





Compact, high-capacity, durable, cost-effective rotary clamp

Model Representation



(Example: HLHA0480-CR)

 1 Dimensions (refer to specification sheet)

 0360
 0650

 0400
 0750

 0480
 0900

 0550
 1050

② Clamping arm installation direction



Specification

	Model		HLHA0360	HLHA0400	HLHA0480	HLHA0550	HLHA0650	HLHA0750	HLHA0900	HLHA1050	
Cylinder cap	bacity (when the oil pressure is 7MPa)	(kN)	2.4	3.25	4.25	7	9.2	14.1	20.5	28.65	
Clamping	When the oil pressure pressure is 7MPa	(kN)	2	2.8	4.15	6.15	7.95	12.3	17.35	24.55	
lorce %1	Clamping arm length (LH)	(mm)	30	40	50	50	50	50	60	80	
Ν	lain rod diameter	(mm)	15	18	22	25	30	35.5	45	55	
Bore of cylinder (mm) 26 31 37 44 51 62 76										91	
Cyliı	Cylinder area (clamping) (cm ²) 3.5 4.8 6.8 10.2 13.2 20.1 29.3									41.2	
	Full stroke	(mm)	13.5	14.5	15.5	18.5	20	24	26	32	
	Rotation stroke	(mm)	5.5	6.5	7.5	8.5	10	12	14	16	
	Clamping stroke	(mm)	8	8	8	10	10	12	12	16	
Rota	ation angle accuracy			90°±3°							
Clamping	glocation repeat accuracy					±C	.5°				
Maxin	num working pressure	(Mpa)					7				
Mini	mum acting pressure	(Mpa)				1	.5				
Pressure resistance (Mpa) 10.0											
Operating temperature °C 0-70											
	Use fluid				(ISO visc	osity grade ISO-S	G-32 general hyd	raulic oil)			







Precautions:

% 1. The locating groove of the pressing plate faces the side of the oil supply port during clamping.

2. This product does not come with installation bolts. The user is required to equip the equipment according to the installation height and the S dimension.
3. This product does not come with a speed control valve. Please refer to Page 80 for additional equipment.





Precautions

%1. Please refer to the HF dimension and determine the depth of the body installation hole ΦHD according to the installation height.



Overall Dimension and Installation Part Processing Installation Table

									(mm)
Mod	ol	HLHA	HLHA	HLHA	HLHA	HLHA	HLHA	HLHA	HLHA
Mou		0360-00	0400-00	0480-00	0550-00	0650-00	0750-00	0900-00	1050-00
Full stroke		13.5	14.5	15.5	18.5	20	24	26	32
Rotation									
stroke (90°)		5.5	6.5	7.5	8.5	10	12	14	16
Clamping stroke		8	8	8	10	10	12	12	16
HA		104.1	115.1	128.6	145.6	156.1	181.1	203.1	240.1
HB		49	54	61	69	81	92	107	122
НС		40	45	51	60	70	80	95	110
HD		36	40	48	55	65	75	90	105
HE		64.5	71.5	79	89	94	109	120	144
HF		39.5	46.5	51	59	63	71	74	88
Fu		64.5	68.5	77.5	86.5	93	110	129	152
G		25	25	28	30	31	38	46	56
Н		29	31.5	35.5	39	46	52	59.5	67
J		20	22.5	25.5	30	35	40	47.5	55
К		31.5	34.1	40.1	47.1	55.1	63.1	75.1	88.1
L		66	73	83	88	106	116	136	152
М		11	11	13	12	13	16	19	22
Nx		23.5	26	30	33.5	39.5	45	52.5	60
Ny		8	9	11	12	15	16	18.5	22.5
Р		3	3	3	3	5	5	5	5
Q		7.5	9	9	11	11	14	17.5	20
R		4.5	5.5	5.5	6.8	6.8	9	11	14
S		16	15	17.5	17	17	21	25	32
Т		15.5	16.5	17.5	20.5	22	26	28	34
U		15 f7	18 f7	22 f7	25 fz	30 f7	35.5 f7	45 f7	55 f7
V		13	15	18	21	24	30	37	43
W		11	12	14	15	16	16	18	19
X (nominal × pitch)		M14×1.5	M16×1.5	M20×1.5	M22×1.5	M27×1.5	M30×1.5	M39×1.5	M48×1.5
Y		5	6	8	8	10	10	14	14
Z (chamfer)		C2	C3	C3	C3	C4	C5	C6	C6
AA		22	24	30	32	41	46	55	65
AB		7	8	9	10	11	11	12	12
AC		24.5	26.5	33	35.5	45	50	60	71
BA		14	16	19	22	25	31	38	44
BB		17	20	25	28	34	40	49	60
CA		$6^0_{-0.05}$	$7^0_{-0.05}$	$9^{0}_{-0.05}$	$10^0_{-0.05}$	$12.5^{0}_{-0.05}$	$14^{0}_{-0.05}$	$18.5^{0}_{-0.05}$	$23^{0}_{-0.05}$
СВ		6.5	6.5	7.5	9.5	11.5	12.5	11.5	13.5
CC		$4_0^{+0.05}$	$4_0^{+0.05}$	$5_0^{+0.05}$	$6_0^{+0.05}$	$6_0^{+0.05}$	$8_0^{+0.05}$	$8_0^{+0.05}$	$10^{+0.05}_{0}$
EA		M4×0.7	M5×0.8	M5×0.8	M6	M6	M8	M10	M12
JA		3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
JB		14	14	14	14	19	19	22	22
Rp thread plug	Type RP	RP1/8	RP1/8	RP1/8	RP1/8	RP1/4	RP1/4	RP3/8	RP3/8
O-seal ring		4.8×1.9	4.8×1.9	4.8×1.9	4.8×1.9	6.8×1.9	6.8×1.9	6.8×1.9	6.8×1.9
Cylinder capacity cm ³	During clamping During	4.8	7.3	10.8	19	26.7	48.7	76.6	132.1
	release	7.2	10.9	16.7	28.1	40.9	72.5	117.9	208.1
Weight ※ 8	kg	0.7	0.9	1.4	2	2.9	4.2	7.2	10.1









Precautions:

% 1. The locating groove of the pressing plate faces the side of the oil supply port during clamping.

