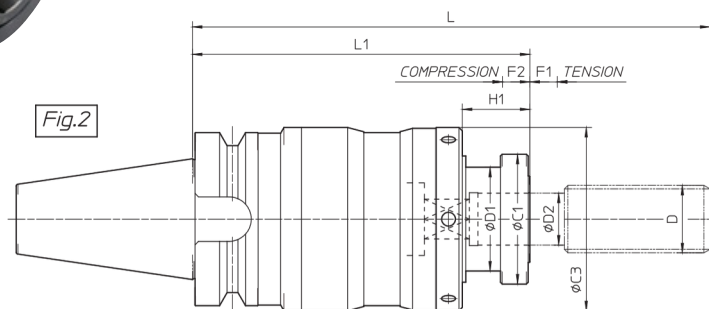
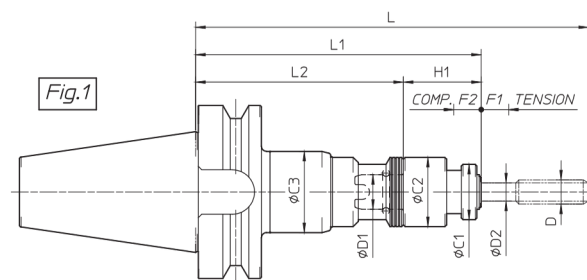


SBT SERIES

TAP HOLDER (CLOCKWISE ROTATION)

FEATURES

- Torque limiter collets are available. Tapping torque can be adjusted to prevent tap breakage.
- Accurate thread are made with the tension-compression mechanism, compensating pitch error of the machining center.



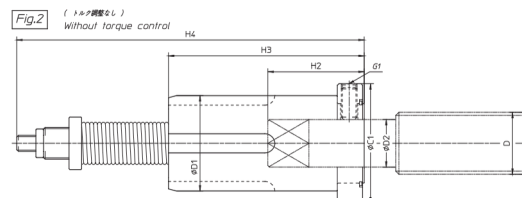
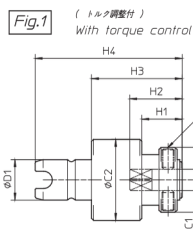
※SBT type is tooling compatible with BT2 face-contact spindle.(BT type is also supported.)

MODEL		Fig.	D	øD1	øD2	L1	L2	øC1	øC2	øC3	H1	F1	F2	TAP COLLET	N/W (kg)
SBT40	-TPC20-150	1	M4~M14	20	5 ~ 12.5	150	105	32	40	47	45	15	15	TCC20-(D)	1.9
	-TPC29-195	1	M12~M27	29	8.5 ~ 20	195	140	45	55	63	55	15	15	TCC29-(D)	2.6
SBT50	-TPC20-165	1	M4~M14	20	5 ~ 12.5	165	120	32	40	47	45	15	15	TCC20-(D)	4.3
	-TPC29-195	1	M12~M27	29	8.5 ~ 20	195	140	45	55	63	55	15	15	TCC29-(D)	5.0
	-TPC40-225	1	M18~M39	40	14 ~ 30	225	150	60	80	85	75	20	20	TCC40-(D)	6.2
	-TPC60-195	2	M39~M52	60	30 ~ 42	195	-	75	-	106	39	20	20	TCC60-(D)	8.1

NOTE:

1. TPC20,TPC29 & TPC40 of Fig.1 → Torque is adjusted by tap collet.
2. TPC60 of Fig.2 → Torque is adjusted by holder.

TAP COLLET (TYPE TCC)



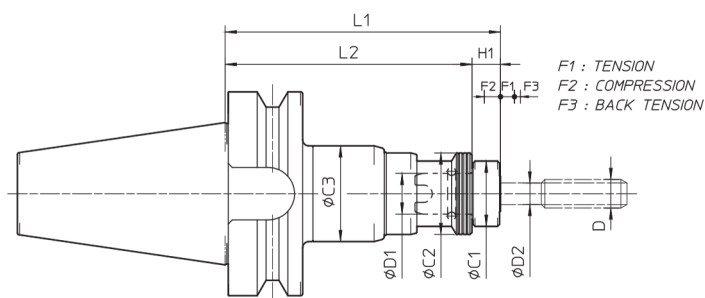
MODEL	FIG.	D	ØD1	ØD2	ØC1	H1	H3	H4	G1	N/W (kg)
TCC20-(D)	1	M4~M14	20	40	32	20	45	73	M4・M5・M6	0.35
TCC29-(D)	1	M12~M27	29	55	45	25	55	90	M5・M6・M8	0.84
TCC40-(D)	1	M18~M39	40	80	60	40	75	123	M10	2.0
TCC60-(D)	2	M39~M52	60	-	75	-	124	219	M10	3.5

