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Clamptek

PNEUMATIC & HYDRAULIC CLAMPS 氣油壓缸系列

CATALOGUE 2022

Clamptek

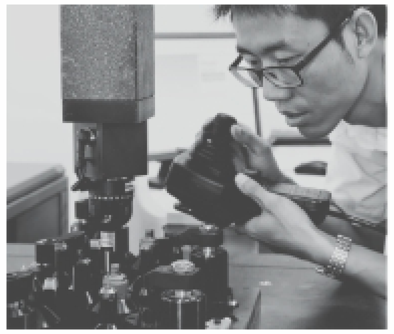
PNEUMATIC & HYDRAULIC CLAMPS
氣油壓缸系列

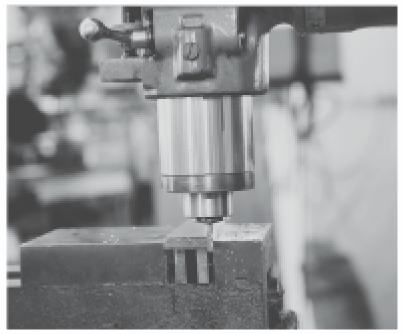
CATALOGUE 2022

Clamptek

CLAMPING THE POWER TO CONTROL

www.clamptek.com





INTRODUCTION
公司介绍

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。憑藉著强大的產品開發、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、弘旺聯軸器及德國HALDER工裝夾具配件。

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 fixturing. 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, HW Coupling and Halder's spring plungers all together.

THEORETICAL CLAMPING FORCE CALCULATION FORMULA

夾持力計算公式

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-PULL CLAMPS FORCE CALCULATION FORMULA

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)

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)

LEVERAGE CLAMP FORCE CALCULATION FORMULA

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)

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)

SWING CLAMP FORCE CALCULATION FORMULA

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係數（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.

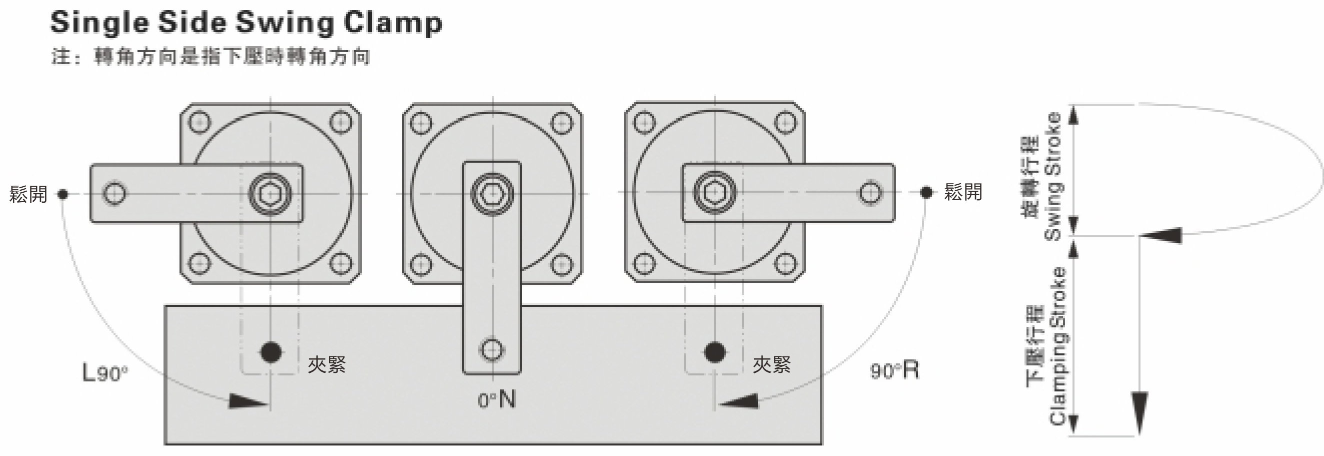
	Pa	bar	kgf/cm²	atm	at	Torr	mmH₂O	mmHg	Psi
1 Pa	1	0.00001	0.00001	0.00001	0.00001	0.0075	0.10197	0.0075	0.00014
1 bar	100000	1	1.01972	0.9869	1.01972	750.062	10.1972	750.062	14.504
1 Kgf/cm²	98066.5	0.98067	1	0.9678	1	735.6	10	735.6	14.22
1 atm	101325	1.01325	1.033	1	1.033	760	10.332	760	14.7
1 at	98067	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_2O	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.

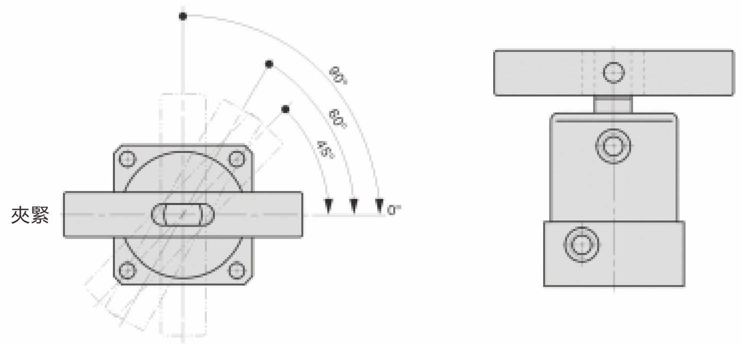
SINGLE SIDE SWING CLAMP

單邊壓板旋轉示意圖



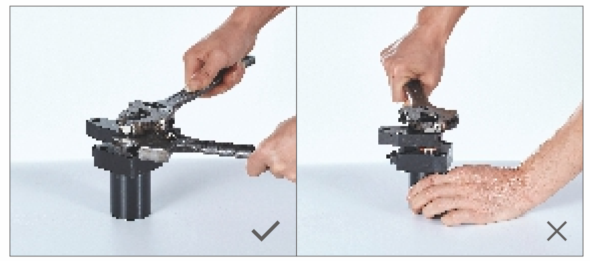
DOUBLE SIDE SWING CLAMP

雙邊壓板旋轉示意圖



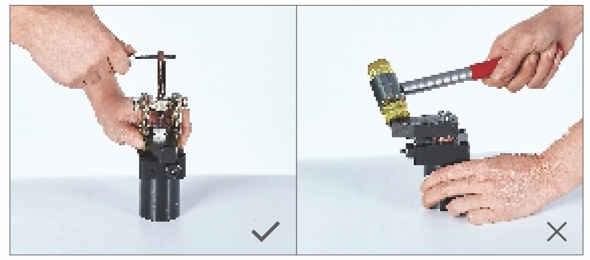
CLAMPING ARM MOUNTING METHODS

壓板鎖緊操作方式



CLAMPING ARM REMOVAL METHODS

壓板拆卸操作方式



INDEX 產品目錄索引

HYDRAULIC LEVERAGE CLAMP SERIES 油壓槓桿缸系列

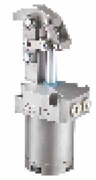
CLKA 高動力&紮實型槓桿油壓缸
CLKA Hydraulic leverage clamp
★
011-016


CLKW傳感器內置式杠桿缸
CLKW Air sensing leverage clamp
★
017-024


CLKA-P 高動力&紮實型槓桿油壓缸
CLKA-P Hydraulic leverage clamp
★
025-026


CCLW 高壓緊湊型槓桿式油壓缸
CCLW High pressure leverage clamp
★
027-028


CBLU 方塊&緊湊型槓桿式油壓缸
CBLU Hydraulic leverage clamp
★
029-030


CLF5H 連桿油壓缸（眼鏡蛇缸）
CLF5H Hydraulic leverage clamp
★
031-034


CHLC 槓桿式油壓缸
CHLC Hydraulic leverage clamp
035-038


LHC01 槓桿式油壓缸
LHC01 Hydraulic leverage clamp
039-040

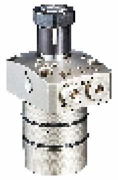

CYS 搖臂式油壓槓桿缸
CYS Rocker hydraulic CLAMP
★
041-042

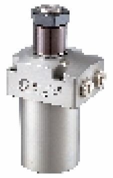

CLP 空心式夾緊器
CLP Hollow clamp
★
043-044


CCLT 緊湊型單動槓桿式油壓缸
CCLT Single acting leverage clamp
★
045-046


HYDRAULIC SWING CLAMPS 油壓轉角缸系列

CHA 油壓轉角缸
CHA Hydraulic swing clamp
★
047-052


CLHW傳感器內置式轉角缸
CLHW Air sensing swing clamp
★
053-060


CHA-P油壓轉角缸
CHA-P Hydraulic swing clamp
★
061-062


CBTU方塊形油壓轉角缸
CBTU Hydraulic swing clamp
★
063-064


CHA/CHA-P/CBTU 壓臂配件尺寸
CHA/CHA-P/CBTU clamping arm accessories
065-068

CHS/HSC油壓轉角缸
CHS/HSC Hydraulic swing clamp
069-076


CPF平行油壓轉角缸
CPF Hydraulic swing clamp
077-078


NFS高壓轉角缸
NFS High pressure hydraulic swing clamp
★
079-082


030底部法蘭轉角缸
030 Hydraulic swing clamp
★
083-084


050頂部法蘭轉角缸
050 Hydraulic swing clamp
085-086


HPS高壓轉角缸
HPS Hydraulic swing clamp
★
087-088


HYDRAULIC SUPPORT CLAMPS 油壓支撐缸系列

CSP油壓支撐缸
CSP Hydraulic support clamp
★
089-100


CSP油壓支撐缸(高壓)
CSP Hydraulic support clamp(High pressure)
★
101-102


CSF上法蘭油壓支撐缸
CSF Hydraulic support clamp
★
103-106


SP-AH氣油壓兩用支撐缸
SP-AH Pneumatic / hydraulic support clamp
★
107-108


HYDRAULIC PUSH-PULL CYLINDERS 薄型油壓缸系列

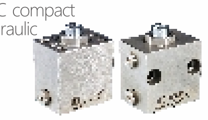
CLL油壓緊湊型直線缸
CLL Hydraulic compact linear cylinder
★
109-122


CCNA油壓緊湊型直線缸
CCNA hydraulic compact linear cylinder
★
123-126


CFP油壓鋼球鎖緊下拉缸
CFP Hydraulic pull stud clamp
★
127-130


CHTB薄型油壓缸
CHTB Hydraulic push-pull cylinder
131-138


HBC塊型油壓缸
HBC Hydraulic block cylinder
139-140


DBA&DBC緊湊型直線型油壓缸
DBA&DBC compact linear hydraulic cylinder
★
141-144


HYDRAULIC EXPANSION LOCATION PIN 擴徑定位銷系列

CVM油壓擴徑定位銷
CVM hydraulic expansion location pin
★
145-150


註: ★為亮點產品系列。 ★It means "Highlight" product.

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HYDRAULIC SINGLE CYLINDERS 單動缸系列

CTC外螺紋小型油壓單動缸
CTC Hydraulic thread cylinder
151-152

CTC-K外螺紋小型油壓單動缸
CTC-K Hydraulic thread cylinder
★
153-154

CTC-P外螺紋小型油壓單動缸
CTC-P Hydraulic thread cylinder
★
155-156

CTC-PD外螺紋小型油壓單動缸
CTC-PD Hydraulic thread cylinder
★
157-158

VALVES 閥系列

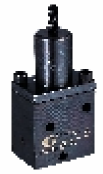
CLG油壓順序閥
CLG Hydraulic sequence valve
★
159-160

SV-AT1時間順序閥
SV-AT1 Time sequence valve
★
161-162

CZL調速閥（低壓用）
*嘉剛日系油壓缸專用
CZL Speed control valve(low pressure)
★
163-164

CVCF速度控制閥（低壓用）
CVCF Speed control valve(low pressure)
★
165-166

CSV油壓順序閥
CSV Hydraulic sequence valve
167

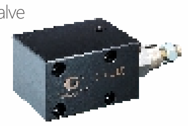


CFCV/CFTC油壓流量閥
CFCV/CFTC hydraulic flow control valve
168

CPRV油壓減壓閥
CPRV Hydraulic pressure reducing valve
169-170

引導式減壓閥
Pilot operated reducing valves
★
171-172

引導式順序閥
Pilot operated sequence valve
★
173-174



CWD-B氣動順序閥
CWD-B Pneumatic sequence valve
175-176

ROTARY JOINT & OTHER HYDRAULIC PRODUCTS 旋轉接頭及其它油缸系列

CRA旋轉接頭
CRA Rotary joint
★
177-180

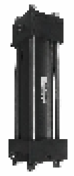
CJRC旋轉接頭
CJRC Rotary joint
★
181-186

HB油壓增壓器
HB Hydraulic booster with sequence valve
187-188

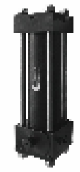
CJSS彈簧式蓄能器
CJSS Accumulator
★
189-192

ADB-A儲能器
ADB-A Accumulator
193-194

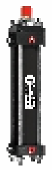
CMO輕型油壓缸
CMO Hydraulic cylinder
195-200



CHO重型油壓缸
CHO Hydraulic cylinder
201-208



CFO可調緩衝油壓缸
CFO 14 MPA Adjustable cushioning hydraulic cylinder
209-214

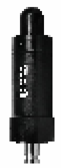


CRO圓型油壓缸
CRO Hydraulic cylinder
215-220

CMO/CHO/CRO/CFO油壓缸軸心配件
CMO/CHO/CRO/CFO Series hydraulic cylinder axis accessories
221-222

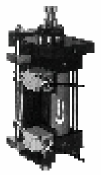
CGO重型油壓缸
CGO 21MPA Tie-rod hydraulic oil cylinder
223-230

CHRO大型油壓缸
CHRO 21 MPA Round hydraulic cylinder
231-238

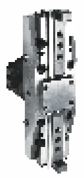


CHSG焊接高壓缸
CHSG Hydraulic cylinder
239-244

CHK柱型模具缸
CHK Column-type hydraulic cylinder
245-248



CP同步油缸
CP Synchronous clamp cylinder
249-250

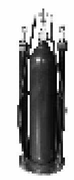


CFVA對心夾
CFVA central clip
★
251-252

ROA夾緊油缸
ROA Clamping cylinder
253

非標工程缸（重型油壓缸）
Non-standard hydraulic cylinder
★
254

自動平衡系統
Auto balance system
255-256



PNEUMATIC LEVERAGE CLAMPS 氣壓槓桿缸系列

CALC杠桿式氣壓缸
CALC Pneumatic leverage clamp
257-258

CPLCU氣壓槓桿缸
CPLCU Pneumatic leverage clamp
259-260

註: ★為亮點產品系列。　★It means "Highlight" product.

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PNEUMATIC SWING CLAMPS 氣壓轉角缸系列

ASC氣壓轉角缸
ASC Pneumatic swing clamp

261-264

PB感應式氣壓轉角缸
PB Pneumatic swing clamp

265-266

PSB氣壓塊狀轉角缸
PSB Pneumatic swing clamp

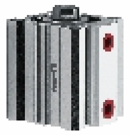
267-268

PNEUMATIC SUPPORT CLAMPS 氣壓支撐缸系列

CSW氣壓支撐缸
CSW Pneumatic support clamp

★
269-272

THIN TYPE ALUMINIUM ALLOY PNEUMATIC CYLINDERS 薄型鋁合金氣缸系列

UCQ2薄形鋁合金氣缸
UCQ2 Thin-type pneumatic cylinder

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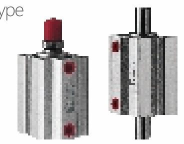
SDA薄型鋁合金氣缸
SDA Thin-type pneumatic cylinder

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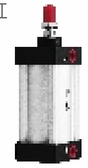
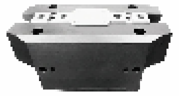
DE無拉杆式鋁合金缸
DE Pneumatic cylinder

285-288

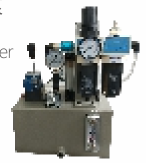
OTHER CYLINDERS 其它氣缸

CTK夾緊氣缸
CTK Clamp pneumatic cylinder

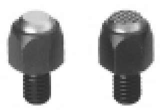
289-290

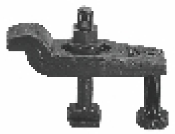
機械夾爪
Grippers

291-292

PNEUMATIC PUMPS 氣動泵系列

AHP氣動增壓泵
AHP Liquid-gas conversion booster pump

293-294

ACCESSORIES 其它附件系列

螺桿
Clamping screw

295-300

壓板
Block-clamp

301-302

壓臂
Clamping arm
303-304

產品重量表

产品重量表
Product weight
305-308

註: ★為亮點產品系列。 ★It means "Highlight" product.

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優化設計,與傳統產品比較夾緊能力提高了。產品支撐點部位與缸體採用一體化結構,使體積更加紮實,提高了產品強度。產品採用了專用防塵設計,提高了防塵和密封性,實現了高密封性。產品法蘭下部採用縮小設計,適合夾具要求的緊湊化和輕量化。

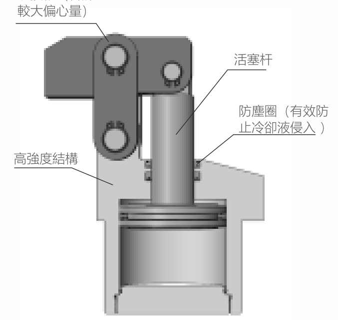
最大操作壓力：70 kgf/cm^2
最小操作壓力：10 kgf/cm^2

FEATURES

The accessories of the CLKA series are optimally designed and the clamping capacity has increased immensely compared to the traditional products. The cylinder and its supporting point use an integrated structure to create a more compact-sized product with enhanced strength. With its special dust-proof design, this product has improved its sealing performance and protects against any particles or debris while in use. The lower flange adopts a volume-compressed design, specifically to operate efficiently under the fixture's lightweight requirements.

Max. operating pressure: 70 kgf/cm^2
Min. operating pressure:10 kgf/cm^2

剖面圖 Sectional view



注意事項

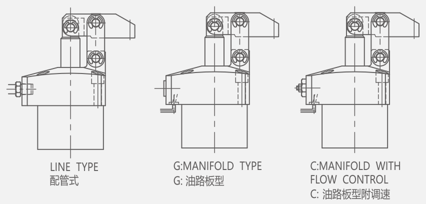
夾緊及放鬆作動速度需適當放緩。
可接受訂製，歡迎與本公司洽詢。

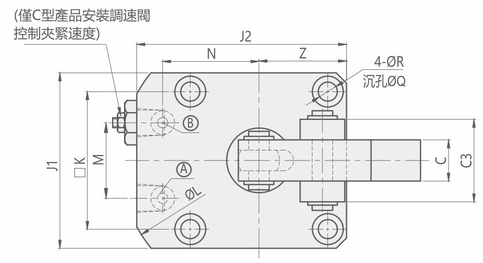
NOTE

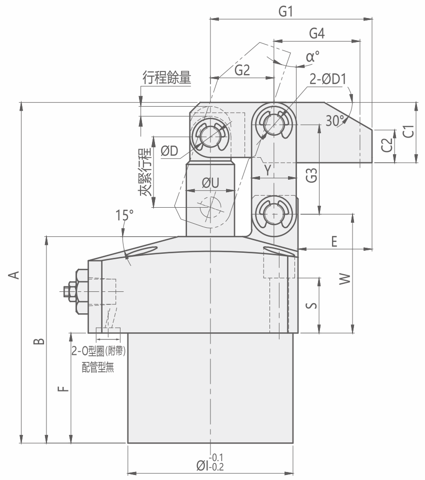
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Customization is available upon request, please contact us for more info.

訂購標示法 ORDERING INDICATION

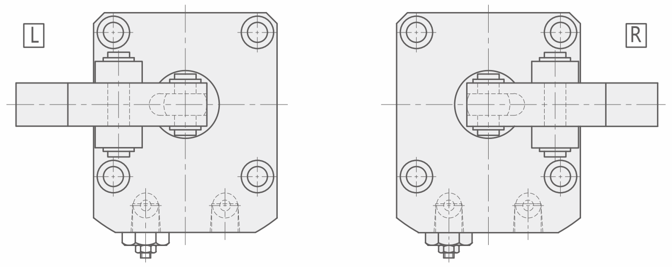
示例：CLKA – 036CML

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	
C	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 
M	檢測方式 Air detect way	無符號：無（標準） D：探頭用雙桿型 M：適用於空氣傳感版式連接型 N：適用於空氣感測器配管型	No sign：No (standard) D：Double end rod option for probe M：Suitable for air sensor type connection N：Suitable for air sensor piping type
L	壓臂安裝方向 Lever direction	空白：標準 L：左　R：右	Blank：Standard L：Left　R：Right





壓臂安裝方向 Lever Direction



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

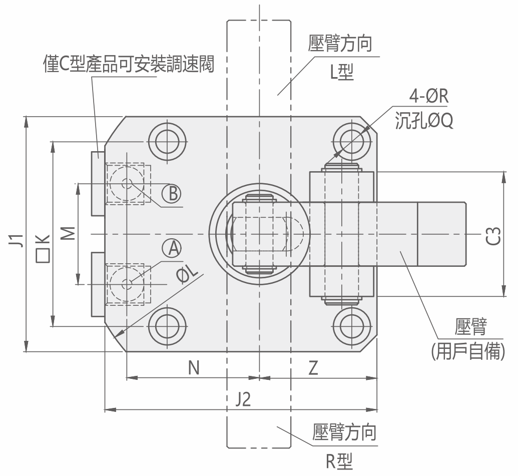
Unit:mm

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

規格參數表 SPECIFICATIONS

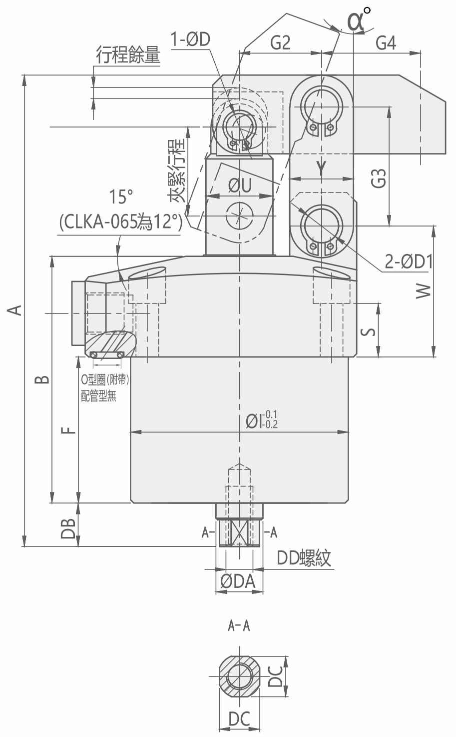
型號 MODEL	理論夾持力 (70 kgf/cm^2) CLAMPING FORCE AT 70 kgf/cm^2 (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm^3)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm^3)	推出受壓面積 EFF.PISTON AREA CLAMP(cm^2)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm^2)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CLKA-036	203	16	18.5	7.03	5.57	3.80	3.01	-10~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CLKA-040	268	17.5	20.5	10.07	7.75	4.91	3.78	-10~+70°C	
CLKA-048	443	20.5	23.5	18.89	15.28	8.04	6.5	-10~+70°C	
CLKA-055	636	23	26	32.66	27.43	12.56	10.55	-10~+70°C	
CLKA-065	1052	26.5	29.5	57.91	48.65	19.63	16.49	-10~+70°C	
CLKA-075	1745	32	35	109.06	95.76	31.16	27.36	-10~+70°C	
CLKA-090	2093	38	41	141.37	132.55	38.48	32.33	-10~+70°C	
CLKA-105	3034	46	49	246.18	199.04	50.24	40.62	-10~+70°C	

註：本圖為CLKA-GD型夾持狀態



Ⓐ夾持油孔 Clamping port

Ⓑ放鬆油孔 Unclamping port



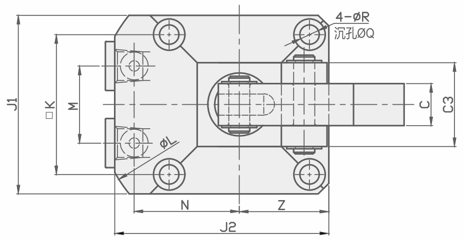
Unit:mm

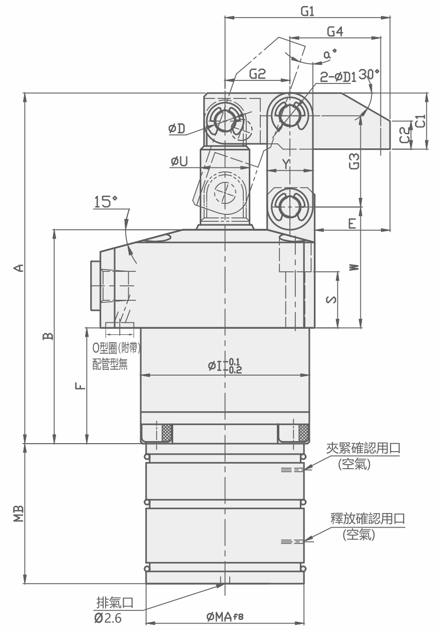
MODEL ITEM	CLKA -036D	CLKA -040D	CLKA -048D	CLKA -055D	CLKA -065D	CLKA -075D	CLKA -090D	CLKA -105D
A	89	100.5	112	123.5	140.5	164	193	222
J2	49	54	61	69	81	94.5	109.5	127
J1	40	45	51	60	70	85	100	120
I	36	40	48	55	65	75	90	105
B	48	54	60	65	73.5	84	101	115
F	23	29	32	37	43.5	47	61	65
Z	20	22.5	25.5	30	35	42.5	50	60
K	31.4	34	40	47	55	63	75	88
L	66	72	81	88	106	116	136	152
G4	19	20.5	23.5	29	32	37.5	41.5	51
α	19.6	20.2	18.9	19.3	20	21.4	22.4	23.1
N	23.5	26	30	33.5	39.5	45	52.5	60
M	16	18	22	24	30	32	37	45
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	15	16	13.5	16	17.5	17	23
W	30	30.5	34.5	35.5	39	48	52.5	64
G3	20	22	26	30	35.5	43.5	52.5	64
Y	11	13	13	16	19	25	28	32
C3	19	21	24	28	37	40	49	64
G2	14.5	16	18.5	21	24.5	30	36	44
D	5	6	6	6	8	10	12	15
D1	5	6	6	8	10	12	15	18
ΦDA	8	12	14	14	14	18	18	18
DB	10.5	13	13	13	13	13	13	13
DC	6	10	12	12	12	16	16	16
DD名稱x深度(Nominal x Depth)	M4×10	M6×15	M8×18	M8×18	M8×18	M10×21	M10×21	M10×21
ΦU	Φ10	Φ12	Φ14	Φ16	Φ20	Φ22	Φ28	Φ35
配管式油口 PORT WITH LINE TYPE	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
油孔O型圈(C/G型) O-RING HOLE (C/G TYPE)	P5	P5	P5	P5	P7	P7	P7	P7

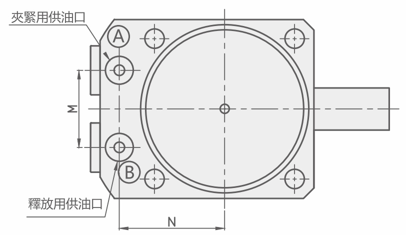
規格參數表 SPECIFICATION

型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CLKA-036D	214	16	18.5	7.4	6.9	4.02	3.55	-10~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CLKA-040D	228	17.5	20.5	8.6	8.6	4.18	4.18	-10~+70°C	
CLKA-048D	304	20.5	23.5	13.0	13	5.53	5.53	-10~+70°C	
CLKA-055D	409	23	26	21.0	19.8	8.08	7.61	-10~+70°C	
CLKA-065D	771	26.5	29.5	42.4	37.7	14.4	12.8	-10~+70°C	
CLKA-075D	1187	32	35	74.2	69.8	21.2	19.94	-10~+70°C	
CLKA-090D	2052	38	41	138.5	123.7	33.8	30.2	-10~+70°C	
CLKA-105D	2880	46	49	233.8	197.8	47.7	40.35	-10~+70°C	

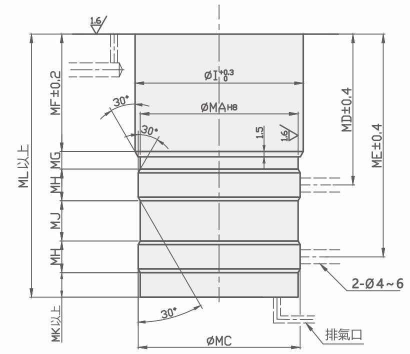
註：本圖以CLKA-GM型夾持狀態







註：安裝部分加工尺寸



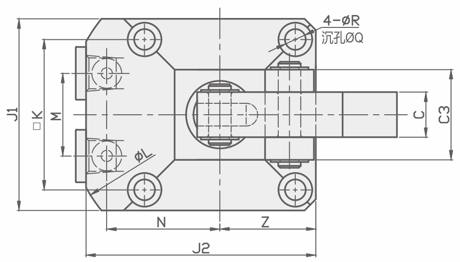
Ⓐ夾持油孔 Clamping port

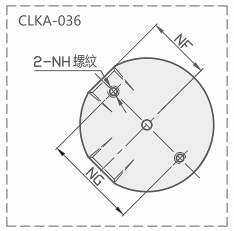
Ⓑ放鬆油孔 Unclamping port

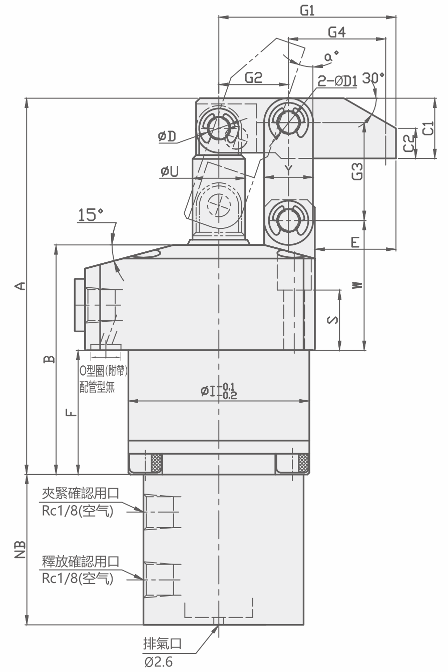
Unit:mm

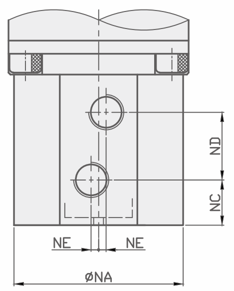
MODEL ITEM	CLKA-036M	CLKA-040M	CLKA-048M	CLKA-055M	CLKA-065M	CLKA-075M	CLKA-090M	CLKA-105M
A	78.5	88.5	100	114	134.5	153	186	223
J2	49	54	61	69	81	94.5	109.5	127
J1	40	45	51	60	70	85	100	120
I	36	40	48	55	65	75	90	105
B	48	55	61	68.5	80.5	86	107	129
F	23	30	33	40.5	50.5	49	67	79
C	10	12	12	16	19	22	25	32
Z	20	22.5	25.5	30	35	42.5	50	60
K	31.4	34	40	47	55	63	75	88
L	66	72	81	88	106	116	136	152
C1	12.5	14	16	20	25	32	38	45
C2	6	8	8	12	17	24	30	37
N	23.5	26	30	33.5	39.5	45	52.5	60
M	16	18	22	24	30	32	37	45
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	15	16	13.5	16	17.5	17	23
W	30	30.5	34.5	35.5	39	48	52.5	64
G3	20	22	26	30	35.5	43.5	52.5	64
Y	11	13	13	16	19	25	28	32
C3	19	21	24	28	37	40	49	64
G2	14.5	16	18.5	21	24.5	30	36	44
D	5	6	6	6	8	10	12	15
D1	5	6	6	8	10	12	15	18
G1	37	40	47	55	61.5	72.5	82.5	100
α	19.6	20.2	18.9	19.3	20	21.4	22.4	23.1
E	17	17.5	21.5	25	26.5	30	32.5	40
G4	19	20.5	23.5	29	32	37.5	41.5	51
ΦU	Φ10	Φ12	Φ14	Φ16	Φ20	Φ22	Φ28	Φ35
配管式油口 PORT WITH LINE TYPE	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
油孔O型圈(C/G型) O-RING HOLE	P5	P5	P5	P5	P7	P7	P7	P7
MAf8	$34.5^{-0.03}_{-0.06}$	$38^{-0.03}_{-0.06}$	$45^{-0.03}_{-0.06}$	$45^{-0.03}_{-0.06}$	$45^{-0.03}_{-0.06}$	$53^{-0.03}_{-0.07}$	$53^{-0.03}_{-0.07}$	$53^{-0.03}_{-0.07}$
MAH8	$34.5^{+0.04}_{0}$	$38^{+0.04}_{0}$	$45^{+0.04}_{0}$	$45^{+0.04}_{0}$	$45^{+0.04}_{0}$	$53^{+0.04}_{0}$	$53^{+0.04}_{0}$	$53^{+0.04}_{0}$
MB	31	36	40	40	40	59.5	59.5	59.5
MC	35.7	39.2	46.2	46.2	46.2	54.2	54.2	54.2
MD	32.5	40	43	50.5	60.5	61	79	91
ME	45.5	56.5	63.5	71	81	93.5	111.5	123.5
MF	23.5	30.5	33.5	41	51	49.5	67.5	79.5
MG	4.5	5	5	5	5	5.5	5.5	5.5
MH	9	9	9	9	9	12	12	12
MJ	4	7.5	11.5	11.5	11.5	20.5	20.5	20.5
MK	6	7	7	7	7	11	11	11
ML	56	68	75	82.5	92.5	110.5	128.5	140.5

