02$  mm hassasiyet garantilidir.
- Karbür bileme taşı ile birlikte teslim edilir.

NO.2 20° İKİNCİ RADYAL AÇI İÇİN  
KESKİNLİĞİ VİDA İLE AYARLAYIN



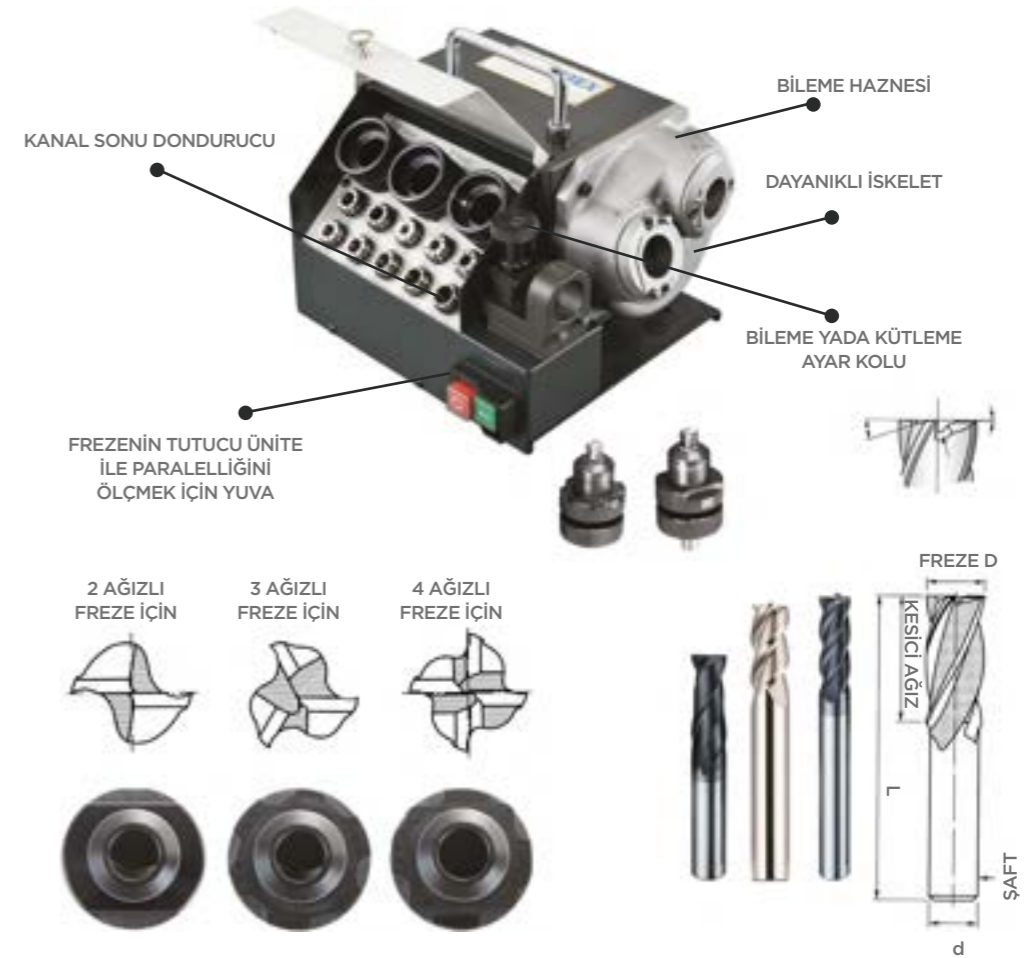
FREZENİN TUTUCU ÜNİTE İLE PARALELLİĞİNİ  
ÖLÇMEK İÇİN YUVA

Kod	09.10.014-13	09.10.012-25
Freze Çap Aralığı	Ø4 - Ø13 mm	Ø12 - Ø25 mm
Motor	450W	1000W
Güç	AC-110 veya 220 1PH 50/60HZ	AC-110 veya 220 1PH 50/60HZ
Aksiyal açı	NO.1 30° düz yiv açısı NO.2 20° ikinci radyal açı NO.3 6° kesme açısı	NO.1 30° düz yiv açısı NO.2 20° ikinci radyal açı NO.3 6° kesme açısı
Standart aksesuarlar	Alaşımli Çelik Pens ER-20 Pens: Ø4, 5, 6, 7, 8, 9, 10, 11, 12, 13mm 10 adet/set, Anahtar: 1 adet SDC 270 x 1Ø4 - Ø6mm için SDC 270 x 1Ø8 - Ø13mm için Kare Tip 4 Ağızlı freze için x1 Set Hex. Tip 3 Ağızlı freze için x1 Set Paralel Tip 2 Ağızlı freze için x1 Set	Alaşımli Çelik Pens ER-40 Pens: Ø12, 16, 18, 20, 22, 25 mm 6 adet/set, Anahtar: 1 adet SDC 150 x 1Ø12 - Ø25mm için Kare Tip 4 Ağızlı freze için x1 Set Hex. Tip 3 Ağızlı freze için x1 Set Paralel Tip 2 Ağızlı freze için x1 Set
Paket ölçüleri	320*260*300 mm	365*293*345mm
Ağırlık (kg)	17	31

**DEFNE**

## 09. GENEL HIRDAVAT GRUBU 10. BİLEME MAKİNALARI VE YEDEKLERİ

### 03. FREZE BİLEME MAKİNASI YEDEK TAŞLARI



2 AĞIZLI  
FREZE İÇİN



3 AĞIZLI  
FREZE İÇİN



4 AĞIZLI  
FREZE İÇİN



ÜRÜN KODU	Bileme taşı	Kullanılacağı malzeme	Ağırlık
09.10.03.CBN300.4-6	CBN 300*1 (4-6 mm için)	H.S.S	0.35
09.10.03.CBN270.7-13	CBN 270*1 (7-13 mm için)	H.S.S	0.35
09.10.03.SDC270.4-6	SDC 270*1 (4-6 mm için)	KARBÜR	0.35
09.10.03.SDC270.7-13	SDC 270*1 (7-13 mm için)	KARBÜR	0.35
09.10.03.CBN150.12-25	CBN 150*1 (12-25 mm için)	H.S.S	-
09.10.03.SDC150.12-25	SDC 150*1 (12-25 mm için)	KARBÜR	-

## 09. GENEL HIRDAVAT GRUBU 10. BİLEME MAKİNALARI VE YEDEKLERİ



### 02. MATKAP BİLEME MAKİNASI

#### ÖZELLİKLER:

- Matkap uçlarının bilenmesi için kullanılır. Hassas ve kullanımı basittir. Matkap uçları hızlı bir biçimde bilenebilir.
- $\pm 0,05\text{mm}$  hassasiyet garantilidir. Güçlü motoru 2 saat çalışmayı destekler.
- Karbür ve HSS dahil her türlü matkap için uygundur. Karbür bileme taşı ile birlikte teslim edilir.



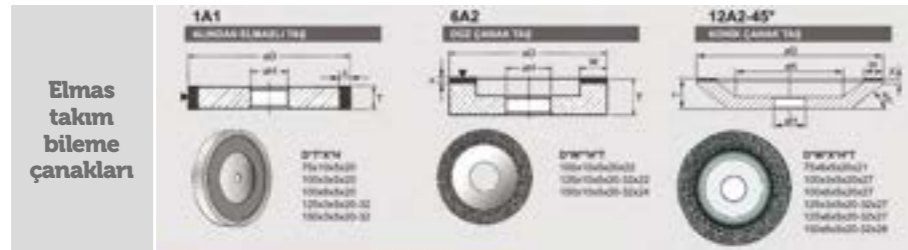
ÜRÜN KODU	Matkap çapı	Uç açısı	Güç kaynağı
09.10.02.2-13	Ø20 - Ø130	90° - 140°	AC-110 veya 2201PH
09.10.02.12-25	Ø12 - Ø25	100° - 136°	AC-110 veya 2201PH

ÜRÜN KODU	Motor gücü	Bileyici	Net ağırlık	Ölçüler
09.10.02.2-13	5100 RPM	SDC #200	AC-110:9.7kg - AC-220:9.7kg	W282*D185*H110 mm
09.10.02.12-25	5300 RPM	SDC #200	AC-110:29kg - AC-220:29kg	W380*D240*H200mm

### 04. MATKAP BİLEME MAKİNASI YEDEK TAŞLARI

Opsiyonel özel pens ölçüleri	ÜRÜN KODU		Bilenecek malzeme	Tane büyüklüğü
	ER-20	ER-40 özel ölçüleri		
Ø35, 4,5, 5,5, 6,5, 7,5, 8,5, 9,5, 10,5, 11,5, 12,5	Ø8, 9, 10, 11, 26, 27, 28, 29, 30	09.10.04.CBN200.2-13	HSS	CBN200
		09.10.04.SDC200.2-13	KARBÜR	SDC200
		09.10.04.CBN200.12-25	HSS	CBN200
		09.10.04.SDC200.12-25	KARBÜR	SDC200

VDG-25 Ø30mm'ye kadar kullanılabilir. Bunun için lütfen opsiyonel pensleri tercih edin.

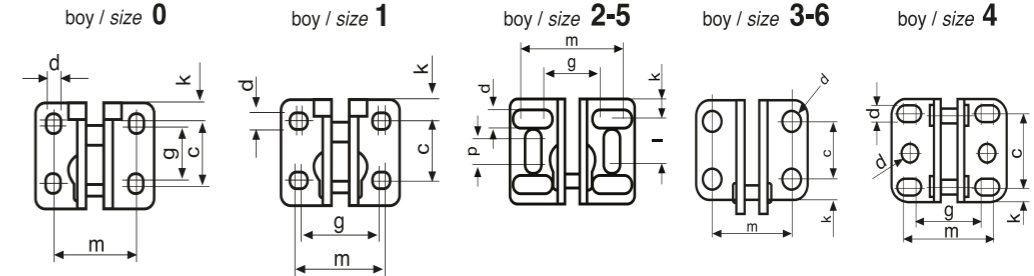


## 09. GENEL HIRDAVAT GRUBU 11. KLEMLER

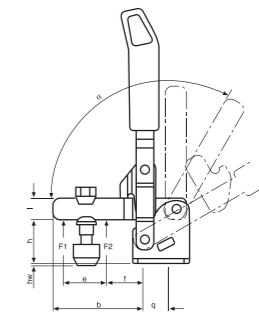
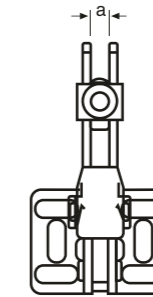


### 01. DİK MEKANİK KLEMLER

M10 / NO.800



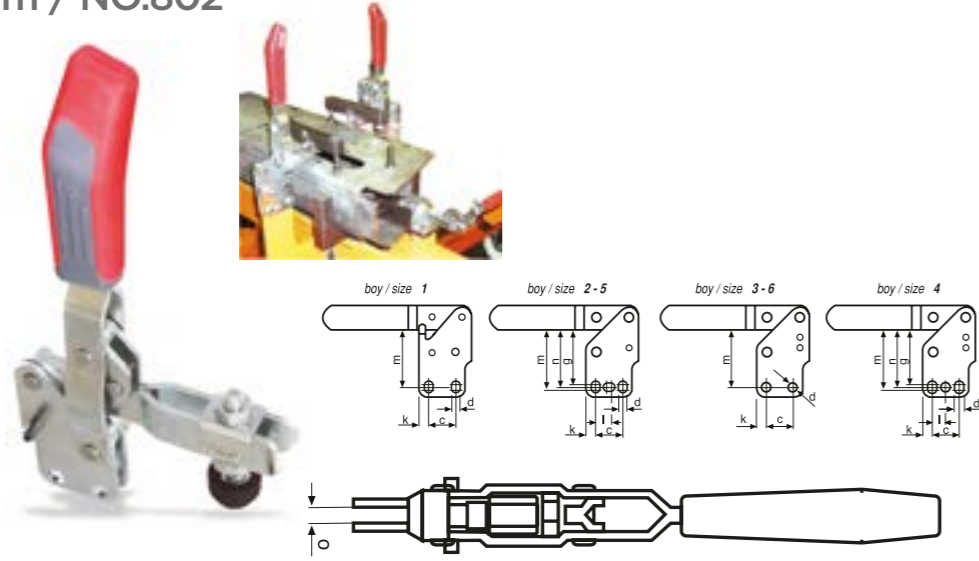
ÜRÜN KODU	Boy / size	a	b	c	d	e	f	g	h	i	k	l	m	n	p	q	a
09.11.01.M10.0	0	5	34	13	4.5	16	10	8.5	17	8	4.5	-	25	-	-	10	88°
09.11.01.M10.1	1	5.5	41	16	4.5	19	11	25	19.5	10	5.5	-	27	-	-	12	88°
09.11.01.M10.2	2	6.2	51	20	5.3	24	10	24.5	26	12	6	11	30	26	3	13	100°
09.11.01.M10.3	3	8.5	72	20	7	29	27	-	36	18	7.5	-	30	-	-	16	105°
09.11.01.M10.4	4	9	101	34.5	8.5	61	30	34	48	20	9.25	17	45	-	-	22	105°
09.11.01.M10.5	5	14	137	45	8.5	88	40	45	55	25	10.5	25	50	45	5	31.5	115°
09.11.01.M10.6	6	14	165	50	10.5	90	55	-	70	30	13	-	55	-	-	35	115°



