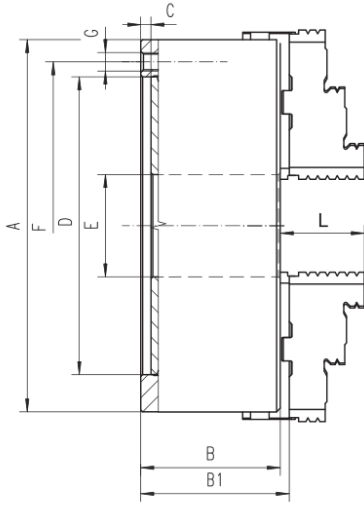


## 3 AYAKLI DÖNDÜRÜLEBİLİR TORNA AYNASI

TİP K11

## ÖZELLİKLER

- 3 AYAKLI MERKEZİ SIKMALI UNIVERSAL TORNA AYNASI
- 2 PARÇALI AYAKLARIN ÜST KISMI DÖNDÜRÜLEBİLİR
- AYAKLAR TERS VE DÜZ OLARAK KULLANILABİLİR, AYRICA AYAR GEREKTİRMEZ
- UNIVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE ÖNDEN BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR
- DÖKÜM GÖVDELİDİR.



| KOD | CHARD.160 | CHARD.200 | CHARD.250 | CHARD.315 | CHARD.400 | CHARD.500 | BİRİM mm  |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|     |           |           |           |           |           |           | CHARD.630 |
| ØA  | 160       | 200       | 250       | 315       | 400       | 500       | 630       |
| B   | 65        | 75        | 80        | 90        | 100       | 115       | 133,5     |
| B1  | 71        | 80        | 86        | 95        | 108       | 126       | 142       |
| C   | 5         | 5         | 5         | 6         | 6         | 6         | 7         |
| D H | 130       | 165       | 206       | 260       | 340       | 440       | 560       |
| E   | 40        | 65        | 80        | 100       | 130       | 210       | 270       |
| F   | 142       | 180       | 226       | 285       | 368       | 465       | 595       |
| G   | 3XM8      | 3XM10     | 3XM12     | 3xM16     | 3xM16     | 6xM16     | 6xM16     |
| L   | 44        | 47        | 50        | 63        | 72        | 87        | 84,5      |
| Kg  | 8,3       | 14,1      | 23        | 41        | 71        | 119       | 215       |

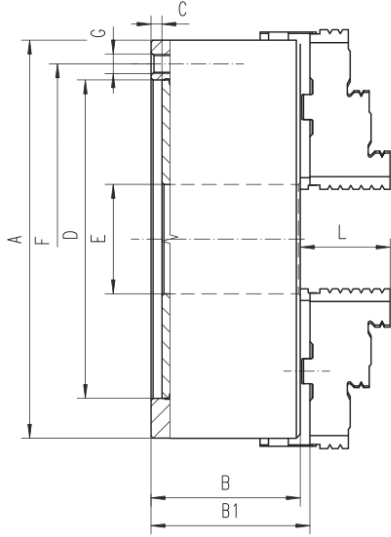
| STANDART AKSESUARLAR | 1 TAKIM ÜST AYAK | 1 TAKIM ALT AYAK  | 1 ADET ANAHTAR  | FLANS BAĞLAMA CIVATATASI   |
|----------------------|------------------|---|---|--|
|                      |                  |  |  |  |

## 4 AYAKLI DÖNDÜRÜLEBİLİR TORNA AYNASI

TİP K12

## ÖZELLİKLER

- 4 AYAKLI MERKEZİ SIKMALI UNIVERSAL TORNA AYNASI
- 2 PARÇALI AYAKLARIN ÜST KISMI DÖNDÜRÜLEBİLİR
- AYAKLAR TERS VE DÜZ OLARAK KULLANILABİLİR, AYRICA AYAR GEREKTİRMEZ
- UNIVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE ÖNDEN BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR
- DÖKÜM GÖVDELİDİR.



| KOD  | CHARD.160 | CHARD.200 | CHARD.250 | CHARD.315 | CHARD.400 | CHARD.500 | BİRİM mm  |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|      |           |           |           |           |           |           | CHARD.630 |
| ØA   | 160       | 200       | 250       | 315       | 400       | 500       | 630       |
| B    | 65        | 75        | 80        | 90        | 100       | 115       | 133,5     |
| B1   | 71        | 80        | 86        | 95        | 108       | 126       | 142       |
| C    | 5         | 5         | 5         | 6         | 6         | 6         | 7         |
| D H7 | 130       | 165       | 206       | 260       | 340       | 440       | 560       |
| E    | 40        | 65        | 80        | 100       | 130       | 210       | 270       |
| F    | 142       | 180       | 226       | 285       | 368       | 465       | 595       |
| G    | 3XM8      | 3XM10     | 3XM12     | 3xM16     | 3xM16     | 6xM16     | 6xM16     |
| L    | 44        | 47        | 50        | 63        | 72        | 87        | 84,5      |

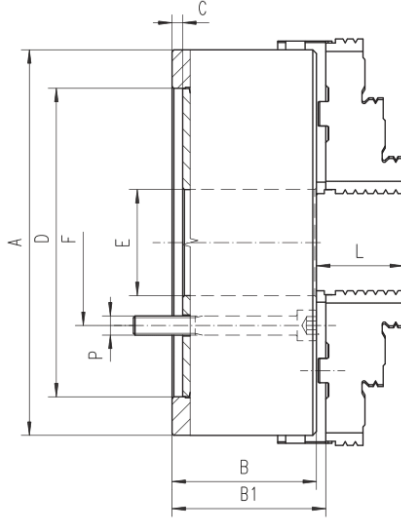
| STANDART AKSESUARLAR | 1 TAKIM ÜST AYAK | 1 TAKIM ALT AYAK  | 1 ADET ANAHTAR  | FLANŞ BAĞLAMA CIVATATASI   |
|----------------------|------------------|---|---|--|
|                      |                  |  |  |  |

## 3 AYAKLI DÖNDÜRÜLEBİLİR ÖNDEN BAĞLANTILI TORNA AYNASI

TİP K11

## ÖZELLİKLER

- 3 AYAKLI MERKEZİ SIKMALI UNIVERSAL TORNA AYNASI
- 2 PARÇALI AYAKLARIN ÜST KISMI DÖNDÜRÜLEBİLİR
- AYAKLAR TERS VE DÜZ OLARAK KULLANILABİLİR, AYRICA AYAR GEREKTİRMEZ
- UNIVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE ÖNDEN BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR
- DÖKÜM GÖVDELİ
- DİVİZÖR AYNASI OLARAKDA ADLANDIRILIR



|      |           |           |           |           |           |           | BİRİM mm  |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| KOD  | CHARDFRN. | CHARDFRN. | CHARDFRN. | CHARDFRN. | CHARDFRN. | CHARDFRN. | CHARDFRN. |
| ØA   | 160       | 200       | 250       | 315       | 400       | 500       | 630       |
| B    | 65        | 75        | 80        | 90        | 100       | 115       | 133,5     |
| B1   | 71        | 80        | 86        | 95        | 108       | 126       | 142       |
| C    | 5         | 5         | 5         | 6         | 6         | 6         | 7         |
| D H7 | 130       | 165       | 206       | 260       | 340       | 440       | 560       |
| E    | 40        | 65        | 80        | 100       | 130       | 210       | 270       |
| F    | 56        | 83,5      | 100       | 123,5     | 166,5     | 245       | 315       |
| G    | 3XM8      | 3XM10     | 3XM12     | 3xM16     | 3xM16     | 6xM16     | 6xM16     |
| L    | 44        | 47        | 50        | 63        | 72        | 87        | 84,5      |
| Kg   | 8,3       | 14,1      | 23        | 41        | 71        | 119       | 215       |

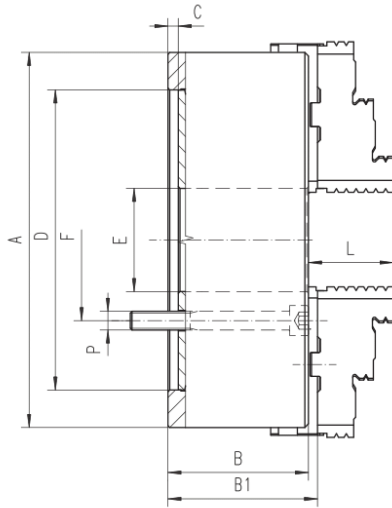
| STANDART AKSESUARLAR | 1 TAKIM ÜST AYAK  | 1 TAKIM ALT AYAK  | 1 ADET ANAHTAR   | FLANŞ BAĞLAMA CIVATATASI  |
|----------------------|---|---|--|---|
|                      |  |  |  |  |

## 4 AYAKLI DÖNDÜRÜLEBİLİR ÖNDEN BAĞLANTILI TORNA AYNASI

TİP K12

## ÖZELLİKLER

- 4 AYAKLI MERKEZİ SIKMALI UNIVERSAL TORNA AYNASI
- K2 PARÇALI AYAKLARIN ÜST KISMI DÖNDÜRÜLEBİLİR
- AYAKLAR TERS VE DÜZ OLARAK KULLANILABİLİR, AYRICA AYAR GEREKTİRMEZ
- UNIVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE ÖNDEN BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR
- DÖKÜM GÖVDELİ
- DİVİZÖR AYNASI OLARAKDA ADLANDIRILIR



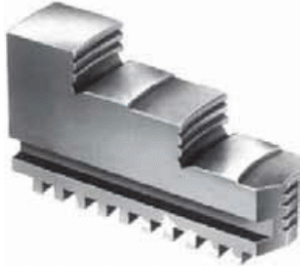
| KOD  | CHARDFRN. |           |           |           |           |           |           | BİRİM mm  |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|      | CHARDFRN. | CHARDFRN. | CHARDFRN. | CHARDFRN. | CHARDFRN. | CHARDFRN. | CHARDFRN. | CHARDFRN. |
| ØA   | 160       | 200       | 250       | 315       | 400       | 500       | 630       |           |
| B    | 65        | 75        | 80        | 90        | 100       | 115       | 133,5     |           |
| B1   | 71        | 80        | 86        | 95        | 108       | 126       | 142       |           |
| C    | 5         | 5         | 5         | 6         | 6         | 6         | 7         |           |
| D H7 | 130       | 165       | 206       | 260       | 340       | 440       | 560       |           |
| E    | 40        | 65        | 80        | 100       | 130       | 210       | 270       |           |
| F    | 56        | 83,5      | 100       | 123,5     | 166,5     | 245       | 315       |           |
| G    | MXM8      | 3XM10     | 3XM12     | 3xM16     | 3xM16     | 6xM16     | 6xM16     |           |
| L    | 44        | 47        | 50        | 63        | 72        | 87        | 84,5      |           |

| STANDART AKSESUARLAR | 1 TAKIM ÜST AYAK | 1 TAKIM ALT AYAK  | 1 ADET ANAHTAR  | FLANŞ BAĞLAMA CIVATATASI   |
|----------------------|------------------|---|---|--|
|                      |                  |  |  |  |



## UNIVERSAL TORNA AYNASI İÇİN TERS AYAK TAKIMI

3 ADET



| KOD        | EBAT |
|------------|------|
| CHAR.AYAKT | 80   |
| CHAR.AYAKT | 100  |
| CHAR.AYAKT | 125  |
| CHAR.AYAKT | 160  |
| CHAR.AYAKT | 200  |
| CHAR.AYAKT | 250  |
| CHAR.AYAKT | 315  |
| CHAR.AYAKT | 400  |
| CHAR.AYAKT | 500  |
| CHAR.AYAKT | 630  |
| CHAR.AYAKT | 800  |

## UNIVERSAL TORNA AYNASI İÇİN DÜZ AYAK TAKIMI

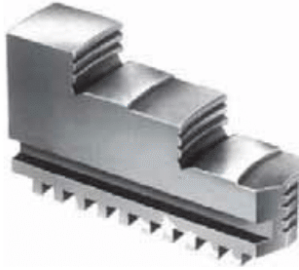
3 ADET



| KOD        | EBAT |
|------------|------|
| CHAR.AYAKD | 80   |
| CHAR.AYAKD | 100  |
| CHAR.AYAKD | 125  |
| CHAR.AYAKD | 160  |
| CHAR.AYAKD | 200  |
| CHAR.AYAKD | 250  |
| CHAR.AYAKD | 315  |
| CHAR.AYAKD | 400  |
| CHAR.AYAKD | 500  |
| CHAR.AYAKD | 630  |
| CHAR.AYAKD | 800  |

## UNIVERSAL TORNA AYNASI İÇİN TERS AYAK TAKIMI

4 ADET



| KOD        | EBAT |
|------------|------|
| CHAR.AYAKT | 80   |
| CHAR.AYAKT | 100  |
| CHAR.AYAKT | 125  |
| CHAR.AYAKT | 160  |
| CHAR.AYAKT | 200  |
| CHAR.AYAKT | 250  |
| CHAR.AYAKT | 315  |
| CHAR.AYAKT | 400  |
| CHAR.AYAKT | 500  |
| CHAR.AYAKT | 630  |
| CHAR.AYAKT | 800  |