注：本圖以CLKA-GN型夾持狀態

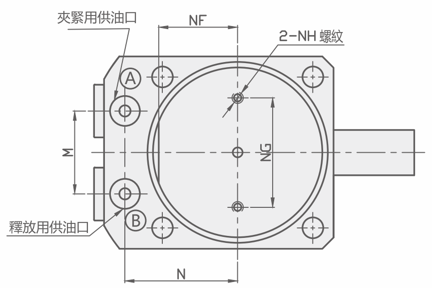








注:排氣口須向大氣排放,並防止冷卻液.切削粉塵等侵入。直接接觸冷卻液時,NH螺紋處應安裝配件,進行防止冷卻液浸入處置。但是,不得堵塞排氣口。

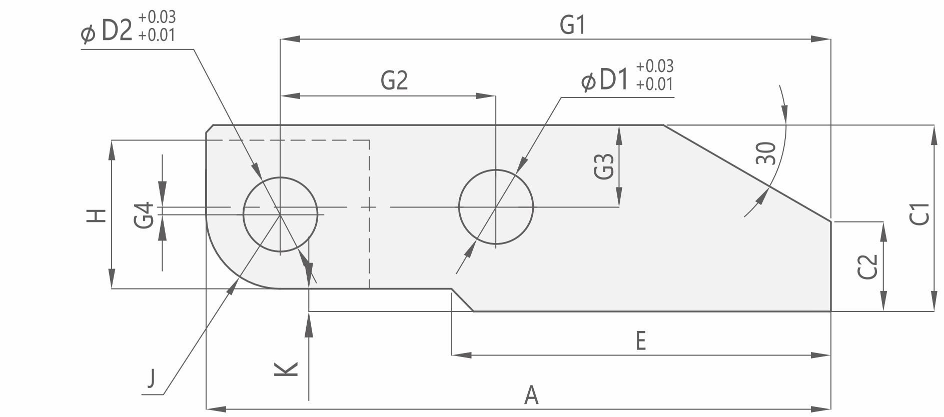


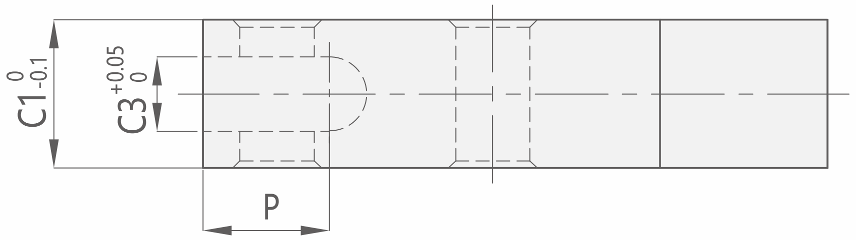
Ⓐ夾持油孔 Clamping port
Ⓑ放鬆油孔 Unclamping port

Unit:mm

MODEL ITEM	CLKA-036N	CLKA-040N	CLKA-048N	CLKA-055N	CLKA-065N	CLKA-075N	CLKA-090N	CLKA-105N
A	78.5	88.5	100	114	134.5	153	186	223
J2	49	54	61	69	81	94.5	109.5	127
J1	40	45	51	60	70	85	100	120
I	36	40	48	55	65	75	90	105
B	48	55	61	68.5	80.5	86	107	129
F	23	30	33	40.5	50.5	49	67	79
C	10	12	12	16	19	22	25	32
Z	20	22.5	25.5	30	35	42.5	50	60
K	31.4	34	40	47	55	63	75	88
L	66	72	81	88	106	116	136	152
C1	12.5	14	16	20	25	32	38	45
C2	6	8	8	12	17	24	30	37
N	23.5	26	30	33.5	39.5	45	52.5	60
M	16	18	22	24	30	32	37	45
Q	7.5	9	9	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	15.5	15	16	13.5	16	17.5	17	23
W	30	30.5	34.5	35.5	39	48	52.5	64
G3	20	22	26	30	35.5	43.5	52.5	64
Y	11	13	13	16	19	25	28	32
C3	19	21	24	28	37	40	49	64
G2	14.5	16	18.5	21	24.5	30	36	44
D	5	6	6	6	8	10	12	15
D1	5	6	6	8	10	12	15	18
G1	37	40	47	55	61.5	72.5	82.5	100
α	19.6	20.2	18.9	19.3	20	21.4	22.4	23.1
E	17	17.5	21.5	25	26.5	30	32.5	40
G4	19	20.5	23.5	29	32	37.5	41.5	51
ΦU	Φ10	Φ12	Φ14	Φ16	Φ20	Φ22	Φ28	Φ35
配管式油口 PORT WITH LINE TYPE	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
油孔O型圈 (C/G型) O-RING HOLE (C/G TYPE)	P5	P5	P5	P5	P7	P7	P7	P7
ΦNA	35.5	39.5	45	45	45	53	53	53
NB	31	36	40	40	40	59.5	59.5	59.5
NC	9	8.5	12	12	12	20	20	20
ND	12.5	17.5	18	18	18	29.5	29.5	29.5
NE	-	1	2	2	2	3	3	3
NF	17	18.5	20	20	20	24	24	24
NG	25	29	29	29	29	38	38	38
NH(公稱×深度)(Nominal ×Depth)	M3×0.5×6	M3×0.5×6	M3×0.5×6	M3×0.5×6	M3×0.5×6	M4×0.7×7	M4×0.7×7	M4×0.7×7

CLKA 壓臂尺寸
CLKA CLAMPING ARM DIMENSION





CLKA油壓杠桿缸壓臂尺寸 CLKA HYDRAULIC LEVERAGE-TYPE CLAMPING ARM DIMENSIONS

Unit:mm

MODEL	A	C	C1	C2	C3	D1	D2	E	G1	G2	G3	G4	H	J	K	P
CLKA-036	42	10	12.5	6	5	5	5	25.5	37	14.5	5.5	0.5	10	R5	1.5	8.5
CLKA-040	45	12	14	8	6	6	6	27.5	40	16	6	1.5	11	R5	1.5	12
CLKA-048	53	12	16	8	6	6	6	32	47	18.5	6.5	1.5	13	R5	1.5	13
CLKA-055	61.5	16	20	12	8	8	6	37	55	21	8	4	13.5	R6	2	12.5
CLKA-065	69.5	19	25	17	10	10	8	35	61.5	24.5	9.5	6	18.5	R8	1.5	16
CLKA-075	82	22	32	24	11	12	10	42.5	72.5	30	12.5	8	21.5	R9.5	2	20.5
CLKA-090	95	25	38	30	13	15	12	60.5	82.5	36	14	8.5	27.5	R12.5	2.5	26
CLKA-105	116	32	45	37	18	18	15	68	100	44	16	6	37	R15	4	32

CLKW

傳感器內置式杠桿缸

AIR SENSING LINK CLAMP

產品特性

此系列產品動作端內置有動作確認機構，最適用於實現設備的自動化。通過連接空氣傳感器，檢出壓差，實現 確認動作。通過夾緊動作確認，能實現安全可靠地工件搬入搬出。內置傳感閥，可實現超薄型的夾具設計。 簡單的油路孔設計。

最大操作壓力：70 kgf/cm²
最小操作壓力：5 kgf/cm²

FEATURES

The CLKW series utilizes air sensing mechanisms by detecting the differential pressure to achieve action confirmation, allowing safe and efficient loading/unloading of the workpiece. With the integration of the built-in sensor valves, the CLKW series has taken a new and improved compact design and is most suitable for achieving automation.

Max. operating pressure: 70 kgf/cm²
Min. operating pressure: 5 kgf/cm²

注意事項

夾緊及放松作動速度需適當放緩。
為進行確認動作，須設置空氣傳感器。
氣口須進行大氣開放，務必防止冷卻液，切削渣的侵入。
使用時請保持向氣口常態供氣狀態。

NOTE

The speed of clamping and unclamping action needs to be slowed down appropriately. Action confirmation can be conducted by detecting differential pressure with the air sensor. Please keep clearance of the air exhaust hole to prevent the intrusion of coolant and chips. Make sure to supply constant air pressure to the air port when in use.

訂購標示法 ORDERING INDICATION

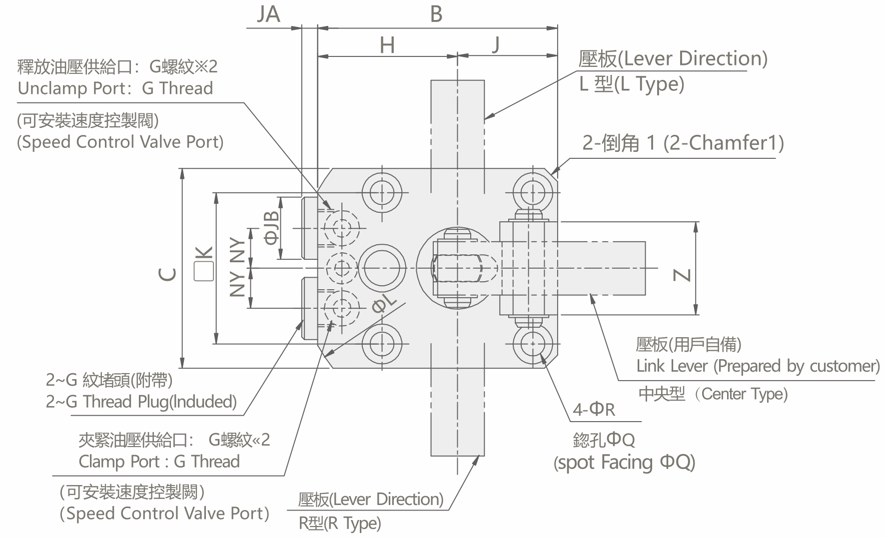
示例：CLKW-048CRE

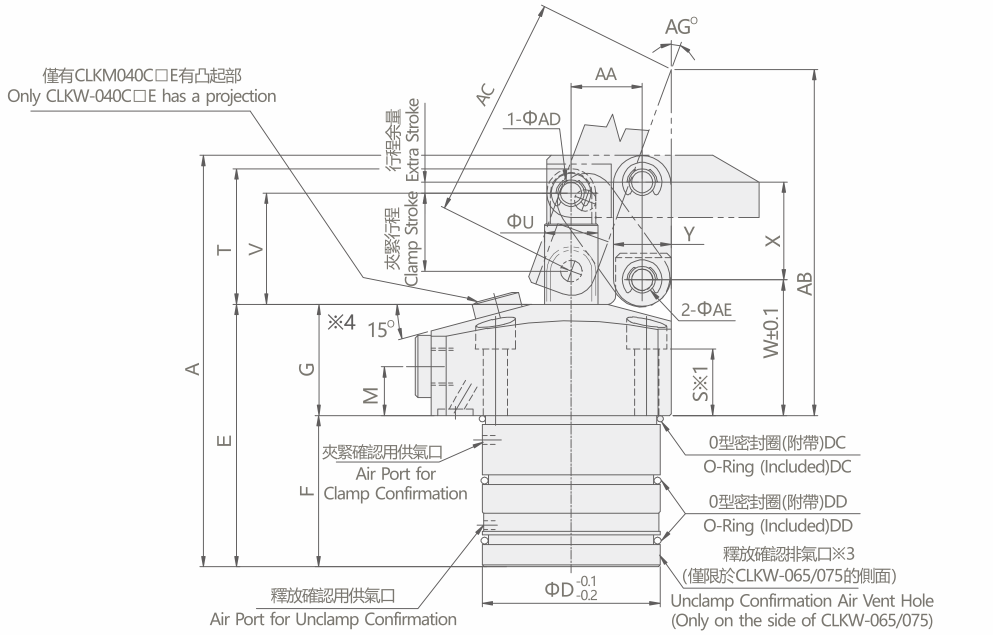
CLKW	系列 Series	CLKW
048	主體尺寸 Body size	040：ΦD=40mm　065：ΦD=65mm　ΦD表示本體油缸外徑尺寸 048：ΦD=48mm　075：ΦD=75mm　Outer diameter ΦD of the cylinder 055：ΦD=55mm
C	板式連接型(附帶G螺紋堵頭) Gasket Option(With G Thread Plug)	附帶G螺紋堵頭可安裝速度控製閥(CZL)(用戶另行購買) With G Thread Plug(able to attach Speed Control Valve) (Order the valve separately Recommended:CZL)
R	壓臂安裝方向 Lever direction	L：左　L：Left 空白：中央　Blank：Center R：右　R：Right
E	傳感閥符號 Sensing Valve	E：夾緊•釋放動作確認型　E：Clamp-Unclamp Confirmation（Both） H：夾緊動作確認型　H：Clamp Confirmation Only J：釋放動作確認型　J：Unclaing Confirmation Only

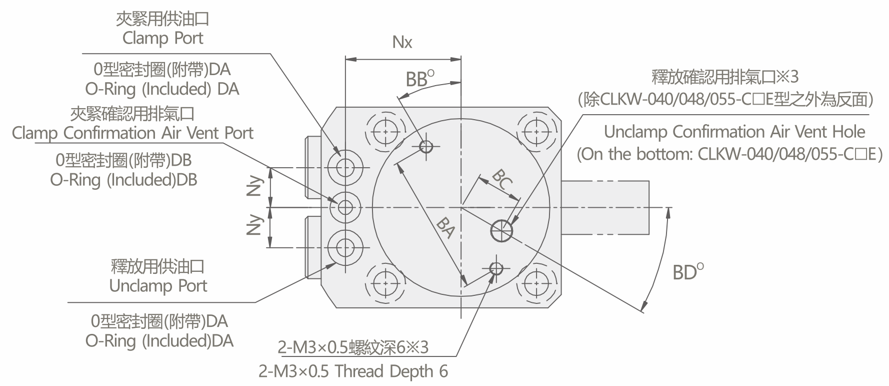
注：推薦使用氣缸0.1-0.2MPa, 空氣感測器為SMC的ISA2-HE45N
Note: Recommended Operating Air Pressure 01~0.2MPa. Air Sensor: ISA2-HE45N(SMC)

夾緊•釋放動作確認型
CLAMP-UNCLAMP CONFIRMATION

※本圖表示CLKW-CE的夾緊狀態
The drawing shows the Clamped state of CLKW-CE







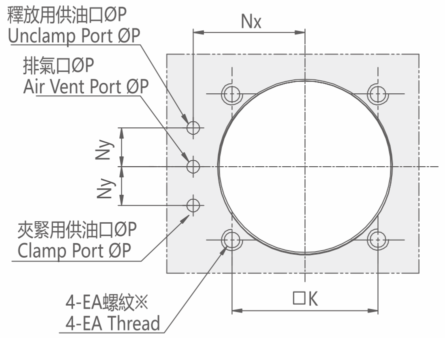
注意事項

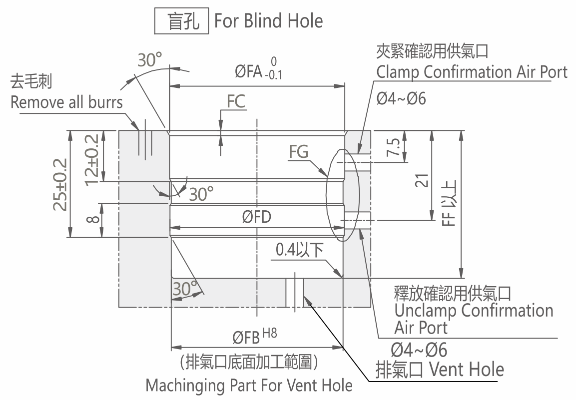
※1.本產品未附帶安裝緊栓。請用戶參考S尺寸並根據安裝高度自行配備。
※2.本產品未附帶速度控製閥。請用戶自行配備。
※3.排氣孔必須進行大氣開放，且務必防止冷卻液-切削物的侵入。
冷卻液會直接飛濺時，請在M3螺紋上設置墊塊兒，有效防止冷卻液的侵入。 且務必保證排氣孔不被堵塞。
※4.只有CLKW-065法蘭的傾斜角度為12°。

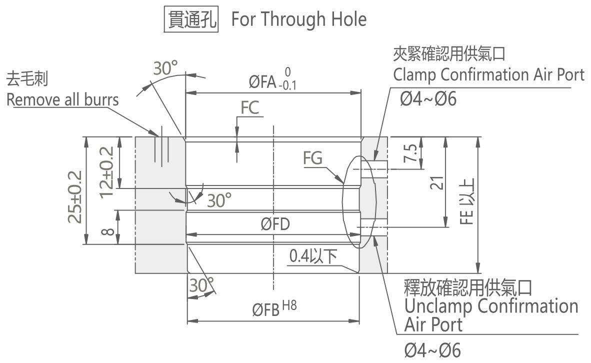
NOTE

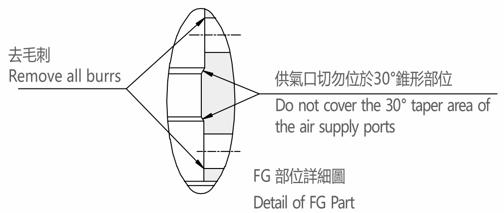
※1. This product does not come with mounting bolts.
Please prepare them according to the mounting height, refer to dimension"S".
※2. Speed control valve is sold separately.
※3. Please keep the air vent hole clear and open to prevent the intrusion of coolant and chips. If exposed to coolant, place a blocker on the M3 thread to prevent coolant and chips from entering. Please ensure the air vent hole is not blocked.
※4.Flange inclination angle is 12° only for CLKW-065.

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









Unit:mm

MODEL ITEM	CLKW-040C□E	CLKW-048C□E	CLKW-055C□E	CLKW-065C□E	CLKW-075C□E
A	92.5	103.5	110.5	124.5	145.5
B	54	61	69	81	94.5
C	45	51	60	70	85
D	40	48	55	65	75
E	59	64.5	65	70.5	78.5
F	34	36.5	37	40.5	41.5
G	25	28	28	30	37
H	31.5	35.5	39	46	52
J	22.5	25.5	30	35	42.5
K	34	40	47	55	63
L	72	81	88	106	116
M	11	12	12	13	16
Nx	26	30	33.5	39.5	45
Ny	9	11	12	15	16
P	3	3	3	5	5
Q	9	9	11	11	14
R	5.5	5.5	6.8	6.8	9
S	15	16	13.5	16	17.5
T	30.5	35	37.5	45	55
U	12	14	16	20	22
V	25	29	31.5	37	45
W	30.5	34.5	35.5	39	48
X	22	26	30	35.5	43.5
Y	13	13	16	19	25
Z	21	24	28	37	40
倒角1	C3	C3	C3	C4	C10
AA	16	18.5	21	24.5	30
AB	77.7	92.4	101.9	111.4	130.8
AC	50.2	61.2	71.7	78.7	90.8
AD	6	6	6	8	10
AE	6	6	8	10	12
AG	20.2	18.9	19.9	20.5	21.4
BA	31.6	38	43	54	64
BB	0°	0°	0°	0°	30°
BC	R10.5	R10. 5	R10. 5	-	-
BD	30°	30°	30°	30°	22.5°
EA	M5X0. 8	M5X0. 8	M6	M6	M8
FA	40.8	49	56	66	76
FB	$40^{+0.04}_{0}$	$48^{+0.04}_{0}$	$55^{+0.04}_{0}$	$65^{+0.046}_{0}$	$75^{+0.046}_{0}$
FC	1.2	1.2	1.5	1.5	1.5
FD	40.6	48.6	55.6	65.6	75.6
FE	30	32	30	30	30
FF	34.5	37	37.5	41	42
JA	4	4	4	4.5	4.5
JB	14	14	14	19	19
夾緊用供油口: G螺紋 Clamp Port:G Thread 釋放用供油口: G螺紋 Unclamp Port:G Thread	G1/8	G1/8	G1/8	G1/4	G1/4
0型密封圈 O-Ring DA	1BP5	1BP5	1BP5	1BP7	1BP7
0型密封圈 O-Ring DB	AS568-007(90°)	1BP5	1BP5	1BP7	1BP7
0型密封圈 O-Ring DC	38x1.5 (内径×线径)	AS568-031(70°)	AS568-034(70°)	AS568-037(70°)	AS568-040(70°)
0型密封圈 O-Ring DD	AS568-028(70°)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-039(70°)

注意事項

※請參考S尺寸並根據安裝高度決定安裝螺栓的EA螺紋孔的深度。

NOTE

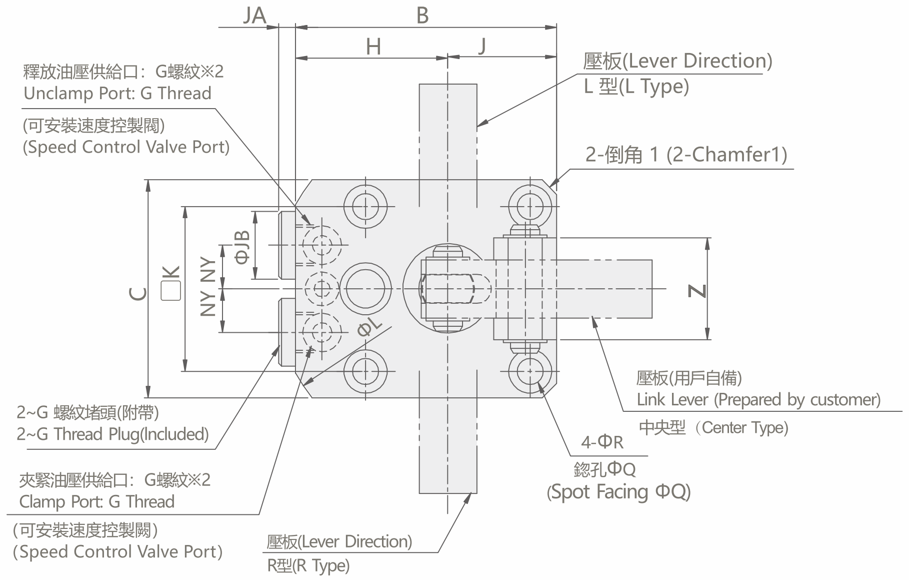
※EA tapping depth the mounting bolt should be decided according to the mounting height referring to dimensions"S".

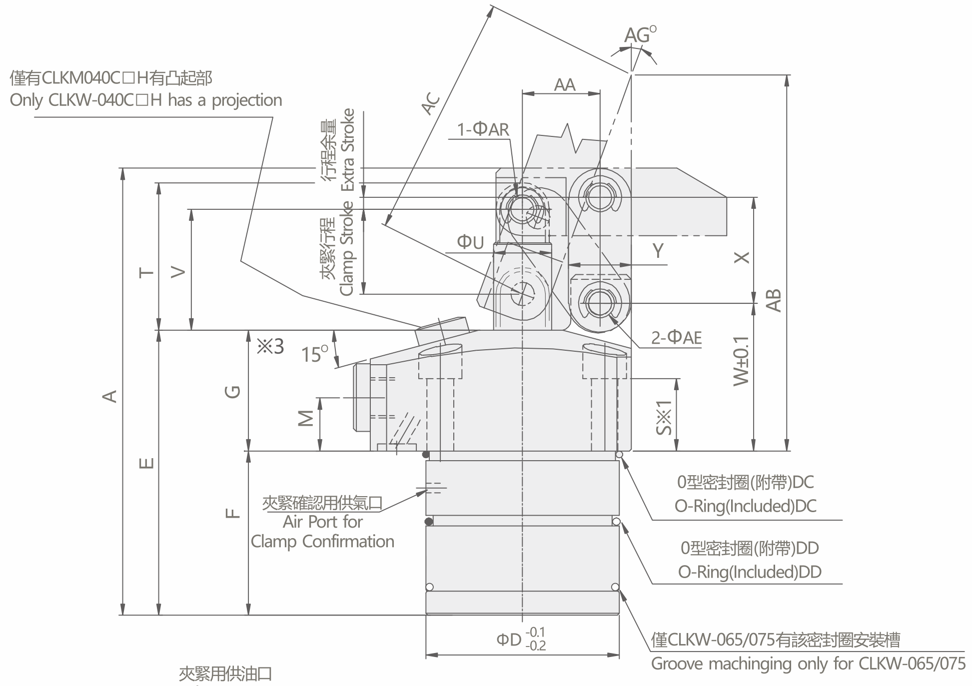
規格參數表 SPECIFICATIONS

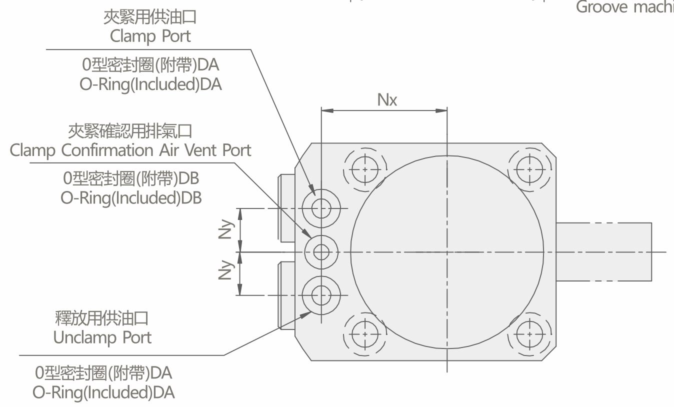
型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CLKW-040	290	17.5	20.5	10.9	8.6	5.31	4.17	0-+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CLKW-048	389	20.5	23.5	16.6	13	7.07	5.52	0-+70°C	
CLKW-055	487	23	26	25.0	19.8	9.62	7.62	0-+70°C	
CLKW-065	852	26.5	29.5	46.9	37.7	15.9	11.76	0-+70°C	
CLKW-075	1332	32	35	83.2	69.8	23.8	20	0-+70°C	

夾緊動作確認型
CLAMP CONFIRMATION ONLY

※本圖表示CLKW-CH的夾緊狀態
The drawing shows the clamped state of CLKW-CH







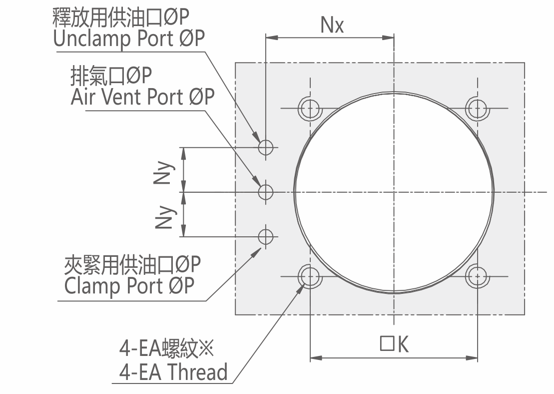
注意事項

※1.本產品未附帶安裝螺栓。請用戶參考S尺寸並根據安裝高度自行配備。
※2.本產品未附帶速度控製閥。請用戶自行配備。
※3.只有CLKW-065法蘭的傾斜角度為12°。

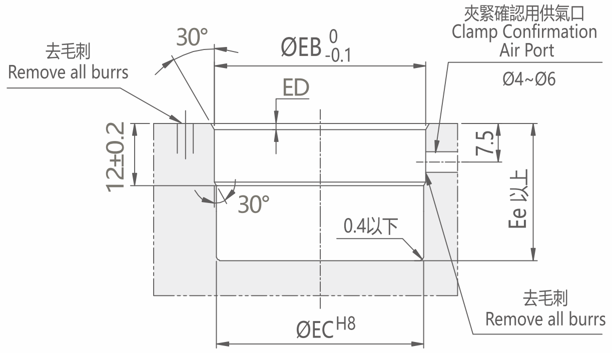
NOTE

※1. Mounting bolts are not provided with the product. Please prepare them according to the mounting height referring to dimension"S".
※2. Speed control valve is sold separately.
※3.Flange inclination angle is 12 º only for CLKW-065.

