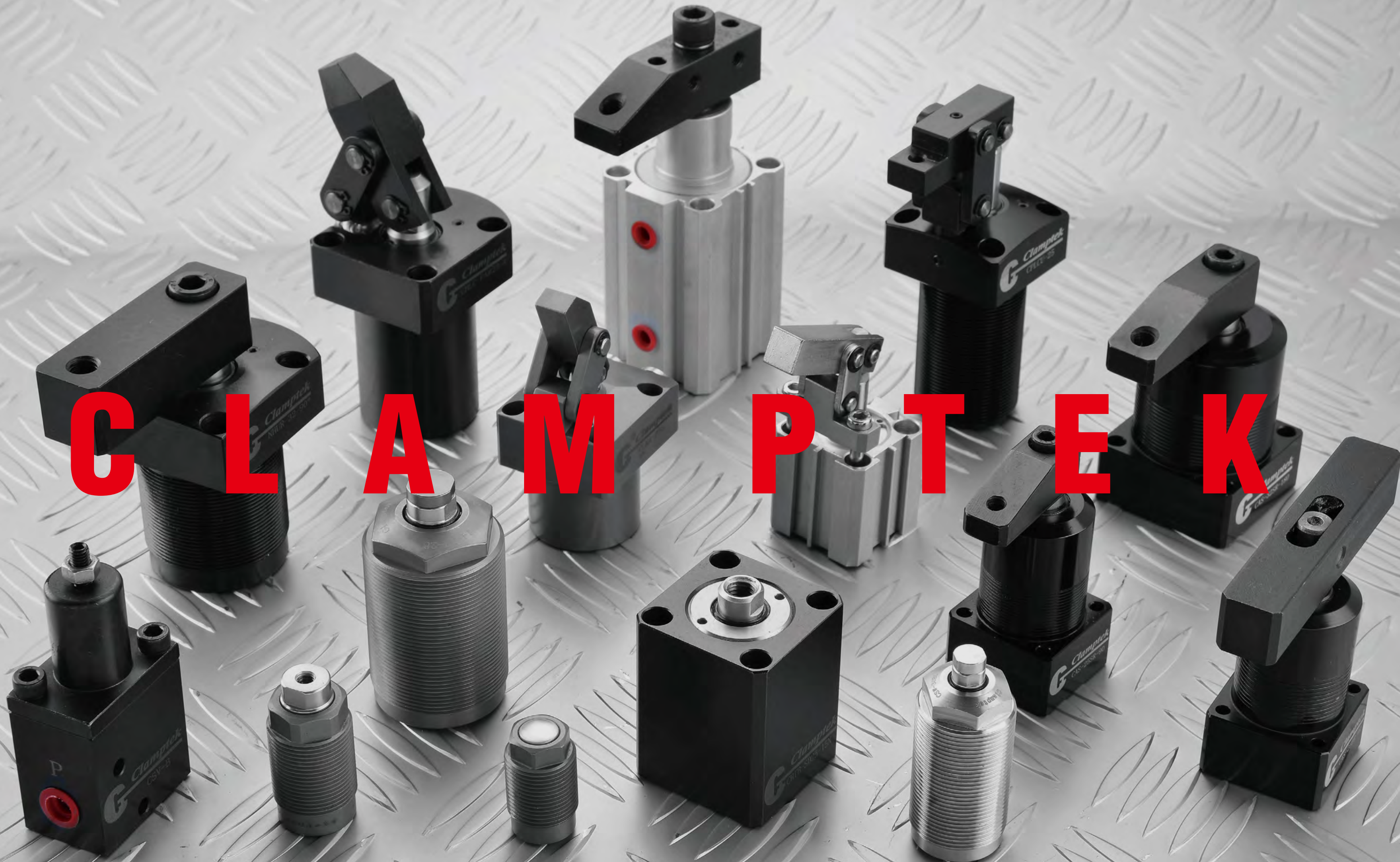


PNEUMATIC & HYDRAULIC CLAMPS

氣油壓缸系列 ▾



CLAMPTEK



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product series

亮點產品系列



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氣壓轉角缸系列

Pneumatic leverage clamps
氣壓槓桿缸系列

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Hydraulic swing clamps
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CLAMPING THE POWER TO CONTROL



► 公司介紹

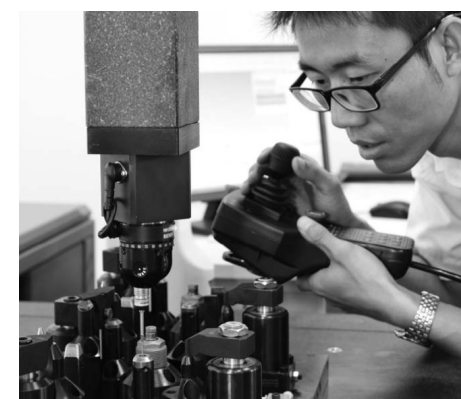
嘉剛的技術研發源於臺灣，嘉剛總部位於臺灣，生產基地設立於東莞。憑藉著強大的產品開發、製造、銷售能力，特別是在夾具夾持元件領域中獲得客戶對嘉剛品牌的認同與信賴，嘉剛人堅持不懈的辛勤努力，為中國的工業裝備業作出巨大的貢獻。嘉剛於 1974 年由邱魏聰哲先生創立於臺灣。1999 年在東莞厚街鎮創建生產工廠。2013 年為擴大生產規模，工廠搬遷至東莞東城桑園工業區的新廠區。嘉剛公司不僅生產肘節夾鉗，還重點投入開發高精密氣油壓缸、液壓站，並將產品服務線延伸到代理盈錫精密鎖定螺母、東培精密軸承、弘旺聯軸器、惟隆主軸及德國 HALDER 工裝夾具配件。

► INTRODUCTION

The technical R&D of Clamptek originated in Taiwan where its headquarter is located. Clamptek has its production base located in Dongguan. Due to its strong power in product development, manufacturing and sales capacity, and gained the brand recognition and trust from clients. With perseverance and hard work, Clamptek has made significant contribution in the industrial equipment industry.

President Mike Tsung-Che Chiu Wei established Taiwan CLAMPTEK ENTERPRISE CO., LTD. in 1974 and set up the factory in Houjie Town of Dongguan in 1999, in order to expand the production scale, the factories were transferred to the New Factory Area of Sangyuan Industrial Park of Dongcheng District of Dongguan City in 2013.

Clamptek uses the clamps as the tools for clamping and fixing. It also efficiently organized the system of manual toggle clamps, pneumatic/hydraulic clamps, hydraulic power units and precision lock nut of Yinsh, precision bearing of TPI, WLT Spindles and Halder's spring plungers all together.



THE COMPANY'S STRENGTH

公司實力 ▶

—



在品質方面，公司已建立起了完整全面的品質保證、管理體系。

經過多年努力嘉剛逐步建立起一套系統的質量管理模式，不斷的尋求合理有效的生產工藝、製造流程，以合理的成本製造出好評的產品；嘉剛公司因了解客戶對於品質的要求，除了在生產時即要求生產的精度與質量，另對於生產中及成品出貨前也加強了半成品及成品的檢驗。

研發是未來持續發展的基礎，嘉剛一直致力於研發，客戶的需求就是嘉剛人努力的方向，嘉剛人不滿足於引進國外成熟產品，更追求自行研發擁有自主知識產權，多年來嘉剛研發團隊不斷突破技術瓶頸，在獲得市場認可之餘同時亦獲得多項專利。未來嘉剛將加大研發的投入，期望可不斷提供產業界及客戶充分多樣的選擇。

In the aspect of quality, the company has set up a perfected quality management system. Clamptek has gradually set up a complete quality management system which works to perfect the production techniques and procedures and to manufacture eminent products within reasonable costs. Knowing the high quality requirement of clients, Clamptek not only demands the precision and quality of the production process, but reinforced the inspection of half and finished products during production and before shipment.

R&D is the base for further development. Being the pioneering brand in the clamp industry in mainland china, Clamptek devotes more energy to research and development, and the clients' demands have actually led the way for Clamptek. Clamptek not only imported the developed products from abroad, but strives to develop new products with intellectual property right. After years of studies and development, Clamptek has won market recognition and many patents. In the future, Clamptek will devote more time and energy to R&D, hoping to provide multiple product options for the market, to bring growing profit for the company, to contribute to the society and to benefit and share with employees.



CLAMPTEK QUALITY POLICY

嘉剛的品質政策 ▾

Full - staff operation
management

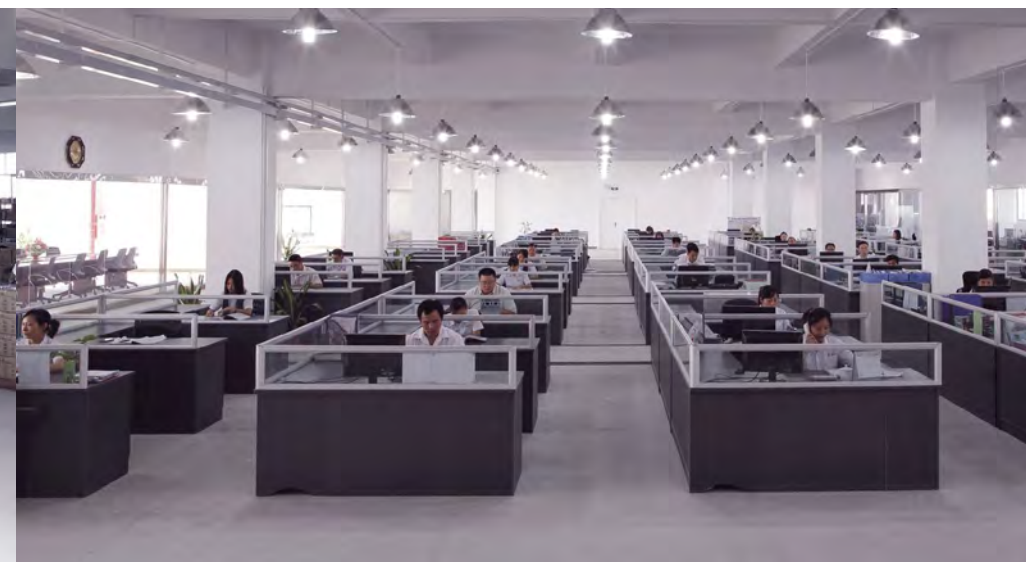
▶ 全員經營

Entirely quality
management

▶ 全面品管



▶ **CLAMPTEK PRESIDENT**
Mr. Mike TsungChe Chiu Wei
嘉剛總裁－邱魏聰哲





FOUR MAJOR BUSINESS FIELDS OF CLAMPTEK

嘉剛的四大業務領域 ▶

▶ 1

肘節夾鉗系列

TOGGLE CLAMPS

▶ 2

氣油壓夾具夾持元件系列

液壓夾持元件系列
氣動夾持元件系列

PNEUMATIC & HYDRAULIC CLAMP SERIES

Hydraulic clamp series
Pneumatic clamp series

▶ 3

精密非標設備
液壓動力單元（液壓站）

PRECISION NON-STANDARD EQUIPMENTS

Hydraulic powered unit

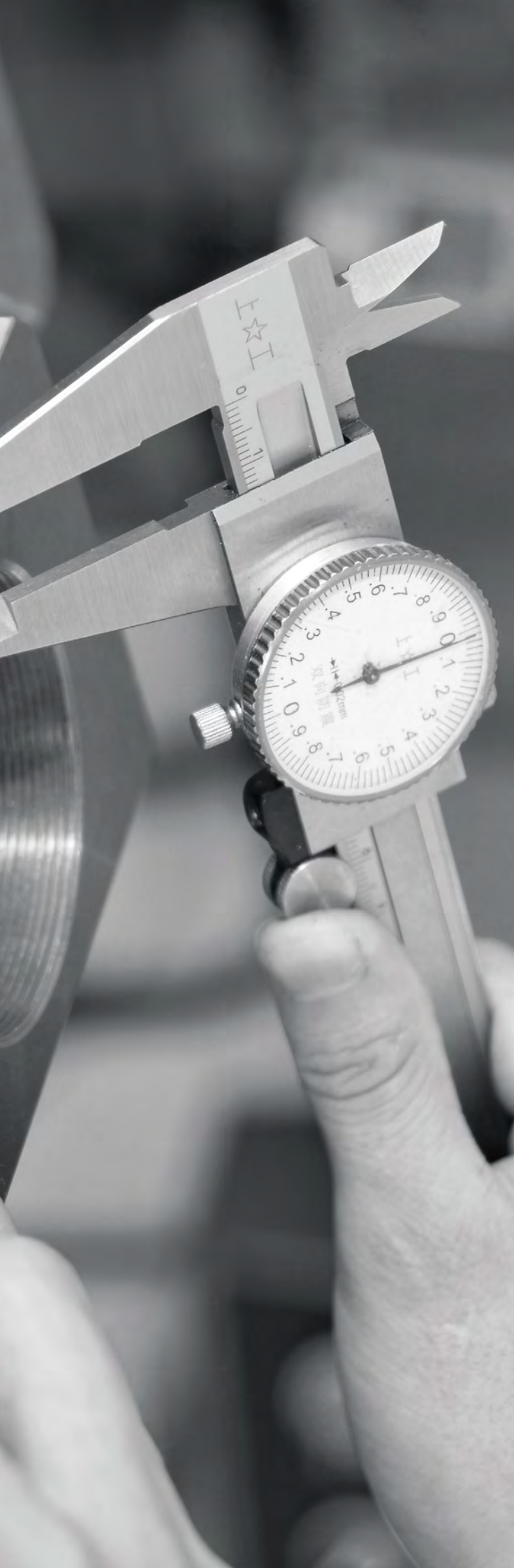
▶ 4

高科技精密產品一級代理

臺灣盈錫 (YINSH) 精密鎖定螺母
臺灣東培 (TPI) 精密軸承
弘旺聯軸器
德國 HALDER 標準件
惟隆主軸

AGENT OF HI-TECH PRECISION PRODUCTS

Precision locknut of YINSH (Taiwan)
Precision bearing of TPI (Taiwan)
HW Coupling
Standard products of HALDER(Germany)
WLT Spindles



Push-Pull
Clamps Force Calculation Formula

推拉缸理論出力計算

推力 F = P × A 拉力 F = P × (A - a)

F: 推拉缸夾持力 (kgf)

P: 使用壓力 (kgf/cm²)

A: 活塞受力面積 (cm²)

a: 活塞桿徑面積 (cm²)

Push F = P × A Pull F = P × (A-a)

F: Push - pull force(kgf)

P: Operating pressure(kgf/cm²)

A: Piston force area (cm²)

a: Piston rod area (cm²)

Leverage Clamp
Force Calculation Formula

槓桿缸理論夾持力計算

F = P × A × L1 ÷ L2

F: 杠桿缸夾持力 (kgf)

P: 使用壓力 (kgf/cm²)

A: 活塞受力面積 (cm²)

L1: 活塞桿中心點至杠桿支撐點距離 (mm)

L2: 杠桿支撐點至壓臂壓點距離 (mm)

F = P × A × L1 ÷ L2

F: Leverage clamp force(kgf)

P: Operating pressure(kgf/cm²)

A1:Piston force area(cm²)

L1:The distance between piston rod centre point and leverage point (mm)

L2: The distance between Leverage point and clamp arm clamp point (mm)

Swing Clamp
Force Calculation Formula

轉角缸理論夾持力計算

F = P × A2 = P × (A1 - a)

F: 轉角缸夾持力 (kgf)

P: 使用壓力 (kgf/cm²)

A1: 活塞受力面積 (cm²)

a: 活塞桿徑面積 (cm²)

A2: 活塞受拉入端力面積 (cm²)

F = P × A2 = P × (A1- a)

F: Swing clamp force(kgf)

P: Operating pressure((kgf/cm²)

A1:Piston force area (cm²)

a: Piston rod area (cm²)

A2:Piston pull force area (cm²)

作動缸實際出力可以用上述公式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%）

The practical clamping force of work clamps is 60% - 70% of theoretical clamping force.

THEORETICAL
CLAMPING
FORCE
CALCULATION
FORMULA

夾持力計算公式

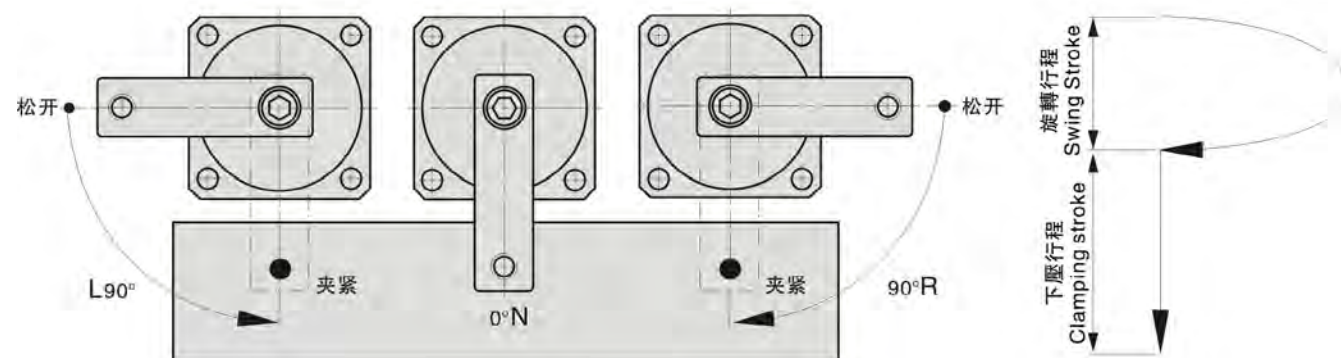
	Pa	bar	kgf/cm ²	atm	at	Torr	mmH ₂ O	mmHg	Psi
1 Pa	1	0.00001	0.00001	0.00001	0.00001	0.0075	0.10197	0.0075	0.00014
1 bar	100000	1	1.01972	0.9869	1.01972	750.062	10.1972	750.062	14.504
1 Kgf/cm ²	98066.5	0.98067	1	0.9678	1	735.6	10	735.6	14.22
1 atm	101325	1.01325	1.033	1	1.033	760	10.332	760	14.7
1 at	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
1 mmH 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

轉角缸轉角方向是指下壓時轉角方向。

Note:The swing direction is defining under clamping condition.

SINGLE SIDE SWING CLAMP

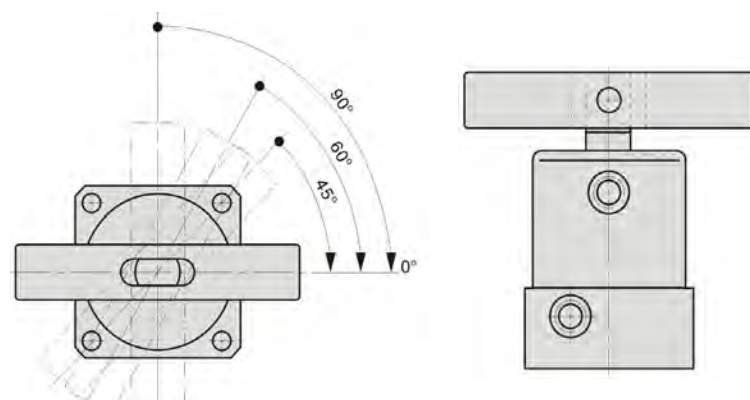
單邊壓板旋轉示意圖 ▶



▲ 注：轉角方向是指下壓時轉角方向

DOUBLE SIDE SWING CLAMP

雙邊壓板旋轉示意圖 ▶



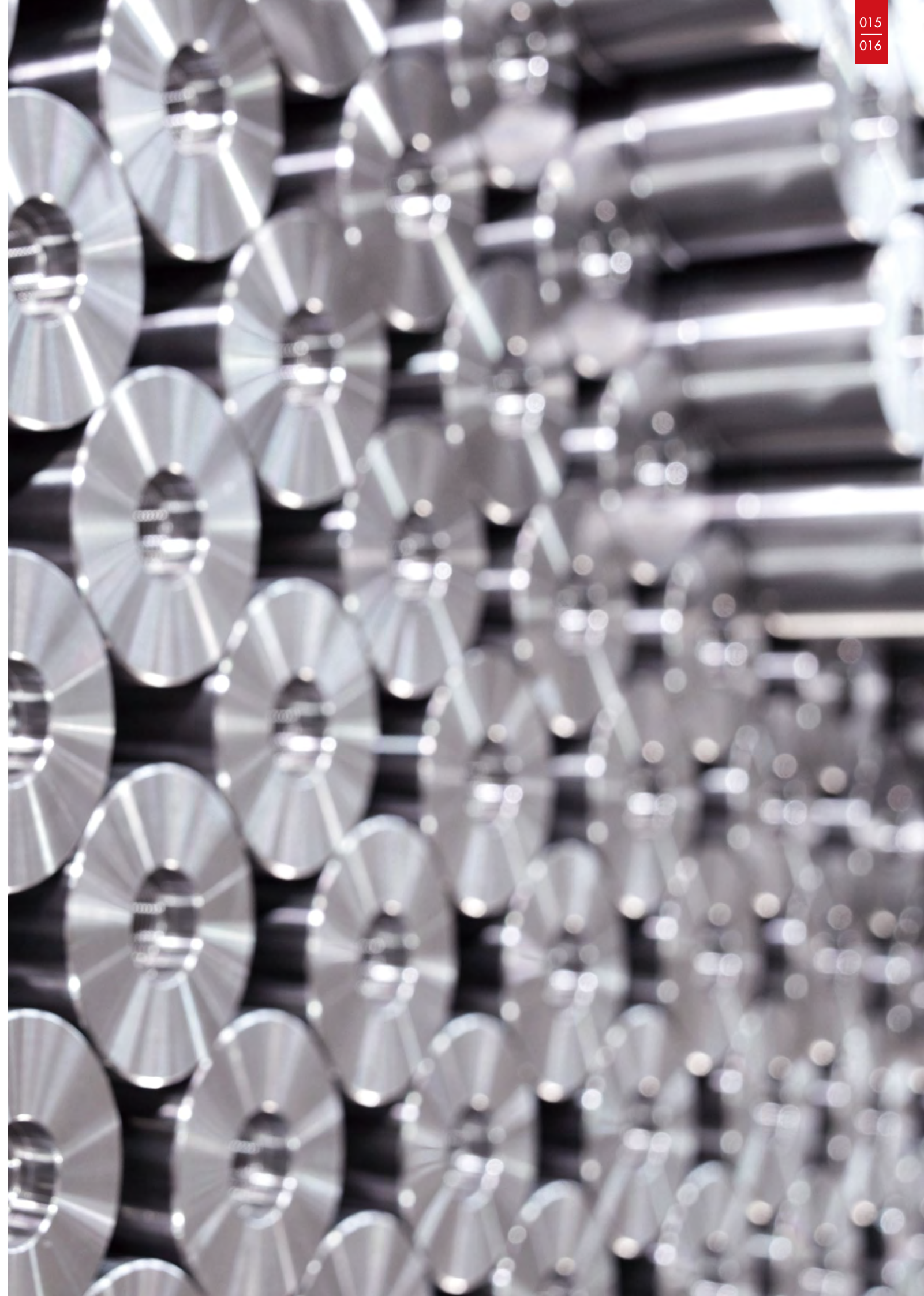
CLAMPING ARM MOUNTING METHODS

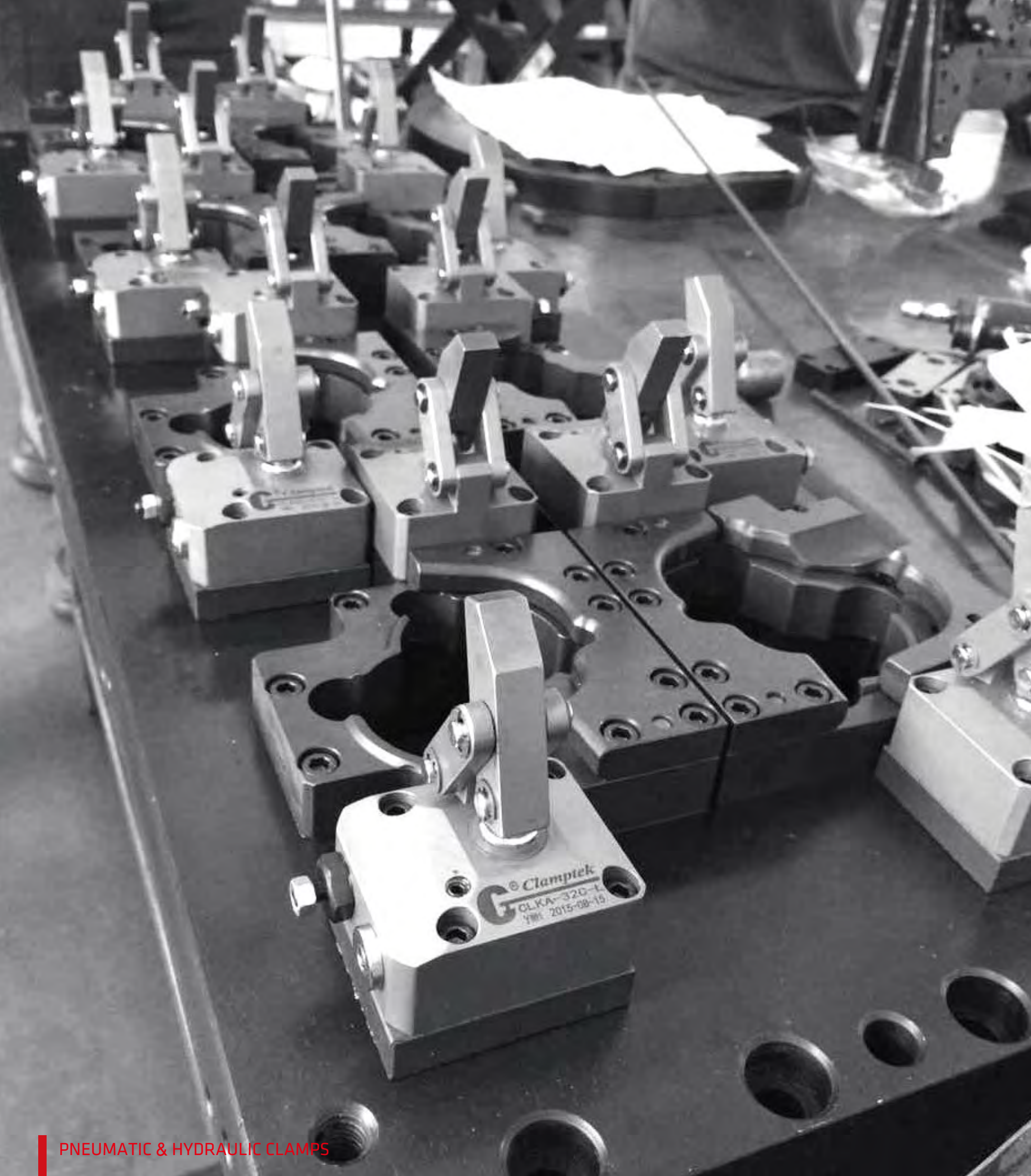
壓板鎖緊操作方式 ▶



CLAMPING ARM REMOVING METHODS

壓板拆卸操作方式 ▶





HIGHLIGHT PRODUCT SERIES

亮點產品系列 ▼



CFP

油壓鋼球鎖緊下拉缸

CFP HYDRAULIC
PULL STUD CLAMP

產品特性

使用工件的通孔或螺紋孔，下拉牽引螺栓的油缸。

除着座面外，一次裝卡就可實現 5 面加工（工序集約化）。

低壓（1 ~ 7MPa）單動式

FEATURES

Pulling clamp using pull-bolt for workpiece through hole or screw hole.

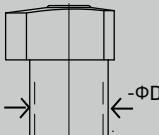
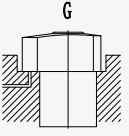
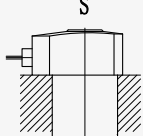
Five sided surface machining is possible for workpiece.

(This drastically reduces the number of operations needed.)

Low pressure (1~7mpa) Single acting

訂購標示法 ORDERING INDICATION

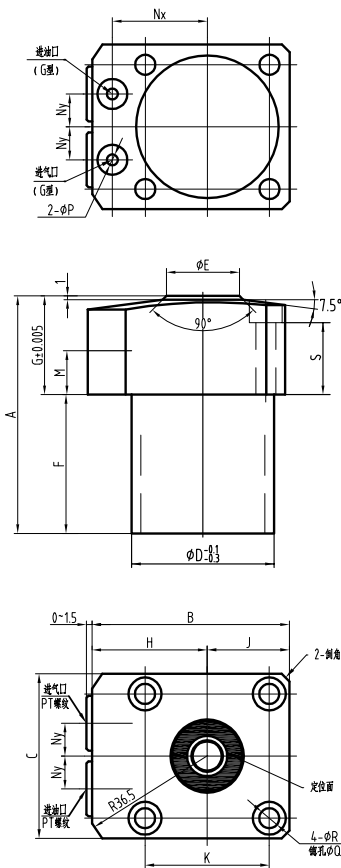
CFP-39-G

CFP	系列 Series	CFP
39	油缸外徑 Body Size	-39: ΦD=39mm -55: ΦD=55mm -65: ΦD=65mm -75: ΦD=75mm -90: ΦD=90mm
		
G	配管方式 Piping Method	 G: 板式連接型(配有 R 螺紋堵頭)
		 S: 外配管型 (R c 螺紋)



外形尺寸

External Dimensions



注意事項

※1. R 螺紋堵頭的突出量存在 0 ~ 1.5mm 的差異。

※2. 本產品未附帶安裝螺栓。

請用戶參照 S 尺寸並根據安裝高度自行配備

Notes

※1. The protrusion of R thread plug is between 0 to 1.5 mm

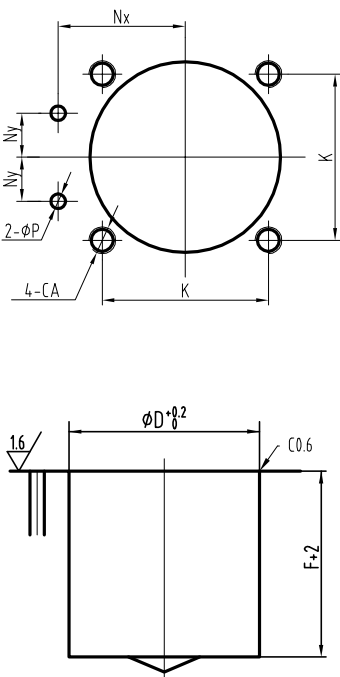
※2. Mounting bolts are not provided.

Prepare mounting bolts according to the mounting height.Please

refer to S dimensions.

安裝部位加工尺寸

Machining Dimensions of
Mounting Area



注意事項

※3. 請參考 S 尺寸，並根據安裝高度決定安裝螺栓用 CA 螺紋深度。

※4. 請參考 F 尺寸，並根據安裝高度決定本體安裝孔 φ D 的深度。

※5. 本加工表示 G：板式連接時的情況。

※6. 使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油。

Notes

※3. The CA thread depth for mounting bolts is to be decided

by the customer according to the mounting height using the S

dimensions as a reference.

※4. The depth of diameter D for the mounting hole on the unit

should be decided by customer according to the mounting

height using the F dimensions as a reference

※5. This machining drawing shows G: Gasket option.

※6. Usable fluid: General Hydraulic Oil Equivalent to ISO-

VG-32

Unit:mm

型號	油缸夾緊側面積	夾緊力 (計算公式)※1	全行程	夾緊行程	油缸夾緊側容量	釋放彈簧力	導套復位彈簧力	容許偏心量	最高使用壓力	最低動作壓力	耐壓	推薦氣壓 (噴氣清潔用)	使用溫度	重量
MODEL	CYLINDER AREA FOR LOCKING CM²	CLAMPING FORCE (CALCULATION FORMULA)※1 KN	FULL STROKE (MM)	LOCK STROKE MM	CYLINDER CA PACITY (LOCK SIDE) CM	RELEASE SPRING FORCE N	SLEEVE RETURN SPRING FORCE (N)	ALLOWABLE OFFSET MM	MAX. OPERATING PRESSURE MPa	MIN. OPERATING PRESSURE MPa	WITHSTANDING PRESSURE MPa	WITHSTANDING PRESSURE MPa	OPERATING TEMPERATURE ℃	MASS KG
CFP-39	6.0	F=0.60xP-0.20	6.7	3.8	4.0	116~215	6.1	±0.5	7.0	1.0	10.5	0.4~0.5	0~70	0.7
CFP-55	9.9	F=0.99xP-0.29	7.5	5	7.4	198~318	9.3	±0.7	7.0	1.0	10.5	0.4~0.5	0~70	1.5
CFP-65	15.7	F=1.57xP-0.42	8.5	5.3	13.4	306~475	11.3	±1	7.0	1.0	10.5	0.4~0.5	0~70	2.3
CFP-75	23.3	F=2.33xP-0.69	10	7	23.3	459~763	18.0	±1	7.0	1.0	10.5	0.4~0.5	0~70	3.5
CFP-90	36.4	F=3.64xP-1.10	12	8.7	43.7	733~1214	21.6	±1.2	7.0	1.0	10.5	0.4~0.5	0~70	6.0

Unit:mm

型號	全行程	夾緊行程	A	B	C	D	E	F	G	H	J	K	L	M	NX	NY	P	Q	R	S	倒角	CA	供油口 Hydraulic Port	噴氣清潔用供氣口 Air Blow Port	冷卻液排出口 Coolant Discharge Port	O 形密封圈 O-ring	R 螺紋堵頭 R-Thread Plug
MODEL	TOTAL STROKE	CLAMPING STROKE	CHAMFER																			NONIMALXPITCH	Rc 螺紋 (Rc-Thread)	Rc 螺紋 (Rc-Thread)	Rc 螺紋 (Rc-Thread)	G 型 G option	
CFP-39	6.7	3.8	65	54	45	39	20	38	27	31.5	22.5	34	73	12	26	9	3	9	5.5	18.5	3	M5X0.8	Rc1/8	Rc1/8	Rc1/8	1BP5	R1/8
CFP-55	7.5	5	74	69	60	55	25	47	27	39	30	47	88	12	33.5	12	3	11	6.8	16.5	3	M6X1	Rc1/8	Rc1/8	Rc1/8	1BP5	R1/8
CFP-65	8.5	5.3	85	81	70	65	30	57	28	46	35	55	106	12	39.5	15	5	11	6.8	17	4	M6X1	Rc1/8	Rc1/8	Rc1/8	1BP7	R1/8
CFP-75	10	7	100	92	80	75	38	68	32	52	40	63	116	16	45	16	5	14	9	19	5	M8X1.25	Rc1/4	Rc1/4	Rc1/4	1BP7	R1/4
CFP-90	12	8.7	120	107	95	90	47.5	83	37	59.5	47.5	75	136	16	52.5	18.5	5	17.5	11	21	6	M10X1.25	Rc1/4	Rc1/4	Rc1/4	1BP7	R1/4

注意事項 ※1. 在夾緊力（計算公式）中，符號，F：夾緊力（kN）、P：供給液壓（MPa）。

Note ※1. Clamping force (Calculation formula) symbols show F：Clamping Force (kN), P：Supply Hydraulic Pressure (MPa).

產品特性

重複定位精度 CVL/CVM: $\pm 3\text{ }\mu\text{m}$
定位銷與工件孔之間間隙為零

FEATURES

Locating Repeatability: CVL/CVM: $\pm 3\text{ }\mu\text{m}$
Zero clearance between reference hole, locating pin with high accuracy

選配項 Options

低壓 Low Pressure MAX 7MPa	 CVL	 CVM
重複定位精度 Locating Repeatability	$\pm 3\text{ }\mu\text{m}$	$\pm 3\text{ }\mu\text{m}$
控制 Control Method	單動式 Single Action (彈簧夾緊 / 油壓釋放) (Spring Lock/Hydraulic Release)	複動式 Double Action (油壓夾緊 / 油壓釋放) (Hydraulic Lock/Hydraulic Release)
使用壓力範圍 Operating Pressure Range	2.5 ~ 7 Mpa	2.5 ~ 7 Mpa

定位力和工件重量
About Locating Force and Workpiece Weight

工件（托盤）水平姿勢（平置）裝卡時的工件（托盤）重量設定為 Workpiece (Pallet) Weight Calculation – Horizontal Attitude	
工件重量 Workpiece Weight $\leq$	$\frac{\text{1 臺定位缸的定位力Locating Force per One Piece of ExpansionLocating Pin}}{\text{工件着座面的摩擦係數Friction Coefficient of Workpiece Seat Face}}$

工件（托盤）垂直姿勢（掛壁式）裝卡時的工件（托盤）重量設定為 Workpiece (Pallet) Weight Calculation – Vertical Attitude	
$\text{工件重量} \leq \text{1 臺定位缸的定位力}$ Workpiece Weight $\leq$ Locating Force per One Piece of Expansion Locating Pin	



型號表示MODEL NO. INDICATION

CVL 12 - D - S

CVL	系列 Series			
12	工件孔徑（標準孔徑） Workpiece Hole Diameter (Standard)	08 : $\phi 8\text{H}8\text{ mm}$ 13 : $\phi 13\text{H}8\text{ mm}$ 20 : $\phi 20\text{H}8\text{ mm}$	09 : $\phi 9\text{H}8\text{ mm}$ 15 : $\phi 15\text{H}8\text{ mm}$	10 : $\phi 10\text{H}8\text{ mm}$ 16 : $\phi 16\text{H}8\text{ mm}$ 12 : $\phi 12\text{H}8\text{ mm}$ 18 : $\phi 18\text{H}8\text{ mm}$
D	功能分類 Functions	D : 錐銷（基準定位用） C : 菱形銷（1個方向定位用） D : Datum (for Reference Locating) C : Cut (for One Direction Locating)		
S	對應工件孔徑 Applicable Workpiece Hole Diameter	S : 標準徑 Standard Diameter A □□□ : 準標準徑 Substandard Diameter	型號 Model No.	A □□□ 準標準徑 Substandard Diameter
※ 記載範例 ※Example 例 1: 「CVL12-D-A125」時 工件孔徑: $\phi 12.5\text{H}8$ 對應 CVL12-D 規格 Example 1: CVL12-D-A125 CVL12-D with Workpiece Hole Diameter of $\phi 12.5\text{H}8^{+0.027}_0$		CVL08	8H8	8.1H8 ~ 8.8H8
例 2: 「CVL09-C-A093」時 工件孔徑: $\phi 9.3\text{H}8$ 對應 CVL09-C 規格 Example 2: CVL09-C-A093 CVL09-C with Workpiece Hole Diameter of $\phi 9.3\text{H}8^{+0.022}_0$		CVL09	9H8	8.9H8 ~ 9.9H8
例 3: 「CVL18-D-S」時 工件孔徑: $\phi 18\text{H}8$ 對應 CVL18-D 規格 Example 3: CVL18-D-S CVL18-D with Workpiece Hole Diameter of $\phi 18\text{H}8^{+0.027}_0$		CVL10	10H8	10.1H8 ~ 11.3H8
		CVL12	12H8	11.4H8 ~ 12.7H8
		CVL13	13H8	12.8H8 ~ 14.2H8
		CVL15	15H8	14.3H8 ~ 15.7H8
		CVL16	16H8	15.8H8 ~ 16.9H8
		CVL18	18H8	17.0H8 ~ 17.9H8
		CVL18	18H8	18.1H8 ~ 18.4H8
		CVL20	20H8	18.5H8 ~ 19.9H8



注意事項 Note

1. 準標準徑可以 0.1mm 為單位進行指定。2. 工件孔徑為 $\phi 9.5\text{H}8$ 的 CVL-D 時，型號就是「CVL09-D-A095」。3. 對於上記以外的工件孔徑，請另行查詢。（工件孔加工精度應在 H8 以上。）

1. Custom diameters are offered in increments of 0.1mm. 2. When workpiece hole diameter is $\phi 9.5\text{H}8$, Model No. is “CVL09-D-A095”. 3. Please contact us if the above work hole diameter is larger or smaller than standard. (The accuracy of work piece holes diameter machining should be greater than H8.)

Unit:mm													
型號	工件孔徑 Workpiece Hole Diameter		重複定位精度	容許偏心量 (C: 菱形銷)	定位力 ※2	容許剪切載荷 ※3	釋放側油缸容量	最高使用壓力	最低動作壓力	使用溫度	使用流體	重量	
MODEL	標準徑 Standard Diameter mm	準標準徑 ^{※1} Substandard Diameter ^{※1} mm	LOCATING REPEATABILITY MM	OFFSET TOLERANCE (C/CUT) MM	LOCATING FORCE ^{※2} N	ALLOWABLE THRUST LOAD ^{※3} KN	CYLINDER CAPACITY (RELEASE SIDE) CM ³	MAX. OPERATING PRESSURE MPa	MIN. OPERATING PRESSURE MPa	OPERATING TEMPERATURE °C	USABLE FLUID	MASS G	
CVL08	8H8	8.1 - 8.8	0.003	± 0.05	260	1.5	0.06	7.0	2.5	0 ~ 70	相當于 ISO	80	
CVL09	9H8	8.9 - 9.9	0.003	± 0.05	260	1.5	0.06	7.0	2.5	0 ~ 70	粘度等級的	80	
CVL10	10H8	10.1 - 11.3	0.003	± 0.10	260	2.0	0.06	7.0	2.5	0 ~ 70	ISO-VG-32	80	
CVL12	12H8	11.4 - 12.7	0.003	± 0.10	260	2.5	0.06	7.0	2.5	0 ~ 70	一般液壓	85	
CVL13	13H8	12.8 - 14.2	0.003	± 0.10	260	2.5	0.06	7.0	2.5	0 ~ 70	油 General Hydraulic Oil	85	
CVL15	15H8	14.3 - 15.7	0.003	± 0.10	260	2.5	0.06	7.0	2.5	0 ~ 70	Equivalent	90	
CVL16	16H8	15.8 - 16.9	0.003	± 0.15	290	3.0	0.15	7.0	2.5	0 ~ 70	to ISO-	105	
CVL18	18H8	17.0 - 18.4	0.003	± 0.15	290	3.0	0.15	7.0	2.5	0 ~ 70	VG-32	110	
CVL20	20H8	18.5 - 19.9	0.003	± 0.15	290	3.5	0.15	7.0	2.5	0 ~ 70		115	

注意事項 ※ 1. 準標準徑可以 0.1mm 為單位進行指定。工件孔加工精度請保證在 H8 以上。

※ 2. 定位力是指對於定位缸的軸心在垂直方向上產生的挪動工件的力。表中數值為塗布冷卻液的狀態下的推力。【參考值】（定位力與工件重量的關係請參照第下表。）

※ 3. 容許剪切載荷是指本產品所能承受的最大接剪切載荷。

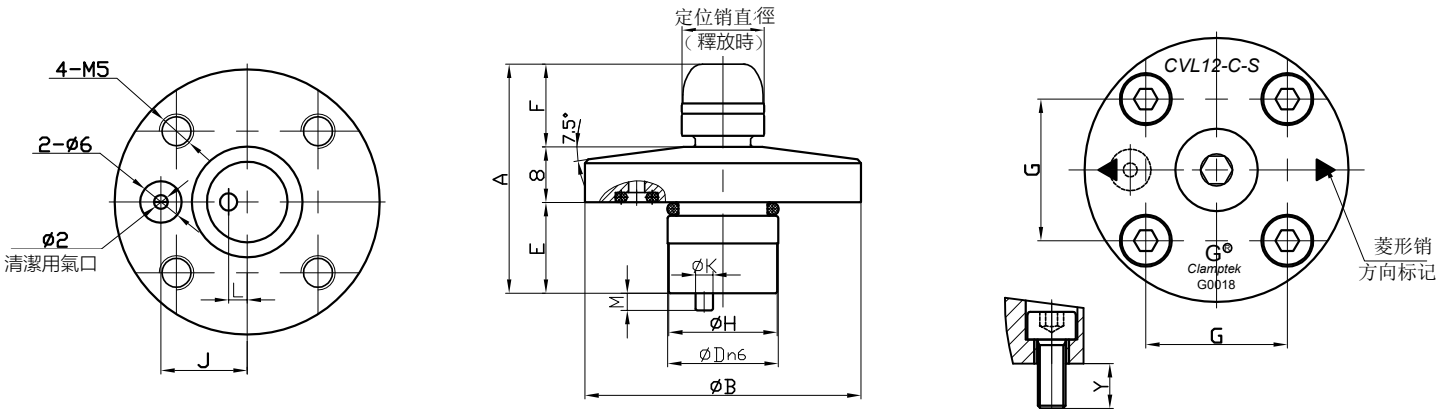
※ 1. Custom diameters are available in increments of 0.1mm. The accuracy of workpiece hole diameter machining should be greater than H8.

※ 2. Locating force is the force with which the expansion locating pin pushes out (expands) against the workpiece. The value assumes that the coolant has been applied. [Reference values] (The relationship between locating force and the weight the workpiece is shown the graph below.)

※ 3. The allowable thrust load means the maximum thrust load that can be applied to this product.

外形尺寸
External Dimensions

※ 本圖所示 CVL-C 的釋放狀態（油壓供給時）
※ This drawing shows the released state of CVL-C.
(When supplying release hydraulic pressure)



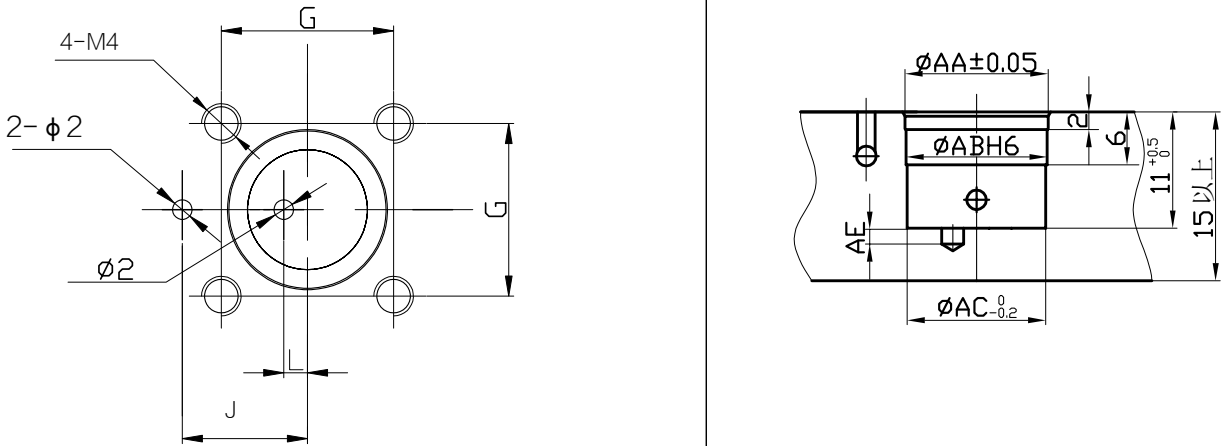
注意事項
※ 1. 只有 -C：菱形銷上印有識別標記。是表示定位方向。
※ 2. M5 x 0.8 螺紋是在卸下定位銷時使用的。

Notes
※ 1. The identification mark is only found on C: Cut. Refer to marking, locating direction
※ 2. The M5 x 0.8 threads are used when removing the datum cylinder

安裝部位加工尺寸
Machining Dimensions of Mounting Area

注意事項
1. 加工孔的交叉部位不得有毛刺 配合位表面 1.6 油口大小不限。

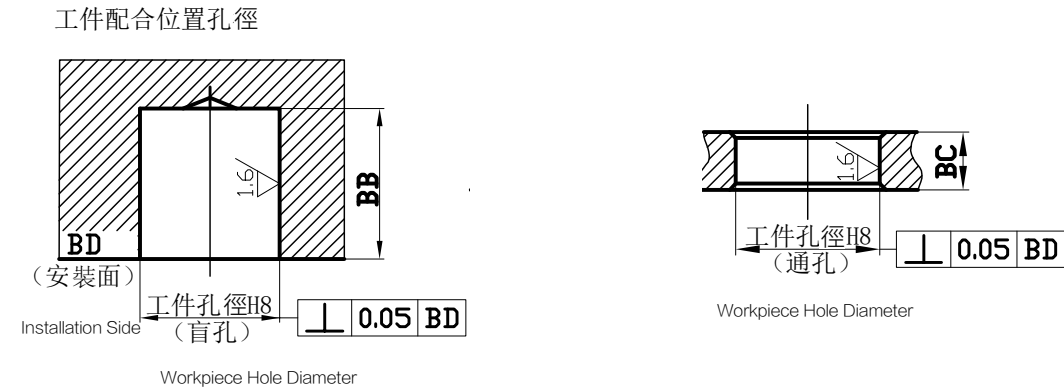
Notes
1. There should be no burrs at the intersection of processed hole.The port size is not specified.



工件（托盤）的加工尺寸
Workpiece (Pallet) Machining Dimensions

注意事項
※5. 對托盤等同一部件進行重複定位時，推薦表面光潔度為 1.6

Notes
※5. When the same object, such as a pallet, is to be repeatedly positioned, the recommended surface correlation is 1.6



Unit:mm

型號	工件孔徑 Workpiece Hole Diameter	定位銷孔徑 Datum Diameter	(標準徑) (Standard)	定位銷徑 Datum Diameter	(標準徑) (Substandard)	全行程 Full Stroke mm	容許偏心量 (C: 菱形銷)
MODEL	標準徑 Standard Diameter mm	標準徑 *1 Substandard Diameter *1 mm	釋放時 (MAX) When Releasing (MAX) mm	全行程時 (MIN) When Full Stroke(MIN) mm	釋放時 (MAX) When Releasing (MAX) mm	全行程時 (MIN) When Full Stroke(MIN) mm	OFFSET TOLERANCE (C: CUT) MM
CVL08	8H8	8.1 ~ 8.8	7.94	8.05	工件孔徑 Workpiece Hole Diameter - 0.06	工件孔徑 Workpiece Hole Diameter + 0.05	0.6 ± 0.05
CVL09	9H8	8.9 ~ 9.9	8.94	9.05			0.6 ± 0.05
CVL10	10H8	10.1 ~ 11.3	9.94	10.05			0.6 ± 0.10
CVL12	12H8	11.4 ~ 12.7	11.92	12.05	工件孔徑 Workpiece Hole Diameter - 0.08	工件孔徑 Workpiece Hole Diameter + 0.05	0.7 ± 0.10
CVL13	13H8	12.8 ~ 14.2	12.92	13.05			0.7 ± 0.10
CVL15	15H8	14.3 ~ 15.7	14.92	15.05			0.7 ± 0.10
CVL16	16H8	15.8 ~ 16.9	15.89	16.08	工件孔徑 Workpiece Hole Diameter - 0.11	工件孔徑 Workpiece Hole Diameter+ 0.08	1.0 ± 0.15
CVL18	18H8	17.0 ~ 18.4	17.89	18.08			1.0 ± 0.15
CVL20	20H8	18.5 ~ 19.9	19.89	20.08			1.0 ± 0.15

16n6

16n6

19n6

MODEL	A	B	D	E	F	G	H	J	K	L	M	N	P	R		O 形密封圈 S O-ring S	O 形密封圈 T O-ring T	AA	AB	AC	AD	AE	AF※4	BB	BC
														定位銷徑 Standard Datum Diameter	標準徑時 Diameter										
CVL08	32.7	33	16n6	13.2	11.5	17.2	15.7	12.5	2.5	2.7	約2.5	2.0	2.6	4.8	工件孔徑 Workpiece Hole Diameter -3.2	AS568 -014(90°)	AS568- 005(70°)	16.1	16H6 ^{+0.011} ₀	16	13.5	3	20	12	5
CVL09	32.7	33	16n6	13.2	11.5	17.2	15.7	12.5	2.5	2.7	約2.5	2.0	2.6	5.8			16.1	16		13.5	3	20	12	5	
CVL10	32.7	33	16n6	13.2	11.5	17.2	15.7	12.5	2.5	2.7	約2.5	1.8	2.8	6.8			16.1	16		13.5	3	20	12	5	
CVL12	33.2	33	16n6	13.2	12	17.2	15.7	12.5	2.5	2.7	約2.5	1.6	3.2	8.7	工件孔徑 Workpiece Hole Diameter -3.3	AS568 -014(90°)	AS568- 005(70°)	16.1	16H6 ^{+0.011} ₀	16	13.5	3	20	12.5	5
CVL13	33.2	33	16n6	13.2	12	17.2	15.7	12.5	2.5	2.7	約2.5	1.6	3.2	9.7			16.1	16		13.5	3	20	12.5	5	
CVL15	33.2	33	16n6	13.2	12	17.2	15.7	12.5	2.5	2.7	約2.5	1.6	3.2	11.7			16.1	16		13.5	3	20	12.5	5	
CVL16	38.7	37	19n6	14.7	16	19.6	18.7	14.5	3	3	約4.2	2.2	4.5	11.3	工件孔徑 Workpiece Hole Diameter -4.7	AS568 -016(90°)	AS568- 005(70°)	19.1	19H6 ^{+0.013} ₀	19	15	5	25	16.5	7
CVL18	38.7	37	19n6	14.7	16	19.6	18.7	14.5	3	3	約4.2	2.2	4.5	13.3			19.1	19		15	5	25	16.5	7	
CVL20	38.7	37	19n6	14.7	16	19.6	18.7	14.5	3	3	約4.2	2.2	4.5	15.3			19.1	19		15	5	25	16.5	7	

注意事項
※8. 標準徑可以 0.1mm 為單位進行指定。孔的加工精度需要保證在 H8 以上。

Note
※8. Custom diameters are available in increments of 0.1mm. The accuracy of workpiece hole diameter machining should be greater than H8.

► 型號表示MODEL NO. INDICATION

CVM 12-D-S

CVM	系列 Series			
12	工件孔徑（標準孔徑） Workpiece Hole Diameter (Standard) 08：φ8H8 mm 09：φ9H8 mm 10：φ10H8 mm 12：φ12H8 mm 13：φ13H8 mm 15：φ15H8 mm 16：φ16H8 mm 18：φ18H8 mm 20：φ20H8 mm			
D	功能分類 Functions D：錐銷（基準定位用） C：菱形銷（1個方向定位用） D：Datum (for Reference Locating) C：Cut (for One Direction Locating)			
S	對應工件孔徑 Applicable Workpiece Hole Diameter S：標準徑 Standard Diameter A□□□：準標準徑 Substandard Diameter ※ 記載範例 ※Example 例 1：「CVL12-D-A125」時 工件孔徑：φ12.5H8 對應 CVL12-D 規格 Example 1: CVL12-D-A125 CVL12-D with Workpiece Hole Diameter of φ12.5H8 ^{+0.027} ₀ 例 2：「CVL09-C-A093」時 工件孔徑：φ9.3H8 對應 CVL09-C 規格 Example 2: CVL09-C-A093 CVL09-C with Workpiece Hole Diameter of φ9.3H8 ^{+0.022} ₀ 例 3：「CVL18-D-S」時 工件孔徑：φ18H8 對應 CVL18-D 規格 Example 3: CVL18-D-S CVL18-D with Workpiece Hole Diameter of φ18h8 ^{+0.027} ₀			

注意事項 Note

1. 準標準徑可以 0.1mm 為單位進行指定。2. 工件孔徑為 φ9.5H8 的 CVM-D 時，型號就是「CVM09-D-A095」。3. 對於上記以外的工件孔徑，請另行垂詢。（工件孔加工精度應在 H8 以上。）

1. Custom diameters are available in increments of 0.1mm. 2. When workpiece hole diameter is φ9.5H8 , Model No. is “CVM09-D-A095” . 3. Please contact us if above work hole diameter is larger or smaller than standard. (The accuracy of work piece hole diameter machining should be greater than H8.)

Unit:mm																
型號	工件孔徑 Workpiece Hole Diameter		重複定位精度	容許偏心量 (C: 菱形銷)	定位力 ※2			容許 剪切載荷 ※3	定位 側油缸容	釋放 側油缸容量	最高 使用壓力	最低 動作壓力	使用溫度	使用流體	重量	
MODEL	標準徑 Standard Diameter mm	準標準徑 ※1 Substandard Diameter mm	LOCATING REPEATABILITY MM	OFFSET TOLERANCE (C-CUT) MM	2.5MPa 時	5.0MPa 時	7.0MPa 時	ALLOWABLE THRUST LOAD※1 KN	CYLINDER CAPACITY (LOCK SIDE) CM ³	CYLINDER CAPACITY (RELEASE SIDE) CM ³	MAX. OPERATING PRESSURE MPA	MIN. OPERATING PRESSURE MPA	OPERATING TEMPERATURE °C	USABLE FLUID	MASS G	
CVM08	8H8	8.1 ~ 8.8	0.003	±0.05	260	430	510	1.5	0.05	0.06	7.0	2.5	0 ~ 70	相當于 ISO 粘度等級的	90	
CVM09	9H8	8.9 ~ 9.9	0.003	±0.05	260	430	510	1.5	0.05	0.06	7.0	2.5	0 ~ 70		90	
CVM10	10H8	10.1 ~ 11.3	0.003	±0.10	260	430	510	2.0	0.05	0.06	7.0	2.5	0 ~ 70	ISO-VG-32	90	
CVM12	12H8	11.4 ~ 12.7	0.003	±0.10	260	430	510	2.5	0.05	0.06	7.0	2.5	0 ~ 70	一般液壓油	95	
CVM13	13H8	12.8 ~ 14.2	0.003	±0.10	260	430	510	2.5	0.05	0.06	7.0	2.5	0 ~ 70	General Hydraulic Oil	95	
CVM15	15H8	14.3 ~ 15.7	0.003	±0.10	260	430	510	2.5	0.05	0.06	7.0	2.5	0 ~ 70	Equivalent to ISO-	100	
CVM16	16H8	15.8 ~ 16.9	0.003	±0.15	290	470	550	3.0	0.11	0.15	7.0	2.5	0 ~ 70	VG-32	115	
CVM18	18H8	17.0 ~ 18.4	0.003	±0.15	290	470	550	3.0	0.11	0.15	7.0	2.5	0 ~ 70		120	
CVM20	20H8	18.5 ~ 19.9	0.003	±0.15	290	470	550	3.5	0.11	0.15	7.0	2.5	0 ~ 70		125	

注意事項 ※ 1. 準標準徑可以 0.1mm 為單位進行指定。工件孔加工精度請保證在 H8 以上。
※ 2. 定位力是指對於定位缸的軸心在垂直方向上產生的挪動工件的力。表中數值為塗布冷卻液的狀態下的推力。[參考值]（定位力與工件重量的關係請參照第下表。）
※ 3. 容許剪切載荷是指本產品所能承受的最大接剪切載荷。

※ 1. Custom diameters are available in increments of 0.1mm. The accuracy of workpiece hole diameter machining should be greater than H8.※ 2. Locating force is the force with which the expansion locating pin pushes out (expands) against the workpiece.The value assumes that coolant has been applied. [Reference values] （The relationship between locating force and the weight of workpiece is shown the graph below. ）※ 3. The allowable thrust load means the maximum thrust load that can be applied to this product.

清潔用氣口

徑
釋放時

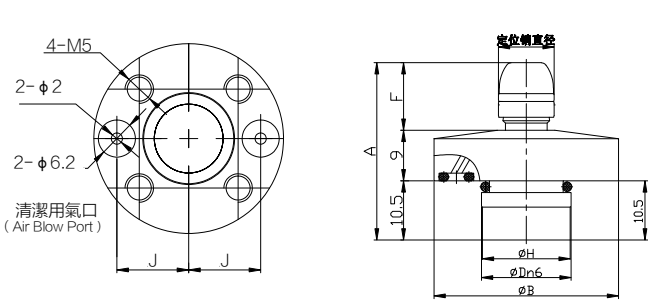
定位力和工件重量
About Locating Force and Workpiece Weight

工件（托盤）水平姿勢（平置）裝卡時的工件（托盤）重量設定為 Workpiece (Pallet) Weight Calculation – Horizontal Attitude	
工件重量 Workpiece Weight ≤	1 臺定位缸的定位力 Locating Force per One Piece of Expansion Locating Pin
	工件着座面的摩擦系數 Friction Coefficient of Workpiece Seat Face

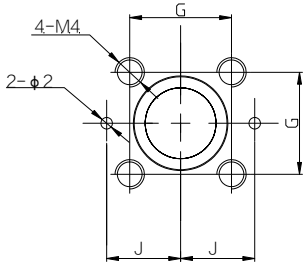
工件（托盤）垂直姿勢（掛壁式）裝卡時的工件（托盤）重量設定為 Workpiece (Pallet) Weight Calculation – Vertical Attitude
工件重量 ≤ 1 臺定位缸的定位力 Workpiece Weight ≤ Locating Force per One Piece of Expansion Locating Pin

► 外形尺寸
External Dimensions

※ 本圖所示 CVM-D 的釋放狀態（油壓供給時）
※ This drawing shows the released state of CVM-C.
(When supplying release hydraulic pressure)

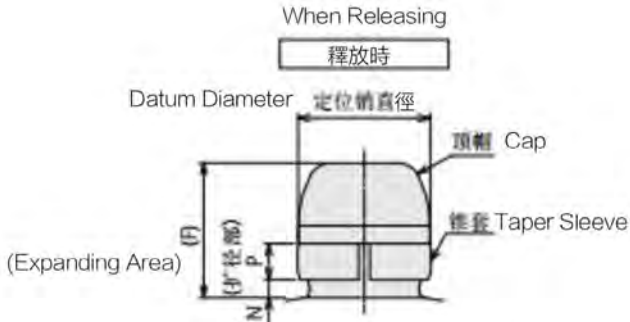


► 安裝部位加工尺寸
Machining Dimensions of Mounting Area



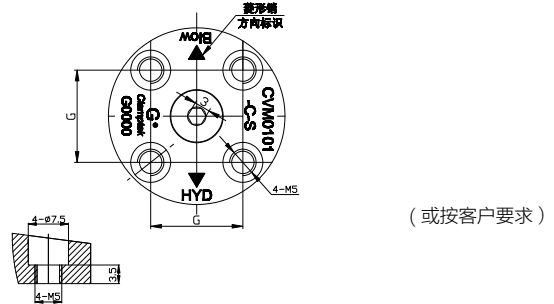
► ※ 擴徑部位詳細圖
Expanding Area Detail

注意事項
※ 1. 只有 -C：菱形銷上印有識別標記。是表示定位方向。
※ 2. M5×0.8 螺紋是在卸下定位銷時使用的。
※ 3. 法蘭側面刻印有供給口名稱。(HYD: 定位用供油口，BLOW: 空氣清潔用供氣口)



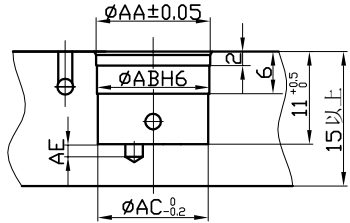
注意事項
※ 1. 只有 -C：菱形銷上印有識別標記。是表示定位方向。
※ 2. M5×0.8 螺紋是在卸下定位銷時使用的。

Notes
※ 1. The identification mark is only found on C: Cut. Refer ◀▶ to marking, locating direction※ 2. The M5 x 0.8 threads are used when removing the datum cylinder

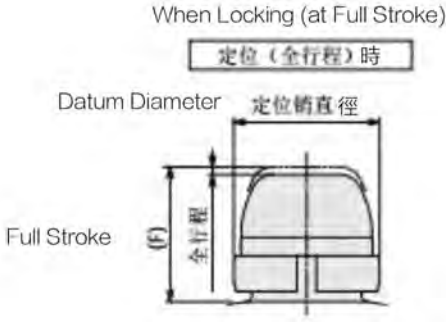


注意事項
1. 加工孔的交叉部位不得有毛刺。油口大小不限。

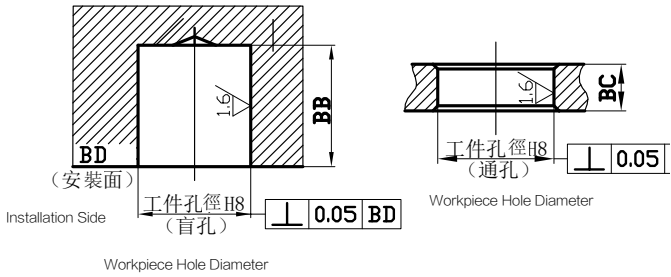
Notes
1. There should be no burrs at the intersection of processed hole.The port size is not specified.



Notes
※ 1. The identification mark is only found on C: Cut. Refer to ◀▶ marking, locating direction.※ 2. The M5 x 0.8 threads are used when removing the datum cylinder※ 3. The port name is imprinted on the side.(HYD: Lock hydraulic port, BLOW: Air blow port)



▶ 工件（托盤）的加工尺寸
Workpiece (Pallet) Machining Dimensions



型號	工件孔徑 Workpiece Hole Diameter		定位銷孔徑 Datum Diameter	(標準徑) (Standard)	定位銷徑 Datum Diameter	(標準徑) (Substandard)	全行程 Full Stroke mm	容許偏心量 (C: 菱形銷)
MODEL	標準徑 Standard Diameter mm	標準徑 ※ Substandard Diameter 1mm	釋放時 (MAX) When Releasing (MAX) mm	全行程時 (MIN) When Full Stroke(MIN) mm	釋放時 (MAX) When Releasing (MAX) mm	全行程時 (MIN) When Full Stroke(MIN) mm		OFFSET TOLERANCE (C: CUT) MM
CVM08	8H8	8.1 ~ 8.8	7.94	8.05	工件孔徑 Workpiece Hole Diameter - 0.06	工件孔徑 Workpiece Hole Diameter + 0.05	0.6	± 0.05
CVM09	9H8	8.9 ~ 9.9	8.94	9.05			0.6	± 0.05
CVM10	10H8	10.1 ~ 11.3	9.94	10.05			0.6	± 0.10
CVM12	12H8	11.4 ~ 12.7	11.92	12.05	工件孔徑 Workpiece Hole Diameter - 0.08	工件孔徑 Workpiece Hole Diameter + 0.05	0.7	± 0.10
CVM13	13H8	12.8 ~ 14.2	12.92	13.05			0.7	± 0.10
CVM15	15H8	14.3 ~ 15.7	14.92	15.05			0.7	± 0.10
CVM16	16H8	15.8 ~ 16.9	15.89	16.08	工件孔徑 Workpiece Hole Diameter - 0.11	工件孔徑 Workpiece Hole Diameter+ 0.08	1.0	± 0.15
CVM18	18H8	17.0 ~ 18.4	17.89	18.08			1.0	± 0.15
CVM20	20H8	18.5 ~ 19.9	19.89	20.08			1.0	± 0.15

MODEL	A	B	D	F	G	H	J	N	P	R		O 形密封圈 S O-ring S	O 形密封圈 T O-ring T	Y	AA	AB	AC	BB	BC	
										定位銷徑 Standard	標準徑時 Datum Diameter									
CVM08	31.5	33	16n6	12	17.2	15.7	12.5	2.5	2.6	4.8	工件孔徑 Workpiece Hole Diameter -3.2		AS568-014(90°)		6.7	16.1	16H6+0.011 0	16	12.5	5.5
CVM09	31.5	33	16n6	12	17.2	15.7	12.5	2.5	2.6	5.8					6.7	16.1		16	12.5	5.5
CVM10	31.5	33	16n6	12	17.2	15.7	12.5	2.3	2.8	6.8					6.7	16.1		16	12.5	5.5
CVM12	32	33	16n6	12.5	17.2	15.7	12.5	2.1	3.2	8.7	工件孔徑 Workpiece Hole Diameter -3.3		AS568-014(90°)	AS568-005(70°)	6.5	16.1	16H6+0.011 0	16	13	5.5
CVM13	32	33	16n6	12.5	17.2	15.7	12.5	2.1	3.2	9.7					6.5	16.1		16	13	5.5
CVM15	32	33	16n6	12.5	17.2	15.7	12.5	2.1	3.2	11.7					6.5	16.1		16	13	5.5
CVM16	36	37	19n6	16.5	19.6	18.7	14.5	2.7	4.5	11.3	工件孔徑 Workpiece Hole Diameter -4.7		AS568-016(90°)	AS568-005(70°)	6.5	19.1	19H6+0.013 0	19	17	7.5
CVM18	36	37	19n6	16.5	19.6	18.7	14.5	2.7	4.5	13.3					6.5	19.1		19	17	7.5
CVM20	36	37	19n6	16.5	19.6	18.7	14.5	2.7	4.5	15.3					6.5	19.1		19	17	7.5

注意事項 ※8. 標準徑可以 0.1mm 為單位進行指定。孔的加工精度需要保證在 H8 以上。

Note ※8. Custom diameters are available in increments of 0.1mm. Accuracy of workpiece hole diameter machining should be greater than H8.

▶ 注意事項 NOTE 設計方面的注意事項 CVL/CVM 通用 Notes for Design CVL/CVM common

- 確認規格
 - 使用前請確認各產品的規格。CVL 型產品採用彈簧定位，油壓釋放結構。
CVM 型產品採用油壓定位，油壓釋放結構。
- 定位銷的設置
 - 定位銷是用於定位的，並不具有夾緊功能。請另行設置夾緊缸。
- 建議將空氣清潔回路的直徑設定在 ϕ 6mm 以上。
- 關於定位銷的安裝方向（相位）
 - -C: 菱形銷 (CVL/CVM) 是以 -D: 基準銷 (CVL/CVM) 為基準進行旋轉方向定位的。所以安裝時必須注意 -C(菱形銷) 的相位。CVL/CVM 時
安裝 -C(菱形銷) 時，請將 -C(菱形銷) 的定位方向標記垂直於 -D(基準銷)。
(-C(菱形銷) 本體的法蘭上面印有定位方向標記：▲。)
- 關於 Z 軸方向的傾斜
 - 如果工件（托盤）在傾斜狀態下進行裝卸，定位銷的擴張部位與工件孔產生別緊力而造成定位銷及工件（托盤）的損壞。因此在裝卸工件（托盤）時，對於定位銷的傾斜度應在 4/100 ~ 5/100(約 2 ~ 3°) 以下。● 工件（托盤）裝卸時，在工件（托盤）傾斜的狀態下裝卸（特別是卸下）時，會導致定位銷的損壞。請設置導向銷（粗導銷）。
- 關於工件孔周邊的壁厚
 - 如果工件孔周圍存在薄壁部分，定位動作會造成工件孔變形，並導致定位力不能滿足規定值。使用前請進行夾緊試驗，將供給油壓調整至最適合的油壓狀態。

注意事項：※5. 對托盤等同一部件進行重複定位時，推薦表面光潔度為 1.6

Notes：※5. When the same object, such as a pallet, is to be repeatedly positioned, the recommended surface correlation is 1.6

▶ 安裝間距精度
Mounting Distance Tolerance

- 注意事項：※ 1. 請將定位銷安裝孔之間的間距精度保證在 $\pm$ 0.02mm 以內
※ 2. 安裝時請將 CVM-C 的識別標記垂直于 CVM-D 與 CVM-C 的中心連線
- Note：※ 1. Please ensure the distance tolerance between each locating cylinder is better than $\pm$ 0.02mm.
※ 2. Attach the CVM-C identification mark perpendicular to the line which runs through the center of CVM-D and CVM-C.

Unit:mm

▶ NOTE

- Check Specifications
 - Please use each product according to the specifications.CVL locates with spring and releases with hydraulic pressure.
CVM locates and releases with hydraulic pressure.
- Setting Up the Clamps

The datum cylinder is a positioning cylinder and has no clamping mechanism. A clamp must be provided separately.
- It is recommended to use the air flow path over ϕ 6mm.
- Clamp Mounting Direction (Phase)
 - The reference position (origin) is determined by CVL-D/CVM-D (Datum: for Reference Locating). CVL-C/CVM-C (Cut: for One Direction Locating) locates in one direction (Y-axis), so phasing is necessary.

In the case of VL/VM
When you mount it, make sure the VL-C/VM-C (cut) cut mark is perpendicular to VL-D/VM-D (datum).
(There is a cut mark (▲) on top of the flange on the VL-C/VM-C unit that shows the locating direction.)

- When the workpiece (pallet) is the vertical position.
 - When the workpiece (pallet) is being set, ensure that it is in proper proximity and square to the clamps.
 - As the workpiece (pallet) may fall down during releasing, it is recommended to set up the latching mechanism to prevent it from falling down.
 - When the workpiece (pallet) is used a vertical position (hanging on the wall), the internal moving parts tend to wear out. Confirm the positioning precision in a regular manner. In case the allowed range is exceeded, change the machine.

- Workpiece (Pallet) Weight
 - The Workpiece (Pallet) Weight Calculation - Horizontal Attitude:

▶ 注意事項 NOTE

- 設計方面的注意事項 CVL/CVM
- 1) 關於 CVL/CVM 定位銷安裝孔的間距精度
 - 請將 CVL/CVM 定位銷安裝孔的間距精度保證在 $\pm$ 0.02mm 以內。容許偏心量（-C: 菱形銷）定位銷間距精度 + 工件孔間距精度 ($\pm$ 0.02)。請參考下表 JIS B 0613 中心距離容許差 [2 級]。

Notes for Design Regarding to CVL/CVM
1) Distance Accuracy of CVL/CVM

- Distance accuracy of the CVL/CVM's mounting hole should be within $\pm$ 0.02mm. The distance accuracy of each workpiece hole (Pallet Hole) should be within the allowable tolerance.Please refer to below table under JIS B 0613 Class 2.

- 確認液壓油
- 機器的安裝
 - 請使用附帶的安裝螺栓（強度等級 12.9），並按照下表給出的緊固力矩進行安裝。為了避免設備傾斜，請均等地緊固螺栓。

型號 Model No.	安裝螺栓名稱 Thread Size	緊固力矩 Tightening Torque (N · m)
CVL CVM	M4 0.7	3.2

- 拆卸
 - 請利用頂起用螺紋，在保持設備平行的狀態下進行拆卸
 - 為了防止頂起用螺栓損壞安裝用螺紋的端面，請使用平行銷對螺紋的端面採取保護措施。

- 擴張定位銷的油口位置

CVM: HYD 定位用供油口、BLOW: 噴氣清潔用供氣口
定位油壓是由定位用供油口實施供給。
※ CVL 定位銷無 HYD、BLOW 刻印標記。

- 請將噴氣清潔回路外徑設定在 ϕ 6(內徑 ϕ 4) 以上。
 - 為確保噴氣清潔的效果，推薦使用外徑 ϕ 6(內徑 ϕ 4) 以上的氣管。

- Reference Surface towards Z-axis
 - Datum cylinder has no seat face (Z axis datum face).Please prpare for the seat separately for proper Z axis direction positioning.
Make sure there is clearance between the top of the flange on the datum cylinder and the workpiece (pallet). (Recommended clearance: 0.5 ~ 1mm)

- Adjusting Height of Datum Cylinder
 - For applications where the seat face is high and the height of datum cylinder is not enough, the height of datum cylinder is adjustable using a spacer block under the datum cylinder.

- Incline in the Z-axis direction.
 - If workpiece (pallet) is loaded/unloaded on tilted condition, expanded part of datum cylinder and workpiece hole can become stuck and damage the cylinder and workpiece is possible. Workpiece (pallet) should be loaded and unloaded with less than 4/100 ~ 5/100 (approx. 2 ~ 3°) of tilt between workpiece and datum cylinder plane.
 - If necessary, provide guide pins to keep the pallet level during loading and unloading. Please prepare guide pin (rough guide) etc.

- Thickness around the Workpiece Hole
 - In case that the material thickness is thin around locating hole, expansion force may deform the hole. It may cause unsatisfied locating accuracy.Please do trial testing and adjust to proper pneumatic pressure.

工件重量 $\leq$	$\frac{1 \text{ 臺定位銷的定位力}}{\text{工件着座面的摩擦係數}}$
● 請將工件（托盤）垂直姿勢（掛壁式）使用的工件（托盤）的重量設定為	
工件重量	1 臺定位銷的定位力
● 如果在上記姿勢之外使用時，請另行詢問。	

中心距離的分類 Center Distance Classification	中心距離的容許差 Center Distance Accuracy	
大于 Greater than	小于 or less	2 級 class 2
50	80	0.023
80	120	0.027
120	180	0.032
180	250	0.036
250	315	0.041
315	400	0.045
400	500	0.049
500	630	0.055
630	800	0.063
800	1000	0.070

- Check the Usable Fluid
- Mounting Cylinder
 - Use all bolts with hex holes (grade 12.9) and tighten the body with a torque wrench as shown in the table below.Tighten them evenly to prevent twisting or jamming.

- Removing Cylinder
 - Remove with torque wrench in a parallel fashion when detaching.
 - Protect the screw parts with parallel pins as shared in the graph below in order for the bolts used for jack not to damage the surface of mounting screws.

- Port Location of Datum Cylinder

CVM: HYD : Hydraulic Lock Port、BLOW : Air Blow Port Hydraulic pressure is supposed to be supplied from lock port
※ CVL doesn't have a mark of HYD, BLOW.

- Please use air blow circuit with outside diameter. ϕ 6 (inside diameter ϕ 4) or larger. ● To do an effective air blow, it is recommended to use air piping with outside diameter ϕ 6 (inside diameter ϕ 4) or larger.

規格

SPECIFICATION

型號 Model No.	CLG-3A	CLG-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 Operating pressure range MPa	2.0~35.0	6.0~35.0
調節螺釘壓力變化值 Adjusting screw turn ratio MPa/Rev	1.0	2.8
開啟壓力 Cracking pressure MPa	0.01	
使用溫度 Operating temperature °C	0~70°C	
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會導致不能準備的進行順序動作。

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。

NOTE

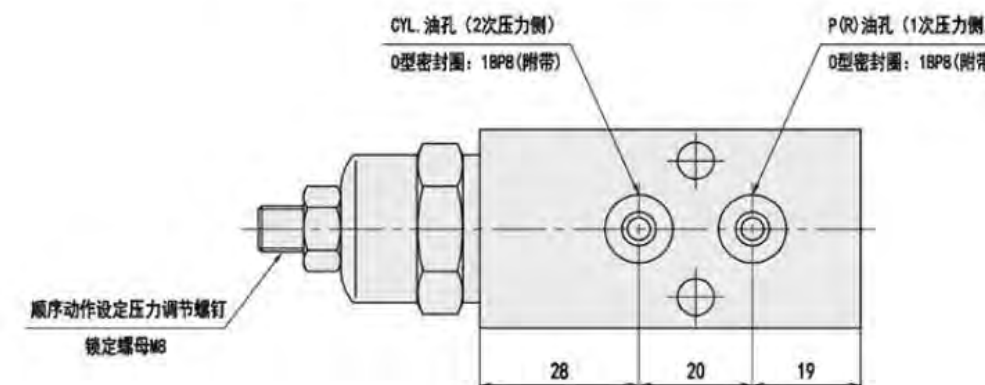
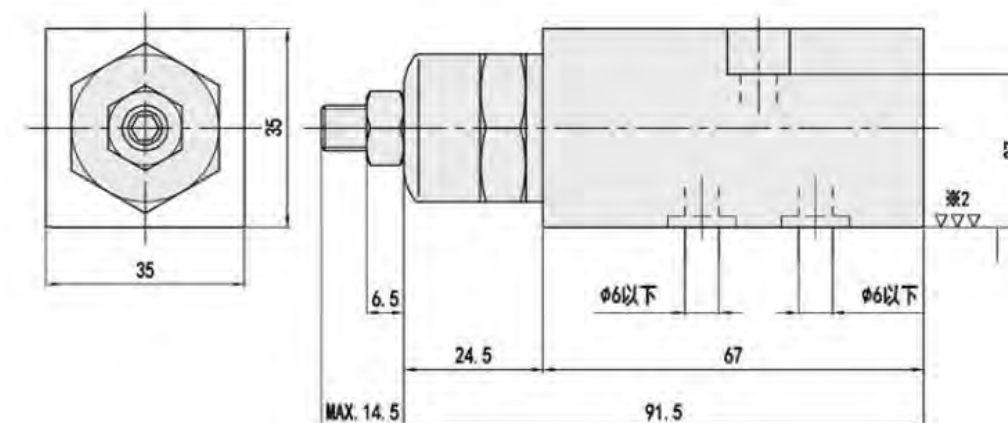
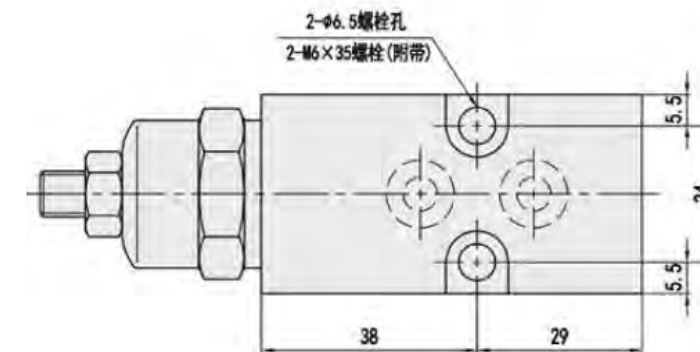
If the flow volume of the incoming pressure side is too much, there is a possibility that the proper sequential procedures would not work. In this instance, use a flow control valve to adjust flow volume from the pressure source.

訂購標示法

ORDERING INDICATION

CLG - 3 A(5.0MPa)

CLG	系列 Series	CLG
3	壓力調整範圍 Actuating pressure range	3: 1.0~6.0 MPa 6: 5.0~18.0MPa
A	A 油路板型式	A Manifold type
5.0MPa	設定壓力（順序動作 壓力的設定值） Set pressure(Set valve for sequence operating 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。 Provide a difference of more than 1MPa between operating and setting pressure. When using multiple CLG sequence valves in a parallel fashion, provide each set pressure with a pressure difference more than 1MPa.



SV-AT1

時間順序閥

SV-AT1 TIME SEQUENCE VALVE

產品特性

以時間閥與流量閥為基礎，結合了時間閥與流量閥的特點減少了使用數量與安裝空間，更加適用於複雜環境的安裝；缸徑 $\phi 20$ ，啓動壓力為 2Mpa，最高工作壓力 7Mpa；

時間範圍：1S-10S。

時間範圍會因被調整油缸的缸徑大小，行程及油缸壓力的變化而有所差別。

注意事項

將密封螺母鬆開，調節時間順序閥至所需時間，右旋調節杆時間變長，左旋調節杆時間變短：

調整好時間後，將密封螺母鎖緊。

溫馨提示：請在回油時調整時間閥。

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油。

FEATURES

Based on the time of valve and the flow valve, combining with the characteristics of the valve and discharge valve to reduce the use quantity and installation space, more use in the installation of a complex environment;

Cylinder diameter phi 20, start-up pressure 2 mpa, the highest working pressure 7 mpa;

Time range: 1 s to 10 s.

Time range will be adjust to the size of cylinder bore, stroke and the change of cylinder pressure is different.

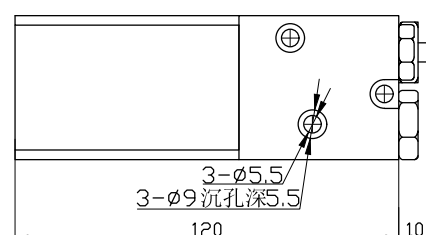
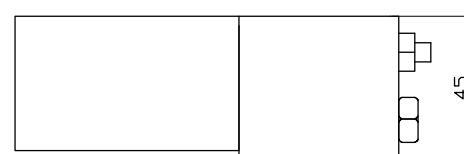
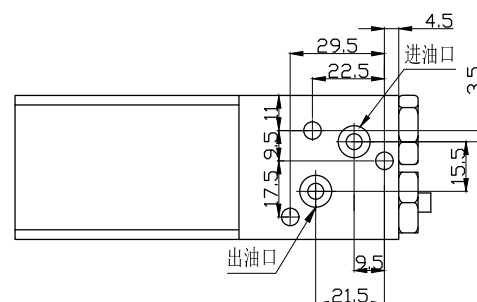
NOTE

Will seal nut loosen
Adjusting the time sequence valve to the time required,
slow right-lateral regulating rod, left-handed regulating rod shorter time:

After adjust time, seal nut lock.

Warm prompt: please adjust the time when oil returns valve.

Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

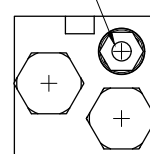


原理图

回路符号: 进油节流

油压供给侧 夹紧侧

延时调节螺钉



CWD-B

氣動順序閥

CWD-B PNEUMATIC SEQUENCE VALVE

產品特性

型號 Model No	
最高使用壓力 Max. Operating Pressure Mpa"	0.6
最低使用壓力 Min. Operating Pressure Mpa	0.2
耐壓 Withstanding Pressure Mpa	1.5
延遲時間 *1 *2 *3 *4 Delayed Time *1 *2 *3 *4 sec	1 ~ 10
最小通路面積 Min. Passage Area m	4.0
使用溫度 Operating Temperature℃	0 ~ 70
使用流體：過濾之乾燥壓縮空氣 Usable fluid: Oiled Dry Clean Compressed Air	過濾之乾燥空氣 Dry air
重量 Mass kg	0.2

注意事項

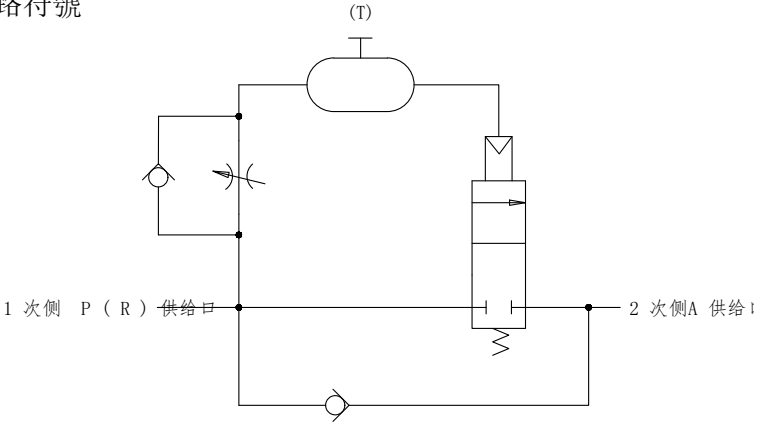
1. 初始動作時的延遲時間可能因放置時間而延長。
2. 可使用 T 端口增設儲氣箱，增加容量，從而延長延遲時間。
3. 如果超過設定延遲時間 2 次側執行元件仍未動作時，必須先將 1 次側供給氣壓降到零，然後再進行確認作業。
4. 確認延遲時間時應先拴緊延遲時間調整螺栓部的固定螺母後再行確認。

NOTE

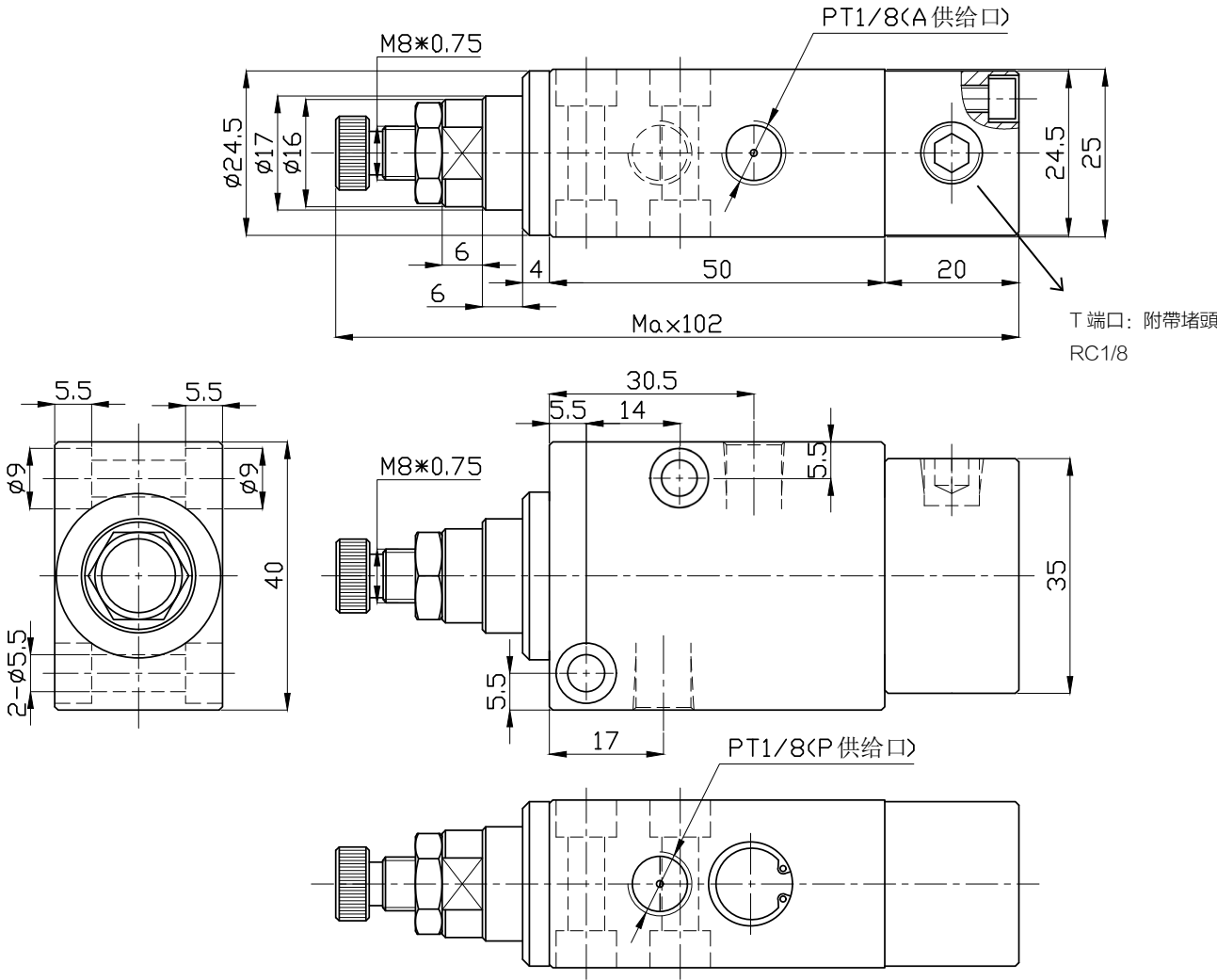
1. If unused for a long period of time, the delay is longer than initial set time
2. It can extend the time delay from the tank and its capacity increases by using T port.
3. If actuators on outgoing side does not operate after the time delayed setting, verify setting after pressure returns to zero.
4. Confirmation for delayed time should be done after fastening the lock nut of the delayed time adjusting thread.



回路符號



※ 必須使用經過濾器過濾後的清潔空氣，以免異物侵入內部。



注意事項
實際延遲時間因回路條件而異。
切勿過於拴緊或旋鬆延遲時間調整螺栓
否則可能會導致產品的損傷

Notes
The actual delay time owing to the different circuit conditions.
Don't delay time is too tight or unscrew adjustment bolts
Otherwise it may cause product damage

產品特性

1. 高夾緊力：能發揮與液壓式槓桿缸同等的夾緊力
2. 高保持力：在普通氣動槓桿缸基礎上增加保持力機構，透過高夾緊力的強勁保持力，可將夾緊力控制在最低限度，大大降低了工件變形的可能性。
3. 節省空間：結構緊湊，同等夾緊力 F，本產品比普通氣動槓桿本體小兩個等級

訂購標示法 ORDERING INDICATION
CCE - 060 G L

CCE	系列 Series
060	氣缸輸出 Cylinder Force
G	配管方式 Piping Method
L	壓板方向 Lever Direction

1. 氣缸輸出 Cylinder Force

060: 氣缸輸出力 0.6kN(氣壓 0.5MPa 時) Cylinder Force 0.6kN (Pneumatic Pressure 0.5MPa)
100: 氣缸輸出力 1.0kN(氣壓 0.5MPa 時) Cylinder Force 1.0kN (Pneumatic Pressure 0.5MPa)
160: 氣缸輸出力 1.6kN(氣壓 0.5MPa 時) Cylinder Force 1.6kN (Pneumatic Pressure 0.5MPa)
250: 氣缸輸出力 2.5kN(氣壓 0.5MPa 時) Cylinder Force 2.5kN (Pneumatic Pressure 0.5MPa)
400: 氣缸輸出力 4.0kN(氣壓 0.5MPa 時) Cylinder Force 4.0kN (Pneumatic Pressure 0.5MPa)

※ 氣缸輸出力與夾緊力及保持力不同。
※ Cylinder force differs from clamping force and holding force.

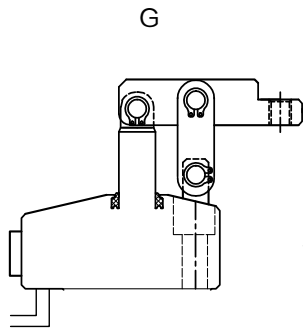
2. 配管方式 Piping Method

G：板式連接型 (配有 R 螺紋堵頭) Gasket Option (with R Thread Plug)
S：外配管型 (Rc 螺紋) Piping Option (Rc Thread)

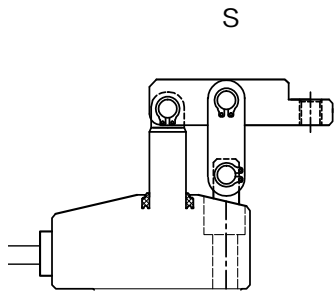
3. 壓板方向 Lever Direction

L：左 Left ※ 表示配管口位置位於身前時的壓板方向。
C：中央 Center ※ This images show the lever direction when the piping port is placed in
R：右 Right front of you.

配管方式 Piping Method



板式連接型 Gasket Option

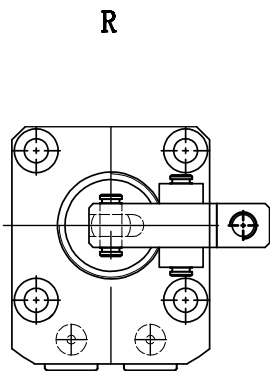
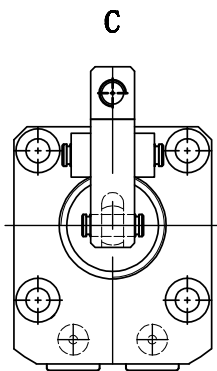
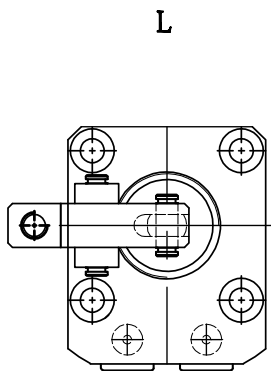


配管式連接型 Piping Option

配有 R 螺紋堵頭
with R Thread Plug

RC 螺紋無板式接口
Rc Thread No Gasket Port

壓板方向 Lever Direction



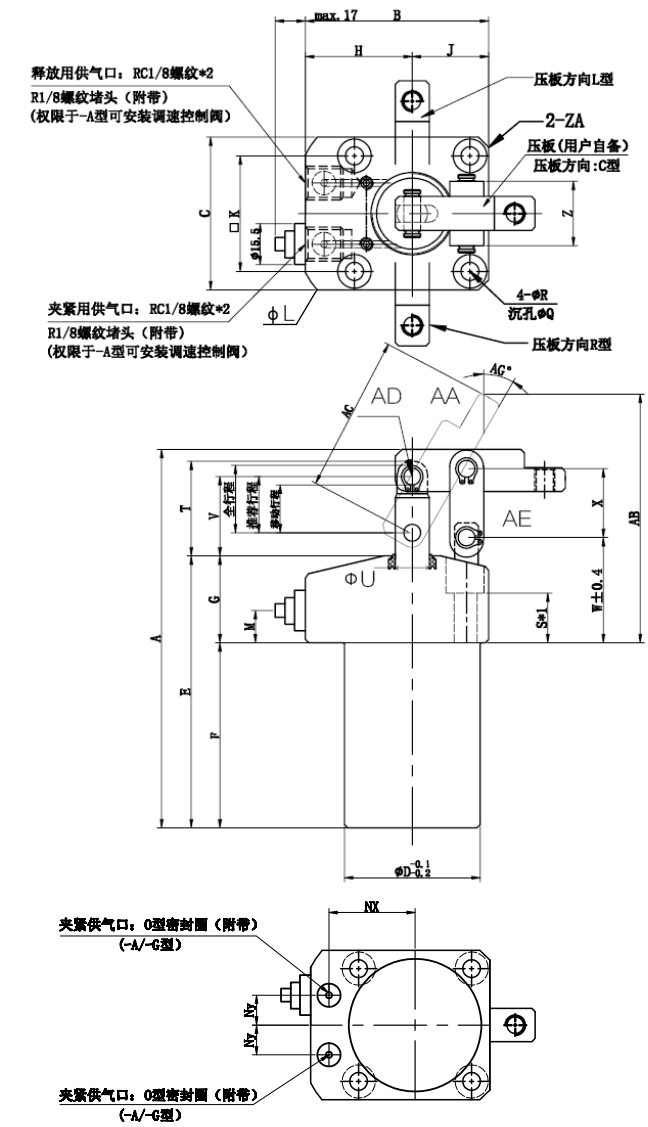
Unit:mm

型號	氣缸輸出力 (氣壓 0.5MPa 時)	全行程 (細分) (Break down)			氣缸容量 Cylinder Capacity cm³		彈簧力	最高使用壓力	最低動作壓力	耐壓	使用流體	使用溫度	
MODEL	CYLINDER FORCE (AT 0.5MPa) KN	FULL STROKE MM	移動行程 CLAMPING FORCE	夾緊行程 LOCK STROKE ※1 MM	夾緊時 Lock 無符號選擇時 WHEN BLANK IS CHOSEN	選擇 D/M/N 時 WHEN D/M/N IS CHOSEN	釋放時 RELEASE	SPRING FORCE N	MAX. OPERATING PRESSURE MPA	MIN. OPERATING PRESSURE ※2 MPA	WITHSTANDING PRESSURE MPA	USABLE FLUID	OPERATING TEMPERATURE °C
CCE060	0.6	19.5	16	3.5	11.2	10.2	9.7	37.6~57.6	0.5	0.2	0.75	過濾之乾燥壓縮空氣 Oiled Dry Clean Compressed Air	0~70
CCE100	1.0	22.0	18.0	4.0	21.2	19.5	17.8	58.9~97.8	0.5	0.2	0.75		0~70
CCE160	1.6	23.5	19.5	4.0	34.8	33	30.1	80.5~141.1	0.5	0.2	0.75		0~70
CCE250	2.5	27.5	23.5	4.0	55.2	52.1	48.2	142.8~219.2	0.5	0.2	0.75		0~70
CCE400	4.0	33.0	29.0	4.0	94.2	90.5	81.7	228.9~335.1	0.5	0.2	0.75		0~70

注意事項

1. 只有在夾緊行程範圍內夾緊的情況下，才能滿足氣缸輸出夾緊力，保持力等標準值（如在移動行程範圍內夾緊，將無法滿足規格值）。
2. 表示無負載的情況下油缸動作所需的最低壓力。

▶ 外形尺寸 EXTERNAL DIMENSIONS



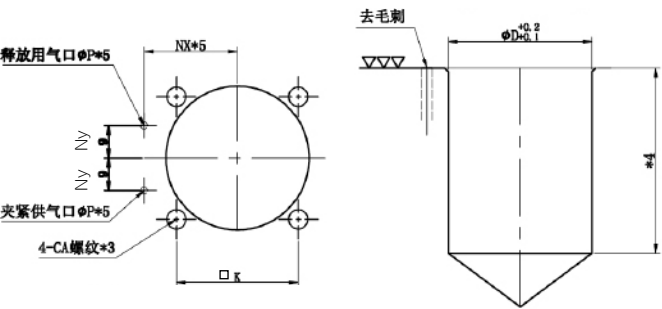
▶ 注意事項

- ※ 1. 本產品未附帶安裝螺栓。請用戶根據安裝高度並參照 S 尺寸自行配備。
- ※ 2. 壓板安裝專用銷釘請使用附帶的銷釘 (φ ADf6、φ AEf6、HRC60 相當品)

▶ NOTES

- ※ 1. Mounting bolts are not provided. Customer should prepare based on dimension "S"
- ※ 2. Please use the pin supplied (equivalent to φ ADf6 φ AEf6 φ HRC60) for mounting pin for lever.

▶ 安裝部位加工尺寸
MACHINING DIMENSIONS OF MOUTING AREA



▶ 注意事項

- ※ 3. 請參考 S 尺寸，根據安裝高度決定安裝螺栓的 CA 螺紋深度。
- ※ 4. 參考 F 尺寸根據安裝高度決定本體安裝孔 φ D 的深度。
- ※ 5. 本項加工僅限于 -G：板式連接型。

▶ NOTES

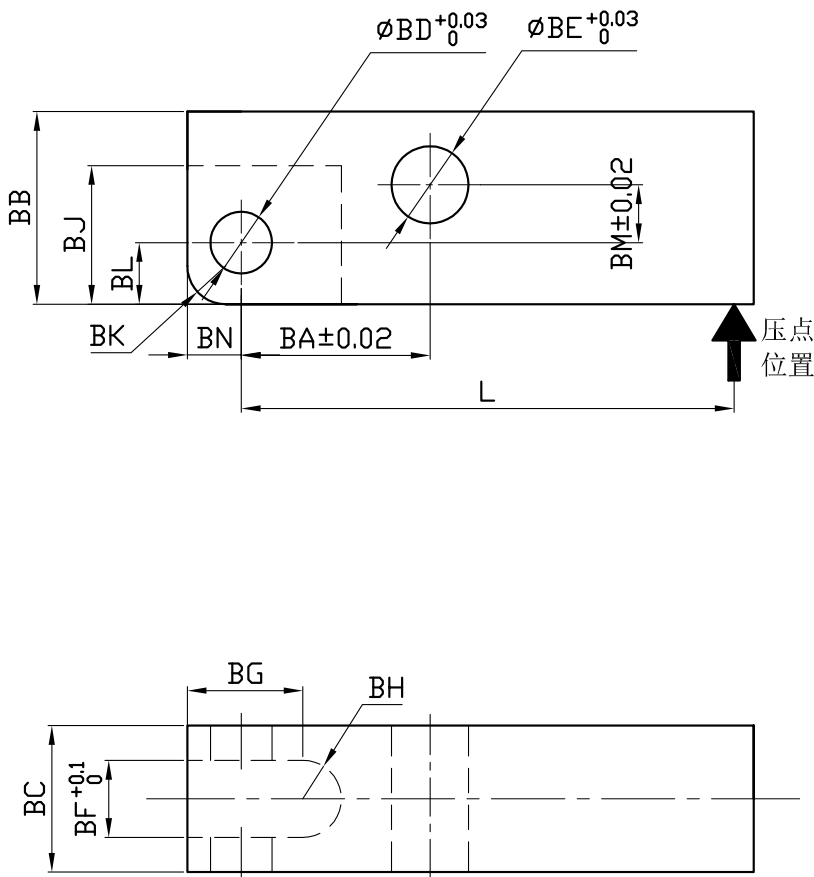
- ※ 3. The CA thread depth of the mounting bolt should be decided based on the mounting height with reference to S size.
- ※ 4. The φ D depth of the body mounting hole should be decided based on the mounting height with reference to F size.
- ※ 5. This process indicates -A/-G：Gasket option.

Unit:mm

MODEL	Full Stroke	移動行程 CLAMPING FORCE	夾緊行程 LOCK STROKE ※1 MM	推薦行程 RECOMMENDED STROKE	A	B	C	D	E	F	G	H	J	K	L	M	Nx	Ny	P	Q
CCE060	19.5	16	3.5	17.5	111.5	54	45	40	79.5	54.5	25	31.5	22.5	34	72	11	26	9	max. 3	9.5
CCE100	22	18	4	20	123	60	50	46	88	63	25	35	25	39	79	11	28	10	max. 5	9.5
CCE160	23.5	19.5	4	21.5	134.5	66	56	54	94.5	69.5	25	38	28	45	88	11	31	13	max. 5	9.5
CCE250	27.5	23.5	4	25.5	157.5	76	66	64	109.5	79.5	30	43	33	53	98	11	36	15	max. 5	11
CCE400	33	29	4	31	184	87	78	77	124.5	94.5	30	48	39	65	113	11	41	20	max. 5	11

Unit:mm

MODEL	R	S	T	U	W	V	X	Y	Z	倒角 Chamfer 1	AA	AB	AC	AD	AE	AG	CA (公稱 × 間距) (Nominal × Pitch)	ZA (倒角) (Chamfer)	O 型密封圈 (-A/-G 型) O-ring (-A/-G option)	重量 Mass ※7 Kg
CCE060	5.5	15.5	28.5	10	31	24	20.5	11	19	C2.5	16	76.1	49.8	5	5	21.6°	M5 0.8	C3	1BP5	0.5
CCE100	5.5	14	31.5	14	31	27	23.5	11	19	C2.5	19.5	72	46.9	5	5	26.5°	M5 0.8	R5	1BP7	0.6
CCE160	5.5	13.5	36	16	32.5	30	26	13	21	C3	21	76.5	50.9	6	6	26.4°	M5 0.8	R5	1BP7	0.9
CCE250	6.8	16	40	18	37.5	34	32.5	16	28	C3	25	92.2	62.7	6	8	26.1°	M6	R6	1BP7	1.4
CCE400	6.8	15	50.5	22	40.5	42.5	39.5	18	37	C5	30	105.7	74.7	8	10	25.2°	M6	R6	1BP7	2.3



▶ 橫杆壓板設計尺寸表 Calculation List of Link Lever Design Dimension

MODEL	CCE060	CCE100	CCE160	CCE250	CCE400
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 _{-0.2}	16 ⁰ _{-0.2}	19 ⁰ _{-0.3}
BD	5 ^{+0.012} ₀	5 ^{+0.012} ₀	6 ^{+0.012} ₀	6 ^{+0.015} ₀	8 ^{+0.015} ₀
BE	5 ^{+0.012} ₀	5 ^{+0.012} ₀	6 ^{+0.012} ₀	8 ^{+0.012} 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
L	30-50	30-50	42-70	50-80	60-90

注意事項

- 設計製作壓板時切勿超出上表規定的尺寸範圍，否則夾緊力和保持力將達不到規格值，并可能導致變形、咬缸、動作不正常等故障。
- 壓板安裝用銷釘請使用附送的銷釘 (φ ADf6、φ AEf6、HRC60 相當品)。(有關 φ AD、φ AE 尺寸請參照各自的外形尺寸圖。)

"Notes

- If the link lever is not in accordance with the dimension shown above, performance may be degraded and damage can occur.
- Please use the attached pin (equivalent to φ ADf6, φ AEf6, HRC60) as the mounting pin for lever.
(Please refer to each external dimension of CCE for the dimensions φ AD and φ AE.)

