

共享夾具解決方案的全球化資源
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空油壓夾緊缸

東莞市好手機電科技有限公司



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空油壓夾緊缸·工件支撐缸·控制閥
AIR OIL HYDRAULIC CLAMPING CYLINDER
WORK PIECE SUPPORT CYLINDER
CONTROL VALVE



工件夾具產品目錄
A Global Resource Of Workholding Solutions

2020-2021

公司簡介 Company Profile

好手機電科技有限公司是一家集研發設計、生產制造和銷售為一體的公司，成立於2010年，座落於中國制造名鎮—東莞寮步鎮，一直致力於快速夾鉗、高精度氣缸、油壓缸、液壓站（液壓動力單元）、精密機械配件及動向螺桿等系列產品的研發營銷。經過不斷的積累創新，現已發展成一家技術力量雄厚、結構完善的新型企業。為了高品質的服務客戶，公司不斷引進高端管理及技術人才，在公司優秀團隊的共同努力下，榮獲“高新技術企業”榮譽稱號，同時通過了“ISO9001：2015國際質量體系”認證。東莞好手科技秉承臺灣好手科技股份有限公司的技術優勢，擁有數控車床法蘭克操作系統和CNC加工中心三菱操作系統生產設備，結合公司強大的銷售團隊，產品遠銷東南亞地區和歐美各國，服務於千家不同領域的客戶。

好手機電科技有限公司專注於飛機、汽車制造業和工業界所需工裝、專用夾具的產品營銷、服務及研發，竭力為中國制造業提供穩定可靠、耐用精準的得力工具。公司堅持顧客至上，憑借專業的技術為客戶提供多樣化的選擇，除各類通用夾具外，還可根據客戶要求特別訂制，并能針對客戶需要設計出最優秀的產品。

Found in 2010, located in Dongguan City China, Dongguan Haoshou Electrical Technology Co.,Ltd. is an integrated enterprise who specialized in R&D, manufacturing and marketing of toggle clamps, hydraulic clamp cylinders, pneumatic clamp cylinders, hydraulic power unit , precision mechanical parts and moving screw. After continuous accumulation of innovation, Haoshou has developed into an excellent enterprise with strong technical force and a sound organizational structure.

For providing customers best products and service, the company has continuously introduced high-end management and technical talents, and won the honorary title of "high-tech enterprise" . Meanwhile, all the production processes are strictly controlled by ISO9001:2015 Quality Management System. With headquarter established in Taiwan, we adopt Taiwan's advanced technology,have CNC lathe frank operating system and CNC machining center mitsubishi operating system production equipment. Our products are sold well all over the country and the world. We are serving thousands of customers in different fields. Haoshou clamps and clamp cylinders are focus on the professional fixtures marketing, service and R&D for aircraft, automotive and industrial circles. We are strive to provide a stable, reliable and accurate tools for the Chinese manufacturing industry. Our company insists on customer first, keeps providing customers by a variety of choices with professional technology. In addition to all kinds of common clamps, we can also be customized according to customer requirements, and can design the best products for customer needs.

科技成果 Technological Achievements





前臺 / Reception

質量為先，信譽為重，管理為本，服務為誠
追求卓越無止境、與時俱進創未來

——好手科技·服務全球

Quality First, Reputation First, Management First, Service Sincere
The Pursuit Of Excellence Is Endless,
Advancing With The Times And Creating The Future

—— HaoShou technology, serving the world



辦公室 / Office



會議室 / Conference room



CNC 數控車間 / CNC workshop



廠區1/The factory



誠信 ◆ 創新 ◆ 責任 ◆ 拼搏 ◆ 感恩
Integrity ◆ Innovation ◆ Responsibility ◆ Hard work ◆ Thanksgiving



廠區 2/The factory

精良設備 制造精品

Superior Apparatus Make Masterpieces

“工欲善其事，必先利其器”，精良的設備，是優質產品的保證
遠大的經營戰略，頂尖的生產設備，精湛的生產工藝
融為一個規範完整的工作流程管理體系，保證了好手產品卓越的品質
并不斷實現着產品質量的突破和質的飛躍

"If A Workman Wants To Do His Work Well, He Must First Sharpen His Tools"
The Superior Apparatus Is The Assurance Of The High Quality Product
Long-range Management Strategy, top Production Equipments,
Consummate Production Technology, melt As An Intact Workflow
Management System, ensure Our Supereccellent Quality.



CNC精密機床 / CNC precision machine tool



CNC精密加工 / CNC precision machining



高精度二次元測量室
High precision two dimensional measurement room



公司優秀團隊/Excellent team of the company

团队合作 DARES TO CHALLENGE

合作 團結 發展 交流 共贏 没有完美的個人，祇有完美的團隊

COOPERATION UNITY

DEVELOPMENT EXCHANGE WIN-WIN

THERE IS NO SINGLE PERFECT PERSON,
ONLY PERFECT COLLECTIVE GROUPS

企業文化

企業精神

敬業、誠信、創新、團隊

企業戰略

創建具有活力持續發展的企業

企業目標

大膽改進、創新、發展、不斷推動工裝夾具及自動化裝備新領域的發展



年終表彰大會/Year end commendation meeting



銷售精英團隊/Sales elite team

優秀的團隊和優良的企業文化
保證企業的健康持續發展



員工精彩表演/Excellent performance of employees



專業性展會/Professional exhibition

日式新產品系列 Japanese new product series

WCE高能力氣動杠杆缸 WCE High capacity pneumatic lever cylinder  02-09	CGC油壓擴張型夾緊器 CGC Oil pressure dilatation clamp  10-18	FP鋼球鎖緊下拉缸 FP Steel ball locking cylinder  19-24	CST中空型工件支撐器 CST Hollow workplace support  25-26	LHA油壓旋轉缸 LHA Oil pressure rotary cylinder  27-36	CTM旋轉式檢測型夾緊器 CTM Rotary testing type clamp  37-41
CLU連杆式夾緊器 CLU Connecting rod clamp  42-49	LM油壓單動杠杆缸 LM Oil pressure single lever cylinder  50-53	CLW高壓連杆夾緊器 CLW High pressure connecting rod clasper  54-57	CNA推拉式夾緊器 CNA Push and pull clamp  58-63	CMC推式夾緊器 CMC Push clamp  64-65	CMD拉式夾緊器 CMD Pull clamp  66-67
VRG減壓閥 VRG Pressure relief valve  68	VEF順序閥 VEF Sequence valve  69	BZL速度控制閥 BZL Speed control valve  70-71	JR旋轉接頭 JR Rotary joint  72-76	YRA油路分配器 YRA Oil distributor  77	

空壓系列 Air compressor series

HASC空壓轉角缸 HASC Air Swing Clamp Cylinder  78-83	HP感應式空壓轉角缸焊接專用 HP Air Swing Clamp Cylinder induction type  84-86	HALC杠杆式空壓缸 HALC Air lever-type Cylinder  87	HPLCU空壓杠杆缸 HPLCU Leverage Clamping cylinder  88-91	HSW空壓支撐缸 HSW Pressure Supporting cylinder  92-93	HBWD 氣動順序閥 HBWD pneumatic sequence valve  94-96
HCO2 薄型氣缸 HCO2 thin cylinder  97-101					

油壓系列 Hydraulic series

HSL油壓轉角缸(一系列) HSL Hydraulic Swing Clamp Cylinder  102-110	HNS油壓轉角缸(二系列) HNS Hydraulic Swing Clamp Cylinder  111-113	HNU上法蘭油路板型油壓轉角缸 HNU Hydraulic Swing plate type Clamp Cylinder type-Trip  114-115	HTB薄型油壓缸 HTB Hydraulic thin-type cylinder  116-123	HLC杠杆式油壓缸 HLC Hydraulic Leverage-type cylinder  124-130	HCL01杠杆式油壓缸 Hydraulic Leverage-type cylinder  131-132
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油壓系列 Hydraulic series

HTC外螺紋小型油壓單動缸 HTC Thread-body Single Acting Hydraulic Cylinder  133-134	HSP油壓支撐缸 HSP Hydraulic Supporting Cylinder  135-138	YX支撐缸伸縮座 YX Support Cylinder Retractable Seat  137	HSF上法蘭油壓支撐缸 HSF Upper Flange hydraulic support cylinder  139-141	030底部法蘭轉角缸 030 Hydraulic Swing Clamp, Bottom Flange  142-144	040外螺紋固定轉角缸 040 Hydraulic Swing Clamp, Thread-body  145-147
050頂部法蘭轉角缸 050 Hydraulic Swing Clamp, Upper Flange  148-150	HPS高壓轉角缸 High Pressure Swing Clamp Cylinder  151-153	HB油壓增壓器 HB Hydraulic Booster  154	HSV油壓順序閥 Hydraulic Sequence Valve  155-156	HLG油壓順序閥 HLG Hydra Sequence Valve  157	HSP-AH空油壓兩用型支撐缸 Air-Hydraulic Supporting Cylinder  158
HNFS高壓轉角缸 High Pressure Swing Clamping Cylinder  159-160	HPRV油壓減壓閥 Hydraulic Pressure Reducing Valve  161	HFCV油壓流量閥 HFCV hydraulic flow valve  161	HLF5H連杆油壓缸 HLF5H Connecting rod hydraulic cylinder  162-163	HLKA高動力/兼實型缸杆式油壓缸 HLKA High power & compound type hydraulic lever-type cylinder  164-165	BLU方形連杆式夾緊器 BLU Square Connecting Rod Clamp  166-169
HCTU上法蘭高速轉角缸(雙動) HCTU upper flange high speed corner cylinder (double action)  170-177	HCTT上法蘭高速轉角缸(單動) HCTT upper flange high speed corner cylinder (single action)  178-184	HBTU方形高速轉角缸 HBTU square high speed corner cylinder  185-188	HCTH錐形套/夾緊臂 HCTH conical sleeve / clamping arm  189-190	HVCF流量控制閥 HVCF flow control valve  191-192	HCP同步油缸 HCP synchronous cylinder  194
HCP-S同步油缸 HCP-S synchronous cylinder  195	MOB系列輕型油壓缸 MOB Light Duty Hydraulic Cylinder  196-199	HOB系列重型油壓缸 HOB Series heavy duty Oil Cylinder  200-205	HAS液壓站 (液壓夾具專用) HAS hydraulic station (special for hydraulic fixture)  206	PT精密動向鋼珠螺桿 PT Precision moving steel ball screw  207-211	HCHV高倍力精密油壓虎鉗 HCHV High power precision hydraulic vise  212
HTF3B三爪中空油壓夾頭 HTF3B Three-jaw hollow hydraulic chuck  213	HRC高速中空回轉油壓缸 HRC High speed hollow rotary hydraulic cylinder  214	HWGNC CNC高精度分度盤 HWGNC CNC High-precision indexing plate  215	HVS真空吸盤 HVS Vacuum suction cup  216	壓臂尺寸 Manifold Type Cylinder  217-219	產品重量表 Weight of Products  220

一、理論出力計算方式

1、轉角缸理論夾持力計算

$$F = P * A2 = P * (A1 - a)$$

F：轉角缸夾持力(kg)

P：使用壓力(kgf/cm²)

A1：活塞受力面積(cm²)

a：活塞杆徑面積(cm²)

A2：活塞拉入端受力面積

2、杠杆缸理論夾持力計算

$$F = P * A * L1 \div L2$$

F：杠杆缸夾持力(kg)

P：使用壓力(kgf/cm²)

A：活塞受力面積(cm²)

L1：活塞杆中心點至杠杆支撐點距離(mm)

L2：杠杆支撐點至壓臂壓點距離(mm)

3、空壓及油壓缸理論出力計算

$$\text{推力} F = P * A \quad \text{拉力} F = P * (A - a)$$

F：轉角缸夾持力(kg)

P：使用壓力(kgf/cm²)

A：活塞受力面積(cm²)

a：活塞杆徑面積(cm²)

*、作動缸實際出力可以上述計算結果乘上使用安全系數(一般建議實際出力為理論出力之60%~70%)

二、壓力互換表

	Pa	bar	kgf/cm ²	atm	at	Torr	mm H ₂ O	mmHg	Psi
1 Pa	1	0.00001	0.00001	0.00001	0.00001	0.0075	0.10197	0.0075	0.00014
1 bar	100000	1	1.01972	0.9869	1.01972	750.062	10.1972	750.062	14.504
1 kgf/cm ²	98066.5	0.98067	1	0.9678	1	735.6	10	735.6	14.22
1 atm	101325	1.01325	1.033	1	1.033	760	10.332	760	14.7
1 at	98067	0.98067	1	0.9678	1	735.6	10	735.6	14.22
1 Torr	133.3	0.00133	0.00136	0.00132	0.00136	1	13.6	1	0.01934
mm H ₂ O	9.8067	0.000098	0.0001	0.0000968	0.0001	0.07356	1	0.07356	0.00142
1 mmHg	133.322	0.00133	0.00136	0.00132	0.00136	1	13.5951	1	0.01934
1 Psi	6894.76	0.06895	0.07031	0.06805	0.07031	51.7149	703.07	51.7149	1

注：1.轉角缸轉角方向是指下壓時轉角方向
2.此畫冊CAD圖為放鬆狀態

型號表示

WCE 160 1 - 2 A R



1 氣缸輸出

060:氣缸輸出力0.6kN(氣壓0.5MPa時)
160:氣缸輸出力1.6kN(氣壓0.5MPa時)
400:氣缸輸出力4.0kN(氣壓0.5MPa時)

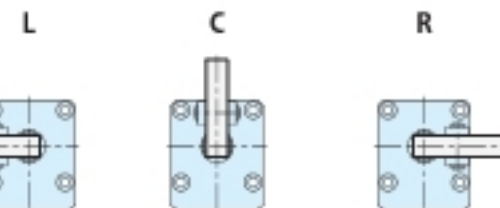
100:氣缸輸出力1.0kN(氣壓0.5MPa時)
250:氣缸輸出力2.5kN(氣壓0.5MPa時)

2 配管方式

A: 板式連接型(可安裝速度控制閥)
G: 板式連接型(配有R螺紋堵頭)
S: 外配管型(Rc螺紋)

3 壓板方向

L:左 C:中央 R:右



※表示配管口位置位于身前時的壓板方向。

4 動作確認方式

無符號:無(標準)

D:探頭用雙出杆型

M:空氣傳感器板式連接型

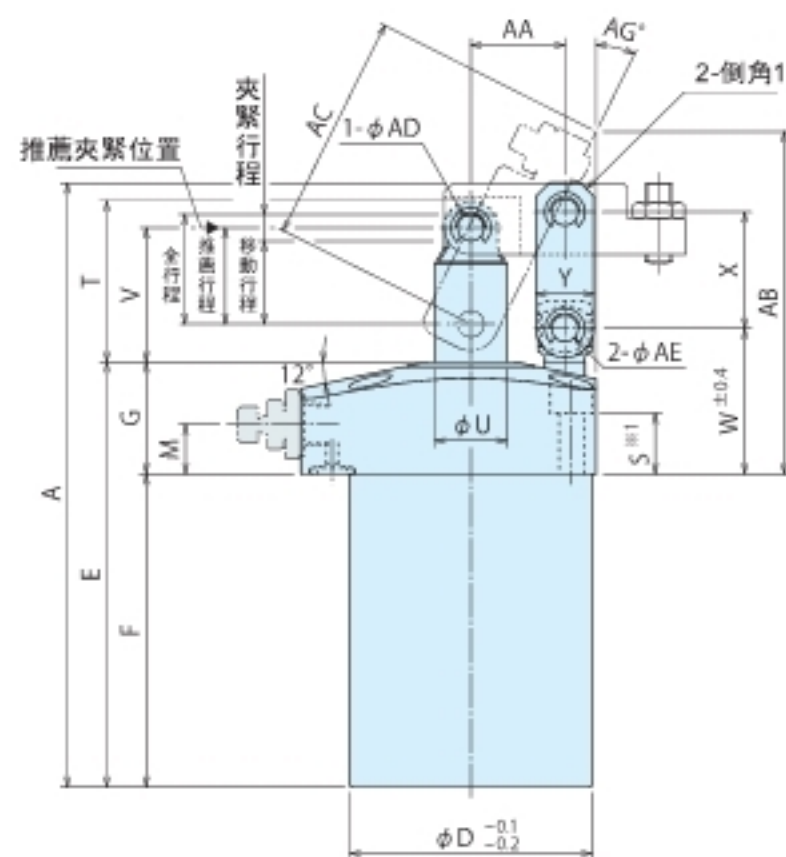
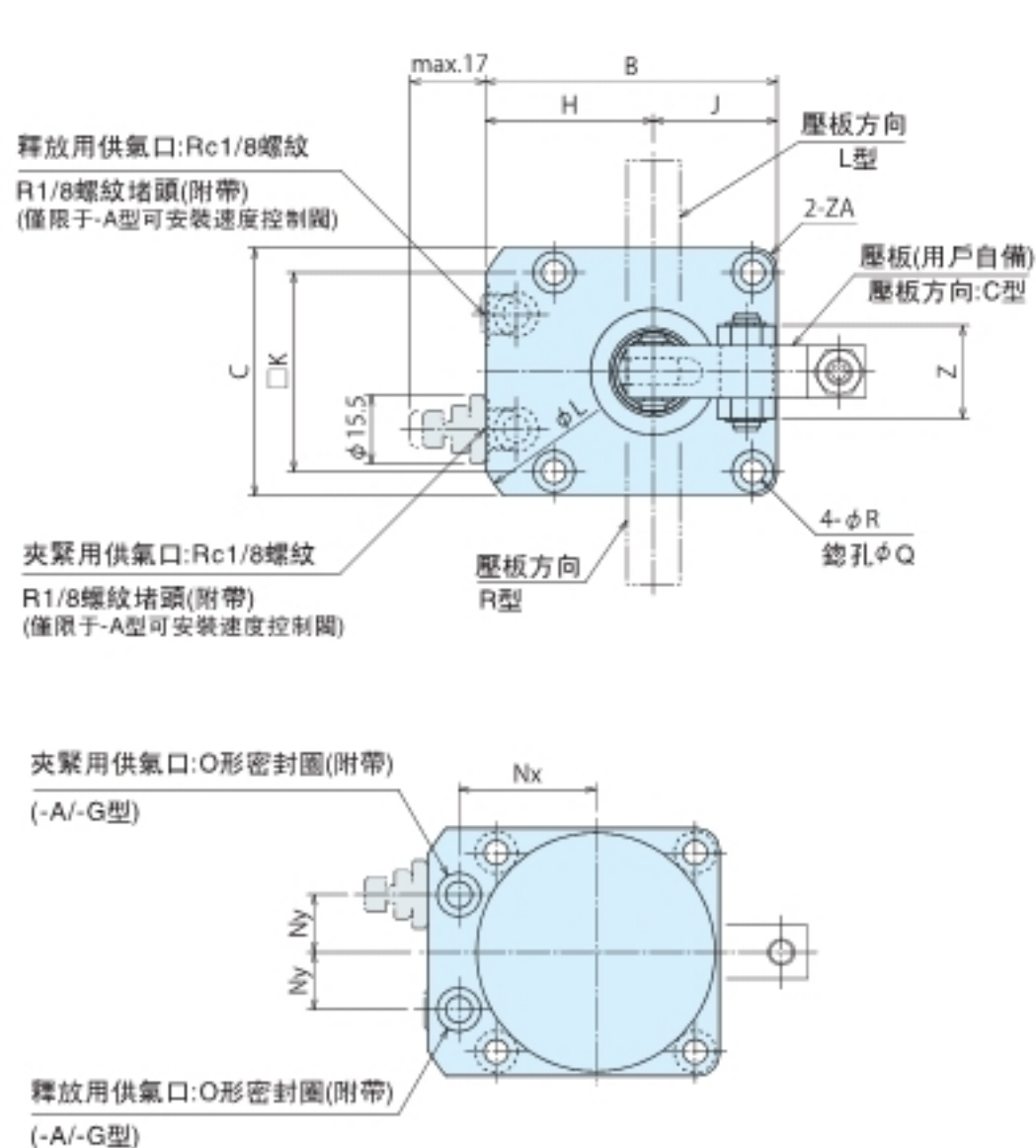
規格

型 號			WCE0601-2□□□	WCE1001-2□□□	WCE1601-2□□□	WCE2501-2□□□	WCE4001-2□□□
氣缸輸出力 (氣壓0.5MPa時) kN			0.6	1.0	1.6	2.5	4.0
全行程 mm			19.5	22	23.5	27.5	33
細分	移動行程 mm		16	18	19.5	23.5	29
	夾緊行程 mm		3.5	4	4	4	4
氣缸容量 cm ³	夾緊時	5 無符號選擇時	11.2	21.2	34.8	55.2	94.2
		5 選擇D/M時	10.2	19.5	33.0	52.1	90.5
	釋放時		9.7	17.8	30.1	48.2	81.7
彈簧力 N			37.6~57.6	58.9~97.8	80.5~141.1	142.8~219.2	228.9~335.1
最高使用壓力 MPa			0.5				
最低動作壓力 MPa			0.2				
耐壓 MPa			0.75				
使用溫度 ℃			0~70				

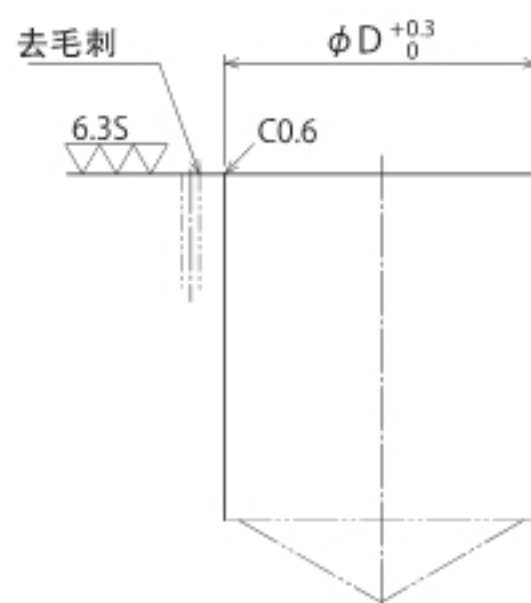
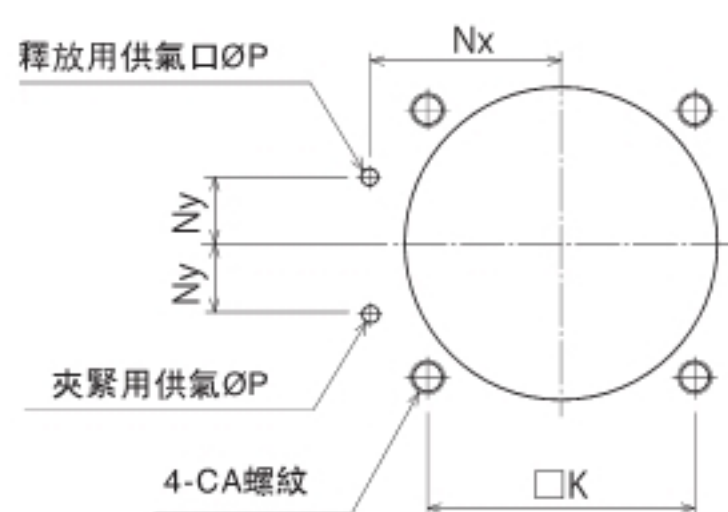
外形尺寸

A:板式連接型(可安裝速度控制閥, 附帶R螺紋堵頭)

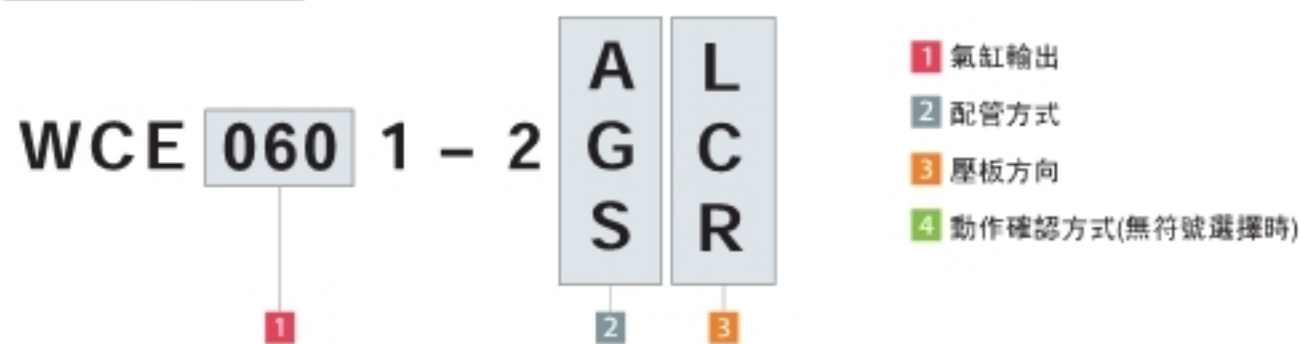
※本圖表示WCE-2AC的夾緊狀態



安裝部加工尺寸



型號表示



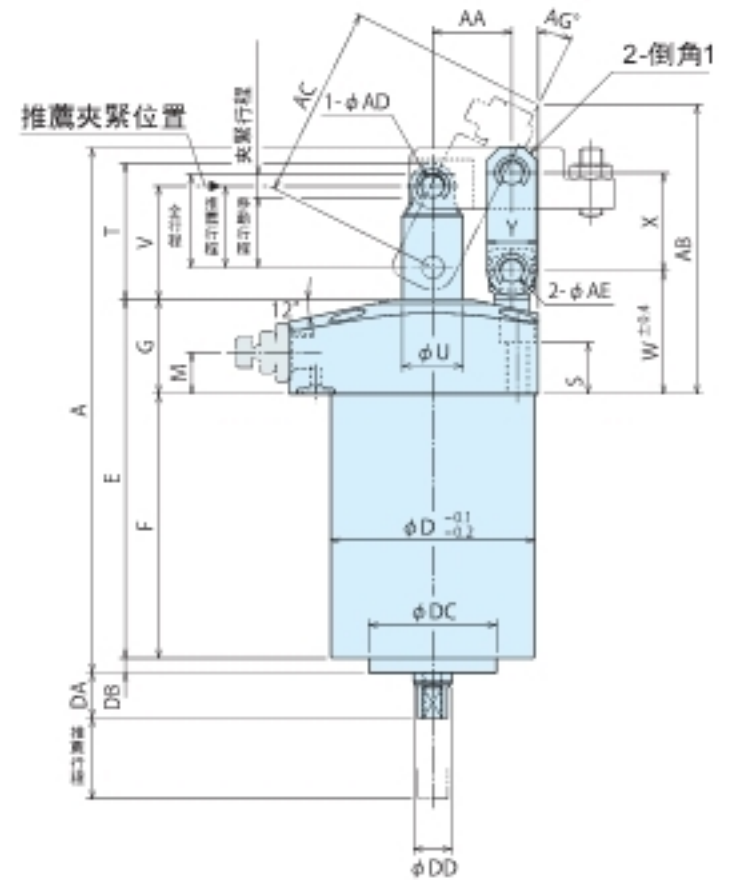
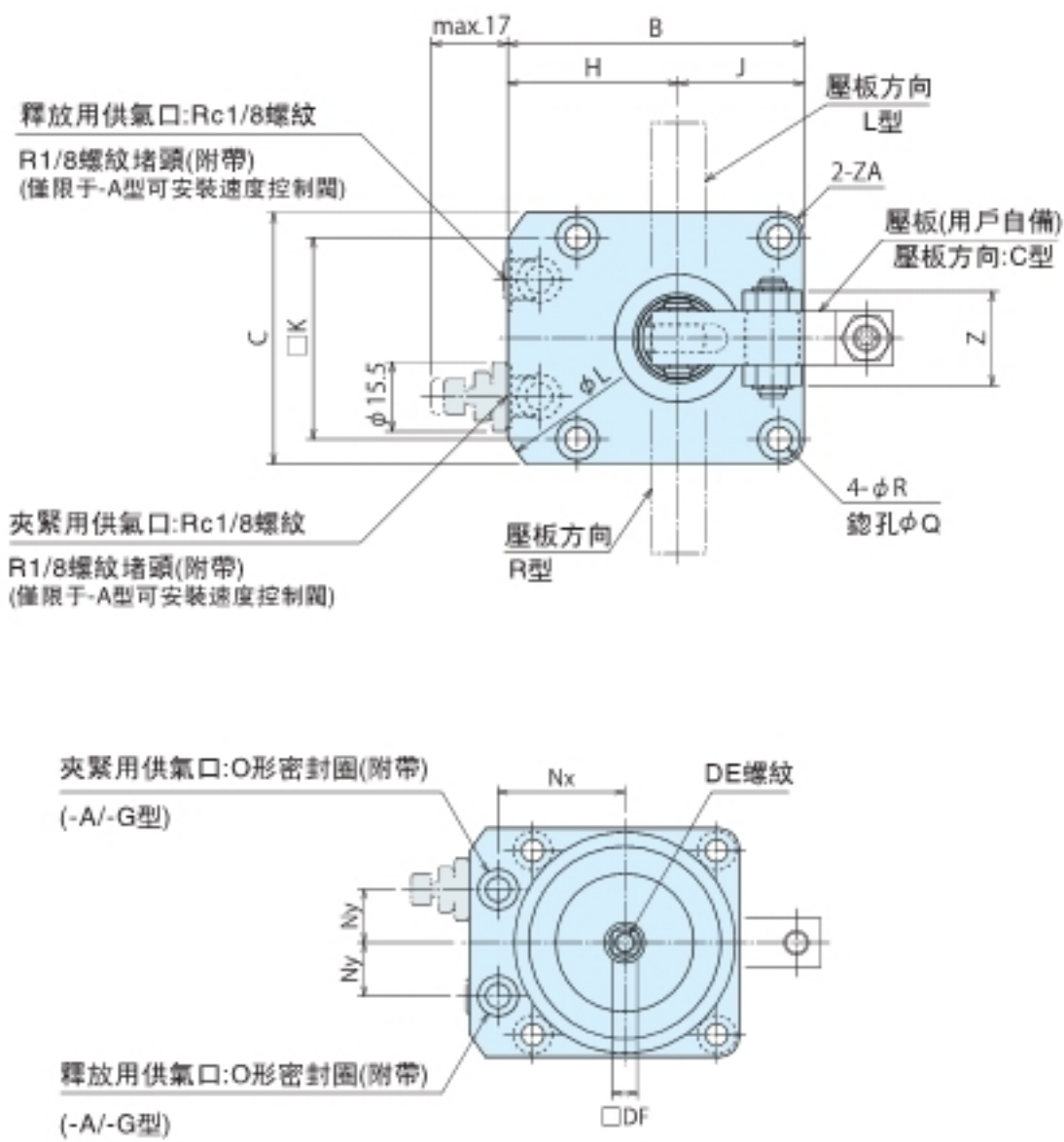
外形尺寸及安裝部位加工尺寸表

型號	WCE0601-2□□□	WCE1001-2□□□	WCE1601-2□□□	WCE2501-2□□□	WCE4001-2□□□
全行程	19.5	22	23.5	27.5	33
細分					
移動行程	16	18	19.5	23.5	29
夾緊行程	3.5	4	4	4	4
推薦行程	17.5	20	21.5	25.5	31
A	111.5	123	134.5	157.5	184
B	54	60	66	76	87
C	45	50	56	66	78
D	40	46	54	64	77
E	79.5	88	94.5	109.5	124.5
F	54.5	63	69.5	79.5	94.5
G	25	25	25	30	30
H	31.5	35	38	43	48
J	22.5	25	28	33	39
K	34	39	45	53	65
L	72	79	88	98	113
M	11	11	11	11	11
Nx	26	28	31	36	41
Ny	9	10	13	15	20
P	max.Ø3	max.Ø5	max.Ø5	max.Ø5	max.Ø5
Q	9.5	9.5	9.5	11	11
R	5.5	5.5	5.5	6.8	6.8
S	15.5	14	13.5	16	15
T	28.5	31.5	36	40	50.5
U	10	14	16	18	22
V	24	27	30	34	42.5
W	31	31	32.5	37.5	40.5
X	20.5	23.5	26	32.5	39.5
Y	11	11	13	16	18
Z	19	19	21	28	37
倒角1	C2.5	C2.5	C3	C3	C5
AA	16	19.5	21	25	30
AB	76.1	72	76.5	92.2	105.7
AC	49.8	46.9	50.9	62.7	74.7
AD	5	5	6	6	8
AE	5	5	6	8	10
AG	21.6°	26.5°	26.4°	26.1°	25.2°
CA(公稱x間距)	M5X0.5	M5X0.8	M5X0.8	M6	M6
ZA(倒角)	C3	R5	R5	R6	R6
O型密封圈(-A/-G型)	1BP5	1BP7	1BP7	1BP7	1BP7
重量 kg	0.5	0.6	0.9	1.4	2.3

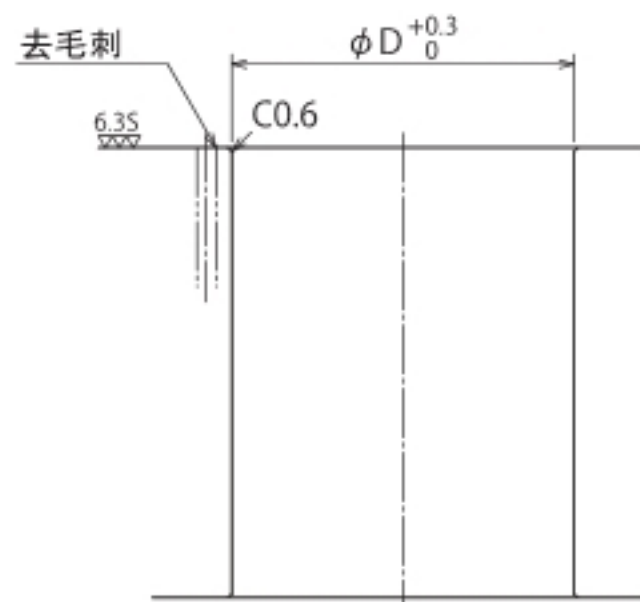
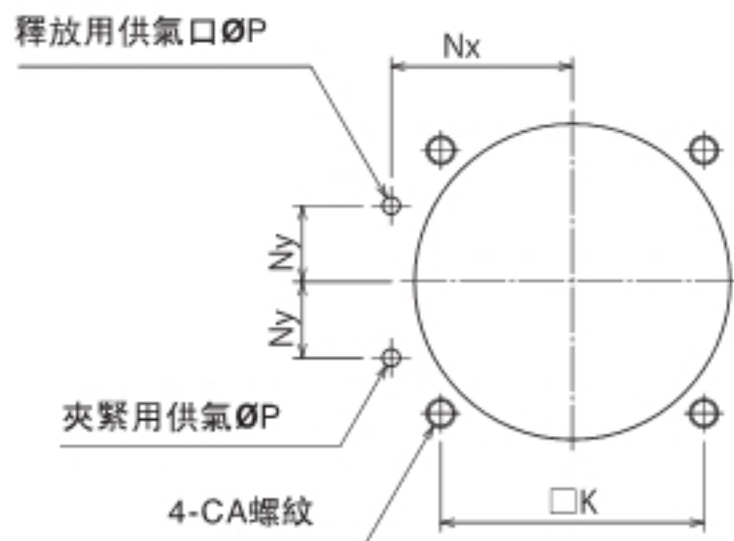
外形尺寸

A:板式連接型(可安裝速度控制閥, 附帶R螺紋堵頭)

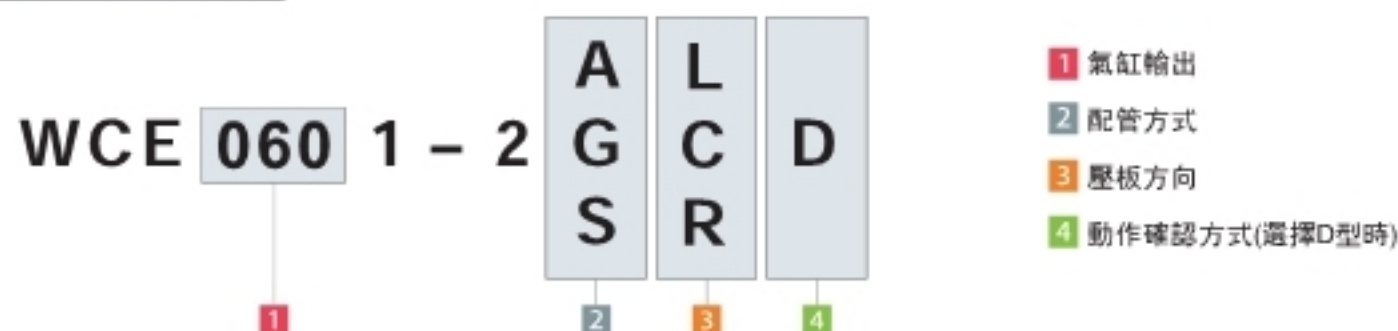
※本圖表示WCE-2ACD的夾緊狀態



安裝部加工尺寸



型號表示



外形尺寸及安裝部位加工尺寸表

型號	WCE0601-2□□D	WCE1001-2□□D	WCE1601-2□□D	WCE2501-2□□D	WCE4001-2□□D
全行程	19.5	22	23.5	27.5	33
細分 移動行程	16	18	19.5	23.5	29
夾緊行程	3.5	4	4	4	4
推薦行程	17.5	20	21.5	25.5	31
A	115.5	127	138.5	162.5	188.5
B	54	60	66	76	87
C	45	50	56	66	78
D	40	46	54	64	77
E	79.5	88	94.5	109.5	124.5
F	54.5	63	69.5	79.5	94.5
G	25	25	25	30	30
H	31.5	35	38	43	48
J	22.5	25	28	33	39
K	34	39	45	53	65
L	72	79	88	98	113
M	11	11	11	11	11
Nx	26	28	31	36	41
Ny	9	10	13	15	20
P	max.Ø3	max.Ø5	max.Ø5	max.Ø5	max.Ø5
Q	9.5	9.5	9.5	11	11
R	5.5	5.5	5.5	6.8	6.8
S	15.5	14	13.5	16	15
T	28.5	31.5	36	40	50.5
U	10	14	16	18	22
V	24	27	30	34	42.5
W	31	31	32.5	37.5	40.5
X	20.5	23.5	26	32.5	39.5
Y	11	11	13	16	18
Z	19	19	21	28	37
倒角1	C2.5	C2.5	C3	C3	C5
AA	16	19.5	21	25	30
AB	76.1	72	76.5	92.2	105.7
AC	49.8	46.9	50.9	62.7	74.7
AD	5	5	6	6	8
AE	5	5	6	8	10
AG	21.6°	26.5°	26.4°	26.1°	25.2°
CA(公稱x間距)	M5X0.8	M5 X 0.8	M5 X 0.8	M6	M6
DA	11.5	12	12	12	12
DB	4	4	4	5	4.5
DC	22.5	28	33.8	41.6	54
DD	8	10	10	12	12
DE(公稱x間距)	M4 X 0.7 X10	M5 X 0.8 X12	M5 X0.8 X12	M6 X 15	M6 X15
DF	6	8	8	10	10
ZA(倒角)	C3	R5	R5	R6	R6
O型密封圈(-A/-G型)	1BP5	1BP7	1BP7	1BP7	1BP7
重量 kg	0.5	0.6	0.9	1.4	2.3

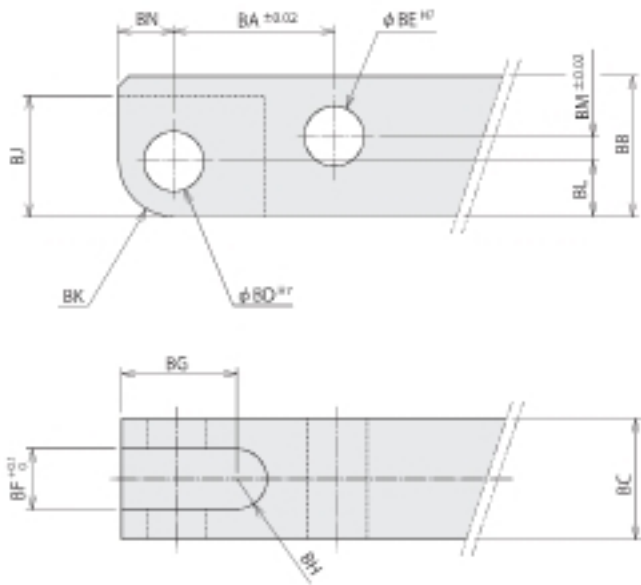
型號表示



外形尺寸及安裝部位加工尺寸表

型號	WCE0601-2□□M	WCE1001-2□□M	WCE1601-2□□M	WCE2501-2□□M	WCE4001-2□□M
全行程	19.5	22	23.5	27.5	33
細分					
移動行程	16	18	19.5	23.5	29
夾緊行程	3.5	4	4	4	4
推薦行程	17.5	20	21.5	25.5	31
A	111.5	123	134.5	157.5	184
B	54	60	66	76	87
C	45	50	56	66	78
D	40	46	54	64	77
E	79.5	88	94.5	109.5	124.5
F	54.5	63	69.5	79.5	94.5
G	25	25	25	30	30
H	31.5	35	38	43	48
J	22.5	25	28	33	39
K	34	39	45	53	65
L	72	79	88	98	113
M	11	11	11	11	11
Nx	26	28	31	36	41
Ny	9	10	13	15	20
P	max.Ø3	max.Ø5	max.Ø5	max.Ø5	max.Ø5
Q	9.5	9.5	9.5	11	11
R	5.5	5.5	5.5	6.8	6.8
S	15.5	14	13.5	16	15
T	28.5	31.5	36	40	50.5
U	10	14	16	18	22
V	24	27	30	34	42.5
W	31	31	32.5	37.5	40.5
X	20.5	23.5	26	32.5	39.5
Y	11	11	13	16	18
Z	19	19	21	28	37
倒角1	C2.5	C2.5	C3	C3	C5
AA	16	19.5	21	25	30
AB	76.1	72	76.5	92.2	105.7
AC	49.8	46.9	50.9	62.7	74.7
AD	5	5	6	6	8
AE	5	5	6	8	10
AG	21.6 °	26.5 °	26.4 °	26.1 °	25.2 °
CA(公稱x間距)	M5 X 0.8	M5 X 0.8	M5 X 0.8	M6	M6
MA	40	43.5	45	50	55
MB f8	20 ^{-0.020} _{-0.053}	28 ^{-0.020} _{-0.053}	28 ^{-0.020} _{-0.053}	38 ^{-0.025} _{-0.064}	38 ^{-0.025} _{-0.064}
MB H8	20 ^{+0.033} ₀	28 ^{+0.033} ₀	28 ^{+0.033} ₀	38 ^{+0.039} ₀	38 ^{+0.039} ₀
MC	21.2	29.2	29.2	39.2	39.2
MD	68	77.5	84	95	112
ME	82	92.5	101	115	134
MF	55.5	64	70.5	80.5	95.5
MG	8	9	9	10	12
MH	9	9	9	9	9
MJ	5	6	8	11	13
MK	10	11.5	11	12	13
ML	96.5	108.5	116.5	131.5	151.5
ZA(倒角)	C3	R5	R5	R6	R6
O型密封圈(-A/-G型)	1BP5	1BP7	1BP7	1BP7	1BP7
3-O型密封圈	AS568-016(70°)	AS568-021(70°)	AS568-021(70°)	AS568-028(70°)	AS568-028(70°)
重量 kg	0.6	0.7	1.0	1.6	2.5

壓板設計尺寸



(mm)

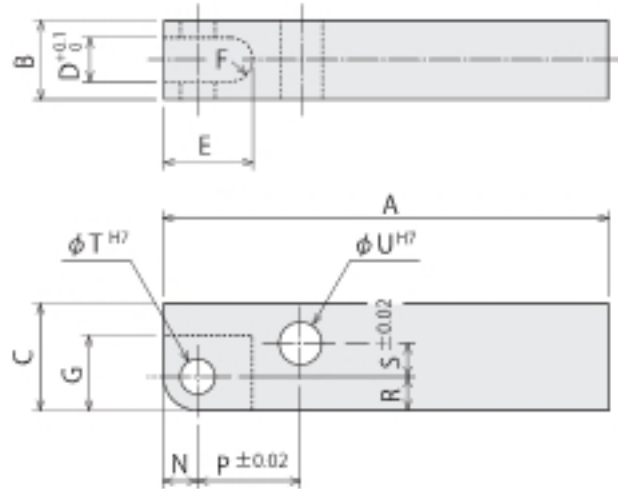
型號	WCE0601	WCE1001	WCE1601	WCE2501	WCE4001
BA	16	19.5	21	25	30
BB	12.5	12.5	16	20	25
BC	10 ⁰ _{-0.2}	10 ⁰ _{-0.2}	12 ⁰ _{-0.3}	16 ⁰ _{-0.3}	19 ⁰ _{-0.3}
BD	5 ^{-0.012} ₀	5 ^{-0.012} ₀	6 ^{-0.012} ₀	6 ^{-0.012} ₀	8 ^{-0.015} ₀
BE	5 ^{-0.012} ₀	5 ^{-0.012} ₀	6 ^{-0.012} ₀	8 ^{-0.015} ₀	10 ^{-0.015} ₀
BF	5	5	6	8	10
BG	10	10	13	13	17
BH	R2.5	R2.5	R3	R4	R5
BJ	10	10	13	13	17.5
BK	R4.5	R4.5	R6	R6	R8
BL	4.5	4.5	6	6	8
BM	2.5	2.5	3.5	6	7.5
BN	4.5	4.5	6	6	8

附件:毛坯壓板

型號表示

WCZ 060 0 - L2

尺寸
(請參照右表)



(mm)

型號	WCZ0601-L2	WCZ1000-L2	WCZ1600-L2	WCZ2500-L2	WCZ4000-L2
對應產品型號	WCE0601	WCE1001	WCE1601	WCE2501	WCE4001
A	80	90	100	115	140
B	10 ⁰ _{-0.2}	10 ⁰ _{-0.2}	12 ⁰ _{-0.3}	16 ⁰ _{-0.3}	19 ⁰ _{-0.3}
C	12.5	12.5	16	20	25
D	5	5	6	8	10
E	12.5	12.5	16	17	22
F	R2.5	R2.5	R3	R4	R5
G	10	10	13	13	17.5
N	4.5	4.5	6	6	8
P	16	19.5	21	25	30
R	4.5	4.5	6	6	8
S	2.5	2.5	3.5	6	7.5
T	5 ^{-0.012} ₀	5 ^{-0.012} ₀	6 ^{-0.012} ₀	6 ^{-0.012} ₀	8 ^{-0.015} ₀
U	5 ^{-0.012} ₀	5 ^{-0.012} ₀	6 ^{-0.012} ₀	8 ^{-0.015} ₀	10 ^{-0.015} ₀

型號表示

CGC - N2	大小	E	卡住內徑:	爪卡數
	1		070 073 076 079 082	: 2爪卡
	2		085 09 10	: 2爪卡
	3		11 12 13	: 3爪卡
			12 13 14 15 16	: 3爪卡

擴張夾緊器 雙動型 7MPa

Expansion clamp

model

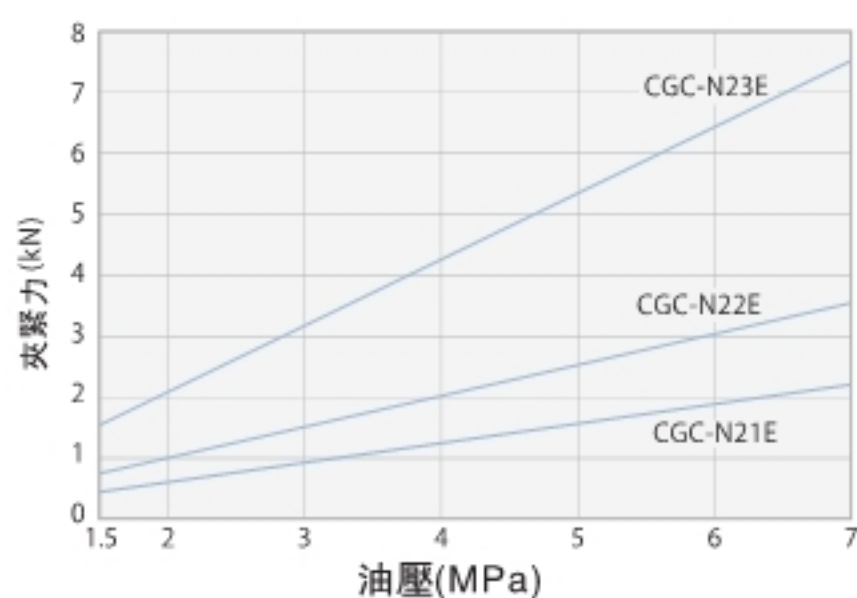
CGC



型 號		大小	CGC-N21E					CGC-N22E					CGC-N23E					
		卡住內徑	070	073	076	079	082	085	09	10	11	12	13	12	13	14	15	16
爪卡數			2爪卡							3爪卡								
夾緊力 (油壓為7MPa時)		kN	1.92	2.24				3.04	3.54				7.50					
徑向擴張力 (油壓為7MPa時)		kN	6.7	7.8				9.5	11.1				23.4					
錐形主杆行程		mm	0.3															
夾緊行程		mm	0.2															
氣缸容量	夾緊	cm ³	1.7					2.7				5.8						
	放鬆	cm ³	2.3					3.5				7.2						
允許偏差量		mm	±0.5															
推薦使用的氣壓排座		MPa	0.3															
推薦檢測氣壓		MPa	0.2															
質 量		kg	0.38					0.50				0.83						
安裝螺栓的推薦緊固扭矩		N·m	3.5					7				12						
工件材質			鋁、鋼等(HRC25以下)不可使用鑄鐵															
允許最小卡住內徑		mm	6.7	7.0	7.3	7.6	7.9	8.2	8.7	9.7	10.7	11.7	12.7	11.7	12.7	13.7	14.7	15.7
允許最大卡住內徑		mm	7.4	7.7	8.0	8.3	8.6	9.2	9.7	10.7	11.7	12.7	13.7	12.7	13.7	14.7	15.7	16.7
卡住內徑錐度 (拔模斜度)			3° 以下															
卡住內徑圓度			0.1° 以下															

- 使用油壓範圍: 1.5~7 MPa (CGC-N21E070、CGC-N22E085: 1.5~6 MPa)
- 保證耐壓: 10.5 MPa (CGC-N21E070、CGC-N22E085: 9 MPa)
- 使用環境溫度: 0~70 °C
- 使用流體: 普通礦物油基液壓油 (相當于ISO-VG32)

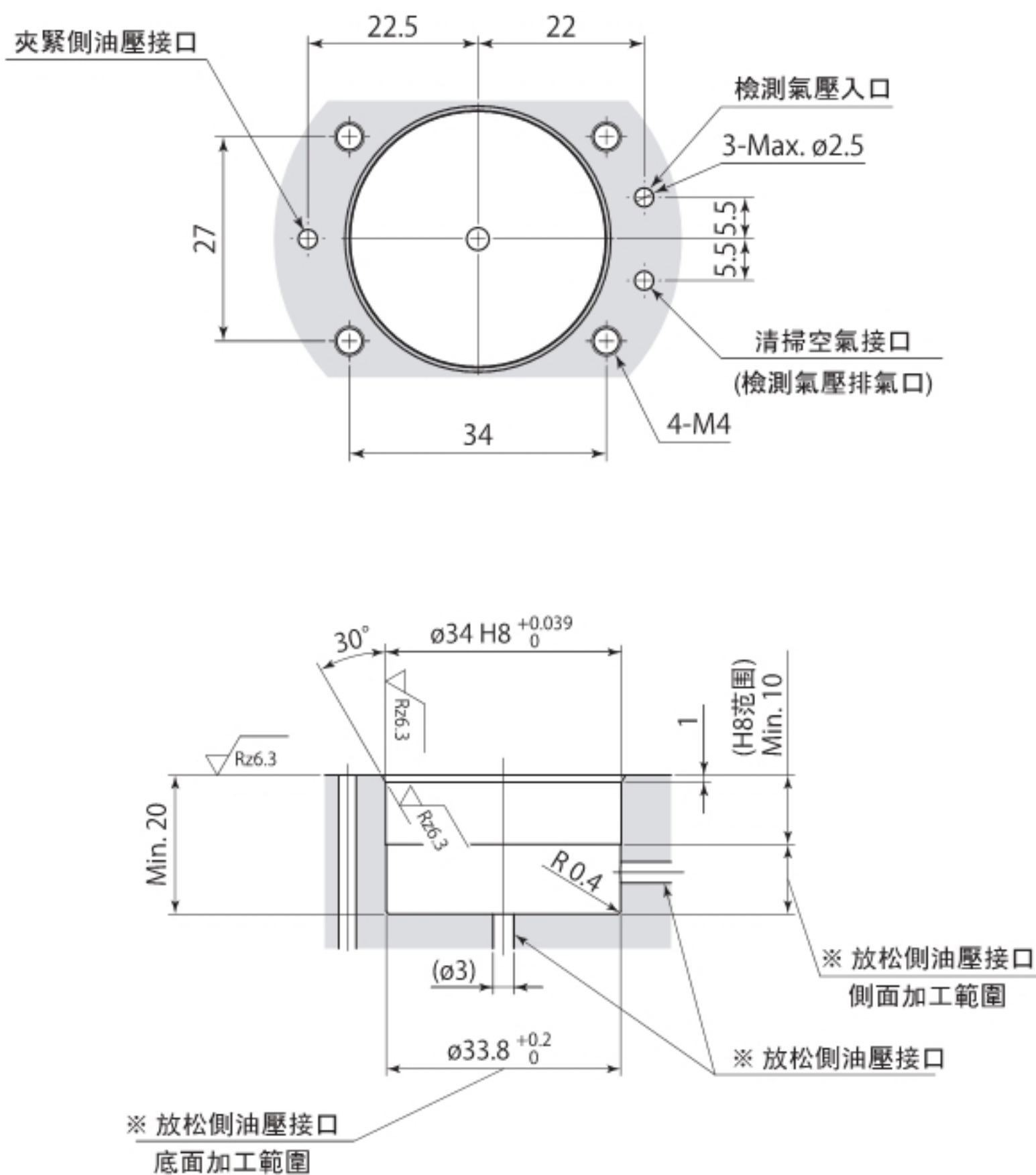
夾緊力與油壓



油壓 MPa	1.5	2	3	4	5	6	7	
CGC-N21E 夾緊力 F = 0.320 × P: 油壓	kN	0.48	0.64	0.96	1.28	1.60	1.92	2.24
CGC-N22E 夾緊力 F = 0.506 × P: 油壓	kN	0.76	1.01	1.52	2.02	2.53	3.04	3.54
CGC-N23E 夾緊力 F = 1.072 × P: 油壓	kN	1.61	2.14	3.22	4.29	5.36	6.43	7.50

- CGC-N21E070、CGC-N22E085的使用油壓為1.5~6 MPa。

安裝孔加工圖



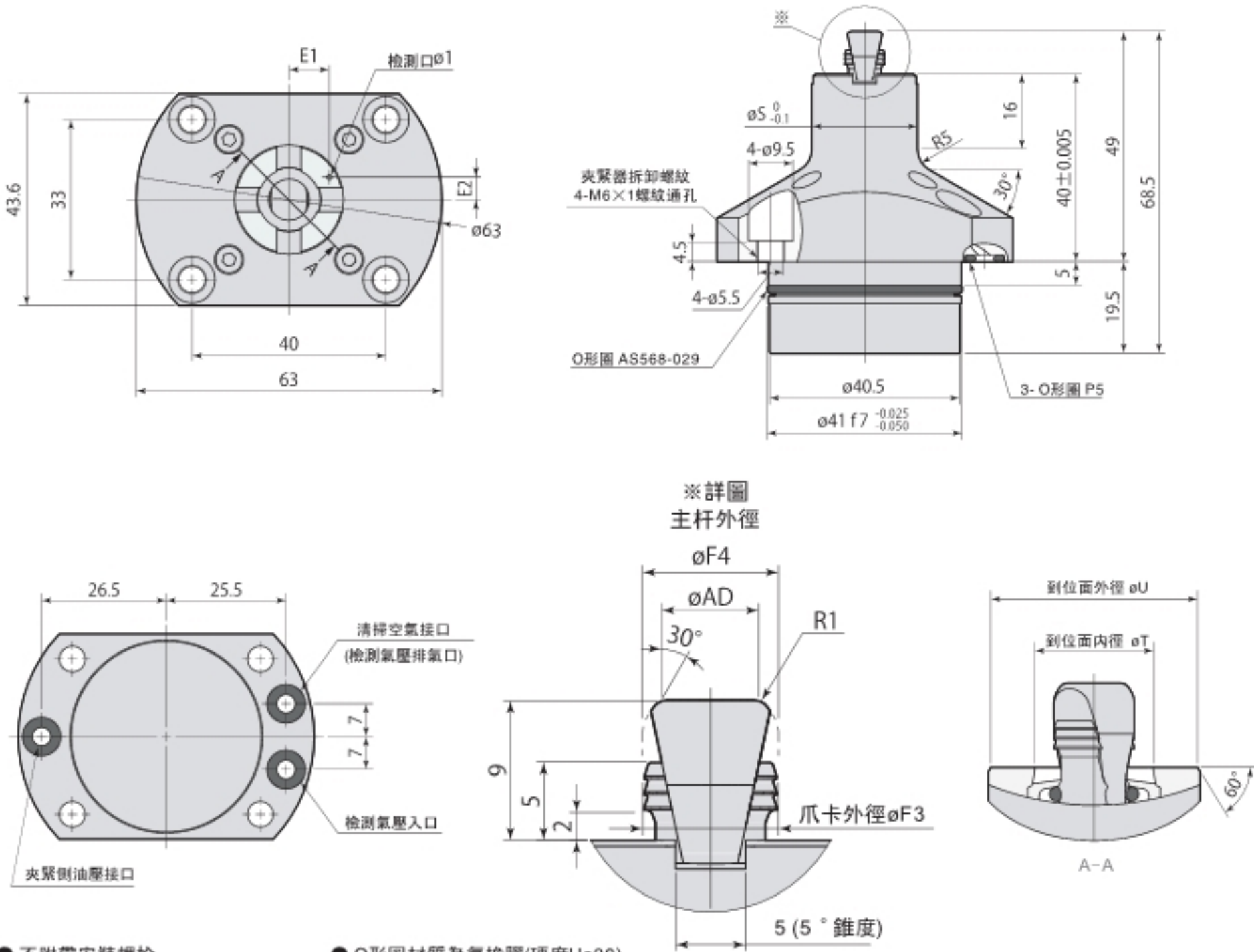
※：放鬆側油壓接口應設置于側面或底面。

●安裝面的最大表面粗糙度應加工在 $Rz 6.3$ 以下。

●安裝時，應在安裝孔及倒角處塗抹適量的潤滑脂。如果潤滑脂塗抹過多，則可能堵塞配管孔而導致誤檢測。

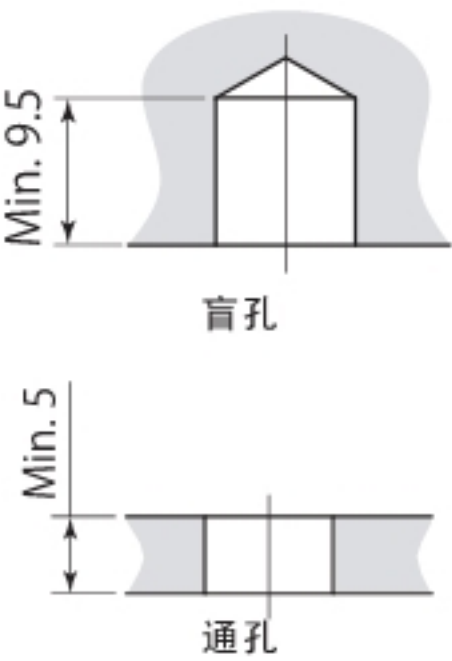
●為了防止O形圈受到損傷，必須施行 30° 的錐角加工

外形尺寸圖



- 不附帶安裝螺栓。
- O形圈材質為氟橡膠(硬度Hs90)。
- 到位面硬度為HRC55。
- 本圖為放鬆狀態。

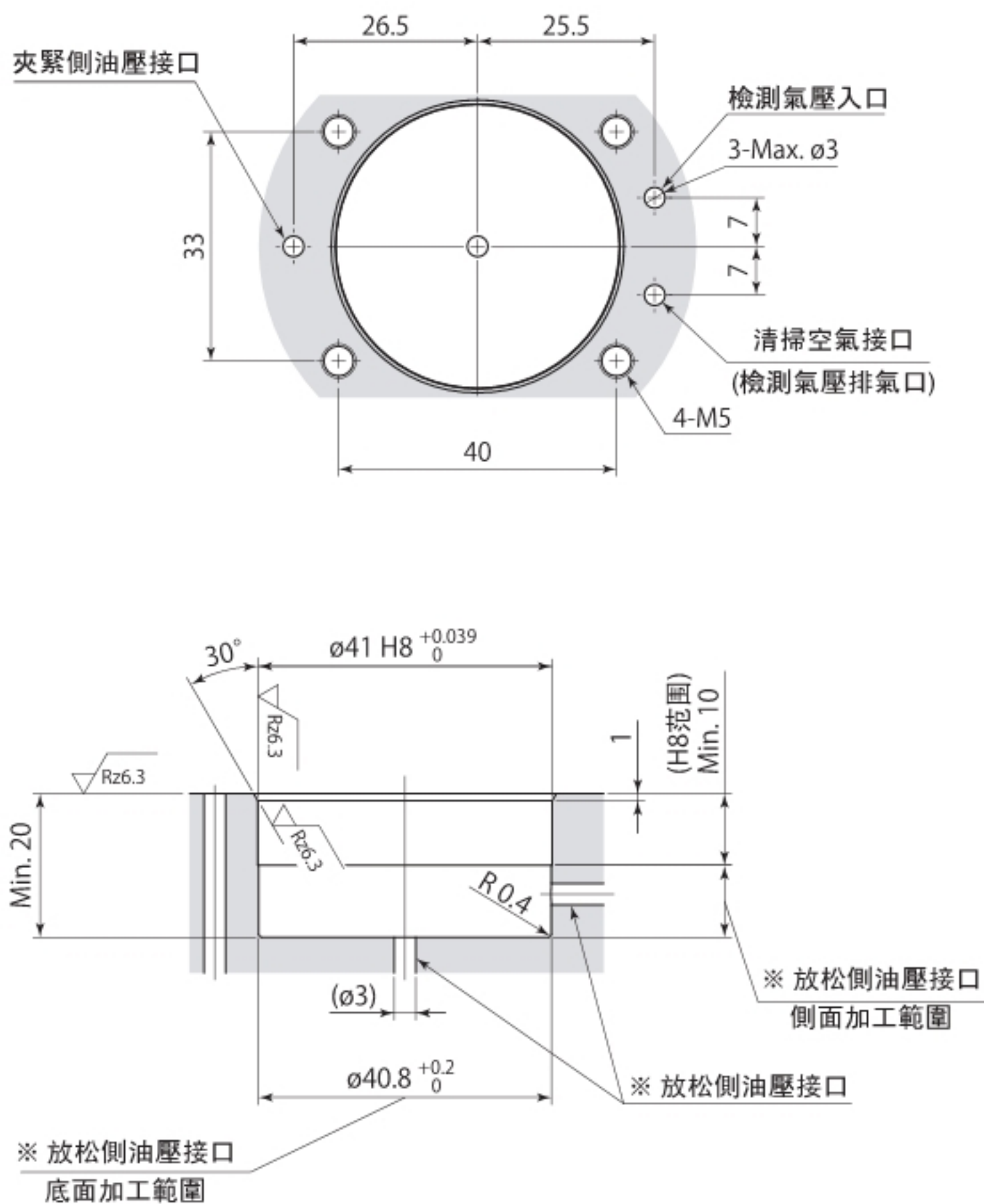
卡住內徑的使用條件



(mm)

型 號	CGC-N22E□		
	085	09	10
E1	8.3	8.3	8.9
E2	4.6	4.6	4.6
$\phi F3$	8	8.5	9.5
$\phi F4$	8.05	8.55	9.55
ϕS	22.5	22.5	23.5
ϕT	12.1	12.6	13.6
ϕU	22	22	23
ϕAD	6.3	6.8	7.8

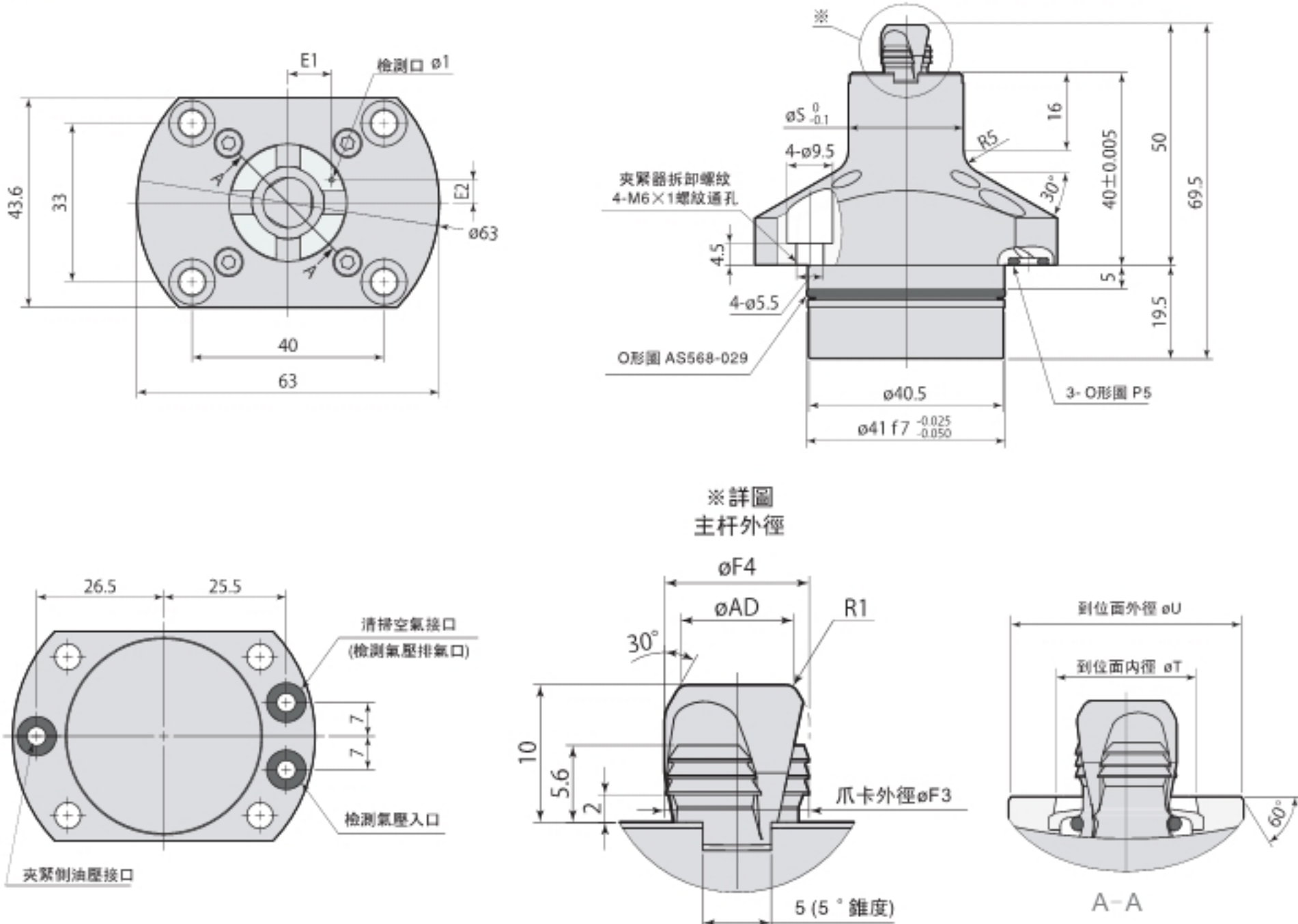
安裝孔加工圖



※：放鬆側油壓接口應設置于側面或底面。

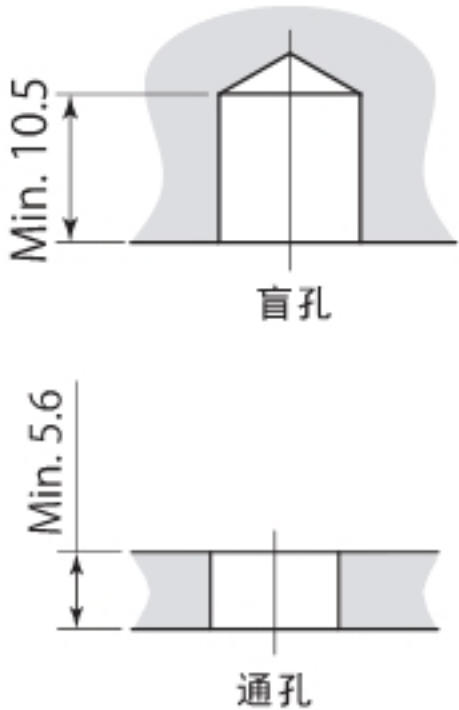
- 安裝面的最大表面粗糙度應加工在 $Rz6.3$ 以下。
- 安裝時，應在安裝孔及倒角處塗抹適量的潤滑脂。如果潤滑脂塗抹過多，則可能堵塞配管孔而導致誤檢測。
- 為了防止O形圈受到損傷，必須施行 30° 的錐角加工

外形尺寸圖



- 不附帶安裝螺栓。
- O形圈材質為氣橡膠(硬度Hs90)。
- 到位面硬度為HRC55。
- 本圖為放鬆狀態。

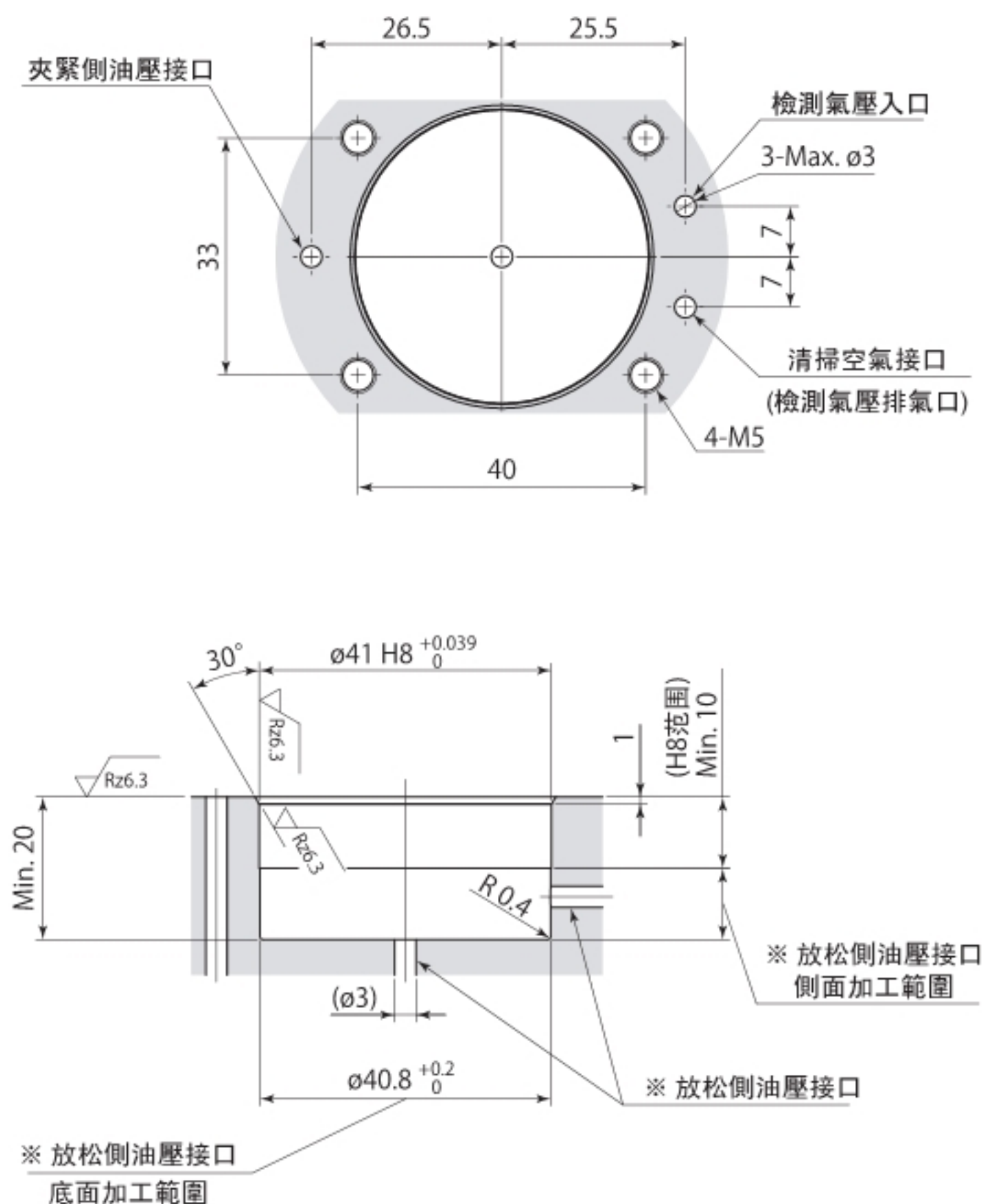
卡住內徑的使用條件



(mm)

型 號	CGC-N22E□		
	11	12	13
E1	9.4	9.9	10.4
E2	4.7	4.8	4.9
$\phi F3$	10.5	11.5	12.5
$\phi F4$	10.55	11.55	12.55
ϕS	24.5	25.5	26.5
ϕT	14.6	15.6	16.6
ϕU	24	25	26
ϕAD	8.2	9.2	10.2

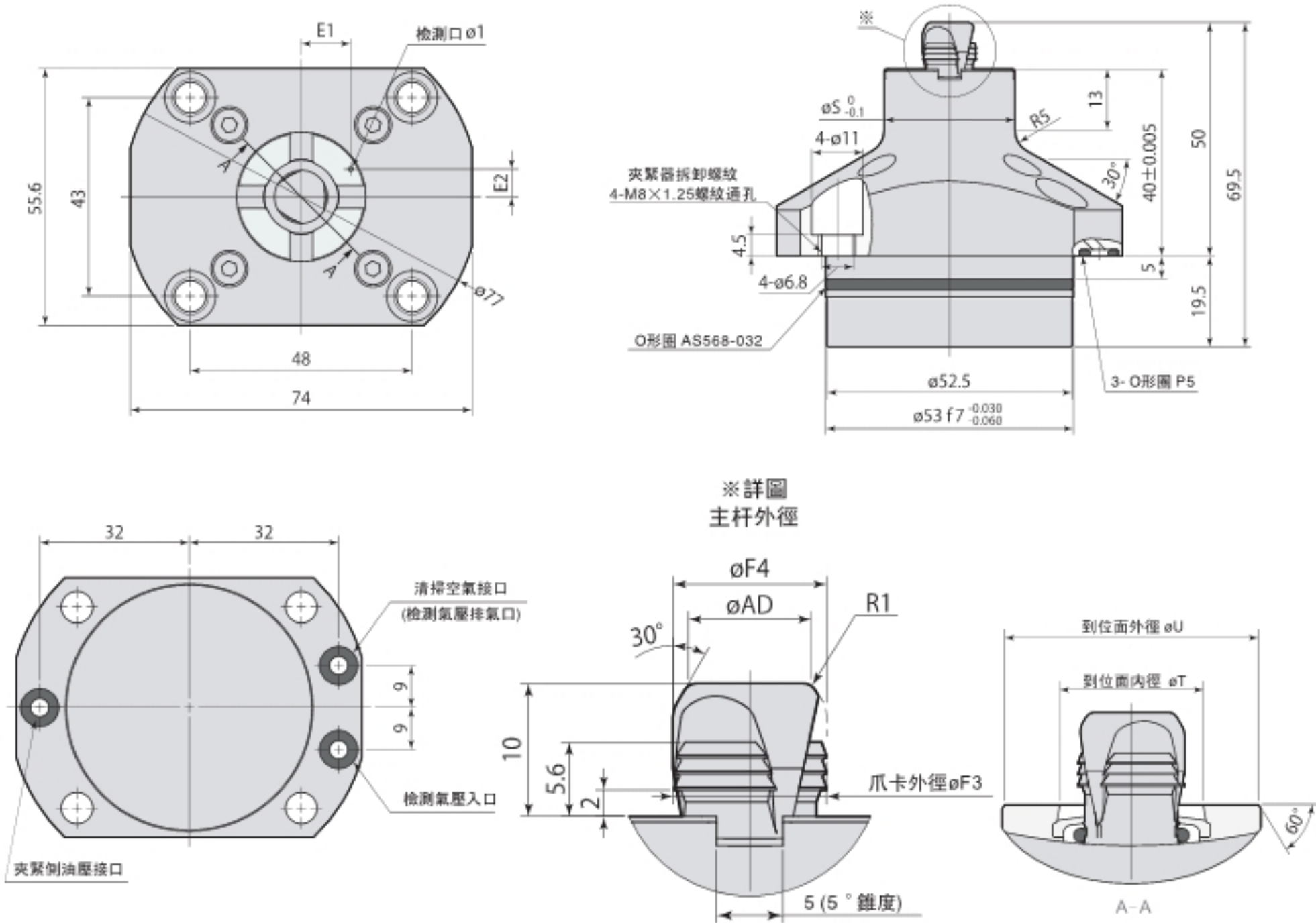
安裝孔加工圖



※：放鬆側油壓接口應設置于側面或底面。

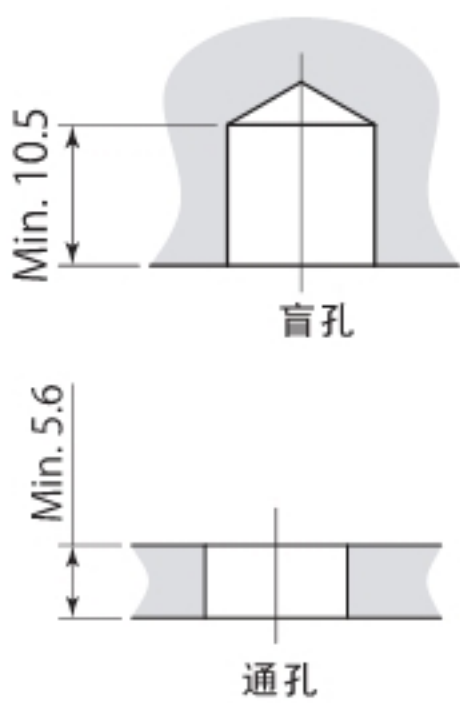
- 安裝面的最大表面粗糙度應加工在Rz6.3以下。
- 安裝時，應在安裝孔及倒角處塗抹適量的潤滑脂。如果潤滑脂塗抹過多，則可能堵塞配管孔而導致誤檢測。
- 為了防止O形圈受到損傷，必須施行30°的錐角加工

外形尺寸圖



- 不附帶安裝螺栓。
- O形圈材質為氟橡膠(硬度Hs90)。
- 到位面硬度為HRC55。
- 本圖為放鬆狀態。

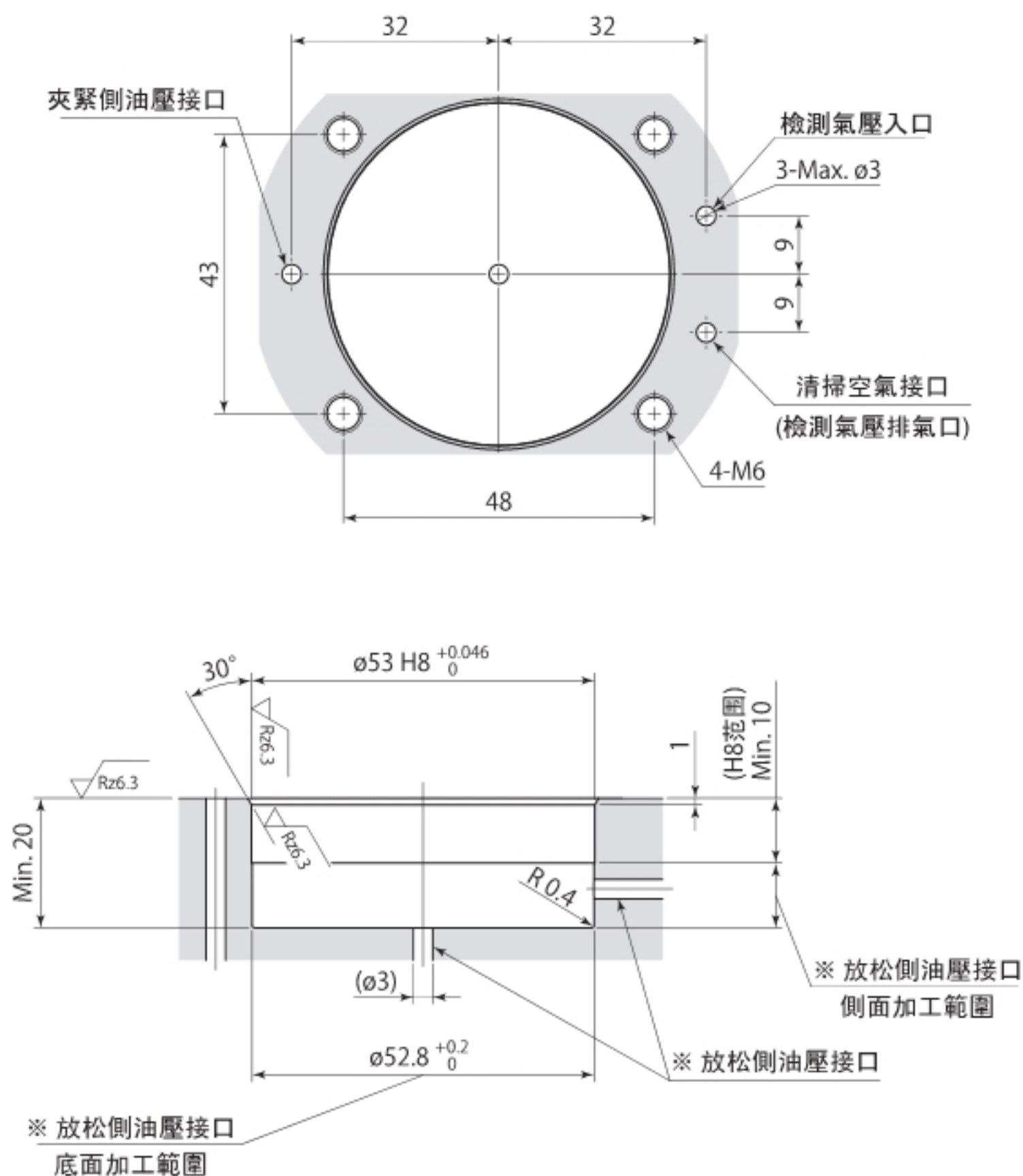
卡住內徑的使用條件



(mm)

型 號	CGC-N23E□				
	12	13	14	15	16
E1	10.7	10.7	10.7	11	11.5
E2	6	6	6	6	6.1
øF3	11.5	12.5	13.5	14.5	15.5
øF4	11.55	12.55	13.55	14.55	15.55
øS	28	28	28	28.5	29.5
øT	15.6	16.6	17.6	18.6	19.6
øU	27.5	27.5	27.5	28	29
øAD	9.2	10.2	11.2	12.2	13.2

安裝孔加工圖



※：放鬆側油壓接口應設置于側面或底面。

- 安裝面的最大表面粗糙度應加工在Rz6.3以下。
- 安裝時，應在安裝孔及倒角處塗抹適量的潤滑脂。如果潤滑脂塗抹過多，則可能堵塞配管孔而導致誤檢測。
- 為了防止O形圈受到損傷，必須施行30°的錐角加工

油壓鋼球鎖緊下拉缸
model **FP**
低壓(1~7MPa) 單動式



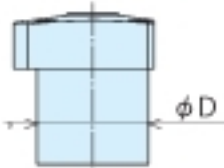
型號表示

FP **039** 0 - **G** 

1 本體尺寸

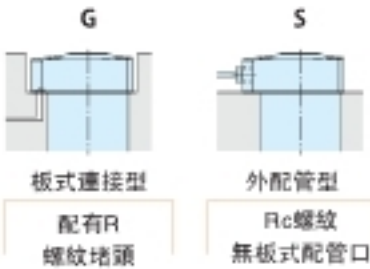
039 : $\phi D=39\text{mm}$ 075 : $\phi D=75\text{mm}$
055 : $\phi D=55\text{mm}$ 090 : $\phi D=90\text{mm}$
065 : $\phi D=65\text{mm}$

※表示本體油缸部分的外徑尺寸(ϕD)。



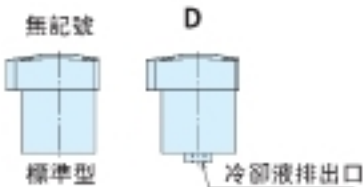
2 配管方式

G: 板式連接型(配有R螺紋堵頭)
S: 外配管型(Rc螺紋)



3 選配件

無符號:無(標準)
D: 帶有冷卻液排出口

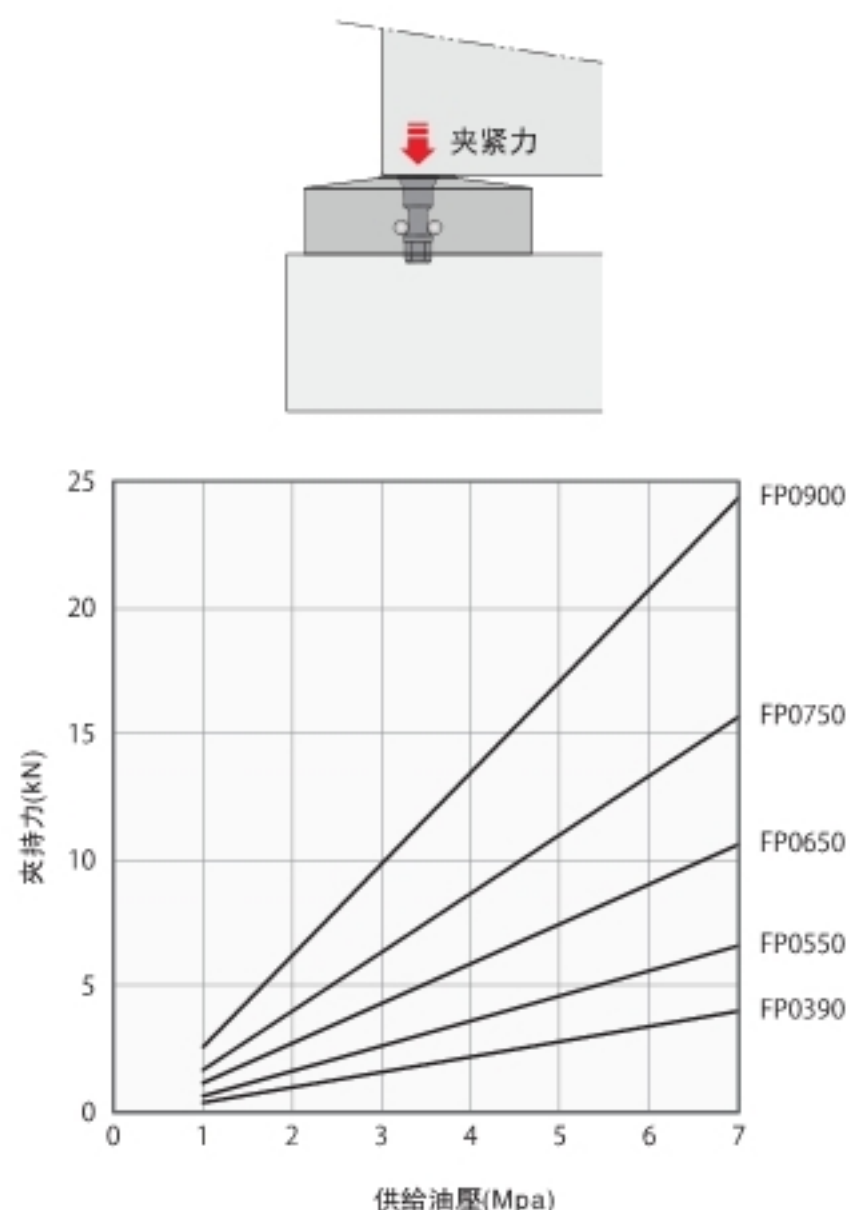


規 格

		(mm)				
型 號		FP0390-□□	FP0550-□□	FP0650-□□	FP0750-□□	FP0900-□□
油缸夾緊側面積	cm ²	6.0	9.9	15.7	23.3	36.4
夾緊力(計算公式)	kN	F=0.60XP-0.20	F=0.99XP-0.29	F=1.57XP-0.42	F=2.33XP-0.69	F=3.64XP-1.10
全行程	mm	6.7	7.5	8.5	10	12
夾緊行程	mm	3.8	5	5.3	7	8.7
油缸夾緊側容量	cm ³	4.0	7.4	13.4	23.3	43.7
釋放彈簧力	N	116~215	198~318	306~475	459~763	733~1214
導套復位彈簧力	N	6.1	9.3	11.3	18.0	21.6
容許偏心量	MM	±0.5	±0.7	±1	±1	±1.2
最高使用壓力	MPa	7.0				
最低動作壓力	MPa	1.0				
耐壓	MPa	10.5				
推薦氣壓(噴氣清潔用)	MPa	0.4~0.5				
使用溫度	℃	0~70				
重量	kg	0.7	1.5	2.3	3.5	6.0

能力曲綫圖

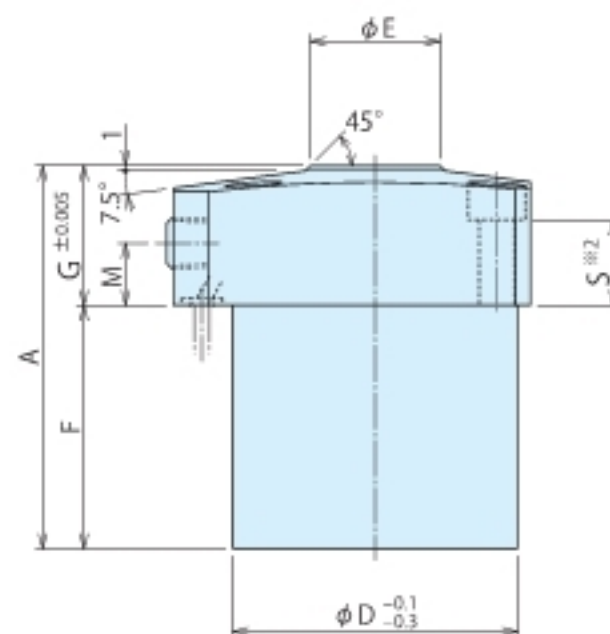
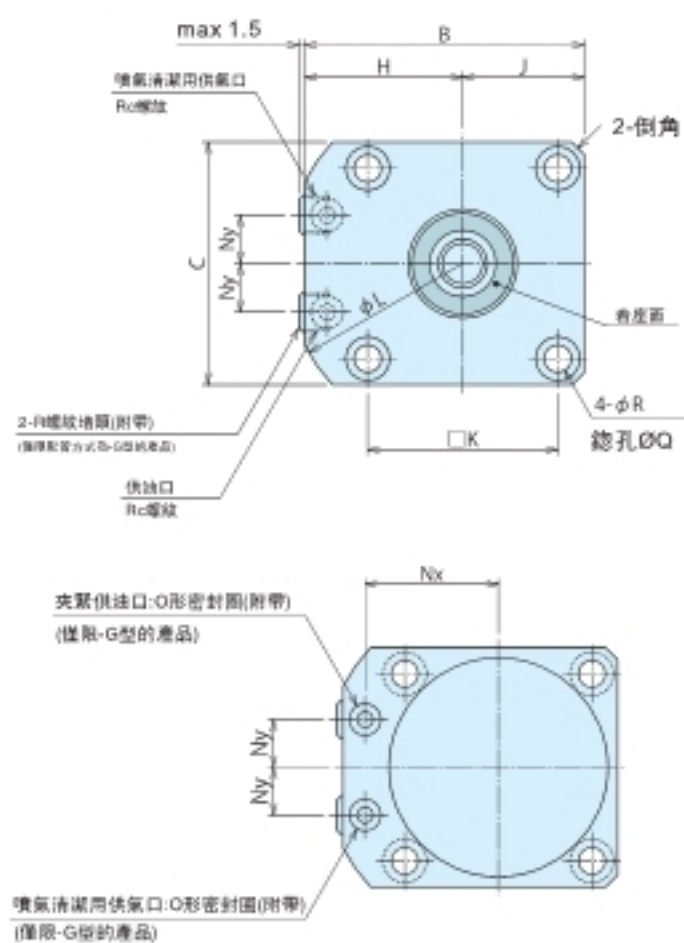
型 號	夾緊力(kN)				
	FP0390	FP0550	FP0650	FP0750	FP0900
7	4.00	6.64	10.57	15.62	24.38
6.5	3.70	6.15	9.79	14.46	22.56
6	3.40	5.65	9.00	13.29	20.74
5.5	3.10	5.16	8.22	12.13	18.92
5	2.80	4.66	7.43	10.96	17.10
4.5	2.50	4.17	6.65	9.80	15.28
4	2.20	3.67	5.86	8.63	13.46
3.5	1.90	3.18	5.08	7.47	11.64
3	1.60	2.68	4.29	6.30	9.82
2.5	1.30	2.19	3.51	5.14	8.00
2	1.00	1.69	2.72	3.97	6.18
1.5	0.70	1.20	1.94	2.81	4.36
1	0.40	0.70	1.15	1.64	2.54



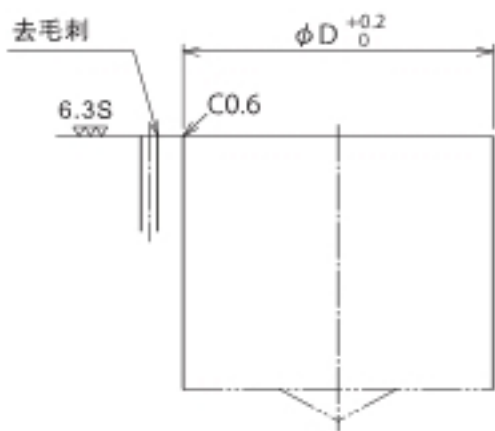
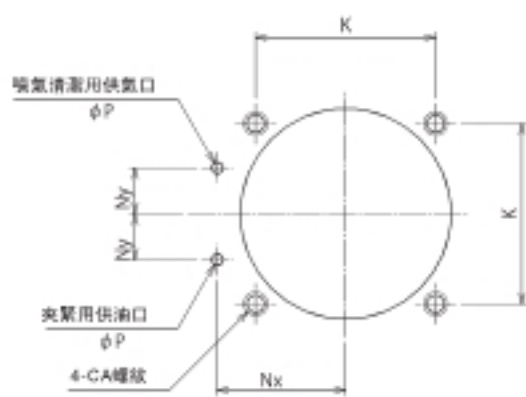
外形尺寸

G:板式連接型(配有R螺紋堵頭)

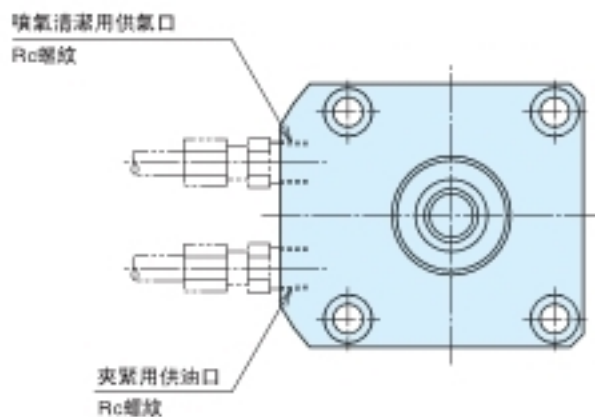
※本圖表示PF-G型產品



安裝部位加工尺寸



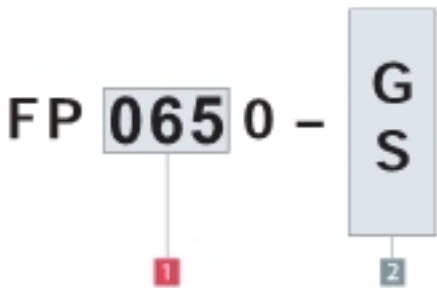
配管方式



S:Rc螺紋配管型

※本圖表示FP-S型产品

型號表示



- 1 本體尺寸
- 2 配管方式
- 3 選配件 (選擇無標記時)

外形尺寸表以及安裝部位加工尺寸表

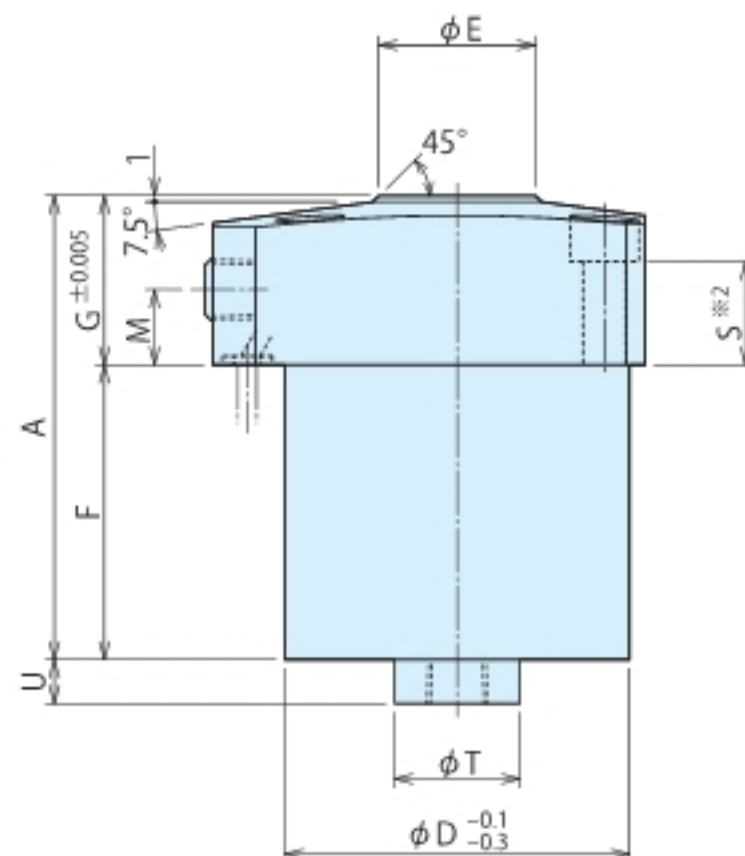
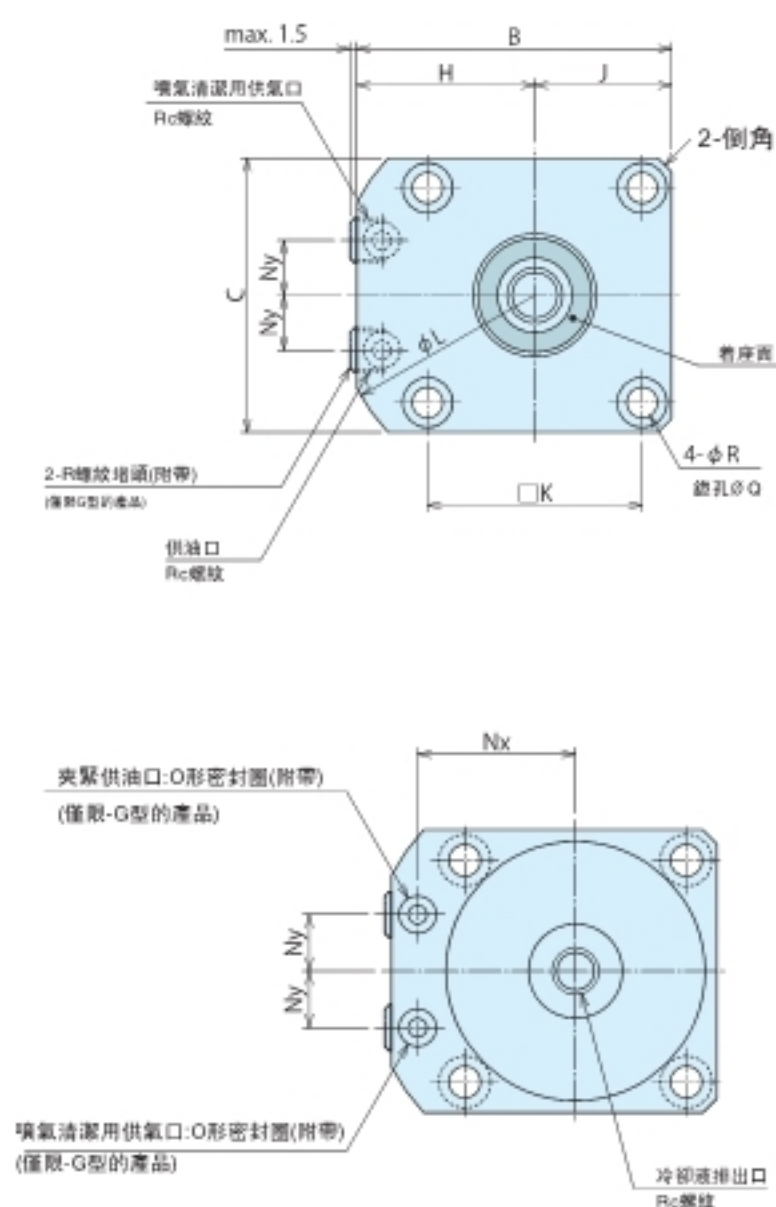
(mm)

型號	FP0390-□	FP0550-□	FP0650-□	FP0750-□	FP0900-□
全行程	6.7	7.5	8.5	10	12
夾緊行程	3.8	5	5.3	7	8.7
A	65	74	85	100	120
B	54	69	81	92	107
C	45	60	70	80	95
D	39	55	65	75	90
E	20	25	30	38	47.5
F	38	47	57	68	83
G	27	27	28	32	37
H	31.5	39	46	52	59.5
J	22.5	30	35	40	47.5
K	34	47	55	63	75
L	73	88	106	116	136
M	12	12	12	16	16
Nx	26	33.5	39.5	45	52.5
Ny	9	12	15	16	18.5
P	3	3	5	5	5
Q	9	11	11	14	17.5
R	5.5	6.8	6.8	9	11
S	18.5	16.5	17	19	21
倒角	3	3	4	5	6
CA	M5X0.8	M6	M6	M8	M10
供油	Rc螺紋	Rc1/8	Rc1/8	Rc1/4	Rc1/4
噴氣清潔用供氣	Rc螺紋	Rc1/8	Rc1/8	Rc1/4	Rc1/4
O形密封圈	-G型	1BP5	1BP7	1BP7	1BP7
R螺紋堵頭	-G型	R1/8	R1/8	R1/4	R1/4

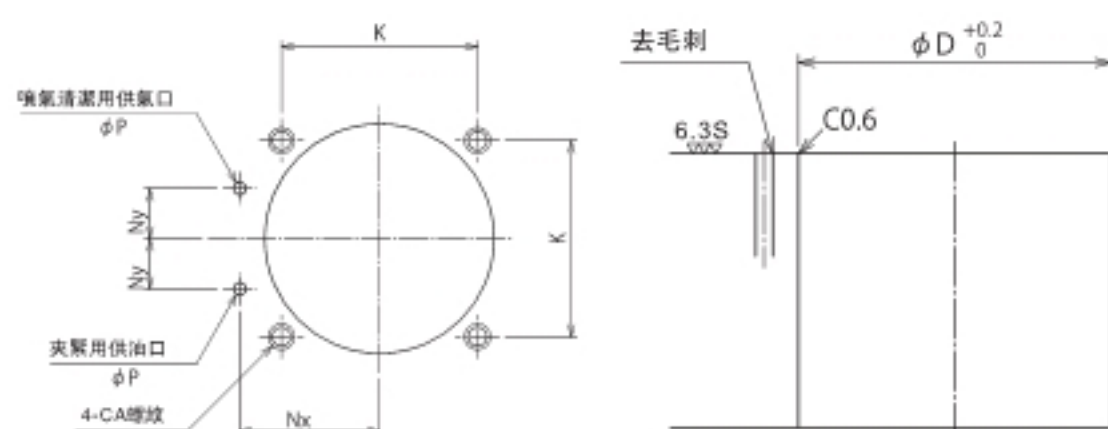
外形尺寸

G:板式連接型(配有R螺紋堵頭)

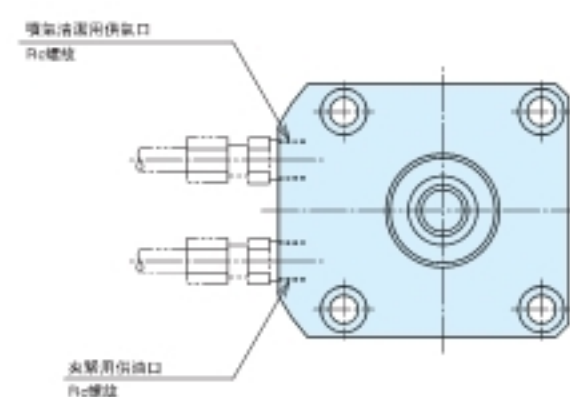
※本圖表示 FP-GD型產品



安裝部位加工尺寸



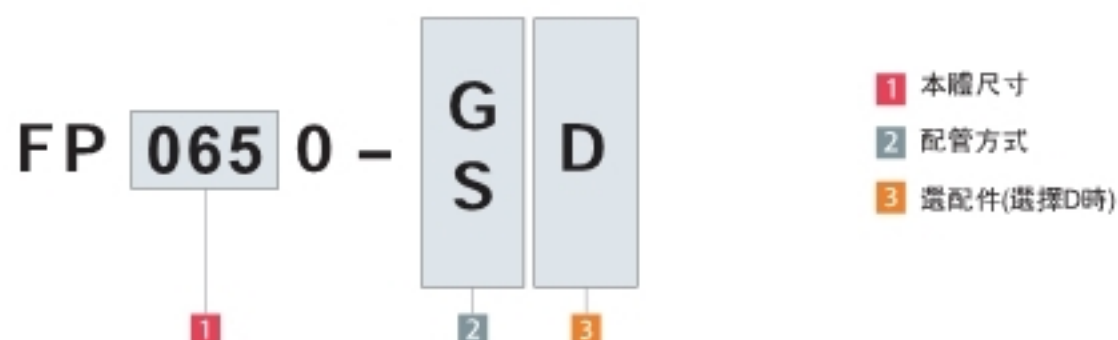
配管方式



S:Rc螺紋配管型

※本圖表示FP-SD型產品

型號表示



外形尺寸及安装部位加工尺寸表

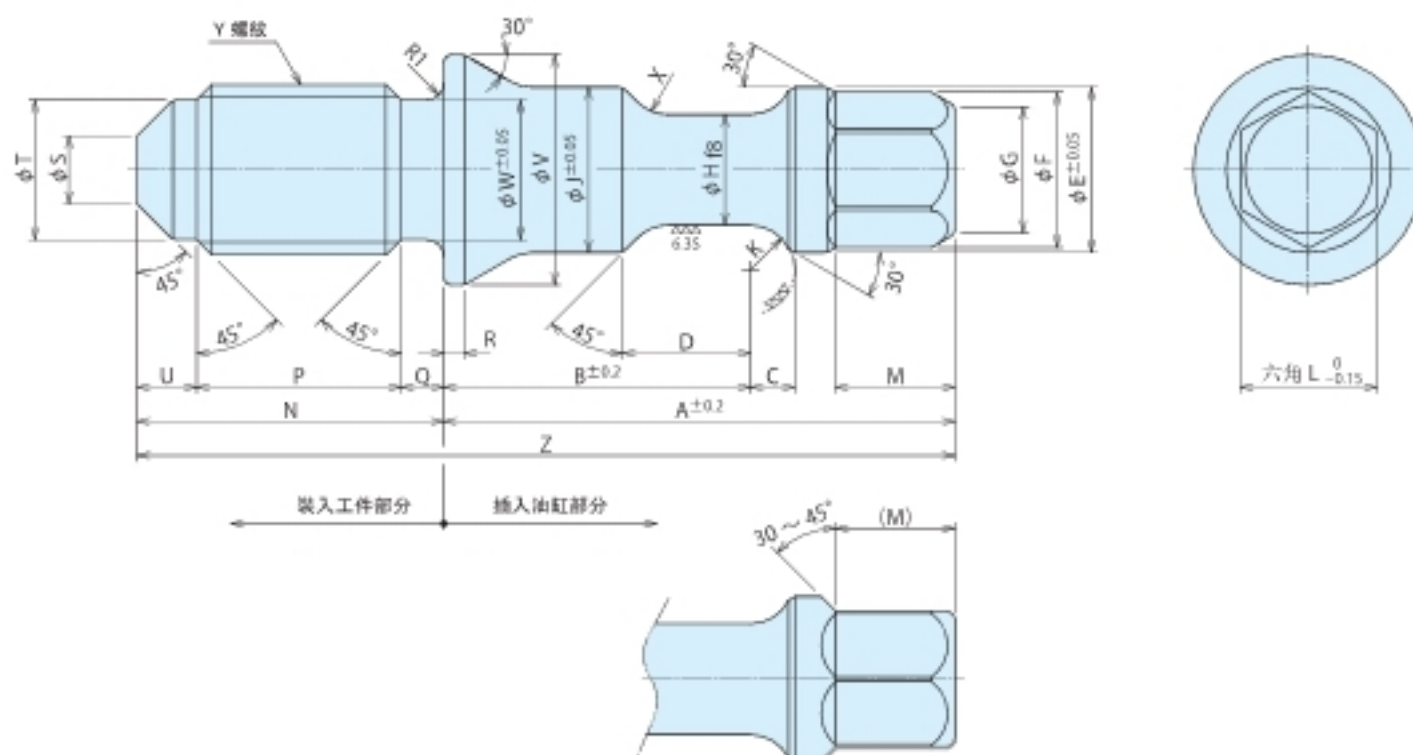
(mm)

型 號		FP0390-□D	FP0550-□D	FP0650-□D	FP0750-□D	FP0900-□D
全行程		6.7	7.5	8.5	10	12
夾緊行程		3.8	5	5.3	7	8.7
A		65	74	85	100	120
B		54	69	81	92	107
C		45	60	70	80	95
D		39	55	65	75	90
E		20	25	30	38	47.5
F		38	47	57	68	83
G		27	27	28	32	37
H		31.5	39	46	52	59.5
J		22.5	30	35	40	47.5
K		34	47	55	63	75
L		73	88	106	116	136
M		12	12	12	16	16
Nx		26	33.5	39.5	45	52.5
Ny		9	12	15	16	18.5
P		3	3	5	5	5
Q		9	11	11	14	17.5
R		5.5	6.8	6.8	9	11
S		18.5	16.5	17	19	21
T		16	20	30	30	30.5
U		7	7	7	11	11
倒角		3	3	4	5	6
CA		M5X0.8	M6	M6	M8	M10
供油 Rc螺紋		Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
噴氣清潔用供氣 Rc螺紋		Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
冷卻液排出口 Rc螺紋		Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
O形密封圈	-G型	1BP5	1BP5	1BP7	1BP7	1BP7
R螺紋堵頭	-G型	R1/8	R1/8	R1/8	R1/4	R1/4

選配項：牽引螺栓

LZ 055 0 – FP1

尺寸
(請參照下表)

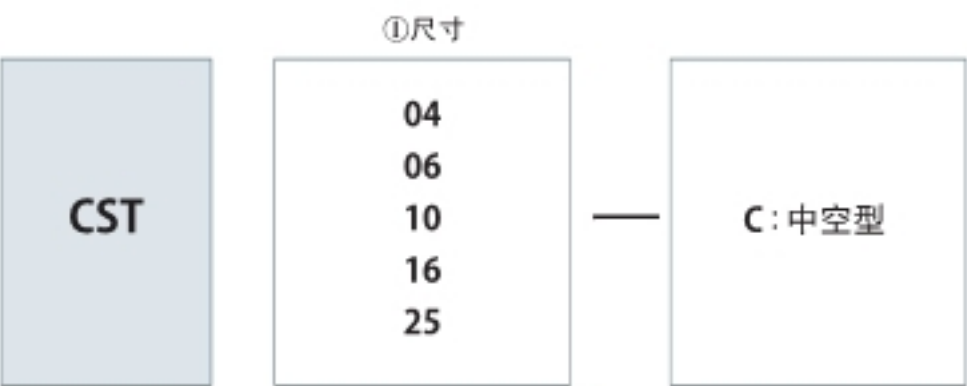


(mm)

型 號	LZ0390-FP1	LZ0550-FP1	LZ0650-FP1	LZ0750-FP1	LZ0900-FP1
對應機器型號	FP0390-□□ FQ0360-□□	FP0550-□□ FQ0390-□□	FP0650-□□ FQ0470-□□	FP0750-□□ FQ0550-□□	FP0900-□□ FQ0750-□□
A	25.8	30	35.5	45	56
B	15.8	18	21.5	27	33.5
C	2	2.6	3	3.8	5
D	5.5	7.5	8	10.5	12.5
E	7.7	9.7	11.5	14.5	18.5
F	6.3	9.1	9.1	11.3	14.8
G	5	7.5	7.5	9.5	12.2
H	5.3 ^{-0.010 -0.028}	6.5 ^{-0.013 -0.035}	8 ^{-0.013 -0.035}	10 ^{-0.013 -0.035}	12.5 ^{-0.016 -0.043}
J	7.7	9.7	11.5	14.5	18.5
K	R2	R2.5	R3	R3.75	R4.76
L	5.5	8	8	10	13
M	5	7	7	8.5	11
N	15	18	20	26	33
P	9.5	12	13.5	18	22
Q	2.5	2.5	2.5	3	4
R	1.2	1.2	1.2	2	2.5
S	3.5	4	5	7	8.5
T	6.5	8.2	10	13.5	17
U	3	3.5	4	5	7
V	11.5	13.5	16	21	26
W	6.5	8.2	10	13.5	17
X	R2	R2.5	R3	R4	R5
Y (標稱X間距)	M8X1.25	M10X1.5	M12X1.75	M16X2	M20X2.5
Z	40.8	48	55.5	71	89

型號表示

CST①-C



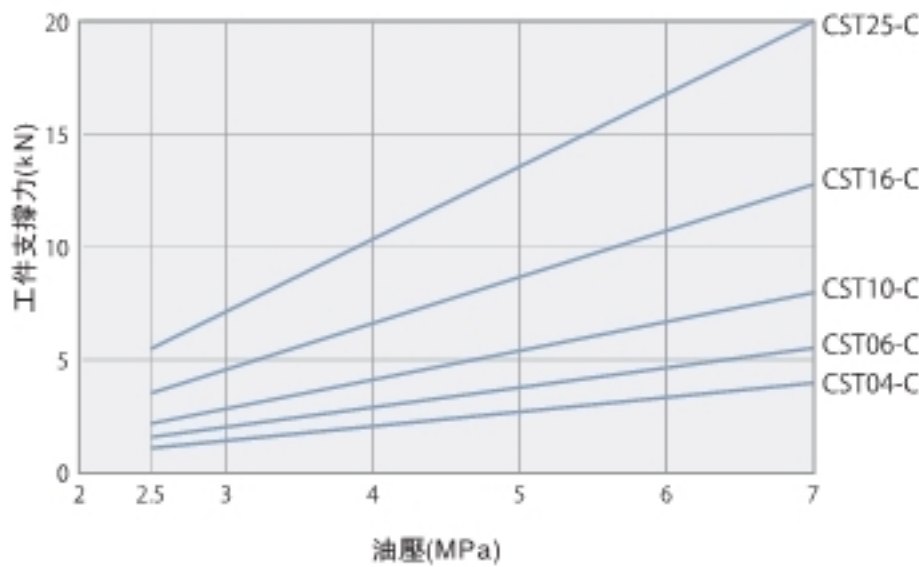
工件支撐器(中空型)

規格

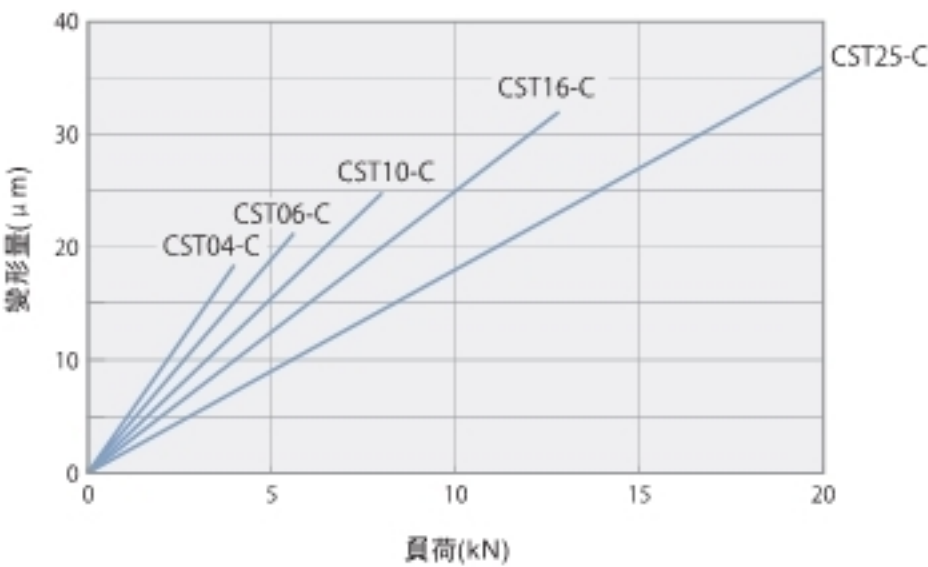
型 號		CST04-C	CST06-C	CST10-C	CST16-C	CST25-C
工件支撐力(油壓為7MPa時)	kN	4	5.6	8	12.8	20
油缸容量	(cm ³)	0.7	0.9	1.2	2.1	3.3
質量	kg	0.5	0.8	1.0	1.6	2.7

使用油壓範圍:2.5~7MPa 保證耐壓:10.5MPa 使用環境溫度:0-70℃
將工件支撐器與夾緊器對置使用時，為了使支撐力達到(夾緊力+切削負荷)的1.5倍以上，請選擇型號匹配的工件支撐器與夾緊器

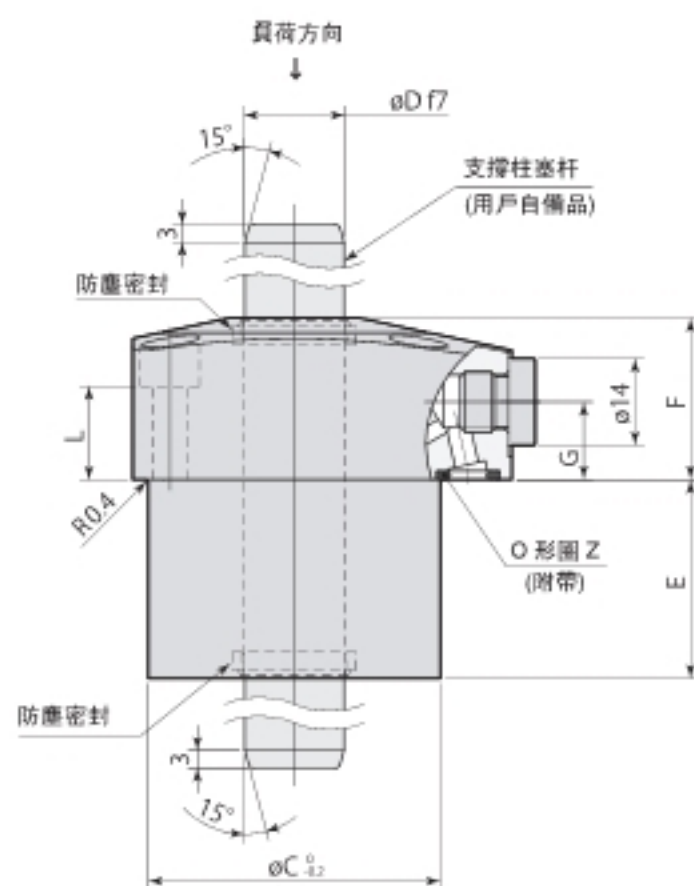
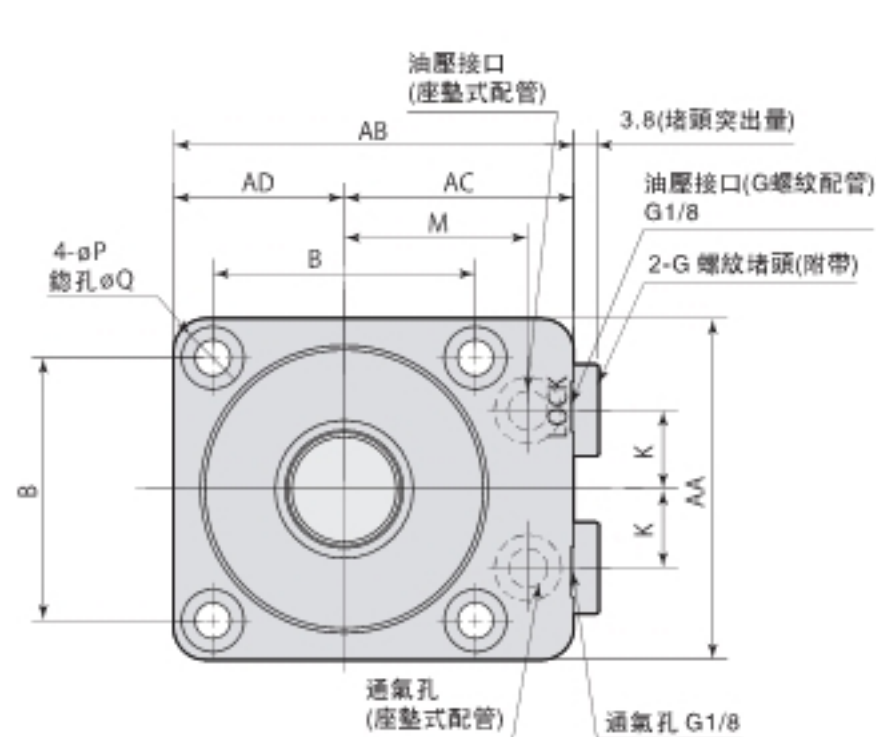
油壓與工件支撐力的關係



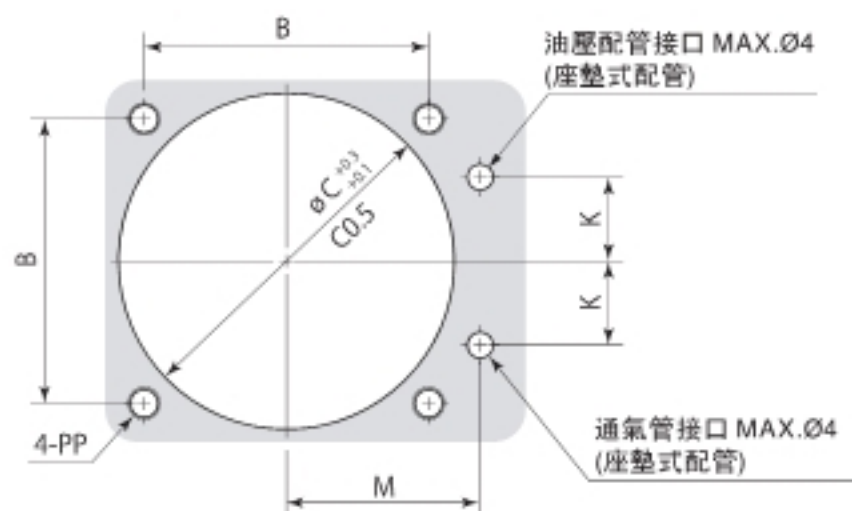
負荷與變形量的關係



外形尺寸圖



安裝孔加工圖



型 號	CST04-C	CST06-C	CST10-C	CST16-C	CST25-C
AA	45	52	56	65	78
AB	55	61	65	73	85
AC	32.5	35	37	40.5	46
AD	22.5	26	28	32.5	39
B	34	40	44	52	62
C	40	47	52	60	72
D	15	16	20	22	25
E	21	32	33	47	67
F	26	26	28	30	30
G	12.5	12.5	12.5	12.5	12.5
K	10	12	13	15	18
L	15	15	16.5	15.9	12
M	25.5	28	30	33.5	39
P	5.5	5.5	5.5	6.8	9
PP	M5	M5	M5	M6	M8
Q	9.5	9.5	9.5	11	14
Q形圈Z	P7	P7	P7	P7	P7

型號表示

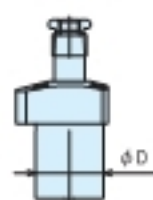
LHA **036** 0 - **C** **R** -

1 2 3 4 5

1 主體尺寸

036: $\phi D=36\text{mm}$	065: $\phi D=65\text{mm}$
040: $\phi D=40\text{mm}$	075: $\phi D=75\text{mm}$
048: $\phi D=48\text{mm}$	090: $\phi D=90\text{mm}$
055: $\phi D=55\text{mm}$	105: $\phi D=105\text{mm}$

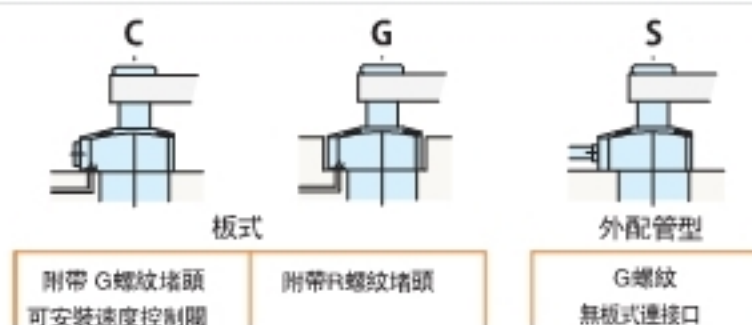
※表示本體油缸法蘭下部的外徑尺寸(ϕD)



注: 1、速度控制閥 (BZL), 由用戶另行購買。
2、不配壓臂。

2 配管方式

C: 板式(附帶G螺紋堵頭)
G: 板式(附帶R螺紋堵頭)
S: 外配管型 (Rc螺紋)



3 夾緊時的旋轉方向

R: 順時針方向
L: 逆時針方向



4 檢測方式

無符號: 無(標準)
D : 雙出杆型
M : 空氣傳感器板式連接型



5 選配件

無符號: 無 (標準: 壓板錐面夾緊型)
P : 雙壓臂型

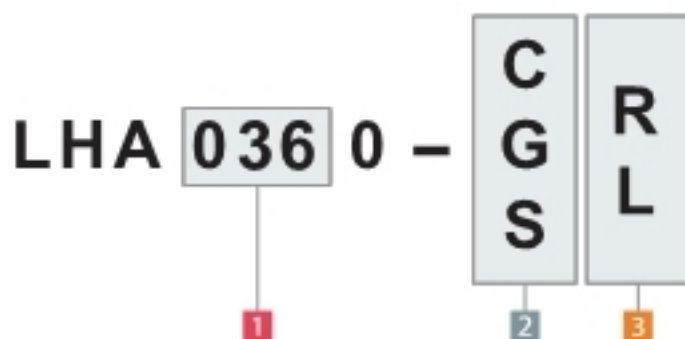


規格

型 號		LHA0360	LHA0400	LHA0480	LHA0550
夾緊油缸面積	cm ²	3.54	5.00	6.95	10.3
油缸內徑	mm	26	31	37	44
活塞杆徑	mm	15	18	22	25
夾緊力 (計算公式) kN	S 選擇無符號時	$F = \frac{P (1 - 0.0021 \times L)}{2.9379 + 0.0052 \times L}$	$F = \frac{P (1 - 0.0016 \times L)}{2.0920 + 0.0040 \times L}$	$F = \frac{P (1 - 0.0009 \times L)}{1.4892 + 0.0018 \times L}$	$F = \frac{P (1 - 0.0011 \times L)}{1.0039 + 0.0011 \times L}$
	S 選擇P時	$F_1 = (L_2/L_3) \times 0.354 \times P$ $F_2 = (L_1/L_3) \times 0.354 \times P$	$F_1 = (L_2/L_3) \times 0.5 \times P$ $F_2 = (L_1/L_3) \times 0.5 \times P$	$F_1 = (L_2/L_3) \times 0.695 \times P$ $F_2 = (L_1/L_3) \times 0.695 \times P$	$F_1 = (L_2/L_3) \times 1.03 \times P$ $F_2 = (L_1/L_3) \times 1.03 \times P$
S 選擇 無符號/P時	全行程	mm	13.5	14.5	15.5
	旋轉行程 (90°)	mm	5.5	6.5	7.5
	夾緊行程	mm	8	8	8
	旋轉角度精度	90° ±3°			
	重複夾緊位置精度	±0.5°			
最高使用壓力	MPa	7			
最低動作壓力	MPa	1.5			
耐壓	MPa	10.5			
使用溫度	℃	0 ~ 70			
使用流體		ISO 粘度等級 ISO-VG-32 一般液壓油			

型 號		LHA0650	LHA0750	LHA0900	LHA1050	
夾緊油缸面積		cm ²	13.4	20.3	29.5	41.3
油缸內徑		mm	51	62	76	91
活塞杆徑		mm	30	35.5	45	55
夾緊力 (計算公式) kN	5 選擇無符號時	$F = \frac{P (1-0.0009 \times L)}{0.7822+0.0010 \times L}$	$F = \frac{P (1-0.0007 \times L)}{0.5175+0.0006 \times L}$	$F = \frac{P (1-0.0009 \times L)}{0.3547+0.0004 \times L}$	$F = \frac{P (1-0.0008 \times L)}{0.2495+0.0002 \times L}$	
	5 選擇P時	$F_1 = (L_2/L_3) \times 1.34 \times P$ $F_2 = (L_1/L_3) \times 1.34 \times P$	$F_1 = (L_2/L_3) \times 2.03 \times P$ $F_2 = (L_1/L_3) \times 2.03 \times P$	$F_1 = (L_2/L_3) \times 2.95 \times P$ $F_2 = (L_1/L_3) \times 2.95 \times P$	$F_1 = (L_2/L_3) \times 4.13 \times P$ $F_2 = (L_1/L_3) \times 4.13 \times P$	
5 選擇 無符號/P時	全行程	mm	20	24	26	32
	旋轉行程 (90°)	mm	10	12	14	16
	夾緊行程	mm	10	12	12	16
	旋轉角度精度		90° ±3°			
	重複夾緊位置精度		±0.5°			
最高使用壓力	MPa	7				
最低動作壓力	MPa	1.5				
耐壓	MPa	10.5				
使用溫度	℃	0 ~ 70				
使用流體		ISO 粘度等級 ISO-VG-32 一般液壓油				

型號表示



- 1 主體尺寸
- 2 配管方式
- 3 夾緊時的旋轉方向
- 4 檢測方式(無符號選擇時)
- 5 選配項(無符號選擇時)

外形尺寸及安裝部位加工尺寸表

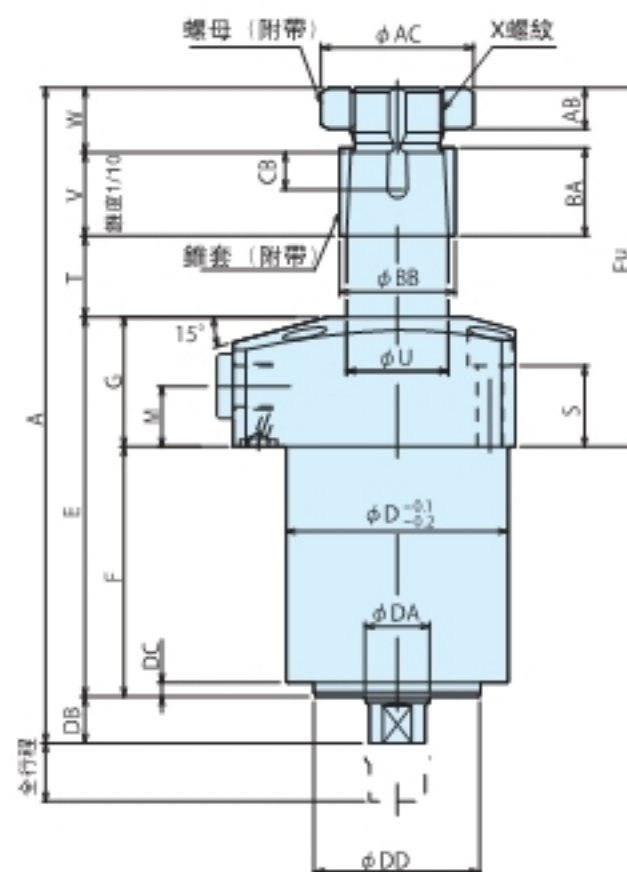
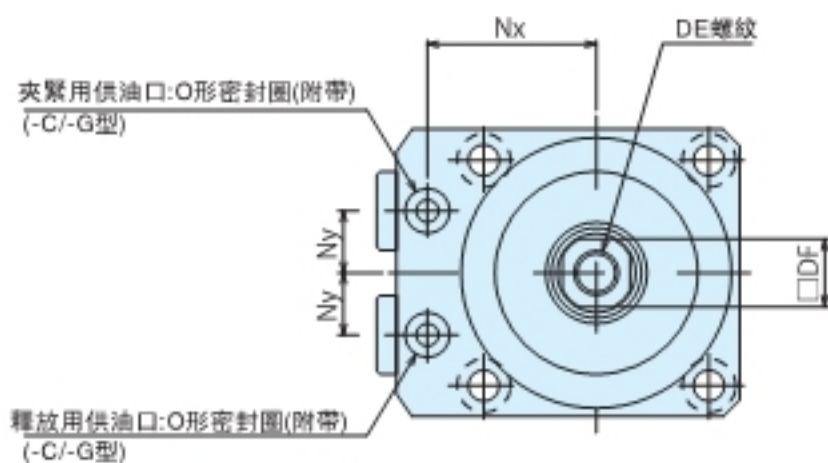
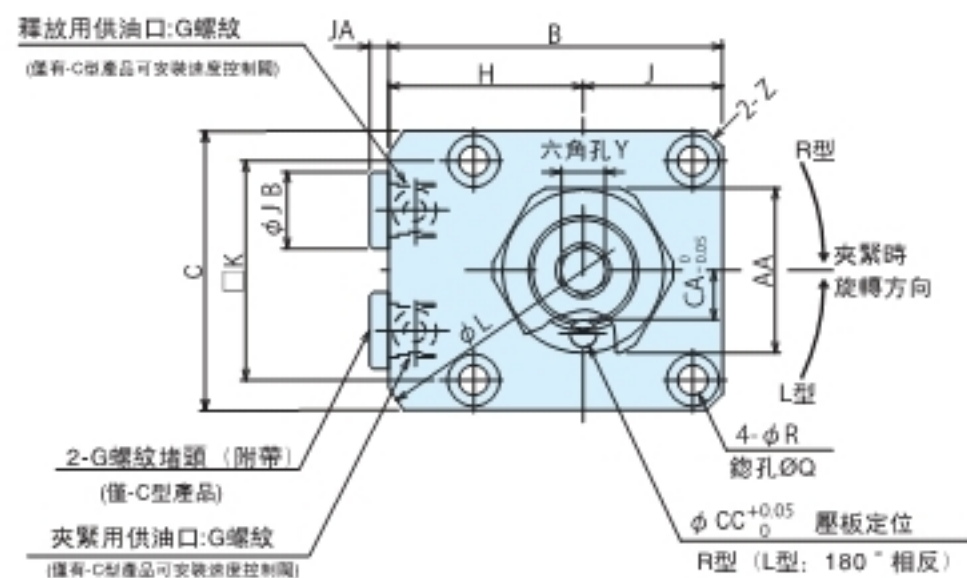
(mm)

型 號	LHA0360-□□	LHA0400-□□	LHA0480-□□	LHA0550-□□	LHA0650-□□	LHA0750-□□	LHA0900-□□	LHA1050-□□
全行程	13.5	14.5	15.5	18.5	20	24	26	32
旋轉行程90°	5.5	6.5	7.5	8.5	10	12	14	16
夾緊行程	8	8	8	10	10	12	12	16
A	104	115	128.5	145.5	156	181	203	240
B	49	54	61	69	81	92	107	122
C	40	45	51	60	70	80	95	110
D	36	40	48	55	65	75	90	105
E	64.5	71.5	79	89	94	109	120	144
F	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
H	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	40	47.5	55
K	31.4	34	40	47	55	63	75	88
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
T	15.5	16.5	17.5	20.5	22	26	28	34
U	15	18	22	25	30	35.5	45	55
V	13	15	18	21	24	30	37	43
W	11	12	14	15	16	16	18	19
X(公稱x間距)	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
ZA(倒角)	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	7	9	10	12.5	14	18.5	23
CB	6.5	6.5	7.5	9.5	11.5	12.5	11.5	13.5
CC	4	4	5	6	6	8	8	10
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
夾緊用供油口	-C型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
釋放用供油口	-S型	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8
R型紋堵頭	-G型	R1/8	R1/8	R1/8	R1/8	R1/4	R1/4	R3/8
O形密封圈(-C/-G形)	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
油缸容量	夾緊時	4.8	7.3	10.8	19	26.7	48.7	76.6
cm ³	釋放時	7.2	10.9	16.7	28.1	40.9	72.5	117.9
重量	kg	0.7	0.9	1.4	2	2.9	4.2	10.1

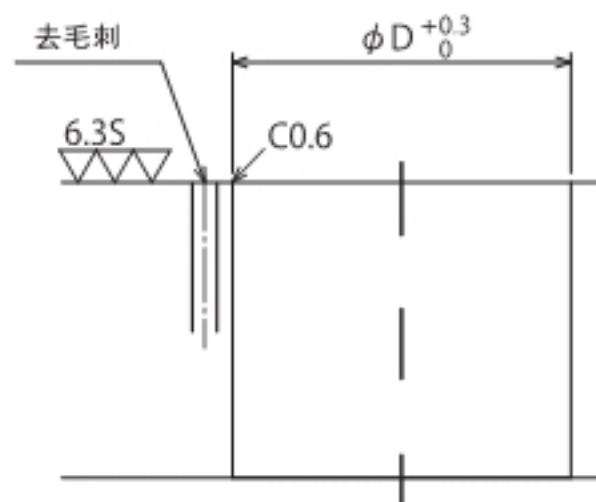
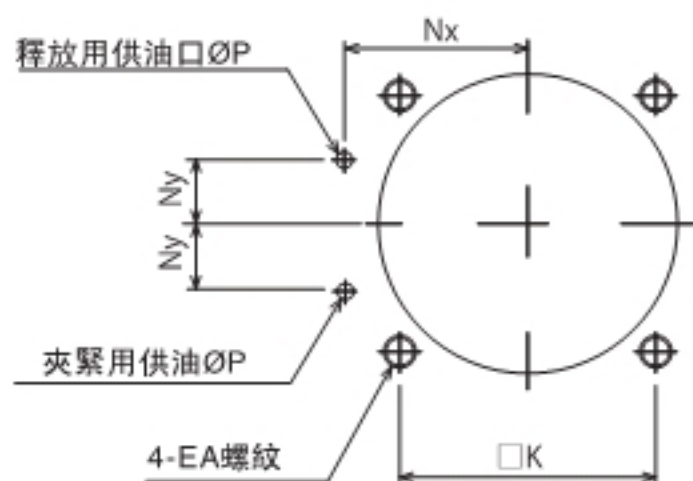
外形尺寸

C:板式 (附帶G螺紋堵頭)

