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## PRECISION TOOL HOLDERS CATALOG



## "Fixed on" the new spindle nose programme

Prebalanced and precision balanced spindle nose tools guarantee both a high quality level and great machining safety.

$G$  = Speed of gravity centre [mm/s]

$e$  = Gravity centre radius [μm]

$\omega$  = Angular velocity [s<sup>-1</sup>]

$$G = e \cdot \omega \text{ [μm/s]}$$

The specific residual unbalance »e« in μm results from the operating speed and the desired quality class.

Example:

$m = 2 \text{ kg}$

$n = 15,000 \text{ min}^{-1}$

$G=2.5$

$2=1.6\mu\text{m}$

$U_{\text{tot}}=mxe$

$= 1.6 \times 2 = 3.2 \text{ gmm}$



Weldon and Whistle Notch shank adapters are precision balanced

by means of balancing dowel pins produced for this purpose. The stated balance specification applies exclusively when using original clamping screws and dowel pins. Please note that through the mounting of different tool shanks the balance of the system adapter / tool is affected.

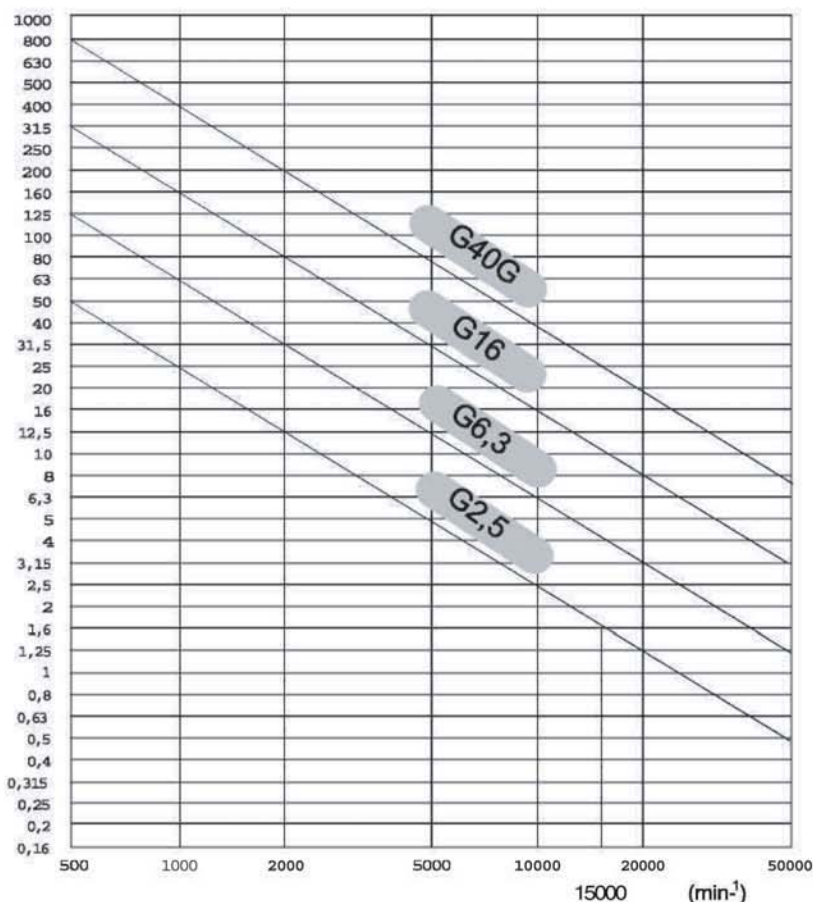


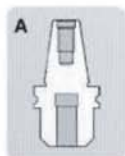
Table of maximally admissible residual unbalance according to DIN/ISO 1940



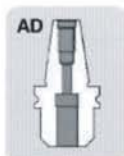
V = prebalanced



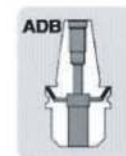
F = precision balanced at G 2.5



A = without coolant supply

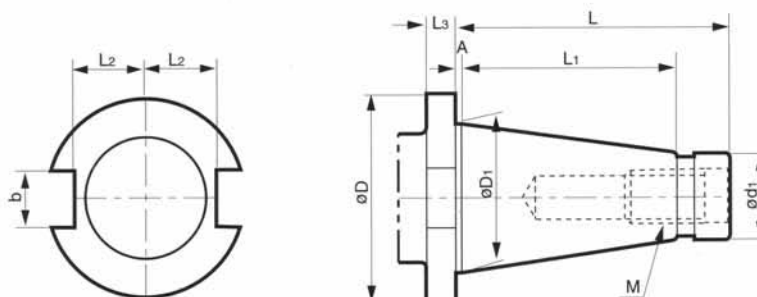


AD = central coolant supply



ADB = coolant supply via flange or centrally

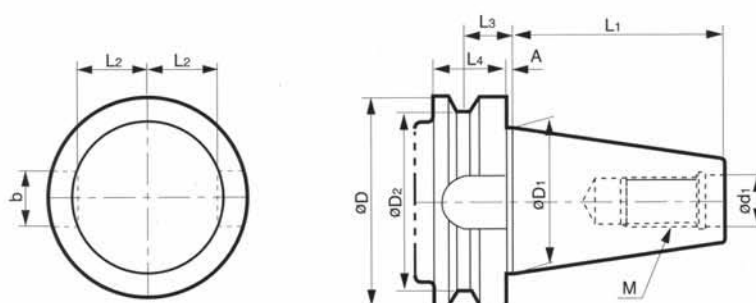
## DIN2080 ISO Taper



NT No.	øD	øD1	ød1	L	L1	L2	L3	A	b	M
30	46	31.75	17.4	70	16.2	16.2	10	1.6	16.1	M12 x 1.75
40	63	44.45	25.3	95	65.4	22.5	12	1.6	16.1	UNC 5/8"-11"
50	98	69.85	39.6	130	35.3	35.3	14	3.2	25.7	UNC 1"-8"
60	158	107.95	60.2	210	60	60	16	3.2	25.7	UNC 1,1/4"-7"

(mm)

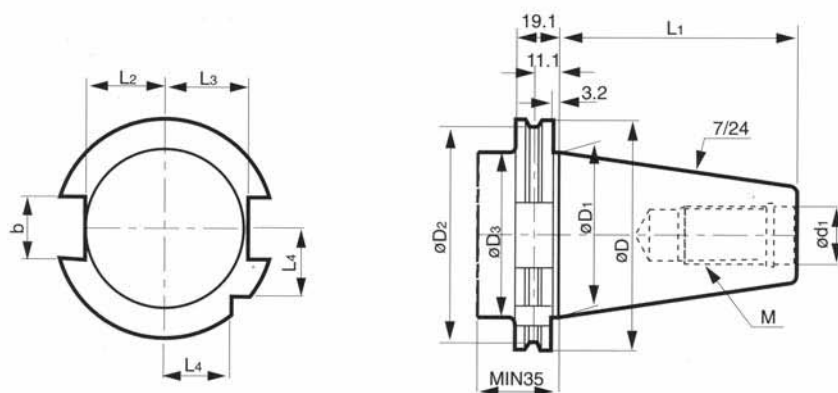
## Bottle Grip Taper(MAS 403-BT)/MAS


16.1  
16.1  
25.7  
25.7

BT No.	øD	øD1	øD2	ød1	L1	L2	L3	L4	A	b	M
30	46	31.75	38	12.5	48.4	16.3	13.6	20	2	16.1	M12 X 1.75
40	63	44.45	53	17	65.4	22.6	16.6	25	2	16.1	M16 X 2
50	100	69.85	85	25	101.8	35.4	23.2	35	3	25.7	M24 X 3
60	155	107.95	135	31	161.8	60.1	28.2	45	3	25.7	M30 X 3.5

(mm)

## DIN 69871(ISO7388)/DIN69871



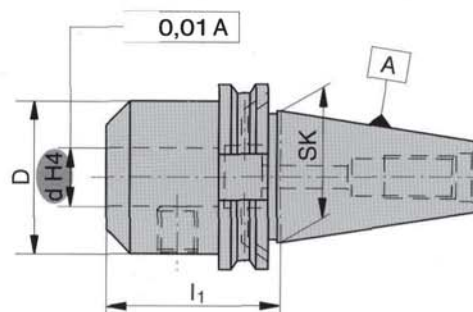
SK No.	øD	øD <sub>1</sub>	øD <sub>2</sub>	øD <sub>3</sub>	ød <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	b	M
DIN30	50	31.75	44.3	38	13	47.8	16.4	19	15	16.1	M12 X 1.75
DIN40	63.55	44.45	56.25	50	17	68.4	22.8	25	18.5	16.1	M16 X 2.0
DIN50	97.5	69.85	91.25	80	25	101.75	35.5	37.7	30	25.7	M24 X 3.0
DIN60	155	107.95	147.7	130	32	161.8	54.2	59.3	49	25.7	M30 X 3.5

(mm)

## Weldon shank adapter WE SK 40

DIN 69871

For tool shanks with lateral clamping face  
according to DIN 6535HB/1835B



69871-AD40-WE16-35-V

V = Prebalanced,  
 $n_{\max.}$  8.000

F = Precision balanced,  
G 2,5/ $n_{\max.}$  15.000

Type, description	Type, description	SK	[mm]		
			$d_{H4}$	$I_{1 \pm 0,5}$	$D_{\pm 0,1}$
69871-AD40-WE16-35-V	69871-AD40-WE16-35-F	40	16	35	48
69871-AD40-WE20-35-V	69871-AD40-WE20-35-F	40	20	35	50
69871-AD40-WE25-40-V	69871-AD40-WE25-40-F	40	25	40	50

V = Prebalanced,  
 $n_{\max.}$  8.000

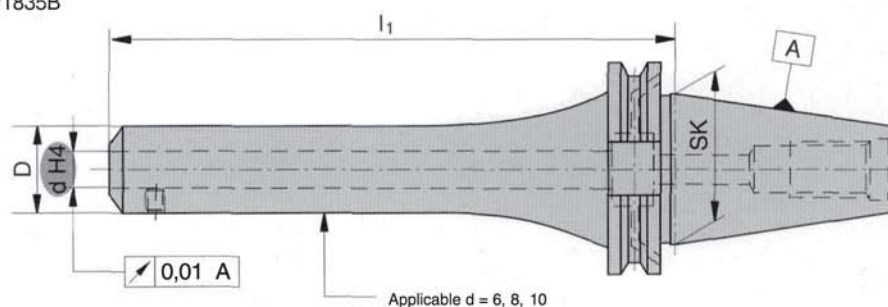
F = Precision balanced,  
G 2,5/ $n_{\max.}$  15.000

Type, description	Type, description	SK	[mm]		
			$d_{H4}$	$I_{1 \pm 0,5}$	$D_{\pm 0,1}$
69871-ADB40-WE06-50-V	69871-ADB40-WE06-50-F	40	6	50	25
69871-ADB40-WE08-50-V	69871-ADB40-WE08-50-F	40	8	50	28
69871-ADB40-WE10-50-V	69871-ADB40-WE10-50-F	40	10	50	35
69871-ADB40-WE12-50-V	69871-ADB40-WE12-50-F	40	12	50	42
69871-ADB40-WE14-50-V	69871-ADB40-WE14-50-F	40	14	50	44
69871-ADB40-WE16-63-V	69871-ADB40-WE16-63-F	40	16	63	48
69871-ADB40-WE18-63-V	69871-ADB40-WE18-63-F	40	18	63	50
69871-ADB40-WE20-63-V	69871-ADB40-WE20-63-F	40	20	63	52
69871-ADB40-WE25-100-V	69871-ADB40-WE25-100-F	40	25	100	65
69871-ADB40-WE32-100-V	69871-ADB40-WE32-100-F	40	32	100	72
69871-ADB40-WE40-100-V		40	40	120	90

## Weldon shank adapter WE SK 40

DIN 69871

For tool shanks with lateral clamping face  
according to DIN 6535HB/1835B



69871-ADB40-WE06-160-V

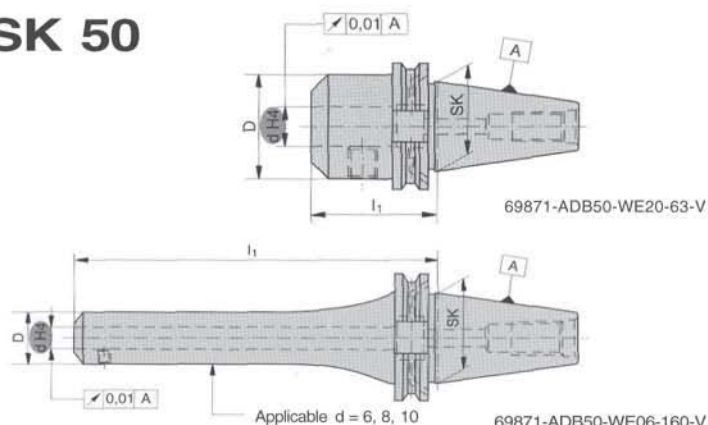
F = Precision balanced,  
G 2,5/n<sub>max</sub> 15.000

Type, description	Type, description	SK	d <sub>H4</sub>	H <sub>±0,5</sub>	D <sub>±0,1</sub>
69871-ADB40-WE06-100-V	69871-ADB40-WE06-100-F	40	6	100	25
69871-ADB40-WE08-100-V	69871-ADB40-WE08-100-F	40	8	100	28
69871-ADB40-WE10-100-V	69871-ADB40-WE10-100-F	40	10	100	35
69871-ADB40-WE12-100-V	69871-ADB40-WE12-100-F	40	12	100	42
69871-ADB40-WE16-100-V	69871-ADB40-WE16-100-F	40	16	100	48
69871-ADB40-WE20-100-V	69871-ADB40-WE20-100-F	40	20	100	52
69871-ADB40-WE06-160-V	69871-ADB40-WE06-160-F	40	6	160	25
69871-ADB40-WE08-160-V	69871-ADB40-WE08-160-F	40	8	160	28
69871-ADB40-WE10-160-V	69871-ADB40-WE10-160-F	40	10	160	35
69871-ADB40-WE12-160-V	69871-ADB40-WE12-160-F	40	12	160	42
69871-ADB40-WE14-160-V	69871-ADB40-WE14-160-F	40	14	160	44
69871-ADB40-WE16-160-V	69871-ADB40-WE16-160-F	40	16	160	48
69871-ADB40-WE18-160-V	69871-ADB40-WE18-160-F	40	18	160	50
69871-ADB40-WE20-160-V	69871-ADB40-WE20-160-F	40	20	160	52
69871-ADB40-WE25-160-V	69871-ADB40-WE25-160-F	40	25	160	65

## DIN 69871

### Weldon shank adapter SK 50

For tool shanks with lateral clamping face according to DIN 6535HB/1835B



V := Prebalanced,  
 $n_{max} \cdot 8.000$

F = Precision balanced,  
 $G2,5/n_{max} \cdot 15.000$

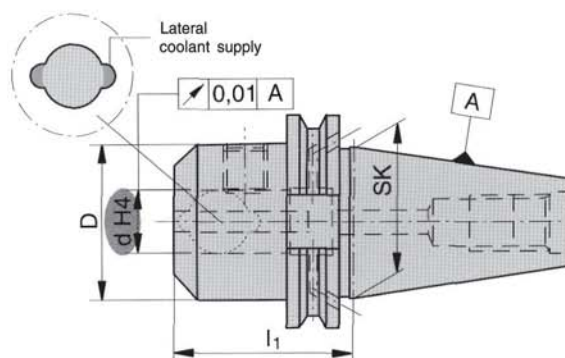
Type, description	Type, description	SK	[mm]		
			$d_{H4}$	$I_1 \pm 0,5$	$D \pm 0,1$
69871-ADB50-WE06-63-V	69871-ADB50-WE06-63-F	50	6	63	25
69871-ADB50-WE08-63-V	69871-ADB50-WE08-63-F	50	8	63	28
69871-ADB50-WE10-63-V	69871-ADB50-WE10-63-F	50	10	63	35
69871-ADB50-WE12-63-V	69871-ADB50-WE12-63-F	50	12	63	42
69871-ADB50-WE14-63-V	69871-ADB50-WE14-63-F	50	14	63	44
69871-ADB50-WE16-63-V	69871-ADB50-WE16-63-F	50	16	63	48
69871-ADB50-WE18-63-V	69871-ADB50-WE18-63-F	50	18	63	50
69871-ADB50-WE20-63-V	69871-ADB50-WE20-63-F	50	20	63	52
69871-ADB50-WE25-80-V	69871-ADB50-WE25-80-F	50	25	80	65
69871-ADB50-WE32-100-V	69871-ADB50-WE32-100-F	50	32	100	72
69871-ADB50-WE40-120-V		50	40	120	90
69871-ADB50-WE06-100-V		50	6	100	25
69871-ADB50-WE08-100-V		50	8	100	28
69871-ADB50-WE10-100-V		50	10	100	35
69871-ADB50-WE12-100-V		50	12	100	42
69871-ADB50-WE14-100-V		50	14	100	44
69871-ADB50-WE16-100-V		50	16	100	48
69871-ADB50-WE18-100-V		50	18	100	50
69871-ADB50-WE20-100-V		50	20	100	52
69871-ADB50-WE25-100-V		50	25	100	65
69871-ADB50-WE06-160-V		50	6	160	25
69871-ADB50-WE08-160-V		50	8	160	28
69871-ADB50-WE10-160-V		50	10	160	35
69871-ADB50-WE12-160-V		50	12	160	42
69871-ADB50-WE14-160-V		50	14	160	44
69871-ADB50-WE16-160-V		50	16	160	48
69871-ADB50-WE18-160-V		50	18	160	50
69871-ADB50-WE20-160-V		50	20	160	52
69871-ADB50-WE25-160-V		50	25	160	65
69871-ADB50-WE32-160-V		50	32	160	72

## Weldon shank adapter WE-IK

DIN 69871

Weldon with lateral coolant supply

For tool shanks with lateral clamping face according to DIN 6535HB/1835B



69871-AD40-WE20IK-35-V

V = Prebalanced,  
n<sub>max.</sub> 8.000

Type, description	SK	[mm]		
		d H4	I <sub>1 ±0,5</sub>	D <sub>±0,1</sub>
69871-AD40-WE16IK-35-V	40	16	35	48
69871-AD40-WE20IK-35-V	40	20	35	50
69871-AD40-WE25IK-40-V	40	25	40	50

V= Prebalanced,  
n<sub>max.</sub> 8.000

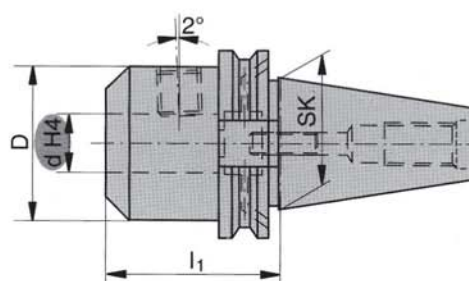
F = Precision balanced,  
G 2,5/n<sub>max.</sub> 15.000