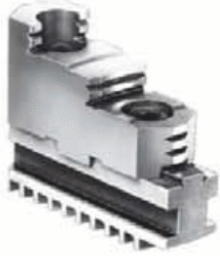
## UNIVERSAL TORNA AYNASI İÇİN DÜZ AYAK TAKIMI

4 ADET



| KOD        | EBAT |
|------------|------|
| CHAR.AYAKD | 80   |
| CHAR.AYAKD | 100  |
| CHAR.AYAKD | 125  |
| CHAR.AYAKD | 160  |
| CHAR.AYAKD | 200  |
| CHAR.AYAKD | 250  |
| CHAR.AYAKD | 315  |
| CHAR.AYAKD | 400  |
| CHAR.AYAKD | 500  |
| CHAR.AYAKD | 630  |
| CHAR.AYAKD | 800  |

## UNIVERSAL TORNA AYNASI İÇİN DÖNDÜRÜLEBİLİR AYAK TAKIMI



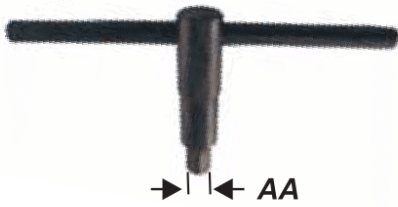
| KOD         | EBAT |
|-------------|------|
| CHAR.AYAKDN | 160  |
| CHAR.AYAKDN | 200  |
| CHAR.AYAKDN | 250  |
| CHAR.AYAKDN | 315  |
| CHAR.AYAKDN | 400  |
| CHAR.AYAKDN | 500  |
| CHAR.AYAKDN | 630  |

## UNIVERSAL TORNA AYNASI İÇİN PİNYON/ADET



| KOD      | EBAT |
|----------|------|
| CHAR.PNY | 80   |
| CHAR.PNY | 100  |
| CHAR.PNY | 125  |
| CHAR.PNY | 160  |
| CHAR.PNY | 200  |
| CHAR.PNY | 250  |
| CHAR.PNY | 315  |
| CHAR.PNY | 400  |
| CHAR.PNY | 500  |
| CHAR.PNY | 630  |
| CHAR.PNY | 800  |

## UNIVERSAL TORNA AYNASI İÇİN ANAHTAR



| KOD      | EBAT | AA |
|----------|------|----|
| CHAR.ANH | 80   | 8  |
| CHAR.ANH | 100  | 8  |
| CHAR.ANH | 125  | 10 |
| CHAR.ANH | 160  | 10 |
| CHAR.ANH | 200  | 12 |
| CHAR.ANH | 250  | 12 |
| CHAR.ANH | 315  | 13 |
| CHAR.ANH | 400  | -  |
| CHAR.ANH | 500  | -  |
| CHAR.ANH | 630  | -  |
| CHAR.ANH | 800  | -  |

## UNIVERSAL TORNA AYNASI İÇİN SİRİRAL



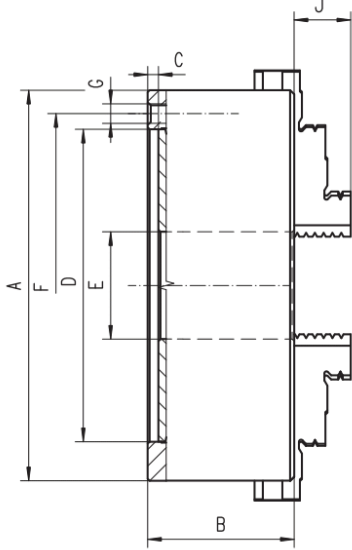
| KOD      | EBAT |
|----------|------|
| CHAR.SPR | 80   |
| CHAR.SPR | 100  |
| CHAR.SPR | 125  |
| CHAR.SPR | 160  |
| CHAR.SPR | 200  |
| CHAR.SPR | 250  |
| CHAR.SPR | 315  |
| CHAR.SPR | 400  |
| CHAR.SPR | 500  |
| CHAR.SPR | 630  |
| CHAR.SPR | 800  |

## 4 AYAKLI UNIVERSAL TORNA AYNASI

TİP K12

## ÖZELLİKLER

- 4 AYAKLI MERKEZİ SIKMALI UNIVERSAL TORNA AYNASI
- DÖKÜM GÖVDE
- UNIVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR.



|      |           |            |            |            |            |            |            |            |            | BİRİM mm   |
|------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| KOD  | CHAR.80/4 | CHAR.100/4 | CHAR.125/4 | CHAR.160/4 | CHAR.200/4 | CHAR.250/4 | CHAR.315/4 | CHAR.400/4 | CHAR.500/4 | CHAR.630/4 |
| ØA   | 80        | 100        | 125        | 160        | 200        | 250        | 315        | 400        | 500        | 630        |
| B    | 50        | 55         | 58         | 65         | 75         | 80         | 90         | 100        | 115        | 133,5      |
| C    | 3,5       | 3,5        | 4          | 5          | 5          | 5          | 6          | 6          | 6          | 7          |
| D H7 | 55        | 72         | 95         | 130        | 165        | 206        | 260        | 340        | 440        | 560        |
| E    | 16        | 22         | 30         | 40         | 65         | 80         | 100        | 130        | 210        | 270        |
| F    | 66        | 84         | 108        | 142        | 180        | 226        | 285        | 368        | 465        | 595        |
| G    | 4XM6      | 3XM8       | 3XM8       | 6XM8       | 3XM10      | 3XM12      | 3XM16      | 3XM16      | 6XM16      | 6XM16      |
| J    | 16        | 19,5       | 26         | 30         | 34         | 40         | 57         | 72         | 87         | 84,5       |

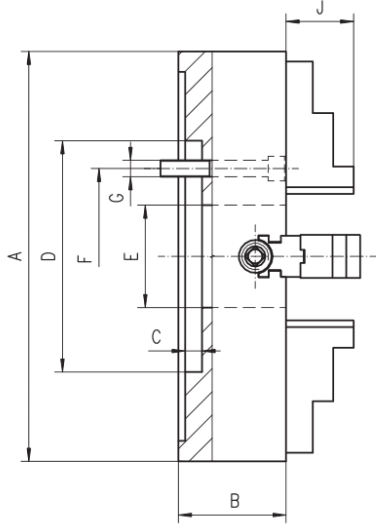
| STANDART AKSESUARLAR | 1 TAKIM DÜZ AYAK  | 1 TAKIM TERS AYAK   | 1 ADET ANAHTAR   | FLANŞ BAĞLAMA CIVATASI  |
|----------------------|---|---|--|---|
|                      |  |  |  |  |

## KEPENKLİ AYNA




TİP K72

## ÖZELLİKLER

- 4 AYAKLI HER BİR AYAK BAĞIMSIZ OLARAK AYARLANABİLİR
- KARE, ÇOKGEN, DAİRESEL OLAN VEYA OLMAYAN PARÇALARIN İŞLENMESİNDE KULLANILIR.
- UNIVERSAL TORNA TEZGAHLARINDA FENER MİLİNE FLANS İLE BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILABİLİR

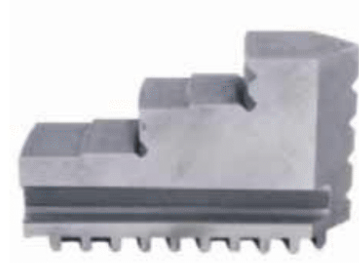
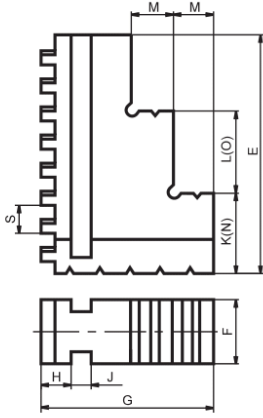


|      |           |           |           |           |           |           |           |           | BİRİM mm   |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| KOD  | CHARK.160 | CHARK.200 | CHARK.250 | CHARK.320 | CHARK.400 | CHARK.500 | CHARK.630 | CHARK.800 | CHARK.1000 |
| ØA   | 160       | 200       | 250       | 320       | 400       | 500       | 630       | 800       | 1000       |
| B    | 65        | 80        | 90        | 90        | 95        | 106       | 118       | 132       | 150        |
| C    | 5         | 6         | 6         | 6         | 8         | 8         | 10        | 12        | 15         |
| D H7 | 75        | 80        | 110       | 140       | 160       | 200       | 220       | 250       | 320        |
| E    | 45        | 56        | 75        | 95        | 125       | 160       | 180       | 210       | 260        |
| F    | 95        | 112       | 130       | 165       | 185       | 236       | 258       | 300       | 370        |
| G    | 4XM10     | 4XM10     | 4XM12     | 4XM16     | 4XM16     | 4XM20     | 4XM20     | 8XM20     | 8XM120     |
| J    | 24        | 27        | 30        | 44        | 48        | 55        | 62        | 70        | 80         |

|                      |   |  |   |
|----------------------|---|--|---|
| STANDART AKSESUARLAR | 1 TAKIM<br>DÜZ AYAK   | 1 ADET<br>ANAHTAR  | FLANŞ<br>BAĞLAMA<br>CIVATASI  |
|                      |  |  |  |

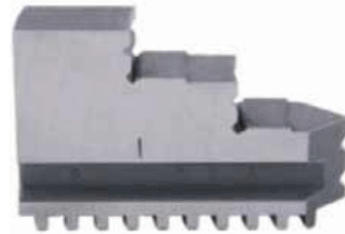
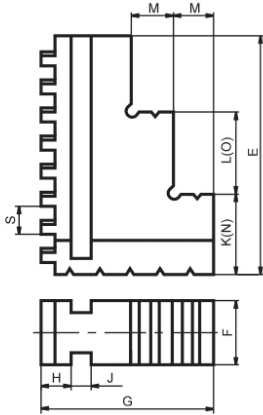


## UNİVERSAL TORNA AYNASI DÜZ AYAK TAKIMI (3 AYAKLI SET )



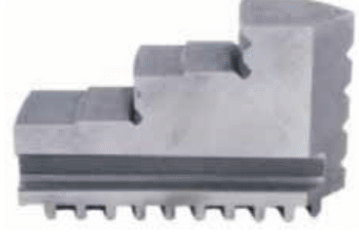
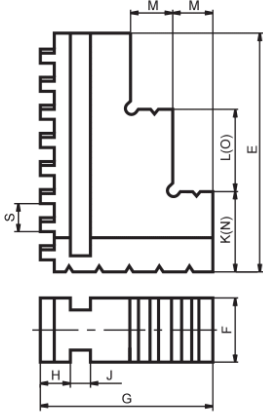
| KOD      | Ø   | E     | F  | G  | H    | J  | K    | L    | M  | N    | O    | S  |
|----------|-----|-------|----|----|------|----|------|------|----|------|------|----|
| TOS.SCV. | 80  | 35,5  | 10 | 27 | 5,9  | 5  | 10,5 | 12,5 | 6  | 11,0 | 12,5 | 6  |
| TOS.SCV. | 100 | 41,5  | 14 | 34 | 5,9  | 7  | 10,5 | 7,0  | 8  | 11,0 | 17,0 | 6  |
| TOS.SCV. | 125 | 51,5  | 16 | 36 | 5,9  | 7  | 13,0 | 20,5 | 8  | 13,5 | 20,5 | 6  |
| TOS.SCV. | 160 | 66,0  | 18 | 42 | 7,4  | 7  | 21,5 | 20,5 | 10 | 22,0 | 20,5 | 6  |
| TOS.SCV. | 200 | 74,0  | 22 | 54 | 9,9  | 8  | 20,0 | 36,0 | 12 | 16,0 | 36,0 | 8  |
| TOS.SCV. | 250 | 97,5  | 25 | 58 | 9,9  | 8  | 22,5 | 49,0 | 14 | 25,0 | 49,0 | 8  |
| TOS.SCV. | 315 | 123,0 | 32 | 71 | 11,9 | 12 | 27,5 | 62,0 | 16 | 30,5 | 62,0 | 10 |
| TOS.SCV. | 400 | 152,5 | 32 | 86 | 14,9 | 12 | 41,5 | 66,0 | 20 | 43,0 | 66,0 | 12 |
| TOS.SCV. | 500 | 188,5 | 42 | 95 | 17,3 | 15 | 55,5 | 70,0 | 20 | 63,0 | 70,0 | 12 |

