

CAT 40



YOUR CONNECTION TO PERFORMANCE



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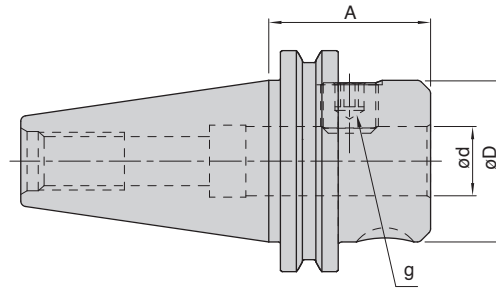
CNC HOLDERS

- Comprehensive range of Milling Chucks, ER Collet Chucks, End Mill Holders and Shell Mill Holders
- Close dimension control of products
- TIR of front end in relationship to taper, controlled within 3 microns for collet chucks and end mill holders
- CAT (ANSI B50.50-1994) taper specifications
- All holders are dynamically balanced to G6.3 tolerances
- All tool holders have taper angle accuracy as per AT3 class / HSK holders meet AT2 class
- Form AD/B standard for all holders (DIN69871 B)
- Bore tolerance H4 as standard for all end mill holders
- Black oxide surface treatment on all non-contact surfaces for corrosion protection

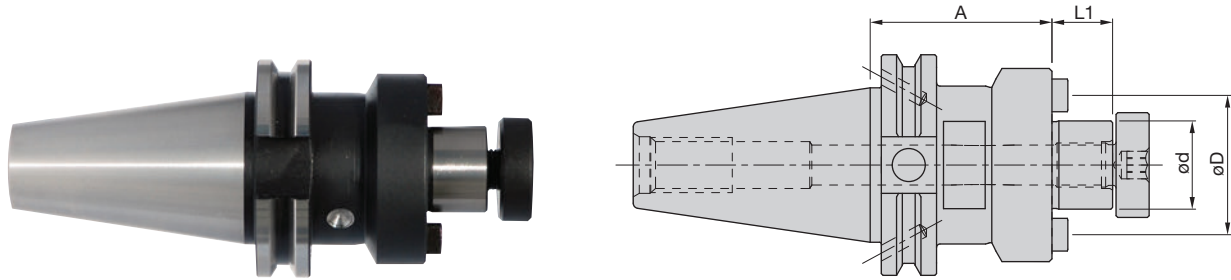


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End Mill Holders



End Mill Holders – CAT40		Balanced to G6.3 @ 8,000 RPM				
SAP No.	Designation	Dimensions				Coolant Supply
		d (inch)	D (mm)	A (inch)	g	
66651201M	WSLH/0.125"-1.38"/CAT40	0.125	17.5	1.38	6-32 UNC	Form "AD/B"
66651202M	WSLH/0.125"-4.50"/CAT40	0.125	17.5	4.50	6-32 UNC	Form "AD/B"
66651203M	WSLH/0.187"-1.38"/CAT40	0.187	17.5	1.38	8-32 UNC	Form "AD/B"
66651204M	WSLH/0.187"-2.50"/CAT40	0.187	17.5	2.50	8-32 UNC	Form "AD/B"
66651205M	WSLH/0.187"-4.50"/CAT40	0.187	17.5	4.50	8-32 UNC	Form "AD/B"
66651206M	WSLH/0.250"-1.38"/CAT40	0.250	19.8	1.38	1/4-28 UNF	Form "AD/B"
66651207M	WSLH/0.250"-2.50"/CAT40	0.250	19.8	2.50	1/4-28 UNF	Form "AD/B"
66651208M	WSLH/0.250"-4.50"/CAT40	0.250	19.8	4.50	1/4-28 UNF	Form "AD/B"
66651209M	WSLH/0.312"-1.38"/CAT40	0.312	25.4	1.38	5/16-24 UNF	Form "AD/B"
66651210M	WSLH/0.312"-2.50"/CAT40	0.312	25.4	2.50	5/16-24 UNF	Form "AD/B"
66651211M	WSLH/0.312"-4.50"/CAT40	0.312	25.4	4.50	5/16-24 UNF	Form "AD/B"
66651212M	WSLH/0.375"-1.38"/CAT40	0.375	25.4	1.38	3/8-24 UNF	Form "AD/B"
66651213M	WSLH/0.375"-2.50"/CAT40	0.375	25.4	2.50	3/8-24 UNF	Form "AD/B"
66651214M	WSLH/0.375"-4.50"/CAT40	0.375	25.4	4.50	3/8-24 UNF	Form "AD/B"
66651215M	WSLH/0.375"-6.50"/CAT40	0.375	25.4	6.50	3/8-24 UNF	Form "AD/B"
66651216M	WSLH/0.437"-1.75"/CAT40	0.437	35.1	1.75	7/16-20 UNF	Form "AD/B"
66651217M	WSLH/0.437"-4.50"/CAT40	0.437	35.1	4.50	7/16-20 UNF	Form "AD/B"
66651218M	WSLH/0.500"-1.75"/CAT40	0.500	35.1	1.75	7/16-20 UNF	Form "AD/B"
66651219M	WSLH/0.500"-2.62"/CAT40	0.500	35.1	2.62	7/16-20 UNF	Form "AD/B"
66651220M	WSLH/0.500"-4.62"/CAT40	0.500	35.1	4.62	7/16-20 UNF	Form "AD/B"
66651221M	WSLH/0.500"-6.62"/CAT40	0.500	35.1	6.62	7/16-20 UNF	Form "AD/B"
66651222M	WSLH/0.625"-1.75"/CAT40	0.625	38.1	1.75	1/2-20 UNF	Form "AD/B"
66651223M	WSLH/0.625"-3.75"/CAT40	0.625	38.1	3.75	1/2-20 UNF	Form "AD/B"
66651224M	WSLH/0.625"-5.75"/CAT40	0.625	38.1	5.75	1/2-20 UNF	Form "AD/B"
66651225M	WSLH/0.750"-1.75"/CAT40	0.750	44.5	1.75	5/8-18 UNF	Form "AD/B"
66651226M	WSLH/0.750"-3.75"/CAT40	0.750	44.5	3.75	5/8-18 UNF	Form "AD/B"
66651227M	WSLH/0.750"-5.75"/CAT40	0.750	44.5	5.75	5/8-18 UNF	Form "AD/B"
66651228M	WSLH/0.875"-1.75"/CAT40	0.875	50.8	1.75	5/8-18 UNF	Form "AD/B"
66651229M	WSLH/0.875"-4.00"/CAT40	0.875	50.8	4.00	5/8-18 UNF	Form "AD/B"
66651230M	WSLH/0.875"-6.00"/CAT40	0.875	50.8	6.00	5/8-18 UNF	Form "AD/B"
66651231M	WSLH/1.000"-1.75"/CAT40	1.000	50.8	1.75	3/4-16 UNF	Form "AD/B"
66651232M	WSLH/1.000"-4.00"/CAT40	1.000	50.8	4.00	3/4-16 UNF	Form "AD/B"
66651233M	WSLH/1.000"-6.00"/CAT40	1.000	50.8	6.00	3/4-16 UNF	Form "AD/B"
66651234M	WSLH/1.250"-2.00"/CAT40	1.250	63.5	2.00	3/4-16 UNF	Form "AD/B"
66651235M	WSLH/1.250"-4.25"/CAT40	1.250	63.5	4.25	3/4-16 UNF	Form "AD/B"
66651236M	WSLH/1.250"-6.25"/CAT40	1.250	63.5	6.25	3/4-16 UNF	Form "AD/B"
66651237M	WSLH/1.500"-4.62"/CAT40	1.500	69.9	4.62	3/4-16 UNF	Form "AD/B"
66651238M	WSLH/1.500"-6.62"/CAT40	1.500	69.9	6.62	3/4-16 UNF	Form "AD/B"

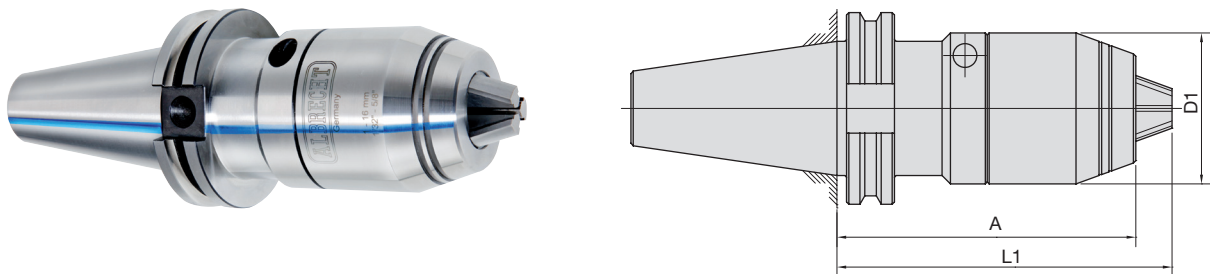


Shell Mill Holders – CAT40 Balanced to G6.3 @ 8,000 RPM

SAP No.	Designation	Dimensions							Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	L ₁ (mm)	D ₁ (mm)	
66651416M	WSMH/0.500"-1.38"/CAT40	12.7	0.50	36.6	35.1	1.38	14.2	25.4	Form "AD/B"
66651417M	WSMH/0.500"-3.50"/CAT40	12.7	0.50	36.6	88.9	3.50	14.2	25.4	Form "AD/B"
66651418M	WSMH/0.750"-1.38"/CAT40	19.1	0.75	44.4	35.1	1.38	17.5	28.7	Form "AD/B"
66651419M	WSMH/0.750"-3.50"/CAT40	19.1	0.75	44.4	88.9	3.50	17.5	28.7	Form "AD/B"
66651420M	WSMH/0.750"-6.00"/CAT40	19.1	0.75	44.4	152.4	6.00	17.5	28.7	Form "AD/B"
66651421M	WSMH/1.000"-1.75"/CAT40	25.4	1.00	55.6	44.5	1.75	17.5	40.1	Form "AD/B"
66651422M	WSMH/1.000"-2.06"/CAT40	25.4	1.00	55.6	52.3	2.06	17.5	40.1	Form "AD/B"
66651423M	WSMH/1.000"-4.00"/CAT40	25.4	1.00	55.6	101.6	4.00	17.5	40.1	Form "AD/B"
66651424M	WSMH/1.000"-6.00"/CAT40	25.4	1.00	55.6	152.4	6.00	17.5	40.1	Form "AD/B"
66651425M	WSMH/1.250"-2.12"/CAT40	31.8	1.25	69.9	53.8	2.12	17.5	50.3	Form "AD/B"
66651426M	WSMH/1.250"-4.00"/CAT40	31.8	1.25	69.9	101.6	4.00	17.5	50.3	Form "AD/B"
66651427M	WSMH/1.500"-2.41"/CAT40	38.1	1.50	85.9	61.2	2.41	23.9	60.7	Form "AD/B"
66651428M	WSMH/1.500"-4.00"/CAT40	38.1	1.50	85.9	101.6	4.00	23.9	60.7	Form "AD/B"

For wrenches, see page 43.

NC Drill Chuck

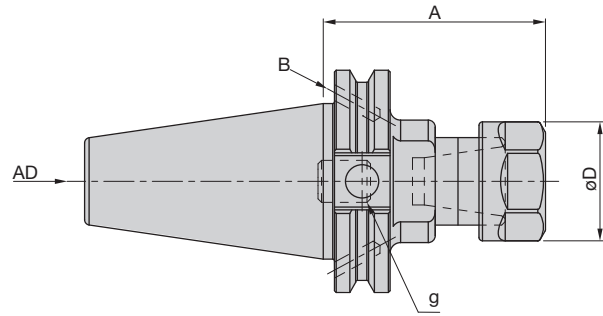


NC Drill Chuck – CAT40

SAP No.	Designation	Taper	Dimensions (mm)			
			Capacity	A	D ₁	L ₁
9890003	NCDC/1-16-3.90/CAT40	CAT40	1mm-16mm	3.90	1.97	4.37

ER Collet Chuck Holders

BILZ

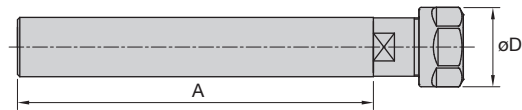


ER Collect Chuck Holders – CAT40				Balanced to G6.3 @ 20,000 RPM				
SAP No.	Designation	Collet Type	Range (mm)	Dimensions				Coolant Supply
				D (mm)	A (mm)	A (inch)	g	
66651351M	WCCH/ER16-2.50"/CAT40	ER16	1–10	28	63.5	2.50	M10	Form "AD/B"
66651352M	WCCH/ER16-5.00"/CAT40	ER16	1–10	28	127.0	5.00	M10	Form "AD/B"
66651353M	WCCH/ER20-2.50"/CAT40	ER20	1–13	34	63.5	2.50	M12	Form "AD/B"
66651361M	WCCH/ER20-4.00"/CAT40	ER20	1–13	34	101.6	4.00	M12	Form "AD/B"
66651354M	WCCH/ER20-6.00"/CAT40	ER20	1–13	34	152.4	6.00	M12	Form "AD/B"
66651355M	WCCH/ER25-2.50"/CAT40	ER25	2–16	42	63.5	2.50	M16	Form "AD/B"
66651362M	WCCH/ER25-4.00"/CAT40	ER25	2–16	42	101.6	4.00	M16	Form "AD/B"
66651356M	WCCH/ER25-6.00"/CAT40	ER25	2–16	42	152.4	6.00	M16	Form "AD/B"
66651357M	WCCH/ER32-2.75"/CAT40	ER32	2–20	50	69.9	2.75	M22x1.5	Form "AD/B"
66651363M	WCCH/ER32-4.00"/CAT40	ER32	2–20	50	101.6	4.00	M22x1.5	Form "AD/B"
66651358M	WCCH/ER32-6.00"/CAT40	ER32	2–20	50	152.4	6.00	M22x1.5	Form "AD/B"
66651359M	WCCH/ER40-3.00"/CAT40	ER40	3–26	63	76.2	3.00	M22x1.5	Form "AD/B"
66651364M	WCCH/ER40-4.00"/CAT40	ER40	3–26	63	101.6	4.00	M22x1.5	Form "AD/B"
66651360M	WCCH/ER40-6.00"/CAT40	ER40	3–26	63	152.4	6.00	M22x1.5	Form "AD/B"

For collets, see pages 7–9.

