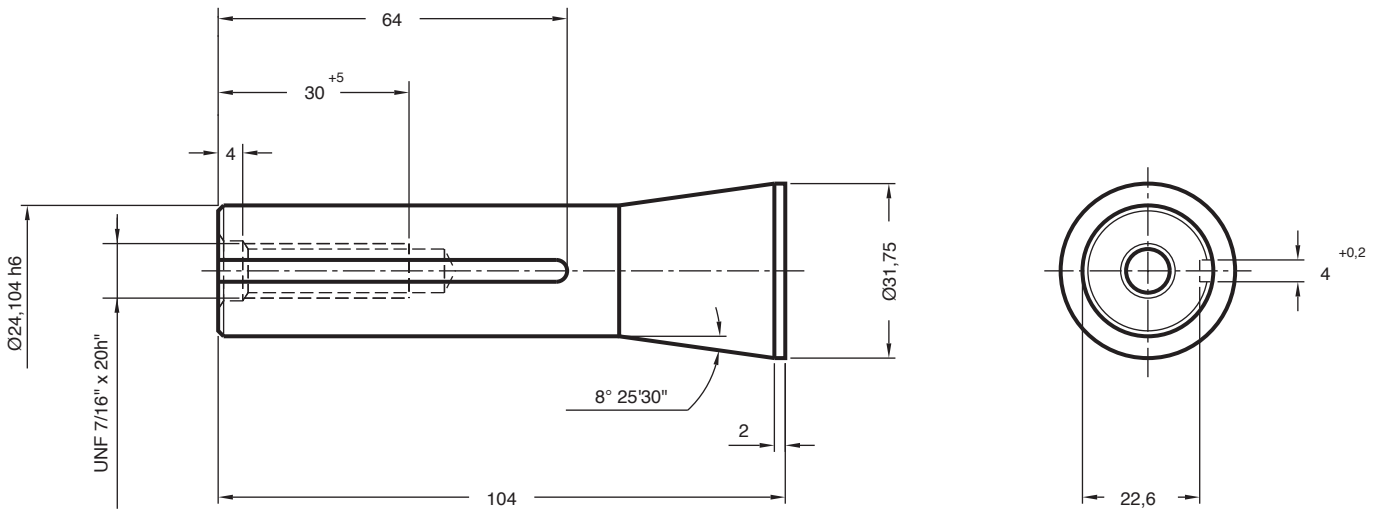


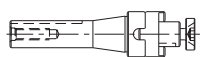
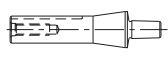




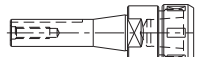
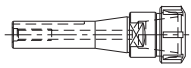
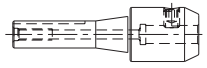
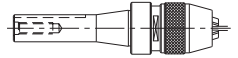
R-8 (BRIDGEPORT)
CILINDRICO
DIN 6327
DIN 1835

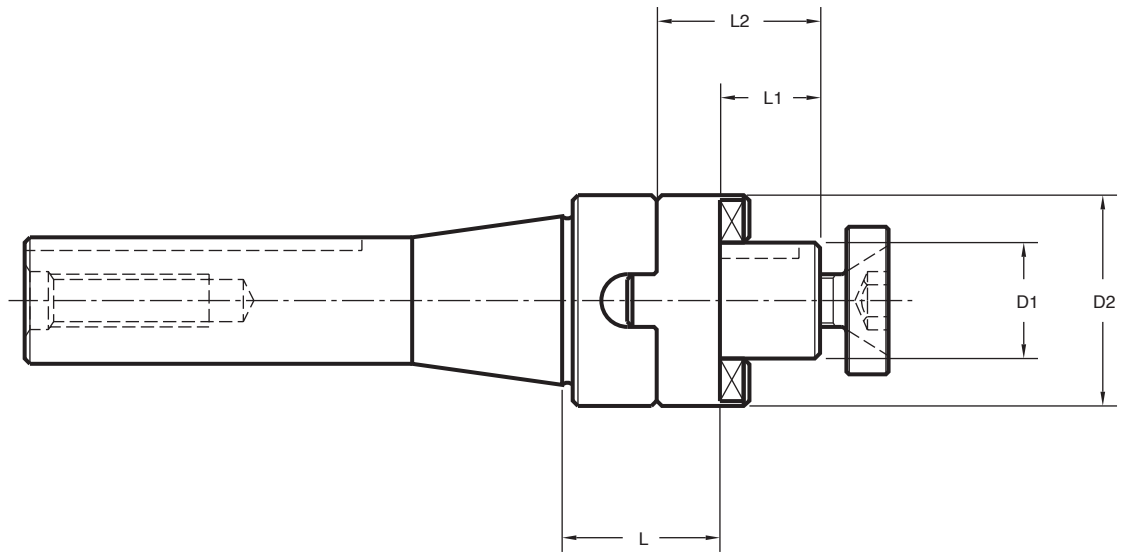
00040 000000
00050 000000
00051 000000
00055 000000







Material: Case-hardening alloy steel.
 Case-hardened and tempered.
 Minimum strength in core 880 N/mm².
 Surface hardness Rc 57 ÷ 60

DESCRIPTION		Page
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REDUCING ADAPTERS For tapered Morse taper tools DIN 228-B		208

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COLLET CHUCKS FOR DIN 6388 COLLETS		209
COLLET CHUCKS ER TYPE (DIN 6499)		210
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SHORT DRILL CHUCKS		212

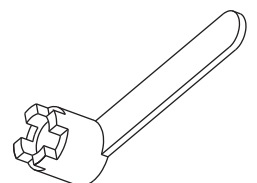
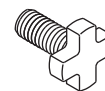
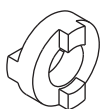


Maximum circular deviation between R-8 taper and $D_1 \leq 0,008$

D ₁	L	L ₁	L ₂	D ₂	COD.
16	30	17	27	32	001 49 02 01 30 
22	30	19	31	40	001 49 02 01 40 
27	30	21	33	48	001 49 02 01 50 
32	30	24	38	58	001 49 02 01 60 

 Product outside of our present production program. Price subject to availability.

Accessories, see pages 267-293

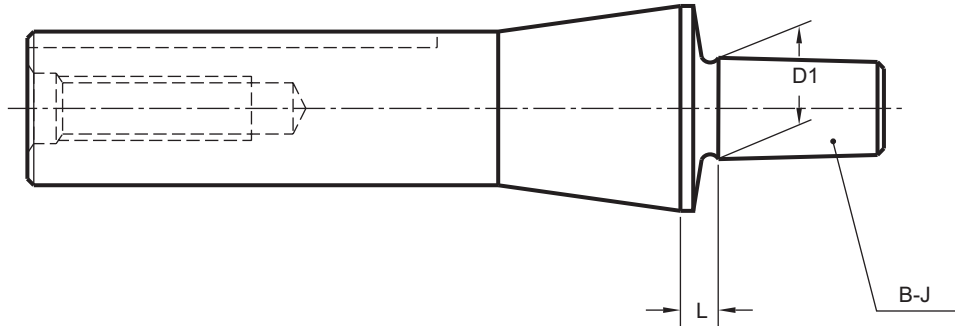


D ₁	OPTIONALS					
16	001 99 02 01 30	001 99 01 22 30	001 99 01 12 30	001 99 03 02 30	001 99 01 01 30	001 99 04 01 30
22	001 99 02 01 40	001 99 01 22 40	001 99 01 12 40	001 99 03 02 40	001 99 01 01 40	001 99 04 01 40
27	001 99 02 01 50	001 99 01 22 50	001 99 01 12 50	001 99 03 02 50	001 99 01 01 50	001 99 04 01 50
32	001 99 02 01 60	001 99 01 22 60	001 99 01 12 60	001 99 03 02 60	001 99 01 01 60	001 99 04 01 60

001 49 50

DRILL CHUCK ARBORS

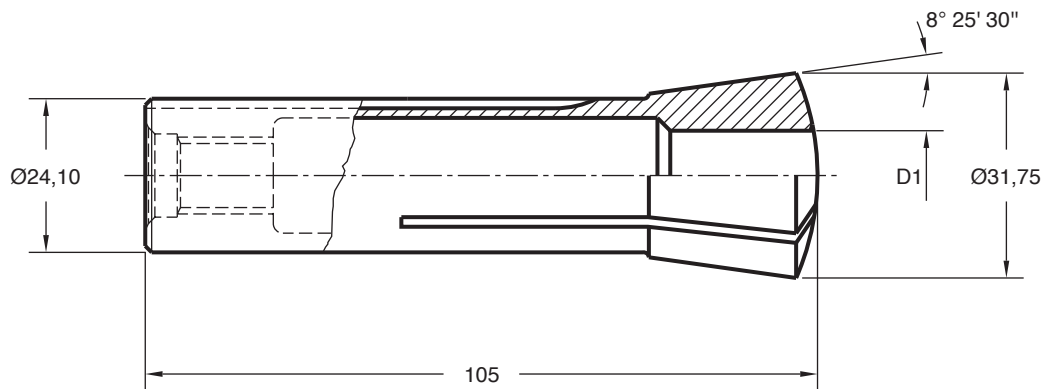
For drill chucks with DIN 238 or JACOBS



Maximum circular deviation between R-8 taper and $D_1 \leq 0,008$

B-J	L	D_1	COD.
B.12	8	12,06	001 49 50 01 01
B.16	8	15,73	001 49 50 01 02
B.18	8	17,78	001 49 50 01 03
J.2	8	14,19	001 49 50 01 13
J.3	8	20,59	001 49 50 01 15
J.33	8	15,85	001 49 50 01 19
J.6	8	17,17	001 49 50 01 18

Product outside of our present production program. Price subject to availability.