## UNİVERSAL TORNA AYNASI TERS AYAK TAKIMI (3 AYAKLI SET )



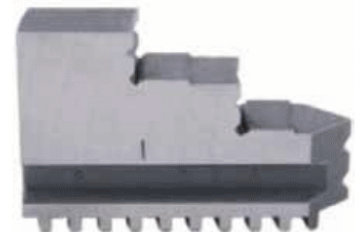
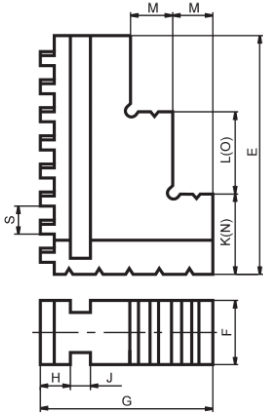
| KOD      | Ø   | E     | F  | G  | H    | J  | K    | L    | M  | N    | S  | O    |
|----------|-----|-------|----|----|------|----|------|------|----|------|----|------|
| TOS.SCN. | 80  | 35,5  | 10 | 27 | 5,9  | 5  | 10,5 | 12,5 | 6  | 11,0 | 6  | 12,5 |
| TOS.SCN. | 100 | 41,5  | 14 | 34 | 5,9  | 7  | 10,5 | 7,0  | 8  | 11,0 | 6  | 17,0 |
| TOS.SCN. | 125 | 51,5  | 16 | 36 | 5,9  | 7  | 13,0 | 20,5 | 8  | 13,5 | 6  | 20,5 |
| TOS.SCN. | 160 | 66,0  | 18 | 42 | 7,4  | 7  | 21,5 | 20,5 | 10 | 22,0 | 6  | 20,5 |
| TOS.SCN. | 200 | 74,0  | 22 | 54 | 9,9  | 8  | 20,0 | 36,0 | 12 | 16,0 | 8  | 36,0 |
| TOS.SCN. | 250 | 97,5  | 25 | 58 | 9,9  | 8  | 22,5 | 49,0 | 14 | 25,0 | 8  | 49,0 |
| TOS.SCN. | 315 | 123,0 | 32 | 71 | 11,9 | 12 | 27,5 | 62,0 | 16 | 30,5 | 10 | 62,0 |
| TOS.SCN. | 400 | 152,5 | 32 | 86 | 14,9 | 12 | 41,5 | 66,0 | 20 | 43,0 | 12 | 66,0 |
| TOS.SCN. | 500 | 188,5 | 42 | 95 | 17,3 | 15 | 55,5 | 70,0 | 20 | 63,0 | 12 | 70,0 |

## UNİVERSAL TORNA AYNASI DÜZ AYAK TAKIMI (4 AYAKLI SET)



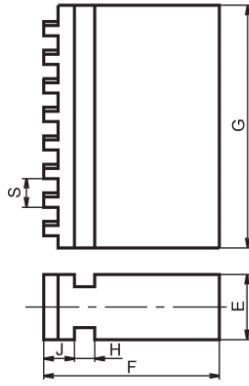
| KOD      | Ø   | E     | F  | G  | H    | J  | K    | L    | M  | N    | O    | S  |
|----------|-----|-------|----|----|------|----|------|------|----|------|------|----|
| TOS.SCV. | 80  | 35,5  | 10 | 27 | 5,9  | 5  | 10,5 | 12,5 | 6  | 11,0 | 12,5 | 6  |
| TOS.SCV. | 100 | 41,5  | 14 | 34 | 5,9  | 7  | 10,5 | 7,0  | 8  | 11,0 | 17,0 | 6  |
| TOS.SCV. | 125 | 51,5  | 16 | 36 | 5,9  | 7  | 13,0 | 20,5 | 8  | 13,5 | 20,5 | 6  |
| TOS.SCV. | 160 | 66,0  | 18 | 42 | 7,4  | 7  | 21,5 | 20,5 | 10 | 22,0 | 20,5 | 6  |
| TOS.SCV. | 200 | 74,0  | 22 | 54 | 9,9  | 8  | 20,0 | 36,0 | 12 | 16,0 | 36,0 | 8  |
| TOS.SCV. | 250 | 97,5  | 25 | 58 | 9,9  | 8  | 22,5 | 49,0 | 14 | 25,0 | 49,0 | 8  |
| TOS.SCV. | 315 | 123,0 | 32 | 71 | 11,9 | 12 | 27,5 | 62,0 | 16 | 30,5 | 62,0 | 10 |
| TOS.SCV. | 400 | 152,5 | 32 | 86 | 14,9 | 12 | 41,5 | 66,0 | 20 | 43,0 | 66,0 | 12 |
| TOS.SCV. | 500 | 188,5 | 42 | 95 | 17,3 | 15 | 55,5 | 70,0 | 20 | 63,0 | 70,0 | 12 |

## UNİVERSAL TORNA AYNASI TERS AYAK TAKIMI (4 AYAKLI SET)



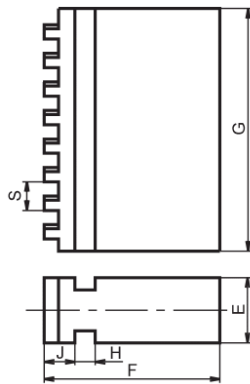
| KOD      | Ø   | E     | F  | G  | H    | J  | K    | L    | M  | N    | S  | O    |
|----------|-----|-------|----|----|------|----|------|------|----|------|----|------|
| TOS.SCN. | 80  | 35,5  | 10 | 27 | 5,9  | 5  | 10,5 | 12,5 | 6  | 11,0 | 6  | 12,5 |
| TOS.SCN. | 100 | 41,5  | 14 | 34 | 5,9  | 7  | 10,5 | 7,0  | 8  | 11,0 | 6  | 17,0 |
| TOS.SCN. | 125 | 51,5  | 16 | 36 | 5,9  | 7  | 13,0 | 20,5 | 8  | 13,5 | 6  | 20,5 |
| TOS.SCN. | 160 | 66,0  | 18 | 42 | 7,4  | 7  | 21,5 | 20,5 | 10 | 22,0 | 6  | 20,5 |
| TOS.SCN. | 200 | 74,0  | 22 | 54 | 9,9  | 8  | 20,0 | 36,0 | 12 | 16,0 | 8  | 36,0 |
| TOS.SCN. | 250 | 97,5  | 25 | 58 | 9,9  | 8  | 22,5 | 49,0 | 14 | 25,0 | 8  | 49,0 |
| TOS.SCN. | 315 | 123,0 | 32 | 71 | 11,9 | 12 | 27,5 | 62,0 | 16 | 30,5 | 10 | 62,0 |
| TOS.SCN. | 400 | 152,5 | 32 | 86 | 14,9 | 12 | 41,5 | 66,0 | 20 | 43,0 | 12 | 66,0 |
| TOS.SCN. | 500 | 188,5 | 42 | 95 | 17,3 | 15 | 55,5 | 70,0 | 20 | 63,0 | 12 | 70,0 |

## UNİVERSAL TORNA AYNASI YUMUŞAK AYAK TAKIMI ( 3 AYAKLI SET )



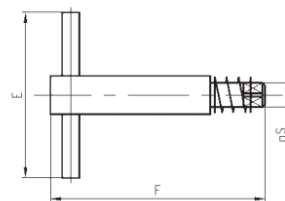
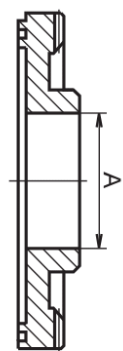
| KOD     | Ø   | E  | F    | G     | H  | J    | S  |
|---------|-----|----|------|-------|----|------|----|
| TOS.MC. | 80  | 10 | 27,9 | 37,2  | 5  | 5,9  | 6  |
| TOS.MC. | 100 | 14 | 34,9 | 43,2  | 7  | 5,9  | 6  |
| TOS.MC. | 125 | 16 | 36,9 | 53,2  | 7  | 5,9  | 6  |
| TOS.MC. | 160 | 18 | 43,1 | 67,9  | 7  | 7,4  | 6  |
| TOS.MC. | 200 | 22 | 55,1 | 75,9  | 8  | 9,9  | 8  |
| TOS.MC. | 250 | 25 | 59,1 | 99,4  | 8  | 9,9  | 8  |
| TOS.MC. | 315 | 32 | 72,4 | 124,0 | 12 | 11,9 | 10 |
| TOS.MC. | 400 | 32 | 87,4 | 153,5 | 12 | 14,9 | 12 |
| TOS.MC. | 500 | 42 | 95,0 | 190,0 | 15 | 17,3 | 12 |

## UNİVERSAL TORNA AYNASI YUMUŞAK AYAK TAKIMI ( 4 AYAKLI SET )



| KOD     | Ø   | E  | F    | G     | H  | J    | S  |
|---------|-----|----|------|-------|----|------|----|
| TOS.MC. | 80  | 10 | 27,9 | 37,2  | 5  | 5,9  | 6  |
| TOS.MC. | 100 | 14 | 34,9 | 43,2  | 7  | 5,9  | 6  |
| TOS.MC. | 125 | 16 | 36,9 | 53,2  | 7  | 5,9  | 6  |
| TOS.MC. | 160 | 18 | 43,1 | 67,9  | 7  | 7,4  | 6  |
| TOS.MC. | 200 | 22 | 55,1 | 75,9  | 8  | 9,9  | 8  |
| TOS.MC. | 250 | 25 | 59,1 | 99,4  | 8  | 9,9  | 8  |
| TOS.MC. | 315 | 32 | 72,4 | 124,0 | 12 | 11,9 | 10 |
| TOS.MC. | 400 | 32 | 87,4 | 153,5 | 12 | 14,9 | 12 |
| TOS.MC. | 500 | 42 | 95,0 | 190,0 | 15 | 17,3 | 12 |

UNİVERSAL TORNA AYNA SPÝRALÝ

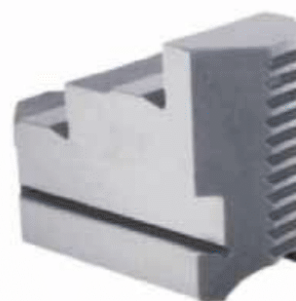
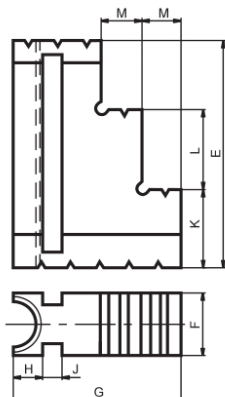


UNİVERSAL TORNA AYNA ANAHTARI

| KOD      | Ø   | A   |
|----------|-----|-----|
| TOS.SPR. | 80  | 30  |
| TOS.SPR. | 100 | 40  |
| TOS.SPR. | 125 | 50  |
| TOS.SPR. | 160 | 84  |
| TOS.SPR. | 200 | 100 |
| TOS.SPR. | 250 | 132 |
| TOS.SPR. | 315 | 168 |
| TOS.SPR. | 400 | 225 |
| TOS.SPR. | 500 | 270 |

| KOD      | Ø   | E   | F   | S  |
|----------|-----|-----|-----|----|
| TOS.ANH. | 80  | 140 | 90  | 6  |
| TOS.ANH. | 100 | 175 | 95  | 6  |
| TOS.ANH. | 125 | 175 | 95  | 8  |
| TOS.ANH. | 160 | 200 | 115 | 9  |
| TOS.ANH. | 200 | 285 | 150 | 11 |
| TOS.ANH. | 250 | 315 | 165 | 12 |
| TOS.ANH. | 315 | 350 | 180 | 14 |
| TOS.ANH. | 400 | 450 | 250 | 17 |
| TOS.ANH. | 500 | 450 | 250 | 17 |

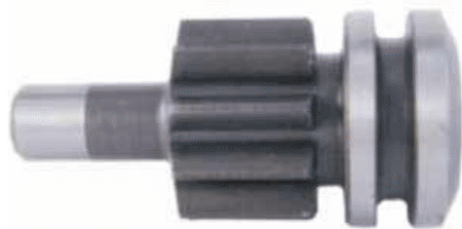
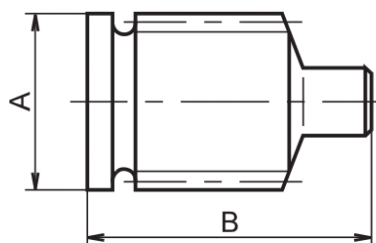
KEPENKLÝ AYNA AYADI ( 1 ADET )



| KOD     | Ø   | E   | F  | G  | H    | J    | K  | L  | M  |
|---------|-----|-----|----|----|------|------|----|----|----|
| TOS.LC. | 85  | 34  | 14 | 34 | 5,9  | 7    | 9  | 9  | 8  |
| TOS.LC. | 100 | 41  | 14 | 34 | 5,9  | 7    | 10 | 12 | 8  |
| TOS.LC. | 125 | 51  | 16 | 36 | 5,9  | 7    | 10 | 12 | 8  |
| TOS.LC. | 160 | 47  | 24 | 39 | 8,0  | 10,3 | 12 | 12 | 8  |
| TOS.LC. | 200 | 75  | 32 | 54 | 11,0 | 12,3 | 28 | 28 | 12 |
| TOS.LC. | 250 | 75  | 32 | 54 | 11,0 | 12,3 | 28 | 28 | 12 |
| TOS.LC. | 315 | 100 | 36 | 63 | 12,0 | 15,3 | 35 | 35 | 14 |
| TOS.LC. | 350 | 100 | 36 | 63 | 12,0 | 15,3 | 35 | 35 | 14 |
| TOS.LC. | 400 | 100 | 36 | 63 | 12,0 | 15,3 | 35 | 35 | 14 |