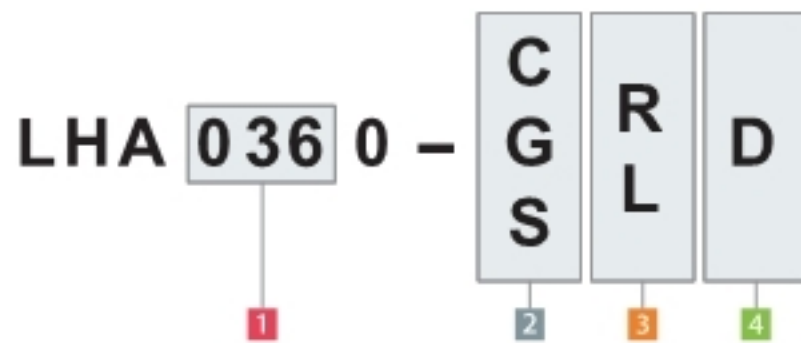
※ 本圖表示LHA-CRD的放鬆狀態



安裝部加工尺寸



型號表示



- 1 主體尺寸
- 2 配管方式
- 3 夾緊時的旋轉方向
- 4 檢測方式(選擇D型時)
- 5 選配項(無符號選擇時)

外形尺寸及安裝部位加工尺寸表

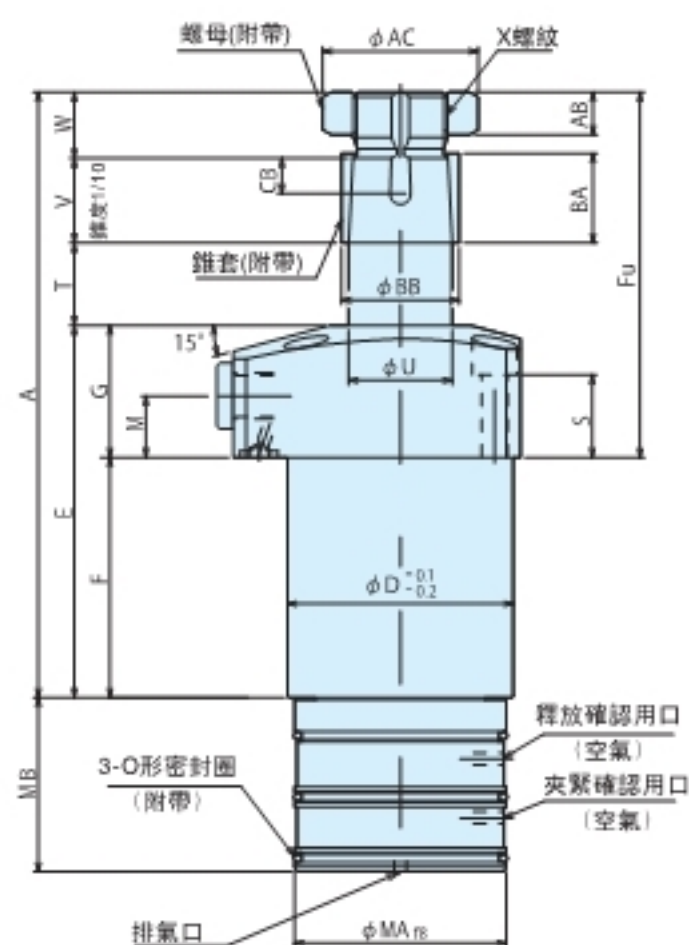
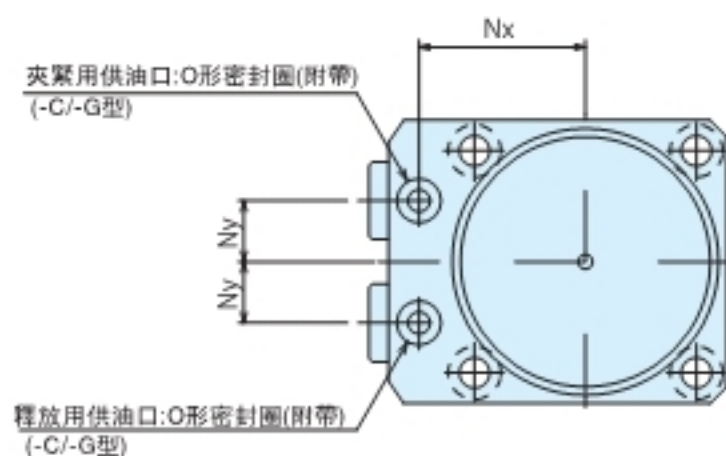
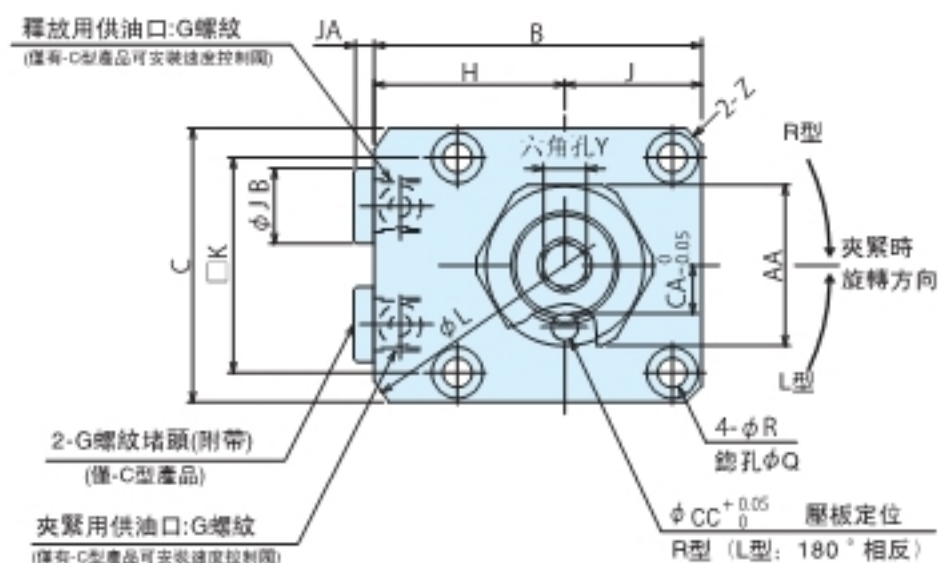
(mm)

型 號	LHA0360-□□	LHA0400-□□	LHA0480-□□	LHA0550-□□	LHA0650-□□	LHA0750-□□	LHA0900-□□	LHA1050-□□
全行程	13.5	14.5	15.5	18.5	20	24	26	32
旋轉行程	5.5	6.5	7.5	8.5	10	12	14	16
夾緊行程	8	8	8	10	10	12	12	16
A	114.5	128	141.5	158.5	169	194	216	253
B	49	54	61	69	81	92	107	122
C	40	45	51	60	70	80	95	110
D	36	40	48	55	65	75	90	105
E	67	74.5	82	92	97	112	123	147
F	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
H	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	40	47.5	55
K	31.4	34	40	47	55	63	75	88
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
T	15.5	16.5	17.5	20.5	22	26	28	34
U	15	18	22	25	30	35.5	45	55
V	13	15	18	21	24	30	37	43
W	11	12	14	15	16	16	18	19
X(公稱間距)	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
ZA(倒角)	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	7	9	10	12.5	14	18.5	23
CB	6.5	6.5	7.5	9.5	11.5	12.5	11.5	13.5
CC	4	4	5	6	6	8	8	10
DA	8	12	14	14	14	18	18	18
DB	8	10	10	10	10	10	10	10
DC	2.5	3	3	3	3	3	3	3
DD	25	29	36	36	43	50	65	80
DE (公稱×螺距)	M4×0.7×10	M6×15	M8×18	M8×18	M8×18	M10×21	M10×21	M10×21
DF	6	10	12	12	12	16	16	16
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
夾緊用供油口	-C型	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
釋放用供油口	-S型	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8
R圓紋堵頭	-G型	R1/8	R1/8	R1/8	R1/4	R1/4	R3/8	R3/8
O形密封圈(-C/-G型)	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
油缸容量	夾緊時	4.8	7.3	10.8	19	26.7	48.7	132.1
cm ³	釋放時	6.5	9.3	14.3	25.3	37.8	66.4	200
重量	kg	0.7	0.9	1.4	2	3	4.2	10.3

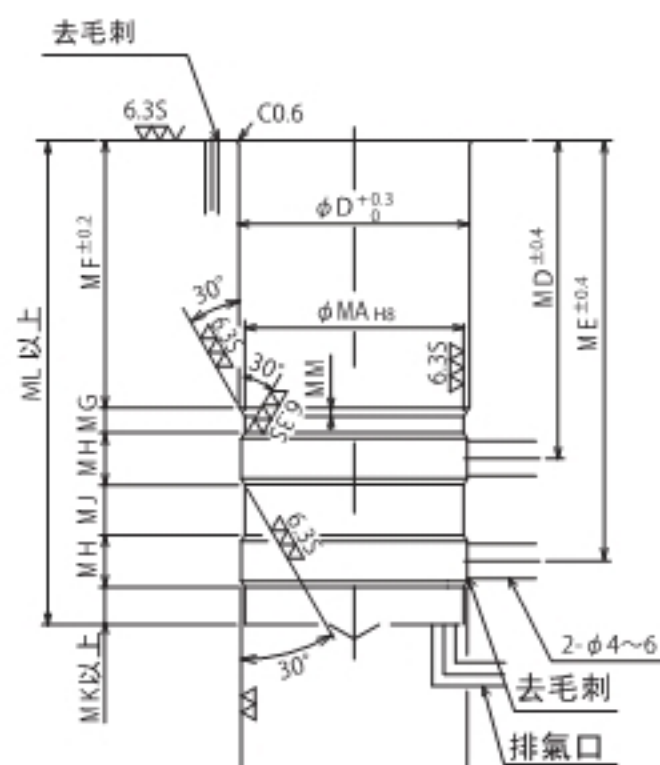
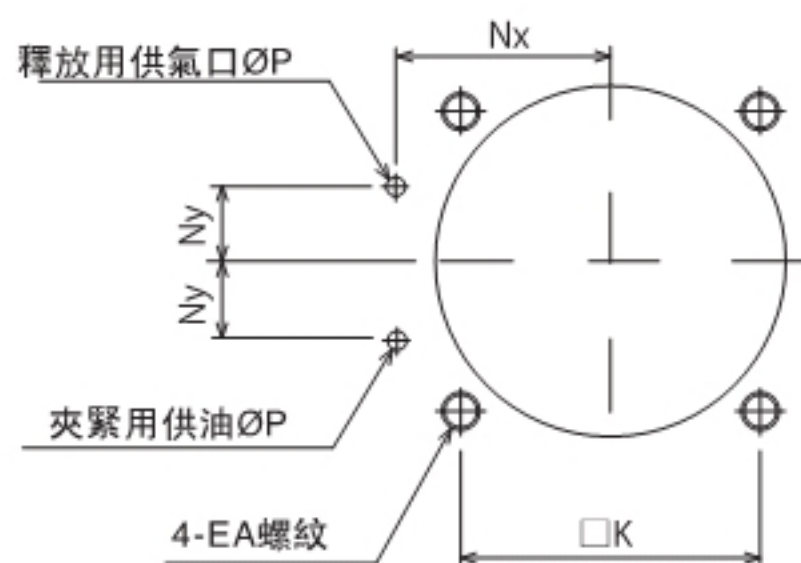
外形尺寸

C:板式 (附帶G螺紋堵頭)

※ 本圖表示LHA-CRM的放鬆狀態



安裝部加工尺寸



型號表示



外形尺寸及安裝部位加工尺寸表

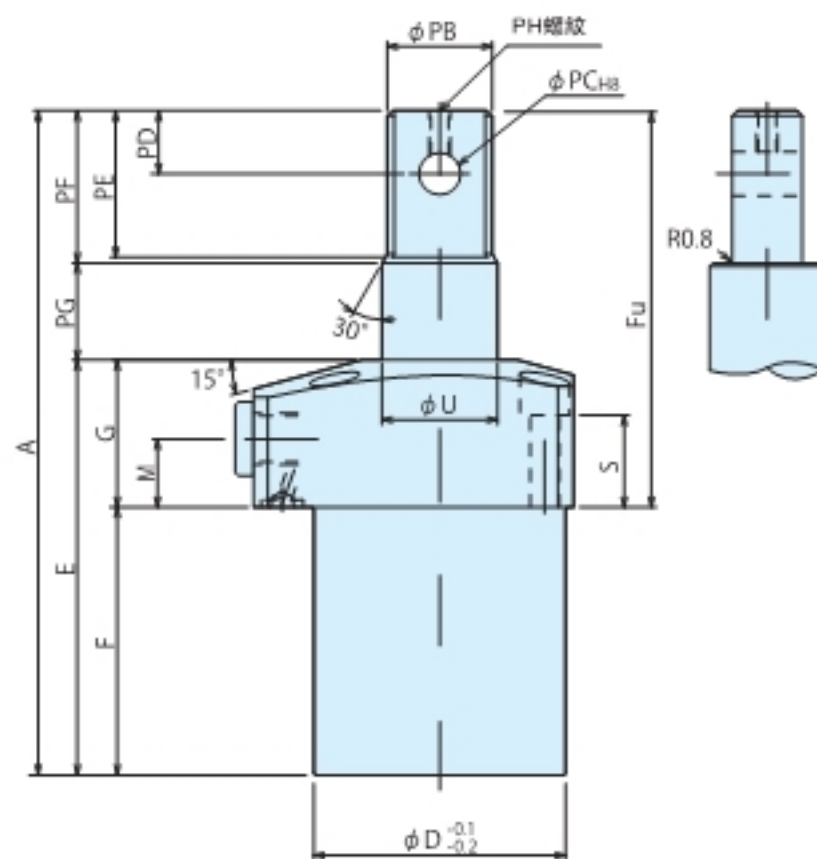
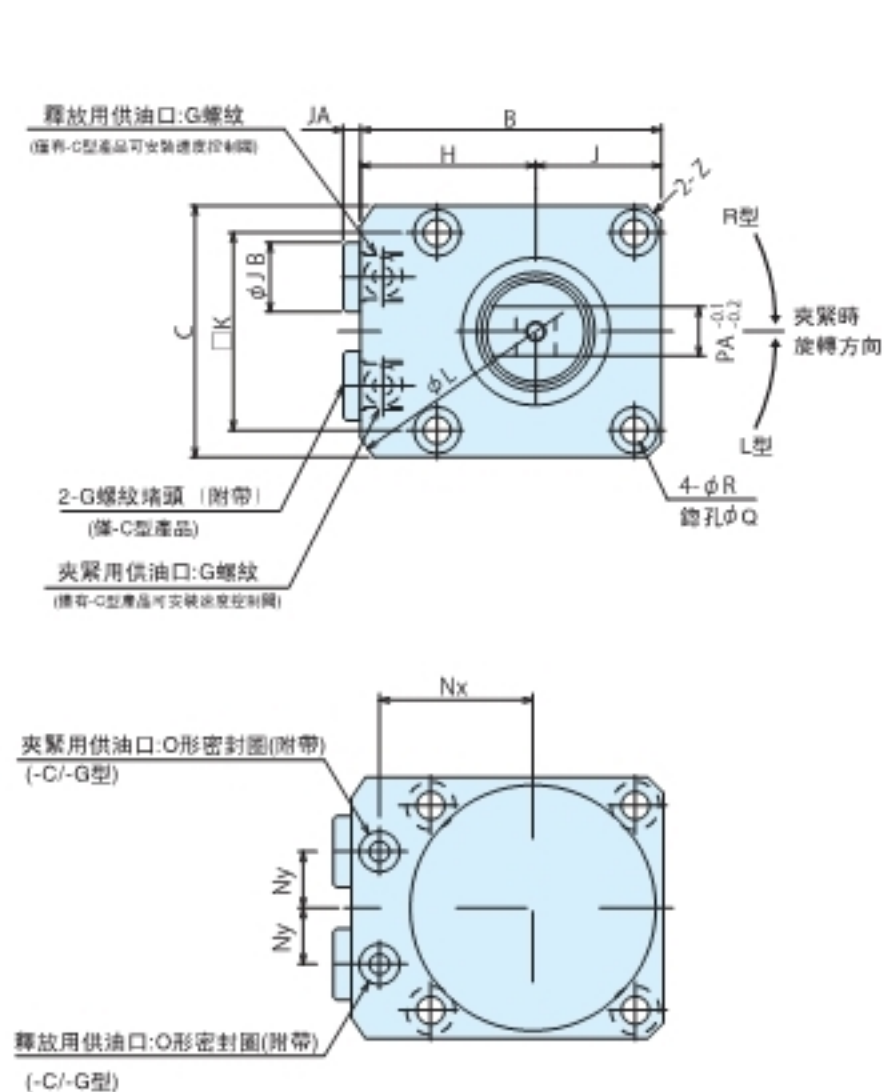
(mm)

型 號		LHA0360-□□M	LHA0400-□□M	LHA0480-□□M	LHA0550-□□M	LHA0650-□□M	LHA0750-□□M	LHA0900-□□M	LHA1050-□□M
全行程		13.5	14.5	15.5	18.5	20	24	26	32
旋轉行程90°		5.5	6.5	7.5	8.5	10	12	14	16
夾緊行程		8	8	8	10	10	12	12	16
A		104	115	128.5	145.5	156	181	203	240
B		49	54	61	69	81	92	107	122
C		40	45	51	60	70	80	95	110
D		36	40	48	55	65	75	90	105
E		64.5	71.5	79	89	94	109	120	144
F		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
H		29	31.5	35.5	39	46	52	59.5	67
J		20	22.5	25.5	30	35	40	47.5	55
K		31.4	34	40	47	55	63	75	88
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
T		15.5	16.5	17.5	20.5	22	26	28	34
U		15	18	22	25	30	35.5	45	55
V		13	15	18	21	24	30	37	43
W		11	12	14	15	16	16	18	19
X(公稱×螺距)		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(倒角)		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	7	9	10	12.5	14	18.5	23
CB		6.5	6.5	7.5	9.5	11.5	12.5	11.5	13.5
CC		4	4	5	6	6	8	8	10
EA		M4×0.7	M5×0.8	M5×0.8	M6	M6	M8	M10	M12
MA/8		34.5 ^{+0.025 -0.054}	38 ^{+0.025 -0.054}	45 ^{+0.025 -0.064}	45 ^{+0.025 -0.064}	45 ^{+0.025 -0.064}	53 ^{+0.030 -0.076}	53 ^{+0.030 -0.076}	53 ^{+0.030 -0.076}
MAH8		34.5 ^{+0.030 0}	38 ^{+0.030 0}	45 ^{+0.030 0}	45 ^{+0.030 0}	45 ^{+0.030 0}	53 ^{+0.046 0}	53 ^{+0.046 0}	53 ^{+0.046 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
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
夾緊用供油口/ 釋放用供油口/	-C型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
	-S型	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8
R螺紋堵頭	-G型	R1/8	R1/8	R1/8	R1/8	R1/4	R1/4	R3/8	R3/8
O形密封圈(-G/-G型)		1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
3-O形密封圈		AS568-025(70)	AS568-028(70)	AS568-030(70)	AS568-030(70)	AS568-030(70)	AS568-032(70)	AS568-032(70)	AS568-032(70)
油缸容量 cm ³	夾緊時	4.8	7.3	10.8	19	26.7	48.7	76.6	132.1
	釋放時	6.5	9.3	14.3	25.3	37.8	66.4	111.3	200
重量	kg	0.8	1	1.6	2.2	3.1	4.5	7.6	10.6

外形尺寸

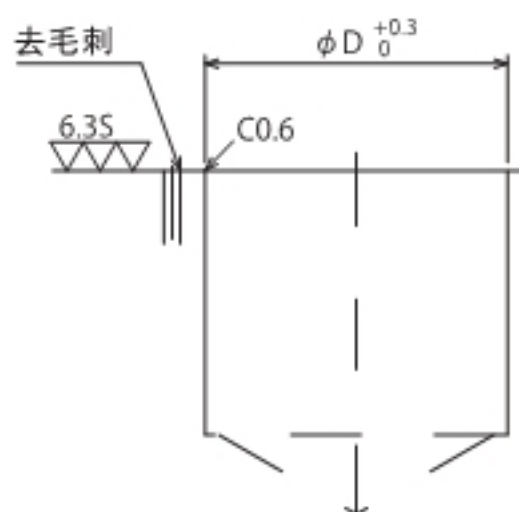
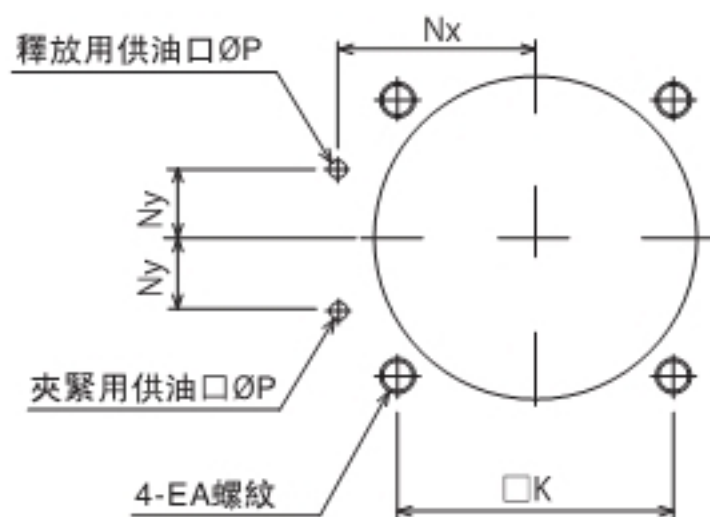
C:板式 (附帶G螺紋堵頭)

※ 本圖表示LHA-CR的放鬆狀態

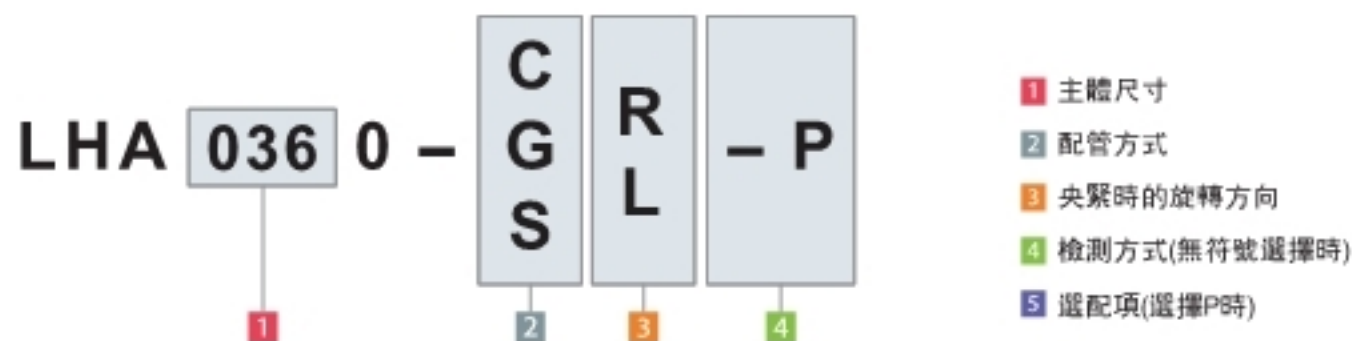


注: 不附帶夾緊管、銷和卡環, 由用戶另行購買。

安裝部位加工尺寸



型號表示



外形尺寸及安裝部位加工尺寸表

型 號		LHA0360-□□-P	LHA0400-□□-P	LHA0480-□□-P	LHA0550-□□-P	LHA0650-□□-P	LHA0750-□□-P	LHA0900-□□-P	LHA1050-□□-P
全行程		13.5	14.5	15.5	18.5	20	24	26	32
旋轉行程90°		5.5	6.5	7.5	8.5	10	12	14	16
夾緊行程		8	8	8	10	10	12	12	16
A		102	113	126.5	143.5	156	181	203	238
B		49	54	61	69	81	92	107	122
C		40	45	51	60	70	80	95	110
D		36	40	48	55	65	75	90	105
E		64.5	71.5	79	89	94	109	120	144
F		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
H		29	31.5	35.5	39	46	52	59.5	67
J		20	22.5	25.5	30	35	40	47.5	55
K		31.4	34	40	47	55	63	75	88
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
U		15	18	22	25	30	35.5	45	55
ZA(倒角)		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 ^{+0.018 0}	6 ^{+0.018 0}	8 ^{+0.022 0}	10 ^{+0.022 0}	13 ^{+0.027 0}	13 ^{+0.027 0}	16 ^{+0.027 0}	20 ^{+0.033 0}
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
夾緊用供油口 釋放用供油口	-C型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
	-S型	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8
R螺紋堵頭	-G型	R1/8	R1/8	R1/8	R1/8	R1/4	R1/4	R3/8	R3/8
O形密封圈(-C/-G型)		1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
油缸容量 cm³	夾緊時	4.8	7.3	10.8	19	26.7	48.7	76.6	132.1
	釋放時	7.2	10.9	16.7	28.1	40.9	72.5	117.9	208.1
重量	kg	0.7	0.9	1.3	1.9	2.8	4	7	9.8

型號表示

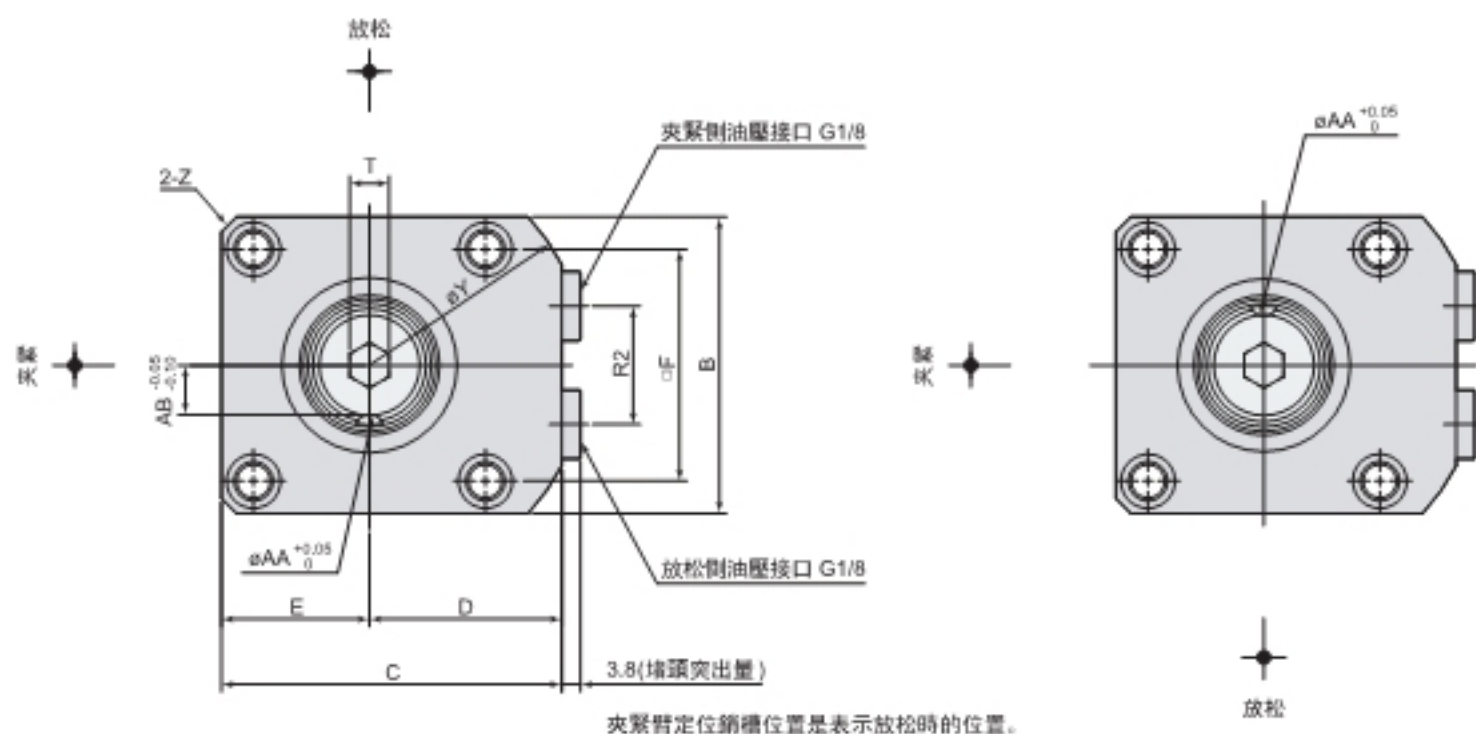


3點檢測型

型 號			CTM04	CTM05	CTM06	CTM10
油缸能力(油壓為7MPa時)		kN	3.5	4.9	7.2	9.4
油缸內徑		mm	31	37	44	51
主杆徑		mm	18	22	25	30
油缸面積(夾緊)		cm ²	5.00	6.95	10.3	13.4
旋轉角度			90° ± 3°			
定位銷槽位置精度			±1°			
夾緊重複定位精度			±0.5°			
全行程	CTM□-□T	mm	12	13	14	15.5
90° 旋轉行程		mm	6.5	7.5	8.5	10
夾緊行程		mm	5	5	5	5
過夾緊行程(CTM□-□T)		mm	0.5	0.5	0.5	0.5
油缸容量(CTM□-□T)	夾緊	cm ³	6.0	9.0	14.4	20.7
	放鬆	cm ³	9.1	14.0	21.3	31.7
質量	CTM□-□T	kg	0.9	1.2	1.8	2.7
安裝螺絲推薦緊固扭矩(強度分類12.9)		N·m	7	7	12	12
螺母推薦緊固扭矩		N·m	35	60	100	155

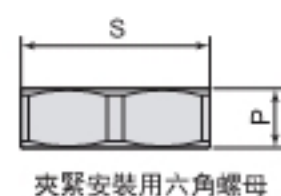
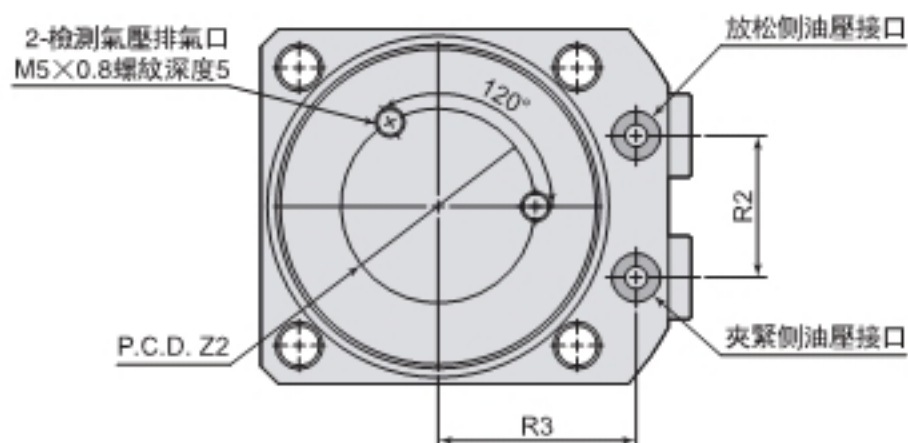
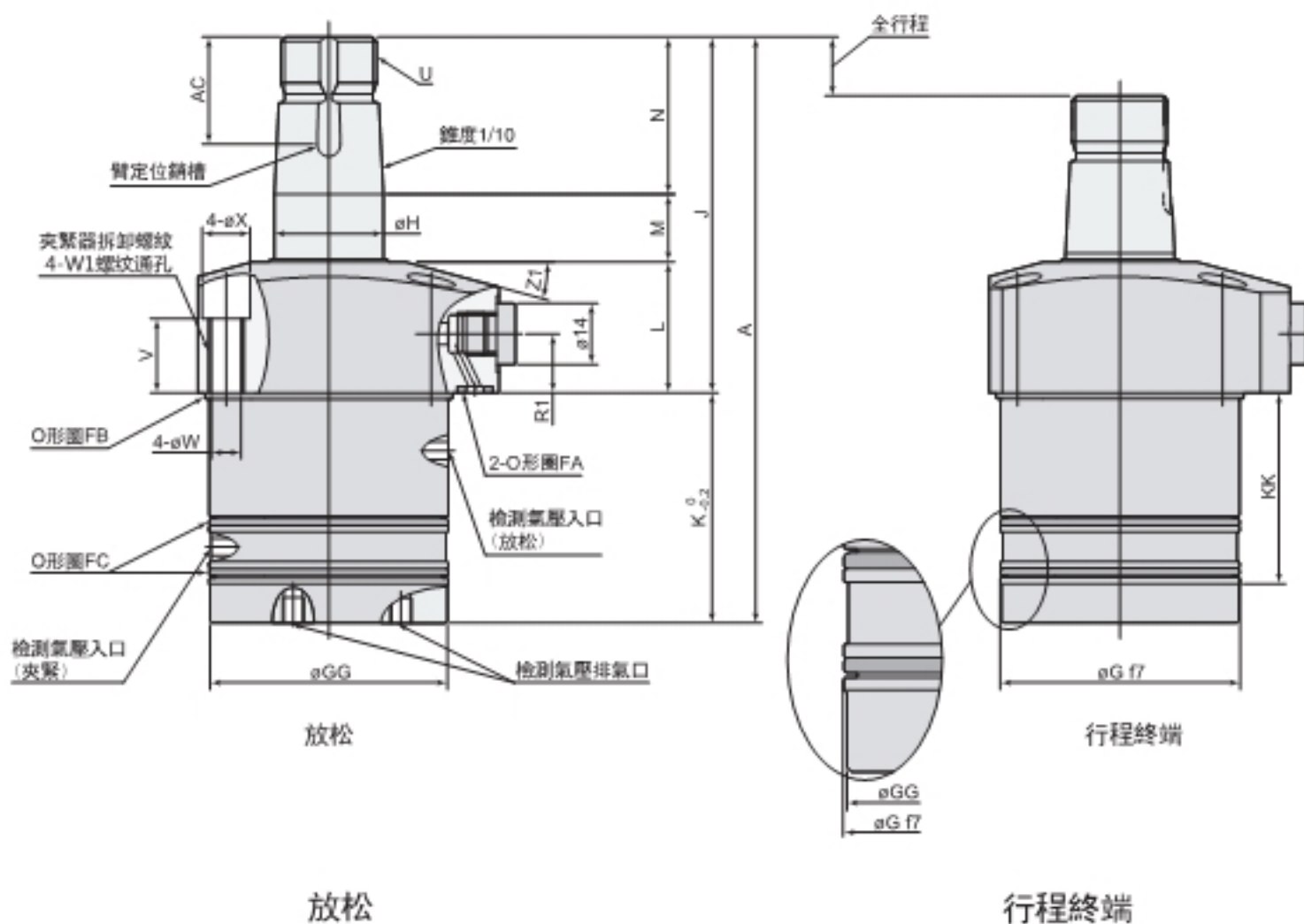
- 使用油壓範圍:1.5~7MPa
- 保證耐壓:10.5MP
- 使用環境溫度:0~70℃
- 使用流體:普通礦物油基液壓油(相當于ISO-VG32)
- 氯系切削液噴灑的環境下也可以使用。

外形尺寸



旋轉方向L(逆時針方向)

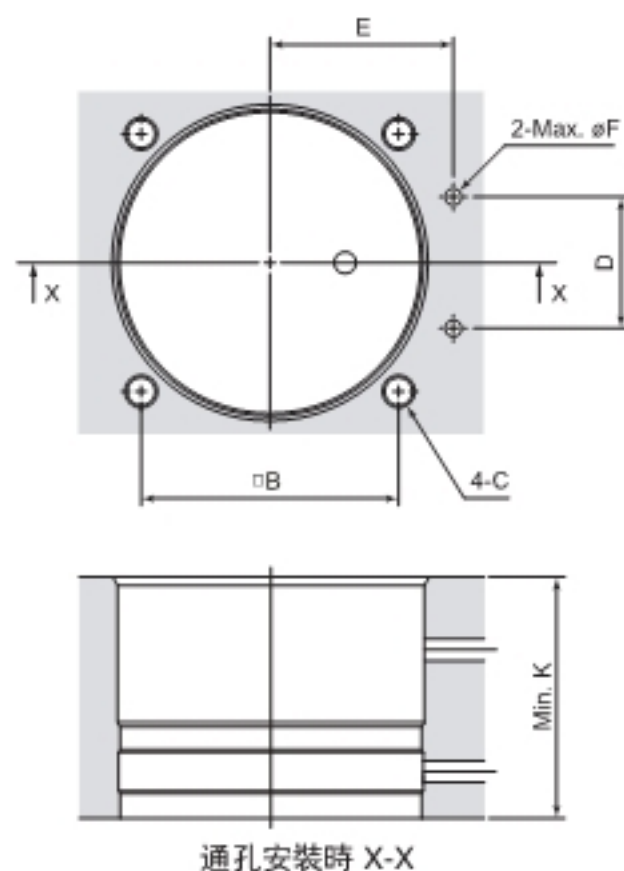
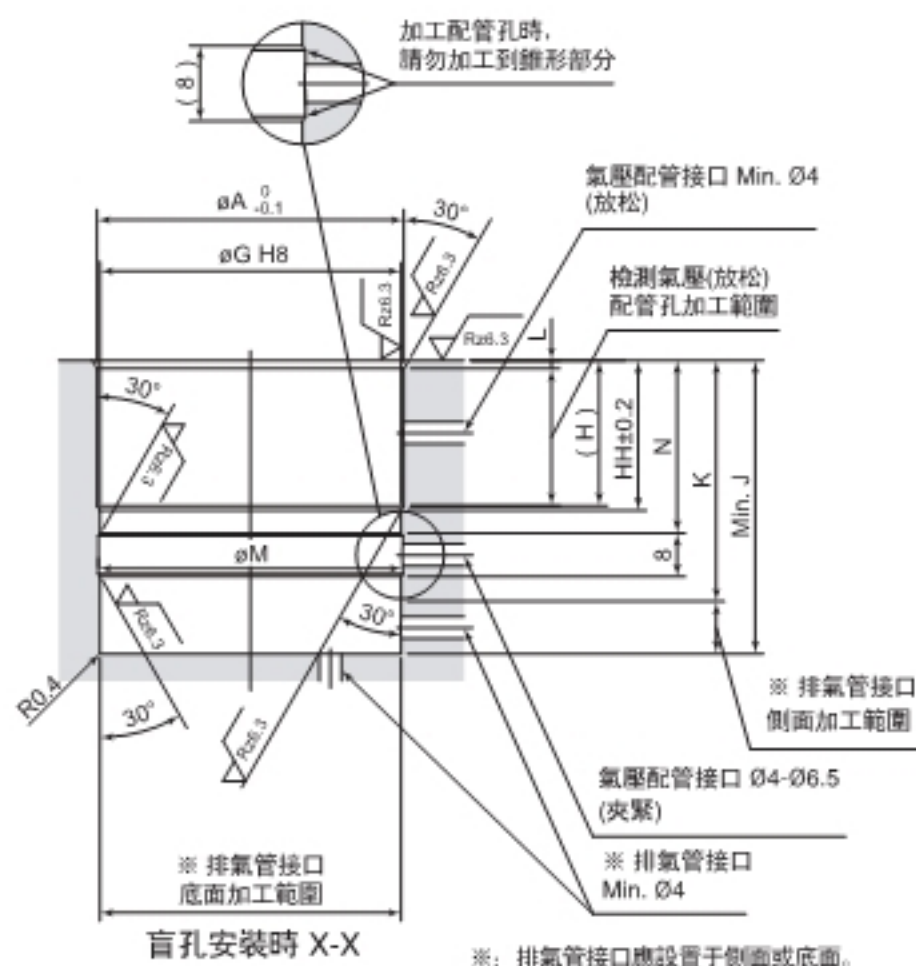
旋轉方向R(順時針方向)



外形尺寸表

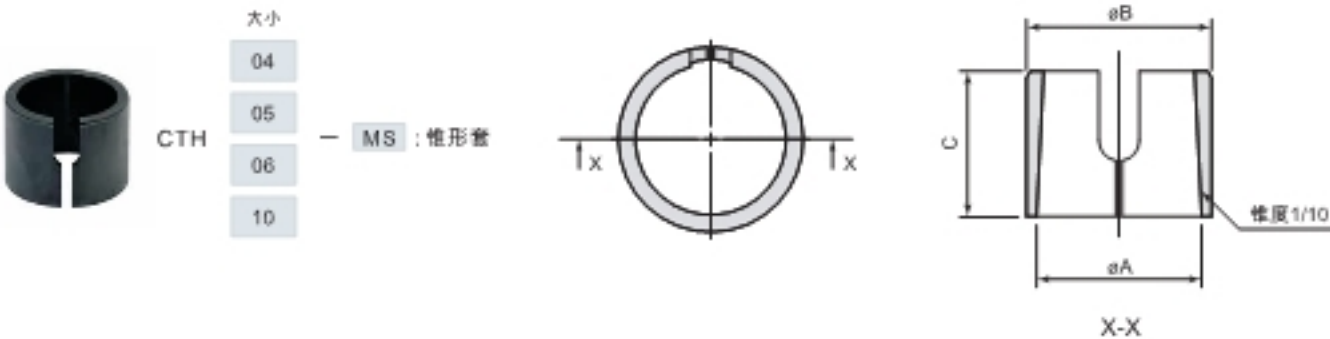
型號	CTM04-□T	CTM05-□T	CTM06-□T	CTM10-□T
A	113.5	120.5	134.5	146
B	45	51	60	70
C	54	61	69	81
D	31.5	35.5	39	46
E	22.5	25.5	30	35
F	34	40	47	55
ø G	40 ^{-0.025 -0.050}	48 ^{-0.025 -0.050}	55 ^{-0.030 -0.050}	65 ^{-0.030 -0.050}
ø GG	39.7	47.6	54.6	64.6
ø H	18	22	25	30
J	65.5	74.5	81.5	88
K	48	46	53	58
KK	41.5	37.5	44	46.5
L	25	28	30	31
M	13.5	14.5	15.5	17
N	27	32	36	40
P	8	9	10	11
R1	12.5	14	13.5	14
R2	18	22	24	30
R3	26	30	33.5	39.5
S (螺母對邊寬)	24	30	32	41
T (內六角孔)	6	8	8	10
U	M16× 1.5	M20× 1.5	M22× 1.5	M27× 1.5
V	15	17.5	17	17
ø W	5.5	5.5	6.8	6.8
W1	M6× 1	M6× 1	M8× 1.25	M8× 1.25
ø X	9	9	11	11
ø Y	73	83	88	106
Z	C3	C3	C3	C4
Z1	12°	15°	15°	15°
Z2	22	27	33	38
ø AA (銷槽徑)	4	5	6	6
AB	7	9	10	12.5
AC	18.5	21.5	24.5	27.5
定位銷	ø4(h8)× 10	ø5(h8)× 12	ø6(h8)× 14	ø6(h8)× 16
O形圈FA (氟橡膠 硬度 Hs90)	P5	P5	P5	P7
O形圈FB (氟橡膠 硬度 Hs70)	38X1.5 (內徑×粗度)	AS568-031	AS568-034	AS568-037
O形圈FC (氟橡膠 硬度 Hs70)	AS568-028	AS568-031	AS568-033	AS568-036

安裝孔加工圖



型號	CTM04-□T	CTM05-□T	CTM06-□T	CTM10-□T
ϕA	40.8	49	56	66
B	34	40	47	55
C	M5	M5	M6	M6
D	18	22	24	30
E	26	30	33.5	39.5
ϕF	3	3	3	5
ϕG	40 ^{+0.039} ₀	48 ^{+0.039} ₀	55 ^{+0.046} ₀	65 ^{+0.046} ₀
H	24.5	20	26.5	29
HH	25.2	20.9	27.4	29.9
J	48.5	46.5	53.5	58.5
K	41.5	37.5	44	46.5
L	1.2	1.5	1.5	1.5
ϕM	40.6	48.6	55.6	65.6
N	29	25	31.5	34

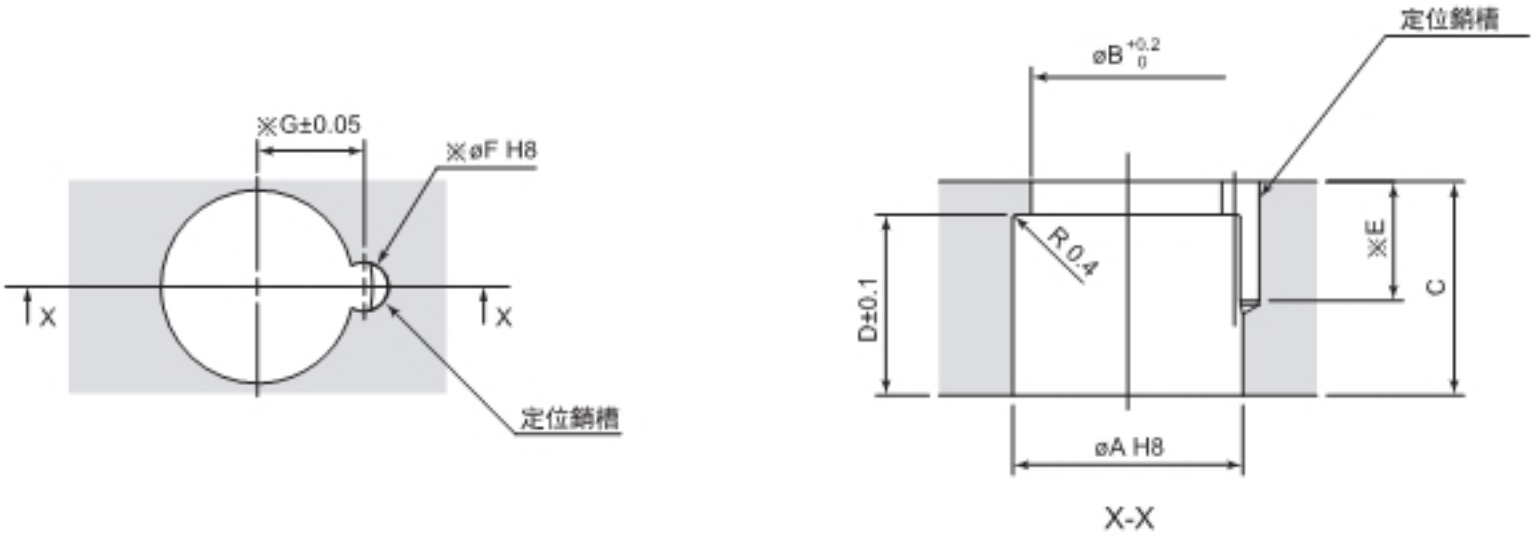
錐形套



錐形套	CTH04-MS	CTH05-MS	CTH06-MS	CTH10-MS
適用夾緊器	CTM04-□	CTM05-□	CTM06-□	CTM10-□
A	18	22	25	30
ϕB	20	25	28	34
C	16	19	22	25

夾緊臂安裝孔加工圖

不附帶夾緊臂。



不使用定位銷時無需加工定位銷槽 (E, ϕF , G)
(定位銷能確切簡單地定位夾緊臂安裝方向。)

錐形套	CTH04-MS	CTH05-MS	CTH06-MS	CTH10-MS
適用夾緊器型號	CTM04-□	CTM05-□	CTM06-□	CTM10-□
ϕA	20 ^{+0.033} ₀	25 ^{+0.033} ₀	28 ^{+0.033} ₀	34 ^{+0.033} ₀
ϕB	17	21	23.5	29
C	19	23	26	29
D	16	19	22	25
E	10.5	12.5	14.5	16.5
ϕF (銷槽徑)	4 ^{+0.018} ₀	5 ^{+0.018} ₀	6 ^{+0.018} ₀	6 ^{+0.018} ₀
G	9	11.5	13	15.5

連杆式夾緊器

model **CLU**

結構緊湊、能力大、耐久性強



型號表示

CLU ① - ② ③

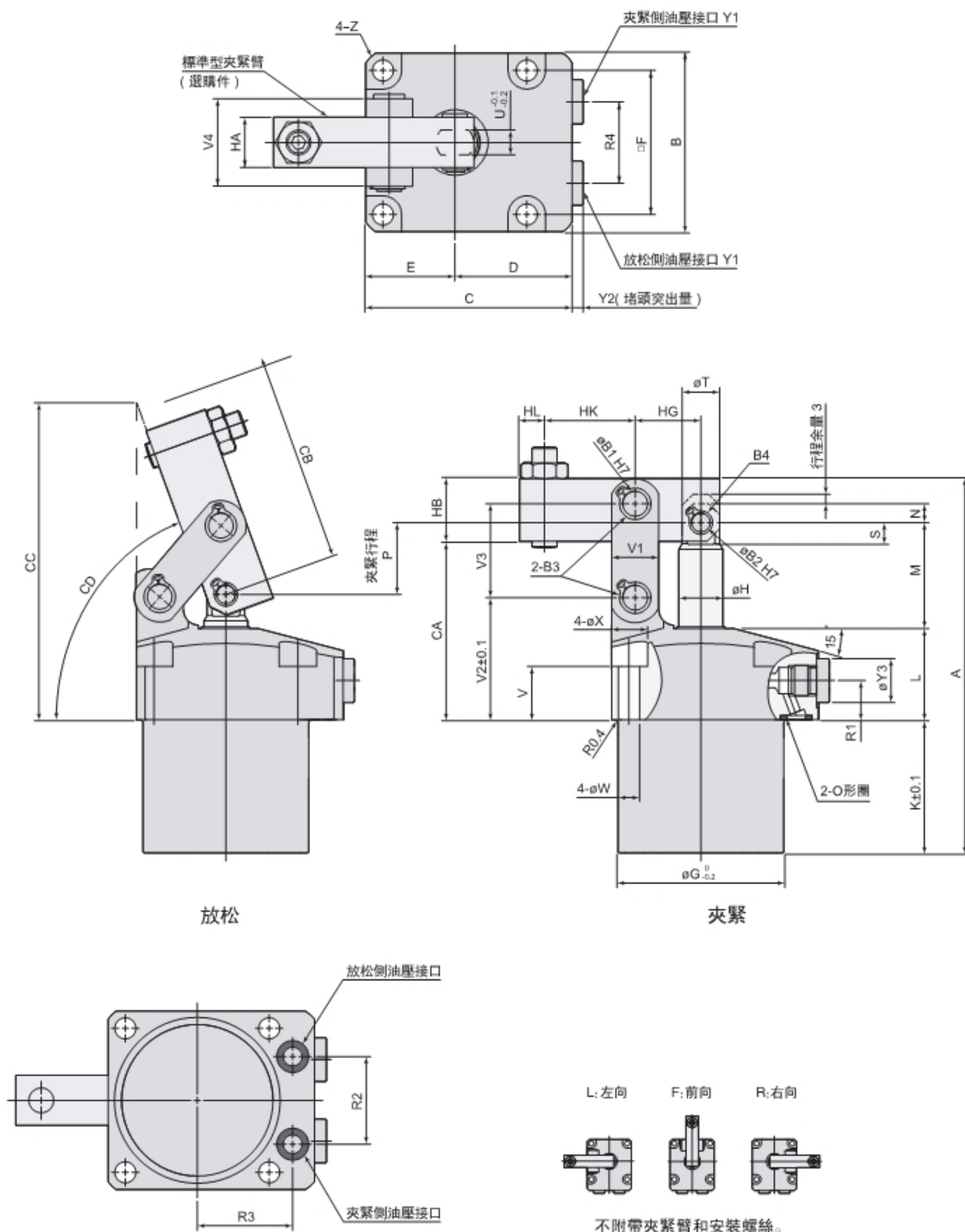
CLU	① 大小	② 夾緊臂安裝方向			③ 特殊規格記號
	02 04 06 10 16 25	L: 左向 F: 前向 R: 右向	L: 左向 F: 前向 R: 右向	R: 右向	
					無記號: 標準 E: 雙頭杆規格 A: 氣壓檢測器規格

規 格

型 號		CLU02	CLU04	CLU06	CLU10	CLU16	CLU25
油缸能力 (油壓為 7 MPa時)	kN	3.4	5.0	6.7	10.6	17.2	26.9
夾緊力 (油壓為 7 MPa時)	kN	2.6	3.5	4.4	7.3	12.1	18.2
標準夾緊臂長度 (LH)	mm	36.5	42	50	56.5	69.5	87.5
油缸內徑	mm	25	30	35	44	56	70
主杆徑	mm	12	14	14	16	22.4	28
油缸面積 (夾緊) cm		4.9	7.1	9.6	15.2	24.6	38.5
全行程	mm	20.5	23.5	26	29.5	36	45
夾緊行程	mm	17.5	20.5	23	26.5	33	42
行程余量	mm	3	3	3	3	3	3
最大流量	L/min	1.0	1.6	2.6	4.7	9.5	18.9
油缸容量	夾緊	cm ³	10.0	16.7	25.0	44.8	173.3
	放鬆	cm ³	7.7	13.0	21.0	38.9	145.5
質 量	kg	0.7	1.0	1.4	2.3	4.0	7.4
安裝螺絲推薦緊固扭矩 (強度分類 12.9)		N·m	7	7	11	25	53

使用油壓範圍: 1~7 Mpa 保證耐壓: 10.5 Mpa 使用環境溫度: 0~70℃ 使用液體: 普通礦物油基液壓油 (相當于 ISO-VG32)

外形尺寸圖

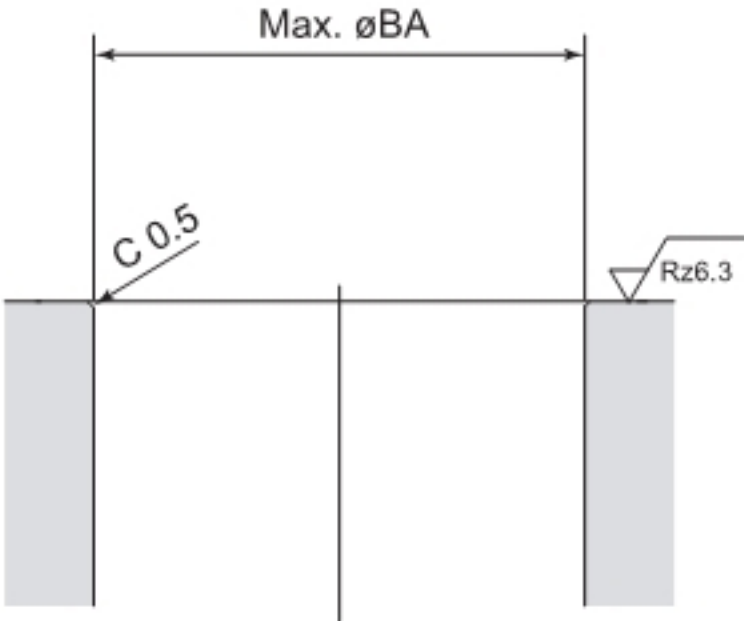
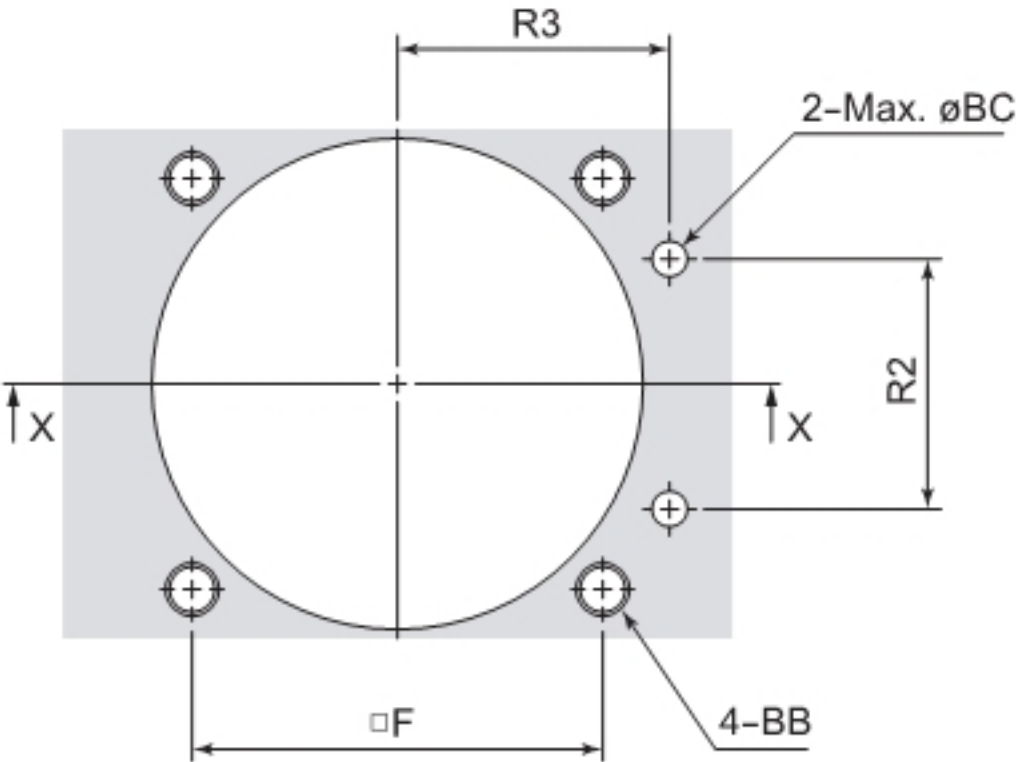


外形尺寸表

(mm)

型 號	CLU02- _{LFR}	CLU04- _{LFR}	CLU06- _{LFR}	CLU10- _{LFR}	CLU16- _{LFR}	CLU25- _{LFR}
A	97	108	119.5	140	166	199
B	45	50	57	70	86	108
C	55	60	66	82	96	120
D	32.5	35	37.5	47	53	66
E	22.5	25	28.5	35	43	54
F	35	40	46	56	68	88
øG	39	47	53	63	78	100
øH	12	14	14	16	22.4	28
K	33.5	39.5	42.5	47	55	65
L	27.5	27.7	29.3	36.3	41.5	47
M	27.5	30.8	33.7	39.7	47.5	61.5
N	5	6	6	8	11	13
P	17.5	20.5	23	26.5	33	42
R1	12.5	12.5	12.5	14	14	21
R2	22	24	28	36	45	50
R3	25	28	30.5	36	42	57
R4	20	22	26	30	38	50
S	6.5	7	7	9	10.8	14.5
øT	10	12	12	14	20	26
U(對邊寬)	6	6	8	10	11	16
V	18	17	17	20	20	20
V1	11	13	15	19	25	32
V2	34	36	39	48	54.5	65
V3	24	26	30	35.5	44	53
V4	21	21	28	37	46	56
øW	5.5	5.5	6.8	9	11	14
øX	10	10	12	15	18.5	20
Y1	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Y2	3.8	3.8	3.8	4.8	4.8	4.8
øY3	14	14	14	19	19	22
Z	C1.5	C2.5	C2.5	C3	C3.5	C5.5
øB1	6 ^{+0.012 0}	6 ^{+0.012 0}	8 ^{+0.015 0}	10 ^{+0.015 0}	14 ^{+0.018 0}	16 ^{+0.018 0}
øB2	6 ^{+0.012 0}	6 ^{+0.012 0}	6 ^{+0.012 0}	8 ^{+0.015 0}	12 ^{+0.018 0}	14 ^{+0.018 0}
B3(卡環)	STW-6	STW-6	STW-8	STW-10	STW-14	STW-16
B4(卡環)	STW-6	STW-6	STW-6	STW-8	STW-12	STW-14
CA	49.5	52.5	57	68	80	96
CB	48	59.6	67.3	78.7	98.2	133.5
CC	80.2	92.5	101.3	120.4	144.7	189.2
CD	約69°	約71°	約70°	約70°	約69°	約72°
HA	12	12	16	19	22	32
HB	14	16	20	25	31	38
HG	16.5	18.5	21	24.5	30.5	37.5
HK	20	23.5	29	32	39	50
HL	6	6	8	10	11	15
O形圈(氣橡膠 硬度 Hs90)	P7	P7	P7	P8	P8	P10

安裝孔加工圖

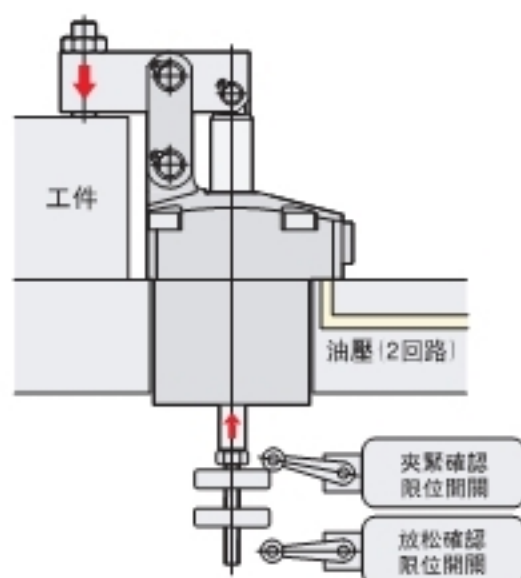


X-X

(mm)

型 號	CLU02- _{LFR}	CLU04- _{LFR}	CLU06- _{LFR}	CLU10- _{LFR}	CLU16- _{LFR}	CLU25- _{LFR}
F	35	40	46	56	68	88
R2	22	24	28	36	45	50
R3	25	28	30.5	36	42	57
ϕBA	40	48	54	64	79	101
BB	M5	M5	M6	M8	M10	M12
ϕBC	4	4	4	6	6	8

使用例

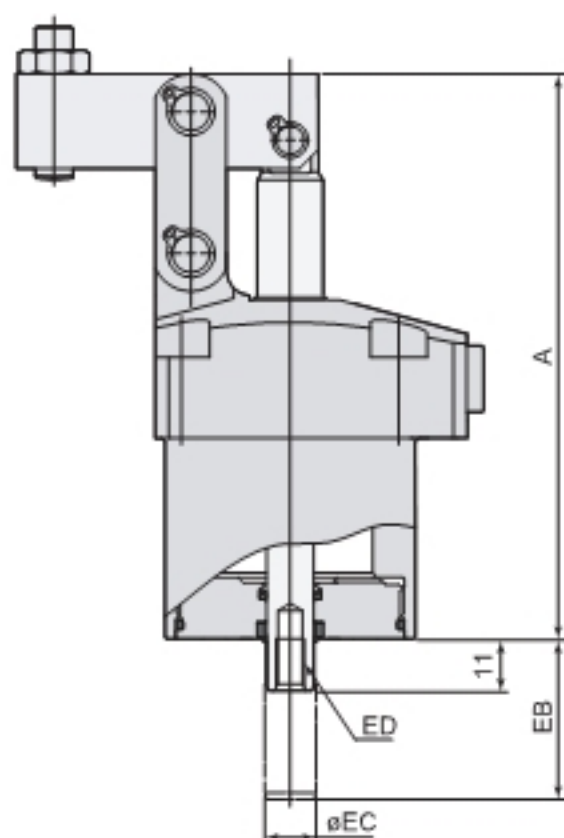


型號表示

CLU□-□A

CLU	① 大小	② 夾緊臂安裝方向	
	02	L : 左向	E : 雙頭杆規格
	04		
	06	F : 前向	
	10		
	16	R : 右向	
	25		

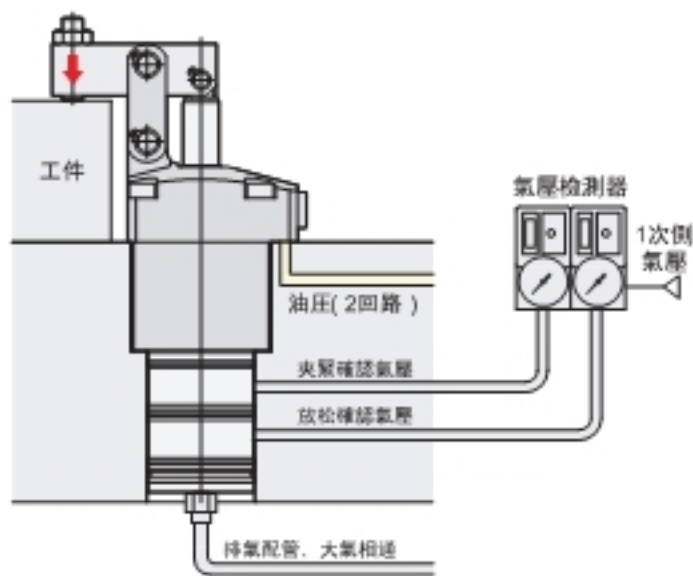
外形尺寸圖



(mm)

型號	CLU02- ^L _{FE} _R	CLU04- ^L _{FE} _R	CLU06- ^L _{FE} _R	CLU10- ^L _{FE} _R	CLU16- ^L _{FE} _R	CLU25- ^L _{FE} _R
油缸容量 (夾緊)	9.0 cm ³	14.8 cm ³	22.9 cm ³	41.6 cm ³	84.6 cm ³	164.3 cm ³
A	97	108	119.5	140	166	199
EB	28.5	31.5	34	37.5	44	53
øEC	8	10	10	12	12	16
ED	M5×0.8 深8	M6×1 深11	M6×1 深11	M8×1.25 深15	M8×1.25 深15	M10×1.5 深18
質量	0.7 kg	1.0 kg	1.4 kg	2.4 kg	4.0 kg	7.4 kg

使用例

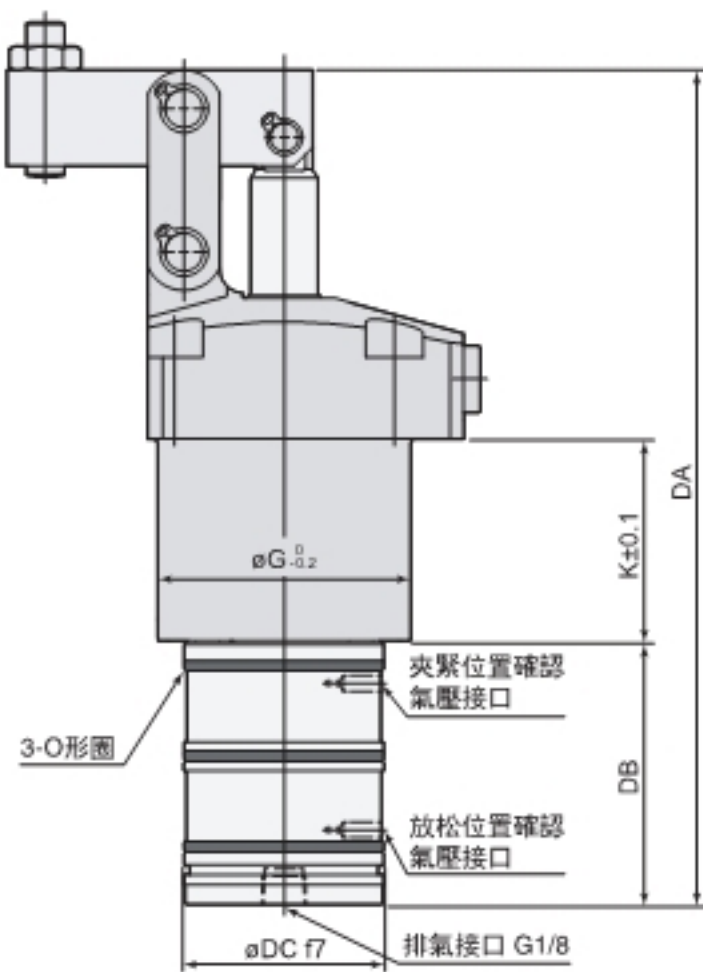


型號表示

CLU ①-② A

	① 大小	② 夾緊臂安裝方向	
CLU	02	L : 左向 F : 前向 R : 右向	A:氣壓檢測器規格
	04		
	06		
	10		
	16		
	25		

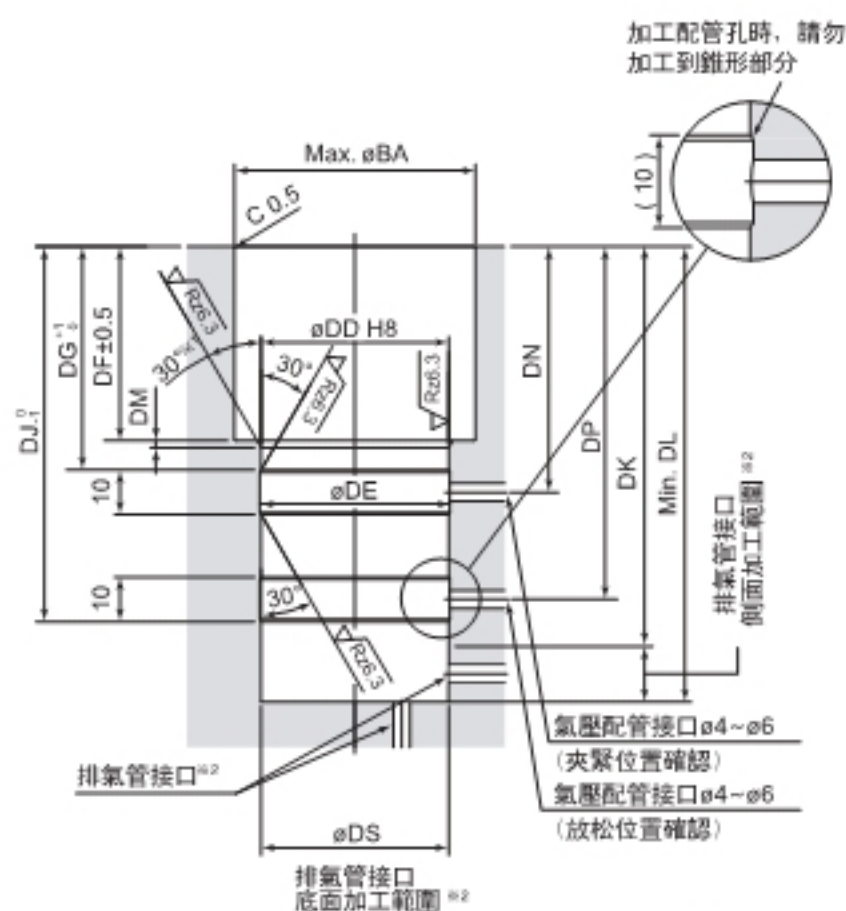
外形尺寸圖



(mm)

型號	CLU02- ^L _R -FA	CLU04- ^L _R -FA	CLU06- ^L _R -FA	CLU10- ^L _R -FA	CLU16- ^L _R -FA	CLU25- ^L _R -FA
油缸容量 (夾緊)	9.0 cm ³	14.8 cm ³	22.9 cm ³	41.6 cm ³	84.6 cm ³	164.3 cm ³
DA	146	162	175.5	200	232.5	272.5
DB	49	54	56	60	66.5	73.5
øDC	38 ^{-0.025} _{-0.050}	42 ^{-0.025} _{-0.050}	42 ^{-0.025} _{-0.050}	45 ^{-0.025} _{-0.050}	45 ^{-0.025} _{-0.050}	52 ^{-0.038} _{-0.068}
øG	39	47	53	63	78	100
K	33.5	39.5	42.5	47	55	65
O形圈	AS568-028	AS568-029	AS568-029	AS568-030	AS568-030	AS568-032
質量	0.9 kg	1.2 kg	1.6 kg	2.7 kg	4.3 kg	7.9 kg

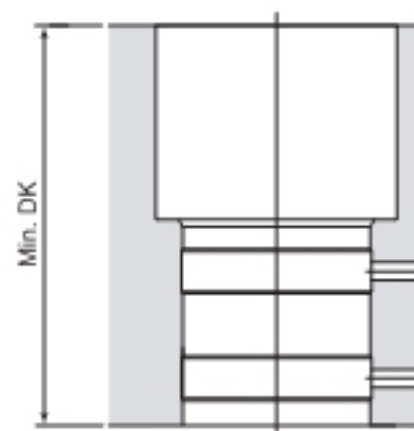
安裝孔加工圖



盲孔安裝時

※1：僅CLU02-A型為15°

※2：排氣管接口應設置于側面或底面。

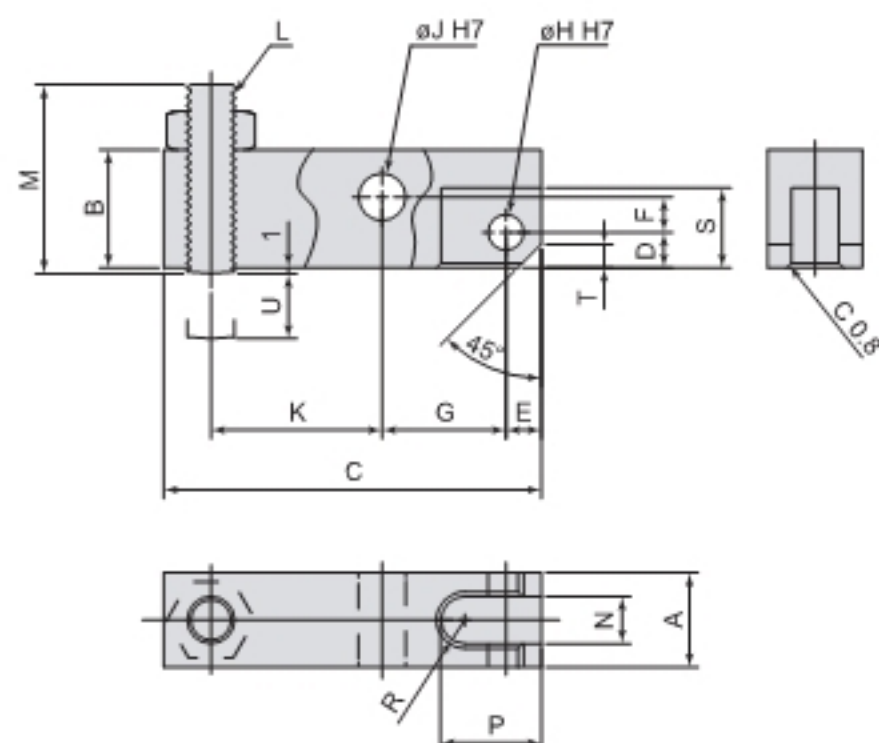


通孔安裝時

(mm)

型號	CLU02- ^L / _R FA	CLU04- ^L / _R FA	CLU06- ^L / _R FA	CLU10- ^L / _R FA	CLU16- ^L / _R FA	CLU25- ^L / _R FA
øDD	38 ^{+0.039} / ₀	42 ^{+0.039} / ₀	42 ^{+0.039} / ₀	45 ^{+0.039} / ₀	45 ^{+0.039} / ₀	52 ^{+0.039} / ₀
øDE	38.6	42.6	42.6	45.6	45.6	52.6
DF	34.5	40.5	43.5	48	56	66
DG	41	47	50	54.5	62.5	72.5
DJ	70	79	84	92.5	107	123.5
DK	76	85	90	98.5	113	129.5
DL	86.5	97.5	102.5	111	125.5	142.5
DM	1	1.5	1.5	1.5	1.5	1.5
DN	46	52	55	59.5	67.5	77.5
DP	65	74	79	87.5	102	118.5
øDS	38	42	42	45	45	52
øBA	40	48	54	64	79	101

標準型夾緊臂

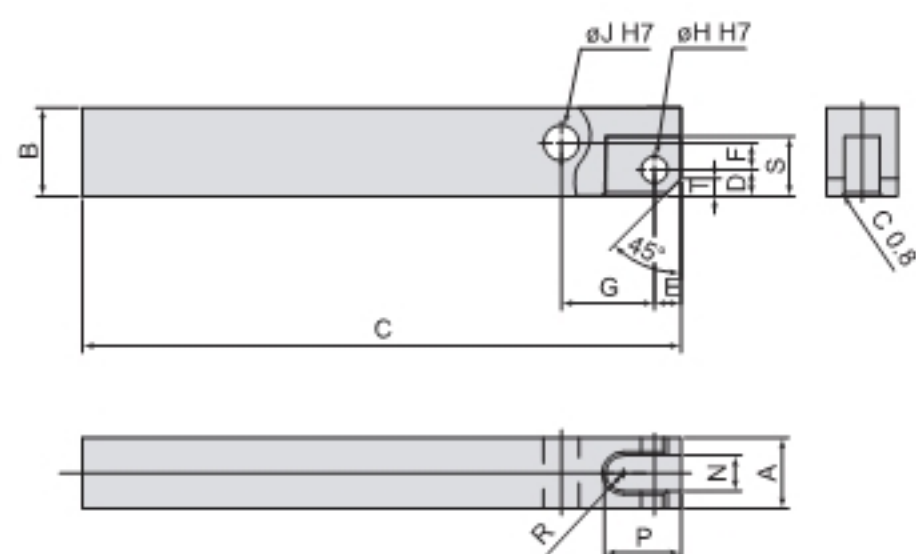


材質: S45C(調質 HB201 ~ 269)

(mm)

夾緊臂	CLH02-G1	CLH04-G1	CLH06-G1	CLH10-G1	CLH16-G1	CLH25-G1
A	12 ⁰ _{-0.1}	12 ⁰ _{-0.1}	16 ⁰ _{-0.1}	19 ⁰ _{-0.1}	22 ⁰ _{-0.1}	32 ⁰ _{-0.1}
B	14	16	20	25	31	38
C	48	54	64	73.5	90.5	115.5
D	5.5	6	6	8	9	12.5
E	5.5	6	6	7	10	13
F	3	3.5	6	7.5	9.5	9.5
G	16.5	18.5	21	24.5	30.5	37.5
øH	6 ^{+0.012} ₀	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	12 ^{+0.018} ₀	14 ^{+0.018} ₀
øJ	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀	14 ^{+0.018} ₀	16 ^{+0.018} ₀
K	20	23.5	29	32	39	50
L	M6×1	M6×1	M8×1.25	M10×1.5	M12×1.75	M16×2
M	26	26	32	39	48	58
N	6 ^{+0.1} ₀	6 ^{+0.1} ₀	8 ^{+0.1} ₀	10 ^{+0.1} ₀	11 ^{+0.1} ₀	16 ^{+0.1} ₀
P	14	17	17	20	26.5	36
R	R3	R3	R4	R5	R5.5	R8
S	12	13.5	13.5	17.5	22	28
T	3	4	4	5	7	8
U	11	9	11	13	16	19
夾緊臂質量	0.06 kg	0.08 kg	0.14 kg	0.24 kg	0.41 kg	0.98 kg
連杆式夾緊器	CLU02	CLU04	CLU06	CLU10	CLU16	CLU25

加長型夾緊臂



材質: S45C(調質 HB201 ~ 269)

(mm)

夾緊臂	CLH02-GL	CLH04-GL	CLH06-GL	CLH10-GL	CLH16-GL	CLH25-GL
A	12 ⁰ _{-0.1}	12 ⁰ _{-0.1}	16 ⁰ _{-0.1}	19 ⁰ _{-0.1}	22 ⁰ _{-0.1}	32 ⁰ _{-0.1}
B	14	16	20	25	31	38
C	110	135	135	180	200	230
D	5.5	6	6	8	9	12.5
E	5.5	6	6	7	10	13
F	3	3.5	6	7.5	9.5	9.5
G	16.5	18.5	21	24.5	30.5	37.5
øH	6 ^{+0.012} ₀	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	12 ^{+0.018} ₀	14 ^{+0.018} ₀
øJ	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀	14 ^{+0.018} ₀	16 ^{+0.018} ₀
N	6 ^{+0.1} ₀	6 ^{+0.1} ₀	8 ^{+0.1} ₀	10 ^{+0.1} ₀	11 ^{+0.1} ₀	16 ^{+0.1} ₀
P	14	17	17	20	26.5	36
R	R3	R3	R4	R5	R5.5	R8
S	12	13.5	13.5	17.5	22	28
T	3	4	4	5	7	8
夾緊臂質量	0.13 kg	0.19 kg	0.31 kg	0.62 kg	0.96 kg	1.95 kg
連杆式夾緊器	CLU02	CLU04	CLU06	CLU10	CLU16	CLU25

型號表示

本體材質 鋁合金

LM036 0 - C R

1 2 3

本體材質 合金鋼

LJ036 2 - C R

1 2 3



1 本體材質・本體尺寸

LM030	:φD=30mm	本體材質 鋁合金	LJ030	:φD=30mm	本體材質 合金鋼
LM036	:φD=36mm	本體材質 鋁合金	LJ036	:φD=36mm	本體材質 合金鋼
LM040	:φD=40mm	本體材質 鋁合金	LJ040	:φD=40mm	本體材質 合金鋼
LM048	:φD=48mm	本體材質 鋁合金	LJ048	:φD=48mm	本體材質 合金鋼
LM055	:φD=55mm	本體材質 鋁合金	LJ055	:φD=55mm	本體材質 合金鋼
LM065	:φD=65mm	本體材質 鋁合金	LJ065	:φD=65mm	本體材質 合金鋼
LM075	:φD=75mm	本體材質 鋁合金	LJ075	:φD=75mm	本體材質 合金鋼
			LJ090	:φD=90mm	本體材質 合金鋼
			LJ105	:φD=105mm	本體材質 合金鋼

2 配管方式

C:板式連接型(附帶G螺紋堵頭)

G:板式連接*

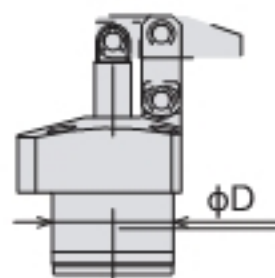
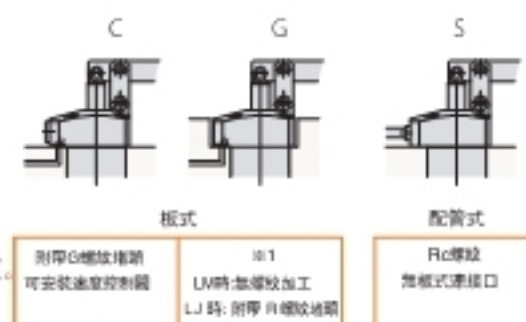
S:配管型(Rc螺紋)

*配管方式為G的板式連接型油缸，

LM時:本體材質為鋁合金，油缸沒有Rc螺紋加工，無需堵頭。

LJ時:本體材質為合金鋼，

油缸上有Rc螺紋加工，并附帶堵頭。

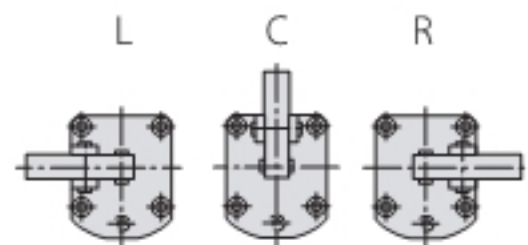


3 壓板方向

L:左

C:中央

R:右



*表示配管口位置位于身前時的壓板夾緊方向。

注:不附帶壓臂、安裝螺栓及速度控制閥(BZL)，由用戶另行購買

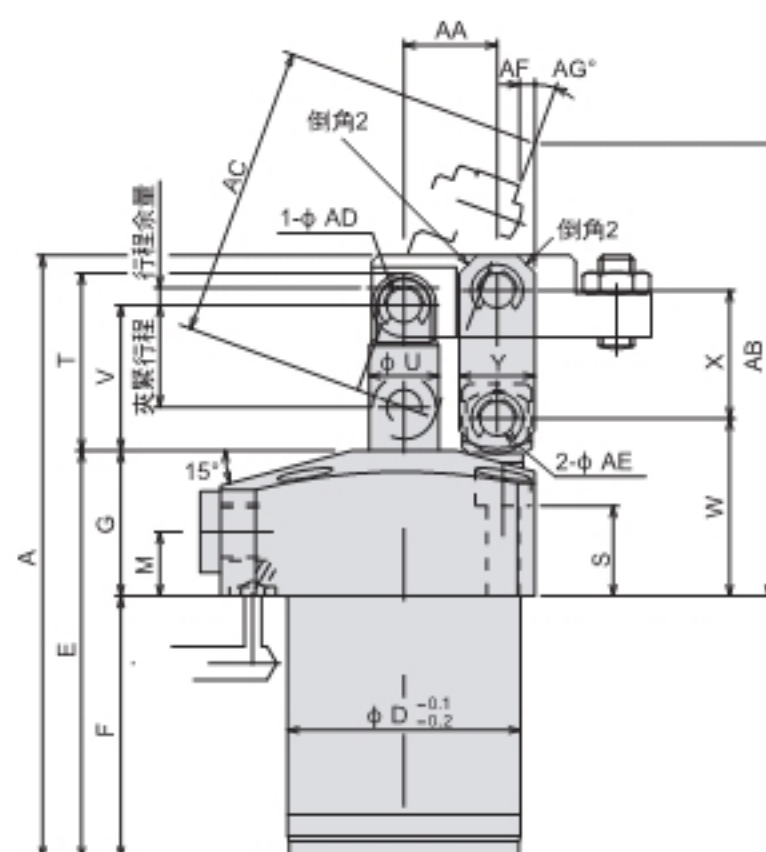
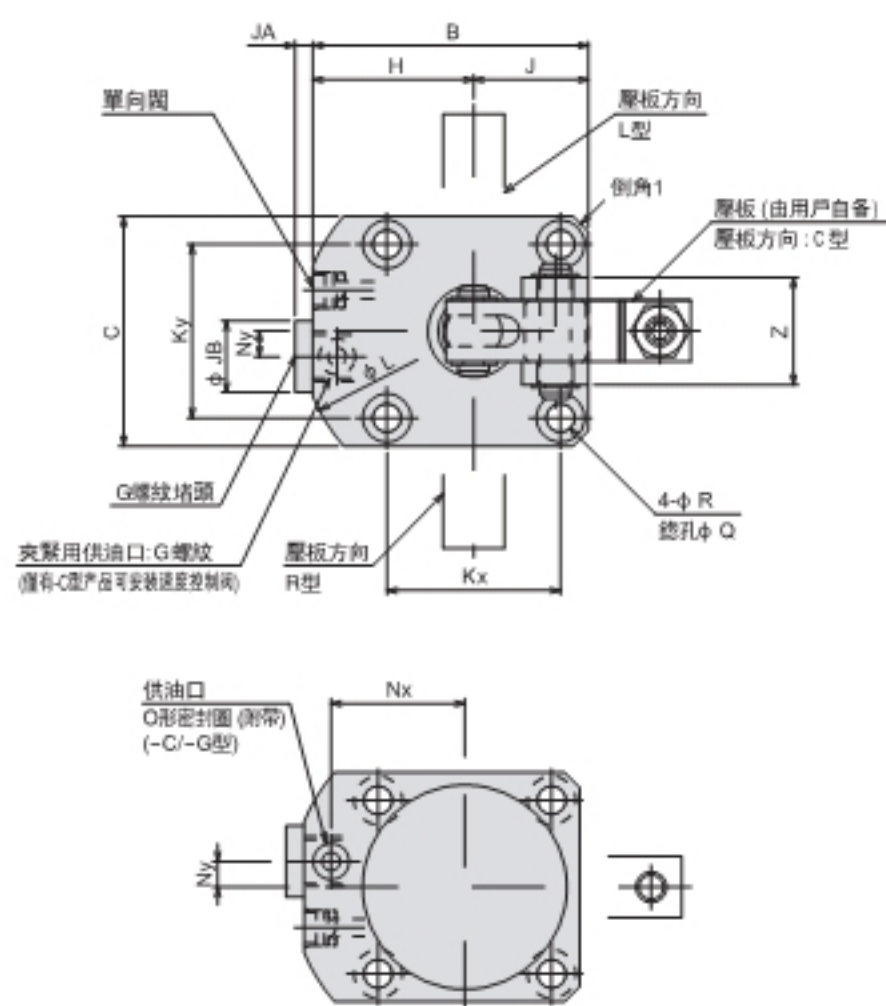
規格

型 號		LM0300 LJ0302	LM0360 LJ0362	LM0400 LJ0402	LM0480 LJ0482	LM0550 LJ0552	LM0650 LJ0652	LM0750 LJ0752	J0902	J1052
夾緊油缸面積	cm ²	2.55	3.8	4.5	6.2	9.1	13.9	21.2	33.2	46.6
夾緊力 (計算公式)	kN	$F = \frac{2.86 \times P - 0.97}{L - 12.5}$	$F = \frac{4.96 \times P - 1.87}{L - 14.5}$	$F = \frac{6.51 \times P - 2.80}{L - 16}$	$F = \frac{10.25 \times P - 5.62}{L - 18.5}$	$F = \frac{17.16 \times P - 7.49}{L - 21}$	$F = \frac{30.55 \times P - 12.13}{L - 24.5}$	$F = \frac{57.34 \times P - 24.93}{L - 30}$	$F = \frac{107.52 \times P - 41.12}{L - 36}$	$F = \frac{184.41 \times P - 61.17}{L - 44}$
全行程	mm	16	18.5	20.5	23.5	26	29.5	35	41	49
夾緊行程	mm	14	16	17.5	20.5	23	26.5	32	38	46
行程余量	mm	2	2.5	3	3	3	3	3	3	3
油缸容量	cm ³	4.1	7.0	9.3	14.5	23.6	40.9	74.3	136.1	228.2
復位彈簧力	kN	0.06~0.09	0.09~0.15	0.10~0.21	0.17~0.36	0.24~0.44	0.33~0.58	0.49~0.96	0.68~1.33	0.95~1.58
最高使用壓力	MPa	7.0								
最低動作壓力	MPa	2.5								
耐壓	MPa	10.5								
使用溫度	℃	0~70								
重量	L M時	0.2	0.35	0.4	0.6	0.9	1.4	2.1	—	—
	L J時	0.3	0.6	0.9	1.2	1.8	2.5	4.0	6.5	10.2

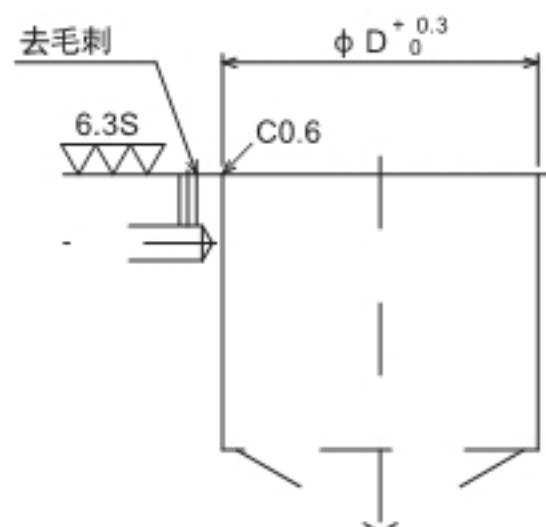
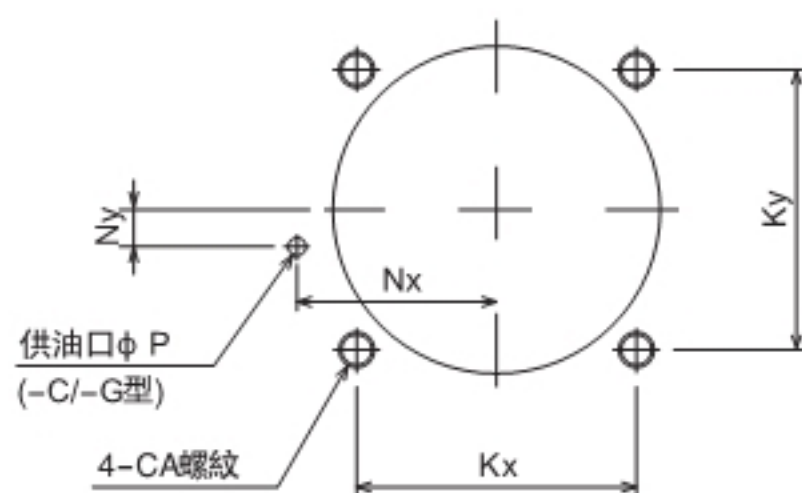
外形尺寸

G:板式連接型(配有G螺紋堵頭)

※本圖表示LM/LJ-CC型的產品夾緊狀態



安裝部加工尺寸



外形尺寸及安裝部位加工尺寸表

(mm)

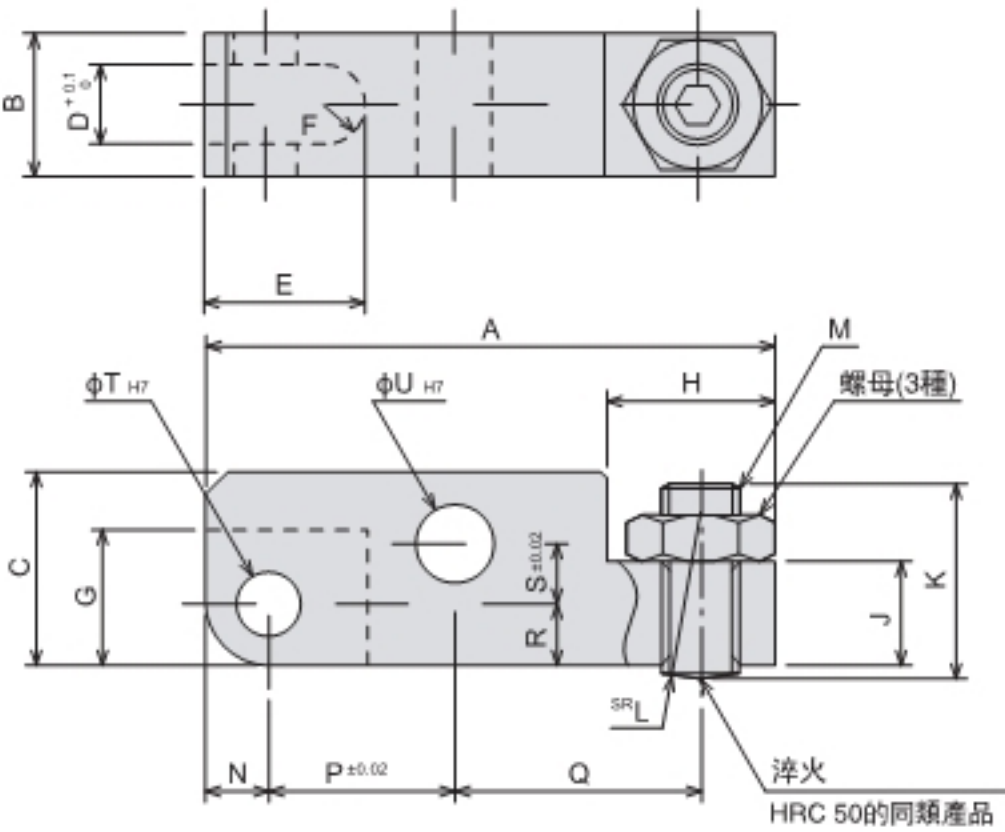
型 號	LM0300-□□ LJ0302-□□	LM0360-□□ LJ0362-□□	LM0400-□□ LJ0402-□□	LM0480-□□ LJ0482-□□	LM0550-□□ LJ0552-□□	LM0650-□□ LJ0652-□□	LM0750-□□ LJ0752-□□	LJ0902-□□	LJ1052-□□
全行程	16	18.5	20.5	23.5	26	29.5	35	41	49
夾緊行程	14	16	17.5	20.5	23	26.5	32	38	46
行程余量	2	2.5	3	3	3	3	3	3	3
A	86	94	103.5	114	132.5	147	175	207	243
B	45.5	49	54	61	69	81	94.5	109.5	127
C	34	40	45	51	60	70	85	100	120
D	30	36	40	48	55	65	75	90	105
E	59	63.5	70	75	87	93	108	128	149
F	34	38.5	45	47	59	63	71	88	99
G	25	25	25	28	28	30	37	40	50
H	26	29	31.5	35.5	39	46	52	59.5	67
J	19.5	20	22.5	25.5	30	35	42.5	50	60
Kx	30	31.4	34	40	47	55	63	75	88
Ky	23	31.4	34	40	47	55	63	75	88
L	57	63	68	73	80	94	106	126	147
M	11	11	11	12	12	13	16	16	17
Nx	20.5	23.5	26	30	33.5	39.5	45	52.5	60
Ny	3	5	5	0	0	0	0	0	0
P	3	3	3	3	3	5	5	5	5
Q	7.5	7.5	9.5	9.5	11	11	14	17.5	20
R	4.5	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	18	15.5	17.5	15	15.5	19.5	19	24.5
T	23.5	27	30.5	35	37.5	45	55	64.5	77
U	8	10	12	14	16	18	22	28	35.5
V	20	22.5	25	29	31.5	37	45	52	62
W	29 ^{±0.3}	30 ^{±0.4}	30.5 ^{±0.4}	34.5 ^{±0.4}	35.5 ^{±0.4}	39 ^{±0.4}	48 ^{±0.4}	52.5 ^{±0.4}	64 ^{±0.4}
X	18.5	20	22	26	30	35.5	43.5	52.5	64
Y	9	11	13	13	16	19	25	28	32
Z	14	19	21	21	28	37	40	49	64
倒角 1	C3	C2	C3	C3	(ϕ 80)	(ϕ 94)	(ϕ 106)	(ϕ 126)	(ϕ 147)
倒角 2	C2	C2.5	C3	C3	C3	C5	C5	C6	C6
AA	12.5	14.5	16	18.5	21	24.5	30	36	44
AB	73.1	74.3	77.7	92.4	101.9	111.4	130.8	146.5	173.6
AC	45.4	47.3	50.2	61.2	71.7	78.7	90.8	104.6	122.5
AD	4	5	6	6	6	8	10	12	15
AE	4	5	6	6	8	10	12	15	18
AF	3.4	2.9	2.7	4.3	4.7	4.3	4.5	5	4.1
AG	16.9	19.6	20.2	18.9	19.9	20.5	21.4	22.4	23.1
CA	M4×0.7	M4×0.7	M5×0.8	M5×0.8	M6	M6	M8	M10	M12
JA	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
JB	14	14	14	14	14	19	19	22	22
供油口 G 螺紋堵頭 (-C) (推薦配管內徑)	G1/8 (ϕ 6)	G1/8 (ϕ 6)	G1/8 (ϕ 6)	G1/8 (ϕ 6)	G1/8 (ϕ 6)	G1/4 (ϕ 8)	G1/4 (ϕ 8)	G3/8 (ϕ 12)	G3/8 (ϕ 12)
供油口 R 螺紋堵頭 僅為 LJ (-G) (推薦配管內徑)	R1/8 (ϕ 6)	R1/8 (ϕ 6)	R1/8 (ϕ 6)	R1/8 (ϕ 6)	R1/8 (ϕ 6)	R1/4 (ϕ 8)	R1/4 (ϕ 8)	R3/8 (ϕ 12)	R3/8 (ϕ 12)
O 形密封圈	1BP5	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7
供油口 Rc 螺紋 (-S)	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4	Rc3/8	Rc3/8

附件：壓板（LZ-LJ1）

型號表示

LZ0360—LJ1

尺寸
(請參照右表)



(mm)

型號	LZ0300-LJ1	LZ0360-LJ1	LZ0400-LJ1	LZ0480-LJ1	LZ0550-LJ1	LZ0650-LJ1	LZ0750-LJ1	LZ0900-LJ1	LZ4050-LJ1
對應油缸型號	LM0300 LJ0302	LM0360 LJ0362	LM0400 LJ0402	LM0480 LJ0482	LM0550 LJ0552	LM0650 LJ0652	LM0750 LJ0752	LJ0902	LJ1052
A	37.5	43	48	54	64	74.5	88.5	102.5	125
B	8 ⁰ _{-0.1}	10 ⁰ _{-0.2}	12 ⁰ _{-0.3}	12 ⁰ _{-0.3}	16 ⁰ _{-0.3}	19 ⁰ _{-0.3}	22 ⁰ _{-0.3}	25 ⁰ _{-0.3}	32 ⁰ _{-0.4}
C	11	12.5	14	16	20	25	32	38	45
D	4.5	5	6	6	8	10	11	13	16
E	10.75	12.5	14.5	16	16.5	21	25.5	30.5	36
F	R2.25	R2.5	R3	R3	R4	R5	R5.5	R6.5	R8
G	8.5	10	12	13	13	17.5	22	26	30.5
H	10.5	10.5	13	13	17	22	25	31	38
J	6	7	7.5	8	10	13	16	22	27
K	13	14.5	16	18	22	27	31	40	47
L	8	9	10	10	15	20	30	45	60
M	M4×0.7	M5×0.8	M6	M6	M8	M10	M12	M16	M20
N	4	4.5	5.5	6	6	8	10	11	13
P	12.5	14.5	16	18.5	21	24.5	30	36	44
Q	16	19	20.5	23.5	29	32	37.5	41.5	51
R	4	4.5	5.5	6	6	8	10	11	13
S	2.5	2.5	2.5	3.5	6	7.5	9.5	13	16
T	4 ^{+0.012} ₀	5 ^{+0.012} ₀	6 ^{+0.012} ₀	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀	12 ^{+0.018} ₀	15 ^{+0.018} ₀
U	4 ^{+0.012} ₀	5 ^{+0.012} ₀	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀	12 ^{+0.018} ₀	15 ^{+0.018} ₀	18 ^{+0.018} ₀

Link clamp

model
CLW

結構緊湊、能力大、耐久性强



型號表示

CLW①-②

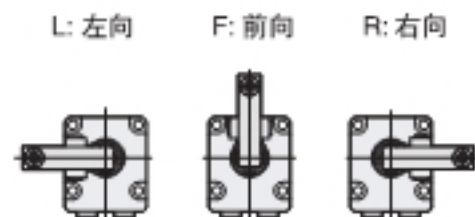
① 大小

② 夾緊臂安裝方向

CLW

04
06
10
16
25

L: 左向
F: 前向
R: 右向

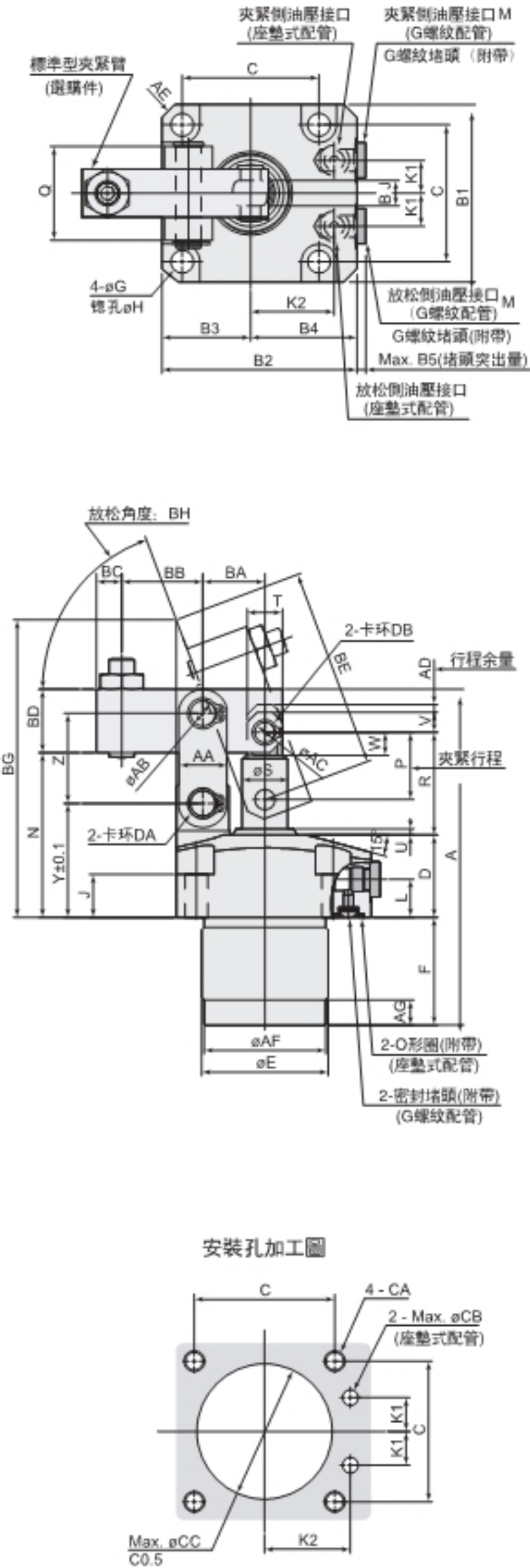


規格

型號			CLW04	CLW06	CLW10	CLW16	CLW25
油缸能力 (油壓為35MPa時) (kN)			5.4	8.9	13.3	21.5	35.6
夾緊力	油壓為35MPa時	(kN)	3.8	5.8	9.2	15.2	24.0
	油壓為25MPa時	(kN)	2.7	4.1	6.5	10.8	17.2
	油壓為15MPa時	(kN)	1.6	2.5	3.9	6.5	10.3
標準夾緊臂長度 (LH) (mm)			42	50	56.5	69.5	87.5
油缸內徑		(mm)	14	18	22	28	36
主杆徑		(mm)	12	14	18	22.4	28
油缸面積 (夾緊)		(cm ²)	1.54	2.54	3.80	6.16	10.18
全行程		(mm)	23.5	26	29.5	36	45
夾緊行程		(mm)	20.5	23	26.5	33	42
行程余量		(mm)	3	3	3	3	3
最大流量		(L/min)	0.38	0.69	1.18	2.39	5.08
油缸容量	夾緊	(cm ³)	3.6	6.6	11.2	22.2	45.8
	放鬆	(cm ³)	1.0	2.6	3.7	8.0	18.1
質量		(kg)	0.9	1.7	2.3	4.4	7.4

使用油壓範圍: 1~35MPa 保證耐壓: 52.5MPa 使用環境溫度: 0~70℃
使用流體: 普通礦物油基液壓油 (相當于ISO-VG32)

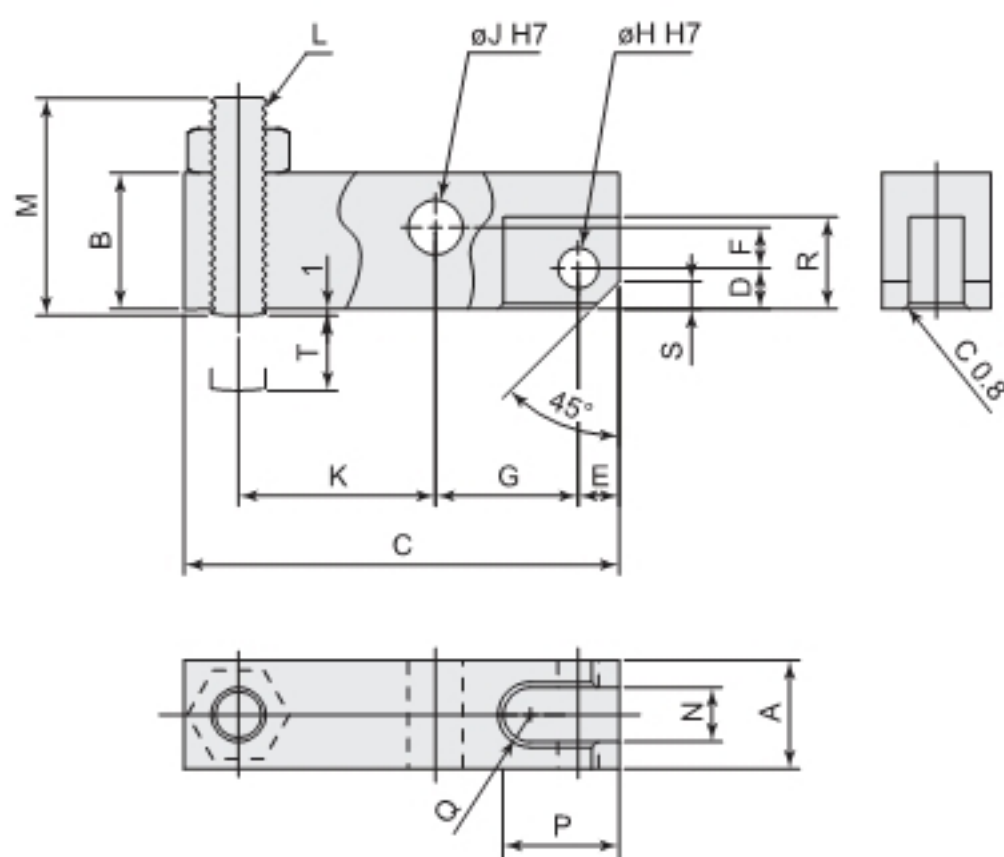
外形尺寸圖



(mm)

型 號	CLW04-LFR	CLW06-LFR	CLW10-LFR	CLW16-LFR	CLW25-LFR
A	100	122	132.5	162	197
B1	50	60	70	86	108
B2	60	69	77	96	110
B3	25	30	35	43	54
B4	35	39	42	53	56
B5	3.8	3.8	3.8	4.8	4.8
C	40	47	54	65	85
D	26.5	31	32.5	40	47
E	35 ⁰ _{-0.2}	45 ⁰ _{-0.2}	50 ⁰ _{-0.2}	60 ⁰ _{-0.2}	70 ⁰ _{-0.2}
F	31.5	42.5	42.5	51	63
G	5.5	6.8	9	11	14
H	10	12	15	18.5	20.5
J	17	17	17	20	21
K1	11	11.5	13	15	20
K2	27.5	30	3	40	43
L	12.5	15	15	17	17
M ※1	G1/8	G1/8	G1/8	G1/4	G1/4
N	52.5	59.5	65	80	96
P	20.5	23	26.5	33	42
Q	21	28	37	46	56
R	32	34.5	40.5	49	61.5
S	12	14	18	22.4	28
T	10	12	15	20	26
U	2	2	2.5	2.5	2.5
V	6	6	8	11	13
W	7	7	9	10.8	14.5
Y	36	41.5	45	54.5	65
Z	26	30	35.5	44	53
O 形圈	P9	P9	P9	P9	P9
AA	13	15	19	25	32
AB	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀	14 ^{+0.018} ₀	16 ^{+0.018} ₀
AC	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	12 ^{+0.018} ₀	14 ^{+0.018} ₀
AD	3	3	3	3	3
AE	C2.5	C2.5	C3	C3.5	C5.5
AF	—	43	48	57.5	67.5
AG	—	10	10	12	12
BA	18.5	21	24.5	30.5	37.5
BB	23.5	29	32	39	50
BC	6	8	10	11	15
BD	16	20	25	31	38
BE	59.6	71.7	78.7	98.2	133.5
BG	92.5	107.9	117.4	144.7	189.2
BH	約71°	約70°	約70°	約69°	約72°
BJ	6 ^{-0.1} _{-0.2}	8 ^{-0.1} _{-0.2}	10 ^{-0.1} _{-0.2}	11 ^{-0.1} _{-0.2}	16 ^{-0.1} _{-0.2}
CA	M5	M6	M8	M10	M12
CB	7	7	7	7	7
CC	36	47	52	62	72
DA	STW-6	STW-6	STW-8	STW-12	STW-14
DB	STW-6	STW-8	STW-10	STW-14	STW-16

標準型夾緊臂

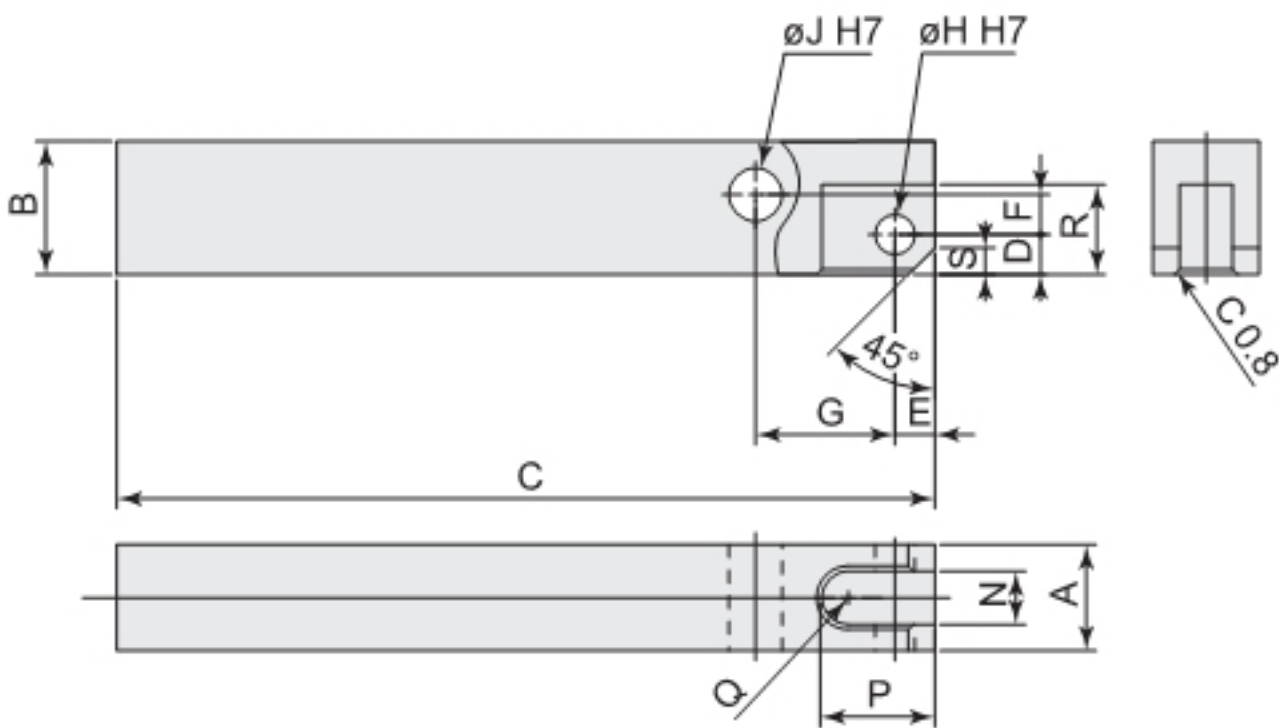


材質: S45C (調質HB201~269)

(mm)

夾緊臂型號	CLH04-G1	CLH06-G1	CLH10-G1	CLH16-G1	CLH25-G1
A	12 ⁰ _{-0.1}	16 ⁰ _{-0.1}	19 ⁰ _{-0.1}	22 ⁰ _{-0.1}	32 ⁰ _{-0.1}
B	16	20	25	31	38
C	54	64	73.5	90.5	115.5
D	6	6	8	9	12.5
E	6	6	7	10	13
F	3.5	6	7.5	9.5	9.5
G	18.5	21	24.5	30.5	37.5
H	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	12 ^{+0.018} ₀	14 ^{+0.018} ₀
J	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀	14 ^{+0.018} ₀	16 ^{+0.018} ₀
K	23.5	29	32	39	50
L	M6×1	M8×1.25	M10×1.5	M12×1.75	M16×2
M	26	32	39	48	58
N	6 ^{+0.1} ₀	8 ^{+0.1} ₀	10 ^{+0.1} ₀	11 ^{+0.1} ₀	16 ^{+0.1} ₀
P	17	17	20	26.5	36
Q	R3	R4	R5	R5.5	R8
R	13.5	13.5	17.5	22	28
S	4	4	5	7	8
T (調節量)	9	11	13	16	19
夾緊臂質量	0.08 kg	0.14 kg	0.24 kg	0.41 kg	0.98 kg
夾緊器型號	CLW04	CLW06	CLW10	CLW16	CLW25

加長型夾緊臂



材質：S45C (調質HB201~269)

(mm)

夾緊臂型號	CLH04-GL	CLH06-GL	CLH10-GL	CLH16-GL	CLH25-GL
A	12 ⁰ _{-0.1}	16 ⁰ _{-0.1}	19 ⁰ _{-0.1}	22 ⁰ _{-0.1}	32 ⁰ _{-0.1}
B	16	20	25	31	38
C	135	135	180	200	230
D	6	6	8	9	12.5
E	6	6	7	10	13
F	3.5	6	7.5	9.5	9.5
G	18.5	21	24.5	30.5	37.5
H	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	12 ^{+0.018} ₀	14 ^{+0.018} ₀
J	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀	14 ^{+0.018} ₀	16 ^{+0.018} ₀
N	6 ^{+0.1} ₀	8 ^{+0.1} ₀	10 ^{+0.1} ₀	11 ^{+0.1} ₀	16 ^{+0.1} ₀
P	17	17	20	26.5	36
Q	R3	R4	R5	R5.5	R8
R	13.5	13.5	17.5	22	28
S	4	4	5	7	8
夾緊臂質量	0.19 kg	0.31 kg	0.62 kg	0.96 kg	1.95 kg
夾緊器型號	CLW04	CLW06	CLW10	CLW16	CLW25



型号表示

大小		行程										主杆顶端形状	
CNA	02	10	15	20	30	40	50	60	70				
	04	10	15	20	30	40	50	60	70				
	06	10	15	20	30	40	50	60	70	80	90		
	10	10	20	30	40	50	60	70	80	90	100		
	16	10	20	30	40	50	60	70	80	90	100		
	25	20	30	40	50	60	70	80	90	100	110		

T : 内螺纹杆规格

P : 销主杆规格

M : 外螺纹杆规格

型 号		CNA02	CNA04	CNA06	CNA10	CNA16	CNA25	
油缸能力 (油压为7MPa时)	推	kN	3.4	4.9	6.7	10.6	17.2	26.9
	拉	kN	2.0	3.2	4.0	7.2	12.3	20.0
油缸能力计算公式 *	推		$F=0.49 \times P$	$F=0.71 \times P$	$F=0.96 \times P$	$F=1.52 \times P$	$F=2.46 \times P$	$F=3.85 \times P$
	拉		$F=0.29 \times P$	$F=0.45 \times P$	$F=0.57 \times P$	$F=1.03 \times P$	$F=1.76 \times P$	$F=2.86 \times P$
油缸内径		mm	25	30	35	44	56	70
主杆径		mm	16	18	22.4	25	30	35.5
油缸面积	推	cm ²	4.9	7.1	9.6	15.2	24.6	38.5
	拉	cm ²	2.9	4.5	5.7	10.3	17.6	28.6
最大流量		L/min	1.0	1.6	2.1	5.0	8.4	10.5
安装螺栓推荐紧固扭矩 (强度分类12.9)		N·m	7	7	12	29	57	77

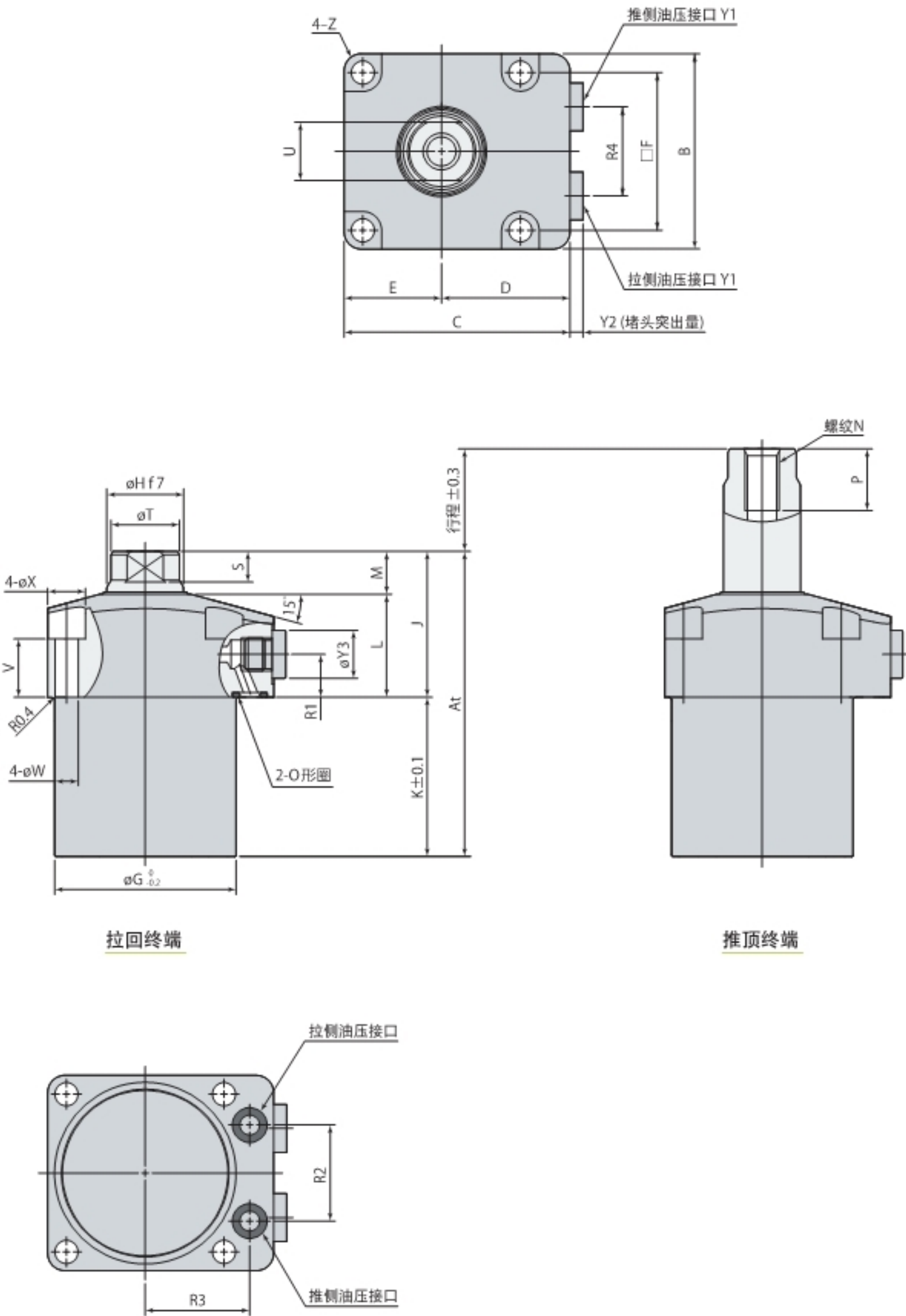
● 油压范围: 1~7 MPa ● 保证耐压: 10.5 MPa ● 使用环境温度: 0~70 °C ● 使用流体: 普通矿物油基液压油 (相当于ISO-VG32)

● 氯系切削液喷洒的环境下也可以使用。

※: F=油缸能力 (kN)、P=油压 (MPa)

外形尺寸

内螺纹杆规格



内螺纹杆规格

技术参数

型 号	CNA02-□T	CNA04-□T	CNA06-□T	CNA10-□T	CNA16-□T	CNA25-□T
B	45	50	57	70	86	108
C	55	60	66	82	96	120
D	32.5	35	37.5	47	53	66
E	22.5	25	28.5	35	43	54
F	35	40	46	56	68	88
øG	39	47	53	63	78	100
øH	16 ^{-0.016 -0.034}	18 ^{-0.016 -0.034}	22.4 ^{-0.020 -0.041}	25 ^{-0.020 -0.041}	30 ^{-0.020 -0.041}	35.5 ^{-0.025 -0.050}
J	38	39.5	42.5	51	57	65.5
L	27.5	28	30	37.5	41.5	48.5
M	10.5	11.5	12.5	13.5	15.5	17
N	M8×1.25	M8×1.25	M10×1.5	M12×1.75	M16×2	M20×2.5
P	14	14	18	21	27	33
R1	12.5	12.5	12.5	14	14	21
R2	22	24	28	36	45	50
R3	25	28	30.5	36	42	57
R4	20	22	26	30	38	50
S (对边高度)	7	8	9	10	12	14
øT	14±0.2	16±0.2	20±0.2	23±0.2	28±0.2	33.5±0.3
U (对边宽)	12	14	17	19	24	30
V	18	17	17	20	20	20
øW	5.5	5.5	6.8	9	11	14
øX	9.5	9.5	11	14	17.5	20
Y1	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Y2	3.8	3.8	3.8	4.8	4.8	4.8
øY3	14	14	14	19	19	22
Z	R3	R5	R5	R6	R7	R10
O形圈 (氟橡胶 硬度Hs90)	P7	P7	P7	P8	P8	P10

CNA02- 行程			10	15	20	30	40	50	60	70
油缸容量	推	cm ³	4.9	7.4	9.8	14.7	19.6	24.5	29.4	34.3
	拉	cm ³	2.9	4.3	5.8	8.7	11.6	14.5	17.4	20.3
At			66		81		101		121	
K			28		43		63		83	
质量			0.7		0.8		1.0	0.9	1.1	

●行程10、20、40、60使用垫片。

CNA04- 行程			10	15	20	30	40	50	60	70
油缸容量	推	cm ³	7.1	10.6	14.1	21.2	28.3	35.3	42.4	49.5
	拉	cm ³	4.5	6.8	9.0	13.6	18.1	22.6	27.1	31.7
At			70.5		85.5		105.5		125.5	
K			31		46		66		86	
质量			0.9		1.1		1.3		1.5	

●行程10、20、40、60使用垫片。

CNA06-行程			10	15	20	30	40	50	60	70	80	90
油缸容量	推	cm ³	9.6	14.4	19.2	28.9	38.5	48.1	57.7	67.3	77.0	86.6
	拉	cm ³	5.7	8.5	11.4	17.0	22.7	28.4	34.1	39.8	45.4	51.1
At			74		89		109		129		149	
K			31.5		46.5		66.5		86.5		106.5	
质量			1.2		1.4		1.7		1.9		2.2	

●行程10、20、40、60、80使用垫片。

CNA10- 行程			10	20	30	40	50	60	70	80	90	100
油缸容量	推	cm ³	15.2	30.4	45.6	60.8	76.0	91.2	106.4	121.6	136.8	152.1
	拉	cm ³	10.3	20.6	30.9	41.2	51.5	61.8	72.1	82.4	92.7	103.0
At			88.5		108.5		128.5		148.5		168.5	
K			37.5		57.5		77.5		97.5		117.5	
质量			2.1		2.4		2.7		3.1		3.4	

●行程10、30、50、70、90使用垫片。

CNA16- 行程			10	20	30	40	50	60	70	80	90	100
油缸容量	推	cm ³	24.6	49.3	73.9	98.5	123.2	147.8	172.4	197.0	221.7	246.3
	拉	cm ³	17.6	35.1	52.7	70.2	87.8	105.4	122.9	140.5	158.1	175.6
At			96		116		136		156		176	
K			39		59		79		99		119	
质量			3.3		3.8		4.3		4.7		5.2	

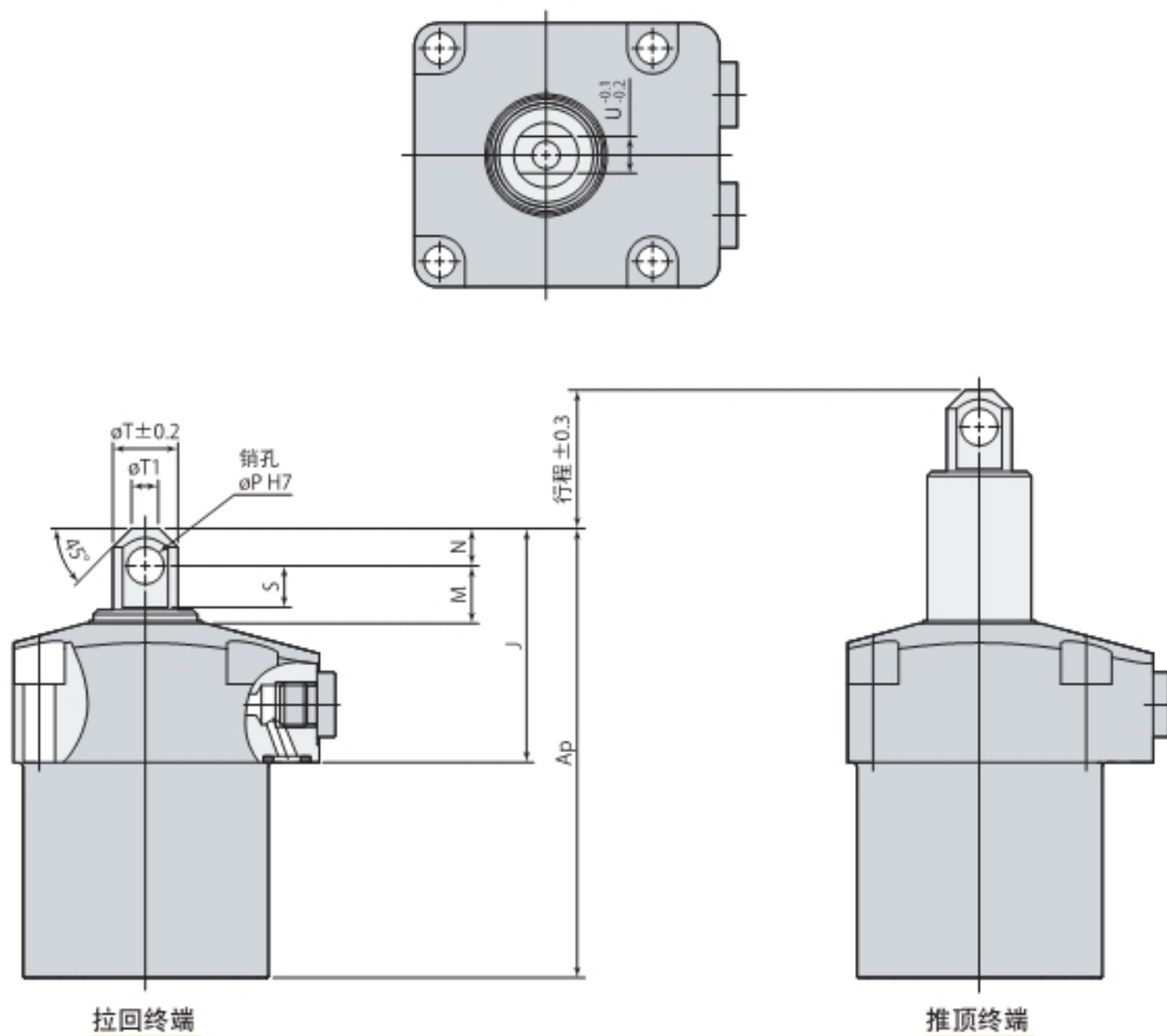
●行程10、30、50、70、90使用垫片。

CNA25- 行程			20	30	40	50	60	70	80	90	100	110
油缸容量	推	cm ³	77.0	115.5	153.9	192.4	230.9	269.4	307.9	346.4	384.8	423.3
	拉	cm ³	57.2	85.8	114.3	142.9	171.5	200.1	228.7	257.3	285.9	314.5
At			115.5		135.5		155.5		175.5		195.5	
K			50		70		90		110		130	
质量			6.3		7.1		7.8		8.6		9.4	

●行程20、40、60、80、100使用垫片。

外形尺寸

销主杆规格



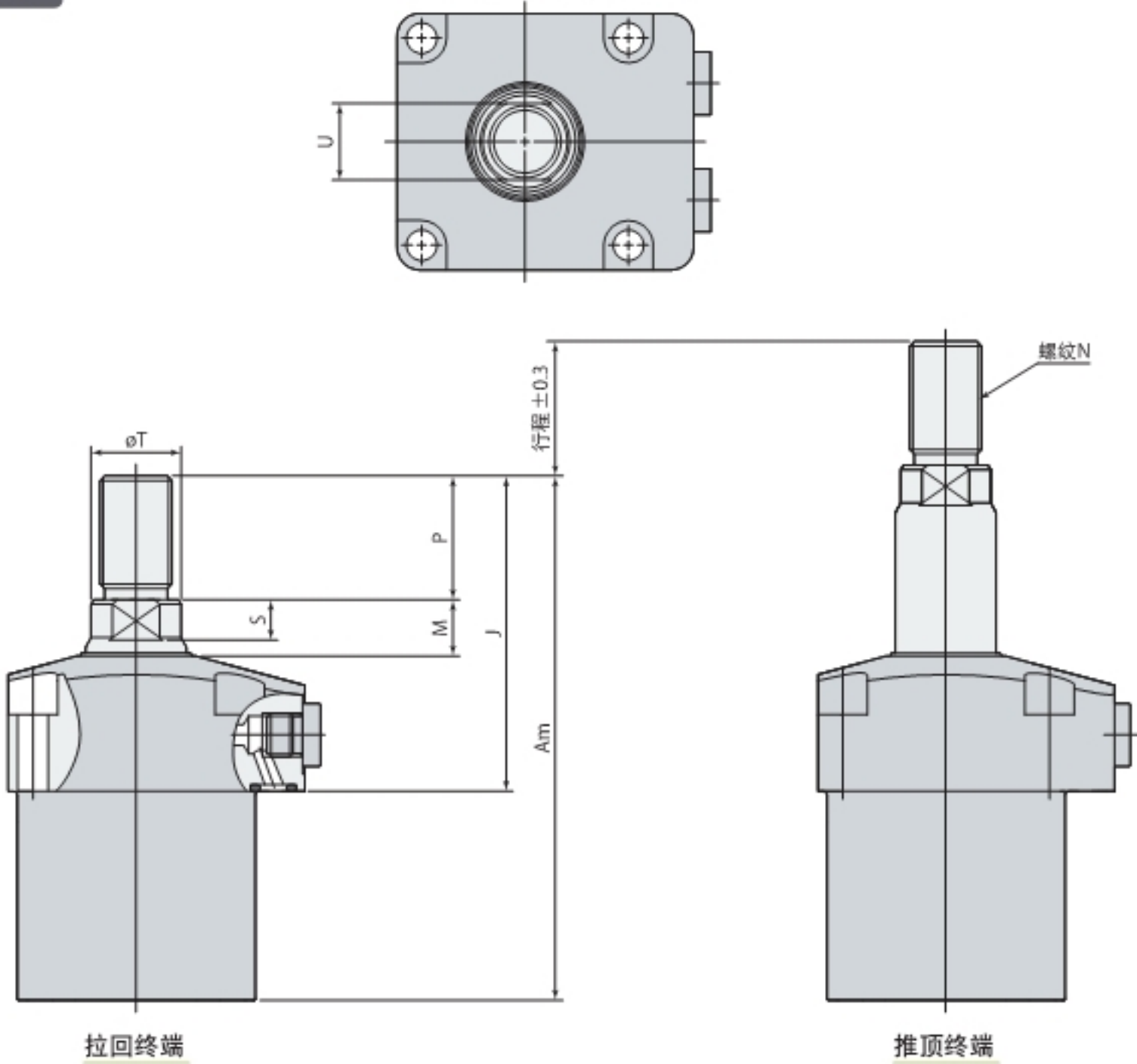
注：本页未记载的规格及尺寸，请参照内螺纹杆规格参数。
mm

型 号	CNA02-□P	CNA04-□P	CNA06-□P	CNA10-□P	CNA16-□P	CNA25-□P
J	42.5	44.5	50.5	60	67	79.5
M	10	10.5	12.5	13.5	14.5	18
N	5	6	8	9	11	13
ϕP	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀	12 ^{+0.018} ₀	14 ^{+0.018} ₀
S	6.5	7	9	10	10.8	14.5
ϕT	10	12	14	16	20	26
$\phi T1$	5	5	6	8	10	14
U	6	6	8	11	14	16

行程 参数	10	15	20	30	40	50	60	70	80	90	100	110
AP(CNA02)	70.5	70.5	85.5	85.5	105.5	105.5	125.5	125.5	-	-	-	-
AP(CNA04)	75.5	75.5	90.5	90.5	110.5	110.5	130.5	130.5	-	-	-	-
AP(CNA06)	82	82	97	97	117	117	137	137	157	157	-	-
AP(CNA10)	97.5	-	97.5	117.5	117.5	137.5	137.5	157.5	157.5	177.5	177.5	-
AP(CNA16)	106	-	106	126	126	146	146	166	166	186	186	-
AP(CNA25)	-	-	129.5	129.5	149.5	149.5	169.5	169.5	189.5	189.5	209.5	209.5

外形尺寸

外螺纹杆规格



注：本页未记载的规格及尺寸，请参照内螺纹杆规格参数。
mm

型 号	CNA02-□M	CNA04-□M	CNA06-□M	CNA10-□M	CNA16-□M	CNA25-□M
J	58	64.5	70	81	92	110.5
M	10.5	11.5	12.5	13.5	15.5	17
N	M12×1.25	M14×1.5	M16×1.5	M20×1.5	M24×1.5	M30×1.5
P	20	25	27.5	30	35	45
S (对边高度)	7	8	9	10	12	14
øT	14±0.2	16±0.2	20±0.2	23±0.2	28±0.2	33.5±0.3
U (对边宽)	12	14	17	19	24	30

行程 参数	10	15	20	30	40	50	60	70	80	90	100	110
Am(CNA02)	86	86	101	101	121	121	141	141	-	-	-	-
Am(CNA04)	95.5	95.5	110.5	110.5	130.5	130.5	150.5	150.5	-	-	-	-
Am(CNA06)	101.5	101.5	116.5	116.5	136.5	136.5	156.5	156.5	176.5	176.5	-	-
Am(CNA10)	118.5	-	118.5	138.5	138.5	158.5	158.5	178.5	178.5	198.5	198.5	-
Am(CNA16)	131	-	131	151	151	171	171	191	191	211	211	-
Am(CNA25)	-	-	160.5	160.5	180.5	180.5	200.5	200.5	220.5	220.56	240.5	240.5



型號表示

CMC ①-②③④

①尺寸

②行程

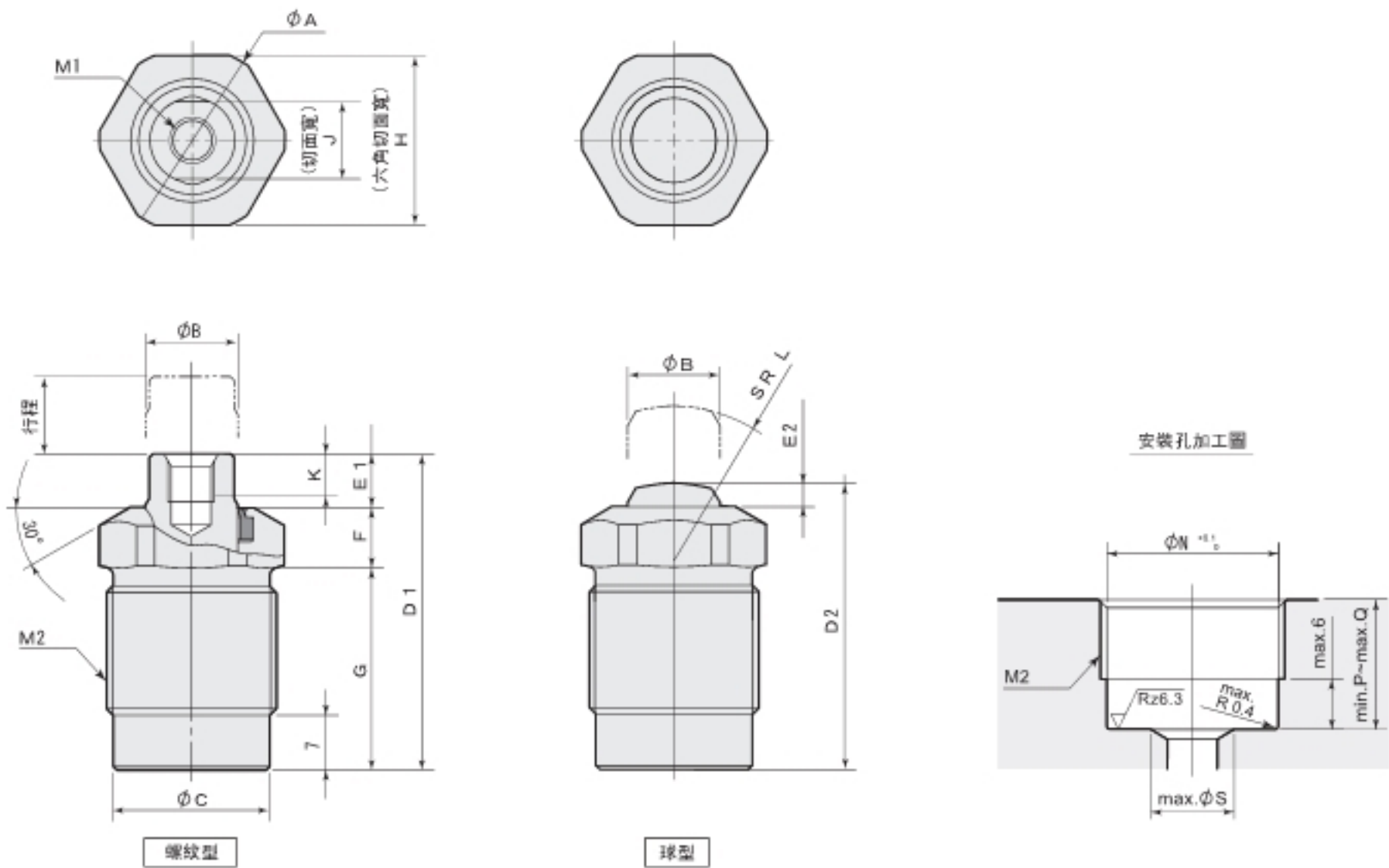
③主杆頂端形狀

④特殊規格

CMC	①尺寸	②行程	③主杆頂端形狀	④特殊規格
	03 04 06 10 20	5 (CMC03~10) 10 15 20 (CMC20)	無記號：螺絲型〈標準〉 R：球型	無記號：防塵・密封 NBR (標準) V※：防塵・密封 氟橡膠 (除CMC10\20外) ※ 切削液為氯系腐蝕性時，作為耐熱規格的 (max 150℃)，設計氟橡膠規格。