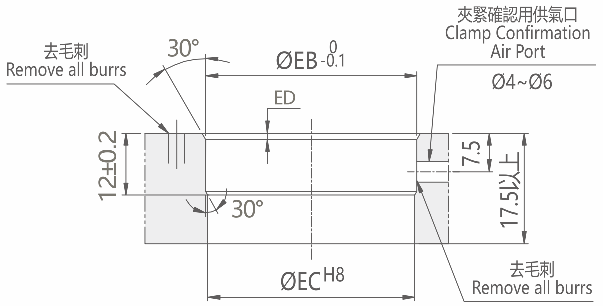
安裝部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA



盲孔 For Blind Hole



貫通孔 For Through Hole



Unit:mm

MODEL ITEM	CLKW-040C□H	CLKW-048C□H	CLKW-055C□H	CLKW-065C□H	CLKW-075C□H
A	88.5	99.5	109	124.5	145.5
B	54	61	69	81	94.5
C	45	51	60	70	85
D	40	48	55	65	75
E	55	60.5	63.5	70.5	78.5
F	30	32.5	32.5	40.5	41.5
G	25	28	28	30	37
H	31.5	35.5	39	46	52
J	22.5	25.5	30	35	42.5
K	34	40	47	55	63
L	72	81	88	106	116
M	11	12	12	13	16
Nx	26	30	33.5	39.5	45
Ny	9	11	12	15	16
P	3	3	3	5	5
Q	9	9	11	11	14
R	5.5	5.5	6.8	6.8	9
S	15	16	13.5	16	17.5
T	30.5	35	37.5	45	55
U	12	14	16	20	22
V	25	29	31.5	37	45
W	30.5	34.5	35.5	39	48
X	22	26	30	35.5	43.5
Y	13	13	16	19	25
Z	21	24	28	37	40
倒角1	C3	C3	C3	C4	C10
AA	16	18.5	21	24.5	30
AB	77.7	92.4	101.9	111.4	130.8
AC	50.2	61.2	71.7	78.7	90.8
AD	6	6	6	8	10
AE	6	6	8	10	12
AG	20.2	18.9	19.9	20.5	21.4
EA	M5X0.8	M5X0. 8	M6	M6	M8
EB	40.8	49	56	66	76
EC	$40^{+0.04}_{0}$	$48^{+0.04}_{0}$	$55^{+0.04}_{0}$	$65^{+0.04}_{0}$	$75^{+0.04}_{0}$
ED	1.2	1.2	1.5	1.5	1.5
EE	30.5	33	36	41	42
JA	4	4	4	4.5	4.5
JB	14	14	14	19	19
夾緊用供油口：G螺紋 Clamp Port:G Thread 釋放用供油口：G螺紋 Unclamp Port:G Thread	G1/8	G1/8	G1/8	G1/4	G1/4
0型密封圈 O-Ring DA	1BP5	1BP5	1BP5	1BP7	1BP7
0型密封圈 O-Ring DB	AS568-007(90°)	1BP5	1BP5	1BP7	1BP7
0型密封圈 O-Ring DC	38x1.5 (内径×线径)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-040(70°)
0型密封圈 O-Ring DD	AS568-028(70°)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-039(70°)

注意事項

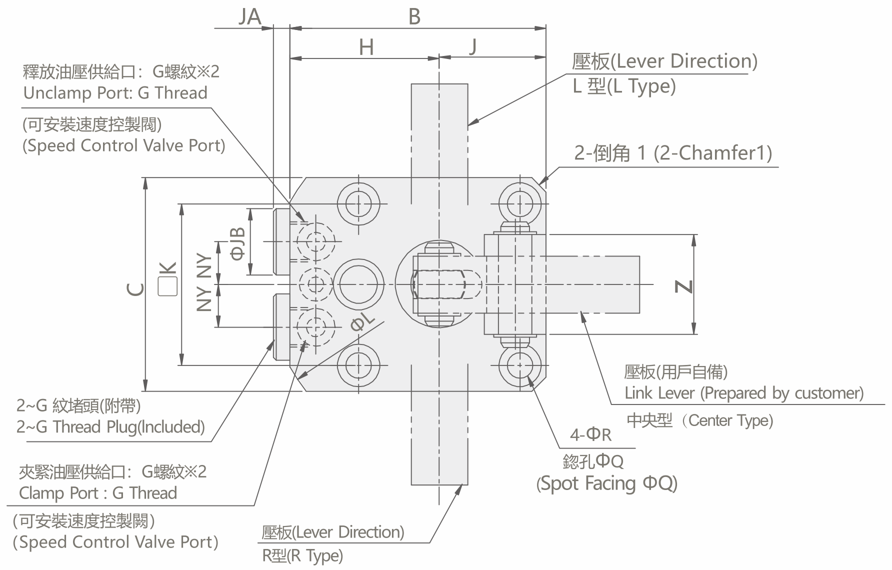
※請參考S尺寸並根據安裝高度決定安裝螺栓的EA螺紋孔的深度。

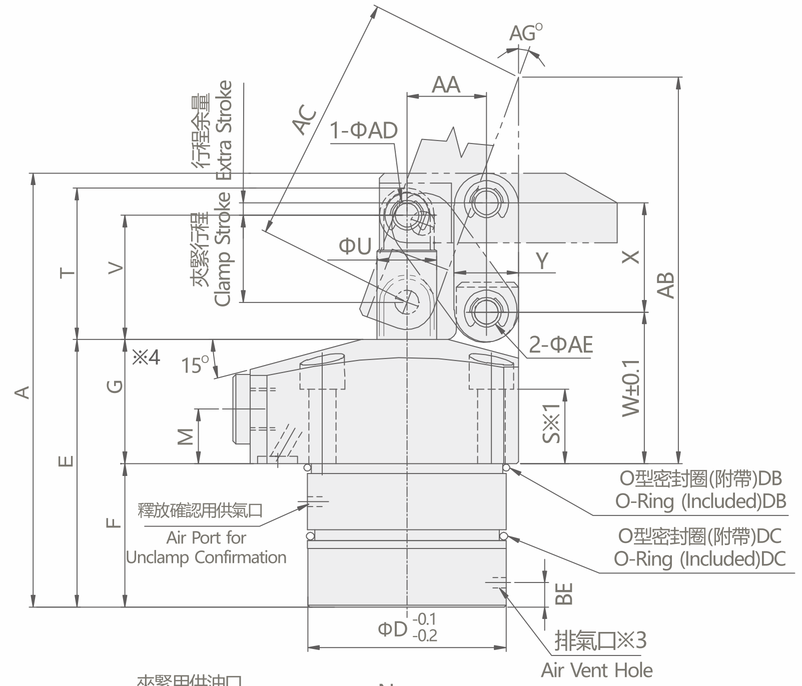
NOTE

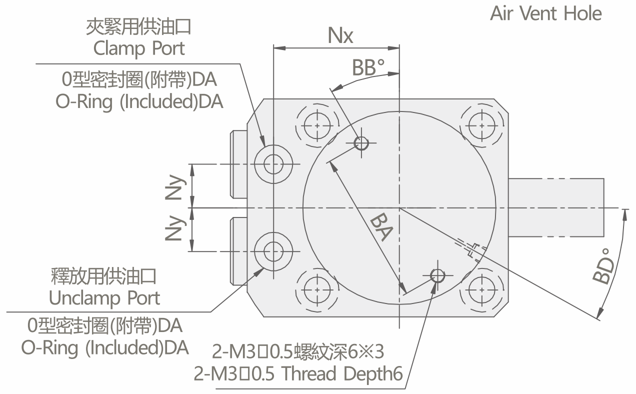
※EA tapping depth the mounting bolt should be decided according to the mounting height referring to dimensions"S".

釋放動作確認型
UNCLAMP CONFIRMATION ONLY

※本圖表示CLKW-CJ的夾緊狀態
The drawing shows the clamped state of CLKW-CJ







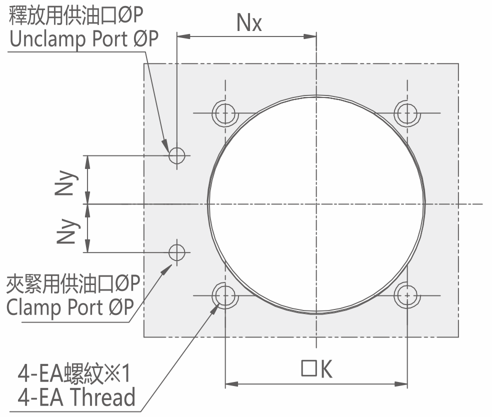
注意事項

※1.本產品未附帶安裝螺栓。請用戶參考S尺寸並根據安裝高度自行配備。
※2.本產品未附帶速度控製閥。請用戶自行配備。
※3.排氣孔必須進行大氣開放，且務必防止冷卻液-切削物的侵入。冷卻液會直接飛濺時，請在M3*S紋上設置墊塊兒，有效防止冷卻液的侵入。且務必保證排氣孔不被堵塞。
※4.只有CLKW-065法蘭的傾斜角度為12°。

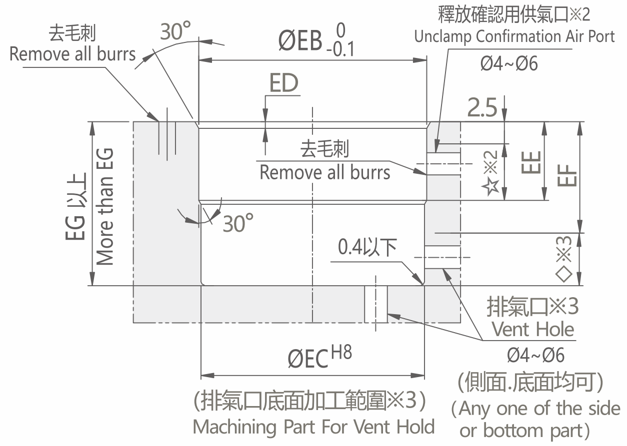
NOTE

※1. Mounting bolts are not provided with the product. Please prepare them according to the mounting height referring to dimension"S".
※2. Speed control valve is sold separately.
※3. Please keep clear condition at the air vent hole , If exposed to coolant, place a blocker on the M3 thread to prevent coolant and chips from entering. But do not block the air vent hole.
※4.Flange inclination angle is 12 ° only for CLKW-065.

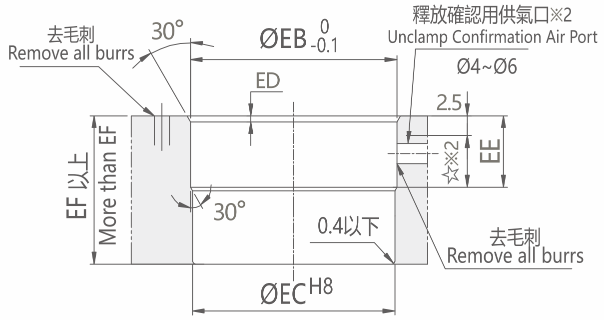
安裝部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA



盲孔 For Blind Hole



貫通孔 For Through Hole



Unit:mm

MODEL ITEM		CLKW-040C□J	CLKW-048C□J	CLKW-055C□J	CLKW-065C□J	CLKW-075C□J
A		84.5	95	104	121.5	144.5
B		54	61	69	81	94.5
C		45	51	60	70	85
D		40	48	55	65	75
E		51	56	58.5	67.5	77.5
F		26	28	30.5	37.5	40.5
G		25	28	28	30	37
H		31.5	35.5	39	46	52
J		22.5	25.5	30	35	42.5
K		34	40	47	55	63
L		72	81	88	106	116
M		11	12	12	13	16
Nx		26	30	33.5	39.5	45
Ny		9	11	12	15	16
P		3	3	3	5	5
Q		9	9	11	11	14
R		5.5	5.5	6.8	6.8	9
S		15	16	13.5	16	17.5
T		30.5	35	37.5	45	55
U		12	14	16	20	22
V		25	29	31.5	37	45
W		30.5	34.5	35.5	39	48
X		22	26	30	35.5	43.5
Y		13	13	16	19	25
Z		21	24	28	37	40
倒角1		C3	C3	C3	C4	C10
AA		16	18.5	21	24.5	30
AB		77.7	92.4	101.9	111.4	130.8
AC		50.2	61.2	71.7	78.7	90.8
AD		6	6	6	8	10
AE		6	6	8	10	12
AG		20.2	18.9	19.9	20.5	21.4
BA		31.6	38	43	54	64
BB		0°	0°	0°	0°	30°
BD		30°	30°	30°	30°	22.5°
BE		4.5	4.5	4.5	5	5
EA		M5X0.8	M5X0.8	M6	M6	M8
EB		40.8	49	56	66	76
EC		$40^{+0.04}_{0}$	$48^{+0.04}_{0}$	$55^{+0.04}_{0}$	$65^{+0.04}_{0}$	$75^{+0.04}_{0}$
ED		1.2	1.2	1.5	1.5	1.5
EE		12	14	16.5	23	24.5
EF		17.5	19.5	22	28.5	30
EG		26.5	28.5	31	38	41
JA		4	4	4	4.5	4.5
JB		14	14	14	19	19
夾緊用供油口：G螺紋 Clamp Port:G Thread 釋放用供油口：G螺紋 Unclamp Port:G Thread		G1/8	G1/8	G1/8	G1/4	G1/4
0型密封圈 O-Ring	DA	1BP5	1BP5	1BP5	1BP7	1BP7
	DB	38x1.5 (内径×线径)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-040(70°)
	DC	AS568-028(70°)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-039(70°)

注意事項

※1.請參考S尺寸並根據安裝高度決定安裝螺栓的EA螺紋孔的深度。
※2.請將釋放確認用供氣口設置於圖示☆範圍內。
※3.排氣口可設置在側面或底面。
　從側面加工時，請設置在圖示◇範圍內。
　從底面加工時，請設置在圖示ØEC範圍內。

NOTE

※1. EA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimensions"S".
※2.Prepare the air port for unclamp confirmation within the range of ☆ mark.
※3.Prepare the vent hole at either side or bottom.
When machining the vent hole at the side, it should be prepared within the ranger of ◊ mark. When machining the vent hole at the bottom, it should be prepared within the ranger of ØEC.

CLKA-P

高動力&紮實型油壓缸

CLKA-P HYDRAULIC LEVERAGE CLAMP

備註：選配調速閥為CZL系列

產品特性

此系列產品配件採用優化設計,與傳統產品比較夾緊能力提高了。產品支撐點部位與缸體採用一體化結構,使體積更加紮實,提高了產品強度。產品採用了專用防塵設計,提高了防塵和密封性,實現了高密封性。產品法蘭下部採用縮小設計,適合夾具要求的緊湊化和輕量化。

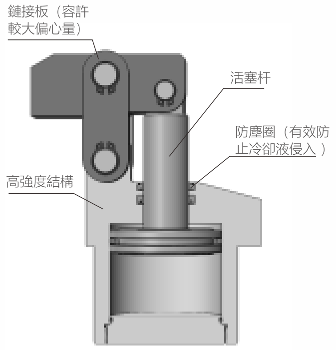
最大操作壓力：70 kgf/cm²
最小操作壓力：10 kgf/cm²

FEATURES

The accessories of the CLKA-P series are optimally designed and the clamping capacity has increased immensely compared to the traditional products. The cylinder and its supporting point use an integrated structure to create a more compact-sized product with enhanced strength. With its special dust-proof design, this product has improved its sealing performance and protects against any particles or debris while in use. The lower flange adopts a volume-compressed design, specifically to operate efficiently under the fixture's lightweight requirements.

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

剖面圖 Sectional view



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。

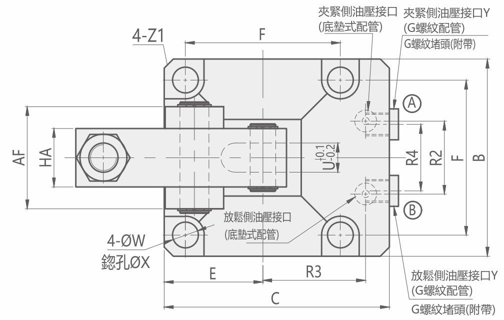
NOTE

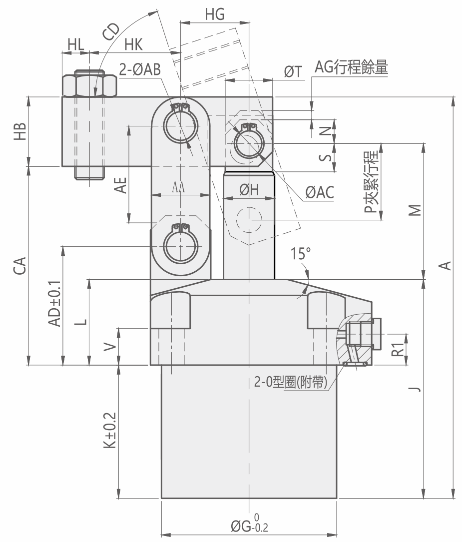
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Customization is available upon request, please contact us for more info.

訂購標示法 ORDERING INDICATION

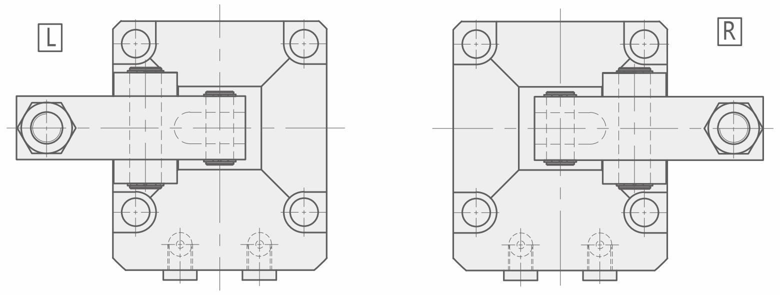
示例：CLKA – 040PL

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 R：右 L：左	Blank: Standard R:Right L:Left





壓臂安裝方向 Lever Direction



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

Unit:mm

MODEL ITEM	CLKA -040P	CLKA -048P	CLKA -055P	CLKA -065P	CLKA -075P	CLKA -105P
A	97	108	119.5	140	166	199
B	45	50	57	70	86	108
C	55	60	66	82	96	120
E	22.5	25	28.5	35	43	54
F	35	40	46	56	68	88
G	39	47	53	63	78	100
H	12	14	14	16	22.4	28
J	60	66	71	83	95	112
K	33.5	39.5	42.5	47	55	65
L	26.5	26.5	28.5	36	40	47
M	28.5	32	34.5	40	49	61.5
N	5	6	6	8	11	13
P	17.5	20.5	23	26.5	33	42
Q	2	2	2	2	2.5	2.5
R1	12.5	12.5	12.5	14	14	21
R2	22	24	28	36	45	50
R3	25	28	30.5	36	42	57
R4	20	22	26	30	38	50
S	6.5	7	7	9	10.8	14.5
T	10	12	12	14	20	26
U	6	6	8	10	11	16
V	18	17	17	20	20	20
W	5.5	5.5	6.8	9	11	14
X	10	10	12	15	18.5	20
Y	G/1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z1	C1.5	C2.5	C2.5	C3	C3.5	C5.5
O型圈O-Ring	P7	P7	P7	P8	P8	P10
AA	11	13	15	19	25	32
AB	$6^{+0.012}_{0}$	$6^{+0.012}_{0}$	$8^{+0.015}_{0}$	$10^{+0.015}_{0}$	$14^{+0.018}_{0}$	$16^{+0.018}_{0}$
AC	$6^{+0.012}_{0}$	$6^{+0.012}_{0}$	$6^{+0.012}_{0}$	$8^{+0.015}_{0}$	$12^{+0.018}_{0}$	$14^{+0.018}_{0}$
AD	34	36	39	48	54.5	65
AE	24	26	30	35.5	44	53
AF	21	21	28	37	46	56
AG	3	3	3	3	3	3
BC	4	4	4	6	6	8
CA	49.5	52.5	57	68	80	96
CB	48	59.6	67.3	78.7	98.2	133.5
CC	80.2	92.5	101.3	120.4	144.7	189.2
CD	约69°	约71°	约70°	约70°	约69°	约72°
HA	12	12	16	19	22	32
HB	14	16	20	25	31	38
HG	16.5	18.5	21	24.5	30.5	37.5
HK	20	23.5	29	32	39	50
HL	6	6	8	10	11	15

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CLKA-040P	283	17.5	20.5	10	7.7	4.9	3.77	0~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CLKA-048P	391	20.5	23.5	16.7	13	7.1	5.56	0~+70°C	
CLKA-055P	486	23	26	25	21	9.6	8.06	0~+70°C	
CLKA-065P	814	26.5	29.5	44.8	38.9	15.2	13.2	0~+70°C	
CLKA-075P	1346	33	36	88.6	74.5	24.6	20.66	0~+70°C	
CLKA-105P	2020	42	45	173.3	145.5	38.5	32.35	0~+70°C	

CCLW

高壓緊湊型槓桿式油壓缸

CCLW HIGH PRESSURE LEVERAGE CLAMP

產品特性

此系列產品配件採用優化設計,與傳統產品比較夾緊能力提高了。產品支撐點部位與缸體採用一體化結構,使體積更加紮實,提高了產品強度。產品採用了專用防塵設計,提高了防塵和密封性,實現了高密封性。產品法蘭下部採用縮小設計,適合夾具要求的緊湊化和輕量化

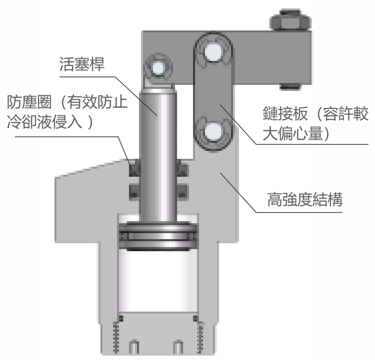
最大操作壓力：350 kgf/cm²
最小操作壓力：10 kgf/cm²
作動方式：複動式

FEATURES

The accessories of the CCLW series are optimally designed and the clamping capacity has increased immensely compared to the traditional products. The cylinder and its supporting point use an integrated structure to create a more compact-sized product with enhanced strength. With its special dust-proof design, this product has improved its sealing performance and protects against any particles or debris while in use. The lower flange adopts a volume-compressed design, specifically to operate efficiently under the fixture's lightweight requirements.

Max. operating pressure: 350 kgf/cm²
Min. operating pressure:10 kgf/cm²
Double acting

剖面圖 Sectional view



注意事項

夾緊及放鬆作動速度需適當放緩。
可接受訂製，歡迎與本公司洽詢。

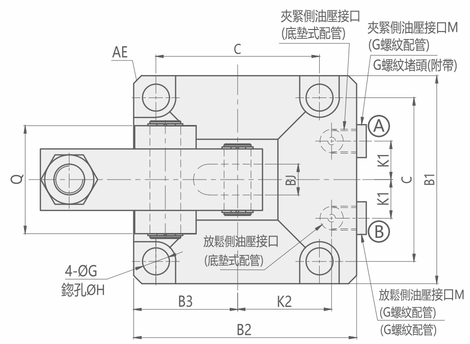
NOTE

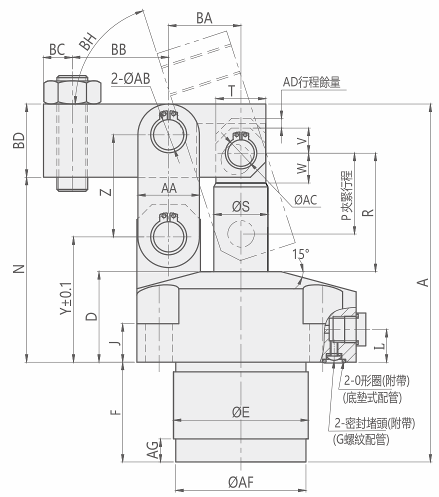
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Customization is available upon request, please contact us for more info.

訂購標示法 ORDERING INDICATION

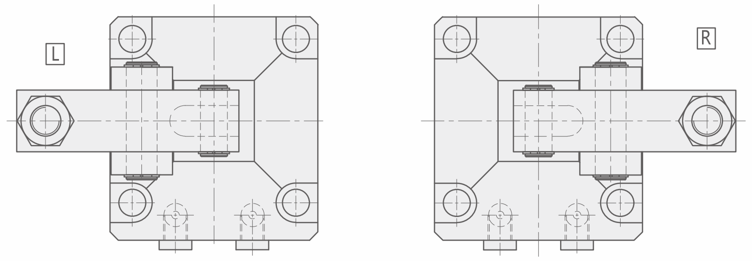
示例：CCLW-04L

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





壓臂安裝方向 Lever Direction



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

Unit:mm

MODEL ITEM	CCLW -04	CCLW -06	CCLW -10	CCLW -16	CCLW -25
A	100	122	132.5	162	197
B1	50	60	70	86	108
B2	60	69	77	96	110
B3	25	30	35	43	54
C	40	47	54	65	85
D	26.5	31	32.5	40	47
E	$35^{0}_{-0.2}$	$45^{0}_{-0.2}$	$50^{0}_{-0.2}$	$60^{0}_{-0.2}$	$70^{0}_{-0.2}$
F	31.5	42.5	42.5	51	63
G	5.5	6.8	9	11	14
H	10	12	15	18.5	20.5
J	17	17	17	20	21
K1	11	11.5	13	15	20
K2	27.5	30	33	40	43
L	12.5	15	15	17	17
M	G 1/8	G 1/8	G 1/8	G 1/4	G 1/4
N	52.5	59.5	65	80	96
P	20.5	23	26.5	33	42
Q	21	28	37	46	56
R	32	34.5	40.5	49	61.5
S	12	14	18	22.4	28
T	10	12	15	20	26
V	6	6	8	11	13
W	7	7	9	10.8	14.5
Y	36	41.5	45	54.5	65
Z	26	30	35.5	44	53
O型圈O-Ring	P9	P9	P9	P9	P9
AA	13	15	19	25	32
AB	$6^{+0.012}_{0}$	$8^{+0.012}_{0}$	$10^{+0.015}_{0}$	$14^{+0.015}_{0}$	$16^{+0.018}_{0}$
AC	$6^{+0.012}_{0}$	$6^{+0.012}_{0}$	$8^{+0.015}_{0}$	$12^{+0.015}_{0}$	$14^{+0.018}_{0}$
AD	3	3	3	3	3
AE	C2.5	C2.5	C3	C3.5	C5.5
AF	-	43	48	57.5	67.5
AG	-	10	10	12	12
BA	18.5	21	24.5	30.5	37.5
BB	23.5	29	32	39	50
BC	6	8	10	11	15
BD	16	20	25	31	38
BG	92.5	107.9	117.4	144.7	189.2
BH	約71°	約70°	約70°	約69°	約72°
BJ	$6^{-0.1}_{-0.2}$	$8^{-0.1}_{-0.2}$	$10^{-0.1}_{-0.2}$	$11^{-0.1}_{-0.2}$	$16^{-0.1}_{-0.2}$

規格參數表 SPECIFICATIONS

型號	理論夾持力 (150 kgf/cm²)	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 150 kgf/cm² (kgf)	CLAMPLNG STROKE (mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm³)	CYLINDER CAPACITY UNCLAMP(cm³)	EFF.PISTON AREA CLAMP(cm²)	EFF.PISTON AREA UNCLAMP(cm²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CCLW-04	181	20.50	23.50	3.60	1.00	1.54	0.41	-10~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CCLW-06	275	23.00	26.00	6.60	2.60	2.54	1.00	-10~+70°C	
CCLW-10	436	26.50	29.50	11.20	3.70	3.80	1.26	-10~+70°C	
CCLW-16	722	33.00	36.00	22.20	8.00	6.16	2.22	-10~+70°C	
CCLW-25	1145	42.00	45.00	45.80	18.10	10.18	4.03	-10~+70°C	

CBLU

方塊&緊湊型
槓桿式油壓缸

CBLU HYDRAULIC LEVERAGE CLAMP

產品特性

此系列產品配件採用優化設計,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。

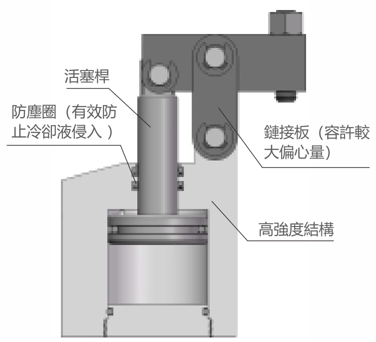
最大操作壓力：70 kgf/cm^2
最小操作壓力：10 kgf/cm^2

FEATURES

The accessories of the CBLU series are optimally designed and the clamping capacity has increased immensely compared to the traditional products. The cylinder and its supporting point use an integrated structure to create a more compact-sized product with enhanced strength. With its special dust-proof design, this product has improved its sealing performance and protects against any particles or debris while in use. The product has been developed with a block-shape construction for easy and smooth installation.

Max. operating pressure: 70 kgf/cm^2
Min. operating pressure:10 kgf/cm^2

剖面圖 Sectional view



注意事項

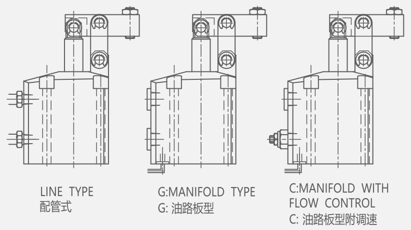
夾緊及放鬆作動速度需適當放緩。

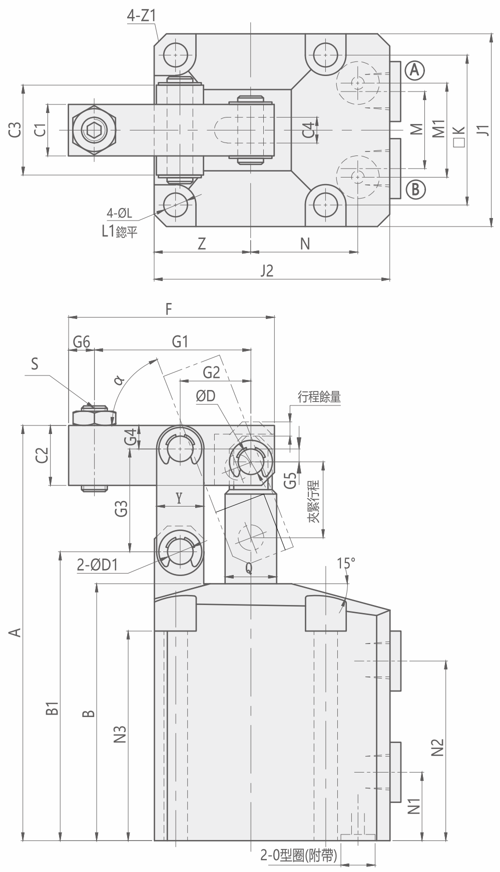
NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.