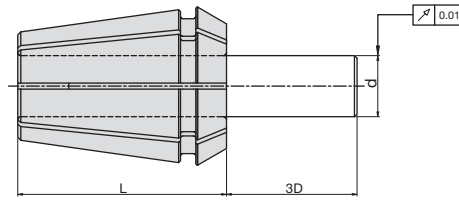
For wrenches, see pages 42–43.

ER Collet Chuck | Collet Extension



Collet Extension		Dimensions				Length Adjustment Screw	Coolant Supply
SAP No.	Designation	Collet Type	Range (mm)	D (mm)	A (inch)		
66652151M	WCCH/ER16-6.00"/CYL0.50	ER16	1–10	28	1/2 x 6.00	M10	COOL-THRU
66652152M	WCCH/ER16-6.00"/CYL0.75	ER16	1–10	28	3/4 x 6.00	M10	COOL-THRU
66652153M	WCCH/ER20-6.00"/CYL0.75	ER20	1–13	34	3/4 x 6.00	M12	COOL-THRU
66652154M	WCCH/ER20-6.00"/CYL1.00	ER20	1–13	34	1 x 6.00	M12	COOL-THRU
66652155M	WCCH/ER25-6.00"/CYL0.75	ER25	2–16	42	3/4 x 6.00	M16	COOL-THRU
66652156M	WCCH/ER25-6.00"/CYL1.00	ER25	2–16	42	1 X 6.00	M16	COOL-THRU
66652157M	WCCH/ER32-6.00"/CYL1.00	ER32	2–20	50	1 x 6.00	M22x1.5	COOL-THRU
66652158M	WCCH/ER32-6.00"/CYL1.25	ER32	2–20	50	1-1/4 x 6.00	M22x1.5	COOL-THRU
66652159M	WCCH/ER40-6.00"/CYL1.25	ER40	3–26	63	1-1/4 x 6.00	M22x1.5	COOL-THRU

For wrenches, see pages 42–43.



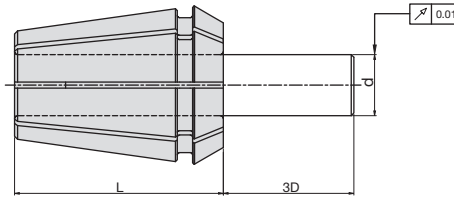
Spring Collets ER16 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1116.01592	66692200M	ER16-1/16"	0.669	1.063	0.043-0.062
1116.02382	66692201M	ER16-3/32"	0.669	1.063	0.054-0.093
1116.03182	66692202M	ER16-1/8"	0.669	1.063	0.086-0.125
1116.03972	66692203M	ER16-5/32"	0.669	1.063	0.117-0.156
1116.04762	66692204M	ER16-3/16"	0.669	1.063	0.148-0.187
1116.05562	66692205M	ER16-7/32"	0.669	1.063	0.179-0.218
1116.06352	66692206M	ER16-1/4"	0.669	1.063	0.211-0.250
1116.07142	66692207M	ER16-9/32"	0.669	1.063	0.242-0.281
1116.07942	66692208M	ER16-5/16"	0.669	1.063	0.273-0.312
1116.08732	66692209M	ER16-11/32"	0.669	1.063	0.304-0.343
1116.09532	66692210M	ER16-3/8"	0.669	1.063	0.336-0.375
1116.10322	66692211M	ER16-13/32"	0.669	1.063	0.367-0.406
1116.00002	-	ER16 12pc. Collet Set	-	-	-

Spring Collets ER32 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1132.03182	66692246M	ER32-1/8"	1.299	1.575	0.086-0.125
1132.04762	66692248M	ER32-3/16"	1.299	1.575	0.148-0.187
1132.06352	66692250M	ER32-1/4"	1.299	1.575	0.211-0.250
1132.07942	66692252M	ER32-5/16"	1.299	1.575	0.273-0.312
1132.09532	66692254M	ER32-3/8"	1.299	1.575	0.336-0.375
1132.11112	66692256M	ER32-7/16"	1.299	1.575	0.398-0.437
1132.12702	66692258M	ER32-1/2"	1.299	1.575	0.461-0.500
1132.14292	66692260M	ER32-9/16"	1.299	1.575	0.523-0.562
1132.15882	66692262M	ER32-5/8"	1.299	1.575	0.586-0.625
1132.17462	66692264M	ER32-11/16"	1.299	1.575	0.648-0.687
1132.19052	66692266M	ER32-3/4"	1.299	1.575	0.711-0.750
1132.00002	-	ER32 12pc Collet Set	-	-	-

Spring Collets ER20 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1120.03182	66692214M	ER20-1/8"	0.827	1.22	0.086-0.125
1120.04762	66692216M	ER20-3/16"	0.827	1.22	0.148-0.187
1120.06352	66692218M	ER20-1/4"	0.827	1.22	0.211-0.250
1120.07942	66692220M	ER20-5/16"	0.827	1.22	0.273-0.312
1120.09532	66692222M	ER20-3/8"	0.827	1.22	0.336-0.375
1120.11112	66692224M	ER20-7/16"	0.827	1.22	0.398-0.437
1120.12702	66692226M	ER20-1/2"	0.827	1.22	0.461-0.500
1120.00002	-	ER20 7pc. Collet Set	-	-	-

Spring Collets ER40 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1140.03182	66692267M	ER40-1/8"	1.614	1.811	0.086-0.125
1140.04762	66692269M	ER40-3/16"	1.614	1.811	0.148-0.187
1140.06352	66692271M	ER40-1/4"	1.614	1.811	0.211-0.250
1140.07942	66692273M	ER40-5/16"	1.614	1.811	0.273-0.312
1140.09532	66692275M	ER40-3/8"	1.614	1.811	0.336-0.375
1140.11112	66692277M	ER40-7/16"	1.614	1.811	0.398-0.437
1140.12702	66692279M	ER40-1/2"	1.614	1.811	0.461-0.500
1140.14292	66692281M	ER40-9/16"	1.614	1.811	0.523-0.562
1140.15882	66692283M	ER40-5/8"	1.614	1.811	0.586-0.625
1140.17462	66692285M	ER40-11/16"	1.614	1.811	0.648-0.687
1140.19052	66692287M	ER40-3/4"	1.614	1.811	0.711-0.750
1140.22232	66692288M	ER40-7/8"	1.614	1.811	0.836-0.875
1140.25402	66692289M	ER40-1.0"	1.614	1.811	0.961-1.000
1140.00002	-	ER40 14pc. Collet Set	-	-	-

Spring Collets ER25 (Inch)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (inch)		
			D	L	d
1125.03182	66692228M	ER25-1/8"	1.024	1.378	0.086-0.125
1125.04762	66692230M	ER25-3/16"	1.024	1.378	0.148-0.187
1125.06352	66692232M	ER25-1/4"	1.024	1.378	0.211-0.250
1125.07942	66692234M	ER25-5/16"	1.024	1.378	0.273-0.312
1125.09532	66692236M	ER25-3/8"	1.024	1.378	0.336-0.375
1125.11112	66692238M	ER25-7/16"	1.024	1.378	0.398-0.437
1125.12702	66692240M	ER25-1/2"	1.024	1.378	0.461-0.500
1125.14292	66692242M	ER25-9/16"	1.024	1.378	0.523-0.562
1125.15882	66692244M	ER25-5/8"	1.024	1.378	0.586-0.625
1125.00002	-	ER25 9pc. Collet Set	-	-	-



Spring Collets ER16 (Metric)

Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1116.01000	66691171M	ER16-1.0	17	27	1.0-0.5
1116.01500		ER16-1.5	17	27	1.5-1.0
1116.02000	66691172M	ER16-2.0	17	27	2.0-1.5
1116.02500		ER16-2.5	17	27	2.5-2.0
1116.03000	66691173M	ER16-3.0	17	27	3.0-2.5
1116.03500		ER16-3.5	17	27	3.5-3.0
1116.04000	66691174M	ER16-4.0	17	27	4.0-3.5
1116.04500		ER16-4.5	17	27	4.5-4.0
1116.05000	66691175M	ER16-5.0	17	27	5.0-4.5
1116.05500		ER16-5.5	17	27	5.5-5.0
1116.06000	66691176M	ER16-6.0	17	27	6.0-5.5
1116.06500		ER16-6.5	17	27	6.5-6.0
1116.07000	66691177M	ER16-7.0	17	27	7.0-6.5
1116.07500		ER16-7.5	17	27	7.5-7.0
1116.08000	66691178M	ER16-8.0	17	27	8.0-7.5
1116.08500		ER16-8.5	17	27	8.5-8.0
1116.09000	66691179M	ER16-9.0	17	27	9.0-8.5
1116.09500		ER16-9.5	17	27	9.5-9.0
1116.10000	66691180M	ER16-10.0	17	27	10.0-9.5
1116.00000	-	ER16 10pc. Collet Set	-	-	-

Spring Collets ER20 (Metric)

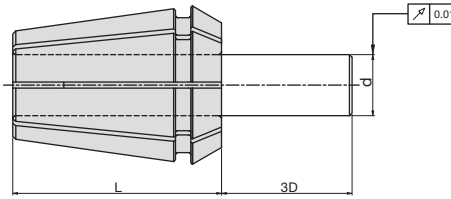
Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1120.01000	66692101M	ER20-1.0	21	31	1.0-0.5
1120.02000	66692102M	ER20-2.0	21	31	2.0-1.5
1120.03000	66692103M	ER20-3.0	21	31	3.0-2.5
1120.04000	66692104M	ER20-4.0	21	31	4.0-3.5
1120.05000	66692105M	ER20-5.0	21	31	5.0-4.5
1120.06000	66692106M	ER20-6.0	21	31	6.0-5.5
1120.07000	66692107M	ER20-7.0	21	31	7.0-6.5
1120.08000	66692108M	ER20-8.0	21	31	8.0-7.5
1120.09000	66692109M	ER20-9.0	21	31	9.0-8.5
1120.10000	66692110M	ER20-10.0	21	31	10.0-9.5
1120.11000	66692111M	ER20-11.0	21	31	11.0-10.5
1120.12000	66692112M	ER20-12.0	21	31	12.0-11.5
1120.13000	66692113M	ER20-13.0	21	31	13.0-12.5
1120.00000	-	ER20 12pc. Collet Set	-	-	-

Spring Collets ER25 (Metric)

Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1125.02000	66691181M	ER25-2.0	26	35	2.0-1.5
1125.03000	66691182M	ER25-3.0	26	35	3.0-2.5
1125.04000	66691183M	ER25-4.0	26	35	4.0-3.5
1125.05000	66691184M	ER25-5.0	26	35	5.0-4.5
1125.06000	66691285M	ER25-6.0	26	35	6.0-5.5
1125.07000	66691286M	ER25-7.0	26	35	7.0-6.5
1125.08000	66691287M	ER25-8.0	26	35	8.0-7.5
1125.09000	66691288M	ER25-9.0	26	35	9.0-8.5
1125.10000	66691289M	ER25-10.0	26	35	10.0-9.5
1125.11000	66691290M	ER25-11.0	26	35	11.0-10.5
1125.12000	66691291M	ER25-12.0	26	35	12.0-11.5
1125.13000	66691292M	ER25-13.0	26	35	13.0-12.5
1125.14000	66691293M	ER25-14.0	26	35	14.0-13.5
1125.15000	66691294M	ER25-15.0	26	35	15.0-14.5
1125.16000	66691295M	ER25-16.0	26	35	16.0-15.5
1125.00000	-	ER25 15pc. Collet Set	-	-	-

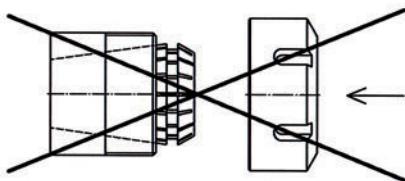
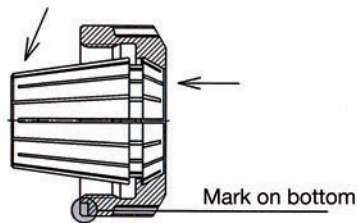
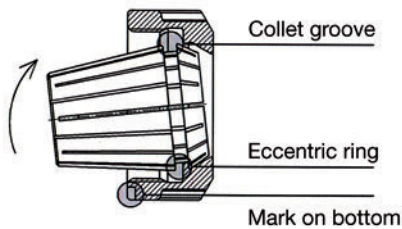
Spring Collets ER32 (Metric)

Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1132.02000	66691196M	ER32-2.0	33	40	2.0-1.5
1132.03000	66691197M	ER32-3.0	33	40	3.0-2.5
1132.04000	66691198M	ER32-4.0	33	40	4.0-3.5
1132.05000	66691199M	ER32-5.0	33	40	5.0-4.5
1132.06000	66691200M	ER32-6.0	33	40	6.0-5.5
1132.07000	66691201M	ER32-7.0	33	40	7.0-6.5
1132.08000	66691202M	ER32-8.0	33	40	8.0-7.5
1132.09000	66691203M	ER32-9.0	33	40	9.0-8.5
1132.10000	66691204M	ER32-10.0	33	40	10.0-9.5
1132.11000	66691205M	ER32-11.0	33	40	11.0-10.5
1132.12000	66691206M	ER32-12.0	33	40	12.0-11.5
1132.13000	66691207M	ER32-13.0	33	40	13.0-12.5
1132.14000	66691208M	ER32-14.0	33	40	14.0-13.5
1132.15000	66691209M	ER32-15.0	33	40	15.0-14.5
1132.16000	66691210M	ER32-16.0	33	40	16.0-15.5
1132.17000	66691211M	ER32-17.0	33	40	17.0-16.5
1132.18000	66691212M	ER32-18.0	33	40	18.0-17.5
1132.19000	66691213M	ER32-19.0	33	40	19.0-18.5
1132.20000	66691214M	ER32-20.0	33	40	20.0-19.5
1132.00000	-	ER32 18pc. Collet Set	-	-	-



