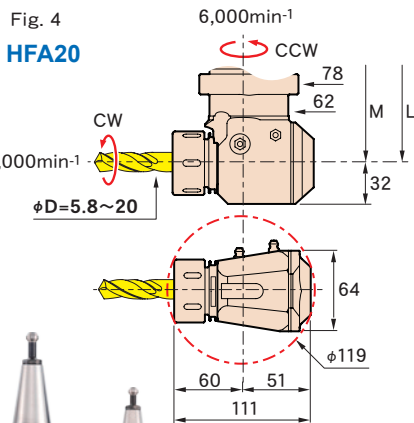
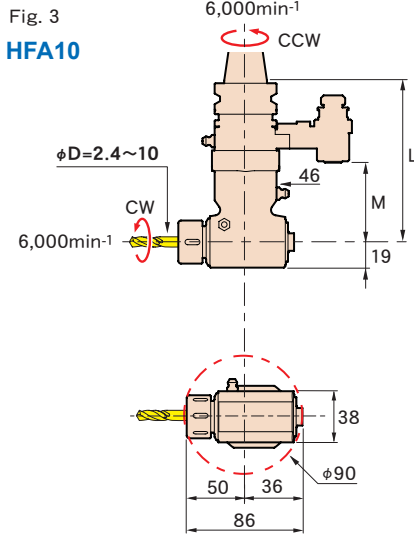
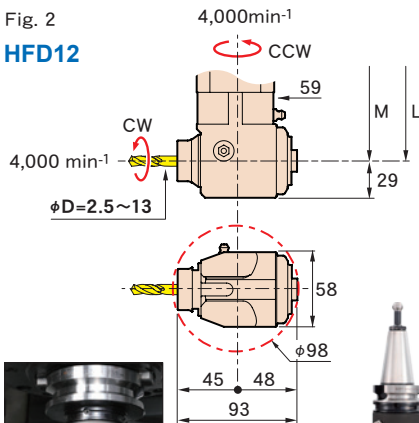
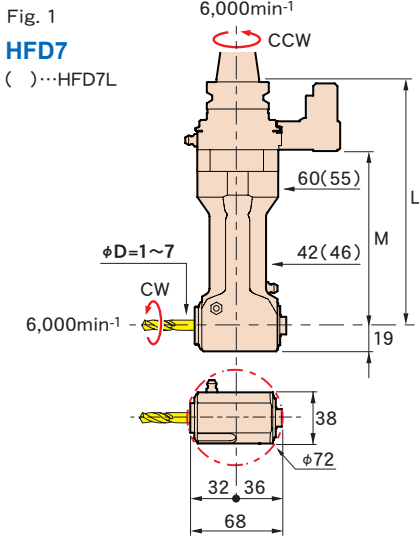
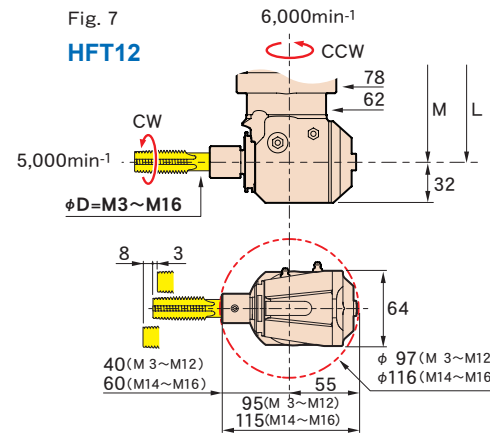
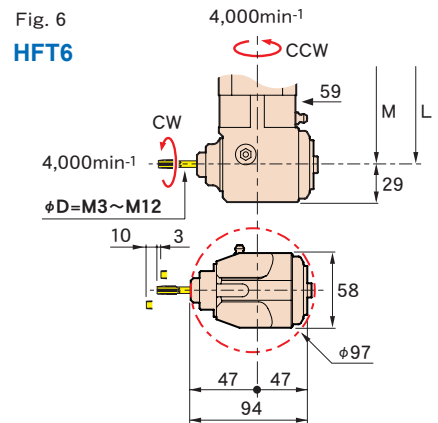
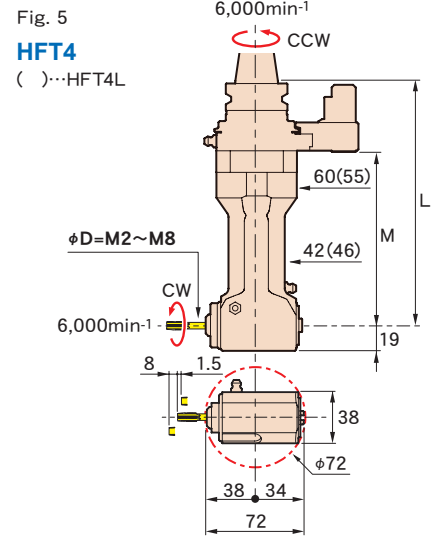


