

TOOLING SYSTEM



Tool Selection Guide	G4
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BT MAS	G57
DIN2080	G88
C-ADAPTER	G99
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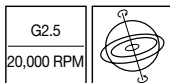
Guide to Icons



➤ Run-out



➤ Surface Hardness



➤ Balance Grade



➤ Taper Shank Grade



➤ Surface Finish Grade



➤ Technical Data Page



➤ ER Collet Page



➤ TSK Collet Page



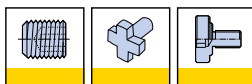
➤ Straight Collet Page



➤ Pull Stud Page



➤ Preset Screw Page



➤ Lock Screw Page



➤ ER-SRK Page



➤ Nut Page



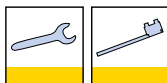
➤ Tap Adapter Page



➤ Cooling Tube Page



➤ Tube Wrench Page



➤ Wrench Page



➤ Driving Ring Page



➤ Induction Heating Unit Page



➤ Thermal Heating Unit Page



Tool Selection Guide

Tooling system

Milling chuck

- DIN69871 G15
- HSK G39
- BT MAS-403 G65
- DIN2080 G91



Collet (NCSR) G156-G158



ST shank G113-G117



Collet (ER) G142-G150



GTIN collet G163-G164



Collet chuck

- DIN69871 G10-G12
- HSK G33-G37
- BT MAS-403 G59-G62
- DIN2080 G90
- C-ADAPTER G101-G102
- ST shank G113-G117
- MT shank G128



Collet (ER) G142-G150



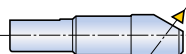
T-SHRINK Collet G159-G161



T-FLEX collet G162



GTIN collet G163-G164



TSK collet chuck

- DIN69871 G13
- HSK G38
- BT MAS-403 G63



TSK collet G151-G153



T-SHRINK chuck

- DIN69871 G19
- HSK G42-G43
- BT MAS-403 G70-G71
- C-ADAPTER G109



- DIN69871 G20
- HSK G44-G45
- BT MAS-403 G72-G73
- ST shank G125



THYCHUCK chuck

- DIN69871 G21
- HSK G46-G47
- BT MAS-403 G74-G75



THC collet G154-G155

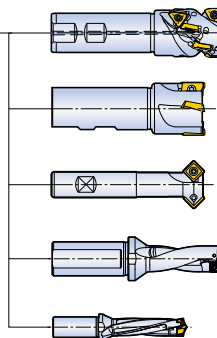


Tool Selection Guide

Tooling system

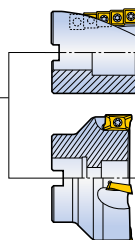
End mill holder

- DIN69871 G16-G18
- HSK G40-G41
- BT MAS-403 G66-G69
- DIN2080 G92
- C-ADAPTER G103-G105



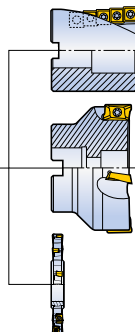
Face mill / Shell end mill arbor

- DIN69871 G22-G23, G25
- HSK G48-G50, G52
- BT MAS-403 G77-G81, G83
- DIN2080 G93-G94
- C-ADAPTER G106, G108



Combi face mill / Combi shell end mill arbor

- DIN69871 G24
- HSK G51
- BT MAS-403 G82
- DIN2080 G95
- C-ADAPTER G107



Slotting cutter arbor

- DIN69871 G26
- BT MAS-403 G76



Centering plug

- DIN2080 G98

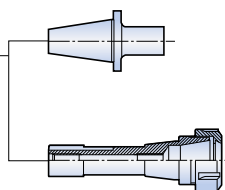


Tool Selection Guide

Tooling system

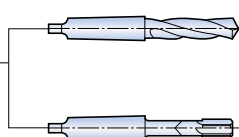
Adapter

- DIN69871 G29
- BT MAS-403 G85



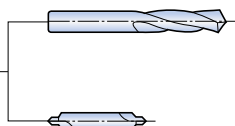
Morse taper adapter

- DIN69871 G27-G28
- HSK G53
- BT MAS-403 G84-G85
- DIN2080 G96-G97



Drill chuck arbor

- DIN69871 G29
- BT MAS-403 G86
- DIN2080 G98



Tap chuck (GTI)

- DIN69871 G14
- BT MAS-403 G64



- GTI ER collet chuck G126



Collet (ER) G142-G150



Tap adapter G165

- DIN69871 G14
- BT MAS-403 G64
- MTA G128



Tool Selection Guide

Tooling system

GFI floating reamer chuck (GFI)

- ST shank G127



Collet (ER) G142-G150



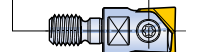
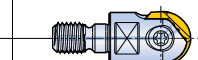
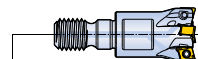
- DIN69871 G30
- HSK G54-G55
- BT MAS-403 G87
- C-ADAPTER G110
- ST shank G118-G121



ST shank G118-G121



Adapter G122-G124



Blank

- HSK G56
- C-ADAPTER G111



- ER shank G130
- BT MAS-403 G131
- HSK G132
- C-ADAPTER G133
- ST shank G134



- ER shank G135
- BT MAS-403 G136
- HSK G137
- ST shank G138



Collet (ER11 SPR EX..AA)
G143, 148, G150

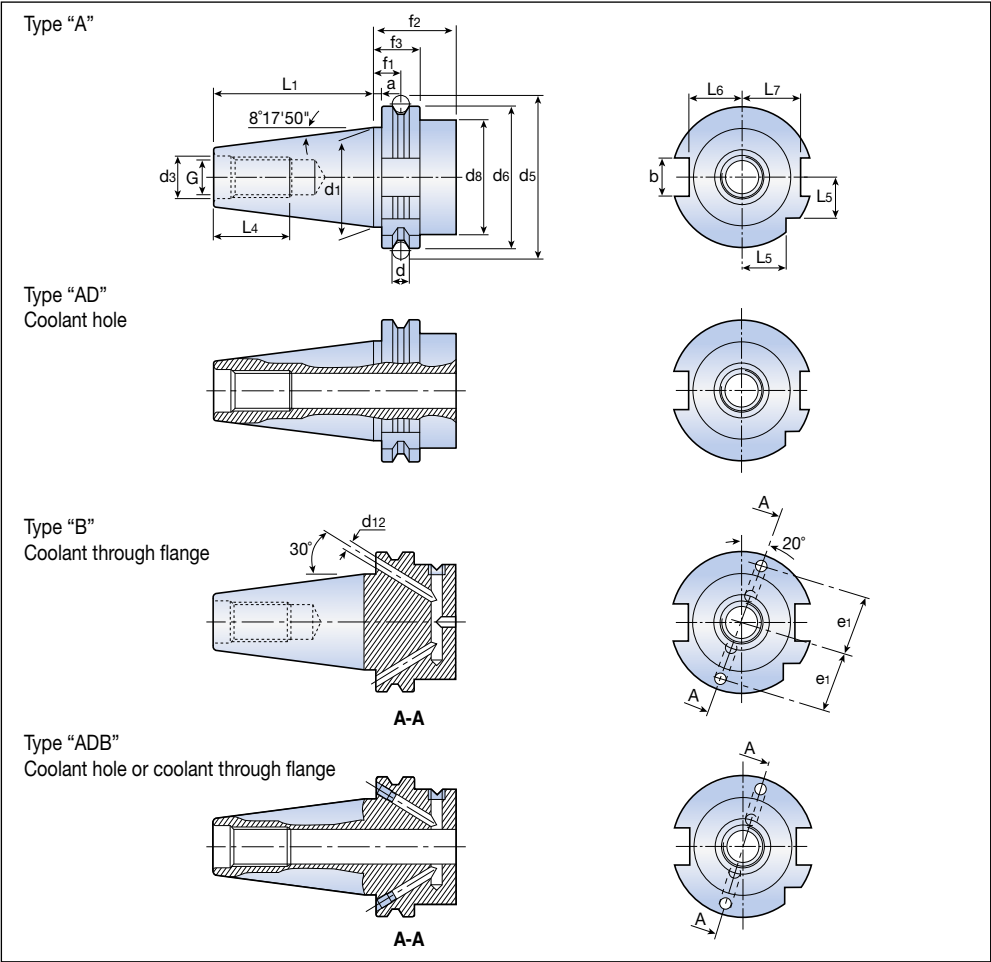


DIN69871



DIN69871 Form A/AD/B/ADB

Standard toolholder

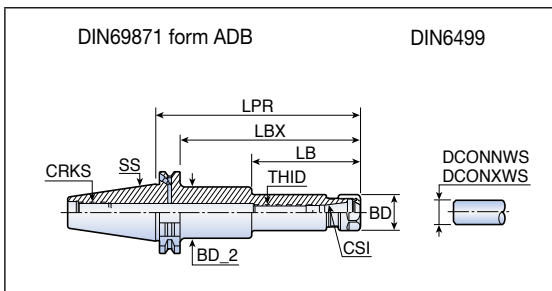
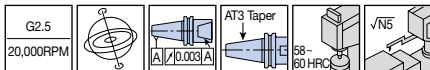
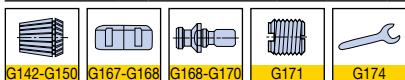


Shank	a ±0.1	b (H12)	d	d1	G	d3 (H7)	d5 ±0.05	d6	d8max	f1 ±0.1
30	3.2	16.1	7	31.75	M12	13	59.30	50.00	45	11.1
40	3.2	16.1	7	44.45	M16	17	72.30	63.55	50	11.1
50	3.2	25.7	7	69.85	M24	25	107.25	97.50	80	11.1

Shank	f2min	f3 -0.1	L1 -0.3	L4min	L5 -0.3	L6 -0.4	L7 -0.4	ø1 ±0.1	d12	Taper AT3
30	35	19.1	47.80	24	15.0	16.4	19.0	21	4	0.002
40	35	19.1	68.40	32	18.5	22.8	25.0	27	4	0.003
50	35	19.1	101.75	47	30.0	35.5	37.7	42	6	0.004

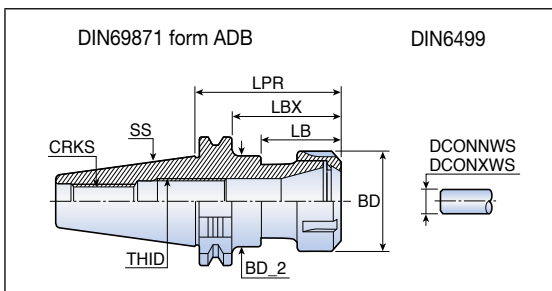
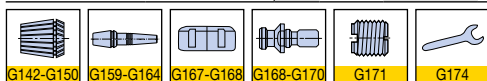
► For non-stock items: Supply condition is subject to availability
If not available in stock then MOQ (Minimum order qty) will be applicable

ER collet chucks

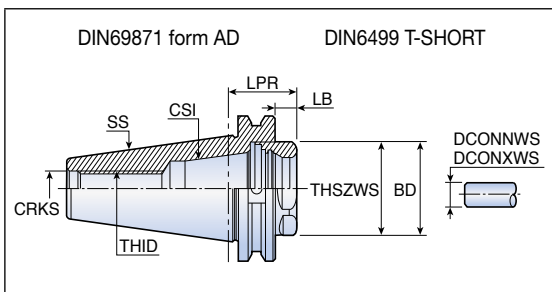
[illegible]

- ▶ Add B for coolant through flange
- ▶ ⁽¹⁾ Balance to G6.3 at 12,000RPM

ER collet chucks

[illegible]

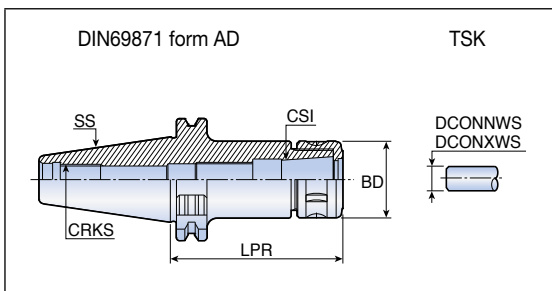
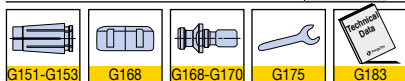
- ▶ Add B for coolant through flange
- ▶ ⁽¹⁾ Balance to G6.3 at 12,000RPM

TSHORT

				
G142-G150	G159-G164	G168-G170	G171	G174

- ▶ Add B for coolant through flange
- ▶ ⁽¹⁾ Balance to G6.3 at 12,000RPM

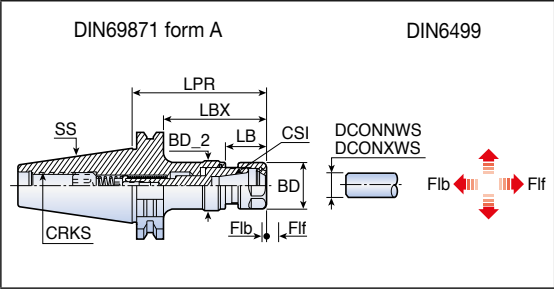
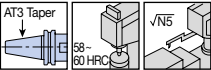
TSK collet chucks

[illegible]

- ▶ Add B for coolant through flange
- ▶ ⁽¹⁾ Balance to G6.3 at 12,000RPM

GTI DIN69871-ER

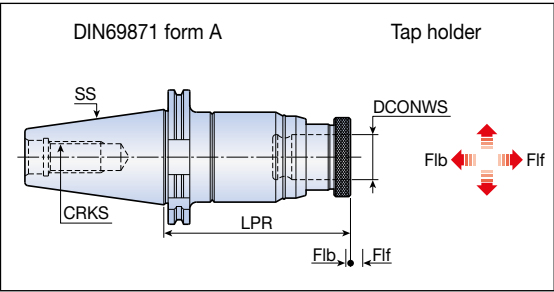
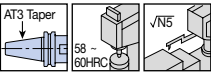
GTI tap attachments



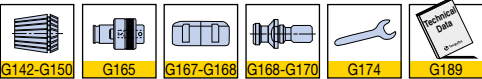
Designation	Dimension (mm)														
	SS	CSI	Tapmin	Tapmax	DCONNWS	DCONXWS	BD_2	BD	LPR	LBX	LB	Flb	Flf	CRKS	
GTI DIN69871 40 ER 16	40	ER16	M3	M10	0.5	10.0	29.5	28	81.2	62.1	24.6	3	8	M16	
	ER 32	40	ER32	M6	M20	2.0	20.0	56.5	50	112.6	93.5	33.0	4	9	M16
	ER 40	40	ER40	M6	M28	3.0	26.0	56.5	63	130.6	111.5	51.0	4	9	M16
GTI DIN69871 50 ER 16	50	ER16	M3	M10	0.5	10.0	29.5	28	106.8	87.7	24.6	3	8	M24	
	ER 32	50	ER32	M6	M20	2.0	20.0	56.5	50	115.3	96.2	33.0	4	9	M24
	ER 40	50	ER40	M6	M28	3.0	26.0	56.5	63	133.3	114.2	51.0	4	9	M24

DIN69871-TC

Tap holders



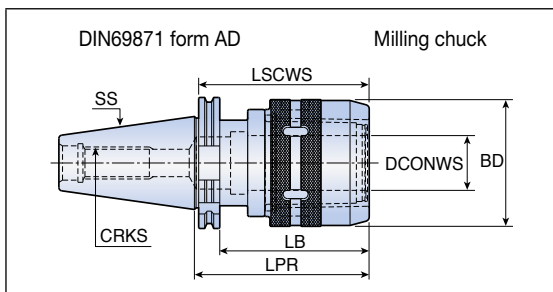
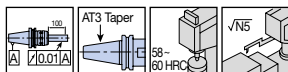
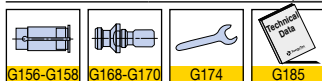
Designation	Dimension (mm)								
	SS	Tap _{min}	Tap _{max}	DCONWS	LPR	Flb	Flf	Tap adapter	CRKS
DIN69871 40 TC 12-90	40	M3	M12	19	90	6.5	12	TA1	M16
	TC 22-142	40	M6	M24	31	142	14.5	13	TA2
DIN69871 50 TC 12-130	50	M3	M12	19	130	6.5	12	TA1	M24
	TC 22-142	50	M6	M24	31	142	14.5	13	TA2
TC 38-190	50	M18	M38	48	190	20.0	20	TA3	M24



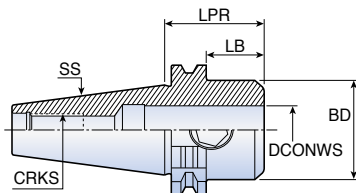
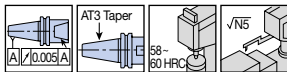
► Torque control system



Milling chucks

[illegible]

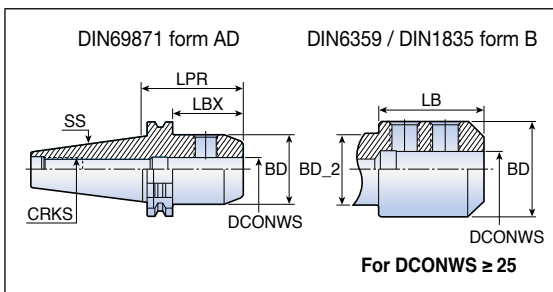
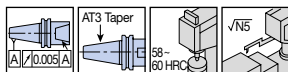
Short end mill holders



	
G168-G170	G171

► Add B for coolant through flange

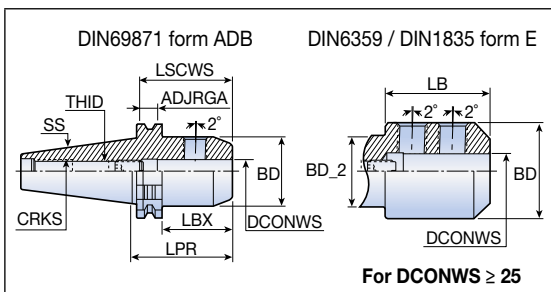
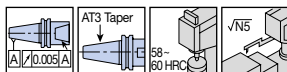
End mill holders



	
G168-G170	G171

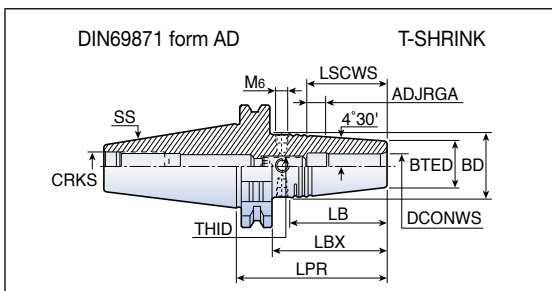
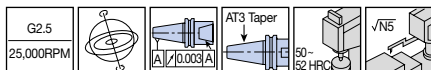
► Add B for coolant through flange except DIN69871 30

End mill holders - Whistle notch



	
G168-G170	G171

- ▶ The adjustment screw has an internal coolant hole
- ▶ Add B for coolant through the flange

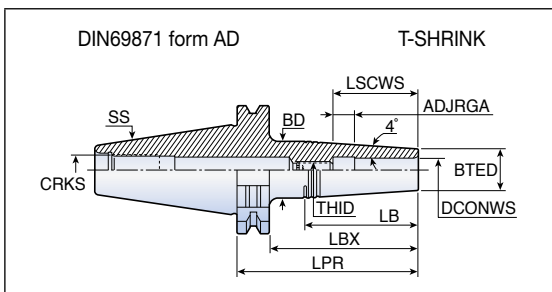
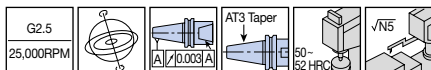
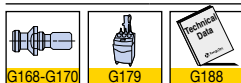
TSRINK[illegible]

- ▶ Only use inductive heating device for T-SHRINK holders
- ▶ Add B for coolant through flange
- ▶ ⁽¹⁾ Balance to G2.5 at 20.000RPM

DIN69871-SRK

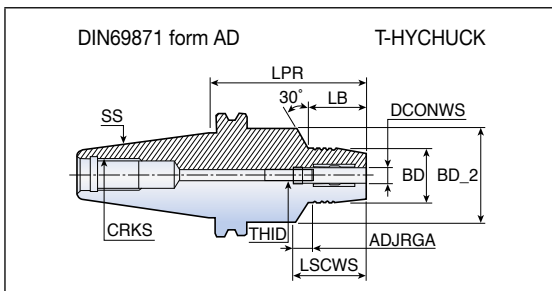


Thermal shrinking chucks

[illegible]

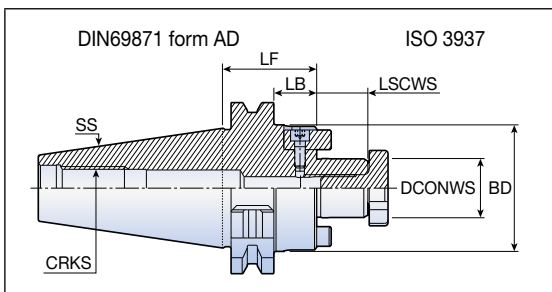
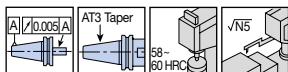
► Add B for coolant through the flange

Hydraulic chucks

[illegible]

- ▶ Add B for coolant through flange
- ▶ ⁽¹⁾ Balance to G2.5 at 10,000RPM

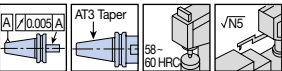
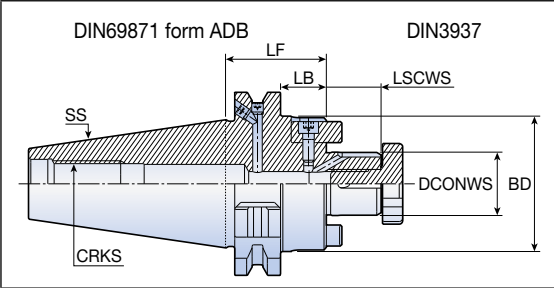
Face mill arbors

[illegible]

► Wrench not included

DIN69871-SEM-C

Face mill arbors with coolant hole

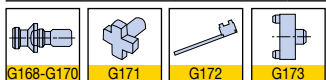
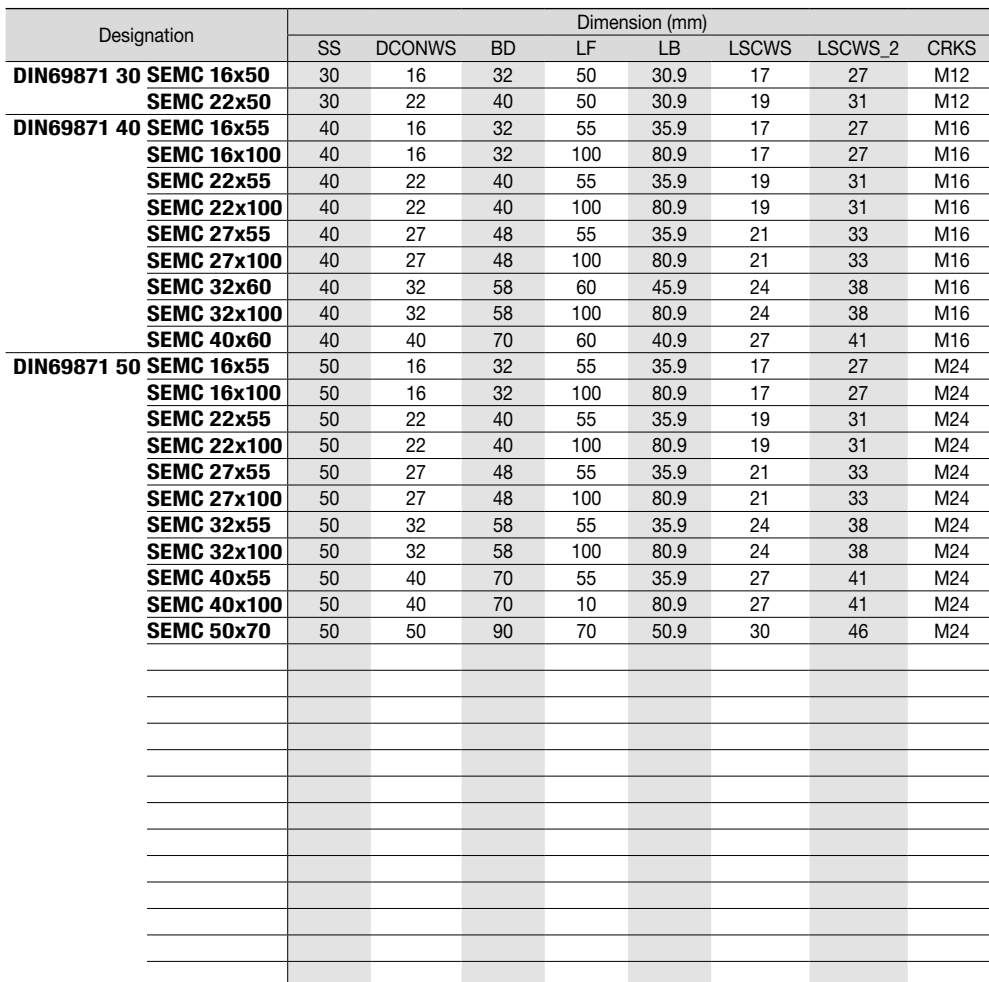
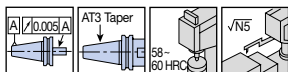


Designation		Dimension (mm)						
		SS	DCONWS	BD	LF	LB	LSCWS	CRKS
DIN69871 40 SEM	16x35C	40	16	38	35	15.9	17	M16
	16x100C	40	16	38	100	80.9	17	M16
	22x35C	40	22	47	35	15.9	19	M16
	22x100C	40	22	47	100	80.9	19	M16
	27x60C	40	27	58	60	40.9	21	M16
	27x100C	40	27	58	100	80.9	21	M16
	32x60C	40	32	66	60	40.9	24	M16
DIN69871 50 SEM	16x35TC	50	16	38	35	15.9	17	M24
	16x100C	50	16	38	100	80.9	17	M24
	22x35C	50	22	47	35	15.9	19	M24
	22x100C	50	22	47	100	80.9	19	M24
	27x35C	50	27	58	35	15.9	21	M24
	27x100C	50	27	58	100	80.9	21	M24
	32x35C	50	32	66	35	15.9	24	M24
DIN69871 50 SEM	32x100C	50	32	66	100	80.9	24	M24
	22x48x200C	50	22	48	200	181.0	19	M24
	22x61x300C	50	22	61	300	281.0	19	M24
	27x61x300C	50	27	61	300	281.0	21	M24
DIN69871 50 SEM	32x78x370C	50	32	78	370	351.0	24	M24



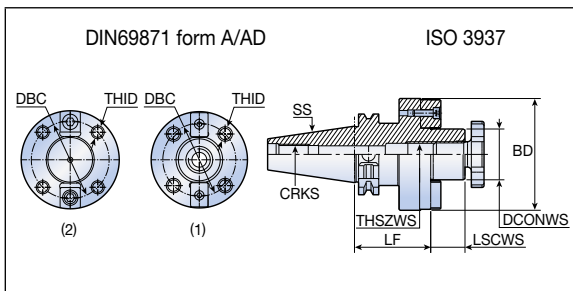
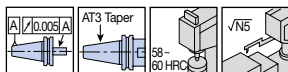
► If the “B type” option is required, the plug screw must be removed from the flange cooling hole (Use a 2mm hex key)
► Wrench not included

Combi shell end mill arbors



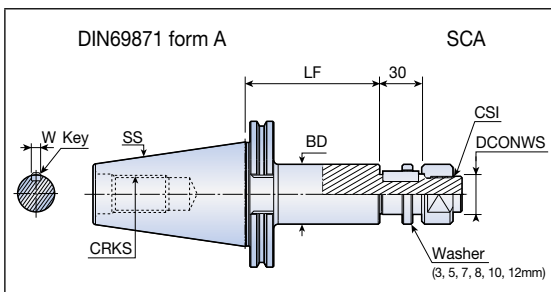
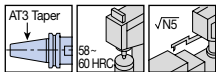
► Wrench not included

Face mill arbors

[illegible]

- ▶ 4 pcs of mounting screws are included
- ▶ ⁽¹⁾ Form AD
- ▶ ⁽²⁾ Form A

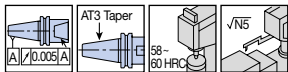
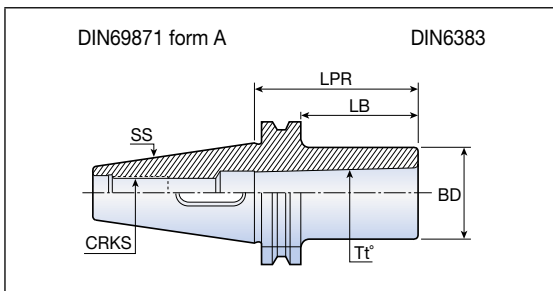
Slotting cutter arbors



G168-G170

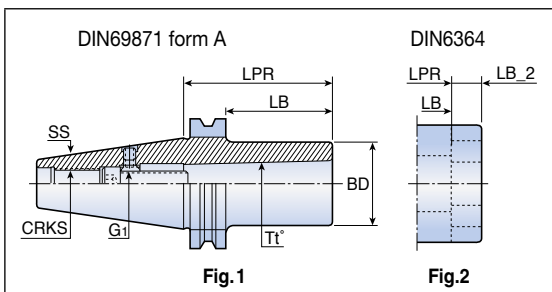
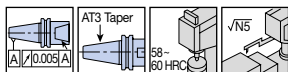
► Washers & key are included (Each 3, 5, 7, 8, 10, 12mm)

Morse taper adapters



G168-G170

Morse taper draw bar adapters

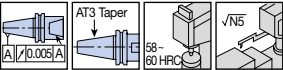
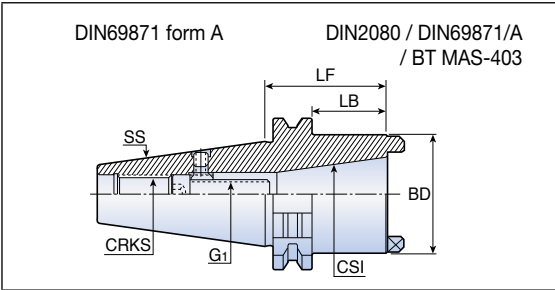
[illegible]

► ⁽¹⁾ DIN2201

G168-G170

DIN69871-AD

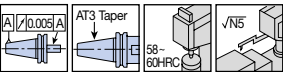
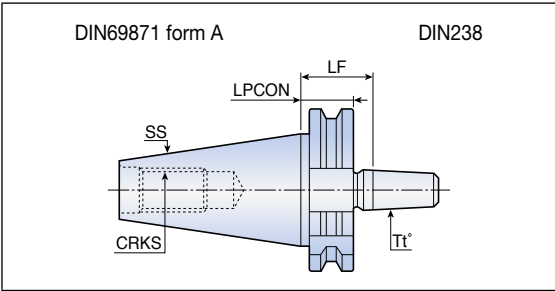
Adapters



Designation	Dimension (mm)						
	SS	CSI	BD	LF	LB	CRKS	G1
DIN69871 50 AD BT/SK 40	50	BT/SK 40	66	70	50.9	M24	M16

DIN69871-DC

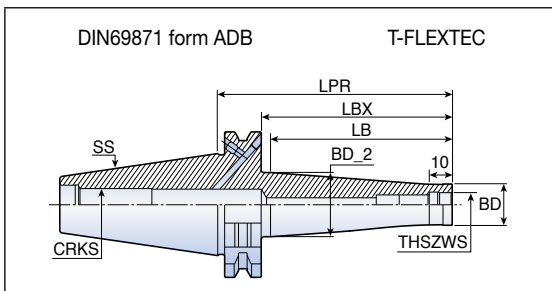
Drill chuck arbors - Jacobs taper arbors



Designation	Dimension (mm)				
	SS	Tt°	LF	LPCON	CRKS
DIN69871 40 DC B12x26	40	B12	26	19.1	M16
DC B16x26	40	B16	26	19.1	M16
DC B18x26	40	B18	26	19.1	M16
DIN69871 50 DC B16x26	50	B16	26	19.1	M24
DC B18x26	50	B16	26	19.1	M24