 \times 2. This product does not come with installation bolts. The user is required to equip the equipment according to the installation height and the S dimension.

 \times 3. This product does not include the speed control valve. Please refer to Page 80 for additional equipment.

 \times Please inquire separately when using in combination with other detection methods and options.

Processing Dimension of Installation Position





Precautions:

4. Please refer to the S dimension and determine the EA thread depth of the installation bolts according to the installation height.





HLHA 1-23 (Example HLHA0550-CRD)

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



Overall Dimension and Installation Part Processing Installation Table

Model	HLHA 0360-111 D	HLHA 0400-111 D	HLHA 0480-111 D	HLHA 0550-111 D	HLHA 0650-11 D	HLHA 0750-00 D	HLHA 0900- D	HLHA 1050- 10 D
Full stroke	13.5	14.5	15.5	18.5	20	24	26	32
Rotation stroke (90°)	5.5	6.5	7.5	8.5	10	12	14	16
Clamping stroke	8	8	8	10	10	12	12	16
HA	114.6	128.1	141.6	158.6	169.1	194.1	216.1	253.1
HB	49	54	61	69	81	92	107	122
HC	40	45	51	60	70	80	95	110
HD	36	40	48	55	65	75	90	105
HE	67	74.5	82	92	97	112	123	147
HF	42	49.5	54	62	66	74	77	91
Fu	64.5	68.5	77.5	86.5	93	110	129	152
G	25	25	28	30	31	38	46	56
н	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	40	47.5	55
К	31.5	34.1	40.1	47.1	55.1	63.1	75.1	88.1
L	66	73	83	88	106	116	136	152
М	11	11	13	12	13	16	19	22
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
P	3	3	3	3	5	5	5	5
0	7.5	9	9	11	11	14	17.5	20
R	45	5.5	5.5	6.8	6.8	9	11	14
5	16	15	17.5	17	17	21	25	32
T	15.5	16.5	17.5	20.5	22	26	23	34
ii.	15.5 15.f7	18.f7	22 f7	25.f7	30 f7	35.5.f7	45 f7	55 f7
V	12	15	19	2317	24	30.511	27	43
W	11	12	14	15	16	16	18	10
V (norminal a site)	M14×15	12 M16×15	M20 V 1 5	M22 × 1.5	M07×15	M20 V 1 5	M20 V 1 5	15 M40 V 1 5
V (noninia * pren)	M14~10	6	Q	9	10	10	14	14
7 (chamfar)	0	G	3	(3	C4	C5	6	6
ΔΔ	22	24	30	32	41	46	55	65
AP	7	0	0	10	11	11	12	12
AC	24.5	26.5	22	25.5	45	50	60	71
PA .	14	16	10	22	45	21	29	11
PP	17	20	25	22	23	40	40	60
CA	E 0.	7 0	25	10 0	125 0	14 0	49 19 E ⁰	22 %
CR	6.5	6.5	7.5	0.5	11.5	12.5	11.5	12.5
CG	A +0.05	4+0.05	E +0.05	5.5 £ +0.05	£ +0.05	0 +0.05	0 +0.05	10+0.05
DA	4 0	4 0	14	14	14	10	10	10 0
DR	0	12	14	14	14	10	10	10
DC	0	2	10	10	10	2	2	2
DD	2.5	3	30	36	5	5	5	3
	20	29 MEV 15	30	50 M0 V 10	45 M0 V 10	50 M10×21	05	00 M10×21
DE (nominal × pitch)	M4×0.7×10	10	10 10	10	10	M10×21	M10×21	M10×21
CA CA	0 M4×0.7	MEYOP	12 M5 V0.0	12	12	10	10	10
LA IA	M4 × 0.1	0.5×0.8	0.0 × CM	010	MO	MO	MIU	MIZ
JA ID	3.5	3.5	3.5	5.5	4.5	4.5	4.5	4.5
JD Olemana for her and the	14	14	14	14	19	19	22	22
On supply port for clamping Type RP	RP1/8	RP1/8	KP1/8	RP1/8	RP1/4	RP1/4	RP3/8	RP3/8
U-seal ring	4.8×1.9	4.8×1.9	4.8×1.9	4.8×1.9	0.8×1.9	6.8×1.9	6.8×1.9	6.8×1.9
Cylinder capacity cm3 During damping During release	4.8 6.5	9.3	10.8	25.3	37.8	48.7 66.4	111.3	200
Weight%6 kg	0.7	0.9	1.4	2	3	4.2	7.3	10.3

(mm)

Precautions %6. It indicates the weight of the rotary cylinder including the nut and taper sleeve.



XThis figure shows the released state of the HLHA-CRM

Precautions:

%1. The platen positioning groove faces the oil supply port side when it is clamped.

2. Installation bolts are not included with this product. Please configure it by yourself according to the installation height and with reference to the S dimension.

% 3. This product does not include the speed control valve. Please refer to Page 80 for additional equipment.

%Please inquire separately when using in combination with other detection methods and options.



HLHA (1 - 2 (3) (Example HLHA0550-CRM, HLHA0750-SLM))