Type, description	Type, description	SK	[mm]		
			d H4	I <sub>1 ±0,5</sub>	D <sub>±0,1</sub>
69871-ADB40-WE06IK-50-V	69871-ADB40-WE06IK-50-F	40	6	50	25
69871-ADB40-WE08IK-50-V	69871-ADB40-WE08IK-50-F	40	8	50	28
69871-ADB40-WE10IK-50-V	69871-ADB40-WE10IK-50-F	40	10	50	35
69871-ADB40-WE12IK-50-V	69871-ADB40-WE12IK-50-F	40	12	50	42
69871-ADB40-WE14IK-50-V	69871-ADB40-WE14IK-50-F	40	14	50	44
69871-ADB40-WE16IK-63-V	69871-ADB40-WE16IK-63-F	40	16	63	48
69871-ADB40-WE18IK-63-V	69871-ADB40-WE18IK-63-F	40	18	63	50
69871-ADB40-WE20IK-63-V	69871-ADB40-WE20IK-63-F	40	20	63	52
69871-ADB40-WE25IK-100-V	69871-ADB40-WE25IK-100-F	40	25	100	65
69871-ADB40-WE32IK-100-V		40	32	100	72

## Whistle Notch shank adapter WN

DIN 69871

For tool shanks with angled clamping face  
according to DIN 6535 E/DIN 6535 E



69871-ADB40-WN06-50-V

V= Prebalanced,  
 $n_{max}$  8.000

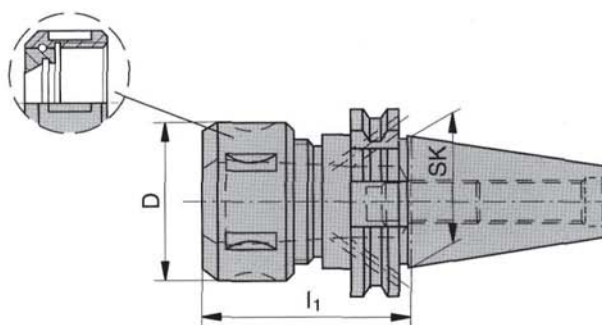
F= Precision balanced,  
 $G2,5/n_{max}$  15.000

Type, description	Type, description	SK	[mm]		
			$d_{H4}$	$l_{1 \pm 0,5}$	$D_{\pm 0,1}$
69871-ADB40-WN06-50-V	69871-ADB40-WN06-50-F	40	6	50	25
69871-ADB40-WN08-50-V	69871-ADB40-WN08-50-F	40	8	50	28
69871-ADB40-WN10-50-V	69871-ADB40-WN10-50-F	40	10	50	35
69871-ADB40-WN12-50-V	69871-ADB40-WN12-50-F	40	12	50	42
69871-ADB40-WN14-50-V	69871-ADB40-WN14-50-F	40	14	50	44
69871-ADB40-WN16-63-V	69871-ADB40-WN16-63-F	40	16	63	48
69871-ADB40-WN18-63-V	69871-ADB40-WN18-63-F	40	18	63	50
69871-ADB40-WN20-63-V	69871-ADB40-WN20-63-F	40	20	63	52

## Collet chuck form B

## DIN 69871

For collets form B + C according to DIN 6388  
Bearing lock nut  
With axial clamping screw



69871-ADB40-BC2-16-70

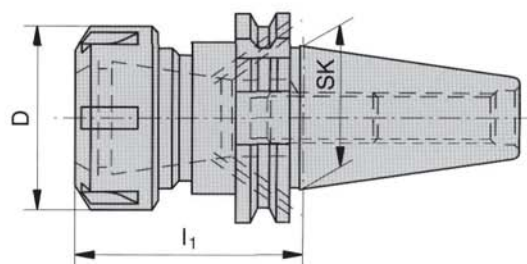
Tool body and lock nut  
balanced only

Type, description	[mm]				DIN 6388 form B
	SK	Clamping range	l <sub>1</sub>	D	
69871 -ADB40-BC216-70	40	2-16	70	43	415 E
69871 -ADB40-BC2-25-70	40	2-25	70	60	462 E
69871 -ADB40-BC216-120	40	2-16	120	43	415 E
69871 -ADB40-BC2-25120	40	2-25	120	60	462 E
69871 -ADB50-BC216-70	50	2-16	70	43	415 E
69871 -ADB50-BC2-25-70	50	2-25	70	60	462 E
69871 -ADB50-BC4-32-73	50	4-32	73	72	467 E
69871 -ADB50-BC216-100	50	2-16	100	43	415 E
69871 -ADB50-BC2-25100	50	2-25	100	60	462 E

## Collet chuck form ER

## DIN 69871

For collets form ER - DIN 6499-B  
With axial adjustment screw



69871-ADB40-ER40-70

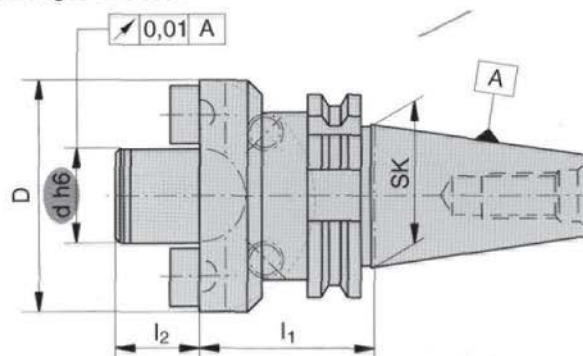
Tool body and lock nut  
balanced only

Type, description	[mm]				DIN 6499-B form ER
	SK	Clamping range	$l_1$	D	
69871-ADB40-ER16-60	40	1-10	60	32	426E(ER 16)
69871-ADB40-ER25-70	40	1-16	70	42	430 E (ER 25)
69871-ADB40-ER32-70	40	2-20	70	50	470 E (ER 32)
69871-ADB40-ER40-70	40	4-26	70	63	472 E (ER 40)
69871-ADB40-ER16-120	40	1-10	120	32	426E(ER 16)
69871-ADB40-ER25-120	40	1-16	120	42	430 E (ER 25)
69871-ADB40-ER32-120	40	2-20	120	50	470 E (ER 32)
69871-ADB50-ER25-70	50	1-16	70	42	430 E (ER 25)
69871-ADB50-ER32-70	50	2-20	70	50	470 E (ER 32)
69871-ADB50-ER40-70	50	4-26	70	63	472 E (ER 40)
69871-ADB50-ER25-100	50	1-16	100	42	430 E (ER 25)
69871-ADB50-ER32-100	50	2-2,6	100	50	470 E (ER 32)
69871-ADB50-ER40-100	50	4-26	100	63	472 E (ER 40)
69871-ADB50-ER25-160	50	1-16	160	42	430 E (ER 25)
69871-ADB50-ER32-160	50	2-20	160	50	470 E (ER 32)

## Shell mill adapter MA (transverse slot) DIN 69871

For milling cutters with longitudinal or transverse groove according to DIN 6357

Supply details: drive dogs according to DIN 2079,  
but without fixation screws for cutting heads



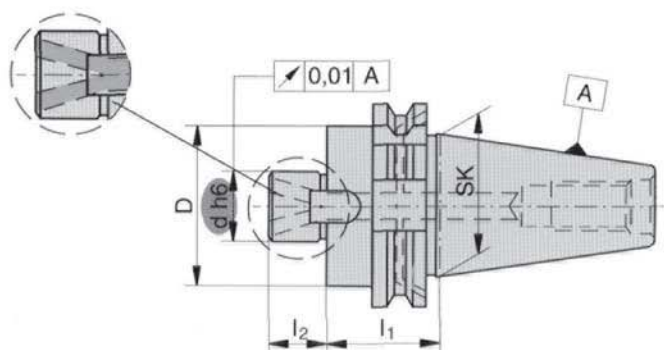
69871-A40-MA40-60

Type, description	[mm]				
	SK	d h6	l <sub>1</sub>	D	l <sub>2</sub>
69871-A40-MA40-60	40	40	60	89	30
69871-A50-MA40-70	50	40	70	89	30
69871-A50-MA60-70	50	60	70	129	40

## Shell mill adapter QA

## DIN 69871

Fixed drive dogs and enlarged contact face  
for milling cutters with transverse groove  
Supply details: shell mill adapter and retaining  
screw



Tool body and drive  
dogs balanced only  
(without retaining screw)

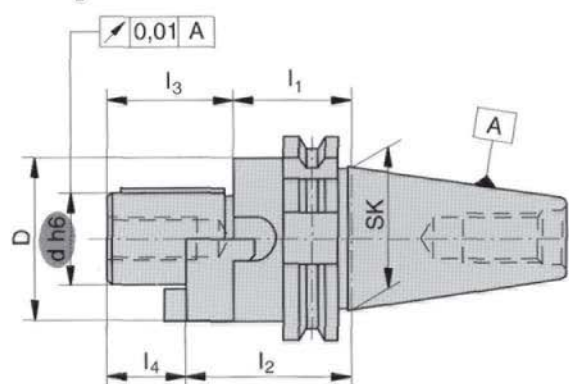
69871-ADB40-QA16-44

Type, description	[mm]				
	SK	d h6	l <sub>1</sub>	D	l <sub>2</sub>
69871-ADB40-QA 16-44	40	16	44	38	17
69871-ADB40-QA22-4 4	40	22	44	48	19
69871-ADB40-QA27-5 5	40	27	55	58	21
69871-ADB40-QA32-5 0	40	32	50	78	24
69871-ADB40-QA40-5 0	40	40	50	88	27
69871-ADB40-QA 16-100	40	16	100	38	17
69871-ADB40-QA22-10 0	40	22	100	48	19
69871-ADB40-QA27-10 0	40	27	100	58	21
69871-ADB40-QA32-10 0	40	32	100	78	24
69871-ADB40-QA40-10 0	40	40	100	88	27
69871-ADB40-QA 16-160	40	16	160	38	17
69871-ADB40-QA22-16 0	40	22	160	48	19
69871-ADB40-QA27-16 0	40	27	160	58	21
69871-ADB40-QA32-16 0	40	32	160	78	24
69871-ADB40-QA40-16 0	40	40	160	88	27
69871-ADB50-QA 16-44	50	16	44	38	17
69871-ADB50-QA22-4 4	50	22	44	48	19
69871-ADB50-QA27-4 4	50	27	44	58	21
69871-ADB50-QA32-4 0	50	32	40	78	24
69871-ADB50-QA40-5 0	50	40	50	88	27
69871-ADB50-QA 16-100	50	16	100	38	17
69871-ADB50-QA22-10 0	50	22	100	48	19
69871-ADB50-QA27-10 0	50	27	100	58	21
69871-ADB50-QA32-10 0	50	32	100	78	24
69871-ADB50-QA40-10 0	50	40	100	88	27
69871-ADB50-QA 16-160	50	16	160	38	17
69871-ADB50-QA22-16 0	50	22	160	48	19
69871-ADB50-QA27-16 0	50	27	160	58	21
69871-ADB50-QA32-16 0	50	32	160	78	24
69871-ADB50-QA40-16 0	50	40	160	88	27

## Combination shell mill adapter KA

## DIN 69871

For milling cutters with longitudinal or transverse groove according to DIN 6358  
Supply details: shell mill adapter, retaining screw, driving ring and drive key



69871-A40-KA16-55

Tool body balanced only (without retaining screw, driving ring and drive key)

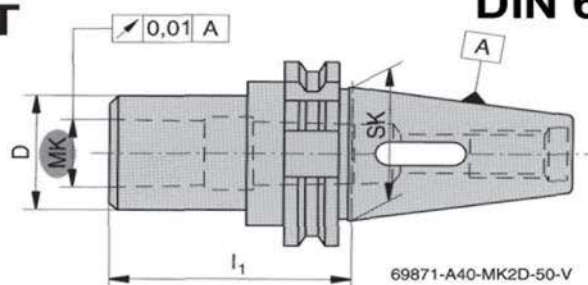
Type, description	SK	d <sub>h6</sub>	l <sub>1</sub>	[mm] D	l <sub>4</sub>	l <sub>3</sub>	l <sub>2</sub>
69871-A40-KA16-55	40	16	45	32	17	27	55
69871-A40-KA22-55	40	22	43	40	19	31	55
69871-A40-KA27-55	40	27	43	48	21	33	55
69871-A40-KA32-60	40	32	46	58	24	38	60
69871-A40-KA40-60	40	40	46	70	27	41	60
69871-A50-KA16-55	50	16	45	32	17	27	55
69871-A50-KA22-55	50	22	43	40	19	31	55
69871-A50-KA27-55	50	27	43	48	21	33	55
69871-A50-KA32-55	50	32	41	58	24	38	55
69871-A50-KA40-55	50	40	41	70	27	41	55
69871-A50-KA50-70	50	50	54	90	30	46	70

## Morse taper adapter MT

DIN 6383 - form D

DIN 69871

$\nabla$  = Prebalanced,  
 $n_{\max} = 8.000$



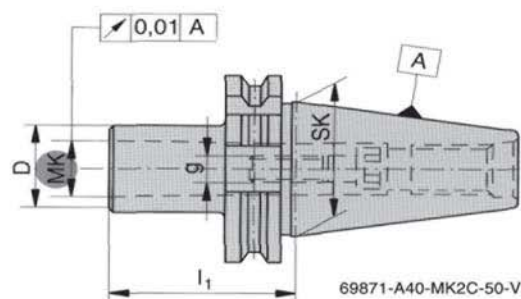
Type, description	[mm]			
	SK	MK	I <sub>1</sub>	D
69871-A40-MK 1 D-50- V	40	1	50	25
69871-A40-MK2D-50- V	40	2	50	32
69871-A40-MK3D-70- V	40	3	70	40
69871-A40-MK4D-95- V	40	4	95	48
69871-A50-MK 1 D-50- V	50	1	50	25
69871-A50- MK2D-60- V	50	2	60	32
69871-A50-MK3D-65- V	50	3	65	40
69871-A50-MK4D-95- V	50	4	95	48
69871-A50-MK5D-105- V	50	5	105	63

## Morse taper adapter MK with thread

DIN 6364 - form C

Supply details: with draw bolt

$\nabla$  = Prebalanced,  
 $n_{\max} = 8.000$

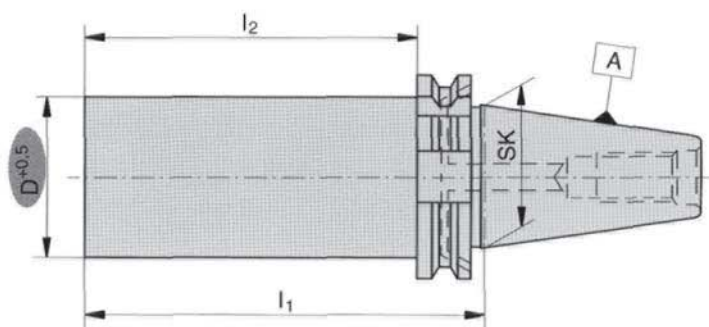


Type, ordering description	[mm]				
	SK	MK	I <sub>1</sub>	D	g
69871-A40-MK1C-50-V	40	1	50	25	M6
69871-A40-MK2C-50-V	40	2	50	32	M10
69871-A40-MK3C-70-V	40	3	70	40	M12
69871-A40-MK4C-95-V	40	4	95	48	M16
69871-A50-MK1C-45-V	50	1	45	25	M6
69871-A50-MK2-C60-V	50	2	60	32	M10
69871-A50-MK3C-65-V	50	3	65	40	M12
69871-A50-MK4C-95-V	50	4	95	48	M16
69871-A50-MK5C-120-V	50	5	120	63	M20

## SK blank HF

For the production of special tools  
Material: case hardening steel 16 MnCr 5  
Taper hardened and ground, length  $l$  = soft

## DIN 69871

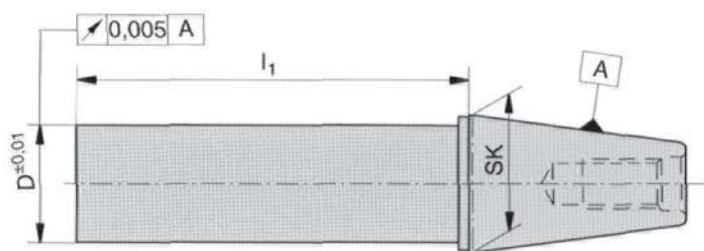


69871-ADB40-HF63-250

Type, description	[mm]			
	SK	D	$l_1$	$l_2$
69871-ADB40-HF63-250	40	63	250	231
69871-ADB50-HF63,5-300	50	63,5	300	281

## SK test bar KD

Without flange detail



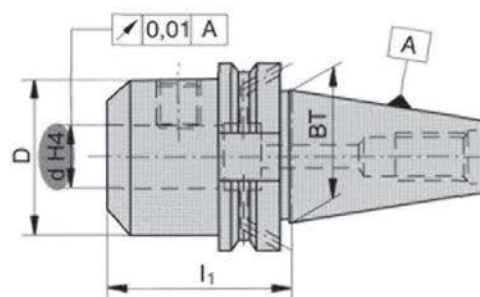
69871-A40-KD40-330

Type, description	[mm]		
	SK	D	$l_1$
69871-A40-KD40-330 0	40	40	330
69871-A50-KD50-330 0	50	50	330

## Weldon shank adapter WE BT 40

## MAS-BT

For tool shanks with lateral clamping face  
according to DIN 6535HB/1835B



MAS-BT-AD40-WE20-35-V

V = Prebalanced,  
 $n_{max} \cdot 8.000$

F = Precision balanced,  
 $G 2,5/n_{max} \cdot 15.000$

Type, description	Type, description	[mm]			
		BT	d H4	H ±0,5	D ±0,1
MAS-BT-AD40-WE16-35-V	MAS-BT-AD40-WE16-35-F	40	16	35	48
MAS-BT-AD40-WE20-35-V	MAS-BT-AD40-WE20-35-F	40	20	35	50
MAS-BT-AD40-WE25-40-V	MAS-BT-AD40-WE25-40-F	40	25	40	50

V = Prebalanced,  
 $n_{max} \cdot 8.000$

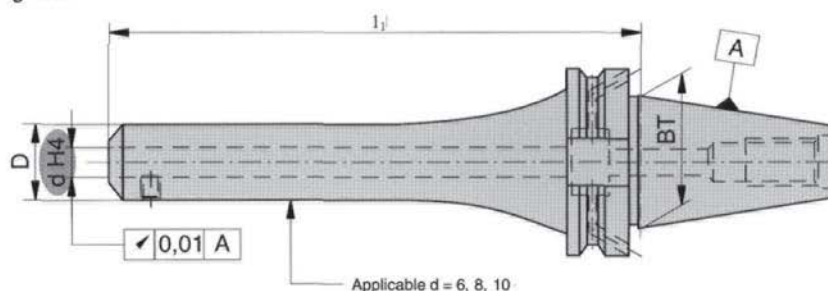
F = Precision balanced,  
 $G 2,5/n_{max} \cdot 15.000$