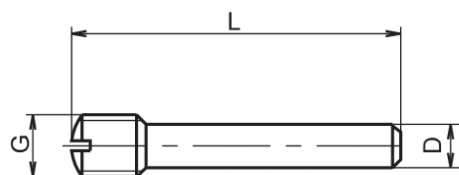


## UNİVERSAL TORNA AYNASI PİNYONU / ADET



| KOD      | Ø   | A  | B    |
|----------|-----|----|------|
| TOS.PNY. | 80  | 20 | 28,5 |
| TOS.PNY. | 100 | 22 | 34   |
| TOS.PNY. | 125 | 22 | 43   |
| TOS.PNY. | 160 | 25 | 43   |
| TOS.PNY. | 200 | 27 | 59   |
| TOS.PNY. | 250 | 33 | 66,5 |
| TOS.PNY. | 315 | 40 | 84   |
| TOS.PNY. | 400 | 44 | 102  |
| TOS.PNY. | 500 | 44 | 129  |

## UNİVERSAL TORNA AYNASI PİNYON PİMİ / ADET



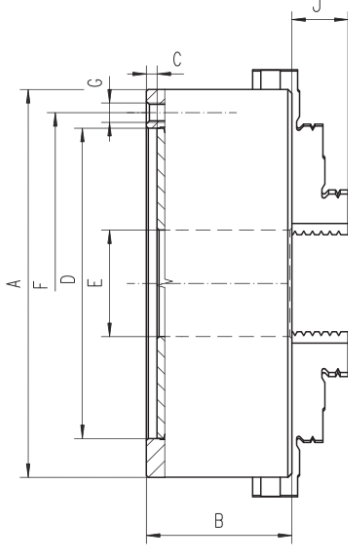
| KOD      | Ø   | G   | D   | L  |
|----------|-----|-----|-----|----|
| TOS.PİM. | 80  | M5  | 4,0 | 34 |
| TOS.PİM. | 100 | M5  | 4,0 | 34 |
| TOS.PİM. | 125 | M6  | 4,7 | 40 |
| TOS.PİM. | 160 | M6  | 4,7 | 40 |
| TOS.PİM. | 200 | M6  | 4,7 | 40 |
| TOS.PİM. | 250 | M6  | 4,7 | 45 |
| TOS.PİM. | 315 | M8  | 6,3 | 60 |
| TOS.PİM. | 400 | M10 | 8,1 | 66 |
| TOS.PİM. | 500 | M10 | 8,1 | 66 |

## 3 AYAKLI UNIVERSAL TORNA AYNASI

TİP K11

## ÖZELLİKLER

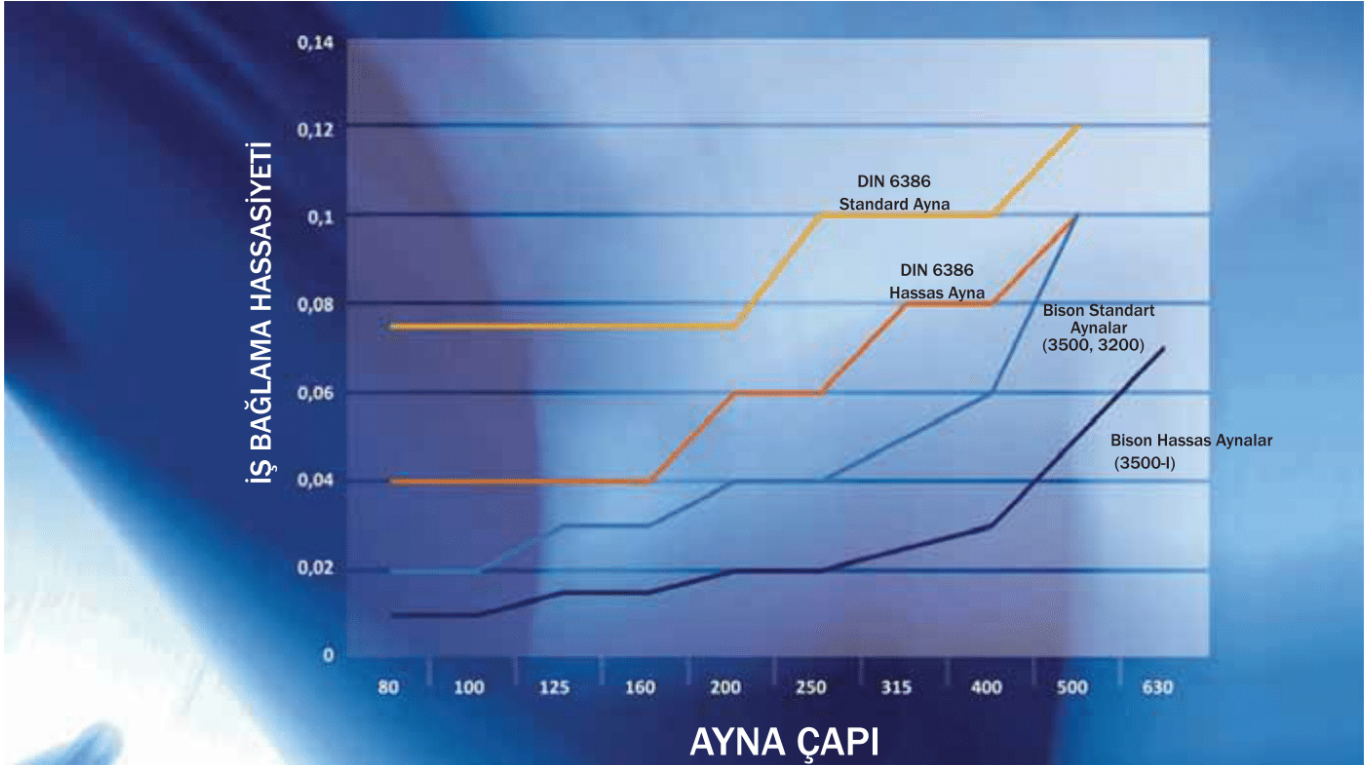
- 3 AYAKLI MERKEZİ SIKMALI UNIVERSAL TORNA AYNASI
- DÖKÜM GÖVDE
- UNIVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR.



|      |           |            |            |            |            |            |            |            |            | BİRİM mm   |
|------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| KOD  | CHAR.80/3 | CHAR.100/3 | CHAR.125/3 | CHAR.160/3 | CHAR.200/3 | CHAR.250/3 | CHAR.315/3 | CHAR.400/3 | CHAR.500/3 | CHAR.630/3 |
| ØA   | 80        | 100        | 125        | 160        | 200        | 250        | 315        | 400        | 500        | 630        |
| B    | 50        | 55         | 58         | 65         | 75         | 80         | 90         | 100        | 115        | 133,5      |
| C    | 3,5       | 3,5        | 4          | 5          | 5          | 5          | 6          | 6          | 6          | 7          |
| D H7 | 55        | 72         | 95         | 130        | 165        | 206        | 260        | 340        | 440        | 560        |
| E    | 16        | 22         | 30         | 40         | 65         | 80         | 100        | 130        | 210        | 270        |
| F    | 66        | 84         | 108        | 142        | 180        | 226        | 285        | 368        | 465        | 595        |
| G    | 3XM6      | 3XM8       | 3XM8       | 6XM8       | 3XM10      | 3XM12      | 3XM16      | 3XM16      | 6XM16      | 6XM16      |
| J    | 16        | 19,5       | 26         | 30         | 34         | 40         | 57         | 72         | 87         | 84,5       |
| KG   | 1,9       | 3,2        | 5          | 8,8        | 15,5       | 25,7       | 47         | 71         | 119        | 215        |

| STANDART AKSESUARLAR | 1 TAKIM DÜZ AYAK  | 1 TAKIM TERS AYAK   | 1 ADET ANAHTAR   | FLANŞ BAĞLAMA CIVATATASI  |
|----------------------|---|---|--|---|
|                      |  |  |  |  |

## BISON TORNA AYNALARININ İP BAĞLAMA HASSASİYETİNİN DIN STANDARTLARI İLE KARŞILAŞTIRMA TABLOSU



### GÖVDE

- Tip 3200 ve 3600 serisi: Yüksek kaliteli dökümden imal edilmiştir.
- Tüm aynaların gövdelerinin üzerinde yağlamak için gresörlü bulunmaktadır.

### AYAKLAR

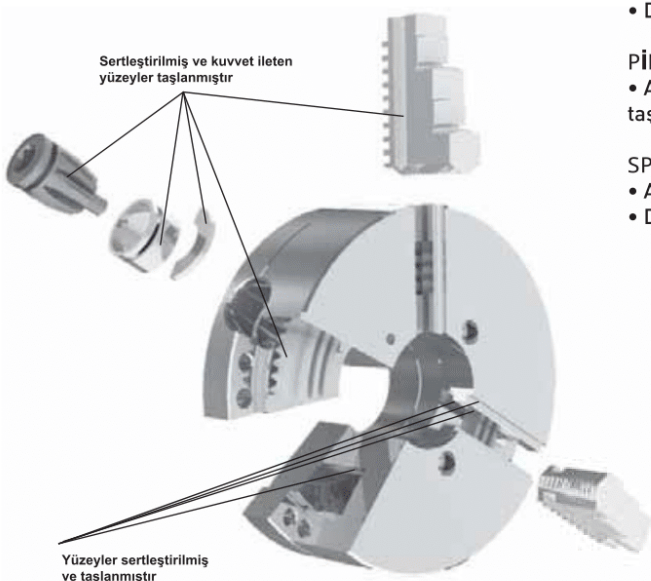
- Alaşımli çelikten imal edilmiştir.
- Dişler ve diğer çalışan yüzeyler karbonlanmış, sertleştirilmiş ve taşlanmıştır.

### PİNYONLAR

- Alaşımli çelikten imal edilmiş olup karbonlanmış, sertleştirilmiş ve taşlanmıştır.

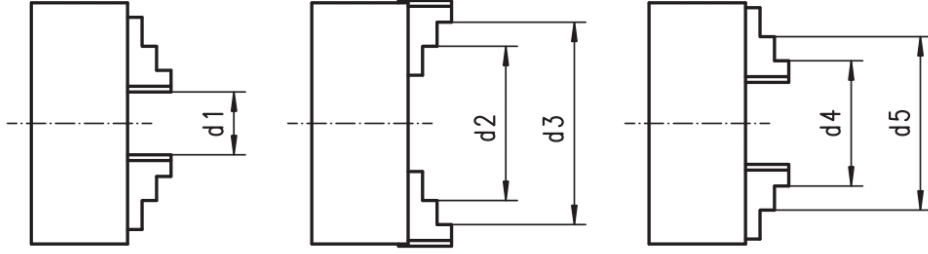
### SİRAL

- Alaşımli çelikten imal edilmiş olup karbonlanmış ve sertleştirilmiştir
- Dişlerin her iki yanında taşlanmıştır.