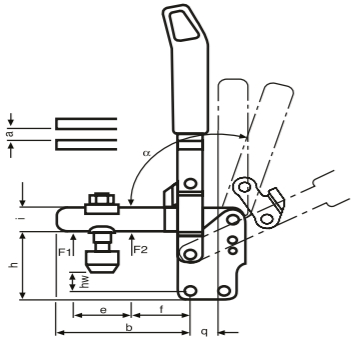
Boy / size	F1 kN	F2 kN	hw	g
0	0.5	0.7	90	50
1	0.8	1.1	105	60
2	1.0	1.2	140	76
3	1.8	2.5	200	105
4	2.0	3.0	230	140
5	3.0	5.0	265	190
6	3.5	5.5	300	230

01. DİK MEKANİK KLEMLER

M11 / NO.802



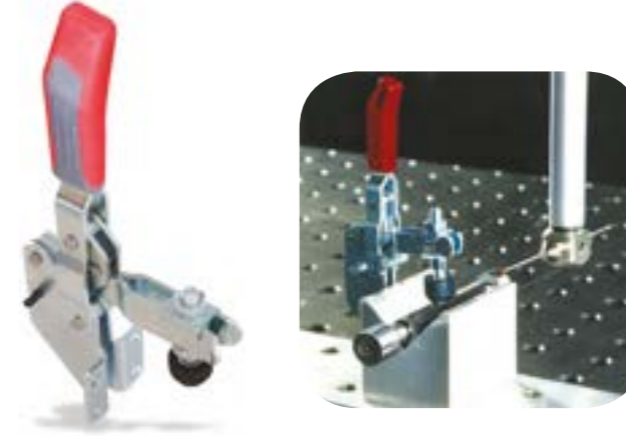
ÜRÜN KODU	Boy / size	a	b	c	d	e	f	g	h	i	k	l	m	n	o	q	α
09.11.01.M11.1	1	5.5	41	16	4.5	19	14	-	31	10	5.5	-	27	-	5	12	88°
09.11.01.M11.2	2	6.2	51	20	5.3	24	10	30	38	12	6	12	33	31.5	5	13	100°
09.11.01.M11.3	3	8.5	72	20	7	29	27	-	50	18	7.5	-	42	-	6	16	105°
09.11.01.M11.4	4	9	101	34.5	8.5	61	30	56.5	67	20	9.25	17	61.5	59	8	22	105°
09.11.01.M11.5	5	14	137	45	8.5	88	40	65.5	78	25	10.5	25	68	67	10	31.5	115°
09.11.01.M11.6	6	14	167	50	10.5	90	55	-	103	30	12.5	-	86	-	10	35	115°



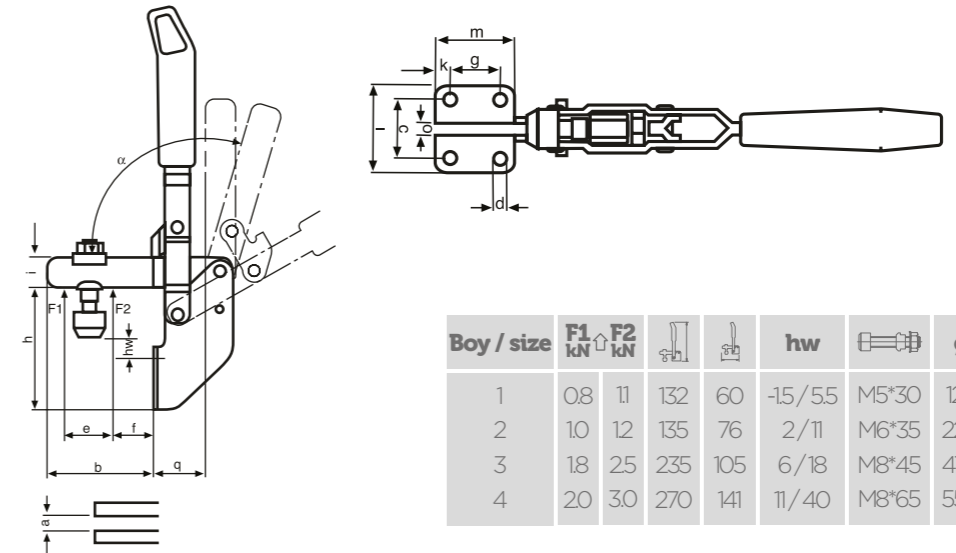
Boy / size	F1 kN	F2 kN	hw	g
1	0.8	11	117	60
2	0.8	12	153	76
3	1.8	25	210	105
4	2.0	3.0	255	140
5	3.0	5.0	323	190
6	3.5	5.5	335	230

01. DİK MEKANİK KLEMLER

M12 / NO.803

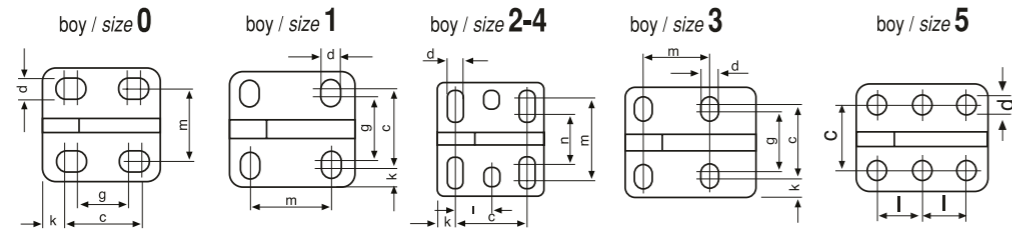


ÜRÜN KODU	Boy / size	a	b	c	d	e	f	g	h	i	k	l	m	o	q	α
09.11.01.M12.1	1	5	38	18	4.5	19	8	14	45	10	5.5	28	25	6	16	105°
09.11.01.M12.2	2	6	40	25.5	6	25	9	22	61	12	6	37	34	5	24	105°
09.11.01.M12.3	3	8.2	58	31.5	7.5	30	14	24	73	18	7	45	39	6	31	105°
09.11.01.M12.4	4	10	77.5	38	8.5	35	19	28	77	20	7	60	42	8	35	105°

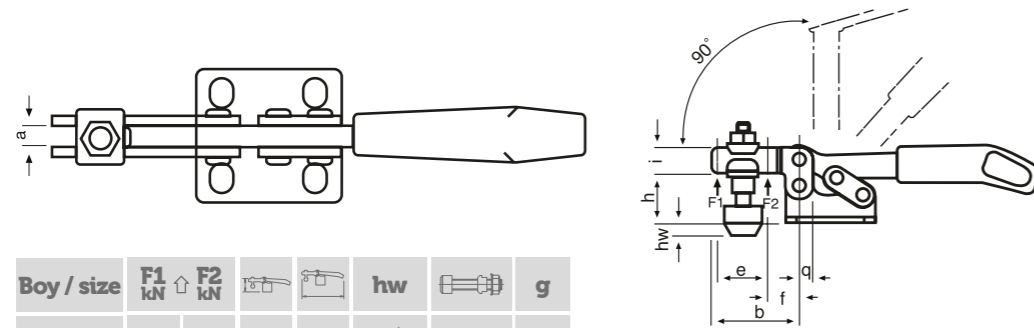


Boy / size	F1 kN	F2 kN	hw	g
1	0.8	11	132	60
2	1.0	12	135	76
3	1.8	25	235	105
4	2.0	3.0	270	141

02. YATAY MEKANİK KLEMLER  
M20 / NO.830



ÜRÜN KODU	Boy / size	a	b	c	d	e	f	g	h	i	k	l	m	n	q
09.11.02.M20.0	0	4	25	16	4.1	11	10	11	15	7	4	-	16	-	2
09.11.02.M20.1	1	5	40	24	5.2	26	11	19.5	20	10	5.5	-	23	20.5	5
09.11.02.M20.2	2	6	51	26	5.4	28	12	-	30	13.5	6	13	30	22	6
09.11.02.M20.3	3	8	72	28	6.5	44	22	21.5	33	15	7	-	25.5	21	8
09.11.02.M20.4	4	10	111	41	8.5	66	34	-	44	20	8	20	44.5	29	8
09.11.02.M20.5	5	12	120	43.5	8.5	78	30	-	46	25	-	26.5	-	-	10

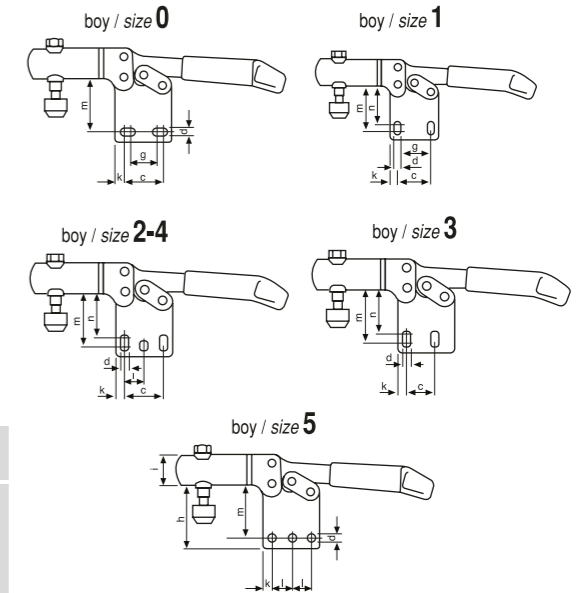
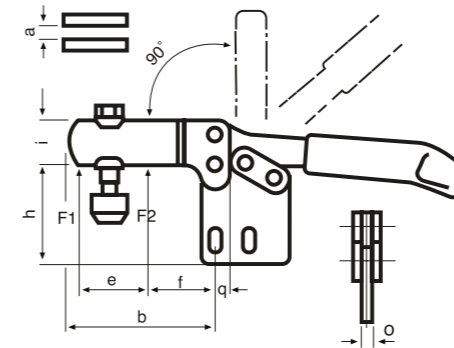


Boy / size	F1 kN	F2 kN			hw		g
0	0.25	0.40	23	85	-5/2	M4*25	37
1	0.80	1.10	30	128	-4/3	M5*30	112
2	1.00	1.20	44	158	-3/6	M6*35	182
3	1.80	2.50	48	221	-1/11	M8*45	340
4	2.00	3.00	74	293	-6/23	M8*65	700
5	3.00	5.00	71	330	-1/25	M12*80	1170

02. YATAY MEKANİK KLEMLER  
M21 / NO.832



ÜRÜN KODU	Boy / size	a	b	c	d	e	f	g	h	i	k	l	m	n	o	q
09.11.02.M21.0	0	4	25	16	4.1	11	10	11	24	7	4	-	21	-	3	2
09.11.02.M21.1	1	5	40	24	5.2	26	11	24	32	10	5.5	-	28	25	5	5
09.11.02.M21.2	2	6	51	26	5.4	28	12	-	46	13.5	6	13	43	38	5	6
09.11.02.M21.3	3	8	72	25.5	6.5	44	22	-	49	15	7	-	43	38	6	8
09.11.02.M21.4	4	10	111	41	8.5	66	34	-	66	20	8	20.5	60	53	8	8
09.11.02.M21.5	5	12	120	-	8.5	78	10	10	68	25	7	12	60	12	22	23

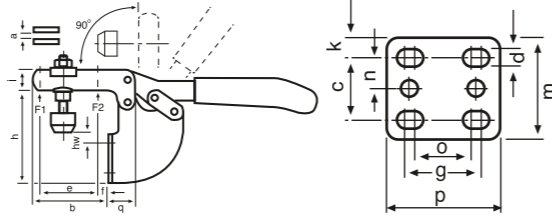


Boy / size	F1 kN	F2 kN			hw		g
0	0.25	0.40	32	85	0/7	M4*25	37
1	0.8	1.10	42	128	3/10	M5*30	112
2	1.0	1.20	59	158	7/16	M6*35	182
3	1.80	2.50	63	221	8/20	M8*45	340
4	2.00	3.00	96	293	9/38	M8*65	700
5	3.00	5.00	93	330	13/37	M12*80	1170

## 09. GENEL HIRDAVAT GRUBU 11. KLEMLER



### 02. YATAY MEKANİK KLEMLER M22 / NO.833

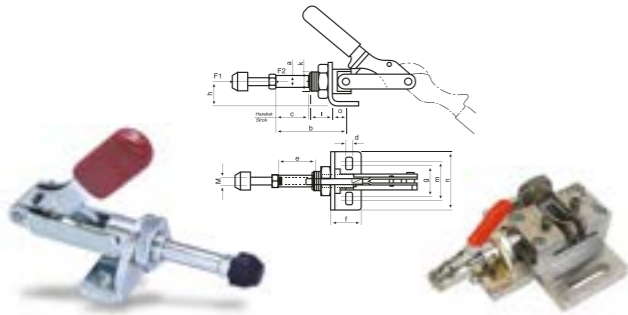


Boy / size	F1 kN	F2 kN			hw		g
2	10	12	94	155	20/29	M6*35	250
3	18	25	86	221	6/18	M8*45	400
4	2	3	97	261	12/40	M8*65	750

ÜRÜN KODU	Boy / size	a	b	c	d	e	f	g	h	i	k	m	n	o	p	q
09.11.02.M22.2	2	6	38	18.5	5.5	26	10	27	80.5	13.5	6	32	9.5	19	40.5	17
09.11.02.M22.3	3	8	58	24	6.5	42	8	29	72	15	7	38	12	22	23	23
09.11.02.M22.4	4	10	91	32	8.5	52	11	37.5	67.5	20	7.5	47	16	22.5	28	28