訂購標示法 ORDERING INDICATION

示例：CBLU-30CL

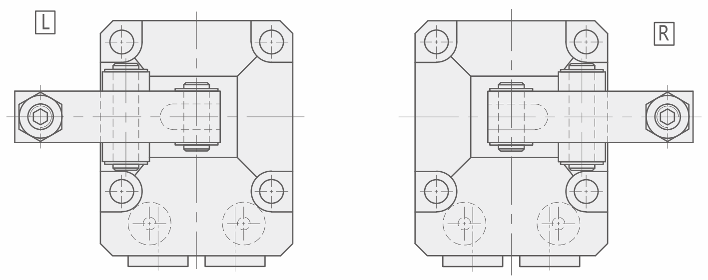
CBLU	系列 Series	CBLU		
30	油缸內徑 Hydraulic cylinder inside diameter	Φ 25 , Φ 30 , Φ 35 , Φ 45 Φ 55 , Φ 70		
C	油口型式Port type	空白：配管式 G:油路板式 C: 油路板式附調速	Blank: Line type G:Manifold type C:Manifold with flow type	
L	壓臂安裝方向 Lever direction	空白：標準 L: 左 R: 右	Blank: Standard L: Left R: Right	



Unit:mm

MODEL ITEM	CBLU -25	CBLU -30	CBLU -35	CBLU -45	CBLU -55	CBLU -70
A	97	108	119.5	140	166	199
B	60	66	71	83	95	112
B1	67.5	75.5	81.5	95	109.5	130
C1	12	12	16	19	22	32
C2	14	16	20	25	31	38
C3	21	21	28	37	46	56
C4	6	6	8	10	11	16
D	Φ6	Φ6	Φ6	Φ8	Φ12	Φ14
D1	Φ6	Φ6	Φ8	Φ10	Φ14	Φ16
F	48.5	54	64	73.5	90.5	115.5
G1	36.5	42	50	56.5	69.5	87.5
G2	16.5	18.5	21	24.5	30.5	37.5
G3	24	26	30	35.5	44	53
G4	5.5	6.5	8	9.5	12.5	16
G5	3	3.5	6	7.5	9.5	9.5
G6	6	6	8	10	11	15
J1	45	50	57	70	86	108
J2	55	60	66	82	96	120
K	35	40	46	56	68	88
L	Φ5.5	Φ5.5	Φ6.8	Φ9	Φ11	Φ14
L1	Φ9.5	Φ9.5	Φ11	Φ14	Φ17.5	Φ20
M	20	22	26	30	38	50
M1	22	24	28	36	45	50
N	25	28	30.5	36	42	57
N1	16	17	17	22	23	28
N2	42	48	51	56.5	64.5	80.5
N3	49	54	57	66	73.5	83
Z	22.5	25	28.5	35	43	54
Z1	C3	C3	C3	C4	C6	C6.5
S	M6x25	M6x25	M8x30	M10x40	M12x50	M16x60
α	69°	71°	70°	70°	69°	72°
Y	11	13	15	19	25	32
Q	Φ12	Φ14	Φ14	Φ16	Φ22	Φ28
配管式油口 PORT WITH LINE TYEP	PT1/8	PT1/8	PT1/8	PT1/4	PT1/4	PT3/8
油孔O型圈 (C型) O-RING HOLE (C TYPE)	P7	P7	P7	P8	P8	P10

壓臂安裝方向 Lever Direction



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

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm^2) CLAMPING FORCE AT 70 kgf/cm^2 (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm^3)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm^3)	推出受壓面積 EFF.PISTON AREA CLAMP(cm^2)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm^2)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CBLU-25	283	17.5	20. 5	10.00	5.69	4.91	2.78	-10~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CBLU-30	391	20.5	23. 5	16.60	13.00	7.07	5.53	-10~+70°C	
CBLU-35	486	23	26	25.00	21.00	9.62	8.08	-10~+70°C	
CBLU-45	852	26.5	29. 5	46.90	41.00	15.90	13.90	-10~+70°C	
CBLU-55	1300	33	36	85.50	71.80	23.75	19.95	-10~+70°C	
CBLU-70	2020	42	45	173.10	145.40	38.47	32.32	-10~+70°C	

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/槓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。

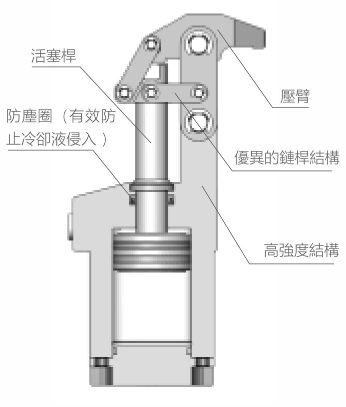
最大操作壓力：70 kgf/cm²
最小操作壓力：10 kgfcm²

FEATURES

The design of the CLF5H series uses an integrated structure that features a linkage mechanism. The clamping arm can be pulled to a position lower than the clamping surface when the clamp is released and helps minimize any interference during the loading/unloading of the workpiece. This hydraulic leverage cylinder uses minimal motion trajectory and is capable of achieving the clamping effect to the placements that are generally difficult to be clamped by the traditional swing/leverage cylinders. This product is able to save work space and minimize the interference to the surrounding machinery and equipment. With its special dust-proof design, this product has improved its sealing performance that protects against the penetration of cutting or coolant and is made to endure harsh industrial environments.

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

剖面圖 Sectional view



注意事項

夾緊及放鬆作動速度需適當放緩。

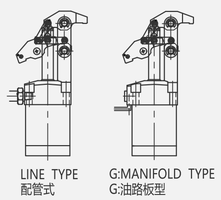
NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.

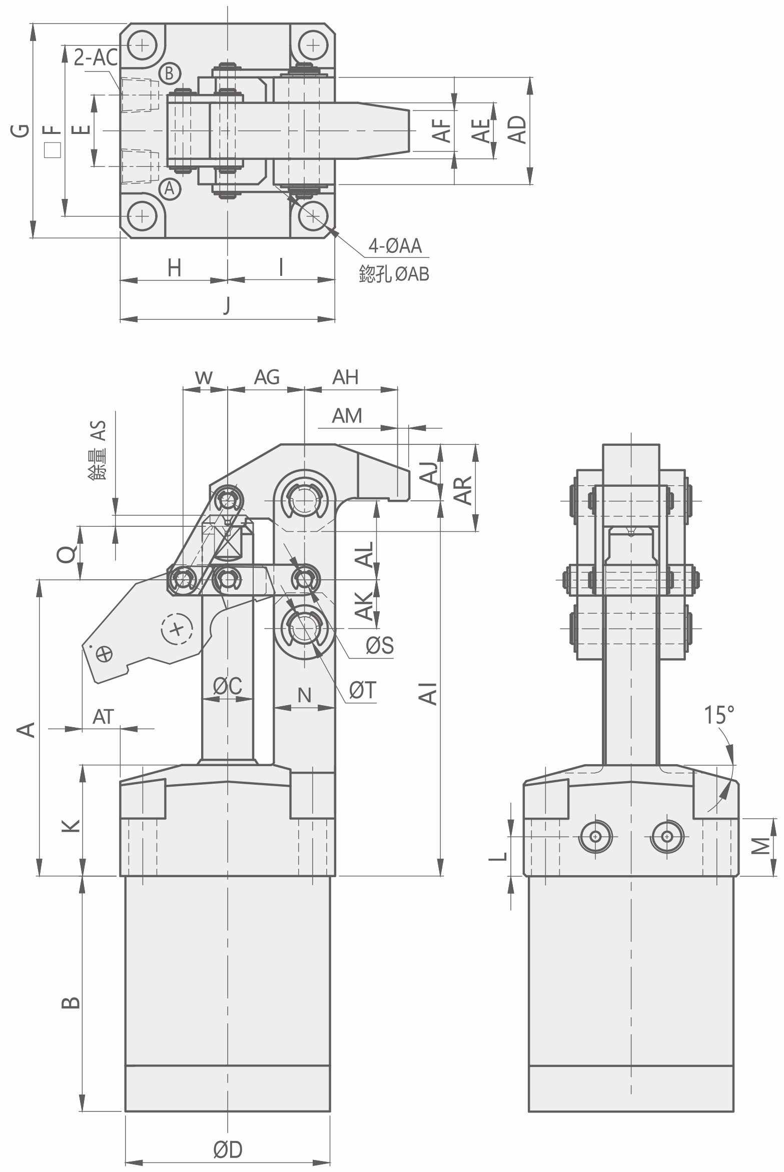
訂購標示法 ORDERING INDICATION

示例：CLF5H – 32G

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：油路板式	Blank: Line type G: Manifold type



LINE TYPE 配管式



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

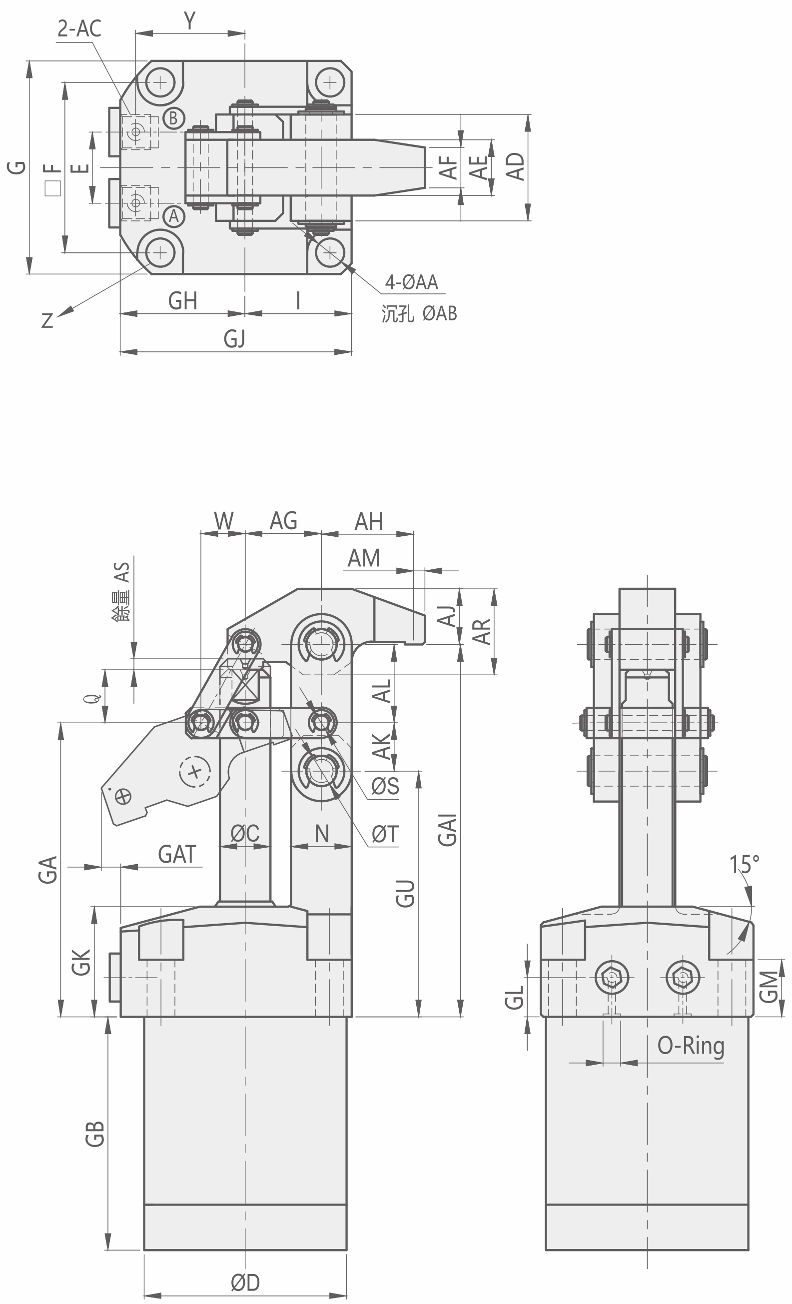
Unit:mm

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

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CLF5H-25	290	31.5	34	16.69	11.46	4.91	3.37	-10~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
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	

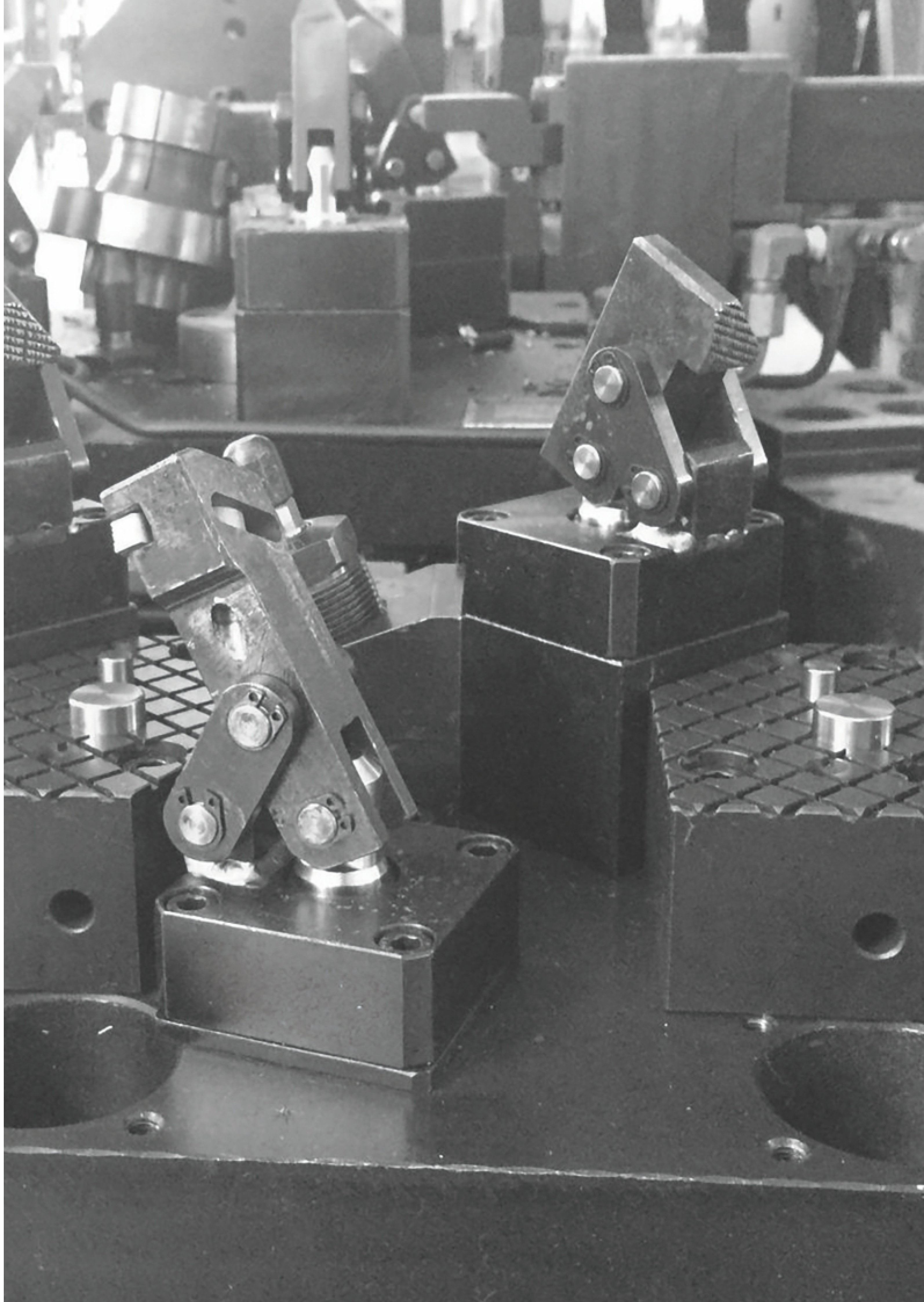
G：MANIFOLD TYPE G油路板型



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

Unit:mm

MODEL ITEM	CLF5H-25G	CLF5H-32G	CLF5H-40G	CLF5H-50G
GA	70.5	75.5	90	102
GB	59	70	79	86
C	14	14	16	20
D	47	55	65	80
E	21	21	25	28
F	40	47	55	67
G	50	59	69	84
GH	35	37.5	45.5	51
I	25	29.5	34.5	42
GJ	60	67	80	93
GK	31	31	38	44
GL	12	12	14	16
GM	18	17	21	23
N	12	16	20	24
Q	12	14	20	21
S	4	5	6	6
T	6	8	10	12
GU	57	60.5	72.5	83
W	13	13	16	17.5
O型圈 O-Ring	S4	S4	S4	P5
Y	29	32	37	44
Z	R39	R43	R51	R57
AA	5.5	6.6	9	11
AB	9.5	11	14	18
AC	G1/8	G1/8	G1/4	G1/4
AD	22	28	36	42
AE	12	16	19	22
AF	8	12	14	16
AG	19	21.5	24.5	30
AH	23	28	31	37
GAI	88.5	95.5	118	133
AJ	13	15	18	22
AK	13.5	15	17.5	19
AL	18	20	28	31
AM	4	4	4	4
AR	20	23	28	34
GAT	2	3	7	6



CHLC
槓桿式油壓缸

CHLC HYDRAULIC LEVERAGE CLAMP

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。

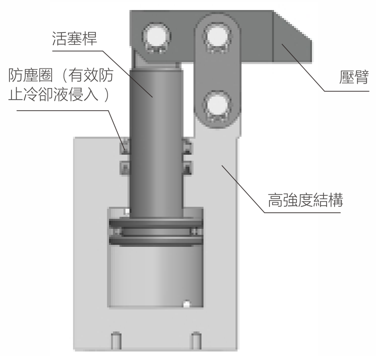
最大操作壓力：70 kgf/cm²
最小操作壓力：10 kgf/cm²
作動方式：複動式

FEATURES

The clamping mechanism used on this hydraulic cylinder is based on the principle of leverage. The clamping force of the leverage clamps is greater than the swing clamps. When the piston rod is pushed out, the cylinder is in a clamped state. The main component parts are externally installed which is optimal for product maintenance. The CHLC hydraulic cylinders are manufactured with industrial grade carbon steel for increased durability and extended product lifespan. The piston rod is made of heat-treated 45 steel and chrome-plated surface.

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

剖面圖 Sectional view



注意事項

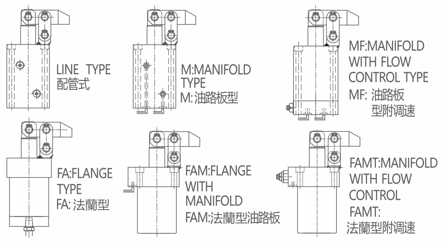
夾緊及放鬆作動速度需適當放緩。

NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.

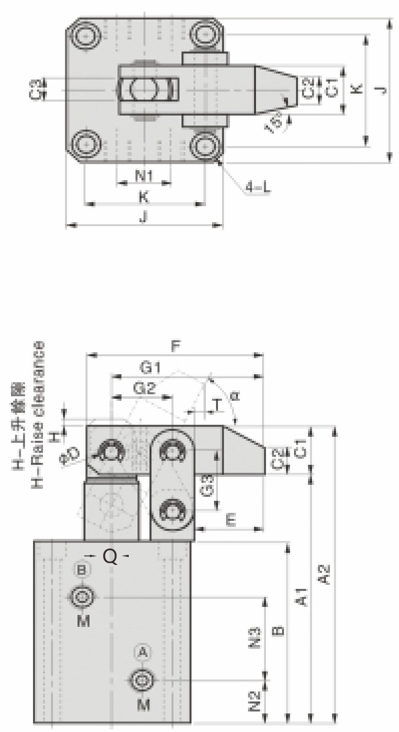
訂購標示法 ORDERING INDICATION

示例：CHLC – M25RA

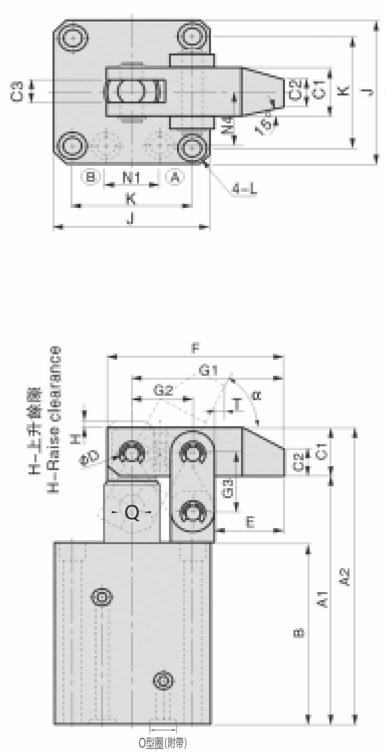
CHLC	系列 Series	CHLC	
M	型式 Type	空白：配管式 M：油路板型 MF：油路板型附調速 FA：法蘭型 FAM：法蘭型油路板 FAMT：法蘭型附調速	Blank: Line type M: Manifold type MF: Manifold with flow control FA: Flange type FAM: Flange with manifold FAMT: Flange with flow control 
25	油缸內徑 Hydraulic cylinder inside diameter	Φ25，Φ32，Φ40 Φ50 ，Φ63	
R	壓臂安裝方向 Lever direction	L：左　L:Left R：右　R:Right	註：詳情見後面圖 Note:Please refer to the CAD drawing for the details.
A	一體成型　A: Integrated		

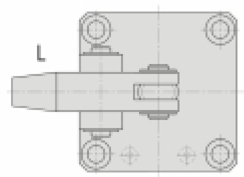
備注：配管式，MF油路板型附調速以及FA法蘭型只有單一方向。
Note:The line type ,MF and FA only have single direction.

LINE TYPE 配管式

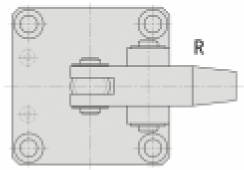


M: MANIFOLD TYPE M油路板型





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



Unit:mm

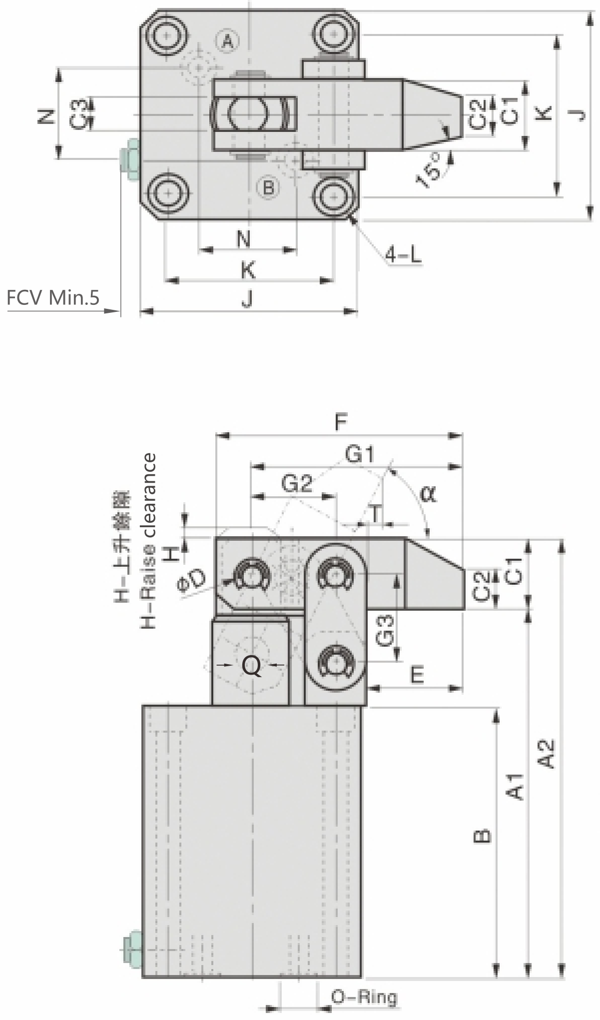
MODEL / ITEM	CHLC-25 CHLC-M25	CHLC-32 CHLC-M32	CHLC-40 CHLC-M40	CHLC-50 CHLC-M50	CHLC-63 CHLC-M63
A1	103	112	122	137	155
A2	122	131	144	162	187
B	76	85	90	100	111
C1	□19	□19	□22	□25	□32
C2	11	11	13	15	19
C3	9	9	10	11	15
ΦD	Φ8	Φ8	Φ10	Φ12	Φ15
E	25	25	30	35.5	43
F	64	64	77	90	110
G1	55	55	66	77	94
G2	22	22	26	30	36
G3	24	24	29	33	39
H	3	3	4	4	4
J	55	57	69	75	96
K	42	44	52	58	75
L	Φ6.8-Φ10.5 ×6.5D	Φ6.8-Φ10.5 ×6.5D	Φ9-Φ14 ×9D	Φ9-Φ14 ×9D	Φ11-Φ18 ×11D
M	PT1/8	PT1/8	PT1/4	PT1/4	PT1/4
N1	18	22	26	32	38
N2	17	19	19	21.5	22
N3	33	38	40	45	52
N4	20	22	26	29	38
O型圈 O-Ring	P7	P7	P8	P7	P9
α	61°	61°	61°	61°	66°
T	4	5	5.5	7.5	2
Q	Φ18	Φ20	Φ22.4	Φ28	Φ35.5

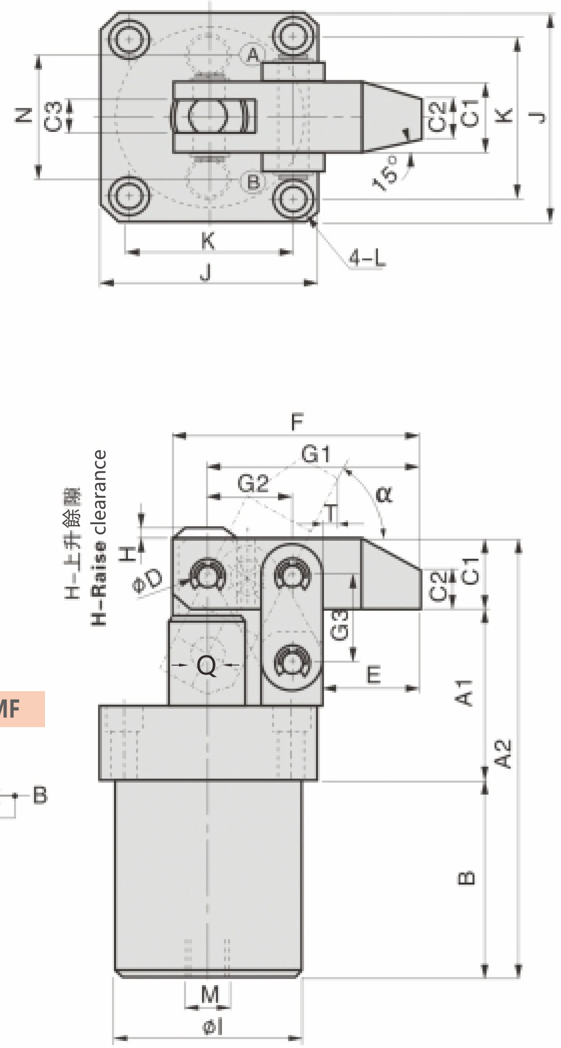
規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CHLC-25	252	22	25	12.28	5.93	4.91	2.37	-10~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CHLC-32	412	22	25	20.10	12.25	8.04	4.9	-10~+70°C	
CHLC-40	618	26	30	37.68	25.86	12.56	8.62	-10~+70°C	
CHLC-50	981	30	34	66.74	45.80	19.63	13.47	-10~+70°C	
CHLC-63	1482	40	44	124.64	85.04	31.16	21.26	-10~+70°C	

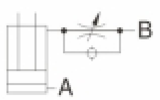
油路板附調速 CHLC-MF

法蘭型 CHLC -FA





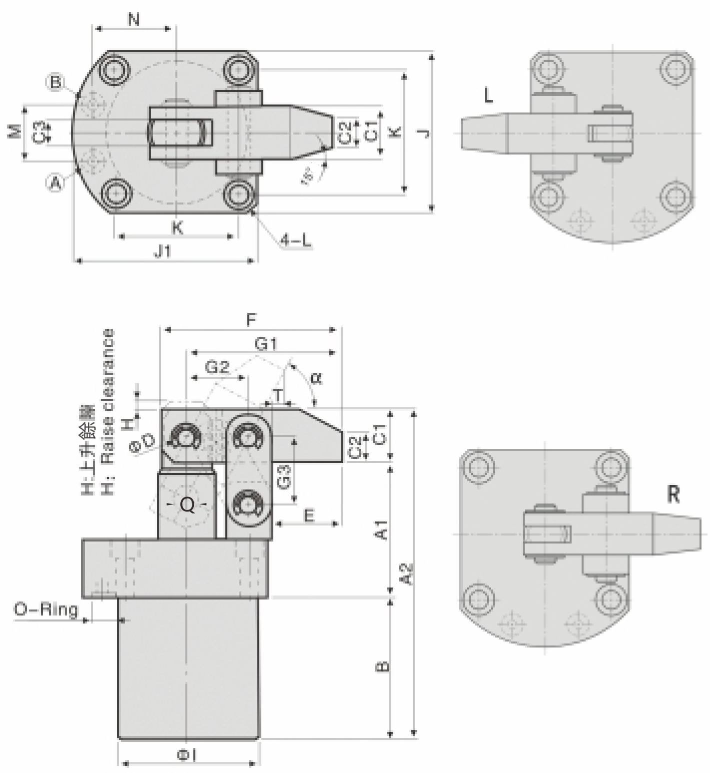
CHLC-MF

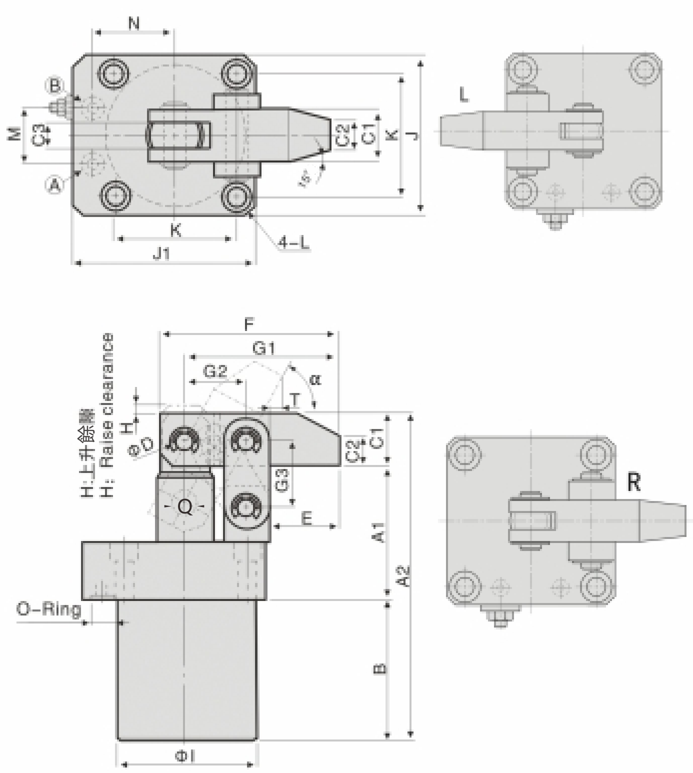


Ⓐ夾持油孔 Clamping port Ⓑ放鬆油孔 Unclamping port

法蘭型油路板 CHLC-FAM

法蘭型附調速 CHLC -FAMT





Ⓐ夾持油孔 Clamping port Ⓑ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：單動式和複動式

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.

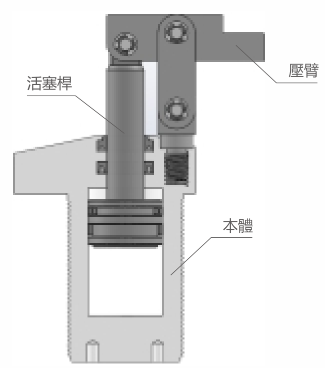
The material of the cylinder body and the piston is 45# steel, heat treatment,chrome plated.

Max. operating pressure: 70 kgf/cm²

Min. operating pressure:20 kgf/cm²

Single acting and double acting

剖面圖 Sectional view(複動型)



注意事項

夾緊及放鬆作動速度需適當放緩。

NOTE

The speed of clamping and unclamping action needs to be slowed down appropriately.