Spring Collets ER40 (Metric)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1140.03000	66691215M	ER40-3.0	41	46	3.0-2.5
1140.04000	66691216M	ER40-4.0	41	46	4.0-3.5
1140.05000	66691217M	ER40-5.0	41	46	5.0-4.5
1140.06000	66691218M	ER40-6.0	41	46	6.0-5.5
1140.07000	66691219M	ER40-7.0	41	46	7.0-6.5
1140.08000	66691220M	ER40-8.0	41	46	8.0-7.5
1140.09000	66691221M	ER40-9.0	41	46	9.0-8.5
1140.10000	66691222M	ER40-10.0	41	46	10.0-9.5
1140.11000	66691223M	ER40-11.0	41	46	11.0-10.5
1140.12000	66691224M	ER40-12.0	41	46	12.0-11.5
1140.13000	66691225M	ER40-13.0	41	46	13.0-12.5
1140.14000	66691226M	ER40-14.0	41	46	14.0-13.5
1140.15000	66691227M	ER40-15.0	41	46	15.0-14.5

Spring Collets ER40 (Metric)					
Premium SAP No.	Standard SAP No.	Designation	Dimensions (mm)		
			D	L	d
1140.16000	66691228M	ER40-16.0	41	46	16.0-15.5
1140.17000	66691229M	ER40-17.0	41	46	17.0-16.5
1140.18000	66691230M	ER40-18.0	41	46	18.0-17.5
1140.19000	66691231M	ER40-19.0	41	46	19.0-18.5
1140.20000	66691232M	ER40-20.0	41	46	20.0-19.5
1140.21000	66691233M	ER40-21.0	41	46	21.0-20.5
1140.22000	66691234M	ER40-22.0	41	46	22.0-21.5
1140.23000	66691235M	ER40-23.0	41	46	23.0-22.5
1140.24000	66691236M	ER40-24.0	41	46	24.0-23.5
1140.25000	66691237M	ER40-25.0	41	46	25.0-24.5
1140.26000	66691238M	ER40-26.0	41	46	26.0-25.5
1140.00000	-	ER40 23pc. Collet Set	-	-	-



ASSEMBLING COLLET

Insert groove of the collet into eccentric ring of the clamping nut at the mark on the bottom of the nut. Push collet in the direction of the arrow until it clicks in. Insert tool. Screw nut with collet onto tool holder.

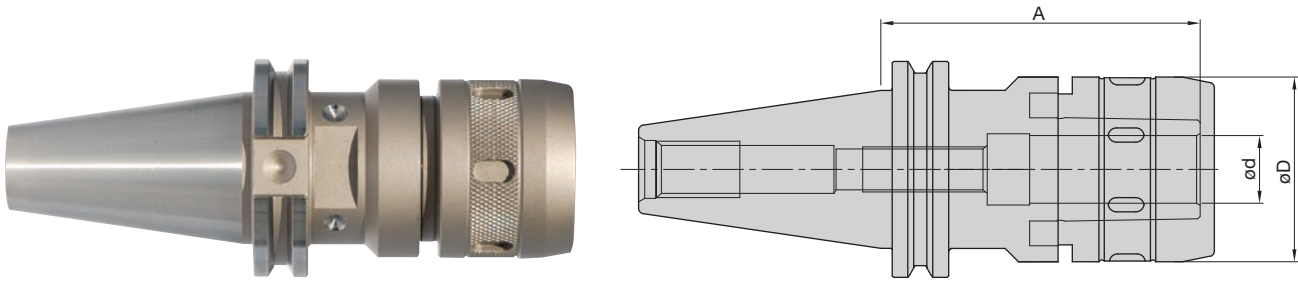
REMOVING COLLET

After the nut is unscrewed from the toolholder, press on the face of the collet while simultaneously pushing sideways on the back of the collet opposite the mark until it disengages from the clamping nut.

! Improper assembly can permanently damage the concentricity of the collet and may result in the destruction of the clamping nut. Only mount nuts with correctly inserted collets! Never place the collet into the holder without first assembling into the nut.

Hi-Power Milling Chucks

BILZ



Hi-Power Milling Chucks – CAT40

Balanced to G6.3 @ 8,000 RPM

SAP No.	Designation	Dimensions					Coolant Supply
		d (mm)	d (inch)	D (mm)	A (mm)	A (inch)	
66611335M	WHPMC/0.750"-3.54"/CAT40	19.05	0.75	52	89.9	3.54	Form "AD"
66611336M	WHPMC/1.000"-3.54"/CAT40	25.4	1.00	58	89.9	3.54	Form "AD"
66611337M	WHPMC/1.250"-4.25"/CAT40	31.75	1.25	66	108.0	4.25	Form "AD"
66611316M	WHPMC/25-90/CAT40	25	-	58	90	-	Form "AD"
66611317M	WHPMC/32-105/CAT40	32	-	66	105	-	Form "AD"

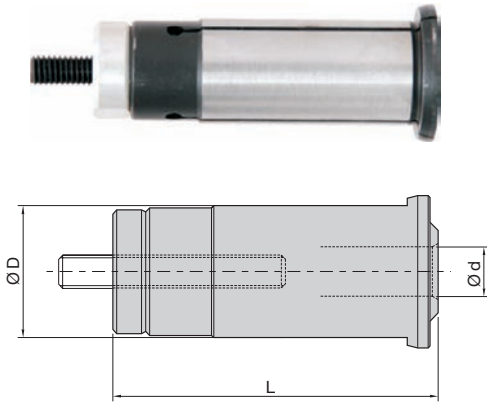
For wrenches, see page 43.



Hi-Power Milling Kits – CAT40

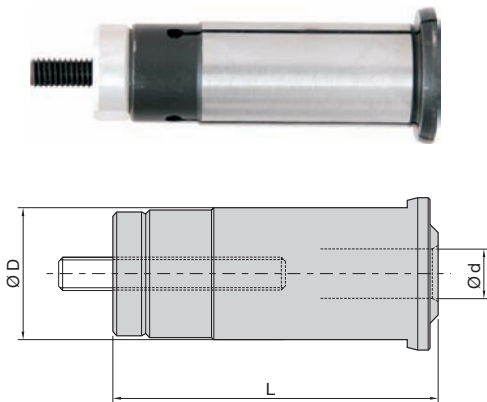
SAP No.	Description	Kit Contains					Wrench
		Milling Chuck	Collet	Collet	Collet	Collet	
66612159M	WHPMC/ 0.750-CAT40 Kit	WHPMC/ 0.750-3.54/CAT40	WSC 0750-0.250	WSC 0750-0.375	WSC 0750-0.500	WSC 0750-0.625	C-20
	WHPMC/ 1.000-CAT40 Kit	WHPMC/ 1.000-3.54/CAT40	WSC 1000-0.250	WSC 1000-0.375	WSC 1000-0.500	WSC 1000-0.750	C-25
	WHPMC/ 1.250-CAT40 Kit	WHPMC/ 1.250-4.25/CAT40	WSC 1250-0.375	WSC 1250-0.500	WSC 1250-0.750	WSC 1250-1.000	C-32
	WHPMC/ 25mm-CAT40 Kit	WHPMC/ 25-90/CAT40	WSC 25-8	WSC 25-10	WSC 25-12	WSC 25-20	C25
	WHPMC/ 32mm-CAT40 Kit	WHPMC/ 32-105/CAT40	WSC 32-10	WSC 32-12	WSC 32-20	WSC 32-25	C32

Adjustable Straight Collets for Milling Chucks (Metric)



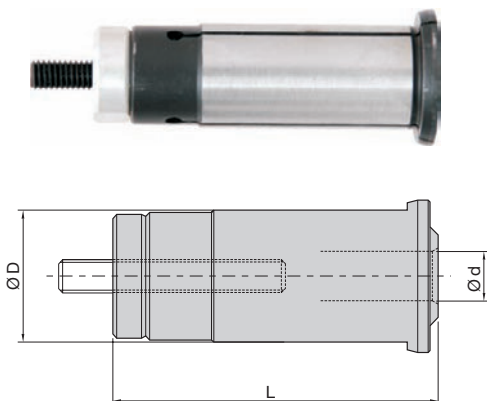
SAP No.	Designation	Dimensions (mm)		
		D	d	L
66611401M	WSC20-6	20	6	63
66611402M	WSC20-8	20	8	63
66611403M	WSC20-10	20	10	63
66611404M	WSC20-12	20	12	63
66611405M	WSC20-16	20	16	63
66611406M	WSC25-6	25	6	73
66611407M	WSC25-8	25	8	73
66611408M	WSC25-10	25	10	73
66611409M	WSC25-12	25	12	73
66611410M	WSC25-16	25	16	73
66611411M	WSC25-18	25	18	73
66611412M	WSC25-20	25	20	73
66611413M	WSC32-6	32	6	79
66611414M	WSC32-8	32	8	79
66611415M	WSC32-10	32	10	79
66611416M	WSC32-12	32	12	79
66611417M	WSC32-16	32	16	79
66611418M	WSC32-18	32	18	79
66611419M	WSC32-20	32	20	79
66611420M	WSC32-25	32	25	79

Adjustable Straight Collets for Milling Chucks (Inch)



SAP No.	Designation	Dimensions (inch)		
		D	d	L
66611460M	WSC 0.750"-0.250"	0.750	0.250	2.48
66611461M	WSC 0.750"-0.312"	0.750	0.312	2.48
66611462M	WSC 0.750"-0.375"	0.750	0.375	2.48
66611463M	WSC 0.750"-0.437"	0.750	0.437	2.48
66611464M	WSC 0.750"-0.500"	0.750	0.500	2.48
66611465M	WSC 0.750"-0.562"	0.750	0.562	2.48
66611466M	WSC 0.750"-0.625"	0.750	0.625	2.48
66611467M	WSC 1.000"-0.250"	1.000	0.250	2.87
66611468M	WSC 1.000"-0.312"	1.000	0.312	2.87
66611469M	WSC 1.000"-0.375"	1.000	0.375	2.87
66611470M	WSC 1.000"-0.437"	1.000	0.437	2.87
66611471M	WSC 1.000"-0.500"	1.000	0.500	2.87
66611472M	WSC 1.000"-0.562"	1.000	0.562	2.87
66611473M	WSC 1.000"-0.625"	1.000	0.625	2.87
66611474M	WSC 1.000"-0.750"	1.000	0.750	2.87
66611475M	WSC 1.250"-0.250"	1.250	0.250	3.11
66611476M	WSC 1.250"-0.312"	1.250	0.312	3.11
66611477M	WSC 1.250"-0.375"	1.250	0.375	3.11
66611478M	WSC 1.250"-0.437"	1.250	0.437	3.11
66611479M	WSC 1.250"-0.500"	1.250	0.500	3.11
66611480M	WSC 1.250"-0.562"	1.250	0.562	3.11
66611481M	WSC 1.250"-0.625"	1.250	0.625	3.11
66611482M	WSC 1.250"-0.750"	1.250	0.750	3.11
66611483M	WSC 1.250"-0.875"	1.250	0.875	3.11
66611484M	WSC 1.250"-1.000"	1.250	1.000	3.11

Adjustable Straight Collets for Milling Chucks (Metric to Inch)



SAP No.	Designation	Dimensions		
		D	d	L
66611485M	WSC32-0.375"	32	0.375	3.11
66611486M	WSC32-0.500"	32	0.500	3.11
66611487M	WSC32-0.625"	32	0.625	3.11
66611488M	WSC32-0.750"	32	0.750	3.11
66611489M	WSC32-1.000"	32	1.000	3.11

diebold ULTRAGRIP® CHUCKS

FEATURES

- Best possible runout $\leq 3\mu\text{m}$
- Highest possible clamping forces and stability
- Clamping via roll-clamping nut and needle bearings
- High precision and balance quality
- Flexible use via reduction sleeves
- Suitable for internal coolant through with special reduction sleeves
- Vibration damping while high mass and segmented design
- Highest possible security against pull-out of milling cutters
- Internal coolant through up to 80 bar
- For highest possible cutting depth and therefore higher material removal rates
- Maintenance free technology
- For tightening cutting tool, only wrench and assembly block is required

MAIN APPLICATIONS

- Heavy HPS milling operations
- Universal use
- Clamping of tools with cylindrical shank
- Clamping of long or extended tools and extensions
- For cylindrical shanks according to DIN 1835A and B

CLAMPING RANGE

Ø20, Ø32, Ø40, Ø50

CLAMPING FORCE

Extremely high (up to 5.000 Nm)

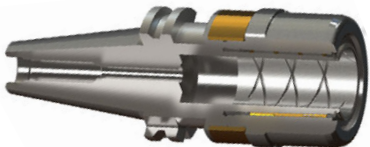
BALANCE QUALITY

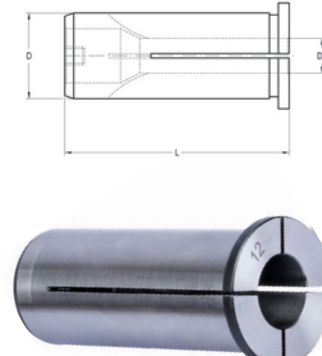
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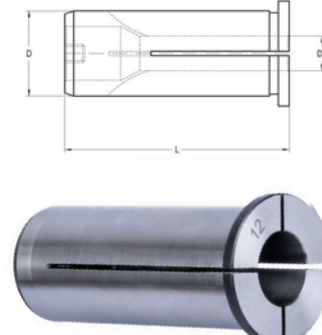
ADAPTERS

CAT40/CAT50 ANSI B5.50



Diebold UltraGrip® – CAT40				
	Order-No.	Dimensions		
		d ₁ max.	d ₂ (mm)	A (mm)
	72.302.560.600	20	53	75
72.302.560.800	32	66	100	80