▶ 產品特性

透過彈簧式蓄能器吸收壓力變動，防止因異常高壓或低壓而導致系統壓力變化

▶ FEATURES

Accumulator absorbs the pressure fluctuation so that it prevents system pressure from variation due to the high or low abnormal pressure.

▶ 選配項 Options

	分類 classification	低壓用彈簧式蓄能器 Spring Accumulator for Low Pressure
	基準使用壓力 Standard Operating Pressure	2/3/4/ Mpa



▶ 型號表示MODEL NO. INDICATION

CJSS-4 02 HSB

CJSS	系列 Series			
4	基準使用壓力 Standard Operating Pressure	2：2.0MPa	3：3.0MPa	4：4.0MPa
02	排出油量 Amount of Discharge Oil	02：2.5cm ³	05：5.0cm ³	10：10.0cm ³
H	安裝方向 Mounting Direction	H：橫向安裝 H：Horizontal Mounting V：縱向安裝 V：Vertical Mounting		
S	配管方式 Piping Method	C：外配管型（G 螺紋）Piping Option (BSPP Thread (G-Thread)) S：外配管型（Rc 螺紋）Piping Option (BSPT (Rc-Thread)) G：板式連接型 Gasket Option GC：板式＋外配管型（G 螺紋）型 Gasket＋Piping Option (BSPP Thread (G-Thread)) GS：板式＋外配管型（Rc 螺紋）型 Gasket＋Piping Option (BSPT (Rc-Thread))		
B	配管方向（H：僅限橫向安裝且為外配管型：C/S/GC/GS 的情況下） Piping Direction Selected for both HHorizontal Mounting and Piping MethodφC/S/GC/GS	A：上面配管 A：Top Piping B：側面配管 B：Side Piping ※ V：選擇縱向安裝時，即為“無標記”。 ※ For V：Vertical Mounting, Piping Direction is “Blank”. ※ H：橫向安裝且為外配管型：選擇 G 時，即為“無標記”。 ※ For H：Horizontal Mounting and Piping Method：G, Piping Direction is “Blank”.		

▶ 特性曲線圖的解讀方法

通過彈簧式蓄能器吸收壓力變動，以防止因異常高壓或低壓而導系統壓力變化

▶ HOW TO READ THE CHARACTERISTIC DIAGRAM

Accumulator absorbs the pressure fluctuation so that it prevents system pressure from variation due to the high or low abnormal pressure.

使用油缸	Clamp Used	CHA-55×4 臺（1 臺油缸夾緊時的油缸容量：26.7cm ³ ）
配管	Piping	內徑 φ6×2m（1m 的配管容積：28.3cm ³ ）
閥類的容積	Valve Capacity	20cm ³
溫度變化量	Temperature Change：ΔT	— 20℃
使用壓力	Operating Pressure：P	4.0MPa
熱膨脹系數	Thermal Expansion Coefficient：α	8×10 ⁻⁴

▶ 選型方法

- 夾具回路容積（V）的計算
油缸容積＋配管容積＋閥類的容積
 $V = (26.7 \times 4) + (28.3 \times 2) + 20 = 183.4 \text{ cm}^3$
- 變化容積（ΔV）的計算
夾具回路容量（V）× 熱膨脹系數（α）× 溫度變化量（ΔT）
 $\Delta V = 183.4 \times (8 \times 10^{-4}) \times (-20) = -2.93 \text{ cm}^3$
- 蓄能器型號的選定
根據使用壓力（P）= 4.0MPa，選定 CJSS4 □□□
根據變化容積（ΔV）= -2.93cm³，選定 CJSS405（變化容積超出曲線所示範圍時，請考慮容積大的「CJSS410」彈簧式蓄能器。）

- 彈簧式蓄能器特性的確認（請通過右圖進行確認。）
溫度變化（-20℃）後的壓力：2.92MPa
殘餘吐出容積的剩餘值：2.07cm³

- 請選定安裝方向、配管口、配管方向。

▶ 注意事項

- 請考慮彈簧力的固有差异，在選擇油容積時留有餘量。
【餘量油量的標準：CJSS □ 02…0.5cm³、CJSS □ 05…1.0cm³、CJSS □ 10…1.5cm³】

▶ SELECTION METHOD

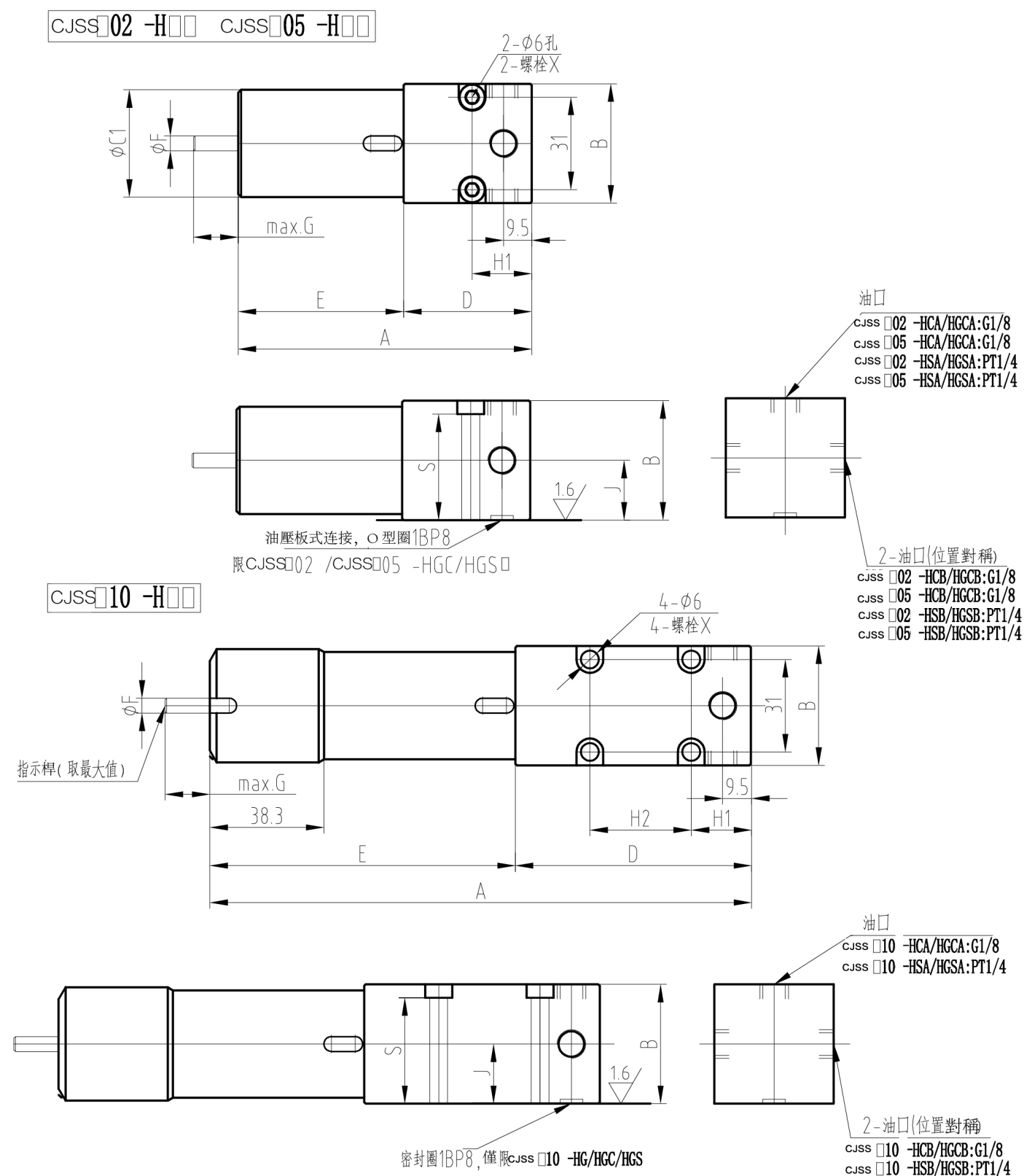
- Calculate Fixture Circuit Capacity (V)
Clamp Capacity＋Pipe Capacity＋Valve Capacity
 $V = (26.7 \times 4) + (28.3 \times 2) + 20 = 183.4 \text{ cm}^3$
- Calculate Change in Capacity (ΔV)
Fixture Circuit Capacity (V) × Thermal Expansion Coefficient (α) × Amount of Temperature Change (ΔT)， $\Delta V = 183.4 \times (8 \times 10^{-4}) \times (-20) = -2.93 \text{ cm}^3$
- Select Accumulator Mode
Operating Pressure (P)= 4.0MPa select CJSS4 □□□
Change in Capacity (ΔV)= -2.93cm³ select CJSS4050. (If the required discharge capacity is greater than showed on the graph, select larger accumulator [e.g. CJSS4100].)
- Check the Accumulator Characteristics (Graph on the right)
Pressure after Temperature Change (-20℃)：2.92MPa
Residual Oil Discharge Margin：2.07cm³
- Select the Attachment and Piping Methods.

▶ NOTE

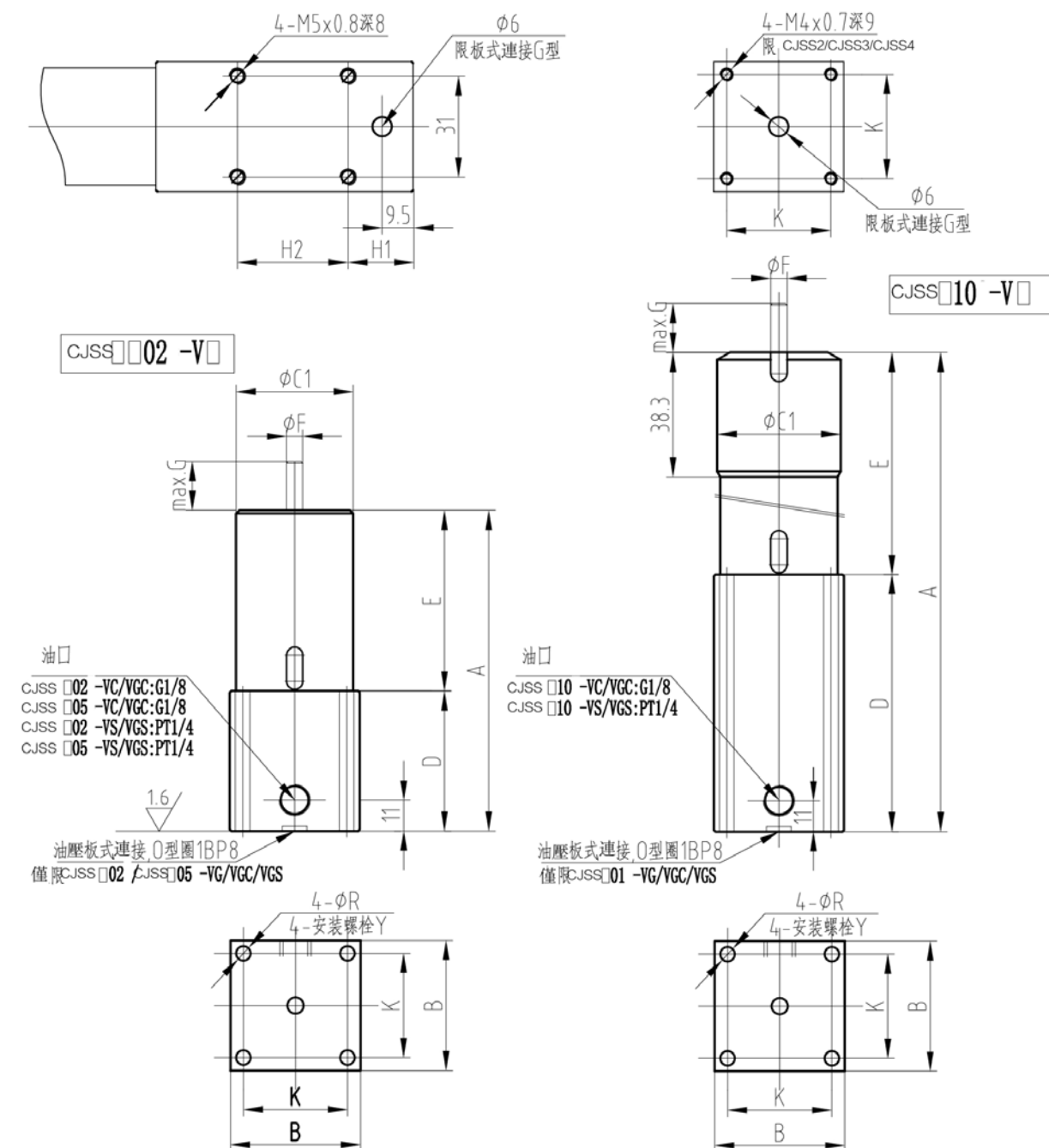
- When marking your selection, calculate tolerance for the oil capacity taking the spring force deviation into consideration.
【Approximate amount of spare oil：CJSS □ 02…0.5cm³、CJSS □ 05…1.0cm³、CJSS □ 10…1.5cm³】

型號	基準使用壓力	耐壓	吐出油量	吸入油量	壓縮系數（β）※1	使用溫度	使用流體	重量
MODEL	STANDARD OPERATING PRESSURE MPA	WITHSTANDING PRESSURE MPA	DISCHARGE OIL CAPACITY CM ³	ABSORBING CAPACITY CM ³	COMPRESSION FACTOR (β) ※1 MPA/CM ³	OPERATING TEMPERATURE ℃	USABLE FLUID	WEIGHT KG
CJSS202	2.0	14.0	2.5	1.0	0.40	0~70	相當於 ISO 粘度等級的 ISO-VG-32 一般液壓油	0.8
CJSS205	2.0	14.0	5.0	2.0	0.31	0~70		1.0
CJSS210	2.0	14.0	10.0	4.0	0.16	0~70		1.7
CJSS302	3.0	14.0	2.5	1.0	0.40	0~70		0.8
CJSS305	3.0	14.0	5.0	2.0	0.33	0~70	General Hydraulic Oil	1.1
CJSS310	3.0	14.0	10.0	4.0	0.17	0~70	Equivalent to ISO-VG-32	1.7
CJSS402	4.0	14.0	2.5	1.0	0.49	0~70		0.8
CJSS405	4.0	14.0	5.0	2.0	0.37	0~70		1.1
CJSS410	4.0	14.0	10.0	4.0	0.18	0~70		2.0

▶ 外形尺寸 EXTERNAL DIMENSIONS



▶ 安裝部位加工尺寸 MACHINING DIMENSIONS OF MOUNTING AREA



Unit:mm

MODEL	A	B	C1	C2	D	E	F	G ^{※1}	H1	H2	J	K	R	S	安裝螺栓 X Mounting Bolt X	安裝螺栓 Y Mounting Bolt Y
CJSS202 CJSS302 CJSS402	98.5	40	36	—	43	55.5	5	15	20	—	20	32	4.5	34	M5×0.8×40	M4×0.7×50
CJSS205 CJSS305 CJSS405	136.5	40	36	—	55	81.5	5	27	20	—	20	32	4.5	34	M5×0.8×40	M4×0.7×60
CJSS210 CJSS310 CJSS410	241.5	40	38	36	79	162.5	5	49	20	34	20	32	4.5	34	M5×0.8×40	M4×0.7×85

注意事項

※1. 指示器會隨壓力變化而頂出。計劃空間布置時需要考慮指示器的最大頂出量, 以避免與其他部位的干涉。

※2. G (板式連接型) 的安裝面 (O 形密封圈密封面) 的表面粗糙度應按 6.3S 加工。

1. 請勿擅自對本產品進行解體。機器設備內置有彈簧, 擅自拆卸往往會導致零部件彈出, 非常危險。

Notes

※1. Indicator extends proportionally to pressure. Be aware not to interfere with other devices of max. extension dimension when designing.

※2. Roughness of mounting surface (O ring seal surface) should be 6.3S or better.

1. Do not disassemble. Components include pressured spring parts. It is dangerous to disassemble.

CRA

旋轉接頭

CRA ROTARY JOINT

▶ 新產品說明

根據國內機加客戶的不斷提升，對四軸夾具的要求也越來越多，我們根據客戶的反饋信息的比較篩選結果，為客戶量身設計了幾種四軸旋轉接頭，希望您在選用前關於使用參數同我們技術人員溝通一下，謝謝合作！

▶ NEW PRODUCT INFORMATION

According to domestic customer continuously improving, the requirements for four-axis jig is improving. Base on screening results of customers feedback ratio, we design four-axis distributor for clients. Before you choose parameters, you can contact with engineers. Thanks for your cooperation!

▶ 訂購標示法

ORDERING INDICATION

CRA - 2

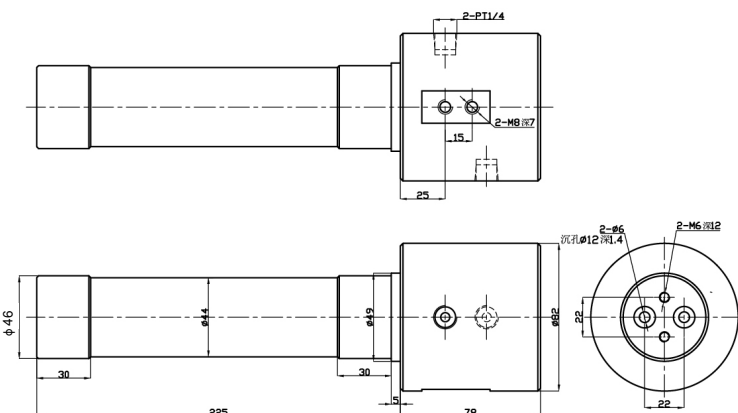
CRA	系列號	Series
2	2/4 回路數	Back to the way

型號 Model	CRA-2	CRA-4
回路數 Back to the way	2 回路 2 Loop	4 回路 4 Loop
使用流體 Usable fluid	相當於ISO粘度等級的ISO-VG-32一般液壓油 General Hydraulic Oil Equivalent to ISO-VG-32	
使用溫度範圍 Range of temperature(°C)	-10 ~ +70(°C)	
最高使用壓力 Max operation pressure(kg/cm²)	250kg/cm	

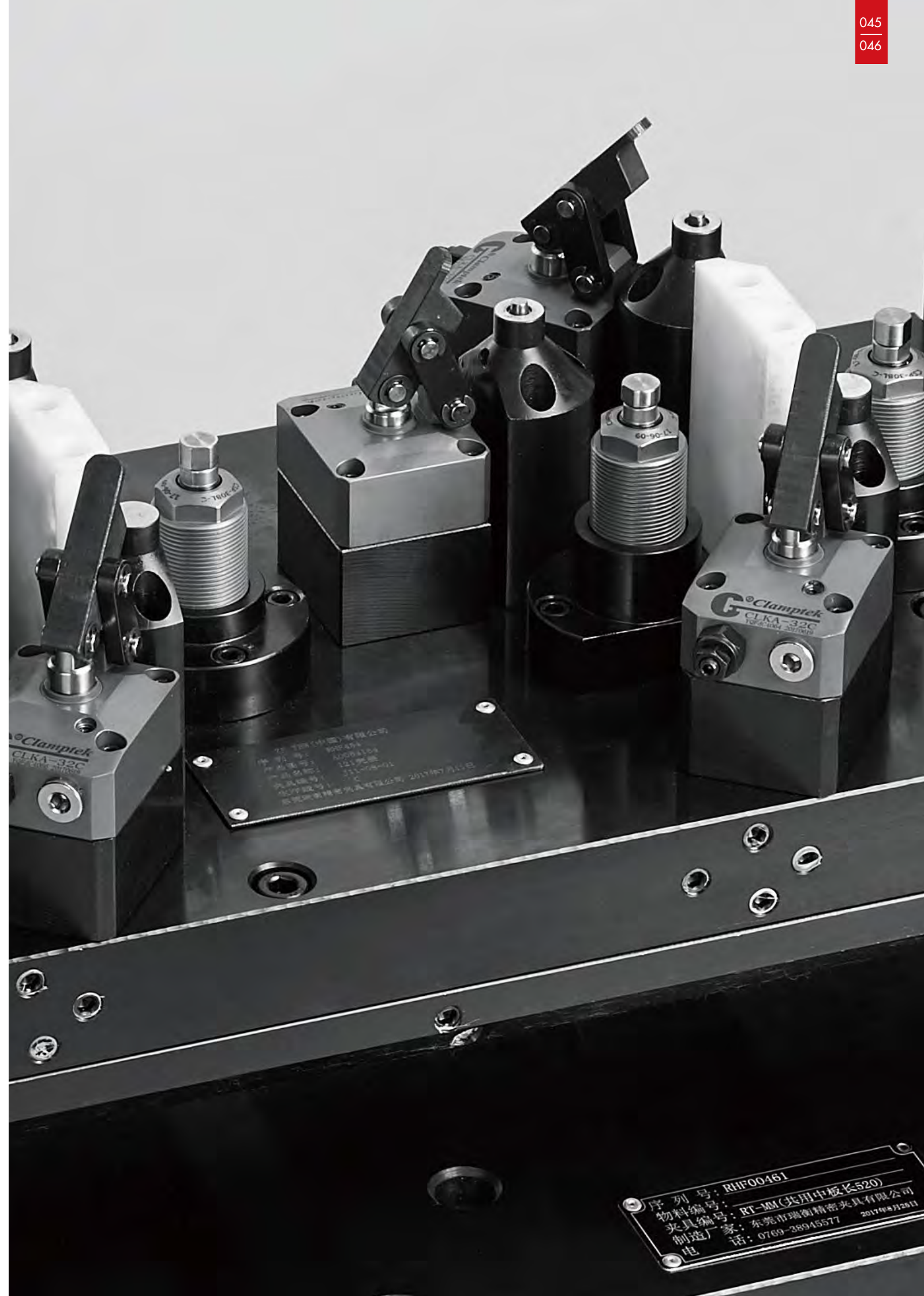
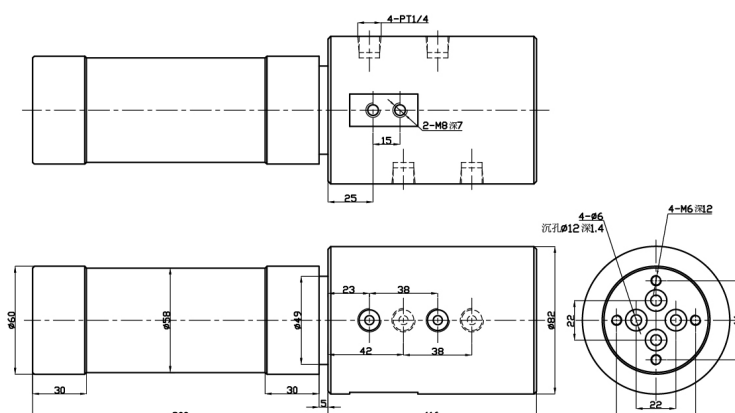


油壓旋轉接頭有效地解決了油壓軟管和固定分配管向加工中心旋轉工作臺供油難的問題。例如：在選擇 4 回路型時，可分別用於控制 4 臺單動油缸或 2 臺雙動油缸。

CRA-2



CRA-4



序列号: RHF00461
物料编号:
夹具编号: RT-MM(共用中板长520)
制造厂家: 东莞市瑞衡精密夹具有限公司
电话: 0769-38945577
2017年4月25日

▶ 產品特性

旋轉接頭適用於油壓 / 氣壓 / 大容量冷卻液的供給 JRB
採用專業開發的低摩擦密封件，從而實現了低轉矩、順暢的旋轉動作。此接頭是
兼具了高剛性 / 高耐久性 / 高密封性的嘉剛公司獨創的長壽命旋轉接頭。供給口
數量可選擇 2、4、6、8 供給口且有無中央供給口 ※1。

▶ 選配項 Options

	分類 classification	無中央供給口 No center Through Port
	供給口數量 The Number of the Ports	2/4/6/8 供給口 Port
	使用流體 Usable fluid	一般液壓油：7MPa 以下 General Hydraulic Oil: 7 mpa 氣壓：1MPa 以下 Air: 1 Mpa or Less
	特點 Features	低轉矩（緊湊型） Low Rotary Torque (Compact Design)

▶ FEATURES

Apply for Hydraulic , Pneumatic&High Volume Coolant※1
It adopts the original developed low friction seal and low torque enables smooth rotation.
Each part of this rotary joint is highly durable and each seal provided by CLAMPTEK has
low torque, highly durable and high capacity design that allows for a longer life of the
component. You can select the number of ports from 2, 4,6,8 along with the center through
port.

▶ 型號表示MODEL NO. INDICATION

CJRC 02 0 - S - A

CJRC	系列 Series	
02 0 S A	供給口數量 The Number of the Ports	02： 2 供給口 2ports 04： 4 供給口 4 ports 06: 6 供給口 6ports 08: 8 供給口 8ports
	無中央供給口 Center Through Port	0： 無中心供給口 No Center Through Port
	1 次側配管方式 Mounting Direction	B： 外配管式 (G 螺紋) Piping Option (BSPP Thread (G-Thread)) S： 外配管式 (Rc 螺紋) Piping Option (BSPT (Rc-Thread))
	2 次側配管方式 Secondary Side Piping Method	A： 板式連接 外配管并用在 (附帶 R 螺紋堵頭) A: Both Gasket and Piping Options (With BSPT Plug (R-Thread Plug)) D： 板式連接 外配管并用在 (附帶 G 螺紋堵頭) D： Both Gasket and Piping Options (With BSPP (G-Thread Plug))

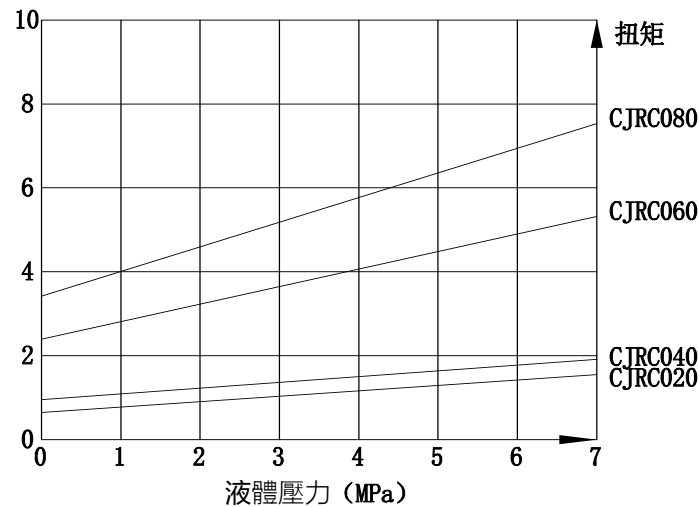
注意事項 Note

- 如需要上記配管方式以外連接方式時，請另行諮詢。
- Contact us, if you need a piping option different than what is shown in model code of catalogue.



能力曲線圖（轉矩：參考值）

PERFORMANCE CURVE
(ROTARY TORQUE REFERENCE VALUE)



型號 MODEL	轉矩 Rotary Torque (N · m)			
流体压力 Fluid Pressure (MPa)	CJRC020	CJRC040	CJRC060	CJRC080
7	1.5	1.8	5.5	7.5
6	1.4	1.7	5.1	6.9
5	1.4	1.6	4.7	6.4
4	1.3	1.5	4.3	5.8
3	1.2	1.5	4.0	5.3
2	1.1	1.4	3.6	4.7
1	1.1	1.3	3.2	4.2
0	1.0	1.2	2.8	3.6

注意事項

- 本圖表示轉矩 (N · m) 與流體壓力 (MPa) 之間的關係。
- 啓動轉矩偶爾會出現大于曲綫圖所示轉矩 2 倍的情況。而且會因擱置時間等條件而發生變化。
- 轉矩爲參考值。

Notes

- This graph shows the relationship between the rotary torque and the fluid pressure.
- The starting torque might be more than double of rotating torque shown in graphic and may change according to the conditions of the stationary down time. It varies according to the condition such as stationary down time.
- The rotary torque is a reference level.

型號	使用壓力 Operating Pressure MPa		供給口 Ports		中央供給口	容許旋轉速度 (7MPa 时)※1	使用流體	使用溫度	重量
MODEL	油 Oil	空气 Air	供給口数量 Number	最小通路面积 Min. Passage Area mm²	Center Through Port	Allowable Rotary Speed (at 7MPa)※1 min-1	Usable Fluid	Operating Temperature ℃	Weight(kg)
CJRC020	0 ~ 7.0	0 ~ 1.0	2	19.6	无 Nothing	280	普通液压油或空气 General Hydraulic Oil Equivalent to ISO-VG-32 or Air	-10 ~ 70	4.5
CJRC040	0 ~ 7.0	0 ~ 1.0	4	19.6	无 Nothing	280		-10 ~ 70	5.5
CJRC060	0 ~ 7.0	0 ~ 1.0	6	19.6	无 Nothing	200		-10 ~ 70	8.0
CJRC080	0 ~ 7.0	0 ~ 1.0	8	19.6	无 Nothing	200		-10 ~ 70	8.6

注意事項

- ※ 1. 容許旋轉速度是指在最高使用壓力 (油壓 7MPa) 下的值
- 油氣並用時，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。
 - 連續運轉會導致內部密封件發熱，因此請避免連續運轉。

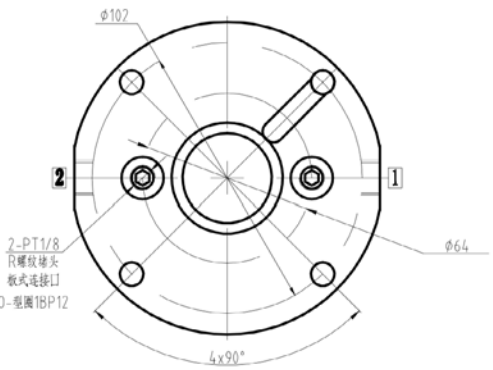
Notes

- ※ 1. The allowable rotary speed is based on operating pressure of maximum 7MPa.
- Please prepare one circuit for drainage between them when the oil slick leak from the hydraulic circuit to adjacent air circuit becomes a problem.
 - Please avoid continuous operation as it will cause overheating and damage to the internal packing.

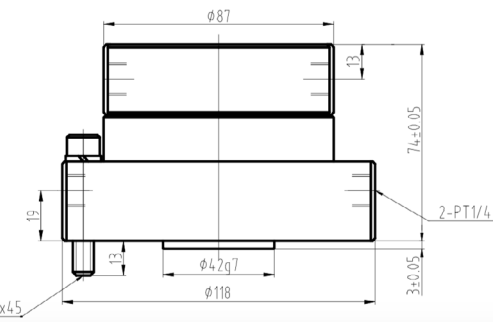
▶ 外形尺寸: CJRC020
External Dimensions: CJRC020

※ 本圖表示 CJRC020-S-A(2 回路)
※ This drawing indicates CJRC020-S-A(2 Port Circuit)

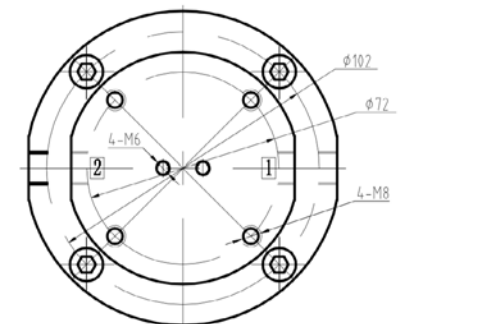
1 次側供給口或 2 次側供給口需要 G 螺紋時，請另行諮詢。
When G thread is necessary for a primary side or secondary side port, please contact us separately



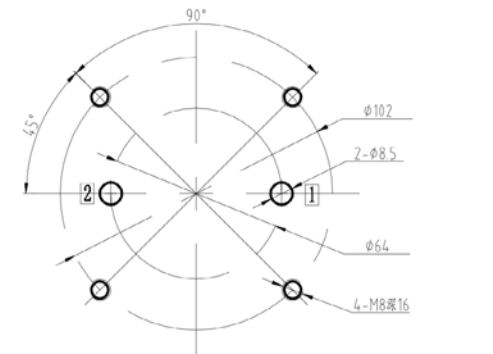
停止側 Stop Side



旋轉側 Rotating Side



安裝部位加工尺寸
Machining Dimensions of Mounting Area



▶ 型號表示 MODEL NO. INDICATION
CJRC 02 0 - B - A
S D

B S :1 次側配管方式 Primary Side Piping Method
A D :2 次側配管方式 Secondary Side Piping Method

1. 旋轉側請使用螺栓固定法蘭部，停止側請祇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。

1. The rotation side must be fixed the flange part with of bolt, and restrain only the rotation direction of the stop side.
2. Please use hose for piping of stop side.
3. Please prepare one circuit for drainage between them when the oil slick leak from the hydraulic circuit to adjacent air circuit becomes a problem.
4. Please avoid continuous operation as it will cause overheating and damage to the internal packing.
5. Each port exhibits a port number.
6. When using Rc1/4 thread for a secondary side port, please attach the attached R1/8 screw plug to the gasket port part. When using gasket option, please attach O-ring and R1/4 plug.

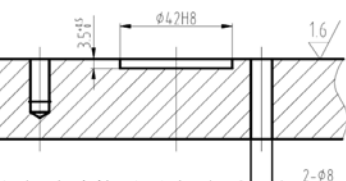
- 1 次側供給口 Incoming Port
2-Rc1/4 螺紋 Rc-1/4 Thread
2 次側供給口 Outgoing Port

- 2-Rc1/4 螺紋 2-Rc-1/4 Thread

- R 螺紋堵頭 (附帶) With BSPT
Plug (R-Thread Plug)

- 4-M8 × 45 螺栓 (附帶)
4-M8 × 1.25 × 45 Bolt (Included)

- 2-Rc1/8 螺紋 2-Rc-1/8 Thread
R 螺紋堵頭 (附帶) With BSPT
Plug (R-Thread Plug)
2 次側供給口 Outgoing Port
2- 板式連接口 2-Gasket Port
O 形密封圈: 1BP12(附帶)
O-ring: 1BP12 (Included)



仅板式连接需要此项

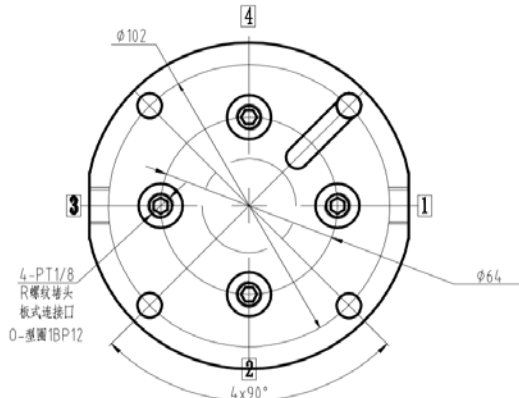
※ 1. 只有板式連接方式需要此項加工。
1. 安裝面 (O 形密封圈的密封面) 的表面粗糙度 按 6.3S 加工。

※ 1. Only in the case of a gasket method, it is necessary. 1. Roughness of mounting surface (O ring sealsurface) should be 6.3S or less.

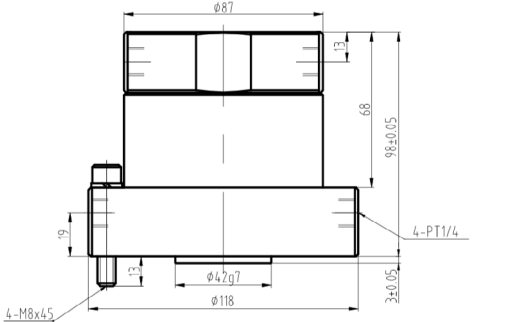
▶ 外形尺寸: CJRC040
External Dimensions: CJRC040

※ 本圖表示 CJRC040-S-A (4 回路)
※ This drawing indicates CJRC040-S-A(4 Port Circuit)

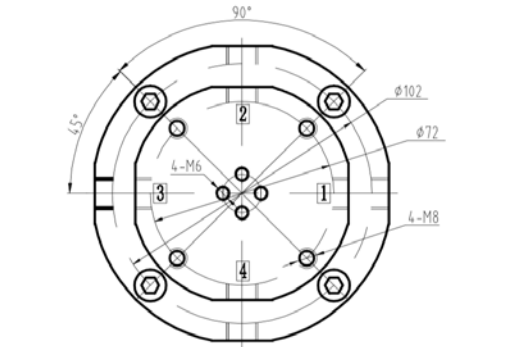
1 次側供給口或 2 次側供給口需要 G 螺紋時，請另行諮詢。
When G thread is necessary for a primary side or secondary side port, please contact us separately



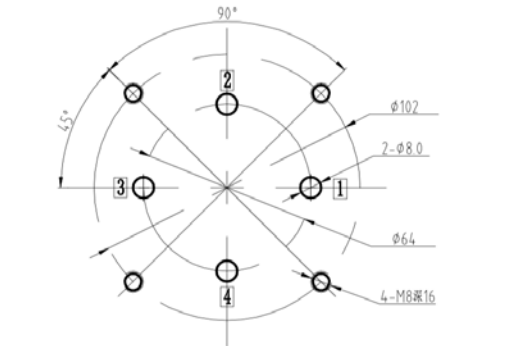
停止側 Stop Side



旋轉側 Rotating Side



安裝部位加工尺寸
Machining Dimensions of Mounting Area



▶ 型號表示 MODEL NO. INDICATION
CJRC 04 0 - B - A
S D

B S :1 次側配管方式 Primary Side Piping Method
A D :2 次側配管方式 Secondary Side Piping Method

1. 旋轉側請使用螺栓固定法蘭部，停止側請祇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。

1. The rotation side must be fixed the flange part with of bolt, and restrain only the rotation direction of the stop side.
2. Please use hose for piping of stop side.
3. Please prepare one circuit for drainage between them when the oil slick leak from the hydraulic circuit to adjacent air circuit becomes a problem.
4. Please avoid continuous operation as it will cause overheating and damage to the internal packing.
5. Each port exhibits a port number.
6. When using Rc1/4 thread for a secondary side port, please attach the attached R1/8 screw plug to the gasket port part. When using gasket option, please attach O-ring and R1/4 plug.

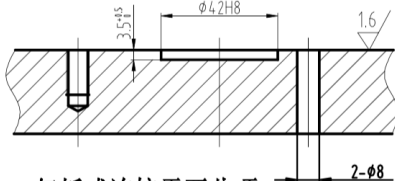
- 1 次側供給口 Incoming Port
2-Rc1/4 螺紋 Rc-1/4 Thread
2 次側供給口 Outgoing Port

- 2-Rc1/4 螺紋 2-Rc-1/4 Thread

- R 螺紋堵頭 (附帶) With BSPT
Plug (R-Thread Plug)

- 4-M8 × 45 螺栓 (附帶)
4-M8 × 1.25 × 45 Bolt (Included)

- 2-Rc1/8 螺紋 2-Rc-1/8 Thread
R 螺紋堵頭 (附帶) With BSPT
Plug (R-Thread Plug)
2 次側供給口 Outgoing Port
2- 板式連接口 2-Gasket Port
O 形密封圈: 1BP12(附帶)
O-ring: 1BP12 (Included)



仅板式连接需要此项

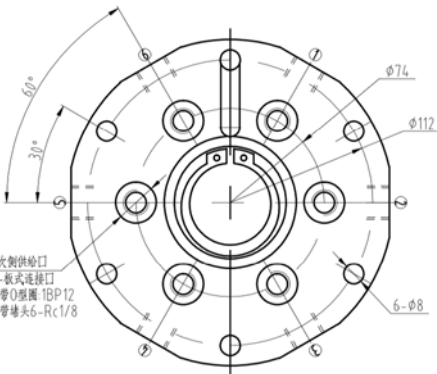
※ 1. 只有板式連接方式需要此項加工。
1. 安裝面 (O 形密封圈的密封面) 的表面粗糙度 按 6.3S 加工。

※ 1. Only in the case of a gasket method, it is necessary. 1. Roughness of mounting surface (O ring sealsurface) should be 6.3S or less.

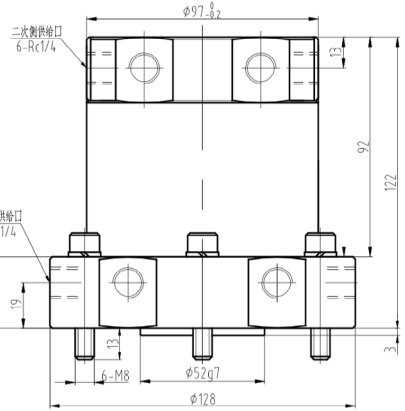
▶ 外形尺寸: CJRC060
External Dimensions: CJRC060

※ 本圖表示 CJRC060-S-A(6 回路)
※ This drawing indicates CJRC060-S-A(6 Port Circuit)

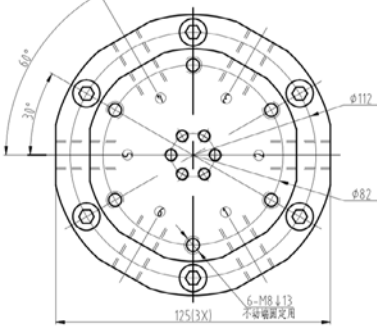
1 次側供給口或 2 次側供給口需要 G 螺紋時，請另行諮詢。
When G thread is necessary for a primary side or secondary side port, please contact us separately



停止側 Stop Side

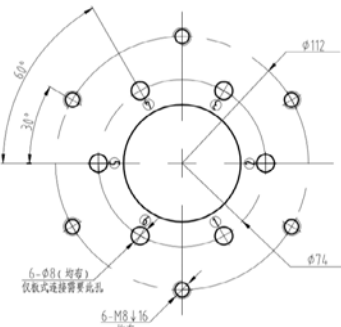


旋轉側 Rotating Side



安裝部位加工尺寸

Machining Dimensions of Mounting Area



▶ 型號表示 MODEL NO. INDICATION
CJRC 06 0 - B - A
S D

B S :1 次側配管方式 Primary Side Piping Method
A D :2 次側配管方式 Secondary Side Piping Method

1. 旋轉側請使用螺栓固定法蘭部，停止側請祇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。

1. The rotation side must be fixed the flange part with of bolt, and restrain only the rotation direction of the stop side.
2. Please use hose for piping of stop side.
3. Please prepare one circuit for drainage between them when the oil slick leak from the hydraulic circuit to adjacent air circuit becomes a problem.
4. Please avoid continuous operation as it will cause overheating and damage to the internal packing.
5. Each port exhibits a port number.
6. When using Rc1/4 thread for a secondary side port, please attach the attached R1/8 screw plug to the gasket port part. When using gasket option, please attach O-ring and R1/4 plug.

1 次側供給口 Incoming Port
2-Rc1/4 螺紋 2-Rc-1/4 Thread

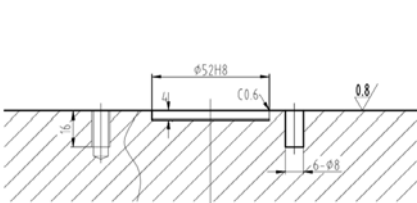
2 次側供給口 Outgoing Port

2-Rc1/4 螺紋 2-Rc-1/4 Thread

R 螺紋堵頭 (附帶) With BSPT
Plug (R-Thread Plug)

4-M8 × 45 螺栓 (附帶)
4-M8 × 1.25 × 45 Bolt (Included)

2-Rc1/8 螺紋 2-Rc-1/8 Thread
R 螺紋堵頭 (附帶) With BSPT
Plug (R-Thread Plug)
2 次側供給口 Outhround Port
2- 板式連接口 2-Plate Port
O 形密封圈: 1BP12(附帶)
O-ring: 1BP12 (Included)



僅板式連接需要此項

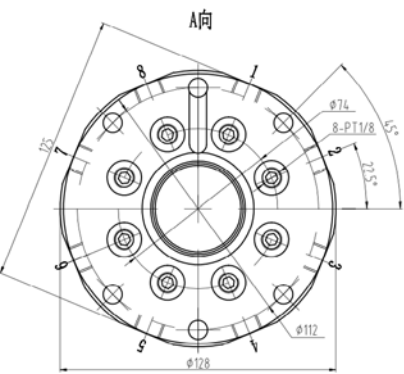
※ 1. 只有板式連接方式需要此項加工。
1. 安裝面 (O 形密封圈的密封面) 的表面粗糙度 按 6.3S 加工。

※ 1. Only in the case of a gasket method, it is necessary. 1. Roughness of mounting surface (O ring sealsurface) should be 6.3S or less.

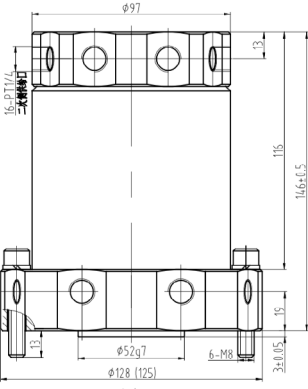
▶ 外形尺寸: CJRC080
External Dimensions: CJRC080

※ 本圖表示 CJRC080-S-A(8 回路)
※ This drawing indicates CJRC080-S-A(8 Port Circuit)

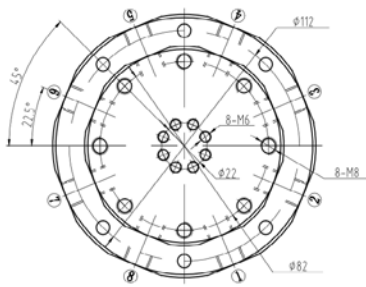
1 次側供給口或 2 次側供給口需要 G 螺紋時，請另行諮詢。
When G thread is necessary for a primary side or secondary side port, please contact us separately



停止側 Stop Side

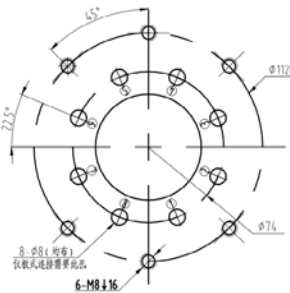


旋轉側 Rotating Side



安裝部位加工尺寸

Machining Dimensions of Mounting Area



2-φ8 or less※1
(180° Pitch)

4-M8 × 1.25 Depth 16
(90° or more)

▶ 型號表示 MODEL NO. INDICATION
CJRC 080 - B - A
S D

B S :1 次側配管方式 Primary Side Piping Method
A D :2 次側配管方式 Secondary Side Piping Method

1. 旋轉側請使用螺栓固定法蘭部，停止側請祇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。

1. The rotation side must be fixed the flange part with of bolt, and restrain only the rotation direction of the stop side.
2. Please use hose for piping of stop side.
3. Please prepare one circuit for drainage between them when the oil slick leak from the hydraulic circuit to adjacent air circuit becomes a problem.
4. Please avoid continuous operation as it will cause overheating and damage to the internal packing.
5. Each port exhibits a port number.
6. When using Rc1/4 thread for a secondary side port, please attach the attached R1/8 screw plug to the gasket port part. When using gasket option, please attach O-ring and R1/4 plug.

1 次側供給口 Incoming Port
2-Rc1/4 螺紋 2-Rc-1/4 Thread

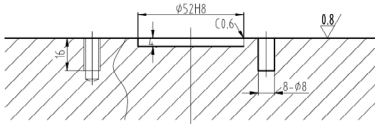
2 次側供給口 Outgoing Port

2-Rc1/4 螺紋 2-Rc-1/4 Thread

R 螺紋堵頭 (附帶) With BSPT
Plug (R-Thread Plug)

4-M8 × 45 螺栓 (附帶)
4-M8 × 1.25 × 45 Bolt (Included)

2-Rc1/8 螺紋 2-Rc-1/8 Thread
R 螺紋堵頭 (附帶) With BSPT
Plug (R-Thread Plug)
2 次側供給口 Outgoing Port
2- 板式連接口 2-Gasket Port
O 形密封圈: 1BP12(附帶)
O-ring: 1BP12 (Included)



僅板式連接需要此項

※ 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。

※ 1. Only in the case of a gasket method, it is necessary. 1. Roughness of mounting surface (O ring sealsurface) should be 6.3S or less.

CLL

油壓緊湊型直線缸

CLL HYDRAULIC COMPACT LINEAR CYLINDER

產品特性

以最小空間實現最大的行程，CLL/CLLR/CLLU 可以 1mm 為單位指定行程，又可以在豐富組合中進行選擇。

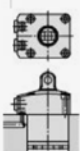
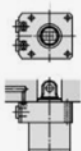
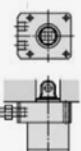
FEATURES

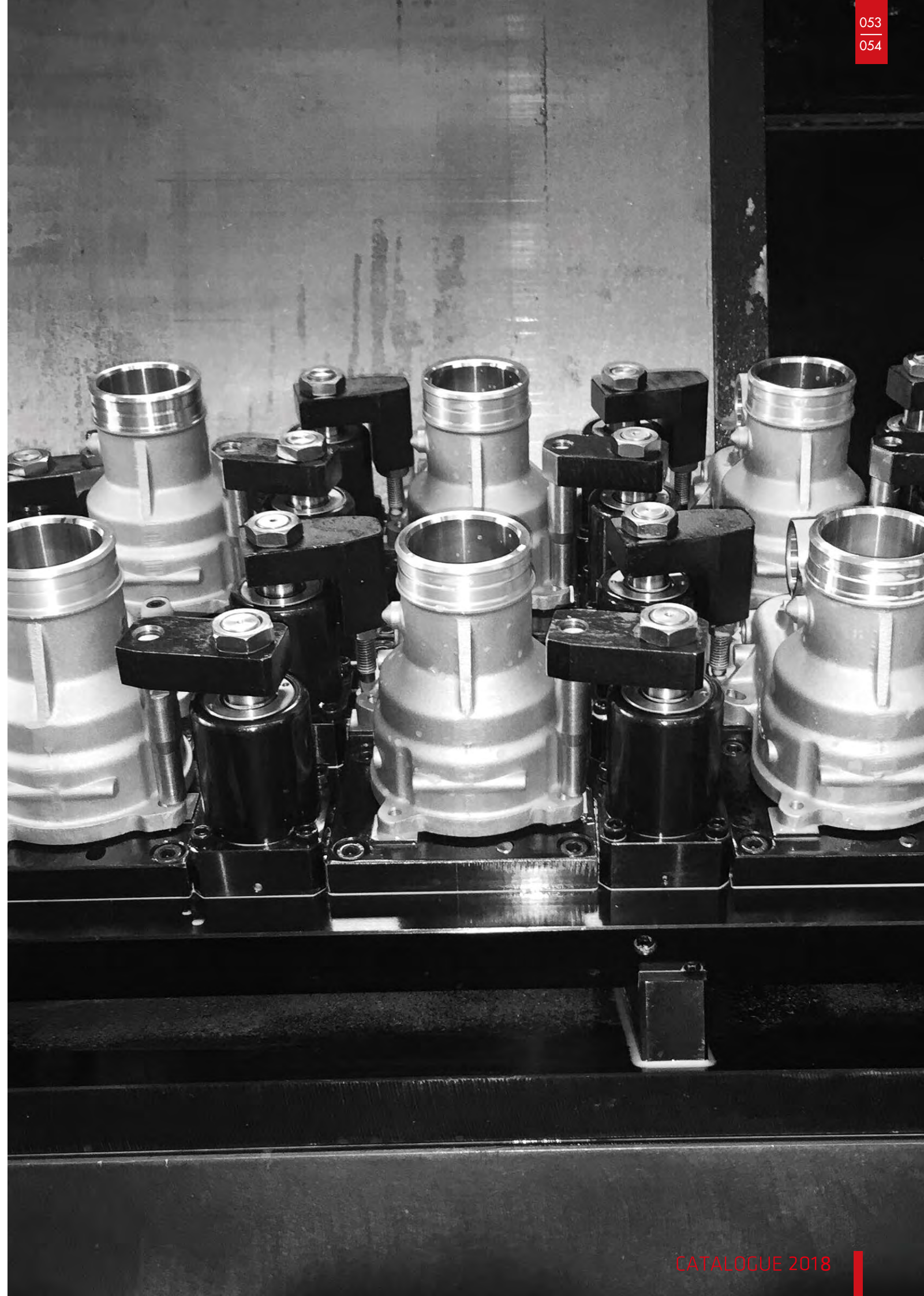
Maximum stroke is available with minimum space. CLL/CLLR/CLLU with 1 mm stroke increments and a variety of styles.

訂購標示法 ORDERING INDICATION

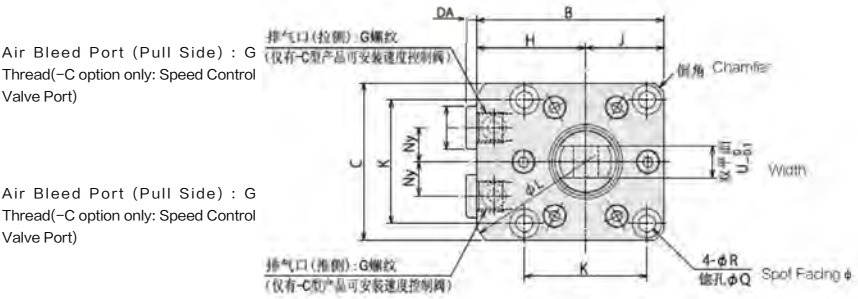
CLL-048-CA-050



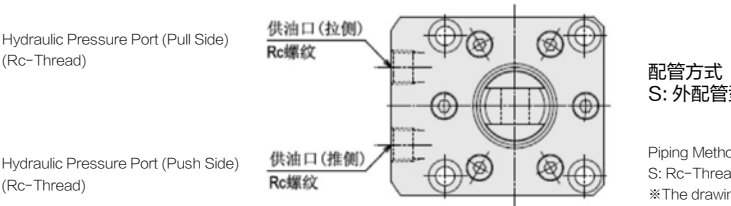
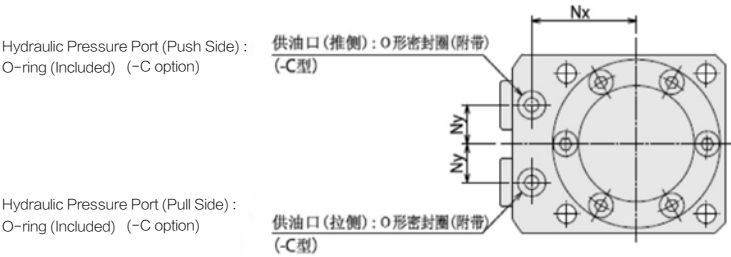
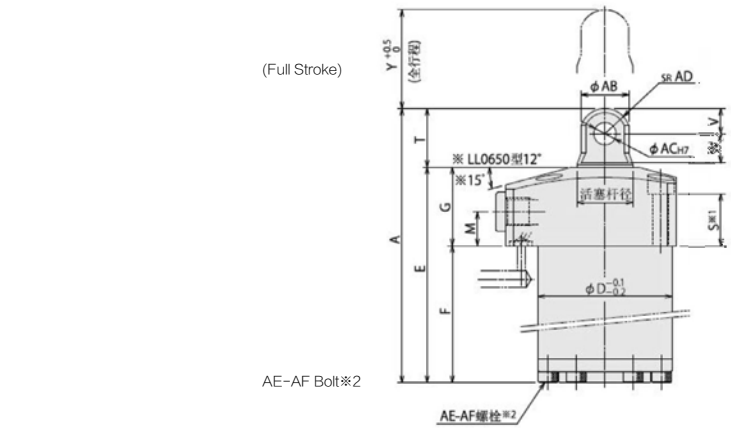
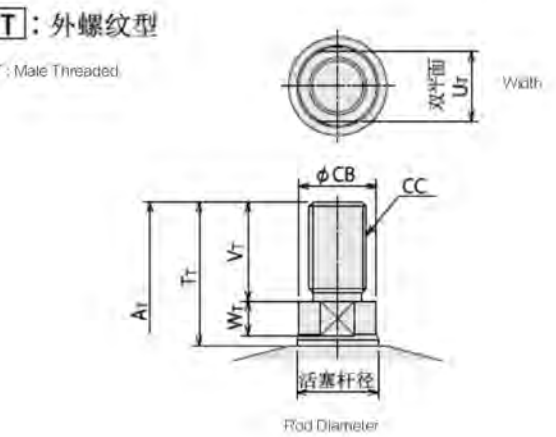
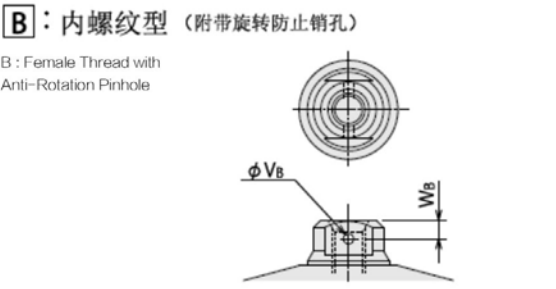
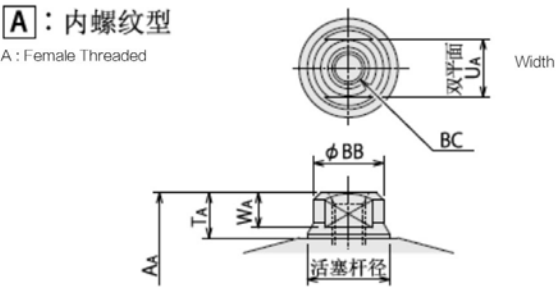
048	安裝方式 Mounting Methods	  			
		CLL: 法蘭下部安裝型 Top Flange	CLLR: 法蘭上部安裝型 Bottom Flange	CLLU: 法蘭上部安裝型 (節省空間型) Bottom Flange (Compact)	
	本體尺寸 BodySize	Φ36: ΦD=36 040: ΦD=40 065: ΦD=65 075: ΦD=75	048: ΦD=48 090: ΦD=90	055: ΦD=55 105: ΦD=105	注: ΦD 是油缸本體外徑尺寸 Note: ΦD indicates the outer diameter of the Cylinder
	配管方式 Piping Method	C: 板式連接型 (附帶 G 螺紋堵頭, 對應 CLL/CLLR 型) S: 配管型 (Rc 螺紋, 對應 CLL/CLLR 型) G: 板式連接型 (祇有板式供油口, 對應 CLLU 型) C: Gasket Option (With G Thread Plug, Apply to CLL/CLLR) S: Piping Option (Rc Thread Port, Apply to CLL/CLLR) G: Gasket Option (Gasket Port only, Apply to CLLU)			
A	活塞前端形狀 Shape of Piston Tip	C(CLL) C(CLLR) S(CLL) S(CLLR) G(CLLU)      板式連接型 (CLL/CLLR) 管式連接型 (CLL/CLLR) 板式連接型 (CLLU)			
		A: 內螺紋型 B: 內螺紋型 (附帶旋轉防止銷孔) T: 外螺紋型 P: 銷孔連接型 A: Female Threaded B: Female Threaded (With Anti-Rotation Pinhole) T: Male Threaded P: Pin-Hole Option			A B T P        
050	行程 Stroke				



C: 板式連接型 (配有 G 螺紋堵頭) C: Gasket Option (with G Thread Plug)
P: 銷孔連接型 本圖表示 CLL-CP P : Pin-Hole Option ※This drawing indicatesCLL-CP.



Tip Shape Refer P pinhole option dimension for not mentioned size below
柱塞前端形狀 無記載的尺寸請參照銷孔連接型



配管方式
S: 外配管型 (Rc) 螺紋 本圖為 CLL-SP 型

Piping Method
S: Rc-Thread Piping Option
※ The drawing shows CLL-SP.

型號	總行程	油缸面積		油缸輸出力		油缸容量 (計算公式)		油缸內徑	活塞杆徑	最高使用壓力	最低動作壓力	耐壓	使用溫度	重量
MODEL	Full Stroke Y mm	推側 Push Side	拉側 Pull Side	推側 Push Side	拉側 Pull Side	推側 Push Side	拉側 Pull Side	Cylinder inside diameter mm	Rod Diameter mm	Operating Pressure Mpa	Operating Pressure Mpa	Withstanding Pressure Mpa	Operating Temperature °C	Weight kg
CLL036	51 ~ 100	4.5	2.5	P*0.45	P*0.25	Y*0.45	Y*0.25	Φ24	Φ16	7.0	0.5	10.5	0~70	0.9 ~ 1.2
CLL040	51 ~ 100	5.3	2.8	P*0.53	P*0.28	Y*0.53	Y*0.28	Φ26	Φ18	7.0	0.5	10.5	0~70	1.0 ~ 1.4
CLL048	76 ~ 200	8.0	4.9	P*0.80	P*0.49	Y*0.80	Y*0.49	Φ32	Φ20	7.0	0.5	10.5	0~70	1.7 ~ 3.0
CLL055	76 ~ 200	9.6	5.8	P*0.96	P*0.58	Y*0.96	Y*0.58	Φ35	Φ22	7.0	0.5	10.5	0~70	2.3 ~ 4.1
CLL065	76 ~ 200	15.9	11.0	P*1.59	P*1.10	Y*1.59	Y*1.10	Φ45	Φ25	7.0	0.5	10.5	0~70	3.2 ~ 5.4
CLL075	76 ~ 200	23.8	16.7	P*2.38	P*1.67	Y*2.38	Y*1.67	Φ55	Φ30	7.0	0.5	10.5	0~70	4.4 ~ 7.1
CLL090	76 ~ 200	36.3	26.4	P*3.63	P*2.64	Y*3.63	Y*2.64	Φ68	Φ35.5	7.0	0.5	10.5	0~70	6.5 ~ 10.1
CLL105	76 ~ 200	50.3	34.4	P*5.03	P*3.44	Y*5.03	Y*3.44	Φ80	Φ45	7.0	0.5	10.5	0~70	9.0 ~ 13.0

P: 銷孔連接型 Pin-Hole Option

MODEL	全行程 Full Stroke Y	A	B	C	D	E	F	G	H	J	K	L	M	N _x	N _y	Q	R	S	T	U	V	W	倒角 Chamfer
CLL036	51~100	Y+63	49	40	36	Y+48	Y+23	25	29	20	31.4	66	11	23.5	8	7.5	4.5	16	15	6	6	7.5	C2
CLL040	51~100	Y+70	54	45	40	Y+51	Y+26	25	31.5	22.5	34	73	11	26	9	9.5	5.5	14	19	8	8	9.5	C3
CLL048	76~200	Y+76	61	51	48	Y+55	Y+27	28	35.5	25.5	40	83	12	30	11	9.5	5.5	15.5	21	10	9	10.5	C3
CLL055	76~200	Y+81	69	60	55	Y+57	Y+29	28	39	30	47	88	12	33.5	12	11	6.8	13	24	11	10	12	C3
CLL065	76~200	Y+91	81	70	65	Y+63	Y+33	30	46	35	55	106	13	39.5	15	11	6.8	15.5	28	13	12	14	C4
CLL075	76~200	Y+107	92	80	75	Y+74	Y+37	37	52	40	63	116	16	45	16	14	9	17.5	33	16	14	17	C5
CLL090	76~200	Y+121	107	95	90	Y+84	Y+44	40	59.5	47.5	75	136	16	52.5	18.5	17.5	11	16.5	37	19	16	19	C6
CLL105	76~200	Y+138	122	110	105	Y+92	Y+47	45	67	55	88	152	17	60	22.5	20	14	17.5	46	22	21	23	C6

MODEL	AB	AC	AD	AE	AF	DA	DB	排氣口 Air Bleed Port -C 型	供油口 Hydraulic Port -S 型	O 型密封圈 O-ring
CLL036	12	6 ₀ ^{+0.012}	6	5	M3*0.5	3.5	14	G1/8	RC1/8	1BP5
CLL040	15	8 ₀ ^{+0.015}	8	4	M4*0.7	3.5	14	G1/8	RC1/8	1BP5
CLL048	17	8 ₀ ^{+0.015}	9	6	M4*0.7	3.5	14	G1/8	RC1/8	1BP5
CLL055	19	10 ₀ ^{+0.015}	10	4	M5*0.8	3.5	14	G1/8	RC1/8	1BP5
CLL065	22	12 ₀ ^{+0.018}	12	6	M5*0.8	4.5	19	G1/4	RC1/4	1BP7
CLL075	27	14 ₀ ^{+0.018}	14	6	M6	4.5	19	G1/4	RC1/4	1BP7
CLL090	32	16 ₀ ^{+0.018}	16	8	M6	4.5	22	G3/8	RC3/8	1BP7
CLL105	42	20 ₀ ^{+0.021}	21	10	M6	4.5	22	G3/8	RC3/8	1BP7

B: 内螺紋型
B:Female Threaded

無記載的尺寸請參照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below.

MODEL	AA	TA	UA	WA	BB	BC(名稱 * 深度) (Nominal×Depth)
CLL036	Y+57	9	12	7.5	14	M6*12
CLL040	Y+61	10	13	7.5	15	M8*16
CLL048	Y+66	11	14	8.5	17	M8*16
CLL055	Y+69	12	17	9	19	M10*20
CLL065	Y+76	13	19	10	22	M12*24
CLL075	Y+89	15	24	12	27	M16*32
CLL090	Y+100	16	30	13	33	M20*40
CLL105	Y+110	18	36	15	42	M24*48

A: 内螺紋型 (附帶旋轉防止銷孔)
A:Female Thread with Anti-Rotation Pinhole

無記載的尺寸請參照 P: 銷孔連接型。A: 内螺紋型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

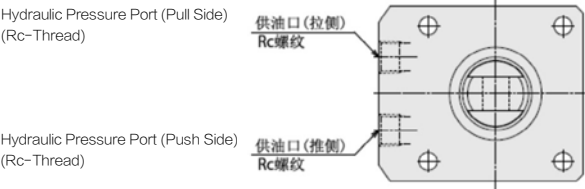
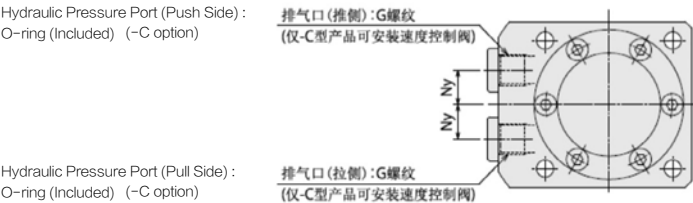
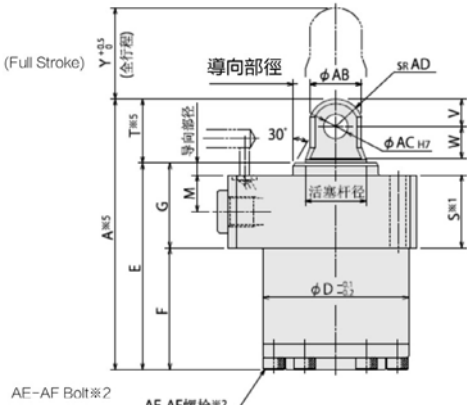
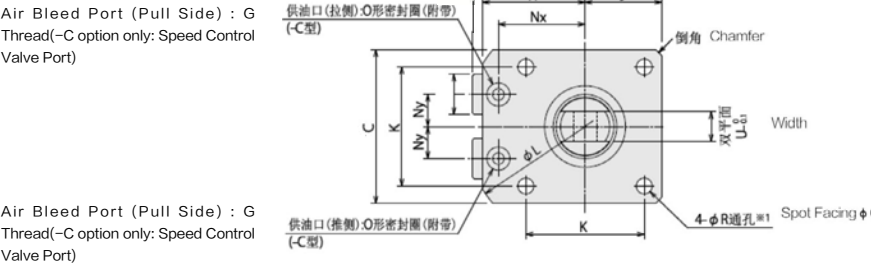
MODEL	VB	WB
CLL036	2	5.5
CLL040	2.5	5
CLL048	2.5	6
CLL055	2.5	6.5
CLL065	3	7
CLL075	4	8.5
CLL090	5	9
CLL105	6	10.5

T: 外螺紋型
T : Male Threaded

無記載的尺寸請參照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below

MODEL	AT	TT	UT	VT	WT	CB	CC(名稱 * 螺距) (Nominal×Pitch)
CLL036	Y+73	25	12	16	7.5	14	M10*1.25
CLL040	Y+81	30	14	20	7.5	17	M12*1.25
CLL048	Y+90	35	17	24	8.5	19	M14*1.5
CLL055	Y+97	40	17	28	9	21	M16*1.5
CLL065	Y+108	45	19	32	10	24	M20*1.5
CLL075	Y+124	50	24	35	12	29	M24*1.5
CLL090	Y+146	62	30	46	13	34.5	M30*1.5
CLL105	Y+164	72	36	54	15	42	M36*1.5

C: 板式連接型 (配有 G 螺紋堵頭) C: Gasket Option (with G Thread Plug)
P: 銷孔連接型 本圖表示 CLLR-CP 型 P : Pin-Hole Option※ This drawing indicates CLLR-CP.



配管方式
S: 外配管型 (Rc) 螺紋 本圖為 CLLR-SP 型

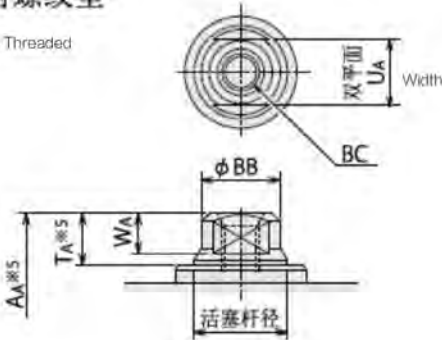
Piping Method
S: Rc-Thread Piping Option
※ The drawing shows CLL-SP.

Tip Shape Refer P pinhole option dimension for not mentioned size below

柱塞前端形狀 無記載的尺寸請參照銷孔連接型

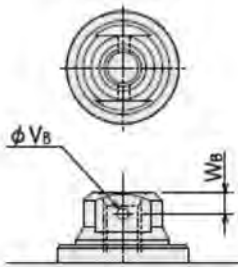
A : 内螺紋型

A : Female Threaded



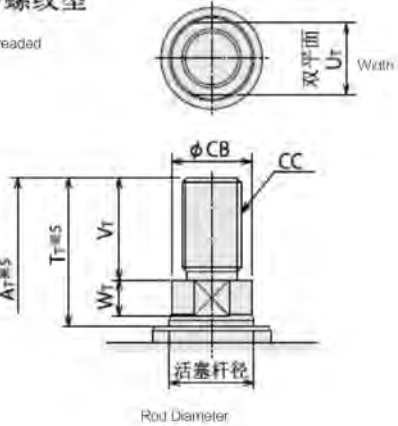
B : 内螺紋型(附帶旋轉防止銷孔)

B : Female Thread with Anti-Rotation Pinhole



T : 外螺紋型

T : Male Threaded



P: 銷孔連接型 Pin-Hole Option

全行程 Y=1 ~ 14mm 時，外形尺寸與行程 15mm 時的油缸是一樣的 (例) CLLR036-P-010 [Y=10, A=63, E=48, F=23] CLLR036-P-030 [Y=30, A=78, E=63, F=38]

※ Calculation formula is different between full stroke: Y=1-14 mm and Y= more than 15 mm.Ex.) CLLR036-P-010 [Y=10, A=63, E=48, F=23] CLLR036-P-030 [Y=30, A=78, E=63, F=38]

MODEL	全行程 Full Stroke Y		A	B	C	D	E	F	G	H	J	K	L	M	Nx	Ny	R	S	導向部徑 The Diameter of Mating Fit				
CLLR036	1~14	15~50	63	Y+48	49	40	36	48	Y+33	23	Y+8	25	29	20	31.4	66	11	23.5	8	4.5	21	23	-0.02 -0.05
CLLR040	1~14	15~50	70	Y+55	55	47	40	51	Y+36	26	Y+11	25	31.5	23.5	36	73	11	26	9	5.5	21	25	-0.02 -0.05
CLLR048	1~14	15~75	74	Y+59	62	53	48	53	Y+38	25	Y+10	28	35.5	26.5	41	83	12	30	11	5.5	24	28	-0.02 -0.05
CLLR055	1~14	15~75	80	Y+65	69	60	55	56	Y+41	28	Y+13	28	39	30	47	88	12	33.5	12	6.8	24	32	-0.025 -0.064
CLLR065	1~14	15~75	90	Y+75	81	70	65	62	Y+47	32	Y+17	30	46	35	55	106	13	39.5	15	6.8	26	38	-0.025 -0.064
CLLR075	1~14	15~75	101	Y+86	93	82	75	68	Y+53	31	Y+16	37	52	41	64	116	16	45	16	9	32	44	-0.025 -0.064
CLLR090	1~14	15~75	114	Y+99	108	97	90	77	Y+62	37	Y+22	40	59.5	48.5	76	136	16	52.5	18.5	11	35	50	-0.025 -0.064
CLLR105	1~14	15~75	127	Y+112	122	110	105	81	Y+66	36	Y+21	45	67	55	88	152	17	60	22.5	14	39	60	-0.03 -0.076

MODEL	導向部長度 The Length of Mating Fit	T	U	V	W	倒角 Chamfer	AB	AC	AD	AE	AF	DA	DB	排氣口 Air Bleed Port -C 型	供油口 Hydraulic Port -S 型	O 型密封圈 O-ring
CLLR036	4	15	6	6	7.5	C2	12	6+0.012 0	6	5	M3*0.5	3.5	14	G1/8	RC1/8	1BP5
CLLR040	4	19	8	8	9.5	C2	15	8+0.015 0	8	4	M4*0.7	3.5	14	G1/8	RC1/8	1BP5
CLLR048	4	21	10	9	10.5	C3	17	8+0.015 0	9	6	M4*0.7	3.5	14	G1/8	RC1/8	1BP5
CLLR055	4	24	11	10	12	C3	19	10+0.015 0	10	4	M5*0.8	3.5	14	G1/8	RC1/8	1BP5
CLLR065	4	28	13	12	14	C4	22	12+0.018 0	12	6	M5*0.8	4.5	19	G1/4	RC1/4	1BP7
CLLR075	5	33	16	14	17	C5	27	14+0.018 0	14	6	M6	4.5	19	G1/4	RC1/4	1BP7
CLLR090	5	37	19	16	19	C6	32	16+0.018 0	16	8	M6	4.5	22	G3/8	RC3/8	1BP7
CLLR105	6	46	22	21	23	C6	42	20+0.021 0	21	10	M6	4.5	22	G3/8	RC3/8	1BP7

A: 内螺紋型
A:Female Threaded

無記載的尺寸請參照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below.

MODEL	AA	TA	UA	WA	BB	BC(名稱 * 深度) (Nominal×Depth)
CLLR036	57 Y+42	9	12	7.5	14	M6*12
CLLR040	61 Y+46	10	13	7.5	15	M8*16
CLLR048	64 Y+49	11	14	8.5	17	M8*16
CLLR055	68 Y+53	12	17	9	19	M10*20
CLLR065	75 Y+60	13	19	10	22	M12*24
CLLR075	83 Y+68	15	24	12	27	M16*32
CLLR090	93 Y+78	16	30	13	33	M20*40
CLLR105	99 Y+84	18	36	15	42	M24*48

B: 内螺紋型 (附帶旋轉防止銷孔)
B:Female Thread with Anti-Rotation Pinhole

無記載的尺寸請參照 P: 銷孔連接型。 A: 内螺紋型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

MODEL	VB	WB
CLLR036	2	5.5
CLLR040	2.5	5
CLLR048	2.5	6
CLLR055	2.5	6.5
CLLR065	3	7
CLLR075	4	8.5
CLLR090	5	9
CLLR105	6	10.5

T: 外螺紋型
T : Male Threaded

無記載的尺寸請參照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below

MODEL	AT	TT	UT	VT	WT	CB	CC(名稱 * 螺距) (Nominal×Pitch)
CLLR036	73 Y+58	25	12	16	7.5	14	M10*1.25
CLLR040	81 Y+66	30	14	20	7.5	17	M12*1.25
CLLR048	88 Y+73	35	17	24	8.5	19	M14*1.5
CLLR055	96 Y+81	40	17	28	9	21	M16*1.5
CLLR065	107 Y+92	45	19	32	10	24	M20*1.5
CLLR075	118 Y+103	50	24	35	12	29	M24*1.5
CLLR090	139 Y+124	62	30	46	13	34.5	M30*1.5
CLLR105	153 Y+138	72	36	54	15	42	M36*1.5

C: 板式連接型 (配有 G 螺紋堵頭)
P: 銷孔連接型 本圖表示 CLLR-CP

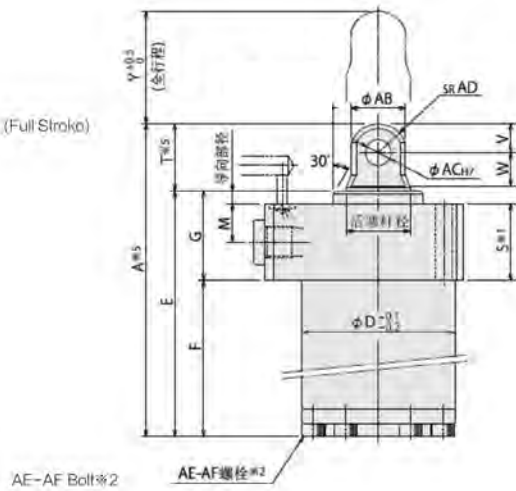
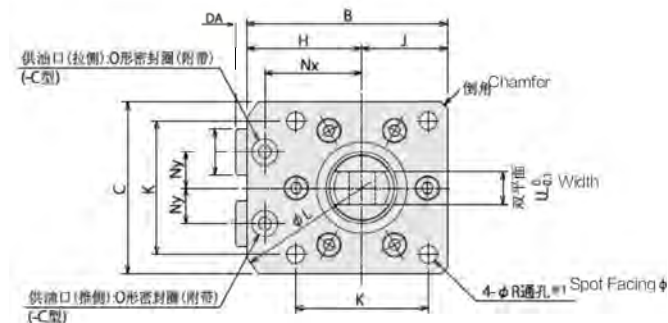
C: Gasket Option (with G Thread Plug)
P : Pin-Hole Option※This drawing indicates LL-CP.

Tip Shape Refer P pinhole option dimension for not mentioned size below

柱塞前端形狀 無記載的尺寸請參照銷孔連接型

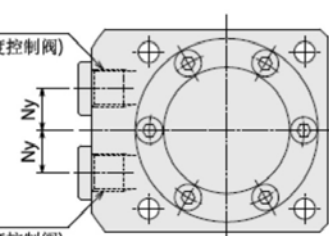
Air Bleed Port (Pull Side) : G
Thread(-C option only: Speed Control
Valve Port)

Air Bleed Port (Pull Side) : G
Thread(-C option only: Speed Control
Valve Port)



Hydraulic Pressure Port (Push Side) :
O-ring (Included) (-C option)

排气口(推侧):G螺纹
(仅C型产品可安装)



Hydraulic Pressure Port (Pull Side) :
O-ring (Included) (-C option)

排气口(拉侧):G螺纹
(仅-C型产品可安装速度控制阀)

Hydraulic Pressure Port (Pull Side)
(Rc-Thread)

供油口(拉侧)
Rc螺紋

配管方式
S: 外配管型 (Rc) 螺紋 本圖為 CLLR-SP 型

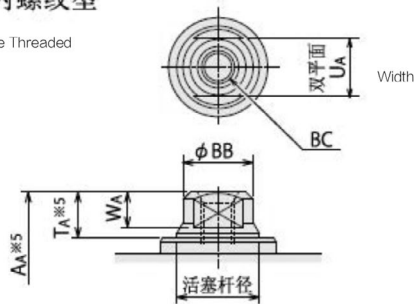
Hydraulic Pressure Port (Push Side)
(Rc-Thread)

供油口(推侧)
Rc螺纹

Piping Method
S: Rc-Thread Piping Option
※The drawing shows CLL-SP.

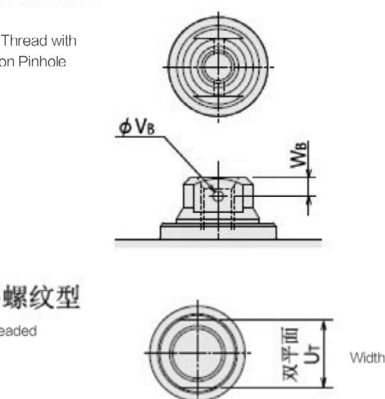
A：内螺纹型

A : Female Threaded



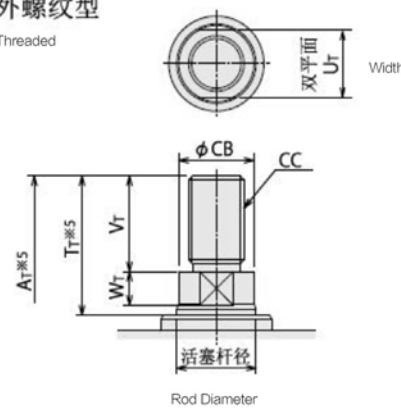
B：内螺纹型(附带旋转防止销孔)

B : Female Thread with
Anti-Rotation Pinhole



T：外螺纹型

T : Male Threaded



P: 銷孔連接型 Pin-Hole Option

mm

MODEL	全行程 Full Stroke Y	A	B	C	D	E	F	G	H	J	K	L	M	Nx	Ny	R	S	導向部徑 The Diameter of Mating Fit
CLLR048	76 ~ 150	Y+76	62	53	48	Y+55	Y+27	28	35.5	26.5	41	83	12	30	11	5.5	24	28 ^{+0.020} _{-0.053}
CLLR055	76 ~ 150	Y+81	69	60	55	Y+57	Y+29	28	39	30	47	88	12	33.5	12	6.8	24	32 ^{+0.025} _{-0.064}
CLLR065	76 ~ 150	Y+91	81	70	65	Y+63	Y+33	30	46	35	55	106	13	39.5	15	6.8	26	38 ^{+0.025} _{-0.064}
CLLR075	76 ~ 150	Y+107	93	82	75	Y+74	Y+37	37	52	41	64	116	16	45	16	9	32	44 ^{+0.025} _{-0.064}
CLLR090	76 ~ 150	Y+121	108	97	90	Y+84	Y+44	40	59.5	48.5	76	136	16	52.5	18.5	11	35	50 ^{+0.025} _{-0.064}
CLLR105	76 ~ 150	Y+138	122	110	105	Y+92	Y+47	45	67	55	88	152	17	60	22.5	14	39	60 ^{+0.003} _{-0.076}

mm

MODEL	導向部長度 The Length of Mating Fit	T*s	U	V	W	倒角 Chamfer	AB	AC	AD	AE	AF	DA	DB	排氣口 Air Bleed Port -C 型	供油口 Hydraulic Port -S 型	O 型密封圈 O-ring
CLLR048	4	21	10	9	10.5	C3	17	8+0.015 0	9	6	M4*0.7	3.5	14	G1/8	RC1/8	1BP5
CLLR055	4	24	11	10	12	C3	19	10+0.018 0	10	4	M5*0.8	3.5	14	G1/8	RC1/8	1BP5
CLLR065	4	28	13	12	14	C4	22	12+0.018 0	12	6	M5*0.8	4.5	19	G1/4	RC1/4	1BP7
CLLR075	5	33	16	14	17	C5	27	14+0.018 0	14	6	M6	4.5	19	G1/4	RC1/4	1BP7
CLLR090	5	37	19	16	19	C6	32	16+0.018 0	16	8	M6	4.5	22	G3/8	RC3/8	1BP7
CLLR105	6	46	22	21	23	C6	42	20+0.021 0	21	10	M6	4.5	22	G3/8	RC3/8	1BP7

A: 内螺紋型
A:Female Threaded

無記載の尺寸請参照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below.

mm

MODEL	AA*5	TA*5	UA	WA	BB	BC(名稱 * 深度) (Nominal × Depth)
CLLR048	Y+66	11	14	8.5	17	M8*16
CLLR055	Y+69	12	17	9	19	M10*20
CLLR065	Y+76	13	19	10	22	M12*24
CLLR075	Y+89	15	24	12	27	M16*32
CLLR090	Y+100	16	30	13	33	M20*40
CLLR105	Y+110	18	36	15	42	M24*48

B: 內螺紋型 (附帶旋轉防止銷孔)
B: Female Thread with Anti-Rotation Pinhole

無記載の尺寸請参照 P: 銷孔連接型。A: 內螺紋型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

mm

MODEL	VB	WB
CLLR048	2.5	6
CLLR055	2.5	6.5
CLLR065	3	7
CLLR075	4	8.5
CLLR090	5	9
CLLR105	6	10.5

T: 外螺紋型
T: Male Threaded

無記載の尺寸請参照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below

mm

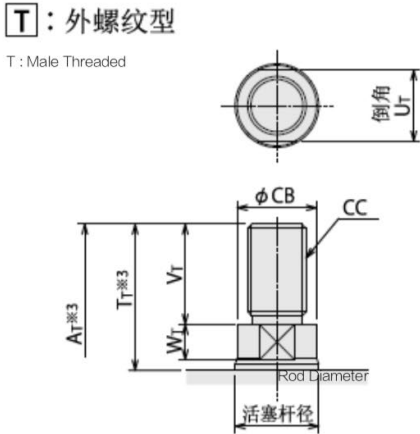
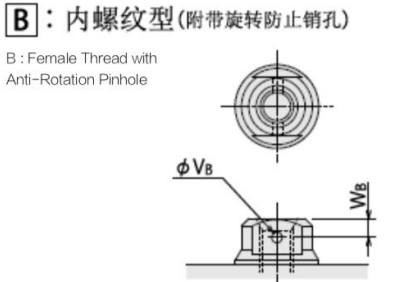
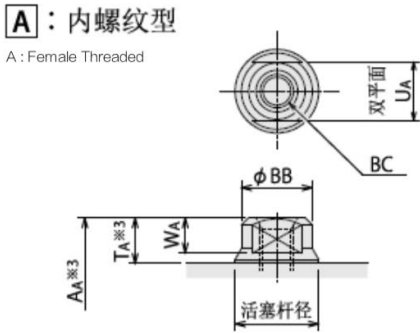
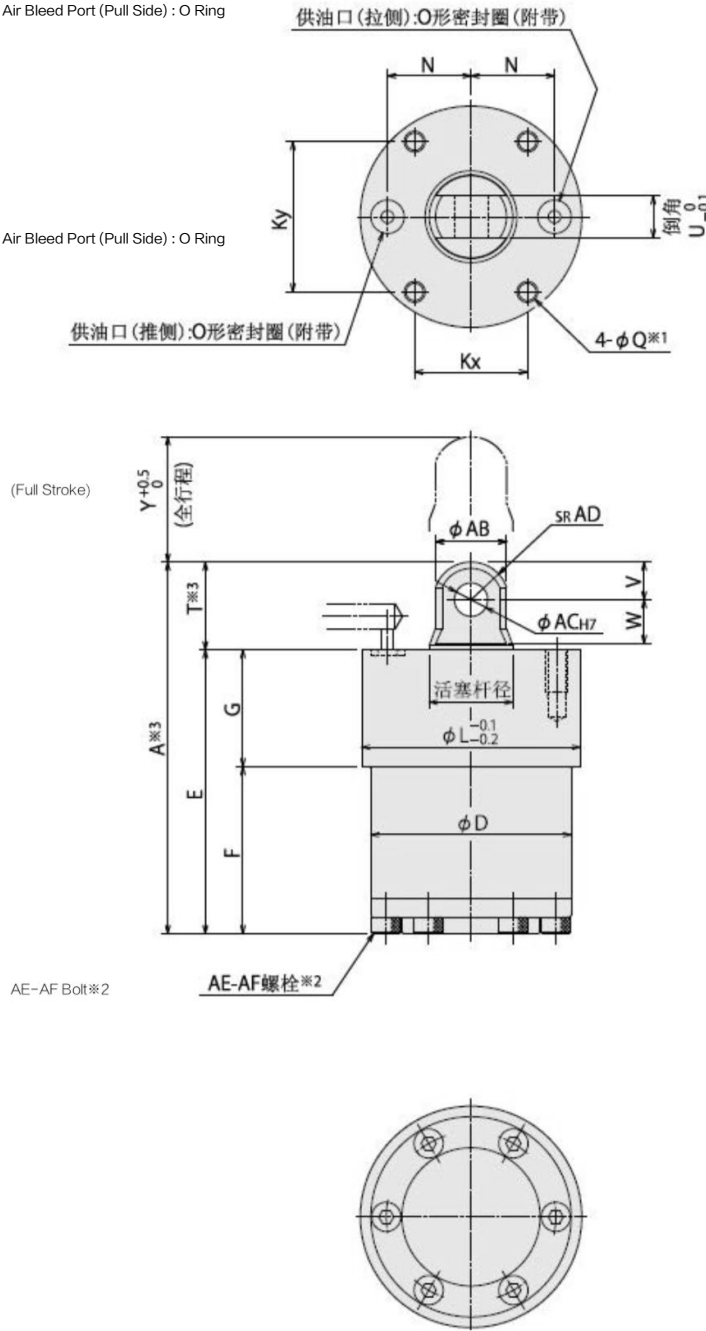
MODEL	AT*5	TT*5	UT	VT	WT	CB	CC(名稱 * 螺距) (Nominal × Pitch)
CLLR048	Y+90	35	17	24	8.5	19	M14*1.5
CLLR055	Y+97	40	17	28	9	21	M16*1.5
CLLR065	Y+108	45	19	32	10	24	M20*1.5
CLLR075	Y+124	50	24	35	12	29	M24*1.5
CLLR090	Y+146	62	30	46	13	34.5	M30*1.5
CLLR105	Y+164	72	36	54	15	42	M36*1.5

G: 板式連接型
P: 銷孔連接型 本圖表示 CLLU-GP 型

G: Gasket Option P : Pin-Hole Option
※ This drawing indicates CLLU-GP.

Tip Shape Refer P pinhole option dimension for not mentioned size below

柱塞前端形狀 無記載的尺寸請參照銷孔連接型



P: 銷孔連接型 Pin-Hole Option

全行程 Y=1 ~ 14mm 時，外形尺寸與行程 15mm 時的油缸是一樣的 (例) CLLU036-GP -010 [Y=10, A=63, E=48, F=23] CLLU036-GP -030 [Y=30, A=78, E=63, F=38]

※ Calculation formula is different between full stroke: Y=1-14 mm and Y= more than 15 mm.Ex.) CLLU036-GP -010 [Y=10, A=63, E=48, F=23]CLLU036-GP -030 [Y=30, A=78, E=63, F=38]

MODEL	全行程 Full Stroke Y	A	D	E	F	G	Kx	Ky	L	N	Q (名稱 * 深度) (Nominal × Depth)	T	U	V	W	AB	AC	AD	AE	AF	mm O 型密封圈 O-ring
CLLU036	1~14 15~50	63 Y+48	36	48 Y+33	23 Y+8	25	23	30	45	17	M4*0.7*8	15	6	6	7.5	12	6+0.012 0	6	5	M3*0.5	1BP5
CLLU040	1~14 15~50	70 Y+55	40	51 Y+36	26 Y+11	25	24	32	48	18	M5*0.8*10	19	8	8	9.5	15	8+0.015 0	8	4	M4*0.7	1BP5
CLLU048	1~14 15~75	74 Y+59	48	53 Y+38	25 Y+10	28	27	36	53	20	M5*0.8*10	21	10	9	10.5	17	8+0.015 0	9	6	M4*0.7	1BP5
CLLU055	1~14 15~75	80 Y+65	55	56 Y+41	28 Y+13	28	30	40	60	22.5	M6*12	24	11	10	12	19	10+0.015 0	10	4	M5*0.8	1BP5
CLLU065	1~14 15~75	90 Y+75	65	62 Y+47	32 Y+17	30	36	48	70	27.5	M6*12	28	13	12	14	22	12+0.018 0	12	6	M5*0.8	1BP7
CLLU075	1~14 15~75	101 Y+86	75	68 Y+53	31 Y+16	37	42	56	83	32.5	M8*16	33	16	14	17	27	14+0.018 0	14	6	M6	1BP7
CLLU090	1~14 15~75	114 Y+99	90	77 Y+62	37 Y+22	40	54	64	100	39.5	M10*20	37	19	16	19	32	16+0.018 0	16	8	M6	1BP7
CLLU105	1~14 15~75	127 Y+112	105	81 Y+66	36 Y+21	45	65	65	116	46	M12*24	46	22	21	23	42	20+0.021 0	21	10	M6	1BP7

A: 内螺纹型
A:Female Threaded

無記載的尺寸請參照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below.

MODEL	AA	TA	UA	WA	BB	BC(名稱 * 深度) (Nominal × Depth)
CLLU036	57 Y+42	9	12	7.5	14	M6*12
CLLU040	61 Y+46	10	13	7.5	15	M8*16
CLLU048	64 Y+49	11	14	8.5	17	M8*16
CLLU055	68 Y+53	12	17	9	19	M10*20
CLLU065	75 Y+60	13	19	10	22	M12*24
CLLU075	83 Y+68	15	24	12	27	M16*32
CLLU090	93 Y+78	16	30	13	33	M20*40
CLLU105	99 Y+84	18	36	15	42	M24*48

B: 内螺纹型 (附帶旋轉防止銷孔)
B:Female Thread with Anti-Rotation Pinhole

無記載的尺寸請參照 P: 銷孔連接型。 A: 内螺纹型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

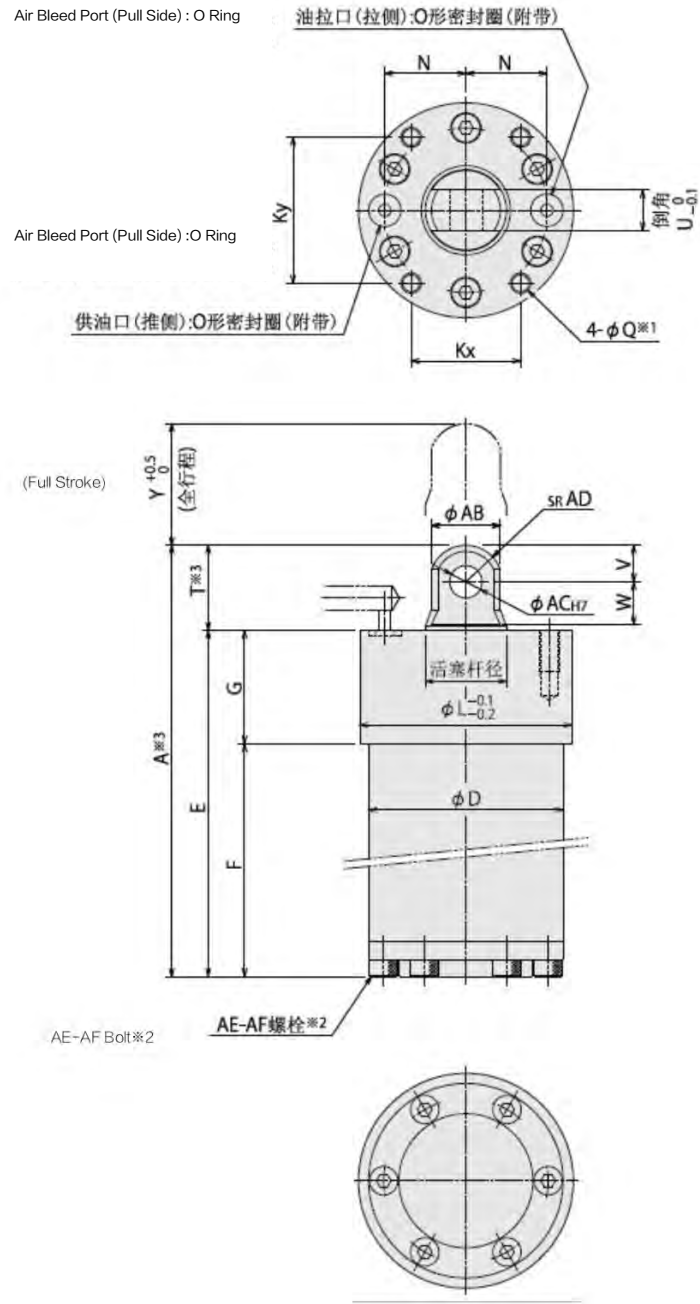
MODEL	VB	WB
CLLU036	2	5.5
CLLU040	2.5	5
CLLU048	2.5	6
CLLU055	2.5	6.5
CLLU065	3	7
CLLU075	4	8.5
CLLU090	5	9
CLLU105	6	10.5

T: 外螺纹型
T : Male Threaded

無記載的尺寸請參照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below

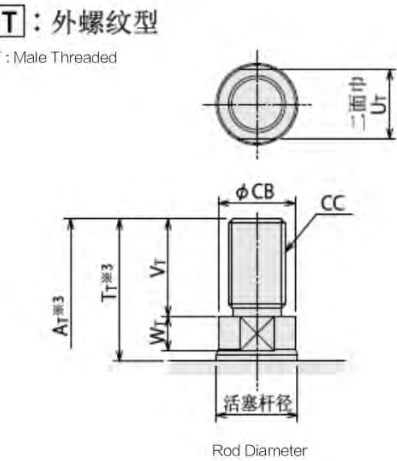
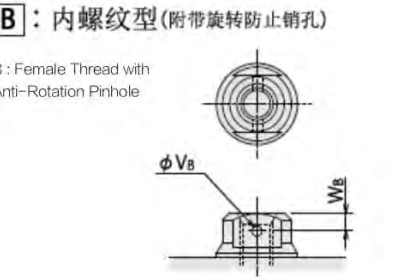
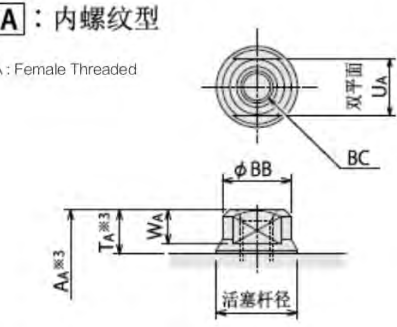
MODEL	AT	TT	UT	VT	WT	CB	CC(名稱 * 螺距) (Nominal × Pitch)
CLLU036	73 Y+58	25	12	16	7.5	14	M10*1.25
CLLU040	81 Y+66	30	14	20	7.5	17	M12*1.25
CLLU048	88 Y+73	35	17	24	8.5	19	M14*1.5
CLLU055	96 Y+81	40	17	28	9	21	M16*1.5
CLLU065	107 Y+92	45	19	32	10	24	M20*1.5
CLLU075	118 Y+103	50	24	35	12	29	M24*1.5
CLLU090	139 Y+124	62	30	46	13	34.5	M30*1.5
CLLU105	153 Y+138	72	36	54	15	42	M36*1.5

G: 板式連接型
P: 銷孔連接型 本圖表示 CLLU-GP 型



Tip Shape Refer P pinhole option dimension for not mentioned size below

柱塞前端形狀 無記載的尺寸請參照銷孔連接型



P: 銷孔連接型 Pin-Hole Option

MODEL	全行程 Full Stroke Y	A*3	D	E	F	G	Kx	Ky	L	N	Q (名稱 * 深度) (Nominal × Depth)	T*3	U	V	W	AB	AC	AD	AE	AF	O 型密封圈 O-ring
CLLU048	76 ~ 150	Y+76	48	Y+55	Y+27	28	27	36	53	20	M5*0.8*10	21	10	9	10.5	17	8+0.015 0	9	6	M4*0.7	1BP5
CLLU055	76 ~ 150	Y+81	55	Y+57	Y+29	28	30	40	60	22.5	M6*12	24	11	10	12	19	10+0.015 0	10	4	M5*0.8	1BP5
CLLU065	76 ~ 150	Y+91	65	Y+63	Y+33	30	36	48	70	27.5	M6*12	28	13	12	14	22	12+0.018 0	12	6	M5*0.8	1BP7
CLLU075	76 ~ 150	Y+107	75	Y+74	Y+37	37	42	56	83	32.5	M8*16	33	16	14	17	27	14+0.018 0	14	6	M6	1BP7
CLLU090	76 ~ 150	Y+121	90	Y+84	Y+44	40	54	64	100	39.5	M10*20	37	19	16	19	32	16+0.018 0	16	8	M6	1BP7
CLLU105	76 ~ 150	Y+138	105	Y+92	Y+47	45	65	65	116	46	M12*24	46	22	21	23	42	20+0.021 0	21	10	M6	1BP7

A: 內螺紋型
A:Female Threaded

無記載的尺寸請參照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below.

MODEL	AA*3	TA*3	UA	WA	BB	BC(名稱 * 深度) (Nominal × Depth)
CLLU048	Y+66	11	14	8.5	17	M8*16
CLLU055	Y+69	12	17	9	19	M10*20
CLLU065	Y+76	13	19	10	22	M12*24
CLLU075	Y+89	15	24	12	27	M16*32
CLLU090	Y+100	16	30	13	33	M20*40
CLLU105	Y+110	18	36	15	42	M24*48

B: 內螺紋型 (附帶旋轉防止銷孔)
B:Female Thread with Anti-Rotation Pinhole

無記載的尺寸請參照 P: 銷孔連接型。A: 內螺紋型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

MODEL	VB	WB
CLLU048	2.5	6
CLLU055	2.5	6.5
CLLU065	3	7
CLLU075	4	8.5
CLLU090	5	9
CLLU105	6	10.5

T: 外螺紋型
T: Male Threaded

無記載的尺寸請參照 P: 銷孔連接型。
Refer P pinhole option dimension for not mentioned size below

MODEL	AT*3	TT*3	UT	VT	WT	CB	CC(名稱 * 螺距) (Nominal × Pitch)
CLLU048	Y+90	35	17	24	8.5	19	M14*1.5
CLLU055	Y+97	40	17	28	9	21	M16*1.5
CLLU065	Y+108	45	19	32	10	24	M20*1.5
CLLU075	Y+124	50	24	35	12	29	M24*1.5
CLLU090	Y+146	62	30	46	13	34.5	M30*1.5
CLLU105	Y+164	72	36	54	15	42	M36*1.5

CSW

氣壓支撐缸

CSW PNEUMATIC
SUPPORT CLAMP

► 產品特性

在 4~10kgf/cm² 工作條件下性能穩定，最大耐壓力 10kgf/cm²。
根據不同厚薄工件，可更換活塞桿伸出彈簧強弱。
活塞桿伸出接觸力小，0.2~0.6kgf 範圍內，特別適用於薄形工件。

最大操作壓力：10 kgf/cm²

最小操作壓力：4 kgf/cm²

作動方式：單動式

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，加氣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，給支撐缸加氣壓使支撐頭上行，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。

► 注意事項

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桿

► FEATURES

Compact structure, reasonable design, long service life. In 4-10 kgf/cm² working conditions for stable performance. According to the different thickness of the work piece, replaceable piston rod out of the spring strength. The piston rod out of contact force is small, 0.2-0.6 kgf range, especially suitable for thin work piece.

Max. operating pressure: 10 kgf/cm²

Mix. operating pressure: 4 kgf/cm²

Single acting

Type A: Supporting 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 work piece.

Type B: Supporting with air pressure, it is operated by means of air pressure and is knocked out when being filled with oil and clamp the work piece.

► NOTE

Columns fortress can not exert eccentric load.

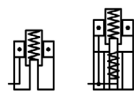
Can not exert overloaded.

Can not turn the piston rod when it's locking state.