D ₁	COD.
3	002 55 01 03 00 ▼
4	002 55 01 04 00 ▼
5	002 55 01 05 00 ▼
↓	↓
16	002 55 01 16 00 ▼
17	002 55 01 17 00 ▼
18	002 55 01 18 00 ▼

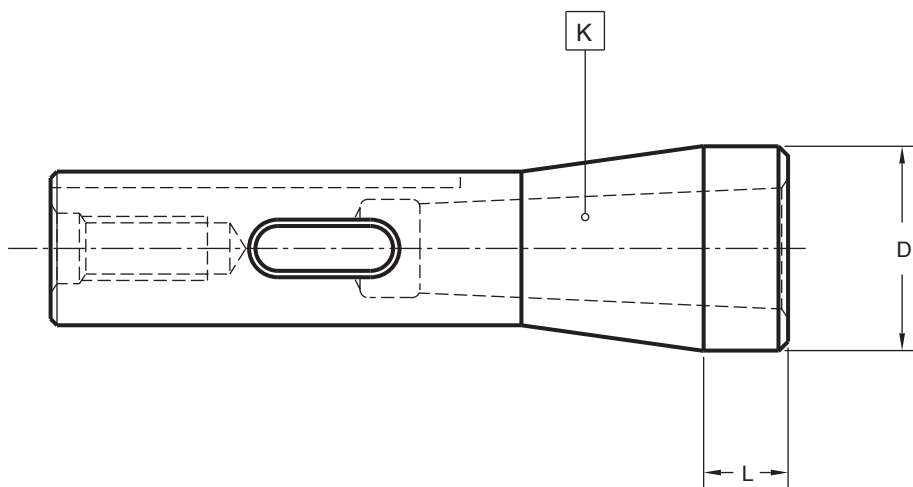
▼ Product outside of our present production program. Price subject to availability.

- Material: Spring steel
Tempered
- Hardness: Rc 57 ÷ 60

003 49 11

REDUCING ADAPTERS

For tapered Morse taper tools DIN 228-B



Maximum circular deviation between R-8 taper and K $\leq 0,008$

K	D	L	COD.
M1	32	13	003 49 11 01 20
M2	32	13	003 49 11 01 30
M3	38	71	003 49 11 01 40

Product outside of our present production program. Price subject to availability.

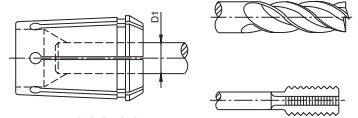
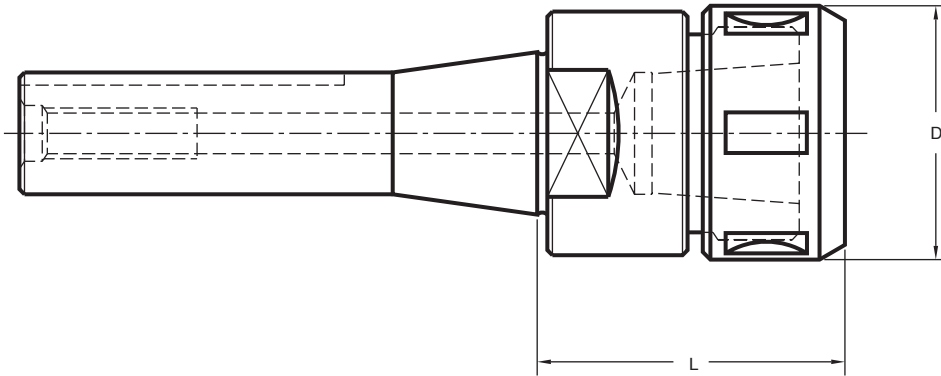
004 49 01

COLLET CHUCKS FOR DIN 6388 COLLETS

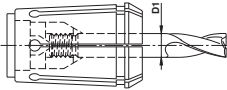
For tools with cylindrical straight shank DIN 1835-A or threaded cylindrical shank DIN 1835-D



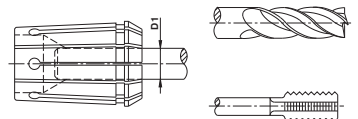
ALTERNATIVE SOLUTION 004 49 06 page 210



002 01



002 03



002 04

Maximum circular deviation between outer taper and collet housing $\leq 0,005$

COLLETS see pages 255-256

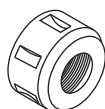
D ₁ máx.	L	D	COD.
25	70	60	004 49 01 01 05

Product outside of our present production program. Price subject to availability.

For boxes and composition of different sets see pages 265-266.

Accessories, see pages 267-293

BALANCED
NUT



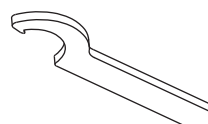
004 99 01 01 05

BEARING
NUT



004 99 01 02 05

WRENCH
(OPTIONAL)



004 99 04 09 11

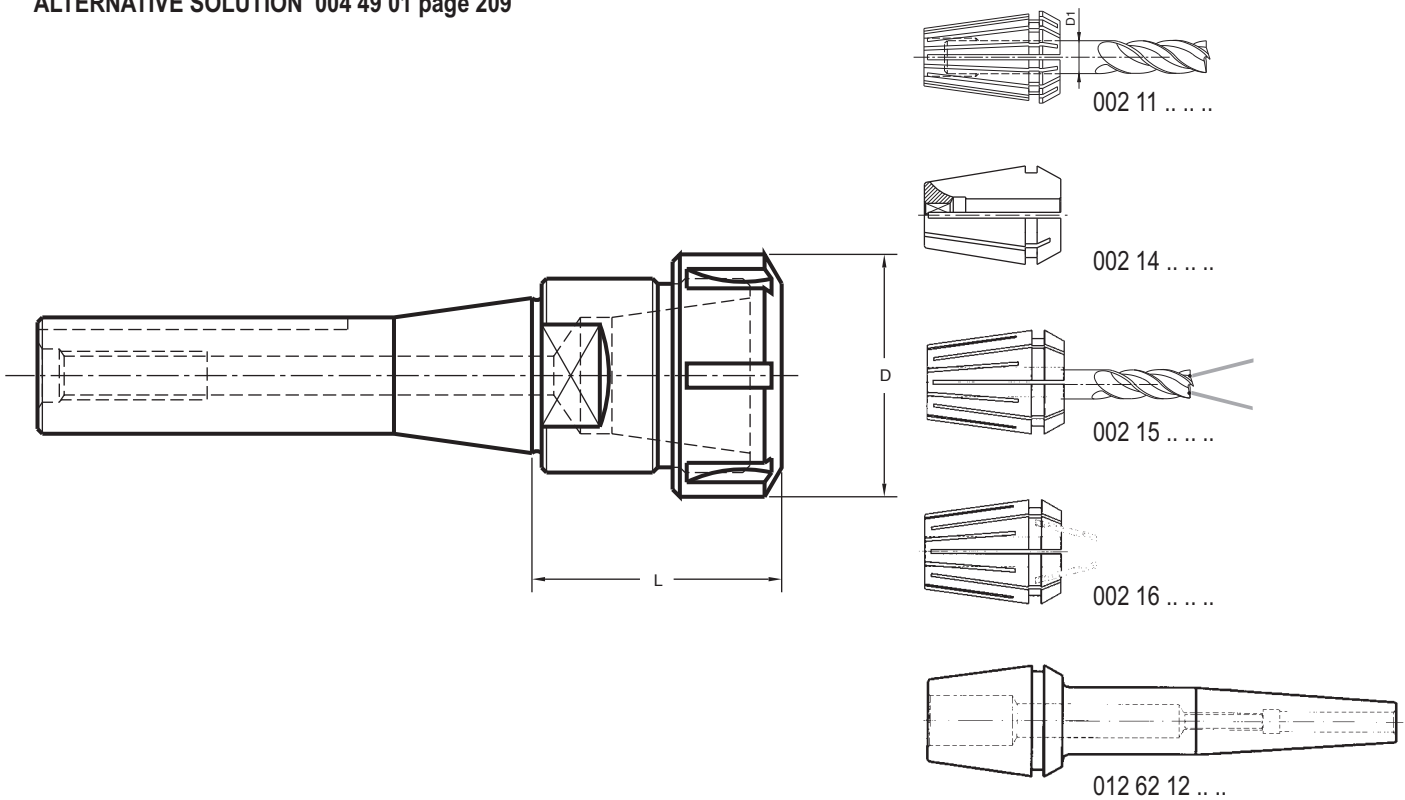
004 49 06

COLLET CHUCKS ER TYPE (DIN 6499)

For tools with cylindrical straight shank DIN 1835-A



ALTERNATIVE SOLUTION 004 49 01 page 209



Maximum circular deviation between outer taper and collet housing $\leq 0,005$

COLLETS see pages 257-259

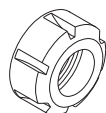
SIZE	D ₁ máx.	L	D	COD.
(ER32)	20	58	50	004 49 06 01 06

Product outside of our present production program. Price subject to availability.

