

CHA

油壓轉角缸

CHA HYDRAULIC SWING CLAMP



產品特性

此系列產品配件採用優化設計，使體積更加緊湊，提高了產品強度。產品採用了專用防塵設計，提高了防塵和密封性，實現了高密封性。產品結構設計具有高抗扭矩性，實現了高耐久性。

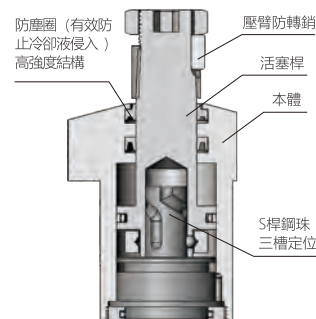
最大操作壓力：70 kgf/cm²
 最小操作壓力：15 kgf/cm²
 作動方式：複動式

FEATURES

This series product with the optimal design, so made more impact and strength can be improved. Product with special dust proof design, dust proof and sealing have been improved, so it has high sealing performance. Design of product structure with high anti-torque, realize high durability.

Max. operating pressure : 70 kgf/cm²
 Min. operating pressure : 15 kgf/cm²
 Double acting

剖面圖 Sectional view



注意事項

夾緊及放鬆作動速度需適當放緩。壓臂安裝拆卸方式，請參見第4頁。可接受訂製，歡迎與本公司洽詢。

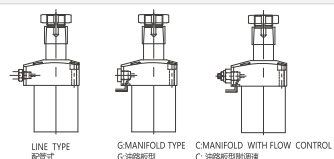
NOTE

The acting speed of clamping-unclamping should be slowed down. The methods remove and the rotation diagram of the clamp arm, please refer to page 4. Orders with customized request are available, welcome to reach us.

訂購標示法 ORDERING INDICATION

示例：CHA-040SL-90GM

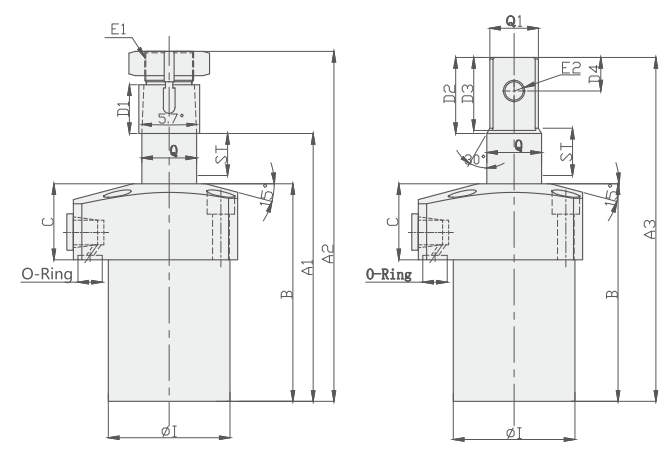
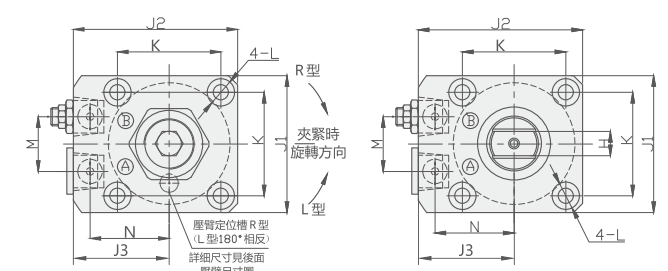
CHA	系列 Series	CHA
040	主體尺寸 Body size	036: Φ1=36 040: Φ1=40 048: Φ1=48 055: Φ1=55 065: Φ1=65 075: Φ1=75 090: Φ1=90 105: Φ1=105
S	壓臂型式 Clamping arm type	S:單邊壓臂 S: Single side arm D:雙邊壓臂 D: Double side arm (註：雙壓臂的無雙出桿型)
L	轉角方向 Swing direction	L: 左 R: 右 L: Left R: Right
90	轉角角度 Swing angle	標準角度 Standard angle 90°(±2°) 可訂做角度 Order angle 30°(±2°), 45°(±2°), 60°(±2°)
G	型式 Type	空白: 配管式 Blank: Line type G: 油路板式 G: Manifold type C: 油路板式附調速 C: Manifold with flow control
M	無符號: 空白 (標準) M: 空氣感測器板式連接型 N: 空氣感測器管式連接型 ※D: 雙出桿型	Blank: Standard M: Air sensor manifold option N: Air sensor piping option ※D: Double end rod option