► Drill chuck not included



G168-G170

► ⁽¹⁾ Balance to G6.3 at 12,000RPM

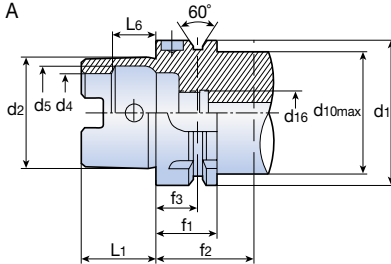
HSK



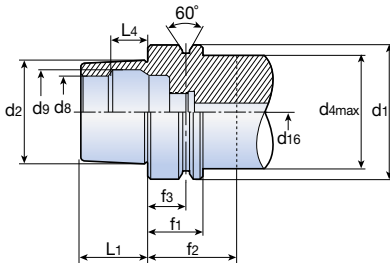
DIN69893 Form A/E/F

Standard toolholder

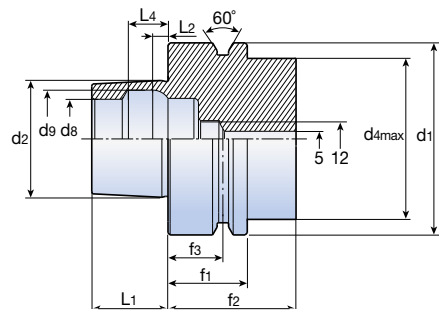
DIN69893 form A



DIN69893 form E



DIN69893 form F



DIN69893 form A

HSK-A	d1 h10	d2	d4 H10	d5 H11	d10max	d16	L1 -0.2	L6 JS10	b1 ±0.04	f1 -0.1	f2min	f3 ±0.1
40	40	30	21	25.5	34	M12x1	20	11.42	8.05	20	35	16
50	50	38	26	32.0	42	M16x1	25	14.13	10.54	26	42	18
63	63	48	34	40.0	53	M18x1	32	18.13	12.54(12.42)	26	42	18
80	80	60	42	50.0	67	M20x1.5	40	22.85	16.04	26	42	18
100	100	75	53	63.0	85	M24x1.5	50	28.56	20.02 (19.9)	29	45	20

DIN69893 form E

HSK-E	d1 h10	d2	d4max	d8 H10	d9 H11	d16	L1 -0.2	L4 JS10	f1 -0.1	f2min	f3 ±0.1
32	32	24	26	17	19.0	M10x1	16	8.92	20	35	16
40	40	30	34	21	25.5	M12x1	20	11.42	20	35	16
50	50	38	42	26	32.0	M16x1	25	14.13	26	42	18
63	63	48	53	34	40.0	M18x1	32	18.13	26	42	18

DIN69893 form F

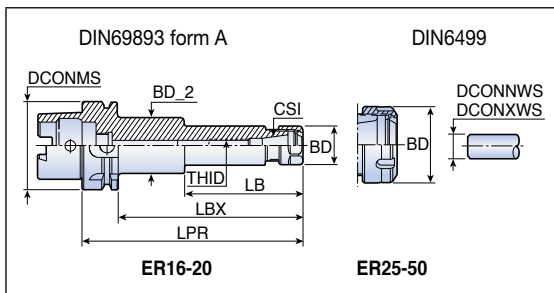
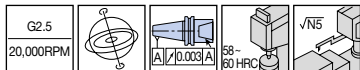
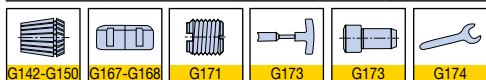
HSK-F	d1 h10	d2	d4max	d8 H10	d9 H11	L1 -0.2	L2	L4 JS10	f1 -0.1	f2min	f3 ±0.1
63	63	38	53	26	32	25	5.0	14.13	26	42	18

► Without crosshole

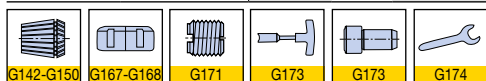
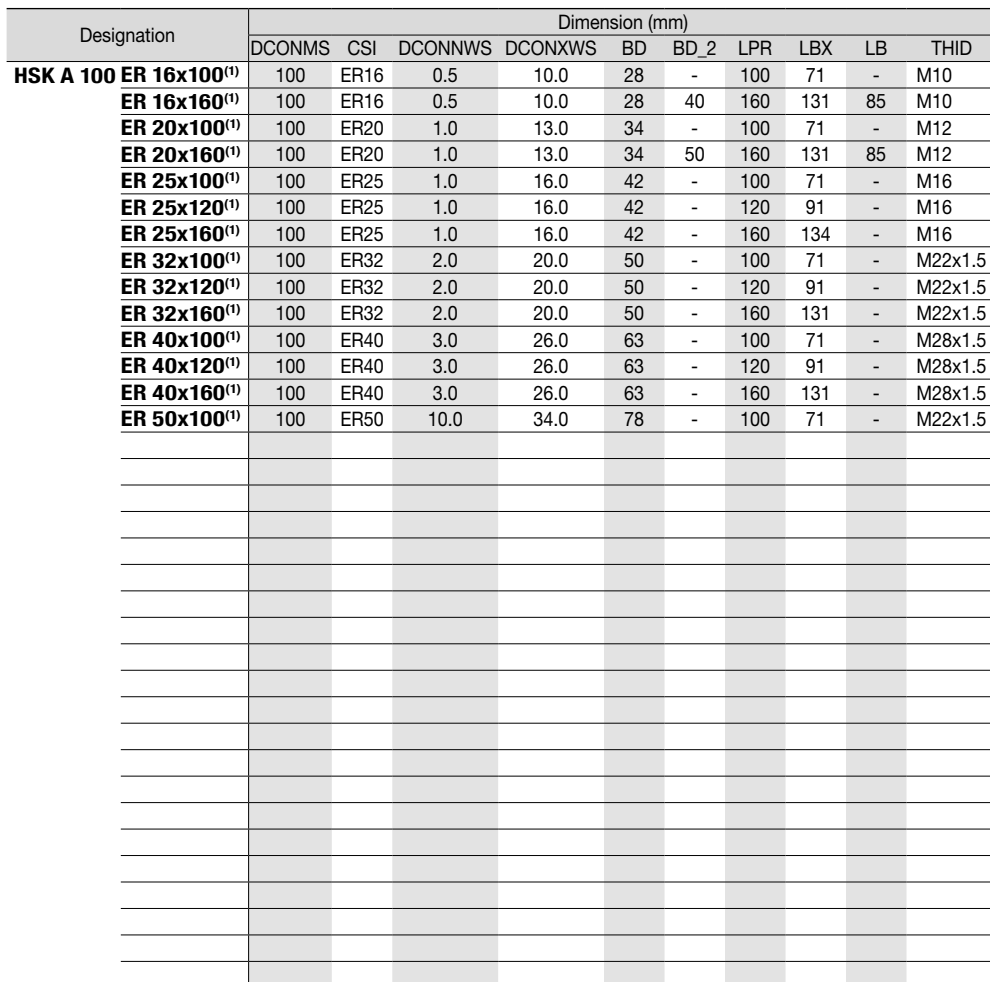
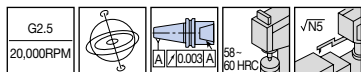
► For non-stock items: Supply condition is subject to availability

If not available in stock then MOQ (Minimum order qty) will be applicable

ER collet chucks

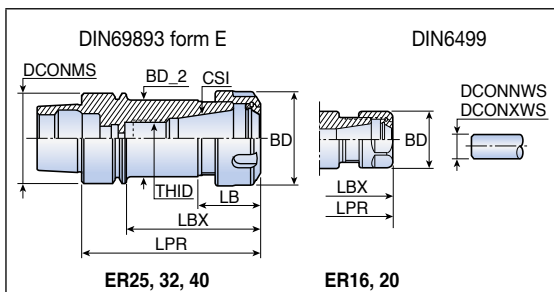
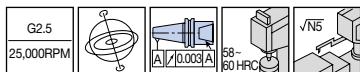
[illegible]

ER collet chucks



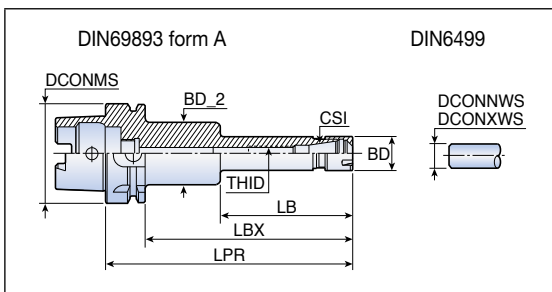
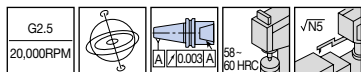
► ⁽¹⁾ Balance to G6.3 at 12,000RPM

ER collet chucks

[illegible]

► ⁽¹⁾ Equipped with nut ER16 MINI

ER mini collet chucks

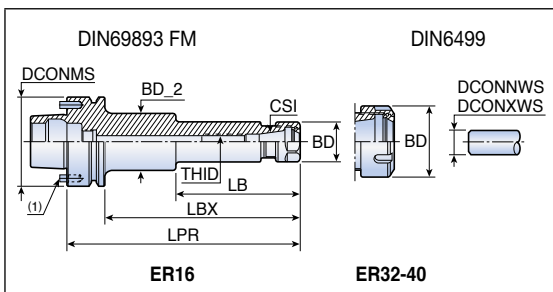
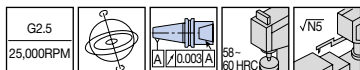


					
G142-G150	G167-G168	G171	G173	G173	G174

► ⁽¹⁾ Balance to G6.3 at 12,000RPM

HSK FM-ER

ER collet chucks



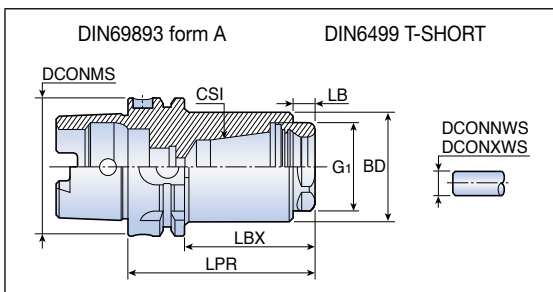
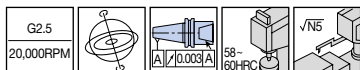
Designation	Dimension (mm)									
	DCONMS	CSI	DCONNWS	DCONXWS	BD	BD_2	LPR	LBX	LB	THID
HSK FM 63 ER 16x80	63	ER16	0.5	10.0	28	-	80	54	-	M10
ER 16x100	63	ER16	0.5	10.0	28	-	100	74	-	M10
ER 16x120	63	ER16	0.5	10.0	28	-	120	94	-	M10
ER 16x160	63	ER16	0.5	10.0	28	40	160	134	85.6	M10
ER 32x80	63	ER32	2.0	20.0	50	-	80	54	-	-
ER 32x100	63	ER32	2.0	20.0	50	-	100	74	-	M22x1.5
ER 40x80	63	ER40	3.0	26.0	63	50	80	54	32.0	-
ER 40x100	63	ER40	3.0	26.0	63	50	100	74	32.0	M28x1.5

► ⁽¹⁾ The driving pins can be removed to turn the toolholder into a standard HSK F 63 type

HSK A-ER-SHORT

TSHORT

Short ER collet chucks



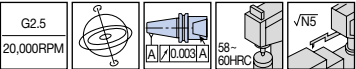
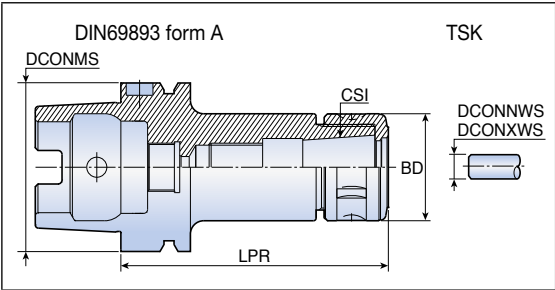
Designation	Dimension (mm)								
	DCONMS	CSI	DCONNWS	DCONXWS	BD	LPR	LBX	LB	G1
HSK A 63 ER 32 SHORT	63	ER32	2.0	20.0	50	81.0	55.0	9.5	M40x1.5
HSK A 100 ER 32 SHORT	100	ER32	2.0	20.0	50	89.5	60.5	9.5	M40x1.5
ER 40 SHORT	100	ER40	3.0	26.0	70	104.5	75.5	9.5	M50x1.5



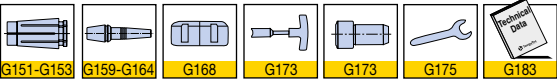
► ⁽¹⁾ Equipped with nut ER16 MINI

HSK A-TSK

TSK collet chucks

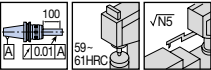
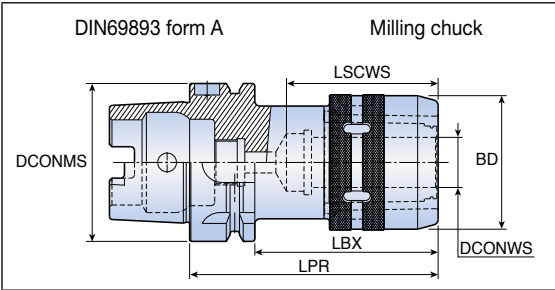


Designation		Dimension (mm)					
		DCONMS	CSI	DCONNWS	DCONXWS	BD	LPR
HSK A 50	TSK 6-80	50	TSK6	1.5	6.0	19.5	80
	TSK 10-90	50	TSK10	1.5	10.0	27.5	90
	TSK 16-100	50	TSK16	2.5	16.0	40.0	100
HSK A 63	TSK 6-80	63	TSK6	1.5	6.0	19.5	80
	TSK 10-90	63	TSK10	1.5	10.0	27.5	90
	TSK 16-100	63	TSK16	2.5	16.0	40.0	100
	TSK 25-120	63	TSK25	7.5	25.0	55.0	120
HSK A 100	TSK 6-80	100	TSK6	1.5	6.0	19.5	80
	TSK 10-90	100	TSK10	1.5	10.0	27.5	90
	TSK 16-100	100	TSK16	2.5	16.0	40.0	100
	TSK 25-120	100	TSK25	7.5	25.0	55.0	120

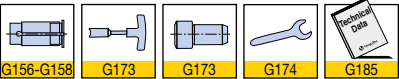


HSK A-NTMC

Milling chucks

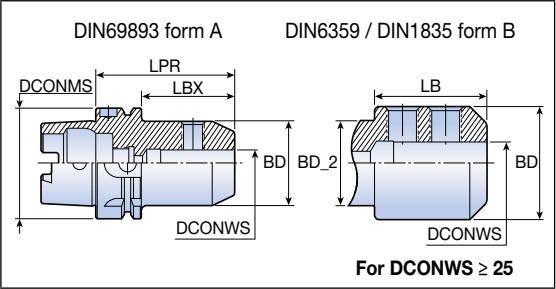
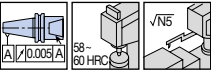


Designation		Dimension (mm)					
		DCONMS	DCONWS	BD	LPR	LBX	LSCWS
HSK A 63	NTMC 20-105	63	20	53	105	79	76
	NTMC 25-120	63	25	62	105	79	77
	NTMC 32-130	63	32	72	130	104	100
HSK A 100	NTMC 20-110	100	20	53	105	76	77
	NTMC 25-130	100	25	62	135	106	80
	NTMC 32-135	100	32	74	135	106	102
	NTMC 42-135	100	42	94	135	106	112

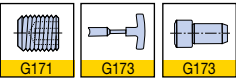


HSK A-EM

End mill holders

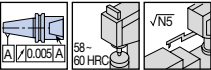
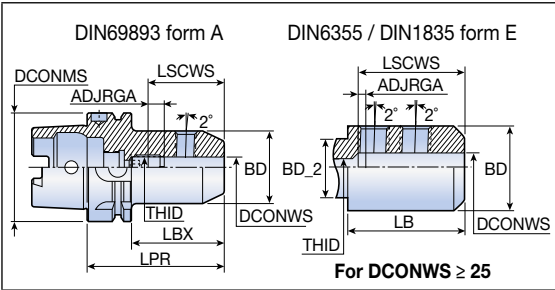


Designation		Dimension (mm)						
		DCONMS	DCONWS	BD	BD_2	LPR	LBX	LB
HSK A 50	EM 8x65	50	8	28	-	65	39	-
	EM 16x80	50	16	48	-	80	54	-
	EM 20x80	50	20	52	-	80	54	-
HSK A 63	EM 6x65	63	6	25	-	65	39	-
	EM 8x65	63	8	28	-	65	39	-
	EM 10x65	63	10	35	-	65	39	-
	EM 12x80	63	12	42	-	80	54	-
	EM 14x80	63	14	44	-	80	54	-
	EM 16x80	63	16	48	-	80	54	-
	EM 18x80	63	18	50	-	80	54	-
	EM 20x80	63	20	52	-	80	54	-
	EM 25x110	63	25	65	52	110	84	65.5
	EM 32x110	63	32	72	52	110	84	65.5
HSK A 100	EM 8x80	100	8	28	-	80	51	-
	EM 10x80	100	10	35	-	80	51	-
	EM 12x80	100	12	42	-	80	51	-
	EM 14x80	100	14	44	-	80	51	-
	EM 16x100	100	16	48	-	100	71	-
	EM 18x100	100	18	50	-	100	71	-
	EM 20x100	100	20	52	-	100	71	-
	EM 25x100	100	25	65	-	100	71	-
	EM 32x100	100	32	72	-	100	71	-
	EM 40x110	100	40	85	-	110	81	-

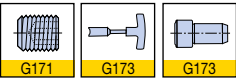


HSK A-EM-E

End mill holders - Whistle notch



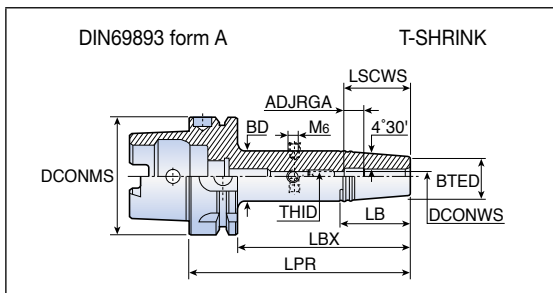
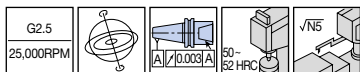
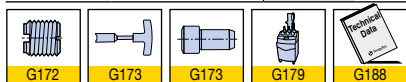
Designation		Dimension (mm)									
		DCONMS	DCONWS	BD	BD_2	LPR	LBX	LB	ADJRGA	LSCWS	THID
HSK A 63	EM 6x80 E	63	6	25	-	80	54	-	8	40	M5
	EM 8x80 E	63	8	28	-	80	54	-	5	40	M6
	EM 10x80 E	63	10	35	-	80	54	-	5	44	M8
	EM 12x90 E	63	12	42	-	90	64	-	5	49	M10
	EM 14x90 E	63	14	44	-	90	64	-	5	49	M10
	EM 16x100 E	63	16	48	-	100	74	-	5	52	M12
	EM 18x100 E	63	18	50	-	100	74	-	8	55	M12
	EM 20x100 E	63	20	52	-	100	74	-	5	54	M16
	EM 25x110 E	63	25	65	52	110	84	65.5	7	61	M16
	EM 32x110 E	63	32	72	52	110	84	65.5	5	63	M20x1.5
HSK A 100	EM 8x90 E	100	8	28	-	90	61	-	5	40	M6
	EM 12x100 E	100	12	42	-	100	71	-	10	54	M10
	EM 14x100 E	100	14	44	-	100	71	-	10	54	M10
	EM 16x100 E	100	16	48	-	100	71	-	5	52	M12
	EM 18x100 E	100	18	50	-	100	71	-	5	52	M12
	EM 20x110 E	100	20	52	-	110	81	-	5	54	M16
	EM 25x120 E	100	25	65	-	120	91	-	7	61	M20x1.5
	EM 32x120 E	100	32	72	-	120	91	-	5	63	M20x1.5



HSK A-SRKIN



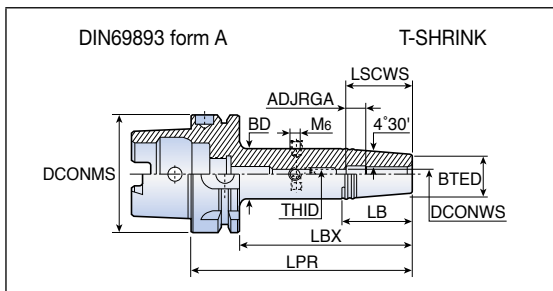
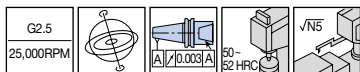
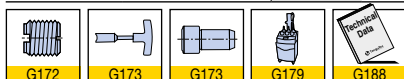
Thermal shrinking chucks

[illegible]

► Use only inductive heating device for T-SHRINK holders

TSHRINK

Thermal shrinking chucks

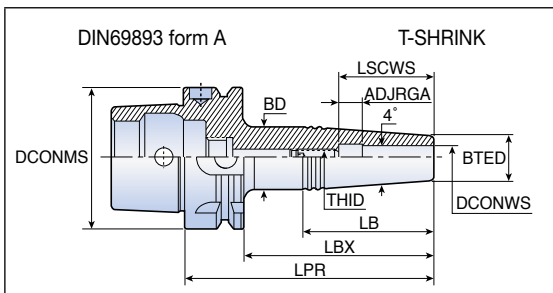
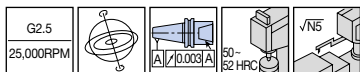
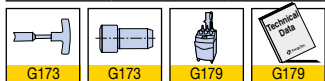
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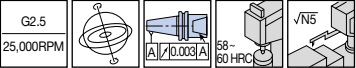
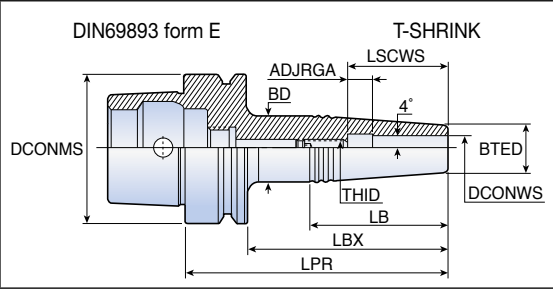
► Use only inductive heating device for T-SHRINK holders

HSK A-SRK

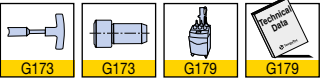


Thermal shrinking chucks

[illegible]

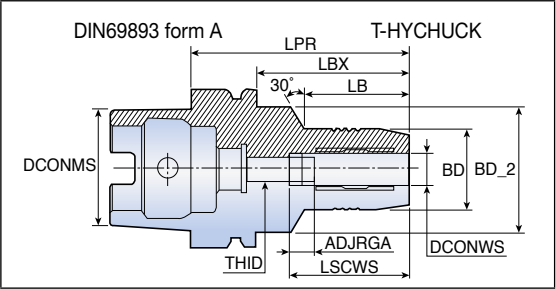
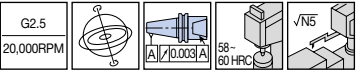


Designation	Dimension (mm)										
	DCONMS	DCONWS	BTED	BD	LPR	LBX	LB	ADJRGA	LSCWS	THID	Hex key
HSK E 32 SRK 3x45	32	3	10	13	65	45	30.0	6	16	M4	2.0
SRK 4x45	32	4	10	15	65	45	35.0	6	18	M4	2.0
SRK 6x45	32	6	11	16	65	45	35.0	10	28	M4	2.0
SRK 10x45	32	12	16	22	65	45	42.0	10	40	M4	2.0
HSK E 40 SRK 3x45	40	3	10	13	65	45	30.0	6	16	M5	2.5
SRK 3x80	40	3	10	19	100	80	64.0	6	16	M5	2.5
SRK 4x45	40	4	10	15	65	45	35.0	6	18	M5	2.5
SRK 4x80	40	4	10	19	100	80	64.0	6	18	M5	2.5
SRK 5x45	40	5	10	15	65	45	35.0	10	25	M4	2.0
SRK 5x80	40	5	10	19	100	80	64.0	10	25	M4	2.0
SRK 6x45	40	6	11	16	65	45	35.0	10	28	M5	2.5
SRK 6x80	40	6	11	20	100	80	64.0	10	28	M5	2.5
SRK 8x45	40	8	14	20	65	45	42.0	10	35	M5	2.5
SRK 8x80	40	8	14	23	100	80	64.0	10	35	M6	3.0
SRK 10x45	40	10	16	22	65	45	42.0	10	40	M5	2.5
SRK 10x80	40	10	16	24	100	80	60.0	10	40	M8	4.0
SRK 12x45	40	12	20	26	65	45	42.0	10	42	M5	2.5
SRK 12x80	40	12	20	28	100	80	56.0	10	42	M10	5.0
HSK E 50 SRK 3x45	50	3	10	15	71	45	36.0	6	16	M5	2.5
SRK 3x80	50	3	10	19	106	80	64.0	6	16	M5	2.5
SRK 4x45	50	4	10	15	71	45	36.0	6	18	M5	2.5
SRK 4x80	50	4	10	19	106	80	64.0	6	18	M5	2.5
SRK 6x45	50	6	11	16	71	45	36.0	10	28	M5	2.5
SRK 6x80	50	6	11	20	106	80	64.0	10	28	M5	2.5
SRK 8x45	50	8	14	20	71	45	43.0	10	35	M6	3.0
SRK 8x80	50	8	14	23	106	80	64.0	10	35	M6	3.0
SRK 10x45	50	10	16	22	71	45	42.0	7	37	M6	3.0
SRK 10x80	50	10	16	24	106	80	60.0	10	40	M8	4.0
SRK 12x45	50	12	20	26	71	45	42.0	7	39	M6	3.0



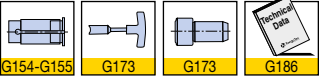
HSK A-THC

Hydraulic chucks

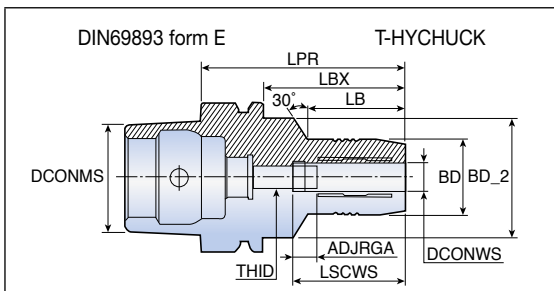


Designation		Dimension (mm)									
		DCONMS	DCONWS	BD	BD_2	LPR	LBX	LB	ADJRGA	LSCWS	THID
HSK A 40	THC 6-70	40	6	28	34	70	50	28	10	37.5	M5
	THC 8-70	40	8	30	34	70	50	28	10	37.5	M6
	THC 10-75	40	10	32	34	75	55	34	10	42.5	M6
	THC 12-85	40	12	34	34	85	60	60	10	47.5	M6
HSK A 50	THC 6-70	50	6	28	40	70	44	28	10	37.5	M5
	THC 8-70	50	8	30	40	70	44	28	10	37.5	M6
	THC 10-75	50	10	32	40	75	49	34	10	42.5	M8x1
	THC 12-80	50	12	34	40	85	59	39	10	47.5	M10x1
	THC 16-90	50	16	38	53	90	64	30	10	52.5	M10x1
	THC 20-90	50	20	43	60	90	64	29	10	52.5	M10x1
	THC 25-120	50	25	48	67	120	71	30	10	57.5	M12x1
HSK A 63	THC 6-70	63	6	28	50	70	44	24	10	37.5	M5
	THC 8-70	63	8	30	50	70	44	24	10	37.5	M6
	THC 10-80	63	10	32	50	80	54	35	10	42.5	M8x1
	THC 12-85	63	12	34	50	85	59	40	10	47.5	M10x1
	THC 14-85	63	14	36	50	85	59	40	10	47.5	M10x1
	THC 16-90	63	16	38	50	90	64	46	10	52.5	M10x1
	THC 20-90	63	20	43	50	90	64	48	10	52.5	M10x1
	THC 25-120	63	25	48	63	120	71	30	10	57.5	M12x1
HSK A 100	THC 32-125	63	32	63	75	125	99	63	10	65.0	M16x1
	THC 6-80 ⁽¹⁾	100	6	28	50	80	46	29	10	37.5	M5
	THC 8-75 ⁽¹⁾	100	8	30	54	75	46	26	10	37.5	M6
	THC 10-90 ⁽¹⁾	100	10	32	50	90	61	42	10	42.5	M8x1
	THC 12-95 ⁽¹⁾	100	12	34	50	95	66	47	10	47.5	M10x1
	THC 16-100 ⁽¹⁾	100	16	38	50	100	71	53	10	52.5	M10x1
	THC 18-100 ⁽¹⁾	100	18	41	50	100	71	53	10	52.5	M10x1
	THC 20-105 ⁽¹⁾	100	20	43	50	105	76	59	10	52.5	M10x1
	THC 25-110 ⁽¹⁾	100	25	57	63	110	81	62	10	61.0	M16x1
	THC 32-110 ⁽¹⁾	100	32	63	75	110	81	62	10	65.0	M16x1

► ⁽¹⁾ Balance to G2.5 at 15,000RPM

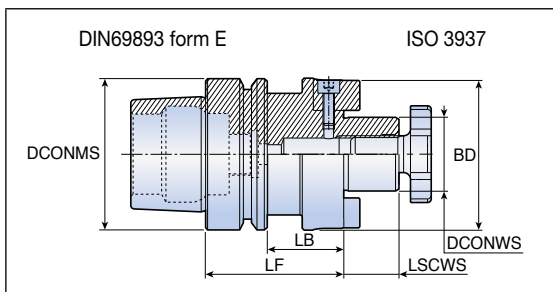
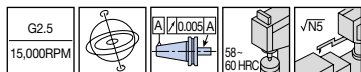


Hydraulic chucks



			
G154-G155	G173	G173	G186

Face mill arbors

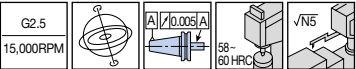
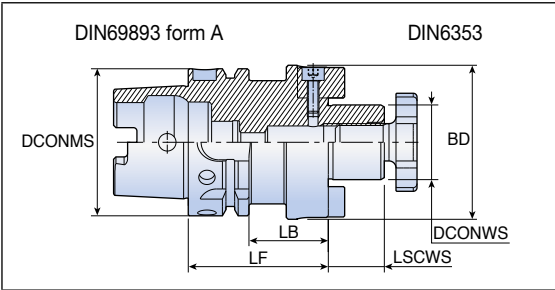


			
G171	G172	G173	G173

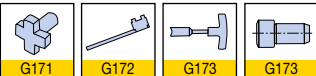
► Wrench not included

HSK A-SEM

Face mill arbors



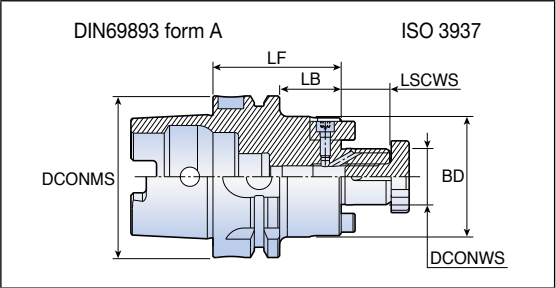
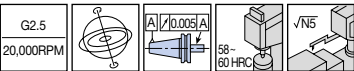
Designation		Dimension (mm)					
		DCONMS	DCONWS	BD	LF	LB	LSCWS
HSK A 63	SEM 16x50	63	16	38	50	24	17
	SEM 22x50	63	22	47	50	24	19
	SEM 27x60	63	27	58	60	34	21
	SEM 32x60	63	32	66	60	34	24
	SEM 40x60	63	40	82	60	24	27
HSK A 100	SEM 22x50 ⁽¹⁾	100	22	47	50	21	19
	SEM 27x50 ⁽¹⁾	100	27	58	50	21	21
	SEM 32x50 ⁽¹⁾	100	32	66	50	21	24
	SEM 40x60 ⁽¹⁾	100	40	82	60	31	27
	SEM 50x70 ⁽¹⁾	100	50	95	70	41	30



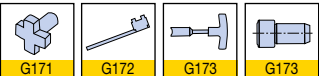
► Wrench not included
► ⁽¹⁾ Balance to G6.3 at 12,000RPM

HSK A-SEM-C

Face mill arbors with internal coolant hole



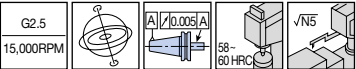
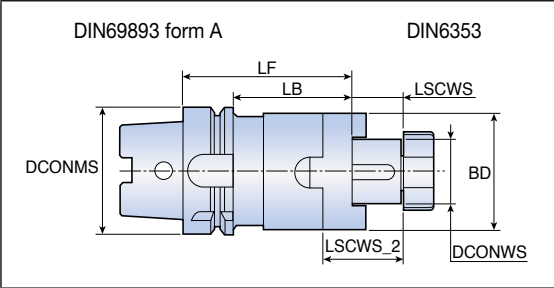
Designation		Dimension (mm)					
		DCONMS	DCONWS	BD	LF	LB	LSCWS
HSK A 63	SEM 16x50 C	63	16	38	50	24	17
	SEM 16x100 C	63	16	38	100	74	17
	SEM 22x50 C	63	22	47	50	24	19
	SEM 22x100 C	63	22	47	100	74	19
	SEM 27x60 C	63	27	58	60	34	21
	SEM 27x100 C	63	27	58	100	74	21
	SEM 32x60 C	63	32	66	60	34	24
	SEM 32x100 C	63	32	66	100	74	24
HSK A 100	SEM 16x50 C ⁽¹⁾	100	16	38	50	21	17
	SEM 16x100 C ⁽¹⁾	100	16	38	100	71	17
	SEM 22x50 C ⁽¹⁾	100	22	47	50	21	19
	SEM 22x100 C ⁽¹⁾	100	22	47	100	71	19
	SEM 27x50 C ⁽¹⁾	100	27	58	50	21	21
	SEM 27x100 C ⁽¹⁾	100	27	58	100	71	21
	SEM 32x50 C ⁽¹⁾	100	32	66	50	21	24
	SEM 32x100 C ⁽¹⁾	100	32	66	100	71	24