## 3 AYAKLI VE 4 AYAKLI UNIVERSAL AYNALAR İÇİN TEKNİK BİLGİLER



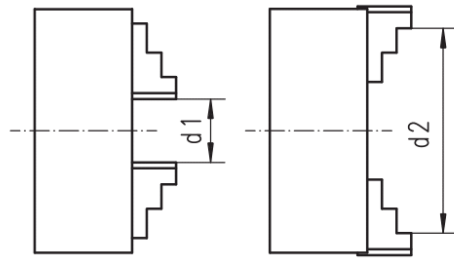
BİRİM mm

## 3 AYAKLI VE 4 AYAKLI UNIVERSAL AYNALARIN İP BAĞLAMA KAPASİTELERİ VE MAKSİMUM DEVİRLERİ

| AYNA ÇAPI                     |    | 80    | 100   | 125    | 160     | 200     |
|-------------------------------|----|-------|-------|--------|---------|---------|
| SERT AYAK                     | d1 | 2-27  | 3-33  | 3-50   | 3-64    | 4-90    |
|                               | d2 | 25-50 | 32-62 | 39-83  | 50-107  | 60-145  |
|                               | d3 | 48-71 | 62-93 | 80-125 | 98-160  | 130-200 |
|                               | d4 | 22-46 | 25-56 | 34-74  | 42-100  | 52-135  |
|                               | d5 | 45-69 | 56-87 | 72-115 | 94-154  | 120-202 |
| DÖNDÜRÜLEBİLİR AYAK (2 PARÇA) | d1 | -     | -     | 3-50   | 3-64    | 4-90    |
|                               | d2 | -     | -     | 52-96  | 62-121  | 72-156  |
|                               | d3 | -     | -     | 95-125 | 115-160 | 133-200 |
|                               | d4 | -     | -     | 34-76  | 42-97   | 50-130  |
|                               | d5 | -     | -     | 75-118 | 88-146  | 105-190 |
| MAKSİMUM ÇEVİRME ÇAPI         |    | 90    | 117   | 151    | 204     | 246     |
| 3200 Max. d/d                 |    | 5000  | 4500  | 4000   | 3600    | 3000    |

| AYNA ÇAPI                     |    | 250     | 315     | 400     | 500     | 630     | 800     | 915        | 1000       |
|-------------------------------|----|---------|---------|---------|---------|---------|---------|------------|------------|
| SERT AYAK TEK PARÇA           | d1 | 5-118   | 10-131  | 10-180  | 20-235  | 30-335  | 150-482 | -          | -          |
|                               | d2 | 77-188  | 90-215  | 103-272 | 140-357 | 180-487 | 302-634 | -          | -          |
|                               | d3 | 160-250 | 190-315 | 230-400 | 276-500 | 345-630 | 468-800 | -          | -          |
|                               | d4 | 62-174  | 78-200  | 85-252  | 120-335 | 160-465 | 282-614 | -          | -          |
|                               | d5 | 145-256 | 172-299 | 210-380 | 245-476 | 325-630 | 448-780 | -          | -          |
| DÖNDÜRÜLEBİLİR AYAK (2 PARÇA) | d1 | 5-118   | 10-131  | 10-180  | 20-235  | 30-335  | 150-482 | 200 - 550  | 250 - 600  |
|                               | d2 | 86-197  | 103-226 | 127-294 | 110-400 | 120-570 | 240-724 | 300 - 950  | 350 - 1080 |
|                               | d3 | 160-250 | 190-315 | 230-400 | 190-500 | 200-630 | 316-800 | 380 - 1025 | 430 - 1150 |
|                               | d4 | 58-165  | 65-182  | 72-228  | 120-410 | 140-590 | 252-736 | 350 - 1000 | 425 - 1070 |
|                               | d5 | 125-235 | 145-265 | 165-329 | 200-485 | 210-665 | 328-812 | 450 - 1025 | 500 - 1150 |
| MAKSİMUM ÇEVİRME ÇAPI         |    | 306     | 384     | 472     | 600     | 770     | 940     | -          | -          |
| 3200 Max. d/d                 |    | 2500    | 2000    | 1600    | 1000    | 800     | 600     | 400        | 400        |

## KEPENKLİ AYNALAR İÇİN TEKNİK BİLGİLER



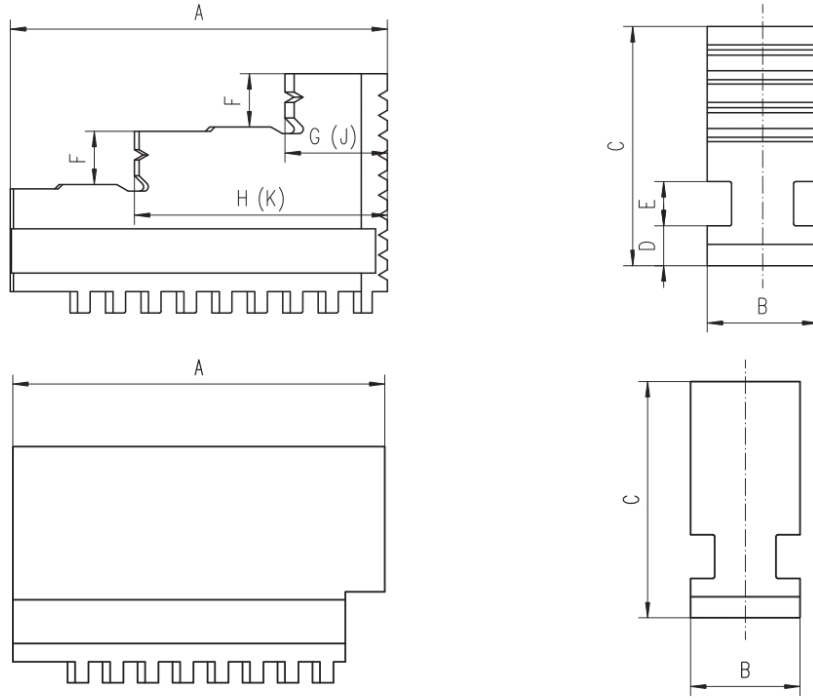
BİRİM mm

## KEPENKLİ AYNALAR İÇİN İP BAĞLAMA KAPASİTELERİ

| AYNA ÇAPI                          | 85   | 100  | 125  | 160  | 200  | 250  | 315  | 350  |
|------------------------------------|------|------|------|------|------|------|------|------|
| d1 min.                            | 3    | 3    | 8    | 8    | 10   | 10   | 15   | 15   |
| d2 max.                            | 85   | 100  | 125  | 160  | 200  | 250  | 315  | 350  |
| maximum çevirme çapı               | 101  | 116  | 150  | 185  | 235  | 296  | 369  | 404  |
| AYNA ÇAPI                          | 400  | 500  | 630  | 800  | 915  | 1000 | 1250 |      |
| d1 min.                            | 20   | 45   | 50   | 50   | 120  | 170  | 170  |      |
| d2 max.                            | 400  | 500  | 630  | 800  | 915  | 1000 | 1250 |      |
| maximum çevirme çapı               | 465  | 570  | 720  | 888  | 1003 | 1088 | 1338 |      |
| AYNA ÇAPI                          | 85   | 100  | 125  | 160  | 200  | 250  | 315  | 350  |
| Dökme demir gövde veya çelik gövde | 4000 | 3800 | 3500 | 3200 | 2500 | 2000 | 1500 | 1500 |
| Dökme demir gövde                  | -    | -    | -    | -    | 1800 | 1500 | 1200 | 1200 |
| AYNA ÇAPI                          | 400  | 500  | 630  | 800  | 915  | 1000 | 1250 |      |
| Dökme demir gövde veya çelik gövde | 1100 | 700  | 550  | 450  | 200  | 200  | 150  |      |
| Dökme demir gövde                  | 800  | 500  | 400  | 300  | 150  | 150  | 100  |      |



## UNIVERSAL TORNA AYNASI İÇİN TERS-DÜZ AYAK ÖLÇÜLERİ

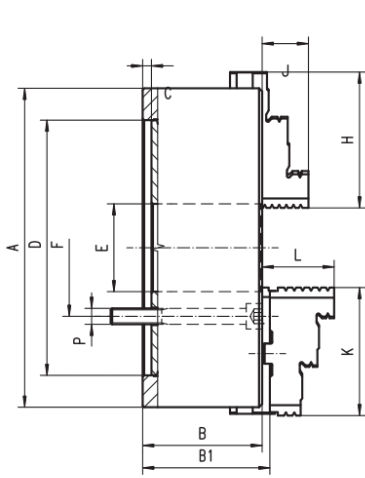


|           |              |      |      |      | BİRİM mm |      |
|-----------|--------------|------|------|------|----------|------|
| AYNA ÇAPI | 80           | 100  | 125  | 160  | 200      |      |
| A         | 32           | 42   | 51   | 70   | 85       |      |
| B         | 11           | 15   | 20   | 20   | 25       |      |
| C         | 28           | 32   | 40   | 53   | 54       |      |
| D         | 6            | 6    | 8    | 8    | 9        |      |
| E         | 6            | 6    | 8    | 8    | 10       |      |
| F         | 6            | 7    | 8    | 10   | 12       |      |
| G         | 9,5          | 11   | 13   | 19   | 23       |      |
| H         | 21           | 27   | 33,5 | 45   | 57       |      |
| J         | 9,5          | 12   | 13   | 22   | 23       |      |
| K         | 21           | 27,5 | 33,5 | 47,5 | 57       |      |
| kg        | SERT AYAK    | 0,03 | 0,09 | 0,18 | 0,36     | 0,50 |
|           | YUMUŞAK AYAK | 0,07 | 0,13 | 0,26 | 0,50     | 0,80 |

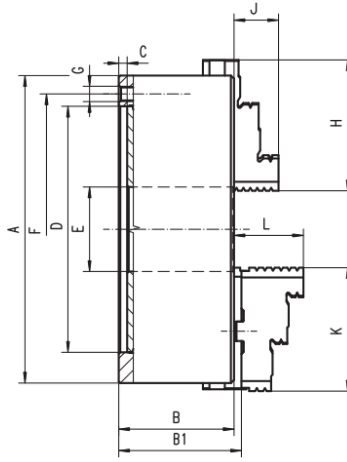
|           |              |      |      |       |      | BİRİM mm |      |
|-----------|--------------|------|------|-------|------|----------|------|
| AYNA ÇAPI | 250          | 315  | 400  | 500   | 630  | 800      |      |
| A         | 105          | 125  | 145  | 180   | 225  | 225      |      |
| B         | 28           | 32   | 36   | 40    | 50   | 50       |      |
| C         | 63           | 73   | 92   | 100   | 110  | 110      |      |
| D         | 11           | 12,7 | 15   | 16    | 16   | 16       |      |
| E         | 12           | 12   | 14   | 14    | 14   | 14       |      |
| F         | 14           | 18   | 22   | 26    | 28   | 28       |      |
| G         | 28           | 34,5 | 36   | 50    | 66   | 66       |      |
| H         | 69,5         | 83   | 99   | 119,5 | 149  | 149      |      |
| J         | 28           | 34,5 | 36   | 50    | 66   | 66       |      |
| K         | 69,5         | 83   | 99   | 119,5 | 149  | 149      |      |
| kg        | SERT AYAK    | 0,80 | 1,32 | 2,35  | 3,36 | 5,80     | 5,80 |
|           | YUMUŞAK AYAK | 1,36 | 1,90 | 2,46  | 5,00 | 8,36     | 8,36 |

### ÖZELLİKLER

- 3 AYAKLI MERKEZİ SIKMALI UNİVERSAL TORNA AYNASI
- YÜKSEK KALİTELİ DÖKÜM GÖVDE
- UNİVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR.



Ø80-630 mm AYNALAR



Ø800-915-1000 mm AYNALAR  
\*ÖNDEN CİVATA BAĞLANTILIDIR.



| KOD  | BİRİM mm                  |      |      |       |       |       |       |       |       |       |       |       |       |
|------|---------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      | * ÖNDEN CİVATA BAĞLANTILI |      |      |       |       |       |       |       |       |       |       |       |       |
| Ø    | 80                        | 100  | 125  | 160   | 200   | 250   | 315   | 400   | 500   | 630   | 800   | 915   | 1000  |
| B    | 44                        | 50   | 56   | 64,5  | 75    | 85    | 94    | 105   | 120   | 135   | 159   | 171   | 171   |
| B1   | -                         | -    | 60,8 | 69,3  | 79,8  | 88,8  | 99,1  | 113,8 | 130,8 | 146,3 | 170,3 | 180   | 180   |
| C    | 3                         | 3    | 4    | 4     | 4     | 5     | 5     | 5     | 5     | 7     | 20    | 20    | 20    |
| D H7 | 56                        | 70   | 95   | 125   | 160   | 200   | 260   | 330   | 420   | 545   | 450   | 520   | 520   |
| E    | 16                        | 20   | 32   | 42    | 55    | 76    | 103   | 136   | 190   | 252   | 320   | 408   | 408   |
| F    | 67                        | 83   | 108  | 140   | 176   | 224   | 286   | 362   | 458   | 586   | 368,3 | 463,6 | 463,6 |
| G    | 3xM6                      | 3xM8 | 3xM8 | 6xM10 | 6xM10 | 6xM12 | 6xM16 | 6xM16 | 6xM16 | 6xM16 | -     | -     | -     |
| H    | 32                        | 42   | 51   | 70    | 85    | 105   | 125   | 145   | 180   | 225   | 225   | -     | -     |
| J    | 13                        | -    | 56   | 67    | 29    | 95    | 43    | 55    | 60    | 70    | 70    | -     | -     |
| K    | -                         | 17   | 20   | 32    | 80    | 34    | 110   | 127   | 127   | 127   | 127   | 175   | 175   |
| L    | -                         | -    | 40   | 43    | 45    | 53    | 57    | 67    | 70    | 87    | 87    | 100   | 100   |
| KG   | 1,5                       | 2,8  | 5    | 10    | 17,5  | 29    | 50    | 85    | 145   | 250   | 402   | 560   | 720   |

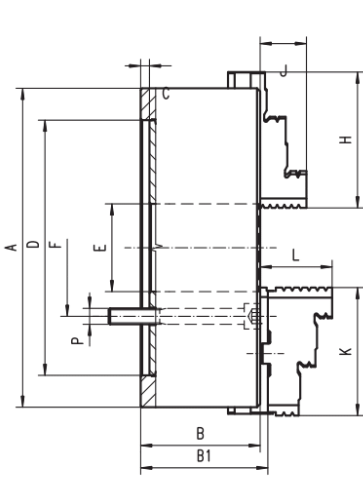
| STANDART AKSESUARLAR | 1 TAKIM DÜZ AYAK | 1 TAKIM TERS AYAK | 1 ADET ANAHTAR | FLANŞ BAĞLAMA CİVATASI | İSTEĞE BAĞLI AKSESUARLAR | 1 TAKIM YUMUŞAK AYAK | AYNA BAĞLAMA FLANŞI |
|----------------------|------------------|-------------------|----------------|------------------------|--------------------------|----------------------|---------------------|
|                      |                  |                   |                |                        |                          |                      |                     |

## 3 AYAKLI DÖKÜM GÖVDELİ ( DIN 6350 )

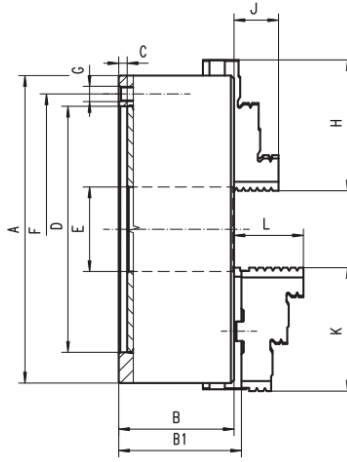
TİP 3204

## ÖZELLİKLER




- 3 AYAKLI MERKEZİ SIKMALI UNİVERSAL TORNA AYNASI
- YÜKSEK KALİTELİ DÖKÜM GÖVDE
- UNİVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR.



