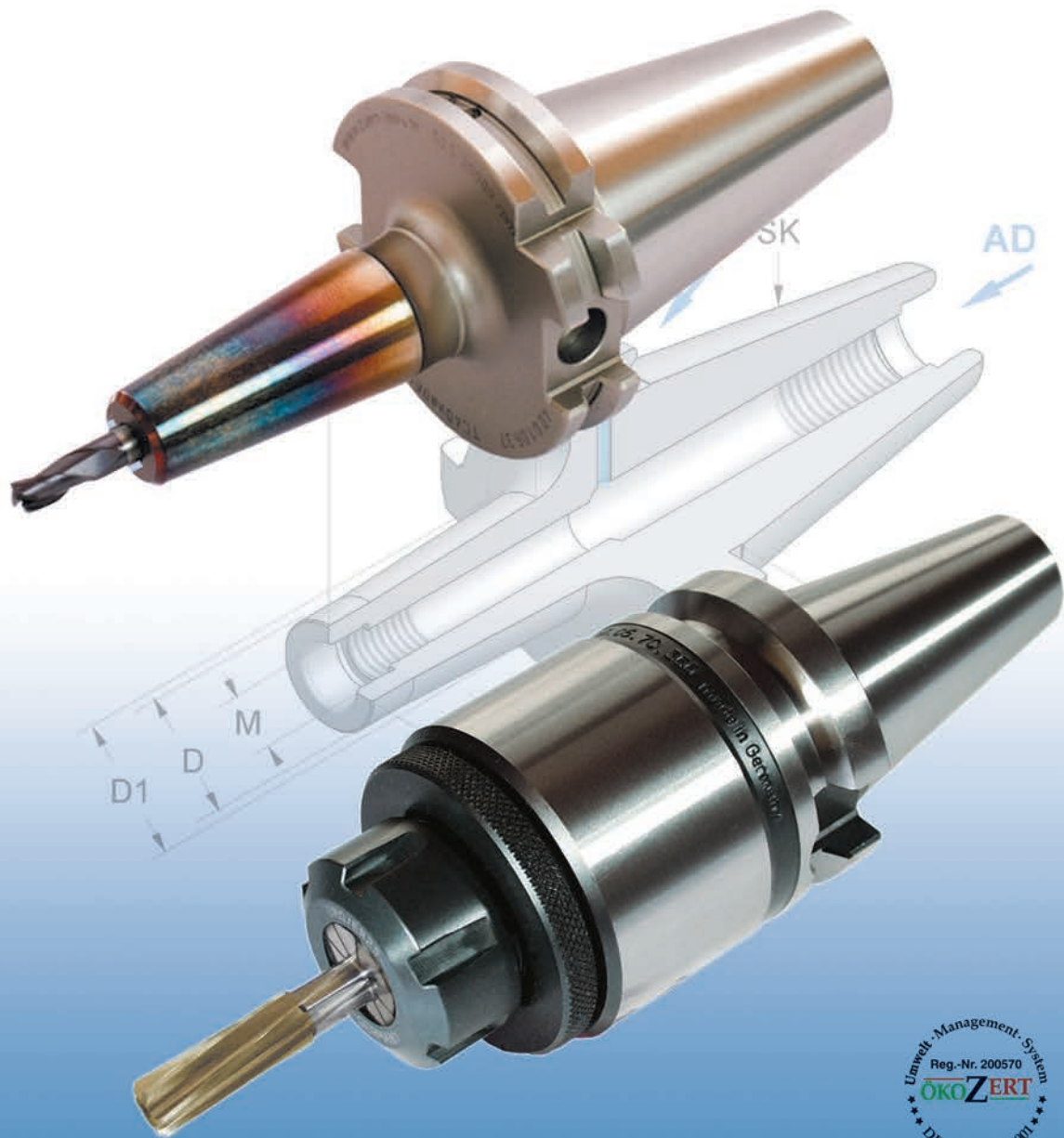


Steilkegel-Werkzeugaufnahmen DIN 69871 MAS BT DIN 2080

ISO Taper-toolholders
DIN 69871 MAS BT DIN 2080



Katalog Nr. 166
Catalogue No. 166



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Allgemeine Verkaufsbedingungen finden Sie auf unserer Website:

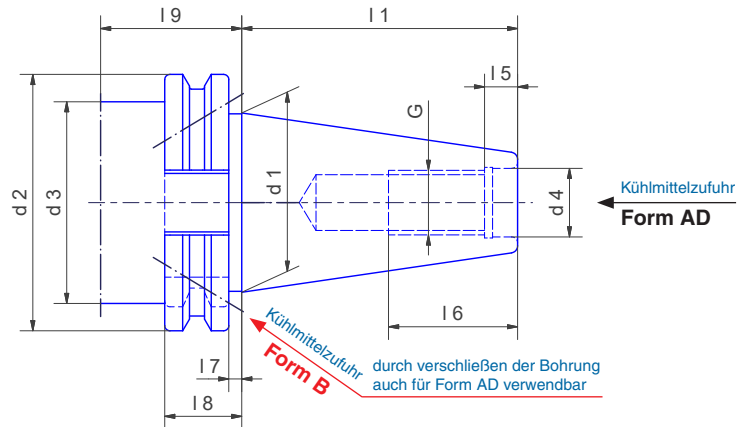
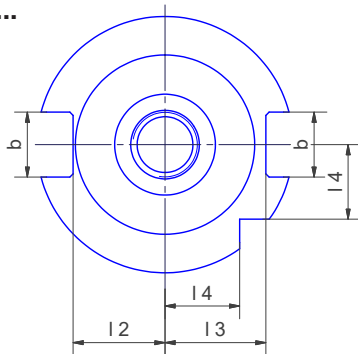
Visit our website for General Condition of Sales:

www.zuern-tools.de/agb

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DIN 69871

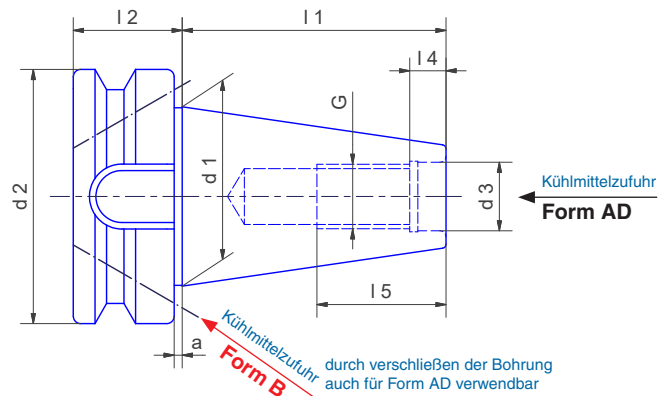
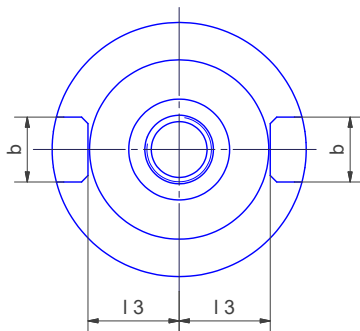
Art-Nr. 40.01. ...



| SK | d 1 | d 2 | d 3 | d 4 | G | b | l 1 | l 2 | l 3 | l 4 | l 5 | l 6 | l 7 | l 8 | l 9 |
|----|-------|-------|-----|-----|-----|------|--------|------|------|------|------|-----|-----|------|-----|
| 25 | 25,40 | 37,00 | - | 8,5 | M 8 | 12,2 | 39,70 | 12,9 | 12,9 | - | 5,5 | 18 | - | 8,0 | - |
| 30 | 31,75 | 50,00 | 45 | 13 | M12 | 16,1 | 47,80 | 16,3 | 18,8 | 15,0 | 5,5 | 24 | 3,2 | 19,1 | 35 |
| 40 | 44,45 | 63,55 | 50 | 17 | M16 | 16,1 | 68,40 | 22,7 | 25,0 | 18,5 | 8,2 | 32 | 3,2 | 19,1 | 35 |
| 45 | 57,15 | 82,55 | 63 | 21 | M20 | 19,3 | 82,70 | 29,1 | 31,3 | 24,0 | 10,0 | 40 | 3,2 | 19,1 | 35 |
| 50 | 69,85 | 97,50 | 80 | 25 | M24 | 25,7 | 101,75 | 35,5 | 37,7 | 30,0 | 11,5 | 47 | 3,2 | 19,1 | 35 |

MAS BT (JIS B 6339)

Art-Nr. 40.05. ...



| BT | d 1 | d 2 | d 3 | G | a | b | l 1 | l 2 | l 3 | l 4 | l 5 |
|----|-------|-----|------|-----|-----|------|-------|------|------|------|-----|
| 15 | 19,05 | 27 | 6,5 | M 6 | 1,5 | 8,1 | 27,0 | 12,5 | 9,7 | 5,0 | 20 |
| 20 | 22,23 | 30 | 8,5 | M 8 | 1,5 | 8,1 | 25,0 | 12,5 | 11,4 | 6,5 | 18 |
| 25 | 25,40 | 35 | 8,5 | M 8 | 2,0 | 9,7 | 40,0 | 15,1 | 12,9 | 6,5 | 20 |
| 30 | 31,75 | 46 | 12,5 | M12 | 2,0 | 16,1 | 48,4 | 22,0 | 16,3 | 7,0 | 24 |
| 35 | 38,10 | 53 | 13,0 | M12 | 2,0 | 14,0 | 56,5 | 22,0 | 19,3 | 7,0 | 27 |
| 40 | 44,45 | 63 | 17,0 | M16 | 2,0 | 16,1 | 65,4 | 27,0 | 22,6 | 8,2 | 30 |
| 45 | 57,15 | 85 | 21,0 | M20 | 3,0 | 19,3 | 82,8 | 33,0 | 29,1 | 9,0 | 40 |
| 50 | 69,85 | 100 | 25,0 | M24 | 3,0 | 25,7 | 101,8 | 38,0 | 35,4 | 11,0 | 45 |

Werkstoff: Legierter Einsatzstahl mit einer Zugfestigkeit im Kern von min. 800 N/mm²

Material: Case hardened steel, tensile strength in the core min. 800 N/mm²

Ausführung: Einsatzgehärtet HRc 60 - 2 (HV 700 ± 50)
Härtetiefe 0,8 mm - 0,2
Brüniert und Präzisionsgeschliffen

Execution: Case hardened HRc 60 - 2 (HV 700 ± 50)
Depth of case 0,8 mm - 0,2
Brown-finish end precision ground

Kegelwinkel: AT3, Rundlaufgenauigkeit
Steilkegel zu Werkzeugaufnahme < 0,005

Taper angle: AT3, concentricity from the taper to the holding part < 0,005

Technische Änderungen vorbehalten

We reserve the right to make technical changes

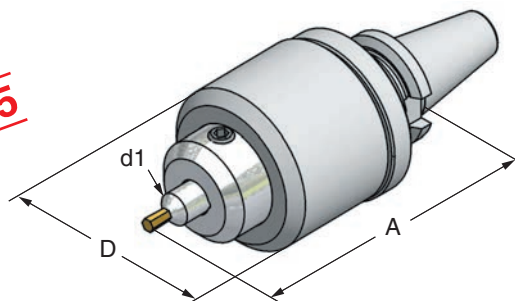
Räumwerkzeughalter Broaching toolholder

Lieferumfang ohne Räumstempel
Delivery without broaching cutter

Räumstempel finden Sie im Zürn-Katalog Nr. 162
Broaching cutters you can find in the catalogue No. 162



MAS BT 15



MAS BT 15

| Art.-Nr. | Typ | d1 | D | A |
|---------------|------------|----|----|----|
| 15.05.08.5000 | BT15x08x78 | 8 | 40 | 78 |

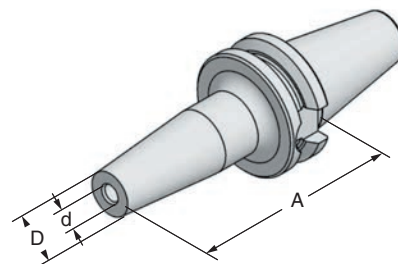
Schrumpffutter ohne Kühlkanal Shrinking chucks without coolant channels

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

G 2,5 - 30.000 U/min. oder U < 1 gmm



MAS BT 15



MAS BT 15

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|----------------|----|---|----|-------------|----------------|----|----|----|
| 15.05.03.31 | BT15x03Sx50-AD | 50 | 3 | 10 | 15.05.06.31 | BT15x06Sx50-AD | 50 | 6 | 14 |
| 15.05.04.31 | BT15x04Sx50-AD | 50 | 4 | 10 | 15.05.08.31 | BT15x08Sx50-AD | 50 | 8 | 14 |
| 15.05.05.31 | BT15x05Sx50-AD | 50 | 5 | 14 | 15.05.10.31 | BT15x10Sx40-AD | 40 | 10 | 16 |

Spannzangenfutter für Spannzangen DIN 6499 (ER/ESX) Collet chucks for collets DIN 6499 (ER/ESX)

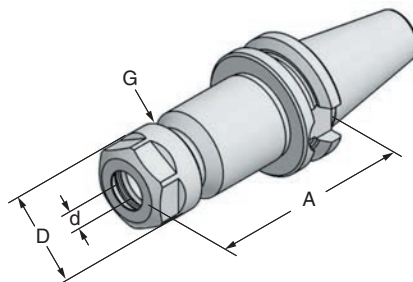
Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

G 2,5 - 30.000 U/min. oder U < 1 gmm

Spannzangen siehe Seiten 48+49
Collets see pages 48+49



MAS BT 15



MAS BT 15

| Art.-Nr. | Typ | A | d | D | G | Art.-Nr. | Typ | A | d | D | G |
|------------|-----------------|----|-----|----|----------|-------------|-----------------|----|------|----|---------|
| 15.05.07.2 | BT15xER11x50-AD | 50 | 1-7 | 19 | M14x0,75 | 15.05.10.2 | BT15xER16x40-AD | 40 | 1-10 | 28 | M22x1,5 |
| | | | | | | 15.05.10.22 | BT15xER16x75-AD | 75 | 1-10 | 28 | M22x1,5 |



Spannzangenfutter für Spannzangen ER/ESX DIN 6499 / ISO 15488

Collet chucks for collets ER/ESX DIN 6499 / ISO 15488

Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Concentricity from the taper to the holding part < 0,005

BT-P30 G 2,5 - 25.000 U/min. oder U < 1 gmm

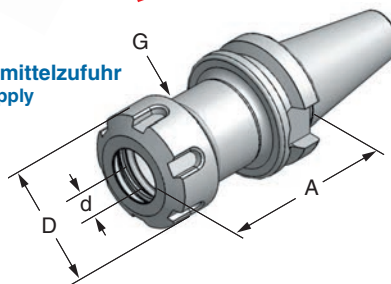
BT-P40 G 2,5 - 20.000 U/min. oder U < 1 gmm

Lieferumfang ohne Werkzeug und Spannzange
Delivery without tool and collet

Spannzangen siehe Seiten 48+49
Collets see pages 48+49



ER11 - ER32
Werkzeuge ohne Kühlmittelzufuhr
Tools without coolant supply



MAS BT-P mit Plananlage
MAS BT-P with flange contact

BT-P30

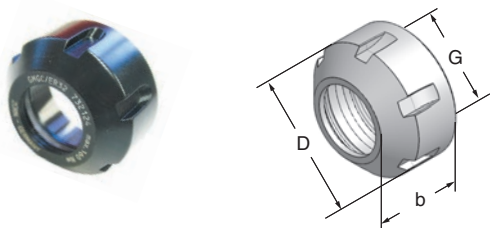
BT-P40

| Art.-Nr. | Typ | A | d | D | G | Art.-Nr. | Typ | A | d | D | G |
|-------------|--------------------|-----|-------|----|----------|-------------|--------------------|-----|------|----|----------|
| 30.06.07.2 | BT-P30xER11x 70-AD | 70 | 1 - 7 | 19 | M14x0,75 | 40.06.10.2 | BT-P40xER16x 70-AD | 70 | 1-10 | 28 | M22x1,50 |
| 30.06.10.2 | BT-P30xER16x 70-AD | 70 | 1-10 | 28 | M22x1,50 | 30.06.10.20 | BT-P30xER16x 50-AD | 50 | 1-10 | 28 | M22x1,50 |
| 30.06.16.2 | BT-P30xER25x 70-AD | 70 | 1-16 | 42 | M32x1,50 | 40.06.16.2 | BT-P40xER25x 70-AD | 70 | 1-16 | 42 | M32x1,50 |
| 30.06.16.20 | BT-P30xER25x 50-AD | 50 | 1-16 | 42 | M32x1,50 | 40.06.20.2 | BT-P40xER32x 70-AD | 70 | 2-20 | 50 | M40x1,50 |
| 30.06.20.2 | BT-P30xER32x 70-AD | 70 | 2-20 | 50 | M40x1,50 | 30.06.20.20 | BT-P30xER32x 50-AD | 50 | 2-20 | 50 | M40x1,50 |
| 30.06.20.20 | BT-P30xER32x 50-AD | 50 | 2-20 | 50 | M40x1,50 | | | | | | |
| 30.06.07.22 | BT-P30xER11x100-AD | 100 | 1 - 7 | 19 | M14x0,75 | 40.06.10.22 | BT-P40xER16x100-AD | 100 | 1-10 | 28 | M22x1,50 |
| 30.06.10.22 | BT-P30xER16x100-AD | 100 | 1-10 | 28 | M22x1,50 | 40.06.16.22 | BT-P40xER25x100-AD | 100 | 1-16 | 42 | M32x1,50 |
| 30.06.16.22 | BT-P30xER25x100-AD | 100 | 1-16 | 42 | M32x1,50 | 40.06.20.22 | BT-P40xER32x100-AD | 100 | 2-20 | 50 | M40x1,50 |
| 30.06.20.22 | BT-P30xER32x100-AD | 100 | 2-20 | 50 | M40x1,50 | | | | | | |

Für Schneidwerkzeuge mit interner Kühlmittelzufuhr benötigen Sie GMGC Spannmutter und DS-Dichtscheiben
For cutting tools with internal coolant you need GMGC clamping nuts and DS-sealing discs



Spannmutter gleitgelagert DIN 6499 für Dichtscheiben
Clamping nut friction bearing DIN 6499 for sealing disc



Dichtscheiben für Werkzeuge mit interner Kühlmittelzufuhr
Sealing discs for tools with internal coolant supply

Der eingelegte O-Ring gewährleistet interne Kühlmittelzufuhr durch das gespannte Werkzeug direkt zur Werkzeugschneide

The inserted O-ring seal ensures a coolant supply internally through the clamped tool directly to the cutting edge



| Art.-Nr. | Typ | D | b | G | Nm max. | Art.-Nr. | Typ | D | b | d1 |
|----------|-------------|----|----|-----------|---------|----------|-----------|------|---|-----------------|
| 716124 | GMGC / ER16 | 28 | 23 | M 22x1,50 | 70 | 316... | DS / ER16 | 13,0 | 4 | 316050 - 316100 |
| 720124 | GMGC / ER20 | 34 | 25 | M 25x1,50 | 100 | 320... | DS / ER20 | 16,0 | 4 | 320050 - 320130 |
| 725124 | GMGC / ER25 | 42 | 26 | M 32x1,50 | 130 | 325... | DS / ER25 | 21,0 | 4 | 325050 - 325160 |
| 732124 | GMGC / ER32 | 50 | 28 | M 40x1,50 | 170 | 332... | DS / ER32 | 27,0 | 4 | 332050 - 332200 |

Kühlmitteldruck / Coolant pressure min. 5 bar - max. 100 bar

Steilkegel-Werkzeugaufnahmen BT-P ISO Taper-toolholders BT-P



Zylinderschaftaufnahmen Weldon DIN 1835 B Holders for straight shank tools Weldon DIN 1835 B

Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Concentricity from the taper to the holding part < 0,005

BT-P30 G 2,5 - 25.000 U/min. oder U < 1 gmm
BT-P40 G 2,5 - 20.000 U/min. oder U < 1 gmm

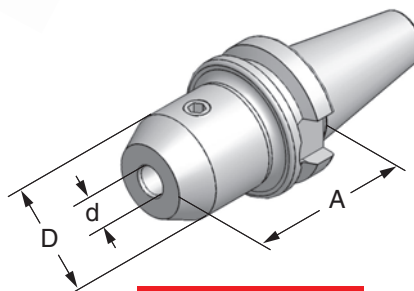
Spannschrauben siehe Seite 46
Clamping nuts see page 46



BT-P30



MAS BT-P mit Plananlage
MAS BT-P with flange contact



BT-P40

| BT-P30 | | | | | BT-P40 | | | | |
|-------------|------------------|-----|----|----|-------------|------------------|-----|----|----|
| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
| 30.06.06.60 | BT-P30x06x 60-AD | 60 | 6 | 25 | | | | | |
| 30.06.08.60 | BT-P30x08x 60-AD | 60 | 8 | 28 | | | | | |
| 30.06.10.60 | BT-P30x10x 60-AD | 60 | 10 | 35 | | | | | |
| 30.06.12.60 | BT-P30x12x 60-AD | 60 | 12 | 42 | | | | | |
| 30.06.14.60 | BT-P30x14x 60-AD | 60 | 14 | 44 | | | | | |
| 30.06.16.60 | BT-P30x16x 60-AD | 60 | 16 | 48 | | | | | |
| 30.06.20.60 | BT-P30x20x 60-AD | 60 | 20 | 52 | | | | | |
| 30.06.06.62 | BT-P30x06x100-AD | 100 | 6 | 25 | 40.06.06.62 | BT-P40x06x100-AD | 100 | 6 | 25 |
| 30.06.08.62 | BT-P30x08x100-AD | 100 | 8 | 28 | 40.06.08.62 | BT-P40x08x100-AD | 100 | 8 | 28 |
| 30.06.10.62 | BT-P30x10x100-AD | 100 | 10 | 35 | 40.06.10.62 | BT-P40x10x100-AD | 100 | 10 | 35 |
| 30.06.12.62 | BT-P30x12x100-AD | 100 | 12 | 42 | 40.06.12.62 | BT-P40x12x100-AD | 100 | 12 | 42 |
| 30.06.16.62 | BT-P30x16x100-AD | 100 | 16 | 48 | 40.06.16.62 | BT-P40x16x100-AD | 100 | 16 | 48 |
| | | | | | 40.06.20.62 | BT-P40x20x100-AD | 100 | 20 | 52 |

Zylinderschaftaufnahmen Weldon DIN 1835 B - mit Kühlkanälen Holders for straight shank tools Weldon DIN 1835 B - with coolant channels

Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Concentricity from the taper to the holding part < 0,005

BT-P30 G 2,5 - 25.000 U/min. oder U < 1 gmm
BT-P40 G 2,5 - 20.000 U/min. oder U < 1 gmm

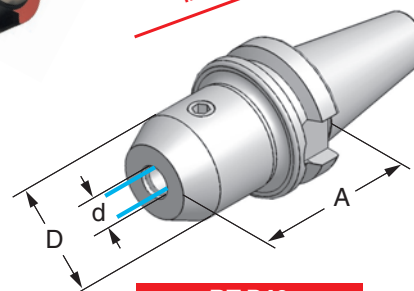
Spannschrauben siehe Seite 46
Clamping nuts see page 46



BT-P30



MAS BT-P mit Plananlage
MAS BT-P with flange contact



BT-P40

| BT-P30 | | | | | BT-P40 | | | | |
|--------------|--------------------|-----|----|----|--------------|--------------------|-----|----|----|
| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
| 30.06.06.66 | BT-P30x06x 60-AD+C | 60 | 06 | 25 | 40.06.06.66 | BT-P40x06x 65-AD+C | 65 | 06 | 25 |
| 30.06.08.66 | BT-P30x08x 60-AD+C | 60 | 08 | 28 | 40.06.08.66 | BT-P40x08x 65-AD+C | 65 | 08 | 28 |
| 30.06.10.66 | BT-P30x10x 60-AD+C | 60 | 10 | 35 | 40.06.10.66 | BT-P40x10x 65-AD+C | 65 | 10 | 35 |
| 30.06.12.66 | BT-P30x12x 60-AD+C | 60 | 12 | 42 | 40.06.12.66 | BT-P40x12x 65-AD+C | 65 | 12 | 42 |
| 30.06.16.66 | BT-P30x16x 60-AD+C | 60 | 16 | 48 | 40.06.16.66 | BT-P40x16x 65-AD+C | 65 | 16 | 48 |
| 30.06.20.66 | BT-P30x20x 60-AD+C | 60 | 20 | 52 | 40.06.20.66 | BT-P40x20x 65-AD+C | 65 | 20 | 52 |
| 30.06.25.66 | BT-P30x25x 75-AD+C | 75 | 25 | 49 | | | | | |
| 30.06.06.662 | BT-P30x06x100-AD+C | 100 | 6 | 25 | 40.06.20.662 | BT-P40x20x100-AD+C | 100 | 20 | 52 |
| 30.06.08.662 | BT-P30x08x100-AD+C | 100 | 8 | 28 | 40.06.25.662 | BT-P40x25x100-AD+C | 100 | 25 | 63 |
| | | | | | 40.06.32.662 | BT-P40x32x100-AD+C | 100 | 32 | 72 |





Schrumpffutter ohne Kühlkanäle

Shrinking chucks without coolant channels

Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
 Concentricity from the taper to the holding part < 0,005

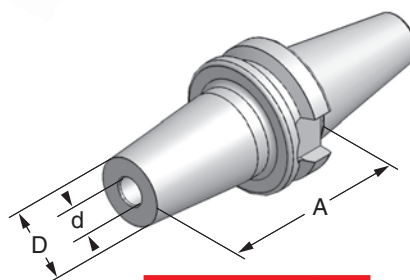
BT-P30 G 2,5 - 25.000 U/min. oder U < 1 gmm
BT-P40 G 2,5 - 20.000 U/min. oder U < 1 gmm



MAS BT-P mit Plananlage
 MAS BT-P with flange contact



BT-P30



BT-P40

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|------------------|----|----|----|-------------|------------------|----|----|----|
| 30.06.03.31 | BT-P30x03Sx70-AD | 70 | 3 | 10 | | | | | |
| 30.06.04.31 | BT-P30x04Sx70-AD | 70 | 4 | 11 | | | | | |
| 30.06.05.31 | BT-P30x05Sx70-AD | 70 | 5 | 14 | | | | | |
| 30.06.06.31 | BT-P30x06Sx70-AD | 70 | 6 | 21 | 40.06.06.31 | BT-P40x06Sx90-AD | 90 | 6 | 21 |
| 30.06.08.31 | BT-P30x08Sx70-AD | 70 | 8 | 21 | 40.06.08.31 | BT-P40x08Sx90-AD | 90 | 8 | 21 |
| 30.06.10.31 | BT-P30x10Sx70-AD | 70 | 10 | 24 | 40.06.10.31 | BT-P40x10Sx90-AD | 90 | 10 | 24 |
| 30.06.12.31 | BT-P30x12Sx70-AD | 70 | 12 | 24 | 40.06.12.31 | BT-P40x12Sx90-AD | 90 | 12 | 24 |
| 30.06.14.31 | BT-P30x14Sx70-AD | 70 | 14 | 27 | 40.06.14.31 | BT-P40x14Sx90-AD | 90 | 14 | 27 |
| 30.06.16.31 | BT-P30x16Sx70-AD | 70 | 16 | 27 | 40.06.16.31 | BT-P40x16Sx90-AD | 90 | 16 | 27 |
| 30.06.20.31 | BT-P30x20Sx70-AD | 70 | 20 | 33 | 40.06.20.31 | BT-P40x20Sx90-AD | 90 | 20 | 33 |

Schrumpffutter POWER-FLASH high speed

Shrinking chucks POWER-FLASH high speed

Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
 Concentricity from the taper to the holding part < 0,005

Optimale Kühlmittelzufuhr über Kühlkanäle in der Bohrung
 Best possible coolant supply through coolant channels in the boring

BT-P30 G 2,5 - 25.000 U/min. oder U < 1 gmm

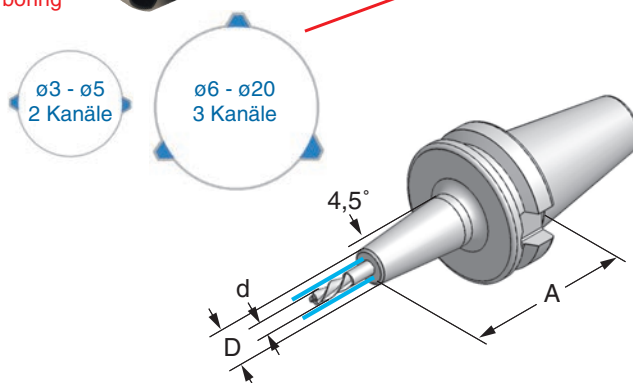
Lieferumfang ohne Werkzeug
 Delivery without tool



MAS BT-P mit Plananlage
 MAS BT-P with flange contact



BT-P30



| Art.-Nr. | Typ | A | d | D | | | | | |
|-------------|-------------------|----|----|----|--|--|--|--|--|
| 30.06.03.37 | BT-P30x03SCx70-AD | 70 | 3 | 10 | | | | | |
| 30.06.04.37 | BT-P30x04SCx70-AD | 70 | 4 | 11 | | | | | |
| 30.06.05.37 | BT-P30x05SCx70-AD | 70 | 5 | 14 | | | | | |
| 30.06.06.37 | BT-P30x06SCx70-AD | 70 | 6 | 21 | | | | | |
| 30.06.08.37 | BT-P30x08SCx70-AD | 70 | 8 | 21 | | | | | |
| 30.06.10.37 | BT-P30x10SCx70-AD | 70 | 10 | 24 | | | | | |
| 30.06.12.37 | BT-P30x12SCx70-AD | 70 | 12 | 24 | | | | | |
| 30.06.16.37 | BT-P30x16SCx70-AD | 70 | 16 | 27 | | | | | |
| 30.06.20.37 | BT-P30x20SCx70-AD | 70 | 20 | 33 | | | | | |



Messerkopfaufnahmen DIN 6357

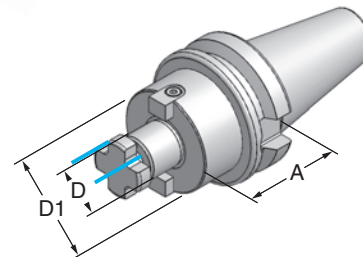
Shell mill adaptors for facing cutters DIN 6357

Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Concentricity from the taper to the holding part < 0,005

BT-P30 G 2,5 - 25.000 U/min. oder U < 1 gmm
BT-P40 G 2,5 - 20.000 U/min. oder U < 1 gmm



MAS BT-P mit Plananlage
MAS BT-P with flange contact



BT-P30

BT-P40

| Art.-Nr. | Typ | A | D | D1 | Art.-Nr. | Typ | A | D | D1 |
|------------|-------------------|----|----|----|-------------|--------------------|-----|----|----|
| 30.06.16.9 | BT-P30x16x40-AD+C | 40 | 16 | 39 | 40.06.16.9 | BT-P40x16x60-AD+C | 60 | 16 | 39 |
| 30.06.22.9 | BT-P30x22x40-AD+C | 40 | 22 | 48 | 40.06.22.9 | BT-P40x22x60-AD+C | 60 | 22 | 49 |
| 30.06.27.9 | BT-P30x27x40-AD+C | 40 | 27 | 48 | 40.06.27.9 | BT-P40x27x60-AD+C | 60 | 27 | 60 |
| | | | | | 40.06.32.9 | BT-P40x32x60-AD+C | 60 | 32 | 68 |
| | | | | | 40.06.16.92 | BT-P40x16x100-AD+C | 100 | 16 | 39 |
| | | | | | 40.06.22.92 | BT-P40x22x100-AD+C | 100 | 22 | 49 |
| | | | | | 40.06.27.92 | BT-P40x27x100-AD+C | 100 | 27 | 60 |
| | | | | | 40.06.32.92 | BT-P40x32x100-AD+C | 100 | 32 | 68 |

Aufnahmen für Einschraubfräser

Adaptors for end mills with thread shank

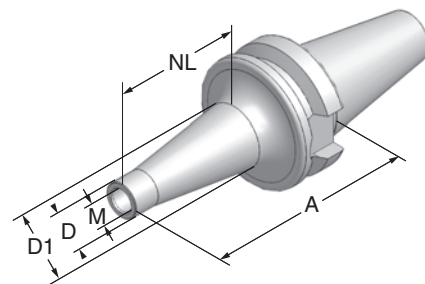
Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Concentricity from the taper to the holding part < 0,005

BT-P30 G 2,5 - 25.000 U/min. oder U < 1 gmm

Lieferumfang ohne Fräser
Delivery without tool



MAS BT-P mit Plananlage
MAS BT-P with flange contact



BT-P30

| Art.-Nr. | Typ | M | A | NL | D | D1 |
|--------------|------------------|----|----|----|----|----|
| 30.06.08.025 | BT-P30xM 8x25-AD | 8 | 50 | 25 | 13 | 15 |
| 30.06.08.050 | BT-P30xM 8x50-AD | 8 | 75 | 50 | 13 | 23 |
| 30.06.10.025 | BT-P30xM10x25-AD | 10 | 50 | 25 | 18 | 20 |
| 30.06.10.050 | BT-P30xM10x50-AD | 10 | 75 | 50 | 18 | 25 |
| 30.06.12.025 | BT-P30xM12x25-AD | 12 | 50 | 25 | 21 | 24 |
| 30.06.12.050 | BT-P30xM12x50-AD | 12 | 75 | 50 | 21 | 24 |
| 30.06.16.025 | BT-P30xM16x25-AD | 16 | 50 | 25 | 29 | 34 |

Rohling
Blank

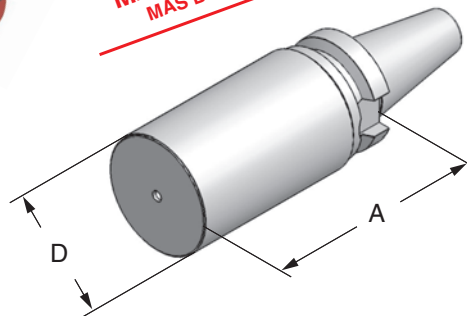
Sondergrößen auf Anfrage!
Special size on inquiry!