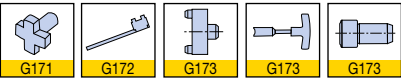
► Wrench not included
► ⁽¹⁾ Balance to G2.5 at 15,000RPM

HSK A-SEMC

Combi shell end mill arbors



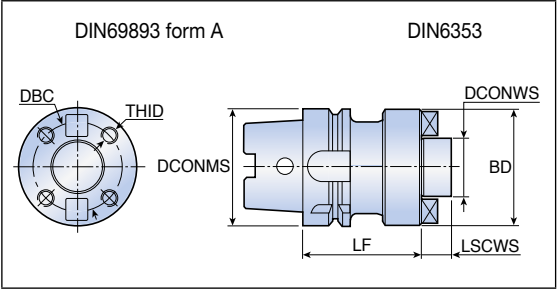
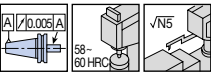
Designation		Dimension (mm)						
		DCONMS	DCONWS	BD	LF	LB	LSCWS	LSCWS_2
HSK A 63	SEMC 16x60	63	16	32	60	34	17	21
	SEMC 22x60	63	22	40	60	34	19	31
	SEMC 27x60	63	27	48	60	34	21	33
	SEMC 32x60	63	32	58	60	34	24	38
	SEMC 40x70	63	40	70	70	44	27	41
HSK A 100	SEMC 16x60	100	16	32	60	31	17	27
	SEMC 22x60	100	22	40	60	31	19	31
	SEMC 27x60	100	27	48	60	31	21	33
	SEMC 32x60	100	32	58	60	31	24	38
	SEMC 40x70	100	40	70	70	41	27	41
	SEMC 50x80	100	50	90	80	51	30	46



► Wrench not included

HSK A-FM

Face mill arbors

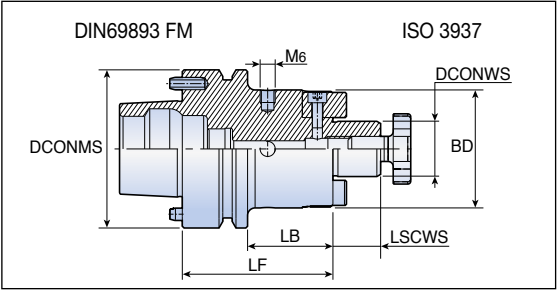


Designation	Dimension (mm)						
	DCONMS	DCONWS	BD	DBC	LF	LSCWS	THID
HSK A 100 FM 60x70	100	60	128	101.6	70	40	M16

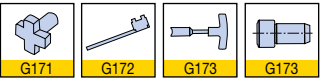
► Wrench not included

HSK FM-SEM

Face mill arbors - HSK high torque

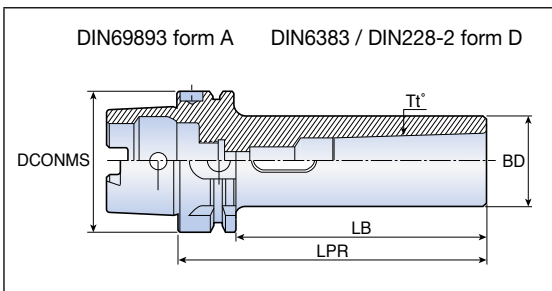
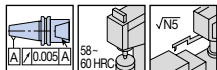
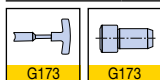


Designation	Dimension (mm)					
	DCONMS	DCONWS	BD	LF	LB	LSCWS
HSK FM 63 SEM 22x60	63	22	47	60	34	19

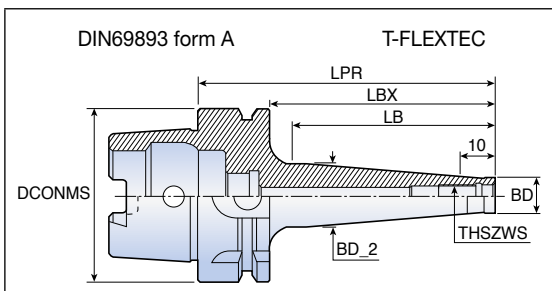
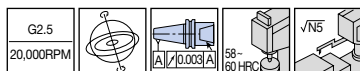
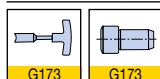


► ⁽¹⁾ The driving pins can be removed to turn the toolholder into a standard HSK F 63 type

Morse taper adapters

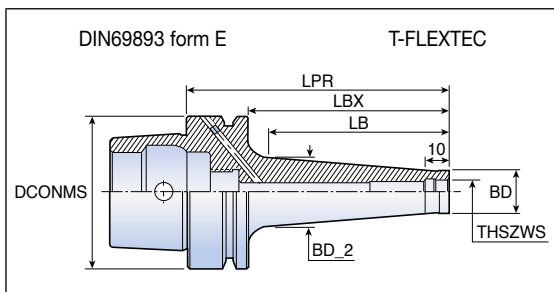
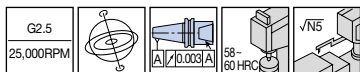
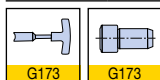
[illegible]

T-FLEXTEC holders

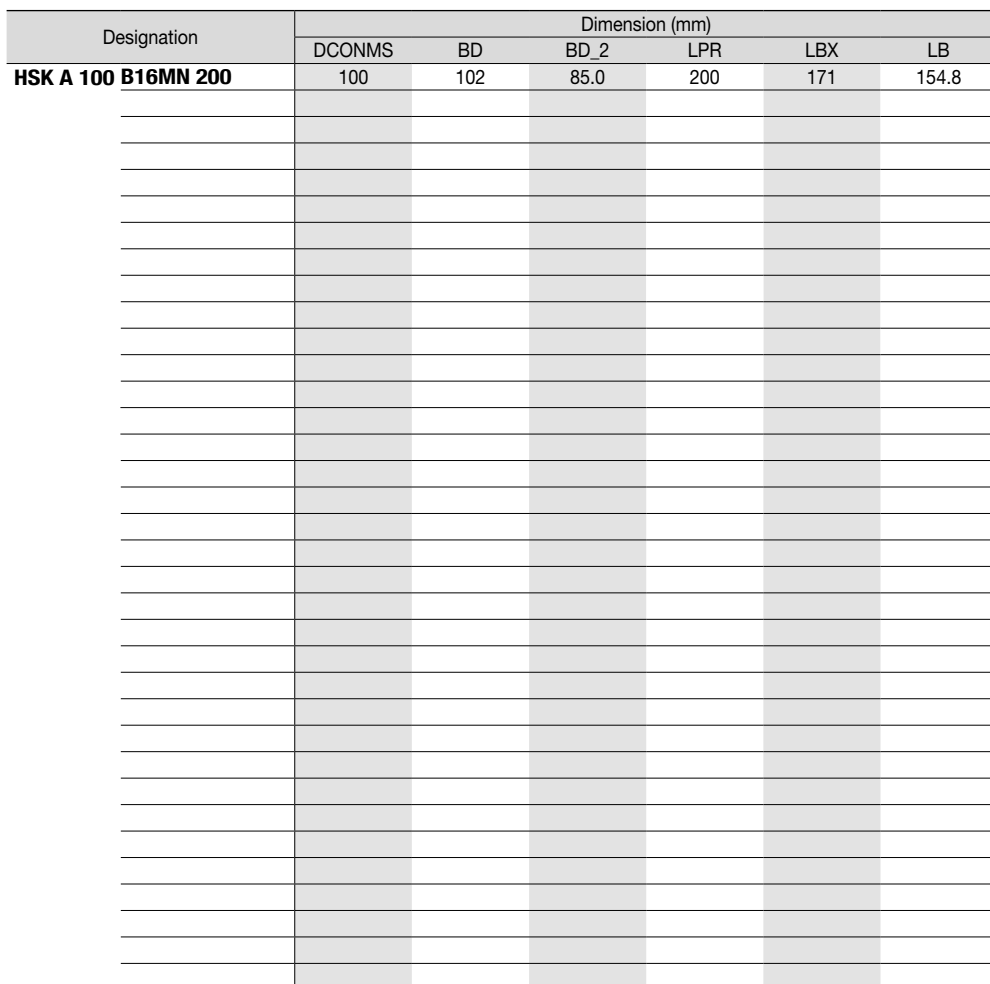
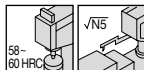
[illegible]

► ⁽¹⁾ Balance to G6.3 at 12,000RPM

T-FLEXTEC holders

[illegible]

HSK blanks



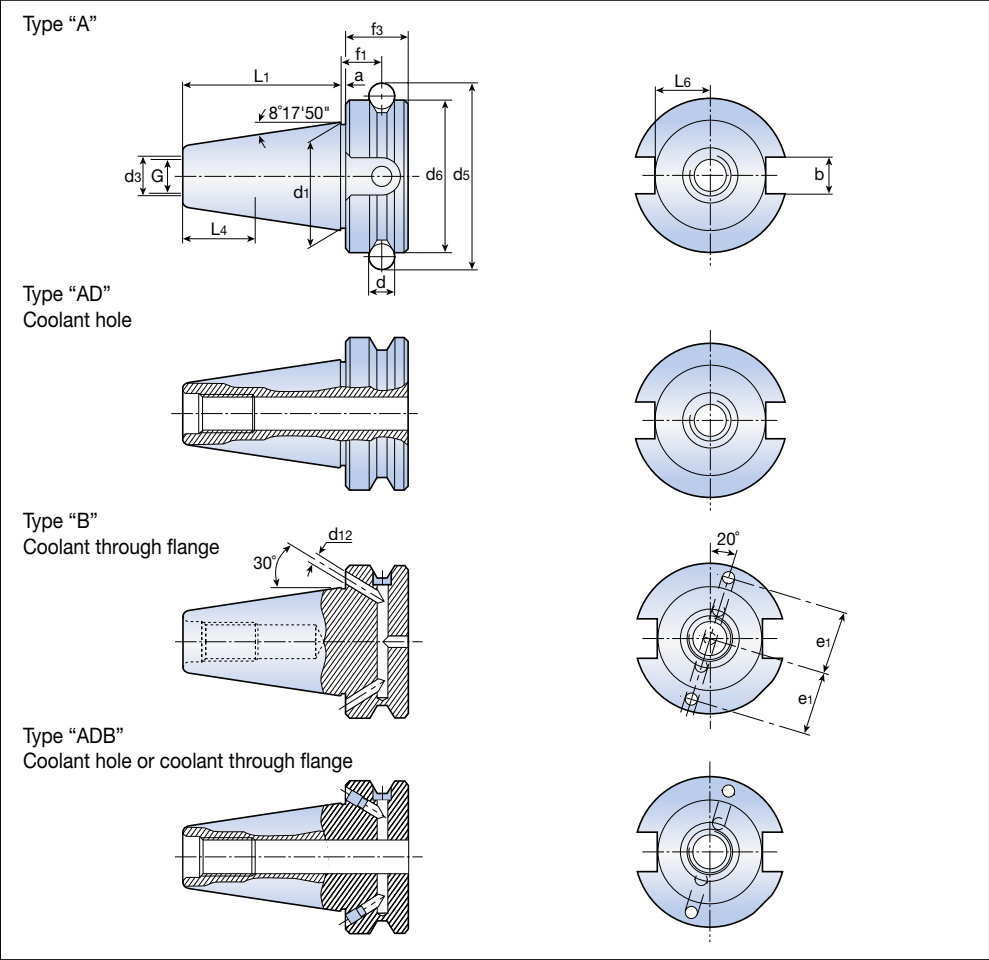
- Material: Case hardened alloy steel
 - Shank hardness 57-60 HRC minimum
 - Nose hardness 22-30 HRC

BT MAS



BT MAS 403 Form A/AD/B/ADB

Standard toolholder



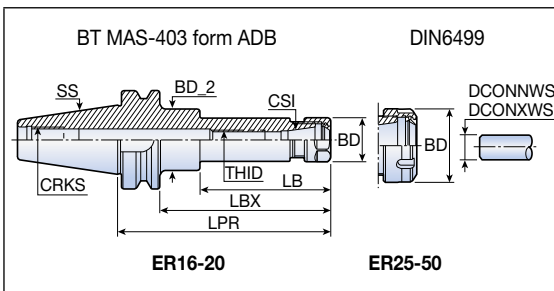
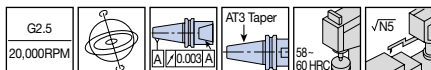
Shank	a ±0.1	b (H12)	d	d1	G	d3 (H8)	d5	d6 (H8)
30	2	16.1	8	31.75	M12	12.5	56.144	46
40	2	16.1	10	44.45	M16	17.0	75.679	63
50	3	25.7	15	69.85	M24	25.0	119.020	100

Shank	f1 ±0.1	f3	L1 ±0.2	L4min	L6 -0.2	e1 ±0.1	d12	Taper AT3
30	13.6	20	48.4	24	16.3	21	4	0.002
40	16.6	25	65.4	30	22.6	27	4	0.003
50	23.2	35	101.8	45	35.4	42	6	0.004

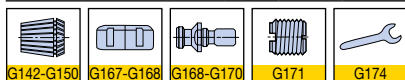
► For non-stock items: Supply condition is subject to availability
If not available in stock then MOQ (Minimum order qty) will be applicable

BT-ER

ER collet chucks



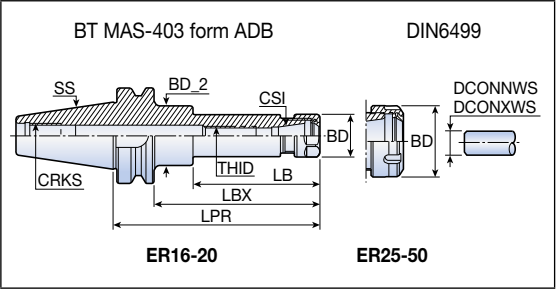
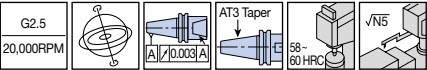
Designation	Dimension (mm)											
	SS	CSI	DCONNWS	DCONXWS	BD	BD_2	LPR	LBX	LB	CRKS	THID	
BT30	ER 16x70 ⁽¹⁾	30	ER16	0.5	10.0	28	-	70	48	-	M12	M10
	ER 16x100 ⁽¹⁾	30	ER16	0.5	10.0	28	-	100	73	-	M12	M10
	ER 20x70 ⁽¹⁾	30	ER20	1.0	13.0	34	-	70	48	-	M12	M12
	ER 25x60 ⁽¹⁾	30	ER25	1.0	16.0	42	-	60	38	-	M12	M16
	ER 32x60 ⁽¹⁾	30	ER32	2.0	20.0	50	-	60	38	-	M12	M18x1.5
BT40	ER 16x70	40	ER16	0.5	10.0	28	-	70	43	-	M16	M12
	ER 16x100	40	ER16	0.5	10.0	28	-	100	73	-	M16	M12
	ER 16x150 ⁽¹⁾	40	ER16	0.5	10.0	28	40	150	123	85	M16	M12
	ER 16x200 ⁽¹⁾	40	ER16	0.5	10.0	28	40	200	173	85	M16	M10
	ER 20x70	40	ER20	1.0	13.0	34	-	70	43	-	M16	M12
	ER 20x100	40	ER20	1.0	13.0	34	-	100	73	-	M16	M12
	ER 20x120	40	ER20	1.0	13.0	34	-	120	93	-	M16	M12
	ER 20x150 ⁽¹⁾	40	ER20	1.0	13.0	34	-	150	123	-	M16	M12
	ER 25x60	40	ER25	1.0	13.0	42	-	60	33	-	M16	M16
	ER 25x100	40	ER25	1.0	16.0	42	-	100	73	-	M16	M16
	ER 25x150 ⁽¹⁾	40	ER25	1.0	16.0	42	-	150	123	-	M16	M16
	ER 32x60	40	ER32	2.0	20.0	50	-	60	33	-	M16	M22x1.5
	ER 32x100	40	ER32	2.0	20.0	50	-	100	73	-	M16	M22x1.5
	ER 32x150 ⁽¹⁾	40	ER32	2.0	20.0	50	-	150	123	-	M16	M22x1.5
	ER 32x200 ⁽¹⁾	40	ER32	2.0	20.0	50	-	200	162	-	M17	M22x1.6
	ER 40x80	40	ER40	3.0	26.0	63	-	80	53	-	M16	M28x1.5
	ER 40x100	40	ER40	3.0	26.0	63	-	100	73	-	M16	M28x1.5
	ER 40x150 ⁽¹⁾	40	ER40	3.0	26.0	63	-	150	123	-	M16	M28x1.5
	ER 50x90	40	ER50	10.0	34.0	78	-	90	63	-	M16	M28x1.5
BT50	ER 16x100 ⁽¹⁾	50	ER16	0.5	10.0	28	-	100	62	-	M24	M12
	ER 16x125 ⁽¹⁾	50	ER16	0.5	10.0	28	-	125	87	-	M24	M12
	ER 16x150 ⁽¹⁾	50	ER16	0.5	10.0	28	-	150	112	-	M24	M12
	ER 16x200 ⁽¹⁾	50	ER16	0.5	10.0	28	40	200	162	85	M24	M10
	ER 20x100 ⁽¹⁾	50	ER20	1.0	10.0	34	-	100	62	-	M24	M12
	ER 20x125 ⁽¹⁾	50	ER20	1.0	13.0	34	-	125	87	-	M24	M12
	ER 20x150 ⁽¹⁾	50	ER20	1.0	13.0	34	-	150	112	-	M24	M12
	ER 20x200 ⁽¹⁾	50	ER20	1.0	13.0	34	50	200	162	85	M24	M12



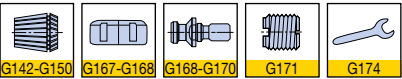
► ⁽¹⁾ Balance to G6.3 at 12,000RPM

BT-ER

ER collet chucks



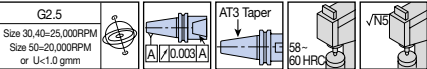
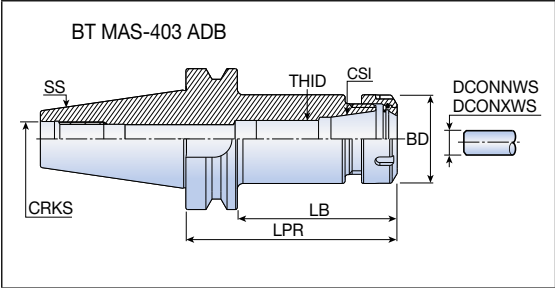
Designation		Dimension (mm)										
		SS	CSI	DCONNWS	DCONXWS	BD	BD_2	LPR	LBX	LB	CRKS	THID
BT50	ER 25x100	50	ER25	1.0	16.0	42	-	100	62	-	M24	M16
	ER 25x150	50	ER25	1.0	16.0	42	-	150	112	-	M24	M16
	ER 25x200 ⁽¹⁾	50	ER25	1.0	16.0	42	55	200	162	87	M24	M16
	ER 32x100	50	ER32	2.0	20.0	50	-	100	62	-	M24	M22x1.5
	ER 32x125	50	ER32	2.0	20.0	50	-	125	87	-	M24	M22x1.5
	ER 32x150	50	ER32	2.0	20.0	50	-	150	112	-	M24	M22x1.5
	ER 32x200 ⁽¹⁾	50	ER32	2.0	20.0	50	63	200	162	88	M24	M22x1.5
	ER 40x100	50	ER40	3.0	26.0	63	-	100	62	-	M24	M28x1.5
	ER 40x150	50	ER40	3.0	26.0	63	-	150	112	-	M24	M28x1.5
	ER 40x200 ⁽¹⁾	50	ER40	3.0	26.0	63	-	200	162	-	M24	M28x1.5
	ER 50x100	50	ER50	3.0	26.0	78	-	100	62	-	M24	M36x1.5
	ER 50x150	50	ER50	10.0	34.0	78	-	150	112	-	M24	M36x1.5



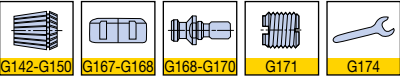
► ⁽¹⁾ Balance to G6.3 at 12,000RPM

BT-FC-ER

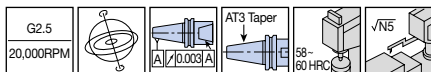
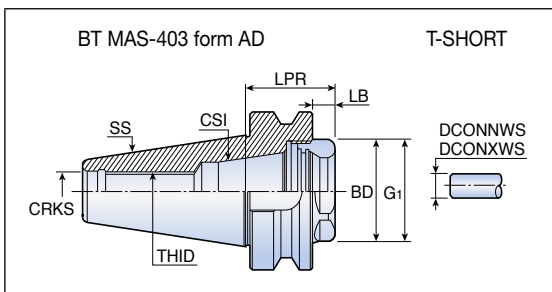
ER collet chucks



Designation	Dimension (mm)									
	SS	CSI	DCONNWS	DCONXWS	BD	LPR	LB	CRKS	THID	
BT30 FC ER16X70	30	ER16	0.5	10.0	28	70	48	M12	M10	
	30	ER16	0.5	10.0	28	100	79	M12	M10	
	30	ER20	1.0	13.0	34	70	48	M12	M12	
	30	ER25	1.0	16.0	42	60	38	M12	M16	
	30	ER32	2.0	20.0	50	60	38	M12	M18	
BT40 FC ER16X70	40	ER16	0.5	10.0	28	70	44	M16	M12	
	40	ER16	0.5	10.0	28	100	74	M16	M12	
	40	ER32	2.0	20.0	50	60	34	M16	M22X1.5	
	40	ER32	2.0	20.0	50	100	74	M16	M22X1.5	
	40	ER40	3.0	26.0	63	80	54	M16	M28X1.5	
BT50 FC ER16X100	50	ER16	0.5	10.0	28	100	63.5	M24	M12	
	50	ER16	0.5	10.0	28	150	113.5	M24	M12	
	50	ER32	2.0	20.0	50	100	63.5	M24	M22X1.5	
	50	ER32	2.0	20.0	50	150	113.5	M24	M22X1.5	
	50	ER40	3.0	26.0	63	100	63.5	M24	M28X1.5	
BT50 FC ER40X150	50	ER40	3.0	26.0	63	150	113.5	M24	M28X1.5	



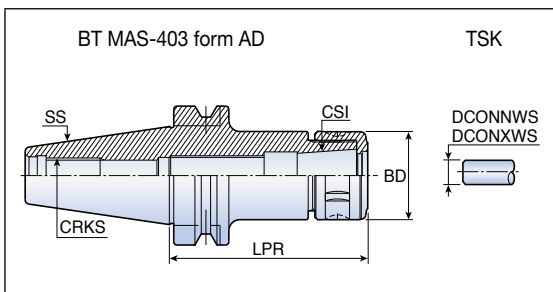
Short ER collet chucks



					
G142-G150	G159-G164	G167-G168	G168-G170	G171	G174

► Add B for coolant through flange

TSK collet chucks

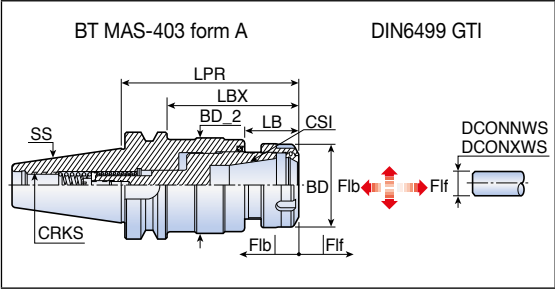
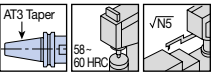


				
G151-G153	G168	G168-G170	G175	G183



GTI BT-ER

GTI tap attachments

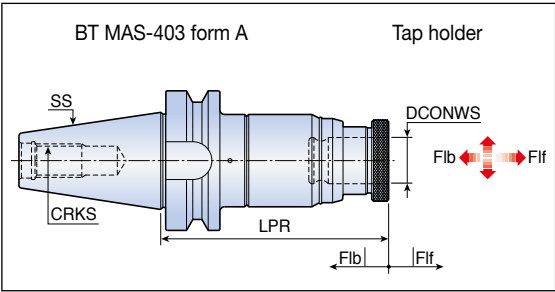
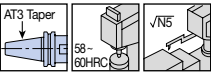


Designation	Dimension (mm)													
	SS	CSI	Tapmin	Tapmax	DCONNWS	DCONXWS	BD	BD_2	LPR	LBX	LB	F1f	F1b	CRKS
GTI BT40 ER16	40	ER16	M3	M10	0.5	10.0	28	29.5	84.2	52.7	24.6	8	3	M16
ER32	40	ER32	M6	M20	2.0	20.0	50	56.5	106.8	79.8	33.0	9	4	M16
ER40	40	ER40	M6	M28	3.0	26.0	63	56.5	124.8	97.8	51.0	9	4	M16
GTI BT50 ER16	50	ER16	M3	M10	0.5	10.0	28	29.5	106.8	68.8	24.6	8	3	M24
ER32	50	ER32	M6	M20	2.0	20.0	50	56.5	114.2	77.2	33.0	9	4	M24
ER40	50	ER40	M6	M28	3.0	26.0	63	56.5	133.2	95.2	51.0	9	4	M24

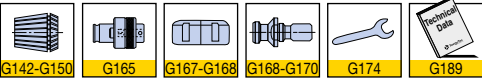
► No coolant should be induced through the tap chuck as it will cause malfunctioning of the mechanism

BT-TC

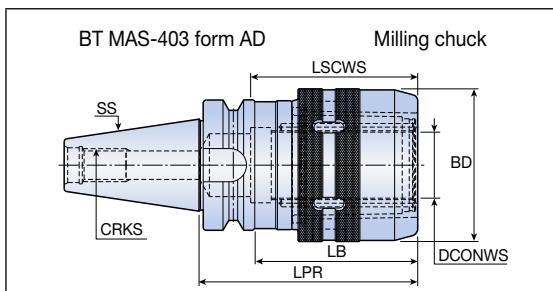
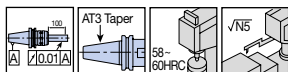
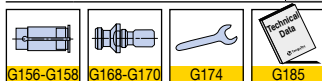
Tap holders



Designation	Dimension (mm)								
	SS	Tapmin	Tapmax	DCONWS	LPR	F1b	F1f	Tap adapter	CRKS
BT30 TC 12-105	30	M3	M12	19	105	6.5	12	TA1	M12
BT40 TC 12-95	40	M3	M12	19	95	6.5	12	TA1	M16
TC 12-110	40	M3	M12	19	110	6.5	12	TA1	M16
TC 22-127	40	M6	M24	31	127	14.5	13	TA2	M16
BT50 TC 12-125	50	M6	M12	19	125	6.5	12	TA1	M24
TC 22-142	50	M6	M24	31	142	14.5	13	TA2	M24
TC 38-195	50	M18	M38	48	195	20.0	20	TA3	M24

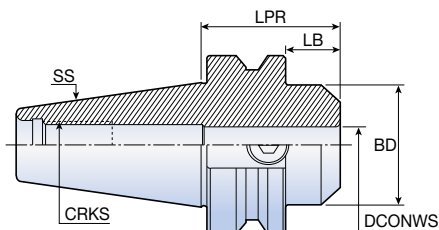
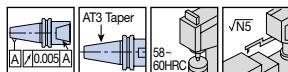


Milling chucks

[illegible]

- ▶ Spanner not included

Short end mill holders



	
G168-G170	G171

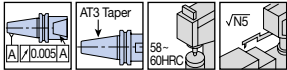
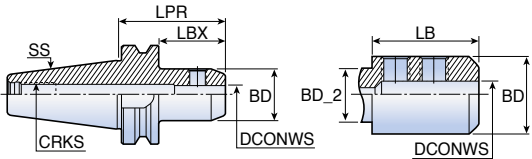
► Add B for coolant through flange

BT-EM

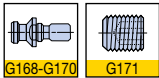
End mill holders



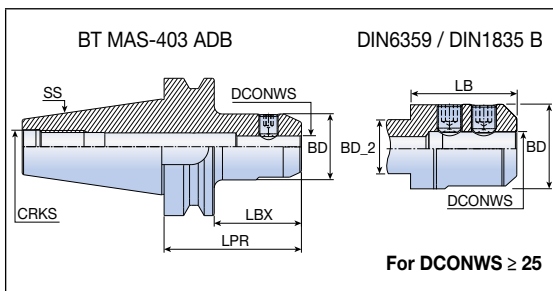
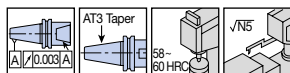
BT MAS-403 form ADB DIN6359 / DIN1835 form B



Designation	Dimension (mm)							
	SS	DCONWS	BD	BD_2	LPR	LBX	LB	CRKS
BT30 EM 6x50	30	6	25	-	50	28	-	M12
EM 8x60	30	8	28	-	60	38	-	M12
EM 10x60	30	10	35	-	60	38	-	M12
EM 12x60	30	12	42	-	60	38	-	M12
EM 14x60	30	14	44	-	60	38	-	M12
EM 16x60	30	16	46	-	60	38	-	M12
EM 18x60	30	18	50	-	60	38	-	M12
EM 20x80	30	20	52	-	80	58	-	M12
BT40 EM 6x50	40	6	25	-	50	23	-	M16
EM 8x50	40	8	28	-	50	23	-	M16
EM 10x65	40	10	35	-	65	38	-	M16
EM 12x65	40	12	42	-	65	38	-	M16
EM 14x65	40	14	44	-	65	38	-	M16
EM 16x65	40	16	48	-	65	38	-	M16
EM 18x65	40	18	50	-	65	38	-	M16
EM 20x75	40	20	52	-	75	48	-	M16
EM 25x105	40	25	65	61	105	78	68	M16
EM 32x110	40	32	72	61	110	83	73	M16
BT50 EM 6x70	50	6	25	-	70	32	-	M24
EM 8x70	50	8	28	-	70	32	-	M24
EM 10x70	50	10	35	-	70	32	-	M24
EM 12x100	50	12	42	-	100	62	-	M24
EM 14x100	50	14	44	-	100	62	-	M24
EM 16x100	50	16	48	-	100	62	-	M24
EM 18x100	50	18	50	-	100	62	-	M24
EM 20x100	50	20	52	-	100	62	-	M24
EM 25x115	50	25	65	-	115	77	-	M24
EM 32x115	50	32	72	-	115	77	-	M24
EM 40x115	50	40	90	-	115	77	-	M24
EM 50x125	50	50	100	-	125	87	-	M24

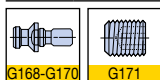
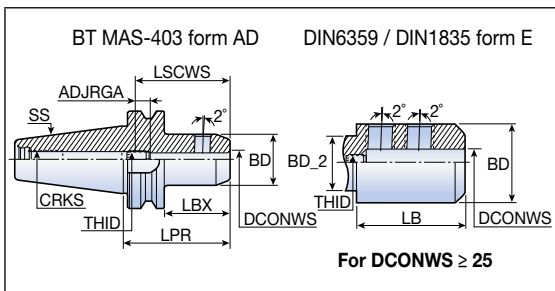
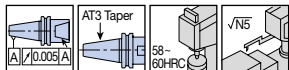


End mill holders



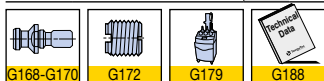
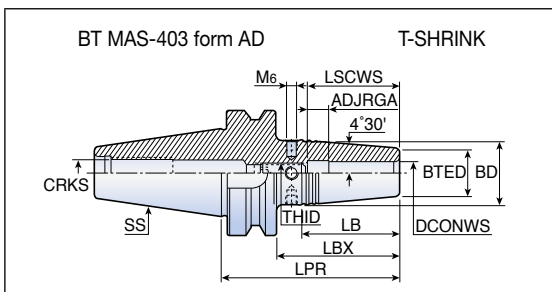
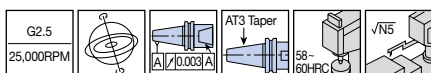
	
G168-G170	G171

End mill holders - Whistle notch



- ▶ Add B for coolant through flange

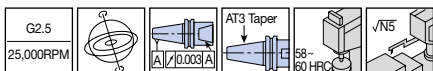
Thermal shrinking chucks



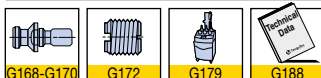
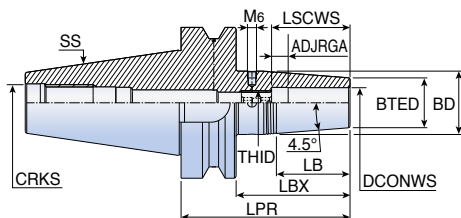
- ▶ ⁽¹⁾ Balance to G2.5 at 20,000RPM