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

HLHA

Overall Dimension and Installation Part Processing Installation Table

								(mm)
Model	HLHA 0360-00 M	HLHA 0400-00 M	HLHA 0480-00 M	HLHA 0550- M	HLHA 0650-00 M	HLHA 0750-00 M	HLHA 0900-00 M	HLHA 1050-00M
Full stroke	13.5	14.5	15.5	18.5	20	24	26	32
Rotation stroke (90°)	5.5	6.5	7.5	8.5	10	12	14	16
Clamping stroke	8	8	8	10	10	12	12	16
HA	104.1	115.1	128.6	145.6	156.1	181.1	203.1	240.1
HB	49	54	61	69	81	92	107	122
HC	40	45	51	60	70	80	95	110
HD	36	40	48	55	65	75	90	105
HE	64.5	71.5	79	89	94	109	120	144
HF	39.5	46.5	51	59	63	71	123	88
Fu	64.5	68.5	77.5	86.5	93	110	129	152
G	25	25	28	30	31	38	46	56
н	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	40	47.5	55
К	31.5	34.1	40.1	47.1	55.1	63.1	75.1	88.1
L	66	73	83	88	106	116	136	152
M	11	11	13	12	13	16	19	22
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
P	3	3	3	3	5	5	5	5
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	16	15	17.5	17	17	21	25	32
Т	15.5	16.5	17.5	20.5	22	26	28	34
U	15 f7	18 f7	22.17	25 f7	30 f7	35.5 f7	45 f7	55 f7
V	13	15	18	21	24	30	37	43
W	11	12	14	15	16	16	18	19
X (nominal × pitch)	M14×1.5	M16×1.5	M20×1.5	M22×1.5	M27×1.5	M30×1.5	M39×1.5	M48×1.5
Y	5	6	8	8	10	10	14	14
Z (chamfer)	C2	C3	C3	C3	C4	C5	C6	C6
AA	22	24	30	32	41	46	55	65
AB	7	8	9	10	11	11	12	12
AC	24.5	26.5	33	35.5	45	50	60	71
BA	14	16	19	22	25	31	38	44
BB	17	20	25	28	34	40	49	60
CA	6_0.05	7 -0.05	9_005	10_0.05	12.5 _0.05	14 _0.05	18.5 _0.05	23 _0.05
CB	6.5	6.5	7.5	9.5	11.5	12.5	11.5	13.5
CC	4 +0.06	4 +0.05	5 +0.06	6 +0.06	6 +0.05	8 +0.05	8 +0.05	10+0.05
EA	M4×0.7	M5×0.8	M5×0.8	M6	M6	M8	M10	M12
MAf8	34.5 -0.025	38-6.025	45 -0.025	45 4.025	45 4 004	53 -0.030	53 -0.030	53-0.030
МАна	34.5 50.029	38,+0.036	45 -0.029	45 0038	45 0000	53 *0.046	53 *0.046	53;0.046
MB	32	33	38.5	38.5	40.5	49	49	57.5
MC	35.7	39.2	46.2	46.2	46.2	54.2	54.2	54.2
MD	49.4	57.5	65.4	73.4	79.4	86.5	89.5	106.5
ME	62.4	70.5	78.9	86.9	92.9	106	109	126
MF	40	47	53	61	65	74	77	94
MG	4.9	6	7.9	7.9	9.9	7.5	7.5	7.5
MH	9	9	9	9	9	10	10	10
MJ	4	4	4.5	4.5	4.5	9.5	9.5	9.5
MK	6.5	6.5	8	8	8	11	11	16.5
ML	73.4	81.5	91.4	99.4	105.4	122	125	147.5
MM	1.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
AL	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
JB	14	14	14	14	19	19	22	22
Oil supply port for clamping Type RP	RP1/8	RP1/8	RP1/8	RP1/8	RP1/4	RP1/4	RP3/8	RP3/8
Outin day service and During clamping	4.8	7.3	10.8	19	26.7	48.7	76.6	132.1
by moder capacity cnt3 During release	6.5	9.3	14.3	25.3	37.8	66.4	111.3	200
Weight %8 kg	0.8	1	1.6	2.2	3.1	4.5	7.6	10.6

Precautions

※8. It indicates the weight of the rotary cylinder including the nut and taper sleeve.

1. If you want to use the embedded air sensor, please call us.



C: plate (attached RP thread plug)





% This figure shows the released state of the HLHA-CRN type.

Precautions:

%1. The platen positioning groove faces the oil supply port side when it is clamped.

×2. Installation bolts are not included with this product. Please configure it by yourself according to the installation height and with reference to the S dimension.

% 3. This product does not include the speed control valve. Please refer to Page 80 for additional equipment.

% Please inquire separately when using in combination with other detection methods and options.





Precautions

¾ 4. The vent must be open to the atmosphere, and the intrusion of coolant and chips must be prevented. If it is in direct contact with the coolant, accessories should be installed at the NG thread to prevent the intrusion of the coolant. However, the vent is not allowed to be blocked.
※ 5. Please refer to the S dimension and determine the EA thread depth of the installation bolt according to the installation height.





HLHA ① - ② ③ (Example HLHA0550-CRN)

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

HLHA 0360 065 0400 075 0480 090 0550 105	L: turn left —— R: turn right	N: external piping type of air sensor
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Overall Dimension and Installation Part Processing Installation Table

								(mm)
Model	HLHA	HLHA	HLHA	HLHA	HLHA	HLHA	HLHA	HLHA
	0360-00 N 0	0400- II N II	0480- 💷 N 🛛	0550-00 N 0	0650-00 N 0	0750- ON D	0900-00N	1050- 00N 0
Full stroke	13.5	14.5	15.5	18.5	20	24	26	32
Rotation stroke (90°)	5.5	6.5	7.5	8.5	10	12	14	16
Clamping stroke	8	8	8	10	10	12	12	16
НА	104.1	115.1	128.6	145.6	156.1	181.1	203.1	240.1
HB	49	54	61	69	81	92	107	122
HC	40	45	51	60	70	80	95	110
HD	36	40	48	55	65	75	90	105
HE	64.5	71.5	79	89	94	109	120	144
HF	39.5	46.5	51	59	63	71	123	88
Fu	64.5	68.5	77.5	86.5	93	110	129	152
G	25	25	28	30	31	38	46	56
н	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	40	47.5	55
К	31.5	34.1	40.1	47.1	55.1	63.1	75.1	88.1
L	66	73	83	88	106	116	136	152
М	11	11	13	12	13	16	19	22
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
P	3	3	3	3	5	5	5	5
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	16	15	17.5	17	17	21	25	32
T	15.5	16.5	17.5	20.5	22	26	28	34
U	15 f7	18 f7	22 17	25 f7	30 f7	35.5 f7	45 f7	55 f7
V	13	15	18	21	24	30	37	43
W	11	12	14	15	16	16	18	19
X (nominal × pitch)	M14×1.5	M16×1.5	M20×1.5	M22×1.5	M27×1.5	M30×1.5	M39×1.5	M48×1.5
Y	5	6	8	8	10	10	14	14
Z(chamfer)	C2	C3	C3	C3	C4	C5	C6	C6
AA	22	24	30	32	41	46	55	65
AB	7	8	9	10	11	11	12	12
AC	24.5	26.5	33	35.5	45	50	60	71
BA	14	16	19	22	25	31	38	44
BB	17	20	25	28	34	40	49	60
CA	6 0	7 .005	9 0	10 000	12.5	14 .000	18.5	23
СВ	6.5	6.5	7.5	9.5	11.5	12.5	11.5	13.5
CC	4+0.06	4 *0.05	5 +0.05	6 +0.05	6 +0.05	8 +0.05	8 +0.05	10 +0.05
EA	M4×0.7	M5×0.8	M5×0.8	M6	M6	M8	M10	M12
NA	35.5	39.5	45	45	45	53	53	53
NB	32	33	38.5	38.5	40.5	49	49	57.5
NC	9.8	9	11	11	11	13	13	17
ND	11.7	13	14.5	14.5	14.5	20.5	20.5	24
NE	17	19	21	21	21	24.5	24.5	24.5
NE	25	29	29	29	29	38	38	38
NG (nominal × symmetry)	M3×0.5×5	M3×0.5×5	M3×0.5×5	M3×0.5×5	M3×0.5×5	M4×0.7×6	M4×0.7×6	M4×0.7×6
A	3.5	35	35	35	45	4.5	4.5	4.5
IB	14	14	14	14	19	19	22	22
Oil supply port for damning Type RP	RP1/8	RP1/8	8P1/8	RP1/8	RP1/4	RP1/4	852/8	RP3/8
O-seal ring	4.8×10	4.8×10	4.8×1.9	4.8×1.9	68×19	6.8×19	6.8×19	68×19
3-O-seal ring	29.87×1.78	34.65×1.78	41×178	41×178	41×1.78	47.35×1.78	47 35×1 78	4735×178
During clamping	19	72	10.9	10	267	48.7	76.6	132.1
Cylinder capacity cm3 During release	6.5	9.3	14.3	25.3	37.8	66.4	111.3	200
Weight # 7 kg	0.8	1	1.6	2.2	3.1	4.5	7.6	10.6