BT-P30



MAS BT-P mit Plananlage
MAS BT-P with flange contact

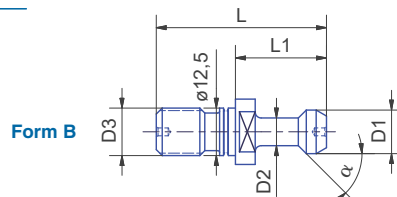
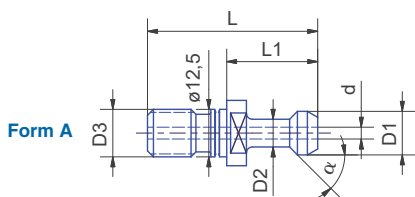


BT-P40

| Art.-Nr. | Typ | A | D | Art.-Nr. | Typ | A | D |
|---------------|----------------|-----|----|---------------|----------------|-----|----|
| 30.06.100.046 | BT-P30xø46x100 | 100 | 46 | 40.06.200.064 | BT-P40xø64x200 | 200 | 64 |
| 30.06.150.046 | BT-P30xø46x150 | 150 | 46 | | | | |

Anzugsbolzen MAS BT30x45°/60°
Retention knobs MAS BT30x45°/60°

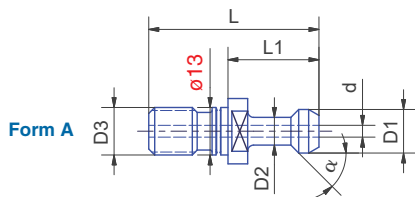
Anzugsbolzen MAS BT40 siehe Seite 43
Retention knobs MAS BT40 see page 43



Anzugsbolzen

| Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 | α | d | Form |
|------------|----------------------------|------|-----|-----|----|----|-----|------|------|
| 30.12.4 | BT30x45° | 11,0 | 7,0 | M12 | 43 | 23 | 45° | - | B |
| 30.12.4-C | BT30x45° iK | 11,0 | 7,0 | M12 | 43 | 23 | 45° | ø2,5 | A |
| 30.12.41 | BT30x60° | 11,0 | 7,0 | M12 | 43 | 23 | 60° | - | B |
| 30.12.41-C | BT30x60° iK | 11,0 | 7,0 | M12 | 43 | 23 | 60° | ø2,5 | A |
| 30.12.43-C | BT30x45° iK Fanuc | 11,0 | 8,0 | M12 | 43 | 23 | 45° | ø4 | A |
| 30.12.44-C | BT30x60° iK Brother | 11,0 | 7,5 | M12 | 43 | 23 | 60° | ø4 | A |

Anzugsbolzen SK30x45° für Fanuc Maschinen
Retention knob SK30x45° for Fanuc machines



Anzugsbolzen

| Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 | α | d | Form |
|-----------|--------------------------|------|-----|-----|------|------|-----|----|------|
| 30.12.1-F | SK30x45° iK Fanuc | 11,0 | 8,0 | M12 | 43,6 | 23,6 | 45° | ø4 | A |

Spannzangenfutter MAS BT15-30 - ETS16

Collet chucks MAS BT15-30 - ETS16

G 2,5 - 25.000 U/min. oder U < 1 gmm

Lieferumfang ohne Werkzeug und Spannzange
Delivery without tool and collet

Spannzangen siehe Seiten 48+49
Collets see pages 48+49

incl. Spannmutter ETS16



incl. Spannmutter ETS16C
Dichtscheibe muß separat bestellt werden

MAS BT

| Art.-Nr. | Typ | SK | A | D |
|---------------|--------------------|----|-----|----|
| 15.05.10.20E | BT15xETS16x40-AD | 15 | 40 | 27 |
| 20.05.10.20E | BT20xETS16x40-AD | 20 | 40 | 30 |
| 25.05.10.20E | BT25xETS16x45-AD | 25 | 45 | 35 |
| 30.05.10.20E | BT30xETS16x60-AD | 30 | 60 | 46 |
| 30.05.10.20EC | BT30xETS16Cx65-AD | 30 | 65 | 46 |
| 30.05.10.22E | BT30xETS16x100-AD | 30 | 100 | 46 |
| 30.05.10.22EC | BT30xETS16Cx105-AD | 30 | 105 | 46 |

Spannzangenfutter MAS BT15-30 DIN 6499 - ER16

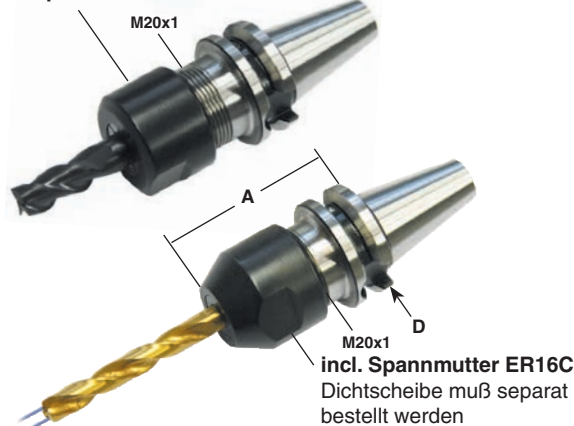
Collet chucks MAS BT15-30 DIN 6499 - ER16

G 2,5 - 25.000 U/min. oder U < 1 gmm

Lieferumfang ohne Werkzeug und Spannzange
Delivery without tool and collet

Spannzangen siehe Seiten 48+49
Collets see pages 48+49

incl. Spannmutter ER16



incl. Spannmutter ER16C
Dichtscheibe muß separat bestellt werden

MAS BT

| Art.-Nr. | Typ | SK | A | D |
|---------------|-------------------|----|-----|----|
| 15.05.10.20M | BT15xER16x40-AD | 15 | 40 | 27 |
| 20.05.10.20M | BT20xER16x40-AD | 20 | 40 | 30 |
| 25.05.10.20M | BT25xER16x45-AD | 25 | 45 | 35 |
| 30.05.10.20M | BT30xER16x60-AD | 30 | 60 | 46 |
| 30.05.10.20MC | BT30xER16Cx65-AD | 30 | 65 | 46 |
| 30.05.10.22M | BT30xER16x100-AD | 30 | 100 | 46 |
| 30.05.10.22MC | BT30xER16Cx105-AD | 30 | 105 | 46 |

Spannmuttern - ETS16 + ETS16C

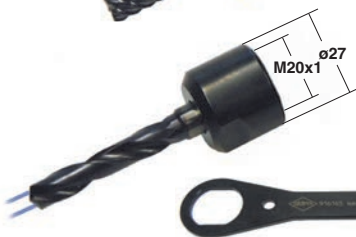
Collets - ETS16 + ETS16C

Lieferumfang ohne Werkzeug und Spannzange
Delivery without tool and collet

716120-2ETS
Spannmutter ETS16



716124-2ETS
Spannmutter ETS16C
abgedichtet
Nur Nennmaßspannung



916163
Spannschlüssel
ETS16 + ETS16C



| Art.-Nr. | Typ |
|-------------|-------------------------------|
| 716120-2ETS | Spannmutter ETS16 |
| 716124-2ETS | Spannmutter ETS16C |
| 916163 | Spannschlüssel ETS16 + ETS16C |

Spannmuttern - ER16 + ER16C

Collets - ER16 + ER16C

Lieferumfang ohne Werkzeug und Spannzange
Delivery without tool and collet

716120-2
Spannmutter ER16



716124-2
Spannmutter ER16C
abgedichtet



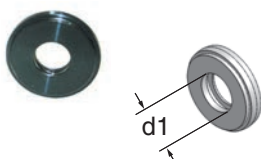
916162
Spannschlüssel
ER16 + ER16C



| Art.-Nr. | Typ |
|----------|-----------------------------|
| 716120-2 | Spannmutter ER16 |
| 716124-2 | Spannmutter ER16C |
| 916162 | Spannschlüssel ER16 + ER16C |

Dichtscheiben - ER16C + ETS16

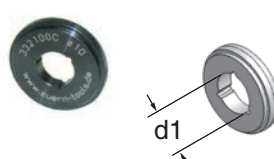
Sealing discs - ER16C + ETS16C



| Art.-Nr. | d1 |
|----------|--------|
| 316030 | ø3 - 2 |
| 316040 | ø4 - 3 |
| 316050 | ø5 - 4 |
| 316060 | ø6 - 5 |
| 316070 | ø7 - 6 |
| 316080 | ø8 - 7 |
| 316090 | ø9 - 8 |
| 316100 | ø10-9 |

Dichtscheiben - 3 Kühlkanäle für externe Kühlmittelzufuhr

Sealing discs - 3 coolant channels for external coolant



| Art.-Nr. | d1 |
|----------|---------|
| 316040C | ø4 - ø3 |
| 316060C | ø6 - ø5 |
| 316080C | ø8 - ø7 |

Spannzangenfutter für Spannzangen DIN 6499 (ER/ESX) + ETS16
Collet chucks for collets DIN 6499 (ER/ESX) + ETS16

Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Concentricity from the taper to the holding part < 0.005

µm-tool



Justierbar mit 4 Verstellerschrauben
Adjustable with 4 screws



0-2 µm



10-30 µm

Standard-Werkzeughalter
Standard-toolholder



Funktion:

Werkzeug-Rundlauffehler feststellen und dann Spannring mit Schraube in Position bringen.
Schraube spannen bis Rundlauffehler 0 - dann die restlichen Schrauben fest anlegen.

Function:

The run-out error of the tool must be determined and the clamping ring with screw must be brought in position.
Screw must be tightened until run-out error is 0 - after that the remaining screws can be tightened.

Spannzangenfutter MAS BT30 radial feinverstellbar

Collet chucks MAS BT30 radially adjustable

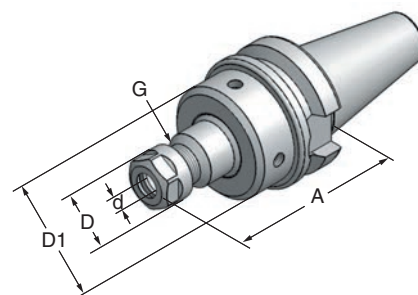


DIN 6499 - ER/ESX11 (ø1-7)

Lieferumfang ohne Spannzange
Delivery without collet
Spannzangen siehe Seiten 48+49
Collets see pages 48+49



30.05.07.28
(incl. Spannmutter ER11)



MAS BT 30

| Art.-Nr. | Typ | A | d | D | D1 | G |
|-------------|--|----|------|----|----|----------|
| 30.05.07.28 | BT30xER11x70-AD incl. Spannmutter ER11 | 70 | 1- 7 | 19 | 40 | M14x0,75 |

DIN 6499 - ER/ESX16 (ø1-10)

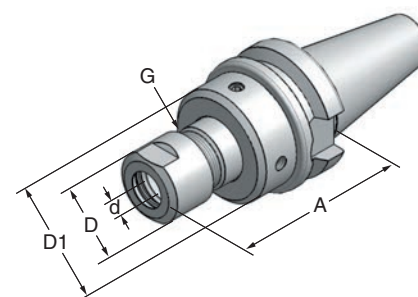
Lieferumfang ohne Spannzange
Delivery without collet
Spannzangen siehe Seiten 48+49
Collets see pages 48+49



optional

716124-2 Spannmutter ER16C
für Dichtscheiben
(Dichtscheiben separat bestellen)

30.05.10.28
(incl. Spannmutter ER16)



MAS BT 30

| Art.-Nr. | Typ | A | d | D | D1 | G |
|-------------|--|----|------|----|----|-------|
| 30.05.10.28 | BT30xER16x70-AD incl. Spannmutter ER16 | 70 | 1-10 | 25 | 40 | M20x1 |
| 716124-2 | Spannmutter ER16C für Dichtscheiben | | 1-10 | 25 | | M20x1 |

ETS16 (ø1-10)

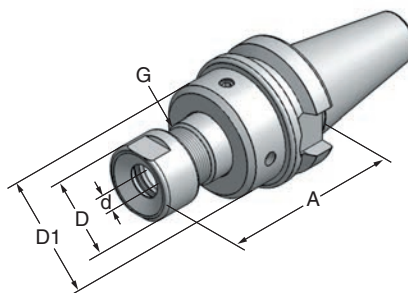
Lieferumfang ohne Spannzange
Delivery without collet
Spannzangen siehe Seiten 48+49
Collets see pages 48+49



optional

716124-2ETS Spannmutter ETS16C
für Dichtscheiben
(Dichtscheiben separat bestellen)

30.05.10.282
(incl. Spannmutter ETS16)



MAS BT 30

| Art.-Nr. | Typ | A | d | D | D1 | G |
|--------------|--|----|------|----|----|-------|
| 30.05.10.282 | BT30xETS16x70-AD incl. Spannmutter ETS16 | 70 | 1-10 | 27 | 40 | M20x1 |
| 716124-2ETS | Spannmutter ETS16C für Dichtscheiben | | 1-10 | 27 | | M20x1 |

Spannschlüssel



916162
SW 22

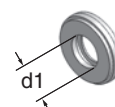


916163
SW 24

| Art.-Nr. | Typ |
|----------|--|
| 916162 | Spannschlüssel SW 22 für ER16 + ER 16C |
| 916163 | Spannschlüssel SW 24 für ETS16 + ETS 16C |

Dichtscheiben

für ER16C / ETS16C



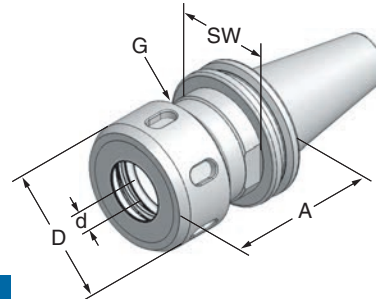
| Art.-Nr. | d1 |
|----------|--------|
| 316030 | ø3 - 2 |
| 316040 | ø4 - 3 |
| 316050 | ø5 - 4 |
| 316060 | ø6 - 5 |
| 316070 | ø7 - 6 |
| 316080 | ø8 - 7 |
| 316090 | ø9 - 8 |
| 316100 | ø10-9 |

Spannzangenfutter DIN 6391 ohne Mitnehmernut für Spannzangen DIN 6388 / ISO 10897
Collet chucks DIN 6391 without groove for collets ER/ESX DIN 6388 / ISO 10897

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
 Taper angle AT3, Concentricity from the taper to the holding part < 0,005

SK30 G 2,5 - 25.000 U/min. oder U < 1 gmm
SK40 G 2,5 - 20.000 U/min. oder U < 1 gmm

Spannzangen auf Anfrage
 Collets on inquiry



DIN 69871

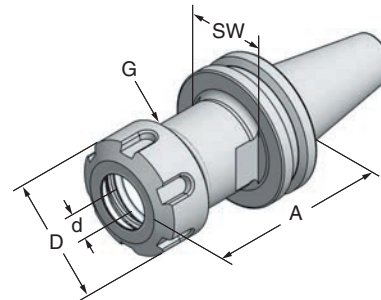
| Art.-Nr. | Typ | Spannzange / Collet | d | D | A | SW | G |
|-------------|-----------------|---------------------|--------|----|----|----|---------|
| 30.01.25.01 | SK30xOZ25x70-AD | 444E / 462E | 2 - 25 | 60 | 70 | 36 | M48x2,0 |
| 40.01.16.01 | SK40xOZ16x70-AD | 410E / 415E | 2 - 16 | 43 | 70 | 36 | M33x1,5 |
| 40.01.25.01 | SK40xOZ25x70-AD | 444E / 462E | 2 - 25 | 60 | 70 | 46 | M48x2,0 |

Spannzangenfutter ohne Mitnehmernut für Spannzangen ER/ESX DIN 6499 / ISO 15488
Collet chucks without groove for collets ER/ESX DIN 6499 / ISO 15488

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
 Taper angle AT3, Concentricity from the taper to the holding part < 0,005

SK30 G 2,5 - 25.000 U/min. oder U < 1 gmm
SK40 G 2,5 - 20.000 U/min. oder U < 1 gmm

Spannzangen siehe Seiten 48+49
 Collets see pages 48+49



DIN 69871

| Art.-Nr. | Typ | Spannzange / Collet | d | D | A | SW | G |
|--------------|------------------|---------------------|--------|----|-----|----|---------|
| 30.01.10.02 | SK30xER16x 70-AD | ER16 / 426E | 1 - 10 | 28 | 70 | 24 | M22x1,5 |
| 30.01.10.022 | SK30xER16x100-AD | ER16 / 426E | 1 - 10 | 28 | 100 | 24 | M22x1,5 |
| 30.01.16.02 | SK30xER25x 70-AD | ER25 / 430E | 2 - 16 | 42 | 70 | 27 | M32x1,5 |
| 30.01.16.022 | SK30xER25x100-AD | ER25 / 430E | 2 - 16 | 42 | 100 | 27 | M32x1,5 |
| 30.01.20.02 | SK30xER32x 70-AD | ER32 / 470E | 3 - 20 | 50 | 70 | 36 | M40x1,5 |
| 30.01.20.022 | SK30xER32x100-AD | ER32 / 470E | 3 - 20 | 50 | 100 | 36 | M40x1,5 |
| 30.01.26.02 | SK30xER40x 70-AD | ER40 / 472E | 4 - 26 | 63 | 70 | 41 | M50x1,5 |
| 40.01.16.02 | SK40xER25x 70-AD | ER25 / 430E | 2 - 16 | 42 | 70 | 36 | M32x1,5 |
| 40.01.20.02 | SK40xER32x 70-AD | ER32 / 470E | 3 - 20 | 50 | 70 | 36 | M40x1,5 |
| 40.01.26.02 | SK40xER40x 70-AD | ER40 / 472E | 4 - 26 | 63 | 70 | 46 | M50x1,5 |

Pendelhalter, achsparallel ausgleichend einstellbar, mit auswechselbaren Einsätzen

Floating holders with compensation adjustment parallel to the axis, with interchangeable cartridges

Lieferumfang ohne Einsatz
Delivery without insert

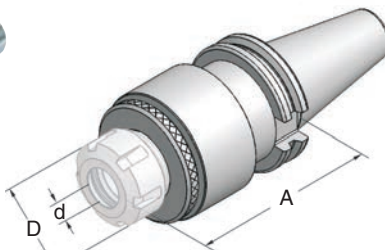


Abb. mit Einsatz 101101 ER25
Picture with insert 101101 ER25

*Der Einsatz muss separat bestellt werden!
The insert has to be ordered separately!*



DIN 69871

MAS BT

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|--------------|-----------|-----|------|----|--------------|-----------|-----|------|----|
| 40.01.70.350 | SK40-AD+B | 105 | 2-16 | 42 | 40.05.70.350 | BT40-AD+B | 105 | 2-16 | 42 |
| 50.01.70.350 | SK50-AD+B | 105 | 2-16 | 42 | 50.05.70.350 | BT50-AD+B | 105 | 2-16 | 42 |

Einsätze für Pendelhalter

Inserts for floating holder



Spannzangenhalter

Zylinderschaft

MK 2

| Art.-Nr. | Typ | Art.-Nr. | Typ | Art.-Nr. | Typ |
|----------------------------------|----------------------------|----------|----------------------|----------|----------------------|
| 101101 | Einsatz/Insert ER 25/430E* | 105101 | Einsatz/Insert B ø16 | 109101 | Einsatz/Insert C-MK2 |
| 102101 | Einsatz/Insert DA180/419E* | 106101 | Einsatz/Insert B ø18 | | |
| * incl. Spannmutter/Clamping nut | | 107101 | Einsatz/Insert B ø20 | | |
| | | 108101 | Einsatz/Insert B ø25 | | |

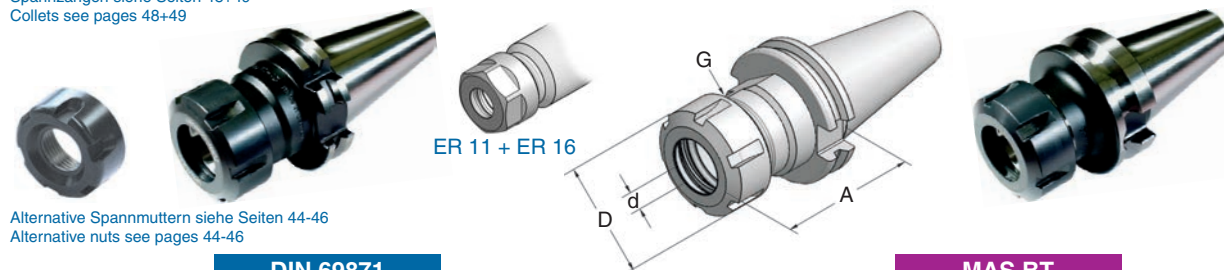
Spannzangenfutter für Spannzangen ER/ESX DIN 6499 / ISO 15488

Collet chucks for collets ER/ESX DIN 6499 / ISO 15488

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

SK30/BT30 G 2,5 - 25.000 U/min. oder U < 1 gmm
SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm
SK50/BT50 G 2,5 - 15.000 U/min. oder U < 1 gmm

Spannzangen siehe Seiten 48+49
Collets see pages 48+49



Alternative Spannmuttern siehe Seiten 44-46
Alternative nuts see pages 44-46

DIN 69871

MAS BT

| Art.-Nr. | Typ | A | d | D | G | Art.-Nr. | Typ | A | d | D | G |
|-------------|--------------------|-----|------|----|----------|---------------|--------------------|-----|------|----|----------|
| 30.01.07.2 | SK30xER11x 70-AD | 70 | 1- 7 | 19 | M14x0,75 | 30.05.07.2 | BT30xER11x 70-AD | 70 | 1- 7 | 19 | M14x0,75 |
| 30.01.10.2 | SK30xER16x 70-AD | 70 | 1-10 | 28 | M22x1,50 | 30.05.10.2 | BT30xER16x 70-AD | 70 | 1-10 | 28 | M22x1,50 |
| 30.01.10.20 | SK30xER16x 45-AD | 45 | 1-10 | 28 | M22x1,50 | 30.05.10.2-50 | BT30xER16x 50-AD | 50 | 1-10 | 28 | M22x1,50 |
| 30.01.16.2 | SK30xER25x 70-AD | 70 | 1-16 | 42 | M32x1,50 | 30.05.13.2 | BT30xER20x 70-AD | 70 | 1-13 | 35 | M25x1,50 |
| 30.01.20.2 | SK30xER32x 70-AD | 70 | 2-20 | 50 | M40x1,50 | 30.05.16.2 | BT30xER25x 70-AD | 70 | 1-16 | 42 | M32x1,50 |
| 30.01.26.2 | SK30xER40x 70-AD | 70 | 3-30 | 63 | M50x1,50 | 30.05.16.2-55 | BT30xER25x 55-AD | 55 | 1-16 | 42 | M32x1,50 |
| | | | | | | 30.05.20.2 | BT30xER32x 70-AD | 70 | 2-20 | 50 | M40x1,50 |
| | | | | | | 30.05.20.2-50 | BT30xER32x 50-AD | 50 | 2-20 | 50 | M40x1,50 |
| | | | | | | 30.05.26.2 | BT30xER40x 70-AD | 70 | 3-30 | 63 | M50x1,50 |
| | | | | | | | | | | | |
| 30.01.10.22 | SK30xER16x100-AD | 100 | 1-10 | 28 | M22x1,50 | 30.05.07.22 | BT30xER11x100-AD | 100 | 1- 7 | 19 | M14x0,75 |
| 30.01.16.22 | SK30xER25x100-AD | 100 | 1-16 | 42 | M32x1,50 | 30.05.10.22 | BT30xER16x100-AD | 100 | 1-10 | 28 | M22x1,50 |
| 30.01.20.22 | SK30xER32x100-AD | 100 | 2-20 | 63 | M40x1,50 | 30.05.13.22 | BT30xER20x100-AD | 100 | 1-13 | 35 | M25x1,50 |
| | | | | | | 30.05.16.22 | BT30xER25x100-AD | 100 | 1-16 | 42 | M32x1,50 |
| | | | | | | 30.05.20.22 | BT30xER32x100-AD | 100 | 2-20 | 50 | M40x1,50 |
| | | | | | | | | | | | |
| 40.01.07.2 | SK40xER11x 70-AD+B | 70 | 1- 7 | 19 | M14x0,75 | 40.05.10.2 | BT40xER16x 70-AD | 70 | 1-10 | 28 | M22x1,50 |
| 40.01.10.2 | SK40xER16x 70-AD+B | 70 | 1-10 | 28 | M22x1,50 | 40.05.13.21 | BT40xER20x 70-AD+B | 70 | 1-13 | 35 | M25x1,50 |
| 40.01.13.2 | SK40xER20x 70-AD+B | 70 | 1-13 | 35 | M25x1,50 | 40.05.16.2 | BT40xER25x 70-AD | 70 | 1-16 | 42 | M32x1,50 |
| 40.01.16.2 | SK40xER25x 70-AD+B | 70 | 1-16 | 42 | M32x1,50 | 40.05.20.2 | BT40xER32x 70-AD | 70 | 2-20 | 50 | M40x1,50 |
| 40.01.20.2 | SK40xER32x 70-AD+B | 70 | 2-20 | 50 | M40x1,50 | 40.05.20.21 | BT40xER32x 70-AD+B | 70 | 2-20 | 50 | M40x1,50 |
| 40.01.26.2 | SK40xER40x 70-AD+B | 70 | 3-30 | 63 | M50x1,50 | 40.05.26.2 | BT40xER40x 70-AD | 70 | 3-30 | 63 | M50x1,50 |
| 40.01.34.2 | SK40xER50x 85-AD+B | 85 | 6-34 | 78 | M64x2,00 | 40.05.26.21 | BT40xER40x 70-AD+B | 70 | 3-30 | 63 | M50x1,50 |
| | | | | | | 40.05.34.21 | BT40xER50x 85-AD+B | 85 | 6-34 | 78 | M64x2,00 |
| | | | | | | | | | | | |
| 40.01.07.22 | SK40xER11x100-AD+B | 100 | 1- 7 | 19 | M14x0,75 | 40.05.07.22 | BT40xER11x100-AD+B | 100 | 1- 7 | 19 | M14x0,75 |
| 40.01.10.22 | SK40xER16x100-AD+B | 100 | 1-10 | 28 | M22x1,50 | 40.05.10.22 | BT40xER16x100-AD+B | 100 | 1-10 | 28 | M22x1,50 |
| 40.01.13.22 | SK40xER20x100-AD+B | 100 | 1-13 | 35 | M25x1,50 | 40.05.13.22 | BT40xER20x100-AD+B | 100 | 1-13 | 35 | M25x1,50 |
| 40.01.16.22 | SK40xER25x100-AD+B | 100 | 1-16 | 42 | M32x1,50 | 40.05.16.22 | BT40xER25x100-AD+B | 100 | 1-16 | 42 | M32x1,50 |
| 40.01.20.22 | SK40xER32x100-AD+B | 100 | 2-20 | 50 | M40x1,50 | 40.05.20.22 | BT40xER32x100-AD+B | 100 | 2-20 | 50 | M40x1,50 |
| 40.01.26.22 | SK40xER40x100-AD+B | 100 | 3-30 | 63 | M50x1,50 | 40.05.26.22 | BT40xER40x100-AD+B | 100 | 3-30 | 63 | M50x1,50 |
| | | | | | | | | | | | |
| 40.01.10.23 | SK40xER16x160-AD+B | 160 | 1-10 | 28 | M22x1,50 | 40.05.10.23 | BT40xER16x160-AD+B | 160 | 1-10 | 28 | M22x1,50 |
| 40.01.16.23 | SK40xER25x160-AD+B | 160 | 1-16 | 42 | M32x1,50 | 40.05.16.23 | BT40xER25x160-AD+B | 160 | 1-16 | 42 | M32x1,50 |
| 40.01.20.23 | SK40xER32x160-AD+B | 160 | 2-20 | 50 | M40x1,50 | 40.05.20.23 | BT40xER32x160-AD+B | 160 | 2-20 | 50 | M40x1,50 |
| 40.01.26.23 | SK40xER40x160-AD+B | 160 | 3-30 | 63 | M50x1,50 | 40.05.26.23 | BT40xER40x160-AD+B | 160 | 3-30 | 63 | M50x1,50 |
| | | | | | | | | | | | |
| 50.01.10.2 | SK50xER16x100-AD+B | 100 | 1-10 | 28 | M22x1,50 | 50.05.10.2 | BT50xER16x100-AD+B | 100 | 1-10 | 28 | M22x1,50 |
| 50.01.16.2 | SK50xER25x100-AD+B | 100 | 1-16 | 42 | M32x1,50 | 50.05.16.2 | BT50xER25x100-AD+B | 100 | 1-16 | 42 | M32x1,50 |
| 50.01.20.2 | SK50xER32x100-AD+B | 100 | 2-20 | 50 | M40x1,50 | 50.05.20.2 | BT50xER32x100-AD+B | 100 | 2-20 | 50 | M40x1,50 |
| 50.01.26.2 | SK50xER40x100-AD+B | 100 | 3-30 | 63 | M50x1,50 | 50.05.26.2 | BT50xER40x100-AD+B | 100 | 3-30 | 63 | M50x1,50 |
| 50.01.34.2 | SK50xER50x100-AD+B | 100 | 6-34 | 78 | M64x2,00 | 50.05.34.2 | BT50xER50x100-AD+B | 100 | 6-34 | 78 | M64x2,00 |
| | | | | | | | | | | | |
| 50.01.10.23 | SK50xER16x160-AD+B | 160 | 1-10 | 28 | M22x1,50 | 50.05.10.23 | BT50xER16x160-AD+B | 160 | 1-10 | 28 | M22x1,50 |
| 50.01.16.23 | SK50xER25x160-AD+B | 160 | 1-16 | 42 | M32x1,50 | 50.05.16.23 | BT50xER25x160-AD+B | 160 | 1-16 | 42 | M32x1,50 |
| 50.01.20.23 | SK50xER32x160-AD+B | 160 | 2-20 | 50 | M40x1,50 | 50.05.20.23 | BT50xER32x160-AD+B | 160 | 2-20 | 50 | M40x1,50 |
| 50.01.26.23 | SK50xER40x160-AD+B | 160 | 3-30 | 63 | M50x1,50 | 50.05.26.23 | BT50xER40x160-AD+B | 160 | 3-30 | 63 | M50x1,50 |