# HALF 90° type

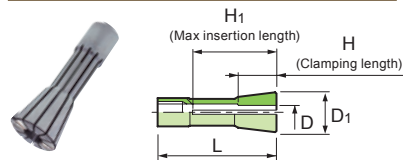
## Drill · Endmill



## Tap

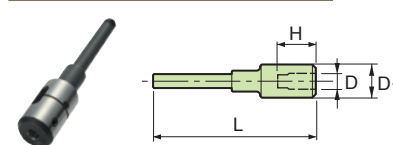


## DETa-1 Collet (HFD,HUD)



CODE	φD	φD <sub>1</sub>	L	H	H <sub>1</sub>	Holder type
D 7- 1.5	1 ~ 1.5	17	50	7	36	HFD 7
- 2	1.5 ~ 2			10		HUD 7
- 2.5	2 ~ 2.5			12		
- 3	2.5 ~ 3			14		
- 4	3 ~ 4			16		
- 5	4 ~ 5					
- 6	5 ~ 6					
- 7	6 ~ 7					
D12- 4	2.5 ~ 4	26	70	16	50	HFD12
- 6	4 ~ 6			20		
- 8	6 ~ 8			22		
-10	8 ~ 10					
-12	10 ~ 12					
-13	11 ~ 13					

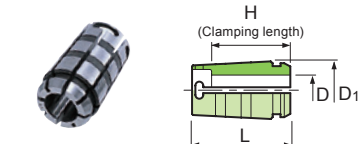
## Tap sleeve (HFT,HUT)



CODE	φD	L	φD <sub>1</sub>	H	Holder type
TA 4-M 2	M 2	67.5	16	19	HFT 4
-M 3	M 3			20	HUT 4
-M 4	M 4			21	
-M 5	M 5				
-M 6	M 6				
-M 8	M 8				
TA 6-M 3	M 3	92	19	21	HFT 6
-M 4	M 4			22	HUT 6
-M 5	M 5				HFT12
-M 6	M 6				
-M 8	M 8			23	
-M10	M10			24	
-M12	M12			33	
TA12-M14	M14	111.5	25	33	HFT12
-M16	M16			35	

■ Note  
 ● Above products meet JIS standards. We can produce other standard Tap sleeves, such as ANSI, ISO, DIN and others. For more information, please contact us.

## Spring collet (HFA,HUA)



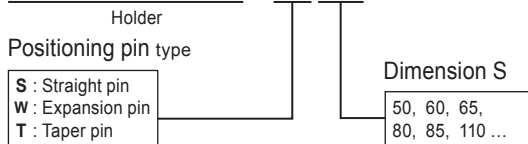
CODE	φD	φD <sub>1</sub>	L	H	Holder type
C10-D	2.6 2.8 3 ... (0.2Steps) ... 9.6 9.8 10	17.2	26	16 (φD=2.6~5) Except for 18 ※3, 4 (φD=3, 4, 20 5.2~5.8) (φD=6~10)	HFA10 HUA10
C20-D	6 6.2 6.4 ... (0.2Steps) ... 19.8 20	29.5	50	32 (φD=6~9.8) 35 (φD=10~15.8) 40 (φD=16~20)	HFA10 HUA10