Precautions

ns %7 It indicates the weight of the rotary cylinder including the nut and taper sleeve.

1. If you want to use the embedded air sensor, please call us.



Processing Dimension of

Overall Dimension

C: plate (attached RP thread plug)







% This figure shows the released state of HLHA-C \Box -P.

Precautions:

 \times 1. When the pressure arm position must be maintained, use the screw (PH thread) at the top of the piston rod.

% 2. This product does not include the installation bolts. The user is required to provide the equipment according to the installation height and the S dimension.

% 3. This product does not include the speed control valve. Please refer to Page 80 for additional equipment.

* Please inquire separately when using in combination with other detection methods and options.





Precautions:

% 4. Please refer to the S dimension and determine the EA thread depth of the installation bolt according to the installation height.

% 5. Please refer to the HF dimension and determine the depth of the body installation hole Φ HD according to the installation height.





HLHA 1 - 2 3 (Examp

(Example HLHA0550-CR-P)

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



Overall Dimension and Installation Part Processing Installation Table

				_				(mm)
Model	HLHA 0360-00 -P	HLHA 0400-00 -P	HLHA 0480-00 -P	HLHA 0550-130 -P	HLHA 0650-30 -P	HLHA 0750-00-P	HLHA 0900-00 -P	HLHA 1050-00 -P
Full stroke	13.5	14.5	15.5	18.5	20	24	26	32
Rotation stroke (90°)	5.5	6.5	7.5	8.5	10	12	14	16
Clampingstroke	8	8	8	10	10	12	12	16
HA	102.1	113.1	126.6	143.6	156.1	181.1	203.1	238.1
HB	49	54	61	69	81	92	107	122
HC	40	45	51	60	70	80	95	110
HD	36	40	48	55	65	75	90	105
HE	64.5	71.5	79	89	94	109	120	144
HF	39.5	46.5	51	59	63	71	74	88
Fu	62.5	66.5	75.5	84.5	93	110	129	150
G	25	25	28	30	31	38	46	56 -
Н	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	40	47.5	55
К	31.5	34.1	40.1	47.1	55.1	63.1	75.1	88.1
L	66	73	83	88	106	116	136	152
М	11	11	13	12	13	16	19	22
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
P	3	3	3	3	5	5	5	5
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	16	15	17.5	17	17	21	25	32
U	15 f7	18 f7	22 f7	25 f7	30 f7	35.5 f7	45 f7	55 f7
Z (chamfer)	C2	C3	C3	C3	C4	C5	C6	C6
EA	M4×0.7	M5×0.8	M5×0.8	M6	M6	M8	M10	M12
PA	7	8	10	12	14	16	22	26
PB	13.5	16	20	23	28	33.5	43	53
PC	6	6	8	23	13	13	16	20
PD	9	11	12	12.5	16.5	19	23.5	25.5
PE	21	24	27.5	31.5	38.5	43.5	52.5	58.5
PF	22	25	29	33	40	45	54	60
PG	15.5	16.5	18.5	21.5	22	27	29	34
PH	M3×0.5	M3×0.5	M4×0.7	M5×0.8	M6	M6	M8	M8
JA	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
JB	14	14	14	14	19	19	22	22
Oil supply port for clamping Type RP	RP1/8	RP1/8	RP1/8	RP1/8	RP1/4	RP1/4	RP3/8	RP3/8
0-seal ring	4.8×1.9	4.8×1.9	4.8×1.9	4.8×1.9	6.8×1.9	6.8×1.9	6.8×1.9	6.8×1.9
3-0-seal ring	29.87×1.78	34.65×1.78	41×1.78	41×1.78	41×1.78	41×1.78	47.35×1.78	47.35×1.78
Cylinder capacity cm3 During clamping During release	4.8 7.2	7.3 10.9	10.8 16.7	19 28.1	26.7 40.9	48.7 72.5	76.6 117.9	132.1 208.1
Weight%7 kg	0.7	0.9	1.3	1.9	2.8	4	7	9.8

Notes: %7. It indicates the weight of a single rotary cylinder.



C: plate (attached RP thread plug)







*This figure shows the released state of HLHA-CR-Q.

Precautions:

%1. The platen positioning groove faces the oil supply port side when it is clamped.%2. Installation bolts are not included with this product. Please configure it by yourself according to the installation height and with reference to the S dimension.

% 3. This product does not include the speed control valve. Please refer to Page 80 for additional equipment.

% Please inquire separately when using in combination with other detection methods and options.