Spannzangenfutter DIN 6391 für Spannzangen DIN 6388 / ISO 10897

Collet chucks DIN 6391 for collets DIN 6388 / ISO 10897

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005

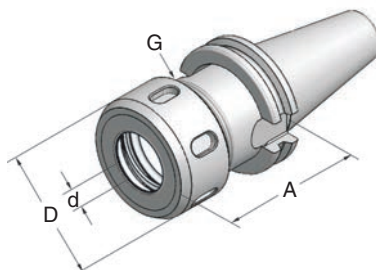
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

Spannzangen auf Anfrage
Collets on inquiry

SK30/BT30 G 2,5 - 25.000 U/min. oder U < 1 gmm

SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm

SK50/BT50 G 2,5 - 15.000 U/min. oder U < 1 gmm



DIN 69871

MAS BT

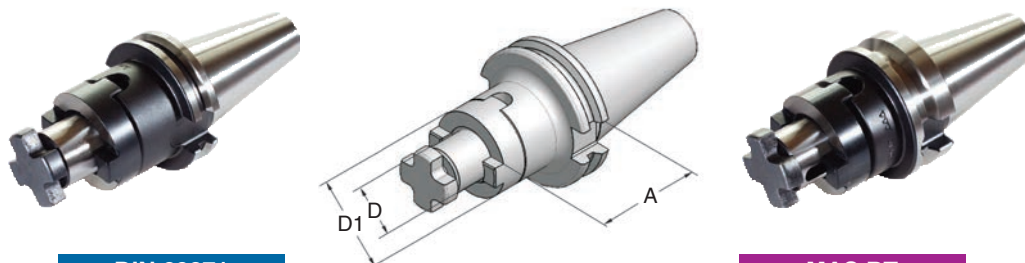
| Art.-Nr. | Typ | A | d | D | G | Art.-Nr. | Typ | A | d | D | G |
|-------------|--------------------|-----|------|----|---------|------------|------------------|-----|------|----|---------|
| | | | | | | 30.05.16.1 | BT30xOZ16x 70-AD | 70 | 1-16 | 43 | M33x1,5 |
| 40.01.16.10 | SK40xOZ16x 70-AD+B | 70 | 1-16 | 43 | M33x1,5 | 40.05.16.1 | BT40xOZ16x 70-AD | 70 | 1-16 | 43 | M33x1,5 |
| 40.01.16.12 | SK40xOZ16x100-AD+B | 100 | 1-16 | 43 | M33x1,5 | | | | | | |
| 40.01.25.10 | SK40xOZ25x 70-AD+B | 70 | 2-25 | 60 | M48x2,0 | 40.05.25.1 | BT40xOZ25x 70-AD | 70 | 2-25 | 60 | M48x2,0 |
| 40.01.25.12 | SK40xOZ25x100-AD+B | 100 | 2-25 | 60 | M48x2,0 | | | | | | |
| 40.01.32.10 | SK40xOZ32x 90-AD+B | 90 | 4-32 | 72 | M60x2,5 | 40.05.32.1 | BT40xOZ32x 80-AD | 80 | 4-32 | 72 | M60x2,5 |
| 50.01.25.10 | SK50xOZ25x100-AD+B | 100 | 2-25 | 60 | M48x2,0 | 50.05.25.1 | BT50xOZ25x100-AD | 100 | 2-25 | 60 | M48x2,0 |
| 50.01.32.10 | SK50xOZ32x100-AD+B | 100 | 4-32 | 72 | M60x2,5 | 50.05.32.1 | BT50xOZ32x100-AD | 100 | 4-32 | 72 | M60x2,5 |

Kombi-Aufsteckfräsdorne DIN 6358

Universal arbors DIN 6358

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005

Taper angle AT3, Concentricity from the taper to the holding part < 0,005



DIN 69871

MAS BT

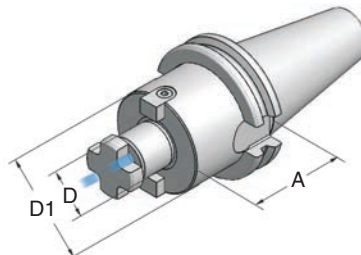
| Art.-Nr. | Typ | A | D | D1 | Art.-Nr. | Typ | A | D | D1 |
|-------------|----------------|-----|----|----|-------------|----------------|-----|----|----|
| 30.01.16.4 | SK30x16x 50-AD | 50 | 16 | 32 | 30.05.16.4 | BT30x16x 50-AD | 50 | 16 | 32 |
| 30.01.22.4 | SK30x22x 50-AD | 50 | 22 | 40 | 30.05.22.4 | BT30x22x 50-AD | 50 | 22 | 40 |
| 30.01.27.4 | SK30x27x 52-AD | 52 | 27 | 48 | 30.05.27.4 | BT30x27x 50-AD | 50 | 27 | 48 |
| 40.01.16.4 | SK40x16x 55-AD | 55 | 16 | 32 | 40.05.16.4 | BT40x16x 55-AD | 55 | 16 | 32 |
| 40.01.22.4 | SK40x22x 55-AD | 55 | 22 | 40 | 40.05.22.4 | BT40x22x 55-AD | 55 | 22 | 40 |
| 40.01.27.4 | SK40x27x 55-AD | 55 | 27 | 48 | 40.05.27.4 | BT40x27x 55-AD | 55 | 27 | 48 |
| 40.01.32.4 | SK40x32x 60-AD | 60 | 32 | 58 | 40.05.32.4 | BT40x32x 60-AD | 60 | 32 | 58 |
| 40.01.40.4 | SK40x40x 60-AD | 60 | 40 | 70 | 40.05.40.4 | BT40x40x 60-AD | 60 | 40 | 70 |
| 40.01.16.42 | SK40x16x100-AD | 100 | 16 | 32 | 40.05.16.42 | BT40x16x100-AD | 100 | 16 | 32 |
| 40.01.22.42 | SK40x22x100-AD | 100 | 22 | 40 | 40.05.22.42 | BT40x22x100-AD | 100 | 22 | 40 |
| 40.01.27.42 | SK40x27x100-AD | 100 | 27 | 48 | 40.05.27.42 | BT40x27x100-AD | 100 | 27 | 48 |
| 40.01.32.42 | SK40x32x100-AD | 100 | 32 | 58 | 40.05.32.42 | BT40x32x100-AD | 100 | 32 | 58 |
| 50.01.16.4 | SK50x16x 55-AD | 55 | 16 | 32 | 50.05.16.4 | BT50x16x 70-AD | 70 | 16 | 32 |
| 50.01.22.4 | SK50x22x 55-AD | 55 | 22 | 40 | 50.05.22.4 | BT50x22x 70-AD | 70 | 22 | 40 |
| 50.01.27.4 | SK50x27x 55-AD | 55 | 27 | 48 | 50.05.27.4 | BT50x27x 70-AD | 70 | 27 | 48 |
| 50.01.32.4 | SK50x32x 55-AD | 55 | 32 | 58 | 50.05.32.4 | BT50x32x 70-AD | 70 | 32 | 58 |
| 50.01.40.4 | SK50x40x 55-AD | 55 | 40 | 70 | 50.05.40.4 | BT50x40x 70-AD | 70 | 40 | 70 |
| 50.01.50.4 | SK50x50x 70-AD | 70 | 50 | 90 | 50.05.50.4 | BT50x50x 90-AD | 90 | 50 | 90 |
| 50.01.16.42 | SK50x16x100-AD | 100 | 16 | 32 | 50.05.16.42 | BT50x16x100-AD | 100 | 16 | 32 |
| 50.01.22.42 | SK50x22x100-AD | 100 | 22 | 40 | 50.05.22.42 | BT50x22x100-AD | 100 | 22 | 40 |
| 50.01.27.42 | SK50x27x100-AD | 100 | 27 | 48 | 50.05.27.42 | BT50x27x100-AD | 100 | 27 | 48 |
| 50.01.32.42 | SK50x32x100-AD | 100 | 32 | 58 | 50.05.32.42 | BT50x32x100-AD | 100 | 32 | 58 |
| 50.01.40.42 | SK50x40x100-AD | 100 | 40 | 70 | 50.05.40.42 | BT50x40x100-AD | 100 | 40 | 70 |

Messerkopfaufnahmen DIN 6357

Shell mill adaptors for facing cutters DIN 6357

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

SK30/BT30 G 2,5 - 25.000 U/min. oder U < 1 gmm
SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm
SK50/BT50 G 2,5 - 15.000 U/min. oder U < 1 gmm



DIN 69871

MAS BT

| Art.-Nr. | Typ | A | D | D1 | Art.-Nr. | Typ | A | D | D1 |
|------------|-------------------|----|----|-----|------------|-------------------|----|----|-----|
| | | | | | 30.05.16.9 | BT30x16x40-AD+C | 40 | 16 | 39 |
| | | | | | 30.05.22.9 | BT30x22x40-AD+C | 40 | 22 | 48 |
| | | | | | 30.05.27.9 | BT30x27x40-AD+C | 40 | 27 | 48 |
| 40.01.16.9 | SK40x16x50-AD+B+C | 50 | 16 | 39 | 40.05.16.9 | BT40x16x50-AD+B+C | 50 | 16 | 39 |
| 40.01.22.9 | SK40x22x50-AD+B+C | 50 | 22 | 49 | 40.05.22.9 | BT40x22x50-AD+B+C | 50 | 22 | 49 |
| 40.01.27.9 | SK40x27x50-AD+B+C | 50 | 27 | 60 | 40.05.27.9 | BT40x27x50-AD+B+C | 50 | 27 | 60 |
| 40.01.32.9 | SK40x32x60-AD+B+C | 60 | 32 | 68 | 40.05.32.9 | BT40x32x60-AD+B+C | 60 | 32 | 68 |
| 40.01.40.9 | SK40x40x60-AD+B+C | 60 | 40 | 88 | 40.05.40.9 | BT40x40x60-AD+B+C | 60 | 40 | 88 |
| 50.01.22.9 | SK50x22x60-AD+B+C | 60 | 22 | 49 | 50.05.22.9 | BT50x22x60-AD+B+C | 60 | 22 | 49 |
| 50.01.27.9 | SK50x27x60-AD+B+C | 60 | 27 | 60 | 50.05.27.9 | BT50x27x60-AD+B+C | 60 | 27 | 60 |
| 50.01.32.9 | SK50x32x60-AD+B+C | 60 | 32 | 68 | 50.05.32.9 | BT50x32x60-AD+B+C | 60 | 32 | 68 |
| 50.01.40.9 | SK50x40x70-AD+B+C | 70 | 40 | 88 | 50.05.40.9 | BT50x40x60-AD+B+C | 60 | 40 | 88 |
| 50.01.60.9 | SK50x60x70-AD+B+C | 70 | 60 | 128 | 50.05.60.9 | BT50x60x80-AD+B+C | 80 | 60 | 128 |

Zylinderschaftaufnahmen Weldon DIN 1835 B

Holders for straight shank tools Weldon DIN 1835 B

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005

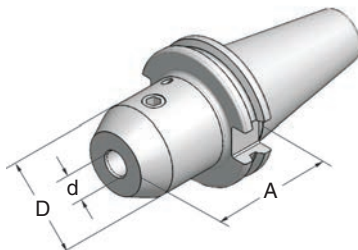
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

Spannschrauben siehe Seite 46

Clamping nuts see page 46

SK30/BT30 G 2,5 - 25.000 U/min. oder U < 1 gmm

SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm



DIN 69871

MAS BT

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|------------------|-----|----|----|-------------|------------------|-----|----|----|
| 30.01.06.6 | SK30x06x 60-AD | 60 | 6 | 25 | 30.05.06.60 | BT30x06x 60-AD | 60 | 6 | 25 |
| 30.01.08.6 | SK30x08x 60-AD | 60 | 8 | 28 | 30.05.08.60 | BT30x08x 60-AD | 60 | 8 | 28 |
| 30.01.10.6 | SK30x10x 60-AD | 60 | 10 | 35 | 30.05.10.60 | BT30x10x 60-AD | 60 | 10 | 35 |
| 30.01.12.6 | SK30x12x 60-AD | 60 | 12 | 42 | 30.05.12.60 | BT30x12x 60-AD | 60 | 12 | 42 |
| 30.01.14.6 | SK30x14x 60-AD | 60 | 14 | 44 | 30.05.14.60 | BT30x14x 60-AD | 60 | 14 | 44 |
| 30.01.16.6 | SK30x16x 60-AD | 60 | 16 | 48 | 30.05.16.60 | BT30x16x 60-AD | 60 | 16 | 48 |
| 30.01.18.6 | SK30x18x 60-AD | 60 | 18 | 50 | 30.05.18.60 | BT30x18x 60-AD | 60 | 18 | 50 |
| 30.01.20.6 | SK30x20x 60-AD | 60 | 20 | 50 | 30.05.20.60 | BT30x20x 60-AD | 60 | 20 | 50 |
| 30.01.25.6 | SK30x25x 75-AD | 75 | 25 | 50 | 30.05.25.60 | BT30x25x 75-AD | 75 | 25 | 50 |
| | | | | | 30.05.32.60 | BT30x32x 85-AD | 85 | 32 | 52 |
| 40.01.06.06 | SK40x06x 30-AD | 30 | 6 | 25 | 30.05.06.62 | BT30x06x100-AD | 100 | 6 | 25 |
| 40.01.08.06 | SK40x08x 30-AD | 30 | 8 | 28 | 30.05.08.62 | BT30x08x100-AD | 100 | 8 | 28 |
| 40.01.10.06 | SK40x10x 30-AD | 30 | 10 | 35 | 30.05.10.62 | BT30x10x100-AD | 100 | 10 | 35 |
| 40.01.12.06 | SK40x12x 35-AD | 35 | 12 | 42 | 30.05.12.62 | BT30x12x100-AD | 100 | 12 | 42 |
| 40.01.14.06 | SK40x14x 35-AD | 35 | 14 | 44 | 30.05.16.62 | BT30x16x100-AD | 100 | 16 | 48 |
| 40.01.16.06 | SK40x16x 35-AD | 35 | 16 | 48 | 30.05.20.62 | BT30x20x100-AD | 100 | 20 | 52 |
| 40.01.18.06 | SK40x18x 35-AD | 35 | 18 | 50 | | | | | |
| 40.01.20.06 | SK40x20x 35-AD | 35 | 20 | 50 | 40.05.16.06 | BT40x16x 35-AD | 35 | 16 | 48 |
| 40.01.25.06 | SK40x25x 35-AD | 35 | 25 | 50 | 40.05.20.06 | BT40x20x 35-AD | 35 | 20 | 50 |
| 40.01.32.06 | SK40x32x 35-AD | 35 | 32 | 50 | 40.05.25.06 | BT40x25x 35-AD | 35 | 25 | 50 |
| 40.01.06.6 | SK40x06x 65-AD+B | 65 | 6 | 25 | 40.05.06.60 | BT40x06x 65-AD | 65 | 6 | 25 |
| 40.01.08.6 | SK40x08x 65-AD+B | 65 | 8 | 28 | 40.05.08.60 | BT40x08x 65-AD | 65 | 8 | 28 |
| 40.01.10.6 | SK40x10x 65-AD+B | 65 | 10 | 35 | 40.05.10.60 | BT40x10x 65-AD | 65 | 10 | 35 |
| 40.01.12.6 | SK40x12x 65-AD+B | 65 | 12 | 42 | 40.05.12.60 | BT40x12x 65-AD | 65 | 12 | 42 |
| 40.01.14.6 | SK40x14x 65-AD+B | 65 | 14 | 44 | 40.05.14.60 | BT40x14x 65-AD | 65 | 14 | 44 |
| 40.01.16.6 | SK40x16x 65-AD+B | 65 | 16 | 48 | 40.05.16.60 | BT40x16x 65-AD | 65 | 16 | 48 |
| 40.01.18.6 | SK40x18x 65-AD+B | 65 | 18 | 50 | 40.05.18.60 | BT40x18x 65-AD | 65 | 18 | 50 |
| 40.01.20.6 | SK40x20x 65-AD+B | 65 | 20 | 50 | 40.05.20.60 | BT40x20x 65-AD | 65 | 20 | 50 |
| 40.01.25.6 | SK40x25x 75-AD+B | 75 | 25 | 64 | 40.05.25.60 | BT40x25x 65-AD | 65 | 25 | 64 |
| 40.01.32.6 | SK40x32x 75-AD+B | 75 | 32 | 72 | 40.05.32.60 | BT40x32x 75-AD | 75 | 32 | 72 |
| 40.01.40.6 | SK40x40x120-AD+B | 120 | 40 | 80 | 40.05.40.60 | BT40x40x120-AD+B | 120 | 40 | 80 |

Zylinderschaftaufnahmen Weldon DIN 1835 B

Holder for straight shank tools Weldon DIN 1835 B

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005

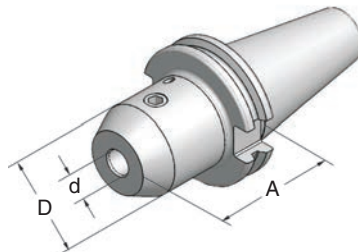
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

Spannschrauben siehe Seite 46

Clamping nuts see page 46

SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm

SK50/BT50 G 2,5 - 15.000 U/min. oder U < 1 gmm



DIN 69871

MAS BT

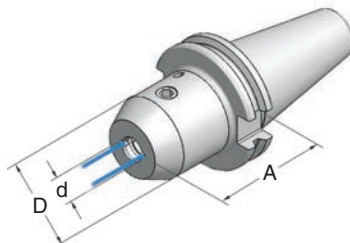
| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|--------------|------------------|-----|----|-----|-------------|------------------|-----|----|-----|
| 40.01.06.620 | SK40x06x100-AD+B | 100 | 6 | 25 | 40.05.06.62 | BT40x06x100-AD+B | 100 | 6 | 25 |
| 40.01.08.620 | SK40x08x100-AD+B | 100 | 8 | 28 | 40.05.08.62 | BT40x08x100-AD+B | 100 | 8 | 28 |
| 40.01.10.620 | SK40x10x100-AD+B | 100 | 10 | 35 | 40.05.10.62 | BT40x10x100-AD+B | 100 | 10 | 35 |
| 40.01.12.620 | SK40x12x100-AD+B | 100 | 12 | 42 | 40.05.12.62 | BT40x12x100-AD+B | 100 | 12 | 42 |
| 40.01.14.620 | SK40x14x100-AD+B | 100 | 14 | 44 | 40.05.14.62 | BT40x14x100-AD+B | 100 | 14 | 44 |
| 40.01.16.620 | SK40x16x100-AD+B | 100 | 16 | 48 | 40.05.16.62 | BT40x16x100-AD+B | 100 | 16 | 48 |
| 40.01.18.620 | SK40x18x100-AD+B | 100 | 18 | 50 | 40.05.18.62 | BT40x18x100-AD+B | 100 | 18 | 50 |
| 40.01.20.620 | SK40x20x100-AD+B | 100 | 20 | 50 | 40.05.20.62 | BT40x20x100-AD+B | 100 | 20 | 50 |
| 40.01.25.620 | SK40x25x100-AD+B | 100 | 25 | 64 | 40.05.25.62 | BT40x25x100-AD+B | 100 | 25 | 64 |
| 40.01.32.620 | SK40x32x100-AD+B | 100 | 32 | 72 | 40.05.32.62 | BT40x32x100-AD+B | 100 | 32 | 72 |
| 40.01.06.63 | SK40x06x160-AD+B | 160 | 6 | 25 | 40.05.06.63 | BT40x06x160-AD+B | 160 | 6 | 25 |
| 40.01.08.63 | SK40x08x160-AD+B | 160 | 8 | 28 | 40.05.08.63 | BT40x08x160-AD+B | 160 | 8 | 28 |
| 40.01.10.63 | SK40x10x160-AD+B | 160 | 10 | 35 | 40.05.10.63 | BT40x10x160-AD+B | 160 | 10 | 35 |
| 40.01.12.63 | SK40x12x160-AD+B | 160 | 12 | 42 | 40.05.12.63 | BT40x12x160-AD+B | 160 | 12 | 42 |
| 40.01.16.63 | SK40x16x160-AD+B | 160 | 16 | 44 | 40.05.16.63 | BT40x16x160-AD+B | 160 | 16 | 44 |
| 40.01.20.63 | SK40x20x160-AD+B | 160 | 20 | 48 | 40.05.20.63 | BT40x20x160-AD+B | 160 | 20 | 48 |
| 50.01.06.6 | SK50x06x 63-AD+B | 63 | 6 | 25 | 50.05.06.60 | BT50x06x 80-AD+B | 80 | 6 | 25 |
| 50.01.08.6 | SK50x08x 63-AD+B | 63 | 8 | 28 | 50.05.08.60 | BT50x08x 80-AD+B | 80 | 8 | 28 |
| 50.01.10.6 | SK50x10x 63-AD+B | 63 | 10 | 35 | 50.05.10.60 | BT50x10x 80-AD+B | 80 | 10 | 35 |
| 50.01.12.6 | SK50x12x 63-AD+B | 63 | 12 | 42 | 50.05.12.60 | BT50x12x 80-AD+B | 80 | 12 | 42 |
| 50.01.14.6 | SK50x14x 63-AD+B | 63 | 14 | 44 | 50.05.14.60 | BT50x14x 80-AD+B | 80 | 14 | 44 |
| 50.01.16.6 | SK50x16x 63-AD+B | 63 | 16 | 48 | 50.05.16.60 | BT50x16x 80-AD+B | 80 | 16 | 48 |
| 50.01.18.6 | SK50x18x 63-AD+B | 63 | 18 | 50 | 50.05.18.60 | BT50x18x 80-AD+B | 80 | 18 | 50 |
| 50.01.20.6 | SK50x20x 63-AD+B | 63 | 20 | 52 | 50.05.20.60 | BT50x20x 80-AD+B | 80 | 20 | 52 |
| 50.01.25.6 | SK50x25x 80-AD+B | 80 | 25 | 64 | 50.05.25.60 | BT50x25x100-AD+B | 100 | 25 | 64 |
| 50.01.32.6 | SK50x32x100-AD+B | 100 | 32 | 72 | 50.05.32.60 | BT50x32x120-AD+B | 120 | 32 | 72 |
| 50.01.40.6 | SK50x40x100-AD+B | 100 | 40 | 80 | 50.05.40.60 | BT50x40x120-AD+B | 120 | 40 | 80 |
| 50.01.50.6 | SK50x50x120-AD+B | 120 | 50 | 100 | 50.05.50.60 | BT50x50x125-AD+B | 125 | 50 | 100 |

Zylinderschaftaufnahmen Weldon DIN 1835 B mit Kühlkanal Holders for straight shank tools Weldon DIN 1835 B with coolant channel

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

Spannschrauben siehe Seite 46
Clamping nuts see page 46

SK30/BT30 G 2,5 - 25.000 U/min. oder U < 1 gmm
SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm
SK50/BT50 G 2,5 - 15.000 U/min. oder U < 1 gmm



Für Werkzeuge mit innerer Kühlmittelzufuhr muss ein O-Ring separat bestellt werden! Siehe Seite 24

Für Werkzeuge mit through coolant a sealing ring must be ordered separately! See page 24

DIN 69871

MAS BT

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|--------------|--------------------|-----|----|-----|--------------|--------------------|-----|----|-----|
| | | | | | 30.05.06.66 | BT30x06x 60-AD+C | 60 | 6 | 25 |
| | | | | | 30.05.08.66 | BT30x08x 60-AD+C | 60 | 8 | 28 |
| | | | | | 30.05.10.66 | BT30x10x 60-AD+C | 60 | 10 | 35 |
| | | | | | 30.05.12.66 | BT30x12x 60-AD+C | 60 | 12 | 42 |
| | | | | | 30.05.14.66 | BT30x14x 60-AD+C | 60 | 14 | 44 |
| | | | | | 30.05.16.66 | BT30x16x 60-AD+C | 60 | 16 | 48 |
| | | | | | 30.05.18.66 | BT30x18x 60-AD+C | 60 | 18 | 50 |
| | | | | | 30.05.20.66 | BT30x20x 60-AD+C | 60 | 20 | 52 |
| 40.01.06.66 | SK40x06x 65-AD+B+C | 65 | 6 | 25 | 40.05.06.66 | BT40x06x 65-AD+B+C | 65 | 6 | 25 |
| 40.01.08.66 | SK40x08x 65-AD+B+C | 65 | 8 | 28 | 40.05.08.66 | BT40x08x 65-AD+B+C | 65 | 8 | 28 |
| 40.01.10.66 | SK40x10x 65-AD+B+C | 65 | 10 | 35 | 40.05.10.66 | BT40x10x 65-AD+B+C | 65 | 10 | 35 |
| 40.01.12.66 | SK40x12x 65-AD+B+C | 65 | 12 | 42 | 40.05.12.66 | BT40x12x 65-AD+B+C | 65 | 12 | 42 |
| 40.01.14.66 | SK40x14x 65-AD+B+C | 65 | 14 | 44 | 40.05.14.66 | BT40x14x 65-AD+B+C | 65 | 14 | 44 |
| 40.01.16.66 | SK40x16x 65-AD+B+C | 65 | 16 | 48 | 40.05.16.66 | BT40x16x 65-AD+B+C | 65 | 16 | 48 |
| 40.01.18.66 | SK40x18x 65-AD+B+C | 65 | 18 | 50 | 40.05.18.66 | BT40x18x 65-AD+B+C | 65 | 18 | 50 |
| 40.01.20.66 | SK40x20x 65-AD+B+C | 65 | 20 | 52 | 40.05.20.66 | BT40x20x 65-AD+B+C | 65 | 20 | 52 |
| 40.01.25.66 | SK40x25x 75-AD+B+C | 75 | 25 | 64 | 40.05.25.66 | BT40x25x 75-AD+B+C | 75 | 25 | 64 |
| 40.01.32.66 | SK40x32x 75-AD+B+C | 75 | 32 | 72 | 40.05.32.66 | BT40x32x 75-AD+B+C | 75 | 32 | 72 |
| 40.01.06.662 | SK40x06x100-AD+B+C | 100 | 6 | 25 | 40.05.06.662 | BT40x06x100-AD+B+C | 100 | 6 | 25 |
| 40.01.08.662 | SK40x08x100-AD+B+C | 100 | 8 | 28 | 40.05.08.662 | BT40x08x100-AD+B+C | 100 | 8 | 28 |
| 40.01.10.662 | SK40x10x100-AD+B+C | 100 | 10 | 35 | 40.05.10.662 | BT40x10x100-AD+B+C | 100 | 10 | 35 |
| 40.01.12.662 | SK40x12x100-AD+B+C | 100 | 12 | 42 | 40.05.12.662 | BT40x12x100-AD+B+C | 100 | 12 | 42 |
| 40.01.16.662 | SK40x16x100-AD+B+C | 100 | 16 | 48 | 40.05.16.662 | BT40x16x100-AD+B+C | 100 | 16 | 48 |
| 40.01.20.662 | SK40x20x100-AD+B+C | 100 | 20 | 52 | 40.05.20.662 | BT40x20x100-AD+B+C | 100 | 20 | 52 |
| 40.01.25.662 | SK40x25x100-AD+B+C | 100 | 25 | 64 | 40.05.25.662 | BT40x25x100-AD+B+C | 100 | 25 | 64 |
| 40.01.32.662 | SK40x32x100-AD+B+C | 100 | 32 | 72 | 40.05.32.662 | BT40x32x100-AD+B+C | 100 | 32 | 72 |
| 50.01.06.66 | SK50x06x100-AD+B+C | 100 | 6 | 25 | 50.05.06.66 | BT50x06x100-AD+B+C | 100 | 6 | 25 |
| 50.01.08.66 | SK50x08x100-AD+B+C | 100 | 8 | 28 | 50.05.08.66 | BT50x08x100-AD+B+C | 100 | 8 | 28 |
| 50.01.10.66 | SK50x10x100-AD+B+C | 100 | 10 | 35 | 50.05.10.66 | BT50x10x100-AD+B+C | 100 | 10 | 35 |
| 50.01.12.66 | SK50x12x100-AD+B+C | 100 | 12 | 42 | 50.05.12.66 | BT50x12x100-AD+B+C | 100 | 12 | 42 |
| 50.01.14.66 | SK50x14x100-AD+B+C | 100 | 14 | 44 | 50.05.14.66 | BT50x14x100-AD+B+C | 100 | 14 | 44 |
| 50.01.16.66 | SK50x16x100-AD+B+C | 100 | 16 | 48 | 50.05.16.66 | BT50x16x100-AD+B+C | 100 | 16 | 48 |
| 50.01.18.66 | SK50x18x100-AD+B+C | 100 | 18 | 50 | 50.05.18.66 | BT50x18x100-AD+B+C | 100 | 18 | 50 |
| 50.01.20.66 | SK50x20x100-AD+B+C | 100 | 20 | 52 | 50.05.20.66 | BT50x20x100-AD+B+C | 100 | 20 | 52 |
| 50.01.25.66 | SK50x25x100-AD+B+C | 100 | 25 | 64 | 50.05.25.66 | BT50x25x100-AD+B+C | 100 | 25 | 64 |
| 50.01.32.66 | SK50x32x100-AD+B+C | 100 | 32 | 72 | 50.05.32.66 | BT50x32x120-AD+B+C | 120 | 32 | 72 |
| 50.01.40.66 | SK50x40x100-AD+B+C | 100 | 40 | 80 | 50.05.40.66 | BT50x40x120-AD+B+C | 120 | 40 | 80 |
| 50.01.50.66 | SK50x50x120-AD+B+C | 120 | 50 | 100 | 50.05.50.66 | BT50x50x165-AD+B+C | 165 | 50 | 100 |
| 50.01.10.663 | SK50x10x160-AD+B+C | 160 | 10 | 35 | 50.05.10.663 | BT50x10x160-AD+B+C | 160 | 10 | 35 |
| 50.01.12.663 | SK50x12x160-AD+B+C | 160 | 12 | 42 | 50.05.12.663 | BT50x12x160-AD+B+C | 160 | 12 | 42 |
| 50.01.16.663 | SK50x16x160-AD+B+C | 160 | 16 | 48 | 50.05.16.663 | BT50x16x160-AD+B+C | 160 | 16 | 48 |
| 50.01.20.663 | SK50x20x160-AD+B+C | 160 | 20 | 52 | 50.05.20.663 | BT50x20x160-AD+B+C | 160 | 20 | 52 |
| 50.01.25.663 | SK50x25x160-AD+B+C | 160 | 25 | 64 | 50.05.25.663 | BT50x25x160-AD+B+C | 160 | 25 | 64 |