SINGLE SIDE SWING CLAMP

DOUBLE SIDE SWING CLAMP

註：下圖為轉角90°鬆開狀態



Ⓐ 夾持油孔 Clamping port
 Ⓑ 放鬆油孔 Unclamping port

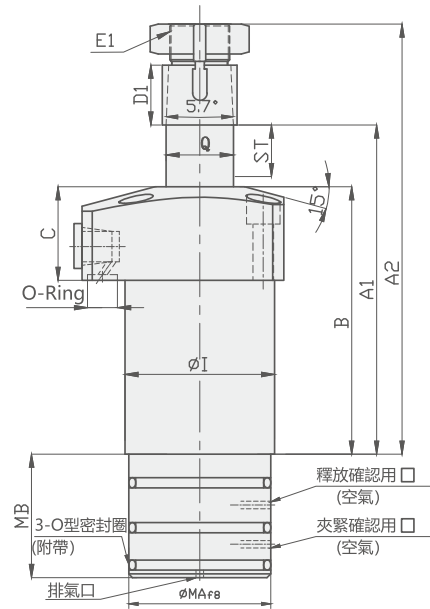
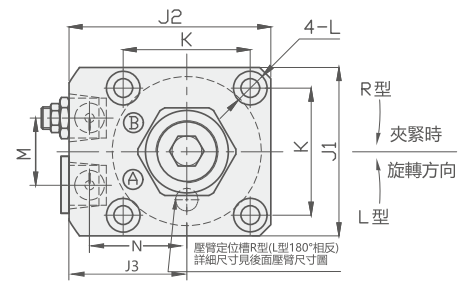
Unit:mm

MODEL ITEM	CHA-036	CHA-040	CHA-048	CHA-055	CHA-065	CHA-075	CHA-090	CHA-105
ST:Swing /Clamp	13.5:5.5/8	14.5:6.5/8	15.5:7.5/8	18.5:8.5/10	20:10/10	24:12/12	26:14/12	32:16/16
A1鬆開狀態 Unclamping	80	88	96.5	109.5	116	135	146	178
A2鬆開狀態 Unclamping	104	115	128.5	145.5	156	181	203	240
A3鬆開狀態 Unclamping	102	113	126.5	143.5	156	181	203	238
B	64.5	71.5	79	89	94	109	120	144
C	25	25	28	30	31	38	46	56
D1	14	16	19	22	25	31	38	44
D2	25	25	29	33	40	45	54	60
D3	21	24	27.5	31.5	38.5	43.5	52.5	58.5
D4	9	11	12	12.5	16.5	19	23.5	25.5
E1	M14X1.5	M16X1.5	M20X1.5	M22X1.5	M27X1.5	M30X1.5	M39X1.5	M48X1.5
E2	Φ6	Φ6	Φ8	Φ10	Φ13	Φ13	Φ16	Φ20
H	7	8	10	12	14	16	22	26
ΦI	Φ36	Φ40	Φ48	Φ55	Φ65	Φ75	Φ90	Φ105
J1	40	45	51	60	70	80	95	110
J2	49	54	61	69	81	92	107	122
J3	29	31.5	35.5	39	46	52	59.5	67
K	□31.4	□34	□40	□47	□55	□63	□75	□88
L	Φ4.5-Φ7.5 X5D	Φ5.5-Φ9 X6D	Φ5.5-Φ9 X6D	Φ6.8-Φ11 X7D	Φ6.8-Φ11 X7D	Φ9-Φ14 X9D	Φ11-Φ17.5 X11D	Φ14-Φ20 X14D
M	16	18	22	24	30	32	37	45
N	23.5	26	30	33.5	39.5	45	52.5	60
Q	Φ15	Φ18	Φ22	Φ25	Φ30	Φ35.5	Φ45	Φ55
Q1	Φ13.5	Φ16	Φ20	Φ23	Φ28	Φ33.5	Φ43	Φ53
配管式油口 Port with Line type	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
O型圈 O-Ring	P5	P5	P5	P5	P7	P7	P7	P7

