

Dramatically improve durability and realize high-speed clamping

Model Representation

HCTU ①-②③ (Example: HCTU06-RP)

①Dimensions (refer to specification sheet) ②Rotation direction (during clamping) ③Special specification mark

HCTU	01	-	L: turn left R: turn right	 Unmarked: standard E: Double-ended rod specification P: Top pin specification N□: Rotation angle 30°, 45°, 60° S□: Long-stroke specification
	02			
	04			
	06			
	10			
	16			
	25			

※1. For special specifications (models) not listed in the catalog, please refer to other documents.

Specification

Model		HCTU01	HCTU02	HCTU04	HCTU06	HCTU10	HCTU16	HCTU25
Cylinder capacity (when oil pressure is 7MPa)	(kN)	2.4	2.8	4.4	6.3	9.9	16.3	25.8
Clamping force※1	When the oil pressure is 7MPa (kN)	2.0	2.4	3.8	5.3	8.3	13.5	21.2
	Clamping arm length (LH) (mm)	30	35	40	50	60	70	90
Bore of cylinder	(mm)	25	29	36	42	52	65	82
Main rod diameter	(mm)	14	18	22.4	25	30	35.5	45
Cylinder area (clamping)	(cm ²)	3.4	4.1	6.2	8.9	14.2	23.3	36.9
Rotation angle		90±3°						
Locating pin groove position accuracy		±1°						
Clamping repeatability position accuracy		±0.5°						
Full stroke	(mm)	16	18	20.5	23.5	26.5	28.5	36
Rotation stroke	(mm)	8	10	12.5	13.5	16.5	18.5	23
Clamping stroke	(mm)	8	8	8	10	10	10	13
Maximum rotation torque※2	(N · m)	0.6	0.7	1.6	1.8	3.4	5.6	9.3
Cylinder capacity	Clamping (cm ³)	5.4	7.3	12.8	21.0	37.5	66.4	132.9
	Release (cm ³)	7.9	11.9	20.9	32.6	56.3	94.6	190.1
Mass	(kg)	0.31	0.9	1.3	1.7	2.8	4.7	9.9

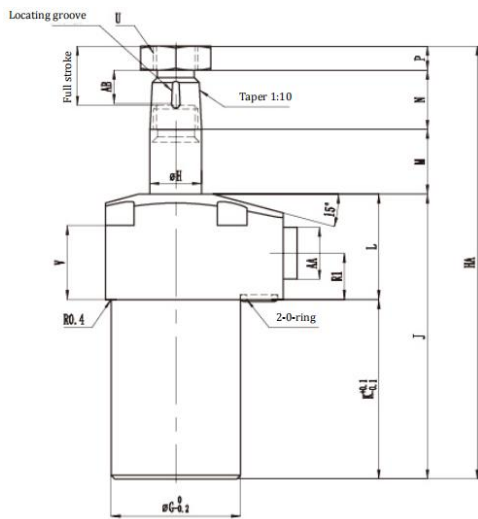
Operating oil pressure range: 1 to 7MPa Guaranteed pressure resistance: 10.5MPa Operating ambient temperature: 0-70°C

Operating fluid: ordinary mineral oil-based hydraulic oil (equivalent to ISO-VG32)

※1: The clamping force varies depending on the length of the clamping arm.

※2: Limit value that can lift the clamping arm with a pressure of 1MPa when installed horizontally.