Type, description	Type, description	[mm]			
		BT	d H4	l1 ±0,5	D ±0,1
MAS-BT-ADB40-WE06-50-V	MAS-BT-ADB40-WE06-50-F	40	6	50	25
MAS-BT-ADB40-WE08-50-V	MAS-BT-ADB40-WE08-50-F	40	8	50	28
MAS-BT-ADB40-WE10-63-V	MAS-BT-ADB40-WE10-63-F	40	10	63	35
MAS-BT-ADB40-WE12-63-V	MAS-BT-ADB40-WE12-63-F	40	12	63	42
MAS-BT-ADB40-WE14-63-V	MAS-BT-ADB40-WE14-63-F	40	14	63	44
MAS-BT-ADB40-WE16-63-V	MAS-BT-ADB40-WE16-63-F	40	16	63	48
MAS-BT-ADB40-WE18-63-V	MAS-BT-ADB40-WE18-63-F	40	18	63	50
MAS-BT-ADB40-WE20-63-V	MAS-BT-ADB40-WE20-63-F	40	20	63	52
MAS-BT-ADB40-WE25-100-V	MAS-BT-ADB40-WE25-100-F	40	25	100	65
MAS-BT-ADB40-WE32-100-V	MAS-BT-ADB40-WE32-100-F	40	32	100	72
MAS-BT-ADB40-WE40-120-V		40	40	120	90

## Weldon shank adapter WE BT 40

## MAS-BT

For tool shanks with lateral clamping face according to DIN 6535HB/1835B



MAS-BT-ADB40-WE06-160-V

V= Prebalanced,  
 $n_{max}$  8.000

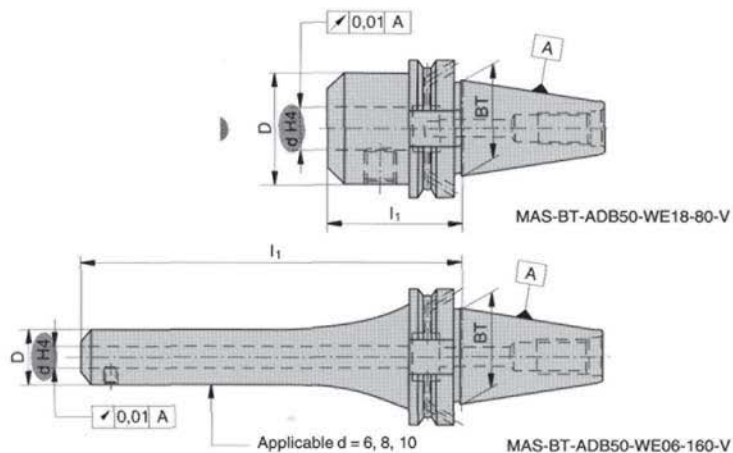
F = Precision balanced,  
 $G 2,5/n_{max}$  15.000

Type, description	Type, description	[mm]			
		BT	d <sub>H4</sub>	l <sub>1±0,5</sub>	D <sub>±0,1</sub>
MAS-BT-ADB40-WE06-100-V	MAS-BT-ADB40-WE06-100-F	40	6	100	25
MAS-BT-ADB40-WE08-100-V	MAS-BT-ADB40-WE08-100-F	40	8	100	28
MAS-BT-ADB40-WE10-100-V	MAS-BT-ADB40-WE10-100-F	40	10	100	35
MAS-BT-ADB40-WE12-100-V	MAS-BT-ADB40-WE12-100-F	40	12	100	42
MAS-BT-ADB40-WE16-100-V	MAS-BT-ADB40-WE16-100-F	40	16	100	48
MAS-BT-ADB40-WE20-100-V	MAS-BT-ADB40-WE20-100-F	40	20	100	52
MAS-BT-ADB40-WE06-160-V	MAS-BT-ADB40-WE06-160-F	40	6	160	25
MAS-BT-ADB40-WE08-160-V	MAS-BT-ADB40-WE08-160-F	40	8	160	28
MAS-BT-ADB40-WE10-160-V	MAS-BT-ADB40-WE10-160-F	40	10	160	35
MAS-BT-ADB40-WE12-160-V	MAS-BT-ADB40-WE12-160-F	40	12	160	42
MAS-BT-ADB40-WE14-160-V	MAS-BT-ADB40-WE14-160-F	40	14	160	44
MAS-BT-ADB40-WE16-160-V	MAS-BT-ADB40-WE16-160-F	40	16	160	48
MAS-BT-ADB40-WE18-160-V	MAS-BT-ADB40-WE18-160-F	40	18	160	50
MAS-BT-ADB40-WE20-160-V	MAS-BT-ADB40-WE20-160-F	40	20	160	52
MAS-BT-ADB40-WE25-160-V	MAS-BT-ADB40-WE25-160-F	40	25	160	65

## Weldon shank adapter WE BT 50

For tool shanks with lateral clamping face according to DIN 6535HB/1835B

## MAS-BT



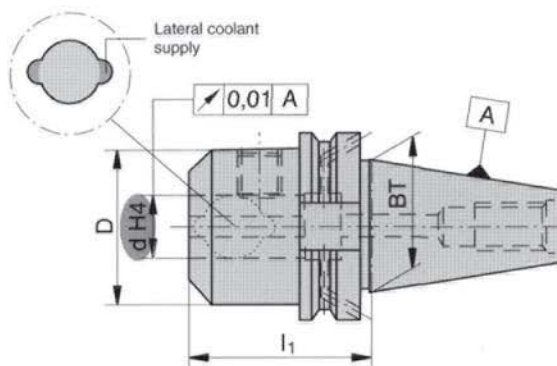
V = Prebalanced,  
 $n_{max}$  8.000

Type, description	[mm]			
	BT	d <sub>H4</sub>	l <sub>1</sub> ±0,5	D ±0,1
MAS-BT-ADB50-WE06-63-V	50	6	63	25
MAS-BT-ADB50-WE08-63-V	50	8	63	28
MAS-BT-ADB50-WE10-80-V	50	10	80	35
MAS-BT-ADB50-WE12-80-V	50	12	80	42
MAS-BT-ADB50-WE14-80-V	50	14	80	44
MAS-BT-ADB50-WE16-80-V	50	16	80	48
MAS-BT-ADB50-WE18-80-V	50	18	80	50
MAS-BT-ADB50-WE20-80-V	50	20	80	52
MAS-BT-ADB50-WE25-100-V	50	25	100	65
MAS-BT-ADB50-WE32-105-V	50	32	105	72
MAS-BT-ADB50-WE40-120-V	50	40	120	90
MAS-BT-ADB50-WE06-100-V	50	6	100	25
MAS-BT-ADB50-WE08-100-V	50	8	100	28
MAS-BT-ADB50-WE10-100-V	50	10	100	35
MAS-BT-ADB50-WE12-100-V	50	12	100	42
MAS-BT-ADB50-WE14-100-V	50	14	100	44
MAS-BT-ADB50-WE16-100-V	50	16	100	48
MAS-BT-ADB50-WE18-100-V	50	18	100	50
MAS-BT-ADB50-WE20-100-V	50	20	100	52
MAS-BT-ADB50-WE25-120-V	50	25	120	65
MAS-BT-ADB50-WE06-160-V	50	6	160	25
MAS-BT-ADB50-WE08-160-V	50	8	160	28
MAS-BT-ADB50-WE10-160-V	50	10	160	35
MAS-BT-ADB50-WE12-160-V	50	12	160	42
MAS-BT-ADB50-WE14-160-V	50	14	160	44
MAS-BT-ADB50-WE16-160-V	50	16	160	48
MAS-BT-ADB50-WE18-160-V	50	18	160	50
MAS-BT-ADB50-WE20-160-V	50	20	160	52
MAS-BT-ADB50-WE25-160-V	50	25	160	65
MAS-BT-ADB50-WE32-160-V	50	32	160	72

## Weldon shank adapter WE-IK

### Weldon with lateral coolant supply

For tool shanks with lateral clamping face according to DIN 6535HB/1835B



MAS-BT-AD40-WE20-35-V

V = Prebalanced,  
 $n_{max} \cdot 8.000$

Type, description	BT	d <sub>H4</sub>	l <sub>1</sub> <sub>±0,5</sub>	D <sub>±0,1</sub>
MAS-BT-AD40-WE16IK-35-V	40	16	35	48
MAS-BT-AD40-WE20IK-35-V	40	20	35	50
MAS-BT-AD40-WE25IK-40-V	40	25	40	50

V = Prebalanced,  
 $n_{max} \cdot 8.000$

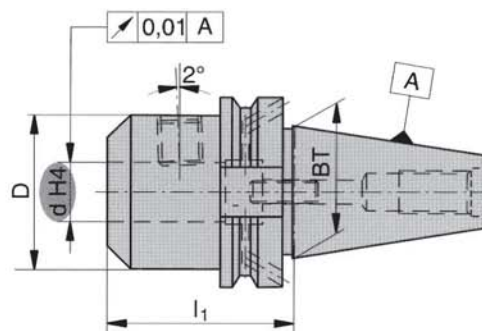
F = Precision balanced,  
G2,5/ $n_{max} \cdot 15.000$

Type, description	Type, description	BT	d <sub>H4</sub>	l <sub>1</sub> <sub>±0,5</sub>	d <sub>±0,1</sub>
MAS-BT-ADB40-WE06IK-50-V	MAS-BT-ADB40-WE06IK-50-F	40	6	50	25
MAS-BT-ADB40-WE08IK-50-V	MAS-BT-ADB40-WE08IK-50-F	40	8	50	28
MAS-BT-ADB40-WE10IK-63-V	MAS-BT-ADB40-WE10IK-63-F	40	10	63	35
MAS-BT-ADB40-WE12IK-63-V	MAS-BT-ADB40-WE12IK-63-F	40	12	63	42
MAS-BT-ADB40-WE14IK-63-V	MAS-BT-ADB40-WE14IK-63-F	40	14	63	44
MAS-BT-ADB40-WE16IK-63-V	MAS-BT-ADB40-WE16IK-63-F	40	16	63	48
MAS-BT-ADB40-WE18IK-63-V	MAS-BT-ADB40-WE18IK-63-F	40	18	63	50
MAS-BT-ADB40-WE20IK-63-V	MAS-BT-ADB40-WE20IK-63-F	40	20	63	52
MAS-BT-ADB40-WE25IK-100-V	MAS-BT-ADB40-WE25IK-100-F	40	25	100	65
MAS-BT-ADB40-WE32IK-100-V		40	32	100	72

## Whistle Notch shank adapter WN

For tool shanks with angled clamping face  
according to DIN 6535 E/DIN 6535 HE

## MAS-BT



MAS-BT-ADB40-WN06-50-V

V = Prebalanced,  
 $n_{\max} \cdot 8.000$

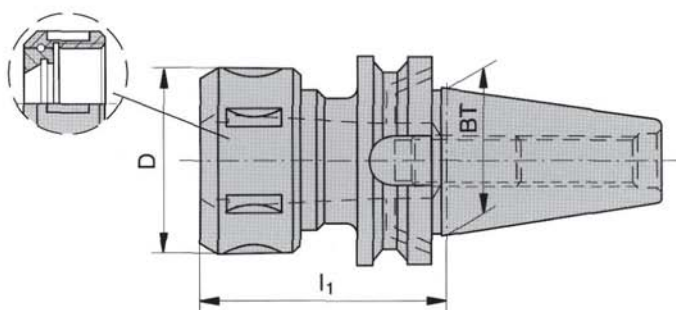
F = Precision balanced,  
 $G2,5/n_{\max} \cdot 15.000$

Type, description	Type, description	[mm]			
		BT	d <sub>H4</sub>	l <sub>1</sub> ±0,5	D ±0,1
MAS-BT-ADB40-WN06-50-V	MAS-BT-ADB40-WN06-50-F	40	6	50	25
MAS-BT-ADB40-WN08-50-V	MAS-BT-ADB40-WN08-50-F	40	8	50	28
MAS-BT-ADB40-WN10-63-V	MAS-BT-ADB40-WN10-63-F	40	10	63	35
MAS-BT-ADB40-WN12-63-V	MAS-BT-ADB40-WN12-63-F	40	12	63	42
MAS-BT-ADB40-WN14-63-V	MAS-BT-ADB40-WN14-63-F	40	14	63	44
MAS-BT-ADB40-WN16-63-V	MAS-BT-ADB40-WN16-63-F	40	16	63	48
MAS-BT-ADB40-WN18-63-V	MAS-BT-ADB40-WN18-63-F	40	18	63	50
MAS-BT-ADB40-WN20-63-V	MAS-BT-ADB40-WN20-63-F	40	20	63	52

## Collet chuck form B

For collets form B + C according to DIN 6388  
With bearing lock nut  
With axial adjustment screw

## MAS-BT



MAS-BT-ADB40-BC2-25-70

Tool body and lock nut  
balanced only

Type, description	[mm]				DIN 6388 form B
	BT	Clamping range	l <sub>1</sub>	D	
MAS-BT-ADB40-BC2-16-70	40	2-16	70	43	415 E
MAS-BT-ADB40-BC2-25-70	40	2-25	70	60	462 E
MAS-BT-ADB40-BC2-16-120	40	2-16	120	43	415 E
MAS-BT-ADB40-BC2-25-120	40	2-25	120	60	462 E

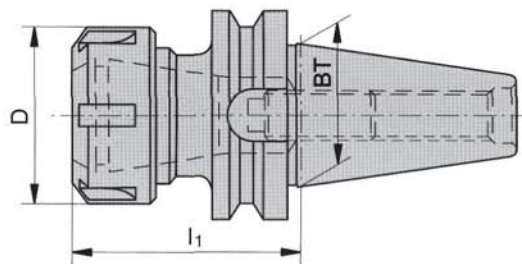
Tool body and lock nut  
balanced only

Type, description	[mm]				DIN 6388 form B
	BT	Clamping range	l <sub>1</sub>	D	
MAS-BT-AD50-BC2-25-90	50	2-25	90	60	462 E
MAS-BT-AD50-BC4-32-100	50	4-32	100	72	467 E
MAS-BT-AD50-BC2-25-120	50	2-25	120	60	462 E
MAS-BT-AD50-BC4-32-120	50	4-32	120	72	467 E

## Collet chuck form ER

For collets form ER - DIN 6499-B  
With axial adjustment screw

## MAS-BT



MAS-BT-ADB40-ER32-70

Tool body and lock nut  
balanced only

Type, description	[mm]				DIN 6499-B form ER
	BT	Clamping range	l <sub>1</sub>	D	
MAS-BT-ADB40-ER16-60	40	1-10	60	32	426 E (ER 16)
MAS-BT-ADB40-ER25-70	40	1-16	70	42	430 E (ER 25)
MAS-BT-ADB40-ER32-70	40	2-20	70	50	470 E (ER 32)
MAS-BT-ADB40-ER40-70	40	4-26	70	63	472 E (ER 40)
MAS-BT-ADB40-ER16-120	40	1-10	120	28	426 E (ER 16)
MAS-BT-ADB40-ER25-120	40	1-16	120	42	430 E (ER 25)
MAS-BT-ADB40-ER32-120	40	2-20	120	50	470 E (ER 32)

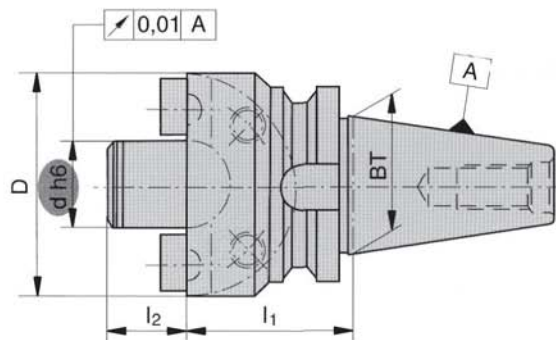
Tool body and lock nut  
balanced only

Type, description	[mm]				DIN 6499-B form ER
	BT	Clamping range	l <sub>1</sub>	D	
MAS-BT-AD50-ER32-75	50	2-20	75	50	470 E (ER 32)
MAS-BT-AD50-ER40-75	50	4-26	75	63	472 E (ER 40)
MAS-BT-AD50-ER25-100	50	1-16	100	42	430 E (ER 25)
MAS-BT-AD50-ER32-100	50		100	50	470 E (ER 32)
MAS-BT-AD50-ER40-100	50		100	63	472 E (ER 40)
MAS-BT-AD50-ER25-160	50	1-16	160	42	430 E (ER 25)
MAS-BT-AD50-ER32-160	50	2-20	160	50	470 E (ER 32)

## Shell mill adapter MA (transverse slot)

**MAS-BT**

For milling cutters with longitudinal or transverse groove according to DIN 6357  
Supply details: drive dogs according to DIN 2079,  
but without fixation screws for cutting heads



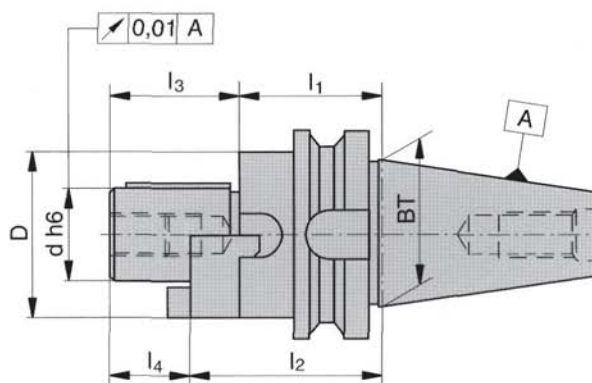
MAS-BT-A50-MA40-70

Type, description	BT	d <sub>h6</sub>	l <sub>1</sub>	D	l <sub>2</sub>
MAS-BT-A50-MA40-70	50	40	70	89	30
MAS-BT-A50-MA60-80	50	60	80	129	40

## Combination shell mill adapter KA

**MAS-BT**

For milling cutters with longitudinal or transverse groove according to DIN 6358  
Supply details: shell mill adapter, retaining screw,  
drive ring and drive key