型 號		CMC 03			CMC 04			CMC 06			CMC 10			CMC 20		
行程 (mm)		5	10	15	5	10	15	5	10	15	5	10	15	5	10	20
油缸能力	油壓為3.5MPa時	0.4 kN			0.5 kN			0.9 kN			1.4 kN			2.8 kN		
	油壓為7.0MPa時	0.8 kN			1.1 kN			1.8 kN			2.8 kN			5.6 kN		
	油壓為25.0MPa時	2.8 kN			3.8 kN			6.4 kN			9.9 kN			20.0 kN		
受壓面積		1.13cm ²			1.54cm ²			2.55cm ²			3.94cm ²			8.04cm ²		
最大流量		5.7cm ³ /sec			7.7cm ³ /sec			12.7cm ³ /sec			19.7cm ³ /sec			40.2cm ³ /sec		
油缸容量 (cm ³)		0.6	1.1	1.7	0.8	1.5	2.3	1.3	2.5	3.8	2.0	3.9	5.9	8.0	12.0	16.0
回位彈簧力		28N~42N			38N~59N			62N~100N			97N~160N			200N~310N		
質量 (g)		70	100	130	90	120	150	160	210	260	240	300	350	630	780	910
使用壓力範圍		1.0 ~ 25.0 Mpa														
保證耐壓		37.5 MPa														
使用環境溫度		0~70 °C														

外形尺寸



(mm)															
型 號	CMC 03			CMC 04			CMC 06			CMC 10			CMC 20		
行程	5	10	15	5	10	15	5	10	15	5	10	15	5	10	20
A	24			26			33			40			50		
B	12			14			18			22.4			32		
C	20.3			23.3			28.3			34.3			46		
D1	31	41	51.5	36	47	58	40.5	51.5	62.5	44.5	54.5	66.5	67.5	80.5	92
D2	27	37	47.5	31	42	53	34	45	56	36.5	46.5	58.5	57	70	81.5
E1	7			8.5			10			12			16		
E2	3			3.5			3.5			4			5.5		
F	8			9			10.5			12.5			14		
G	16	26	36.5	18.5	29.5	40.5	20	31	42	20	30	42	37.5	50.5	62
H	22			24			30			36			46		
J	10			12			14			19			27		
K	5.5			6.5			7.5			9.5			12.5		
L	20			25			32			40			50		
M1	M6深度6			M6深度11			M6深度13			M8深度13			M12深度18		
M2	M22 X 1.5			M25 X 1.5			M30 X 1.5			M36 X 1.5			M48 X 1.5		
N	20.5			23.5			28.5			34.5			46.5		
P	13			14			15			17			20		
Q	15.5	25.5	36	18	29	40	19.5	30.5	41.5	19.5	29.5	41.5	37	50	61.5
S	8			10			14			19			26		
附帶O形環	AS568-015(90)			AS568-016(90)			AS568-019(90)			AS568-022(90)			AS568-126(90)		
鎖緊扭矩	30 N · m			40 N · m			60 N · m			110 N · m			270 N · m		



型號表示

CMD ①—②

①尺寸

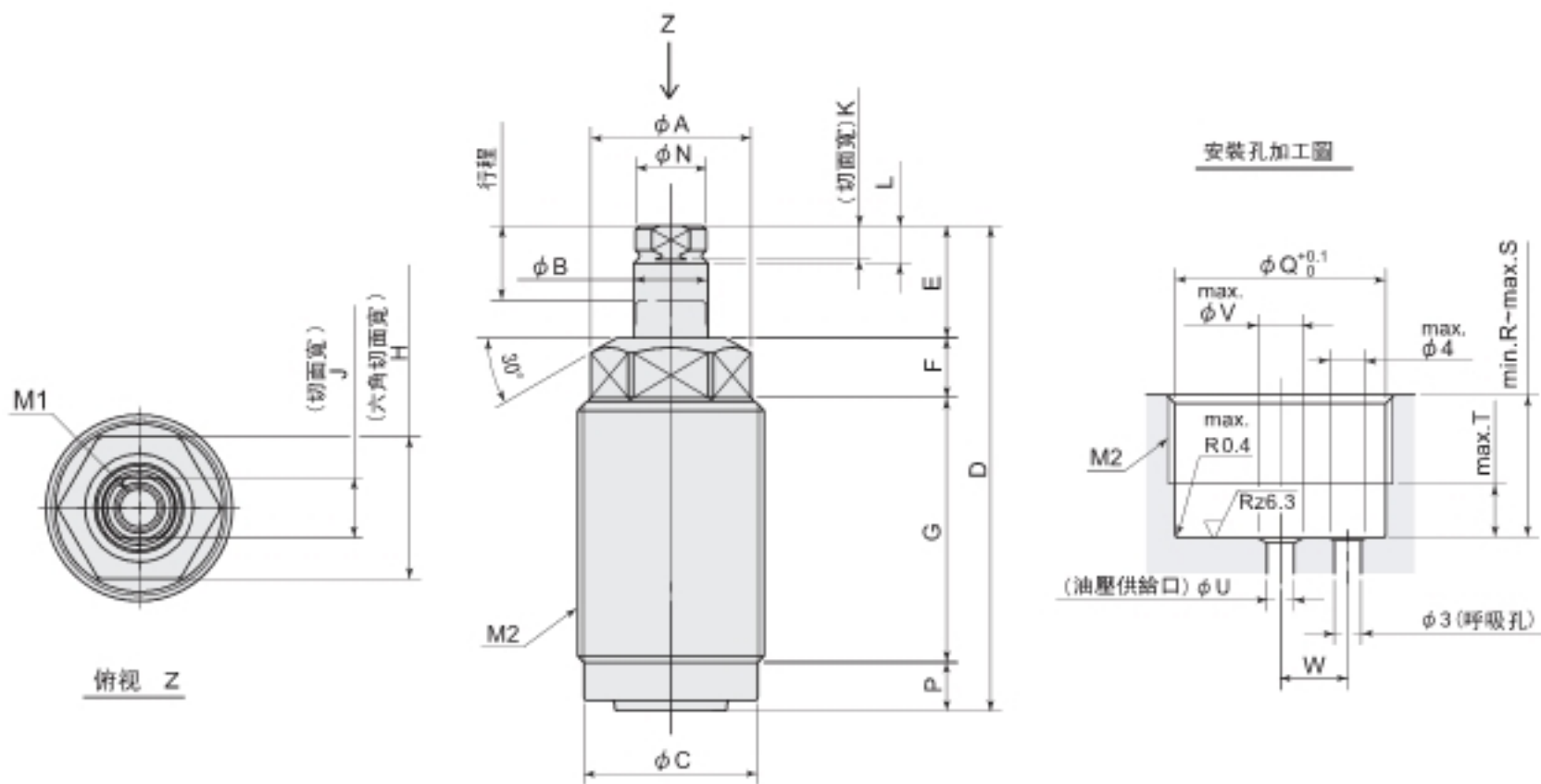
②行程

CMD	02	—		5	10
	04			5	10
	06			10	20
	10			10	20
	20			10	20
	40			10	20

型 號		CMD 02		CMD 04		CMD 06		CMD 10		CMD 20		CMD 40	
行程(mm)		5	10	5	10	10	20	10	20	10	20	10	20
油缸能力	油壓為3.5MPa時	0.3 kN		0.5 kN		0.8 kN		1.3 kN		2.2 kN		3.9 kN	
	油壓為7.0MPa時	0.6 kN		1.0 kN		1.6 kN		2.6 kN		4.4 kN		7.8 kN	
	油壓為25.0MPa時	2.1 kN		3.4 kN		5.7 kN		9.4 kN		16.6 kN		27.7 kN	
	油壓為35.0MPa時	2.9 kN		4.8 kN		8.0 kN		13.2 kN		22.4 kN		38.8 kN	
受壓面積		0.84cm ²		1.37cm ²		22.9cm ²		3.76cm ²		6.40cm ²		11.07cm ²	
最大流量		4.2cm ³ /sec		6.9cm ³ /sec		11.4cm ³ /sec		18.8cm ³ /sec		32.0cm ³ /sec		55.4cm ³ /sec	
油缸容量(cm ³)		0.5	0.9	0.7	1.4	2.3	4.6	3.8	7.5	6.4	12.8	11.1	22.2
回位彈簧力		30N~56N		43N~77N		65N~120N		100N~193N		170N~267N		283N~470N	
質量(kg)		0.10	0.12	0.12	0.15	0.23	0.30	0.35	0.46	0.69	0.89	1.10	1.40

使用油壓範圍: 1.5~35 Mpa 保壓耐壓: 52.5Mpa 使用環境溫度: 0~70°C

外形尺寸



(mm)

型 號	CMD 02		CMD 04		CMD 06		CMD 10		CMD 20		CMD 40	
行程	5	10	5	10	10	20	10	20	10	20	10	20
A	19		21.5		27		33		45		55	
B	10		10		12		16		20		25	
C	20.3		23.3		28.3		34.3		46.3		56.3	
D	51	65	51	65	69	96	73	101	80	109	88	116
E	10	15	10	15	16	26	17	27	19	29	20.5	30.5
F	7.5		8		9.5		11.5		13.5		16.5	
G	27	36	26.5	35.5	35.5	52.5	35.5	53.5	35.5	54.5	38	56
H(六角切面寬)	17		19		24		30		41		50	
J(切面寬)	8		8		10		14		17		22	
K	4.5		4.5		5.5		6.5		8.5		10	
L	5		5		6		7		9		10.5	
M1(頂端螺紋)	M6深度11		M6深度11		M8深度18		M10深度20		M12深度22		M16深度27	
M2(本體外周螺紋)	M22X1.5		M25X1.5		M30X1.5		M36X1.5		M48X1.5		M58X1.5	
N	9.5		9.5		11.5		15.5		19.5		24.5	
P	6.5		6.5		8		9		12		13	
Q	20.5		23.5		28.5		34.5		46.5		56.5	
R	13		14		15		17		20		20	
S	32.5	41.5	32	41	42.5	59.5	43.5	61.5	46.5	65.5	50	68
T	5.5		5.5		7		8		11		12	
U(油壓接口)	3		3		3		4		6		6	
V	5		5		5		5		7		7	
W	7		7.5		9.5		12		15		18	
附帶O形環(油壓連接)	1BP6		1BP6		1BP6		1BP6		1BP8		1BP8	
附帶O形環(呼吸孔)	AS568-017(90)		AS568-019(90)		AS568-022(90)		AS568-026(90)		AS568-031(90)		AS568-034(90)	
鎖緊扭矩	5 N・m		6 N・m		7 N・m		8 N・m		20 N・m		25 N・m	

規格

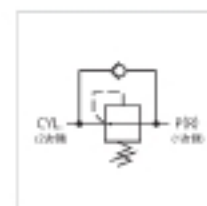
型 號		VRG-MG	VRG-MT	VRG-HG	VRG-HT
安裝、配管方法		座墊型	配管型	座墊型	配管型
1次側油壓範圍	MPa	7-30		10-30	
2次側油壓範圍	MPa	1-20		7-20	
允許最低差壓	MPa	3			
保證耐壓	MPa	37.5			
調整螺紋每1圈的壓力變化	MPa/rev	3.9		6.2	
節流孔面積	mm ²	28.1			
使用環境溫度	℃	0~70			
使用液體		普通礦物油基液壓油 (相當于ISO-VG32)			
質量	kg	1.0 (僅限座墊式0.9)			



減壓閥

model

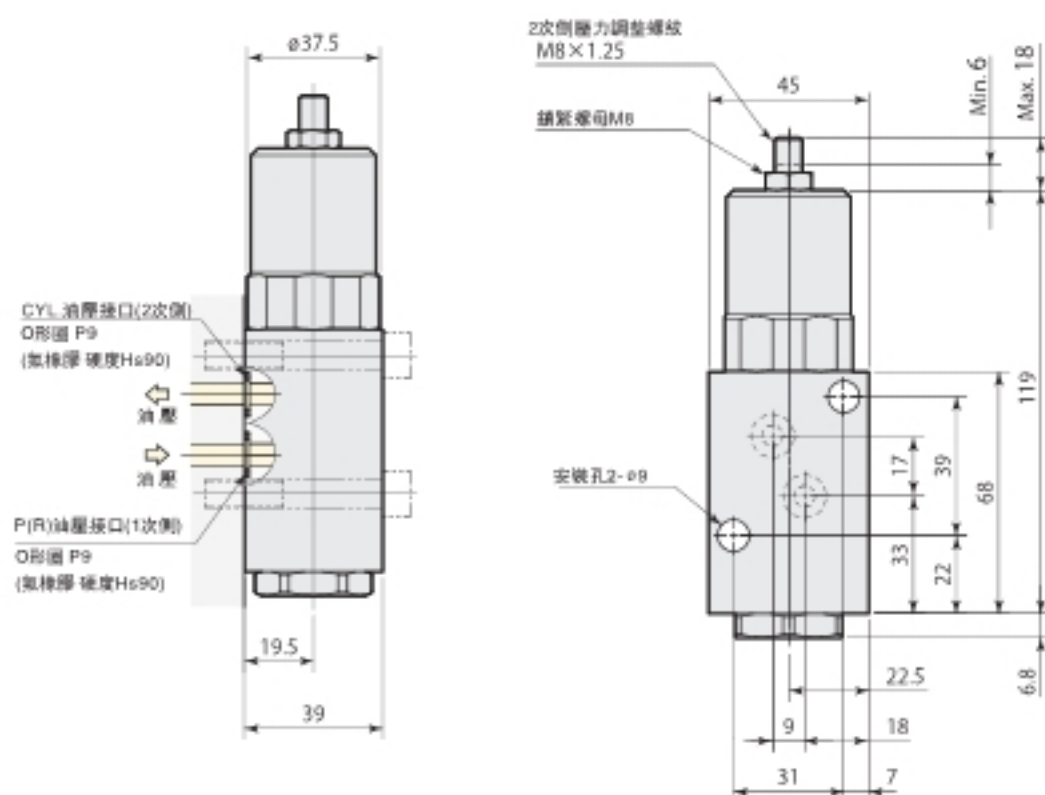
VRG



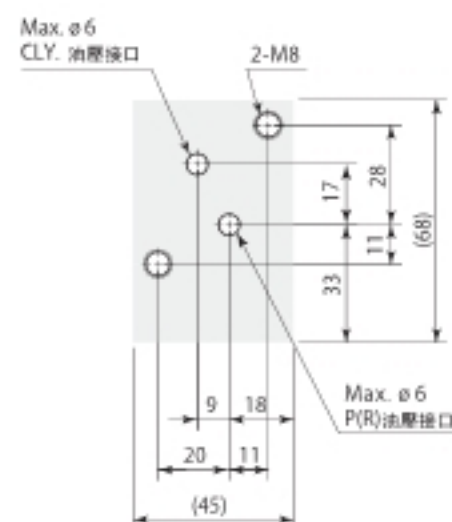
※可局部減少回路的油壓。
※應設置非油的異常漏油。

外形尺寸

VRG-□G 座墊型 ※附帶內部過濾 (P、CYL油壓接口)

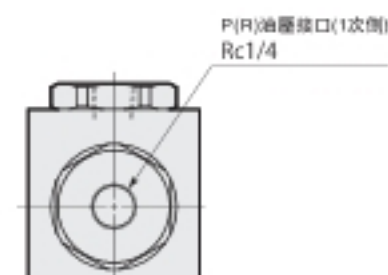
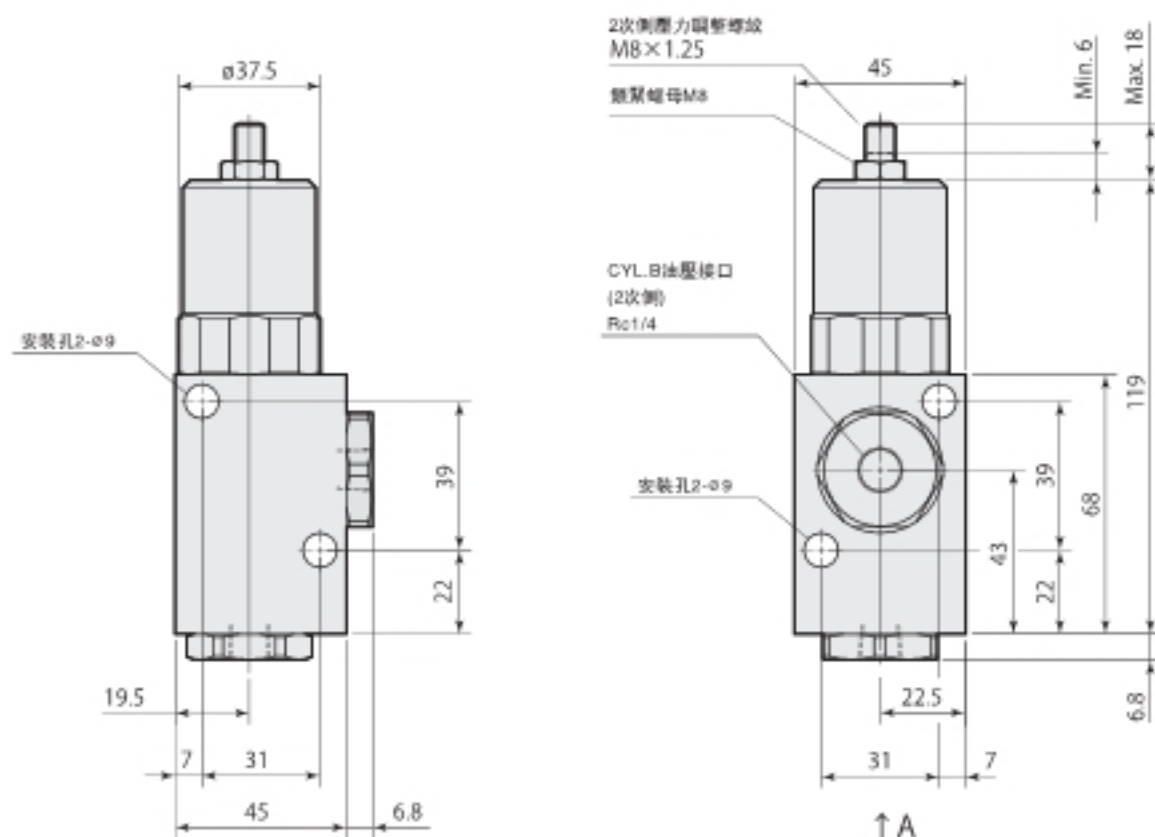


安裝孔加工圖



由于采用座墊式配管，因此安裝面的最大表面粗糙度應加工在Rz6.3以下。

VRG-□T 配管型 ※附帶內部過濾器 (P、CYL油壓接口)



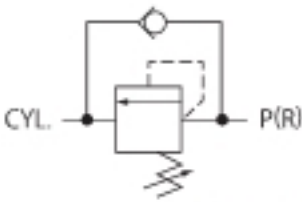
A向視圖

規格

型 號		VEF-LG	VEF-LT
安裝、配管方法		座墊型	配管型
使用油壓範圍	MPa	2~30	
允許最低差壓	MPa	1	
設定油壓範圍	MPa	1~8	
保證耐壓	MPa	37.5	
啟流壓力	MPa	0.01	
調整螺紋每1圈的壓力變化	MPa	1	
節流孔面積	(MPa/rev)	P → CYL.7.1 CYL. → R 28.3	
使用環境溫度	mm ²	0~70	
使用流體替	℃	普通礦物油基液壓油(相當于ISO-VG32)	
質量	kg	0.8	1.0



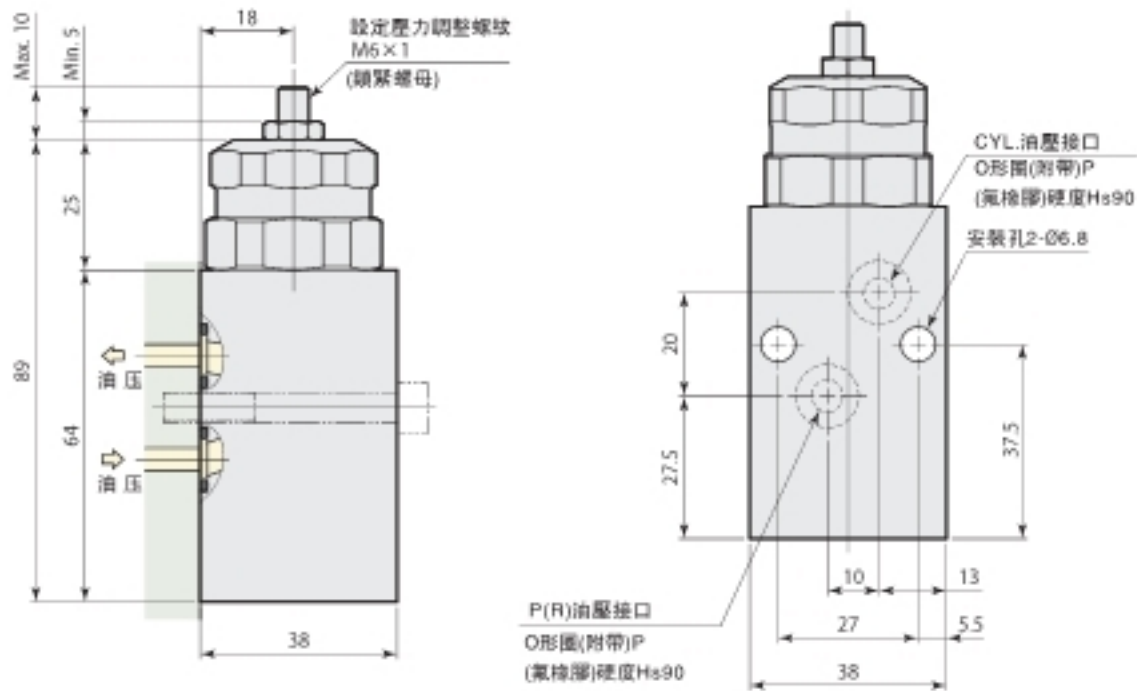
順序閥
model
VEF



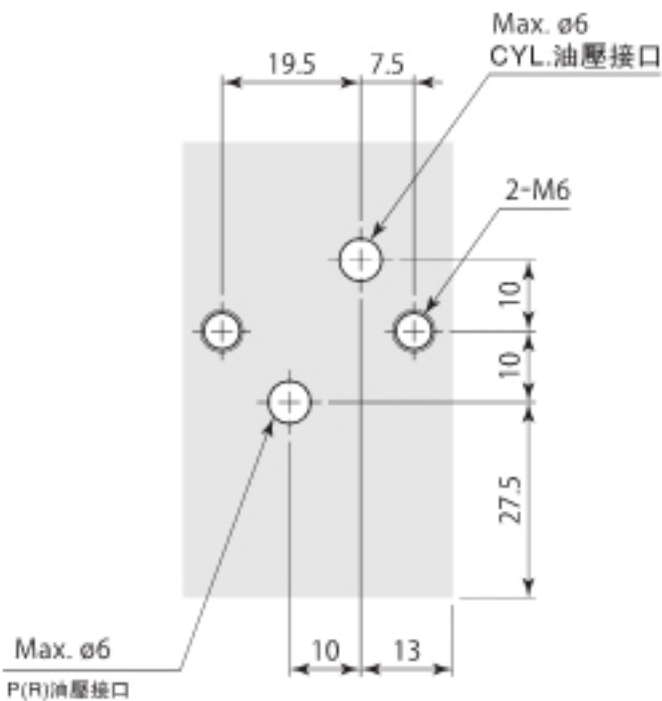
7MPa

外形尺寸圖

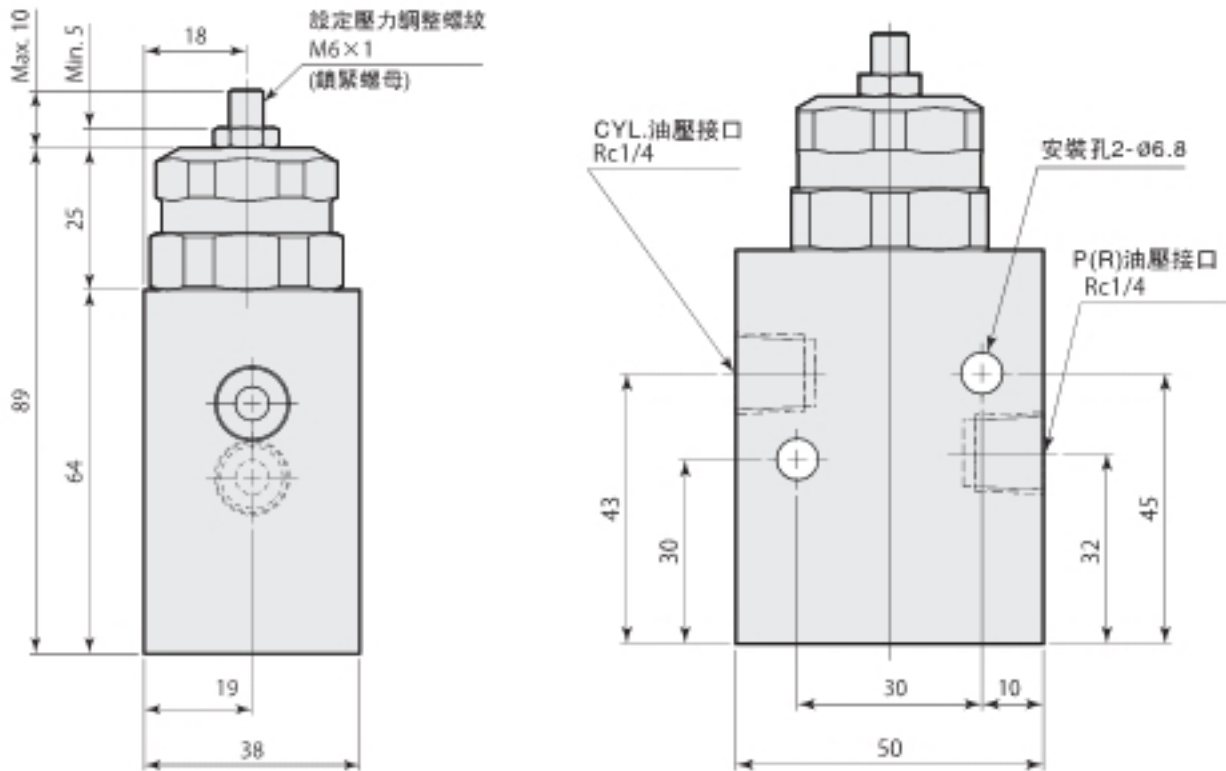
VEF-LG 座墊型 ※附帶內部過濾器（P、CYL油壓接口）



安裝孔加工圖



VEF-LT 配管型 ※附帶內部過濾器（P、CYL油壓接口）



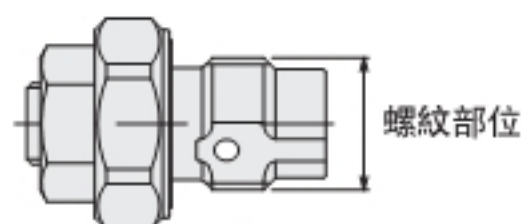
型號表示 (速度控制閥低壓用)

BZL 0 10 0 - B

1 2

1 G螺紋尺寸

- 10 : 螺紋尺寸 G1/8
- 20 : 螺紋尺寸 G1/4
- 30 : 螺紋尺寸 G3/8



2 控制方式

A:進油節流

A



B:回油節流

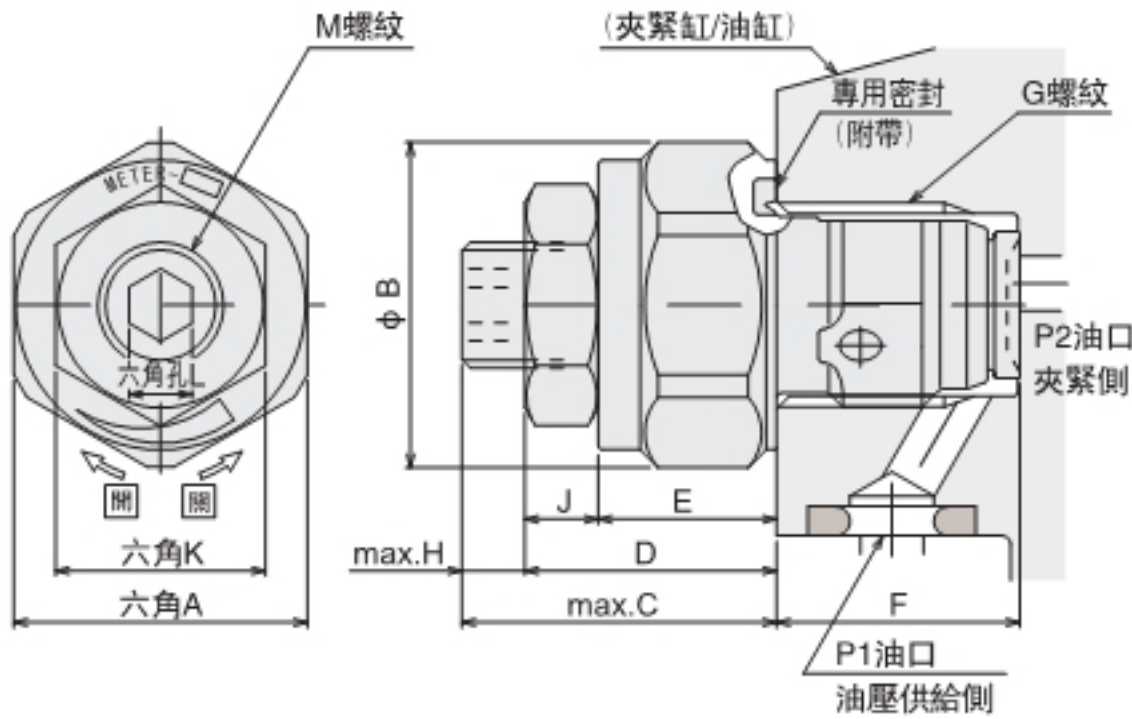
B



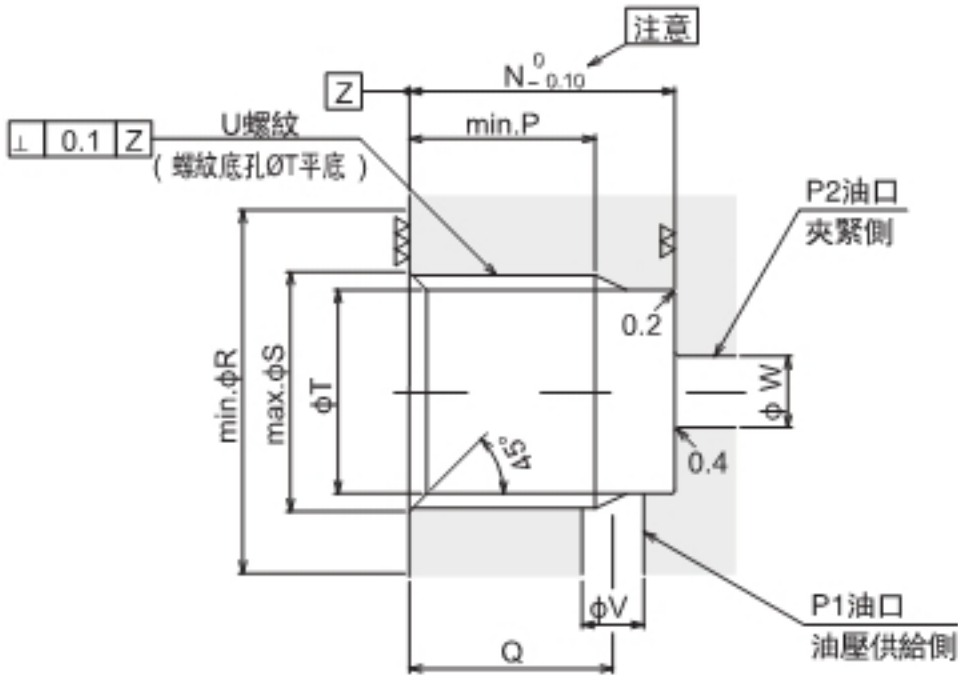
規格

型號		BZL0100-A	BZL0200-A	BZL0300-A	BZL0100-B	BZL0200-B	BZL0300-B
最高使用壓力	MPa	7					
耐壓	MPa	10.5					
控制方式		進油節流			回油節流		
G 螺紋尺寸		G1/8	G1/4	G3/8	G1/8	G1/4	G3/8
開啟壓力	MPa	0.04			0.12		
使用流體		2.6	5.0	11.6	2.6	5.0	10.2
使用溫度	°C	相當於ISO粘度等級的ISO-VG-32 一般液壓油					
最大流道面積	mm ²	0 ~ 70					
本體推薦緊固力矩	N·m	10	25	35	10	25	35

外形尺寸



安裝部位加工尺寸



(mm)

型號	BZL0100-□	BZL0200-□	BZL0300-□
A	14	18	22
B	15.5	20	24
C	15	16	19
D	12	13	16
E	8.5	9.5	11
F	(11.6)	(15.1)	(17.6)
G	G1/8	G1/4	G3/8
H	3	3	3
J	3.5	3.5	5
K	10	10	13
L	3	3	4
M	M6×0.75	M6×0.75	M8×0.75
N	11.5	15	17.5
P	8.5	11	13
Q	9	11.5	13
R (平面部)	16	20.5	24.5
S	10	13.5	17
T	8.7	11.5	15
U	G1/8	G1/4	G3/8
V	2~3	3~4	4~5
W	2.5~5	3.5~7	4.5~9

型號表示

無中央供給口型

JRC **06** **00** - **S** - **A**

1 2 3 4

1 供給口數量

02 : 2 供給口 06 : 6 供給口
04 : 4 供給口 08 : 8 供給口

2 無中央供給口

0 : 無中心供給口

3 1次側配管方式

B : 外配管式 (G螺紋)
S : 外配管式 (Rc螺紋)

4 2次側配管方式

A : 板式連接・外配管并用在 (附帶R螺紋堵頭)
D : 板式連接・外配管并用在 (附帶G螺紋堵頭)

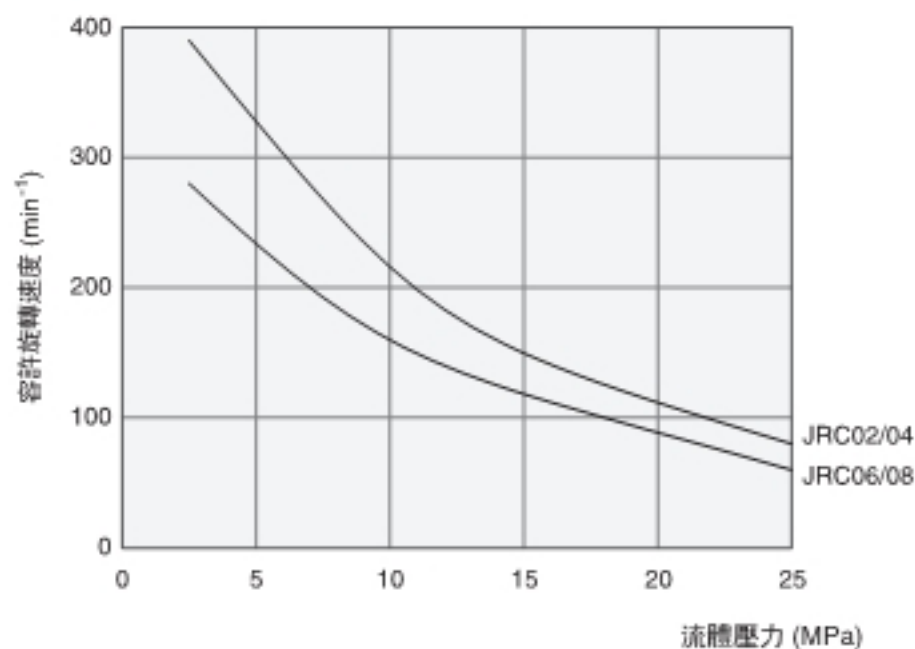


規格

型號		JRC0200-□-□	JRC0400-□-□	JRC0600-□-□	JRC0800-□-□
使用壓力 MPa	油	0 ~ 25.0			
	空氣	0 ~ 1.0			
供給口	供給口數量	2	4	6	8
	最小通路面積 mm ²	19.6			
中央供給口		無			
使用流體		普通液壓油或空氣			
使用溫度 °C		-10 ~ 70			
重量 kg		4.5	5.5	8.0	9.5

能力曲綫圖：容許旋轉速度圖表

型號表示	容許旋轉速度 (min ⁻¹)			
	JRC0200 -□-□	JRC0400 -□-□	JRC0600 -□-□	JRC0800 -□-□
25	80		60	
14	160		125	
7	280		200	
2.5	390		280	



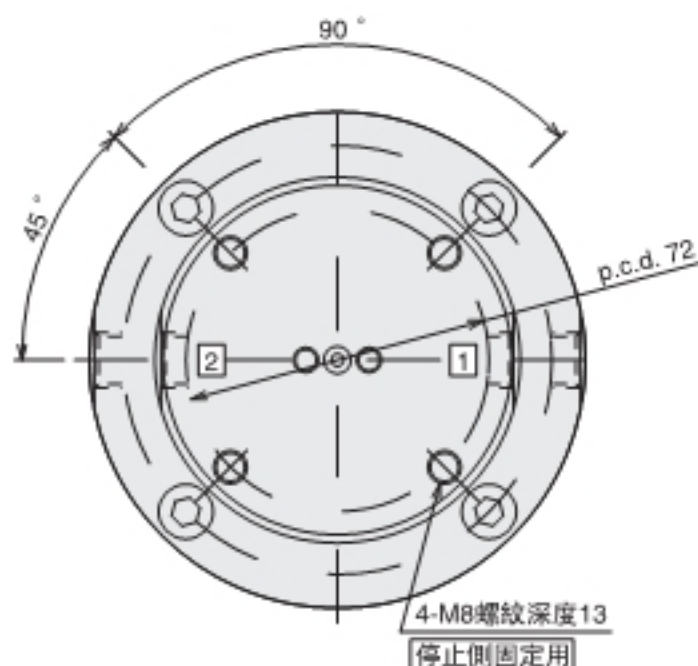
外型尺寸

※本圖表示JRC0200-S-A
(2回路)

1次側供給口或2次側供給口需要G螺紋時，
請另行諮詢。

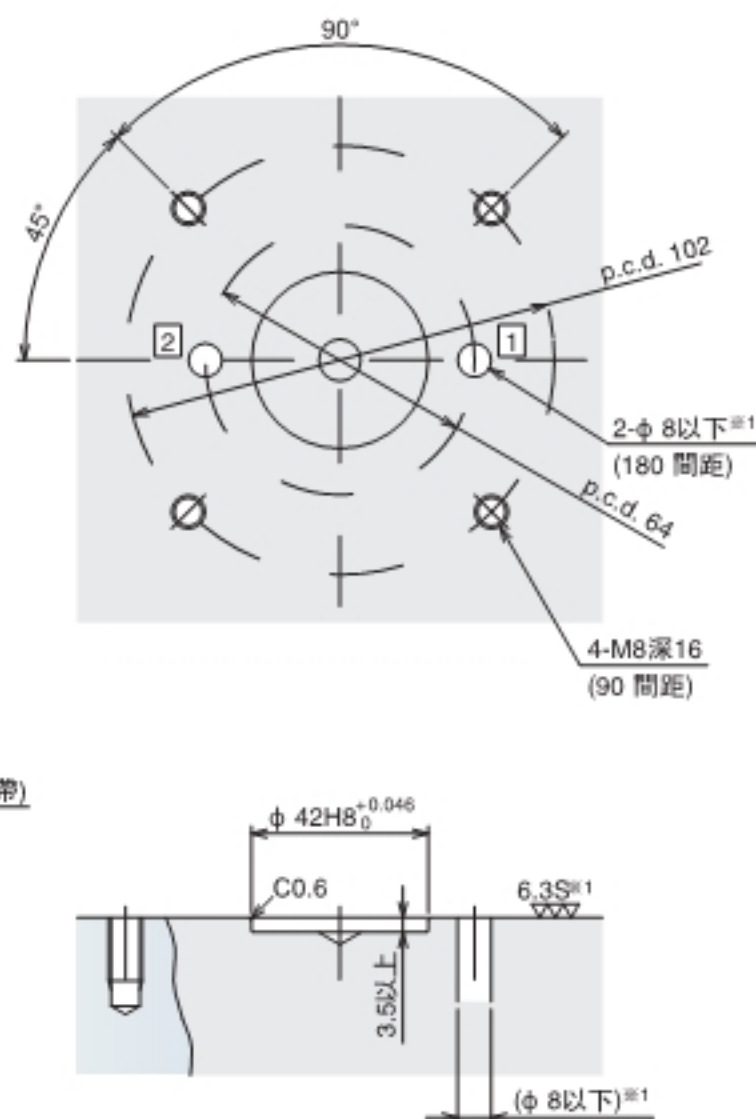
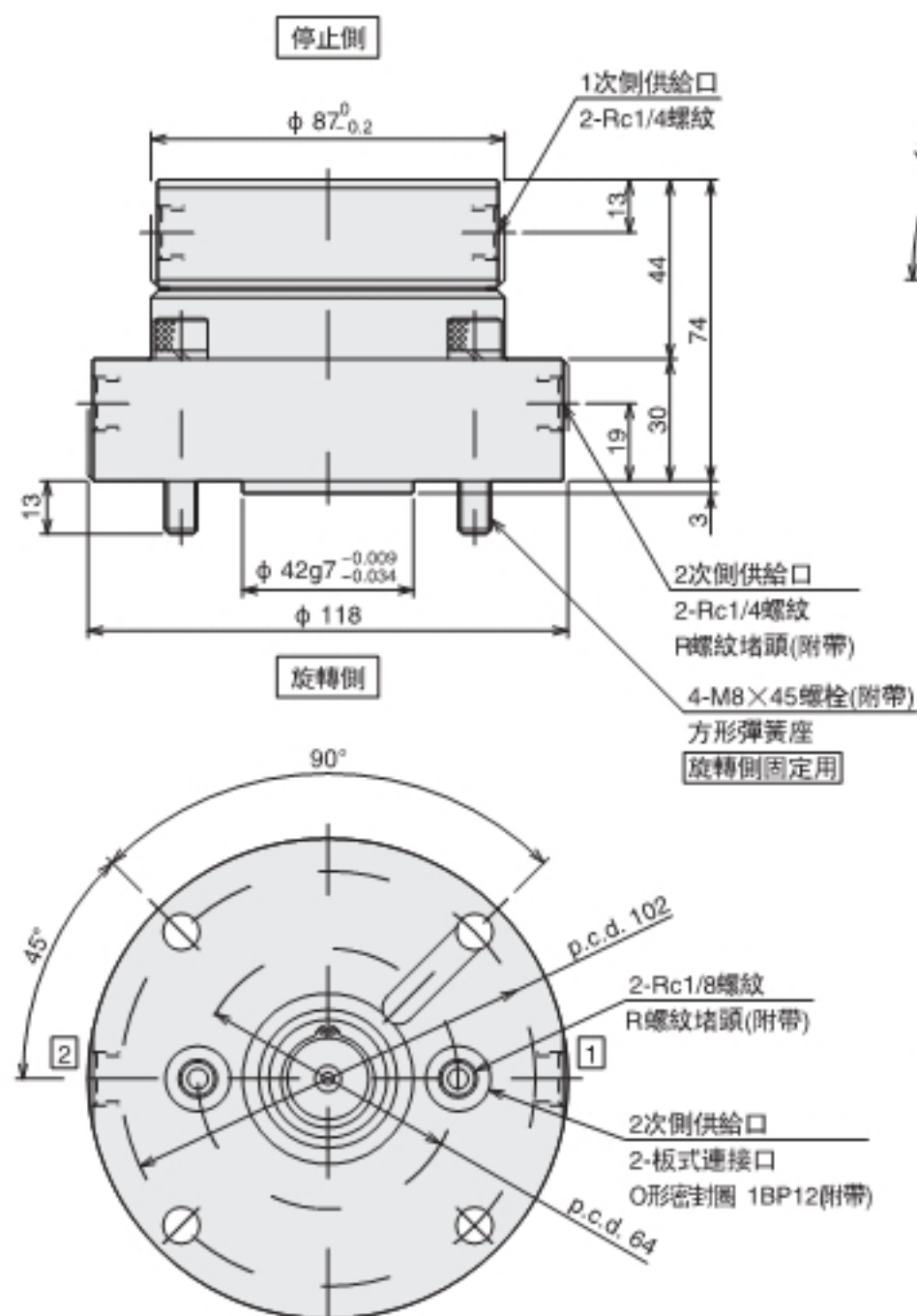
型號表示

JRC0200- B - A
S D 4 1次側配管方式
5 2次側配管方式



- 注意事項
1. 旋轉側請使用螺栓固定法蘭部，停止側請只對旋轉方向進行固定。
 2. 停止側的配管請使用軟管。
 3. 油氣并用時，油膜有可能滲入氣壓回路，請在兩回路間設置殘液排放回路。
 4. 連續運轉會導致內部密封件發熱，因此請避免連續運轉。
 5. 各供給口均標有及接口編號。
 6. 2次側使用Rc1/4接口採用外配管方式連接時，請使用附帶的R1/8螺紋堵頭塞住板式連接口。
- 當使用板式連接口時，請安裝O形密封圈和R1/4螺紋堵頭。

安裝部位加工尺寸



注意事項

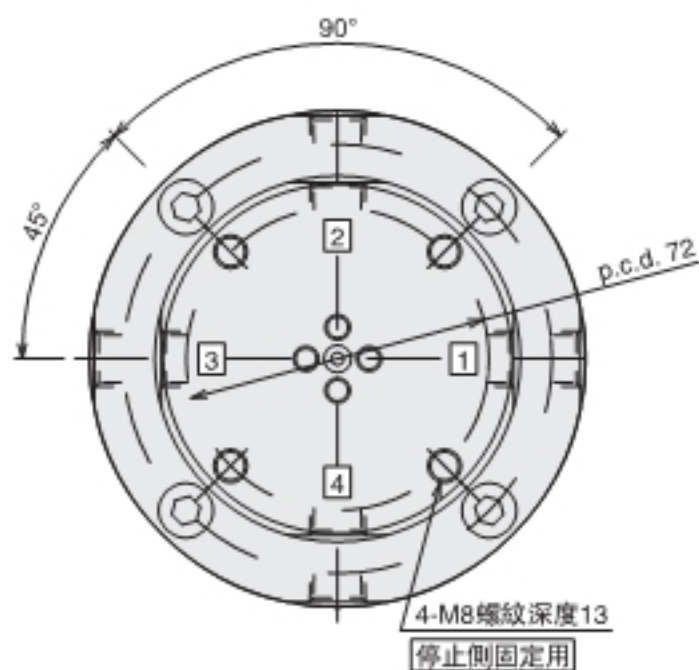
- ※1. 只有板式連接方式需要此項加工。
1. 安裝面(O形密封圈的密封面)的表面粗糙度按 6.3S 加工。

外型尺寸

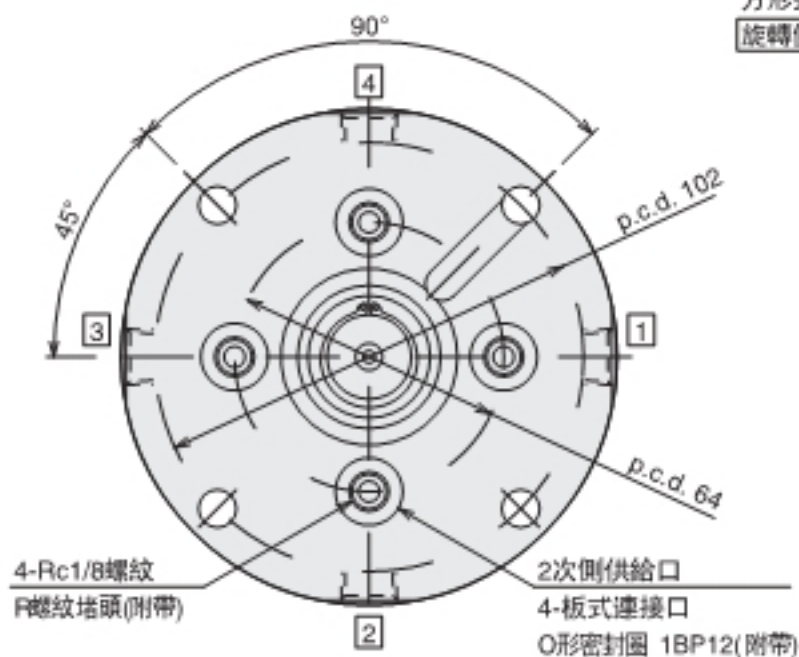
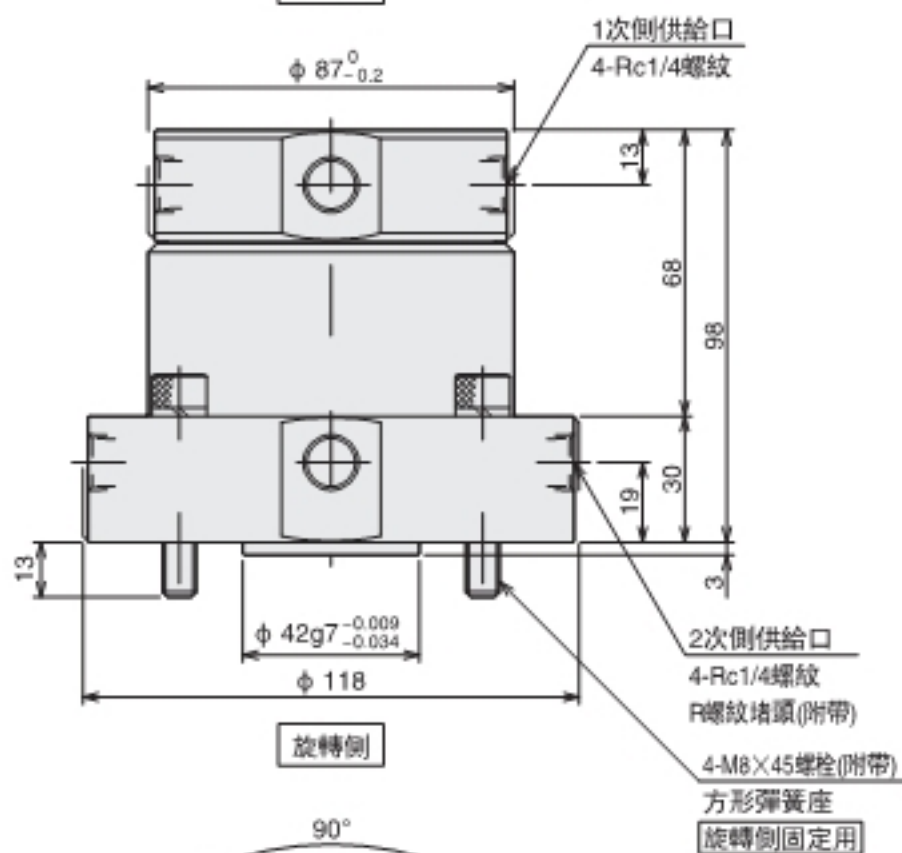
※本圖表示JRC0400-S-A

(4回路)

1次側供給口或2次側供給口需要G螺紋時，
請另行諮詢。



停止側



型號表示

JRC0400-

B
S

 -

A
D

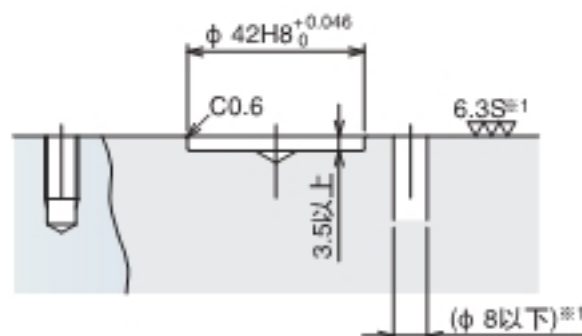
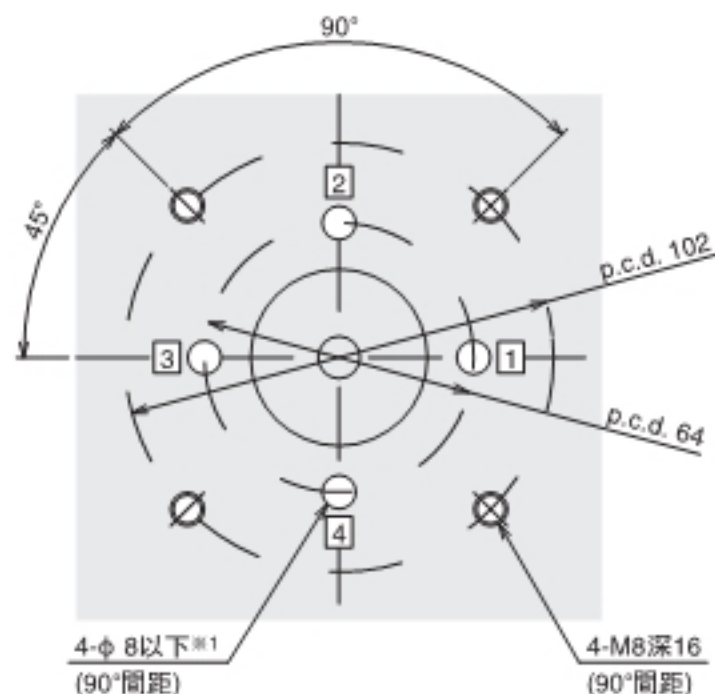
4 1次側配管方式
5 2次側配管方式

4 5

注意事項

1. 旋轉側請使用螺栓固定法蘭部，停止側請只對旋轉方向進行固定。
 2. 停止側的配管請使用軟管。
 3. 油氣并用時，油膜有可能滲入氣壓回路，請在兩回路間設置殘液排放回路。
 4. 連續運轉會導致內部密封件發熱，因此請避免連續運轉。
 5. 各供給口均標有及接口編號。
 6. 2次側使用Rc1/4接口采用外配管方式連接時，請使用附帶的R1/8螺紋堵頭塞住板式連接口。
- 當使用板式連接口時，請安裝O形密封圈和R1/4螺紋堵頭。

安裝部位加工尺寸



注意事项

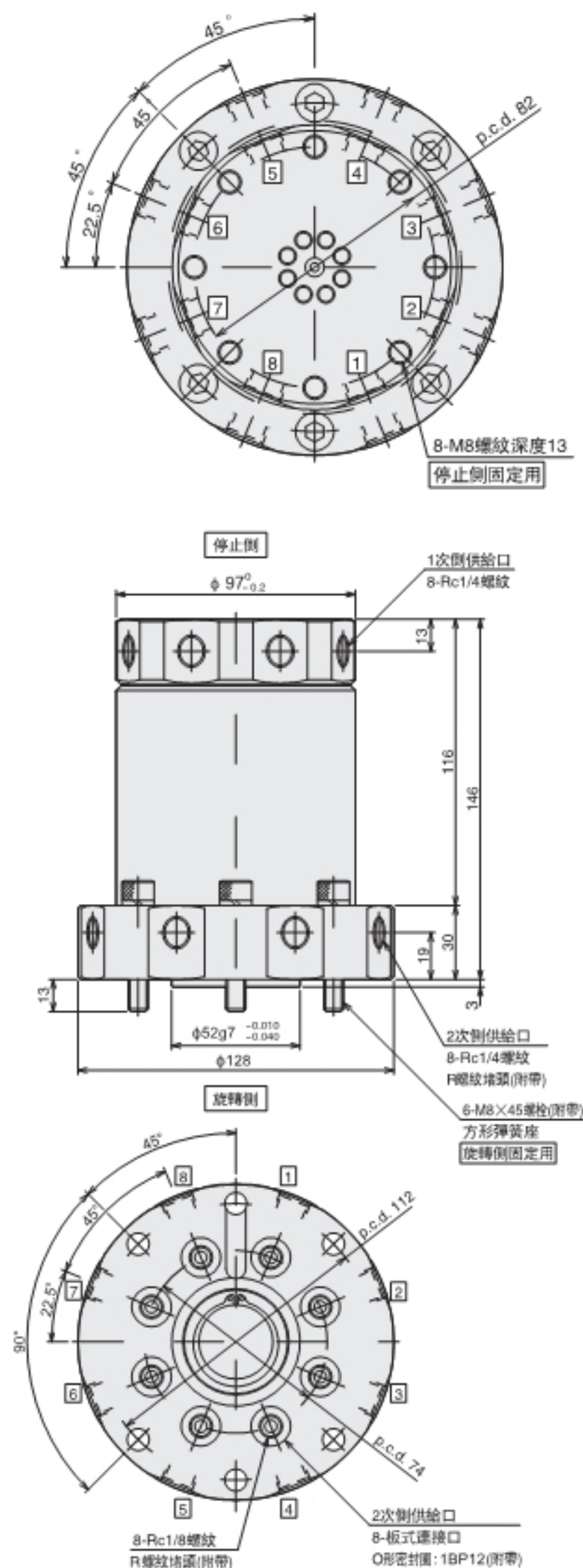
※1. 只有板式連接方式需要此項加工。

1. 安裝面(O形密封圈的密封面)的表面粗糙度按 6.3S 加工。

外型尺寸

※本圖表示JRC0800-S-A
(8回路)

1次側供給口或2次側供給口需要G螺紋時，
請另行諮詢。

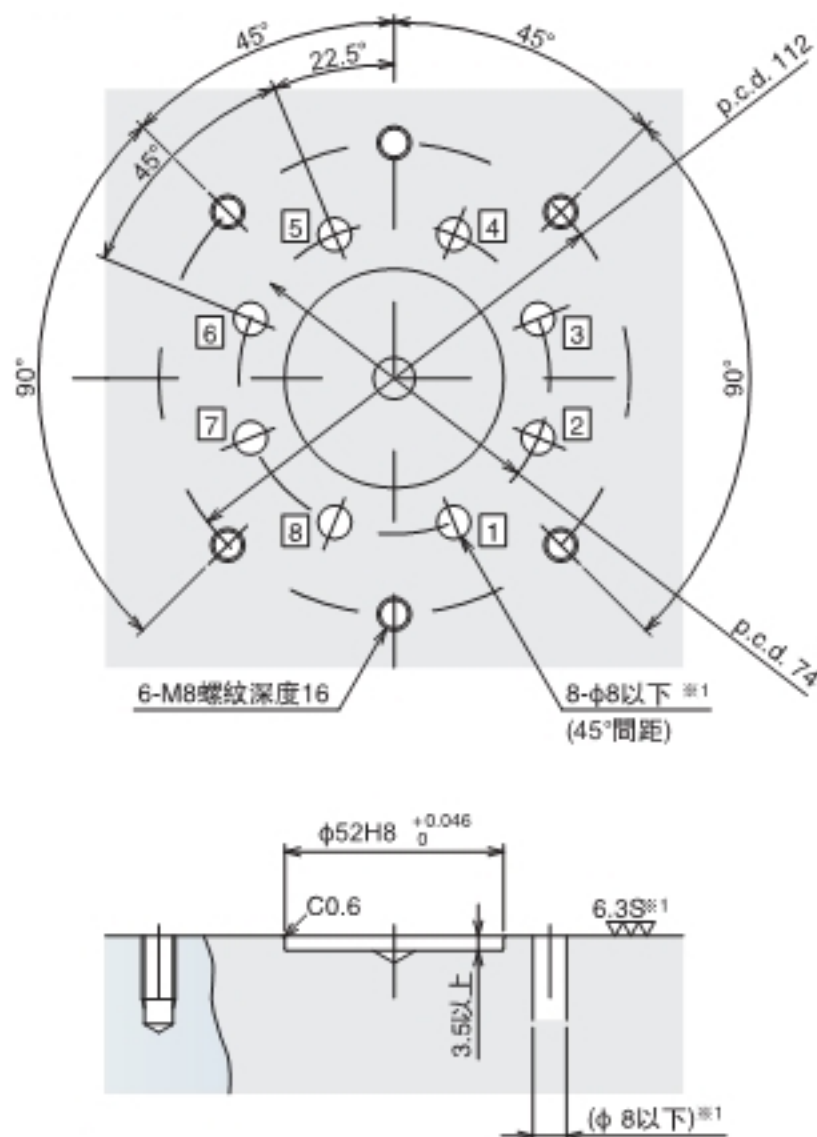


型號表示

JRC0800- **B** - **A** **4** 1次側配管方式
S **D** **5** 2次側配管方式

- 注意事項
1. 旋轉側請使用螺栓固定法蘭部，停止側請只對旋轉方向進行固定。
 2. 停止側的配管請使用軟管。
 3. 油氣并用時，油膜有可能滲入氣壓回路，請在兩回路間設置殘液排放回路。
 4. 連續運轉會導致內部密封件發熱，因此請避免連續運轉。
 5. 各供給口均標有及接口編號。
 6. 2次側使用Rc1/4接口采用外配管方式連接時，請使用附帶的R1/8螺紋堵頭塞住板式連接口。
當使用板式連接口時，請安裝 O形密封圈和R1/4螺紋堵頭。

安裝部位加工尺寸



注意事項

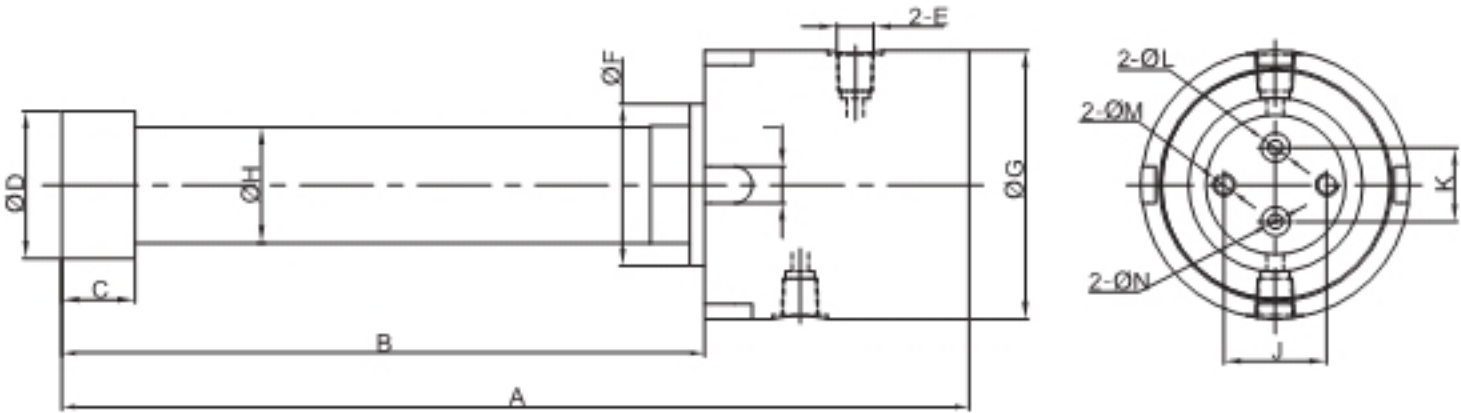
- ※1. 只有板式連接方式需要此項加工。
1. 安裝面(O形密封圈的密封面)的表面粗糙度按 6.3S 加工。

型號表示

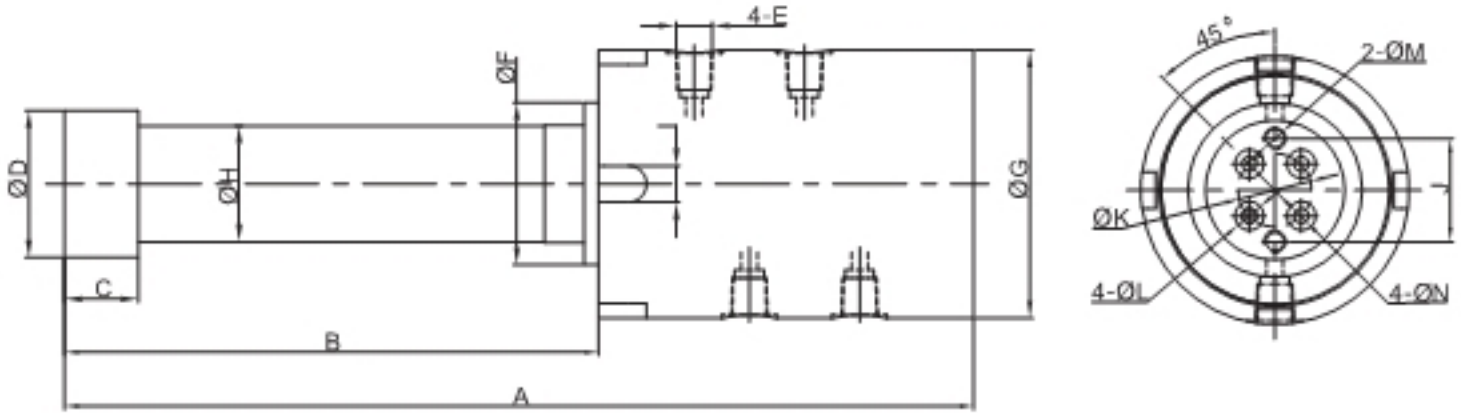
型號	回路數	四軸型號
YRA	2	320



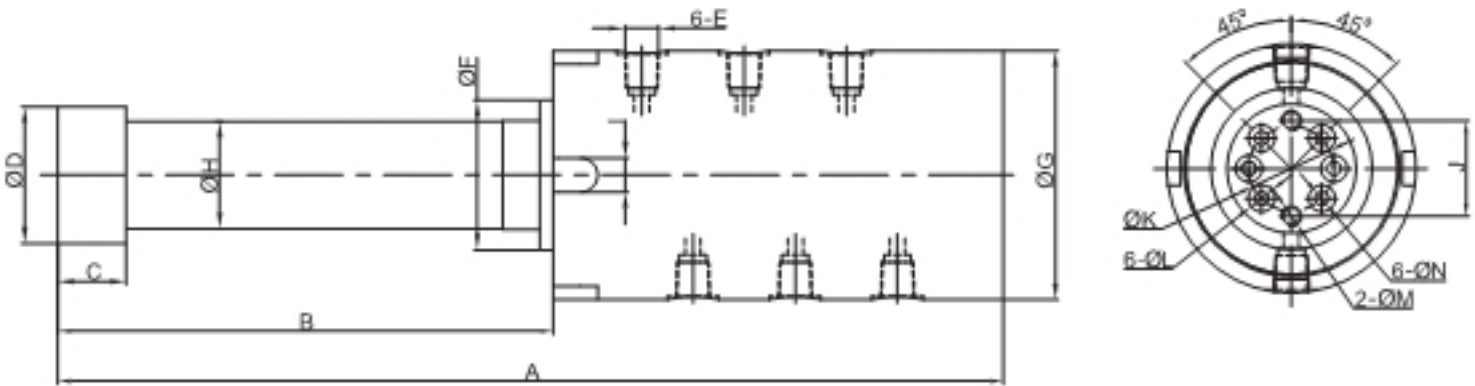
外型尺寸



型號	A	B	C	D	E	F	G	H	I	J	K	L	M	N
YRA-2-255	247	175	20	40	RP1/8	44	73	31.5	10	28	20	8	M6	4
YRA-2-320	317	245	20	40	RP1/8	44	73	31.5	10	28	20	8	M6	4
YRA-2-400	362	290	20	40	RP1/8	44	73	31.5	10	28	20	8	M6	4



型號	A	B	C	D	E	F	G	H	I	J	K	L	M	N
YRA-4-255	277	175	20	40	RP1/8	44	73	31.5	10	28	20	8	M6	4
YRA-4-320	347	245	20	40	RP1/8	44	73	31.5	10	28	20	8	M6	4
YRA-4-400	392	290	20	40	RP1/8	44	73	31.5	10	28	20	8	M6	4



型號	A	B	C	D	E	F	G	H	I	J	K	L	M	N
YRA-6-255	307	175	20	40	RP1/8	44	73	38	10	28	25	8	M6	4
YRA-6-320	337	245	20	40	RP1/8	44	73	38	10	28	25	8	M6	4
YRA-6-400	422	290	20	40	RP1/8	44	73	38	10	28	25	8	M6	4



產品簡介 Introduction to product

- ◆本產品適用於量產零件之專用機及MC治具，提高生產效率最佳幫手。
- ◆主要功能為空壓缸作動時，活塞下壓行程中壓板會旋轉到設計的角度，再沿着直線繼續下壓直到壓板夾緊工件。
- ◆建議使用空壓轉角缸，請加裝流量控制閥，避免速度過快，以及轉角行程中，請勿夾持工件，導致損壞缸體及內部零件。
- ◆壓板需增加長度時，請勿大於原長度之1.5倍。
- ◆缸體材質採用鋁合金，表面硬膜處理，內壁表面光滑，使用壽命長。
- ◆This machine with MC clamp is exclusively to mass-produce spare parts. It is a great helper to raise production efficiency.
- ◆The clamping arm of this cylinder will swing around the angle when the piston traveling down, and then keep straight on until the clamping arm clamps the work-piece tightly.
- ◆You had better install a flow control valve to adjust the acting speed, and don't clamping workpiece when the cylinder is running, Otherwise will be easy to damage the body and the spare parts.
- ◆Please don't exceed 1.5 times of the original length of you need to increase the length of the clamping arm.
- ◆The cylinder is made of aluminum metal alloy the surface is processed with the hard membrane and the inside of it is smooth. It is long-lived to use.

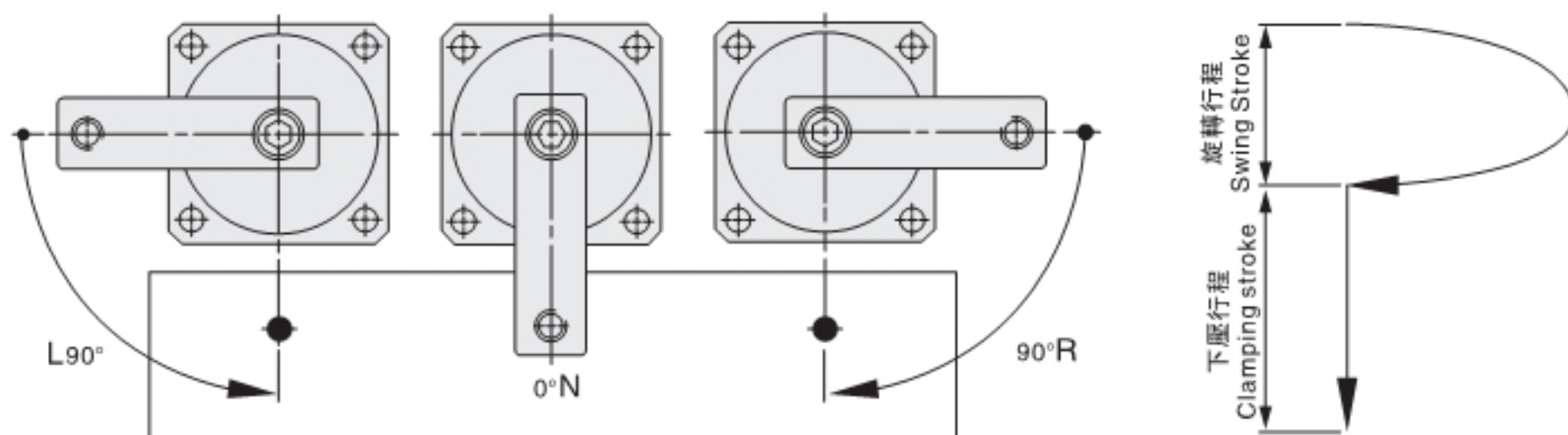
特性資料 Specification

氣缸內徑 Bore of cylinder(mm)	Φ25	Φ32	Φ40	Φ50	Φ63
活塞杆徑 Bore of piston	Φ14	Φ16	Φ16	Φ20	Φ20
受壓面積 拉入/推出Press area pull/push	3.37/4.91	6.03/8.04	10.56/12.57	16.49/19.63	28.03/31.17
理論夾持力Theoretical clamping force 5kg/cm ²	16	30	50	85	140
轉角行程 Swing stroke(mm)	9	11		13	
垂直行程 標準/加長Clamping stroke (mm) std/incr	13	15/30		17/34	
使用流體 Fluid	已濾清之壓縮空氣 Filtered air				
最大耐壓力 Max pressure(kg/cm ²)	10kg/cm ²				
一般工作壓力normal operation pressure	1- 7kg/cm ²				
轉角方向 Rotating direction	左轉L或右轉R Turn right R or turn left L				
轉角角度 Rotating angle	標準角度90° 選擇角度 Standard angle 90° Optional angle 0° ,45° ,60°				
作動方式 Acting type	復動式 Double acting				

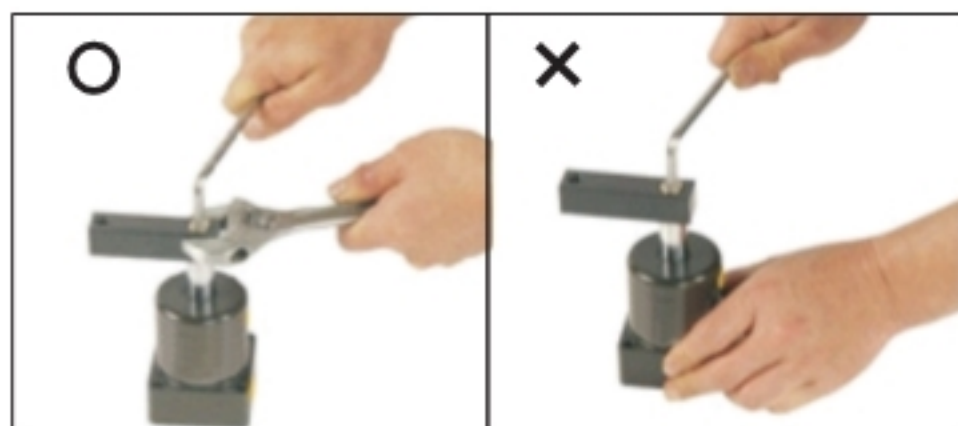
訂購標示法



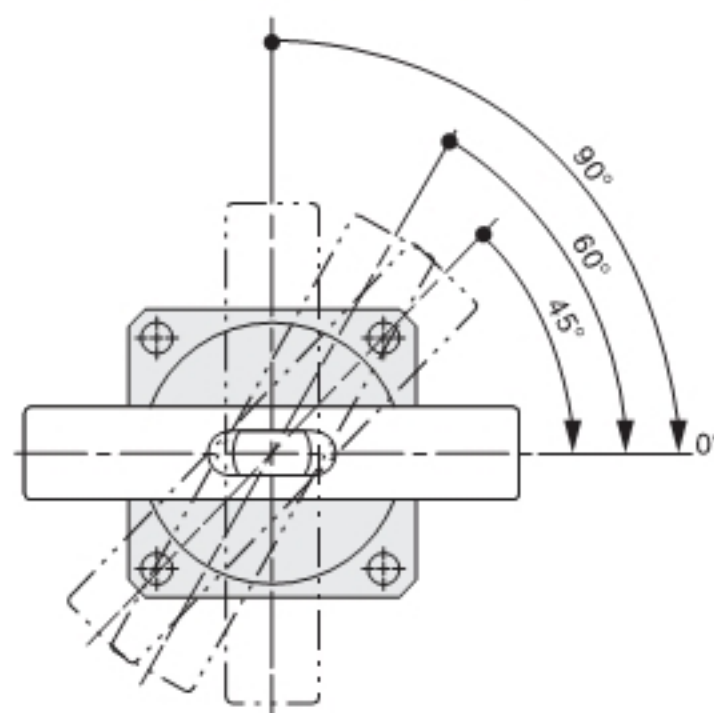
單邊壓板旋轉示意圖



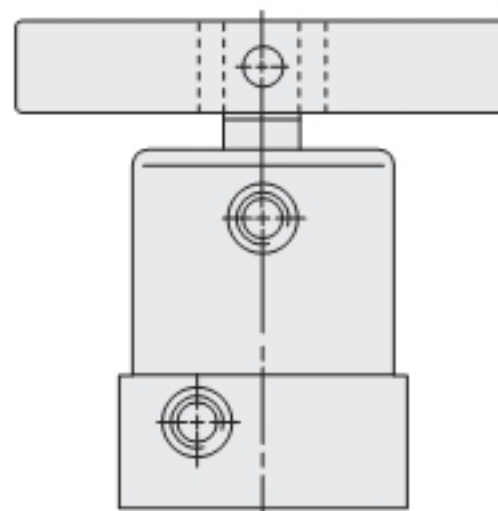
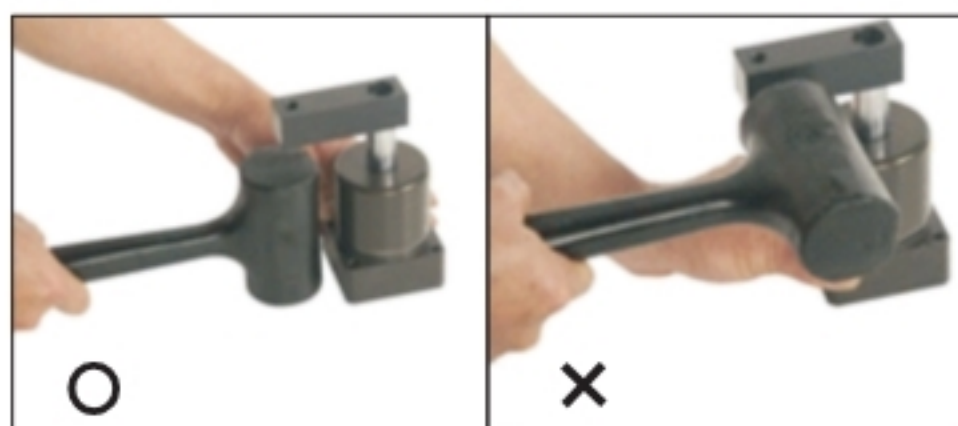
壓板鎖緊操作方式



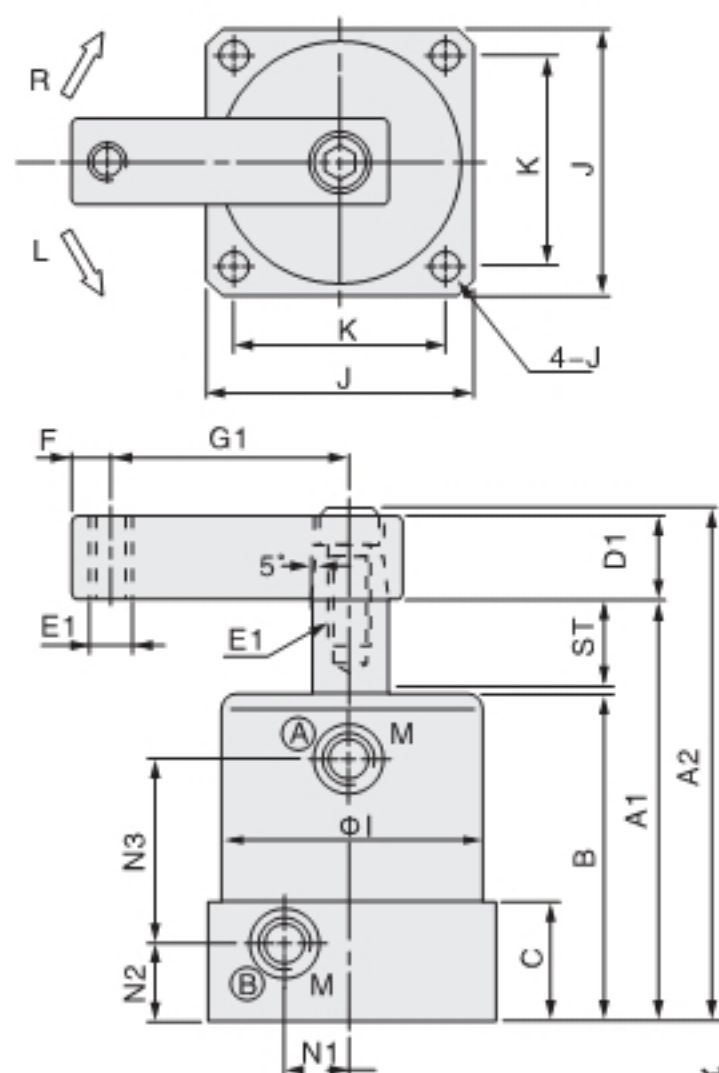
雙邊壓板旋轉示意圖



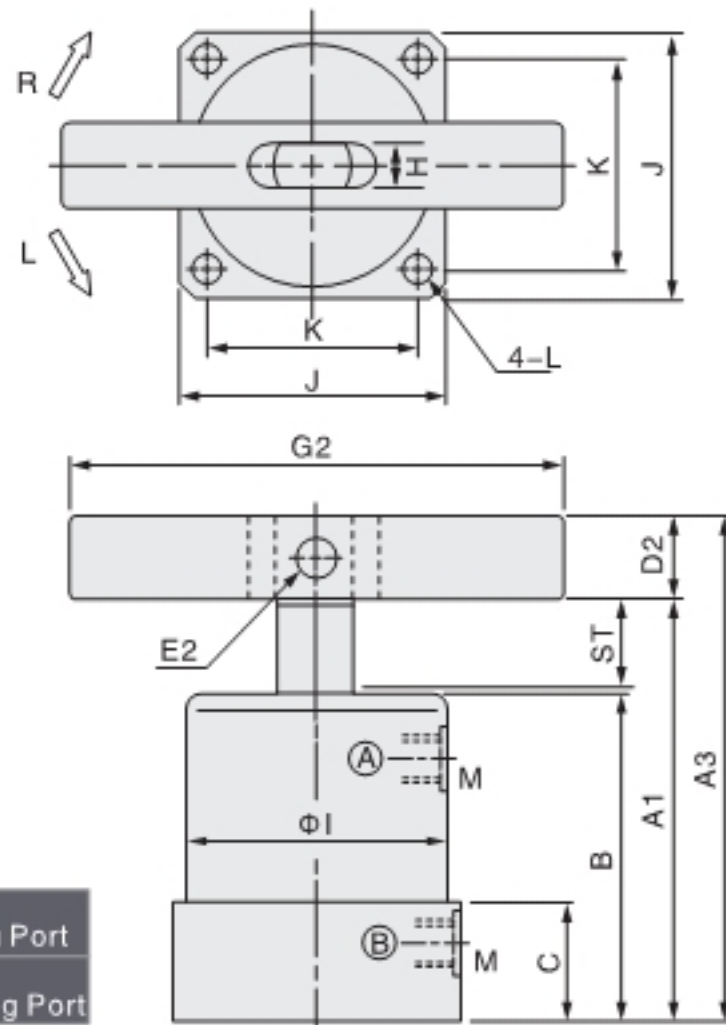
壓板拆卸操作方式



Single side swing clamp



Double side swing clamp



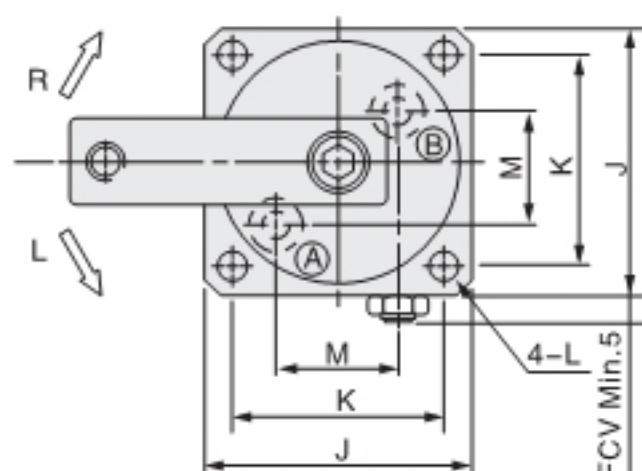
注：上圖為轉角90°鬆開狀態

外形尺寸表 Dimension table

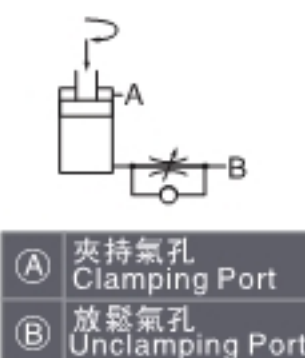
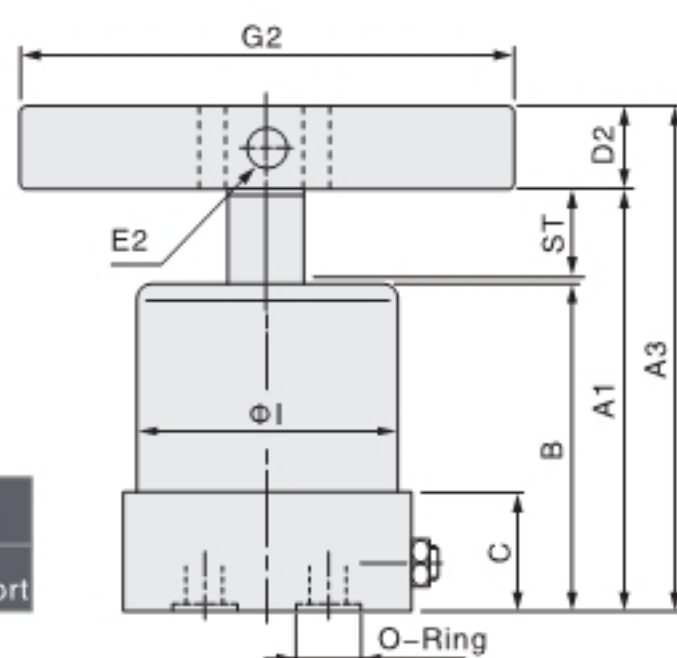
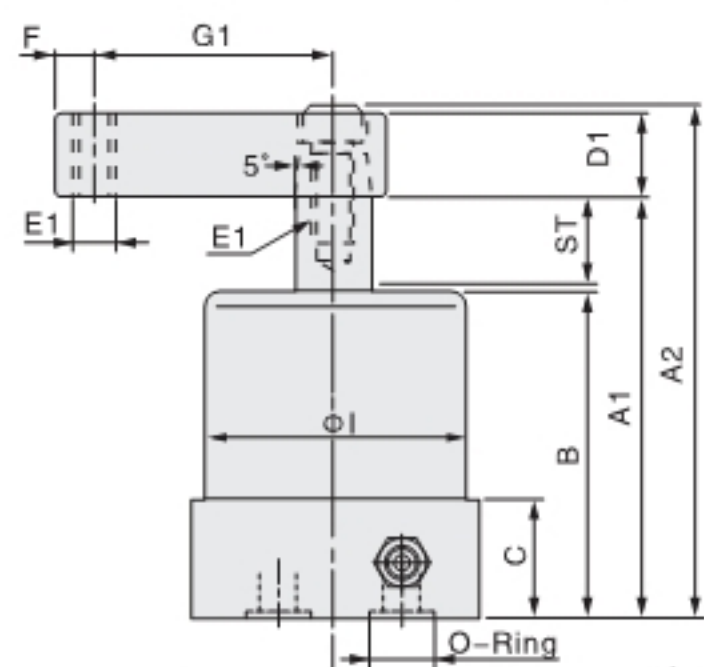
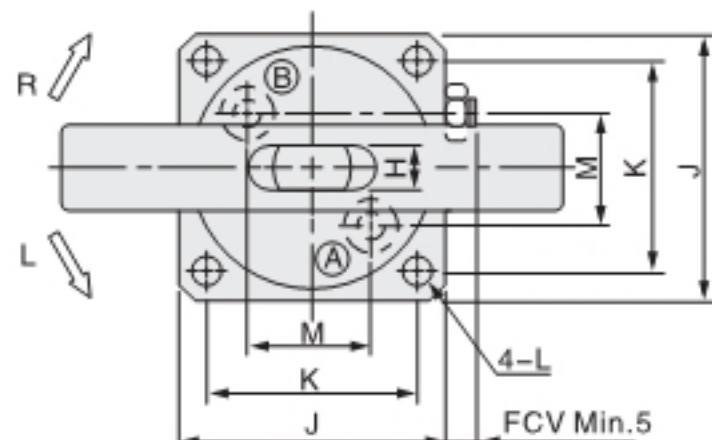
UNIT:mm

ITEM \ MODEL	HASC-25	HASC-32		HASC-40		HASC-50		HASC-63	
ST:Swing/Clamping	22:9/13	26:11/15	41:11/30	26:11/15	41:11/30	30:13/17	47:13/34	30:13/17	47:13/34
A1	89	108	138	108	138	124	158	124	158
A2	(105.9)	(128)	(158)	(128)	(158)	(150.4)	(184.4)	(150.4)	(184.4)
A3	-	127	157	127	157	146.2	180.2	146.2	180.2
B	65	78	93	78	93	90	107	90	107
C	23	28		28		31		31	
D1	□16	□19		□19		□25		□25	
D2	-	□19		□19		□22		□22	
E1	M6×1.0	M8×1.25		M8×1.25		M10×1.5		M10×1.5	
E2	-	Φ8		Φ8		Φ8		Φ8	
F	6	8		8		10		10	
G1	35	50		55		60		70	
G2	-	140		140		160		160	
H	-	9		9		10		10	
ΦI	Φ35	Φ46		Φ55		Φ65		Φ78	
J	38	50		60		70		83	
K	30	40		48		57		67	
L	Φ4.6	Φ5.6		Φ6.8		Φ6.8		Φ9	
M	M5×0.8	PT1/8		PT1/8		PT1/8		PT1/8	
N1	8	11.5		14		17		20	
N2	16.5	19		19		21		21	
N3	39.5	45	60	45	60	54	71	54	71

Single side swing clamp



Double side swing clamp

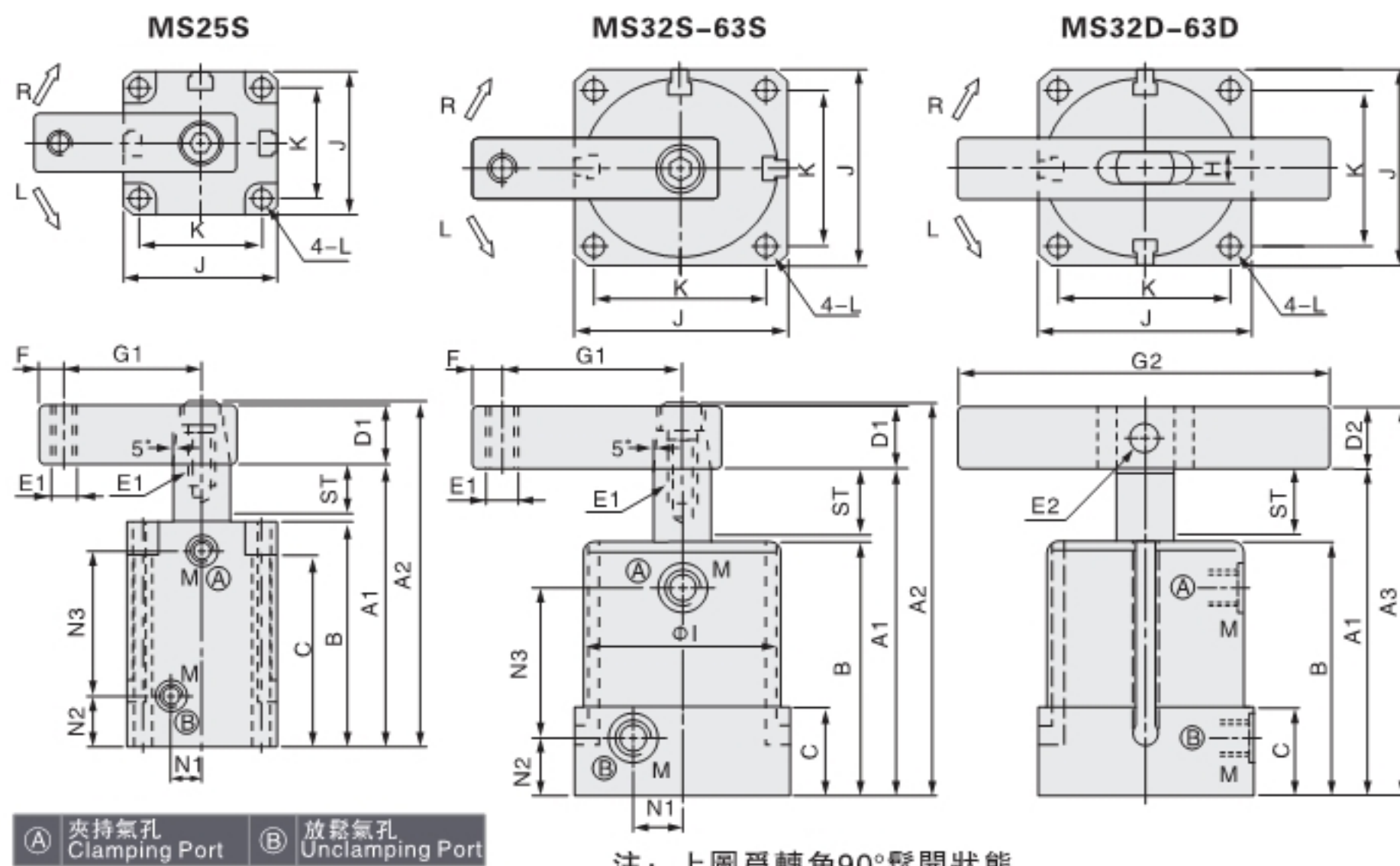


注：上圖為轉角90°鬆開狀態

外形尺寸表 Dimension table

UNIT:mm

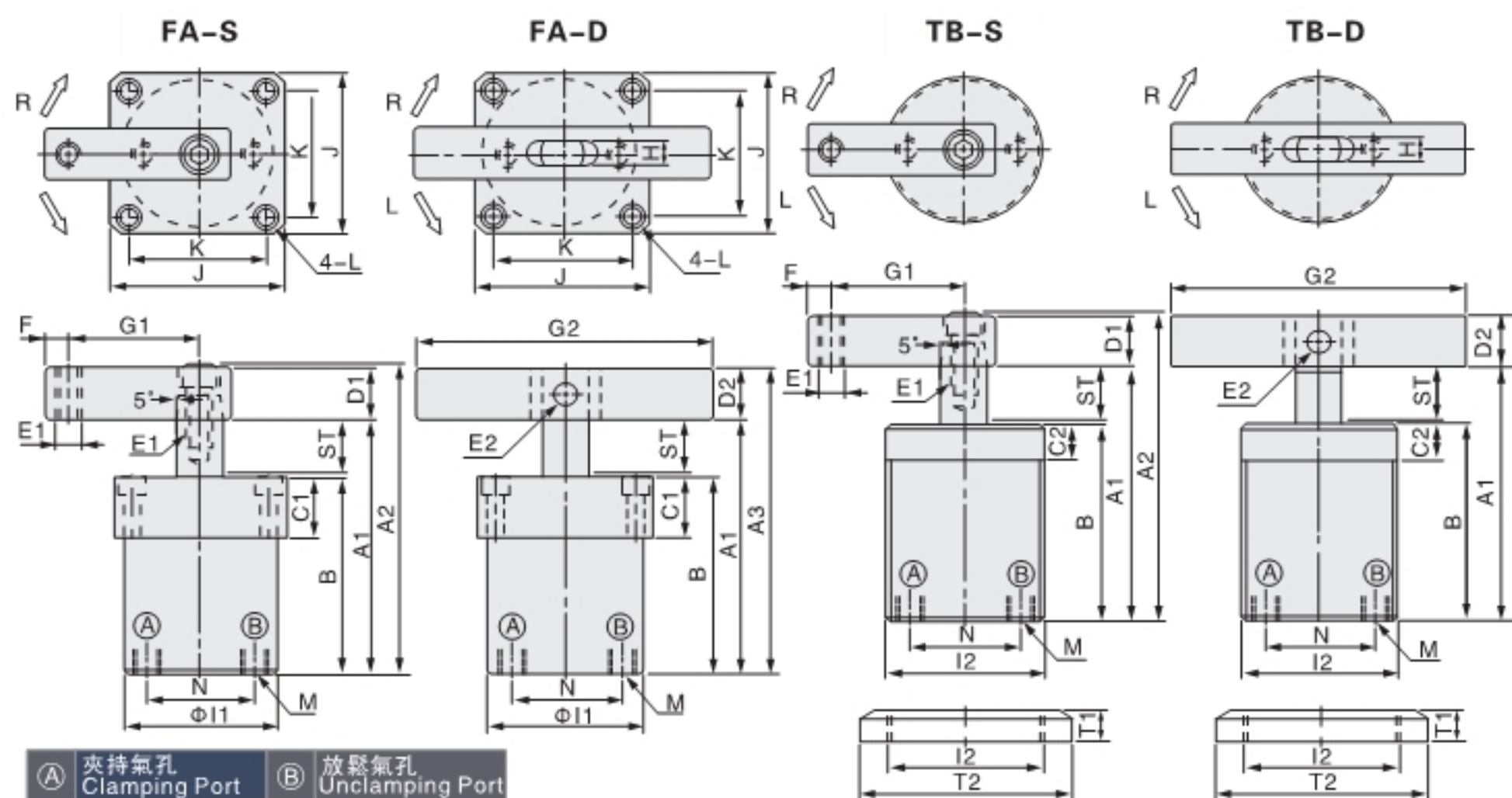
ITEM	MODEL	HASC-MF32	HASC-MF40	HASC-MF50	HASC-MF63
ST:Swing/Clamping		26:11/15	26:11/15	30:13/17	30:13/17
A1		108	108	124	124
A2		(128)	(128)	(150.4)	(150.4)
A3		127	127	146.2	146.2
B		78	78	90	90
C		22	22	25	25
D1		□19	□19	□25	□25
D2		□19	□19	□22	□22
E1		M8×1.25	M8×1.25	M10×1.5	M10×1.5
E2		Φ8	Φ8	Φ8	Φ8
F		8	8	10	10
G1		50	55	60	70
G2		140	140	160	160
H		9	9	10	10
ΦI		Φ46	Φ55	Φ65	Φ78
J		50	60	70	83
K		40	48	57	67
L		Φ5.6	Φ6.8	Φ6.8	Φ9
M		19	23	28	32
O-Ring		P7	P7	P9	P9



外形尺寸表 Dimension table

UNIT:mm

ITEM	MODEL	HASC-MS25	HASC-MS32	HASC-MS40	HASC-MS50	HASC-MS63
ST:Swing/Clamping		22:9/13	26:11/15	26:11/15	30:13/17	30:13/17
A1		94	113	113	129	129
A2		(110.9)	(133)	(133)	(155.4)	(155.4)
A3		-	132	132	151.2	151.2
B		70	83	83	95	95
C		60	28	28	31	31
D1		□15.9	□19	□19	□25	□25
D2		-	□19	□19	□22	□22
E1		M6×1.0	M8×1.25	M8×1.25	M10×1.5	M10×1.5
E2		-	Φ8	Φ8	Φ8	Φ8
F		6	8	8	10	10
G1		35	50	55	60	70
G2		-	140	140	160	160
H		-	9	9	10	10
ΦI		Φ35	Φ46	Φ55	Φ65	Φ78
J		38	50	60	70	83
K		30	40	48	57	67
L		Φ4.6	Φ5.6	Φ6.8	Φ6.8	Φ9
M		M5×0.8	PT1/8	PT1/8	PT1/8	PT1/8
N1		8	11.5	14	17	20
N2		16.5	19	19	21	21
N3		44.5	50	50	59	59



外形尺寸表 Dimension table

注：上圖為轉角90°鬆開狀態

UNIT:mm

MODEL ITEM	HASC-FA32 HASC-TB32	HASC-FA40 HASC-TB40	HASC-FA50 HASC-TB50	HASC-FA63
ST:Swing/Clamping	26; 11/15	26; 11/15	30; 13/17	30; 13/17
A1	108	108	124	124
A2	(128)	(128)	(150.4)	(150.4)
A3	127	127	146.2	146.2
B	78	78	90	90
C1	22	22	25	25
C2	12	12	15	-
D1	□19	□19	□25	□25
D2	□19	□19	□22	□22
E1	M8×1.25	M8×1.25	M10×1.5	M10×1.5
E2	Φ8	Φ8	Φ8	Φ8
F	8	8	10	10
G1	50	55	60	70
G2	140	140	160	160
H	9	9	10	10
ΦI1	Φ46	Φ55	Φ65	Φ78
ΦI2	M50×1.5	M55×1.5	M65×1.5	-
J	50	60	70	83
K	40	48	57	67
L	Φ5.6-Φ9×5.5D.	Φ6.8-Φ10.5×6.5D.	Φ6.8-Φ10.5×6.5D.	Φ9-Φ14×9D.
M	PT1/8	PT1/8	PT1/8	PT1/8
N	32	40	50	63
T1×2PCS	11	11	12	-
T2	Φ70	Φ75	Φ85	-

型號表示



重載型 HP2 B 20 10 R F A73
標準型 H P A 20 10 R F A73

安裝形式

記號	安裝形式	適合缸徑
B	通孔及兩端螺孔共通(標準)	Φ12, Φ16
A	兩端螺孔	Φ20-Φ63
B	通孔	
G	無杆側法蘭型	

*無杆側法蘭型的主體可選項必須是“F”
*重載形僅有B(通孔), G。

缸徑

12	Φ12mm
16	Φ16mm
20	Φ20mm
25	Φ25mm
32	Φ32mm
40	Φ40mm
50	Φ50mm
63	Φ63mm

*重載型沒有Φ12, Φ16

磁性開關個數

無記號	2個
S	1個

主體可選項

無記號	標準(杆端內螺紋)
*M	標端兩面銑平
F	無杆側帶凸臺
N	帶橫臂

*重載型無“M”

回轉方向
(由松開至夾緊)

R	順時針回轉
L	逆時針回轉

磁性開關型號

無記號	無磁性開關
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夾緊行程

記號	夾緊行程	適合缸徑
10	10mm	Φ12-Φ40
20	20mm	Φ12-Φ63
50	50mm	Φ50, Φ63

標準規格

缸徑(mm)	12	16	20	25	32	40	50	63
使用流體	空氣							
動作方式	雙作用							
最高使用壓力	1MPa							
最低使用壓力	0.1MPa							
環境和流體溫度	帶磁性開關: -10`+60℃ 無磁性開關: -10`+70℃							
活塞速度	50~200 mm/s							
緩沖	橡膠緩沖							
行程公差 mm	+0.6 -0.4							
*給油	不需要							
回轉角度	90° ±10°							
回轉方向	左, 右							
回轉行程(mm)	7.5		9.5		15		19	
夾緊行程(mm)	10, 20						20, 50	
允許彎矩(N.m)	1	3.8	7	13	27	47	107	182
**夾緊力(N)	40	75	100	185	300	525	825	1400
活塞杆不回轉精度	±1.4	±1.2			±0.9		±0.7	
接管口徑	M5x0.8				Rc1/8		Rc1/4	

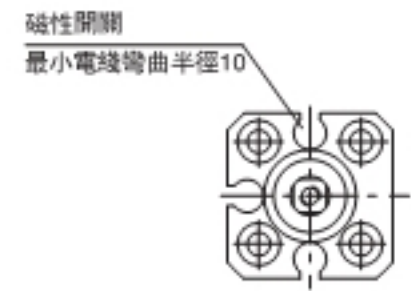
*如給油, 請用透平1號油ISOVG32

**在0.5MPa壓力情況下

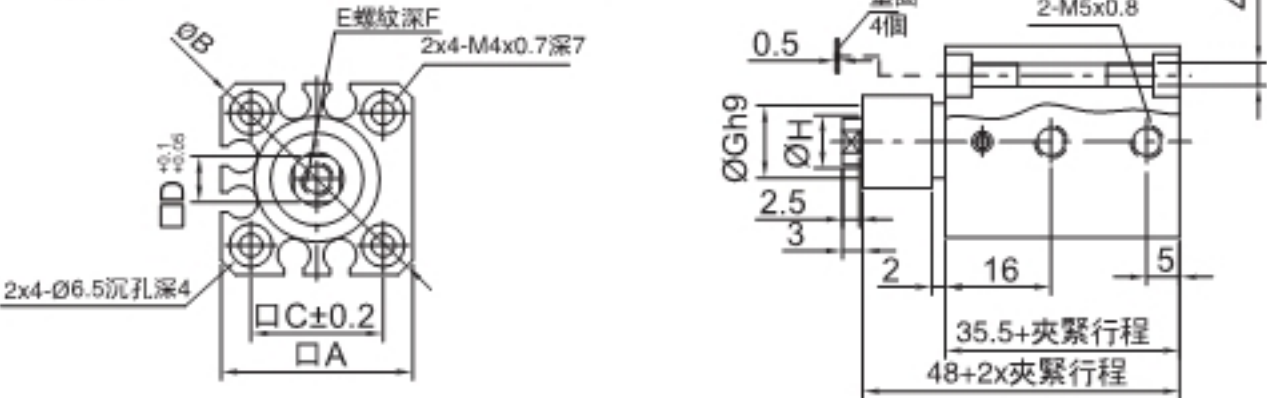
外形尺寸圖

通孔(基本型)/HPB(Φ12, Φ16, Φ20, Φ25)

Ø12



Ø16



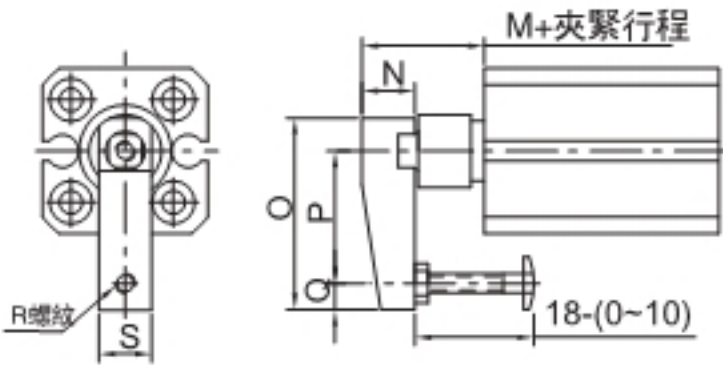
基本型

型號	A	B	C	D	E	F	Gh9	H
HPB12	25	32	15.5	5	M3X0.5	5.5	11	6
HPB16	29	38	20	7	M5X0.8	6.5	14	8

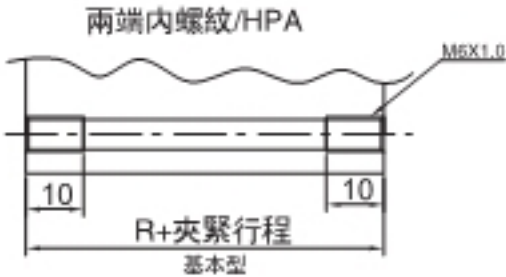
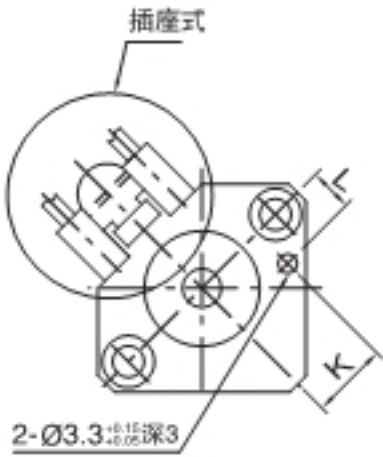
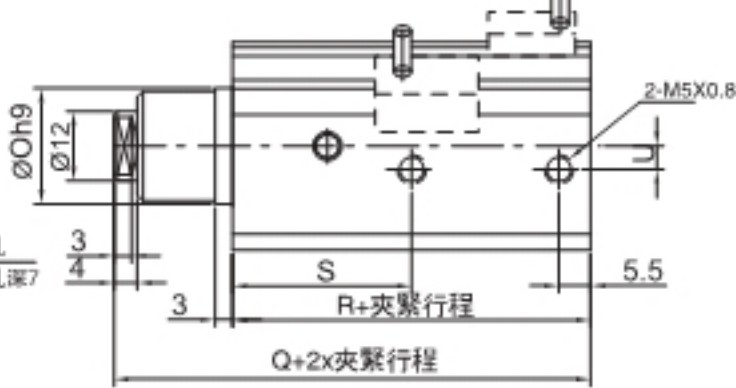
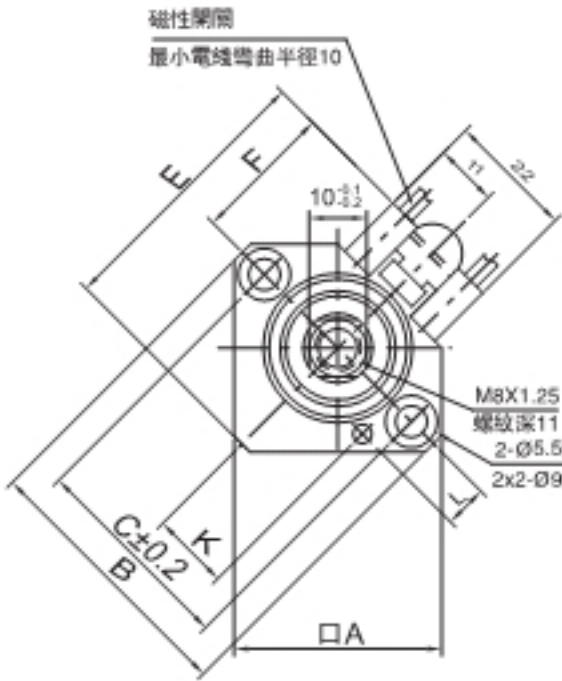
帶橫臂

型號	M	N	O	P	Q	R	S
HPB12-□□N	18.5	8	29	20	4	M3X0.5	8
HPB16-□□N	21.5	11	36	25	5	M4X0.7	11

帶橫臂/HP□¹²₁₆-□□N



Ø20, Ø25

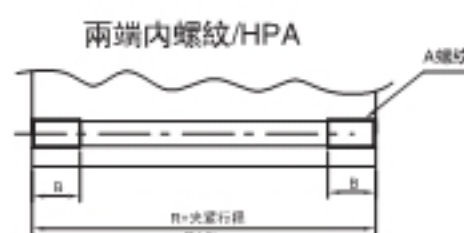
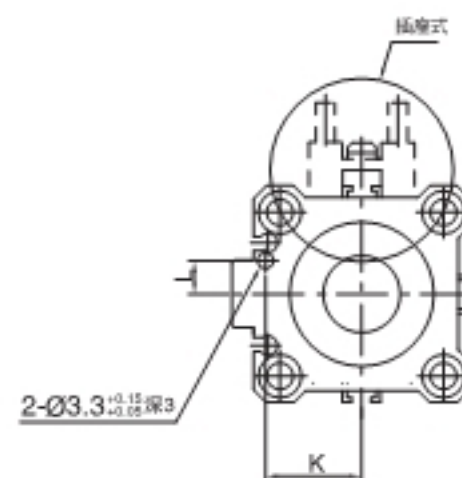
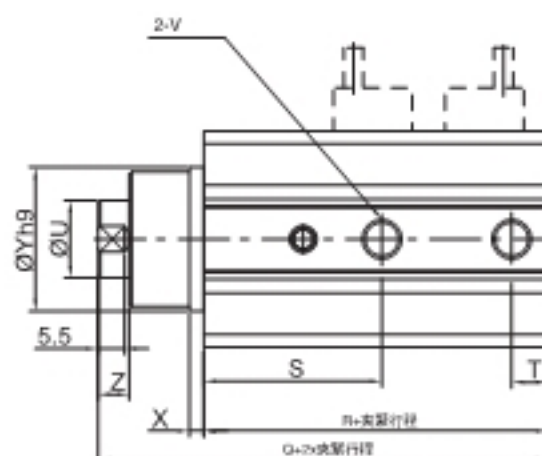
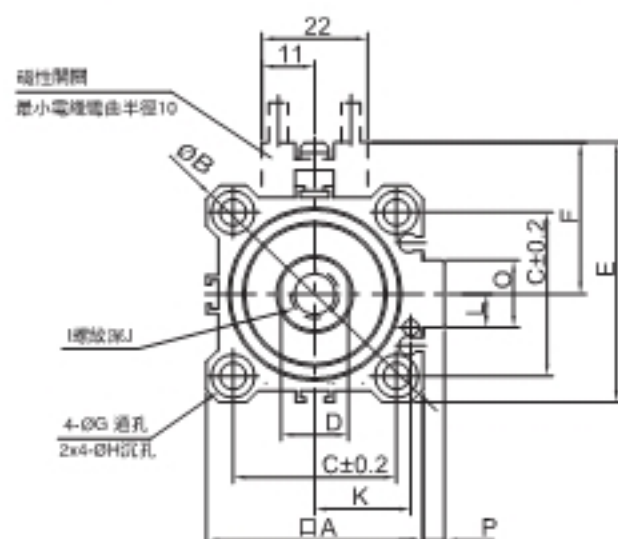


型號	A	B	C	E	F	K	L	Oh9	Q	R	S	U
HPB20	36	46.8	36	48	24.5	13.5 ±0.15	7.5 ±0.15	20 ⁰ _{-0.062}	72.5	62	31	4
HPB25	40	52	40	53.8	27.5	16 ±0.15	8 ±0.15	23 ⁰ _{-0.062}	73.5	63	32	5

注：當活塞杆是完全伸出，要把夾緊行程及回轉行程加在適當尺寸上

外形尺寸圖

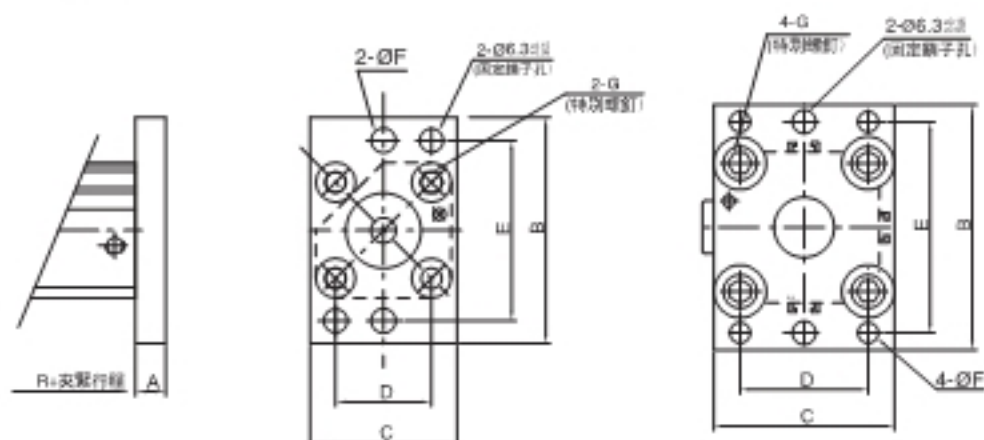
通孔(基本型)/HPB(Φ32, Φ40, Φ50, Φ63)



型號	A	B
HPA 32	M6x1.0	10
HPA50	M8x1.25	14
HPA63	M10x1.05	18

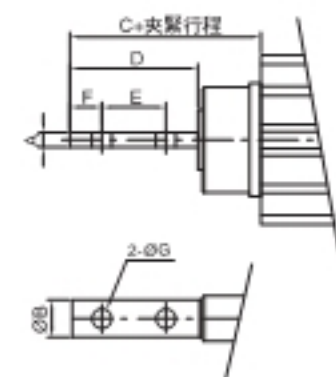
型號	A	B	C	D	E	F	G	H	I	J	K	L	O	P	Q	R	S	T	U	V	X	Yh9	Z
HPB32	45	60	34	14 ^{+0.1} _{-0.2}	54	31.5	5.5	9深7	M10x1.5	12	20 ^{+0.15}	7 ^{+0.15}	14	4.5	93.5	71.5	37	7.5	16	Rc ³ / ₈	3	30 ^{+0.062}	6.5
HPB40	52	69	40	14 ^{+0.1} _{-0.2}	61	35	5.5	9深7	M10x1.5	12	24 ^{+0.15}	7 ^{+0.15}	14	5	94.5	65	29.5	8	16	Rc ³ / ₈	3	30 ^{+0.062}	6.5
HPB50	64	86	50	17 ^{+0.1} _{-0.2}	73	41	6.6	11深8	M12x1.75	15	30 ^{+0.15}	8 ^{+0.15}	19	7	112	76.5	34	10.5	20	Rc ³ / ₄	3.5	37 ^{+0.062}	7.5
HPB63	77	103	60	17 ^{+0.1} _{-0.2}	86	47.5	9	14深10.5	M12x1.75	15	35 ^{+0.15}	9 ^{+0.15}	19	7	115	80	35	10.5	20	Rc ³ / ₄	3.5	48 ^{+0.062}	7.5

缸端法蘭

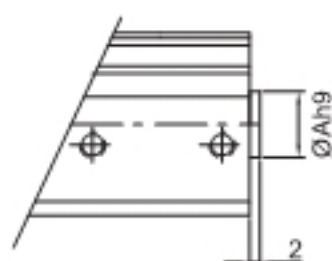


型號	適合缸徑	A	B	C	D	E	F	G
HP-F020	20	8	60	39	25.5	48	6.6	M6x1.0
HP-F025	25	8	64	42	28	52	6.6	M6x1.0
HP-F032	32	8	65	48	34	56	5.5	M6x1.0
HP-F040	40	8	72	54	40	62	5.5	M6x1.0
HP-F050	50	9	89	67	50	76	6.6	M8x1.25
HP-F063	63	9	108	80	60	92	9	M10x1.5

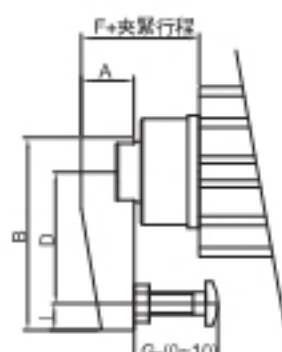
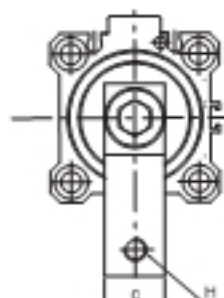
杆端兩面銑平 (HP00-00M)



無杆側缸蓋安裝型



帶橫臂 (HP00-00N)



型號	Ah9
HP□20-□□F	13
HP□25-□□F	15
HP□32-□□F	21
HP□40-□□F	28
HP□50-□□F	35

型號	A	B	C	D	F	G	H	I
HP□20-□□N	14	51	16	35	22	22	M6x1.0	7
HP□25-□□N	14	51	16	35	22	22	M6x1.0	7
HP□32-□□N	18	67	20	45	35.5	25	M8x1.25	10
HP□40-□□N	18	67	20	45	43	25	M8x1.25	10
HP□50-□□N	22	88	22	65	53	40	M10x1.5	10
HP□63-□□N	22	88	22	65	52.5	40	M10x1.5	10

型號	A	B	C	D	E	F	G
HP□20-□□N	4	10	42.5	34	17	8.5	5.2
HP□25-□□N	4	10	42.5	34	17	8.5	5.2
HP□32-□□N	6	14	53.5	36	18	9	6.2
HP□40-□□N	6	14	61	36	18	9	6.2
HP□50-□□N	8	18	77	46	23	11.5	8.2
HP□63-□□N	8	18	76.5	46	23	11.5	8.2

產品簡介

- ◆此型式空壓缸，採用標準規格化治具缸，加裝杠杆式夾持機構，活塞推出為夾緊狀態，主要機構零件安裝於缸體外部，易於維護。
- ◆缸體材質採用鋁合金，內壁表面光滑，耐磨性強，使用壽命長，夾持機構材料均採用機械構造用碳素鋼，堅固耐用。
- ◆本系列各種型號均可安裝磁性感應開關。
- ◆壓板需增加長度時，請勿大於原長度之1.5倍。

Introduction of product

- ◆Applied Standardized fixture cylinder in this series of product, and fitted with levertype holding structure. Piston push out for clamping. Main spare parts of this product be installed outside of the body for convenient maintenance
- ◆The material of body is aluminum alloy. The surface of internal is smooth, and have long service life. Clamping spare parts material is carbon steel which used for mechanical configuration, firm and wear-resistance.
- ◆All models of this series equipped with magnetic induction are available.
- ◆When you need to increase the length of the clamping arm, please don't exceed 1.5 times of the original length.



訂購標示法 Ordering Code

HALC - MS 32 - S1

① ② ③ ④

①	系列號 Series	HALC
②	空白 Blank	標準型 Standard type
	MS	附磁石感應 With magnetic induction
③	氣缸內徑 Bore of cylinder	φ 25, φ 32, φ 40, φ 50, φ 63
④	近接開關 Sensor switch	S1:1個 S2:2個 1Pcs of S1, 2Pcs of S2

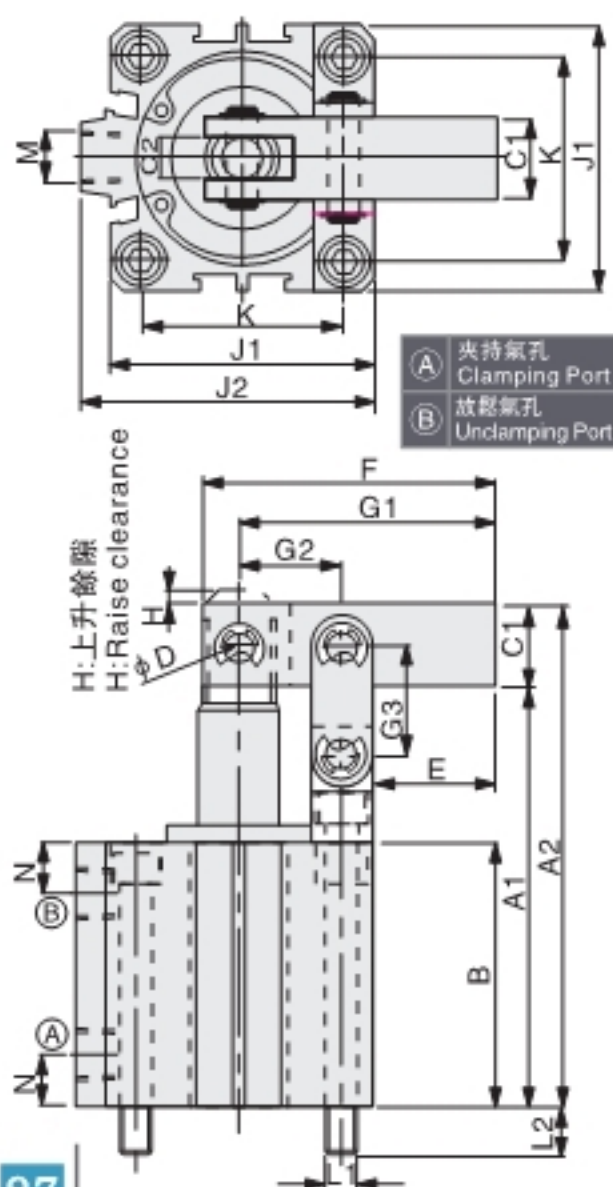
特性資料 Specification

氣缸內徑	Bore of cylinder	mm	φ 25	φ 32	φ 40	φ 50	φ 63	φ 80	φ100
活塞杆徑	Bore of piston	mm	φ 10	φ 12	φ 16	φ 20	φ 20	φ 25	φ 32
總行程	Total stroke	mm	20	23	25	30	35	43	48
受壓面積	Pressure area	cm ²	4.91	8.04	12.57	19.63	31.37	50.24	78.5
理論夾持力	Theoretical clamping	7kg/cm ²	15	25	44	71	136	255	415
使用流體	Fluid	已濾清之壓縮空氣 Filtered air							
最大耐壓力	Max operation pressure	(kg/cm) ²	10kg/cm ²						
操作壓力範圍	Operation pressure range	(kg/cm) ²	1-7kg/cm ²						
作動方式	Acting type	復動式 Double acting							

外形尺寸表 Dimension table

單位 (Unit) : mm

MODEL		HALC-25	HALC-32	HALC-40	HALC-50	HALC-63	HALC-80	HALC-100
ITEM								
標準型 Standard type	A1	65.5	78	82.5	96.6	115.5	138	163.5
	A2	78.5	94	98.5	115.6	137.5	160	188.5
	B	41	49	51.5	58.6	72.5	84	99
附磁石 With magnet	A1	75.5	93	97.5	106.6	125.5	148	173.5
	A2	88.5	109	113.5	125.6	147.5	170	198.5
	B	51	64	66.5	68.6	82.5	94	109
C1		□13	□16	□16	□19	□22	□22	□25
C2		6	8	8	10	10	10	12
D		φ5	φ6	φ6	φ8	φ8	φ10	φ12
E		25	31	32	35	38.5	47	53
F		50	60	65	75	85	105	125
G1		45	54	58	66	76	94	110
G2		14	17	20	23	29.5	37	45
G3		17	20	22	27	32	40	45
H		3	3	3	3	3	3	3
J1		40	44	52	62	75	94	114
J2		—	50	58	71	84.5	104	124
K		28	34	40	48	60	74	90
L1		M5×0.8	M5×0.8	M6×1.0	M6×1.0	M6×1.0	M10	M10
L2		10.5	11	9.5	11	11	15.5	15
M		M5×0.8	PT1/8	PT1/8	PT1/4	PT1/4	PT1/4	PT1/4
N		8	9	8	11	11	14	18





產品簡介

- ◆此系列產品有五種可供選擇的缸徑:Φ25,Φ32,Φ40,Φ50,Φ63。
- ◆本產品使用了高性能的密封圈,避免了氣缸的泄漏,且其壽命長。
- ◆應用了杠杆原理,使工件容易夾緊,提高效率。
- ◆壓板需增加長度時,請勿大於原長之1.5倍。
- ◆缸體的材質採用鋁合金,活塞材質是45鋼,熱處理,表面鍍鉻。

Introduction of product

- ◆Available in Φ25, Φ32, Φ40, Φ50, Φ63 five sizes.
- ◆Use high-quality seal to avoid leakage and keep long operation.
- ◆Leverage structure design, the fixture can clamp easily, perform efficiently
- ◆When you need to increase the length of the clamping arm, please don't exceed 1.5 times of the original length.
- ◆Body material: Aluminum alloy 6061T6 hard coat. Piston: S45C, Hard Chromed.

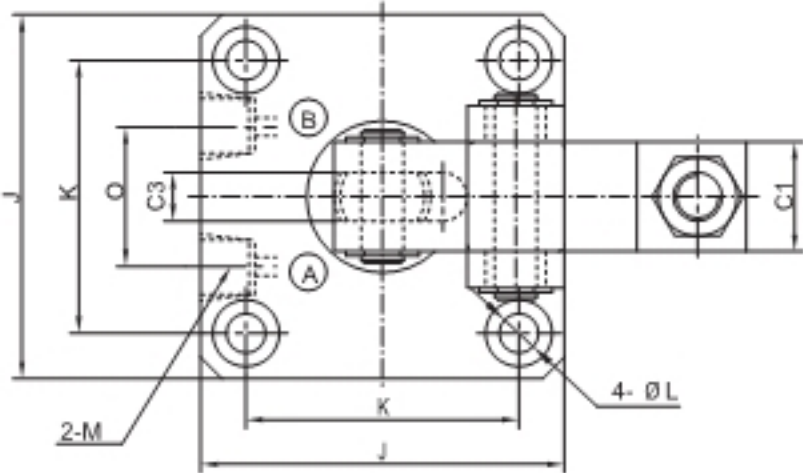
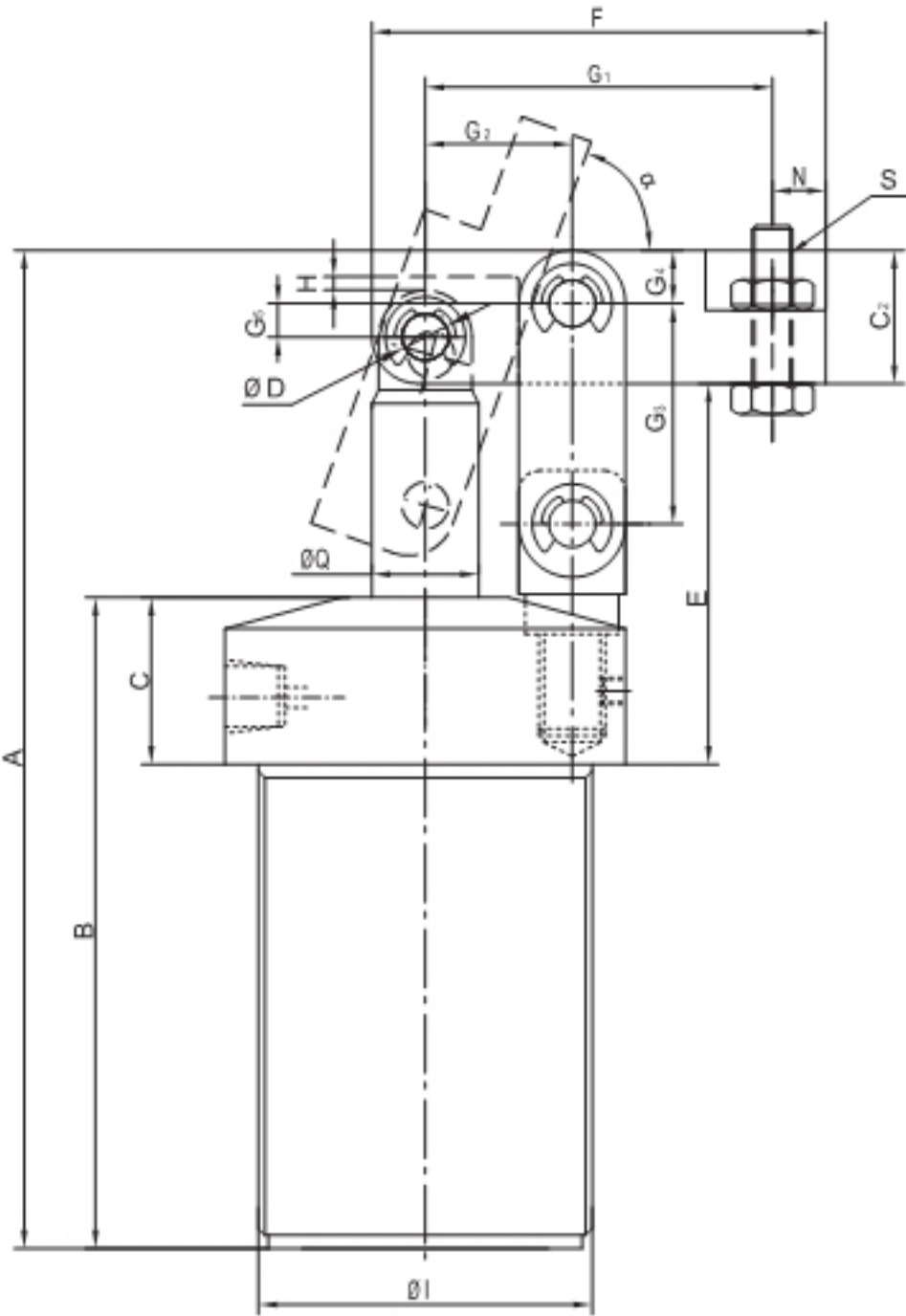
訂購標示法 Ordering Code



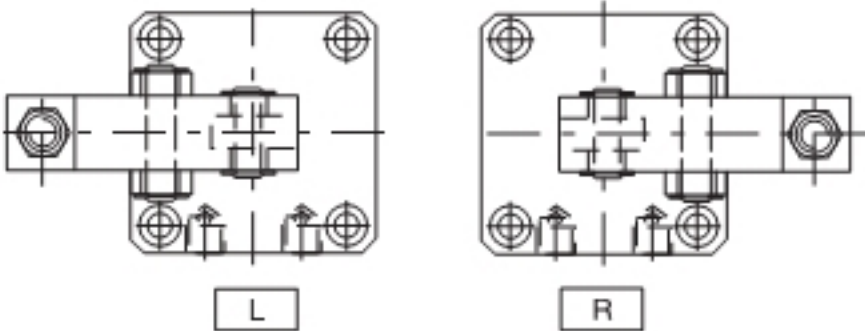
①	系列號 Series	HPLCU
②	氣缸內徑 Bore of cylinder	Φ25, Φ32, Φ40, Φ50, Φ63
③	R/L/空白 (壓臂安裝方式)	

特性資料 Specification

氣缸類型 Type	HPLCU-25	HPLCU-32	HPLCU-40	HPLCU-50	HPLCU-63
氣缸內徑 Bore of cylinder (mm)	Φ25	Φ32	Φ40	Φ50	Φ63
活塞杆徑 Bore of piston (mm)	Φ14	Φ16	Φ16	Φ20	Φ20
總行程 Total stroke (mm)	22	28	30	30	30
受壓面積推出 Pressure area push cm ²	4.91	8.04	12.57	19.63	31.17
理論夾持力 Theoretical clamping 5kg/cm ²	27kg	40kg	66kg	105kg	166kg
使用流體 Fluid	已濾清之壓縮空氣 Filtered air				
溫度範圍 Range of temperature (°C)	-10°C — +80°C				
最大耐壓力 Max operation pressure	10kg/cm ²				
使用壓力範圍 Range of pressure (kg/cm ²)	4-7kgf/cm ²				
作動方式 Acting type	復動式 Double acting				
固定方式 Fixing type	上法蘭或外螺紋固定 upper flange or thread fixing				



Ⓐ 夾持氣孔 Clamping port Ⓑ 放鬆氣孔 Unclamping port



外形尺寸表 Dimension table

單位 (Unit) :mm

MODEL	A	B	C	C1	C2	C3	ØD	E	F	G1	G2	G3	G4	G5	H	I	J	K	L	M	N	O	Q	S	α
HPLCU-25	128.5	86.5	25	16	17	6	Ø6	50	55	41	18	26	6.5	4.5	2	M40×1.5	50	37	Φ5.5-Φ9×5.5D	M5	7	23	Φ14	M6	70°
HPLCU-32	149.5	97.5	25	18	20	8	Ø6	57	68	52	22	33	8	5	4	M50×1.5	60	45	Φ6.5-Φ11×6.5D	PT1/8	8	23	Φ16	M8	75°
HPLCU-40	157.5	97.5	25	20	25	8	Ø8	60	75	56	24	33	13	4	3	M55×1.5	65	50	Φ6.5-Φ11×6.5D	PT1/8	10	26	Φ16	M8	78°
HPLCU-50	174	104	25	22	30	10	Ø10	65	87.5	63.5	27.5	44	11	10	3	M65×1.5	75	58	Φ8.5-Φ14×8.5D	PT1/8	14	32	Φ20	M12	70°
HPLCU-63	179	105	25	22	30	10	Ø10	69	98	74	32	48	11	10	3	M80×1.5	90	70	Φ8.5-Φ14×8.5D	PT1/8	14	35	Φ20	M12	60°



產品簡介

- ◆此系列產品有五種可供選擇的缸徑:Φ25,Φ32,Φ40,Φ50,Φ63。
- ◆本產品使用了高性能的密封圈，避免了氣缸的泄漏，且其壽命長。
- ◆應用了杠杆原理，使工件容易夾緊，提高效率。
- ◆壓板需增加長度時，請勿大於原長之1.5倍。
- ◆缸體的材質採用鋁合金，活塞材質是45鋼，熱處理，表面鍍鉻。

Introduction of product

- ◆Available in Φ25, Φ32, Φ40, Φ50, Φ63 five sizes.
- ◆Use high-quality seal to avoid leakage and keep long operation.
- ◆Leverage structure design, the fixture can clamp easily, perform efficiently
- ◆When you need to increase the length of the clamping arm, please don't exceed 1.5 times of the original length.
- ◆Body material: Aluminum alloy 6061T6 hard coat. Piston: S45C, Hard Chromed.

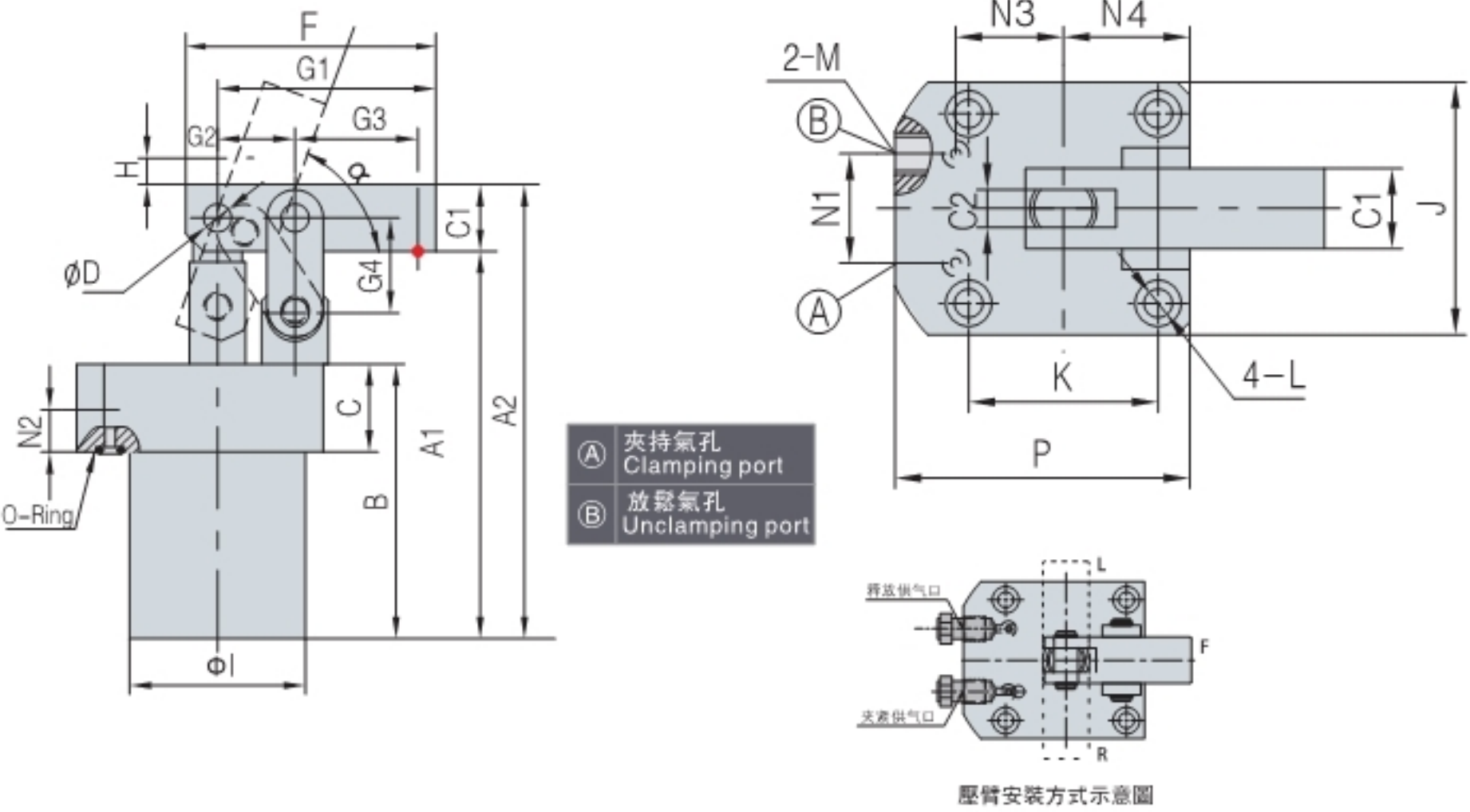
訂購標示法 Ordering Code

HPLCU	—	FA	32	R
①		②	③	④

①	系列號 Series	HPLCU
②	接管方式 Takeover mode	氣路板，接管兩用型
③	氣缸內徑 Bore of cylinder	Φ25, Φ32, Φ40, Φ50, Φ63
④	R/L/空白（壓臂安裝方式）	

特性資料 Specification

氣缸類型 Type	HPLCU-FA25	HPLCU-FA32	HPLCU-FA40	HPLCU-FA50	HPLCU-FA63
氣缸內徑 Bore of cylinder (mm)	Φ25	Φ32	Φ40	Φ50	Φ63
活塞杆徑 Bore of piston (mm)	Φ14	Φ16	Φ16	Φ20	Φ20
總行程 Total stroke (mm)	20	28	30	30	30
受壓面積推出 Pressure area push cm ²	4.91	8.04	12.57	19.63	31.17
理論夾持力 Theoretical clamping 6KN/cm ²	13.2	30.3	47	80	117
使用流體 Fluid	已濾清之壓縮空氣 Filtered air				
溫度範圍 Range of temperature (°C)	-10°C— +80°C				
最大耐壓力 Max operation pressure	10 KN/cm ²				
使用壓力範圍 Range of pressure	1.5-7 KN/cm ²				
作動方式 Acting type	復動式 Double acting				
固定方式 Fixing type	上法蘭 upper flang				



外形尺寸表 Dimension table

單位 (Unit) :mm

型號/Model	HPLCU-FA25	HPLCU-FA32	HPLCU-FA40	HPLCU-FA50	HPLCU-FA63
A1	90	110	113	125	134
A2	106	129	132	144	156.2
B	65	78	78	85	90
C	25	25	25	25	25
C1	□15.9	□19	□19	□19	□22.2
F	60	71	75	85	95
G1	54	62	66	76	86
G2	17	22	23	27.5	30
G3	38	35	37	40.5	48
ΦI	Φ40	Φ50	Φ55	Φ65	Φ80
J	50	60	65	75	90
P	60	70	75	88	108
K	□37	□45	□50	□58	□70
L	Φ5.6	Φ6.8	Φ6.8	Φ9	Φ9
M	M5	RP1/8	RP1/8	RP1/8	RP1/8
N1	23	23	26	32	35
N2	10	12	15	12.5	12.5
N3	27	31	33.5	39	47
N4	35	30	32.5	37.5	45
H	2	3	2	3	2
G4	20	27	27	27	32
ΦD	6	8	8	8	8
C2	8	9	9	9	10
α	72°	78°	79°	65°	61°
O-Ring	P7	P7	P7	P7	P7



HSW產品特性

- ◆此系列產品結構緊湊,設計合理,使用壽命長,在0.4-1MPa工作條件下性能穩定。
- ◆根據不同厚薄工件,可更換活塞杆伸出彈簧強弱。
- ◆活塞杆伸出接觸力小,0.2~0.6KG範圍內,特別適用於薄形工件。
- ◆安裝尺寸與目前市面銷售產品相容,可互換。

HSW Product features

- ◆This series of products with compact structure,reasonable design, long service life,in 0.4-1MPa working conditions stable performance.
- ◆According to the different thickness of workpiece,replaceable piston rod out of the spring strength.
- ◆The piston rod pieces out of contact force is small,0.2~0.6 KG range,especially suitable for thin workpiece.
- ◆Installation size and at present on market sales products compatible, interchangeable.