※SBT type is tooling compatible with BT2 face-contact spindle. (BT type is also supported.)

MODEL		M(JIS B 4430-1972)					UNC(JIS B 4432-1972)					PF PT(JIS B 4445,4446-1967)													
		D	D2	L		H2		D	D2	L		H2		D	D2	L		H2							
TCC20-(D)		M4	5	195	22			N08U	5	195			22		-	-									
		M4.5	5	198				-	-	-				-	-										
		M5	5.5	203				10U	5.5	203				22		-					-				
		M6	6	205				14U	6	205				23		-					-				
		-	-	-				516U	6.1	212				23		-					-				
		M7	6.2	207				-	-	-				-		-					-				
		M8	6.2	212				-	-	-				23		-					-				
		M9	7	214				38U	7	217				-		-					-				
		M10	7	217				-	-	-				24		PF1/8					8	196			
		M11	8	222				716U	8	221				-	-	PT1/8							24		
TCC29-(D)		M12	8.5	223	248	24	29		-	-	-	-	25	30	-	-	-	-							
		-	-	-	-	25	31		12U	9	225	250	31		-	-	-	-							
		M14	10.5	228	252				916U	10.5	230	254			-	-	-	-							
		-	-	-	-				-	-	-	-			PF1/4	11	202	226	25	31					
		-	-	-	-				-	-	-	-	25		-	-	-	-	-	-					
		M16	12.5	235	257	25	33		58U	12	235	258			-	-	-	-	-	-					
		-	-	-	-				-	-	-	-			-	-	-	-	-	-					
		M18	14		261	291		34		34U	14		266	296		34	34	PF3/8	14		226	256		34	34
		M20	15		266	295		35		-	-		-	-		-	-	-	-		-	-		-	-
		M22	17		276	304		36		78U	17		276	304		34	34	-	-		-	-		-	-
TCC29-(D)		-	-	-	-				-	-		-	-					PF1/2	18		241	263		34	42
		M24	19		281	302		34	43		-	-						PF5/8	19		243	264			43
		M27	20		291	312				1U	20		286	307		34	43	-	-		-	-		-	-
		-	-	-	-				118U	22		315				45		-	-		-	-		-	-
		M30	23		315			45		-	-		-					PF3/4	23		265			45	
		-	-	-	-				114U	24		323				47		PT3/4			268			47	
		M33	25		323			47		-	-		-					PF7/8	24		-			-	
		-	-	-	-				138U	26		333				47		PF1	26		273			47	
		M36	28		331			49		-	-		-					PF1	28		275			50	
		M39	30		340	299	50	61	112U	30		335	294		50	61	-	-		-	-	-		-	-
TCC60-(D)		M42	32		305			65	-	-		-					-	PF1 1/4	32			243			57
		M45	35		305			70	134U	35		300					70	-	-			-		-	
		M48	38		308			72	-	-		-					-	PF1 1/2	38			243			62
		-	-	-	-			-	2U	40		315					75	-	-			-		-	
		M52	42		315			75	-	-		-					-	PF1 3/4	42			243			67