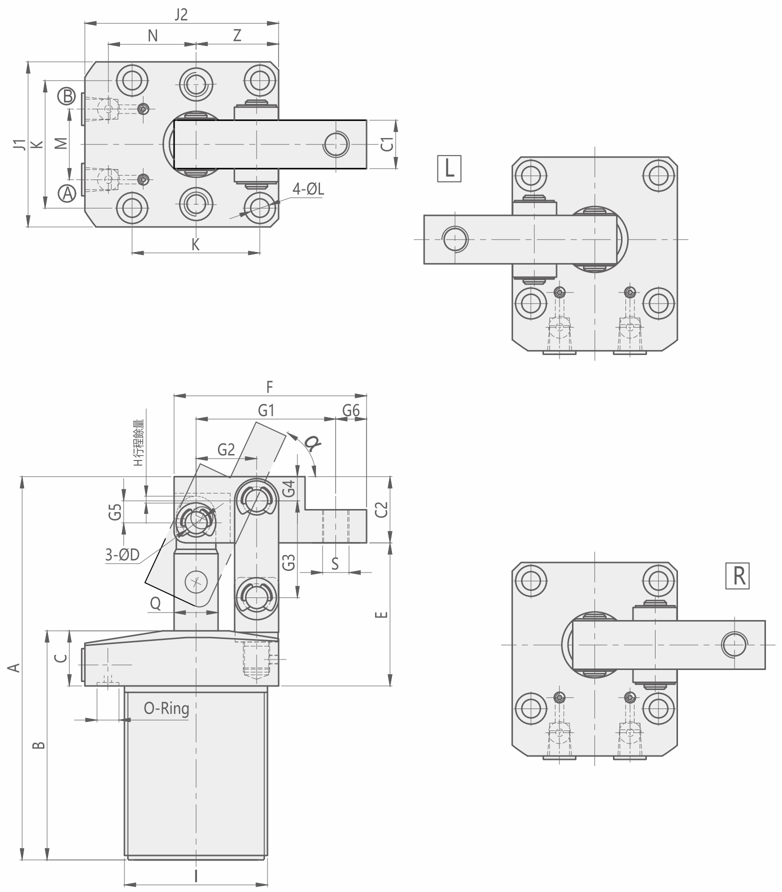
訂購標示法 ORDERING INDICATION

示例：LHC01D-40CRAW

LHC01	系列 Series	LHC01	
D	作動方式 Acting type	D: 複動式 S: 單動式	D: Double acting S: Single acting
40	油缸內徑 Hydraulic cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63	
C	空白：配管油路板共用 C：油路板附調速	Blank：Containing oil board sharing C：Manifold with flow control	
R	壓臂安裝方向 Lever direction	Blank：空白　R：右，L：左	
A	缸體一體成型	A：Integrated	
W	W: 缸體上三方具有壓臂安裝座孔	W: Clamping arm can be installed in three directions.	

備注：一體成型的沒有W型
Note: An integrated can not be made W type.

壓臂安裝方向 Lever Direction



Ⓐ夾持油孔 Clamping port

Ⓑ放鬆油孔 Unclamping port

(單動型Ⓑ為排氣孔)

Unit:mm

MODEL ITEM	LHC01S-25 LHC01D-25	LHC01S-32 LHC01D-32	LHC01S-40 LHC01D-40	LHC01S-50 LHC01D-50	LHC01S-63 LHC01D-63
A	128.5	149	157	174	179
B	86.5	97	97	104	105
C	25	25	25	25	25
C1	16	18	20	22	22
C2	17	20	25	30	30
D	Φ6	Φ6	Φ8	Φ10	Φ10
E	50	57	60	65	69
F	55	68	75	87.5	98
G1	41	52	56	63.5	74
G2	18	22	24	27.5	32
G3	26	33	33	44	48
G4	6.5	8	13	11	11
G5	4.5	5	4	10	10
G6	7	8	10	14	14
H	2	3	3	3	3
I	M40x1.5	M50x1.5	M55x1.5	M65x1.5	M80x1.5
J1	50	60	65	75	90
J2	60	70	75	88	108
K	□37	□45	□50	□58	□70
L	Φ5.5-Φ9 x5.5D	Φ6.5-Φ11 x6.5D	Φ6.5-Φ11 x6.5D	Φ8.5-Φ14 x9D	Φ8.5-Φ14 x9D
配管式油口 PORT WITH LINE TYPE	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8
M	23	23	26	32	35
N	26	30.5	33	38	48
Z	25	30	32.5	37.5	45
S	M6	M8	M8	M12	M12
α	75°	75°	75°	65°	60°
O型圈 O-Ring	P7	P7	P7	P7	P7
Q	Φ14	Φ16	Φ16	Φ20	Φ20

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
LHC01S-25	158	22	24	11.78	-	4.91	-	-10~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
LHC01D-25	268	22	24	11.78	8.09	4.91	3.37	-10~+70°C	
LHC01S-32	243	28	31	24.92	-	8.04	-	-10~+70°C	
LHC01D-32	412	28	31	24.92	18.69	8.04	6.03	-10~+70°C	
LHC01S-40	388	30	33	41.45	-	12.56	-	-10~+70°C	
LHC01D-40	659	30	33	41.45	34.82	12.56	10.55	-10~+70°C	
LHC01S-50	618	30	33	64.78	-	19.63	-	-10~+70°C	
LHC01D-50	1049	30	33	64.78	54.42	19.63	16.49	-10~+70°C	
LHC01S-63	980	30	33	102.83	-	31.16	-	-10~+70°C	
LHC01D-63	1662	30	33	102.83	92.47	31.16	28.02	-10~+70°C	

CYS

搖臂式油壓槓桿缸

ROCKER HYDRAULIC CLAMP

CYS-3005　　CYS-3006

產品特性

搖臂式夾緊器適合用於快速換模用(Quick Die Change)工位。夾臂(rocker clamp arm)的運作行程短,便於安裝無干擾，特適合狹小的安裝控制項。
可以用手將夾臂朝自己所希望的方向旋轉,模具的組裝,脫落容易。產品因用樞銷連接構成,可以堅固,安全地使用。

FEATURES

This product is suitable for Quick Die Change clamps, and it is made for convenient press die replacement.The clamp lever can be rotated to the desired direction, making it easy to The short operating stroke of the rocker lever is suitable for a constrained space between the base plates of die.
It is connected to the pivot pin and can be used firmly and safely.

使用油壓範圍:15~250kgf/cm^2
使用環境溫度:0~60℃
作動方式：單動式

Operating Pressure:15-250kgf/cm^2
Operating Temperature:0-60℃
Single acting

注意事項

利用下面的螺母和標準T-槽形螺母等可以安裝,依據托架孔高度的面，可以以多種方法調整夾緊高度。

NOTE

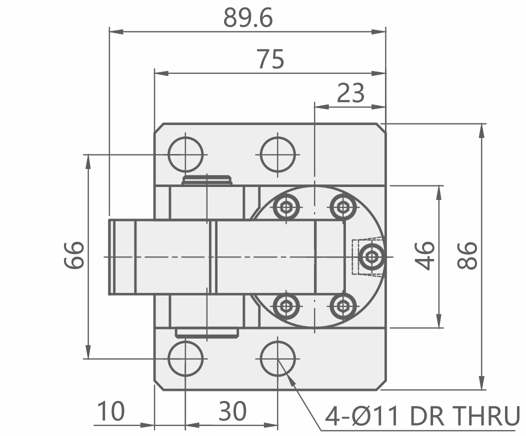
It can be installed using a female thread on the bottom and a standard T-slot nut, and the clamping height can be adjusted by the space according to the mounting hole height.

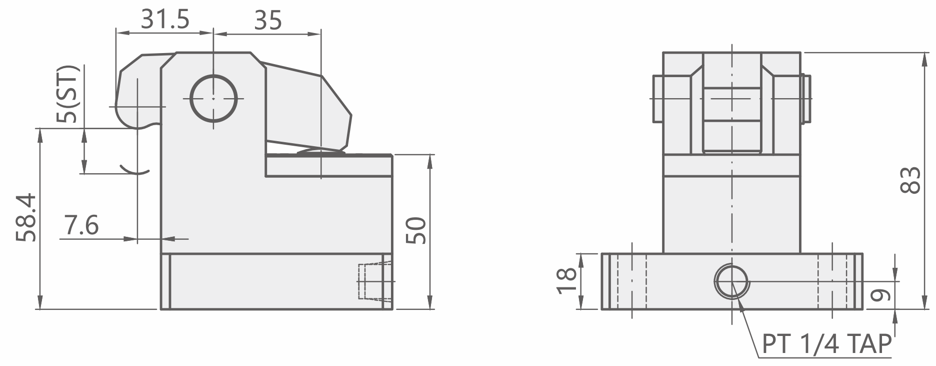
訂購標示法 ORDERING INDICATION

示例：CYS-3005

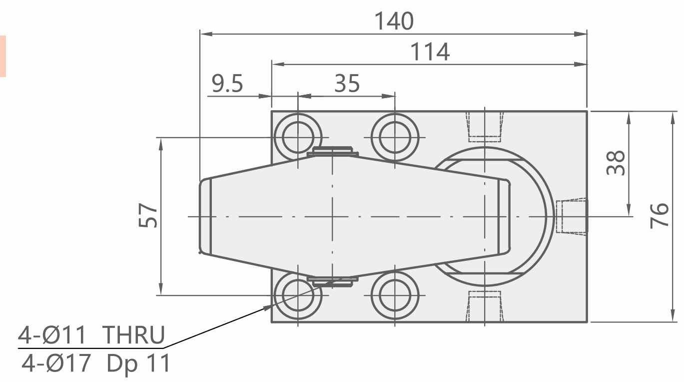
CYS	系列 Series	CYS	
30	油缸內徑 Hydraulic cylinder inside diameter	30	
05	行程 Stroke	05= 5mm	06= 6mm

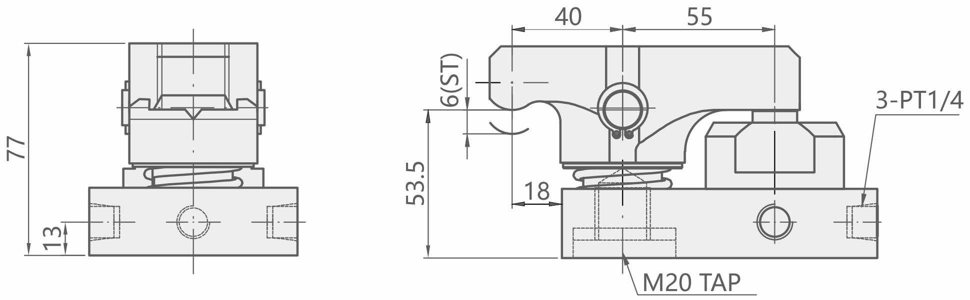
型號 CYS-3005





型號 CYS-3006





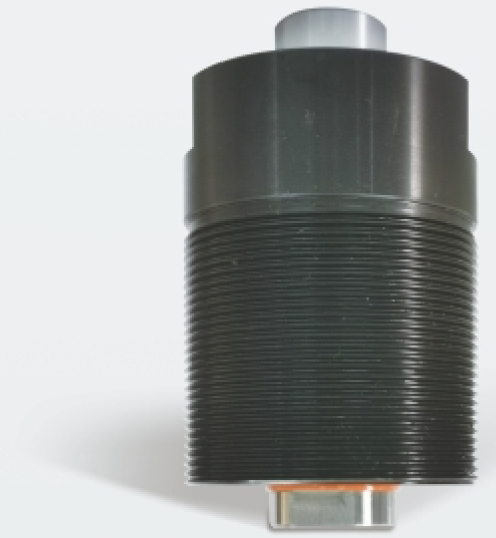
規格參數表 SPECIFICATIONS

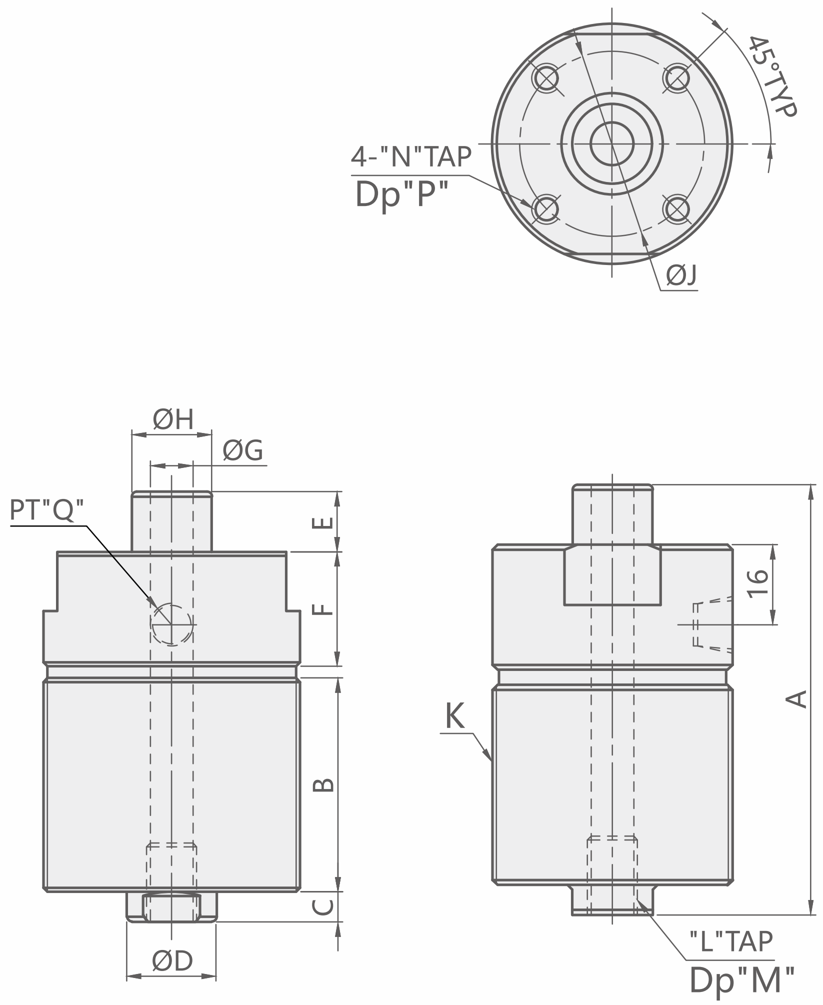
型號 MODEL	行程 STROKE (mm)	油缸容量 CYLINDER CAPACITY(cm^3)	油缸面積 CYLINDER AREA(cm^2)	最大夾緊力 MAXIMUM CLAMPING FORCE(kgf)	重量 WEIGHT(kg)
CYS-3005	5.0	3.5	7.0	1900	2.2
CYS-3006	6.0	4.2	7.0	2400	2.6

CLP

空心式夾緊器

CLP HOLLOW CLAMP





產品特性

主桿孔貫通,端部有內螺紋，根據安裝工位,可以用於拉開或推開的功能。

使用油壓範圍:15~250kgf/cm²
活塞速度:8~100mm/s
使用環境溫度:0-60℃
油路盡量要大
作動方式：單動式

FEATURES

There is a hole through the rod so bolts can be used,as there is a female screw at the end.Depending on the mounting position, it can be used for pushing or pulling.

Operating Pressure:15~250kgf/cm².
Piston Speed:8~100mm/s.
Operating Temperature:0~60℃.
Make piping size as big as possible.
Single acting.

訂購標示法 ORDERING INDICATION

示例：CLP-2808

CLP	系列 Series	CLP
28	油缸内徑 Hydraulic cylinder inside diameter	28/40/63
08	行程 Stroke	08=8mm 12=12mm 20=20mm

尺寸 Dimensions

Unit:mm

MODEL NO.	CLP-2808	CLP-4012	CLP-6320
A	86	109	140
B	40	53	70
C	6	9	10
ØD	18	28	40
E	12	15	23
F	25	29	34
ØG	11	17	21
ØH	16	25	35
ØJ	37	50	70
K	M48x1.5P	M65x2.0P	M90x2.0P
L	M10x1.5P	M12x1.75P	M24x3.0P
M	15	20	32
N	M6x1.0P	M8x1.25P	M12x1.75P
P	10	16	18
Q	1/8	1/4	3/8

規格參數表 SPECIFICATIONS

型號 MODEL	行程 STROKE (mm)	油缸容量 CYLINDER CAPACITY(cm³)	油缸面積 CYLINDER AREA(cm²)	最大夾緊力 MAXIMUM CLAMPING FORCE(kgf)	內徑 INSIDE DIAMETER(mm)	重量 WEIGHT(kg)
CLP-2808	8	3.31	4.14	1000	⌀28	0.85
CLP-4012	12	9.18	7.65	1900	⌀40	1.91
CLP-6320	20	43.08	21.54	5300	⌀63	4.28

CCLT

緊湊型單動
槓桿式油壓缸

CCLT SINGLE ACTING LEVERAGE CLAMP

產品特性

此系列產品配件採用新改革設計,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。產品法蘭下部採用縮小型設計,最適合夾具要求的緊湊性和輕量性。

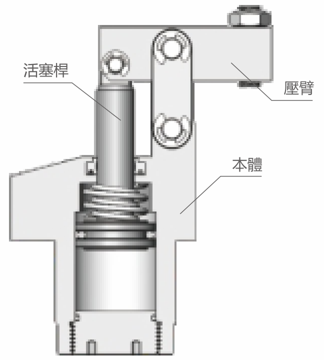
最大操作壓力：70 kgf/cm²
最小操作壓力：25 kgf/cm²

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:25 kgf/cm²

剖面圖 Sectional view(單動型)

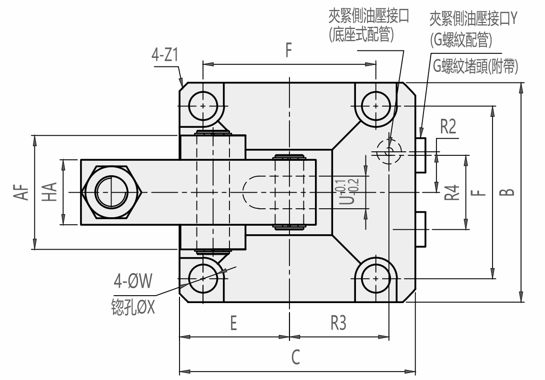


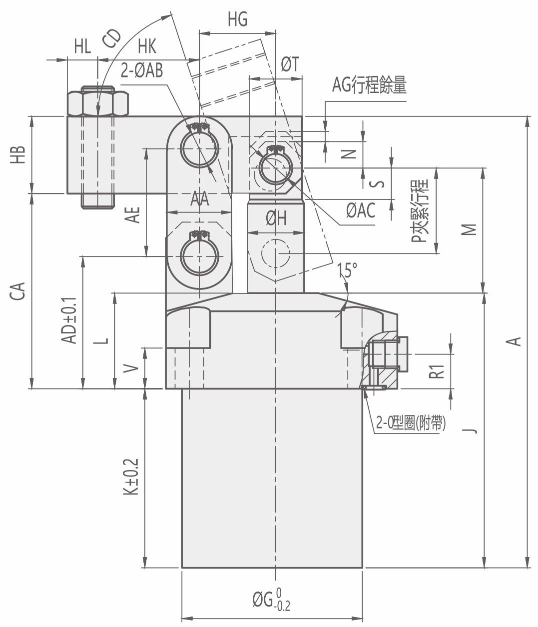
注意事項

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。

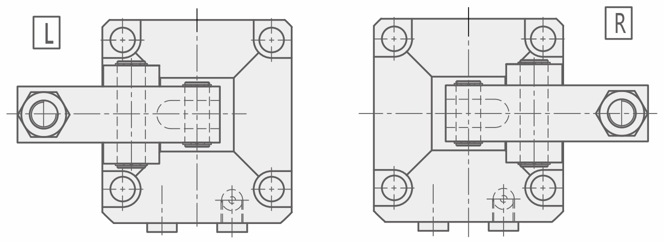
NOTE

The speed of clamping and unclamping action needs to be slowed down appropriately.Orders with customized request are available, welcome to contact us.





壓臂安裝方向 Lever Direction



Unit:mm

MODEL ITEM	CCLT -02	CCLT -04	CCLT -06	CCLT -10	CCLT -16	CCLT -25
A	101	114	132.5	147	180	214
B	45	50	57	70	86	108
C	55	60	66	82	96	120
E	22.5	25	28.5	35	43	54
F	35	40	46	56	68	88
G	39	47	53	63	78	100
H	12	14	14	16	22.4	28
J	64	72	84	90	109	127
K	37.5	45.5	55.5	54	69	80
L	26.5	26.5	28.5	36	40	47
M	28.5	32	34.5	40	49	61.5
N	5	6	6	8	11	13
P	17.5	20.5	23	26.5	33	42
R1	12.5	12.5	12.5	14	14	21
R2	11	12	14	18	22.5	25
R3	25	28	30.5	36	42	57
R4	20	22	26	30	38	50
S	6.5	7	7	9	10.8	14.5
T	10	12	12	14	20	26
U	6	6	8	10	11	16
V	18	17	17	20	20	20
W	5.5	5.5	6.8	9	11	14
X	10	10	12	15	18.5	20
Y	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z1	C1.5	C2.5	C2.5	C3	C3.5	C5.5
O型圈	P7	P7	P7	P8	P8	P10
AA	11	13	15	19	25	32
AB	$6^{+0.012}_{0}$	$6^{+0.012}_{0}$	$8^{+0.015}_{0}$	$10^{+0.015}_{0}$	$14^{+0.018}_{0}$	$16^{+0.018}_{0}$
AC	$6^{+0.012}_{0}$	$6^{+0.012}_{0}$	$6^{+0.012}_{0}$	$8^{+0.015}_{0}$	$12^{+0.018}_{0}$	$14^{+0.018}_{0}$
AD	34	36	39	48	54.5	65
AE	24	26	30	35.5	44	53
AF	21	21	28	37	46	56
AG	3	3	3	3	3	3
CA	49.5	52.5	57	68	80	96
CD	约69°	约71°	约70°	约70°	约69°	约72°
HA	12	12	16	19	22	32
HB	14	16	20	25	31	38
HG	16.5	18.5	21	24.5	30.5	37.5
HK	20	23.5	29	32	39	50
HL	6	6	8	10	11	15

訂購標示法 ORDERING INDICATION

示例：CCLT-02L

CCLT	系列 Series	CCLT	
02	02/04/06/10/16/25		
L	壓臂安裝方向 Lever Direction	空白:標準 Blank:Standard	L:左 R:右 L:Left R:Right

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	彈簧阻抗 SPRING FORCE (kgf)	使用流體 USABLE FLUID
CCLT-02	245	17.5	20.5	10	4.9	0~+70°C	25	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CCLT-04	326.5	20.5	23.5	16.7	7.1	0~+70°C	40	
CCLT-06	408	23	26	25	9.6	0~+70°C	63	
CCLT-10	694	26.5	29.5	44.8	15.2	0~+70°C	81	
CCLT-16	1133	33	36	88.6	24.6	0~+70°C	152	
CCLT-25	1745	42	45	173.3	38.5	0~+70°C	158	

CHA
油壓轉角缸

CHA HYDRAULIC SWING CLAMP

產品特性

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

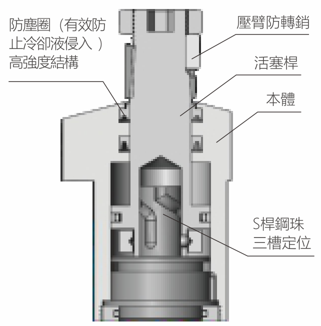
最大操作壓力：70 kgf/cm²
最小操作壓力：15 kgf/cm²
作動方式：複動式

FEATURES

The accessories of the CHA series are optimally designed to create a more compact-sized product with enhanced strength. With its special dust-proof design, this product has improved its sealing performance and protects against any particles or debris while in use. The product's structure design has a high torsion resistance that achieves maximum durability.

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

剖面圖 Sectional view



注意事項

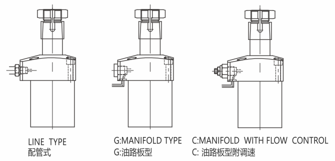
夾緊及放鬆作動速度需適當放緩。
壓臂安裝拆卸方式，請參見第4頁。
可接受訂製，歡迎與本公司洽詢。

NOTE

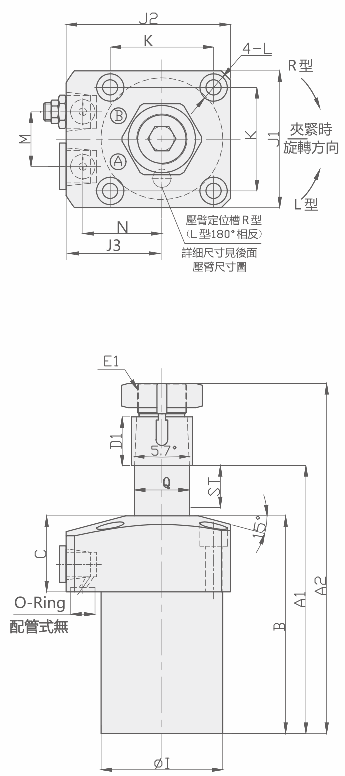
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Please refer to Page 4 for installation instructions or removal methods of the clamping arm. Customization is available upon request, please contact us for more info.

訂購標示法 ORDERING INDICATION

示例：CHA-040SL-90GM

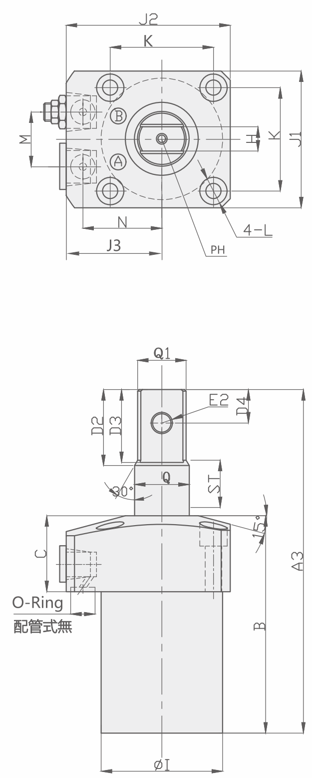
CHA	系列 Series	CHA	
040	主體尺寸 Body size	036：ΦI =36　040：ΦI =40　048：ΦI =48　055：ΦI =55 065：ΦI =65　075：ΦI =75　090：ΦI =90　105：ΦI =105	
S	壓臂型式 Clamping arm type	S:單邊壓臂 D:雙邊壓臂	S: Single side arm D: Double side arm　（註：雙壓臂的無雙出桿型）
L	轉角方向Swing direction	L：左　R：右	L:Left　R:Right
90	轉角角度 Swing angle	標準角度 可訂做角度	Standard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

SINGLE SIDE SWING CLAMP



DOUBLE SIDE SWING CLAMP

註：下圖為轉角90°鬆開狀態



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

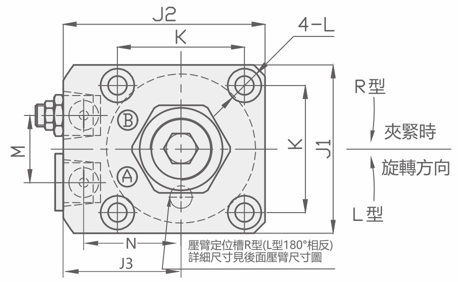
Unit:mm

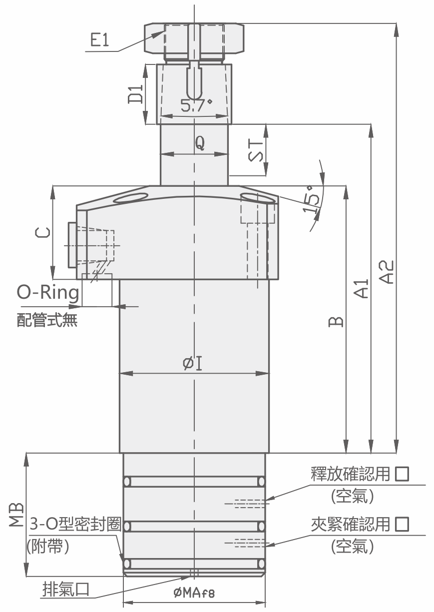
MODEL ITEM	CHA-036	CHA-040	CHA-048	CHA-055	CHA-065	CHA-075	CHA-090	CHA-105
ST:Swing /Clamp	13.5:5.5/8	14.5:6.5/8	15.5:7.5/8	18.5:8.5/10	20:10/10	24:12/12	26:14/12	32:16/16
A1鬆開狀態 Unclamping	80	88	96.5	109.5	116	135	148	178
A2鬆開狀態 Unclamping	104	115	128.5	145.5	156	181	203	240
A3鬆開狀態 Unclamping	102	113	126.5	143.5	156	181	203	238
B	64.5	71.5	79	89	94	109	120	144
C	25	25	28	30	31	38	46	56
D1	14	16	19	22	25	31	38	44
D2	22	25	29	33	40	45	54	60
D3	21	24	27.5	31.5	38.5	43.5	52.5	58.5
D4	9	11	12	12.5	16.5	19	23.5	25.5
E1	M14X1.5	M16X1.5	M20X1.5	M22X1.5	M27X1.5	M30X1.5	M39X1.5	M48X1.5
E2	Φ6	Φ6	Φ8	Φ10	Φ13	Φ13	Φ16	Φ20
H	7	8	10	12	14	16	22	26
ΦI	Φ36	Φ40	Φ48	Φ55	Φ65	Φ75	Φ90	Φ105
J1	40	45	51	60	70	80	95	110
J2	49	54	61	69	81	92	107	122
J3	29	31.5	35.5	39	46	52	59.5	67
K	□31.4	□34	□40	□47	□55	□63	□75	□88
L	Φ4.5-Φ7.5 X5D	Φ5.5-Φ9 X6D	Φ5.5-Φ9 X6D	Φ6.8-Φ11 X7D	Φ6.8-Φ11 X7D	Φ9-Φ14 X9D	Φ11-Φ17.5 X11D	Φ14-Φ20 X14D
M	16	18	22	24	30	32	37	45
N	23.5	26	30	33.5	39.5	45	52.5	60
Q	Φ15	Φ18	Φ22	Φ25	Φ30	Φ35.5	Φ45	Φ55
Q1	Φ13.5	Φ16	Φ20	Φ23	Φ28	Φ33.5	Φ43	Φ53
PH	M3	M3	M4	M5	M6	M6	M8	M8
配管式油口 Port with Line type	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
O型圈(僅G/C 型) O-Ring(G/Ctype)	P5	P5	P5	P5	P7	P7	P7	P7

規格參數表 SPECIFICATIONS

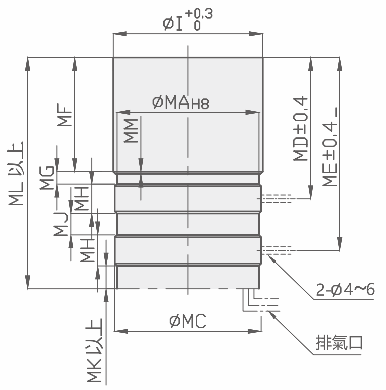
型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	轉角行程 SWING STROKE (mm)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY UNCLAMP(cm³)	拉入容積 CYLINDER CAPACITY CLAMP(cm³)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CHA-036	220	5.5	8	13.5	6.63	4.24	4.91	3.14	-10~+70°C	相當於 ISO黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CHA-040	284.2	6.5	8	14.5	9.57	5.89	6.6	4.06	-10~+70°C	
CHA-048	445.9	7.5	8	15.5	15.76	9.87	10.17	6.37	-10~+70°C	
CHA-055	721	8.5	10	18.5	28.12	19.06	15.2	10.3	-10~+70°C	
CHA-065	880	10	10	20	38.60	25.14	19.63	12.57	-10~+70°C	
CHA-075	1421	12	12	24	72.46	48.7	30.19	20.3	-10~+70°C	
CHA-090	1978	14	12	26	114.82	73.48	44.16	28.26	-10~+70°C	
CHA-105	2789	16	16	32	203.50	127.5	63.59	39.84	-10~+70°C	