Ø80-630 mm AYNALAR

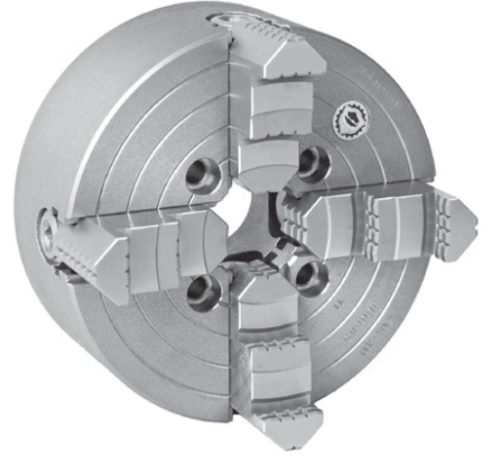
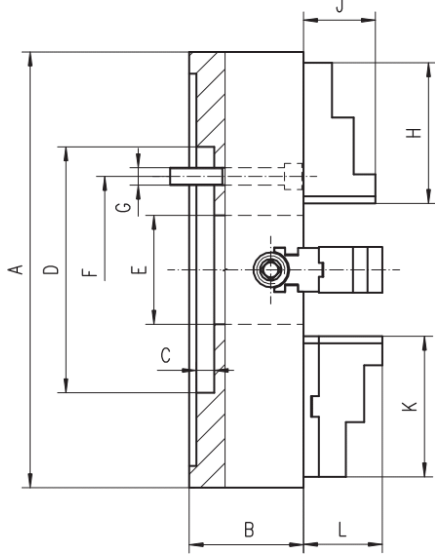
Ø800-915-1000 mm AYNALAR  
\*ÖNDEN CİVATA BAĞLANTILIDIR.

| KOD  | BİRİM mm                  |      |      |       |       |       |       |       |       |       |       |       |       |
|------|---------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      | * ÖNDEN CİVATA BAĞLANTILI |      |      |       |       |       |       |       |       |       |       |       |       |
| Ø    | 80                        | 100  | 125  | 160   | 200   | 250   | 315   | 400   | 500   | 630   | 800   | 915   | 1000  |
| B    | 44                        | 50   | 56   | 64,5  | 75    | 85    | 94    | 105   | 120   | 135   | 159   | 171   | 171   |
| B1   | -                         | -    | 60,8 | 69,3  | 79,8  | 88,8  | 99,1  | 113,8 | 130,8 | 146,3 | 170,3 | 180   | 180   |
| C    | 3                         | 3    | 4    | 4     | 4     | 5     | 5     | 5     | 5     | 7     | 20    | 20    | 20    |
| D H7 | 56                        | 70   | 95   | 125   | 160   | 200   | 260   | 330   | 420   | 545   | 450   | 520   | 520   |
| E    | 16                        | 20   | 32   | 42    | 55    | 76    | 103   | 136   | 190   | 252   | 320   | 408   | 408   |
| F    | 67                        | 83   | 108  | 140   | 176   | 224   | 286   | 362   | 458   | 586   | 368,3 | 463,6 | 463,6 |
| G    | 3xM6                      | 3xM8 | 3xM8 | 6xM10 | 6xM10 | 6xM12 | 6xM16 | 6xM16 | 6xM16 | 6xM16 | -     | -     | -     |
| H    | 32                        | 42   | 51   | 70    | 85    | 105   | 125   | 145   | 180   | 225   | 225   | -     | -     |
| J    | 13                        | -    | 56   | 67    | 29    | 95    | 43    | 55    | 60    | 70    | 70    | -     | -     |
| K    | -                         | 17   | 20   | 32    | 80    | 34    | 110   | 127   | 127   | 127   | 127   | 175   | 175   |
| L    | -                         | -    | 40   | 43    | 45    | 53    | 57    | 67    | 70    | 87    | 87    | 100   | 100   |
| KG   | 1,5                       | 2,8  | 5    | 10    | 17,5  | 29    | 50    | 85    | 145   | 250   | 402   | 560   | 720   |




| STANDART AKSESUARLAR | 1 TAKIM DÜZ AYAK  | 1 TAKIM TERS AYAK   | 1 ADET ANAHTAR  | FLANŞ BAĞLAMA CİVATASI | İSTEĞE BAĞLI AKSESUARLAR | 1 TAKIM YUMUŞAK AYAK | AYNA BAĞLAMA FLANŞI |
|----------------------|---|---|---|------------------------|--------------------------|----------------------|---------------------|
|                      |  |  |  |                        |                          |                      |                     |

## ÖZELLİKLER

- 4 AYAKLI HER BİR AYAK BAĞIMSIZ OLARAK AYARLANABİLİR
- KARE, ÇOKGEN, DAİRESEL OLAN VEYA OLMAYAN PARÇALARIN İŞLENMESİNDE KULLANILIR
- UNIVERSAL TORNA TEZGAHLARINDA FENER MİLİNE FLANŞ İLE BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILABİLİR.



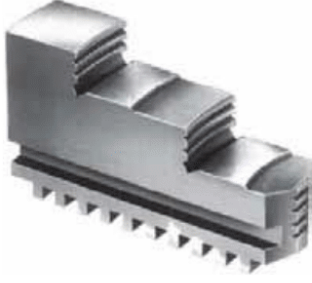
| KOD  | B'YS.KEP. | B'YS.KEP. | B'YS.KEP. | B'YS.KEP. | B'YS.KEP. | B'YS.KEP. | B'YS.KEP. | B'YS.KEP. | BİRİM mm  |           |           |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|      |           |           |           |           |           |           |           |           | B'YS.KEP. | B'YS.KEP. | B'YS.KEP. |
| Ø    | 200       | 250       | 315       | 350       | 400       | 500       | 630       | 800       | 915       | 1000      | 1250      |
| A    | 200       | 250       | 315       | 350       | 400       | 500       | 630       | 800       | 915       | 1000      | 1250      |
| B    | 80        | 85        | 95        | 95        | 105       | 120       | 140       | 160       | 170       | 170       | 190       |
| C    | 5         | 7         | 7         | 7         | 10        | 12        | 12        | 12        | 18        | 18        | 18        |
| D H7 | 110       | 150       | 175       | 175       | 200       | 270       | 270       | 380       | 370       | 370       | 550       |
| E    | 50        | 65        | 80        | 80        | 100       | 125       | 160       | 200       | 190       | 190       | 190       |
| F    | 82,6      | 104,8     | 133,4     | 133,4     | 171,4     | 235       | 235       | 330       | 330       | 330       | 500       |
| G    | 4xM10     | 4xM12     | 4xM16     | 4xM16     | 4xM16     | 4xM20     | 4xM20     | 4xM24     | 8xM24     | 8xM24     | 8xM24     |
| H    | 81        | 96,5      | 111       | 111       | 129       | 152,5     | 177       | 202       | -         | -         | -         |
| J    | 40,3      | 40,3      | 49,8      | 49,8      | 49,8      | 59,8      | 59,8      | 70,8      | -         | -         | -         |
| K    | 82        | 96,5      | 112,5     | -         | 129       | 136       | 136       | 136       | 160       | 160       | 160       |
| L    | 46,4      | 25        | 39        | 47,5      | 61        | 90,3      | 163       | 93,8      | 102,8     | 410       | 102,8     |
| KG   | 14        | 60,4      | 60,9      | -         | 72,3      | 105       | 97,8      | 319       | 350       | 410       | 950       |

| STANDART AKSESUARLAR | 1 TAKIM AYAK | 1 ADET ANAHTAR  | FLANŞ BAĞLAMA CİVATASI  | İSTEĞE BAĞLI AKSESUARLAR | AYNA BAĞLAMA FLANŞI   |
|----------------------|--------------|---|---|--------------------------|---|
|                      |              |  |  |                          |  |



## UNIVERSAL TORNA AYNASI İÇİN TERS AYAK TAKIMI

3 ADET



| KOD        | EBAT |
|------------|------|
| BIS.AYAK.T | 80   |
| BIS.AYAK.T | 100  |
| BIS.AYAK.T | 125  |
| BIS.AYAK.T | 160  |
| BIS.AYAK.T | 200  |
| BIS.AYAK.T | 250  |
| BIS.AYAK.T | 315  |
| BIS.AYAK.T | 400  |
| BIS.AYAK.T | 500  |
| BIS.AYAK.T | 630  |
| BIS.AYAK.T | 800  |

## UNIVERSAL TORNA AYNASI İÇİN DÜZ AYAK TAKIMI

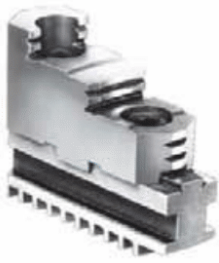
3 ADET



| KOD        | EBAT |
|------------|------|
| BIS.AYAK.D | 80   |
| BIS.AYAK.D | 100  |
| BIS.AYAK.D | 125  |
| BIS.AYAK.D | 160  |
| BIS.AYAK.D | 200  |
| BIS.AYAK.D | 250  |
| BIS.AYAK.D | 315  |
| BIS.AYAK.D | 400  |
| BIS.AYAK.D | 500  |
| BIS.AYAK.D | 630  |
| BIS.AYAK.D | 800  |

## UNIVERSAL TORNA AYNASI İÇİN DÖNDÜRÜLEBİLİR AYAK TAKIMI

3 ADET



| KOD         | EBAT |
|-------------|------|
| BIS.AYAK.DN | 160  |
| BIS.AYAK.DN | 200  |
| BIS.AYAK.DN | 250  |
| BIS.AYAK.DN | 315  |
| BIS.AYAK.DN | 400  |

## UNIVERSAL TORNA AYNASI İÇİN YUMUŞAK AYAK TAKIMI

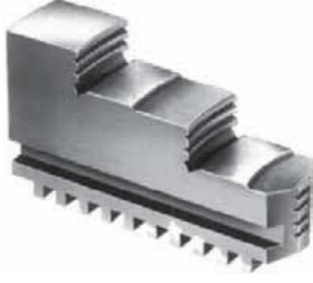
3 ADET



| KOD        | EBAT |
|------------|------|
| BIS.AYAK.Y | 80   |
| BIS.AYAK.Y | 100  |
| BIS.AYAK.Y | 125  |
| BIS.AYAK.Y | 160  |
| BIS.AYAK.Y | 200  |
| BIS.AYAK.Y | 250  |
| BIS.AYAK.Y | 315  |
| BIS.AYAK.Y | 400  |
| BIS.AYAK.Y | 500  |
| BIS.AYAK.Y | 630  |
| BIS.AYAK.Y | 800  |

## UNIVERSAL TORNA AYNASI İÇİN TERS AYAK TAKIMI

4 ADET



| KOD        | EBAT |
|------------|------|
| BIS.AYAK.T | 80   |
| BIS.AYAK.T | 100  |
| BIS.AYAK.T | 125  |
| BIS.AYAK.T | 160  |
| BIS.AYAK.T | 200  |
| BIS.AYAK.T | 250  |
| BIS.AYAK.T | 315  |
| BIS.AYAK.T | 400  |
| BIS.AYAK.T | 500  |
| BIS.AYAK.T | 630  |
| BIS.AYAK.T | 800  |