Precautions:

 \approx 4. Please refer to the S dimension and determine the EA thread depth of the installation bolt according to the installation height. \approx 5. Please refer to the HF dimension and determine the depth of the body installation hole Φ HD according to the installation height. \approx This processing shows the case of -C: plate connection type.



HLHA 1-23

(Example HLHA0550-CR-Q20)

0 Dimensions (refer to specification sheet) 0 Rotation direction (during clamping) 0 Special specification mark

HLHA	0360 0400 0480 0550	0650 0750 0900	-	L: turn left R: turn right	Q15: clamping stroke 15mm Q20: clamping stroke 20mm Q25: clamping stroke 25mm Q30: clamping stroke 30mm
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Overall Dimension and Installation Part Processing

	_				_			_													(mm)
Model		HL 0360	.HA - 💷 - Q		04	HLHA	-Q0	04	HLHA	-Q	05	HLHA	-Q		HL 0650-	HA -Q		HL 0750	HA Q Q	HL	HA Q
Option model %7	Q15	Q20	Q25	Q30	Q15	Q20	Q25	Q15	Q20	Q25	Q15	Q20	Q25	Q15	Q20	Q25	Q30	Q20	Q25	Q20	Q25
Full stroke	20.5	25.5	33	38	21.5	26.5	34.5	22.5	27.5	36	23.5	28.5	33.5	25	30	35	40	32	37	34	39
Rotation stroke (90°)	5.5	5.5	8	8	6.5	6,5	9.5	7.5	7.5	11	8.5	8.5	8.5	10	10	10	10	12	12	14	14
Claming stroke	15	20	25	30	15	20	25	15	20	25	15	20	25	15	20	25	30	20	25	20	25
НА	125.1	140.1	162.6	177.6	136.1	151.1	175.1	149.6	164.6	190.1	160.6	175.6	190.6	171.1	186.1	201.1	216.1	205.1	220.1	227.1	242.1
НВ		4	19			54			61		_	69			8	1		9	2	10	7
HC		4	10			45			51			60			7	0		8	0	95	5
HD		3	6			40			48	_		55			6	5		7	5	90	0
HE	78.5	88.5	103.5	113.5	85.5	95.5	111.5	93	103	120	99	109	119	104	114	124	134	125	135	136	146
HF	53.5	63.5	78.5	88.5	60.5	70.5	86.5	65	75	92	69	79	89	73	83	93	103	87	97	90	100
Fu	71.5	76.5	84	89	75.5	80.5	88.5	84.5	89.5	98	91.5	96.5	101.5	98	103	108	113	118	123	137	142
G		2	25			25			28			30			3	1		3	8	44	6
Н		- 2	9		_	31.5			35.5			39			4	6		5	2	59	.5
1			20			22.5			25.5			30			3	5		4	0	47	5
К		3	1.5			34.1		_	40.1			47.1			55	.1		63	3.1	75	1
L		6	6			73			83			88			10)6		1	16	13	6
M	_	1	.1	_		11			13			12			1	3		1	6	19	9
Nx		2	3.5			26			30			33.5		-	39	.5	_	4	5	52	.5
Ny	_		8			9			- 11		-	12			1	5		1	6	18	5
P			3			3	_		3			3		_						5	
Q	_		.5	-	-	9			9		-	11		_	1	1	-	1	4	17	5
R C		4	5		-	5.5			5.5			0.8			5.	8	_	3	1	1	1. r
5	22.5	27.5	10	40	33.5	20.5	20.5	245	11.5	20	25.5	20.5	25.5	37	22	27	47	24	1 20	25	-
I.	22.5	21.5	30	40	23.5	20.5	30.5	24.5	29.5	30	25.5	30.5	35.5	21	32	3(f7	42	34	39	30	41
v	-	10	3	-	-	1011		-	19			231/			30	1r. A	_	35.	0	40	7
W		1	1			12			14			15			1	4 6	-	1	с 6	1/	R
Y (numinal v nitch)		M14	×15			416×1	5		120×1	5	h	122×1	5		M27	×15	_	M30	×15	M392	×15
Y	-	1.04.1	5			6	10		8	-		8	~		1	0		1	0	14	4
Z (chamfer)		(2			C3		-	63			3			0	4		c	5	0	6
AA		2	2			24			30		-	32			4	1	-	4	6	5	5
AB			7			8			9		-	10			1	1		1	1	12	2
AC		2	4.5			26.5			33			35.5			4	5		5	0	6	0
BA		1	4			16		1	19		-	22			2	5		3	1	3/	8
BB		1	.7			20			25			28			3	4		4	0	4	9
CA			6_0.05			7	0		9_0	05		10_0	0		12	5_0.00	6	1	4_0.05	18	5 _0.05
CB		6	.5			6.5			7.5			9.5			11	.5		12	2.5	11	.5
CC			4 +0.06			4 *0	05		5 *0	06		6 *0	06		6	*0.05		8	8 +0.05	8	+0.06
EA		M4	×0.7			M8×0.	8		M5×0.8	3		M6			М	6		M	8	MI	LO
JA		3	.5			3.5			3.5			3.5			4	5		4	.5	4.	5
JB		1	4			14			14			14			1	9		1	9	2	2
Oil supply port for clamping Type Ri	P	RP	1/8			RP1/8			RP1/8			RP1/8			RP	1/4		RP	1/4	RP3	3/8
0-seal ring		4.8	×1.9		1	4.8×1.	9		4.8×1.9)		4.8×1.9	9		6.8>	(1.9		6.8>	<1.9	6.8×	1.9
Cylinder During clamping capacity cm3 During release	7.2 10.9	8.9 13.5	11.6 17.5	13.3 20.2	10.8 16.2	13.3 20	17.3 26	15.8 24.2	19.3 29.6	25.2 38.7	24.2 35.7	29.4 43.3	34.5 50.9	33.5 51.1	40.2 61.3	46.9 71.5	53.6 81.7	65 96.6	75.1 111.7	100.3 154.2	115.1 176.9
Weight #18 kg	0.7	0.8	1	1	1	1.1	1.3	1.6	1.7	2	2.2	2.4	2.5	3.2	3.5	3.7	4	4.8	5.2	8.3	8.8

Precautions:

%7. Please refer to Page 44 when the stroke specified in the above table is exceeded.

%8. It indicates the weight of a single rotary cylinder including nuts and taper sleeves.