For boxes and composition of different sets see pages 265-266

Accessories, see pages 267-293

BALANCED
NUT
(STANDARD)



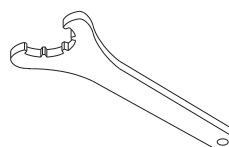
004 99 01 03 06

BEARING
NUT
(OPTIONAL)

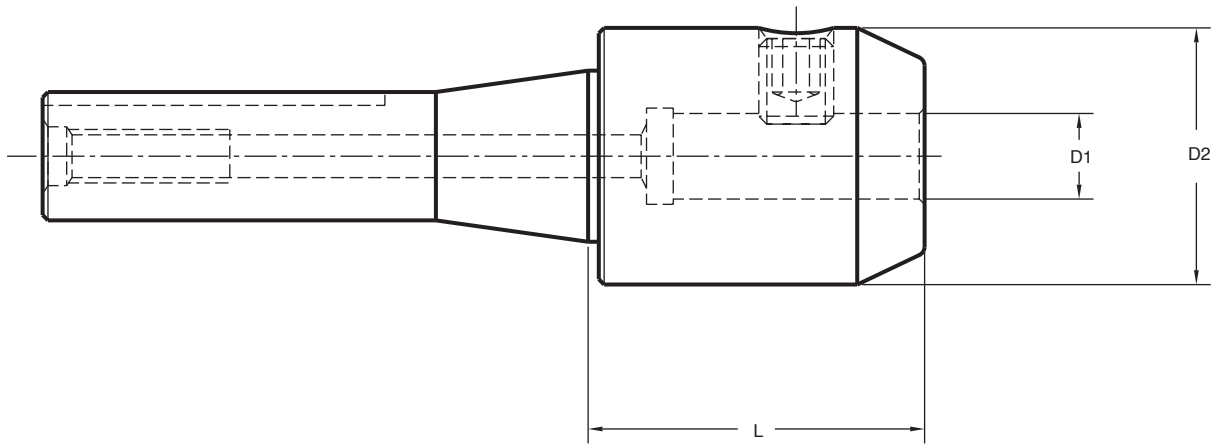


004 99 01 04 06










WRENCH
(OPTIONAL)



004 99 04 03 06



* Maximum circular deviation between R-8 taper and D₁ ≤ 0,005

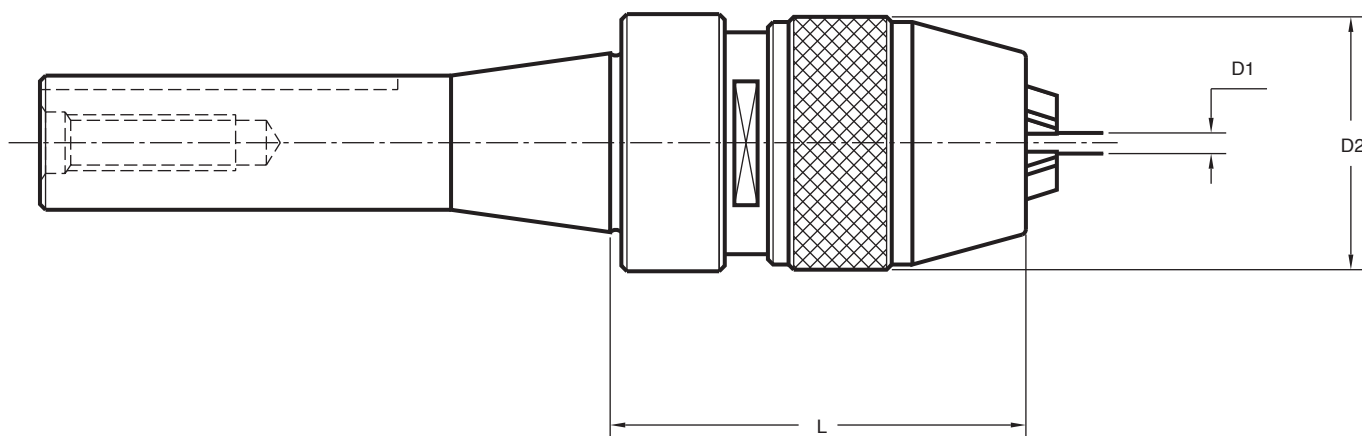
D ₁	* tol.	D ₂	L	COD.	
6		25	30	012 49 01 11 06 	301 01 05 06 10
8		32	30	012 49 01 11 08 	301 01 05 08 10
10		32	30	012 49 01 11 10 	301 01 05 10 12
12	+0,005 0	32	30	012 49 01 11 12 	301 01 05 12 16
14		44	40	012 49 01 11 14 	301 01 05 12 16
16		48	65	012 49 01 11 16 	301 01 05 14 16
18		50	65	012 49 01 11 18 	301 01 05 14 16
20	+0,007 0	52	65	012 49 01 11 20 	301 01 05 16 16

 Product outside of our present production program. Price subject to availability.

* The hole diameter and circular deviation tolerances have been significantly tightened up compared with DIN 1835 in order to achieve the highest levels of machining precision.

012 49 09

SHORT DRILL CHUCKS



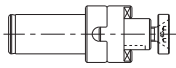
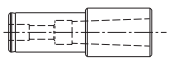
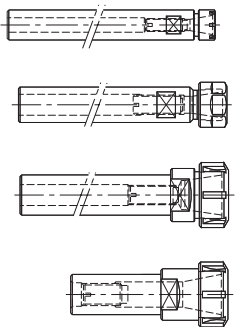
D_1	L	D_2	COD.			
0-8	65	36	012 49 09 11 08 	351 02 60 00 08	351 02 61 00 08	020 99 03 00 08

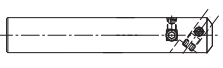
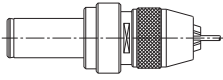
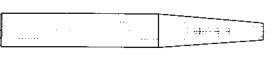
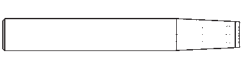
 Product outside of our present production program. Price subject to availability.



D h6					
16	20	25	32	40	50

Material: Case-hardening alloy steel.
 Case-hardened and tempered.
 Minimum strength in core 880 N/mm².
 Surface hardness Rc 57 ÷ 60

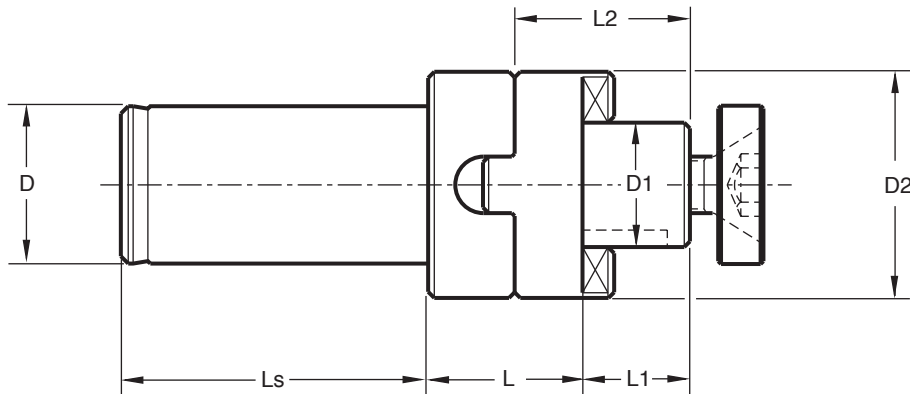
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REDUCING ADAPTERS For tanged Morse taper tools DIN 228-B or Morse taper tools with thread DIN 228-A		214
EXTENSION COLLET CHUCKS ER TYPE (DIN 6499)		215

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BORING BARS		216
SHORT DRILL CHUCKS		216
SHRINK FIT EXTENSIONS		217 218
FRONT CONTACT CYLINDRICAL EXTENSIONS FOR SCREW IN-TOOLS		219