TSRINK

Thermal shrinking chucks

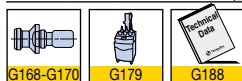
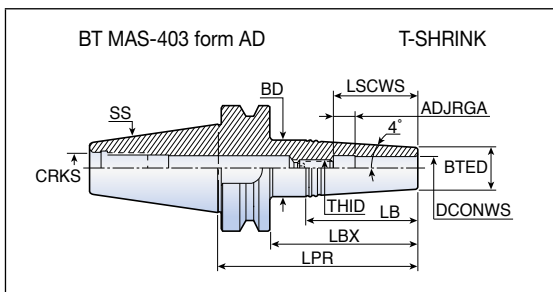
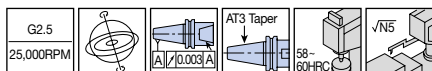


BT MAS-403 ADB



- ⁽¹⁾ Balance to G2.5 at 20,000RPM

Thermal shrinking chucks

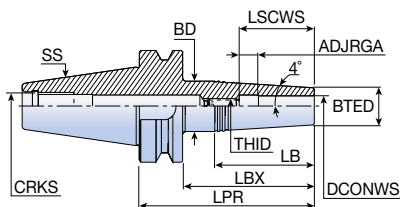


TSRINK

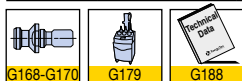
Thermal shrinking chucks



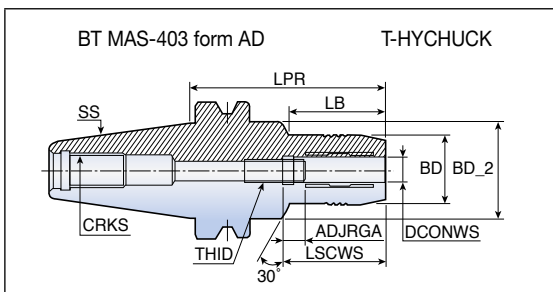
BT MAS-403 ADB



G2.5			AT3 Taper 	58~60 HRC 	$\sqrt{N5}$
20,000RPM					



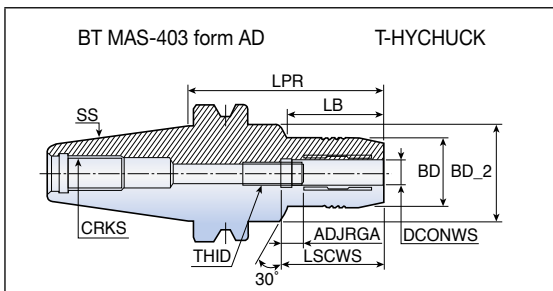
Hydraulic chucks



		
G154-G155	G168-G170	G186

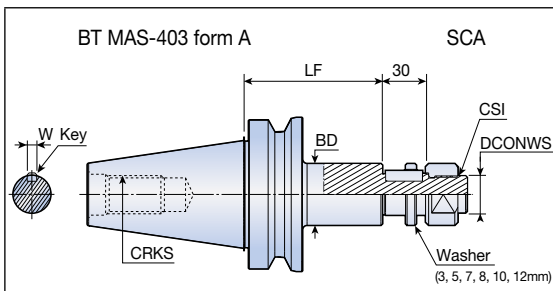
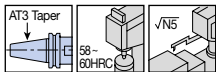
► ⁽¹⁾ Balance to G2.5 at 20,000RPM

Hydraulic chucks



		
G154-G155	G168-G170	G186

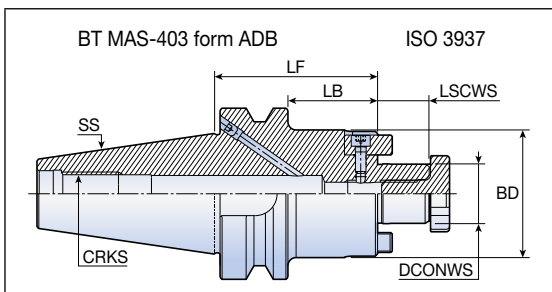
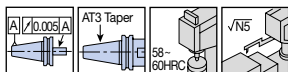
Slotting cutter arbors



G168-G170

► Washers & key are included (Each 3, 5, 7, 8, 10, 12mm)

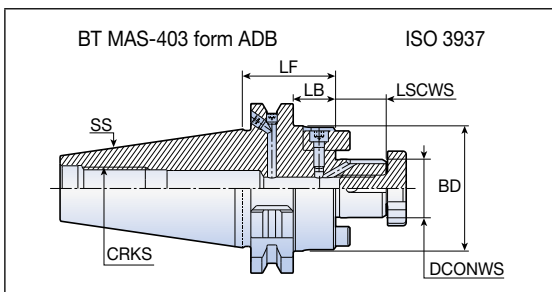
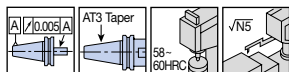
Face mill arbors



		
G168-G170	G171	G172

► Wrench not included

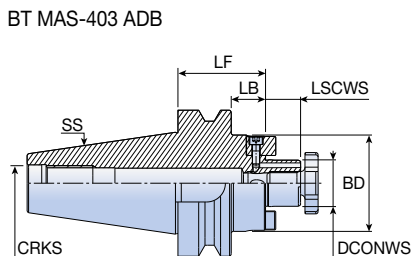
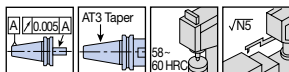
Face mill arbors with internal coolant hole



		
G168-G170	G171	G172

- ▶ If the “B type” option is required, the plug screw must be removed from the flange cooling hole (Use a 2mm hex key)
- ▶ Wrench not included

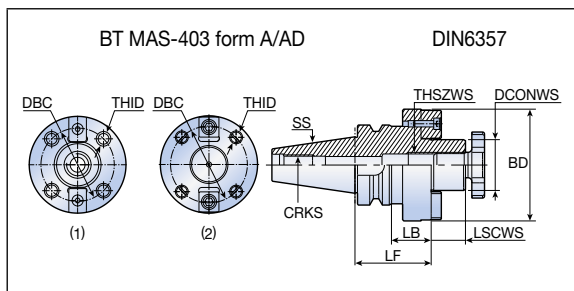
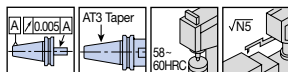
Face mill arbors with internal coolant hole



		
G168-G170	G171	G172

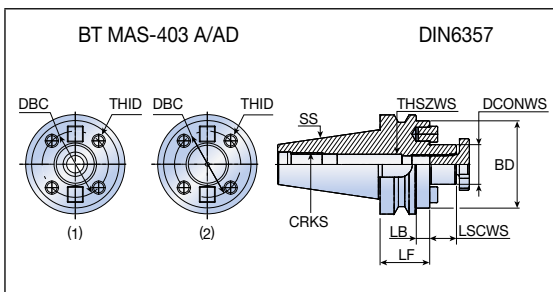
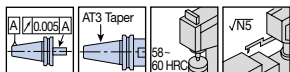
► Wrench not included

Face mill arbors



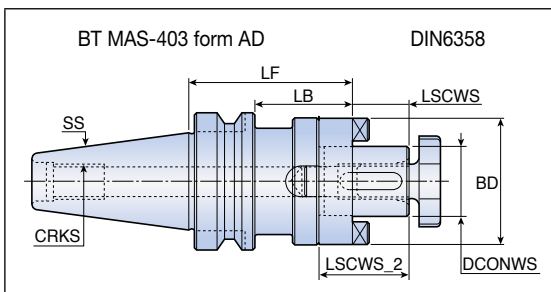
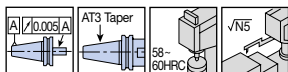
- ▶ Wrench not included
- ▶ (1) Form AD
- ▶ (2) Form A

Face mill arbors



- ▶ Wrench not included
- ▶ (1) Form AD
- ▶ (2) Form A

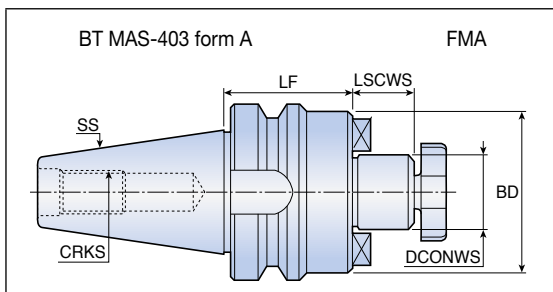
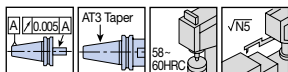
Combi shell end mill arbors



			
G168-G170	G171	G172	G173

► Wrench not included

Face mill arbors(Type inch)

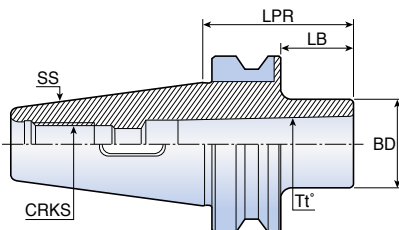
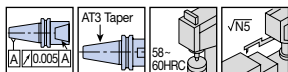


G168-G170



G172

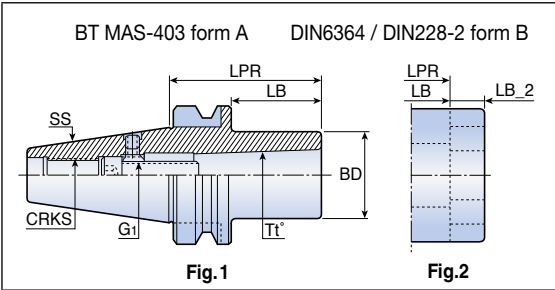
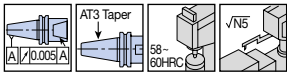
Morse taper adapters



A technical drawing of a bolt and nut assembly. The bolt is shown in profile, with a hexagonal head and a threaded shank. The nut is shown in profile, with a hexagonal shape and internal threads. The bolt is inserted through the nut, and the threads are shown meshing.

BT-MT-DRW

Morse taper adapters

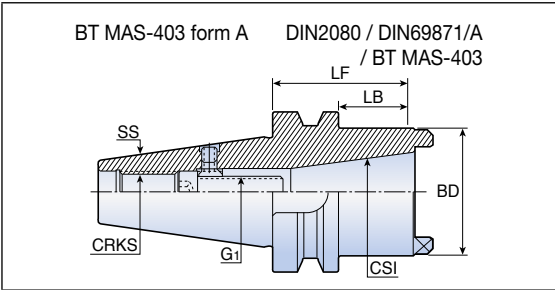
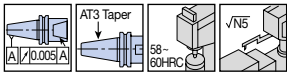


Designation		Dimension (mm)							Fig.
		SS	Tt°	BD	LPR	LB	LB_2	CRKS	
BT40 MT1 DRW	MT1 DRW	40	MT1	25	50	23	-	M16	1
	MT2 DRW	40	MT2	32	50	23	-	M16	1
	MT3 DRW	40	MT3	40	70	43	-	M16	1
	MT4 DRW⁽¹⁾	40	MT4	63	95	68	15	M16	2
BT50 MT1 DRW	MT1 DRW	50	MT1	25	45	7	-	M24	1
	MT2 DRW	50	MT2	32	60	22	-	M24	1
	MT3 DRW	50	MT3	40	65	27	-	M24	1
	MT4 DRW⁽¹⁾	50	MT4	63	70	32	15	M24	2
	MT5 DRW⁽¹⁾	50	MT5	78	100	62	18	M24	2

▶ ⁽¹⁾ DIN2201

BT-AD

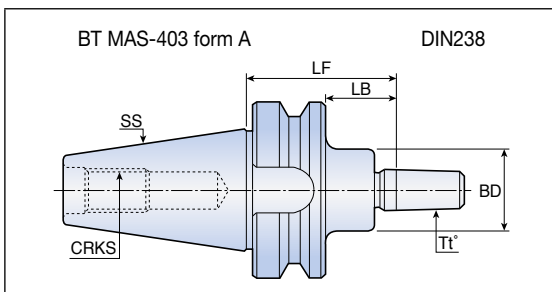
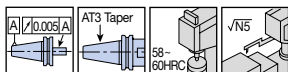
Adapters



Designation		Dimension (mm)					
		SS	CSI	BD	LF	LB	CRKS
BT50 AD 40		50	DIN 2080	63	75	32	M24
AD BT/SK 40		50	DIN 69871/A, BT MAS	66	75	37	M24

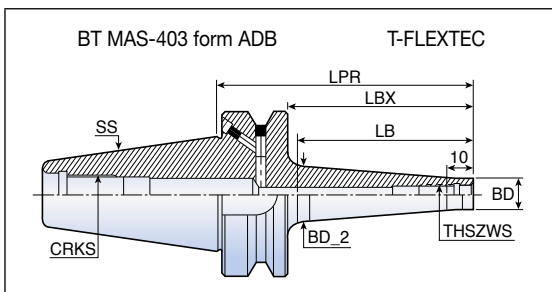


Drill chuck arbors - Jacobs taper arbors



► Drill chuck not included

T-FLEXTEC holders



G2.5			AT3 Taper 	58~60HRC 	$\sqrt{N5}$
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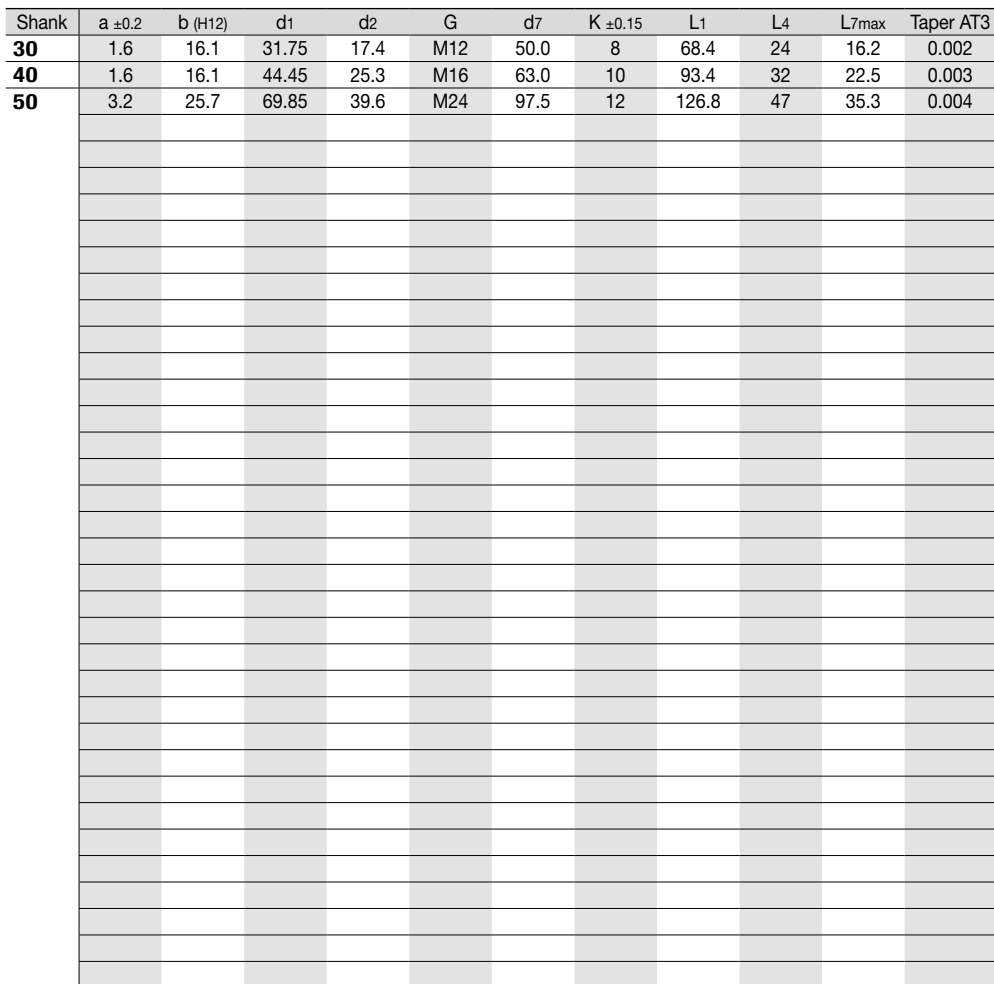
► If the “B type” option is required, the plug screw must be removed from the flange cooling hole (Use a 2mm hex key)

► ⁽¹⁾ Balance to G6.3 at 12,000RPM

DIN2080

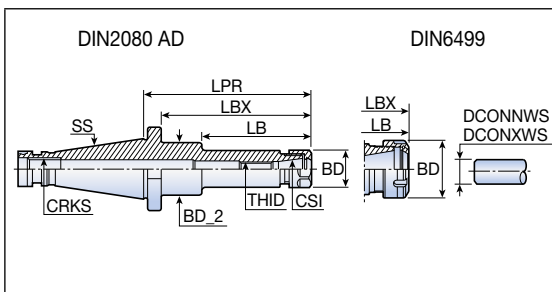
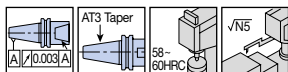


Standard toolholder



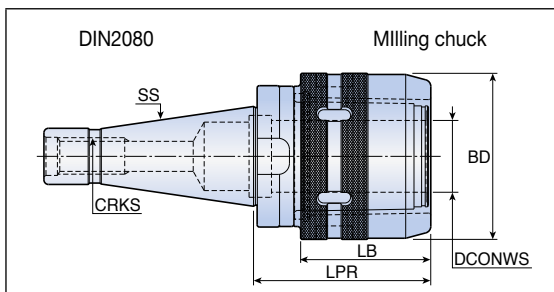
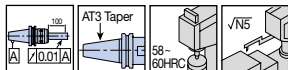
G
89

ER collet chucks

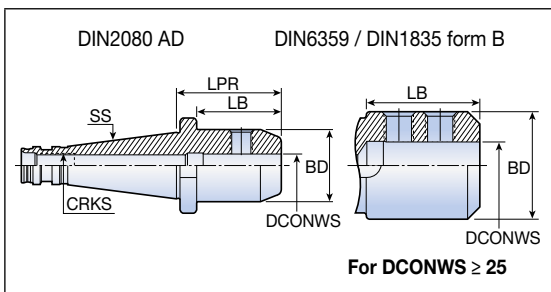
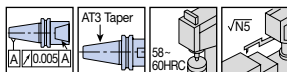


			
G142-G150	G167-G168	G171	G174

Milling chucks

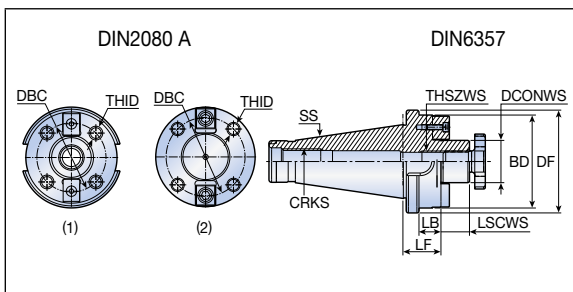
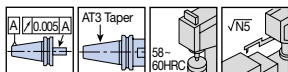


End mill holders



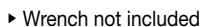
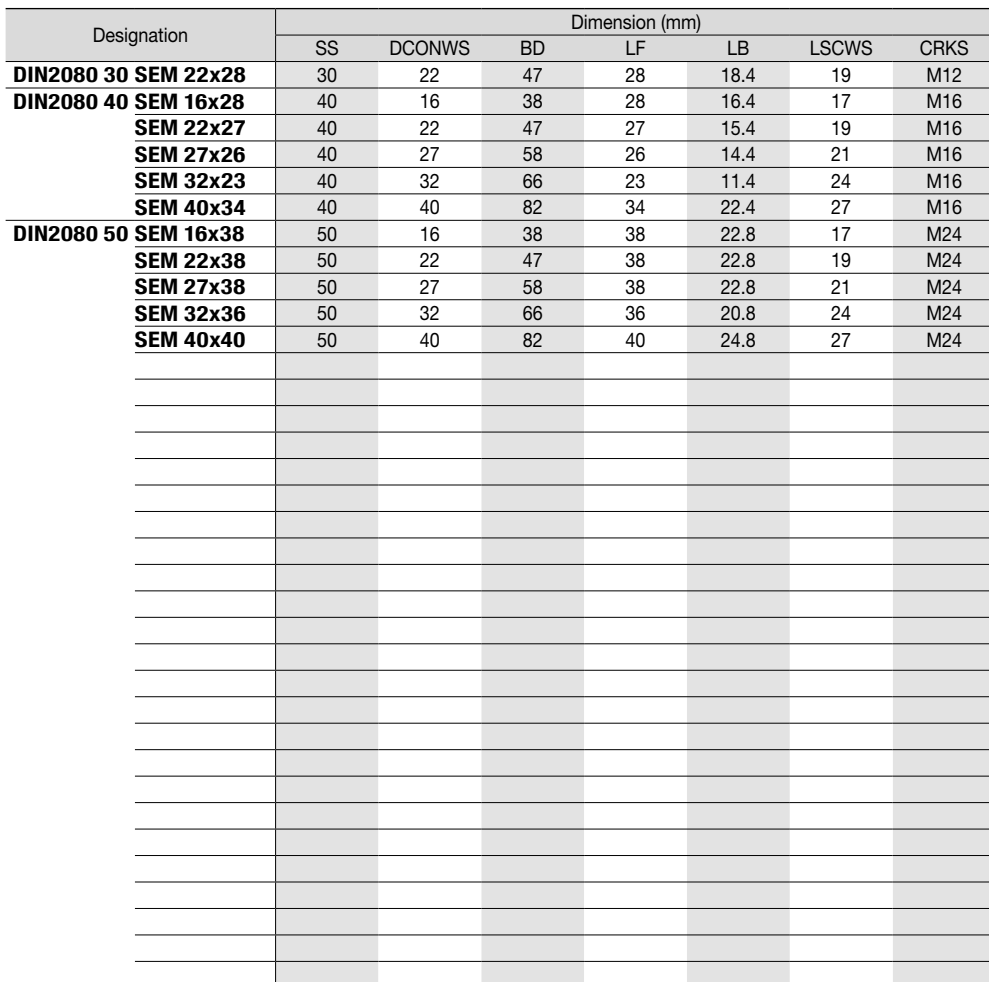
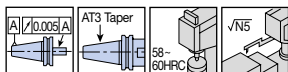
G171

Face mill arbors

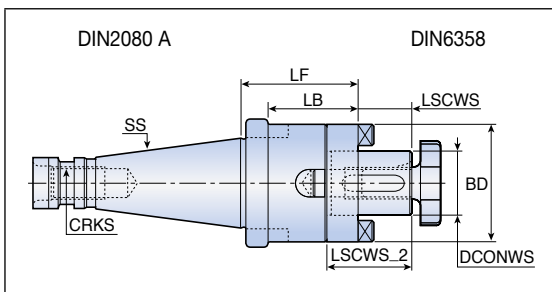
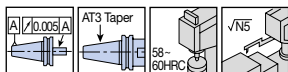


- ▶ Wrench not included
- ▶ (1) Form AD
- ▶ (2) Form A

Shell end mill arbors



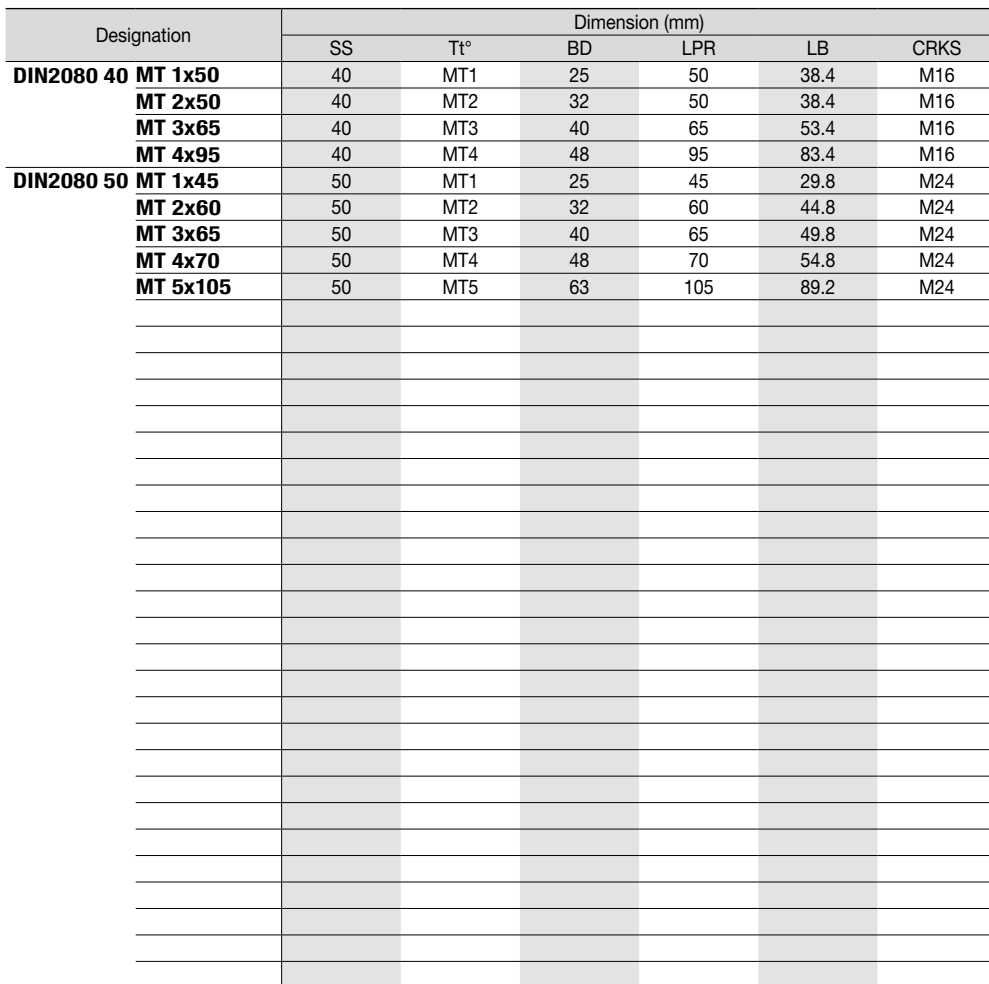
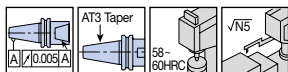
Combi shell end mill arbors



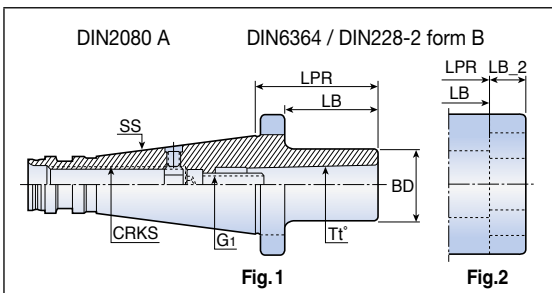
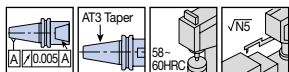
		
G171	G172	G173

► Wrench not included

Morse taper adapters



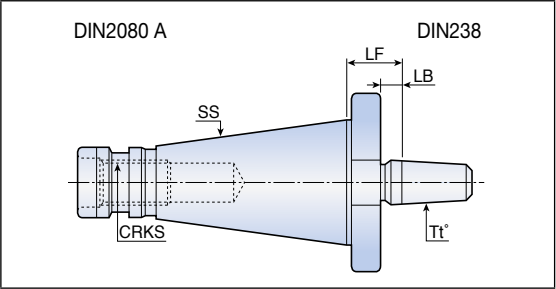
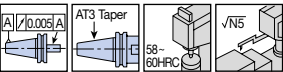
Morse taper draw bar adapters

[illegible]

► MT4 & MT5: DIN2201

DIN2080-DC

Drill chuck arbors - Jacobs taper arbors

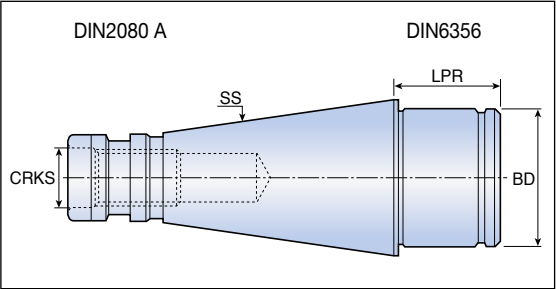
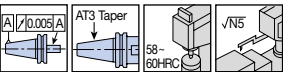


Designation	Dimension (mm)				
	SS	Tt°	LF	LB	CRKS
DIN2080 40 DC B16x22	40	B16	22	10.4	M16

► Drill chuck not included

DIN2080-CP

Centering plug

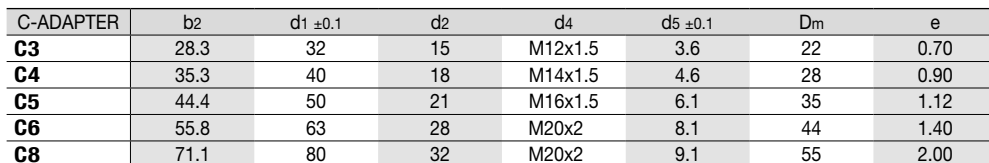


Designation	Dimension (mm)			
	SS	BD	LPR	CRKS
DIN2080 50 CP 60	50	60	39	M24

CADAPTER



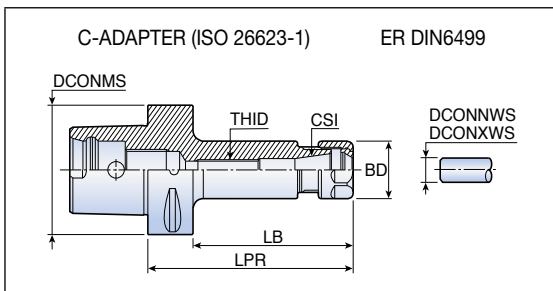
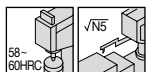
Standard toolholder



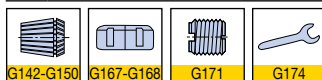
► For non-stock items: Supply condition is subject to availability.
If not available in stock then MOQ (Minimum order qty) will be applicable.