### 03. İTME-ÇEKME TİPİ MEKANİK KLEMLER M60 / NO.841

ÜRÜN KODU	Boy / size	a	b	c	d	f	g	h	k	l	m	n	o
09.11.03.M60.0	0	6	34.5	16	4.5	16.5	16	12	M10*1	10	16	25	7
09.11.03.M60.1	1	8	44	20	4.5	20	15	15.5	M12*1.5	13.5	20	30	7
09.11.03.M60.2	2	10	59	28	5.5	28	28.5	22	M16*1.5	16	39.5	50	12.5
09.11.03.M60.3	3	12	70	32	6.5	32	30	27	M20*1.5	19	42	60.5	15
09.11.03.M60.5	5	16	82	40	8.5	36	28	30	M24*1.5	26	46	65	15

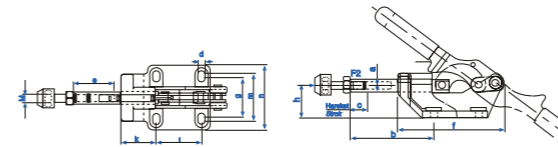


Boy / size	F1 kN	F2 kN				g
0	0.8	0.8	40	110	M4*20	80
1	1.0	1.0	58	120	M4*20	120
2	2.0	2.0	80	175	M6*25	270
3	2.5	2.5	102	190	M8*35	450
5	4.5	4.5	123	230	M12*50	880

### 03. İTME-ÇEKME TİPİ MEKANİK KLEMLER M64 / NO.842

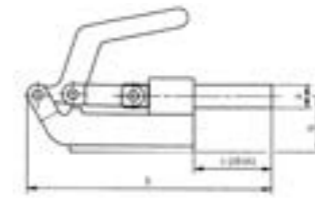
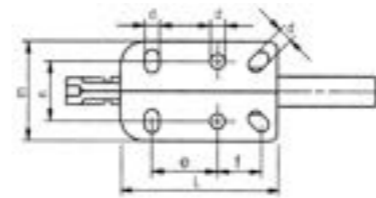


ÜRÜN KODU	Boy / size	a	b	c	d	e	f	g	h	k	l	m	n
09.11.03.M64.3	3	12	72	32	6.5	30	94.5	36	32	28	40	43	60.5
09.11.03.M64.5	5	16	86	40	8.5	45	125	54.5	42.5	35	75	43.5	70
09.11.03.M64.7	7	22	98	50	11.5	45	160	65	55	40	100	73	95



Boy / size	F1 kN	F2 kN				g
3	4.0	4.0	115	191	M8*35	630
5	10.0	10.0	133	245	M12*50	1620
7	25.0	25.0	170	333	M12*50	3610

### 03. İTME-ÇEKME TİPİ MEKANİK KLEMLER M62 / NO.842SC

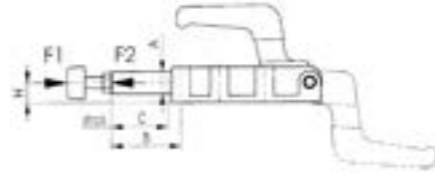


ÜRÜN KODU	Boy / size	a	b	c	d	e	f	h	l	m	n
09.11.03.M62.3	3	14	134	32	6.5	30	37	32.5	100	55	32.5
09.11.03.M62.5	5	18	190	44	9	40	26.8	44	96	60	36

Boy / size	F1 kN	F2 kN				g
3	2.0	2.0	95	186	M8*45	500
5	4.0	4.0	115	190	M10*40	950

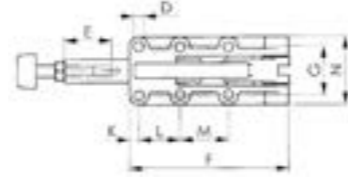
03. İTME-ÇEKME TİPİ MEKANİK KLEMLER

M66 / NO.842PK



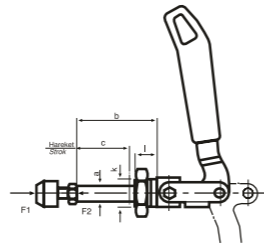
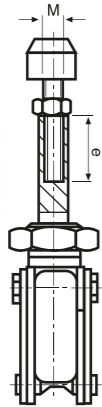
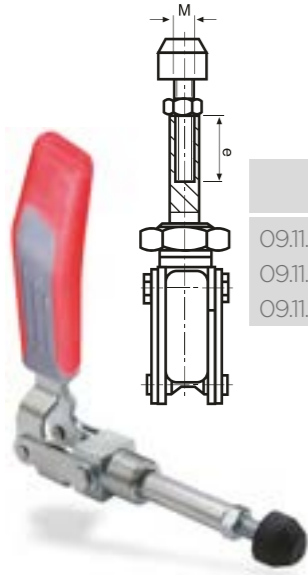
ÜRÜN KODU	Boy / size	a	b	c	d	e	f	g	h	k	l	m	n
09.11.03.M66.4	4	14	56	30.5	5.5	40	90	33.3	12	23	36.5	-	49
09.11.03.M66.5	5	20	63	50	8.5	50	134	41.0	18	8	35.5	40.5	62

Boy / size	F1 kN	F2 kN				g
4	7	7	65	122	M8*35	600
5	12	12	95	185	M10*50	1800



03. İTME-ÇEKME TİPİ MEKANİK KLEMLER

M61 / NO.844



ÜRÜN KODU	Boy / size	a	b	c	e	k	l	M
09.11.03.M61.2	2	10	14-35	21	15	M16*1.5	13	M6
09.11.03.M61.3	3	12	18-56	38	25	M20*1.5	16	M8
09.11.03.M61.5	5	16	25-92	67	35	M24*1.5	22	M12

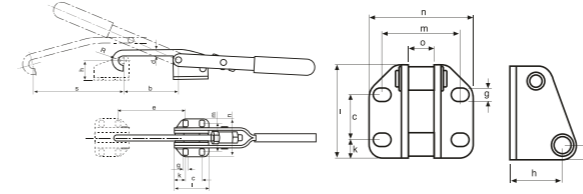
Boy / size	F1 kN	F2 kN				g
2	10	10	85	70	M6*35	130
3	25	25	135	110	M8*35	320
5	40	40	155	175	M12*50	1200

03. İTME-ÇEKME TİPİ MEKANİK KLEMLER

M46 / NO.847



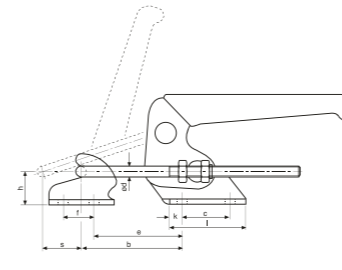
ÜRÜN KODU	Boy / size	b	c	d	e	g	h	k	l	m	n	R	s
09.11.03.M46.1	1	36-41	19	6	36.5 - 41.5	4.5	24	6.5	33	27-29	41	4.5	45
09.11.03.M46.3	3	67-79	19	8	74.5 - 86.5	5.5	24	13	41	32-35	43	5.5	98
09.11.03.M46.5	5	58-70	29	12	58.5 - 70.5	11	49	13	55	56-61	85	8	144



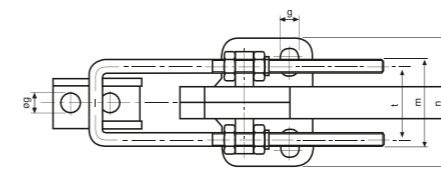
Boy / size	kN	Ayar aralığı Adj. distance (mm)			g
1	20	5	33	130	100
3	30	12	36	230	300
5	50	12	70	310	850

03. İTME-ÇEKME TİPİ MEKANİK KLEMLER

M40 / NO.848

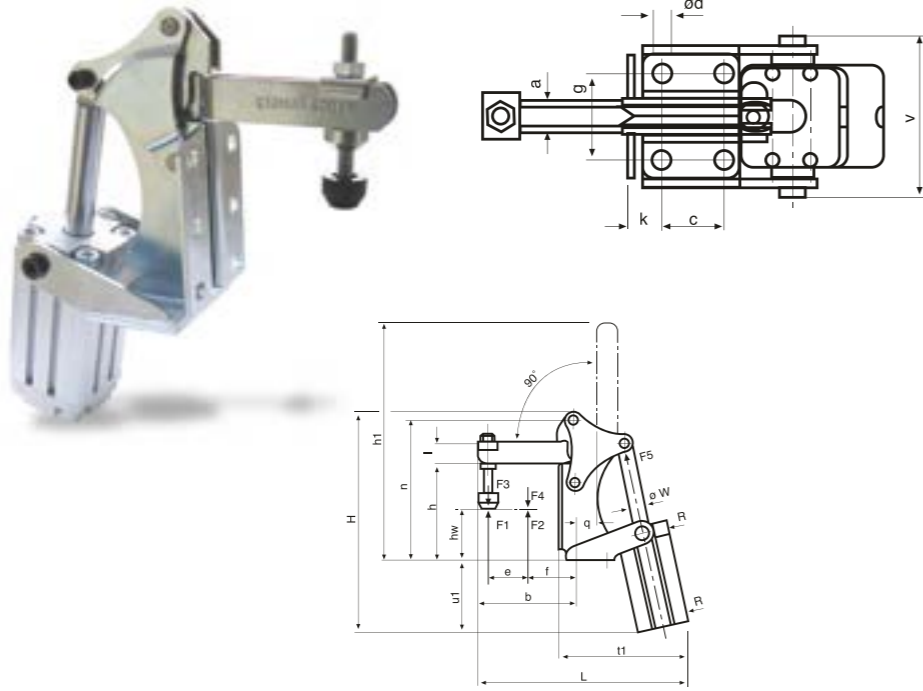


ÜRÜN KODU	Boy / size	b	c	d	e	f	g	h	k	l	m	n	s	t
09.11.03.M40.1	1	30-65	16	3.5	18-28	10	4.5	12	5.5	26.5	21	28	4	18.5
09.11.03.M40.2	2	42-74	13	4	38-70	11	5.2	12	6.5	26	24	38	6	19
09.11.03.M40.3	3	53-95	19	6	48-90	14	6.5	19	8	35	32	48	6	25
09.11.03.M40.4	4	72-127	32	8	65-120	19	8.5	25	9.5	51	45	65	13	35



Boy / size	kN	Ayar aralığı Adj. distance (mm)			g
1	1	26	28	60	90
2	14	32	43	70	110
3	25	42	64	102	300
4	45	55	84	140	710

04. DİK PNÖMATİK KLEMLER  
P50 / NO.600

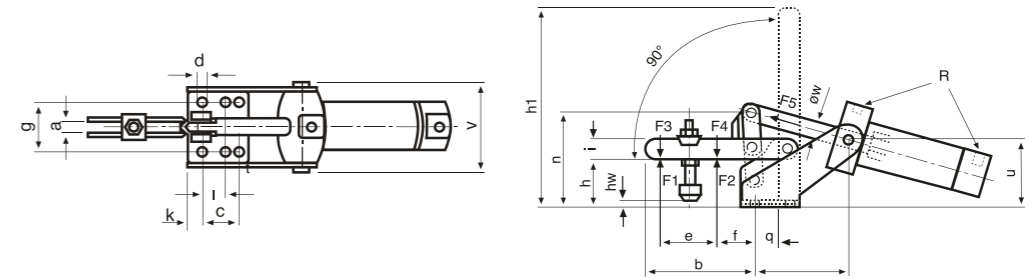


ÜRÜN KODU	Boy size	a	b	c	d	e	f	g	h	h1	h3	h4	h5	hw	i
09.11.04.P50.2	2	6	56	125	55	27	24	270	65	145	16	125	125	37-46	12
09.11.04.P50.3	3	8	82	160	65	42	30	254	72	185	18	160	-	38-50	18
09.11.04.P50.4	4	10	101	320	85	61	30	450	100	240	22	320	320	50-79	20

ÜRÜN KODU	Boy size	k	n	q	t1	u1	v	w	Strok	Silindir piston çapı	R
09.11.04.P50.2	2	16	94	8	90	70	62	10	42	25	M5
09.11.04.P50.3	3	16	108	13	105	90	70	12	52	32	G1/8
09.11.04.P50.4	4	175	145	22	135	105	85	16	62	40	G1/8

Boy size	F1 kN	F2 kN	F3 kN	F4 kN	F5 kN	Vn**	g
2	10	12	0.7	10	0.30	0.26	170
3	14	25	0.6	11	0.50	0.35	205
4	20	30	1.5	22	0.75	0.08	260

05. YATAY PNÖMATİK KLEMLER  
P53 / NO.620



ÜRÜN KODU	Boy size	a	b	c	d	e	f	g	h	h1	hw	i	k	l	n
09.11.05.P53.1	1	55	41	16	4.5	19	11	27	22	100	-2/5	10	8	-	46
09.11.05.P53.2	2	62	51	20	5.3	24	10	26	27	108	-1/8	12	75	10	57
09.11.05.P53.3	3	85	72	20	7	29	27	31	39	155	2/14	18	75	-	75
09.11.05.P53.4	4	85	101	34.5	8.5	61	30	34	51	200	-5/24	20	9.25	17	85