註：下圖以CHA-M型鬆開狀態





註：安裝部位加工尺寸

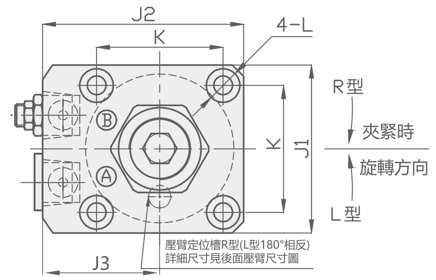


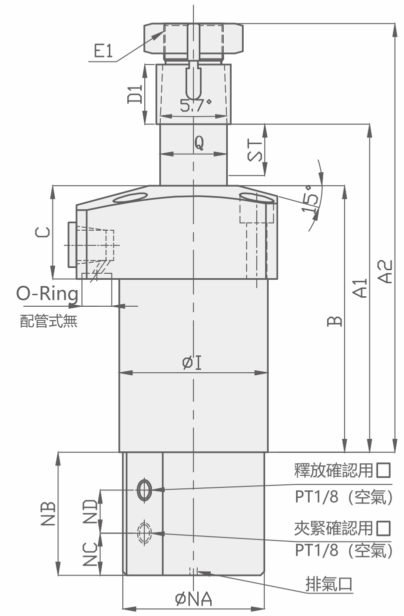
Ⓐ夾持油孔 Clamping port
Ⓑ放鬆油孔 Unclamping port

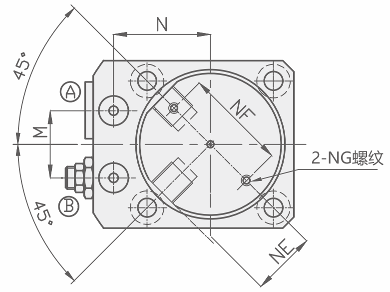
Unit:mm

MODEL ITEM	CHA-036M	CHA-040M	CHA-048M	CHA-055M	CHA-065M	CHA-075M	CHA-090M	CHA-105M
ST:Swing /Clamp	13.5:5.5/8	14.5:6.5/8	15.5:7.5/8	18.5:8.5/10	20:10/10	24:12/12	26:14/12	32:16/16
A1鬆開狀態 Unclamping	80	88	96.5	109.5	116	135	148	178
A2鬆開狀態 Unclamping	104	115	128.5	145.5	156	181	203	240
B	64.5	71.5	79	89	94	109	120	144
C	25	25	28	30	31	38	46	56
D1	14	16	19	22	25	31	38	44
E1	M14X1.5	M16X1.5	M20X1.5	M22X1.5	M27X1.5	M30X1.5	M39X1.5	M48X1.5
ΦI	Φ36	Φ40	Φ48	Φ55	Φ65	Φ75	Φ90	Φ105
J1	40	45	51	60	70	80	95	110
J2	49	54	61	69	81	92	107	122
J3	29	31.5	35.5	39	46	52	59.5	67
K	□31.4	□34	□40	□47	□55	□63	□75	□88
L	Φ4.5-Φ7.5 X5D	Φ5.5-Φ9 X6D	Φ5.5-Φ9 X6D	Φ6.8-Φ11 X7D	Φ6.8-Φ11 X7D	Φ9-Φ14 X9D	Φ11-Φ17.5 X11D	Φ14-Φ20 X14D
M	16	18	22	24	30	32	37	45
N	23.5	26	30	33.5	39.5	45	52.5	60
Q	Φ15	Φ18	Φ22	Φ25	Φ30	Φ35.5	Φ45	Φ55
配管式油口 Port with Line type	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
O型圈(僅G/C 型) O-Ring(G/Ctype)	P5	P5	P5	P5	P7	P7	P7	P7
MAf8	$34.5^{-0.03}_{-0.06}$	$38^{-0.03}_{-0.06}$	$45^{-0.03}_{-0.06}$	$45^{-0.03}_{-0.06}$	$45^{-0.03}_{-0.06}$	$53^{-0.03}_{-0.07}$	$53^{-0.03}_{-0.07}$	$53^{-0.03}_{-0.07}$
MAH8	$34.5^{+0.04}_{0}$	$38^{+0.04}_{0}$	$45^{+0.04}_{0}$	$45^{+0.04}_{0}$	$45^{+0.04}_{0}$	$53^{+0.04}_{0}$	$53^{+0.04}_{0}$	$53^{+0.04}_{0}$
MB	32	33	38.5	38.5	40.5	49	49	57.5
MC	35.7	39.2	46.2	46.2	46.2	54.2	54.2	54.2
MD	49.4	57.5	65.4	73.4	79.4	86.5	89.5	106.5
ME	62.4	70.5	78.9	86.9	92.9	106	109	126
MF	40	47	53	61	65	74	77	94
MG	4.9	6	7.9	7.9	9.9	7.5	7.5	7.5
MH	9	9	9	9	9	10	10	10
MJ	4	4	4.5	4.5	4.5	9.5	9.5	9.5
MK	6.5	6.5	8	8	8	11	11	16.5
ML	73.4	81.5	91.4	99.4	105.4	122	125	147.5
MM	1.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5

註：下圖以CHA-N型鬆開狀態





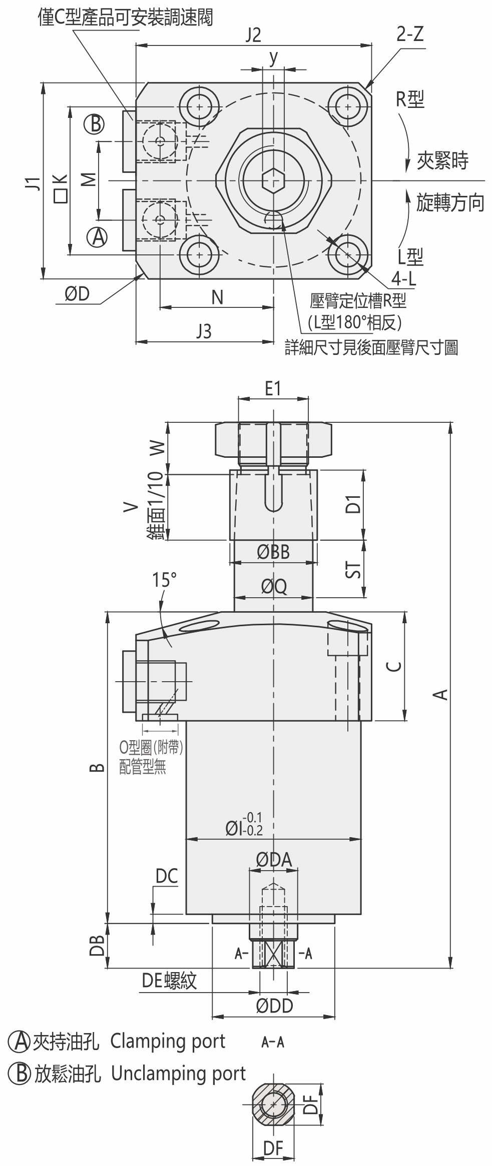


Ⓐ夾持油孔 Clamping port
Ⓑ放鬆油孔 Unclamping port

Unit:mm

MODEL ITEM	CHA-036N	CHA-040N	CHA-048N	CHA-055N	CHA-065N	CHA-075N	CHA-090N	CHA-105N
ST:Swing /Clamp	13.5:5.5/8	14.5:6.5/8	15.5:7.5/8	18.5:8.5/10	20:10/10	24:12/12	26:14/12	32:16/16
A1鬆開狀態 Unclamping	80	88	96.5	109.5	116	135	148	178
A2鬆開狀態 Unclamping	104	115	128.5	145.5	156	181	203	240
B	64.5	71.5	79	89	94	109	120	144
C	25	25	28	30	31	38	46	56
D1	14	16	19	22	25	31	38	44
E1	M14X1.5	M16X1.5	M20X1.5	M22X1.5	M27X1.5	M30X1.5	M39X1.5	M48X1.5
ΦI	Φ36	Φ40	Φ48	Φ55	Φ65	Φ75	Φ90	Φ105
J1	40	45	51	60	70	80	95	110
J2	49	54	61	69	81	92	107	122
J3	29	31.5	35.5	39	46	52	59.5	67
K	□31.4	□34	□40	□47	□55	□63	□75	□88
L	Φ4.5-Φ7.5 X5D	Φ5.5-Φ9 X6D	Φ5.5-Φ9 X6D	Φ6.8-Φ11 X7D	Φ6.8-Φ11 X7D	Φ9-Φ14 X9D	Φ11-Φ17.5 X11D	Φ14-Φ20 X14D
M	16	18	22	24	30	32	37	45
N	23.5	26	30	33.5	39.5	45	52.5	60
Q	Φ15	Φ18	Φ22	Φ25	Φ30	Φ35.5	Φ45	Φ55
配管式油口 Port with Line type	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/8	2-PT1/4	2-PT1/4	2-PT3/8	2-PT3/8
O型圈(僅G/C型) O-Ring(G/Ctype)	P5	P5	P5	P5	P7	P7	P7	P7
ΦNA	35.5	39.5	45	45	45	53	53	53
NB	32	33	38.5	38.5	40.5	49	49	57.5
NC	9.8	9	11	11	11	13	13	17
ND	11.7	13	14.5	14.5	14.5	20.5	20.5	24
NE	17	19	21	21	21	24.5	24.5	24.5
NF	25	29	29	29	29	38	38	38
NG (公稱×深度) (Nominal ×Depth)	M3×0.5 ×5	M3×0.5 ×5	M3×0.5 ×5	M3×0.5 ×5	M3×0.5 ×5	M4×0.7 ×6	M4×0.7 ×6	M4×0.7 ×6

註：本圖為CHA-G※D型鬆開狀態



Unit:mm

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

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	轉角行程 SWING STROKE (mm)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY UNCLAMP(cm³)	拉入容積 CYLINDER CAPACITY CLAMP(cm³)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(℃)	使用流體 USABLE FLUID
CHA-036※D	247.8	5.5	8	13.5	6.48	4.78	4.8	3.54	-10~+70℃	相當於ISO黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CHA-040※D	350	6.5	8	14.5	9.29	7.25	6.41	5.0	-10~+70℃	
CHA-048※D	486.5	7.5	8	15.5	14.27	10.77	9.21	6.95	-10~+70℃	
CHA-055※D	721	8.5	10	18.5	25.27	19.06	13.66	10.3	-10~+70℃	
CHA-065※D	938	10	10	20	37.76	26.8	18.88	13.4	-10~+70℃	
CHA-075※D	1421	12	12	24	66.34	48.7	27.64	20.3	-10~+70℃	
CHA-090※D	2065	14	12	26	111.28	76.7	42.8	29.5	-10~+70℃	
CHA-105※D	2891	16	16	32	119.87	132.2	62.46	41.3	-10~+70℃	

CLHW
傳感器內置式轉角缸

Air Sensing Swing Clamp

產品特性

此系列產品動作端內置有動作確認機構，最適用於實現設備的自動化。
通過連接空氣傳感器，檢出壓差，實現確認動作。
通過夾緊動作確認，能實現安全可靠地工件搬入搬出。
內置傳感閥，可實現超薄型的夾具設計。
簡單的油路孔設計。

最大操作壓力：70 kgf/cm²
最小操作壓力：15 kgf/cm²

FEATURES

The CLHW series utilizes air sensing mechanisms by detecting the differential pressure to achieve action confirmation, allowing safe and efficient loading/unloading of the workpiece. With the integration of the built-in sensor valves, the CLKW series has taken a new and improved compact design and is most suitable for achieving automation.

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

注意事項

夾緊及放松作動速度需適當放緩。 為進行確認動作，須設置空氣傳感器。 氣口須進行大氣開放，務必防止冷卻液, 切削渣的侵入。使用時請保持向氣口常態供氣狀態。

NOTE

The speed of clamping and unclamping action needs to be slowed down appropriately. Action confirmation can be conducted by detecting differential pressure with the air sensor. Please keep clearance of the air exhaust hole to prevent the intrusion of coolant and chips. Make sure to supply constant air pressure to the air port when in use.

訂購標示法 ORDERING INDICATION

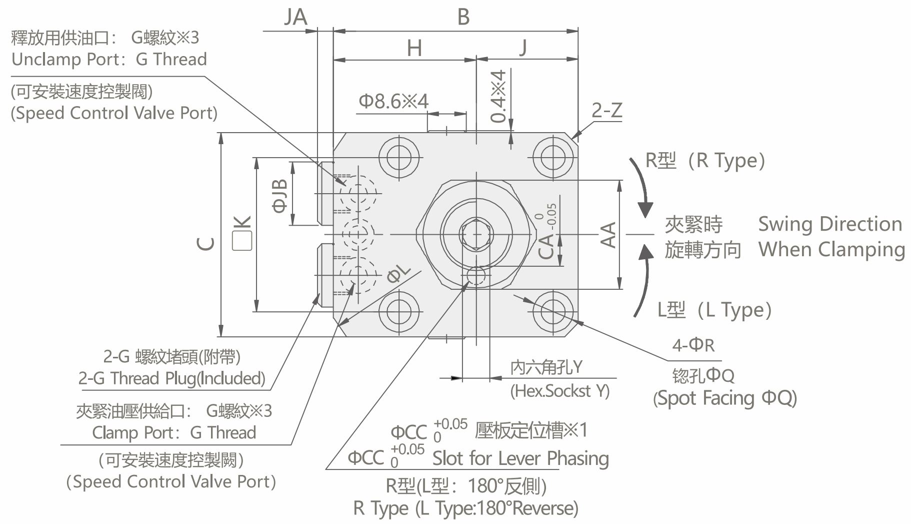
示例：CLHW-048CRE

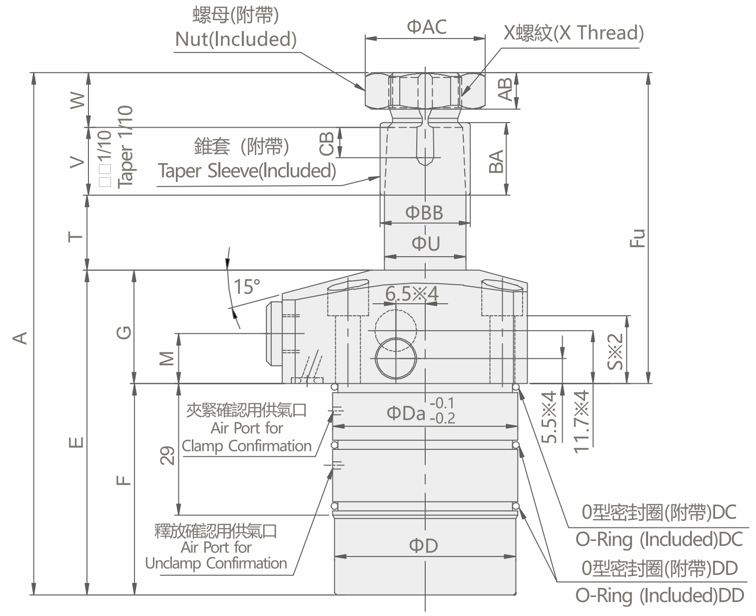
CLHW	系列 Series	CLHW	
048	主體尺寸 Body size	040: ΦD=40mm 048: ΦD=48mm 055: ΦD=55mm 065: ΦD=65mm 075: ΦD=75mm	ΦD表示本體油缸外徑尺寸 Outer diameter (ΦD) of the cylinder
C	板式連接型(附帶G螺紋堵頭) Gasket Option(With G Thread Plug)	附帶G螺紋堵頭可安裝速度控製閥(CZL)(用戶另行購買) With G Thread Plug (able to attach Speed Control Valve) (Order the valve separately Recommended:CZL)	
R	夾緊時的旋轉方向 Swing Direction when Clamping	R：順時針方向 L：逆時針方向	R: Clockwise L: Counter-Clockwise
E	傳感閥符號 Sensing Valve	E：夾緊釋放動作確認型 H：夾緊動作確認型 J：釋放動作確認型	E: Clamp-Unclamp Confirmation(Both) H: Clamp Confirmation Only J:Unclamp Confirmation Only

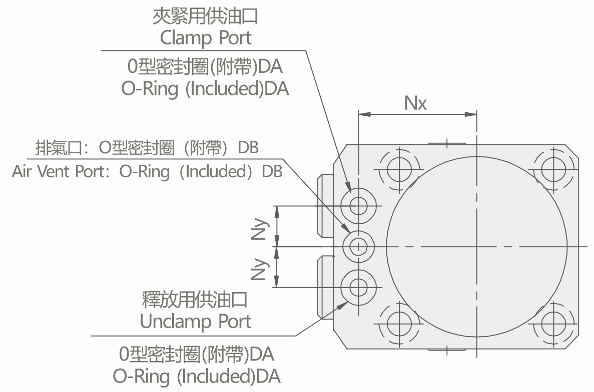
注：推薦使用氣缸0.1-0.2MPa, 空氣感測器為SMC的ISA2-HE45N
Note: Recommended Operating Air Pressure 01~0.2MPa. Air Sensor: ISA2-HE45N(SMC)

夾緊‧釋放動作確認型
CLAMP-UNCLAMP CONFIRMATION

※本圖表示CLHW-CRE的釋放狀態
The drawing shows the unclamped state of CLHW-CRE







注意事項

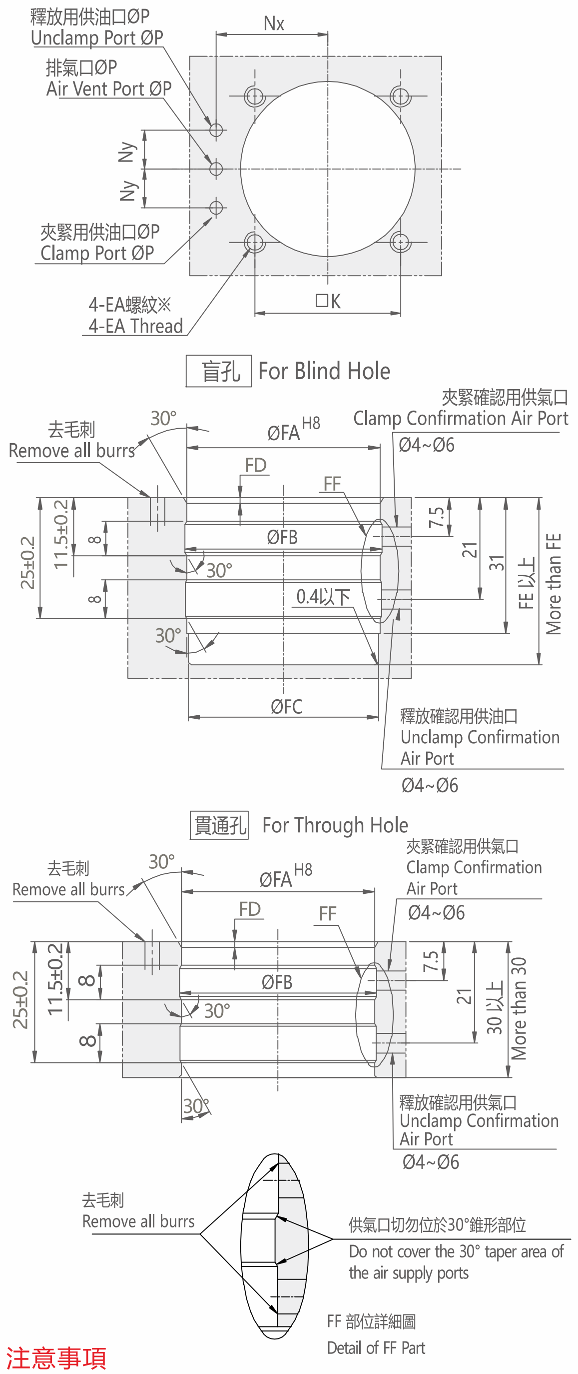
※1.壓板定位用槽在夾緊時朝向供油口側。
※2.本產品未附帶安裝螺栓。
請用戶參考S尺寸並根據安裝高度自行配備。
※3.本產品未附帶速度控製閥，請用戶自行配備。
※4.僅有CLHW-040如記載尺寸，傳感閥是從本體凸出來的。

NOTE

※1.The slot for lever phasing faces the port side when clamped.
※2.Mounting bolts are not provided . Please prepare them according to the mounting height referring to dimension"S".
※3. Speed control valve is sold separately.
※4. The valve of CLHW-040 is protruded as shown in the drawing.

Unit:mm

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



注意事項

※請參考S尺寸並根據安裝高度決定安裝螺栓的EA螺紋孔的深度。

NOTE

※EA tapping depth the mounting bolt should be decided according to the mounting height referring to dimension"S".

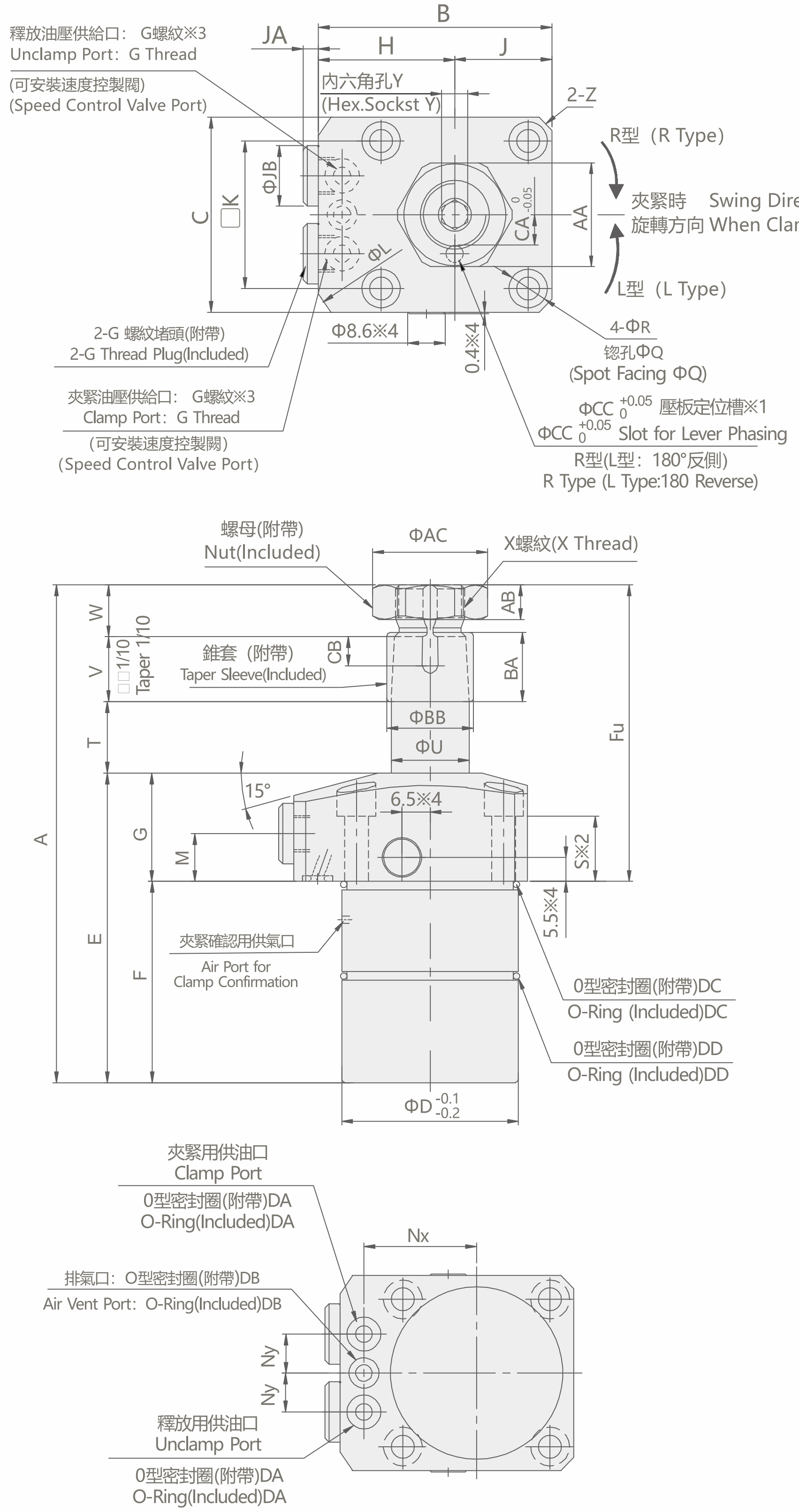
MODEL ITEM		CLHW-040C□E	CLHW-048C□E	CLHW-055C□E	CLHW-065C□E	CLHW-075C□E
A		115	128.5	145.5	156	181
B		54	61	69	81	92
C		45	51	60	70	80
D		40	48	55	65	75
Da		40.8	49	56	66	76
E		71.5	79	89	94	109
F		46.5	51	59	63	71
Fu		68.5	77.5	86.5	93	110
G		25	28	30	31	38
H		31.5	35.5	39	46	52
J		22.5	25.5	30	35	40
K		34	40	47	55	63
L		73	83	88	106	116
M		11	13	12	13	16
Nx		26	30	33.5	39.5	45
Ny		9	11	12	15	16
P		3	3	3	5	5
Q		9	9	11	11	14
R		5.5	5.5	6.8	6.8	9
S		15	17.5	17	17	21
T		16.5	17.5	20.5	22	26
U		18	22	25	30	35.5
V		15	18	21	24	30
W		12	14	15	16	16
X(名称X螺距)		M16x1. 5	M20x1. 5	M22×1.5	M27x1.5	M30x1.5
Y		6	8	8	10	10
z(倒角)		C3	C3	C3	C4	C5
AA		24	30	32	41	46
AB		8	9	10	11	11
AC		26.5	33	35.5	45	50
BA		16	19	22	25	31
BB		20	25	28	34	40
CA		7	9	10	12.5	14
CB		6.5	7.5	9.5	11.5	12.5
CC		4	5	6	6	8
EA		M5x0.8	M5x0. 8	M6	M6	M8
FA		$40.8^{+0.04}_{0}$	$49^{+0.04}_{0}$	$56^{+0.04}_{0}$	$66^{+0.04}_{0}$	$76^{+0.04}_{0}$
FB		41.4	49.6	56.6	66.6	76.6
FC		40.5	48.5	55.5	65.5	75.5
FD		1.2	1.2	1.5	1.5	1.5
FE		47	51.5	59.5	63.5	71.5
JA		4	4	4	4.5	4.5
JB		14	14	14	19	19
夾緊用供油口: G螺紋 Clamp Port:G Thread 釋放用供油口: G螺紋 Unclamp Port:G Thread		G1/8	G1/8	G1/8	G1/4	G1/4
0型密封圈 O-Ring	DA	1BP5	1BP5	1BP5	1BP7	1BP7
	DB	AS568-007(90°)	1BP5	1BP5	1BP7	1BP7
	DC	38x1.5(内径×线径)	AS568-031(70°)	AS568-034(70°)	AS568-037(70°)	AS568-040(70°)
	DD	38x1.5(内径×线径)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-040(70°)

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm²) (90°) SWING STROKE (mm)	轉角行程 CLAMPING STROKE (mm)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)
CLHW-040	350	6.5	8	14.5	10.9	7.3	7.54	5.0	0-+70°C
CLHW-048	486.5	7.5	8	15.5	16.7	10.8	10.75	6.95	0-+70°C
CLHW-055	721	8.5	10	18.5	28.1	19	15.2	10.3	0-+70°C
CLHW-065	938	10	10	20	40.9	26.7	20.42	13.4	0-+70°C
CLHW-075	1421	12	12	24	72.5	48.7	30.18	20.3	0-+70°C

夾緊動作確認型
CLAMP CONFIRMATION ONLY

※本圖表示CLHW-CRH的夾緊狀態
The drawing shows the clamped state of CLHW-CRH



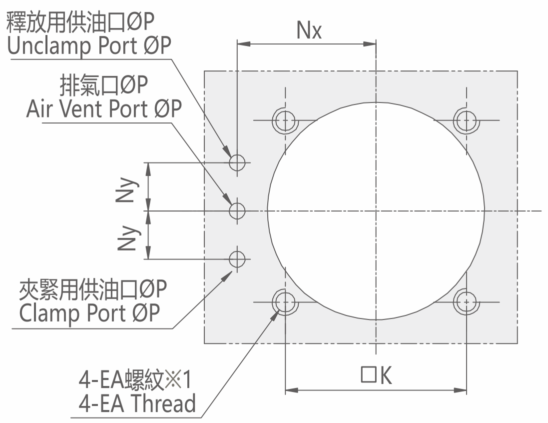
注意事項

※1.壓板定位用槽在夾緊時朝向供油口側。
※2.本產品未附帶安裝螺栓。 請用戶參考S尺寸並根據安裝高度自行配備。
※3.本產品未附帶速度控製閥, 請用戶自行配備。
※4.僅有CLHW0401如記載尺寸, 傳感閥是從本體凸出來的。

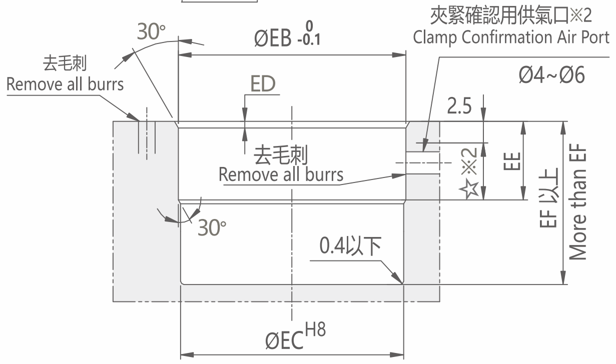
NOTE

※1. The slot for lever phasing faces the port side when clamped.
※2.Mounting bolts are not provided. Please prepare them according to the mounting height referring to dimension"S".
※3. Speed control valve is sold separately.
※4. The valve of CLHW-040 is protruded as shown in the drawing.