## UNIVERSAL TORNA AYNASI İÇİN DÜZ AYAK TAKIMI

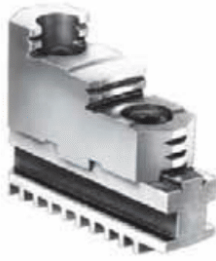
4 ADET



| KOD        | EBAT |
|------------|------|
| BIS.AYAK.D | 80   |
| BIS.AYAK.D | 100  |
| BIS.AYAK.D | 125  |
| BIS.AYAK.D | 160  |
| BIS.AYAK.D | 200  |
| BIS.AYAK.D | 250  |
| BIS.AYAK.D | 315  |
| BIS.AYAK.D | 400  |
| BIS.AYAK.D | 500  |
| BIS.AYAK.D | 630  |
| BIS.AYAK.D | 800  |

## UNIVERSAL TORNA AYNASI İÇİN DÖNDÜRÜLEBİLİR AYAK TAKIMI

4 ADET



| KOD         | EBAT |
|-------------|------|
| BIS.AYAK.DN | 160  |
| BIS.AYAK.DN | 200  |
| BIS.AYAK.DN | 250  |
| BIS.AYAK.DN | 315  |
| BIS.AYAK.DN | 400  |

## UNIVERSAL TORNA AYNASI İÇİN YUMUŞAK AYAK TAKIMI

4 ADET



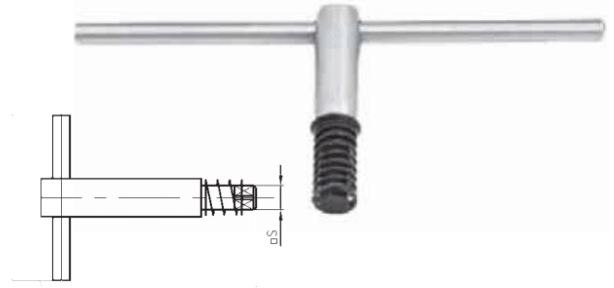
| KOD        | EBAT |
|------------|------|
| BIS.AYAK.Y | 80   |
| BIS.AYAK.Y | 100  |
| BIS.AYAK.Y | 125  |
| BIS.AYAK.Y | 160  |
| BIS.AYAK.Y | 200  |
| BIS.AYAK.Y | 250  |
| BIS.AYAK.Y | 315  |
| BIS.AYAK.Y | 400  |
| BIS.AYAK.Y | 500  |
| BIS.AYAK.Y | 630  |
| BIS.AYAK.Y | 800  |

## UNIVERSAL TORNA AYNASI YIÇYN SİRAL



| KOD      | EBAT |
|----------|------|
| BYS.SPR. | 80   |
| BYS.SPR. | 100  |
| BYS.SPR. | 125  |
| BYS.SPR. | 160  |
| BYS.SPR. | 200  |
| BYS.SPR. | 250  |
| BYS.SPR. | 315  |
| BYS.SPR. | 400  |
| BYS.SPR. | 500  |
| BYS.SPR. | 630  |
| BYS.SPR. | 800  |

## UNIVERSAL TORNA AYNASI YIÇYN ANAHTAR



| KOD      | EBAT | S  |
|----------|------|----|
| BYS.ANH. | 80   | 6  |
| BYS.ANH. | 100  | 9  |
| BYS.ANH. | 125  | 8  |
| BYS.ANH. | 160  | 11 |
| BYS.ANH. | 200  | 11 |
| BYS.ANH. | 250  | 14 |
| BYS.ANH. | 315  | 14 |
| BYS.ANH. | 400  | 17 |
| BYS.ANH. | 500  | 17 |
| BYS.ANH. | 630  | -  |
| BYS.ANH. | 800  | -  |

## UNIVERSAL TORNA AYNASI YIÇYN PİNYON / ADET



| KOD      | EBAT |
|----------|------|
| BYS.PNY. | 80   |
| BYS.PNY. | 100  |
| BYS.PNY. | 125  |
| BYS.PNY. | 160  |
| BYS.PNY. | 200  |
| BYS.PNY. | 250  |
| BYS.PNY. | 315  |
| BYS.PNY. | 400  |
| BYS.PNY. | 500  |
| BYS.PNY. | 630  |
| BYS.PNY. | 800  |

## UNIVERSAL TORNA AYNASI YIÇYN PİNYON PİMİ / ADET



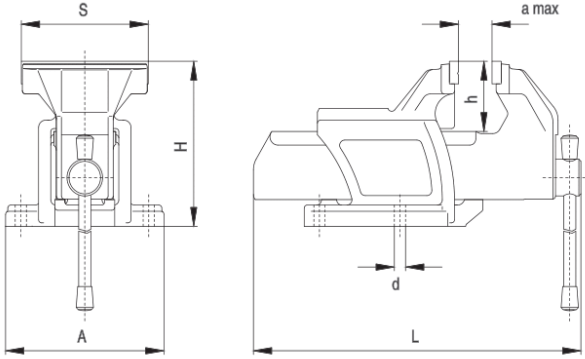
| KOD     | EBAT |
|---------|------|
| BIS.PİM | 80   |
| BIS.PİM | 100  |
| BIS.PİM | 125  |
| BIS.PİM | 160  |
| BIS.PİM | 200  |
| BIS.PİM | 250  |
| BIS.PİM | 315  |
| BIS.PİM | 400  |
| BIS.PİM | 500  |
| BIS.PİM | 630  |
| BIS.PİM | 800  |

## SABİT TEZGAH MENGENESİ

TYP 1250

## ÖZELLİKLER

- Gövde ve çeneler yüksek kaliteli çelik dökümden diğer parçalar alaşımli çelikten imal edilmiştir.
- Çeneler indüksiyon ile sertleştirilmiş ve taşlanmıştır.
- Yuvarlak iş parçaları için çenelerde yatay ve dikey kanallar bulunmaktadır.
- Vidalar talaştan korunmak için gövde içine muhafa edilmiştir.
- Freze tezgahlarında ve sütunlu matkaplarda kullanılabilir.



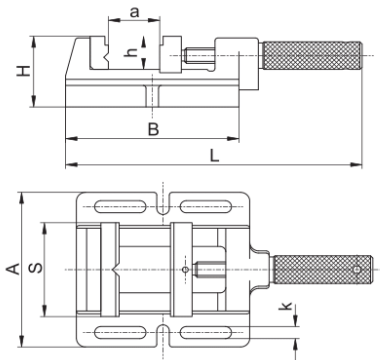
| KOD          | Ölçü S | A   | H   | L   | a (max) | d  | h  | Max. sıkma kuvveti (daN) | Ağırlık [kg] |
|--------------|--------|-----|-----|-----|---------|----|----|--------------------------|--------------|
| BIS.MNG.L063 | 63L    | 120 | 112 | 229 | 63      | 9  | 45 | 1200                     | 4,0          |
| BIS.MNG.L080 | 80L    | 137 | 137 | 280 | 80      | 11 | 58 | 1800                     | 6,6          |
| BIS.MNG.L100 | 100L   | 137 | 137 | 282 | 80      | 11 | 58 | 2200                     | 7,5          |
| BIS.MNG.L125 | 125L   | 156 | 156 | 323 | 100     | 11 | 65 | 2600                     | 10,5         |
| BIS.MNG.L150 | 150L   | 170 | 182 | 380 | 125     | 13 | 75 | 3400                     | 16,2         |
| BIS.MNG.L175 | 175L   | 190 | 202 | 434 | 150     | 13 | 90 | 3800                     | 23,0         |

## MATKAP MENGENESİ

TYP 6543

## ÖZELLİKLER

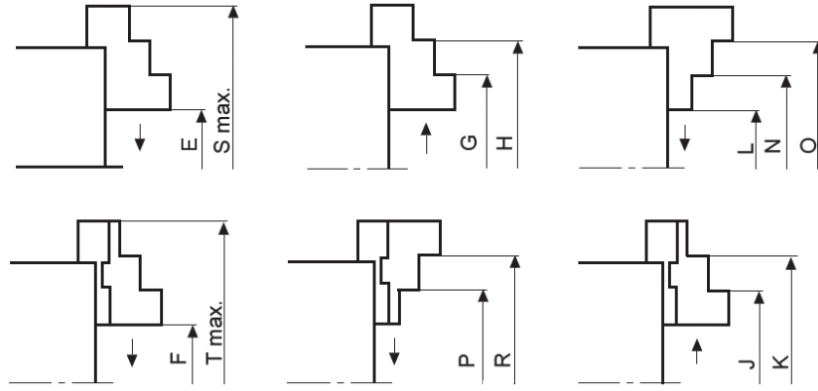
- Matkap tezgahları ve frezeleme operasyonları için özeldir.
- Herbir çenesinde yatay ve dikey V kanalları bulunmaktadır
- V Kanalları sayesinde farklı şekillerde iş parçaları bağlanabilir
- Her iki çenenin birbirine temas eden yüzeyleri sayesinde düz parçalar bağlanabilir.



| KOD          | Ölçü S | A   | B   | H  | L   | a (max) | h  | k    | Max. sıkma kuvveti (daN) | Ağırlık [kg] |
|--------------|--------|-----|-----|----|-----|---------|----|------|--------------------------|--------------|
| BIS.MNG.M085 | 85M    | 140 | 152 | 64 | 265 | 70      | 30 | 11   | 400                      | 3,5          |
| BIS.MNG.M100 | 100M   | 152 | 170 | 64 | 285 | 85      | 30 | 13,5 | 500                      | 4,0          |
| BIS.MNG.M120 | 120M   | 176 | 212 | 64 | 360 | 120     | 30 | 13,5 | 650                      | 6,0          |
| BIS.MNG.M150 | 150M   | 208 | 262 | 66 | 442 | 150     | 38 | 13,5 | 800                      | 8,4          |



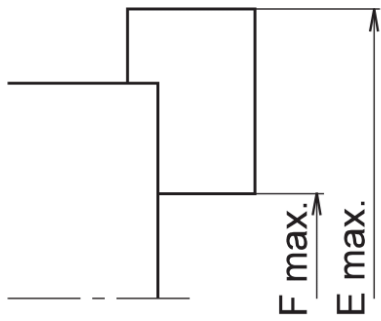
## UNİVERSAL TORNA AYNALARI SIKMA KAPASİTELERİ VE MAKSİMUM DEVİRLERİ



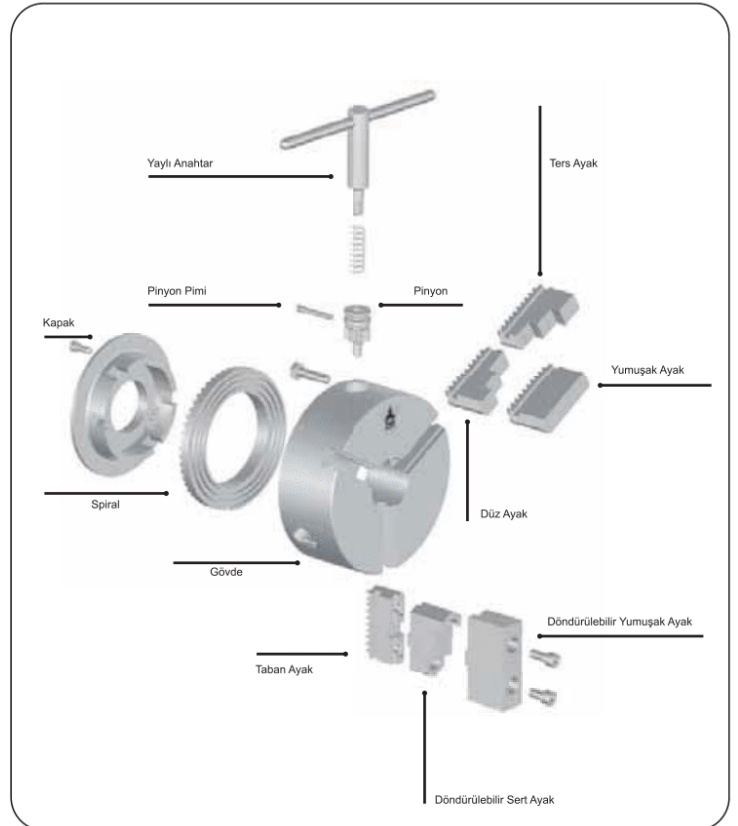
BİRİM mm

| Ø   | E      | F      | G       | H       | J       | K       | L      | N       | O       | P       | R       | S max. | T max. |
|-----|--------|--------|---------|---------|---------|---------|--------|---------|---------|---------|---------|--------|--------|
| 80  | 3-27   | -      | 23-48   | 48-73   | -       | -       | 3-27   | 27-51   | 52-76   | -       | -       | 98     | -      |
| 100 | 3-39   | 3-45   | 24-60   | 58-94   | 25-67   | 60-102  | 3-39   | 30-66   | 64-100  | 42-72   | 77-107  | 122    | 130    |
| 125 | 3-49   | 3-47   | 30-75   | 70-116  | 28-74   | 69-115  | 3-49   | 38-84   | 83-125  | 50-95   | 90-136  | 152    | 163    |
| 160 | 3-76   | 3-76   | 46-119  | 87-160  | 35-108  | 91-166  | 3-76   | 50-123  | 91-164  | 51-128  | 109-185 | 208    | 218    |
| 200 | 5-88   | 5-83   | 56-140  | 116-200 | 46-125  | 105-185 | 5-88   | 57-140  | 117-200 | 69-148  | 127-207 | 246    | 254    |
| 250 | 5-107  | 5-125  | 68-162  | 156-250 | 60-183  | 124-247 | 5-107  | 66-168  | 154-256 | 83-206  | 147-270 | 314    | 328    |
| 315 | 8-136  | 8-131  | 74-201  | 188-315 | 65-193  | 145-273 | 8-131  | 79-207  | 193-321 | 99-225  | 174-305 | 392    | 382    |
| 400 | 10-187 | 10-187 | 90-268  | 223-400 | 105-282 | 173-350 | 10-187 | 92-274  | 224-406 | 118-290 | 189-358 | 498    | 454    |
| 500 | 25-250 | 25-250 | 135-360 | 275-500 | 135-411 | 201-477 | 25-250 | 135-360 | 275-500 | 125-447 | 191-513 | 626    | 579    |