► 訂購標示法 ORDERING INDICATION

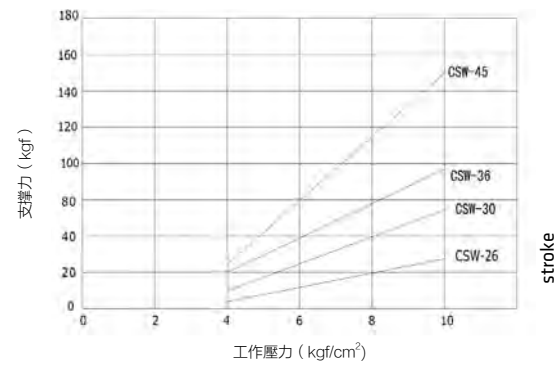
CSW - 26 A L

CSW	系列 Series	CSW
26	氣缸外徑 Cylinder external diameter	M26x1.5 M30x1.5 M36x1.5 M45x1.5
A	型式 Type	
L	壓强 Pressure	L: 低壓 Low pressure

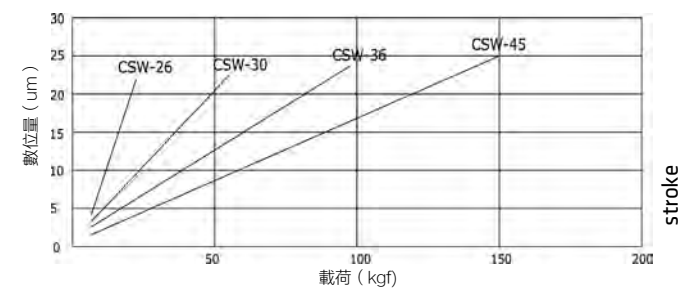


CSW- 系列特性曲綫圖

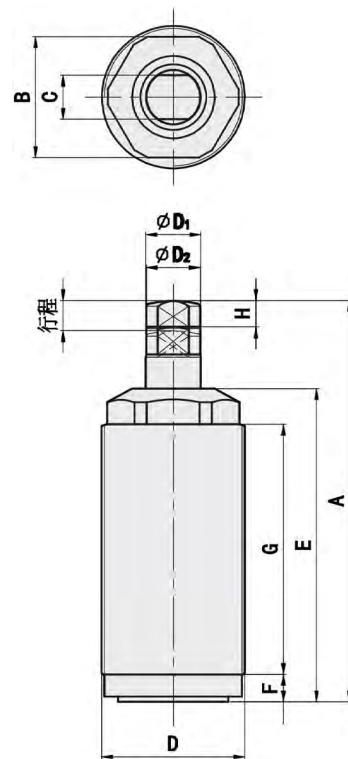
工作壓力與支撐力關係



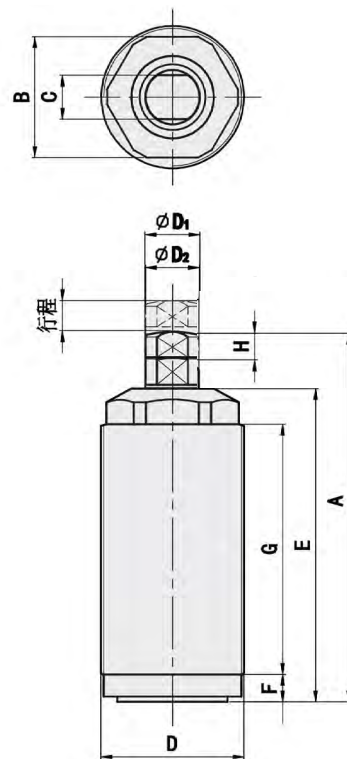
1MPa 時靜載荷變位量 (um)



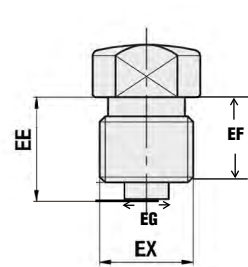
► CSW-AL



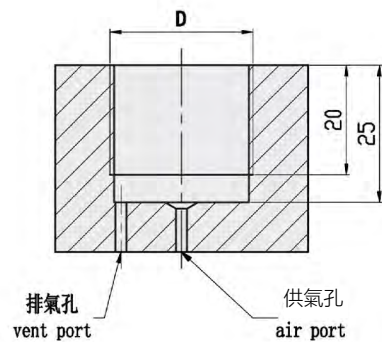
► CSW-BL



► 圓頭螺栓



► 安裝尺寸



Unit:mm

型號	理論支撐力 (10 kgf/cm ²)	理論支撐力 (4 kgf/cm ²)	行程	氣缸容積	活塞桿面積	使用流體
MODEL	CLAMPING FORCE AT 10 kgf/cm ² (kgf)	CLAMPING FORCE AT 4 kgf/cm ² (kgf)	STROKE (mm)	CYLINDER CAPACITY(cm ³)	PISTON AREA(cm ²)	USABLE FLUID
CSW-26AL	28	5	6.5	1.20	0.64	過濾之幹燥 壓縮空
CSW-26BL	28	5	6.5	1.20	0.64	
CSW-30AL	65	10	6.5	1.80	0.64	
CSW-30BL	65	10	6.5	1.80	0.64	
CSW-36AL	90	20	8	2.70	0.79	Oiled Dry
CSW-36BL	90	20	8	2.70	0.79	Clean
CSW-45AL	150	35	8	4.80	1.13	Compressed Air
CSW-45BL	150	35	8	4.80	1.13	

MODEL	A	B	C	D	E	F	H	G	D1	D2	EE	EF	EX	EG
CSW-26AL	68.5	22	9	M26×1.5	54.3	5.6	3	41.2	Φ10	Φ9.8	10	8	M8	Φ3
CSW-26BL	62	22	9	M26×1.5	54.3	5.6	3	41.2	Φ10	Φ9.8	10	8	M8	Φ3
CSW-30AL	75.5	24	9	M30×1.5	60	6	4	46	Φ10	Φ9.8	12	10	M8	Φ3
CSW-30BL	69	24	9	M30×1.5	60	6	4	46	Φ10	Φ9.8	12	10	M8	Φ3
CSW-36AL	81	30	9	M36×1.5	62.5	7	4	46.5	Φ10	Φ9.8	12	10	M8	Φ3
CSW-36BL	73	30	9	M36×1.5	62.5	7	4	46.5	Φ10	Φ9.8	12	10	M8	Φ3
CSW-45AL	95	36	10	M45×1.5	76	7	5.3	57.8	Φ12	Φ11.5	19.7	17.7	M8	Φ4
CSW-45BL	87	36	10	M45×1.5	76	7	5.3	57.8	Φ12	Φ11.5	19.7	17.7	M8	Φ4

產品特性

用夾套及雙活塞結構而實現的 20~70 kgf/cm² 規格支撐缸，以較低液壓油壓力（20 ~ 70 kgf/cm²）即可獲得高支撐力，最大耐壓力 7Mpa。活塞桿與工件接觸力量小（0.3~0.87kgf 以內）、適用於各種類型的工件。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），無需改變夾具基板的尺寸，在狹小的空間即可配置。安裝尺寸與目前市面銷售產品內容相同，可互換。

最大操作壓力：70 kgf/cm²

最小操作壓力：20 kgf/cm²

作動方式：單動式

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。

注意事項

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桿

FEATURES

The working pressure of the supporting cylinder is from 20 to 70 kgf/cm², with clamp cover and double acting piston, taking the low pressure on the oil to gain high supporting pressure. The contact strength between piston rod and the work pieces is small (0.3-0.87kgf/cm²), and it can be applied on the various types of work pieces. The size is small (four kinds, M26-M45). Large caliber, high supporting strength, can work steadily within the low pressure.) No need to change the size of the fixture plate, and can be installed in a small space.Mouting dimensions compatible with commercially available products,can be interchangeable.

Type A: Supporting with the spring, the spring is used to control a clamping force when the piston rod extends to a highest support position, then clamps the work piece and lock the piston in a supporting condition.

Type B: Supporting with oil pressure, it is operated by means of air pressure and is keeping in a supporting condition when being filled with oil and clamp the work piece.

Max.operating pressure: 70 kgf/cm²

Mix. operating pressure: 20 kgf/cm²

Single acting

NOTE

Columns fortress cannot exert eccentric load.

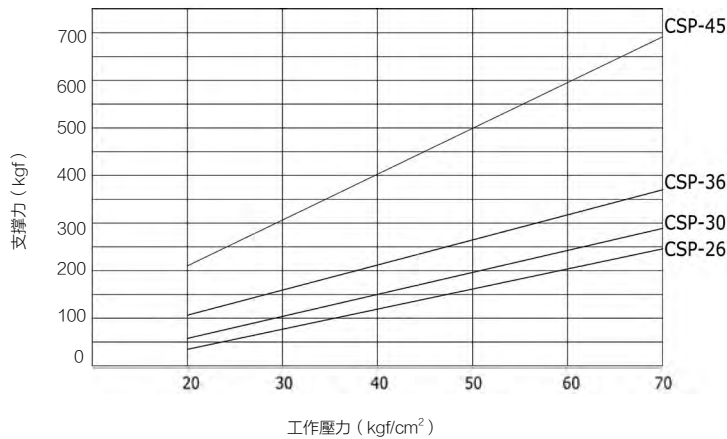
Can't exert overloaded.

Can't turn the piston rod when it's locking state.

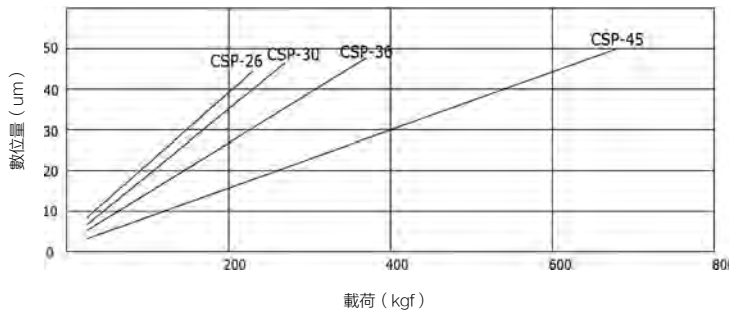


CSP- 系列特性曲綫圖

工作壓力與支撐力關係



7MPa 時靜載荷變位量 (um)



訂購標示法

ORDERING INDICATION

CSP - 26 A L - L - C

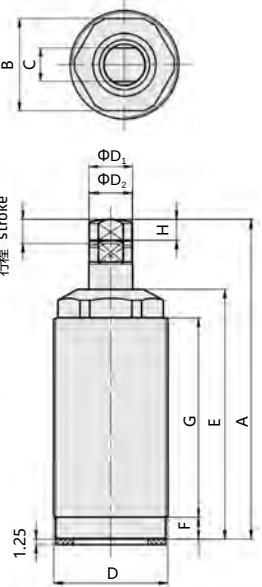
CSP	系列 Series	CSP	
26	油缸外徑 Hydraulic cylinder external diameter	低壓系列	Low pressure
		M26x1.5 M30x1.5	M36x1.5 M45x1.5
A	型式 Type	A:Type A B:Type B	
L	壓強 Pressure	L: 低壓 Low pressure	
L	活塞彈簧力 Plunger spring force	L: 弱彈簧 Low spring H: 強彈簧 High spring	
C	版式 Version: C/P/K	C: 日式規格 Japan specification P/K: (注: 訂 P 型 / K 型請來電諮詢)	

型號	理論支撐力 (70kgf/cm ²)	理論支撐力 (20kgf/cm ²)	行程	油壓容積	活塞桿面積	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	CLAMPING FORCE AT 20 kgf/cm ² (kgf)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	PISTON AREA (cm ²)	USABLE FLUID
CSP-26AL	230	39	5.5	0.30	0.79	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
CSP-26BL	230	39	5.5	0.30	0.79	
CSP-30AL	270	60	8	0.50	1.13	
CSP-30BL	270	60	8	0.50	1.13	
CSP-36AL	370	120	8	0.60	1.54	
CSP-36BL	370	120	8	0.60	1.54	
CSP-45AL	680	210	10	1.30	2.01	
CSP-45BL	680	210	10	1.30	2.01	

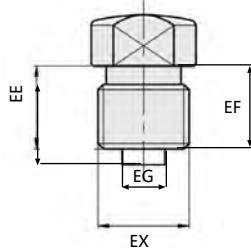
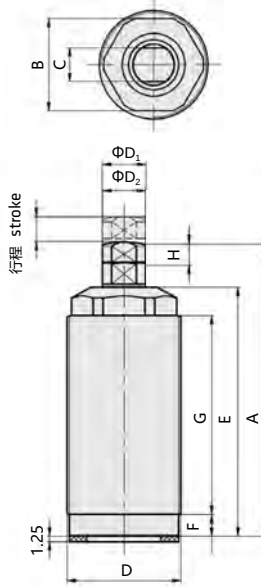
▶ CSP 低壓系列（嘉剛規格） CSP LOW PRESSURE-CLAMPTEK SPECIFICATION

▶ 圓頭螺栓

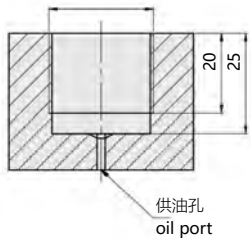
▶ CSP-AL



▶ CSP-BL



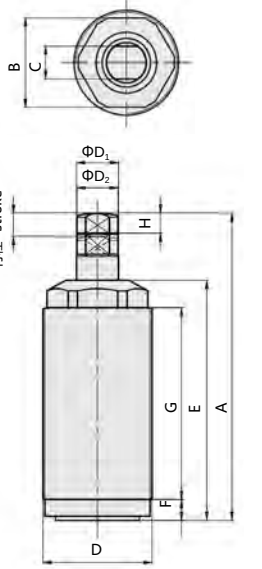
▶ 安裝尺寸



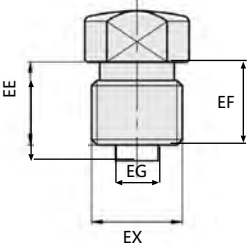
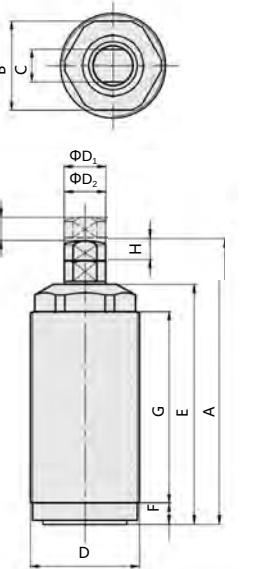
▶ CSP 低壓系列（日式規格） CSP LOW PRESSURE-JAPAN SPECIFICATION

▶ 圓頭螺栓

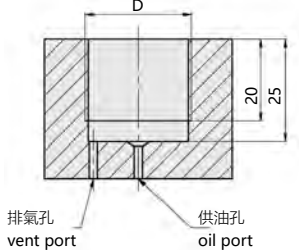
▶ CSP-AL



▶ CSP-BL



▶ 安裝尺寸



CSP 油壓支撐缸（嘉剛規格）

Unit:mm

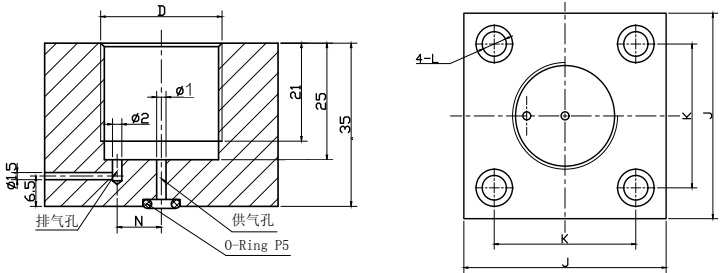
MODEL	A	B	C	D	E	F	G	H	D1	D2	EE	EF	EX	EG
CSP-26AL	73	22	9	M26×1.5	57	5	45.5	4.8	Φ10	Φ9.8	13.2	10.2	M8	Φ4
CSP-26BL	67.5	22	9	M26×1.5	57	5	45.5	4.8	Φ10	Φ9.8	13.2	10.2	M8	Φ4
CSP-30AL	79.6	24	10	M30×1.5	60	6	47	5	Φ12	Φ11.5	13	10	M8	Φ4
CSP-30BL	71.6	24	10	M30×1.5	60	6	47	5	Φ12	Φ11.5	13	10	M8	Φ4
CSP-36AL	80	30	12	M36×1.5	62	6	48	3.6	Φ14	Φ13.5	13.4	10.4	M10	Φ4
CSP-36BL	72	30	12	M36×1.5	62	6	48	3.6	Φ14	Φ13.5	13.4	10.4	M10	Φ4
CSP-45AL	92	36	14	M45×1.5	71	6	57	4.5	Φ16	Φ15.5	15	12	M10	Φ4
CSP-45BL	82	36	14	M45×1.5	71	6	57	4.5	Φ16	Φ15.5	15	12	M10	Φ4

CSP 油壓支撐缸（日式規格）

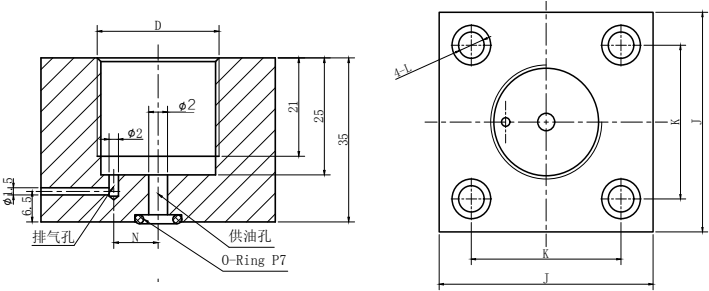
Unit:mm

MODEL	A	B	C	D	E	F	G	H	D1	D2	EE	EF	EX	EG
CSP-26AL	71.5	22	9	M26×1.5	57	5.6	43.9	3.6	Φ10	Φ9.8	10	8	M8	Φ4
CSP-26BL	66	22	9	M26×1.5	57	5.6	43.9	3.6	Φ10	Φ9.8	10	8	M8	Φ4
CSP-30AL	81	24	10	M30×1.5	62	6	48	5.1	Φ12	Φ11.5	10.9	8.9	M8	Φ4
CSP-30BL	73	24	10	M30×1.5	62	6	48	5.1	Φ12	Φ11.5	10.9	8.9	M8	Φ4
CSP-36AL	77	30	12	M36×1.5	58	6	44	4.7	Φ14	Φ13.5	10.3	8.3	M10	Φ4
CSP-36BL	69	30	12	M36×1.5	58	6	44	4.7	Φ14	Φ13.5	10.3	8.3	M10	Φ4
CSP-45AL	92	36	14	M45×1.5	71	7	54.8	4.6	Φ16	Φ15.5	13.4	11.4	M10	Φ4
CSP-45BL	82	36	14	M45×1.5	71	7	54.8	4.6	Φ16	Φ15.5	13.4	11.4	M10	Φ4

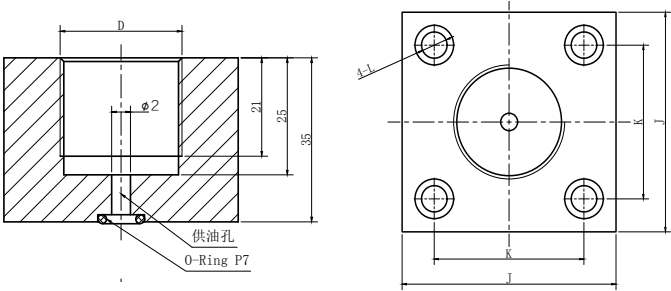
CSW 系列氣動支撐缸板式安裝座



CSP-C 系列油壓支撐缸板式安裝座



CSP 系列油壓支撐缸板式安裝座



▶ 訂購標示法

ORDERING INDICATION

CSW-26FB

MODEL	D	J	K	N	L
CSW-26FB	M26×1.5	50	35	9.5	Φ5.5-Φ9×5.5D
CSW-30FB	M30×1.5	50	35	11	Φ5.5-Φ9×5.5D
CSW-36FB	M36×1.5	55	40	14	Φ7-Φ11×6.5D
CSW-45FB	M45×1.5	60	45	17.5	Φ7-Φ11×6.5D

▶ 訂購標示法

ORDERING INDICATION

CSP-26CFB

MODEL	D	J	K	N	L
CSP-26-CFB	M26×1.5	50	35	9.5	Φ5.5-Φ9×5.5D
CSP-30-CFB	M30×1.5	50	35	11.5	Φ7-Φ11×6.5D
CSP-36-CFB	M36×1.5	55	40	14	Φ7-Φ11×6.5D
CSP-45-CFB	M45×1.5	60	45	17.5	Φ7-Φ11×6.5D

▶ 訂購標示法

ORDERING INDICATION

CSP-26FB

MODEL	D	J	K	L
CSP-26FB	M26×1.5	50	35	Φ5.5-Φ9×5.5D
CSP-30FB	M30×1.5	50	35	Φ7-Φ11×6.5D
CSP-36FB	M36×1.5	55	40	Φ7-Φ11×6.5D
CSP-45FB	M45×1.5	60	45	Φ7-Φ11×6.5D

CSP

油壓支撐缸（高壓）

CSP HYDRAULIC SUPPORT
CLAMP (HIGH PRESSURE)

產品特性

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并且停止。

最大操作壓力：250 kgf/cm²

最小操作壓力：100 kgf/cm²

作動方式：單動式

注意事項

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

安裝時蓋可能垂直于工作面，傾斜勿超過 10°

FEATURES

Type A: Supporting with the spring, the spring is used to control a clamping force when the piston rod extends to a highest support position, then clamps the work piece and lock the piston in a supporting condition.

Type B: Supporting with oil pressure, it is operated by means of oil pressure and is keeping in a supporting condition when being filled with oil and clamp the work piece.

Max. operating pressure: 250 kgf/cm²

Mix. operating pressure: 100 kgf/cm²

Single acting

NOTE

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

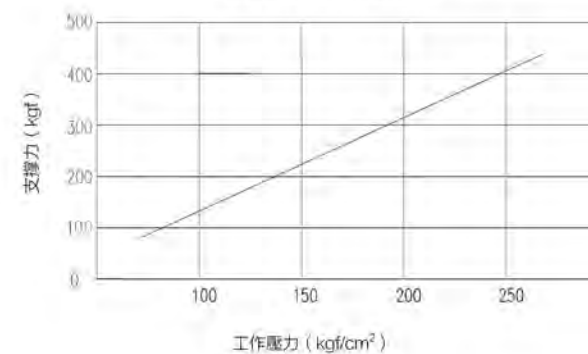
ORDERING INDICATION

CSP - 16 A

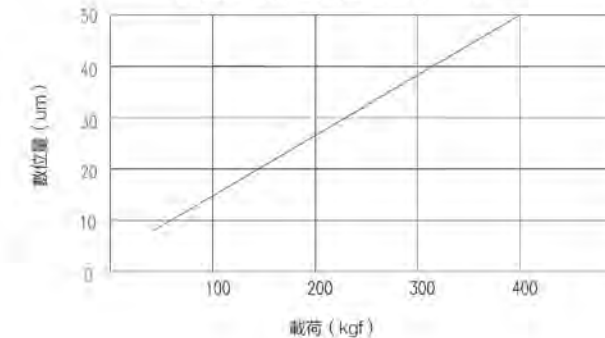
CSP	系列 Series	CSP	
16	油塞桿徑 Piston rod diameter	Φ 16	
A	型式 Type	A:Type A	B:Type B

CSP-16 系列特性曲線圖

工作壓力與支撐力關係

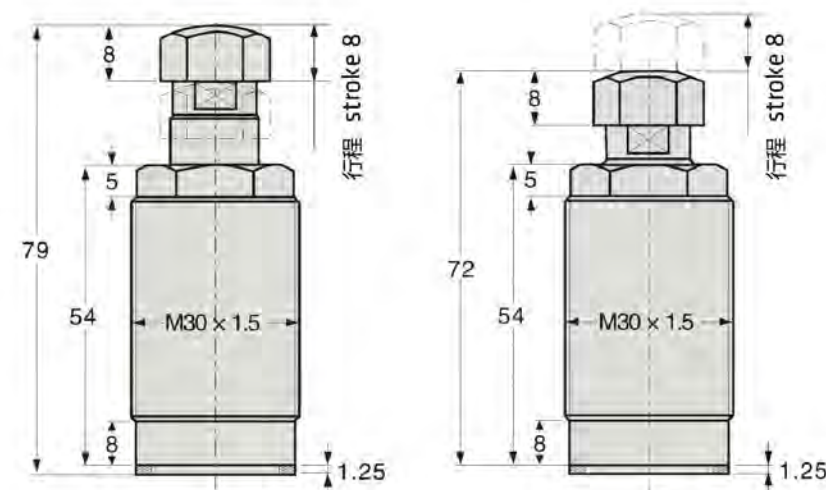


25MPa 時靜載荷變位量 (um)

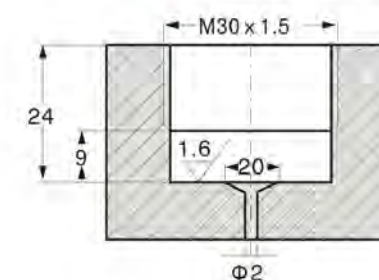


CSP-16A

CSP-16B



安裝尺寸



型號	理論支撐力 (250kgf/cm ²)	理論支撐力 (100kgf/cm ²)	行程	油壓容積	活塞桿面積	使用流體
MODEL	CLAMPING FORCE AT 250 kgf/cm ² (kgf)	CLAMPING FORCE AT 100 kgf/cm ² (kgf)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	USABLE FLUID
CSP-16A	410	140	8	0.60	2.01	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
CSP-16B	410	140	8	0.60	2.01	

產品特性

此系列產品結構緊湊，設計合理，使用壽命長，在 20-70kgf/cm² 工作條件下性能穩定。
根據不同厚薄工件，可調節活塞桿伸出彈簧強弱。
活塞桿伸出接觸力小，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。

最大操作壓力：70 kgf/cm²
最小操作壓力：20 kgf/cm²
作動方式：單動式

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。

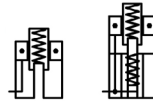
FEATURES

This series of products with the compact structure, reasonable design, long service life, in 20-70kgf/cm² working conditions, can keep stable performance. According to the different thickness of work piece, 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 the work piece. This product support power is large, can eliminate mechanical load and working vibration in the cutting process.

Max. operating pressure: 70 kgf/cm²
Mix. operating pressure: 20 kgf/cm²
Single acting

Type A: Supporting with the spring, the spring is used to control a clamping force when the piston rod extends to a highest support position, then clamps the work piece and lock the piston in a supporting condition.

Type B: Supporting with oil pressure, it is operated by means of oil pressure and is keeping in a supporting condition when being filled with oil and clamp the work piece.



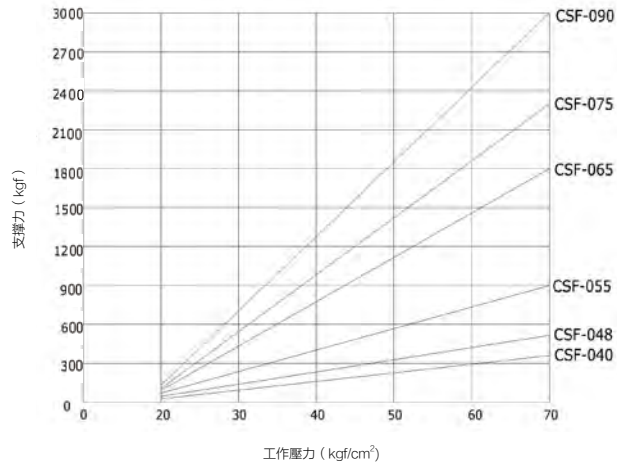
訂購標示法

ORDERING INDICATION

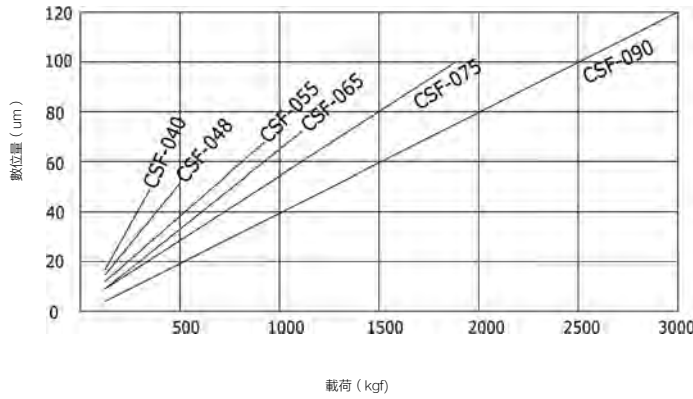
CSF - 040 B L - G

CSF	系列 Series	CSF
040	本體外徑 Body external diameter	040=Φ40, 048=Φ48, 055=Φ55 065=Φ65, 075=Φ75, 090=Φ90
B	A: 彈簧頂出型 Spring extended piston B: 油壓頂出型 Hydraulic extended piston D: 無活塞桿中空型 No hollow piston rod	
L	L: 低壓 Low pressure	
G	G: 配有 G 螺紋堵 With G thread plug S: 配管式 (PT 螺紋) Line type, with PT thread port	

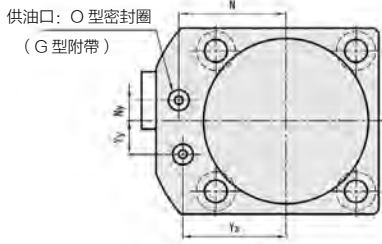
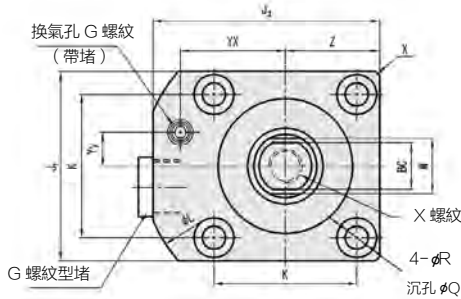
CSF - 系列特性曲線圖
工作壓力與支撐力關係



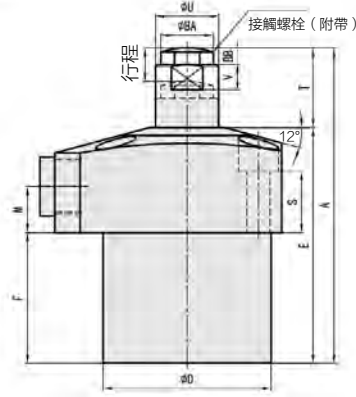
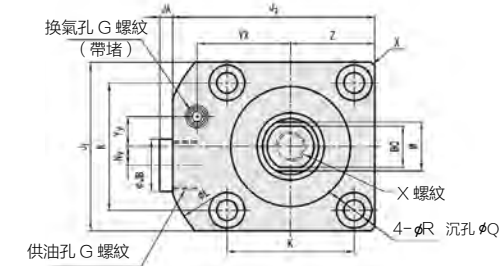
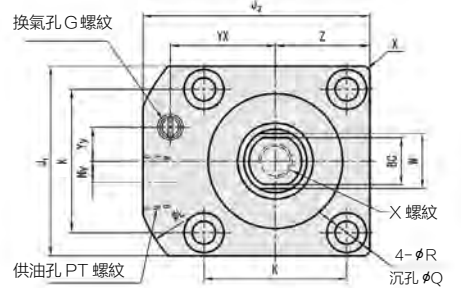
7MPa 時靜載荷變位置 (um)



本圖所示為 ***AL-G 型



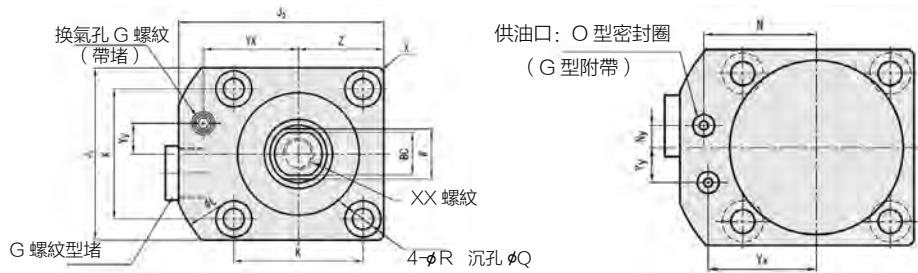
本圖所示為 ***AL-S 型



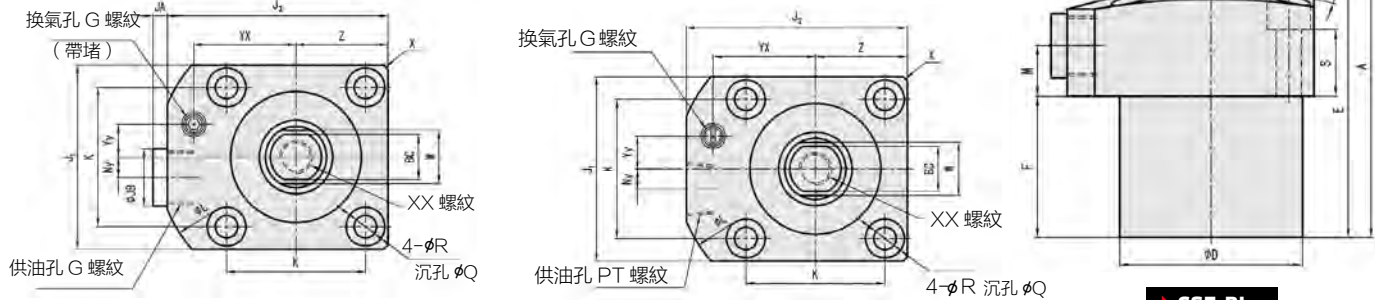
CSF-AL

型號	理論支撐力 (70kgf/cm ²)	理論支撐力 (20kgf/cm ²)	行程	油壓容積	活塞桿面積	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	CLAMPING FORCE AT 20 kgf/cm ² (kgf)	STROKE(mm)	OIL CAPACITY (cm ³)	PISTON AREA(cm ²)	USABLE FLUID
CSF-040AL	320	50	8	0.6	1.77	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
CSF-040BL	320	50	8	0.6	1.77	
CSF-048AL	480	60	10	1.3	2.01	
CSF-048BL	480	60	10	1.3	2.01	
CSF-055AL	900	80	12	2	3.14	
CSF-055BL	900	80	12	2	3.14	
CSF-065AL	1800	95	14	3.3	3.80	
CSF-065BL	1800	95	14	3.3	3.80	
CSF-075AL	2300	130	16	5.7	4.91	
CSF-075BL	2300	130	16	5.7	4.91	
CSF-090AL	3000	155	20	9.1	7.07	
CSF-090BL	3000	155	20	9.1	7.07	

► 本圖所示為 ***BL-G 型

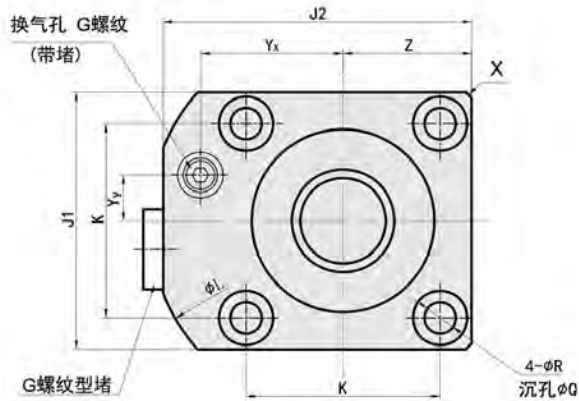


► 本圖所示為 ***BL-S 型

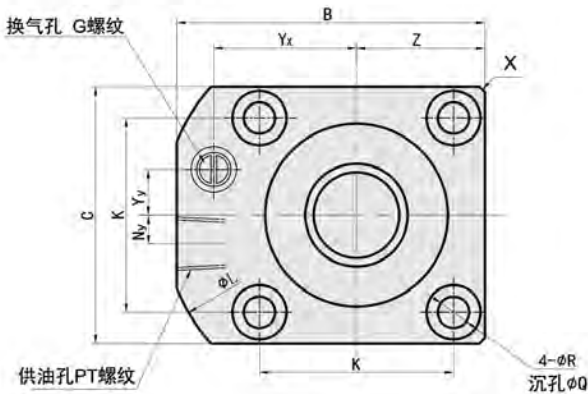


► CSF-BL

► 本圖所示為 ***DL-G 型



► 本圖所示為 ***DL-S 型



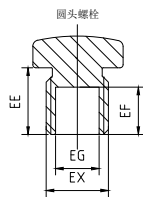
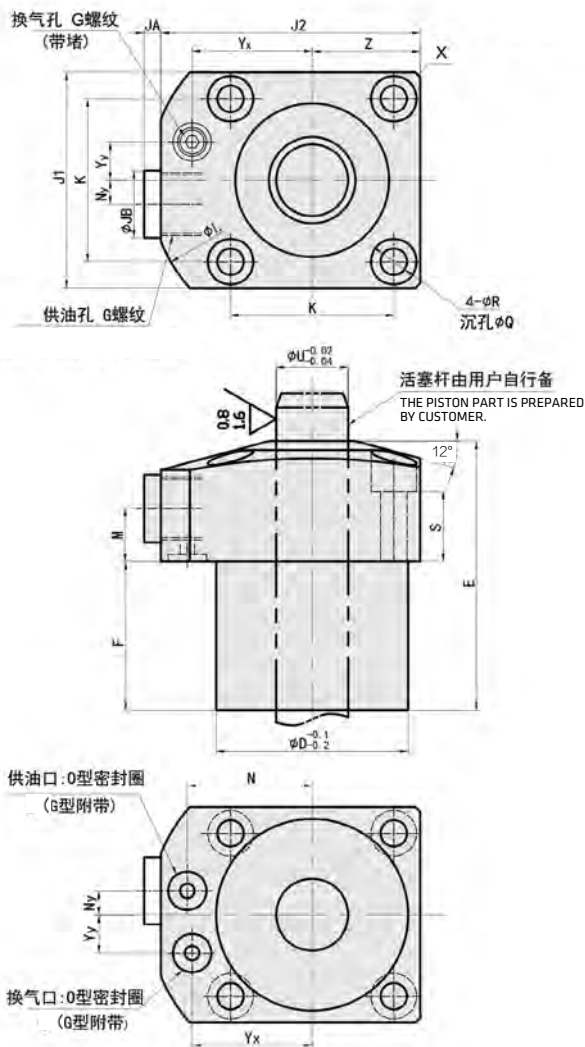
► CSF-DL

Unit:mm

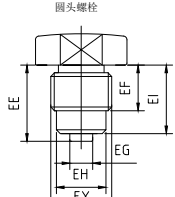
MODEL	A	J2	J1	D	E	F	Z	□K	L	M	N	Ny	Q	R	S	T	U	V	W	XX
CSF-040AL	75	54	45	40	56	31	22.5	□ 34	68	11	26	5	9.5	5.5	14.5	19	15	6	13	M10×11
CSF-040BL	67	54	45	40	56	31	22.5	□ 34	68	11	26	5	9.5	5.5	14.5	11	15	6	13	M10×11
CSF-048AL	85	61	51	48	64	39	25.5	□ 40	73	11	30	0	9.5	5.5	13.5	21	16	6	13	M10×11
CSF-048BL	75	61	51	48	64	39	25.5	□ 40	73	11	30	0	9.5	5.5	13.5	11	16	6	13	M10×11
CSF-055AL	97	69	60	55	70	45	30	□ 47	80	11	33.5	0	11	6.8	11.5	27	20	8	17	M12×13
CSF-055BL	85	69	60	55	70	45	30	□ 47	80	11	33.5	0	11	6.8	11.5	15	20	8	17	M12×13
CSF-065AL	115	81	70	65	85	56	35	□ 55	94	11	39.5	0	11	6.8	14.5	30	22	9	19	M12×13
CSF-065BL	101	81	70	65	85	56	35	□ 55	94	11	39.5	0	11	6.8	14.5	16	22	9	19	M12×13
CSF-075AL	142	92	80	75	107	72	40	□ 63	106	13	45	0	14	9	17	35	25	9	22	M16×20
CSF-075BL	126	92	80	75	107	72	40	□ 63	106	13	45	0	14	9	17	19	25	9	22	M16×20
CSF-090AL	169	107	95	90	128	88	47.5	□ 75	126	13	52.5	0	17.5	11	18	41	30	10.5	24	M16×20
CSF-090BL	149	107	95	90	128	88	47.5	□ 75	126	13	52.5	0	17.5	11	18	21	30	10.5	24	M16×20

Unit:mm

MODEL	行程			供油孔			O 型密封圈 (-G 型)			換氣孔			G 螺紋堵頭		
	Yx	Yy	X	BA	BB	BC	JA	ST	JB	HYDRAULIC PORT	O-RING (-G TYPE)	VENT PORT BSPT	G SCREW PLUG		
										-S TYPE	-G TYPE				
CSF-040AL	25	8	C1	14.5	5	13	3.5	8	14	PT1/8	G1/8	P5	PT1/8	G1/8	
CSF-040BL	25	8	C1	14.5	5	13	3.5	8	14	PT1/8	G1/8	P5	PT1/8	G1/8	
CSF-048AL	28	11	C3	15.5	5	14	3.5	10	14	PT1/8	G1/8	P5	PT1/8	G1/8	
CSF-048BL	28	11	C3	15.5	5	14	3.5	10	14	PT1/8	G1/8	P5	PT1/8	G1/8	
CSF-055AL	31	13	R40	17	7	17	3.5	12	14	PT1/8	G1/8	P5	PT1/8	G1/8	
CSF-055BL	31	13	R40	17	7	17	3.5	12	14	PT1/8	G1/8	P5	PT1/8	G1/8	
CSF-065AL	37	14	R47	20	7	19	3.5	14	14	PT1/8	G1/8	P7	PT1/8	G1/8	
CSF-065BL	37	14	R47	20	7	19	3.5	14	14	PT1/8	G1/8	P7	PT1/8	G1/8	
CSF-075AL	42.5	15	R53	24	8.2	22	4.5	16	19	PT1/4	G1/4	P7	PT1/8	G1/4	
CSF-075BL	42.5	15	R53	24	8.2	22	4.5	16	19	PT1/4	G1/4	P7	PT1/8	G1/4	
CSF-090AL	50	15	R63	26	8.5	24	4.5	20	19	PT1/4	G1/4	P7	PT1/8	G1/4	
CSF-090BL	50	15	R63	26	8.5	24	4.5	20	19	PT1/4	G1/4	P7	PT1/8	G1/4	



MODEL	EE	EF	EG	EX
CSF-040	10.7	7.6	φ7	M10
CSF-048	12	8	φ7.5	M10
CSF-055	12	10	φ8.8	M12
CSF-065	12	9	φ8	M12



MODEL	EE	EF	EG	EH	EI	EX
CSF-075	20	12	φ6	φ13	18	M16
CSF-090	20	12	φ7.6	φ11.6	18	M16

SP-AH

氣油壓兩用型支撐缸

SP-AH PNEUMATIC-HYDRAULIC SUPPORT CLAMP

079
080

訂購標示法

ORDERING INDICATION

SP-AH 18 R A

SP	系列 Series
AH	空油壓兩用型 Pneumatic-hydraulic type
18	頂桿軸徑 Diameter of the extended piston rod
R	R 右向, L 左向 Turn right R, Turn left L
A	A 彈簧頂出型 A:Spring extended piston B 油壓頂出型 B:Hydraulic extended piston

A: 彈簧頂出型, 往內調整。

A: Spring extended piston rod-adjust inward.

B: 油壓頂出型, 往外調整。

B:Hydraulic extended piston rod-adjust outward.

▶ 附 A,B 型式調整螺絲

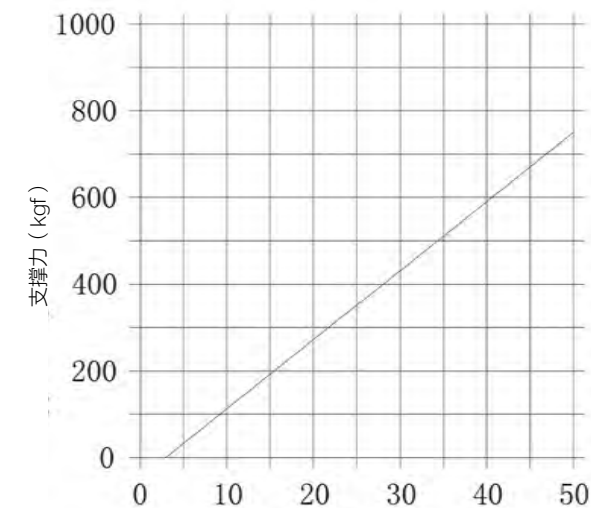
With A and B type adjusting screw.

使用流體: 相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油或過濾之乾燥壓縮空氣

Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32 or Oiled Dry Clean Compressed Air

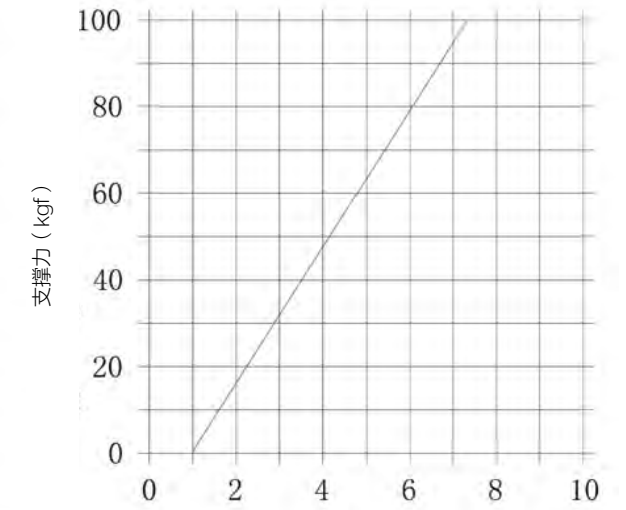


油壓 Hydraulic

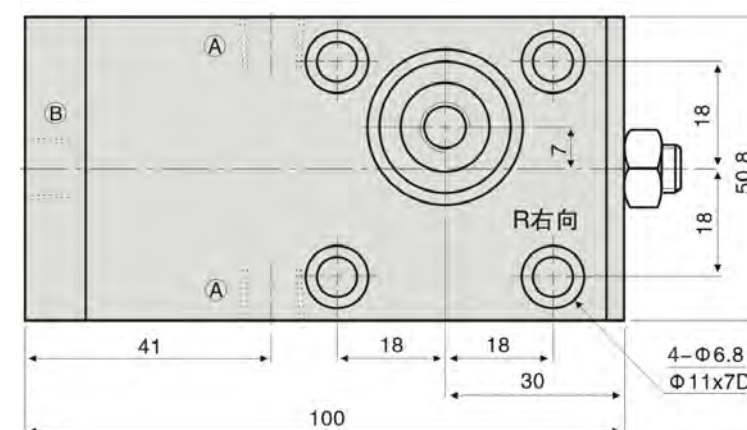
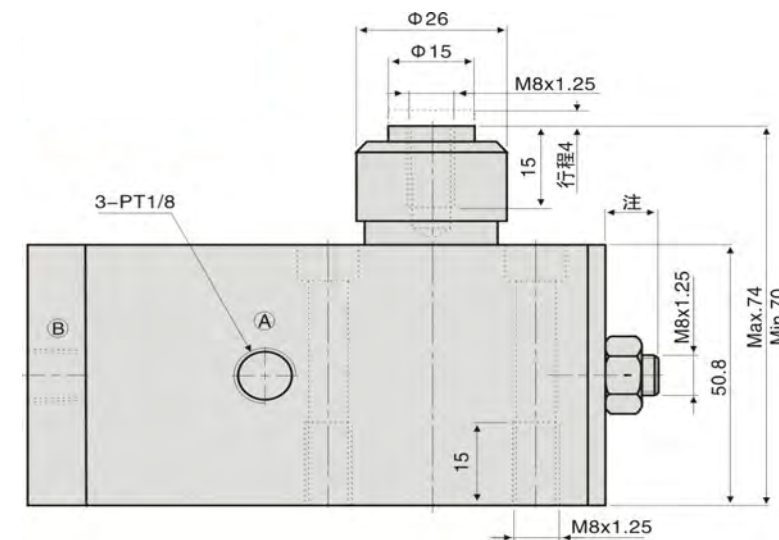


操作壓力 P
Operation pressure(kgf/cm²)

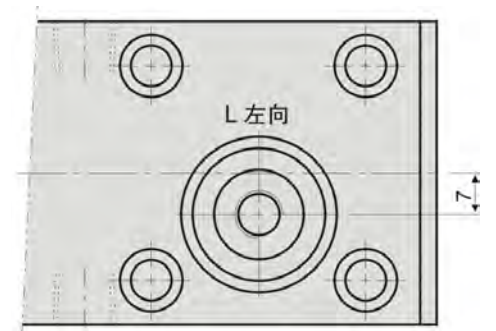
氣壓 Pneumatic



操作壓力 P
Operation pressure(kgf/cm²)



- ▶ ① 頂出油孔 Extending port
- ② 退回油孔 Retracting port



CHA

油壓轉角缸

CHA HYDRAULIC SWING CLAMP

► 產品特性

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

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

► 注意事項

夾緊及放鬆作動速度需適當放緩。
特殊壓臂其長度和重量不得超過標準壓臂的 1.5 倍。
壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。
可接受訂制，歡迎與本公司洽詢。

► FEATURES

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

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

► NOTE

The acting speed of clamping-unclamping should be slowed down.

For customized clamp arm,please don't exceed 1.5 times of the original length and weight.

The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.

Orders with customized request are available, welcome to reach us.

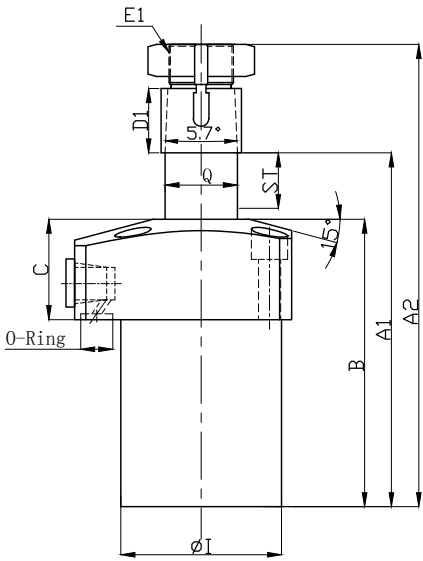
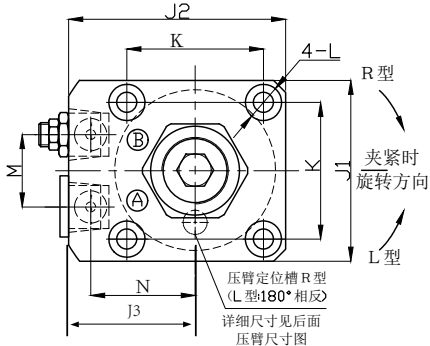
► 訂購標示法

ORDERING INDICATION

CHA - 040 S L × 90 G M

CHA	系列 Series	CHA		
040	主體尺寸 Body size	036: ΦI =36 055: ΦI =55 090: ΦI =90	040: ΦI =40 065: ΦI =65 105: ΦI =105	048: ΦI =48 075: ΦI =75
	壓臂型式 Clamping arm type	S: 單邊壓臂 D: 雙邊壓臂	Single side arm Double side arm	
	轉角方向 Rotating direction	L: 左 R: 右	L: Left R: Right	
90	轉角角度 Rotating angle	標準角度 可訂做角度	Standard angle 90°(±2°) Order angle 30°(±2°),45°(±2°),60°(±2°)	
G	型式 Type	空白: 配管式 G: 油路板式 C: 油路板式附調速	Blank: Line type G: Manifold type C: Manifold with flow control	
M	無符號: 空白 (標準) M: 空氣傳感器板式連接型 N: 空氣傳感器管式連接型	Blank(Standard) M: 空氣傳感器板式連接型 N: 空氣傳感器管式連接型		

Single side swing clamp

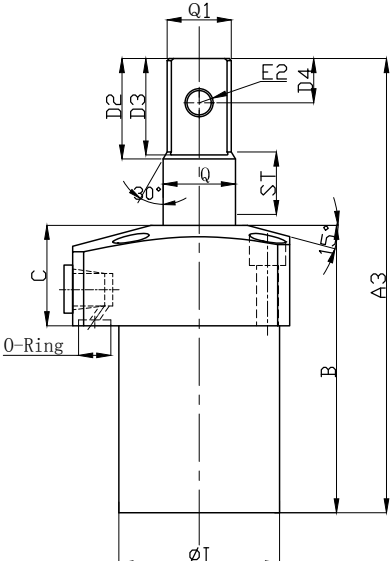
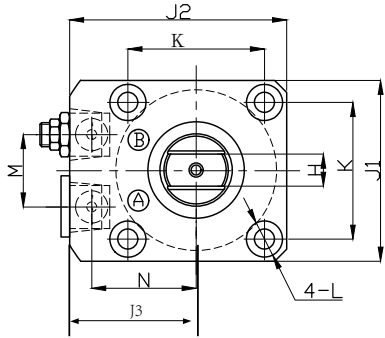


► ㊸ 夾持油孔 Clamping port

型號	理論夾持力 (70 kgf/cm ²)	轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CHA-036	220	5.5	8	13.5	4.24	6.63	3.14	4.91	-10~+70°C	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
CHA-040	316.4	6.5	8	14.5	6.55	10.24	4.52	7.07	-10~+70°C	
CHA-048	407.4	7.5	8	15.5	9.02	14.91	5.82	9.62	-10~+70°C	
CHA-055	770	8.5	10	18.5	20.35	29.42	11	15.91	-10~+70°C	
CHA-065	880	10	10	20	25.14	38.60	12.57	19.63	-10~+70°C	
CHA-075	1489	12	12	24	51	74.78	21.27	31.16	-10~+70°C	
CHA-090	1978	14	12	26	73.48	114.82	28.26	44.16	-10~+70°C	
CHA-105	2789	16	16	32	127.5	203.50	39.84	63.59	-10~+70°C	

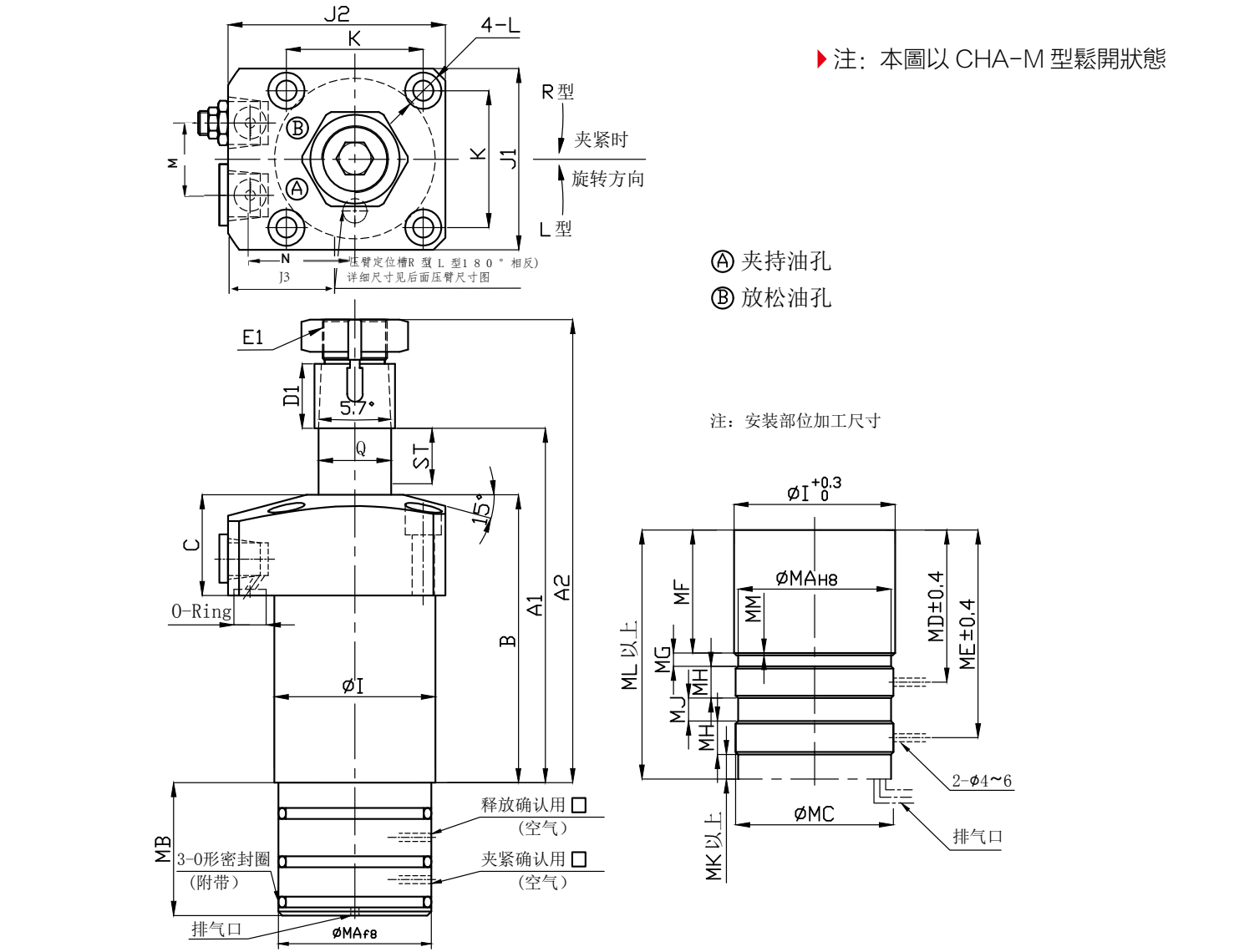
Double side swing clamp

注：下圖為轉角 90° 鬆開狀態



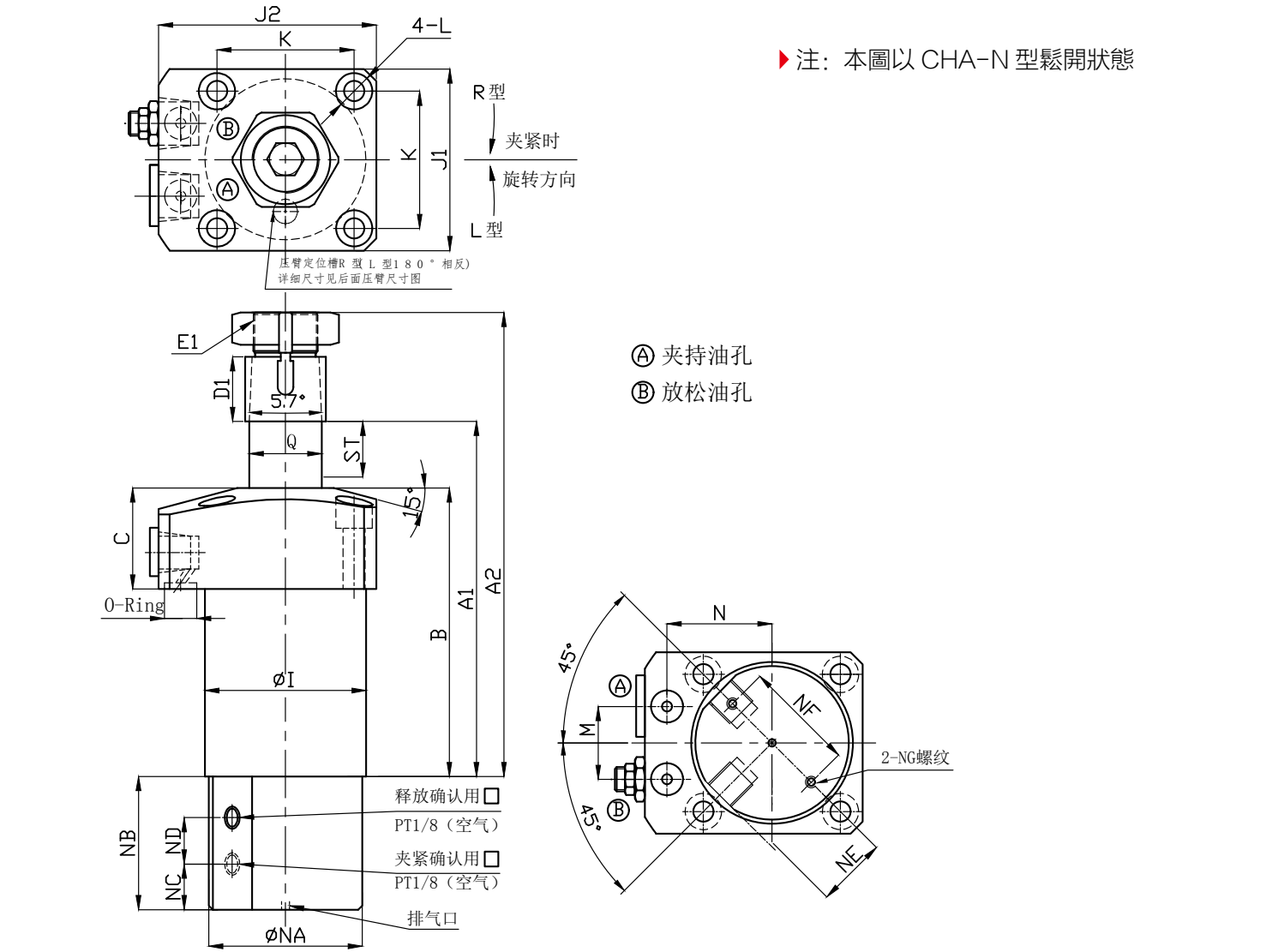
► ㊸ 放鬆油孔 Unclamping port

MODEL	ST:Swing/ Clamp	A1 鬆開狀態 Unclamp	A2 鬆開狀態 Unclamp	A3 鬆開狀態 Unclamp	B	C	D1	D2	D3	D4	E1	E2	H	ΦI	J1	J2	J3	K	L	M	N	Q	Q1	配管式油口 PORT WITH LINE TYPE	O-Ring
CHA-036	13.5:5.5/8	80	104	102	64.5	25	14	25	21	9	M14×1.5	Φ6	7	Φ36	40	49	29	□ 31.4	Φ4.5-Φ7.5×5D	16	23.5	Φ15	Φ13.5	2-PT1/8	P5
CHA-040	14.5:6.5/8	88	115	113	71.5	25	16	25	24	11	M16×1.5	Φ6	8	Φ40	45	54	31.5	□ 34	Φ5.5-Φ9×6D	18	26	Φ18	Φ16	2-PT1/8	P5
CHA-048	15.5:7.5/8	96.5	128.5	126.5	79	28	19	29	27.5	12	M20×1.5	Φ8	10	Φ48	51	61	35.5	□ 40	Φ5.5-Φ9×6D	22	30	Φ22	Φ20	2-PT1/8	P5
CHA-055	18.5:8.5/10	109.5	145.5	143.5	89	30	22	33	31.5	12.5	M22×1.5	Φ10	12	Φ55	60	69	39	□ 47	Φ6.8-Φ11×7D	24	33.5	Φ25	Φ23	2-PT1/8	P5
CHA-065	20:10/10	116	156	156	94	31	25	40	38.5	16.5	M27×1.5	Φ13	14	Φ65	70	81	46	□ 55	Φ6.8-Φ11×7D	30	39.5	Φ30	Φ28	2-PT1/4	P7
CHA-075	24:12/12	135	181	181	109	38	31	45	43.5	19	M30×1.5	Φ13	16	Φ75	80	92	52	□ 63	Φ9-Φ14×9D	32	45	Φ35.5	Φ33.5	2-PT1/4	P7
CHA-090	26:14/12	146	203	203	120	46	38	54	52.5	23.5	M39×1.5	Φ16	22	Φ90	95	107	59.5	□ 75	Φ11-Φ17.5×11D	37	52.5	Φ45	Φ43	2-PT3/8	P7
CHA-105	32:16/16	178	240	238	144	56	44	60	58.5	25.5	M48×1.5	Φ20	26	Φ105	110	122	67	□ 88	Φ14-Φ20×14D	45	60	Φ55	Φ53	2-PT3/8	P7



MODEL	MAf8	MAH8	MB	MC	MD	ME	MF	MG	MH	MJ	MK	ML	MM
CHA-036-M	34.5 ^{-0.03 -0.06}	34.5 ^{+0.04 0}	32	35.7	49.4	62.4	40	4.9	9	4	6.5	73.4	1.1
CHA-040-M	38 ^{-0.03 -0.06}	38 ^{+0.04 0}	33	39.2	57.5	70.5	47	6	9	4	6.5	81.5	1.5
CHA-048-M	45 ^{-0.03 -0.06}	45 ^{+0.04 0}	38.5	46.2	65.4	78.9	53	7.9	9	4.5	8	91.4	1.5
CHA-055-M	45 ^{-0.03 -0.06}	45 ^{+0.04 0}	38.5	46.2	73.4	86.9	61	7.9	9	4.5	8	99.4	1.5
CHA-065-M	45 ^{-0.03 -0.06}	45 ^{+0.04 0}	40.5	46.2	79.4	92.9	65	9.9	9	4.5	8	105.4	1.5
CHA-075-M	53 ^{-0.03 -0.07}	53 ^{+0.04 0}	49	54.2	86.5	106	74	7.5	10	9.5	11	122	1.5
CHA-090-M	53 ^{-0.03 -0.07}	53 ^{+0.04 0}	49	54.2	89.5	109	77	7.5	10	9.5	11	125	1.5
CHA-105-M	53 ^{-0.03 -0.07}	53 ^{+0.04 0}	57.5	54.2	106.5	126	94	7.5	10	9.5	16.5	147.5	1.5

MODEL	ST-Swing/ Clamp	A1 鬆開狀態 Unclamp	A2 鬆開狀態 Unclamp	B	C	D1	E1	G1	ΦI	J1	J2	J3	K	L	M	N	Q	配管式油口 PORT WITH LINE TYPE	O-Ring
CHA-036-M	13.5:5.5/8	80	104	64.5	25	14	M14×1.5	52	Φ36	40	49	29	□ 31.4	Φ4.5-Φ7.5×5D	16	23.5	Φ15	2-PT1/8	P5
CHA-040-M	14.5:6.5/8	88	115	71.5	25	16	M16×1.5	54	Φ40	45	54	31.5	□ 34	Φ5.5-Φ9×6D	18	26	Φ18	2-PT1/8	P5
CHA-048-M	15.5:7.5/8	96.5	128.5	79	28	19	M20×1.5	55	Φ48	51	61	35.5	□ 40	Φ5.5-Φ9×6D	22	30	Φ22	2-PT1/8	P5
CHA-055-M	18.5:8.5/10	109.5	145.5	89	30	22	M22×1.5	70	Φ55	60	69	39	□ 47	Φ6.8-Φ11×7D	24	33.5	Φ25	2-PT1/8	P5
CHA-065-M	20:10/10	116	156	94	31	25	M27×1.5	80	Φ65	70	81	46	□ 55	Φ6.8-Φ11×7D	30	39.5	Φ30	2-PT1/4	P7
CHA-075-M	24:12/12	135	181	109	38	31	M30×1.5	81	Φ75	80	92	52	□ 63	Φ9-Φ14×9D	32	45	Φ35.5	2-PT1/4	P7
CHA-090-M	26:14/12	148	203	120	46	38	M39×1.5	102	Φ90	95	107	59.5	□ 75	Φ11-Φ17.5×11D	37	52.5	Φ45	2-PT3/8	P7
CHA-105-M	32:16/16	178	240	144	56	44	M48×1.5	120	Φ105	110	122	67	□ 88	Φ14-Φ20×14D	45	60	Φ55	2-PT3/8	P7



MODEL	ΦNA	NB	NC	ND	NE	NF	NG (公稱 × 深度) (NominalDepth)
CHA-036-N	35.5	32	9.8	11.7	17	25	M3x0.5x5
CHA-040-N	39.5	33	9	13	19	29	M3x0.5x5
CHA-048-N	45	38.5	11	14.5	21	29	M3x0.5x5
CHA-055-N	45	38.5	11	14.5	21	29	M3x0.5x5
CHA-065-N	45	40.5	11	14.5	21	29	M3x0.5x5
CHA-075-N	53	49	13	20.5	24.5	38	M4x0.7x6
CHA-090-N	53	49	13	20.5	24.5	38	M4x0.7x6
CHA-105-N	53	57.5	17	24	24.5	38	M4x0.7x6

MODEL	ST-Swing/ Clamp	A1 鬆開狀態 Unclamp	A2 鬆開狀態 Unclamp	B	C	D1	E1	H	ΦI	J1	J2	J3	K	L	M	N	Q	配管式油口 PORT WITH LINE TYPE	O-Ring
CHA-036-M	13.5:5.5/8	80	104	64.5	25	14	M14×1.5	7	Φ36	40	49	29	□ 31.4	Φ4.5-Φ7.5×5D	16	23.5	Φ15	2-PT1/8	P5
CHA-040-M	14.5:6.5/8	88	115	71.5	25	16	M16×1.5	8	Φ40	45	54	31.5	□ 34	Φ5.5-Φ9×6D	18	26	Φ18	2-PT1/8	P5
CHA-048-M	15.5:7.5/8	96.5	128.5	79	28	19	M20×1.5	10	Φ48	51	61	35.5	□ 40	Φ5.5-Φ9×6D	22	30	Φ22	2-PT1/8	P5
CHA-055-M	18.5:8.5/10	109.5	145.5	89	30	22	M22×1.5	12	Φ55	60	69	39	□ 47	Φ6.8-Φ11×7D	24	33.5	Φ25	2-PT1/8	P5
CHA-065-M	20:10/10	116	156	94	31	29	M27×1.5	14	Φ65	70	81	46	□ 55	Φ6.8-Φ11×7D	30	39.5	Φ30	2-PT1/4	P7
CHA-075-M	24:12/12	135	181	109	38	25	M30×1.5	16	Φ75	80	92	52	□ 63	Φ9-Φ14×9D	32	45	Φ35.5	2-PT1/4	P7
CHA-090-M	26:14/12	148	203	120	46	31	M39×1.5	22	Φ90	95	107	59.5	□ 75	Φ11-Φ17.5×11D	37	52.5	Φ45	2-PT3/8	P7
CHA-105-M	32:16/16	178	240	144	56	44	M48×1.5	26	Φ105	110	122	67	□ 88	Φ14-Φ20×14D	45	60	Φ55	2-PT3/8	P7

CBTU

方塊形油壓轉角缸

CBTU HYDRAULIC SWING CLAMP



產品特性

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

最大操作壓力：70 kgf/cm²

最小操作壓力：15 kgf/cm²

作動方式：複動式

注意事項

夾緊及放鬆作動速度需適當放緩。

特殊壓臂其長度和重量不得超過標準壓臂的 1.5 倍。

壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

可接受訂制，歡迎與本公司洽詢。

FEATURES

This series product with the optimal design, so made more impact and strength can be improved.

Product with special dust proof design, dust proof and sealing have been improved, so it has high sealing performance.

Design of product structure with high anti torque, realize hing durability.

Max. operating pressure : 70 kgf/cm²

Min. operating pressure : 15 kgf/cm²

Double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.

For customized clamp arm, please don't exceed 1.5 times of the original length and weight.

The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.

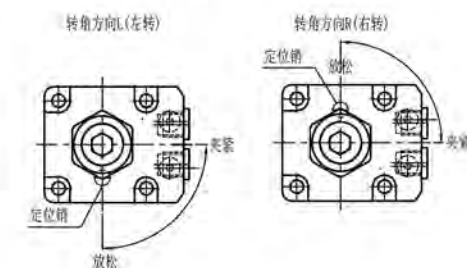
Orders with customized request are available, welcome to reach us.

訂購標示法

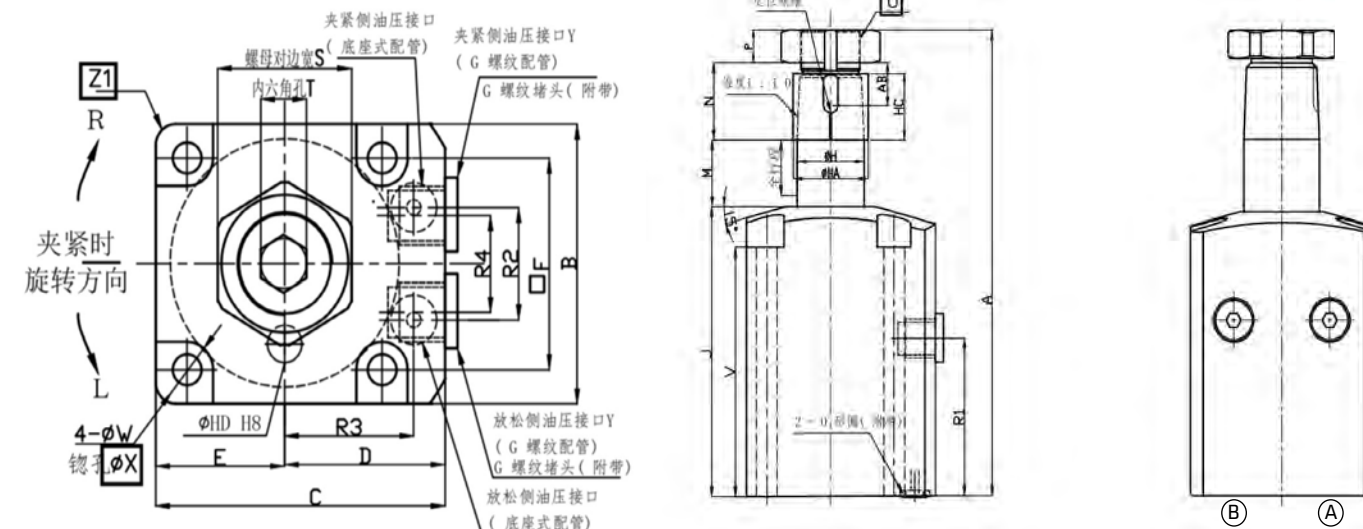
ORDERING INDICATION

CBTU - 02L × 90

CBTU	系列 Series	CBTU
02	02/04/06/10/16/25	
L	轉角方向 Rotating direction	L: 左 L:Left R: 右 R:Right
90	轉角方向 Rotating direction	標準角度 Standard angle 90° (±2°) 可定做角度 Order angle 0°, 30°(±2°), 45°(±2°), 60°(±2°)



備注：選配調速閥為 CZL 系列



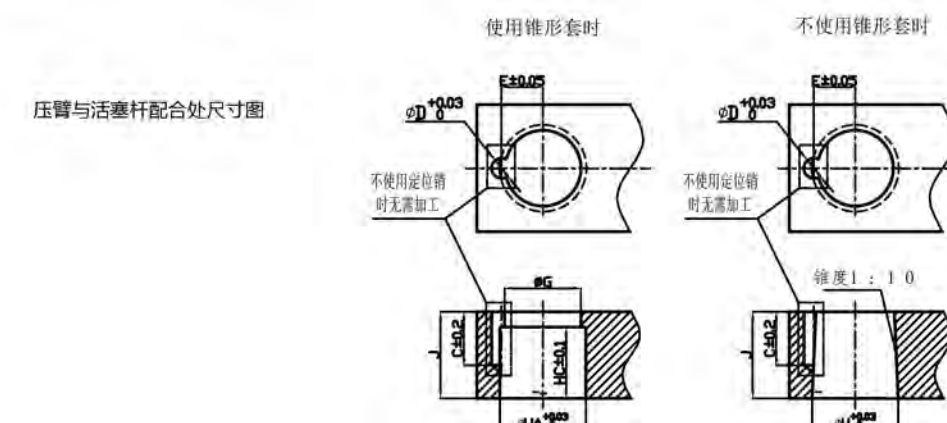
① 夾持油孔 Clamping port

② 放鬆油孔 Unclamping port

型號	理論夾持力 (70 kgf/cm ²)	轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE (mm)	TOTAL STROKE (mm)	OIL CAPACITY CLAMP (cm ³)	OIL CAPACITY UNCLAMP (cm ³)	EFF. PISTON AREA CLAMP (cm ²)	EFF. PISTON AREA UNCLAMP (cm ²)	RANGE OF TEMPERATURE (°C)	USABLE FLUID
CBTU02	286	10	8	18	7.3	11.9	4.1	6.6	0~+70 °C	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
CBTU04	448	12.5	8	20.5	12.8	20.9	6.2	10.2	0~+70 °C	
CBTU06	643	13.5	10	23.5	21	32.6	8.9	13.85	0~+70 °C	
CBTU10	1010	16.5	10	26.5	37.5	56.3	14.2	21.23	0~+70 °C	
CBTU16	1663	18.5	10	28.5	66.4	94.6	23.3	33.17	0~+70 °C	
CBTU25	2633	23	13	36	132.9	190.1	36.9	52.78	0~+70 °C	

MODEL	A	B	C	D	E	F	H	J	M	N	P	R1	R2	R3	R4	S	T	U	V	W	X	Y	O 型圈	AB	HD	定位銷
CBTU02	131	45	55	32.5	22.5	35	18	81.5	21.5	20	8	52.5	22	25	20	22	6	M14×1.5 (26 N·m)	71	5.5	9.5	G1/8	P7	10.5	4 ^{+0.018} ₀	Φ4(h8) × 10
CBTU04	148.5	50	60	35	25	40	22.4	90.5	24	25	9	57	24	28	22	27	6	M18×1.5 (51 N·m)	80	5.5	9.5	G1/8	P7	10.5	4 ^{+0.018} ₀	Φ4(h8) × 10
CBTU06	158.5	57	66	37.5	28.5	46	25	97.5	27	25	9	60	28	30.5	26	30	8	M20×1.5 (60 N·m)	85	6.8	11	G1/8	P7	10.5	5 ^{+0.018} ₀	Φ5(h8) × 10
CBTU10	178.5	70	82	47	35	56	30	111.5	30	27	10	70	36	36	30	36	8	M24×1.5 (86 N·m)	95	9	14	G1/4	P8	12.5	6 ^{+0.018} ₀	Φ6(h8) × 12
CBTU16	201.5	86	96	53	43	68	35.5	123	31.5	35	12	76	45	42	38	46	10	M30×1.5 (120 N·m)	102.5	11	17.5	G1/4	P8	12.5	6 ^{+0.018} ₀	Φ6(h8) × 12
CBTU25	244	108	120	66	54	88	45	147	39	45	13	92	50	57	50	55	14	M39×1.5 (180 N·m)	121.5	14	20	G3/8	P10	14.5	6 ^{+0.018} ₀	Φ6(h8) × 14

MODEL	HA	HC	C	D	E	G	H	J
CBTU02	20 ^{+0.033} ₀	16	10.5	4 ^{+0.018} ₀	9.1	17	18 ^{+0.016} _{-0.034}	20
CBTU04	25 ^{+0.033} ₀	21	10.5	4 ^{+0.018} ₀	11.1	21	22.4 ^{+0.02} _{-0.041}	25
CBTU06	28 ^{+0.033} ₀	20	10.5	5 ^{+0.018} ₀	12.6	24	25 ^{+0.02} _{-0.041}	25
CBTU10	34 ^{+0.039} ₀	22	12.5	6 ^{+0.018} ₀	15.1	28.5	30 ^{+0.02} _{-0.041}	27
CBTU16	40 ^{+0.039} ₀	29	12.5	6 ^{+0.018} ₀	18.1	34	35.5 ^{+0.025} _{-0.05}	35
CBTU25	49 ^{+0.039} ₀	38	14.5	6 ^{+0.018} ₀	22.6	42	45 ^{+0.025} _{-0.05}	45



CLKA

高動力 & 紮實型槓桿式
油壓缸

CLKA HYDRAULIC LEVERAGE CLAMP

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，使體積更加扎實，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。

最大操作壓力: 70 kgf/cm²
最小操作壓力: 10 kgf/cm²

注意事項

夾緊及放鬆作動速度需適當放緩。
可接受訂製，歡迎與本公司洽詢。

FEATURES

Product with optimal design,so the clamping capacity is better than others clamps.
Product with the integrated structure on support site and cylinder body,so made product will be more impact,and strength will be improved.
Product with special dust proof design,to make sure a high sealing performance.
Product with lower flange design,more suitable for compact and light fixture.

Max. operating pressure: 70 kgf/cm²
Min. operating pressure:10 kgf/cm²

NOTE

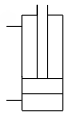
The acting speed of clamping-unclamping should be slowed down.
Orders with customized request are available, welcome to contact us.

訂購標示法

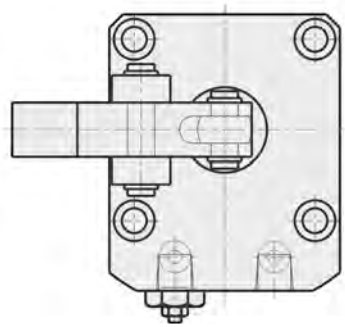
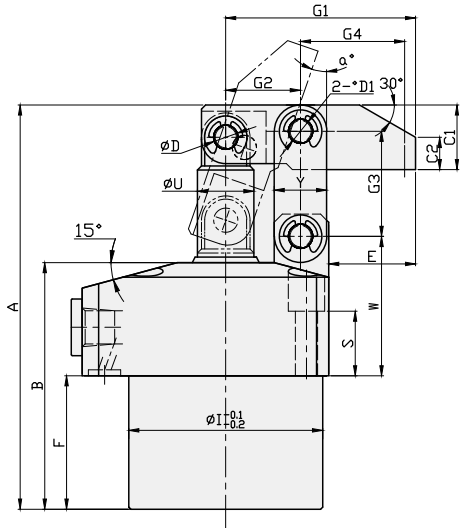
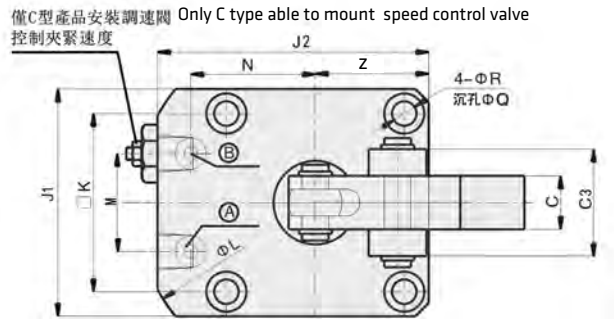
ORDERING INDICATION

CLKA - 036 C M L

CLKA	系列 Series	CLKA
036	主體尺寸 Body size	036: ΦI=36 040: ΦI=40 048: ΦI=48 055: ΦI=55 065: ΦI=65 075: ΦI=75 090: ΦI=90 105: ΦI=105
	油口型式 Port type	空白: 配管式 G: 油路板式 C: 油路板式附調速 Blank: line type G: Manifold type C: manifold with flow type
	檢測方式 Lever direction	無符號: 無 (標準) M: 適用於空氣傳感版式連接型 N 適用於空氣傳感器配管型
L	壓臂安裝方向 Lever direction	空白: 標準 L: 左 R: 右 Blank: standard L:Left R:Right

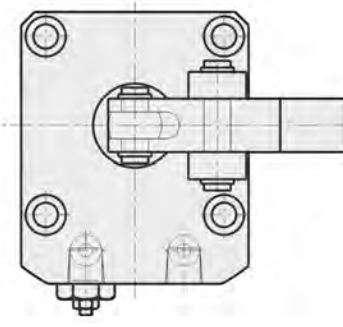


- ▶ (A) 夾持油孔 Clamping port
- (B) 放鬆油孔 Unclamping port



L

Lever Direction
壓臂安裝方向



R

型號	理論夾持力 (70 kgf/cm ²)	夾緊行程	總行程	推出容積	拉入容積	推出受壓面積	拉入受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE(mm)	CYLINDER CAPACITY CLAMP(cm ³)	CYLINDER CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CLKA-036	207	16	18.5	7.03	5.57	3.80	3.01	-10~+70°C	相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
CLKA-040	274	17.5	20.5	10.07	7.75	4.91	3.78	-10~+70°C	
CLKA-048	452	20.5	23.5	18.89	15.28	8.04	6.5	-10~+70°C	
CLKA-055	649	23	26	32.66	27.43	12.56	10.55	-10~+70°C	General Hydraulic Oil Equivalent to ISO-VG-32
CLKA-065	1073	26.5	29.5	57.91	48.65	19.63	16.49	-10~+70°C	
CLKA-075	1779	32	35	109.06	95.76	31.16	27.36	-10~+70°C	
CLKA-090	2135	38	41	141.37	132.55	34.48	32.33	-10~+70°C	
CLKA-105	3094	46	49	246.18	199.04	50.24	40.62	-10~+70°C	

Unit:mm																															
MODEL	A	J2	J1	I	B	F	C	Z	K	L	C1	C2	N	M	Q	R	S	W	G3	Y	C3	G2	D	D1	G1	α	E	G4	ΦU	配管式油口 PORT WITH LINE TYPE	油孔 O 型圈 (C/G 型) O-RING HOLE
CLKA-036	78.5	49	40	36	48	23	10	20	31.4	66	12.5	6	23.5	16	7.5	4.5	15.5	30	20	11	19	14.5	5	5	37	19.6	17	19	Φ10	2-PT1/8	P5
CLKA-040	87.5	54	45	40	54	29	12	22.5	34	72	14	8	26	18	9	5.5	15	30.5	22	13	21	16	6	6	40	20.2	17.5	20.5	Φ12	2-PT1/8	P5
CLKA-048	99	61	51	48	60	32	12	25.5	40	81	16	8	30	22	9	5.5	16	34.5	26	13	24	18.5	6	6	47	18.9	21.5	23.5	Φ14	2-PT1/8	P5
CLKA-055	110.5	69	60	55	65	37	16	30	47	88	20	12	33.5	24	11	6.8	13.5	35.5	30	16	28	21	6	8	55	19.3	25	29	Φ16	2-PT1/8	P5
CLKA-065	127.5	81	70	65	73.5	43.5	19	35	55	106	25	17	39.5	30	11	6.8	16	39	35.5	19	37	24.5	8	10	61.5	20	26.5	32	Φ20	2-PT1/4	P7
CLKA-075	151	94.5	85	75	84	47	22	42.5	63	116	32	24	45	32	14	9	17.5	48	43.5	25	40	30	10	12	72.5	21.4	30	37.5	Φ22	2-PT1/4	P7
CLKA-090	180	109.5	100	90	101	61	25	50	75	136	38	30	52.5	37	17.5	11	17	52.5	52.5	28	49	36	12	15	82.5	22.4	32.5	41.5	Φ28	2-PT3/8	P7
CLKA-105	209	127	120	105	115	65	32	60	88	152	45	37	60	45	20	14	23	64	64	32	64	44	15	18	100	23.1	40	51	Φ35	2-PT3/8	P7

CLKA-P

P 高動力 & 扎實型杠杆油壓缸

CLKA-P LEVERAGE CLAMP

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，使體積更加扎實，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。

最大操作壓力: 70 kgf/cm²

最小操作壓力: 10 kgf/cm²

注意事項

夾緊及放鬆動作速度需適當放緩。

可接受訂製，歡迎與本公司洽詢。

FEATURES

Product with optimal design,so the clamping capacity is better than others clamps.
Product with the integrated structure on support site and cylinder body,so made product will be more impact,and strength will be improved.
Product with special dust proof design,to make sure a high sealing performance.
Product with lower flange design,more suitable for compact and light fixture.

Max. operating pressure: 70 kgf/cm²

Min. operating pressure: 10 kgf/cm²

NOTE

The acting speed of clamping-unclamping should be slowed down.
Orders with customized request are available, welcome to contact us.

訂購標示法

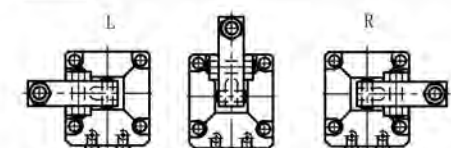
ORDERING INDICATION

CLKA-040P-L

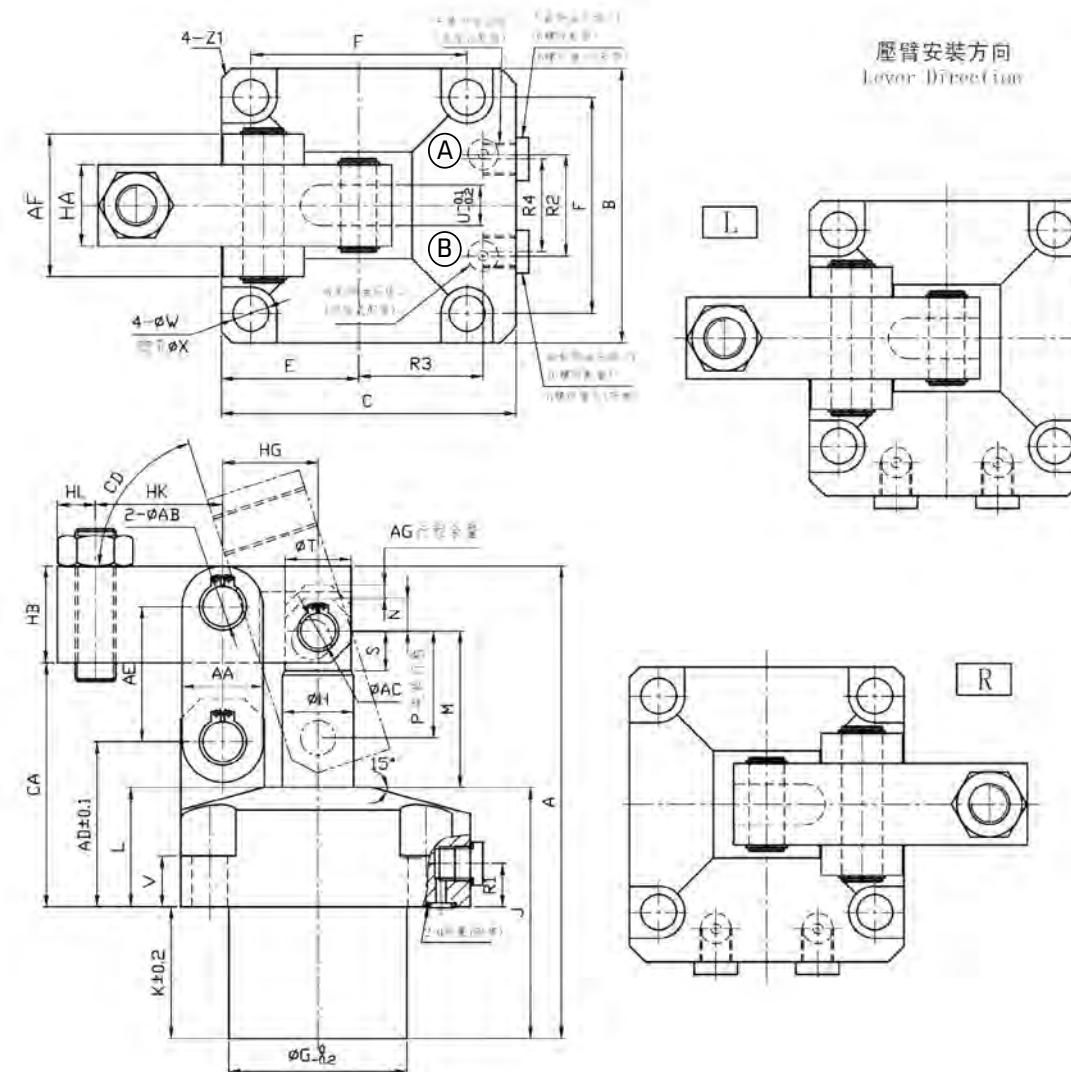
CLKA-P	系列 Series	CLKA-P
040	040/048/055/065/075/105	
L	壓臂安裝方向 Lever Direction	空白: 標準 Blank: Standard R: 右 L: 左 R: Right L: Left



備注: 選配調速閥為 CZL 系列



型號	理論夾持力 (70 kgf/cm ²)	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍	使用液體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CLKA-040P	265	17.5	20.5	7.7	10	3.77	4.9	0~+70°C	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
CLKA-048P	357	20.5	23.5	13	16.7	5.56	7.1	0~+70°C	
CLKA-055P	449	23	26	21	25	8.06	9.6	0~+70°C	
CLKA-065P	745	26.5	29.5	38.9	44.8	13.2	15.2	0~+70°C	
CLKA-075P	1234	33	36	74.5	88.6	20.66	24.6	0~+70°C	
CLKA-105P	1857	42	45	145.5	173.3	32.35	38.5	0~+70°C	



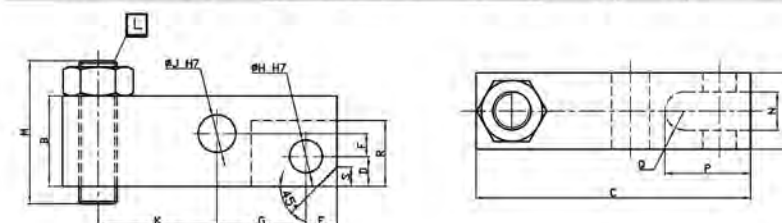
① 夾持油孔 Clamping port

② 放鬆油孔 Unclamping port

MODEL	A	B	C	E	F	G	H	J	K	L	M	N	P	Q	R1	R2	R3	R4	S	T	U	V
CLKA-040P	97	45	55	22.5	35	39	12	60	33.5	26.5	28.5	5	17.5	2	12.5	22	25	20	6.5	10	6	18
CLKA-048P	108	50	60	25	40	47	14	66	39.5	26.5	32	6	20.5	2	12.5	24	28	22	7	12	6	17
CLKA-055P	119.5	57	66	28.5	46	53	14	71	42.5	28.5	34.5	6	23	2	12.5	28	30.5	26	7	12	8	17
CLKA-065P	140	70	82	35	56	63	16	83	47	36	40	8	26.5	2	14	36	36	30	9	14	10	20
CLKA-075P	166	86	96	43	68	78	22.4	95	55	40	49	11	33	2.5	14	45	42	38	10.8	20	11	20
CLKA-105P	199	108	120	54	88	100	38	112	65	47	61.5	13	42	2.5	21	50	57	50	14.5	26	16	20

MODEL	W	X	Y	Z1	0形圈	AA	AB	AC	AD	AE	AF	AG	BC	CA	CB	CC	CD	HA	HB	HG	HK	HL
CLKA-040P	5.5	10	G1/8	C1.5	P7	11	6 ^{+0.012} ₀	6 ^{+0.012} ₀	34	24	21	3	4	49.5	48	80.2	約69°	12	14	16.5	20	6
CLKA-048P	5.5	10	G1/8	C2.5	P7	13	6 ^{+0.012} ₀	6 ^{+0.012} ₀	36	26	21	3	4	52.5	59.6	92.5	約71°	12	16	18.5	23.5	6
CLKA-055P	6.8	12	G1/8	C2.5	P7	15	8 ^{+0.015} ₀	6 ^{+0.012} ₀	39	30	28	3	4	57	67.3	101.3	約70°	16	20	21	29	8
CLKA-065P	9	15	G1/4	C3	P8	19	10 ^{+0.015} ₀	8 ^{+0.015} ₀	48	35.5	37	3	6	68	78.7	120.4	約70°	19	25	24.5	32	10
CLKA-075P	11	18.5	G1/4	C3.5	P8	25	14 ^{+0.018} ₀	12 ^{+0.018} ₀	54.5	44	46	3	6	80	98.2	144.7	約69°	22	31	30.5	39	11
CLKA-105P	14	20	G3/8	C5.5	P10	32	16 ^{+0.018} ₀	14 ^{+0.018} ₀	65	53	56	3	8	96	133.5	189.2	約72°	32	38	37.5	50	15

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
CLKA-040P	12 ^{+0.1} ₀	14	48	5.5	5.5	3	16.5	6 ^{+0.012} ₀	6 ^{+0.012} ₀	20	M6×1	26	6 ^{+0.1} ₀	14	R3	12	3
CLKA-048P	12 ^{+0.1} ₀	16	54	6	6	3.5	18.5	6 ^{+0.012} ₀	6 ^{+0.012} ₀	23.5	M6×1	26	6 ^{+0.1} ₀	17	R3	13.5	4
CLKA-055P	16 ^{+0.1} ₀	20	64	6	6	6	21	6 ^{+0.015} ₀	8 ^{+0.015} ₀	29	M8×1.25	32	8 ^{+0.1} ₀	17	R4	13.5	4
CLKA-065P	19 ^{+0.1} ₀	25	73.5	8	7	7.5	24.5	8 ^{+0.015} ₀	10 ^{+0.015} ₀	32	M10×1.5	39	10 ^{+0.1} ₀	20	R5	17	5
CLKA-075P	22 ^{+0.1} ₀	31	90.5	9	10	9.5	30.5	12 ^{+0.018} ₀	14 ^{+0.018} ₀	39	M12×1.75	48	11 ^{+0.1} ₀	26.5	R5.5	22	7
CLKA-105P	32 ^{+0.1} ₀	38	115.5	12.5	13	9.5	37.5	14 ^{+0.018} ₀	16 ^{+0.018} ₀	50	M16×2	58	16 ^{+0.1} ₀	36	R8	28	8



CBLU

方塊 &
緊湊型杠桿式油壓缸

CBLU HYDRAULIC
LEVERAGE CLAMP

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。
產品採用方塊型設計，不需墊塊安裝方便。

最大操作壓力： 70 kgf/cm²

最小操作壓力： 10 kgf/cm²

注意事項

夾緊及放鬆作動速度需適當放緩。

FEATURES

This series product with the optimal design, so the clamping capacity is better than the 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 dust proof design, dust proof 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.operating pressure :70 kgf/cm²

Min.operating pressure :10 kgf/cm²

NOTE

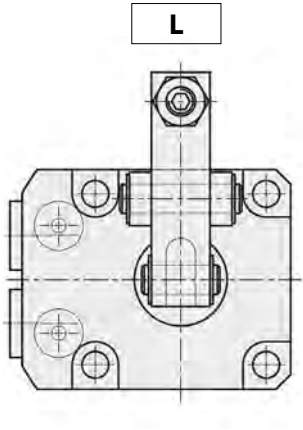
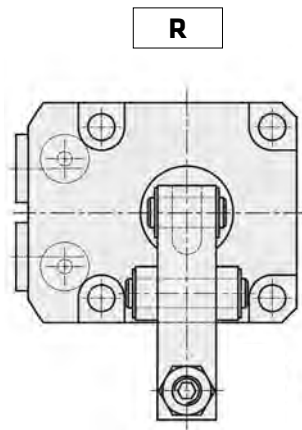
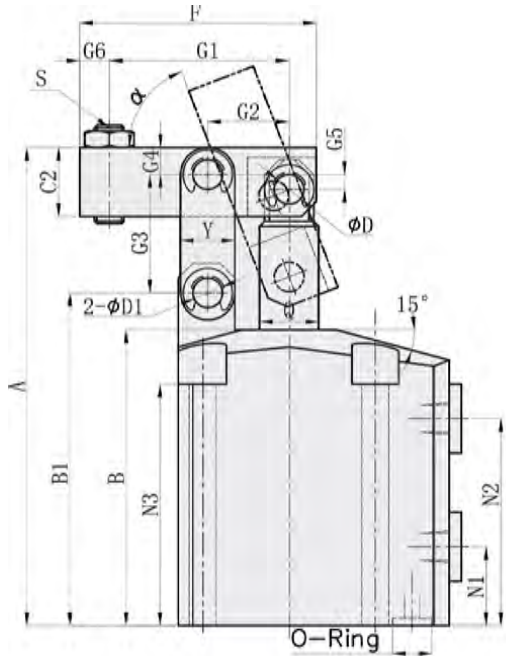
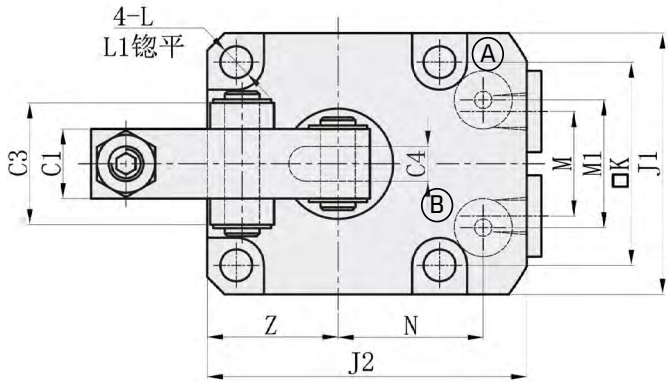
The acting speed of clamping-unclamping should be slowed down.

訂購標示法

ORDERING INDICATION

CBLU - 30 C L

CBLU	系列 Series	CBLU	
30	油缸內徑 Hydraulic cylinder inside diameter	Φ 25 , Φ 30 , Φ 35 , Φ 45 Φ 55 , Φ 70	
	油口型式 Port type	空白：配管式 G: 油路板式 C: 油路板式附調速	Blank: line type G:Manifold type C: manifold with flow type
L	壓臂安裝方向 Lever direction	空白：標準 L: 左 R: 右	Blank: standard L:Left R:Right



① 夾持油孔 Clamping port ② 放鬆油孔 Unclamping port

型號	理論夾持力 (70 kgf/cm ²)	夾緊行程	總行程	推出容積	拉入容積	推出受壓面積	拉入受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm ³)	CYLINDER CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CBLU-25	218	17.5	20.5	10.00	5.69	4.91	2.78	-10~+70°C	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
CBLU-30	310	20.5	23.5	16.60	13.00	7.07	5.53	-10~+70°C	
CBLU-35	382	23	26	25.00	21.00	9.62	8.08	-10~+70°C	
CBLU-45	649	26.5	29.5	46.90	41.00	15.90	13.90	-10~+70°C	
CBLU-55	1014	33	36	85.50	71.80	23.75	19.95	-10~+70°C	
CBLU-70	1553	42	45	173.10	145.40	38.47	32.32	-10~+70°C	

Unit:mm

MODEL	A	B	B1	C1	C2	C3	C4	D	D1	F	G1	G2	G3	G4	G5	G6	J1	J2	K	L	L1	M	M1	N	N1	N2	N3	Z	S	α	Y	Q	配管式油口 PORT WITH LINE TYPE	油孔 O 型圈 油孔 O 型圈 (C 型) O-RING HOLE
CBLU-25	97	60	67.5	12	14	21	6	Φ6	Φ6	48.5	36.5	16.5	24	5.5	3	6	45	55	35	Φ5.5	Φ9.5	20	22	25	16	42	49	22.5	M6x25	69°	11	Φ12	PT1/8	P7
CBLU-30	108	66	75.5	12	16	21	6	Φ6	Φ6	54	42	18.5	26	6.5	5	6	50	60	40	Φ5.5	Φ9.5	22	24	28	17	48	54	25	M6x25	71°	13	Φ14	PT1/8	P7
CBLU-35	119.5	71	81.5	16	20	28	8	Φ6	Φ8	64	50	21	30	8	6	8	57	66	46	Φ6.8	Φ11	26	28	30.5	17	51	57	28.5	M8x30	70°	15	Φ14	PT1/8	P7
CBLU-45	140	83	95	19	25	37	10	Φ8	Φ10	73.5	56.5	24.5	35.5	9.5	7.5	10	70	82	56	Φ9	Φ14	30	36	36	22	56.5	66	35	M10x40	70°	19	Φ16	PT1/4	P7
CBLU-55	166	95	109.5	22	31	46	11	Φ12	Φ14	90.5	69.5	30.5	44	12.5	9.5	11	86	96	68	Φ11	Φ17.5	38	45	42	23	64.5	73.5	43	M12x50	69°	25	Φ22	PT1/4	P7
CBLU-70	199	112	130	32	38	56	16	Φ14	Φ16	115.5	87.5	37.5	53	16	9.5	15	108	120	88	Φ14	Φ20	50	50	57	28	80.5	83	54	M16x60	72°	32	Φ28	PT3/8	P7

CLF5H

連桿油壓缸（眼鏡蛇缸）▼

CLF5H HYDRAULIC LEVERAGE CLAMP

► 產品特性

此系列產品設計中採用連桿機構，在解除夾持狀態時，壓臂可拉到低於夾持面的位置，減少對工件裝卸的干涉，因此操作方便，缸體採用一體成型。

產品動作軌跡非常小，用傳統的轉角缸 / 杠桿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干擾，達到節省工作空間的目的。

產品採用了專用防塵設計，防止了切削及冷卻液的滲入，實現了高密封性，因此在比較惡劣的環境下也能使用。

最大操作壓力：70 kgf/cm²

最小操作壓力：10 kgf/cm²

► 注意事項

夾緊及放鬆動作速度需適當放緩。

► FEATURES

Operate conveniently,this series 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. Clamping arm of the products is very flexible. It can hold more capacity than swing clamp and leverage clamp,and can reduce the interference of the surrounding equipment,so it can save working space.Product with special dust proof design and high sealing,can prevent the cutting chips and coolant to infiltration. So it can be used in more severe conditions.

Max. operating pressure: 70 kgf/cm²

Min. operating pressure: 10 kgf/cm²

► NOTE

The acting speed of clamping-unclamping should be slowed down.