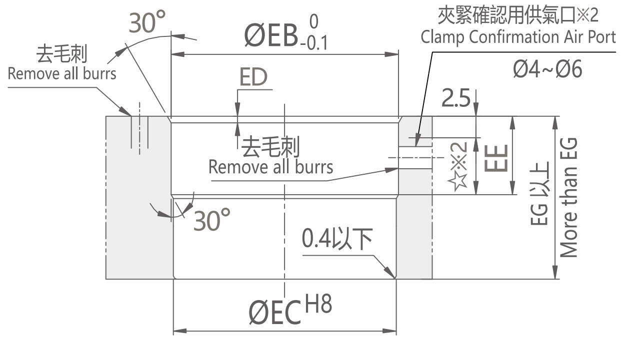
安裝部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA



盲孔 For Blind Hole



貫通孔 For Through Hole



Unit:mm

MODEL ITEM	CLHW-040C□H	CLHW-048C□H	CLHW-055C□H	CLHW-065C□H	CLHW-075C□H
A	115	128.5	145.5	156	181
B	54	61	69	81	92
C	45	51	60	70	80
D	40	48	55	65	75
E	71.5	79	89	94	109
F	46.5	51	59	63	71
Fu	68.5	77.5	86.5	93	110
G	25	28	30	31	38
H	31.5	35.5	39	46	52
J	22.5	25.5	30	35	40
K	34	40	47	55	63
L	73	83	88	106	116
M	11	13	12	13	16
Nx	26	30	33.5	39.5	45
Ny	9	11	12	15	16
P	3	3	3	5	5
Q	9	9	11	11	14
R	5.5	5.5	6.8	6.8	9
S	15	17.5	17	17	21
T	16.5	17.5	20.5	22	26
U	18	22	25	30	35.5
V	15	18	21	24	30
W	12	14	15	16	16
X(名称X螺距)	M16×1. 5	M20×1. 5	M22×1. 5	M27x1.5	M30x1.5
Y	6	8	8	10	10
Z(倒角)	C3	C3	C3	C4	C5
AA	24	30	32	41	46
AB	8	9	10	11	11
AC	26.5	33	35.5	45	50
BA	16	19	22	25	31
BB	20	25	28	34	40
CA	7	9	10	12.5	14
CB	6.5	7.5	9.5	11.5	12.5
CC	4	5	6	6	8
EA	M5x0.8	M5x0.8	M6	M6	M8
EB	40.8	49	56	66	76
EC	$40^{+0.04}_{0}$	$48^{+0.04}_{0}$	$55^{+0.04}_{0}$	$65^{+0.04}_{0}$	$75^{+0.04}_{0}$
ED	1.2	1.2	1.5	1.5	1.5
EE	20	20	24	24	34
EF	47	51.5	59.5	63.5	71.5
EG	26	26	30	30	40
JA	4	4	3.5	4.5	4.5
JB	14	14	14	19	19
夾緊用供油口: G螺紋 Clamp Port: G Thread 釋放用供油口: G螺紋 Unclamp Port: G Thread	G1/8	G1/8	G1/8	G1/4	G1/4
0型密封圈 O-Ring DA	1BP5	1BP5	1BP5	1BP7	1BP7
0型密封圈 O-Ring DB	AS568-007(90°)	1BP5	1BP5	1BP7	1BP7
0型密封圈 O-Ring DC	38x1.5(内径×线径)	AS568-031(70°)	AS568-034(70°)	AS568-037(70°)	AS568-040(70°)
0型密封圈 O-Ring DD	AS568-028(70°)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-039(70°)

注意事項

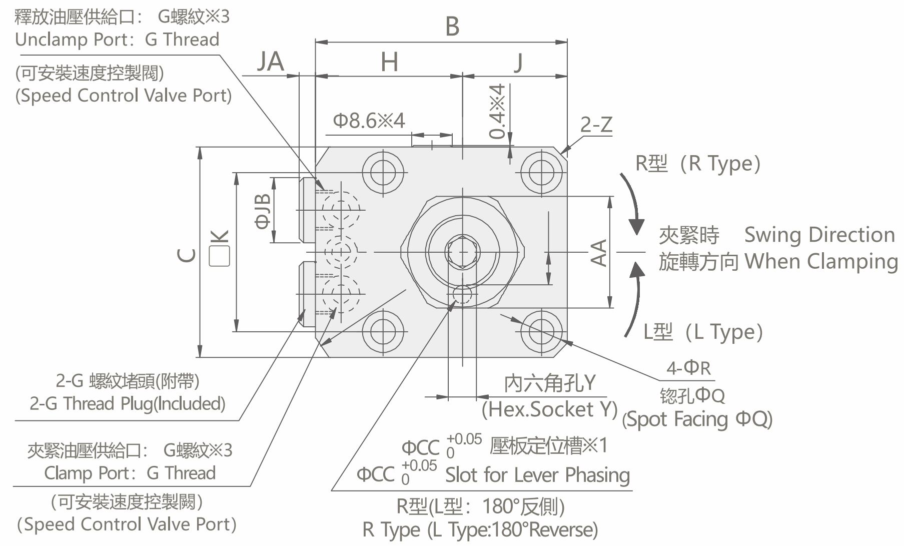
※1.請參考S尺寸並根據安裝高度決定安裝螺栓的EA螺紋孔的深度。
※2.請將夾緊確認用供氣口設置於圖示☆範圍內。

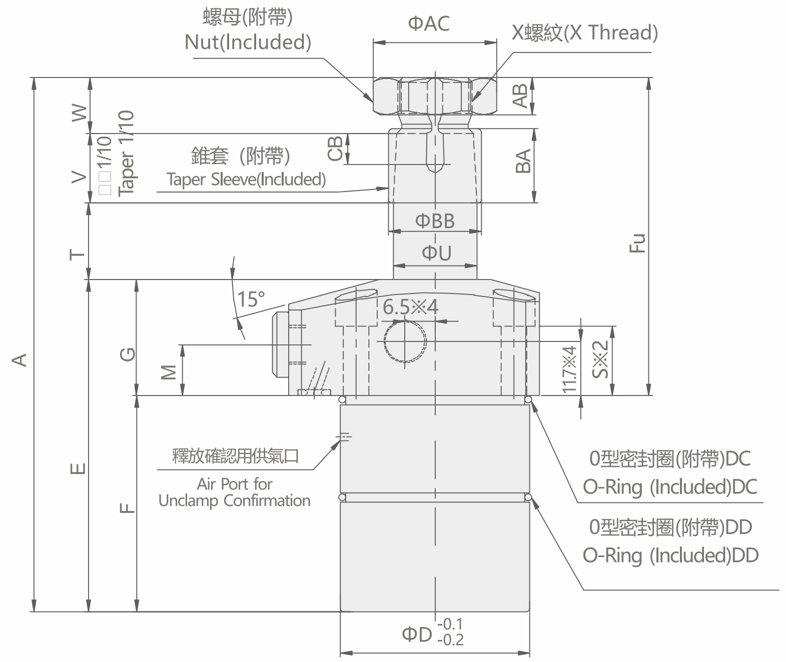
NOTE

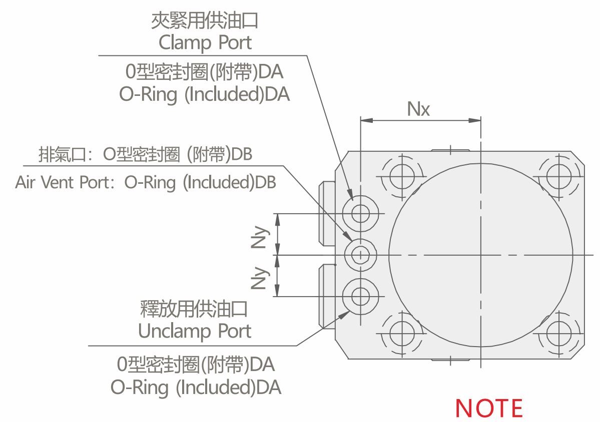
※1. EA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimension"S".
※2. Provide the air port for clamp confirmation within the part ☆.

釋放動作確認型
UNCLAMP CONFIRMATION ONLY

※本圖表示CLHW-CRJ的釋放狀態
The drawing shows the unclamped state of CLHW-CRJ







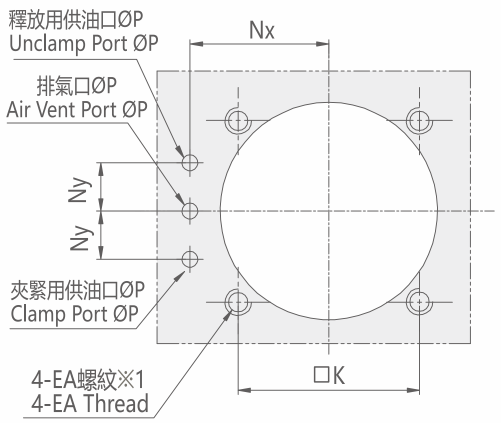
注意事項

※1.壓板定位用槽在夾緊時朝向供油口側。
※2.本產品未附帶安裝螺栓。 請用戶參考S尺寸並根據安裝高度自行配備。
※3.本產品未附帶速度控制閥，請用戶自行配備。
※4.僅有CLHW0401如記載尺寸，傳感閥是從本體凸出來的。

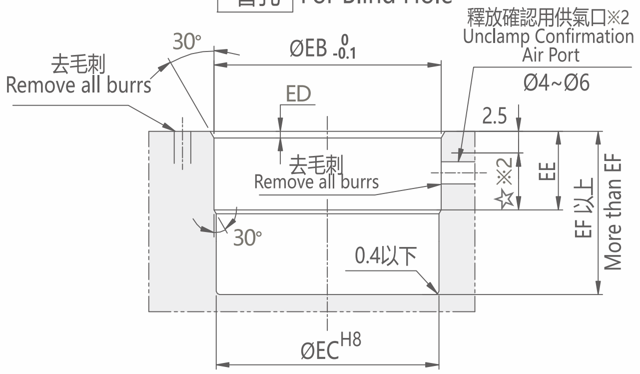
NOTE

※1. The slot for lever phasing faces the port side when clamped.
※2.Mounting bolts are not provided. Please prepare them according to the mounting height referring to dimension"S".
※3. Speed control valve is sold separately.
※4. The valve of CLHW-040 is protruded as shown in the drawing.

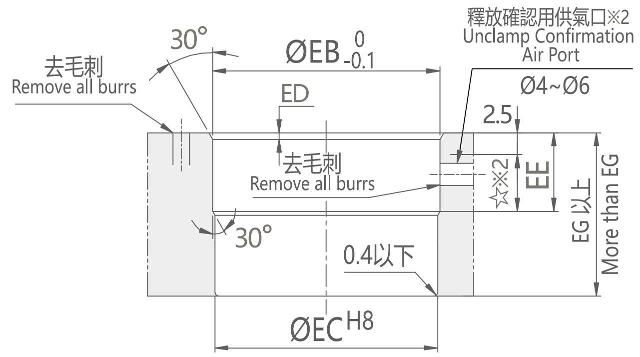
安裝部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA



盲孔 For Blind Hole

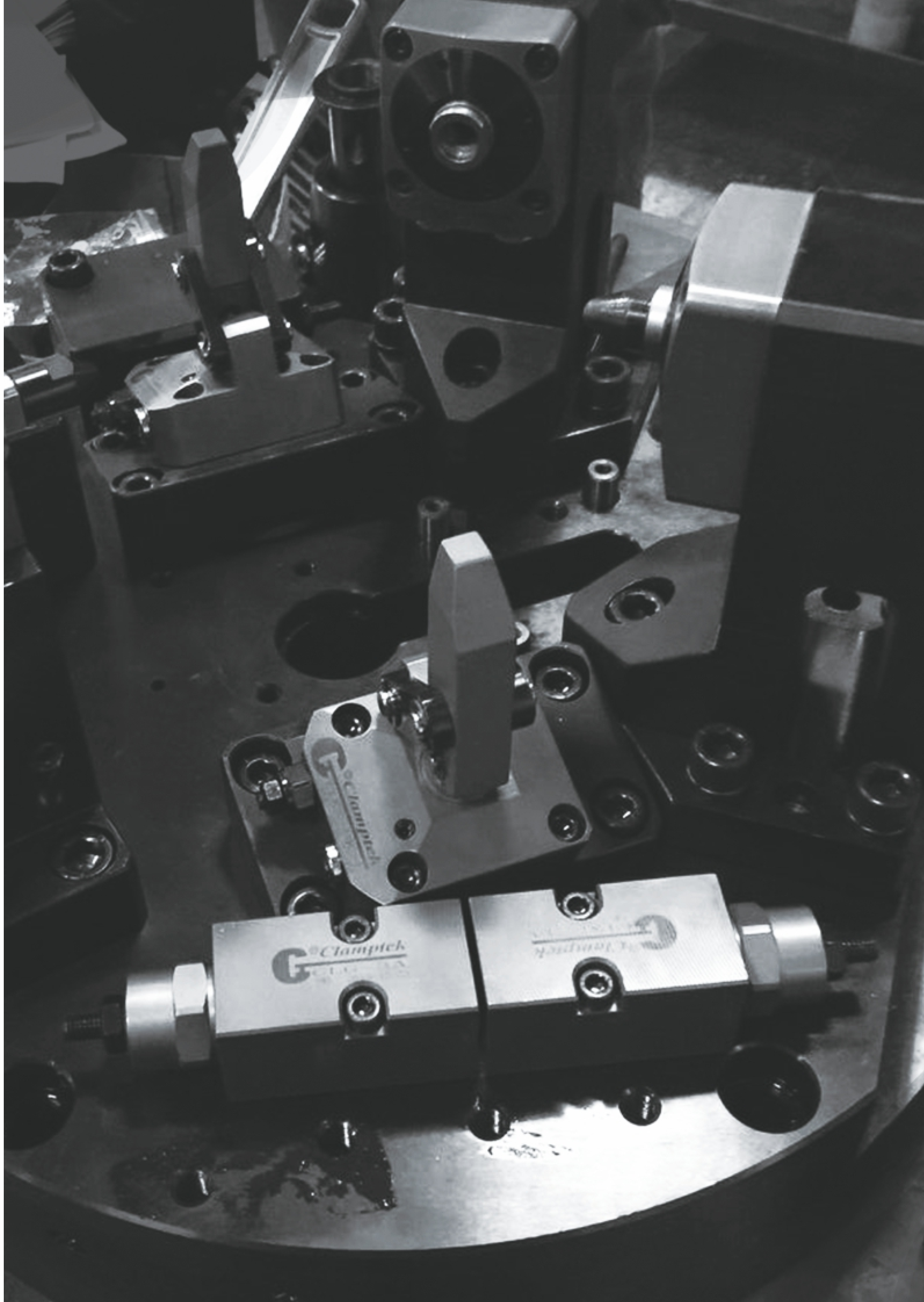


貫通孔 For Through Hole



Unit:mm

MODEL ITEM	CLHW-040C□J	CLHW-048C□J	CLHW-055C□J	CLHW-065C□J	CLHW-075C□J
A	115	128.5	145.5	156	181
B	54	61	69	81	92
C	45	51	60	70	80
D	40	48	55	65	75
E	71.5	79	89	94	109
F	46.5	51	59	63	71
Fu	68.5	77.5	86.5	93	110
G	25	28	30	31	38
H	31.5	35.5	39	46	52
J	22.5	25.5	30	35	40
K	34	40	47	55	63
L	73	83	88	106	116
M	11	13	12	13	16
Nx	26	30	33.5	39.5	45
Ny	9	11	12	15	16
P	3	3	3	5	5
Q	9	9	11	11	14
R	5.5	5.5	6.8	6.8	9
S	15	17.5	17	17	21
T	16.5	17.5	20.5	22	26
U	18	22	25	30	35.5
V	15	18	21	24	30
W	12	14	15	16	16
X(名称X螺距)	M16x1. 5	M20x1. 5	M22x1. 5	M27x1.5	M30x1.5
Y	6	8	8	10	10
Z(倒角)	C3	C3	C3	C4	C5
AA	24	30	32	41	46
AB	8	9	10	11	11
AC	26.5	33	35.5	45	50
BA	16	19	22	25	31
BB	20	25	28	34	40
CA	7	9	10	12.5	14
CB	6.5	7.5	9.5	11.5	12.5
CC	4	5	6	6	8
EA	M5x0.8	M5x0.8	M6	M6	M8
EB	40.8	49	56	66	76
EC	40 $^{+0.04}_{0}$	48 $^{+0.04}_{0}$	55 $^{+0.04}_{0}$	65 $^{+0.04}_{0}$	75 $^{+0.04}_{0}$
ED	1.2	1.2	1.5	1.5	1.5
EE	20	20	24	24	34
EF	47	51.5	59.5	63.5	71.5
EG	26	26	30	30	40
JA	4	4	4	4.5	4.5
JB	14	14	14	19	19
夾緊用供油口: G螺紋 Clamp Port :G Thread 釋放用供油口: G螺紋 Unclamp Port :G Thread	G1/8	G1/8	G1/8	G1/4	G1/4
0型密封圈 O-Ring DA	1BP5	1BP5	1BP5	1BP7	1BP7
DB	AS568-007(90°)	1BP5	1BP5	1BP7	1BP7
DC	38x1.5(内径×线径)	AS568-031(70°)	AS568-034(70°)	AS568-037(70°)	AS568-040(70°)
DD	AS568-028(70°)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-039(70°)



注意事項

※1.請參考S尺寸並根據安裝高度決定安裝螺栓的EA螺紋孔的深度。
※2.請將釋放確認用供氣口設置於圖示☆範圍內。

NOTE

※1. EA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimensions"S".
※2. Provide the air port for unclamp confirmation within the part ☆.

CHA-P

油壓轉角缸

CHA-P HYDRAULIC SWING CLAMP

產品特性

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

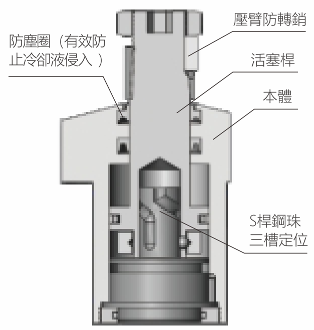
最大操作壓力：70 kgf/cm²
最小操作壓力：15 kgf/cm²
作動方式：複動式

FEATURES

The accessories of the CHA-P series are optimally designed to create a more compact-sized product with enhanced strength. With its special dust-proof design, this product has improved its sealing performance and protects against any particles or debris while in use. The product's structure design has a high torsion resistance that achieves maximum durability.

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

剖面圖 Sectional view



注意事項

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

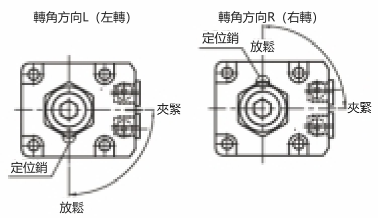
NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Please refer to Page 4 for installation instructions or removal methods of the clamping arm.
Customization is available upon request, please contact us for more info.

訂購標示法 ORDERING INDICATION

示例：CHA-040PSL-90

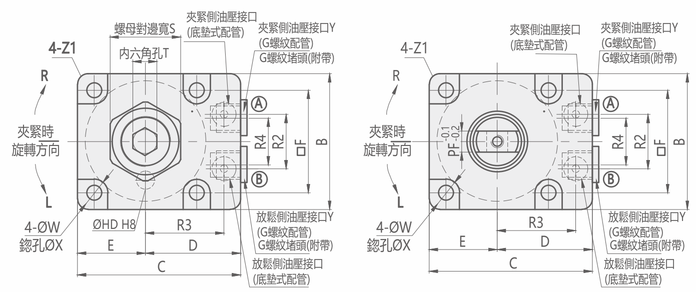
CHA-P	系列 Series	CHA-P	
040	036/040/048/055/065/075/105		
S	壓臂型式 Clamping arm type	S：單邊壓臂 D：雙邊壓臂	S：Single side arm D：Double side arm
L	轉角方向 Swing direction	L：左 R：右	L：Left R：Right
90	轉角角度Swing angle	標準角度 可訂做角度	Standard angle90°（±2°） Order angle30°（±2°），45°（±2°），60°（±2°）

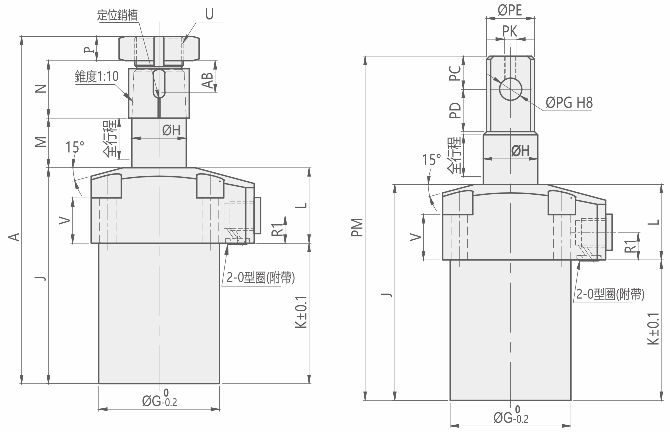


SINGLE SIDE SWING CLAMP

DOUBLE SIDE SWING CLAMP

註：下圖為轉角90°鬆開狀態





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

Unit:mm

MODEL ITEM	CHA-036P	CHA-040P	CHA-048P	CHA-055P	CHA-065P	CHA-075P	CHA-105P
A	117	131	148.5	158.5	178.5	201.5	244
B	38	45	50	57	70	86	108
C	48	55	60	66	82	96	120
PF	8	8	10	12	16	18	22
E	19	22.5	25	28.5	35	43	54
F	30.5	35	40	46	56	68	88
G	35	39	47	53	63	78	100
H	14	18	22.4	25	30	35.5	45
J	77	83	92	99	113	124.5	148.5
K	48.5	54	61	66	77	84	97
L	28.5	29	31	33	36	40.5	51.5
M	17.5	20	22.5	25.5	28.5	30	37.5
N(夾緊臂厚度)	16	20	25	25	27	35	45
P(螺母厚度)	6.5	8	9	9	10	12	13
R1	12.5	12.5	12.5	12.5	14	14	21
R2	18	22	24	28	36	45	50
R3	22.5	25	28	30.5	36	42	57
R4	16.2	20	22	26	30	38	50
S(螺母對邊寬)	19	22	27	30	36	46	55
T(內六角孔)	5	6	6	8	8	10	14
U(推薦緊固扭矩)	M12×1.5(12N•m)	M14×1.5(26 N•m)	M18×1.5(51 N•m)	M20×1.5(60 N•m)	M24×1.5(86 N•m)	M30×1.5(120 N•m)	M39×1.5(180 N•m)
V	20	19.5	20	20	19.5	20	26
W	4.3	5.5	5.5	6.8	9	11	14
X	8	9.5	9.5	11	14	17.5	20
Y	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z1	R3	R3	R3	R5	R6	R7	R10
PE	12	16	20.4	23	28	33.5	43
PC	8	8	10	12	14	19	24
PD	9	9	11	13	15	20	25
AB	9	10.5	10.5	10.5	12.5	12.5	14.5
O型圈O-Ring	P7	P7	P7	P7	P8	P8	P10
PK	M3	M3	M4	M5	M6	M6	M8
PG	$6^{+0.018}_{0}$	$6^{+0.018}_{0}$	$8^{+0.022}_{0}$	$10^{+0.022}_{0}$	$12^{+0.027}_{0}$	$16^{+0.027}_{0}$	$20^{+0.033}_{0}$
PM	113	121.5	137	151	172	195	236.5
HD	3+0.0140	4+0.0180	4+0.0180	5+0.0180	6+0.0180	6+0.0180	6+0.0180
定位銷	Φ3(h8)×8	Φ4(h8)×10	Φ4(h8)×10	Φ5(h8)×10	Φ6(h8)×12	Φ6(h8)×12	Φ6(h8)×14

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	轉角行程 SWING STROKE (mm)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY UNCLAMP(cm³)	拉入容積 CYLINDER CAPACITY CLAMP(cm³)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CHA-036P	238	8	8	16	7.9	5.4	4.9	3.4	0~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CHA-040P	284.2	10	8	18	11.9	7.4	6.6	4.06	0~+70°C	
CHA-048P	434	12.5	8	20.5	20.9	12.7	10.2	6.2	0~+70°C	
CHA-055P	721	13.5	10	23.5	35.7	24.2	15.2	10.3	0~+70°C	
CHA-065P	880	16.5	10	26.5	52	33.3	19.63	12.57	0~+70°C	
CHA-075P	1631	18.5	10	28.5	94.6	66.4	33.17	23.3	0~+70°C	
CHA-105P	2583	23	13	36	190.1	132.9	52.78	36.9	0~+70°C	

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

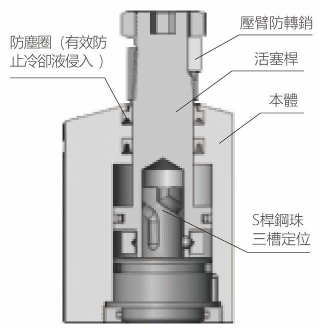
最大操作壓力：70 kgf/cm²
最小操作壓力：15 kgf/cm²
作動方式：複動式

FEATURES

The accessories of the CBTU series are optimally designed to create a more compact-sized product with enhanced strength. With its special dust-proof design, this product has improved its sealing performance and protects against any particles or debris while in use. The product's structure design has a high torsion resistance that achieves maximum durability.

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

剖面圖 Sectional view



注意事項

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

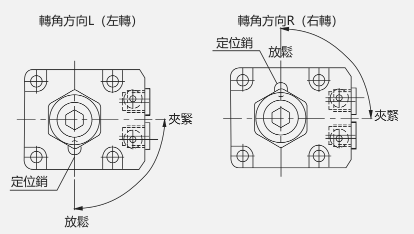
NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Please refer to Page 4 for installation instructions or removal methods of the clamping arm.
Customization is available upon request, please contact us for more info.

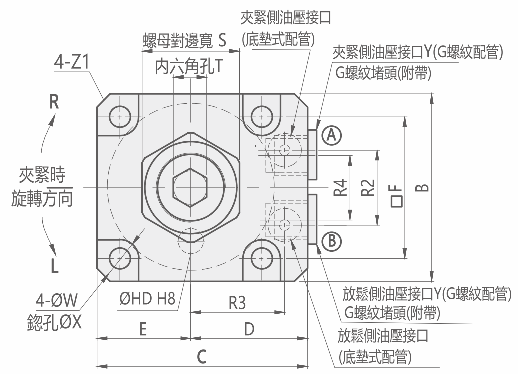
訂購標示法 ORDERING INDICATION

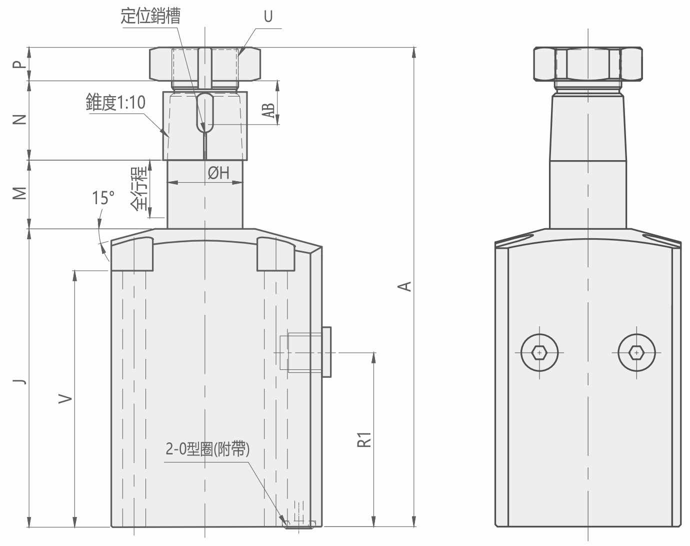
示例：CBTU-02L-90

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



備註：選配調速閥為CZL系列





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

Unit:mm

MODEL ITEM	CBTU-02	CBTU-04	CBTU-06	CBTU-10	CBTU-16	CBTU-25
A	131	148.5	158.5	178.5	201.5	244
B	45	50	57	70	86	108
C	55	60	66	82	96	120
D	32.5	35	37.5	47	53	66
E	22.5	25	28.5	35	43	54
F	35	40	46	56	68	88
H	18	22.4	25	30	35.5	45
J	81.5	90.5	97.5	111.5	123	147
M	21.5	24	27	30	31.5	39
N(夾緊臂厚度)	20	25	25	27	35	45
P(螺母厚度)	8	9	9	10	12	13
R1	52.5	57	60	70	76	92
R2	22	24	28	36	45	50
R3	25	28	30.5	36	42	57
R4	20	22	26	30	38	50
S(螺母對邊寬)	22	27	30	36	46	55
T(内六角孔)	6	6	8	8	10	14
U(推薦緊固扭矩)	M14×1.5(26N•m)	M18×1.5(51N•m)	M20×1.5(60N•m)	M24×1.5(86N•m)	M30×1.5(120N•m)	M39×1.5(180N•m)
V	71	80	85	95	102.5	121.5
W	5.5	5.5	6.8	9	11	14
X	9.5	9.5	11	14	17.5	20
Y	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
O型圈O-Ring	P7	P7	P7	P8	P8	P10
AB	10.5	10.5	10.5	12.5	12.5	14.5
Z1	C3	C3	C3	C4	C6	C6.5
HD	$4^{+0.018}_{0}$	$4^{+0.018}_{0}$	$5^{+0.018}_{0}$	$6^{+0.018}_{0}$	$6^{+0.018}_{0}$	$6^{+0.018}_{0}$
定位銷	Φ4(h8)×10	Φ4(h8)×10	Φ5(h8)×10	Φ6(h8)×12	Φ6(h8)×12	Φ6(h8)×14

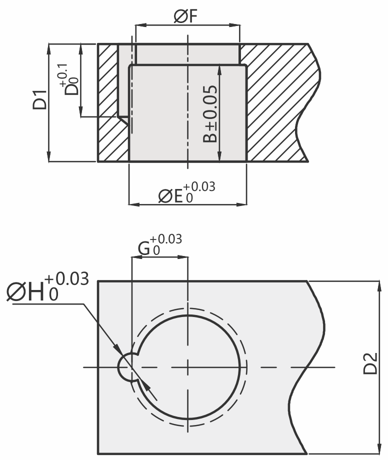
規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力(70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	轉角行程 SWING STROKE (mm)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY UNCLAMP(cm³)	拉入容積 CYLINDER CAPACITY CLAMP(cm³)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CBTU-02	284.2	10	8	18	11.9	7.4	6.6	4.06	0~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CBTU-04	434	12.5	8	20.5	20.9	12.7	10.2	6.2	0~+70°C	
CBTU-06	721	13.5	10	23.5	35.7	24.2	15.2	10.3	0~+70°C	
CBTU-10	880	16.5	10	26.5	52	33.3	19.63	12.57	0~+70°C	
CBTU-16	1631	18.5	10	28.5	94.6	66.4	33.17	23.3	0~+70°C	
CBTU-25	2583	23	13	36	190.1	132.9	52.78	36.9	0~+70°C	

CLAMPING ARM ACCESSORIES

壓臂配件尺寸

CHA 系列

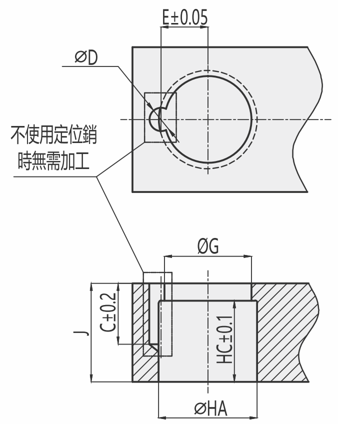


CHA油壓轉角缸壓臂尺寸 CHA HYDRAULIC SWING CLAMP CYLINDER ARM ACCESSORIES

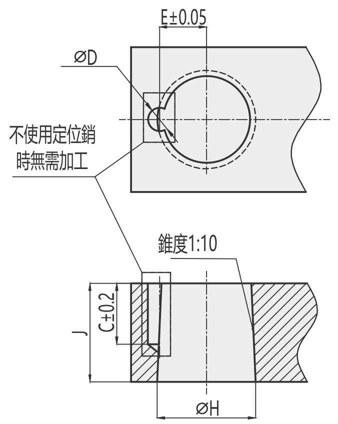
MODEL / ITEM	CHA-036	CHA-040	CHA-048	CHA-055	CHA-065	CHA-075	CHA-090	CHA-105
B	14	16	19	22	25	31	38	44
D	10.5	10.5	12.5	14.5	16.5	17.5	17.5	20.5
D1	17	19	23	26	29	35	43	50
D2	25	32	40	45	50	58	75	90
E	17	20	25	28	34	40	49	60
F	15	17	21	23	29	33	42	51
G	8	9	11.5	13	15.5	18	22.5	28
H	4	4	5	6	6	8	8	10

CHA-P/CBTU 系列

使用錐形套時



不使用錐形套時



CHA-P/CBTU油壓轉角缸壓臂尺寸 CBTU HYDRAULIC SWING CLAMP CYLINDER ARM ACCESSORIES

MODEL / ITEM	CHA-036P	CHA-040P CBTU-02	CHA-048P CBTU-04	CHA-055P CBTU-06	CHA-065P CBTU-10	CHA-075P CBTU-16	CHA-105P CBTU-25
HA	$16^{+0.027}_{0}$	$20^{+0.033}_{0}$	$25^{+0.033}_{0}$	$28^{+0.033}_{0}$	$34^{+0.039}_{0}$	$40^{+0.039}_{0}$	$49^{+0.039}_{0}$
HC	13	16	21	20	22	29	38
C	9	10.5	10.5	10.5	12.5	12.5	14.5
D	$3^{+0.014}_{0}$	$4^{+0.018}_{0}$	$4^{+0.018}_{0}$	$5^{+0.018}_{0}$	$6^{+0.018}_{0}$	$6^{+0.018}_{0}$	$6^{+0.018}_{0}$
E	7.55	9.1	11.1	12.6	15.1	18.1	22.6
G	13	17	21	24	28.5	34	42
H	$14^{-0.016}_{-0.034}$	$18^{-0.016}_{-0.034}$	$22.4^{-0.020}_{-0.041}$	$25^{-0.020}_{-0.041}$	$30^{-0.020}_{-0.041}$	$35.5^{-0.025}_{-0.050}$	$45^{-0.025}_{-0.050}$
J	16	20	25	25	27	35	45