Zylinderschaftaufnahmen Whistle-Notch DIN 1835 E

Holders for straight shank tools Whistle-Notch DIN 1835 E

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005

Taper angle AT3, Concentricity from the taper to the holding part < 0,005

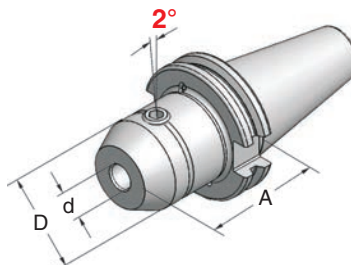
Spannschrauben siehe Seite 46

Clamping nuts see page 46

SK30/BT30 G 2,5 - 25.000 U/min. oder U < 1 gmm

SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm

SK50/BT50 G 2,5 - 15.000 U/min. oder U < 1 gmm

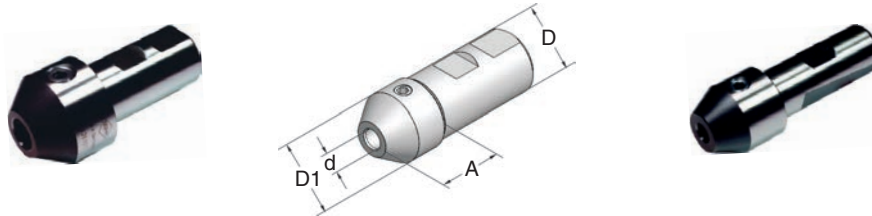


DIN 69871

MAS BT

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|--------------|-------------------|-----|----|----|--------------|-------------------|-----|----|----|
| | | | | | 30.05.06.65 | BT30x06Ex65-AD | 65 | 6 | 25 |
| | | | | | 30.05.08.65 | BT30x08Ex65-AD | 65 | 8 | 28 |
| | | | | | 30.05.10.65 | BT30x10Ex65-AD | 65 | 10 | 35 |
| | | | | | 30.05.12.65 | BT30x12Ex65-AD | 65 | 12 | 42 |
| | | | | | 30.05.14.65 | BT30x14Ex65-AD | 65 | 14 | 44 |
| | | | | | 30.05.16.65 | BT30x16Ex65-AD | 65 | 16 | 48 |
| | | | | | 30.05.20.65 | BT30x20Ex65-AD | 65 | 20 | 52 |
| 40.01.06.65 | SK40x06Ex 65-AD+B | 65 | 6 | 25 | 40.05.06.65 | BT40x06Ex 65-AD+B | 65 | 6 | 25 |
| 40.01.08.65 | SK40x08Ex 65-AD+B | 65 | 8 | 28 | 40.05.08.65 | BT40x08Ex 65-AD+B | 65 | 8 | 28 |
| 40.01.10.65 | SK40x10Ex 65-AD+B | 65 | 10 | 35 | 40.05.10.65 | BT40x10Ex 65-AD+B | 65 | 10 | 35 |
| 40.01.12.65 | SK40x12Ex 65-AD+B | 65 | 12 | 42 | 40.05.12.65 | BT40x12Ex 65-AD+B | 65 | 12 | 42 |
| 40.01.14.65 | SK40x14Ex 65-AD+B | 65 | 14 | 44 | 40.05.14.65 | BT40x14Ex 65-AD+B | 65 | 14 | 44 |
| 40.01.16.65 | SK40x16Ex 65-AD+B | 65 | 16 | 48 | 40.05.16.65 | BT40x16Ex 65-AD+B | 65 | 16 | 48 |
| 40.01.18.65 | SK40x18Ex 65-AD+B | 65 | 18 | 50 | 40.05.18.65 | BT40x18Ex 65-AD+B | 65 | 18 | 50 |
| 40.01.20.65 | SK40x20Ex 65-AD+B | 65 | 20 | 52 | 40.05.20.65 | BT40x20Ex 65-AD+B | 65 | 20 | 52 |
| 40.01.25.65 | SK40x25Ex 75-AD+B | 75 | 25 | 63 | 40.05.25.65 | BT40x25Ex 75-AD+B | 75 | 25 | 63 |
| 40.01.32.65 | SK40x32Ex 75-AD+B | 75 | 32 | 63 | 40.05.32.65 | BT40x32Ex 75-AD+B | 75 | 32 | 63 |
| 40.01.06.652 | SK40x06Ex100-AD+B | 100 | 6 | 25 | 40.05.06.652 | BT40x06Ex100-AD+B | 100 | 6 | 25 |
| 40.01.08.652 | SK40x08Ex100-AD+B | 100 | 8 | 28 | 40.05.08.652 | BT40x08Ex100-AD+B | 100 | 8 | 28 |
| 40.01.10.652 | SK40x10Ex100-AD+B | 100 | 10 | 35 | 40.05.10.652 | BT40x10Ex100-AD+B | 100 | 10 | 35 |
| 40.01.12.652 | SK40x12Ex100-AD+B | 100 | 12 | 42 | 40.05.12.652 | BT40x12Ex100-AD+B | 100 | 12 | 42 |
| 40.01.14.652 | SK40x14Ex100-AD+B | 100 | 14 | 44 | 40.05.14.652 | BT40x14Ex100-AD+B | 100 | 14 | 44 |
| 40.01.16.652 | SK40x16Ex100-AD+B | 100 | 16 | 48 | 40.05.16.652 | BT40x16Ex100-AD+B | 100 | 16 | 48 |
| 40.01.20.652 | SK40x20Ex100-AD+B | 100 | 20 | 52 | 40.05.20.652 | BT40x20Ex100-AD+B | 100 | 20 | 52 |
| 50.01.06.65 | SK50x06Ex 63-AD+B | 63 | 6 | 25 | 50.05.06.65 | BT50x06Ex 63-AD+B | 63 | 6 | 25 |
| 50.01.08.65 | SK50x08Ex 63-AD+B | 63 | 8 | 28 | 50.05.08.65 | BT50x08Ex 63-AD+B | 63 | 8 | 28 |
| 50.01.10.65 | SK50x10Ex 63-AD+B | 63 | 10 | 35 | 50.05.10.65 | BT50x10Ex 63-AD+B | 63 | 10 | 35 |
| 50.01.12.65 | SK50x12Ex 63-AD+B | 63 | 12 | 42 | 50.05.12.65 | BT50x12Ex 80-AD+B | 80 | 12 | 42 |
| 50.01.14.65 | SK50x14Ex 63-AD+B | 63 | 14 | 44 | 50.05.14.65 | BT50x14Ex 80-AD+B | 80 | 14 | 44 |
| 50.01.16.65 | SK50x16Ex 63-AD+B | 63 | 16 | 48 | 50.05.16.65 | BT50x16Ex 80-AD+B | 80 | 16 | 48 |
| 50.01.18.65 | SK50x18Ex 63-AD+B | 63 | 18 | 50 | 50.05.18.65 | BT50x18Ex 80-AD+B | 80 | 18 | 50 |
| 50.01.20.65 | SK50x20Ex 63-AD+B | 63 | 20 | 52 | 50.05.20.65 | BT50x20Ex 80-AD+B | 80 | 20 | 52 |
| 50.01.25.65 | SK50x25Ex 80-AD+B | 80 | 25 | 63 | 50.05.25.65 | BT50x25Ex100-AD+B | 100 | 25 | 63 |
| 50.01.32.65 | SK50x32Ex100-AD+B | 100 | 32 | 63 | 50.05.32.65 | BT50x32Ex105-AD+B | 105 | 32 | 63 |

Reduziereinsätze für Werkzeugschäfte nach DIN 1835 Form B & Form E
Reducing bushings for toolshanks DIN 1835 B and E



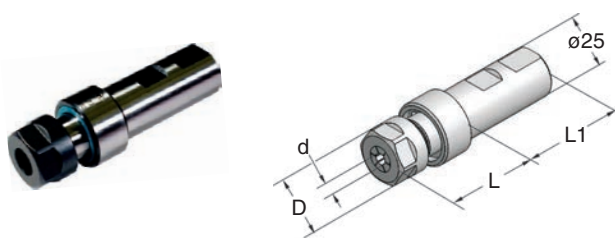
Weldon

Whistle-Notch

| Art.-Nr. | Typ | A | d | D | D1 | Art.-Nr. | Typ | A | d | D | D1 |
|----------|--------|----|----|----|----|----------|--------|----|----|----|----|
| 437101 | ø20x06 | 29 | 6 | 20 | 25 | 441101 | ø20x06 | 29 | 6 | 20 | 25 |
| 438101 | ø20x08 | 29 | 8 | 20 | 28 | 442101 | ø20x08 | 29 | 8 | 20 | 28 |
| 439101 | ø20x10 | 29 | 10 | 20 | 35 | 443101 | ø20x10 | 29 | 10 | 20 | 35 |
| 440101 | ø20x12 | 35 | 12 | 20 | 42 | 444101 | ø20x12 | 35 | 12 | 20 | 42 |
| 421101 | ø32x06 | 27 | 6 | 32 | 25 | 429101 | ø32x06 | 27 | 6 | 32 | 25 |
| 422101 | ø32x08 | 27 | 8 | 32 | 28 | 430101 | ø32x08 | 27 | 8 | 32 | 28 |
| 423101 | ø32x10 | 30 | 10 | 32 | 35 | 431101 | ø32x10 | 30 | 10 | 32 | 35 |
| 424101 | ø32x12 | 35 | 12 | 32 | 42 | 432101 | ø32x12 | 35 | 12 | 32 | 42 |
| 425101 | ø32x14 | 35 | 14 | 32 | 44 | 433101 | ø32x14 | 35 | 14 | 32 | 44 |
| 426101 | ø32x16 | 38 | 16 | 32 | 48 | 434101 | ø32x16 | 38 | 16 | 32 | 48 |
| 427101 | ø32x18 | 38 | 18 | 32 | 50 | 435101 | ø32x18 | 38 | 18 | 32 | 50 |
| 428101 | ø32x20 | 40 | 20 | 32 | 52 | 436101 | ø32x20 | 40 | 20 | 32 | 52 |

Gewindeschneidfutter für Spannzangen ER/ESX
Tapping head for collets ER/ESX

Längenausgleich auf Druck + Zug
Flexible position for compression and tension



Weldon ø25

| Art.-Nr. | Typ | d | D | L | L1 |
|----------|----------|------|----|----|----|
| 25.12.13 | ø32x1-10 | 1-10 | 32 | 45 | 56 |

O-Ringe für Zylinderschaftaufnahme Weldon DIN 1835 B mit Kühlkanal (siehe Seite 22)
Sealing rings for holders for straight shank tools Weldon DIN 1835 B with through tool coolant channel (see page 22)



O-Ring

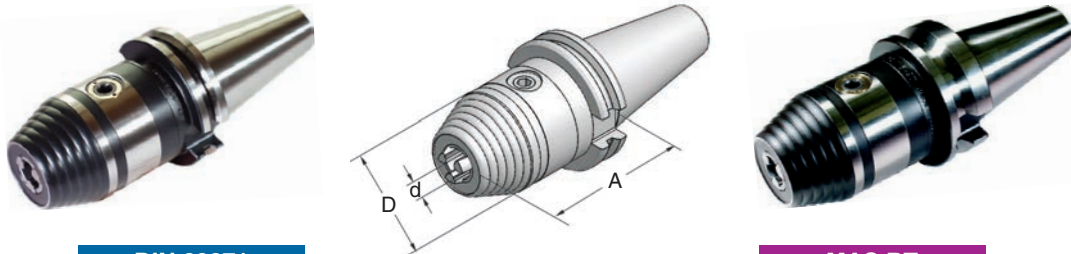
O-Ring

| Art.-Nr. | Typ | Art.-Nr. | Typ |
|----------|------------|----------|------------|
| 270100 | 6,0 x 1,5 | 276100 | 18,0 x 2,5 |
| 271100 | 8,0 x 1,5 | 277100 | 20,0 x 2,5 |
| 272100 | 10,0 x 2,0 | 278100 | 25,0 x 3,0 |
| 273100 | 12,0 x 2,0 | 279100 | 32,0 x 3,0 |
| 274100 | 14,0 x 2,0 | 299100 | 40,0 x 3,5 |
| 275100 | 16,0 x 2,5 | 300100 | 50,0 x 3,5 |

NC-Bohrfutter für Rechts- und Linkslauf CNC-Drill chucks for clockwise and anti-clockwise rotation

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,04
Taper angle AT3, Concentricity from the taper to the holding part < 0,04

Grundkörper gewuchtet G 2,5 - 8.000 U/min.
Base-body balanced G 2,5 - 8.000 r.p.m



DIN 69871

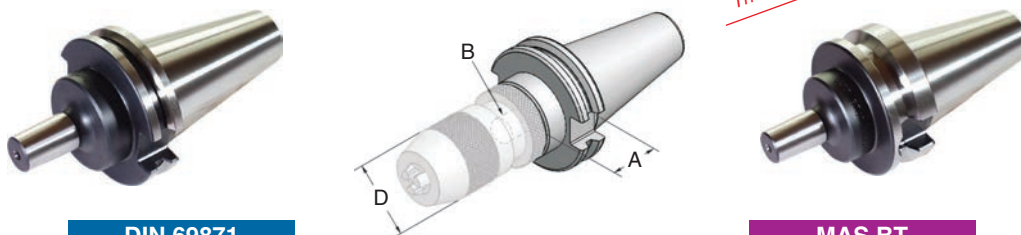
MAS BT

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-----------|-------------------|----|-------|----|-----------|--------------------|-----|-------|----|
| 30.01.08 | SK30x1 - 8x70 | 70 | 1 - 8 | 36 | 30.05.08 | BT30x1 - 8x 73 | 73 | 1 - 8 | 36 |
| 30.01.13 | SK30x1-13x90 | 90 | 1-13 | 50 | | | | | |
| 40.01.13 | SK40x1-13x90 | 90 | 1-13 | 50 | 40.05.13 | BT40x1-13x 98 | 98 | 1-13 | 50 |
| 40.01.16 | SK40x3-16x90 | 90 | 3-16 | 57 | 40.05.16 | BT40x3-16x 98 | 98 | 3-16 | 57 |
| 40.01.13k | SK40x1-13x90-AD+B | 90 | 1-13 | 50 | 40.05.13k | BT40x1-13x 98-AD+B | 98 | 1-13 | 50 |
| 40.01.16k | SK40x3-16x90-AD+B | 90 | 3-16 | 57 | 40.05.16k | BT40x3-16x 98-AD+B | 98 | 3-16 | 57 |
| 50.01.13 | SK50x1-13x90 | 90 | 1-13 | 50 | 50.05.13 | BT50x1-13x108 | 108 | 1-13 | 50 |
| 50.01.16 | SK50x3-16x90 | 90 | 3-16 | 57 | 50.05.16 | BT50x3-16x108 | 108 | 3-16 | 57 |
| 50.01.13k | SK50x1-13x90-AD+B | 90 | 1-13 | 50 | 50.05.13k | BT50x1-13x108-AD+B | 108 | 1-13 | 50 |
| 50.01.16k | SK50x3-16x90-AD+B | 90 | 3-16 | 57 | 50.05.16k | BT50x3-16x108-AD+B | 108 | 3-16 | 57 |

Bohrfutteraufnahmen DIN 238 Drill chuck arbors DIN 238

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

*Das Bohrfutter muss separat bestellt werden!
The drill chuck has to be ordered separately!*



DIN 69871

MAS BT

| Art.-Nr. | Typ | A | B | D | Art.-Nr. | Typ | A | B | D |
|------------|----------|----|----|----|------------|----------|----|----|----|
| 30.01.12.8 | SK30xB12 | 23 | 12 | 43 | 30.05.12.8 | BT30xB12 | 26 | 12 | 43 |
| 30.01.16.8 | SK30xB16 | 24 | 16 | 50 | 30.05.16.8 | BT30xB16 | 27 | 16 | 50 |
| 40.01.12.8 | SK40xB12 | 35 | 12 | 43 | 40.05.12.8 | BT40xB12 | 43 | 12 | 43 |
| 40.01.16.8 | SK40xB16 | 36 | 16 | 50 | 40.05.16.8 | BT40xB16 | 44 | 16 | 50 |
| 50.01.16.8 | SK50xB12 | 25 | 16 | 50 | 50.05.16.8 | BT50xB12 | 43 | 16 | 50 |
| 50.01.18.8 | SK50xB16 | 25 | 18 | 56 | 50.05.18.8 | BT50xB16 | 43 | 18 | 56 |

Bohrfutter Drill chucks



Typ B12

Typ B16

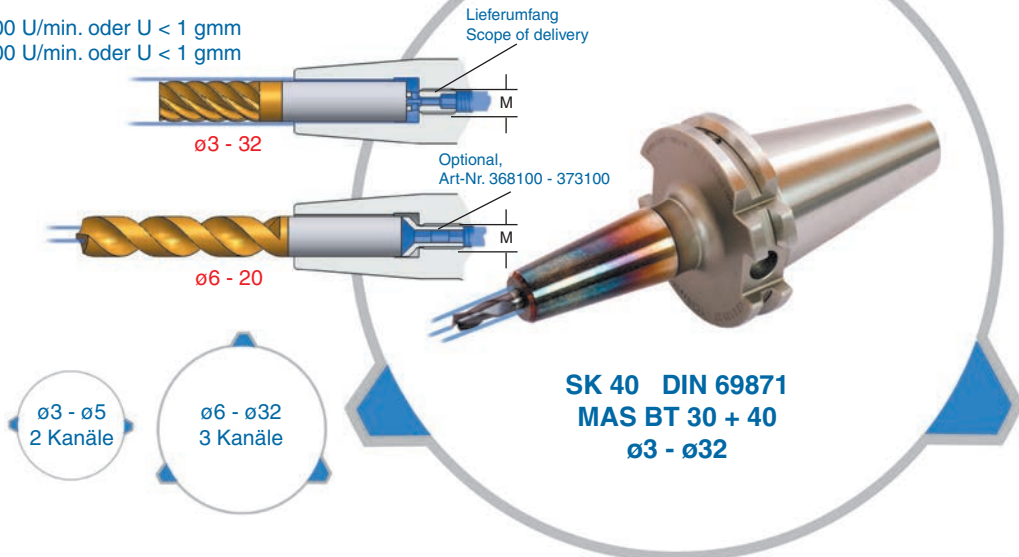
| Art.-Nr. | Typ | Art.-Nr. | Typ |
|----------|----------------|----------|----------------|
| 287100 | B12xø0,5-10x80 | 289100 | B16xø1,0-13x90 |
| | | 290100 | B16xø2,5-16x95 |

Schrumpffutter **POWER-FLASH** high-speed Shrinking chucks **POWER-FLASH** high-speed

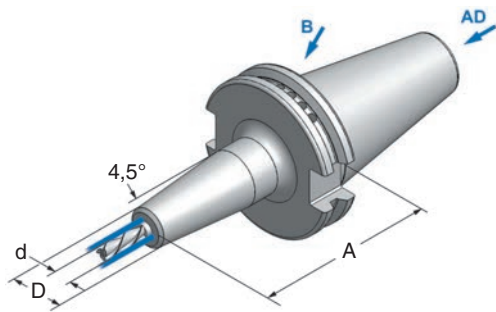
Optimale Kühlmittelzufuhr über Kühlkanäle in der Bohrung
Konzentrierte Kühlmittelzufuhr bis 20.000 U/min zur Werkzeugschneide
Best possible coolant supply through coolant channels in the boring
Concentrated coolant supply up to 20.000 r.p.m. to the cutting edge

BT30 G 2,5 - 25.000 U/min. oder U < 1 gmm
SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm

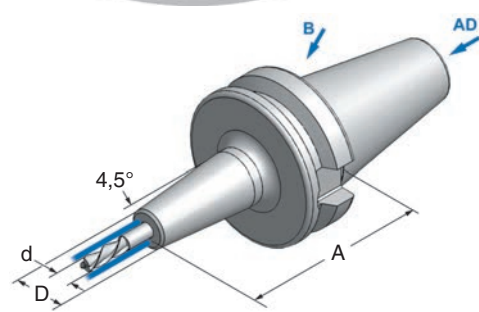
Lieferumfang ohne Werkzeug
Delivery without tool



| Anschlagschraube Stop screw | | |
|--------------------------------|-----|-------|
| Art.-Nr. | d | M |
| 368100 | ø6 | M 8x1 |
| 369100 | ø8 | M 8x1 |
| 370100 | ø10 | M10x1 |
| 371100 | ø12 | M10x1 |
| 372100 | ø16 | M10x1 |
| 373100 | ø20 | M10x1 |



DIN 69871



MAS BT

| Art.-Nr. | Typ | A | d | D | M | Art.-Nr. | Typ | A | d | D | M |
|-------------|--------------------|-----|----|----|-------|-------------|--------------------|-----|----|----|-------|
| 40.01.03.37 | SK40x03SCx 80-AD+B | 80 | 3 | 10 | M6 | 30.05.03.37 | BT30x03SCx 70-AD | 70 | 3 | 10 | M6 |
| 40.01.04.37 | SK40x04SCx 80-AD+B | 80 | 4 | 11 | M6 | 30.05.04.37 | BT30x04SCx 70-AD | 70 | 4 | 11 | M6 |
| 40.01.05.37 | SK40x05SCx 80-AD+B | 80 | 5 | 14 | M8x1 | 30.05.05.37 | BT30x05SCx 70-AD | 70 | 5 | 14 | M8x1 |
| 40.01.06.37 | SK40x06SCx 80-AD+B | 80 | 6 | 16 | M8x1 | 30.05.06.37 | BT30x06SCx 70-AD | 70 | 6 | 21 | M8x1 |
| 40.01.08.37 | SK40x08SCx 80-AD+B | 80 | 8 | 21 | M8x1 | 30.05.08.37 | BT30x08SCx 70-AD | 70 | 8 | 21 | M8x1 |
| 40.01.10.37 | SK40x10SCx 80-AD+B | 80 | 10 | 24 | M10x1 | 30.05.10.37 | BT30x10SCx 70-AD | 70 | 10 | 24 | M10x1 |
| 40.01.12.37 | SK40x12SCx 80-AD+B | 80 | 12 | 24 | M10x1 | 30.05.12.37 | BT30x12SCx 70-AD | 70 | 12 | 24 | M10x1 |
| 40.01.16.37 | SK40x16SCx 80-AD+B | 80 | 16 | 27 | M10x1 | 30.05.16.37 | BT30x16SCx 70-AD | 70 | 16 | 27 | M10x1 |
| 40.01.20.37 | SK40x20SCx 80-AD+B | 80 | 20 | 33 | M10x1 | 30.05.20.37 | BT30x20SCx 70-AD | 70 | 20 | 33 | M10x1 |
| 40.01.25.37 | SK40x25SCx100-AD+B | 100 | 25 | 44 | M10x1 | | | | | | |
| 40.01.32.37 | SK40x32SCx100-AD+B | 100 | 32 | 44 | M10x1 | 40.05.03.37 | BT40x03SCx 80-AD+B | 80 | 3 | 10 | M6 |
| | | | | | | 40.05.04.37 | BT40x04SCx 80-AD+B | 80 | 4 | 11 | M6 |
| | | | | | | 40.05.05.37 | BT40x05SCx 80-AD+B | 80 | 5 | 14 | M8x1 |
| | | | | | | 40.05.06.37 | BT40x06SCx 80-AD+B | 80 | 6 | 16 | M8x1 |
| | | | | | | 40.05.08.37 | BT40x08SCx 80-AD+B | 80 | 8 | 21 | M8x1 |
| | | | | | | 40.05.10.37 | BT40x10SCx 80-AD+B | 80 | 10 | 24 | M10x1 |
| | | | | | | 40.05.12.37 | BT40x12SCx 80-AD+B | 80 | 12 | 24 | M10x1 |
| | | | | | | 40.05.16.37 | BT40x16SCx 80-AD+B | 80 | 16 | 27 | M10x1 |
| | | | | | | 40.05.20.37 | BT40x20SCx 80-AD+B | 80 | 20 | 33 | M10x1 |
| | | | | | | 40.05.25.37 | BT40x25SCx100-AD+B | 100 | 25 | 44 | M10x1 |
| | | | | | | 40.05.32.37 | BT40x32SCx100-AD+B | 100 | 32 | 44 | M10x1 |

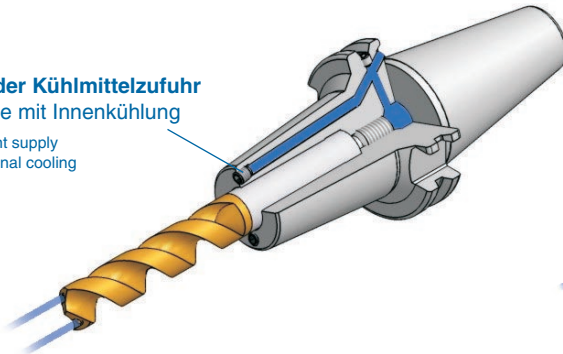
Schrumpffutter mit verschließbaren Kühlkanälen Shrinking chucks with lockable coolant channels

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

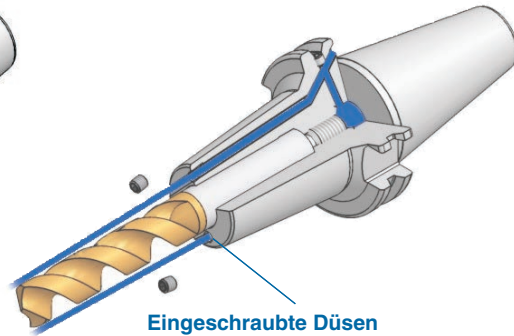
SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm
SK50/BT50 G 2,5 - 15.000 U/min. oder U < 1 gmm

Lieferumfang ohne Werkzeug
Delivery without tool

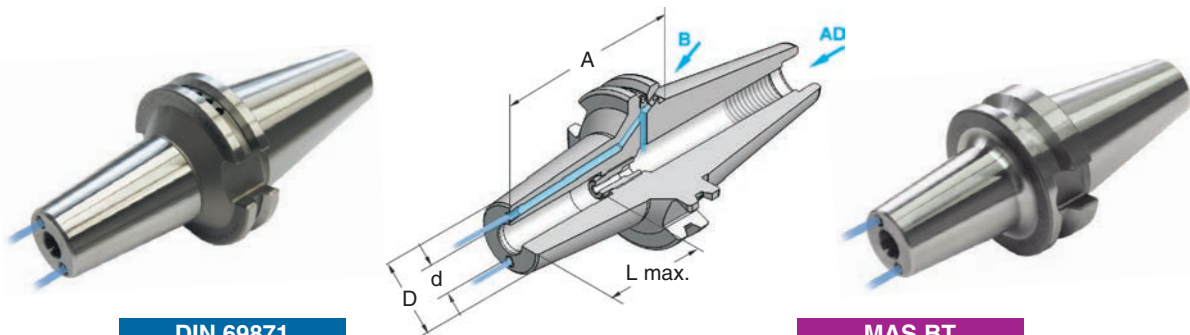
**Verschluss der Kühlmittelzufuhr
für Werkzeuge mit Innenkühlung**
Seal of the coolant supply
for tools with internal cooling



**Eingeschraubte Düsen
garantieren konzentrierten
Kühlmittelstrahl zur Schneide**
Screwed in coolant nozzles guarantee
concentrated jet of coolant to the edge