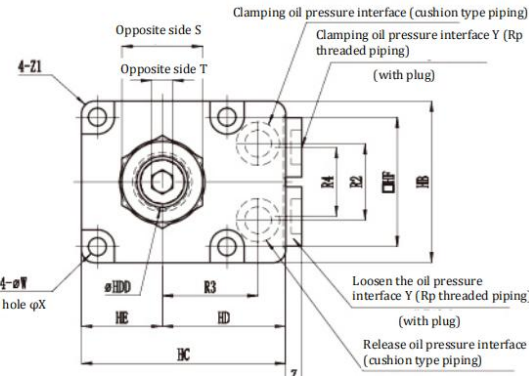
Overall Dimension Drawing



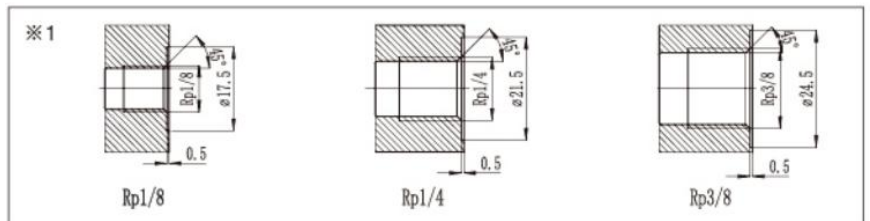
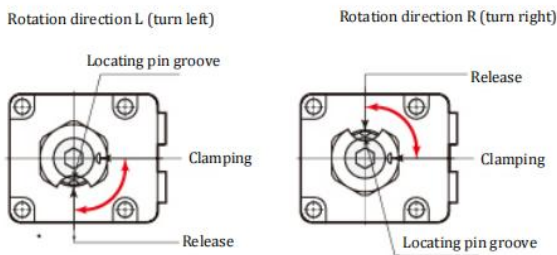
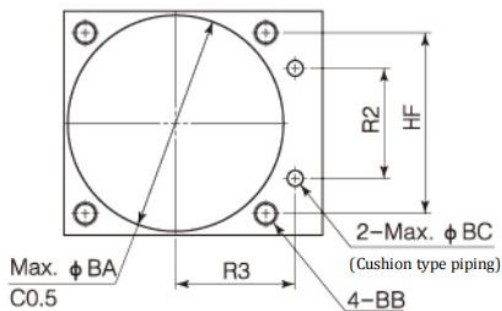
Overall Dimension Table

(mm)

Model	HCTU01 - $\frac{L}{H}$	HCTU02 - $\frac{L}{H}$	HCTU04 - $\frac{L}{H}$	HCTU06 - $\frac{L}{H}$	HCTU10 - $\frac{L}{H}$	HCTU16 - $\frac{L}{H}$	HCTU25 - $\frac{L}{H}$
HA	117.1	131.1	148.6	158.6	178.6	201.6	244.1
HB	38	45	50	57	70	86	108
HC	48	55	60	66	82	96	120
HD	29	32.5	35	37.5	47	53	66
HE	19	22.5	25	28.5	35	43	54
HF	30.6	35.1	40.1	46.1	56.1	68.1	88.1
G	35	39	47	53	63	78	100
H	14 f7	18 f7	22.4 f7	25 f7	30 f7	35.5 f7	45 f7
J	77	83	92	99	113	124.5	148.5
K	48.5	54	61	66	77	84	97
L	28.5	29	31	33	36	40.5	51.5
M	17.5	20	22.5	25.5	28.5	30	37.5
N (clamping arm thickness)	16	20	25	25	27	35	45
P (nut thickness)	6.5	8	9	9	10	12	13
R1	12.5	12.5	12.5	12.5	14	14	21
R2	18	22	24	28	36	45	50
R3	22.5	25	28	30.5	36	42	57
R4	16.2	20	22	26	30	38	50
S (width of opposite side of nut)	19	22	27	30	36	46	55
T (inner hexagon hole)	5	6	6	8	8	10	14
U (recommended tightening torque)	M12×1.5 (12N·m)	M14×1.5 (26N·m)	M18×1.5 (51N·m)	M20×1.5 (60N·m)	M24×1.5 (86N·m)	M30×1.5 (120N·m)	M39×1.5 (180N·m)
V	20	19.5	20	20	19.5	20	26
W	4.3	5.5	5.5	6.8	9	11	14
X	8	9.5	9.5	11	14	17.5	20
Y※1	Rp 1/8	Rp 1/8	Rp 1/8	Rp 1/8	Rp 1/4	Rp 1/4	Rp 3/8
Z	3.8	3.8	3.8	3.8	4.8	4.8	4.8
Z1	R3	R3	R3	R5	R6	R7	R10
O-ring※2	6.8×1.9	6.8×1.9	6.8×1.9	6.8×1.9	7.8×1.9	7.8×1.9	9.8×1.9
AA	14	14	14	14	19	19	22
AB	9	10.5	10.5	10.5	12.5	12.5	14.5
BA	36	40	48	54	64	79	101
BB	M4	M5	M5	M6	M8	M10	M12
BC	4	4	4	4	6	6	8
HDD	3 ^{+0.014} ₀	4 ^{+0.018} ₀	4 ^{+0.018} ₀	5 ^{+0.018} ₀	6 ^{+0.018} ₀	6 ^{+0.018} ₀	6 ^{+0.018} ₀
Locating pin	Φ3(h8)×8	Φ4(h8)×10	Φ4(h8)×10	Φ5(h8)×10	Φ6(h8)×12	Φ6(h8)×12	Φ6(h8)×14