C-ER

ER collet chucks



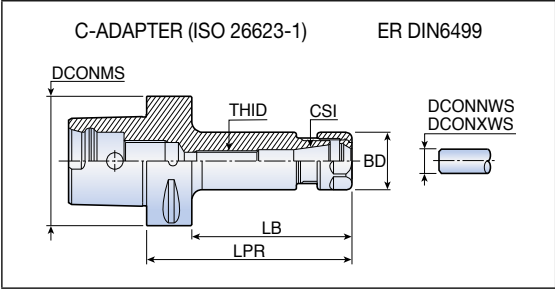
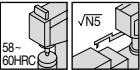
Designation	Dimension (mm)							
	DCONMS	CSI	DCONNWS	DCONXWS	BD	LPR	LB	THID
C4 ER 16x70	40	ER16	1.0	10.0	28	70	50	M10
ER 20x35⁽¹⁾	40	ER20	1.0	13.0	34	35	27	-
ER 20x52	40	ER20	1.0	13.0	34	52	32	-
ER 25x38⁽¹⁾	40	ER25	1.0	16.0	42	38	30	-
ER 25x52	40	ER25	1.0	16.0	42	52	32	-
ER 32x54	40	ER32	2.0	20.0	50	54	34	-
C5 ER 16x100	50	ER16	1.0	10.0	28	100	80	M10
ER 16x130	50	ER16	1.0	10.0	28	130	110	M10
ER 20x055	50	ER20	1.0	13.0	34	55	35	-
ER 20x100	50	ER20	1.0	13.0	34	100	80	M12
ER 20x130	50	ER20	1.0	13.0	34	130	110	M12
ER 25x055	50	ER25	1.0	16.0	42	55	35	-
ER 25x100	50	ER25	1.0	16.0	42	100	80	M16
ER 32x057	50	ER32	2.0	20.0	50	57	36	-
ER 32x100	50	ER32	2.0	20.0	50	100	80	M22x1.5
C6 ER 16x100	63	ER16	1.0	10.0	28	100	78	M10
ER 16x130	63	ER16	1.0	10.0	28	130	108	M10
ER 16x160	63	ER16	1.0	10.0	28	160	138	M10
ER 20x060	63	ER20	1.0	13.0	34	60	38	-
ER 20x100	63	ER20	1.0	13.0	34	100	78	M12
ER 20x130	63	ER20	1.0	13.0	34	130	108	M12
ER 20x160	63	ER20	1.0	13.0	34	160	138	M12
ER 25x060	63	ER25	1.0	16.0	42	60	38	-
ER 25x100	63	ER25	1.0	16.0	42	100	78	M16
ER 25x130	63	ER25	1.0	16.0	42	130	108	M16
ER 25x160	63	ER25	1.0	16.0	42	160	138	M16
ER 32x060	63	ER32	2.0	20.0	50	60	36	-
ER 32x100	63	ER32	2.0	20.0	50	100	78	M22x1.5
ER 32x130	63	ER32	2.0	20.0	50	130	108	M22x1.5
ER 32x160	63	ER32	2.0	20.0	50	160	138	M22x1.5
ER 40x065	63	ER40	3.0	26.0	63	65	37	-
ER 40x100	63	ER40	3.0	26.0	63	100	78	M28x1.5
ER 40x130	63	ER40	3.0	26.0	63	130	108	M28x1.5



► ⁽¹⁾ Without V grooves, for manual use only

C-ER

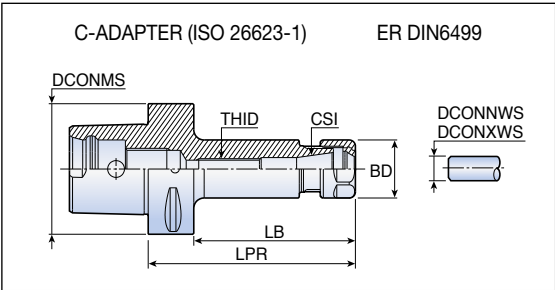
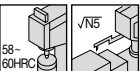
ER collet chucks



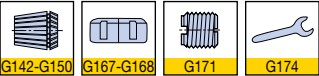
Designation	Dimension (mm)							
	DCONMS	CSI	DCONNWS	DCONXWS	BD	LPR	LB	THID
C8 ER 32x70	80	ER32	2.0	20.0	50	70	40	-
ER 32x100	80	ER32	2.0	20.0	50	100	70	M22x1.5
ER 32x160	80	ER32	2.0	20.0	50	160	130	M22x1.5
ER 40x70	80	ER40	3.0	26.0	63	70	40	-
ER 40x100	80	ER40	3.0	26.0	63	100	70	M28x1.5
ER 40x160	80	ER40	3.0	26.0	63	160	130	M28x1.5

C-ER-M

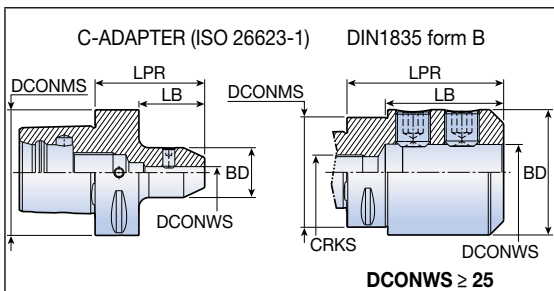
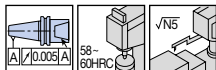
ER mini collet chucks



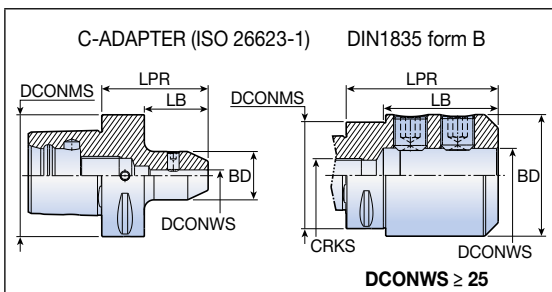
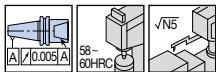
Designation	Dimension (mm)							
	DCONMS	CSI	DCONNWS	DCONXWS	BD	LPR	LB	THID
C4 ER 16x70 M	40	ER16	0.5	10.0	22	70	50	M10
C5 ER 16x100 M	50	ER16	0.5	10.0	22	100	80	M10
ER 16x130 M	50	ER16	0.5	10.0	22	130	120	M10
C6 ER 16x100 M	63	ER16	0.5	10.0	22	100	78	M10
ER 16x130 M	63	ER16	0.5	10.0	22	130	108	M10
ER 16x160 M	63	ER16	0.5	10.0	22	160	138	M10



End mill holders

[illegible]

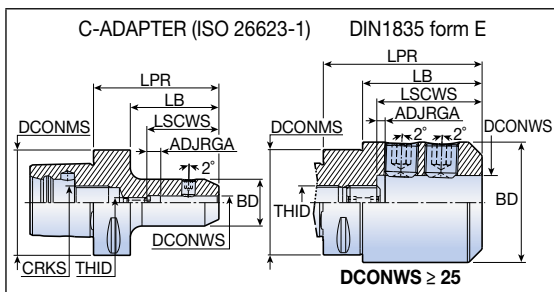
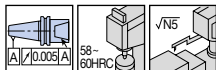
End mill holders



G171

C-EM-E

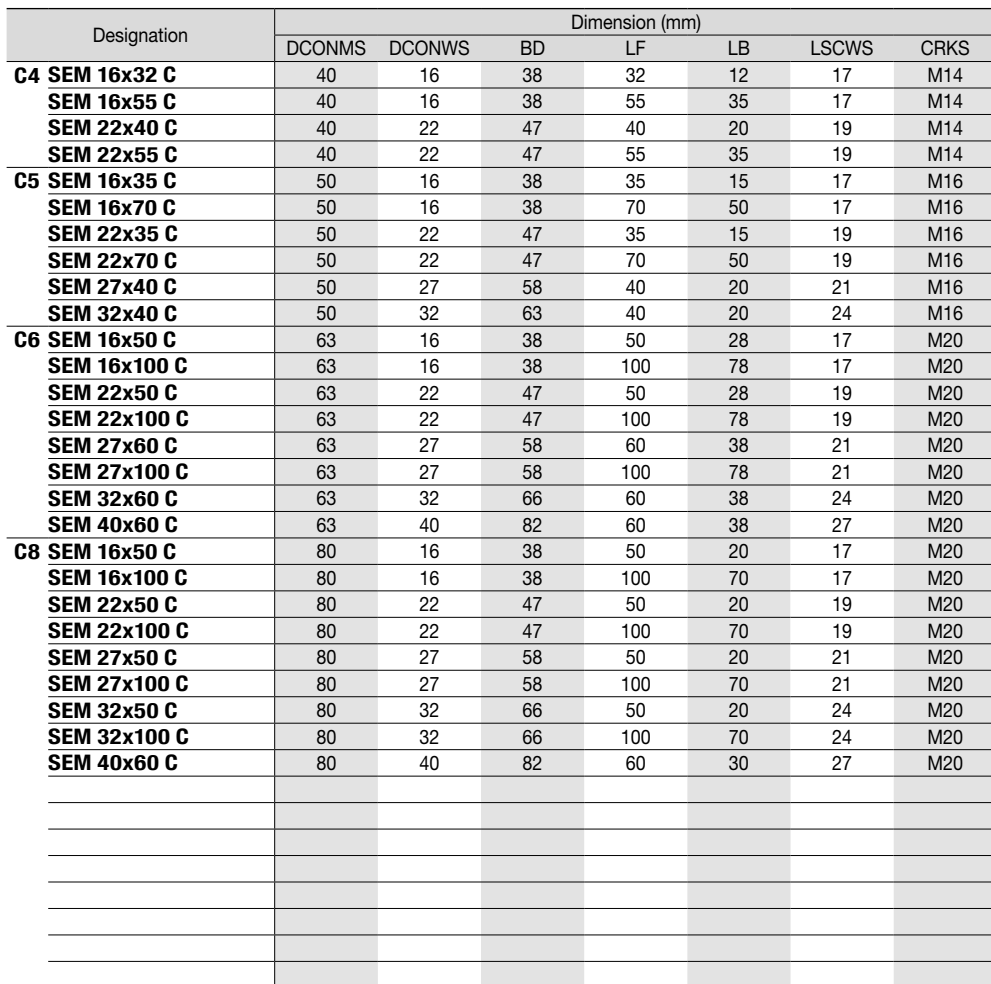
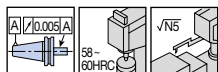
End mill holders - Whistle notch type



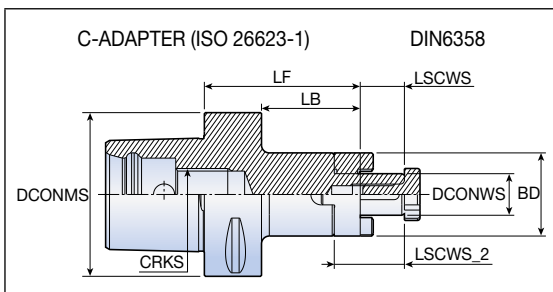
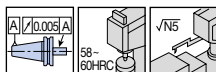
Designation	Dimension (mm)								
	DCONMS	DCONWS	BD	LPR	LB	ADJRGA	LSCWS	CRKS	THID
C4 EM 6x70 E	40	6	25	70	50	5	35	M14	M5
EM 8x70 E	40	8	28	70	50	8	43	M14	M6
EM 12x75 E	40	12	42	75	55	5	49	M14	M10
EM 14x75 E	40	14	44	75	55	5	49	M14	M10
C5 EM 10x70 E	50	10	35	70	50	6	45	M16	M8
EM 12x75 E	50	12	42	75	55	5	49	M16	M10
EM 14x75 E	50	14	44	75	55	5	49	M16	M10
EM 16x80 E	50	16	48	80	60	5	52	M16	M12
EM 18x80 E	50	18	50	80	60	5	52	M16	M12
EM 20x85 E	50	20	52	85	65	6	55	M16	M16
C6 EM 6x75 E	63	6	25	75	53	6	36	M20	M5
EM 8x75 E	63	8	28	75	53	8	43	M20	M6
EM 10x75 E	63	10	35	75	53	7	46	M20	M8
EM 12x80 E	63	12	42	80	58	5	49	M20	M10
EM 14x80 E	63	14	44	80	58	5	49	M20	M10
EM 16x85 E	63	16	48	85	63	5	52	M20	M12
EM 18x85 E	63	18	50	85	63	5	52	M20	M12
EM 20x85 E	63	20	52	85	63	6	55	M20	M16
EM 25x90 E	63	25	65	90	68	6	60	M20	M20
EM 32x95 E	63	32	72	95	73	5	63	M20	M20
C8 EM 8x65 E	80	8	28	65	35	8	43	M20	M6
EM 10x65 E	80	10	35	65	35	7	46	M20	M8
EM 12x70 E	80	12	42	70	40	5	49	M20	M10
EM 14x70 E	80	14	44	70	40	5	49	M20	M10
EM 16x75 E	80	16	48	75	45	5	52	M20	M12
EM 18x75 E	80	18	50	75	45	5	52	M20	M12
EM 20x80 E	80	20	52	80	50	8	57	M20	M16
EM 25x90 E	80	25	65	90	60	6	60	M20	M20
EM 32x95 E	80	32	72	95	65	6	64	M20	M20



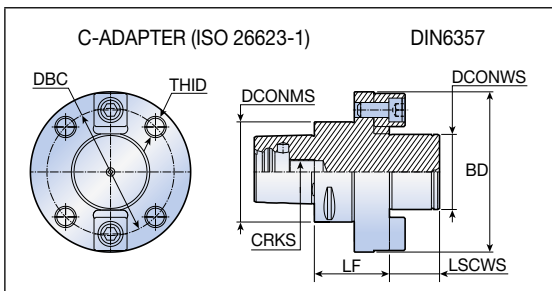
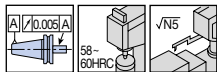
Face mill arbors



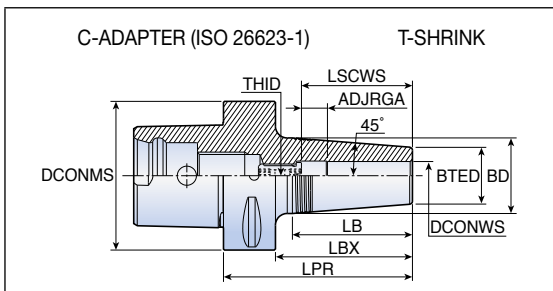
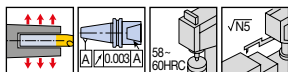
Combi shell mill arbors

[illegible]

Face mill arbors

[illegible]

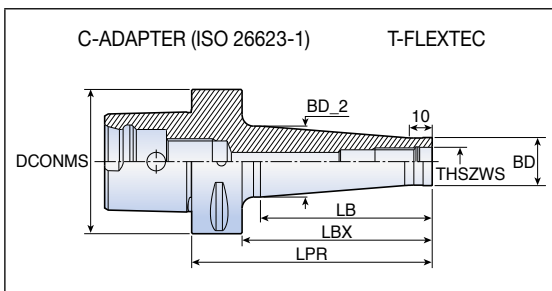
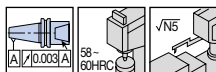
Thermal shrinking chucks

[illegible]

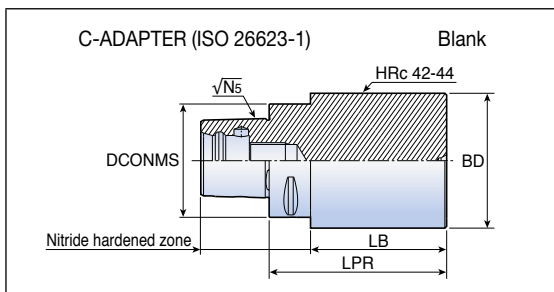
C-ODP



T-FLEXTEC holders

[illegible]

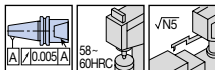
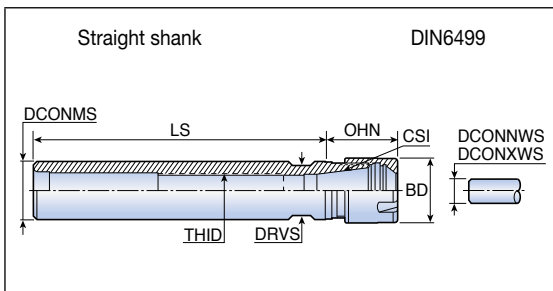
Blank

[illegible]

Straight & Morse Taper Shank



ER mini collet chucks



			
G142-G150	G167-G168	G171	G174

ST-ER-F

ER collet chucks

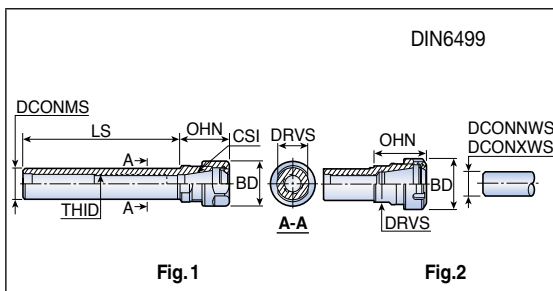
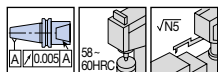
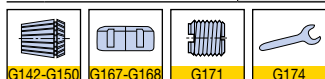


Fig. 1

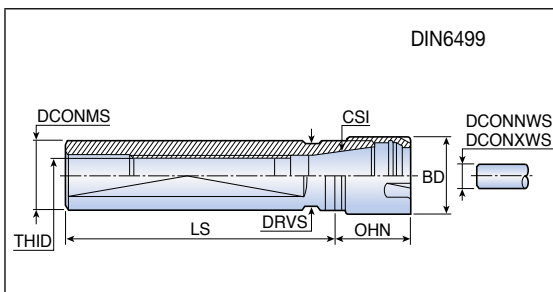
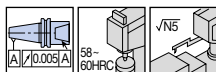
Fig. 2

Designation	Dimension (mm)									Fig.
	DCONMS	CSI	DCONNWS	DCONXWS	BD	OHN	LS	THID	DRVS	
ST 16x50 ER11 F	16	ER11	0.5	7.0	19	18.5	50	M8	13	1
20x50 ER11 F	20	ER11	0.5	7.0	19	18.5	50	M10	17	1
20x100 ER11	20	ER11	0.5	7.0	19	18.5	100	M10	17	1
20x100 ER11 F	20	ER11	0.5	7.0	19	18.5	100	M10	17	1
20x150 ER11	20	ER11	0.5	7.0	19	18.5	150	M10	17	1
20x50 ER16 F	20	ER16	0.5	10.0	28	32.3	50	M12	19	1
20x100 ER16	20	ER16	0.5	10.0	28	30.0	100	M12	19	1
20x100 ER16 F	20	ER16	0.5	10.0	28	30.0	100	M12	19	1
20x150 ER16	20	ER16	0.5	10.0	28	30.0	150	M12	19	1
20x50 ER20 F	20	ER20	1.0	13.0	34	42.5	50	M12	22	1
25x100 ER20	25	ER20	1.0	13.0	34	36.0	100	M16	22	1
25x150 ER20	25	ER20	1.0	13.0	34	36.0	150	M16	22	1
20x50 ER25 F	20	ER25	1.0	16.0	42	46.0	50	M12	28	2
20x100 ER25	20	ER25	1.0	16.0	42	46.0	100	M12	28	2
20x100 ER25 F	20	ER25	1.0	16.0	42	46.0	100	M12	28	2
25x50 ER25 F	25	ER25	1.0	16.0	42	46.0	50	M16	28	2
25x100 ER25	25	ER25	1.0	16.0	42	46.0	100	M16	28	2
20x50 ER32 F	20	ER32	2.0	20.0	50	54.0	50	M12	36	2
20x100 ER32	20	ER32	2.0	20.0	50	54.0	100	M12	36	2
20x100 ER32 F	20	ER32	2.0	20.0	50	54.0	100	M12	36	2
25x50 ER32 F	25	ER32	2.0	20.0	50	52.0	50	M16x2	36	2
30x50 ER32 F	30	ER32	2.0	20.0	50	52.0	50	M18x1.5	36	2
32x50 ER32 F	32	ER32	2.0	20.0	50	52.0	50	M18x1.5	36	2
32x150 ER32	32	ER32	2.0	20.0	50	52.0	150	M18x1.5	36	2
40x75 ER32 F	40	ER32	2.0	20.0	50	46.0	75	M22x1.5	44	2
25x50 ER40 F	25	ER40	3.0	26.0	63	60.0	50	M16x2	45	2
30x50 ER40 F	32	ER40	3.0	26.0	63	60.0	50	M18x1.5	45	2
32x50 ER40 F	32	ER40	3.0	26.0	63	60.0	50	M18x1.5	45	2
40x75 ER40 F	40	ER40	3.0	26.0	63	55.0	75	M22x1.5	45	2
50x80 ER40 F	50	ER40	3.0	26.0	63	60.0	80	M28x1.5	54	2
50x80 ER50 F	50	ER50	10.0	34.0	78	77.0	80	M36x1.5	58	2



► F: Flat on the shank

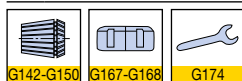
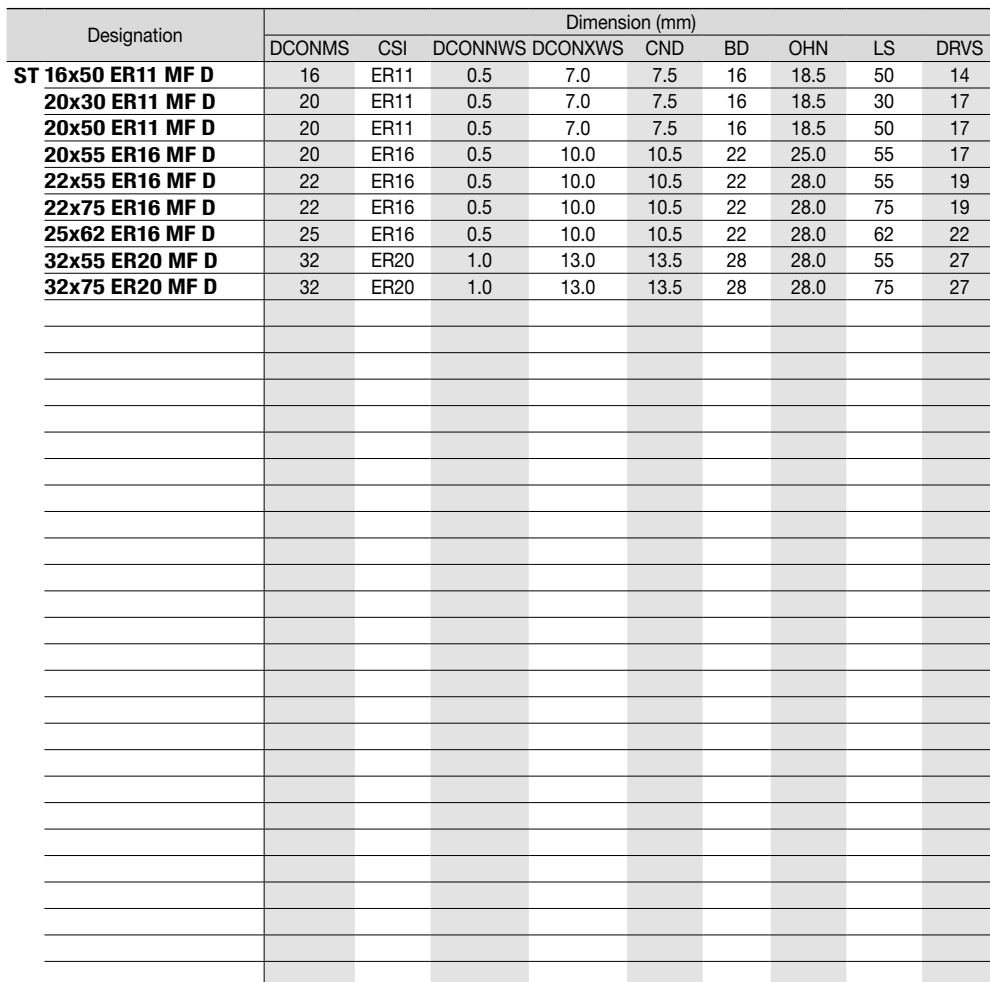
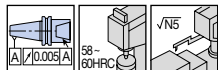
Straight shanks - Mini collet



			
G142-G150	G167-G168	G171	G174

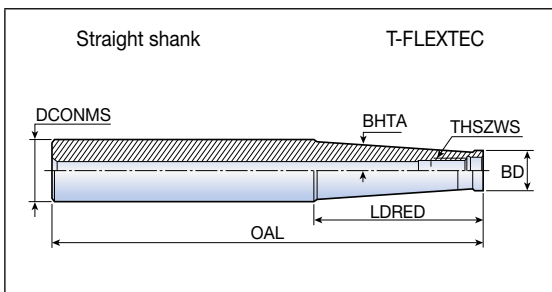
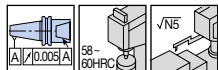
► MF: Mini flat shank

Straight shanks - Double mini collet



- ▶ MF D: Mini flat double

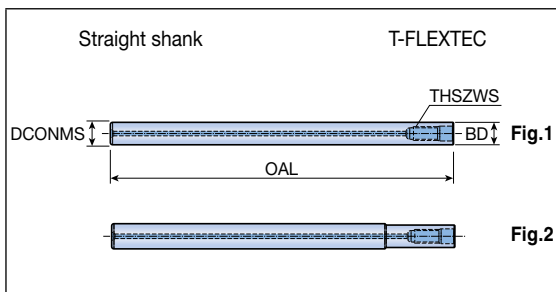
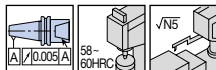
Straight shanks

[illegible]

- ▶ All shanks have coolant holes

S M-CT-L (M04/06)

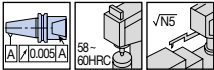
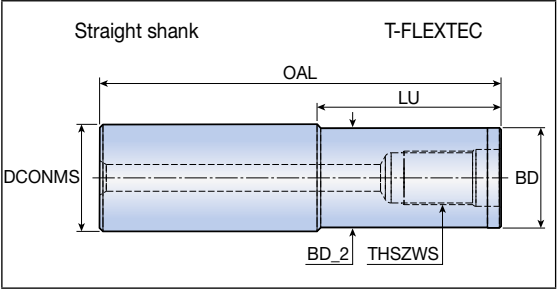
Carbide T-FLEXTEC shanks

[illegible]

S M-CT-L (M08/10/12/16)



Carbide T-FLEXTEC shanks with internal coolant hole

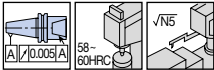
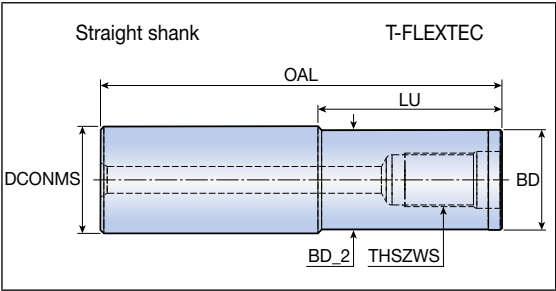


Designation	Dimension (mm)					
	THSZWS	DCONMS	BD	BD_2	OAL	LU
S M08-CT16 - 20-L80	M08	16	15.3	15.3	80	20
40-L100	M08	16	15.3	15.3	100	40
80-L150	M08	16	15.3	15.3	150	80
100-L200	M08	16	13.0	12.5	200	100
140-L200	M08	16	15.3	15.3	200	140
180-L250	M08	16	15.3	15.3	250	180
S M10-CT20 - 20-L80	M10	20	18.5	18.5	80	20
40-L100	M10	20	18.5	18.5	100	40
80-L150	M10	20	18.5	18.5	150	80
100-L200	M10	20	18.5	18.5	200	100
130-L250	M10	20	18.0	17.5	250	130
140-L200	M10	20	18.0	17.5	200	140
140-L200-N	M10	20	18.5	18.5	200	140
180-L250	M10	20	18.0	17.5	250	180
180-L250-N	M10	20	18.5	18.5	250	180
180-L300	M10	20	18.0	17.5	300	180
230-L300	M10	20	18.0	17.5	300	230
S M12-CT25 - 40-L100	M12	25	24	24.0	100	40
80-L150	M12	25	21	20.5	150	80
80-L150-N	M12	25	24	24.0	150	80
100-L200	M12	25	21	20.5	200	100
100-L200-N	M12	25	24	24.0	200	100
130-L250	M12	25	21	20.5	250	130
140-L200	M12	25	21	20.5	200	140
180-L250	M12	25	24	24.0	250	180
180-L250-B	M12	25	21	20.5	250	180
180-L300	M12	25	21	20.5	300	180
180-L300-N	M12	25	24	24.0	300	180
230-L300	M12	25	21	20.5	300	230

S M-CT-L (M08/10/12/16)



Carbide T-FLEXTEC shanks with internal coolant hole

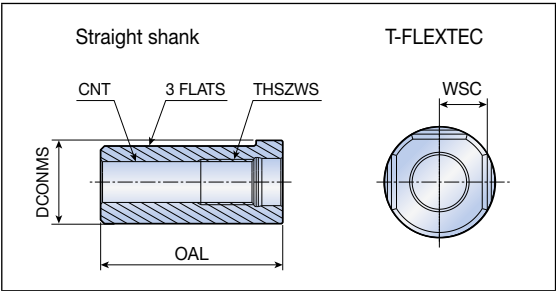


Designation	Dimension (mm)					
	THSZWS	DCONMS	BD	BD_2	OAL	LU
S M16-CT32 - 40-L100	M16	32	29	29.0	100	40
80-L150	M16	32	29	29.0	150	80
100-L200	M16	32	29	29.0	200	100
130-L250	M16	32	29	29.0	250	130
140-L200	M16	32	29	29.0	200	140
180-L250	M16	32	29	29.0	250	180
180-L300	M16	32	29	29.0	300	180
230-L300	M16	32	29	29.0	300	230
230-L350	M16	32	29	29.0	350	230
280-L350	M16	32	29	29.0	350	280

TFLEX-TCD-M12



T-FLEXTEC shank

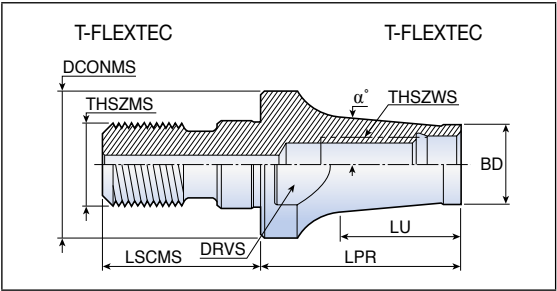
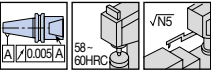


Designation	Dimension (mm)				CNT
	THSZWS	DCONMS	OAL	WSC	
TFLEX 160X36-TCD-M12	M12	16	36	7.5	UNF 5/16
1905X36-TCD-M12	M12	19.05	36	8.5	UNF 5/16
200X36-TCD-M12	M12	20	36	8.5	G 1/8
220X48-TCD-M12	M12	22	48	9.5	G 1/8
250X54-TCD-M12	M12	25	54	11	G 1/8
254X54-TCD-M12	M12	25.4	54	11	G 1/8

CAB M-M



Reducers



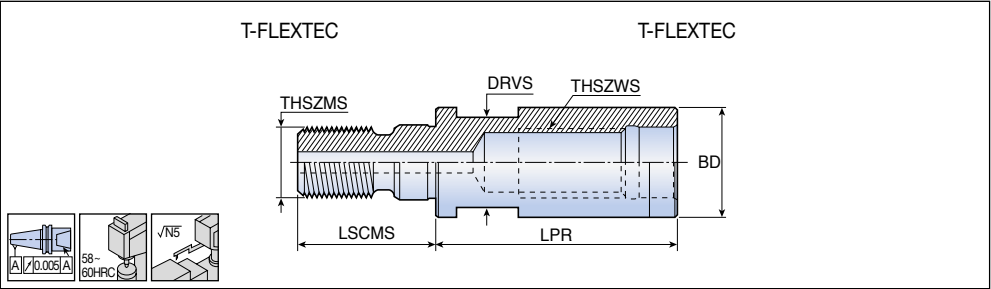
Designation	Dimension (mm)								
	THSZWS	THSZMS	BD	DCONMS	LPR	LSCMS	LU	DRVS	α°
CAB M06M08	M06	M08	9.7	13	30	17.5	24.8	9.5	5.7
M08M10	M08	M10	13.0	18	40	20.0	33.4	15.0	5.2
M10M12	M10	M12	18.0	21	45	22.0	36.4	17.0	2.5
M12M16	M12	M16	21.0	29	50	25.0	42.5	25.0	6.3

► With coolant holes

CAB M-M-C



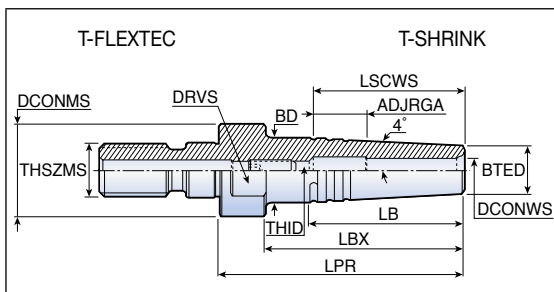
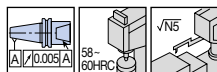
Extensions



Designation	Dimension (mm)					
	THSZWS	THSZMS	BD	LPR	LSCMS	DRVS
CAB M08M08-C	M08	M08	13	30	17.5	9.6
M10M10-C	M10	M10	18	35	20.0	15.0
M12M12-C	M12	M12	21	40	22.0	17.0
M16M16-C	M16	M16	29	40	25.0	25.0

► With coolant holes

TFLEXTEC **TSHRINK**



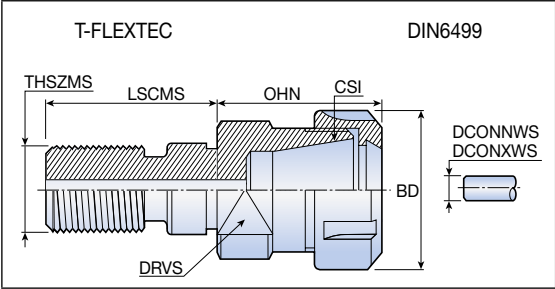
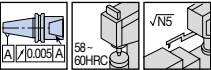
	
G179	G189

- With coolant holes

CDP ER-M



Adapters with ER collet chuck



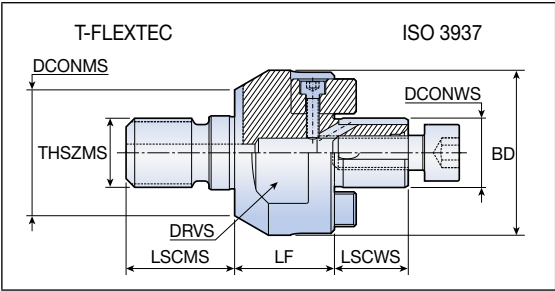
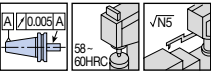
Designation	Dimension (mm)							
	CSI	THSZMS	DCONNWS	DCONXWS	BD	OHN	LSCMS	DRVS
CDP ER11 M10 M	ER11	M10	0.5	7.0	16	27.0	20	15
ER11 M12 M	ER11	M12	0.5	7.0	16	27.0	22	17
ER16 M10 M	ER16	M10	0.5	10.0	22	38.1	20	17
ER16 M12 M	ER16	M12	0.5	10.0	22	37.1	22	17
ER16 M16	ER16	M16	0.5	10.0	28	36.6	25	25
ER20 M16	ER20	M16	1.0	13.0	34	45.5	25	25
ER25 M16	ER25	M16	1.0	16.0	42	44.5	25	28