MAS-BT-A40-KA16-55

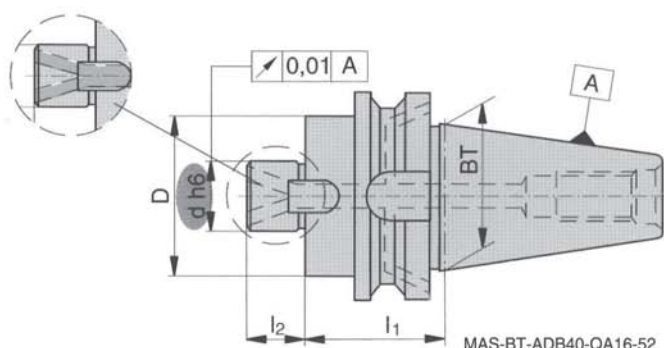
Tool body balanced only (without retaining  
screw, drive ring and drive key)

Type, description	BT	d <sub>h6</sub>	l <sub>1</sub>	D	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
MAS-BT-A40-KA16-55	40	16	45	32	55	27	17
MAS-BT-A40-KA22-55	40	22	43	40	55	31	19
MAS-BT-A40-KA27-55	40	27	43	48	55	33	21
MAS-BT-A40-KA32-60	40	32	46	58	60	38	24
MAS-BT-A40-KA40-60	40	40	46	70	60	41	27
MAS-BT-A50-KA16-70	50	16	60	32	70	27	17
MAS-BT-A50-KA22-70	50	22	58	40	70	31	19
MAS-BT-A50-KA27-70	50	27	58	48	70	33	21
MAS-BT-A50-KA32-70	50	32	56	58	70	38	24
MAS-BT-A50-KA40-70	50	40	56	70	70	41	27

## Shell mill adapter QA

Fixed drive dogs and enlarged contact face  
for milling cutters with transverse groove  
Supply details: shell mill adapter and  
retaining screw

## MAS-BT

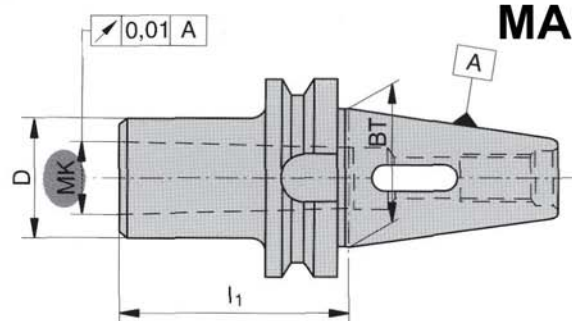


Tool body and drive dogs balanced only  
(without retaining screw)

Type, description	[mm]					
	BT	d h6	l <sub>1</sub>	D	l <sub>2</sub>	
MAS-BT-ADB40-QA16-52	4	16	52	38	17	
MAS-BT-ADB40-QA22-52	4	22	52	48	19	
MAS-BT-ADB40-QA27-52	4	27	52	58	21	
MAS-BT-ADB40-QA32-50	4	32	50	78	24	
MAS-BT-ADB40-QA40-50	4	40	50	88	27	
MAS-BT-ADB40-QA16-100	4	16	100	38	17	
MAS-BT-ADB40-QA22-100	4	22	100	48	19	
MAS-BT-ADB40-QA27-100	4	27	100	58	21	
MAS-BT-ADB40-QA32-100	4	32	100	78	24	
MAS-BT-ADB40-QA40-100	4	40	100	88	27	
MAS-BT-ADB40-QA16-160	4	16	160	38	17	
MAS-BT-ADB40-QA22-160	4	22	160	48	19	
MAS-BT-ADB40-QA27-160	4	27	160	58	21	
MAS-BT-ADB40-QA32-160	4	32	160	78	24	
MAS-BT-ADB40-QA40-160	4	40	160	88	27	
MAS-BT-AD50-QA16-63	5	16	63	38	17	
MAS-BT-AD50-QA22-63	5	22	63	48	19	
MAS-BT-AD50-QA27-63	5	27	63	58	21	
MAS-BT-AD50-QA32-60	5	32	60	78	24	
MAS-BT-AD50-QA40-60	5	40	60	88	27	
MAS-BT-AD50-QA16-100	5	16	100	38	17	
MAS-BT-AD50-QA22-100	5	22	100	48	19	
MAS-BT-AD50-QA27-100	5	27	100	58	21	
MAS-BT-AD50-QA32-100	5	32	100	78	24	
MAS-BT-AD50-QA40-100	5	40	100	88	27	
MAS-BT-AD50-QA16-160	5	16	160	38	17	
MAS-BT-AD50-QA22-160	5	22	160	48	19	
MAS-BT-AD50-QA27-160	5	27	160	58	21	
MAS-BT-AD50-QA32-160	5	32	160	78	24	
MAS-BT-AD50-QA40-160	5	40	160	88	27	

## Morse taper adapter MT

DIN 6383 - form D



## MAS-BT

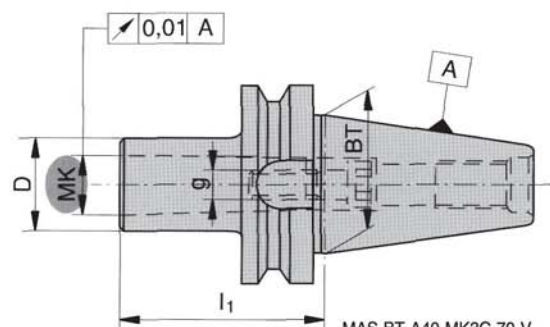
MAS-BT-A40-MK3D-70

Type, description	[mm]			
	BT	MK	l <sub>1</sub>	D
MAS-BT-A40-MK1D-50	40	1	50	25
MAS-BT-A40-M K2D-50	40	2	50	32
MAS-BT-A40-MK3D-70	40	3	70	40
MAS-BT-A40-M K4D-95	40	4	95	48
MAS-BT-A50-MK1D-45	50	1	45	25
MAS-BT-A50-MK2D-60	50	2	60	32
MAS-BT-A50-MK3D-65	50	3	65	40
MAS-BT-A50-MK4D-95	50	4	95	48
MAS-BT-A50-MK5D-105	50	5	105	63

## Morse taper adapter MK with thread

DIN 6364 - form C

Supply details: with draw bolt


V = Prebalanced,  
n<sub>max</sub> 8.000

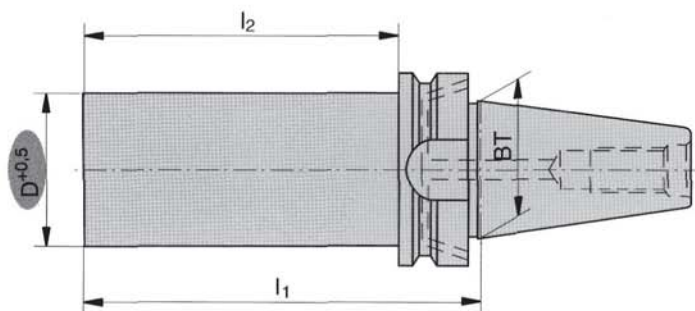
MAS-BT-A40-MK3C-70-V

Type, description	[mm]				
	BT	MK	l <sub>1</sub>	D	g
MAS-BT-A40-M K3C-70-V	40	3	70	40	M 12
MAS-BT-A40-M K4C-95-V	40	4	95	48	M 16
MAS-BT-A50-MK1 C-45-V	50	1	45	25	M 6
MAS-BT-A50-M K2C-60-V	50	2	60	32	M 10
MAS-BT-A50-MK3C-65-V	50	3	65	40	M 12
MAS-BT-A50-M K4C-95-V	50	4	95	48	M 16
MAS-BT-A50-MK5C-118-V	50	5	118	63	M 20

## BT blank HF

For the production of special tools  
Material: case hardening steel 16 MnCr 5  
Taper hardened and ground, length  $l$  = soft

## MAS-BT

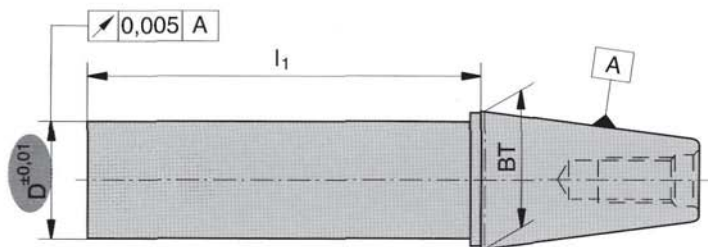


MAS-BT-ADB40-HF63-250

Type, description		[mm]			
		BT	D	$l_1$	$l_2$
MAS-BT-ADB40-HF63-250		40	63	250	223
	MAS-BT-A50-HF63,5-300	50	63,5	300	262

## BT test bar KD

Without flange detail

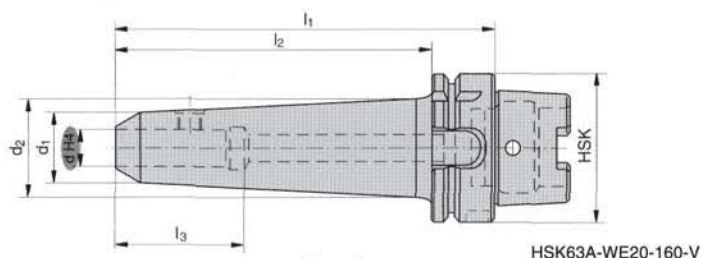
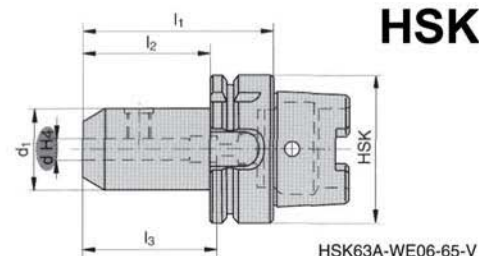


MAS-BT-A40-KD40-330

Type, description		[mm]		
		BT	D	H
MAS-BT-A40-KD40-330		40		330
MAS-BT-A50-KD50-330		50		330

## WeEdon shank adapter WE

For tool shanks with lateral clamping face according to DIN 6535HB/1835B.  
Please order coolant connection set and key separately.



V= Prebalanced,  
 $n_{max}$  10.000

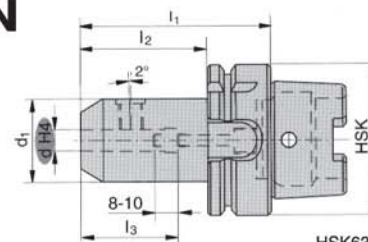
Type,  
description

	HSK	$d_{H4}$	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$
HSK63A-WE06-65-V	63	6	25	-	65	39	40
HSK63A-WE08-65-V	63	8	28	-	65	39	40
HSK63A-WE10-65-V	63	10	35	-	65	39	45
HSK63A-WE12-80-V	63	12	42	-	80	54	49
HSK63A-WE14-80-V	63	14	44	-	80	54	49
HSK63A-WE16-80-V	63	16	48	-	80	54	52
HSK63A-WE18-80-V	63	18	50	-	80	54	52
HSK63A-WE20-80-V	63	20	52	-	80	54	54
HSK63A-WE25-110-V	63	25	65	-	110	84	59
HSK63A-WE32-110-V	63	32	72	-	110	84	63
HSK63A-WE06-160-V	63	6	22	33	160	134	40
HSK63A-WE08-160-V	63	8	24	35	160	134	40
HSK63A-WE10-160-V	63	10	25	39	160	134	45
HSK63A-WE12-160-V	63	12	26	43	160	134	49
HSK63A-WE14-160-V	63	14	28	44	160	134	49
HSK63A-WE16-160-V	63	16	30	45	160	134	52
HSK63A-WE18-160-V	63	18	32	46	160	134	52
HSK63A-WE20-160-V	63	20	34	50	160	134	54
HSK63A-WE25-160-V	63	25	65	65	160	134	59
HSK63A-WE32-160-V	63	32	72	72	160	134	63
HSK100A-WE06-80-V	100	6	25	-	80	51	40
HSK100A-WE08-80-V	100	8	28	-	80	51	40
HSK100A-WE10-80-V	100	10	35	-	80	51	45
HSK100A-WE12-80-V	100	12	42	-	80	51	49
HSK100A-WE14-80-V	100	14	44	-	80	51	49
HSK100A-WE16-100-V	100	16	48	-	100	71	52
HSK100A-WE18-100-V	100	18	50	-	100	71	52
HSK1 OOA-WE20-1 00-V	100	20	52	-	100	71	54
HSK1 OOA-WE25-1 00-V	100	25	65	-	100	71	59
HSK1 OOA-WE32-1 00-V	100	32	72	-	100	71	63
HSK100A-WE06-160-V	100	6	22	33	160	131	40
HSK100A-WE08-160-V	100	8	24	35	160	131	40
HSK100A-WE10-160-V	100	10	25	39	160	131	45
HSK100A-WE12-160-V	100	12	26	43	160	131	49
HSK100A-WE14-160-V	100	14	28	44	160	131	49
HSK100A-WE16-160-V	100	16	30	45	160	131	52
HSK100A-WE18-160-V	100	18	32	46	160	131	52
HSK100A-WE20-160-V	100	20	34	50	160	131	54
HSK100A-WE25-160-V	100	25	65	65	160	131	59
HSK100A-WE32-160-V	100	32	72	72	160	131	63

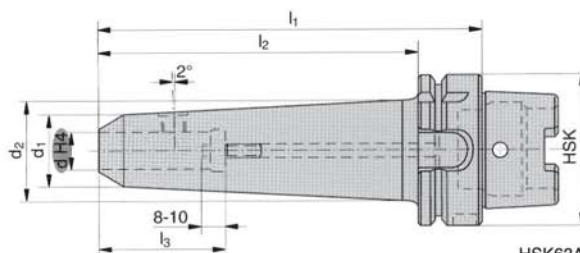
## Whistle Notch shank adapter WN

For tool shanks with angled clamping face according to 6535HB/1835B.  
Please order coolant connection set and key separately.

## HSK



HSK63A-WN14-90-V



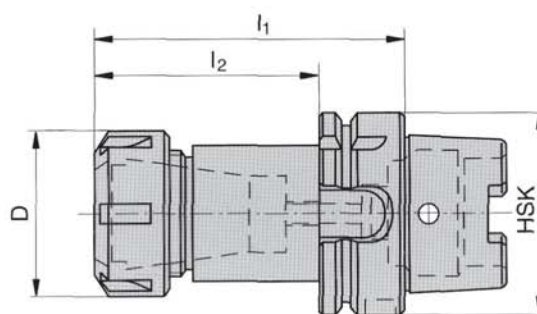
HSK63A-WN20-160-V

Type, description	HSK	d <sub>H4</sub>	d <sub>1</sub>	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>
HSK63A-WN06-80-V	63	6	25	-	80	54	36
HSK63A-WN08-80-V	63	8	28	-	80	54	36
HSK63A-WN10-80-V	63	10	35	-	80	54	40
HSK63A-WN12-90-V	63	12	42	-	90	64	45
HSK63A-WN14-90-V	63	14	44	-	90	64	45
HSK63A-WN16-100-V	63	16	48	-	100	74	48
HSK63A-WN18-100-V	63	18	50	-	100	74	48
HSK63A-WN20-100-V	63	20	52	-	100	74	50
HSK63A-WN25-110-V	63	25	65	-	110	84	56
HSK63A-WN32-110-V	63	32	72	-	110	84	60
HSK63A-WN06-160-V	63	6	22	33	160	134	37
HSK63A-WN08-160-V	63	8	24	35	160	134	37
HSK63A-WN10-160-V	63	10	25	39	160	134	41
HSK63A-WN12-160-V	63	12	26	43	160	134	46
HSK63A-WN14-160-V	63	14	28	44	160	134	46
HSK63A-WN16-160-V	63	16	30	45	160	134	49
HSK63A-WN18-160-V	63	18	32	46	160	134	49
HSK63A-WN20-160-V	63	20	34	50	160	134	51
HSK63A-WN25-160-V	63	25	65	65	160	134	57
HSK63A-WN32-160-V	63	32	72	72	160	134	61
HSK100A-WN06-90-V	100	6	25	-	90	61	36
HSK100A-WN08-90-V	100	8	28	-	90	61	36
HSK100A-WN10-90-V	100	10	35	-	90	61	40
HSK100A-WN12-100-V	100	12	42	-	100	71	45
HSK100A-WN14-100-V	100	14	44	-	100	71	45
HSK100A-WN16-100-V	100	16	48	-	100	71	48
HSK100A-WN18-100-V	100	18	50	-	100	71	48
HSK100A-WN20-110-V	100	20	52	-	110	81	50
HSK100A-WN25-120-V	100	25	65	-	120	91	56
HSK100A-WN32-120-V	100	32	72	-	120	91	60
HSK100A-WN06-160-V	100	6	22	33	160	131	37
HSK100A-WN08-160-V	100	8	24	35	160	131	37
HSK100A-WN10-160-V	100	10	25	39	160	131	41
HSK100A-WN12-160-V	100	12	26	43	160	131	46
HSK100A-WN14-160-V	100	14	28	44	160	131	46
HSK100A-WN16-160-V	100	16	30	45	160	131	49
HSK100A-WN18-160-V	100	18	32	46	160	131	49
HSK100A-WN20-160-V	100	20	34	50	160	131	51
HSK100A-WN25-160-V	100	25	65	65	160	131	57
HSK100A-WN32-160-V	100	32	72	72	160	131	61

## Collet chuck form ER

For collets form ER - DIN 6499-B  
 With axial adjustment screw  
 Supply details: collet chuck with clamping nut  
 Please order coolant connection set and key separately.

## HSK



HSK63A-ER40-120-V

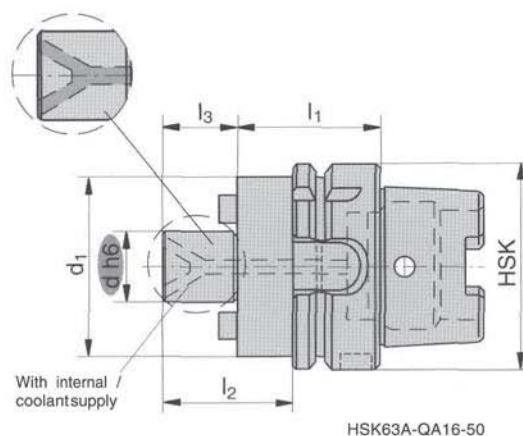
V = Prebalanced,  
 $n_{max}$  10.000

Type, description	[mm]					DIN 6499-B form ER
	HSK	Clamping range	D	$l_1$	$l_2$	
HSK63A-ER16-100-V	63	1 - 10	32	100	74	426 E (ER 16)
HSK63A-ER20-103-V	63	1,0-13	35	103	77	428 E (ER 20)
HSK63A-ER25-103-V	63	1,0-16	42	103	77	430 E (ER 25)
HSK63A-ER32-103-V	63	2,0- 20	50	103	77	470 E (ER 32)
HSK63A-ER40-120-V	63	4,0-28	63	120	94	472 E (ER 40)
HSK63A-ER16-160-V	63	1 - 10	32	160	134	426 E (ER 16)
HSK63A-ER25-160-V	63	1,0-16	42	160	134	430 E (ER 25)
HSK100A-ER16-100-V	100	1 - 10	32	100	71	426 E (ER 16)
HSK100A-ER20-103-V	100	1,0-13	35	103	74	428 E (ER 20)
HSK100A-ER25-103-V	100	1,0-16	42	103	74	430 E (ER 25)
HSK100A-ER32-103-V	100	2,0-20	50	103	74	470 E (ER 32)
HSK100A-ER40-120-V	100	4,0-26	63	120	91	472 E (ER 40)
HSK100A-ER16-160-V	100	1-10	32	160	131	426 E (ER 16)
HSK100A-ER25-160-V	100	1,0-16	42	160	131	430 E (ER 25)

## Shell mill adapter QA

## HSK

Milling adapter according to DIN 6385.  
Please order coolant connection set and key separately.  
- Size 40 and 60 with direct mounting detail according to DIN 2079.