001 50 02

UNIVERSAL ARBORS

For milling cutters with longitudinal or tenon drive DIN 138



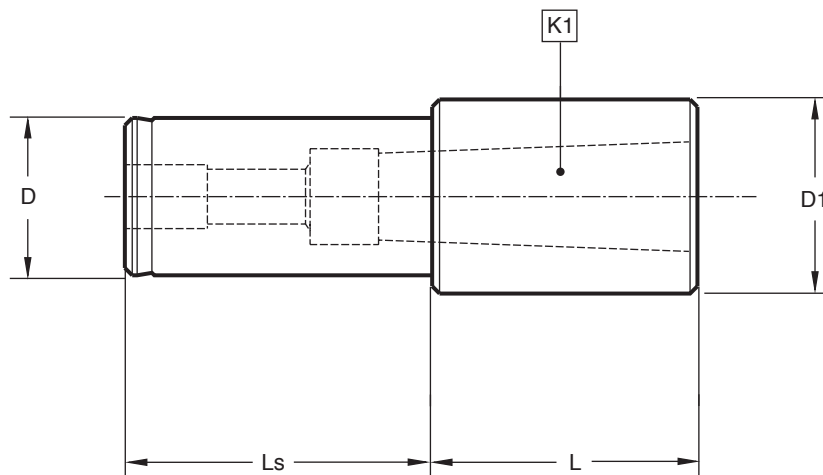
Accessories, see pages 267-293

D h5	D ₁ h6	L	L ₁	L ₂	L _s	D ₂	COD.
32	16	25	17	27	60	32	001 50 02 06 30
32	22	25	19	31	60	40	001 50 02 06 40
32	27	28	21	33	60	48	001 50 02 06 50
32	32	30	24	38	60	58	001 50 02 06 60

003 50 12

REDUCING ADAPTERS

For tapered Morse taper tools DIN 228-B or Morse taper tools with thread DIN 228-A



D h5	D ₁	K ₁	L	L _s	COD.
20	25	1	10	50	003 50 12 04 20
20	25	2	22	50	003 50 12 04 30
32	37	1	3	57	003 50 12 06 20
32	37	2	10	62	003 50 12 06 30
32	37	3	29	62	003 50 12 06 40

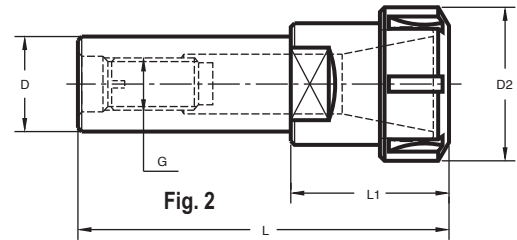
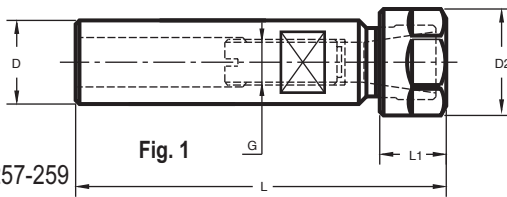
004 50 06 . . .

EXTENSION COLLET CHUCKS ER TYPE (DIN 6499)

For tools with cylindrical straight shank DIN 1835-A




COLLET DIN 6499 (SHORT)

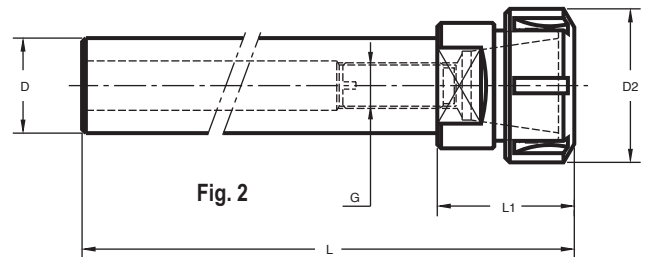
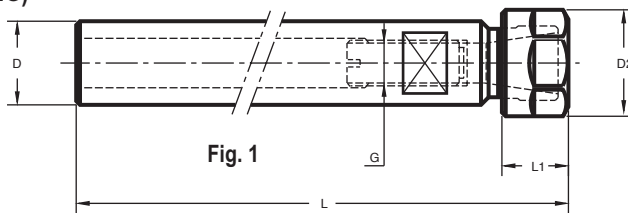


Collets see pages 257-259


Maximum circular deviation between shank and collet housing $\leq 0,003$





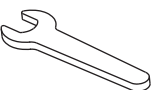

FIG.	D	SIZE	D ₁	D ₂	L	L ₁	G	COD.	
1	20	(ER16)	0,5 - 10	28	80	—	M-10	004 50 06 03 03	301 01 02 10 30
2	20	(ER25)	1 - 16	42	100	50	M-12	004 50 06 03 05	301 01 02 12 30
2	25	(ER25)	1 - 16	42	106	50	M-16	004 50 06 05 05	301 01 02 16 30
2	25	(ER32)	2 - 20	50	111	55	M-16	004 50 06 05 06	301 01 02 16 30
2	32	(ER32)	2 - 20	50	115	55	M-16	004 50 06 06 06	301 01 02 16 40
2	32	(ER40)	3 - 26	63	123	63	M-16	004 50 06 06 07	301 01 02 16 40
2	40	(ER32)	2 - 20	50	115	55	M-16	004 50 06 07 06	301 01 02 16 40
2	40	(ER40)	3 - 26	63	123	63	M-16	004 50 06 07 07	301 01 02 16 40

COLLET DIN 6499 (LONG)

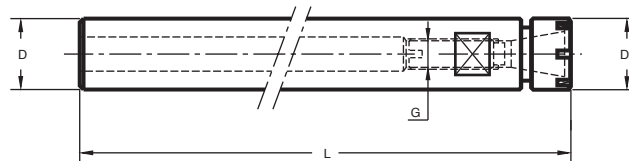


Maximum circular deviation between shank and collet housing $\leq 0,003$

FIG.	D	SIZE	D ₁	D ₂	L	L ₁	G	COD.	
1	16	(ER11)	0,5 - 7	19	160	—	M-8	004 50 06 12 02	301 01 02 08 30
2	25	(ER16)	0,5 - 10	28	180	17	M-10	004 50 06 15 03	301 01 02 10 30
2	25	(ER25)	1 - 16	42	200	50	M-12	004 50 06 15 05	301 01 02 12 30



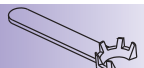
SIZE	BALANCED NUT (STANDARD)	BEARING NUT (OPTIONAL)	BALANCED NUT (STANDARD)	BEARING NUT (OPTIONAL)	WRENCH (OPTIONAL)	WRENCH (OPTIONAL)
(ER-11)						
(ER-16)	004 99 01 08 02	—	—	—	020 99 01 01 02	—
(ER-25)	004 99 01 08 03	004 99 01 04 03	—	—	004 99 04 06 25	—
(ER-32)	—	—	004 99 01 03 05	004 99 01 04 05	—	004 99 04 03 05
(ER-40)	—	—	004 99 01 03 06	004 99 01 04 06	—	004 99 04 03 06
	—	—	004 99 01 03 07	004 99 01 04 07	—	004 99 04 03 07

COLLET DIN 6499 LONG (MINI)

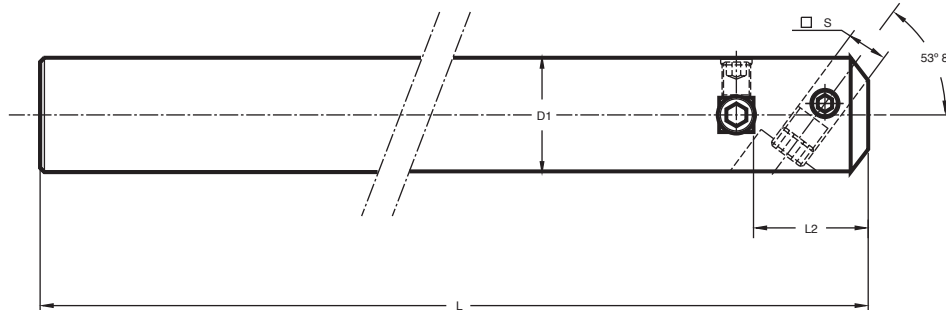


Collets see pages 257-259

Maximum circular deviation between shank and collet housing $\leq 0,003$

D	SIZE	D ₁	D ₂	L	G	COD.			
16	(ER11)	0,5 - 7	16	160	M-8	004 50 06 12 12	301 01 02 08 30	004 99 01 06 02	004 99 04 05 02
20	(ER16)	0,5 - 10	22	175	M-10	004 50 06 13 13	301 01 02 10 30	004 99 01 06 03	004 99 04 05 03