► 訂購標示法

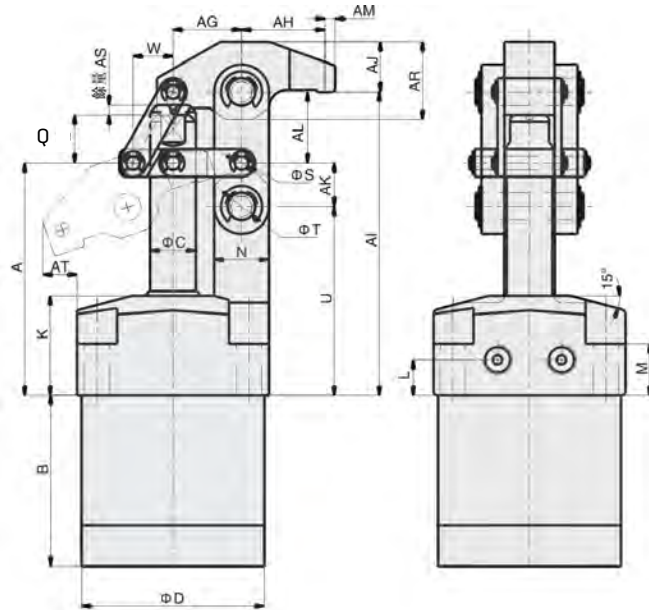
ORDERING INDICATION

CLF5H - 32 G

CLF5H	系列 Series		CLF5H
32	油缸內徑 Hydraulic cylinder inside diameter		Φ 25 , Φ 32 , Φ 40 , Φ 50
G	油口型式 Port type	空白: 配管式 G: 油路版式	Blank: line type G: Manifold type

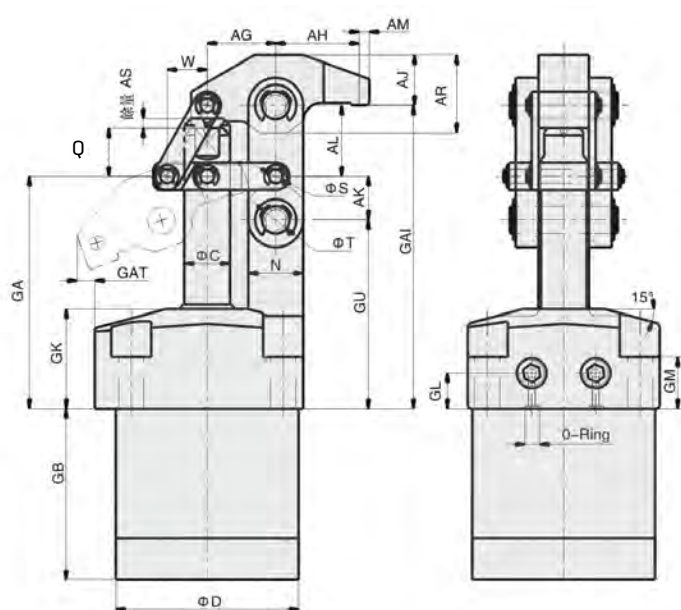


► LINE TYPE 配管式

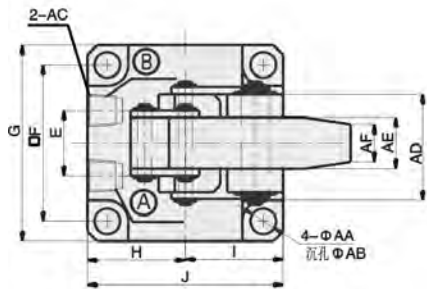


► (A) 夾持油孔 Clamping port (B) 放鬆油孔 Unclamping port

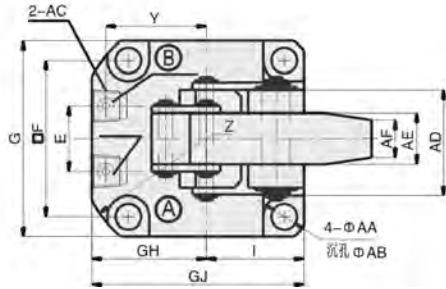
► G: MANIFOLD TYPE G 油路版型



► LINE TYPE 配管式



► G: MANIFOLD TYPE G 油路版型



型號	理論夾持力 (70 kgf/cm ²)	夾緊行程	總行程	推出容積	拉入容積	推出受壓面積	拉入受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm ³)	CYLINDER CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CLF5H-25	290	31.5	34	16.69	11.46	4.91	3.37	-10~+70°C	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
CLF5H-32	441	35.5	38	30.55	25.08	8.04	6.60	-10~+70°C	
CLF5H-40	709	41	44	55.26	46.46	12.56	10.56	-10~+70°C	
CLF5H-50	1136	47	50	98.15	82.45	19.63	16.49	-10~+70°C	

Unit:mm

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Q	S	T	U	W	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AR	AT
CLF5H-25	70	59.5	14	47	21	40	50	25	25	50	30.5	11.5	13.5	12	12	5	6	56.5	13	5.5	9.5	PT1/8	22	12	8	19	23	88	13	13.5	18	4	20	12
CLF5H-32	75	70.5	14	55	21	47	59	29.5	29.5	59	30.5	11.5	15.5	16	14	5	8	60	13	6.6	11	PT1/8	28	16	12	21.5	28	95	15	15	20	4	23	11
CLF5H-40	89.5	79.5	16	65	25	55	69	34.5	34.5	69	37.5	13.5	20.5	20	20	6	10	72	16	9	14	PT1/4	36	19	14	24.5	31	117.5	18	17.5	28	4	28	18
CLF5H-50	101.5	86.5	20	80	28	67	84	42	42	84	43.5	15.5	22.5	24	21	6	12	83	17.5	11	18	PT1/4	42	22	16	30	37	132.5	22	19	31	4	34	15

MODEL	GA	GB	C	D	E	F	G	GH	I	GJ	GK	GL	GM	N	Q	S	T	GU	W	O-RING	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	GAI	AJ	AK	AL	AM	AR	GAT
CLF5H-25G	70.5	59	14	47	21	40	50	35	25	60	31	12	18	12	12	4	6	57	13	S4	29	39	5.5	9.5	G1/8	22	12	8	19	23	88.5	13	13.5	18	4	20	2
CLF5H-32G	75.5	70	14	55	21	47	59	37.5	29.5	67	31	12	17	16	14	5	8	60.5	13	S4	32	43	6.6	11	G1/8	28	16	12	21.5	28	95.5	15	15	20	4	23	3
CLF5H-40G	90	79	16	65	25	55	69	45.5	34.5	80	38	14	21	20	20	6	10	72.5	16	S4	37	51	9	14	G1/4	36	19	14	24.5	31	118	18	17.5	28	4	28	7
CLF5H-50G	102	86	20	80	28	67	84	51	42	93	44	16	23	24	21	6	12	83	17.5	P5	44	57	11	18	G1/4	42	22	16	30	37	133	22	19	31	4	34	6

CCLW

高壓緊湊型杠杆式油壓缸

CCLW HIGH PRESSURE LEVERAGE CLAMP

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。

最大操作壓力：350 kgf/cm²

最小操作壓力：10 kgf/cm²

作動方式：複動式

注意事項

夾緊及放鬆作動需適當放緩。
可接受訂制，歡迎與公司諮詢。

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 lower flanged design, more suitable, welcome contact us.

Max. operating pressure : 350 kgf/cm²

Min. operating pressure : 10 kgf/cm²

Double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.

Orders with customized request are available, welcome to reach us.

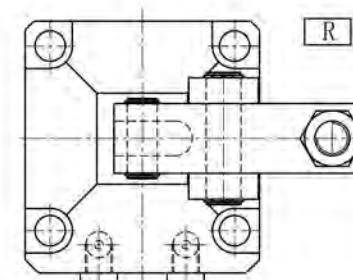
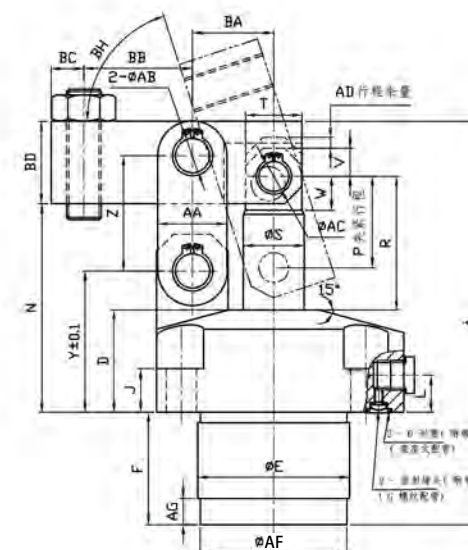
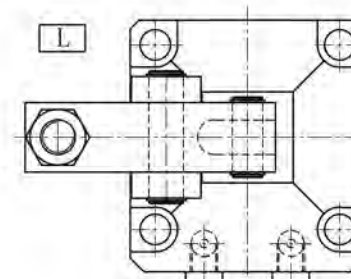
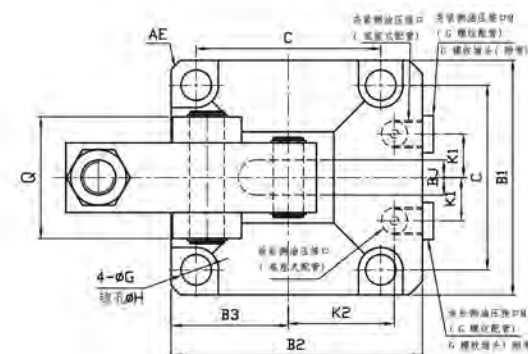
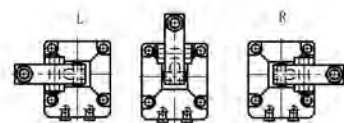


訂購標示法

ORDERING INDICATION

CCLW04-L

CCLW	系列 Series	CCLW
04	04/06/10/16/25	
L	壓臂安裝方向 Lever Direction	R: 右 R: Right L: 左 L: Left 空白: 標準 Blank: Standard



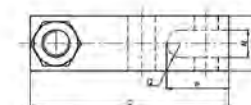
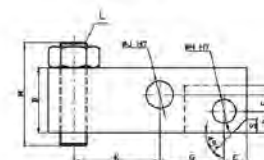
① 夾持油孔 Clamping port

② 放鬆油孔 Unclamping port

型號	理論夾持力 (150 kgf/cm ²)	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CCLW04	163	20.50	23.50	3.60	1.00	1.54	0.41	-10~+70°C	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
CCLW06	255	23.00	26.00	6.60	2.60	2.54	1.00	-10~+70°C	
CCLW10	398	26.50	29.50	11.20	3.70	3.80	1.26	-10~+70°C	
CCLW16	663	33.00	36.00	22.20	8.00	6.16	2.22	-10~+70°C	
CCLW25	1051	42.00	45.00	45.80	18.10	10.18	4.03	-10~+70°C	

MODEL	A	B1	B2	B3	C	D	E	F	G	H	J	K1	K2	L	M※1	N	P	Q	R	S	T	V	W	Y	Z	O	型圖※2	AA	AB	AC	AD	AE	AF	AG	BA	BB	BC	BD	BG	BH	BJ※3
CCLW04	100	50	60	25	40	26.5	35 ⁰ _{-0.2}	31.5	5.5	10	17	11	27.5	12.5	G1/8	52.5	20.5	21	32	12	10	6	7	36	26	P9	13	6 ^{+0.012} ₀	6 ^{+0.012} ₀	3	C2.5	-	-	18.5	23.5	6	16	92.5	約 71°	6 ^{+0.1} _{-0.2}	
CCLW06	122	60	69	30	47	31	45 ⁰ _{-0.2}	42.5	6.8	12	17	11.5	30	15	G1/8	59.5	23	28	34.5	14	12	6	7	41.5	30	P9	15	8 ^{+0.012} ₀	6 ^{+0.012} ₀	3	C2.5	43	10	21	29	8	20	107.9	約 70°	8 ^{+0.1} _{-0.2}	
CCLW10	132	57	77	35	54	32.5	50 ⁰ _{-0.2}	42.5	9	15	17	13	33	15	G1/8	65	26.5	37	40.5	18	15	8	9	45	35.5	P9	19	10 ^{+0.015} ₀	8 ^{+0.012} ₀	3	C3	48	10	24.5	32	10	25	117.4	約 70°	10 ^{+0.1} _{-0.2}	
CCLW16	162	86	96	43	65	40	60 ⁰ _{-0.2}	51	11	18.5	20	15	40	17	G1/4	80	33	46	49	22.4	20	11	10.8	54.5	44	P9	25	14 ^{+0.015} ₀	12 ^{+0.015} ₀	3	C3.5	57.5	12	30.5	39	11	31	144.7	約 69°	11 ^{+0.1} _{-0.2}	
CCLW25	197	108	110	54	85	47	70 ⁰ _{-0.2}	63	14	20.5	21	20	43	17	G1/4	96	42	56	61.5	28	26	13	14.5	65	53	P9	32	16 ^{+0.018} ₀	14 ^{+0.018} ₀	3	C5.5	67.5	12	37.5	50	15	38	189.2	約 72°	16 ^{+0.1} _{-0.2}	

MODEL	A	B	C	D	E	F	G	H	J	K	M	N	O	P	Q	R	S
CCLW04	12 ⁰ _{-0.1}	16	54	6	6	3.5	18.5	6 ^{+0.012} ₀	6 ^{+0.012} ₀	23.5	M6X1	26	6 ^{+0.1} ₀	17	R3	13.5	4
CCLW06	16 ⁰ _{-0.1}	20	64	6	6	6	21	6 ^{+0.012} ₀	8 ^{+0.015} ₀	29	M8X1.25	32	8 ^{+0.1} ₀	17	R4	13.5	4
CCLW10	19 ⁰ _{-0.11}	25	73.5	8	7	7.5	24.5	8 ^{+0.015} ₀	10 ^{+0.015} ₀	32	M10X1.5	39	10 ^{+0.1} ₀	20	R5	17.5	5
CCLW16	22 ⁰ _{-0.1}	31	90.5	9	10	9.5	30.5	12 ^{+0.018} ₀	14 ^{+0.018} ₀	39	M12X1.75	48	11 ^{+0.1} ₀	26.5	R5.5	22	7
CCLW25	32 ⁰ _{-0.1}	38	115.5	12.5	13	9.5	37.5	14 ^{+0.018} ₀	16 ^{+0.018} ₀	50	M16X2	58	11 ^{+0.1} ₀	36	R8	28	8



CTC-K

外螺紋小型油壓單動缸

CTC-K HYDRAULIC THREAD CYLINDER

▶ 產品特性

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，高壓夾持中保持長時間不漏油。

外螺紋式小型單動缸體積小，使用於夾具上，能在最小的空間內排列使用。

此型式油壓缸使用於頂出場合，彈簧退回，無法使用於拉式場合上。

安裝時盡可能垂直於工作面，傾斜勿超過 10°。

缸體底部需置放一只鎖緊防漏墊圈。

最大操作壓力：250 kgf/cm²

最小操作壓力：20 kgf/cm²

作動方式：單動式

▶ FEATURES

The Thread-body single acting hydraulic cylinder use imported oil seal and accessories to guarantee the quality. No oil leakage while clamping in high pressure for a long time. The volume of the thread-body single acting hydraulic cylinder is small. It can be utilized in a small space in the fixture. This hydraulic cylinder is used to extend out, and when spring returns, but it can't be used for pulling back.

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.

Max. operating pressure: 250 kgf/cm²

Min. operating pressure: 20 kgf/cm²

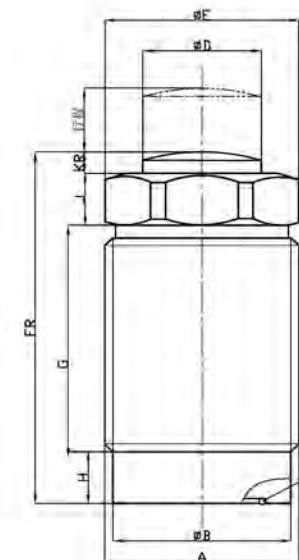
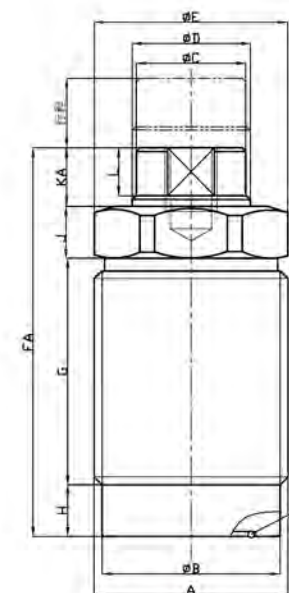
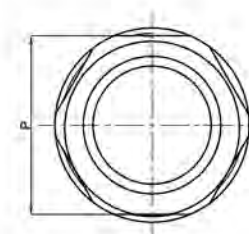
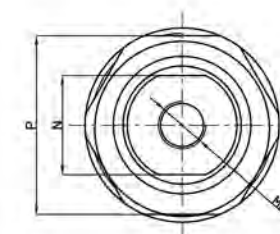
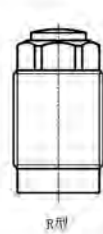
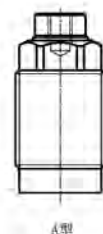
Single acting

▶ 訂購標示法

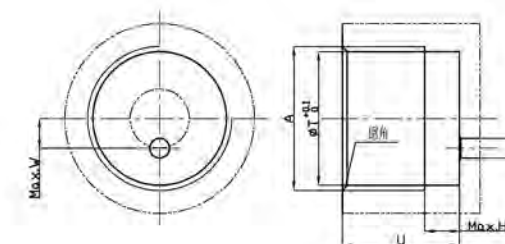
ORDERING INDICATION

CTC-K024-AL

CTC-K	系列 Series	CTC-K
024	024/030/036/045/055	
A	類型 Type	分為 A、R 兩種 Divide A type and R type
L	行程 Type	S/M/L



安裝部位加工尺寸



▶ A型

▶ R型

型號	理論夾持力 (250 kgf/cm ²)	總行程	推出容積	推出受壓面積	使用溫度範圍	使用液體
MODEL	CLAMPING FORCE AT 250 kgf/cm ² (kgf)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(mm)	EFF. PISTON AREA CLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CTC-K024	388	S:8/M:12/L:20	1.2/1.8/3.1	1.5	0~+70°C	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
CTC-K030	643	S:8/M:12/L:20	2/3.1/5.5	2.5	0~+70°C	
CTC-K036	990	S:10/M:16/L:25	3.9/6.3/9.9	3.9	0~+70°C	
CTC-K045	1775	S:10/M:16/L:25	7.1/11.3/17.7	7.1	0~+70°C	
CTC-K055	2479	S:12/M:20/M:32	11.9/19.8/31.7	9.9	0~+70°C	

MODEL	A	B	C	D	E	FA 行程代碼			G 行程代碼			H	J	KA	L	MA	N	P	T	U 行程代碼			V	W	倒角	○形圖
						S	M	L	S	M	L									S	M	L				
CTC-K024	M24×1.5	22.3	13	14	24.5	39.5	47	63.5	17.5	25	41.5	8	7	7	5.5	M6×7	10	22	22.5	14<U<24	14<U<32	14<U<48	3	5.5	C1	AS568-01
CTC-K030	M30×1.5	28.3	17	18	30	43.5	52.5	72	18	27	46.5	9	8	8.5	7	M8×10	14	27	28.5	15<U<26	15<U<35	15<U<54	6	6	C1	AS568-02
CTC-K036	M36×1.5	34.3	19	22.4	35.5	51	64	85	23.5	36.5	57.5	10	8	9.5	8	M8×10	17	32	34.5	16<U<32	16<U<45	16<U<66	6	8	C1	AS568-12
CTC-K045	M45×1.5	43.3	28	30	45	59	72	94.5	23	36	58.5	12	12	12	10	M10×11	24	41	43.5	18<U<34	18<U<47	18<U<69	8	10	C1	P31.5
CTC-K055	M55×1.5	52.6	34.5	35.5	55	64	79.5	102	27	42.5	65	12	12	13	11	M12×12	30	50	53	20<U<38	30<U<53	20<U<76	8	13	C1.5	P39

MODEL	A	B	D	E	FR 行程代碼			G 行程代碼			H	J	KR	P	T	U 行程代碼			V	W	倒角	○形圖
					S	M	L	S	M	L						S	M	L				
CTC-K024	M24×1.5	22.3	14	24.5	35	42.5	59	17.5	25	41.5	8	7	2.5	22	22.5	14 < U < 24	14 < U < 32	14 < U < 48	3	5.5	C1	AS568-01
CTC-K030	M30×1.5	28.3	18	30	38	47	66.5	18	27	46.5	9	8	3	27	28.5	15 < U < 26	15 < U < 35	15 < U < 54	6	6	C1	AS568-02
CTC-K036	M36×1.5	34.3	22.4	35.5	45	58	79	23.5	36.5	57.5	10	8	3.5	32	34.5	16 < U < 32	16 < U < 45	16 < U < 66	6	8	C1	AS568-12
CTC-K045	M45×1.5	43.3	30	45	51	64	86.5	23	36	58.5	12	12	4	41	43.5	18 < U < 34	18 < U < 47	18 < U < 69	8	10	C1	P31.5
CTC-K055	M55×1.5	52.6	35.5	55	56	71.5	94	27	42.5	65	12	12	5	50	53	20 < U < 38	30 < U < 53	20 < U < 76	8	13	C1.5	P39

速度控制閥（低壓用）

CZL SPEED CONTROL VALVE(LOW PRESSURE)

▶ 規格 SPECIFICATION

型號 Model No	CZL10-A	CZL20-A	CZL30-A	CZL10-B	CZL20-B	CZL30-B
最高使用壓力 Max. operating pressure	MPa			7		
耐壓 Withstanding pressure	MPa			10.5		
控制方式 Control method		進油節流 Meter-in		回油節流 Meter-out		
G 螺絲尺寸 G thread size	G1/8	G1/4	G3/8	G1/8	G1/4	G3/8
開啓壓力 Cracking pressure	MPa	0.04			0.12	
最大流通面積 Max. passage area	mm²	2.6	5.0	11.6	2.6	5.0
使用液體 Useable fluid	相當於 ISO 粘度等級的 ISO-VG-32 一般液壓油 General hydraulic oil equivalent to ISO-VG-32					
使用溫度 Operating temperature	℃	0~70℃				
本體推薦緊固力矩 Recommend tightening for main body	N.m					
	N.m	10	25	35	10	25

► 注意事項

1. 控制側完全開啓時的最小流道面積與上表的最大流道面積相等。
2. 必須按本體推薦緊固力矩安裝速度控制閥。速度控制閥端面為金屬密封結構，緊固力矩不足將無法進行流量調整。
3. 不可將曾經使用過的速度控制閥再用於其它油缸上。否則可能會因油缸的 G 螺紋底面深度差異而導致金屬密封不嚴密，從而無法進行流量調整。

► **NOTE**

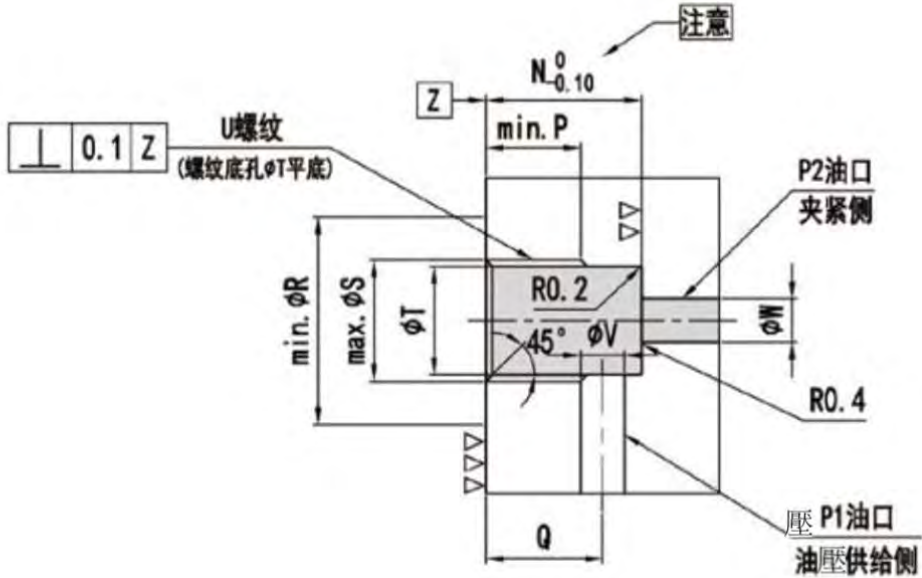
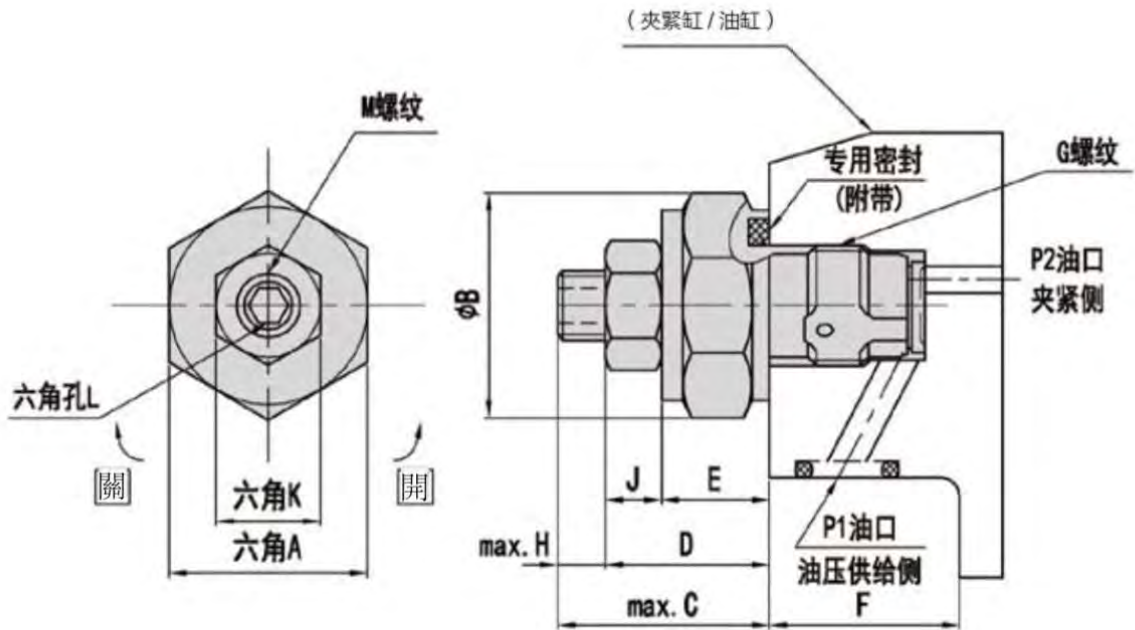
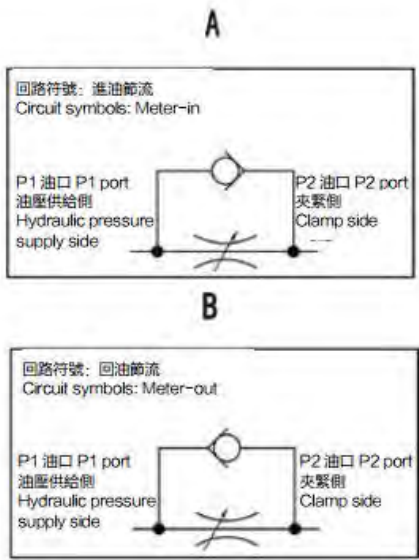
1. Minimum passage area when fully opened is the same as the maximum passage area in the table above.
2. It must be mounted with recommended torque. Because of the structure of the metal seal, if mounting torque is insufficient, the flow control valve may not be able to adjust the flow rate.
3. Don't use used speed control valve(CZL) to other clamps. Flow control will not be made because the bottom depth difference of G thread makes metal seal insufficient.

▶ 訂購標示法

ORDERING INDICATION

CZL - 10 - B

CZL	系列 Series	CZL	
10	G 螺紋尺寸 G thread size	10: 螺紋尺寸 G1/8 Thread part G1/8 thread 20: 螺紋尺寸 G1/4 Thread part G1/4 thread 30: 螺紋尺寸 G3/8 Thread part G1/8 thread	 螺紋部分 Thread part
B	控制方式 Control method	A 進油節流 Meter-in B 回油節流 Meter-out	



► 注意事項

1. ▽▽▽部將成為密封面，注意切勿受損。
2. ▽▽▽部將成為 CZL 端面的金屬密封面，注意切勿受損。（去毛刺時注意）
3. 加工孔公差部位切勿殘留削屑、毛刺等異物。
4. 使用時請按圖所示，將 P1 油口設定為油壓供給側，將 P2 油口設定為夾緊側。
5. 如安裝市場上銷售的 G 螺紋規格的堵頭和接頭時，請將尺寸表內的“※1”設定為 12.5。

► **NOTE**

1. As the ▽ ▽ ▽ area is sealing part , pay attention not to damage it.
2. As the ▽ ▽ area is the metal sealing part at the CZL side, pay attention not to damage it.(Notes for deburring).
3. Pay attention to have no cutting chips and burring at the tolerance part of the machining hole.
4. As shown in the drawing, P1-port is used as hydraulic supply and P2-port as the clamping supply.
5. If using a common plug and fitting with G thread specification are considered to be mounted, "※1" in the table should be 12.5.

CVCF

速度控制閥（低壓用）

CVCF SPEED CONTROL VALVE (LOW PRESSURE)

注意事項

1. 控制側完全開啓時的最小流道面積與上表的最大流道面積相等。
2. 必須按本體推薦緊固力矩安裝速度控制閥。速度控制閥端面為金屬密封結構，緊固力矩不足將無法進行流量調整。
3. 不準將曾經使用過的速度控制閥再用于其它油缸上。否則可能會因油缸的G螺紋底面深度差異而導致金屬密封不嚴密，從而無法進行流量調整。

NOTES

1. Minimum passage area when fully opened is the same as the maximum passage area in the table above.
2. It must be mounted with recommended torque. Because of the structure of the metal seal, if mounting torque is insufficient, the flow control valve may not be able to adjust the flow rate.
3. Don't use used speed control valve (CZL) to other clamps. Flow control will not be made because the bottom depth difference of G thread makes metal seal insufficient.

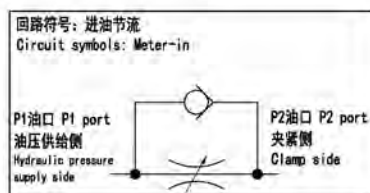
訂購標示法

ORDERING INDICATION

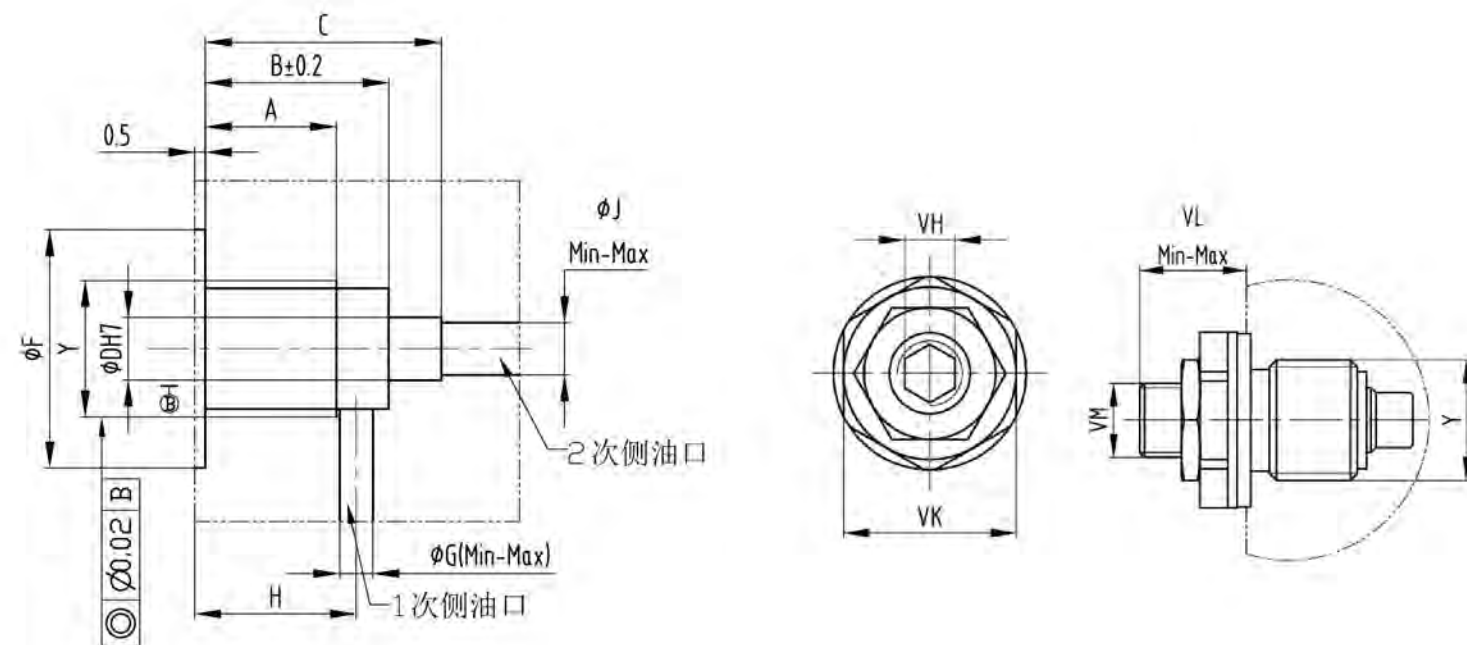
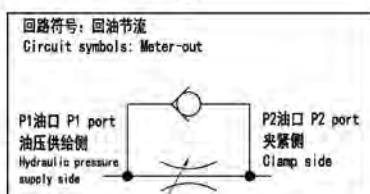
CVCF01

CVCF	系列 Series	CVCF
01	G 螺紋尺寸 G thread size	01: 螺紋尺寸 G1/8 Thread part G1/8 thread 02: 螺紋尺寸 G1/4 Thread part G1/4 thread 03: 螺紋尺寸 G3/8 Thread part G3/8 thread
0	控制方式 Control method	無記號: 進油節流 Meter-in 0 : 回油節流 Meter-out

無記號



0



型號	最高使用壓力	耐壓	控制方式	G螺絲螺絲尺寸	開啓壓力	使用流體	使用溫度範圍	本體推薦緊固力矩N.m
MODEL	MAX. OPERATING PRESSURE MPA	WITHSTANDING PRESSURE MPA	CONTROL METHOD	G THREAD SIZE	CRACKING PRESSURE MPA	USEABLE FLUID	RANGE OF TEMPERATURE(°C)	RECOMMEND TIGHTENING FOR MAIN BODY N.m
CVCF01	7	10.5	進油节流Meter-in	G1/8	0.04	相當于ISO粘度等級的ISO-VG-32一般液壓油	0~70°C	10
CVCF02	7	10.5	進油节流Meter-in	G1/4	0.04	相當于ISO粘度等級的ISO-VG-32一般液壓油	0~70°C	30
CVCF03	7	10.5	進油节流Meter-in	G3/8	0.04	相當于ISO粘度等級的ISO-VG-32一般液壓油	0~70°C	35
CVCF01-0	7	10.5	回油节流Meter-out	G1/8	0.12	相當于ISO粘度等級的ISO-VG-32一般液壓油	0~70°C	10
CVCF02-0	7	10.5	回油节流Meter-out	G1/4	0.12	相當于ISO粘度等級的ISO-VG-32一般液壓油	0~70°C	30
CVCF03-0	7	10.5	回油节流Meter-out	G3/8	0.12	相當于ISO粘度等級的ISO-VG-32一般液壓油	0~70°C	35

MODEL	A	B	C	D	F	G	H	J	Y	VH	VK	VL	VM
CVCF01	9	13	17.5	5 ^{0.012} ₀	17.5	2.5~3	9.5~11.5	2.5~5	G1/8	3	12	7~11	M6×0.75
CVCF01-0													
CVCF02	13	18	22.5	6 ^{0.012} ₀	21.5	3.5~5	14.5~15.5	3.6~6	G1/4	5	17	7.5~11.5	M8×0.75
CVCF02-0													
CVCF03	13	19	23.5	8 ^{0.015} ₀	24.5	5~6	15~16	5~8	G3/8	6	19	8.5~12.5	M10×0.75
CVCF03-0													

注 1. 拆裝時請使用梅花扳手或套筒扳手。

2. 當夾緊器採用坐墊式配管時，流量控制閥可以安裝在油壓接口處（G螺紋部）。

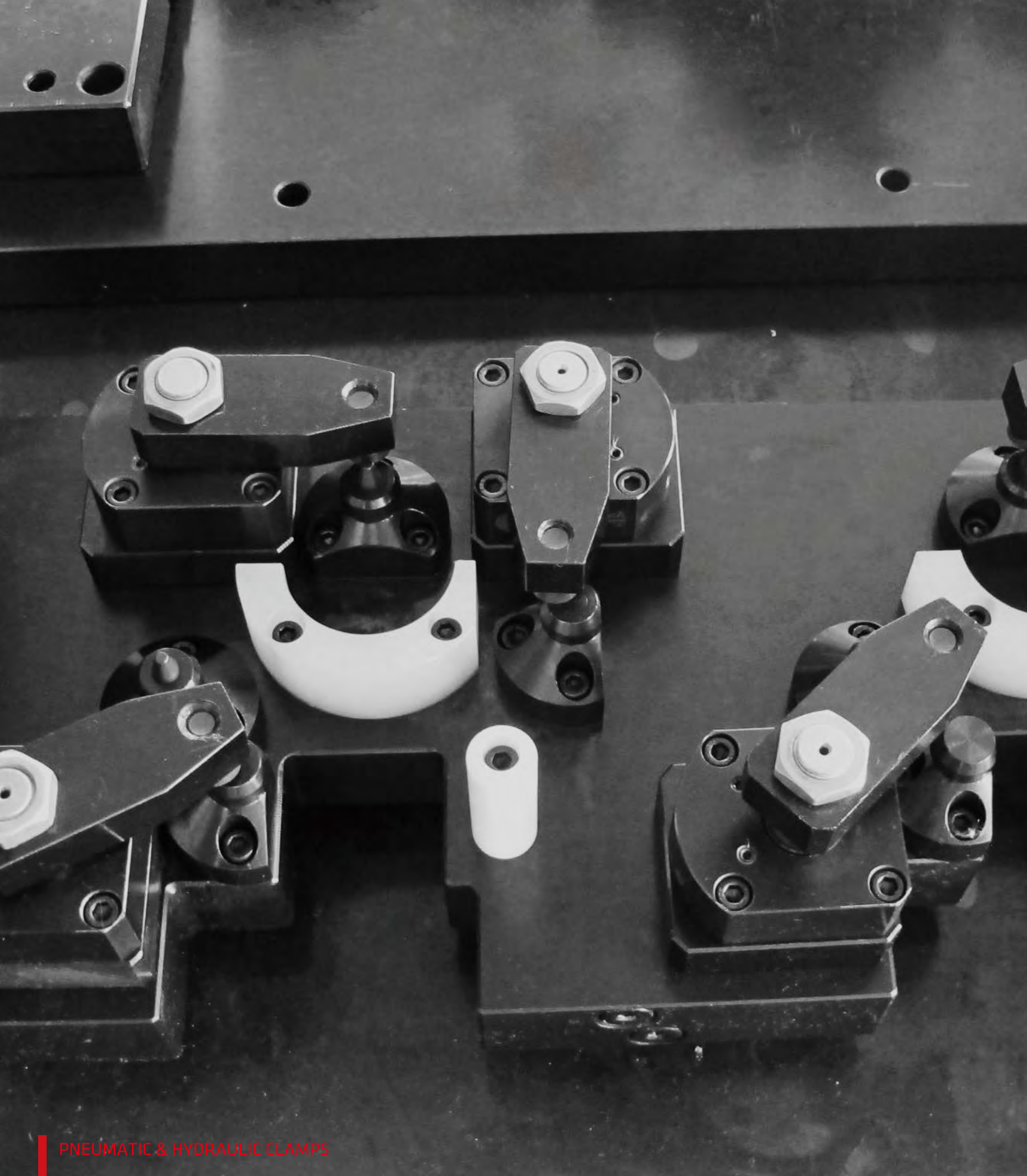
3. 請在無油壓的狀態下進行流量調整。否則會造成密封件損壞。

4. 左圖表示進油節流（VCF □）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。

PNEUMATIC SWING CLAMPS

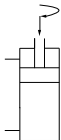
氣壓轉角缸系列 ▾



ASC

氣壓轉角缸

ASC PNEUMATIC SWING CLAMP



訂購標示法

ORDERING INDICATION

ASC - MF 32 S R × 90 - E - P

ASC	系列 Series	ASC					
MF	類型 Type	空白: 配管式 Blank: Line type	MF: 深孔型附調速 MF: Manifold with flow control		MS: 感應型 MS: Magnetic type	FA: 法蘭型 FA: Flange type	TB: 全牙型 TB: Threaded body
32	氣缸內徑 Cylinder inside diameter	Φ 25 Φ 32	Φ 40	Φ 50	Φ 63		
S	壓板型式 Clamping arm type	S: 單邊壓板 S: Single side arm	D: 雙邊壓板 D: Double side arm				
R	轉角方向 Rotating direction	R: 順時針右轉 R: Turn right	L: 逆時針左轉 L: Turn left	N: 0° 不旋轉 N: 0° No swing			
90	轉角角度 Rotating angle	標準角度 Standard angle	90° (±2°)	訂做角度 Order angle	0° , 45° (±2°) , 60° (±2°)		
E	行程加長 Stroke extension						
P	精密定位型 Precision position	增加定位銷設計 , 提高轉角重複精度 Add locating pin design, to improve the repeat precision of rotation angle					

注: 訂精密定位型請來電諮詢

產品特性

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。

主要功能為氣壓缸作動時, 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。

建議使用氣壓轉角缸, 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。

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。

最大操作壓力: 7 kgf/cm²

最小操作壓力: 4 kgf/cm²

作動方式: 複動式

注意事項

夾緊及放鬆作動速度需適當放緩。

特殊壓臂長度及重量不得超過標準壓臂的 1.5 倍。

壓臂旋轉示意圖及安裝拆卸方式, 請參見第 13 頁。

FEATURES

This machine with MC clamp is exclusively to mass-produce spare parts. It is a big helper to raise production efficiency.

The clamping arm of this clamp 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 clamp the workpiece when the clamp is running. Otherwise will be easy to damage the body and the spare parts.

The material of the cylinder body 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.

Max. operating pressure: 7 kgf/cm²

Min. operating pressure: 4 kgf/cm²

Double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.

For customized clamp arm, please don't exceed 1.5 times of the original length and weight.

The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.

配管式 ▶ LineType-S

Single side swing clamp

配管式 ▶ LineType-D

Double side swing clamp

注: 下圖為轉角 90° 鬆開狀態

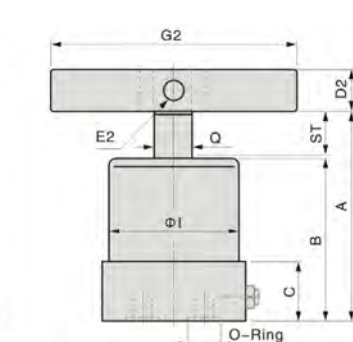
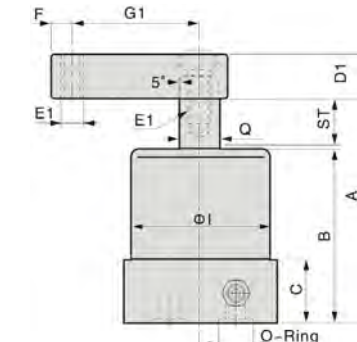
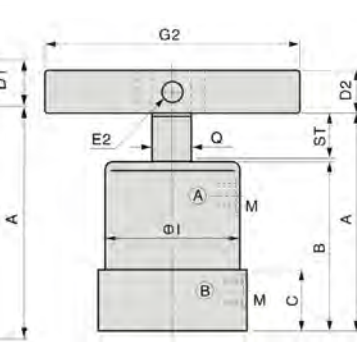
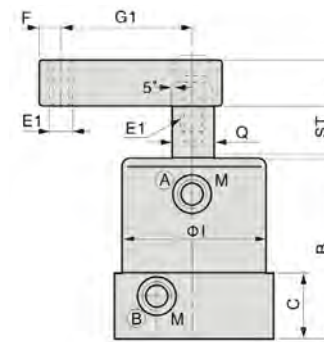
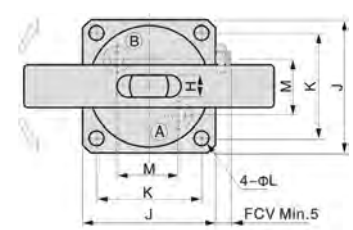
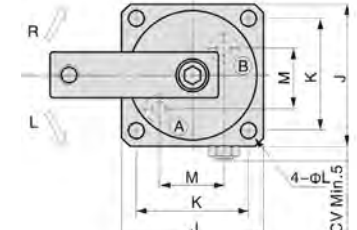
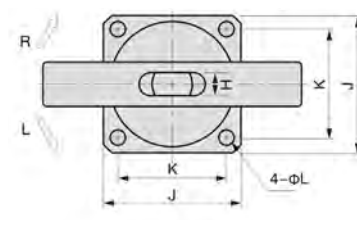
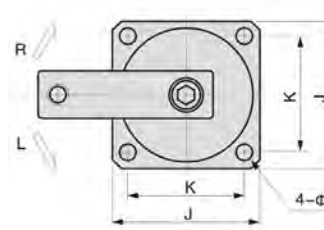
深孔型附調速 ▶ MF-S

Single side swing clamp

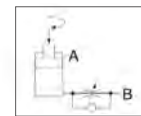
深孔型附調速 ▶ MF-D

Double side swing clamp

注: 下圖為轉角 90° 鬆開狀態



▶ ① 夾持氣孔 Clamping port ② 放鬆氣孔 Unclamping port



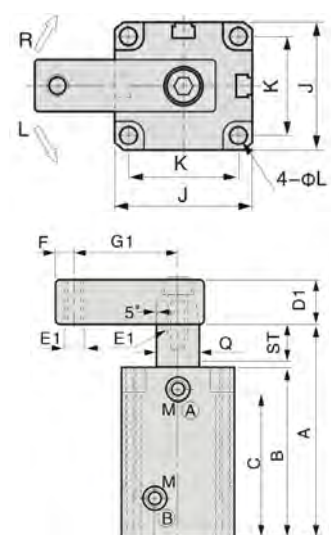
Unit:mm

MODEL	ST: Swing/Clamping	鬆開狀態 A Unclamp	B	C	D1	D2	E1	E2	F	G1	G2	H	ΦI	J	K	L	M	O-RING	Q
ASC-25	22:9/13	89	65	23	□ 16	-	M6×1.0	-	6	35	-	-	Φ35	38	30	Φ4.6	M5×0.8	-	Φ14
ASC-32	26:11/15 41:11/30	108 138	78 93	28	□ 19	□ 19	M8×1.25	Φ8	8	50	140	9	Φ46	50	40	Φ5.6	PT1/8	-	Φ16
ASC-40	26:11/15 41:11/30	108 138	78 93	28	□ 19	□ 19	M8×1.25	Φ8	8	55	140	9	Φ55	60	48	Φ6.8	PT1/8	-	Φ16
ASC-50	30:13/17 47:13/34	124 158	90 107	31	□ 25	□ 22	M10×1.5	Φ8	10	60	160	10	Φ65	70	57	Φ6.8	PT1/8	-	Φ20
ASC-63	30:13/17 47:13/34	124 158	90 107	31	□ 25	□ 22	M10×1.5	Φ8	10	70	160	10	Φ78	83	67	Φ9	PT1/8	-	Φ20
ASC-MF32	26:11/15	108	78	22	□ 19	□ 19	M8×1.25	Φ8	8	50	140	9	Φ46	50	40	Φ5.6	19	P7	Φ16
ASC-MF40	26:11/15	108	78	22	□ 19	□ 19	M8×1.25	Φ8	8	55	140	9	Φ55	60	48	Φ6.8	23	P7	Φ16
ASC-MF50	30:13/17	124	90	25	□ 25	□ 22	M10×1.5	Φ8	10	60	160	10	Φ65	70	57	Φ6.8	28	P9	Φ20
ASC-MF63	30:13/17	124	90	25	□ 25	□ 22	M10×1.5	Φ8	10	70	160	10	Φ78	83	67	Φ9	32	P9	Φ20

型號	理論夾持力 (7kgf/cm ²)	轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度 範圍	使用流體
MODEL	CLAMPING FORCE AT 7 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm ³)	CYLINDER CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
ASC-25	24	9	13	22	7.41	12.28	3.37	4.91	-10~+60°C	過濾之乾燥壓縮空氣 Oiled Dry Clean Compressed Air
ASC-32	42	11	15/30	26/41	15.68/24.72	20.9/32.96	6.03	8.04	-10~+60°C	
ASC-40	74	11	15/30	26/41	27.43/43.26	32.66/51.5	10.55	12.56	-10~+60°C	
ASC-50	116	13	17/34	30/47	49.47/77.5	58.89/92.26	16.49	19.63	-10~+60°C	
ASC-63	196	13	17/34	30/47	84.06/131.69	93.48/146.45	28.02	31.16	-10~+60°C	

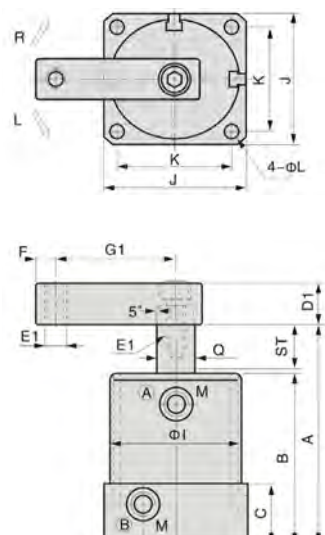
感應式 ▶ **MS25S**

Single side swing clamp



感應式 ▶ **MS32S-63S**

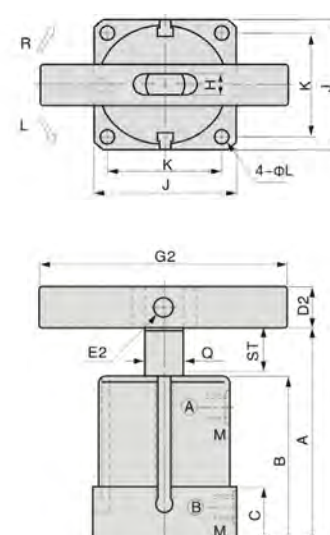
Single side swing clamp



感應式 ▶ **MS32D-63D**

Double side swing clamp

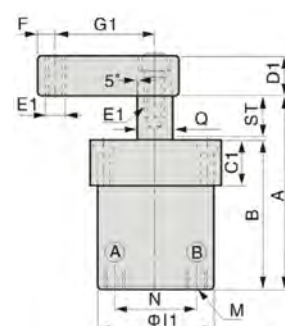
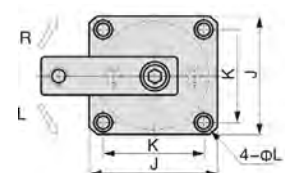
注：下圖為轉角 90° 鬆開狀態



▶ (A) 夾持氣孔 Clamping port (B) 放鬆氣孔 Unclamping port

法蘭型 ▶ **FA-S**

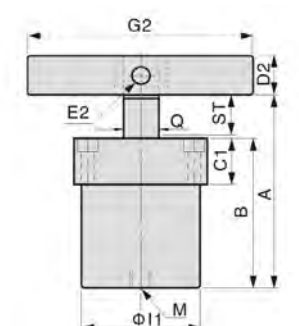
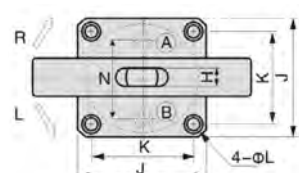
Single side swing clamp



法蘭型 ▶ **FA-D**

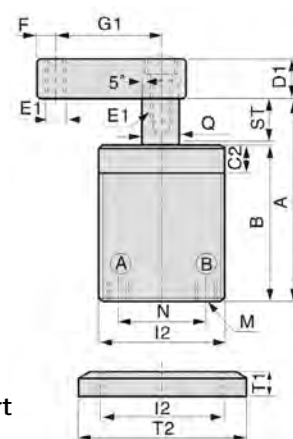
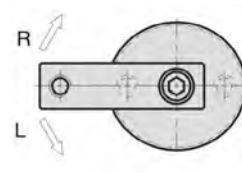
Double side swing clamp

注：下圖為轉角 90° 鬆開狀態



全牙型 ▶ **TB-S**

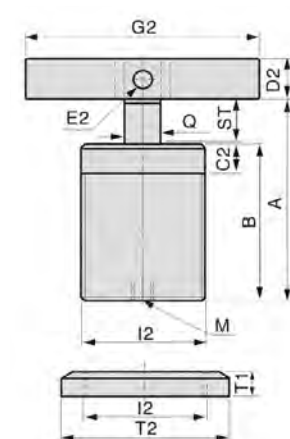
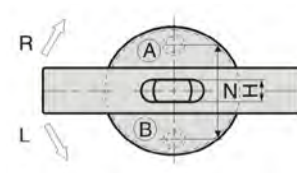
Single side swing clamp



全牙型 ▶ **TB-D**

Double side swing clamp

注：下圖為轉角 90° 鬆開狀態



▶ (A) 夾持氣孔 Clamping port (B) 放鬆氣孔 Unclamping port

Unit:mm

MODEL	ST: Swing/ Clamping	鬆開狀態 A Unclamp	B	C1	C2	D1	D2	E1	E2	F	G1	G2	H	ΦI1	ΦI2	J	K	L	M	N	T1×2PCS	T2	Q
ASC-FA32 ASC-TB32	26:11/15	108	78	22	12	□ 19	□ 19	M8×1.25	Φ8	8	50	140	9	Φ46	M50×1.5	50	40	Φ5.6-Φ9×5.5D	PT1/8	32	11	Φ70	Φ16
ASC-FA40 ASC-TB40	26:11/15	108	78	22	12	□ 19	□ 19	M8×1.25	Φ8	8	55	140	9	Φ55	M55×1.5	60	48	Φ6.8-Φ10.5×6.5D	PT1/8	40	11	Φ75	Φ16
ASC-FA50 ASC-TB50	30:13/17	124	90	25	15	□ 25	□ 22	M10×1.5	Φ8	10	60	160	10	Φ65	M65×1.5	70	57	Φ6.8-Φ10.5×6.5D	PT1/8	50	12	Φ85	Φ20
ASC-FA63	30:13/17	124	90	25	-	□ 25	□ 22	M10×1.5	Φ8	10	70	160	10	Φ78	-	83	67	Φ9-Φ14×9D	PT1/8	63	-	-	Φ20

MODEL	ST: Swing/ Clamping	鬆開狀態 A Unclamp	B	C	D1	D2	E1	E2	F	G1	G2	H	ΦI	J	K	L	M	Q
ASC-MS25	22:9/13	94	70	60	□ 16	-	M6×1.0	-	6	35	-	-	Φ35	38	30	Φ4.6	M5×0.8	Φ14
ASC-MS32	26:11/15	113	83	28	□ 19	□ 19	M8×1.25	Φ8	8	50	140	9	Φ46	50	40	Φ5.6	PT1/8	Φ16
ASC-MS40	26:11/15	113	83	28	□ 19	□ 19	M8×1.25	Φ8	8	55	140	9	Φ55	60	48	Φ6.8	PT1/8	Φ16
ASC-MS50	30:13/17	129	95	31	□ 25	□ 22	M10×1.5	Φ8	10	60	160	10	Φ65	70	57	Φ6.8	PT1/8	Φ20
ASC-MS63	30:13/17	129	95	31	□ 25	□ 22	M10×1.5	Φ8	10	70	160	10	Φ78	83	67	Φ9	PT1/8	Φ20



PB PNEUMATIC SWING CLAMP

產品特性

設計簡單，結構緊湊，重量輕，壽命長以及較高的夾持力使它成爲一種完美的夾具。
本產品有長行程及短行程兩種可任意選擇上面和下面安裝。
廣泛應用於工業自動化，例如：薄片金屬的夾持、輸送帶上工件的夾緊輸送，以及包裝流水線作業。
最大操作壓力： 7 kgf/cm²
最小操作壓力： 4 kgf/cm²
作動方式：複動式

注意事項

夾緊及放鬆作動速度需適當放緩。
特殊壓臂長度及重量不得超過標準壓臂的 1.5 倍。
壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

FEATURES

This product is perfect , design in a brief,the structure is compact,the weight is light,the service life is long and holding capacity is strong.
Two types available---long stroke and short stroke .
Fixing from top , base or the side of the cylinder is ok.Fixing from top , base or the side of cylinder is ok.
Be applied in industial automatization,such as clipping of fiol,clipping and transporting of the work piece on the conveyer belt,mainly used for packing pipelining.
Max. operating pressure: 7 kgf/cm²
Min. operating pressure: 4 kgf/cm²
Double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.
For customized clamp arm, please don't exceed 1.5 times of the original length and weight.
The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.

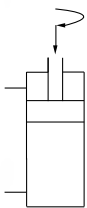
訂購標示法

ORDERING INDICATION

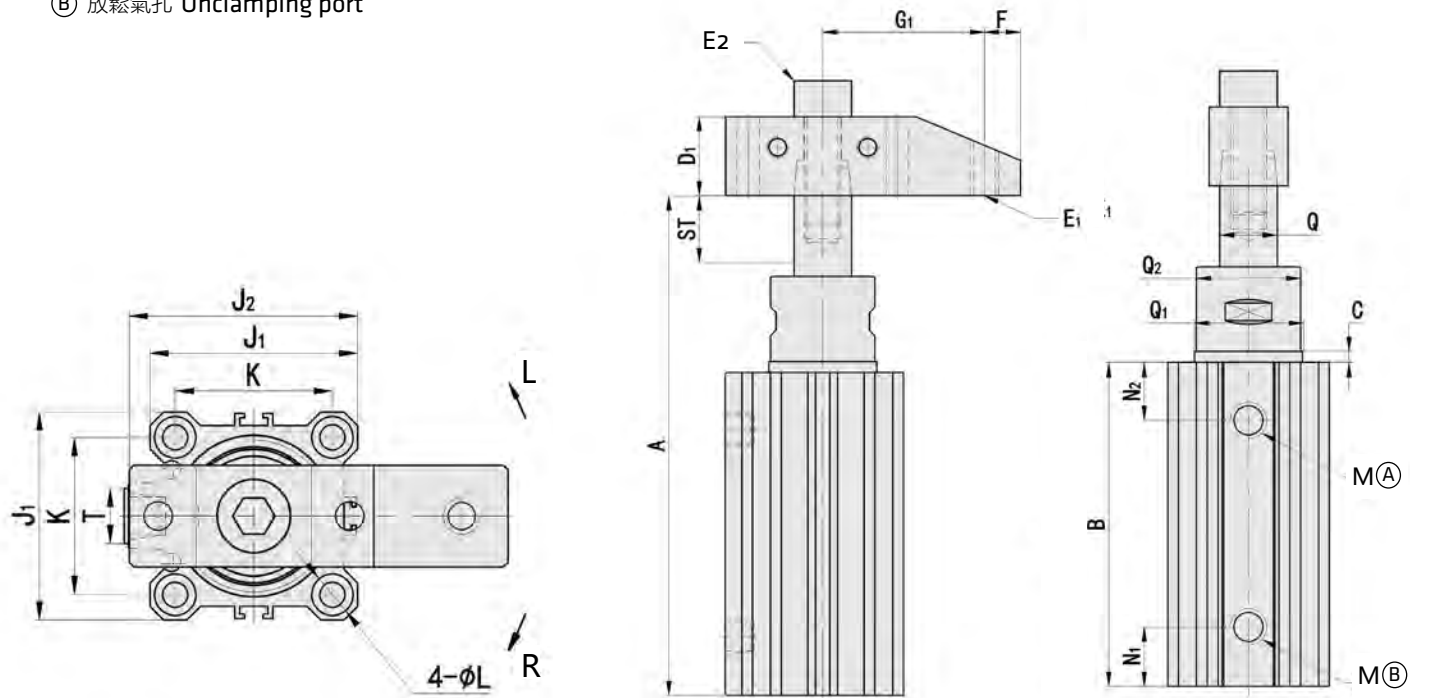
PB - S 40 R × 90-S2-P

PB	系列Series	PB
S	行程 Stroke	長行程 L L: Long stroke 短行程 S S: Short stroke
40	氣缸內徑 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50
R	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right or turn left
90	轉角角度 Rotating angle	標準角度 Standard angle 90° (±2°) 訂做角度 Order angle 0°, 45° (±2°) ,60°(±2°)
S2	感應開關 Sensor switch	S1: 1 個 S1:1 pc of S1 S2: 2 個 S2:2 pcs of S2
P	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度 Add locating pin design,to improve the repeat precision of rotation angle

注：訂精密定位型請來電諮詢



- ▶ ① 夾持氣孔 Clamping port
- ▶ ② 放鬆氣孔 Unclamping port



型號	理論夾持力 (7kgf/cm ²)	轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 7 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm ³)	CYLINDER CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
PBS-25	24	9.5	10	19.5	6.57	9.57	3.37	4.91	-10~+60°C	過濾之乾燥壓 縮空氣 Oiled Dry Clean Compressed Air
PBL-25	24	9.5	20	29.5	9.94	14.48	3.37	4.91	-10~+60°C	
PBS-32	42	15	10	25	15.05	20.10	6.02	8.04	-10~+60°C	
PBL-32	42	15	20	35	21.07	28.14	6.02	8.04	-10~+60°C	
PBS-40	74	15	10	25	26.40	31.40	10.56	12.56	-10~+60°C	
PBL-40	74	15	20	35	36.96	43.96	10.56	12.56	-10~+60°C	
PBS-50	116	19	20	39	64.35	76.56	16.5	19.63	-10~+60°C	
PBL-50	116	19	50	69	113.85	135.45	16.5	19.63	-10~+60°C	

MODEL	ST: Swing/ Clamping	A 鬆開狀態 Unclamp	B	C	D1	E1	E2	F	G1	J1	J2	K	L	M	N1	N2	Q	Q1	Q2	T
PBS-25 PBL-25	19.5:9.5/10 29.5:9.5/20	109 129	73 83	3	□ 16	M6	M8	7	32	40	42	28	Φ5.5-Φ9×9D	M5	16.5	14	Φ14	Φ26	Φ25	11
PBS-32 PBL-32	25:15/10 35:15/20	134 154	80 90	3	□ 22	M8	M10	10	45	45	49.5	34	Φ5.5-Φ9×9D	PT1/8	16.5	16	Φ16	Φ30	Φ29	14.8
PBS-40 PBL-40	25:15/10 35:15/20	134.5 154.5	80 90	3	□ 22	M8	M10	10	45	52	57	40	Φ5.5-Φ9×12D	PT1/8	19	16	Φ16	Φ30	Φ29	14.8
PBS-50 PBL-50	39:19/20 69:19/50	186.5 246.5	101.5 131.5	3.5	□ 25	M10	M12	10	65	64	71	50	Φ6.6-Φ11×13D	PT1/4	24	17	Φ20	Φ37	Φ36	20

產品特性

設計簡單，結構緊湊，重量輕，壽命長以及較高的夾持力使它成為一種完美的夾具。
本產品有可加裝感應器，可任意選擇上面和下面及側面安裝。

最大操作壓力：7 kgf/cm²
最小操作壓力：4 kgf/cm²
作動方式：複動式

注意事項

夾緊及放鬆作動速度需適當放緩。
特殊壓臂長度及重量不得超過標準壓臂的 1.5 倍。
壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

FEATURES

This product is perfect , design in a brief,the structure is compact, the weight is light,the service life is long and holding capacity is strong.
You can install an inductor on this product if you need.Fixing from top , base or the side of cylinder is ok.

Max.operating pressure: 7 kgf/cm²
Min.operating pressure: 4 kgf/cm²
Double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.
For customized clamp arm, please don't exceed 1.5 times of the original length and weight.
The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.

訂購標示法

ORDERING INDICATION

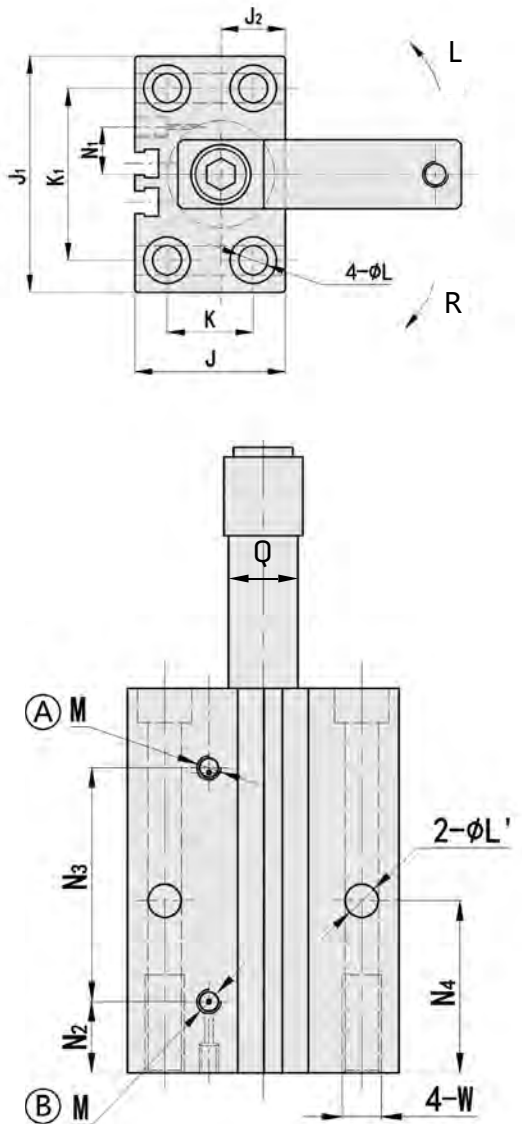
PSB - L 40 × 90-S1-P

PSB	系列 Series	PSB
L	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right R or turn left L
40	氣缸內徑 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63
90	轉角角度 Rotating angle	標準角度 Standard angle 90° (±2°) 訂做角度 Order angle 0° , 45° (±2°) , 60° (±2°)
S1	感應開關 Sensor switch	S1: 1 個 S1:1 pc of S1 S2: 2 個 S2:2 pcs of S2
P	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度 Add locating pin design,to improve the repeat precision of rotation angle

注：訂精密定位型請來電諮詢



- Swing stroke 13mm Clamping stroke 14mm
► ① 夾持氣孔 Clamping port ② 放鬆氣孔 Unclamping port



型號	理論夾持力 (7kgf/cm ²)	轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 7 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm ³)	CYLINDER CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
PSB-25	24	13	14	27	9.10	13.26	3.37	4.91	-10~+60°C	過濾之乾燥壓 縮空氣 Oiled Dry Clean Compressed Air
PSB-32	42	16	14	30	18.06	24.12	6.02	8.04	-10~+60°C	
PSB-40	74	15	15	30	31.68	37.68	10.56	12.56	-10~+60°C	
PSB-50	116	17	15	32	52.80	62.82	16.5	19.63	-10~+60°C	
PSB-63	196	15	15	30	84.06	93.48	28.02	31.16	-10~+60°C	

Unit:mm

MODEL	ST: Swing/ Clamping	鬆開狀態 A Unclamp	B	D1	E1	E2	F	G1	J	J1	J2	K	K1	N1	N2	N3	N4	L	L'	M	W	Q
PSB-25	27:13/14	109	78	□ 16	M6	M8	6	50	35	55	15	20	40	11	14.5	47.5	35	Φ6.8-Φ11×7D	Φ6.8	M5	M8×20D	Φ14
PSB-32	30:16/14	126	90	□ 19	M8	M8	9	60	45	60	20	30	45	12	21	51.5	45	Φ6.8-Φ11×7D	Φ6.8	PT1/8	M8×25D	Φ16
PSB-40	30:15/15	126	90	□ 19	M8	M8	9	70	55	70	25	37	52	15	22	49	40	Φ8.5-Φ14×9D	Φ8.5	PT1/8	M10×20D	Φ16
PSB-50	32:17/15	137	100	□ 25	M12	M10	10	80	65	85	30	46	66	17.5	25	53.5	40	Φ8.5-Φ14×9D	Φ8.5	PT1/8	M10×30D	Φ20
PSB-63	30:15/15	137	100	□ 25	M12	M10	10	90	80	100	37.5	60	80	18	20.5	56.5	35	Φ10.5-Φ16.5×10.5D	Φ10.5	PT1/8	M12×25D	Φ20



PNEUMATIC LEVERAGE CLAMPS

氣壓槓桿缸系列 ▶

產品特性

此型式氣壓缸，採用標準規格化治具缸，加裝槓桿式夾持機構，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。

最大操作壓力：7 kgf/cm²

最小操作壓力：3 kgf/cm²

作動方式：複動式

注意事項

夾緊及放鬆作動速度需適當放緩。

FEATURES

Applied Standardized fixture clamp 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 has a 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.

Max. operating pressure: 7 kgf/cm²

Min. operating pressure: 3 kgf/cm²

Double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.

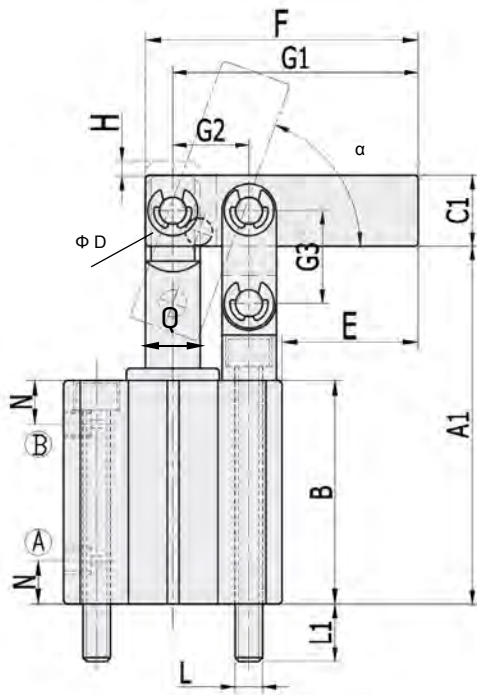
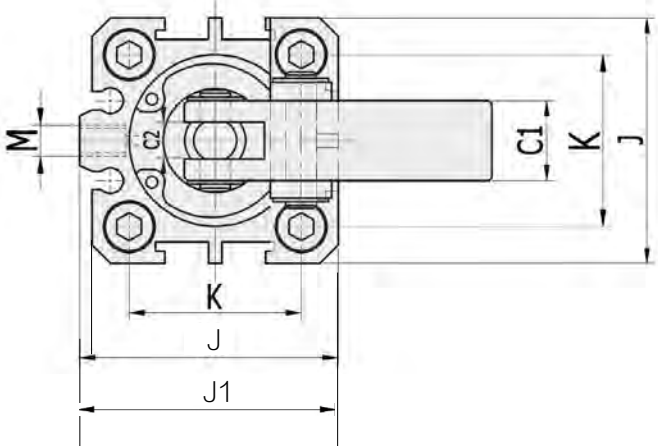
訂購標示法

ORDERING INDICATION CALC - MS 32-S1

CALC	系列 Series	CALC	
MS	Blank MS	標準型 Standard type 附磁石感應 With magnetic induction	
32	氣缸內徑 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63 , Φ80 , Φ100	
S1	感應開關 Sensor switch	S1: 1 個 S2: 2 個	S1:1 pc of S1 S2:2 pcs of S2



- ▶ ① 夾持氣孔 Clamping port
② 放鬆氣孔 Unclamping port



型號	理論夾持力 (7kgf/cm ²)	夾緊行程	總行程	推出受壓容積	拉入容積	推出受壓面積	拉入受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 7 kgf/cm ² (kgf)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	EFF.PISTON AREA CLAMP(cm ²)	CYLINDER CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CALC-25	20	17	20	9.82	8.24	4.91	4.12	-10~+60°C	過濾之幹燥壓 縮空氣 Oiled Dry Clean Compressed Air
CALC-32	31	20	23	18.49	15.89	8.04	6.91	-10~+60°C	
CALC-40	56	22	25	31.40	26.40	12.57	10.56	-10~+60°C	
CALC-50	91	27	30	58.89	49.47	19.63	16.49	-10~+60°C	
CALC-63	169	32	35	109.06	98.00	31.16	28	-10~+60°C	
CALC-80	279	40	43	216.03	195.22	50.24	45.4	-10~+60°C	
CALC-100	469	45	48	376.80	338.4	78.5	70.5	-10~+60°C	

Unit:mm

型號	標準型	標準型	附磁石型	附磁石型																		
MODEL	Standard type A1	Standard type B	With magnet A1	With magnet B	C1	C2	ΦD	E	F	G1	G2	G3	H	J	J1	K	L	L1	M	N	α	Q
CALC-25	65.5	41	75.5	51	□ 13	6	Φ5	25	50	45	14	17	3	40	—	28	M5×0.8	10.5	M5×0.8	8	75°	Φ10
CALC-32	78	49	93	64	□ 16	8	Φ6	31	60	53	17	20	3	44	50	34	M5×0.8	11	PT1/8	9	70°	Φ12
CALC-40	82.5	51.5	97.5	66.5	□ 16	8	Φ6	32	65	58	20	22	3	52	58	40	M6×1.0	9.5	PT1/8	10	65°	Φ16
CALC-50	96.6	58.6	106.6	68.6	□ 19	10	Φ8	35	75	66	23	27	3	62	71	48	M6×1.0	11	PT1/4	11	70°	Φ20
CALC-63	115.5	72.5	125.5	82.5	□ 22	10	Φ8	38.5	85	76	29.5	32	3	75	84.5	60	M6*1.0	11	PT1/4	11	65°	Φ20
CALC-80	138	84	148	94	□ 22	10	Φ10	47	105	94	37	40	3	94	104	74	M8	15.5	PT1/4	14	65°	Φ25
CALC-100	163.5	99	173.5	109	□ 25	12	Φ12	53	125	110	45	45	3	114	124	90	M10	15	PT1/4	18	60°	Φ32

CPLCU

氣壓槓桿缸

CPLCU PNEUMATIC
LEVERAGE CLAMP

產品特性

缸體的材質採用鋁合金，活塞桿材質是 45 鋼，熱處理，表面鍍鉻。

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。

應用了槓桿原理，使工件容易夾緊，提高效率。

最大操作壓力：7 kgf/cm²

最小操作壓力：3 kgf/cm²

作動方式：複動式

注意事項

夾緊及放鬆作動速度需適當放緩。

FEATURES

Body material: Aluminum alloy 6061T6 hard coat. Piston: S45C, Hard Chromed.
Use high-quality seal to avoid leakage and keep long operation.
Leverage structure design, the fixture can clamp easily, perform efficiently.

Max. operating pressure: 7 kgf/cm²
Min. operating pressure: 3 kgf/cm²
Double acting

NOTE

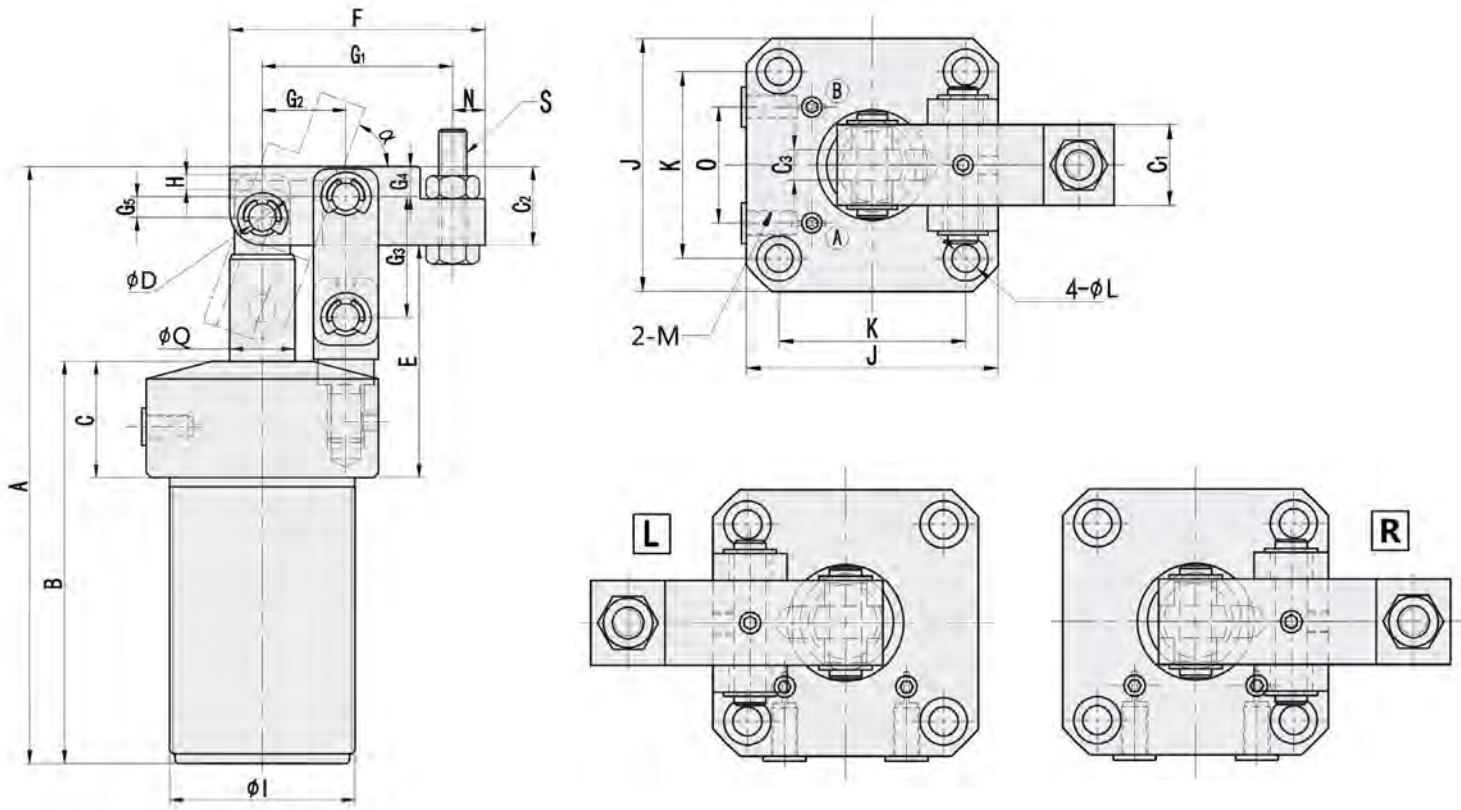
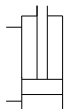
The acting speed of clamping-unclamping should be slowed down.

訂購標示法

ORDERING INDICATION

CPLCU - 40 R - W

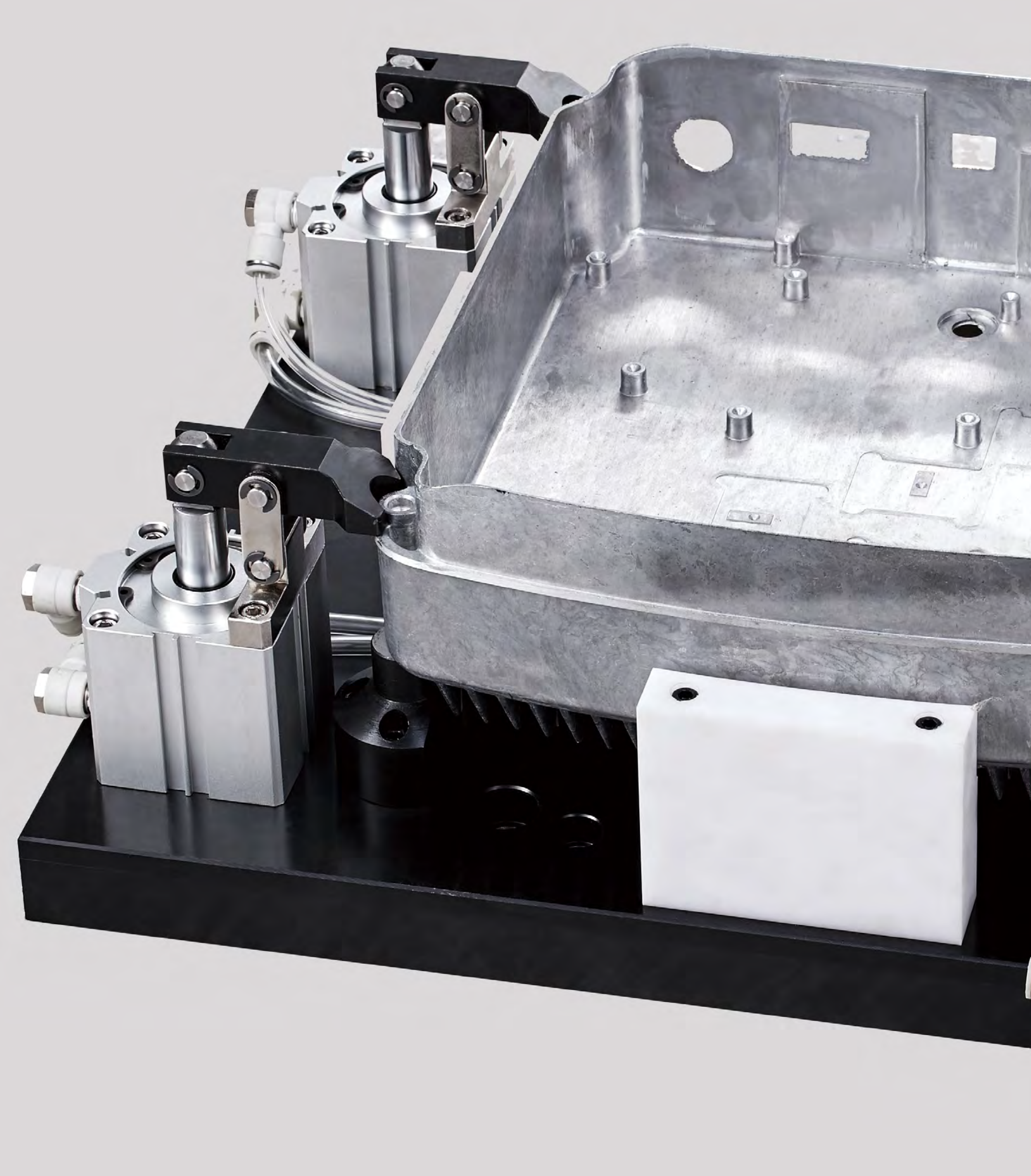
CPLCU	系列 Series	CPLCU
40	氣缸內徑 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63
R	壓臂安裝方式 Lever arm direction	R: 右 L: 左 Blank: 空白
W	W: 缸體上三方具有壓臂安裝座孔	



- ① 夾持氣孔 Clamping port
➤ ② 放鬆氣孔 Unclamping port

型號	理論夾持力 (7kgf/cm ²)	夾緊行程	總行程	推出容積	拉入容積	推出受壓容積	拉入受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 7 kgf/cm ² (kgf)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm ³)	CYLINDER CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CPLCU-25	27	20	24	11.78	8.09	4.91	3.37	-10~+60°C	過濾之乾燥壓 縮空氣
CPLCU-32	42	28	32	25.73	19.30	8.04	6.03	-10~+60°C	Oil
CPLCU-40	67	30	33	41.45	34.82	12.56	10.55	-10~+60°C	ed Dry
CPLCU-50	107	30	33	64.78	54.42	19.63	16.49	-10~+60°C	Clean
CPLCU-63	170	30	33	102.83	92.47	31.16	28.02	-10~+60°C	Compressed Air

MODEL	A	B	C	C1	C2	C3	ΦD	E	F	G1	G2	G3	G4	G5	H	I	J	K	L	M	N	O	Q	S	α
CPLCU-25	128.5	86.5	25	16	17	6	Φ6	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°
CPLCU-32	149.5	97.5	25	18	20	8	Φ6	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°
CPLCU-40	157.5	97.5	25	20	25	8	Φ8	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°
CPLCU-50	174	104	25	22	30	10	Φ10	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°
CPLCU-63	179	105	25	22	30	10	Φ10	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°



THIN TYPE ALUMINIUM ALLOY PNEUMATIC CYLINDERS

薄型鋁合金氣缸 ▼



UCQ2

薄型鋁合金氣缸

UCQ2 THIN-TYPE
PNEUMATIC
CYLINDER

► 產品特性

氣缸內徑（mm）	Φ12	Φ16	Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
標準行程（mm）	5, 10, 15, 20, 25, 30, 35, 40, 45, 50									
行程範圍（mm）	Max:30		Max:50							
使用溫度範圍（℃）	-10 ~ +60℃									

最大操作壓力: 10 kgf/cm²

最小操作壓力: 1 kgf/cm²

► 注意事項

UCQ2 系列可附磁性感應 (單動不附磁性感應)

行程在 50mm 以上屬於特殊定制

► FEATURES

Cylinder inside diameter(mm)	Φ12	Φ16	Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
Stroke(mm)	5, 10, 15, 20, 25, 30, 35, 40, 45, 50									
Range of stroke(mm)	Max:30		Max:50							
Range of temperature(℃)	-10 ~ +60 ℃									

Max. operating pressure: 10 kgf/cm²

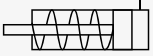
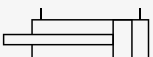
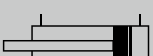
Min. operating pressure: 1 kgf/cm²

► NOTE

Magnetic piston(optional).

Stroke in more than 50 mm belongs to special custom.

► 單雙動氣缸 DOUBLE-SINGLE ACTING CYLINDERS

單動常入型 (壓回) Single acting-normally retracted piston rod type	UCQ2...S	
單動常出型 (壓出) Single acting-normally extended piston rod type	UCQ2...T	
雙動單軸標準型 Double acting-single end rod type	UCQ2...	
雙動單軸型附磁性感應 Double acting-single end rod type(piston with magnet)	UCDQ2...	
雙動雙軸型 Double acting- double end rod type	UCQ2W...	
雙動雙軸型附磁性感應 Double acting-double end rod type(piston with magnet)	UCDQ2W...	



► 訂購標示法

ORDERING INDICATION

UC - D Q2W B 20 10 S M D-A73 x 2

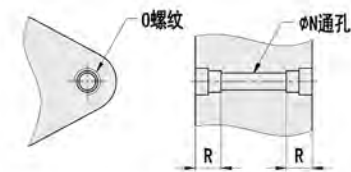
UC	系列 Series	UC	
D	磁性感應 Magnetic	無 : 無附磁性感應 D: 內附磁性感應 Nil: No magnet D: With magnet	
Q2W	活塞杆 Piston rod	Q2: 單軸 Q2W: 雙軸	Q2: Single end rod Q2W: Double end rod
B	安裝方法 Mounting method	A: 兩端內螺紋 B: 通孔 (標準) A:Female thread B:Hole	
20	氣缸內徑 Cylinder inside diameter	Φ12 , Φ16 , Φ20 , Φ25 , Φ32 , Φ40 , Φ50 , Φ63 , Φ80 , Φ100	
10	行程 Stroke	5 , 10 , 15 , 20 , 25 30 , 35 , 40 , 45 , 50	
S	動作型式 Acting	無: 雙動 S: 單動 (壓回) T: 單動 (壓出) Nil: Double acting S: Single acting(Retracted) T: Single acting(Extended)	
M	軸端型式 Rod end	無: 內牙 M: 外牙 Nil: Female M: Male	
D-A73	近接開關 Rod end	D-A72:AC220V 5-10mA D-A73:DC24V 5-40mA AC100V 5-20mA	
2	數量 Quantity	1:1pcs	2:2pcs

使用流體: 過濾之乾燥壓縮空氣

Usable fluid: Oiled Dry Clean Compressed Air

► UCQ2A/UCDQ2A

兩端內螺紋



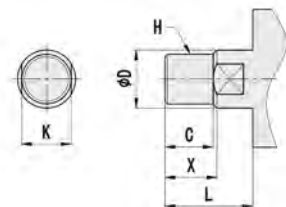
Unit:mm

缸徑 (mm) DIAMETER	12	16	20	25	32
O	M4×0.7	M4×0.7	M6×1.0	M6×1.0	M6×1.0
R	7	7	10	10	10

缸徑 (mm) DIAMETER	40	50	63	80	100
O	M6×1.0	M8×1.25	M10×1.5	M12×1.75	M12×1.75
R	10	14	18	22	22

► UCQ2A/UCDQ2A

杆端外螺紋

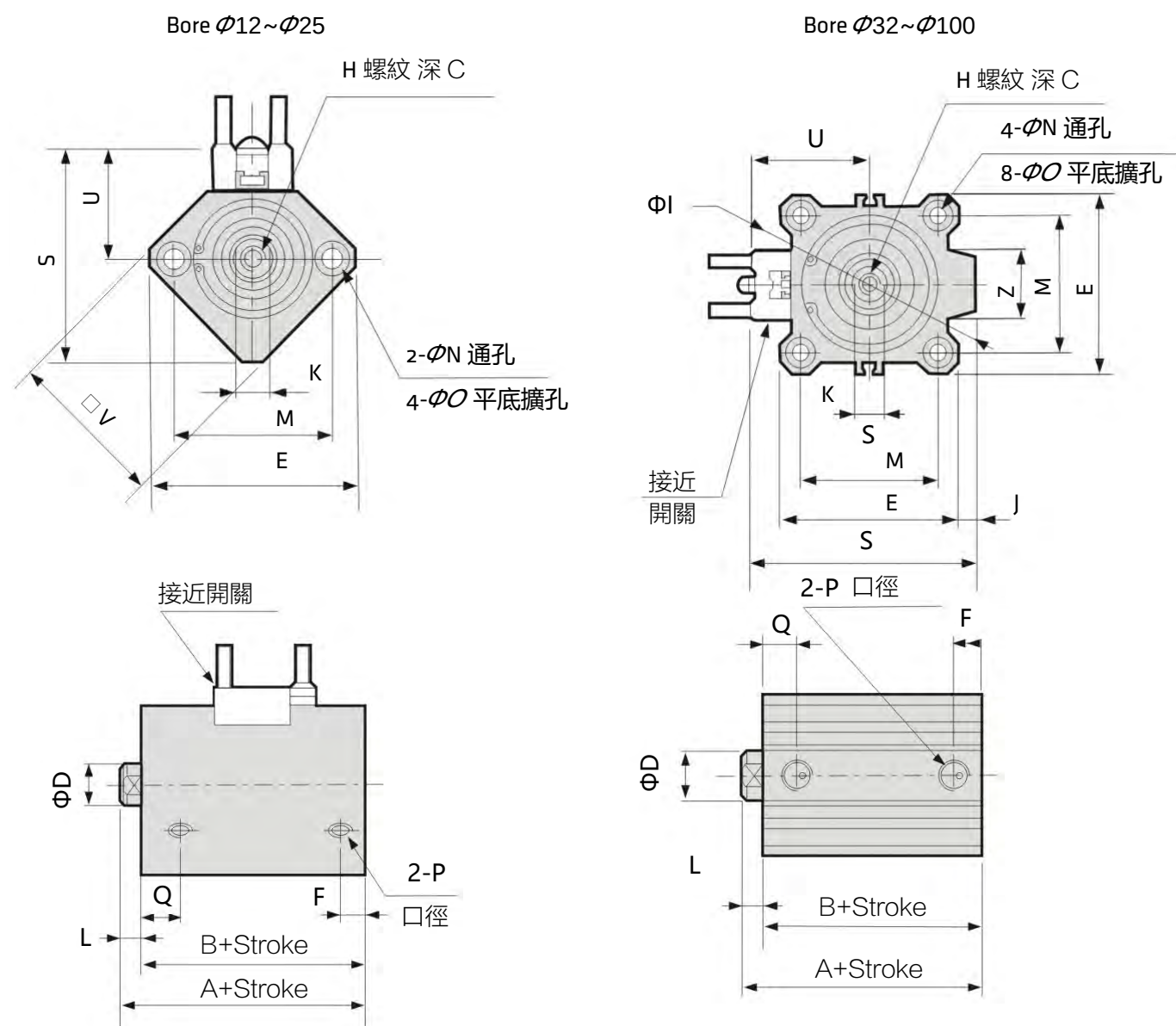


Unit:mm

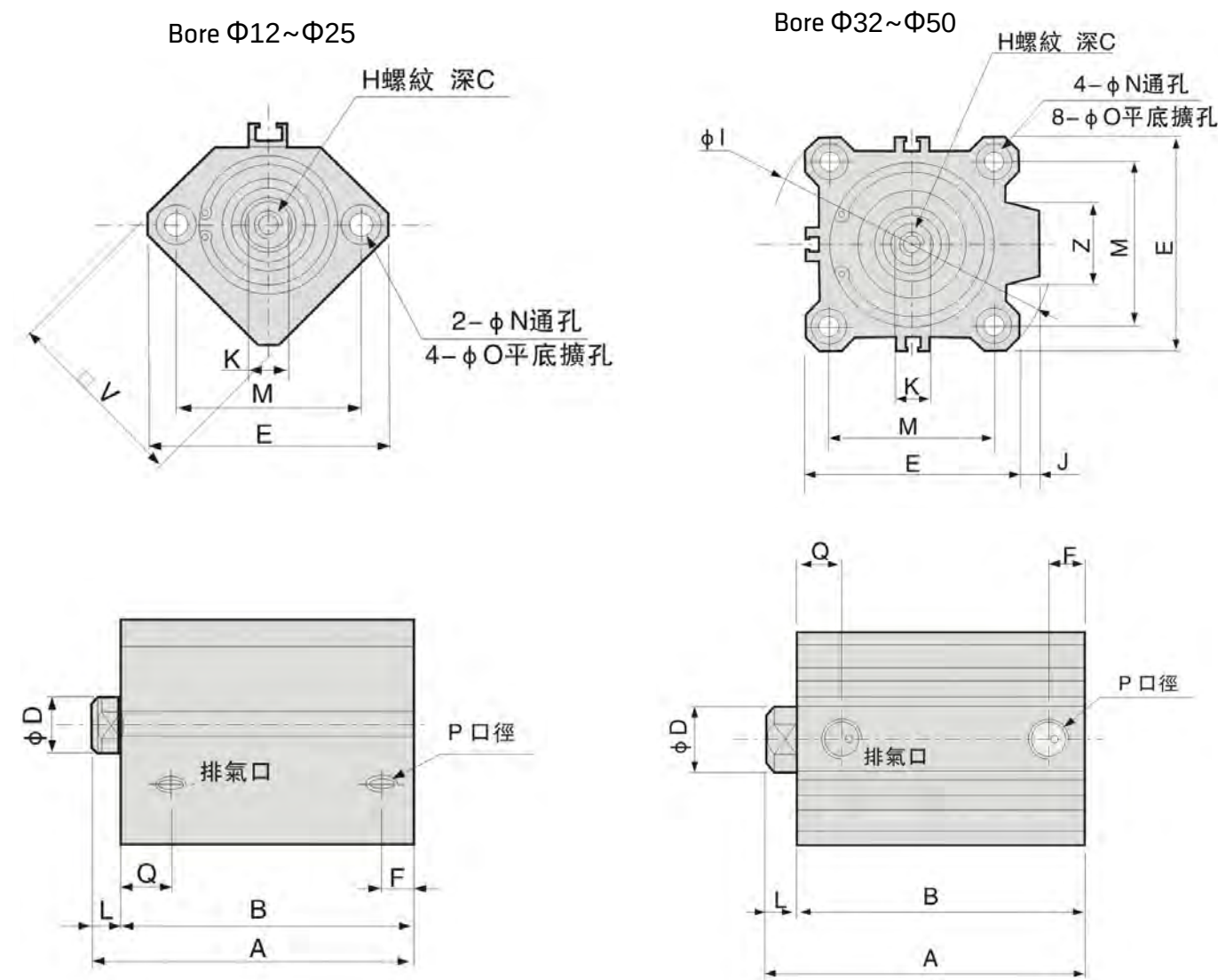
缸徑 (mm) DIAMETER	12	16	20	25	32
C	9	10	12	15	20.5
X	10.5	12	14	17.5	23.5
ΦD	6	8	10	12	16
H	M5×0.8	M6×1.0	M8×1.25	M10×1.25	M14×1.5
L	14	15.5	18.5	22.5	28.5
K	5	6	8	10	14

缸徑 (mm) DIAMETER	40	50	63	80	100
C	20.5	26	26	32.5	32.5
X	23.5	28.5	28.5	35.5	35.5
ΦD	16	20	20	25	30
H	M14×1.5	M18×1.5	M18×1.5	M22×1.5	M26×1.5
L	28.5	33.5	33.5	43.5	43.5
K	14	17	17	22	27

► UCQ2B/UCDQ2B TYPE



► UCQ2B...S TYPE
UCQ2A...S TYPE



Unit:mm

缸徑 DIAMETER	行程範圍 (mm)	A	A*	B	B*	ΦD	E	F	F*	H	C	I	J	K	L	M	ΦN	ΦO	P	P*	Q	Q*	S	U	V	Z
12	5-30	20.5	31.5	17	28	Φ6	32	6	6	M3×0.5	6	-	-	5	3.5	22	Φ3.5	Φ6.5 深 3.5	M5×0.8	M5×0.8	6.5	6.5	35.5	19.5	25	-
16	5-30	22	34	18.5	30.5	Φ8	38	6.5	6.5	M4×0.7	8	-	-	6	3.5	28	Φ3.5	Φ6.5 深 3.5	M5×0.8	M5×0.8	7	7	41.5	22.5	29	-
20	5-50	24	36	19.5	31.5	Φ10	46.8	6.5	6.5	M5×0.8	7	-	-	8	4.5	36	Φ5.5	Φ9 深 7	M5×0.8	M5×0.8	8	8	48	24.5	36	-
25	5-50	27.5	37.5	22.5	32.5	Φ12	52	7	7	M6×1.0	12	-	-	10	5	40	Φ5.5	Φ9 深 7	M5×0.8	M5×0.8	10	10	53.5	27.5	40	-
32	5 10-50	30	40	23	33	Φ16	45	8	8	M8×1.25	13	60	4.5	14	7	34	Φ5.5	Φ9 深 7	M5×0.8 G1/8	G1/8	9.5	9.5	58.5	31.5	-	18
40	5-50	36.5	46.5	29.5	39.5	Φ16	52	9	9	M8×1.25	13	69	5	14	7	40	Φ5.5	Φ9 深 7	G1/8	G1/8	10.5	10.5	66	35	-	18
50	10-50	38.5	48.5	30.5	40.5	Φ20	64	11	11	M10×1.5	15	86	7	17	8	50	Φ6.6	Φ11 深 8	G1/4	G1/4	11	11	80	41	-	22
63	10-50	44	54	36	46	Φ20	77	11.5	11.5	M10×1.5	15	103	7	17	8	60	Φ9	Φ14 深 10.5	G1/4	G1/4	15	15	93	47.5	-	22
80	10-50	53.5	63.5	43.5	53.5	Φ25	98	14	14	M16×2.0	21	132	6	22	10	77	Φ11	Φ17.5 深 13.5	G3/8	G3/8	15	15	112.5	57.5	-	26
100	10-50	65	75	53	63	Φ30	117	16.5	16.5	M20×2.5	27	156	6.5	27	12	94	Φ11	Φ17.5 深 13.5	G3/8	G3/8	22	22	132.5	67.5	-	26

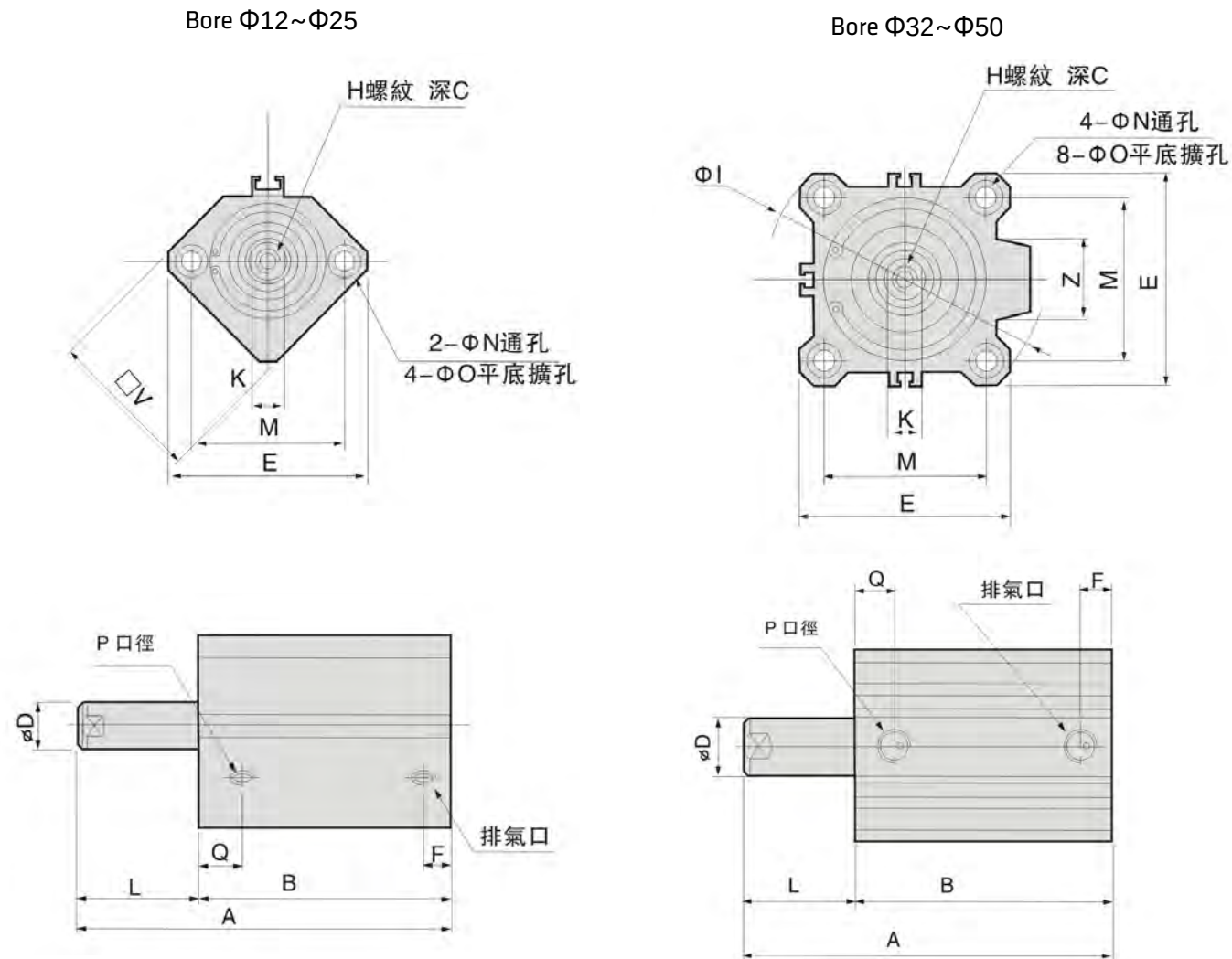
注：帶 “*” 號為磁性氣缸尺寸 Remark: With “*” mark is for magnetic cylinder dimensions.

Unit:mm

缸徑 DIAMETER	A			B			ΦD		E	F		H	C	ΦI	J	K	L	M	ΦN	ΦO			P			Q		V	Z
	5st	10st	20st	5st	10st	20st			5st	10st											P5st	P10st	P20st	Q5st	Q10st				
12	25.5	30.5	-	22	27	-	Φ6	32	6	6	M3×0.5	6	-	-	-	5	3.5	22	Φ3.5	Φ6.5 深 3.5	M5×0.8	M5×0.8	-	6.5	6.5	25	-		
16	27	32	-	23.5	28.5	-	Φ8	38	6.5	6.5	M4×0.7	8	-	-	-	6	3.5	28	Φ3.5	Φ6.5 深 3.5	M5×0.8	M5×0.8	-	7	7	29	-		
20	29	34	-	24.5	29.5	-	Φ10	46.8	6.5	6.5	M5×0.8	9	-	-	-	8	4.5	36	Φ5.5	Φ9 深 7	M5×0.8	M5×0.8	-	8	8	36	-		
25	32.5	37.5	-	27.5	32.5	-	Φ12	52	7	7	M6×1.0	12	-	-	-	10	5	40	Φ5.5	Φ9 深 7	M5×0.8	M5×0.8	-	10	10	40	-		
32	35	40	-	28	33	-	Φ16	45	8	8	M8×1.25	13	Φ60	4.5	14	7	34	Φ5.5	Φ9 深 7	M5×0.8	G1/8	-	-	9.5	9.5	-	18		
40	41.5	46.5	-	34.5	39.5	-	Φ16	52	9	9	M8×1.25	13	Φ69	5	14	7	40	Φ5.5	Φ9 深 7	G1/8	G1/8	-	-	10.5	10.5	-	18		
50	-	48.5	58.5	-	40.5	50.5	Φ20	64	11	11	M10×1.5	15	Φ86	7	17	8	50	Φ6.6	Φ11 深 8	-	G1/4	G1/4	-	11	11	-	22		

注：以上 A 及 B 的尺寸已包含行程長度 Remark: Above A and B size contains stroke length.