HSK63A-QA16-50

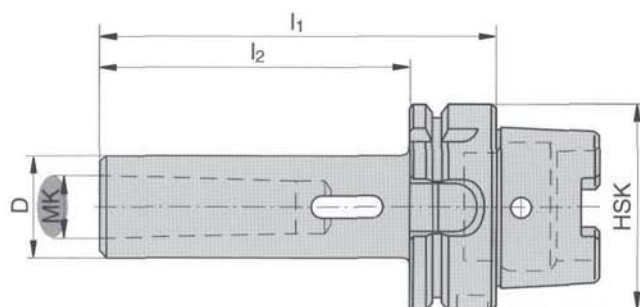
V = Prebalanced,  
n<sub>max</sub> 10.000

Type, description	[mm]					
	HSK	dh6	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>
HSK63A-QA16-50-V	63	16	40	50	41	17
HSK63A-QA22-50-V	63	22	50	50	43	19
HSK63A-QA27-60-V	63	27	60	60	55	21
HSK63A-QA32-60-V	63	32	78	60	58	24
HSK63A-QA40-60-V	63	40	89	60	61	27
HSK100A-QA16-50-V	100	16	40	50	38	17
HSK100A-QA22-50-V	100	22	50	50	40	19
HSK100A-QA27-50-V	100	27	60	50	42	21
HSK100A-QA32-50-V	100	32	78	50	45	24
HSK100A-QA40-60-V	100	40	89	60	58	27
HSK100A-QA60-70-V	100	80	129	70	81	40

## Morse taper adapter MT

For Morse taper shank tang type  
according to DIN 228, part 2 form D.  
Please order coolant connection set and key separately.

## HSK



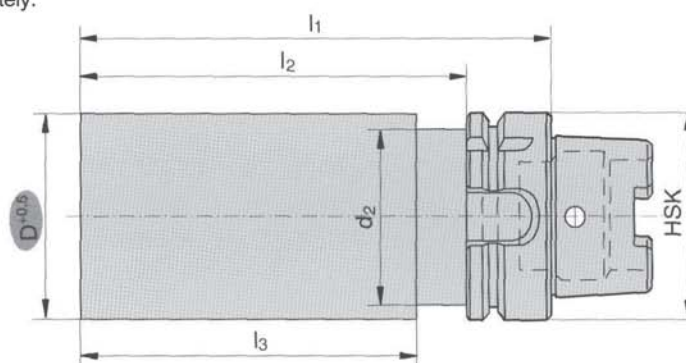
HSK63A-MK1D-100

Type, description	[mm]				
	HSK	MK	D	$l_1$	$l_2$
HSK63A-MK1D-100	63	1	25	100	74
HSK63A-MK2D-120	63	2	32	120	94
HSK63A-MK3D-140	63	3	40	140	114
HSK63A-MK4D-160	63	4	48	160	134
HSK100A-MK1D-110	100	1	25	110	81
HSK100A-MK2D-120	100	2	32	120	91
HSK100A-MK3D-150	100	3	40	150	121
HSK100A-MK4D-170	100	4	48	170	141
HSK100A-MK5D-200	100	5	63	200	171

## HSK blank HF

For the production of special tools  
 Material: case hardening steel 16 MnCr 5  
 Taper hardened and ground, length  $l_1$  = soft  
 Please order coolant connection set and key separately.

## HSK

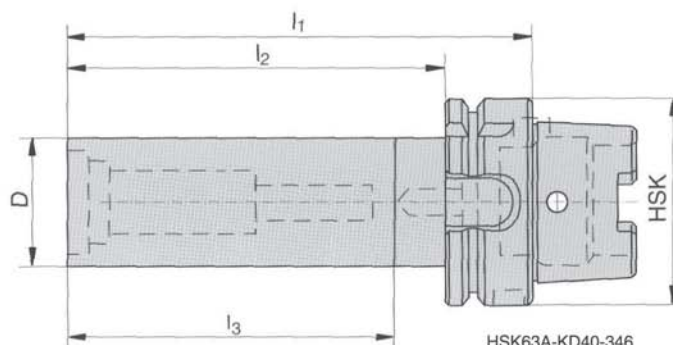


HSK63A-HF63-200

Type, description	[mm]					
	HSK	D	$d_2$	$l_1$	$l_2$	$l_3$
HSK63A-HF63-200	63	63	53	200	174	158
HSK100A-HF100-250	100	100	85	250	221	205

## HSK test bar KD

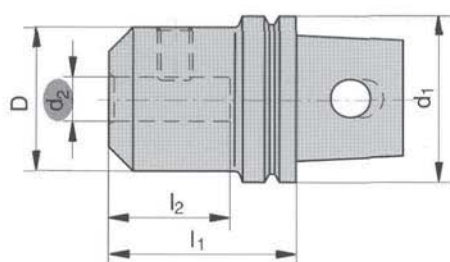
Test bar for controlling the machine geometry and  
 precision of radial run-out of the spindle



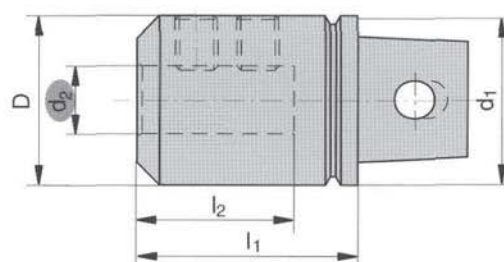
HSK63A-KD40-346

Type, description	[mm]				Usable length $l_3$
	HSK	D	$l_1$	$l_2$	
HSK63A-KD40-346	63	40	346	320	300
HSK100A-KD40-349	100	40	349	320	300

## Weldon shank adapter DIN 1835-B

**UTS**
 $d_2 = 6 - 20 \text{ mm}$ 


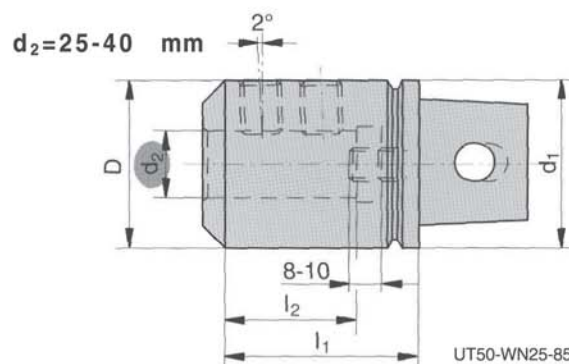
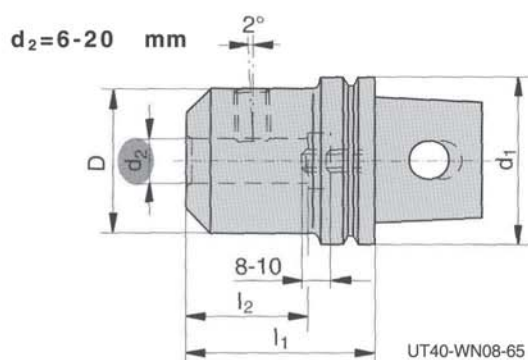
UT40-AD-ZYL 08

 $d_2 = 25 - 40 \text{ mm}$ 


UT40-AD-ZYL 25

Type, description	[mm]					
	UTS size $d_1$	$d_{2H4}$	D	$l_1$	$l_2$	O - ring
UT40-AD-ZYL 06	40	6	25	40	37,5	7896900
UT40-AD-ZYL 08	40	8	28	40	37,5	7896900
UT40-AD-ZYL 10	40	10	35	45	42,0	7896900
UT40-AD-ZYL 12	40	12	42	50	47,0	7896900
UT40-AD-ZYL 16	40	16	48	55	50,0	7896900
UT40-AD-ZYL 20	40	20	52	60	52,0	7896900
UT40-AD-ZYL 25	40	25	65	80	58,0	7896900
UT50-AD-ZYL 10	50	10	35	45	42,0	7896940
UT50-AD-ZYL 12	50	12	42	50	47,0	7896940
UT50-AD-ZYL 16	50	16	48	55	50,0	7896940
UT50-AD-ZYL 20	50	20	52	60	52,0	7896940
UT50-AD-ZYL 25	50	25	65	80	58,0	7896940
UT50-AD-ZYL 32	50	32	72	85	62,0	7896940
UT63-AD-ZYL 16	63	16	48	55	50,0	7896941
UT63-AD-ZYL 20	63	20	52	60	52,0	7896941
UT63-AD-ZYL 25	63	25	65	80	58,0	7896941
UT63-AD-ZYL 32	63	32	72	85	62,0	7896941
UT63-AD-ZYL 40	63	40	90	95	72,0	7896941

## Whistle Notch shank adapter DIN 1835-E

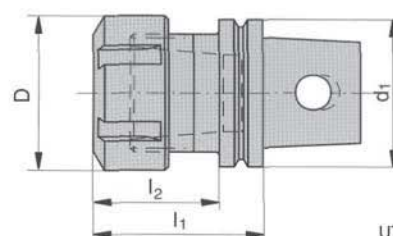
**UTS**


Type, description	UTS size d <sub>1</sub>	[mm]					O - ring
		d <sub>2H4</sub>	D	l <sub>1</sub>	l <sub>2</sub>	Adjustment screw	
UT40-WN06-60	40	6	25	60	36	7896969 (M5x16)	7896900
UT40-WN08-65	40	8	28	65	36	7896970 (M6x20)	7896900
UT40-WN10-70	40	10	35	70	40	7896970 (M6x20)	7896900
UT40-WN12-75	40	12	42	75	45	7896971 (M10x20)	7896900
UT40-WN14-75	40	14	44	75	45	7896971 (M10x20)	7896900
UT40-WN16-80	40	16	48	80	48	7896971 (M10x20)	7896900
UT40-WN18-80	40	18	50	80	48	7896971 (M10x20)	7896900
UT40-WN20-80	40	20	52	80	50	7896971 (M10x20)	7896900
UT50-WN06-60	50	6	25	60	36	7896969 (M5x16)	7896940
UT50-WN08-65	50	8	28	65	36	7896970 (M6x20)	7896940
UT50-WN10-70	50	10	35	70	40	7896970 (M6x20)	7896940
UT50-WN12-75	50	12	42	75	45	7896971 (M10x20)	7896940
UT50-WN14-75	50	14	44	75	45	7896971 (M10x20)	7896940
UT50-WN16-80	50	16	48	80	48	7896971 (M10x20)	7896940
UT50-WN18-80	50	18	50	80	48	7896971 (M10x20)	7896940
UT50-WN20-80	50	20	52	80	50	7896971 (M10x20)	7896940
UT50-WN25-85	50	25	65	85	55	7896972 (M12x20)	7896940
UT50-WN32-95	50	32	72	95	60	7896972 (M12x20)	7896940

## Collet chuck form ER

For collets form ER - DIN 6499-B

## UTS

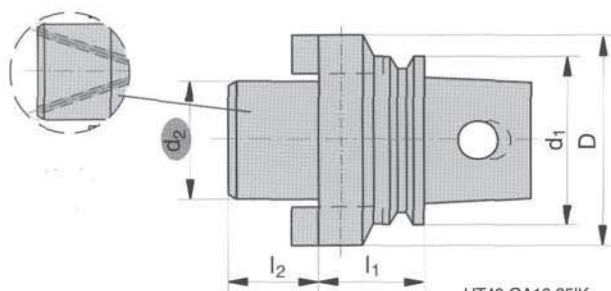


UT40-ER16-38

Type, description	UTS size $d_1$	Clamping range	[mm]			DIN 6499-B form ER	O - ring
			D	$l_1$	$l_2$		
UT40-ER16-38	40	1,0-10	32	38	28	426 E (ER 16)	7896900
UT40-ER25-45	40	1,0-16	42	45	35	430 E (ER 25)	7896900
UT40-ER32-51	40	2,0-20	50	51	41	470 E (ER 32)	7896900
UT50-ER25-45	50	1,0-16	42	45	30	430 E (ER 25)	7896940
UT50-ER32-51	50	2,0-20	50	51	36	470 E (ER 32)	7896940
UT50-ER40-57	50	4,0-26	63	57	42	472 E (ER 40)	7896940
UT63-ER25-47	63	1,0-16	42	47	31	430 E (ER 25)	7896941
UT63-ER32-51	63	2,0-20	50	51	35	470 E (ER 32)	7896941
UT63-ER40-57	63	4,0-26	63	57	42	472 E (ER 40)	7896941

## Shell mill adapter QA

with internal coolant supply



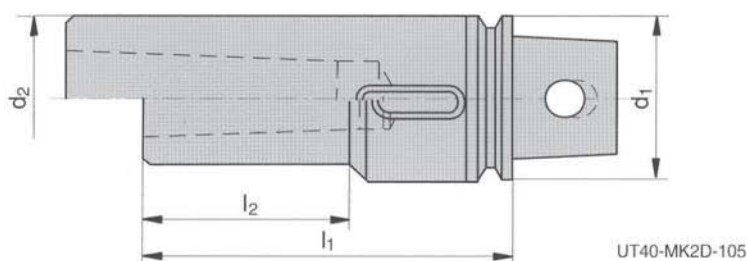
UT40-QA16-25IK

Type, description	UTS size		[mm]				O - ring
	$d_1$	$d_{2H6}$	D	$l_1$	$l_2$		
UT40-QA16-25IK	46	16	38	25	17		7896900
UT40-QA22-25IK	40	22	48	25	19		7896900
UT40-QA27-30IK	40	27	58	30	21		7896900
UT50-QA22-27IK	50	22	48	27	19		7896940
UT50-QA27-36IK	50	27	58	36	21		7896940
UT50-QA32-35IK	50	32	78	35	24		7896940
UT63-QA27-36IK	63	27	58	36	21		7896941
UT63-QA32-33IK	63	32	78	33	24		7896941
UT63-QA40-56M	63	40	88	56	27		7896941

## Morse taper adapter MT form D

DIN 228

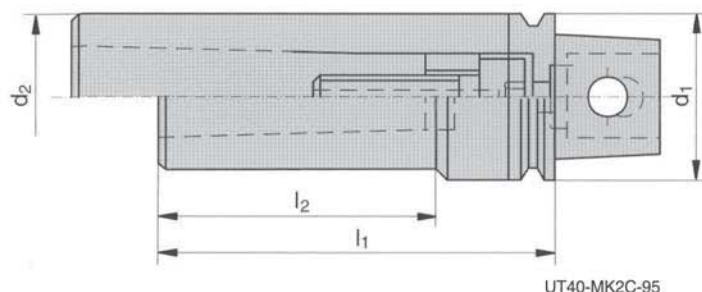
UTS



Type, description	[mm]					
	UTS size d <sub>1</sub>	MK	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	O - ring
UT40-MK2D-105	40	2	32	105	89,5	7896900
UT40-MK3D-116	40	3	40	116	—	7896900
UT50-MK3D-118	50	3	40	118	66	7896940
UT63-MK4D-146	63	4	48	146	86	7896941

## Morse taper adapter MK form C

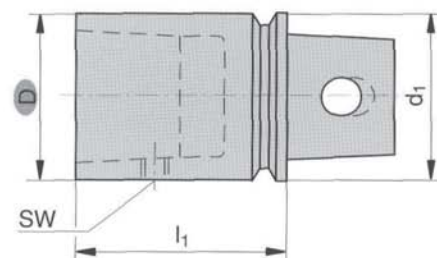
DIN 228, with thread



Type, description	[mm]					
	UTS size d <sub>1</sub>	MK	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	O - ring
UT40-MK2C-95	40	2	32	95	66	7896900
UT40-MK3C-116	40	3	40	116	-	7896900
UT50-MK3C-118	50	3	40	118	80	7896940
UT63-MK4C-146	63	4	48	146	102	7896941

## Extensions

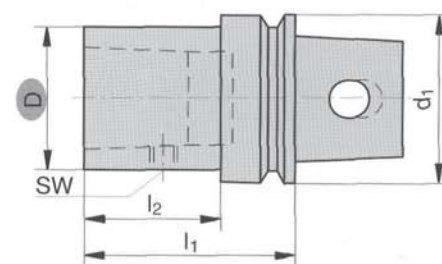
## UTS



UT40-AD-VLG 60

Type, description	UTS size d <sub>1</sub>	[mm]				O - ring	
		D	l <sub>1</sub>	SW			
UT40-AD-VLG 60	40	40	60	6		7896900	7896957
UT40-AD-VLG 80	40	40	80	6		7896900	7896957
UT50-AD-VLG 60	50	50	60	10		7896940	7898616
UT50-AD-VLG 80	50	50	80	10		7896940	7898616
UT50-AD-VLG 100	50	50	100	10		7896940	7898616
UT50-AD-VLG 140	50	50	140	10		7896940	7898616
UT63-AD-VLG 80	63	63	80	12		7896941	7899773
UT63-AD-VLG 100	63	63	100	12		7896941	7899773
UT63-AD-VLG 120	63	63	120	12		7896941	7899773
UT63-AD-VLG 140	63	63	140	12		7896941	7899773

## Reducers

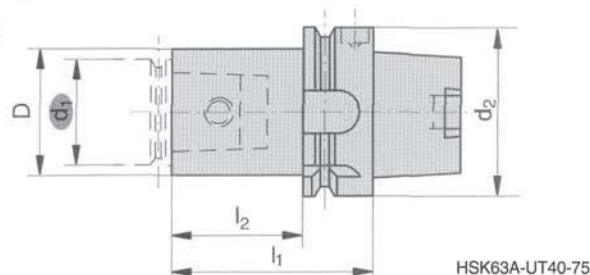


UT40-AD-R 32

Type, description	UTS size d <sub>1</sub>	[mm]				O - ring	
		D	l <sub>1</sub>	l <sub>2</sub>	SW		
UT40-AD-R 32	40	32	50	28	5	7896900	7898633
UT50-AD-R 32	50	32	50	25	5	7896940	7898633
UT50-AD-R 40	50	40	60	35	6	7896940	7896957
UT63-AD-R 32	63	32	50	24	5	7896941	7898633
UT63-AD-R 40	63	40	60	34	6	7896941	7896957
UT63-AD-R 50	63	50	80	54	10	7896941	7898616

## HSK-UTS adapter

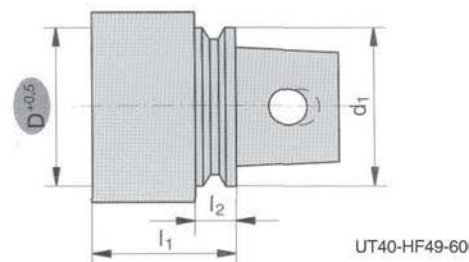
## UTS



Type, description	HSK size $d_2$	UTS size $d_1$	[mm]			
			D	$l_1$	$l_2$	
HSK63A-UT40-75	63	40	48	75	49	7896935
HSK63A-UT50-90	63	63	63	105	79	7899773
HSK63A-UT63-105	63	50	53	90	64	7898600
HSK100A-UT40-80	100	40	40	80	51	7896957
HSK100A-UT50-100	100	50	50	100	71	7898616
HSK100A-UT63-115	100	63	63	115	86	7899773

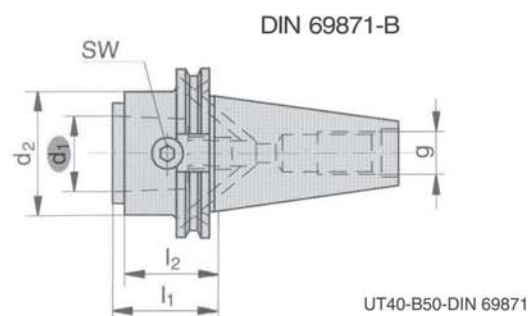
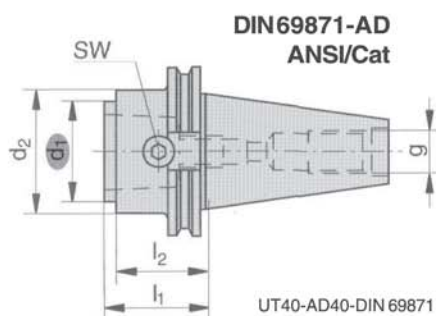
## Blank HF

The UTS taper is hardened and finished.  
The front end has a hardness of approx. 40 HRc.  
O-ring included in the delivery.