注意:

- ◆支撐柱塞上不能施加偏心負荷
- ◆不能施加過載負荷
- ◆鎖定狀態不能轉動活塞杆。

Attention:

- ◆Columns fortress cannot exert eccentric load.
- ◆Can't exert overloaded.
- ◆Can't turn the piston rod lock state.

產品簡介

A型: 夾縮支撐, 在初始位置時, 支撐頭在內部彈簧的作用下處於最上端, 工作時依靠工件在下放時的重力下壓支撐頭使之同步向下, 在工件穩妥的放在治具上時就停止下行, 支撐頭也停止下行, 加壓後支撐缸鎖死給工件提供支撐并停止運行。

B型: 上行支撐, 在初始位置時, 支撐頭位于最下端, 工件放好後, 給支撐缸加壓使支撐頭上行, 至碰到工件時支撐頭立刻停止上行并繼續加壓至鎖死, 這樣支撐頭就在當前位置給工件提供支撐并且停止。

Introduction of product

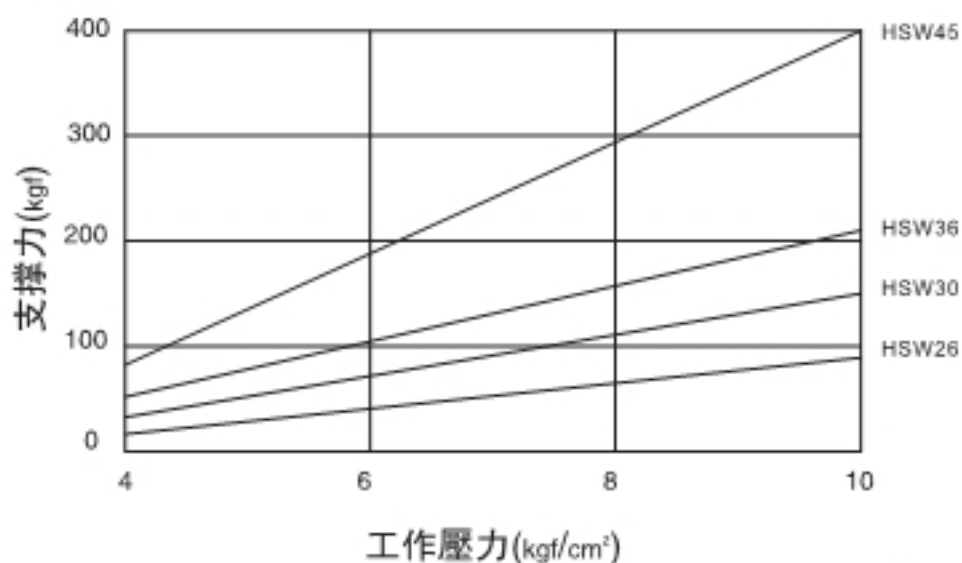
- ◆Type A: Knocking-out with a spring, the spring is used to control a clamping force when the knocking-out rod (piston rod) extends to a highest knocking-out position and clamps the workpiece
- ◆Type B: Knocking-out with oil pressure, it is operated by means of oil pressure and is knocked out when being filled with oil and clamp the workpiece.

訂購標示法 Ordering Code

HSW -- 26 -- AL -- S

特性曲綫圖HSW-****L

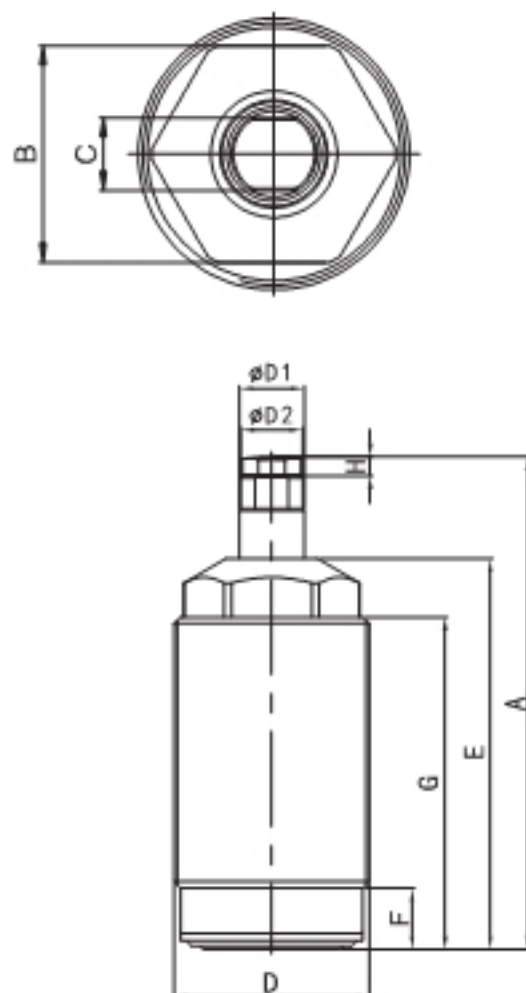
工作壓力與支撐力系



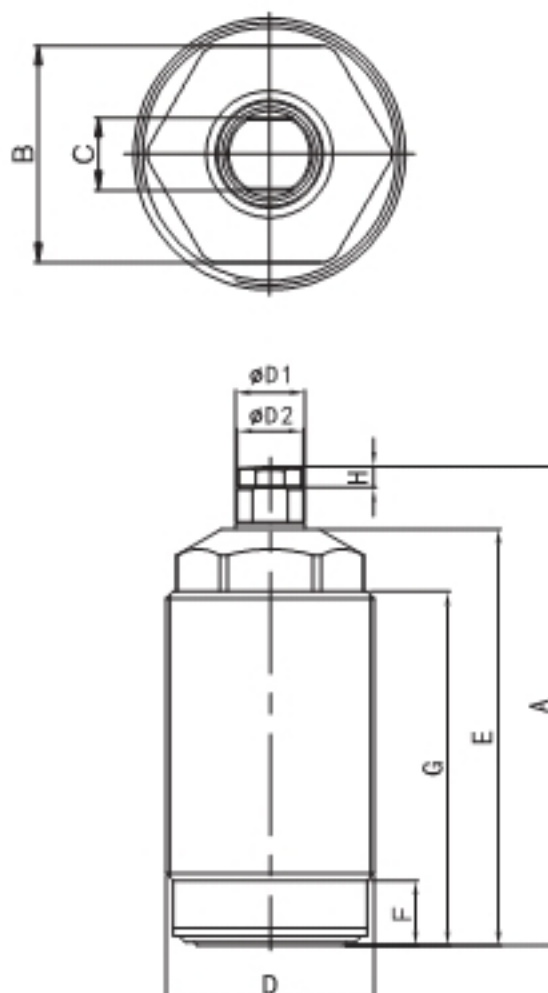
特性資料 Specification

類型Type	HSW-26	HSW-30	HSW-36	HSW-45
使用壓力範圍Range of pressure(kg/cm ²)	4 ~ 10kg/cm ²			
行程 Stroke(mm)	6.5	6.5	8	8
活塞杆徑Bore of piston(mm)	φ 10	φ 10	φ 10	φ 12
支撐力(kgf)/工作壓力(kgf/cm ²) Support(kgf)/Pressure of work(kgf/cm ²)	27/5	50/5	70/5	130/5
作動方式Acting type	單動式 Single acting			

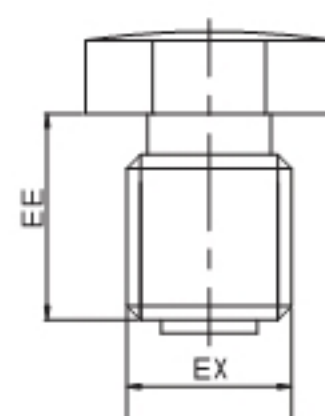
HSW-AL-S



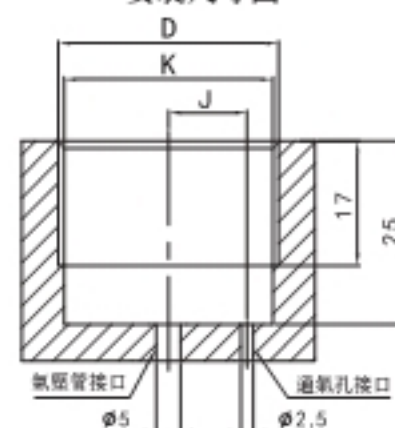
HSW-BL-S



圓頭螺栓



安裝尺寸圖



外形尺寸表 Dimension table

單位 (Unit) :mm

型號/Model	HSW-26AL-S	HSW-26BL-S	HSW-30AL-S	HSW-30BL-S	HSW-36AL-S	HSW-36BL-S	HSW-45AL-S	HSW-45BL-S
A	68.5	62	75.5	69	81	73	95	87
B	22	22	24	24	30	30	36	36
C	8	8	8	8	9	9	10	10
D	M26x1.5	M26x1.5	M30x1.5	M30x1.5	M36x1.5	M36x1.5	M45x1.5	M45x1.5
E	54.3	54.3	60	60	64	64	76	76
F	7	7	9.5	9.5	9.5	9.5	9.5	9.5
G	46.8	46.8	51	51	54	54	61	61
H	3	3	3	3	3	3	4	4
J	9	9	11	11	13	13	16	16
K	24.5	24.5	28.5	28.5	34.5	34.5	43.5	43.5
D1	10	10	10	10	10	10	12	12
D2	9.5	9.5	9.5	9.5	9.5	9.5	11.5	11.5
EE	6	6	7	7	8	8	9	9
EX	M6	M6	M6	M6	M8	M8	M8	M8

產品特性

能使夾具內的執行元件依次動作的氣動順序閥。

延遲時間：1-10sec最適合于氣口數有限或不能使用電源的環境。

It can actuate multiple actuators in sequence

Delay time: 1 ~ 10sec Can be used without electric power

& best suitable when there are limited ports.

能設置在切削加工夾具上的氣動順序閥

能通過單向閥、調節閥、儲氣箱、切換閥控制氣壓流量，從而使多個執行元件依次動作。

因其緊湊且高性能的密封結構，可安裝在切削加工用夾具上使用。

Best Suited for Machining Centers

It controls the air flow by using a check valve, flow control valve, air tank,

switching valve and actuate multiple actuators in sequence.

This has a compact and high performance sealing structure and can be built into fixtures for machining centers.

無需電氣控制

無需進行電氣控制，所以最適用於防爆環境等限制用電的環境。

Electric control is not needed

It can be installed in places where there is limited use

of electricity such as explosion proof surroundings because

electricity control is not required.

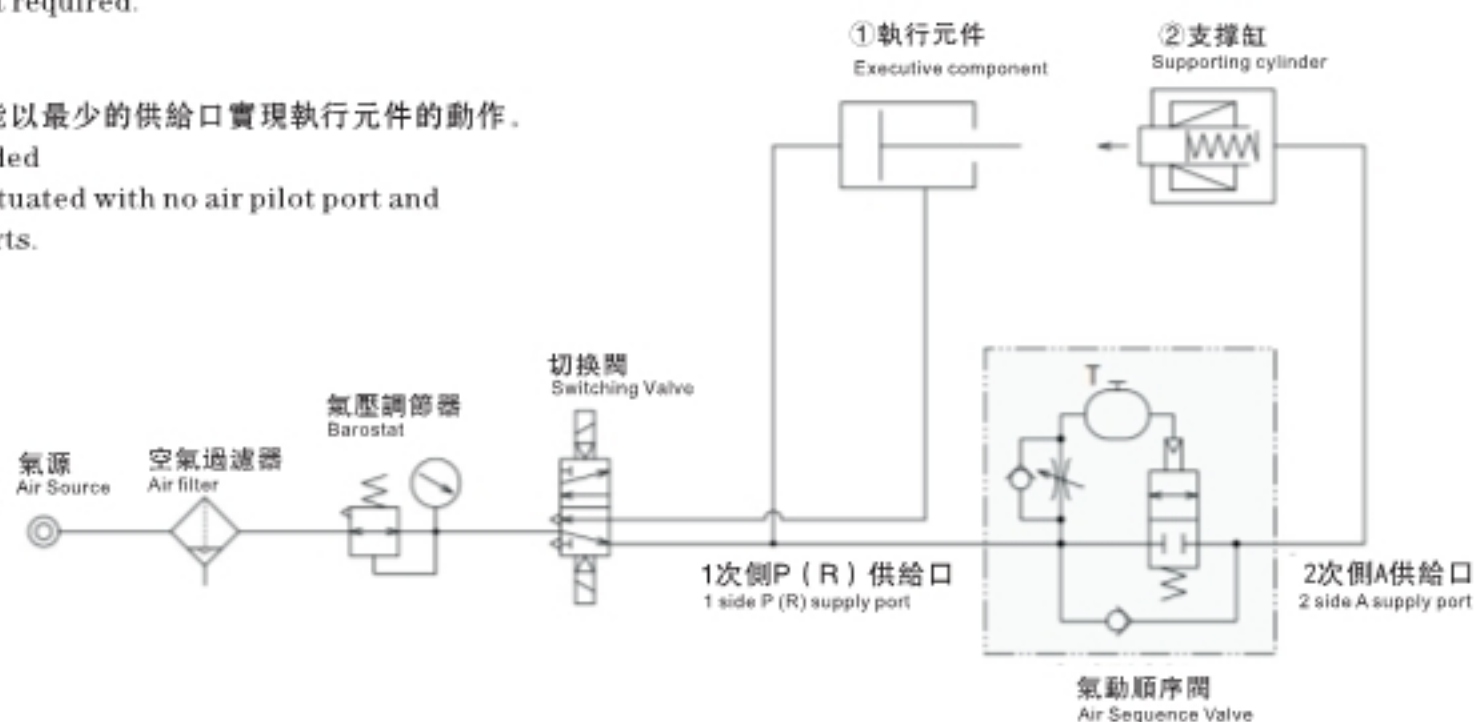
無需氣控供給口

無需氣控供給口，所以能以最少的供給口實現執行元件的動作。

Air pilot port is not needed

The actuators can be actuated with no air pilot port and

minimum number of ports.



注意事項 ※1. 必須使用經過濾器過濾後的清潔空氣，以免異物侵入內部。

Note ※1. To protect from foreign contaminants and supply clean air that is filtered.

動作順序 / Operation Sequence		備註 / Remarks
夾緊時 When Clamping.	氣壓ON/Air ON	
	①執行元件動作/①Actuator is activated.	此時， ②支撐缸部不動作。 At this moment, ②work support is not activated
	如果氣動順序閥內的儲氣箱充滿空氣，內部切換閥就會動作。 Switching valve operates once the tank is full with air.	延迟时间：1-10sec Delayed Time: 1 ~ 10sec
	②支撐缸動作/②Work support is activated.	
	夾緊結束/Locking action completed.	
加工等/Machining Process		
釋放時 When Releasing	氣壓OFF/Air OFF	
	①執行元件和②支撐缸基本上同時釋放。/①Actuator ②Work support releases at the same time.	
	釋放結束/Release action completed.	

型號表示



HBWD-B(配管式)

規格

型號 / Model No.		HBWD-B
最高使用压力/ Max. Operating Pressure	Mpa	0.6
最低动作压力/ Min. Operating Pressure	MPa	0.2
耐压/ Withstanding Pressure	MPa	1.5
延迟时间/ Delayed Time	sec	1 ~ 10
最小通路面积/ Min. Passage Area	mm ²	4.0
使用温度/ Operating Temperature	℃	0 ~ 70
使用流体/ Usable Fluid		干燥空气/Dry Air
重量/ Mass	kg	0.2

注意事項

- ※1. 初始動作時的延遲時間可能因放置時間而延長。
- ※2. 可使用T端口增設儲氣箱，增加容量，從而延長延遲時間。
- ※3. 如果超過設定延遲時間2次側執行元件仍未動作時，必須先將1次側供給氣壓降到零，然後再進行確認作業。
- ※4. 確認延遲時間時應先擰緊延遲時間調整螺絲部的固定螺母後再行確認。
- 1. 受回路條件的影響，切換後的2次側執行元件動作過程中，有時會出現1次側壓力下降的現象。
- 2. 停止供氣(排放)之後至再次供氣，應設置5秒以上的時間差。
- 3. 1個回路內使用多臺氣動順序閥時，推薦採取串聯連接方式。

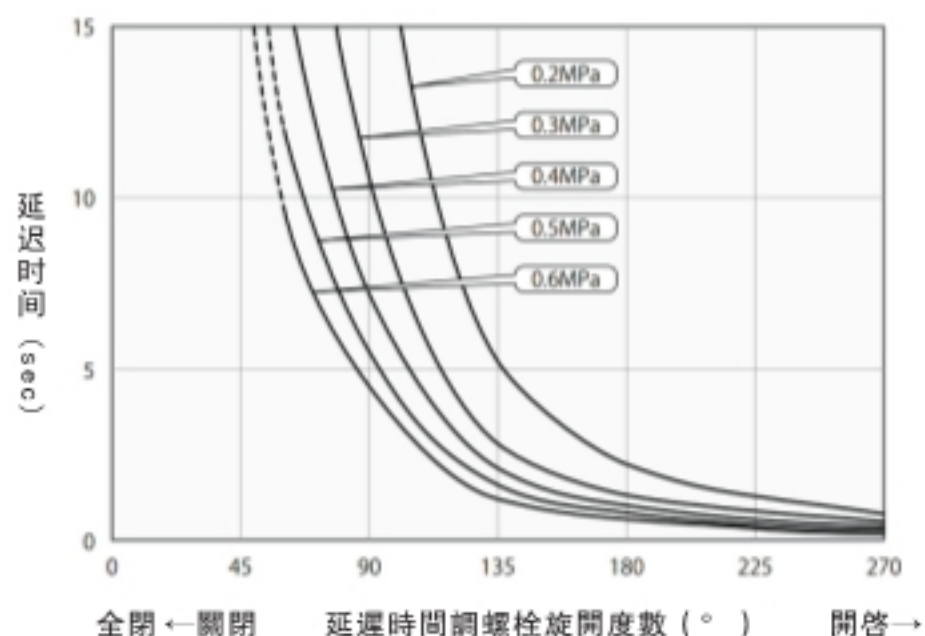
Notes

- ※1. If unused for a long period of time, the delay is longer than initial set time.
- ※2. It can extend the time delay from tank and its capacity increases by using T port.
- ※3. If actuators on outgoing side does not operate after the time delayed setting, verify setting after pressure returns to zero.
- ※4. The confirmation for delayed time should be done after fastening the lock nut of the delayed time adjusting thread.
- 1. Depending upon circuit condition, the pressure of incoming side might descend during operation of outgoing actuators of switching valve.
- 2. Prepare time gap of more than 5 seconds until air is supplied again after air supply stops (releases).
- 3. Recommend the series connection, if the multiple valves are used in one circuit.

能力曲線圖

各使用壓力下的延遲時間調整螺栓的旋開度數與延遲時間之間的關係曲線。)

Adjusting Screw Turn Ratio and Time Delay at Various Operating Pressures

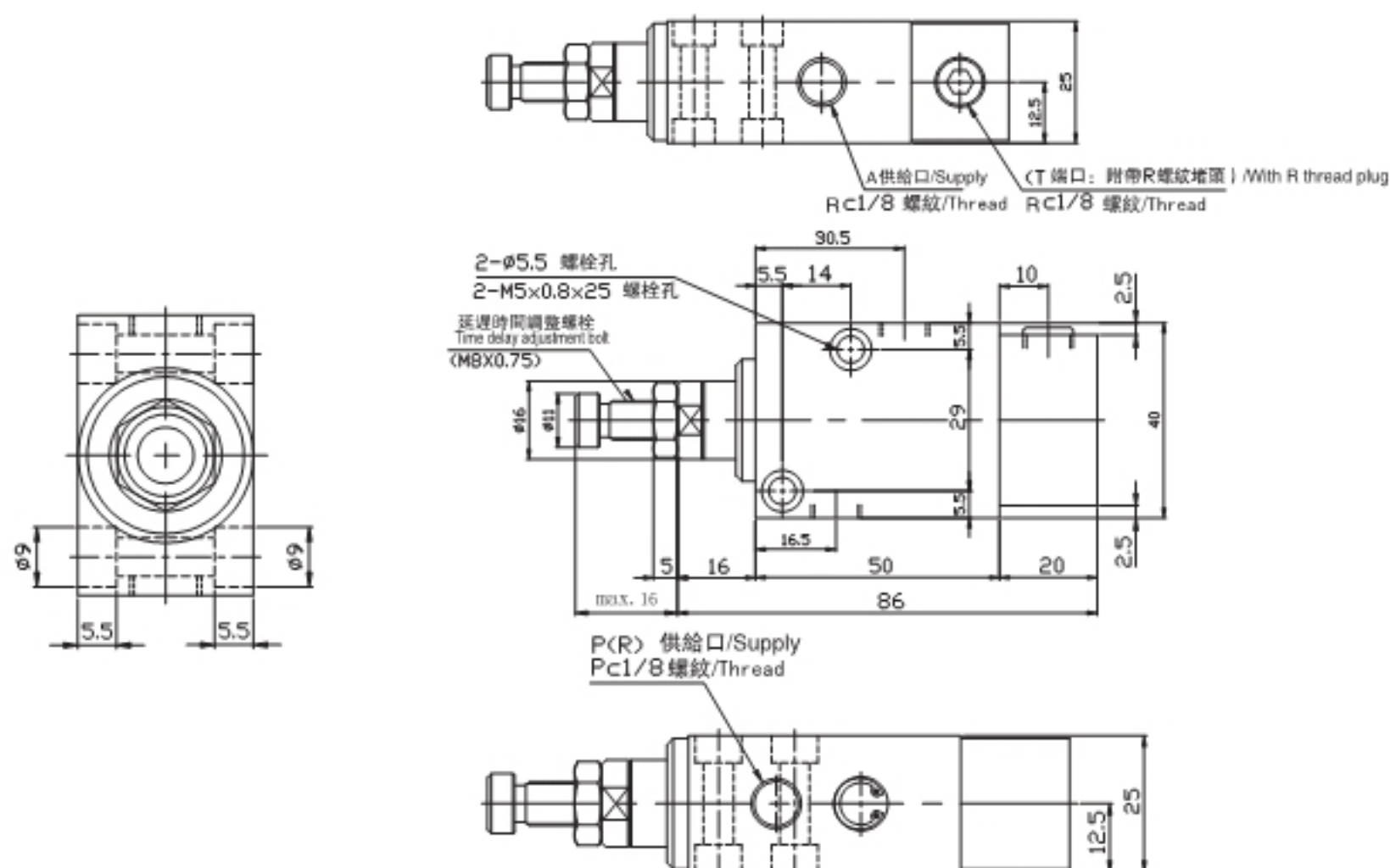


注: 注意事項

1. 本能力曲線圖表示延遲時間調整螺栓旋開度數 (°) 與延遲時間(sec)之間的關係曲線。
2. 實際延遲時間因回路條件而異。(請以本能力曲線圖為參考值。)

Notes

1. This graph shows the relationship of the delayed time adjusting thread opening degree and the delayed time.
2. Depending on the circuit condition, the actual delayed time changes. (This graph should be for referencing only.)



注意事項

實際延遲時間因回路條件而異。
切勿過於拧紧或旋松延遲時間調整螺栓。
否則可能會導致產品的損傷。

Note

Depending on the circuit condition, the actual delayed time changes.
Do not fasten the delayed time adjusting thread too tight or do not loosen it too much.
Components can be damaged.

標準規格 Standard

單位 (Unit) : mm

缸徑(mm)	12	16	20	25	32	40	50	63	80	100	
使用流體 Fluid	空氣 air										
動作模型 Motion model	單杆雙作用 Double acting single rod										
保證耐壓力 Withstanding pressure	1.5Mpa (15.3kgf/cm ²)										
最高使用壓力 Maximum operating pressure	1.0Mpa (10.2kgf/cm ²)										
最低使用壓力 Minimum operating pressure	0.07Mpa		0.05Mpa								
環境和流體溫度 Environment and fluid temperature	無磁性開關：-10-70℃（未凍結時） 有磁性開關-10-60℃（未凍結時） Without auto switch: -10-70℃ (when not frozen) with a magnetic switch -10-60℃ (when not frozen)										
給油 To oil	不要（不給油） Do not (do not give oil)										
使用活塞速度 Piston speed	50-500mm/s										
允許功能J Allow function J	標準型 Standard	0.022	0.038	0.055	0.09	0.15	0.26	0.46	0.77	1.36	2.27
	帶緩衝墊 Belt cushion	0.043	0.075	0.11	0.18	0.29	0.52	0.91	1.54	2.71	5.54
行程長度誤差 Stroke length error	+1.0mm 注) 0										

※行程長度誤差不含緩衝墊的變化量。
Stroke length variation error-free buffer pad.

產品特性

磁性開關不凸出，防止損壞磁性開關；
磁性開關和導軌牽掛袖口的情況噴消除了，提高了操作性和安全性；
減少重量：減少環境的污染
小型磁性開關，可以準確無誤地安裝到預定位置
防水性提高：可以在水和冷卻液折環境使用
耐強磁場型：可以在交流點焊機等強磁場環境中使用的磁性開關
減少操作工時：磁場性開關更方便安裝
減少設計工時：安裝磁性開關不會影響氣缸的外形尺寸，不需要對設備間的幹涉進行再次確認。

Magnetic switch does not protrude prevent damage magnetic switch;
the case of care cuff magnetic switch and rail chant eliminated, improving the operability and safety.
Weight reduction: reducing environmental pollution
Small magnetic switch, you can accurately mounted to the predetermined position
Waterproof improved: You can use liquid cooling off in the water and environment
Field resistant type: can be used in the exchange of spot welding and other strong magnetic fields in magnetic switch
When reducing operator: magnetic switch of more expensive side installation
Reduce design man-hours: Install a magnetic switch does not affect cylinder dimensions, no interference between devices on again to confirm.

訂貨舉例

- ①所需缸徑：16，行程：20,雙動通孔，杆端內螺紋，正確型號：HCQ2B16-20D
- ②所需缸徑：32，行程100,雙動內置磁環型，兩端內螺紋，橡膠緩衝。
正確型號：HCDQ2A32-100DCMZ
- ① Required Bore: 16, stroke: 20, double-acting through-hole, the inner end of the threaded rod, the correct model: HCQ2B16-20D
- ② Desired bore: 32, stroke 100, double-acting Built-in magnet type, inner ends of thread, rubber cushion. The correct model: HCDQ2A32-100DCMZ



標準行程表 Standard Stroke

單位 (Unit) : mm

缸徑/Bore(mm):	標準行程/Standard stroke
12,16	5,10,15,20,25,30
20,25	5,10,15,20,25,30,35,40,45,50
32,40	5,10,15,20,25,30,35,40,45,50,75,100
50-100	10,15,20,25,30,35,40,45,50,75,100

超過標準行程的場合，參見長行程。

關於中間行程的生產情況，請參與本公司銷售部聯系。

行程55-75，以內置磁環型行程75為準，行程80-100，以內置磁環行程100為準，中間加墊片，調整所須行程。

More than the standard stroke occasions, participation in long stroke.

About the middle of stroke production, please contact our sales department to participate.

55-75 trip to the built-in magnet type prevail stroke 75 stroke 80-100, built-in magnet stroke 100 prevail, the middle shim to adjust the required travel.

型號表示方法 How to order

不帶磁性開關: HCQ2
Without auto switch

[B] [20] [] [30] D [] Z -

帶磁性開關: HC[D]Q2
With magnetic switch

[B] [32] [] [30] D [] Z - [A93] []

內置磁環
Built-in magnet

安裝形式
A: 兩端螺孔式
B: 通孔(標準)

Installation form
A: both ends of the screw type
B: through-hole (standard)

缸徑
Bore

動作方式
Operation mode
D 雙作用式
Double-acting

氣缸行程(mm)
標準行程及中間行程
Cylinder stroke (mm)
Standard stroke and mid-stroke

磁性開關的型號
Auto Switch Model
無記號 無磁性開關
Nil Without auto switch
參見磁性開關規格表
See Auto Switch Specifications Table

磁性開關安裝槽
Magnetic switch mounting groove

Z	12-25	2面
	32-100	4面

注5) 訂制的帶磁性開關耐熱型的-XB14,不受此限制。
Note 5) Contract with magnetic switch resistance Hot type -XB14, not limited to this.

可選項/Options

無記號 Nil	標準(杆端內螺紋) Standard (rod end internal thread)
F	無杆側帶凸臺 Rodless rewind boss
C	帶緩衝墊 Belt cushion
M	杆端外螺紋 Rod end male thread

磁性開關個數
Number of auto switches

無記號 Nil	2個
S	1個
N	n個

通口螺紋的種類

無記號	M螺紋	φ 12-25
	RC	φ 32-100

注2) 內置快換接頭祇適用於缸徑為□32-φ 63,並且不能用于氣液聯動式。

注3) 氣液聯動式無R。

無磁性開關的場合，祇有□32-5mm行程為M螺紋。

Note 2) Built-in quick couplers applies only to a bore of □ 32-φ 63, and it can not be used for gas-liquid interaction style.

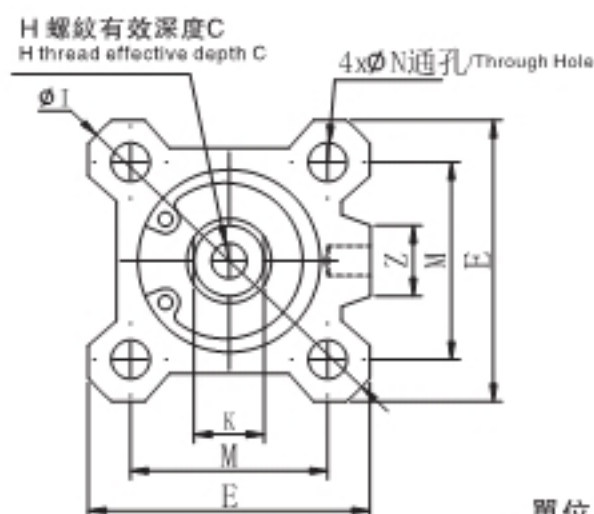
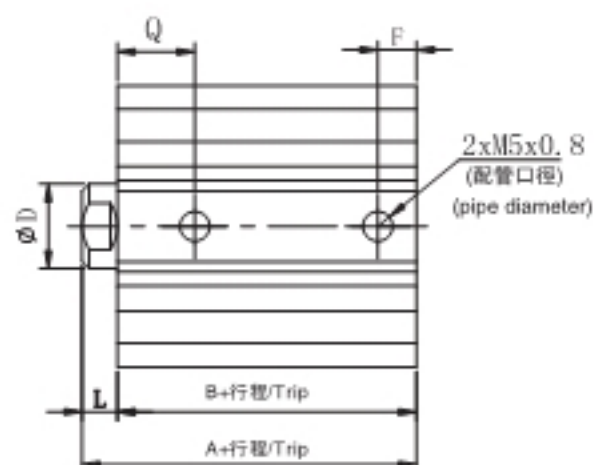
Note 3) gas-liquid interaction-free R.

No auto switch, only □ 32-5mm stroke M thread.

外形尺寸圖(MM) Outline Dimension Chart

標準型(通孔式) HCQ2B $\phi 12-\phi 25$ 無磁性開關

The standard type (through hole type) HCQ2B 12-Phi Phi 25 free magnetic switch



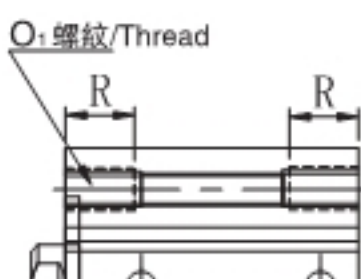
單位 (Unit) : mm

標準型 (通孔式)
Standard (Through Hole)

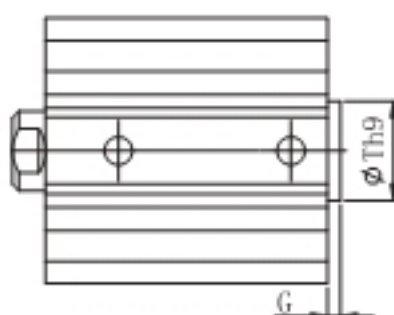
缸徑/Bore (mm)	行程範圍/Travel range (mm)	A	B	C	D	E	F	H	I	K	L	M	N	O	Q	Z
12	5~30	20.5	17.5	6	6	25	5	M3x0.5	32	5	3.5	15.5	3.5	6.5深3.5	7.5	—
16	5~30	22	18.5	8	8	29	5.5	M4x0.7	38	6	3.5	20	3.5	6.5深3.6	8	10
20	5~30	24	19.5	7	10	36	5.5	M5x0.8	47	8	4.5	25.5	5.5	9深7	9	10
25	5~30	27.5	22.5	12	12	40	5.5	M6x1.0	52	10	5	28	5.5	9深7	11	10

注2) 帶緩衝墊的外形尺寸與上表相同。

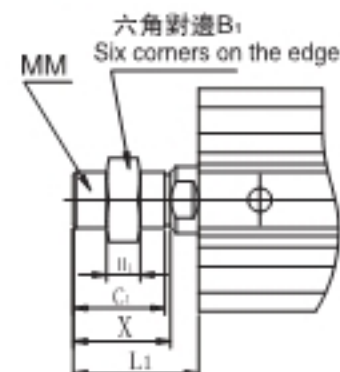
Note 2) with the cushion on the table with the same dimensions.

HCQ2A兩端螺孔式
both ends of the screw type

缸徑/Bore (mm)	O1	R	B
12	M3x0.5	7	17
16	M4x0.7	7	18.5
20	M5x0.8	10	19.5
25	M6x1.0	10	22.5

無杆側帶凸臺的場合
Rodless side with the boss of the occasion

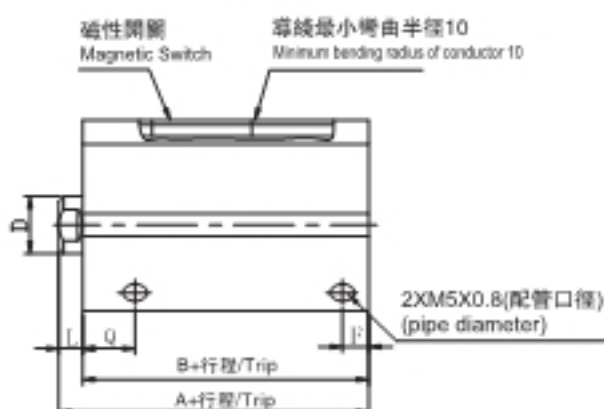
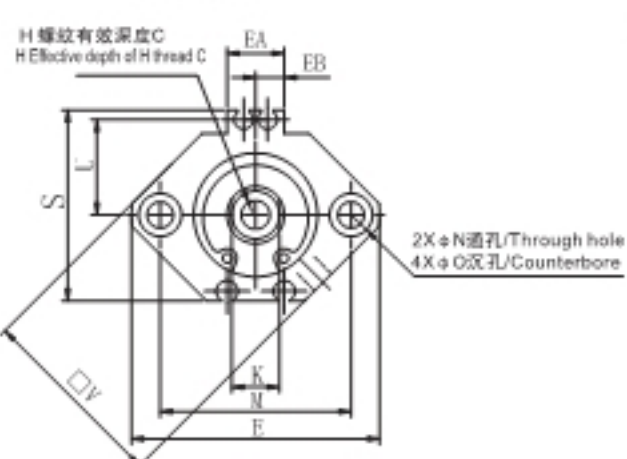
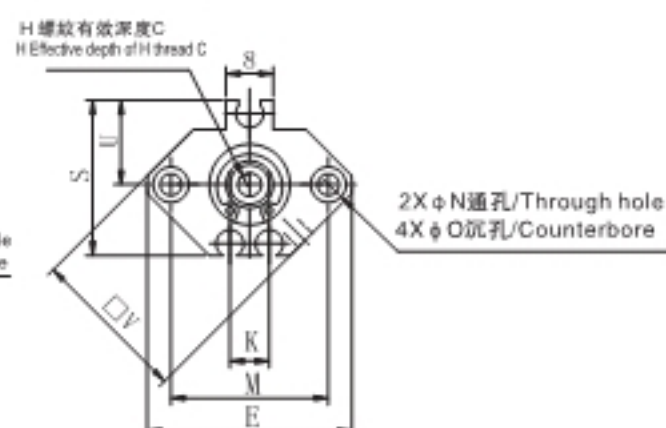
缸徑/Bore (mm)	G	Th9
12	1.5	15° -0.043
16	1.5	20° -0.052
20	2	13° -0.043
25	2	15° -0.043

注1) 杆側帶凸臺為可選規格。(在型號末尾加-XC36)
Note 1) The rod-side with the boss is optional specifications. (Not the end of the model plus -XC36)杆端外螺紋的場合
Rod end male thread occasion

缸徑/Bore (mm)	B1	C1	H1	L1	MM	X
12	8	9	4	14	M5x0.8	10.5
16	10	10	5	15.5	M6x1.0	12
20	13	12	5	18.5	M8x1.25	14
25	17	15	6	22.5	M10x1.25	17.5

HCDQ2 $\phi 12-\phi 25$ 帶磁性開關 無磁性開關的場合，祇有A,B,F,P,Q的尺寸發生變化，參見尺寸表。HCDQ2 $\phi 12-\phi 25$ with magnetic switch without magnetic switch occasion, only A, B, F, P, Q size change, see the size table.

標準型(通孔) HCDQ2B

 $\phi 16-25$  $\phi 12$ 

HCDQ2B 標準型 (通孔式)

HCDQ2B Standard (Through Hole Type)

單位 (Unit) : mm

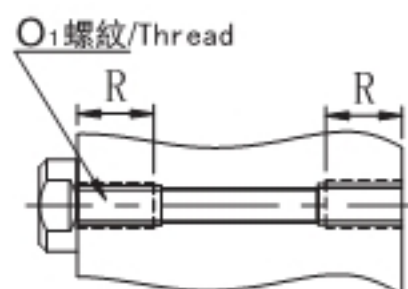
缸徑/Bore (mm)	行程範圍/Travel range (mm)	A	B	C	D	E	EA	EB	F	H	K	L	M	N	O	Q	S	U	V
12	5~30	31.5	28	6	6	33	-	-	6.5	M3x0.5	5	3.5	22	3.5	6.5深3.5	11	27.5	14	25
16	5~30	34	30.5	8	8	37	13.2	6.6	5.5	M4x0.7	6	3.5	28	3.5	6.5深3.5	10	29.5	15	29
20	5~30	36	31.5	7	10	47	13.6	6.8	5.5	M5x0.8	8	4.5	36	5.5	9深7	10.5	35.5	18	36
25	5~30	37.5	32.5	12	12	52	13.6	6.8	5.5	M6x1.0	10	5	40	5.5	9深7	11	40.5	21	40

注2) 帶緩衝墊的外形尺寸與上表相同。

Note 2) with the cushion on the table with the same dimensions.

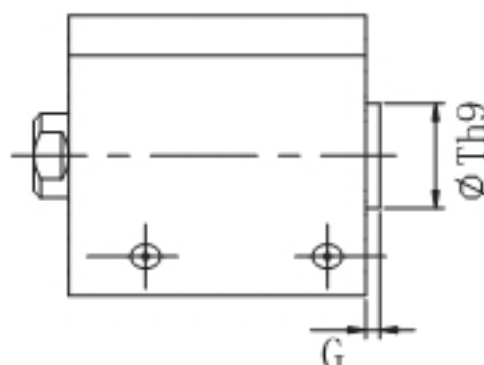
兩端螺孔式的場合

Two screw hole type occasions



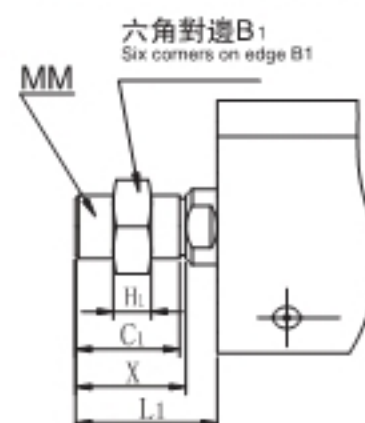
無杆側帶凸臺的場合(mm)

The occasion of the non rod side with a convex table



杆端外螺紋的場合

The occasion of the screw thread



HCDQ2A 兩端螺孔式

HCDQ2A Type screw holes at both ends

缸徑/Bore (mm)	O1	R
12	M4x0.7	7
16	M4x0.7	7
20	M6x1.0	10
25	M6x1.0	10

缸徑/Bore (mm)	G	Th9
12	1.5	15° -0.043
16	1.5	20° -0.052
20	2	13° -0.043
25	2	15° -0.043

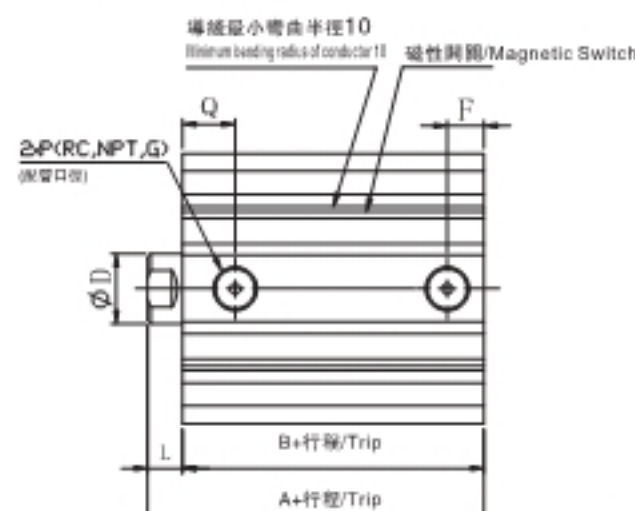
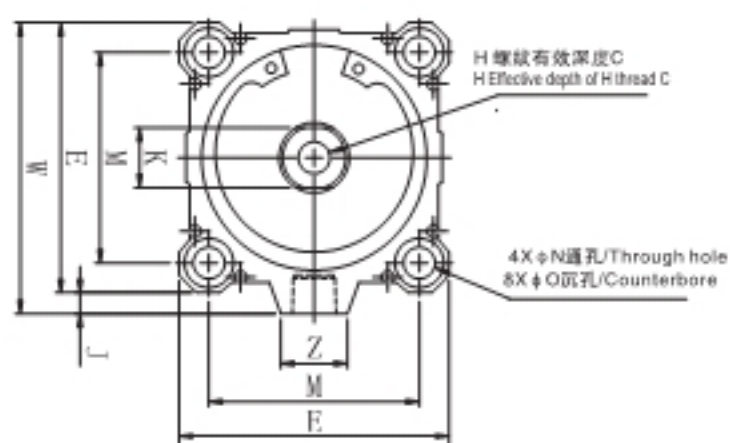
缸徑/Bore (mm)	B1	C1	H1	L1	MM	X
12	8	9	4	14	M5x0.8	10.5
16	10	10	5	15.5	M6x1.0	12
20	13	12	5	18.5	M8x1.25	14
25	17	15	6	22.5	M10x1.25	17.5

注1) 杆側帶凸臺為可選規格。(在型號末尾加-XC36)
Note 1) The rod-side with the boss is optional specifications. (Not the end of the model plus -XC36)

HCQ2 $\phi 32-\phi 50$ 帶磁性開關 無磁性開關的場合, 祇有A,B,F,P,Q的尺寸發生變化, 參見尺寸表。

HCQ2 $\phi 32-\phi 50$ with magnetic switch without magnetic switch occasion, only A, B, F, P, Q size change, see the size table.

HCDQ2B/HCQ2B標準型(通孔)



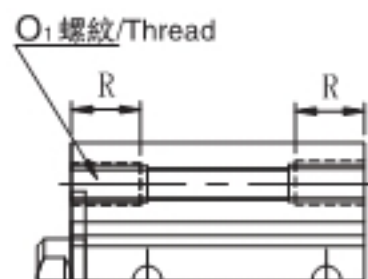
單位 (Unit) : mm

缸徑/Bore (mm)	行程範圍/Travel range (mm)	無磁性開關/Magnetic switch					帶磁性開關/Magnetic switch					C	D	E	H	J	K	L	M	N	O	W	Z
32	5	30	23	5.5	M5x0.8	11.5	40	33	7.5	1/8	10.5	13	16	45	M8x1.25	4.5	14	7	34	5.5	9深7	49.5	14
	10~50			7.5	1/8	10.5																	
	75,100	40	33																				
40	5~50	36.5	29.5	8	1/8	11	46.5	39.5	8	1/8	11	13	16	52	M8x1.25	5	14	7	40	5.5	9深7	57	15
	75,100	46.5	39.5																				
50	10~50	38.5	30.5	10.5	1/4	10.5	48.5	40.5	10.5	1/4	10.5	15	20	64	M10x1.5	7	17	8	50	6.6	11深8	71	19
	75,100	48.5	40.5																				

注2) 帶緩衝墊的外形尺寸與上表相同。

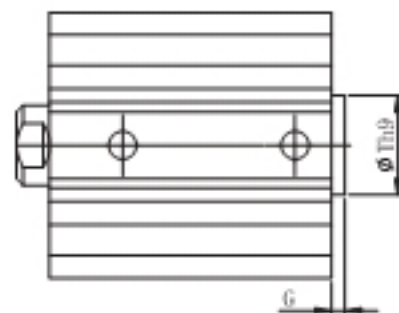
Note 2) with the cushion on the table with the same dimensions.

HCQ2A/HCDQ2A 兩端螺孔式
The occasion of the non rod side with a convex table



缸徑/Bore (mm)	O1	R
32	M6x1.0	10
40	M6x1.0	10
50	M8x1.25	14

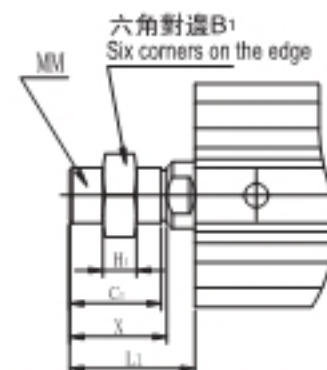
無杆側帶凸臺的場合(mm)
The occasion of the non rod side with a convex table



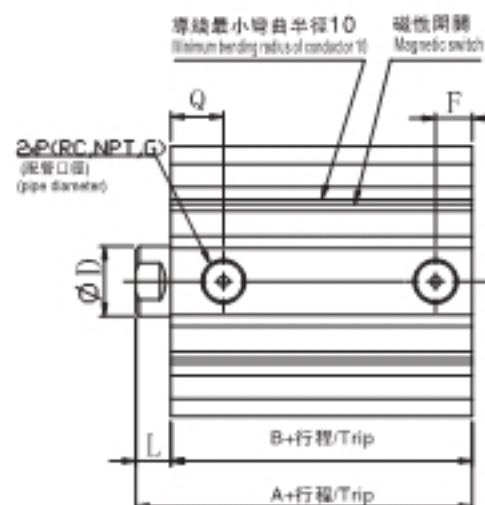
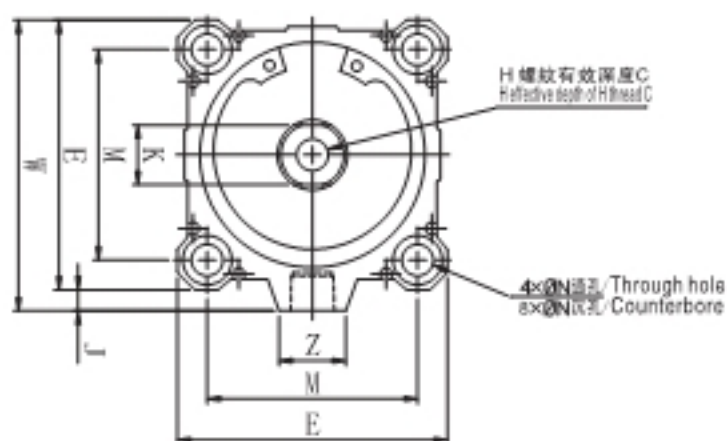
缸徑/Bore (mm)	G	Th9
32	2	23.5° -0.043
40	2	23.5° -0.052
50	2	28.5° -0.043

注1) 杆側帶凸臺為可選規格。(在型號末尾加-XC36)
Note 1) The rod-side with the boss is optional specifications. (Not the end of the model plus -XC36)

杆端外螺紋的場合
The occasion of the screw thread



缸徑/Bore (mm)	B1	C1	H1	L1	MM	X
32	22	20.5	8	28.5	M14x1.5	23.5
40	22	20.5	8	28.5	M14x1.5	23.5
50	27	26	11	33.5	M18x1.5	28.5



HCQ2B/HCDQ2B標準型 (通孔式)

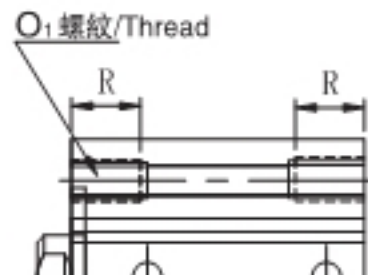
單位 (Unit) : mm

缸徑/Bore (mm)	行程範圍/Travel range (mm)	磁性開關/Magnetic switch		磁性開關/Magnetic switch		C	D	E	F	H	K	J	L	M	N	O	P	Q	W	Z
		A	B	A	B															
63	10~50	44	36	54	46	15	20	77	10.5	M10x1.5	17	7	8	60	9	14深10.5	1/4	15	84	19
	75,100	54	46																	
80	5~50	53.5	43.5	63.5	53.5	21	25	98	12.5	M16x2.0	22	6	10	77	11	17.5深13.5	3/8	16	104	25
	75,100	63.5	53.5																	
100	10~50	65	53	75	63	27	30	117	13	M20x2.5	27	6.5	12	94	11	17.5深13.5	3/8	23	123.5	25
	75,100	75	63																	

注2) 帶緩衝墊的外形尺寸與上表相同。

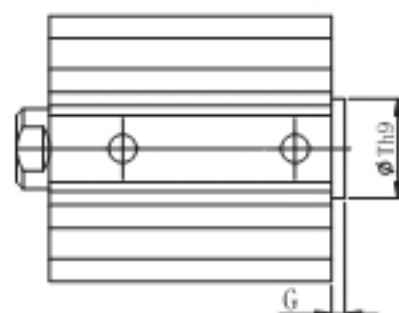
Note 2) with the cushion on the table with the same dimensions.

HCQ2A / HCDQ2A兩端螺孔式
The occasion of the non rod side with a convex table



缸徑/Bore (mm)	O1	R
63	M10x1.5	18
80	M12x1.75	22
100	M12x1.75	22

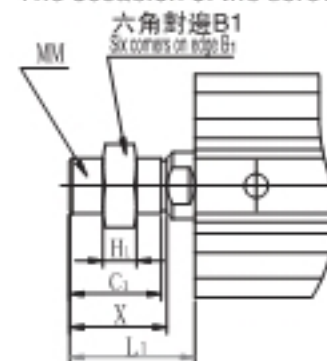
無杆側帶凸臺的場合(mm)
The occasion of the non rod side with a convex table



缸徑/Bore (mm)	G	Th9
63	2	35° -0.043
80	2	43° -0.052
100	2	59° -0.043

注1) 杆側帶凸臺為可選規格。(在型號末尾加-XC36)
Note 1) The rod-side with the boss is optional specifications. (In the model is not tail plus -XC36)

杆端外螺紋的場合
The occasion of the screw thread



缸徑/Bore (mm)	B1	C1	H1	L1	MM	X
63	27	26	11	33.5	M18x1.5	28.5
80	32	32.5	13	43.5	M22x1.5	35.5
100	41	32.5	16	43.5	M26x1.5	35.5



產品簡介

- ◆本產品適用於量產零件之專用機及MC治具,提高生產效率最佳幫手。
- ◆主要功能為油壓缸作動時, 活塞下壓行程中壓板會旋轉到設計的角度, 再沿着直線繼續下壓直到壓板夾緊工件。
- ◆建議使用油壓轉角缸, 請加裝流量控制閥, 避免速度過快, 以及轉角行程中, 請勿夾持工件。
- ◆缸體材質採用機械構造用碳素鋼, 內壁特殊加工處理, 表面光滑, 使用壽命長。
- ◆壓板需增加長度時, 請勿大於原長度之1.5倍。

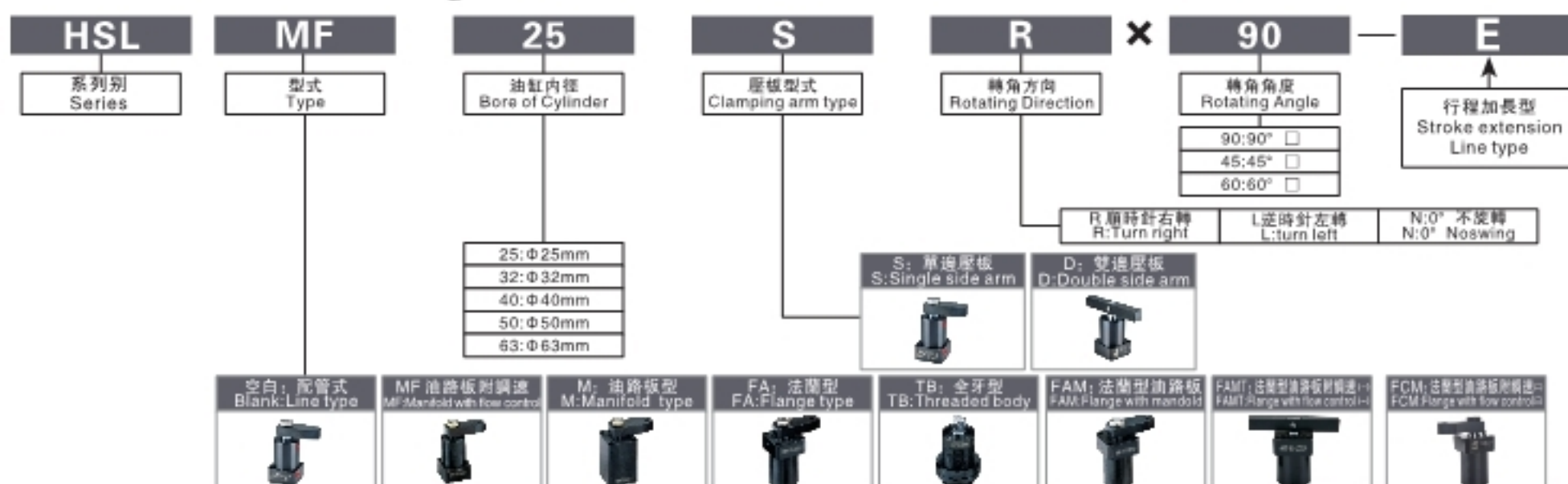
Introduction of product

- ◆ The product is ideal for mass production on a special purpose machine and jig in machining center. It will greatly upgrade production efficiency.
- ◆ When the hydraulic cylinder actuate, and the piston moves downward, the clamping arm will swing to a rated angle. Then it lowers until the workpiece is clamped securely.
- ◆ To avoid too fast motion, a flow control valve is suggested to connect to the hydraulic swing clamp cylinder. Do not clamp workpiece while the clamp is swinging to avoid damaging the cylinder barrel and internal parts.
- ◆ The cylinder body is manufactured from structural carbon steel.. Inside surface is specially treated for maximum smoothness and long service life.
- ◆ When increasing length of clamping arm is required, be sure not to exceed 1.5 times of the original length.

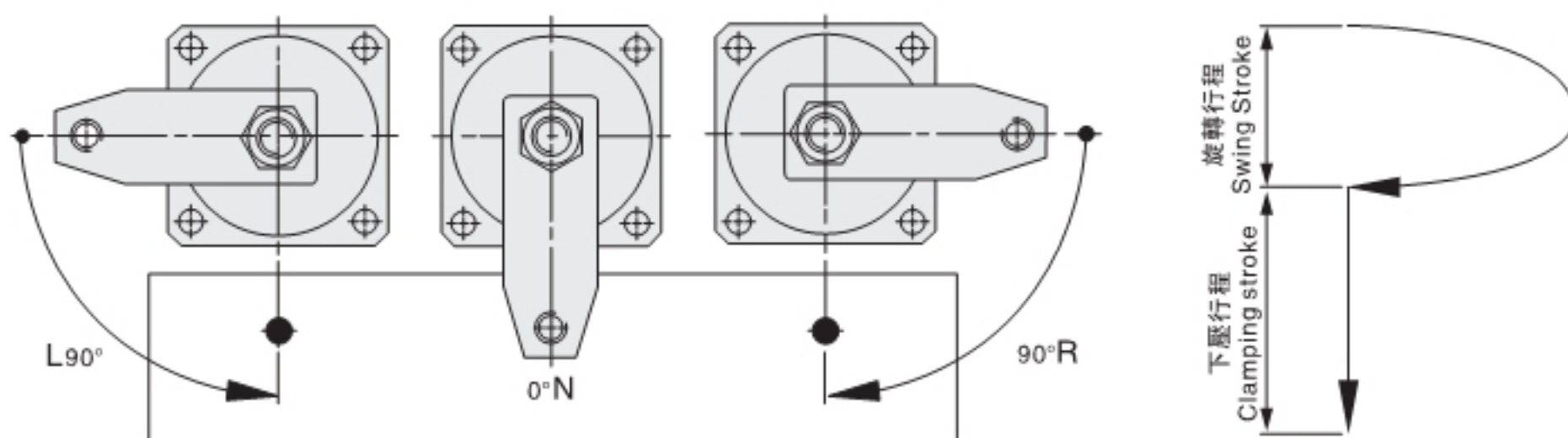
特性資料 Specification

油缸內徑 Bore of cylinder (mm)	Φ25	Φ32	Φ40	Φ50	Φ63
活塞杆徑 Bore of piston (mm)	Φ18	Φ20	Φ22.4	Φ28	Φ35.5
轉角行程 Swing stroke(mm)	11.5	14.5	14.5	16	16
壓緊行程標準/加長Clamping stroke (mm) std/incr	13	15/30	15/30	17/34	17/34
受壓面積拉入/推出 Pressure area pull/push (cm ²)	2.37/4.91	4.9/8.04	8.63/12.57	13.47/19.63	21.28/31.17
理論夾持力 Theoretical clamping (30kg/cm ²)	71	147	259	404	647
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
最大耐壓力Max pressure (kg/cm ²)	100kg/cm ²				
使用壓力範圍Range of pressure(kg/cm ²)	10—70kg/cm ²				
轉角方向 Rotating direction	左轉L或右轉R Turn right L or turn left R				
轉角角度 Rotating angle	標準角度 Standard angle90° 選擇角度Optional angle 0° ,45° ,60°				
作動方式 Acting type	復動式 Double acting				

訂購標示法 Ordering Code



單邊壓板旋轉示意圖



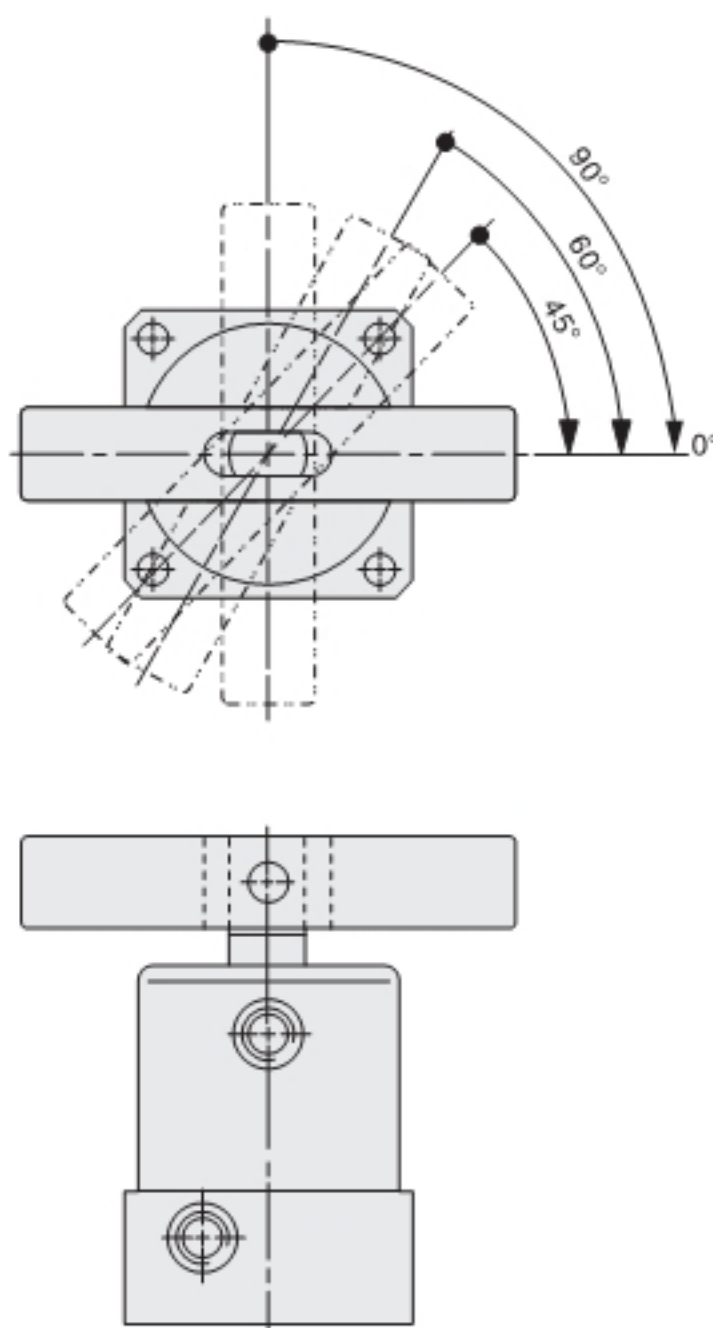
壓板鎖緊操作方式



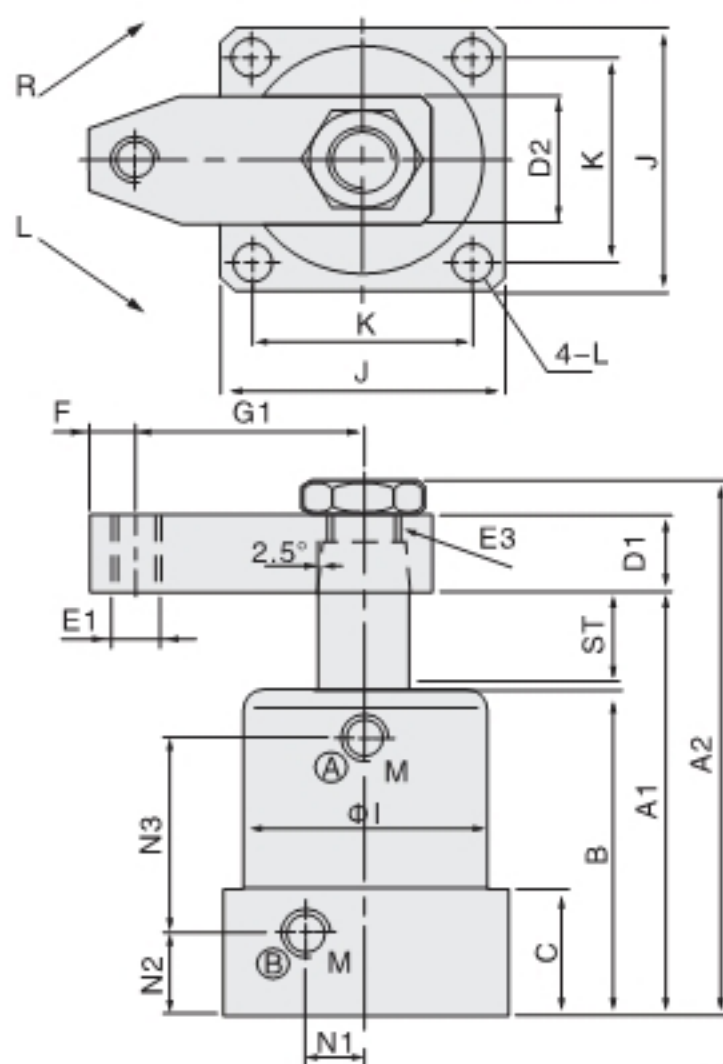
壓板拆卸操作方式



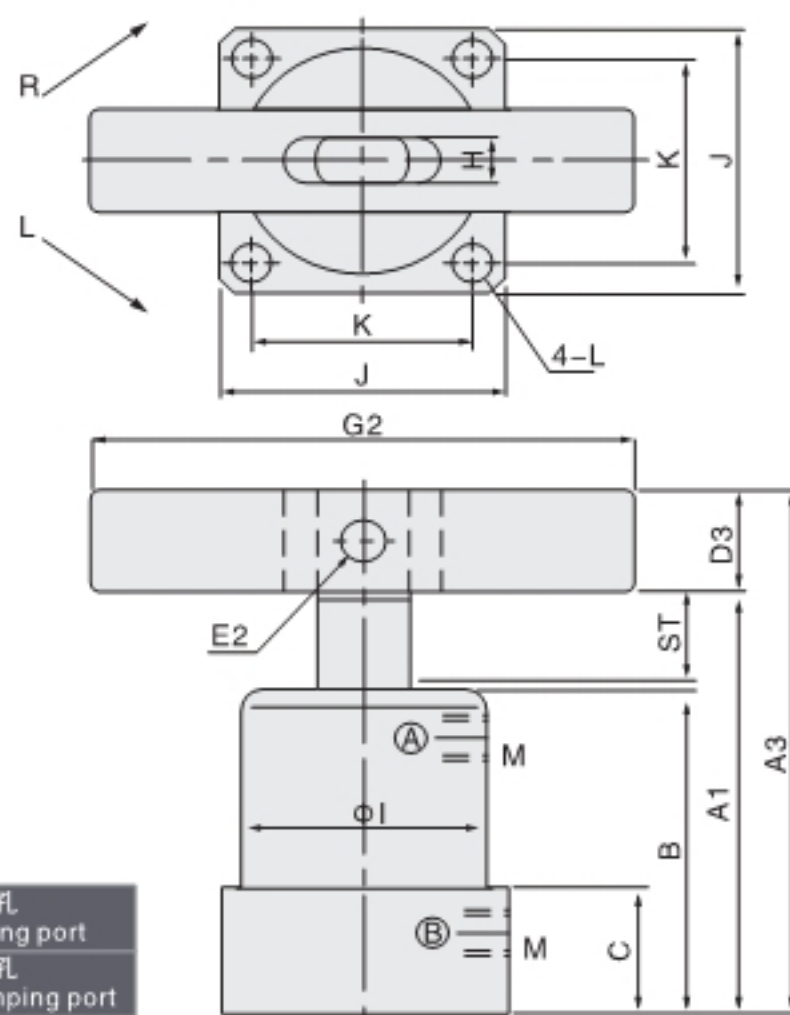
雙邊壓板旋轉示意圖



Single side swing clamp



Double side swing clamp



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

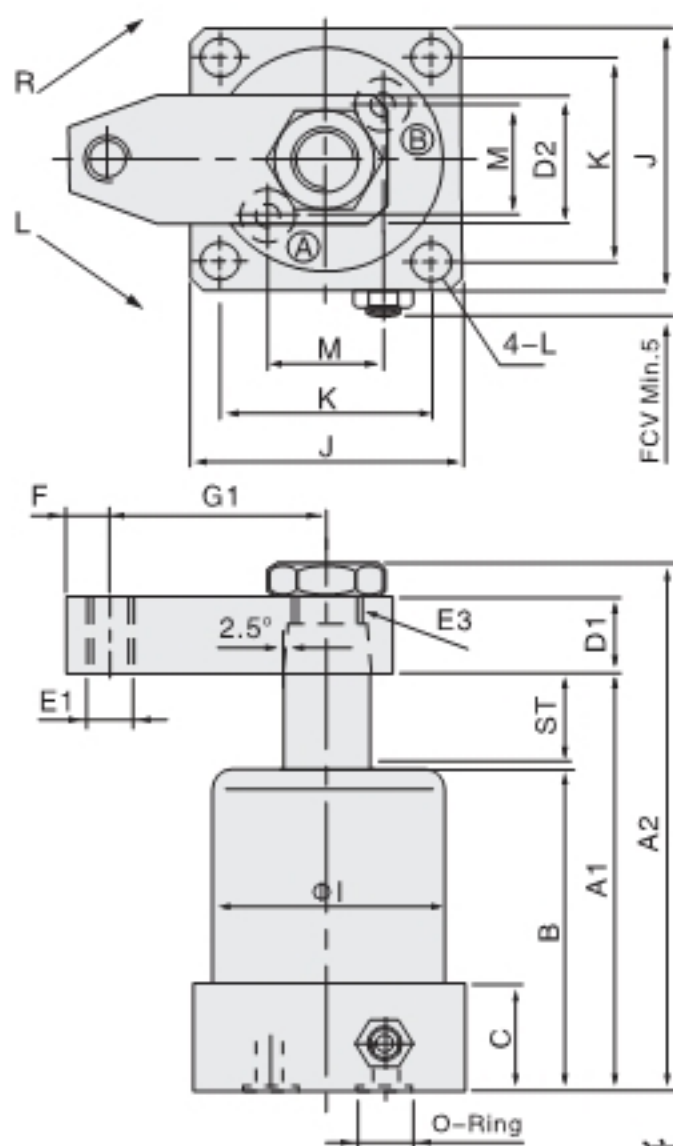
注：上圖為轉角90°鬆開狀態

外形尺寸表 Dimension table

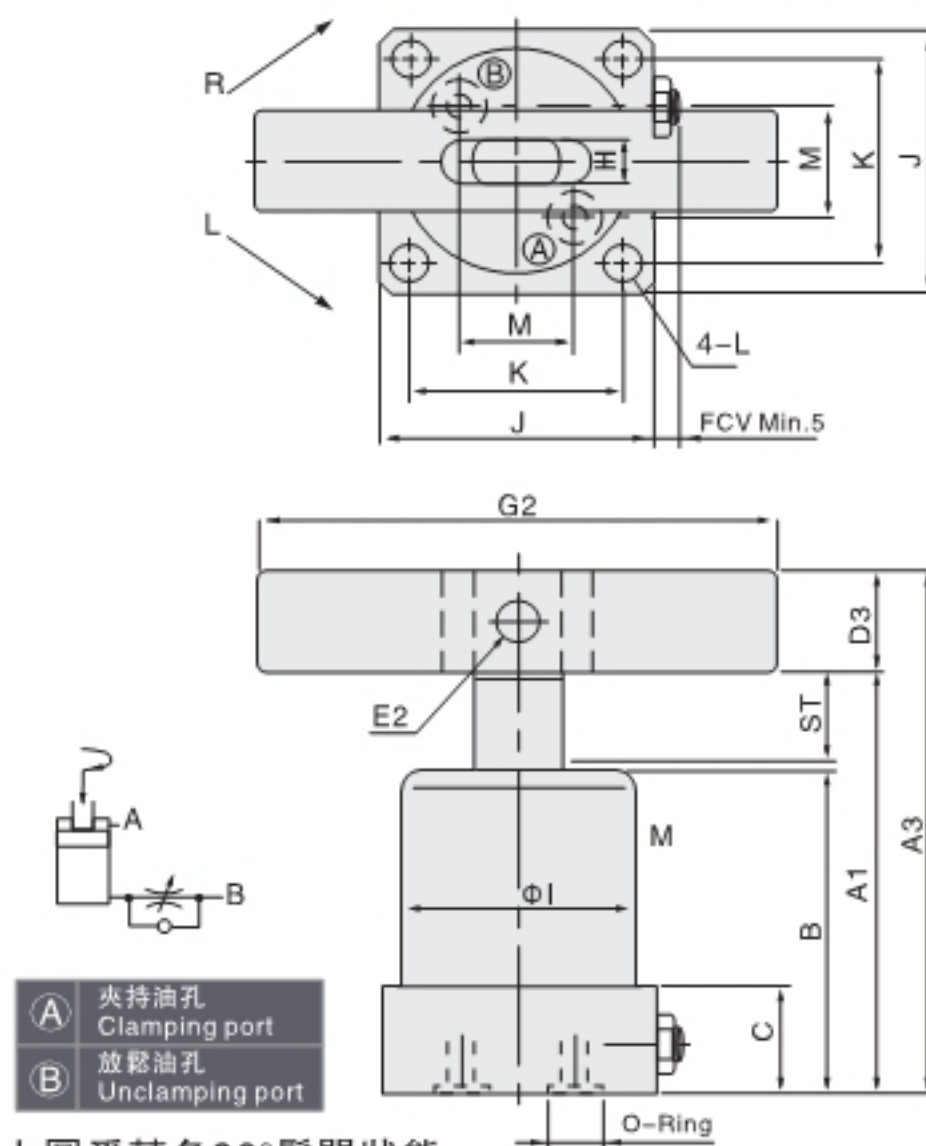
單位 (Unit) :mm

ITEM	MODEL	HSL-25		HSL-32		HSL-40		HSL-50		HSL-63	
ST:Swing/Clamping		24.5:11.5/13		29.5:14.5/15	44.5:14.5/30	29.5:14.5/15	44.5:14.5/30	33:16/17	50:16/34	33:16/17	50:16/34
A1		104		118	148	123	153	137	171	142	176
A2		(127)		(144)	(175)	(150)	(180)	(167)	(201)	(177)	(211)
A3		123		140	170	145	175	162	196	174	208
B		76		85	100	90	105	100	117	105	122
C		27		30		30		34		34	
D1		16		18		18		20		23	
D2		27		31		31		37		48	
D3		□19		□22		□22		□25		□32	
E1		M10		M10		M10		M12		M16	
E2		Φ8		Φ8		Φ10		Φ12		Φ15	
E3		M14×1.5		M16×1.5		M18×1.5		M20×1.5		M24×2	
F		10		10		10		12		15	
G1		50		55		60		65		75	
G2		140		160		160		180		200	
H		9		10		10		12		15	
ΦI		Φ46		Φ50		Φ54		Φ66		Φ80	
J		52		56		63		72		88	
K		40		44		48		57		70	
L		Φ6.8		Φ6.8		Φ9		Φ9		Φ11	
M		PT1/8		PT1/8		PT1/8		PT1/4		PT1/4	
N1		8		10		12		15		17	
N2		17		19		19		21.5		22	
N3		46		52	67	57	72	63.5	80.5	68	85

Single side swing clamp



Double side swing clamp



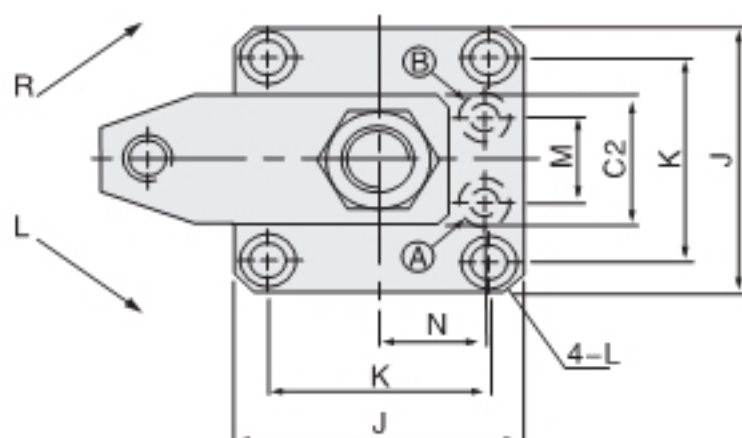
注：上圖為轉角90°鬆開狀態

外形尺寸表 Dimension table

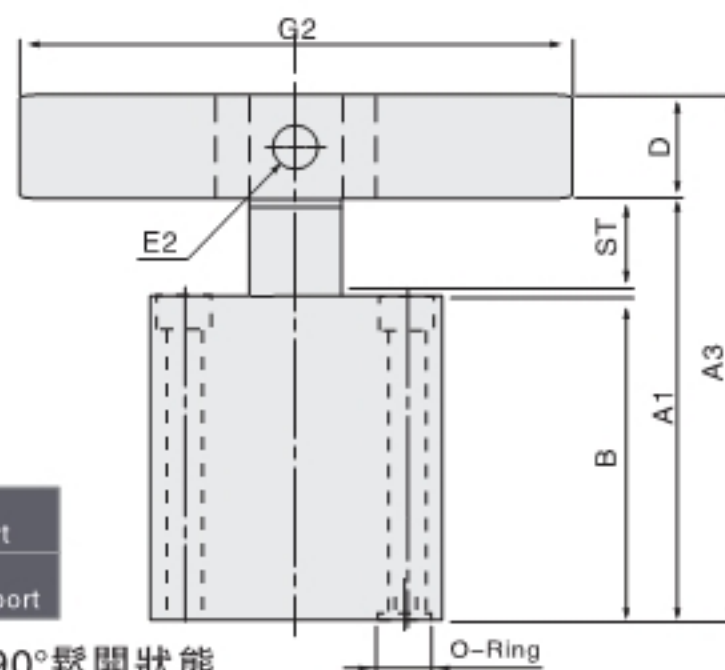
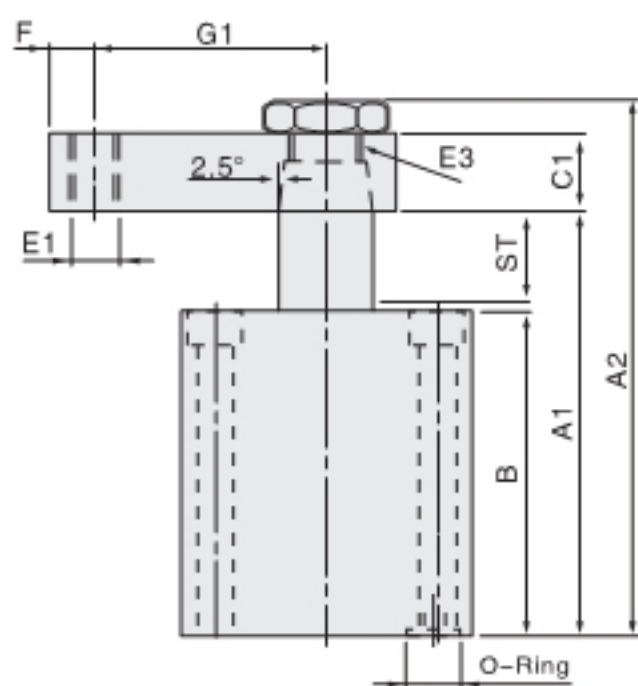
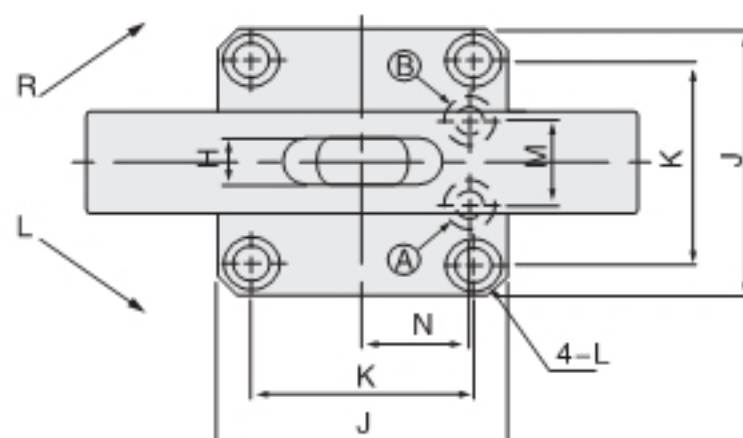
單位 (Unit) : mm

ITEM	MODEL	HSL-MF25	HSL-MF32		HSL-MF40		HSL-MF50		HSL-MF63	
ST:Swing/Clamping		24.5:11.5/13	29.5:14.5/15	44.5:14.5/30	29.5:14.5/15	44.5:14.5/30	33:16/17	50:16/34	33:16/17	50:16/34
A1		104	118	148	123	153	137	171	142	176
A2		(127)	(144)	(175)	(150)	(180)	(167)	(201)	(177)	(211)
A3		123	140	170	145	175	162	196	174	208
B		76	85	100	90	105	100	117	105	122
C		22	25		25		30		30	
D1		16	18		18		20		23	
D2		27	31		31		37		48	
D3		□19	□22		□22		□25		□32	
E1		M10	M10		M10		M12		M16	
E2		Φ8	Φ8		Φ10		Φ12		Φ15	
E3		M14×1.5	M16×1.5		M18×1.5		M20×1.5		M24×2	
F		10	10		10		12		15	
G1		50	55		60		65		75	
G2		140	160		160		180		200	
H		9	10		10		12		15	
ΦI		Φ46	Φ50		Φ54		Φ66		Φ80	
J		55	57		63		72		88	
K		42	44		48		57		70	
L		Φ6.8	Φ6.8		Φ9		Φ9		Φ11	
M		19	21		23		28		32	
O-Ring		P7	P7		P9		P9		P9	

Single side swing clamp



Double side swing clamp



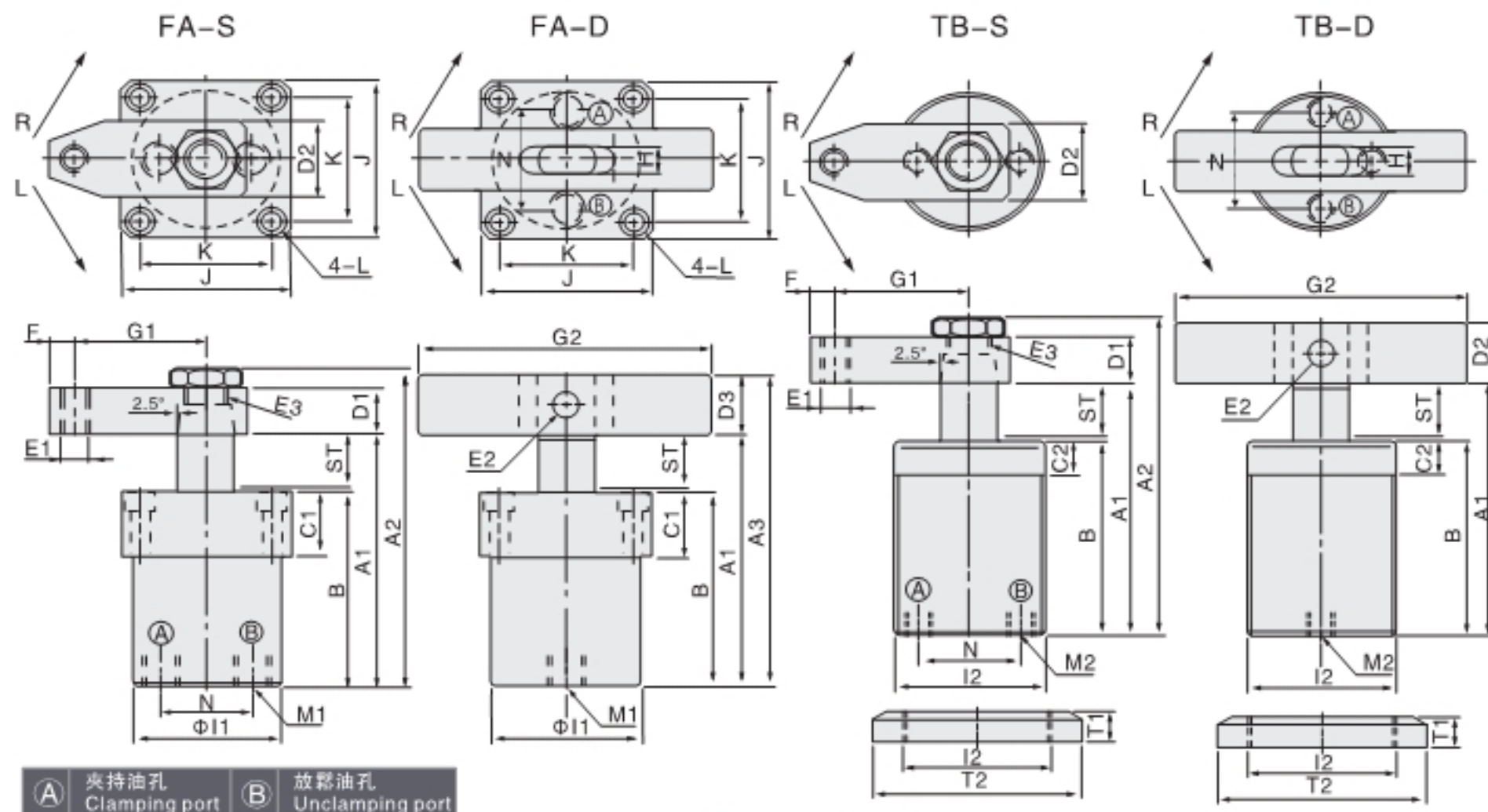
- Ⓐ 夾持油孔
Clamping port
- Ⓑ 放鬆油孔
Unclamping port

注：上圖為轉角90°鬆開狀態

外形尺寸表 Dimension table

單位 (Unit) : mm

ITEM	MODEL	HSL-M25	HSL-M32	HSL-M40	HSL-M50
ST:Swing/Clamping		24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17
A1		104	118	123	137
A2		(127)	(144)	(150)	(167)
A3		123	140	145	162
B		76	85	90	100
C1		16	18	18	20
C2		27	31	31	37
D		□19	□22	□22	□25
E1		M10	M10	M10	M12
E2		Φ8	Φ8	Φ10	Φ12
E3		M14×1.5	M16×1.5	M18×1.5	M20×1.5
F		10	10	10	12
G1		50	55	60	65
G2		140	160	160	180
H		9	10	10	12
J		55	57	69	75
K		42	44	52	58
L		Φ6.8-Φ10.5×6.5D.	Φ6.8-Φ10.5×6.5D	Φ9-Φ14×9D	Φ9-Φ14×9D
M		18	22	26	32
N		20	22	26	30
O-Ring		P7	P7	P8	P8

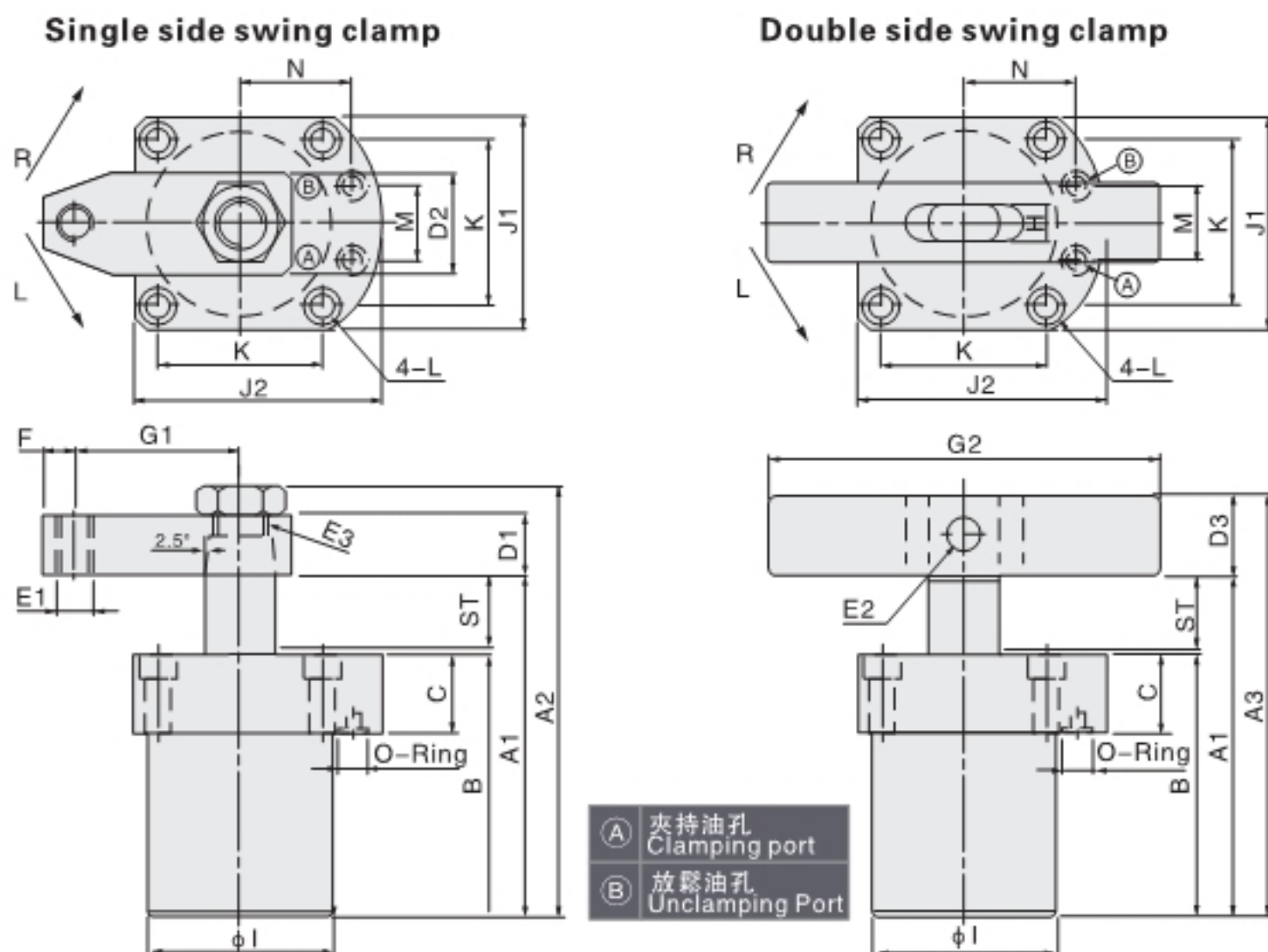


注：上圖為轉角90°鬆開狀態

外形尺寸表 Dimension table

單位 (Unit) : mm

ITEM	MODEL	HSL-FA25 HSL-TB25	HSL-FA32 HSL-TB32	HSL-FA40 HSL-TB40	HSL-FA50 HSL-TB50	HSL-FA63
ST:Swing/Claming		24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17	33:16/17
A1		104	118	123	137	142
A2		(127)	(144)	(150)	(167)	(177)
A3		123	140	145	162	174
B		76	85	90	100	105
C1		22	25	25	30	30
C2		12	12	15	15	-
D1		16	18	18	20	23
D2		27	31	31	37	48
D3		□19	□22	□22	□25	□32
E1		M10	M10	M10	M12	M16
E2		Φ8	Φ8	Φ10	Φ12	Φ15
E3		M14×1.5	M16×1.5	M18×1.5	M20×1.5	M24×2
F		10	10	10	12	15
G1		50	55	60	65	75
G2		140	160	160	180	200
H		9	10	10	12	15
ΦI1		Φ45	Φ50	Φ58	Φ68	Φ81
I2		M45×1.5	M50×1.5	M55×1.5	M65×1.5	-
J		53	57	69	75	90
K		40	44	52	58	70
L		Φ6.8-Φ10.5×6.5D	Φ6.8-Φ10.5×6.5D	Φ9-Φ14×9D	Φ9-Φ14×9D	Φ11-Φ17×11D
M1		PT1/4	PT1/4	PT1/4	PT1/4	PT1/4
M2		PT1/8	PT1/8	PT1/8	PT1/8	-
N		28	32	40	50	63
T1×2PCS		10	11	11	12	-
T2		Φ65	Φ70	Φ70	Φ85	-

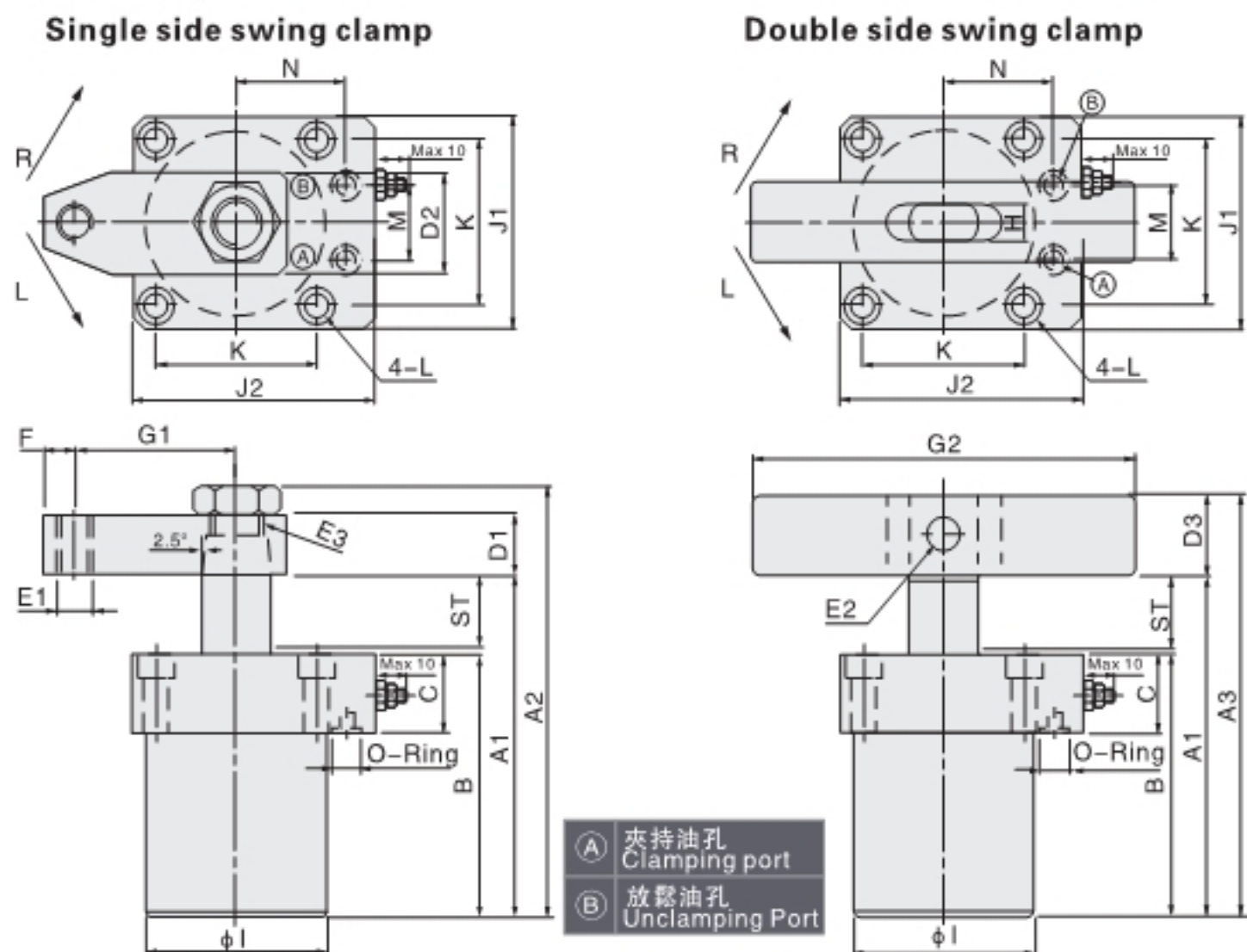


外形尺寸表 Dimension table

注：上圖為轉角90°鬆開狀態

單位 (Unit) : mm

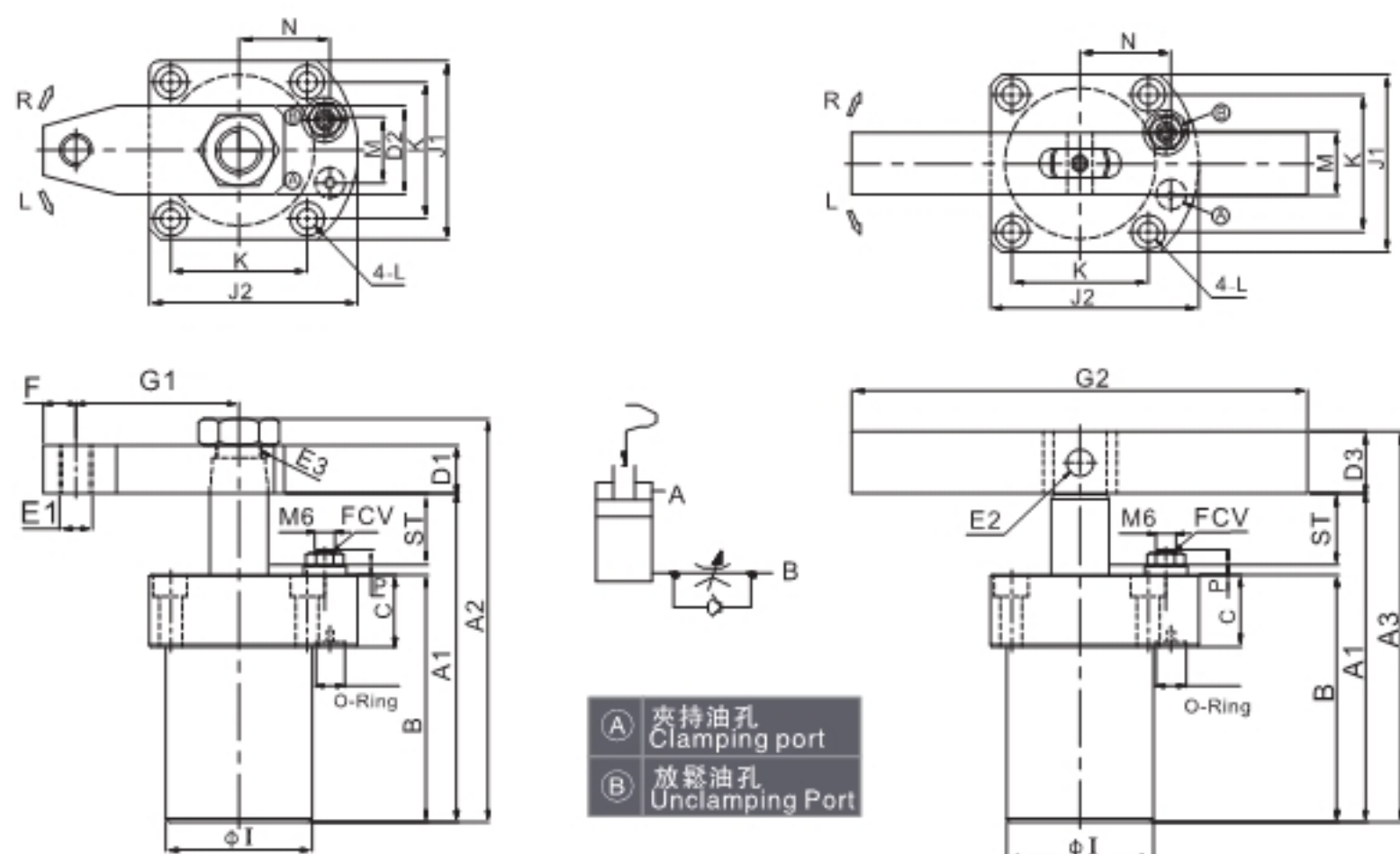
ITEM	MODEL	HSL-FAM25	HSL-FAM32	HSL-FAM40	HSL-FAM50	HSL-FAM63
ST:Swing/Clamping		24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17	33:16/17
A1		104	118	123	137	142
A2		(127)	(144)	(150)	(167)	(177)
A3		123	140	145	162	174
B		76	85	90	100	105
C		22	25	25	30	30
D1		16	18	18	20	23
D2		27	31	31	37	48
D3		□19	□22	□22	□25	□32
E1		M10×1.5	M10×1.5	M10×1.5	M12×1.5	M16
E2		Φ8	Φ8	Φ10	Φ12	Φ15
E3		M14×1.5	M16×1.5	M18×1.5	M20×1.5	M24×2.0
F		10	10	10	12	15
G1		50	55	60	65	75
G2		140	160	160	180	200
H		9	10	10	12	15
φI		Φ45	Φ50	Φ58	Φ68	Φ81
J1		55	57	69	75	90
J2		64	65.5	79	87	104.5
K		42	44	52	58	70
L		Φ6.8-Φ10.5×6.5D.	Φ6.8-Φ10.5×6.5D.	Φ9-Φ14×9D.	Φ9-Φ14×9D.	Φ11-Φ17×11D.
M		20	22	26	30	32
N		28	29	34.5	39	46
O-Ring		P6	P6	P9	P9	P9



外形尺寸表 Dimension table 注：上圖為轉角90°鬆開狀態

單位 (Unit) :mm

ITEM	MODEL	HSL-FAMT25	HSL-FAMT32	HSL-FAMT40	HSL-FAMT50	HSL-FAMT63
ST:Swing/Clamping		24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17	33:16/17
A1		104	118	123	137	142
A2		(127)	(144)	(150)	(167)	(177)
A3		123	140	145	162	174
B		76	85	90	100	105
C		22	25	25	30	30
D1		16	18	18	20	23
D2		27	31	31	37	48
D3		□19	□22	□22	□25	□32
E1		M10×1.5	M10×1.5	M10×1.5	M12×1.5	M16
E2		Φ8	Φ8	Φ10	Φ12	Φ15
E3		M14×1.5	M16×1.5	M18×1.5	M20×1.5	M24×2.0
F		10	10	10	12	15
G1		50	55	60	65	75
G2		140	160	160	180	200
H		9	10	10	12	15
φI		Φ45	Φ50	Φ58	Φ68	Φ81
J1		55	57	69	75	90
J2		64	65.5	79	87	104.5
K		42	44	52	58	70
L		Φ6.8-Φ10.5×6.5D.	Φ6.8-Φ10.5×6.5D.	Φ9-Φ14×9D.	Φ9-Φ14×9D.	Φ11-Φ17×11D.
M		20	22	26	30	32
N		28	29	34.5	39	46
O-Ring		P6	P6	P6	P9	P9



注：上圖為轉角90°鬆開狀態

外形尺寸表 Dimension table

單位 (Unit) : mm

ITEM	MODEL	HSL-FCM25	HSL-FCM32	HSL-FCM40	HSL-FCM50	HSL-FCM63
ST:swing/Clamping		24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17	33:16/17
A1		104	118	123	137	142
A2		(127)	(144)	(150)	(167)	(177)
A3		123	140	145	162	174
B		76	85	90	100	105
C		22	25	25	30	30
D1		15	17	18	20	23
D2		27	31	31	37	48
D3		□19	□22	□22	□25	□32
E1		M10x1.5	M10x1.5	M10x1.5	M12x1.75	M16x2.0
E2		φ8	φ8	φ10	φ12	φ15
E3		M14x1.5	M16x1.5	M18x1.5	M20x1.5	M26x1.5
F		10	10	10	12	15
G1		50	55	60	65	75
G2		140	160	160	180	200
H		9	10	10	12	15
φI		45	50	58	68	81
J1		55	57	69	75	90
J2		64	65.5	79	87	104
K		42	44	52	58	70
L		φ6.8-φ10.5x6.5D.	φ6.8-φ10.5x6.5D.	φ9-φ14x9D.	φ9-φ14x9D.	φ11-φ17x11D.
M		20	22	26	30	32
N		28	29	34.5	39	47
O-Ring		P6	P6	P9	P9	P9
P Min		7	4.5	4.5	4	4
P Max		9.9	7.8	7.8	7.3	7.3



產品簡介 Introduction to product.

本產品有缸徑從 $\phi 25$ – $\phi 63$ 五種，轉角從 0° – 90° 。
油壓轉角缸適用於需要夾緊力需要較大的場合，適用夾緊大型的工件，適用於機加工進切削力較大的場合，市廣泛應用於批量生產，自動化程度高。
轉角缸缸體採用碳素鋼。

The bore of cylinder are from $\phi 25$ – $\phi 63$. swing angle is from 0° degrees to 90° degrees.

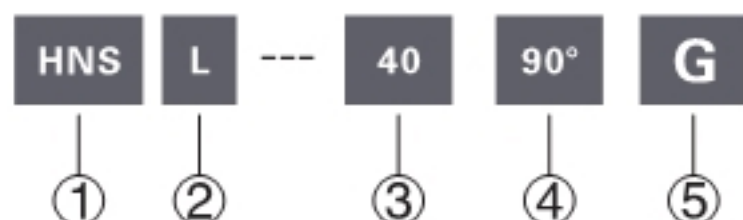
The hydraulic swing clamping cylinder is used to be the situation that is need to a larger clamping force, and be apply in the batch quantity to produce extensively, the automation degree is high.

The cylinder are made of carbon steel.

特性資料 Specification

油缸型號 Type of cylinder(mm)	HNS-25	HNS-32	HNS-40	HNS-50	HNS-63
	HNSD-25	HNSD-32	HNSD-40	HNSD-50	HNSD-63
	HNTS-25	HNTS-32	HNTS-40	HNTS-50	
	HNTSD-25	HNTSD-32	HNTSD-40	HNTSD-50	
轉角行程 Swing stroke (mm)	12	14			
壓緊行程 Clamping stroke (mm)	14	15			
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
最大耐壓力 Max pressure(kg/cm ²)	70kg/cm ²				
一般工作壓力normal operation pressure(kg/cm ²)	20-45kg/cm ²				
轉角角度 Rotating direction	左轉L或右轉RTurn right R or turn left L				
轉角角度 Rotating angle	標準角度Standard angle 90° 選擇角度Optional angle 0° ,45° ,60° ,180°				
作動方式 Acting type	復動式 Double acting				
固定方式 Fixing type	法蘭式 Flang				
活塞杆徑 Bore of piston	Φ18	Φ20	Φ20	Φ20	Φ25
受壓面積拉入/推出 Pressure area pull/push cm ²	2.36/4.9	4.89/8.03	9.42/12.56	16.48/19.62	26.25/31.15
理論夾緊力 Clamoing force(25kg/cm ²)	59kg	120kg	200kg	400kg	600kg

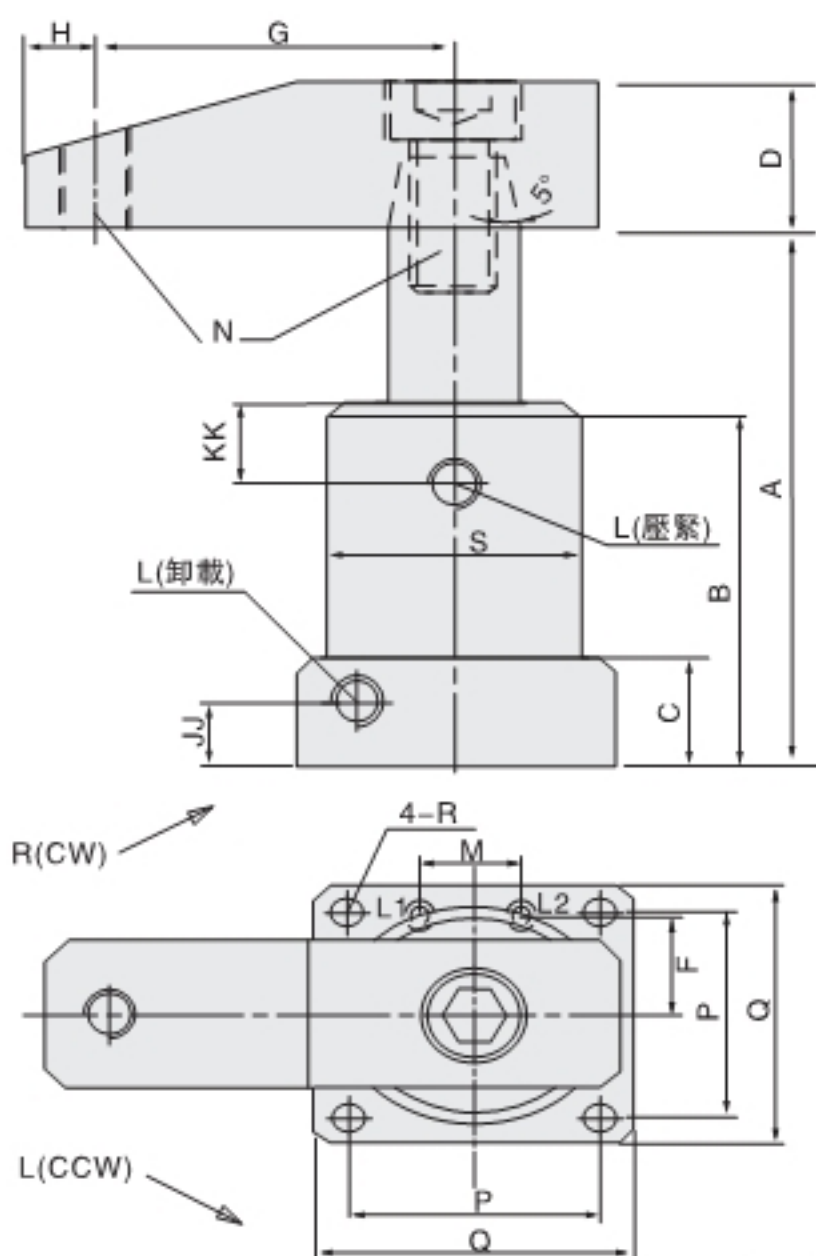
訂購標示法



1	系列號 Series	HNS, HNSD, HNTS, HNTSD
2	轉角方向 Rotating direction	右轉R或左轉L Turn right R or turn left L
3	油缸內徑 Bore of cylinder	$\phi 25$, $\phi 32$, $\phi 40$, $\phi 50$, $\phi 63$ 注: HNTS, HNTSD 系列無 $\phi 63$ 油缸
4	轉角角度 Rotating angle	標準角度 Standard angle 90° 選擇角度 Option angle 0° , 45° , 60° , 180°
5	G: 油路板式	

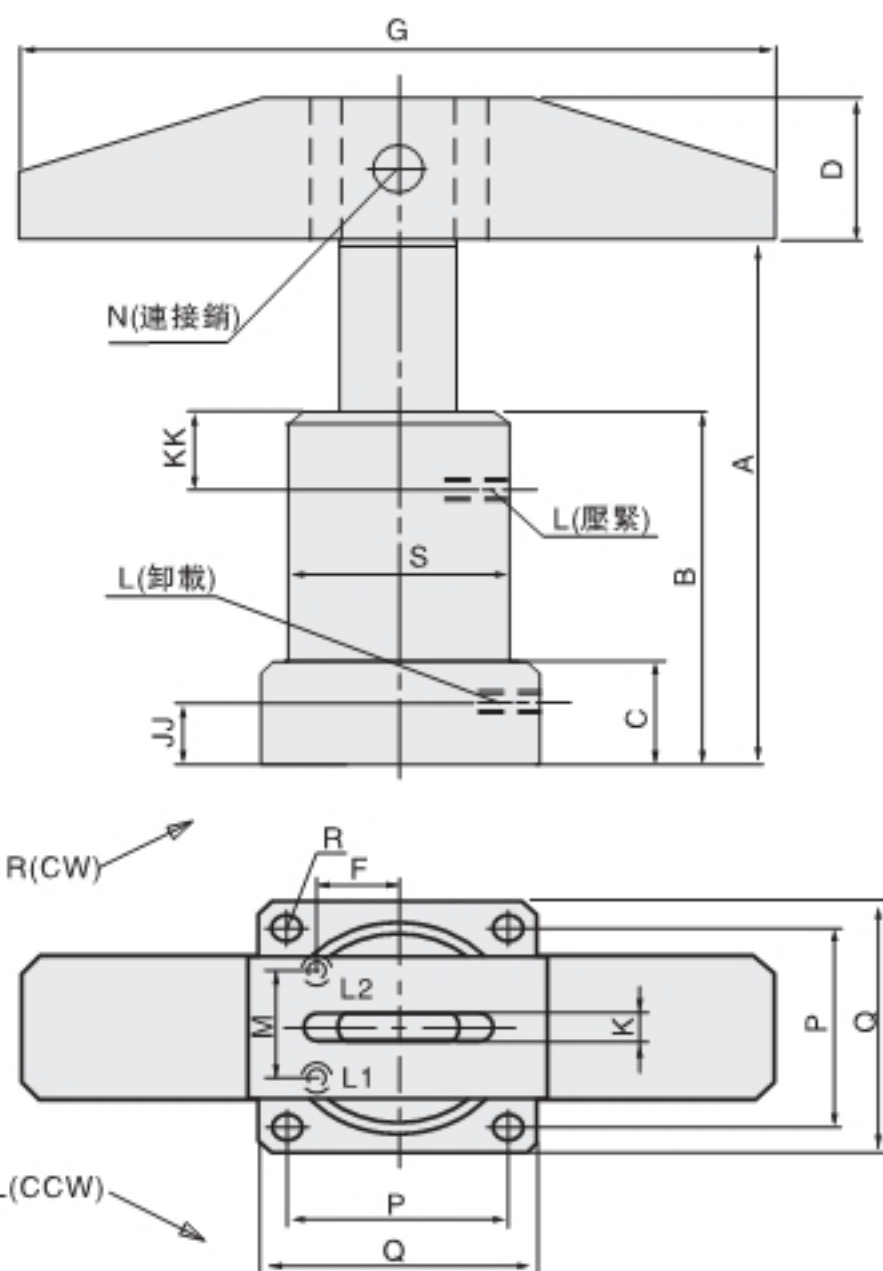
HNS、HNSD外形及尺寸表 DIMENSION TABLE

注：下圖為轉角90°鬆開狀態



HNS 法蘭式單臂

L1 夾持油孔
clamping port
L2 放鬆油孔
unclamping port



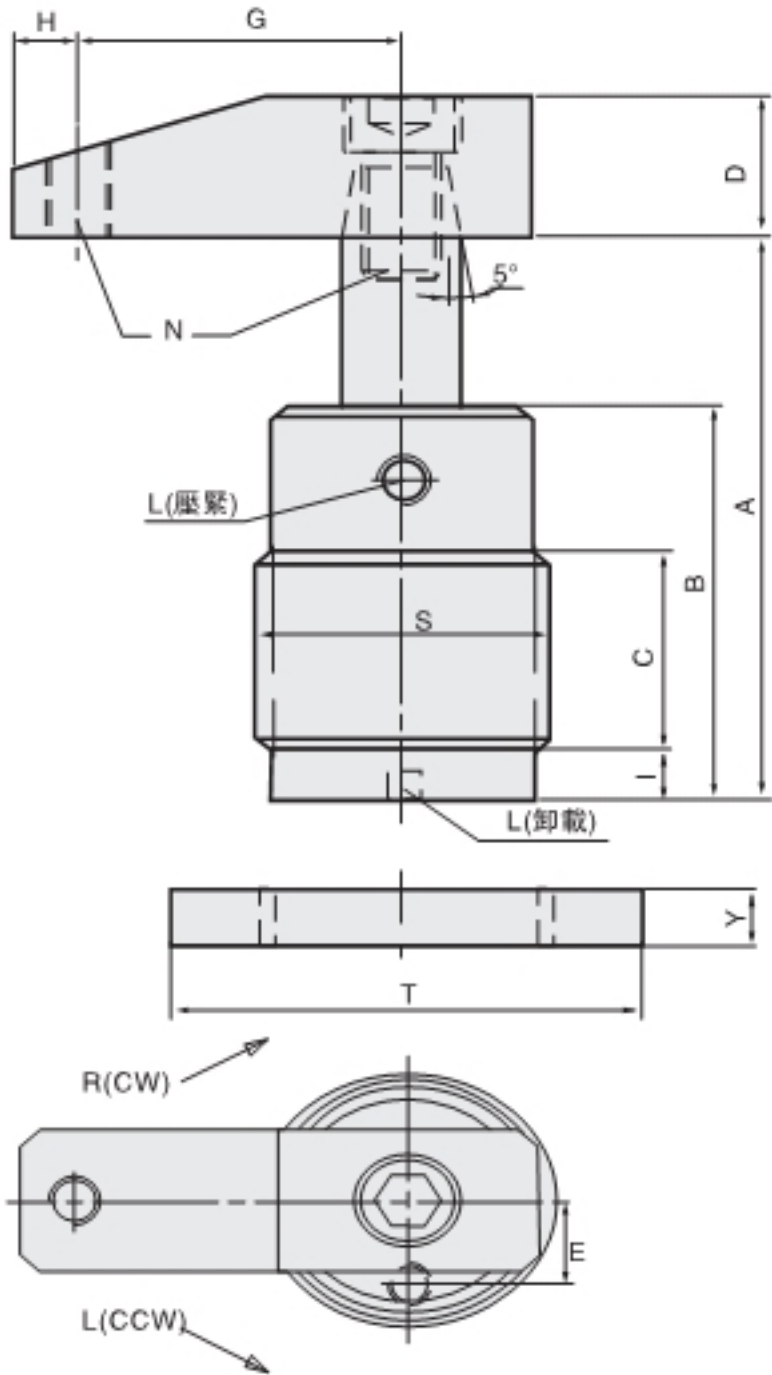
HNSD 法蘭式雙臂

單位/mm

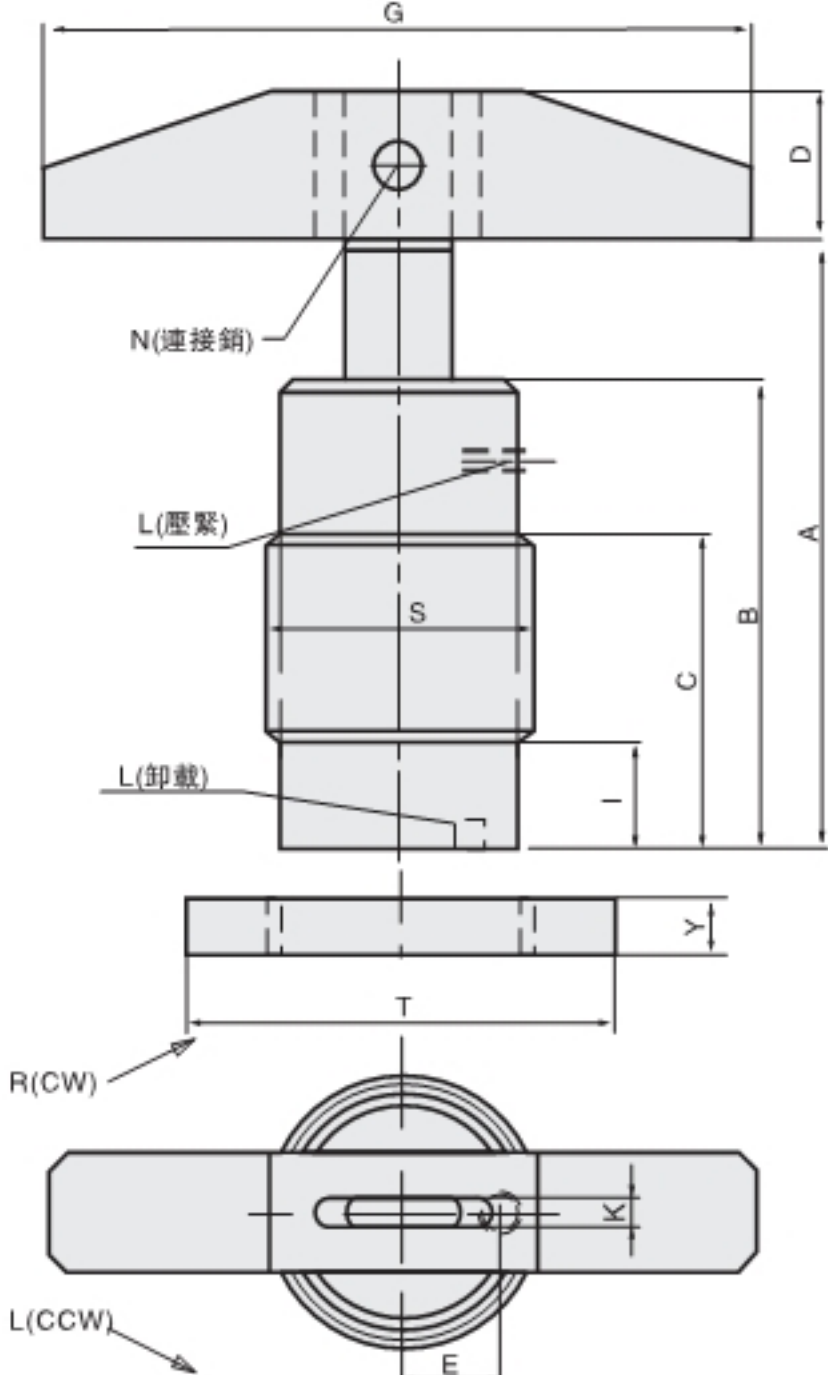
MODEL ITEM	ST	A	B	C	D	G	H	KK	L	N	JJ	P	Q	R	S	M	F
HNS-25	26	100	70	23	25x25	50	10	16.5	PT 1/8	M10*1.5	15	40	50	Φ6.5	Φ45	18	15
HNS-32	29	111	76	25	25x25	55	10	16.5	PT 1/8	M10*1.5	15.5	44	55	Φ6.5	Φ50	24	17
HNS-40	29	113.6	80	27	25x25	55	10	10	PT 1/8	M10*1.5	18	48	62	Φ8.5	Φ54	26	20
HNS-50	29	114.5	80	27	25x25	55	10	11.5	PT 1/8	M10*1.5	18	57	74	Φ8.5	Φ65	30	25
HNS-63	29	118	85	32	32x32	75	11	13	PT 1/8	M12*1.75	22.5	70	88	Φ10.5	Φ80	40	30

MODEL ITEM	ST	A	B	C	D	G	K	KK	L	N	JJ	P	Q	R	S	M	F
HNSD-25	26	100	70	23	19x19	100	9	16.5	PT 1/8	Φ8	15	40	50	Φ6.5	Φ45	18	15
HNSD-32	29	111	76	25	22x22	120	10	16.5	PT 1/8	Φ8	15.5	44	55	Φ6.5	Φ50	24	17
HNSD-40	29	113.6	80	27	22x22	120	10	10	PT 1/8	Φ8	18	48	62	Φ8.5	Φ54	26	20
HNSD-50	29	114.5	80	27	22x22	120	10	11.5	PT 1/8	Φ8	18	57	74	Φ8.5	Φ65	30	25
HNSD-63	29	118	85	32	25x25	140	12	13	PT 1/8	Φ10	22.5	70	88	Φ10.5	Φ80	40	30

HNTS、HNTSD外形及尺寸表 DIMENSION TABLE 注：下圖為轉角90°鬆開狀態



HNTS 螺紋式單臂



HNTSD 螺紋式雙臂

MODEL ITEM	ST	A	B	C	D	E	G	H	I	L	N	S	T	Y
HNTS-25	26	100	70	35	25x25	12.5	50	10	9	PT 1/8	M10x1.5	M45x1.5	Φ65	10
HNTS-32	29	111	76	40	25x25	12.5	55	10	10	PT 1/8	M10x1.5	M50x1.5	Φ70	11
HNTS-40	29	113.6	80	45	25x25	15	55	10	11	PT 1/8	M10x1.5	M55x1.5	Φ75	11
HNTS-50	29	114.5	80	45	25x25	16.5	55	10	11	PT 1/8	M10x1.5	M65x1.5	Φ85	12

MODEL ITEM	ST	A	B	C	D	G	H	I	K	L	N	S	T	Y
HNTSD-25	26	100	70	35	19x19	100	---	9	9	PT 1/8	Φ8	M45x1.5	Φ65	10
HNTSD-32	29	111	76	40	22x22	120	---	10	10	PT 1/8	Φ8	M50x1.5	Φ70	11
HNTSD-40	29	113.6	80	45	22x22	120	---	11	10	PT 1/8	Φ8	M55x1.5	Φ75	11
HNTSD-50	29	114.5	80	45	22x22	120	---	11	10	PT 1/8	Φ8	M65x1.5	Φ85	12

產品簡介

- ◆本產品有缸徑從 $\Phi 32$ – $\Phi 63$ 四種，為復動式；標準轉角角度是 90° ，可選擇的角度是 0° ， 45° ， 60° 。
- ◆氣缸的總行程等于它的轉角行程和壓緊行程的總和。
- ◆壓緊的方法有單臂和雙臂兩種。
- ◆缸體材料採用中碳鋼。
- ◆壓板需增加長度時，請勿大於原長度之1.5倍。



HNU

Introduction of product

- ◆The bore of the cylinder are including $\Phi 32$, $\Phi 40$, $\Phi 50$ and $\Phi 63$. Double acting type.
- The standard rotating angle is 90° and the optional rotating angles are including 0° , 45° and 60° .
- ◆The total stroke is equal to the sum of the swing stroke and the clamping stroke, and is usually used within the clamping stroke.
- ◆The type of clamping are including single side swing clamping and double side swing clamping.
- ◆The material of the cylinder body is medium carbon steel.
- ◆Please don't exceed 1.5 times of the original length, if you need to increase the length of the clamping arm.

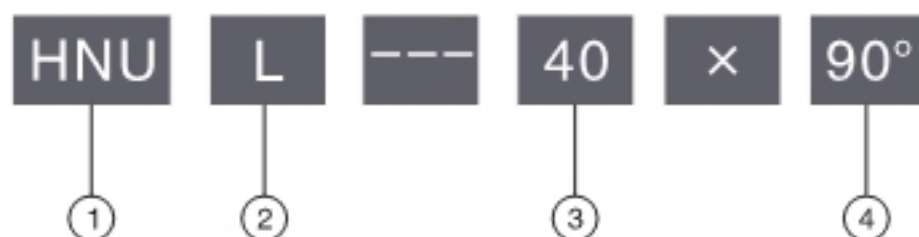
特性資料 Specification

油缸內徑	Bore of cylinder	mm	$\Phi 32$	$\Phi 40$	$\Phi 50$	$\Phi 63$
活塞杆徑	Bore of piston	mm	$\Phi 20$	$\Phi 20$	$\Phi 20$	$\Phi 25$
轉角行程	Swing stroke	mm	14			
垂直行程	Clamping stroke	mm	15			
受壓面積拉入/推出	Pressure area pull/push	cm^2	4.9/8.04	9.43/12.57	16.49/19.63	26.6/31.17
理論夾持力	Theoretical clamping	$25\text{kg}/\text{cm}^2$	125kg	200kg	400kg	600kg
使用流體	Fluid	已濾清之標準液壓油 Filtered oil				
最大耐壓力	Max operation pressure	$70\text{kg}/\text{cm}^2$				
操作壓力範圍	Operation pressure range	$20\text{--}45\text{kg}/\text{cm}^2$				
轉角方向	Rotating direction	順時針右轉R或逆時針左轉L Turn right R or Turn left L				
轉角角度	Rotating angle	標準角度 $90^\circ (\pm 2^\circ)$ 選擇角度 $0^\circ (\pm 2^\circ)$ 、 $45^\circ (\pm 2^\circ)$ 、 $60^\circ (\pm 2^\circ)$ Standard angle $90^\circ (\pm 2^\circ)$, Optional angle $0^\circ (\pm 2^\circ)$, $45^\circ (\pm 2^\circ)$, $60^\circ (\pm 2^\circ)$				
作動方式	Acting type	復動式 Double acting				



HNUD

訂購標示法 Ordering Code

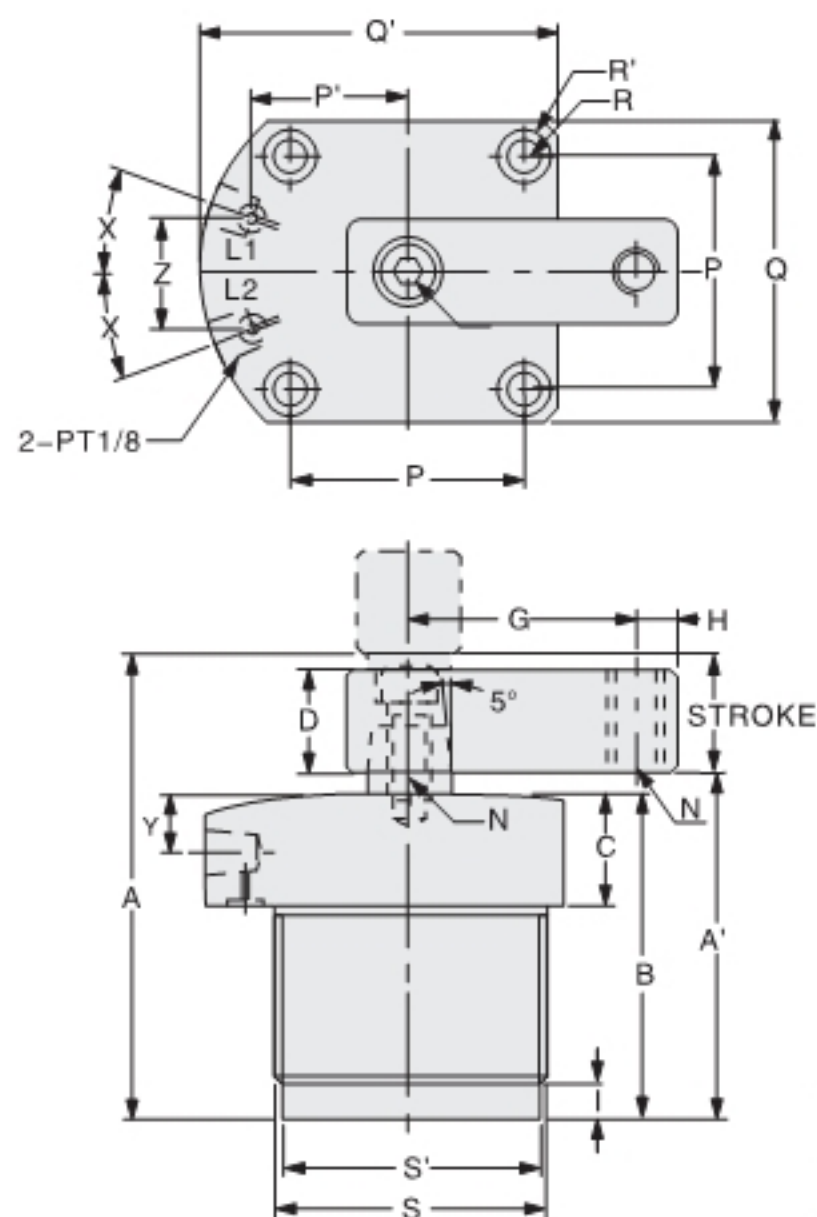


訂購舉例：

1, 需雙臂壓緊。 2, 轉角角度 90° ，右旋。 3, 油缸內徑 $\Phi 50$
正確型號：HNUD R-50x 90°

①	系列號 Series	HNU, HNUD(雙臂)
②	轉角方向 Rotating direction	右轉R或左轉L Turn right R or turn left L
③	油缸內徑 Bore of cylinder	$\Phi 32$, $\Phi 40$, $\Phi 50$, $\Phi 63$
④	轉角角度 Rotating angle	標準角度Standard angle 90° 選擇角度Optional angle 0° , 45° , 60°

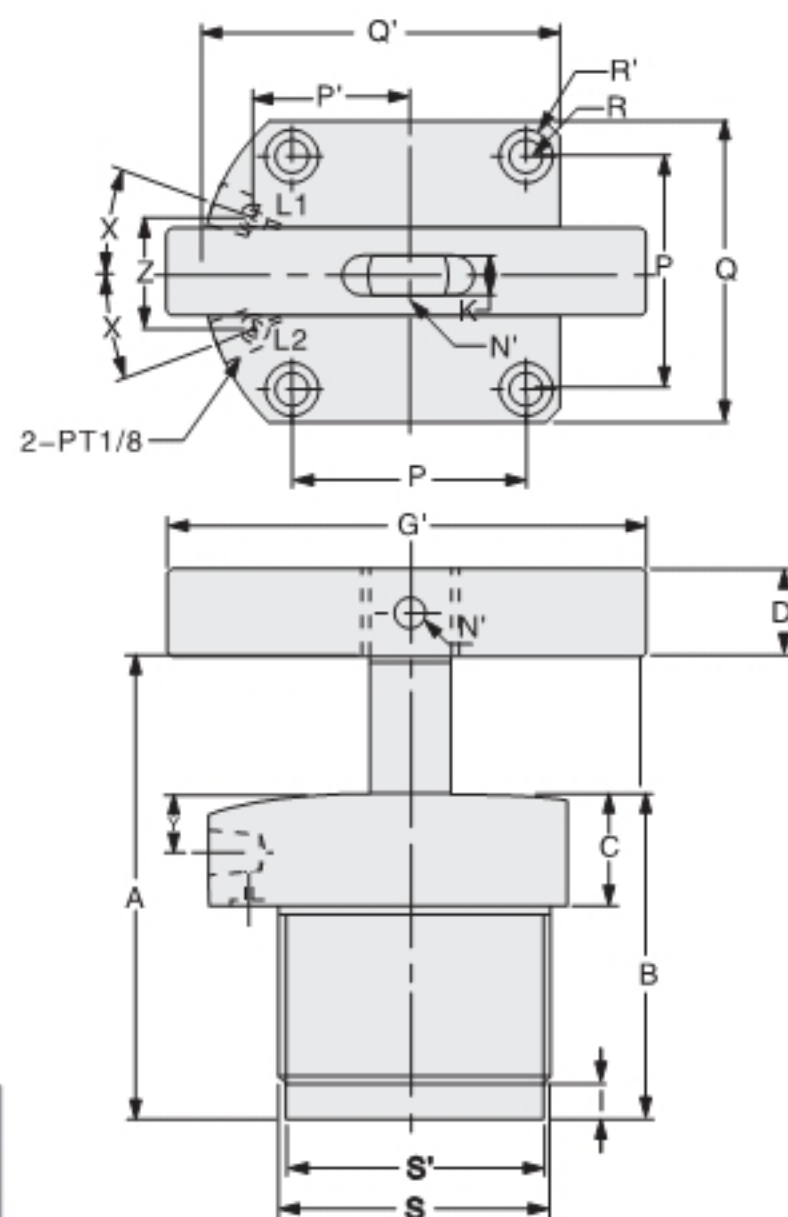
Single side swing clamp



HNU

注：上圖為轉角90°鬆開狀態

Double side swing clamp



HNUD

外形尺寸表 Dimension table

單位 (Unit) : mm

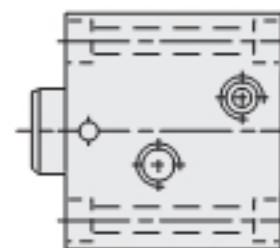
MODEL ITEM	ST	A	A'	B	C	D	G	H	I	N	P/P'	Q/Q'	R/R'	S	S'	X	Y	Z
HNU-32	29	111	82	76	25	25	55	10	9	M10×1.5	44/30	56/69	Φ6.5/Φ10.5	M50×1.5	Φ48	22.5°	12.5	24.9
HNU-40	29	113.6	84.6	80	27	25	55	10	9	M10×1.5	48/31.4	62/71.5	Φ6.5/Φ10.5	M55×1.5	Φ53	22.5°	14	26
HNU-50	29	114.5	85.5	80	27	25	55	10	9	M10×1.5	57/37.6	74/87	Φ8.5/Φ14	M65×1.5	Φ63	20°	14	27.4
HNU-63	29	118	89	85	32	32	75	11	9	M12×1.75	70/46	88/105.5	Φ11/Φ16.5	M80×1.5	Φ77	22.5°	19	38

MODEL ITEM	ST	A	A'	B	C	D'	G'	I	K	N'	P/P'	Q/Q'	R/R'	S	S'	X	Y	Z
HNUD-32	29	111	82	76	25	22	120	9	10	Φ8	44/30	56/69	Φ6.5/Φ10.5	M50×1.5	Φ48	22.5°	12.5	24.9
HNUD-40	29	113.6	84.6	80	27	22	120	9	10	Φ8	48/31.4	62/71.5	Φ6.5/Φ10.5	M55×1.5	Φ53	22.5°	14	26
HNUD-50	29	114.5	85.5	80	27	22	120	9	10	Φ8	57/37.6	74/87	Φ8.5/Φ14	M65×1.5	Φ63	20°	14	27.4
HNUD-63	29	118	89	85	32	25	140	9	12	Φ10	70/46	88/105.5	Φ11/Φ16.5	M80×1.5	Φ77	22.5°	19	38

產品簡介

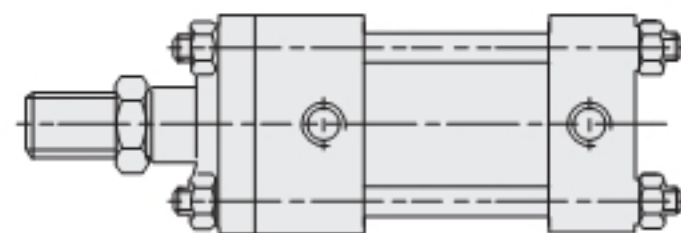
- ◆體積小，節省空間，安裝空間受限制的最佳選擇。
- ◆標準化規格，直接安裝，不需其它配件，降低成本。
- ◆缸體材質採用機械構造用炭素鋼，內壁特殊加工處理，表面光滑，使用壽命長。
- ◆軸向，側向油路板型免配管，提升整體美觀。

傳統油缸與薄型缸總長度之比較
A comparison of length between
the traditional hydraulic cylinder
and thin type cylinder.



Introduction of product

- ◆Compact construction for space saving. Ideal for application in a restricted space.
- ◆Standardized specifications. Direct installation without need of any further accessories for saving cost.
- ◆The cylinder barrel is manufactured from structural carbon steel. Internal surface is specially treated. Smoothness and long service life.
- ◆Axial and side manifold type without upgrading pipe. Beautiful appearance.