► With coolant holes

CAB M-SEM-C



Shell mill arbors



Designation	Dimension (mm)							
	THSZMS	DCONWS	DCONMS	BD	LF	LSCWS	LSCMS	DRVS
CAB M16 SEM 16C	M16	16	29	38	23	17	25	32

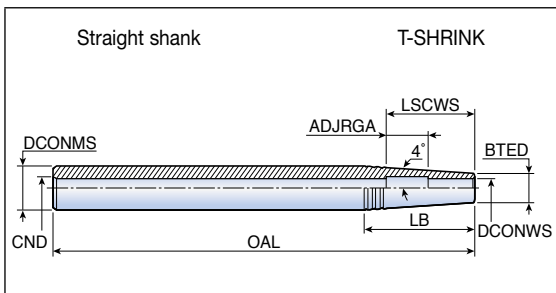
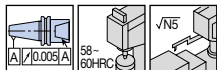


► With coolant holes

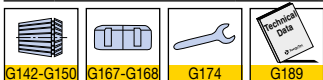
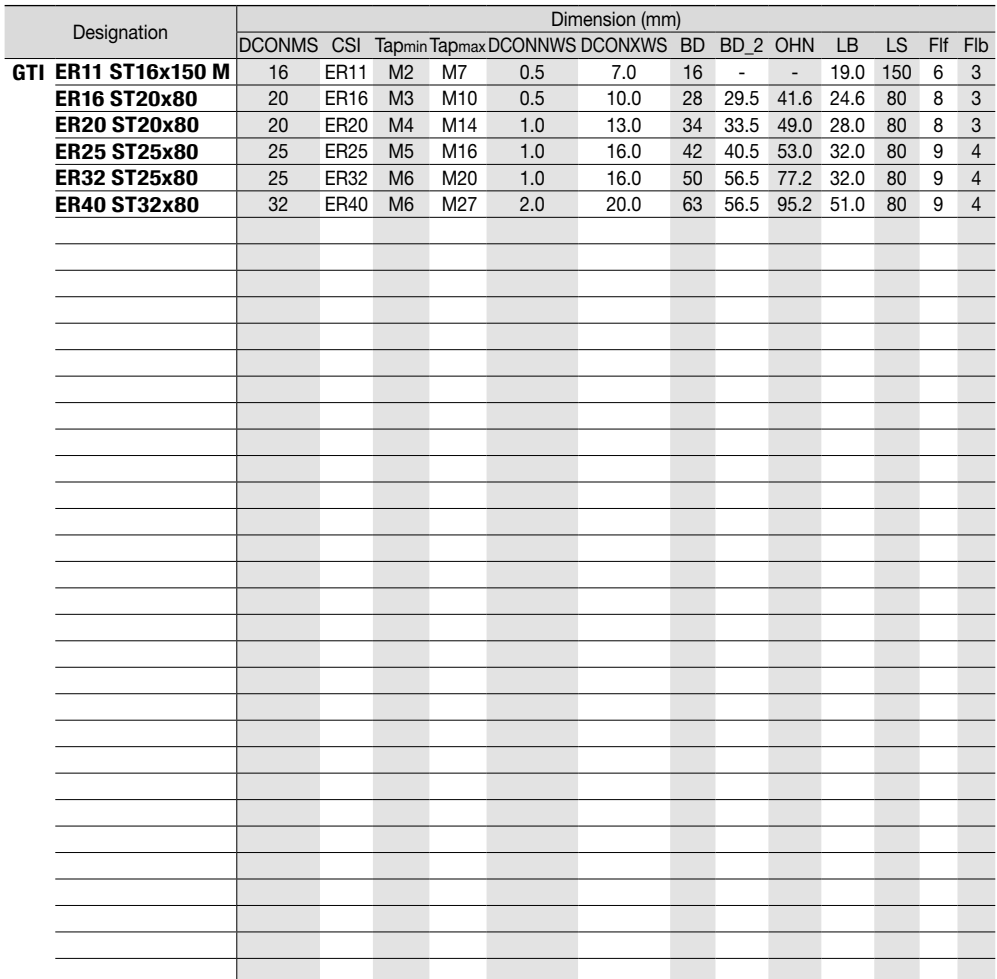
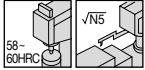
ST-SRK



Straight shanks with thermal chuck

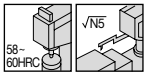
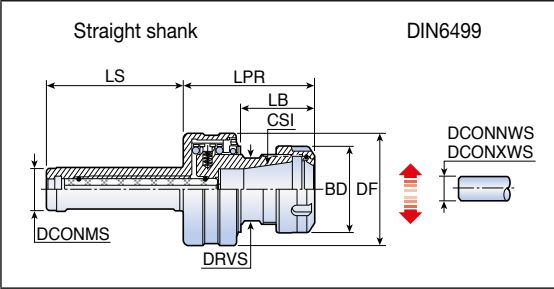
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GTI tap attachments



GFI ST-ER

GFI floating reamer ER collet chucks

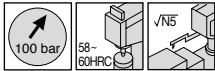
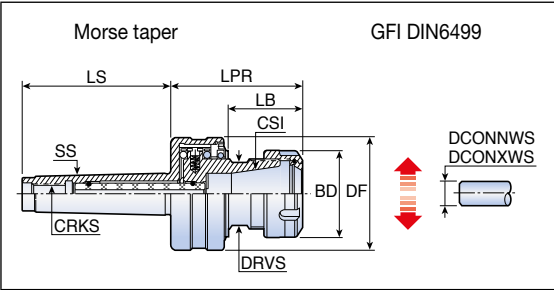


Designation	Dimension (mm)										
	DCONMS	CSI	DCONNWS	DCONXWS	DF	BD	LPR	LB	LS	Radial float	DRVS
GFI ST20 ER20	20	ER20	1.0	13.0	50	34	55.5	34.5	65	1.0	22
ST25 ER32	25	ER32	2.0	20.0	65	50	76.9	45.9	80	1.6	36

► Max. 2,000RPM

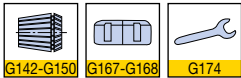
GFI MT-ER

Morse taper GFI reamer holders



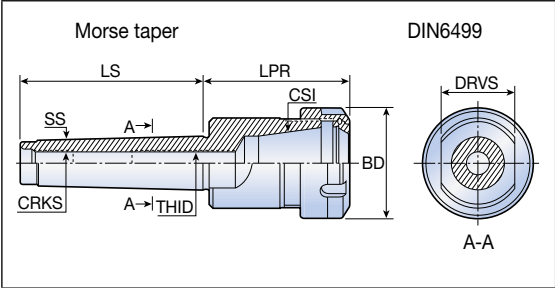
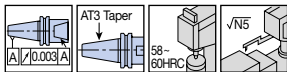
Designation	Dimension (mm)											
	SS	CSI	DCONNWS	DCONXWS	DF	BD	LPR	LB	LS	CRKS	Radial float	DRVS
GFI MT2 ER20	2	ER20	1.0	13.0	50	34	60.5	34.5	64	M10	1.0	22
MT3 ER32	3	ER32	2.0	20.0	65	50	81.9	45.9	81	M12	1.6	36

► Max. 2,000RPM



MT-ER

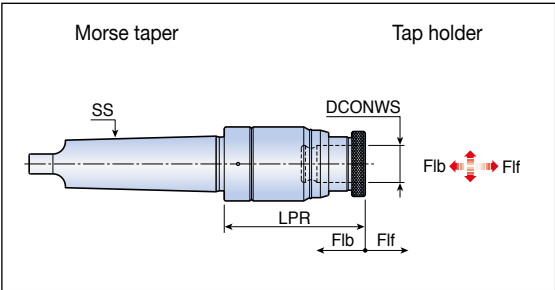
Morse taper collet chucks



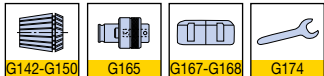
Designation	Dimension (mm)									
	SS	CSI	DCONNWS	DCONXWS	BD	LPR	LS	CRKS	THID	DRVS
MT2 ER 20x48.5	2	ER20	1.0	13.0	34	48.5	64.0	M10	M10	22
ER 25x52	2	ER25	1.0	16.0	42	52.0	64.0	M10	M10	28
MT3 ER 32x69	3	ER32	2.0	20.0	50	69.0	81.0	M12	M12	24
ER 40x79	3	ER40	3.0	26.0	63	79.0	81.0	M12	M12	24
MT4 ER 32x61	4	ER32	2.0	20.0	50	60.5	102.5	M16	M16	32
ER 40x82	4	ER40	3.0	26.0	63	81.5	102.5	M16	M16	32
ER 50x108	4	ER50	10.0	34.0	78	107.5	102.5	M16	M16	32
MT5 ER 40x82	5	ER40	3.0	26.0	63	82.0	129.5	M20	M28x1.5	45
ER 50x85	5	ER50	10.0	34.0	78	85.0	129.5	M20	M28x1.5	45

MTA-TC

Tap holders - MTA



Designation	Dimension (mm)							
	SS	Tapmin	Tapmax	DCONWS	LPR	Flb	Flf	Tap adapter
MTA3 TC12-90	12	M3	M12	19	90	6.5	12	TA1
TC22-115	22	M6	M24	31	115	14.5	13	TA2
MTA4 TC12-105	12	M3	M12	19	105	6.5	12	TA1
TC22-115	22	M6	M24	31	115	14.5	13	TA2
MTA5 TC12-145	12	M3	M12	19	145	6.5	12	TA1



TYPHOON



SS

ER11 SPR EX..AA

BD

Ø81

LF

LPR

OAL

DCONXWS

G2.5		
60,000RPM U<1.0 gmm		

- ▶ Minimum coolant pressure 20 bar and flow rate 12 l/min
- ▶ The spindle provides only external strong coolant jet around the tool
- ▶ DCONXWS: Maximum tool shank diameter

Designation	Mini ER nut	ER wrench	Key	Locking pin	Display*
TJS-GJET-BT	NUT ER11 GHS	WRENCH ER11 SMS	HW 2.0	TJS SHAFT LOCK KEY	TJS TSD DISPLAY



TaeguTec
Member IMC Group

ER11 SPR EX..AA

DCONMS

ØB1

BD

LF

LPR

OAL

DCONXWS

G2.5	60,000RPM	U<1.0 gmm
------	-----------	-----------

Icons: Globe, Hand holding tool, Blue hand icon

- ▶ Minimum coolant pressure 20 bar and flow rate 12 l/min
- ▶ The spindle provides only external strong coolant jet around the tool
- ▶ DCONXWS: Maximum tool shank diameter

Spare parts

Designation	Mini ER nut	ER wrench	Key	Locking pin	Display*
					
TJS-GJET-C	NUT ER11 GHS	WRENCH ER11 SMS	HW 2.0	TJS SHAFT LOCK KEY	TJS TSD DISPLAY

▶ *: Optional, sold separately

Technical drawing of the ER11 SPR EX..AA ball bearing assembly. The drawing shows a side view of the assembly with dimensions: LS (shaft length), Ø81 (shaft diameter), LPR (bearing length), OAL (overall length), BD (ball diameter), and DCONXWS (connection width). A detail view of the ball is shown on the right. In the bottom left corner, there are three icons: a box with 'G2.5', '60,000RPM', and 'U<1.0 gmm'; a box with a globe icon; and a box with a blue faucet icon.

[illegible]

- ▶ Minimum coolant pressure 20 bar and flow rate 12 l/min
- ▶ The spindle provides only external strong coolant jet around the tool
- ▶ DCONXWS: Maximum tool shank diameter

Designation	Mini ER nut	ER wrench	Key	Locking pin	Display*
TJS-GJET-ST	NUT ER11 GHS	WRENCH ER11 SMS	HW 2.0	TJS SHAFT LOCK KEY	TJS TSD DISPLAY

► *: Optional, sold separately

- ▶ Coolant pressure: 40 - 70 bar and flow rate: 16 - 22 ℓ/min
- ▶ Rotational spindle speed [rpm]: 25,000 - 45,000 (rev/min)
- ▶ The spindle provides only external strong coolant jet around the tool
- ▶ DCONXWS: Maximum diameter of tools

Designation	Mini ER nut	ER wrench	Key	Locking pin	Display*
TJS HPC BT40	NUT ER11 GHS	WRENCH ER11 SMS	HW 2.0	TJS SHAFT LOCK KEY	TJS TSD DISPLAY

G
136

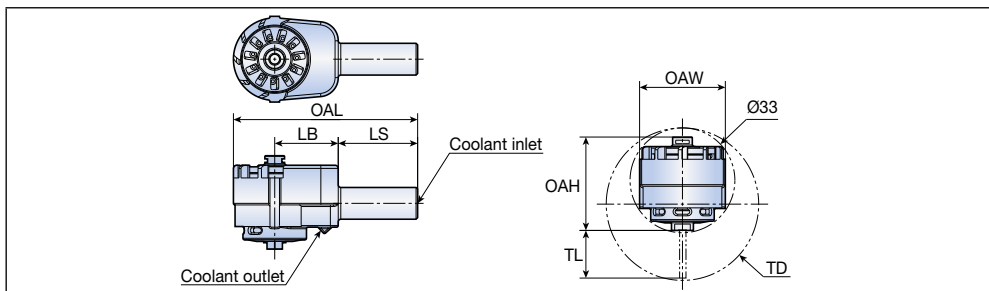
G2.5		
60,000 RPM		
U < 1.0 gmm		

- ▶ Coolant pressure: 40 - 70 bar and flow rate: 16 - 22 l/min
- ▶ Rotational spindle speed [rpm]: 25,000 - 45,000 (rev/min)
- ▶ The spindle provides only external strong coolant jet around the tool
- ▶ DCONXWS: Maximum diameter of tools

▶ *: Optional, sold separately

TJS M90

Coolant driven high-speed compact angular head spindle



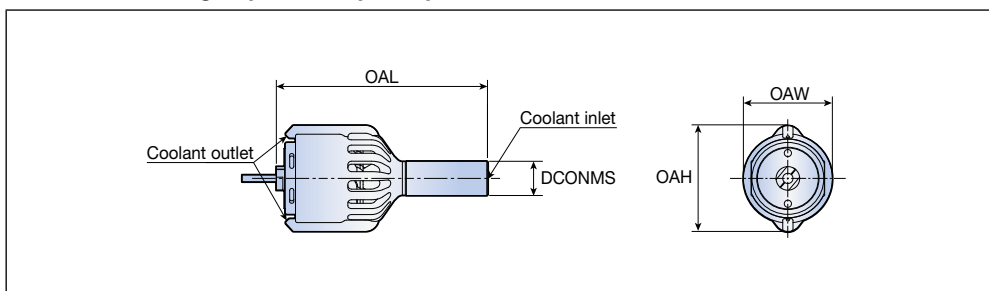
Designation	Dimension (mm)					
	DCONMS	LS	LB	OAL	OAH	OAW
TJS M90-3.0	10	25	20	58	29	27

- ▶ Coolant pressure 20 – 40 bar and flow rate 10 - 20 ℓ/min
- ▶ Rotational spindle speed [rpm]: 35,000–53,000 (rev/min)
- ▶ The spindle provides only external strong coolant jet around the tool

▶ TD: TL (Tool Length)+33 mm

TJS M00

Coolant driven high-speed compact spindle



Designation	Dimension (mm)				
	DCONMS	LS	OAL	OAH	OAW
TJS M00-3.0	10	23.8	61.8	26	31

- ▶ Coolant pressure: 15 - 40 bar and flow rate: 10 - 20 ℓ/min
- ▶ Rotational spindle speed [rpm]: 18,000 - 40,000 (rev/min)
- ▶ The spindle provides only external strong coolant jet around the tool

Spare parts

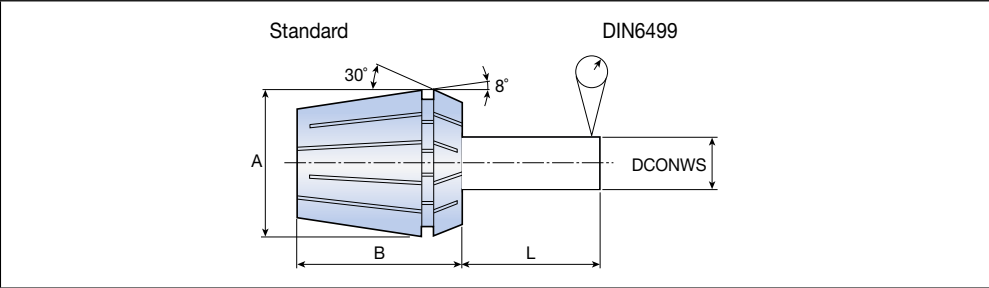
Designation	Ø3 collet	Lock key	Wrench		Nozzle	Collet*
			(1)	(2)		
TJS M90-3.0	TJS-COLLET 3.0		TJS MJ90 WRENCH-2430			* TJS-COLLET 1.6 * TJS-COLLET 2.0 * TJS-COLLET 3.175
TJS M00-3.0	TJS-COLLET 3.0	TJS MJ-SHAFTLOCK	TJS MJ-WRENCH COLLET		TJS MJ-PLUG COOLANT	* TJS-COLLET 1.6 * TJS-COLLET 2.0

- ▶ *: Optional, sold separately
- ▶ (1): For TJS M90, (2): For TJS M00

Collet



Collet



Precision (mm)

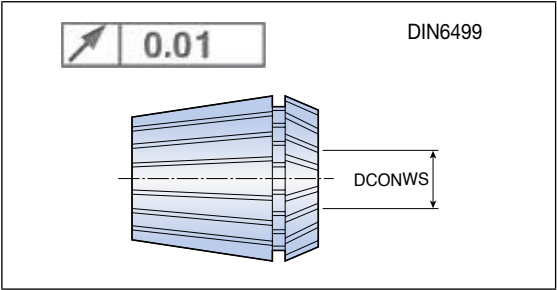
DCONWSrange	L	Run-out		
		Standard precision	Ultra precision	DIN6499
1.0-1.6	6	0.01	0.005	-
1.6-3.0	10	0.01	0.005	0.015
3.0-6.0	16	0.01	0.005	0.015
6.0-10.0	25	0.01	0.005	0.015
10.0-18.0	40	0.01	0.005	0.020
18.0-26.0	50	0.01	0.005	0.020
26.0-34	60	-	-	0.025

Dimension (mm)

Type	A	B
ER11	11.5	18
ER16	17.0	27
ER20	21.0	31
ER25	26.0	35
ER32	33.0	40
ER40	41.0	46
ER50	52.0	60

ER-SPR

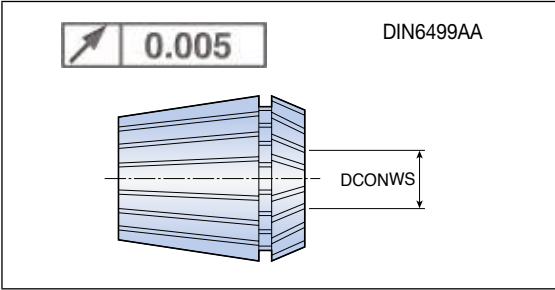
ER spring collets - Precision



DCONWSrange		ER11	ER16	ER20	ER25	ER32	ER40	ER50
0.5-1		ER11 SPR 0.5-1.0	ER16 SPR 0.5-1					
1-2	1-1.5	1.0-1.5	1-2	ER20 SPR 1-2	ER25 SPR 1-2			
	1.5-2	1.5-2.0						
2-3	2-2.5	2.0-2.5	2-3	2-3	2-3	ER32 SPR 2-3		
	2.5-3	2.5-3.0						
3-4	3-3.5	3.0-3.5	3-4	3-4	3-4	3-4	ER40 SPR 3-4	
	3.5-4	3.5-4.0						
4-5	4-4.5	4.0-4.5	4-5	4-5	4-5	4-5	4-5	
	4.5-5	4.5-5.0						
5-6	5-5.5	5.0-5.5	5-6	5-6	5-6	5-6	5-6	
	5.5-6	5.5-6.0						
6-7	6-6.5	6.0-6.5	6-7	6-7	6-7	6-7	6-7	
	6.5-7	6.5-7.0						
7-8			7-8	7-8	7-8	7-8	7-8	
8-9			8-9	8-9	8-9	8-9	8-9	
9-10			9-10	9-10	9-10	9-10	9-10	
10-11				10-11	10-11	10-11	10-11	ER50 SPR 10-12
11-12				11-12	11-12	11-12	11-12	ER50 SPR 10-12
12-13				12-13	12-13	12-13	12-13	12-14
13-14					13-14	13-14	13-14	12-14
14-15					14-15	14-15	14-15	14-16
15-16					15-16	15-16	15-16	14-16
16-17						16-17	16-17	16-18
17-18						17-18	17-18	16-18
18-19						18-19	18-19	18-20
19-20						19-20	19-20	18-20
20-21							20-21	20-22
21-22							21-22	20-22
22-23							22-23	22-24
23-24							23-24	22-24
24-25							24-25	24-26
25-26							25-26	24-26
26-28								26-28
28-30								28-30
30-32								30-32
32-34								32-34

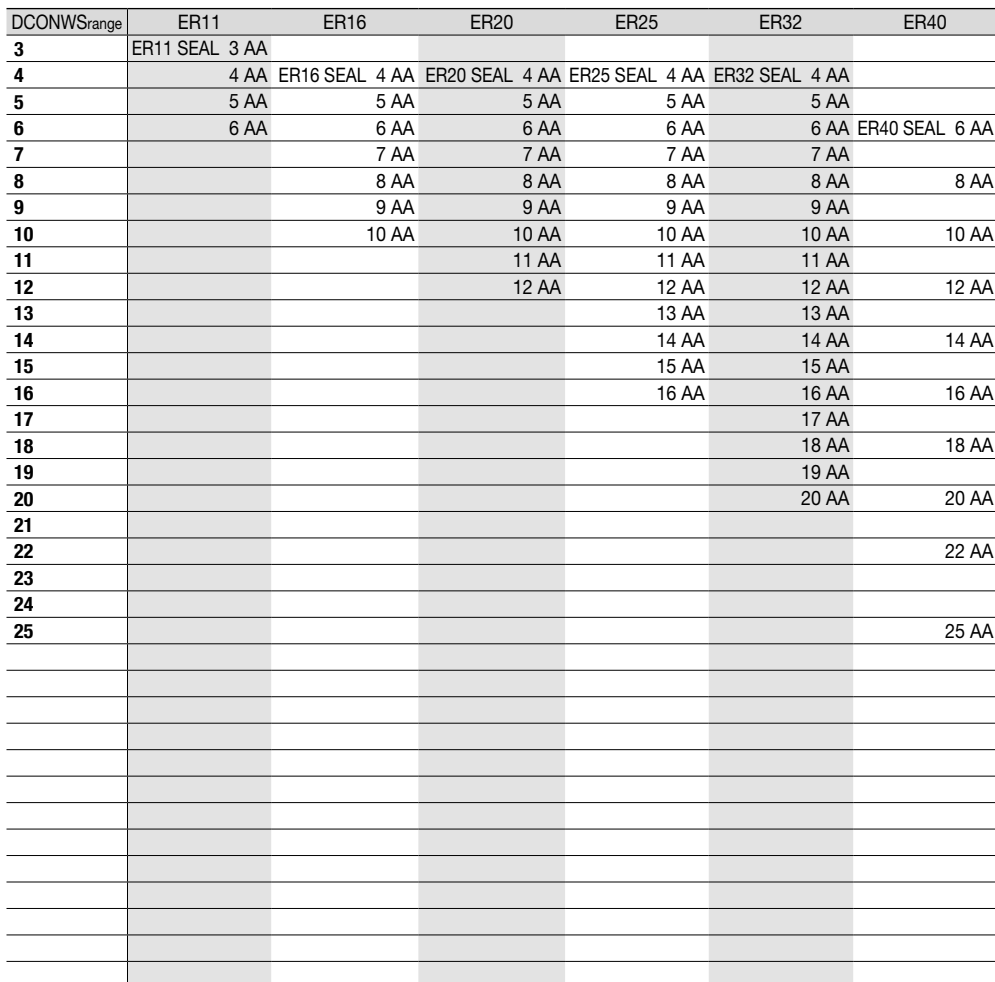
ER-SPR-AA

ER spring collets - Ultra precision “AA”



DCONWSrange		ER11	ER16	ER20	ER25	ER32	ER40
0.5-1		ER11 SPR 0.5-1.0AA	ER16 SPR 0.5-1AA				
1-2	1-1.5	1.0-1.5AA		1-2AA	ER20 SPR 1-2AA	ER25 SPR 1-2AA	
	1.5-2	1.5-2.0AA					
2-3	2-2.5	2.0-2.5AA					
	2.5-3	2.5-3.0AA	2-3AA	2-3AA	2-3AA	ER32 SPR 2-3AA	
3-4	3-3.5	3.0-3.5AA					
	3.5-4	3.5-4.0AA	3-4AA	3-4AA	3-4AA	3-4AA	ER40 SPR 3-4AA
4-5	4-4.5	4.0-4.5AA					
	4.5-5	4.5-5.0AA	4-5AA	4-5AA	4-5AA	4-5AA	4-5AA
5-6	5-5.5	5.0-5.5AA					
	5.5-6	5.5-6.0AA	5-6AA	5-6AA	5-6AA	5-6AA	5-6AA
6-7	6-6.5	6.0-6.5AA					
	6.5-7	6.5-7.0AA	6-7AA	6-7AA	6-7AA	6-7AA	6-7AA
7-8			7-8AA	7-8AA	7-8AA	7-8AA	7-8AA
8-9			8-9AA	8-9AA	8-9AA	8-9AA	8-9AA
9-10			9-10AA	9-10AA	9-10AA	9-10AA	9-10AA
10-11				10-11AA	10-11AA	10-11AA	10-11AA
11-12				11-12AA	11-12AA	11-12AA	11-12AA
12-13				12-13AA	12-13AA	12-13AA	12-13AA
13-14					13-14AA	13-14AA	13-14AA
14-15					14-15AA	14-15AA	14-15AA
15-16					15-16AA	15-16AA	15-16AA
16-17						16-17AA	16-17AA
17-18						17-18AA	17-18AA
18-19						18-19AA	18-19AA
19-20						19-20AA	19-20AA
20-21							20-21AA
21-22							21-22AA
22-23							22-23AA
23-24							23-24AA
24-25							24-25AA
25-26							25-26AA

ER sealed collets - Ultra precision

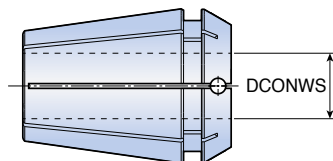


ER-SEAL-AA-JET

ER sealed jet collets – Ultra precision

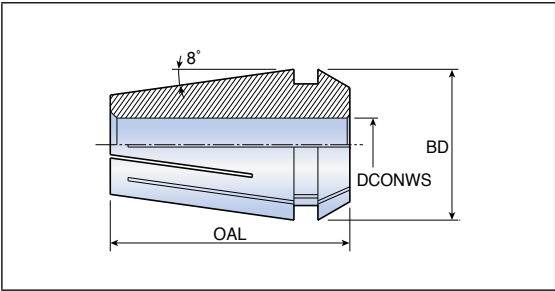


DIN6499

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EROH

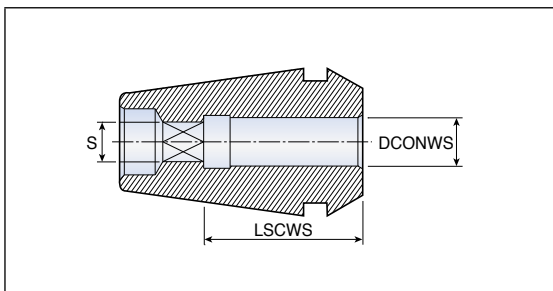
ER collets for internal coolant



Designation	Dimension (mm)		
	DCONWSrange	BD	OAL
EROH 16	4.0-10.0	17	27.5
EROH 20	6.0-13.0	21	31.5
EROH 25	6.0-16.0	26	34.0
EROH 32	8.0-20.0	33	40.0
EROH 40	10.0-26.0	41	46.0

DCONWS	ER16	ER20	ER25	ER32	ER40
4	EROH 16-4				
5	EROH 16-5				
6	EROH 16-6	EROH 20-6	EROH 25-6		
7	EROH 16-7	EROH 20-7	EROH 25-7		
8	EROH 16-8	EROH 20-8	EROH 25-8	EROH 32-8	
9	EROH 16-9	EROH 20-9	EROH 25-9	EROH 32-9	
10	EROH 16-10	EROH 20-10	EROH 25-10	EROH 32-10	EROH 40-10
11		EROH 20-11	EROH 25-11	EROH 32-11	EROH 40-11
12		EROH 20-12	EROH 25-12	EROH 32-12	EROH 40-12
13		EROH 20-13	EROH 25-13	EROH 32-13	EROH 40-13
14			EROH 25-14	EROH 32-14	EROH 40-14
15			EROH 25-15	EROH 32-15	EROH 40-15
16			EROH 25-16	EROH 32-16	EROH 40-16
17				EROH 32-17	EROH 40-17
18				EROH 32-18	EROH 40-18
19				EROH 32-19	EROH 40-19
20				EROH 32-20	EROH 40-20
21					EROH 40-21
22					EROH 40-22
23					EROH 40-23
24					EROH 40-24
25					EROH 40-25
26					EROH 40-26

ER type tap collets



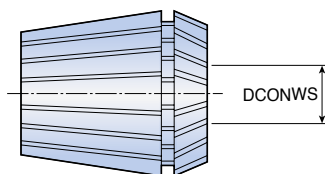
▶ Tap specification is based on JIS (DIN or ISO standard prepared by special quotation)

SET ER-SPR

ER spring collet sets



DIN6499



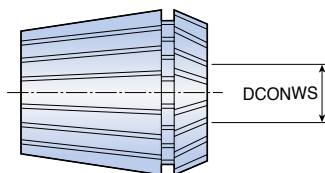
Designation	Pieces / set	DCONWS _{range}
SET ER11 SPR 13	13	0.5-7
ER16 SPR 10	10	0.5-10
ER20 SPR 12	12	1-13
ER25 SPR 15	15	1-16
ER32 SPR 18	18	2-20
ER40 SPR 23	23	3-26
ER50 SPR 12	12	10-34

SET ER-SPR-AA

ER spring collet sets – Ultra precision “AA”

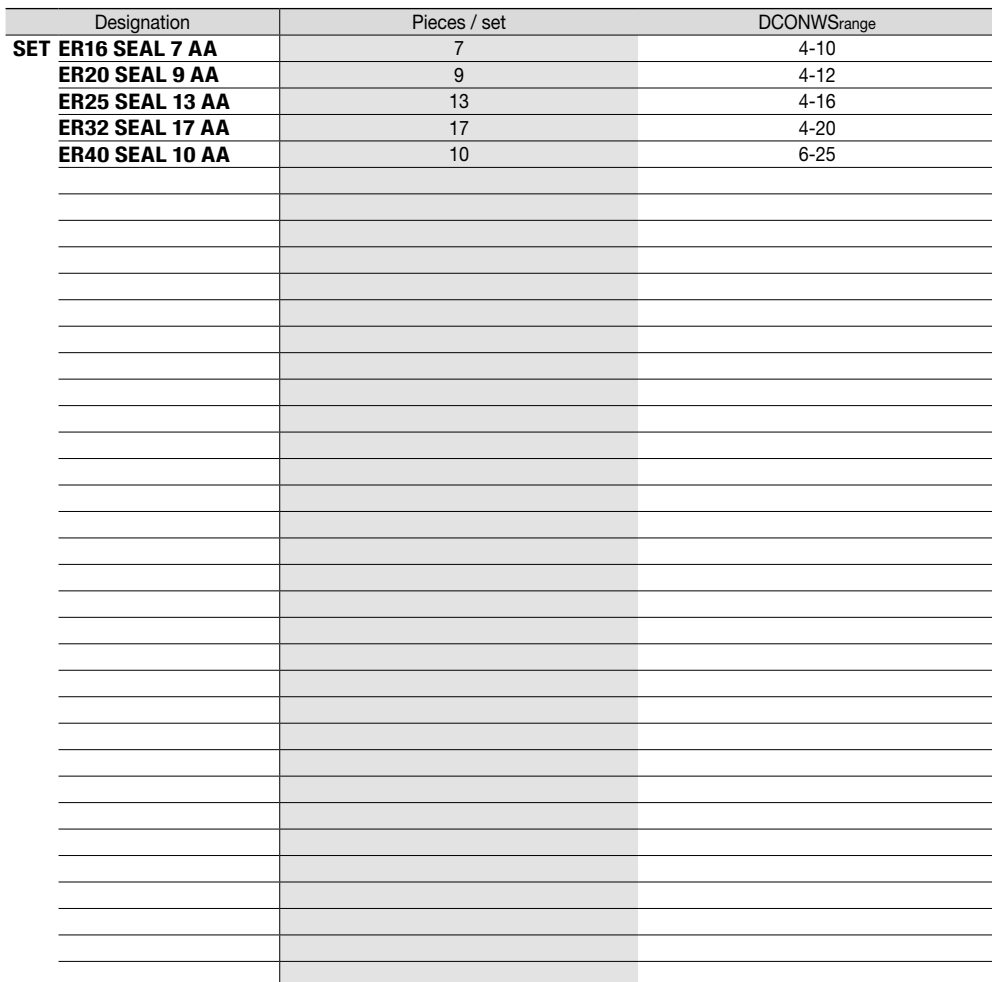


DIN6499



Designation	Pieces / set	DCONWS _{range}
SET ER11 SPR 13AA	13	0.5-7
ER16 SPR 10AA	10	0.5-10
ER20 SPR 12AA	12	1-13
ER25 SPR 15AA	15	1-16
ER32 SPR 18AA	18	2-20
ER40 SPR 23AA	23	3-26