*Sonderausführungen auf Anfrage
Special executions on inquiry*



DIN 69871

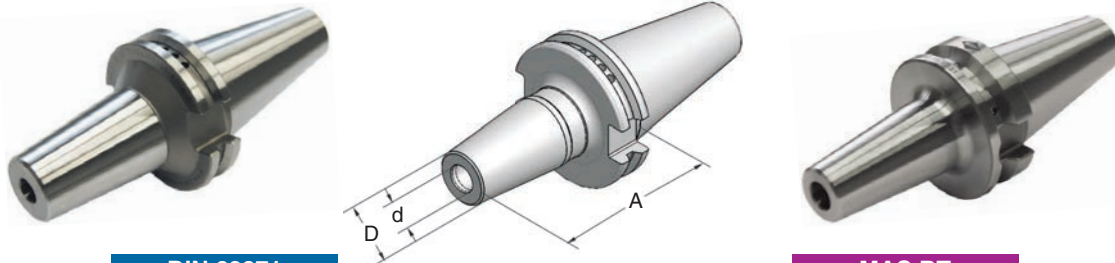
MAS BT

| Art.-Nr. | Typ | A | d | D | L | Art.-Nr. | Typ | A | d | D | L |
|--------------|---------------------|-----|----|----|----|-------------|---------------------|-----|----|----|----|
| 40.01.08.36 | SK40x08Sx 80-AD+B+C | 80 | 8 | 24 | 40 | 40.05.08.36 | BT40x08Sx 80-AD+B+C | 80 | 8 | 24 | 40 |
| 40.01.10.36 | SK40x10Sx 80-AD+B+C | 80 | 10 | 26 | 42 | 40.05.10.36 | BT40x10Sx 80-AD+B+C | 80 | 10 | 26 | 42 |
| 40.01.12.36 | SK40x12Sx 80-AD+B+C | 80 | 12 | 28 | 47 | 40.05.12.36 | BT40x12Sx 80-AD+B+C | 80 | 12 | 28 | 47 |
| 40.01.14.36 | SK40x14Sx 80-AD+B+C | 80 | 14 | 30 | 47 | 40.05.14.36 | BT40x14Sx 80-AD+B+C | 80 | 14 | 30 | 47 |
| 40.01.16.36 | SK40x16Sx 80-AD+B+C | 80 | 16 | 32 | 50 | 40.05.16.36 | BT40x16Sx 80-AD+B+C | 80 | 16 | 32 | 50 |
| 40.01.18.36 | SK40x18Sx 80-AD+B+C | 80 | 18 | 34 | 50 | 40.05.18.36 | BT40x18Sx 80-AD+B+C | 80 | 18 | 34 | 50 |
| 40.01.20.36 | SK40x20Sx 80-AD+B+C | 80 | 20 | 36 | 52 | 40.05.20.36 | BT40x20Sx 80-AD+B+C | 80 | 20 | 36 | 52 |
| 40.01.25.36 | SK40x25Sx 90-AD+B+C | 90 | 25 | 42 | 58 | 40.05.25.36 | BT40x25Sx 90-AD+B+C | 90 | 25 | 42 | 58 |
| 50.01.08.36 | SK50x08Sx100-AD+B+C | 100 | 8 | 24 | 40 | 50.05.08.36 | BT50x08Sx100-AD+B+C | 100 | 8 | 24 | 40 |
| 50.01.10.36 | SK50x10Sx100-AD+B+C | 100 | 10 | 26 | 42 | 50.05.10.36 | BT50x10Sx100-AD+B+C | 100 | 10 | 26 | 42 |
| 50.01.12.36 | SK50x12Sx100-AD+B+C | 100 | 12 | 28 | 47 | 50.05.12.36 | BT50x12Sx100-AD+B+C | 100 | 12 | 28 | 47 |
| 50.01.14.36 | SK50x14Sx100-AD+B+C | 100 | 14 | 30 | 47 | 50.05.14.36 | BT50x14Sx100-AD+B+C | 100 | 14 | 30 | 47 |
| 50.01.16.36 | SK50x16Sx100-AD+B+C | 100 | 16 | 32 | 50 | 50.05.16.36 | BT50x16Sx100-AD+B+C | 100 | 16 | 32 | 50 |
| 50.01.20.36 | SK50x20Sx100-AD+B+C | 100 | 20 | 36 | 52 | 50.05.20.36 | BT50x20Sx100-AD+B+C | 100 | 20 | 36 | 52 |
| 50.01.25.36 | SK50x25Sx100-AD+B+C | 100 | 25 | 42 | 58 | 50.05.25.36 | BT50x25Sx100-AD+B+C | 100 | 25 | 42 | 58 |
| 50.01.32.36 | SK50x32Sx100-AD+B+C | 100 | 32 | 49 | 58 | 50.05.32.36 | BT50x32Sx100-AD+B+C | 100 | 32 | 49 | 58 |
| 50.01.10.362 | SK50x10Sx130-AD+B+C | 130 | 10 | 26 | 42 | | | | | | |
| 50.01.12.362 | SK50x12Sx130-AD+B+C | 130 | 12 | 28 | 47 | | | | | | |
| 50.01.16.362 | SK50x16Sx130-AD+B+C | 130 | 16 | 32 | 50 | | | | | | |
| 50.01.20.362 | SK50x20Sx130-AD+B+C | 130 | 20 | 36 | 52 | | | | | | |
| 50.01.25.362 | SK50x25Sx130-AD+B+C | 130 | 25 | 42 | 58 | | | | | | |
| 50.01.32.362 | SK50x32Sx130-AD+B+C | 130 | 32 | 49 | 58 | | | | | | |

Schrumpffutter ohne Kühlkanäle Shrinking chucks without coolant channels

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

SK25+30/BT30 G 2,5 - 25.000 U/min. oder U < 1 gmm
SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm



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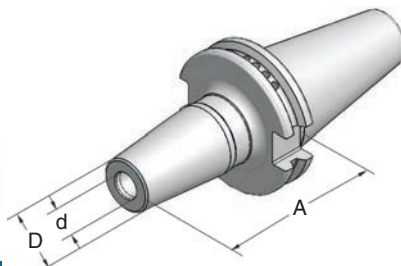
| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|---------------------|-----|----|----|-------------|-------------------|-----|----|----|
| 25.01.03.31 | SK25x03Sx60-AD | 60 | 3 | 10 | 30.05.03.31 | BT30x03Sx70-AD | 70 | 3 | 10 |
| 25.01.04.31 | SK25x04Sx60-AD | 60 | 4 | 11 | 30.05.04.31 | BT30x04Sx70-AD | 70 | 4 | 10 |
| 25.01.06.31 | SK25x06Sx60-AD | 60 | 6 | 21 | 30.05.05.31 | BT30x05Sx70-AD | 70 | 5 | 14 |
| 25.01.08.31 | SK25x08Sx60-AD | 60 | 8 | 21 | 30.05.06.31 | BT30x06Sx70-AD | 70 | 6 | 21 |
| 25.01.10.31 | SK25x10Sx60-AD | 60 | 10 | 21 | 30.05.08.31 | BT30x08Sx70-AD | 70 | 8 | 21 |
| | SK25 mit Plananlage | | | | 30.05.10.31 | BT30x10Sx70-AD | 70 | 10 | 24 |
| | | | | | 30.05.12.31 | BT30x12Sx70-AD | 70 | 12 | 24 |
| 30.01.03.31 | SK30x03Sx70-AD | 70 | 3 | 10 | 30.05.14.31 | BT30x14Sx70-AD | 70 | 14 | 27 |
| 30.01.04.31 | SK30x04Sx70-AD | 70 | 4 | 11 | 30.05.16.31 | BT30x16Sx70-AD | 70 | 16 | 27 |
| 30.01.05.31 | SK30x05Sx70-AD | 70 | 5 | 14 | 30.05.20.31 | BT30x20Sx70-AD | 70 | 20 | 33 |
| 30.01.06.31 | SK30x06Sx70-AD | 70 | 6 | 21 | | | | | |
| 30.01.08.31 | SK30x08Sx70-AD | 70 | 8 | 21 | 40.05.03.31 | BT40x03Sx 80-AD+B | 80 | 3 | 10 |
| 30.01.10.31 | SK30x10Sx70-AD | 70 | 10 | 24 | 40.05.04.31 | BT40x04Sx 80-AD+B | 80 | 4 | 11 |
| 30.01.12.31 | SK30x12Sx70-AD | 70 | 12 | 24 | 40.05.05.31 | BT40x05Sx 80-AD+B | 80 | 5 | 14 |
| 30.01.14.31 | SK30x14Sx70-AD | 70 | 14 | 27 | 40.05.06.31 | BT40x06Sx 90-AD+B | 90 | 6 | 21 |
| 30.01.16.31 | SK30x16Sx70-AD | 70 | 16 | 27 | 40.05.08.31 | BT40x08Sx 90-AD+B | 90 | 8 | 21 |
| | | | | | 40.05.10.31 | BT40x10Sx 90-AD+B | 90 | 10 | 24 |
| 40.01.03.31 | SK40x03Sx 80-AD+B | 80 | 3 | 10 | 40.05.12.31 | BT40x12Sx 90-AD+B | 90 | 12 | 24 |
| 40.01.04.31 | SK40x04Sx 80-AD+B | 80 | 4 | 11 | 40.05.14.31 | BT40x14Sx 90-AD+B | 90 | 14 | 27 |
| 40.01.05.31 | SK40x05Sx 80-AD+B | 80 | 5 | 14 | 40.05.16.31 | BT40x16Sx 90-AD+B | 90 | 16 | 27 |
| 40.01.06.31 | SK40x06Sx 80-AD+B | 80 | 6 | 21 | 40.05.18.31 | BT40x18Sx 90-AD+B | 90 | 18 | 33 |
| 40.01.08.31 | SK40x08Sx 80-AD+B | 80 | 8 | 21 | 40.05.20.31 | BT40x20Sx 90-AD+B | 90 | 20 | 33 |
| 40.01.10.31 | SK40x10Sx 80-AD+B | 80 | 10 | 24 | 40.05.25.31 | BT40x25Sx100-AD+B | 100 | 25 | 44 |
| 40.01.12.31 | SK40x12Sx 80-AD+B | 80 | 12 | 24 | 40.05.32.31 | BT40x32Sx100-AD+B | 100 | 32 | 44 |
| 40.01.14.31 | SK40x14Sx 80-AD+B | 80 | 14 | 27 | | | | | |
| 40.01.16.31 | SK40x16Sx 80-AD+B | 80 | 16 | 27 | | | | | |
| 40.01.18.31 | SK40x18Sx 80-AD+B | 80 | 18 | 33 | | | | | |
| 40.01.20.31 | SK40x20Sx 80-AD+B | 80 | 20 | 33 | | | | | |
| 40.01.25.31 | SK40x25Sx100-AD+B | 100 | 25 | 44 | | | | | |
| 40.01.32.31 | SK40x32Sx100-AD+B | 100 | 32 | 44 | | | | | |
| | | | | | | | | | |
| 40.01.06.32 | SK40x06Sx130-AD+B | 130 | 6 | 21 | | | | | |
| 40.01.08.32 | SK40x08Sx130-AD+B | 130 | 8 | 21 | | | | | |
| 40.01.10.32 | SK40x10Sx130-AD+B | 130 | 10 | 24 | | | | | |
| 40.01.12.32 | SK40x12Sx130-AD+B | 130 | 12 | 24 | | | | | |
| 40.01.16.32 | SK40x16Sx130-AD+B | 130 | 16 | 27 | | | | | |
| 40.01.20.32 | SK40x20Sx130-AD+B | 130 | 20 | 33 | | | | | |
| 40.01.25.32 | SK40x25Sx130-AD+B | 130 | 25 | 44 | | | | | |
| 40.01.32.32 | SK40x32Sx130-AD+B | 130 | 32 | 44 | | | | | |
| | | | | | | | | | |
| 40.01.06.33 | SK40x06Sx160-AD+B | 160 | 6 | 21 | | | | | |
| 40.01.08.33 | SK40x08Sx160-AD+B | 160 | 8 | 21 | | | | | |
| 40.01.10.33 | SK40x10Sx160-AD+B | 160 | 10 | 24 | | | | | |
| 40.01.12.33 | SK40x12Sx160-AD+B | 160 | 12 | 24 | | | | | |
| 40.01.14.33 | SK40x14Sx160-AD+B | 160 | 14 | 27 | | | | | |
| 40.01.16.33 | SK40x16Sx160-AD+B | 160 | 16 | 27 | | | | | |
| 40.01.18.33 | SK40x18Sx160-AD+B | 160 | 18 | 33 | | | | | |
| 40.01.20.33 | SK40x20Sx160-AD+B | 160 | 20 | 33 | | | | | |

Schrumpffutter ohne Kühlkanäle

Shrinking chucks without coolant channels

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

SK50/BT50 G 2,5 - 15.000 U/min. oder U < 1 gmm



DIN 99871

MAS BT

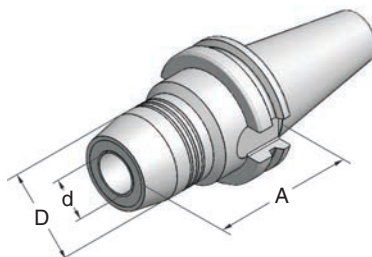
| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|-------------------|-----|----|----|-------------|-------------------|-----|----|----|
| 50.01.06.31 | SK50x06Sx 80-AD+B | 80 | 6 | 21 | 50.05.06.31 | BT50x06Sx 80-AD+B | 80 | 6 | 21 |
| 50.01.08.31 | SK50x08Sx 80-AD+B | 80 | 8 | 21 | 50.05.08.31 | BT50x08Sx 80-AD+B | 80 | 8 | 21 |
| 50.01.10.31 | SK50x10Sx 80-AD+B | 80 | 10 | 24 | 50.05.10.31 | BT50x10Sx 80-AD+B | 80 | 10 | 24 |
| 50.01.12.31 | SK50x12Sx 80-AD+B | 80 | 12 | 24 | 50.05.12.31 | BT50x12Sx 80-AD+B | 80 | 12 | 24 |
| 50.01.14.31 | SK50x14Sx 80-AD+B | 80 | 14 | 27 | 50.05.14.31 | BT50x14Sx 80-AD+B | 80 | 14 | 27 |
| 50.01.16.31 | SK50x16Sx 80-AD+B | 80 | 16 | 27 | 50.05.16.31 | BT50x16Sx 80-AD+B | 80 | 16 | 27 |
| 50.01.20.31 | SK50x20Sx 80-AD+B | 80 | 20 | 33 | 50.05.20.31 | BT50x20Sx 80-AD+B | 80 | 20 | 33 |
| 50.01.25.31 | SK50x25Sx100-AD+B | 100 | 25 | 44 | 50.05.25.31 | BT50x25Sx100-AD+B | 100 | 25 | 44 |
| 50.01.32.31 | SK50x32Sx100-AD+B | 100 | 32 | 44 | 50.05.32.31 | BT50x32Sx100-AD+B | 100 | 32 | 44 |
| 50.01.06.32 | SK50x06Sx130-AD+B | 130 | 6 | 21 | | | | | |
| 50.01.08.32 | SK50x08Sx130-AD+B | 130 | 8 | 21 | | | | | |
| 50.01.10.32 | SK50x10Sx130-AD+B | 130 | 10 | 24 | | | | | |
| 50.01.12.32 | SK50x12Sx130-AD+B | 130 | 12 | 24 | | | | | |
| 50.01.14.32 | SK50x14Sx130-AD+B | 130 | 14 | 27 | | | | | |
| 50.01.16.32 | SK50x16Sx130-AD+B | 130 | 16 | 27 | | | | | |
| 50.01.20.32 | SK50x20Sx130-AD+B | 130 | 20 | 33 | | | | | |
| 50.01.25.32 | SK50x25Sx130-AD+B | 130 | 25 | 44 | | | | | |
| 50.01.32.32 | SK50x32Sx130-AD+B | 130 | 32 | 44 | | | | | |

Dehnspannfutter

Expansion chucks

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,003
Taper angle AT3, Concentricity from the taper to the holding part < 0,003

Grundkörper gewuchtet G 2,5 - 25.000 U/min.
Base-body balanced G 2,5 - 25.000 r.p.m



DIN 69871

MAS BT

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|-------------------|------|----|----|-------------|-------------------|------|----|----|
| 40.01.06.70 | SK40x06x80,5-AD+B | 80,5 | 6 | 26 | 40.05.06.70 | BT40x06x90,0-AD+B | 90,0 | 6 | 26 |
| 40.01.08.70 | SK40x08x80,5-AD+B | 80,5 | 8 | 28 | 40.05.08.70 | BT40x08x90,0-AD+B | 90,0 | 8 | 28 |
| 40.01.10.70 | SK40x10x80,5-AD+B | 80,5 | 10 | 30 | 40.05.10.70 | BT40x10x90,0-AD+B | 90,0 | 10 | 30 |
| 40.01.12.70 | SK40x12x80,5-AD+B | 80,5 | 12 | 32 | 40.05.12.70 | BT40x12x90,0-AD+B | 90,0 | 12 | 32 |
| 40.01.16.70 | SK40x16x80,5-AD+B | 80,5 | 16 | 38 | 40.05.16.70 | BT40x16x90,0-AD+B | 90,0 | 16 | 38 |
| 40.01.20.70 | SK40x20x80,5-AD+B | 80,5 | 20 | 42 | 40.05.20.70 | BT40x20x90,0-AD+B | 90,0 | 20 | 42 |
| 40.01.20.71 | SK40x20x64,5-AD+B | 64,5 | 20 | 49 | 40.05.20.71 | BT40x20x72,5-AD+B | 72,5 | 20 | 49 |
| 40.01.25.70 | SK40x25x80,5-AD+B | 80,5 | 25 | 55 | | | | | |
| 40.01.32.70 | SK40x32x80,5-AD+B | 80,5 | 32 | 63 | 40.05.32.70 | BT40x32x83,0-AD+B | 83,0 | 32 | 63 |
| 50.01.20.70 | SK50x20x80,5-AD+B | 80,5 | 20 | 42 | 50.05.20.70 | BT50x20x90,0-AD+B | 90,0 | 20 | 42 |
| 50.01.32.71 | SK50x32x81,0-AD+B | 81,0 | 32 | 72 | 50.05.32.70 | BT50x32x90,0-AD+B | 90,0 | 32 | 72 |

Zwischenhülsen

Sleeves



ø12

ø20

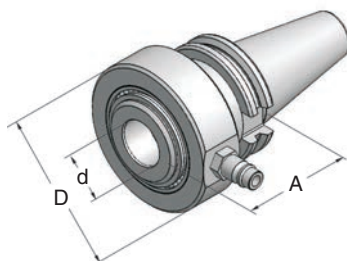
ø32

| Art.-Nr. | Typ | Art.-Nr. | Typ | Art.-Nr. | Typ |
|----------|-------------|----------|-------------|----------|-------------|
| 204370 | GZB-S 12/03 | 203197 | GZB-S 20/03 | 204320 | GZB-S 32/06 |
| 204371 | GZB-S 12/04 | 203198 | GZB-S 20/04 | 204321 | GZB-S 32/08 |
| 204372 | GZB-S 12/05 | 203199 | GZB-S 20/05 | 204322 | GZB-S 32/10 |
| 204373 | GZB-S 12/06 | 203200 | GZB-S 20/06 | 204323 | GZB-S 32/12 |
| 204374 | GZB-S 12/08 | 203201 | GZB-S 20/08 | 204324 | GZB-S 32/14 |
| 204375 | GZB-S 12/10 | 203202 | GZB-S 20/10 | 204325 | GZB-S 32/16 |
| | | 203203 | GZB-S 20/12 | 204326 | GZB-S 32/18 |
| | | 203204 | GZB-S 20/14 | 204327 | GZB-S 32/20 |
| | | 203205 | GZB-S 20/16 | 204328 | GZB-S 32/25 |

Werkzeugaufnahmen zur Kühlmittel- bzw. Luftzufuhr Toolholders for coolant- and air supply

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

max. U/min / max. r.p.m.: 3000
Kühlmitteldruck / Coolant pressure: max. 6 bar
Luftdruck / Air pressure: max. 4 bar



DIN 69871

MAS BT

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|------|----|----|----|-------------|------|----|----|----|
| 40.01.25.68 | SK40 | 65 | 25 | 80 | 40.05.25.68 | BT40 | 58 | 25 | 80 |
| 40.01.32.68 | SK40 | 65 | 32 | 80 | 40.05.32.68 | BT40 | 58 | 32 | 80 |
| 50.01.25.68 | SK50 | 65 | 25 | 80 | 50.05.25.68 | BT50 | 65 | 25 | 80 |
| 50.01.32.68 | SK50 | 65 | 32 | 80 | 50.05.32.68 | BT50 | 65 | 32 | 80 |

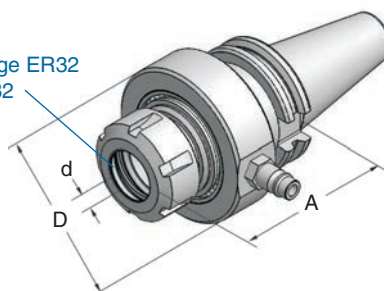
Spannzangenfutter ER32 zur Kühlmittel- bzw. Luftzufuhr Collet chuck ER32 for coolant- and air supply

Spannzangen siehe Seiten 48+49
Collets see pages 48+49

max. U/min / max. r.p.m.: 3000
Kühlmitteldruck / Coolant pressure: max. 6 bar
Luftdruck / Air pressure: max. 4 bar



Spannzange ER32
Collet ER32

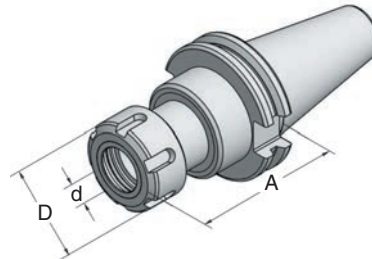


DIN 69871

| Art.-Nr. | Typ | A | d | D |
|-------------|------|-----|------|----|
| 40.01.20.28 | SK40 | 100 | 2-20 | 80 |

**Gewindeschneidfutter für Spannzangen ER/ESX
mit elastischem Längenausgleich auf Druck und Zug**
**Tapping heads for collets ER/ESX
with smooth-action length compensation for pressure and tension**

Spannzangen siehe Seiten 48+49
Collets see pages 48+49



ER 16



DIN 69871

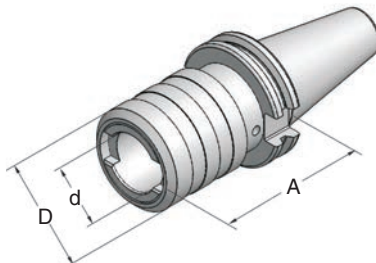
MAS BT

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|---------------|-----|-----------------|----|-------------|---------------|-----|-----------------|----|
| 30.01.12.13 | SK30xER16x 70 | 70 | 1-10 für M2-M12 | 28 | 30.05.20.13 | BT30xER25x 93 | 93 | 2-16 für M4-M20 | 42 |
| 40.01.12.13 | SK40xER16x 65 | 65 | 1-10 für M2-M12 | 28 | 40.05.12.13 | BT40xER16x 65 | 65 | 1-10 für M2-M12 | 28 |
| 40.01.20.13 | SK40xER25x 78 | 78 | 2-16 für M4-M20 | 42 | 40.05.20.13 | BT40xER25x 82 | 82 | 2-16 für M4-M20 | 42 |
| 40.01.24.13 | SK40xER32x 94 | 94 | 3-20 für M6-M24 | 50 | 40.05.24.13 | BT40xER32x 98 | 98 | 3-20 für M6-M24 | 50 |
| 40.01.33.13 | SK40xER40x115 | 115 | 4-30 für M8-M33 | 63 | 40.05.33.13 | BT40xER40x115 | 115 | 4-30 für M8-M33 | 63 |
| 45.01.20.13 | SK45xER25x 78 | 78 | 2-16 für M4-M20 | 42 | 45.05.20.13 | BT45xER25x 98 | 98 | 2-16 für M4-M20 | 42 |
| 45.01.33.13 | SK45xER40x102 | 102 | 4-30 für M8-M33 | 63 | 45.05.33.13 | BT45xER40x 95 | 95 | 4-30 für M8-M33 | 63 |
| 50.01.20.13 | SK50xER25x100 | 100 | 2-16 für M4-M20 | 42 | 50.05.20.13 | BT50xER25x100 | 100 | 2-16 für M4-M20 | 42 |
| 50.01.33.13 | SK50xER40x102 | 102 | 4-30 für M8-M33 | 63 | 50.05.33.13 | BT50xER40x100 | 100 | 4-30 für M8-M33 | 63 |

Gewindeschneid-Schnellwechselfutter mit elastischem Längenausgleich auf Druck und Zug Thread cutting quick-change chucks with smooth-action length compensation for pressure and tension



DIN 69871



*Der Einsatz muss separat bestellt werden!
The tapping collet has to be ordered separately!*



MAS BT

| Art.-Nr. | Typ | Größe | A | d | D | Art.-Nr. | Typ | Größe | A | d | D |
|--------------|--------------|-------|-----|----|----|--------------|--------------|-------|-----|----|----|
| 30.01.12.130 | SK30xM3-M12 | 1 | 65 | 19 | 38 | 30.05.12.130 | BT30xM3-M12 | 1 | 62 | 19 | 38 |
| 40.01.12.130 | SK40xM3-M12 | 1 | 59 | 19 | 38 | 40.05.12.130 | BT40xM3-M12 | 1 | 65 | 19 | 38 |
| 50.01.12.130 | SK50xM3-M12 | 1 | 50 | 19 | 38 | 50.05.12.130 | BT50xM3-M12 | 1 | 80 | 19 | 38 |
| 30.01.20.130 | SK30xM8-M20 | 2 | 103 | 31 | 54 | 30.05.20.130 | BT30xM8-M20 | 2 | 95 | 31 | 54 |
| 40.01.20.130 | SK40xM8-M20 | 2 | 97 | 31 | 54 | 40.05.20.130 | BT40xM8-M20 | 2 | 93 | 31 | 54 |
| 50.01.20.130 | SK50xM8-M20 | 2 | 82 | 31 | 54 | 50.05.20.130 | BT50xM8-M20 | 2 | 80 | 31 | 54 |
| 40.01.33.130 | SK30xM14-M33 | 3 | 134 | 48 | 78 | 40.05.33.130 | BT40xM14-M33 | 3 | 126 | 48 | 78 |
| 50.01.33.130 | SK50xM14-M33 | 3 | 134 | 48 | 78 | 50.05.33.130 | BT50xM14-M33 | 3 | 142 | 48 | 78 |

Einsätze mit Rutschkupplung Tapping collets with clutch



Größe 1 M3-M12

Größe 2 M8-M20

Größe 3 M14-M33

| Art.-Nr. | Typ | Art.-Nr. | Typ | Art.-Nr. | Typ |
|----------|------------------|----------|----------------|----------|----------------|
| 100035 | ø 3,50-M3+M4 | | | | |
| 100045 | ø 4,50-M4+M6 | | | | |
| 100060 | ø 6,00-M5+M6+M8 | | | | |
| 100070 | ø 7,00-M7+M9+M10 | | | | |
| 100080 | ø 8,00-M8+M11 | 200080 | ø 8,00-M8+M11 | | |
| 100090 | ø 9,00-M9+M12 | 200090 | ø 9,00-M9+M12 | | |
| 100100 | ø10,00-M10 | 200100 | ø10,00-M10 | | |
| | | 200110 | ø11,00-M14 | 300110 | ø11,00-M14 |
| | | 200120 | ø12,00-M12+M16 | 300120 | ø12,00-M12+M16 |
| | | 200140 | ø14,00-M18 | 300140 | ø14,00-M18 |
| | | 200160 | ø16,00-M20 | 300160 | ø16,00-M20 |
| | | | | 300180 | ø18,00-M22+M24 |
| | | | | 300200 | ø20,00-M27+M30 |
| | | | | 300220 | ø22,00-M33 |

Aufnahmen für Einschraubfräser

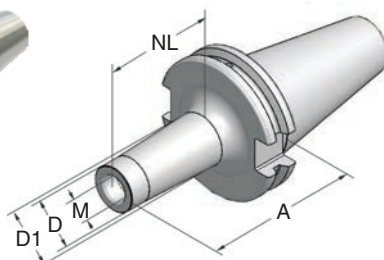
Adaptors for end mills with thread shank

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005
 Taper angle AT3, Concentricity from the taper to the holding part < 0,005

SK40/BT40 G 2,5 - 20.000 U/min. oder U < 1 gmm

Lieferumfang ohne Fräser
 Delivery without tool

Sonderausführungen auf Anfrage
Special executions on inquiry



DIN 69871

MAS BT

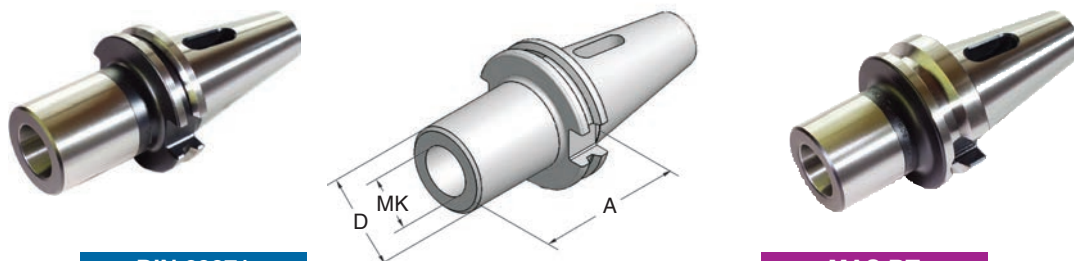
| Art.-Nr. | Typ | M | A | NL | D | D1 | Art.-Nr. | Typ | M | A | NL | D | D1 |
|--------------|------------------|----|-----|----|-----|----|--------------|------------------|----|-----|----|-----|----|
| | | | | | | | 30.05.08.025 | BT30xM 8x25-AD | 8 | 50 | 25 | 13 | 15 |
| | | | | | | | 30.05.08.050 | BT30xM 8x50-AD | 8 | 75 | 50 | 13 | 23 |
| | | | | | | | 30.05.10.025 | BT30xM10x25-AD | 10 | 50 | 25 | 18 | 20 |
| | | | | | | | 30.05.10.050 | BT30xM10x50-AD | 10 | 75 | 50 | 18 | 25 |
| | | | | | | | 30.05.12.025 | BT30xM12x25-AD | 12 | 50 | 25 | 21 | 24 |
| | | | | | | | 30.05.12.050 | BT30xM12x50-AD | 12 | 75 | 50 | 21 | 24 |
| | | | | | | | 30.05.16.025 | BT30xM16x25-AD | 16 | 50 | 25 | 29 | 34 |
| 40.01.06.025 | SK40xM 6x25-AD+B | 6 | 52 | 25 | 9,7 | 10 | 40.05.06.025 | BT40xM 6x25-AD+B | 6 | 60 | 25 | 9,7 | 10 |
| 40.01.06.050 | SK40xM 6x50-AD+B | 6 | 77 | 50 | 9,7 | 20 | 40.05.06.050 | BT40xM 6x50-AD+B | 6 | 85 | 50 | 9,7 | 20 |
| 40.01.06.075 | SK40xM 6x75-AD+B | 6 | 102 | 75 | 9,7 | 23 | 40.05.06.075 | BT40xM 6x75-AD+B | 6 | 110 | 75 | 9,7 | 23 |
| 40.01.08.025 | SK40xM 8x25-AD+B | 8 | 52 | 25 | 13 | 15 | 40.05.08.025 | BT40xM 8x25-AD+B | 8 | 60 | 25 | 13 | 15 |
| 40.01.08.050 | SK40xM 8x50-AD+B | 8 | 77 | 50 | 13 | 23 | 40.05.08.050 | BT40xM 8x50-AD+B | 8 | 85 | 50 | 13 | 23 |
| 40.01.08.075 | SK40xM 8x75-AD+B | 8 | 102 | 75 | 13 | 23 | 40.05.08.075 | BT40xM 8x75-AD+B | 8 | 110 | 75 | 13 | 23 |
| 40.01.10.025 | SK40xM10x25-AD+B | 10 | 52 | 25 | 18 | 20 | 40.05.10.025 | BT40xM10x25-AD+B | 10 | 60 | 25 | 18 | 20 |
| 40.01.10.050 | SK40xM10x50-AD+B | 10 | 77 | 50 | 18 | 25 | 40.05.10.050 | BT40xM10x50-AD+B | 10 | 85 | 50 | 18 | 25 |
| 40.01.10.075 | SK40xM10x75-AD+B | 10 | 102 | 75 | 18 | 28 | 40.05.10.075 | BT40xM10x75-AD+B | 10 | 110 | 75 | 18 | 28 |
| 40.01.12.025 | SK40xM12x25-AD+B | 12 | 52 | 25 | 21 | 24 | 40.05.12.025 | BT40xM12x25-AD+B | 12 | 60 | 25 | 21 | 24 |
| 40.01.12.050 | SK40xM12x50-AD+B | 12 | 77 | 50 | 21 | 24 | 40.05.12.050 | BT40xM12x50-AD+B | 12 | 85 | 50 | 21 | 24 |
| 40.01.12.075 | SK40xM12x75-AD+B | 12 | 102 | 75 | 21 | 31 | 40.05.12.075 | BT40xM12x75-AD+B | 12 | 110 | 75 | 21 | 31 |
| 40.01.16.025 | SK40xM16x25-AD+B | 16 | 52 | 25 | 29 | 34 | 40.05.16.025 | BT40xM16x25-AD+B | 16 | 60 | 25 | 29 | 34 |
| 40.01.16.050 | SK40xM16x50-AD+B | 16 | 77 | 50 | 29 | 34 | 40.05.16.050 | BT40xM16x50-AD+B | 16 | 85 | 50 | 29 | 34 |
| 40.01.16.075 | SK40xM16x75-AD+B | 16 | 102 | 75 | 29 | 34 | 40.05.16.075 | BT40xM16x75-AD+B | 16 | 110 | 75 | 29 | 34 |