Processing Dimension of

Installation Position

Overall Dimension

C: plate (attached RP thread plug)







※This figure shows the released state of HLHA-CR-Q.

Precautions:

%1. The platen positioning groove faces the oil supply port side when it is clamped.

 \approx 2. Installation bolts are not included with this product. Please configure it by yourself according to the installation height and with reference to the S dimension.

 \times 3. This product does not include the speed control valve. Please refer to Page 80 for additional equipment.

% Please inquire separately when using in combination with other detection methods and options.





Precautions:

 \approx 4. Please refer to the S dimension and determine the EA thread depth of the installation bolt according to the installation height. \approx 5. Please refer to the HF dimension and determine the depth of the body installation hole Φ HD according to the installation height. \approx This processing shows the case of -C: plate connection type.



(mm)

Mod	el			
Ren	rese	nta	ti	on

HLHA (1-23	(Example) (1) Dimension (1) Dimension (1) Dimension (1) Dimension (1) Dimension (1) Di	HLHA0550 ons (refer t sheet)	-CR-Q	40, HLHA0750-SL-Q45) ② Rotation direction (during clamping)	③ Special specification mark
HLHA	0360 0400 0480	0650 0750 0900	_	L: left R: right	Q35: clamp stroke 35mm Q40: clamp stroke 40mm Q45: clamp stroke 45mm Q50: clamp stroke 50mm

1050

Q35: clamp stroke 35mm Q40: clamp stroke 40mm Q45: clamp stroke 45mm Q50: clamp stroke 50mm

Overall Dimension and Installation Part Processing Installation Table

0550

Model	HLHA 0360- ^{00-Q0}	н	.HA 040	0 ^{00 -Q0}	HLF	ILHA 0480- ^{[[]} -Q ^[] HLHA 0550- ^{[[]} -Q ^[]				HLHA 0650. ^{00-Q} 0 HLHA 0750- ^{00-Q} 0					HLHA 0900- ⁰⁰ -Q0					HLHA 1050- ^{III -Q} II												
Option model	Q35	Q3	0 Q35	Q40	Q30	Q35	Q40	Q30	Q35	Q40	Q45	Q50	Q35	Q4	0 Q45	Q50	Q30	0 Q35	Q40	Q45	Q50	Q30	Q35	Q40	Q45	Q50	Q25	Q30	Q35	Q40	Q45	Q50
Full stroke	43	39	.5 44.5	49.5	41	46	51	42	47	52	57	62	50	60	65	42	47	55	60	65	44	49	57	62	67	41	46	51	56	61	66	
Rotation stroke (90°)	8	9.	5 9.5	9.5	11	11	11	12	12	12	12	12	15	15	5 15	15	12	12	15	15	15	14	14	17	17	17			16			
Clamp stroke	35	3	35	40	30	35	40	30	35	40	45	50	35	40	45	50	30	35	40	45	50	30	35	40	45	50	25	30	35	40	45	50
HA	192.6	190	0.1 205.	1 220.1	205.	1 220.1	235.1	216.1	231.1	246.1	261.	1 276.1	246.1	261	.1 276.1	291.1	235.	.1 250.1	274.1	289.	1 304.1	257.1	272.1	296.1	311.1	326.1	267.1	282.1	297.1	1 312.1	327.1	342.1
HB	49		54			61				69					81				92					107					1	122		
нс	40		45			51				60					70				80					95					1	110		
HD	36		40			48				55					65				75					90					1	105		
HE	123.5	12	1.5 131.	5 141.5	130	140	150	136	146	156	166	176	154	16	4 174	184	145	5 155	171	181	191	156	166	182	192	202	162	172	182	192	202	212
HF	98.5	96	.5 106.	5 116.5	102	112	122	106	116	126	136	146	123	13	3 143	153	107	7 117	133	143	153	110	120	136	146	156	106	116	126	136	146	156
Fu	94	93	.5 98.5	103.5	103	108	113	110	115	120	125	130	123	12	8 133	138	128	8 133	141	146	151	147	152	160	165	170	161	166	171	176	181	186
G	25		25			28				30					31				38					46						56		
н	29		31.5			35.5				39					46				52					59.5						67		
J	20		22.5			25.5				30					35				40					47.5						55		
K	31.5		34.1			40.1				47.1					55.1				63.1					75.1					8	88.1		
L	66		73			83				88					106				116					136					1	152		
M	11		11			13				12					13				16					19						22		
Nx	23.5		26			30				33.5					39.5				45					52.5						60		
Ny	8		9			11				12					15				16					18.5					2	2.5		
PA	3		3			3				3					5				5					5						5		
PB	8		8			8				8					10				10					10						10		
Q	7.5		9			9				11					11				14					17.5						20		
R	4.5		5.5			5.5			6.8					6.8				9			11							14				
s	16		15			17.5		17				17 21				25						32										
Г	45	41	.5 46.5	51.5	43	48	53	44	49	54	59	64	52	57	62	67	44	49	57	62	67	46	51	59	64	69	43	48	53	58	63	68
U	15 f7		18 f	7		22 f7				25 f7					30 f7				35.5 f7	7				45 f7					5	5 f7		
v	13		15			18				21					24				30					37						43		
w	11		12			14				15					16				16					18						19		
X (nominal × pitch)	M14×1.5		M16×3	1.5		M20×1.	5		N	122×1.	5			М	27×1.5			M	430×1	.5				M39×1.	5				M4	8×1.5		
Y	5		6			8				8					10				10					14						14		
Z (chamfer)	C2		C3			C3				C3					C4				C5					C6						C6		
AA	22		24			30				32					41				46					55						65		
AB	7		8			9				10					11				11					12						12		
AC	24.5		26.5			33				35.5					45				50					60						71		
BA	14		16			19				22					25				31					38						44		
BB	17		20			25				28					34				40					49						60		
CA	$6^{0}_{-0.05}$		$7^{0}_{-0.0}$	5		9 ⁰ _{-0.05}				$10^{0}_{-0.05}$				12	$2.5^{0}_{-0.05}$				$14^{0}_{-0.09}$	5				$18.5^{0}_{-0.0}$	15				23	0 -0.05		
СВ	6.5		6.5			7.5				9.5					11.5				12.5					11.5					1	3.5		
сс	$4_0^{+0.05}$		$4_0^{+0.0}$	5		50+0.05				$6_0^{+0.05}$					60+0.05				80+0.05					80+0.05					10	00000		
EA	144×0.7		M5×0	.8		M5×0.	3			M6					M6				M8					M10					Ν	412		
JA	3.5		3.5			3.5				3.5					4.5				4.5					4.5						4.5		
IB	14		14			14				14					19				19					22						22		
Oil supply port for clamping	RP1/8		RP1/	8		RP1/8	I			RP1/8				F	RP1/4				RP1/4	ł				RP3/8					RI	P3/8		
0-seal ring	43×1.9		4.8×1	,9		4.8×1.9)			4.8×1.9)			6	.8×1.9				6.8×1.9	9				6.8×1.9)				6.8	3×1.9		
Cylinder capacity cm ³ During During release	15.1 22.8	19 29	.8 22.3	24.8	28.	32	35.7	43.3	48.4	53.6 79 1	58.7 86.7	63.9	67 102 1	73.	7 80.4	87.1	85.3	3 95.4	111.7	121.	8 132	129.8	222.2	168.2 258.6	281.2	303 9	169.3 266.7	190 299 2	210.6	5 231.3 7 364 2	251.9	272.6
Weight ※8 Kg	1.1	1.	4 1.5	1.6	2.1	23	2.4	2.8	3	3.2	3.4	3.6	4.5	4.8	3 5	5.3	5.5	5 5.9	6.3	6.6	6.9	9.3	9.8	10.4	10.9	11.4	11.4	12.1	12.7	13.4	14.1	14.8