Installation hole processing drawing

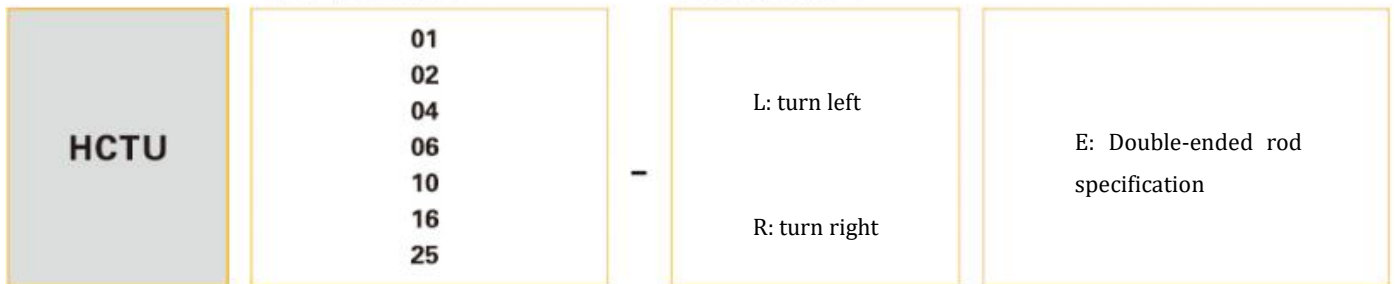


- Note 1. This figure shows the released state of the rotation direction L (turn left). When clamping, the locating pin groove faces the oil pressure interface side. Refer to the left figure for the relationship between rotation direction and locating pin groove.
- The maximum surface roughness of the installation surface shall be processed below Rz6.3.
 - The locating pin and installation bolt are not attached.

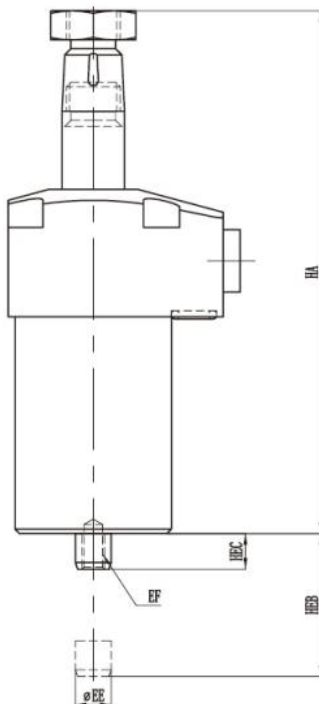
Model Representation

HCTU①-②E (Example: HCTU06-RE)

①Dimensions (refer to specification sheet) ②Rotation direction (during clamping)



Overall Dimension Drawing



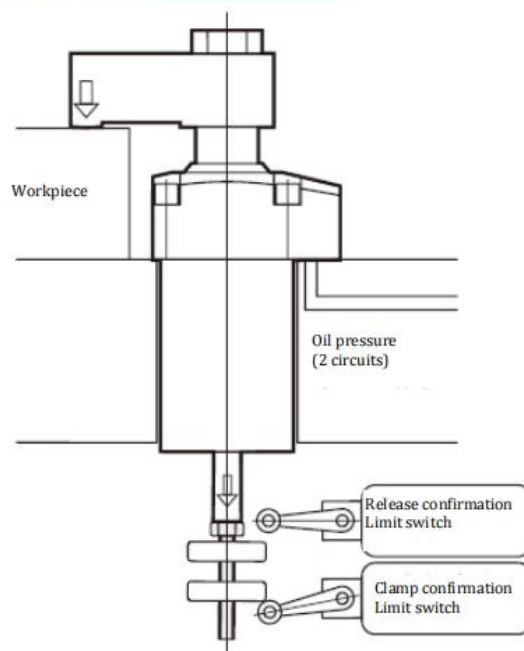
Overall Dimension Table

Model	HCTU01 - ^L _R E	HCTU02 - ^L _R E	HCTU04 - ^L _R E	HCTU06 - ^L _R E	HCTU10 - ^L _R E	HCTU16 - ^L _R E	HCTU25 - ^L _R E
Cylinder capacity (release)	7.0cm ³	11.0cm ³	19.3cm ³	30.7cm ³	53.3cm ³	91.3cm ³	182.9cm ³
HA	117.1	131.1	148.6	158.6	178.6	201.6	244.1
HEB	24	26	28.5	31.5	34.5	36.5	44
HEC	8	8	8	8	8	8	8
EE	8	8	10	10	12	12	16
EF	M5×0.8 deep 8	M5×0.8 deep 8	M6×1 deep 11	M6×1 deep 11	M8×1.25 deep 15	M8×1.25 deep 15	M10×1.5 deep 18
Mass	0.35kg	0.9kg	1.3kg	1.7kg	2.8kg	4.7kg	9.9kg

(mm)

Note 1. This figure shows the released state of the rotation direction L (turn left).
When clamping, the positioning pin groove faces the oil pressure interface.