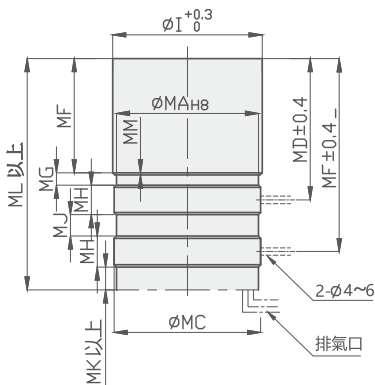
規格參數表 SPECIFICATION

型號	理論夾持力 (70 kgf/cm ²)	轉角行程	夾緊行程	總行程	推出容積	拉入容積	推出受壓面積	拉入受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE (mm)	TOTAL STROKE (mm)	CYLINDER CAPACITY UNCLAMP (cm ³)	CYLINDER CAPACITY CLAMP (cm ³)	EFFPISTON AREA UNCLAMP (cm ²)	EFFPISTON AREA CLAMP (cm ²)	RANGE OF TEMPERATURE (°C)	USABLE FLUID
CHA-036	220	5.5	8	13.5	6.63	4.24	4.91	3.14	-10~+70°C	相當於ISO黏度等級的ISO-VG-32一般液壓油 General Hydraulic Oil Equivalent to ISO-VG-32
CHA-040	284.2	6.5	8	14.5	9.57	5.89	6.6	4.06	-10~+70°C	
CHA-048	445.9	7.5	8	15.5	15.76	9.87	10.17	6.37	-10~+70°C	
CHA-055	721	8.5	10	18.5	28.12	19.06	15.2	10.3	-10~+70°C	
CHA-065	880	10	10	20	38.60	25.14	19.63	12.57	-10~+70°C	
CHA-075	1421	12	12	24	72.46	48.7	30.19	20.3	-10~+70°C	
CHA-090	1978	14	12	26	114.82	73.48	44.16	28.26	-10~+70°C	
CHA-105	2789	16	16	32	203.50	127.5	63.59	39.84	-10~+70°C	

註：下圖以CHA-M型鬆開狀態



註：安裝部位加工尺寸

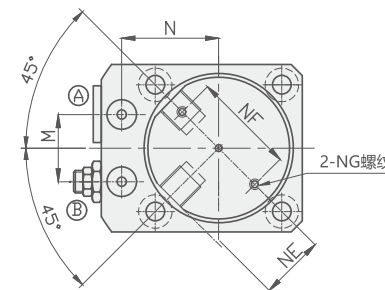
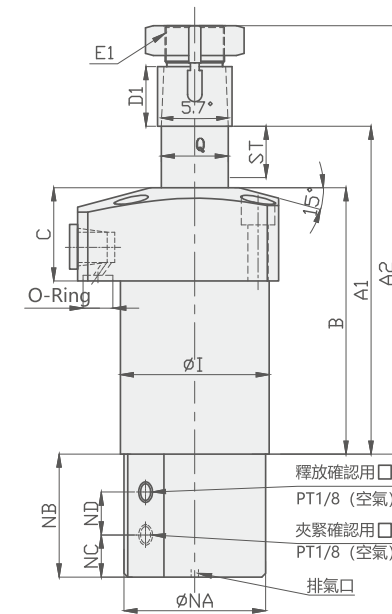
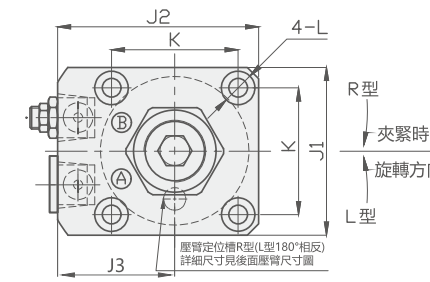