▶ UCQ2B...T TYPE
UCQ2A...T TYPE

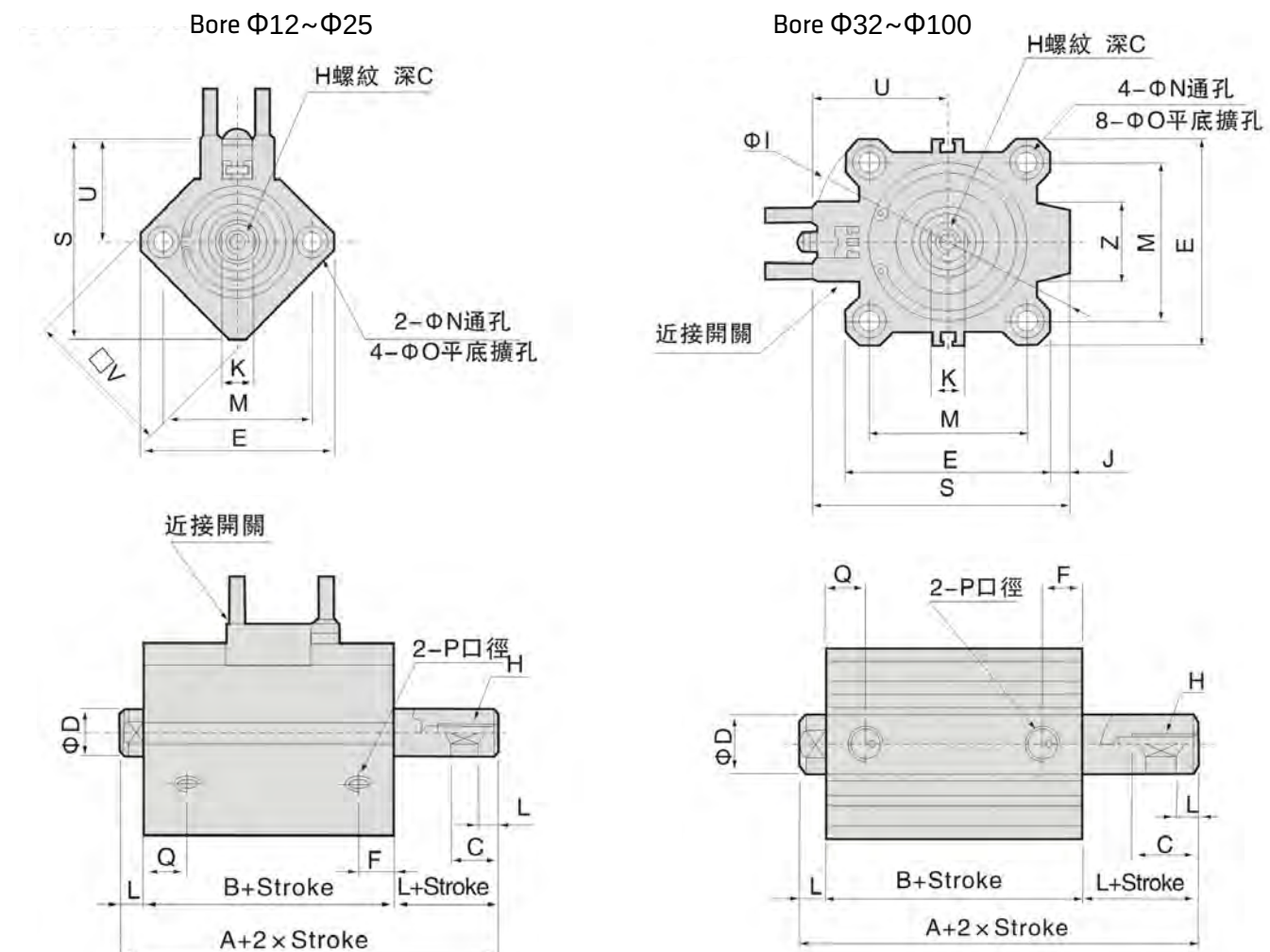


Unit:mm

缸徑 DIAMETER	行程範圍 (mm)			行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)		行程範圍 (mm)	
	A	B	ΦD	E	F	H	C	ΦI	J	K	L	M	N	ΦO	P	Q5st	Q10st	V	Z										
	5st	10st	20st	5st	10st	20st	5st	10st	5st	10st	20st	5st	10st	20st	5st	10st	20st	5st	10st	20st	5st	10st	20st	5st	10st	20st	5st	10st	20st
12	30.5	40.5	-	22	27	-	Φ6	32	7	7	M3×0.5	6	-	-	5	8.5	13.5	-	22	3.5	Φ6.5 深 3.5	M5×0.8	M5×0.8	-	6.5	6.5	25	-	-
16	32	42	-	23.5	28.5	-	Φ8	38	6.5	6.5	M4×0.7	8	-	-	6	8.5	13.5	-	28	3.5	Φ6.5 深 3.5	M5×0.8	M5×0.8	-	7	7	29	-	-
20	34	44	-	24.5	29.5	-	Φ10	46.8	6.5	6.5	M5×0.8	9	-	-	8	9.5	14.5	-	36	5.5	Φ9 深 7	M5×0.8	M5×0.8	-	8	8	36	-	-
25	37.5	47.5	-	27.5	32.5	-	Φ12	52	7	7	M6×1.0	12	-	-	10	10	15	-	40	5.5	Φ9 深 7	M5×0.8	M5×0.8	-	10	10	40	-	-
32	40	50	-	28	33	-	Φ16	45	8	8	M8×1.25	13	Φ60	4.5	14	12	17	-	34	5.5	Φ9 深 7	M5×0.8	G1/8	-	9.5	9.5	-	18	-
40	46.5	56.5	-	34.5	39.5	-	Φ16	52	9	9	M8×1.25	13	Φ69	5	14	12	17	-	40	5.5	Φ9 深 7	G1/8	G1/8	-	10.5	10.5	-	18	-
50	-	58.5	78.5	-	40.5	50.5	Φ20	64	11	11	M10×1.5	15	Φ86	7	17	-	18	28	50	6.6	Φ11 深 8	-	G1/4	G1/4	11	11	-	22	-

注：以上 A 及 B 的尺寸已包含行程長度 Remark: Above A and B size contains stroke length .

▶ UCQ2W...B.../UCDQ2W...B...TYPE
UCQ2W...A.../UCDQ2W...A...TYPE



Unit:mm

缸徑 DIAMETER	行程範圍 (mm)	A	A*	B	B*	ΦD	E	F	F*	H	C	ΦI	J	K	L	M	ΦN	ΦO	P	P*	Q	S	Q*	U	V	Z
12	5-30	32.2	39.4	25.5	32.4	Φ6	32	6.5	6.5	M3×0.5	6	-	-	5	3.5	22	Φ3.5	Φ6.5 深 3.5	M5×0.8	M5×0.8	6.5	6.5	35.5	19.5	25	-
16	5-30	33	43	26	36	Φ8	38	7	7	M4×0.7	8	-	-	6	3.5	28	Φ3.5	Φ6.5 深 3.5	M5×0.8	M5×0.8	7	7	41.5	22.5	29	-
20	5-50	35	47	26	38	Φ10	46.8	8	8	M5×0.8	9	-	-	8	4.5	36	Φ5.5	Φ9 深 7	M5×0.8	M5×0.8	8	8	48	24.5	36	-
25	5-50	39	49	29	39	Φ12	52	10	10	M6×1.0	12	-	-	10	5	40	Φ5.5	Φ9 深 7	M5×0.8	M5×0.8	10	10	53.5	27.5	40	-
32	5-10-50	44.5	54.5	30.5	40.5	Φ16	45	9.5	9.5	M8×1.25	13	Φ60	4.5	14	7	34	Φ5.5	Φ9 深 7	M5×0.8 G1/8	G1/8	9.5	9.5	58.5	31.5	-	18
40	5-50	54	64	40	50	Φ16	52	10.5	10.5	M8×1.25	13	Φ69	5	14	7	40	Φ5.5	Φ9 深 7	G1/8	G1/4	10.5	10.5	66	35	-	18
50	10-50	56.5	66.5	40.5	50.5	Φ20	64	11	11	M10×1.5	15	Φ86	7	17	8	50	Φ6.6	Φ11 深 8	G1/4	G1/4	11	11	80	41	-	22
63	10-50	58	68	42	52	Φ20	77	15	15	M10×1.5	15	Φ103	7	17	8	60	Φ9	Φ14 深 10.5	G1/4	G1/4	15	15	93	47.5	-	22
80	10-50	71	81	51	61	Φ25	98	15	15	M16×2.0	21	Φ132	6	22	10	77	Φ11	Φ17.5 深 13.5	G3/8	G3/8	15	15	112.5	57.5	-	26
100	10-50	84.5	94.5	60.5	70.5	Φ30	117	22	22	M20×2.5	27	Φ156	6.5	27	12	94	Φ11	Φ17.5 深 13.5	G3/8	G3/8	22	22	132.5	67.5	-	26

注："*" 號為磁性氣缸尺寸 Remark:With "*" mark is for magnetic cylinder dimensions

產品特性

氣缸內徑（mm）	Φ12	Φ16	Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
標準行程（mm）	5，10，15，20，25，30，35，40，45，50									
行程範圍（mm）	Max:60		Max:100		Max:100					
使用溫度範圍（℃）	-10～+60℃									

最大操作壓力: 10 kgf/cm²
最小操作壓力: 1 kgf/cm²
作動方式: 複動式

注意事項

行程在 50mm 以上屬於特殊定製

FEATURES

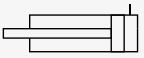
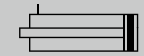
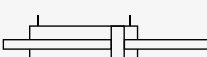
Cylinder inside diameter(mm)	Φ12 Φ16	Φ20	Φ25 Φ32 Φ40 Φ50 Φ63 Φ80 Φ100
Stroke(mm)	5 , 10 , 15 , 20 , 25 , 30 , 35 , 40 , 45 , 50		
Range of stroke(mm)	Max:60	Max:100	Max:100
Range of temperature(℃)	-10 ~ +60 ℃		

Max. operating pressure: 10 kgf/cm²
Min. operating pressure: 1 kgf/cm²
Double acting

NOTE

Stroke in more than 50 mm belongs to special custom.

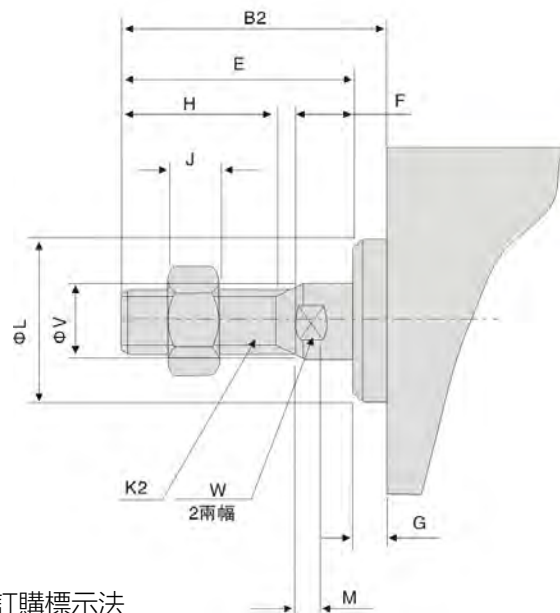
雙動氣缸 DOUBLE ACTING CYLINDERS

雙動單軸標準型 Double acting-single end rod type	SDA	
雙動單軸型附磁性感應 Double acting-single end rod type(piston with magnet)	SDAS	
雙動雙軸型標準 Double acting-double end rod type	SDAD	
雙動雙軸型附磁性感應 Double acting-double end rod type(piston with magnet)	SDADS	
雙動雙軸可調行程 Adjustable stroke cylinder(adjustable stroke:A:25mm,B:50mm)	SDAJ	
雙動雙軸可調行程附磁性感應型 Adjustable stroke cylinder (piston with magnet)(adjustable stroke:A:25mm,B:50mm)	SDAJS	

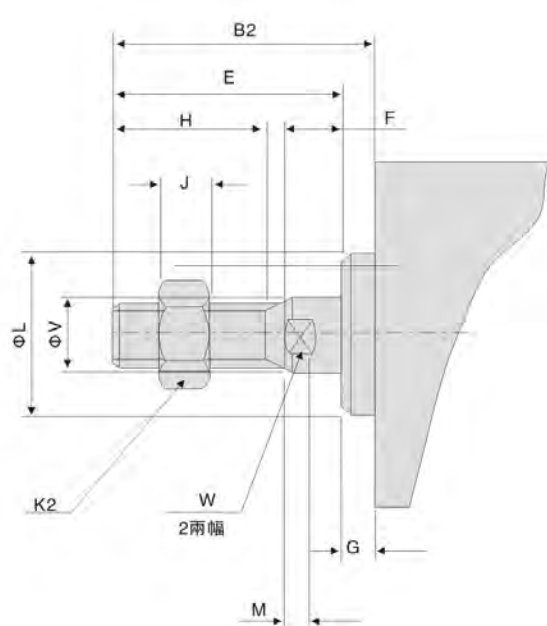


桿端外螺紋

Bore Φ12~Φ16



Bore Φ20~Φ100



訂購標示法

ORDERING INDICATION

SDA - D S - 20 - 10 - B

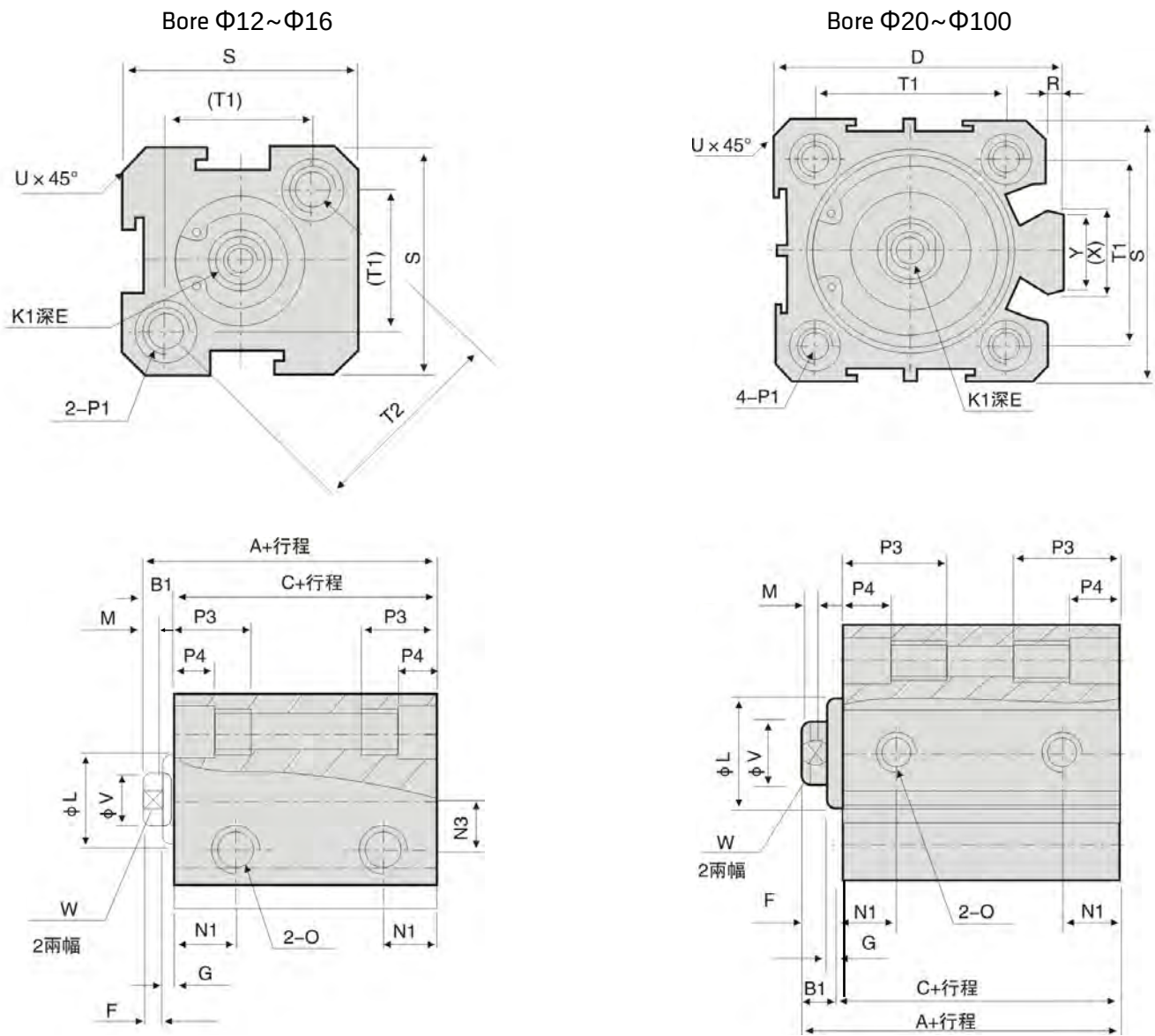
SDA	系列 Series	SDA/SOAD/SDAJ	
D	活塞桿 Piston rod	無：單軸 D: 雙軸 J: 雙軸可調	Nil: Single end rod D: Double end rod J: Double rod of adjustable stroke rod
S	磁性感應 Magnet	無：無附磁性感應 S: 內附磁性感應	Nil: No magnet S: With magnet
20	氣缸內徑 Cylinder inside diameter	Φ12 , Φ16 , Φ20 , Φ25 , Φ32 , Φ40 , Φ50 , Φ63 , Φ80 , Φ100	
10	行程 Stroke	5 , 10 , 15 , 20 , 25 , 30 , 35 , 40 , 45 , 50	
B	軸端型式 Rod end	無：內牙 B: 外牙	Nil: Female B: Male

使用流體: 過濾之乾燥壓縮空氣
Usable fluid: Oiled Dry Clean Compressed Air

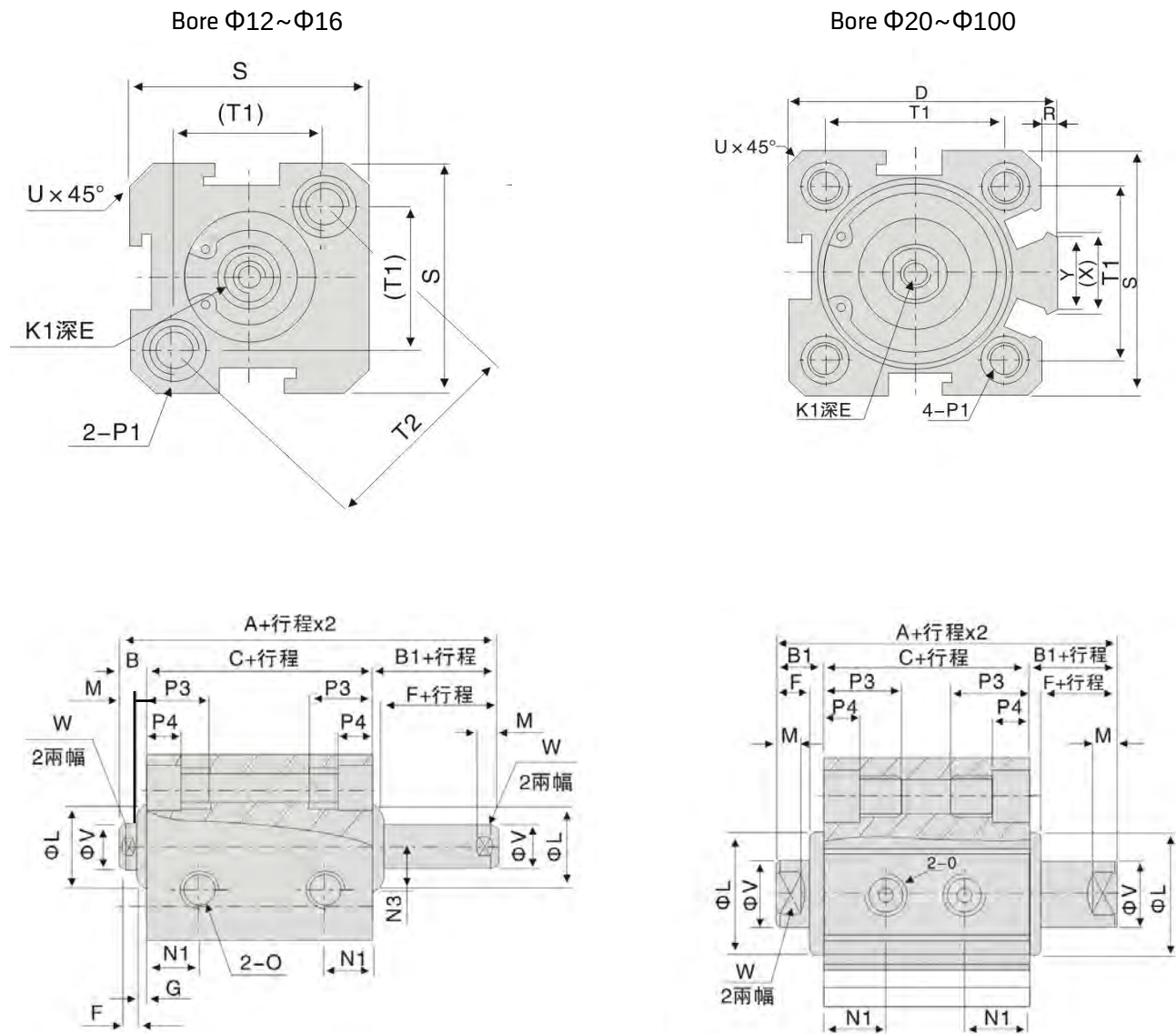
Unit:mm

DIAMETER 缸徑	B2	E	F	G	H	J	K2	L	M	V	W
12	17	16	4	1	10	4	M5×0.8	10.2	2.8	6	5
16	17.5	16	4	1.5	10	4	M5×0.8	11	2.8	6	5
20	20.5	19	4	1.5	13	5	M6×1.0	15	2.8	8	6
25	23	21	4	2	15	6	M8×1.25	17	2.8	10	8
32	25	22	4	3	15	6	M10×1.25	22	2.8	12	10
40	35	32	4	3	25	8	M14×1.5	28	2.8	16	14
50	37	33	5	4	25	11	M18×1.5	38	2.8	20	17
63	37	33	5	4	25	11	M18×1.5	40	2.8	20	17
80	44	39	6	5	30	13	M22×1.5	45	4	25	22
100	50	45	7	5	35	13	M26×1.5	55	4	32	27

SDA/SDAS TYPE



SDAD/SDADS TYPE



Unit:mm

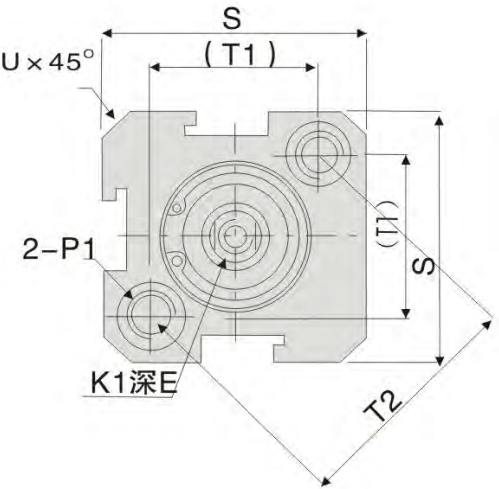
缸徑 DIAMETER	標準型			附磁型			D	E	F	G	K1	L	M	N1	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
	A	B1	C	A	B1	C		行程 ≤10	行程 >10																			
12	22	5	17	32	5	27	-	6	6	4	1	M3×0.5	10.2	2.8	6.3	6	M5×0.8 雙邊:Φ6.5牙 M5×0.8 通孔 Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	24	5.5	18.5	34	5.5	28.5	-	6	6	4	1.5	M3×0.5	11	2.8	7.3	6.5	M5×0.8 雙邊:Φ6.5牙 M5×0.8 通孔 Φ4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	25	5.5	19.5	35	5.5	29.5	36	8	8	4	1.5	M4×0.7	15	2.8	7.5	-	M5×0.8 雙邊:Φ6.5牙 M5×0.8 通孔 Φ4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	27	6	21	37	6	31	42	10	10	4	2	M5×0.8	17	2.8	8	-	M5×0.8 雙邊:Φ8.2牙 M6×1.0 通孔 Φ4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	31.5	7	24.5	41.5	7	34.5	50	12	12	4	3	M6×1.0	22	2.8	9	-	PT1/8 雙邊:Φ8.2牙 M6×1.0 通孔 Φ4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	33	7	26	43	7	36	58.5	12	12	4	3	M8×1.25	28	2.8	10	-	PT1/8 雙邊:Φ10牙 M8×1.25 通孔 Φ6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	37	9	28	47	9	38	71.5	15	15	5	4	M10×1.5	38	2.8	10.5	-	PT1/4 雙邊:Φ11牙 M8×1.25 通孔 Φ6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	41	9	32	51	9	42	84.5	15	15	5	4	M10×1.5	40	2.8	11.8	-	PT1/4 雙邊:Φ11牙 M8×1.25 通孔 Φ6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	52	11	41	62	11	51	104	15	20	6	5	M14×1.5	45	4	14.5	-	PT3/8 雙邊:Φ14牙 M12×1.75 通孔 Φ9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	63	12	51	73	12	61	124	18	20	7	5	M18×1.5	55	4	20.5	-	PT3/8 雙邊:Φ17.5牙 M14×2 通孔 Φ11.3	30	13	10	114	90	-	3.65	32	27	35	26

Unit:mm

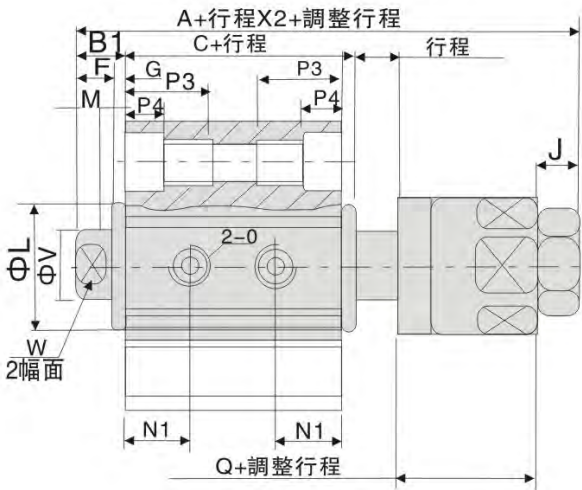
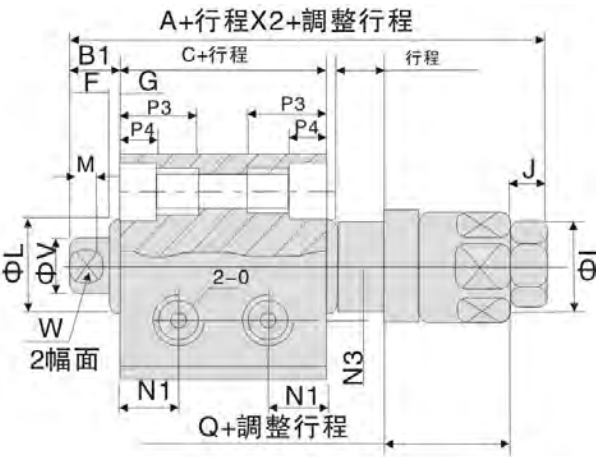
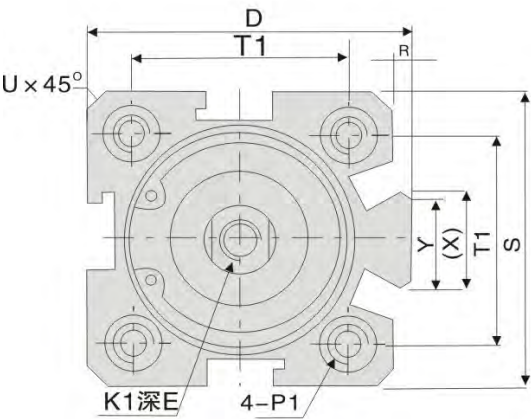
缸徑 DIAMETER	標準型			附磁型			D	E	F	G	K1	L	M	N1	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
	A	B1	C	A	B1	C		行程 ≤10	行程 >10																			
12	27	5	17	37	5	27	-	6		4	1	M3×0.5	10.2	2.8	6.3	6	M5×0.8 雙邊:Φ6.5牙 M5×0.8 通孔 Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	29.5	5.5	18.5	39.5	5.5	28.5	-	6		4	1.5	M3×0.5	11	2.8	7.3	6.5	M5×0.8 雙邊:Φ6.5牙 M5×0.8 通孔 Φ4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	30.5	5.5	19.5	40.5	5.5	29.5	36	8(行程=5時為6.5)	4	1.5	M4×0.7	15	2.8	7.5	-	M5×0.8 雙邊:Φ6.5牙 M5×0.8 通孔 Φ4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10	
25	33	6	21	43	6	31	42	10(行程=5時為7)	4	2	M5×0.8	17	2.8	8	-	M5×0.8 雙邊:Φ8.2牙 M6×1.0 通孔 Φ4.6	15	5.5	2	40	28	-	3.1	10	8	12	10	
32	38.5	7	24.5	48.5	7	34.5	50	8	12	4	3	M6×1.0	22	2.8	9	-	PT1/8 雙邊:Φ8.2牙 M6×1.0 通孔 Φ4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	40	7	26	50	7	36	58.5	9	12	4	3	M8×1.25	28	2.8	10	-	PT1/8 雙邊:Φ10牙 M8×1.25 通孔 Φ6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	46	9	28	56	9	38	71.5	11	15	5	4	M10×1.5	38	2.8	10.5	-	PT1/4 雙邊:Φ11牙 M8×1.25 通孔 Φ6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	50	9	32	60	9	42	84.5	11	15	5	4	M10×1.5	40	2.8	11.8	-	PT1/4 雙邊:Φ11牙 M8×1.25 通孔 Φ6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	63	11	41	73	11	51	104	14	20	6	5	M14×1.5	45	4	14.5	-	PT3/8 雙邊:Φ14牙 M12×1.75 通孔 Φ9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	75	12	51	85	12	61	124	18	20	7	5	M18×1.5	55	4	20.5	-	PT3/8 雙邊:Φ17.5牙 M14×2 通孔 Φ11.3	30	13	10	114	90	-	3.65	32	27	35	26

SDAJ/SDAJS TYPE

Bore $\Phi 12 \sim \Phi 16$



Bore $\Phi 20 \sim \Phi 100$



Unit:mm

缸徑 DIAMETER	標準型			附磁型			D	E	F	G	J	K1	L	M	N1	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y	
	A	B1	C	A	B1	C		行程 ≤10	行程 >10																					
12	40	5	17	50	5	27	-	6		4	1	4	M3×0.5	10.2	2.8	6.3	6	M5×0.8 雙邊:Φ6.5牙 M5×0.8 通孔	Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	42.5	5.5	18.5	52.5	5.5	28.5	-	6		4	1.5	4	M3×0.5	11	2.8	7.3	6.5	M5×0.8 雙邊:Φ6.5牙 M5×0.8 通孔	Φ4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	47.5	5.5	19.5	57.5	5.5	29.5	36	8(行程=5時為6.5)	4	1	5.5	M4×0.7	15	2.8	7.5	-	M5×0.8 雙邊:Φ6.5牙 M5×0.8 通孔	Φ4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10	
25	55	6	21	65	6	31	42	10(行程=5時為7)	4	2	6	M5×0.8	17	2.8	8	-	M5×0.8 雙邊:Φ8.2牙 M6×1.0 通孔	Φ4.6	15	5.5	2	40	28	-	3.1	10	8	12	10	
32	61.5	7	24.5	71.5	7	34.5	50	8	12	4	3	6	M6×1.0	22	2.8	9	-	PT1/8 雙邊:Φ8.2牙 M6×1.0 通孔	Φ4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	65	7	26	75	7	36	58.5	9	12	4	3	8	M8×1.25	28	2.8	10	-	PT1/8 雙邊:Φ10牙 M8×1.25 通孔	Φ6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	73	9	28	83	9	38	71.5	11	15	5	4	11	M10×1.5	38	2.8	10.5	-	PT1/4 雙邊:Φ11牙 M8×1.25 通孔	Φ6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	77	9	32	87	9	42	84.5	11	15	5	4	11	M10×1.5	40	2.8	11.8	-	PT1/4 雙邊:Φ11牙 M8×1.25 通孔	Φ6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	94	11	41	104	11	51	104	14	20	6	5	13	M14×1.5	45	4	14.5	-	PT3/8 雙邊:Φ14牙 M12×1.75 通孔	Φ9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	105	12	51	115	12	61	124	18	20	7	5	13	M18×1.5	55	4	20.5	-	PT3/8 雙邊:Φ17.5牙 M14×2 通孔	Φ11.3	30	13	10	114	90	-	3.65	32	27	35	26



DE

無拉桿式鋁合金氣缸

DE PNEUMATIC CYLINDER

產品特性

氣缸內徑	Φ32 Φ40 Φ50 Φ63 Φ80 Φ100
標準行程	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
使用溫度範圍	-10 ~ +60 °C

最大操作壓力：10 kgf/cm²
最小操作壓力：1 kgf/cm²

注意事項

DEB 系列可附磁性感應
本系列空壓缸符合 ISO 6430 規格

FEATURES

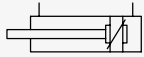
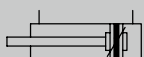
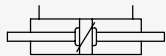
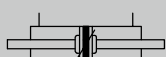
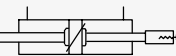
Cylinder inside diameter(mm)	Φ32 Φ40 Φ50 Φ63 Φ80 Φ100
Stroke(mm)	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500
Range of temperature(°C)	-10 ~ +60 °C

Max. operating pressure: 10kgf/cm²
Min. operating pressure: 1 kgf/cm²

NOTE

Magnetic piston(optional).
DE series cylinders according to ISO 6430 (Bore size Φ32-Φ100)

雙動氣缸 DOUBLE ACTING CYLINDERS

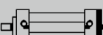
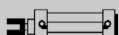
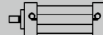
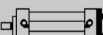
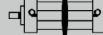
雙動單軸標準型 Double acting-single end rod type	DEB	
雙動單軸型附磁性感應 Double acting-single end rod type(piston with magnet)	DEB...M	
雙動雙軸標準型 Double acting-double end rod type	DED	
雙動雙軸型附磁性感應 Double acting-double end rod type(piston with magnet)	DED...M	
雙動雙軸可調行程 Adjustable stroke cylinder(adjustable stroke:A:25mm,B:50mm)	DEN...N...A DEN...N...B	
雙動雙軸可調行程附磁性感應型 Adjustable stroke cylinder (piston with magnet) (adjustable stroke:A:25mm,B:50mm)	DEN...M...A DEN...M...B	



訂購標示法

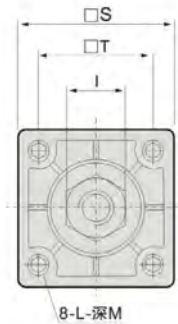
ORDERING INDICATION

DEN - 50 N 125 B FA-Y LNOIE X 2

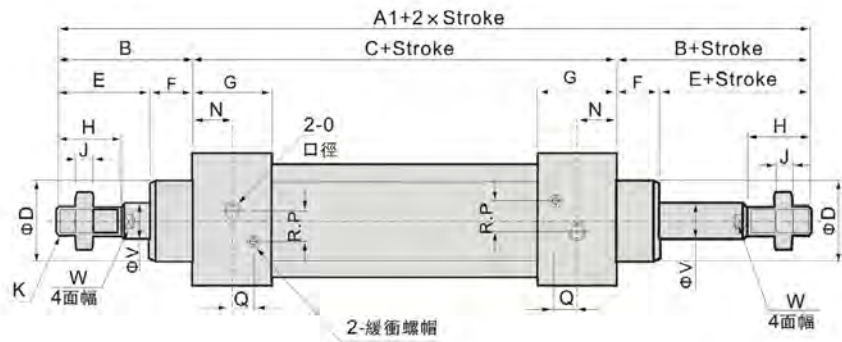
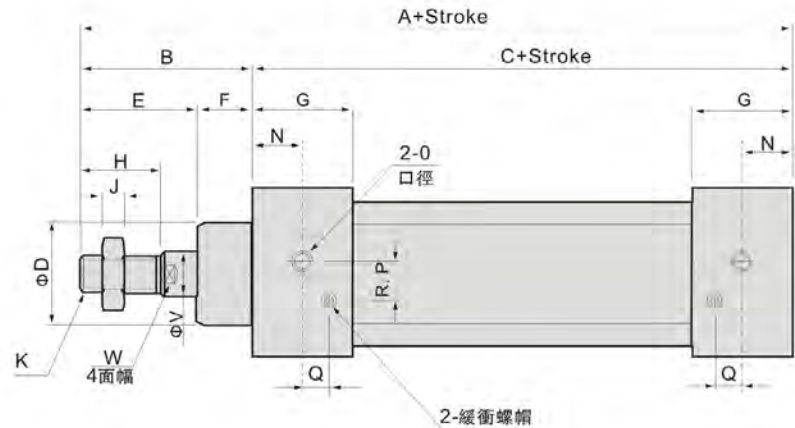
DEN	系列 Series	DEB / DED / DEN			
	50 氣缸內徑 Cylinder inside diameter	Φ32 , Φ40 , Φ50 , Φ63 Φ80 , Φ100			
N	磁性感應 Magnet	N: 無附磁性感應 M: 內附磁性感應	Nil: No magnet D: With magnet		
125	行程 Stroke	25 , 50 , 75 , 100 , 125 , 150 , 175 , 200 , 225 , 300 , 350, 400 ,450 ,500			
B	可調行程 Adjustable stroke	A: 可調 25mm A:Adjustable 25mm	B: 可調 50mm B:Adjustable 50mm	C: 可調 75mm C: Adjustable 75mm	
FA-Y	配件 Accessories	FA: 前法蘭 Front flange		CA: 單耳座 Male pivot	 Y: Y 型接頭 Rod clevis 
		FB: 後法蘭 After flange		CB: 雙耳座 Female pivot	 G: 魚眼接頭 Oscillating eye 
		TC: 中間軸銷 Intermediate pivot		LB: 支架 Axial foot	 K: 浮動接頭 Compensating joint 
LNOIE	近接開關 Sensor switch				
2	數量 Quantity	1:1pcs	2:2pcs		

使用流體：過濾之乾燥壓縮空氣
Usable fluid: Oiled Dry Clean Compressed Air

DEB TYPE

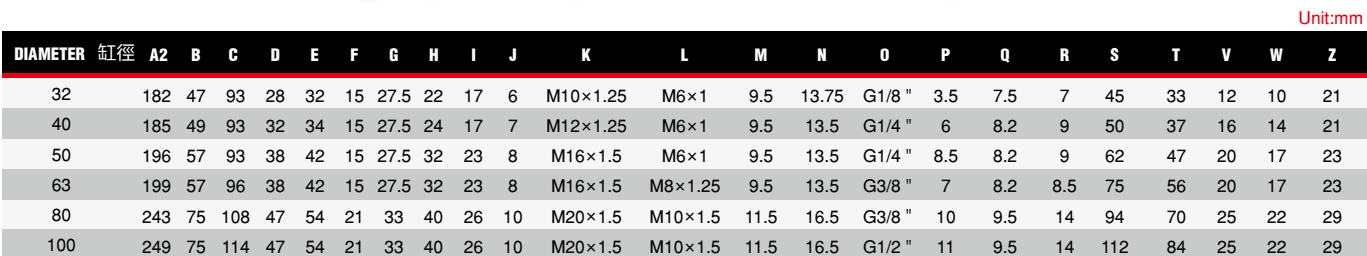


DED TYPE



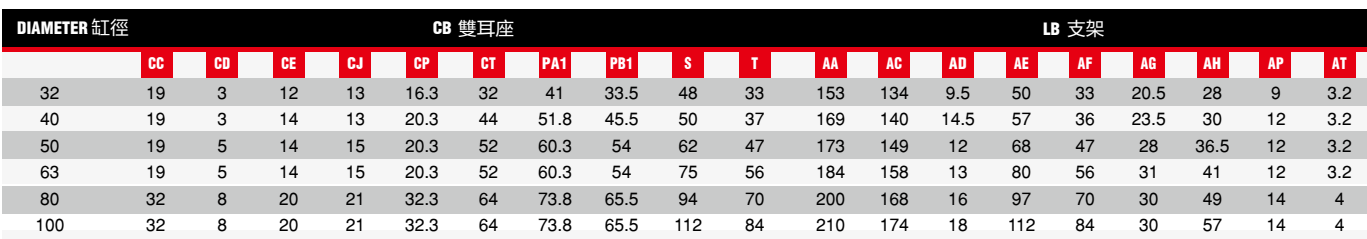
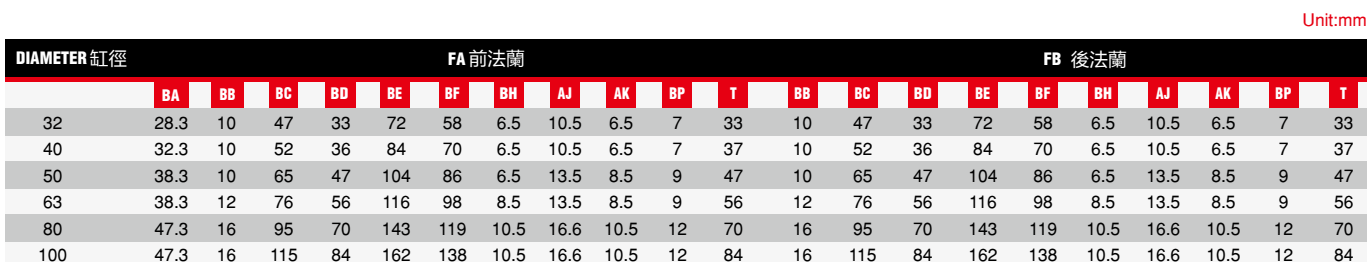
Unit:mm																							
DIAMETER 缸徑	A1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	V	W
32	187	140	47	93	28	32	15	27.5	22	17	6	M10×1.25	M6×1	9.5	13.75	G1/8 "	3.5	7.5	7	45	33	12	10
40	191	142	49	93	32	34	15	27.5	24	17	7	M12×1.25	M6×1	9.5	13.5	G1/4 "	6	8.2	9	50	37	16	14
50	207	150	57	93	38	42	15	27.5	32	23	8	M16×1.5	M6×1	9.5	13.5	G1/4 "	8.5	8.2	9	62	47	20	17
63	210	153	57	96	38	42	15	27.5	32	23	8	M16×1.5	M8×1.25	9.5	13.5	G3/8 "	7	8.2	8.5	75	56	20	17
80	258	183	75	108	47	54	21	33	40	26	10	M20×1.5	M10×1.5	11.5	16.5	G3/8 "	10	9.5	14	94	70	25	22
100	264	189	75	114	47	54	21	33	40	26	10	M20×1.5	M10×1.5	11.5	16.5	G1/2 "	11	9.5	14	112	84	25	22

注：附磁型與不附磁型之尺寸相同 Remark:The dimensions of magnetic type are same as no-magnetic type.

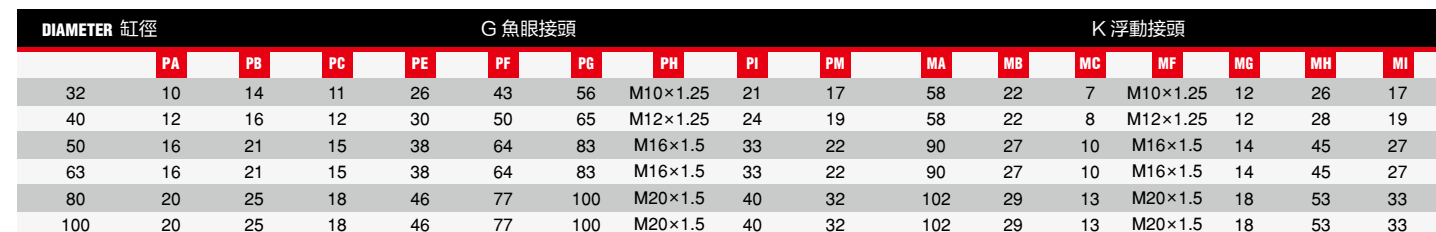


注：附磁型與不附磁型之尺寸相同 Remark: The dimensions of magnetic type are same as no-magnetic type.

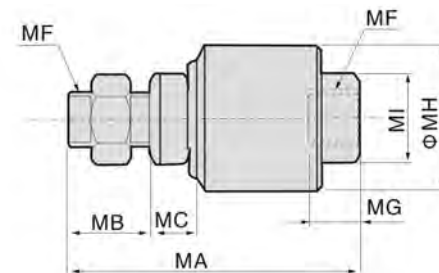
▶ 安裝配件尺寸 ACCESSORIES



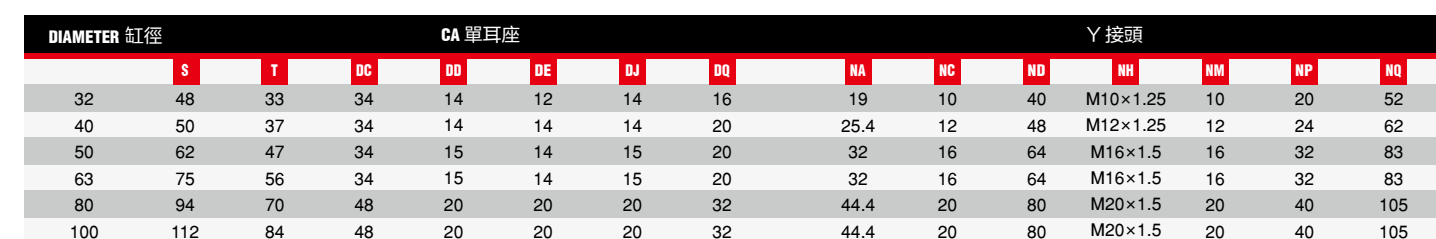
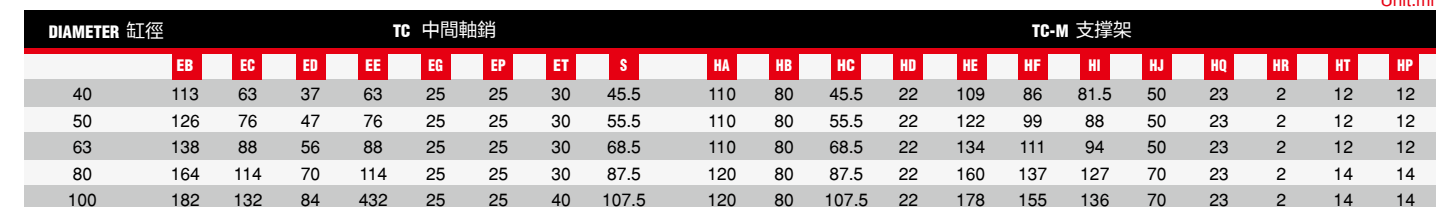
► **G 魚眼接頭 OSCILLATING EYE**

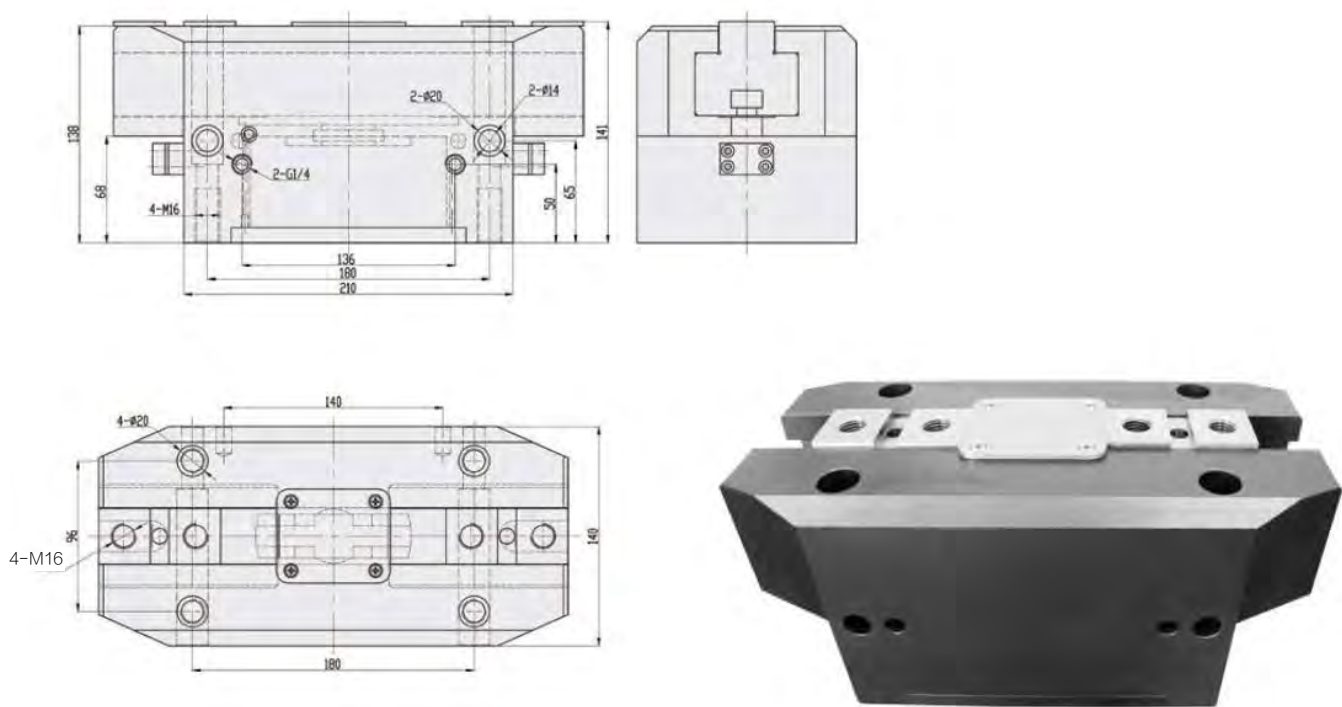


▶ **G 浮動接頭 COMPENSATING JOINT**



► **TC TYPE**





► 產品特性

利用錐度滑動的楔形面壓驅動方式。
簡潔可靠的結構。
開放式設計，可自由搭配夾持工件。

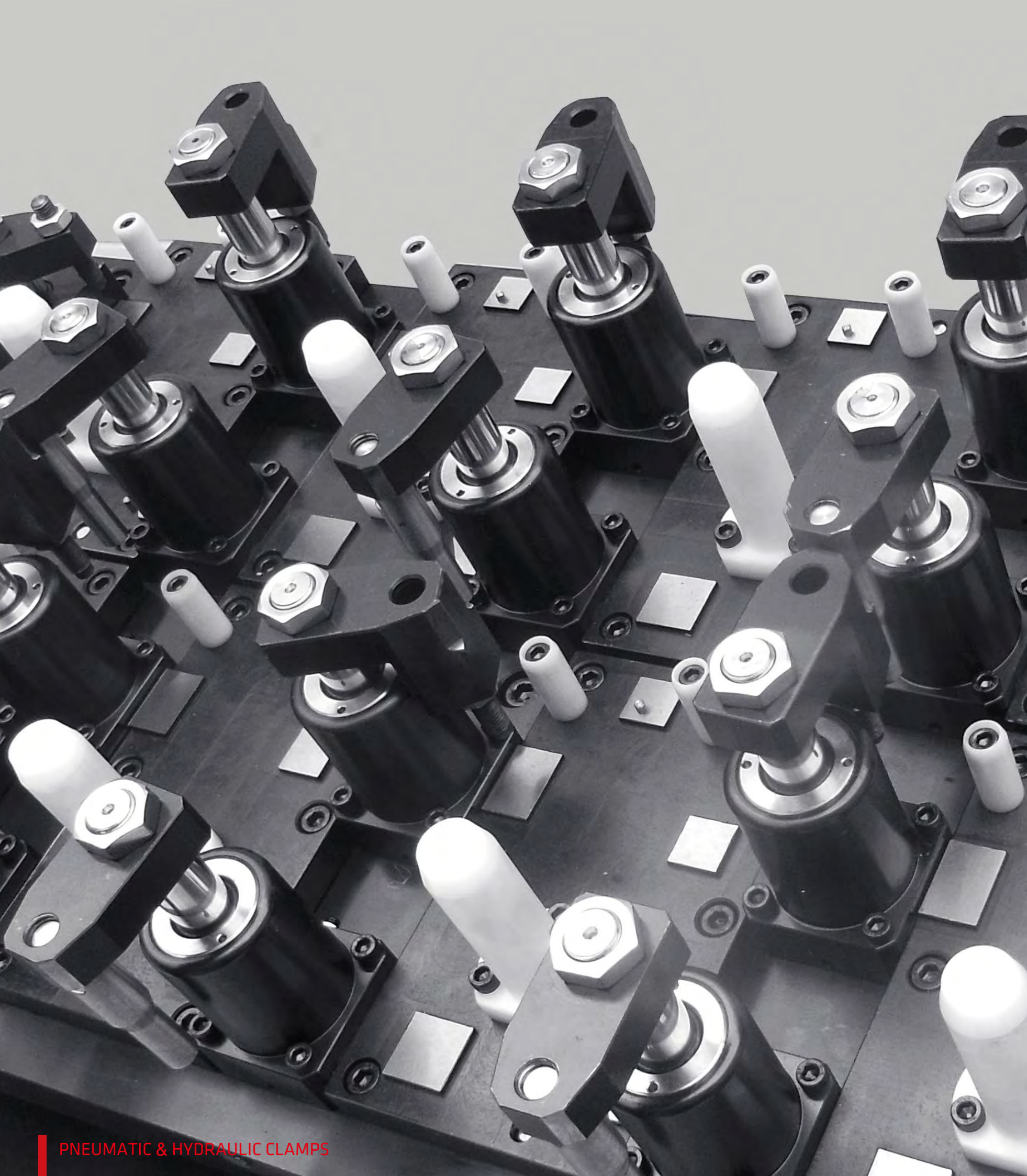
▼ 注 .P: 空氣壓力 (bar) L: 到作用點距離 (mm)

產品規格	開閉範圍 (mm)	最大附件長度 (mm)	連接口
AF30-125	70	70	PF(G)1/8

產品規格	理論夾持力 (開)	理論夾持力 (閉)	空氣消耗量 / 周期 cm³
AF30-125	848.57P/(1+0.003L)	830.917P/(1+0.003L)	987.6

*This product be sold temporary in Mailland China.

使用流體：過濾之幹燥壓縮空氣
Usable fluid: Oiled Dry Clean Compressed Air



HYDRAULIC SWING CLAMPS

油壓轉角缸系列 ▼



CHS/HSC

油壓轉角缸

CHS/HSC HYDRAULIC SWING CLAMP

產品特性

本產品適用於量產零件之專用機及 MC 治具，為提高生產效率的最佳幫手。

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。

最大操作壓力：70 kgf/cm²

最小操作壓力：15 kgf/cm²

作動方式：複動式

注意事項

夾緊及放鬆作動速度需適當放緩。

特殊壓臂長度及重量不得超過標準壓臂的 1.5 倍。

壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

FEATURES

The product is ideal for mass production on a special purpose machine and jig in machining center. It will greatly upgrade the production efficiency. When the hydraulic clamp 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 the work piece while the clamp is swinging to avoid damaging the cylinder barrel and internal parts. The cylinder body is made from structural carbon steel. Inside surface is especially treated for maximum smoothness and long service life.

Max.operating pressure: 70 kgf/cm²

Min.operating pressure: 15 kgf/cm²

Double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.

For customized clamp arm, please don't exceed 1.5 times of the original length and weight.

The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.



訂購標示法

ORDERING INDICATION CHS - MF 25 S R × 90 - E - P

CHS	系列 Series	CHS/HSC					
MF	類型 Type	空白:	配管式	Line type	TB: 全牙型	Threaded body	
		MF:	油路板附調速	Manifold with flow control	FAM: 法蘭型油路板	Flange with manifold	
		M:	油路板型	Manifold type	FAMT: 法蘭型油路板附調速	Flange with flow control	
		FA:	法蘭型	Flange type			
25	油缸內徑 Hydraulic Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63					
S	壓板型式 Clamping arm type	S: 單邊壓板 D: 雙邊壓板		S: Single side arm D: Double side arm			
R	轉角方向 Rotating direction	R: 順時針右轉	L: 逆時針左轉	N:0° 不旋轉	R: Turn right	L: Turn left	N:0° No swing
90	轉角角度 Rotating angle	標準角度 Standard angle 90° (±2°) 訂做角度 Order angle 0°, 45° (±2°),60° (±2°)					
E	行程加長 E	行程加長型		Stroke extension			
P	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度		Add locating pin design,to improve the repeat precision of rotation angle			

注：訂精密定位型請來電諮詢

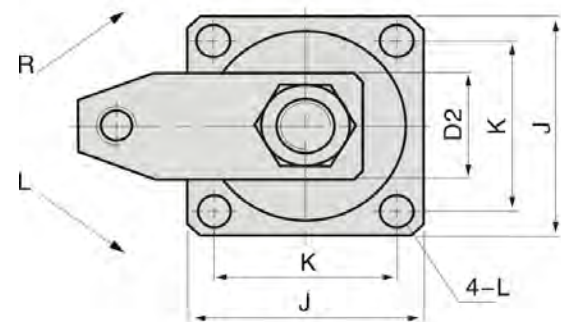
型號	理論夾持力 (70 kgf/cm ²)	轉角行程	標準垂直行程	加長垂直行程	標準總行程	加長總行程	標準拉入容積	加長行程拉入容積	標準行程推出容積	加長行程推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	SWING STROKE (mm)	STANDARD CLAMPING STROKE (mm)	EXTENDED CLAMPING STROKE (mm)	STANDARD TOTAL STROKE (mm)	EXTENDED TOTAL STROKE (mm)	OIL STANDRAD CAPACITY CLAMP (cm ³)	OIL EXTENDED CAPACITY CLAMP(cm ³)	OIL STANDARD CAPACITY UNCLAMP(cm ³)	OIL EXTENDED CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP (cm ²)	EFF.PISTON AREA UNCLAMP (cm ²)	RANGE OF TEMPERATURE (°C)
CHS/HSC-25	166	9	13	-	22	-	5.21	-	10.80	-	2.37	4.91	-10~+70°C
CHS/HSC-32	343	11	15	30	26	41	12.74	20.09	20.90	32.96	4.9	8.04	-10~+70°C
CHS/HSC-40	603	11	15	30	26	41	22.41	35.34	32.66	51.50	8.62	12.56	-10~+70°C
CHS/HSC-50	943	13	17	34	30	47	40.41	63.31	58.89	92.26	13.47	19.63	-10~+70°C
CHS/HSC-63	1488	13	17	34	30	47	63.78	99.92	93.48	146.45	21.26	31.16	-10~+70°C

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油

Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

配管式 ▶ LINE TYPE-S

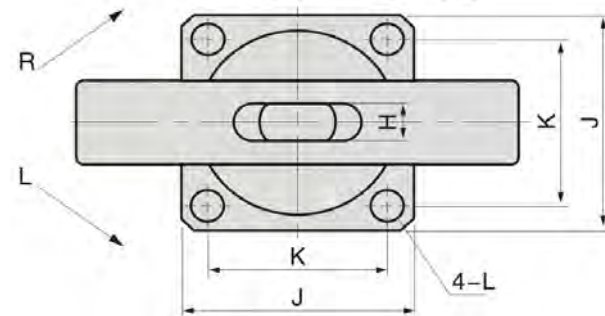
Single side swing clamp



配管式 ▶ LINE TYPE-D

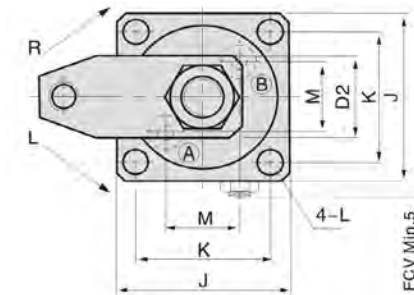
Double side swing clamp

注：下圖為轉角 90° 鬆開狀態



油路板附調速 ▶ MF-S

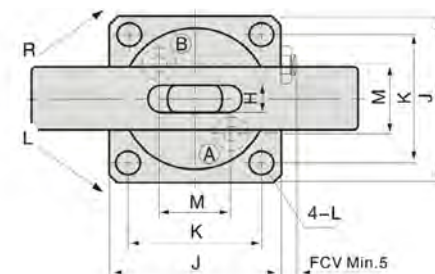
Single side swing clamp



油路板附調速 ▶ MF-D

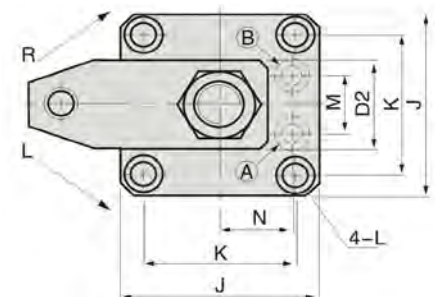
Double side swing clamp

注：下圖為轉角 90° 鬆開狀態



油路板型 ▶ M-S

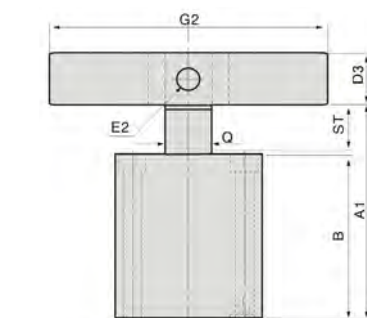
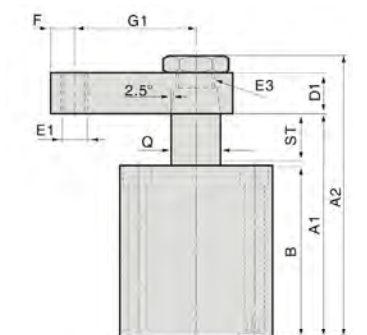
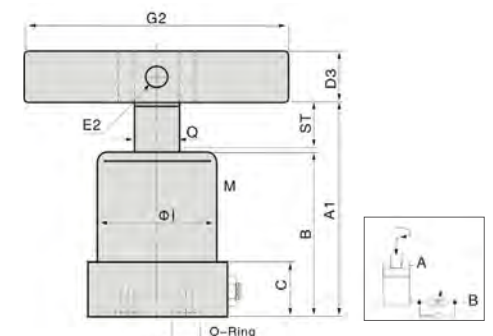
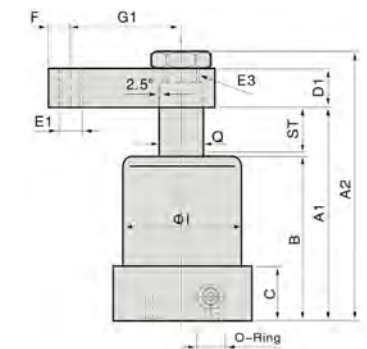
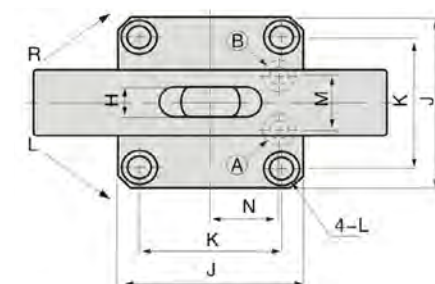
Single side swing clamp



油路板型 ▶ M-D

Double side swing clamp

注：下圖為轉角 90° 鬆開狀態



▲ ㊶ 夾持油孔 Clamping port ㊷ 放鬆油孔 Unclamping port

▲ ㊶ 夾持油孔 Clamping port ㊷ 放鬆油孔 Unclamping port

Unit:mm

MODEL	ST: Swing/ Clamping	A1 Unclamping		A2 Unclamping		B	C	D1	D2	D3	E1	E2	E3	F	G1	G2	H	ΦI	J	K	L	M	N1	N2	N3	Q
		CHS	HSC	CHS	HSC																					
CHS/HSC-25	22:9/13	104	101	127	124	76	27	16	27	□ 19	M10	Φ8	M14×1.5	10	50	140	9	Φ46	52	40	Φ6.8	PT1/8	8	17	46	Φ18
CHS/HSC-32	26:11/15 41:11/30	118 148	115 145	144 175	140 170	85 100	30	18	31	□ 22	M10	Φ8	M16×1.5	10	55	160	10	Φ50	56	44	Φ6.8	PT1/8	10	19	52 67	Φ20
CHS/HSC-40	26:11/15 41:11/30	123 153	120 150	150 180	148 178	90 105	30	18	31	□ 22	M10	Φ10	M18×1.5	10	60	160	10	Φ54	63	48	Φ9	PT1/8	12	19	57 72	Φ22.4
CHS/HSC-50	30:13/17 47:13/34	137 171	134 168	167 201	166 200	100 117	34	20	37	□ 25	M12	Φ12	M20×1.5	12	65	180	12	Φ66	72	57	Φ9	PT1/4	15	21.5	63.5 80.5	Φ28
CHS/HSC-63	30:13/17 47:13/34	142 176	139 173	177 211	175 209	105 122	34	23	48	□ 32	M16	Φ15	M24×2	15	75	200	15	Φ80	88	70	Φ11	PT1/4	17	22	68 85	Φ35.5
CHS-80	30:15/15	142	-	187	-	105	34	28	52	□ 34	M16	Φ16	M30×2	20	85	220	16	Φ100	110	87	Φ13	PT1/4	17	25	65	Φ40

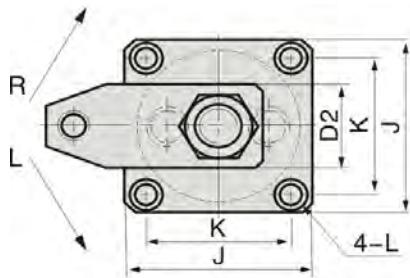
Unit:mm

注：CHS-80 的按單生產

MODEL	ST: Swing/ Clamping	A1 Unclamping		A2 Unclamping		B	D1	D2	D3	E1	E2	E3	F	G1	G2	H	J	K	L	M	N	O-Ring	Q
		CHS	HSC	CHS	HSC																		
CHS/HSC-M25	22:9/13	104	101	127	124	76	16	27	□ 19	M10	Φ8	M14×1.5	10	50	140	9	55	42	Φ6.8-Φ10.5×6.5D	18	20	P7	Φ18
CHS/HSC-M32	26:11/15	118	115	144	140	85	18	31	□ 22	M10	Φ8	M16×1.5	10	55	160	10	57	44	Φ6.8-Φ10.5×6.5D	22	22	P7	Φ20
CHS/HSC-M40	26:11/15	123	120	150	148	90	18	31	□ 22	M10	Φ10	M18×1.5	10	60	160	10	69	52	Φ9-Φ13.5×9D	26	26	P8	Φ22.4
CHS/HSC-M50	30:13/17	137	134	167	166	100	20	37	□ 25	M12	Φ12	M20×1.5	12	65	180	12	75	58	Φ9-Φ13.5×9D	32	30	P8	Φ28

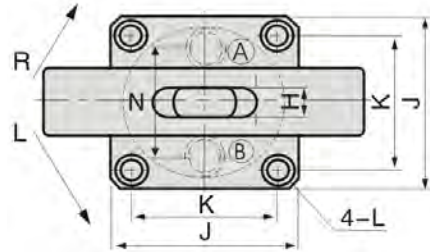
法蘭型 ▶ FA-S

Single side swing clamp



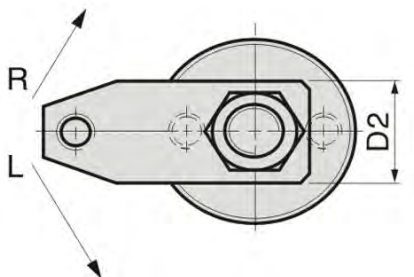
法蘭型 ▶ FA-D

Double side swing clamp
注：下圖為轉角 90° 鬆開狀態



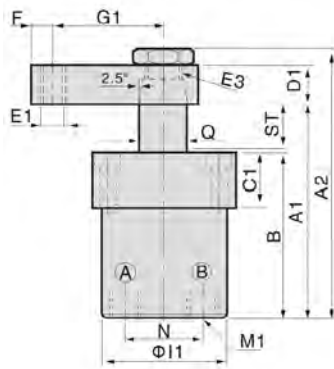
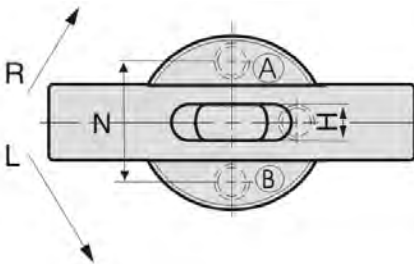
全牙型 ▶ TB-S

Single side swing clamp



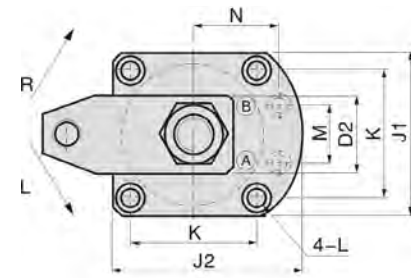
全牙型 ▶ TB-D

Double side swing clamp
注：下圖為轉角 90° 鬆開狀態



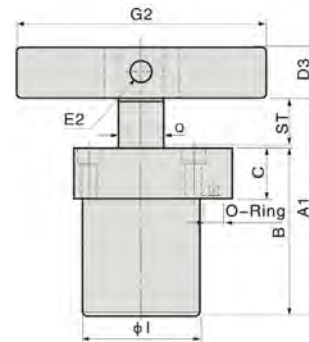
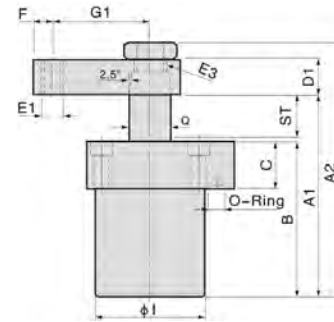
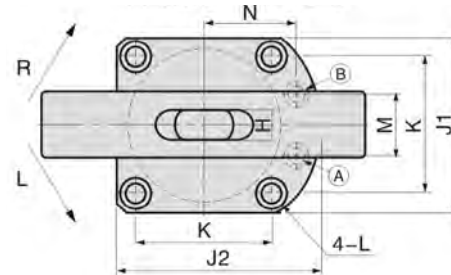
法蘭型油路板 ▶ FAM-S

Single side swing clamp



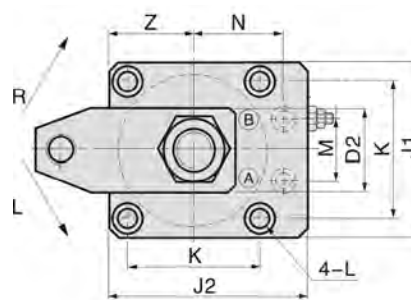
法蘭型油路板 ▶ FAM-D

Double side swing clamp
注：下圖為轉角 90° 鬆開狀態



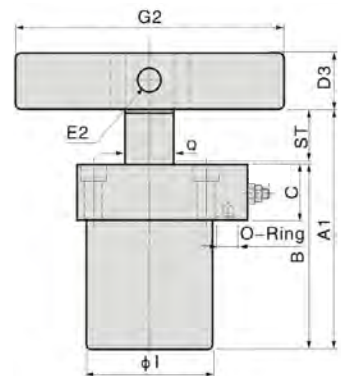
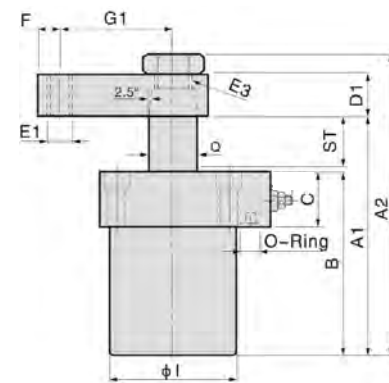
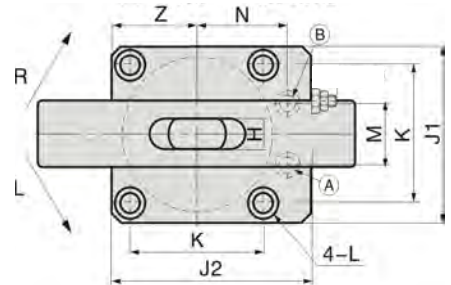
法蘭型油路板附調速 ▶ FAMT-S

Single side swing clamp



法蘭型油路板附調速 ▶ FAMT-D

Double side swing clamp
注：下圖為轉角 90° 鬆開狀態



▶ ① 夾持油孔 Clamping port ② 放鬆油孔 Unclamping port

MODEL	ST: Swing/ Clamping	A1 Unclamping		A2 Unclamping		B	C1	C2	D1	D2	D3	E1	E2	E3	F	G1	G2	H	ΦI1	I2	J	K	L2	M1	M2	N	T1×2PCS	T2	Q
		CHS	HSC	CHS	HSC																								
CHS/HSC-FA25	22:9/13	104	101	127	124	76	22	-	16	27	□ 19	M10	Φ8	M14×1.5	10	50	140	9	Φ45	-	53	40	Φ6.8-Φ10.5×6.5D	PT1/4	-	28	-	-	Φ18
CHS/HSC-FA32	26:11/15	118	115	144	140	85	25	-	18	31	□ 22	M10	Φ8	M16×1.5	10	55	160	10	Φ50	-	57	44	Φ6.8-Φ10.5×6.5D	PT1/4	-	32	-	-	Φ20
CHS/HSC-FA40	26:11/15	123	120	150	148	90	25	-	18	31	□ 22	M10	Φ10	M18×1.5	10	60	160	10	Φ58	-	69	52	Φ9-Φ13.5×9D	PT1/4	-	40	-	-	Φ22.4
CHS/HSC-FA50	30:13/17	137	134	167	166	100	30	-	20	37	□ 25	M12	Φ12	M20×1.5	12	65	180	12	Φ68	-	75	58	Φ9-Φ13.5×9D	PT1/4	-	50	-	-	Φ28
CHS/HSC-FA63	30:13/17	142	139	177	175	105	30	-	23	48	□ 32	M16	Φ15	M24×2	15	75	200	15	Φ81	-	90	70	Φ11-Φ17×11D	PT1/4	-	63	-	-	Φ35.5
CHS/HSC-TB25	22:9/13	104	101	127	124	76	-	12	16	27	□ 19	M10	Φ8	M14×1.5	10	50	140	9	-	M45×1.5	-	-	-	-	PT1/8	28	10	Φ65	Φ18
CHS/HSC-TB32	26:11/15	118	115	144	140	85	-	12	18	31	□ 22	M10	Φ8	M16×1.5	10	55	160	10	-	M50×1.5	-	-	-	-	PT1/8	32	11	Φ70	Φ20
CHS/HSC-TB40	26:11/15	123	120	150	148	90	-	15	18	31	□ 22	M10	Φ10	M18×1.5	10	60	160	10	-	M55×1.5	-	-	-	-	PT1/8	40	11	Φ70	Φ22.4
CHS/HSC-TB50	30:13/17	137	134	167	166	100	-	15	20	37	□ 25	M12	Φ12	M20×1.5	12	65	180	12	-	M65×1.5	-	-	-	-	PT1/8	50	12	Φ85	Φ28

Unit:mm

▶ ① 夾持油孔 Clamping port ② 放鬆油孔 Unclamping port

MODEL	ST: Swing/ Clamping	A1 Unclamping		A2 Unclamping		B	C	D1	D2	D3	E1	E2	E3	F	G1	G2	H	ΦI	J1	J2	K	L	M	N	O-Ring	Q
		CHS	HSC	CHS	HSC																					
CHS/HSC-FAM25	22:9/13	104	101	127	124	76	22	16	27	□ 19	M10	Φ8	M14×1.5	10	50	140	9	Φ45	55	64	42	Φ6.8-Φ10.5×6.5D	20	28	P6	Φ18
CHS/HSC-FAM32	26:11/15	118	115	144	140	85	25	18	31	□ 22	M10	Φ8	M16×1.5	10	55	160	10	Φ50	57	65.5	44	Φ6.8-Φ10.5×6.5D	22	29	P6	Φ20
CHS/HSC-FAM40	26:11/15	123	120	150	148	90	25	18	31	□ 22	M10	Φ10	M18×1.5	10	60	160	10	Φ58	69	79	52	Φ9-Φ13.5×9D	26	34.5	P9	Φ22.4
CHS/HSC-FAM50	30:13/17	137	134	167	165	100	30	20	37	□ 25	M12	Φ12	M20×1.5	12	65	180	12	Φ68	75	87	58	Φ9-Φ13.5×9D	30	39	P9	Φ28
CHS/HSC-FAM63	30:13/17	142	139	177	175	105	30	23	48	□ 32	M16	Φ15	M24×2	15	75	200	15	Φ81	90	104.5	70	Φ11-Φ17×11D	32	46	P9	Φ35.5

MODEL	ST: Swing/ Clamping	A1 Unclamping	A2 Unclamping	B	C	D1	D2	D3	E1	E2	E3	F	G1	G2	H	ΦI	J1	J2	K	L	M	N	O-Ring	Q	Z		
		CHS	HSC	CHS	HSC																						
CHS/HSC-FAMT25	22:9/13	104	101	127	124	76	22	16	27	□ 19	M10	Φ8	M14×1.5	10	50	140	9	Φ45	55	64	42	Φ6.8-Φ10.5×6.5D	20	28	P6	Φ18	27.5
CHS/HSC-FAMT32	26:11/15	118	115	144	140	85	25	18	31	□ 22	M10	Φ8	M16×1.5	10	55	160	10	Φ50	57	65.5	44	Φ6.8-Φ10.5×6.5D	22	29	P6	Φ20	28.5
CHS/HSC-FAMT40	26:11/15	123	120	150	148	90	25	18	31	□ 22	M10	Φ10	M18×1.5	10	60	160	10	Φ58	69	77	52	Φ9-Φ13.5×9D	26	34.5	P6	Φ22.4	34.5
CHS/HSC-FAMT50	30:13/17	137	134	167	165	100	30	20	37	□ 25	M12	Φ12	M20×1.5	12	65	180	12	Φ68	75	87	58	Φ9-Φ13.5×9D	30	39	P9	Φ28	37.5
CHS/HSC-FAMT63	30:13/17	142	139	177	175	105	30	23	48	□ 32	M16	Φ15	M24×2	15	75	200	15	Φ81	90	104.5	70	Φ11-Φ17×11D	32	46	P9	Φ35.5	45

Unit:mm

► 產品特性

此系列產品配件採用最佳化設計，使體積更加緊湊，提高了產品強度。
產品採用了專用防塵設計，提高了防塵和密封性，實現了高密封性。
產品平行轉角設計節省了空間，最適合夾具要求的緊湊化。

最大操作壓力：45 kgf/cm²
最小操作壓力：20 kgf/cm²
作動方式：複動式

► 注意事項

夾緊及放鬆作動速度需適當放緩。
特殊壓臂長度及重量不得超過標準壓臂的 1.5 倍。
壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

► FEATURES

This series product with the optimal design,so made more compact,and strength can be improved.
Product with special dust proof design,dust proof and sealing have been improved,so it has high sealing performance.
Product parallel angle clamp design saves space,more suitable for compact fixture.

Max. operating pressure: 45 kgf/cm²
Min. operating pressure: 20 kgf/cm²
Double acting

► NOTE

The acting speed of clamping-unclamping should be slowed down.
For customized clamp arm, please don't exceed 1.5 times of the original length and weight.
The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.

► 訂購標示法

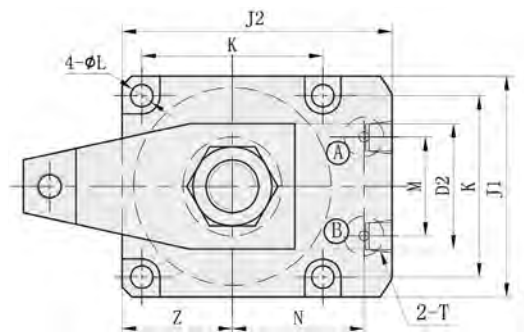
ORDERING INDICATION **CPF-35 D L×90 G-P**

CPF	系列 Series	CPF
35	油缸內徑 Hydraulic cylinder inside diameter	Φ 35 , Φ 40
D	安裝方式 Installation	U: 上法蘭安裝 On flange installation D: 下法蘭安裝 Base flange installation
L	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right R or turn left L
90	轉角角度 Rotating angle	標準角度 Standard angle 90°(±2°) 訂做角度 Order angle 0° ,45°(±2°),60°(±2°)
G	型式 Type	空白: 配管式 Line type G: 油路板型 Manifold type
P	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度 Add locating pin design,to improve the repeat precision of rotation angle

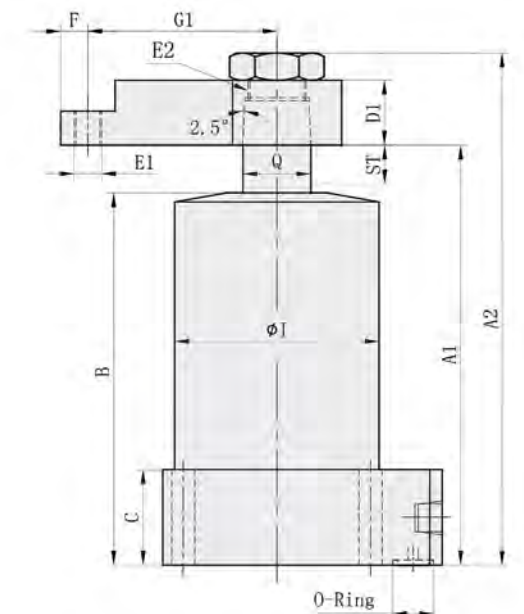
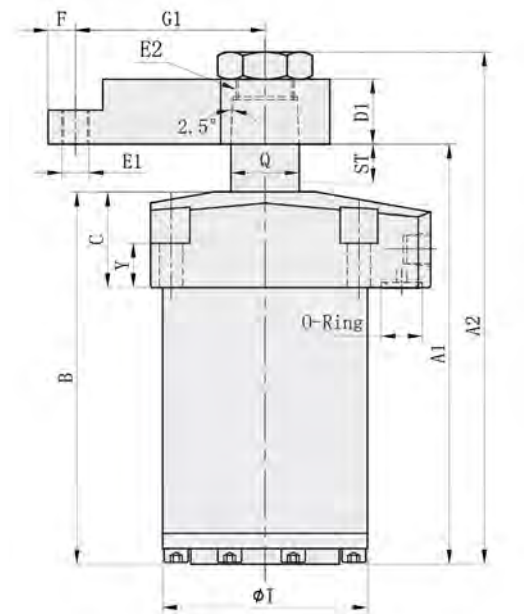
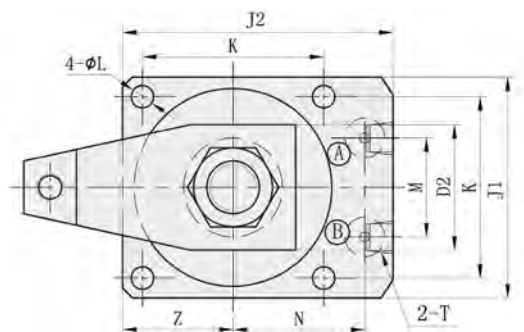
注：訂精密定位型請來電諮詢



► CPF-XXU



► CPF-XXD



► ㊶ 夾持油孔 Clamping port ㊷ 放鬆油孔 Unclamping port

型號	理論夾持力 (45 kgf/cm ²)	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 45 kgf/cm ² (kgf)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CPF-35	291	10	10	6.47	6.47	6.47	6.47	-10~+70° C	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
CPF-40	424	10	10	9.43	9.43	9.43	9.43	-10~+70° C	

Unit:mm

MODEL	行程 Stroke	A1 鬆開狀態 Unclamp	A2 鬆開狀態 Unclamp	B	C	D1	D2	E1	E2	F	G1	I	J1	J2	K	L	M	N	T	Y	Z	Q	O-Ring
CPF-35U	10	114	141	96	28	19	38	M6	M16X1.5	6	46.5	Φ50	59	72	47	Φ6.8	24	34	PT1/8	16	29.5	Φ20	P6
CPF-40U	10	123	150	109	28	19	38	M8	M16X1.5	8	55.5	Φ60	67	82	55	Φ6.8	30	40	PT1/8	16	33.5	Φ20	P9
CPF-35D	10	114	141	96	28	19	38	M6	M16X1.5	6	46.5	Φ50	59	72	47	Φ6.8	24	34	PT1/8	16	29.5	Φ20	P6
CPF-40D	10	123	150	109	28	19	38	M8	M16X1.5	8	55.5	Φ60	67	82	55	Φ6.8	30	40	PT1/8	16	33.5	Φ20	P9

NFS HIGH PRESSURE
HYDRAULIC SWING
CLAMP

► 產品特性

向左或向右旋轉後垂直下壓達到夾持目的。

標準角度 90 度，可訂做角度 30 度、45 度、60 度。

缸體為高級碳鋼材質，表面硬化處理。

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，應於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。

最大操作壓力：210 kgf/cm²

最小操作壓力：70 kgf/cm²

作動方式：單動和複動式

► 注意事項

夾緊及放鬆作動速度需適當放緩。

特殊壓臂長度及重量不得超過標準壓臂的 1.2 倍。

壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

► FEATURES

Clamping arm swing right or left ,then clamping on straight line to hold the workpiece.
Standard angle 90 degrees,available angle 30,45,60 degrees.
The cylinder body material is carbon steel,the surface is hard mebrane treated.
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 impaction.
A workpiece should be clamped within up-down clamping stroke,not swing stroke.
When load and unload the workpiece,it is necessary to use an air gun to clean the piston and the seal for removing iron slag or other junk. In order to prevent the junk enter into the seal to cause oil leakage.

Max. operating pressure: 210 kgf/cm²
Min. operating pressure: 70 kgf/cm²
Single acting and double acting

► NOTE

The acting speed of clamping-unclamping should be slowed down.
For customized clamp arm, please don't exceed 1.2 times of the original length and weight.
The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.



► 訂購標示法

ORDERING INDICATION

NFS - L 25 A×90 F - P

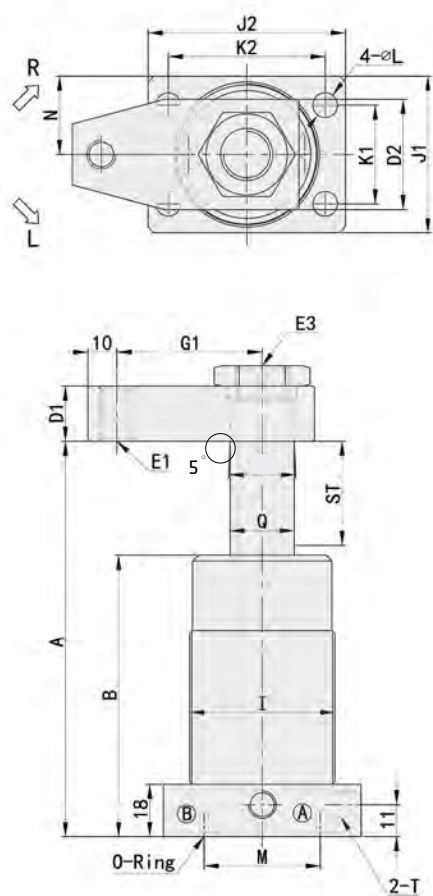
NFS	系列 Series	NFS/NDS/NFT/NDT		
L	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right R or turn left L		
25	油缸內徑 Hydraulic cylinder inside diameter	Φ 25， Φ 32， Φ 40		
A	作動方式 Acting type	A: 單動式 Single acting	B: 復動式 Double acting	
90	轉角角度 Rotating angle	標準角度 Standard angle 90°(±2°)	訂做角度 30°±2°,45°±2°, 60°±2°	Order angle30°(±2°),45°(±2°),60°(±2°)
F	安裝型式 Mounting type	空白：配管型 Line type	F：油路板型 Manifold type	(外螺牙無油路板式)
P	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度 Add locating pin design,to improve the repeat precision of rotation angle		

型號	理論夾持力 (210 kgf/cm ²)	轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍
MODEL	CLAMPING FORCE AT 210 kgf/cm ² (kgf)	SWING STROKE (mm)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF. PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)
NFS-25A NDS-25A NFT-25A NDT-25A	420	12	11	23	5.45	-	2.37	-	-10~+70 C
NFS-32A NDS-32A NFT-32A NDT-32A	760	12	11	23	9.75	-	4.24	-	-10~+70 C
NFS-40A NDS-40A NFT-40A NDT-40A	1450	12	11	23	17.60	-	7.65	-	-10~+70 C
NFS-25B NDS-25B NFT-25B NDT-25B	495	15	18	33	7.82	16.20	2.37	4.91	-10~+70 C
NFS-32B NDS-32B NFT-32B NDT-32B	890	15	18	33	13.99	26.53	4.24	8.04	-10~+70 C
NFS-40B NDS-40B NFT-40B NDT-40B	1600	15	18	33	25.25	41.25	7.65	12.5	-10~+70 C

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

► NFS

Single side swing clamp

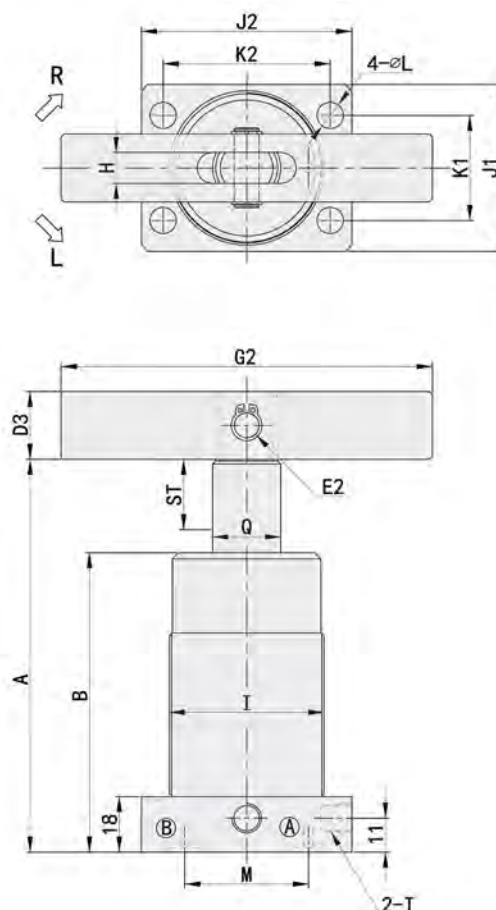


▶ (A) 夾持油孔 Clamping port

► NDS

Double side swing clamp

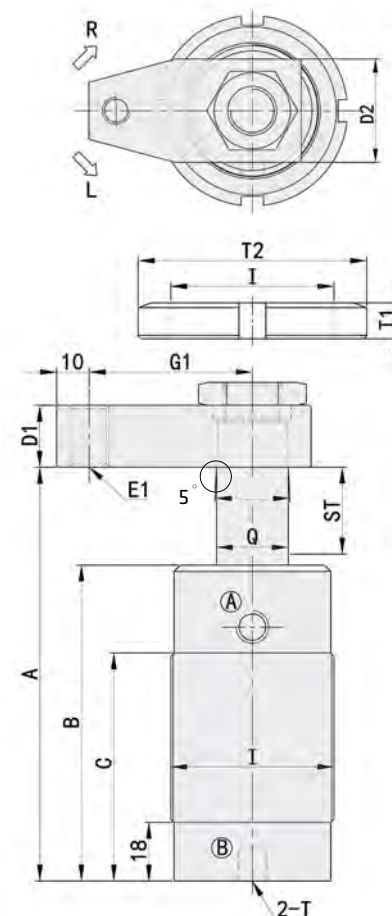
注：下圖為轉角 90° 鬆開狀態



⑧ 放鬆油孔 Unclamping port

► **NFT**

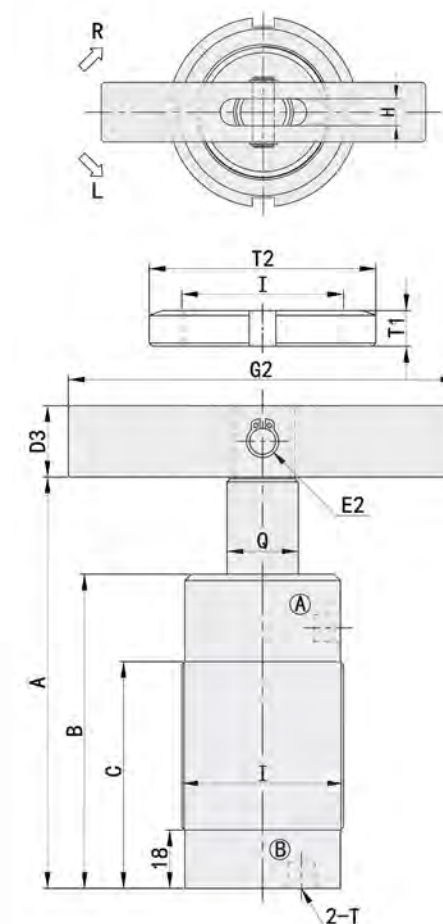
Single side swing clamp



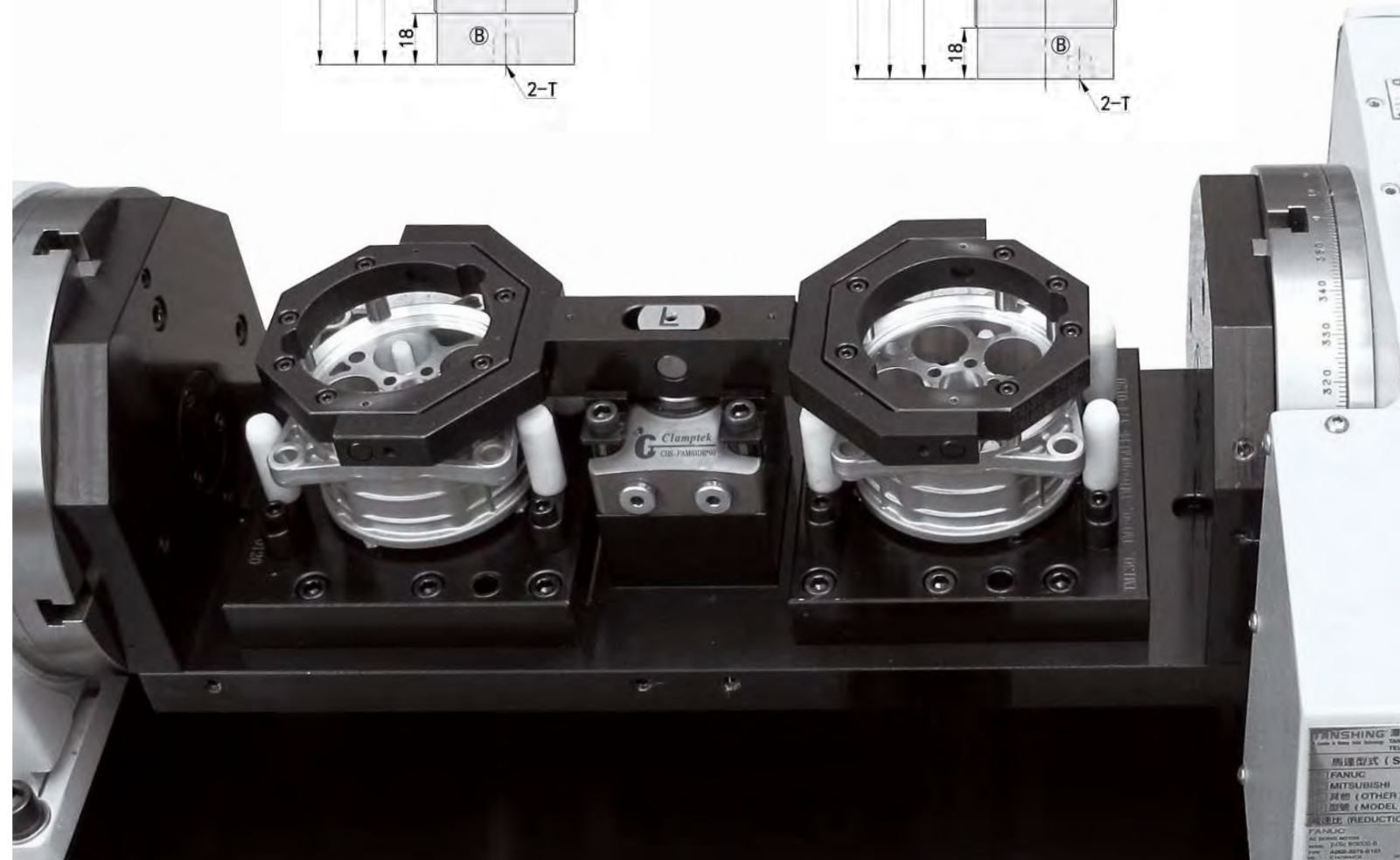
► **NDT**

Double side swing clamp

注：下圖為轉角 90° 鬆開狀態



Unit:mm																											
四方底座型 Flange type	外螺外牙型 Threaded type	ST-Swing/ Clamp	A 鬆開狀態 Unclamp	B	C	D1	D2	D3	E1	E2	E3	G1	G2	H	I	J1	J2	K1	K2	L	M	N	T	T1 (2pcs)	T2	Q	O-Ring
NFS-25A NDS-25A	NFT-25A NDT-25A	23:12/11	131	102	66	19	38	□ 19	M12	Φ8	M14x1	45	100	9	M45x1.5	46	64	30	50	Φ6.5	35	23	PT1/8	10	Φ65	Φ18	P7
NFS-32A NDS-32A	NFT-32A NDT-32A	23:12/11	127	97	70	19	38	□ 22	M12	Φ8	M18x1.5	50	120	10	M50x1.5	54	68	34	54	Φ8.5	40	27	PT1/8	11	Φ70	Φ22	P7
NFS-40A NDS-40A	NFT-40A NDT-40A	23:12/11	127	98	72	19	38	□ 25	M12	Φ10	M18x1.5	50	140	12	M60x1.5	64	84	40	66	Φ8.5	50	32	PT1/8	11	Φ80	Φ25	P7
NFS-25B NDS-25B	NFT-25B NDT-25B	33:15/18	136	102	66	19	38	□ 19	M12	Φ8	M14x1	45	100	9	M45x1.5	46	64	30	50	Φ6.5	35	23	PT1/8	10	Φ65	Φ18	P7
NFS-32B NDS-32B	NFT-32B NDT-32B	33:15/18	136	97	70	19	38	□ 22	M12	Φ8	M18x1.5	50	120	10	M50x1.5	54	68	34	54	Φ8.5	40	27	PT1/8	11	Φ70	Φ22	P7
NFS-40B NDS-40B	NFT-40B NDT-40B	33:15/18	136	98	72	19	38	□ 25	M12	Φ10	M18x1.5	50	140	12	M60x1.5	64	84	40	66	Φ8.5	50	32	PT1/8	11	Φ80	Φ25	P7



產品特性

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。創新的壓臂設計能滿足多種場合。

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。

最大操作壓力：250 kgf/cm²
最小操作壓力：70 kgf/cm²
作動方式：單動和複動式

注意事項

夾緊及放鬆作動速度需適當放緩。

特殊壓臂長度及重量不得超過標準壓臂的 1.5 倍。

壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

FEATURES

It is not necessary to manufacture a 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 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 the 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.

Max. operating pressure: 250 kgf/cm²
Min. operating pressure: 70 kgf/cm²
Single acting and double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.

For customized clamp arm, please don't exceed 1.5 times of the original length and weight.

The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.



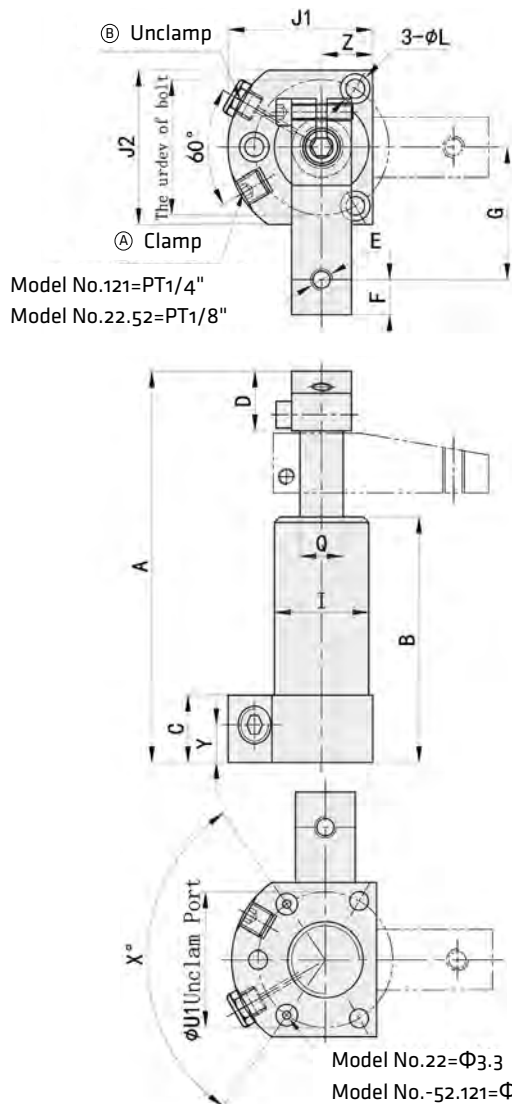
訂購標示法

ORDERING INDICATION 030 - L D 92×90 - P

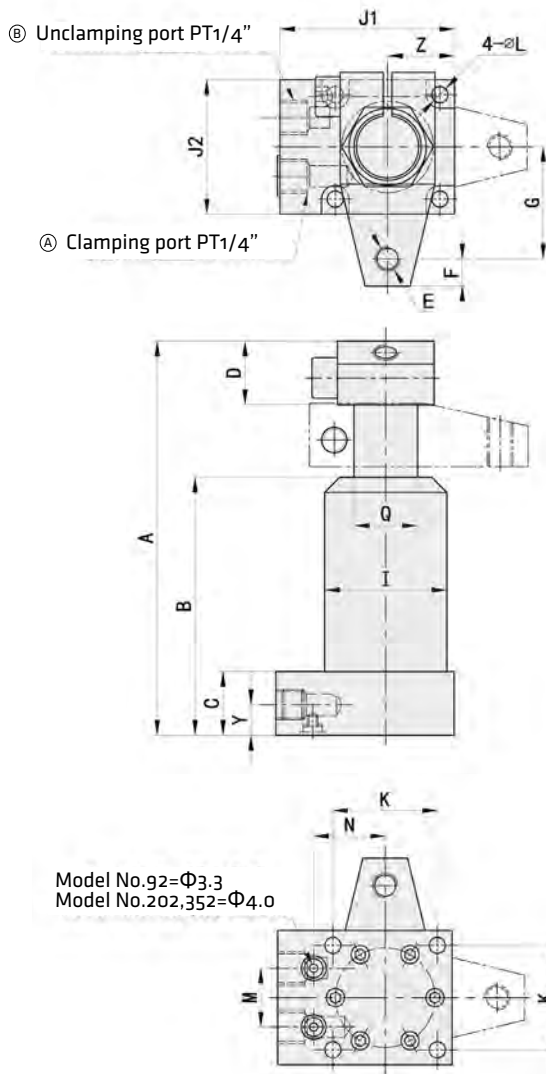
030	系列 Series	030
L	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right R or turn left L
D	作動方式 Acting type	S: 單動式 Single acting D: 複動式 Double acting
92	型號 Type	22 , 52 , 92 , 121 , 202
90	轉角角度 Rotating angle	標準角度 Standard angle 90°(±2°) 訂做角度 30°(±2°),45°(±2°),60°(±2°)
P	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度 Add locating pin design, to improve the repeat precision of rotation angle

注：訂精密定位型請來電諮詢

030-22/52/121



030-92/202



型號	理論夾持力 (250 kgf/cm ²) CLAMPING FORCE AT 250 kgf/cm ² (kgf)		轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍
MODEL	單動系列 SINGLE ACTING	複動系列 DOUBLE ACTING	SWING STROKE(mm)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)
030-22	173	180	8.5	8	16.5	1.24	2.52	0.75	1.53	-10~+70°C
030-52	380	445	12.6	10	22.6	4.05	8.57	1.79	3.79	-10~+70°C
030-92	710	780	10.1	12	22.1	6.92	17.75	3.13	8.03	-10~+70°C
030-121	970	1060	15.4	13	28.4	12.04	22.81	4.24	8.03	-10~+70°C
030-202	1830	1960	13.9	14	27.9	21.93	44.33	7.86	15.89	-10~+70°C

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油

Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

MODEL	ST: Swing/ Clamping	A 鬆開狀態 Unclamp	B	C	D	E	F	G	I	J1	J2	K	L	M	N	Z	U1	X	Y	Q
030-22	16.5:8.5/8	118	78	25	16	M6	6	40	Φ28	47.2	45	-	Φ5.5-Φ9x6.5D	-	-	15.5	Φ40	60°	14	Φ10
030-52	22.6:12.6/10	145.2	91	25	22	M8	13	49	Φ35	54.1	57	-	Φ7-Φ11x7D	-	-	19.1	Φ50	110°	14	Φ16
030-92	22.1:10.1/12	155	101.5	25	25	M10	11	45	Φ48	70.1	54	42	Φ6.8-Φ11x7D	23.6	28.7	26.9	-	-	12	Φ25
030-121	28.4:15.4/13	171	110.9	25	30	M10	12	51	Φ48	66.8	73	-	Φ8.5-Φ14x9D	32	-	25.4	Φ64	110°	16	Φ22
030-202	27.9:13.9/14	175	110	25	32	M12	15	55	Φ63	85.1	70	55	Φ8.5-Φ14x9D	29	35.1	35.1	-	-	12	Φ32

► 產品特性

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，此系列有單動式和複動式兩種。

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。

最大操作壓力：250 kgf/cm²
最小操作壓力：70 kgf/cm²
作動方式：單動式和複動式

► 注意事項

夾緊及放鬆作動速度需適當放緩。

特殊壓臂長度及重量不得超過標準壓臂的 1.5 倍。

壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

► FEATURES

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.

Max. operating pressure: 250 kgf/cm²
Min. operating pressure: 70 kgf/cm²
Single acting and double acting

► NOTE

The acting speed of clamping-unclamping should be slowed down.

For customized clamp arm, please don't exceed 1.5 times of the original length and weight.

The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.