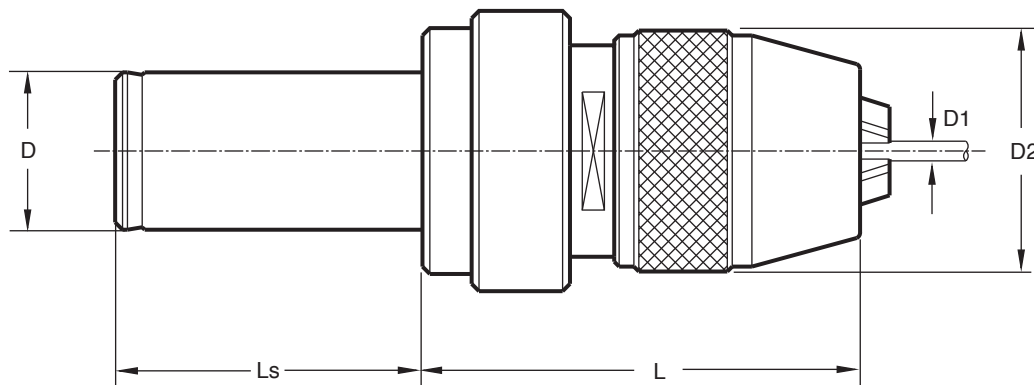
005 50 01 ... BORING BARS



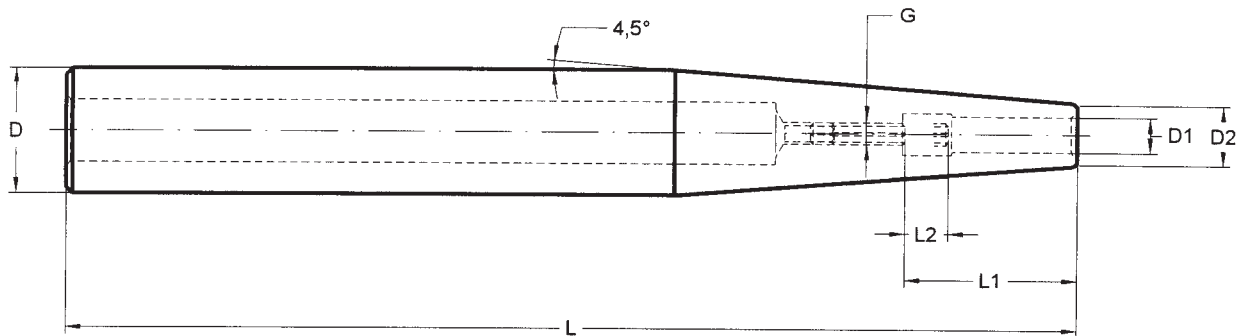
D _{1g6}	L	L ₂	S	COD.	90°	53° 8'	
16	225	17	5	005 50 01 00 43	005 99 01 01 01	005 99 01 02 01	301 01 03 04 05
20	250	26	8	005 50 01 00 44	005 99 01 01 02	005 99 01 02 02	301 01 03 06 06
25	315	28	8	005 50 01 00 45	005 99 01 01 02	005 99 01 02 02	301 01 03 06 06
40	400	40	12	005 50 01 00 47	005 99 01 01 04	005 99 01 02 04	301 01 03 10 10
50	400	50	16	005 50 01 00 48	005 99 01 01 05	005 99 01 02 05	301 01 03 12 12

Product outside of our present production program. Price subject to availability.


012 50 09 ... SHORT DRILL CHUCKS



D h5	D ₁	D ₂	L	L _s	COD.
32	1-13	48	89	60	012 50 09 16 13



Maximum circular deviation between D and D₁ ≤ 0,003

D h6	D ₁	L	D ₂	L ₁	L ₂	G	COD.	
12	3	160	8	20	-	-	012 50 12 32 03	-
12	4	160	9	20	-	-	012 50 12 32 04	-
12	5	160	10	25	-	-	012 50 12 32 05	-
16	3	160	8	20	5	-	012 50 12 33 03	-
16	4	160	9	20	5	-	012 50 12 33 04	-
16	5	160	10	25	5	-	012 50 12 33 05	-
16	6	160	12	36	14	M-5	012 50 12 33 06	301 02 33 05 02
16	8	160	14	36	10	M-6	012 50 12 33 08	301 02 33 06 02
20	6	160	12	36	10	M-5	012 50 12 34 06	301 02 33 05 02
20	8	160	14	36	10	M-6	012 50 12 34 08	301 02 33 06 02
20	10	160	16	42	10	M-8	012 50 12 34 10	301 02 33 08 02
20	12	160	18	47	10	M-10	012 50 12 34 12	301 02 33 10 02
25	10	200	16	41	10	M-8	012 50 12 55 10	301 02 33 08 02
25	12	200	18	46	10	M-10	012 50 12 55 12	301 02 33 10 02
25	14	200	20	46	10	M-10	012 50 12 55 14	301 02 33 10 02
25	16	200	22	49	10	M-12	012 50 12 55 16	301 02 33 12 02
32	14	200	20	50	10	M-10	012 50 12 56 14	301 02 33 10 02
32	16	200	22	50	10	M-12	012 50 12 56 16	301 02 33 12 02
32	18	200	24	52	10	M-12	012 50 12 56 18	301 02 33 12 02
32	20	200	26	52	10	M-16	012 50 12 56 20	301 02 33 16 02

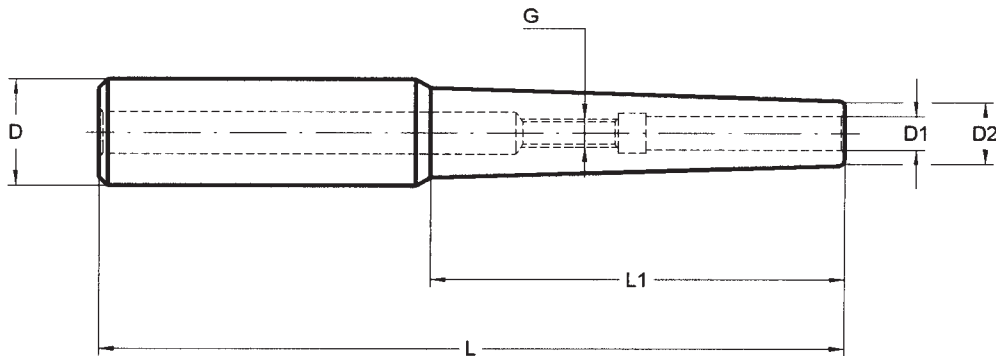
*Other sizes and profiles see page 218

Design:







- For D₁ ≥ 6, tool shank tolerance of h6.
- For D₁ ≤ 6, tool shank tolerance of h4.
- For Carbide, Cermet and HSS tool shanks according to DIN 6535 form HA and DIN 1835-1 form A.

Delivery:

- With built-in bored through stop screw.
- Other sizes and profiles on request.



Maximum circular deviation between D and D₁ ≤ 0,003

D h6	D ₁	D ₂	L	L ₁	G	COD.	
20	5	10	135	75	M-5	012 50 12 14 05 	301 02 33 05 11
20	5	10	185	75	M-5	012 50 12 74 05 	301 02 33 05 11
20	10	18	135	75	M-8	012 50 12 14 10 	301 02 33 08 01
20	10	18	185	75	M-8	012 50 12 74 10 	301 02 33 08 01
20	12	20	135	75	M-10	012 50 12 14 12 	301 02 33 10 01

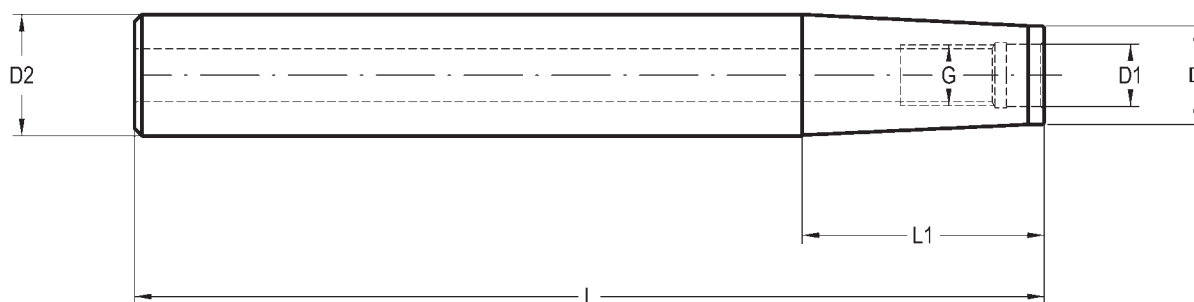
 Product outside of our present production program. Price subject to availability.

Design:

- For D₁ ≥ 6, tool shank tolerance of h6.
- For D₁ ≤ 6, tool shank tolerance of h4.
- For Carbide, Cermet and HSS tool shanks according to DIN 6535 form HA and DIN 1835-1 form A.

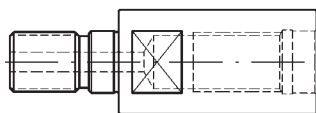
Delivery:

- With built-in bored through stop screw.
- Other sizes and profiles on request.