特性資料 Specification

安裝型式 Installation type	軸向 Axial	單軸SD;雙軸SW Single end rod SD;Double end rod SW
	側向 Side	單軸LA;雙軸LW Sing end rod LA;Double end rod LW
使用壓力範圍Range of pressure (kg/cm ²)	5~140kg/cm ²	
使用速度範圍 The range of speed	8~100mm/sec	
使用溫度範圍 The range of temperature	-10~+60℃	
使用流體 Fluid	已濾清之標準液壓油 Filtered oil	
作動方式 Acting type	復動式 Double acting	
油缸本體材質 Material of cylinder barrel	碳素鋼 Carbon steel	

理論出力表 Clamping force

F1:推出 Push out

F2:拉入 Pull in



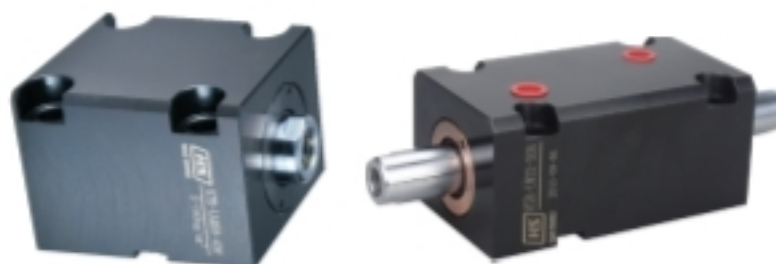
單位 (Unit) :mm

缸體內徑 Bore of cylinder (mm)	活塞杆徑 Bore of piston (mm)	受壓面積 Pressure area(cm ²)		操作壓力 Operation pressure(kg/cm ²)									
				10		35		70		100		140	
		F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
Φ20	Φ12	3.14	2.01	31	20	110	71	220	141	314	201	440	281
Φ25	Φ14	4.91	3.37	49	34	172	118	344	236	491	337	687	472
Φ32	Φ20	8.04	4.9	80	49	281	172	563	343	804	490	1126	686
Φ40	Φ25	12.57	7.66	126	77	440	268	880	536	1257	766	1760	1072
Φ50	Φ30	19.64	12.57	196	126	687	440	1375	880	1964	1257	2750	1760
Φ63	Φ35	31.17	21.55	312	216	1091	754	2182	1509	3117	2155	4364	3017
Φ80	Φ45	50.27	34.37	503	344	1759	1203	3519	2406	5027	3437	7038	4812

SD 軸向安裝型(單軸) $\Phi 20-\Phi 80$
 SD Axial Mounting Type(Single End Rod)



LA 側向安裝型(單軸) $\Phi 32-\Phi 63$
 LA Side Mounting Type(Single End Rod)

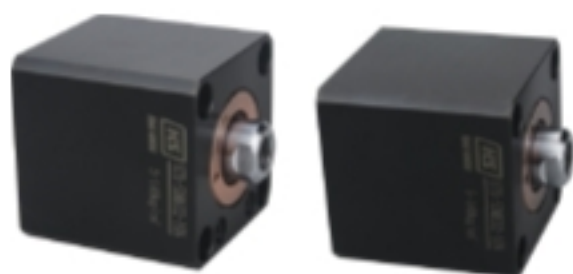


SW 軸向安裝型(雙軸) $\Phi 32-\Phi 80$
 SW Axial Mounting Type(Double End Rod)

LW 側向安裝型(雙軸) $\Phi 32-\Phi 63$
 LW Side Mounting Type(Double End Rod)

SDM-A軸向前油路板型 $\Phi 20-\Phi 80$
 SDM-A Axial Front Manifold Type

LAM側向油路板型(單軸) $\Phi 32-\Phi 63$
 LAM Side Mounting Type(Single End Rod)

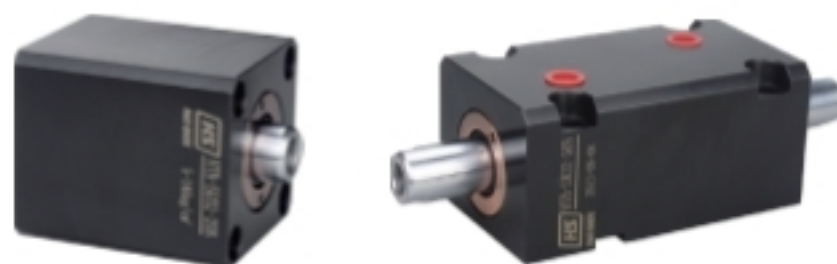


SDM-B軸向後油路板型 $\Phi 20-\Phi 80$
 SDM-B Axial Back Manifold Type

LWM 側向油路板型(雙軸) $\Phi 32-\Phi 63$
 LWM Side Mounting Type(Double End Rod)

HTM 薄型感應油壓缸 $\Phi 32-\Phi 80$
 HTM Magnetic-type hydraulic cylinder

軸端型式接受訂制，訂購時請提供尺寸 $\Phi 20-\Phi 80$
 Rod end type as request



行程規格表 Stroke specifications

TYPE BORE STROKE	SD SDM		SD SDM					SW LA LW				LAM LWM			
	$\Phi 20$	$\Phi 25$	$\Phi 32$	$\Phi 40$	$\Phi 50$	$\Phi 63$	$\Phi 80$	$\Phi 32$	$\Phi 40$	$\Phi 50$	$\Phi 63$	$\Phi 32$	$\Phi 40$	$\Phi 50$	$\Phi 63$
5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
10	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

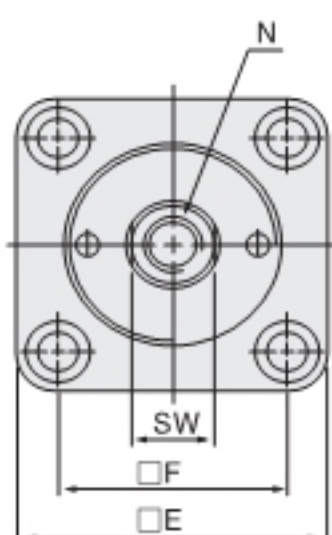
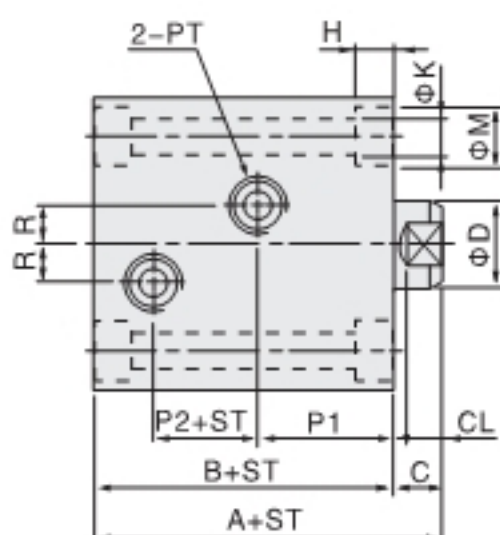
訂購標示法 Ordering Code

HTB - **SD** **32** X **20** **N**

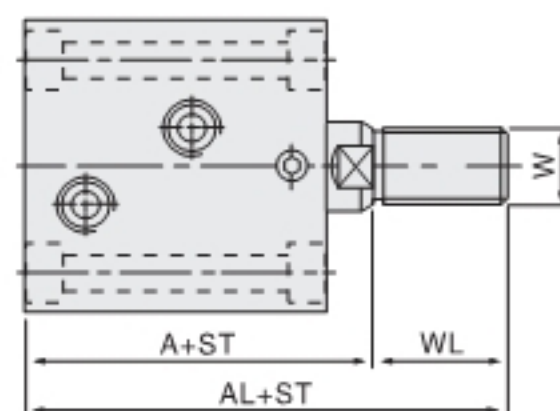
① ② ③ ④ ⑤

①	系列號 Series	HTB	
②	安裝型式 Mounting type	SD	軸向單軸 Single end rod type
		SW	軸向雙軸 Double end rod type
③	缸體內徑 Bore of cylinder	φ 20, φ 25, φ 32, φ 40, φ 50, φ 63, φ 80	
④	准行程 Standard stroke	請參考行程規格表 Please refer to the stroke specification	
⑤	軸端形式 Rod end type	內牙N: Female thread N 外牙W: Male thread W	

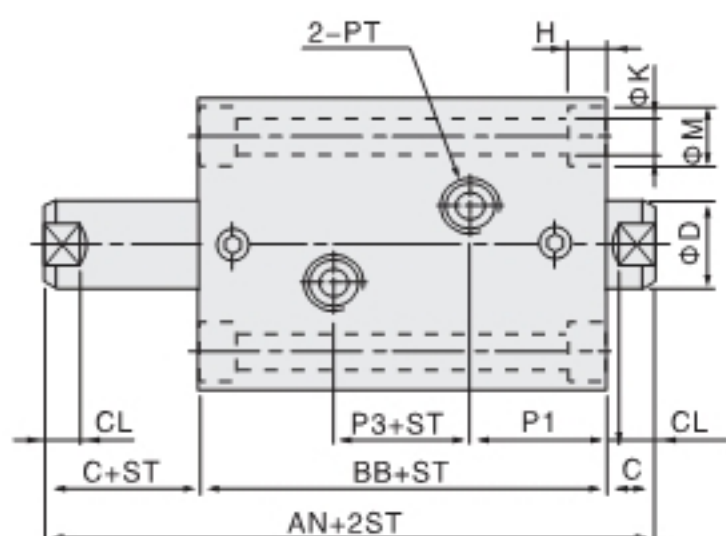
SD-N



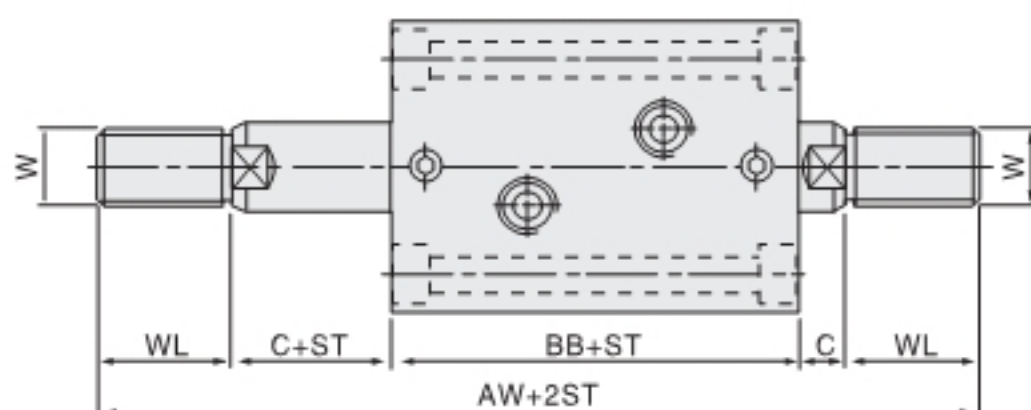
SD-W



SW-N



SW-W



ST=Stroke

外形尺寸表 Dimension table

單位 (Unit) : mm

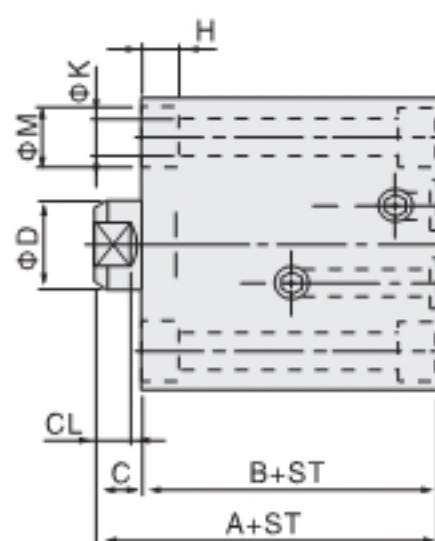
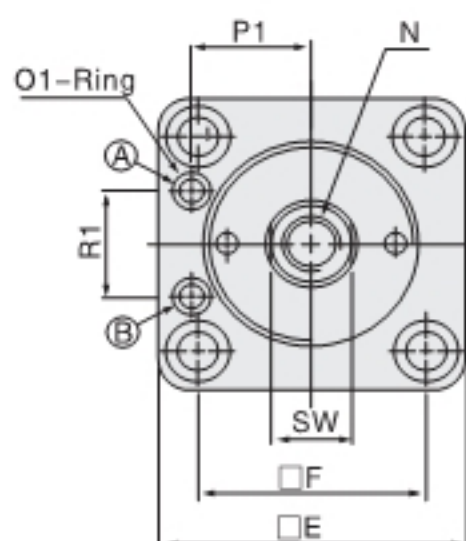
Bore	A	AL	AN	AW	B	BB	C	CL	D	SW	E	F	H	K	M	N	W	WL	P1	P2	P3	R	PT
φ 20	51	71	-	-	43	-	8	6	12	10	42	30	5.5	5.6	9	M8x1.25x12D	M10x1.25	20	22.5	11	-	5	1/8
φ 25	53	75	-	-	45	-	8	6	14	12	48	36	5.5	5.6	9	M10x1.5x15D	M12x1.25	22	23	12	-	5	1/8
φ 32	64	89	89	139	54	69	10	7	20	17	62	47	6.5	6.8	11	M12x1.75x15D	M16x1.5	25	28	14	13	10	1/4
φ 40	65	95	90	150	55	70	10	7	25	22	70	52	9	9	14	M16x2.0x20D	M22x1.5	30	28	15	14	10	1/4
φ 50	71	106	97	167	60	75	11	8	30	27	80	58	11	11	18	M20x2.5x25D	M26x1.5	35	29.5	18	16	10	1/4
φ 63	80	120	108	188	67	82	13	10	35	32	94	69	13	13	20	M27x3.0x35D	M30x1.5	40	31	20	20	10	3/8
φ 80	95	140	127	217	78	93	17	14	45	41	114	86	15	15	22	M30x3.5x35D	M39x1.5	45	33	27	27	15	3/8

訂購標示法 Ordering Code

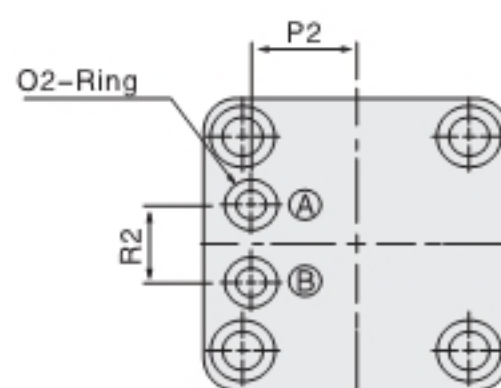
HTB	SDMA	32	×	20	N
①	②	③		④	⑤

①	系列號 Series	HTB	
②	安裝型式 Mounting type	SDMA	軸向前油路板型 Axial front manifold type
		SDMB	軸向後油路板型 Axial back manifold type
③	缸體內徑 Bore of cylinder	Φ20, Φ25, Φ32, Φ40, Φ50, Φ63, Φ80	
④	標準行程 Standard stroke	請參考行程規格表 Please refer to the strike specification	
⑤	軸端形式 Rod end type	內牙N: Female thread N 外牙W: Male thread W	

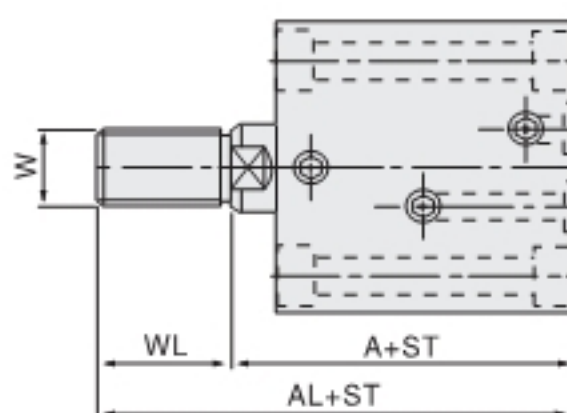
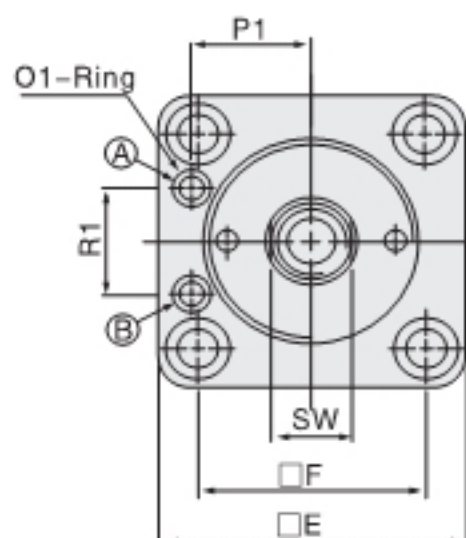
SDMA-N



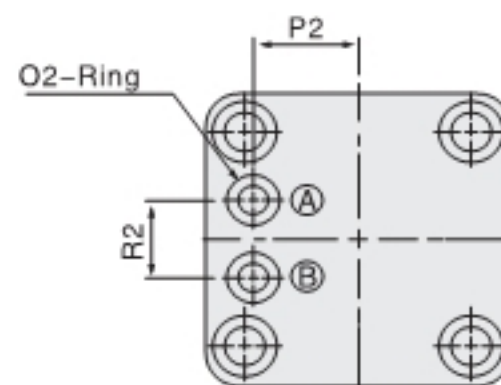
SDMB-N



SDMA-W



SDMB-W



- (A) 推出油孔
 Push out
 (B) 拉入油孔
 Pull in

ST=Stroke

外形尺寸表 Dimension table

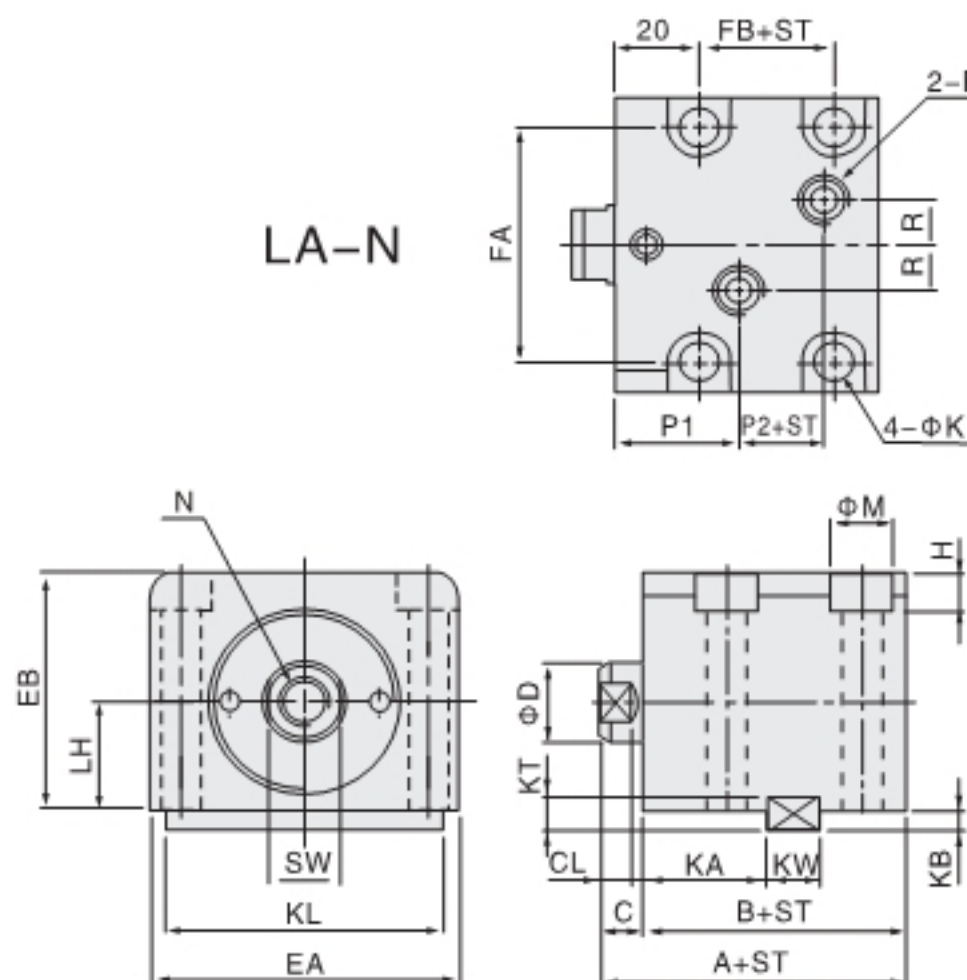
單位 (Unit) : mm

Bore	A	AL	B	C	CL	D	SW	E	F	H	K	M	N	W	WL	SDMA			SDMB		
																P1	R1	O1	P2	R2	O2
Φ20	51	71	43	8	6	12	10	42	30	5.5	5.6	9	M8×1.25×12D.	M10×1.25	20	16.5	13	P3	13	11	P5
Φ25	53	75	45	8	6	14	12	48	36	5.5	5.6	9	M10×1.5×15D.	M12×1.25	22	19.5	18	P4	16	13	P7
Φ32	64	89	54	10	7	20	17	62	47	6.5	6.8	11	M12×1.75×15D.	M16×1.5	25	24	24	P6	20	20	P9
Φ40	65	95	55	10	7	25	22	70	52	9	9	14	M16×2.0×20D.	M22×1.5	30	27	26	P6	24	20	P9
Φ50	71	106	60	11	8	30	27	80	58	11	11	18	M20×2.5×25D.	M26×1.5	35	32	27	P6	29	20	P9
Φ63	80	120	67	13	10	35	32	94	69	13	13	20	M27×3.0×35D.	M30×1.5	40	38	35	P8	35	26	P11
Φ80	95	140	78	17	14	45	41	114	86	15	15	22	M30×3.5×35D.	M39×1.5	45	47	45	P11	44	30	P11

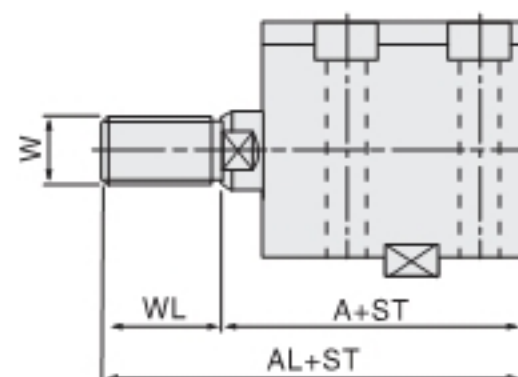
訂購標示法 Ordering Code

HTB	-	LA	32	×	20	N
①		②	③		④	⑤

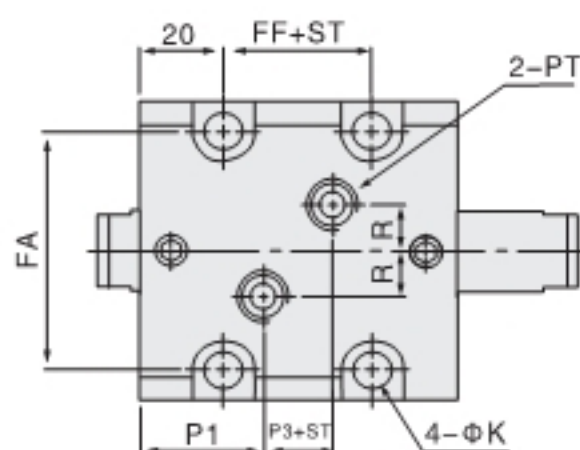
①	系列號 Series	HTB
②	安裝型式 Mounting type	LA 側向單軸 Single end rod type LW 側向雙軸 Double end rod type
③	油缸內徑 Bore of cylinder	Φ32, Φ40, Φ50, Φ63
④	標準行程 Standard stroke	10.20.30.40.50
⑤	軸端型式 Rod end type	內牙N: Female thread N 外牙W: Male thread W



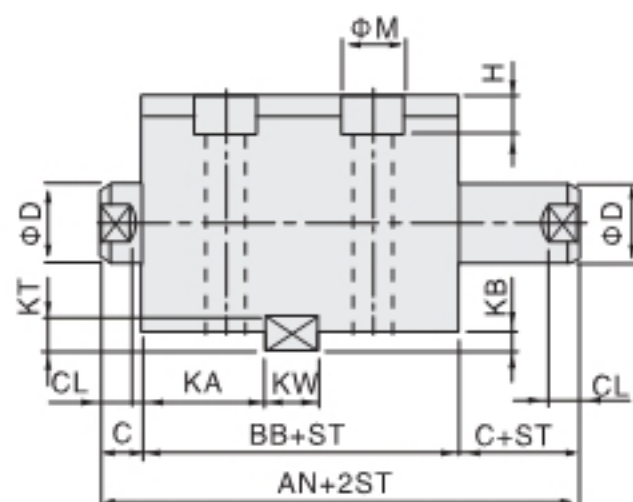
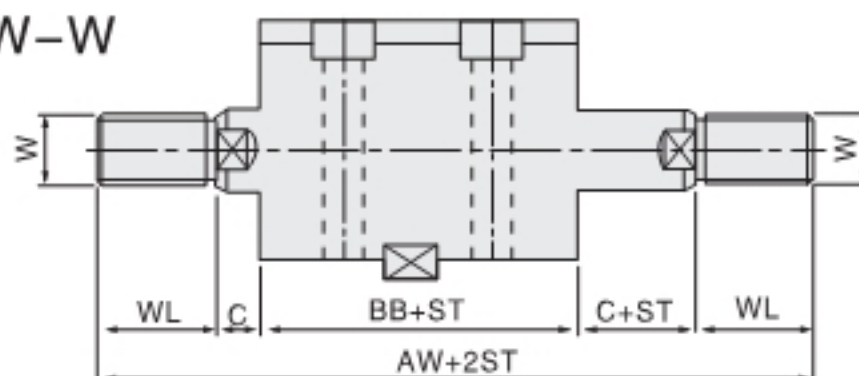
LA-W



LW-N



LW-W



KEY



ST=Stroke

外形尺寸表

Dimension table 單位 (Unit) : mm

Bore	KW	KT	KL	KA	KB
Φ32	12	8	63	28	4.5
Φ40	12	8	70	28	4.5
Φ50	14	9	80	29	5
Φ63	16	10	100	31	5.5

外形尺寸表 Dimension table

單位 (Unit) : mm

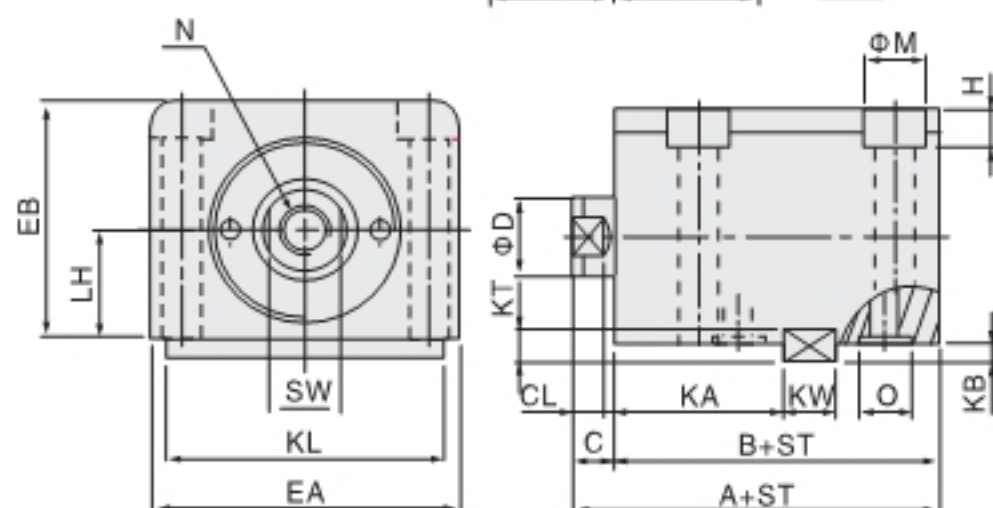
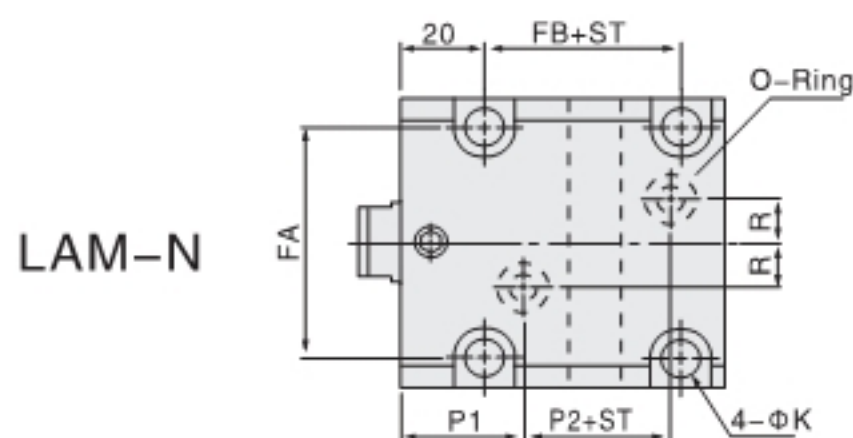
Bore	A	AL	AN	AW	B	BB	C	CL	D	SW	EA	EB	LH	FA	FB	FF	H	K	M	N	W	WL	P1	P2	P3	R	PT
Φ32	64	89	89	139	54	69	10	7	20	17	70	56	25	56	24	32	9	9	14	M12×1.75×15D	M16×1.5	25	28	14	13	10	1/4
Φ40	65	95	90	150	55	70	10	7	25	22	80	64	29	62	23	32	11	11	18	M16×2.0×20D	M22×1.5	30	28	15	14	10	1/4
Φ50	71	106	97	167	60	75	11	8	30	27	94	74	34	74	27	35	13	13	20	M20×2.5×25D	M26×1.5	35	29.5	18	16	10	1/4
Φ63	80	120	108	188	67	82	13	10	35	32	114	89	42	90	32	42	15	15	22	M27×3.0×35D	M30×1.5	40	31	20	20	10	3/8

訂購標示法 Ordering Code

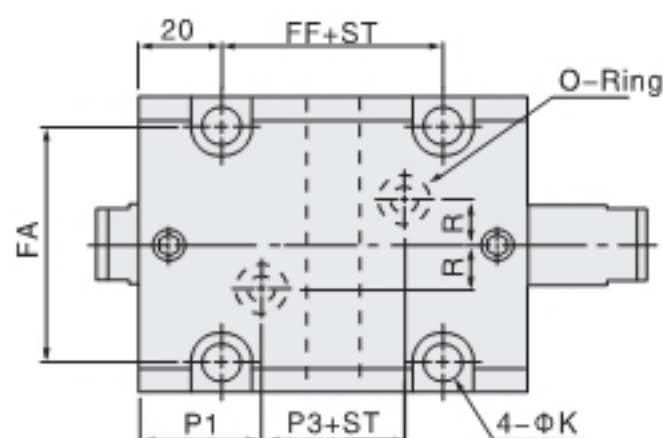
HTB	- LAM	32	×	20	N
①	②	③	④	⑤	

①	系列號 Series	HTB
②	安裝型式 Mounting type	LAM 側向單軸 Single end rod type LWM 側向雙軸 Double end rod type
③	油缸內徑 Bore of cylinder	Φ32, Φ40, Φ50, Φ63
④	標準行程 Standard stroke	10, 20, 30, 40, 50
⑤	軸端型式 Rod end type	內牙N: Female thread N 外牙W: Male thread W

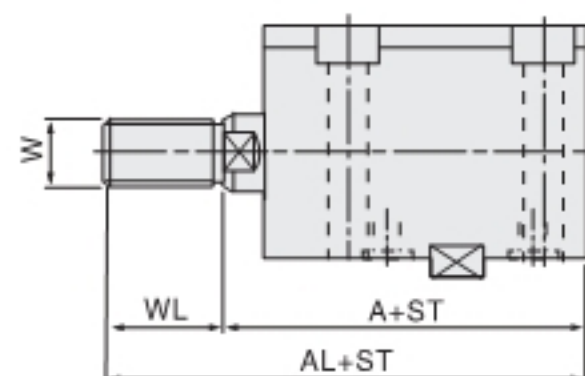
注：行程10mm無附鍵槽及平鍵
Stroke: 10mm without key.



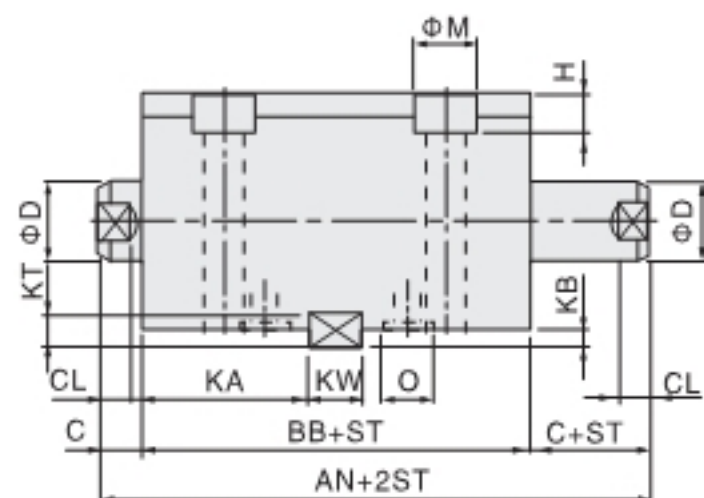
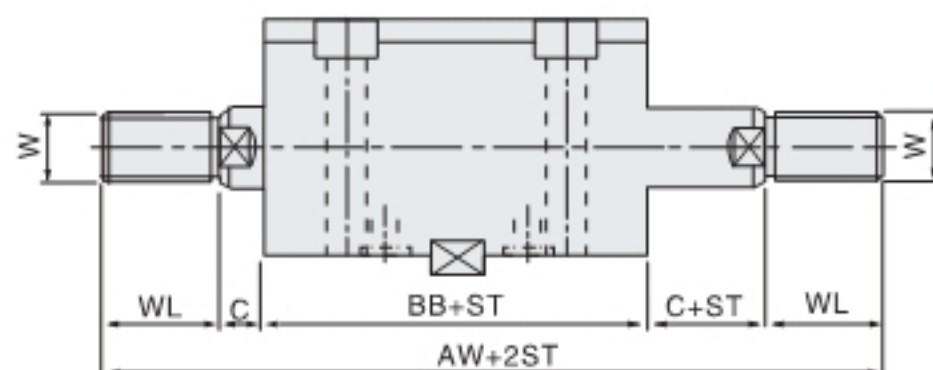
LWM-N



LAM-W



LWM-W



KEY



ST=Stroke

外形尺寸表

Dimension table 單位 (Unit) : mm

Bore	KW	KT	KL	KA	KB
Φ32	12	8	63	38	4.5
Φ40	12	8	70	38	4.5
Φ50	14	9	80	40	5
Φ63	16	10	100	42	5.5

外形尺寸表 Dimension table

單位 (Unit) : mm

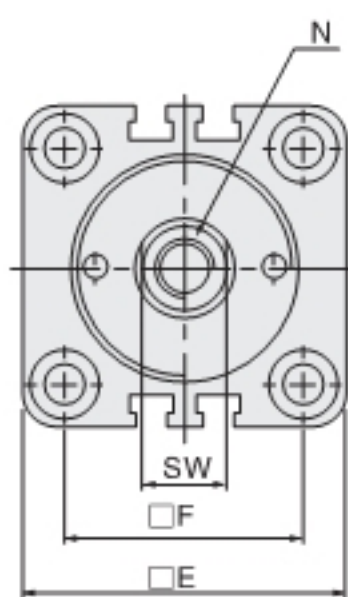
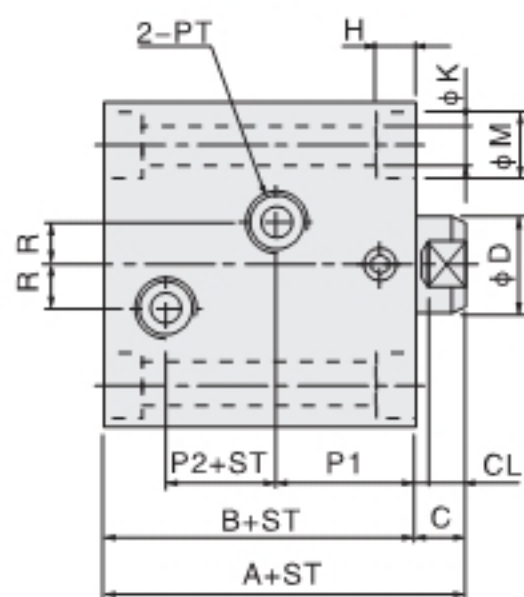
Bore	A	AL	AN	AW	B	BB	C	CL	D	SW	EA	EB	LH	FA	FB	FF	H	K	M	N	W	WL	P1	P2	P3	R	O
Φ32	64	89	89	139	54	69	10	7	20	17	70	56	25	56	24	32	9	9	14	M12×1.75×15D	M16×1.5	25	28	14	13	10	P9
Φ40	65	95	90	150	55	70	10	7	25	22	80	64	29	62	23	32	11	11	18	M16×2.0×20D	M22×1.5	30	28	15	14	10	P9
Φ50	71	106	97	167	60	75	11	8	30	27	94	74	34	74	27	35	13	13	20	M20×2.5×25D	M26×1.5	35	29.5	18	16	10	P11
Φ63	80	120	108	188	67	82	13	10	35	32	114	89	42	90	32	42	15	15	22	M27×3.0×35D	M30×1.5	40	31	20	20	10	P11

訂購標示法 Ordering Code

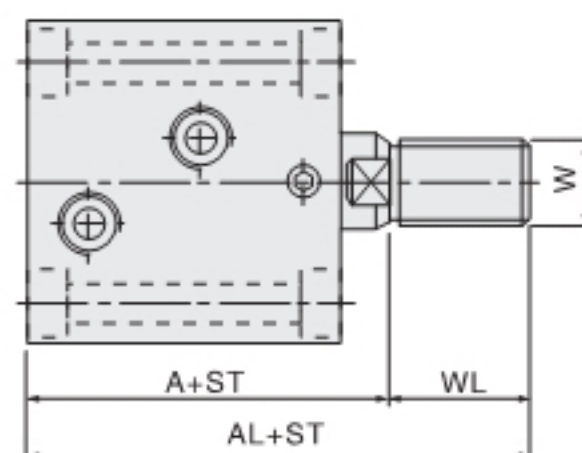
HTM	-	SD	32	x	20	N	-	S1
①		②	③		④	⑤		⑥

①	系列號	HSTM	
②	安裝型式 Mounting type	SD	軸向 單軸 Sing end rod type
		SW	軸向 雙軸 Double end rod type
③	油缸內徑Bore of cylinder	φ 32, φ 40, φ 50, φ 63, φ 80	
④	標準行程 Standard stroke	10, 20, 30, 40, 50	
⑤	軸端型式 Rod end type	內牙:N Female thread N 外牙:W Male thread W	
⑥	近接開關 Sensor swithth	1個pcsS1 2個pcsS2	
		電壓PressureDC4-24V 電流Electricity5-40mA AC4-120V	

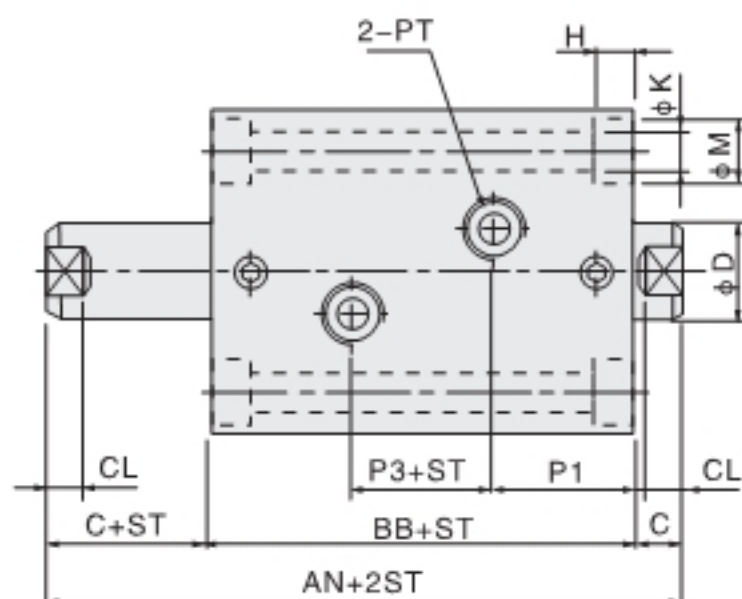
SD-N



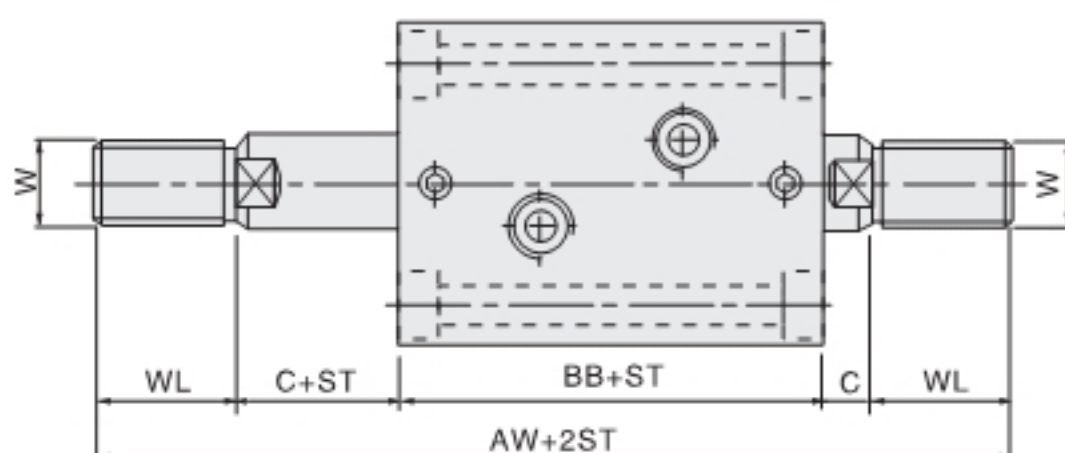
SD-W



SW-N



SW-W



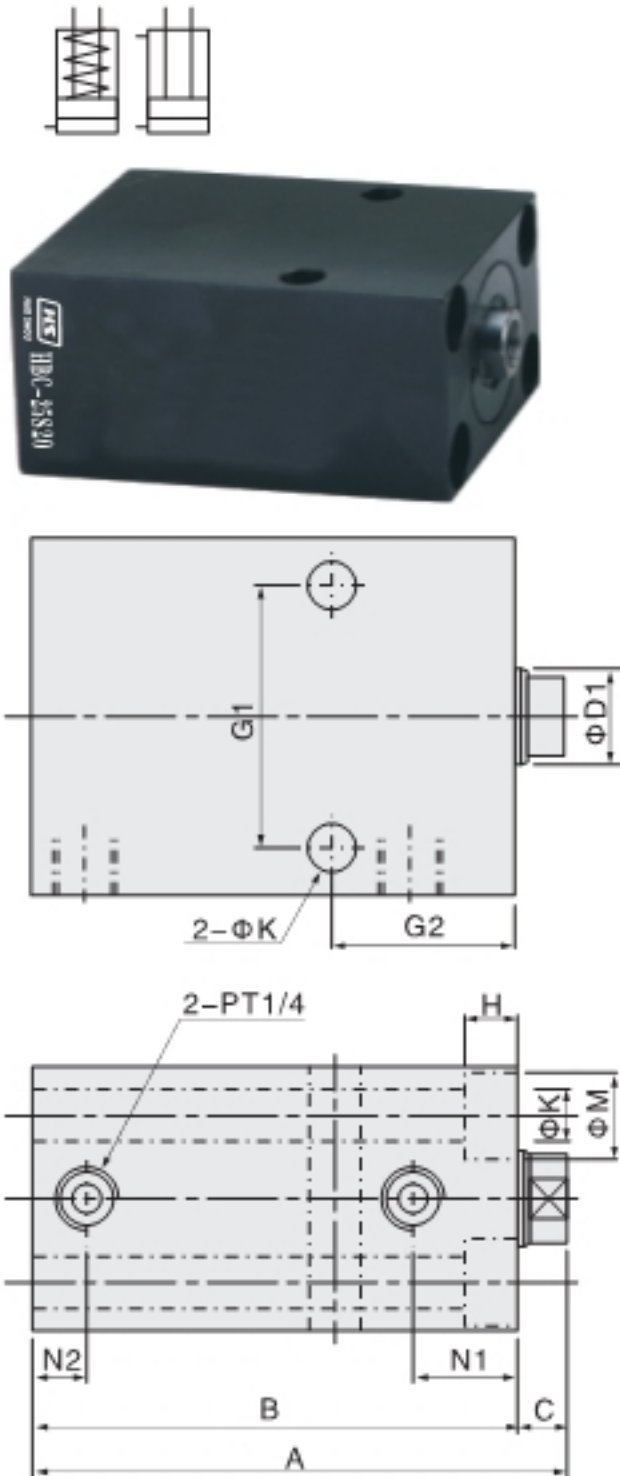
外形尺寸表 Dimension table

單位 (Unit) : mm

Bore	A	AL	AN	AW	B	BB	C	CL	D	SW	E	F	H	K	M	N	W	WL	P1	P2	P3	R	PT
φ 32	83	108	104	154	73	84	10	7	20	17	62	47	6.5	6.8	11	M12×1.75×15D	M16×1.5	25	27	29	30	10	1/4
φ 40	80	110	101	161	70	81	10	7	25	21	70	52	9	9	14	M16×2.0×20D	M20×1.5	30	27	27	27	10	1/4
φ 50	86	121	109	179	75	87	11	8	30	27	80	58	11	11	18	M20×2.5×25D	M24×1.5	35	28	31	31	10	1/4
φ 63	97	142	120	210	84	94	13	10	35	32	94	69	13	13	20	M27×3.0×33D	M30×1.5	45	30	36	34	10	1/4
φ 80	112	167	140	250	95	106	17	14	40	37	114	86	15	15	22	M30×3.5×33D	M36×1.5	55	35	38	36	15	3/8

注：使用壓力≥10Mpa時，缸體需採用不銹鋼材質。

注：操作壓力P：(300<P<500)可訂做



產品簡介

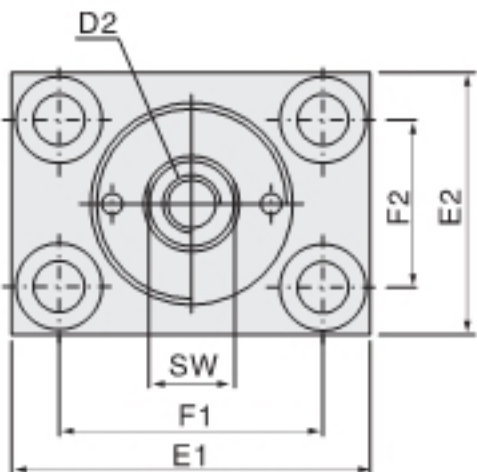
- ◆本系列油壓缸為德規尺寸，采用進口油封保證耐壓，標準化規格，互換性高。
- ◆安裝型式為軸向、側向兩用型，作動方式分為單動常入型與復動式。

Introduction of product

- ◆The series of hydraulic cylinder complies with Germany specifications. Employ imported oil seal for outstanding pressure resistance. Standardized specifications and full interchangeability.
- ◆Axial and side mounting type. Choice of single and double acting.

理論出力表 Clamping force

油缸內徑 Bore of cylinder (mm)	活塞杆徑 Piston-rod (mm)	受壓面積 Pressure area(cm ²)		操作壓力 OPERATION pressure kg/cm ²			
				100		300	
		F1	F2	F1	F2	F1	F2
Φ16	Φ10	2.01	1.22	201	122	603	366
Φ25	Φ16	4.91	2.9	491	290	1473	870
Φ32	Φ20	8.04	4.9	804	490	2412	1470
Φ40	Φ25	12.57	7.66	1257	766	3771	2298



F1: 推出 Pushout
F2: 拉入 Pullin

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訂購標示法 Order Code



外形尺寸表 Dimension table

①	系列號 Series	HBC	
②	油缸內徑 Bore of cylinder	Φ16, Φ25, Φ32, Φ40	
③	作動方式 Acting type	S	單動 Single-acting
		D	雙動 Double-acting
④	標準行程 Standard stroke	請參考尺寸表 Refer to the dimensional table	

Bore	Single acting			Double acting			C	D1	D2	SW	E1	E2	F1	F2	G1	G2	H	K	M	N1	N2
	Stroke	A	B	Stroke	A	B															
Φ16	8	62	56	16	62	56	6	10	M6x1.0 12Deep	8	60	35	40	22	30	30	6.5	6.8	11	16.5	11
	20	97	91	50	97	91															
Φ25	8	71	64	20	71	64	7	16	M10x1.5 15Deep	13	65	45	50	30	50	33	9	9	14	18	11
	20	101	94	50	101	94															
Φ32	10	85	75	25	85	75	10	20	M12x1.75 15Deep	17	75	55	55	35	55	38	11	11	18	22	11
	20	110	100	50	110	100															
Φ40	10	89	79	25	89	79	10	25	M16x2.0 25Deep	22	85	63	63	40	63	40	11	11	18	24	11
	20	114	104	50	114	104															

產品簡介

- ◆此型式油壓缸,夾持機構為杠杆原理,活塞推出為夾緊狀態,夾持力大于轉角缸,主要機構零件安裝開缸體外部,易于維護。
- ◆缸體及夾持機構材料均採用機械構造用碳素鋼,堅固耐用,使用壽命長。
- ◆活塞材質採用45鋼,熱處理,表面鍍鉻。
- ◆壓板需增加長度時,請勿大于原長度之1.5倍。



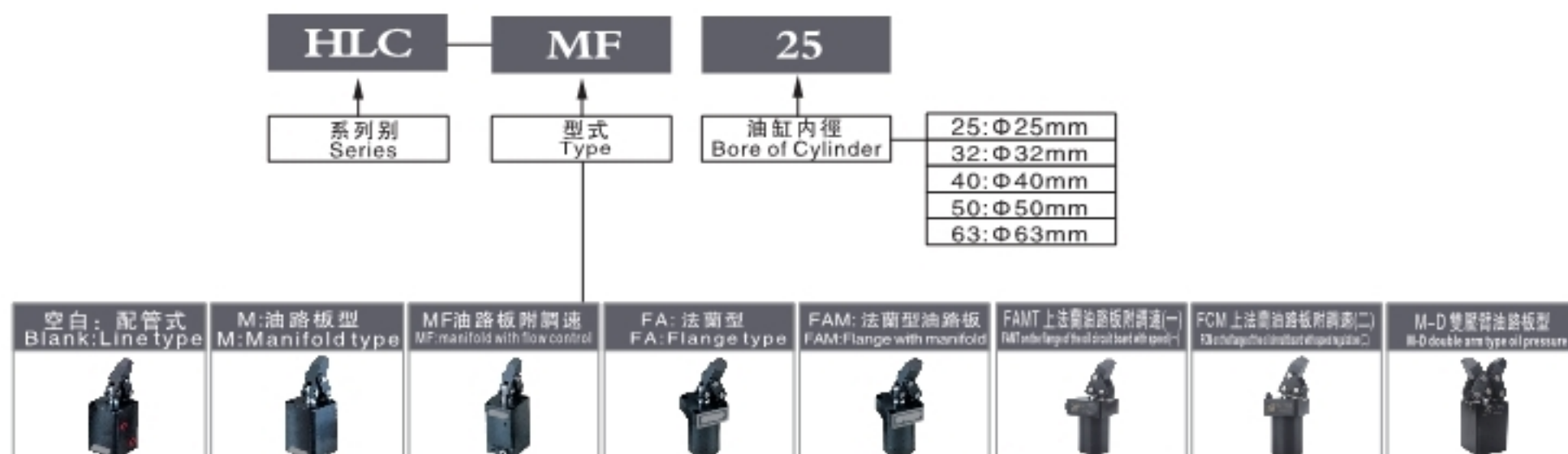
Introduction of product

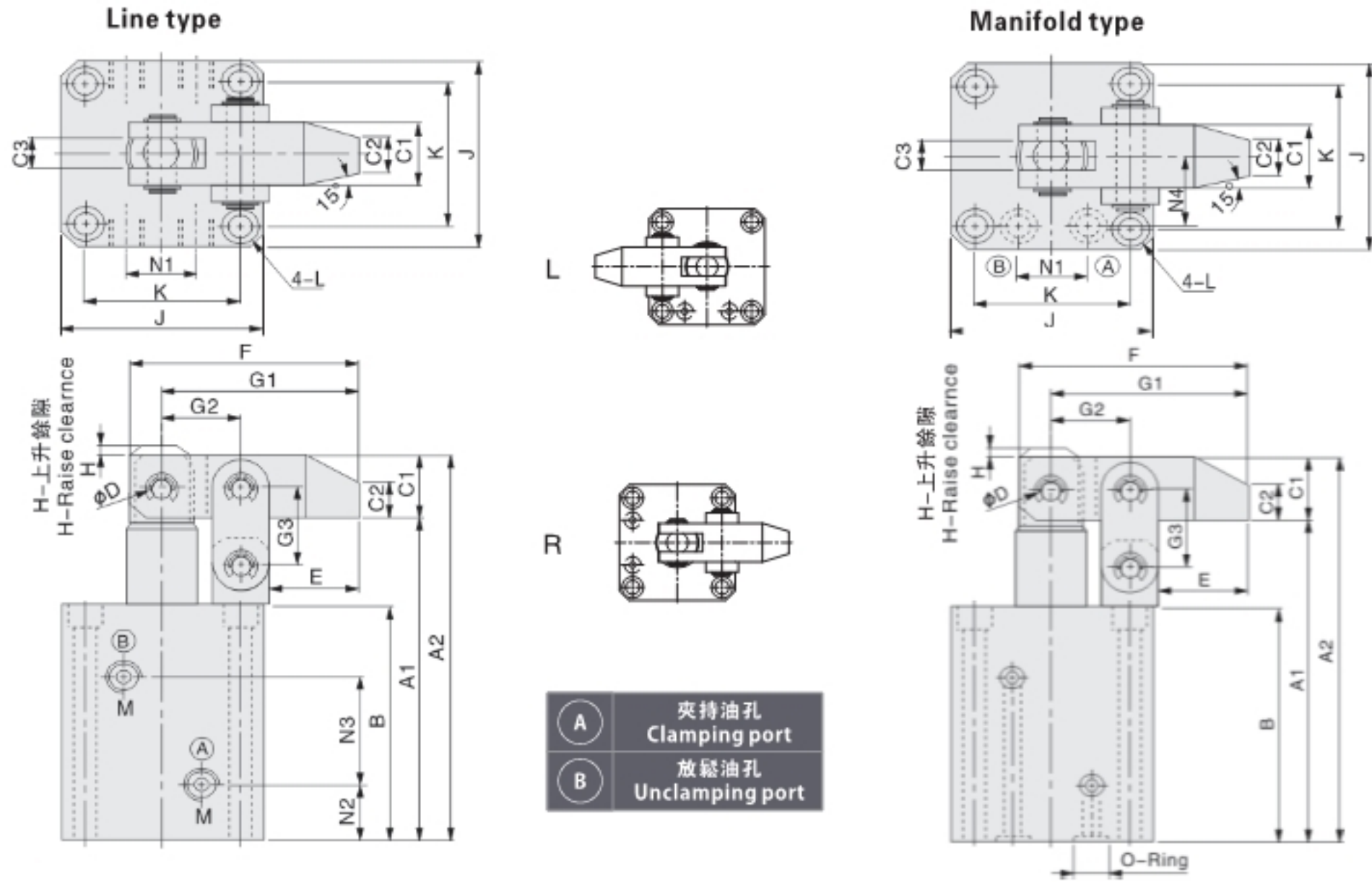
- ◆The clamp structure of this model is based on the lever principle: it will be tightened as piston pushing out. The clamping force is stronger than the swing clamp cylinder's. The parts are installed outside the cylinder barrel for maintaining easily.
- ◆The cylinder barrel and clamp structure are made of carbon steel. It is firm, durable and long-lived to use.
- ◆The material of the piston is 45# steel, heat treatment, chrome plated.
- ◆Please don't exceed 1.5 times of the original length, if you need to increase the length of the clamping arm.

特性資料 Specification

油缸內徑	Bore of cylinder (mm)	φ 25	φ 32	φ 40	φ 50	φ 63
活塞杆徑	Bore of piston (mm)	φ 18	φ 20	φ 22.4	φ 28	φ 35.5
總行程	Clamping stroke (mm)	25	25	30	34	40
受壓面積推出	Pressure area push cm ²	4.91	8.04	12.57	19.63	31.17
理論夾持力	Theoretical clamping 30kg/cm ²	116kg	190kg	288kg	453kg	701kg
使用流體	Fluid	已濾清之標準液壓油Filtered oil				
最大耐壓力	Max operation pressure	70kg/cm ²				
使用壓力範圍	Range of pressure (kg/cm ²)	10-50kg/cm ²				
作動方式	Acting type	復動式Double acting				

訂購標示法 Ordering Code

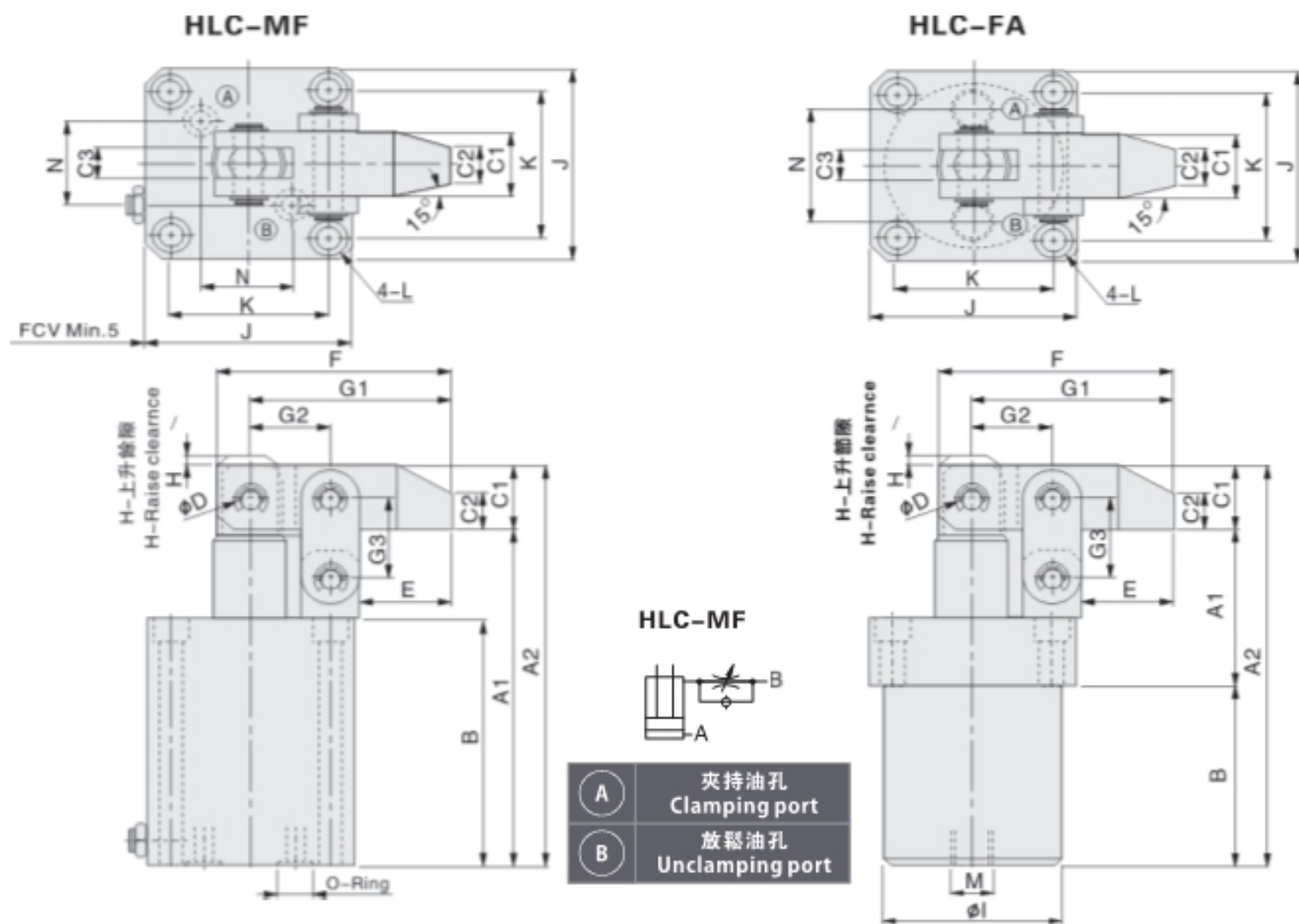




外形尺寸表 Dimension table

單位 (Unit) : mm

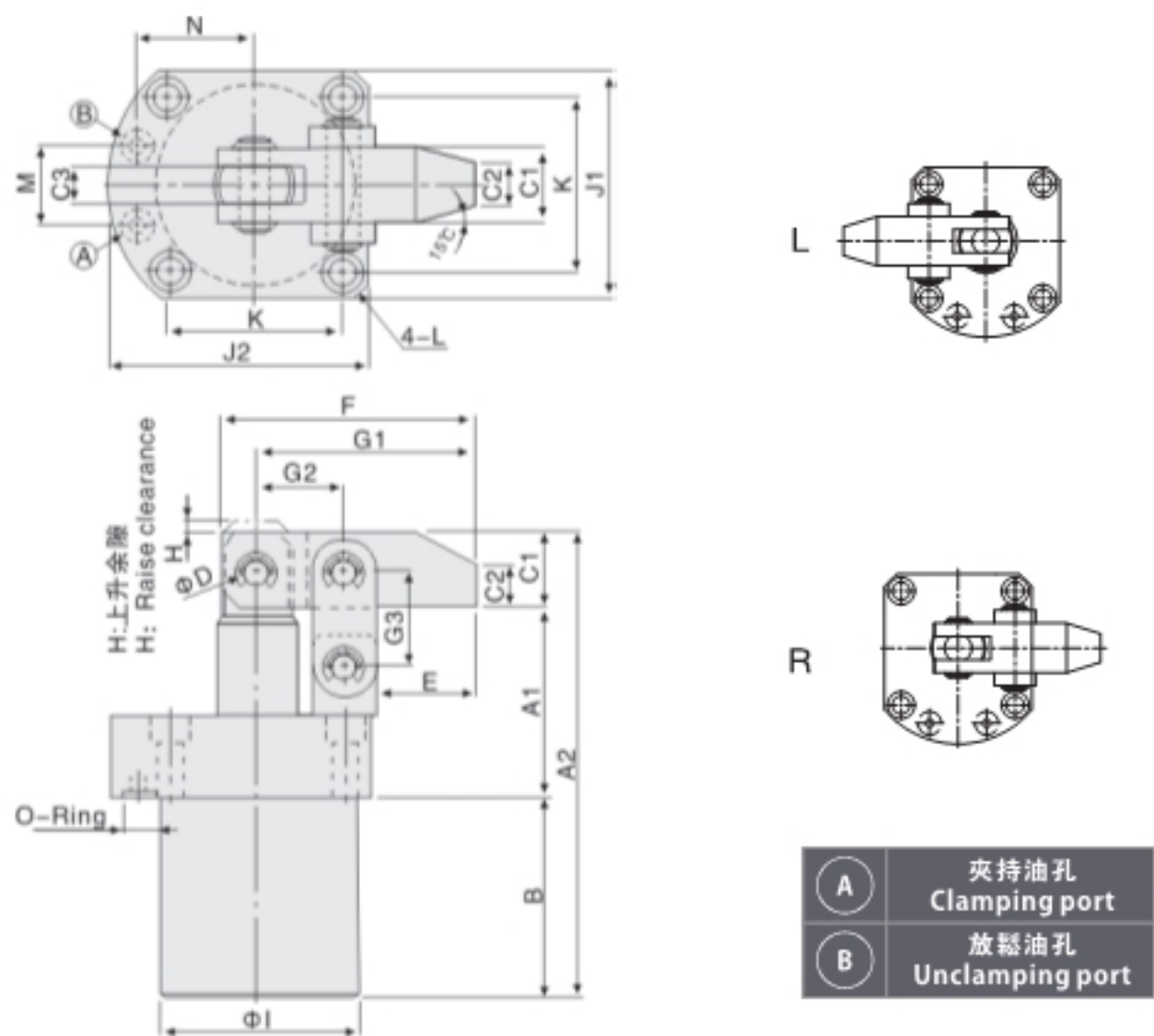
MODEL	HLC-25 HLC-M25	HLC-32 HLC-M32	HLC-40 HLC-M40	HLC-50 HLC-M50	HLC-63 HLC-M63
ITEM					
A1	103	112	122	137	155
A2	122	131	144	162	187
B	76	85	90	100	111
C1	□19	□19	□22	□25	□32
C2	11	11	13	15	19
C3	9	9	10	11	15
ΦD	Φ8	Φ8	Φ10	Φ12	Φ15
E	25	25	30	35.5	43
F	64	64	77	90	110
G1	55	55	66	77	94
G2	22	22	26	30	36
G3	24	24	29	33	39
H	3	3	4	4	4
J	55	57	69	75	96
K	42	44	52	58	75
L	Φ6.8-Φ10.5×6.5D.	Φ6.8-Φ10.5×6.5D.	Φ9-Φ14×9D.	Φ9-Φ14×9D.	Φ11-Φ18×11D.
M	PT1/8	PT1/8	PT1/4	PT1/4	PT1/4
N1	18	22	26	32	38
N2	17	19	19	21.5	22
N3	33	38	40	45	52
N4	20	22	26	29	38
O-Ring	P7	P7	P8	P8	P9



外形尺寸表 Dimension table

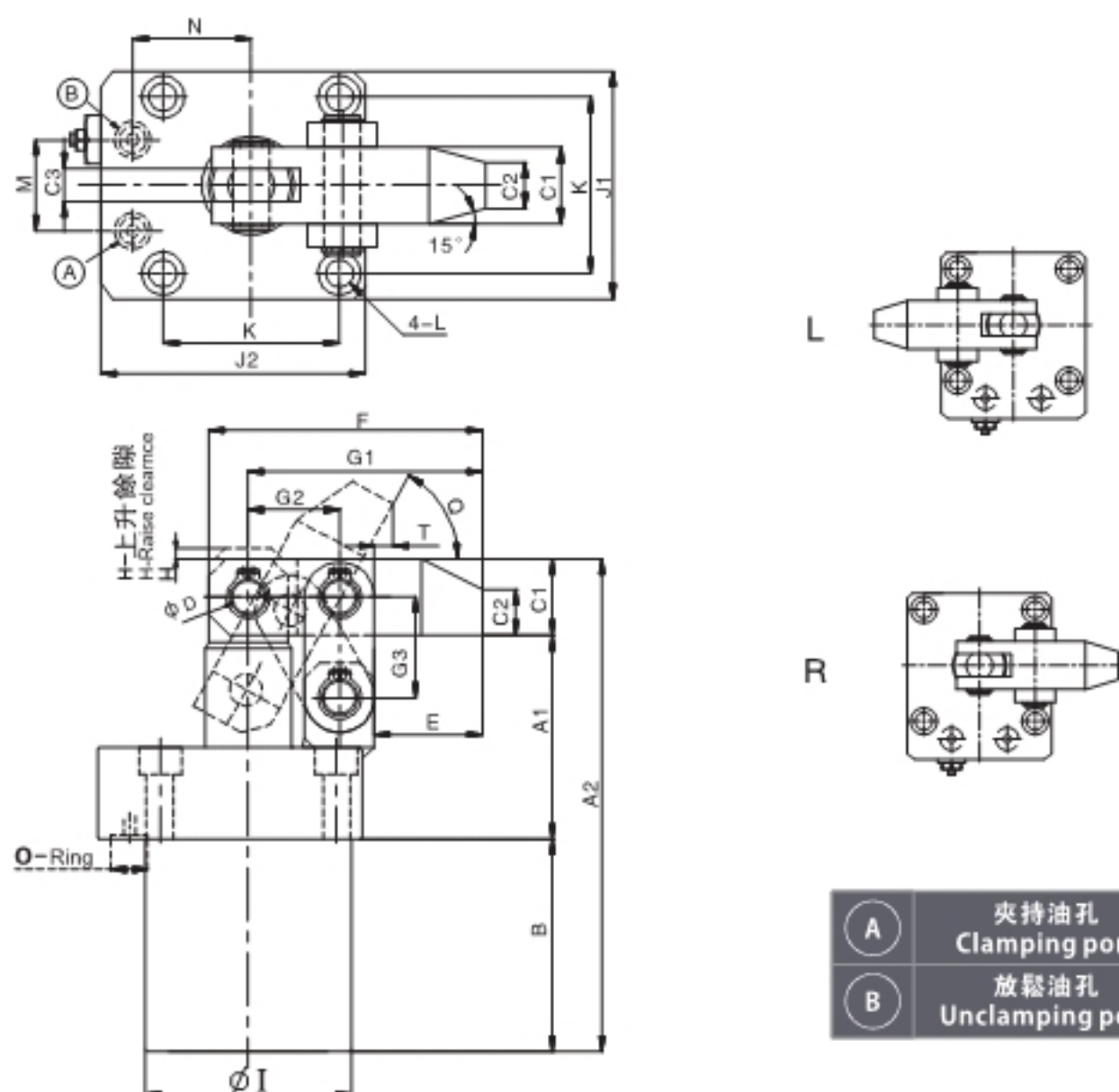
單位 (Unit) : mm

MODEL ITEM	HLC-MF25	HLC-MF32	HLC-MF40	HLC-MF50	HLC-MF63	HLC-FA25	HLC-FA32	HLC-FA40	HLC-FA50	HLC-FA63
A1	112	115	130	145	163	49	52	57	67	74
A2	131	134	152	170	195	131	134	152	170	196
B	85	88	98	108	119	63	63	73	78	90
C1	□19	□19	□22	□25	□32	□19	□19	□22	□25	□32
C2	11	11	13	15	19	11	11	13	15	19
C3	9	9	10	11	15	9	9	10	11	15
ΦD	Φ8	Φ8	Φ10	Φ12	Φ15	Φ8	Φ8	Φ10	Φ12	Φ15
E	25	25	30	35.5	43	25	25	30	35.5	43
F	64	64	77	90	110	64	64	77	90	110
G1	55	55	66	77	94	55	55	66	77	94
G2	22	22	26	30	36	22	22	26	30	36
G3	24	24	29	33	39	24	24	29	33	39
H	3	3	4	4	4	3	3	4	4	4
ΦI	—	—	—	—	—	Φ45	Φ50	Φ58	Φ68	Φ81
J	55	57	69	75	96	55	57	69	75	98
K	42	44	52	58	75	42	44	52	58	75
L	Φ6.8-Φ10.5X6.5D.		Φ9-Φ14X9D.		Φ11-Φ18x11D.	Φ6.8-Φ10.5X6.5D.		Φ9-Φ14X9D.		Φ11-Φ18x11D.
M	—	—	—	—	—	PT1/4	PT1/4	PT1/4	PT1/4	PT1/4
N	19	21	23	28	35	25	32	40	50	63
O-Ring	P7	P7	P9	P9	P9	—	—	—	—	—



尺寸規格表

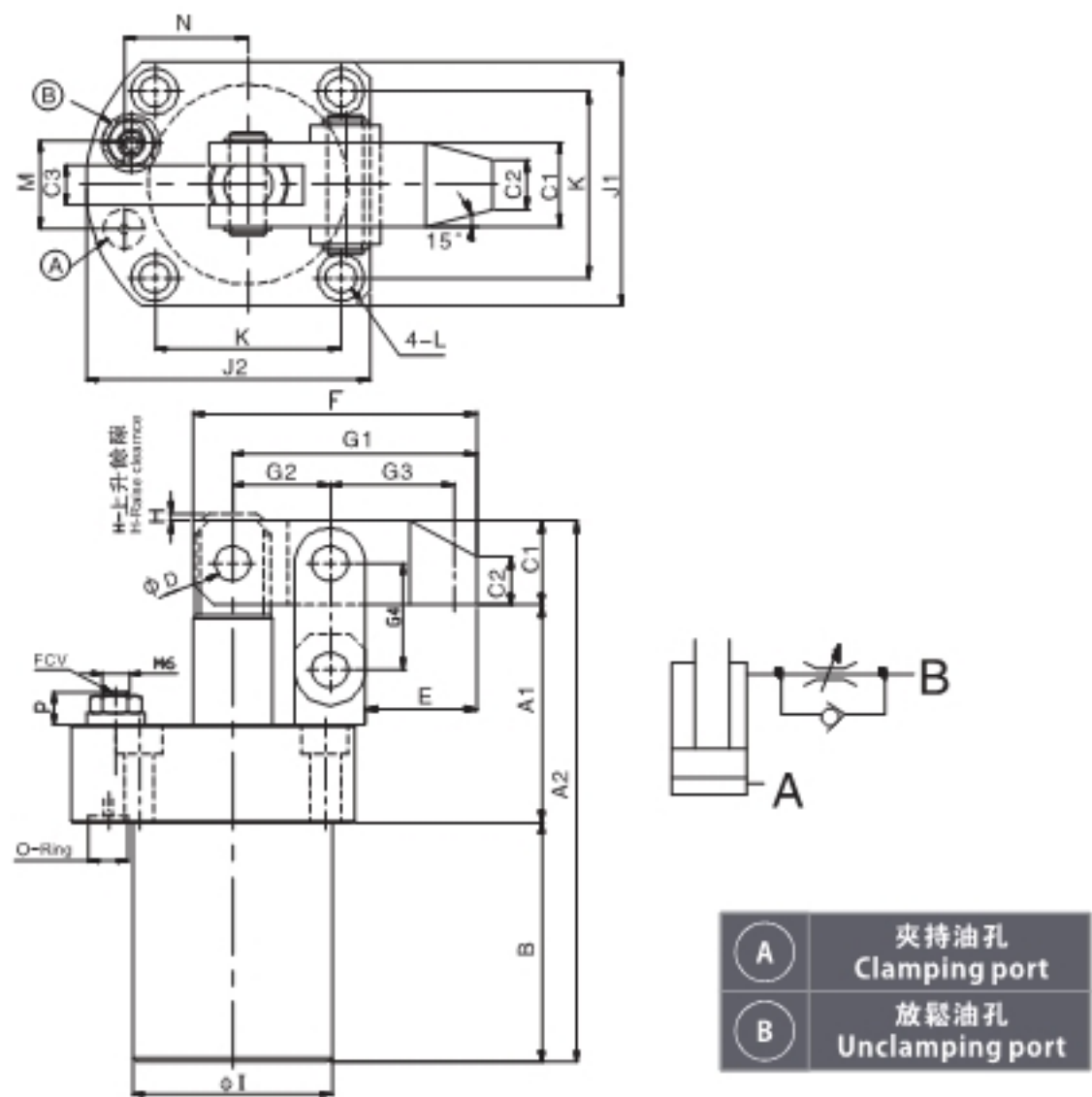
ITEM	MODEL	HLC-FAM25	HLC-FAM32	HLC-FAM40	HLC-FAM50	HLC-FAM63
A1		49	52	57	67	74
A2		122	131	144	162	187
B		54	60	65	70	81
C1		□19	□19	□22	□25	□32
C2		11	11	13	15	19
C3		9	9	10	11	15
ΦD		Φ8	Φ8	Φ10	Φ12	Φ15
E		25	25	30	35.5	43
F		64	64	77	90	110
G1		55	55	66	77	94
G2		22	22	26	30	36
G3		24	24	29	33	39
H		3	3	4	4	4
ΦI		Φ45	Φ50	Φ58	Φ68	Φ81
J1		55	57	69	75	98
J2		64	65.5	79	87	114
K		42	44	52	58	75
L		Φ6.8-Φ10.5×6.5D.	Φ6.8-Φ10.5×6.5D.	Φ9-Φ14×9D.	Φ9-Φ14×9D.	Φ11-Φ18×11D.
M		20	22	25	30	40
N		28	29	34.5	39	49.5
O-Ring		P6	P6	P9	P9	P9



外形尺寸表 Dimension table

單位 (Unit) : mm

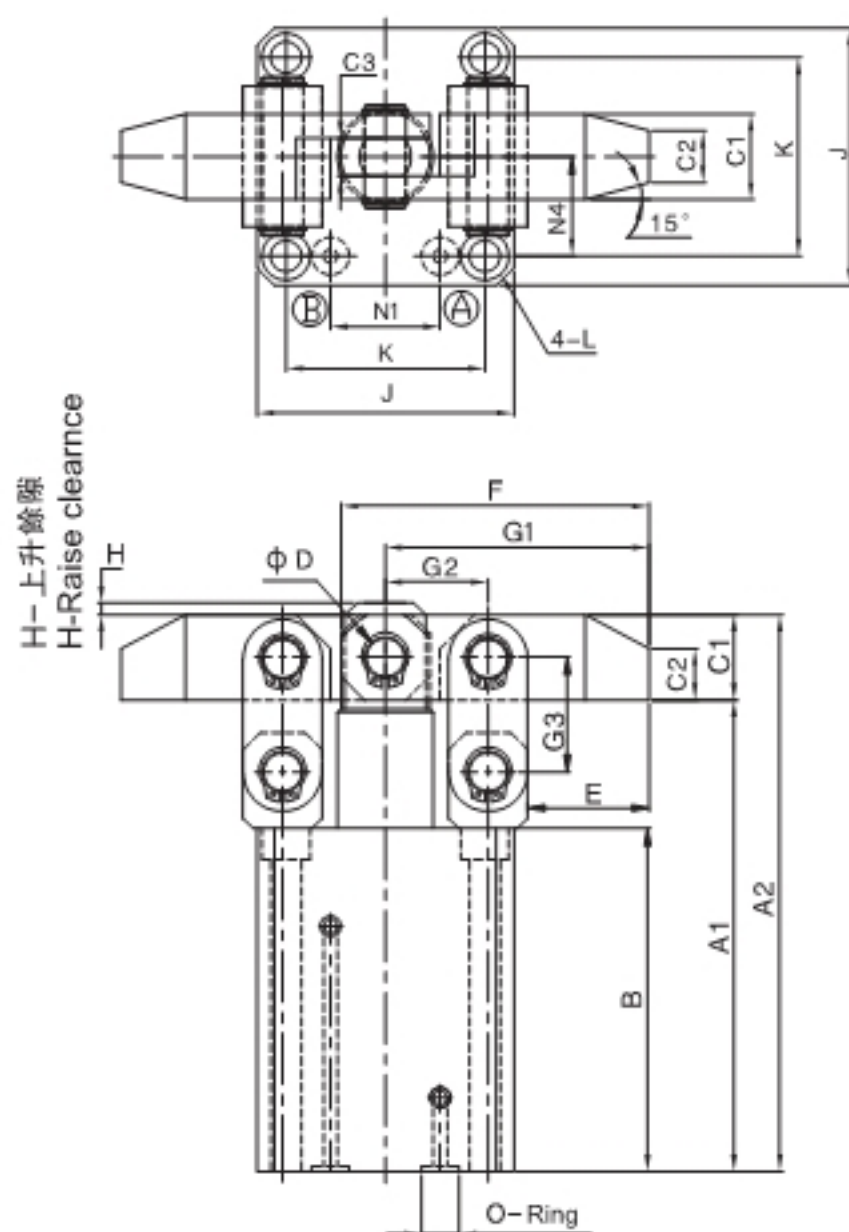
ITEM	MODEL	HLC-FAMT25	HLC-FAMT32	HLC-FAMT40	HLC-FAMT50	HLC-FAMT63
A1		49	52	57	67	74
A2		122	131	144	162	187
B		54	60	65	70	81
C1		□19	□19	□22	□25	□32
C2		11	11	13	15	19
C3		9	9	10	11	15
φD		φ8	φ8	φ10	φ12	φ15
E		25	25	30	35.5	43
F		64	64	77	90	110
G1		55	55	66	77	94
G2		22	22	26	30	36
G3		24	24	29	33	39
H		3	3	4	4	4
φI		φ45	φ50	φ58	φ68	φ81
J1		55	57	69	75	98
J2		64	65.5	79	87	114
K		42	44	52	58	75
L		φ6.8-φ10.5x6.5D.	φ6.8-φ10.5x6.5D.	φ9-φ13.5x9D.	φ9-φ13.5x9D.	φ11-φ18x11D.
M		20	22	25	30	40
N		28	29	34.5	39	49.5
O-Ring		P6	P6	P9	P9	P9
Q		61°	61°	61°	61°	61°
T		4	5	5.5	7.5	9



外形尺寸表 Dimension table

單位 (Unit) :mm

ITEM	MODEL	HLC-FCM25	HLC-FCM32	HLC-FCM40	HLC-FCM50	HLC-FCM63
A1		49	52	57	67	77
A2		122	131	144	162	187
B		54	60	65	70	81
C1		□19	□19	□22	□25	□32
C2		11	11	13	15	19
C3		9	9	10	11	15
φ D		8	8	10	12	15
E		25	25	30	35.5	43
F		64	64	77	90	110
G1		55	55	66	77	94
G2		22	22	26	30	36
G3		28	28	34	39	48
G4		24	24	29	33	39
H		3	3	4	4	4
φ I		45	50	58	68	81
J1		55	57	69	75	96
J2		64	65.5	79	87	112
K		42	44	52	58	75
L		φ 6.8- φ 10.5x6.5D.	φ 6.8- φ 10.5x6.5D.	φ 9- φ 14x9D.	φ 9- φ 14x9D.	φ 11- φ 17x9D.
M		20	22	26	30	40
N		28	29	34.5	39	50
O-Ring		P6	P6	P9	p9	P9
P min		7	4.5	4.5	4	4
P max		9.9	7.8	7.8	7.3	7.3



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

外形尺寸表 Dimension table

單位 (Unit) : mm

ITEM	MODEL	HLC-M25D	HLC-M32D	HLC-M40D	HLC-M50D	HLC-M63D
A1		103	112	122	137	155
A2		122	131	144	162	187
B		76	85	90	100	111
C1		□19	□19	□22	□25	□32
C2		11	11	13	15	19
C3		9	9	10	11	15
φD		φ8	φ8	φ10	φ12	φ15
E		25	25	30	35.5	43
F		64	64	77	90	110
G1		55	55	66	77	94
G2		22	22	26	30	36
G3		24	24	29	33	39
H		3	3	4	4	4
J		55	57	69	75	96
K		42	44	52	58	75
L		φ6.8-φ10.5x6.5D	φ6.8-φ10.5x6.5D	φ9-φ14x9D	φ9-φ14x9D	φ11-φ18x11D
N1		18	22	26	32	38
N2		17	19	19	21.5	22
N3		33	38	40	45	52
N4		20	22	26	29	38
O-Ring		P7	P7	P8	P8	P9



產品簡介

- ◆此系列產品有五種可供選擇的缸徑： $\Phi 25$ 、 $\Phi 32$ 、 $\Phi 40$ 、 $\Phi 50$ 、 $\Phi 63$ 。
- ◆本產品使用了高性能的密封圈，避免了油缸的泄漏，且其壽命長。
- ◆應用了杠杆原理，使工件容易夾緊，提高效率。
- ◆壓板需增加長度時，請勿大於原長之1.5倍。
- ◆缸體所用的材質是45鋼，活塞材質是45鋼，熱處理，表面鍍鉻。

Introduction of product

- ◆Five available bore diameter： $\Phi 25$ 、 $\Phi 32$ 、 $\Phi 40$ 、 $\Phi 50$ 、 $\Phi 63$ 。
- ◆Use high-quality seal to avoid leakage and keep long operation
- ◆Lever principle design is applied on this hydraulic cylinder. Clamp work piece easily and improve efficiency
- ◆Please don't exceed 1.5 times of the original length, if you need to increase the length of the clamping arm.
- ◆The material of the cylinder body and the piston is 45# steel, heat treatment, chrome plated.

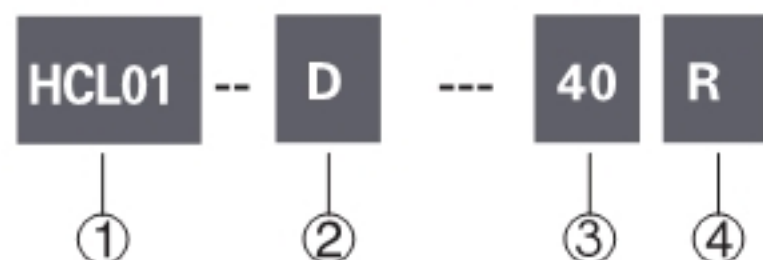
特性資料 Specification

油缸內徑 Bore of cylinder(mm)	$\Phi 25$	$\Phi 32$	$\Phi 40$	$\Phi 50$	$\Phi 63$
活塞杆徑 Bore of piston(mm)	$\Phi 14$	$\Phi 16$	$\Phi 16$	$\Phi 20$	$\Phi 20$
總行程 Total stroke (mm)	22	28	30	30	30
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
溫度範圍 Range of temperature($^{\circ}\text{C}$)	$-10^{\circ}\text{C} \sim +80^{\circ}\text{C}$				
使用壓力範圍 Range of pressure (kg/cm^2)	20-70 kg/cm^2				
作動方式 Acting type	復動式 Double acting				
固定方式 Fixing type	上法蘭或外螺紋固定 Upper flange or Threaded Body				
受壓面積推出 Pressure area push cm^2	4.9	8.03	12.56	19.62	31.15

理論出力表 Clamping force

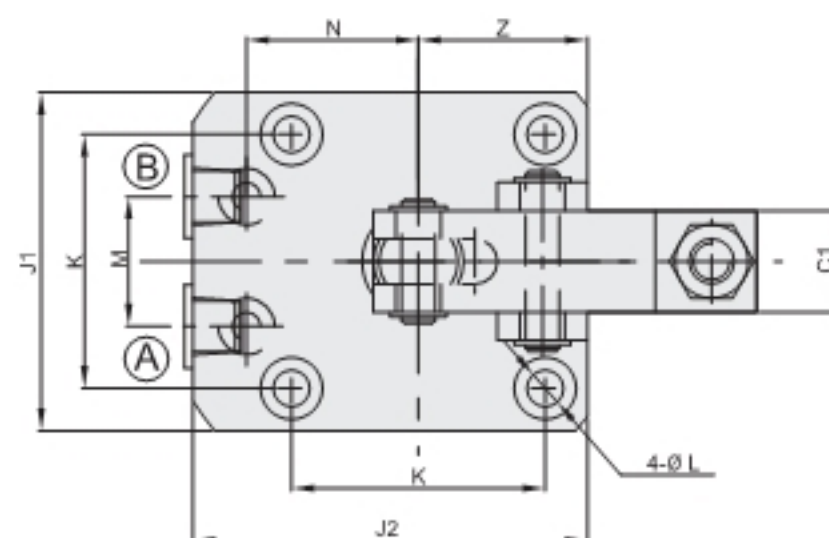
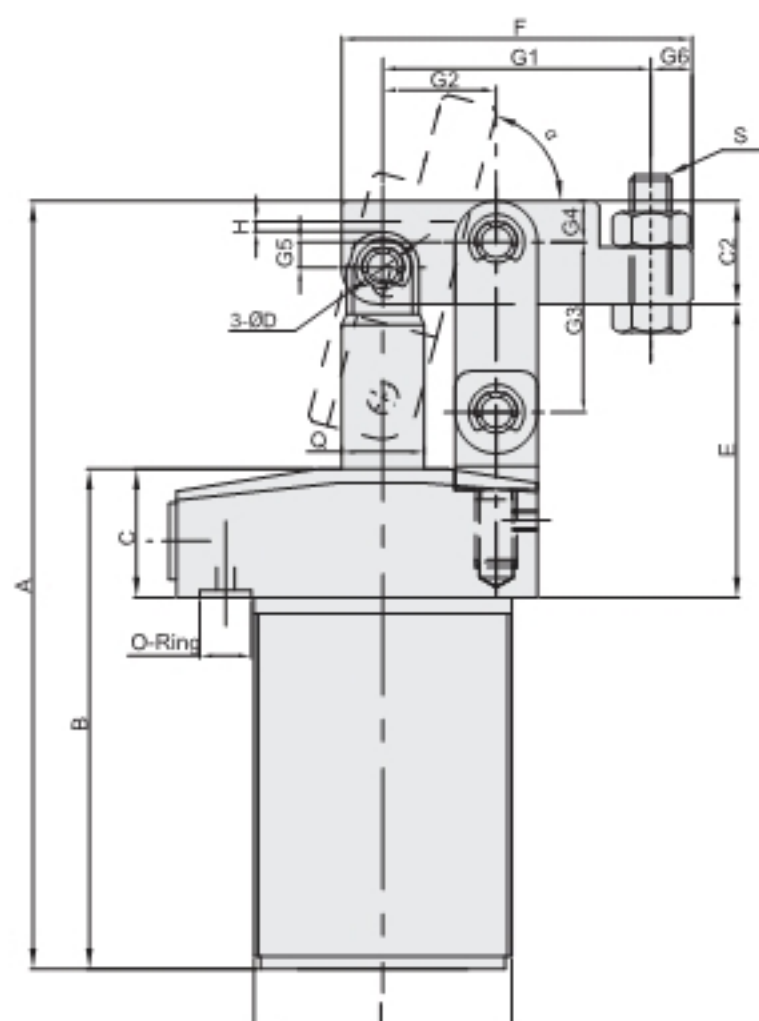
油缸內徑 Bore of cylinder (mm)	活塞杆徑 Piston rod (mm)	活塞杆推力 Piston force(30kg/ cm^2)	理論夾持力 Theoretical Clamping force (30kg/ cm^2)
$\Phi 25$	$\Phi 14$	145kg	113kg
$\Phi 32$	$\Phi 16$	240kg	176kg
$\Phi 40$	$\Phi 16$	375kg	280kg
$\Phi 50$	$\Phi 20$	588kg	449kg
$\Phi 63$	$\Phi 20$	934kg	710kg

訂購標示法 Ordering Code

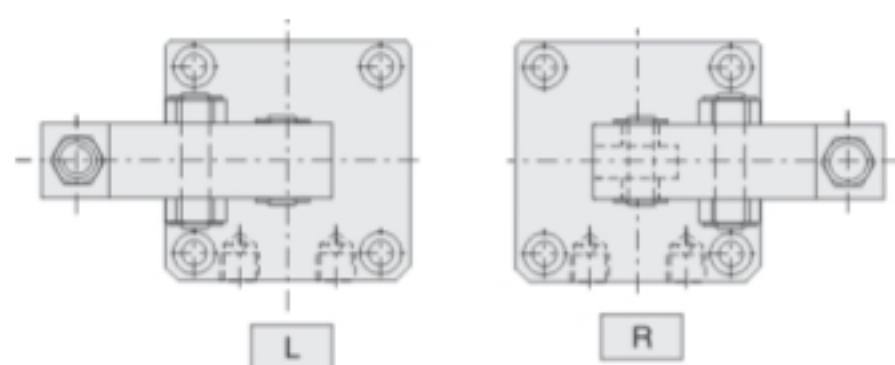


How to place order :

①	系列號 Series	HCL01
②	作動方式 Acting type	D: 復動式 Double acting S: 單動式 Single acting
③	油缸內徑 Bore of cylinder	Φ25, Φ32, Φ40, Φ50, Φ63
④	R//L/空白 (壓臂安裝方式)	



(A) 夾持油孔 Clamping port (B) 放鬆油孔 Unclamping Port



外形尺寸表 Dimension table

單位 (Unit) : mm

MODEL ITEM	A	B	C	C1	C2	D	E	F	G1	G2	G3	G4	G5	G6	H	I	J1	J2	K	L	配管式 油口	M	N	Z	S	α	O-Ring	Q
HCL01S-25 HCL01D-25	128.5	86.5	25	16	17	Φ6	50	55	41	18	26	6.5	4.5	7	2	M40×1.5	50	60	□37	Φ5.5-Φ9×5.5D	PT1/8	23	26	25	M6	75°	P7	Φ14
HCL01S-32 HCL01D-32	149	97	25	18	20	Φ6	57	68	52	22	33	8	5	8	3	M50×1.5	60	70	□45	Φ6.5-Φ11×6.5D	PT1/8	23	30.5	30	M8	75°	P7	Φ16
HCL01S-40 HCL01D-40	157	97	25	20	25	Φ8	60	75	56	24	33	13	4	10	3	M55×1.5	65	75	□50	Φ6.5-Φ11×6.5D	PT1/8	26	33	32.5	M8	75°	P7	Φ16
HCL01S-50 HCL01D-50	174	104	25	22	30	Φ10	65	87.5	63.5	27.5	44	11	10	14	3	M65×1.5	75	88	□58	Φ8.5-Φ14×9D	PT1/8	32	38	37.5	M12	65°	P7	Φ20
HCL01S-63 HCL01D-63	179	105	25	22	30	Φ10	69	98	74	32	48	11	10	14	3	M80×1.5	90	108	□70	Φ8.5-Φ14×9D	PT1/8	35	48	45	M12	60°	P7	Φ20

產品簡介



- ◆外螺紋小型單動缸採用進口油封及零件，確保品質，使用時漏油量極少，高壓夾持中時間不漏油。
- ◆外螺紋式小型單動缸體積小，使用于夾具上，能在最小的空間內排列使用。
- ◆此型式油壓缸使用于頂出場合，彈簧退回，無法使用于拉式場合上。
- ◆安裝時盡可能垂直于工作面，傾斜勿超過10°。
- ◆缸體底部需置放一祇鎖緊防漏墊圈。

Introduction of product

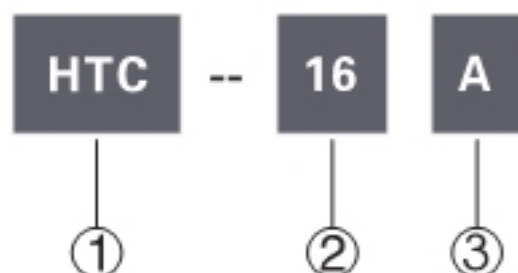


- ◆The thread-body single acting hydraulic cylinder use imported oil seal and accessories to guarantee the quality that make the oil leakage least and no leakage while clamping in high pressure for long time.
- ◆The volume of the thread-body single acting hydraulic cylinder is small. It can be used in a small space in the fixture.
- ◆This hydraulic cylinder is used to extend, and then spring returns, but it can't be used for pulling in.
- ◆The angle degree between the cylinder and workpiece could not be larger than 10° while installing.
- ◆The bottom of the cylinder barrel needs a leakage-proof gasket.

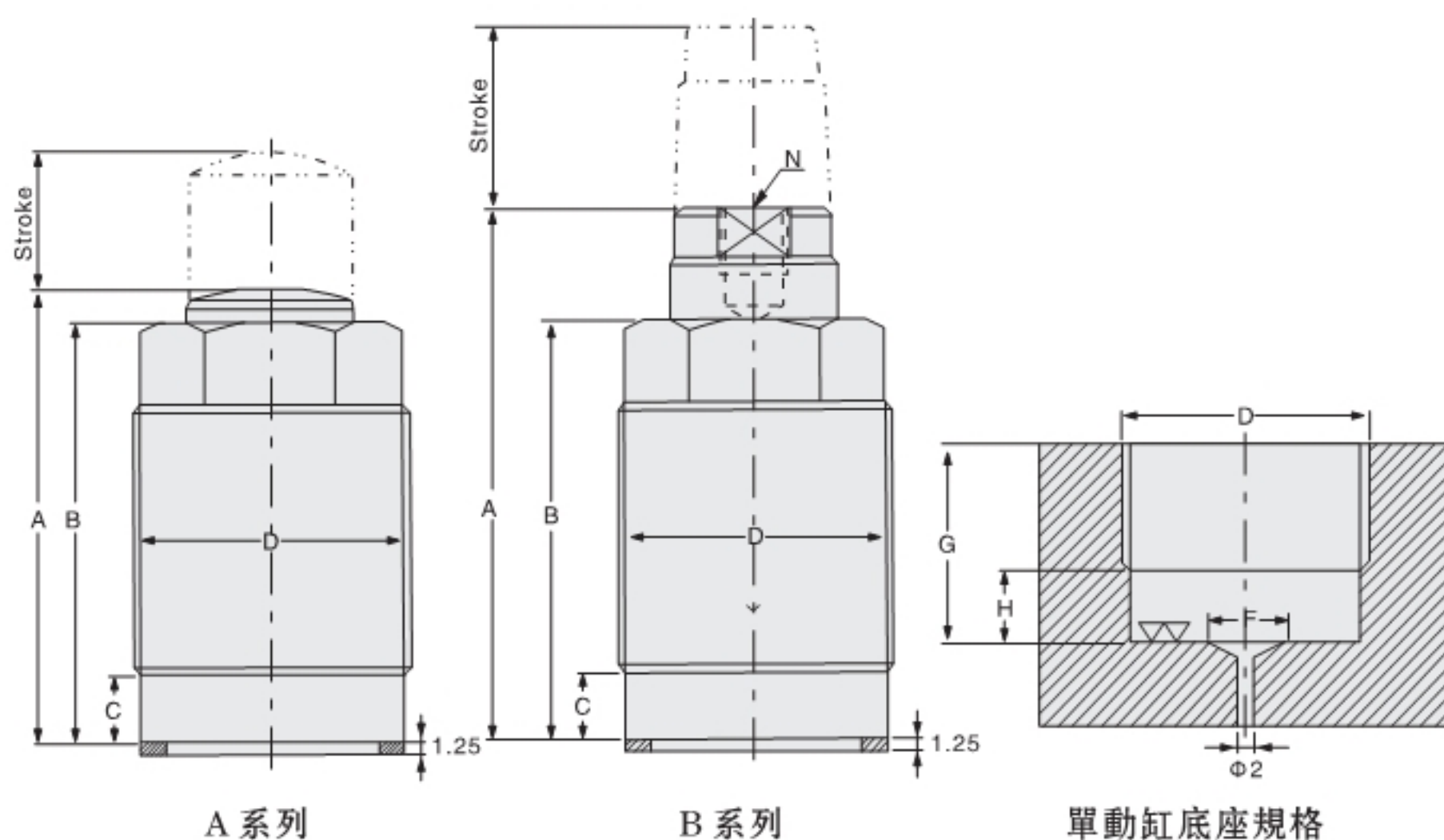
特性資料 Specification

類型type	HTC-12A	HTC-16A	HTC-20A	HTC-25A	HTC-12B	HTC-16B	HTC-20B	HTC-25B
活塞杆徑 Bore of piston (mm)	Φ12	Φ16	Φ20	Φ25	Φ12	Φ16	Φ20	Φ25
總行程Total stroke (mm)	10	12	15	16	10	12	15	16
使用流體 Fluid	已濾清之標準液壓油 Filtered oil							
使用壓力範圍 Range of pressure(kg/cm ²)	20—250kg/cm ²							
作動方式 Acting type	單動式 Single acting							
理論夾持力 Theoretical clamping 200kg/cm ²	200(kg)	400(kg)	620(kg)	980(kg)	200(kg)	400(kg)	620(kg)	980(kg)

訂購標示法 Ordering Code



①	系列號 Series	HTC
②	活塞杆徑 Bore of piston	Φ12,, Φ16, Φ20, Φ25
③	類型 type	分為A, B兩種 Divide A type and B type



外形尺寸表 Dimension table

單位 (Unit) : mm

ITEM MODEL	A	B	C	D	F	G	H	N	K	ST
HTC-12A	38	36	7	M22x1.5	12	16	6	---	3	10
HTC-16A	46.5	44.5	8	M26x1.5	16	20	7	---	3	12
HTC-20A	57.5	51	8	M30x1.5	20	24	7	---	3	15
HTC-25A	58.5	55	11	M38x1.5	25	28	10	---	3	16
HTC-12B	45	36	7	M22x1.5	12	16	6	M6x1.0	3	10
HTC-16B	52	44.5	8	M26x1.5	16	20	7	M6x1.0	3	12
HTC-20B	64.5	51	8	M30x1.5	20	24	7	M8x1.25	3	15
HTC-25B	67.5	55	11	M38x1.5	25	28	10	M8x1.25	3	16



HSP產品特性

- 1、採用夾套及雙活塞結構而實現的2~7MPa規格支撐缸
- 2、以較低液壓油壓力（2~7MPa）即可獲得高支撐力。
- 3、安裝尺寸與目前常見市售產品相容。
- 4、結構緊湊設計合理、性能穩定、使用壽命長。
- 5、活塞杆與工作物接觸力量小（0.3~0.8kgf以內）、適用於各種類型工作物。
- 6、採用本產品可避免在同一套夾具中混用高低壓元件,未來保養的維護困擾。
- 7、體積小巧（M26~M45四種，大口徑活塞，支撐力強勁，在低壓範圍內也能穩定工作）
- 8、無需改變夾具基板的尺寸，在狹小的空間即可配置。

注意：

- ◆支撐柱塞上不能施加偏心負荷
- ◆不能施加過載負荷
- ◆鎖定狀態不能轉動活塞杆。

Attention:

- ◆Columns fortress cannot exert eccentric load.
- ◆Can't exert overloaded.
- ◆Can't turn the piston rod lock state.

產品簡介

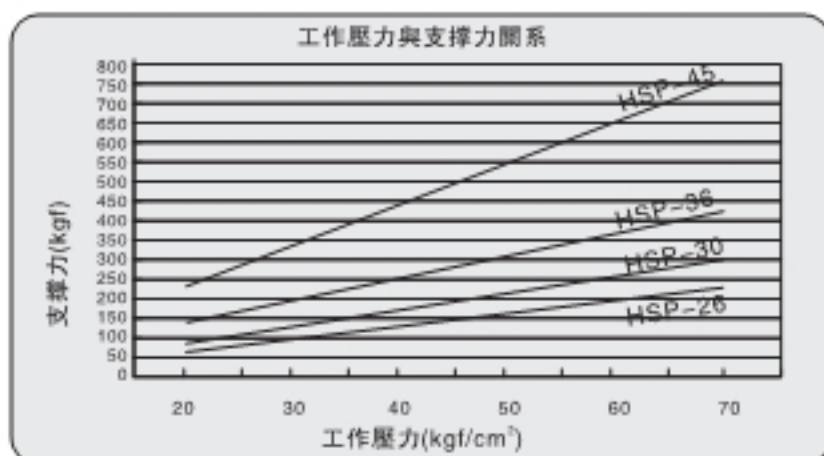
A型：夾縮支撐，在初始位置時，支撐頭在內部彈簧的作用下處於最上端，工作時依靠工件在下放時的重力下壓支撐頭使之同步向下，在工件穩妥的放在治具上時就停止下行，支撐頭也停止下行，加油壓後支撐缸鎖死給工件提供支撐並停止運行。

B型：上行支撐，在初始位置時，支撐頭位於最下端，工件放好後，給支撐缸加油壓使支撐頭上行，至碰到工件時支撐頭立刻停止上行並繼續加壓至鎖死，這樣支撐頭就在當前位置給工件提供支撐並且停止。

Introduction of product

- ◆Type A: Knocking-out with a spring, the spring is used to control a clamping force when the knocking-out rod (piston rod) extends to a highest knocking-out position and clamps the workpiece
- ◆Type B: Knocking-out with oil pressure, it is operated by means of oil pressure and is knocked out when being filled with oil and clamp the workpiece.

特性曲線圖 HSP-**L-S



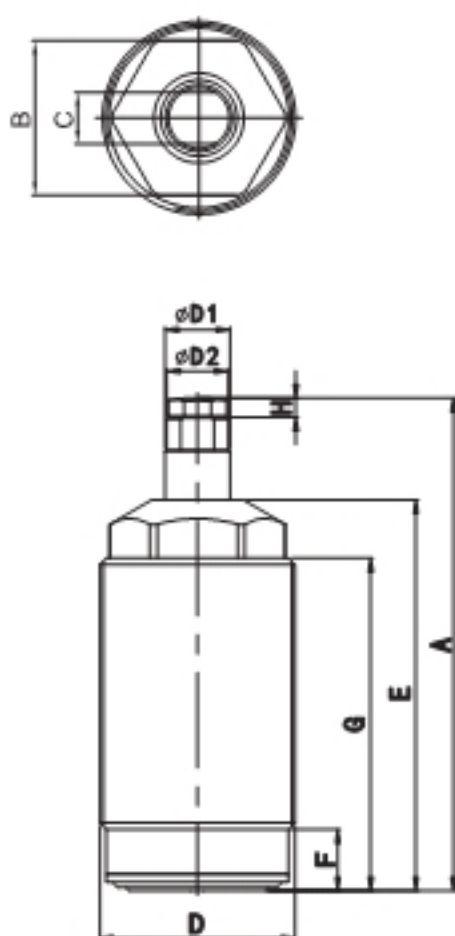
訂購標示法 Ordering Code

HSP -- 30 -- A -- L -- S

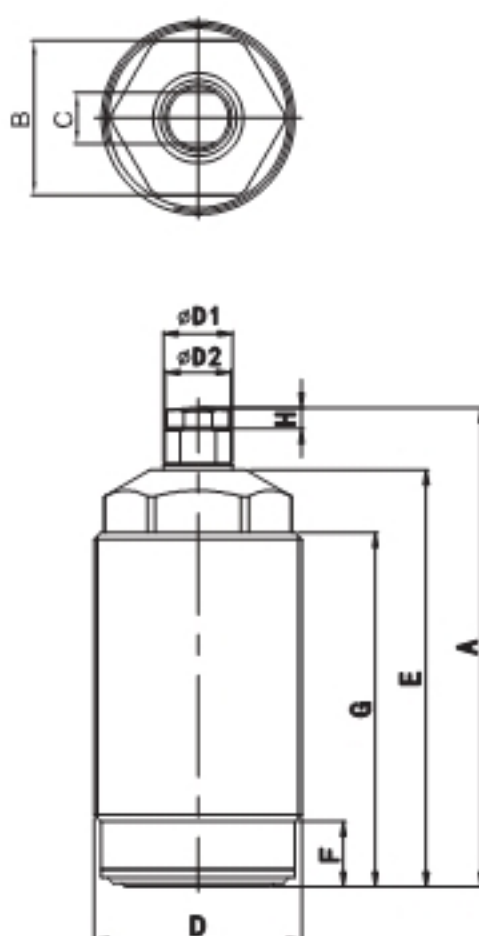
特性資料 Specification

類 型	HSP-26AL-S	HSP-26BL-S	HSP-30AL-S	HSP-30BL-S	HSP-36AL-S	HSP-36BL-S	HSP-45AL-S	HSP-45BL-S
使用壓力範圍 (kgf/cm ²)	20 – 70							
壓緊行程 (mm)	6.5		8				10	
活塞杆徑 (mm)	Φ 10		Φ 12		Φ 15		Φ 16	
支撐力 (kgf)/工作壓力(kgf/cm ²)	170/50		220/50		330/50		530/50	
作動方式	單動式 Single acting							

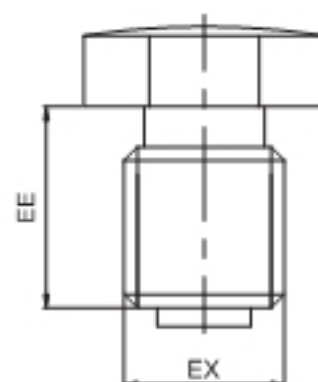
HSP-AL-S



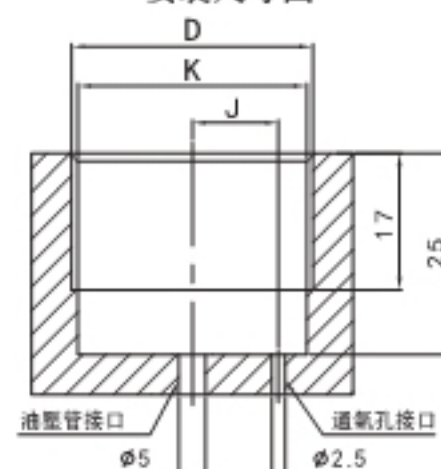
HSP-BL-S



圓頭螺栓



安裝尺寸圖



外形尺寸表 Dimension table

單位 (Unit) :mm

型號/Model	HSP-26AL-S	HSP-26BL-S	HSP-30AL-S	HSP-30BL-S	HSP-36AL-S	HSP-36BL-S	HSP-45AL-S	HSP-45BL-S
A	72.5	66	81	73	77	69	92	82
B	22	22	24	24	30	30	36	36
C	9	9	10	10	11	11	14	14
D	M26x1.5	M26x1.5	M30x1.5	M30x1.5	M36x1.5	M36x1.5	M45x1.5	M45x1.5
E	57	57	62	62	58	58	71	71
F	8.5	8.5	9.5	9.5	10	10	9.5	9.5
G	49	49	54	54	48	48	60	60
H	3.5	3.5	4.5	4.5	4	4	4	4
J	9	9	11	11	13	13	16	16
K	24.5	24.5	28.5	28.5	34.5	34.5	43.5	43.5
D1	10	10	12	12	15	15	16	16
D2	9.5	9.5	11.5	11.5	12.5	12.5	15.5	15.5
EE	10	10	10	10	10	10	10	10
EX	M8	M8	M8	M8	M10	M10	M10	M10

產品簡介

此型式油缸結構緊湊，設計合理，
根據不同厚薄工件，當支撐缸進行對工件工作時，
避免出現干涉時，可採用伸縮底座。

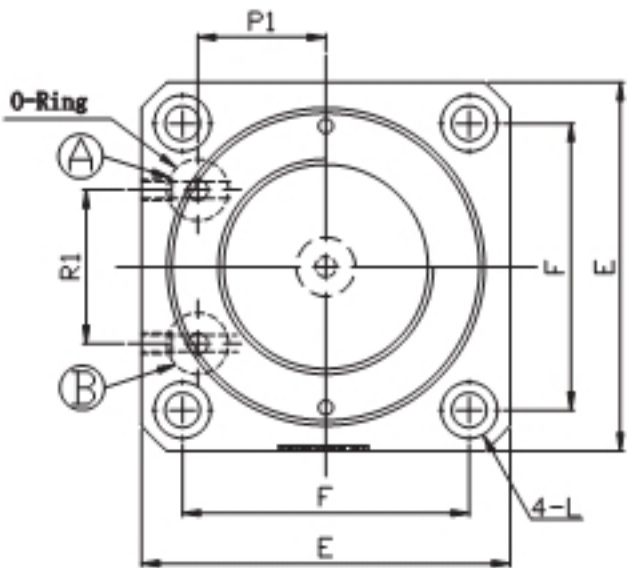
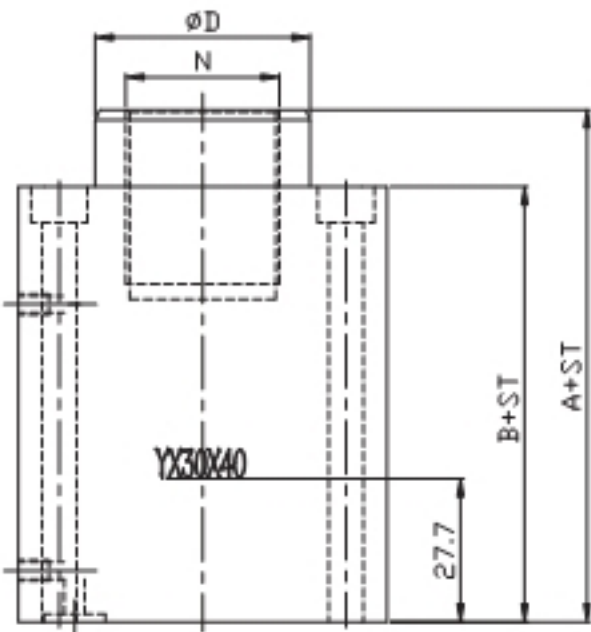
Introduction of product

This type of cylinder is compact in structure. Rational design.
According to the different thickness of workpiece. When the
supporting cylinder is working on the workpiece.
Avoid interference. Retractable base.



外特性資料 Dspecification

類型 Type	YX-30	YX-36
使用力範圍 Range of pressure (kgf/cm ²)	5~140kg/cm ²	
使用流體 Fluid	已濾清之標準液壓油 Filtered oil	
作動方式 Acting type	復動式 Double acting	
標準行程 Standard stroke	請參考尺寸表 Refer to the dimensional table	



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

外形尺寸表 Dimension table

單位 (Unit) : mm

ITEM	MODEL	YX-30	YX-36
A		60	60
B		45	45
ϕD		42	42
E		□72	□72
F		□56	□56
L		$\phi 6.8 - \phi 11 \times 7D$	$\phi 6.8 - \phi 11 \times 7D$
P1		25	25
R1		30	30
N		M30x1.5x37D	M36x1.5x37D
O-Ring		P9	P9

產品簡介



- A型：夾縮支撐，在初始位置時，支撐頭在內部彈簧的作用下處於最上端，工作時依靠工件在下放時的重力下壓支撐頭使之同步向下，在工件穩妥的放在治具上時就停止下行，支撐頭也停止下行，加油壓後支撐缸鎖死給工件提供支撐并停止運行。
- B型：上行支撐，在初始位置時，支撐頭位于最下端，工件放好後，給支撐缸加油壓使支撐頭上行，至碰到工件時支撐頭立刻停止上行并繼續加壓至鎖死，這樣支撐頭就在當前位置給工件提供支撐并且停止。

Introduction of product

- ◆ Type A: Knocking-out with a spring, the spring is used to control a clamping force when the knocking-out rod (piston rod) extends to a highest knocking-out position and clamps the workpiece
- ◆ Type B: Knocking-out with oil pressure, it is operated by means of oil pressure and is knocked out when being filled with oil and clamp the workpiece.

注意：◆支持力與轉角缸的支持力要相匹配，
支持力至少為單個轉角缸夾持力的150%
◆不能超過最大流速，避免過早鎖死。
◆基本上在中間位置放置支撐缸
◆安裝時盡可能垂直于工作面，傾斜勿超過10°。

Attention:

- ◆ The supporting force must match the clamp force of the swing clamp.
The supporting force at least is equal to 150% of the clamp force of a swing clamp.
- ◆ Do not exceed the maximum velocity of flow and avoid clamping it too early
- ◆ Install the supporting cylinder in the middle place best.
- ◆ The angle degree between the supporting cylinder and working face could not be larger than 10° while installing.

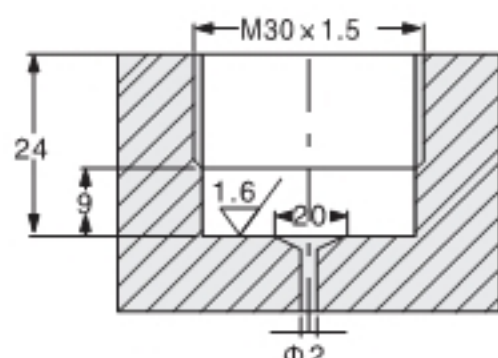
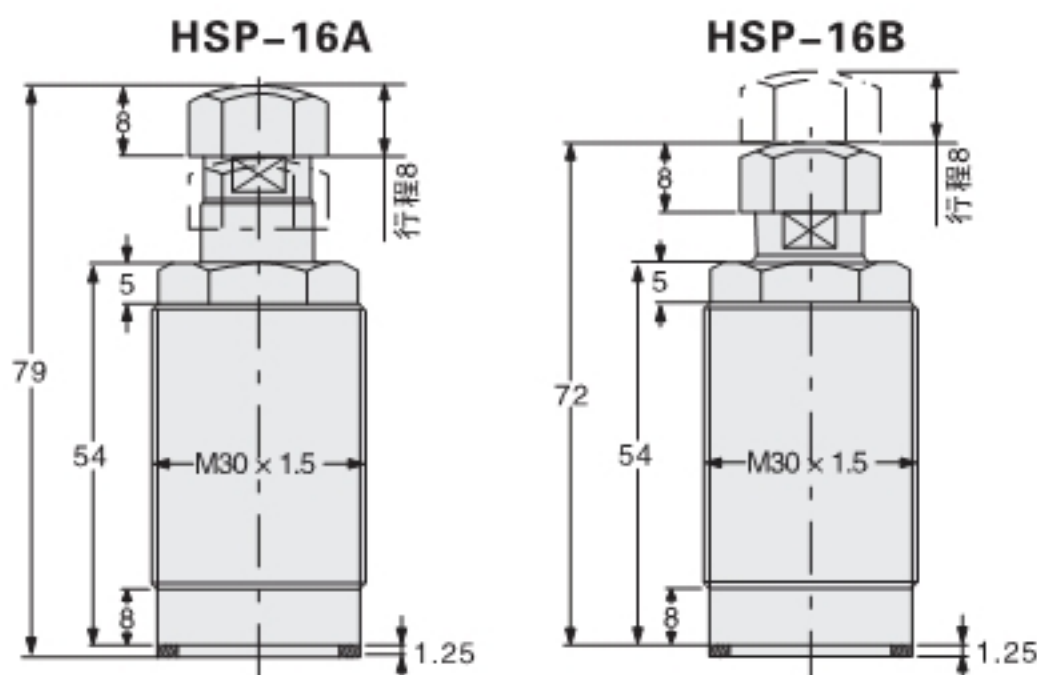
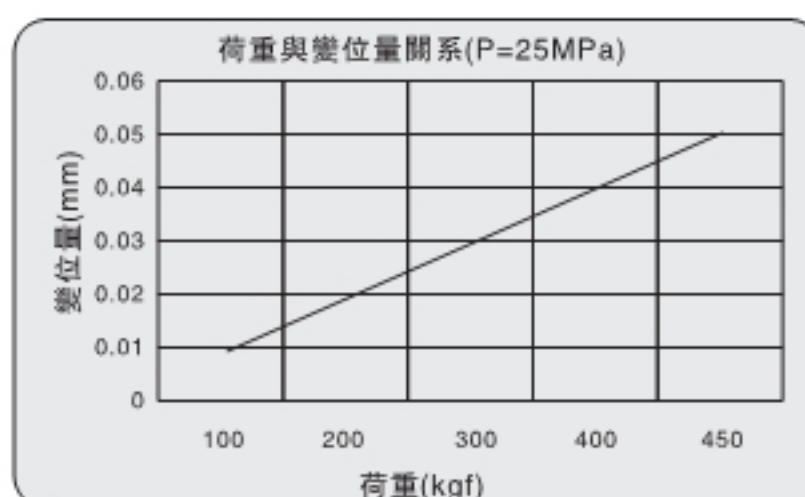
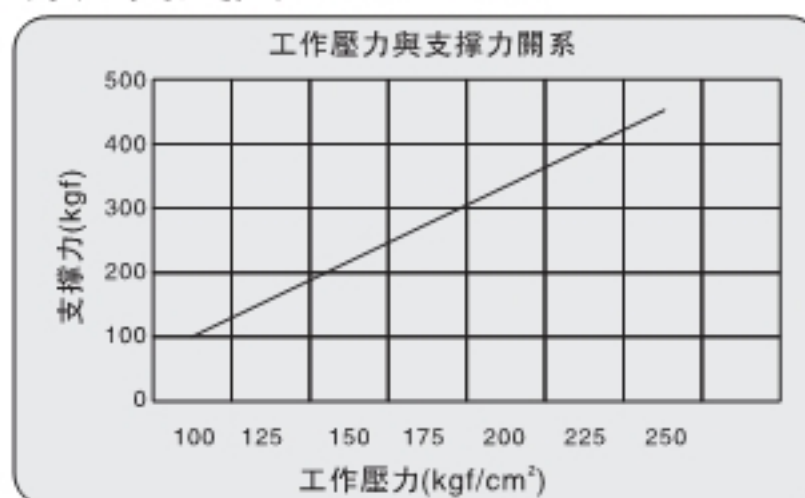
訂購標示法 Ordering Code

HSP -- 16 -- A

特性資料 Specification

類 型	HSP-16A	HSP-16B
使用壓力範圍 (kgf/cm ²)	100 ~ 250	
壓緊行程 (mm)	8	
活塞杆徑 (mm)	Φ16	
支撐力 (kgf) / 工作壓力 (kgf/cm ²)	320/200	
作動方式	單動式	

特性曲線圖 HSP-16 ★



安裝尺寸



HSF產品特性

- ◆此系列產品結構緊湊,設計合理,使用壽命長,在2-7MPa工作條件下性能穩定。
- ◆根據不同厚薄工件,可調節活塞杆伸出彈簧強弱。
- ◆活塞杆伸出接觸力小,0.4~0.8KG範圍內,適用於各種類型工件。
- ◆本產品支撐力大,在切削過程中能徹底消除機械負載及工件震動。
- ◆安裝尺寸與目前市面銷售產品相容,可互換。

HSF Product features

- ◆This series of products with compact structure,reasonable design, long service life,in 2-7MPa working conditions stable performance.
- ◆According to the different thickness of workpiece,which can adjust the piston rod out spring strength.
- ◆Piston rod out of contact force is small,0.4-0.8KG range,suitable for all kinds of workpiece.
- ◆This product support,in the cutting process can eliminate mechanical load and working vibration.
- ◆Installation size and at present on market sales products compatible,interchangeable.

產品簡介

A型：夾縮支撐，在初始位置時，支撐頭在內部彈簧的作用下處於最上端，工作時依靠工件在下放時的重力下壓支撐頭使之同步向下，在工件穩妥的放在治具上時就停止下行，支撐頭也停止下行，加油壓後支撐缸鎖死給工件提供支撐并停止運行。

B型：上行支撐，在初始位置時，支撐頭位于最下端，工件放好後，給支撐缸加油壓使支撐頭上行，至碰到工件時支撐頭立刻停止上行并繼續加壓至鎖死，這樣支撐頭就在當前位置給工件提供支撐并且停止。

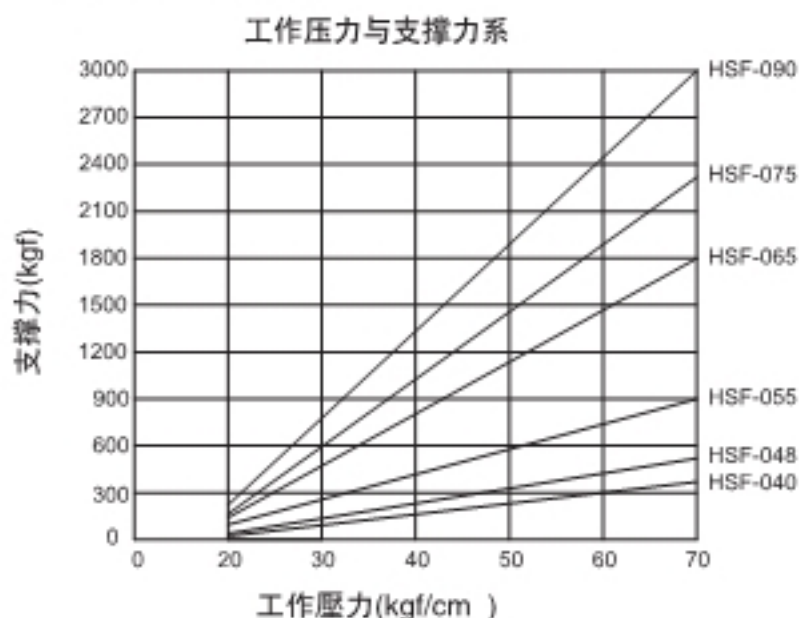
Introduction of product

- ◆Type A: Knocking-out with a spring, the spring is used to control a clamping force when the knocking-out rod (piston rod) extends to a highest knocking-out position and clamps the workpiece
- ◆Type B: Knocking-out with oil pressure, it is operated by means of oil pressure and is knocked out when being filled with oil and clamp the workpiece.

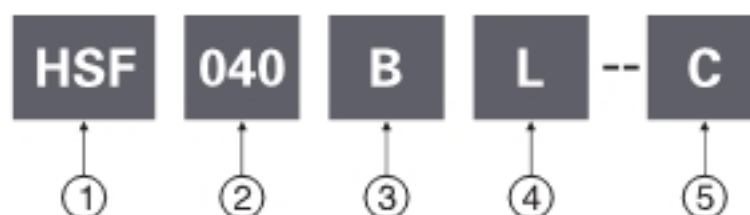
特性資料 Specification

類型Type	HSF-040AL HSF-040BL	HSF-048AL HSF-048BL	HSF-055AL HSF-055BL	HSF-065AL HSF-065BL	HSF-075AL HSF-075BL	HSF-090AL HSF-090BL
使用壓力範圍Range of pressure(kg/cm ²)	20 ~ 70kg/cm ²					
行程 Stroke(mm)	8	10	12	14	16	20
活塞杆徑Bore of piston(mm)	Φ15	Φ16	Φ20	Φ22	Φ25	Φ30
支撐力(kgf)/工作壓力(kgf/cm ²) Support(kgf)/Pressure of work(kgf/cm ²)	320/70	480/70	900/70	1800/70	2300/70	3000/70
作動方式Acting type	單動式 Single acting					

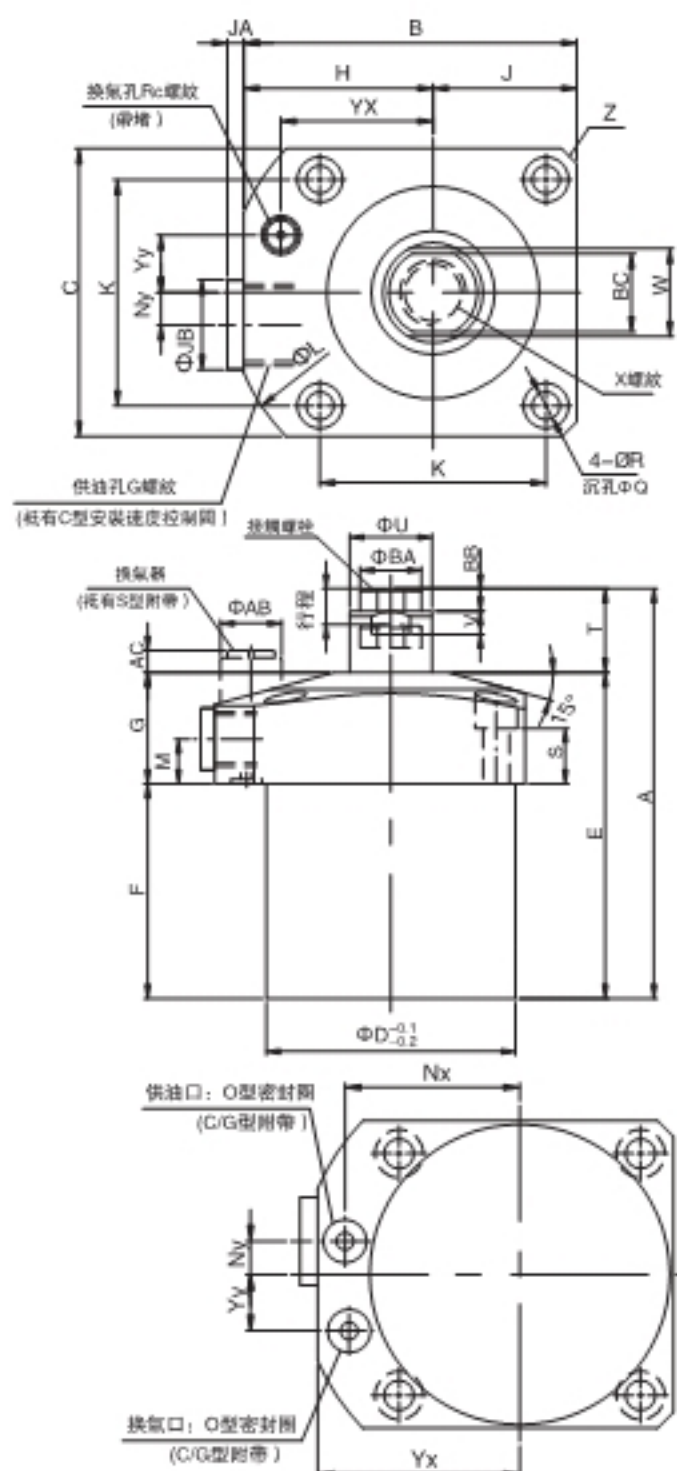
特性曲綫圖 HSF-★★L



訂購標示法 Ordering Code

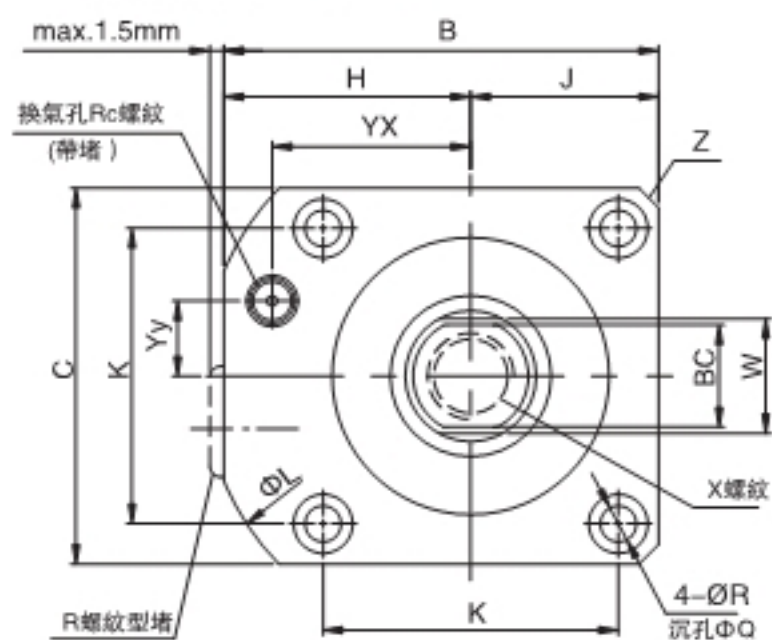


①	系列號 Series
②	本體外徑尺寸
③	A: 彈簧頂出型 A:Spring extended piston B: 油壓頂出型 B:Hydraulic extended piston
④	L: 低壓
⑤	C: 板式 (配有G螺紋堵, 帶排氣功能) G: 板式 (配有R螺紋堵) S: 配管式 (Rc螺紋)

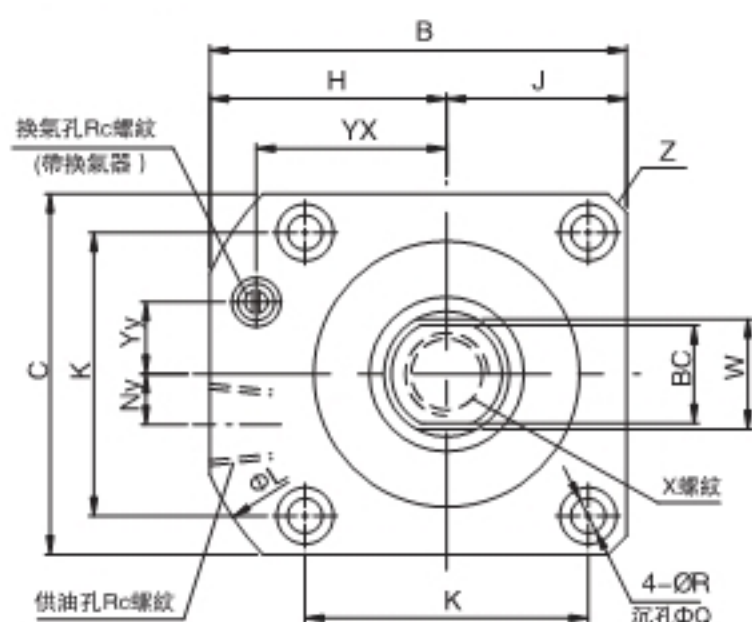


HSF-AL

※本圖所示為***AL-G



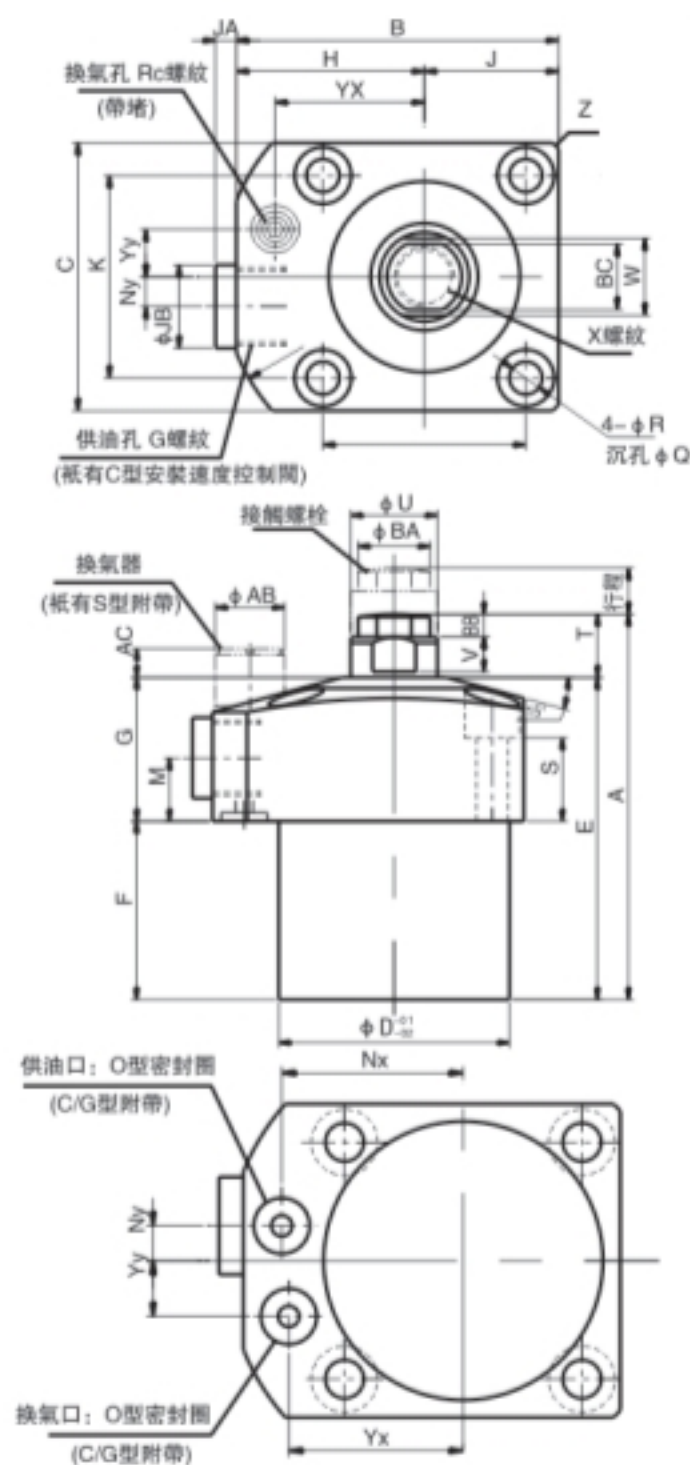
※本圖所示為***AL-S



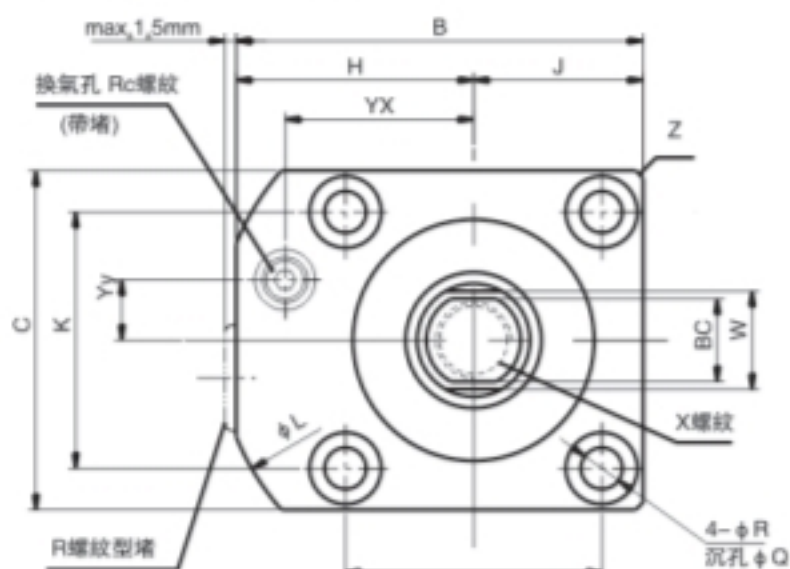
外形尺寸表 Dimension table

ITEM	MODEL	HSF-040AL	HSF-048AL	HSF-055AL	HSF-065AL	HSF-075AL	HSF-090AL
A		75	85	97	115	142	169
B		54	61	69	81	92	107
C		45	51	60	70	80	95
D		40	48	55	65	75	90
E		56	64	70	85	107	128
F		31	39	45	56	72	88
G		25	25	25	29	35	40
H		31.5	35.5	39	46	52	59.5
J		22.5	25.5	30	35	40	47.5
K		34	40	47	55	63	75
L		68	73	80	94	106	126
M		11	11	11	11	13	13
Nx		26	30	33.5	39.5	45	52.5
Ny		5	0	0	0	0	0
P		3	3	3	5	5	5
Q		9.5	9.5	11	11	14	17.5
R		5.5	5.5	6.8	6.8	9	11
S		14.5	13.5	11.5	14.5	17	18
T		19	21	27	30	35	41
U		15	16	20	22	25	30
V		6	6	8	9	9	10.5
W		13	13	17	19	22	24
X(公稱直徑x深度)		M10x11	M10x11	M12x13	M12x13	M16x20	M16x20
Yx		25	28	31	37	42.5	50
Yy		8	11	13	14	15	15
Z		c1	C3	R40	R47	R53	R63
AB		12	12	12	12	12	12
AC		5	4	3.5	2	1.5	0
BA		12.5	12.5	16.5	16.5	21.5	21.5
BB		4	4	6	6	9	9
BC		11	11	14	14	19	19
CA		M5x0.8	M5x0.8	M6	M6	M8	M10
JA		3.5	3.5	3.5	3.5	4.5	4.5
JB		14	14	14	14	19	19
行程		8	10	12	14	16	20
供油孔	-C型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4
	-S型	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
	-G型	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
R型密封面 (-C/-G型)		P5	P5	P5	P7	P7	P7
換氣孔		Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/8	Rc1/8

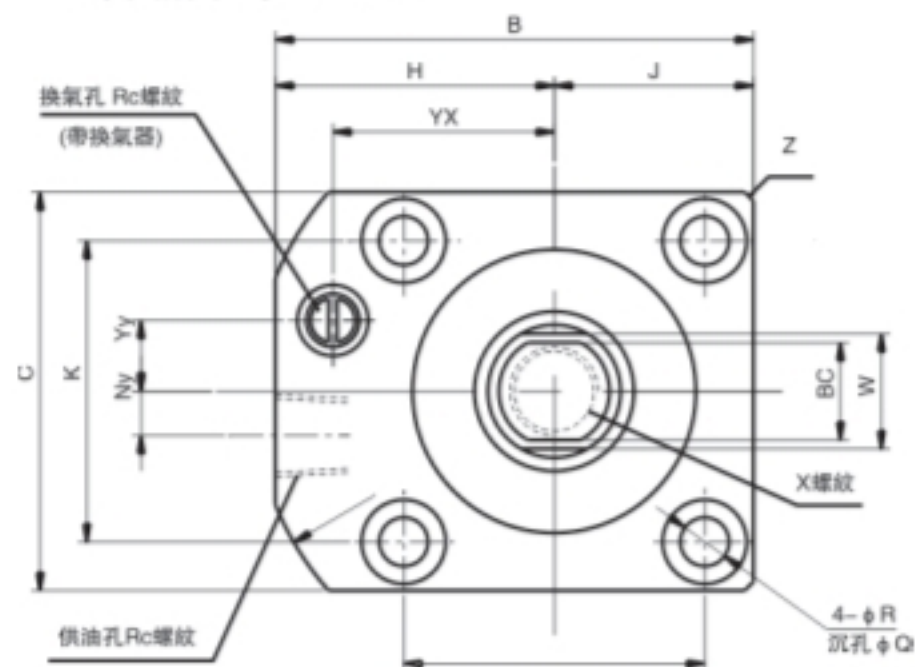
HSF-BL



※本圖所示為***BL-G



※本圖所示為***BL-S



外形尺寸表 Dimension table

ITEM	MODEL	HSF-040BL	HSF-048BL	HSF-055BL	HSF-065BL	HSF-075BL	HSF-090BL
A		67	75	85	101	126	149
B		54	61	69	81	92	107
C		45	51	60	70	80	95
D		40	48	55	65	75	90
E		56	64	70	85	107	128
F		31	39	45	56	72	88
G		25	25	25	29	35	40
H		31.5	35.5	39	46	52	59.5
J		22.5	25.5	30	35	40	47.5
K		34	40	47	55	63	75
L		68	73	80	94	106	126
M		11	11	11	11	13	13
Nx		26	30	33.5	39.5	45	52.5
Ny		5	0	0	0	0	0
P		3	3	3	5	5	5
Q		9.5	9.5	11	11	14	17.5
R		5.5	5.5	6.8	6.8	9	11
S		14.5	13.5	11.5	14.5	17	18
T		11	11	15	16	19	21
U		15	16	20	22	25	30
V		6	6	8	9	9	10.5
W		13	13	17	19	22	24
X(公稱直徑×深度)		M10×11	M10×11	M12×13	M12×13	M16×20	M16×20
Yx		25	28	31	37	42.5	50
Yy		8	11	13	14	15	15
Z		C1	C3	R40	R47	R53	R63
AB		12	12	12	12	12	12
AC		5	4	3.5	2	1.5	0
BA		12.5	12.5	16.5	16.5	21.5	21.5
BB		4	4	6	6	9	9
BC		11	11	14	14	19	19
CA		M5×0.8	M5×0.8	M6	M6	M8	M10
JA		3.5	3.5	3.5	3.5	4.5	4.5
JB		14	14	14	14	19	19
行程		8	10	12	14	16	20
供油孔	-C型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4
	-S型	RC1/8	RC1/8	RC1/8	RC1/8	RC1/4	RC1/4
R螺紋堵頭	-G型	RC1/8	RC1/8	RC1/8	RC1/8	RC1/4	RC1/4
口型密封圈 (-C/-G型)		P5	P5	P5	P7	P7	P7
換氣孔		RC1/8	RC1/8	RC1/8	RC1/8	RC1/8	RC1/8

產品簡介

- ◆無須預留孔;直接用螺栓將轉角缸固定到工作臺面，缸體的主結構在工作臺面上，可夾緊較厚的工件，允許超大件的夾持。
- ◆往復式特點：夾緊與鬆卸全靠油路來控制，按照換向閥的方向交替來控制轉角缸的夾緊和鬆卸行程，壓臂形狀與單動缸相同。
- ◆單動式特點：內部系統化比較簡單，沒有卸載系統，卸載時靠彈簧回力完成鬆卸行程；外部管路的閥門及附件較少使配套系統比較簡單。创新的压臂设计能满足多種場合。
- ◆缸體材質合用碳鋼，經滲碳氮化處理，表面硬度高，缸體內面硬度高耐磨損。
- ◆壓板需增加長度時，請勿大于原長度之1.5倍。

Introduction of product

- ◆It is not necessary to manufacture hole for the installing and you just need to use bolt to fix the swing clamp on the fixture plate. It is helpful for you to clamp thick workpiece because the main structure of the cylinder body is on the fixture plate.
- ◆Feature of the doubling acting type . Oil circuits control clamping and un clamping, you can control the clamping and unclamping by changing the direction value.
- ◆Feature of the single acting type. The design of the interior system is simple. It is not necessary to design for unclamping. It can return back to original position by spring and the system design is simple because of few accessories.
- ◆The material of the cylinder body is carbon steel and treated by nicarbiding. The hardness of the outside and inside surface of the cylinder is high and the cylinder is antiabrasive.
- ◆Please don't exceed 1.5 times of the original length, if you need to increase the length of the clamping arm.