- Ⓐ 夾持油孔 Clamping port
- Ⓑ 放鬆油孔 Unclamping port

Unit:mm

MODEL ITEM	CHA-036M	CHA-040M	CHA-048M	CHA-055M	CHA-065M	CHA-075M	CHA-090M	CHA-105M
ST:Swing /Clamp	13:5.5/8	14:5.6/8	15:5.7/8	18:5.8/10	20:10/10	24:12/12	26:14/12	32:16/16
A1鬆開狀態 Unclamping	80	88	96.5	109.5	116	135	148	178
A2鬆開狀態 Unclamping	104	115	128.5	145.5	156	181	203	240
B	64.5	71.5	79	89	94	109	120	144
C	25	25	28	30	31	38	46	56
D1	14	16	19	22	25	31	38	44
E1	M14X1.5	M16X1.5	M20X1.5	M22X1.5	M27X1.5	M30X1.5	M39X1.5	M48X1.5
φI	φ36	φ40	φ48	φ55	φ65	φ75	φ90	φ105
J1	40	45	51	60	70	80	95	110
J2	49	54	61	69	81	92	107	122
J3	29	31.5	35.5	39	46	52	59.5	67
K	□31.4	□34	□40	□47	□55	□63	□75	□88
L	φ4.5-φ7.5 X5D	φ5.5-φ9 X6D	φ5.5-φ9 X6D	φ6.8-φ11 X7D	φ6.8-φ11 X7D	φ9-φ14 X9D	φ11-φ17.5 X11D	φ14-φ20 X14D
M	16	18	22	24	30	32	37	45
N	23.5	26	30	33.5	39.5	45	52.5	60
Q	φ15	φ18	φ22	φ25	φ30	φ35.5	φ45	φ55
配管式油口 Port with Line type	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
O型圈 O-Ring	P5	P5	P5	P5	P7	P7	P7	P7
MAf8	34.5 ^{-0.03} _{-0.06}	38 ^{-0.03} _{-0.06}	45 ^{-0.03} _{-0.06}	45 ^{-0.03} _{-0.06}	45 ^{-0.03} _{-0.06}	53 ^{-0.03} _{-0.07}	53 ^{-0.03} _{-0.07}	53 ^{-0.03} _{-0.07}
MAH8	34.5 ^{-0.04} ₀	38 ^{-0.04} ₀	45 ^{-0.04} ₀	45 ^{-0.04} ₀	45 ^{-0.04} ₀	53 ^{-0.04} ₀	53 ^{-0.04} ₀	53 ^{-0.04} ₀
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

註：下圖以CHA-N型鬆開狀態

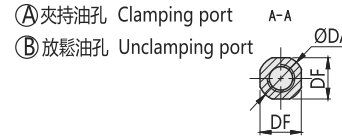
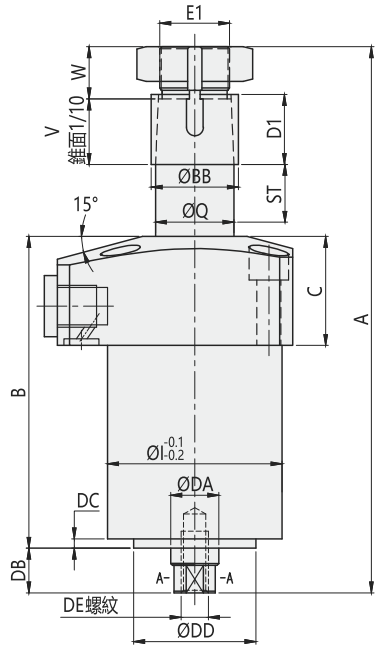
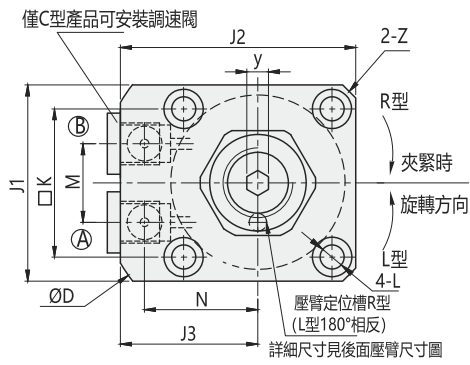