Use Example

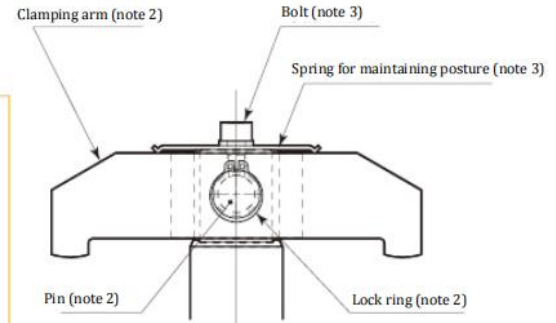
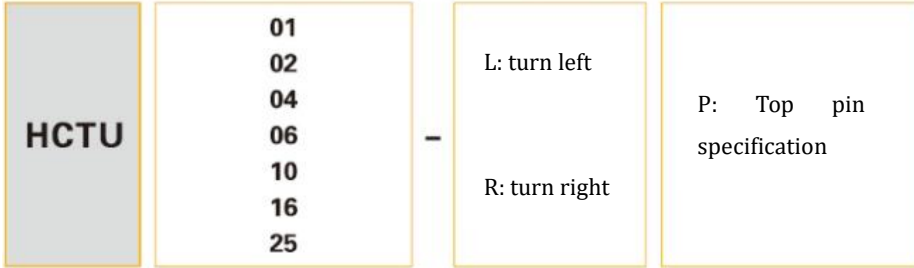


Model Representation

Use Example

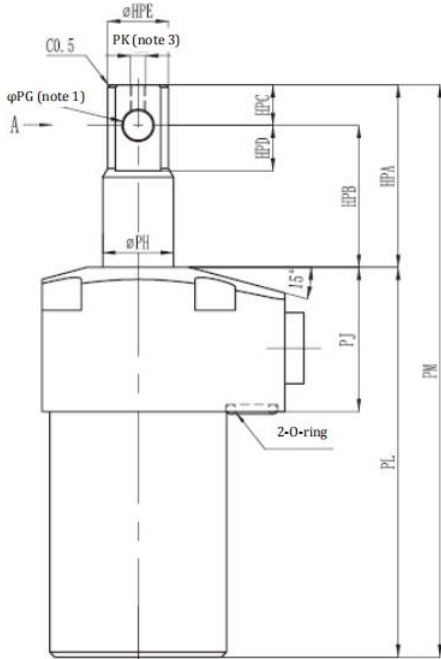
HCTU①-②P (Example: HCTU06-RP)

①Dimensions (refer to specification sheet) ②Rotation direction (during clamping)



Overall Dimension Drawing

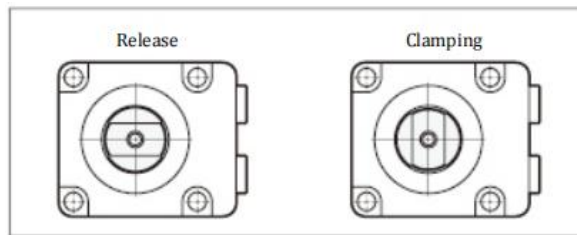
Overall Dimension Table



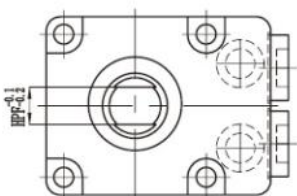
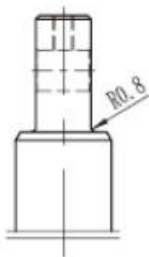
(mm)

Model	HCTU01 - ^L _R E	HCTU02 - ^L _R E	HCTU04 - ^L _R E	HCTU06 - ^L _R E	HCTU10 - ^L _R E	HCTU16 - ^L _R E	HCTU25 - ^L _R E
HPA	36	38.5	45	52	59	70.5	88
HPB	28	30.5	35	40	45	51.5	64
HPC	8	8	10	12	14	19	24
HPD	9	9	11	13	15	20	25
HPE	12	16	20.4	23	28	33.5	43
HPF	8	8	10	12	16	18	22
PG	6 ₀ ^{+0.018}	6 ₀ ^{+0.018}	8 ₀ ^{+0.022}	10 ₀ ^{+0.022}	12 ₀ ^{+0.027}	16 ₀ ^{+0.027}	20 ₀ ^{+0.033}
PH	14 f7	18 f7	22.4 f7	25 f7	30 f7	35.5 f7	45 f7
PJ	28.5	29	31	33	36	40.5	51.5
PK	M3×0.5	M3×0.5	M4×0.7	M5×0.8	M6×1	M6×1	M8×1.25
PL	77	83	92	99	113	124.5	148.5
PM	113.1	121.6	137.1	151.1	172.1	195.1	236.6
Mass	0.30kg	0.9kg	1.3kg	1.8kg	3.0kg	4.9kg	9.5kg