Reductions for Diebold UltraGrip® – Inch				
	Order-No.	Dimensions		
		D	L (mm)	D ₁ (inch)
	75.560.330	20	52,5	1/8"
	75.560.331		52,5	3/16"
	75.560.332		52,5	1/4"
	75.560.333		52,5	5/16"
	75.560.334		52,5	3/8"
	75.560.335		52,5	7/16"
	75.560.336		52,5	1/2"
	75.560.338		52,5	5/8"
	75.560.531	32	64,5	3/16"
	75.560.532		64,5	1/4"
	75.560.533		64,5	5/16"
	75.560.534		64,5	3/8"
	75.560.535		64,5	7/16"
	75.560.536		64,5	1/2"
	75.560.537		64,5	9/16"
	75.560.538		64,5	5/8"
75.560.539		64,5	3/4"	
75.560.540		64,5	7/8"	
75.560.541		64,5	1"	

Reductions for Diebold UltraGrip® – Metric				
	Order-No.	Dimensions		
		D	L (mm)	D ₁ (mm)
	75.560.310	20	52,5	10
	75.560.312		52,5	12
	75.560.314		52,5	14
	75.560.316		52,5	16
	75.560.512	32	64,5	12
	75.560.514		64,5	14
	75.560.516		64,5	16
	75.560.518		64,5	18
	75.560.520		64,5	20
	75.560.525		64,5	25

Wrench	
Order-No.	Description
73.340.100	Grab handle
73.340.020	Wrench for Ø 20
73.340.032	Wrench for Ø 32
73.340.040	Wrench for Ø 40
73.340.050	Wrench for Ø 50

diebold CENTROGRIP® CHUCKS

FEATURES

- Best possible runout $\leq 3\mu\text{m}$ (holder $\leq 1\mu\text{m}$, collet $\leq 2\mu\text{m}$)
- High clamping forces with free gliding coated clamping nut
- Double clamping force than standard collet chucks
- Damping reduced
- Longer tool-life and better workpiece surface caused by less vibrations
- Heat resistant up to 200°C
- Suitable for hard milling of heated parts
- Less unbalance since all components are fine-balanced
- Clamping nut designed symmetrically for high speeds
- High flexibility for tool shanks from 1/8" up to 3/4" diameters
- High life period
- Easy clamping via wrench with rollers

MAIN APPLICATIONS

- Clamping milling cutters for high RPM (HSC)
- HPC-cutting for small clamping diameters
- Exact clamping of drills and reamers
- Clamping of tools with bigger shank tolerance (like taps)
- Clamping of small steel and carbide shanks

ADAPTERS

CAT40 ANSI B5.50

CLAMPING RANGE

Ø 1 mm up to Ø 20 mm

CLAMPING FORCE

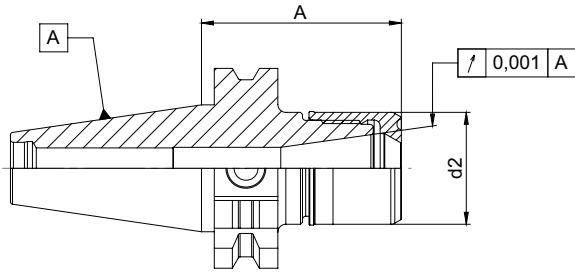
Depending on the clamping diameter up to 100% higher than standard collet chucks

BALANCE QUALITY

G 2,5 based on the RPM of each adaption

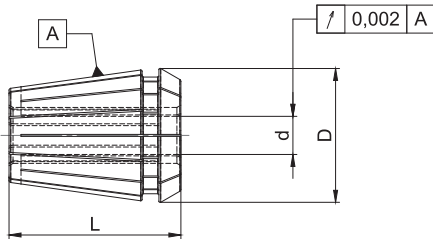


High Precision Collet Chucks Diebold CentroGrip® – CAT40



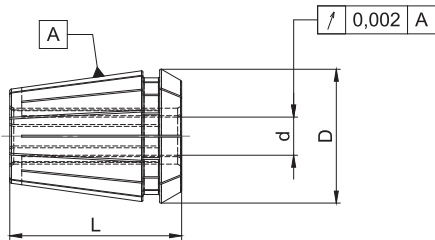
Order-No.	d ₂	A	for Collet	Range (inch)	Range (mm)
72.302.485.100	16	100	MR11	1/8"-1/4"	1-6
72.302.485.200	28	70	MR16	1/8"-3/8"	1-10
72.302.485.220	28	100	MR16	1/8"-3/8"	1-10
72.302.485.240	28	160	MR16	1/8"-3/8"	1-10
72.302.485.400	40	70	MR25	1/8"-1/2"	1-16
72.302.485.420	40	100	MR25	1/8"-1/2"	1-16
72.302.485.440	40	160	MR25	1/8"-1/2"	1-16
72.302.485.500	50	70	MR32	1/8"-3/4"	2-20
72.302.485.520	50	100	MR32	1/8"-3/4"	2-20
72.302.485.540	50	160	MR32	1/8"-3/4"	2-20

High Precision Collets Diebold CentroGrip® – Inch



Order-No.	Type	d (inch)	D (mm)	L (mm)
74.4008.118.MR	MR11	1/8"	11,5	18
74.4008.114.MR		1/4"	11,5	18
74.426.118.MR	MR16	1/8"	17	27
74.426.114.MR		1/4"	17	27
74.426.138.MR		3/8"	17	27
74.430.118.MR	MR25	1/8"	26	35
74.430.114.MR		1/4"	26	35
74.430.138.MR		3/8"	26	35
74.430.112.MR		1/2"	26	35
74.470.118.MR	MR32	1/8"	33	40
74.470.114.MR		1/4"	33	40
74.470.138.MR		3/8"	33	40
74.470.112.MR		1/2"	33	40
74.470.134.MR		3/4"	33	40

High Precision Collets Diebold CentroGrip® – Metric



Order-No.	Type	d (mm)	D (mm)	L (mm)
74.4008.01.MR	MR11	1	11,5	18
74.4008.02.MR		2	11,5	18
74.4008.03.MR		3	11,5	18
74.4008.04.MR		4	11,5	18
74.4008.05.MR		5	11,5	18
74.4008.06.MR		6	11,5	18
74.426.01.MR	MR16	1	17	27
74.426.02.MR		2	17	27
74.426.03.MR		3	17	27
74.426.04.MR		4	17	27
74.426.05.MR		5	17	27
74.426.06.MR		6	17	27
74.426.08.MR		8	17	27
74.426.10.MR		10	17	27
74.430.01.MR	MR25	1	26	35
74.430.02.MR		2	26	35
74.430.03.MR		3	26	35
74.430.04.MR		4	26	35
74.430.05.MR		5	26	35
74.430.06.MR		6	26	35
74.430.08.MR		8	26	35
74.430.10.MR		10	26	35
74.430.12.MR		12	26	35
74.430.14.MR		14	26	35
74.430.16.MR		16	26	35
74.470.02.MR	MR32	2	33	40
74.470.03.MR		3	33	40
74.470.04.MR		4	33	40
74.470.05.MR		5	33	40
74.470.06.MR		6	33	40
74.470.08.MR		8	33	40
74.470.10.MR		10	33	40
74.470.12.MR		12	33	40
74.470.14.MR		14	33	40
74.470.16.MR		16	33	40
74.470.18.MR		18	33	40
74.470.20.MR		20	33	40

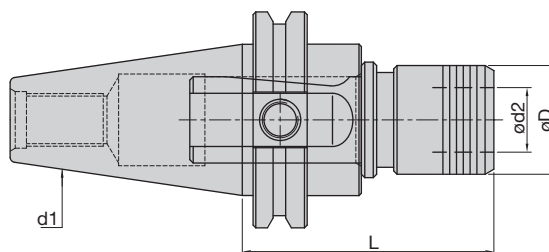
TAPPING & THREAD FORMING QUICK CHANGE ADAPTORS

By using the combination of Bilz tapping adaptors and Bilz quick change tapping chucks, tool changing times can be minimized. On transfer lines and special application machines where down time costs are high, these efficiencies represent significant savings. The adaptors are designed for optimum efficiency. Removal and replacement in the chuck is rapid and the location and locking of the tap in the adaptor is simple and effective.

In all cases the drive of the tap is realized by the square. The tap shank is held in position by a quick locking mechanism. Adaptors with length adjustment are available for setting off the machine, extended length adaptors are available for areas of difficult access, adjustable safety clutch adaptor, to prevent tap breakage. In all cases, a dedicated adaptor is required for each combination of tap shank and square.

Adaptors for other applications, such as those for accepting collets, and dies for external threads or for increased shank diameters, and reducing adapters complete this product family.





WF – CAT V-Flange

Catalog No.	Description	Shank (d ₁)	Coolant Fed	Dimensions					
				Size (d ₂)	Inch Tap Range	Metric Tap Range	Pipe Tap Range	d	l
117011	WF 1 IKP M/CAT40	CAT40	YES	1	#0-9/16	M3-M12	1/8	1.26	2.92
117021	WF 2 IKP M/CAT40	CAT40	YES	2	1/4-7/8	M8-M20	1/8-1/2	1.97	3.50

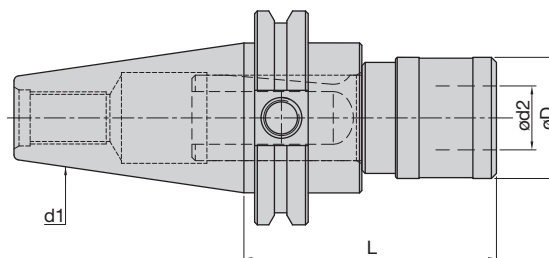
Note: Coolant Thru @ 50 BAR/725 PSI

Quick Change Tapping Kits



Set Number	Description
117623-IN	Rigid Coolant-Thru, 3/4" Straight Shank holder with 10 Quick Change Adapters WE1-ANSI
117623-KPIN	Rigid Coolant-Thru, 1" Straight Shank holder with 10 Quick Change Adapters WE1-KP-ANSI
117624-IN	Rigid Coolant-Thru, 1" Straight Shank holder with 10 Quick Change Adapters WE1-ANSI
120298-IN	Tension/Compression 1" Straight Shank holder with 10 Quick Change Adapters WE1-ANSI
120486-IN	Tension Only, 1" Straight Shank holder with 10 Quick Change Adapters WE1-ANSI

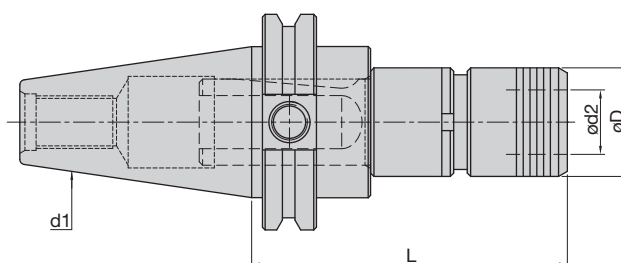
The above Tap Kits included the following tap adapter sizes: Series #1 - #6, #8, #10, #12, 1/4", 5/16", 3/8", 7/16", 1/2", and 9/16" for ANSI shank taps



WFLK – CAT V-Flange

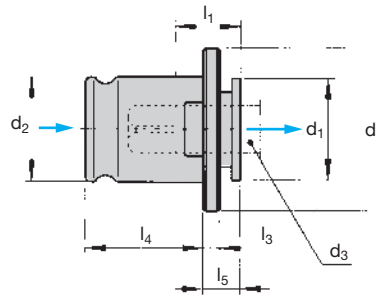
Catalog No.	Description	Shank (d1)	Coolant Fed	Dimensions							D	L
				Adapter Size (d2)	Inch Tap Range	Metric Tap Range	Pipe Tap Range	Comp. (inch)	Tension (inch)			
Tension & Compression Chucks												
100001	WFLK 013 BM/CAT40	CAT40	NO	0	#0-5/16	M3-M10	NA	0.26	0.26	1.02	2.96	
100011	WFLK 115 BM/CAT40	CAT40	NO	1	#0-9/16	M3-M12	1/8	0.30	0.30	1.42	2.96	
100021	WFLK 225 BM/CAT40	CAT40	NO	2	1/4-7/8	M8-M20	1/8-1/2	0.49	0.49	2.09	3.86	
Tension Only Chucks												
100011-0	WFLK 115-0 BM/CAT40	CAT40	NO	1	#0-9/16	M3-M12	1/8	0	0.59	1.417	2.66	
100021-0	WFLK 225-0 BM/CAT40	CAT40	NO	2	1/4-7/8	M8-M20	1/8-1/2	0	0.98	2.087	3.37	

WFP | Quick Change Floating Tap Chucks



WFP – CAT V-Flange

Catalog No.	Description	Shank (d1)	Coolant Fed	Dimensions							D	L
				Adapter Size (d2)	Inch Tap Range	Metric Tap Range	Pipe Tap Range	Float				
112111	WFP 1 M/CAT40	CAT40	NO	1	#0-9/16	M3-M12	1/8	0.02	1.26	3.66		
112221	WFP 2 M/CAT40	CAT40	NO	2	1/4-7/8	M8-M20	1/8-1/2	0.04	1.97	4.69		