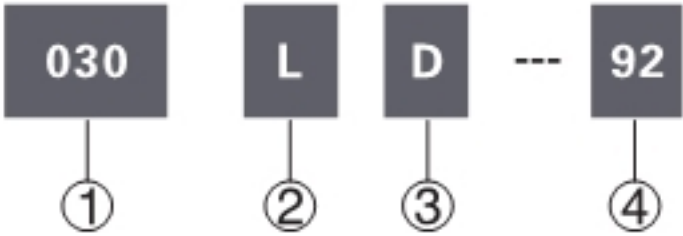
特性資料 Specification 單動系列 Single Acting

油缸類型 Type of cylinder	030LS-22	030LS-52	030LS-92	030LS-121	030LS-202
	030RS-22	030RS-52	030RS-92	030RS-121	030RS-202
油缸內徑 Bore of cylinder(mm)	Φ14	Φ22	Φ32	Φ32	Φ45
垂直行程 Clamping stroke(mm)	8	10	12	13	14
總行程Total stroke (mm)	16.5	22.6	22.1	28.4	27.9
受壓面積拉入 Pressure area pull cm ²	0.75	1.79	3.13	4.24	7.86
理論夾持力 Theoretical clamping 250kg/cm ²	173kg	380kg	710kg	970kg	1830kg
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
使用壓力範圍Range of pressure(kg/cm ²)	35- 250kg/cm ²				
轉角角度 Rotating angle	標準角度Standard angle 90° 特殊角度 Especial angle 30°, 45°, 60° 可定制 Can order				

特性資料 Specification 復動系列 Double Acting

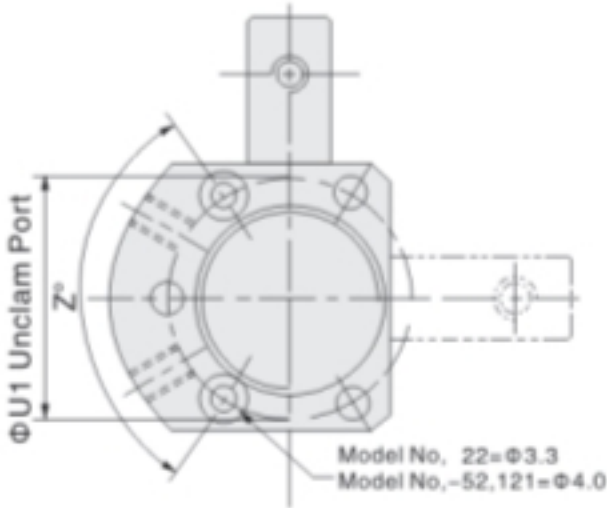
油缸類型 Type of cylinder	030LD-22	030LD-52	030LD-92	030LD-121	030LD-202
	030RD-22	030RD-52	030RD-92	030RD-121	030RD-202
油缸內徑 Bore of cylinder(mm)	Φ14	Φ22	Φ32	Φ32	Φ45
垂直行程 Clamping stroke (mm)	8	10	12	13	14
總行程Total stroke (mm)	16.5	22.6	22.1	28.4	27.9
受壓面積拉入/推出 Pressure area pull/push cm ²	0.75/1.53	1.79/3.79	3.13/8.03	4.24/8.03	7.86/15.89
理論夾持力 Theoretical clamping 250kg/cm ²	180kg	445kg	780kg	1060kg	1960kg
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
使用壓力範圍Range of pressure(kg/cm ²)	35--250kg/cm ²				
轉角角度 Rotating angle	標準角度Standard angle 90° 特殊角度 Especial angle 30°, 45°, 60° 可定制 Can order				

訂購標示法 Ordering Code

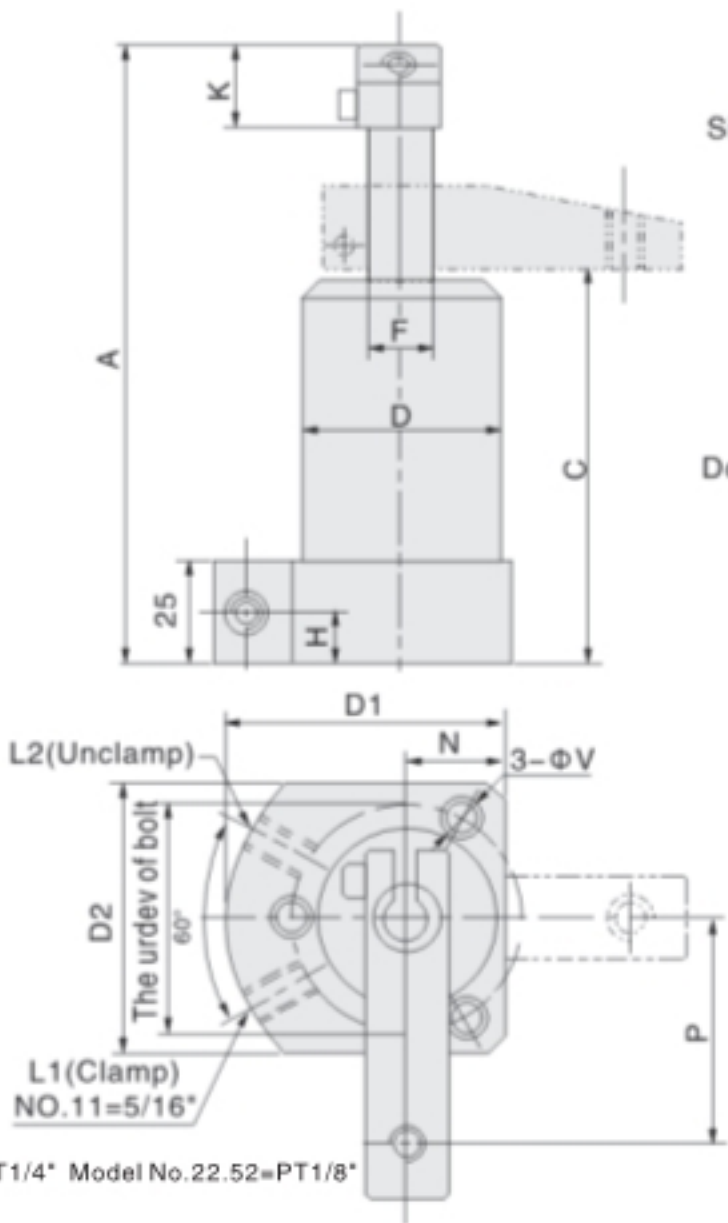
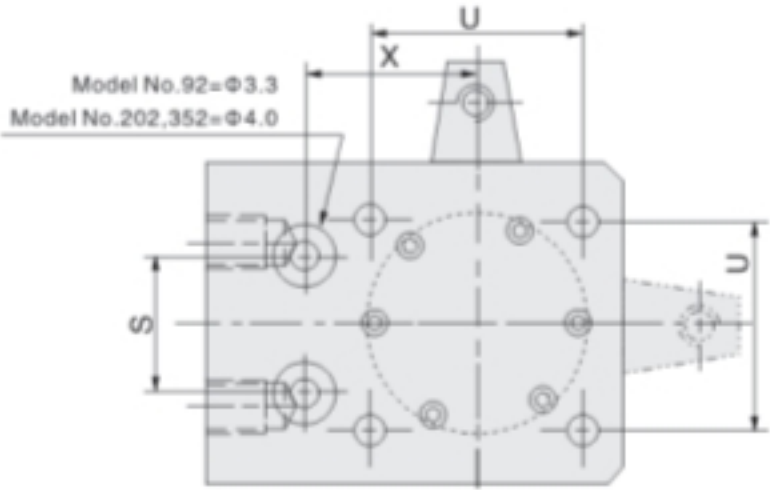


①	系列號 Series	030
②	轉角方向 Rotaing direction	右轉R或左轉L Turn right R or Turn left L
③	作動方式 Acting type	單動式 S:Single acting 復動式 D:Double acting
④	型號 Type	22,52,92,121,202

Model No. -22,52,121

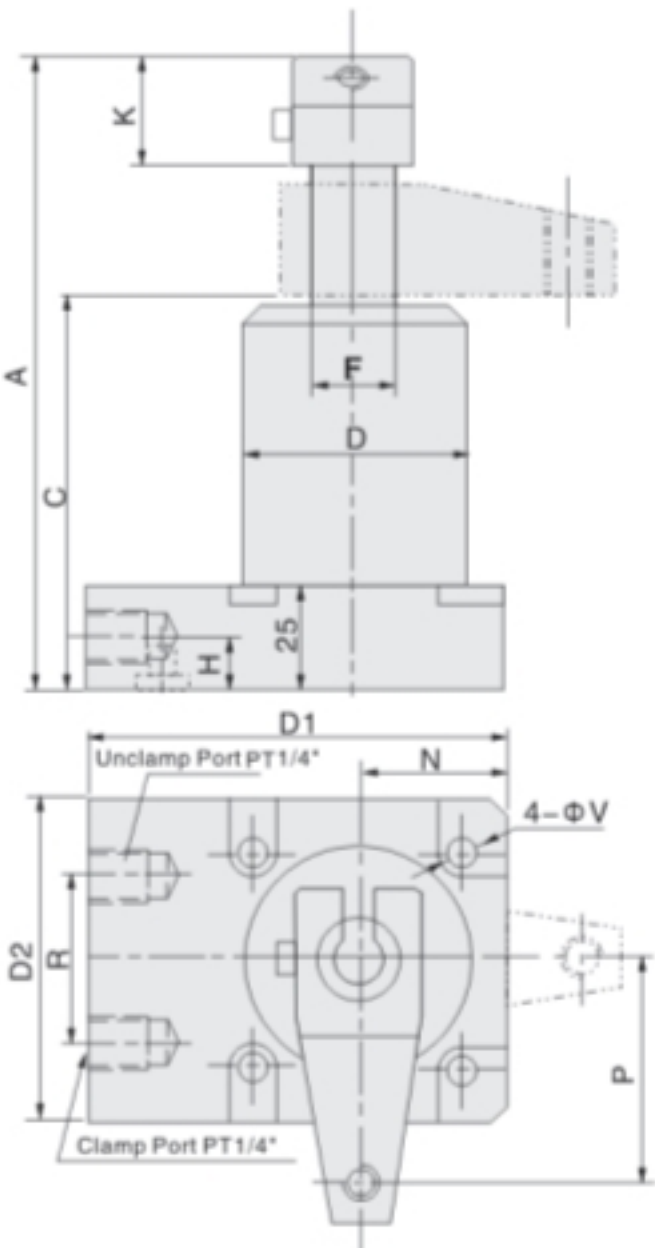


Model No. -92,202,



單動
Single Acting

復動
Double Acting



Model No. 121=PT1/4" Model No.22,52=PT1/8"

外形尺寸表 Dimension table 單動式 Single Acting

單位 (Unit) : mm

MODEL ITEM	A	C	ΦD	D1	D2	ΦF	H	K	N	P	R	S	U	ΦU1	ΦV	X	Z°	Weight(kg)
030LS-22 030RS-22	118	84.3	27.9	47.2	45	10	14	16	15.5	40	---	---	---	40	5.6	---	60	0.5
030LS-52 030RS-52	145.2	100	34.8	54.1	57	16	14	22.2	19.1	49	---	---	---	50	6.9	---	110	1.1
030LS-92 030RS-92	155	105.6	47.8	70.1	54	25	12	25	26.9	45	23.6	23.6	42	---	6.5	28.7	---	2.0
030LS-121 030RS-121	171	113	47.8	66.8	73	22	16	30	25.4	51	---	---	---	64	8.9	---	110	1.6
030LS-202 030RS-202	173	115	63.8	85.1	70	32	12	30	35.1	55	25.9	29.0	55	---	8.4	35.1	---	3.5

外形尺寸表 Dimension table 復動式 Double Acting

MODEL ITEM	A	C	ΦD	D1	D2	ΦF	H	K	N	P	R	S	U	ΦU1	ΦV	X	Z°	Weight(kg)
030LD-22 030RD-22	118	84.3	27.9	47.2	45	10	14	16	15.5	40	---	---	---	40	5.6	---	60	0.5
030LD-52 030RD-52	145.2	100	34.8	54.1	57	16	14	22.2	19.1	49	---	---	---	50	6.9	---	110	1.1
030LD-92 030RD-92	155	105.6	47.8	70.1	54	25	12	25	26.9	45	---	23.6	42	---	6.5	28.7	---	2.0
030LD-121 030RD-121	171	113	47.8	66.8	73	22	16	30	25.4	51	---	---	---	64	8.9	---	110	1.6
030LD-202 030RD-202	173	115	63.8	85.1	70	32	12	30	35.1	55	25.9	29.0	55	---	8.4	35.1	---	3.5



產品簡介

- ◆外螺紋缸體可以使你很方便地將油缸直接安裝在工裝夾具的平板上，此系列有單動式和復動式兩種。
- ◆往復式特點：夾緊與鬆卸完全靠油路控制，按照換向閥的方向交替來控制轉角缸的夾緊與鬆卸過程。
- ◆單動式特點：內部系統化比較簡單，沒有卸載系統，卸載時靠彈簧回力完成鬆卸行程；外部管路的閥門及附件較少使配套系統比較簡單。單動式可以空載回程。
- ◆缸體材質合用碳鋼，經滲碳氮化處理，表面硬度高，缸體內面硬度高耐磨損。
- ◆壓板需增加長度時，請勿大於原長度之1.5倍。

Introduction of product

- ◆Threaded body can help you to use the screw of cylinder body and locknut to fix swing clamp on fixture plate. It has single and double acting type.
- ◆Feature of the doubling acting type. Oil circuits control clamping and unclamping, you can control the clamping and unclamping by changing the direction value.
- ◆Feature of the single acting type. The design of the interior system is simple. It is not necessary to design for unclamping. It can return back to original position by spring and the system design is simple because of few accessories.
- ◆The material of the cylinder body is carbon steel and treated by nicarbing. The hardness of the outside and inside surface of the cylinder is high and the cylinder is antiabrasive.
- ◆Please don't exceed 1.5 times of the original length, if you need to increase the length of the clamping arm.

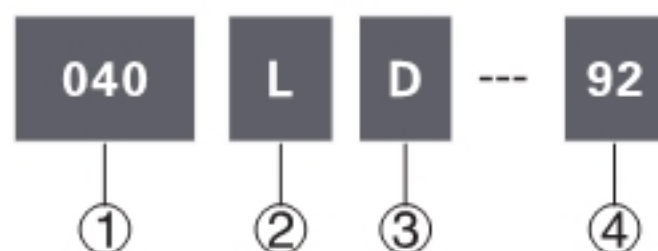
特性資料 Specification 單動系列 Single Acting

油缸類型 Type of cylinder	040LS-22	040LS-52	040LS-92	040LS-121	040LS-202
	040RS-22	040RS-52	040RS-92	040RS-121	040RS-202
油缸內徑 Bore of cylinder(mm)	Φ14	Φ22	Φ32	Φ32	Φ45
垂直行程 Clamping stroke (mm)	8	10	12	13	14
總行程Total stroke (mm)	16.5	22.6	22.1	28.4	27.9
受壓面積拉入 Pressure area pull cm ²	0.75	1.79	3.13	4.24	7.86
理論夾持力 Theoretical clamping 250kg/cm ²	173kg	380kg	710kg	970kg	1830kg
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
使用壓力範圍Range of pressure(kg/cm ²)	35-250kg/cm ²				
轉角角度 Rotating angle	標準角度Standard angle 90° 特殊角度 Especial angle 30°, 45°, 60° 可定制 Can order				

特性資料 Specification 復動系列 Double Acting

油缸類型 Type of cylinder	040LD-22	040LD-52	040LD-92	040LD-121	040LD-202
	040RD-22	040RD-52	040RD-92	040RD-121	040RD-202
油缸內徑 Bore of cylinder(mm)	Φ14	Φ22	Φ32	Φ32	Φ45
垂直行程 Clamping stroke (mm)	8	10	12	13	14
總行程Total stroke (mm)	16.5	22.6	22.1	28.4	27.9
受壓面積拉入/推出 Pressure area pull/push cm ²	0.75/1.53	1.79/3.79	3.13/8.03	4.24/8.03	7.86/15.89
理論夾持力 Theoretical clamping 250kg/cm ²	180kg	445kg	780kg	1060kg	1960kg
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
使用壓力範圍Range of pressure(kg/cm ²)	35-250kg/cm ²				
轉角角度 Rotating angle	標準角度Standard angle 90° 特殊角度 Especial angle 30°, 45°, 60° 可定制 Can order				

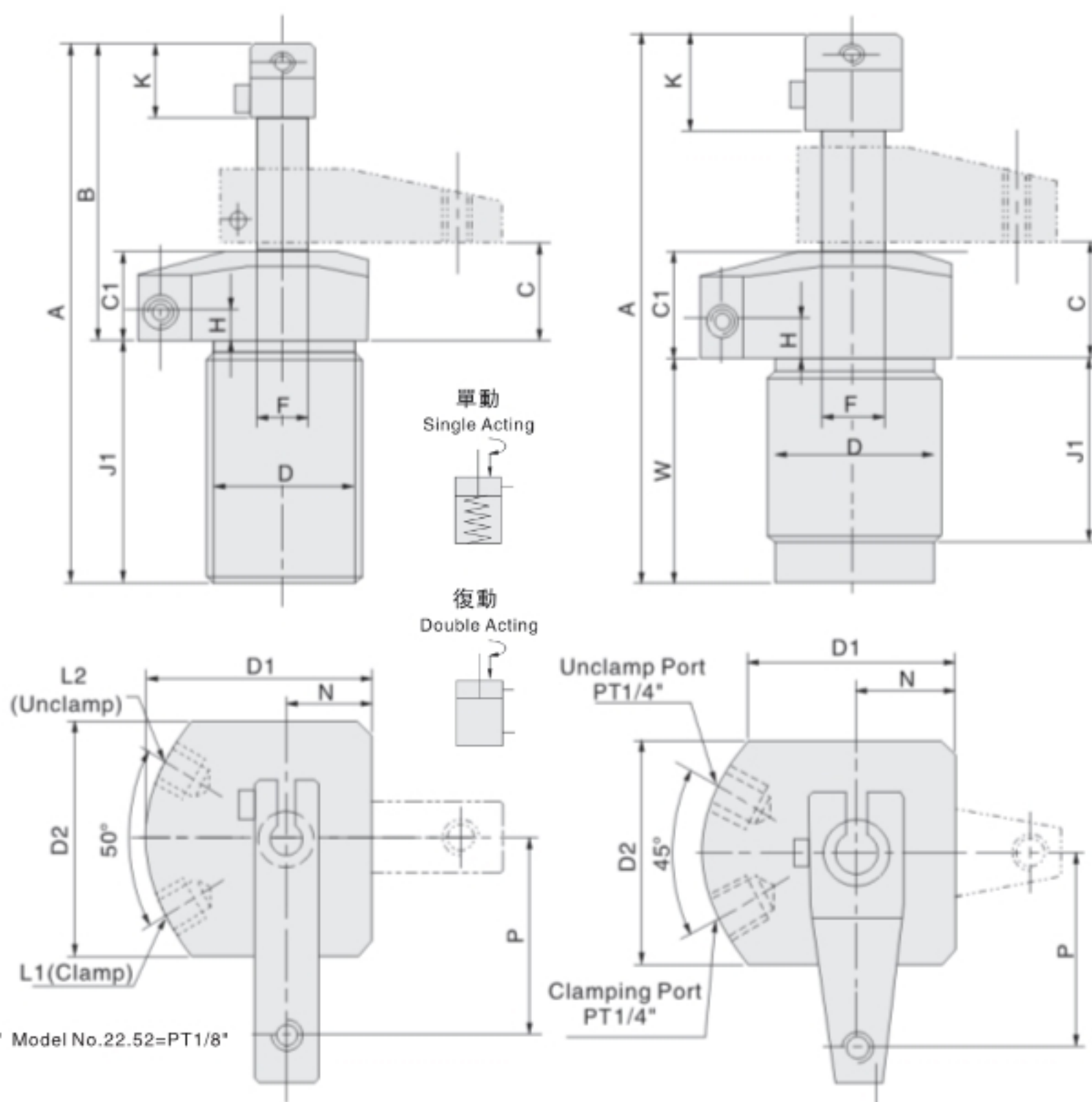
訂購標示法 Ordering Code



①	系列號 Series	040
②	轉角方向 Rotating direction	右轉R或左轉L Turn right R or Turn left L
③	作動方式 Acting type	單動式 S:Single acting 復動式 D:Double acting
④	型號 Type	22,52,92,121,202

Model No.,-22,52,121

Model No.,-92,202,



Model No.121=PT1/4" Model No.22,52=PT1/8"

外形尺寸表 Dimension table 單動式 Single acting

單位 (Unit) : mm

MODEL ITEM	A	B	C	C1	D	D1	D2	ΦF	H	J1	K	N	P	W	Weight
040LS-22 040RS-22	112	59	26	25	M28x1.5	39.4	33	10	10	---	16	15.5	25	---	0.5
040LS-52 040RS-52	135	69	27	25	M35x1.5	47.5	38	16	10	---	19	19.1	40	---	1.1
040LS-92 040RS-92	143	80	33	30	M48x1.5	62.5	48	25	13	43	25	23.9	45	63	2.0
040LS-121 040RS-121	171	86	27	25	1 7/8-16	60.5	51	22	10	---	30	25.4	50	---	1.6
040LS-202 040RS-202	165	93	35	32	M65x1.5	75.9	65	32	13	55	30	32.5	55	71.9	3.2

外形尺寸表 Dimension table 復動式 Double acting

單位 (Unit) : mm

MODEL ITEM	A	B	C	C1	D	D1	D2	ΦF	H	J1	K	N	P	W	Weight
040LD-22 040RD-22	112	59	26	25	M28x1.5	39.4	33	10	10	53	16	15.5	25	---	0.5
040LD-52 040RD-52	135	69	27	25	M35x1.5	47.5	38	16	10	66	19	19.1	40	---	1.1
040LD-92 040RD-92	143	80	33	30	M48x1.5	62.5	48	25	13	43	25	23.9	45	63	2.0
040LD-121 040RD-121	171	86	27	25	1 7/8-16	60.5	51	22	10	86	30	25.4	50	---	1.6
040LD-202 040RD-202	165	93	35	32	M65x1.5	75.9	65	32	13	55	30	32.5	55	71.9	3.5

產品簡介

- ◆當空間非常小時,050系列具備最小的安裝高度;但須預留孔放置轉角缸;缸體的主結構可隱藏在工作臺面;安裝簡單,祇用三四個螺栓就能固定;對稱法蘭設計使轉角缸採用三點或四點螺栓對稱固定。050分為單動式和復動式兩種。
- ◆往復式特點:夾緊與鬆卸完全靠油路控制,按照換向閥的方向交替來控制轉角缸的夾緊與鬆卸過程。
- ◆單動式特點:內部系統化比較簡單,沒有卸載系統,卸載時靠彈簧回力完成鬆卸行程;外部管路的閥門及附件較少使配套系統比較簡單。單動式可以空載回程。
- ◆缸體材質合用碳鋼,經滲碳氮化處理,表面硬度高,缸體內面硬度高耐磨損。
- ◆壓板需增加長度時,請勿大於原長度之1.5倍。

Introduction of product

- ◆050 series owns smallest height for mounting when space is limited, but it is necessary to manufacture a hole for installing swing clamp on fixture plate and the cylinder body can be inserted into the fixture plate. Installing is very simple. You just need 3 or 4 PCS of bolts to fix your swing clamp cylinder. It has single acting and double acting type.
- ◆Feature of the doubling acting type. Oil circuits control clamping and unclamping, you can control the clamping and unclamping by changing the direction value.
- ◆Feature of the single acting type. The design of the interior system is simple. It is not necessary to design for unclamping. It can return back to original position by spring and the system design is simple because of few accessories. It can return back to position under free load.
- ◆The material of the cylinder body is carbon steel and treated by nicarbing. The hardness of the outside and inside surface of the cylinder is high and the cylinder is antiabrasive.
- ◆Please don't exceed 1.5 times of the original length, if you need to increase the length of the clamping arm.

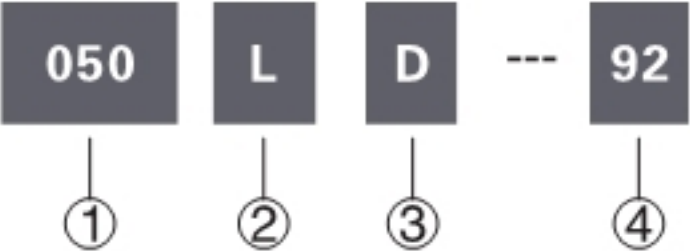
特性資料 Specification 單動系列 Single Acting

油缸類型Type of cylinder	050LS-22	050LS-52	050LS-92	050LS-121	050LS-202
	050RS-22	050RS-52	050RS-92	050RS-121	050RS-202
油缸內徑 Bore of cylinder(mm)	Φ14	Φ22	Φ32	Φ32	Φ45
垂直行程 Clamping stroke (mm)	8.1	9.9	11.9	12.7	14.0
總行程Total stroke (mm)	16.5	22.6	22.1	28.4	27.9
受壓面積拉入 Pressure area pull cm ²	0.75	1.79	3.13	4.24	7.86
理論夾持力 Theoretical clamping 250kg/cm ²	173kg	380kg	710kg	970kg	1830kg
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
使用壓力範圍Range of pressure(kg/cm ²)	35-250kg/cm ²				
轉角角度 Rotating angle	標準角度Standard angle 90° 特殊角度 Especial angle 30°, 45°, 60° 可定制 Can order				

特性資料 Specification 復動系列 Double Acting

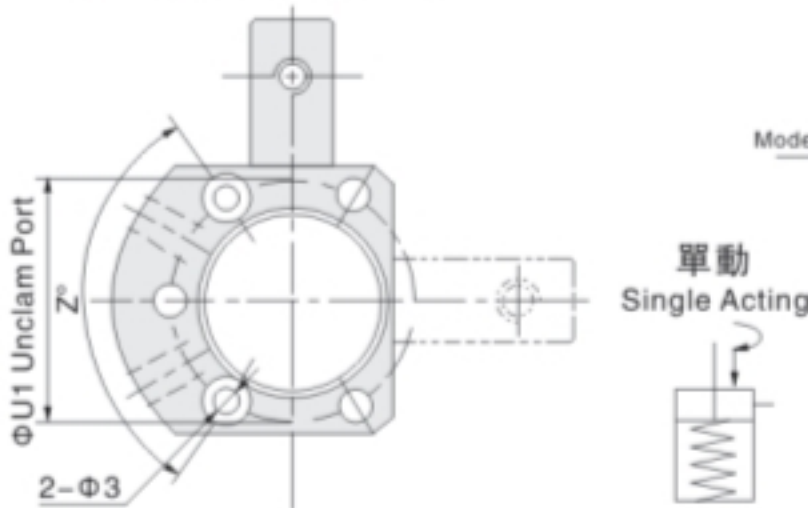
油缸類型Type of cylinder	050LD-22	050LD-52	050LD-92	050LD-121	050LD-202
	050RD-22	050RD-52	050RD-92	050RD-121	050RD-202
油缸內徑 Bore of cylinder(mm)	Φ14	Φ22	Φ32	Φ32	Φ45
垂直行程 Clamping stroke (mm)	8	9.9	11.9	12.7	14.0
總行程Total stroke (mm)	16.5	22.6	22.1	28.4	27.9
受壓面積拉入/推出 Pressure area pull/push cm ²	0.75/1.53	1.79/3.79	3.13/8.03	4.24/8.03	7.86/15.89
理論夾持力 Theoretical clamping 250kg/cm ²	180kg	445kg	780kg	1060kg	1960kg
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
使用壓力範圍Range of pressure(kg/cm ²)	35-250kg/cm ²				
轉角角度 Rotating angle	標準角度Standard angle 90° 特殊角度 Especial angle 30°, 45°, 60° 可定制 Can order				

訂購標示法 Ordering Code

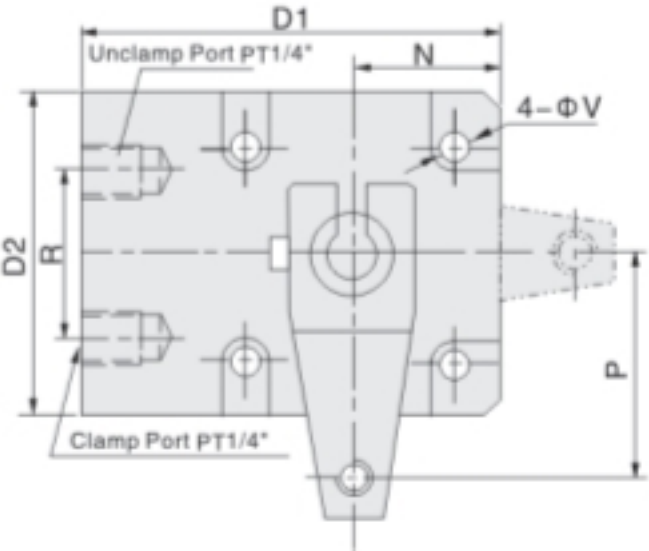
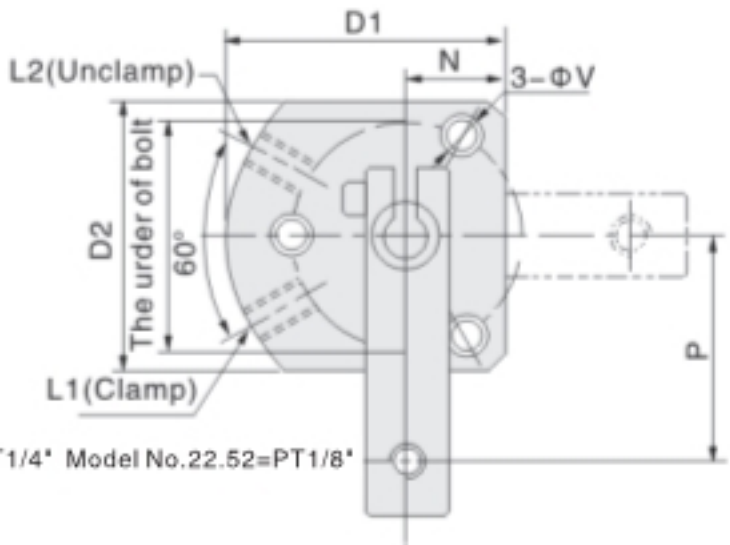
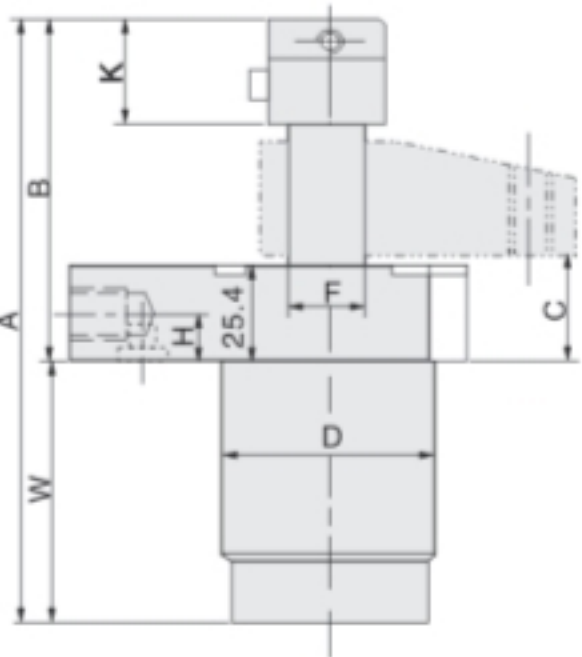
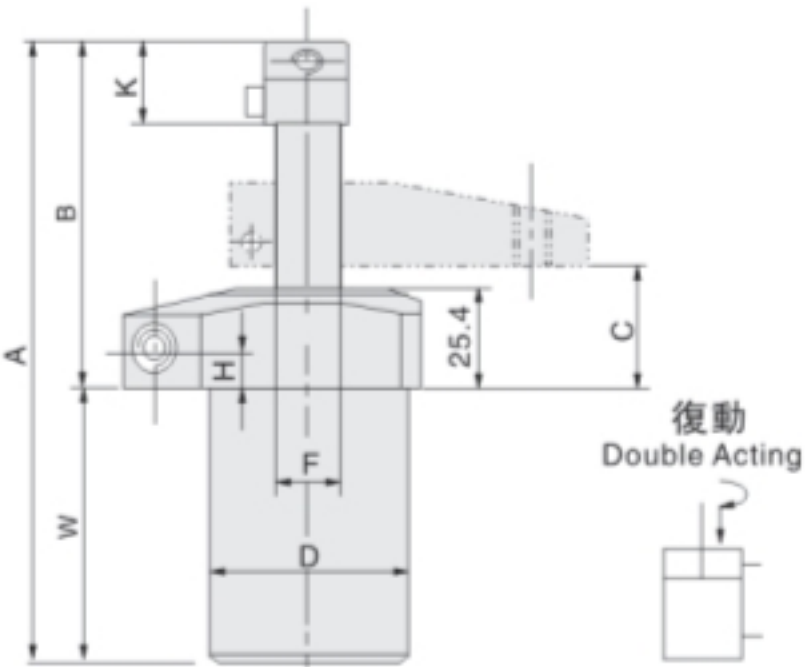
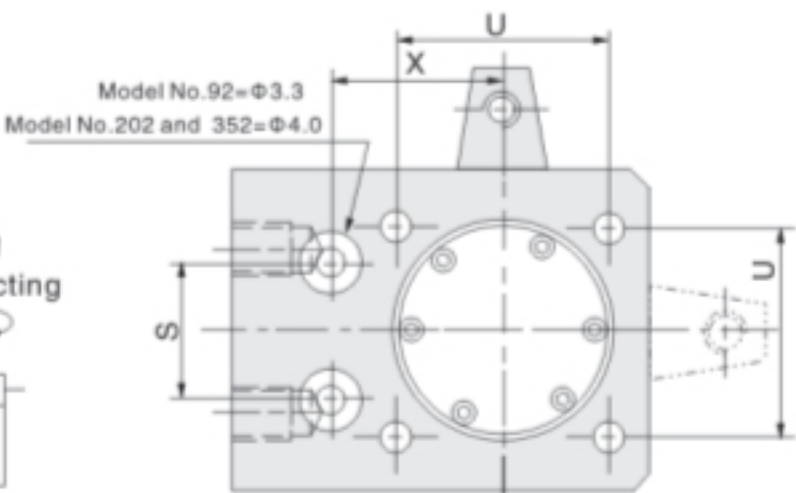


①	系列號 Series	050
②	轉角方向 Rotating direction	右轉R或左轉L Turn right R or Turn left L
③	作動方式 Acting type	單動式 S:Single acting 復動式 D:Double acting
④	型號 Type	22,52,92,121,202

Model No.-22,52,121



Model No.-92,202



Model No.121=PT1/4" Model No.22.52=PT1/8"

外形尺寸表 Dimension table 單動式 Single acting

單位 (Unit) : mm

MODEL ITEM	A	B	C	ΦD	D1	D2	ΦF	H	K	N	P	R	S	U	ΦU1	ΦV	W	X	Z°
050LS-22 050RS-22	118	65	31	27.9	47.2	45	10	11	16	15.5	40	---	---	---	40	5.5	53.1	---	60
050LS-52 050RS-52	145	79	33.5	34.8	54.1	57	16	11	22.2	19.1	49	---	---	---	50	6.8	66.0	---	110
050LS-92 050RS-92	153	84	35	47.8	70.1	54	25	12	25	26.9	45	23.6	23.6	42	---	6.9	68.5	28.7	---
050LS-121 050RS-121	171.5	86	38.5	47.8	66.8	73	22	10	30	25.4	51	---	32	---	64	8.8	85.9	---	110
050LS-202 050RS-202	165.1	86	28	63.0	85.1	70	32	13	30	35.1	55	26	29.2	55	---	8.5	79.0	35.6	---

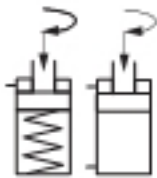
外形尺寸表 Dimension table 復動式 Double acting

單位 (Unit) : mm

MODEL ITEM	A	B	C	ΦD	D1	D2	ΦF	H	K	N	P	R	S	U	ΦU1	ΦV	W	X	Z°
050LD-22 050RD-22	118	65	31	27.9	47.2	45	10	11	16	15.5	40	---	---	---	40	5.5	53.1	---	60
050LD-52 050RD-52	145	79	33.5	34.8	54.1	57	16	11	22.2	19.1	49	---	---	---	50	6.8	66.0	---	110
050LD-92 050RD-92	153	84	35	47.8	70.1	54	25	12	25	26.9	45	23.6	23.6	42	---	6.9	68.5	28.7	---
050LD-121 050RD-121	171.5	86	38.5	47.8	66.8	73	22	10	30	25.4	51	---	---	---	64	8.8	85.9	---	110
050LD-202 050RD-202	165.1	86	28	63.0	85.1	70	32	13	30	35.1	55	26	29.2	55	---	8.5	79.0	35.6	---

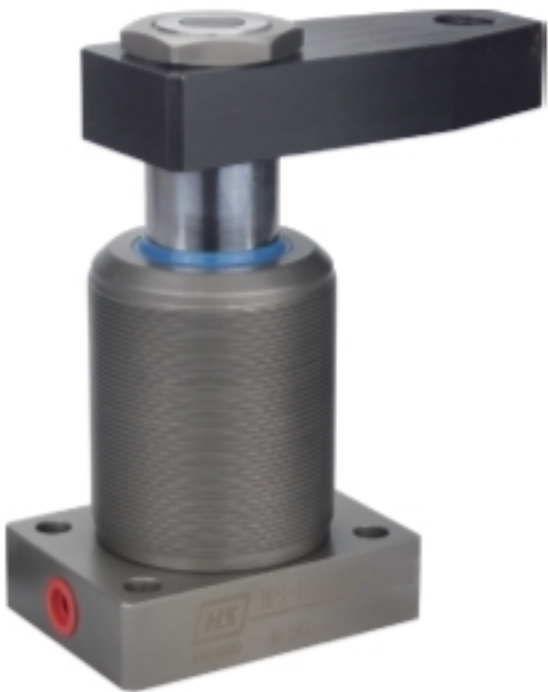
產品簡介

- 此型式油壓缸適用於夾持工件取放空間保持靜空,方便工件取放高壓夾持。
- 油壓缸夾持動作為下壓式,含有旋轉行程(請勿夾持工件)以及垂直下壓行程。
- 本產品使用德制油封及進口零件,缸體內壁經特殊加工處理表面光滑,確保使用性能及壽命。
- 最大充油速度請參考特性資料,請勿使用過大充油速度,以免回轉過快,如有回轉發不確定,請安裝流量控制閥,降低充油速度。
- 壓板長度使用壓力請參考P152所示,請勿任意超長使用。



Introduction of product

- The series of swing clamp cylinder is ideal for workpiece clamping which requires a sufficient space for convenient workpiece loading and unloading and high pressure clamping.
- It provides swing motion (do not clamp workpiece) and certocal hold down motion.
- The swing clamp cylinder employs Germany oil seal and imported parts.The inside surface of cylinder barrel is specially treated,featuring maximum smothness, high performmance and long service lofe.
- For maximum oil feeding speed, refer to specifications.Do not exceed oil feeding speed to avoid too high swing speed.In case improper swing speed occurs,it is suggested to equip with an additional oil flow control valve to erduce oil feeding speed.
- Refer to the dimensinal drawing for proper swing arm length and operation pressure Do not extend the swing arm is desired.



特性資料 Specifications

油缸內徑	Bore of cylinder	mm	Φ25	Φ40	Φ50	Φ63
活塞杆徑	Piston rod siamerer	mm	Φ20	Φ32	Φ40	Φ50
轉角行程	Swing stroke	mm	7	8	11	12
垂直行程	Clamping stroke	mm	11	14	15	15
最大充油速度	Max oil filling speed	cc/s	3.2	10	18.4	27.7
下壓需求量	Downward clamping oil required	cc	3.2	10	18.4	27.7
回復需求量	Return oil erquired	cc	8.8	27.7	51	74.8
轉角方向	Rotating direction	順時針右轉R或逆時針左轉 L Turn eight R or tyrn ltft L				
轉角角度	Rotating angle	標準角度90° Standard angle 90°				
最小操作壓力	Min operation presure	40kg/cm ²				

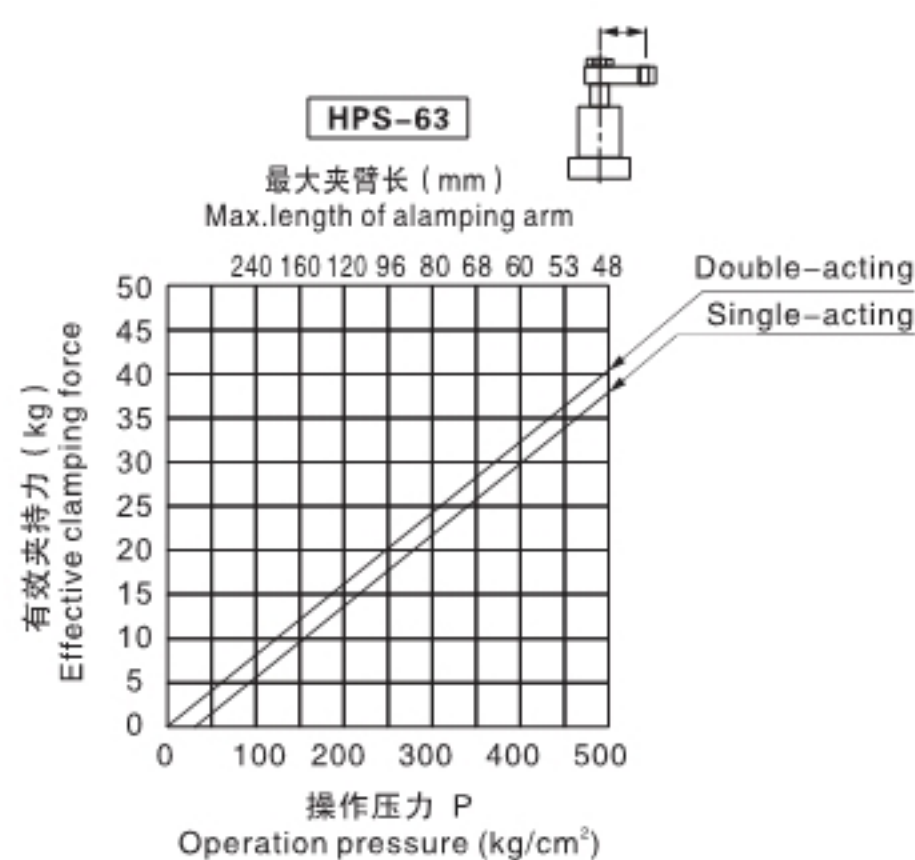
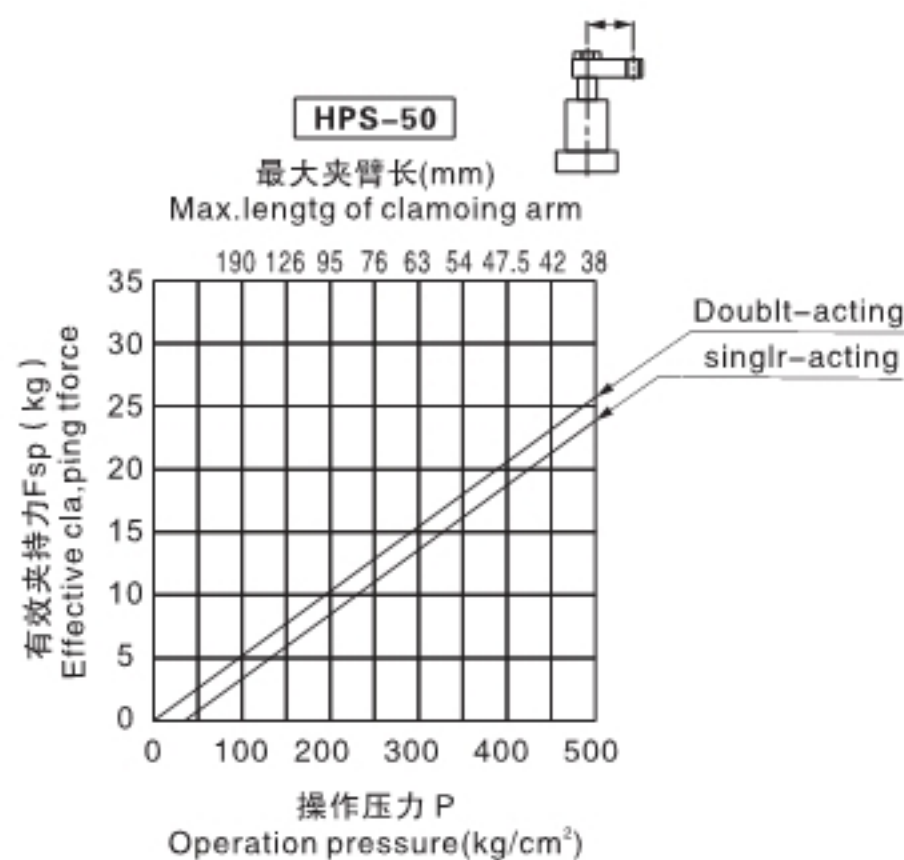
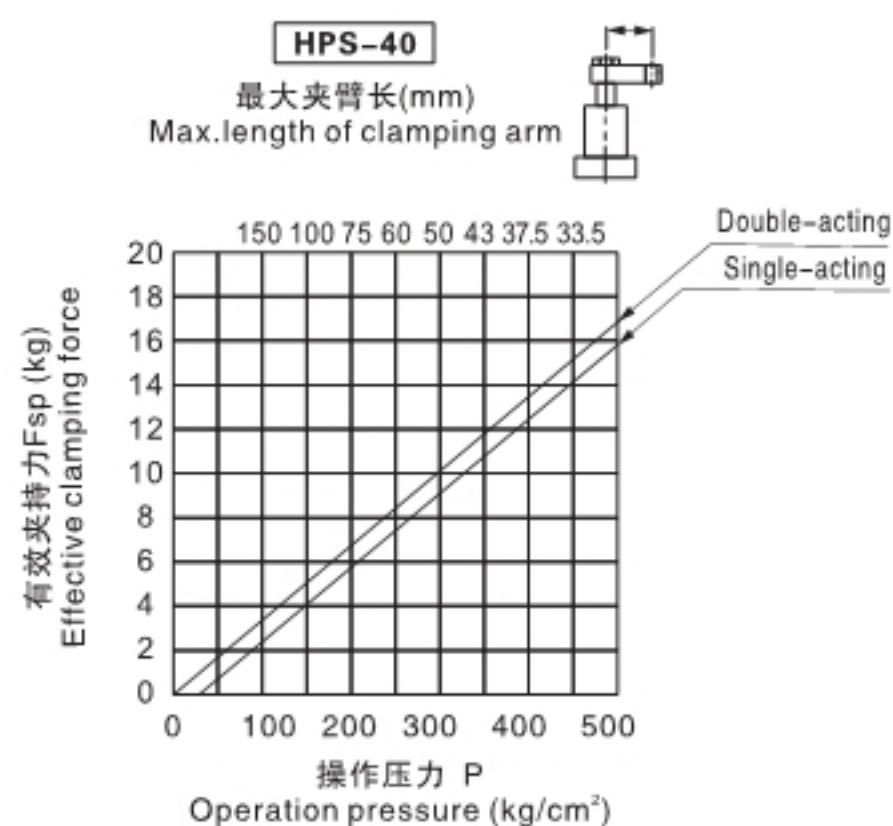
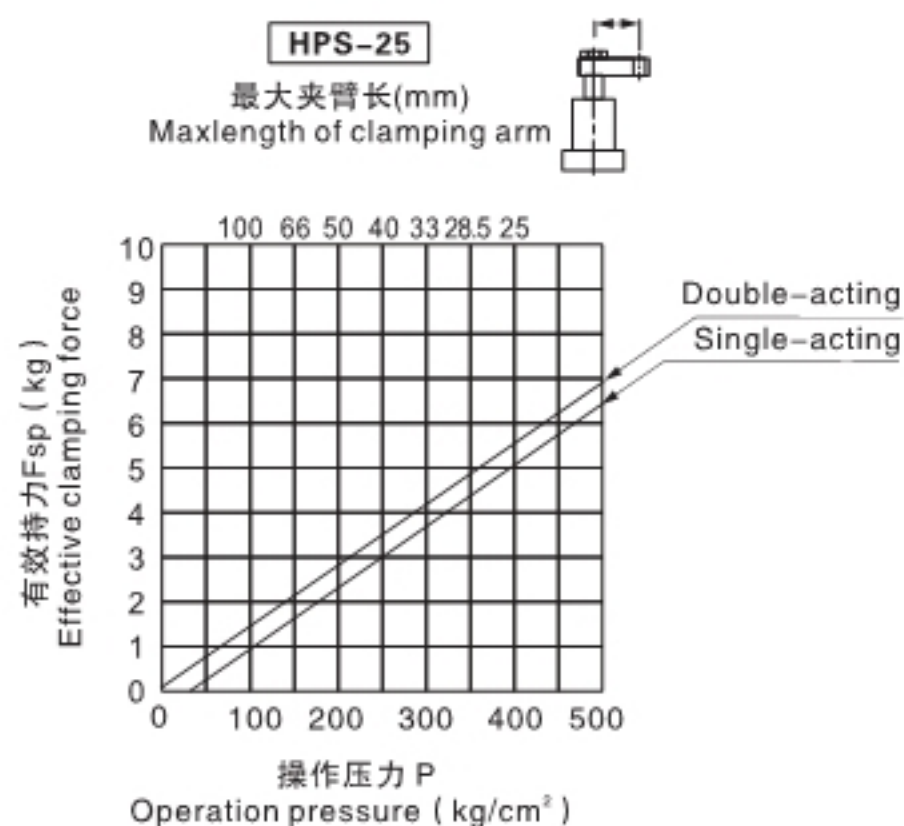
訂購標示法 Ordering Code

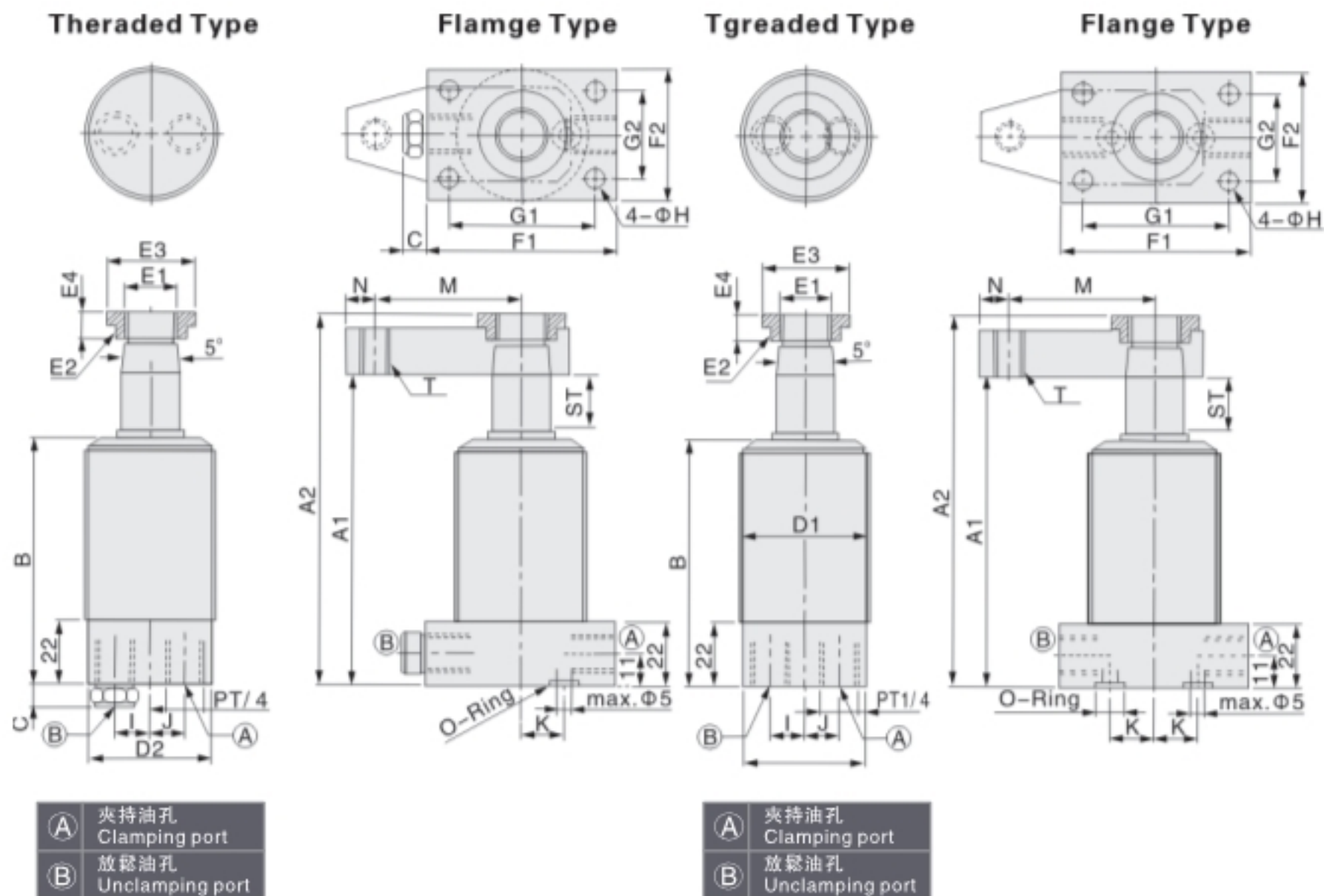
HPS - 25 S A R x 90

① ② ③ ④ ⑤ ⑥

1	系列別 Series	HPS	
2	油缸內徑 Bore of cylinder	Φ25, Φ40, Φ50, Φ63	
3	作動方式 Acting type	單動	S:Single -acting
		復動	D:Double-acting
4	安裝型式 Mounting type	全牙型	A:Threaded type
		底座型 Flange	B:配管型 Line type
			C:油路板型 Manifpld type
5	轉角方向 Rotating direction	順時針右轉R或逆時左轉L Turn right r or turn left L	
6	轉角角度 Rotating angle	標準角度 90 Stand aed anglr 90°	

有效夾持力FSP與使用壓力P對照圖





外形尺寸表 Dimension table

UNIT:mm

ITEM	MODEL	HPS-25	HPS-40	HPS-50	HPS-63
ST:Swing/Clamping		18:7/11	22:8/14	26:11/15	27:12/15
A1		105.5	119.5	138	142
A2		126.5	147.5	172	182
B		84.5	94.5	110	119.5
C		8	8	8	8
D1		M45X1.5	M60X1.5	M80x2.0	M90x2.0
D2		Φ43	Φ58	Φ77	Φ88
E1		M18X15	M28X1.5	M35X1.5	M45X1.5
E2		Φ23.5	Φ33.5	Φ45.5	Φ55.5
E3		30	40	55	68
E4		9	10	11	12
F1		65	85	100	115
F2		45	63	80	90
G1		50	65	80	90
G2		30	44	60	68
H		Φ6.5	Φ8.5	Φ13.5	Φ16
I		12	12.5	19	25.5
J		12	19.5	26.5	34
K		15	28	31	37.5
O-Ring		S7	S7	S7	S7
M		50	75	95	120
N		10	15	15	18
T		M10X1.5	M16X2	M16X2	M20X2.5

產品簡介

- ◆ 本產品機構內附油壓順序閥，預壓式特性操作時可將作動缸充滿油，達到預先設定之壓力，順序閥動作，即可獲得倍數增壓。
- ◆ 適用於油壓專用機，MC治具低壓回路中，部份油壓缸需高壓操作之場合，僅需一祇電磁閥或安裝於管路中，即可操作HB增壓器，可將低油壓自動轉換成高油壓，獲得高壓夾持。

Introduction of product

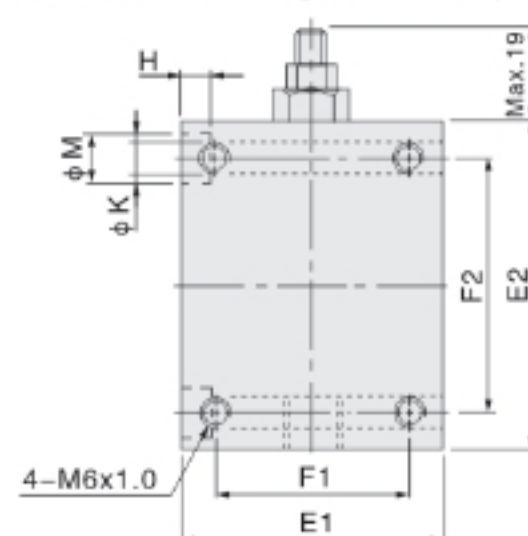
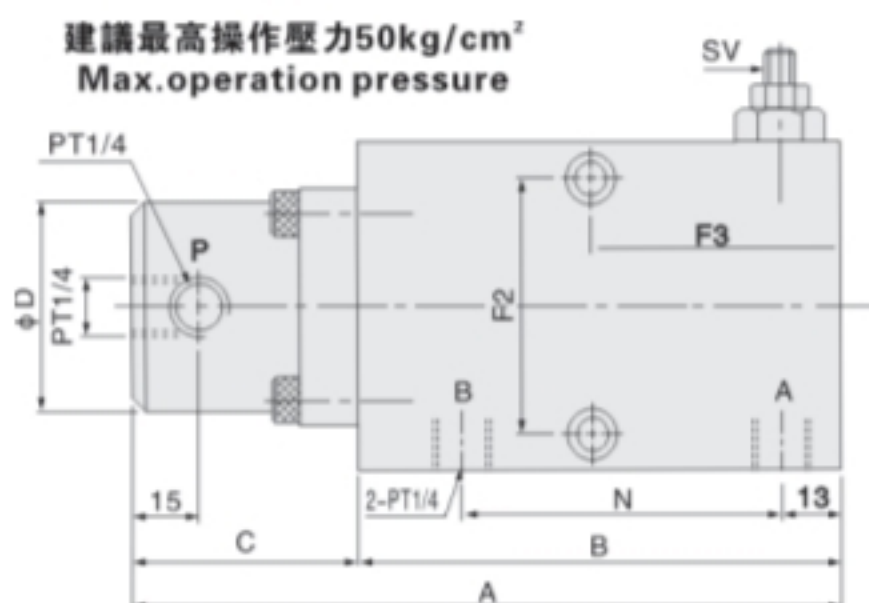
- ◆ A hydraulic sequential valve is attached to this booster .when operating , it oils cylinder and makes it be at the dual pressure and let the sequential valve act , and then it will have multiple boosting pressure .
- ◆ It's fit for hydraulic special purpose machine and MC clamp in low pressure circuit. It needs a solenoid valve installed in the circuit, and then it will be able to operate HB super-charger. The super-charger may be converted automatically from low oil-pressure into high oil-pressure and obtain a high pressure clamping



SV油壓順序閥調整參考
Adjustment reference for sv sequence valve

M6 長度L M6 Length L mm	7	6	5	4	3	2	1
啓動壓力 Start Pressure kg/cm ²	20	25	30	35	40	45	50

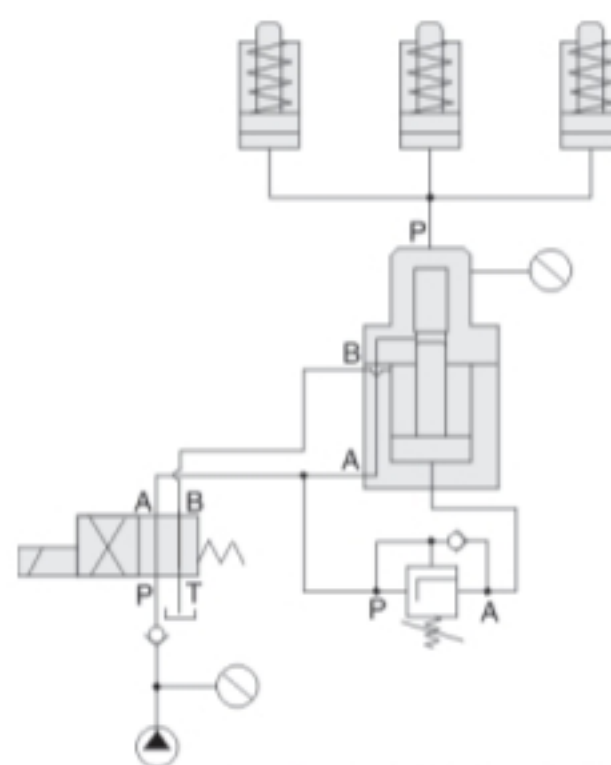
出廠設定壓力30kg/cm²
Pressure set at 30kg/cm² for shipment



外形尺寸表 Dimension table 單位 (Unit) : mm

MODEL	HB-9 × 6	HB-8 × 22	HB-5 × 35	HB-3.8 × 45
增壓倍數 Multiple boost	9	8	5	3.8
高壓吐油量 High pressure output	6cc	22cc	35cc	45cc
A	157	210		
B	107	139		
C	50	71		
φ D	φ 46	φ 58		
E1	58	82		
E2	72	100		
F1	43	62		
F2	56	80		
F3	55	70		
H	7	9		
φ K	φ 7	φ 9		
φ M	φ 11	φ 14		
N	71	96		

回路圖 Circuit diagram



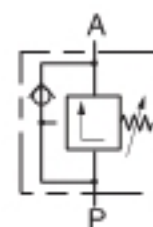
A:進油, B: 回油, P: 出油

產品簡介

- ◆此型式油壓順序閥，特別適用於夾具回路，由壓力決定油壓缸之順序動作，體積小，耐高壓，安裝於回路中，不需其他控制，即可得到順序動作確實之效果。
- ◆本產品提供 A：油路板型 B：配管型兩種型式，可依夾具整體設計安裝方式需要作適當選擇。

Introduction of product

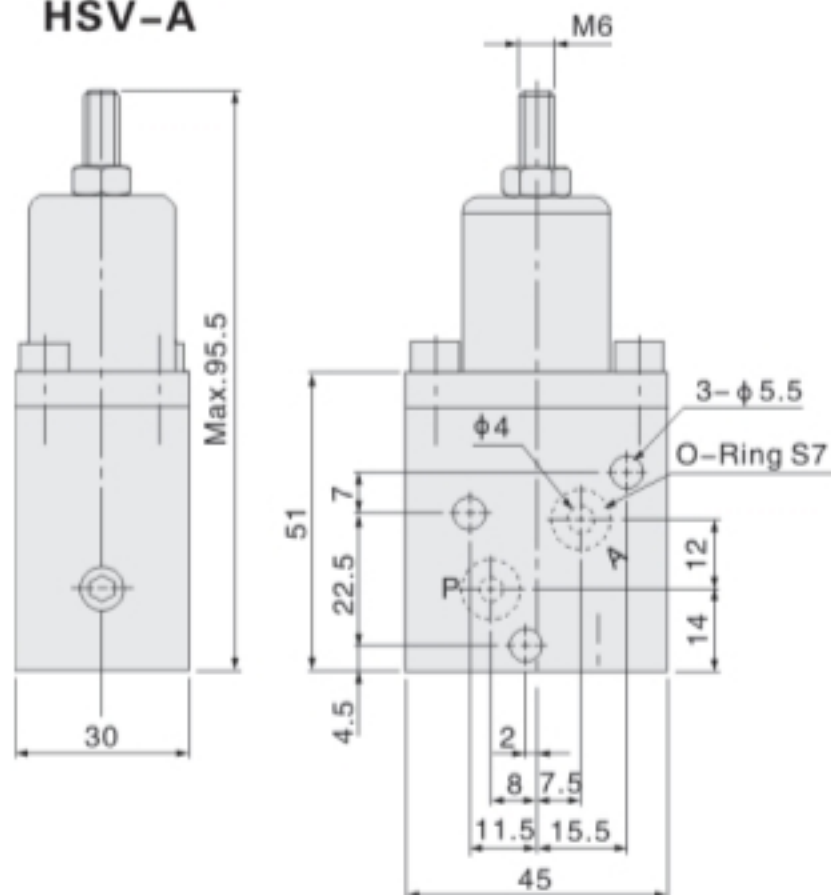
- ◆This series of hydraulic sequence valve is especially ideal for your fitting on the circuit of fixture. The hydraulic cylinder motion sequences are decided by the pressure. The sequence valve features compact construction and high pressure resistance. It requires no further control when fitting on the circle, and provides a positive sequential motion control.
- ◆This series provides two types mounting type for choice. A type is a manifold mounting type and B type is a line mounting type. You get a flexible choice of mounting types to suit your fixture design.

型式與壓力調整範圍
Type and Pressure Range

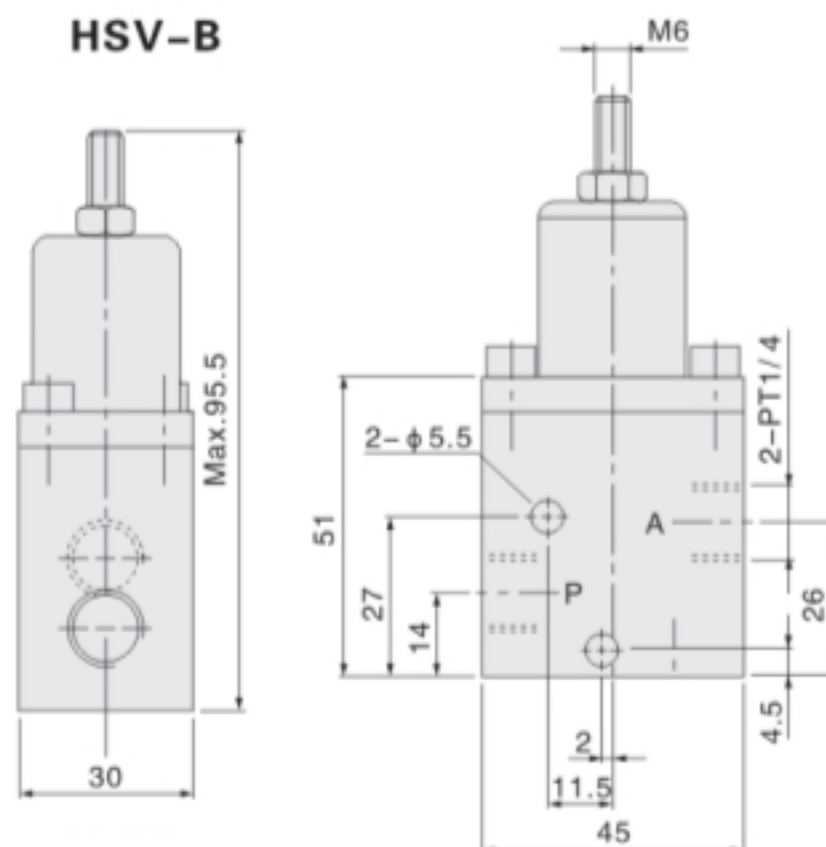
油路板型 Manifold type	配管式 Line type
HSV-A	HSV-B
25-250kg/cm ²	25-250kg/cm ²

注：1、多個順序閥并聯于回路中使用時，相互間設定壓力差不得小於1Mpa(10kgf/cm²)
2、工作壓力和設定壓力差值必須要1Mpa以上

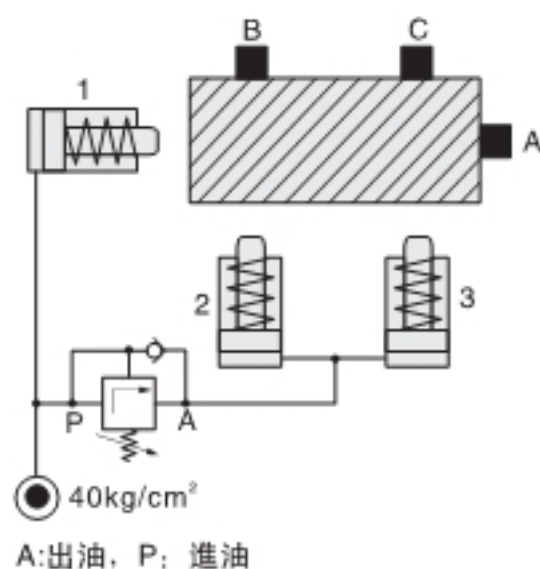
HSV-A



HSV-B



回路圖 Circuit diagram



油壓缸1將工件推向A.壓力達到HSV設定40kg/cm²
油壓缸2,3同時將工件推向B,C,獲得順序夾持動作。
The hydraulic cylinder 1 pushes workpiece to A. The pressure reaches to the setting value 40kg/cm² on HSV.
The hydraulic cylinders 2 and 3 push workpiece to B and C to provide sequential clamping motion

產品簡介

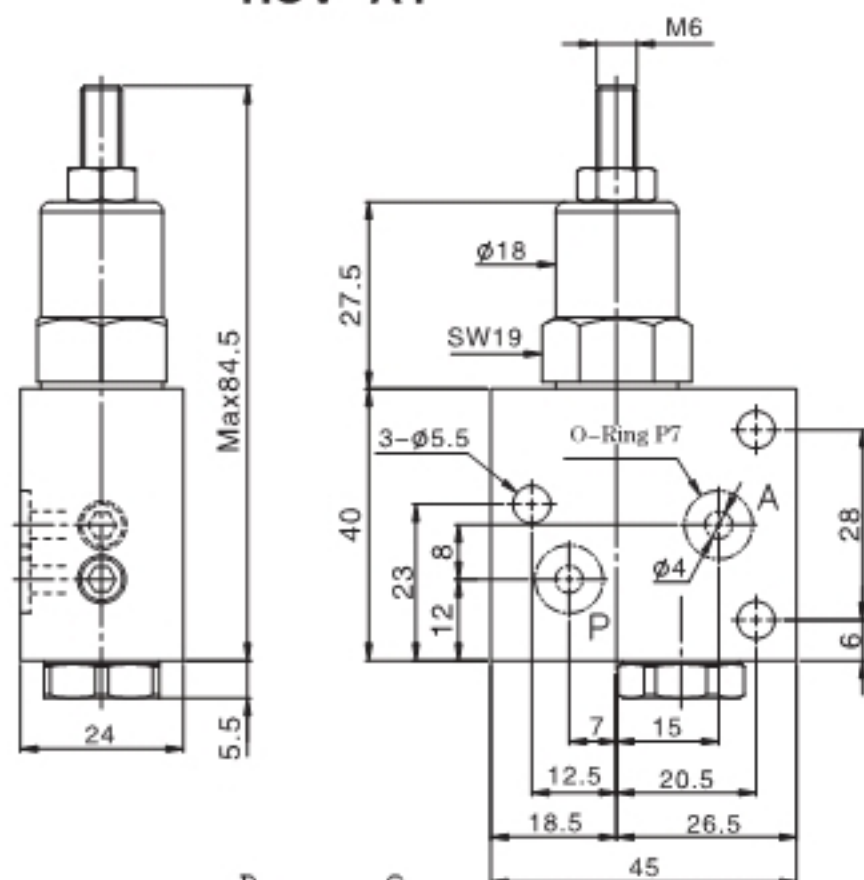
此形式油壓順序閥，特別適用於夾具回路，
由壓力決定油壓缸之順序動作，體積小，耐高壓，安裝于回路中，
不需其他控制，即可得到順序動作確實之效果。
本產品提供A：油路板型 B：配管型 兩種形式，
可依夾具整體設計安裝方式需要作適當選擇。

Introduction of product

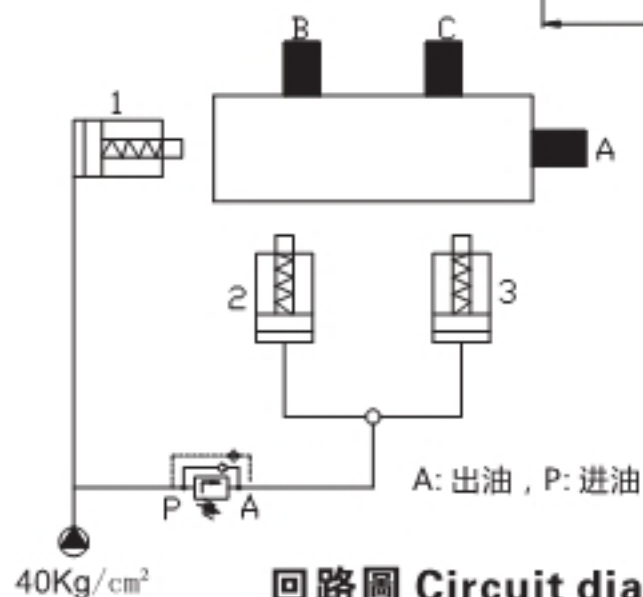
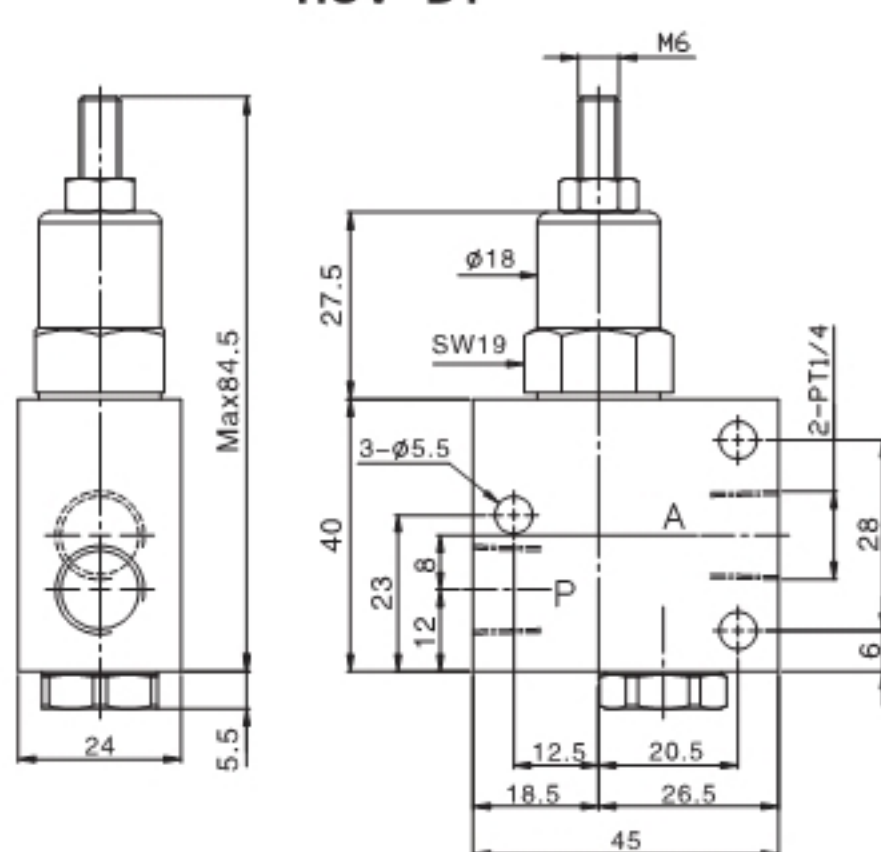
The series of hydraulic sequence valve is especially ideal for fitting on the circuit of fixture.
The hydraulic cylinder motion sequences are decided by the pressure.
The sequence valve features compact construction and high pressure resistance.
It requires no further control when fitting on the circuit, and provides a positive sequential motion control.
The series provides two types of mounting type for choice, A type is a manifold mounting type, and B type is a line mounting type.
You get a flexible choice of mounting types to suit your fixture design.



HSV-A1



HSV-B1



油路板型 Manifold type	配管式 line type	壓力調整範圍 Pressure Range
HSV-A1	HSV-B1	10-70kg/cm ²

油壓缸1將工件推向A，壓力達到HSV設定40kg/cm²。

油壓缸2.3同時將工件推向B.C，獲得順序夾持動作。

The hydraulic cylinder pushes workpiece to A, The pressure reaches to the setting value 40kg/cm² on HSV. The hydraulic cylinders 2 and 3 push workpiece to B and C to provide sequential clamping motion.

規格 Specifcatio

型號/Model no.	HLG-3A	HLG-6A
壓力調整範圍/Actuating pressure range Mpa	1.0~6.0	5.0~18.0
使用壓力範圍/Oderating pressure range Mpa	2.0~35.0	6.0~35.0
調節螺釘壓力變化值 (Mpa/每圈) /Adjusting screw turn ratio Mpa/Rev	1.0	2.8
開啓壓力(Mpa)/Cracking Pressure	0.01	
使用溫度/Operating temperature ℃	0~70℃	
使用流體/Useable fluid	相當于ISO粘度等級的ISO-VG-32一般液壓油 General hydraulic Oil equivalent to ISO-vg-32	

注意事項

1次側供油量過多有時導致不能標準的進行順序動作。
請在1次側油孔前面安裝內置有單向閥的流量調節閥，或者在油壓源上進行流量控制。

Matters needing attention

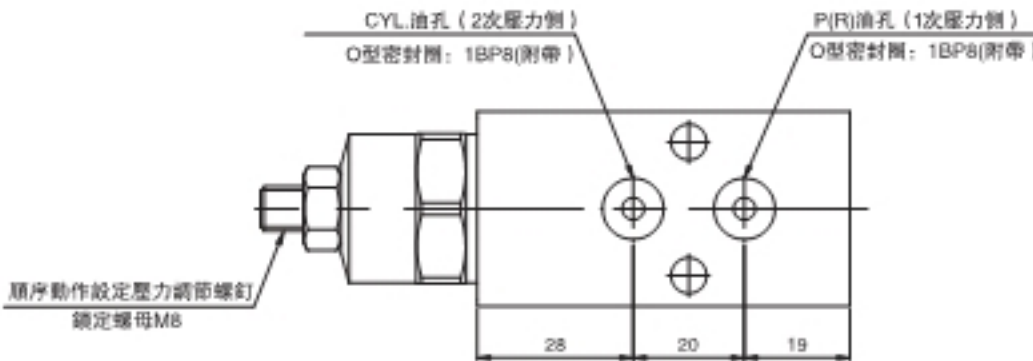
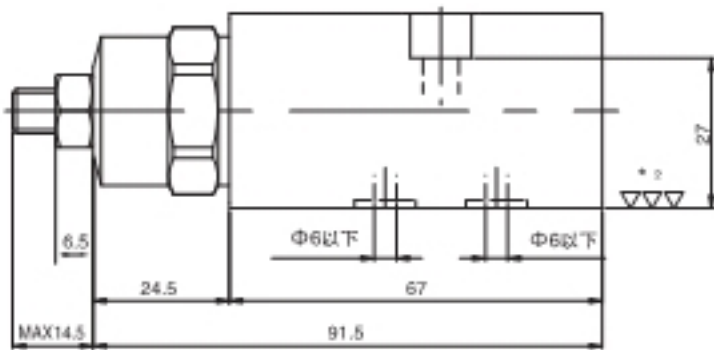
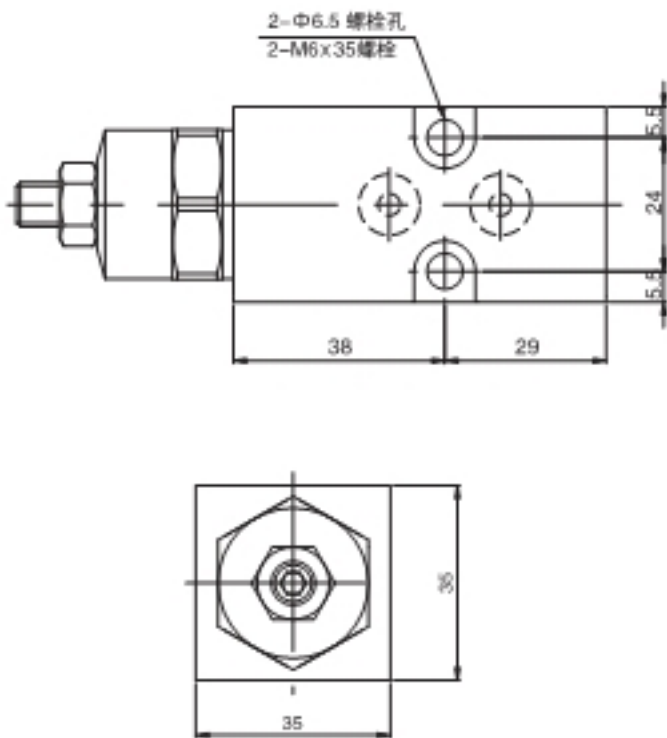
Too much too much of the 1 side of the supply can not be standard in order to carry out the order of action.
Please install a flow control valve with a check valve in the front of the 1 side of the oil hole, or flow control on the oil pressure source.



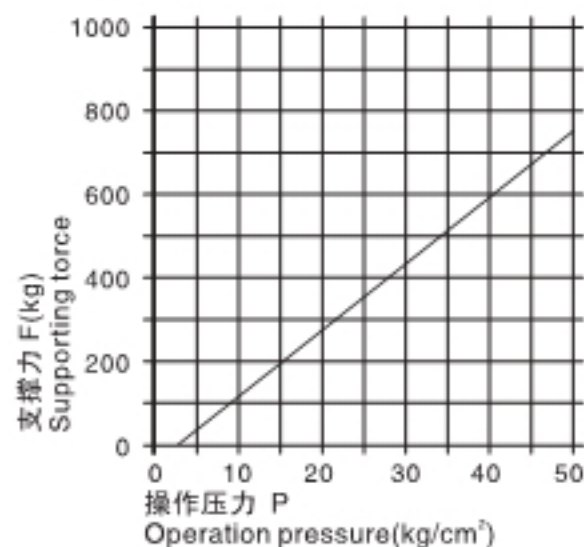
訂購標示法 Ordering Code

HLG-3 A(5.0MPa)

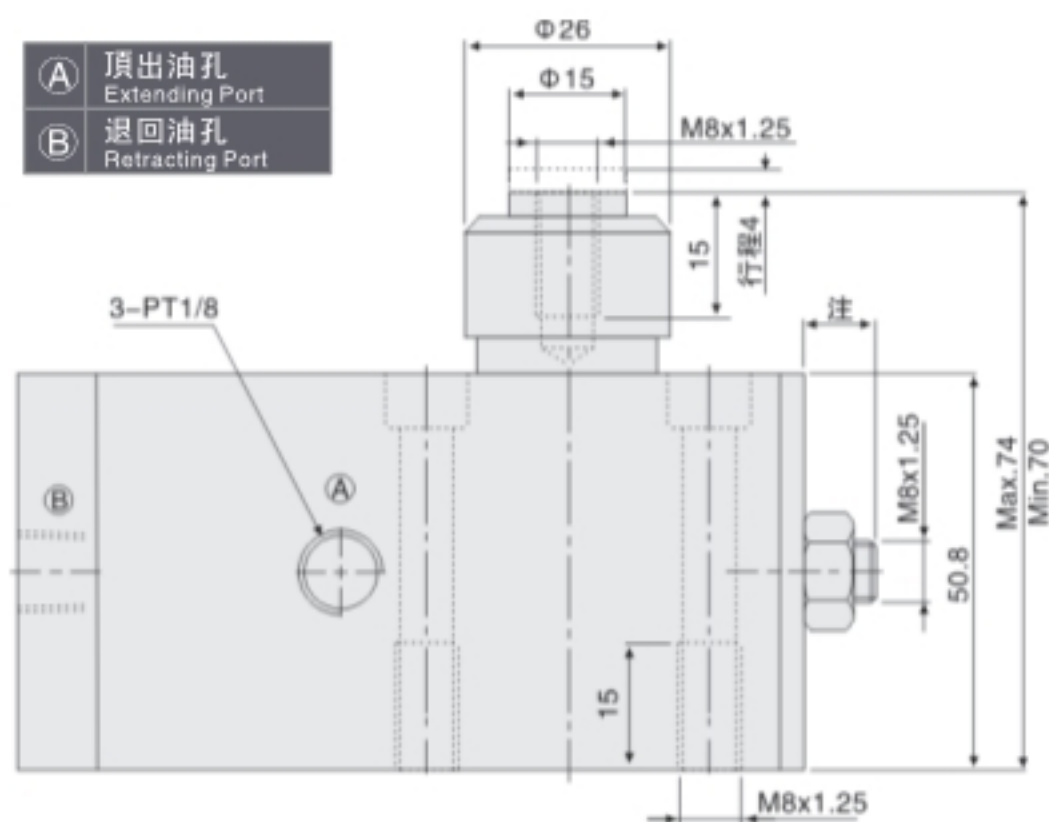
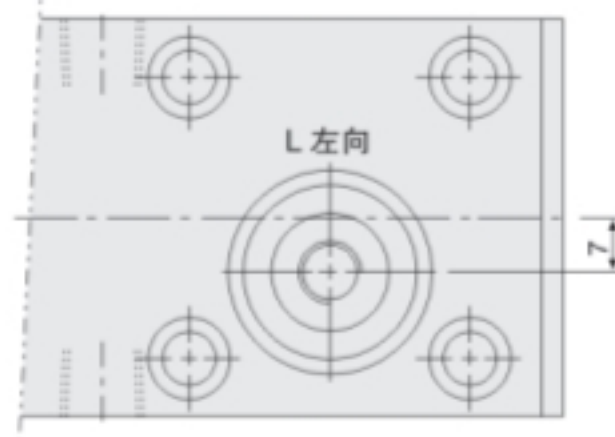
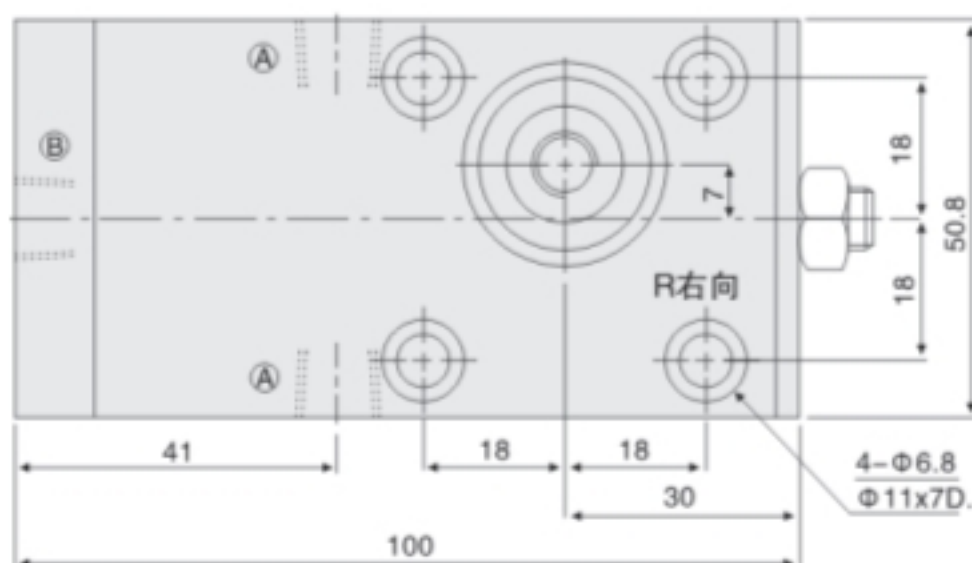
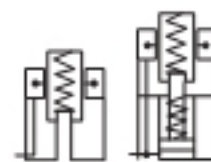
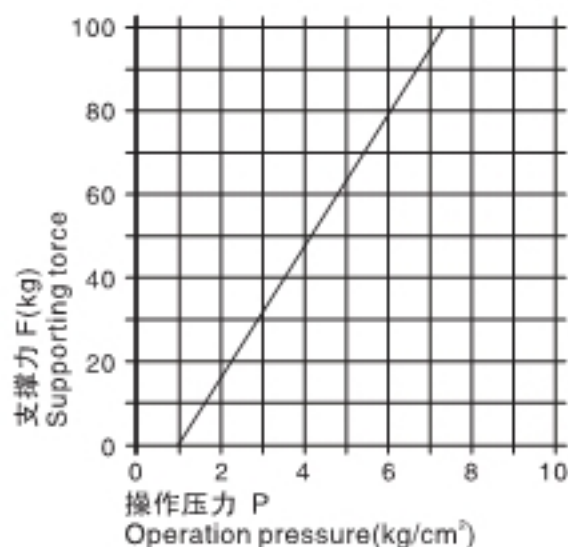
HLG		
3	压力调整范围 Pressure adjustment range	3: 1.0~6.0MPa 6: 5.0~18.0MPa
A	油路板型式 Oil type	
5.0MPa	設定壓力（順序動作壓力的設定值） Set the pressure (the set value of the sequential action pressure)	1.使用壓力與設定壓力的壓差應設定在1MPa以上。 2.多臺順序閥并聯于回路中使用時,相互間設定壓力的壓差應在1MPa以上。 1 the use of pressure and set the pressure difference should be set at more than 1MPa. 2.More than the sequence valve in parallel to the loop in use, mutual setting pressure difference should be more than 1MPa.



油壓 Hydraulic



空壓 Air



訂購標示法 Ordering Code

HSP	AH	18	R	A
①	②	③	④	⑤

①	系列別 Series
②	空油壓兩用型 Air-hydraulic type
③	頂杆軸徑 Diameter of the extended piston rod
④	R右向; L左向 Turn right R; Turn left L
⑤	A 彈簧頂出型 A:Spring extended piston B 油壓頂出型 B:Hydraulic extended piston

*注: 附A,B型式調整螺絲

A:彈簧頂出型,往內調整

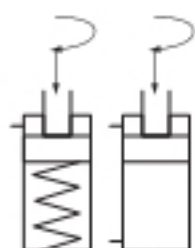
B:油壓頂出型,往外調整

*Note:With A,B type adjusting screw.

A:Spring extended piston rod-adjust outward.

B:Hydraulic extended piston rod-adjust outward.

產品簡介



- ◆ 向左或向右旋轉後垂直下壓達到夾持目的。
- ◆ 標準角度90°，可訂做角度30°、45°、60°。
- ◆ 缸體為高級碳鋼材質，表面硬化處理。
- ◆ 壓板加長時，G值勿超過原有規格1.2倍。
- ◆ 入油口請加裝流量控制閥，控制轉角速度，避免慣性撞擊。
- ◆ 下壓夾持時，應于垂直行程內夾緊工件。
- ◆ 每次上下工作時，務必以氣槍清潔活塞杆處油封上的鐵屑異物，避免下次使用異物嵌入油封。

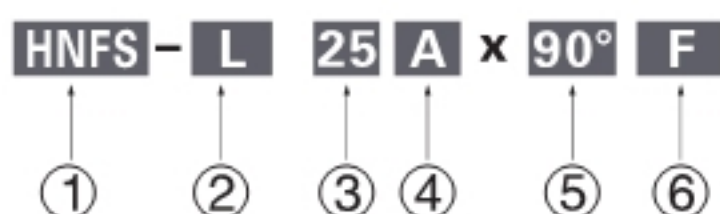
Introduction of product

- ◆ During clamp retraction, the piston rod rotates, causing the clamping arm to swing in either a clockwise or counterclockwise direction. Clamping then takes place as the rod continues to retract in a straight line, pulling the arm against the workpiece.
- ◆ Standard angle 90°, available models offer angles of rotation of 30°, 45°, 60°.
- ◆ The cylinder body is made of carbon steel, and the surface is hard membrane treated.
- ◆ When it is necessary to change the length of the clamping arm, it should be noted that do not exceed 1.2 times of the original G value in order to avoid the serious slanting of the piston rod.
- ◆ Suggested to add a flow control valve to the hydraulic inlet to control the motion of the swing angle in order to prevent the inertial impact.
- ◆ A workpiece should not be clamped within a swing stroke, and it should be clamped within the vertical downward clamping stroke.
- ◆ Whenever placing and taking off a workpiece, it is necessary to use an air gun to clean the piston and the seal for removing the iron slag or foreigner objects attached thereon. In order to prevent the foreign objects from entering the seal to cause oil leakage.

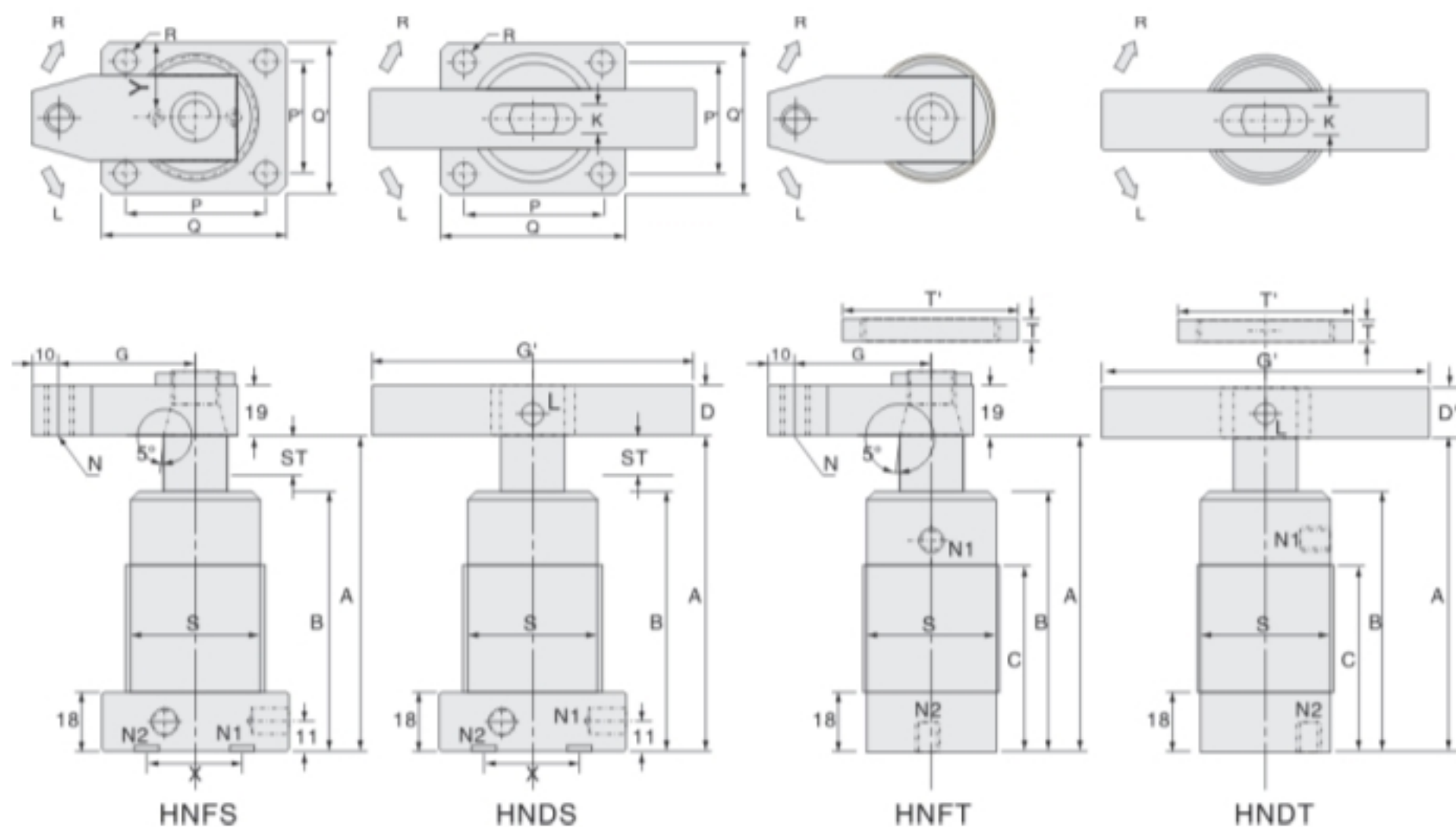
特性資料 Specification

油缸類型 Type of cylinder	四方底座型 Flang type	HNFS-25A	HNFS-32A	HNFS-40A	HNFS-25B	HNFS-32B	HNFS-40B
		HNDS-25A	HNDS-32A	HNDS-40A	HNDS-25B	HNDS-32B	HNDS-40B
	外螺牙型 Threaded type	HNFT-25A	HNFT-32A	HNFT-40A	HNFT-25B	HNFT-32B	HNFT-40B
		HNDT-25A	HNDT-32A	HNDT-40A	HNDT-25B	HNDT-32B	HNDT-40B
油缸內徑 Bore of cylinder(mm)		Φ25	Φ32	Φ40	Φ25	Φ32	Φ40
活塞杆徑 Bore of piston(mm)		Φ18	Φ22	Φ25	Φ18	Φ22	Φ25
轉角行程 Swing stroke(mm)		12	12	12	15	15	15
垂直行程 Clamping stroke (mm)		11	11	11	18	18	18
受壓面積拉入/推出 Pressure area pull/push cm ²		2.37/-	4.24/-	7.65/-	2.37/4.91	4.24/8.04	7.65/12.5
理論夾持力 Theoretical clamping 250kg/cm ²		420kg	760kg	1450kg	495kg	890kg	1600kg
作動方式 Acting type		單動 Single acting			復動 Double acting		
使用流體 Fluid		已濾清之標準液壓油 Filtered oil					
使用溫度範圍 Range of temperature		-10~+60℃					
使用壓力範圍 Range of pressure(kg/cm ²)		70--210 kg/cm ²					
轉角方向 Rotating dirictrion		順時針右轉R或逆時針左轉L Turn right R or turn left L					
轉角角度 Rotating angle		標準角度 Standard angle 90°(±2°)訂做角度 order angle 30°(±2°)、45°(±2°)、60°(±2°)					

訂購標示法 Ordering Code

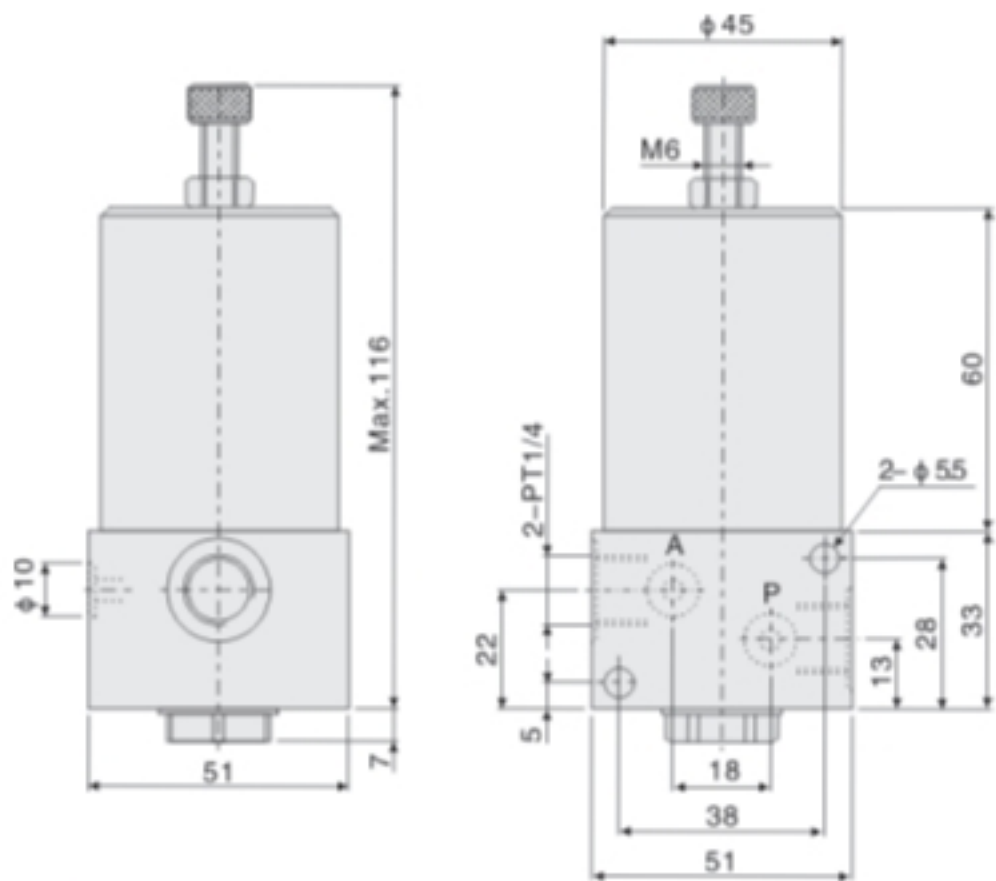


1	系列號 Series	HNFS, HNDS, HNFT, HNDT
2	轉角方向 Rotating direction	順時針右轉R或逆時針左轉L Turn right R or turn left L
3	油缸內徑 Bore of cylinder	Φ25, Φ32, Φ40
4	作動方式 Acting type	A 單動 Single-acting B 雙動 Double-acting
5	轉角角度 Rotating angle	標準角度 Standard angle 90°(±2°)訂做角度 order angle 30°(±2°)、45°(±2°)、60°(±2°)
6	空白：配管式	F：油路板式（外螺牙型無油路板式）

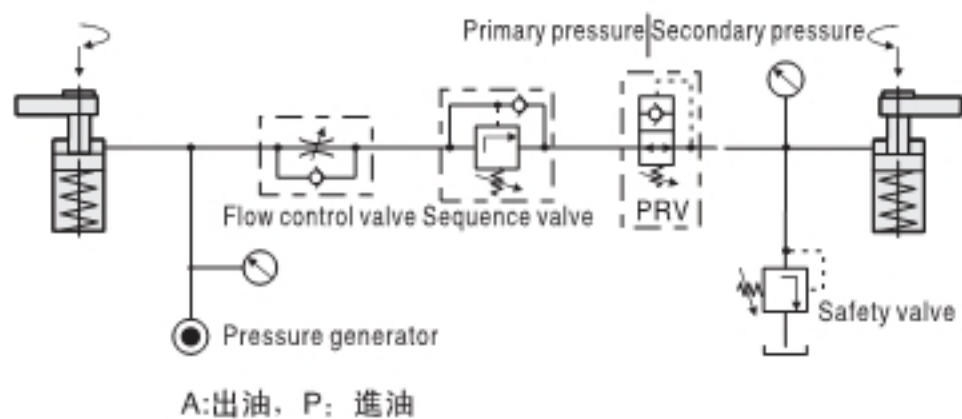


外形尺寸表 Dimension table

四方底座型 Flang type	HNFS-25A HNDS-25A	HNFS-32A HNDS-32A	HNFS-40A HNDS-40A	HNFS-25B HNDS-25B	HNFS-32B HNDS-32B	HNFS-40B HNDS-40B
外螺外牙型 Threaded Type	HNFT-25A HNFT-25A	HNFT-32A HNFT-32A	HNFT-40A HNFT-40A	HNFT-25B HNFT-25B	HNFT-32B HNFT-32B	HNFT-40B HNFT-40B
ST: Swing/Clamping	23:12/11			33:15/18		
A 鬆開狀態 unclamp	131	127	127	136	136	136
B	102	97	98	102	97	98
C	66	70	72	66	70	72
D'	□19	□22	□25	□19	□22	□25
G	45	50	50	45	50	50
G'	100	120	140	100	120	140
K	9	10	12	9	10	12
L	Φ8	Φ8	Φ10	Φ8	Φ8	Φ10
油孔N1(夾緊 clamp)/N2(放鬆 unclamp)	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8
油路板型 Q-ring Manifold	P7	P7	P7	P7	P7	P7
N	M12x1.75	M12x1.75	M12x1.75	M12x1.75	M12x1.75	M12x1.75
P	50	54	66	50	54	66
P'	30	34	40	30	34	40
Q	64	68	84	64	68	84
Q'	46	54	64	46	54	64
R	Φ6.5	Φ8.5	Φ8.5	Φ6.5	Φ8.5	Φ8.5
S	M45x1.5	M50x1.5	M60x1.5	M45x1.5	M50x1.5	M60x1.5
T(x2pcs)	10	11	11	10	11	11
T'	Φ65	Φ70	Φ80	Φ65	Φ70	Φ80
X	35	40	50	35	40	50
Y	23	27	32	23	27	32
Weight 重量kg	1.5	1.9	2.9	1.5	1.9	2.9



迴路圖 Circuit diagram



Pmax:500kg/cm²



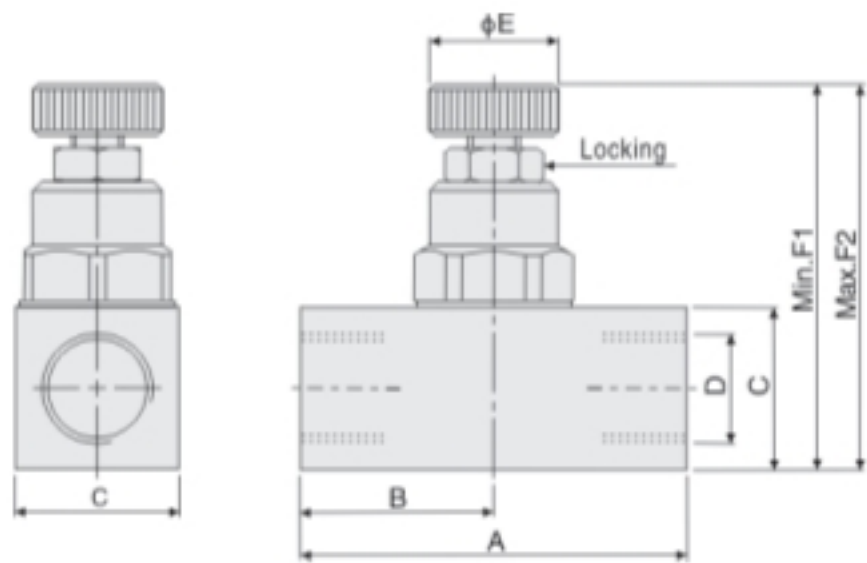
耐壓力 Operating pressure	500kg/cm ²
壓力調整範圍 Pressure range	5-380kg/cm ²

訂購標示法 Ordering Code

HPRV	M	02	1
1	2	3	4

1	系列別 Series	HPRV
2	空白 Blank	配管式 Line type
	M	油路板型 Manifold
3	型號 Model	02
4	壓力調整範圍 Pressure range kg/cm ²	1 5-30 2 10-50 3 20-120 4 30-240 5 50-380

HFCV 油壓流量閥 Hydraulic Flow Control Valve



ITEM MODEL	A	B	C	D	φE	F1	F2
HFCV-01	35	19	□15.9	PT1/8	φ12	41	44.5
HFCV-02	45	22.5	□19	PT1/4	φ15	45	48.5

Pmax:210kg/cm²



產品簡介

- ◆此系列產品設計中採用連杆機構,在解除夾持狀態時,壓臂可拉到低於夾持面的位置,減少對工件裝卸的幹涉,因此操作方便,缸體採用一體成型。
- ◆產品動作軌迹非常小,用傳統的轉角缸/杆缸缸都難以夾持到的部位均可以達到夾持作用,並可以減少對周圍機器設備的幹擾,達到節省工作空間的目的。
- ◆產品採用了專用防塵設計,防止了切屑屑及冷卻液的滲入,實現了高密封性,因此在比較惡劣的環境下也能使用。

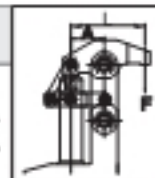


Introduction of product

- ◆This series of products design with connecting rod structure,at the time of termination holding state,clamping arm can be put lower than holding position,and reduce the interference with loading and unloading operation,solid convenient operation.
- ◆Clamping arm of product is very flexible,it can holding the part which it is difficult to holding with traditional swing clamp cylinder and lever cylinder ,And and can reduce the interference of the surrounding equipment,so can save working space.
- ◆Product with special dustproof desing and high sealing ,can prevent the cutting chips and coolant of infiltration.so it can be used in in more severe conditions.

特性資料 Specification

油缸內徑Bore of cylinder(mm)		Φ 25	Φ 32	Φ 40	Φ 50
活塞杆徑Bore of piston(mm)		Φ 14	Φ 14	Φ 16	Φ 20
總行程Total stroke(mm)		34	38	44	50
夾緊程Clamping steoke(mm)		31.5	35.5	41	47
受壓面積推出 pressure area push(cm ²)	單軸型	4.91	8.14	12.57	19.63
	雙軸型	4.13	6.6	10.57	16.39
使用流體Fluid		已濾清之標準液壓油Filtered oil			
使用溫度範圍Range of temoeraure(°C)		-10 ~ 70(° C)			
最大耐壓力Max operation pressure(kg/cm ²)		100kg/cm ²			
使用壓力範圍Range of pressure(kg/cm ²)		5 ~ 70kg/cm ²			
夾緊力計算公式		$F = \frac{A \times \text{受壓推出面積} \times \text{供給油壓壓力} P}{\text{活塞杆中心到夾緊點距離} L - \text{壓臂兩孔橫向垂直距離} A}$			



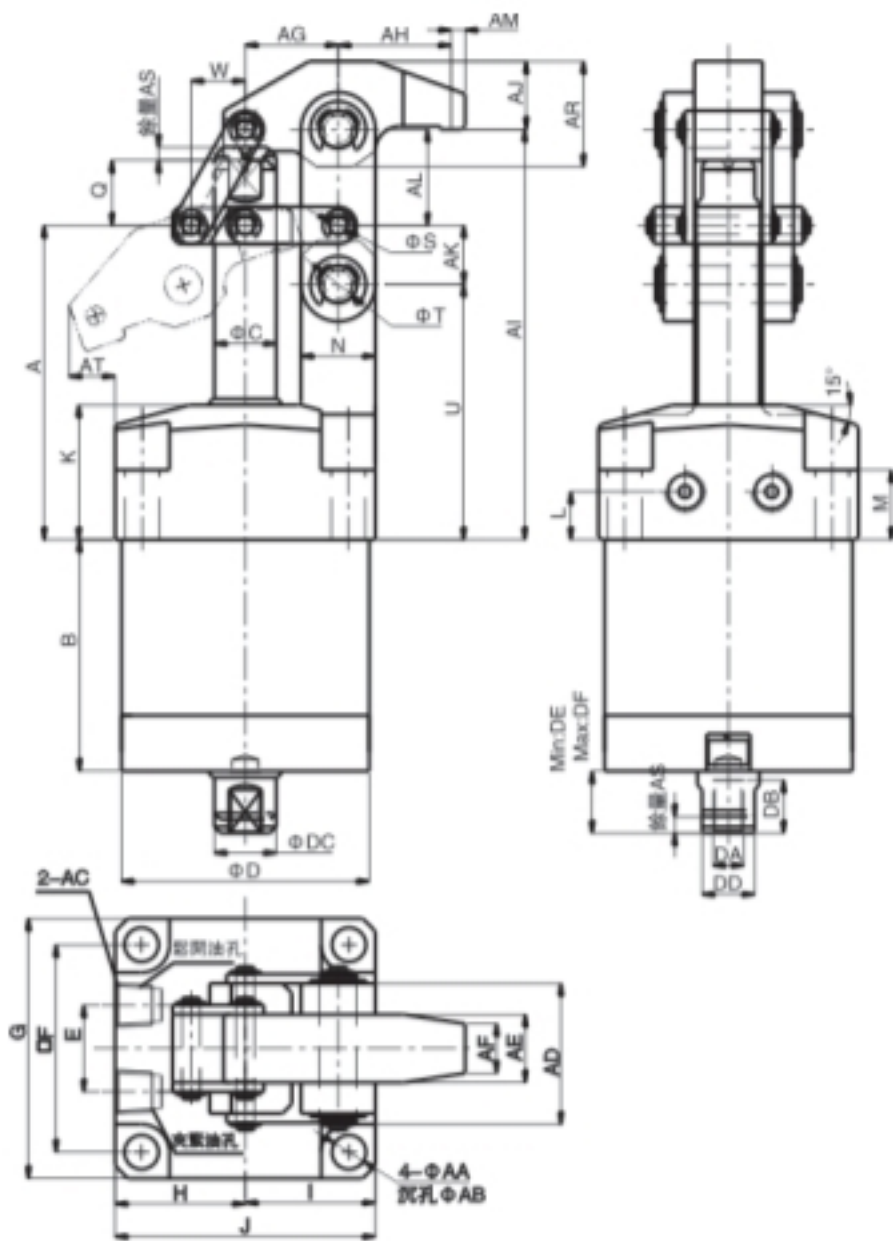
訂購標示法 Ordering Code

HLF5H	--	32	G	D
①		②	③	④

①	系列號 Series	HLF5H	
②	油缸內徑 Bore of cylinder	Φ 25/Φ 32/Φ 40/Φ 50	
③	油口型式 Port type	空白:配管式 Blank:line type	G:油路板式 G:Manifold type
④	活塞杆型式 Piston rod type	空白:單軸 Blank:Single rod type	D:雙軸 D:Double rod type

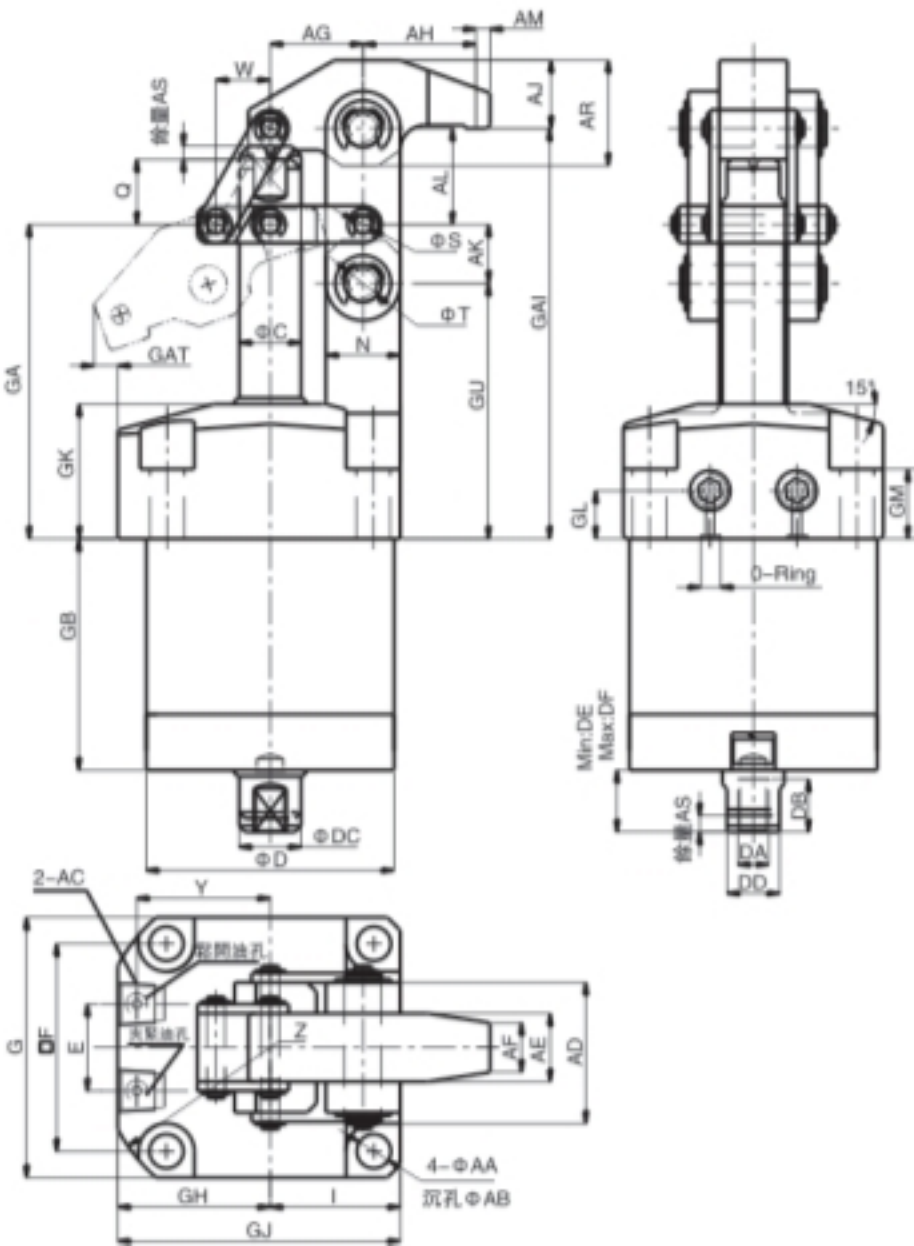
HLF5H連杆油壓缸 (配管式)

HLF5H Connecting rod hydraulic cylinder line type



HLF5H連杆油壓缸(G油路板型)

HLF5H Connecting rod hydraulic cylinder G manifold type



外形尺寸表 Dimension tabl

ITEM	A	B	C	D	E	F	G	H	I	J	K	L	M
MODEL													
HLF5H-25	70	59.5	14	47	21	40	50	25	25	50	30.5	11.5	13.5
HLF5H-32	75	70.5	14	55	21	47	59	29.5	29.5	59	30.5	11.5	15.5
HLF5H-40	89.5	79.5	16	65	25	55	69	34.5	34.5	69	37.5	13.5	20.5
HLF5H-50	101.5	86.5	20	80	28	67	84	42	42	84	43.5	15.5	22.5

ITEM	N	Q	S	T	U	W	AA	AB	AC	AD	AE	AF	AG
MODEL													
HLF5H-25	12	12	4	6	56.5	13	5.5	9.5	PT1/8	22	12	8	19
HLF5H-32	16	14	5	8	60	13	6.6	11	PT1/8	28	16	12	21.5
HLF5H-40	20	20	6	10	72	16	9	14	PT1/4	36	19	14	24.5
HLF5H-50	24	21	6	12	83	17.5	11	18	PT1/4	42	22	16	30

ITEM	AH	AI	AJ	AK	AL	AM	AR	AS	AT	DA	DB	DC	DD	DE	DF
MODEL															
HLF5H-25	23	88	13	13.5	18	4	20	2.5	12	M5	10	10	8	13	47
HLF5H-32	28	95	15	15	20	4	23	2.5	11	M6	12	14	10	12	50
HLF5H-40	31	117.5	18	17.5	28	4	28	3	18	M8	16	16	13	15	59
HLF5H-50	37	132.5	22	19	31	4	34	3	15	M10	20	20	17	20	67

外形尺寸表 Dimension tabl

ITEM	GA	GB	C	D	E	F	G	GH	I	GJ	GK	GL	GM	N	Q
MODEL															
HLF5H-25	70.5	59	14	47	21	40	50	35	25	60	31	12	18	12	12
HLF5H-32	75.5	70	14	55	21	47	59	37.5	29.5	67	31	12	17	16	14
HLF5H-40	90	79	16	65	25	55	69	45.5	34.5	80	38	14	21	20	20
HLF5H-50	102	86	20	80	28	67	84	51	42	93	44	16	23	24	21

ITEM	S	T	GU	W	0-Ring	Y	Z	AA	AB	AC	AD	AE	AF	AG
MODEL														
HLF5H-25	4	6	57	13	S4	29	39	5.5	9.5	PT1/8	22	12	8	19
HLF5H-32	5	8	60.5	13	S4	32	43	6.6	11	PT1/8	28	16	12	21.5
HLF5H-40	6	10	72.5	16	S4	37	51	9	14	PT1/4	36	19	14	24.5
HLF5H-50	6	12	83	17.5	S5	44	57	11	18	PT1/4	42	22	16	30

ITEM	AH	GAI	AJ	AK	AL	AM	AR	AS	GAT	DA	DB	DC	DD	DE	DF
MODEL															
HLF5H-25	23	88.5	13	13.5	18	4	20	2.5	2	M5	10	10	8	13	47
HLF5H-32	28	95.5	15	15	20	4	23	2.5	3	M6	12	14	10	12	50
HLF5H-40	31	118	18	17.5	28	4	28	3	7	M8	16	16	13	15	59
HLF5H-50	37	133	22	19	31	4	34	3	6	M10	20	20	17	20	67

產品簡介

- ◆此系列產品配件採用最佳化設計,與傳統產品比較夾緊能力提高了。
- ◆產品支撐點部位與缸體採用一體化結構,使體積更加紮實,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。
- ◆產品法蘭下部採用最小化設計,最適合夾具要求的緊湊化和輕量化。

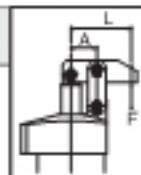
Introduction of product

- ◆This series product with the optimal design, so the clamping capacity is better than traditional product.
- ◆Product with the integrated structure on support site and cylinder body, so madet more impact,and strength can be improved.
- ◆Product with sepcial dustproof design, dustproof and sealing have been imprived, so it has high sealing performance.
- ◆Product with lower flange design, more suitable for compact and light fixture.



特性資料 Specification

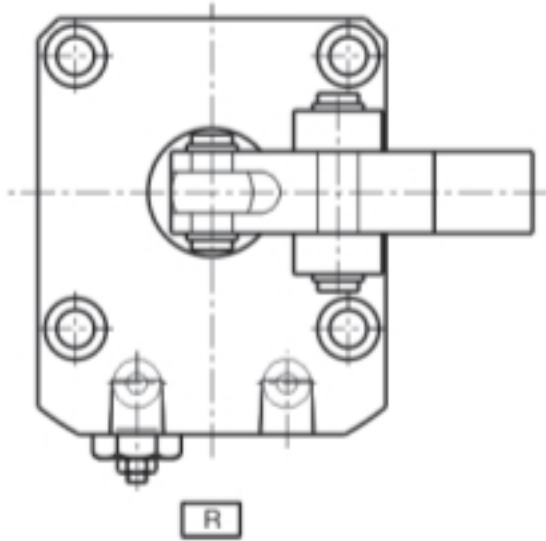
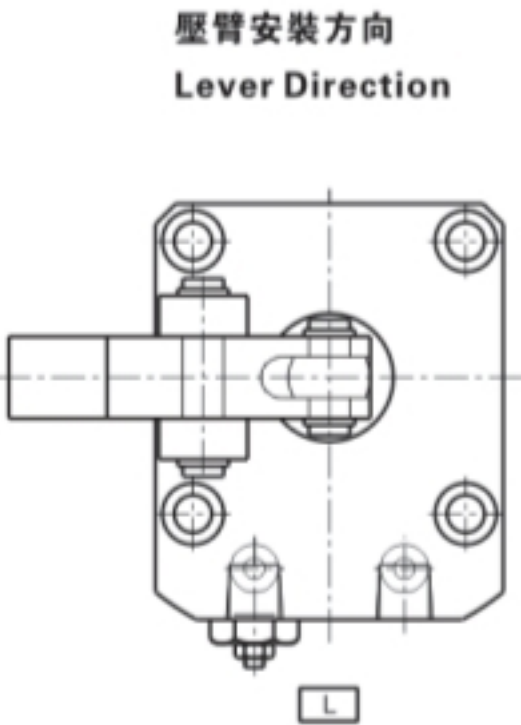
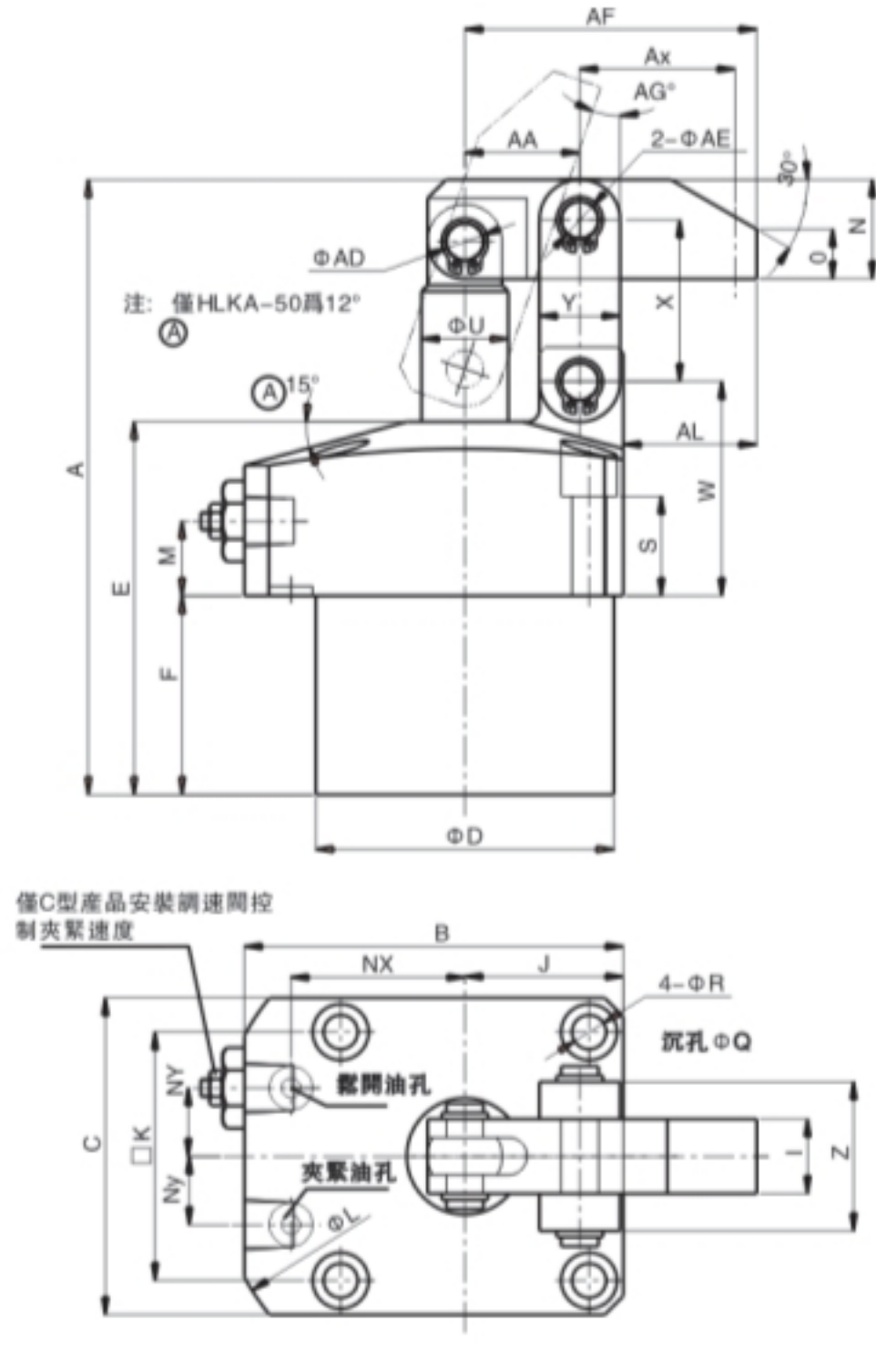
油缸內徑Bore of cylinder(mm)	Φ22	Φ25	Φ32	Φ40	Φ50	Φ63	Φ70	Φ80
活塞杆徑Bore of piston(mm)	Φ10	Φ12	Φ14	Φ16	Φ20	Φ22	Φ28	Φ35
總行程Total stroke(mm)	18.5	20.5	23.5	26	29.5	35	41	49
夾緊程Clamping steoke(mm)	16	17.5	20.5	23	26.5	32	38	46
受壓面積推出pressure area push(cm ²)	3.8	4.91	8.14	12.57	19.63	31.17	38.48	50.26
使用流體Fluid	已濾清之標準液壓油Filtered oil							
使用溫度範圍Range of temoeraure(°C)	-10 ~ 70(° C)							
最大耐壓力Max operation pressure(kg/cm ²)	100kg/cm ²							
使用壓力範圍Range of pressure(kg/cm ²)	5 ~ 70kg/cm ²							
夾緊力計算公式	$F = \frac{A \times \text{受壓推出面積} \times \text{供給油壓壓力} P}{\text{活塞杆中心到夾緊點距離} L - \text{壓臂兩孔橫向垂直距離} A}$							



訂購標示法 Ordering Code

HLKA	--	32	C	L
①		②	③	④

①	系列號 Series	HLKA
②	油缸內徑 Bore of cylinder	Φ22/Φ25/Φ32/Φ40 Φ50/Φ63/Φ70/Φ80
③	油口型式 Port type	空白:配管式 Blank;line type G:油路板式 G:Manifold type C:油路板式附調壓 C:Manifold with flow contron
④	壓臂安裝方向 Lever Direction	空白:標準 Blank:Standard L:左 L:Left R:右 R:Right



外形尺寸表 Dimension tabl

MODEL	HLKA-22	HLKA-25	HLKA-32	HLKA-40	HLKA-50	HLKA-63	HLKA-70	HLKA-80
ITEM								
A	78.5	87.5	99	110.5	127.5	151	180	209
B	49	54	61	69	81	94.5	109.5	127
C	40	45	51	60	70	85	100	120
D	36	40	48	55	65	75	90	105
E	48	54	60	65	73.5	84	101	115
F	23	29	32	37	43.5	47	61	65
I	10	12	12	16	19	22	25	32
J	20	22.5	25.5	30	35	42.5	50	60
K	31.4	34	40	47	55	63	75	88
L	66	72	81	88	106	116	136	152
M	11	11	12	12	13	16	16	19
N	12.5	14	16	20	25	32	38	45
o	6	8	8	12	17	24	30	37
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
Q	7.5	9	9	11	11	14	17.5	20

MODEL	HLKA-22	HLKA-25	HLKA-32	HLKA-40	HLKA-50	HLKA-63	HLKA-70	HLKA-80
ITEM								
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	15	16	13.5	16	17.5	17	23
U	10	12	14	16	20	22	28	35.5
W	30	30.5	34.5	35.5	39	48	52.5	64
X	20	22	26	30	35.5	43.5	52.5	64
Y	11	13	13	16	19	25	28	32
Z	19	21	24	28	37	40	49	64
AA	14.5	16	18.5	21	24.5	30	36	44
AD	5	6	6	6	8	10	12	15
AE	5	6	6	8	10	12	15	18
AF	37	40	47	55	61.5	72.5	82.5	100
AG	19.6	20.2	18.9	19.3	20	21.4	22.4	23.1
AL	17	17.5	21.5	25	26.5	30	32.5	40
AX	19	20.5	23.5	29	32	37.5	41.5	51
配管式油口	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
油孔0型圈 (C/G型)	P5	P5	P5	P5	P7	P7	P7	P7

產品特性

此系列產品配件採用最佳化設計，與傳統產品比較夾緊能力提高了。
產品支撐點部位與缸體採用一體化結構，使體積更加緊湊，提高產品強度。
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。
產品採用方塊性設計，不需墊塊安裝方便。
最大操作壓力：7 Mpa 最小操作壓力：1 Mpa
注意事項：夾緊及放鬆作動速度需適當放緩

Introduction

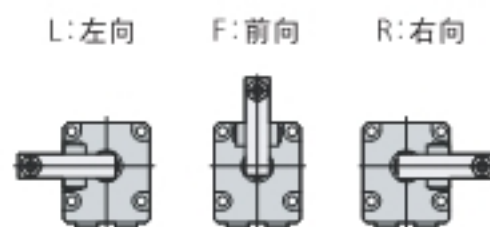
FEATURES

This series product with the optimal design so the clamping capacity is better than traditional product.
Product with the integrated structure on support site and cylinder body, so made more impact, and strength can be improved.
Product with special dustproof design, dustproof and sealing have been improved, so it has high sealing performance.
Product with the box-type design, do not need to block the installation, is convenient.
Max. Pressure: 7 Mpa Min. Pressure: 1 Mpa
Note: clamping and loosening of the moving speed should be appropriate to slow down



型號表示

BLU 02 04 06 10 16 25 — L : 左向 F : 前向 R : 右向

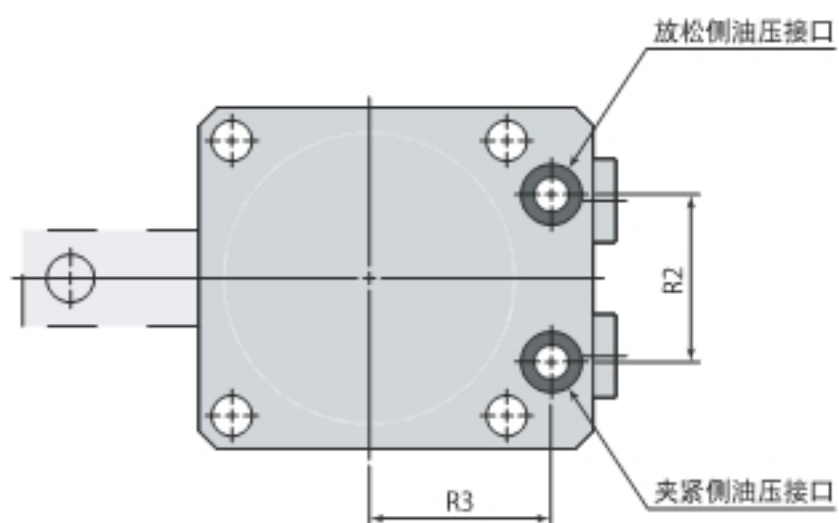
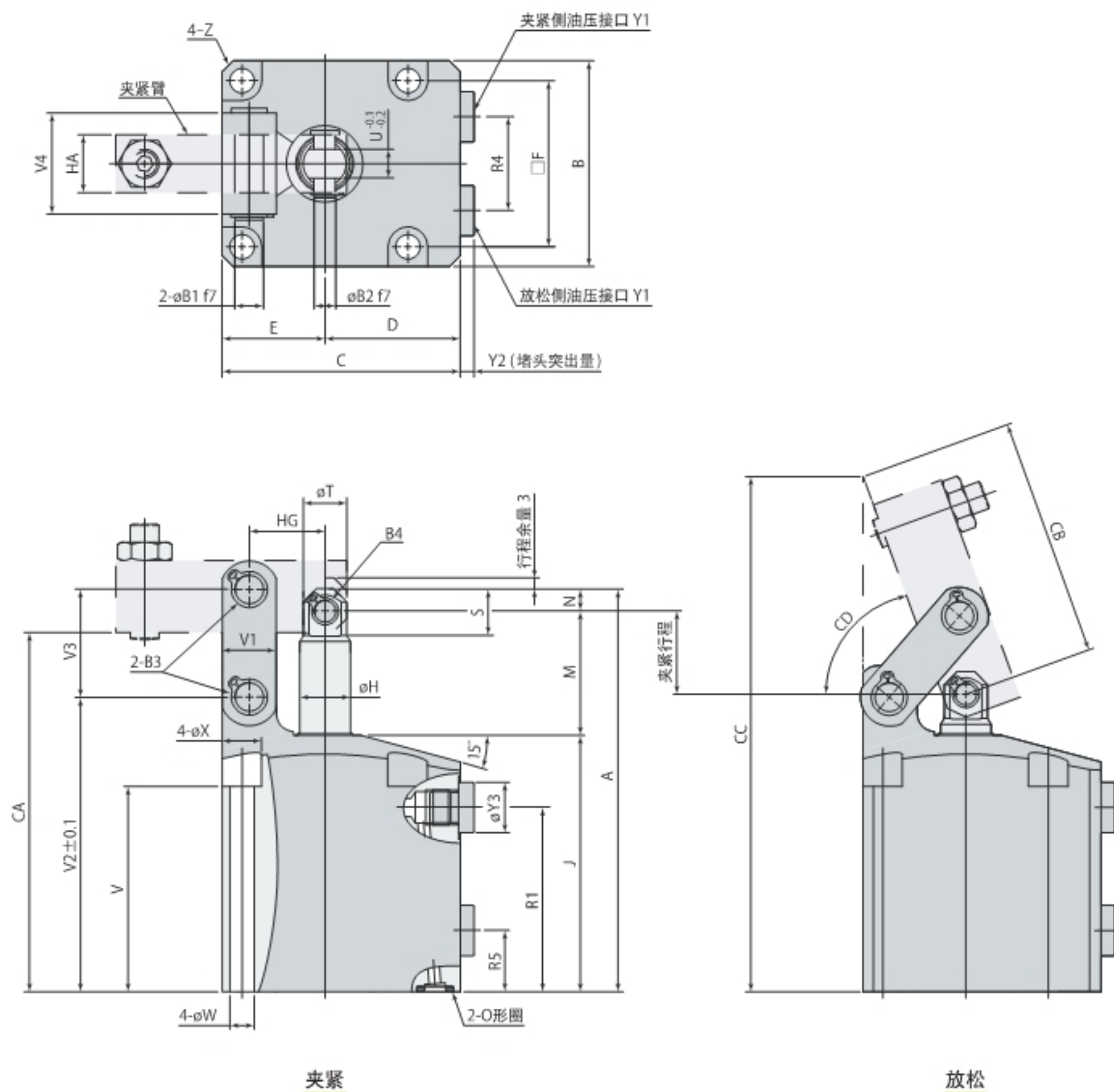


夾緊臂安裝方向

型 号		BLU02	BLU04	BLU06	BLU10	BLU16	BLU25
油缸能力 (油压为7MPa时)	kN	3.4	5.0	6.7	10.6	17.2	26.9
油缸内径	mm	25	30	35	44	56	70
主杆径	mm	12	14	14	16	22.4	28
油缸面积 (夹紧)	cm ²	4.9	7.1	9.6	15.2	24.6	38.5
全行程	mm	20.5	23.5	26	29.5	36	45
夹紧行程	mm	17.5	20.5	23	26.5	33	42
行程余量	mm	3	3	3	3	3	3
最大流量	L/min	1.0	1.6	2.6	4.7	9.5	18.9
油缸容量	夹紧	cm ³	10.0	16.7	25.0	44.8	173.3
	放松	cm ³	7.7	13.0	21.0	38.9	145.5
质 量	kg	1.0	1.4	1.9	3.2	5.3	9.7
安装螺栓推荐紧固扭矩 (强度分类12.9)	N·m	7	7	12	29	57	77

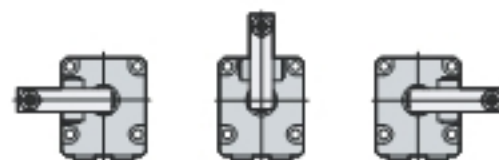
- 油压范围：1~7 MPa ● 保证耐压：10.5 MPa ● 使用环境温度：0~70 °C ● 使用流体：普通矿物油基液压油 (相当于ISO-VG32)
- 氯系切削液喷洒的环境下也可以使用。

外形尺寸



● 本图为BLU□-F型的外形。BLU□-L型和BLU□-R型除夹紧臂的安装方向不同外，其余尺寸均与BLU□-F型相同。

L: 左向 F: 前向 R: 右向



● 不附带夹紧臂和安装螺栓。

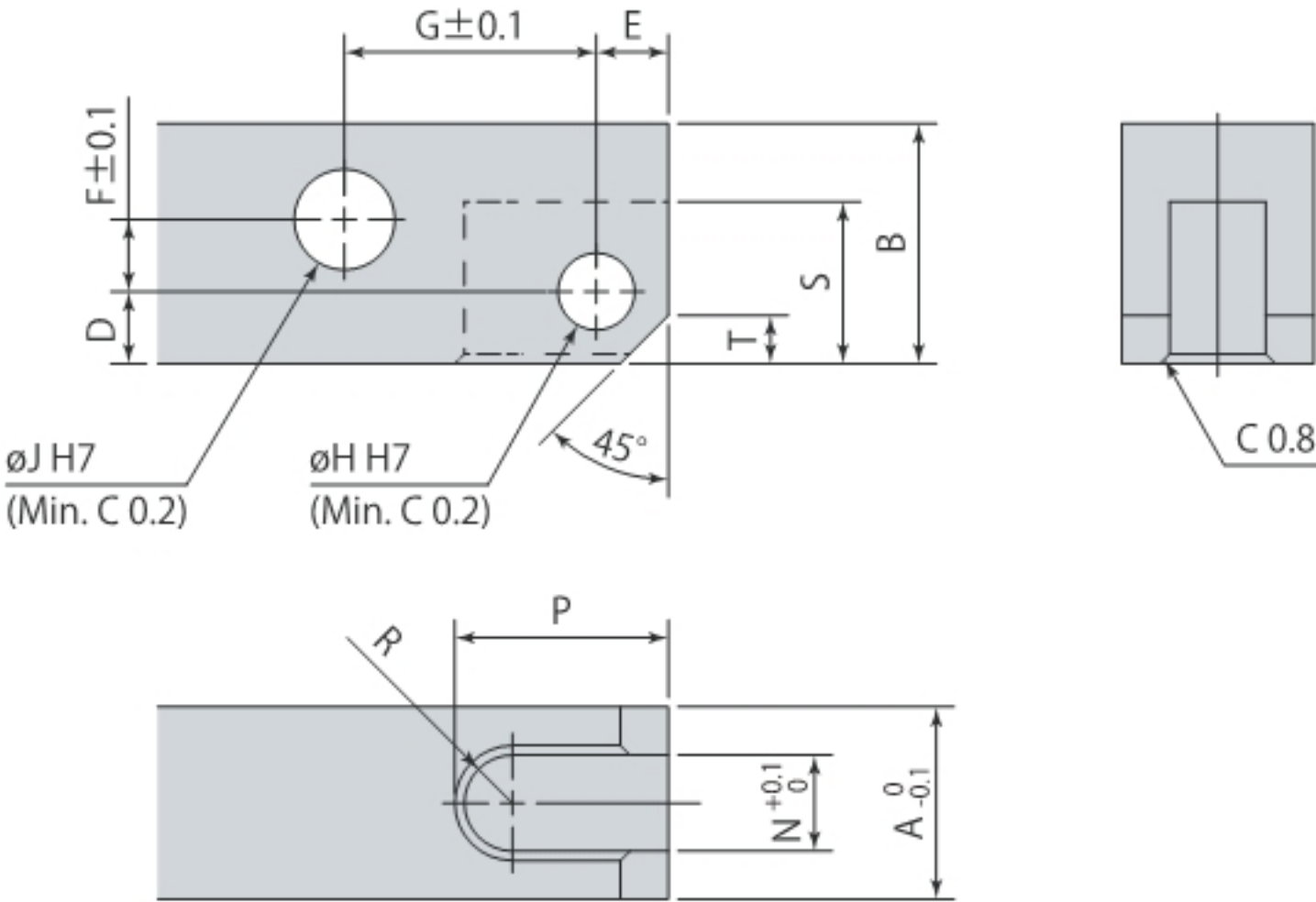
參數表

單位 (Unit) : mm

型 号	BLU02-□	BLU04-□	BLU06-□	BLU10-□	BLU16-□	BLU25-□
A	93.5	104	111.5	131	155	186.5
B	45	50	57	70	86	108
C	55	60	66	82	96	120
D	32.5	35	37.5	47	53	66
E	22.5	25	28.5	35	43	54
F	35	40	46	56	68	88
øH	12	14	14	16	22.4	28
J	61	66	71	83	96.5	112
M	27.5	32	34.5	40	47.5	61.5
N	5	6	6	8	11	13
R1	42	48	51	56.5	64.5	80.5
R2	22	24	28	36	45	50
R3	25	28	30.5	36	42	57
R4	20	22	26	30	38	50
R5	16	17	17	22	23	28
S	11.5	13	13	17	21.8	27.5
øT	10	12	12	14	20	26
U (对边宽)	6	6	8	10	11	16
V	49	54	57	66	73.5	83
V1	11	13	15	19	25	32
V2	67.5	75.5	81.5	95	109.5	130
V3	24	26	30	35.5	44	53
V4	21	21	28	37	46	56
øW	5.5	5.5	6.8	9	11	14
øX	9.5	9.5	11	14	17.5	20
Y1	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Y2	3.8	3.8	3.8	4.8	4.8	4.8
øY3	14	14	14	19	19	22
Z	C3	C3	C3	C4	C6	C6.5
øB1	6 ^{+0.010 -0.022}	6 ^{+0.010 -0.022}	8 ^{+0.013 -0.028}	10 ^{+0.013 -0.028}	14 ^{+0.016 -0.034}	16 ^{+0.016 -0.034}
øB2	6 ^{+0.010 -0.022}	6 ^{+0.010 -0.022}	6 ^{+0.010 -0.022}	8 ^{+0.013 -0.028}	12 ^{+0.016 -0.034}	14 ^{+0.016 -0.034}
B3 (卡环)	STW-6	STW-6	STW-8	STW-10	STW-14	STW-16
B4 (卡环)	STW-6	STW-6	STW-6	STW-8	STW-12	STW-14
CA	83	92	99.5	115	135	161
CB	48	59.6	67.3	78.7	98.2	133.5
CC	113.7	132	143.8	167.4	199.7	254.2
CD	約69°	約71°	約70°	約70°	約69°	約72°
HA	12	12	16	19	22	32
HG	16.5	18.5	21	24.5	30.5	37.5
O形圈 (氟橡胶 硬度Hs90)	P7	P7	P7	P8	P8	P10

● 氯系切削液喷洒的环境下也可以使用。

夾緊臂加工圖



注：不附帶夾緊臂，請用戶自備。

單位 (Unit) : mm

型號	BLU02	BLU04	BLU06	BLU10	BLU16	BLU25
A	12	12	16	19	22	32
B	14	16	20	25	31	38
D	5.5	6	6	8	9	12.5
E	5.5	6	6	7	10	13
F	3	3.5	6	7.5	9.5	9.5
G	16.5	18.5	21	24.5	30.5	37.5
øH	6 ^{+0.012} ₀	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	12 ^{+0.018} ₀	14 ^{+0.018} ₀
øJ	6 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.015} ₀	10 ^{+0.015} ₀	14 ^{+0.018} ₀	16 ^{+0.018} ₀
N	6	6	8	10	11	16
P	14	17	17	20	26.5	36
R	R3	R3	R4	R5	R5.5	R8
S	12	13.5	13.5	17.5	22	28
T	3	4	4	5	7	8

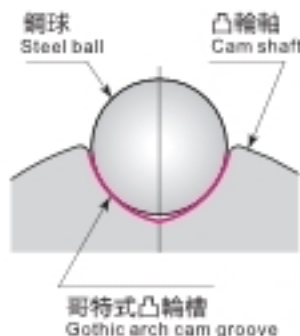
飛躍性地提高了耐久性、實現了高速夾緊

哥特式凸輪槽

Gothic arch cam groove

採用與鋼球大面積接觸的哥特式凸輪槽，有效降低了接觸面壓力，可連續、高頻率地高速旋轉，耐久性出色。

Superior durability, high frequency, and high-speed swinging operation is achieved thanks to lowered and controlled seating surface pressure. This is made possible by adopting gothic arch cam grooves that use steel balls with larger surface area.