SBT SERIES

DEPTH CONTROL TAP HOLDER

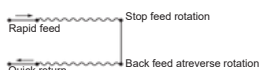


MODEL		D	øD1	øD2	L1	L2	øC1	øC2	øC3	H1	F1	F2	F3	TAP COLLET	N/W (kg)
SBT40	-ADC20-150	M2.5~M16	20	3 ~ 12.5	123	109	32	40	47	14	6	14	2	TC20-(D)	1.6
	-ADC29-195	M12~M27	29	8.5 ~ 20	163	143	45	55	63	20	8	18	7	TC29-(D)	2.6
SBT50	-ADC20-165	M2.5~M16	20	3 ~ 12.5	138	124	32	40	47	14	6.8	8	3	TC20-(D)	4.2
	-ADC29-195	M12~M27	29	8.5 ~ 20	163	143	45	55	63	20	8	18	7	TC29-(D)	4.9
	-ADC40-225	M18~M39	40	14 ~ 30	173	153	60	80	80	20	10	18	9	TC40-(D)	6

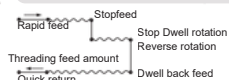
(Depth limit device) How to se

- The ADC taper, in which the limit device is incorporated to determine thread depth automatically, can decide thread depth accurately. Variations in accuracy of depth tapping is ± 0.1 .
- Please use TC type tap, which has no torque limiter. In addition, traditional TCC collet having torque limiter can be used.
- It automatically corrects the error in the machine and feed tap pitch by the action of the float mechanism (tension-compression), which can make it tapping with high accuracy

Example: through-hole program



Example: blind hole program

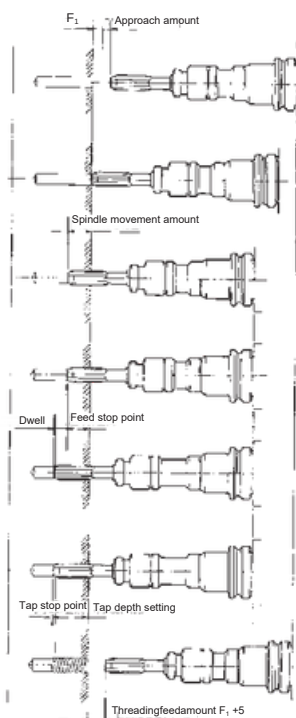


Calculation method of dwell time

[Example]

Tapper: ADC20 (threading feed amount 6)
 Tap: M12 $\times$ 1.75
 Rotational speed: 180min⁻¹ (3RPS)

$$\text{Dwell time} = \frac{6}{1.75 \times 180 / 60} \times 2 = 2.3 \text{ seconds}$$



① Approach amount setting

Set to F1-5mm. Set slightly slower or equal to the speed of travel of the tap

② Start tapping

③ Spindle movement amount

Amount obtained by subtracting the threading feed amount (F1) by the tap depth setting amount

④ Feed stop point

Stop the feed of the machine, and let only the spindle (Dwell) turn.

⑤ Dwell time

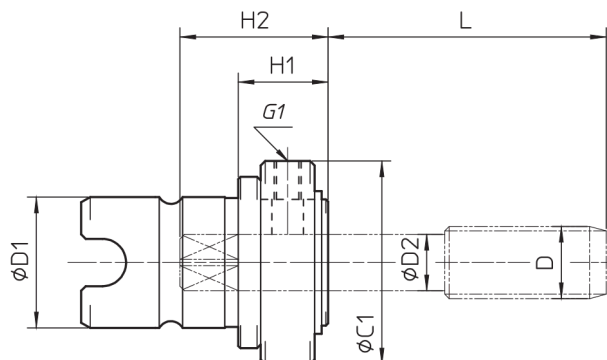
$$\text{Dwell time} = \frac{\text{Tapper threading feed amount (mm)}}{\text{Tap Pitch (mm) } \times \text{ Rotation (R.P.S)}} \times 2$$

⑥ Tap stop point

Stop spindle rotation, reverse spindle rotation (Dwell), and feed back (setting to the same as the rate at which the tap is fed back.).