Note 1. This figure shows the released state. When clamping, the pin hole faces the oil pressure interface.



A direction



2. Since the clamping arm, pin and locking ring are not included, please prepare by users.

3. When it is necessary to maintain the posture of the clamping arm, use the taper hole at the rod end. Bolts and springs for maintaining posture are not included.

Model Representation

HCTU^①-^②^③ (Example: HCTU06-RN45)

① Dimensions (refer to specification sheet)

② Rotation direction (during clamping)

③ Rotation angle (refer to the following figure)



Specification

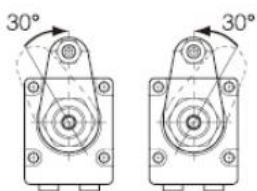
Model		HCTU01- ^L _R ^{N30} / _{N45} / _{N60}			HCTU02- ^L _R ^{N30} / _{N45} / _{N60}			HCTU04- ^L _R ^{N30} / _{N45} / _{N60}			HCTU06- ^L _R ^{N30} / _{N45} / _{N60}		
Rotation angle		30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°
Full stroke (mm)		11.8	12.7	13.7	13.0	14.3	15.5	14.3	15.8	17.4	16.8	18.4	20.1
Rotation stroke (mm)		3.8	4.7	5.7	5.0	6.3	7.5	6.3	7.8	9.4	6.8	8.4	10.1
Clamping stroke (mm)		8			8			8			10		
Cylinder capacity	Clamping (cm ³)	4.0	4.3	4.6	5.3	5.8	6.3	8.9	9.9	10.8	15.0	16.5	18.0
	Release (cm ³)	5.8	6.2	6.7	8.6	9.4	10.2	14.5	16.1	17.7	23.3	25.5	27.9

Model		HCTU10- ^L _R ^{N30} / _{N45} / _{N60}			HCTU16- ^L _R ^{N30} / _{N45} / _{N60}			HCTU25- ^L _R ^{N30} / _{N45} / _{N60}		
Rotation angle		30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°
Full stroke (mm)		18.3	20.3	22.4	19.3	21.6	23.9	24.5	27.4	30.3
Rotation stroke (mm)		8.3	10.3	12.4	9.3	11.6	13.9	11.5	14.4	17.3
Clamping stroke (mm)		10			10			13		
Cylinder capacity	Clamping (cm ³)	25.9	28.8	31.7	44.8	50.2	55.6	90.4	101.0	111.6
	Release (cm ³)	38.8	43.1	47.5	63.9	71.5	79.2	129.4	144.6	159.8

Rotation Angle (During Clamping)