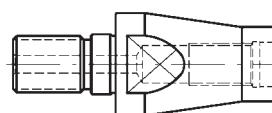


Maximum circular deviation between D_2 and $D_1 \leq 0,003$

D_2 h6	G	D	D_1	L	L_1	COD.
12	M-6	9,8	6,5	160	40	012 50 57 32 01
16	M-8	12,8	8,5	160	45	012 50 57 33 02
20	M-10	17,8	10,5	160	50	012 50 57 34 03
25	M-12	20,8	12,5	160	55	012 50 57 35 04
32	M-16	28,8	17	160	60	012 50 57 36 05



Extensions (see page 239)



Reducers (see page 239)

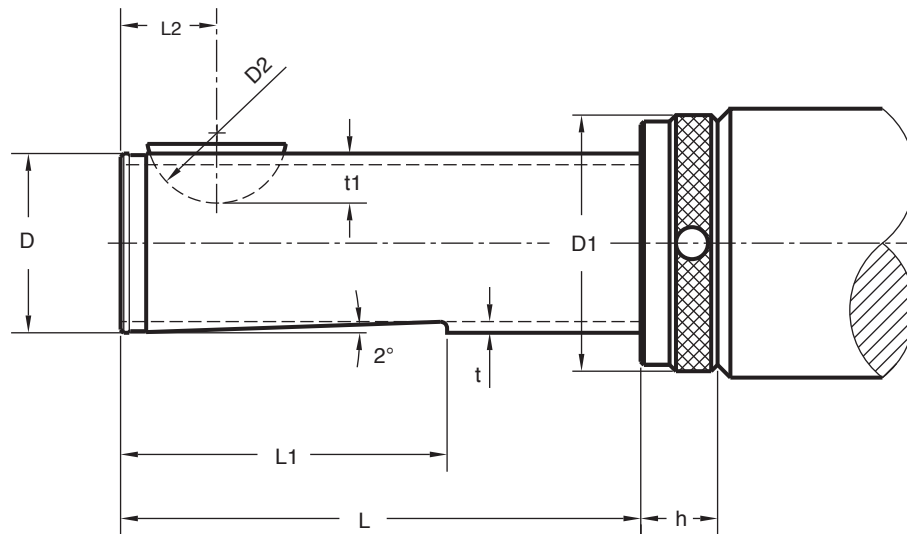
Delivery


– Cylindrical shaft according to DIN 6535 Form HA.



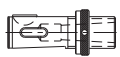
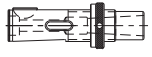
TOOLHOLDERS WITH AXIALLY ADJUSTABLE SHANKS

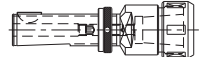
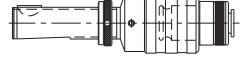
DIN 6327 - ISO 2905



D g _s	D ₁	L	L ₁	D ₂	L ₂	t	t ₁	h	
Tr 16 x 1,5	25	73	43	16	11	1,3	5,4	12	001 99 12 01 30
Tr 20 x 2	32	76	46	19	13	1,3	6,4	12	001 99 12 01 03
Tr 25 x 2	37	83	51	22	15	1,5	7,5	12	001 99 12 01 40
Tr 28 x 2	40	83	51	22	15	1,5	7,5	12	001 99 12 01 40
Tr 32 x 2	45	106	68	28	20	1,7	9,5	12	001 99 12 01 60
Tr 36 x 2	50	104	65	28	20	1,7	9,5	14	001 99 12 01 60
Tr 48 x 2	67	126	76	32	24	2,2	11,1	18	001 99 12 01 09

Material: Case-hardening alloy steel.
Case-hardened and tempered.
Minimum strength in core 880 N/mm².
Surface hardness Rc 53 ÷ 56

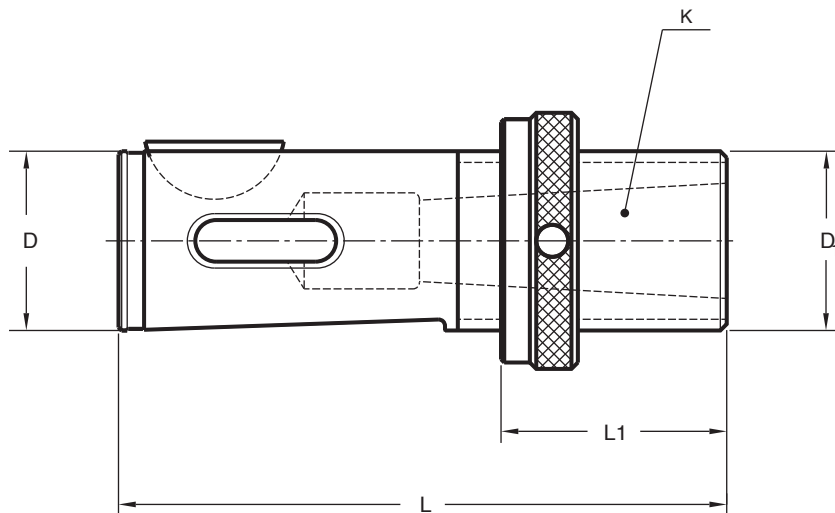
DESCRIPTION	Page
ADJUSTABLE ADAPTERS DIN 6327 Form-D 	222
ADJUSTABLE ADAPTERS DIN 6327 Form-F 	223

DESCRIPTION	Page
COLLET CHUCKS ER TYPE (DIN 6499) 	224
QUICK-CHANGE TAPPING CHUCKS With self and compression system. For BILZ system tap adapter 	225

003 51 11 ...



ADJUSTABLE ADAPTERS DIN 6327 FORM-D

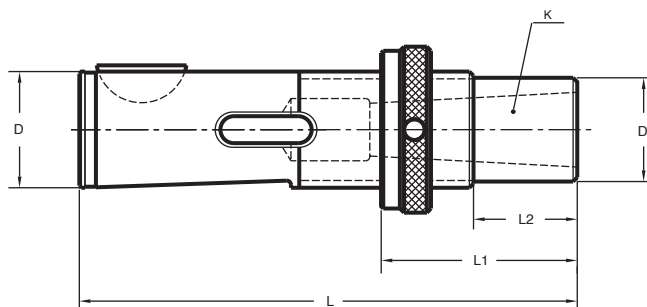
For tapered Morse taper tools DIN 228-B



Maximum circular deviation between D and K $\leq 0,01$



QUICK CHANGE NUT

D	K	D ₁	L	L ₁	COD.		 OPTIONAL
16	M0	16	85	12-40	003 51 11 03 10	001 99 14 01 03	001 99 24 01 03
16	M1	16	85	12-40	003 51 11 03 20	001 99 14 01 03	001 99 24 01 03
20	M1	20	88	12-40	003 51 11 04 20	001 99 14 01 04	001 99 24 01 04
25	M1	25	95	12-42	003 51 11 05 20	001 99 14 01 05	001 99 24 01 05
25	M2	25	95	12-42	003 51 11 05 30	001 99 14 01 05	001 99 24 01 05
28	M1	28	95	12-42	003 51 11 06 20	001 99 14 01 06	001 99 24 01 06
28	M2	28	95	12-42	003 51 11 06 30	001 99 14 01 06	001 99 24 01 06
32	M2	32	118	12-50	003 51 11 07 30	001 99 14 01 07	001 99 24 01 07
32	M3	32	118	12-50	003 51 11 07 40	001 99 14 01 07	001 99 24 01 07
36	M2	36	118	14-50	003 51 11 08 30	001 99 14 01 08	001 99 24 01 08
36	M3	36	118	14-50	003 51 11 08 40	001 99 14 01 08	001 99 24 01 08
48	M3	48	144	18-65	003 51 11 09 40	001 99 14 01 09	001 99 24 01 09
48	M4	48	144	18-65	003 51 11 09 50	001 99 14 01 09	001 99 24 01 09



Maximum circular deviation between D and K $\leq 0,01$

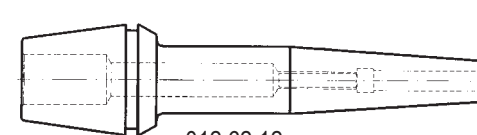
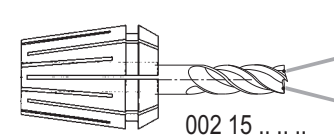
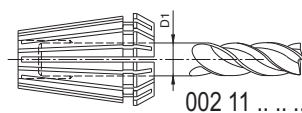
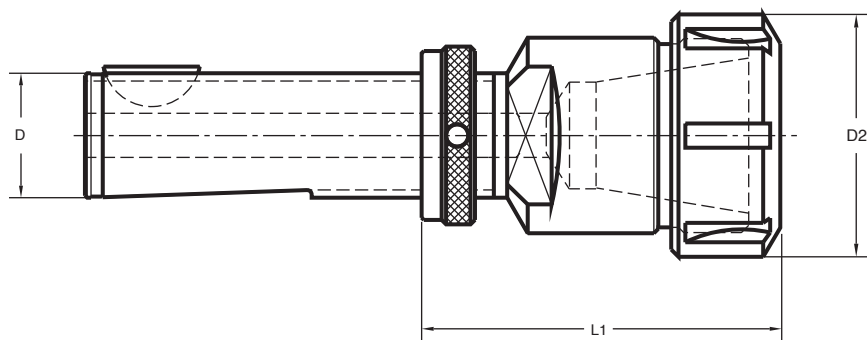
QUICK CHANGE NUT