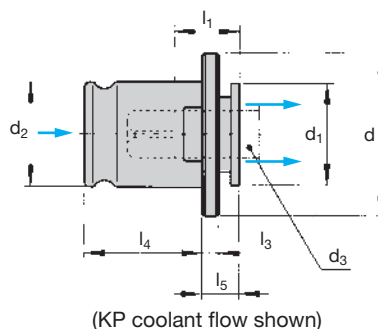


WE / WER – ANSI									
Designation	Tap Size		Dimensions (mm/inch)						
	Inch	Metric	d	d ₁	d ₂	l ₁	l ₃	l ₄	l ₅
WE 0	#0-5/16	M1-M10	22.0 (0.787)	13.0 (.5118)	13.0 (.5118)	15.0 (0.591)	4.0 (.1575)	19.5 (.7677)	7.0 (.2756)
WE 1	#0-9/16	M3-M12	30.0 (1.181)	19.0 (0.748)	19.0 (0.748)	17.0 (0.669)	4.0 (.1575)	21.5 (.8465)	7.0 (.2756)
WE 2	1/4-7/8	M8-M20	48.0 (1.890)	30.0 (1.181)	31.0 (1.220)	30.0 (1.181)	5.0 (.1969)	35.0 (1.378)	11.0 (.4331)
WE 3	13/16-1-3/8	M14-M33	70.0 (2.756)	48.0 (1.890)	48.0 (1.890)	44.0 (1.732)	6.0 (.2362)	55.5 (2.185)	14.0 (.5512)
WER2	1/8-1/2 NPT		48.0 (1.890)	30.0 (1.181)	31.0 (1.220)	21.0 (.827)	5.0 (.1969)	35.0 (1.378)	11.0 (.4331)
WER3	3/8-1" NPT		70.0 (2.756)	48.0 (1.890)	48.0 (1.890)	25.0 (.984)	6.0 (.2362)	55.5 (2.185)	14.0 (.5512)
WER4	1"-1-7/8	M22-M48	92.0 (3.622)	60.0 (2.362)	60.0 (2.362)	46.0 (1.811)	13.0 (.512)	63.0 (2.480)	42.0 (1.654)
WER4	3/4-1-1/2 NPT		92.0 (3.622)	60.0 (2.362)	60.0 (2.362)	46.0 (1.811)	13.0 (.512)	63.0 (2.480)	42.0 (1.654)
Size		Shank Dia.	Square	Catalog No.					
Inch	Metric			WE 0	WE 1	WE 2	WE 3	WER* 4	
Hand Taps									
#0-6	M3	0.141	0.110	29100028	21100019				
#8, 5/32	M4	0.168	0.131	29100041	21100027				
#10, 3/16	M4.5, M5	0.194	0.152	29100052	21100038				
#12, 7/32		0.220	0.165	29100062	21100046				
1/4, #14	M6, M6.5	0.255	0.191	29100077	21100063	22100010			
1/4 small shank	M6, M6.5	0.185	0.138		21100035				
5/16	M7, M8	0.318	0.238	29100101	21100089	22100022			
5/16 small shank	M7, M8	0.240	0.18		21100057				
3/8	M10	0.381	0.286		21100112	22100040			
3/8 small shank	M10	0.275	0.206		21100067				
7/16		0.323	0.242		21100091	22100023			
1/2	M12, M12.5	0.367	0.275		21100105	22100033			
9/16	M14	0.429	0.322		21100119	22100043			
5/8	M16	0.480	0.360			22100058			
11/16	M18	0.542	0.406			22100067			
3/4		0.590	0.442			22100147	23100013		
13/16	M20	0.652	0.489			22100089	23100018		
7/8	M22	0.697	0.523			22100093	23100021		
15/16	M24	0.760	0.570				23100028		
1"	M25	0.800	0.600				23100031	24102033	
1-1/8		0.896	0.672				23100038	24102035	
1-1/4	M30	1.021	0.766				23100045	24102037	
1-3/8	M33	1.108	0.831				23100053	24102001	
1-1/2	M36	1.233	0.925					24102004	
1-5/8	M39	1.305	0.979					24102005	
1-3/4	M42	1.430	1.072					24102007	
1-7/8		1.519	1.139					24102009	
Size		Shank Dia.	Square	Catalog No.					
Inch	NPT			WE 1	WER* 2	WER* 3	WER* 4		
Pipe Taps									
1/8 NPT	SMALL SHANK	0.313	0.234		21100081				
1/8 NPT	LARGE SHANK	0.437	0.328		21100124	22102016			
1/4 NPT	1/4 NPT	0.562	0.421			22102002			
3/8 NPT	3/8 NPT	0.700	0.531			22102005	23102035		
1/2 NPT	1/2 NPT	0.688	0.515			22102004	23102049		
3/4 NPT	3/4 NPT	0.906	0.679				23102004	24102025	
1" NPT	1" NPT	1.125	0.843				23102007	24102043	
1-1/4" NPT	1-1/4" NPT	1.313	0.984					24102006	
1-1/2" NPT	1-1/2" NPT	1.500	1.125					24102008	

*WER are non-coolant through

WE / WE KP (Slotted) | DIN/Metric Quick Change Tap Adapters

BILZ



WE / WE KP – DIN 371/376											
		Tap Size		Dimensions (mm/inch)							
Designation	Inch	Metric	d	d ₁	d ₂	l ₁	l ₃	l ₄	l ₅		
WE 0	#0-5/16	M1-M10	22.0 (0.787)	13.0 (.5118)	13.0 (.5118)	15.0 (0.591)	4.0 (.1575)	19.5 (.7677)	7.0 (.2756)		
WE 1 / WE 1 KP	#0-9/16	M3-M12	30.0 (1.181)	19.0 (0.748)	19.0 (0.748)	17.0 (0.669)	4.0 (.1575)	21.5 (.8465)	7.0 (.2756)		
WE 2 / WE 2 KP	1/4-7/8	M8-M20	48.0 (1.890)	30.0 (1.181)	31.0 (1.220)	30.0 (1.181)	5.0 (.1969)	35.0 (1.378)	11.0 (.4331)		
WE 3 / WE 3 KP	13/16-1-3/8	M14-M33	70.0 (2.756)	48.0 (1.890)	48.0 (1.890)	44.0 (1.732)	6.0 (.2362)	55.5 (2.185)	14.0 (.5512)		
WE 4	1"-1-7/8	M22-M48	92.0 (3.622)	60.0 (2.362)	60.0 (2.362)	71.0 (2.799)	13.0 (0.512)	63.0 (2.480)	42.0 (1.654)		
Size	Shank Dia.		DIN Spec	Catalog No.							
Metric	Square			WE 0	WE 1	WE 1 KP	WE 2	WE 2 KP	WE 3	WE 3 KP	WE 4
DIN-371											
M3	3.5 (0.138)	2.7 (0.106)	DIN 371	29100025	21100017	21184013					
M4	4.5 (0.177)	3.4 (0.134)	DIN 371	29100044	21100030	21184010					
M5	6.0 (0.236)	4.9 (0.193)	DIN 371	29100067	21100054	21184011					
M6	6.0 (0.236)	4.9 (0.193)	DIN 371	29100067	21100054	21184011	22100004	22167421			
M7	7.0 (0.276)	5.5 (0.217)	DIN 371	29100082	21100068	21184009	22100011	22167423			
M8	8.0 (0.315)	6.2 (0.244)	DIN 371	29100087	21100086	21184001	22100020	22167402			
M9	9.0 (0.354)	7.0 (0.276)	DIN 371		21100099	21184003	22100031	22167404			
M10	10.0 (0.394)	8.0 (0.315)	DIN 371		21100115	21184005	22100041	22167406			
DIN-376											
M8	6.0 (0.236)	4.9 (0.193)	DIN 376	29100067	21100054	21184011	22100004	22167421			
M10	7.0 (0.276)	5.5 (0.217)	DIN 376	29100082	21100068	21184009	22100011	22167423			
M12	9.0 (0.354)	7.0 (0.276)	DIN 376		21100099	21184003	22100031	22167404			
M14	11.0 (0.433)	9.0 (0.354)	DIN 376		21100123	21184006	22100046	22167407	23100004	23156402	
M16	12.0 (0.472)	9.0 (0.354)	DIN 376				22100056	22167409	23100006	23156410	
M18	14.0 (0.551)	11.0 (0.433)	DIN 376				22100069	22167411	23100011	23156403	
M20	16.0 (0.630)	12.0 (0.472)	DIN 376				22100084	22167413	23100016	23156413	
M22	18.0 (0.709)	14.5 (0.571)	DIN 376						23100024	23156401	24100002
M24	18.0 (0.709)	14.5 (0.571)	DIN 376						23100024	23156401	24100002
M27	20.0 (0.787)	16.0 (0.630)	DIN 376						23100030	23156406	24100004
M30	22.0 (0.866)	18.0 (0.709)	DIN 376						23100035	23156404	24100006
M33	25.0 (0.984)	20.0 (0.787)	DIN 376						23100044	23156407	24100009
M36	28.0 (1.102)	22.0 (0.866)	DIN 376								24100012
M39	32.0 (1.260)	24.0 (0.945)	DIN 376								24100017
M42	32.0 (1.260)	24.0 (0.945)	DIN 376								24100017
M45	36.0 (1.417)	29.0 (1.142)	DIN 376								24100020
M48	36.0 (1.417)	29.0 (1.142)	DIN 376								24100020

Also available in JIS and ISO

NOTE: WE style also suitable for taps with axial coolant hole

WE KP style delivers coolant around tap shank for noncoolant taps

THERMOGRIP® TOOL HOLDING SYSTEM

MAKE MORE MONEY AT THE CUTTING EDGE

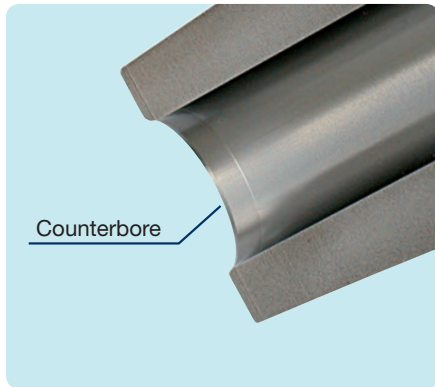
The ThermoGrip® tool holding system uses an inductive heating concept to provide stronger, more-concentric tool clamping. This leads to increased tool life, better surface finishes and improved cost efficiency. Our offering covers machines, holders (including heavy duty), extensions, collets and accessories—everything you need to maximize profits!

- Longest tool life of any holding system
- Highest concentricity (<.003mm)
- Maximum clamping security

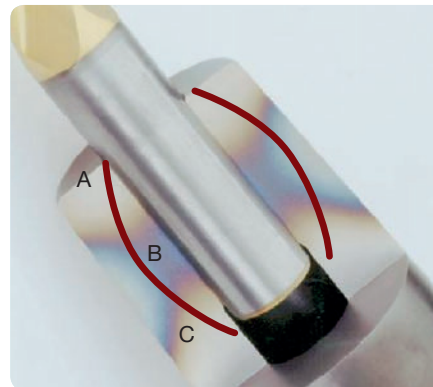


VIEW
THE
WEBSITE

T THERMOGRIP® STANDARD



- Precentering of the tool for an automatic shrinking process
- 15%–20% less heat needed during heating – low wear
- Optimal shrinking out of HSS shanks



- A - Critical position during release. Cold corners prevent the release of the tool shank
- B - Barrel shaped bore opening (banana effect)
- C - Hot Spot

The picture above shows the cross section of an inductively heated shrink holder. The surface of the chuck mainly heats in the hot spot area very quickly. This area is situated in the middle of the coil spindle. As the temperature is always higher on the surface of the chuck than in the inner part, the chuck opens by micrometres—similar to a banana—slightly outwards. Therefore the chuck is always slightly more open at the hot spot than at the boring entry. The cylindrical counterbore bypasses this critical area securely at reduced energy requirement. Due to this low wear heating process, a longer tool life of the shrink holders is guaranteed.

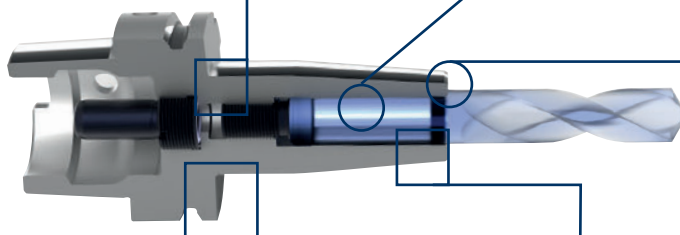
MADE IN GERMANY 100%

Optimized stability through “balanced by design” and subsequent fine balancing

- Better surface quality
- Ideal for HPC/HSC processing
- Low wear of the machine spindle

Security

- All standard shanks can be clamped
- No loss of clamping force with greasy and oily shanks



The patented counterbore allows the insertion of the tool under cold condition as well as an automatic shrinking process and simplifies the handling. 15%–20% less heat required when heating the shrink chuck

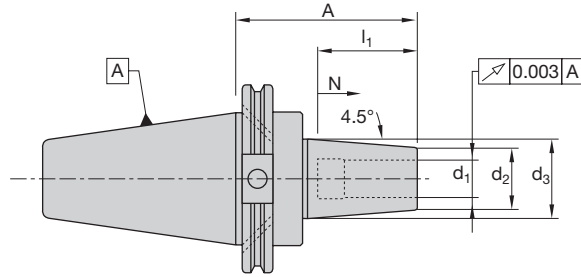
Longest tool life and form stability due to the use of highly heat resisting special purpose steel

- High radial rigidity
- Low deflection
- High rate of infeeds possible

Highest concentricity

< 0.003 mm and precise taper tolerances, manufactured in an air-conditioned production area

- Reduced tool costs due to improved tool life, allows constant cutting edge contact
- Reduced chatter marks