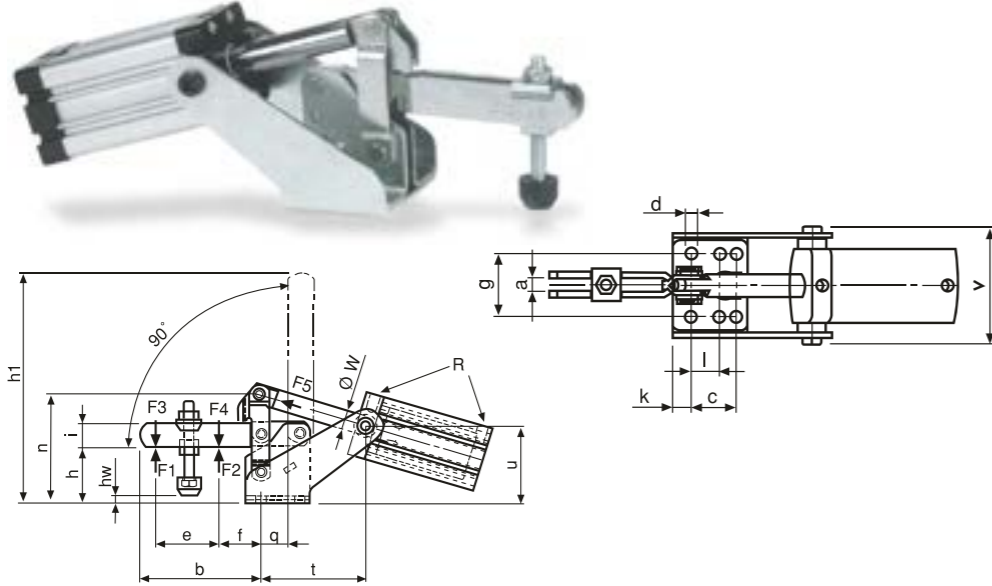
ÜRÜN KODU	Boy size	q	t	u	v	w	Strok	Silindir piston çapı	R
09.11.05.P53.1	1	12	58	235	40	8	34	16	G1/8
09.11.05.P53.2	2	13	53	275	49	12	42	25	G1/8
09.11.05.P53.3	3	16	63	29	52	12	52	32	G1/8
09.11.05.P53.4	4	22	86	35	75	16	62	40	G1/8

Boy size	F1 kN	F2 kN	F3 kN	F4 kN	F5 kN	Vn**	g
1	0.8	1.1	0.35	0.5	0.19	0.15	55
2	1.0	1.2	0.70	1.0	0.30	0.26	65
3	1.4	2.5	0.65	1.1	0.50	0.35	90
4	2.0	3.0	1.50	2.2	0.75	0.80	105



05. YATAY PNÖMATİK KLEMLER

P52 / NO.620



ÜRÜN KODU	Boy size	a	b	c	d	e	f	g	h	h1	hw	i	k	l	n
09.11.05.P52.1	1	5	38	16	4.5	19	14	27	22	96	-2/5	10	8	-	47
09.11.05.P52.2	2	6	51	20	5.5	27	18	26	27	106	-1/8	12	7.5	10	56
09.11.05.P52.3	3	8	80	20	7	43	27	31	39	157	2/14	18	7.5	-	74
09.11.05.P52.4	4	10	100	34	8.5	52	35	41	51	194	-5/24	20	9	17	87

ÜRÜN KODU	Boy size	q	t	u	v	w	Strok	Silindir piston çapı	R
09.11.05.P52.1	1	12	58	32	50	6	34	20	G1/8
09.11.05.P52.2	2	13	53	41	62	12	42	25	G1/8
09.11.05.P52.3	3	16	63	56	70	12	52	32	G1/8
09.11.05.P52.4	4	22	86	64	84	16	62	40	G1/8

Boy size	F1 kN	F2 kN	F3 kN	F4 kN	F5 kN	Vn**	g
1	0.8	1.1	0.20	0.3	0.10	0.08	610
2	1.0	1.2	0.70	1.0	0.30	0.26	870
3	1.4	2.5	0.65	1.1	0.50	0.35	1160
4	2.0	3.0	1.50	2.2	0.75	0.80	1900

06. İTME-ÇEKME TİPİ PNÖMATİK KLEMLER

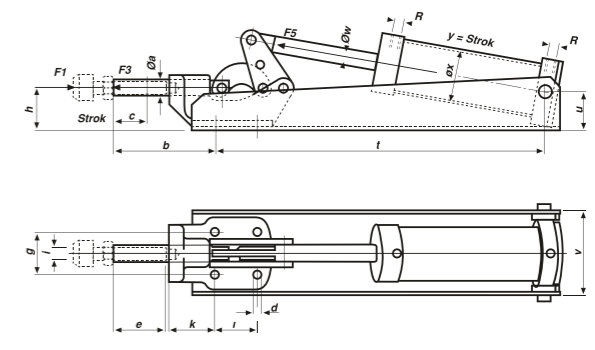
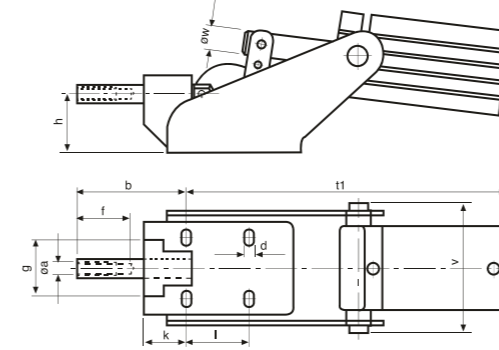
P55 / NO.650



Boy / Size : 3



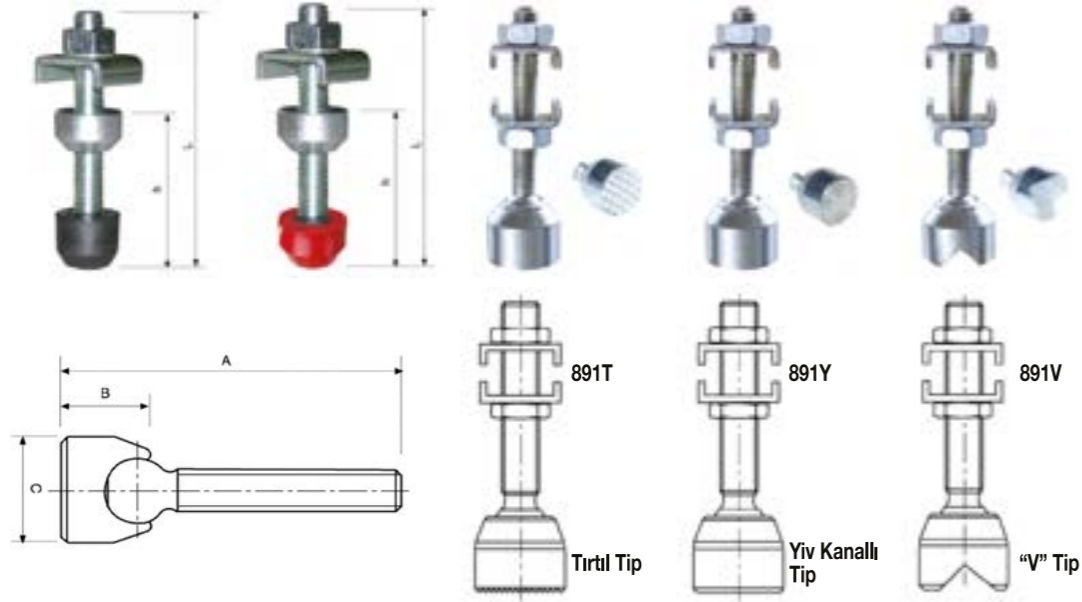
Boy / Size : 5



ÜRÜN KODU	Boy size	a	b	c	d	e	f	g	h	i	k	l	t	u	v	w	x*	Strok	R
09.11.06.P55.3	3	12	70	32	6.5	30	94.5	36	35	M8	28	40	210	62	74.5	16	-	100	G1/8
09.11.06.P55.5	5	16	86	40	8.5	45	125	54.5	45.5	M12	45	75	334	375	83	16	-	100	G1/8
09.11.06.P55.7	7	22	105	40	11	50	125	54.5	59	M12	44	70	404	49	108	16	-	125	G1/4

Boy size	F1 kN	F2 kN	F3 kN	Vn**	g
3	4.0	2.5	0.75	0.8	85
5	10.0	5.0	1.0	2.2	450
7	25.0	-	1.0	4.5	533

07. KLEMP YEDEKLERİ  
MAFSALLI BASKI CIVATALARI



ÜRÜN KODU	Boy size		A	B	C
aaa	2	M6	53.5	13	Ø16
	3	M8	64.5	17	Ø20
	4	M10	86	21	Ø26.5
	5	M12	98	24	Ø30

ÜRÜN KODU	Boy size		h	L	g
aaa	0	M4*25	18.5	31	7.70
	1	M5*30	22	38	13.80
	2	M6*35	25	43	19.80
	3	M8*45	29	57	44.20
	4	M8*45	47	77	63.30
	5	M12*80	56	97	165.40

07. KLEMP YEDEKLERİ  
MS 10-30 / NO.895



Ürün no bağl. elem.	Boy/size						
	0	1	2	3	4	5	6
800	-	1	2	3	4	-	5
800/P	-	1	2	3	4	-	5
802	-	1	2	3	4	-	5
803	-	1	2	3	4	-	5
803/P	-	1	2	3	4	-	5
830	-	1	2	3	4	5	-
830/P	-	1	2	3	4	5	-
832	-	1	2	3	4	5	-
833	-	-	-	3	-	-	-



ÜRÜN KODU	Boy size				g
09.11.07.MS10.30.1	1	M5*30	22-72	85	65
09.11.07.MS10.30.2	2	M6*35	28-85	100	90
09.11.07.MS10.30.3	3	M8*45	34-100	120	200
09.11.07.MS10.30.4	4	M8*65	40-125	150	370
09.11.07.MS10.30.5	5	M8*65	40-125	150	370

MS 10 / NO.893



ÜRÜN KODU	Boy size				g
09.11.07.MS10.0	0	M4	11	8.5	1
09.11.07.MS10.1	1	M5	12	9	1
09.11.07.MS10.2	2	M6	15	11.5	2
09.11.07.MS10.3	3	M8	19	14	4
09.11.07.MS10.4	4	M10	24	17	6
09.11.07.MS10.5	5	M12	25	20	8

01. SAPLI TAŞLAR

FORM A



ÜRÜN KODU	Form	DXL
09.12.01.A01.12.4.6	A-1	12*4
09.12.01.A02.16.4.6	A-2	16*4
09.12.01.A03.16.8.6	A-3	16*8
09.12.01.A04.20.4.6	A-4	20*4
09.12.01.A05.20.8.6	A-5	20*8
09.12.01.A06.20.16.6	A-6	20*16
09.12.01.A07.25.4.6	A-7	25*4
09.12.01.A08.25.8.6	A-8	25*8
09.12.01.A09.25.10.6	A-9	25*10
09.12.01.A10.25.20.6	A-10	25*20
09.12.01.A11.30.4.6	A-11	30*4
09.12.01.A12.30.8.6	A-12	30*8
09.12.01.A13.30.16.6	A-13	30*16
09.12.01.A14.30.20.6	A-14	30*20
09.12.01.A15.40.6.6	A-15	40*6
09.12.01.A16.40.10.6	A-16	40*10
09.12.01.A17.40.16.6	A-17	40*16
09.12.01.A18.40.20.6	A-18	40*20
09.12.01.A19.50.10.6	A-19	50*10
09.12.01.A20.50.16.6	A-20	50*16
09.12.01.A21.50.20.6	A-21	50*20
09.12.01.A22.60.16.6	A-22	60*16
09.12.01.A23.60.20.6	A-23	60*20

FORM B



ÜRÜN KODU	Form	DXL
09.12.01.B01.3.8.6	B-1	3*8
09.12.01.B02.4.8.6	B-2	4*8
09.12.01.B03.5.10.6	B-3	5*10
09.12.01.B04.6.12.6	B-4	6*12
09.12.01.B05.6.16.6	B-5	6*16
09.12.01.B06.8.12.6	B-6	8*12
09.12.01.B07.8.16.6	B-7	8*16
09.12.01.B08.10.10.6	B-8	10*10
09.12.01.B09.10.15.6	B-9	10*15
09.12.01.B10.10.20.6	B-10	10*20
09.12.01.B11.10.25.6	B-11	10*25
09.12.01.B12.12.12.6	B-12	12*12
09.12.01.B13.12.20.6	B-13	12*20
09.12.01.B14.12.30.6	B-14	12*30
09.12.01.B15.16.16.6	B-15	16*16
09.12.01.B16.16.20.6	B-16	16*20
09.12.01.B17.16.30.6	B-17	16*30
09.12.01.B18.16.40.6	B-18	16*40
09.12.01.B19.20.20.6	B-19	20*20
09.12.01.B20.20.30.6	B-20	20*30
09.12.01.B21.20.40.6	B-21	20*40
09.12.01.B22.25.25.6	B-22	25*25
09.12.01.B23.25.32.6	B-23	25*32