HCTU^①-^L_R^{N30}

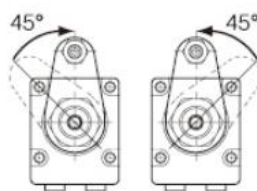
Rotation angle 30°



R: turn right L: turn left

HCTU^①-^L_R^{N45}

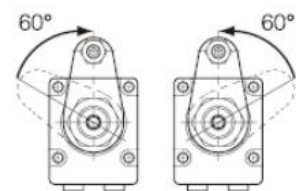
Rotation angle 45°



R: turn right L: turn left

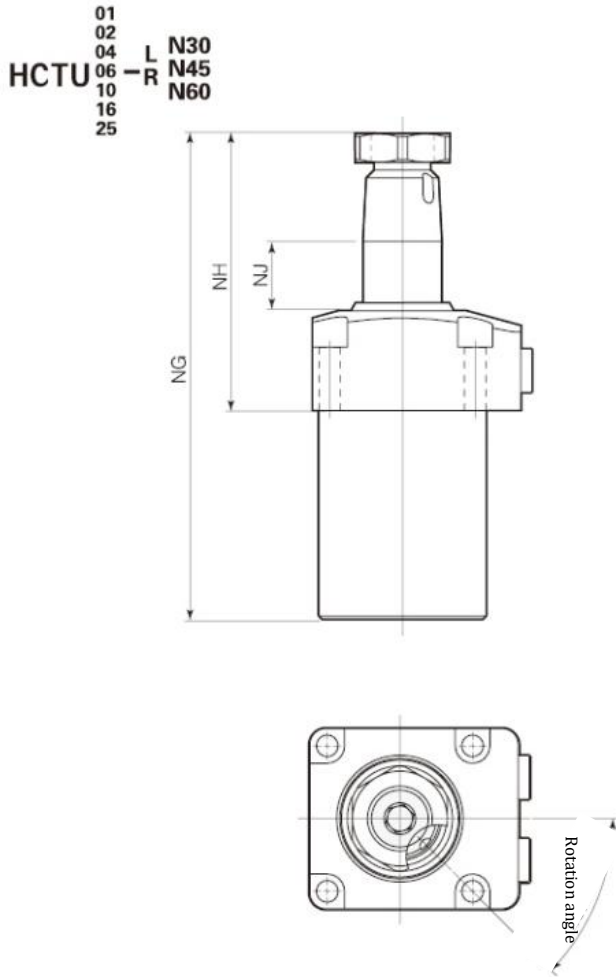
HCTU^①-^L_R^{N60}

Rotation angle 60°

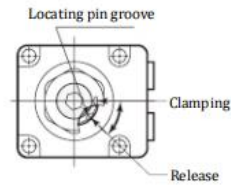


R: turn right L: turn left

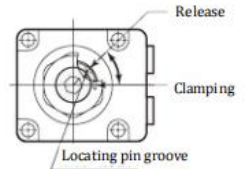
Overall Dimension



Rotation angle L (turn left)



Rotation direction R (turn right)



Note 1. This figure shows the released state of the rotation direction L (turn left).

When clamping, the locating pin groove faces the oil pressure interface.

Refer to the figure above for the position of the locating pin groove during release.

(mm)

Model	HCTU01-L N30 R N45 N60			HCTU02-L N30 R N45 N60			HCTU04-L N30 R N45 N60			HCTU06-L N30 R N45 N60		
Rotation angle	30° ± 3°	45° ± 3°	60° ± 3°	30° ± 3°	45° ± 3°	60° ± 3°	30° ± 3°	45° ± 3°	60° ± 3°	30° ± 3°	45° ± 3°	60° ± 3°
NG	112.9	113.8	114.8	126.1	127.4	128.6	142.4	143.9	145.5	151.9	153.5	155.2
NH	64.3	65.2	66.2	72.0	73.3	74.5	81.3	82.8	84.4	85.8	87.4	89.1
NJ	13.3	14.2	15.2	15.0	16.3	17.5	16.3	17.8	19.4	18.8	20.4	22.1

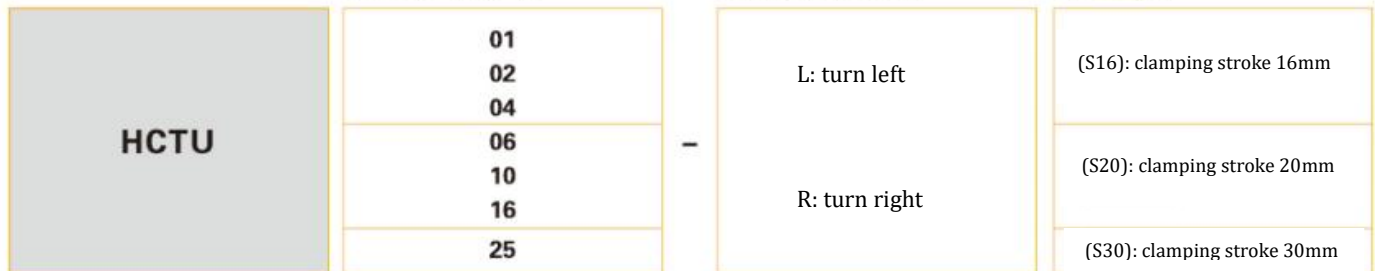
(mm)

Model	HCTU10-L N30 R N45 N60			HCTU16-L N30 R N45 N60			HCTU25-L N30 R N45 N60		
Rotation angle	30° ± 3°	45° ± 3°	60° ± 3°	30° ± 3°	45° ± 3°	60° ± 3°	30° ± 3°	45° ± 3°	60° ± 3°
NG	170.4	172.4	174.5	192.4	194.7	197	232.6	235.5	238.4
NH	93.3	95.3	97.4	108.3	110.6	112.9	135.5	138.4	141.3
NJ	20.3	22.3	24.4	20.8	23.1	25.4	26.0	28.9	31.8