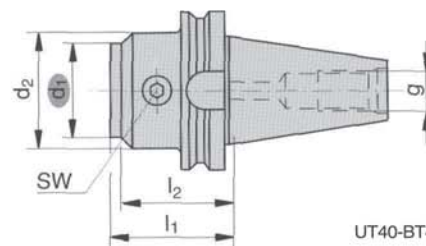
Type, description	UTS size $d_1$	[mm]			O-ring
		D	$l_1$	$l_2$	
UT40-HF49-60	40	49	60	9,5	7896900
UT40-HF49-120	40	49	120	9,5	7896900
UT40-HF72-130	40	72	130	9,5	7896900
UT40-HF88-80	40	88	80	9,5	7896900
UT40-HF88-150	40	88	150	9,5	7896900
UT50-HF55-200	50	55	200	15	7896940
UT50-HF73-160	50	73	160	15	7896940
UT50-HF100-150	50	100	150	15	7896940
UT50-HF105-100	50	105	100	15	7896940
UT63-HF74-250	63	74	250	16	7896941
UT63-HF115-150	63	115	150	16	7896941
UT63-HF125-120	63	125	120	16	7896941

## Adapter taper shank DIN 69871-AD + B

**UTS**


Type, description	[mm]								
	UTS size d <sub>1</sub>	SK	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	g	SW	Nm	
UT32-AD40-DIN 69871	32	40AD	44,5	40	35	M16	5	10	7898632
UT32-AD40-DIN 69871-90	32	40AD	44,5	90	35	M16	5	10	7898633
UT40-AD40-DIN 69871	40	40AD	50,0	40	-	M16	6	16	7896935
UT40-AD40-DIN 69871-100	40	40AD	44,5	100	35	M16	6	16	7896957
UT50-AD40-DIN 69871	50	40AD	50,0	60	-	M16	10	32	7898600
UT50-AD40-DIN 69871-120	50	40AD	50,0	120	-	M16	10	32	7898616
UT32-AD50-DIN 69871	32	50AD	70,0	40	35	M24	5	10	7898632
UT32-AD50-DIN 69871-90	32	50AD	70,0	90	35	M24	5	10	7898633
UT40-AD50-DIN 69871	40	50AD	70,0	40	35	M24	6	16	7896935
UT40-AD50-DIN 69871-100	40	50AD	70,0	100	35	M24	6	16	7896957
UT50-AD50-DIN 69871	50	50AD	70,0	60	35	M24	10	32	7898600
UT50-AD50-DIN 69871-120	50	50AD	70,0	120	35	M24	10	32	7898616
UT63-AD50-DIN 69871	63	50AD	70,0	60	35	M24	12	50	7899750
UT63-AD50-DIN 69871-140	63	50AD	70,0	140	35	M24	12	50	7899773
UT32-B40-DIN 69871	32	40B	44,5	40	35	M16	5	10	7898632
UT40-B40-DIN 69871	40	40B	44,5	40	35	M16	6	16	7896935
UT40-B50-DIN 69871	40	50B	70,0	40	35	M24	6	16	7896935
UT50-B50-DIN 69871	50	50B	70,0	60	35	M24	10	32	7898600
UT63-B50-DIN 69871	63	50B	70,0	60	35	M24	12	50	7899750

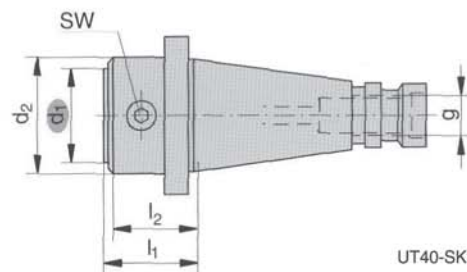
## Adapter taper shank UTS MAS 403-BT



UT40-BT40-MAS403

Type, description	UTS size d <sub>1</sub>	SK	d <sub>2</sub>	[mm]			SW	Nm	
				l <sub>1</sub>	l <sub>2</sub>	g			
UT32-BT40-MAS 403	32	40	40	40	37	M16	5	10	7898632
UT32-BT40-MAS 403-90	32	40	40	90	37	M16	5	10	7898633
UT40-BT40-MAS 403	40	40	48	40	36	M16	6	16	7896935
UT40-BT40-MAS 403-100	40	40	48	100	36	M16	6	16	7896957
UT50-BT40-MAS 403	50	40	63	60	56	M16	10	32	7898600
UT50-BT40-MAS 403-120	50	40	63	120	56	M16	10	32	7898616
UT32-BT50-MAS 403	32	50	32	40	-	M24	5	10	7898632
UT32-BT50-MAS 403-90	32	50	32	90	-	M24	5	10	7898633
UT40-BT50-MAS 403	40	50	48	60	56	M24	6	16	7896935
UT40-BT50-MAS 403-100	40	50	48	100	56	M24	6	16	7896957
UT50-BT50-MAS 403	50	50	63	60	56	M24	10	32	7898600
UT50-BT50-MAS 403-120	50	50	63	120	56	M24	10	32	7898616
UT63-BT50-MAS 403	63	50	70	60	55	M24	12	50	7899750
UT63-BT50-MAS 403-140	63	50	70	140	55	M24	12	50	7899773

## Adapter taper shank DIN 2080



UT40-SK40-DIN2080

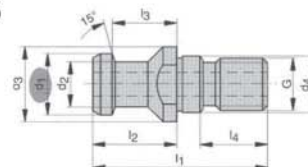
Type, description	UTS size d <sub>1</sub>	SK	d <sub>2</sub>	[mm]			SW	Nm	
				l <sub>1</sub>	l <sub>2</sub>	g			
UT32-SK40-DIN2080	32	40	40	40	37	M16	5	10	7898632
UT40-SK40-DIN2080	40	40	48	40	36	M16	6	16	7896935
UT50-SK40-DIN2080	50	40	50	60	-	M16	10	32	7898600
UT32-SK50-DIN2080	32	50	40	40	37	M24	5	10	7898632
UT40-SK50-DIN2080	40	50	48	40	36	M24	6	16	7896935
UT50-SK50-DIN2080	50	50	63	60	56	M24	10	32	7898600
UT63-SK50-DIN2080	63	50	70	60	55	M24	12	50	7899750

## Pull stud DIN 69872

DIN 69872, form A

For spindle nose tools without or with central coolant supply

## Accessories



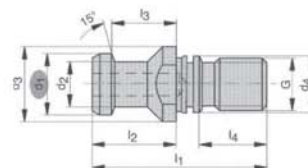
69872-A19

Type, description	SK	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	G	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
69872-A19	40	19	14	23	17	M 16	54	26	20	21
69872-A28	50	28	21	36	25	M 24	74	34	25	30

DIN 69872, form B

For spindle nose tools with coolant supply via flange

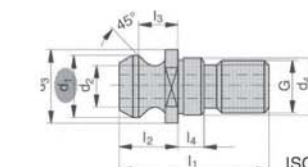
Supply details: pull stud with O-ring



69872-B19

Type, description	With O-ring	SK	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	G	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
69872-B19	83476040	40	19	14	23	17	M 16	54	26	20	21
69872-B28	83476050	50	28	21	36	25	M 24	74	34	25	30

Similar to ISO / DIS 7388 (ANSI-CAT only with SK 40)



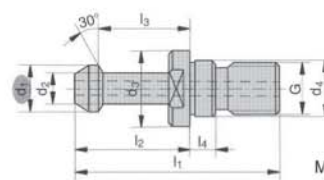
ISO7388-A18.95

Type, description	SK	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	G	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
ISO7388-A18	40	18,80	12,45	21,8	17	M 16	41,26	16,26	11,18	4
ISO7388-A29	50	29,10	19,45	37	25	M 24	65,5	25,55	17,95	10

## Pull stud MAS-BT

(For spindle nose tools without or with central coolant supply)

MAS-BT 30°



MAS-BT-30-A15

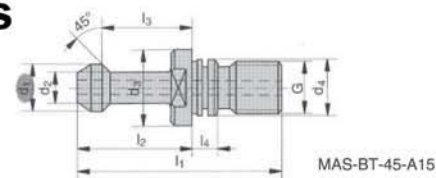
Type, description	BT	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	G	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
MAS-BT-30-A15	40	15	10	23	17	M 16	60	35	28	6,5
MAS-BT-30-A23	50	23	17	38	25	M 24	85	45	35	9

## Pull stud MAS-BT

(For spindle nose tools without or with central coolant supply)

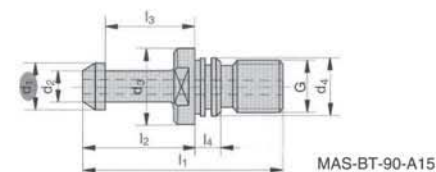
MAS-BT 45°

Type, description	With O-ring	BT	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	G	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
MAS-BT-45-A15		40	15	10	23	17	M 16	60	35	28	6,5
MAS-BT-45-A23		50	23	17	38	25	M24	85	45	35	9



MAS-BT 90°

Type, description	With O-ring	BT	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	G	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
MAS-BT-90-A15		40	15	10	23	17	M 16	60	35	28	6,5
MAS-BT-90-A23		50	23	17	38	25	M24	85	45	35	9

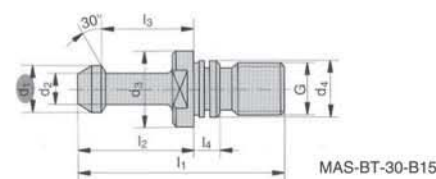


## Pull stud MAS-BT

(For spindle nose tools with coolant supply via flange)

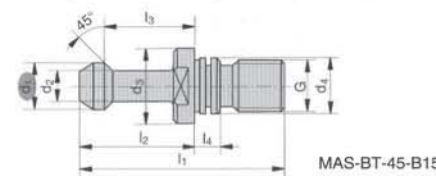
MAS-BT 30°

Type, description	With O-ring	BT	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	G	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
MAS-BT-30-B15		40	15	10	23	17	M16	60	35	28	6,5
MAS-BT-30-B23		50	23	17	38	25	M24	85	45	35	9



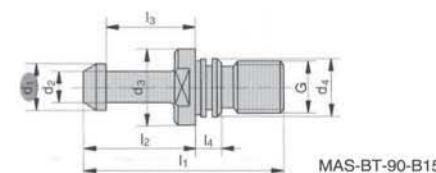
MAS-BT 45°

Type, description	With O-ring	BT	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	G	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
MAS-BT-45-B15		40	15	0	23	17	M16	60	35	28	6,5
MAS-BT-45-B23		50	23	7	38	25	M24	85	45	35	9



MAS-BT 90°

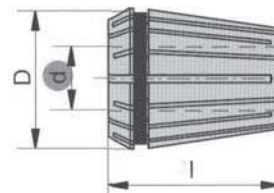
Type, description	With O-ring	BT	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	G	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
MAS-BT-90-B15		40	15	10	23	17	M16	60	35	28	6,5
MAS-BT-90-B23		50	23	17	38	25	M24	85	45	35	9



## Collet form ER

DIN 6499-B  
 Double angle collets  
 Double slotted  
 Clamping range covered:  
 ER 16 / ER 20 / ER 25 / ER 32 / ER 40:  
 Precision of radial run-out 0,01 mm

## Accessories



d	426E (ER16) D = 17 mm L = 27 mm Description	428E (ER20) D = 21 mm L = 31 mm Description	430E (ER25) D = 26 mm L = 35 mm Description	470E (ER32) D = 33 mm L = 40 mm Description	472E (ER40) D = 41 mm L = 46 mm Description
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3.0	426E-030 <sup>1)</sup>	428E-030 <sup>1)</sup>	430E-030 <sup>1)</sup>	470E-030 <sup>1)</sup>	472E-030 <sup>1)</sup>
4.0	426E-040 <sup>1)</sup>	428E-040 <sup>1)</sup>	430E-040 <sup>1)</sup>	470E-040 <sup>1)</sup>	472E-040 <sup>1)</sup>
5.0	426E-050 <sup>1)</sup>	428E-050 <sup>1)</sup>	430E-050 <sup>1)</sup>	470E-050 <sup>1)</sup>	472E-050 <sup>1)</sup>
6.0	426E-060 <sup>1)</sup>	428E-060 <sup>1)</sup>	430E-060 <sup>1)</sup>	470E-060 <sup>1)</sup>	472E-060 <sup>1)</sup>
7.0	426E-070 <sup>1)</sup>	428E-070 <sup>1)</sup>	430E-070 <sup>1)</sup>	470E-070 <sup>1)</sup>	472E-070 <sup>1)</sup>
8.0	426E-080 <sup>1)</sup>	428E-080 <sup>1)</sup>	430E-080 <sup>1)</sup>	470E-080 <sup>1)</sup>	472E-080 <sup>1)</sup>
9.0	426E-090 <sup>1)</sup>	428E-090 <sup>1)</sup>	430E-090 <sup>1)</sup>	470E-090 <sup>1)</sup>	472E-090 <sup>1)</sup>
10.0	426E-100 <sup>1)</sup>	428E-100 <sup>1)</sup>	430E-100 <sup>1)</sup>	470E-100 <sup>1)</sup>	472E-100 <sup>1)</sup>
11.0		428E-110 <sup>1)</sup>	430E-110 <sup>1)</sup>	470E-110 <sup>1)</sup>	472E-110 <sup>1)</sup>
12.0		428E-120 <sup>1)</sup>	430E-120 <sup>1)</sup>	470E-120 <sup>1)</sup>	472E-120 <sup>1)</sup>
13.0		428E-130 <sup>1)</sup>	430E-130 <sup>1)</sup>	470E-130 <sup>1)</sup>	472E-130 <sup>1)</sup>
14.0			430E-140 <sup>1)</sup>	470E-140 <sup>1)</sup>	472E-140 <sup>1)</sup>
15.0			430E-150 <sup>1)</sup>	470E-150 <sup>1)</sup>	472E-150 <sup>1)</sup>
16.0			430E-160 <sup>1)</sup>	470E-160 <sup>1)</sup>	472E-160 <sup>1)</sup>
17.0				470E-170 <sup>1)</sup>	472E-170 <sup>1)</sup>
18.0				470E-180 <sup>1)</sup>	472E-180 <sup>1)</sup>
19.0				470E-190 <sup>1)</sup>	472E-190 <sup>1)</sup>
20.0				470E-200 <sup>1)</sup>	472E-200 <sup>1)</sup>
21.0					472E-210 <sup>1)</sup>
22.0					472E-220 <sup>1)</sup>
23.0					472E-230 <sup>1)</sup>
24.0					472E-240 <sup>1)</sup>
25.0					472E-250 <sup>1)</sup>
26.0					472E-260 <sup>1)</sup>

<sup>1)</sup> Collets included in the set

## Collet form B

DIN 6388-B

Double slotted

Collets cover a clamping range of  
0.5 mm (+0.1 / - 0.4 mm)

Precision of radial run-out 0,01 mm

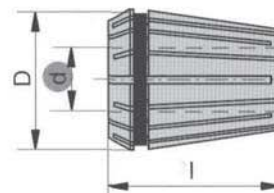
## Accessories

d	415E	462E	467E
	D = 25,5 mm L = 40 mm Description	D = 35,5 mm L = 52 mm Description	D = 44 mm L = 60 mm Description
3,0	415E-030	462E-030	
3,5	415E-035	462E-035	
4,0	415E-040	462E-040	467E-040
4,5	415E-045	462E-045	467E-045
5,0	415E-050	462E-050	467E-050
5,5	415E-055	462E-055	467E-055
6,0	415E-060	462E-060	467E-060
6,5	415E-065	462E-065	467E-065
7,0	415E-070	462E-070	467E-070
7,5	415E-075	462E-075	467E-075
8,0	415E-080	462E-080	467E-080
8,5	415E-085	462E-085	467E-085
9,0	415E-090	462E-090	467E-090
9,5	415E-095	462E-095	467E-095
10,0	415E-100	462E-100	467E-100
10,5	415E-105	462E-105	467E-105
11,0	415E-110	462E-110	467E-110
11,5	415E-115	462E-115	467E-115
12,0	415E-120	462E-120	467E-120
12,5	415E-125	462E-125	467E-125
13,0	415E-130	462E-130	467E-130
13,5	415E-135	462E-135	467E-135
14,0	415E-140	462E-140	467E-140
14,5	415E-145	462E-145	467E-145
15,0	415E-150	462E-150	467E-150
15,5	415E-155	462E-155	467E-155
16,0	415E-160	462E-160	467E-160
16,5		462E-165	467E-165
17,0		462E-170	467E-170
17,5		462E-175	467E-175
18,0		462E-180	467E-180
18,5		462E-185	467E-185
19,0		462E-190	467E-190
19,5		462E-195	467E-195
20,0		462E-200	467E-200
20,5		462E-205	467E-205
21,0		462E-210	467E-210
21,5		462E-215	467E-215
22,0		462E-220	467E-220
22,5		462E-225	467E-225
23,0		462E-230	467E-230
23,5		462E-235	467E-235
24,0		462E-240	467E-240
24,5		462E-245	467E-245
25,0		462E-250	467E-250
25,5			467E-255
26,0			467E-260
26,5			467E-265
27,0			467E-270
27,5			467E-275
28,0			467E-280
28,5			467E-285
29,0			467E-290
29,5			467E-295
30,0			467E-300
30,5			467E-305
31,0			467E-310
31,5			467E-315
32,0			467E-320