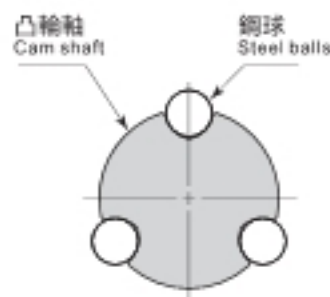


3點式鋼球支撐

3-point ball support

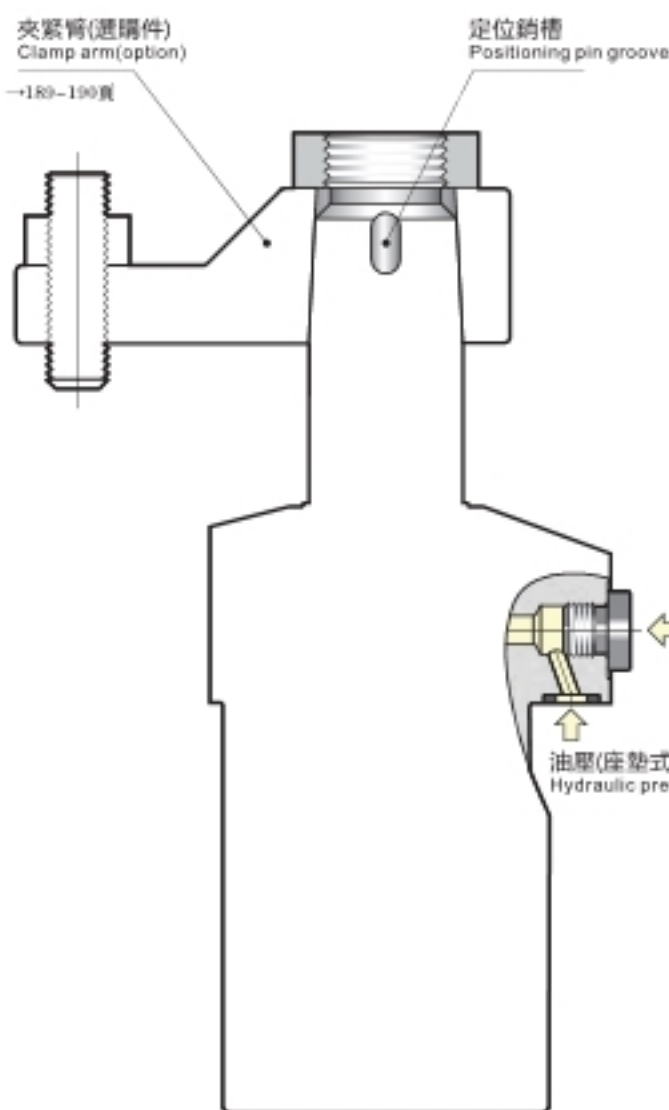
採用3點式鋼球支撐機構，實現了平穩的高速旋轉。

Smooth, stable and high-speed swinging operation has been achieved by 3-point ball support mechanism.



凸輪軸直徑大，確保了凸輪槽之間有充分的距離，因此剛性很高。由於凸輪部的耐久性和耐衝擊性得到提高，因此無需過載保護機構即可進行穩定而準確的高速旋轉。

Large diameter cam shaft and wide distance between the cam grooves offers higher rigidity. A overload protection mechanism is not needed due to improvement of durability and impact resistance, providing stable and secure highspeed swing operation.



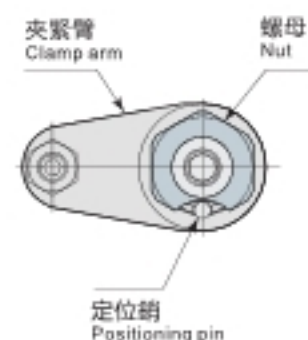
凸輪槽詳圖
Cam groove view

夾緊臂的定位及更換

Positioning and replacement of clamping arms

所有型號均採用定位銷槽。夾緊臂的定位（角度）簡單易行。

Positioning pin groove adopted with all models. Positioning (angle) of clamp arm can be performed easily.

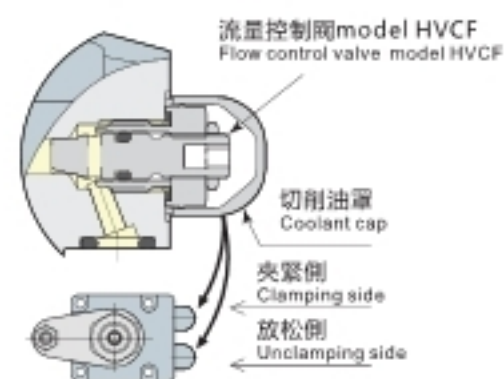


流量控制閥

Flow control valve

通過安裝流量控制閥（選購件），可單獨調節動作速度，輕鬆控制同一回路上的順序動作和同步動作。→191-192頁

Operating speeds can be adjusted individually by mounting a flow control valve (option), making sequential operation on same circuit or control of synchronization operation easier. →191-192page



規格

型號/Model		HCTU01	HCTU02	HCTU04	HCTU06	HCTU10	HCTU16	HCTU25
油缸能力(油壓為7 MPa時)/Cylinder force(hydraulic pressure 7 MPa) (kN)		2.4	2.8	4.4	6.3	9.9	16.3	25.8
夾緊力 ※1 Clamping force	油壓為7 MPa時/Hydraulic pressure 7 MPa (kN)	2.0	2.4	3.8	5.3	8.3	13.5	21.2
	夾緊臂長度 (LH) /Clamp arm length (LH) (mm)	30	35	40	50	60	70	90
油缸內徑/Cylinder inner diameter (mm)		25	29	36	42	52	65	82
主杆徑/Rod diameter (mm)		14	18	22.4	25	30	35.5	45
油缸面積 (夾緊) /Effective area (clamp) (cm ²)		3.5	4.1	6.2	8.9	14.2	23.3	36.9
旋轉角度/Swing angle		90° ± 3°						
定位銷槽位置精度/Positioning pin groove position accuracy		± 1°						
夾緊重複定位精度/Repeated clamp positioning accuracy		± 0.5°						
全行程/Full stroke (mm)		16	18	20.5	23.5	26.5	28.5	36
旋轉行程/Rotary stroke (mm)		8	10	12.5	13.5	16.5	18.5	23
夾緊行程/Clamp stroke (mm)		8	8	8	10	10	10	13
最大旋轉扭矩 ※2/Max. swing torque※2 (N·m)		0.6	0.7	1.6	1.8	3.4	5.6	9.3
油缸容量 Cylindercapacity	夾緊/Clamp (cm ³)	5.4	7.3	12.8	21.0	37.5	66.4	132.9
	放鬆/Unclamp (cm ³)	7.9	11.9	20.9	32.6	56.3	94.6	190.1
質量/Mass (kg)		0.31*3	0.9	1.3	1.7	2.8	4.7	9.9

使用油壓範圍: 1 ~ 7 MPa 保證耐壓: 10.5 MPa 使用環境溫度: 0 ~ 70℃ 使用流體: 普通礦物油基液壓油(相當于ISO-VG32)

* 夾緊力因夾緊臂長度而異。

* 垂直安裝時, 能以1 MPa的壓力抬升夾緊臂的極限值。

* 僅HCTU01型的主體使用鋁合金材質, 滿足輕量化需求。

氟系切削液噴灑的環境下也可以使用。

Working pressure range: 1 ~ 7 MPa Proof pressure: 10.5 MPa Operating temperature: 0 ~ 70℃

Fluid used: General mineral based hydraulic oil (ISO-VG32 equivalent)

*. Clamping force varies depending on clamp arm length.

*. This is the limit value for lifting arm at 1 MPa when mounted vertically.

*. Body material is aluminum only for model HCTU01, to reduce weight.

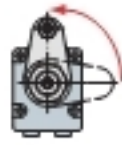
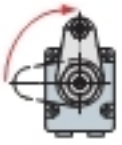
Fluorocarbon has been adopted for seal sections where cutting fluid is applied, as a measure for the use of chlorine-based cutting fluid (this is not thermal resistant specification).

型號表示

HCTU ①- ②③ (例:HCTU06-RA)/(Example : HCTU06-RA)

① 大小(參照規格表) Size(see table) ② 旋轉方向(夾緊時) Swing direction (when clamping)

③ 特殊規格記號 ※ Variation code

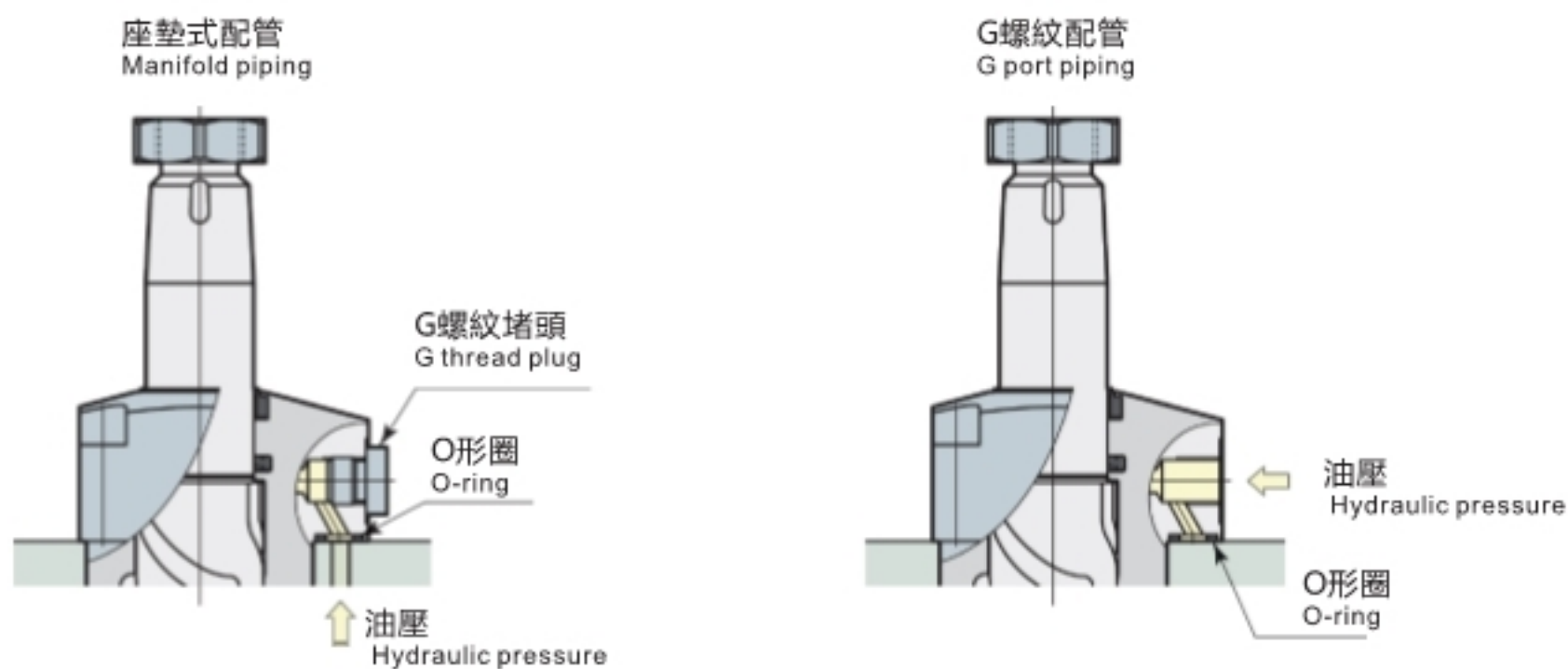
HCTU	01	L: 左轉 Turn left  R: 右轉 Turn right 	無記號: 標準 (Nil): Standard E: 雙頭杆規格 E: Dual rod P: 頂端銷規格 P: Top pin N□: 旋轉角度30°、45°、60° N□: Swing angle 30°、45°、60°
	02		
	04		
	06		
	10		
	16		
	25		

※: 特殊規格沒有對應全部大小。詳情請參照各相應頁。產品目錄中未記載的特殊規格 (型號) 請參照其它資料。

※: All varieties are not available for all sizes. Refer to each relevant page for details.

Request for separate document regarding variation codes (models) that are not described in the catalog.

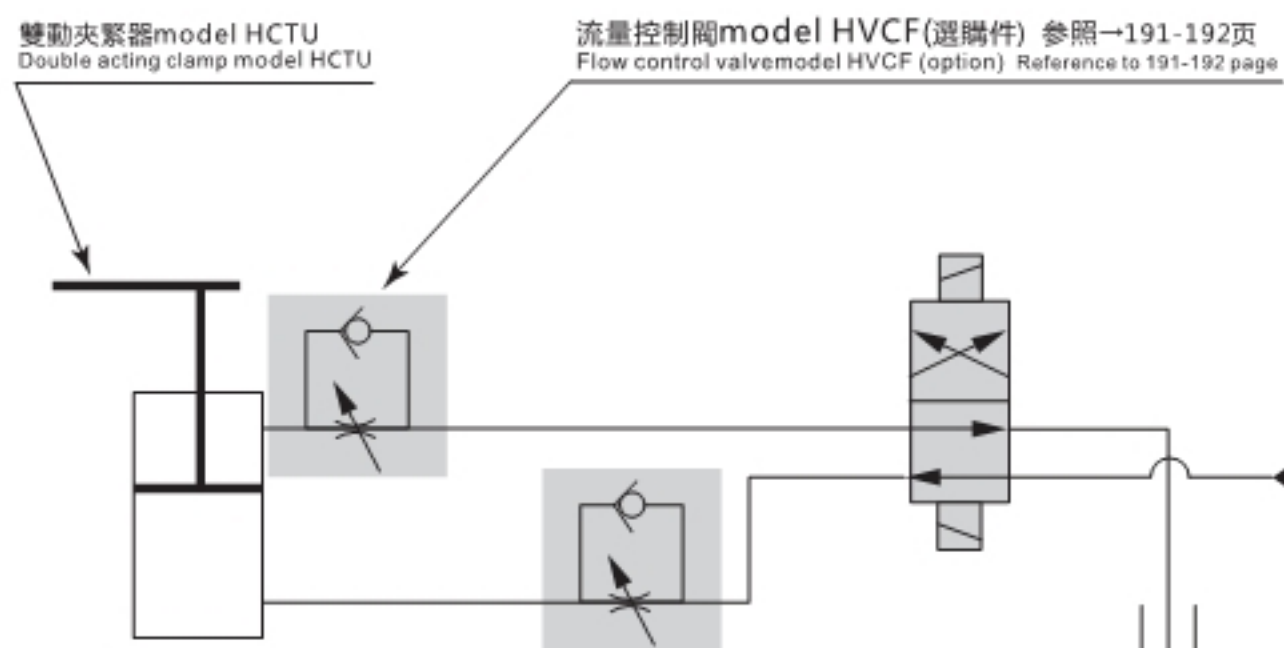
配管方法



HCTU型可選擇座墊式配管和G螺紋配管2種配管方法。采用G螺紋配管時，請拆下G螺紋堵頭。(采用G螺紋配管時不要卸下O形圈，利用安裝面進行密封。)關於G螺紋配管嵌入式接頭。

Two piping methods are available for model HCTU, manifold piping and G port piping. Dismount plug when using G port piping. Whichever method is chosen for piping, O-ring must be used.

油壓回路圖(參考)

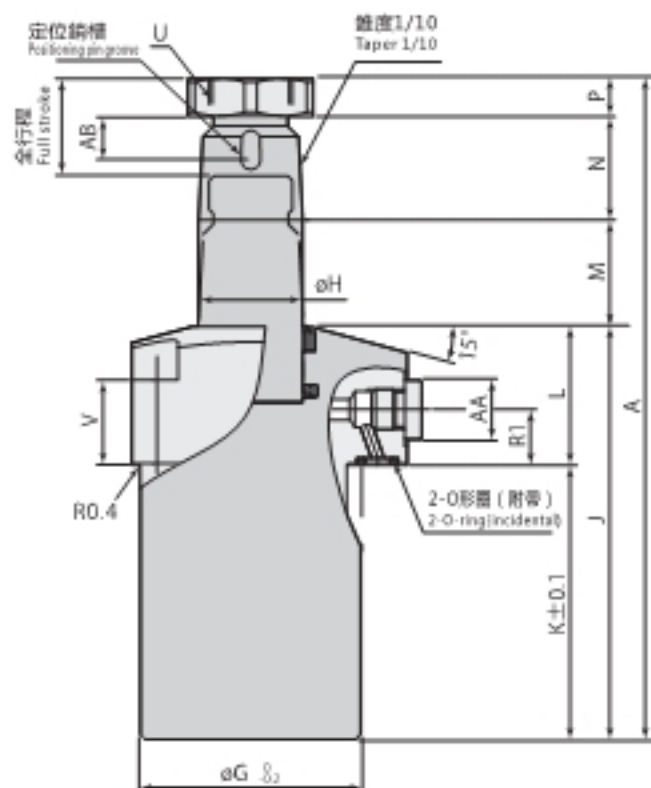
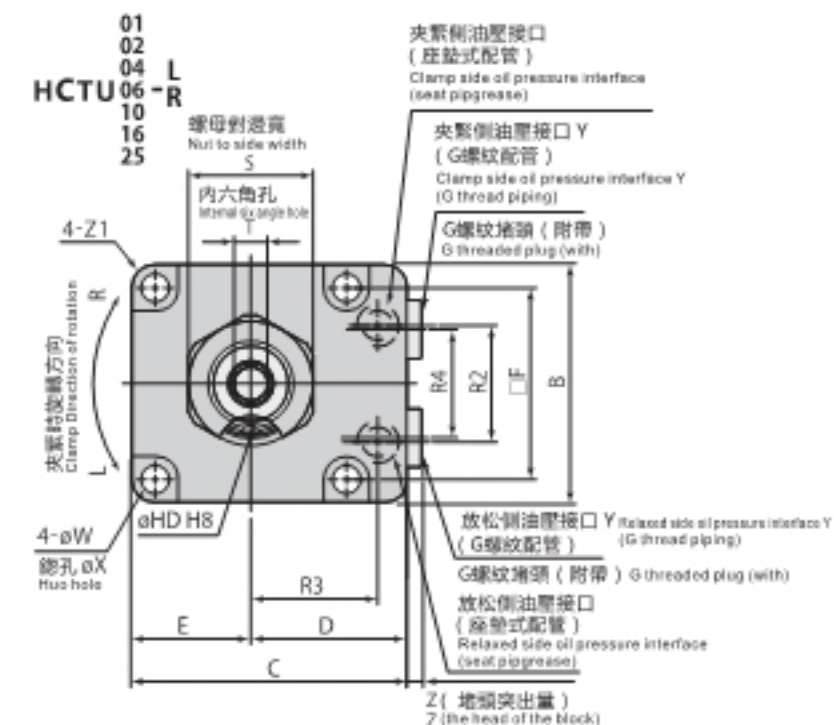
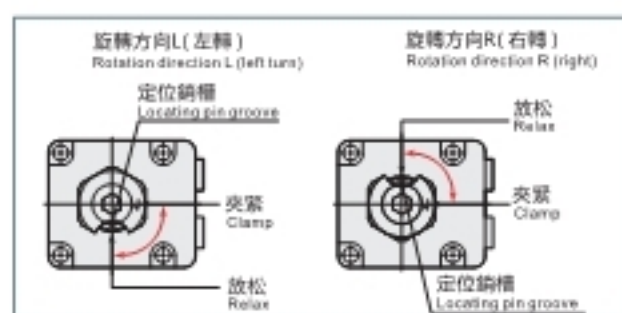
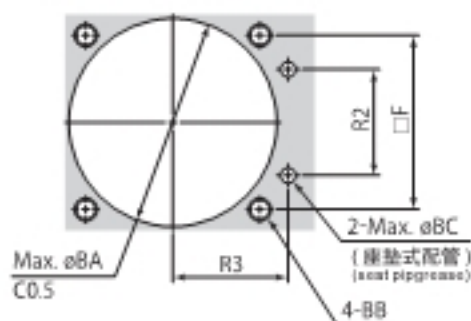


流量控制閥推薦使用進油節流控制方式。如果采用出油節流控制方式，因為面積的差產生背壓形成高壓，從而有可能會導致系統故障，所以在設計回路是要注意。

For flow control valve, we recommend the meter-in control. If meter-out control is used, due to the area difference, it will cause back pressure and become high pressure. This can lead to malfunction of the system. Please be aware when designing the circuit.

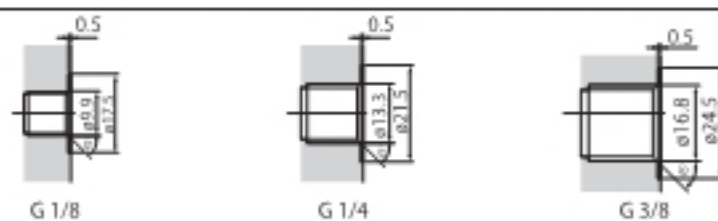
外形尺寸表 Dimension table

(mm)

安裝孔加工圖
Mounting hole

型號 Model	HCTU01-L	HCTU02-L	HCTU04-L	HCTU06-L	HCTU10-L	HCTU16-L	HCTU25-L
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
D	29	32.5	35	37.5	47	53	66
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) Clamping arm thickness	16	20	25	25	27	35	45
P (螺母厚度) 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 (螺母對邊寬) Nut to side width	19	22	27	30	36	46	55
T (內六角孔) Internal hex hole	5	6	6	8	8	10	14
U (推薦緊固扭矩) Recommended tightening torque	M12×1.5 (12 N·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 ※1	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z	3.8	3.8	3.8	3.8	4.8	4.8	4.8
Z1	R3	R3	R3	R5	R6	R7	R10
O 形圈 O-ring	※2 P7	※2 P7	※2 P7	※2 P7	※2 P8	※2 P8	※2 P10
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
HD	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
定位銷 Locating pin	ø3(h8)×8	ø4(h8)×10	ø4(h8)×10	ø5(h8)×10	ø6(h8)×12	ø6(h8)×12	ø6(h8)×14

※1



※2: O形圈的材質為氟橡膠 (硬度Hs90)。

注1. 本圖表示旋轉方向L (左轉) 的放鬆狀態, 夾緊時定位銷槽朝向油壓接口側, 旋轉方向和定位銷槽的關係請參照左圖。

2. 安裝面的最大表面粗糙度應加工在Rz6.3以下。

3. 不附帶壓臂、錐形套、速度控制閥、定位銷和安裝螺絲。

4. 關於錐型套、夾緊臂, 請參照→189-190頁; 關於使用注意事項, 請參照→193頁

※2: O ring is made of fluorine rubber (Hs90 hardness).

Note 1. The said rotation direction L (left) of the state of relaxation, the clamping groove location pin toward the pressure side of the interface and the relationship between the direction of rotation and the positioning pin slot, please refer to the left.

2. The maximum surface roughness of the mounting surface shall be processed in the following Rz6.3.

3. No pressure arm, tapered sleeve, speed control valve, positioning pin and mounting screws are included.

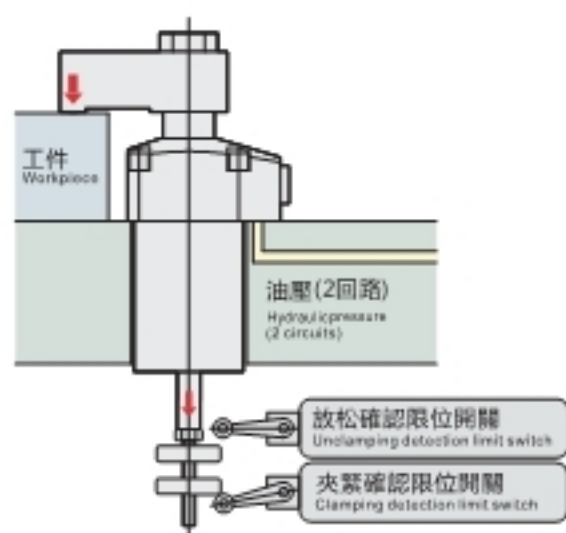
4. on the cone type, clamping arm, please refer to the 189-190 page;

on the use of attention, please refer to the 193 page

雙頭杆規格

Swing clamp Dual rod

使用例 / Usage example



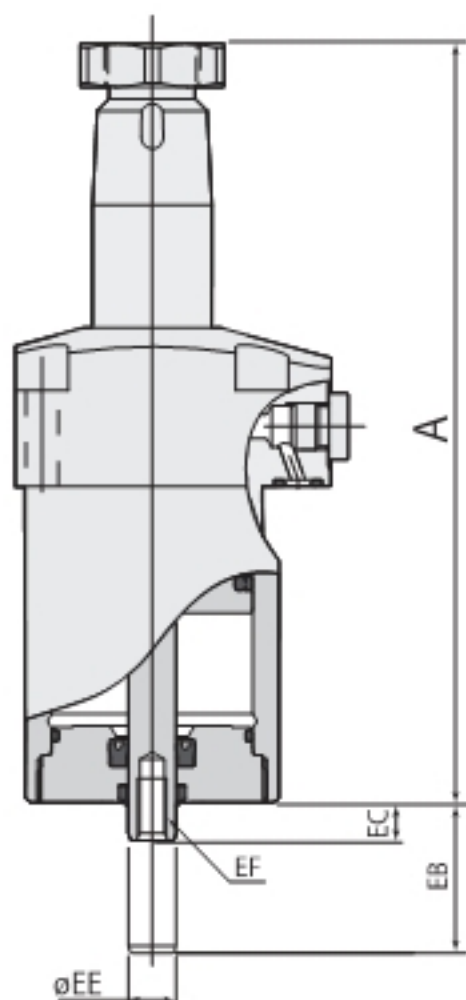
型號表示 / Model designation

HCTU^①-^②E (例：HCTU06-RE)

① 大小 (參照規格表) Size (reference specification)		② 旋轉方向(夾緊時) Swing direction(when clamping)	
HCTU	01	L: 左轉 L: Turn left R: 右轉 R: Turn right	E: 雙頭杆規格 E: Dual rod
	02		
	04		
	06		
	10		
	16		
	25		

外形尺寸表 Dimension table

(mm)



型號/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
油缸容量(放鬆) der capacity (unclamp)	7.0 cm ³	11.0 cm ³	19.3 cm ³	30.7 cm ³	53.3 cm ³	91.3 cm ³	182.9 cm ³
A	117	131	148.5	158.5	178.5	201.5	244
EB	24	26	28.5	31.5	34.5	36.5	44
EC	8	8	8	8	8	8	8
EE	8	8	10	10	12	12	16
EF	M5×0.8 深8	M5×0.8 深8	M6×1 深11	M6×1 深11	M8×1.25 深15	M8×1.25 深15	M10×1.5 深18
質量/Mass	0.35 kg	0.9 kg	1.3 kg	1.7 kg	2.8 kg	4.7 kg	9.9 kg

注1. 本圖表示旋轉方向L(左轉)的放鬆狀態。夾緊時定位銷槽朝向油壓接口側。

2. 本頁未記載的規格尺寸請參照規格→173-174頁, 外形尺寸→175頁。

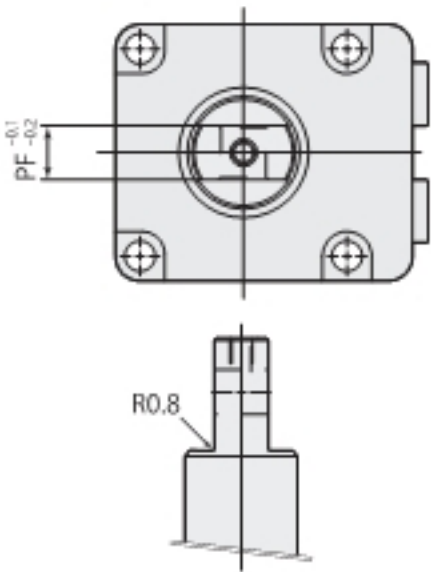
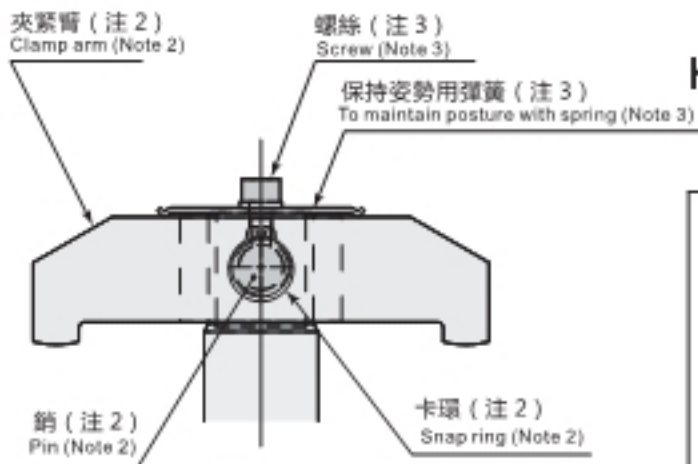
Note 1.this figure represents the relaxation state of the rotational direction L (left turn).

Positioning pin slots on the oil pressure interface side when the clamp is clamped.turn).Positioning pin slots on the oil pressure interface side when the clamp is clamped.

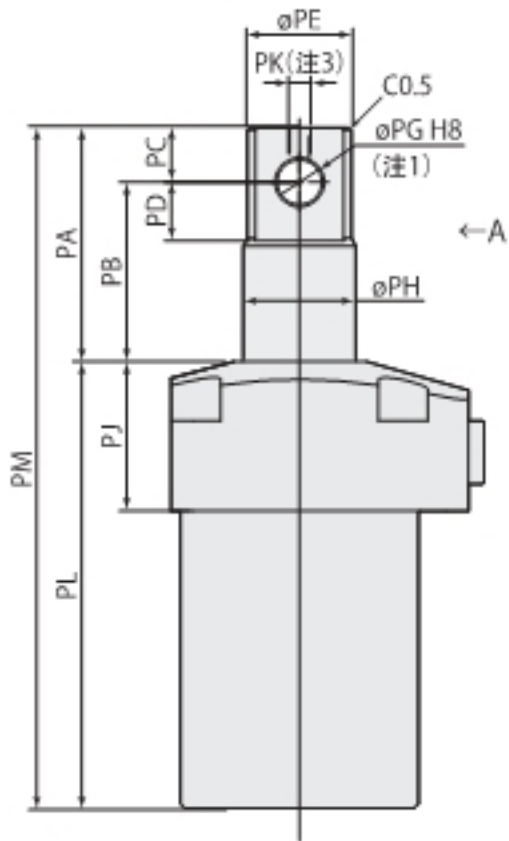
2.this page does not record the size of the specification,
please refer to the specification 173-174 page outline size 175 page.

顶端銷規格
Swing clamp Top pin

使用例 / Usage example

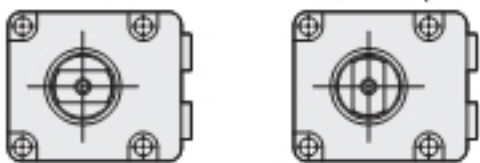


A 向視圖 / A view



放鬆/Unclamp

夾緊/Clamp



型號表示 / Model designation

HCTU^①-^②P (例：HCTU06-RP)

① 大小 (參照規格表)
Size (reference specification)

② 旋轉方向(夾緊時)
Swing direction(when clamping)

HCTU	01	—	L: 左轉 L: Turn left R: 右轉 R: Turn right	P: 頂端銷規格 P: Top pin
	02			
	04			
	06			
	10			
	16			
	25			

外形尺寸表 Dimension table

(mm)

型號/Model	HCTU 01-L	HCTU 02-LP	HCTU 04-LP	HCTU 06-LP	HCTU 10-LP	HCTU 16-LP	HCTU 25-LP
PA	36	38.5	45	52	59	70.5	88
PB	28	30.5	35	40	45	51.5	64
PC	8	8	10	12	14	19	24
PD	9	9	11	13	15	20	25
PE	12	16	20.4	23	28	33.5	43
PF	8	8	10	12	16	18	22
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
PH	14	18	22.4	25	30	35.5	45
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	121.5	137	151	172	195	236.5
質量/Mass	0.30 kg	0.9 kg	1.3 kg	1.8 kg	3.0 kg	4.9 kg	9.5 kg

- 注1. 本圖表示放鬆狀態。夾緊時銷孔朝向油壓接口側。
2. 不附帶夾緊臂、銷、卡環。請用戶自備。
3. 需要保持夾緊臂的姿勢時，請使用杆端螺紋孔。不附帶螺絲和保持姿勢用彈簧。
4. 本頁未記載的規格及尺寸，請參照規格→171-172頁，外形尺寸→173頁

Note 1.this figure represents a relaxed state. When the clamp is clamped, the pin hole is directed towards the oil pressure interface side.
2.no clamping arms, pins, clasp. Please bring your own.
3.to maintain the position of the clamping arm, please use the rod end screw hole. Spring without screws and holding posture.
4.this page does not record the size of the specification, please refer to the specification (171-172 page) outline size (173 pages).

型號表示

旋轉角度30°、45°、60°
Swing clamp Swing angle 30°, 45°, 60°

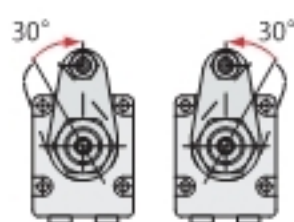
HCTU^①-^②^③ 例：(HCTU06-RN45) (Example：(HCTU06-RN45))

	① 大小 (參照規格表) Size (reference specification)	② 旋轉方向 (夾緊時) Swing direction (when clamping)	③ 旋轉角度(參照下圖) Swing angle
HCTU	01 02 04 06 10 16 25	L: 左轉 L: Turn left R: 右轉 R: Turn right	N30: 旋轉角度30° Swing angle 30° N45: 旋轉角度45° Swing angle 45° N60: 旋轉角度60° Swing angle 60°

旋轉角度 (夾緊時) / Swing angle (when clamping)

HCTU^①-^L_RN30

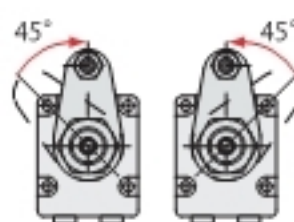
旋轉角度30°
Swing angle 30°



R: 右轉
R: Clockwise
L: 左轉
L: Counterclockwise

HCTU^①-^L_RN45

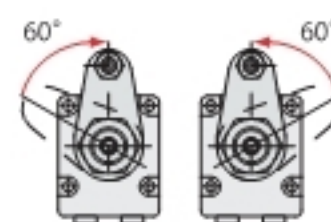
旋轉角度45°
Swing angle 45°



R: 右轉
R: Clockwise
L: 左轉
L: Counterclockwise

HCTU^①-^L_RN60

旋轉角度60°
Swing angle 60°



R: 右轉
R: Clockwise
L: 左轉
L: Counterclockwise

規格 Specifications

型號/Model			HCTU 01- ^L _R ^{N30} _{N45} ^{N60}			HCTU 02- ^L _R ^{N30} _{N45} ^{N60}			HCTU 04- ^L _R ^{N30} _{N45} ^{N60}			HCTU 06- ^L _R ^{N30} _{N45} ^{N60}		
旋轉角度 Swing 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°
全行程 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
旋轉行程 Swing 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
夾緊行程 Clamp stroke (mm)			8			8			8			10		
油缸容量 Cylinder capacity	夾緊 Clamp (cm³)		4.0	4.3	4.6	5.3	5.8	6.3	8.9	9.9	10.8	15.0	16.5	18.0
	放鬆 Unclamp (cm³)		5.8	6.2	6.7	8.6	9.4	10.2	14.5	16.1	17.7	23.3	25.5	27.9

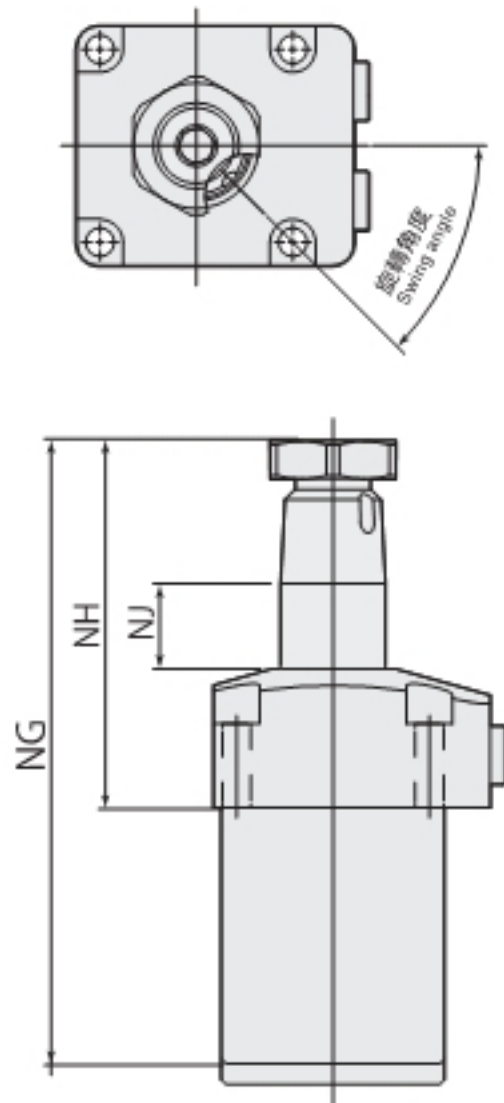
型號/Model		HCTU 10- ^L _R ^{N30} ^{N45} ^{N60}			HCTU 16- ^L _R ^{N30} ^{N45} ^{N60}			HCTU 25- ^L _R ^{N30} ^{N45} ^{N60}		
旋轉角度 Swing angle		30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°
全行程 Full stroke (mm)		18.3	20.3	22.4	19.3	21.6	23.9	24.5	27.4	30.3
旋轉行程 Swing stroke (mm)		8.3	10.3	12.4	9.3	11.6	13.9	11.5	14.4	17.3
夾緊行程 Clamp stroke (mm)		10			10			13		
油缸容量 Cylinder capacity	夾緊 Clamp (cm³)	25.9	28.8	31.7	44.8	50.2	55.6	90.4	101.0	111.6
	放鬆 Unclamp (cm³)	38.8	43.1	47.5	63.9	71.5	79.2	129.4	144.6	159.8

注：本頁未記載的規格請參照→171-172頁

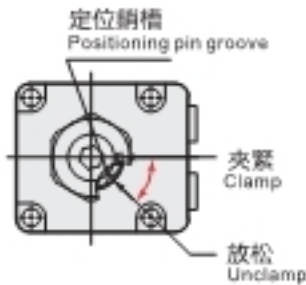
Note: this page does not record the specifications please refer to 171-172 page

旋轉角度30°、45°、60°
Swing clamp Swing angle 30°, 45°, 60°

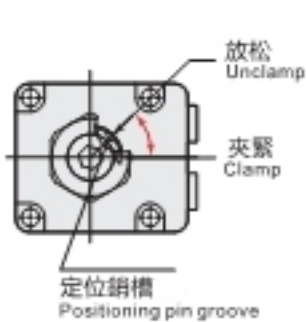
HCTU 01 02 04 06 10 16 25
L N30 N45 N60
R



旋轉方向L (左轉)
Swing direction L
(counter-clockwise)



旋轉方向R (右轉)
Swing direction R
(clockwise)



注 1. 本圖表示旋轉方向L (左轉) 的放鬆狀態。
夾緊時定位銷槽朝向油壓接口側。
放鬆時的定位銷槽位置請參照上圖。
2. 本頁未記載的尺寸, 請參照→173頁

Note 1.this figure represents the relaxation state of the rotational direction L (left turn).
Positioning pin slots on the oil pressure interface side when the clamp is clamped.
To relax when the positioning pin slot position, please refer to the figure above.
2. the size of the page is not recorded, please refer to page 173.

外形尺寸表 Dimension table

(mm)

型號/Model	HCTU 01 - ^{N30} _L ^{N45} _R ^{N60}			HCTU 02 - ^{N30} _L ^{N45} _R ^{N60}			HCTU 04 - ^{N30} _L ^{N45} _R ^{N60}			HCTU 06 - ^{N30} _L ^{N45} _R ^{N60}		
旋轉角度/Swing 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	112.8	113.7	114.7	126.0	127.3	128.5	142.3	143.8	145.4	151.8	153.4	155.1
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)

型號/Model	HCTU 10 - ^{N30} _L ^{N45} _R ^{N60}			HCTU 16 - ^{N30} _L ^{N45} _R ^{N60}			HCTU 25 - ^{N30} _L ^{N45} _R ^{N60}		
旋轉角度/Swing angle	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°
NG	170.3	172.3	174.4	192.3	194.6	196.9	232.5	235.4	238.3
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

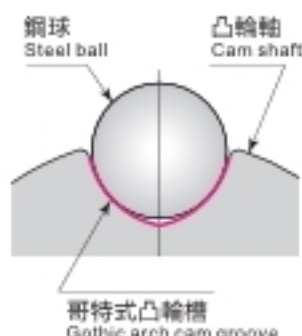
飛躍性地提高了耐久性、實現了高速夾緊

哥特式凸輪槽

Gothic arch cam groove

採用與鋼球大面積接觸的哥特式凸輪槽，有效降低了接觸面壓力，可連續、高頻率地高速旋轉，耐久性出色。

Superior durability, high frequency, and high-speed swinging operation is achieved thanks to lowered and controlled seating surface pressure. This is made possible by adopting gothic arch cam grooves that use steel balls with larger surface area.

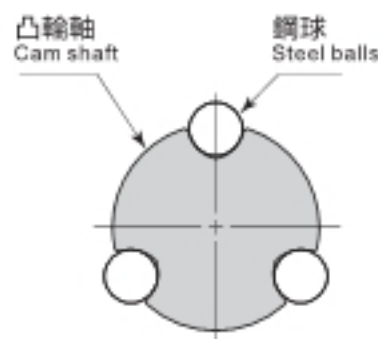


3點式鋼球支撐

3-point ball support

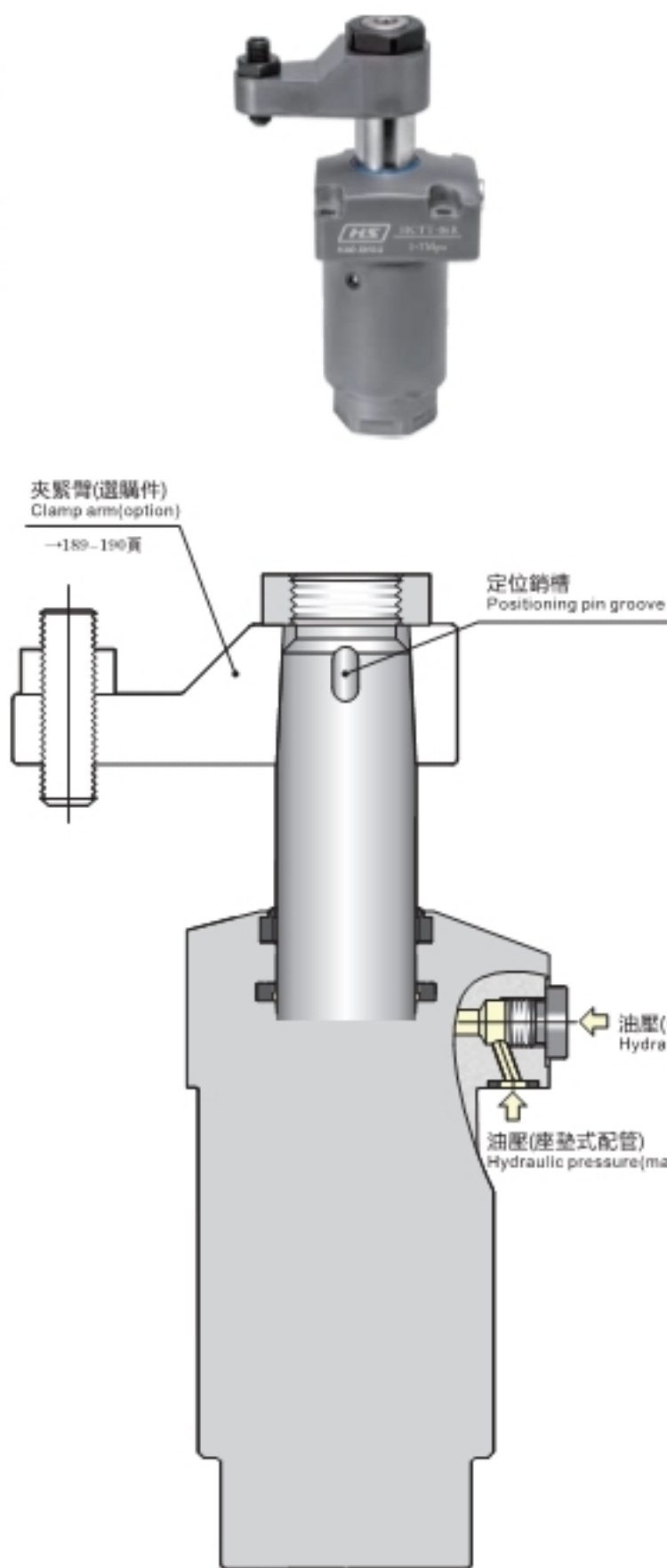
採用3點式鋼球支撐機構，實現了平穩的高速旋轉。

Smooth, stable and high-speed swinging operation has been achieved by 3-point ball support mechanism.



凸輪軸直徑大，確保了凸輪槽之間有充分的距離，因此剛性很高。由於凸輪部的耐久性和耐衝擊性得到提高，因此無需過載保護機構即可進行穩定而準確的高速旋轉。

Large diameter cam shaft and wide distance between the cam grooves offers higher rigidity. A overload protection mechanism is not needed due to improvement of durability and impact resistance, providing stable and secure high-speed swing operation.



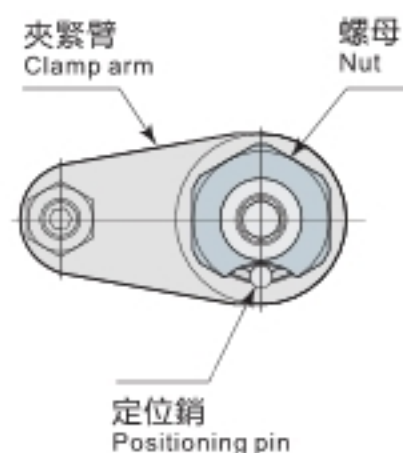
凸輪槽詳圖
Cam groove view

夾緊臂的定位及更換

Positioning and replacement of clamping arms

所有型號均採用定位銷槽。夾緊臂的定位(角度)簡單易行。

Positioning pin groove adopted with all models. Positioning (angle) of clamp arm can be performed easily.

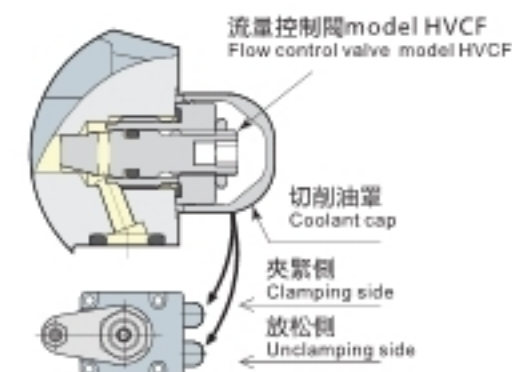


流量控制閥

Flow control valve

通過安裝流量控制閥(選購件)，可單獨調節動作速度，輕鬆控制同一回路上的順序動作和同步動作。191-192頁

Operating speeds can be adjusted individually by mounting a flow control valve (option), making sequential operation on same circuit or control of synchronization operation easier. 191-192 page



規格

型號/Model		HCTT01	HCTT02	HCTT04	HCTT06	HCTT10	HCTT16	HCTT25
油缸能力(油壓為7 MPa時)/Cylinder force(hydraulic pressure 7 MPa)※4(kN)		2.0	2.4	3.4	5.1	8.1	13.3	20.5
夾緊力 ※1 Clamping force	油壓為7 MPa時/Hydraulic pressure 7 MPa (kN)	1.7	2.0	2.9	4.3	6.8	11.0	16.8
	夾緊臂長度 (LH) /Clamp arm length (LH) (mm)	30	35	40	50	60	70	90
油缸內徑/Cylinder inner diameter (mm)		25	29	36	42	52	65	82
主杆徑/Rod diameter (mm)		14	18	22.4	25	30	35.5	45
油缸面積 (夾緊) /Effective area (clamp) (cm ²)		3.4	4.1	6.2	8.9	14.2	23.3	36.9
旋轉角度/Swing angle		90° ±3°						
定位銷槽位置精度/Positioning pin groove position accuracy		±1°						
夾緊重複定位精度/Repeated clamp positioning accuracy		±0.5°						
全行程/Full stroke (mm)		16	18	20.5	23.5	26.5	28.5	36
旋轉行程/90°swing stroke (mm)		8	10	12.5	13.5	16.5	18.5	23
夾緊行程/Clamp stroke (mm)		8	8	8	10	10	10	13
最大旋轉扭矩 ※2/Max. swing torque※2 (N·m)		0.15	0.2	0.6	1.0	1.8	3.6	5.4
油缸容量(夾緊) /Cylinder capacity (clamp) (cm ³)		5.4	7.3	12.8	21.0	37.5	66.4	132.9
回位彈簧力 Return spring force	放鬆/Unclamp (KN)	0.23	0.29	0.50	0.74	1.13	1.79	2.92
	夾緊行程的中央位置/Clamp stroke central position (KN)	0.37	0.47	0.94	1.12	1.79	2.99	5.32
	夾緊完成時/Clamp end (KN)	0.42	0.52	1.05	1.22	1.94	3.25	5.85
推薦配管內徑※3/Recommended piping inner diameter※3 (mm)		ø6	ø6	ø6	ø6	ø8	ø8	ø10
質量/Mass (kg)		0.37 ^{*5}	1.0	1.5	2.0	3.3	5.5	10.4

使用油壓範圍：2.5 ~ 7 MPa 保證耐壓：10.5 MPa 使用環境溫度：0 ~ 70℃ 使用流體：普通礦物油基液壓油（相當于ISO-VG32）

※1：夾緊力因夾緊臂長度而異。

※2：垂直安裝時，能以彈簧力(放鬆時)抬升夾緊臂的極限值。

※3：使用多個夾緊器以及油壓配管較長時，請注意配管內徑。

※4：在夾緊行程中央位置時的值。

※5：僅HCTT01型的主體使用鋁合金材質，滿足輕量化需求。

氟系切削液噴灑的環境下也可以使用。

Working pressure range: 2.5 ~ 7 MPa Proof pressure: 10.5 MPa Operating temperature: 0 ~ 70℃

Fluid used: General mineral based hydraulic oil (ISO-VG32 equivalent)

* 1: Clamping force varies depending on clamp arm length. Refer to performance table for details.

* 2: This is the limit value for lifting arm with spring force (unclamp) when mounted vertically.

* 3: Care must be taken when numerous clamps are used or when hydraulic piping is long.

* 4: This is value for central position of clamp stroke.

* 5: Body material is aluminum only for model HCTT01, to reduce weight. * 6: ISO R898 class 12.9

Fluorocarbon has been adopted for seal sections where cutting fluid is applied, as a measure for the use of chlorine-based cutting fluid (this is not thermal resistant specification).

型號表示

HCTT ①- ②③ (例:HCTT06-RA)/(Example : HCTT06-RA)

① 大小(參照規格表)
Size(see table)

② 旋轉方向(夾緊時)
Swing direction (when clamping)

③ 特殊規格記號 ※
Variation code

HCTT	01	L: 左轉 Turn left  R: 右轉 Turn right 	無記號: 標準 (Nil) : Standard P: 頂端銷規格 P: Top pin N□: 旋轉角度30°、45°、60° N□: Swing angle 30°、45°、60°
	02		
	04		
	06		
	10		
	16		
	25		

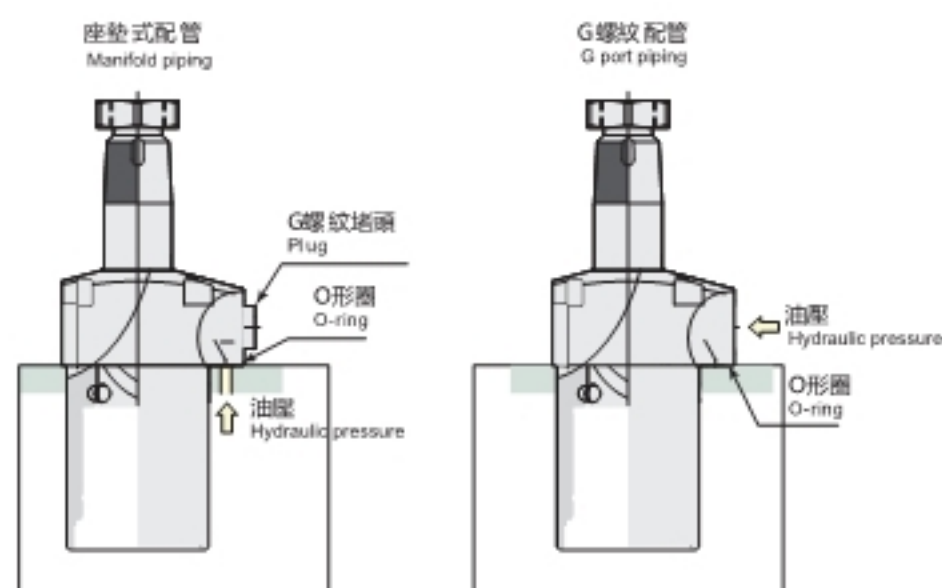
※: 特殊規格沒有對應全部大小。詳情請參照各相應頁。產品目錄中未記載的特殊規格 (型號) 請參照其它資料。

※: All varieties are not available for all sizes. Refer to each relevant page for details.

Request for separate document regarding variation codes (models) that are not described in the catalog.

配管方法

Piping method



HCTT型可選擇座墊式配管和G螺紋配管2種配管方法。

采用G螺紋配管時，請拆下G螺紋堵頭。

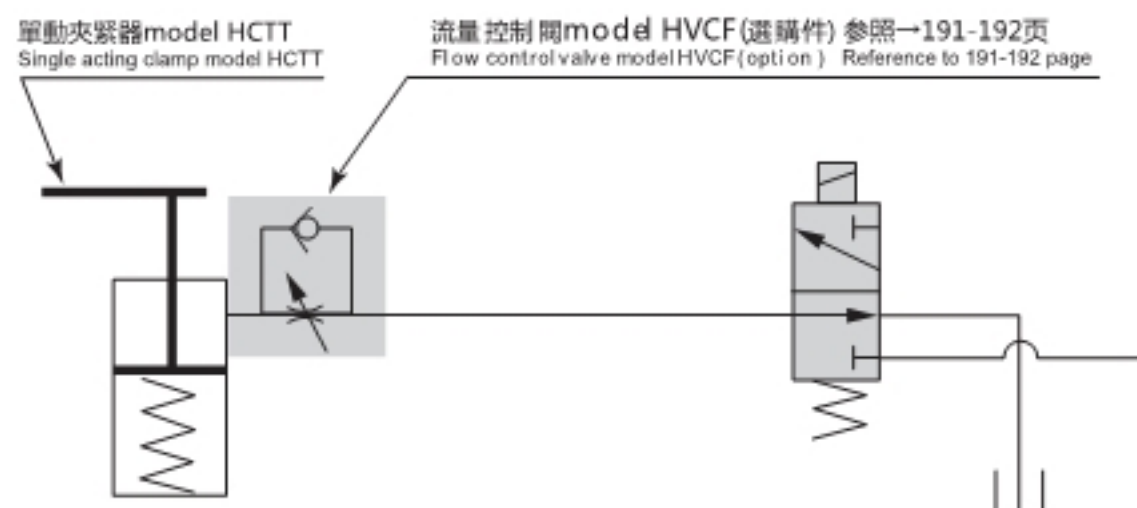
(采用G螺紋配管時不要卸下O形圈，利用安裝面進行密封。)

Two piping methods are available for model HCTT, manifold piping and G port piping.

Dismount plug when using G port piping. Whichever method is chosen for piping, O-ring must be used.

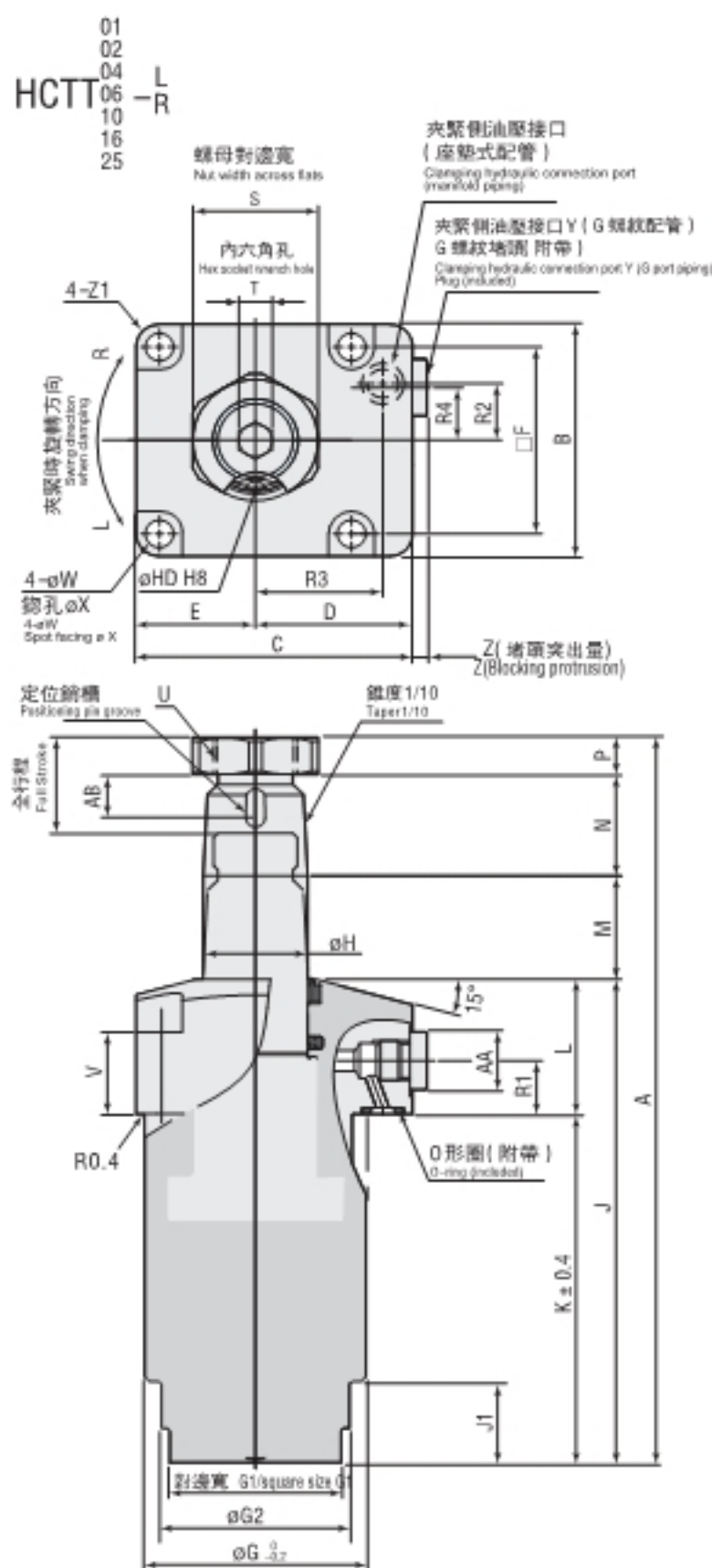
油壓回路圖(參考)

Hydraulic circuit diagram (reference)

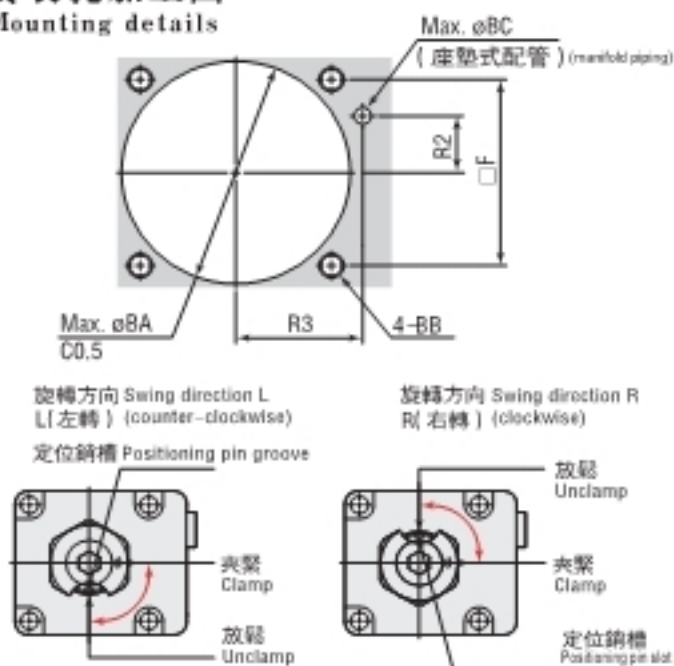


流量控制閥請使用進油節流控制方式。

Use flow control valve for meter-in control.



安裝孔加工圖
Mounting details



外形尺寸表 Dimension table

(mm)

型號 Model	HCTT01-L	HCTT02-L	HCTT04-L	HCTT06-L	HCTT10-L	HCTT16-L	HCTT25-L
A	129	136	161.5	178.5	203.5	231.5	284
B	38	45	50	57	70	86	108
C	48	55	60	66	82	96	120
D	29	32.5	35	37.5	47	53	66
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
G1	24	30	36	41	50	60	75
G2	26	33	40	45	55	66	85
H	14	18	22.4	25	30	35.5	45
J	89	88	105	119	138	154.5	188.5
J1	12	5	13	20	25	30	40
K	60.5	59	74	86	102	114	137
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 (螺帽厚度)	6.5	8	9	9	10	12	13
R1	12.5	12.5	12.5	12.5	14	14	21
R2	9	11	12	14	18	22.5	25
R3	22.5	25	28	30.5	36	42	57
R4	8.1	10	11	13	15	19	25
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 (12 N · 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 ≈ 1	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z	3.8	3.8	3.8	3.8	4.8	4.8	4.8
Z1	R3	R3	R3	R5	R6	R7	R10
○形圈 ≈ 2	P7	P7	P7	P7	P8	P8	P10
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
HD	3 ± 0.14 0	4 ± 0.18 0	4 ± 0.18 0	5 ± 0.18 0	6 ± 0.18 0	6 ± 0.18 0	6 ± 0.18 0
定位銷 Positioning pin	Ø3(h8) × 8	Ø4(h8) × 10	Ø4(h8) × 10	Ø5(h8) × 10	Ø6(h8) × 12	Ø6(h8) × 12	Ø6(h8) × 14

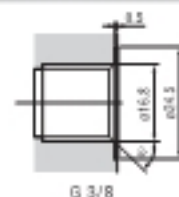
※1



G 1/8



G 1/4



G 3/8

※2: O形圈的材質為氟橡膠 (硬度Hs90)。

※2: Material used for O-ring is fluorocarbon (with hardness Hs90).

注1. 本圖表示旋轉方向L (左轉) 的放鬆狀態。

Note 1. This diagram indicates unclamped condition of swing direction L (counter-clockwise).

夾緊時定位銷槽朝向油壓接口側。

Direction of positioning pin groove will be hydraulic connection port side at the time of clamping. Refer to diagram on left for relationship between swing direction and positioning pin groove.

旋轉方向和定位銷槽的關係請參照左圖。

Refer to diagram on left for relationship between swing direction and positioning pin groove.

2. 安裝面的最大表面粗糙度應加工在Ra6.3以下。

2. The mounting surface finish must be no rougher than Ra6.3 (ISO4287:1997).

3. 不用帶定位銷和安裝螺絲。

3. Positioning pins and mounting screws are not included.

4. 關於錐形套、夾緊臂, 請參照→189-190頁

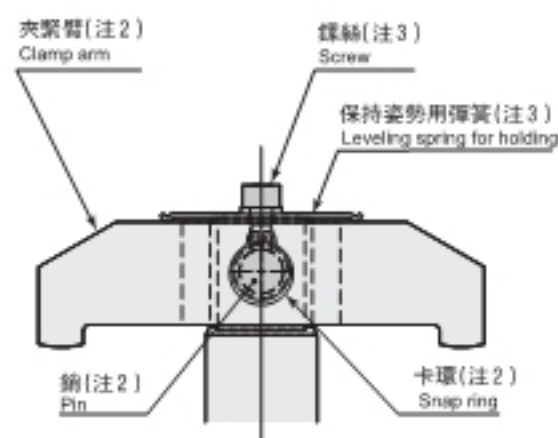
4. on the taper sleeve, clamping arm, please refer to the 189-190 page

5. 關於使用說明, 請參照→193頁

5. on the use of instructions, please refer to the 193 page

型號表示

使用實例 Usage example



使用實例 Usage example

HCTT ① -② P (例：HCTT06-RP) (Example：HCTT06-RP)

① 大小 (參照規格表)
Size (reference specification)

② 旋轉方向(夾緊時)
Swing direction(when clamping)

HCTT	01	—	L: 左轉 L: Counterclockwise R: 右轉 R: Clockwise	P: 頂端銷規格 P: Top pin
	02 04 06 10 16 25			

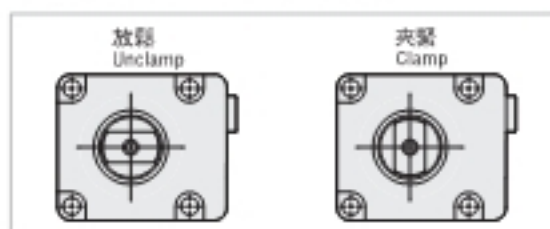
外形尺寸表 Dimension table

(mm)

型號 Model	HCTT01-LP	HCTT02-LP	HCTT04-LP	HCTT06-LP	HCTT10-LP	HCTT16-LP	HCTT25-LP
PA	36	38.5	45	52	59	70.5	88
PB	28	30.5	35	40	45	51.5	64
PC	8	8	10	12	14	19	24
PD	9	9	11	13	15	20	25
PE	12	16	20.4	23	28	33.5	43
PF	8	8	10	12	16	18	22
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
PH	14	18	22.4	25	30	35.5	45
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
PN	89	88	105	119	138	154.5	188.5
PP	125	126.5	150	171	197	225	276.5
質量 Mass	0.35 kg	0.8 kg	1.3 kg	1.8 kg	3.0 kg	4.9 kg	9.5 kg

注 1. 本圖表示放鬆狀態。夾緊時銷孔朝向油壓接口側。

This diagram indicates unclamped condition. Direction of pin hole will be hydraulic port side at the time of clamping.



2. 不附帶夾緊臂、銷、卡環。請用戶自備。

Clamp arm, pin and snap ring are not included. Customers must arrange for them.

3. 需要保持夾緊臂的姿勢時，請使用杆端螺紋孔。不附帶螺絲和保持姿勢用彈簧。

Thread at top portion of the rod is for attaching a leveling spring. Screw and leveling spring are not included.

4. 本頁未記載的規格尺寸請參照規格→179-180頁，外形尺寸→181頁。

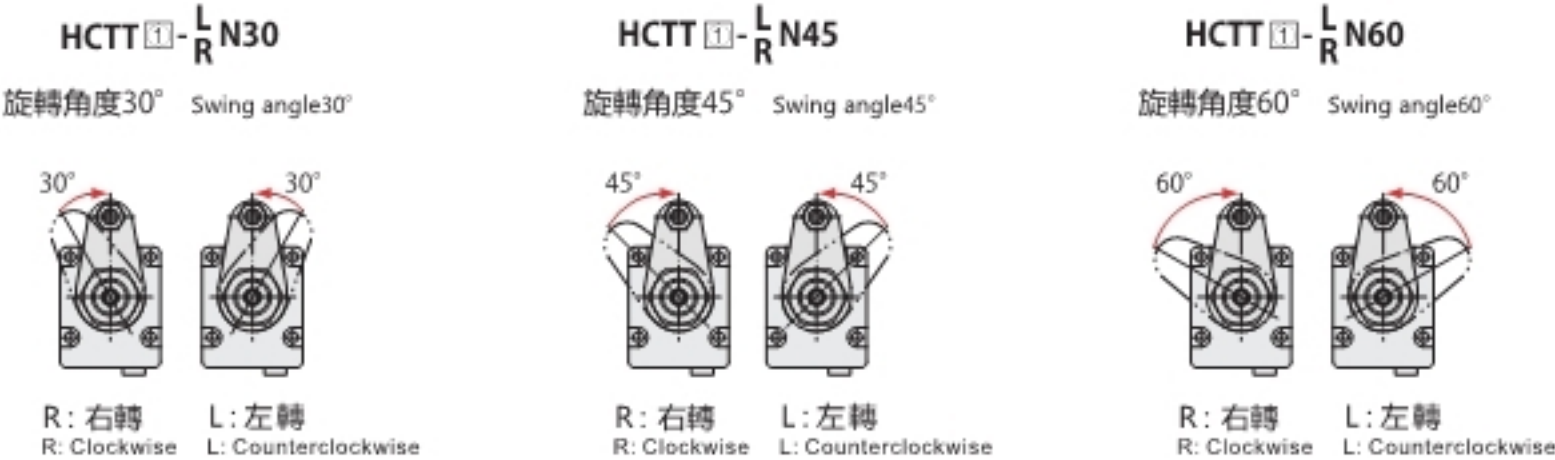
4. This page does not record the size of the specifications, please refer to the specifications of the 179-180 page, the size of the overall size of 181 pages.

型號表示

HCTT ① - ② ③ (例：HCTT06-RN45) (Example：HCTT06-RN45)

	① 大小 (參照規格表) Size (reference specification)	② 旋轉方向(夾緊時) Swing direction(when clamping)	③ 旋轉角度 (參照下圖) Swing angle
HCTT	01 02 04 06 10 16 25	L: 左轉 L: Counterclockwise R: 右轉 R: Clockwise	N30: 旋轉角度30° N30: Swing angle 30° N45: 旋轉角度45° N45: Swing angle 45° N60: 旋轉角度60° N60: Swing angle 60°

旋轉角度 (夾緊時) Swing angle (when clamping)



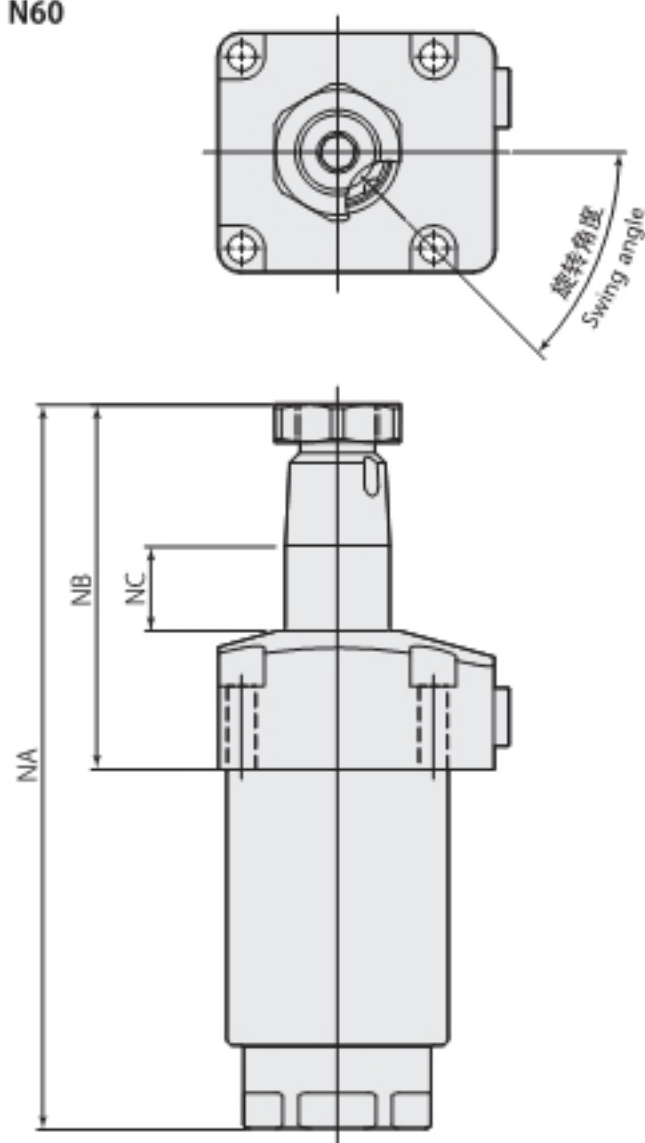
規格 Specifications

型號 Model	HCTT01- $\frac{L}{R}$ N30 N45 N60			HCTT02- $\frac{L}{R}$ N30 N45 N60			HCTT04- $\frac{L}{R}$ N30 N45 N60			HCTT06- $\frac{L}{R}$ N30 N45 N60		
旋轉角度 Swing 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°
全行程 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
旋轉行程 Swing 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
夾緊行程 Clamp stroke (mm)	8			8			8			10		
油缸容量 (夾緊) Cylinder capacity (clamp) (cm³)	4.0	4.3	4.6	5.3	5.8	6.3	8.9	9.9	10.8	15.0	16.5	18.0
回位彈簧力 (放鬆) Return spring force(unclamp) (kN)	0.28	0.27	0.26	0.36	0.34	0.32	0.66	0.62	0.58	0.88	0.85	0.81

型號 Model	HCTT10- $\frac{L}{R}$ N30 N45 N60			HCTT16- $\frac{L}{R}$ N30 N45 N60			HCTT25- $\frac{L}{R}$ N30 N45 N60		
旋轉角度 Swing angle	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°
全行程 Full stroke (mm)	18.3	20.3	22.4	19.3	21.6	23.9	24.5	27.4	30.3
旋轉行程 Swing stroke (mm)	8.3	10.3	12.4	9.3	11.6	13.9	11.5	14.4	17.3
夾緊行程 Clamp stroke (mm)	10			10			13		
油缸容量 (夾緊) Cylinder capacity (clamp) (cm³)	25.9	28.8	31.7	44.8	50.2	55.6	90.4	101.0	111.6
回位彈簧力 (放鬆) Return spring force(unclamp) (kN)	1.38	1.32	1.25	2.26	2.15	2.03	3.86	3.62	3.39

注：本頁未記載的規格尺寸請參照規格→179-180頁。
This page does not record the size of the specifications,
please refer to the specifications of the 179-180page

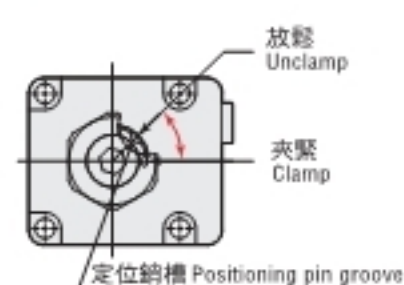
HCTT 01 02 04 06 10 16 25
L N30
R N45
N60



旋轉方向 Swing direction L
L(左轉) (counter-clockwise)



旋轉方向 Swing direction R
R(右轉) (clockwise)



- 注 1. 本圖表示旋轉方向 L(左轉)的放鬆狀態。
夾緊時定位銷槽朝向油壓接口側。
放鬆時的定位銷槽位置請參照上圖。
2. 本頁未記載的規格尺寸請參照規格→181頁。
1. This diagram indicates unclamped condition of swing direction L (L stands for counter-clockwise). Direction of positioning pin groove will be hydraulic port side at the time of clamping.
2. This page does not record the size of the specifications, please refer to the specifications of the 181 page

外形尺寸表 Dimension table

型號 Model	HCTT01-L N30 R N45 N60			HCTT02-L N30 R N45 N60			HCTT04-L N30 R N45 N60			HCTT06-L N30 R N45 N60		
旋轉角度 Swing angle (when clamping)	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°
NA	124.8	125.7	126.7	131.0	132.3	133.5	155.3	156.8	158.4	171.8	173.4	175.1
NB	64.3	65.2	66.2	72.0	73.3	74.5	81.3	82.8	84.4	85.8	87.4	89.1
NC	13.3	14.2	15.2	15.0	16.3	17.5	16.3	17.8	19.4	18.8	20.4	22.1

型號 Model	HCTT10-L N30 R N45 N60			HCTT16-L N30 R N45 N60			HCTT25-L N30 R N45 N60		
旋轉角度 Swing angle (when clamping)	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°	30°±3°	45°±3°	60°±3°
NA	195.3	197.3	199.4	222.3	224.6	226.9	272.5	275.4	278.3
NB	93.3	95.3	97.4	108.3	110.6	112.9	135.5	138.4	141.3
NC	20.3	22.3	24.4	20.8	23.1	25.4	26.0	28.9	31.8

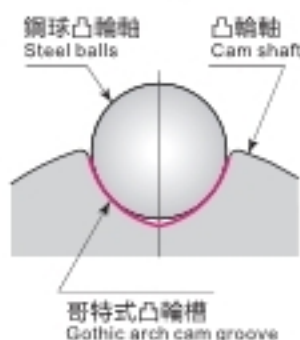
無需墊塊的方形缸體型旋轉式夾緊器

哥特式凸輪槽

Gothic arch cam groove

採用與鋼球大面積接觸的哥特式凸輪槽，有效降低了接觸面壓力，可連續、高頻率地高速旋轉，耐久性出色。

Superior durability, high frequency, and high-speed swinging operation is achieved thanks to lowered and controlled seating surface pressure. This is made possible by adopting gothic arch cam grooves that use steel balls with larger surface area.

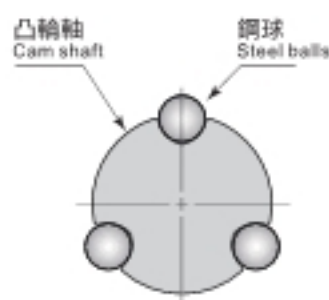


3點式鋼球支撐

3-point ball support

採用3點式鋼球支撐機構，實現了平穩的高速旋轉。

Smooth, stable and high-speed swinging operation has been achieved by 3-point ball support mechanism.

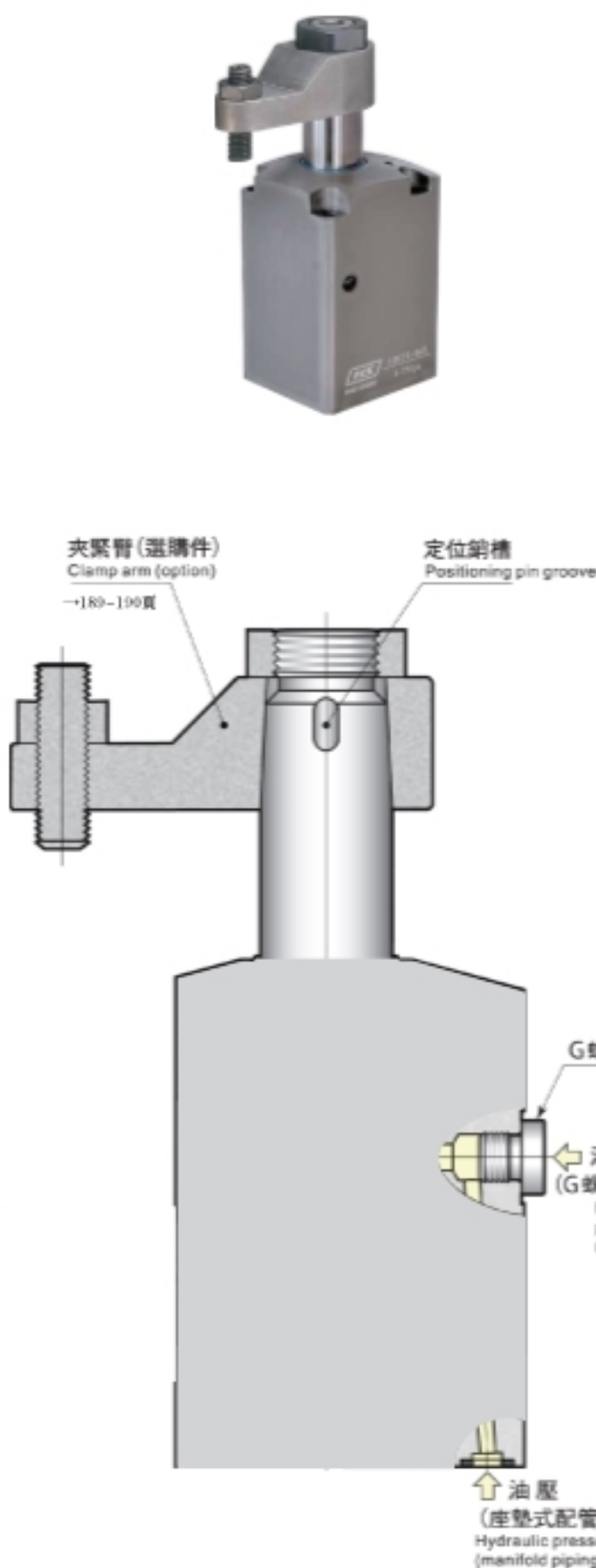


凸輪軸直徑大，確保了凸輪槽之間有充分的距離，因此剛性很高。由於凸輪部的耐久性和耐衝擊性得到提高，因此無需過載保護機構即可進行穩定而準確的高速旋轉。

Large diameter cam shaft and wide distance between the cam grooves offers higher rigidity. A overload protection mechanism is not needed due to improvement of durability and impact resistance, providing stable and secure highspeed swing operation.



凸輪槽詳圖
Cam groove view



2種油壓配管

2-way hydraulic piping

備有G螺紋規格的配管接口和座墊式配管接口。

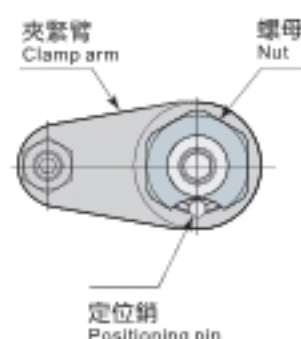
G thread piping connection port and manifold piping connection port are available.

夾緊臂的定位及更換

Positioning and replacement of clamping arms

所有型號均採用定位銷槽。夾緊臂的定位(角度)簡單易行。

Positioning pin groove adopted with all models. Positioning (angle) of clamp arm can be performed easily.

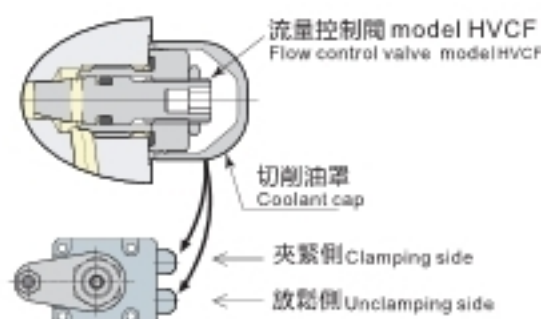


流量控制閥

Flow control valve

通過安裝流量控制閥(選購件)，可單獨調節動作速度，輕鬆控制同一回路上的順序動作和同步動作。→191~192頁

Operating speeds can be adjusted individually by mounting a flow control valve (option), making sequential operation on same circuit or control of synchronization operation easier→191~192 page



規格

型號/Model			HBTU02	HBTU04	HBTU06	HBTU10	HBTU16	HBTU25	
油缸能力(油壓為7 MPa 時)/Cylinder force(hydraulic pressure 7 MPa)			(kN)	2.8	4.4	6.3	9.9	16.3	25.8
夾緊力 ※1 /Clamping force	油壓為7 MPa 時/Hydraulic pressure 7 MPa		(kN)	2.4	3.8	5.3	8.3	13.5	21.2
	夾緊臂長度 (LH)/Clamp arm length (LH)		(mm)	35	40	50	60	70	90
油缸內徑 /Cylinder inner diameter			(mm)	29	36	42	52	65	82
主杆徑 /Rod diameter			(mm)	18	22.4	25	30	35.5	45
油缸面積(夾緊)/Effective area (clamp)			(cm ²)	4.1	6.2	8.9	14.2	23.3	36.9
旋轉角度 /Swing angle				90°±3°					
定位銷槽位置精度/Positioning pin groove position accuracy				±1°					
夾緊重複定位精度 /Repeated clamp positioning accuracy				±0.5°					
全行程 /Full stroke			(mm)	18	20.5	23.5	26.5	28.5	36
旋轉行程/90°swing stroke			(mm)	10	12.5	13.5	16.5	18.5	23
夾緊行程 /Clamp stroke			(mm)	8	8	10	10	10	13
最大旋轉扭矩 ※2 /Max. swing torque※2			(N·m)	0.7	1.6	1.8	3.4	5.6	9.3
油缸容量/Cylindercapacity	夾緊 /Clamp		(cm ³)	7.3	12.8	21.0	37.5	66.4	132.9
	放鬆 /Unclamp		(cm ³)	11.9	20.9	32.6	56.3	94.6	190.1
質 量 /Mass			(kg)	1.4	1.9	2.6	4.4	6.9	12.9

使用油壓範圍：1 ~ 7 MPa 保證耐壓：10.5 MPa 使用環境溫度：0 ~ 70°C 使用流體：普通礦物油基液壓油（相當於 ISO-VG32）

※1：夾緊力因夾緊臂長度而異。

※2：垂直安裝時，能以 1 MPa 的壓力抬升夾緊臂的極限值。

氟系切削液噴灑的環境下也可以使用。

Working pressure range: 1 ~ 7 MPa Proof pressure: 10.5 MPa Operating temperature: 0 ~ 70°C

Fluid used: General mineral based hydraulic oil (ISO-VG32 equivalent)

※1: Clamping force varies depending on clamp arm length.

※2: This is the limit value for lifting arm at 1 MPa when mounted vertically.

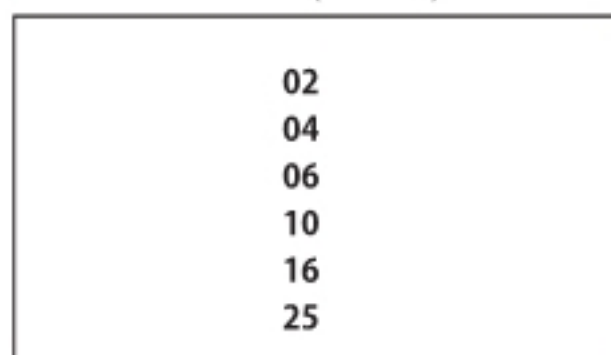
Fluorocarbon has been adopted for seal sections where cutting fluid is applied, as a measure for the use of chlorine-based cutting fluid (this is not thermal resistant specification).

型號表示

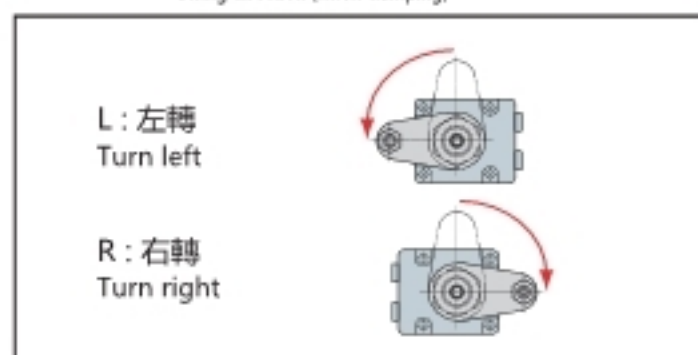
HBTU①② (例：HBTU06-R)
(Example: HBTU06-R)

① 大小(參照規格表)
Size(see table)

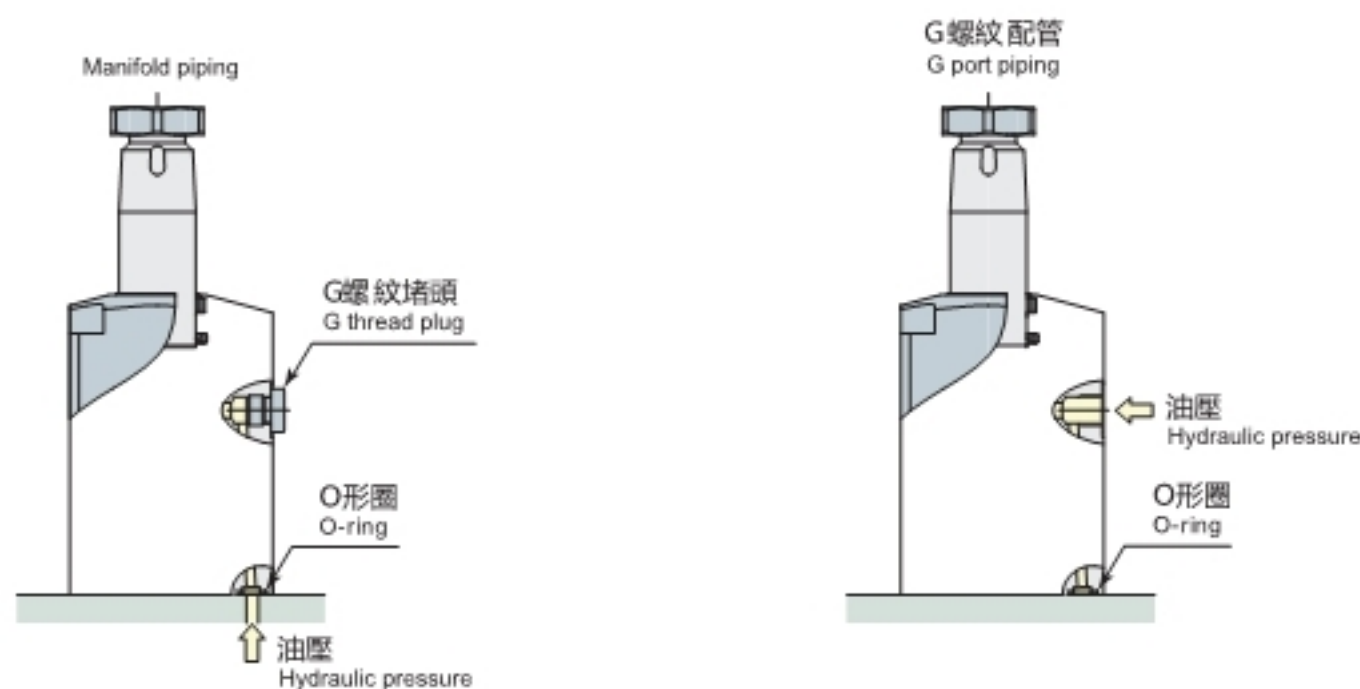
② 旋轉方向(夾緊時)
Swing direction (when clamping)



—



配管方法



HBTU型可選擇座墊式配管和G螺紋配管2種配管方法。

採用G螺紋配管時，請拆下G螺紋堵頭。

（採用G螺紋配管時不要卸下O形圈，利用安裝面進行密封。）

Two piping methods are available for model HBTU, manifold piping and G port piping.

Dismount plug when using G port piping. Whichever method is chosen for piping, O-ring must be used.

油壓回路圖(參考)

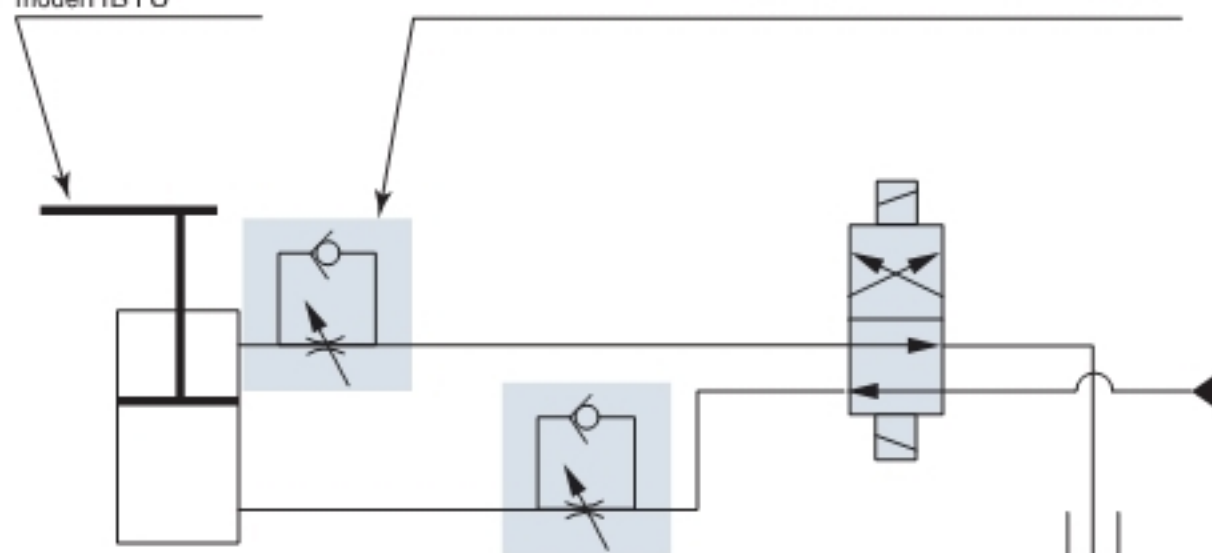
雙動夾緊器

modelHBTU

Double acting clamp
modelHBTU

流量控制閥 modelHVCF (選購件) 參照→191-192頁

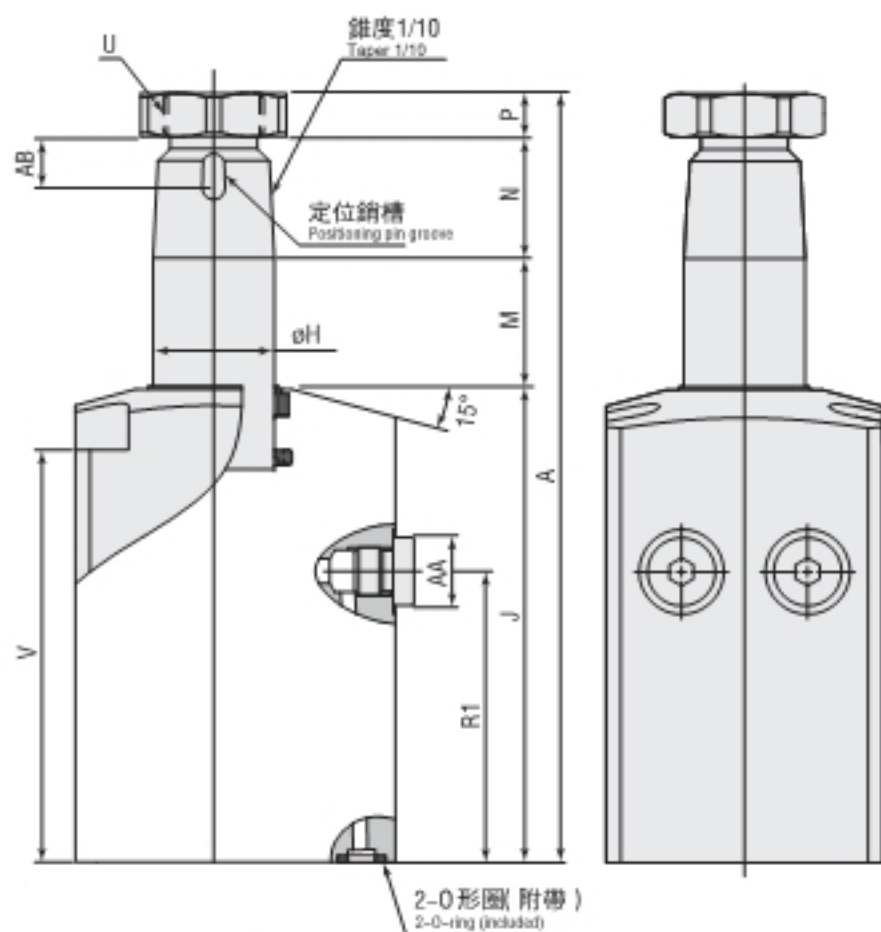
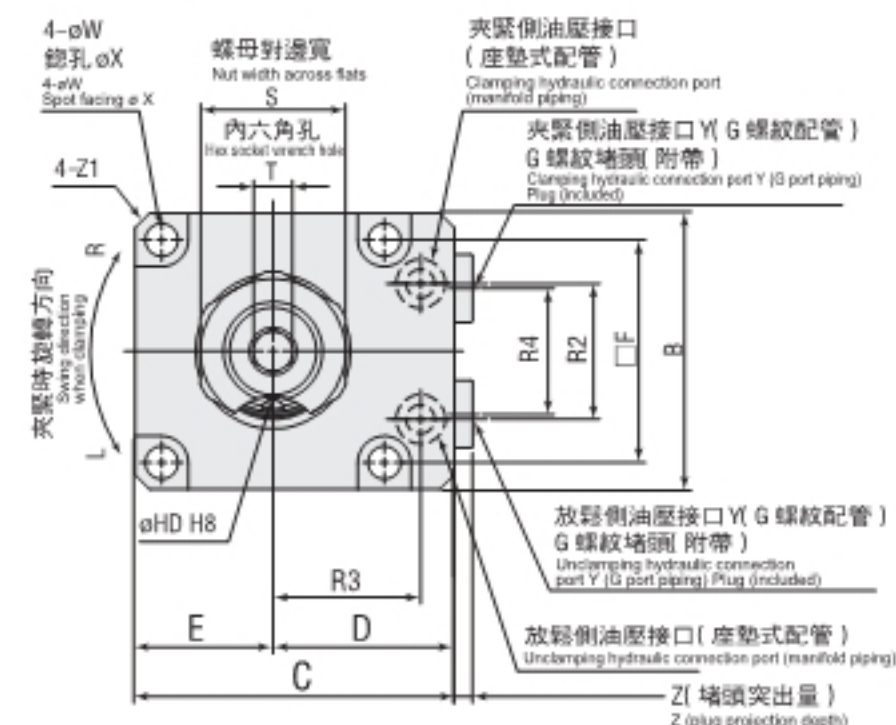
Flow control valve modelHVCF(option) Reference to 191-192 page



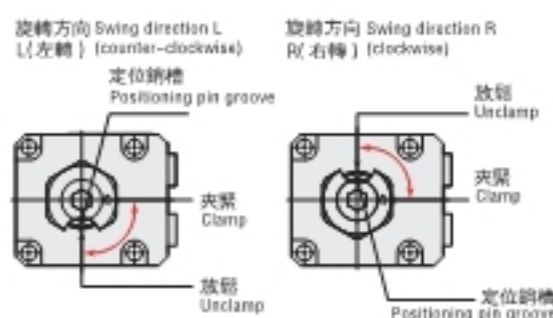
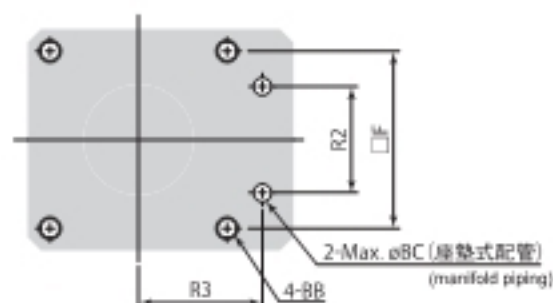
流量控制閥推薦使用進油節流控制方式。如果採用出油節流控制方式，因為面積的差產生背壓形成高壓，從而有可能會導致系統故障，所以在設計回路時要注意。

For flow control valve, we recommend the meter-in control. If meter-out control is used, due to the area difference, it will cause back pressure and become high pressure. This can lead to malfunction of the system. Please be aware when designing the circuit.

HBTU 02
04
06
10
16
25 L-R



安裝孔加工圖 Mounting details

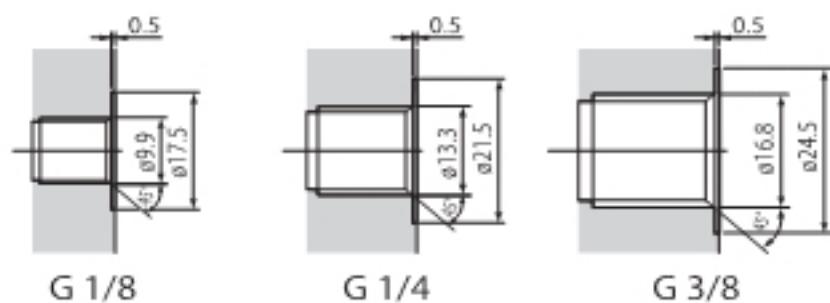


外形尺寸表 Dimension table

(mm)

型號 Model	HBTU02-L	HBTU04-L	HBTU06-L	HBTU10-L	HBTU16-L	HBTU25-L
A	131	148.5	158.5	178.5	201.5	244
B	45	50	57	70	86	108
C	55	60	66	82	96	120
D	32.5	35	37.5	47	53	66
E	22.5	25	28.5	35	43	54
F	35	40	46	56	68	88
H	18	22.4	25	30	35.5	45
J	81.5	90.5	97.5	111.5	123	147
M	21.5	24	27	30	31.5	39
N (夾緊臂厚度) (arm thickness)	20	25	25	27	35	45
P (螺母厚度) (nut thickness)	8	9	9	10	12	13
R1	52.5	57	60	70	76	92
R2	22	24	28	36	45	50
R3	25	28	30.5	36	42	57
R4	20	22	26	30	38	50
S (螺母對邊寬) (nut width across flats)	22	27	30	36	46	55
T (內六角孔) (hex socket wrench hole)	6	6	8	8	10	14
U (推薦緊固扭矩) (recommended tightening torque)	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	71	80	85	95	102.5	121.5
W	5.5	5.5	6.8	9	11	14
X	9.5	9.5	11	14	17.5	20
Y ※1	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z	3.8	3.8	3.8	4.8	4.8	4.8
Z1	C3	C3	C3	C4	C6	C6.5
O 形圈 ※2 O-ring	P7	P7	P7	P8	P8	P10
AA	14	14	14	19	19	22
AB	10.5	10.5	10.5	12.5	12.5	14.5
BB	M5	M5	M6	M8	M10	M12
BC	4	4	4	6	6	8
HD	4 ^{+0.018} ₀	4 ^{+0.018} ₀	5 ^{+0.018} ₀	6 ^{+0.018} ₀	6 ^{+0.018} ₀	6 ^{+0.018} ₀
定位銷 Positioning pin	ø4(h8)×10	ø4(h8)×10	ø5(h8)×10	ø6(h8)×12	ø6(h8)×12	ø6(h8)×14

※1



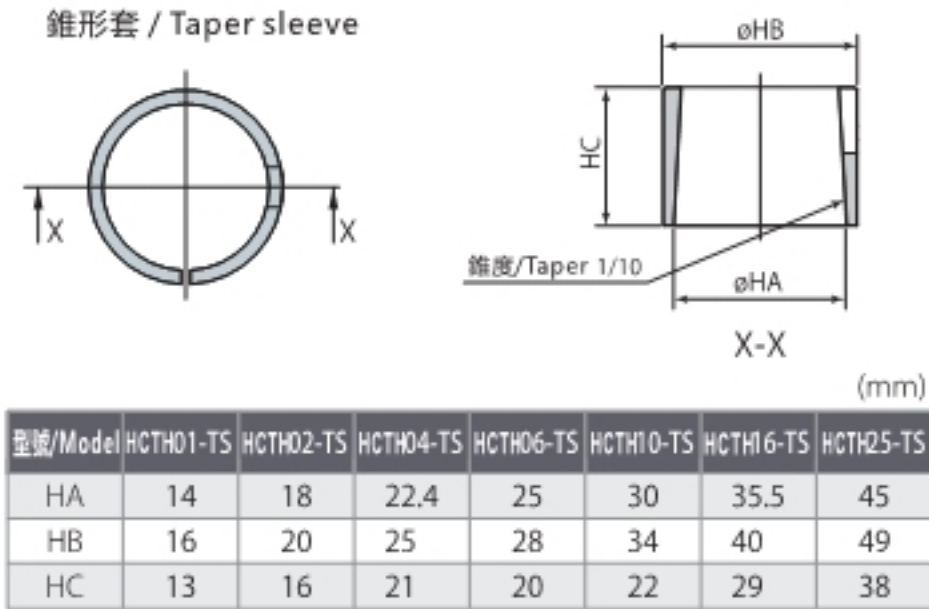
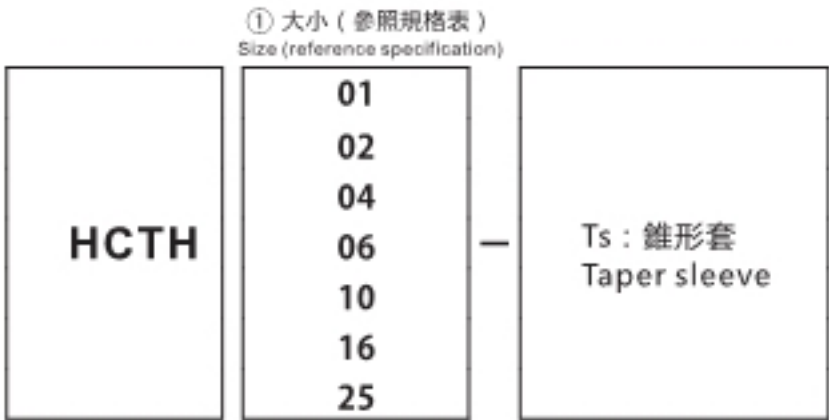
※2: O形圈的材質為氟橡膠 (硬度Hs90)。

注1. 本圖表示旋轉方向L (左轉) 的放鬆狀態。夾緊時定位銷槽朝向油壓接口側。旋轉方向和定位銷槽的關係請參照左圖。

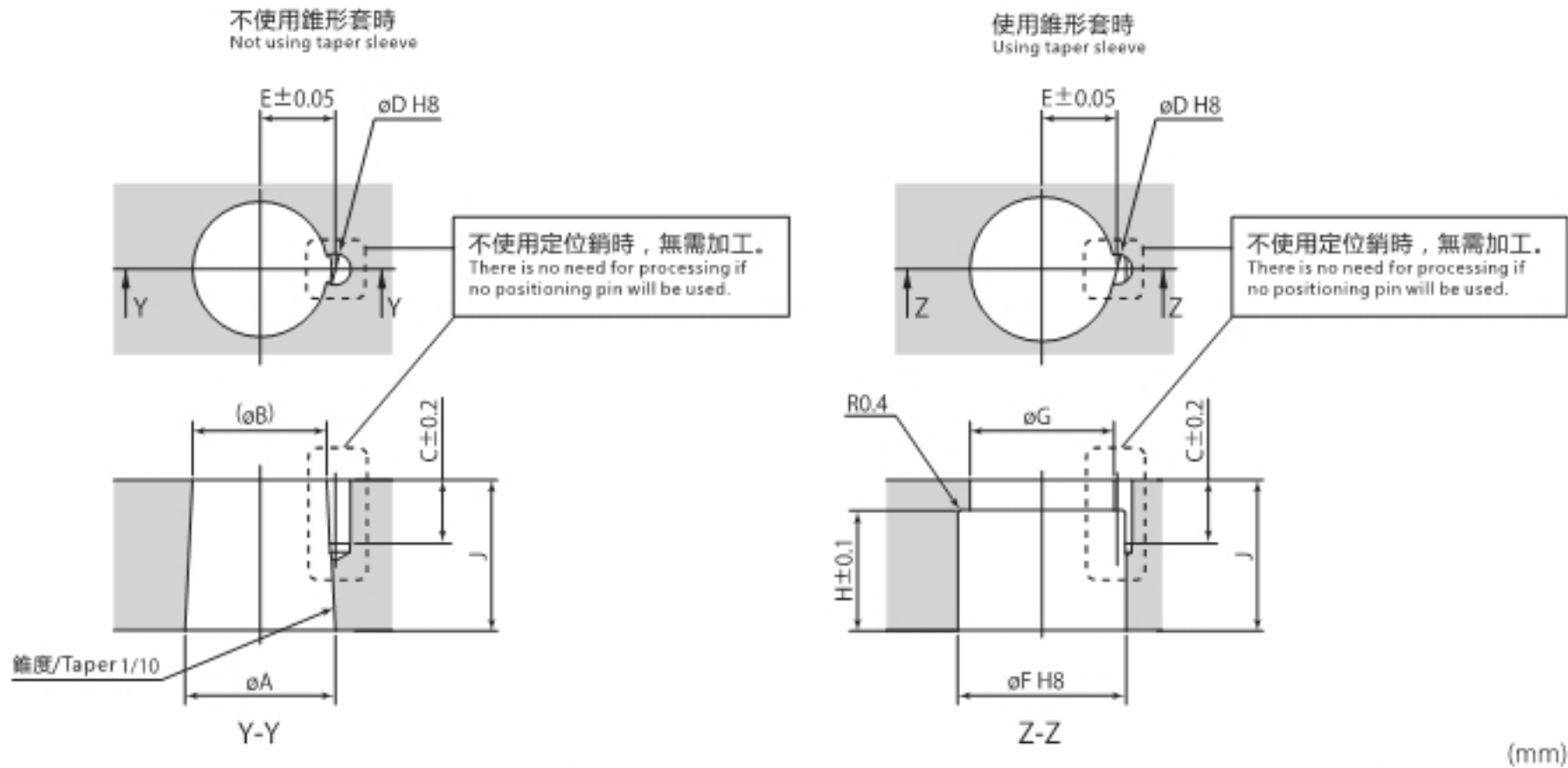
2. 安裝面的最大表面粗糙度應加工在Rz6.3以下。
3. 不附帶壓臂、錐形套、速度控制閥、定位銷和安裝螺絲。
4. 關於錐形套、夾緊臂、請參照→189-190頁。

型號表示

HCTH ①-TS (例：HCTH 06-TS)



夾緊臂加工圖 / Clamp arm details



夾緊器型號 Clamp models	HCTU 01 HCTT 01	HCTU 02 HCTT 02 HBTU 02	HCTU 04 HCTT 04 HBTU 04	HCTU 06 HCTT 06 HBTU 06	HCTU 10 HCTT 10 HBTU 10	HCTU 16 HCTT 16 HBTU 16	HCTU 25 HCTT 25 HBTU 25
A	14 ^{+0.016} _{-0.034}	18 ^{+0.016} _{-0.034}	22.4 ^{+0.020} _{-0.041}	25 ^{+0.020} _{-0.041}	30 ^{+0.020} _{-0.041}	35.5 ^{+0.025} _{-0.050}	45 ^{+0.025} _{-0.050}
B	12.4	16	19.9	22.5	27.3	32	40.5
C	9	10.5	10.5	10.5	12.5	12.5	14.5
D	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
E	7.55	9.1	11.1	12.6	15.1	18.1	22.6
F	16 ^{+0.027} ₀	20 ^{+0.033} ₀	25 ^{+0.033} ₀	28 ^{+0.033} ₀	34 ^{+0.039} ₀	40 ^{+0.039} ₀	49 ^{+0.039} ₀
G	13	17	21	24	28.5	34	42
H	13	16	21	20	22	29	38
J	16	20	25	25	27	35	45
定位銷/Positioning pin	ø3(h8)×8	ø4(h8)×10	ø4(h8)×10	ø5(h8)×10	ø6(h8)×12	ø6(h8)×12	ø6(h8)×14
錐形套型號/Taper sleeve models	HCTH01-TS	HCTH02-TS	HCTH04-TS	HCTH06-TS	HCTH10-TS	HCTH16-TS	HCTH25-TS

型號表示

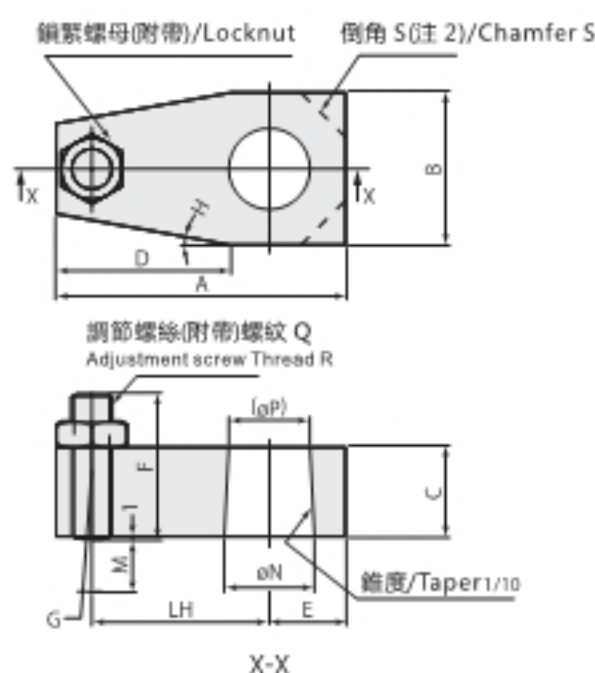
HCTH ①-② (例: HCTH06-T2)

① 大小 (參照規格表) Size (reference specification)		② 類型 Models
HCTH	02	T1 T2
	04	
	06	
	10	
	16 25	

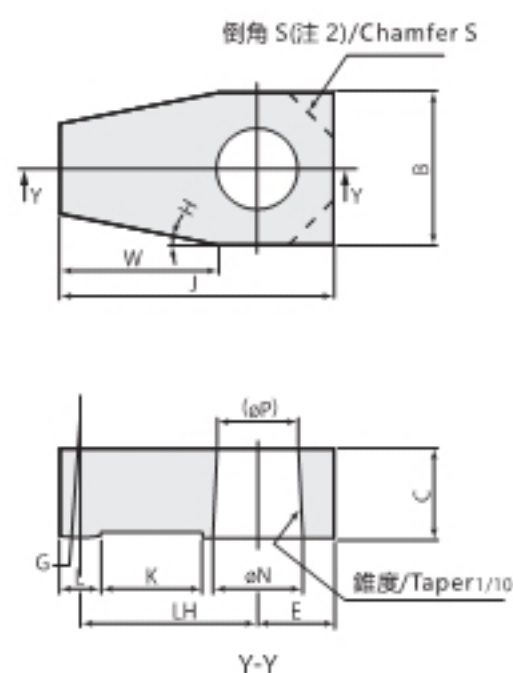
材質: S45C (調質 HB201~269)

Material: S45C (Refining Hb201~269)

T1型夾緊臂 / T1 type clamp arm



T2型夾緊臂 / T2 type clamp arm



(mm)

夾緊臂型號 Clamp arm models	HCTH02-T1 T2	HCTH04-T1 T2	HCTH06-T1 T2	HCTH10-T1 T2	HCTH16-T1 T2	HCTH25-T1 T2
A	55	65	80	96	114	153
B	28	34	40	52	60	80
C	20	25	25	27	35	45
D	34	43	50	60	69	80
E	14	17	20	25	30	45
F	33	38	38	48	57	77
G	R20	R30	R30	R40	R50	R75
H	10°	10°	10°	10°	10°	20°
J	52	61	75	91	108	145
K	20	20	25	30	40	45
L	6	8	10	12	16	20
LH	35	40	50	60	70	90
M 調整量/adjustment amount	12	12	12	20	21	31
N	18 ^{+0.016} _{-0.014}	22.4 ^{+0.020} _{-0.015}	25 ^{+0.020} _{-0.015}	30 ^{+0.020} _{-0.015}	35.5 ^{+0.025} _{-0.020}	45 ^{+0.025} _{-0.020}
P	16	19.9	22.5	27.3	32	40.5
Q	M6×1	M8×1.25	M10×1.5	M12×1.75	M16×2	M20×2.5
S 倒角/chamfer	—	—	—	—	16	25
W	31	39	45	55	63	72
質量 Mass	T1 型 type	0.2 kg	0.3 kg	0.5 kg	0.8 kg	1.4 kg
	T2 型 type	0.2 kg	0.3 kg	0.4 kg	0.7 kg	1.2 kg
慣性矩 Moment of inertia	T1 型 type	9.1×10 ⁻⁵ kg·m ²	2.2×10 ⁻⁴ kg·m ²	5.2×10 ⁻⁴ kg·m ²	1.3×10 ⁻³ kg·m ²	3.0×10 ⁻³ kg·m ²
	T2 型 type	6.9×10 ⁻⁵ kg·m ²	1.6×10 ⁻⁴ kg·m ²	4.0×10 ⁻⁴ kg·m ²	9.6×10 ⁻⁴ kg·m ²	2.3×10 ⁻³ kg·m ²
夾緊臂型號 Clamp arm models	HCTU02 HCTT02 HBTU02	HCTU04 HCTT04 HBTU04	HCTU06 HCTT06 HBTU06	HCTU10 HCTT10 HBTU10	HCTU16 HCTT16 HBTU16	HCTU25 HCTT25 HBTU25

注1. 制作夾緊臂時，請考慮夾緊臂的強度。

(根據夾緊臂長度、使用油壓的不同，如果採用與T1、T2型相同的截面尺寸，有時會強度不足。)

2. 僅HCTH16-T1、T2 HCTH25-T1、T2型經過倒角處理。

3. 未設置定位銷孔。

Note 1. to make the clamping arm, please consider the strength of the clamping arm

(Having same cross-sectional dimensions as T1 and T2 types may result in insufficient strength depending on clamp arm length and working pressure.)

2. Only HCTH16-T1、T2 and HCTH25-T1、T2 have chamfer.

3. Positioning pin hole is not provided.

規格

型號(進油節流) Model / (Meter in)		HVCF01	HVCF02	HVCF03	HVCF01S
啓流壓力 Cracking pressure	(MPa)	0.04	0.04	0.04	0.04
推薦緊固扭矩 Recommended tightening torque	(N·m)	10	30	35	10
質量 Mass	(kg)	0.013	0.024	0.038	0.011

型號(出油節流) Model / (Oil outlet throttle)		HVCF01-0	HVCF02-0	HVCF03-0
啓流壓力 Cracking pressure	(MPa)	0.1	0.1	0.1
推薦緊固扭矩 Recommended tightening torque	(N·m)	10	30	35
質量 Mass	(kg)	0.013	0.024	0.038

使用油壓範圍：1 ~ 7MPa 保證耐壓：10.5MPa 使用環境溫度：0 ~ 70℃

使用流體：普通礦物油基液壓油(相當於 ISO-VG32)

Working pressure range: 1 ~ 7 MPa Proof pressure: 10.5 MPa Operating temperature: 0 ~ 70℃

Fluid used: General mineral based hydraulic oil (ISO-VG32 equivalent)

型號表示

HVCF ①-② (例：HVCF02-0)(Example:HVCF02-0)

① 大小 Size

HVCF

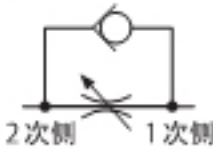
01 : G1/8

02 : G1/4

03 : G3/8

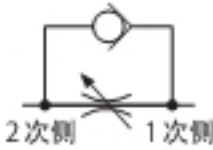
01S : G1/8

无记号：进油节流



主体颜色：银色

0：出油节流

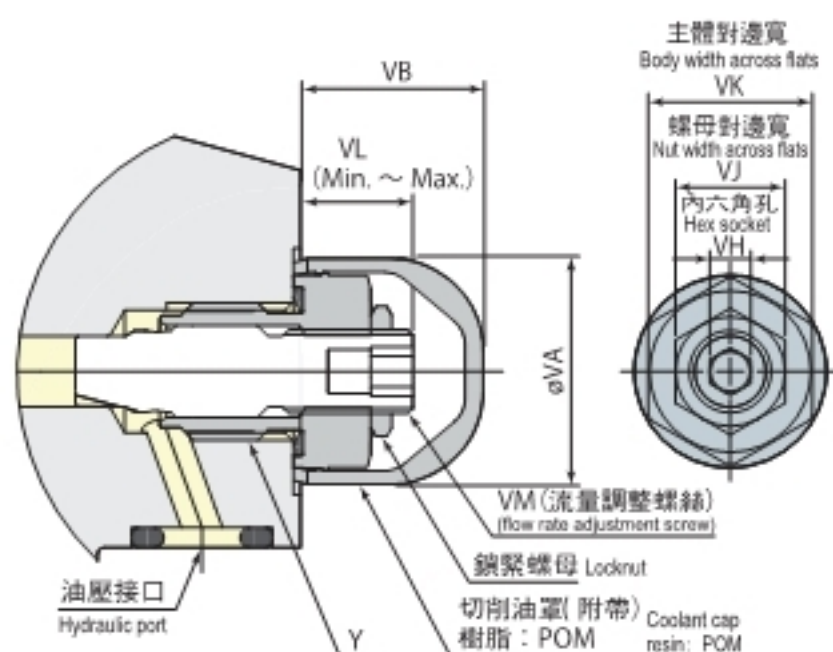


主体颜色：黑色

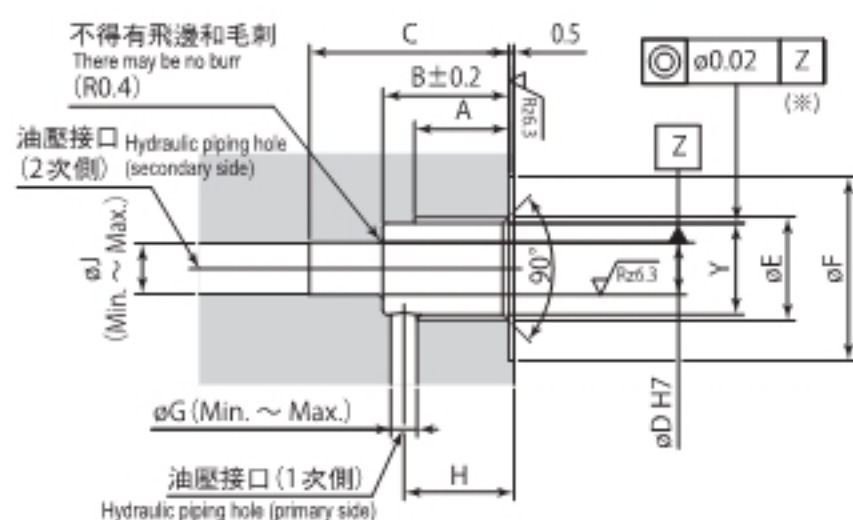
—

外形尺寸表 Dimension table

(mm)



安裝孔加工圖 Mounting details



※：安裝孔加工不當時，可能導致無法安裝或無法調整流量。
(應特別注意 ϕD 孔加工、Y 部螺紋加工的同軸度。)

※：If there are problems with mounting hole finish, it might not be possible to mount or adjust flow rates (particular care must be taken with the finish of ϕD hole and concentricity of Y-portion thread process).

注1. 拆裝時請使用梅花扳手或套筒扳手。

2. 當夾緊器採用座墊式配管時，流量控制閥可以安裝在油壓接口處（G 螺紋部）。
3. 請在無油壓的狀態下進行流量調整。否則會造成密封件損壞。
4. 左圖表示進油節流（HVCF□）的安裝狀態。
5. 出廠時流量調整螺絲為全打開狀態。夾緊器安裝後要調整為全閉狀態後一點一點慢慢地調整動作速度。

1. Use a closed wrench or socket wrench for mounting and dismounting.
2. Flow control valve can be mounted on hydraulic port (G port) when manifold piping.
3. Adjust flow rate without hydraulic pressure. Conducting adjustments with hydraulic pressure may result in damaging seal.
4. Diagram above indicates mounting for meter-in (HVCF□).
5. HVCF is shipped with the valve fully open. Adjust the flow rate by loosening the screw after it is tightened up to close the valve.

安裝對照表 Mounting Control table

型號/Model	HVCF01	HVCF02	HVCF03	HVCF01S
旋轉式夾緊器型號(雙動型) Swing clamp (double acting)	HCTU01、02、04、06 HBTU02、04、06	HCTU10、16 HBTU10、16	HCTU25 HBTU25	—
旋轉式夾緊器型號(單動型) Swing clamp (single acting)	HCTT01、02、04、06	HCTT10、16	HCTT25	—
連杆式夾緊器型號(雙動型) Link clamp (double acting)	HBLU02、04、06	HBLU10、16	HBLU25	—

※：工件支撐器僅有進油節流。The workpiece support is only in the oil throttle

夾緊臂的安裝、拆卸

1. 旋轉式夾緊器採用帶導向槽的凸輪機構進行旋轉，如果向活塞杆上施加過大的扭矩，將會損壞夾緊器。安裝或拆卸夾緊臂時，爲了防止旋轉扭矩作用在活塞杆上，請按照下列要領進行作業。
2. 請務必按照規定的扭矩緊固鎖緊螺母，緊固扭矩不充分時，使用時夾緊臂有可能滑落。

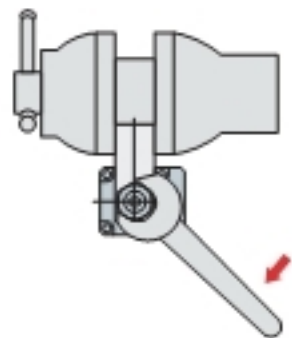
Mounting & dismounting of clamp arm

1. Swing clamp may be damaged if excessive torque is applied, since structure is intended for swinging using cam mechanism with lead grooves. Follow instructions shown below to prevent excessive torque from being applied on piston rod when mounting or dismounting clamp arm.

2. Be sure to tighten locknut with recommended tightening torque.

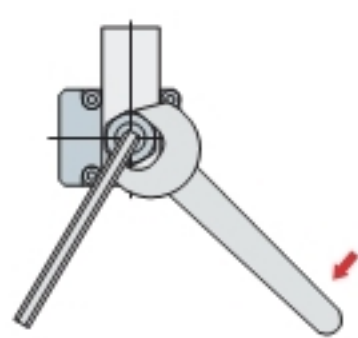
If the tightening torque is insufficient, clamp arm may slip during operation.

夾緊臂的安裝/Mounting of clamp arm



用臺鉗固定住夾緊臂，將夾緊器主體和夾緊臂對準規定的方向後，用扳手緊固螺母。

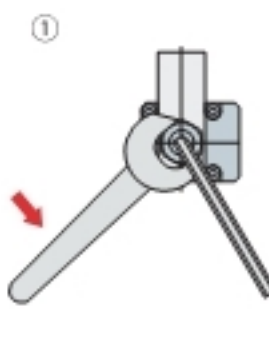
Fix the clamp arm in a vise, then set the clamp body and clamp arm at the desired orientation, and tighten locknut with a wrench.



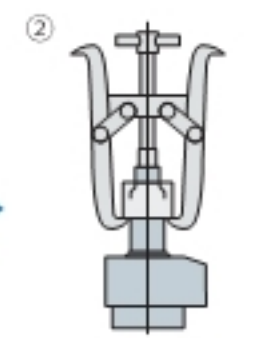
夾緊器主體被夾具等固定時，如上圖所示，將夾緊臂按規定方向組裝後，用扳手卡住活塞杆前端的六角孔以防活塞杆旋轉，然後用扳手緊固螺母。

For clamps that are mounted on jig, set clamp arm at desired orientation as shown in diagram above. Insert a hex wrench to hex socket at tip section of piston rod to hold it and tighten locknut with a wrench.

夾緊臂的拆卸/Dismounting of clamp arm



①用扳手卡住活塞杆前端的六角孔以固定活塞杆，然後用扳手鬆動螺母。



②拆下螺母後，用擡手等拉出夾緊臂。

① Insert hex wrench to hex socket at tip section of piston rod to ensure that piston rod is held in place, then loosen locknut with wrench.

② After dismounting the locknut, pull out clamp arm using gear puller.

夾緊器、工件支撐器的安裝

安裝夾緊器、工件支撐器時，請使用強度分類爲12.9的螺絲，并參考下列安裝螺絲的推薦緊固扭矩，務必按規定的扭矩緊固。

Clamp and work supports have been developed for the purpose of clamping workpiece for machine tools. Do not use them for other purposes.

Always protect them with a cover to ensure sliding surfaces are not exposed to weld slags when using them as jig for welding.

安裝螺絲的推薦緊固扭矩（強度分類12.9）

Recommended tightening torque (strength classification 12.9) for mounting screws

安裝螺絲尺寸 Mounting screw size	緊固扭矩 Fastening torque
M4 × 0.7	2.8 N·m
M5 × 0.8	7 N·m
M6 × 1	11 N·m
M8 × 1.25	25 N·m
M10 × 1.5	49 N·m
M12 × 1.75	60 N·m

使用注意事項

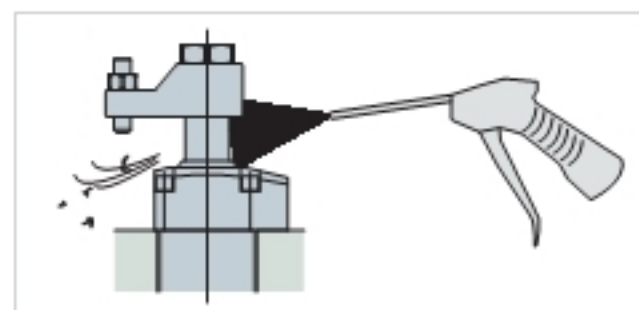
1. 夾緊器、工件支撐器是以夾緊機床相關工件爲目的而開發的，請勿用于其它用途。
2. 用于焊接夾具時，爲了避免滑動部接觸到火花，請務必使用罩蓋等進行保護。
3. 爲確保順暢動作，請通過噴吹空氣等方式定期清掃滑動部及法蘭盤表面。

Caution for hydraulic piping

1. Most problems that occur with hydraulic equipment are caused by foreign substances such as metal chips and dust that enter into hydraulic circuits. Refer to "Piping Hydraulic & Pneumatic Equipment-Practical Notes" provided with the product for mounting and hydraulic piping of the product.

2. After performing hydraulic piping, always be sure to bleed out air in the hydraulic circuit. Insufficient bleeding can lead to malfunction.

3. When using multiple clamps, operating speeds and timings vary due to variance in pipe resistance and internal resistance of clamps. Adjust operating speeds and timings using flow control valve.



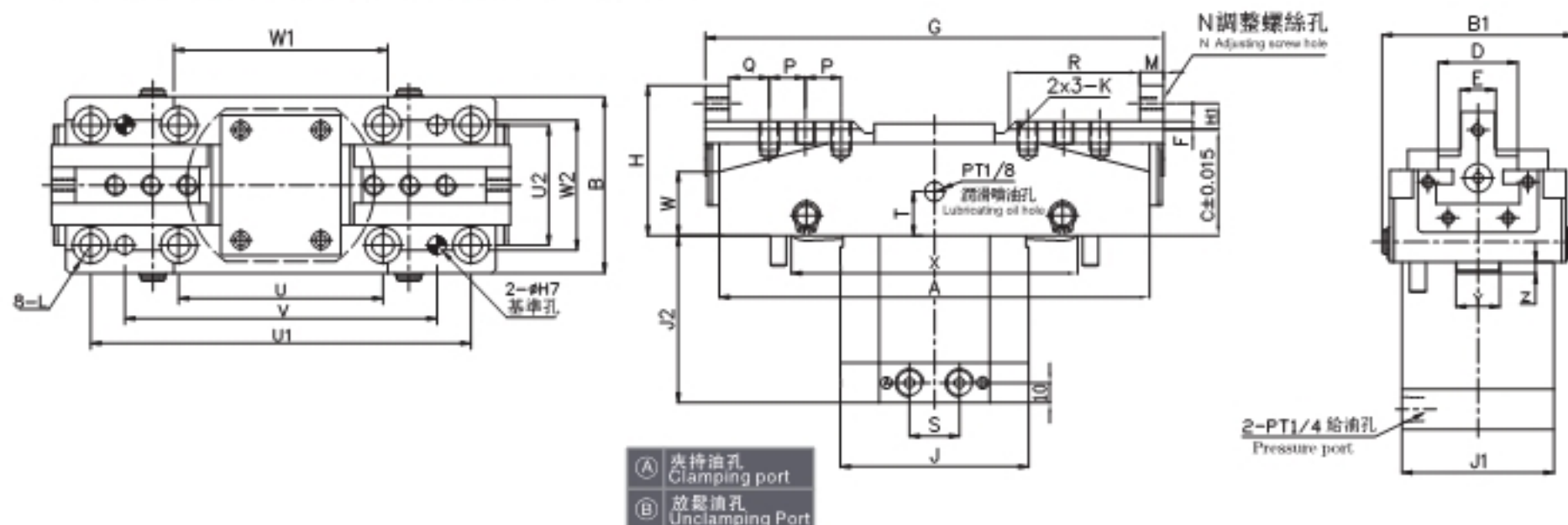
產品簡介

曲柄型二滑塊同步油缸,滑塊行程長。
折動面均經硬化及精密研磨,并直接潤滑。
高夾持精度,防塵效果特佳。



Introduction of product

Crank type two slide block synchronous oil cylinder, the length of the slide block .
All the surfaces are hardened and precision grinding, and are lubricated directly.
High clamping precision, dust effect is particularly good.