ER sealed collet sets - Ultra precision

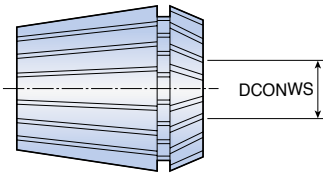


SET ER-SPR-EM

ER spring collet sets



DIN6499



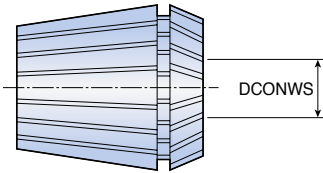
Designation	Pieces / set	DCONWSrange
SET ER16 SPR 7 EM	7	1,2,3,4,5,6,7
ER16 SPR 8 EM	8	3, 4, 5, 6, 7, 8, 9, 10
ER20 SPR 5 EM	5	4, 6, 8, 10, 12
ER25 SPR 6 EM	6	4, 6, 8, 10, 12, 16
ER32 SPR 6 EM	6	6, 8, 10, 12, 16, 20
ER40 SPR 7 EM	7	6, 8, 10, 12, 16, 20, 25

SET ER-SPR-EM AA

ER spring collet sets – Ultra precision “AA”



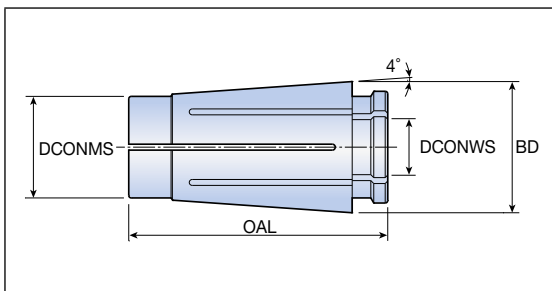
DIN6499



Designation	Pieces / set	DCONWSrange
SET ER11 SPR 7 EM AA	7	1,2,3,4,5,6,7

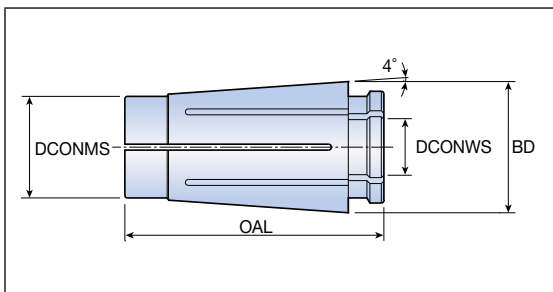
TSK

TSK collets



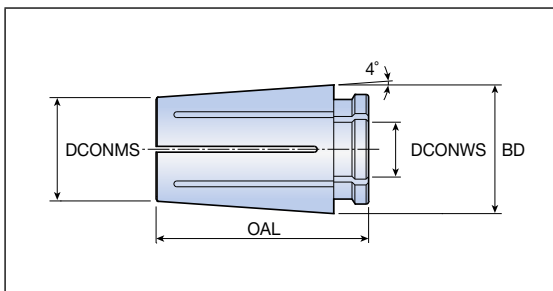
Designation	Dimension (mm)			
	DCONWS _{range}	BD	DCONMS	OAL
TSK 06	2.0-6.0	10.4	7.5	25.0
TSK 10	2.0-10.0	15.5	12.0	30.6
TSK 16	3.0-16.0	24.6	18.8	45.0
TSK 25	8.0-25.0	35.7	28.8	57.0

DCONWS _{range}	TSK 06	TSK 10	TSK 16	TSK 25
1.5-2.0	TSK 06-2.0	TSK 10-2.0		
2.0-2.5	TSK 06-2.5	TSK 10-2.5		
2.5-3.0	TSK 06-3.0	TSK 10-3.0	TSK 16-3.0	
3.0-3.5	TSK 06-3.5	TSK 10-3.5	TSK 16-3.5	
3.5-4.0	TSK 06-4.0	TSK 10-4.0	TSK 16-4.0	
4.0-4.5	TSK 06-4.5	TSK 10-4.5	TSK 16-4.5	
4.5-5.0	TSK 06-5.0	TSK 10-5.0	TSK 16-5.0	
5.0-5.5	TSK 06-5.5	TSK 10-5.5	TSK 16-5.5	
5.5-6.0	TSK 06-6.0	TSK 10-6.0	TSK 16-6.0	
6.0-6.5		TSK 10-6.5	TSK 16-6.5	
6.5-7.0		TSK 10-7.0	TSK 16-7.0	
7.0-7.5		TSK 10-7.5	TSK 16-7.5	
7.5-8.0		TSK 10-8.0	TSK 16-8.0	TSK 25-8.0
8.0-8.5		TSK 10-8.5	TSK 16-8.5	TSK 25-8.5
8.5-9.0		TSK 10-9.0	TSK 16-9.0	TSK 25-9.0
9.0-9.5		TSK 10-9.5	TSK 16-9.5	TSK 25-9.5
9.5-10.0		TSK 10-10.0	TSK 16-10.0	TSK 25-10.0
10.0-10.5			TSK 16-10.5	TSK 25-10.5
10.5-11.0			TSK 16-11.0	TSK 25-11.0
11.0-11.5			TSK 16-11.5	TSK 25-11.5
11.5-12.0			TSK 16-12.0	TSK 25-12.0
12.0-12.5			TSK 16-12.5	TSK 25-12.5
12.5-13.0			TSK 16-13.0	TSK 25-13.0
13.0-13.5			TSK 16-13.5	TSK 25-13.5
13.5-14.0			TSK 16-14.0	TSK 25-14.0
14.0-14.5			TSK 16-14.5	TSK 25-14.5
14.5-15.0			TSK 16-15.0	TSK 25-15.0
15.0-15.5			TSK 16-15.5	TSK 25-15.5
15.5-16.0			TSK 16-16.0	TSK 25-16.0
16.0-16.5				TSK 25-16.5
16.5-17.0				TSK 25-17.0



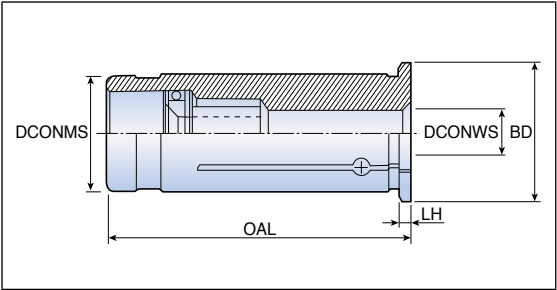
ADVANCECUTTING
TaeguTec

Internal coolant type collets for TSK chucks



THC

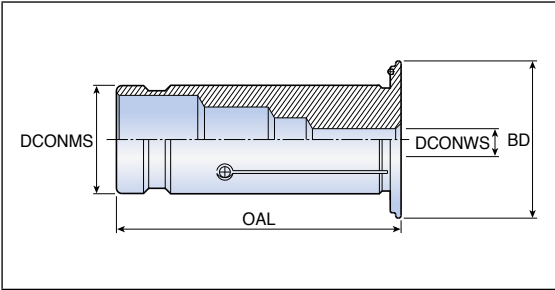
Straight collets for hydraulic chucks



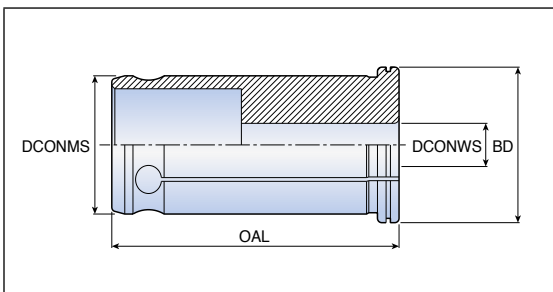
Designation	Dimension (mm)				
	DCONMS	DCONWS	BD	OAL	LH
THC 12-3	12	3	16	46.5	2
12-4	12	4	16	46.5	2
12-5	12	5	16	46.5	2
12-6	12	6	16	46.5	2
12-7	12	7	16	46.5	2
12-8	12	8	16	46.5	2
12-9	12	9	16	46.5	2
20-3	20	3	24	50.5	2
20-4	20	4	24	50.5	2
20-5	20	5	24	50.5	2
20-6	20	6	24	50.5	2
20-7	20	7	24	50.5	2
20-8	20	8	24	50.5	2
20-9	20	9	24	50.5	2
20-10	20	10	24	50.5	2
20-11	20	11	24	50.5	2
20-12	20	12	24	50.5	2
20-13	20	13	24	50.5	2
20-14	20	14	24	50.5	2
20-15	20	15	24	50.5	2
20-16	20	16	24	50.5	2
20-17	20	17	24	50.5	2
32-6	32	6	36	60.5	3
32-8	32	8	36	60.5	3
32-10	32	10	36	60.5	3
32-12	32	12	36	60.5	3
32-14	32	14	36	60.5	3
32-16	32	16	36	60.5	3
32-18	32	18	36	60.5	3
32-20	32	20	36	60.5	3
32-25	32	25	36	60.5	3

THC C

Straight collets of internal coolant type for hydraulic chucks

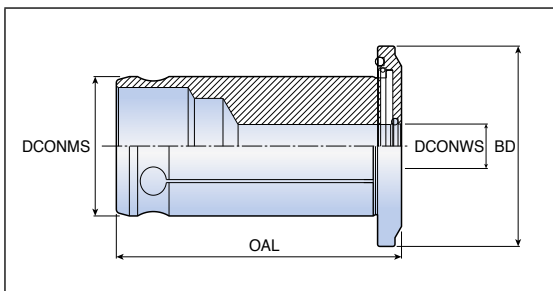


Designation	Dimension (mm)			
	DCONMS	DCONWS	BD	OAL
THC C12-3	12	3	19	47.0
C12-4	12	4	19	47.0
C12-5	12	5	19	47.0
C12-6	12	6	19	47.0
C12-7	12	7	19	47.0
C12-8	12	8	19	47.0
C20-3	20	3	29	52.5
C20-4	20	4	29	52.5
C20-5	20	5	29	52.5
C20-6	20	6	29	52.5
C20-7	20	7	29	52.5
C20-8	20	8	29	52.5
C20-9	20	9	29	52.5
C20-10	20	10	29	52.5
C20-11	20	11	29	52.5
C20-12	20	12	29	52.5
C20-13	20	13	29	52.5
C20-14	20	14	29	52.5
C20-15	20	15	29	52.5
C20-16	20	16	29	52.5
C20-17	20	17	29	52.5
C32-6	32	6	39	63.5
C32-8	32	8	39	63.5
C32-10	32	10	39	63.5
C32-12	32	12	39	63.5
C32-14	32	14	39	63.5
C32-16	32	16	39	63.5
C32-18	32	18	39	63.5
C32-20	32	20	39	63.5
C32-25	32	25	39	63.5



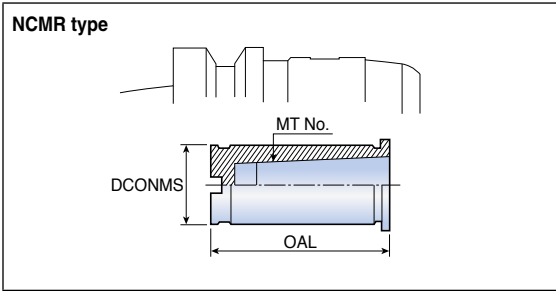
ADVANCECUTTING
TaeguTec

Straight collets for milling chucks: internal coolant type

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NCMR

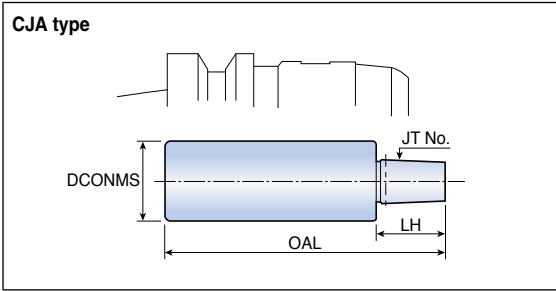
Collet for milling chucks - Morse taper adapter for milling chuck



Designation	MT No.	Dimension (mm)		Application chuck
		DCONMS	OAL	
NCMR 32-1	1	32	60	NTMC 32
32-2	2	32	72	NTMC 32
32-3	3	32	90	NTMC 32
42-1	1	42	60	NTMC 42
42-2	2	42	72	NTMC 42
42-3	3	42	90	NTMC 42
42-4	4	42	113	NTMC 42

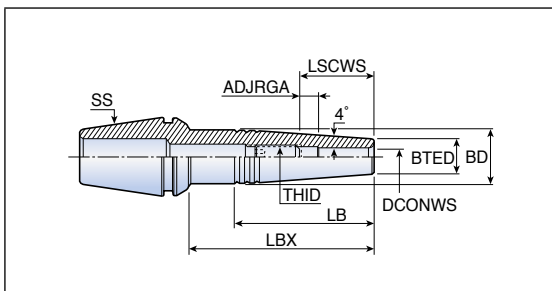
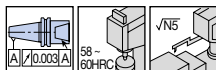
CJA

Collet for milling chucks - Jacobs taper adapter for milling chuck

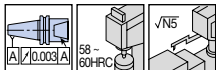


Designation	JT No.	Dimension (mm)			Application chuck
		DCONMS	OAL	LH	
CJA 32-6	6	32	118	28	NTMC 32
42-6	6	42	128	28	NTMC 42

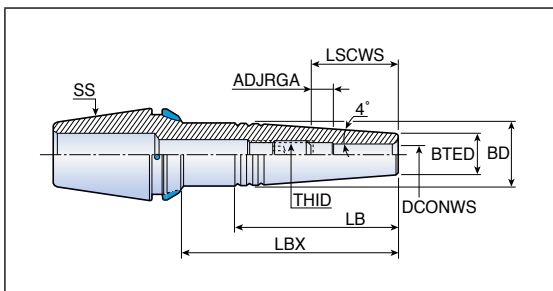
T-SHRINK ER collets DIN6499

[illegible]

► ⁽¹⁾ To be used only for TYPHOON spindles

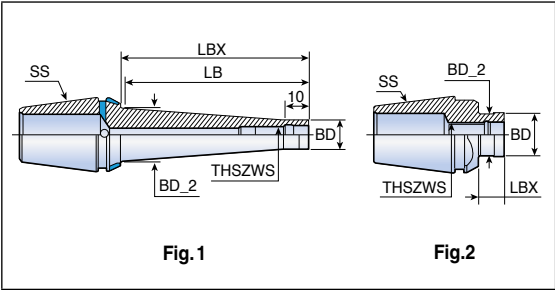
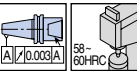


ADVANCECUTTING
TaequTec



Designation	Dimension (mm)									
	SS	DCONWS	BTED	BD	LBX	LB	ADJRG	LSCWS	THID	Hex key
ER20 SRK 3x35 JET2	ER20	3	10	13.5	35	24.5	6	16	M6	3.0
SRK 4x35 JET2	ER20	4	10	13.5	35	24.5	6	18	M6	3.0
SRK 5x35 JET2	ER20	5	10	13.5	35	24.5	6	21	M6	3.0
SRK 6x35 JET2	ER20	6	11	13.5	35	25.5	6	24	M8	4.0
ER25 SRK 3x35 JET2	ER25	3	10	13.5	35	24.5	6	16	M6	3.0
SRK 3x60 JET2	ER25	3	10	16.3	60	44.5	6	16	M6	3.0
SRK 4x35 JET2	ER25	4	10	13.5	35	24.5	6	18	M6	3.0
SRK 4x60 JET2	ER25	4	10	16.3	60	44.5	6	18	M6	3.0
SRK 5x35 JET2	ER25	5	10	13.5	35	24.5	6	21	M6	3.0
SRK 5x60 JET2	ER25	5	10	16.3	60	44.5	6	21	M6	3.0
SRK 6x35 JET2	ER25	6	11	14.7	35	26.0	6	24	M8	4.0
SRK 6x60 JET2	ER25	6	11	17.3	60	44.5	6	24	M8	4.0
SRK 8x35 JET2	ER25	8	14	17.8	35	26.5	5	30	M10	5.0
SRK 8x60 JET2	ER25	8	14	17.9	60	39.5	6	31	M10	5.0
ER32 SRK 3x35 JET2	ER32	3	10	13.5	35	22.5	6	16	M6	3.0
SRK 3x60 JET2	ER32	3	10	16.3	60	44.5	6	16	M6	3.0
SRK 3x85 JET2	ER32	3	10	19.8	85	70.0	6	16	M6	3.0
SRK 4x35 JET2	ER32	4	10	13.5	35	23.5	6	18	M6	3.0
SRK 4x60 JET2	ER32	4	10	16.3	60	44.5	6	18	M6	3.0
SRK 4x85 JET2	ER32	4	10	19.8	85	70.0	6	18	M6	3.0
SRK 5x35 JET2	ER32	5	10	13.5	35	24.5	6	21	M6	3.0
SRK 5x60 JET2	ER32	5	10	16.3	60	44.5	6	21	M6	3.0
SRK 5x85 JET2	ER32	5	10	19.8	85	70.0	6	21	M6	3.0
SRK 6x35 JET2	ER32	6	11	14.7	35	25.5	6	24	M8	4.0
SRK 6x60 JET2	ER32	6	11	17.3	60	45.0	6	24	M8	4.0
SRK 6x85 JET2	ER32	6	11	20.8	85	69.5	8	26	M8	4.0
SRK 8x35 JET2	ER32	8	14	18.8	35	33.0	6	31	M10	5.0
SRK 8x60 JET2	ER32	8	14	20.4	60	45.0	6	31	M10	5.0
SRK 8x85 JET2	ER32	8	14	23.2	85	65.0	6	31	M10	5.0
SRK 10x35 JET2	ER32	10	16	20.8	35	34.0	5	35	M12	6.0
SRK 10x60 JET2	ER32	10	16	22.4	60	44.5	6	36	M12	6.0
SRK 10x85 JET2	ER32	10	16	23.0	85	49.5	6	36	M12	6.0
SRK 12x35 JET2	ER32	12	20	24.0	35	28.0	-	-	-	-
SRK 12x60 JET2	ER32	12	20	24.0	60	28.0	6	38	M14	6.0
SRK 12x85 JET2	ER32	12	20	24.0	85	28.0	6	38	M14	6.0

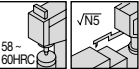
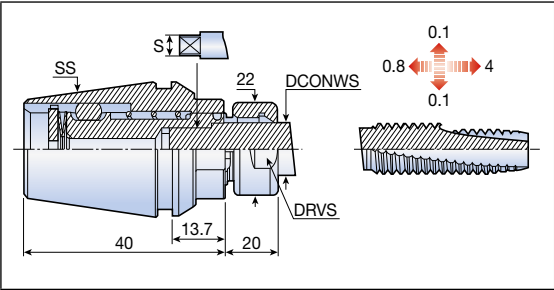
T-FLEXTEC holder



Designation		Dimension (mm)						Fig
		SS	THSZWS	BD	BD_2	LB	LBX	
ER	25 ODP M12x10	ER25	M12	20.0	20.0	10	10.0	2
	32 ODP M12x10	ER32	M12	10.0	10.0	21	20.6	2
	32 ODP M12x25	ER32	M12	24.0	25.0	21	24.0	1

GTIN ER

GTIN ER collets



GTIN ER 32 - DIN 371 / 352

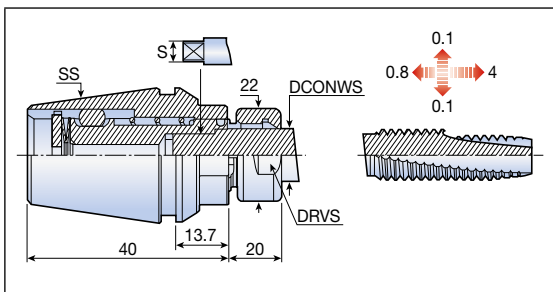
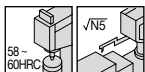
Designation	Dimension (mm)					
	SS	DCONWS	Tapmin	Tapmax	S	DRVS
GTIN ER32 DIN 2.50x2.10	ER32	2.5	M1	M1.8	2.1	20
DIN 2.80x2.10	ER32	2.8	M2	M4	2.1	20
DIN 3.50x2.70	ER32	3.5	M3	M5	2.7	20
DIN 4.00x3.00	ER32	4.0	M3.5	M3.5	3.0	20
DIN 4.50x3.40	ER32	4.5	M4	M6	3.4	20
DIN 6.00x4.90	ER32	6.0	M5	M8	4.9	20
DIN 7.00x5.50	ER32	7.0	M7	M10	5.5	20
DIN 8.00x6.20	ER32	8.0	M8	M8	6.2	20
DIN 9.00x7.00	ER32	9.0	M12	M12	7.0	20
DIN 10.00x8.00	ER32	10.0	M10	M10	8.0	20
DIN 11.00x9.00	ER32	11.0	M14	M14	9.0	20
DIN 12.00x9.00	ER32	12.0	M16	M16	9.0	20

GTIN ER 32 - JIS

Designation	Dimension (mm)					
	SS	DCONWS	Tapmin	Tapmax	S	DRVS
GTIN ER32 JIS 3.00x2.50	ER32	3.0	M1	M2.6	2.5	20
JIS 4.00x3.20	ER32	4.0	M3	M3.5	3.2	20
JIS 5.00x4.00	ER32	5.0	M4	M4	4.0	20
JIS 6.00x4.50	ER32	6.0	M6	M6	4.5	20
JIS 6.20x5.00	ER32	6.2	M8	M8	5.0	20
JIS 7.00x5.50	ER32	7.0	M10	M10	5.5	20
JIS 8.50x6.50	ER32	8.5	M12	M12	6.5	20
JIS 10.50x8.00	ER32	10.5	M14	M14	8.0	20
JIS 12.50x10.00	ER32	12.5	M16	M16	10.0	20

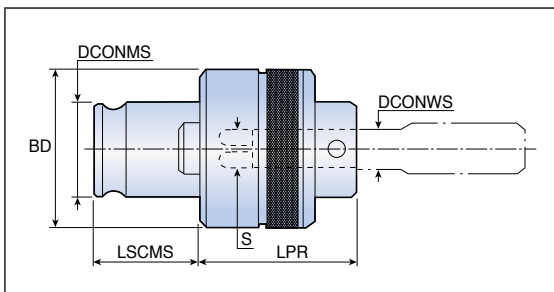
► No coolant should be induced through the tap collet, as it will cause malfunctioning of the mechanism

GTIN ER collets

[illegible]

164 G

Tap adapters



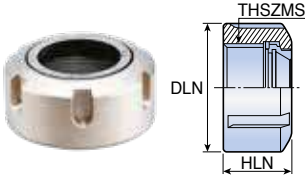
► Based on JIS standard tap

Accessories



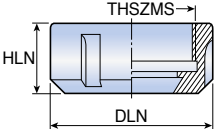
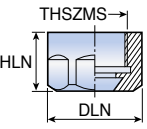
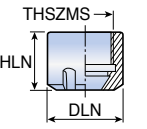
NUT ER TOP

ER - Top™ clamping nuts

	Designation	Dimension (mm)		
		DLN	HLN	THSZMS
	NUT ER16 TOP	28	17	M22x1.5
	ER20 TOP	34	19	M25x1.5
	ER25 TOP	42	20	M32x1.5
	ER32 TOP	50	22	M40x1.5
	ER40 TOP	63	25	M50x1.5

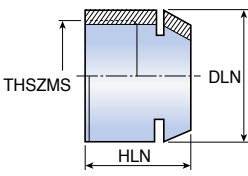
NUT ER MINI/UM

ER clamping nuts

 ER 25, 32, 40, 50 UM	Designation	Dimension (mm)		
		DLN	HLN	THSZMS
 ER 16, 20 UM	NUT ER11 MINI	16	10.8	M13x0.75
	ER11 UM	19	11.3	M14x0.75
 ER 11, 16, 20 MINI	ER16 MINI	22	18.0	M19x1.0
	ER16 UM	28	17.0	M22x1.5
	ER20 MINI	28	19.0	M24x1.5
	ER20 UM	34	19.0	M25x1.5
	ER25 MINI	35	20.0	M30x1.5
	ER25 UM	42	20.0	M32x1.5
	ER32 UM	50	22.0	M40x1.5
	ER40 UM	63	25.0	M50x1.5
	ER50 UM	78	55.0	M64x2.0

NUT ER11 GHS

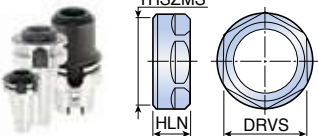
Tightening nuts

	Designation	Dimension (mm)			
		DLN	HLN	THSZMS	Wrench
	NUT ER11 GHS	16	11.5	M13x0.75	WRENCH ER11 SMS



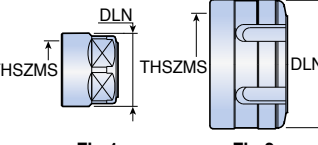
NUT ER SHORT

T-SHORT nuts

	Designation	Dimension (mm)		
		DRVS	HLN	THSZMS
	NUT ER20 SHORT	22	10.7	M25x1.5
	ER32 SHORT	36	15.0	M40x1.5
	ER40 SHORT	46	16.0	M50x1.5

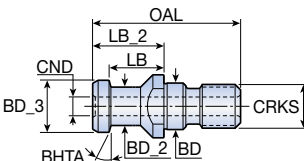
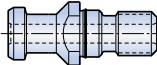
TSKN

TSK clamping nuts

	Designation	Dimension (mm)		Fig.
		DLN	THSZMS	
	TSKN 6	20	M15x1.0	1
	10	28	M21.5x1.0	1
	16	40	M32x1.5	2
	25	55	M45x1.5	2

PS SK-DIN

Pull studs DIN69872 with JIS63398 retention knob

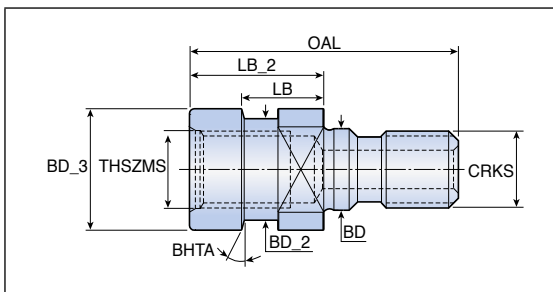
				
	Fig.1		Fig.2	

Designation	Dimension (mm)									Fig.
	CRKS	BD	BD_2	BD_3	CND	LB	LB_2	OAL	BHTA	
PS SK30 15 M12 DIN	M12	13	9.0	13.00	-	19.00	24.00	44.0	15	1
PS SK40 15 M16 DIN	M16	17	14.0	19.00	-	20.00	26.00	54.0	15	1
15 M16 DIN O	M16	17	14.0	19.00	-	20.00	26.00	54.0	15	2
15 M16 DIN B	M16	17	14.0	19.00	7.00	20.00	26.00	54.0	15	1
15 M16 DIN OB	M16	17	14.0	19.00	7.00	20.00	26.00	54.0	15	2
PS SK50 15 M24 DIN	M24	25	21.0	28.00	-	25.00	34.00	74.0	15	1
15 M24 DIN O	M24	25	21.0	28.00	-	25.00	34.00	74.0	15	2
15 M24 DIN B	M24	25	21.0	28.00	11.50	25.00	34.00	74.0	15	1

- Coolant holes only in items with a "B" suffix
- Fig. 2: With external O-ring

PS OTT BT/SK

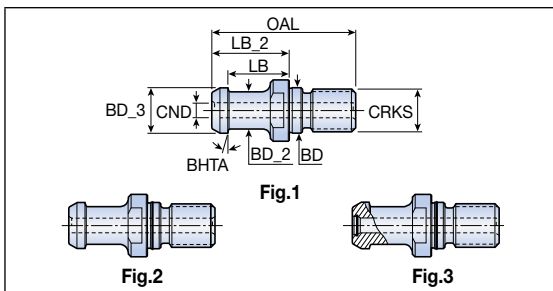
Pull studs OTT system



Designation	Dimension (mm)								
	CRKS	THSZMS	BD	BD_2	BD_3	LB	LB_2	OAL	BHTA
PS OTT BT40 M16	M16	M16	17	21.1	25.0	16.60	28	56	15
BT50 M24	M24	M24	24	32.0	39.3	13.35	25	65	15
SK40 M16	M16	M16	17	21.1	25.0	13.60	25	53	15

PS BT-JIS/MAZAK

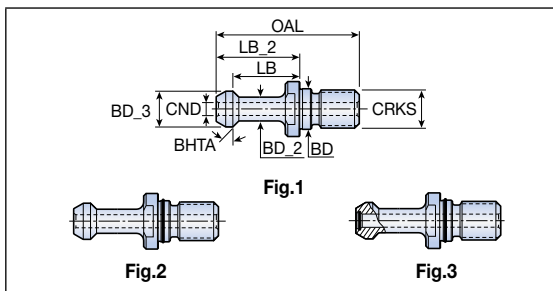
Pull studs BT-JIS 63398 / ANSI-metric for MAZAK machine



Designation	Dimension (mm)									Fig.
	CRKS	BD	BD_2	BD_3	CND	LB	LB_2	OAL	BHTA	
PS BT30 15 M12 JIS B	M12	13	8.00	12.00	4.0	18.40	23.4	43.0	15	1
BT40 15 M16 JIS B	M16	17	14.00	19.00	5.5	23.00	29.0	54.0	15	1
BT40 15 M16 JIS O B	M16	17	14.00	19.00	5.5	23.00	29.0	54.0	15	2
BT40 15 M16 JIS O B O	M16	17	14.00	19.00	5.5	23.00	29.0	54.0	15	3
BT50 15 M24 JIS B	M24	25	21.00	28.00	8.0	25.00	34.0	74.0	15	1
BT50 15 M24 JIS O B	M24	25	21.00	28.00	8.0	25.00	34.0	74.0	15	2
BT40 45 M16 MAZAK B	M16	17	12.45	18.79	7.0	14.02	19.1	44.1	45	1
BT50 45 M24 MAZAK B	M24	25	20.83	28.95	8.0	17.58	25.2	65.2	45	1

- Fig. 1: Coolant holes only in items with a "B" suffix
- Fig. 2: With external O-ring and coolant hole
- Fig. 3: With external and internal O-rings and coolant hole

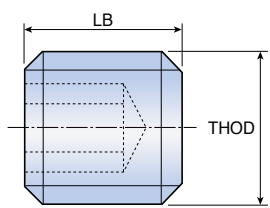
Pull studs BT-MAS-metric



- ▶ Fig. 1: Coolant holes only in items with a "B" suffix
- ▶ Fig. 2: With external O-ring and coolant hole
- ▶ Fig. 3: With external and internal O-rings and coolant hole

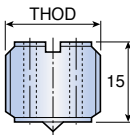
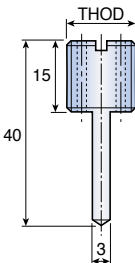
SR-DIN

Lock screw DIN1835 B/E for end mill holders

	Designation	Dimension (mm)		
		THOD	LB	Used for shanks
	SR M6x10 DIN 1835-B	M6	10	6
	M8x10 DIN 1835-B	M8	10	8
	M10x12 DIN 1835-B	M10	12	10
	M12x16 DIN 1835-B	M12	16	12, 14
	M14x16 DIN 1835-B	M14	16	16
	M16x16 DIN 1835-B	M16	16	20
	M18x2x20 DIN 1835-B	M18x2	20	25
	M20x2x20 DIN 1835-B	M20x2	20	32, 40
	M24x2x25 DIN 1835-B	M24x2	25	50