## Collet form FER

DIN 6499-B  
 Double angle collets  
 Double slotted  
 Clamping range covered:  
 ER 16 / ER 20 / ER 25 / ER 32 / ER 40:  
 Precision of radial run-out 0,006 mm

## Accessories



	426E (ER16)	428E (ER20)	430E (ER25)	470E (ER32)	472E (ER40)
	D = 17 mm	D = 21 mm	D = 26 mm	D = 33 mm	D = 41 mm
	L = 27 mm	L = 31 mm	L = 35 mm	L = 40 mm	L = 46 mm
d	Description	Description	Description	Description	Description
3.0	426E-030 <sup>1)</sup>	428E-030 <sup>1)</sup>	430E-030 <sup>1)</sup>	470E-030 <sup>1)</sup>	472E-030 <sup>1)</sup>
4.0	426E-040 <sup>1)</sup>	428E-040 <sup>1)</sup>	430E-040 <sup>1)</sup>	470E-040 <sup>1)</sup>	472E-040 <sup>1)</sup>
5.0	426E-050 <sup>1)</sup>	428E-050 <sup>1)</sup>	430E-050 <sup>1)</sup>	470E-050 <sup>1)</sup>	472E-050 <sup>1)</sup>
6.0	426E-060 <sup>1)</sup>	428E-060 <sup>1)</sup>	430E-060 <sup>1)</sup>	470E-060 <sup>1)</sup>	472E-060 <sup>1)</sup>
7.0	426E-070 <sup>1)</sup>	428E-070 <sup>1)</sup>	430E-070 <sup>1)</sup>	470E-070 <sup>1)</sup>	472E-070 <sup>1)</sup>
8.0	426E-080 <sup>1)</sup>	428E-080 <sup>1)</sup>	430E-080 <sup>1)</sup>	470E-080 <sup>1)</sup>	472E-080 <sup>1)</sup>
9.0	426E-090 <sup>1)</sup>	428E-090 <sup>1)</sup>	430E-090 <sup>1)</sup>	470E-090 <sup>1)</sup>	472E-090 <sup>1)</sup>
10.0	426E-100 <sup>1)</sup>	428E-100 <sup>1)</sup>	430E-100 <sup>1)</sup>	470E-100 <sup>1)</sup>	472E-100 <sup>1)</sup>
11.0		428E-110 <sup>1)</sup>	430E-110 <sup>1)</sup>	470E-110 <sup>1)</sup>	472E-110 <sup>1)</sup>
12.0		428E-120 <sup>1)</sup>	430E-120 <sup>1)</sup>	470E-120 <sup>1)</sup>	472E-120 <sup>1)</sup>
13.0		428E-130 <sup>1)</sup>	430E-130 <sup>1)</sup>	470E-130 <sup>1)</sup>	472E-130 <sup>1)</sup>
14.0			430E-140 <sup>1)</sup>	470E-140 <sup>1)</sup>	472E-140 <sup>1)</sup>
15.0			430E-150 <sup>1)</sup>	470E-150 <sup>1)</sup>	472E-150 <sup>1)</sup>
16.0			430E-160 <sup>1)</sup>	470E-160 <sup>1)</sup>	472E-160 <sup>1)</sup>
17.0				470E-170 <sup>1)</sup>	472E-170 <sup>1)</sup>
18.0				470E-180 <sup>1)</sup>	472E-180 <sup>1)</sup>
19.0				470E-190 <sup>1)</sup>	472E-190 <sup>1)</sup>
20.0				470E-200 <sup>1)</sup>	472E-200 <sup>1)</sup>
21.0					472E-210 <sup>1)</sup>
22.0					472E-220 <sup>1)</sup>
23.0					472E-230 <sup>1)</sup>
24.0					472E-240 <sup>1)</sup>
25.0					472E-250 <sup>1)</sup>
26.0					472E-260 <sup>1)</sup>

<sup>1)</sup> Collets included in the set

## Collet form FB

DIN 6388-B

Double slotted

Collets cover a clamping range of  
0.5 mm (+0.1 / -0.4 mm)

Precision of radial run-out 0,006 mm

## Accessories

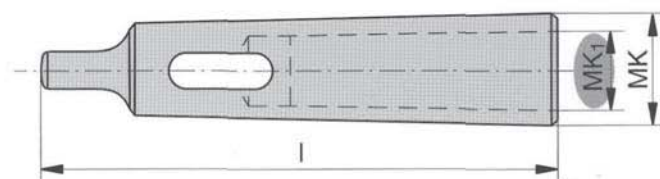
d	415E	462E	467E
	Description	Description	Description
	D = 25,5 mm L = 40 mm	D = 35,5 mm L = 52 mm	D = 44 mm L = 60 mm
3,0	415E-030	462E-030	
3,5	415E-035	462E-035	
4,0	415E-040	462E-040	467E-040
4,5	415E-045	462E-045	467E-045
5,0	415E-050	462E-050	467E-050
5,5	415E-055	462E-055	467E-055
6,0	415E-060	462E-060	467E-060
6,5	415E-065	462E-065	467E-065
7,0	415E-070	462E-070	467E-070
7,5	415E-075	462E-075	467E-075
8,0	415E-080	462E-080	467E-080
8,5	415E-085	462E-085	467E-085
9,0	415E-090	462E-090	467E-090
9,5	415E-095	462E-095	467E-095
10,0	415E-100	462E-100	467E-100
10,5	415E-105	462E-105	467E-105
11,0	415E-110	462E-110	467E-110
11,5	415E-115	462E-115	467E-115
12,0	415E-120	462E-120	467E-120
12,5	415E-125	462E-125	467E-125
13,0	415E-130	462E-130	467E-130
13,5	415E-135	462E-135	467E-135
14,0	415E-140	462E-140	467E-140
14,5	415E-145	462E-145	467E-145
15,0	415E-150	462E-150	467E-150
15,5	415E-155	462E-155	467E-155
16,0	415E-160	462E-160	467E-160
16,5		462E-165	467E-165
17,0		462E-170	467E-170
17,5		462E-175	467E-175
18,0		462E-180	467E-180
18,5		462E-185	467E-185
19,0		462E-190	467E-190
19,5		462E-195	467E-195
20,0		462E-200	467E-200
20,5		462E-205	467E-205
21,0		462E-210	467E-210
21,5		462E-215	467E-215
22,0		462E-220	467E-220
22,5		462E-225	467E-225
23,0		462E-230	467E-230
23,5		462E-235	467E-235
24,0		462E-240	467E-240
24,5		462E-245	467E-245
25,0		462E-250	467E-250
25,5			467E-255
26,0			467E-260
26,5			467E-265
27,0			467E-270
27,5			467E-275
28,0			467E-280
28,5			467E-285
29,0			467E-290
29,5			467E-295
30,0			467E-300
30,5			467E-305
31,0			467E-310
31,5			467E-315
32,0			467E-320

## Reducing sleeves

DIN 2185

Case hardened, ground externally and internally

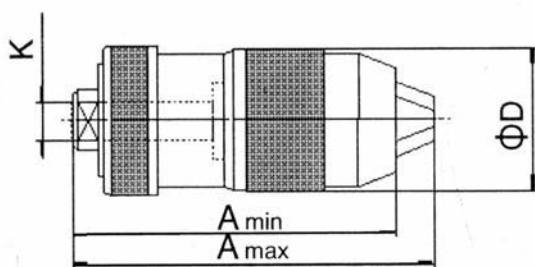
## Accessories



MK2-MK1-92

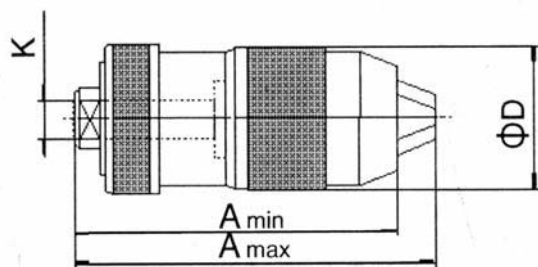
Type, description	MK (internal)	MK! (external)	I mm
MK1-MK0-80	1	0	80
MK2-MK1-92	2	1	92
MK3-MK2-112	3	2	112
MK3-MK1-99	3	1	99
MK4-MK3-140	4	3	140
MK4-MK2-124	4	2	124
MK4-MK1-124	4	1	124
MK5-MK4-171	5	4	171
MK5-MK3-156	5	3	156
MK5-MK2-156	5	2	156

## KEYLESS THREE JAW DRILL CHUKS

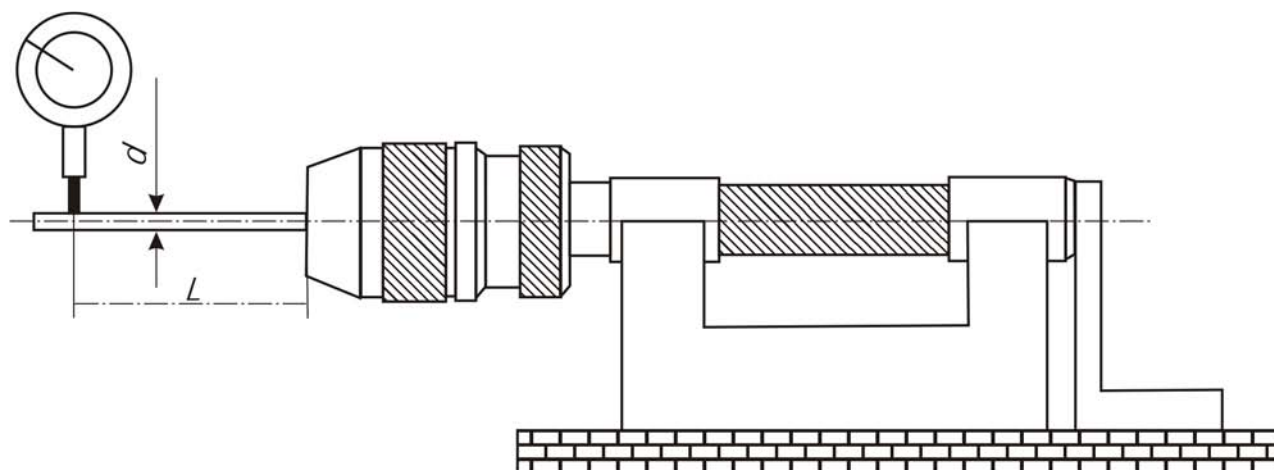


Type	Range	Joint Size			Order	D mm	A mm		Weight kg
		DIN 238	JACOBS	UNF			min	max	
PB 4 R	0...4 0"...5/32"	B 10			260.04.01	28	49.5	55	0.15
			J1		260.04.02	28	49.5	55	0.15
PB 6 R	0...6.5 0"...1/4"	B 10		3/8" UNF	260.06.01	35.5	64.5	70	0.33
		B 12		1/2" UNF	260.06.02	35.5	64.5	70	0.33
			J1		260.06.03	35.5	64.5	70	0.33
			J2C		260.06.04	35.5	64.5	70	0.33
				3/8" UNF	260.06.05	35.5	64.5	70	0.33
				1/2" UNF	260.06.06	35.5	64.5	70	0.33
PB 8 R	0...8 0"...5/16"	B 10			260.08.01	35.5	64.5	70	0.37
		B 12			260.08.02	35.5	64.5	70	0.37
			J1		260.08.03	35.5	64.5	70	0.37
			J2C		260.08.04	35.5	64.5	70	0.37
				3/8" UNF	260.08.05	35.5	64.5	70	0.37
				1/2" UNF	260.08.06	35.5	64.5	70	0.37
PB 10 R	0.5...10 1/32"...3/8"	B 12			260.10.01	38.5	72	78	0.41
			J1		260.10.02	38.5	72	78	0.41
				3/8" UNF	260.10.03	38.5	72	78	0.41
				1/2" UNF	260.10.04	38.5	72	78	0.41

## KEYLESS THREE JAW DRILL CHUKS



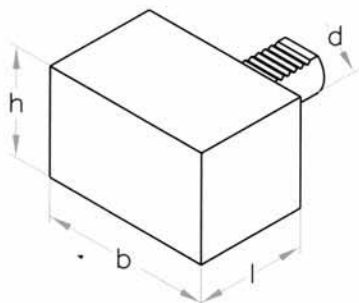
Type	Range	Joint Size			Order	D mm	A mm		Weight kg		
		DIN 238	JACOBS	UNF			min	max			
PB 10 RK**	0.5...10 (1/32"...3/8")	B 12	J 1	3/8" UNF	260.10.05	38.5	79	84.5	0.46		
				1/2" UNF	260.10.06	38.5	79	84.5	0.46		
					260.10.07	38.5	79	84.5	0.46		
					260.10.08	38.5	79	84.5	0.46		
PB 13 R	0...13 (1/32"...1/2")	B 12	J 2 J 33		260.13.01	43.5	85	93.5	0.57		
					260.13.02	43.5	85	93.5	0.57		
		B 16			260.13.05	43.5	85	93.5	0.57		
					260.13.06	43.5	85	93.5	0.57		
					3/8" UNF	260.13.07	43.5	85	93.5	0.57	
					1/2" UNF	260.13.08	43.5	85	93.5	0.57	
						260.13.09	43.5	92.5	101	0.63	
						260.13.10	43.5	92.5	101	0.63	
PB 13 RK**	0...13 (1/32"...1/2")	B 12	J 2 J 33		260.13.13	43.5	92.5	101	0.63		
					260.13.14	43.5	92.5	101	0.63		
		B 16			3/8" UNF	260.13.15	43.5	92.5	101	0.63	
					1/2" UNF	260.13.16	43.5	92.5	101	0.63	
						260.16.01	51.5	101	112.5	1.12	
						260.16.02	51.5	101	112.5	1.12	
						260.16.03	51.5	101	112.5	1.12	
						260.16.04	51.5	101	112.5	1.12	
PB 16 R	3...16 (1/8"...5/8")	B 16	J 2A J 2 J 33 J 6		260.16.05	51.5	101	112.5	1.12		
					260.16.06	51.5	101	112.5	1.12		
		B 18**			1/2" UNF	260.16.07	51.5	101	112.5	1.12	
					5/8" UNF	260.16.08	51.5	101	112.5	1.12	
						260.20.01	64	127.5	140.5	2.2	
						260.20.02	64	127.5	140.5	2.2	
PB 20 R	5...20 (3/16"...13/16")	B 22	J 3								



Type	Range / mm /	D / mm /	L / mm /	Measuring indicators / mm/	
				Standart "S"	Precision "P"
PB4R	0...4	2	25	max 0.10	max 0.05
		4	35	max 0.10	max 0.05
PB6R	0...6.5	4	35	max 0.10	max 0.05
		6.5	35	max 0.10	max 0.05
PB8R	0...8	3	35	max 0.10	max 0.05
		6	35	max 0.10	max 0.05
		8	50	max 0.10	max 0.05
PB10R PB10RK	0.5...10	3	35	max 0.10	max 0.06
		6	55	max 0.10	max 0.06
		10	55	max 0.10	max 0.06
PB13R PB13RK	1.5...13	5	55	max 0.10	max 0.06
		10	55	max 0.10	max 0.06
		13	70	max 0.10	max 0.06
PB16R	3...16	5	55	max 0.14	max 0.06
		10	55	max 0.14	max 0.06
		16	70	max 0.14	max 0.06
PB20R	5...20	8	55	max 0.14	max 0.06
		16	85	max 0.14	max 0.06
		20	85	max 0.14	max 0.06

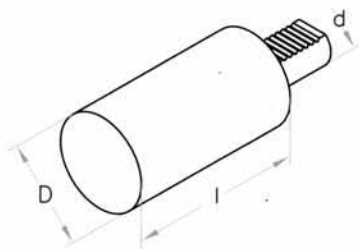
## TOOL SYSTEM DIN69880 /VDI3425/ FOR CNC MACHINES

A1



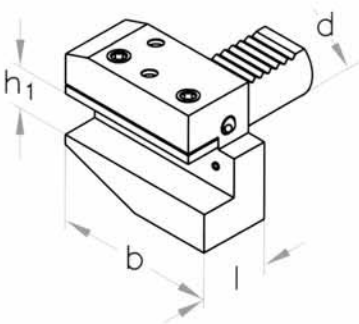
CODE	d	b	h	l
	mm	mm	mm	mm
A1 16 44	16	78	44	44
A1 20 65	20	100	60	65
A1 25 75	25	100	60	75
A1 30 85	30	130	76	85
A1 40 100	40	151	96	100
A1 50 125	50	160	120	125
A1 60 160	60	165	125	160

A2



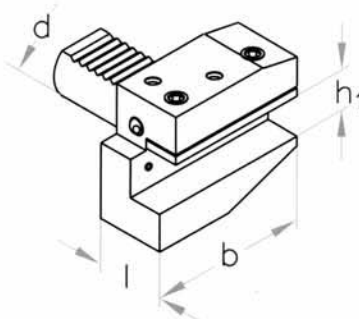
CODE	d	D	l
	mm	mm	mm
A2 16 60	16	40	60
A2 20 70	20	50	70
A2 25 80	25	58	80
A2 25 200	25	58	200
A2 30 100	30	68	100
A2 30 240	30	68	240
A2 40 120	40	83	120
A2 40 320	40	83	320
A2 50 135	50	98	135
A2 50 400	50	98	400
A2 60 150	60	123	150
A2 60 480	60	123	480

B1



CODE	d	h1	l	b
	mm	mm	mm	mm
B1 16 12 24	16	12	24	42
B1 20 16 30	20	16	30	55
B1 25 16 30	25	16	30	55
B1 30 20 40	30	20	40	70
B1 40 25 44	40	25	44	85
B1 50 32 55	50	32	55	100
B1 60 32 60	60	32	60	125