Kegelhülsen MK DIN 228 Form B mit Austreibblappen

Reducing adaptors MT DIN 228 form B with tang

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005

Taper angle AT3, Concentricity from the taper to the holding part < 0,005



DIN 69871

MAS BT

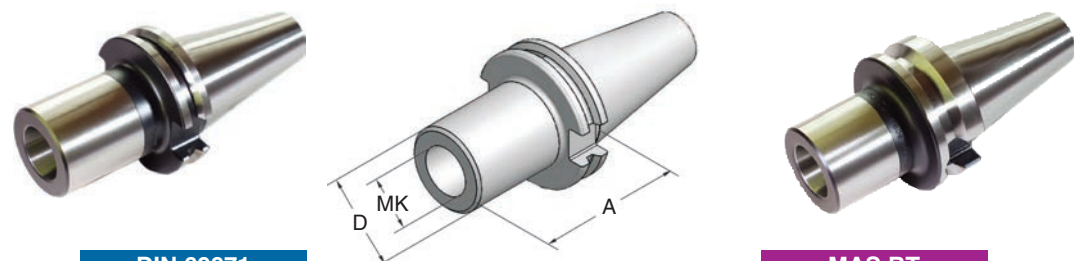
| Art.-Nr. | Typ | A | MK | D | Art.-Nr. | Typ | A | MK | D |
|------------|-----------------|-----|----|----|------------|-----------------|-----|----|----|
| 30.01.01.5 | SK30xMK1x 50-AD | 50 | 1 | 28 | 30.05.01.5 | BT30xMK1x 50-AD | 50 | 1 | 25 |
| 30.01.02.5 | SK30xMK2x 60-AD | 60 | 2 | 42 | 30.05.02.5 | BT30xMK2x 60-AD | 60 | 2 | 32 |
| 30.01.03.5 | SK30xMK3x 80-AD | 80 | 3 | 50 | 30.05.03.5 | BT30xMK3x 80-AD | 80 | 3 | 40 |
| 40.01.01.5 | SK40xMK1x 50-AD | 50 | 1 | 25 | 40.05.01.5 | BT40xMK1x 50-AD | 50 | 1 | 25 |
| 40.01.02.5 | SK40xMK2x 50-AD | 50 | 2 | 32 | 40.05.02.5 | BT40xMK2x 50-AD | 50 | 2 | 32 |
| 40.01.03.5 | SK40xMK3x 70-AD | 70 | 3 | 40 | 40.05.03.5 | BT40xMK3x 70-AD | 70 | 3 | 40 |
| 40.01.04.5 | SK40xMK4x 95-AD | 95 | 4 | 48 | 40.05.04.5 | BT40xMK4x 95-AD | 95 | 4 | 48 |
| 50.01.01.5 | SK50xMK1x 45-AD | 45 | 1 | 25 | 50.05.01.5 | BT50xMK1x 45-AD | 45 | 1 | 25 |
| 50.01.02.5 | SK50xMK2x 60-AD | 60 | 2 | 32 | 50.05.02.5 | BT50xMK2x 60-AD | 60 | 2 | 32 |
| 50.01.03.5 | SK50xMK3x 65-AD | 65 | 3 | 40 | 50.05.03.5 | BT50xMK3x 65-AD | 65 | 3 | 40 |
| 50.01.04.5 | SK50xMK4x 95-AD | 95 | 4 | 48 | 50.05.04.5 | BT50xMK4x 95-AD | 95 | 4 | 48 |
| 50.01.05.5 | SK50xMK5x105-AD | 105 | 5 | 63 | 50.05.05.5 | BT50xMK5x110-AD | 110 | 5 | 63 |

Kegelhülsen MK DIN 228 Form A mit Anzugsgewinde

Reducing adaptors MT DIN 228 form A with retention thread

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005

Taper angle AT3, Concentricity from the taper to the holding part < 0,005



DIN 69871

MAS BT

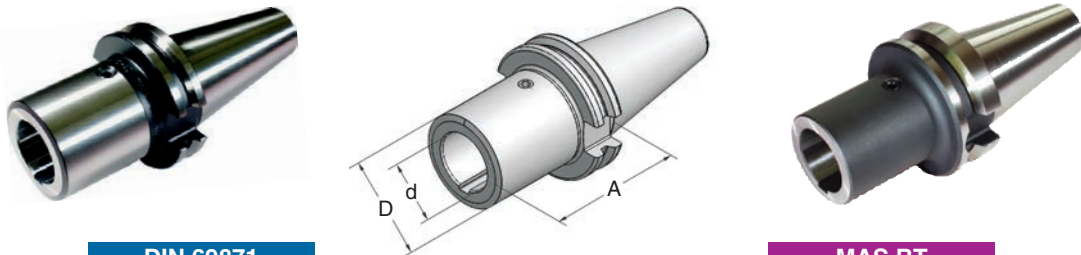
| Art.-Nr. | Typ | A | MK | D | Art.-Nr. | Typ | A | MK | D |
|-------------|-----------------|-----|----|----|-------------|-----------------|-----|----|----|
| 40.01.01.55 | SK40xMK1x 50-AD | 50 | 1 | 25 | 40.05.01.55 | BT40xMK1x 50-AD | 50 | 1 | 25 |
| 40.01.02.55 | SK40xMK2x 50-AD | 50 | 2 | 32 | 40.05.02.55 | BT40xMK2x 50-AD | 50 | 2 | 32 |
| 40.01.03.55 | SK40xMK3x 70-AD | 70 | 3 | 40 | 40.05.03.55 | BT40xMK3x 70-AD | 70 | 3 | 40 |
| 40.01.04.55 | SK40xMK4x 95-AD | 95 | 4 | 48 | 40.05.04.55 | BT40xMK4x 95-AD | 95 | 4 | 48 |
| 50.01.02.55 | SK50xMK2x 60-AD | 60 | 2 | 32 | 50.05.02.55 | BT50xMK2x 60-AD | 60 | 2 | 32 |
| 50.01.03.55 | SK50xMK3x 65-AD | 65 | 3 | 40 | 50.05.03.55 | BT50xMK3x 65-AD | 65 | 3 | 40 |
| 50.01.04.55 | SK50xMK4x 70-AD | 70 | 4 | 48 | 50.05.04.55 | BT50xMK4x 70-AD | 70 | 4 | 48 |
| 50.01.05.55 | SK50xMK5x100-AD | 100 | 5 | 63 | 50.05.05.55 | BT50xMK5x100-AD | 100 | 5 | 63 |

Stellhülseaufnahmen nach DIN 6327

Adaptors for setting sleeves to DIN 6327

Kegelwinkel AT3, Rundlaufgenauigkeit SK zu Werkzeugaufnahme < 0,005

Taper angle AT3, Concentricity from the taper to the holding part < 0,005



DIN 69871

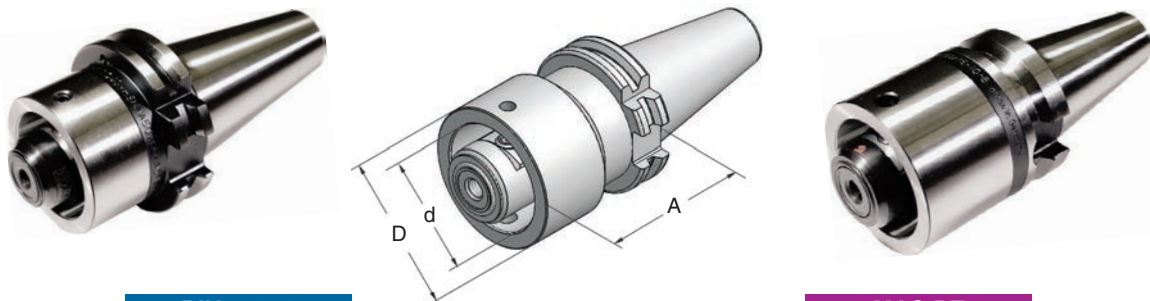
MAS BT

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|------------|----------------|-----|----|----|------------|----------------|-----|----|----|
| 40.01.28.7 | SK40x28x 70-AD | 70 | 28 | 41 | 40.05.28.7 | BT40x28x 70-AD | 70 | 28 | 41 |
| 40.01.36.7 | SK40x36x120-AD | 120 | 36 | 50 | 40.05.36.7 | BT40x36x120-AD | 120 | 36 | 50 |
| 50.01.28.7 | SK50x28x100-AD | 100 | 28 | 50 | 50.05.28.7 | BT50x28x100-AD | 100 | 28 | 50 |
| 50.01.36.7 | SK50x36x100-AD | 100 | 36 | 60 | 50.05.36.7 | BT50x36x100-AD | 100 | 36 | 60 |
| 50.01.48.7 | SK50x48x100-AD | 100 | 48 | 80 | 50.05.48.7 | BT50x48x100-AD | 100 | 48 | 80 |

Adapter Adaptors

SK DIN 69871 – HSK DIN 69893

MAS BT – HSK DIN 69893



DIN 69871

MAS BT

| Art.-Nr. | Typ | SK | HSK | A | D | Art.-Nr. | Typ | BT | HSK | A | D |
|-----------|-------------------|----|-----|----|----|-----------|-------------------|----|-----|----|----|
| 40.01.50A | SK40xHSK-A50-AD+B | 40 | A50 | 50 | 50 | 40.05.40A | BT40xHSK-A40-AD+B | 40 | A40 | 50 | 40 |
| 40.01.50E | SK40xHSK-E50-AD+B | 40 | E50 | 50 | 50 | 40.05.50A | BT40xHSK-A50-AD+B | 40 | A50 | 50 | 50 |
| 40.01.63A | SK40xHSK-A63-AD+B | 40 | A63 | 75 | 63 | 40.05.63A | BT40xHSK-A63-AD+B | 40 | A63 | 75 | 63 |
| 40.01.63E | SK40xHSK-E63-AD+B | 40 | E63 | 75 | 63 | | | | | | |
| 50.01.50A | SK50xHSK-A50-AD+B | 50 | A50 | 50 | 50 | | | | | | |
| 50.01.50E | SK50xHSK-E50-AD+B | 50 | E50 | 50 | 50 | | | | | | |
| 50.01.63A | SK50xHSK-A63-AD+B | 50 | A63 | 50 | 63 | | | | | | |

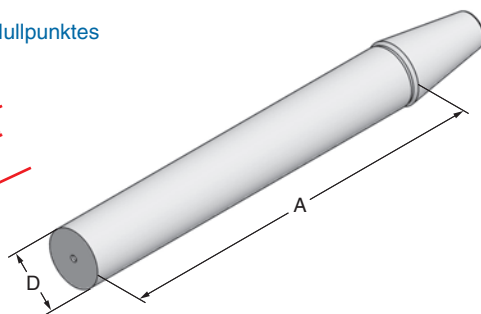
Einstelldorn in Holzetui

Control arbor in wooden case

Zum Einstellen des absoluten Nullpunktes
und der Parallelitäts-Korrektur

inkl. Prüfprotokoll
incl. Certificate

*Sondergrößen auf Anfrage!
Special size on inquiry!*



**DIN 69871
MAS BT**

| Art.-Nr. | Typ | A | D |
|-----------|--------------|-----|----|
| 30.05.200 | SK30xø30x200 | 200 | 30 |
| 40.05.315 | SK40xø30x315 | 315 | 30 |
| 50.05.315 | SK50xø50x315 | 315 | 50 |

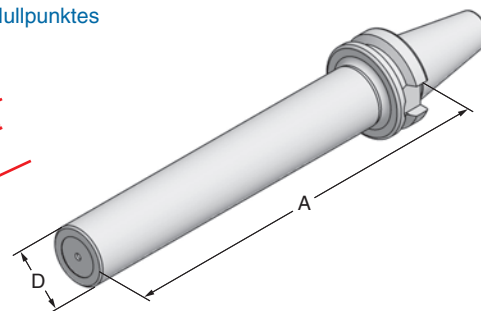
Einstelldorn mit Mitnehmernuten in Holzetui

Control arbor with groove in wooden case

Zum Einstellen des absoluten Nullpunktes
und der Parallelitäts-Korrektur

inkl. Prüfprotokoll
incl. Certificate

*Sondergrößen auf Anfrage!
Special size on inquiry!*



MAS BT

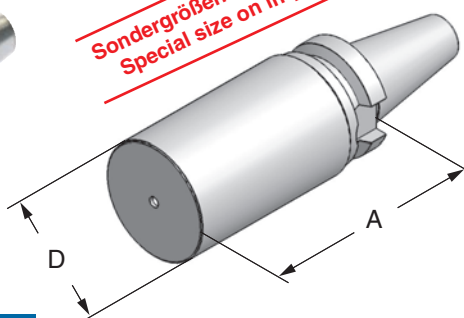
| Art.-Nr. | Typ | A | D |
|-------------|--------------|-----|----|
| 30.05.200-2 | BT30xø30x200 | 200 | 30 |

Rohlinge

Blanks



*Sondergrößen auf Anfrage!
Special size on inquiry!*



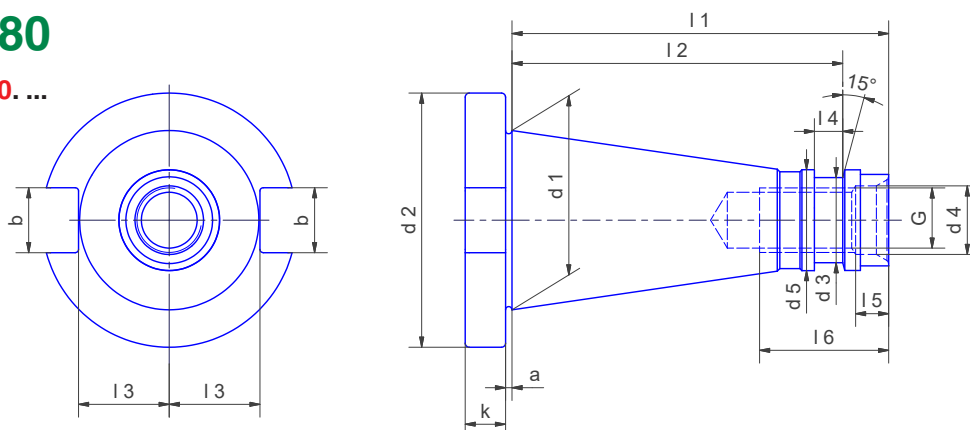
DIN 69871

MAS BT

| Art.-Nr. | Typ | A | D | Art.-Nr. | Typ | A | D |
|--------------|--------------|-----|----|--------------|--------------|-----|----|
| 30.01.150.15 | SK30xø54x150 | 150 | 54 | 30.05.200.15 | BT30xø49x200 | 200 | 49 |
| 40.01.250.15 | SK40xø64x250 | 250 | 64 | 40.05.250.15 | BT40xø64x250 | 250 | 64 |

DIN 2080

Art.-Nr. 40.00. ...



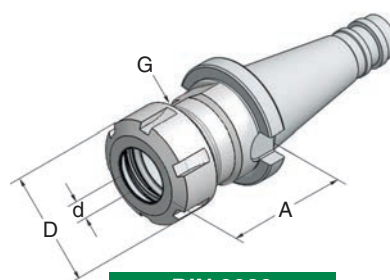
| SK | d 1 | d 2 | d 3 | d 4 | d 5 | G | a | b | l 1 | l 2 | l 3 | l 4 | l 5 | l 6 | k |
|----|-------|------|------|-----|-------|------|-----|------|-------|-------|------|-----|------|-----|----|
| 30 | 31,75 | 50,0 | 16,5 | 13 | 17,10 | M 12 | 1,6 | 16,1 | 68,4 | 51,4 | 16,2 | 3 | 5,5 | 24 | 8 |
| 40 | 44,45 | 63,0 | 21,1 | 17 | 25,00 | M 16 | 1,6 | 16,1 | 93,4 | 82,0 | 22,5 | 7 | 8,2 | 32 | 10 |
| 50 | 69,85 | 97,5 | 32,0 | 26 | 39,29 | M 24 | 3,2 | 25,7 | 126,8 | 115,0 | 35,3 | 13 | 11,5 | 47 | 12 |

Spannzangenfutter für Spannzangen ER/ESX DIN 6499 / ISO 15488

Collet chucks for collets ER/ESX DIN 6499 / ISO 15488

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

Spannzangen siehe Seiten 48+49
Collets see pages 48+49



DIN 2080

DIN 2080

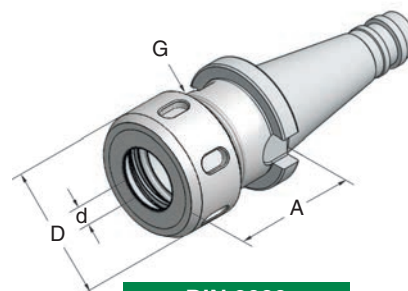
| Art.-Nr. | Typ | A | d | D | G | Art.-Nr. | Typ | A | d | D | G |
|------------|---------------|----|------|----|----------|------------|---------------|----|------|----|----------|
| 30.00.16.2 | ISO30xER25x50 | 50 | 1-16 | 42 | M14x0,75 | 50.00.20.2 | ISO50xER32x50 | 50 | 2-20 | 50 | M22x1,50 |
| 30.00.20.2 | ISO30xER32x50 | 50 | 2-20 | 50 | M22x1,50 | 50.00.26.2 | ISO50xER40x50 | 50 | 3-30 | 63 | M32x1,50 |
| 40.00.16.2 | ISO40xER25x50 | 50 | 1-16 | 42 | M14x0,75 | 50.00.34.2 | ISO50xER50x60 | 60 | 6-34 | 78 | M40x1,50 |
| 40.00.20.2 | ISO40xER32x50 | 50 | 2-20 | 50 | M22x1,50 | | | | | | |
| 40.00.26.2 | ISO40xER40x50 | 50 | 3-30 | 63 | M32x1,50 | | | | | | |

Spannzangenfutter DIN 6391 für Spannzangen DIN 6388 / ISO 10897

Collet chucks DIN 6391 for collets DIN 6388 / ISO 10897

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

Spannzangen auf Anfrage
Collets on inquiry



DIN 2080

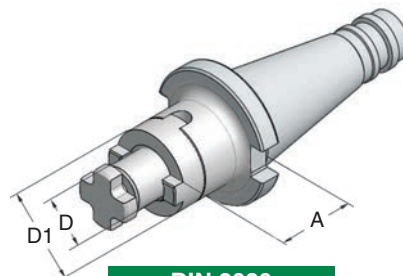
DIN 2080

| Art.-Nr. | Typ | A | d | D | G | Art.-Nr. | Typ | A | d | D | G |
|------------|---------------|----|------|----|---------|------------|---------------|----|------|----|---------|
| 40.00.25.1 | ISO40xOZ25x63 | 63 | 2-25 | 60 | M48x2,0 | 50.00.25.1 | ISO50xOZ25x63 | 63 | 2-25 | 60 | M48x2,0 |
| | | | | | | 50.00.32.1 | ISO50xOZ32x70 | 70 | 4-32 | 72 | M60x2,5 |

Kombi-Aufsteckfräsdorne DIN 6358

Universal arbors DIN 6358

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005



DIN 2080

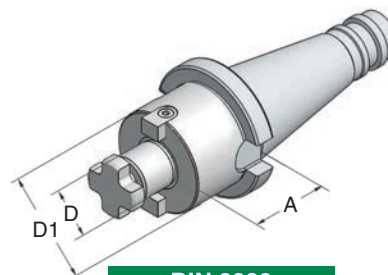
DIN 2080

| Art.-Nr. | Typ | A | D | D1 | Art.-Nr. | Typ | A | D | D1 |
|------------|-------------|----|----|----|------------|-------------|----|----|----|
| 30.00.16.4 | ISO30x16x40 | 40 | 16 | 32 | 50.00.16.4 | ISO50x16x52 | 52 | 16 | 32 |
| 30.00.22.4 | ISO30x22x40 | 40 | 22 | 40 | 50.00.22.4 | ISO50x22x52 | 52 | 22 | 40 |
| 30.00.27.4 | ISO30x27x40 | 40 | 27 | 48 | 50.00.27.4 | ISO50x27x52 | 52 | 27 | 48 |
| 40.00.16.4 | ISO40x16x52 | 52 | 16 | 32 | 50.00.32.4 | ISO50x32x52 | 52 | 32 | 58 |
| 40.00.22.4 | ISO40x22x52 | 52 | 22 | 40 | 50.00.40.4 | ISO50x40x52 | 52 | 40 | 70 |
| 40.00.27.4 | ISO40x27x52 | 52 | 27 | 48 | 50.00.50.4 | ISO50x50x52 | 52 | 50 | 90 |
| 40.00.32.4 | ISO40x32x52 | 52 | 32 | 58 | | | | | |
| 40.00.40.4 | ISO40x40x52 | 52 | 40 | 70 | | | | | |

Messerkopfaufnahmen DIN 6357

Shell mill adaptors for facing cutters DIN 6357

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005



DIN 2080

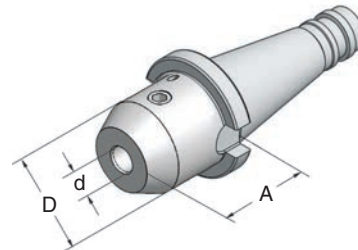
DIN 2080

| Art.-Nr. | Typ | A | D | D1 | Art.-Nr. | Typ | A | D | D1 |
|------------|-------------|----|----|----|------------|-------------|----|----|-----|
| 40.00.16.9 | ISO40x16x30 | 30 | 16 | 39 | 50.00.22.9 | ISO50x22x35 | 35 | 22 | 49 |
| 40.00.22.9 | ISO40x22x30 | 30 | 22 | 49 | 50.00.27.9 | ISO50x27x35 | 35 | 27 | 60 |
| 40.00.27.9 | ISO40x27x30 | 30 | 27 | 60 | 50.00.32.9 | ISO50x32x40 | 40 | 32 | 68 |
| 40.00.32.9 | ISO40x32x30 | 30 | 32 | 68 | 50.00.40.9 | ISO50x40x40 | 40 | 40 | 88 |
| | | | | | 50.00.60.9 | ISO50x60x55 | 70 | 55 | 128 |

Zylinderschaftaufnahmen Weldon DIN 1835 B

Holder for straight shank tools Weldon DIN 1835 B

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
 Taper angle AT3, Concentricity from the taper to the holding part < 0,005



DIN 2080

DIN 2080

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|------------|-------------|----|----|----|------------|-------------|----|----|----|
| 30.00.06.6 | ISO30x06x50 | 50 | 6 | 25 | 50.00.06.6 | ISO50x06x63 | 63 | 6 | 25 |
| 30.00.08.6 | ISO30x08x50 | 50 | 8 | 28 | 50.00.08.6 | ISO50x08x63 | 63 | 8 | 28 |
| 30.00.10.6 | ISO30x10x50 | 50 | 10 | 35 | 50.00.10.6 | ISO50x10x63 | 63 | 10 | 35 |
| 30.00.12.6 | ISO30x12x50 | 50 | 12 | 42 | 50.00.12.6 | ISO50x12x63 | 63 | 12 | 42 |
| 30.00.16.6 | ISO30x16x50 | 50 | 16 | 48 | 50.00.14.6 | ISO50x14x63 | 63 | 14 | 44 |
| 30.00.20.6 | ISO30x20x50 | 50 | 20 | 50 | 50.00.16.6 | ISO50x16x63 | 63 | 16 | 48 |
| | | | | | 50.00.18.6 | ISO50x18x63 | 63 | 18 | 50 |
| 40.00.06.6 | ISO40x06x50 | 50 | 6 | 25 | 50.00.20.6 | ISO50x20x63 | 63 | 20 | 52 |
| 40.00.08.6 | ISO40x08x50 | 50 | 8 | 28 | 50.00.25.6 | ISO50x25x80 | 80 | 25 | 64 |
| 40.00.10.6 | ISO40x10x50 | 50 | 10 | 35 | 50.00.32.6 | ISO50x32x80 | 80 | 32 | 72 |
| 40.00.12.6 | ISO40x12x50 | 50 | 12 | 42 | 50.00.40.6 | ISO50x40x90 | 90 | 40 | 80 |
| 40.00.14.6 | ISO40x14x50 | 50 | 14 | 44 | | | | | |
| 40.00.16.6 | ISO40x16x63 | 63 | 16 | 48 | | | | | |
| 40.00.18.6 | ISO40x18x63 | 63 | 18 | 50 | | | | | |
| 40.00.20.6 | ISO40x20x63 | 63 | 20 | 50 | | | | | |
| 40.00.25.6 | ISO40x25x80 | 80 | 25 | 64 | | | | | |
| 40.00.32.6 | ISO40x32x80 | 80 | 32 | 72 | | | | | |

NC-Bohrfutter für Rechts- und Linkslauf

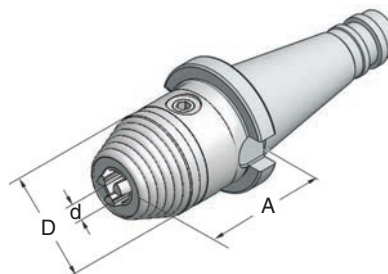
CNC-Drill chucks for clockwise and anti-clockwise rotation

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,04
Taper angle AT3, Concentricity from the taper to the holding part < 0,04

Grundkörper gewuchtet G 2,5 - 8.000 U/min.
Base-body balanced G 2,5 - 8.000 r.p.m



DIN 2080



DIN 2080

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|----------|---------------|----|------|----|----------|---------------|----|------|----|
| 40.00.13 | ISO40x1-13x84 | 84 | 1-13 | 50 | 50.00.13 | ISO50x1-13x94 | 94 | 1-13 | 50 |
| 40.00.16 | ISO40x3-16x84 | 84 | 3-16 | 57 | 50.00.16 | ISO50x3-16x94 | 97 | 3-16 | 57 |

Bohrfutteraufnahmen DIN 238

Drill chuck arbors DIN 238

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

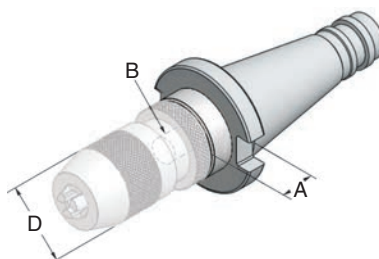
Bohrfutter

Drill chuck

*Das Bohrfutter muss separat bestellt werden !
The drill chuck has to be ordered separately !*



DIN 2080



Bohrfutter

| Art.-Nr. | Typ | A | B | D | Art.-Nr. | Typ |
|------------|-----------|----|----|----|----------|----------------|
| 30.00.12.8 | ISO30xB12 | 15 | 12 | 43 | 287100 | B12xø0,5-10x80 |
| 30.00.16.8 | ISO30xB16 | 17 | 16 | 50 | 289100 | B16xø1,0-13x90 |
| | | | | | 290100 | B16xø2,5-16x95 |
| 40.00.12.8 | ISO40xB12 | 15 | 12 | 43 | | |
| 40.00.16.8 | ISO40xB16 | 17 | 16 | 50 | | |
| 50.00.16.8 | ISO50xB12 | 20 | 16 | 50 | | |
| 50.00.18.8 | ISO50xB16 | 20 | 18 | 56 | | |

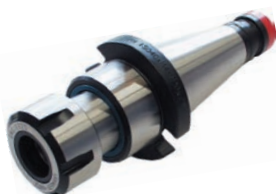
Gewindeschneidfutter für Spannzangen ER/ESX

Tapping heads for collets ER/ESX

Spannzangen siehe Seiten 48+49
Collets see pages 48+49

Längenausgleich auf Druck + Zug

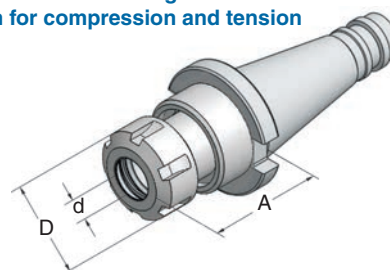
Flexible position for compression and tension