Ex. φD C10-6

CODE (Master holder)	Fig.	φD	L	M	Kg
<b>BT30-HFD 7 -122</b>	1	1 ~ 7	122	70	2.3
			182	130	3.0
			120	57	1.8
<b>-HFD 7L-120</b>			120	57	1.8
<b>-HFD12 -122</b>	2	2.5~ 13	122	70	2.9
<b>-HFA10 -120</b>	3	2.4~ 10	120	65	1.8
<b>-HFT 4 -122</b>	5	M2~M 8	122	70	2.3
			182	130	3.0
			120	57	1.8
<b>-HFT 4L-120</b>			120	57	1.8
<b>-HFT 6 -122</b>	6	M3~M12	122	70	2.9
<b>BT40-HFD 7 -120</b>	1	1 ~ 7	120	70	3.0
			180	130	3.3
<b>-HFD12 -120</b>	2	2.5~ 13	120	70	3.6
<b>-180</b>			180	130	4.9
<b>-HFA20 -135</b>	4	5.8~ 20	135	77	4.4
<b>-195</b>			195	137	5.6
<b>-HFT 4 -120</b>	5	M2~M 8	120	70	3.0
<b>-180</b>			180	130	3.3
<b>-HFT 6 -120</b>	6	M3~M12	120	70	3.6
<b>-180</b>			180	130	4.9
<b>-HFT12 -135</b>	7	M3~M16	135	77	4.4
<b>-195</b>			195	137	5.6
<b>BT50-HFD 7 -195</b>	1	1 ~ 7	195	130	6.4
			255	190	6.8
<b>-HFD12 -135</b>	2	2.5~ 13	135	70	6.3
<b>-195</b>			195	130	7.6
<b>-255</b>			255	190	8.9
<b>-HFA20 -150</b>	4	5.8~ 20	150	77	7.1
<b>-210</b>			210	137	8.3
<b>-270</b>			270	197	9.4
<b>-HFT 4 -195</b>	5	M2~M 8	195	130	6.4
<b>-255</b>			255	190	6.8
<b>-HFT 6 -135</b>	6	M3~M12	135	70	6.3
<b>-195</b>			195	130	7.6
<b>-255</b>			255	190	8.9
<b>-HFT12 -150</b>	7	M3~M16	150	77	7.1
<b>-210</b>			210	137	8.3
<b>-270</b>			270	197	9.4
<b>A63 -HFD 7 -183</b>	1	1 ~ 7	183	130	3.5
			243	190	3.9
<b>-243</b>			243	190	3.9
<b>-HFD12 -123</b>	2	2.5~ 13	123	70	3.3
<b>-183</b>			183	130	4.7
<b>-243</b>			243	190	6.0
<b>-HFA20 -198</b>	4	5.8~ 20	198	137	5.4
<b>-258</b>			258	197	6.5
<b>-HFT 4 -183</b>	5	M2~M 8	183	130	3.5
<b>-243</b>			243	190	3.9
<b>-HFT 6 -123</b>	6	M3~M12	123	70	3.3
<b>-183</b>			183	130	4.7
<b>-243</b>			243	190	6.0
<b>-HFT12 -198</b>	7	M3~M16	198	137	5.4
<b>-258</b>			258	197	6.5

■ A product code example when ordering.

**BT40-HFD7-120 - S 65**



CODE (Master holder)	Fig.	φD	L	M	Kg (lbs)
<b>DN40A-HFD 7-135</b>	1	1 ~ 7	135	70	3.1
			195	130	3.4
			135	70	3.7
<b>-HFD12-135</b>	2	2.5~ 13	135	70	3.7
<b>-195</b>			195	130	5.0
<b>-HFA20-150</b>	4	5.8~ 20	150	77	4.7
<b>-210</b>			210	137	5.8
<b>-HFT 4-135</b>	5	M2~M 8	135	70	3.1
<b>-195</b>			195	130	3.4
<b>-HFT 6-135</b>	6	M3~M12	135	70	3.7
<b>-195</b>			195	130	5.0
<b>-HFT12-150</b>	7	M3~M16	150	77	4.7
<b>-210</b>			210	137	5.8
<b>DN50A-HFD 7-195</b>	1	1 ~ 7	195	130	5.9
			255	190	6.3
<b>-HFD12-135</b>	2	2.5~ 13	135	70	5.8
<b>-195</b>			195	130	7.1
<b>-255</b>			255	190	8.4
<b>-HFA20-150</b>	4	5.8~ 20	150	77	6.6
<b>-210</b>			210	137	7.8
<b>-270</b>			270	197	8.9
<b>-HFT 4-195</b>	5	M2~M 8	195	130	5.9
<b>-255</b>			255	190	6.3
<b>-HFT 6-135</b>	6	M3~M12	135	70	5.8
<b>-195</b>			195	130	7.1
<b>-255</b>			255	190	8.4
<b>-HFT12-150</b>	7	M3~M16	150	77	6.6
<b>-210</b>			210	137	7.8
<b>-270</b>			270	197	8.9
<b>CT40 -HFD 7-135</b>	1	0.4~.28	5.31	2.75	6.8
			7.68	5.11	7.5
<b>-HFD12-135</b>	2	2.5~ 13	5.31	2.75	8.2
<b>-195</b>			7.68	5.11	11.0
<b>-HFA20-150</b>	4	.23~ .79	5.91	3.03	10.4
<b>-210</b>			8.27	5.39	12.9
<b>-HFT 4-135</b>	5	M2~M 8	5.31	2.75	6.8
<b>-195</b>			7.68	5.11	7.5
<b>-HFT 6-135</b>	6	M3~M12	5.31	2.75	8.2
<b>-195</b>			7.68	5.11	11.0
<b>-HFT12-150</b>	7	#4 ~ 5/8	5.91	3.03	10.4
<b>-210</b>			8.27	5.39	12.9
<b>CT50 -HFD 7-195</b>	1	0.4~.28	7.68	5.11	13.0
			10.04	7.47	13.8
<b>-HFD12-135</b>	2	.10~ .51	5.31	2.75	12.8
<b>-195</b>			7.68	5.11	15.6
<b>-255</b>			10.04	7.47	18.5
<b>-HFA20-150</b>	4	.23~ .79	5.91	3.03	14.7
<b>-210</b>			8.27	5.39	17.3
<b>-270</b>			10.63	7.76	19.8
<b>-HFT 4-195</b>	5	M2~M 8	7.68	5.11	13.0
<b>-255</b>			10.04	7.47	13.8
<b>-HFT 6-135</b>	6	M3~M12	5.31	2.75	12.8
<b>-195</b>			7.68	5.39	15.6
<b>-255</b>			10.04	7.47	18.5
<b>-HFT12-150</b>	7	#4 ~ 5/8	5.91	3.03	14.7
<b>-210</b>			8.27	5.39	17.3
<b>-270</b>			10.63	7.76	19.8