D	K	D ₁	L	L ₁	L ₂	COD.		 OPTIONAL
16	M0	14	110	37-65	25	003 51 13 03 11	001 99 14 01 03	001 99 24 01 03
16	M0	14	135	62-90	50	003 51 13 03 12	001 99 14 01 03	001 99 24 01 03
16	M0	14	160	87-115	75	003 51 13 03 13	001 99 14 01 03	001 99 24 01 03
16	M0	14	185	112-140	100	003 51 13 03 14	001 99 14 01 03	001 99 24 01 03
16	M1	16	110	37-65	25	003 51 13 03 21	001 99 14 01 03	001 99 24 01 03
16	M1	16	135	62-90	50	003 51 13 03 22	001 99 14 01 03	001 99 24 01 03
16	M1	16	160	87-115	75	003 51 13 03 23	001 99 14 01 03	001 99 24 01 03
16	M1	16	185	112-140	100	003 51 13 03 24	001 99 14 01 03	001 99 24 01 03
20	M1	17	113	37-65	25	003 51 13 04 21	001 99 14 01 04	001 99 24 01 04
20	M1	17	138	62-90	50	003 51 13 04 22	001 99 14 01 04	001 99 24 01 04
20	M1	17	163	87-115	75	003 51 13 04 23	001 99 14 01 04	001 99 24 01 04
20	M1	17	188	112-140	100	003 51 13 04 24	001 99 14 01 04	001 99 24 01 04
25	M1	22	120	37-67	25	003 51 13 05 21	001 99 14 01 05	001 99 24 01 05
25	M1	22	145	62-92	50	003 51 13 05 22	001 99 14 01 05	001 99 24 01 05
25	M1	22	170	87-117	75	003 51 13 05 23	001 99 14 01 05	001 99 24 01 05
25	M1	22	195	112-142	100	003 51 13 05 24	001 99 14 01 05	001 99 24 01 05
25	M2	25	120	37-67	25	003 51 13 05 31	001 99 14 01 05	001 99 24 01 05
25	M2	25	145	62-92	50	003 51 13 05 32	001 99 14 01 05	001 99 24 01 05
25	M2	25	170	87-117	75	003 51 13 05 33	001 99 14 01 05	001 99 24 01 05
25	M2	25	195	112-142	100	003 51 13 05 34	001 99 14 01 05	001 99 24 01 05
28	M1	25	120	37-67	25	003 51 13 06 21	001 99 14 01 06	001 99 24 01 06
28	M1	25	145	62-92	50	003 51 13 06 22	001 99 14 01 06	001 99 24 01 06
28	M1	25	170	87-117	75	003 51 13 06 23	001 99 14 01 06	001 99 24 01 06
28	M1	25	195	112-142	100	003 51 13 06 24	001 99 14 01 06	001 99 24 01 06
28	M2	25	120	37-67	25	003 51 13 06 31	001 99 14 01 06	001 99 24 01 06
28	M2	25	145	62-92	50	003 51 13 06 32	001 99 14 01 06	001 99 24 01 06
28	M2	25	170	87-117	75	003 51 13 06 33	001 99 14 01 06	001 99 24 01 06
28	M2	25	195	112-142	100	003 51 13 06 34	001 99 14 01 06	001 99 24 01 06
32	M2	29	146	42-80	30	003 51 13 07 31	001 99 14 01 07	001 99 24 01 07
32	M2	29	176	72-110	60	003 51 13 07 32	001 99 14 01 07	001 99 24 01 07
32	M2	29	206	102-140	90	003 51 13 07 33	001 99 14 01 07	001 99 24 01 07
32	M2	29	236	132-170	120	003 51 13 07 34	001 99 14 01 07	001 99 24 01 07
32	M3	32	146	42-80	30	003 51 13 07 41	001 99 14 01 07	001 99 24 01 07
32	M3	32	176	72-110	60	003 51 13 07 42	001 99 14 01 07	001 99 24 01 07
32	M3	32	206	102-140	90	003 51 13 07 43	001 99 14 01 07	001 99 24 01 07
32	M3	32	236	132-170	120	003 51 13 07 44	001 99 14 01 07	001 99 24 01 07
36	M2	33	148	44-80	30	003 51 13 08 31	001 99 14 01 08	001 99 24 01 08
36	M2	33	178	74-110	60	003 51 13 08 32	001 99 14 01 08	001 99 24 01 08
36	M2	33	208	104-140	90	003 51 13 08 33	001 99 14 01 08	001 99 24 01 08
36	M2	33	238	134-170	120	003 51 13 08 34	001 99 14 01 08	001 99 24 01 08
36	M3	33	148	44-80	30	003 51 13 08 41	001 99 14 01 08	001 99 24 01 08
36	M3	33	178	74-110	60	003 51 13 08 42	001 99 14 01 08	001 99 24 01 08
36	M3	33	208	104-140	90	003 51 13 08 43	001 99 14 01 08	001 99 24 01 08
36	M3	33	238	134-170	120	003 51 13 08 44	001 99 14 01 08	001 99 24 01 08
48	M3	45	184	58-105	40	003 51 13 09 41	001 99 14 01 09	001 99 24 01 09
48	M3	45	224	98-145	80	003 51 13 09 42	001 99 14 01 09	001 99 24 01 09
48	M3	45	264	138-185	120	003 51 13 09 43	001 99 14 01 09	001 99 24 01 09
48	M3	45	304	178-225	160	003 51 13 09 44	001 99 14 01 09	001 99 24 01 09
48	M4	45	184	58-105	40	003 51 13 09 51	001 99 14 01 09	001 99 24 01 09
48	M4	45	224	98-145	80	003 51 13 09 52	001 99 14 01 09	001 99 24 01 09
48	M4	45	264	138-185	120	003 51 13 09 53	001 99 14 01 09	001 99 24 01 09
48	M4	45	304	178-225	160	003 51 13 09 54	001 99 14 01 09	001 99 24 01 09

004 51 06



COLLET CHUCKS ER TYPE (DIN 6499)

For tools with cylindrical straight shank DIN 1835-A



COLLETS see pages 257-259

QUICK CHANGE NUT

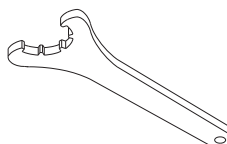
D	SIZE	D ₁ máx.	L ₁	D ₂	COD.		 OPTIONAL
28	(ER32)	20	70-98	50	004 51 06 06 06	001 99 14 01 06	001 99 24 01 06
36	(ER40)	26	90-124	63	004 51 06 08 07	001 99 14 01 08	001 99 24 01 08
48	(ER40)	26	90-135	63	004 51 06 09 07	001 99 14 01 09	001 99 24 01 09

For boxes and composition of different sets see pages 265-266

BALANCED NUT (STANDARD)

BEARING NUT (OPTIONAL)

WRENCH (OPTIONAL)

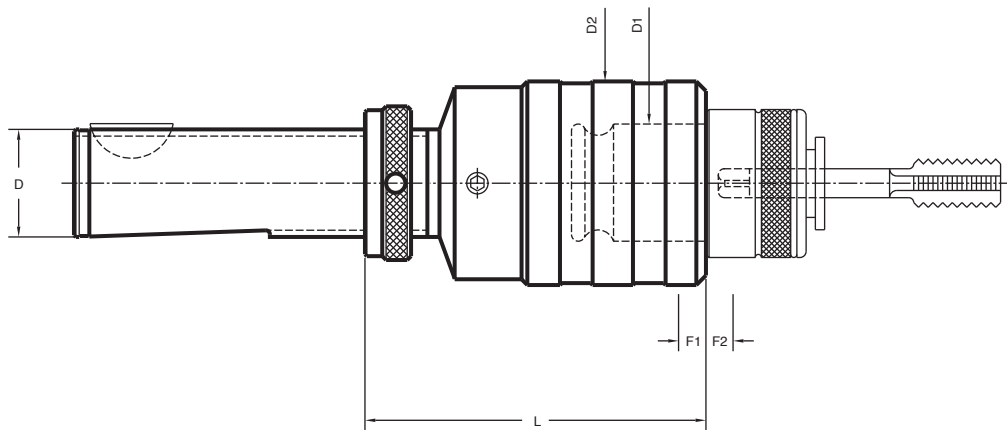


SIZE	BALANCED NUT (STANDARD)	BEARING NUT (OPTIONAL)	WRENCH (OPTIONAL)
ER 32	004 99 01 03 06	004 99 01 04 06	004 99 04 03 06
ER 40	004 99 01 03 07	004 99 01 04 07	004 99 04 03 07

019 51 52 ...

QUICK-CHANGE TAPPING CHUCKS

With self feed and compression system. For BILZ system tap adapter



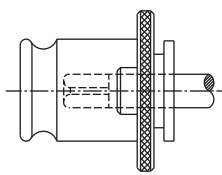
BILZ Adapter

D	CAP.	D ₁	L	D ₂	F ₁	F ₂	COD.
20	M3-M12 (M16)*	19	52	36	7,5	7,5	019 51 52 04 02
28	M3-M12 (M16)*	19	52	36	7,5	7,5	019 51 52 06 02
36	M8-M20 (M30)*	31	78	53	12,5	12,5	019 51 52 08 03

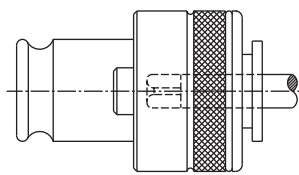
F₁ Compression run
F₂ Extension run

* With 002 22 and 002 24 adapters

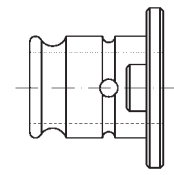
See page 263



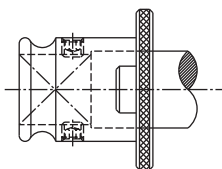
002 21 ..