- Ⓐ 夾持油孔 Clamping port
- Ⓑ 放鬆油孔 Unclamping port

Unit:mm

MODEL ITEM	CHA-036N	CHA-040N	CHA-048N	CHA-055N	CHA-065N	CHA-075N	CHA-090N	CHA-105N
ST:Swing /Clamp	13:5.5/8	14:5.6/8	15:5.7/8	18:5.8/10	20:10/10	24:12/12	26:14/12	32:16/16
A1鬆開狀態 Unclamping	80	88	96.5	109.5	116	135	148	178
A2鬆開狀態 Unclamping	104	115	128.5	145.5	156	181	203	240
B	64.5	71.5	79	89	94	109	120	144
C	25	25	28	30	31	38	46	56
D1	14	16	19	22	25	31	38	44
E1	M14X1.5	M16X1.5	M20X1.5	M22X1.5	M27X1.5	M30X1.5	M39X1.5	M48X1.5
φI	φ36	φ40	φ48	φ55	φ65	φ75	φ90	φ105
J1	40	45	51	60	70	80	95	110
J2	49	54	61	69	81	92	107	122
J3	29	31.5	35.5	39	46	52	59.5	67
K	□31.4	□34	□40	□47	□55	□63	□75	□88
L	φ4.5-φ7.5 X5D	φ5.5-φ9 X6D	φ5.5-φ9 X6D	φ6.8-φ11 X7D	φ6.8-φ11 X7D	φ9-φ14 X9D	φ11-φ17.5 X11D	φ14-φ20 X14D
M	16	18	22	24	30	32	37	45
N	23.5	26	30	33.5	39.5	45	52.5	60
Q	φ15	φ18	φ22	φ25	φ30	φ35.5	φ45	φ55
配管式油口 Port with Line type	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
O型圈 O-Ring	P5	P5	P5	P5	P7	P7	P7	P7
φNA	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
NF	25	29	29	29	29	38	38	38
NG (公稱×深度) (Nominal x Depth)	M3×0.5 x5	M3×0.5 x5	M3×0.5 x5	M3×0.5 x5	M3×0.5 x5	M4×0.7 x6	M4×0.7 x6	M4×0.7 x6

註：本圖為CHA-G※D型鬆開狀態



Unit:mm

MODEL ITEM	CHA-036※D	CHA-040※D	CHA-048※D	CHA-055※D	CHA-065※D	CHA-075※D	CHA-090※D	CHA-105※D
ST:Swing /Clamp	13.5:5.5/8	14.5:6.5/8	15.5:7.5/8	18.5:8.5/10	20:10/10	24:12/12	26:14/12	32:16/16
A鬆開狀態 Unclamping	114.5	128	141.5	158.5	169	194	216	253
B	67	74.5	82	92	97	112	123	147
C	25	25	28	30	31	38	46	56
D1	14	16	19	22	25	31	38	44
W	11	12	14	15	16	16	18	19
V	13	15	18	21	24	30	37	43
ΦBB	Φ17	Φ20	Φ25	Φ28	Φ34	Φ40	Φ49	Φ60
ΦD	Φ66	Φ73	Φ83	Φ88	Φ106	Φ116	Φ136	Φ152
ΦDA	Φ8	Φ12	Φ14	Φ14	Φ14	Φ18	Φ18	Φ18
DB	8	10	10	10	10	10	10	10
DE	M4X10	M6X15	M8X18	M8X18	M8X18	M10X21	M10X21	M10X21
DF	6	10	12	12	12	16	16	16
E1	M14X1.5	M16X1.5	M20X1.5	M22X1.5	M27X1.5	M30X1.5	M39X1.5	M48X1.5
DC	2.5	3	3	3	3	3	3	3
ΦDD	Φ25	Φ29	Φ36	Φ36	Φ43	Φ50	Φ65	Φ80
ΦI	Φ36	Φ40	Φ48	Φ55	Φ65	Φ75	Φ90	Φ105
J1	40	45	51	60	70	80	95	110
J2	49	54	61	69	81	92	107	122
J3	29	31.5	35.5	39	46	52	59.5	67
K	□31.4	□34	□40	□47	□55	□63	□75	□88
L	Φ4.5-Φ7.5 X5D	Φ5.5-Φ9 X6D	Φ5.5-Φ9 X6D	Φ6.8-Φ11 X7D	Φ6.8-Φ11 X7D	Φ9-Φ14 X9D	Φ11-Φ17.5 X11D	Φ14-Φ20 X14D
M	16	18	22	24	30	32	37	45
N	23.5	26	30	33.5	39.5	45	52.5	60
Q	Φ15	Φ18	Φ22	Φ25	Φ30	Φ35.5	Φ45	Φ55
Y	5	6	8	8	10	10	14	14
配管式油口 Port with Line type	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
O型圈 O-Ring	P5	P5	P5	P5	P7	P7	P7	P7
Z(倒角)	C2	C3	C3	C3	C4	C5	C6	C6