% 8 It indicates the weight of a single rotary cylinder including nuts and taper sleeves. **Precautions:**

Overall Dimension

C: plate connection type (speed control valve with RP thread plug can be installed)







(speed control valve can only be installed for type C)

%This figure shows the released state of HLKA-CCN.

Precautions:

X1. The platen positioning groove faces the oil supply port side when it is clamped.

×2. Installation bolts are not included with this product. Please configure it by yourself according

to the installation height and with reference to the S dimension.

 \otimes 3. This product does not include the speed control valve. Please refer to Page 80 for additional equipment.

%Please inquire separately when using in combination with other detection methods and options.

%1. The position of the platen locating groove

The position of the platen locating groove in the released state varies with the change of the rotation direction and rotation angle during clamping. When clamped, it faces the supply port side.



Precautions:

※ 4. Please refer to the S dimension and determine the CA thread depth of the installation bolt according to the installation height.
※ 5. Please refer to the HF dimension and determine the depth of the body installation hole ΦHD according to the installation height.
※ 6. This processing shows the case of -C: plate connection type.



(mm)

Model Representation

HLHA (1) - (2) (3) (Example HLHA0550-CR-Y30)

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

HLHA	0360 0400 0480 0550	0650 0750 0900 1050	-	L: turn left R: turn right	Y30: rotation angle 30 ° Y45: clamping stroke 45 ° Y60: clamping stroke 60 °
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Overall Dimension and Installation Part Processing Installation Table

Model	03	HLHA	Y	04	HLHA	NO.	04	HLHA	Y D	0	HLHA	A.	06	HLHA	X	07	HLHA	N.	0	HLHA	Y	10	HLHA	-
Option model	Y30	Y45	¥60	Y30	Y45	Y60	¥30	Y45	¥60	¥30	¥45	Y60	Y30	¥45	Y60	Y30	Y45	Y60	Y30	Y45	Y60	Y30	Y45	Y60
Rotation angle	30"	45°	60°	30*	45*	60°	304	45*	60*	30*	45*	60°	30*	45*	60*	30*	45°	60*	30*	45°	60*	30*	45"	60°
Full stroke	10.9	11.5	12.2	11.5	12.3	13	12.1	13	13.8	14.7	15.6	16.6	15.3	16.5	17.6	18.07	20	21.3	19.9	21.4	22.9	24.8	26.6	28.4
Rotation stroke (90%)	2.9	3.5	4.2	3.5	4.3	5	4.1	5	5.8	4.7	5.6	6.6	5.3	6.5	7.6	6.7	8	9.3	7.9	9.4	1.9	8.8	10.6	12.4
Clamping stroke		8			8			8			10			10			12			12			16	
HA	101.5	102.1	102.8	112.1	112.9	113.6	125.2	126.1	126.9	141.8	142.7	143.7	151.4	152.6	153.7	175.8	177.1	175.4	197	198.5	199.95	232.9	234.7	236.5
HB		49	10		54			61			69			81			92			107			122	
HC		40			45			51			60			70			80			95			110	
HD		36			40			48			55			65			75			90			105	
HE		64.5			71.5			79			89			94			109			120			144	
HF		39.5			46.5			51			59			63			71			74			88	
Fu	61.9	62.5	63.2	65.5	66.3	67	74.1	75	75.8	82.7	83.6	84.6	88.3	89.5	90.6	104.7	105	107.3	122.9	124.4	125.9	144.8	146.6	148.4
G		25			25			28			30			31			38			46			56	
н		29			31.5			35.5			39			46			52			59.5			67	
1		20			22,5			25.5			30			35		-	40			47.5			55	
К		31.5			34.1			40.1			47.1			55.1			63.1			75.1			88.1	
L		66			73			83			88			106			116			136			152	
м		11			11			13			12			13			16			19			22	
Nx		23.5		_	26			30			33.5		-	39.5		_	45		_	52.5		_	60	
Ny		8			9			11			12			15			16		_	18.5			22.5	
Р		3			3			3			3			5			5			5			5	
Q	1	7.5			9			9			11			11			14		1	17.5		-	20	
R	_	4.5		_	5.5	_		5.5			6.8		_	6.8			9			11	_	_	14	
S		16			15			17.5			17			17			21			25			32	
T	12.9	13.5	14.2	13.5	14.3	15	14.1	15	15.8	16.7	17.6	18.6	17.3	18.5	19.6	20.7	22	23.3	21.9	23.4	24.9	26.8	28.6	30.4
U	-	1517			18 17			2217	į		25 17			30 17			35.5 /7			4517	_	_	5517	S
V	_	13	-	_	15			18			21			24			30		_	37			43	-
W		11)		12			14			15			16			16			18		_	19	_
X (nominal + pitch)	N	114×1	1.5	N	116×1	5	м	20×1	5	N	122×1	.5	N	127×1	,5	М	130×1	.5	0	M39×1	.5	5	48×1	.5
Y		5			б			8			8			10			10			14			14	
Z (chamfer)		C2			C3	_		C3			C3			C4		-	C5			C6			C6	
AA		22			24			30			32			41			46			55		-	65	
AB	<u> </u>	7			8			9			10			11			11			12			12	
AC		24.5			26.5			33			35.5			45			50			60			71	
BA		14	_	-	16	_	_	19	_		22		_	25			31		_	38		-	44	
88	-	17			20			25			28		-	34			40			49			60	
CA		6	- 0.05	_	7	- 0.06		9	0.08		10	-0.08		12.5	-0.08		14	0.05		18.5	- 0.08		23.1	105
CB	_	6.5			6.5			7.5		_	9.5		-	11.5			12.5			11.5		_	13.5	-
00		4	40.08 ()		4	2		5	0		6	-0.08	_	6 *	0		8 -	0	-	8 -	0		10%	<u></u>
EA	,	M4×0	1	1	45×0.	8	1	45×0.	8		MG		_	M6			MS			M10		_	M12	
AL	_	3.5			3.5			3.5			3.5		_	4.5		_	4.5			4.5			4.5	
JB		14			14			14			14			19			19			22			22	
Of supply port for damping Type 8		RP1/8	8	-	RP1/8	-		RP1/8			RP1/8	<u>}</u>		RP1/4			RP1/4			RP3/8			RP3/8	
0-se al ring	-	4.8×1	.9		4.8×1.	9	4	4.8×1.9	9	15.1	4.8×1.9	9	t	5.8×1	9	6	5.8×1.	9		6.8×1	9	102.0	5.8×1.	9
Cynindier Duringchinping Capacity cm3 Duringr disse	5.8 5.8	6.1	4.3 6.5	5.8 8.7	9.3	9.8	13	9.1	9.7 14.8	22.4	23.7	25.2	20.5	33.7	36	38 56.5	40.6	43.2 64.3	90.3	97.1	103.9	161.3	109.9	184.7
Weight#? kg		0.7			0.9			1.4			2			2.9			4.2			1.2	_		10,1	