## YUMUŞAK AYAK SIKMA KAPASİTELERİ



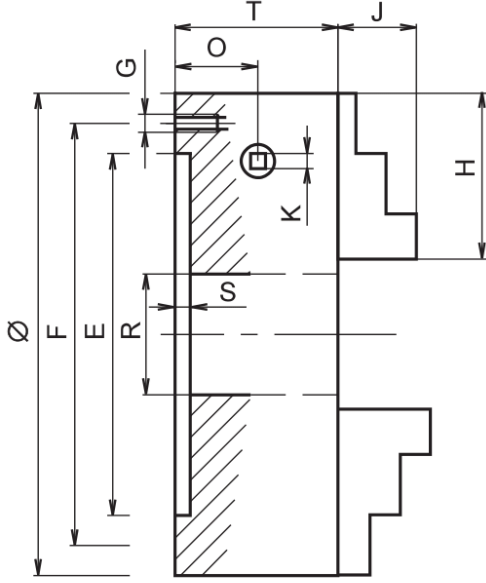
| Ø   | E max. | F max. |
|-----|--------|--------|
| 80  | 98     | 24     |
| 100 | 122    | 36     |
| 125 | 152    | 46     |
| 160 | 208    | 72     |
| 200 | 246    | 84     |
| 250 | 314    | 104    |
| 315 | 392    | 144    |
| 400 | 498    | 192    |
| 500 | 626    | 256    |



## 3 AYAKLI AYNALAR

## ÖZELLİKLER

- 3 AYAKLI MERKEZİ SIKMALI UNİVERSAL TORNA AYNASI
- YÜKSEK KALİTELİ DÖKÜM GÖVDE
- UNİVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR



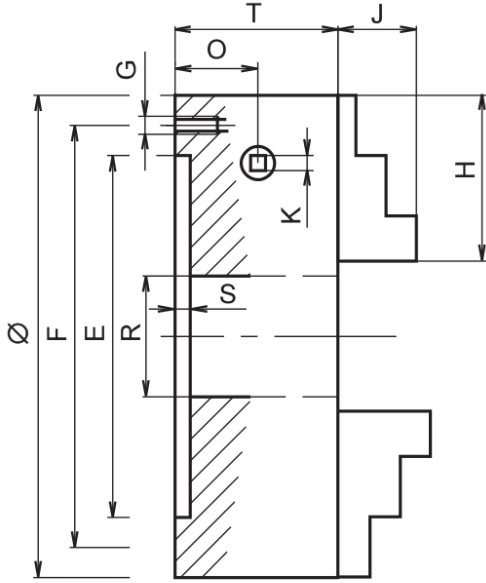
| KOD      | Ø   | E <sub>H6</sub> | F <sub>±0,2</sub> | G     | H     | J  | K  | O    | S | T   | R   | Kg     | max d/d |
|----------|-----|-----------------|-------------------|-------|-------|----|----|------|---|-----|-----|--------|---------|
| TOS.IUS. | 80  | 63              | 70                | 3×M5  | 35,5  | 13 | 6  | 16,5 | 3 | 45  | 17  | 1,20   | 6000    |
| TOS.IUS. | 100 | 80              | 90                | 3×M6  | 41,5  | 17 | 8  | 18,0 | 3 | 52  | 23  | 2,25   | 5300    |
| TOS.IUS. | 125 | 100             | 110               | 3×M8  | 51,5  | 19 | 8  | 22,0 | 4 | 58  | 28  | 3,90   | 4500    |
| TOS.IUS. | 160 | 130             | 143               | 3×M8  | 66,0  | 23 | 9  | 22,0 | 4 | 62  | 48  | 6,70   | 3500    |
| TOS.IUS. | 200 | 162             | 180               | 3×M10 | 74,0  | 29 | 11 | 27,5 | 5 | 76  | 52  | 13,80  | 3000    |
| TOS.IUS. | 250 | 210             | 226               | 3×M10 | 97,5  | 33 | 12 | 29,5 | 5 | 82  | 78  | 21,80  | 2800    |
| TOS.IUS. | 315 | 265             | 290               | 4×M12 | 123,0 | 40 | 14 | 35,0 | 6 | 100 | 108 | 41,60  | 1800    |
| TOS.IUS. | 400 | 350             | 375               | 6×M12 | 152,5 | 50 | 17 | 39,0 | 7 | 110 | 144 | 75,00  | 1300    |
| TOS.IUS. | 500 | 420             | 458               | 6×M16 | 188,5 | 54 | 17 | 43,0 | 8 | 120 | 190 | 140,00 | 1100    |

| STANDART AKSESUARLAR | 1 TAKIM DÜZ AYAK  | 1 TAKIM TERS AYAK   | 1 ADET ANAHTAR  | FLANŞ BAĞLAMA CIVATATASI  | İSTEĞE BAĞLI AKSESUARLAR | 1 TAKIM YUMUŞAK AYAK  | AYNA BAĞLAMA FLANŞI   |
|----------------------|---|---|---|---|--------------------------|---|---|
|                      |  |  |  |  |                          |  |  |

## 4 AYAKLI AYNALAR

## ÖZELLİKLER

- 4 AYAKLI MERKEZİ SIKMALI UNİVERSAL TORNA AYNASI
- YÜKSEK KALİTELİ DÖKÜM GÖVDE
- UNİVERSAL TORNA TEZGAHLARINDA FENER MİLİ FLANŞ İLE BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILIR



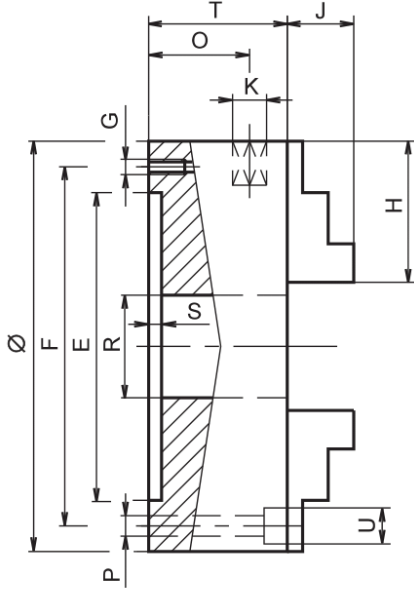
| KOD      | Ø   | E <sub>H6</sub> | F <sub>±0,2</sub> | G     | H     | J  | K  | O    | S | T   | R   | KG     | max<br>d/d |
|----------|-----|-----------------|-------------------|-------|-------|----|----|------|---|-----|-----|--------|------------|
| TOS.IUS. | 80  | 63              | 70                | 3×M5  | 35,5  | 13 | 6  | 16,5 | 3 | 45  | 17  | 1,25   | 6000       |
| TOS.IUS. | 100 | 80              | 90                | 3×M6  | 41,5  | 17 | 8  | 18,0 | 3 | 52  | 23  | 2,30   | 5300       |
| TOS.IUS. | 125 | 100             | 110               | 3×M8  | 51,5  | 19 | 8  | 22,0 | 4 | 58  | 28  | 4,00   | 4500       |
| TOS.IUS. | 160 | 130             | 143               | 3×M8  | 66,0  | 23 | 9  | 22,0 | 4 | 62  | 48  | 6,80   | 3500       |
| TOS.IUS. | 200 | 162             | 180               | 3×M10 | 74,0  | 29 | 11 | 27,5 | 5 | 76  | 52  | 14,00  | 3000       |
| TOS.IUS. | 250 | 210             | 226               | 3×M10 | 97,5  | 33 | 12 | 29,5 | 5 | 82  | 78  | 22,20  | 2800       |
| TOS.IUS. | 315 | 265             | 290               | 4×M12 | 123,0 | 40 | 14 | 35,0 | 6 | 100 | 108 | 42,50  | 1800       |
| TOS.IUS. | 400 | 350             | 375               | 6×M12 | 152,5 | 50 | 17 | 39,0 | 7 | 110 | 144 | 76,10  | 1300       |
| TOS.IUS. | 500 | 420             | 458               | 6×M16 | 188,5 | 54 | 17 | 43,0 | 8 | 120 | 190 | 142,00 | 1100       |

| STANDART AKSESUARLAR | 1 TAKIM DÜZ AYAK  | 1 TAKIM TERS AYAK   | 1 ADET ANAHTAR  | FLANŞ BAĞLAMA CIVATATASI  | İSTEĞE BAĞLI AKSESUARLAR | 1 TAKIM YUMUŞAK AYAK  | AYNA BAĞLAMA FLANŞI   |
|----------------------|---|---|---|---|--------------------------|---|---|
|                      |  |  |  |  |                          |  |  |


## KEPENKLİ AYNALAR

## ÖZELLİKLER

- 4 AYAKLI HER BİR AYAK BAĞIMSIZ OLARAK AYARLANABİLİR
- KARE, ÇOKGEN, DAİRESEL OLAN VEYA OLMAYAN PARÇALARIN İŞLENMESİNDE KULLANILIR
- UNİVERSAL TORNA TEZGAHLARINDA FENER MİLİNE FLANŞ İLE BAĞLANIR
- FREZELER, DİVİZÖRLER VE TABLALARDA KULLANILABİLİR.



| KOD      | Ø   | E <sub>h7</sub> | F <sub>±0,2</sub> | G     | H   | J  | K  | O  | P    | R  | S | T  | U  | Kg    | max d/d |
|----------|-----|-----------------|-------------------|-------|-----|----|----|----|------|----|---|----|----|-------|---------|
| TOS.LUD. | 85  | 62              | 72                | —     | 34  | 17 | 6  | 20 | 4×7  | 25 | 4 | 42 | 11 | 1,60  | 4800    |
| TOS.LUD. | 100 | 70              | 83                | —     | 41  | 17 | 6  | 20 | 4×9  | 25 | 4 | 42 | 15 | 2,75  | 4200    |
| TOS.LUD. | 125 | 95              | 108               | —     | 51  | 19 | 8  | 21 | 4×9  | 28 | 4 | 44 | 15 | 4,85  | 3700    |
| TOS.LUD. | 160 | 125             | 140               | 4×M10 | 47  | 22 | 8  | 32 | 4×11 | 45 | 4 | 54 | 17 | 7,32  | 3000    |
| TOS.LUD. | 200 | 125             | 140               | 4×M10 | 75  | 32 | 12 | 44 | 4×11 | 50 | 4 | 72 | 17 | 15,42 | 2300    |
| TOS.LUD. | 250 | 200             | 224               | 4×M12 | 75  | 32 | 12 | 44 | 4×13 | 60 | 5 | 72 | 20 | 23,80 | 1700    |
| TOS.LUD. | 315 | 200             | 224               | 4×M12 | 100 | 36 | 14 | 49 | 4×13 | 75 | 5 | 80 | 20 | 44,50 | 1500    |
| TOS.LUD. | 350 | 260             | 286               | —     | 100 | 37 | 14 | 60 | 4×13 | 75 | 5 | 91 | 20 | 54,10 | 1300    |
| TOS.LUD. | 400 | 260             | 286               | —     | 100 | 37 | 14 | 60 | 4×13 | 75 | 5 | 91 | 20 | 57,50 | 1300    |

| STANDART AKSESUARLAR | 1 TAKIM AYAK  | 1 ADET ANAHTAR  | FLANŞ BAĞLAMA CİVATASI  | İSTEĞE BAĞLI AKSESUARLAR | AYNA BAĞLAMA FLANŞI   |
|----------------------|---|---|---|--------------------------|---|
|                      |  |  |  |                          |  |