⑦ Tapping complete

TAP COLLET (TYPE TC)



MODEL	D	øD1	øC1	H1	G1	N/W (kg)
TC20-(D)	M3~M16	20	32	14	M4 • M5 • M6	0.14
TC29-(D)	M12~M27	29	45	20	M6 • M8	0.33
TC40-(D)	M18~M39	40	60	20	M10	0.70

TC20 TAP COLLET

		TC20-(D)																			
D	M	-	※M2	M3	M4	M5	M6	-	M8	M10			M12	-	M14			-		M16	
	UNC	-	No.4	-	No.8	No.10	1/4	5/16	-	3/8	-	7/16	-	1/2	-	9/16	-	5/8	-		
	PT・PF	-									P1/8		-						P1/4		-
D2		3	4	5	5.5	6	6.1	6.2	7	8		8.5	9	10.5		11	12	12.5			
H2		19.5	20.5	21.5	22		23			24			25	26		27		28			
L		24.5	23.5	25.5	30.5	38	40	47		52	31	56	58	60	62	64	35	68	67		

TC29 TAP COLLET

		TC29-(D)																	
D	M	M12	-	M14	-			M16	M18	-		M20	-	M22	-	M24	-	M27	-
	UNC	-	1/2	-	9/16	-	5/8			3/4			7/8	-					1
	PT • PF	-				P1/4		-				P3/8		-			P1/2	-	P5/8
D2		8.5	9	10.5		11	12	12.5	14			15	17	18	19	20			
H2		29	30	31		32		33	34			35	36	37	38				
L		53	55	57	59	30	63	62	66	71	31	70	79	43	82	44	92	87	

TC40 TAP COLLET

		TC40-(D)																				
D	M																					
	UNC	-	3/4	-	7/8	-					1	1 1/8	-	1 1/4	-	1 3/8	-				1 1/2	
	PT • PF	-	P3/8	-			P1/2	-	P5/8	-				P3/4	-	P7/8	-	P1	-	P1 1/8	-	
D2		14		15	17	18	19	20	22	23	24	25	26	28	30							
H2		34		35	36	42	43			45			47		49			51				
L		66	71	31	70	79	38	77	39	87	82	90	40	98	43	98	106	46	106	51	114	109

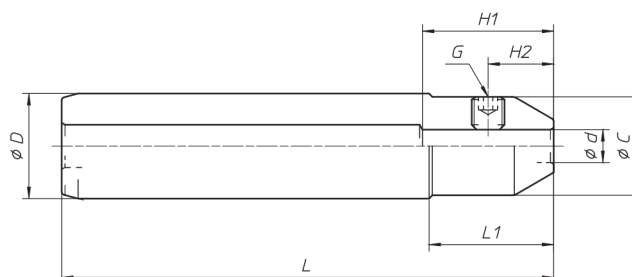
NOTE: 1.For JIS standard taps only. ※mark tap collet is manufactured to order.

ST SERIES

SIDE LOCK ARBOR

Thru-the-tool Coolant Available

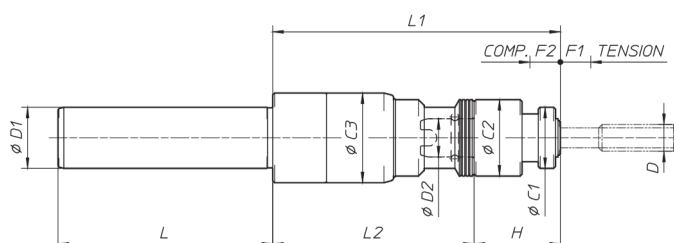
センタースルー対応



MODEL		øD	ød(H6)	L	L1	øC	H1	H2	G	N/W (kg)
ST25	-S06-120	25	6	120	30	20	30	13	M6	0.38
	-S08-120		8					15		0.37
	-S10-120		10			30	40	20	M10	0.42
ST32	-S06-150	32	6	150	38	20	30	13	M6	0.72
	-S08-150		8					15		0.72
	-S10-150		10			30	40	20	M10	0.75
	-S12-150		12		-	32				0.77

ST SERIES

TAP HOLDER (CLOCKWISE ROTATION)



MODEL		øD1	øD2	L	L1	L2	øC1	øC2	øC3	H	F1	F2	D	TAP COLLET	N/W (kg)
ST32	-TPC20-150	32	20	112	150	105	32	40	47	45	15	15	M4-M14	CODE	1.5
	-TPC29-175		29		175	120	45	55	63	55			M12-M27	TCC29- ♂	2.5
ST42	-TPC20-150	42	20	117	150	105	32	40	47	45	15	15	M4-14	TCC20- ♂	2.1
	-TPC29-175		29		175	120	45	55	63	55			M12-M27	TCC29- ♂	3.0