01. SAPLI TAŞLAR

FORM D



FORM B



ÜRÜN KODU	Form	DXL
09.12.01.B24.25.40.6	B-24	25*40
09.12.01.B25.25.50.6	B-25	25*50
09.12.01.B26.30.30.6	B-26	30*30
09.12.01.B27.30.40.6	B-27	30*40
09.12.01.B28.30.50.6	B-28	30*50
09.12.01.B29.40.40.6	B-29	40*40

ÜRÜN KODU	Form	DXL
09.12.01.D01.8.20.6	D-1	8*20
09.12.01.D02.10.25.6	D-2	10*25
09.12.01.D03.12.20.6	D-3	12*20
09.12.01.D04.16.25.6	D-4	16*25
09.12.01.D05.20.35.6	D-5	20*35

FORM C



ÜRÜN KODU	Form	DXL
09.12.01.C01.25.8.6	C-1	25*8
09.12.01.C02.32.8.6	C-2	32*8
09.12.01.C03.40.10.6	C-3	40*10
09.12.01.C04.50.12.6	C-4	50*12

FORM E



ÜRÜN KODU	Form	DXL
09.12.01.E01.5.5.6	E-1	5*5
09.12.01.E02.5.10.6	E-2	5*10
09.12.01.E03.8.16.6	E-3	8*16
09.12.01.E04.8.20.6	E-4	8*20
09.12.01.E05.10.20.6	E-5	10*20
09.12.01.E06.10.30.6	E-6	10*30
09.12.01.E07.12.25.6	E-7	12*25
09.12.01.E08.12.30.6	E-8	12*30

01. SAPLI TAŞLAR

FORM E



ÜRÜN KODU	Form	DXL
09.12.01.E09.12.40.6	E-9	12*40
09.12.01.E10.16.16.6	E-10	16*16
09.12.01.E11.16.32.6	E-11	16*32
09.12.01.E12.16.40.6	E-12	16*40
09.12.01.E13.20.20.6	E-13	20*20
09.12.01.E14.20.30.6	E-14	20*30
09.12.01.E15.20.40.6	E-15	20*40
09.12.01.E16.25.25.6	E-16	25*25
09.12.01.E17.25.32.6	E-17	25*32
09.12.01.E18.25.40.6	E-18	25*40
09.12.01.E19.32.32.6	E-19	32*32
09.12.01.E20.32.40.6	E-20	32*40
09.12.01.E21.32.50.6	E-21	32*50

FORM F



ÜRÜN KODU	Form	DXL
09.12.01.F01.8.6.6	F-1	8*6
09.12.01.F02.13.20.6	F-2	13*20
09.12.01.F03.20.32.6	F-3	20*32
09.12.01.F04.20.40.6	F-4	20*40

FORM G / K



ÜRÜN KODU	Form	DXL
09.12.01.GK1.20.16.12.10	G/K-1	20*16/12*10
09.12.01.GK2.25.20.15.12	G/K-2	25*20/15*12
09.12.01.GK3.32.25.20.15	G/K-3	32*25/20*15
09.12.01.GK4.40.32.24.20	G/K-4	40*32/24*20

FORM H



ÜRÜN KODU	Form	DXL
09.12.01.H01.08.6	H-1	Ø8
09.12.01.H02.10.6	H-2	Ø10
09.12.01.H03.12.6	H-3	Ø12
09.12.01.H04.15.6	H-4	Ø15
09.12.01.H05.20.6	H-5	Ø20
09.12.01.H06.25.6	H-6	Ø25
09.12.01.H07.30.6	H-7	Ø30
09.12.01.H08.32.6	H-8	Ø32

01. SAPLI TAŞLAR

ÜRÜN KODU	256A	308A	410A	510A	612A	816A	1016A
d*L	25*6	3*8	4*10	5*10	6*12	8*16	10*16

FORM A

ÜRÜN KODU	30B	40B	50B	60B	80B	100B	120B
d*L	Ø3	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12

FORM B

ÜRÜN KODU	412J	616J	816J	1016J	612P	815P	1018P
d*L	4*12	6*16	8*16	10*16	6*12	8*15	10*18

FORM J/P

ÜRÜN KODU	308T	310T	412T	710T	813R	1224R
d*L	3*8	3*10	4*12	7*10	8*13	12*24

FORM T/R

02. TAŞLAMA TAŞLARI  
NK ZIMPARA TAŞLARI

**Aşındırıcı Cinsi:** Alüminyum Oksit Normal Korund NK  
**Kum Tane İriliği:** 26, 36, 46, 60  
**Standart Sertlik:** P, Q  
**Kullanım Yerleri:** Demir, Pirinç, Bronz, Alüminyum, A - Metaller, Düşük Alaşımli Çelikler, Genel Kullanım  
**TSE EN 12413 Tip No:** Düz Tip 1  
**Çevre Hızı:** 35m/sn

**Normal Korund**

Genel amaçlı sabit ya da sportlu taş motorlarında kullanılır.



A36 ÜRÜN KODU	Dış çap x Kalınlık x Delik	EAN No.		A46 ÜRÜN KODU
		A36	A46	
09.12.02.NK.125.20.20.36	125x20x20	60031	60057	09.12.02.NK.125.20.20.46
09.12.02.NK.150.20.20.36	150x20x20	60032	60058	09.12.02.NK.150.20.20.46
09.12.02.NK.150.25.20.36	150x25x20	60033	60059	09.12.02.NK.150.25.20.46
09.12.02.NK.175.20.20.36	175x20x20	60034	60060	09.12.02.NK.175.20.20.46
09.12.02.NK.175.25.20.36	175x25x20	60035	60061	09.12.02.NK.175.25.20.46
09.12.02.NK.200.20.20.36	200x20x20	60036	60062	09.12.02.NK.200.20.20.46
09.12.02.NK.200.25.20.36	200x25x20	60037	60063	09.12.02.NK.200.25.20.46
09.12.02.NK.200.30.20.36	200x30x20	60038	60064	09.12.02.NK.200.30.20.46
09.12.02.NK.200.32.20.36	200x32x20	60039	60065	09.12.02.NK.200.32.20.46
09.12.02.NK.250.25.25.36	250x25x25	60040	60066	09.12.02.NK.250.25.25.46
09.12.02.NK.250.30.25.36	250x30x25	60041	60067	09.12.02.NK.250.30.25.46
09.12.02.NK.250.32.25.36	250x32x25	60042	60068	09.12.02.NK.250.32.25.46
09.12.02.NK.250.40.25.36	250x40x25	60043	60069	09.12.02.NK.250.40.25.46
09.12.02.NK.300.30.30.36	300x30x30	60044	60070	09.12.02.NK.300.30.30.46
09.12.02.NK.300.32.30.36	300x32x30	60045	60071	09.12.02.NK.300.32.30.46

02. TAŞLAMA TAŞLARI  
SCG ELMAS BİLEME TAŞLARI

**Silisyum Karbür SCG :** Aşındırıcı Cinsi  
60, 80 : Kum Tane İriliği  
J, K : Standart Sertlik  
Sert Maden, Karbür Bileme, Elmas Uclar, Genel Kullanım : Kullanım Yerleri  
Düz Tip 1 : TSE EN 12413 Tip No  
35m/sn : Çevre Hızı

**Silisyum Karbür**

Genel amaçlı sabit ya da sportlu taş motorlarında kullanılır.



ÜRÜN KODU	Dış çap x Kalınlık x Delik	EAN No.
09.12.02.SC.125.20.20.80	125x20x20	60104
09.12.02.SC.150.20.20.80	150x20x20	60105
09.12.02.SC.150.25.20.80	150x25x20	60106
09.12.02.SC.175.20.20.80	175x20x20	60107
09.12.02.SC.175.25.20.80	175x25x20	60108
09.12.02.SC.200.20.20.80	200x20x20	60109
09.12.02.SC.200.25.20.80	200x25x20	60110
09.12.02.SC.200.32.20.80	200x32x20	60111
09.12.02.SC.250.25.25.80	250x25x25	61543
09.12.02.SC.250.32.25.80	250x32x25	60113
09.12.02.SC.300.30.30.80	300x30x30	60115
09.12.02.SC.300.32.30.80	300x32x30	60116

03. ÇANAK TAŞLAR

ÇANAK TAŞLAR / KONİK AR60K5

HSS ve karbon çeliğinden üretilen takımların bilenmesinde, tamirinde ve üretiminde kullanılır.

ÜRÜN KODU	Ölçü	EAN No.
09.12.03.E.050.60	E-50	60139
09.12.03.E.075.60	E-75	60140
09.12.03.E.100.60	E-100	60141
09.12.03.E.125.60	E-125	60142
09.12.03.E.150.60	E-150	60143



### 03. ÇANAK TAŞLAR

#### ÇANAK TAŞLAR / DÜZ AR60K5

**Özel üretim:**

Çanak taşlar için; Devir sayısı, bilenecek malzemenin cinsi, sertliği, soğutucu sıvı cinsi gibi bilgiler istenir. Bu bilgiler doğrultusunda istenilen yüzey pürüzlüğüne göre kum tane irilikleri değiştirilerek, istenilen yüzey kalitesi yakalanmış olur. Standartların dışında müşteri talepleri doğrultusunda takım bileme taşları üretilir.



ÜRÜN KODU	Ölçü	EAN No.
09.12.03.D.050.60	D-50	60149
09.12.03.D.075.60	D-75	60150
09.12.03.D.100.60	D-100	60151
09.12.03.D.125.60	D-125	60152
09.12.03.D.150.60	D-150	60153

### 04. SATIŞ TAŞLARI

**Aşındırıcı Cinsi:** Asil Korund AR  
**Kum Tane İriliği:** 36, 46, 60

**Standart Sertlik:** K

**Kullanım Yerleri:** Takım, HSS Uç, Yüzey Taşlama, Delik Taşlama, Genel Kullanım

**TSE EN 12413 Tip No:** Düz Tip 1

**Çevre Hızı:** 35m/sn

HSS ve ısı işlem görmüş çeliklerin taşlanması, bilenmesinde ve tamirinde kullanılır.



ÜRÜN KODU	Dış çap x Kalınlık x Delik	EAN No.	
		AR46K5 (x)	AR60K5 (x)
09.12.04.AR.250.25.76.x	250x25x76	60194	60212
09.12.04.AR.250.30.76.x	250x30x76	60195	60213
09.12.04.AR.250.32.76.x	250x32x76	60196	60214
09.12.04.AR.250.40.76.x	250x40x76	60197	60215
09.12.04.AR.300.40.76.x	300x40x76	60198	60217
09.12.04.AR.300.40.127.x	300x40x127	60199	60216
09.12.04.AR.300.50.127.x	300x50x127	60200	60218
09.12.04.AR.350.40.127.x	350x40x127	60201	60219
09.12.04.AR.350.50.127.x	350x50x127	60202	60220
09.12.04.AR.400.40.127.x	400x40x127	60203	60221

### 05. KESME TAŞLARI

#### INOX KESME TAŞLARI

C 24 R Beton, tuğla, taş, döküm ve demir ihtiva etmeyen ürünlerin kesiminde kullanılır. Pnömatik ve elektrikli el makinelerinde kullanılır.



ÜRÜN KODU	EAN No.	Ebat (mm)	Kalite	Tip	Max. RPM
09.12.05.C24R.115.1.0.22	61250	115x1,0x22	WA30SBF	T4I	13800
09.12.05.C24R.115.2.5.22	61251	115x2,5x22	WA30SBF	T4I	13300
09.12.05.C24R.125.2.5.22	62336	125x2,5x22	WA30SBF	T4I	12250
09.12.05.C24R.180.3.0.22	62229	180x3,0x22	WA24SBF	T4I	8500
09.12.05.C24R.230.3.0.22	62291	230x3,0x22	WA24SBF	T4I	6650

### 06. ÇAPAK ALMA TAŞLARI

#### INOX ÇAPAK ALMA TAŞLARI

Yüksek performanslı ve uzun ömürlü taşlama ürünüdür. Demir içerikli metallerde, döküm parçalarında ve paslanmaz çelikten tüm ürünler için önerilir.



ÜRÜN KODU	EAN No.	Ebat (mm)	Kalite	Tip	Max. RPM
09.12.06.CT.115.6.5.22	62250	115x6,5x22	WA24SBF T27	T27	13300
09.12.06.CT.125.6.5.22	62254	125x6,5x22	WA24SBF T27	T27	12250
09.12.06.CT.180.6.5.22	62260	180x6,5x22	WA24SBF T27	T27	8500
09.12.06.CT.180.8.0.22	61289	180x8,0x22	WA24SBF T27	T27	8500
09.12.06.CT.230.6.5.22	62264	230x6,5x22	WA24SBFT27	T27	6650

## 07. FLAP DİSK ZIMPARALAR

### ( AO ) ALÜMİNYUM OKSİT DÜZ TİP

Metal, çelik, ahşap, alaşımsız çelikler, sac levhalar için ekonomiktir.



ÜRÜN KODU	ÖlçüxDelik (mm)	Kum kalınlığı / EAN No.	
		60 (x)	80 (x)
09.12.07.AO.100.16.x	100x16	62430	62431
09.12.07.AO.115.22.x	115x22	61480	61481
09.12.07.AO.125.22.x	125x22	61472	61473
09.12.07.AO.180.22.x	180x22	61617	61618

### ( ZR ) ZİRKONYUM DÜZ TİP

Metal, çelik, ahşap, alaşımsız çelikler, sac levhalar için ekonomiktir.