Precautions: × 7. It indicates the weight of a single rotary cylinder including nuts and taper sleeves.



HLHA <u>1</u>	(Example: HLHA	A0360- r to spe	07) cification sheet)
HLHA	0360 0650 0400 0750 0480 0900 0550 1050	-	07 : 锥形套

								(mm)
Model	HLHA 0360-07	HLHA 0400-07	HLHA 0480-07	HLHA 0550-07	HLHA 0650-07	HLHA 0750-07	HLHA 0900-07	HLHA 1050-07
А	15	18	22	25	30	35.5	45	55
В	17	20	25	28	34	40	49	60
С	14	16	19	22	25	31	38	44

HCTH (Example: HCTH06-TS)

1	Dimensions	(refer to	specification sheet
111	Dimensions	(i cici co	specification she

нстн	01 10 02 16 04 25 06	-	TS : 锥形套
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							(mm)
Model	HCTH01- TS	HCTH02- TS	HCTH04- TS	HCTH06- TS	HCTH10- TS	HCTH16- TS	HCTH25- TS
А	15	18	22.4	25	30	35.5	45
В	16	20	25	28	34	40	49
С	13	16	21	20	22	29	38

夹紧臂加工图

Specification

Model	HLHA0360	HLHA0400	HLHA0480	HLHA0550	HLHA0650	HLHA0750	HLHA0900	HLHA1050
HA	17	19	23	26	29	35	43	50
НВ	14	16	19	22	25	31	38	44
HC	3	3	4	4	4	4	5	6
HD	10.5	10.5	12.5	14.5	16.5	17.5	17.5	20.5
HE	17 + 0.027	20 + 0.033	25 + 8.033	28 + 0.033	34 + 0.039	40 + 0.039	49 + 0.039	60 +0.046
HF	15	17	21	23.5	29	33	42	51
HG	8	9	11.5	13	15.5	18	22.5	28
нн	4 + 0.018	4 + 0.018	5 +0.018	6 + 0.018	6+0.018	8 + 0.022	8+0.022	10 + 0.022
Locating pin	Φ4(h8 ⁰ _{-0.018}) ×10	φ4(h8 ⁰ _{-0.018}) ×10	φ5(h8 ⁰ _{-0.018}) ×12	Φ6(h8 ⁰ _{-0.018}) ×14	Φ6(h8 ⁰ -0.018) ×16	φ8(h8 ⁰ _{-0.022}) ×16	φ8(h8 ⁰ 0.022) ×16	ф10(h8 ⁰ _0.022) ×20

锥形套

HLHA 🗆 -07

A-A

Taper 1:10





øB

Taper 1/10







¢HFH8

C-C

HH+0.1



Model	HCTU01 HCTT01	HCTU02 HCTT02 HBTU02	HCTU04 HCTT04 HBTU04	HCTU06 HCTT06 HBTU06	HCTU10 HCTT10 HBTU10	HCTU16 HCTT16 HBTU16	HCTU25 HCTT25 HBTU25
HA	14-0.016	18-0.016	22.4-0.020	25-0.020	30-0.020	35.5-0.025	45-0.025
НВ	12.4	16	19.9	22.5	27.3	32	40.5
HC	9	10.5	10.5	10.5	12.5	12.5	14.5
HD	3 ^{+0.014}	4+0.018	4 ^{+0.018}	5*0.018	6+0.018	6 ^{+0.018}	6+0.018
HE	7.55	9.1	11.1	12.6	15.1	18.1	22.6
HF	16+0.027	20+0.033	25+0.033	28+0.033	34+0.039	40+0.029	49+0.029
HG	13	17	21	24	28.5	34	42
HH	13	16	21	20	22	29	38
HJ	16	20	25	25	27	35	45
Locating pin	φ3(h8)×10	φ 4(h8) × 10	φ 4(h8) × 10	φ 5(h8) × 10	φ6(h8)×12	φ6(h8) × 12	φ6(h8)×14
Taper sleeve model	HCTH01-TS	HCTH02-TS	HCTH04-TS	HCTH06-TS	HCTH10-TS	HCTH16-TS	HCTH25-TS