DIN 2080



ER 16



DIN 2080

| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|---------------|----|-----------------|----|-------------|---------------|----|-----------------|----|
| 40.00.12.13 | ISO40xER16x55 | 55 | 1-10 für M2-M12 | 28 | 50.00.20.13 | ISO50xER25x90 | 90 | 2-16 für M4-M20 | 50 |
| 40.00.20.13 | ISO40xER25x74 | 74 | 2-16 für M4-M20 | 42 | 50.00.33.13 | ISO50xER40x90 | 90 | 4-30 für M8-M33 | 63 |
| 40.00.24.13 | ISO40xER32x94 | 94 | 3-20 für M6-M24 | 50 | | | | | |

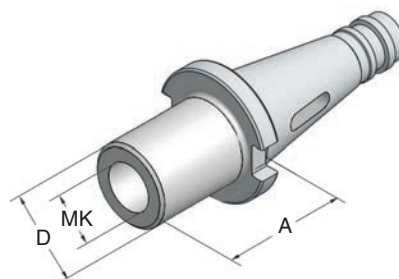
Kegelhülsen MK DIN 228 Form B mit Austreibblappen

Reducing adaptors MT DIN 228 form B with tang

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005



DIN 2080



DIN 2080

| Art.-Nr. | Typ | A | MK | D | Art.-Nr. | Typ | A | MK | D |
|------------|--------------|----|----|----|------------|---------------|-----|----|----|
| 40.00.01.5 | ISO40xMK1x50 | 50 | 1 | 25 | 50.00.01.5 | ISO50xMK1x 45 | 45 | 1 | 25 |
| 40.00.02.5 | ISO40xMK2x50 | 50 | 2 | 32 | 50.00.02.5 | ISO50xMK2x 60 | 60 | 2 | 32 |
| 40.00.03.5 | ISO40xMK3x65 | 65 | 3 | 40 | 50.00.03.5 | ISO50xMK3x 65 | 65 | 3 | 40 |
| 40.00.04.5 | ISO40xMK4x95 | 95 | 4 | 48 | 50.00.04.5 | ISO50xMK4x 70 | 70 | 4 | 48 |
| | | | | | 50.00.05.5 | ISO50xMK5x105 | 105 | 5 | 63 |

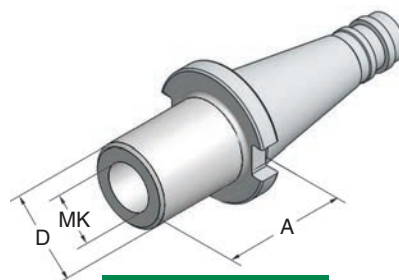
Kegelhülsen MK DIN 228 Form A mit Anzugsgewinde

Reducing adaptors MT DIN 228 form A with retention thread

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005



DIN 2080



DIN 2080

| Art.-Nr. | Typ | A | MK | D | Art.-Nr. | Typ | A | MK | D |
|-------------|--------------|----|----|----|-------------|---------------|-----|----|----|
| 40.00.01.55 | ISO40xMK1x50 | 50 | 1 | 25 | 50.00.02.55 | ISO50xMK2x 60 | 60 | 2 | 32 |
| 40.00.02.55 | ISO40xMK2x50 | 50 | 2 | 32 | 50.00.03.55 | ISO50xMK3x 65 | 65 | 3 | 40 |
| 40.00.03.55 | ISO40xMK3x65 | 65 | 3 | 40 | 50.00.04.55 | ISO50xMK4x 65 | 65 | 4 | 48 |
| 40.00.04.55 | ISO40xMK4x95 | 95 | 4 | 48 | 50.00.05.55 | ISO50xMK5x120 | 120 | 5 | 63 |

Werkzeugaufnahmen zur Kühlmittel- bzw. Luftzufuhr

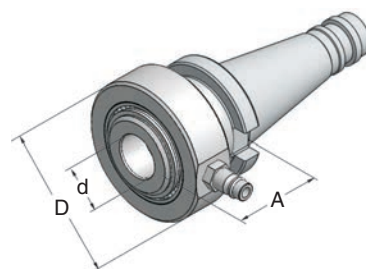
Toolholders for coolant- and air supply

Kegelwinkel AT3, Rundlaufgenauigkeit Steilkegel zu Werkzeugaufnahme < 0,005
Taper angle AT3, Concentricity from the taper to the holding part < 0,005

max. U/min / max. r.p.m.: 3000
Kühlmitteldruck / Coolant pressure: max. 6 bar
Luftdruck / Air pressure: max. 4 bar



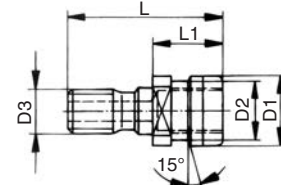
DIN 2080



DIN 2080

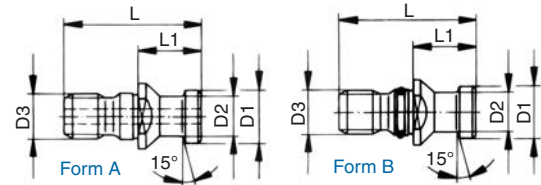
| Art.-Nr. | Typ | A | d | D | Art.-Nr. | Typ | A | d | D |
|-------------|-------|----|----|----|-------------|-------|----|----|----|
| 40.00.25.68 | ISO40 | 50 | 25 | 80 | 50.00.25.68 | ISO50 | 50 | 25 | 80 |
| 40.00.32.68 | ISO40 | 50 | 32 | 80 | 50.00.32.68 | ISO50 | 50 | 32 | 80 |

Anzugsbolzen DIN 2080
Retention knobs DIN 2080



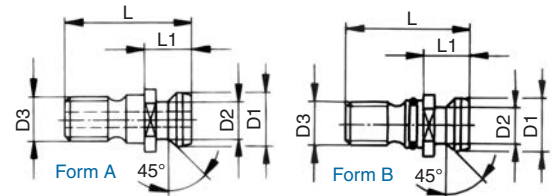
| Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 | Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 |
|-----------|--------------|------|------|-----|-----|------|-----------|--------------|------|------|-----|-----|------|
| 40.16.14 | DIN 2080 | 25,3 | 21,0 | M16 | 53 | 25,1 | 50.24.14 | DIN 2080 | 39,6 | 32,0 | M24 | 65 | 25,1 |
| 40.16.142 | DIN 2080-MK2 | 25,3 | 21,0 | M10 | 100 | 25,1 | 50.24.142 | DIN 2080-MK2 | 39,6 | 32,0 | M10 | 145 | 25,1 |
| 40.16.143 | DIN 2080-MK3 | 25,3 | 21,0 | M12 | 103 | 25,1 | 50.24.143 | DIN 2080-MK3 | 39,6 | 32,0 | M12 | 135 | 25,1 |
| 40.16.144 | DIN 2080-MK4 | 25,3 | 21,0 | M16 | 115 | 25,1 | 50.24.144 | DIN 2080-MK4 | 39,6 | 32,0 | M16 | 135 | 25,1 |
| | | | | | | | 50.24.145 | DIN 2080-MK5 | 39,6 | 32,0 | M20 | 135 | 25,1 |

Anzugsbolzen DIN 69872
Retention knobs DIN 69872



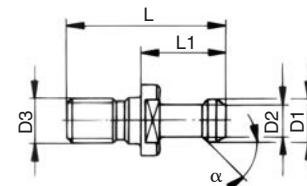
| Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 | Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 |
|----------|-------------|------|------|-----|----|----|-----------|---------------|------|------|-----|-----|----|
| 30.12.1 | DIN 69872-A | 13,0 | 9,0 | M12 | 44 | 24 | 30.12.102 | DIN 69872-MK2 | 13,0 | 9,0 | M10 | 90 | 24 |
| 40.16.1 | DIN 69872-A | 19,0 | 14,0 | M16 | 54 | 26 | 30.12.103 | DIN 69872-MK3 | 13,0 | 9,0 | M12 | 95 | 24 |
| 50.24.1 | DIN 69872-A | 28,0 | 21,0 | M24 | 74 | 34 | 40.16.102 | DIN 69872-MK2 | 19,0 | 14,0 | M10 | 101 | 26 |
| 30.12.11 | DIN 69872-B | 13,0 | 9,0 | M12 | 44 | 24 | 40.16.103 | DIN 69872-MK3 | 19,0 | 14,0 | M12 | 104 | 26 |
| 40.16.11 | DIN 69872-B | 19,0 | 14,0 | M16 | 54 | 26 | 40.16.104 | DIN 69872-MK4 | 19,0 | 14,0 | M16 | 116 | 26 |
| 50.24.11 | DIN 69872-B | 28,0 | 21,0 | M24 | 74 | 34 | 50.24.102 | DIN 69872-MK2 | 28,0 | 21,0 | M10 | 154 | 34 |
| | | | | | | | 50.24.103 | DIN 69872-MK3 | 28,0 | 21,0 | M12 | 144 | 34 |
| 40.16.15 | DIN 69872-A | 19,0 | 14,0 | M16 | 54 | 29 | 50.24.104 | DIN 69872-MK4 | 28,0 | 21,0 | M16 | 144 | 34 |
| | | | | | | | 50.24.105 | DIN 69872-MK5 | 28,0 | 21,0 | M20 | 144 | 34 |

Anzugsbolzen ISO 7388
Retention knobs ISO 7388



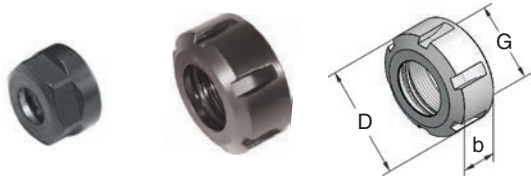
| Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 | Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 |
|----------|------------|------|------|-----|------|------|-----------|--------------|------|------|-----|-----|------|
| 40.16.12 | ISO 7388-A | 18,9 | 12,9 | M16 | 44,5 | 16,4 | 40.16.122 | ISO 7388-MK2 | 18,9 | 12,9 | M10 | 91 | 16,4 |
| 50.24.12 | ISO 7388-A | 29,1 | 19,6 | M24 | 65,5 | 25,5 | 40.16.123 | ISO 7388-MK3 | 18,9 | 12,9 | M12 | 94 | 16,4 |
| | | | | | | | 40.16.124 | ISO 7388-MK4 | 18,9 | 12,9 | M16 | 104 | 16,4 |
| 40.16.13 | ISO 7388-B | 18,9 | 12,9 | M16 | 44,5 | 16,4 | 50.24.122 | ISO 7388-MK2 | 29,1 | 19,6 | M10 | 145 | 25,5 |
| 50.24.13 | ISO 7388-B | 29,1 | 19,6 | M24 | 65,5 | 25,5 | 50.24.123 | ISO 7388-MK3 | 29,1 | 19,6 | M12 | 135 | 25,5 |
| | | | | | | | 50.24.124 | ISO 7388-MK4 | 29,1 | 19,6 | M16 | 135 | 25,5 |
| | | | | | | | 50.24.125 | ISO 7388-MK5 | 29,1 | 19,6 | M20 | 135 | 25,5 |

Anzugsbolzen MAS BT45°/60°/90°
Retention knobs MAS BT45°/60°/90°



| Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 | Art.-Nr. | Typ | D1 | D2 | D3 | L | L1 |
|-----------|---------------|------|------|-----|----|----|-----------|--------------|------|------|-----|-----|----|
| 30.12.4 | BT30x45° | 11,0 | 7,0 | M12 | 43 | 23 | 40.16.402 | BT40x45°-MK2 | 15,0 | 10,0 | M10 | 110 | 35 |
| 30.12.41 | BT30x60° | 11,0 | 7,0 | M12 | 43 | 23 | 40.16.403 | BT40x45°-MK3 | 15,0 | 10,0 | M12 | 113 | 35 |
| 40.16.4 | BT40x45° | 15,0 | 10,0 | M16 | 60 | 35 | 40.16.404 | BT40x45°-MK4 | 15,0 | 10,0 | M16 | 125 | 35 |
| 40.16.41 | BT40x60° | 15,0 | 10,0 | M16 | 60 | 35 | 40.16.412 | BT40x60°-MK2 | 15,0 | 10,0 | M10 | 110 | 35 |
| 40.16.42 | BT40x90° | 15,0 | 10,0 | M16 | 60 | 35 | 40.16.413 | BT40x60°-MK3 | 15,0 | 10,0 | M12 | 113 | 35 |
| 50.24.4 | BT50x45° | 23,0 | 17,0 | M24 | 85 | 45 | 40.16.414 | BT40x60°-MK4 | 15,0 | 10,0 | M16 | 125 | 35 |
| 50.24.41 | BT50x60° | 23,0 | 17,0 | M24 | 85 | 45 | 50.24.402 | BT50x45°-MK2 | 23,0 | 17,0 | M10 | 165 | 45 |
| 50.24.42 | BT50x90° | 23,0 | 17,0 | M24 | 85 | 45 | 50.24.403 | BT50x45°-MK3 | 23,0 | 17,0 | M12 | 155 | 45 |
| 40.16.4-C | BT40x45° i.K. | 15,0 | 10,0 | M16 | 60 | 35 | 50.24.404 | BT50x45°-MK4 | 23,0 | 17,0 | M16 | 155 | 45 |
| 50.24.4-C | BT50x45° i.K. | 23,0 | 17,0 | M24 | 85 | 45 | 50.24.405 | BT50x45°-MK5 | 23,0 | 17,0 | M20 | 155 | 45 |

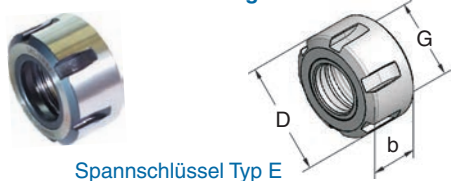
Spannmuttern DIN 6499 Clamping nuts DIN 6499



Art.-Nr. 711120 - SW17
Art.-Nr. 716120 - SW25
Spannschlüssel Typ EP

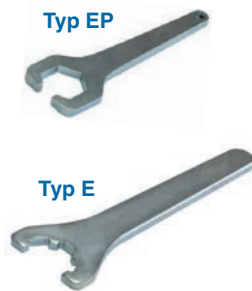
Art.-Nr. 720120 - 750120
Spannschlüssel Typ E

Spannmuttern DIN 6499 gleitgelagert Clamping nuts DIN 6499 friction bearing



Spannschlüssel Typ E

Spannschlüssel Key

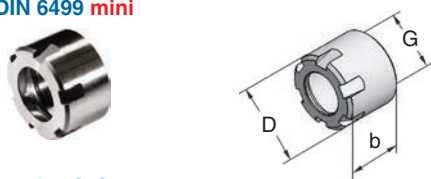


| Art.-Nr. | Typ | D | b | G | Nm max. |
|----------|------------|----|----|----------|---------|
| 711120 | UMQ / ER11 | 19 | 11 | M14x0,75 | 30 |
| 716120 | UMQ / ER16 | 28 | 17 | M22x1,50 | 70 |
| 720120 | UMQ / ER20 | 34 | 19 | M25x1,50 | 100 |
| 725120 | UMQ / ER25 | 42 | 20 | M32x1,50 | 130 |
| 732120 | UMQ / ER32 | 50 | 22 | M40x1,50 | 170 |
| 740120 | UMQ / ER40 | 63 | 25 | M50x1,50 | 220 |
| 750120 | UMQ / ER50 | 78 | 35 | M64x2,00 | 300 |

| Art.-Nr. | Typ | D | b | G | Nm max. |
|----------|------------|----|----|----------|---------|
| 716123 | GMG / ER16 | 28 | 18 | M22x1,50 | 70 |
| 720123 | GMG / ER20 | 35 | 20 | M25x1,50 | 100 |
| 725123 | GMG / ER25 | 42 | 20 | M32x1,50 | 130 |
| 732123 | GMG / ER32 | 50 | 23 | M40x1,50 | 170 |
| 740123 | GMG / ER40 | 63 | 26 | M50x1,50 | 220 |

| Art.-Nr. | Typ | für Spannmutter | SW |
|----------|--------|--------------------------------|----|
| 911180 | E 11 P | 711120 | 17 |
| 916180 | E 16 P | 716120 | 25 |
| 920180 | E 20 P | | 30 |
| 916181 | E 16 | 716123, 716124, 716130 | |
| 920181 | E 20 | 720120, 720123, 720124, 720130 | |
| 925180 | E 25 | 725120, 725123, 725124, 725130 | |
| 932180 | E 32 | 732120, 732123, 732124, 732130 | |
| 940180 | E 40 | 740120, 740123, 740124, 740130 | |
| 950180 | E 50 | 750120 | |

Spannmuttern DIN 6499 mini Clamping nuts DIN 6499 mini



Spannschlüssel mini Key mini



| Art.-Nr. | Typ | D | b | G | Nm max. |
|----------|-------|----|----|----------|---------|
| 908100 | ER 8M | 12 | 11 | M10x0,75 | 6 |
| 911100 | ER11M | 16 | 11 | M13x0,75 | 20 |
| 916100 | ER16M | 22 | 17 | M19x1,00 | 30 |
| 920100 | ER20M | 28 | 19 | M24x1,00 | 35 |
| 925100 | ER25M | 35 | 20 | M30x1,00 | 40 |

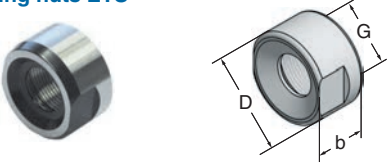
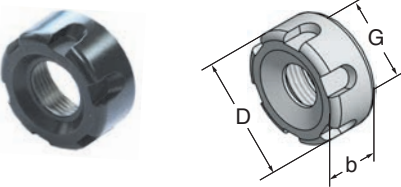


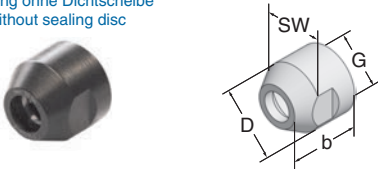

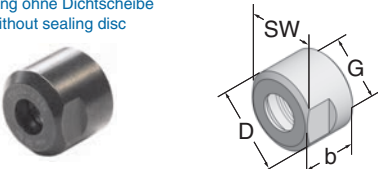

| Art.-Nr. | Typ | für Spannmutter |
|----------|-----------|-----------------|
| 908160 | E 8 mini | 908100 |
| 911160 | E 11 mini | 911100 |
| 916160 | E 16 mini | 916100 |
| 920160 | E 20 mini | 920100 |
| 925160 | E 25 mini | 925100 |

Spannmuttern DIN 6499 mini Clamping nuts DIN 6499 mini



| Art.-Nr. | Typ | D | b | G | SW | Nm max. |
|----------|---------------------|----|------|----------|----|---------|
| 716120-2 | ER16 | 25 | 17,5 | M20x1,00 | 22 | 30 |
| 916162 | Spannschlüssel ER16 | | | | 22 | |



| <p>Spannmuttern ETS Clamping nuts ETS</p>   | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>D</th> <th>b</th> <th>G</th> <th>Spannschlüssel</th> <th>Nm max.</th> </tr> </thead> <tbody> <tr> <td>709130</td> <td>ETS 9</td> <td>13,5</td> <td>8</td> <td>M10x0,75</td> <td>762101</td> <td>10</td> </tr> <tr> <td>712130</td> <td>ETS12</td> <td>19</td> <td>12</td> <td>M14x0,75</td> <td>912163</td> <td>10</td> </tr> <tr> <td>716120-2ETS</td> <td>ETS16</td> <td>27</td> <td>15</td> <td>M20x1,00</td> <td>916163</td> <td>30</td> </tr> </tbody> </table>  <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>für Spannmutter</th> </tr> </thead> <tbody> <tr> <td>762101</td> <td>Spannschlüssel ETS 9</td> <td>709130</td> </tr> <tr> <td>912163</td> <td>Spannschlüssel ETS12</td> <td>712130</td> </tr> <tr> <td>916163</td> <td>Spannschlüssel ETS16</td> <td>716120-2ETS</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>D</th> <th>b</th> <th>G</th> <th>Spannschlüssel</th> <th>Nm max.</th> </tr> </thead> <tbody> <tr> <td>716130</td> <td>ETS16</td> <td>32</td> <td>15</td> <td>M22x1,50</td> <td>916181</td> <td>30</td> </tr> <tr> <td>720130</td> <td>ETS20</td> <td>35</td> <td>16,5</td> <td>M25x1,50</td> <td>920181</td> <td>30</td> </tr> <tr> <td>725130</td> <td>ETS25</td> <td>42</td> <td>18,5</td> <td>M32x1,50</td> <td>925180</td> <td>120</td> </tr> <tr> <td>732130</td> <td>ETS32</td> <td>50</td> <td>22</td> <td>M40x1,50</td> <td>932180</td> <td>150</td> </tr> <tr> <td>740130</td> <td>ETS40</td> <td>63</td> <td>25</td> <td>M50x1,50</td> <td>940180</td> <td>200</td> </tr> </tbody> </table> <p>Spannschlüssel Typ E siehe Seite 44 Key Type E see page 44</p> | Art.-Nr. | Typ | D | b | G | Spannschlüssel | Nm max. | 709130 | ETS 9 | 13,5 | 8 | M10x0,75 | 762101 | 10 | 712130 | ETS12 | 19 | 12 | M14x0,75 | 912163 | 10 | 716120-2ETS | ETS16 | 27 | 15 | M20x1,00 | 916163 | 30 | Art.-Nr. | Typ | für Spannmutter | 762101 | Spannschlüssel ETS 9 | 709130 | 912163 | Spannschlüssel ETS12 | 712130 | 916163 | Spannschlüssel ETS16 | 716120-2ETS | Art.-Nr. | Typ | D | b | G | Spannschlüssel | Nm max. | 716130 | ETS16 | 32 | 15 | M22x1,50 | 916181 | 30 | 720130 | ETS20 | 35 | 16,5 | M25x1,50 | 920181 | 30 | 725130 | ETS25 | 42 | 18,5 | M32x1,50 | 925180 | 120 | 732130 | ETS32 | 50 | 22 | M40x1,50 | 932180 | 150 | 740130 | ETS40 | 63 | 25 | M50x1,50 | 940180 | 200 |
|---|--|-----------------|------|----------|----------------|-----------------|----------------|--------------|-------------|-------------|------|------|----------|--------|-----------------|--------|----------------------|----|----|----------|--------|-----------------|-------------|-------------|----|----|----------|--------|-----------------|----------|-------------|-----------------|--------|----------------------|--------|-----------------|----------------------|-------------|--------|----------------------|-------------|----------|-----------------|---|---|---|----------------|---------|--------|-------|----|----|----------|--------|----|--------|-------|----|------|----------|--------|----|--------|-------|----|------|----------|--------|-----|--------|-------|----|----|----------|--------|-----|--------|-------|----|----|----------|--------|-----|
| Art.-Nr. | Typ | D | b | G | Spannschlüssel | Nm max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 709130 | ETS 9 | 13,5 | 8 | M10x0,75 | 762101 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 712130 | ETS12 | 19 | 12 | M14x0,75 | 912163 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 716120-2ETS | ETS16 | 27 | 15 | M20x1,00 | 916163 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Art.-Nr. | Typ | für Spannmutter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 762101 | Spannschlüssel ETS 9 | 709130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 912163 | Spannschlüssel ETS12 | 712130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 916163 | Spannschlüssel ETS16 | 716120-2ETS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Art.-Nr. | Typ | D | b | G | Spannschlüssel | Nm max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 716130 | ETS16 | 32 | 15 | M22x1,50 | 916181 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 720130 | ETS20 | 35 | 16,5 | M25x1,50 | 920181 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 725130 | ETS25 | 42 | 18,5 | M32x1,50 | 925180 | 120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 732130 | ETS32 | 50 | 22 | M40x1,50 | 932180 | 150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 740130 | ETS40 | 63 | 25 | M50x1,50 | 940180 | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Spannmuttern DIN 6499 gleitgelagert für Dichtscheiben Clamping nuts DIN 6499 friction bearing for sealing discs</p> <p>Lieferumfang ohne Dichtscheibe Delivery without sealing disc</p>  | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>D</th> <th>b</th> <th>G</th> <th>Nm max.</th> <th>Dichtscheibe</th> </tr> </thead> <tbody> <tr> <td>716124</td> <td>GMGC / ER16</td> <td>28</td> <td>23</td> <td>M22x1,5</td> <td>70</td> <td>excl. DS / ER16</td> </tr> <tr> <td>720124</td> <td>GMGC / ER20</td> <td>34</td> <td>25</td> <td>M25x1,5</td> <td>100</td> <td>excl. DS / ER20</td> </tr> <tr> <td>725124</td> <td>GMGC / ER25</td> <td>42</td> <td>26</td> <td>M32x1,5</td> <td>130</td> <td>excl. DS / ER25</td> </tr> <tr> <td>732124</td> <td>GMGC / ER32</td> <td>50</td> <td>28</td> <td>M40x1,5</td> <td>170</td> <td>excl. DS / ER32</td> </tr> <tr> <td>740124</td> <td>GMGC / ER40</td> <td>63</td> <td>31</td> <td>M50x1,5</td> <td>220</td> <td>excl. DS / ER40</td> </tr> </tbody> </table> <p>Spannschlüssel Typ E siehe Seite 44 Key Type E see page 44</p> | Art.-Nr. | Typ | D | b | G | Nm max. | Dichtscheibe | 716124 | GMGC / ER16 | 28 | 23 | M22x1,5 | 70 | excl. DS / ER16 | 720124 | GMGC / ER20 | 34 | 25 | M25x1,5 | 100 | excl. DS / ER20 | 725124 | GMGC / ER25 | 42 | 26 | M32x1,5 | 130 | excl. DS / ER25 | 732124 | GMGC / ER32 | 50 | 28 | M40x1,5 | 170 | excl. DS / ER32 | 740124 | GMGC / ER40 | 63 | 31 | M50x1,5 | 220 | excl. DS / ER40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Art.-Nr. | Typ | D | b | G | Nm max. | Dichtscheibe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 716124 | GMGC / ER16 | 28 | 23 | M22x1,5 | 70 | excl. DS / ER16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 720124 | GMGC / ER20 | 34 | 25 | M25x1,5 | 100 | excl. DS / ER20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 725124 | GMGC / ER25 | 42 | 26 | M32x1,5 | 130 | excl. DS / ER25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 732124 | GMGC / ER32 | 50 | 28 | M40x1,5 | 170 | excl. DS / ER32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 740124 | GMGC / ER40 | 63 | 31 | M50x1,5 | 220 | excl. DS / ER40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Spannmuttern DIN 6499 mini für Dichtscheiben Clamping nuts DIN 6499 for sealing discs</p> <p>Lieferumfang ohne Dichtscheibe Delivery without sealing disc</p>  | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>D</th> <th>b</th> <th>G</th> <th>SW</th> <th>Nm max.</th> </tr> </thead> <tbody> <tr> <td>716124-2</td> <td>ER16C mini</td> <td>25</td> <td>22</td> <td>M20x1,0</td> <td>22</td> <td>30</td> </tr> </tbody> </table> <p>excl. Dichtscheibe/Sealing disc DS / ER16</p>  <table border="1"> <tbody> <tr> <td>916162</td> <td>Spannschlüssel ER16</td> <td>22</td> </tr> </tbody> </table> | Art.-Nr. | Typ | D | b | G | SW | Nm max. | 716124-2 | ER16C mini | 25 | 22 | M20x1,0 | 22 | 30 | 916162 | Spannschlüssel ER16 | 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Art.-Nr. | Typ | D | b | G | SW | Nm max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 716124-2 | ER16C mini | 25 | 22 | M20x1,0 | 22 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 916162 | Spannschlüssel ER16 | 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Spannmuttern ETS mini für Dichtscheiben Clamping nuts ETS mini for sealing discs</p> <p>Lieferumfang ohne Dichtscheibe Delivery without sealing disc</p>  | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>D</th> <th>b</th> <th>G</th> <th>SW</th> <th>Nm max.</th> </tr> </thead> <tbody> <tr> <td>716124-2ETS</td> <td>ETS16C</td> <td>27</td> <td>22,5</td> <td>M20x1,00</td> <td>24</td> <td>30</td> </tr> </tbody> </table> <p>excl. Dichtscheibe/Sealing disc DS / ER16</p>  <table border="1"> <tbody> <tr> <td>916163</td> <td>Spannschlüssel ETS16</td> <td>24</td> </tr> </tbody> </table> | Art.-Nr. | Typ | D | b | G | SW | Nm max. | 716124-2ETS | ETS16C | 27 | 22,5 | M20x1,00 | 24 | 30 | 916163 | Spannschlüssel ETS16 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Art.-Nr. | Typ | D | b | G | SW | Nm max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 716124-2ETS | ETS16C | 27 | 22,5 | M20x1,00 | 24 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 916163 | Spannschlüssel ETS16 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

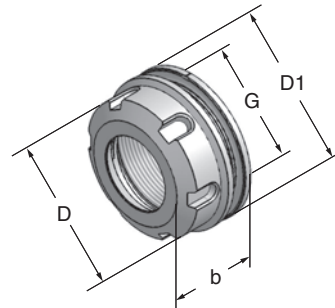
Spannmuttern DIN 6499 / DIN 6388 zum Auswuchten

incl. 2 Wuchtgewichten Art.- Nr. 600101

Clamping nuts DIN 6499 / DIN 6388 for balancing

incl. 2 balancing weights Art.- Nr. 600101

Lieferumfang ohne Spannzange und Werkzeug
Delivery without collet and tool



| Art.-Nr. | Typ | D | D1 | b | G | Nm max. |
|----------|------|----|----|----|---------|---------|
| 725120-B | ER25 | 42 | 46 | 24 | M32x1,5 | 130 |
| 732120-B | ER32 | 50 | 54 | 25 | M40x1,5 | 170 |
| 740120-B | ER40 | 63 | 64 | 27 | M50x1,5 | 220 |
| 825120-B | OZ25 | 63 | 63 | 30 | M48x2,0 | 200 |

Wischer für SK
Cone cleaners SK



Wischer für MK
Cone cleaners MK



| Art.-Nr. | Typ |
|----------|-------|
| 284100 | SK 30 |
| 285100 | SK 40 |
| 286100 | SK 50 |

| Art.-Nr. | Typ |
|----------|------|
| 341100 | MK 2 |
| 342100 | MK 3 |
| 343100 | MK 4 |
| 344100 | MK 5 |