ÜRÜN KODU	ÖlçüxDelik (mm)	Kum kalınlığı / EAN No.	
		60 (x)	80 (x)
09.12.07.ZR.100.16.x	100x16	62446	62447
09.12.07.ZR.115.22.x	115x22	61484	61485
09.12.07.ZR.125.22.x	125x22	61475	61476
09.12.07.ZR.180.22.x	180x22	61619	61496

## 08. SKOC DİSK ZIMPARALAR

SKOC / SCH+ZIMPARA



ÜRÜN KODU	Ölçü
09.12.08.SC.115.22	115*22

## 09. SKOC PLAKA ZIMPARALAR

Metal ve ahşap yüzeylerin temizliğinde el ile kullanıma uygun ürünlerdir.



ÜRÜN KODU	Ölçü
09.12.09.SP.230.280	230*280

## 11. SAPLI ELYAF MOP ZIMPARALAR

Kum Tane İriliği	
AVF 280	
ÜRÜN KODU	Çap x Kalınlık (mm)
09.12.11.EMOP.30.15	30x15
09.12.11.EMOP.30.20	30x20
09.12.11.EMOP.30.30	30x30
09.12.11.EMOP.40.20	40x20
09.12.11.EMOP.40.30	40x30
09.12.11.EMOP.50.20	50x20
09.12.11.EMOP.50.30	50x30
09.12.11.EMOP.60.15	60x15
09.12.11.EMOP.60.30	60x30
09.12.11.EMOP.80.30	80x30
09.12.11.EMOP.80.40	80x40

## 10. SAPLI MOP ZIMPARALAR

Kum Kalınlığı	
40-60 / 80 / 100-120 / 150-180 / 220-240 / 280-600	
ÜRÜN KODU	Çap x Kalınlık (mm)
09.12.10.MOP.20.15	20x15
09.12.10.MOP.20.20	20x20
09.12.10.MOP.20.25	20x25
09.12.10.MOP.25.15	25x15
09.12.10.MOP.25.20	25x20
09.12.10.MOP.25.30	25x30
09.12.10.MOP.30.10	30x10
09.12.10.MOP.30.15	30x15
09.12.10.MOP.30.20	30x20
09.12.10.MOP.40.10	40x10
09.12.10.MOP.40.15	40x15
09.12.10.MOP.40.20	40x20
09.12.10.MOP.40.30	40x30
09.12.10.MOP.50.10	50x10
09.12.10.MOP.50.15	50x15
09.12.10.MOP.50.20	50x20
09.12.10.MOP.50.30	50x30
09.12.10.MOP.60.15	60x15
09.12.10.MOP.60.20	60x20
09.12.10.MOP.60.30	60x30
09.12.10.MOP.60.40	60x40
09.12.10.MOP.80.15	80x15
09.12.10.MOP.80.20	80x20
09.12.10.MOP.80.30	80x30
09.12.10.MOP.80.40	80x40

12. SAPLI ELYAF  
KOMBİ MOP  
ZIMPARALAR

ÜRÜN KODU	Çap x Kalınlık (mm)
091212KOMOP3015	30x15
091212KOMOP3020	30x20
091212KOMOP3030	30x30
091212KOMOP4020	40x20
091212KOMOP4030	40x30
091212KOMOP5020	50x20
091212KOMOP5030	50x30
091212KOMOP6015	60x15
091212KOMOP6030	60x30
091212KOMOP8030	80x30
091212KOMOP8040	80x40

12. SAPLI KEÇE MOP  
ZIMPARALAR  
KEÇE / SCH+ZIMPARA

ÜRÜN KODU	Ölçü
091212KEMOP2015	20*15
091212KEMOP2020	20*20
091212KEMOP2515	25*15
091212KEMOP2520	25*20
091212KEMOP2530	25*30
091212KEMOP3015	30*15
091212KEMOP3020	30*20
091212KEMOP3025	30*25
091212KEMOP3030	30*30
091212KEMOP4020	40*20
091212KEMOP4030	40*30
091212KEMOP5020	50*20
091212KEMOP5030	50*30
091212KEMOP5040	50*40
091212KEMOP6030	60*30
091212KEMOP6040	60*40
091212KEMOP6050	60*50
091212KEMOP8040	80*40
091212KEMOP8050	80*50

13. DAİRESEL MOP  
ZIMPARALAR

Kum Kalınlığı	
40 / 60-80 / 100-120 / 150-180 / 220-240 280-320 / 400-600	
ÜRÜN KODU	Çap x Kalınlık x Delik
091213DMOPI65.30.45	165x30x45
091213DMOPI65.50.45	165x50x45

14. DAİRESEL KOMBİ  
MOP ZIMPARALAR

Kum Kalınlığı	
P40-60 / P80 / P100-120 / P150-180 / P220-400	
ÜRÜN KODU	Çap x Kalınlık (mm)
091214DKMOPI65.30.25	165x30x25
091214DKMOPI65.30.45	165x30x45
091214DKMOPI65.50.25	165x50x25
091214DKMOPI65.50.45	165x50x45

15. RULO BEZ  
ZIMPARALAR

Rulo En		
100mm / 150mm / 200mm / 250mm		
ÜRÜN KODU	Kum kalınlığı	
091215R.200.P036	P36	
091215R.200.P040	P40	
091215R.200.P050	P50	
091215R.200.P060	P60	
091215R.200.P080	P80	
091215R.200.P100	P100	
091215R.200.P120	P120	
091215R.200.P150	P150	
091215R.200.P180	P180	
091215R.200.P220	P220	
091215R.200.P240	P240	
091215R.200.P280	P280	
091215R.200.P320	P320	
091215R.200.P400	P400	

16. SU ZIMPARALARI

ÜRÜN KODU	Kum kalınlığı
091216.SU.P060	60 D
091216.SU.P080	80 D
091216.SU.P100	100 D
091216.SU.P120	120 D
091216.SU.P150	150 C
091216.SU.P180	180 C
091216.SU.P220	220 C
091216.SU.P240	240 C
091216.SU.P280	280 C
091216.SU.P320	320 C
091216.SU.P360	360 C
091216.SU.P400	400 C
091216.SU.P500	500 C
091216.SU.P600	600 C
091216.SU.P800	800 A
091216.SU.P1000	1000 A
091216.SU.P1200	1200 A
091216.SU.P1500	1500 A
091216.SU.P2000	2000 A

17. SONSUZ ZIMPARALAR

ÜRÜN KODU	En / mm
091217SON1150100	1150 x 100
091217SON1250100	1250 x 100
091217SON2000050	2000 x 50
091217SON3500100	3500 x 100
091217SON6900100	6900 x 100
091217SON6900120	6900 x 120
091217SON6900150	6900 x 150
091217SON7100100	7100 x 100
091217SON7100120	7100 x 120
091217SON7100150	7100 x 150



18. KOMBİNE YAĞ TAŞLARI



ÜRÜN KODU	Ölçü	AR / ADR
		EAN No
09.12.18.ADR.100.25.16	100x25x16	61440
09.12.18.ADR.125.40.20	125x40x20	60603
09.12.18.ADR.150.50.25	150x50x25	60604
09.12.18.ADR.200.50.25	200x50x25	60605
ÜRÜN KODU	Ölçü	CD / CG
		EAN No
09.12.18.SCG.100.25.16	100x25x16	60606
09.12.18.SCG.125.40.20	125x40x20	60607
09.12.18.SCG.150.50.25	150x50x25	60608
09.12.18.SCG.200.50.25	200x50x25	60609

19. BEYAZ SABUN TAŞLARI



ÜRÜN KODU	Ölçü	EKW
		EAN No
09.12.19.150.50.25.60	150x50x25	60604
09.12.19.150.50.25.80	150x50x25	60604
09.12.19.150.50.25.120	150x50x25	60604

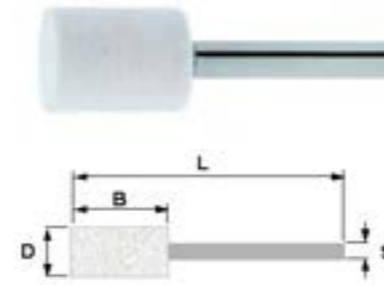
20. KİREMİT SABUN TAŞLARI



ÜRÜN KODU	Ölçü	AW
		EAN No
09.12.20.150.50.25.60	150x50x25	60605
09.12.20.150.50.25.80	150x50x25	60605
09.12.20.150.50.25.120	150x50x25	60605
09.12.20.150.50.25.220	150x50x25	60605

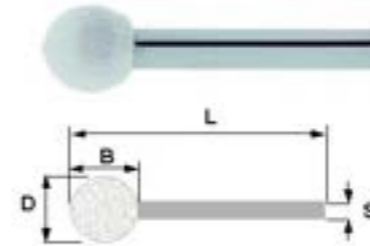
01. PARLATMA KEÇELERİ

A FORM



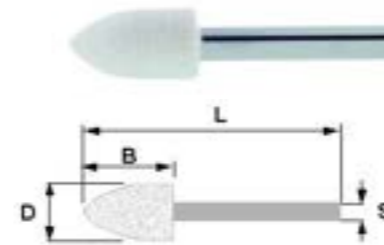
ÜRÜN KODU	D (mm)	B (mm)	S (mm)	L (mm)
09.13.01.A06.10.50.3	6	10	3	50
09.13.01.A08.10.50.3	8	10	3	50
09.13.01.A10.12.50.3	10	12	3	50
09.13.01.A10.15.50.6	10	15	6	50
09.13.01.A12.15.55.3	12	15	3	55
09.13.01.A12.20.60.6	12	20	6	60
09.13.01.A16.20.60.6	16	20	6	60
09.13.01.A20.25.65.6	20	25	6	65
09.13.01.A25.30.70.6	25	30	6	70
09.13.01.A30.40.80.6	30	40	6	80

B FORM



ÜRÜN KODU	D (mm)	B (mm)	S (mm)	L (mm)
09.13.01.B06.5.5.45.3	6	5,5	3	45
09.13.01.B08.7.5.50.3	8	7,5	3	50
09.13.01.B10.9.50.3	10	9	3	50
09.13.01.B10.9.50.6	10	9	6	50
09.13.01.B12.11.50.6	12	11	6	50
09.13.01.B20.19.60.6	20	19	6	60

C FORM

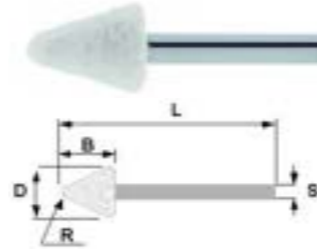


ÜRÜN KODU	D (mm)	B (mm)	S (mm)	L (mm)
09.13.01.C06.10.50.3	6	10	3	50
09.13.01.C08.10.50.3	8	10	3	50
09.13.01.C10.12.52.3	10	12	3	52
09.13.01.C10.15.55.6	10	15	6	55
09.13.01.C12.20.60.6	12	20	6	60
09.13.01.C20.25.65.6	20	25	6	65
09.13.01.C25.30.70.6	25	30	6	70
09.13.01.C30.40.80.6	30	40	6	80

## 01. PARLATMA KEÇELERİ

### J FORM

ÜRÜN KODU	D (mm)	B (mm)	S (mm)	L (mm)	R (mm)
09.13.01.J10.12.50.3	10	12	3	50	25
09.13.01.J10.15.55.6	10	15	6	55	25
09.13.01.J16.20.60.6	16	20	6	60	3
09.13.01.J20.25.65.6	20	25	6	65	4,5
09.13.01.J25.30.70.6	25	30	6	70	4,5
09.13.01.J30.40.80.6	30	40	6	80	6,5



## 02. PARLATMA MACUNLARI

### SDP ELMAS PASTALAR



Değerli taşların, optik, metal, metal optik, seramik, yarı iletkenlerin yüzey kalitesi için lepleme ve parlatma amaçlı üretilmiş yüksek teknik gereklere sahip bir elmas pastadır. Alıştırma tipi malzeme, sertlik ve yüzey gereksinimlerine bağlıdır.

ÜRÜN KODU	Mikron	Renk	Ambalaj şekli
09.13.02.SDP.0-1	0-1		20 gr. şırınga
09.13.02.SDP.1-2	1-2	Yellow	20 gr. şırınga
09.13.02.SDP.2-3	2-3	Yellow	20 gr. şırınga
09.13.02.SDP.3-5	3-5	Orange	20 gr. şırınga
09.13.02.SDP.5-7	5-7	Orange	20 gr. şırınga
09.13.02.SDP.7-10	7-10	Green	20 gr. şırınga
09.13.02.SDP.14-20	14-20	Green	20 gr. şırınga
09.13.02.SDP.20-28	20-28	Red	20 gr. şırınga
09.13.02.SDP.40-60	40-60	Black	20 gr. şırınga

### DIAMANT PASTA



ÜRÜN KODU	Renk	Gram
09.13.02.TRC.225.GR	Blue	225 gr
09.13.02.TRC.750.GR	Blue	700 gr

## 03. PARLATMA CİLALARI

**Kesici Cila (Pembe):** Metallerin üzerindeki çizgileri gidermek için kullanılır. Seçkin aşındırıcı mineralleri sayesinde kesici ve parlatma özelliği yüksek olan bir ciladır.  
**Parlatıcı Cila (Mavi):** Metallerde yüksek parlaklık vermek için kullanılır. Seçkin aşındırıcı mineralleri sayesinde tüm metallerinizde ayna parlaklığı elde edebilirsiniz.