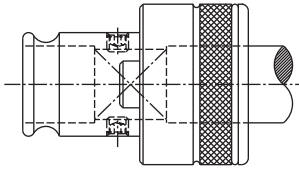
002 23 ..



002 20 ..



002 22 ..

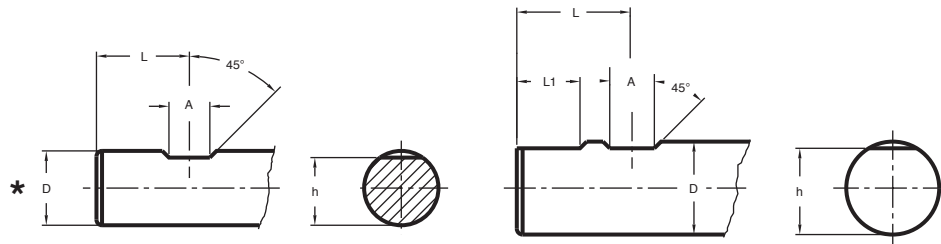


002 24 ..

D₁

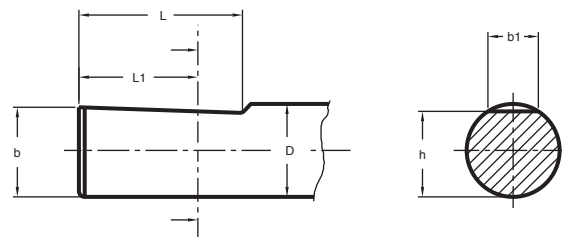
19	002 21 02	002 22 02	002 23 02	002 24 02
31	002 21 03	002 22 03	002 23 03	002 24 03

FORM B



D h6	A ^{+0,05} ₀	L ⁰ ₋₁	L ₁ ⁺¹ ₀	h h13
20*	11	25	—	18,2
25	12	32	17	23
32	14	36	19	30

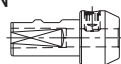
FORM E



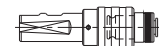
D h6	L ⁰ ₋₁	L ₁	b	b ₁ h13	h h13
20	38	25	19,1	11,5	18,2
25	44	32	24,1	13,6	23
32	48	35	31,2	15,5	30

Material: Case-hardening alloy steel.
Case-hardened and tempered.
Minimum strength in core 880 N/mm².
Surface hardness Rc 53 ÷ 56

DESCRIPTION	Page
REDUCING ADAPTERS FOR WELDON OR WHISTLE NOTCH HOLDERS For end mills with shank DIN 1835-B - DIN 6535 HB	228



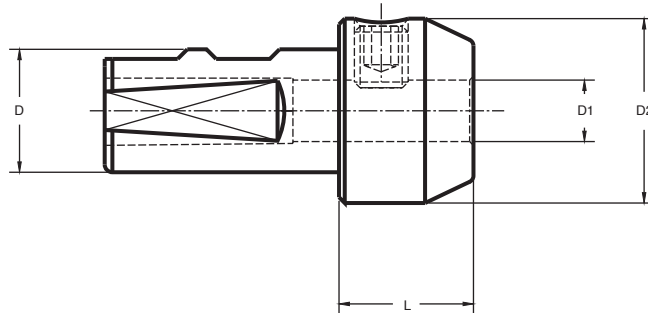
DESCRIPTION	Page
QUICK-CHANGE TAPPING CHUCKS With self feed and compression system For Bilz system adapter	229



012 55 01 ...

REDUCING ADAPTERS FOR WELDON OR WHISTLE NOTCH HOLDERS

For end mills with shank DIN 1835-B - DIN 6535 HB



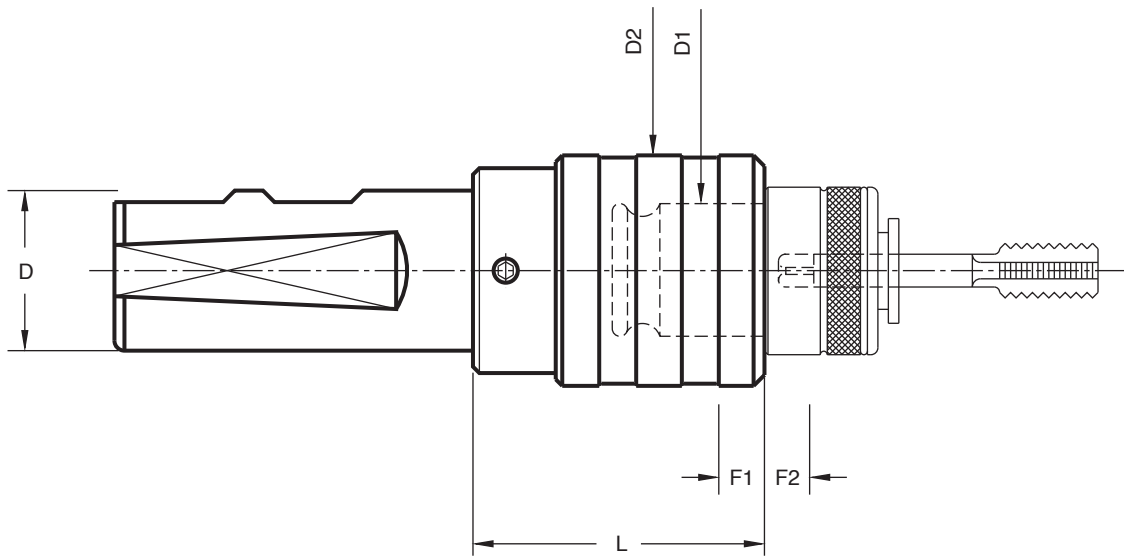
D	D ₁ H5	L	D ₂	COD.	
20	6	35	25	012 55 01 05 06	301 01 05 06 10
20	8	35	28	012 55 01 05 08	301 01 05 08 10
20	10	35	35	012 55 01 05 10	301 01 05 10 12
20	12	50	42	012 55 01 05 12	301 01 05 12 16
25	6	35	25	012 55 01 06 06	301 01 05 06 10
25	8	35	28	012 55 01 06 08	301 01 05 08 10
25	10	35	35	012 55 01 06 10	301 01 05 10 12
25	12	35	42	012 55 01 06 12	301 01 05 12 16
25	14	56	44	012 55 01 06 14	301 01 05 12 16
25	16	60	48	012 55 01 06 16	301 01 05 14 16
32	6	30	25	012 55 01 07 06	301 01 05 06 10
32	8	30	28	012 55 01 07 08	301 01 05 08 10
32	10	35	35	012 55 01 07 10	301 01 05 10 12
32	12	35	42	012 55 01 07 12	301 01 05 12 16
32	14	35	44	012 55 01 07 14	301 01 05 12 16
32	16	35	48	012 55 01 07 16	301 01 05 14 16
32	18	60	50	012 55 01 07 18	301 01 05 14 16
32	20	62	52	012 55 01 07 20	301 01 05 16 16

Product outside of our present production program. Price subject to availability.

019 55 52 ...

QUICK-CHANGE TAPPING CHUCKS

With self feed and compression system
For Bilz system adapter



BILZ Adapter

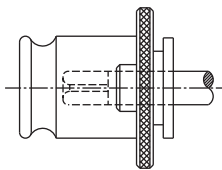
D	CAP	D ₁	L	D ₂	F ₁	F ₂	COD.
20	M3-M12 (M16)*	19	39	36	7,5	7,5	019 55 52 20 02
25	M3-M12 (M16)*	19	39	36	7,5	7,5	019 55 52 25 02
25	M8-M20 (M30)*	31	63	55	12,5	12,5	019 55 52 25 03
32	M8-M20 (M30)*	31	63	53	12,5	12,5	019 55 52 32 03
32	M14-M33 (M48)*	48	124	78	20	20	019 55 52 32 04

F₁ Compression run

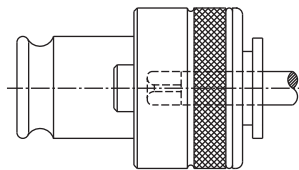
F₂ Extension run

* With 002 22 ... and 002 24 ... adapters

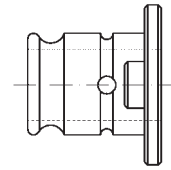
See page 263



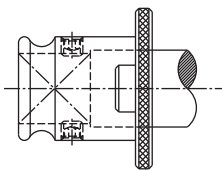
002 21 ..



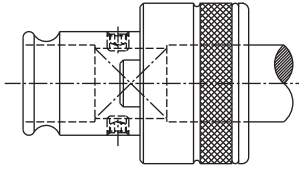
002 23 ..



002 20 ..



002 22 ..



002 24 ..

D₁

19	002 21 02	002 22 02	002 23 02	002 24 02
31	002 21 03	002 22 03	002 23 03	002 24 03
48	002 21 04	002 22 04	002 23 04	002 24 04