■ Option

- DETa-1 Collet (HFD) • Spring collet (HFA) • Tap sleeve (HFT)
- Retention knob→P.64 • Tools for assembly

■ Std. Access.

- Coolant duct (HSK-A) • Fixing spanner(Except for HFA10/HFT4L)
- Hexagonal wrench set • Spanner(HFA)
- Single-ended wrench(HFD7L/HFA10) • Spanner(HFA) • Low head bolt

■ Note

- Other shanks are also available upon request.

Cutting data  
P.13

Parts list  
P.105

# HALF UNIVERSAL type

## Drill · Endmill

## Tap

Fig. 1

**HUD7**

( )...BT30

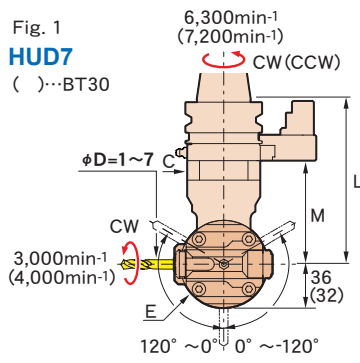


Fig. 2

**HUA10**

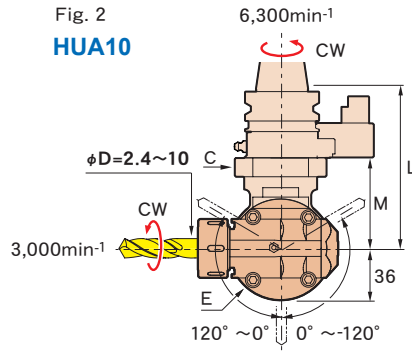
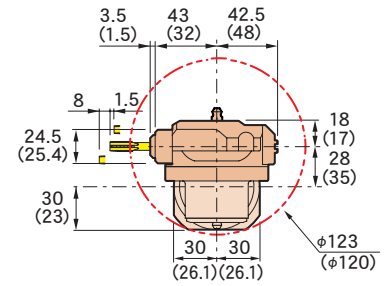
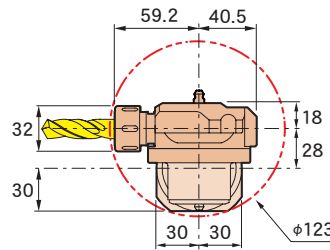
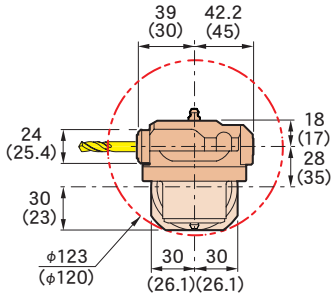
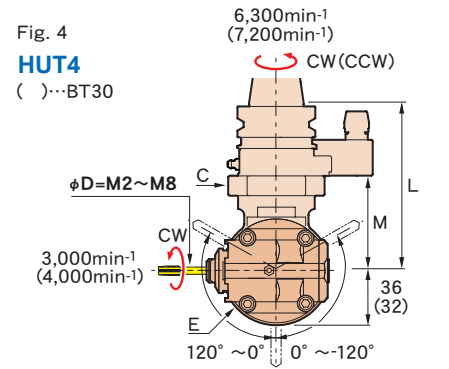