規格參數表 SPECIFICATION

型號	理論夾持力 (70 kgf/cm ²)	轉角行程	夾緊行程	總行程	推出容積	拉入容積	推出受壓面積	拉入受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE (mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY UNCLAMP(cm ³)	CYLINDER CAPACITY CLAMP(cm ³)	EFFPISTON AREA UNCLAMP(cm ²)	EFFPISTON AREA CLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CHA-036※D	247.8	5.5	8	13.5	6.48	4.78	4.8	3.54	-10~+70°C	相當於ISO黏度等級的ISO-VG-32一般液壓油 General Hydraulic Oil Equivalent to ISO-VG-32
CHA-040※D	350	6.5	8	14.5	9.29	7.25	6.41	5.0	-10~+70°C	
CHA-048※D	486.5	7.5	8	15.5	14.27	10.77	9.21	6.95	-10~+70°C	
CHA-055※D	721	8.5	10	18.5	25.27	19.06	13.66	10.3	-10~+70°C	
CHA-065※D	938	10	10	20	37.76	26.8	18.88	13.4	-10~+70°C	
CHA-075※D	1421	12	12	24	66.34	48.7	27.64	20.3	-10~+70°C	
CHA-090※D	2065	14	12	26	111.28	76.7	42.8	29.5	-10~+70°C	
CHA-105※D	2891	16	16	32	119.87	132.2	62.46	41.3	-10~+70°C	



CHA-P

油壓轉角缸

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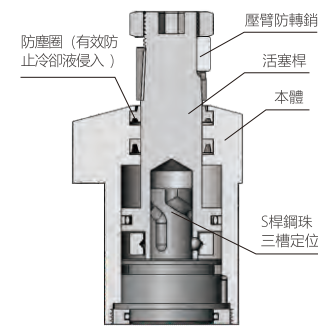
最大操作壓力：70 kgf/cm²
 最小操作壓力：15 kgf/cm²
 作動方式：複動式

FEATURES

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Max. operating pressure : 70 kgf/cm²
 Min. operating pressure : 15 kgf/cm²
 Double acting

剖面圖 Sectional view



注意事項

夾緊及放鬆作動速度需適當放緩。壓臂安裝拆卸方式，請參見第4頁。可接受訂製，歡迎與本公司洽詢。

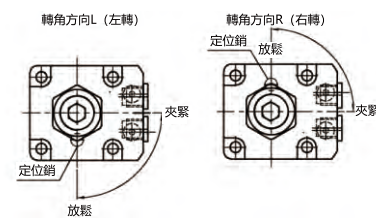
NOTE

The acting speed of clamping-unclamping should be slowed down. The methods remove and the rotation diagram of the clamp arm, please refer to page 4. Orders with customized request are available, welcome to reach us.

訂購標示法 ORDERING INDICATION

示例：CHA-040PSL-90

CHA-P	系列 Series	CHA-P	
040	036/040/048/055/065/075/105		
S	壓臂型式 Clamping arm type	S: 單邊壓臂 D: 雙邊壓臂	S: Single side arm D: Double side arm
L	轉角方向 Swing direction	L: 左 R: 右	L: Left R: Right
90	轉角角度 Swing angle	標準角度 可訂做角度	Standard angle 90° (±2°) Order angle 30° (±2°), 45° (±2°), 60° (±2°)

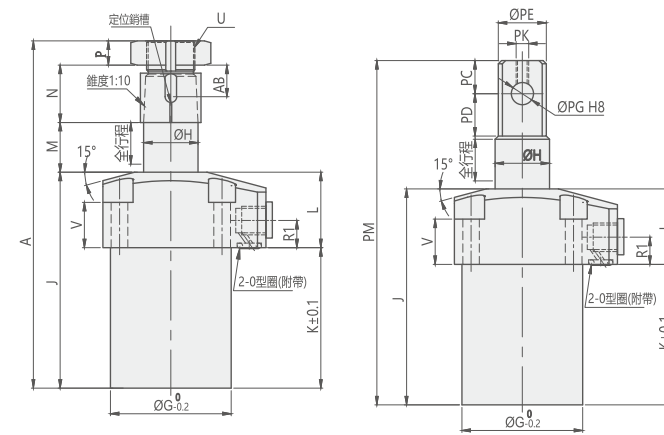
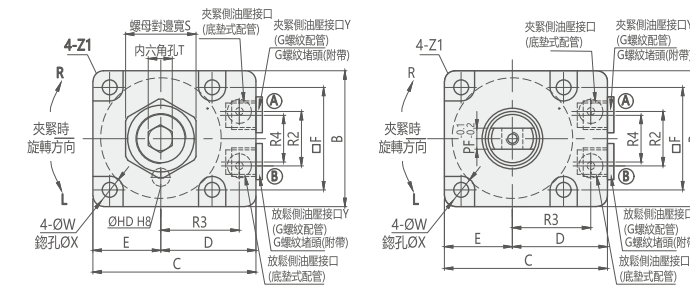