ÜRÜN KODU	Renk	Açıklama
09.13.03.MPC.MAVİ	Blue	Polisaj pastası
09.13.03.MPC.PEMBE	Pink	Kesme pastası



## 04. MİKRO KALIPÇI TAŞLAMALAR

Devir	22000 Rpm		09.13.04.06.GP2341
Ölçüler	180 mm		
Ağırlık	0,6 kg		
Pens Ø	6 mm		
Motor Gücü	373 W		

Devir	22000 Rpm		09.13.04.06.GP2341L.09
Ölçüler	245 mm		
Ağırlık	0,7 kg		
Pens Ø	6 mm		
Motor Gücü	373 W		

Devir	20.000 Rpm		09.13.04.06.GP2383.90°
Ölçüler	155 mm		
Ağırlık	0,5 kg		
Pens Ø	6 mm		
Motor Gücü	225 W		

Devir	60.000 Rpm		09.13.04.03.GP0571C3
Ölçüler	132 mm		
Ağırlık	0,191 kg		
Pens Ø	3 mm		
Motor Gücü	150 W		

## 04. MİKRO KALIPÇI TAŞLAMALAR

Devir	35000 Rpm		0913.04.07.GP21721T07
Ölçüler	205 mm		
Ağırlık	0,185 kg		
Strok	0,7 mm		
Hava Girişi	1/4"		

Devir	30000 Rpm		0913.04.01.2.GP2700C
Ölçüler	120 mm		
Ağırlık	0,42 kg		
Pah Derinliği	0,1-2 mm		
Motor Gücü	263 W		

## GAZ TAŞI TUTUCULARI



ÜRÜN KODU	Uyum sağladığı taş ölçüleri
09.13.04.01.2.GTT01	3*6 3*13
09.13.04.01.2.GTT02	6*13
09.13.04.01.2.GTT03	3*6 6*6
09.13.04.01.2.GTT04	3*6 3*13 6*6
09.13.04.01.2.SGTT01	Diprofil makinelerinde
09.13.04.01.2.SGTT02	Makina eğişi, seramik taş, gaz taşı

## GAZ TAŞI SIVISI

Kalip parlatma esnasında; yüzey temizleme yumuşatma, taşın kesme özelliğini artırma ve taşın kırılmasını önlemek amacıyla üretilmiştir. Çevre dostu, elleri tahriş etmez göze zararı yoktur.



ÜRÜN KODU
09.13.04.01.2.GTS

## 05. GAZ TAŞLARI

Gaz taşları özellikle kalıp parlatma için üretilmiştir. Kullanım esnasında kontrol tutarlılık ve yüksek kalitede aşındırıcı tanecikler kullanılmıştır. Sertlik, kırılma, aşındırma ve ebatlar ihtiyaçlar doğrultusunda belirtilmiştir.

Boylar: 150 mm



ÜRÜN KODU	Tip	Ölçü	Kum							
			120 (x)	180 (x)	220 (x)	320 (x)	400 (x)	600 (x)	800 (x)	1000 (x)
09.13.05.03.06.150.x	■	3x6	■	■	■	■	■	■	■	■
09.13.05.03.13.150.x	■	3x13	■	■	■	■	■	■	■	■
09.13.05.06.06.150.x	■	6x6	■	■	■	■	■	■	■	■
09.13.05.06.13.150.x	■	6x13	■	■	■	■	■	■	■	■
09.13.05.06.25.150.x	■	6x25	■	■	■	■	■	■	■	■
09.13.05.10.10.150.x	■	10x10	■	■	■	■	■	■	■	■
09.13.05.06.150.x	●	6	■	■	■	■	■	■	■	■
09.13.05.10.150.x	●	10	■	■	■	■	■	■	■	■
09.13.05.U.06.150.x	▲	6	■	■	■	■	■	■	■	■
09.13.05.U.10.150.x	▲	10	■	■	■	■	■	■	■	■
09.13.05.B.06.150.x	◐	6	■	■	■	■	■	■	■	■

## 06. SERAMİK TAŞLAR

Seramik taşlar, çok yüksek parlatma gücüne sahiptir, kırılmaz dar köşeler için çok uygundur.



ÜRÜN KODU	Ölçü	Kum					
		180 (x)	250 (x)	360 (x)	400 (x)	700 (x)	1200 (x)
09.13.06.01.04.100.x	1x4x100	ST14180	ST14250	ST14360	ST14400	ST14700	ST141200
09.13.06.01.06.100.x	1x6x100	ST16180	ST16250	ST16360	ST16400	ST16700	ST161200
09.13.06.01.10.100.x	1x10x100	ST110180	ST110250	ST110360	ST110400	ST110700	ST1101200
09.13.06.03.100.x	Ø3x100	ST3180	ST3250	ST3360	ST3400	ST3700	ST31200

07. ELMAS EĞE SETLERİ



ÜRÜN KODU

09.13.07.MTF.100

SET İÇERİĞİ	Form	Boy	Elmas boyu	Kum
MTF 13F MTF 13V MTF 13X		72	15	#200 #400 #600
MTF 16F MTF 16V MTF 16X		72	15	#200 #400 #600
MTF 23F MTF 23V MTF 23X		56	15	#200 #400 #600
MTF 26F MTF 26V MTF 26X		56	15	#200 #400 #600

MTF 100 - PVC Ambalajlarda 12'li Takım

07. ELMAS EĞE SETLERİ



ÜRÜN KODU

09.13.07.FAS.10

SET İÇERİĞİ	Boy	Elmas boyu	Kalınlık	Genişlik	Kum
FA 101	90	60	1	10	#200 #400
FA 102	90	60	1	8	#200 #400
FA 103	70	40	08	6	#200 #400
FA 104	60	25	08	4	#200 #400
FA 105	45	15	08	2	#200 #400

FAS 10 - PVC Ambalajlarda 12'li Takım

07. ELMAS EĞE SETLERİ



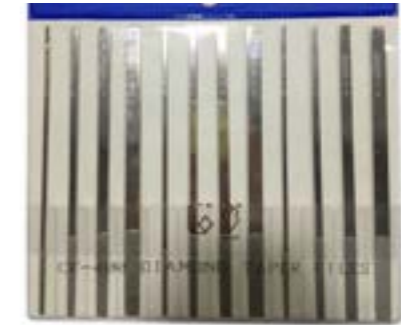
ÜRÜN KODU

09.13.07.PTF.10

SET İÇERİĞİ	Form	Boy	Elmas boyu	Kum
PTF 12F PTF 12V PTF 12X		130	30	#200 #400 #600
PTF 14F PTF 14V PTF 14X		130	30	#200 #400 #600
PTF 16F PTF 16V PTF 16X		130	30	#200 #400 #600
PTF 103X	Ø3	140	50	#600

PTF 10 - PVC Ambalajlarda 10'lu Takım

07. ELMAS EĞE SETLERİ



ÜRÜN KODU

09.13.07.CF.400

SET İÇERİĞİ	Form	Boy	Elmas boyu	Kum
CF 402J CF 402F CF 402V		180	40	#150 #400 #600
CF 404J CF 404F CF 404V		180	50	#150 #400 #600
CF 406J CF 406F CF 406V		180	50	#150 #400 #600
CF 408J CF 408F CF 408V		180	50	#150 #400 #600

CF 400 - PVC Ambalajlarda 12'li Takım

07. ELMAS EĞE SETLERİ



ÜRÜN KODU

09.13.07.PF.05

SET İÇERİĞİ	Form	Boy	Elmas boyu	Kalınlık	Genişlik	Kum
PF 101	■	140	50	15	5.5	#120
PF 102	◐	140	50	2	5	#120
PF 103	●	140	50	3	∅	#120
PF 104	■	140	50	25	25	#120
PF 105	▲	140	50	35	35	#120

PF 05 - PVC Ambalajlarda 5'li Takım

07. ELMAS EĞE SETLERİ



ÜRÜN KODU

09.13.07.IF.50

SET İÇERİĞİ	Form	Boy	Elmas boyu	Kalınlık	Genişlik	Kum
BF 601	■	140	30	13	6	#150
BF 602	◐	140	30	2	5	#150
BF 603	●	140	30	3	∅	#150
BF 604	■	140	30	25	25	#150
BF 605	▲	140	30	35	35	#150

IF 50 - PVC Ambalajlarda 5'li Takım

08. 30 PARÇALI PÜSKÜRTME ELMAS KAPLAMALI SET

ŞAFT 3MM



ÜRÜN KODU

09.13.07.BMS.30

08. PÜSKÜRTME ELMAS SPIRAL FREZELER

ŞAFT 3MM

6mm ve üzeri: #100 Kum / 2mm ve üzeri: #120 Kum / 1.5mm ve altı: #150 Kum

ÜRÜN ÖLÇÜ	10A	15A	20A	25A	30A	35A	40A	50A	60A	10C	15C	20C	25C	30C	35C	40C	50C	60C
d	1	15	2	25	3	35	4	5	6	1	15	2	25	3	35	4	5	6
L	8	8	8	8	10	10	10	10	10	8	8	8	8	10	10	10	10	10

ÜRÜN ÖLÇÜ	20T	30T	30V	13R	14R	15R	20R	30R	31R	32R	20P	30P	40P	50P	60P	20F	30F	33F
d	2	3	3	12	15	15	2	3	3.3	3.3	2	3	4	5	6	2	3	3.3
L	10	10	10	16	13	13	12	14	15	10	12	15	15	15	13	10	10	15

ÜRÜN ÖLÇÜ	40F	50F	60F	61F	20J	30J	40J	50J	51J	60J	10B	15B	20B	25B	30B	40B	50B	60B
d	4	5	6	6	2	3	4	5	5	6	1	15	5	25	3	4	5	6
L	10	10	12	10	6	14	9	10	13	13	-	-	-	-	-	-	-	-

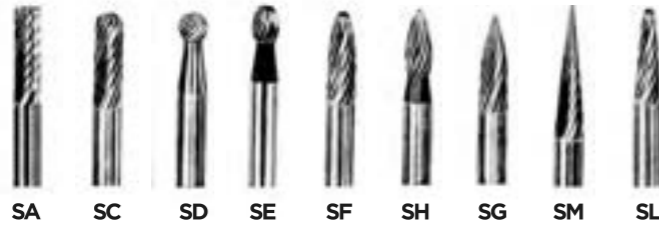
  

ÜRÜN ÖLÇÜ	80B	30Q	40Q	50Q	51Q	60Q	61Q	20S	30S	31S	32S	33S	34S	35S	36S	40S	50S	60S
d	8	3	4	5	5	6	6	2	3	3	3	3	3	3	3	4	5	6
L	-	5	7	9	12	10	12	4	6	5.5	6	6	6	6	5	8	10	12

08. 3 MM KARBÜR ÇAPAK ALMALAR



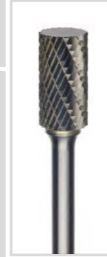
ÜRÜN KODU	Kafa çapı (mm)	Kesme boyu (mm)	Tam boyu (mm)	Şaft çapı (mm)
09.13.08.SA51.3	6	13	50	3
09.13.08.SM51.3	6	13	50	3
09.13.08.SC51.3	6	13	50	3
09.13.08.SD51.3	6	6	50	3
09.13.08.SE51.3	6	10	50	3
09.13.08.SF51.3	6	13	50	3
09.13.08.SG51.3	6	13	50	3



ÜRÜN KODU	Kafa çapı (mm)	Kesme boyu (mm)	Tam boyu (mm)	Şaft çapı (mm)
09.13.08.SA43.3	3	13	50	3
09.13.08.SC42.3	3	13	50	3
09.13.08.SD42.3	3	3	50	3
09.13.08.SE41.3	3	5	50	3
09.13.08.SF42.3	3	13	50	3
09.13.08.SH41.3	3	7	50	3
09.13.08.SG43.3	3	13	50	3
09.13.08.SM43.3	3	13	50	3
09.13.08.SL42.3	3	13	50	3

08. 6 MM KARBÜR ÇAPAK ALMALAR

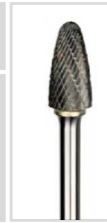
ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.A06.6	6	16	58
09.13.08.A08.6	8	20	60
09.13.08.A10.6	10	20	60
09.13.08.A12.6	12	25	65
09.13.08.A16.6	16	25	65



ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.C06.6	6	16	46
09.13.08.C08.6	8	20	60
09.13.08.C10.6	10	20	60
09.13.08.C12.6	12	25	65
09.13.08.C16.6	16	25	65



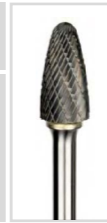
ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.G06.6	6	18	58
09.13.08.G08.6	8	17	57
09.13.08.G10.6	10	20	60
09.13.08.G12.6	12	25	65



ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.H06.6	6	18	58
09.13.08.H08.6	8	17	57
09.13.08.H10.6	10	20	60
09.13.08.H12.6	12	25	65



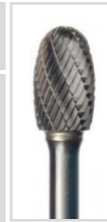
ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.F06.6	6	18	58
09.13.08.F08.6	8	18	58
09.13.08.F10.6	10	20	60
09.13.08.F12.6	12	25	65



ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.M06.6	6	18	58
09.13.08.M08.6	8	17	57
09.13.08.M10.6	10	20	60
09.13.08.M12.6	12	25	65



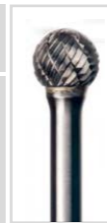
ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.E06.6	6	10	60
09.13.08.E08.6	8	13	58
09.13.08.E10.6	10	16	61
09.13.08.E12.6	12	20	60



ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.L06.6	6	16	56
09.13.08.L08.6	8	22	62
09.13.08.L10.6	10	25	65
09.13.08.L12.6	12	28	68



ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.D06.6	6	5.4	55
09.13.08.D08.6	8	7.2	57
09.13.08.D10.6	10	9	54
09.13.08.D12.6	12	10.3	55



ÜRÜN KODU	Çap (mm)	Kesme boyu (mm)	Tam boyu (mm)
09.13.08.J08.6	8	7.0	55
09.13.08.J10.6	10	8.7	53
09.13.08.J12.6	12	10.4	55



## 01. RASPA SETLERİ

### DT-1

Basit ve ekonomik modeldir. Heksagonal sapına universal C-10 bıçağı takılır.