Fig. 4

**HUT4**

( )...BT30



BT40-HUA20-135

Fig. 3

**HUA20**

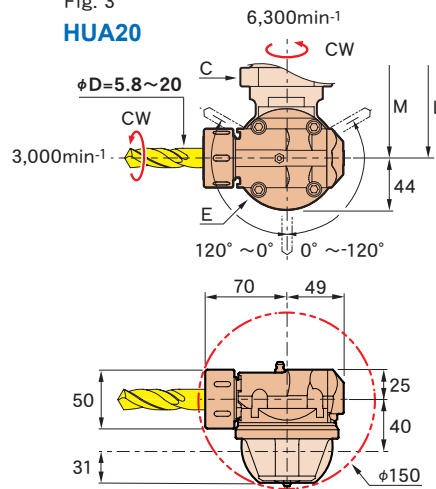
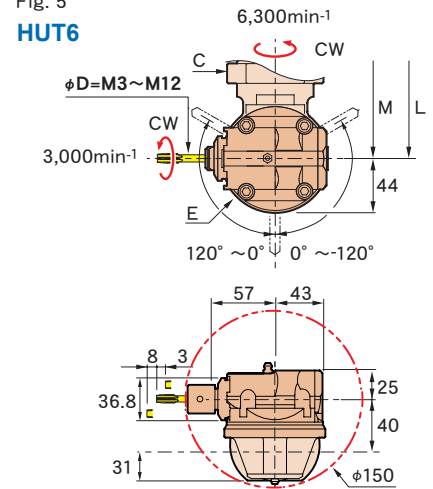



Fig. 5

**HUT6**



CODE (Master holder)	Fig.	φD	L	M	φC	φE	 Kg (lbs)	Moment kgf·mm
<b>BT30</b> -HUD 7-102	1	1 ~ 7	102	39	46	64	1.8	116
	4	M2 ~ M 8						
<b>BT40</b> -HUD 7-135	1	1 ~ 7	135	85	60	72	3.8	251
	2	2.4 ~ 10						
	3	5.8 ~ 20						
	4	M2 ~ M 8						
	5	M3 ~ M12						
	77	78 ~ 88						
<b>BT50</b> -HUD 7-150	1	1 ~ 7	150	85	60	72	6.6	277
	2	2.4 ~ 10						
	3	5.8 ~ 20						
	4	M2 ~ M 8						
	5	M3 ~ M12						
	77	78 ~ 88						
<b>DN40A</b> -HUD 7-150	1	1 ~ 7	150	85	60	72	3.8	251
	2	2.4 ~ 10						
	3	5.8 ~ 20						
	4	M2 ~ M 8						
	5	M3 ~ M12						
	77	78 ~ 88						
<b>DN50A</b> -HUD 7-150	1	1 ~ 7	150	85	60	72	6.6	277
	2	2.4 ~ 10						
	3	5.8 ~ 20						
	4	M2 ~ M 8						
	5	M3 ~ M12						
	77	78 ~ 88						
<b>CT40</b> -HUD 7-150	1	.04 ~ .28	5.91	3.3	2.4	2.8	8.4	251
	2	.09 ~ .39						
	3	.23 ~ .79						
	4	M2 ~ M 8						
	5	#4 ~ 1/2						
<b>CT50</b> -HUD 7-150	1	.04 ~ .28	5.91	3.3	2.4	2.8	14.6	277
	2	.09 ~ .39						
	3	.23 ~ .79						
	4	M2 ~ M 8						
	5	#4 ~ 1/2						

※Distance from a gage line to center of gravity × weight (kg · mm)

- **Option**
  - DETa-1 Collet (HUD)→P.8 • Spring collet (HUA)→P.8
  - Tap sleeve (HUT)→P.8 • Retention knob→P.64 • Tools for assembly
- **Std. Access.**
  - Fixing spanner • Hexagonal wrench set • Spanner (HUA) • Low head bolt
- **Note**
  - Other shanks such as HSK are also available upon request.

Cutting data  
➔ P. 13

Parts list  
➔ P. 105

■ A product code example when ordering.