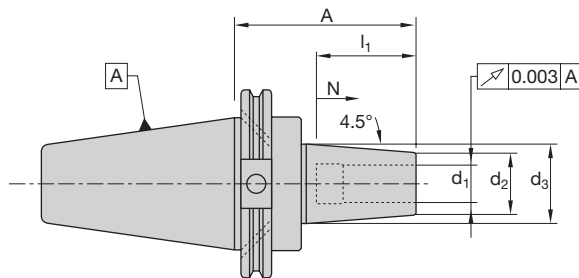
ThermoGrip® – CAT40 – Inch

SAP No.	Designation	Dimensions (inch)						
		d_1	A	d_2	d_3	l_1	N	g
STANDARD PROJECTION								
9087264	T0318-95/CAT-40	0.125	3.74	0.59	0.79	0.79	0.20	M6
9087265	T0476-95/CAT-40	0.187	3.74	0.59	0.79	0.79	0.20	M6
9075136	T0635-95/CAT-40	0.250	3.74	0.83	1.06	1.42	0.39	M5
9074678	T0953-95/CAT-40	0.375	3.74	0.95	1.26	1.65	0.39	M8x1
9074679	T1270-95/CAT-40	0.500	3.74	1.06	1.34	1.85	0.39	M10x1
9074680	T1588-95/CAT-40	0.625	3.74	1.06	1.34	1.97	0.39	M12x1
9074681	T1905-95/CAT-40	0.750	3.74	1.30	1.65	2.05	0.39	M16x1
9074675	T2540-100/CAT-40	1.000	3.94	1.73	2.09	2.44	0.39	M16x1
9074647	T3175-100/CAT-40	1.250	3.94	1.73	2.09	2.44	0.39	M16x1
LONG PROJECTION								
9087267	T0318-120/CAT-40	0.125	4.73	0.59	0.79	0.79	0.20	M6
9087268	T0476-120/CAT-40	0.187	4.73	0.59	0.79	0.79	0.20	M6
9074633	T0635-120/CAT-40	0.250	4.73	0.83	1.06	1.42	0.39	M5
9074635	T0953-120/CAT-40	0.375	4.73	0.95	1.26	1.65	0.39	M8x1
9074637	T1270-120/CAT-40	0.500	4.73	1.06	1.34	1.85	0.39	M10x1
9074639	T1588-120/CAT-40	0.625	4.73	1.06	1.34	1.97	0.39	M12x1
9074641	T1905-120/CAT-40	0.750	4.73	1.30	1.65	2.05	0.39	M16x1
9074645	T2540-120/CAT-40	1.000	4.73	1.73	2.09	2.44	0.39	M16x1
9074648	T3175-120/CAT-40	1.25	4.73	1.73	2.09	2.44	0.39	M16x1
EXTRA LONG PROJECTION								
9087270	T0318-160/CAT-40	0.125	6.30	0.59	0.79	0.79	0.20	M6
9087271	T0476-160/CAT-40	0.187	6.30	0.59	0.79	0.79	0.20	M6
9074634	T0635-160/CAT-40	0.250	6.30	0.83	1.26	1.42	0.39	M5
9074636	T0953-160/CAT-40	0.375	6.30	0.95	1.34	1.65	0.39	M8x1
9074638	T1270-160/CAT-40	0.500	6.30	1.06	1.65	1.85	0.39	M10x1
9074640	T1588-160/CAT-40	0.625	6.30	1.06	1.65	1.97	0.39	M12x1
9074642	T1905-160/CAT-40	0.750	6.30	1.30	1.75	2.05	0.39	M16x1
9074646	T2540-160/CAT-40	1.000	6.30	1.73	2.09	2.44	0.39	M16x1
9074649	T3175-160/CAT-40	1.250	6.30	1.73	2.09	2.44	0.39	M16x1

NOTE: All Holders Have 5/8-11 UNC Thread for Retention Knob & DIN FORM B Flange Coolant Delivery Option Standard
 NOTE: Tool Shank Tolerance must be h6 or better, h4 for holders with ID smaller than 5mm

CAT40 | ThermoGrip® Standard

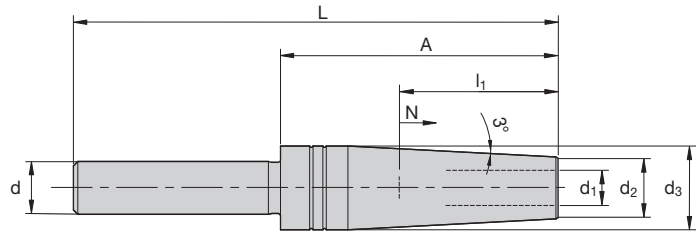
BILZ



ThermoGrip® – CAT40 – Metric

SAP No.	Designation	Dimensions (mm)						
		d_1	A	d_2	d_3	l_1	N	g
STANDARD PROJECTION								
9087273	T0300-95/CAT-40	3	95	15	20	20	5	M6
9087286	T0400-95/CAT-40	4	95	15	20	20	5	M6
9087287	T0500-95/CAT-40	5	95	15	20	25	5	M6
9074627	T0600-95/CAT-40	6	95	21	27	36	10	M5
9074628	T0800-95/CAT-40	8	95	21	27	36	10	M6
9074629	T1000-95/CAT-40	10	95	24	32	42	10	M8x1
9074630	T1200-95/CAT-40	12	95	24	32	47	10	M10x1
9074658	T1400-95/CAT-40	14	95	27	34	47	10	M10x1
9074631	T1600-95/CAT-40	16	95	27	34	50	10	M12x1
9074664	T1800-95/CAT-40	18	95	33	42	50	10	M12x1
9074632	T2000-95/CAT-40	20	95	33	42	52	10	M16x1
9074760	T2500-100/CAT-40	25	100	44	53	58	10	M16x1
9074672	T3200-100/CAT-40	32	100	44	53	62	10	M16x1
LONG PROJECTION								
9074650	T0600-120/CAT-40	6	120	21	27	36	10	M5
9074652	T0800-120/CAT-40	8	120	21	27	36	10	M6
9074654	T1000-120/CAT-40	10	120	24	32	42	10	M8x1
9074656	T1200-120/CAT-40	12	120	24	32	47	10	M10x1
9074659	T1400-120/CAT-40	14	120	27	34	47	10	M10x1
9074662	T1600-120/CAT-40	16	120	27	34	50	10	M12x1
9074665	T1800-120/CAT-40	18	120	33	42	50	10	M12x1
9074667	T2000-120/CAT-40	20	120	33	42	52	10	M16x1
9074669	T2500-120/CAT-40	25	120	44	53	58	10	M16x1
9074673	T3200-120/CAT-40	32	120	44	53	62	10	M16x1
EXTRA LONG PROJECTION								
9074651	T0600-160/CAT-40	6	160	21	32	36	10	M5
9074653	T0800-160/CAT-40	8	160	21	32	36	10	M6
9074655	T1000-160/CAT-40	10	160	24	34	42	10	M8x1
9074657	T1200-160/CAT-40	12	160	24	34	47	10	M10x1
9074661	T1400-160/CAT-40	14	160	27	42	47	10	M10x1
9074663	T1600-160/CAT-40	16	160	27	42	50	10	M12x1
9074666	T1800-160/CAT-40	18	160	33	44	50	10	M12x1
9074668	T2000-160/CAT-40	20	160	44	53	52	10	M16x1
9074671	T2500-160/CAT-40	25	160	44	53	58	10	M16x1
9074674	T3200-160/CAT-40	32	160	44	53	62	10	M16x1

NOTE: All Holders Have 5/8-11 UNC Thread for Retention Knob & DIN FORM B Flange Coolant Delivery Option Standard
 NOTE: Tool Shank Tolerance must be h6 or better, h4 for holders with ID smaller than 5mm

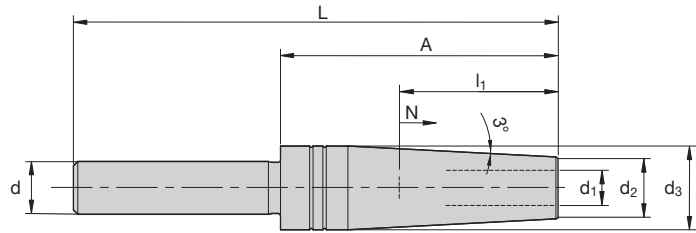


ThermoGrip® SlimLine – TSFV Shrink Extensions – Inch									
SAP No.	Designation	Dimensions (inch)							
		d ₁	A	D	L	d ₂	d ₃	N	g
STANDARD PROJECTION									
5051691	TSFV0318-110/1270	0.125	2.48	0.50	4.33	0.39	0.50	0.20	M6
5051697	TSFV0318-110/1905	0.125	2.28	0.75	4.33	0.39	0.75	0.20	M6
5051695	TSFV0476-110/1270	0.187	2.48	0.50	4.33	0.43	0.50	0.20	M6
5051698	TSFV0476-110/1905	0.187	2.28	0.75	4.33	0.43	0.75	0.20	M6
5051696	TSFV0635-110/1270	0.250	2.48	0.50	4.33	0.47	0.50	0.39	M6
5051699	TSFV0635-110/1905	0.250	2.28	0.75	4.33	0.47	0.75	0.39	M6
5051700	TSFV0953-110/1905	0.375	2.28	0.75	4.33	0.63	0.75	0.39	M8x1
EXTRA LONG PROJECTION									
5051735	TSFV0318-250/1905	0.125	7.79	0.75	9.84	0.39	0.75	0.20	M6
5051736	TSFV0476-250/1905	0.187	7.79	0.75	9.84	0.43	0.75	0.20	M6
5051737	TSFV0635-250/1905	0.250	7.79	0.75	9.84	0.47	0.75	0.39	M6
5051738	TSFV0953-250/1905	0.375	7.79	0.75	9.84	0.63	0.75	0.39	M8x1
5051740	TSFV1270-250/2540	0.500	7.59	1.00	9.84	0.79	1.00	0.39	M10x1
5051500	TSFV1588-250/2540	0.625	7.59	1.00	9.84	0.87	1.00	0.39	M10x1

All holders can be run with internal coolant

NOTE: Tool Shank Tolerance must be h6 or better, h4 for holders with ID smaller than 5mm

TSFV Shrink Extensions | ThermoGrip® SlimLine

BILZ

ThermoGrip® SlimLine – TSFV Shrink Extensions – Metric

SAP No.	Designation	Dimensions (mm)							
		d ₁	A	D	L	d ₂	d ₃	N	g
STANDARD PROJECTION									
9195953	TSFV0300-110/12	3	63	12	110	9	11.8	5	M6
9196066	TSFV0300-110/16	3	60	16	110	9	13	5	M6
9196082	TSFV0300-110/20	3	58	20	110	9	13	5	M6
9195985	TSFV0400-110/12	4	63	12	110	10	11.8	5	M6
9196068	TSFV0400-110/16	4	60	16	110	10	14	5	M6
9196083	TSFV0400-110/20	4	58	20	110	10	14	5	M6
9195986	TSFV0500-110/12	5	63	12	110	11	11.8	5	M6
9196069	TSFV0500-110/16	5	58	16	110	11	15	5	M6
9196084	TSFV0500-110/20	5	58	20	110	11	15	5	M6
9196015	TSFV0600-110/12	6	63	12	110	12	17	10	M5
9196070	TSFV0600-110/16	6	60	16	110	12	15.8	10	M5
9196085	TSFV0600-110/20	6	58	20	110	12	16	10	M5
9196016	TSFV0800-110/12	8	63	12	110	14	19	10	M6
9196081	TSFV0800-110/16	8	60	16	110	14	19	10	M6
9196086	TSFV0800-110/20	8	58	20	110	14	19	10	M6
9196088	TSFV1000-110/20	10	58	20	110	16	19.8	10	M8x1
9196112	TSFV1200-110/20	12	58	20	110	18	19.8	10	M10x1
EXTRA LONG PROJECTION									
9196118	TSFV0300-200/16	3	150	16	200	9	16	5	M6
9196130	TSFV0400-200/16	4	150	16	200	10	16	5	M6
9196134	TSFV0500-200/16	5	150	16	200	11	16	5	M6
9196138	TSFV0600-200/16	6	150	16	200	12	16	10	M5
9196139	TSFV0600-250/20	6	198	20	250	12	20	10	M5
9196141	TSFV0800-250/20	8	198	20	250	14	20	10	M6
9196142	TSFV1000-250/20	10	198	20	250	16	20	10	M8x1
9196144	TSFV1200-250/25	12	193	25	250	18	25	10	M10x1
9196147	TSFV1600-250/25	16	193	25	250	22	25	10	M12x1

All holders can be run with internal coolant

NOTE: Tool Shank Tolerance must be h6 or better, h4 for holders with ID smaller than 5mm

JET SLEEVE™ COOLANT SYSTEM

SUPPLY COOLANT DIRECTLY TO THE CUTTING EDGE

Jet Sleeve™ offers an innovative coolant system which supplies coolant directly to the cutting edge. This design prevents chips from building up under the cutting edge. As a result, tool life is greatly increased and you'll also benefit from improved surface finish. You can also reduce the cost for air and coolant usage by up to 80%.