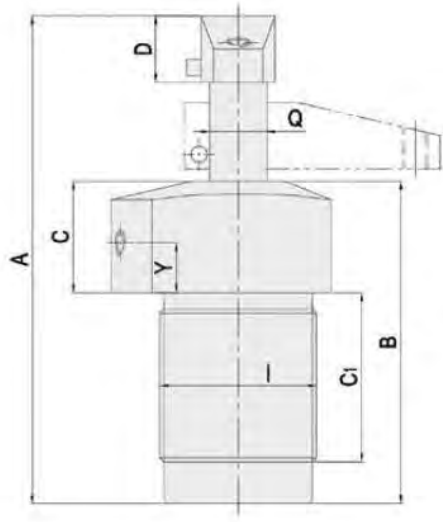
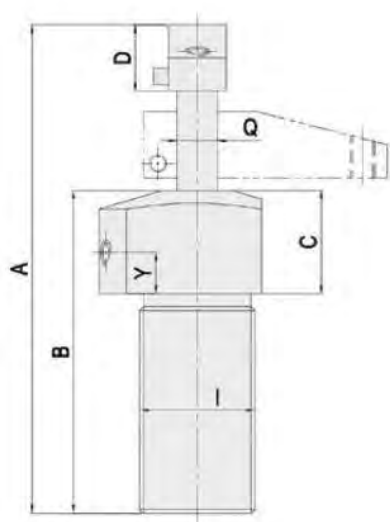
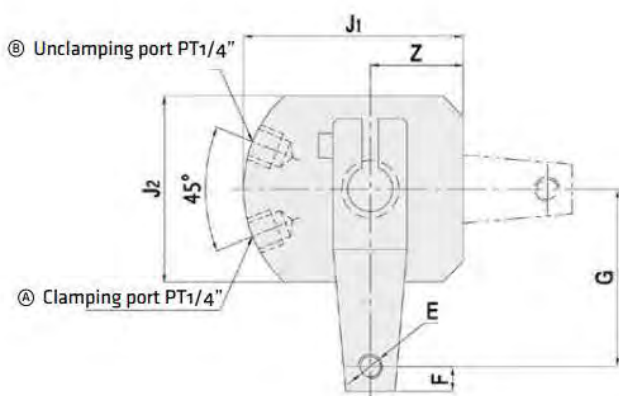
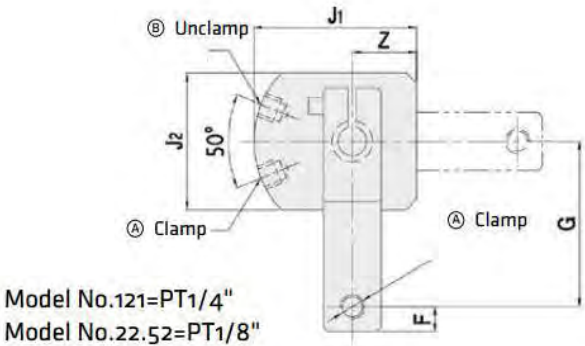
► 訂購標示法

ORDERING INDICATION 040 - L D 92×90 - P

040	系列 Series	040
L	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right R or turn left L
D	作動方式 Acting type	S: 單動式 Single acting D: 複動式 Double acting
92	型號 Type	22 , 52 , 92 , 121 , 202
90	轉角角度 Rotating angle	標準角度 Standard angle 90°(±2°) 訂做角度 30°(±2°),45°(±2°),60°(±2°)
P	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度 Add locating pin design,to improve the repeat precision of rotation angle

► 040-22/52/121

► 040-92/202



型號	理論夾持力 (250 kgf/cm ²) CLAMPING FORCE AT 250 kgf/cm ² (kgf)		轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍
MODEL	單動系列 SINGLE ACTING	復動系列 DOUBLE ACTING	SWING STROKE(mm)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)
040-22	173	180	8.5	8	16.5	1.24	2.52	0.75	1.53	-10~+70°C
040-52	380	445	12.6	10	22.6	4.05	8.57	1.79	3.79	-10~+70°C
040-92	710	780	10.1	12	22.1	6.92	17.75	3.13	8.03	-10~+70°C
040-121	970	1060	15.4	13	28.4	12.04	22.81	4.24	8.03	-10~+70°C
040-202	1830	1960	13.9	14	27.9	21.93	44.33	7.86	15.89	-10~+70°C

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

MODEL	ST: Swing/ Clamping	A 鬆開狀態 Unclamp	B	C	C1	D	E	F	G	I	J1	J2	Y	Z	Q
040-22	16.5:8.5/8	118	78	25	-	16	M6	6	40	M28x1.5	39.4	33	10	15.5	Φ10
040-52	22.6:12.6/10	145	91	25	-	22	M8	13	49	M35x1.5	47.5	38	10	19.1	Φ16
040-92	22.1:10.1/12	143	93	25	43	25	M10	11	45	M48x1.5	62.5	48	13	23.9	Φ25
040-121	28.4:15.4/13	171	111	25	-	30	M10	12	51	M48x1.5	60.5	51	10	25.4	Φ22
040-202	27.9:13.9/14	167	103.9	25	55	32	M12	15	55	M65x1.5	75.9	65	13	32.5	Φ32

Unit:mm

產品特性

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，只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體對稱固定。050 分為單動式和複動式兩種。

往複式特點：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。

最大操作壓力：250 kgf/cm²
最小操作壓力：70 kgf/cm²
作動方式：單動和複動式

注意事項

夾緊及放鬆作動速度需適當放緩。

特殊壓臂長度及重量不得超過標準壓臂的 1.5 倍。

壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

FEATURES

050 series owns the 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 the 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 of the valve.

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.

Max. operating pressure: 250 kgf/cm²
Min. operating pressure: 70 kgf/cm²
Single acting and double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.

For customized clamp arm, please don't exceed 1.5 times of the original length and weight.

The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.



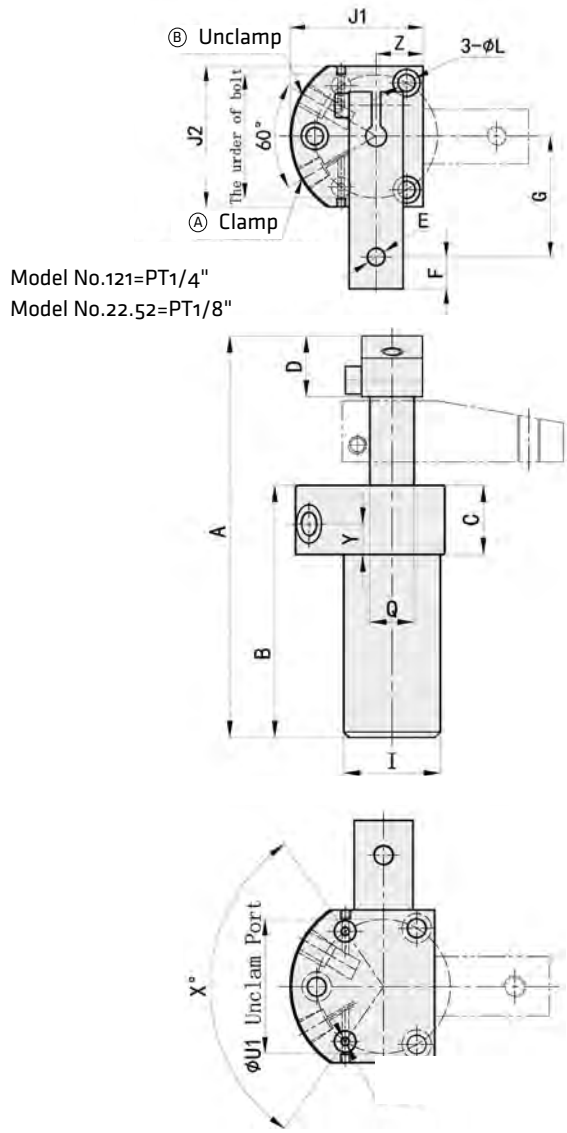
訂購標示法

ORDERING INDICATION 050 - L D 92 × 90 - P

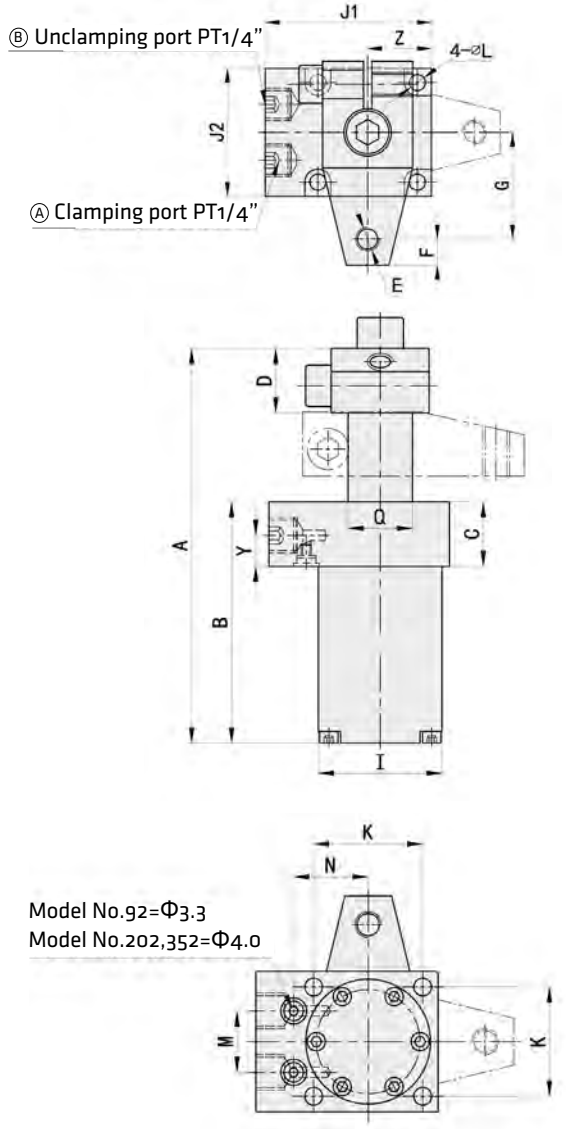
050	系列 Series	050
	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right R or turn left L
L	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right R or turn left L
	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right R or turn left L
D	作動方式 Acting type	S: 單動式 Single acting D: 複動式 Double acting
	作動方式 Acting type	S: 單動式 Single acting D: 複動式 Double acting
92	型號 Type	22 , 52 , 92 , 121 , 202
	型號 Type	22 , 52 , 92 , 121 , 202
90	轉角角度 Rotating angle	標準角度 Standard angle 90°(±2°) 訂做角度 30°(±2°),45°(±2°),60°(±2°)
	轉角角度 Rotating angle	標準角度 Standard angle 90°(±2°) 訂做角度 30°(±2°),45°(±2°),60°(±2°)
P	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度 Add locating pin design,to improve the repeat precision of rotation angle
	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度 Add locating pin design,to improve the repeat precision of rotation angle

注：訂精密定位型請來電諮詢

050-22/52/121



050-92/202



型號	理論夾持力 (250 kgf/cm ²) CLAMPING FORCE AT 250 kgf/cm ² (kgf)		轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍
MODEL	單動系列 SINGLE ACTING	複動系列 DOUBLE ACTING	SWING STROKE(mm)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)
050-22	173	180	8.5	8	16.5	1.24	2.52	0.75	1.53	-10~+70°C
050-52	380	445	14.6	8	22.6	4.05	8.57	1.79	3.79	-10~+70°C
050-92	710	780	14.1	8	22.1	6.92	17.75	3.13	8.03	-10~+70°C
050-121	970	1060	18.4	10	28.4	12.04	22.81	4.24	8.03	-10~+70°C
050-202	1830	1960	17.9	10	27.9	21.93	44.33	7.86	15.89	-10~+70°C

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油

Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

MODEL	ST: Swing/Clamping	A 鬆開狀態 Unclamp	B	C	D	E	F	G	I	J1	J2	K	L	M	N	Z	U1	X	Y	Q
050-22	16.5:8.5/8	118	78	25	16	M6	6	40	Φ28	47.2	45	-	Φ5.5-Φ9x6.5D	-	-	15.5	Φ40	60°	11	Φ10
050-52	22.6:12.6/10	145	91	25	22	M8	13	49	Φ35	54.1	57	-	Φ7-Φ11x7D	-	-	19.1	Φ50	110°	11	Φ16
050-92	22.1:10.1/12	153	93.5	25	25	M10	11	45	Φ48	70.1	54	42	Φ6.8-Φ11x7D	23.6	28.7	26.9	-	-	12	Φ25
050-121	28.4:15.4/13	171.5	110.9	25	30	M10	12	51	Φ48	66.8	73	-	Φ8.5-Φ14x9D	32	-	25.4	Φ64	110°	12	Φ22
050-202	27.9:13.9/14	169	104	25	32	M12	15	55	Φ63	85.1	70	55	Φ8.5-Φ14x9D	29.2	35.6	35.1	-	-	13	Φ32

Unit:mm

HPS HIGH PRESSURE
HYDRAULIC SWING
CLAMP

產品特性

此型式油壓缸適用於夾持工件取放空間保持淨空，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。
本產品使用德製油封及進口零件，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，如有回轉不確定，請安裝流量控制閥，降低充油速度。

最大操作壓力：250 kgf/cm²
最小操作壓力：70 kgf/cm²
作動方式：單動和複動式

注意事項

夾緊及放鬆作動速度需適當放緩。
特殊壓臂長度及重量不得超過標準壓臂的 1.5 倍。
壓臂旋轉示意圖及安裝拆卸方式，請參見第 13 頁。

FEATURES

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 vertical holds down motion.
The swing clamp cylinder employs Germany oil seal and imported parts.The inside surface of cylinder barrel is specially treated,featuring maximum smoothness, high performance and long service life.
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 reduce oil feeding speed.
Max. operating pressure: 250 kgf/cm²
Min. operating pressure: 70 kgf/cm²
Single acting and double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.
For customized clamp arm, please don't exceed 1.5 times of the original length and weight.
The methods to mount & remove and the rotation diagram of the clamp arm, please refer to page 13.

訂購標示法

ORDERING INDICATION **HPS - 25 S A R × 90 - P**

HPS	系列 Series	HPS
25	油缸內徑 Hydraulic cylinder inside diameter	Φ25, Φ32, Φ40, Φ50, Φ63
S	作動方式 Acting type	S: 單動式 Single acting D: 複動式 Double acting
A	安裝型式 Mounting type	A 全牙型 Threaded type B 配管型 Line type C 油路板型 Manifold type
R	轉角方向 Rotating direction	右轉 R 或左轉 L Turn right R or turn left L
90	轉角角度 Rotating angle	標準角度 Standard angle 90°(±2°) 訂做角度 30°(±2°),45°(±2°),60°(±2°)
P	精密定位型 Precision position	增加定位銷設計，提高轉角重複精度 Add locating pin design, to improve the repeat precision of rotation angle



Single-Acting

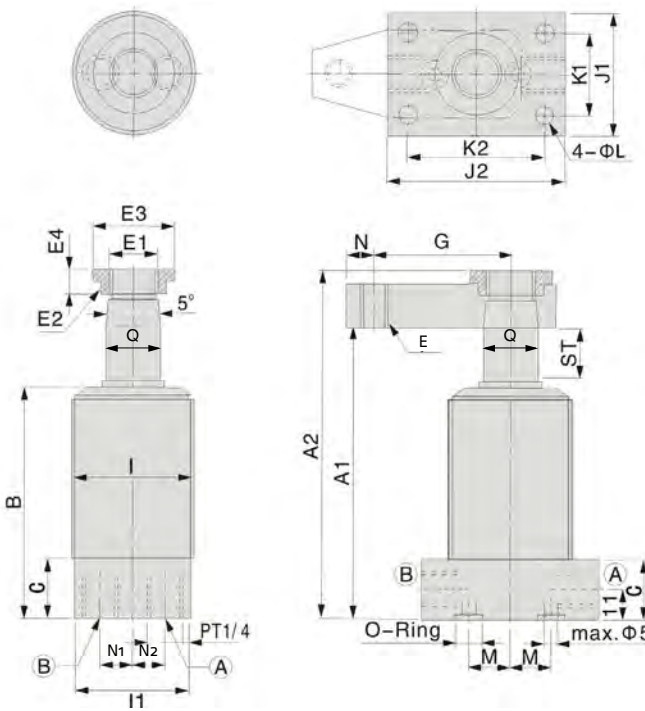
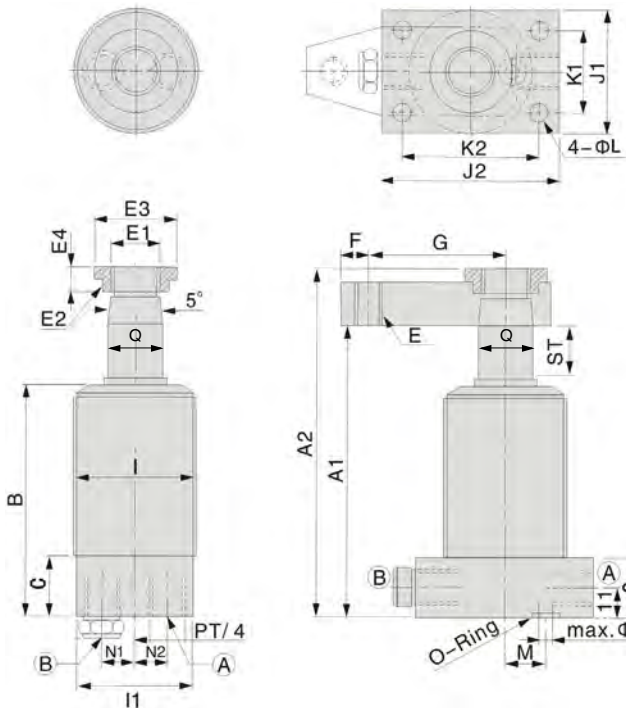
Double-Acting

THREADED TYPE

FLANGE TYPE

THREADED TYPE

FLANGE TYPE



① 夾持油孔 Clamping port ② 排氣孔 Vent port

① 夾持油孔 Clamping port ② 放鬆油孔 Unclamping port

型號	理論夾持力 (250 kgf/cm ²) CLAMPING FORCE AT 250 kgf/cm ² (kgf)		轉角行程	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍
MODEL	單動系列 SINGLE ACTING	複動系列 DOUBLE ACTING	SWING STROKE(mm)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)
HPS-25	380	440	8	11	19	3.18	8.83	1.77	4.9	-10~+70°C
HPS-32	650	780	9	13	22	6.9	17.7	3.13	8.04	-10~+70°C
HPS-40	940	1100	9	13	22	9.95	27.65	4.52	12.56	-10~+70°C
HPS-50	1580	1760	12	15	27	18.38	51.05	7.07	19.63	-10~+70°C
HPS-63	2560	2880	12	15	27	27.69	74.81	11.54	31.16	-10~+70°C

使用液體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油

Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

MODEL	ST: Swing/ Clamping	A1 鬆開狀態 Unclamp	A2 鬆開狀態 Unclamp	B	C	E	E1	E2	E3	E4	F	G	I	I1	J1	J2	K1	K2	L	M	N1	N2	O-Ring
HPS-25	19:8/11	107.5	129	87	22	M10x1.5	M18x1.5	Φ23.5	27.7	9	10	50	M45x1.5	Φ43	45	65	30	50	Φ6.5	15	13	13	P7
HPS-32	22:9/13	120.5	146.5	97	22	M12X1.75	M22x1.5	Φ28.5	33.5	10	12	65	M52x1.5	Φ50	53	73	37	57	Φ9	20	14.5	16	P7
HPS-40	22:9/13	123.5	152.5	100	22	M16x2	M28x1.5	Φ35.5	41.6	10	15	75	M60x1.5	Φ58	63	85	44	65	Φ9	28	16	19.5	P7
HPS-50	27:12/15	142	177	113.5	22	M16x2	M35x1.5	Φ45.5	53.1	12	15	95	M80x2.0	Φ78	80	100	60	80	Φ13	31	19	26.5	P9
HPS-63	27:12/15	148	190	119.5	22	M20x2.5	M43x1.5	Φ54.5	63.5	14	18	120	M90x2.0	Φ88	90	115	68	90	Φ15	37.5	25.5	34	P9



HYDRAULIC LEVERAGE CLAMPS

油壓槓桿缸系列 ▾



產品特性

此型式油壓缸，夾持機構為槓桿原理，活塞推出為夾緊狀態，夾持力大於轉角缸，主要機構零件安裝在缸體外部，易於維護。
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。

最大操作壓力：70 kgf/cm²

最小操作壓力：10 kgf/cm²

作動方式：複動式

注意事項

夾緊及放鬆作動速度需適當放緩。

FEATURES

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.

Max. operating pressure: 70 kgf/cm²
Min. operating pressure: 10 kgf/cm²
Double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.

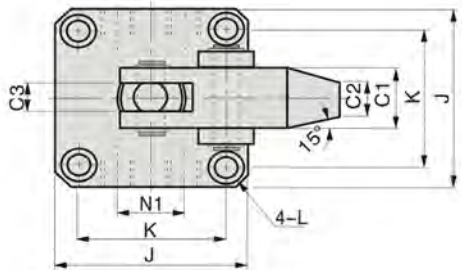
訂購標示法

ORDERING INDICATION CHLC - M 25 R A

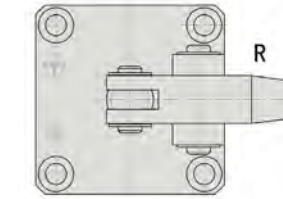
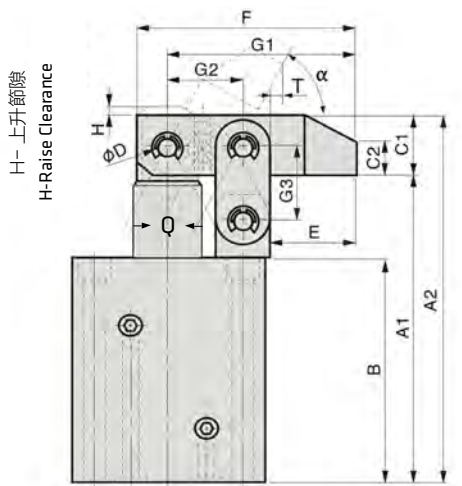
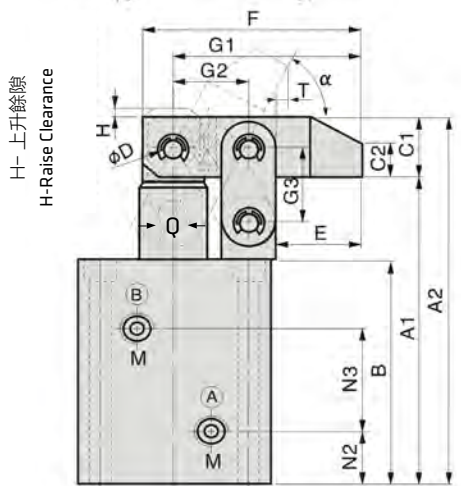
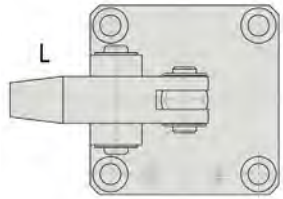
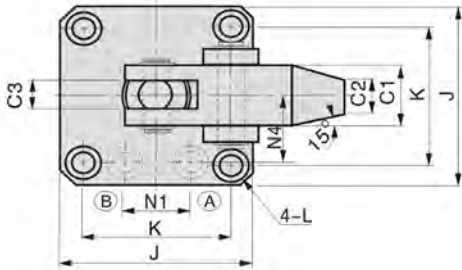
CHLC	系列 Series	CHLC
M	型式 Type	空白：配管式 Line type
		M：油路板型 Manifold type
		MF：油路板型附調速 Manifold with flow control
		FA：法蘭型 Flange type
25	油缸內徑 Hydraulic cylinder inside diameter	Φ25，Φ32，Φ40
		Φ50，Φ63
R	壓臂安裝方向 Lever arm direction	R：右 L：左 注：詳情見後面圖
A	一體成型	A integrated



配管式 LINE TYPE



油路板型 MANIFOLD TYPE



Ⓐ 夾持油孔 Clamping port

Ⓑ 放鬆油孔 Unclamping port

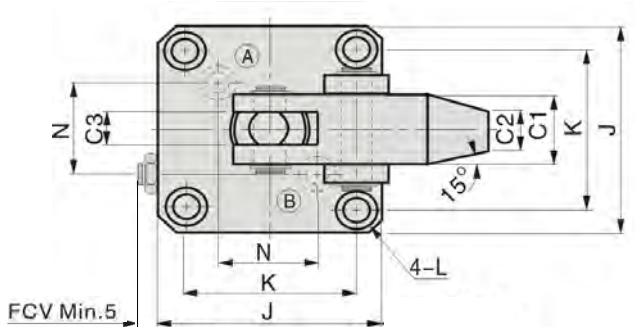
型號	理論夾持力 (70kgf/cm ²)	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍
MODEL	CLAMPING FORCE AT 70 kgf/cm ² (kgf)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm ³)	OIL CAPACITY UNCLAMP(cm ³)	EFF.PISTON AREA CLAMP(cm ²)	EFF.PISTON AREA UNCLAMP(cm ²)	RANGE OF TEMPERATURE(°C)
CHLC-25	252	22	25	5.93	12.28	2.37	4.91	-10~+70°C
CHLC-32	412	22	25	12.25	20.10	4.9	8.04	-10~+70°C
CHLC-40	618	26	30	25.86	37.68	8.62	12.56	-10~+70°C
CHLC-50	981	30	34	45.80	66.74	13.47	19.63	-10~+70°C
CHLC-63	1482	40	44	85.04	124.64	21.26	31.16	-10~+70°C

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油

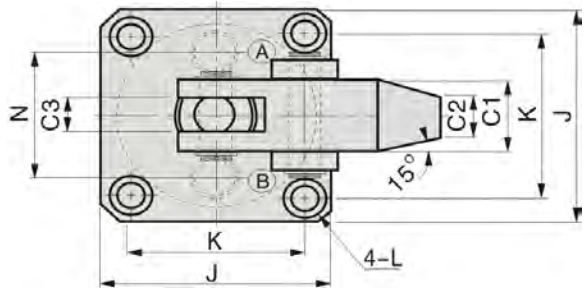
Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

Unit:mm																							
MODEL	A1	A2	B	C1	C2	C3	ΦD	E	F	G1	G2	G3	H	J	K	L	M	N1	N2	N3	N4	O-Ring	α
CHLC-25 CHLC-M25	103	122	76	□ 19	11	9	Φ8	25	64	55	22	24	3	55	42	Φ6.8-Φ10.5×6.5D	PT1/8	18	17	33	20	P7	61°
CHLC-32 CHLC-M32	112	131	85	□ 19	11	9	Φ8	25	64	55	22	24	3	57	44	Φ6.8-Φ10.5×6.5D	PT1/8	22	19	38	22	P7	61°
CHLC-40 CHLC-M40	122	144	90	□ 22	13	10	Φ10	30	77	66	26	29	4	69	52	Φ9-Φ14×9D	PT1/4	26	19	40	26	P8	61°
CHLC-50 CHLC-M50	137	162	100	□ 25	15	11	Φ12	35.5	90	77	30	33	4	75	58	Φ9-Φ14×9D	PT1/4	32	21.5	45	29	P7	61°
CHLC-63 CHLC-M63	155	187	111	□ 32	19	15	Φ15	43	110	94	36	39	4	96	75	Φ11-Φ18×11D	PT1/4	38	22	52	38	P9	66°

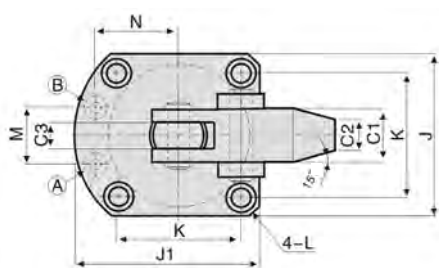
油路板附調速 ▶ CHLC-MF



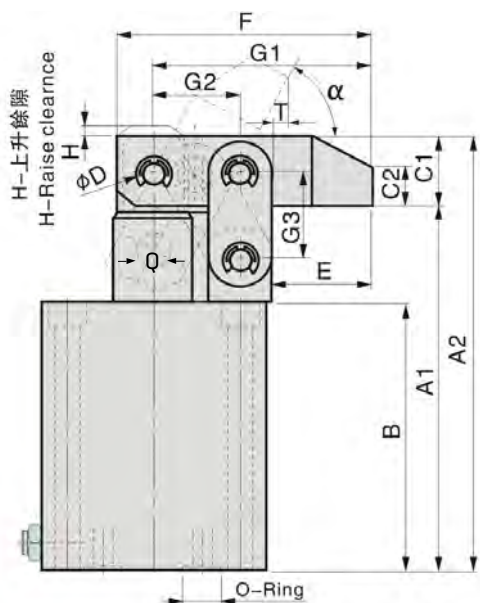
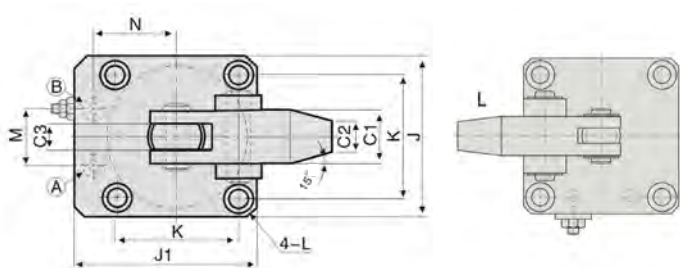
法蘭型 ▶ CHLC-FA



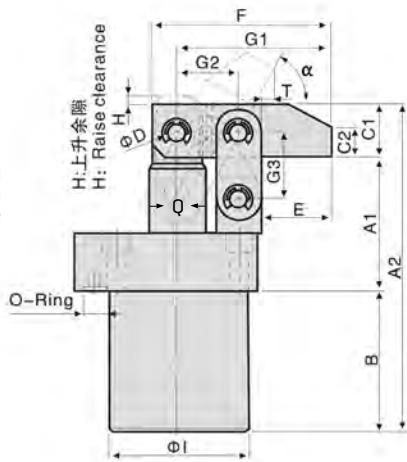
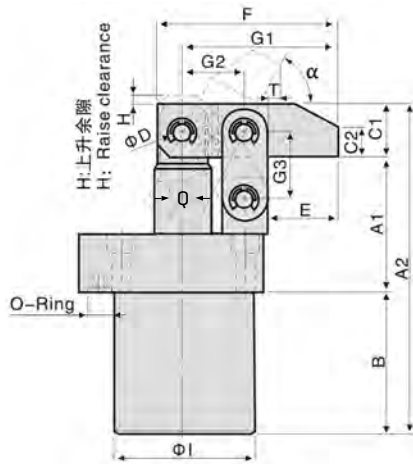
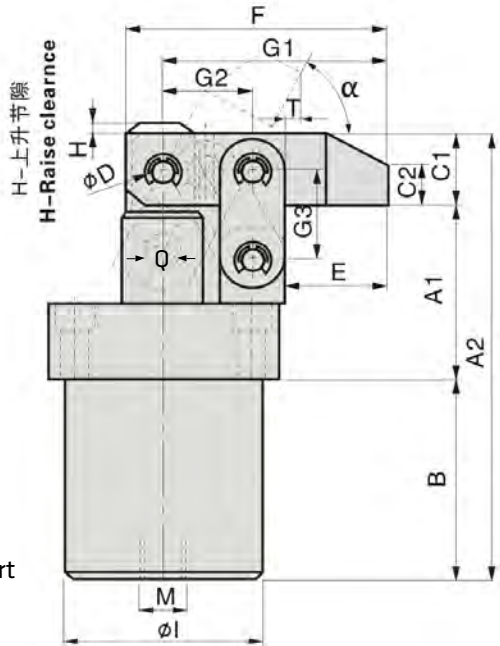
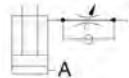
法蘭型油路板 ▶ CHLC-FAM



法蘭型附調速 ▶ CHLC-FAMT



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



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

Unit:mm

MODEL	A1	A2	B	C1	C2	C3	ΦD	E	F	G1	G2	G3	H	ΦI	J	K	L	M	N	O-Ring	α	T	Q
CHLC-MF25	112	131	85	□19	11	9	Φ8	25	64	55	22	24	3	-	55	42	Φ6.8-Φ10.5×6.5D	-	19	P7	61°	4	Φ18
CHLC-MF32	115	134	88	□19	11	9	Φ8	25	64	55	22	24	3	-	57	44	Φ6.8-Φ10.5×6.5D	-	21	P7	52°	11	Φ20
CHLC-MF40	130	152	98	□22	13	10	Φ10	30	77	66	26	29	4	-	69	52	Φ9-Φ14×9D	-	23	P9	58°	7.5	Φ22.4
CHLC-MF50	145	170	108	□25	15	11	Φ12	35.5	90	77	30	33	4	-	75	58	Φ9-Φ14×9D	-	28	P9	61°	7.5	Φ28
CHLC-MF63	163	195	119	□32	19	15	Φ15	43	110	94	36	39	4	-	96	75	Φ11-Φ18×11D	-	35	P9	66°	2	Φ35.5
CHLC-FA25	49	131	63	□19	11	9	Φ8	25	64	55	22	24	3	Φ45	55	42	Φ6.8-Φ10.5×6.5D	PT1/4	25	-	61°	4	Φ18
CHLC-FA32	52	134	63	□19	11	9	Φ8	25	64	55	22	24	3	Φ50	57	44	Φ6.8-Φ10.5×6.5D	PT1/4	32	-	61°	5	Φ20
CHLC-FA40	57	152	73	□22	13	10	Φ10	30	77	66	26	29	4	Φ58	69	52	Φ9-Φ14×9D	PT1/4	40	-	61°	5.5	Φ22.4
CHLC-FA50	67	170	78	□25	15	11	Φ12	35.5	90	77	30	33	4	Φ68	75	58	Φ9-Φ14×9D	PT1/4	50	-	61°	7.5	Φ28
CHLC-FA63	74	196	90	□32	19	15	Φ15	43	110	94	36	39	4	Φ82	98	75	Φ11-Φ18×11D	PT1/4	63	-	66°	2	Φ35.5

Unit:mm

MODEL	A1	A2	B	C1	C2	C3	ΦD	E	F	G1	G2	G3	H	ΦI	J	J1	K	L	M	N	O-Ring	α	T	Q
CHLC-FAM25	49	122	54	□19	11	9	Φ8	25	64	55	22	24	3	Φ45	55	64	42	Φ6.8-Φ10.5×6.5D	20	28	P6	61°	4	Φ18
CHLC-FAM32	52	131	60	□19	11	9	Φ8	25	64	55	22	24	3	Φ50	57	65.5	44	Φ6.8-Φ10.5×6.5D	22	29	P6	61°	5	Φ20
CHLC-FAM40	57	144	65	□22	13	10	Φ10	30	77	66	26	29	4	Φ58	69	79	52	Φ9-Φ13.5×9D	25	34.5	P9	61°	5.5	Φ22.4
CHLC-FAM50	67	162	70	□25	15	11	Φ12	35.5	90	77	30	33	4	Φ68	75	87	58	Φ9-Φ13.5×9D	30	39	P9	61°	7.5	Φ28
CHLC-FAM63	74	187	81	□32	19	15	Φ15	43	110	94	36	39	4	Φ82	98	114	75	Φ11-Φ18×11D	40	49.5	P9	66°	2	Φ35.5
CHLC-FAMT25	49	122	54	□19	11	9	Φ8	25	64	55	22	24	3	Φ45	55	64	42	Φ6.8-Φ10.5×6.5D	20	28	P6	61°	4	Φ18
CHLC-FAMT32	52	131	60	□19	11	9	Φ8	25	64	55	22	24	3	Φ50	57	65.5	44	Φ6.8-Φ10.5×6.5D	22	29	P6	61°	5	Φ20
CHLC-FAMT40	57	144	65	□22	13	10	Φ10	30	77	66	26	29	4	Φ58	69	79	52	Φ9-Φ13.5×9D	26	34.5	P9	61°	5.5	Φ22.4
CHLC-FAMT50	67	162	70	□25	15	11	Φ12	35.5	90	77	30	33	4	Φ68	75	87	58	Φ9-Φ13.5×9D	30	39	P9	61°	7.5	Φ28
CHLC-FAMT63	74	187	81	□32	19	15	Φ15	43	110	94	36	39	4	Φ82	98	114	75	Φ11-Φ18×11D	40	49.5	P9	66°	2	Φ35.5

LHC01

槓桿式油壓缸

LHC01 HYDRAULIC
LEVERAGE CLAMP

產品特性

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，避免了油缸的泄漏，且其壽命長。
應用了槓桿原理，使工件容易夾緊，提高效率。
缸體所用的材質是 45 鋼，活塞材質是 45 鋼，熱處理，表面鍍鉻。
缸體一體成型。

最大操作壓力：70 kgf/cm²
最小操作壓力：20 kgf/cm²
作動方式：複動式

注意事項

夾緊及放鬆作動速度需適當放緩。

FEATURES

Five available bore diameter :Φ25,Φ32 ,Φ40,Φ50,Φ63.
Use high-quality seal to avoid leakage and keep long operation
Lever principle design is applied on this hydraulic cylinder. Clamping work piece easily and improve efficiency.
The material of the cylinder body and the piston is 45# steel, heat treatment,chrome plated.

Max. operating pressure: 70 kgf/cm²
Min. operating pressure: 20 kgf/cm²
Double acting

NOTE

The acting speed of clamping-unclamping should be slowed down.

訂購標示法

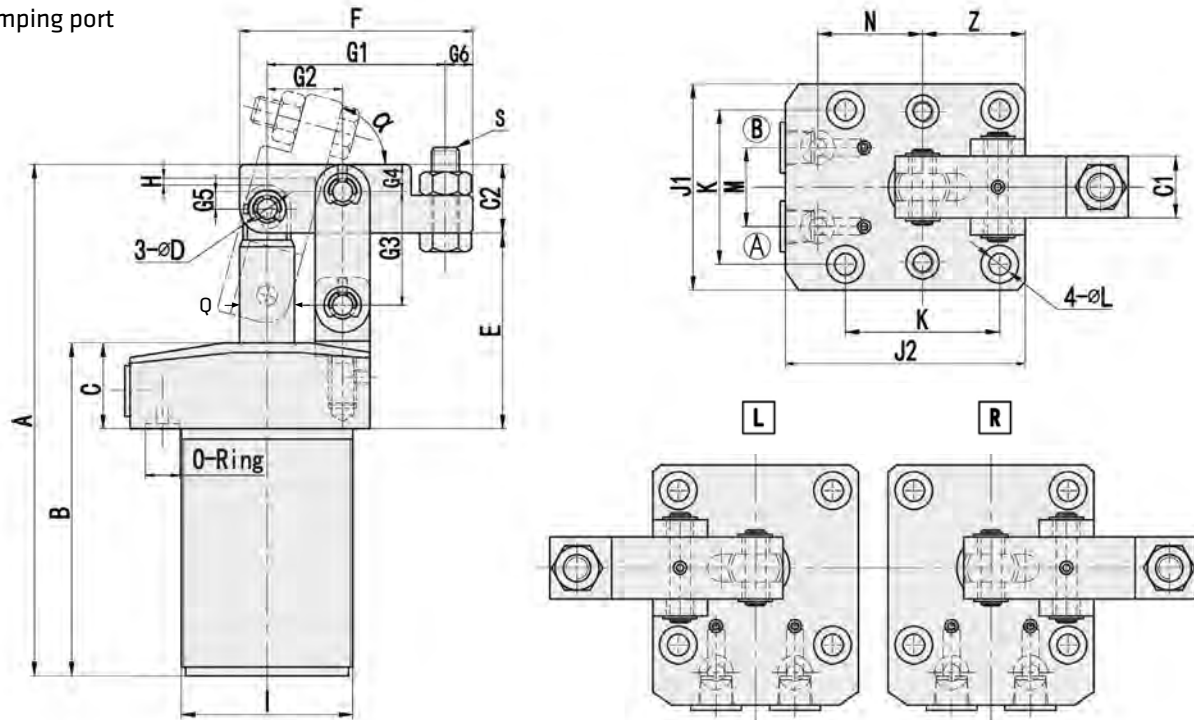
ORDERING INDICATION LHC01 - D - 40 C R A W

LHC01	系列 Series	LHC01
D	作動方式 Acting type	D: 複動式 Double acting S: 單動式 Single acting
40	油缸內徑 Hydraulic cylinder inside diameter	Φ 25 , Φ 32 , Φ 40 , Φ 50 , Φ 63
C	C: 油路板附調速	
R	壓臂安裝方向 Lever arm direction	R, L, Blank R: 右, L: 左, Bank: 空白
A	缸體一體成型	Cylinder body molding
W	W: 缸體上三方具有壓臂安裝座孔	

注：一體成型的没有 W 型



- ▶ ① 夾持油孔 Clamping port
② 放鬆油孔 Unclamping port



型號	理論夾持力（70kgf/cm²）	夾緊行程	總行程	拉入容積	推出容積	拉入受壓面積	推出受壓面積	使用溫度範圍
MODEL	CLAMPING FORCE AT 70 kgf/cm² (kgf)	CLAMPING STROKE(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm³)	OIL CAPACITY UNCLAMP(cm³)	EFF.PISTON AREA CLAMP(cm²)	EFF.PISTON AREA UNCLAMP(cm²)	RANGE OF TEMPERATURE(°C)
LHC01S-25	158	22	24	-	11.78	-	4.91	-10~+70°C
LHC01D-25	268	22	24	8.09	11.78	3.37	4.91	-10~+70°C
LHC01S-32	243	28	31	-	24.92	-	8.04	-10~+70°C
LHC01D-32	412	28	31	18.69	24.92	6.03	8.04	-10~+70°C
LHC01S-40	388	30	33	-	41.45	-	12.56	-10~+70°C
LHC01D-40	659	30	33	34.82	41.45	10.55	12.56	-10~+70°C
LHC01S-50	618	30	33	-	64.78	-	19.63	-10~+70°C
LHC01D-50	1049	30	33	54.42	64.78	16.49	19.63	-10~+70°C
LHC01S-63	980	30	33	-	102.83	-	31.16	-10~+70°C
LHC01D-63	1662	30	33	92.47	102.83	28.02	31.16	-10~+70°C

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油

Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

MODEL	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
LHC01S-25 LHC01D-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	2-PT1/8	23	26	25	M6	75°	P7	Φ14
LHC01S-32 LHC01D-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	2-PT1/8	23	30.5	30	M8	75°	P7	Φ16
LHC01S-40 LHC01D-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	2-PT1/8	26	33	32.5	M8	75°	P7	Φ16
LHC01S-50 LHC01D-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	2-PT1/8	32	38	37.5	M12	65°	P7	Φ20
LHC01S-63 LHC01D-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	2-PT1/8	35	48	45	M12	60°	P7	Φ20



HYDRAULIC PUSHPULL CYLINDERS

薄型油壓缸系列 ▼

► 產品特性

體積小，節省空間，安裝空間受限制時的最佳選擇。
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碳素鋼，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。

最大操作壓力：140 kgf/cm²
最小操作壓力：5 kgf/cm²
作動方式：複動式

► 注意事項

可接受訂製，歡迎與本公司洽詢。
CHTB-LAM 和 CHTB-LWM 系列，行程 10mm 無附鍵槽及平鍵。

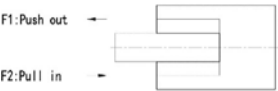
► FEATURES

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 made of structural carbon steel. Internal surface is specially treated. Smoothness and long service life.
Axial and side manifold type without upgrading pipe, made the cylinder appearance look better.

Max. operating pressure: 140 kgf/cm²
Min. operating pressure: 5 kgf/cm²
Double acting

► NOTE

You are welcome to order the special strokes under request.
CHTB-LAM and CHTB-LWM type, the stroke is 10mm without key.



► 訂購標示法

ORDERING INDICATION

CHTB - SD 32×20 N

CHTB	系列 Series	CHTB	
SD	安裝型式 Mounting type	SD:	軸向單軸安裝型 Axial single end rod type
		SW:	軸向雙軸安裝型 Axial double end rod 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
		LA:	側向單軸安裝型 Lateral single end rod type
		LW:	側向雙軸安裝型 Lateral double end rod type
		LAM:	側向油路板單軸安裝型 Lateral manifold single end rod type
		LWM:	側向油路板雙軸安裝型 Lateral manifold double end rod type
32	油缸內徑 Hydraulic cylinder inside diameter	Φ20, Φ25, Φ32, Φ40, Φ50, Φ63, Φ80	
20	標準行程 Standard stroke	請參考行程規格表 Please refer to the <stroke specification>	
N	軸端形式 Rod end type	N: 內牙 Female thread N W: 外牙 Male thread W	

行程規格表 Stroke

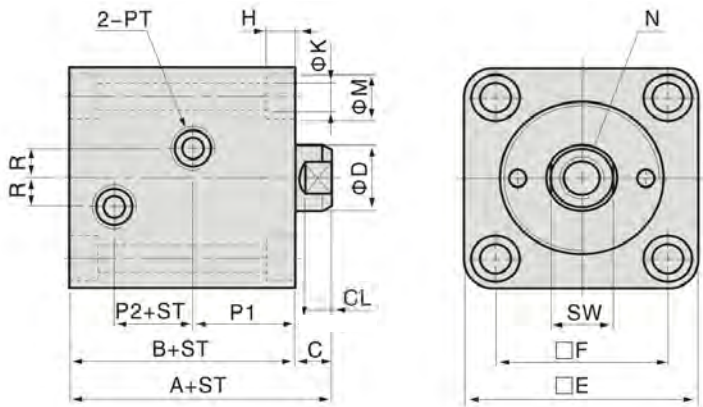
TYPE BORE STROKE	SD SDM							SW LA LW				LAM LWM			
	Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80	Φ32	Φ40	Φ50	Φ63	Φ32	Φ40	Φ50	Φ63
5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
10	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

油缸內徑	活塞杆徑	受壓面積		操作壓力										使用溫度範圍	
HYDRAULIC CYLINDER INSIDE DIAMETER(mm)	PISTON DIAMETER(mm)	PRESSURE AREA(Cm ²)		OPERATION PRESSURE(kgf/cm ²)										Range of temperature(°C)	
				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	-10~+60°C	
Φ25	Φ14	4.91	3.37	49	34	172	118	344	236	491	337	687	472	-10~+60°C	
Φ32	Φ20	8.04	4.9	80	49	281	172	563	343	804	490	1126	686	-10~+60°C	
Φ40	Φ25	12.57	7.66	126	77	440	268	880	536	1257	766	1760	1072	-10~+60°C	
Φ50	Φ30	19.64	12.57	196	126	687	440	1375	880	1964	1257	2750	1760	-10~+60°C	
Φ63	Φ35	31.17	21.55	312	216	1091	754	2182	1509	3117	2155	4364	3017	-10~+60°C	
Φ80	Φ45	50.27	34.37	503	344	1759	1203	3519	2406	5027	3437	7038	4812	-10~+60°C	

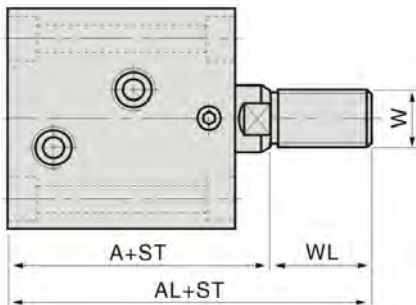
使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油

Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

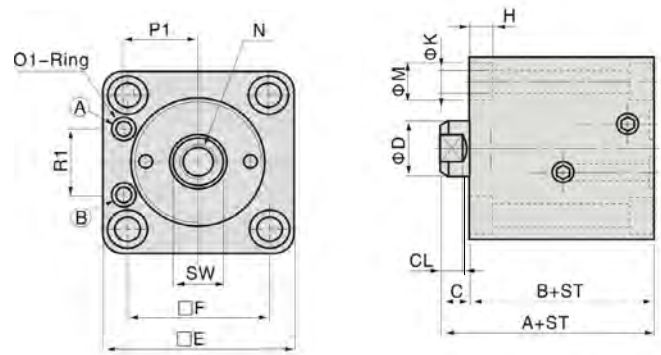
► **SD-N** 軸向單軸安裝之軸端內牙型



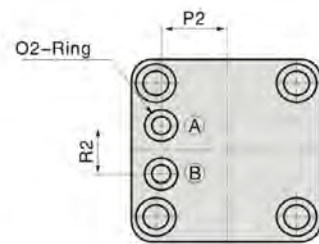
► **SD-W** 軸向單軸安裝之軸端外牙型



► **SDMA-N** 軸向前油路板之軸端內牙型

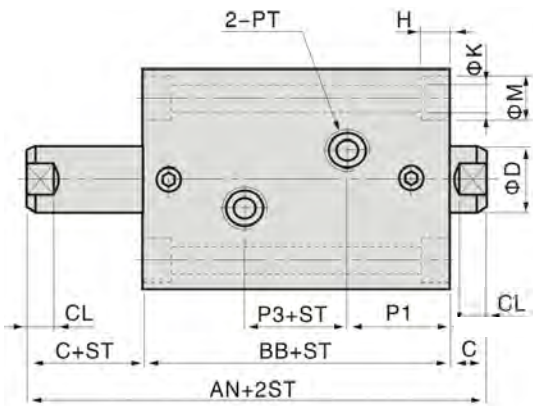


► **SDMB-N** 軸向後油路板之軸端內牙型

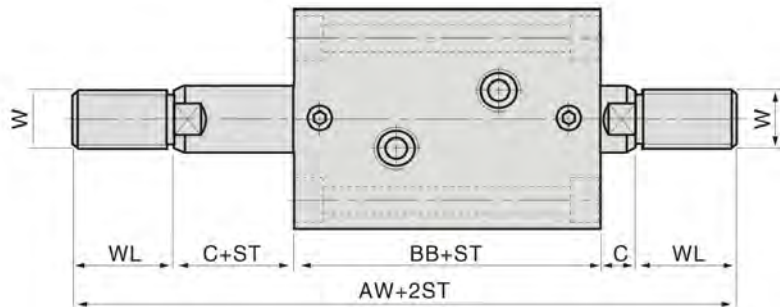


- (A) 推出油孔 Push out
(B) 拉入油孔 Pull in

► **SW-N** 軸向雙軸安裝之軸端內牙型



► **SW-W** 軸向雙軸安裝之軸端外牙型



ST=Stroke

CHTB Hydraulic axial mounting type SD&SW

BORE	A	AL	AN	AW	B	BB	C	CL	D	SW	E	F	H	K	M	N	W	WL	P1	P2	P3	R	PT
$\phi 20$	51	71	—	—	43	—	8	6	12	10	42	30	5.5	5.6	9	M8×1.25×12D	M10×1.25	20	22.5	11	—	5	1/8
$\phi 25$	53	75	—	—	45	—	8	6	14	12	48	36	5.5	5.6	9	M10×1.5×15D	M12×1.25	22	23	12	—	5	1/8
$\phi 32$	64	89	89	139	54	69	10	7	20	17	62	47	6.5	6.8	11	M12×1.75×15D	M16×1.5	25	28	14	13	10	1/4
$\phi 40$	65	95	90	150	55	70	10	7	25	22	70	52	9	9	14	M16×2.0×20D	M22×1.5	30	28	15	14	10	1/4
$\phi 50$	71	106	97	167	60	75	11	8	30	27	80	58	11	11	18	M20×2.5×25D	M26×1.5	35	29.5	18	16	10	1/4
$\phi 63$	80	120	108	188	67	82	13	10	35	32	94	69	13	13	20	M27×3.0×35D	M30×1.5	40	31	20	20	10	3/8
$\phi 80$	95	140	127	217	78	93	17	14	45	41	114	86	15	15	22	M30×3.5×35D	M39×1.5	45	33	27	27	15	3/8
$\phi 100$	105	165	140	260	88	106	17	14	56	50	134	102	17.5	18	26	M36×4.0×40D	M48×1.5	60	39	28	28	15	3/8

Unit:mm

CHTB Hydraulic manifold type SDMA & SDMB.

BORE	A	AL	B	C	CL	D	SW	E	F	H	K	M	N	W	WL	SDMA	SDMB
																P1	P2
																R1	R2
																O1	O2
$\phi 20$	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
$\phi 25$	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
$\phi 32$	64	89	54	10	7	20	17	62	47	6.5	6.8	11	M12×1.75×15D	M16×1.5	25	24	24
$\phi 40$	65	95	55	10	7	25	22	70	52	9	9	14	M16×2.0×20D	M22×1.5	30	27	26
$\phi 50$	71	106	60	11	8	30	27	80	58	11	11	18	M20×2.5×25D	M26×1.5	35	32	27
$\phi 63$	80	120	67	13	10	35	32	94	69	13	13	20	M27×3.0×35D	M30×1.5	40	38	35
$\phi 80$	95	140	78	17	14	45	41	114	86	15	15	22	M30×3.5×35D	M39×1.5	45	47	45

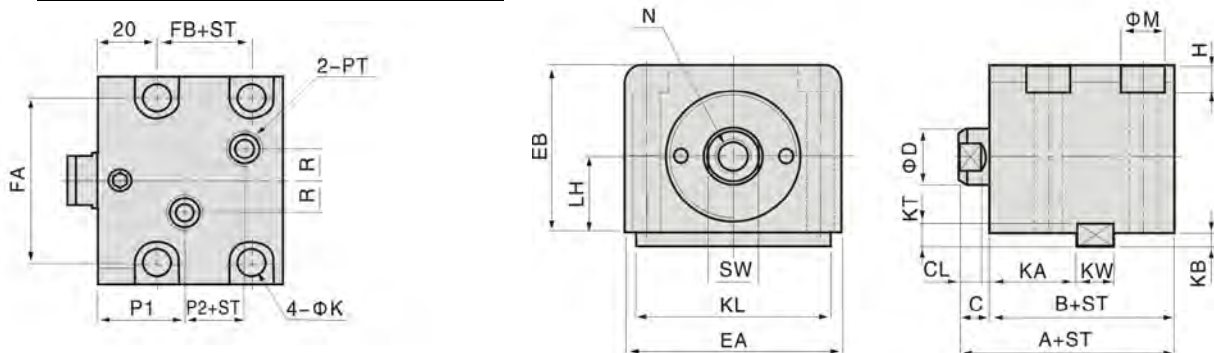
Unit:mm

注：如需安裝調速閥，請來電諮詢 Remark: For speed contral valve installation ,welcome to contact us.

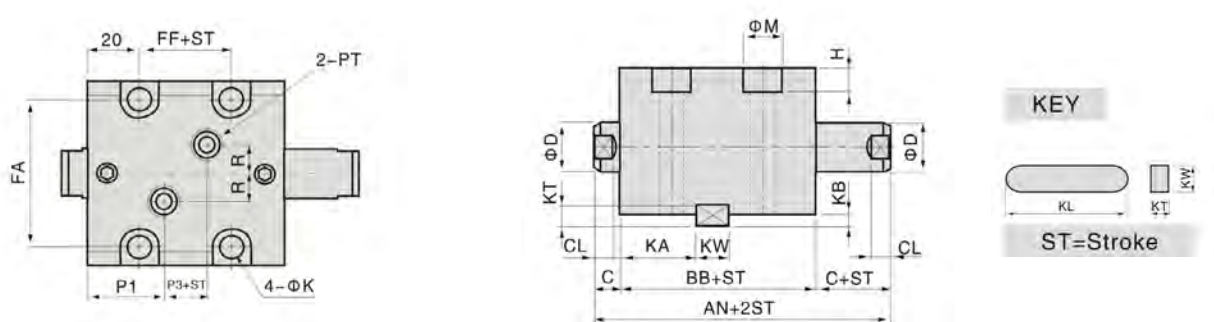


注：行程 < 20 的無鍵槽及平鍵

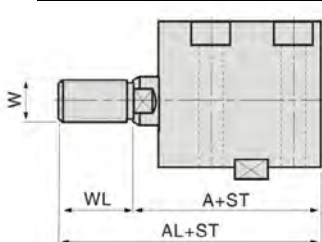
► **LA-N** 側向單軸安裝之軸端內牙型



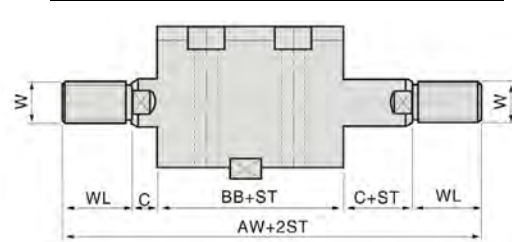
► **LW-N** 側向雙軸安裝之軸端內牙型



► **LA-W** 側向單軸安裝之軸端外牙型



► **LW-W** 側向雙軸安裝之軸端外牙型

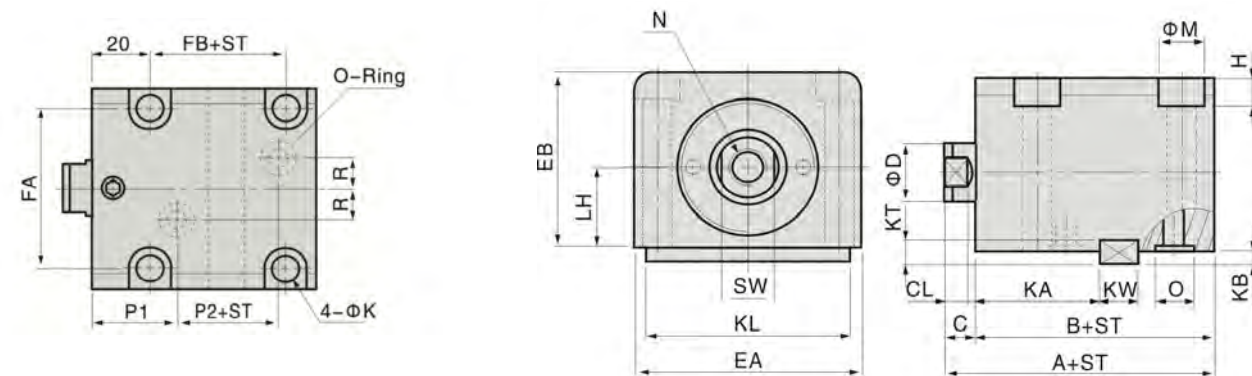


CHTB Hydraulic side mounting type LA & LW.

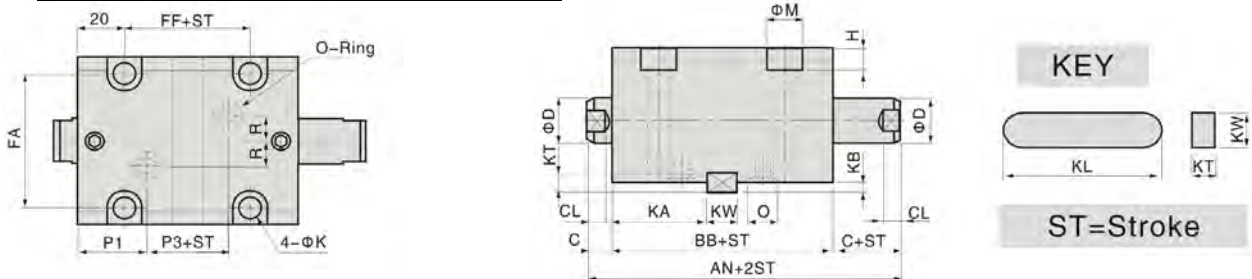
Unit:mm

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	KW	KT	KL	KA	KB
Φ32	64	89	89	139	54	69	10	7	20	17	70	56	25	56	24	32	9	9	14	M12×1.75×15DM16×1.5	25	28	14	13	10	1/4	12	8	63	28	4.5	
Φ40	65	95	90	150	55	70	10	7	25	22	80	64	29	62	23	32	11	11	18	M16×2.0×20DM22×1.5	30	28	15	14	10	1/4	12	8	70	28	4.5	
Φ50	71	106	97	167	60	75	11	8	30	27	94	74	34	74	27	35	13	13	20	M20×2.5×25DM26×1.5	35	29.5	18	16	10	1/4	14	9	80	29	5	
Φ63	80	120	108	188	67	82	13	10	35	32	114	89	42	90	32	42	15	15	22	M27×3.0×35DM30×1.5	40	31	20	20	10	3/8	16	10	100	31	5.5	

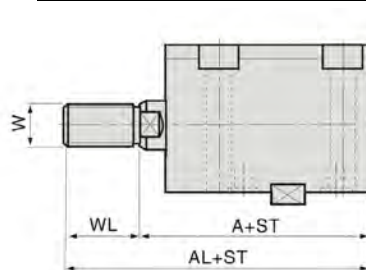
► **LAM-N** 側向油路板單軸安裝之軸端內牙型



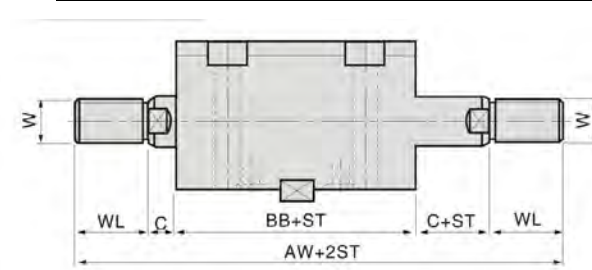
► **LWM-N** 側向油路板雙軸安裝之軸端內牙型



► **LAM-W** 側向油路板單軸安裝之軸端外牙型



► **LWM-W** 側向油路板雙軸安裝之軸端外牙型



CHTB Hydraulic manifold type LAM & LWM.

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

▶ 訂購標示法

ORDERING INDICATION

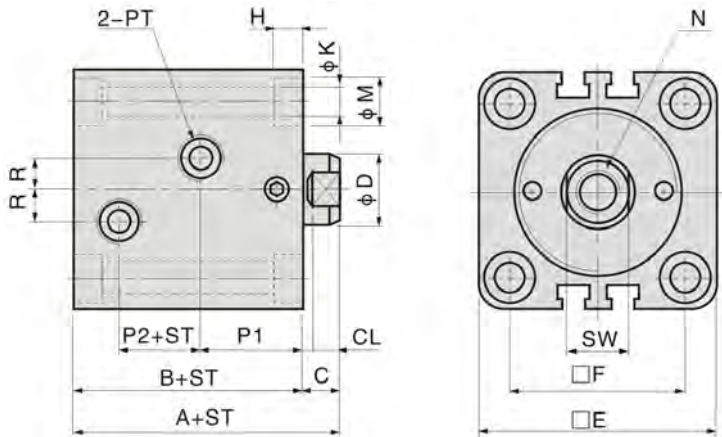
CHTM - SD 32 20 N S1



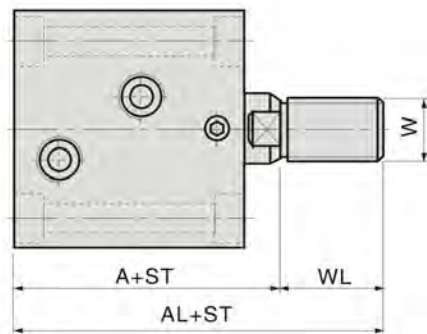
CHTM	系列 Series	CHTM
SD	安裝型式 Mounting type	SD: 軸向單軸安裝型 Single end rod type SW: 軸向雙軸安裝型 Double end rod type
	油缸內徑 Hydraulic cylinder inside diameter	Φ32, Φ40, Φ50, Φ63, Φ80
20	標準行程 Standard stroke	10,20,30,40,50
N	軸端形式 Rod end type	N: 內牙 Female thread N W: 外牙 Male thread W
	近接開關 Sensor switch	一個 S1, 2 個 S2 電壓 DC 4-24V AC 4-120V 電流 5-40mA 1Pcs of S1, 2Pcs of S2 Pressure DC 4-24V AC 4-120V Electricity 5-40mA

注: 使用壓力 > 10 MPa, 缸體材質為不銹鋼

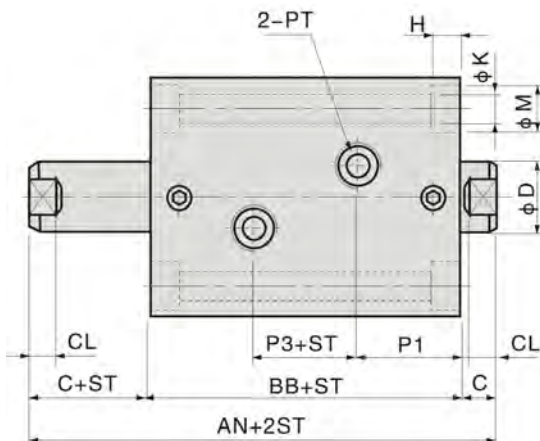
▶ SD-N 軸向單軸安裝之軸端內牙型



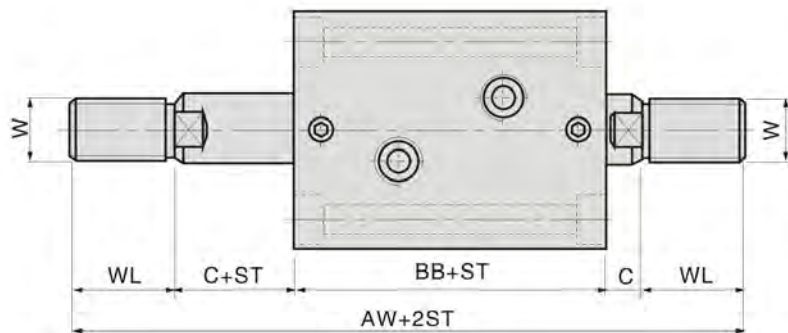
▶ SD-W 軸向單軸安裝之軸端外牙型



▶ SW-N 軸向雙軸安裝之軸端內牙型



▶ SW-W 軸向雙軸安裝之軸端外牙型



CHTM Hydraulic magnetic type SD & SW.

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
Φ32	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
Φ40	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
Φ50	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
Φ63	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
Φ80	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



塊型油壓缸

▶ 產品特性

最大操作壓力: 300 kgf/cm²
最小操作壓力: 100 kgf/cm²
作動方式: 單動式和複動式

► 注意事項

可接受訂製 ($300 < P < 500$), 歡迎與本公司洽詢

► FEATURES

This series of hydraulic cylinder complies with Germany specifications. Employ imported oil seal for outstanding pressure resistance. Standardized specification and full interchangeability axial and side mounting type available. Single and double acting available.

Max. operating pressure: 300 kgf/cm²
Min. operating pressure: 100 kgf/cm²
Single acting and Double acting

► **NOTE**

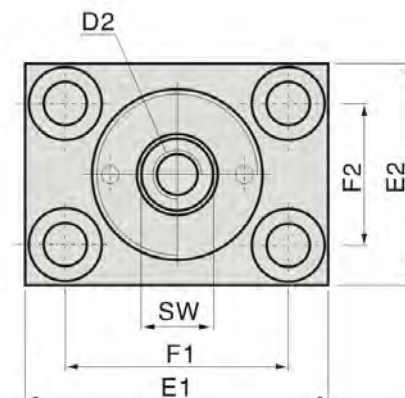
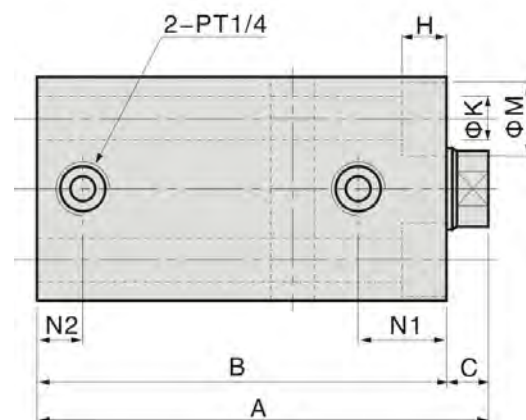
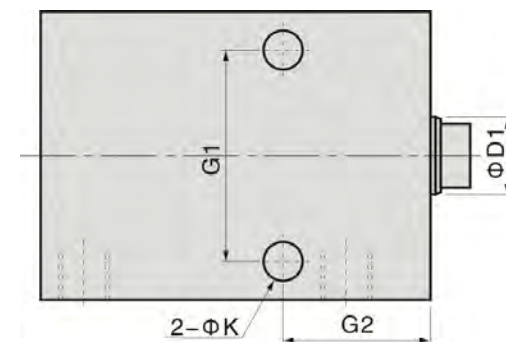
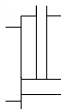
Orders with customized request($300 < P < 500$) are available, welcome to contact us.

▶ 訂購標示法

ORDERING INDICATION

HBC - 32 S 20

HBC	系列 Series	HBC
32	油缸內徑 Hydraulic cylinder inside diameter	Φ16, Φ25, Φ32, Φ40
S	作動方式 Acting type	S 單動 Single-acting D 雙動 Double-acting
20	標準行程 Standard stroke	請參考尺寸表 Refer to the dimension table



理論出力表 CLAMPING FORCE

油缸內徑	活塞杆徑	受壓面積		操作壓力				使用流體
HYDRAULIC CYLINDER INSIDE DIAMETER(mm)	PISTON DIAMETER(mm)	PRESSURE AREA(cm²)		OPERATION PRESSURE(kgf/cm²)				USABLE FLUID
				100		300		
		F1	F2	F1	F2	F1	F2	相當于 ISO 粘度等級的 ISO-
Φ 16	Φ 10	2.01	1.22	201	122	603	366	VG-32 一般壓油
Φ 25	Φ 16	4.91	2.9	491	290	1473	870	General Hydraulic Oil
Φ 32	Φ 20	8.04	4.9	804	490	2412	1470	Equivalent to ISO-VG-32
Φ 40	Φ 25	12.57	7.66	1257	766	3771	2298	

DIMENSION 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	M6×1.0 12Deep	8	60	35	40	22	30	30	6.5	6.8	11	16.5	11
Φ16	20	97	91		50	97	91	6	10	M6×1.0 12Deep	8	60	35	40	22	30	30	6.5	6.8	11	16.5	11
Φ25	8	71	64		20	71	64	7	16	M10×1.5 15Deep	13	65	45	50	30	50	33	9	9	14	18	11
Φ25	20	101	94		50	101	94	7	16	M10×1.5 15Deep	13	65	45	50	30	50	33	9	9	14	18	11
Φ32	10	85	75		25	85	75	10	20	M12×1.75 15Deep	17	75	55	55	35	55	38	11	11	18	22	11
Φ32	20	110	100		50	110	100	10	20	M12×1.75 15Deep	17	75	55	55	35	55	38	11	11	18	22	11
Φ40	10	89	79		25	89	79	10	25	M16×2.0 25Deep	22	85	63	63	40	63	40	11	11	18	24	11
Φ40	20	114	104		50	114	104	10	25	M16×2.0 25Deep	22	85	63	63	40	63	40	11	11	18	24	11

► 產品特性

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，高壓夾持中保持長時間不漏油。

外螺紋式小型單動缸體積小，使用於夾具上，能在最小的空間內排列使用。

此型式油壓缸使用於頂出場合，彈簧退回，無法使用於拉式場合上。

安裝時盡可能垂直於工作面，傾斜勿超過 10°。

缸體底部需置放一只鎖緊防漏墊圈。

最大操作壓力：250 kgf/cm²
最小操作壓力：20 kgf/cm²
作動方式：單動式

► FEATURES

The Thread-body single acting hydraulic cylinder use imported oil seal and accessories to guarantee the quality . No oil leakage while clamping in high pressure for a long time.The volume of the thread-body single acting hydraulic cylinder is small. It can be utilized in a small space in the fixture.This hydraulic cylinder is used to extend out, and when spring returns, but it can't be used for pulling back.

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.

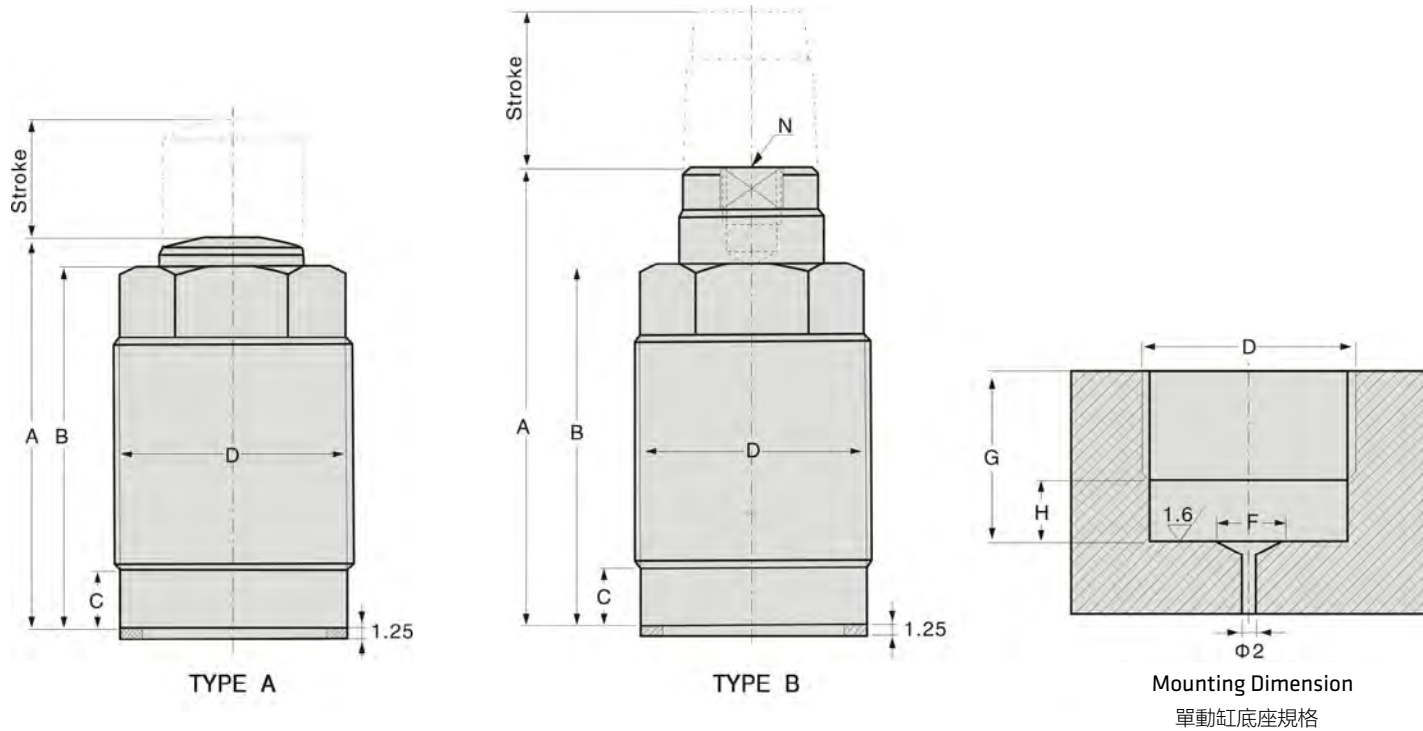
Max. operating pressure: 250 kgf/cm²
Min. operating pressure: 20 kgf/cm²
Single acting

► 訂購標示法

ORDERING INDICATION

CTC - 16 A

CTC	系列 Series	CTC
16	活塞杆徑 Piston diameter	Φ12,Φ16,Φ20,Φ25
A	類型 Type	分為 A、B 兩種 Divide A type and B type



型號	理論夾持力 (250kgf/cm ²)	總行程	拉入容積	拉入受壓面積	彈簧阻抗	使用流體
Model No.	CLAMPING FORCE AT 250 kgf/cm ² (kgf)	TOTAL STROKE (mm)	OIL CAPACITY CLAMP (cm ³)	EFF.PISTON AREA CLAMP (cm ²)	SPRING FORCE(kgf)	USABLE FLUID
CTC-12A	247.5	10	2.14	1.13	35	相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
CTC-16A	375	12	4.24	2.00	25	
CTC-20A	765	15	7.29	3.14	20	
CTC-25A	1210	16	11.85	4.90	15	General Hydraulic Oil Equivalent to ISO-VG-32
CTC-12B	247.5	10	2.14	1.13	35	
CTC-16B	375	12	4.24	2.00	25	
CTC-20B	765	15	7.29	3.14	20	
CTC-25B	1210	16	11.85	4.90	15	

Unit:mm

MODEL	A	B	C	D	F	G	H	N	ST
CTC-12A	38	36	7	M22×1.5	12	16	6	-	10
CTC-16A	46.5	44.5	8	M26×1.5	16	20	7	-	12
CTC-20A	57.5	51	8	M30×1.5	20	24	7	-	15
CTC-25A	58.5	55	11	M38×1.5	25	28	10	-	16
CTC-12B	45	36	7	M22×1.5	12	16	6	M6×1.0	10
CTC-16B	52	44.5	8	M26×1.5	16	20	7	M6×1.0	12
CTC-20B	64.5	51	8	M30×1.5	20	24	7	M8×1.25	15
CTC-25B	67.5	55	11	M38×1.5	25	28	10	M8×1.25	16

注：理論夾持力 = 受壓面積 x 工作壓力 - 彈簧阻抗
彈簧阻抗指其最大理論值

HB

油壓增壓器

HB HYDRAULIC BOOSTER



產品特性

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，僅需一只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。

最大操作壓力：50 kgf/cm²
最小操作壓力：20 kgf/cm²

注意事項

出廠設定 30 kgf/cm²。

FEATURES

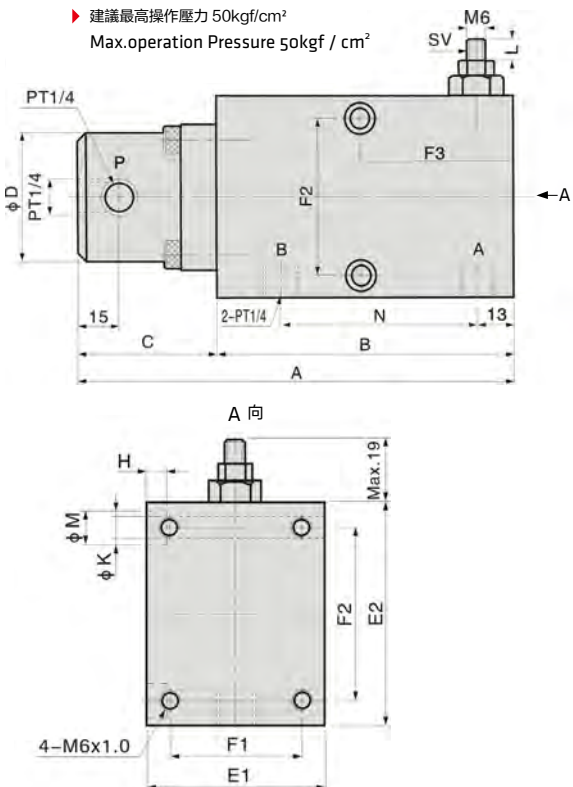
A hydraulic sequential valve is attached to this booster .When operating , it oils cylinder and makes it be at the dual pressure and let the sequential valve act , and then it will have multiple boosting pressure .
It's fit for hydraulic special purpose machine and MC clamp in low pressure circuit. It 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 low oil- pressure into high oil- pressure and obtain a high pressure clamping.

Max. operating pressure: 50 kgf/cm²
Min. operating pressure: 20 kgf/cm²

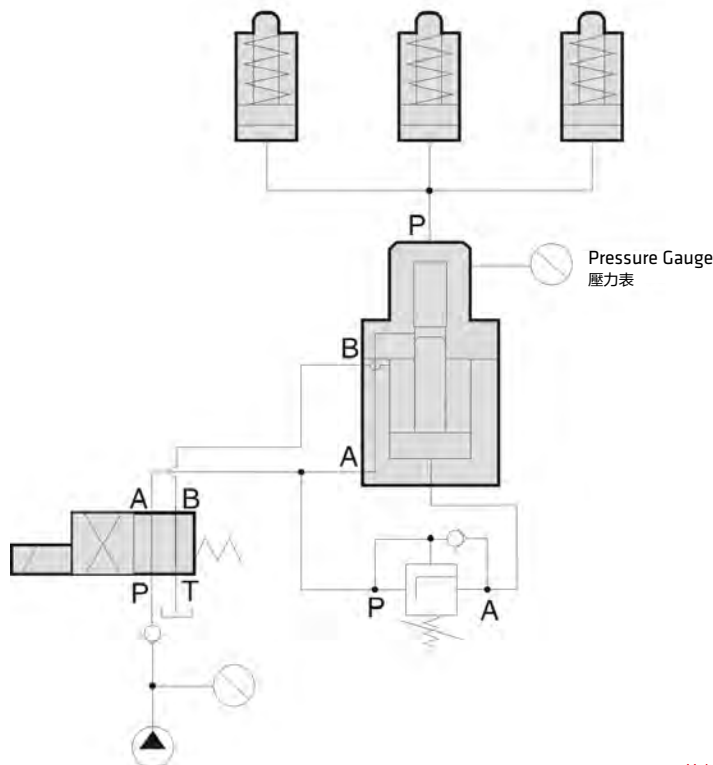
NOTE

Pressure set at 30 kgf/cm² before shipment.

建議最高操作壓力 50kgf/cm²
Max.operation Pressure 50kgf / cm²



回路圖 Circuit diagram



Unit:mm

CSV

油壓順序閥

CSV HYDRAULIC SEQUENCE VALVE



產品特性

此型式油壓順序閥，特別適用於夾具迴路，由壓力決定油壓缸之順序動作，體積小，耐高壓，安裝於迴路中，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。

最大操作壓力：250 kgf/cm²
最小操作壓力：25 kgf/cm²

注意事項

多個順序閥並聯於迴路中使用時，相互間設定壓力差不得小於 10 kgf/cm²。
工作壓力和設定壓力差值必須要 10kgf/cm² 以上。
請根據使用壓力，選用合適作動彈簧。

FEATURES

This series of hydraulic sequence valve is especially ideal for your fitting on the circuit of the fixture. The hydraulic cylinder motion sequences are decided by the pressure .The sequence value features type and Pressure Range 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 of mounting type for choice. A type is a manifold mounting type and B type are a line mounting type. You get a flexible choice of mounting types to suit your fixture design.

Max. operating pressure: 250 kgf/cm²
Min. operating pressure: 25 kgf/cm²

NOTE

You should set the pressure difference not be less than 10 kgf/cm² when multiple sequence valves used in parallel circuit .
Setting the pressure difference and working pressure must be exceeded 10 kgf/cm².
Please choose the appropriate actuation spring according to the working pressure.

訂購標示法

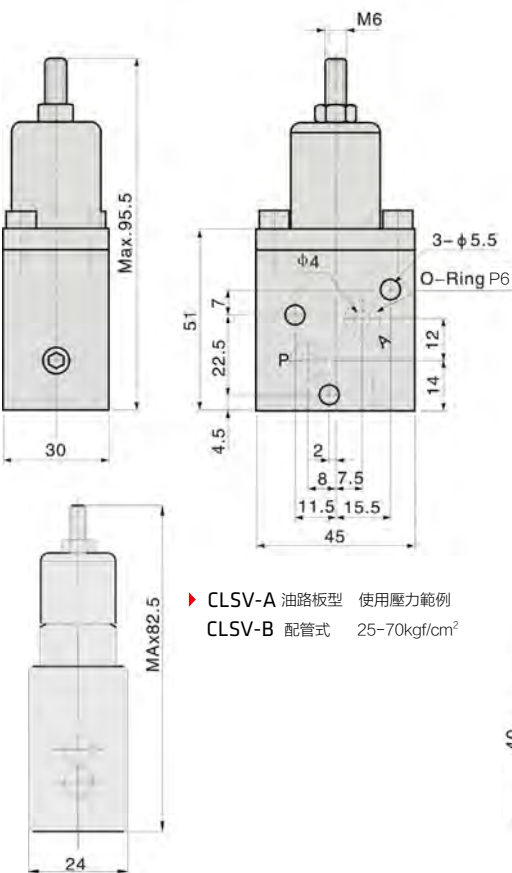
ORDERING INDICATION

CSV-A CLSV-A CSV-B CLSV-B

CSV-A	油路板型	25-250 kgf/cm ²
CLSV-A	Manifold type	25-70 kgf/cm ²
CSV-B	配管式	25-250 kgf/cm ²
CLSV-B	Line type	25-70 kgf/cm ²

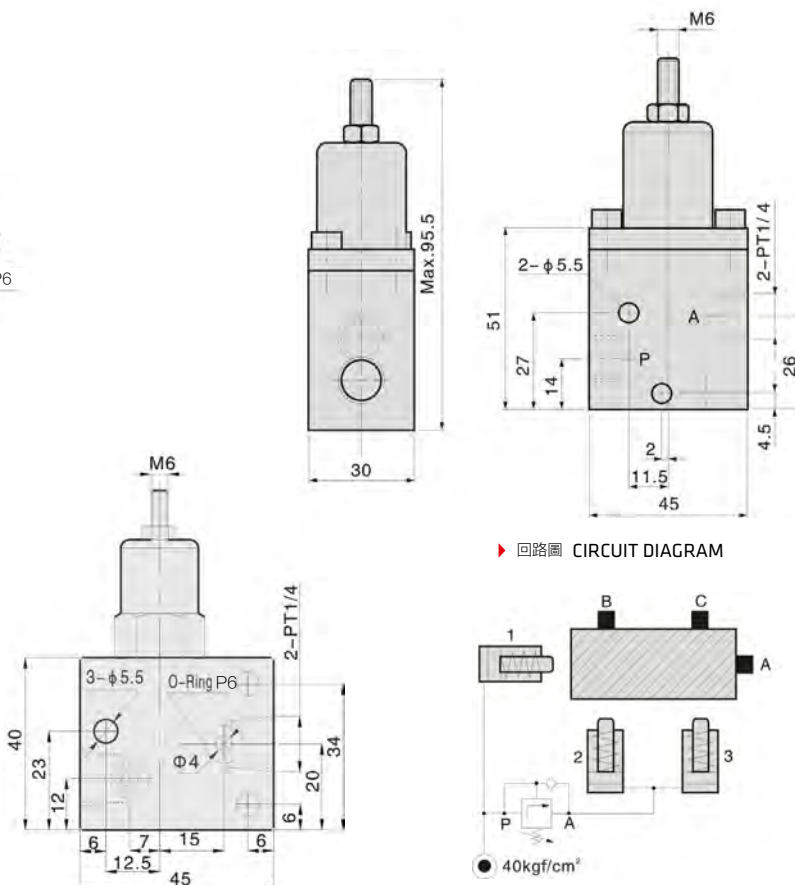
使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

CSV-A

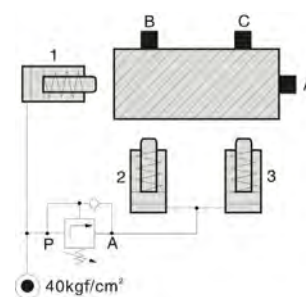


CLSV-A 油路板型 使用壓力範例
CLSV-B 配管式 25-70kgf/cm²

CSV-B



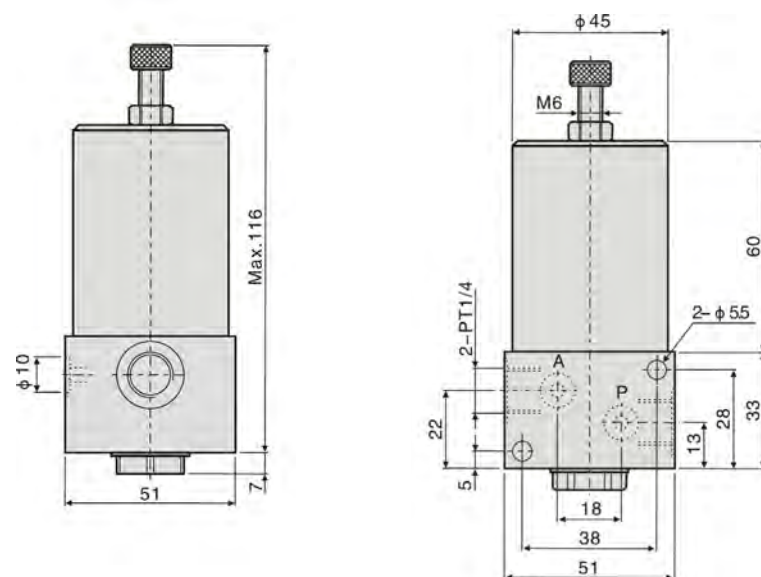
回路圖 CIRCUIT DIAGRAM



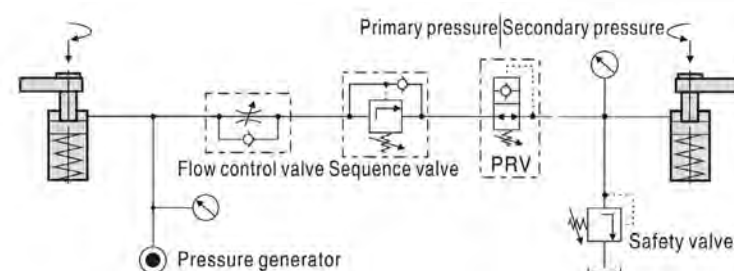
CPRV

油壓減壓閥

CPRV HYDRAULIC PRESSURE REDUCING VALVE



CIRCUIT DIAGRAM



訂購標示法

ORDERING INDICATION

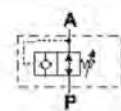
CPRV - M 02 1

CPRV	系列 Series	CPRV
M	接管方式 Piping method	配管式 Blank :Line type 油路板式 M:Manifold
02	型號 Model	02
1	壓力調整範圍 Pressure range (kgf/cm ²)	1 5-30 2 10-50 3 20-120 4 30-240 5 50-380

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32



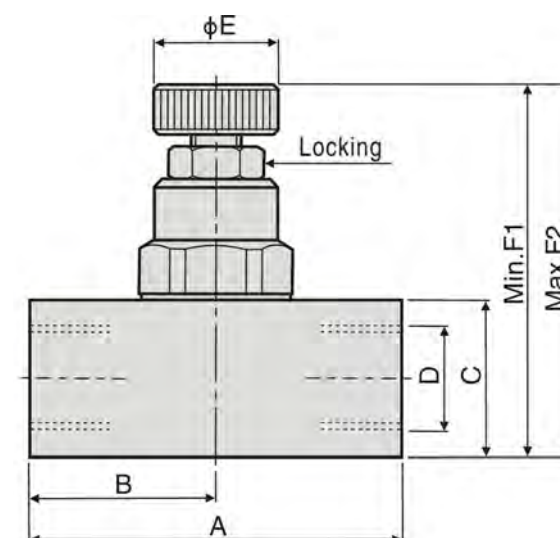
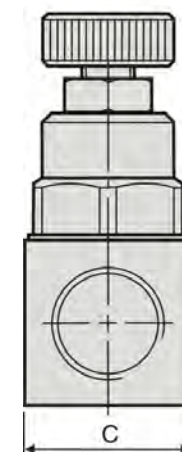
Max. operating pressure: 500 kgf/cm²



CFCV

油壓流量閥

CFCV HYDRAULIC FLOW CONTROL VALVE



Max. operating pressure: 210 kgf/cm²

Unit:mm

MODEL	A	B	C	D	ΦE	F1	F2
CFCV-01	35	19	□ 15.9	PT1/8	Φ12	41	44.5
CFCV-02	45	22.5	□ 19	PT1/4	Φ15	45	48.5

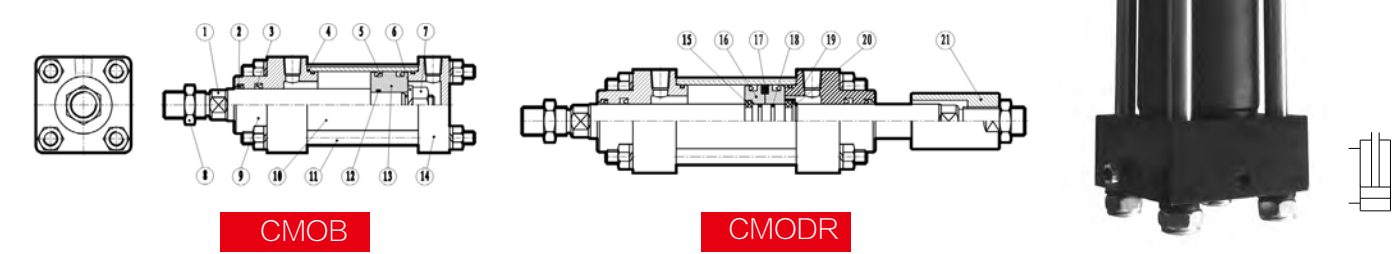
使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

CMO

系列輕型油壓缸

CMO SERIES
HYDRAULIC CYLINDER

▶ 輕型油壓缸結構圖 Inside Structure



NO	零件名 Part name	數量 Quantity	NO	零件名 Part name	數量 Quantity	NO	零件名 Part name	數量 Quantity
1	活塞杆 Piston rod	1	8	軸心螺母 Rod nut	1	15	半卡環 Half snap ring	2
2	防塵油封 Dustproof seal	1	9	前端蓋 Rod cover	1	16	銅活塞 Copper piston	1
3	軸用油封 Oil seal for shaft	1	10	缸筒 Cylinder tube	1	17	磁環 Magnet ring	1
4	O 型圈 Gasket	2	11	拉杆 Tie rod	4	18	O 型圈 Gasket	2
5	活塞油封 Piston seal	2	12	O 型圈 Gasket	1	19	擋環 Baffle ring	1
6	彈性墊圈 Spring washer	1	13	活塞 Piston	1	20	軸用擋圈 Washer on shaft	1
7	螺母 Nut	1	14	後端蓋 End cover	1	21	可調螺母 Adjustable nut	1

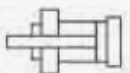
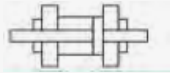
▶ 輕型油壓缸特性資料 Specification

油缸內徑 Hydraulic cylinder inside diameter(mm)	Φ 30	Φ 40	Φ 50	Φ 63	Φ 80	Φ 100	Φ 125
工作媒介 Power 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/AL Tube A6063TDS-T5						
使用壓力範圍 The range of pressure(mpa)	0.3-7.0 MPA(3-70kg/Cm ²)						
使用速度範圍 The range of speed (mm/sec)	8-300(mm/sec)						
使用溫度範圍 Range of temperature(℃)	-10 ~ + 60 (℃)						
標準活塞長度 Length of standard piston (PM)	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 1501-2500 mm	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 2501-4000 mm	120	120	120	120	140	150	150

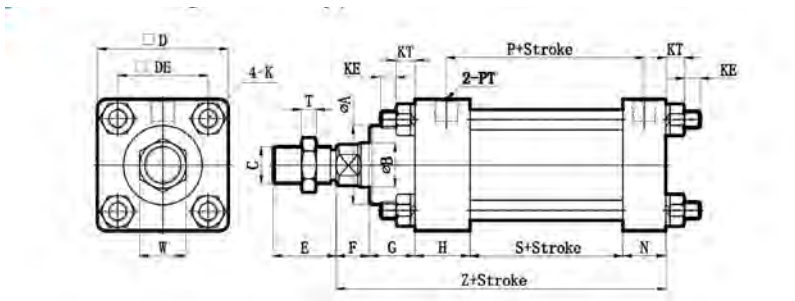
▶ 訂購標示法

ORDERING INDICATION

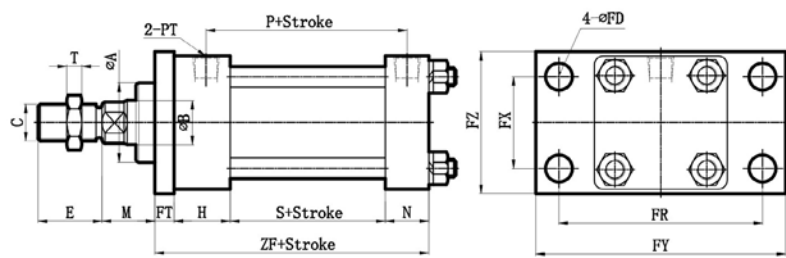
CMOB R D - 63 / 25 *100 LB + Y

CMOB	系列 Series	CMOB 標準型 Standard type			CMOD 雙軸型 Double Rods type			
	R 磁性感應 Magnetic	無記號: 不附磁石 R: 內附磁石	Blank: No magnet R:Magnet					
	D 固定緩衝型式 Fixed Cushioning Type	無記號: 無 Blank: No cushion D: 雙側緩衝 cushions on both ends F: 前蓋側緩衝 cushion on head cover B: 後蓋側緩衝 cushion on end cover						
	63 油缸內徑 Hydraulic cylinder inside diameter	Φ 30 , Φ 40 , Φ 50 , Φ 63 , Φ 80 , Φ 100 , Φ 125						
	25 軸心 Rod	標準 Standard 最大 Max	Φ 16 -	Φ 20 Φ 25	Φ 20 Φ 30	Φ 25 Φ 35	Φ 30 Φ 40	Φ 35 Φ 50
100	行程 Stroke	鋼管 Steel barrel (Φ 30-Φ 125) 白鋼管 Iron barrel (Φ 40-Φ 100) 標準行程 Standard stroke: 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000.		最大行程: 4 米 Max:4m 最大行程: 2.8 米 Max:2.8m				
	LB 缸體固定型式 Accessories	FA 前法蘭型 Front flange			CA 單耳型 Single trunnion			
FB 後法蘭 Rear flange				CB 雙耳型 Double trunnion				
LB 腳座型 Foot mount				CBP CB+Pin CB with pin				
TC 耳軸型 Trunnion type				CAB CA+P+CB				
Y 軸心固定型式 Accessories		Y Y 型接頭 Y joint			PHS 魚眼接頭 Rod-eye joint			
	YP Y+Pin Y with pin			T T 型接頭 T joint				
	I I 型接頭 I joint			H 焊套接頭 Welding sleeve joint				
	KG 浮動接頭 Floating joint			A 可調螺帽 Adjustable nut				

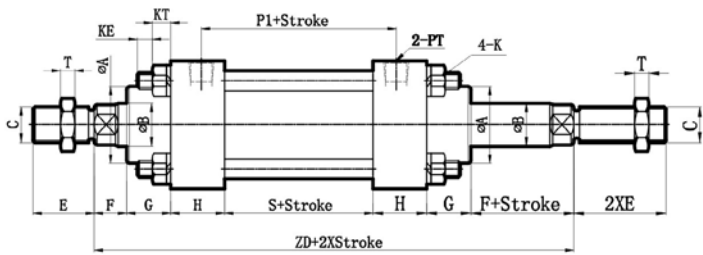
► CMOB 基本型 CMOB BASIC TYPE



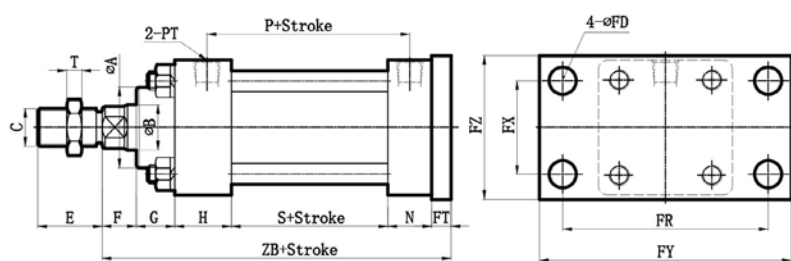
► CMOB+FA 前法蘭型 CMOB+FA FRONT FLANGE TYPE



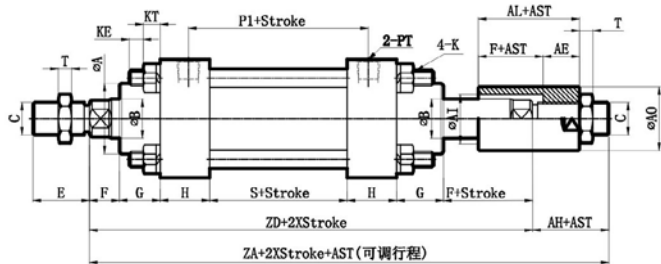
► CMOD 雙軸型 CMOD DOUBLE-END ROD



► CMOB+FB 後法蘭型 CMOB+FB AFTER FLANGE TYPE



► CMOD-A 雙軸可調型 CMOD-A ADJUSTABLE DOUBLE-END ROD



Unit:mm

CMOB-CMOD TYPE																											
BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	N	P	P1	PT	K	KE	KT	S	W	T	Z	ZA	ZD	AH	AE	ΦAI	ΦAO	AL
Φ30	30	16	M14x1.5	50	34	28	13	15	25	25	75	75	1/4"	M8x1.25	8	8.5	50	22	8	128	181	156	25	15	20	30	30
Φ40	40	20	M16x1.5	64	45	28	17	20	30	30	80	80	3/8"	M8x1.25	8	8.5	50	23.5	8	147	209	184	25	15	30	35	35
Φ50	45	20	M16x1.5	70	50	28	17	20	30	28	79	80	3/8"	M10x1.25	10	10.5	50	23.5	8	147	209	184	25	15	30	35	35
Φ63	55	25	M22x1.5	85	60	40	20	30	31	31	81	81	3/8"	M10x1.25	10	10.5	50	32	13	162	247	212	35	20	35	45	40
Φ80	62	30	M26x1.5	106	74	40	20	32	37	35	91	92	1/2"	M12x1.25	10	13	55	35	13	179	268	233	35	20	40	50	40
Φ100	78	35	M30x1.5	122	89	45	20	32	37	37	117	117	1/2"	M14x1.5	10	14.5	80	41	13	206	298	258	40	25	45	60	45
Φ125	85	50	M40x2.0	147	110	55	25	31	40	40	120	120	1/2"	M16x1.5	10	17	80	55	15	216	322	272	50	30	60	80	55

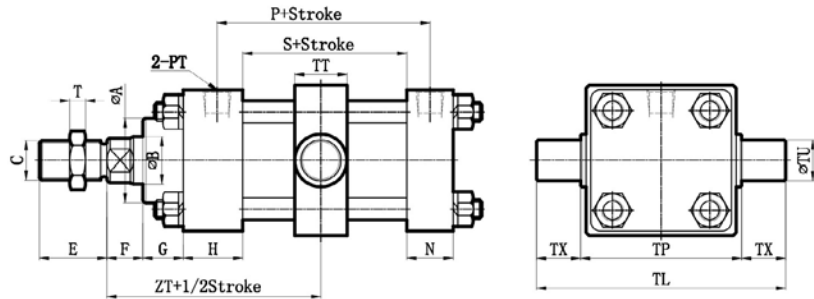
備注:

- 軸心加大如未注明長度尺寸時，依照本公司規定自行加工。
- CMO 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，活塞長度參閱特性資料表。
- CMO 系列行程超過 2000mm(含) 時，須加拉杆中間固定座。
- CMO 系列缸徑 40-50 油缸之行程超過 500mm (含) 以上時，軸心牙改爲 M18*P1.5。
- AST 爲客戶指定之可調行程。

Note:

- For rods extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
- For the CMO series whose stroke is less than 1500mm,the length of piston is shown in the affiliated table,for those customized stroke . which is more than 1500mm,the length of piston conforms to characteristic table.
- Middle rod holder must be installed for those CMO series whose stroke is equal to or more than 2000mm.
- Rod thread should be changed into M18*P1.5 for CMO series bore size 40-50 bore size whose stroke is equal to or more than 500mm.
- AST stands for the adjustable stroke designated by customers.