特性資料 Specification

單位 (Unit) : mm

型號Model	HCP-20	HCP-30A	HCP-30	HCP-50
受壓面積(推出)Pressure area push(cm)	28.27	28.27	28.27	38.48
滑塊行程Slider stroke(mm)	20	30	30	50
最大夾持力Max clamping(kgf)	1653	1806	1806	2071
使用流量Fluid	已濾清之標準液壓Filtered oid			
使用溫度範圍Range of temoerature(℃)	-10~70(℃)			
使用壓力Max preggure(kg/cm ²)	10~35kg/cm ²			

外形尺寸表 Dimension table

單位 (Unit) : mm

SIZE MODEL	A	B	B1	C	D	E(h6)	F	G		H	H1	J	J1	J2	K	L
								Max	min							
HCP-20	215	88	96	53	40	18	4	249	229	75	13	94	76	83.5	M10x1.5	M10
HCP-30A	250							295	265					96		
HCP-30	280							327	297							
HCP-50	300	110	115	65	50	28	5	369	319	90	15	105	-	120	M12x1.75	

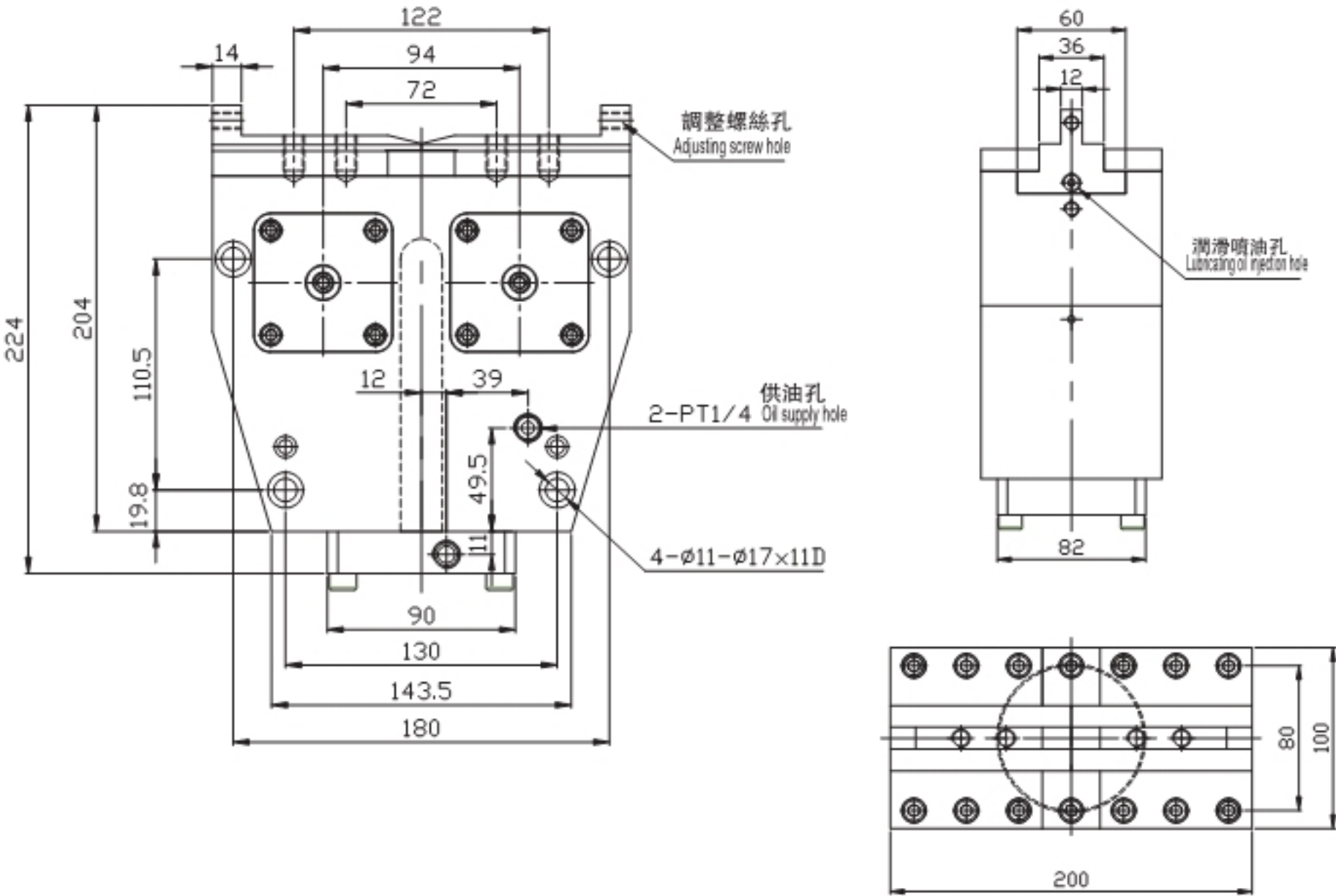
SIZE MODEL	M	N	P	Q	R	S	T	U	U1	U2	V	W	W1	W2	X	Y	Z
HCP-20	12	m6x1	18	20	66	25	22	102	190	60	156	32	110	65	150	22	4
HCP-30A	14		20	24	96							20	120		156		6
HCP-30					98							23	110				
HCP-50	16	M8x1.25	21	28	102	30	32	105	230	85	195	22	140	80	180	30	10

產品簡介

曲柄型二滑塊同步油缸，滑塊行程長；
折動面均經硬化及精密研磨，并直接潤滑；
高夾持精度，防塵效果特佳；
可調行程。

Introduction of product

Crank type two slide block synchronous oil cylinder, the length of the slide block;
All the surfaces are hardened and precision grinding, and are lubricated directly;
High clamping precision, dust effect is particularly good;
Adjustable stroke.



特性資料 Specification

單位 (Unit) :mm

型號Model	HCP-30-S
受壓面積(推出)Pressure area push(cm)	28.27
滑塊行程Slider stroke(mm)	30
最大夾持力Max clamping(kgf)	1806
使用流量Fluid	已濾清之標準液壓Filtered oid
使用溫度範圍Range of temoerature(℃)	-10~70(℃)
使用壓力Max preggure(kg/cm ²)	10~35kg/cm ²

產品簡介

- ◆符合GB/T15622-2995
- ◆產品使用了高性能的密封圈，避免了油缸的泄漏，且使用壽命長。
- ◆端蓋採用45鋼，活塞杆表面鍍硬鉻，結構堅固耐用。
- ◆安裝方式有SD, FA, FB, LB, TC, CA, CB, CBP, CAB, 供設計者依據需求選擇。
- ◆任何特殊油缸皆可訂做，歡迎來電諮詢。

Introduction of product

- ◆Standard:GB/T15622-2995
- ◆Use high-quality seal to avoid leakabe and have long service life.
- ◆The rod cover and rear cover make from No45 Steel,and the piston is chromeplate, With the compact structure,more durable.
- ◆Thera are several mounting tys,SD, FA, FB, LB, TC, CA, CB, CBP, andCAB, The desiger could chosse it acording to the demand.
- ◆Anyother special cylinder could order,welcome to contac with us.



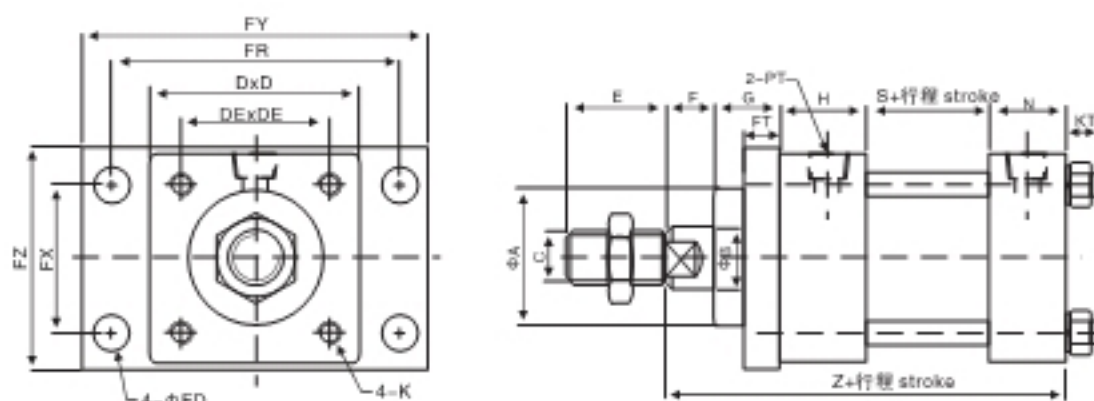
特性資料 Specification

油壓缸內徑 bore sizes of cylinder(mm)	Φ30	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125
使用流體 Fluid	以濾清之標準液壓油filtered oil						
缸管材質 material of cylinder bareel	碳鋼管 carbon steel STKM-13C/白鐵管 stainless rubes SUS 304/AL tubre A6063TDS-T5						
使用壓力範圍 the range of pressure(MPa)	0.3-7.0MPa(3-70kg/cm2)						
使用溫度範圍 the range of temperature(°C)	-10-+60(°C)						
使用速度範圍 the of speed(mm/sec)	8-300(mm/sec)						
標準活塞長度 (PM) length of standard piston	30	30	30	30	35	50	50
訂制行程于1501-2500mm間活塞長度 (PM) piston length when the stroke is between 1501-2500mm	60	60	60	60	70	100	100
訂制行程于2501-4000mm間活塞長度 (PM) piston length when the stroke is between 2501-4000mm	120	120	120	120	140	150	150

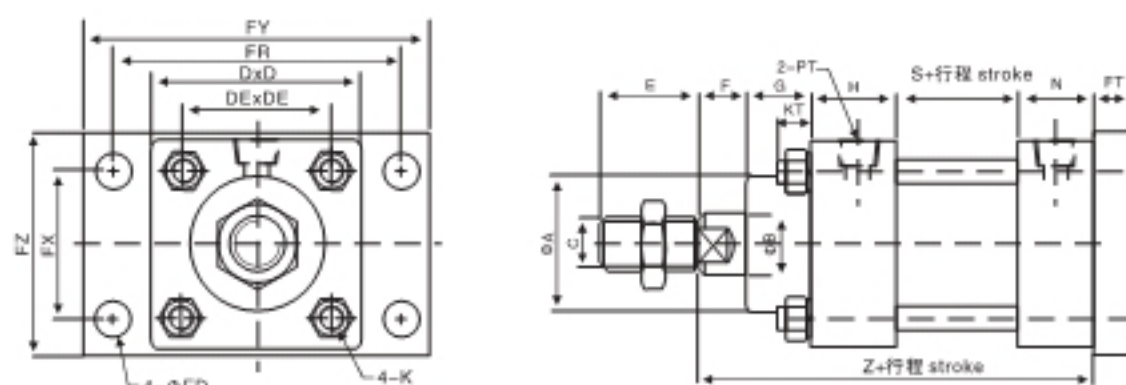
訂購標示法 Ordering code

MOB	Z	—	63	/	25	*	100	+	LB	+	Y
形式 TYPE MOB 標準型 standard MOD 雙軸型 double-rod rod	無記號 blank Z 不附磁石 nonmagnetic 內附磁石 magnetic 本系列適用 Φ40-Φ100		缸內徑 cylinder bore Φ30 Φ40 Φ50 Φ63 Φ80 Φ100 Φ125		軸心 ROD 標準 standard 最大 maximum Φ16 Φ20 Φ20 Φ25 Φ30 Φ35 Φ50 Φ60 無記號: blank 標準軸心 standard rod bore		行程 STROKE 鋼管 Φ30-Φ125 最大行程4米 Maximum 白鐵管(304) Φ40-Φ100 最大行程2.5米 Maximum 標準行程(mm) Standard stroke 50,100,150,200 250,300,350,400 450,500,600,700 800,900,1000		缸體固定型式 ACCESSORY FA 前法蘭型 front flange FB 後法蘭型 rear flange LB 腳座型 foot mount TC 耳軸型 earon type CA 單耳型 single tranion CB 雙耳型 double tranion CBP CB附PIN PRLCB with pin CAB CA+P+CB		軸心固定型式 ACCESSORY Y Y型接頭 Y joint YP Y附PIN PIN Y with pin I I型接頭 I joint KG 浮動接頭 floating joint PHS 魚眼接頭 rod-eye joint T T型接頭 T joint H 煙套接頭 welding flange end A 可調螺帽 adjustable nut

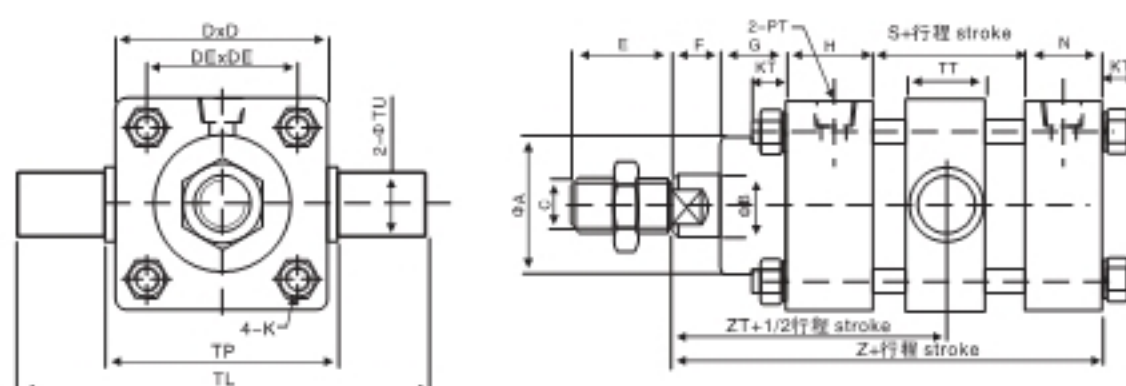
MOB-FA 前法蘭型 MOB-FA front flange type



MOB-FB 後法蘭型 MOB-FB rear flange type



MOB-TC 中耳軸型 MOB-TC middle trunnion type



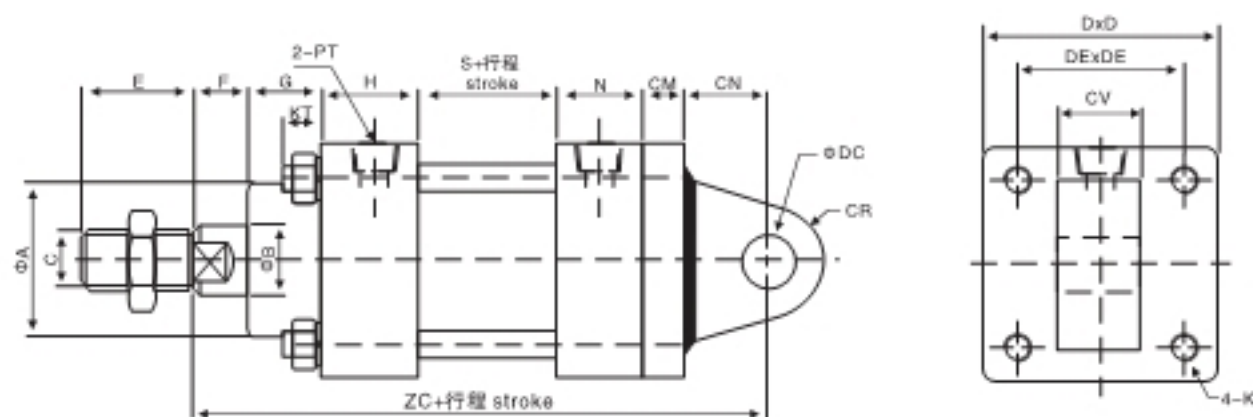
外形尺寸表 Dimension table

MOB-FA/FB/TC TYPE																											
SIZE BORE	ΦB	A	C	PT	D	DE	K	KT	E	F	G	H	S	N	(FA,FB)法蘭尺寸 size of flange						(TC)耳軸尺寸 size of trunnion						基本型長度 basic type length
															FY	FR	FZ	FX	FT	FD	TL	TT	TU	TP	TX	ZT	Z
30	16	30	M14x1.5	1/4"	50	34	M8x1.25	15	28	13	15	25	50	25	105	80	56	34	11	9	87	25	16	55	16	78	128
40	20	40	M16x1.5	3/8"	64	45	M8x1.25	15	28	17	20	30	50	30	115	93	72	50	11	12	127	25	18	69	29	92	147
50	20	45	M16x1.5	3/8"	70	50	M10x1.25	18	28	17	20	30	50	30	115	93	72	50	11	12	153	28	20	83	35	92	147
63	25	55	M22x1.5	3/8"	85	60	M10x1.25	18	40	20	30	31	50	31	140	117	90	60	14	14	170	32	25	98	35	106	162
80	32	62	M26x1.5	1/2"	106	74	M12x1.5	20	40	20	32	37	55	35	180	152	105	75	20	14	194	35	28	124	35	116.5	179
100	40	78	M30x1.5	1/2"	122	89	M14x1.5	22	45	20	32	37	80	37	200	158	125	90	20	16	22	38	30	142	40	129	206
125	50	85	M40x2	1/2"	147	110	M16x1.5	25	55	25	31	40	90	40	225	184	153	110	20	18	255	40	32	175	40	136	226

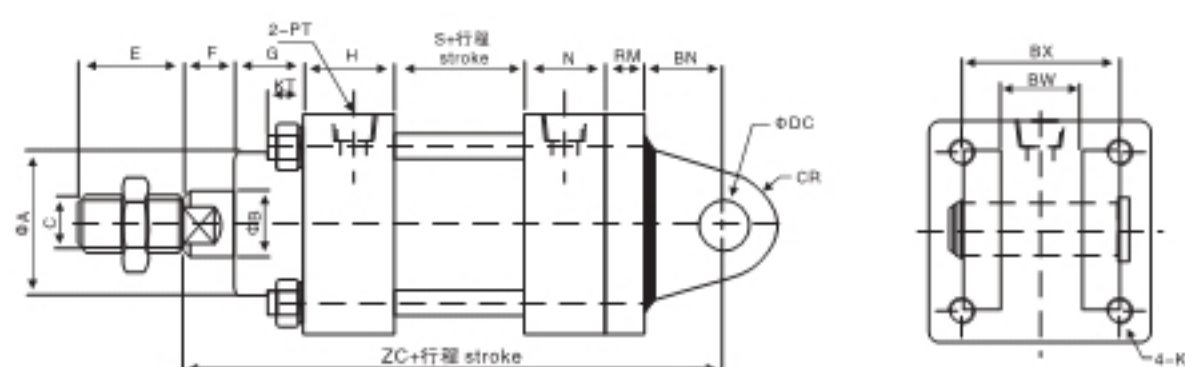
備注: 1. MO系列行程超過2000mm (含) 以上時, 拉杆中間加固定座。
2. MO系列行程超過1500mm時, 活塞長度參照油缸特性表。
3. MO40-50之行程超過1500mm (含) 以上時, 軸頭牙改為M18x1.5。

Note: 1. When the stroke ≥ 2000mm, fixture is needed on tie rods.
2. When the stroke > 1500mm, see the cylinder specification table for piston length.
3. When 40 ≤ bore ≤ 50 (mm) and stroke ≥ 1500mm, the piston rod thread is M18*1.5.

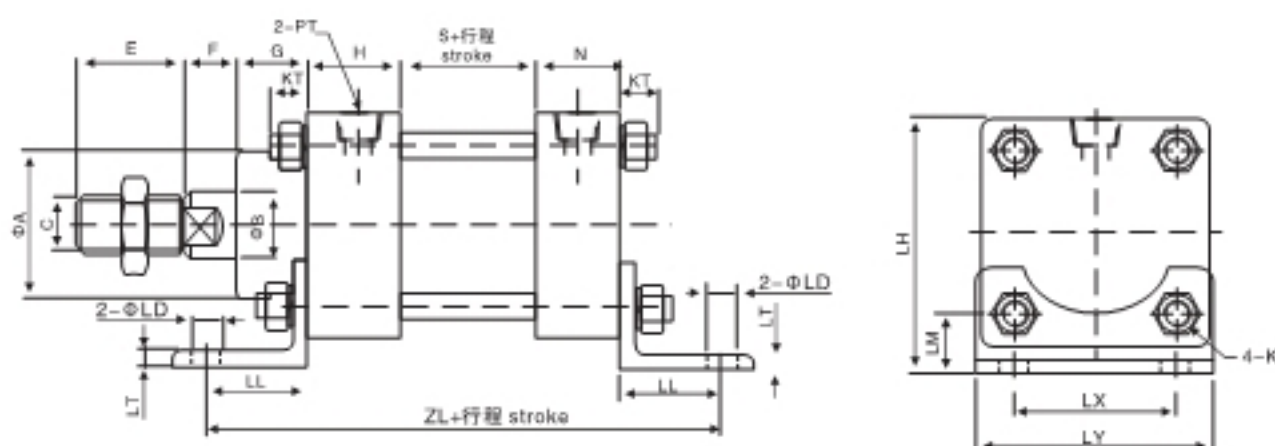
MOB-CA 單耳環型 MOB-CA eye mount type



MOB-CB 雙耳環型 MOB-CB clevis type



MOB-LB 前後腳座型 MOB-LB foot mount type



外形尺寸表 Dimension table

MOB-CA/CB/LB TYPE																																	
SIZE BORE	ΦB	A	C	PT	D	DE	K	KT	E	F	G	H	S	N	(CA、CB)耳環尺寸 size of eye										(LB)前後腳座尺寸 size of foot								
															CM	CN	DC	CR	CV	BMB	NB	BX	BW	ZC	ZB	LY	LX	LH	LT	LL	LM	LD	ZL
30	16	30	M14x1.5	1/4"	50	34	M8x1.25	15	28	13	15	25	50	25	11	20	10	10	16	12	22	48	17	159	162	53	35	60	5	28	18	10	156
40	20	40	M16x1.5	3/8"	64	45	M8x1.25	15	28	17	20	30	50	30	11	25	12	13	22	14	26	50	23	183	187	68	45	77	6	38	22.5	10	186
50	20	45	M16x1.5	3/8"	70	50	M10x1.25	18	28	17	20	30	50	30	12	24	12	13	22	14	26	50	23	183	187	73	50	81	6	38	21	12	186
63	25	55	M22x1.5	3/8"	85	60	M10x1.25	18	40	20	30	31	50	31	15	31	20	20	30	18	32	61	31	208	212	88	60	96	6	38	23	12	188
80	32	62	M26x1.5	1/2"	106	74	M12x1.5	20	40	20	32	37	55	35	18	50	30	30	30	18	50	61	31	247	247	106	74	113	6	38	23	14	203
100	40	78	M30x1.5	1/2"	122	89	M14x1.5	22	45	20	32	37	80	37	18	55	35	35	35	18	50	76	36	279	279	127	89	139	9	48	33.5	16	250
125	50	85	M40x2	1/2"	147	110	M16x1.5	25	55	25	31	40	90	40	18	55	35	35	35	18	55	76	36	299	299	150	110	161	9	51	32	18	272

備注：1. MO系列行程超過2000mm（含）以上時，拉杆中間加固定座。
 2. MO系列行程超過1500mm時，活塞長度參照油缸特性表。
 3. MO40-50之行程超過1500mm（含）以上時，軸頭牙改為M18x1.5。

Note: 1. When the stroke ≥ 2000mm, fixture is needed on tie rods.
 2. When the stroke > 1500mm, see the cylinder specification table for piston length.
 3. When 40 ≤ bore ≤ 50 (mm) and stroke ≥ 1500mm, the piston rod thread is M18*1.5.

產品簡介

- ◆符合GB/T15622-1995
- ◆本產品使用了高性能的密封圈，避免了油缸的泄漏，且使用壽命長。
- ◆端蓋採用45鋼，活塞杆表面鍍鉻，結構堅固耐用。
- ◆安裝型式有SD, FA, FB, LB, TC, LA, CA, CB, CBP, CAB, 供設計者依據需求選擇。
- ◆任何特殊油壓缸皆可訂做，歡迎來電諮詢。



Introduction of product

- ◆Standard: GB/T15622-1995
- ◆Use high-quality seal to avoid leakabe and have long service life
- ◆The rod cover and rear cover make from No45 Steel, and the piston is chromeplate, with the compact structure, more durable
- ◆There are several mounting typs, SD, FA, FB, LB, TC, LA, CA, CB, CBP and CAB. The desiger could chosse it according to the demand
- ◆Anyother special cylinder could order, welcome to contac with us.

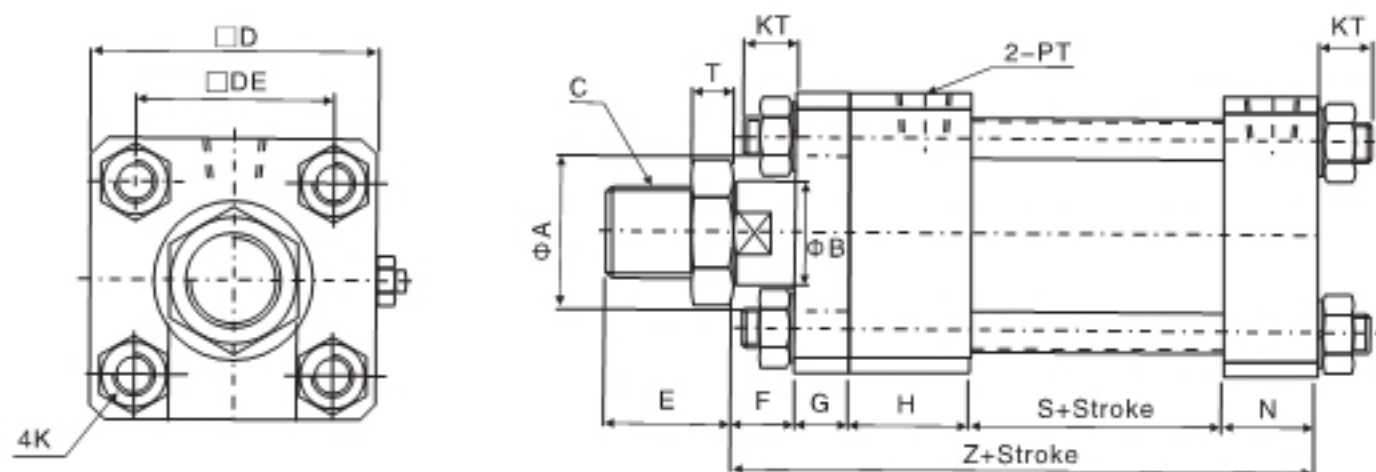
特性資料 Specification

油壓缸內徑 Bore of cylinder(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150	Φ180	Φ200
使用流體 Fluid	以濾清之標準液壓油 Filtered oil								
缸管材質 Material of cylinder bareel	碳鋼管Carbon steel STKM-13C/白鐵管Stainless tubes SUS 304								
使用壓力範圍 Range of pressure(MPa)	0.3-14MPa(3-140kg/cm²)								
使用溫度範圍 Range of temperature(°C)	-10~+60(°C)								
使用速度範圍 Range of speed(mm/sec)	8-300(mm/sec)								
緩衝行程(Cushion stroke)mm	20	20	25	25	25	30	30	40	
標準活塞長度(PM)	30	35	35	54	64	64	70	90	
訂制行程于1501~2500mm時活塞長度(PM)	60	70	70	80	100	100	100	140	
訂制行程于2501~4000mm時活塞長度(PM)	120	140	140	150	180	180	180	200	

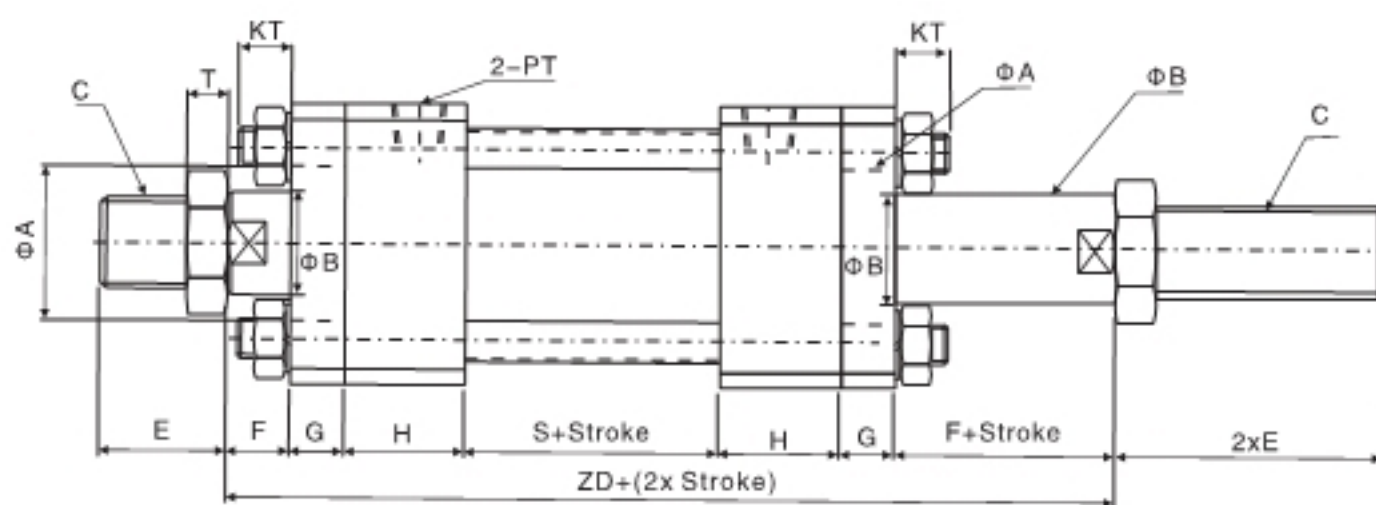
訂購標示法 Ordering code

HOB	Z	B	-	63	/	35	x	100	+	LB	+	Y
型式 TYPE	緩衝型式	缸內徑 Bore of cylinder		軸心ROD 標準 最大 標準		行程 STROKE		缸體固定型式 ACCESSORY		軸心固定型式 ACCESSORY		
HOB 標準型	無記號: 無 B: 前蓋側 C: 後蓋側	Φ40 Φ50 Φ63 Φ80 Φ100 Φ125 Φ150 Φ180 Φ200		Φ25 - Φ18 Φ30 Φ35 Φ25 Φ30 Φ40 Φ35 Φ40 Φ50 Φ40 Φ50 Φ60 Φ50 Φ60 Φ80 Φ60 Φ80 Φ100 Φ80 Φ100 Φ120 Φ100 Φ100 Φ120 Φ100 Φ125 Φ150 Φ125		鋼管 Φ40-Φ200 最大行程4米 白鐵管 Φ40-Φ100 最大行程2.8米 標準行程(mm): 50,100,150,200 250,300,350,400 450,500,600,700 800,900,1000		FA 前法型 FB 後法型 LB 側座型 TC 耳軸型 LA 腳座型 CA 單耳型 CB 雙耳型 CBP CB附PIN CAB CA+P+CB		Y Y型接頭 YP Y附PIN I I型接頭 KG 浮動接頭 PHS 魚眼接頭 T T型接頭 H 焊套接頭 A 可調螺帽		
無記號 不附磁石 Z 內附磁石 本系列適用Φ40-Φ100				無記號: 標準軸心								

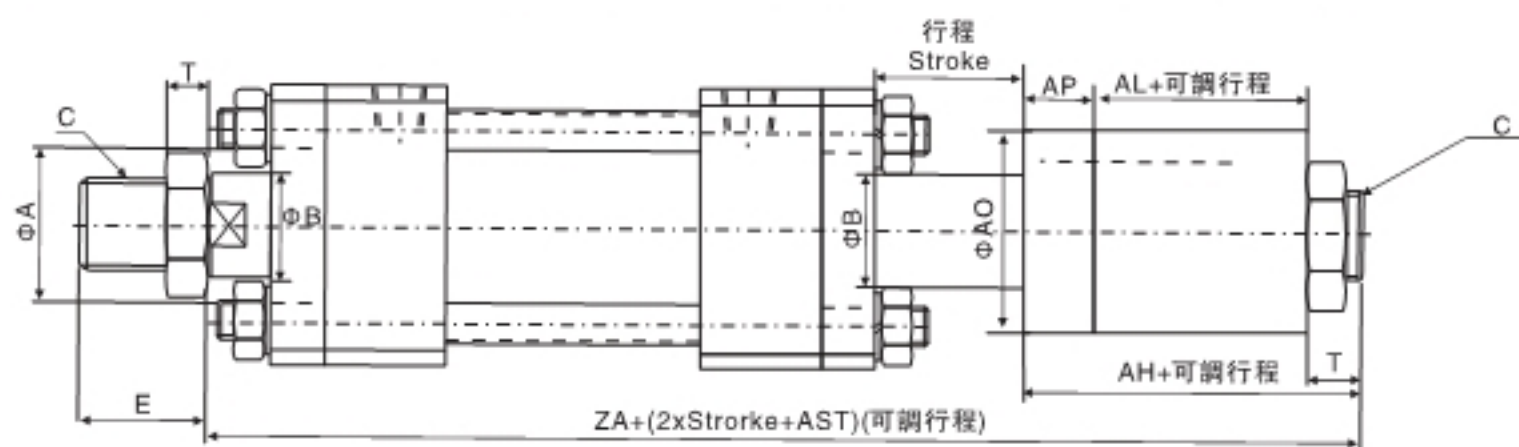
HOB基本型 HOB Basic type



HOD雙軸型 HOD Double end rod type



HOD-A 雙軸可調型 HOD-A Adjustable double endrod type



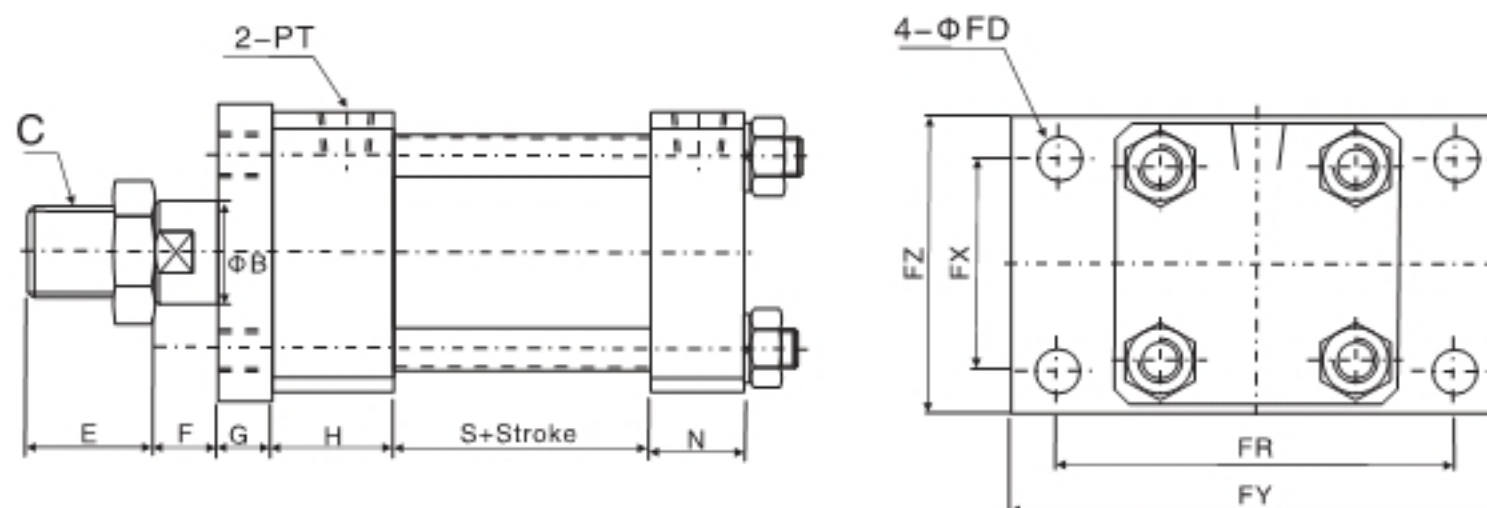
外形尺寸表 Dimension table

HOB-HOD TYPE																							
BORE	SIZE	ΦA	ΦB	C	D	DE	E	F	G	H	N	PT	K	KT	S	T	Z	ZD	ZA	AH	AP	ΦAO	AL
Φ40		40	25	M22xP1.5	65	45	40	20	17	33	28	3/8"	M10	18	50	13	148	190	220	50	15	45	20
Φ50		50	30	M26xP1.5	80	56	40	20	17	38	30	3/8"	M12x1.5	20	55	13	160	205	240	55	15	55	25
Φ63		50	35	M30xP1.5	95	65	45	20	17	38	30	3/8"	M14x1.5	22	55	13	160	205	240	55	15	60	25
Φ80		60	40	M36xP1.5	110	80	45	20	20	40	35	1/2"	M16x1.5	25	74	13	189	234	274	60	15	70	30
Φ100		80	50	M40xP2.0	131	95	55	25	20	41	37	1/2"	M18x1.5	28	84	15	207	256	296	65	15	90	30
Φ125		90	60	M50xP2.0	162	122	70	35	28	57	47	3/4"	M22x1.5	30	88	15	255	328	368	75	20	100	35
Φ150		110	80	M70xP2.0	210	153	80	35	30	60	50	3/4"	M27x3	35	98	20	273	348	448	100	35	120	40
Φ180		135	100	M90xP2.0	235	182	100	35	40	65	55	1"	M33x3.5	40	120	20	315	400	500	100	35	150	40
Φ200		135	100	M90xP2.0	262	193	120	40	40	65	60	1"	M33x3.5	40	120	20	325	410	510	105	40	150	40

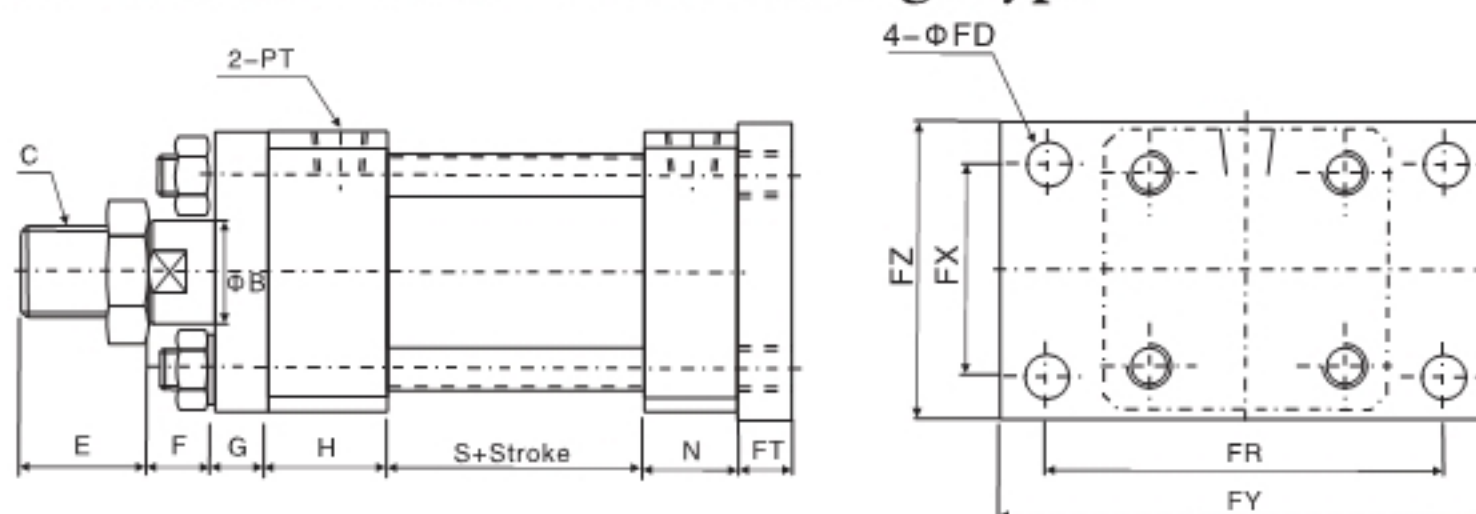
備注：1、軸心加大如未注明長度尺寸時，依照本公司規定自行加工。
 2、HO系列行程未超過1500mm時，活塞長度(PM)如附表，訂制行程如超過1500mm時，活塞長度(PM)請參閱特性資料表。

3、本系列行程超過2000mm(含)時，須加拉杆中間固定座。
 4、本系列行程軸心螺帽規格M50mm(含)以上時，其外徑為圓形。
 5、AST為客戶指定之可調行程。

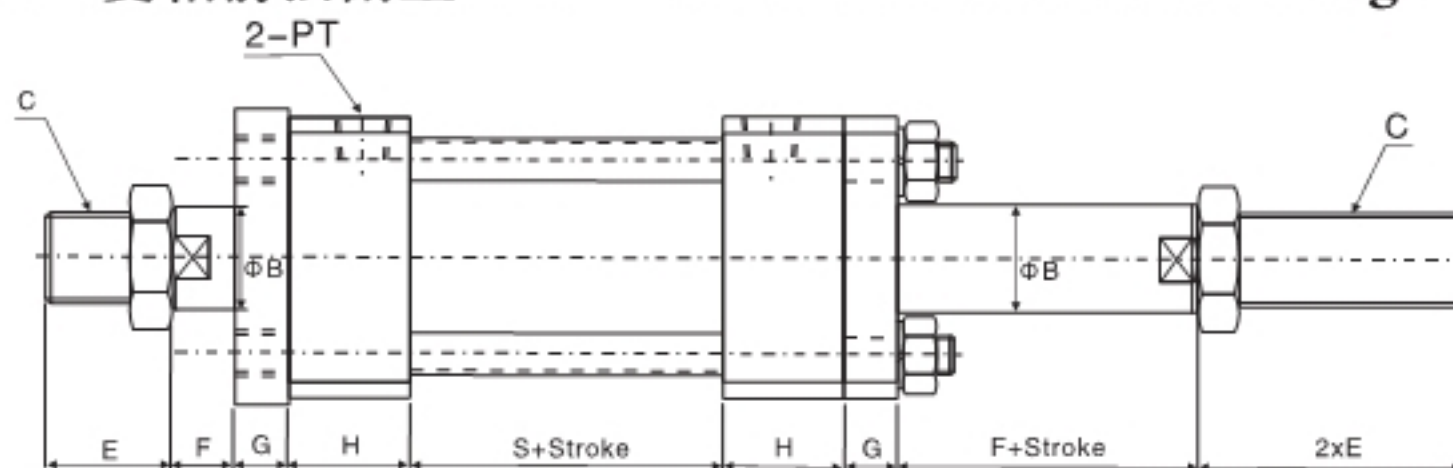
HOB-FA 前法蘭型 HOB-FA front flange type



HOB-FB 後法蘭型 HOB-FB After flange type



HOD-FA 雙軸前法蘭型 HOD-FA Double end frone flange type

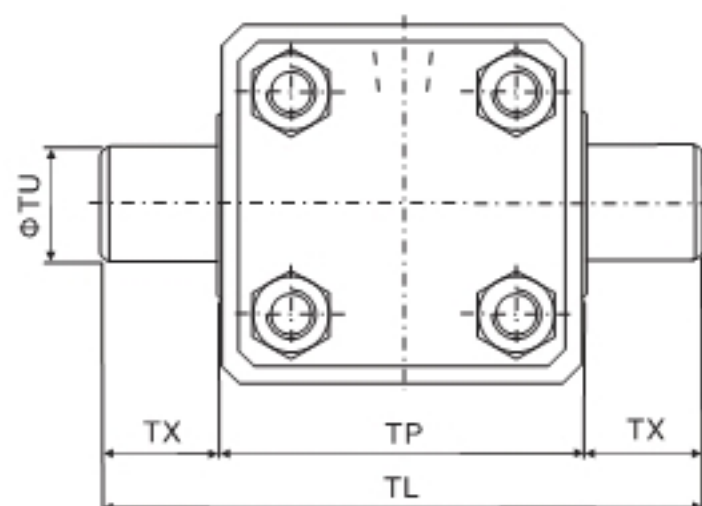
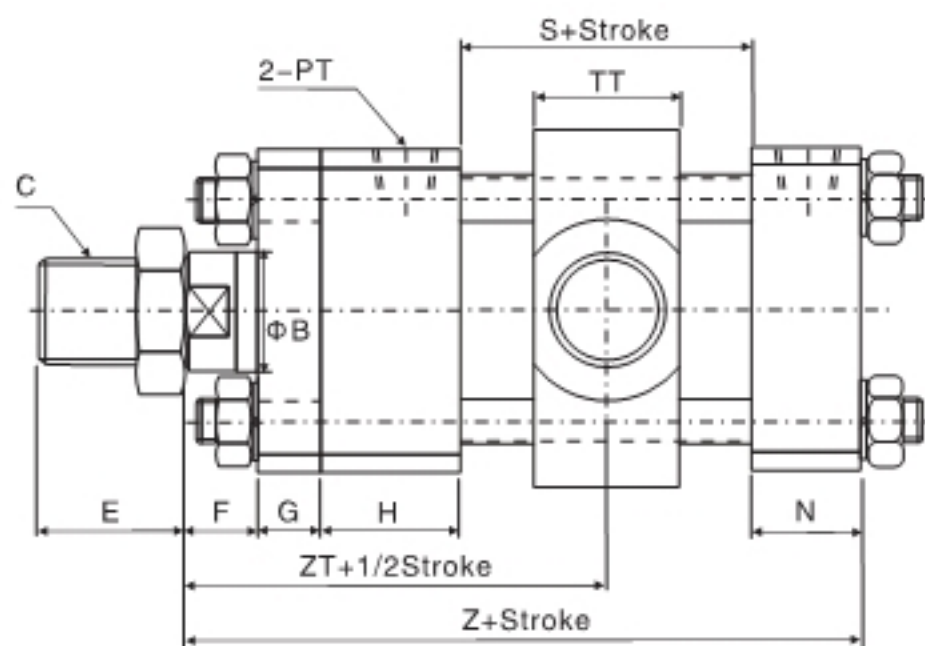


外形尺寸表 Dimension table

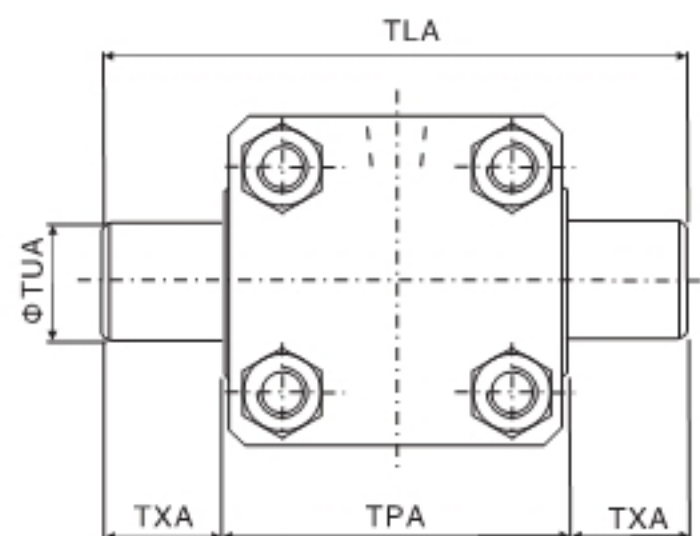
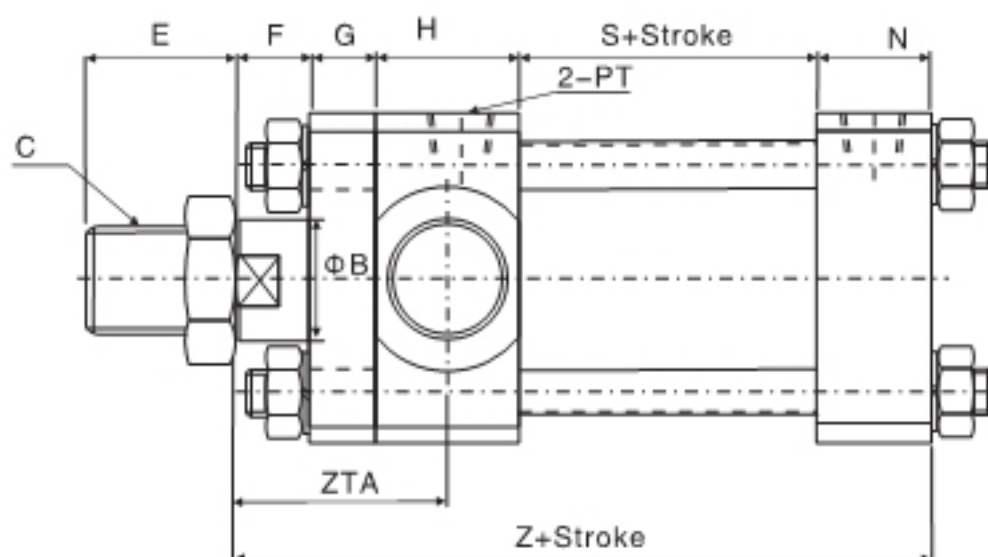
HOB-HOD TYPE												FA-FB TYPE			
BORE	SIZE	ΦB	C	E	F	G	H	N	PT	S	ΦFD	FR	FX	FY	FZ
Φ40		25	M22xP1.5	40	20	17	33	28	3/8"	50	12	93	50	115	75
Φ50		30	M26xP1.5	40	20	17	38	30	3/8"	55	14	110	56	150	85
Φ63		35	M30xP1.5	45	20	17	38	30	3/8"	55	14	126	68	155	100
Φ80		40	M36xP1.5	45	20	20	40	35	1/2"	74	18	152	75	190	120
Φ100		50	M40xP2.0	55	25	20	41	37	1/2"	84	20	180	100	220	140
Φ125		60	M50xP2.0	70	35	28	57	47	3/4"	88	24	222	122	280	170
Φ150		80	M70xP2.0	80	35	30	60	50	3/4"	98	28	260	155	310	220
Φ180		100	M90xP2.0	100	35	40	65	55	1"	120	35	315	188	375	250
Φ200		100	M90xP2.0	120	40	40	65	60	1"	120	35	355	207	425	272

備注：1、軸心加大如未注明長度尺寸時，依照本公司規定自行加工。
2、HO系列行程未超過150mm時，活塞長度(OM)如附表，訂制行程如超過1500mm時，活塞長度 (PM) 請參閱特性資料表。
3、本系列軸心螺帽規格M50mm(含)以上時，其外徑為圓型。

HOB-TC 中耳軸型 HOB-TC Middle trunnion type



HOB-TA前耳軸型 HOB-TA Front trunnion type

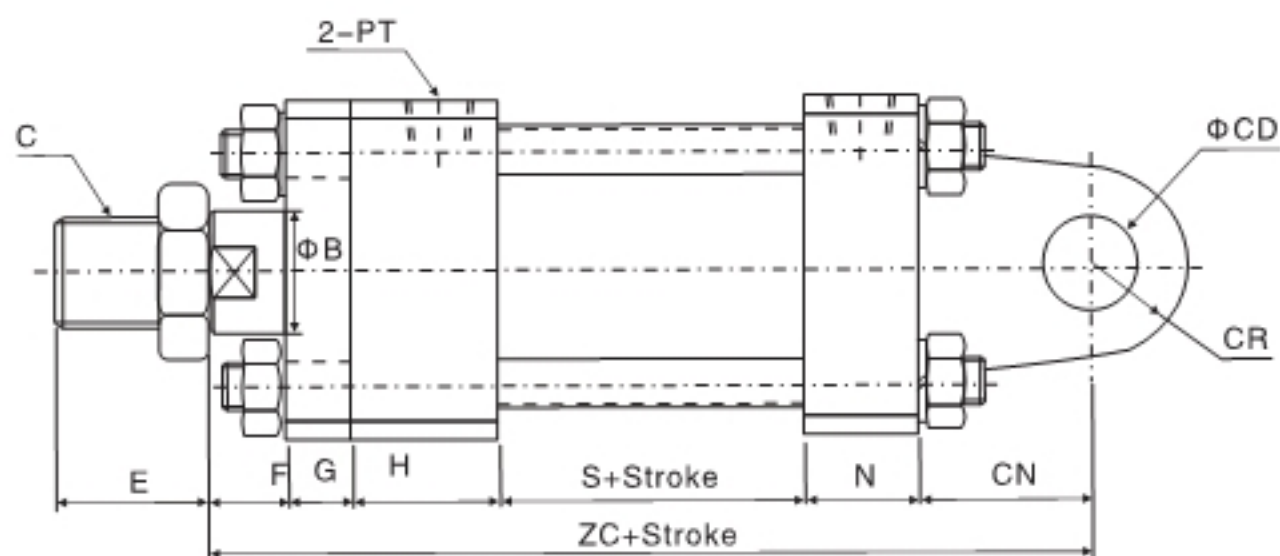


外形尺寸表 Dimension table

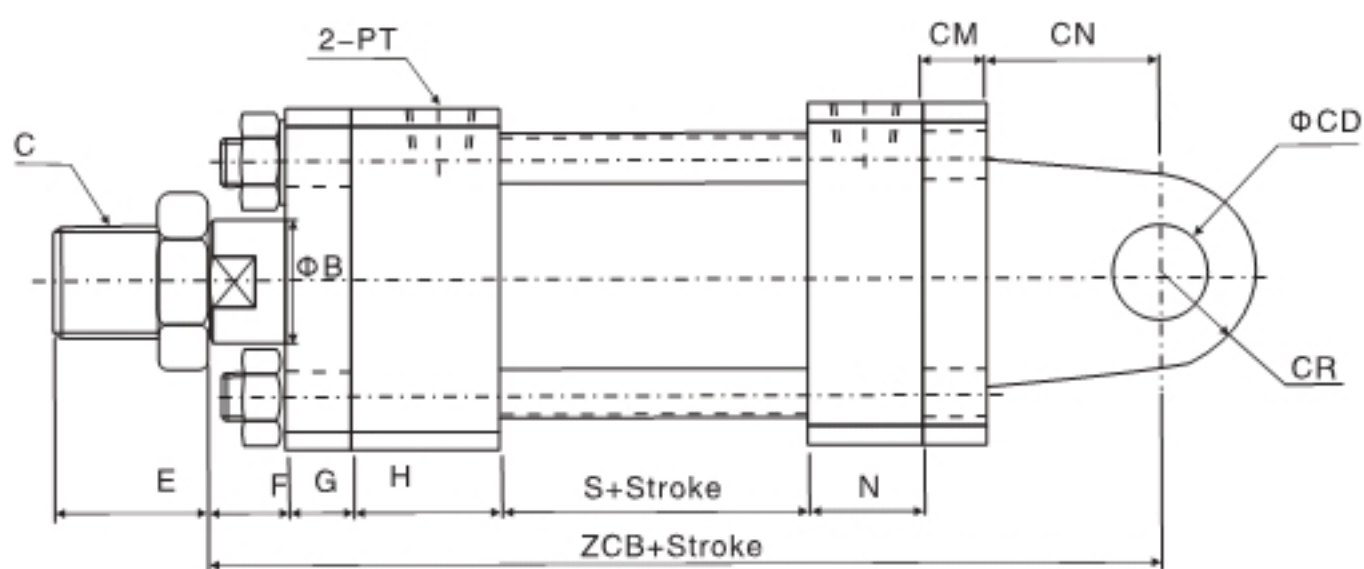
HOB TYPE												TC TYPE						TA TYPE				
BORE	SIZE	ΦB	C	E	F	G	H	N	PT	S	Z	ZT	ΦTU	TL	TP	TT	TX	ZTA	ΦTUA	TLA	TPA	TXA
	Φ40	25	M22xP1.5	40	20	17	33	28	3/8"	50	148	98	20	115	75	28	20	53.5	20	109	59	20
	Φ50	30	M26xP1.5	40	20	17	38	30	3/8"	55	160	102.5	25	140	90	33	25	56	25	134	84	25
	Φ63	35	M30xP1.5	45	20	17	38	30	3/8"	55	160	102.5	32	166	102	40	32	56	30	159	99	30
	Φ80	40	M36xP1.5	45	20	20	40	35	1/2 "	74	189	117	32	184	130	43	32	60	30	174	114	30
	Φ100	50	M40xP2.0	55	25	20	41	37	1/2 "	84	207	128	40	220	140	53	40	65.5	35	205	135	35
	Φ125	60	M50xP2.0	70	35	28	57	47	3/4 "	88	255	164	50	275	175	58	50	91.5	45	258	168	45
	Φ150	80	M70xP2.0	80	35	30	60	50	3/4 "	98	273	174	60	326	206	73	60	95	50	318	218	50
	Φ180	100	M90xP2.0	100	35	40	65	55	1 *	120	315	199	80	403	243	98	80					
	Φ200	100	M90xP2.0	120	40	40	65	60	1 *	120	325	204	90	452	272	108	90					

備注：標準HOB+TA型缸徑為Φ40-Φ150

HOB-CA 單耳環型 HOB-CA Single earrings



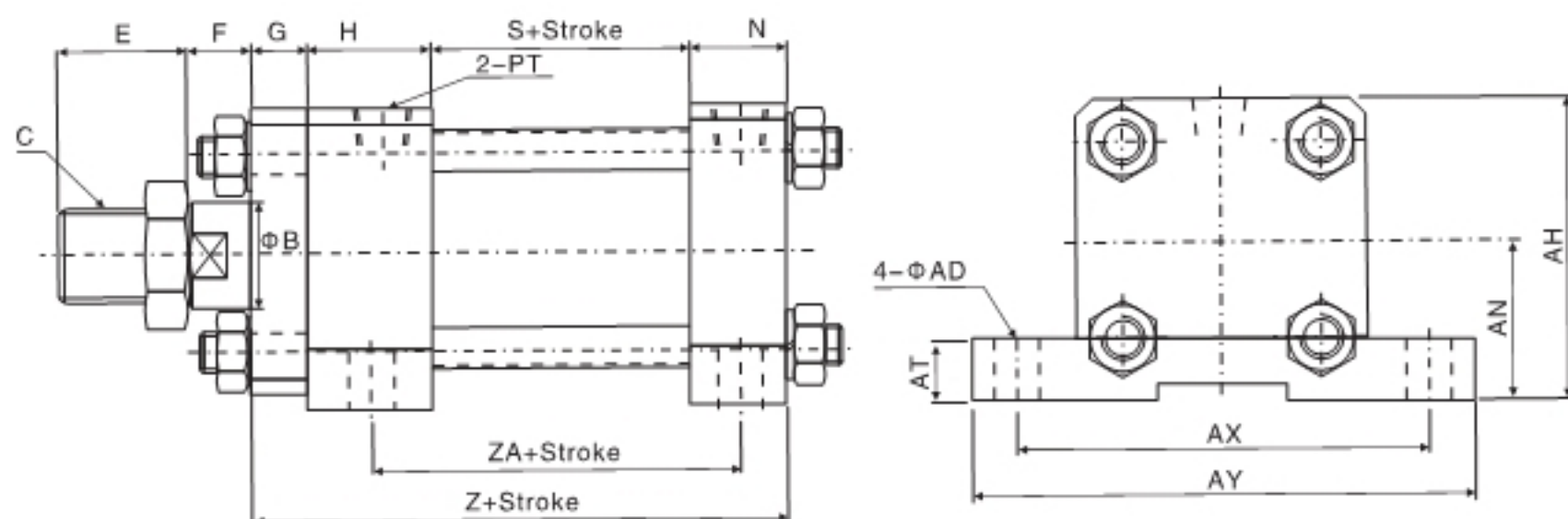
HOB-CB 雙耳環型 HOB-CB Double earrings



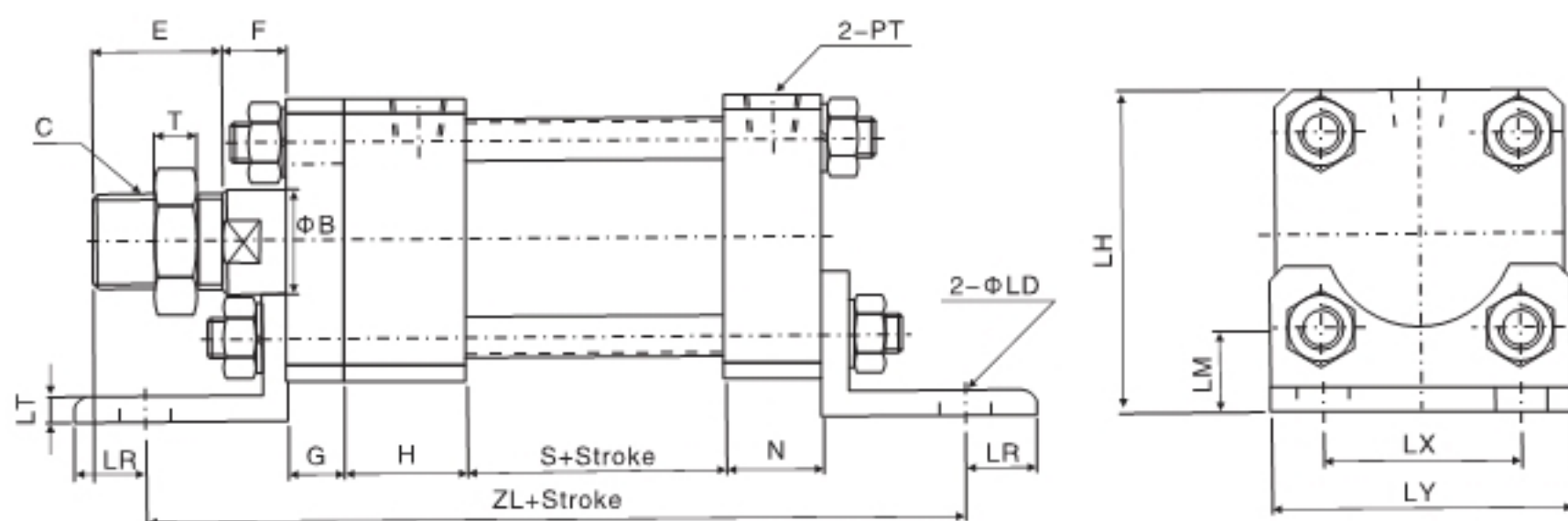
外形尺寸表 Dimension table

HOB TYPE												CA+CB TYPE							
BORE	SIZE	ΦB	C	E	F	G	H	N	PT	S	ZC	ZCB	ΦCD	CM	CN	CR	CV	CW	CX
	Φ40	25	M22xP1.5	40	20	17	33	28	3/8'	50	173	190	16	17	25	15	22	23	47
	Φ50	30	M26xP1.5	40	20	17	38	30	3/8"	55	195	212	20	17	35	20	22	23	47
	Φ63	35	M30xP1.5	45	20	17	38	30	3/8"	55	205	222	25	17	45	25	30	31	59
	Φ80	40	M36xP1.5	45	20	20	40	35	1/2 "	74	239	259	30	20	50	30	35	36	76
	Φ100	50	M40xP2.0	55	25	20	41	37	1/2 "	84	267	287	35	20	60	35	40	41	81
	Φ125	60	M50xP2.0	70	35	28	57	47	3/4 "	88	325	355	50	30	70	50	55	56	106
	Φ150	80	M70xP2.0	80	35	30	60	50	3/4 "	98	353	383	60	30	80	60	60	61	121
	Φ180	100	M90xP2.0	100	35	40	65	55	1 *	120	415	455	80	40	100	80	80	81	161
	Φ200	100	M90xP2.0	120	40	40	65	60	1 *	120	435	475	90	40	110	90	90	91	171

HOB-LA 左右腳座型 HOB-LA Feet seat type



HOB-LB 前後腳座型 HOB-LB Course of a type



外形尺寸表 Dimension table

HOB TYPE											LA TYPE									LB TYPE							
BORE	SIZE	ΦB	C	E	F	G	H	N	PT	S	ZA	Z	AN	AH	ΦAD	AT	AX	AY	ZL	ΦLD	LM	LR	LT	LX	LY	LH	
Φ40		25	M22xP1.5	40	20	17	33	28	3/8"	50	80.5	128	37	69.5	12	14	90	112	203	12	23.5	12.5	6	45	68	78.5	
Φ50		30	M26xP1.5	40	20	17	38	30	3/8"	55	89	140	45	85	14	17	115	140	224	14	26	22	8	56	85	94	
Φ63		35	M30xP1.5	45	20	17	38	30	3/8"	55	89	140	52.5	101	16	19	128	156	228	16	26	22	8	65	95	102	
Φ80		40	M36xP1.5	45	20	20	40	35	1/2 "	74	111.5	169	60	115	18	25	152	184	295	18	36	27	13	80	120	131	
Φ100		50	M40xP2.0	55	25	20	41	37	1/2 "	84	123	182	70	135.5	20	27	178	210	314	20	45.5	24	15	95	140	158.5	
Φ125		60	M50xP2.0	70	35	28	57	47	3/4 "	88	140	220	90	171	24	30	230	280	380	24	53	30	15	122	169	195	
Φ150		80	M70xP2.0	80	35	30	60	50	3/4 "	98	153	238	113	218	28	35	270	325	398	28	53	30	20	153	200	220	
Φ180		100	M90xP2.0	100	35	40	65	55	1 "	120	180	280	143	260.5	35	45	330	395	460	35	62.5	40	20	175	240	267.5	
Φ200		100	M90xP2.0	120	40	40	65	60	1 "	120	182.5	285	161	292	35	50	360	430	475	35	73.5	40	25	193	256	301	



恒壓式智能夾具液壓站

Constant pressure type intelligent clamp hydraulic station

產品簡介

此型號液壓站，特別適用於液壓夾具，
具有體積小、變頻調節、保壓等強大功能；
強大的功能滿足了客戶低油溫、低損耗、低噪音的需求；
可按客戶要求定制。

Introduction of product

This type of hydraulic pressure station, especially suitable for hydraulic clamp,
With a small size, frequency control, pressure and other powerful features;
Powerful features to meet customer low oil temperature, low loss,
low noise requirements;
Can be customized according to customer requirements.

型號說明/Model description

HAS-5HP-AP16-B-22-10

系列別	功率	泵浦 排量	壓力	電壓	容量
Series	power	Pump Discharge	pressure	Voltage	Capacity

油箱容量 / Fuel tank capacity

10: 10L 20: 20L 30: 30L
40: 40L 60: 60L 80: 80L

電壓 / Voltage

22: 標準AC220V 38: 標準AC380V

壓力調整 / Pressure adjustment

A: 10~40 kgf/cm² B: 15~70 kgf/cm²
C: 20~140 kgf/cm² D: 25~210 kgf/cm²

泵浦類型 / Pump type

AP: 變量柱塞泵 GP: 齒輪泵 / Gear pump

泵浦排量 / Pump discharge

8: 8 cm³/rev 12: 12 cm³/rev
16: 16 cm³/rev 22: 22 cm³/rev

功率 / Power

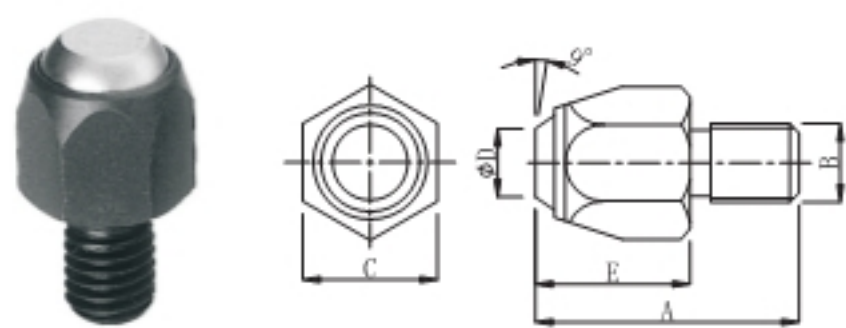
1:(1HP) 2:(2HP) 3:(3HP) 5:(5HP)

系列別 / Series

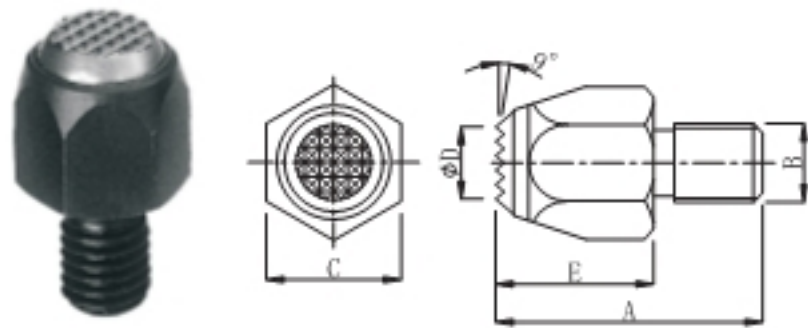
變頻調節器液壓站/HAS
Variable frequency regulator hydraulic station

標準液壓站/HASB
Standard hydraulic station

材質：本体 S45C 鋼珠 SUJ2
硬度：本体 HRC35° 鋼珠 HRC62°



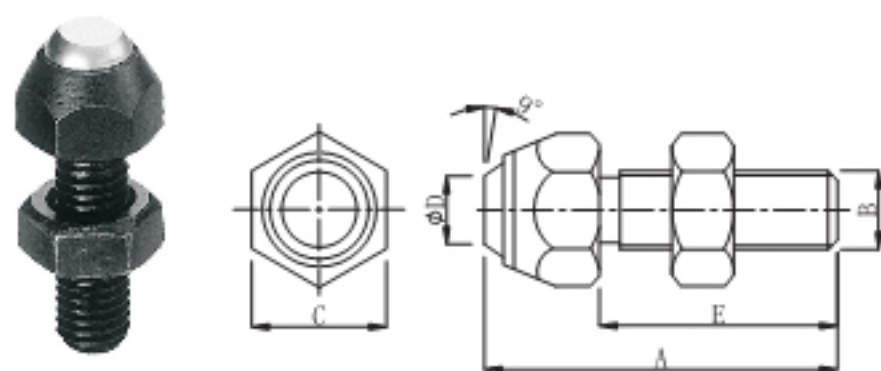
PTA1



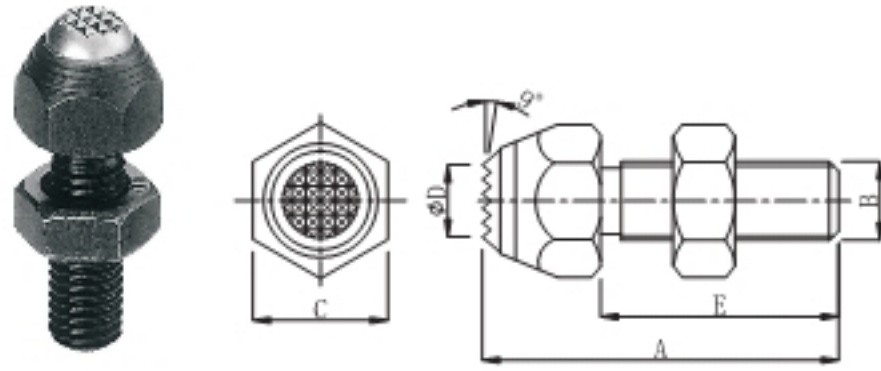
PTA2

(mm)

型號	PTA1-0006 PTA2-0006	PTA1-0108 PTA2-0108	PTA1-0210 PTA2-0210	PTA1-0312 PTA2-0312	PTA1-0416 PTA2-0416	PTA1-0520 PTA2-0520	PTA1-0624 PTA2-0624	PTA1-0730 PTA2-0730
A	21	25	30	35	42	55	65	80
B	M6x1.0	M8x1.25	M10x1.5	M12x1.75	M16x2.0	M20x2.5	M24x2.0	M30x2.0
C	10	14	17	22	27	36	36	46
D	6	8	10	12	14	14	18	21
E	10	12	16	22	26	27	32	35
重量 (g)	12	15	25	70	140	280	560	880



PTA3



PTA4

(mm)

型號	PTA3-0108 PTA4-0108	PTA3-0210 PTA4-0210	PTA3-0312 PTA4-0312	PTA3-0416 PTA4-0416	PTA3-0520 PTA4-0520	PTA3-0624 PTA4-0624	PTA3-0730 PTA4-0730
A	36	45	50	60	87	98	110
B	M8x1.25	M10x1.5	M12x1.75	M16x2.0	M20x2.5	M24x2.0	M30x2.0
C	14	17	17	24	36	36	46
D	7	8	10	12	14	18	21
E	25	30	35	40	60	66	75
重量 (g)	25	55	55	140	330	595	1030

材質: 本体 SCM21 鋼珠 SUJ2
硬度: 本体 HRC32° ~38° 鋼珠 HRC62°



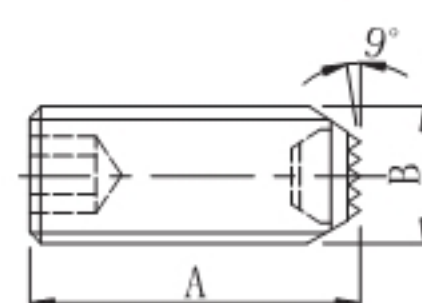
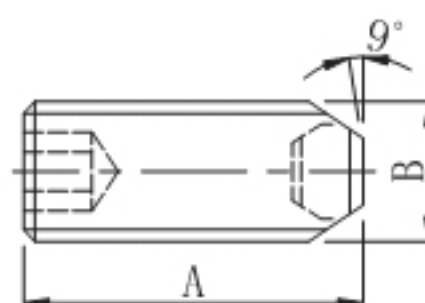
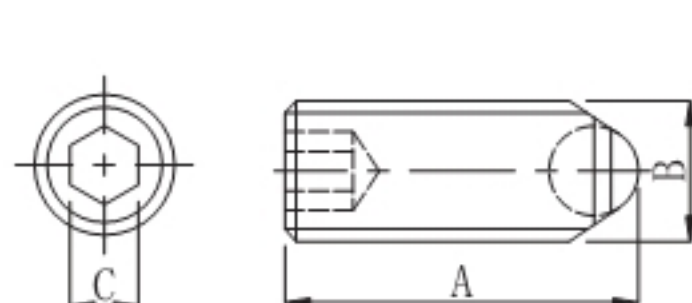
PTB1



PTB2



PTB3



(mm)

型號	PTB1-0206	PTB1-0306	PTB1-0408	PTB1-0508	PTB1-0608	PTB1-0710	PTB1-0810	PTB1-0910	PTB1-1012	PTB1-1112	PTB1-1212	PTB1-1312
A	13.5	23.5	12	20	30	17	27	37	23.2	31.2	41.2	51.2
B	M6x1.0	M6x1.0	M8x1.25	M8x1.25	M8x1.25	M10x1.5	M10x1.5	M10x1.5	M12x1.75	M12x1.75	M12x1.75	M12x1.75
C	3	3	4	4	4	5	5	5	6	6	6	6
重量 (g)	2.4	3.8	3.2	5.8	9	6.7	11.2	16.2	12.5	20	30	40

(mm)

型號	PTB1-1416	PTB1-1516	PTB1-1616	PTB1-1716	PTB1-1816	PTB2-2006 PTB3-3806	PTB2-2106 PTB3-3906	PTB2-2208 PTB3-4008	PTB2-2308 PTB3-4108	PTB2-2408 PTB3-4208	PTB2-2510 PTB3-4310	PTB2-2610 PTB3-4410
A	25.6	35.6	45.6	55.6	65.6	13	23	11.2	19.2	29.2	15	25
B	M16x2.0	M16x2.0	M16x2.0	M16x2.0	M16x2.0	M6x1.0	M6x1.0	M8x1.25	M8x1.25	M8x1.25	M10x1.5	M10x1.5
C	8	8	8	8	8	3	3	4	4	4	5	5
重量 (g)	28	40	45	55	65	2.4	3.8	3.2	5.8	9	6.7	11.2

(mm)

型號	PTB2-2710 PTB3-4510	PTB2-2812 PTB3-4612	PTB2-2912 PTB3-4712	PTB2-3012 PTB3-4812	PTB2-3112 PTB3-4912	PTB2-3216 PTB3-5016	PTB2-3316 PTB3-5116	PTB2-3416 PTB3-5216	PTB2-3516 PTB3-5316	PTB2-3616 PTB3-5416
A	35	22	30	40	50	24	34	44	54	64
B	M10x1.5	M12x1.75	M12x1.75	M12x1.75	M12x1.75	M16x2.0	M16x2.0	M16x2.0	M16x2.0	M16x2.0
C	5	6	6	6	6	8	8	8	8	8
重量 (g)	16.2	12.5	20	30	40	28	40	45	55	65

材質: 本体 SCM21 鋼珠 SUJ2
硬度: 本体 HRC32° ~38° 鋼珠 HRC62°



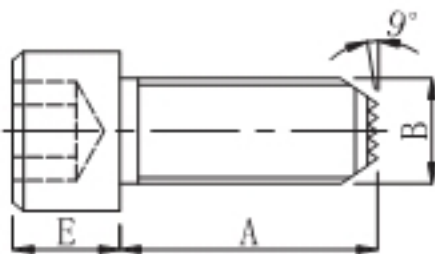
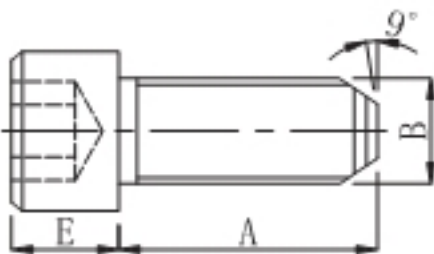
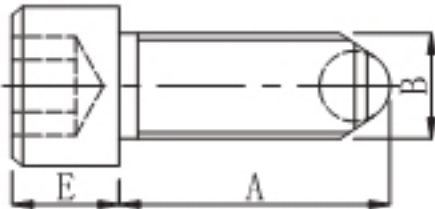
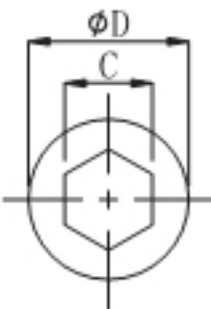
PTB4



PTB5



PTB6



(mm)

型號	PTB4-0106	PTB4-0206	PTB4-0306	PTB4-0408	PTB4-0508	PTB4-0608	PTB4-0710	PTB4-0810	PTB4-0910	PTB4-1012	PTB4-1112	PTB4-1212	PTB4-1312	PTB4-1416
A	14.5	23.5	33.5	18.7	28.7	38.7	25	40	60	31.2	46.2	66.2	81.2	40.6
B	M6	M6	M6	M8	M8	M8	M10	M10	M10	M12	M12	M12	M12	M16
C	5	5	5	6	6	6	8	8	8	10	10	10	10	14
D	10	10	10	13	13	13	16	16	16	18	18	18	18	24
E	6	6	6	8	8	8	10	10	10	12	12	12	12	16
重量 (g)	5.3	7.4	9.5	13.5	20	24	26	34	46	40	50	70	83	90

(mm)

型號	PTB4-1516	PTB4-1616	PTB4-1716	PTB5-1806 PTB6-3506	PTB5-1906 PTB6-3606	PTB5-2006 PTB6-3706	PTB5-2108 PTB6-3808	PTB5-2208 PTB6-3908	PTB5-2308 PTB6-4008	PTB5-2410 PTB6-4110	PTB5-2510 PTB6-4210	PTB5-2610 PTB6-4310
A	50.6	65.6	90.6	14	23	33	18	28	38	24	39	59
B	M16	M16	M16	M6	M6	M6	M8	M8	M8	M10	M10	M10
C	14	14	14	5	5	5	6	6	6	8	8	8
D	24	24	24	10	10	10	13	13	13	16	16	16
E	16	16	16	6	6	6	8	8	8	10	10	10
重量 (g)	110	130	170	5.3	7.4	9.5	13.5	20	24	26	34	46

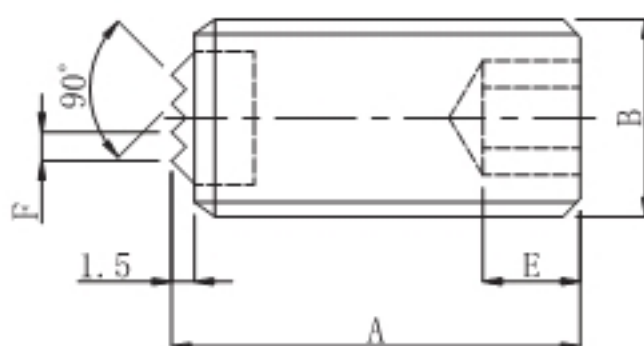
(mm)

型號	PTB5-2712 PTB6-4412	PTB5-2812 PTB6-4512	PTB5-2912 PTB6-4612	PTB5-3012 PTB6-4712	PTB5-3116 PTB6-4816	PTB5-3216 PTB6-4916	PTB5-3316 PTB6-5016	PTB5-3416 PTB6-5116
A	30	45	65	80	39	49	64	89
B	M12	M12	M12	M12	M16	M16	M16	M16
C	10	10	10	10	14	14	14	14
D	18	18	18	18	24	24	24	24
E	12	12	12	12	16	16	16	16
重量 (g)	40	50	70	83	90	110	13	170

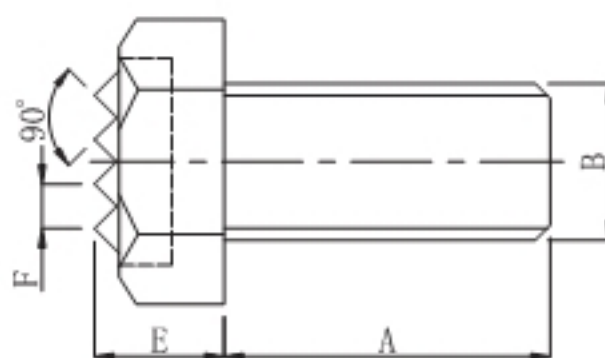
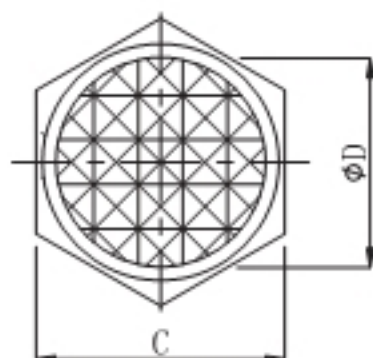
材質: 本体 S45C 齒形 SKH9
硬度: 本体 HRC35° 齒形 HRC60°



PTC1



PTC2



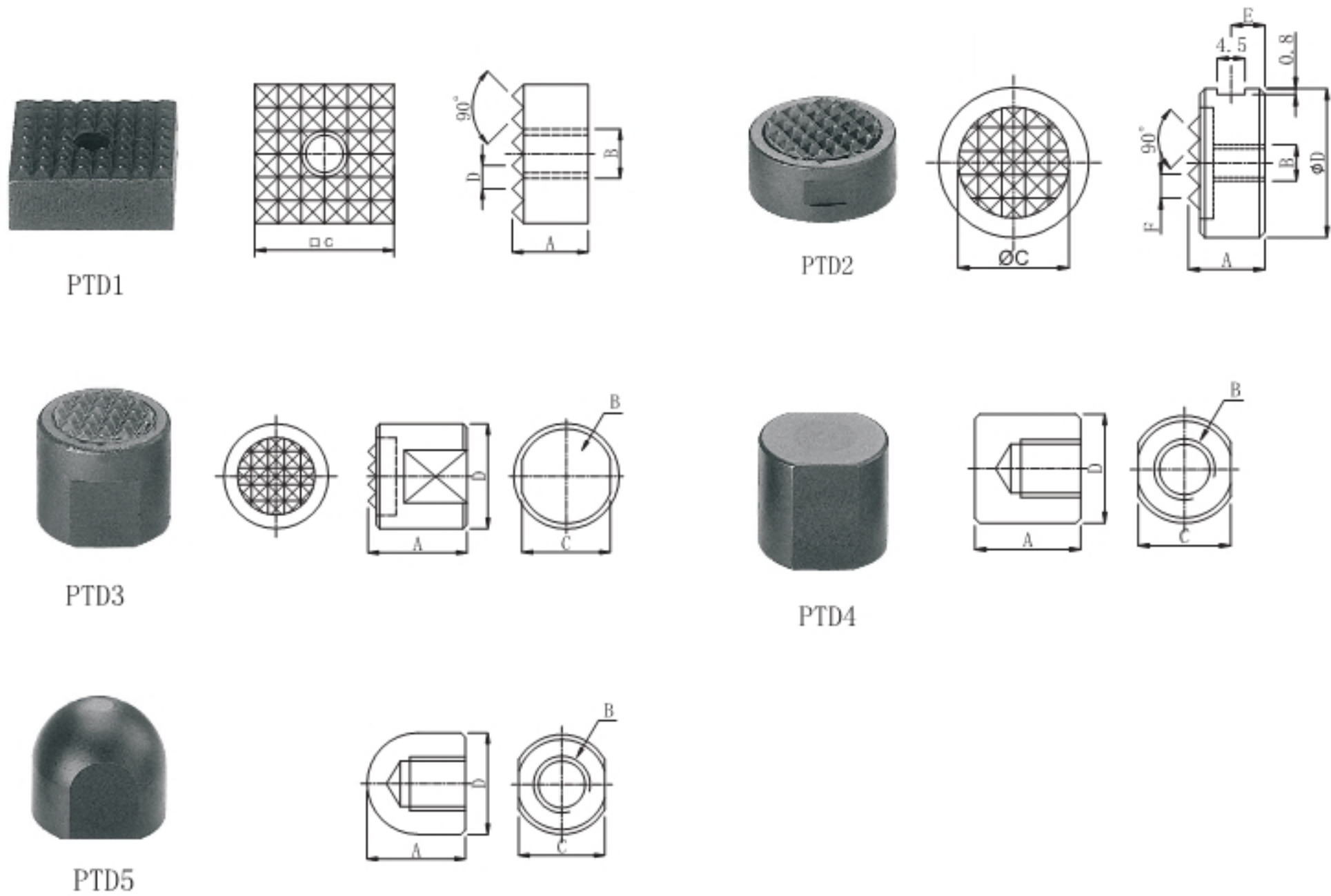
(mm)

型號	PTC1-0110	PTC1-0210	PTC1-0312	PTC1-0412	PTC1-0516	PTC1-0616	PTC1-0720	PTC1-0820
A	25	50	25	50	25	50	25	50
B	M10x1.5	M10x1.5	M12x1.75	M12x1.75	M16x2.0	M16x2.0	M20x2.5	M20x2.5
C	5	5	6	6	8	8	10	10
D	6.5	6.5	8	8	11.5	11.5	13	13
E	4	5	5	5	6	6	8	8
F	2.3	2.3	2.3	2.3	3	3	3	3
重量 (g)	15	30	22	45	37	78	58	120

(mm)

型號	PTC2-0106	PTC2-0208	PTC2-0310	PTC2-0410	PTC2-0512	PTC2-0612	PTC2-0716	PTC2-0816	PTC2-0920	PTC2-1020
A	25	25	25	40	25	40	35	50	40	60
B	M6x1.0	M8x1.25	M10x1.5	M10x1.5	M12x1.75	M12x1.75	M16x2.0	M16x2.0	M20x2.5	M20x2.5
C	10	13	17	17	19	19	24	24	30	30
D	7.9	9.5	12.7	12.7	15.9	15.9	19.1	19.1	25.4	25.4
E	6	7.3	8.4	8.4	9.5	9.5	12	12	14.5	14.5
F	2.3	3	3	3	3	3	3	3	3	3
重量 (g)	8	15	30	35	35	50	85	100	160	205

PTD1/PTD2/PTD3 材质: SKH9 硬度 HRC60°
PTD4/PTD5 材质: SCM440 硬度 HRC60°



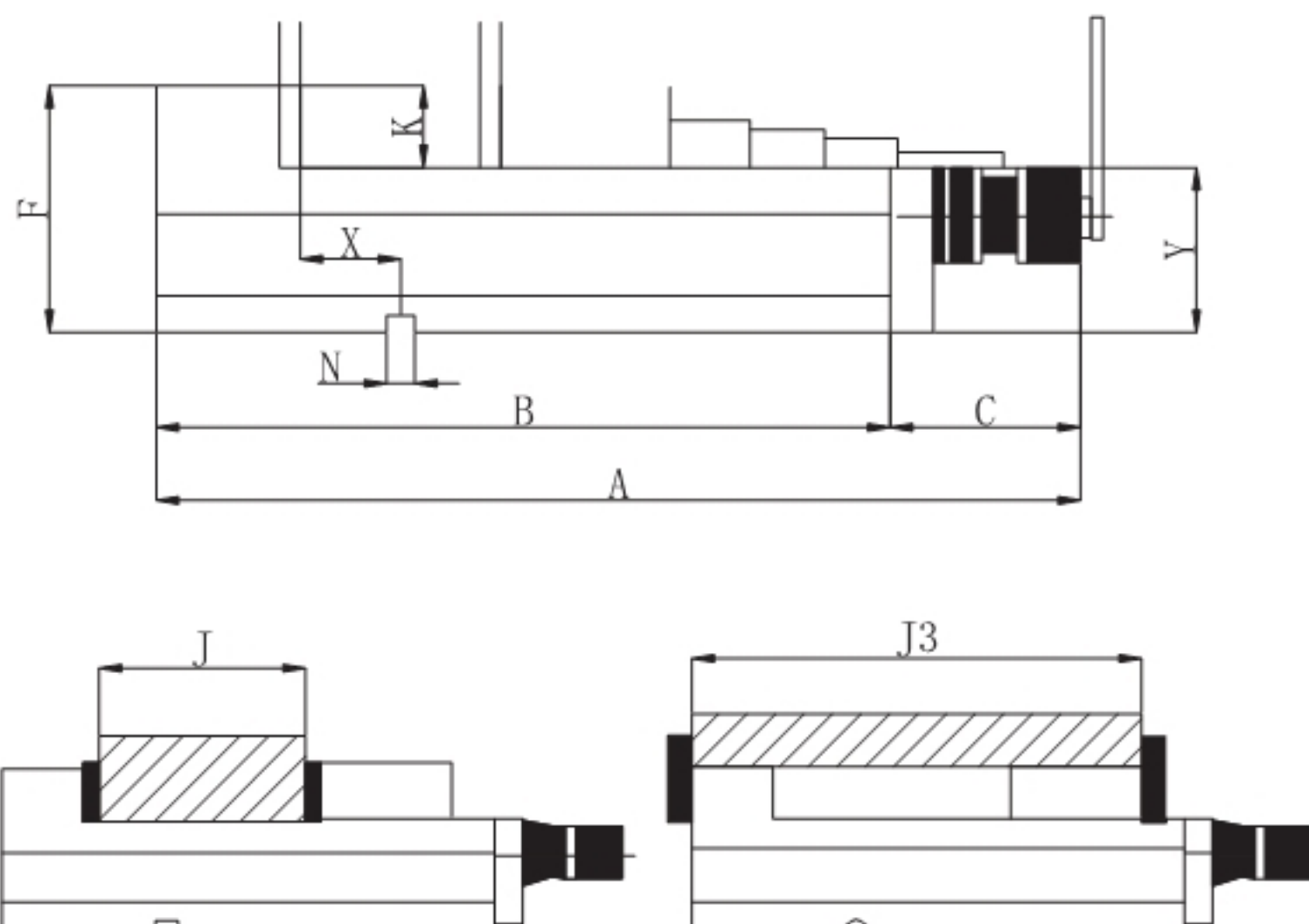
型號	PTD1-0110	PTD1-0212	PTD1-0320	PTD1-0425	PTD3-0112	PTD3-0216	PTD4-0112	PTD4-0216	PTD5-0112	PTD5-0216
A	10	10	10	10	20	25	20	25	20	25
B	M5x0.8	M6x1.0	M6x1.0	M6x1.0	M12x1.75	M16x2.0	M12x1.75	M16x2.0	M12x1.75	M16x2.0
C	10	12	20	25	19	24	19	24	19	24
D	2.3	3	3	3	22	28	22	28	22	28
重量 (g)	8	10	30	43	43	80	43	76	42	63

型號	PTD2-0110	PTD2-0212	PTD2-0316	PTD2-0420	PTD2-0525
A	10	12	12	12	12
B	M5x0.8	M6x1.0	M6x1.0	M6x1.0	M6x1.0
C	8.1	9.6	13	16.3	19.5
D	10	12	16	20	25
E	3.4	4	4	4	4
F	2.3	3	3	3	3
重量 (g)	5	8	16	25	40



產品特性

- 廣泛應用於普通銑床、CNC數控銑床、立臥式加工中心、大型龍門銑床、銓床及模具製造使用，鉗工工作案及其它複雜零件加工，代替設計製造專用夾具。
- 夾緊輕便，高效省力，抗張力強，不易變形。
- 虎口採用半圓球斜角下壓式結構，可消除虎口板上浮及工件傾斜。
- 虎鉗本體使用高抗張拉力球狀石墨化鑄鐵（FCD60-60kgs/mm）.(80,000psi)
- 密封等關鍵零件全部採用進口品牌。

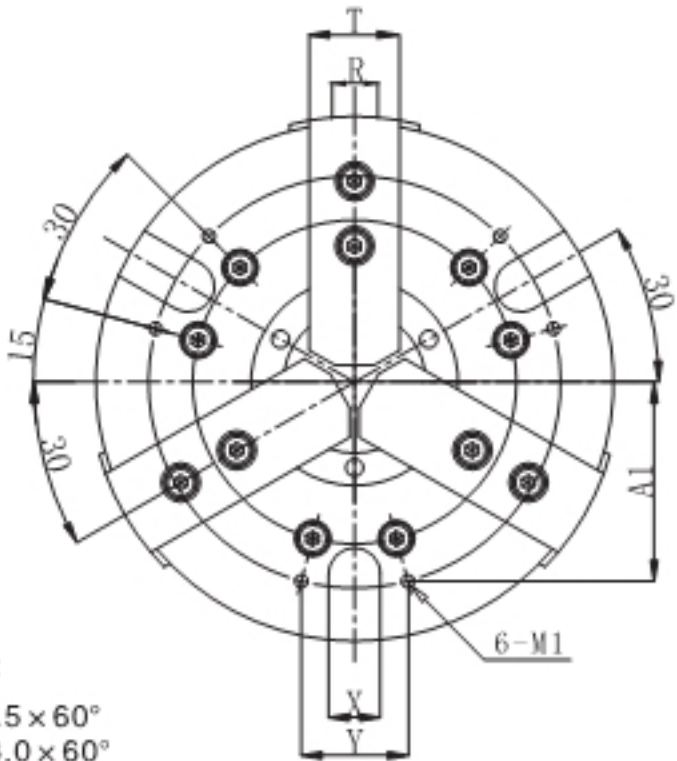
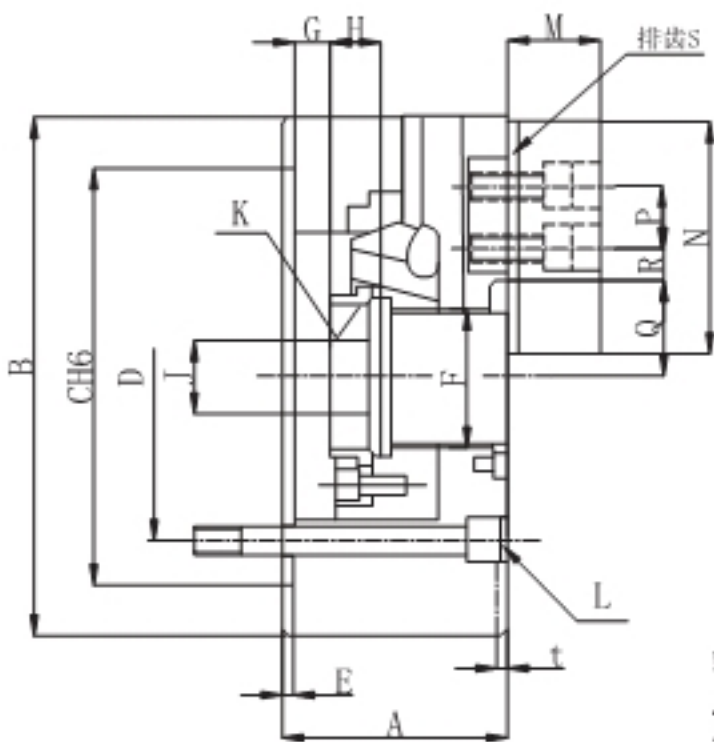


型號	A	B	C	D	F	H	J	J3	K	N	X	Y	夾緊力	淨重	裝箱尺寸
HCHV-130A	540	405	135	131	150	15	0-180	180-380	55	18	65	95	4508kgf	40kg	66.5 × 25 × 20.5cm
HCHV-160A	630	495	135	161	163	15	0-240	240-470	58	18	65	105	5488kgf	60kg	76 × 28 × 21.5cm



(不含連接板)

參數/型號	HTF3B-5	HTF3B-6	HTF3B-8
爪行程 (直徑) (mm)	5.4	5.5	7.4
柱塞行程 (mm)	10	12	16
最大把握徑 (mm)	135	165	210
最小把握徑 (mm)	10	10	12
最高使用回轉速 (r.p.m.)	7000	6000	4800
最大拉杆推力 (KN) (kgf)	17.5(1784)	22(2243)	34(3467)
把握力 (KN) (kgf)	36(3671)	57(5812)	86(8769)
搭配液壓缸/最高使用壓力(kgf/cm²)(RC)	RC-5/29.5	RC-6/28.5	RC-8/27
重量 (kg)	6.7	12.5	22.6



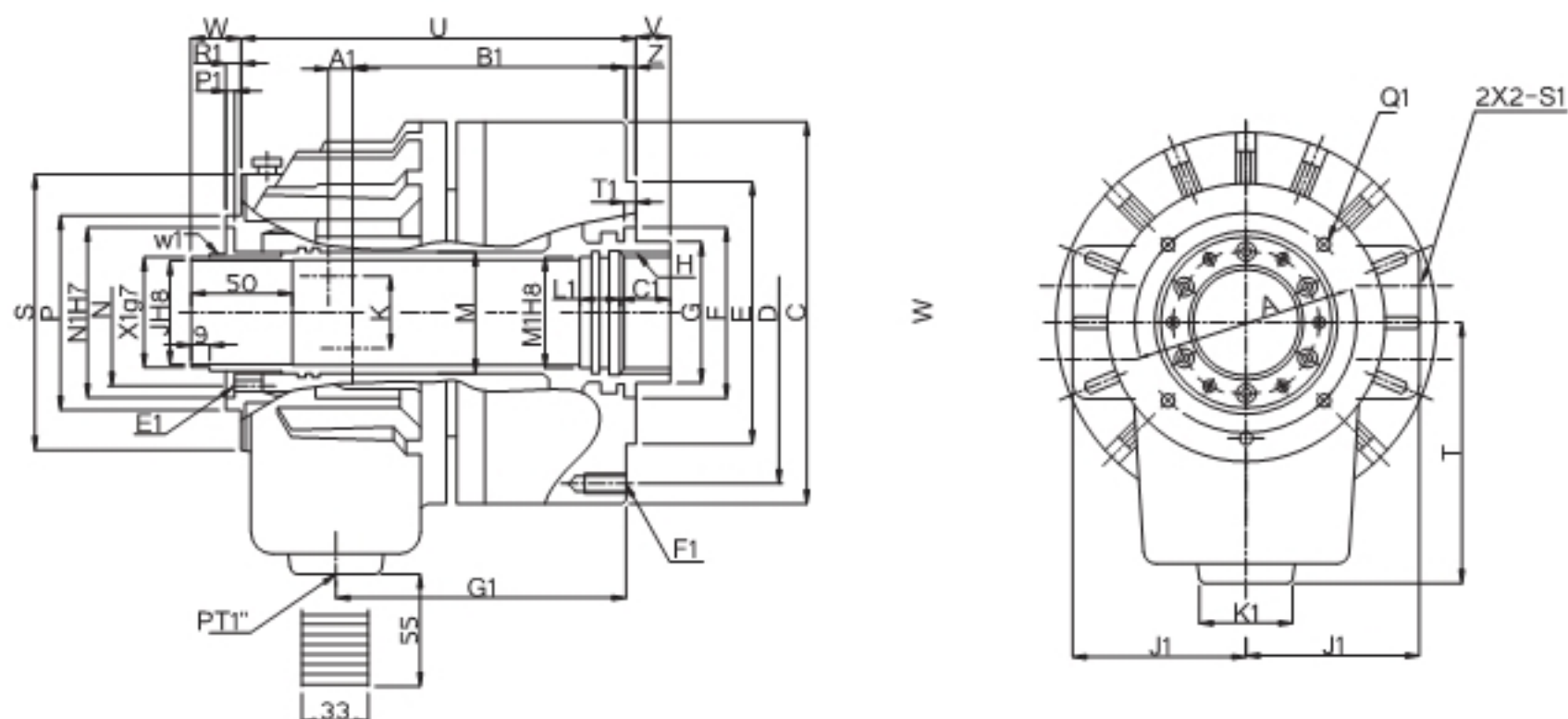
鋸齒間距:
4"-18":1.5×60°
21",24":3.0×60°

型號	A	B	C(H6)	D	E	F	G(Max)	G(Min)	H	J	K(Max)	L	M	N	P	Q(Max)	Q(Min)	R(Max)	R(Min)	S	T	X	Y	A1	M1	t
HTF3B-5	60	135	110	82.55	4	33	1	-9	20	12	M40x1.5	3-M10x60	26	54	14	26.5	23.8	19.75	7.75	1.5	23	12	30	52	M6	5
HTF3B-6	81	169	140	104.78	5	45	11	-1	19	20	M55x2	6-M10x80	29	66	20	32	29.25	22.75	9.25	1.5	32	16	36	65	M8	5
HTF3B-8	91	210	170	135.35	5	52	34.5	-1.5	20.5	30	M60x2	6-M12x90	39	95	25	38.7	35	29.75	14.75	1.5	37	16	45	80	M8	5



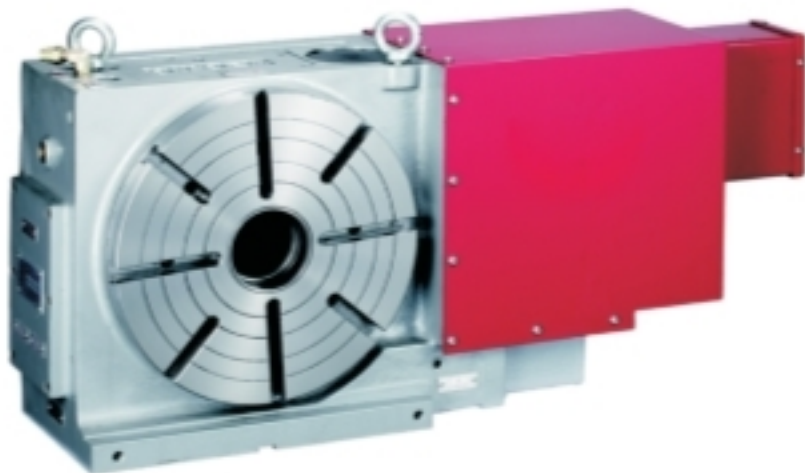
(內附逆止閥)

參數/型號	HRC-5	HRC-6	HRC-8
活塞面積-押側(cm ²)	67	100	161
活塞面積-引側(cm ²)	64.5	89	150
活塞行程(mm)	15	15	22
最高使用回轉速(r.p.m.)	8000	7000	6200
最高使用壓力(kgf/cm ²)	40	40	40
慣性矩(kgf.m ²)	0.044	0.078	0.21
重量(kg)	8.6	12	16.8
回油量(含內部排油量)(lit/min)	3	3	3.9



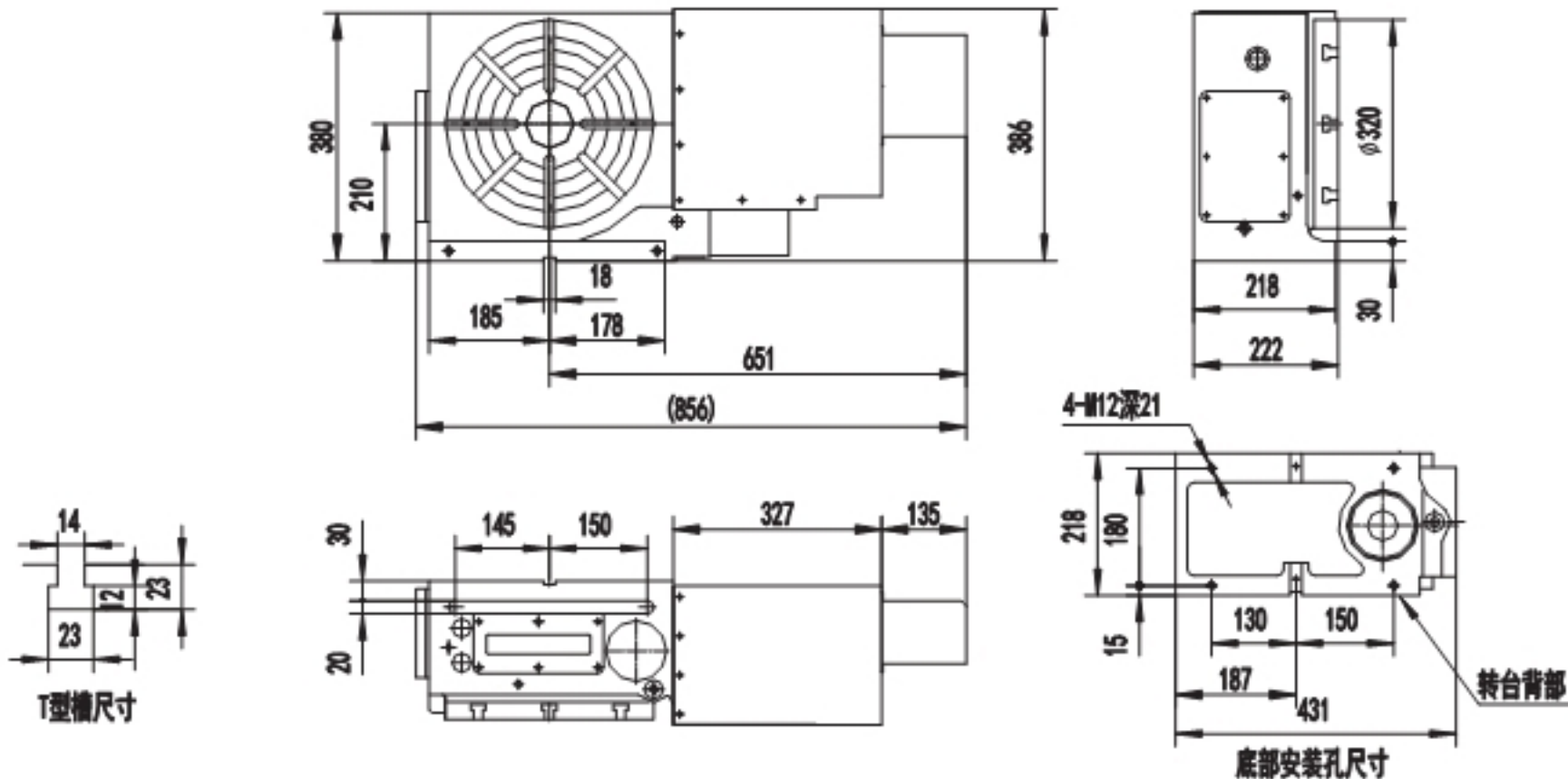
型號	C	D	E	F	G	H	J (貫通孔徑)	K	M	N	P	S	T	U	V(Max)	V(Min)	W(Max)	W(Min)	Z	A
HRC-5	135	116	100	65	48	M42×3.5	36	30	44.5	55	73	105	115	175.5	10	-5	40	25	5	88
HRC-6	155	130	100	80	65	M55×2	46	36	52.9	64	85	118	115	184	10	-5	40	25	5	98
HRC-8	190	170	130	85	70	M60×2	52	36	59.6	73	96	137	130	196	17	-5	47	25	5	110

型號	A1	B1	C1	E1 (深度)	F1 (深度)	G1	J1	K1	L1	M1	N1	P1	Q1 (深度)	R1	S1	T1	W1	X1
HRC-5	11	120.5	25	M5x9	M10x20	126.5	66	47	15	38	64	4	M5x10	5	PT 3/8	6	M44x1.5	42
HRC-6	11.5	126.5	30	M6x9	M10x20	135	76	47	15	50	76	4	M5x10	6	PT 1/2	6	M52x1.5	50
HRC-8	12	136	30	M6x9	M10x20	145	86	47	15	55	85	4	M6x12	7	PT 1/2	6	M58x1.5	56

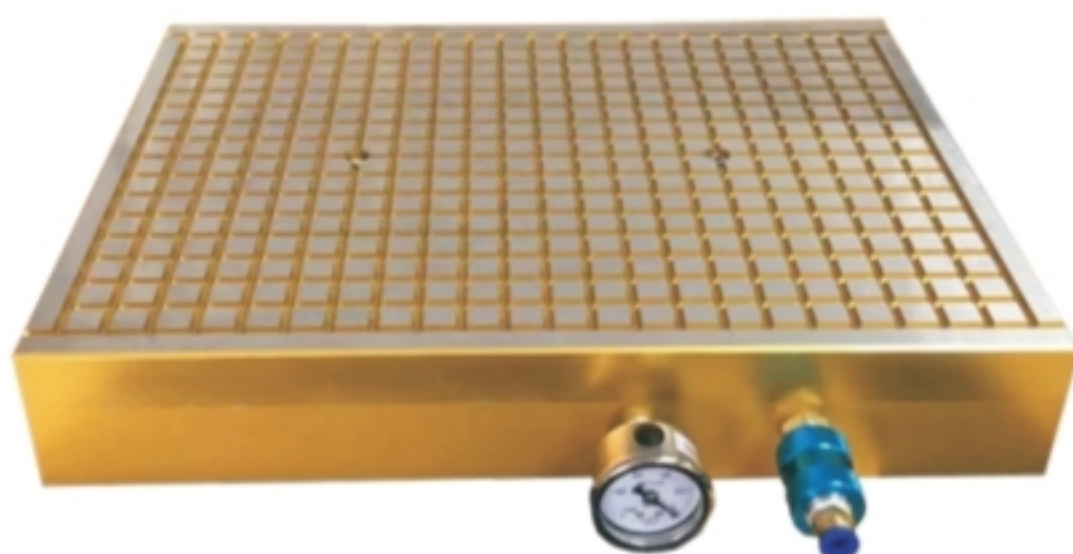


產品特性

- 旋轉臺直徑Φ320mm;
- 馬達安裝在右邊（立、卧兩用）；
- 高齒深的雙導程蝸杆傳動，可靠穩定的氣壓鎖緊系統。



参数	型号	HWGNC-320DA (立、卧式两用型)			
旋台直径		Φ 320mm			
工作台高度（卧式位置）		220mm			
中心高度（立式位置）		210mm			
总高度		386mm			
贯穿孔径		Φ 73mm			
中心孔直径		Φ 75mm（公差H7）			
工作台T型槽宽度		14mm（公差H7）			
基准定位块宽度		18mm（公差h7）			
蜗轮齿数		72			
伺服马达		FANUC		MITSUBISHI	
		β iS22	α iF12	HA 100	HF 204
总减速比		1/180			
最小设定单位		0.001°			
最高回转数		11.1 r.p.m（马达2000r.p.m）			
锁紧装置油压使用压力		油压35kg/cm ²			
夹紧扭矩		63kg·m(油压35kg/cm ²)			
分度精度		15"			
重复精度		4"			
容许工作物荷重		350 kg 卧式使用			
		150 kg 立式使用			
		350 kg 使用尾座			
容许工作惯量		28 kg·cm·sec ²			
容许切削扭矩		85kg·m			
容许承载工作物直径		Φ 320mm			
重量（不含马达）		162kg			



產品特性

- 1、可輕鬆排出吸入的切削液：當加工過程中真空吸盤吸入大量切削液時，可以透過控制器下方開關，即可輕鬆排水。
- 2、斷電之後還可保持壓力：真空吸盤控制器下方裝有儲氣罐，斷電後可保壓5-10分鐘。
- 3、操作時安靜且穩定：無需真空泵，耗氣量小且靜音，持續穩定。
- 4、能吸附任何材質（如：塑料、不銹鋼、陶瓷、玻璃、鋁板等）

型號 (Model)	長 (L)	寬 (W)	高 (H)
HVS-300300	300	300	68
HVS-300400	300	400	68
HVS-400400	400	400	68

產品用途



CNC加工中心機



精雕機



磨床

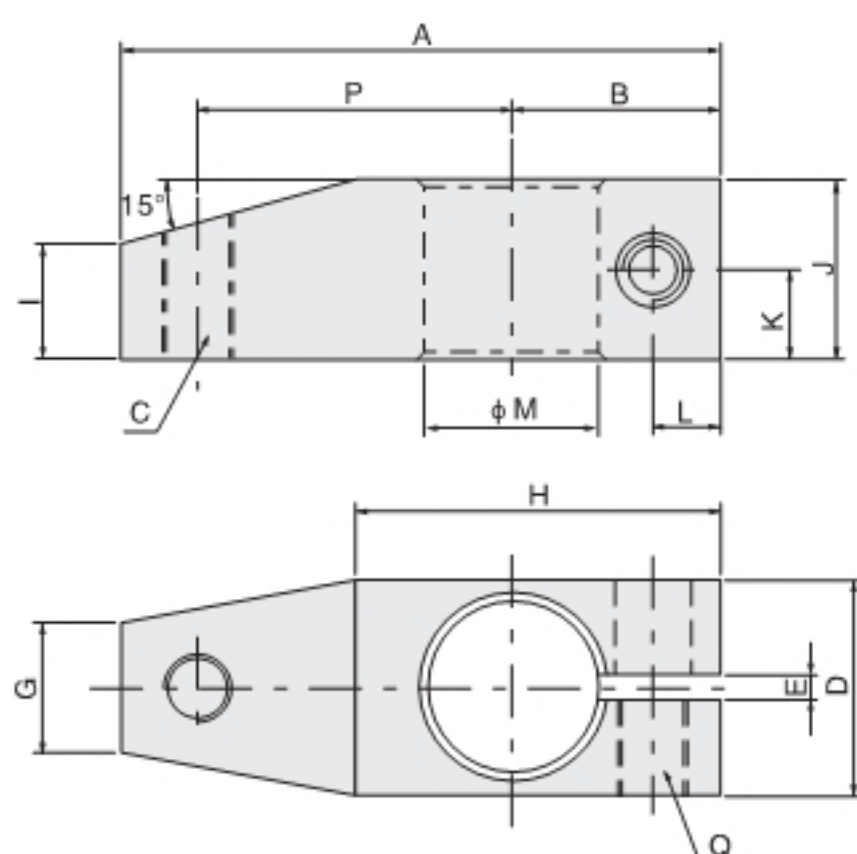
- 1、真空吸盤可適用所有CNC加工中心的加工機，雕刻機上做表面加工的夾具；吸盤可以直接吸着在磨床上使用。
- 2、真空吸盤也適用所有非磁性加工工件，如：銅板、不銹鋼、鋁板、PCB板、陶瓷、玻璃等。

030/040/050 壓臂外形尺寸 030/040/050 Arm Dimension table

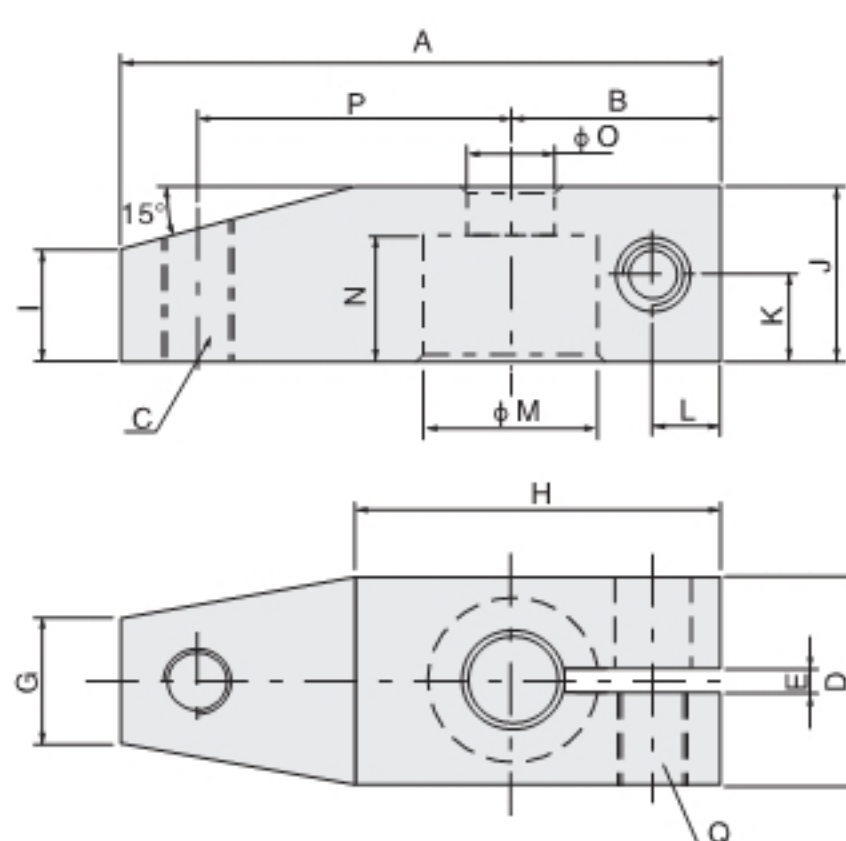
單位 (Unit) : mm

型號 Type		030(SL)/040(ST)/050(SU)			
		單 動 Single acting		復 動 Double acting	
		LS/RS-92	LS/RS-201/202	LD/RD-92	LD/RD-201/202
A		86	106	86	106
B		30	36	30	36
C	英制	----	1/2-13UNC	----	1/2-13UNC
	公制	M10*1.5	M12*1.75	M10*1.5	M12*1.75
D		38	48	38	48
E		3.5	3.5	3.5	3.5
G		18	25	18	25
H		45	65	45	65
I		16	21	16	21
J		25	30	25	30
K		10.5	14	10.5	14
L		9.75	11	9.75	11
M		Φ25	Φ32	Φ25	Φ32
N		----	----	18	20
O		----	----	Φ12.5	Φ16.5
P		45	55	45	55
Q		M10*1.5	M12*1.75	M10*1.5	M12*1.75

單 動 Single acting



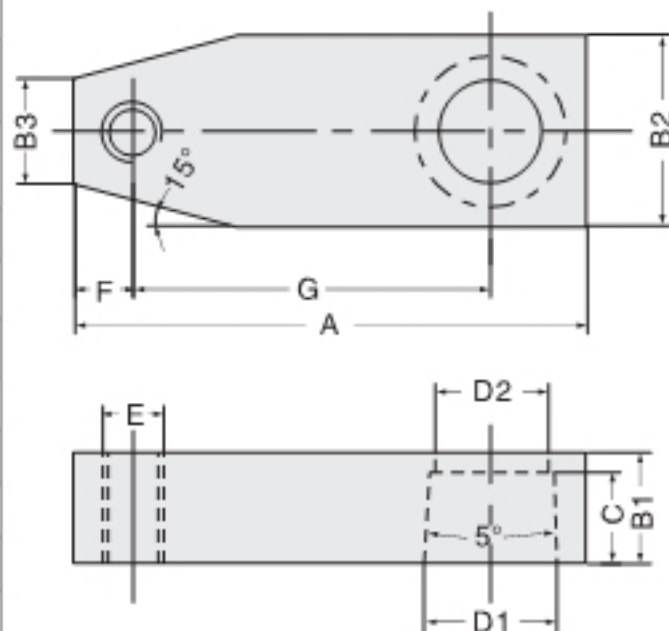
復 動 Double acting



HSL 油壓轉角缸單臂尺寸

HSL Hydraulic swing clamp cylinder single arm dimension 單位 (Unit) : mm

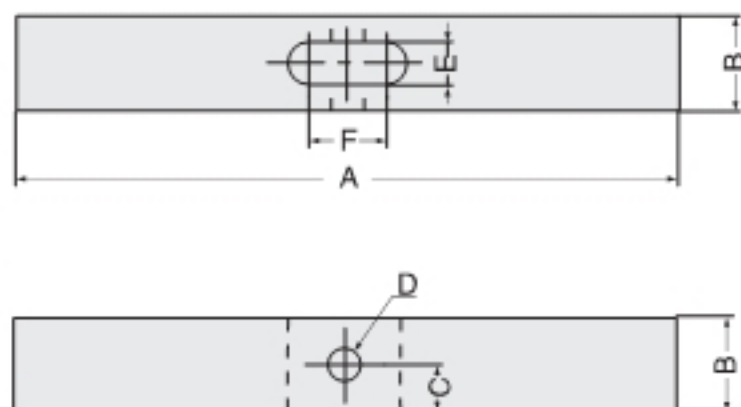
ITEM	MODEL	HSL-25	HSL-32	HSL-40	HSL-50	HSL-63
A	標準型攻牙 Standard With thread	74	81	86	96	114
	標準型無牙 Standard without thread	74	81	86	96	114
	加長型無牙 Extension	100	110	120	130	150
B1		16	18	18	20	23
B2		27	31	31	37	48
B3		15	17	17	19	24
C		13	14	15	16	18
D1		Φ18	Φ20	Φ22.4	Φ28	Φ35.5
D2		Φ15	Φ17	Φ19	Φ21	Φ25
E		M10×1.5	M10×1.5	M10×1.5	M12×1.75	M16×2.0
F		10	10	10	12	15
G		50	55	60	65	75



HSL 油壓轉角缸雙臂尺寸

HSL Hydraulic swing clamp cylinder double arm dimension 單位 (Unit) : mm

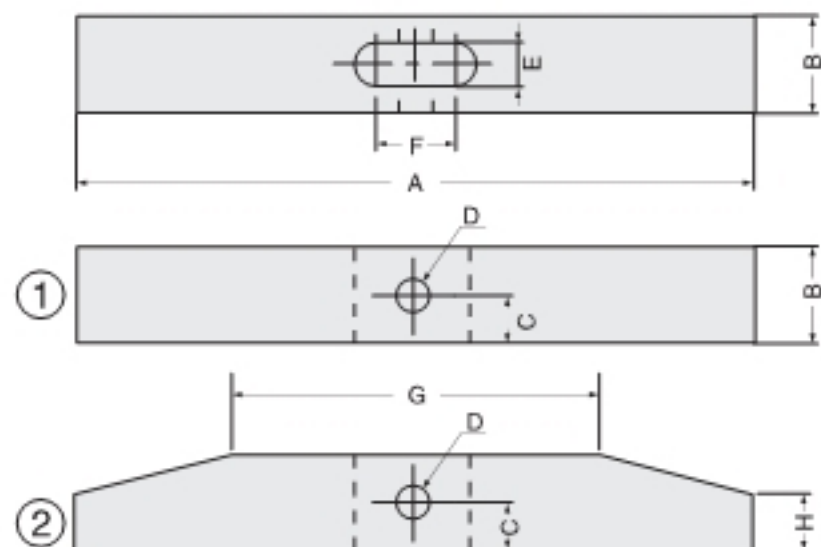
ITEM	MODEL	HSL-25D	HSL-32D	HSL-40D	HSL-50D	HSL-63D
A	標準型 Extension	140	160	160	180	200
	加長型 Stand	200	230	230	260	—
B		□19	□22	□22	□25	□32
C		9.5	11	11	12.5	16
D		Φ8	Φ8	Φ10	Φ12	Φ15
E		9	10	10	12	15
F		16	19	21	26	33



HASC 空壓轉角缸雙臂尺寸

HASC Air swing clamp cylinder double arm dimension 單位 (Unit) : mm

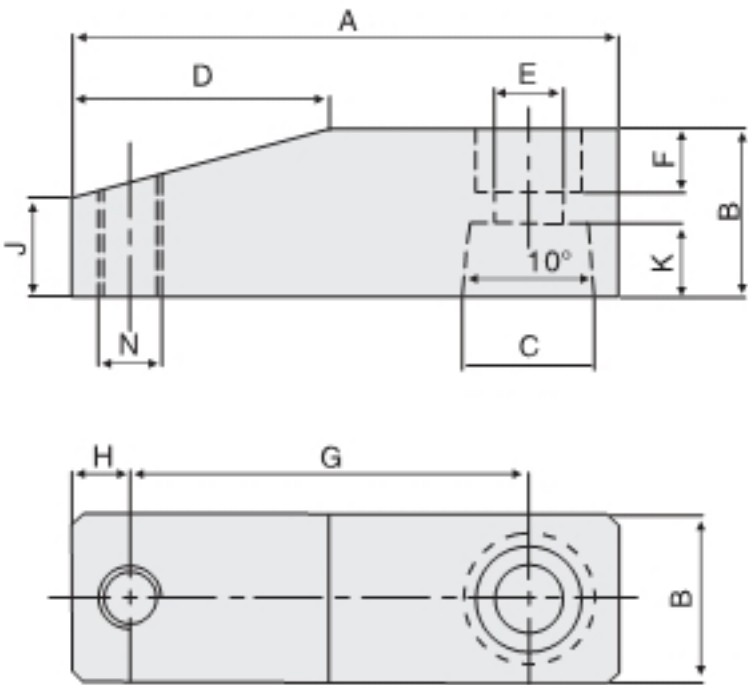
ITEM	MODEL	HASC-25D	HASC-32D	HASC-40D	HASC-50D	HASC-63D
A		100	100	100	120	120
B		□19	□19	□19	□22	□22
C		9.5	9.5	9.5	11	11
D		Φ6	Φ8	Φ8	Φ8	Φ8
E		9	9	9	10	10
F		21	21	21	25	25
G		40	40	40	50	50
H		9.8	9.8	9.8	9.8	9.8



HNS/HNTS油壓缸壓臂尺寸

HNS/HNTS Hydraulic swing clamp cylinder arm dimension 單位 (Unit) : mm

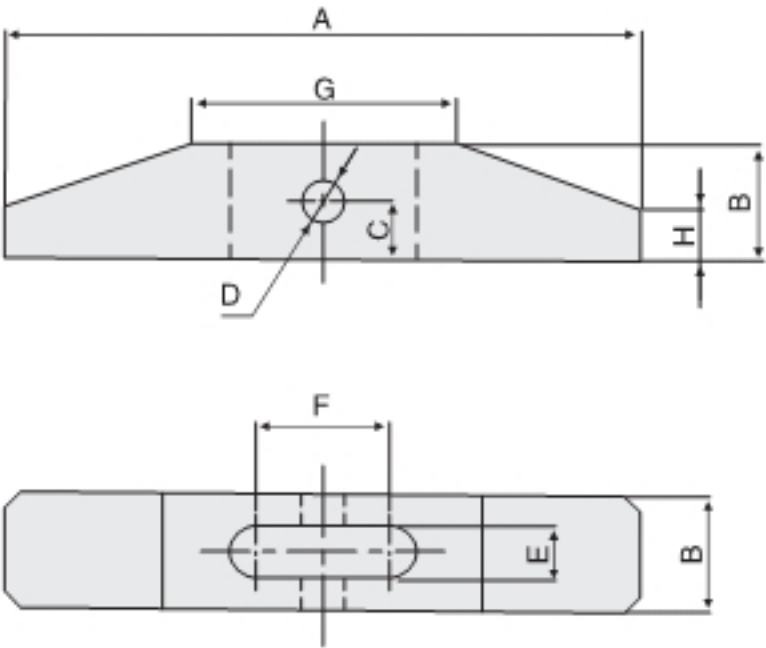
MODEL ITEM	HNS25 HNTS25	HNS32 HNTS32	HNS40 HNTS40	HNS50 HNTS50	HNS63
A	A74	80	80	80	103
B	25×25	25×25	25×25	25×25	32×32
C	Φ18	Φ20	Φ20	Φ20	Φ25
D	37	47.5	47.5	47.5	48.5
E	Φ11	Φ11	Φ11	Φ11	Φ13
F	9	9	9	9	12
G	50	55	55	55	75
H	10	10	10	10	11
J	17	17	17	17	19
K	12	12	12	12	14
N	M10	M10	M10	M10	M12



HNSD/HNTSD油壓缸壓臂尺寸

HNSD/HNTSD Hydraulic swing clamp cylinder arm dimension 單位 (Unit) : mm

MODEL ITEM	HNSD25 HNTSD25	HNSD32 HNTSD32	HNSD40 HNTSD40	HNSD50 HNTSD50	HNSD63
A	100	120	120	120	140
B	19×19	22×22	22×22	22×22	25×25
C	9.5	11	11	11	12.5
D	Φ8	Φ8	Φ8	Φ8	Φ10
E	9	10	10	10	12
F	21	25	25	25	30
G	40	50	50	50	60
H	9.8	9.8	9.8	9.8	9.8



HTB 薄型油壓缸 Hydraulic thin-type cylinder

本表記載為單軸心標準品
Standard product with single shaft

BORE Φ	MODEL	STROKE		5	10	15	20	25	30	40	50
		N	W								
Φ20	SD	N	—	0.64	—	0.75	—	0.85	—	—	—
		W	—	0.69	—	0.79	—	0.90	—	—	—
Φ25	SD	N	—	0.88	—	1.02	—	1.15	1.29	1.44	—
		W	—	0.93	—	1.07	—	1.20	1.35	1.48	—
Φ32	SD	N	1.61	1.74	1.86	1.98	2.09	2.22	2.45	2.69	—
		W	1.71	1.84	1.95	2.08	2.19	2.31	2.56	2.79	—
	LA	N	—	1.72	—	1.97	—	2.24	2.49	2.76	—
		W	—	1.82	—	2.07	—	2.33	2.59	2.86	—
Φ40	SD	N	2.0	2.16	2.31	2.45	2.62	2.76	3.06	3.35	—
		W	2.2	2.37	2.52	2.66	2.81	2.96	3.25	3.55	—
	LA	N	—	2.20	—	2.54	—	2.87	3.22	3.56	—
		W	—	2.41	—	2.73	—	3.08	3.41	3.75	—
Φ50	SD	N	2.78	2.97	3.15	3.33	3.50	3.68	4.05	4.40	—
		W	3.03	3.23	3.39	3.58	3.75	3.94	4.29	4.65	—
	LA	N	—	3.25	—	3.68	—	4.13	4.56	5.00	—
		W	—	3.51	—	3.94	—	4.37	4.83	5.25	—
Φ63	SD	N	4.24	4.49	4.73	4.97	5.21	5.46	5.92	6.40	—
		W	4.69	4.94	5.18	5.41	5.65	5.89	6.37	6.85	—
	LA	N	—	5.22	—	5.85	—	6.46	7.08	7.70	—
		W	—	5.68	—	6.29	—	6.92	7.54	8.15	—
Φ80	SD	N	7.46	7.80	8.15	8.48	8.83	9.16	9.85	10.52	—
		W	8.31	8.65	8.99	9.34	9.67	10.01	10.69	11.37	—

HSL/HNS 油壓轉角缸 Hydraulic swing clamp cylinder

型號 Model No.	配管式 Line type		MF 油路板附側通 Manifold with flow control		油路板型 Manifold type M	法蘭型 Flange type FA	法蘭型油路板 Flange with manifold FAM	全牙型 Threaded type TB
	標準行程 Standard stroke	加長行程 Extension stroke	標準行程 Standard stroke	加長行程 Extension stroke				
HSL-25S	1.31	—	1.32	—	1.82	1.30	1.31	1.31
HSL-25D	1.52	—	1.52	—	2.02	1.51	1.52	1.52
HSL-32S	1.71	1.92	1.71	1.91	2.21	1.71	1.71	1.71
HSL-32D	2.01	2.22	2.01	2.21	2.51	2.01	2.01	2.01
HSL-40S	2.32	2.21	2.01	2.22	3.31	2.30	2.42	2.12
HSL-40D	3.21	2.51	2.32	2.52	3.62	2.62	2.71	2.42
HSL-50S	3.52	3.52	3.21	3.51	4.32	3.41	3.52	3.21
HSL-50D	5.11	3.81	3.51	3.81	4.61	3.70	3.81	3.51
HSL-63S	5.71	5.51	5.02	5.41	—	5.22	—	—
HSL-63D	—	6.11	5.61	6.01	—	5.61	—	—

增壓系列產品

Booster series products

型號 Model No.	重量 Weight
HB-9x6	3.7
HB-3.8x45	8.8
HB-5x35	8.8
HB-8x22	8.8

低油壓支撐缸

Low pressure supporting cylinder

型號 Model No.	重量 Weight
HSP-AH18	1.7

螺栓式單動油壓缸

Threaded-body single acting hydraulic cylinder

型號 Model No.	重量 Weight
HTC-12A	0.08
HTC-12B	0.08
HTC-16A	0.15
HTC-16B	0.15
HTC-20A	0.22
HTC-20B	0.24
HTC-25A	0.37
HTC-25B	0.40

HASC 空壓轉角缸 Air swing clamp cylinder

型號 Model No.	配管式 Line type		深孔型附側通 Manifold with flow control MF	磁座型 Magnetic type MS	法蘭型 Flange type FA	全牙型 Threaded type TB
	標準行程 Standard stroke	加長行程 Extension stroke				
HASC-25S	0.31	—	—	0.42	—	—
HASC-32S	0.72	0.82	0.61	0.73	0.62	0.92
HASC-32D	0.91	1.01	0.82	0.91	0.82	1.11
HASC-40S	0.92	1.02	0.81	0.91	0.81	1.12
HASC-40D	1.11	1.21	1.02	1.11	1.01	1.31
HASC-50S	1.62	1.71	1.41	1.62	1.41	1.71
HASC-50D	1.83	1.92	1.62	1.81	1.61	1.91
HASC-63S	2.12	2.23	1.82	2.32	1.82	—
HASC-63D	2.31	2.42	2.01	2.52	2.03	—

HLC 杠杆式油壓缸 Hydraulic lever-type cylinder

型號 Model No.	配管式 Line type	油路板附側通 Manifold with flow control MF	油路板型 Manifold type M	法蘭型 Flange type FA	法蘭型油路板 Flange with manifold FAM
HLC-25	1.91	2.11	1.91	1.41	1.40
HLC-32	2.11	2.22	2.12	1.71	1.71
HLC-40	3.32	3.61	3.31	2.52	2.30
HLC-50	4.42	4.81	4.51	3.82	3.61
HLC-63	8.32	—	8.42	—	—

注：各系列空油壓夾具缸表中記載重量含標準壓板。

NOTE: Weight for each series of air and hydraulic clamping cylinder as shown include standard clamping plate.

高壓轉角缸 High pressure swing clamp cylinder

型號 Model No.		重量 Weight
HPS-25	全牙型 Thread type	1.16
	底座型 Flange-type	1.36
HPS-40	全牙型 Thread type	2.58
	底座型 Flange-type	3.01
HPS-50	底座型 Flange-type	4.62
HPS-63	底座型 Flange-type	5.82

HALC 杠杆式空壓缸

Air lever-type cylinder

型號 Model No.	重量 Weight
HALC-25	0.28
HALC-32	0.43
HALC-40	0.56
HALC-50	0.96
HALC-63	1.46
HALC-MS25	0.30
HALC-MS32	0.49
HALC-MS40	0.65
HALC-MS50	1.06

油壓順序閥

Hydraulic control valve

型號 Model No.	重量 Weight
HSV	0.59
HPRV-02	1.21
HFCV-01	0.08
HFCV-02	0.15

- 一、單項夾邊壓板長度客戶需自行變更時，其長度勿超過G值的1.2倍，以避免活塞杆嚴重傾斜。若設計上必須超過時，建議使用雙邊系列產品，以延長缸體壽命。雙（單）邊夾持皆需考慮壓板過長時，壓板本身之重量是否過重，使用調速閥適度慢空（油）壓流速。以避免慣性造成轉角機構損壞。另外勿以未調壓（速）之空氣源直接使用于油壓轉角缸上。
- 二、在下壓夾持時，切勿于轉角行程中即夾持工件，應于垂直行程的範圍內夾持。否則將啓重損壞缸體。
- 三、每次上下工件時，請務必用氣槍清潔活塞杆及油封上附着之鐵屑異物，以避免異物在轉角瞬間嵌入油封內造成泄漏。
- 四、氣壓缸于使用時，務必安裝三點組合及調速閥，以有效除漏、潤滑，及避免慣性撞擊導致轉角卡死，延長使用壽命。
- 五、單邊壓板因配管管路問題需變換方向時，請務必以板手固定壓板，再鬆開螺絲N，由下往上將壓板離轉向即可，切勿側向施力或撞擊；鎖緊時亦同，以免轉角機構不當受力，造成損壞。
- 六、理論夾持力以 $F=P \times A$ 計算而得，事實上需考慮摩擦力，單動缸另需考慮彈簧之回復力所造成之損失。一般經綸取理論值的85%（僅供參考）為其實際夾持力。
- 七、轉角方向以下壓時的方向為主，區分為左轉（L）和右轉（R），標示于缸體標籤上。
- 八、使用之動力源切勿超過額定最大使用壓力與最高流量值。

1.If users want to change the length of the single arm of a clamping cylinder, it should be noted that the length must be less than 1.2times G value in order to avoid the serious slanting of the piston rod. If the length in design needs to be larger than the aforesaid limit value, it is better to use products having double arms in order to extend the use life of the cylinder.

2.When using double/single arms of which the lengths are very long, it is necessary to consider whether the weight of the clamping arm is too heavy or not, and to use a throttle to appropriately slow down the flow rate of the air/oil in order to avoid the damage of the swing mechanism due to the inertia of the clamping arm. Further, it should not directly apply the unadjusted air pressure to the hydraulic swing clamp cylinder.

3.Workpiece should not be clamped within a swing stroke during the downward pressing of the clamping arm, and should be clamped within the vertical stroke; otherwise, the cylinder will be seriously damaged.

4.During the loading and unloading of a workpiece, it is necessary to use an air gun to clean the piston and the seal for removing the iron slag or foreigner objects attached thereon in order to prevent the foreigner objects from entering the seal to cause oil leakage.

5.When using the pneumatic cylinder, it is necessary to use a device having F.R.L. function and a throttle in order to effectively remove the moisture, lubricate the cylinder and avoid the damage of the swing mechanism due to the inertia impact of the clamping arm in order to extend the use life of the cylinder.

6.If the direction of the single arm needs to be changed due to the problem of piping, it should use a wrench to fix the clamping arm first, and then unscrew the screw and knock the clamping arm upward to change its direction. It should not apply the lateral force to the clamping arm or laterally impact the clamping arm, which should be also noted when locking the clamping arm in order to avoid the damage of the swing mechanism due to improper force applied thereon.

7.The theoretical clamping force is derived from the formula: $F=p \times A$. In fact, the friction must be taken into consideration; further, it should take the loss due to the restoring force of the spring into consideration when using single-acting cylinders. In general, the actual clamping force is 85% (just for reference) of the theoretical clamping force.

8.The direction of the swing is directed to the direction of the downward pressing of the clamping arm, including clockwise direction (Right) and counterclockwise direction (Left), which will be marked on the label on the cylinder.

9.The power source should not exceed the rated maximum pressure and the highest flow value,

• F:Filters R:Regulators L:Lubricators



正確鎖壓板



正確拆壓板



不正確鎖壓板



不正確拆壓板



嚴禁直接于活塞杆處加工

快速肘節夾鉗系列



垂直式夾鉗



水平式夾鉗



气动夾鉗



門栓式夾鉗



焊接組立式夾鉗



推拉式夾鉗



大力鉗

氣&油壓缸系列



空壓轉角缸



空壓支撐缸



油壓高動力杠杆缸



高壓轉角缸



HFZ氣動手指



CXS雙軸氣缸系列



CQ2薄型氣缸系列



同步油缸



上法蘭支撐缸



油壓支撐缸

液壓站(液壓動力單元)



變頻調節器液壓站



數控車床液壓站



緊湊節能型液壓站