Model Representation

HCTU ① - ② ③ (Example: HCTU06-RS20)

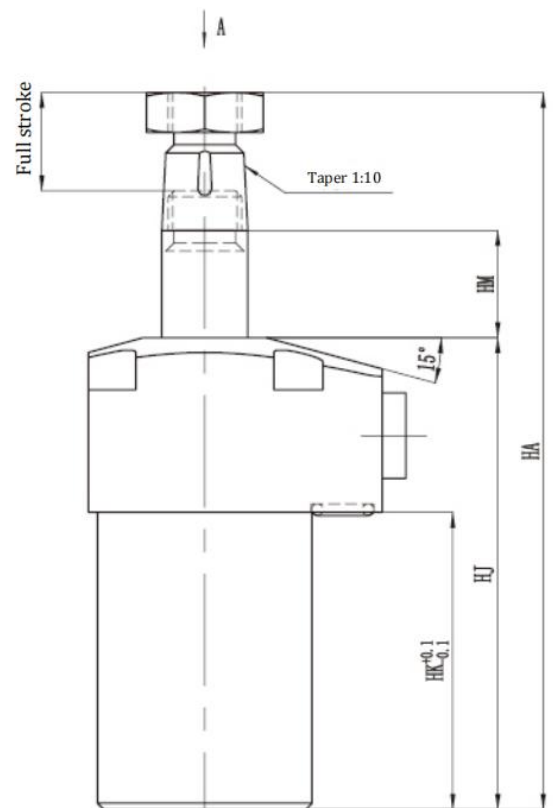
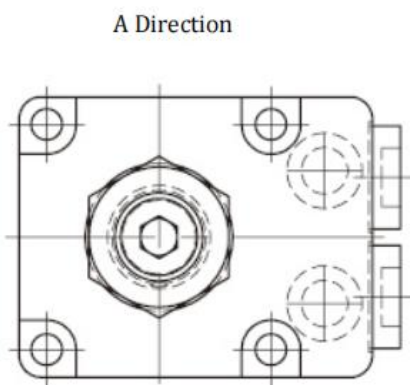
① Dimensions (refer to specification sheet) ② Rotation direction (during clamping) ③ Clamping stroke



Specification

Model	HCTU01- ^L _R S16	HCTU02- ^L _R S16	HCTU04- ^L _R S16	HCTU06- ^L _R S20	HCTU10- ^L _R S20	HCTU16- ^L _R S20	HCTU25- ^L _R S30
Full stroke (mm)	24	26	28.5	33.5	36.5	38.5	53
Clamping stroke (mm)	16	16	16	20	20	20	30
Cylinder capacity	Clamping (cm ³)	8.1	10.6	17.8	30.0	51.7	195.6
	Release (cm ³)	11.8	17.2	29.0	46.4	77.5	279.9
Mass (kg)	0.35	1.1	1.6	2.1	3.4	5.5	11.7

Overall Dimension



Model	HCTU01- ^L _R S16	HCTU02- ^L _R S16	HCTU04- ^L _R S16	HCTU06- ^L _R S20	HCTU10- ^L _R S20	HCTU16- ^L _R S20	HCTU25- ^L _R S30
HA	141.1	155.1	172.6	188.6	208.6	231.6	295.1
HJ	93	99	108	119	133	144.5	182.5
HK	64.5	70	77	86	97	104	131
HM	25.5	28	30.5	35.5	38.5	40	54.5

Model Representation

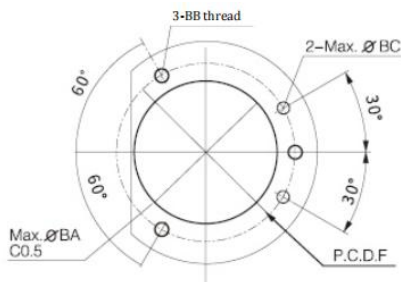
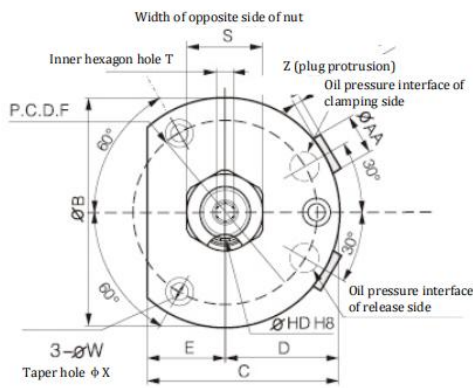
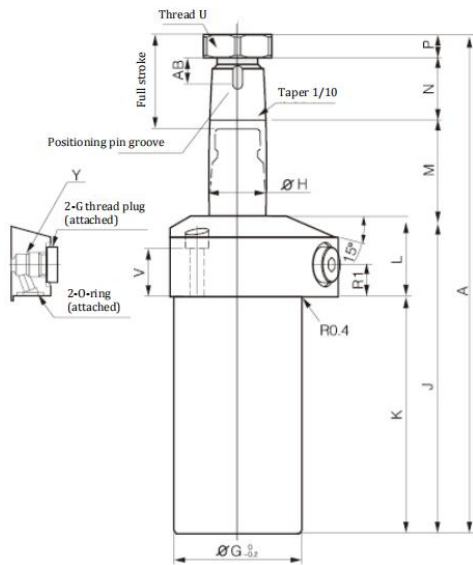
HCTU ①-②③ (Example: HCTU06-RS30)