備註：選配調速閥為CZL系列

SINGLE SIDE SWING CLAMP

DOUBLE SIDE SWING CLAMP

註：下圖為轉角90°鬆開狀態



- Ⓐ 夾持油孔 Clamping port
- Ⓑ 放鬆油孔 Unclamping port

Unit:mm

MODEL ITEM	CHA-036P	CHA-040P	CHA-048P	CHA-055P	CHA-065P	CHA-075P	CHA-105P
A	117	131	148.5	158.5	178.5	201.5	244
B	38	45	50	57	70	86	108
C	48	55	60	66	82	96	120
PF	8	8	10	12	16	18	22
E	19	22.5	25	28.5	35	43	54
F	30.5	35	40	46	56	68	88
G	35	39	47	53	63	78	100
H	14	18	22.4	25	30	35.5	45
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(夾緊臂厚度)	16	20	25	25	27	35	45
P(螺母厚度)	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(螺母對邊寬)	19	22	27	30	36	46	55
T(內六角孔)	5	6	6	8	8	10	14
U(推薦緊固扭矩)	M12× 1.5(12N·m)	M14× 1.5(26 N·m)	M18× 1.5(51 N·m)	M20× 1.5(60 N·m)	M24× 1.5(86 N·m)	M30× 1.5(120 N·m)	M39× 1.5(180 N·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	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z1	R3	R3	R3	R5	R6	R7	R10
PE	12	16	20.4	23	28	33.5	43
PC	8	8	10	12	14	19	24
PD	9	9	11	13	15	20	25
AB	9	10.5	10.5	10.5	12.5	12.5	14.5
O型圈 O-Ring	P7	P7	P7	P7	P8	P8	P10
PK	M3	M3	M4	M5	M6	M6	M8
PG	6 ^{+0.018} ₀	6 ^{+0.018} ₀	8 ^{+0.022} ₀	10 ^{+0.022} ₀	12 ^{+0.027} ₀	16 ^{+0.027} ₀	20 ^{+0.033} ₀
PM	113	121.5	137	151	172	195	236.5
HD	3+0.0140	4+0.0180	4+0.0180	5+0.0180	6+0.0180	6+0.0180	6+0.0180
定位銷	Φ3(h8)×8	Φ4(h8)×10	Φ4(h8)×10	Φ5(h8)×10	Φ6(h8)×12	Φ6(h8)×12	Φ6(h8)×14

規格參數表 SPECIFICATION

型號	理論夾持力 (70 kgf/cm ²)	轉角行程	夾緊行程	總行程	推出容積	拉入容積	推出受壓面積	拉入受壓面積	使用溫度範圍	使用液體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE (mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY UNCLAMP(cm ³)	CYLINDER CAPACITY CLAMP(cm ³)	EFF.PISTON AREA UNCLAMP(cm ²)	EFF.PISTON AREA CLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CHA-036P	238	8	8	16	7.9	5.4	4.9	3.4	0~+70°C	相當於ISO黏度等級的ISO-VG-32一般液壓油 General Hydraulic Oil Equivalent to ISO-VG-32
CHA-040P	284.2	10	8	18	11.9	7.4	6.6	4.06	0~+70°C	
CHA-048P	434	12.5	8	20.5	20.9	12.7	10.2	6.2	0~+70°C	
CHA-055P	721	13.5	10	23.5	35.7	24.2	15.2	10.3	0~+70°C	
CHA-065P	880	16.5	10	26.5	52	33.3	19.63	12.57	0~+70°C	
CHA-075P	1631	18.5	10	28.5	94.6	66.4	33.17	23.3	0~+70°C	
CHA-105P	2583	23	13	36	190.1	132.9	52.78	36.9	0~+70°C	