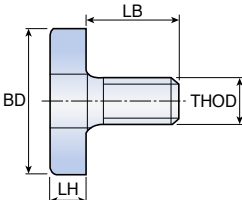
PRESET ER-JET

Preset screw with oil hole for ER collets

 Fig.1	Designation	Dimension (mm)	Fig.
		THOD	
 Fig.2	PRESET ER-JET 8x1.25	M8x1.25	1
	10x1.5	M10x1.5	1
	12x1.75	M12x1.75	1
	12x1.75L	M12x1.75	2
	16x2	M16x2	1
	16x2L	M16x2	2
	18x1.5	M18x1.5	1
	18x1.5L	M18x1.5	2
	22x1.5	M22x1.5	1
	22x1.5L	M22x1.5	2
	28x1.5	M28x1.5	1

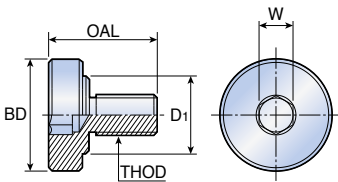
M-CLAMP SCREW SEM

Lock screw DIN6367 for face mill arbors

	Designation	Dimension (mm)				
		S.M.C	THOD	BD	LH	LB
	M8 CLAMP SCREW SEM 16	16	M8	20	6	16
	M10 CLAMP SCREW SEM 22	22	M10	28	7	18
	M12 CLAMP SCREW SEM 27	27	M12	35	8	22
	M16 CLAMP SCREW SEM 32	32	M16	42	9	26
	M20 CLAMP SCREW SEM 40	40	M20	52	10	30
	M24 CLAMP SCREW SEM 50	50	M24	63	12	36

MBA M

Lock screw for FMA

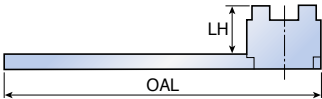


Designation	Dimension (mm)				
	THOD	BD	D1	OAL	W
MBA M8	M8x1.25	20	15	24	6
M10	M10x1.5	28	18	28	8
M12	M12x1.75	33	23	32	10
M16	M16x2.0	40	23	40	14
M20	M20x2.5	50	27	50	17
M24	M24x3.0	65	37	60	19

► Wrench for MBA screw: L-W ☐

WRENCH M-SEMC

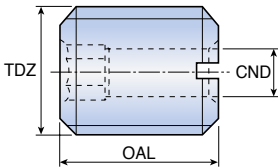
Wrench DIN6368 for combi shell end mill holders



Designation	Dimension (mm)			
	DRVS	FTDZ	LH	OAL
WRENCH M8 SEMC 16	16	M8	20	180
M10 SEMC 22	22	M10	25	200
M12 SEMC 27	27	M12	32	225
M16 SEMC 32	32	M16	36	250
M20 SEMC 40	40	M20	40	280
M24 SEMC 50	50	M24	50	315

PRESET SCREW

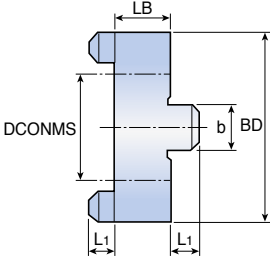
SRKIN thermal shrink collets



Designation	Dimension (mm)				
	TDZ	OAL	CND	Used for shanks	Hex key
PRESET SCREW M5x18 B	M5	18	2.1	EM E / SRKIN	2.5
M6x20 B	M6	20	2.5	EM E / SRKIN	3.0
M8x20 B	M8	20	3.5	EM E / SRKIN	4.0
M10x18 B	M10	18	4.5	EM E / SRKIN	5.0
M12x18 B	M12	18	5.5	EM E / SRKIN	6.0
M16x20 B	M16	20	7.5	EM E / SRKIN	6.0
M16x25 B	M16	25	7.5	SRKIN	6.0
M20x20 B	M20	20	6.0	EM E	6.0

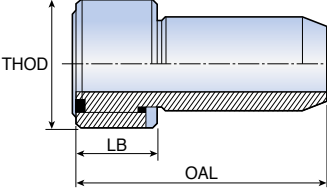
D-RING SEMC

Driving ring DIN6366/1 for combi shell end mill holders

	Designation	Dimension (mm)				
		DCONMS	BD	LB	b	L1
	16 D - RING SEMC	16	32	10	8	5.0
	22 D - RING SEMC	22	40	12	10	5.6
	27 D - RING SEMC	27	48	12	12	6.3
	32 D - RING SEMC	32	58	14	14	7.0
	40 D - RING SEMC	40	70	14	16	8.0
	50 D - RING SEMC	50	90	16	18	9.0

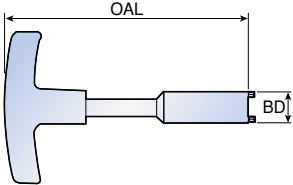
COOLING TUBE HSK A

HSK A cooling tube

	Designation	Dimension (mm)		
		OAL	LB	THOD
	COOLING TUBE HSK A 50	33.0	9.5	M16x1
	HSK A 63	36.5	11.5	M18x1
	HSK A 80	40.0	13.5	M20x1.5
	HSK A 100	44.0	15.5	M24x1.5

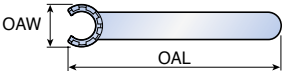
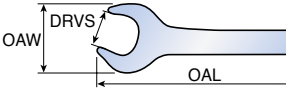
WRENCH COOL TUBE HSK A

HSK A cooling tube wrench

	Designation	Dimension (mm)	
		BD	OAL
	WRENCH COOL TUBE HSK A 50	15.0	120
	HSK A 63	17.0	122
	HSK A 83	18.5	186
	HSK A 100	22.0	141

WRENCH ER-MINI/SHORT

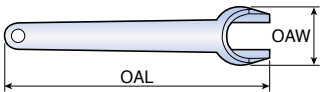
ER wrench

DIN6499	Designation	Dimension (mm)		
		OWA	DRVS	OAL
 Wrench ER 25, 32, 40, 50	WRENCH ER11 MINI	16.8	-	95
	ER11	32.0	17	95
 Wrench ER 11, 16, 20, 25 MINI	ER16 MINI	22.5	-	117
	ER16	42.8	25	143
 Wrench ER 11, 16, 20, SHORT	ER20 MINI	28.0	-	128
	ER20	53.5	30	172
	ER25 MINI	29.0	-	120
	ER25	70.0	-	207
	ER32	78.0	-	255
	ER40	95.0	-	285
	ER50	110.0	-	350
	ER32 SHORT	75.0	36	303
	ER40 SHORT	94.0	46	378

WRENCH ER11 SMS

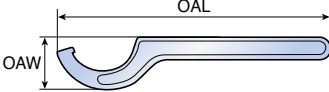


ER11 Tightening wrench

	Designation	Dimension (mm)	
		OWA	OAL
	WRENCH ER11 SMS	22	100

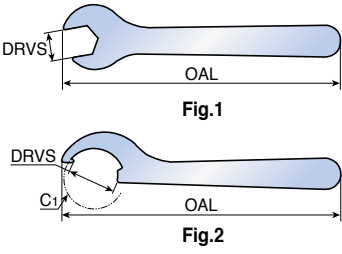
SPANNER TMC

NTMC milling chuck wrench

	Designation	Dimension (mm)	
		OWA	OAL
	SPANNER TMC 20	15.8	84.1
	TMC 25	18.1	94.3
	TMC 32	21.7	109.1
	TMC 42	23.2	108.0

TSKS

TSK slim chuck wrench

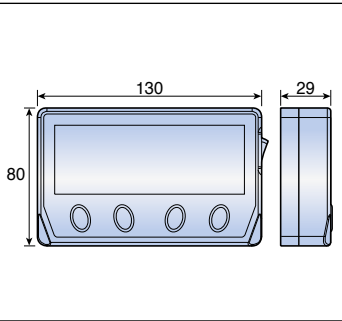


Designation	Dimension (mm)		Fig.
	DRVS	OAL	
TSKS - 6	18.0	174	1
10	25.4	177	1
16	36.0	189	2
25	52.0	228	2

TJS TSD DISPLAY



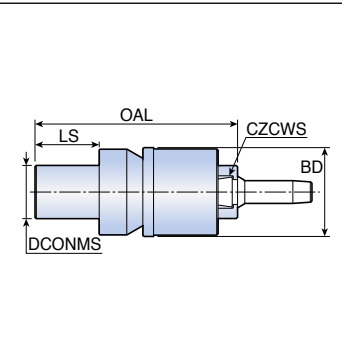
RPM speed display for TYPHOON high-speed spindles



Designation	Machines
TJS TSD DISPLAY	TTS spindles

IND ER11 TOOL ADAPTER

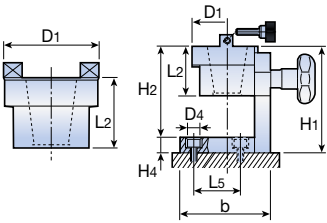
ER 11 shrink collet adapter for induction heating device



Designation	Dimension (mm)				
	CZCWS	BD	DCONMS	OAL	LS
IND ER11 TOOL ADAPTER	ER11	33.2	19.9	75.7	24

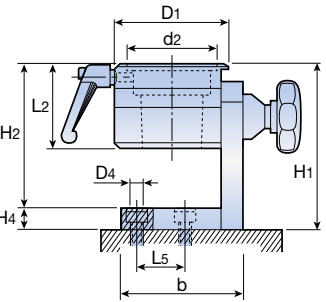
TOOL CLAMP-ROTARY/FIX

Tool clamp fixture - ISO, DIN69871, BT MAS-403

	Designation	Dimension (mm)									
		CSI	b	D1	D4	L2	H1	H2	H4	L5	
	TOOL CLAMP 30 ROTARY	ROTARY	104	70	12.5	56	128	109	19	40	
	40 ROTARY	ROTARY	104	82	12.5	56	128	109	19	40	
	50 ROTARY	ROTARY	144	103	12.5	71	170	151	19	85	
	30 FIX	FIX	-	82	-	58	-	-	-	-	
	40 FIX	FIX	-	82	-	58	-	-	-	-	
	50 FIX	FIX	-	103	-	71	-	-	-	-	

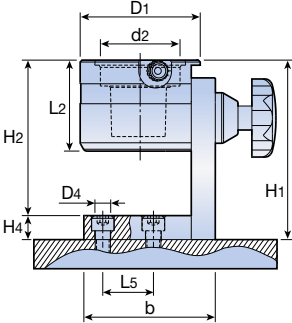
MULTI CLAMP-A/C

Tool clamp fixture rotary - For HSK shanks

	Designation	Dimension (mm)									
		CSI	b	d2	D1	D4	L2	L5	H1	H2	H4
	MULTI CLAMP 50 A/C	50	104	50	82	12.5	72	40	142	123	19
	63 A/C	63	104	63	95	12.5	72	40	142	123	19
	100 A/C	100	144	100	130	12.5	90	85	178	159	19

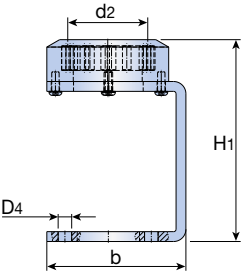
MULTI CLAMP C

C-ADAPTER rotary clamp

	Designation	Dimension (mm)									
		SS	b	d2	D1	D4	L2	L5	H1	H2	H4
MULTI CLAMP C6		63	104	63	95	12.5	72	40	142	123	19

MULTI CLAMP...UNIVERSAL

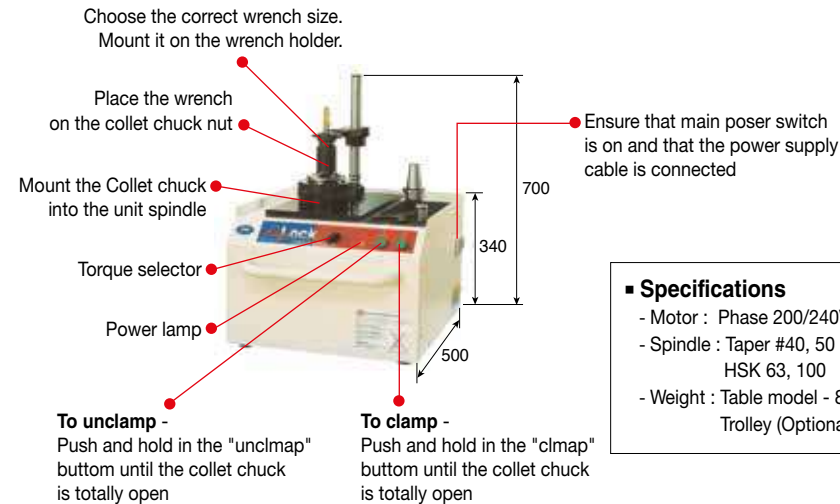
Universal rotary tool clamping fixtures - for tapered shanks

	Designation	Dimension (mm)				
		CSI	d2	H1	b	D4
MULTI CLAMP 40 UNIVERSAL		40	40	161	112	11
50 UNIVERSAL		50	50	161	112	11
63 UNIVERSAL		63	63	164	113	11
80 UNIVERSAL		80	80	240	150	11
100 UNIVERSAL		100	100	240	150	11

Mounting adapters/holders (tapered types)

Designation	Dimension (mm)				
	HSK A/C/E/F	C-ADAPTER	BT	DIN69871	DIN2080
MULTI CLAMP 40 UNIVERSAL	HSK 40	C4	-	-	-
50 UNIVERSAL	HSK 50	C5	-	DIN69871 30	DIN2080 30
63 UNIVERSAL	HSK 63	C6	BT 40	DIN69871 40	DIN2080 40
80 UNIVERSAL	HSK 80	C8	-	-	-
100 UNIVERSAL	HSK 100	C10	BT 50	-	-

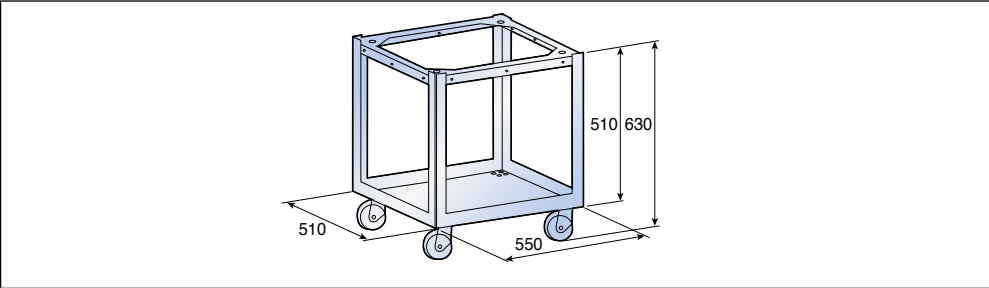
EASYLOCK T.C EU



Note: Assemble the collet and cutting tools. By hand, place the nut onto the collet chuck.

Designation	TaeguTec No.	Accssories	
		Standard	Optional
EASYLOCK T.C EU	4651108	TP50 AD 40 EASY	EASY LOCK TROLLEY
		WRENCH ER16 EASY LOCK	TP40 AD 30 EASY
		WRENCH ER20 EASY LOCK	TP50 AD HSK 63 EASY
		WRENCH ER25 EASY LOCK	TP50 AD HSK 100 EASY
		WRENCH ER32 EASY LOCK	WRENCH ER50 EASY LOCK
		WRENCH ER40 EASY LOCK	WRENCH TG100 OPEN EASY

EASYLOCK TROLLEY



Designation	TaeguTec No.
EASYLOCK TROLLEY	4651109

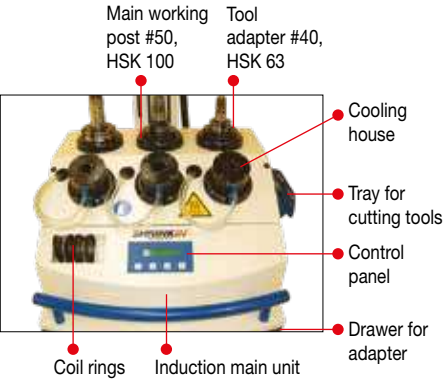
IND SHRINKIN UNIT EUR



Induction heating units



Technical specifications		
Clamping range	3-32mm	Carbide tool shank
Clamping range	6-32mm	
Main power supply	3x380 - 500V 50/60Hz	
Nominal power	13kW	
Nominal current	16 AMP	
Cooling unit power supply	220V 50Hz	
Nominal power	0.5kW	
Max. tool length	440mm (From gauge line)	
Max. dia. clamping chuck	52mm	
Effective induction field length	45mm	
Expansion time	5-12 seconds	
Cooling time	50-90 seconds	
Weight	150kg	
Overall dimensions	170x73x60cm	



INDUCTION starter unit
4654106 IND SHRINK START UNIT EUR
• One working post without cooling unit

TaeguTec No.	Designation	Includes
4652264	IND SHRINKIN UNIT EUR	Induction unit, cooling unit, trolley, three tool adapters

Cooling sleeves		Used for
IND COOLING COLLET 6-8		SRKIN
10-12		SRKIN
14-16		SRKIN
18-20		SRKIN
ER 3-5		SRK
ER 6		SRK
ER 8		SRK
ER 10		SRK
ER 12		SRK

Optional tool adapter for HSK	
IND 32 HSK TOOL ADAPTER	
40 HSK TOOL ADAPTER	
50 HSK TOOL ADAPTER ⁽¹⁾	
63 HSK TOOL ADAPTER	
80 HSK TOOL ADAPTER	

• ⁽¹⁾ For taper #30

Technical Data

► ER-SEAL collet

■ Application

ER collets are used for applications requiring through coolant, as well as for standard cutting tools such as drills, boring bars, end mills, reamers, taps and special tools.

They provide an effective solution for accurate controlled coolant flow.

Front sealing collets are available for advanced high speed machines with through coolant spindles/turrets.

They provide maximum performance, high cutting speeds, extended tool life and high quality surface finish.

■ Features

- A revolutionary high precision front sealing collet with 1.00mm collapsibility that has through coolant capability
- Increased machining efficiency
- Extended tool life
- Has powerful gripping and parallel clamping
- Front sealing provides protection from contamination
- Fast chip removal from work piece

■ Advantages

- High-pressure coolant supply up to 100 bar
- Eliminates coolant flow interference

■ Notes

- For maximum security and clamping power, the cutting tool shank must be inserted into the collet to a minimum depth of 2 x shank diameter
- Suitable for all shank standards

► TaeguTec ER coolant sealed collet

■ Two types:



Oil hole collet: ER-SEAL

For straight shank cutting tools with internal coolant supply



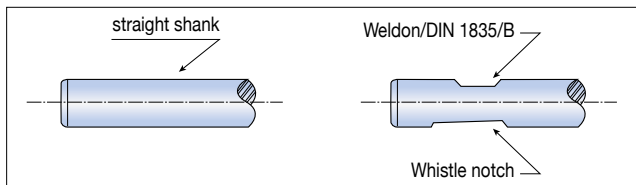
JET2 collet: ER-SEAL-JET

With angular double nozzle.

Coolant flow is direct to the cutting edge

- For use with standard straight shank cutting tools (Without coolant hole)

► Shank standards



Technical Data

► ER - Top clamping nut DIN6499

■ Description

The friction ER Nut has a unique two piece exclusive friction mechanism combining radial and angular self-centering movements.

■ Features

- Unique two piece friction bearing
- Radial and angular float for better concentricity
- Powerful gripping force, 50-100% higher than standard ER nut due to the friction bearing mechanism
- Balanced for higher spindle speed due to unique extractor teeth design
- Compact design: General dimensions and size range are the same as the standard nut sealed design for use with sealed collets.

■ Operation

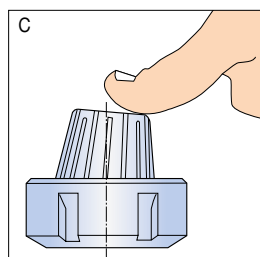
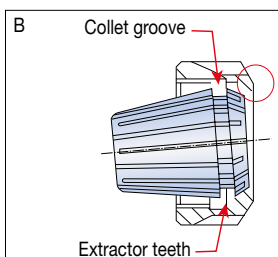
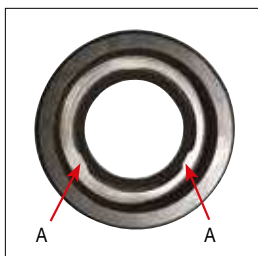
To insert collet: Always assemble the collet into the nut before mounting onto the collet chuck.

■ Inserting procedure

Insert the collet slantwise, fitting the two protruding extractor teeth (A) into the collet groove (B).

Place the two parts onto a clean and horizontal surface.

Press down with your thumb on the back end of the collet until it clicks into place (C).



■ Important

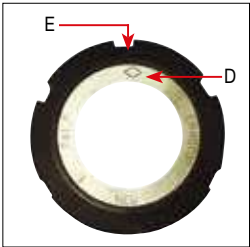
Never insert the collet parallel to the extractor ring. This will chip or break the teeth of the extractor. When unclamping the nut, the collet will self release from the chuck by means of the extractor teeth.

Technical Data

► ER - Top clamping nut DIN6499

■ Extracting procedure

- ➊ Align the diamond-shaped engraved logo which is on the silver ring (D) to any of the key slots (E) of the nut.
- ➋ Place the nut with the collet facing down on a clean and horizontal work surface.
- ➌ Insert a screwdriver vertically between the nut slots and the collet - on the reverse side of the diamond shaped engraved logo (D).
- ➍ Tilt the screwdriver outwards while helping the extraction by pushing the back of the collet in the opposite direction (F).



Note:

For maximum performance the clamping nut thread and collet taper must be cleaned and oiled before use.

Recommended clamping torque for standard ER & ER-Top clamping nut.

Nut type	Kg x m
ER-11	5
ER-11M	3
ER-16	7
ER-16M	4
ER-20	12
ER-20M	8
ER-25	20
ER-32	22
ER-40	25
ER-50	35

Important:

The torque is calculated to suit the maximum diameter capacity of each collet. The torque should be gradually reduced when used with a smaller shank size.

Technical Data

▶ TSK slim collet chuck

- Features & advantages
 - Excellent accuracy & good gripping power by gentle taper angle (ER collet : 8°, TSK collet : 4°)
 - Slim design for deep and cavity machining
 - Suitable on high speed machining
 - Variety of TSK collets (Normal & coolant type)
 - General machining using drill & end mill
- Application
 - General machining using drill & end mill
 - High speed machining for mold & die industry
 - Accurate machining using reamer & end mill
- How to assemble the collet with a nut



a. Assembly device
(Optional, sold separately)



b. Nut



c. Collet

- 1 Insert the back end of the collet (c) into the assembly device (a)
- 2 Insert the combined part (a+c) in the nut (b)
- 3 Pluck out the assembly device (a) from the remaining part (b+c)



a. Assembly device	Designation
	TSK 06, TSK 10, TSK 16, TSK 25

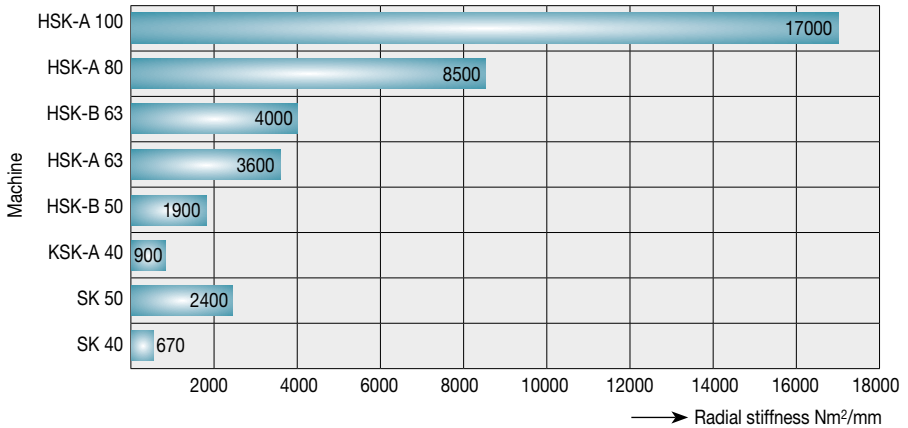
Technical Data

► HSK (DIN69893) system

■ Features

- DIN standard
- For high speed machining
- Size: #32, 40, 50, 63, 100
- For A.T.C. & manual machine
- Double face contact
- High stiffness

► Radial stiffness of different machine tool interface

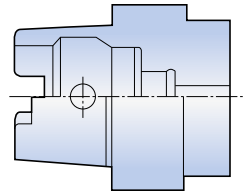
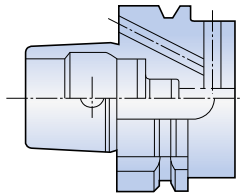
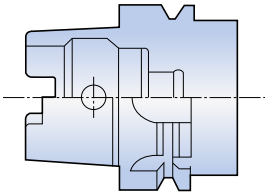


► Type

■ A type: Automatic tool change

■ B type: With coolant through face

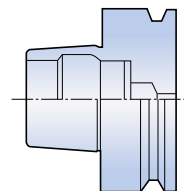
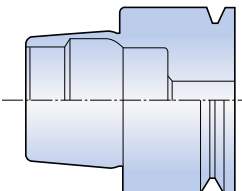
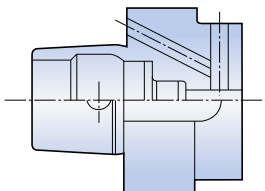
■ C type: Manual clamp



■ D type: With coolant through face

■ E type: Super high speed

■ F type: Ultra high speed



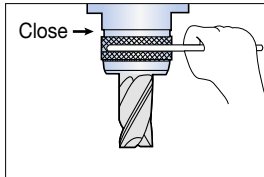
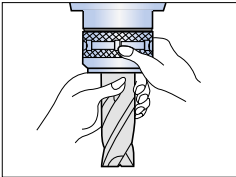
Technical Data

► Milling chuck

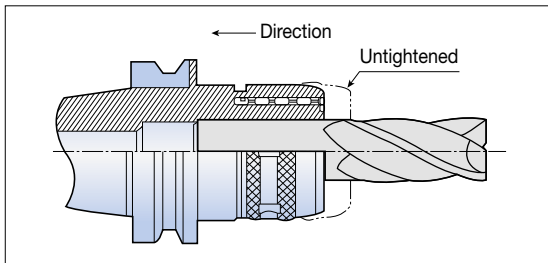
- Exceptional gripping power and simple operation

- Torque

Type	Torque (kgf•m)
NTMC 25	180
NTMC 32	360
NTMC 42	520

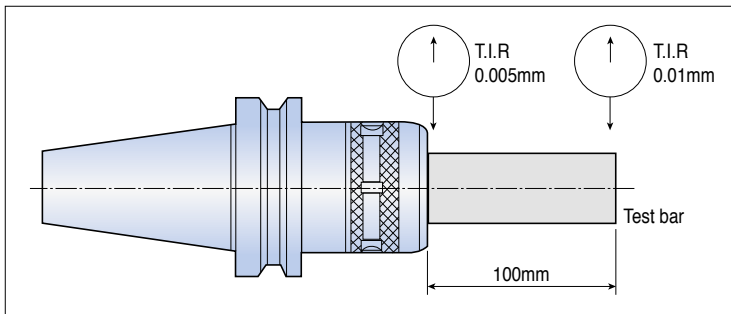


Tighten slightly when collar is close to body (Avoid hammering)



- Improved accuracy prolongs tool life

The accuracy and low runout has been achieved by utilizing precise grinding and spiral laser slitting to avoid damage and tool distortion.



► Hydraulic chuck

■ Features & advantages

- Consistent gripping force
- Excellent accuracy (Run-out : within $5\mu\text{m}$)
- Convenient and safe tool change using a clamping screw
- Can use THC straight collets (Normal & coolant type)

■ Application

- Accurate machining
 - a) Fine milling, reaming, fine boring
- Drilling: Small diameter using carbide drill
 - a) For Al or Cast iron

■ Operation

- Tool mounting
 - a) Insert the tool shank between Lmax and Lmin (Fig 1.) and then, turn the clamping screw clockwise until it can no longer rotate.
- Tool releasing
 - a) To release the tool from the hydraulic chuck, turn the clamping screw in a counter clock-wise direction approximately 5 or 6 evolutions and remove the tool shank.

- Notice

- a) **Eliminate grease, coolant oil and any dirt** from the internal bore of the hydraulic chuck and tool shank prior to mounting.
- b) **Ensure the minimum chucking length (Lmin)** is maintained. (see Fig 1. & Table 1.)
- c) Cylindrical tool shanks available in accordance with **h6 tolerance** (Table 2.) and **Ra min = $0.3\mu\text{m}$** (ground) and weldon shanks should be used in collet only.
- d) Remove the end tool from the hydraulic chuck when not in use for long periods of time.
- e) Do not turn the clamping screw prior to tool mounting in the hydraulic chuck.

* Please refer to the backface for information tables.

Figure 1. Tool structure

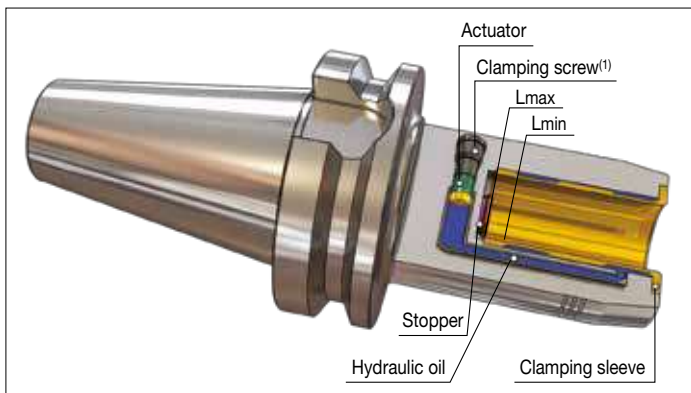


Table 1. Recommended minimum & maximum depth (L) of end tool insertion

Inner bore diameter Ø (mm)	Lmin (mm)	Lmax (mm)
6	27.5	37.5
8	27.5	37.5
10	32.5	42.5
12	37.5	47.5
14	37.5	47.5
16	42.5	52.5
20	42.5	52.5
25	51.0	61.0
32	55.0	65.0

Table 2. h6 tolerance range

Shank size Ø (mm)		h6 tolerance range (µm)
	3	0
		-6
3	6	0
		-8
6	10	0
		-9
10	18	0
		-11
18	30	0
		-13
30	50	0
		-16

Table 3. Clamping torque

Inner bore diameter Ø (mm)	Clamping torque (N•m)
6	10
8	25
10	40
12	65
14	90
16	120
20	240
25	260
32	450

► Thermal T-SHRINK chucking system



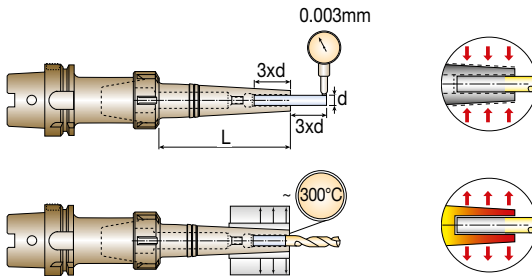
► T-SHRINK chucking system

The thermal T-SHRINK ER collet chucking system is an enhancement to the existing popular ER system. The T-SHRINK collets utilize the thermal shrink phenomena for rigid clamping of solid carbide cutters. This new system provides higher torque, precision runout and better repeatability. The T-SHRINK collets with their slim design and different projection length allows the user to reach into deeper cavities and perform narrow milling applications. TaeguTec offers a complete system for T-SHRINK ER collets, including a uniquely designed heating unit with a portable heating handle. The unit is equipped with a high-tech temperature control for easy and practical use at the machining center or in the tool room.

- For carbide tools only



L(mm)	Max. T.I.R
35	7 μ m
60	9 μ m
85	10 μ m



► GTI-Tap attachment

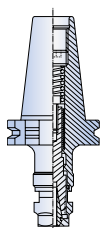
■ Description

Short tap chucks for ER collets

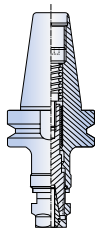


■ Application

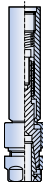
Axial-float/tension/compression type for CNC milling machines and lathes with reversing motors and rigid tapping



DIN 69871



BT MAS-403



Straight shank

■ Features

- Compensates for machine feed and tap pitch variance
- Floating mechanism compensates for misalignment between tap and workpiece
- Right and left-hands tapping

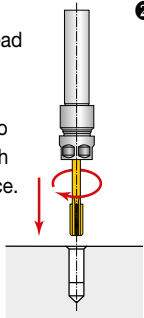
■ Advantages

- Practical and efficient tap holding by the ER spring collet without using drive jaw
- Compact design for minimal clearance applications
- Heavy-duty design for high torque drive ensures the same accuracy as the tap itself

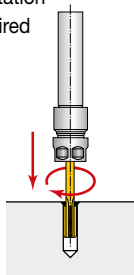
■ Operation

For through and blind hole tapping

- ① Enter feed rate according to thread pitch (or 1-2% lower), and set spindle to starting point with 0.08mm clearance.



- ② Start spindle forward with right hand rotation until reaching desired depth.



- ③ Stop feed and rotation and reverse to starting point.