①Dimensions (refer to specification sheet) ②Rotation direction (during clamping) ③Clamping stroke

HCTU	04	-	L: turn left R: turn right	(S25): clamping stroke 25mm
	06			(S30): clamping stroke 30mm
	10			(S30): clamping stroke 30mm (S50): clamping stroke 50mm
	16			(S30): clamping stroke 30mm (S50): clamping stroke 50mm

Overall Dimension

(mm)



Model	HCTU04 - $\frac{1}{8}$ S25	HCTU06 - $\frac{1}{8}$ S30	HCTU10 - $\frac{1}{8}$ S30	HCTU10 - $\frac{1}{8}$ S50	HCTU16 - $\frac{1}{8}$ S30	HCTU16 - $\frac{1}{8}$ S50
Full stroke	37.5	43.5	46.5	66.5	48.5	68.5
Clamping stroke	25	30	30	50	30	50
Cylinder capacity	※1	23.4CM ³	38.9CM ³	65.9CM ³	112.9CM ³	159.5CM ³
	※2	38.2CM ³	60.3CM ³	98.8CM ³	141.2CM ³	227.3CM ³
Mass	2.3kg	3.1kg	5.0kg	6.0kg	7.5kg	8.7kg
A	199.6	218.6	238.6	298.6	261.6	321.6
B	81	89	112	112	125	125
C	67.5	75	92.5	92.5	105.5	105.5
D	40.5	44.5	56	56	62.5	62.5
E	27	30.5	36.5	36.5	43	43
F	65±0.1	73±0.1	88±0.1	88±0.1	101±0.1	101±0.1
G	51	58	70	70	83	83
H	22.4 f7	25 f7	30 f7	30 f7	35.5 f7	35.5 f7
J	126	139	153	193	164.5	204.5
K	95	106	117	157	124	164
L	31	33	36	36	40.5	40.5
M	39.5	45.5	48.6	68.5	50	70
N (clamping arm thickness)	25	25	27	27	35	35
P (nut thickness)	9	9	10	10	12	12
R1	12.5	12.5	14	14	14	14
S (width of opposite side of nut)	27	30	36	36	46	46
T (inner hexagon hole)	6	8	8	8	10	10
U (recommended tightening torque)	M18×1.5 (51N·m)	M20×1.5 (60N·m)	M24×1.5 (86N·m)	M24×1.5 (86N·m)	M30×1.5 (120N·m)	M30×1.5 (120N·m)
V	19	19.5	19	19	20	20
W	5.5	6.8	9	9	11	11
X	9.5	11	14	14	17.5	17.5
Y	Rp1/8	Rp1/8	Rp1/4	Rp1/4	Rp1/4	Rp1/4
Z	2.8	2.8	3.8	3.8	3.8	3.8
O-Ring ※3	6.8×1.9	6.8×1.9	7.8×1.9	7.8×1.9	7.8×1.9	7.8×1.9
AA	14	14	19	19	19	19
AB	10.5	10.5	12.5	12.5	12.5	12.5
BA	52	59	71	71	84	84
BB	M5	M6	M8	M8	M10	M10
BC	4	4	6	6	6	6
6HD	4 ^{+0.018} ₀	5 ^{+0.018} ₀	6 ^{+0.018} ₀	6 ^{+0.018} ₀	6 ^{+0.018} ₀	6 ^{+0.018} ₀
Locating pin	Φ4(h8)×10	Φ5(h8)×10	Φ6(h8)×12	Φ6(h8)×12	Φ6(h8)×12	Φ6(h8)×12

※1: clamping

※2: release