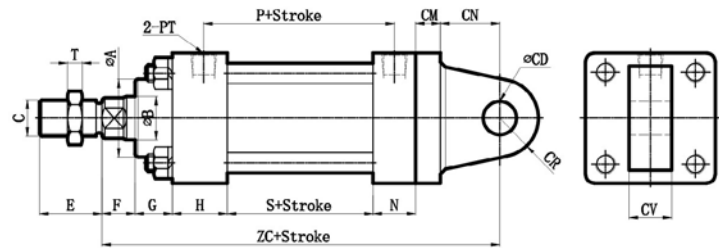
► CMOB+TC 中耳軸型 CMOB+TC MIDDLE TRUNNION TYPE



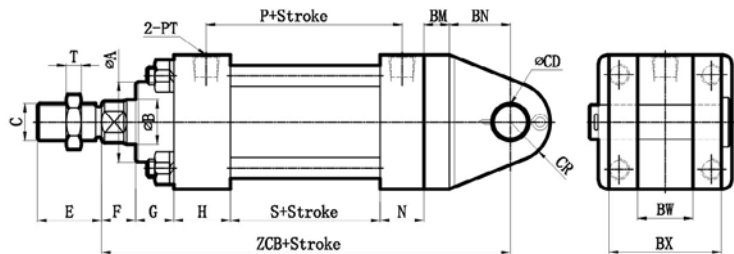
Unit:mm

CMOB TYPE														FA+FB TYPE							TC TYPE							
BORE	ΦA	ΦB	C	E	F	G	H	M	N	P	P1	PT	S	T	ZF	ZB	FD	FT	FR	FX	FY	FZ	ZT	TL	TP	TT	ΦTU	TX
Φ30	30	16	M14x1.5	28	13	15	25	17	25	75	75	1/4"	50	8	111	139	9	11	80	34	105	52	78	87	55	25	16	16
Φ40	40	20	M16x1.5	28	17	20	30	26	30	80	80	3/8"	50	8	121	158	12	11	93	50	115	72	92	127	69	25	18	29
Φ50	45	20	M16x1.5	28	17	20	30	26	28	79	80	3/8"	50	8	119	156	12	11	93	50	115	72	92	153	83	28	20	35
Φ63	55	25	M22x1.5	40	20	30	31	36	31	81	81	3/8"	50	13	126	176	14	14	117	60	140	90	106	170	98	32	25	36
Φ80	62	30	M26x1.5	40	20	32	37	32	35	91	92	1/2"	55	13	147	199	14	20	152	75	180	106	116.5	194	124	35	28	35
Φ100	78	35	M30x1.5	45	20	32	37	32	37	117	117	1/2"	80	13	174	226	16	20	158	90	200	125	129	222	142	38	30	40
Φ125	85	50	M40x2.0	55	25	31	40	36	40	120	120	1/2"	80	15	180	236	18	20	184	110	225	153	136	255	175	40	32	40

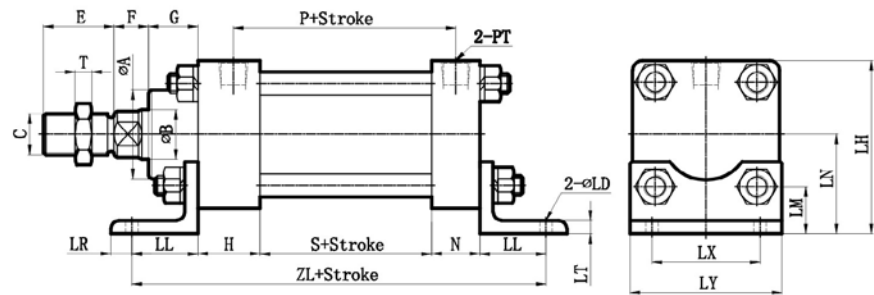
► CMOB+CA 單耳型 Single Trunnion Mounting Type



► CMOB+CB 雙耳型 Double Trunnion Mounting Type



► CMOB+LB 前後腳座型 Front & Rear Foot Mounting Type



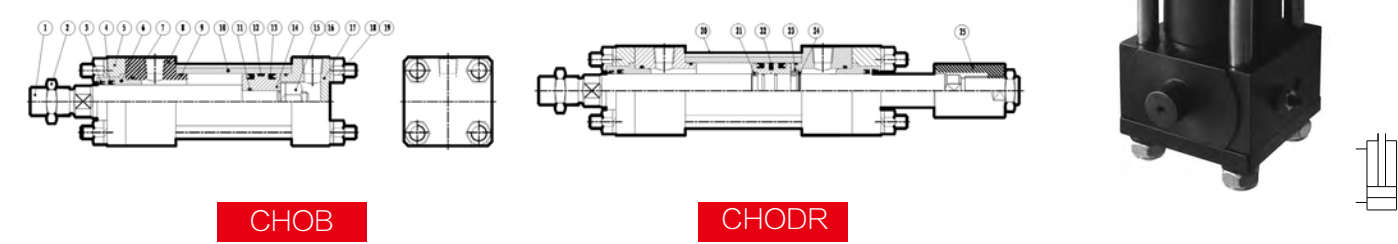
Unit:mm

CMOB TYPE													CA+CB TYPE												TB TYPE											
BORE	ΦA	ΦB	C	E	F	G	H	N	P	PT	S	T	ZC	ΦCD	CR	CM	CN	CV	ZCB	BM	BN	BW	BX	ZL	ΦLD	LH	LN	LM	LL	LR	LT	LX	LY			
Φ30	30	16	M14x1.5	28	13	15	25	25	75	1/4"	50	8	159	10	10	11	20	16	162	12	22	16	48	156	9	60	35	18	28	10	5	34	53			
Φ40	40	20	M16x1.5	28	17	20	30	30	80	3/8"	50	8	183	12	13	11	25	22	187	14	26	22	62	186	9	77	45	22.5	38	12	6	45	68			
Φ50	45	20	M16x1.5	28	17	20	30	28	79	3/8"	50	8	181	12	13	12	24	22	185	14	26	22	68	184	11	81	46	21	38	12	6	50	73			
Φ63	55	25	M22x1.5	40	20	30	31	31	81	3/8"	50	13	212	20	24	19	31	30	212	18	32	30	81	188	11	96	53	23	38	12	6	60	88			
Φ80	62	30	M26x1.5	40	20	32	37	35	91	1/2"	55	13	247	30	30	18	50	30	247	18	50	31	61	199	13	113	60	23	36	14	6	74	105			
Φ100	78	35	M30x1.5	45	20	32	37	37	117	1/2"	80	13	279	35	35	18	55	35	279	18	55	36	76	250	16	139	78	33.5	48	27	9	89	127			
Φ125	85	50	M40x2.0	55	25	31	40	40	120	1/2"	80	15	289	35	35	18	55	35	289	18	55	36	76	262	18	161	87	32	51	24	9	110	150			



CHO SERIES
HYDRAULIC CYLINDER

► 重型油壓缸結構圖 Inside Structure



NO	零件名 Part name	數量 Quantity	NO	零件名 Part name	數量 Quantity	NO	零件名 Part name	數量 Quantity
1	活塞杆 Piston rod	1	9,11	O 型圈 Gasket	3	18	螺母 nut	8
2	鎖緊螺母 Locking nut	1	10	缸筒 Cylinder tube	1	19	彈性墊圈 Spring washer	8
3	防塵油封 Dustproof seal	1	12	耐磨環 Wearing ring	1	20	拉杆 Tie rod	4
4	軸用油封 Oil seal for shaft	1	13	活塞油封 Piston seal	2	21	半卡環 Half snap ring	2
5	壓蓋 Gland	1	14	活塞 Piston	1	22	磁環 Magnet ring	1
6	導向套 Guide sleeve	1	15	螺母 Nut	1	23	擋環 Baffle ring	1
7	O 型圈 Gasket	1	16	彈性墊圈 Spring washer	1	24	軸用擋圈 Rod baffle ring	1
8	前端蓋 Rod cover	1	17	後端蓋 End cover	1	25	可調螺母 Adjustable nut	1

► 重型油壓缸特性資料 Specification

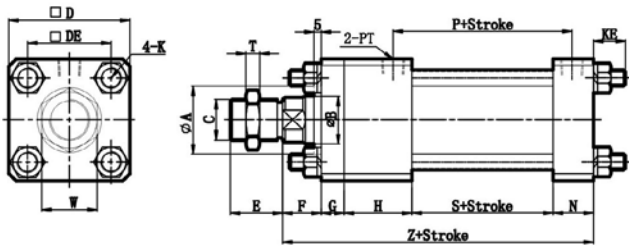
油缸內徑 Hydraulic cylinder inside diameter(mm)	Φ 40	Φ 50	Φ 63	Φ 80	Φ 100	Φ 125	Φ 150	Φ 180	Φ 200
工作媒介 Power Fluid	以濾清之標準液壓油 Filtered Oil								
缸管材質 Material of cylinder barrel	碳鋼管 Carbon steel STKM-13C/ 白鐵管 Stainless tubes SUS 304								
使用壓力範圍 The range of pressure(mpa)	0.3~14MPA(3~140kg/Cm ²)								
使用速度範圍 The range of speed (mm/sec)	8~300(mm/sec)								
使用溫度範圍 Range of temperature(℃)	-10 ~ + 60 (℃)								
緩衝行程 Cushion stroke(mm)	25	25	25	30	35	40	45	50	55
標準活塞長度 Length of standard piston (PM)	30	35	35	50	60	70	60	70	70
訂制行程于 1501-2500mm 時活塞長度 (PM) Piston length when the stroke is between 1501-2500 mm	60	70	70	80	100	100	100	140	140
訂制行程于 2501-4000mm 時活塞長度 (PM) Piston length when the stroke is between 2501-4000 mm	120	140	140	150	180	180	180	200	200

► 訂購標示法

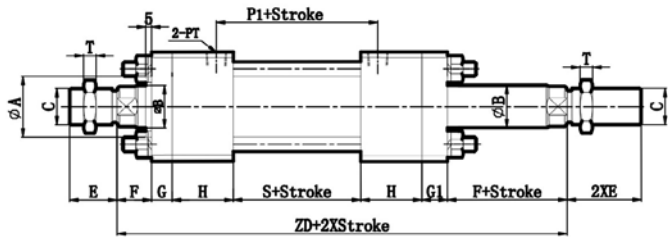
ORDERING INDICATION **CHOB R D - 63 / 35 * 100 LB + Y**

CHOB	系列 Series	CHOB 標準型 Standard type	CHOD 雙軸型 Double Rods type
R	磁性感應 Magnetic	無記號: 不附磁石 Blank: No magnet R: 內附磁石 (適用 Φ40-Φ100) With magnet	本系列適用 Φ40-Φ100 apply to bore Φ40-Φ100
D	緩衝型式 Fixed Cushioning Type	無記號: 無 Blank: No cushion D: 雙側緩衝 cushions on both ends F: 前蓋側緩衝 cushion on head cover B: 後蓋側緩衝 cushion on end cover	
63	油缸內徑 Hydraulic cylinder inside diameter	Φ 40 , Φ 50 , Φ 63 , Φ 80 , Φ 100 , Φ 125 , Φ 150 , Φ 180 , Φ 200	
35	軸心 Rod	標準 Standard Φ 25 Φ 30 Φ 35 Φ 40 Φ 50 Φ 60 Φ 80 Φ 100 Φ 100 最大 Max -Φ 35 Φ 40 Φ 50 Φ 60 Φ 80 Φ 100 Φ 120 Φ 120	無記號: 標準軸心 Blank: standard rod
100	行程 Stroke	鋼管 Steel barrel (Φ 40-Φ 125) 白鋼管 Iron barrel (Φ 40-Φ 100) 標準行程 Standard stroke: 50 , 100 , 150 , 200 , 250 , 300 , 350 , 400 , 450 , 500 , 600 , 700 , 800 , 900 , 1000 .	最大行程: 4 米 Max:4m 最大行程: 2.8 米 Max:2.8m
LB	缸體固定型式 Accessories	FA 前法蘭型 Front flanget type FB 後法蘭型 Rear flange type LB 腳座型 Foot type TC 耳軸型 Trunnion type LA 腳座型 Foot type	CA 單耳型 Single trunnion type CB 雙耳型 Double trunnion type CBP CB 附 Pin CB with pin CAB CA+P+CB
Y	軸心固定型式 Accessories	Y Y 型接頭 Y joint YP Y 附 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 焊套接頭 Welding joint A 可調螺帽 Adjustable nut

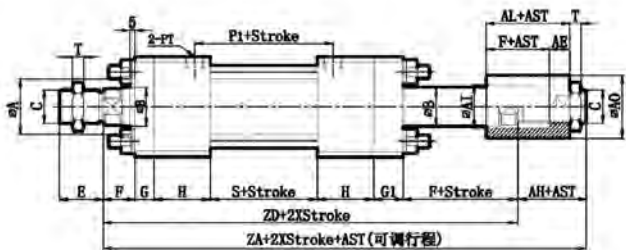
▶ CHOB 基本型 CHOB BASIC TYPE



▶ CHOB 雙軸型 CHOB DOUBLE END ROD TYPE



▶ CHOD-A 雙軸型附可調帽 CHOD-A ADJUSTABLE DOUBLE END ROD TYPE



Unit:mm

CHOB-CHOD-TYPE																							A(可調行程)TYPE				
BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	N	P	P1	PT	K	KE	G1	S	T	W	Z	ZD	ZA	AH	AE	AI	AO	AL
Φ40	40	25	M22xP1.5	65	45	40	20	17	33	28	76	74	3/8"	M10x1.5	20.5	22	50	13	32	148	195	230	35	20	30	45	40
Φ50	50	30	M26xP1.5	80	56	40	20	17	38	30	85	85	3/8"	M12x1.5	23	22	55	13	35	160	210	250	40	25	37	55	45
Φ63	55	35	M30xP1.5	90	63	45	20	17	38	30	85	85	3/8"	M14x1.5	24.5	22	55	13	41	160	210	250	40	25	42	60	45
Φ80	60	40	M30xP1.5	110	80	45	20	20	38	35	107	105	1/2"	M16x1.5	27	25	75	13	41	188	236	281	45	30	47	70	50
Φ100	80	50	M40xP2.0	131	95	55	25	20	41	37	123.5	120	1/2"	M18x1.5	29.5	25	90	15	55	213	267	312	45	30	57	90	55
Φ125	90	60	M50xP2.0	162	122	70	35	30	57	47	143	140	3/4"	M22x1.5	33.5	35	100	15	65	269	349	399	50	35	68	100	70
Φ150	110	80	M70xP2.0	195	144	80	35	30	60	50	135	130	3/4"	1"-8UNC	46	35	90	20	90	265	345	405	60	40	90	120	75
Φ180	135	100	M90xP2.0	235	175	100	35	40	65	55	172	170	1"	M30x2.0	59	45	120	20	110	315	405	470	65	45	110	150	75
Φ200	135	100	M90xP2.0	262	193	100	40	40	65	60	175	170	1"	M33x2.0	59	45	120	20	110	325	415	480	65	40	110	150	80

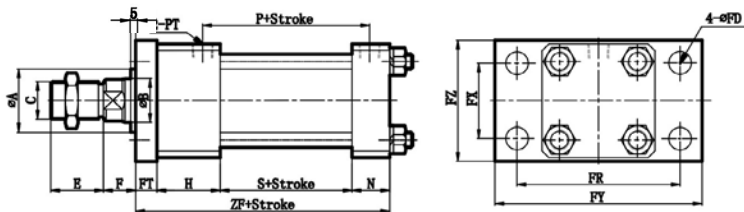
備注: ▼

- 軸心加大如未注明長度尺寸時，依照本公司規定自行加工。
- CHO 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。
- 本系列行程超過 2000mm(含)時，須加拉杆中間固定座。
- 本系列行程軸心螺帽規格 M50mm(含)以上時，其外徑為圓形。
- AST 為客戶指定之可調行程。

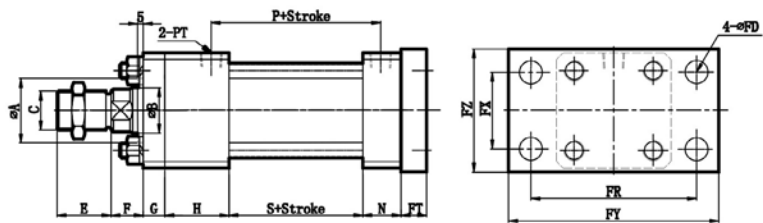
Note: ▼

- For rods extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
- For the CHO series whose stroke is less than 1500mm,the length of the piston is shown in the affiliated table,for those customized stroke . Which is more than 1500mm,the length of piston conforms to characteristic table.
- Middle rod holder must be installed for those CHO series whose stroke is equal to or more than 2000mm.
- The external diameter would be round when the size of red nut is equal to or more than M50mm.
- AST stands for adjustable stroke designated by customers.

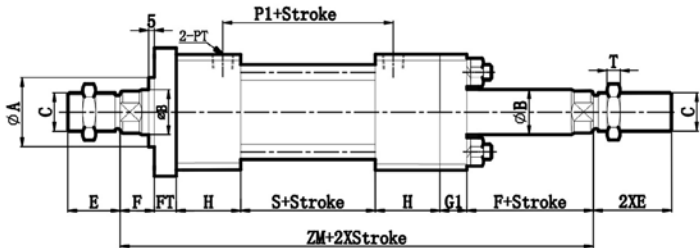
▶ CHOB-FA 前法蘭型 CHOB-FA FRONT FLANGE TYPE



▶ CHOB-FB 後法蘭型 CHOB-FB AFTER FLANGE TYPE



▶ CHOD-FA 雙軸前法蘭型 CHOD-FA DOUBLE END FRONT FLANGE TYPE



CHOB-CHOD TYPE																FA-FB TYPE					
BORE	ΦA	ΦB	C	E	F	G	H	N	P	P1	PT	S	G1	ZF	ZM	ΦFD	FR	FT	FX	FY	FZ
Φ40	40	25	M22xP1.5	40	20	17	33	28	76	74	3/8"	50	22	128	175	12	93	17	50	115	75
Φ50	50	30	M26xP1.5	40	20	17	38	30	85	85	3/8"	55	22	140	190	14	110	17	56	150	85
Φ63	55	35	M30xP1.5	45	20	17	38	30	85	85	3/8"	55	22	140	190	14	126	17	68	155	95
Φ80	60	40	M30xP1.5	45	20	20	38	35	107	105	1/2"	75	25	168	216	18	152	20	75	190	120
Φ100	80	50	M40xP2.0	55	25	20	41	37	123.5	120	1/2"	90	25	188	242	20	180	20	100	220	140
Φ125	90	60	M50xP2.0	70	35	30	57	47	143	140	3/4"	100	35	234	314	24	222	30	122	280	170
Φ150	110	80	M70xP2.0	80	35	30	60	50	135	130	3/4"	90	35	230	310	28	260	30	155	310	206
Φ180	135	100	M90xP2.0	100	35	40	65	55	172	170	1"	120	45	280	370	35	315	40	188	375	250
Φ200	135	100	M90xP2.0	100	40	40	65	60	175	170	1"	120	45	285	375	35	355	40	207	425	272

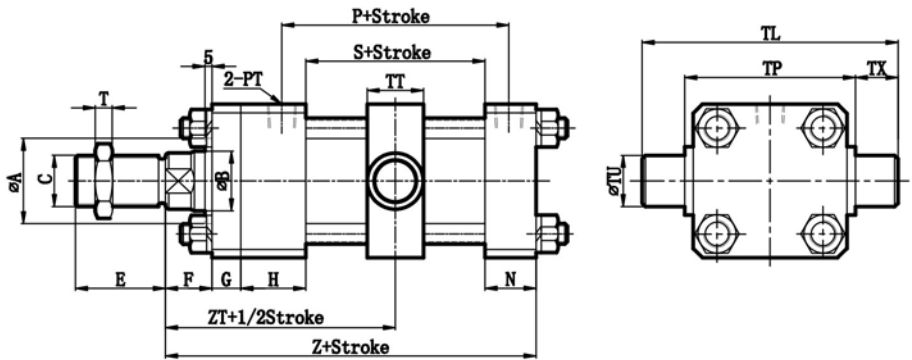
備注: ▼

- 軸心加大如未注明長度尺寸時，依照本公司規定自行加工。
- CHO 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。
- 本系列軸心螺帽規格 M50mm（含以上時），其外徑為圓形。

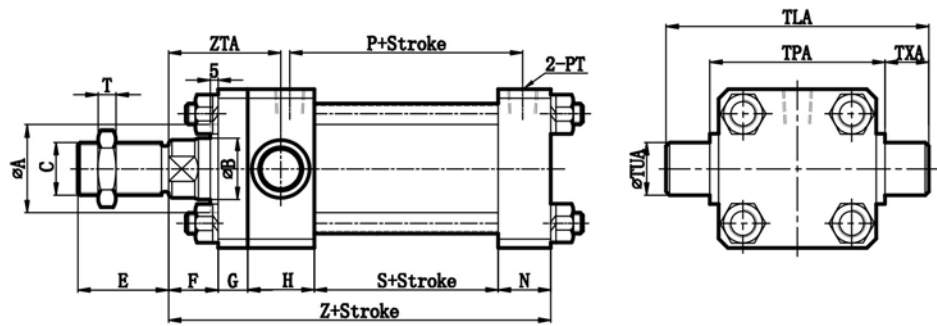
Note: ▼

- For rods extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
- For the CHO series whose stroke is less than 1500mm,the length of piston is shown in the affiliated table,for those customized stroke . which is more than 1500mm,the length of piston conforms to characteristic table.
- The external diameter would be shound when the size of rod nut is more than M50mm.

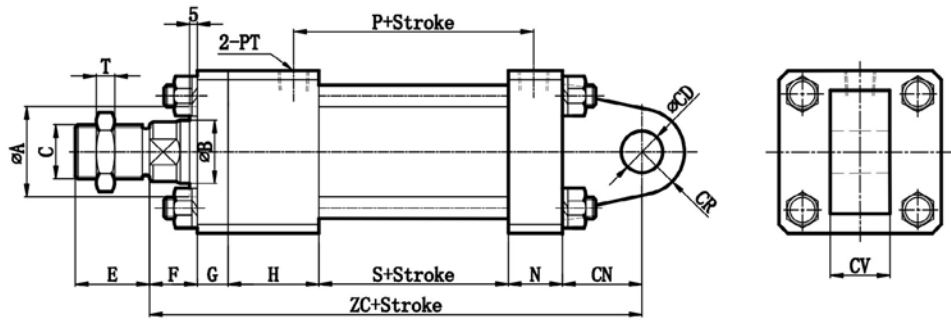
► CHOB+TC 中耳軸型 CHOB+TC MIDDLE TRUNNION TYPE



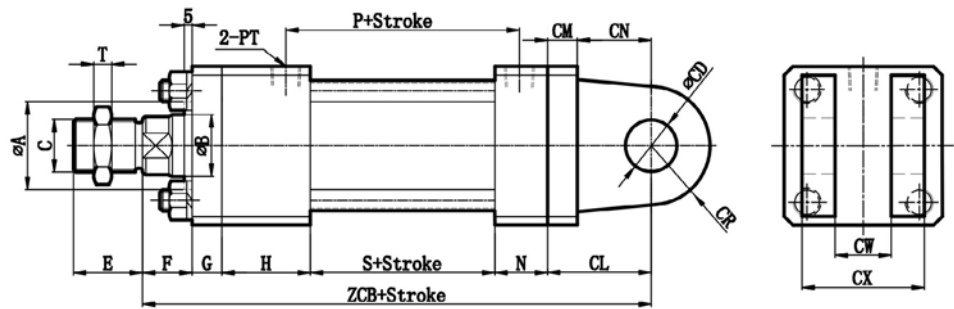
► CHOB+TA 前耳軸型 CHOB+TA FRONT TRUNNION TYPE



► CHOB+CA 單耳環型 CHOB+CA SINGLE EARRINGS



► CHOB+CB 雙耳環型 CHOB+CB DOUBLE EARRINGS



Unit:mm

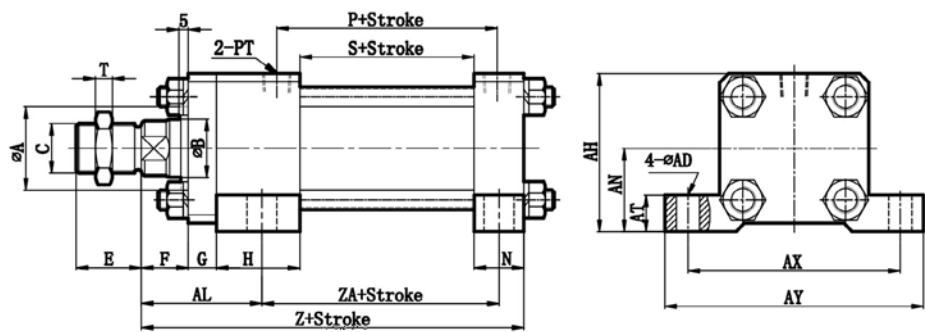
CHOB TYPE													TC TYPE						TA TYPE				
BORE	ϕB	C	E	F	G	H	N	P	PT	S	T	Z	ZT	ϕTU	TL	TP	TT	TX	ϕTUA	TLA	TPA	TXA	ZTA
$\Phi 40$	25	M22xP1.5	40	20	17	33	28	76	3/8"	50	13	148	95	20	115	75	28	20	20	109	69	20	53.5
$\Phi 50$	30	M26xP1.5	40	20	17	38	30	85	3/8"	55	13	160	102.5	25	140	90	33	25	25	134	84	25	56
$\Phi 63$	35	M30xP1.5	45	20	17	38	30	85	3/8"	55	13	160	102.5	32	166	102	40	32	30	154	94	30	56
$\Phi 80$	40	M30xP1.5	45	20	20	38	35	107	1/2"	75	13	188	115.5	32	184	120	43	32	30	174	114	30	59
$\Phi 100$	50	M40xP2.0	55	25	20	41	37	123.5	1/2"	90	15	213	131	40	220	140	53	40	35	205	135	35	65.5
$\Phi 125$	60	M50xP2.0	70	35	30	57	47	143	3/4"	100	15	269	172	50	275	175	58	50	45	258	168	45	93.5
$\Phi 150$	80	M70xP2.0	80	35	30	60	50	135	3/4"	90	20	265	170	60	326	206	73	60	50	300	200	50	95
$\Phi 180$	100	M90xP2.0	100	35	40	65	55	172	1"	120	20	315	200	80	403	243	98	80					
$\Phi 200$	100	M90xP2.0	100	40	40	65	60	175	1"	120	20	325	205	90	452	272	108	90					

備注：標準 CHOB+TA 型缸徑為 $\Phi 40$ – $\Phi 150$ 。Note: Bore size of "CHOB+TA" type: $\Phi 40$ – $\Phi 50$ mm

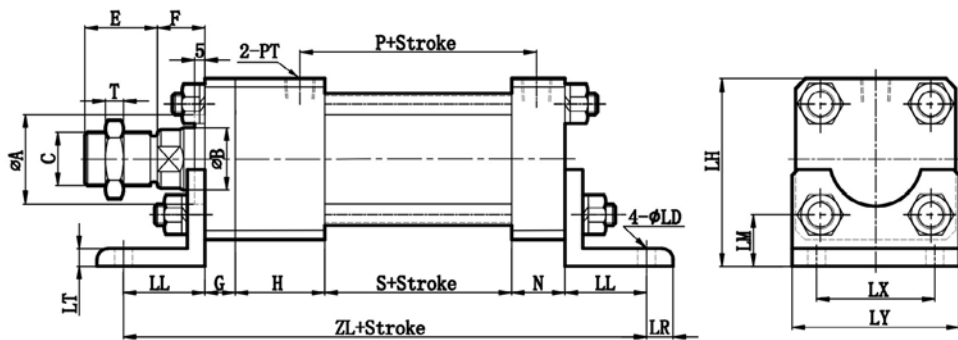
Unit:mm

CHOB TYPE														CA+CB TYPE							
BORE	ΦB	C	E	F	G	H	N	P	PT	S	T	ZC	ZCB	ΦCD	CL	CM	CN	CR	CV	CW	CX
Φ40	25	M22xP1.5	40	20	17	33	28	76	3/8"	50	13	173	190	16	42	17	25	15	22	23	47
Φ50	30	M26xP1.5	40	20	17	38	30	85	3/8"	55	13	195	212	20	52	17	35	20	22	23	47
Φ63	35	M30xP1.5	45	20	17	38	30	85	3/8"	55	13	205	222	25	62	17	45	25	30	31	59
Φ80	40	M30xP1.5	45	20	20	38	35	107	1/2"	75	13	238	258	30	70	20	50	30	35	36	76
Φ100	50	M40xP2.0	55	25	20	41	37	123.5	1/2"	90	15	273	293	35	80	20	60	35	40	41	81
Φ125	60	M50xP2.0	70	35	30	57	47	143	3/4"	100	15	339	369	50	100	30	70	50	55	56	106
Φ150	80	M70xP2.0	80	35	30	60	50	135	3/4"	90	20	345	375	60	110	30	80	60	60	61	121
Φ180	100	M90xP2.0	100	35	40	65	55	172	1"	120	20	415	455	80	140	40	100	80	80	81	161
Φ200	100	M90xP2.0	100	40	40	65	60	175	1"	120	20	435	475	90	150	40	110	90	90	91	171

▶ CHOB+LA 左右脚座型 CHOB+LA FEET SEAT TYPE



▶ CHOB+LB 前後脚座型 CHOB+LB COURSE OF A TYPE



Unit:mm

CHOB TYPE												LA TYPE								LB TYPE									
BORE	ΦB	C	E	F	G	H	N	P	PT	S	T	ZA	Z	AN	AH	AL	ΦAD	AT	AX	AY	ZL	ΦLD	LL	LM	LR	LT	LX	LY	LH
Φ40	25	M22xP1.5	40	20	17	33	28	76	3/8"	50	13	80.5	148	37	69.5	53.5	12	14	90	112	203	11	37.5	23.5	12.5	6	45	68	78.5
Φ50	30	M26xP1.5	40	20	17	38	30	85	3/8"	55	13	89	160	45	85	56	14	17	115	140	224	14	42	26	22	8	56	85	94
Φ63	35	M30xP1.5	45	20	17	38	30	85	3/8"	55	13	89	160	50	95	56	14	19	128	156	228	16	44	26	22	8	62	95	102
Φ80	40	M30xP1.5	45	20	20	38	35	107	1/2"	75	13	111.5	188	60	115	59	18	25	152	184	294	18	63	36	27	13	80	120	131
Φ100	50	M40xP2.0	55	25	20	41	37	123.5	1/2"	90	15	129	213	70	135.5	65.5	21	27	178	210	320	20	66	45.5	24	15	100	140	158.5
Φ125	60	M50xP2.0	70	35	30	57	47	143	3/4"	100	15	152	269	90	171	93.5	24	30	230	280	394	24	80	53	30	15	122	169	195
Φ150	80	M70xP2.0	80	35	30	60	50	135	3/4"	90	20	145	265	113	208	95	28	35	270	325	390	28	80	53	30	20	144	200	220
Φ180	100	M90xP2.0	100	35	40	65	55	172	1"	120	20	180	315	143	260.5	107	35	45	330	395	460	35	90	62.5	40	20	175	240	267.5
Φ200	100	M90xP2.0	100	40	40	65	60	175	1"	120	20	182.5	325	161	292	112	35	50	360	430	475	35	95	73.5	40	25	193	265	301

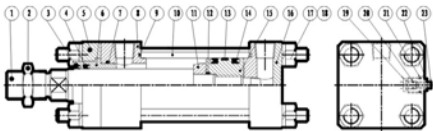


CFO

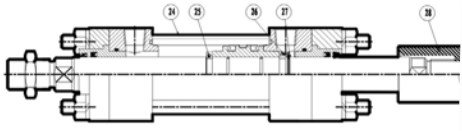
系列可調緩衝油壓缸

CFO SERIES 14MPA ADJUSTABLE CUSHIONING HYDRAULIC CYLINDER

▶可調緩衝油壓缸結構圖 Inside Structure



CFOBD



CFODD



NO	零件名 Part name	數量 Quantity	NO	零件名 Part name	數量 Quantity	NO	零件名 Part name	數量 Quantity
1	活塞杆 Piston rod	1	10	缸筒 Cylinder tube	1	19	可調螺母 Adjustable nut	1
2	鎖緊螺母 Locking nut	1	11	緩衝套 Cushion collar	1	20,21	O 型圈 Gasket	2
3	防塵油封 Dustproof seal	1	12	O 型圈 Gasket	1	22	六角螺母 Hexagon nut	1
4	軸用油封 Oil seal for shaft	1	13	耐磨環 Wearing ring	1	23	調節絲杆 Adjustable lead screw	1
5	壓蓋 Gland	1	14	活塞油封 Piston seal	2	24	拉杆 Tie rod	4
6	導向套 Guide sleeve	1	15	活塞 Piston	1	25	半卡環 Half snap ring	2
7	O 型圈 Gasket	1	16	後端蓋 End cover	1	26	擋環 Baffle ring	1
8	前端蓋 Rod cover	1	17	螺母 Nut	8	27	軸用擋圈 Rod baffle ring	1
9	O 型圈 Gasket	2	18	彈性墊圈 Spring washer	8	28	可調螺母 Adjustable nut	1

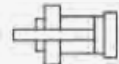
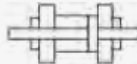
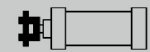
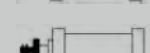
▶可調緩衝油壓缸特性資料 Specification

油缸內徑 Hydraulic cylinder inside diameter(mm)	Φ 40	Φ 50	Φ 63	Φ 80	Φ 100	Φ 125
工作媒介 Power 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 The range of pressure(mpa)	0.3-14MPA(3-140kg/CM ²)					
使用速度範圍 The range of speed (mm/sec)	8-300(mm/sec)					
使用溫度範圍 Range of temperature(℃)	-10 ~ + 60 (℃)					
緩衝行程 (Cushion stroke)mm	25	25	25	25	30	30
標準活塞長度 Length of standard piston (PM)	30	32	36	40	59	59
訂制行程于 1501-2500mm 間活塞長度 (PM) Piston length when the stroke is between 1501-2500 mm	60	65	65	80	120	120

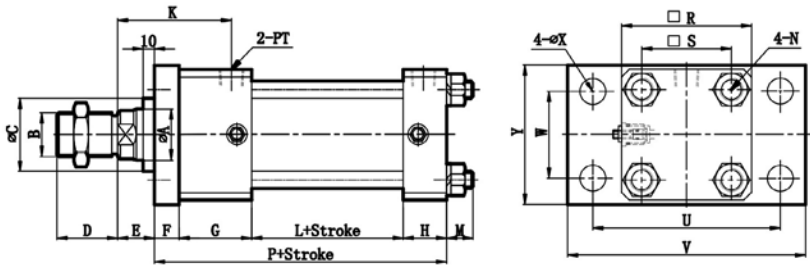
▶訂購標示法

ORDERING INDICATION

CFOB R D - 63 / 35 * 100 LB + Y

CFOB	系列 Series	CFOB 標準型 Standard type						CFOD 雙軸型 Double Rods type		
R	磁性感應 Magnetic	無：不附磁石 Z：內附磁石（適用 Φ40-Φ100）						Blank: No magnet Z: With magnet	本系列適用 Φ40-Φ100 apply to boreΦ40-Φ100	
D	固定緩衝型式 Fixed Cushioning Type	無記號：無緩衝 Blank: No cushion D: 雙側緩衝 cushions on both ends F: 前蓋側緩衝 cushion on head cover B: 後蓋側緩衝 cushion on end cover								
63	油缸內徑 Hydraulic cylinder inside diameter	Φ40, Φ50, Φ63, Φ80, Φ100, Φ125								
35	軸心 Rod	Φ20	Φ30	Φ35	Φ40	Φ50	Φ60	無記號：標準軸心 Blank: standard rod		
100	行程 Stroke	鋼管 Steel barrel（Φ40-Φ200） 最大行程：4 米 Max:4m 白鋼管 Iron barrel（Φ40-Φ100） 最大行程：2.8 米 Max:2.8m 標準行程 standard stroke（mm）:50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000								
LB	缸體固定型式 Accessories	FA	前法蘭型 Front flange type					LA	腳座型 Foot type	
		FB	後法蘭型 Rear flange type					TC	耳軸型 Trunnion type	
		LB	腳座型 Foot type					CA	單耳型 Single trunnion type	
		CB	雙耳環型 Double trunnion type							
		CBP	CB 附 Pin CB with pin					CAB	CA+P+CB	
Y	軸心固定型式 Accessories	Y	Y 型接頭 Y joint					PHS	魚眼接頭 Rod-eye joint	
		YP	Y+Pin Y with pin					T	T 型接頭 T joint	
		I	I 型接頭 I joint					H	焊套接頭 Welding sleeve joint	
		KG	浮動接頭 Floating joint					A	可調螺帽 Adjustable nut	

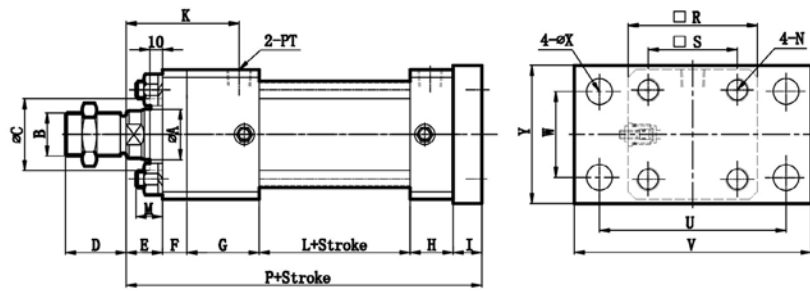
▶ 標準 CFOBD+FA 型 前法蘭型 Front Flange Mounting Type



Unit:mm

本體尺寸 dimension																安裝相關尺寸 mounting dimension							
BORE	A	B	D	E	F	G	H	K	L	M	N	P	R	S	PT	I	C	U	V	W	X	Y	
Φ40	20	M18x1.5	30	20	11	36	26	54	50	13	M10x1.5	143	65	45	1/4"	11	40	95	118	46	11	69	
Φ50	30	M26x1.5	35	30	13	42	34	68	50	13	M10x1.5	169	75	52	3/8"	13	45	115	145	58	13	85	
Φ63	35	M30x1.5	40	35	15	42	34	75	50	15	M12x1.75	176	90	63	3/8"	15	55	132	165	69	15	98	
Φ80	40	M35x1.5	45	35	18	46	40	79	50	17	M16x1.5	189	110	80	1/2"	18	55	155	190	87	18	118	
Φ100	50	M45x1.5	55	40	20	50	40	90	69	19	M18x1.5	219	135	98	1/2"	20	65	185	224	109	20	145	
Φ125	60	M50x2.0	65	45	24	58	48	104	69	21	M22x1.5	244	165	122	3/4"	24	75	224	272	132	24	175	

▶ 標準 CFOBD+FB 型 後法蘭型 Rear Flange Mounting Type



Unit:mm

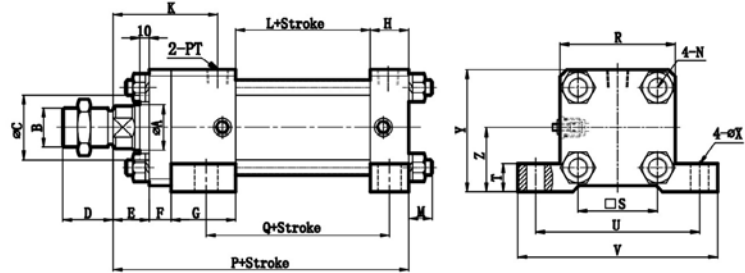
本體尺寸 dimension																安裝相關尺寸 mounting dimension							
BORE	A	B	D	E	F	G	H	K	L	M	N	C	R	S	PT	I	P	U	V	W	X	Y	
Φ40	20	M18x1.5	30	20	11	36	26	54	50	13	M10x1.5	40	65	45	1/4"	11	154	95	118	46	11	69	
Φ50	30	M26x1.5	35	30	13	42	34	68	50	13	M10x1.5	45	75	52	3/8"	13	182	115	145	58	13	85	
Φ63	35	M30x1.5	40	35	15	42	34	75	50	15	M12x1.75	55	90	63	3/8"	15	191	132	165	69	15	98	
Φ80	40	M35x1.5	45	35	18	46	40	79	50	17	M16x1.5	55	110	80	1/2"	18	207	155	190	87	18	118	
Φ100	50	M45x1.5	55	40	20	50	40	90	69	19	M18x1.5	65	135	98	1/2"	20	239	185	224	109	20	145	
Φ125	60	M50x2.0	65	45	24	58	48	104	69	21	M22x1.5	75	165	122	3/4"	24	268	224	272	132	24	175	

備注: ▼

- 軸心加大如未注明長度尺寸時，依照本公司規定自行加工。
- CFO 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。
- 本系列行程如超過 2000(含) mm 時，須加拉杆中間固定座。
- 本系列軸心螺帽規格 M50mm（含）以上時，其外徑為圓形。
- AST 為客戶指定之可調行程。

- For axis extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
- For the CFO series whose stroke is less than 1500mm,the length of the piston is shown in the affiliated table,for those customized CFO whose stroke is more than 1500mm,the length of piston conforms to product specification.
- Middle rod holder must be installed for those HO whose stroke is equal to or more than 2000mm.
- The external diameter would be round when the size of rod nut is equal to or more than M50mm.
- AST stands for the adjustable stroke designated by customers.

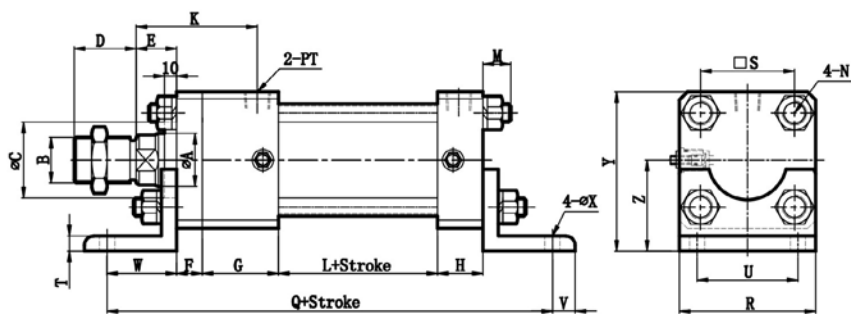
▶ 標準 CFOBD+LA 型 左右腳座型 Right & Left Foot Mounting Type



Unit:mm

本體尺寸 dimension																安裝相關尺寸 mounting dimension							
BORE	A	B	D	E	F	G	H	K	L	M	N	C	R	S	PT	P	Q	T	U	V	X	Y	Z
Φ40	20	M18x1.5	30	20	11	36	26	54	50	13	M10x1.5	40	65	45	1/4"	143	81	13	90	112	11	65	32.5
Φ50	30	M26x1.5	35	30	13	42	34	68	50	13	M10x1.5	45	75	52	3/8"	169	88	15	109	132	13	75	37.5
Φ63	35	M30x1.5	40	35	15	42	34	75	50	15	M12x1.75	55	90	63	3/8"	176	88	18	128	154	15	90	45
Φ80	40	M35x1.5	45	35	18	46	40	79	50	17	M16x1.5	55	110	80	1/2"	189	93	20	152	184	18	110	55
Φ100	50	M45x1.5	55	40	20	50	40	90	69	19	M18x1.5	65	135	98	1/2"	219	114	24	178	210	20	135	67.5
Φ125	60	M50x2.0	65	45	24	58	48	104	69	21	M22x1.5	75	165	122	3/4"	244	122	28	211	250	24	165	82.5

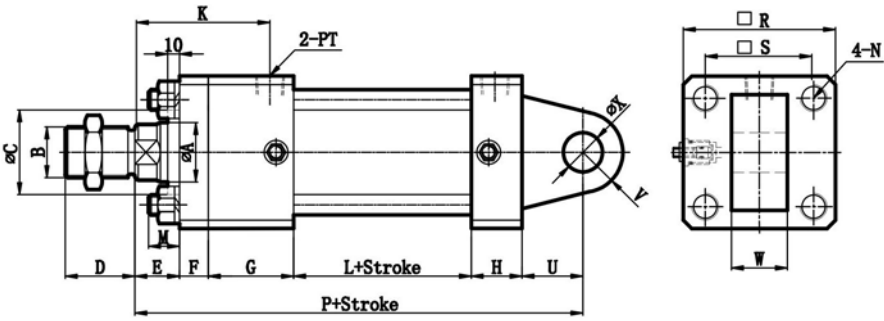
▶ 標準 CFOBD+LB 型 前後腳座型 Front & Rear Foot Mounting Type



Unit:mm

本體尺寸 dimension																安裝相關尺寸 mounting dimension									
BORE	A	B	D	E	F	G	H	K	L	M	N	C	R	S	PT	Q	T	U	V	W	X	Y	Z		
Φ40	20	M18x1.5	30	20	11	36	26	54	50	13	M10x1.5	40	65	45	1/4"	187	8	45	13	32	11	75.5	43		
Φ50	30	M26x1.5	35	30	13	42	34	68	50	13	M10x1.5	45	75	52	3/8"	209	8	52	15	35	13	87.5	50		
Φ63	35	M30x1.5	40	35	15	42	34	75	50	15	M12x1.75	55	90	63	3/8"	225	10	63	18	42	15	105	60		
Φ80	40	M35x1.5	45	35	18	46	40	79	50	17	M16x1.5	55	110	80	1/2"	254	12	80	20	50	18	127	72		
Φ100	50	M45x1.5	55	40	20	50	40	90	69	19	M18x1.5	65	135	98	1/2"	289	12	98	23	55	20	152.5	85		
Φ125	60	M50x2.0	65	45	24	58	48	104	69	21	M22x1.5	75	165	122	3/4"	331	15	122	29	66	24	187.5	105		

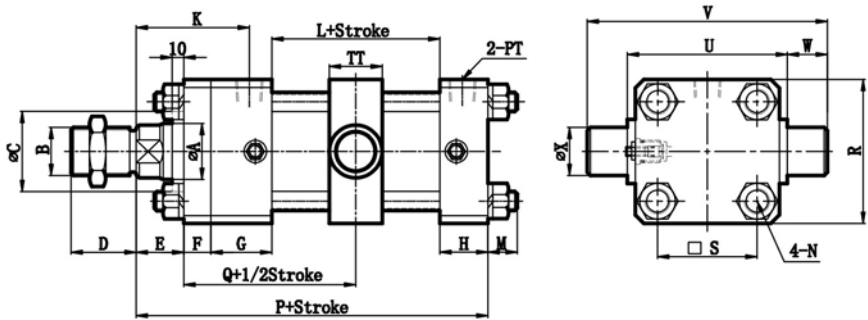
▶ 標準 CFOBD+CA 型 單耳型 Single Trunnion Mounting Type



Unit:mm

本體尺寸 dimension															安裝相關尺寸 mounting dimension				
BORE	A	B	D	E	F	G	H	K	L	M	N	R	S	PT	P	U	V	W	X
Φ40	20	M18x1.5	30	20	11	36	26	54	50	13	M10x1.5	65	45	1/4"	181	38	16	25	16
Φ50	30	M26x1.5	35	30	13	42	34	68	50	13	M10x1.5	75	52	3/8"	214	45	20	31.5	20
Φ63	35	M30x1.5	40	35	15	42	34	75	50	15	M12x1.75	90	63	3/8"	239	63	31.5	40	31.5
Φ80	40	M35x1.5	45	35	18	46	40	79	50	17	M16x1.5	110	80	1/2"	261	72	31.5	40	31.5
Φ100	50	M45x1.5	55	40	20	50	40	90	69	19	M18x1.5	135	98	1/2"	303	84	40	50	40
Φ125	60	M50x2.0	65	45	24	58	48	104	69	21	M22x1.5	165	122	3/4"	307	63	50	53	50

▶ 標準 CFOBD+TC 型 耳軸型 Trunnion Mounting Type



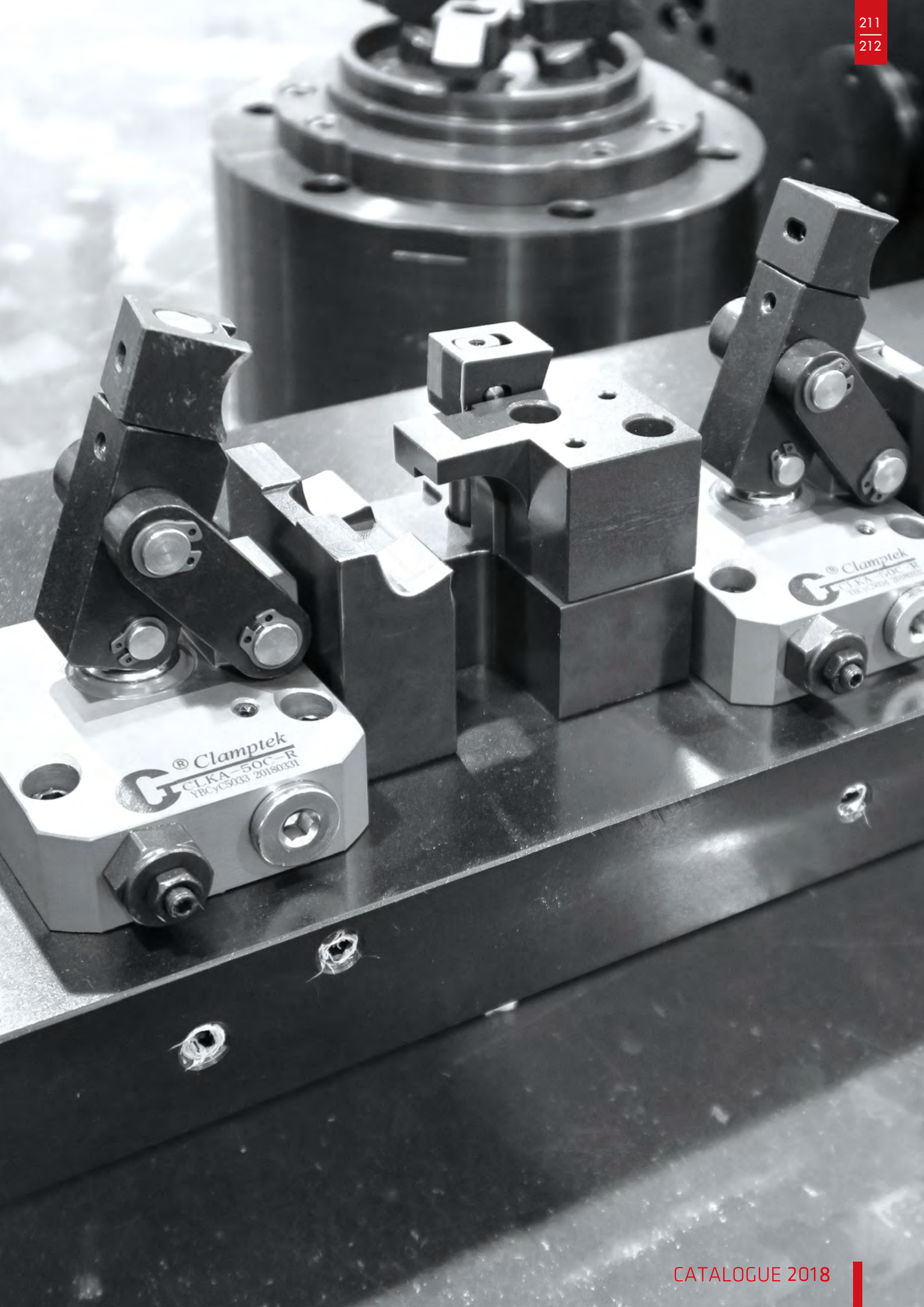
Unit:mm

本體尺寸 dimension															安裝相關尺寸 mounting dimension						
BORE	A	B	D	E	F	G	H	K	L	M	N	R	S	PT	P	Q	U	V	W	X	TT
Φ40	20	M18x1.5	30	20	11	36	26	54	50	13	M10x1.5	65	45	1/4"	143	72	69	109	20	20	28
Φ50	30	M26x1.5	35	30	13	42	34	68	50	13	M10x1.5	75	52	3/8"	169	80	85	135	25	25	33
Φ63	35	M30x1.5	40	35	15	42	34	75	50	15	M12x1.75	90	63	3/8"	176	82	98	161	31.5	31.5	40
Φ80	40	M35x1.5	45	35	18	46	40	79	50	17	M16x1.5	110	80	1/2"	189	89	118	181	31.5	31.5	43
Φ100	50	M45x1.5	55	40	20	50	40	90	69	19	M18x1.5	135	98	1/2"	219	104.5	145	225	40	40	53
Φ125	60	M50x2.0	65	45	24	58	48	104	69	21	M22x1.5	165	122	3/4"	244	116.5	175	275	50	50	58

備注: ▼

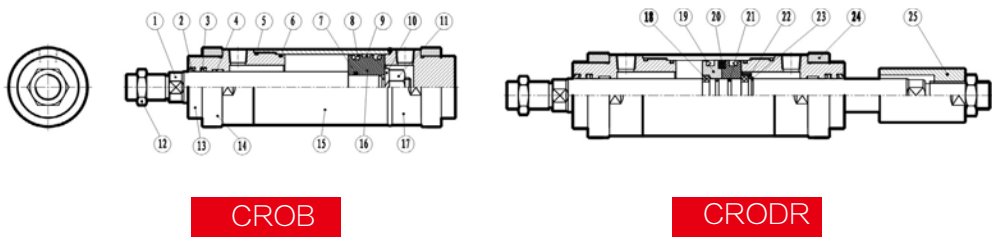
- 軸心加大或縮小時如未注明長度尺寸時，依照本公司規定自行加工。
- CFO40 系列行程超過 500mm 以上時，軸心牙加大為 M18xP1.5。
- CFO 系列行程未超過 1499mm 時，活塞長度（PM）依據表組裝，行程如超過 1500mm 以上時，活塞長度（PM）請參閱特性資料表。
- 前蓋螺帽（ΦJ）與軸心螺帽（W）規格大于 M50 時，其外徑為圓型，W，J 指其外徑。
- AST 為客戶指定之可調行程。

- For rods extending or reducing processing,if the length is not specified,then it should follow our company's stipulation for processing.
- Rod thread tooth should be extending into M18*P1.5 for CFO series bore size 40 whose stroke is more than 500mm.
- For the CFO series whose stroke is not exceeding 1499mm,the length of piston conforms to specification table for assembling,For those whose stroke is more than 1500mm,the length of piston conforms to characteristics table.
- The external diameter should be round when the size of rod cover nut（ΦJ）and rod nut（ΦW）is more than M50,W,J refer to its external diameter.
- AST stands for adjustable stroke designated by customers.



CRO SERIES 14MPA
ROUND HYDRAULIC
CYLINDER

▶ 圓型油壓缸結構圖 Inside Structure



NO	零件名 Part name		數量 Quantity	NO	零件名 Part name		數量 Quantity	NO	零件名 Part name		數量 Quantity
1	活塞杆	Piston rod	1	10	彈性墊圈	Spring washer	2	18	半卡環	Half snap ring	2
2	防塵油封	Dustproof seal	1	11	螺母	Nut	1	19	銅活塞	Copper piston	1
3	軸用油封	Oil seal for shaft	1	12	軸心螺母	Rod nut	1	20	磁環	Magnet Ring	1
4	導向帶	Guidance tape	1	13	前端蓋	Rod cover	1	21	O 型圈	Gasket	1
5	O 型環	Gasket	1	14	鎖緊螺母	Lock Nut	1	22	擋環	Baffle Ring	1
6	O 型環	Gasket	1	15	缸筒	Cylinder tube	1	23	軸用擋圈	Washer On Shaft	1
7	O 型環	Gasket	1	16	活塞	Piston	1	24	鎖緊螺母	Lock Nut	1
8	活塞油封	Piston seal	2	17	後端蓋	End cover	1	25	可調螺母	Adjustable Nut	1
9	耐磨環	Wearing ring	1								

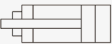
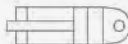
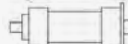
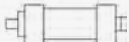
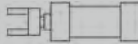
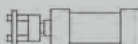
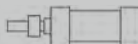
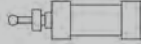
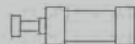
▶ 圓型油壓缸特性資料 Specification

油缸內徑 Hydraulic cylinder inside diameter(mm)	Φ 40	Φ 50	Φ 63	Φ 80	Φ 100	Φ 125
工作媒介 Power 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 The range of pressure(mpa)	0.3-14MPA(3-140kg/cm ²)					
使用速度範圍 The range of speed (mm/sec)	8-300(mm/sec)					
使用溫度範圍 Range of temperature(℃)	-10 ~ + 60 (℃)					
標準活塞長度 Length of standard piston (PM)	30	35	35	50	60	70
訂制行程于 1501-2500mm 間活塞長度 (PM) Piston length when the stroke is between 1501-2500 mm	60	70	70	100	100	120
訂制行程于 2501-4000mm 間活塞長度 (PM) Piston length when the stroke is between 2501-4000 mm	90	100	100	150	180	200

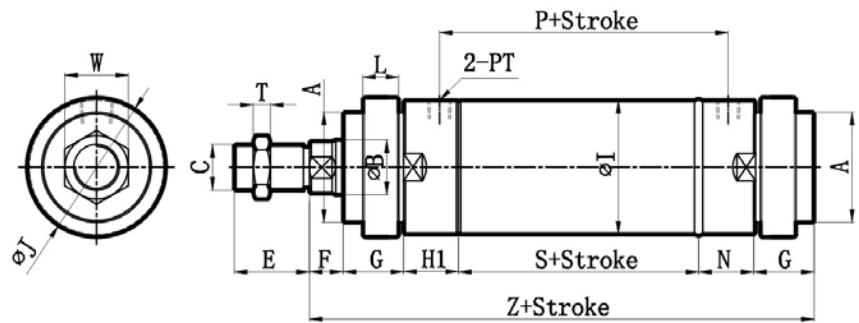
▶ 訂購標示法

ORDERING INDICATION

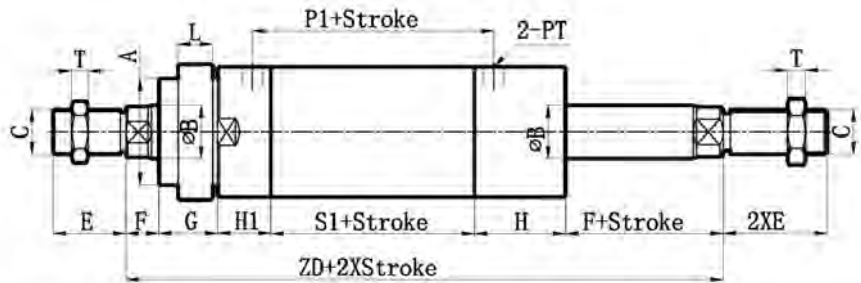
CROB R D - 63 / 35 * 100 LB + Y

CROB	型式 Type	CROA(平尾型) Flat tail type		CROB(B 型) B type		CROC(CA 型) CA type		CROD(雙軸型) Double rods	
R	磁性感應 Magnetic	無記號: 不附磁石 R: 內附磁石 (適用 Φ40-Φ100)				Blank: No magnet Z: With magnet	本系列適用 Φ40-Φ100 apply to bore Φ40-Φ100		
D	固定緩衝型式 FLXED CUSHIONING TYPE	無記號: 無 F: 前蓋側緩衝 cushion on head cover				Blank: No cushion D: 雙側緩衝 cushions on both ends B: 後蓋側緩衝 cushion on end cover			
63	油缸內徑 Hydraulic cylinder inside diameter	Φ40, Φ50, Φ63, Φ80, Φ100, Φ125							
35	軸心 Rod	標準 Standard 最大 Max	Φ20 Φ25	Φ25 Φ30	Φ35 Φ40	Φ40 Φ50	Φ50 Φ70	Φ60 Φ80	無記號: 標準軸心 Blank: standard rod
100	行程 Stroke	鋼管 Steel barrel (Φ40-Φ200) 白鋼管 Iron barrel (Φ40-Φ100)			最大行程: 4 米 Max:4m 最大行程: 2.8 米 Max:2.8m				
LB	缸體固定型式 Accessories	FA FB	前法蘭型 Front flange 後法蘭型 Rear flange			 	LB TC	腳座型 Foot mount 中耳軸型 MiddleTrunnion  	
Y	軸心固定型式 Accessories	Y YP I KG	Y 型接頭 Y joint Y+Pin Y with pin I 型接頭 I joint 浮動接頭 Floating joint			   	PHS T H A	魚眼接頭 Rod-eye joint T 型接頭 T joint 焊套接頭 Welding sleeve joint 可調螺帽 Adjustable nut    	

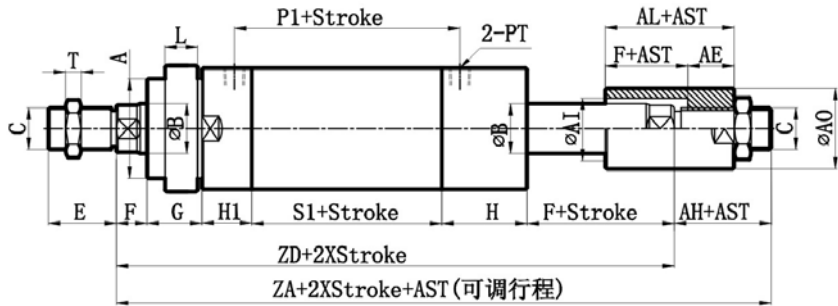
► CROB 標準型 CROB STANDARD TYPE



► CROD 標準型 CROD STANDARD TYPE



► CROD-A 雙軸可調型 CROD-A ADJUSTABLE DOUBLE-END ROD TYPE



Unit:mm

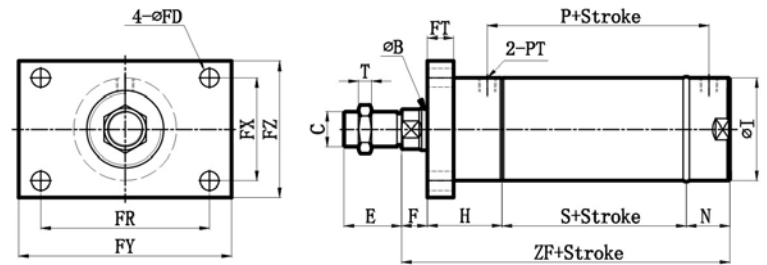
CROB-CROD TYPE																								A(可調帽)TYPE			
BORE	A	ΦB	C	E	F	G	H	H1	ΦI	L	N	ΦJ	P	PT	S	W	T	Z	P1	S1	ZA	ZD	AH	AE	ΦAI	ΦAO	AL
Φ40	M40XP2.0	20	M16XP1.5	28	17	25	50	25	50	15	25	55	86	3/8"	61	23.5	8	178	107	82	246	216	30	20	25	40	37
Φ50	M50XP2.0	25	M22XP1.5	40	20	25	50	25	60	15	30	65	96	3/8"	66	32	13	191	112	87	267	227	40	25	35	50	45
Φ63	M60XP2.0	35	M30XP1.5	45	20	30	50	30	73	20	35	80	105	3/8"	70	41	13	215	125	95	295	255	40	25	45	60	45
Φ80	M70XP2.0	40	M30XP1.5	45	20	30	60	30	95	20	40	90	127.5	1/2"	90	41	13	240	150	120	325	280	45	30	50	70	50
Φ100	M90XP2.0	50	M40XP2.0	55	25	30	60	30	114	20	40	110	147.5	1/2"	110	55	15	265	180	150	365	320	45	30	60	90	55
Φ125	M120XP2.0	60	M50XP2.0	70	30	30	70	40	145	20	50	150	172.5	3/4"	125	65	15	305	210	170	420	370	50	35	70	100	65

備注: ▼

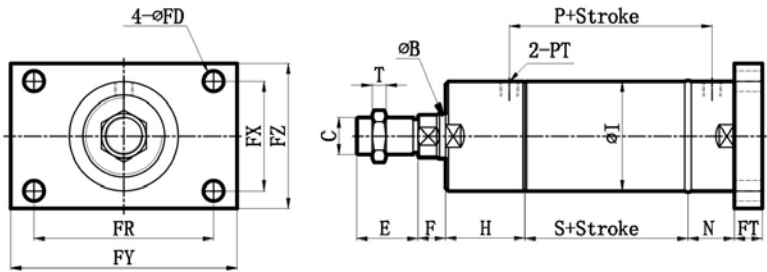
- 軸心加大或縮小時如未注明長度尺寸時，依照本公司規定自行加工。
- CRO40 系列行程超過 500mm 以上時，軸心牙加大為 M18xP1.5。
- CRO 系列行程未超過 1499mm 時，活塞長度（PM）依據表組裝，行程如超過 1500mm 以上時，活塞長度（PM）請參閱特性資料表。
- 前蓋螺帽（ΦJ）與軸心螺帽（W）規格大于 M50 時，其外徑為圓型，W，J 指其外徑。
- AST 為客戶指定之可調行程。

- For rods extending or reducing processing,if the length is not specified,then it should follow our company's stipulation for processing.
- Rod thread tooth should be extending into M18*P1.5 for CRO series bore size 40 whose stroke is more than 500mm.
- For the CRO series whose stroke is not exceeding 1499mm,the length of piston conforms to specification table for assembling,For those whose stroke is more than 1500mm,the length of piston conforms to characteristics table.
- The external diameter should be round when the size of rod cover nut（ΦJ）and rod nut（ΦW）is more than M50,W,J refer to its external diameter.
- AST stands for adjustable stroke designated by customers.

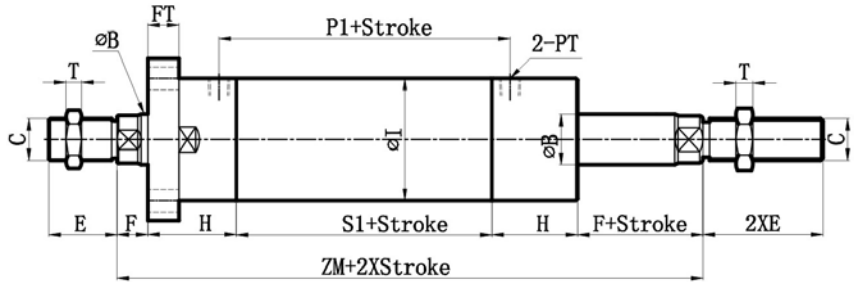
► CROA+FA 前法蘭型 CROA+FA FRONT FLANGE TYPE



► CROB+FB 後法蘭型 CROB+FB AFTER FLANGE TYPE



► CROD+FA 雙軸前法蘭型 CROD+FA DOUBLE END FRONT FLANGE TYPE



Unit:mm

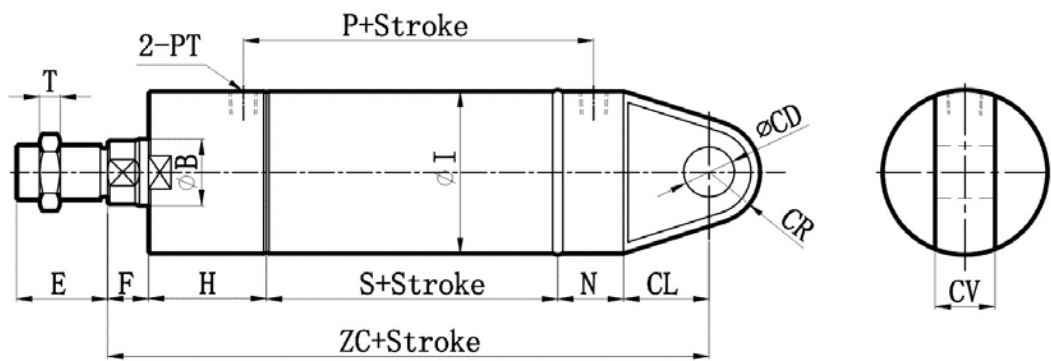
CROA-CROB-CROD TYPE																FA-FB TYPE					
BORE	ΦB	C	E	F	H	P1	ΦI	N	P	PT	S	T	S1	ZF	ZM	ΦFD	FT	FR	FX	FY	FZ
Φ40	20	M16XP1.5	28	17	50	107	50	25	86	3/8"	61	8	82	136	199	12	11	93	50	115	72
Φ50	25	M22XP1.5	40	20	50	112	60	30	96	3/8"	66	13	87	146	207	14	17	110	56	150	85
Φ63	35	M30XP1.5	45	20	60	125	73	35	105	3/8"	70	13	95	165	235	14	17	126	68	155	95
Φ80	40	M30XP1.5	45	20	60	150	95	40	127.5	1/2"	90	13	120	190	260	18	20	152	75	190	120
Φ100	50	M40XP2.0	55	25	60	180	114	40	147.5	1/2"	110	15	150	210	295	20	20	180	100	220	140
Φ125	60	M50XP2.0	70	30	70	210	145	50	172.5	3/4"	125	15	170	245	340	24	30	222	122	280	170

備注: ▼

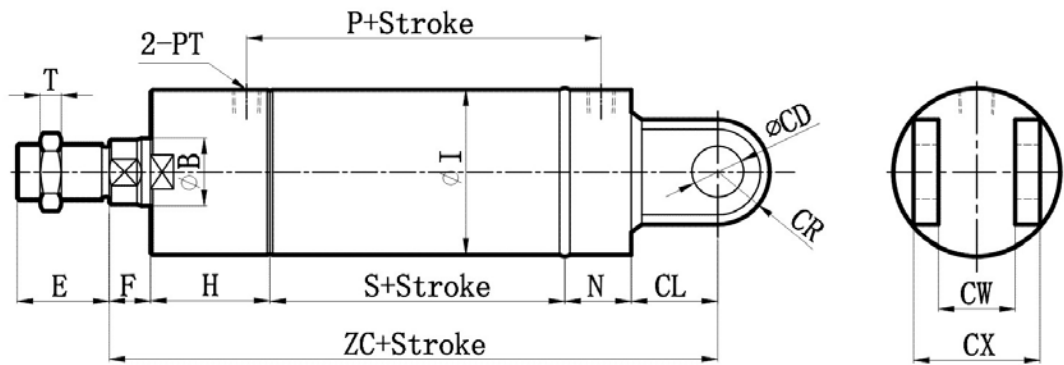
- 軸心加大或縮小時如未注明長度尺寸時，依照本公司規定自行加工。
- CRO40 系列行程超過 500mm 以上時，軸心牙加大為 M18xP1.5。
- CRO 系列行程未超過 1499mm 時，活塞長度（PM）依據表組裝，行程如超過 1500mm 以上時，活塞長度（PM）請參閱特性資料表。
- 前蓋螺帽（ΦJ）與軸心螺帽（W）規格大于 M50 時，其外徑為圓型，W，J 指其外徑。
- AST 為客戶指定之可調行程。

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- The external diameter should be round when the size of rod cover nut（ΦJ）and rod nut（ΦW）is more than M50,W,J refer to its external diameter.
- AST stands for the adjustable stroke designated by customers.

► CRO+CA 單耳環型 CRO+CA SINGLE TRUNNICON TYPE



► CRO+CB 雙耳環型 CRO+CB DOUBLE TRUNNION TYPE



Unit:mm

CRO TYPE														CA,CB TYPE					
BORE	ΦB	C	E	F	H	ΦI	N	P	PM	PT	S	T	ZC	CW	CL	ΦCD	CR	CV	CX
Φ40	20	M16XP1.5	28	17	50	50	25	88	30	3/8"	61	8	178	26	25	16	18	25	41
Φ50	25	M22XP1.5	40	20	50	60	30	96	35	3/8"	66	13	201	26	35	20	25	25	46
Φ63	35	M30XP1.5	45	20	60	73	35	105	35	3/8"	70	13	230	31	45	25	30	30	56
Φ80	40	M30XP1.5	45	20	60	95	40	127.5	50	1/2"	90	13	260	36	50	30	30	35	66
Φ100	50	M40XP2.0	55	25	60	114	40	147.5	60	1/2"	110	15	295	41	60	35	35	40	81
Φ125	60	M50XP2.0	70	30	70	145	50	172.5	70	3/4"	125	15	345	56	70	50	50	55	106

- 備注: ▼
1. 軸心加大或縮小時如未注明長度尺寸時，依照本公司規定自行加工。

2. CRO40 系列行程超過 500mm 以上時，軸心牙加大為 M18xP1.5。

3. CRO 系列行程未超過 1499mm 時，活塞長度（PM）依據表組裝，行程如超過 1500mm 以上時，活塞長度（PM）請參閱特性資料表。

4. 前蓋螺帽（ΦJ）與軸心螺帽（W）規格大于 M50 時，其外徑為圓型，W，J 指其外徑。

5. AST 為客戶指定之可調行程。

1. For rods extending or reducing processing,if the length is not specified,then it should follow our company's stipulation for processing.

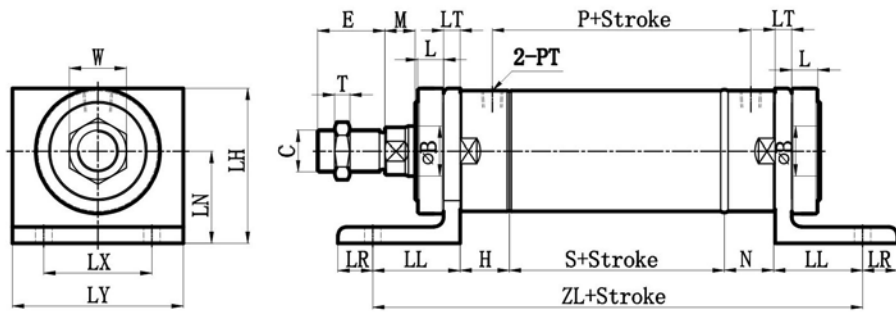
2. Rod thread tooth should be extending into M18*P1.5 for CRO series bore size 40 whose stroke is more than 500mm.

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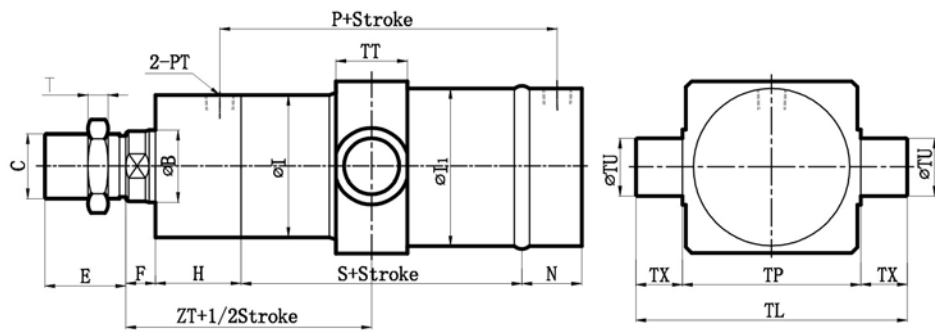
4. The external diameter should be round when the size of rod cover nut（ΦJ）and rod nut（ΦW）is more than M50,W,J refer to its external diameter.

5. AST stands for adjustable stroke designated by customers.

► CROB+LB 前後腳座型 CROB+LB COURSE OF A TYPE



► CROA-TC 中間耳軸型 CROA+TC MINDDLE TRUNNION TYPE



Unit:mm

CROA-CROB TYPE													LB TYPE								TC TYPE									
BORE	ΦB	C	E	M	H	N	L	P	PT	S	T	ZL	ΦLD	LH	LN	LL	LR	LT	LX	LY	ZT	F	H	ΦI	ΦTI	ΦTU	TL	TP	TT	TX
Φ40	20	M16xP1.5	28	18	25	25	15	86	3/8"	61	8	201	12	75	47	45	30	9	60	88	97.5	17	50	50	55	20	115	75	28	20
Φ50	25	M22xP1.5	40	18	25	30	15	96	3/8"	66	13	231	14	88	57	55	33	9	70	100	103	20	50	60	65	25	140	90	33	25
Φ63	35	M30xP1.5	45	17	30	35	20	105	3/8"	70	13	271	16	101	63	68	33	13	70	124	115	20	60	76	83	32	166	102	40	32
Φ80	40	M30xP1.5	45	17	30	40	20	127.5	1/2"	90	13	296	18	101	60	68	33	13	80	140	125	20	60	95	102	32	184	120	43	32
Φ100	50	M40xP2.0	55	20	30	40	20	147.5	1/2"	110	15	320	18	140	80	70	35	15	90	144	140	25	60	114	120	40	220	140	53	40
Φ125	60	M50xP2.0	70	25	40	50	20	172.5	3/4"	125	15	375	22	190	110	80	40	20	120	160	162.5	30	70	145	150	50	275	175	58	50

- 備注: ▼
1. 軸心加大或縮小時如未注明長度尺寸時，依照本公司規定自行加工。

2. CRO40 系列行程超過 500mm 以上時，軸心牙加大為 M18xP1.5。

3. CRO 系列行程未超過 1499mm 時，活塞長度（PM）依據表組裝，行程如超過 1500mm 以上時，活塞長度（PM）請參閱特性資料表。

4. 前蓋螺帽（ΦJ）與軸心螺帽（W）規格大于 M50 時，其外徑為圓型，W，J 指其外徑。

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4. The external diameter should be round when the size of rod cover nut（ΦJ）and rod nut（ΦW）is more than M50,W,J refer to its external diameter.

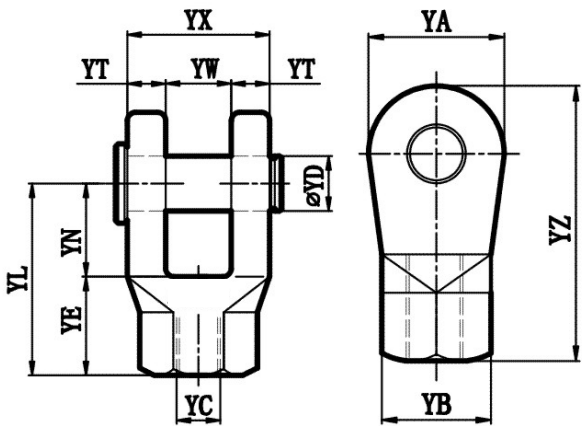
5. AST stands for adjustable stroke designated by customers.

CMO/CHO/CRO/CFO

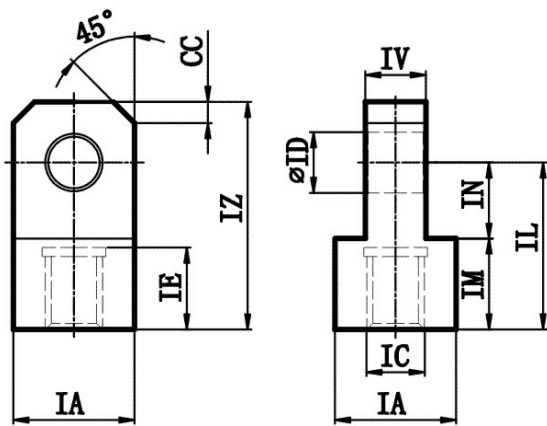
油壓缸軸心配件

CMO/CHO/CRO/CFO
HYDRAULIC CYLINDER
AXIS ACCESSORIES

Y 型接頭 Y CONNECTORS



I 型接頭 I CONNECTORS



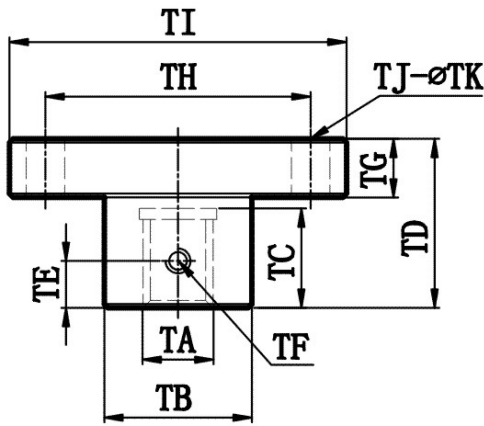
Unit:mm

Y 型接頭附 PIN ROD CLEVIS(WITH PIN)											MATERIAL: FCD45(鑄鐵)	
TYPE	YA	YB	YC	YD	YE	YL	YN	YT	YW	YX	YZ	
MY-014	29	27.5	M14xP1.5	12	35	56	21	14	16	44	70	
MY-016	29	27.5	M16xP1.5	12	35	56	21	14	16	44	70	
MY-018	29	27.5	M18xP1.5	12	35	56	21	14	16	44	70	
MY-022	46	37	M22xP1.5	20	36	70	34	14	24	52	93	
MY-026	52	42	M26xP1.5	20	35	70	35	15	28	58	96	
MY-030	55	42	M30xP1.5	20	41	80	39	20	32	72	107	
MY-030A	55	47	M30xP1.5	25	41	80	39	22	40	84	107	

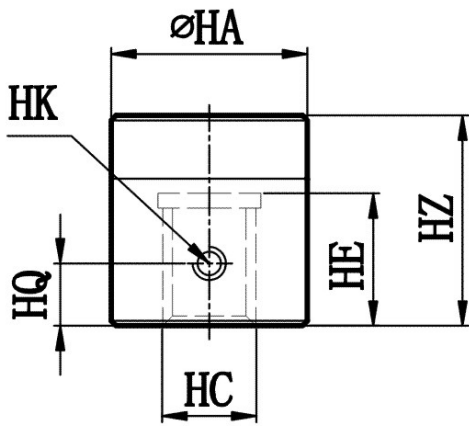
Unit:mm

I 型接頭附 I ROD END MOUNTING											MATERIAL: SS41(鑄鐵)	
TYPE	IA	IC	ID	IE	IL	IM	IN	IV	IZ	CC		
FI-018	32	M18xP1.5	16	23	50	25	25	18	70	8		
FI-022	40	M22xP1.5	20	23	55	25	30	20	80	10		
FI-026	50	M26xP1.5	25	28	60	30	30	25	90	10		
FI-030	60	M30xP1.5	30	32	75	35	40	35	110	10		
FI-040	70	M40xP2.0	35	38	90	40	50	40	130	10		

T 型接頭 T CONNECTORS



H 型焊套接頭 H WELDING JOINT



Unit:mm

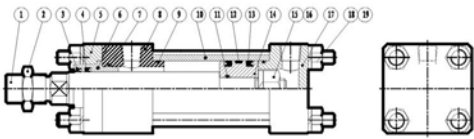
T 型接頭附 T ROD END MOUNTING											MATERIAL: SS41	
TYPE	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	
T-010	M10xP1.25	20	20	30	10	M6XP1.0	8	40	60	4	8	
T-014	M14xP1.5	30	25	40	12	M8XP1.25	10	55	80	4	10	
T-016	M16xP1.5	30	25	40	12	M8XP1.25	10	55	80	4	10	
T-018	M18xP1.5	30	25	40	12	M8XP1.25	10	55	80	4	10	
T-022	M22xP1.5	35	32	50	15	M8XP1.25	15	65	85	4	10	
T-026	M26xP1.5	40	32	50	15	M8XP1.25	15	70	90	4	10	
T-030	M30xP1.5	55	35	55	20	M8XP1.25	20	75	100	4	12	
T-036	M36xP2.0	50	48	55	20	M8XP1.25	20	80	105	4	12	
T-040	M40xP2.0	60	48	65	25	M10XP1.5	25	90	115	6	12	
T-045	M45xP2.0	70	55	65	25	M10XP1.5	25	100	125	6	12	
T-050	M50xP2.0	80	55	75	25	M10XP1.5	25	110	140	6	14	
T-060	M60xP2.0	90	55	80	30	M10XP1.5	30	120	150	6	14	
T-070	M70xP2.0	100	65	100	30	M12XP1.75	30	140	180	6	18	
T-090	M90xP2.0	140	85	120	40	M12XP1.75	40	180	220	6	18	

Unit:mm

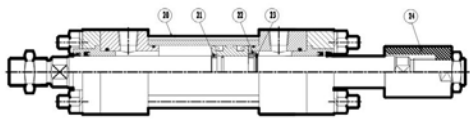
H 型焊套接頭 H ROD END MOUNTING											MATERIAL: SS41(鑄鐵)	
TYPE	øHA	HC	HE	HF	HQ	HZ						
H-010	20	M10xP1.25	20	M6XP1.0	10	30						
H-014	35	M14xP1.5	25	M8XP1.25	12	40						
H-016	35	M16xP1.5	25	M8XP1.25	12	40						
H-018	35	M18xP1.5	25	M8XP1.25	12	40						
H-022	40	M22xP1.5	32	M8XP1.25	15	50						
H-026	45	M26xP1.5	32	M8XP1.25	15	50						
H-030	50	M30xP1.5	35	M8XP1.25	20	55						
H-036	55	M36xP1.5	40	M8XP1.25	20	60						
H-040	60	M40xP2.0	48	M10XP1.5	25	65						
H-045	70	M45xP2.0	52	M10XP1.5	25	70						
H-050	80	M50xP2.0	55	M10XP1.5	25	75						
H-060	90	M60xP2.0	55	M10XP1.5	30	80						
H-070	100	M70xP2.0	65	M12XP1.75	30	100						
H-090	140	M90xP2.0	85	M12XP1.75	40	120						

CGO SERIES 21MPA
TIE-ROD HYDRAULIC
OIL CYLINDER

► 重型油壓缸結構圖 Inside Structure



CGOB



CGOD



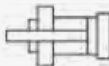
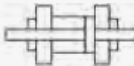
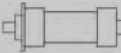
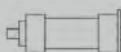
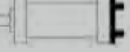
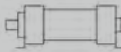
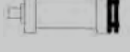
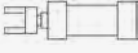
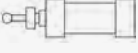
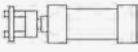
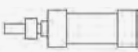
► 重型油壓缸特性資料 Specification

油缸內徑 Hydraulic cylinder inside diameter(mm)	Φ 40	Φ 50	Φ 63	Φ 80	Φ 100	Φ 125	Φ 140	Φ 150	Φ 160
工作媒介 Power 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 The range of pressure(mpa)	0.3~21MPA(3~210kg/cm ²)								
使用速度範圍 The range of speed (mm/sec)	8~300(mm/sec)								
使用溫度範圍 Range of temperature(℃)	-10 ~ + 60 (℃)								
緩衝行程 (Cushion stroke)mm	25	25	25	25	30	30	30	30	30
標準活塞長度 Length of standard piston (PM)	40	44	51	57	65	71	74	84	92
訂制行程于 1501-2500mm 間活塞長度 (PM) Piston length when the stroke is between 1501-2500 mm	80	88	100	110	120	140	140	160	170
訂制行程于 2501-4000mm 時活塞長度 (PM) Customized stroke is 2501-4000mm	160	170	200	210	220	250	260	270	270

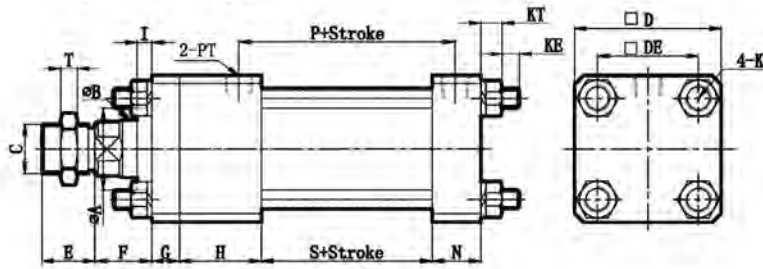
► 訂購標示法

ORDERING INDICATION

CGOB D - 63 / 35 * 100 LB + Y

CGOB	系列 Series	CGOB 標準型 Standard type			CGOD 雙軸型 Double Rods type					
	D 固定緩衝型式 Fixed Cushioning Type	無記號: 無 Blank: No cushion D: 雙側緩衝 cushions on both ends F: 前蓋側緩衝 cushion on head cover B: 後蓋側緩衝 cushion on end cover								
	63 油缸內徑 Hydraulic cylinder inside diameter	Φ40, Φ50, Φ63, Φ80, Φ100, Φ125, Φ140, Φ150, Φ160								
	35 軸心 Rod 緩衝用軸心	標準 Standard 最大 Max 標準 Standard	Φ25 — Φ20	Φ30 Φ35 Φ25	Φ35 Φ40 Φ35	Φ45 Φ50 Φ45	Φ50 Φ60 Φ50	Φ70 Φ80 Φ70	Φ80 Φ90 Φ80	Φ90 Φ100 Φ90
100	行程 Stroke	鋼管 Steel barrel (Φ40-Φ200) 白鐵管 Galvanized iron barrel (Φ40-Φ100)				最大行程: 4 米 Max:4m 最大行程: 2.8 米 Max:2.8m				
	LB 缸體固定型式 Accessories	FA	前法蘭型 Front flange type			CA	單耳環型 Single trunnion type			
FB		後法蘭型 Rear flange type			CB	雙耳環型 Double trunnion type				
LB		腳座型 Foot mount type			CBP	CB 附 PIN CB with PIN				
TC		耳軸型 Trunnion type			CAB	CA++P+CB				
Y 軸心固定型式 Accessories		Y	Y 型接頭 Y joint			PHS	魚眼接頭 Rod-eye joint			
	YP	Y+Pin Y with pin			T	T 型接頭 T joint				
	I	I 型接頭 I joint			H	焊套接頭 Welding sleeve joint				
	KG	浮動接頭 Floating joint			A	可調螺帽 Adjustable nut				

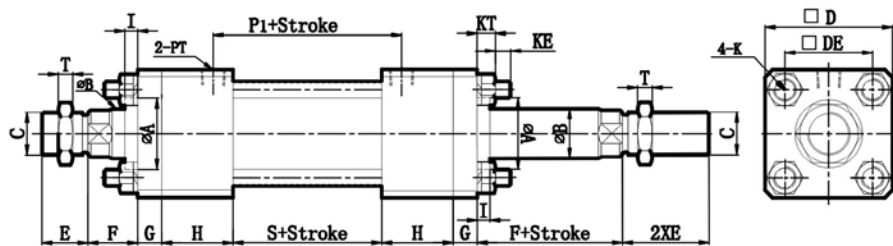
▶ 標準 CGOB 標準型 Single Rod T type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	T
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	13
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	13
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	37	113	1/2"	M16*1.5	10	17	75	13
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	42	129	3/4"	M18*1.5	10	20	85	15
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	42	139	3/4"	M22*1.5	10	24	95	18
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	52	159	1"	M27*1.5	10	31	105	24
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	52	164	1"	M30*1.5	15	34	110	28
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	52	174	1"	M33*1.5	15	39	120	30
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	52	186	1"	M33*1.5	15	39	132	30

▶ 標準 CGOD 型 標準雙軸型 Doubles Rod T type



Unit:mm

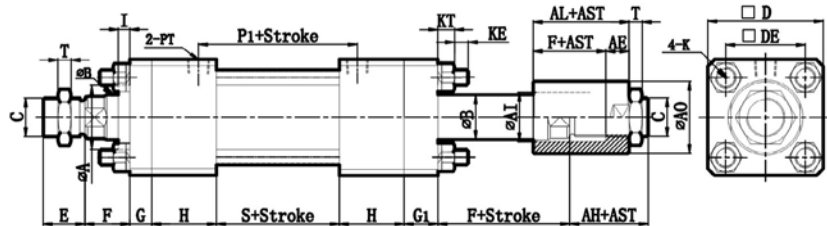
BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	P1	PT	K	KE	KT	S	T
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	100	3/8"	M12*1.5	10	13	64	13
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	108	1/2"	M14*1.5	10	15	68	13
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	117	1/2"	M16*1.5	10	17	75	13
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	133	3/4"	M18*1.5	10	20	85	15
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	143	3/4"	M22*1.5	10	24	95	18
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	165	1"	M27*1.5	10	31	105	24
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	170	1"	M30*1.5	15	34	110	28
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	180	1"	M33*1.5	15	39	120	30
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	192	1"	M33*1.5	15	39	132	30

備注: ▼

- 軸心加大如未注明長度尺寸時，依照本公司規定自行加工。
- CGO 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。
- 本系列行程如超過 2000 (含) mm 時，須加拉杆中間固定座。
- 本系列軸心螺帽規格 M50mm (含) 以上時，其外徑為圓形。
- AST 為客戶指定之可調行程。

- For rods extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
- For the CGO series whose stroke is less than 1500mm,the length of the piston is shown in the affiliated table,for those customized CGO whose stroke is more than 1500mm,the length of piston conforms to product specification.
- Middle rod holder must be installed for those CGO whose stroke is equal to or more than 2000mm.
- The external diameter would be round when the size of rod nut is equal to or more than M50mm.
- AST stands for adjustable stroke designated by customers.

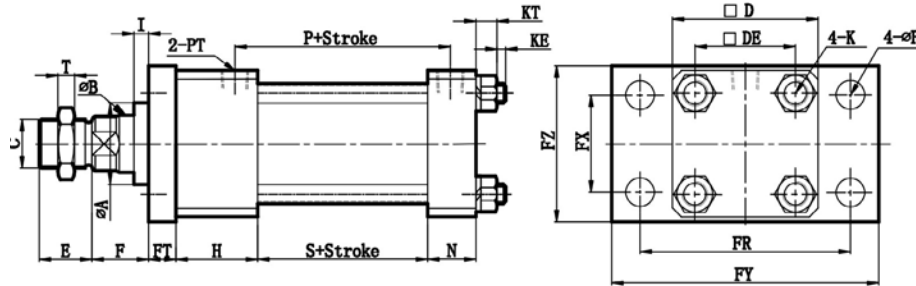
▶ 標準 CGOB+A 型 雙軸型附可調帽 Double Rods with Adjustable Nut Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	P1	PT	K	KE	KT	S	T	AI	AL	AO	AE	AH	G1
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	100	3/8"	M12*1.5	10	13	64	13	30	55	45	25	35	26
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	108	1/2"	M14*1.5	10	15	68	13	38	60	55	30	40	29
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	117	1/2"	M16*1.5	10	17	75	13	42	65	65	30	45	33
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	133	3/4"	M18*1.5	10	20	85	15	52	70	75	35	55	33
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	143	3/4"	M22*1.5	10	24	95	18	63	75	90	35	65	40
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	165	1"	M27*1.5	10	31	105	24	78	85	105	40	80	46
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	170	1"	M30*1.5	15	34	110	28	90	90	120	40	85	50
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	180	1"	M33*1.5	15	39	120	30	100	100	130	45	95	55
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	192	1"	M33*1.5	15	39	132	30	100	100	130	45	95	55

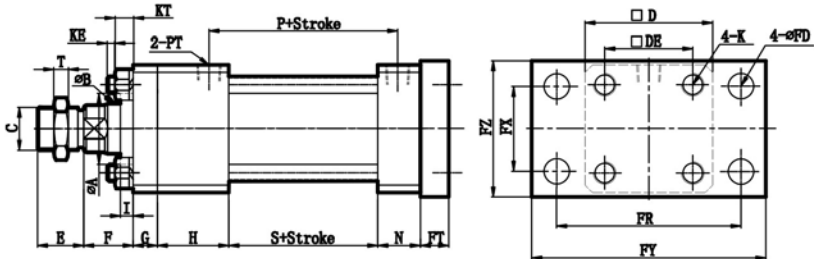
▶ 標準 CGOB+FA 型 前法蘭型 Front Flange Mounting Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	T	ΦFD	FT	FR	FX	FY	FZ
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	13	11	17	98	50	122	73
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	13	14	20	118	60	145	88
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	37	113	1/2"	M16*1.5	10	17	75	13	18	24	140	73	175	106
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	42	129	3/4"	M18*1.5	10	20	85	15	22	24	175	90	210	130
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	42	139	3/4"	M22*1.5	10	24	95	18	26	31	215	115	260	165
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	52	159	1"	M27*1.5	10	31	105	24	33	37	270	145	330	205
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	52	164	1"	M30*1.5	15	34	110	28	33	40	280	160	335	218
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	52	174	1"	M33*1.5	15	39	120	30	36	45	315	180	375	243
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	52	186	1"	M33*1.5	15	39	132	30	36	45	315	180	375	243

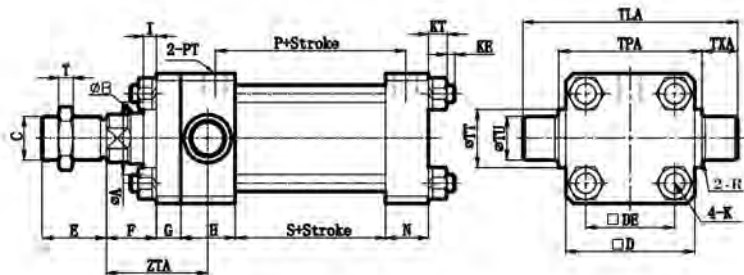
▶ 標準 CGOB+FB 型 後法蘭型 Rear Flange Mounting Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	T	ΦFD	FT	FR	FX	FY	FZ
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	13	11	17	98	50	122	73
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	13	14	20	118	60	145	88
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	37	113	1/2"	M16*1.5	10	17	75	13	18	24	140	73	175	106
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	42	129	3/4"	M18*1.5	10	20	85	15	22	24	175	90	210	130
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	42	139	3/4"	M22*1.5	10	24	95	18	26	31	215	115	260	165
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	52	159	1"	M27*1.5	10	31	105	24	33	37	270	145	330	205
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	52	164	1"	M30*1.5	15	34	110	28	33	40	280	160	335	218
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	52	174	1"	M33*1.5	15	39	120	30	36	45	315	180	375	243
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	52	186	1"	M33*1.5	15	39	132	30	36	45	315	180	375	243

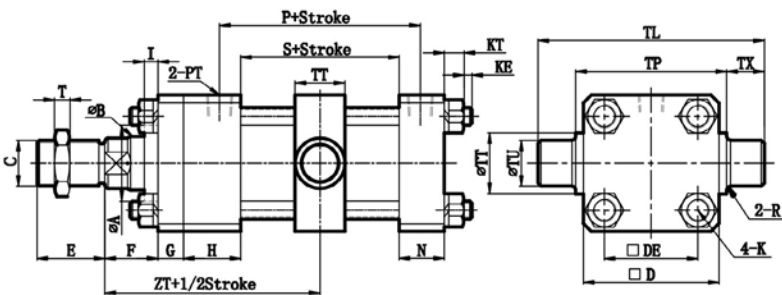
▶ 標準 CGOB+TA 型 前耳軸型 Front Trunnion Mounting Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	T	ΦTT	ZTA	ΦTU	TLA	TPA	TXA	R
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	13	33	70.5	25	123	73	25	2.5
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	13	33	76	25	138	88	25	2.5
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	37	113	1/2"	M16*1.5	10	17	75	13	43	87.5	31.5	169	106	31.5	2.5
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	42	129	3/4"	M18*1.5	10	20	85	15	53	92.5	40	208	128	40	3
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	42	139	3/4"	M22*1.5	10	24	95	18	63	104.5	50	270	170	50	3
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	52	159	1"	M27*1.5	10	31	105	24	78	120.5	63	331	205	63	4
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	52	164	1"	M30*1.5	15	34	110	28	88	128.5	71	367	225	71	4
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	52	174	1"	M33*1.5	15	39	120	30	98	140	80	415	245	80	4
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	52	186	1"	M33*1.5	15	39	132	30	98	140	80	415	255	80	4

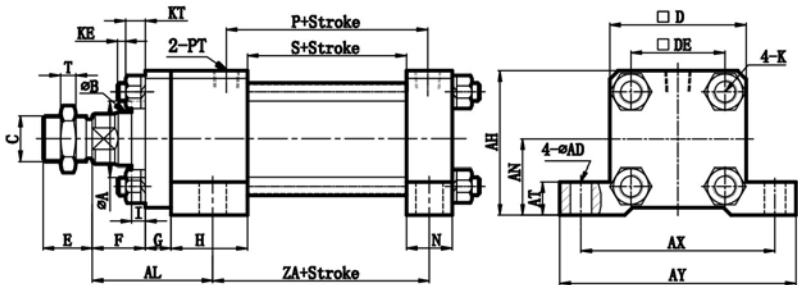
▶ 標準 CGOB+TC 型 中間耳軸型 Middle Trunnion Mounting Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	T	TT	ZT	ΦTU	TL	TP	TX	R
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	13	33	125	25	123	73	25	2.5
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	13	33	136	25	138	88	25	2.5
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	37	113	1/2"	M16*1.5	10	17	75	13	43	154	31.5	169	106	31.5	2.5
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	42	129	3/4"	M18*1.5	10	20	85	15	53	169	40	208	128	40	3
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	42	139	3/4"	M22*1.5	10	24	95	18	63	185	50	270	170	50	3
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	52	159	1"	M27*1.5	10	31	105	24	78	212	63	331	205	63	4
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	52	164	1"	M30*1.5	15	34	110	28	88	222	71	367	225	71	4
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	52	174	1"	M33*1.5	15	39	120	30	98	240	80	415	245	80	4
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	52	186	1"	M33*1.5	15	39	132	30	98	246	80	415	255	80	4

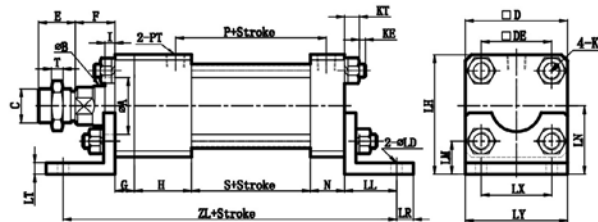
▶ 標準 CGOB+LA 型 左右腳座型 Right & Left Foot Mounting Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	T	ZA	AL	AT	AN	AN	ΦAD	AY	AX
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	13	111	63	15	42	77	11	122	98
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	13	120	68	20	55	97.5	14	145	118
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	37	113	1/2"	M16*1.5	10	17	75	13	132	77	25	63	113	18	175	140
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	42	129	3/4"	M18*1.5	10	20	85	15	152	80	30	75	137.5	22	210	175
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	42	139	3/4"	M22*1.5	10	24	95	18	162	94	35	85	165	26	260	215
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	52	159	1"	M27*1.5	10	31	105	24	182	110	45	105	200	33	330	270
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	52	164	1"	M30*1.5	15	34	110	28	187	118	45	112	219.5	33	335	280
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	52	174	1"	M33*1.5	15	39	120	30	200	131	50	120	235	36	365	300
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	52	186	1"	M33*1.5	15	39	132	30	212	131	50	125	245	36	375	315

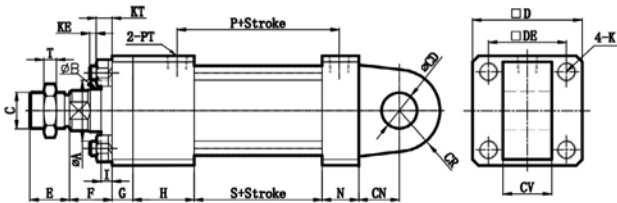
▶ 標準 CGOB+LB 型 前後腳座型 Front & Rear Foot Mounting Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	T	ΦLD	LR	LL	ZL	LT	LH	LM	LX	LY	LN
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	13	14	20	42	244	8	83	23	50	70	48
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	13	16	22	46	269	10	100	26.5	62	85	57.5
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	37	113	1/2"	M16*1.5	10	17	75	13	18	27	65	323	13	118	31	74	100	68
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	42	129	3/4"	M18*1.5	10	20	85	15	20	30	70	358	15	145	36.5	92	125	82.5
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	42	139	3/4"	M22*1.5	10	24	95	18	24	32	80	395	18	188	48	120	160	108
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	52	159	1"	M27*1.5	10	31	105	24	28	35	90	451	20	220	52.5	145	190	125
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	52	164	1"	M30*1.5	15	34	110	28	32	40	95	469	25	250	62.5	160	215	142.5
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	52	174	1"	M33*1.5	15	39	120	30	35	40	100	497	28	268	68	170	230	153
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	52	186	1"	M33*1.5	15	39	132	30	35	40	100	509	28	278	68	180	240	158

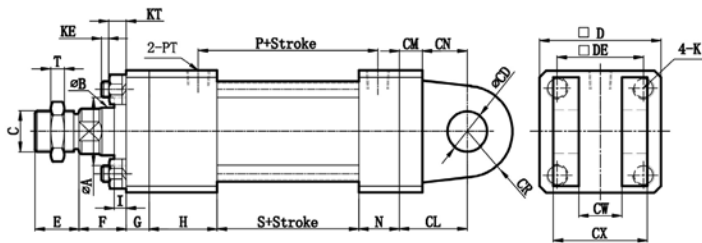
▶ 標準 CGOB+CA 型 單耳型 Single Trunnion Mounting Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	T	CN	ΦCD	CR	CV
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	13	25	20	25	32
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	13	32	25	30	36
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	37	113	1/2"	M16*1.5	10	17	75	13	40	31.5	35	40
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	42	129	3/4"	M18*1.5	10	20	85	15	50	40	45	50
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	42	139	3/4"	M22*1.5	10	24	95	18	63	50	55	63
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	52	159	1"	M27*1.5	10	31	105	24	79	63	70	80
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	52	164	1"	M30*1.5	15	34	110	28	89	71	80	80
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	52	174	1"	M33*1.5	15	39	120	30	100	80	90	100
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	52	186	1"	M33*1.5	15	39	132	30	100	80	90	100

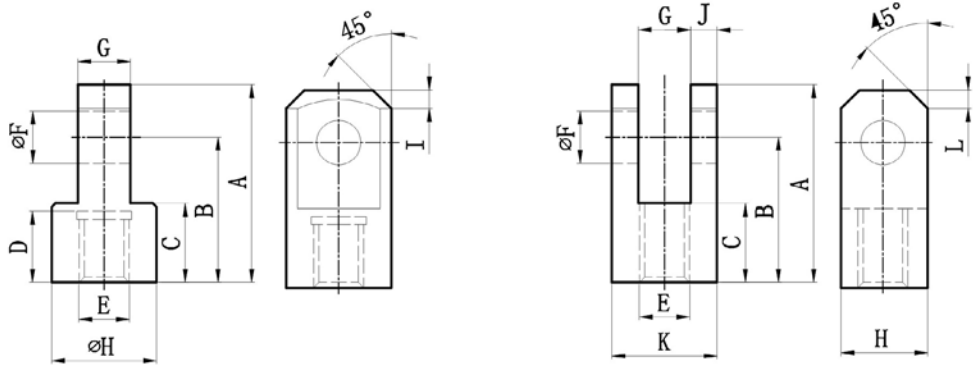
▶ 標準 CGOB+CB 型 雙耳型 Double Trunnion Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	CM	CN	T	ΦCD	CR	CL	CW	CX
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	17	25	13	20	25	42	32.5	64
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	20	32	13	25	30	52	36.5	72
Φ63	55	35	M30*1.5	100	74	35	35	24	57	9	37	113	1/2"	M16*1.5	10	17	75	24	40	13	31.5	35	64	40.5	80
Φ80	65	45	M39*1.5	125	92	45	35	24	67	9	42	129	3/4"	M18*1.5	10	20	85	24	50	15	40	45	74	50.5	100
Φ100	80	50	M40*2.0	160	120	55	40	31	67	9	42	139	3/4"	M22*1.5	10	24	95	31	63	18	50	55	94	63.5	126
Φ125	95	70	M64*2.0	190	145	75	45	37	77	9	52	159	1"	M27*1.5	10	31	105	37	79	24	63	70	116	80.5	150
Φ140	105	80	M72*2.0	215	160	80	50	40	77	10	52	164	1"	M30*1.5	15	34	110	40	89	28	71	80	129	80.5	160
Φ150	120	90	M80*2.0	230	170	90	55	45	80	10	52	174	1"	M33*1.5	15	39	120	45	100	30	80	90	145	100.5	200
Φ160	125	90	M80*2.0	240	180	90	55	45	80	10	52	186	1"	M33*1.5	15	39	132	45	100	30	80	90	145	100.5	200

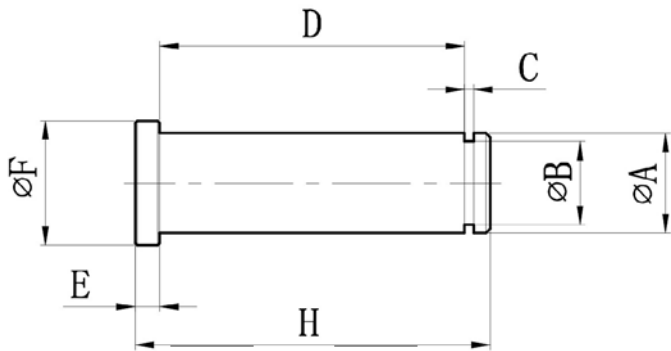
▶ CGO 系列型接頭、Y 型接頭 GO Series I, Y type connector



Unit:mm

BORE	A	B	C	D	E	F	G	H	I	J	K	L
Φ40	70	50	25	25	M22*1.5	20	32	40	8	16	64	10
Φ50	85	60	30	30	M26*1.5	25	36	50	10	18	72	12
Φ63	105	70	35	35	M30*1.5	31.5	40	63	15	20	80	15
Φ80	130	90	45	45	M39*1.5	40	50	80	20	25	100	20
Φ100	160	110	55	55	M40*2.0	50	63	100	25	31.5	126	25
Φ125	205	142	75	75	M64*2.0	63	75	126	30	40	150	30
Φ140	230	155	80	80	M72*2.0	71	80	142	35	40	160	35
Φ150	255	175	90	90	M80*2.0	80	100	160	40	50	200	40
Φ160	255	175	90	90	M80*2.0	80	100	160	40	50	200	40

▶ GB 板 .Y 接頭銷 GB Plate.Y Joint Pin

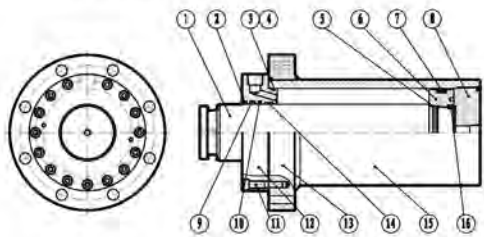


Unit:mm

BORE	ΦA	ΦB	C	D	E	F	H
Φ40	Φ20	-0.02 -0.072	Φ19	0 -0.11	1.1	65	5
Φ50	Φ25	-0.02 -0.072	Φ23.9	0 -0.21	1.3	73	5
Φ63	Φ31.5	-0.02 -0.072	Φ28.6	0 -0.21	1.3	81	5
Φ80	Φ40	-0.025 -0.087	Φ37.5	0 -0.25	1.7	101	8
Φ100	Φ50	-0.025 -0.087	Φ47	0 -0.25	2.2	127	8
Φ125	Φ63	-0.03 -0.104	Φ60	0 -0.3	2.7	151	10
Φ140	Φ71	-0.03 -0.104	Φ67	0 -0.3	2.7	161	10
Φ150	Φ80	-0.03 -0.104	Φ76.5	0 -0.3	2.7	201	10
Φ160	Φ80	-0.03 -0.104	Φ76.5	0 -0.3	2.7	201	10

CHRO SERIES 21MPA
ROUND HYDRAULIC
CYLINDER

大型油壓缸結構圖 Inside Structure



CHROA



NO	零件名 Part name	數量 Quantity	NO	零件名 Part name	數量 Quantity	NO	零件名 Part name	數量 Quantity
1	活塞杆 Piston rod	1	7	活塞專用密封圈 Piston Seal	1	13	法蘭板 Front flange	1
2	防塵油封 Dustproof seal	1	8	後端蓋 End cover	1	14	導向帶 Guidance tape	1
3	O 型圈 Gasket	1	9	軸用油封 Oil seal for shaft	1	15	缸筒 Cylinder tube	1
4	O 型圈支撐環 Gasket support ring	1	10	活塞杆階梯封 Rod ladder seal	1	16	止動螺釘 Lock screw	1
5	O 型圈 Gasket	1	11	內六角螺釘 Socket Head cup screw	15			
6	活塞 Piston	1	12	前端蓋 Rod Cover	1			

大型油壓缸特性資料 Specification

油缸內徑 Hydraulic cylinder inside diameter(mm)	Φ 125	Φ 150	Φ 180	Φ 200	Φ 225	Φ 250	Φ 280	Φ 300
工作媒介 Power 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-13A ~ C/ 白鐵管 Stainless tubes SUS 304							
使用壓力範圍 The range of pressure(mpa)	1-21MPA(10-21kgCM ²)							
使用速度範圍 The range of speed (mm/sec)	8-500(mm/sec)							
使用溫度範圍 Range of temperature(℃)	-30 ~ +100 (℃)							
標準活塞長度 Length of standard piston (PM)	60	60	70	70	70	70	70	90
訂制行程于 1501-2500mm 間活塞長度 (PM) Piston length when the stroke is between 1501-2500 mm	120	120	140	140	140	140	140	150
訂制行程于 2501-4000mm 時活塞長度 (PM) Customized stroke is 2501-4000mm	200	200	200	200	200	200	200	200

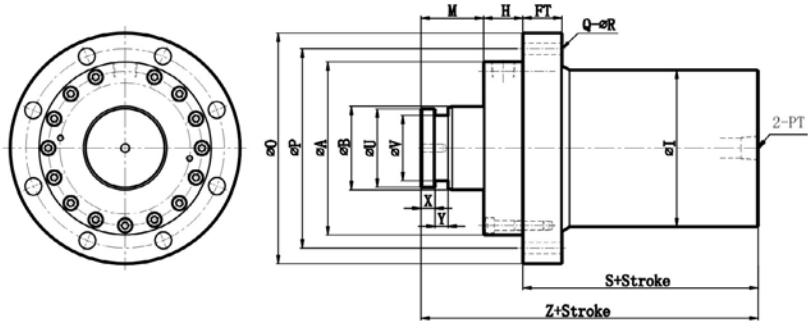
訂購標示法

ORDERING INDICATION

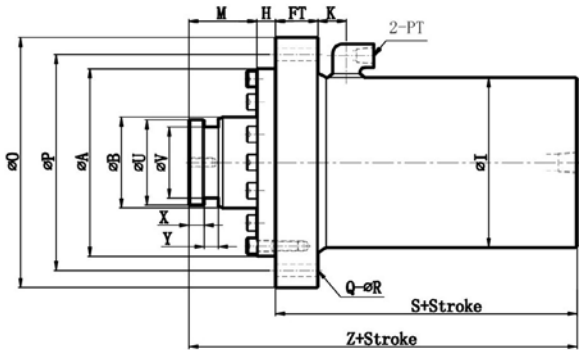
CHROA 125 / 60 * 100 Y + DM

CHROA	系列 Series	CHROA PT 在法蘭前 PT in front of flange		CHROB PT 在法蘭後 PT in rear of flange	
		CHROC CA 型 CA type		CHROD 雙軸型 Double Rods type	
		CHROE 法蘭在後側 Rear flange type			
125	油缸內徑 Hydraulic cylinder inside diameter	Φ 125, Φ 150, Φ 180, Φ 200, Φ 225, Φ 250, Φ 280, Φ 300			
60	軸心 Rod	標準 Standard 最大 Max	Φ 60 Φ 80	Φ 80 Φ 100	Φ 100 Φ 125 Φ 125 Φ 140 Φ 140 Φ 160 Φ 160 Φ 180 Φ 200 Φ 200 Φ 220 Φ 250
100	行程 Stroke	鋼管 Steel barrel (Φ 125-Φ 300) 最大行程: 4 米 Max:4m			
Y	軸心固定型式 ROD Accessories	YP Y 附 Pin Y connectors with pin		TW 半月套 TW rod end mounting	
		I I 型接頭 I connectors		TH 半月套 + 焊套 TH rod end mounting	
				A 可調螺帽 Adjustable nut	
DM	無記號: 心車溝 Blank: Standard DM: 車牙型 DM type				

▶ 標準 CHROA 型 標準 A 型 Single Rod type

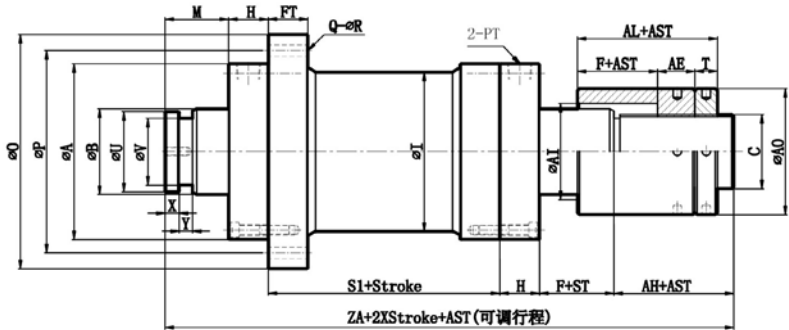


▶ 標準 CHROB 型 標準 B 型 Single Rod B type



Unit:mm

▶ 標準 CHROD 型 雙軸型附可調帽 Double Rods with Adjustable Nut Type

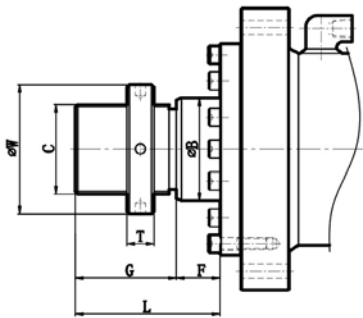


CHROB TYPE																			
BORE	A	B	FT	H	I	K	M	O	P	PM	PT	Q	R	S	U	V	X	Y	Z
Φ125	180	60	45	20	152	30	80	240	210	60	3/4"	6	18	190	60	50	15	15	290
Φ150	205	80	50	20	180	30	80	280	240	60	1"	6	18	200	80	70	15	15	300
Φ180	245	100	60	30	216	30	100	320	280	70	1"	6	18	230	95	85	20	20	360
Φ200	265	125	65	30	242	35	100	350	310	70	1.1/4"	6	20	250	115	100	25	25	380
Φ225	295	140	70	35	270	35	120	380	340	70	1.1/4"	8	20	260	135	120	25	25	415
Φ250	335	160	75	35	298	40	120	440	380	70	1.1/4"	8	24	275	155	140	30	30	430
Φ280	365	180	80	40	330	40	150	500	430	70	1.1/2"	10	26	290	175	150	30	30	480
Φ300	385	200	85	40	350	45	150	550	460	90	1.1/2"	10	28	320	195	170	35	35	510

備注: ▼

- 1.CHRO 行程超過 1500mm 時，活塞長度 (PM) 自行加長，其加長尺寸請參閱特性資料表。
2. 本系列軸心加大時，其相關尺寸依加大比例自行放大。
- 1.Piston length proportionally extends if the stroke of CHRO is more than 1500mm,the extending length conforms to characteristics table.
- 2.In this hydraulic cylinder series,relevant size of other part proportionally extends when the rods is extending.