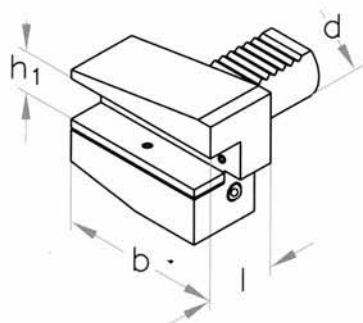
B2



CODE	d	h1	l	b
	mm	mm	mm	mm
B2 16 12 24	16	12	24	42
B2 20 16 30	20	16	30	55
B2 25 16 30	25	16	30	55
B2 30 20 40	30	20	40	70
B2 40 25 44	40	25	44	85
B2 50 32 55	50	32	55	100
B2 60 32 60	60	32	60	125

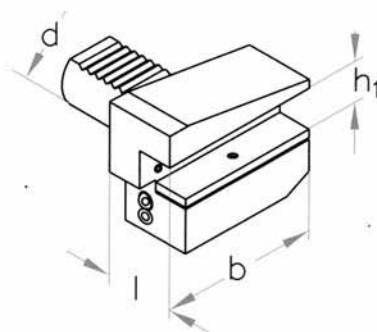
## TOOL SYSTEM DIN69880 /VDI3425/ FOR CNC MACHINES

B3



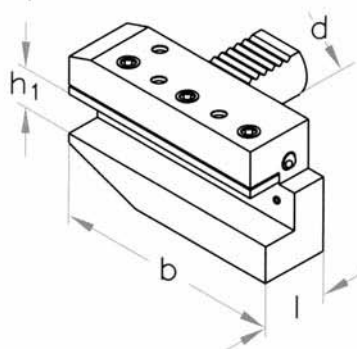
CODE	d	h1	l	b
	mm	mm	mm	mm
B3 16 12 24	16	12	24	42
B3 20 16 30	20	16	30	55
B3 25 16 30	25	16	30	55
B3 30 20 40	30	20	40	70
B3 40 25 44	40	25	44	85
B3 50 32 55	50	32	55	100
B3 60 32 60	60	32	60	125

B4



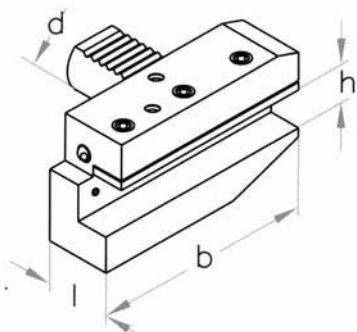
CODE	d	h1	l	b
	mm	mm	mm	mm
B4 16 12 24	16	12	24	42
B4 20 16 30	20	16	30	55
B4 25 16 30	25	16	30	55
B4 30 20 40	30	20	40	70
B4 40 25 44	40	25	44	85
B4 50 32 55	50	32	55	100
B4 60 32 60	60	32	60	125

B5



CODE	d	h1	l	b
	mm	mm	mm	mm
B5 16 12 24	16	12	24	58
B5 20 16 30	20	16	30	75
B5 25 16 30	25	16	30	75
B5 30 20 40	30	20	40	100
B5 40 25 44	40	25	44	118
B5 50 32 55	50	32	55	130
B5 60 32 60	60	32	60	145

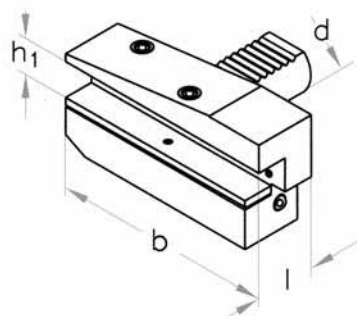
B6



CODE	d	h1	l	b
	mm	mm	mm	mm
B6 16 12 24	16	12	24	58
B6 20 16 30	20	16	30	75
B6 25 16 30	25	16	30	75
B6 30 20 40	30	20	40	100
B6 40 25 44	40	25	44	118
B6 50 32 55	50	32	55	130
B6 60 32 60	60	32	60	145

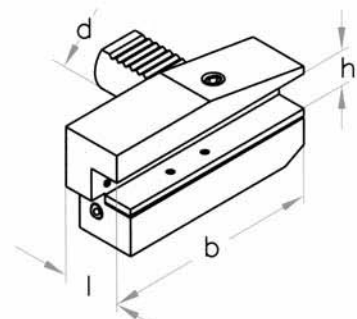
## TOOL SYSTEM DIN69880 /VDI3425/ FOR CNC MACHINES

B7



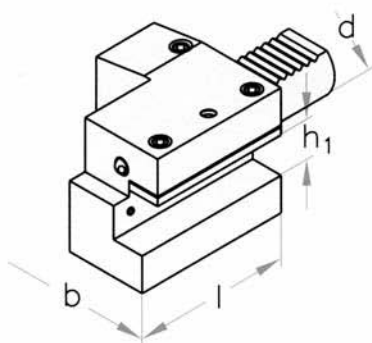
CODE	d	h1	l	b
	mm	mm	mm	mm
B7 161224	16	12	24	58
B7 201630	20	16	30	75
B7 251630	25	16	30	75
B7 302040	30	20	40	100
B7 402544	40	25	44	118
B7 503255	50	32	55	130
B7 603260	60	32	60	145

B8



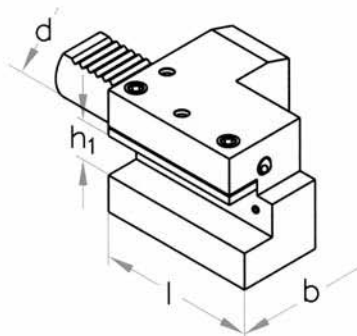
CODE	d	h1	l	b
	mm	mm	mm	mm
B8 161224	16	12	24	58
B8 201630	20	16	30	75
B8 251630	25	16	30	75
B8 302040	30	20	40	100
B8 402544	40	25	44	118
B8 503255	50	32	55	130
B8 603260	60	32	60	145

C1



CODE	d	h1	l	b
	mm	mm	mm	mm
C1 1612	16	12	44	43
C1 2016	20	16	50	65
C1 2516	25	16	55	58
C1 3020	30	20	70	70
C1 4025	40	25	85	85
C1 5032	50	32	100	100
C1 6032	60	32	125	125

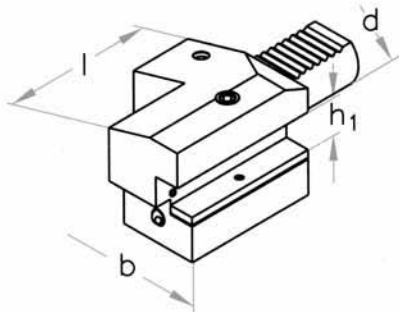
C2



CODE	d	h1	l	b
	mm	mm	mm	mm
C2 1612	16	12	44	43
C2 2016	20	16	50	65
C2 2516	25	16	55	58
C2 3020	30	20	70	76
C2 4025	40	25	85	90
C2 5032	50	32	100	105
C2 6032	60	32	125	125

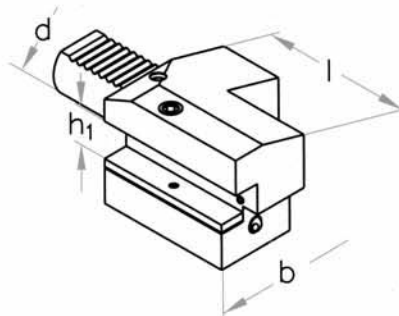
## TOOL SYSTEM DIN69880 /VDI3425/ FOR CNC MACHINES

C3



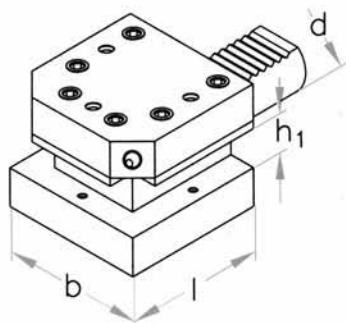
CODE	d	h1	l	b
	mm	mm	mm	mm
C3 16 12	16	12	44	43
C3 20 16	20	16	50	65
C3 25 16	25	16	55	58
C3 30 20	30	20	70	70
C3 40 25	40	25	85	85
C3 50 32	50	32	100	100
C3 60 32	60	32	125	125

C4



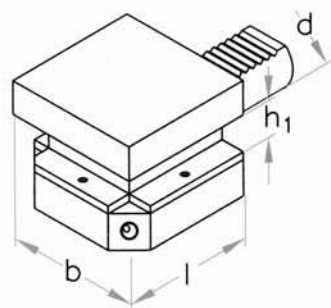
SIZE	d	h1	l	b
	mm	mm	mm	mm
C4 16 12	16	12	44	43
C4 20 16	20	16	50	65
C4 25 16	25	16	55	58
C4 30 20	30	20	70	76
C4 40 25	40	25	85	90
C4 50 32	50	32	100	105
C4 60 32	60	32	125	125

D1



CODE	d	h1	l	b
	mm	mm	mm	mm
D1 25 16	25	16	48	66
D1 30 20	30	20	60	76
D1 40 25	40	25	72	90
D1 50 32	50	32	85	105
D1 60 32	60	32	110	115

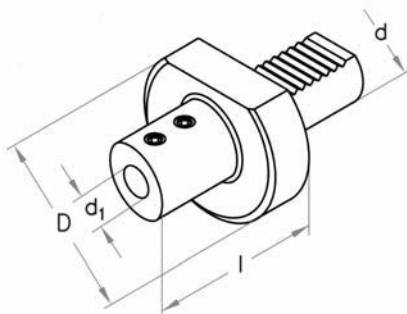
D2



CODE	d	H1	l	b
	mm	mm	mm	mm
D2 25 16	25	16	48	66
D2 30 20	30	20	60	76
D2 40 25	40	25	72	90
D2 50 32	50	32	85	105
D2 60 32	60	32	110	115

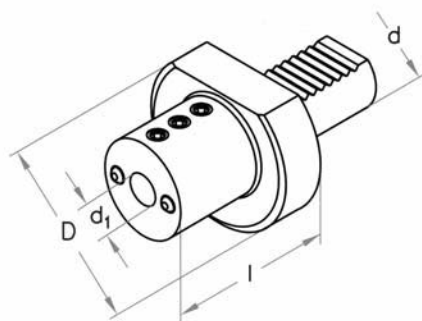
## TOOL SYSTEM DIN69880 /VDI3425/ FOR CNC MACHINES

E1



CODE	d	d1	D	l
	mm	mm	mm	mm
E1 20 16	20	16	50	67
E1 20 20	20	20	50	67
E1 20 25	20	25	50	71
E1 25 20	25	20	58	67
E1 25 25	25	25	58	71
E1 30 16	30	16	68	66
E1 30 20	30	20	68	67
E1 30 25	30	25	68	71
E1 30 32	30	32	68	75
E1 40 16	40	16	83	66
E1 40 20	40	20	83	67
E1 40 25	40	25	83	75
E1 40 32	40	32	83	75
E1 40 40	40	40	83	90
E1 50 20	50	20	98	67
E1 50 25	50	25	98	80
E1 50 32	50	30	98	80
E1 50 40	50	40	98	90
E1 50 50	50	50	98	100
E1 60 20	60	20	123	80
E1 60 25	60	25	123	80
E1 60 32	60	32	123	80
E1 60 40	60	40	123	90
E1 60 50	60	50	123	100

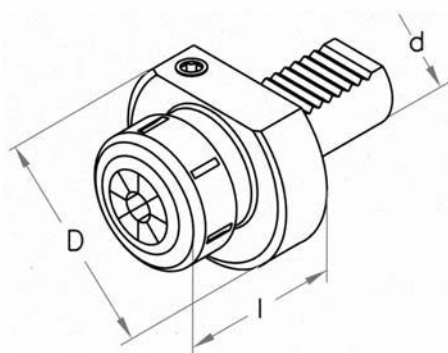
E2



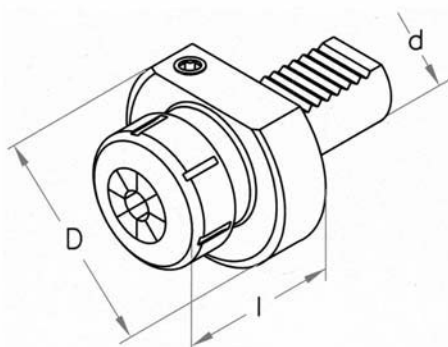
CODE	d	d1	D	l
	mm	mm	mm	mm
E2 16 06	16	6	40	44
E2 16 08	16	8	40	44
E2 16 10	16	10	40	44
E2 16 12	16	12	40	44
E2 16 16	16	16	40	44
E2 20 08	20	8	50	50
E2 20 10	20	10	50	50
E2 20 12	20	12	50	50
E2 20 16	20	16	50	50
E2 20 20	20	20	50	50
E2 20 25	20	25	50	60

CODE	d	d1	D	l
	mm	mm	mm	mm
E2 25 08	25	8	58	50
E2 25 10	25	10	58	50
E2 25 12	25	12	58	50
E2 25 16	25	16	58	50
E2 25 20	25	20	58	50
E2 25 25	25	25	58	60
E2 30 08	30	8	68	60
E2 30 10	30	10	68	60
E2 30 12	30	12	68	60
E2 30 16	30	16	68	60
E2 30 20	30	20	68	60
E2 30 25	30	25	68	60
E2 30 32	30	32	68	75
E2 40 08	40	8	83	75
E2 40 10	40	10	83	75
E2 40 12	40	12	83	75
E2 40 16	40	16	83	75
E2 40 20	40	20	83	75
E2 40 25	40	25	83	75
E2 40 32	40	32	83	75
E2 40 40	40	40	83	90
E2 50 12	50	12	98	90
E2 50 16	50	16	98	90
E2 50 20	50	20	98	90
E2 50 25	50	25	98	90
E2 50 32	50	32	98	90
E2 50 40	50	40	98	90
E2 50 50	50	50	98	100
E2 60 12	60	12	123	90
E2 60 16	60	16	123	90
E2 60 20	60	20	123	90
E2 60 25	60	25	123	90
E2 60 32	60	32	123	90
E2 60 40	60	40	123	90
E2 60 50	60	50	123	100

## TOOL SYSTEM DIN69880 /VDI3425/ FOR CNC MACHINES

**E3**


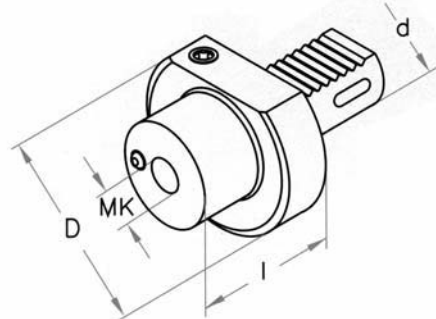
CODE	d	D	COLLET	L
	mm	mm	mm	mm
E3 16 12	16	40	1 - 12	45
E3 16 16	16	40	2 - 16	65
E3 20 16	20	50	2 - 16	57
E3 20 20	20	50	2 - 20	62
E3 25 16	25	58	2 - 16	57
E3 25 20	25	58	2 - 20	62
E3 30 16	30	68	2 - 16	57
E3 30 25	30	68	2 - 25	75
E3 40 16	40	83	2 - 26	57
E3 40 25	40	83	2 - 25	75
E3 40 32	40	83	4 - 32	90
E3 50 25	50	98	2 - 25	75
E3 50 32	50	98	4 - 32	90
E3 60 25	60	123	2 - 25	75
E3 60 32	60	123	4 - 32	90
E3 60 40	60	123	6 - 40	100

**E4**


CODE	d	D	COLLET	L
	mm	mm	mm	mm
E4 16 16	16	40	1 - 10	40
E4 16 20	16	40	1 - 13	44
E4 20 16	20	50	1 - 10	40
E4 20 20	20	50	1 - 13	50
E4 20 25	20	50	1 - 16	54
E4 20 32	20	50	2 - 20	55
E4 20 40	20	50	2 - 25	66
E4 25 25	25	58	1 - 16	57
E4 25 32	25	58	2 - 20	62
E4 30 20	30	68	1 - 13	57
E4 30 25	30	68	1 - 16	74
E4 30 32	30	68	2 - 20	74
E4 30 40	30	68	2 - 25	74
E4 40 25	40	83	1 - 16	70
E4 40 32	40	83	2 - 20	84
E4 40 40	40	83	2 - 25	75
E4 50 32	50	98	2 - 20	84
E4 50 40	50	98	2 - 25	90
E4 60 40	60	123	2 - 25	75

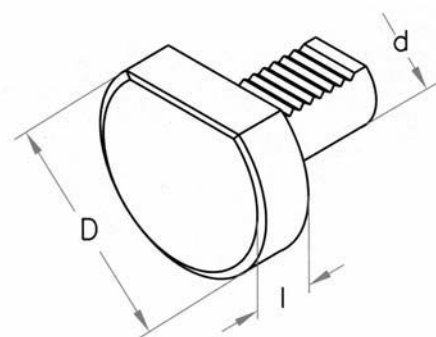
## TOOL SYSTEM DIN69880 /VDI3425/ FOR CNC MACHINES

F



CODE	d mm	MK/MT	D mm	I mm
F201	20	1	50	22
<b>F202</b>	<b>20</b>	<b>2</b>	<b>50</b>	<b>90</b>
F251	25	1	58	22
<b>F252</b>	<b>25</b>	<b>2</b>	<b>58</b>	<b>46</b>
F301	30	1	68	27
<b>F302</b>	<b>30</b>	<b>2</b>	<b>68</b>	<b>36</b>
F303	30	3	68	66
<b>F401</b>	<b>40</b>	<b>1</b>	<b>83</b>	<b>36</b>
F402	40	2	83	36
<b>F403</b>	<b>40</b>	<b>3</b>	<b>83</b>	<b>50</b>
F404	40	4	83	80
<b>F502</b>	<b>50</b>	<b>2</b>	<b>98</b>	<b>36</b>
F503	50	3	98	45
<b>F504</b>	<b>50</b>	<b>4</b>	<b>98</b>	<b>55</b>
F505	50	5	98	168
<b>F603</b>	<b>60</b>	<b>3</b>	<b>123</b>	<b>36</b>
F604	60	4	123	50
<b>F605</b>	<b>60</b>	<b>5</b>	<b>123</b>	<b>81</b>

Z2



CODE	d mm	D mm	I mm
Z216	16	40	13
<b>Z220</b>	<b>20</b>	<b>50</b>	<b>16</b>
Z225	25	58	16
<b>Z230</b>	<b>30</b>	<b>68</b>	<b>16</b>
Z240	40	83	20
<b>Z250</b>	<b>50</b>	<b>98</b>	<b>20</b>
Z260	60	123	20