Fräseranzugschrauben DIN 6367
Drawn-in bolts DIN 6367



Schlüssel DIN 6368
Keys DIN 6368



Spannschrauben Weldon
Clamping screws Weldon



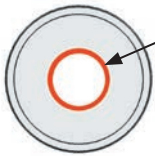
| Art.-Nr. | Typ | Spann-ø |
|----------|-----|---------|
| 163100 | M 8 | ø16 |
| 164100 | M10 | ø22 |
| 165100 | M12 | ø27 |
| 166100 | M16 | ø32 |
| 167100 | M20 | ø40 |
| 168100 | M24 | ø50 |

| Art.-Nr. | Spann-ø |
|----------|---------|
| 170101 | ø16 |
| 171101 | ø22 |
| 172101 | ø27 |
| 173101 | ø32 |
| 174101 | ø40 |

| Art.-Nr. | Typ | Weldon-ø |
|----------|----------|----------|
| 147100 | M 6x10 | ø6 |
| 148100 | M 8x10 | ø8 |
| 149100 | M10x12 | ø10 |
| 150100 | M12x16 | ø12, ø14 |
| 151100 | M14x16 | ø16, ø18 |
| 152100 | M16x16 | ø20 |
| 153100 | M18x2x20 | ø25 |
| 154100 | M20x2x20 | ø32, ø40 |
| 329100 | M24x2x25 | ø50, ø60 |

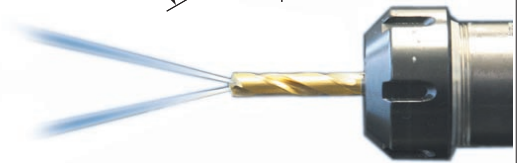
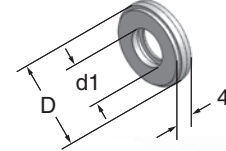
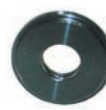
**Dichtscheiben für Spannmuttern DIN 6499, DIN 6388 + ETS
für Werkzeuge mit interner Kühlmittelzufuhr**
Sealing discs for clamping nuts DIN 6499, DIN 6388 + ETS
for tools with internal coolant supply

Kühlmitteldruck / Coolant pressure min. 5 bar - max. 100 bar



Der eingelegte O-Ring gewährleistet interne Kühlmittelzufuhr durch das gespannte Werkzeug direkt zur Werkzeugschneide

The inserted O-ring seal ensures a coolant supply internally through the clamped tool directly to the cutting edge



| Art.-Nr. | Typ | D | d1 | Art.-Nr. | Typ | D | d1 | Art.-Nr. | Typ | D | d1 |
|----------|---------|----|---------|----------|---------|------|---------|----------|---------|----|----------|
| 316040 | DS/ER16 | 13 | ø4 - 3 | 332040 | DS/ER32 | 27 | ø4 - 3 | 350050 | DS/OZ25 | 31 | ø5 - 4 |
| 316050 | DS/ER16 | 13 | ø5 - 4 | 332050 | DS/ER32 | 27 | ø5 - 4 | 350060 | DS/OZ25 | 31 | ø6 - 5 |
| 316060 | DS/ER16 | 13 | ø6 - 5 | 332060 | DS/ER32 | 27 | ø6 - 5 | 350070 | DS/OZ25 | 31 | ø7 - 6 |
| 316070 | DS/ER16 | 13 | ø7 - 6 | 332070 | DS/ER32 | 27 | ø7 - 6 | 350080 | DS/OZ25 | 31 | ø8 - 7 |
| 316080 | DS/ER16 | 13 | ø8 - 7 | 332080 | DS/ER32 | 27 | ø8 - 7 | 350090 | DS/OZ25 | 31 | ø9 - 8 |
| 316090 | DS/ER16 | 13 | ø9 - 8 | 332090 | DS/ER32 | 27 | ø9 - 8 | 350100 | DS/OZ25 | 31 | ø10 - 9 |
| 316100 | DS/ER16 | 13 | ø10 - 9 | 332100 | DS/ER32 | 27 | ø10 - 9 | 350110 | DS/OZ25 | 31 | ø11 - 10 |
| | | | | 332110 | DS/ER32 | 27 | ø11-10 | 350120 | DS/OZ25 | 31 | ø12-11 |
| 320040 | DS/ER20 | 16 | ø4 - 3 | 332120 | DS/ER32 | 27 | ø12-11 | 350130 | DS/OZ25 | 31 | ø13-12 |
| 320050 | DS/ER20 | 16 | ø5 - 4 | 332130 | DS/ER32 | 27 | ø13-12 | 350140 | DS/OZ25 | 31 | ø14-13 |
| 320060 | DS/ER20 | 16 | ø6 - 5 | 332140 | DS/ER32 | 27 | ø14-13 | 350150 | DS/OZ25 | 31 | ø15-14 |
| 320070 | DS/ER20 | 16 | ø7 - 6 | 332150 | DS/ER32 | 27 | ø15-14 | 350160 | DS/OZ25 | 31 | ø16-15 |
| 320080 | DS/ER20 | 16 | ø8 - 7 | 332160 | DS/ER32 | 27 | ø16-15 | 350170 | DS/OZ25 | 31 | ø17-16 |
| 320090 | DS/ER20 | 16 | ø9 - 8 | 332170 | DS/ER32 | 27 | ø17-16 | 350180 | DS/OZ25 | 31 | ø18-17 |
| 320100 | DS/ER20 | 16 | ø10 - 9 | 332180 | DS/ER32 | 27 | ø18-17 | 350190 | DS/OZ25 | 31 | ø19-18 |
| 320110 | DS/ER20 | 16 | ø11-10 | 332190 | DS/ER32 | 27 | ø19-18 | 350200 | DS/OZ25 | 31 | ø20-19 |
| 320120 | DS/ER20 | 16 | ø12-11 | 332200 | DS/ER32 | 27 | ø20-19 | 350210 | DS/OZ25 | 31 | ø21-20 |
| 320130 | DS/ER20 | 16 | ø13-12 | | | | | 350220 | DS/OZ25 | 31 | ø22-21 |
| | | | | 340050 | DS/ER40 | 33,5 | ø5 - 4 | 350230 | DS/OZ25 | 31 | ø23-22 |
| 325040 | DS/ER25 | 21 | ø4 - 3 | 340060 | DS/ER40 | 33,5 | ø6 - 5 | 350240 | DS/OZ25 | 31 | ø24-23 |
| 325050 | DS/ER25 | 21 | ø5 - 4 | 340070 | DS/ER40 | 33,5 | ø7 - 6 | 350250 | DS/OZ25 | 31 | ø25-24 |
| 325060 | DS/ER25 | 21 | ø6 - 5 | 340080 | DS/ER40 | 33,5 | ø8 - 7 | | | | |
| 325070 | DS/ER25 | 21 | ø7 - 6 | 340090 | DS/ER40 | 33,5 | ø9 - 8 | | | | |
| 325080 | DS/ER25 | 21 | ø8 - 7 | 340100 | DS/ER40 | 33,5 | ø10 - 9 | | | | |
| 325090 | DS/ER25 | 21 | ø9 - 8 | 340110 | DS/ER40 | 33,5 | ø11-10 | | | | |
| 325100 | DS/ER25 | 21 | ø10 - 9 | 340120 | DS/ER40 | 33,5 | ø12-11 | | | | |
| 325110 | DS/ER25 | 21 | ø11-10 | 340130 | DS/ER40 | 33,5 | ø13-12 | | | | |
| 325120 | DS/ER25 | 21 | ø12-11 | 340140 | DS/ER40 | 33,5 | ø14-13 | | | | |
| 325130 | DS/ER25 | 21 | ø13-12 | 340150 | DS/ER40 | 33,5 | ø15-14 | | | | |
| 325140 | DS/ER25 | 21 | ø14-13 | 340160 | DS/ER40 | 33,5 | ø16-15 | | | | |
| 325150 | DS/ER25 | 21 | ø15-14 | 340170 | DS/ER40 | 33,5 | ø17-16 | | | | |
| 325160 | DS/ER25 | 21 | ø16-15 | 340180 | DS/ER40 | 33,5 | ø18-17 | | | | |
| | | | | 340190 | DS/ER40 | 33,5 | ø19-18 | | | | |
| | | | | 340200 | DS/ER40 | 33,5 | ø20-19 | | | | |
| | | | | 340210 | DS/ER40 | 33,5 | ø21-20 | | | | |
| | | | | 340220 | DS/ER40 | 33,5 | ø22-21 | | | | |
| | | | | 340230 | DS/ER40 | 33,5 | ø23-22 | | | | |
| | | | | 340240 | DS/ER40 | 33,5 | ø24-23 | | | | |
| | | | | 340250 | DS/ER40 | 33,5 | ø25-24 | | | | |
| | | | | 340260 | DS/ER40 | 33,5 | ø26-25 | | | | |

**Dichtscheiben für Spannmuttern
Ortlieb DIN 6388
für Werkzeuge mit interner
Kühlmittelzufuhr**

Sealing discs for clamping nuts
Ortlieb DIN 6388
for tools with internal coolant supply

Spannzangen ER/ESX DIN 6499-B rego-fix

Collets type ER/ESX DIN 6499-B rego-fix

Sätze / Sets 111002, 116002, 120002, 125002, 132002, 132002, 140002
nicht Original rego-fix / not original rego-fix



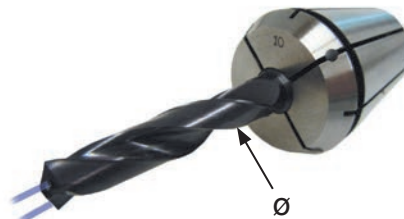
| ER 8 | | ER 11/424 E | | ER 16/426 E | | ER 20/428 E | |
|----------------------|--------------|----------------------|--------------|----------------------|--------------|-----------------------|--------------|
| Art.-Nr. | Spannbereich | Art.-Nr. | Spannbereich | Art.-Nr. | Spannbereich | Art.-Nr. | Spannbereich |
| 108001 | Satz / Set | 111001 | Satz / Set | 116001 | Satz / Set | 120001 | Satz / Set |
| | | 111002 | Satz / Set | 116002 | Satz / Set | 120002 | Satz / Set |
| 9 Stück/pcs. ø1-ø5 | | 13 Stück/pcs. ø1-ø7 | | 10 Stück/pcs. ø1-ø10 | | 12 Stück/pcs. ø2-ø13 | |
| 108010 | ø1,0 - 0,5 | 111010 | ø1,0 - 0,5 | 116010 | ø1,0 - 0,5 | 120010 | ø1,0 - 0,5 |
| 108015 | ø1,5 - 1,0 | 111015 | ø1,5 - 1,0 | 116020 | ø2,0 - 1,0 | 120020 | ø2,0 - 1,0 |
| 108020 | ø2,0 - 1,5 | 111020 | ø2,0 - 1,5 | 116030 | ø3,0 - 2,0 | 120030 | ø3,0 - 2,0 |
| 108025 | ø2,5 - 2,0 | 111025 | ø2,5 - 2,0 | 116040 | ø4,0 - 3,0 | 120040 | ø4,0 - 3,0 |
| 108030 | ø3,0 - 2,5 | 111030 | ø3,0 - 2,5 | 116050 | ø5,0 - 4,0 | 120050 | ø5,0 - 4,0 |
| 108035 | ø3,5 - 3,0 | 111035 | ø3,5 - 3,0 | 116060 | ø6,0 - 5,0 | 120060 | ø6,0 - 5,0 |
| 108040 | ø4,0 - 3,5 | 111040 | ø4,0 - 3,5 | 116070 | ø7,0 - 6,0 | 120070 | ø7,0 - 6,0 |
| 108045 | ø4,5 - 4,0 | 111045 | ø4,5 - 4,0 | 116080 | ø8,0 - 7,0 | 120080 | ø8,0 - 7,0 |
| 108050 | ø5,0 - 4,5 | 111050 | ø5,0 - 4,5 | 116090 | ø9,0 - 8,0 | 120090 | ø9,0 - 8,0 |
| | | 111055 | ø5,5 - 5,0 | 116100 | ø10,0 - 9,0 | 120100 | ø10,0 - 9,0 |
| | | 111060 | ø6,0 - 5,5 | ER 40/472 E | | 120110 | ø11,0 - 10,0 |
| | | 111065 | ø6,5 - 6,0 | 140001 | Satz / Set | 120120 | ø12,0 - 11,0 |
| | | 111070 | ø7,0 - 6,5 | 140002 | Satz / Set | 120130 | ø13,0 - 12,0 |
| ER 25/430 E | | ER 32/470 E | | 23 Stück/pcs. ø3-ø26 | | ER 50/474 E | |
| 125001 | Satz / Set | 132001 | Satz / Set | 140030 | ø3,0 - 2,0 | 150001 | Satz / Set |
| 125002 | Satz / Set | 132002 | Satz / Set | 140040 | ø4,0 - 3,0 | 12 Stück/pcs. ø10-ø34 | |
| 15 Stück/pcs. ø2-ø16 | | 18 Stück/pcs. ø2-ø20 | | 140050 | ø6,0 - 5,0 | 150060 | ø6,0 - 5,0 |
| 125010 | ø1,0 - 0,5 | | | 140060 | ø6,0 - 5,0 | 150080 | ø8,0 - 6,0 |
| 125020 | ø2,0 - 1,0 | 132020 | ø2,0 - 1,0 | 140070 | ø7,0 - 6,0 | 150100S | ø10,0 - 8,0 |
| 125030 | ø3,0 - 2,0 | 132030 | ø3,0 - 2,0 | 140080 | ø8,0 - 7,0 | 150120 | ø12,0 - 10,0 |
| 125040 | ø4,0 - 3,0 | 132040 | ø4,0 - 3,0 | 140090 | ø9,0 - 8,0 | 150140 | ø14,0 - 12,0 |
| 125050 | ø5,0 - 4,0 | 132050 | ø5,0 - 4,0 | 140100 | ø10,0 - 9,0 | 150160 | ø16,0 - 14,0 |
| 125060 | ø6,0 - 5,0 | 132060 | ø6,0 - 5,0 | 140110 | ø11,0 - 10,0 | 150180 | ø18,0 - 16,0 |
| 125070 | ø7,0 - 6,0 | 132070 | ø7,0 - 6,0 | 140120 | ø12,0 - 11,0 | 150200 | ø20,0 - 18,0 |
| 125080 | ø8,0 - 7,0 | 132080 | ø8,0 - 7,0 | 140130 | ø13,0 - 12,0 | 150220 | ø22,0 - 20,0 |
| 125090 | ø9,0 - 8,0 | 132090 | ø9,0 - 8,0 | 140140 | ø14,0 - 13,0 | 150240 | ø24,0 - 22,0 |
| 125100 | ø10,0 - 9,0 | 132100 | ø10,0 - 9,0 | 140150 | ø15,0 - 14,0 | 150250 | ø25,0 - 23,0 |
| 125110 | ø11,0 - 10,0 | 132110 | ø11,0 - 10,0 | 140160 | ø16,0 - 15,0 | 150260 | ø26,0 - 24,0 |
| 125120 | ø12,0 - 11,0 | 132120 | ø12,0 - 11,0 | 140170 | ø17,0 - 16,0 | 150280 | ø28,0 - 26,0 |
| 125130 | ø13,0 - 12,0 | 132130 | ø13,0 - 12,0 | 140180 | ø18,0 - 17,0 | 150300 | ø30,0 - 28,0 |
| 125140 | ø14,0 - 13,0 | 132140 | ø14,0 - 13,0 | 140190 | ø19,0 - 18,0 | 150320 | ø32,0 - 30,0 |
| 125150 | ø15,0 - 14,0 | 132150 | ø15,0 - 14,0 | 140200 | ø20,0 - 19,0 | 150340 | ø34,0 - 32,0 |
| 125160 | ø16,0 - 15,0 | 132160 | ø16,0 - 15,0 | 140210 | ø21,0 - 20,0 | | |
| | | 132170 | ø17,0 - 16,0 | 140220 | ø22,0 - 21,0 | | |
| | | 132180 | ø18,0 - 17,0 | 140230 | ø23,0 - 22,0 | | |
| | | 132190 | ø19,0 - 18,0 | 140240 | ø24,0 - 23,0 | | |
| | | 132200 | ø20,0 - 19,0 | 140250 | ø25,0 - 24,0 | | |
| | | | | 140260 | ø26,0 - 25,0 | | |
| | | | | 140270 | ø27,0 - 26,0 | | |
| | | | | 140280 | ø28,0 - 27,0 | | |
| | | | | 140290 | ø29,0 - 28,0 | | |
| | | | | 140300 | ø30,0 - 29,0 | | |

Spannzangen DIN 6499 abgedichtet
für Werkzeuge mit Innenkühlung

Nur Nennmaßspannung

Collets DIN 6499 sealed
for tools with inner cooling systems

Only for nominal diameter



| ER 16 C | | ER 20 C | | ER 25 C | | ER 32 C | |
|----------------------|--------------|------------------------------|--------------|----------------------|--------------|----------------------|--------------|
| Art.-Nr. | Spannbereich | Art.-Nr. | Spannbereich | Art.-Nr. | Spannbereich | Art.-Nr. | Spannbereich |
| 116001C | Satz / Set | 120001C | Satz / Set | 125001C | Satz / Set | 132001C | Satz / Set |
| 8 Stück/pcs. ø3-ø10 | | 10 Stück/pcs. ø4-ø13 | | 13 Stück/pcs. ø4-ø16 | | 17 Stück/pcs. ø4-ø20 | |
| 116030C | ø3,0 | 120030C | ø3,0 | 125030C | ø3,0 | 132030C | ø3,0 |
| 116040C | ø4,0 | 120040C | ø4,0 | 125040C | ø4,0 | 132040C | ø4,0 |
| 116050C | ø5,0 | 120050C | ø5,0 | 125050C | ø5,0 | 132050C | ø5,0 |
| 116060C | ø6,0 | 120060C | ø6,0 | 125060C | ø6,0 | 132060C | ø6,0 |
| 116070C | ø7,0 | 120070C | ø7,0 | 125070C | ø7,0 | 132070C | ø7,0 |
| 116080C | ø8,0 | 120080C | ø8,0 | 125080C | ø8,0 | 132080C | ø8,0 |
| 116090C | ø9,0 | 120090C | ø9,0 | 125090C | ø9,0 | 132090C | ø9,0 |
| 116100C | ø10,0 | 120100C | ø10,0 | 125100C | ø10,0 | 132100C | ø10,0 |
| | | 120110C | ø11,0 | 125110C | ø11,0 | 132110C | ø11,0 |
| | | 120120C | ø12,0 | 125120C | ø12,0 | 132120C | ø12,0 |
| | | 120130C | ø13,0 | 125130C | ø13,0 | 132130C | ø13,0 |
| ER 40 C | | ER 50 C | | 125140C | ø14,0 | 132140C | ø14,0 |
| 140001C | Satz / Set | 150001C | Satz / Set | 125150C | ø15,0 | 132150C | ø15,0 |
| 23 Stück/pcs. ø4-ø26 | | 7 Stück/pcs. ø8-ø32* | | 125160C | ø16,0 | 132160C | ø16,0 |
| 140040C | ø4,0 | 150120C | ø12,0 | | | 132170C | ø17,0 |
| 140050C | ø5,0 | 150130C | ø13,0 | | | 132180C | ø18,0 |
| 140060C | ø6,0 | 150140C | ø14,0 | | | 132190C | ø19,0 |
| 140070C | ø7,0 | 150150C | ø15,0 | | | 132200C | ø20,0 |
| 140080C | ø8,0 | 150160C | ø16,0 | | | | |
| 140090C | ø9,0 | 150170C | ø17,0 | | | | |
| 140100C | ø10,0 | 150180C | ø18,0 | | | | |
| 140110C | ø11,0 | 150190C | ø19,0 | | | | |
| 140120C | ø12,0 | 150200C | ø20,0 | | | | |
| 140130C | ø13,0 | 150210C | ø21,0 | | | | |
| 140140C | ø14,0 | 150220C | ø22,0 | | | | |
| 140150C | ø15,0 | 150230C | ø23,0 | | | | |
| 140160C | ø16,0 | 150240C | ø24,0 | | | | |
| 140170C | ø17,0 | 150250C | ø25,0 | | | | |
| 140180C | ø18,0 | 150260C | ø26,0 | | | | |
| 140190C | ø19,0 | 150270C | ø27,0 | | | | |
| 140200C | ø20,0 | 150280C | ø28,0 | | | | |
| 140210C | ø21,0 | 150290C | ø29,0 | | | | |
| 140220C | ø22,0 | 150300C | ø30,0 | | | | |
| 140230C | ø23,0 | 150310C | ø31,0 | | | | |
| 140240C | ø24,0 | 150320C | ø32,0 | | | | |
| 140250C | ø25,0 | 150330C | ø33,0 | | | | |
| 140260C | ø26,0 | 150340C | ø34,0 | | | | |
| | | * ø8, 10, 12, 16, 20, 25, 32 | | | | | |

Gewindebohrzangen rego-fix
Tapping collets rego-fix

Lieferumfang ohne Werkzeug
Delivery without tool

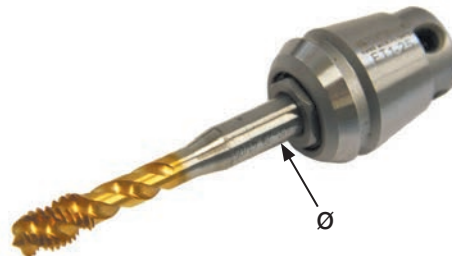


| ER 16-GB | | ER 25-GB | | ER 32-GB | | ER 40-GB | |
|----------|-------------------------------------|----------|-------------------------------------|----------|-------------------------------------|----------|-------------------------------------|
| Art.-Nr. | Schaft $\varnothing \times \square$ | Art.-Nr. | Schaft $\varnothing \times \square$ | Art.-Nr. | Schaft $\varnothing \times \square$ | Art.-Nr. | Schaft $\varnothing \times \square$ |
| GB116045 | $\varnothing 4,5 \times 3,4$ | GB125045 | $\varnothing 4,5 \times 3,4$ | GB132045 | $\varnothing 4,5 \times 3,4$ | GB140070 | $\varnothing 7,0 \times 5,5$ |
| GB116055 | $\varnothing 5,5 \times 4,3$ | GB125055 | $\varnothing 5,5 \times 4,3$ | GB132055 | $\varnothing 5,5 \times 4,3$ | GB140080 | $\varnothing 8,0 \times 6,2$ |
| GB116060 | $\varnothing 6,0 \times 4,9$ | GB125060 | $\varnothing 6,0 \times 4,9$ | GB132060 | $\varnothing 6,0 \times 4,9$ | GB140090 | $\varnothing 9,0 \times 7,0$ |
| GB116070 | $\varnothing 7,0 \times 5,5$ | GB125070 | $\varnothing 7,0 \times 5,5$ | GB132070 | $\varnothing 7,0 \times 5,5$ | GB140100 | $\varnothing 10,0 \times 8,0$ |
| | ER 20-GB | GB125080 | $\varnothing 8,0 \times 6,2$ | GB132080 | $\varnothing 8,0 \times 6,2$ | GB140110 | $\varnothing 11,0 \times 9,0$ |
| GB120045 | $\varnothing 4,5 \times 3,4$ | GB125090 | $\varnothing 9,0 \times 7,0$ | GB132090 | $\varnothing 9,0 \times 7,0$ | GB140120 | $\varnothing 12,0 \times 9,0$ |
| GB120055 | $\varnothing 5,5 \times 4,3$ | GB125100 | $\varnothing 10,0 \times 8,0$ | GB132100 | $\varnothing 10,0 \times 8,0$ | GB140140 | $\varnothing 14,0 \times 11,0$ |
| GB120060 | $\varnothing 6,0 \times 4,9$ | GB125110 | $\varnothing 11,0 \times 9,0$ | GB132110 | $\varnothing 11,0 \times 9,0$ | GB140160 | $\varnothing 16,0 \times 12,0$ |
| GB120070 | $\varnothing 7,0 \times 5,5$ | GB125120 | $\varnothing 12,0 \times 9,0$ | GB132120 | $\varnothing 12,0 \times 9,0$ | GB140180 | $\varnothing 18,0 \times 14,5$ |
| GB120080 | $\varnothing 8,0 \times 6,2$ | | | GB132140 | $\varnothing 14,0 \times 11,0$ | GB140200 | $\varnothing 20,0 \times 16,0$ |
| GB120090 | $\varnothing 9,0 \times 7,0$ | | | GB132160 | $\varnothing 16,0 \times 12,0$ | GB140220 | $\varnothing 22,0 \times 18,0$ |
| GB120100 | $\varnothing 10,0 \times 8,0$ | | | | | | |


Gewindebohrzangen PCM ET1 mit Längenausgleich

Tapping collets PCM ET1 with compensation

Lieferumfang ohne Werkzeug
Delivery without tool



| ET1-16 | | ET1-20 | | ET1-25 | | ET1-32 | | ET1-40 | |
|-----------|-------------------|-----------|-------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|
| Art.-Nr. | Schaft | Art.-Nr. | Schaft | Art.-Nr. | Schaft | Art.-Nr. | Schaft | Art.-Nr. | Schaft |
| ET1-16280 | $\varnothing 2,8$ | ET1-20280 | $\varnothing 2,8$ | ET1-25280 | $\varnothing 2,8$ | ET1-32450 | $\varnothing 4,5$ | ET1-40600 | $\varnothing 6,0$ |
| ET1-16300 | $\varnothing 3,0$ | ET1-20300 | $\varnothing 3,0$ | ET1-25300 | $\varnothing 3,0$ | ET1-32500 | $\varnothing 5,0$ | ET1-40700 | $\varnothing 7,0$ |
| ET1-16350 | $\varnothing 3,5$ | ET1-20350 | $\varnothing 3,5$ | ET1-25350 | $\varnothing 3,5$ | ET1-32550 | $\varnothing 5,5$ | ET1-40800 | $\varnothing 8,0$ |
| ET1-16400 | $\varnothing 4,0$ | ET1-20400 | $\varnothing 4,0$ | ET1-25400 | $\varnothing 4,0$ | ET1-32600 | $\varnothing 6,0$ | ET1-40850 | $\varnothing 8,5$ |
| ET1-16450 | $\varnothing 4,5$ | ET1-20450 | $\varnothing 4,5$ | ET1-25450 | $\varnothing 4,5$ | ET1-32700 | $\varnothing 7,0$ | ET1-40900 | $\varnothing 9,0$ |
| ET1-16500 | $\varnothing 5,0$ | ET1-20500 | $\varnothing 5,0$ | ET1-25500 | $\varnothing 5,0$ | ET1-32800 | $\varnothing 8,0$ | ET1-40100 | $\varnothing 10,0$ |
| ET1-16550 | $\varnothing 5,5$ | ET1-20550 | $\varnothing 5,5$ | ET1-25550 | $\varnothing 5,5$ | ET1-32850 | $\varnothing 8,5$ | ET1-40105 | $\varnothing 10,5$ |
| ET1-16600 | $\varnothing 6,0$ | ET1-20600 | $\varnothing 6,0$ | ET1-25600 | $\varnothing 6,0$ | ET1-32900 | $\varnothing 9,0$ | ET1-40110 | $\varnothing 11,0$ |
| | | ET1-20700 | $\varnothing 7,0$ | ET1-25700 | $\varnothing 7,0$ | ET1-32100 | $\varnothing 10,0$ | ET1-40120 | $\varnothing 12,0$ |
| | | | | ET1-25800 | $\varnothing 8,0$ | ET1-32105 | $\varnothing 10,5$ | ET1-40125 | $\varnothing 12,5$ |
| | | | | ET1-25850 | $\varnothing 8,5$ | ET1-32110 | $\varnothing 11,0$ | ET1-40140 | $\varnothing 14,0$ |
| | | | | ET1-25900 | $\varnothing 9,0$ | ET1-32120 | $\varnothing 12,0$ | ET1-40150 | $\varnothing 15,0$ |
| | | | | ET1-25100 | $\varnothing 10,0$ | ET1-32125 | $\varnothing 12,5$ | ET1-40160 | $\varnothing 16,0$ |
| | | | | | | | | ET1-40170 | $\varnothing 17,0$ |

| TOOLFIX Werkzeugmontagegerät TOOLFIX mounting equipment | | Art.-Nr. | Typ | SK |
|---|--------|-----------------|------------|-----------|
|  | | 250410 | SK 30 | 30 |
| | | 251410 | SK 40 | 40 |
| | | 252410 | SK 50 | 50 |
| | | VDI | | |
| | | 259410 | VDI 20 | 20 |
| | | 260410 | VDI 30 | 30 |
| | | 261410 | VDI 40 | 40 |
| | | 262410 | VDI 50 | 50 |
| | | HSK | | |
| | | 253410 | HSK-A40 | A40 |
| | | 254410 | HSK-E40 | E40 |
| | | 255410 | HSK-A50 | A50 |
| | | 257410 | HSK-A63 | A63 |
| | | 258410 | HSK-E63 | E63 |
| | | POLYGON | | |
| | | 263410 | C4 | C4 |
| | | 264410 | C5 | C5 |
| | | 265410 | C6 | C6 |
| | 266410 | C8 | C8 | |

TOOLFIX VARIO Adaptersystem



VARIO ist die Version mit Schnellwechselfverschluss zum Auswechseln von verschiedenen Werkzeugadaptoren. Die VARIO-Version bietet Anwendern von verschiedenen Werkzeugaufnahmen die Möglichkeit verschiedene Adapterformen auf einem Basiskörper zu verwenden.

VARIO is a version with quick change lock for changing different tool adaptors. The VARIO-version makes possible to use different forms of adaptors on the same base-body for users with different toolholders.

| Art.-Nr. | Typ | Art.-Nr. | Typ |
|-----------------|---------------------------------------|-----------------|--------------------|
| 31000 | TOOLFIX VARIO Basiskörper / Base-body | | |
| | SK | | HSK |
| 31030 | VARIO-Adapter 30 | 31232 | VARIO-Adapter A 32 |
| 31040 | VARIO-Adapter 40 | 31240 | VARIO-Adapter A 40 |
| 31050 | VARIO-Adapter 50 | 31250 | VARIO-Adapter A 50 |
| | VDI | 31263 | VARIO-Adapter A 63 |
| 31116 | VARIO-Adapter 16 | 31280 | VARIO-Adapter A 80 |
| 31120 | VARIO-Adapter 20 | 31210 | VARIO-Adapter A100 |
| 31125 | VARIO-Adapter 25 | 31632 | VARIO-Adapter E 32 |
| 31130 | VARIO-Adapter 30 | 31640 | VARIO-Adapter E 40 |
| 31140 | VARIO-Adapter 40 | 31650 | VARIO-Adapter E 50 |
| 31150 | VARIO-Adapter 50 | 31663 | VARIO-Adapter E 63 |
| | | POLYGON | |
| | | 31803 | VARIO-Adapter C 3 |
| | | 31804 | VARIO-Adapter C 4 |
| | | 31805 | VARIO-Adapter C 5 |
| | | 31806 | VARIO-Adapter C 6 |
| | | 31808 | VARIO-Adapter C 8 |



Steilkegel-Werkzeugaufnahmen DIN 2080 DIN 69871 MAS BT

ISO Taper-toolholders
DIN 2080 DIN 69871 MAS BT



ETS16



ETS16C



ER16



ER16C



MAS BT15 - BT30