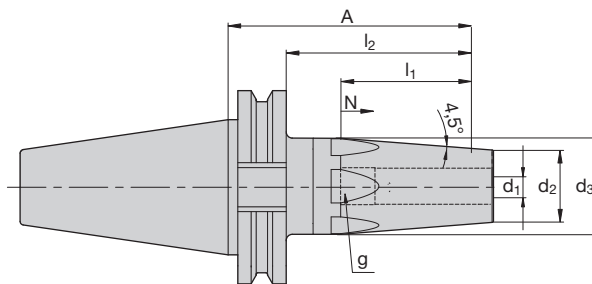
- Reduce coolant requirements up to 70%
- Improve surface finish up to 25%
- Increase tool life up to 28%



VIEW
THE
WEBSITE

TJS CAT40 | ThermoGrip® JetSleeve®

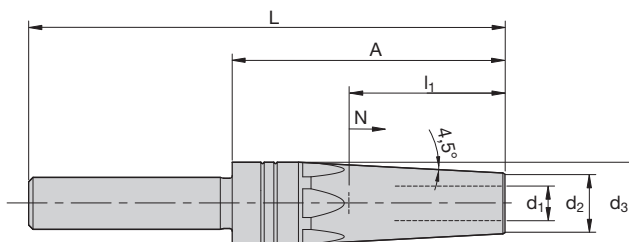
BILZ



ThermoGrip® SlimLine – TJS CAT40 – Inch

SAP No.	Designation	Dimensions (inch)							Ring Wrench
		d_1	d_2	d_3	l_1	A	N	g	
5060477	TJSS0318/CAT40	0.125	0.59	0.79	0.79	3.15	0.35	M6	19
5060480	TJSS0635/CAT40	0.250	0.83	0.83	1.06	3.15	0.35	M5	25
5060483	TJSS0953/CAT40	0.375	0.95	1.26	1.65	3.15	0.35	M8x1	30
5063935	TJSS1270/CAT40	0.500	0.95	1.26	1.85	3.77	0.28	M10x1	30

TJSV Straight Shank | ThermoGrip® JetSleeve®



ThermoGrip® JetSleeve® – TJSV Straight Shank – Inch

SAP No.	Designation	Dimensions (inch)						
		d_1	d_2	d_3	L	A	N	g
5050769	TJSV0318-60/1588	0.125	0.59	0.79	4.33	2.36	0.39	M6
5050771	TJSV0635-60/1588	0.250	0.83	1.06	4.33	2.36	0.39	M5
5050772	TJSV0953-60-1905	0.375	0.94	1.26	4.33	2.36	0.39	M8x1
5050773	TJSV1270-60/1905	0.500	1.06	1.34	4.33	2.36	0.39	M10x1
5050774	TJSV0625-60/1905	0.625	1.06	1.34	4.33	2.36	0.39	M12x1

All holders can be run with internal coolant

NOTE: Tool Shank Tolerance must be h6 or better, h4 for holders with ID smaller than 5mm

ThermoGrip® JetSleeve® – TJSV Straight Shank – Metric

SAP No.	Designation	Dimensions (mm)							Ring Wrench	
		d_1	d_2	d_3	l_1	L	A	N		g
5042755	TJSV0300/16	3	15	20	20	110	60	5	M6	10
5042756	TJSV0400/16	4	15	20	20	110	60	5	M6	10
5042757	TJSV0600/16	6	21	27	36	110	60	10	M5	10
5042758	TJSV0800/16	8	21	27	36	110	60	10	M6	10
5042759	TJSV1000/20	10	24	32	42	110	60	10	M8x1	10
5042760	TJSV1200/20	12	24	32	47	110	60	10	M10x1	10

THERMOGRIP[®] SHRINK FIT MACHINE

BILZ THERMOGRIP MACHINES

An award-winning line of shrink fit machines, all using the patented Bilz Disc System for optimal machine performance.

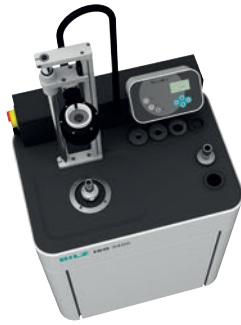
ISG1000	Entry level model. No cooling. For tools with a shank size up to 3/4"
ISG2200WK	Mid level model. Water cooled. For tools with a shank size up to 3/4"
ISG3400TLK	Top level model. Table top, air cooled. For shank sizes up to 1-1/4"
ISG3400TWK	Top level model. Table top, water cooled. For shank size up to 1-1/4"
ISG3400WK	The "Ultimate" Shrinker. Water cooled. For tools with a shank size up to 2"
ISG3400WK-HL	Large tool shrinker. Water cooled. For large and heavy shrink fit toolholders.



VIEW
THE
DEMO



	STARTER		
MACHINE TYPE & FEATURES	ISG1000 The cost-effective, compact starter ALL MANUAL	ISG2200 The entry model in the class of inductive shank units AUTOMATIC TIMING	ISG3400TLK-WS The performance class for continual tool changing AUTOMATIC PROGRAMMING
Clamping Range SC	3-20mm (1/8"-3/4")	3-20mm (1/8"-3/4")	3-32mm (1/8"-1-1/4")
Clamping Range HSS	N/A	N/A	6-32mm (1/4"-1-1/4")
Coil	Fixed	Fixed	Quick Change
Max. Tool Length	290mm 11.42"	290mm 11.42"	350mm 13.77"
Max. Cooling Length	290mm 11.42"	290mm 11.42"	350mm 13.77"
Cooling Type	not included – use accessory	air/cooling adapter	air/cooling adapter
Cooling Time	N/A	300 sec	300 sec
Geometry Independent Cooling	optional FKS03	optional FKS03	optional FKS04
Max. Machine Interface	HSK 100 CAT 50	HSK 100 CAT 50	HSK 100 CAT 50
Electric Current Supply	3x208V-15A 3.5 kW	3x208V-15A 3.5 kW	3x480V-16A 11 kW
Dimensions	390 x 310 x 640mm 15.5" x 12.5" x 25.5"	390 x 310 x 640mm 15.5" x 12.5" x 25.5"	780 x 535 x 950mm 31" x 22" x 38"
Required Accessories	setting pot / cooling adapter external cooling station	setting pot cooling adapter	setting pot cooling adapter
Optional Accessories	water cooler air cooler	water cooler air cooler	water cooler
For more information	–	see page 32	–

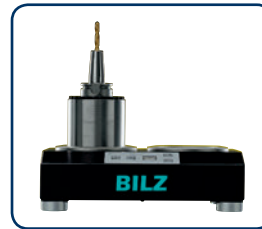


ALL ROUNDER	PROFESSIONAL		
ISG3410TWK-WS Lowest cost, liquid-cooled system on the market AUTOMATIC PROGRAMMING	ISG3410WK-WS Free-standing, fully automated system with liquid cooling and air drying	MS502 Horizontal unit for shrinking small tool shanks in small HSK holders ALL MANUAL	MACHINE TYPE & FEATURES
3-32mm (1/8"-1-1/4")	3-50mm (1/8"-2")	Ø3-16mm (1/8"-5/8")	Clamping Range SC
6-32mm (1/4"-1-1/4")	6-50mm (1/4"-2")	N/A	Clamping Range HSS
Quick Change	Quick Change	Fixed	Coil
400mm 15.75"	700 mm 27.5"	160mm 6.3"	Max. Tool Length
160mm 6.3"	400mm	-	Max. Cooling Length
liquid/emulsion	liquid/emulsion	not included – use accessories	Cooling Type
20 sec	20 sec	300 sec	Cooling Time
yes	yes	no	Geometry Independent Cooling
HSK 100 CAT 50	HSK 100 CAT 50	HSK-E50	Max. Machine Interface
3x480V-16A 11 kW	3x480V-16A 11 kW	230V 3 kW	Electric Current Supply
800 x 560 x 950mm 31.5" x 22" x 38"	800 x 560 x 1950mm 31.5" x 22" x 77"	350 x 520 x 220mm 13.78" x 20.47" x 8.66"	Dimensions
setting pot	setting pot	tool dumbbell	Required Accessories
setting pot	#2 coil 32mm-50mm	air cooler	Optional Accessories
see page 33	see page 34	-	For more information

ISG2200 TABLE TOP • AIR COOLED

BILZ


The mobile shrink unit ISG2200 represents an affordable transition to inductive shrinking technology. The low weight of the ISG2200 permits flexibility. Despite the compact design, a new processor-controlled, high-frequency generator and the optimized coil geometry allow tool change times of a few seconds for solid carbide tools from Ø 3–20 mm. Due to the use of predetermined time, the overheating of chucks is not possible when handled correctly. After the heating operation, the coil returns to the start position automatically and an integrated fan quickly cools the heated clamping chucks.



*Optional FKS03
Water Cooler



Technical Data: ISG2200

SAP No.	9070042	Max. Tool Length	290 mm 11.42"
Dimensions D x W x H	390mm x 310mm x 640mm 15.5" x 12.5" x 25.5"	Max. Cooling Length	290 mm 11.42"
Clamping Range SC	3–20mm 1/8"–3/4"	Cooling Type	air/cooling adapter
Clamping Range HSS	N/A	Cooling Time	300 sec
Coil	Fixed	Geometry Independent Cooling	optional FKS03
Electric Current Supply	3x208V-15A	Max. Machine Interface	HSK 100 CAT 50
Power kW	3kW	Required Accessories	setting pot cooling adapter
Weight	55 lbs / 25 kg	Optional Accessories	water cooler air cooler



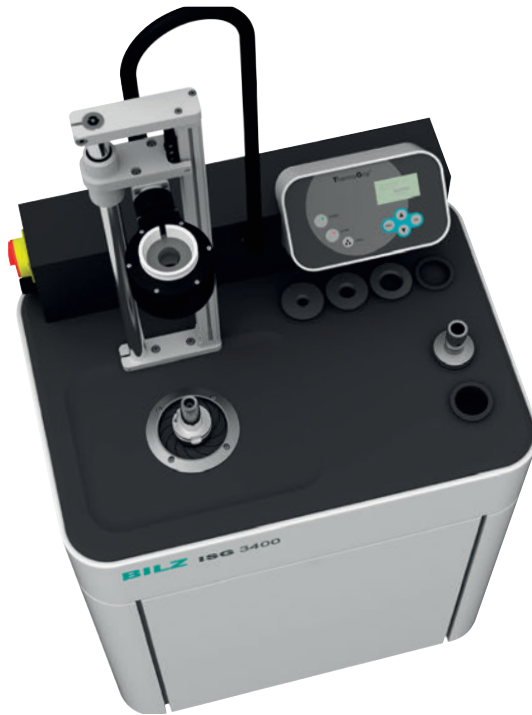
ISG3400TWK: It is universal shrinking unit for the professional use of shrinking technology. With its unique coil changing system, the amount of power transferred to different clamping chucks is guaranteed within a short period of time. Compared to other systems, this makes it possible to clamp even the smallest diameter tools, on a 3mm shank or larger. This allows for a constant preparation of a high number of tools. Guaranteed.

Universal Table Unit: This controlled ISG3400TWK unit is simple to use. All that needs to be done is to select the tool diameter range. After the induction coil is positioned around the tool holder, push the start button and the coil heats the tool holder appropriately. When heat cycle is completed, move the coil upward away from tool, raise the cooling sleeve and press the cooling button, allowing the tool to cool in seconds.

Technical Data: ISG3410TWK-WS

SAP No.	5072347	Max. Tool Length	400mm 15.75"
Dimensions D x W x H	800mm x 560mm x 950mm 31.5" x 22" x 38"	Max. Cooling Length	160mm 6.3"
Clamping Range SC	3-32mm 1/8"-1-1/4"	Cooling Type	liquid/emulsion
Clamping Range HSS	6-32mm 1/4"-1-1/4"	Cooling Time	20 sec
Coil	Quick Change	Geometry Independent Cooling	yes
Electric Current Supply	3x480V-16A	Max. Machine Interface	HSK 100 CAT 50
Power kW	11 kW	Required Accessories	setting pot
Weight	115 lbs	Optional Accessories	setting pot

ISG3410WK-WS FREE STANDING • WATER COOLED

BILZ


ISG3400WK-WS: It is universal shrinking unit for the professional use of shrinking technology. With its unique coil changing system, the power transfer adjusted to different clamping chucks is guaranteed within a short period of time. Compared to other systems, this makes it possible to clamp even the smallest diameter tools, on a 3mm shank or larger. This means that the constant preparation of a high number of tools regardless of size, can be guaranteed.

Free-standing Unit: This controlled ISG3400WK-WS unit is simple to use. All that needs to be done is to select the tool diameter range. Fully automated system allows you to load tool and operate the system almost hands-free. Load diameter of tool, select style of shrink chuck, press the start button and 45 seconds later you tool is installed and cooled to room temperature.

Technical Data: ISG3410WK-WS

SAP No.	5072348	Max. Tool Length	700mm / 27.5"
Dimensions D x W x H	800mm x 560mm x 1950mm 31.5" x 22" x 77"	Max. Cooling Length	400mm
Clamping Range SC	3-50mm (1/8"-2")	Cooling Type	liquid/emulsion
Clamping Range HSS	6-50mm (1/4"-2")	Cooling Time	20 sec
Coil	Quick Change	Geometry Independent Cooling	yes
Electric Current Supply	3x480V-16A	Max. Machine Interface	HSK 100 CAT 50
Power kW	11 kW	Required Accessories	setting pot
Weight	115 lbs.	Optional Accessories	#2 coil 32mm-50mm

ACCESSORIES



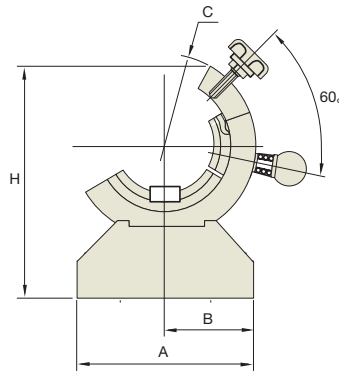
Tool Holder Wrenches



CAT 40 and CAT 50 tool holder wrench. The CAT CLAW 40 and CAT CLAW 50 are designed to enable the machinist to make tool changes without removing the tool holder from the CNC machine. The wrench allows the machinist the ability to hold the spindle while tightening or loosening the collet nut or set screws. Using the CAT Claw will also eliminate the need for manual programming and reduces over-tightening of collets. The CAT CLAW is a quick, easy and safe way to change tools without using vise or fixture. The result: A safe and easy way to change tools that saves time and money.

SAP No.	Description
9890066	CAT CLAW 40

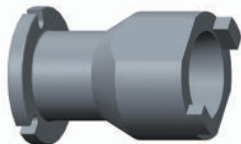
Tool Clamper



- No surface damage such as abrasion and scratch around taper shank closely associated with tool runout
- Easy to assemble and disassemble pull stud bolt
- Convenient and safe when using coolant tube wrench with milling chuck or ER collet chuck

SAP No.	Taper No.	Code No.	Dimensions (mm)				Weight (kg)
			A	B	C	H	
9890052	SK40	TSK40	160	80	138	180	7.6

Tightening Fixtures



SAP No.	Designation	Taper	Length
66651483M	40-HTF	40	6.2"

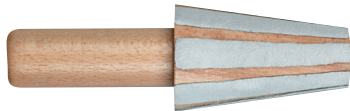
Spindle Wipes – Professional Series



These handy wipers quick-clean your spindles, assuring that your toolholder tapers make continuous positive contact with them for repeatable on-center performance. They're also perfect for cleaning the bores of your collet chucks and Morse Taper holders.