ÜRÜN KODU	İçerik
0914.01.DT1	2 adet DT-1

### DT-2

Bıçaklar değiştirilebilir. Heksagonal sapına universal C-10 bıçağı takılır.



ÜRÜN KODU	İçerik
0914.01.DT2	1 adet DT-2

### DT-3 (M)-SD

Özel bileşimli gövde ve metalik tutucu ile uzun ömürlüdür. Ekonomik dizayn, parlak destek oyuğu, ele iyi oturur, yedek bıçaklar alt taraftan depolanabilir.



ÜRÜN KODU	İçerik
0914.01.DT3-SD	"D-DS" gövde 3 bıçak C-10, C-20 ve C-30

### DT-5 SD

Bıçaklar değiştirilebilir ve derin noktalara ulaşması amacıyla tutucu uzayabilir.



ÜRÜN KODU	İçerik
0914.01.DT5-SD	TS-D gövde, DT-(C) tutucu 5 bıçak C-10, C-20, C-30, C-10(C), C-15 TS-D gövde, DT-(P) tutucu 2 bıçak P1 ve P2

## 01. RASPA SETLERİ

### RDT-SD RİJİT RASPA SETİ

Ekstra ağır iş içindir. R-SD ve R-10 (S) bıçak içerir.



ÜRÜN KODU
0914.01.RDT-SD

### NERVÜR / SAC RASPA SETİ SDT

Nervür ve sacların tek yada iki kenarını temizlemek için uygundur. Bir adet daire şekilli bıçak ihtiva eder.



ÜRÜN KODU
0914.01.SDT

### ANAHTAR YOLU / YUVA RASPA SETİ KWS-SD

Anahtar yolu ve yuvanın her iki kenarının hızlıca çapağının temizlenmesini sağlar. İki standart, ikisi siğ delikler için 4 kesme yüzeyi vardır.

"T-SD" gövde, "KW" teleskopik tutucu, KW-9 ve KW-16 bıçaktan oluşur.



ÜRÜN KODU
0914.01.KWS-SD

### V ŞEKİLLİ NERVÜR / SAC RASPA SETİ

İkisi 1mm - 12mm aralığı için, ikisi 0mm - 4mm aralığı için olmak üzere 4 bıçak içerir. "T-SD" gövde, UT Teleskopik tutucu ve V4 bıçaktan oluşur.



ÜRÜN KODU
0914.01.VDT-SD

## 01. RASPA SETLERİ

### NERVÜR / SAC RASPASI V2-SD

Bıçağı çift uçludur. 4mm kalınlığına kadar nervür ve sacların çapağını alabilir.



ÜRÜN KODU

0914.01V2-SD

### DT-SD (3'Ü BİR ARADA) SET

"R" (6mm Ø), (3,2mm Ø) ve "P" (2,6mm Ø) bıçaklar tutabilen tek raspa setidir. Gövde kolay değişimi için otomatik boşaltma sistemlidir. Bütün tutucu ve bıçaklar gövde içinde depolanabilir. İçeriğinde "R-SD" gövde, "SD-C", "SD-P" tutucular ve R-15(5), C-10, C-20, C-30, P-1, P-2, P-3 bıçaklar vardır.



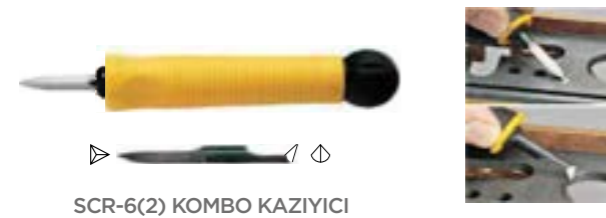
R-15 (S) Bıçak ile,

ÜRÜN KODU

0914.01DT-SD

### KAZICI TİP RASPA SETİ SCR-6(2) - SD (RCP-74064)

Bıçağı çift uçludur. Değiştirilebilir uçlu T-SD gövde, 6mm kazıyıcı üçgen uç. Diğer uç, iç kazıma için dizayn edilmiştir.



ÜRÜN KODU

0914.01SCR6-SD

## 01. RASPA SETLERİ

### PROMO SET - 2

1 adet D-SD gövde,  
10 adet C20 bıçak

### PROMO SET - 1

1 adet T-SD gövde,  
1 adet DT-C teleskobik tutucu,  
10 adet C20 bıçak



ÜRÜN KODU

0914.01.PROMO2



ÜRÜN KODU

0914.01.PROMO1

## 02. RASPA YEDEKLERİ

ÜRÜN KODU	Kod	Kullanım	Paket adedi	Örnek
0914.02YRU.P1	P-1/RCP-11010	Çelik, alüminyum, bakır, çinko ve plastik gibi yumuşak malzemeler	10 adet	
0914.02YRU.P2	P-2/RCP-11020	Pirinç	10 adet	
0914.02YRUC10	C-10/RCP-12100	Çelik, alüminyum, bakır, çinko ve plastik gibi spiral talaşlı malzemeler	10 adet	
0914.02YRUC10LR	C-10 (L+R) RCP-12400	Çelik, alüminyum, bakır, çinko ve plastik gibi spiral talaşlı malzemeler	10 adet	
0914.02YRUC15	C-15/RCP-12151	Paslanmaz çelikler	10 adet	
0914.02YRUC20	C-20/RCP-12200	Pirinç gibi kırılabilir malzemeler	10 adet	
0914.02YRUC30	C-30/RCP-12300	10mm kalınlığa kadar sacların iç ve dış kenarlarını kızıl bir biçimde temizlemek için	10 adet	
0914.02YRUC60	C-60/RCP-12600	1-20mm arası sırt raspalama	5 adet	
0914.02YRU.R10	R-10 (S) RCP-13100	Paslanmaz çelikler	5 adet	
0914.02YRU.R15	R-15 (S) RCP-13151	Paslanmaz çelikler	5 adet	



## 09. GENEL HIRDAVAT GRUBU 14. ÇAPAK ALMA RASPALARI

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### 02. RASPA YEDEKLERİ

MEVCUT RASPA BIÇAKLARI



ETKİN KESİCİ KENARLAR

YENİ RASPA BIÇAKLARI  
(ÇOKLU KESİCİ KENARLAR)



ETKİN KESİCİ KENARLAR  
KADEMELER

ÜRÜN KODU	Kod	Kullanım	Paket adedi	Örnek
09:14.02YRUMC10	MC-10 RCP-22100	3 kademeli bıçağı ile uzun ömür Çelik, alüminyum, bakır ve plastik taşı malzemelerin raspanması	10 adet	
09:14.02YRUMC20	MC-20 RCP-22200	3 kademeli bıçağı ile uzun ömür Dökme demir, pirinç, gibi kırılğan taş veren malzemelerin raspanması	10 adet	
09:14.02YRUMC40	MC-40 RCP-22400	3 kademeli bıçağı ile uzun ömür Tüm metallerin delik raspanması	10 adet	
09:14.02YRUMC70	MC-70 RCP-22700	8 kademeli bıçağı ile uzun ömür Çelik, alüminyum, çinko vb. gibi malzemelerin raspanması	10 adet	
09:14.02YRUMC80	MC-80 RCP-22800	8 kademeli bıçağı ile uzun ömür Dökme demir, çinko, vb. gibi malzemelerin raspanması	10 adet	
09:14.02YRUKW9	KW-9 RCP-27090	0-9mm genişlik için	1adet	
09:14.02YRUKW16	KW-16 RCP-27160	0-16mm genişlik için	1adet	
09:14.02YRUS12	S-12 RCP-26120	Uzun ömür için dairenin her iki yüzünün tamamı kullanılabilir	1adet	
09:14.02YRUV2	V-2 RCP-23020	Çift taraflı bıçaktır. Bir tarafı 4mm genişliğe kadar çift yanlı, çapak alma yaparken bir tarafı tek yanlı, çapak alma yapar.	1adet	
09:14.02YRUV4	V-4 RCP-26040	İkisi 1-12mm genişlik, ikisi 0-4mm genişlik içindir. Toplam 4 kesici bıçak yüzeyi vardır.	1adet	
09:14.02YRUSCR3	SCR-3 (75) RCP-72750	Üçgen 3mm A/F kazıma bıçağı (75mm boy)	1adet	
09:14.02YRUSCR6	SCR-6 (2) combo RCP-74060	Çift taraflı bıçaktır. Bir tarafı 6mm tek yanlı üçgen kazı- ma bıçağıdır. Diğer tarafı iç yüzey kazıma bıçağıdır.	1adet	
09:14.02YRUSCR8	SCR-8 RCP-75080	Üçgen 8mm A/F kazıma bıçağı	1adet	

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## 09. GENEL HIRDAVAT GRUBU 15. TAŞ DÜZELTME ELMASLARI

### 01. TEKLİ TAŞ DÜZELTME ELMASLARI



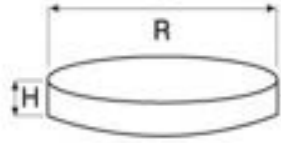
ÜRÜN KODU	Aşlanacak taşın ölçüleri (mm)	Krat (mm)	MK
09:14.01.0.35	100x20 - 200x10	0,35	1
09:14.01.0.50	200x30 - 350x18	0,5	1
09:14.01.0.75	250x50 - 400x35	0,75	1
09:14.01.1.00	300x70 - 500x40	1,0	1
09:14.01.1.50	400x100 - 800x50	1,5	1
09:14.01.2.00	500x100 - 900x60	2,0	1
09:14.01.3.00	500x200 - 900x110	3,0	1
09:14.01.4.00	600x250 - 900x130	4,0	1

### 02. ÇOKLU TAŞ DÜZELTME ELMASLARI



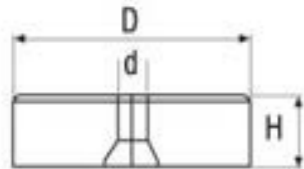
ÜRÜN KODU	Aşlanacak taşın ölçüleri (mm)	Krat (mm)	MK
09:14.02.0.35	100x20 - 200x10	0,35	1
09:14.02.0.50	200x30 - 350x18	0,5	1
09:14.02.0.75	250x50 - 400x35	0,75	1
09:14.02.1.00	300x70 - 500x40	1,0	1
09:14.02.1.50	400x100 - 800x50	1,5	1
09:14.02.2.00	500x100 - 900x60	2,0	1
09:14.02.3.00	500x200 - 900x110	3,0	1
09:14.02.4.00	600x250 - 900x130	4,0	1
09:14.02.5.00	700x300 - 1000x150	5,0	1

01. YUVARLAK MIKNATISLAR



ÜRÜN KODU	Çap R (mm)	Kalınlık H (mm)	ÜRÜN KODU	Çap R (mm)	Kalınlık H (mm)
0916.01.04.03	4	3	0916.0112.03	12	3
0916.01.04.06	4	6	0916.0112.05	12	5
0916.01.04.08	4	8	0916.0114.03	14	3
0916.01.05.05	5	5	0916.0114.04	14	4
0916.01.05.08	5	8	0916.0115.03	15	3
0916.01.05.10	5	10	0916.0115.05	15	5
0916.01.05.15	5	15	0916.0115.10	15	10
0916.01.06.03	6	3	0916.0115.15	15	15
0916.01.06.10	6	10	0916.0118.03	18	3
0916.01.08.03	8	3	0916.0118.04	18	4
0916.01.08.04	8	4	0916.0118.05	18	5
0916.01.08.05	8	5	0916.0118.06	18	6
0916.01.08.10	8	10	0916.0118.10	18	10
0916.01.09.02	9	2	0916.0120.05	20	5
0916.01.09.03	9	3	0916.0120.06	20	6
0916.01.10.03	10	3	0916.0120.10	20	10
0916.01.10.05	10	5	0916.0125.05	25	5
0916.01.10.10	10	10	0916.0130.05	30	5
0916.01.10.15	10	15	0916.0130.10	30	10
0916.01.10.20	10	20	0916.0140.05	40	5
0916.01.10.30	10	30	0916.0140.10	40	10

02. DELİKLİ MIKNATISLAR



ÜRÜN KODU	Dış çap D (mm)	Delik çapı d (mm)	Kalınlık h (mm)
0916.0212.05.15	12	5	15
0916.0215.04.04	15	4	4
0916.0218.06.05	18	6	5
0916.0220.5.5.05	20	5.5	5
0916.0225.5.5.06	25	5.5	6
0916.0230.5.5.05	30	5.5	5
0916.0240.5.5.05	40	5.5	5



# DEFNE

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