▶ 外牙型規格表 Vertical screw of rod



Unit:mm

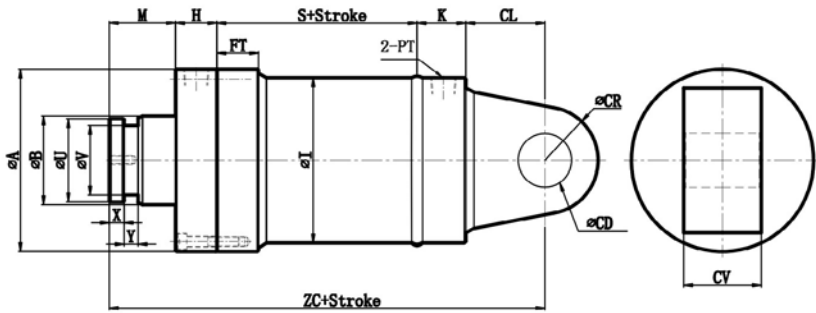
CHROA-CHROD TYPE																							
BORE	A	B	C	F	FT	H	I	M	O	P	PM	PT	Q	R	S	S1	T	U	V	X	Y	Z	ZA
Φ125	175	60	M50XP2.0	25	45	50	152	80	240	210	60	3/4"	6	18	125	100	15	60	50	15	15	255	355
Φ150	200	80	M70XP2.0	25	50	50	180	80	280	240	60	1"	6	18	130	100	20	80	70	15	15	260	365
Φ180	240	100	M90XP2.0	30	60	60	216	100	320	280	70	1"	6	18	150	110	30	95	85	25	25	310	430
Φ200	260	125	M100XP2.0	30	65	70	242	100	350	310	70	1.1/4"	6	20	155	110	30	115	100	25	25	325	450
Φ225	290	140	M120XP3.0	30	70	70	270	120	380	340	70	1.1/4"	8	20	160	110	30	135	120	25	25	350	475
Φ250	330	160	M140XP3.0	30	75	75	298	120	440	380	70	1.1/4"	8	24	170	120	35	155	140	30	30	365	505
Φ280	360	180	M160XP3.0	30	80	80	330	150	500	430	70	1.1/2"	10	26	175	120	40	175	150	30	30	405	550
Φ300	380	200	M180XP3.0	35	85	90	350	150	550	460	90	1.1/2"	10	28	200	140	40	195	170	35	35	440	605

Unit:mm

備注: ▼

- 1.CHRO 行程超過 1500mm 時，活塞長度 (PM) 自行加長，其加長尺寸請參閱特性資料表。
2. 本系列軸心加大時，其相關尺寸依加大比例自行放大。
- 3.AST 為客戶指定之可調行程。
- 1.Piston length proportionally extends if the stroke of CHRO is more than 1500mm,the extending length conforms to characteristics table.
- 2.In this hydraulic cylinder series,relevant size of the other part proportionally extends when the rods is extending.
- 3.AST stands for adjustable stroke designated by customers.

▶ 標準 CHROC 型 單耳軸型 Single Trunnion Mounting Type



Unit:mm

HROC TYPE																CA TYPE			
BORE	A	B	H	I	FT	K	M	PM	PT	S	U	V	X	Y	ZC	CD	CL	CR	CV
Φ125	175	60	50	152	45	50	80	60	3/4"	100	60	50	15	15	270	50	70	50	55
Φ150	200	80	50	180	50	55	80	60	1"	100	80	70	15	15	285	60	80	60	60
Φ180	240	100	60	216	60	55	100	70	1"	110	95	85	20	20	325	70	100	70	80
Φ200	260	125	70	242	65	65	100	70	1.1/4"	110	115	100	25	25	355	80	110	80	90
Φ225	290	140	70	270	70	65	120	70	1.1/4"	110	135	120	25	25	365	90	120	90	100
Φ250	330	160	75	298	75	70	120	70	1.1/4"	115	155	140	30	30	410	100	150	100	120
Φ280	360	180	80	330	80	80	150	70	1.1/2"	115	175	150	30	30	425	100	150	100	120
Φ300	380	200	90	350	85	80	150	90	1.1/2"	135	195	170	35	35	465	120	160	120	140

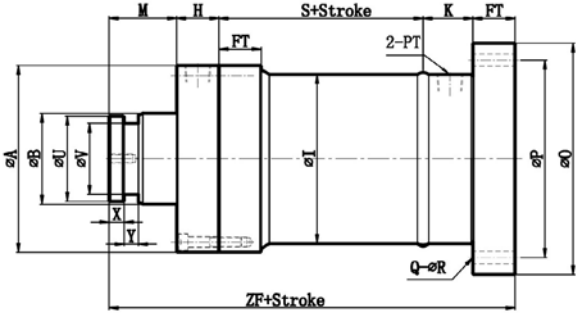
備注: ▼

- 1.CHRO 行程超過 1500mm 時，活塞長度 (PM) 自行加長，其加長尺寸請參閱特性資料表。

2. 本系列軸心加大時，其相關尺寸依加大比例自行放大。
- 1.Piston length proportionally extends if the stroke of CHRO is more than 1500mm,the extending length conforms to characteristics table.

2.In this hydraulic cylinder series,relevant size of the other part proportionally extends when the rods are extending.

▶ 標準 CHROE 型 後法蘭型 Rear Flange Mounting T type



Unit:mm

CHROE TYPE																			
BORE	A	B	FT	H	I	K	M	O	P	PM	PT	Q	R	S	U	V	X	Y	ZF
Φ125	175	60	45	50	152	50	80	240	190	60	3/4"	6	18	100	60	50	15	15	245
Φ150	200	80	50	50	180	55	80	280	240	60	1"	6	18	100	80	70	15	15	255
Φ180	240	100	60	60	216	55	100	320	280	70	1"	6	18	110	95	85	20	20	285
Φ200	260	125	65	70	242	65	100	350	310	70	1.1/4"	6	20	110	115	100	25	25	310
Φ225	290	140	70	70	270	65	120	380	340	70	1.1/4"	8	20	110	135	120	25	25	315
Φ250	330	160	75	75	298	70	120	440	380	70	1.1/4"	8	24	115	155	140	30	30	335
Φ280	360	180	80	80	330	80	150	500	430	70	1.1/2"	10	26	115	175	150	30	30	355
Φ300	380	200	85	90	350	80	150	550	460	90	1.1/2"	10	28	135	195	170	35	35	390

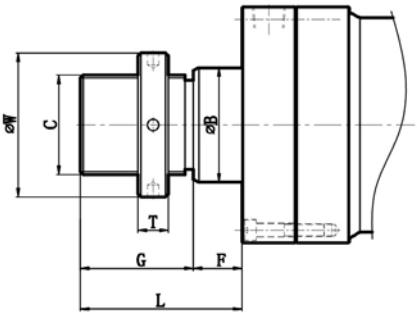
備注: ▼

- 1.CHRO 行程超過 1500mm 時，活塞長度 (PM) 自行加長，其加長尺寸請參閱特性資料表。

2. 本系列軸心加大時，其相關尺寸依加大比例自行放大。
- 1.Piston length proportionally extends if the stroke of CHRO is more than 1500mm,the extending length conforms to characteristics table.

2.In this hydraulic cylinder series,relevant size of the other part proportionally extends when the rods are extending.

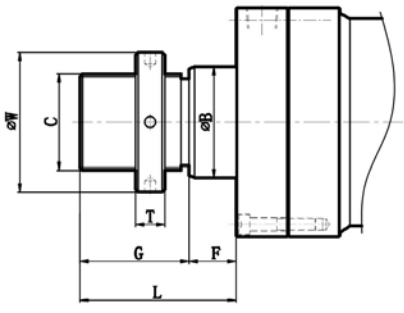
▶ 外牙型規格表 Vertical screw of rod



Unit:mm

BORE	B	C	F	G	L	T	W
Φ125	60	M50XP2.0	25	70	95	15	65
Φ150	80	M70XP2.0	25	80	105	20	95
Φ180	100	M90XP2.0	30	100	130	30	120
Φ200	125	M100XP2.0	30	120	150	30	140
Φ225	140	M120XP3.0	30	140	170	30	160
Φ250	160	M140XP3.0	30	150	180	35	190
Φ280	180	M160XP4.0	30	160	190	40	210
Φ300	200	M180XP4.0	35	160	195	40	230

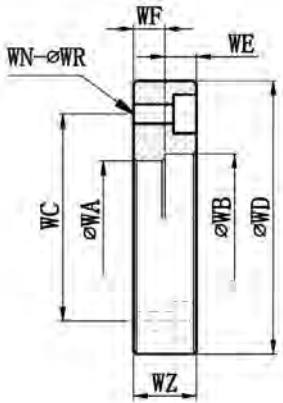
▶ 外牙型規格表 Vertical screw of rod



Unit:mm

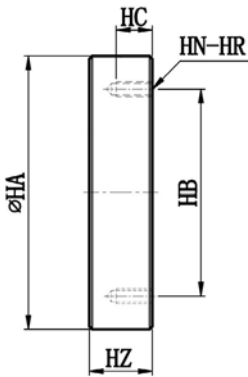
BORE	B	C	F	G	L	T	W
Φ125	60	M50XP2.0	25	70	95	15	65
Φ150	80	M70XP2.0	25	80	105	20	95
Φ180	100	M90XP2.0	30	100	130	30	120
Φ200	125	M100XP2.0	30	120	150	30	140
Φ225	140	M120XP3.0	30	140	170	30	160
Φ250	160	M140XP3.0	30	150	180	35	190
Φ280	180	M160XP4.0	30	160	190	40	210
Φ300	200	M180XP4.0	35	160	195	40	230

► 大型油壓缸軸心配件尺寸圖 Accessories For CHRO Series Cylinders



Unit:mm

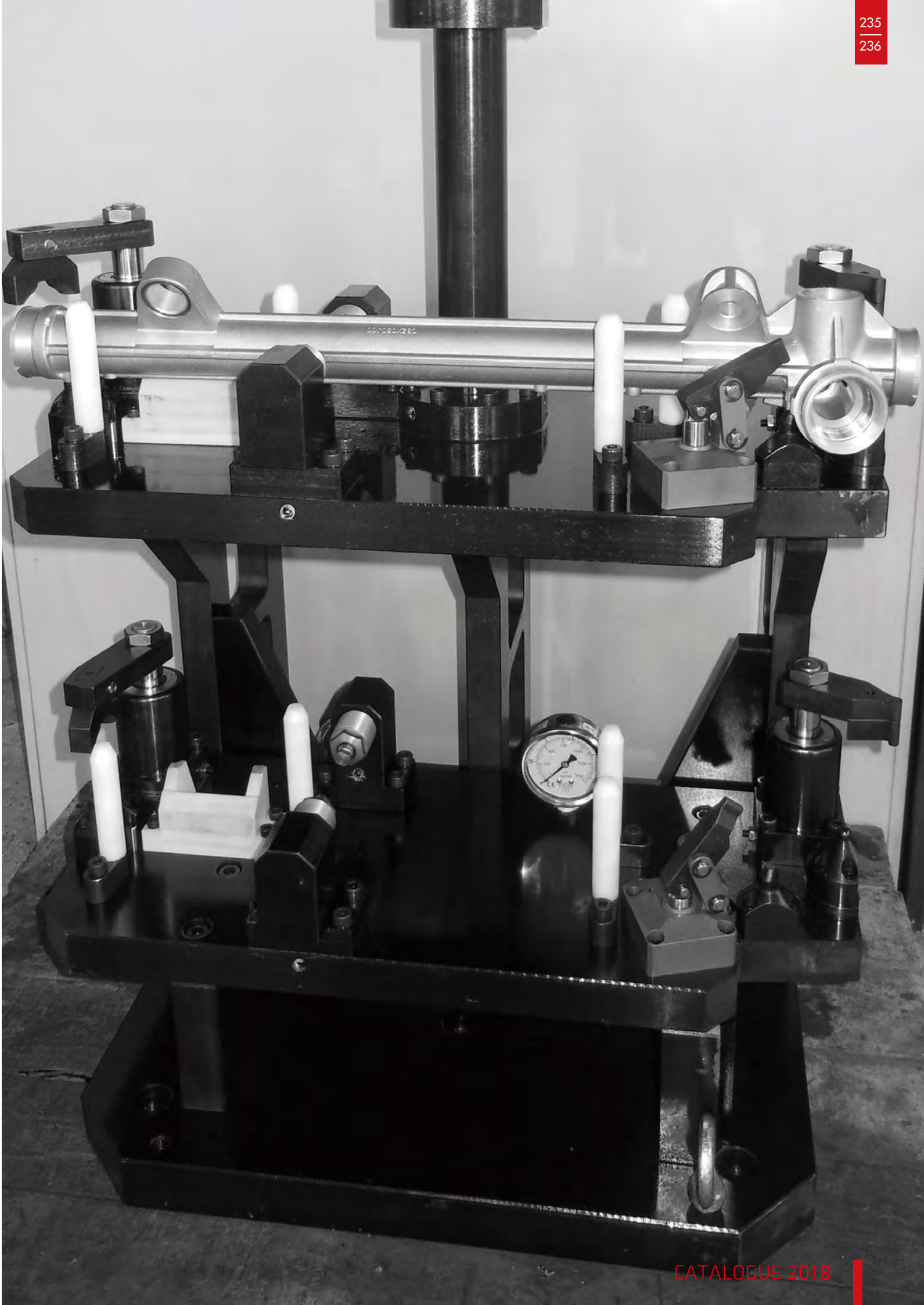
TW 半月套 TW Rod end Mounting									
TYPE	WA	WB	WC	WD	WE	WF	WN	WR	WZ
TW-125	50	60	90	120	15	15	6	12	30
TW-150	70	80	110	140	15	15	6	12	30
TW-180	85	95	140	180	20	20	6	14	40
TW-200	100	115	160	200	25	25	6	14	50
TW-225	120	135	180	220	25	25	8	18	50
TW-250	140	155	210	260	30	30	8	18	60
TW-280	150	175	140	300	30	30	8	22	60
TW-300	170	195	260	320	35	35	8	22	70



Unit:mm

TH 焊接图板 TH Rod end Mounting						
TYPE	HA	HB	HC	HN	HR	HZ
TH-125	120	90	30	6	M10xP1.5	40
TH-150	140	110	30	6	M10xP1.5	40
TH-180	180	140	35	6	M12xP1.75	45
TH-200	200	160	35	6	M12xP1.75	45
TH-225	220	180	40	8	M16xP2.0	50
TH-250	260	210	40	8	M16xP2.0	50
TH-280	300	240	45	8	M20xP2.5	55
TH-300	320	260	50	8	M20xP2.5	60

Material:SS41



CHSG

CHSG 焊接高壓缸

CHSG HYDRAULIC CYLINDER



► 型號說明

MODEL DESCRIPTION:

CHSG ※ 01 — D/d E — ※ ※ ※ ※

CHSG	名稱代號：雙作用單杆活塞式液壓缸	Name:double-acting single piston cylinder
※	缸蓋連接方式 Cylinder head connection:	L- 螺紋連接（缸徑≤ 80mm） L-Threaded connection(bore size:≤80mm K- 內卡鍵連接（缸徑≥ 80mm,）K-Internal clip key connection(bore size≥80mm, （其中 80/55 無卡鍵式）80/55 is without clip key connection)
01	設計序號	Design series number
D	缸體內徑（MM）	Hydraulic cylinder inside diameter(mm)
d	活塞杆直徑（MM）	Rod diameter(mm)
E	壓力等級 E-16MPA H-21MPA	Pressure grade:E-16MPA H-21MPA
※	缸頭、缸筒連接方式：（見表一）	Cylinder end, cylinder tube connection method:(table 1)
※	活塞杆端連接方式：（見表二）	The piston rod end connection method:(table 2)
※	緩衝部位：（見表三）	The buffer area:(table 3)
※	油口連接方式：1- 內螺紋	Oil outlet connection method:1-internal thread connection
※	行程	Stroke
※	安裝距	Mounting distance

► 表一 缸頭、缸筒連接方式及代號

TABLE 1 CYLINDER END, CYLINDER TUBE CONNECTING METHOD AND CODE

連接方式 Connecting method	代號 clde	備注 Remarks
缸頭耳環襯套 Cylinder head earrings liner	1	
缸頭耳環裝關節軸承 Cylinder head earrings with oscillating	2	
絞軸 Hinged shaft	3	缸徑 D ≥ 80(卡鍵連接) bore size D ≥ 80 (clipkeyoconnection)
前端法蘭 Front end flange	4	
中部法蘭 Middle flange	5	

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

► 表二 活塞杆端連接方式及代號

TABLE 2 THE PISTON ROD END CONNECTION METHOD AND CODE

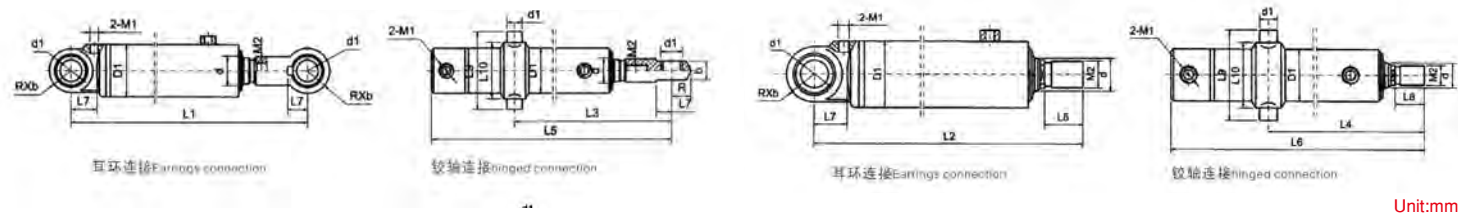
連接方式 Connecting method	代號 clde	備注 Remarks
杆端外螺紋 Rod end external thread	1	
杆端內螺紋 Rod end internal thread	2	缸徑 D ≥ 63 Bore size D ≥ 63
杆端外螺紋杆頭耳環帶襯套 Rod end external thread and rod head earrings with liner	3	
杆端內螺紋杆頭耳環帶襯套 Rod end internal thread and rod head earrings with liner	4	缸徑 D ≥ 63 Bore size D ≥ 63
杆端外螺紋杆頭耳環裝關節軸承 Rod end external thread and rod head earnings with oscillating bearing	5	
杆端內螺紋杆頭耳環裝關節軸承 Rod end internal thread and rod head earnings with oscillating bearing	6	缸徑 D ≥ 63 Bore size D ≥ 63
整體式活塞杆耳環帶襯套 The single-piece piston rod earrings with liner	7	D ≤ 63 或 D ≥ 100
整體式活塞杆耳環裝關節軸承 The single-piece piston rod earrings with oscillating bearing	8	D ≤ 63 或 D ≥ 100

► 表三 緩衝部位及代號

TABLE 3 BUFFER AREA AND CODE

緩衝部位 Buffer area	代號 clde	備注 Remarks
不帶緩衝 Without buffer	0	
兩端帶緩衝 Both ends with buffer	1	缸徑 D ≤ 63 時不帶緩衝裝置速比等于 2 時祇有缸頭兩端帶緩衝。 杆頭不帶緩衝裝置。 bore size D ≤ 63,without buffer;both ends of the cylinder head with buffer when the speed ratio is 2;Cylinder head without buffer
缸頭帶緩衝 Cylinder head with buffer	2	
杆頭帶緩衝 Rod end with buffer	3	

► 外形尺寸



Unit:mm

缸徑 D	D1	d	速比	d1	R	2-M1	M2	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10
		133	146	2													
40	57	20	22	※25	20 或 GE20ES	25	M14*1.5	M16*1.5	255+S	255+S					30	30	
50	68	25	28	※25	30 或 GE30ES	35	M18*1.5	M22*1.5	280+S	243+S					40	35	
63	83	32	35	45	30 或 GE30ES	35	M18*1.5	M27*1.5	295+S	258+S					40	40	
80	102	40	45	55	40 或 GE40ES	45	M22*1.5	M33*1.5	347+S	300+S	> 260 < 205+S	> 215 < 162+S	322+S	275+S	50	45	185 125
90	114	45	50	63	40 或 GE40ES	45	M22*1.5	M36*1.5	357+S ▲377+S	305+S ▲325+S	> 275 < 215+S	> 225 < 165+S	322+S ▲352+S	280+S ▲300+S	50	45	200 140
100	127	50	55	70	50 或 GE50ES	60	M27*2	M42*2	402+S ▲422+S	304+S ▲360+S	> 310 < 230+S	> 250 < 170+S	372+S ▲392+S	310+S ▲330+S	65	50	230 155
110	140	55	63	80	50 或 GE50ES	60	M27*2	M48*2.0	422+S ▲422+S	360+S ▲380+S	> 320 < 250+S	> 260 < 190+S	392+S ▲412+S	330+S ▲350+S	65	55	245 170
125	152	63	70	90	50 或 GE50ES	60	M27*2	M52*2	452+S	370+S	> 335 < 280+S	> 255 < 200+S	422+S	340+S	65	60	260 185
140	168	70	80	100	60 或 GE60ES	60	M27*2	M60*2	498+S ▲518+S	405+S ▲425+S	> 385 < 305+S	> 290 < 210+S	463+S ▲483+S	370+S ▲390+S	75	65	290 200
150	180	75	85	105	60 或 GE60ES	70	M33*2	M64*2	513+S ▲533+S	420+S ▲440+S	> 400 < 320+S	> 305+S < 225+S	478+S ▲498+S	385+S ▲405+S	75	70	305 215
160	194	80	90	110	60 或 GE60ES	70	M33*2	M68*2	533+S	435+S	> 410 < 340+S	> 310 < 240+S	498+S	400+S	75	75	320 230
180	219	90	100	125	70 或 GE70ES	80	M42*2	M76*3	588+S	480+S	> 455 < 365+S	> 345 < 255+S	548+S	440+S	85	85	360 255
200	245	100	110	140	80 或 GE80ES	90	M42*2	M85*3	628+S	510+S	> 485 < 385+S	> 365 < 265+S	578+S	460+S	95	95	405 285
220	273	110	125	160	90 或 GE90ES	100	M42*2	M95*3	690+S	560+S	> 525 < 415+S	> 395 < 285+S	633+S	503+S	105	105	455 320
250	299	125	140	180	100 或 GE100ES	110	M42*2	M105*3	754+S	614+S	> 570 < 455+S	> 430 < 315+S	687+S	547+S	120	115	500 350

注：1. 帶▲者速比 = 2 時的連接尺寸；
2. 帶※者速比為 1.7。

note: 1. ▲ indicates the connection size when the speed ratio is 2
2.※ indicates the speed ratio is 1.7

CHK

柱型模具油壓缸

CHK COLUMN-TYPE HYDRAULIC CYLINDER

► 產品特性

CHK 柱型模具油缸為通用型中高壓油缸，特別適用於壓鑄模具領域，通用性廣泛。
CHK 柱型模具油缸增加了導出系統，可準確的控制油缸行程。
CHK 柱型模具油缸內部增加了緩衝裝置，提高了油缸及模具行程滑塊的壽命。

最大操作壓力：140 kgf/cm²
最小操作壓力：10 kgf/cm²

► 注意事項

可接受訂製，歡迎與本公司洽詢。

► FEATURES

CHK column-type hydraulic cylinder is a medium and high-voltage cylinder which has wide application. It is especially applicable in the field of die-casting mould.
CHK column-type hydraulic cylinder adds guiding system to controls stroke adequately during operating.
CHK column-type hydraulic cylinder internal adds buffer device to prolong service life of the cylinder and slide block.

Max. operating pressure: 140 kgf/cm²
Min. operating pressure: 10 kgf/cm²

► NOTE

Orders with customized request are available, welcome to contact us.

► 訂購標示法

ORDERING INDICATION

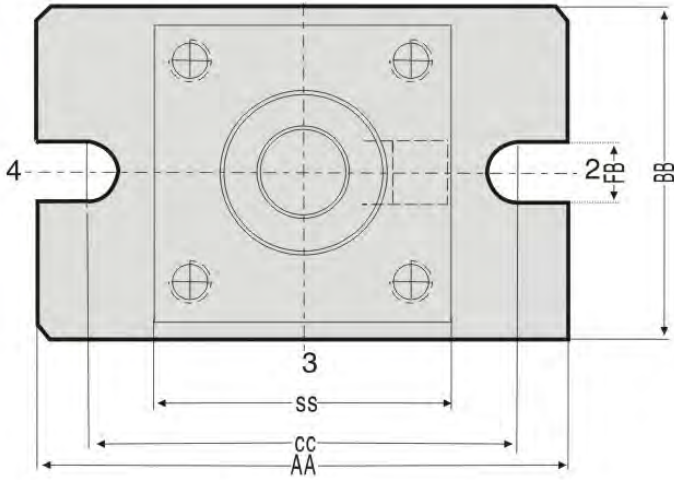
CHK - FA - 80 X 100 A + S2

CHK	系列 Series	CHK			
FA	安裝型式 Fixing type	FA 前法蘭安裝			
80	油缸內徑 Hydraulic cylinder inside diameter	Φ40, Φ80, Φ150, Φ220.	Φ50, Φ100, Φ180.	Φ63, Φ125, Φ200.	
100	行程 Stroke	依客戶需要			
A	活塞杆連接方式 Piston connection type	A 型：脖子型 C 型：內牙型 E 型：窄圓外牙型	B 型：全牙型 D 型：窄圓脖子型 F 型：寬圓型		
S2	行程開關數量	S1：一個	S2：兩個	S1 of 1 pc, S2 of 2 pcs	

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32



► FA (特殊型) 尺寸參考圖 FA(SPECIAL TYPE)REFERENCE DRAWING



BORE	活塞桿徑	AA	BB	CC	FB	SS
40	18	118	70	94	14	65
50	22	135	85	108	18	75
63	28	160	100	130	18	90
80	36	185	122	150	22	110
100	45	220	145	180	26	135
125	56	255	175	210	33	165
150	70	305	212	254	33	196
180	80	365	250	300	39	236
200	90	405	280	335	42	265
220	100	470	335	395	45	310
250	110	515	355	425	48	330

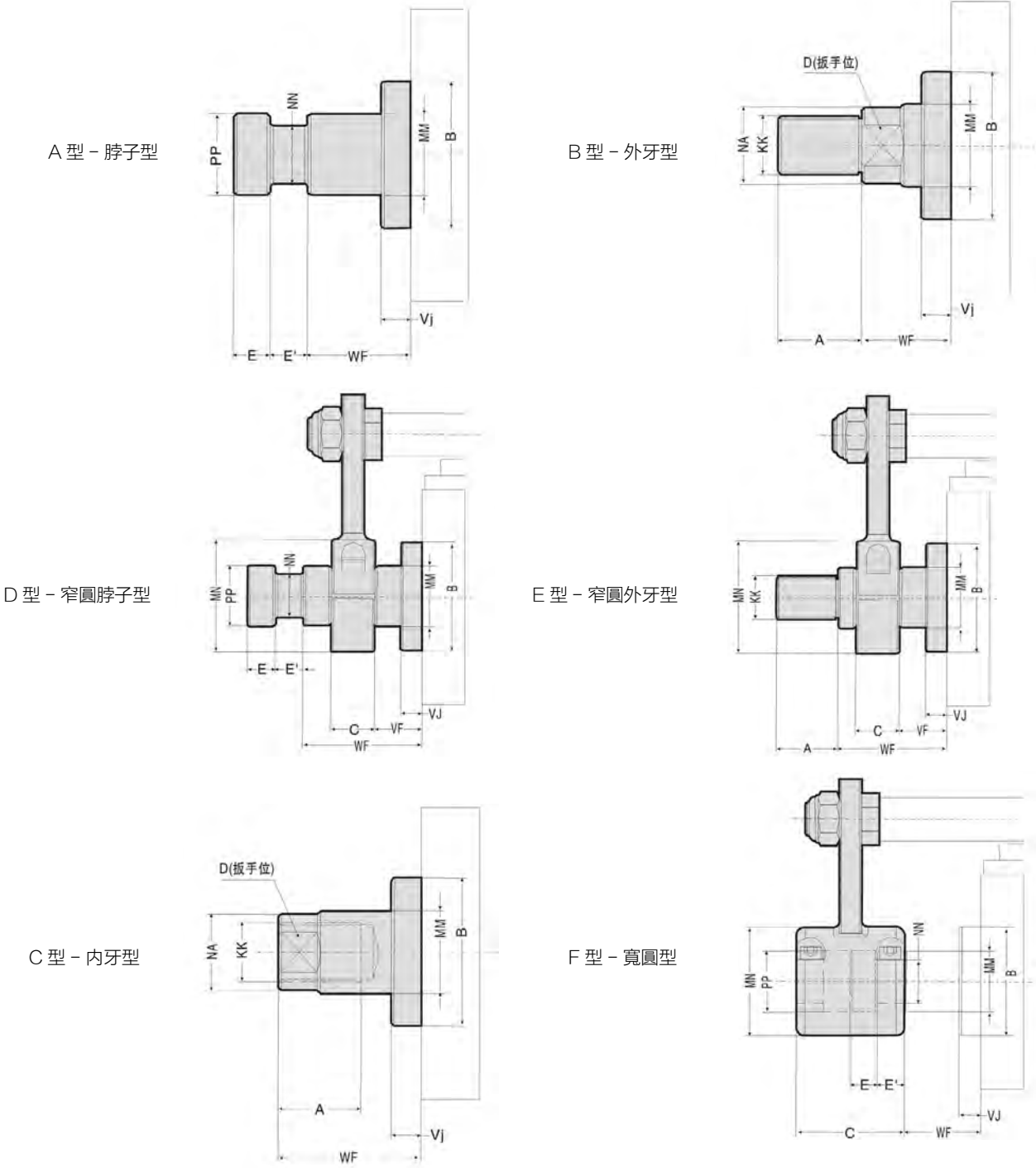
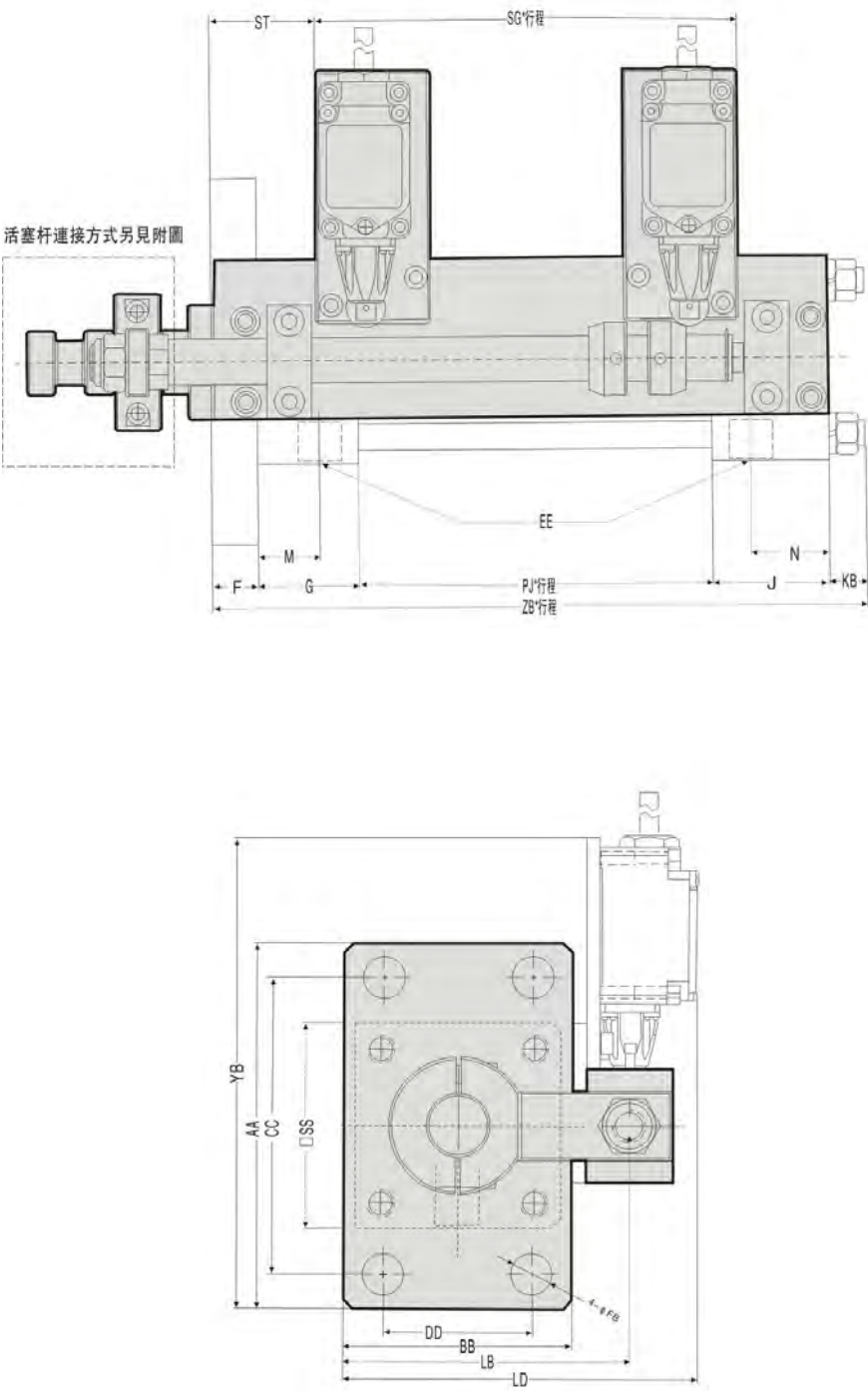
◀ 注: AA.BB.CC.FB 是參考值，可根據客戶要求制作。

油缸內徑 Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150	Φ180	Φ200	Φ220	Φ250
缸管材質 Material of cylinder bareel	碳鋼管 Carbon steel STKM-13C										
最小緩衝行程 Mix. Cushion stroke(mm)	50	50	50	50	80	80	80	100	100	100	100
使用溫度範圍 Range of temperature(℃)	-10 ~ +70 (℃)										

▲ 注：油缸行程小於最小緩衝行程時不配緩衝裝置。

► CHK 柱型模具油缸活塞桿連接方式的尺寸圖

CONNECTION DRAWING OF SHAFT FOR CHK COLUMN-TYPE HYDRAULIC CYLINDER



Unit:mm

Unit:mm

BORE	活塞桿徑	EE(PT)	M	N	F	G	J	KB	ST	AA	BB	CC	DD	LB	SS	LD	ΦFB	YB	SG	PJ	ZB
40	18	3/8	17	13	18	38	28	15	41	118	70	94	40	95	65	125	10	186	83	46	145
50	22	3/8	29	21	20	44	36	15	46	135	85	108	50	110	75	140	14	194	84	54	169
63	28	1/2	27	19	20	44	36	16	46	160	100	130	65	125	90	155	18	207	84	54	170
80	36	1/2	28	22	25	48	42	23	46	185	122	150	80	147	110	177	18	219	84	58	196
100	45	3/4	30	20	30	52	42	25	46	220	145	180	100	170	135	200	22	237	84	70	218.5
125	56	3/4	38	28	32	58	48	29	46	255	175	210	125	200	165	230	26	254	84	87	254
150	70	3/4	42	30	37	62	50	34	46	305	212	254	150	237	196	267	33	279	84	93	275.5
180	80	1	52	38	45	74	60	39	46	365	250	300	180	275	236	305	33	309	84	106	324
200	90	1	49	33	50	78	62	43	46	405	280	335	210	305	265	335	39	329	84	118	351
220	100	1-1/4	48	36	60	82	70	50	46	470	335	395	230	360	310	390	42	362	84	158	419.5
250	110	1-1/4	56	42	65	92	78	51	46	515	355	425	250	380	330	410	45	384	84	138	423.5

BORE	活塞桿徑	ΦPP	ΦNN	E	E'	KK	A	ΦB	D	ΦNA	VJ	VF	WF					C				ΦMN	
	ΦMM												A/F 型	B 型	C 型	D 型	E 型		D/E 型	F 型		D/E 型	F 型
40	18	18	13	12.5	12.5	M14xP1.5	18	36	15	17	5	7	30	27	35	40	37		20	50		50	40
50	22	22	16	12.5	12.5	M16xP1.5	22	42	18	21	10	12	35	28	41	45	38		20	50		55	42
63	28	28	20	12.5	12.5	M20xP1.5	28	50	22	26	10	12	35	30	48	45	40		20	50		60	46
80	36	36	25	15	15	M27xP2.0	36	65	30	34	10	12	40	30	51	50	40		20	60		65	54
100	45	45	31	15	15	M33xP2.0	45	70	39	43	10	12	45	35	57	55	45		20	60		80	62
125	56	56	38	20	20	M42xP2.0	56	75	48	56	10	12	50	40	57	60	50		20	80		90	75
150	70	70	46	25	25	M48xP2.0	63	90	62	68	10	12	60	54	57	70	64		20	100		100	94
180	80	80	55	25	25	M56xP2.0	75	115	70	78	10	12	65	60	57	75	70		20	100		106	116
200	90	90	60	30	30	M64xP3.0	85	120	80	88	10	12	70	85	57	80	75		20	120		110	130
220	100	100	66	35	35	M72xP3.0	85	145	90	98	10	12	80	85	57	90	95		20	140		130	140
250	110	110	72	40	40	M80xP3.0	95	160	100	108	10	12	80	85	57	90	95		20	160		150	150

CP

同步油缸

CP SYNCHRONOUS
CLAMP

▶ 產品特性

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，並直接潤滑。
高夾持精度，防塵效果特佳。
最大操作壓力：35 kgf/cm²
最小操作壓力：10 kgf/cm²

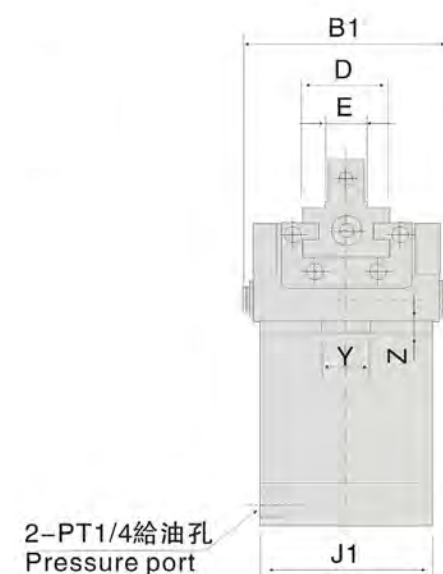
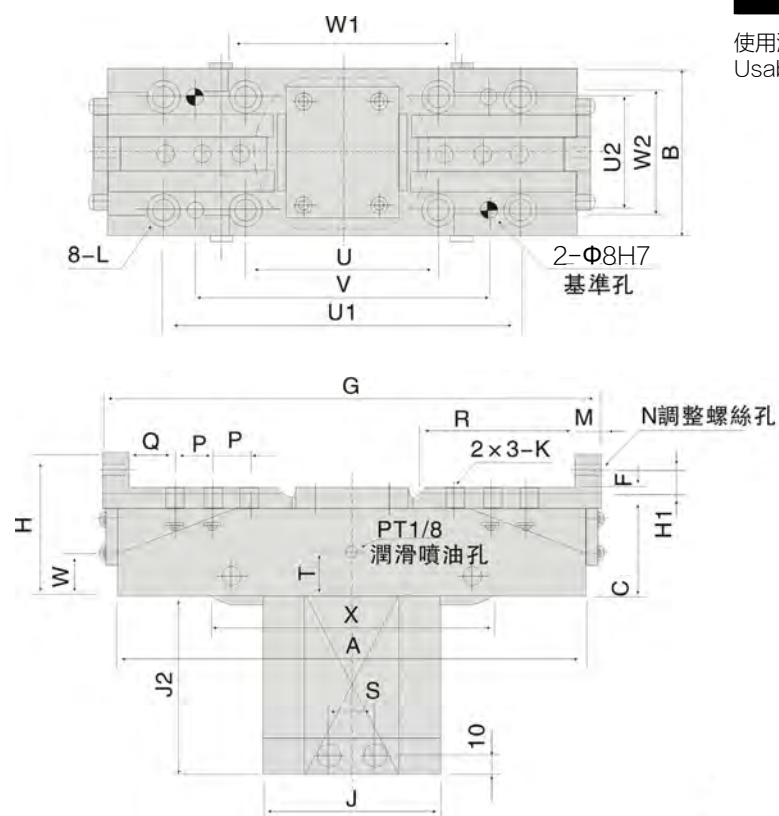
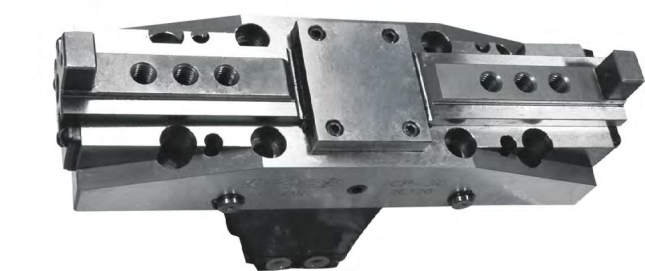
▶ FEATURES

It's a CRANK type 2 slider synchronous clamp cylinder with long slider stroke.
Matching surface of all parts hardened, ground and lubricated directly.
Construction of high rigidity and high clamping accuracy.

Max. operating pressure 35 kgf/cm²
Min. operating pressure 10 kgf/cm²

型號 MODEL	CP-20	CP-30A	CP-30	CP-50
推出受壓面積 EFF. PISTON AREA CLAMP (cm ²)	28.27	28.27	28.27	38.48
滑塊行程 SLIDER STROKE(mm)	20	30	30	50
理論夾持力 (35kgf/cm ²) CLAMPING FORCE AT 35kgf/cm ²	1653	1806	1806	2071
使用溫度範圍 RANGE OF TEMPERATURE(°C)	-10 ~ + 70 (°C)			

使用流體：相當于 ISO 粘度等級的 ISO-VG-32 一般液壓油
Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32



MODEL	A	B	B1	C	D	E(h6)	F	G	H	H1	J	J1	J2	K	L	M	N	P	Q	R	S	T	U	U1	U2	V	W	W1	W2	X	Y	Z	
								MAX	MIN																								
CP-20	215	88	96	53	40	18	4	249	229	75	13	94	76	83.5	M10xP1.5	M10	12	M6xP1	18	20	66	25	22	102	190	60	156	32	110	65	150	22	4
CP-30A	250	88	96	53	40	18	4	295	265	75	13	94	76	96	M10xP1.5	M10	14	M6xP1	20	24	96	25	22	102	190	60	156	20	120	65	156	22	6
CP-30	280	88	96	53	40	22	4	327	297	75	13	94	76	96	M12xP1.75	M10	14	M6xP1	20	24	98	25	22	102	190	60	156	23	110	65	156	22	6
CP-50	300	110	115	65	50	28	5	369	319	90	15	105	-	120	M12xP1.75	M10	16	M8xP1.25	21	28	102	30	32	105	230	85	195	22	140	80	180	30	10

自動

平衡系統

AUTO BALANCE SYSTEM

產品特性

無需外接動力，節省能源。
可適應高轉速時快速平穩提升下降，無噪音，改善配重油壓系統之缺點。
在加工過程可使精度及光潔度大幅提升，減去微震動，延長螺桿及電機使用壽命。
安裝簡單。
正確使用下，基本無需任何保養。

訂購標示法

ORDERING INDICATION

HPT - 30 - 08

HPT	氮氣充填壓力 (MPa)
30	容積 (L)
08	系列編號

注：氮氣最大充填壓力 9MPa

訂購時需一并提供下述諮詢

1. 配重重量_____KG
2. 最大位移速度_____M/min
3. 實際位移行程_____mm
4. 配重油缸數量_____pcs
5. 油管長度_____mm
6. 配重油缸類型 ☐ 活塞式 ☐ 柱塞式
7. 配重缸入油方向 ☐ 前蓋入油 ☐ 後蓋入油
8. 如配重缸有特殊尺寸要求請提供相關圖面或與本公司服務人員聯絡，若無特殊要求請參照本公司 RO 及 HO 系列產品尺寸。

*This product be sold temporary in Mailland China.

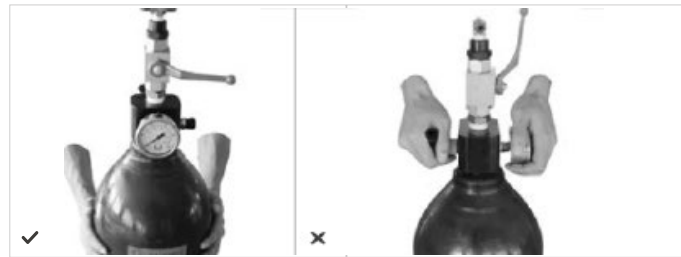


▲ 圖中紅色虛線框中之充、排氮氣閥（C）及其連接之充氣管（E）為選配部件，標準產品不含此兩項部件（需另購）。

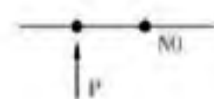
說明

- A. 出油口：連接油缸用
- B. 球閥：液壓油開關，逆時針方向為開，氮氣瓶與油缸油液互通；順時針方向為關，氮氣瓶與油缸油液截斷。
- C. 充、排放氣閥（選配部件，需另購）：氮氣瓶充、排氣工具。
- D. 耐震壓力表：可顯示系統壓力。
- E. 充氣管（選配部件，需另購）：一端連接氮氣源，另一端連接充、排氣閥，作為氮氣源與氮氣瓶傳輸管道。
- F. 充、排氣口：加氣及洩壓連接口。
- G. 氮氣瓶：儲存液壓油及氮氣。
- H. 壓力開關：當系統壓力低於設定值時，壓力開關將輸出信號，提醒使用者及時充氣補充壓力。

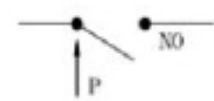
搬運方法



壓力開關設定
壓力開關設定，平衡系統上設有一壓力開關，當平衡系統壓力大於設定值時：



當平衡系統壓力小於設定值時：



設定值出廠時會設定好貴公司機器所需壓力值，如需自行設定，請用一字螺絲刀拆下保護帽，內有一字螺絲槽，順時針旋轉壓力升高，逆時針旋轉壓力降低，請自行調到合適位置，此處壓力稱為設定值。

- 壓力開關接線說明：
1. 壓力開關使用電壓為 220V 或 DC24V，拆除壓力開關保護帽，接入壓力開關接線柱
 2. 開機後調節合適的設定值
 3. 設定值調節好之後裝上保護帽



洩壓步驟

1. 先確定球閥為關閉狀態。
2. 取下充、排氣口上之螺帽。
3. 確定充、排氣閥上截止閥為關閉狀態後將充、排氣閥正確安裝於充、排氣口上，用扳手鎖緊。
4. 緩慢開啓充、排氣閥上之截止開關。
5. 觀察充、排氣閥上之壓力表，當壓力表緩慢降低至所需壓力時將截止閥關閉，卸下充、排氣閥。
6. 用肥皂水塗抹在充、排氣口，測試是否洩漏。
7. 將充、排氣口螺帽鎖緊。

充氣步驟

1. 先確定球閥為關閉狀態。
2. 取下充、排氣口上之螺帽。
3. 確定充、排氣閥上截止閥為關閉狀態後將充、排氣閥正確安裝於充、排氣口上，用扳手鎖緊。
4. 使用充氣管正確連接氮氣源及充、排氣閥。
5. 開啓氮氣源開關，並緩慢開啓充、排氣閥上截止閥。
6. 觀察充、排氣閥上之壓力錶，當壓力緩慢升高至所需壓力時將充、排氣閥與氮氣源截止閥關閉，卸下充、排氣閥。
7. 用肥皂塗抹在充、排氣口，測試是否洩漏。
8. 將充、排氣口螺帽鎖緊。

使用注意事項

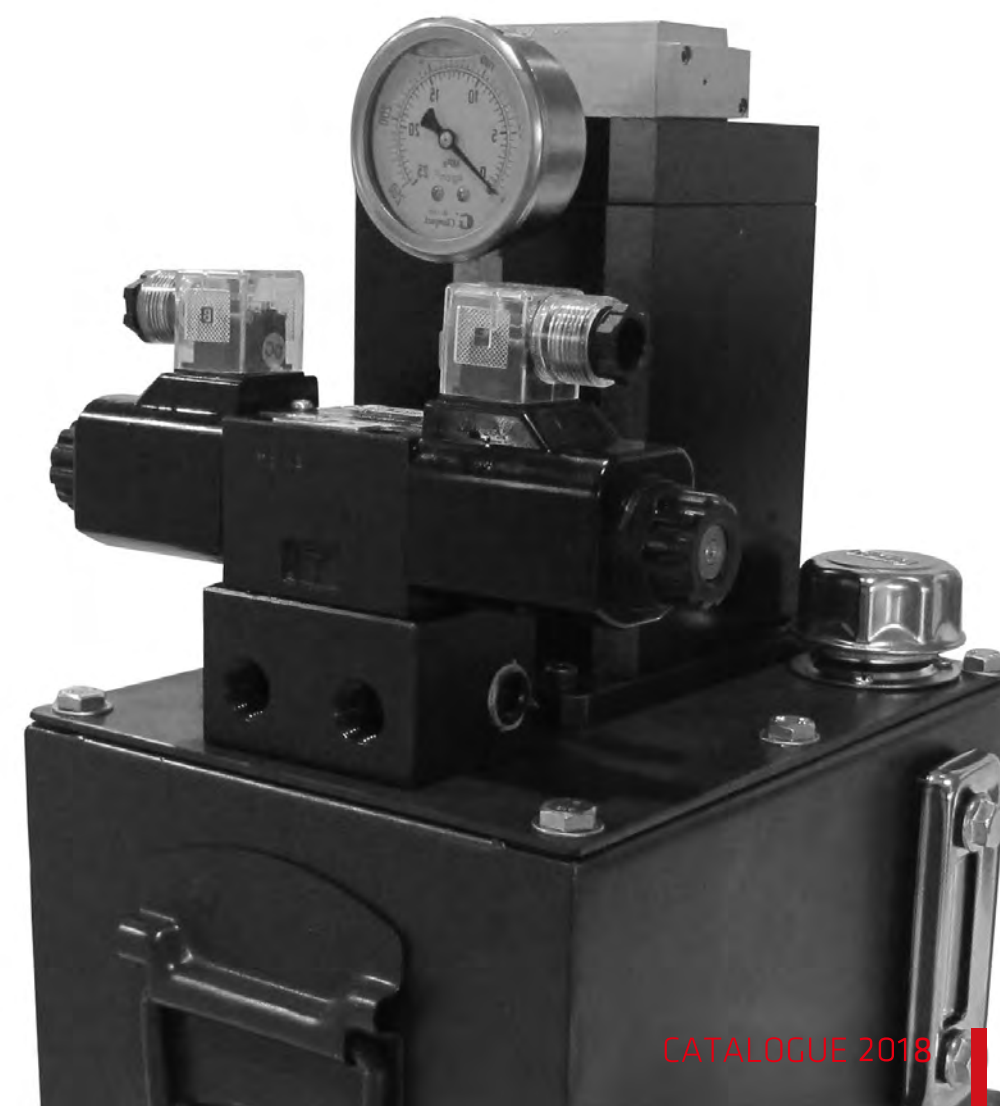
1. 安裝完成後球閥依逆時針方向緩慢旋轉（嚴禁急速打開球閥）。
2. 球閥板手依逆時針緩慢旋轉至 45° 位置後先暫停，用手輕握油管，會感覺液壓油在管內流動。
3. 當液壓油慢慢充滿管路及油缸后再完全打開球閥，使油缸的出力與主軸重量達到平衡。
4. 機器運轉過程中禁止關閉球閥，球閥上板手請取下放置工具箱，避免因誤觸發生故障或危險。

容積	瓶身高度 L	外徑 D
6.3L	525	140
10L	705	152
20L	740	219
30L	1010	219
40L	1350	219
60L	1350	267
80L	1740	267



PNEUMATIC PUMPS

氣動泵系列 ▼



► 產品特性

利用空氣壓驅動增壓泵浦，輸出油壓力，作為油壓缸之動力源，流量大於一般增壓倍數，連續式增壓，作動缸無增壓行程之限制。

以空氣調壓閥調整壓力，達到增壓倍數即停止驅動，油壓壓降時，泵浦將會自動補償，特別適用於長時間油壓夾持，節省能源，不產生油溫，經濟方便。

A 型：安裝 ISO 規格油路板及電磁閥，適用於單動或復動油壓缸。安裝 HDV 方向閥改善內泄量問題，保固氣動泵浦使用壽命。

B 型：附配管座 P,T 孔，可連接油壓手動閥操作。

雙泵浦爭鬥組合可選購增壓比，特別適用於低壓與高壓同時使用之夾治具。

油箱體積小，節省空間，安裝容易。

最大操作壓力：6 kgf/cm²

► FEATURES

The booster pump is driven by air to output hydraulic pressure. As a power source for hydraulic cylinder, its flow rate is bigger than that of a conventional booster. Continuous pressure boosting and no limitation of booster stroke for the acting cylinder.

Pressure adjustment is made by an air pressure regulation valve. Once pressure reaches the desired value, drive stops immediately. In case pressure drops, the pump will compensate pressure automatically. The series is especially ideal for longtime hydraulic clamping application. Also features energy saving no oil temperature growth, economical and convenient.

A type: Equipped with ISO approved manifold and solenoid valve. Applicable for single acting or double acting hydraulic cylinder.

B type: Equipped with pipe block with P.T ports, permitting for connecting to a manual control valve for operational control.

When double-pump is applied, you can select the boost pressure ratio. It is especially suitable for jig and fixture which requires high and low pressure operation together.

Reduced oil tank volume for space saving and convenient installation.

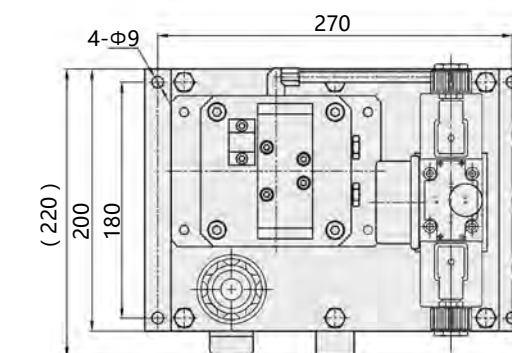
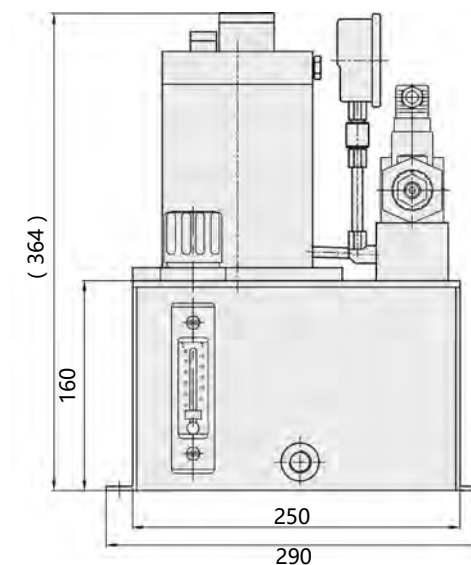
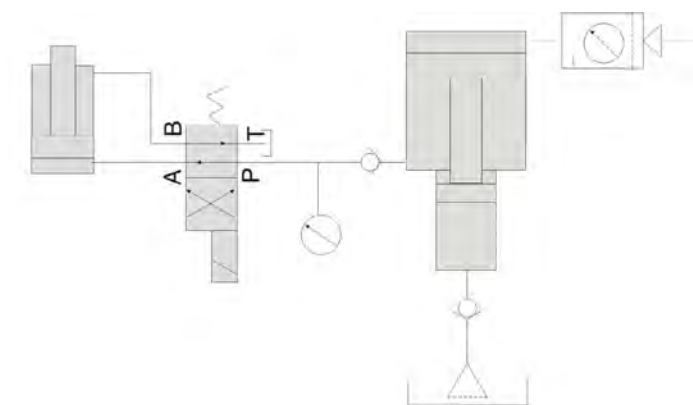
Max. operating pressure: 6 kgf/cm²

► 訂購標示法

ORDERING INDICATION

AHP - 10 A X AC100V

AHP	系列 Series	AHP
10	增壓倍數 Booster pressure rate	06,10,25,44
A	控制型式 Control type	A: ISO 規格油路板 Manifold, magnet valve B: 配管壓 P.T 孔 Distributing tube seat P.T port
AC100V	線圈型式 Coil type	AC110V, AC220V, DC12V, DC24V



增壓倍數	油壓吐油量	油箱容積	使用液壓油
BOOSTER PRESSURE RATE	HYDRAULIC FLUID EXPELLED (l/min)	OIL TANK CAPACITY	OIL
06	1.6	單泵 single pump 5L 雙泵 Double pump 7.8L	ISO-VG68
10	1.0		
25	0.5		
44	0.3		

泵浦數量	油箱外型尺寸	背部及底部固定孔
PUMP QUANTITY	DIMENSION	FLXING HOLES AT THE BACK AND BOTTOM
單泵浦 Single pump	長 (L) 250x 寬 (W) 200x 高 (H) 160	230x100 Φ9 x 4 孔 holes
雙泵浦 Double pump	長 (L) 300x 寬 (W) 250x 高 (H) 160	280x150 Φ9 x 4 孔 holes



ACCESSORIES

其它附件系列 ▼

螺桿

PTA/PTB/PTC/PTD

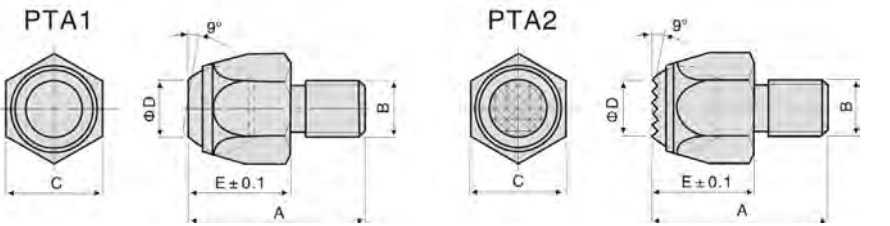
CLAMPING SCREW

PTA 動向鋼珠螺桿

PTA SWIVEL CLAMPING SCREW

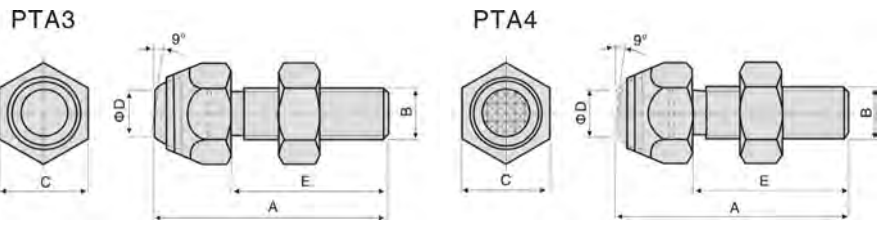
材質: 本體 S45C 鋼珠 SUJ2
硬度: 本體 HRC35° 鋼珠 HRC62°

Material: Body : S45C Steel ball : SUJ2
Hardness: Body: HRC35° Steel ball : HRC62°



Unit:mm

MODEL	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
单重 (g)	12	15	25	70	140	280	560	880



Unit:mm

MODEL	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
单重 (g)	25	55	55	140	330	595	1030



PTA1



PTA2



PTA3



PTA4

PTB 動向鋼珠螺桿

PTB SWIVEL (SHOULDER) CLAMPING SCREW

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

Material: body : SCM21 steel ball : SUJ2
Hardness: body: HRC32°~38° steel ball : HRC62°



Unit:mm

MODEL	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
单重 (g)	2.4	3.8	3.2	5.8	9	6.7	11.2	16.2	12.5	20	30	40

Unit:mm

MODEL	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
单重 (g)	28	40	45	55	65	2.4	3.8	3.2	5.8	9	6.7	11.2

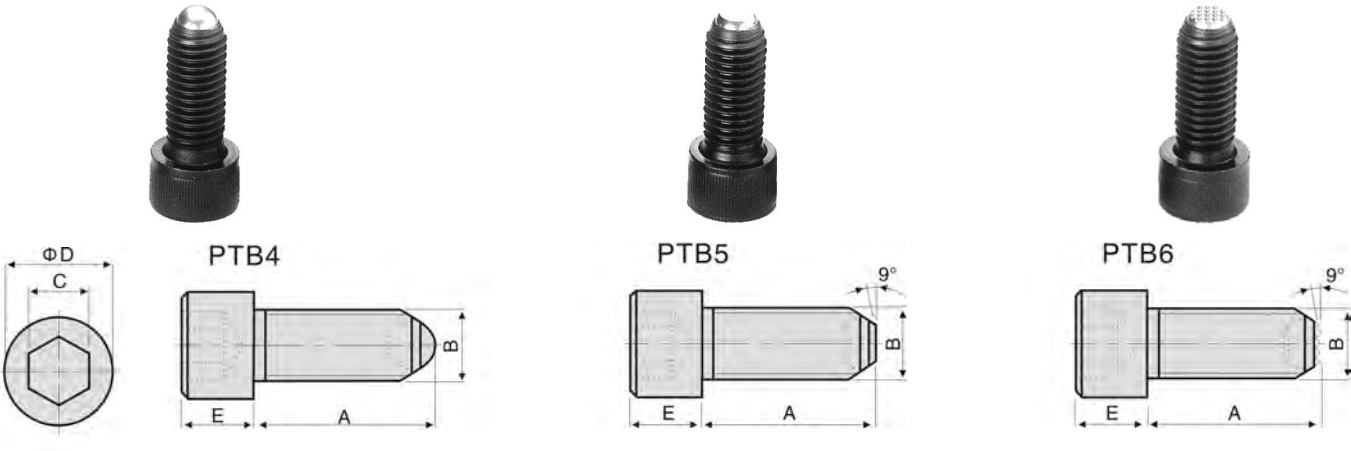
Unit:mm

MODEL	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
单重 (g)	16.2	12.5	20	30	40	28	40	45	55	65

PTB 動向鋼珠螺桿

PTB SWIVEL (SHOULDER) CLAMPING SCREW

材質: 本體 SCM21 鋼珠 SUJ2	Material: body : SCM21 steel ball : SUJ2
硬度: 本體 HRC32° ~38° 鋼珠 HRC62°	Hardness: body: HRC32°~38° steel ball : HRC62°



Unit:mm

MODEL	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
单重 (g)	5.3	7.4	9.5	13.5	20	24	26	34	46	40	50	70	83	90

Unit:mm

MODEL	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
单重 (g)	110	130	170	5.3	7.4	9.5	13.5	20	24	26	34	46

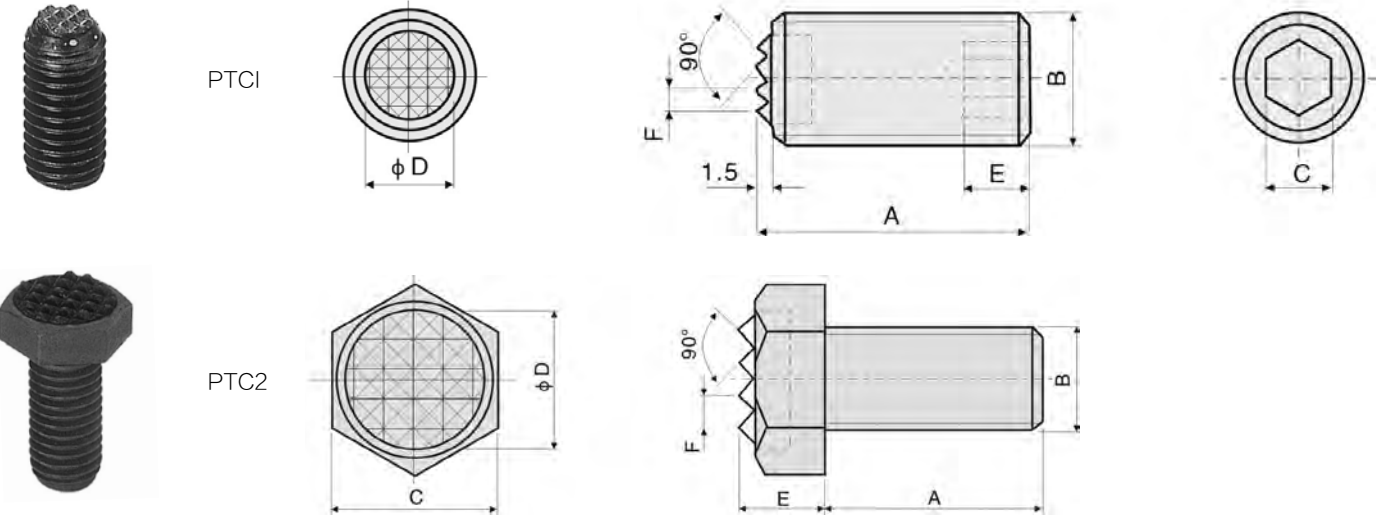
Unit:mm

MODEL	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
单重 (g)	40	50	70	83	90	110	13	170

PTC 齒型螺桿

PTC GRIPPER SCREW

材質: 本體 S45C 齒形 SKH9	Material: body : S45C steel ball : SKH9
硬度: 本體 HRC35° 齒形 HRC60°	Hardness: body: HRC35° steel ball : HRC60°



Unit:mm

MODEL	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
单重 (g)	15	30	22	45	37	78	58	120

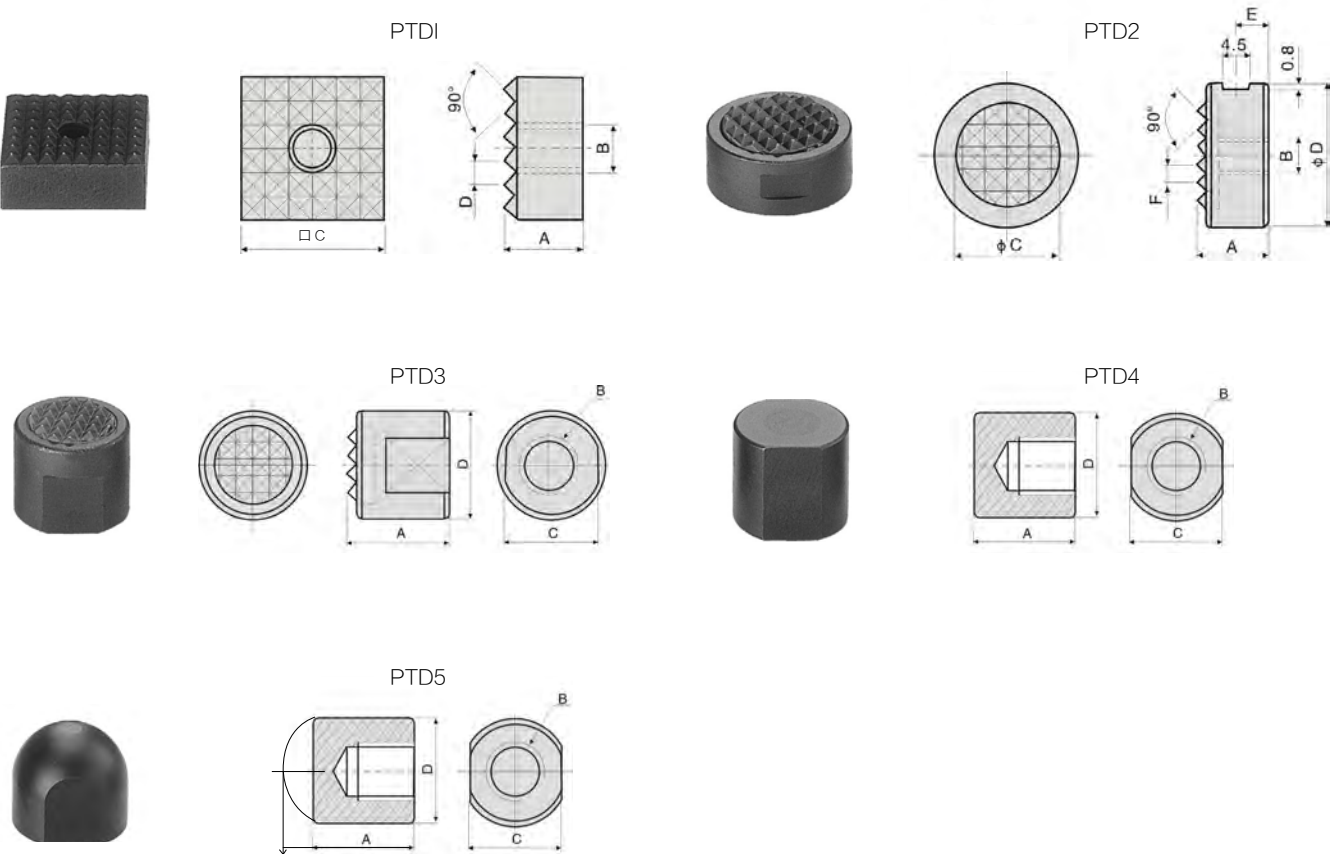
Unit:mm

MODEL	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
单重 (g)	8	15	30	35	35	50	85	100	160	205

PTD 支持件

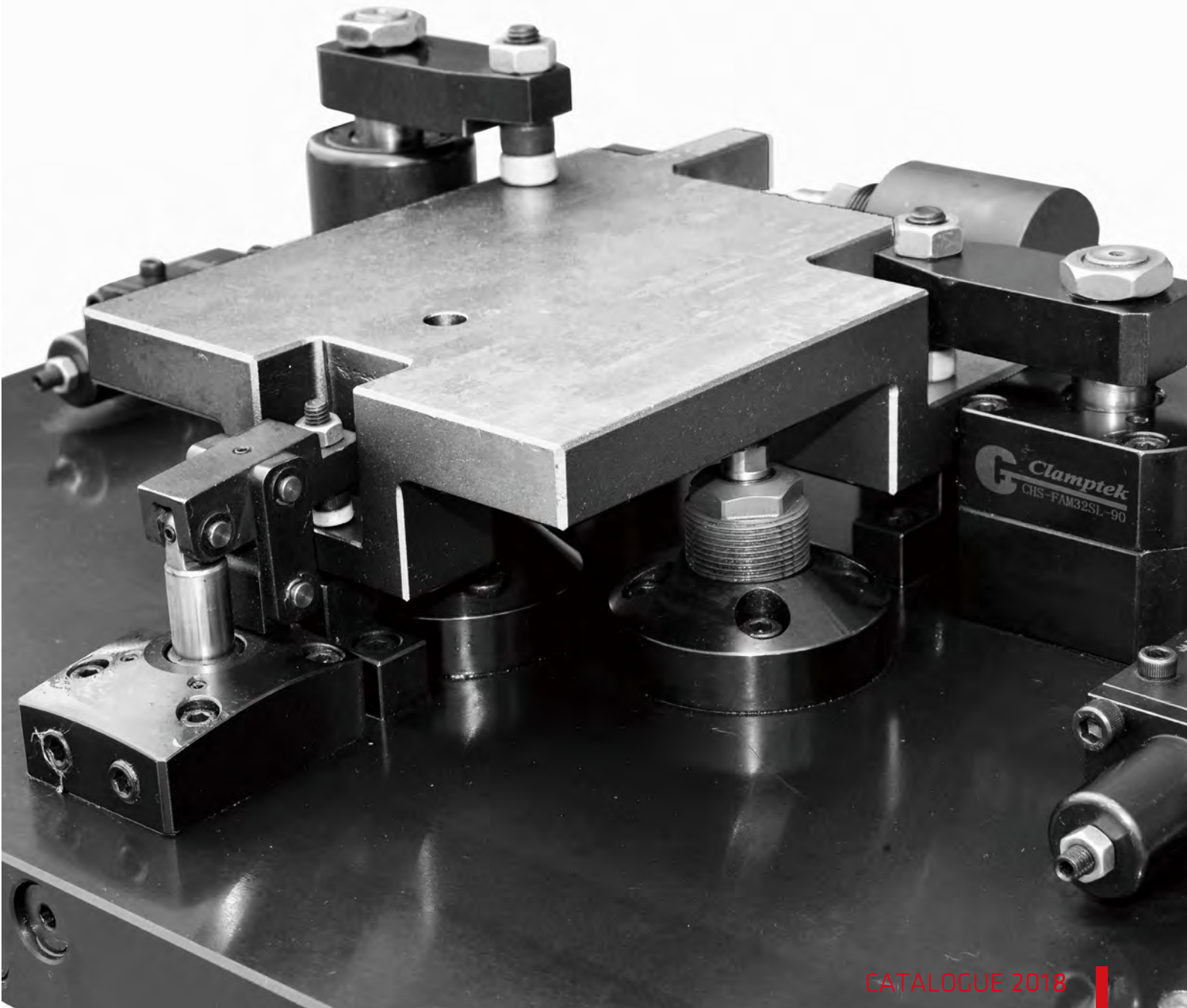
PTD GRIPPER NUT

PTD1/PTD2/PTD3 材質: SKH9 硬度 HRC60° Material for PTD1/PTD2/PTD3: body : SKH9 Hardness: HRC60°
PTD4/PTD5 材質: SCM440 硬度 HRC60° Material for PTD4/PTD5: body : SCM440 Hardness: HRC60°



MODEL	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
单重 (g)	8	10	30	43	43	80	43	76	42	63

MODEL	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
单重 (g)	5	8	16	25	40



壓板

CP25/CP28/CP27

BLOCK-CLAMP

CP25 壓板

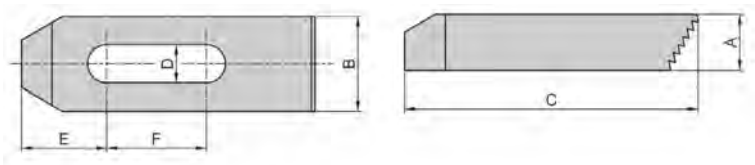
CP25 STEP CLAMP

材質 Material: Steel 45

熱處理 Heat Treatment: HRC 32° ~38°

表面發黑處理 Surface: Black oxidating.

用途：與 SU25 配合使用 Application: Used with SU25 together



Unit:mm

MODEL	A	B	C	D	E	F	kg
CP25-10063	13	25	63	11	18	19	0.100
CP25-10100	16	25	100	11	27	37	0.215
CP25-10150	19	32	150	11	30	50	0.570
CP25-12063	13	25	63	13	20	14	0.100
CP25-12100	19	32	100	13	29	34	0.320
CP25-12150	22	32	150	13	32	50	0.650
CP25-14063	13	25	63	15	20	14	0.100
CP25-14100	19	32	100	15	29	34	0.315
CP25-14150	22	32	150	15	32	50	0.600
CP25-16063	16	32	63	17	22	12	0.160
CP25-16100	19	38	100	17	31	26	0.400
CP25-16150	22	38	150	17	40	47	0.710
CP25-18063	16	32	63	20	22	12	0.140
CP25-18100	19	38	100	20	31	26	0.380
CP25-18150	22	38	150	20	40	47	0.750
CP25-20100	19	38	100	21	31	26	0.360
CP25-20150	25	38	150	21	43	44	0.750
CP25-20200	25	50	200	21	55	65	1.500
CP25-24150	32	50	150	26	43	38	1.290
CP25-24200	32	50	200	26	53	57	2.000
CP25-24250	38	50	250	26	60	64	2.950



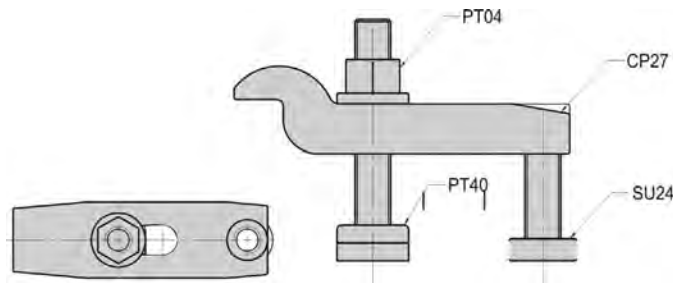
CP28 鳥型壓板組

CP28 GOOSE NECK CLAMP

材質 Material: Steel 45

熱處理 Heat Treatment: HRC 32° ~38°

表面發黑處理 Surface: Black oxidating.



Unit:mm

MODEL	CP27	PT40	PT04	SU24	kg
CP28-ZC-40	16100	16100	1624	12060	1.5
CP-28-ZC-60	16150	16100	1624	16070	2.6

CP27 鳥型壓板

CP27 THREADED GOOSE NECK CLAMP

材質 Material: Steel 45

熱處理 Heat Treatment: HRC 32°~38°

表面發黑處理 Surface: Black oxidating



Unit:mm

MODEL	A	B	C	D	E	F	G	H	I	J	K	kg
CP27-16100	19	35	100	46.5	7	17	14	21	14	10	M12x1.75	0.78
CP27-16150	22	45	150	62	26	17	15	24	22	12	M16x2.0	1.7

壓臂

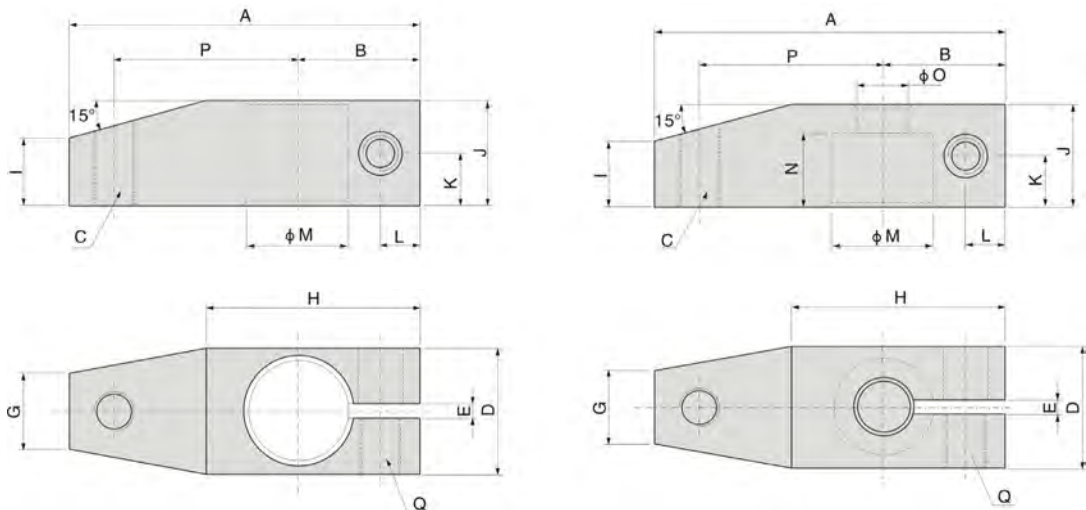
配件尺寸

CLAMPING ARM
ACCESSORIES

▶ 030/040/050 系列

單 動 Single acting

復 動 Double acting



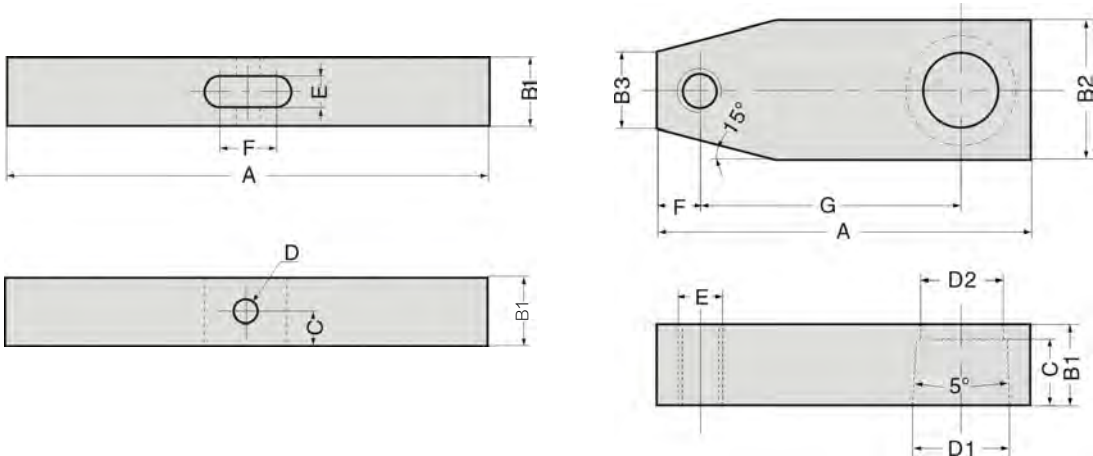
Unit:mm

Type	A	B	C 英制 (British system)	C 公制 (Metric system)	D	E	G	H	I	J	K	L	M	N	O	P	Q
030/040/050 單動 Single acting LS/RS-92	86	30	-	M10x1.5	38	3.5	18	45	16	25	10.5	9.75	Φ25	-	-	45	M10x1.5
030/040/050 單動 Single acting LS/RS-202	106	36	1/2-13UNC	M12x1.75	48	3.5	25	60	21	32	14	11	Φ32	-	-	55	M12x1.75
030/040/050 復動 Double acting LD/RD-92	86	30	-	M10x1.5	38	3.5	18	45	16	25	10.5	9.75	Φ25	18	Φ12.5	45	M10x1.5
030/040/050 復動 Double acting LD/RD-202	106	36	1/2-13UNC	M12x1.75	48	3.5	25	60	21	32	14	11	Φ32	-	-	55	M12x1.75

▶ CHS 系列

雙 臂 Double arm

單 臂 Single arm

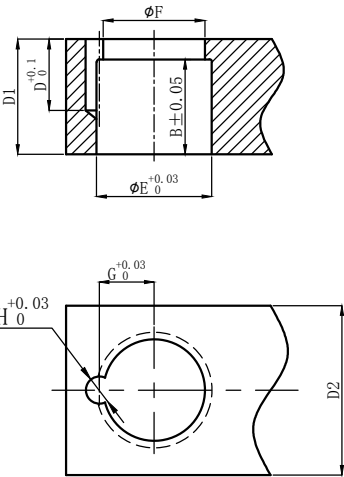
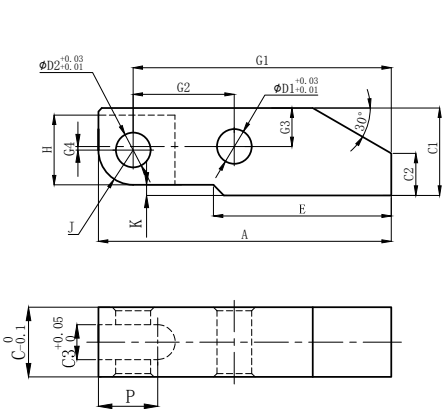


Unit:mm

型號	標準型攻牙	標準型無牙	加長型無牙										
MODEL	A STANDARD WITH THREAD	A STANDARD WITHOUT THREAD	A EXTENSION	B1	B2	B3	C	D	D1	D2	E	F	G
CHS-25	74	74	100	16	27	15	13	-	Φ18	Φ15	M10x1.5	10	50
CHS-32	81	81	110	18	31	17	14	-	Φ20	Φ17	M10x1.5	10	55
CHS-40	86	86	120	18	31	17	15	-	Φ22.4	Φ19	M10x1.5	10	60
CHS-50	96	96	130	20	37	19	16	-	Φ28	Φ21	M12x1.75	12	65
CHS-63	114	114	150	23	48	24	18	-	Φ35.5	Φ25	M16x2.0	15	75
CHS-25D	-	140	200	□19	-	-	9.5	Φ8	-	-	9	16	-
CHS-32D	-	160	230	□22	-	-	11	Φ8	-	-	10	19	-
CHS-40D	-	160	230	□22	-	-	11	Φ10	-	-	10	21	-
CHS-50D	-	180	260	□25	-	-	12.5	Φ12	-	-	12	26	-
CHS-63D	-	200	-	□32	-	-	16	Φ15	-	-	15	33	-

▶ CLKA 系列

▶ CHA 系列



▶ CHA 油壓轉角缸壓臂尺寸 CHA HYDRAULIC SWING CLAMP CYINDER ARM DIMENSIONS

MODEL	CHA036	CHA040	CHA048	CHA055	CHA065	CHA075	CHA090	CHA105
B	14	16	19	22	25	31	38	44
D	10.5	10.5	12.5	14.5	16.5	17.5	17.5	20.5
D1	17	19	23	26	29	35	43	50
D2	25	32	40	45	50	58	75	90
E	17	20	25	28	34	40	49	60
F	15	17	21	23	29	33	42	51
G	8	9	11.5	13	15.5	18	22.5	28
H	4	4	5	6	6	8	8	10

▶ CLKA 油壓杠杆缸壓臂尺寸 CLKA HYDRAULIC LEVERAGE-TYPE CYINDER ARM DIMENSIONS

MODEL	A	C	C1	C2	C3	D1	D2	E	G1	G2	G3	G4	H	J	K	P
CLKA036	42	10	12.5	6	5	5	5	25.5	37	14.5	5.5	0.5	10	R5	1.5	8.5
CLKA040	45	12	14	8	6	6	6	27.5	40	16	6	1.5	11	R5	1.5	12
CLKA048	53	12	16	8	6	6	6	32	47	18.5	6.5	1.5	13	R5	1.5	13
CLKA055	61.5	16	20	12	8	8	6	37	55	21	8	4	13.5	R6	2	12.5
CLKA065	69.5	19	25	17	10	10	8	35	61.5	24.5	9.5	6	18.5	R8	1.5	16
CLKA075	82	22	32	24	11	12	10	42.5	72.5	30	12.5	8	21.5	R9.5	2	20.5
CLKA090	95	25	38	30	13	15	12	60.5	82.5	36	14	8.5	27.5	R12.5	2.5	26
CLKA105	116	32	45	37	18	18	15	68	100	44	16	6	37	R15	4	32

WEIGHTS
OF PRODUCTS

產品重量表

CHTB 薄型油壓缸

CHTB Hydraulic push-pull cylinder

Unit:kg

BORE/STROKE				5	10	15	20	25	30	40	50
Φ20	SD	N	-	0.63	-	0.74	-	0.85	-	-	-
Φ20	SD	W	-	0.68	-	0.79	-	0.9	-	-	-
Φ25	SD	N	-	0.87	-	1.01	-	1.15	1.29	1.43	-
Φ25	SD	W	-	0.92	-	1.06	-	1.2	1.34	1.48	-
Φ32	SD	N	1.61	1.73	1.85	1.97	2.09	2.21	2.45	2.69	-
Φ32	SD	W	1.71	1.83	1.95	2.07	2.19	2.31	2.55	2.79	-
Φ32	LA	N	-	1.71	-	1.97	-	2.23	2.49	2.75	-
Φ32	LA	W	-	1.81	-	2.07	-	2.33	2.59	2.85	-
Φ40	SD	N	2.0	2.15	2.3	2.45	2.6	2.75	3.05	3.35	-
Φ40	SD	W	2.2	2.35	2.5	2.65	2.8	2.95	3.25	3.55	-
Φ40	LA	N	-	2.19	-	2.53	-	2.87	3.21	3.55	-
Φ40	LA	W	-	2.39	-	2.73	-	3.07	3.41	3.75	-
Φ50	SD	N	2.78	2.96	3.14	3.32	3.5	3.68	4.04	4.4	-
Φ50	SD	W	3.03	3.21	3.39	3.57	3.75	3.93	4.29	4.65	-
Φ50	LA	N	-	3.24	-	3.68	-	4.12	4.56	5	-
Φ50	LA	W	-	3.49	-	3.93	-	4.37	4.81	5.25	-
Φ63	SD	N	4.24	4.48	4.72	4.96	5.2	5.44	5.92	6.4	-
Φ63	SD	W	4.69	4.93	5.17	5.41	5.65	5.89	6.37	6.85	-
Φ63	LA	N	-	5.22	-	5.84	-	6.46	7.08	7.7	-
Φ63	LA	W	-	5.67	-	6.29	-	6.91	7.53	8.15	-
Φ80	SD	N	7.46	7.8	8.14	8.48	8.82	9.16	9.84	10.52	-
Φ80	SD	W	8.31	8.65	8.99	9.33	9.67	10.01	10.69	11.37	-

注：本表記載為單軸心標準品 Remark: This form isstandard product with single shaft

Unit:kg

① CTC		② CSV/CPRV/CFCV		③ HB		④ CALC				⑤ HPS		
型號 MODEL	重量 WEIGHT(kg)	型號 MODEL	重量 WEIGHT(kg)	型號 MODEL	重量 WEIGHT(kg)	型號 MODEL	重量 WEIGHT(kg)	型號 MODEL	重量 WEIGHT(kg)	型號 MODEL NO.	全牙型 Threaded type	法蘭型 Flange type
CTC-12A	0.07	CSV	0.59	HB-9x6	3.7	CALC-25	0.27	CALC-MS25	0.29	HPS-25	1.15	1.35
CTC-12B	0.08	CLSV	0.35	HB-3.8x45	8.8	CALC-32	0.42	CALC-MS32	0.48	HPS-40	2.57	3.02
CTC-16A	0.14	CPRV-02	1.2	HB-5x35	8.8	CALC-40	0.55	CALC-MS40	0.63	HPS-50	-	4.6
CTC-16B	0.15	CFCV-01	0.08	HB-8x22	8.8	CALC-50	0.95	CALC-MS50	1.05	HPS-63	-	5.8
CTC-20A	0.22	CFCV-02	0.15	-	-	CALC-63	1.45	CALC-MS63	1.6	-	-	-
CTC-20B	0.24	-	-	-	-	-	-	-	-	-	-	-
CTC-25A	0.37	-	-	-	-	-	-	-	-	-	-	-
CTC-25B	0.4	-	-	-	-	-	-	-	-	-	-	-

① CTC 外螺紋單動油壓缸
CTC Threaded cylinder

② CSV/CPRV/CFCV 油壓閥
CSV/CPRV/CFCV Hydraulic valve

③ HB 增壓器閥
HB Hydraulic booster

④ CALC 杠杆式空壓缸
CALC Pneumatic leverage clamp

⑤ HPS 高壓轉角缸
HPS High pressure swing clamp

CHS/HSC 油壓轉角缸

CHS/HSC Hydraulic swing clamp

Unit:kg

型號	配管式		MF 深孔型附調速		M 油路板型	FA 法蘭型	FAM 法蘭型油路板	TB 全牙型
MODEL	LINE TYPE		MANIFOLD WITH FLOW CONTROL		MANIFOLD TYPE	FLANGE TYPE	FLANGE WITH MANIFOLD	THREADED TYPE
	標準行程 Standard stroke	加長行程 Extension stroke	標準行程 Standard stroke	加長行程 Extension stroke				
HSC/CHS-25S	1.3	-	1.3	-	1.8	1.3	1.3	1.3
HSC/CHS-25D	1.5	-	1.5	-	2	1.5	1.5	1.5
HSC/CHS-32S	1.7	1.9	1.7	1.9	2.2	1.7	1.7	1.7
HSC/CHS-32D	2.0	2.2	2.0	2.2	2.5	2.0	2.0	2.0
HSC/CHS-40S	2.3	2.2	2.0	2.2	3.3	2.3	2.4	2.1
HSC/CHS-40D	3.2	2.5	2.3	2.5	3.6	2.6	2.7	2.4
HSC/CHS-50S	3.5	3.5	3.2	3.5	4.3	3.4	3.5	3.2
HSC/CHS-50D	5.1	3.5	3.5	3.8	4.6	3.7	3.8	3.5
HSC/CHS-63S	5.7	5.5	5.0	5.4	-	5.2	-	-
HSC/CHS-63D	-	6.1	5.6	6.0	-	5.6	-	-

ASC 空壓轉角缸

ASC Pneumatic swing clamp

Unit:kg

型號	配管式		MF 深孔型附調速	MS 感應型	FA 法蘭型	TB 全牙型
MODEL	LINE TYPE		MANIFOLD WITH FLOW CONTROL	MAGNETIC TYPE	FLANGE TYPE	THREADED TYPE
	標準行程 Standard stroke	加長行程 Extension stroke				
ASC-25S	0.3	-	-	0.4	-	-
ASC-32S	0.7	0.8	0.6	0.7	0.6	0.9
ASC-32D	0.9	1.0	0.8	0.9	0.8	1.1
ASC-40S	0.9	1.0	0.8	0.9	0.8	1.1
ASC-40D	1.1	1.2	1.0	1.1	1.0	1.3
ASC-50S	1.6	1.7	1.4	1.6	1.4	1.7
ASC-50D	1.8	1.9	1.6	1.8	1.6	1.9
ASC-63S	2.1	2.2	1.8	2.3	1.8	-
ASC-63D	2.3	2.4	2.0	2.5	2.0	-

CHLC 杠杆式油壓缸

CHLC Hydraulic leverage clamp

Unit:kg

型號	配管式	MF 油路板附調速	M 油路板型	FA 法蘭型	FAM 法蘭型油路板
MODEL	LINE TYPE	MANIFOLD WITH FLOW CONTROL	MANIFOLD TYPE	FLANGE TYPE	FLANGE WITH MANIFOLD
CHLC-25	1.9	2.1	1.9	1.4	1.4
CHLC-32	2.1	2.2	2.1	1.7	1.7
CHLC-40	3.3	3.6	3.3	2.5	2.3
CHLC-50	4.4	4.8	4.5	3.8	3.6
CHLC-63	8.3	-	8.4	-	-

CLAMPTEK BRAND

▶ 嘉剛研發產品



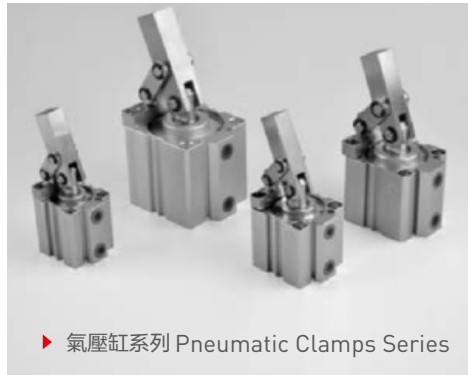
▶ 快速手動夾鉗 Toggle Clamps



▶ 快速氣動夾鉗 Pneumatic Toggle Clamps



▶ 油壓缸系列 Hydraulic Clamps Series



▶ 氣壓缸系列 Pneumatic Clamps Series



▶ 液壓站 Hydraulic Power Units

CLAMPTEK AGENCY

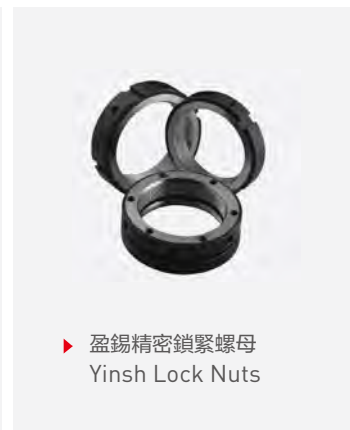
▶ 嘉剛 5 大代理產品



▶ 德國 HALDER 彈出定位柱塞
HALDER Spring Plungers



▶ 弘旺連軸器
HW Coupling



▶ 盈錫精密鎖緊螺母
Yinch Lock Nuts



▶ 東培精密軸承
TPI Bearing



▶ 惟隆主軸
WLT Spindles

CLAMPTEK LEADING GLOBAL CLAMP TECHNIQUE

嘉剛引領全球夾具技術





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