SAP No.	Part No.	Description
9890058	ISO40	40-Taper Spindle Clean equipped with cleaning blades

Taper Cleaners for 7/24 Spindle Tapers (Steep Taper)



For cleaning 7/24 (Steep Taper) spindle tapers. Plastic body with leather inserts.

Part No.	CAT Size
76.200.040	40

Retention Studs

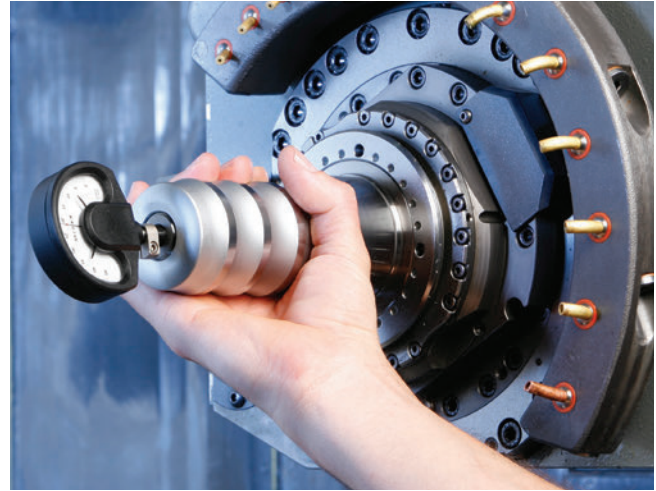


SAP No.	Description	Spindle Taper	Machine Brand
9890073	BT71125 Solid	CAT40	Doosan
9890079	BT71123 Coolant	CAT40	Doosan
9890071	BT11122 Coolant	CAT40	Fadal
9890077	BT11123 Solid	CAT40	Fadal
9890070	BT31114 Solid	CAT40	Haas
9890074	BT31514 Coolant	CAT40	Haas
9890071	BT11122 Coolant	CAT40	Hurco
9890077	BT11123 Solid	CAT40	Hurco
9890068	BT32130 Coolant	CAT40	Hyundai
9890070	BT31114 Solid	CAT40	Hyundai
9890070	BT31114 Solid	CAT40	Johnford
9890074	BT31514 Coolant	CAT40	Johnford
9890073	BT71125 Solid	CAT40	Kitamura
9890079	BT71123 Coolant	CAT40	Kitamura
9890072	BT31616 Solid	CAT40	Makino
9890075	BT31617 Coolant	CAT40	Makino
9890069	BT31226 Coolant	CAT40	Mazak
9890082	BT31226-H Solid	CAT40	Mazak
9890076	BT75022 Coolant	CAT40	Mori Seiki
9890078	BT31114B Solid	CAT40	Mori Seiki
9890077	BT11123 Solid	CAT40	Okuma
9890080	BT32760 Coolant	CAT40	Okuma
9890070	BT31114 Solid	CAT40	Toyota
9890081	BT32140 Coolant	CAT40	Toyota

Diebold Pull Force Gauges | Gauging

diebold**BILZ**

Meticulously crafted mechanical gauge used to determine the amount of pull force being exerted on a toolholder in a spindle. Fatigued or damaged spring-packs, damaged or corroded internal components, or improper spindle cam angle, machining can result in potentially dangerously low pull force levels! In addition, runout and chatter will increase, and stiffness and repeatability will decrease. Our Mechanical Pull Force Gauge is accurate, robust, and cost-effective.

**Mechanical Pull Force Gauge**

With analog indicator, scale in kN. With digital indicator, data transfer to PC or printer.

Includes: Pull Force Gauge with certificate in fitted wooden case.

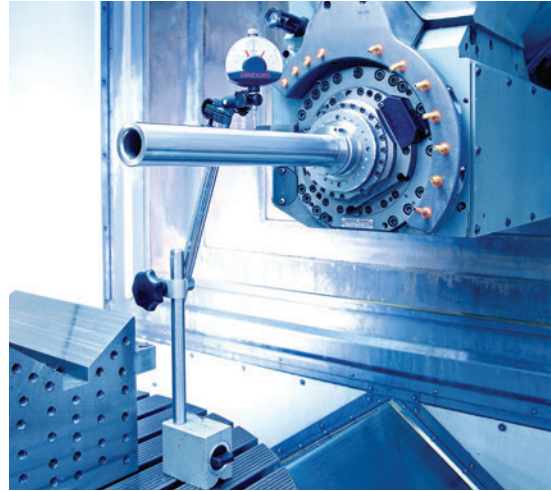
Re-calibration: Please return gauge master to Diebold for annual recalibration.

All Pull Force Gauges with steep taper DIN/ANSI accept the pull stud of your machine. For BT 30 and BT 40 holders we offer short pullstuds for use of the Pull Force Gauge. Please order BT pull studs separate.

Part No.	for Taper Size	for Taper Size
76.785.140	SK40/CAT40	-

Diebold, the leading manufacturer of HSK tool holders and gauges, produces certified test arbors and measurement devices. If you are looking for the best runout test arbors, you will find what you need with Diebold.

We manufacture our gauges in a climatecontrolled, sealed facility in Germany. We calibrate and certify all of our instruments with the finest CMM's and profile verification equipment available in the machine tool world-industry. Diebold runout test arbors are delivered in a fitted wooden case along with an individual certification of conformity traceable to the applicable international standard.



Runout Test Arbors for 7/24 Taper Spindles (Steep Taper)



Includes: Test arbor with certificate in fitted wooden case.
Runout accuracy: Taper to cylinder shaft < 0.003 mm.
Re-calibration: Please return gauge master to Diebold for annual recalibration.

Part No.	Taper Size		d1	A
72.060.740.100	SK40	DIN69871	40	320
72.010.740.200	SK40	DIN2080	40	320

Test Arbor with Ball Probe

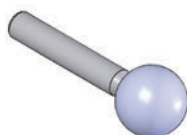


Test arbor for testing the RTCP (Rotation Centre Point) of 5-axis spindles. Can also be used as runout test arbor (at the ball probe).

Delivery: Test arbor with certificate in fitted wooden case.
Runout accuracy: Taper to ball probe < 0,01 mm.
Re-calibration: Please return gauge master

Part No.	Taper Size	Ball ø	A
72.060.742.100	SK40	30	150

Test Arbor with Ball Probe



Part No.	dxL2	d1
72.000.742	12x60	30

CNC Tool Caddy



The STOR-LOC® Tool Caddy offers mobility and is equipped with your choice of six shelves – any taper.

Dimensions: 54"H x 29-1/4"W x 27-3/4"D

Use standard parts to create you special product configuration. Call BILZ for configuration support.

CNC Tool Rack



When mobility is not needed, the taller STOR-LOC® Tool Rack holds even more tools. Equipped with your choice of eight shelves – any taper.

Dimensions: 62"H x 29-1/4"W x 27-3/4"D

Use standard parts to create you special product configuration. Call BILZ for configuration support.

CNC Mini Tool Caddy



When space is limited, the STOR-LOC® CNC Mini Tool Caddy offers mobility and is equipped with your choice of four shelves – any taper.

Dimensions: 38"H x 23"W x 27-3/4"D


Use standard parts to create you special product configuration. Call BILZ for configuration support.

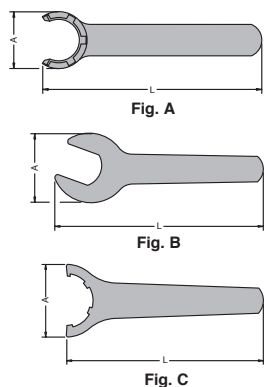
HARDWARE

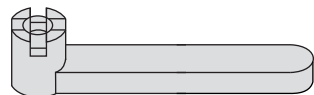


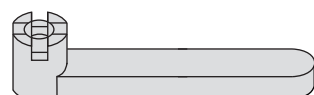
Torque Wrenches						
	Type	Catalog No.	(Nm)	Range (ft-lbs)	l ₁ (mm)	l ₁ (inch)
	Micro	7150.05050	5...50	3.7...37	335	13.2
	Small	8020.08060	8...60	5.9...44	300	11.8
	Medium	8020.20100	20...100	14.8...73.8	340	13.4
	Large	8020.60300	60...300	44.3...221	545	21.5


Matching Wrench Heads								
	Wrench Heads	Catalog No.	Size	Dimensions (mm)				
				a	b	Hi-Q/ER	Hi-Q/ERC	CM/ER
TYPE A-E								
	A-E 16	7151.16000	ER 16	50	62			3
	A-E 20	7151.20000	ER 20	55	62			3
	A-E 25	7151.25000	ER 25	65	72	3	3	
	A-E 32	7151.32000	ER 32	75	72	3	3	
	A-E 40	7151.40000	ER 40	90	82	3	3	
	A-E 50	7151.50000	ER 50	110	93	3		
HEX TYPE								
	A-E11P	7152.11010	ER 11	32	61	3	3	
	A-E16P	7152.16010	ER 16	44	71	3	3	
	A-E20P	7152.20010	ER 20	52	81	3	3	

Wrenches for Milling Chucks			
	SAP No.	Designation	Size (metric & inch)
	66611451M	C-20	20 & 0.75"
	66611452M	C-25	25 & 1.000"
	66611453M	C-32	32 & 1.250"
	66611454M	C-1.5"	1.5"
	66611455M	C-2.0"	2.0"

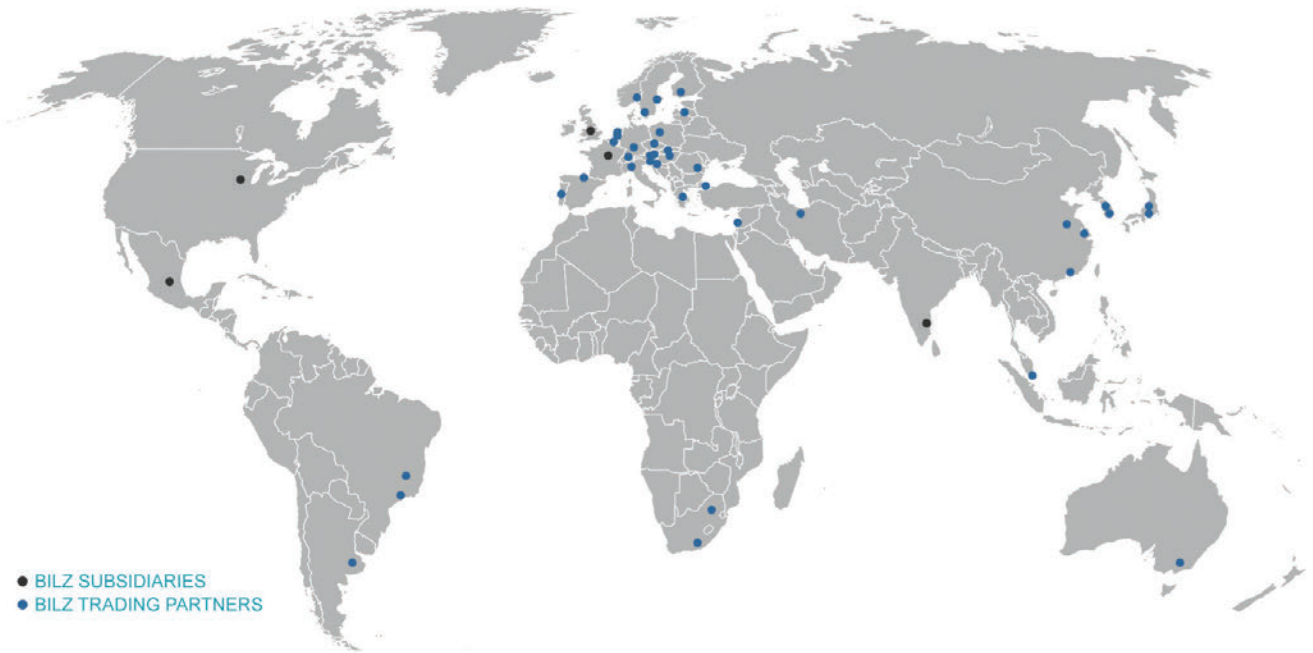
Wrenches for ER Collect Holders							
	SAP No.	Designation	For Clamping Nut	Dimensions			Fig
				A	L	G	
	99942650M	E11M	E11M	16.8	90.0	-	A
	99932510M	E16M	E16M	22.5	110.0	-	A
	66692121M	E20M	E20M	29.0	120.0	-	A
	99933989M	E25M	E25M	36.0	130.0	-	A
	99977342M	GS25(SW25)	ER16-DIN6499	42.0	140.0	-	B
	66692122M	E20	ER20-DIN6499	54.0	168.0	-	B
	99921608M	E25	ER25-DIN6499	65.0	210.0	-	C
	99921609M	E32	ER32-DIN6499	75.0	250.0	-	C
	99921610M	E40	ER40-DIN6499	90.0	290.0	-	C

Wrench for Shell Mill Holders Inch Locking Screws			
	SAP No.	Designation	For Size (inch)
	66692077M	SW 3/16"	0.500
	66692078M	SW 1/4"	0.750
	66692079M	SW 5/16"	1.000 & 1.250
	66692080M	SW 3/8"	1.500
	66692081M	SW 1/2"	2.000 & 2.500

Wrench for Shell Mill Holders Metric Locking Screws (Small Counterbore)			
	SAP No.	Designation	For Size (mm)
	66692161M	SW6	16
	66692162M	SW8	22
	66692163M	SW10	27
	66692164M	SW14	32
	66692165M	SW17	40

Wrench for Shell Mill Holders Metric Locking Screws (Large Counterbore)			
	SAP No.	Designation	For Size (mm)
	66691654M	S-16 DIN 6368	16
	66691655M	S-22 DIN 6368	22
	66691656M	S-27 DIN 6368	27
	66691657M	S-32 DIN 6368	32
	66691658M	S-40 DIN 6368	40

“EVERY DAY, THE WORLD SHRINKS A LITTLE MORE.”



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All of our products are “best in class” technologies that help our customers remain competitive and profitable. We have something that can help you too! Learn more at www.bilzusa.com.

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