Model: CHA-036

供給油壓 MPa	夾緊器輸出KN	夾緊力 KN 壓板長度 L(mm)								最大壓板長度(L) (mm)
		L=30	L=40	L=50	L=60	L=80	L=100	L=120	L=150	
7	2.48	2.2	2.1	2.0	1.9	1.8	不可使用			96
6.5	2.30	2.0	1.9	1.9	1.8	1.7	1.5			110
6	2.13	1.9	1.8	1.7	1.7	1.5	1.4	1.3		129
5.5	1.95	1.7	1.6	1.6	1.5	1.4	1.3	1.2	1.1	150
5	1.77	1.6	1.5	1.4	1.4	1.3	1.2	1.1	1.0	150
4.5	1.59	1.4	1.4	1.3	1.3	1.2	1.1	1.0	0.9	150
4	1.42	1.3	1.2	1.2	1.1	1.0	1.0	0.9	0.8	150
3.5	1.24	1.1	1.1	1.0	1.0	0.9	0.8	0.8	0.7	150
3	1.06	1.0	0.9	0.9	0.9	0.8	0.7	0.7	0.6	150
2.5	0.89	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.5	150
2	0.71	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	150
1.5	0.53	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	150
最高使用壓力(MPa)		7.0	7.0	7.0	7.0	7.0	6.9	6.3	5.6	

Model: CHA-065

供給油壓 MPa	夾緊器輸出KN	夾緊力 KN 壓板長度 L(mm)								最大壓板長度(L) (mm)
		L=50	L=60	L=80	L=100	L=120	L=140	L=160	L=200	
7	9.35	8.1	7.9	7.6	7.3	不可使用				115
6.5	8.68	7.5	7.3	7.0	6.7	6.5				127
6	8.02	6.9	6.8	6.5	6.2	6.0	5.7			142
5.5	7.35	6.4	6.2	6.0	5.7	5.5	5.3	5.0		161
5	6.68	5.8	5.7	5.4	5.2	5.0	4.8	4.6		187
4.5	6.01	5.2	5.1	4.9	4.7	4.5	4.3	4.1	3.8	221
4	5.34	4.6	4.5	4.4	4.2	4.0	3.8	3.7	3.4	240
3.5	4.68	4.1	4.0	3.8	3.7	3.5	3.4	3.2	3.0	240
3	4.01	3.5	3.4	3.4	3.1	3.0	2.9	2.8	2.5	240
2.5	3.34	2.9	2.9	2.7	2.6	2.5	2.4	2.3	2.1	240
2	2.67	2.3	2.3	2.2	2.1	2.0	1.9	1.9	1.7	240
1.5	2.00	1.8	1.7	1.7	1.6	1.5	1.5	1.4	1.3	240
最高使用壓力(MPa)		7.0	7.0	7.0	7.0	6.8	6.1	5.6	4.8	

Model: CHA-040

供給油壓 MPa	夾緊器輸出KN	夾緊力 KN 壓板長度 L(mm)								最大壓板長度(L) (mm)
		L=40	L=50	L=60	L=70	L=80	L=100	L=120	L=150	
7	3.50	3.0	2.9	2.8	2.7	2.6	2.4	2.2	不可使用	124
6.5	3.25	2.7	2.7	2.6	2.5	2.4	2.2	2.1		144
6	3.00	2.5	2.5	2.4	2.3	2.2	2.1	1.9	1.7	171
5.5	2.75	2.3	2.3	2.2	2.1	2.0	1.9	1.8	1.6	210
5	2.50	2.1	2.1	2.0	1.9	1.9	1.7	1.6	1.5	210
4.5	2.25	1.9	1.9	1.8	1.7	1.7	1.6	1.5	1.3	210
4	2.00	1.7	1.7	1.6	1.5	1.5	1.4	1.3	1.2	210
3.5	1.75	1.5	1.4	1.4	1.4	1.3	1.2	1.1	1.0	210
3	1.50	1.3	1.2	1.2	1.2	1.1	1.1	1.0	0.9	210
2.5	1.25	1.1	1.0	1.0	1.0	0.9	0.9	0.8	0.8	210
2	1.00	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.6	210
1.5	0.75	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	210
最高使用壓力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.4	

Model: CHA-075

供給油壓 MPa	夾緊器輸出KN	夾緊力 KN 壓板長度 L(mm)								最大壓板長度(L) (mm)
		L=50	L=60	L=80	L=100	L=120	L=140	L=160	L=200	
7	14.21	12.4	12.2	11.7	11.3	10.9	10.5	不可使用		147
6.5	13.19	11.5	11.3	10.9	10.5	10.2	9.8	9.5		163
6	12.18	10.6	10.4	10.1	9.7	9.4	9.0	8.7		184
5.5	11.16	9.7	9.6	9.2	8.9	8.6	8.3	8.0	7.5	209
5	10.15	8.9	8.7	8.4	8.1	7.8	7.5	7.3	6.8	230
4.5	9.13	8.0	7.8	7.6	7.3	7.0	6.8	6.6	6.1	255
4	8.12	7.1	7.0	6.7	6.5	6.3	6.0	5.8	5.4	255
3.5	7.10	6.2	6.1	5.9	5.7	5.5	5.3	5.1	4.8	255
3	6.09	5.3	5.2	5.1	4.9	4.7	4.5	4.4	4.1	255
2.5	5.07	4.5	4.4	4.2	4.1	3.9	3.8	3.7	3.4	255
2	4.06	3.6	3.5	3.4	3.3	3.2	3.0	2.9	2.7	255
1.5	3.04	2.7	2.6	2.5	2.5	2.4	2.3	2.2	2.1	255
最高使用壓力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	6.9	5.9	

Model: CHA-048

供給油壓 MPa	夾緊器輸出KN	夾緊力 KN 壓板長度 L(mm)								最大壓板長度(L) (mm)
		L=50	L=60	L=80	L=100	L=120	L=140	L=160	L=200	
7	4.87	4.3	4.2	4.0	3.9	3.7	3.6	不可使用		141
6.5	4.52	4.0	3.9	3.7	3.6	3.4	3.3			157
6	4.17	3.7	3.6	3.5	3.3	3.2	3.1	2.9		178
5.5	3.82	3.4	3.3	3.2	3.0	2.9	2.8	2.7	2.5	190
5	3.48	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.3	215
4.5	3.13	2.8	2.7	2.6	2.5	2.4	2.3	2.2	2.0	215
4	2.78	2.5	2.4	2.3	2.2	2.1	2.1	2.0	1.8	215
3.5	2.43	2.2	2.1	2.0	2.0	1.9	1.8	1.7	1.6	215
3	2.09	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.4	215
2.5	1.74	1.6	1.5	1.5	1.4	1.4	1.3	1.2	1.2	215
2	1.39	1.3	1.2	1.2	1.1	1.1	1.0	1.0	0.9	215
1.5	1.04	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	215
最高使用壓力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	6.6	5.7	

Model: CHA-090

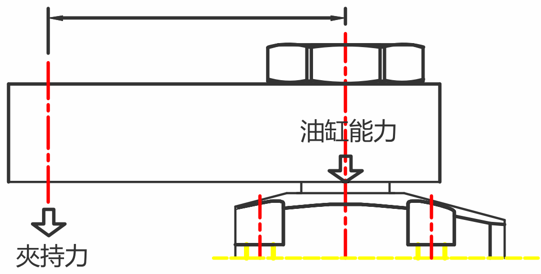
供給油壓 MPa	夾緊器輸出KN	夾緊力 KN 壓板長度 L(mm)								最大壓板長度(L) (mm)
		L=60	L=75	L=100	L=120	L=140	L=170	L=200	L=250	
7	20.62	17.5	17.0	16.2	15.6	14.9	14.1	13.3	不可使用	245
6.5	19.15	16.3	15.8	15.0	14.4	13.9	13.1	12.3	11.1	270
6	17.68	15.0	14.6	13.9	13.3	12.8	12.1	11.4	10.3	290
5.5	16.20	13.8	13.4	12.7	12.2	11.7	11.1	10.4	9.4	290
5	14.73	12.5	12.2	11.6	11.1	10.7	10.1	9.5	8.6	290
4.5	13.26	11.3	11.0	10.4	10.0	9.6	9.1	8.5	7.7	290
4	11.78	10.0	9.7	9.3	8.9	8.6	8.1	7.6	6.9	290
3.5	10.31	8.8	8.5	8.1	7.8	7.5	7.1	6.6	6.0	290
3	8.84	7.5	7.3	7.0	6.7	6.4	6.1	5.7	5.2	290
2.5	7.37	6.3	6.1	5.8	5.6	5.4	5.1	4.8	4.3	290
2	5.89	5.0	4.9	4.7	4.5	4.3	4.1	3.8	3.5	290
1.5	4.42	3.8	3.7	3.5	3.4	3.2	3.1	2.9	2.6	290
最高使用壓力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.8	

Model: CHA-055

供給油壓 MPa	夾緊器輸出KN	夾緊力 KN 壓板長度 L(mm)								最大壓板長度(L) (mm)
		L=50	L=60	L=80	L=100	L=120	L=140	L=160	L=200	
7	7.21	6.3	6.2	5.9	5.6	5.4	5.2	不可使用		142
6.5	6.69	5.8	5.7	5.5	5.2	5.0	4.8			159
6	6.18	5.4	5.3	5.1	4.8	4.6	4.4	4.2		180
5.5	5.66	5.0	4.8	4.6	4.4	4.2	4.1	3.9	3.6	200
5	5.15	4.5	4.4	4.2	4.0	3.9	3.7	3.5	3.2	225
4.5	4.63	4.1	4.0	3.8	3.6	3.5	3.3	3.2	2.9	225
4	4.12	3.6	3.5	3.4	3.2	3.1	3.0	2.8	2.6	225
3.5	3.60	3.2	3.1	3.0	2.8	2.7	2.6	2.5	2.3	225
3	3.09	2.7	2.7	2.6	2.4	2.3	2.2	2.1	2.0	225
2.5	2.57	2.3	2.2	2.1	2.0	2.0	1.9	1.8	1.6	225
2	2.06	1.8	1.8	1.7	1.6	1.6	1.5	1.4	1.3	225
1.5	1.54	1.4	1.4	1.3	1.2	1.2	1.1	1.1	1.0	225
最高使用壓力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	6.4	5.6	

Model: CHA-105

供給油壓 MPa	夾緊器輸出KN	夾緊力 KN 壓板長度 L(mm)								最大壓板長度(L) (mm)
		L=80	L=100	L=120	L=140	L=170	L=200	L=250	L=300	
7	28.90	24.7	23.9	23.2	22.4	21.4	20.4	不可使用		219
6.5	26.83	23.0	22.2	21.5	20.8	19.9	18.9			249
6	24.77	21.2	20.5	19.9	19.2	18.3	17.5	16.1	14.8	270
5.5	22.70	19.4	18.8	18.2	17.6	16.8	16.0	14.7	13.6	300
5	20.64	17.7	17.1	16.6	16.0	15.3	14.6	13.4	12.3	330
4.5	18.58	15.9	15.4	14.9	14.4	13.8	13.1	12.1	11.1	330
4	16.51	14.1	13.7	13.3	12.8	12.2	11.7	10.7	9.9	330
3.5	14.45	12.4	12.0	11.6	11.2	10.7	10.2	9.4	8.6	330
3	12.38	10.6	10.3	10.0	9.6	9.2	8.8	8.1	7.4	330
2.5	10.32	8.9	8.6	8.3	8.0	7.7	7.3	6.7	6.2	330
2	8.26	7.1	6.9	6.7	6.4	6.1	5.9	5.4	5.0	330
1.5	6.19	5.3	5.2	5.0	4.8	4.6	4.4	4.1	3.7	330
最高使用壓力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	6.4	5.8	



Model: CHA-036P

油壓 MPa	油缸能力 KN	夾緊力 KN 夾緊臂長度 L mm								最大臂長 Max.L mm
		30	35	40	50	60	80	100	120	
7	2.4	2.0	2.0	不可使用						39
6.5	2.2	1.9	1.9	1.8						43
6	2.0	1.7	1.7	1.7						48
5.5	1.9	1.6	1.6	1.5	1.5					53
5	1.7	1.5	1.4	1.4	1.3	1.3				61
4.5	1.5	1.3	1.3	1.3	1.2	1.2				70
4	1.3	1.2	1.1	1.1	1.1	1.0	1.0			83
3.5	1.2	1.0	1.0	1.0	0.9	0.9	0.8	0.8		102
3	1.0	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.6	131
2.5	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5	↑
2	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	↑
1.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	131

Model: CHA-040P/CBTU-02

油壓 MPa	油缸能力 KN	夾緊力 KN 夾緊臂長度 L mm								最大臂長 Max.L mm
		35	40	50	60	80	100	120	140	
7	2.8	2.4	2.4	2.3	2.2	2.1	不可使用			80
6.5	2.6	2.3	2.2	2.1	2.1	1.9				89
6	2.4	2.1	2.1	2.0	1.9	1.8	1.7			101
5.5	2.2	1.9	1.9	1.8	1.7	1.6	1.5			115
5	2.0	1.7	1.7	1.6	1.6	1.5	1.4	1.3		135
4.5	1.8	1.6	1.5	1.5	1.4	1.3	1.2	1.2	1.1	162
4	1.6	1.4	1.4	1.3	1.3	1.2	1.1	1.0	1.0	202
3.5	1.4	1.2	1.2	1.2	1.1	1.0	1.0	0.9	0.9	↑
3	1.2	1.0	1.0	1.0	1.0	0.9	0.8	0.8	0.7	↑
2.5	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	↑
2	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5	↑
1.5	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	202

Model: CHA-048P/CBTU-04

油壓 MPa	油缸能力 KN	夾緊力 KN 夾緊臂長度 L mm								最大臂長 Max.L mm
		40	50	60	80	100	120	140	160	
7	4.4	3.8	3.6	3.5	3.3	3.1	不可使用			105
6.5	4.1	3.5	3.4	3.3	3.0	2.9				117
6	3.8	3.2	3.1	3.0	2.8	2.7	2.5			133
5.5	3.4	2.9	2.8	2.8	2.6	2.4	2.3	2.2		153
5	3.1	2.7	2.6	2.5	2.3	2.2	2.1	2.0	1.9	181
4.5	2.8	2.4	2.3	2.3	2.1	2.0	1.9	1.8	1.7	220
4	2.5	2.1	2.1	2.0	1.9	1.8	1.7	1.6	1.5	↑
3.5	2.2	1.9	1.8	1.8	1.6	1.5	1.5	1.4	1.3	↑
3	1.9	1.6	1.6	1.5	1.4	1.3	1.3	1.2	1.1	↑
2.5	1.6	1.3	1.3	1.3	1.2	1.1	1.0	1.0	0.9	↑
2	1.3	1.1	1.0	1.0	0.9	0.9	0.8	0.8	0.8	↑
1.5	0.9	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.6	220

Model: CHA-055P/CBTU-06

油壓 MPa	油缸能力 KN	夾緊力 KN 夾緊臂長度 L mm								最大臂長 Max.L mm
		50	60	80	100	120	140	160	180	
7	6.3	5.3	5.1	4.8	不可使用					96
6.5	5.8	4.9	4.7	4.5	4.2					107
6	5.4	4.5	4.4	4.1	3.9	3.7				120
5.5	4.9	4.1	4.0	3.8	3.6	3.4				137
5	4.5	3.8	3.6	3.4	3.2	3.1	2.9	2.8		160
4.5	4.0	3.4	3.3	3.1	2.9	2.8	2.6	2.5	2.4	191
4	3.6	3.0	2.9	2.7	2.6	2.5	2.3	2.2	2.1	238
3.5	3.1	2.6	2.5	2.4	2.3	2.2	2.0	1.9	1.9	↑
3	2.7	2.3	2.2	2.1	1.9	1.8	1.8	1.7	1.6	↑
2.5	2.2	1.9	1.8	1.7	1.6	1.5	1.5	1.4	1.3	↑
2	1.8	1.5	1.5	1.4	1.3	1.2	1.2	1.1	1.1	↑
1.5	1.3	1.1	1.1	1.0	1.0	0.9	0.9	0.8	0.8	238

Model: CHA-065P/CBTU-10

油壓 MPa	油缸能力 KN	夾緊力 KN 夾緊臂長度 L mm								最大臂長 Max.L mm
		60	80	100	120	140	160	180	200	
7	9.9	8.3	7.9	7.5	不可使用					102
6.5	9.2	7.7	7.3	7.0						113
6	8.5	7.1	6.8	6.4	6.1					127
5.5	7.8	6.5	6.2	5.9	5.6	5.4				144
5	7.1	5.9	5.6	5.4	5.1	4.9	4.7			167
4.5	6.4	5.3	5.1	4.8	4.6	4.4	4.2	4.0		199
4	5.7	4.7	4.5	4.3	4.1	3.9	3.7	3.6	3.4	245
3.5	5.0	4.2	3.9	3.7	3.6	3.4	3.3	3.1	3.0	↑
3	4.2	3.6	3.4	3.2	3.1	2.9	2.8	2.7	2.6	↑
2.5	3.5	3.0	2.8	2.7	2.6	2.4	2.3	2.2	2.2	↑
2	2.8	2.4	2.3	2.1	2.0	2.0	1.9	1.8	1.7	↑
1.5	2.1	1.8	1.7	1.6	1.5	1.5	1.4	1.3	1.3	245

Model: CHA-075P/CBTU-16

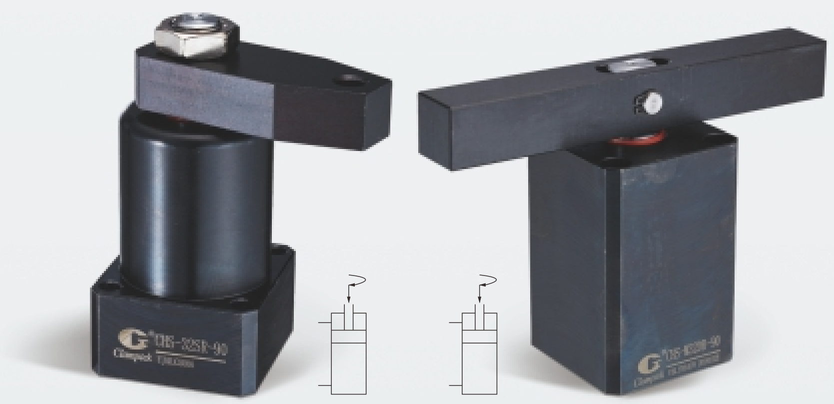
油壓 MPa	油缸能力 KN	夾緊力 KN 夾緊臂長度 L mm								最大臂長 Max.L mm
		70	80	100	120	140	160	180	200	
7	16.3	13.5	13.2	不可使用						99
6.5	15.2	12.5	12.2	11.7						110
6	14.0	11.6	11.3	10.8	10.3					123
5.5	12.8	10.6	10.4	9.9	9.4					139
5	11.7	9.6	9.4	9.0	8.6	8.2	7.9			161
4.5	10.5	8.7	8.5	8.1	7.7	7.4	7.1	6.8		190
4	9.3	7.7	7.5	7.2	6.9	6.6	6.3	6.1	5.8	231
3.5	8.2	6.7	6.6	6.3	6.0	5.8	5.5	5.3	5.1	↑
3	7.0	5.8	5.6	5.4	5.1	4.9	4.7	4.5	4.4	↑
2.5	5.8	4.8	4.7	4.5	4.3	4.1	3.9	3.8	3.6	↑
2	4.7	3.9	3.8	3.6	3.4	3.3	3.2	3.0	2.9	↑
1.5	3.5	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.2	231

Model: CHA-105P/CBTU-25

油壓 MPa	油缸能力 KN	夾緊力 KN 夾緊臂長度 L mm								最大臂長 Max.L mm
		90	100	120	140	160	180	200	240	
7	25.8	21.2	20.8	20.0	不可使用					129
6.5	24.0	19.7	19.3	18.6	17.9					143
6	22.1	18.2	17.8	17.1	16.5	15.9				161
5.5	20.3	16.7	16.3	15.7	15.1	14.6	14.1			183
5	18.5	15.1	14.8	14.3	13.8	13.3	12.8	12.4		212
4.5	16.6	13.6	13.4	12.9	12.4	12.0	11.6	11.2	10.5	251
4	14.8	12.1	11.9	11.4	11.0	10.6	10.3	9.9	9.3	308
3.5	12.9	10.6	10.4	10.0	9.6	9.3	9.0	8.7	8.2	↑
3	11.1	9.1	8.9	8.6	8.3	8.0	7.7	7.5	7.0	↑
2.5	9.2	7.6	7.4	7.1	6.9	6.6	6.4	6.2	5.8	↑
2	7.4	6.1	5.9	5.7	5.5	5.3	5.1	5.0	4.7	↑
1.5	5.5	4.5	4.5	4.3	4.1	4.0	3.9	3.7	3.5	308

CHS/HSC
油壓轉角缸

CHS/HSC HYDRAULIC SWING CLAMP



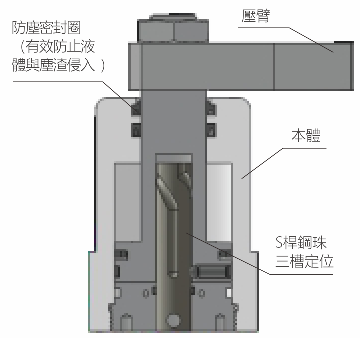
產品特性

本產品適用於量產零件之專用機及MC治具,為提高生產效率的好幫手。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，再沿著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。

FEATURES

The CHS/HSC series is made with industrial grade carbon steel and processed with hardened surface treatment to increase durability and extend product lifespan. It is designed to increase production efficiency for machinery and MC fixtures used for mass production. During the actuation state, the piston rod will drive the clamping arm downward and rotate to the desired position and angle. When the swing clamp is in action, the piston rod will drive the clamping arm to press down and rotate to the desired position and angle, thereby clamping the workpiece. For operational instructions, do not clamp the workpiece during the rotation. Also, installation of a flow control valve is highly recommended to help avoid excessive speed.

剖面圖 Sectional view



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

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

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4頁。

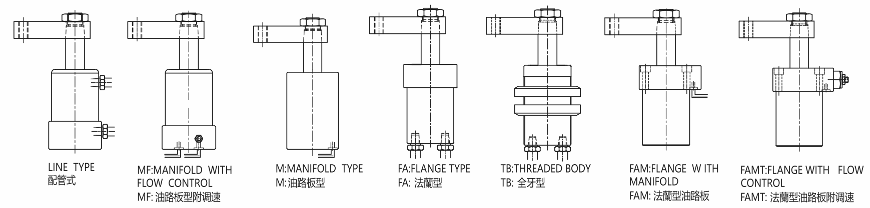
NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instructions and removal methods of the clamping arm.

訂購標示法 ORDERING INDICATION

示例：CHS-MF25SR-90-E

CHS	系列 Series	CHS/HSC
MF	類型Type	空白：配管式 Line type MF：油路板附調速 Manifold with flow control M：油路板型 Manifold type FA：法蘭型 Flange type TB：全牙型 Threaded body FAM：法蘭型油路板 Flange with manifold FAMT：法蘭型油路板附調速 Flange with flow control
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 S: Single side arm D:雙邊壓板 D: Double side arm
R	轉角方向 Swing 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 Swing 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 (具體加長型見後面規格尺寸表)



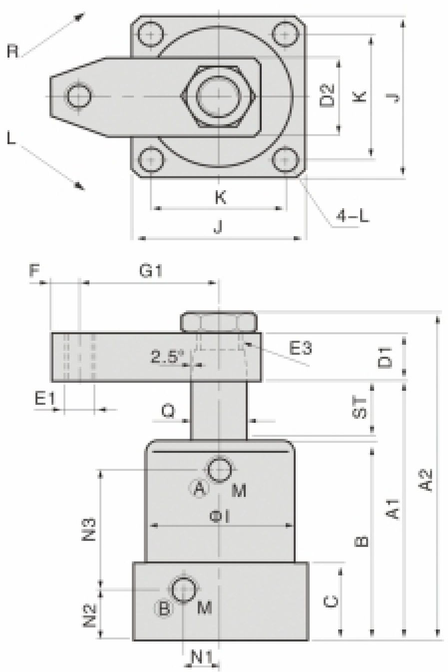
規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	轉角行程 SWING STROKE (mm)	標準垂直行程 STANDARD CLAMPING STROKE (mm)	加長垂直行程 EXTENDED CLAMPING STROKE (mm)	標準總行程 STANDARD TOTAL STROKE (mm)	加長總行程 EXTENDED TOTAL STROKE (mm)	標準拉入容積 OIL STANDARD CAPACITY CLAMP (cm³)	加長行程拉入容積 OIL EXTENDED CAPACITY CLAMP (cm³)	標準行程推出容積 OIL STANDARD CAPACITY UNCLAMP (cm³)	加長行程推出容積 OIL EXTENDED CAPACITY UNCLAMP (cm³)	拉入受壓面積 EFF.PISTON AREA CLAMP (cm²)	推出受壓面積 EFF.PISTON AREA UNCLAMP (cm²)	使用溫度範圍 RANGE OF TEMPERATURE (℃)
CHS/HSC-25	166	CHS 11.5 HSC 9	13 13	-	24.5 22	-	5.81 5.21	-	12.03 10.8	-	2.37	4.91	-10~+70℃
CHS/HSC-32	343	CHS 14.5 HSC 11	15 15	30 30	29.5 26	44.5 41	14.45 12.74	21.81 20.09	23.72 20.90	37.38 32.96	4.9	8.04	-10~+70℃
CHS/HSC-40	603	CHS 14.5 HSC 11	15 15	30 30	29.5 26	44.5 41	25.43 22.41	38.36 35.34	37.05 32.66	55.89 51.50	8.62	12.56	-10~+70℃
CHS/HSC-50	943	CHS 16 HSC 13	17 17	34 34	33 30	50 47	44.45 40.41	67.35 63.31	64.78 58.89	98.15 92.26	13.47	19.63	-10~+70℃
CHS/HSC-63	1488	CHS 16 HSC 13	17 17	34 34	33 30	50 47	70.16 63.78	106.3 99.92	102.83 93.48	155.8 146.45	21.26	31.16	-10~+70℃
CHS-80 僅配管式 Only Line type	2639	CHS 15	15	-	30	-	113.1	-	150.72	-	37.7	50.27	-10~+70℃

使用流體：相當於 ISO 黏度等級的 ISO-VG-32 一般液壓油
Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

配管式 LINE TYPE-S

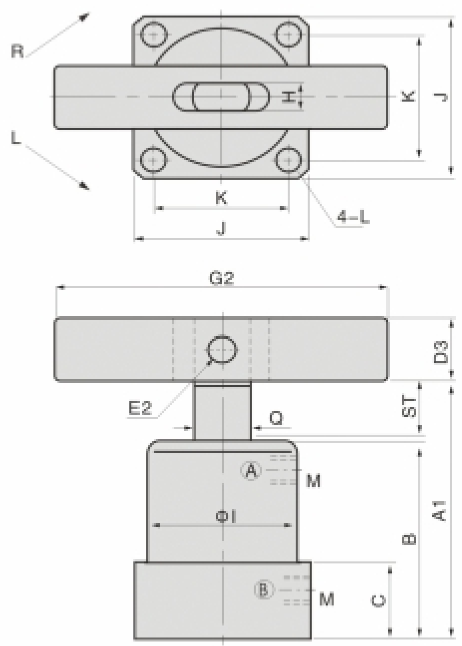
Single side swing clamp



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

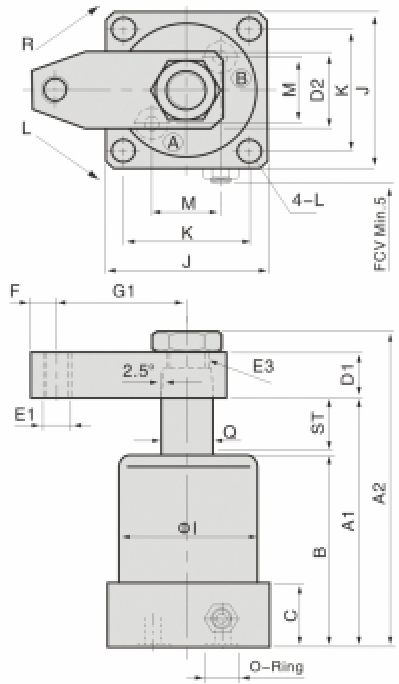
配管式 LINE TYPE-D

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



油路板附調速 MF-S

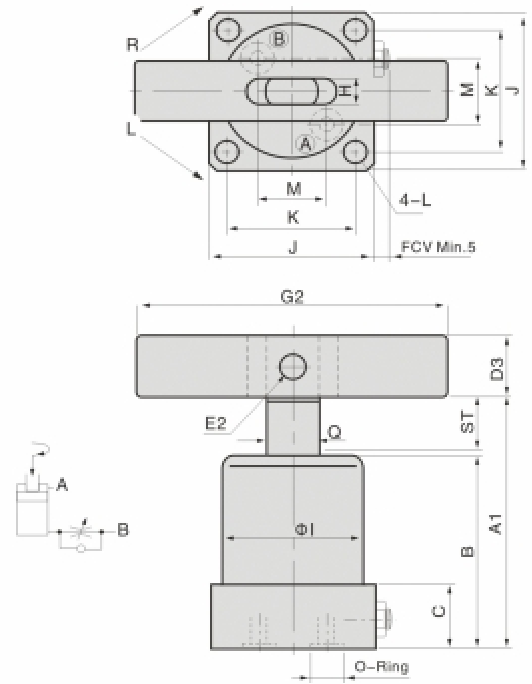
Single side swing clamp



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

油路板附調速 MF-D

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



Unit:mm

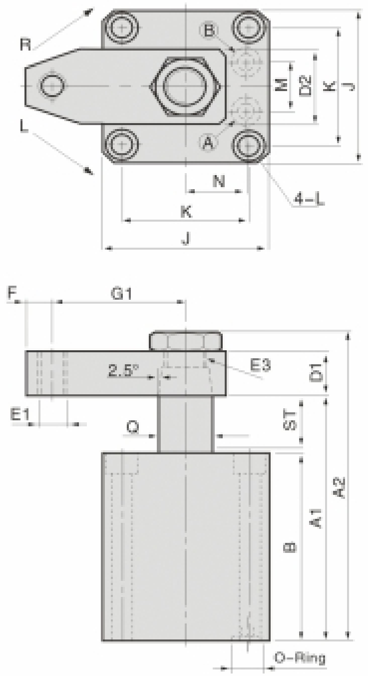
MODEL ITEM		CHS/HSC-25	CHS/HSC-32		CHS/HSC-40		CHS/HSC-50		CHS/HSC-63		CHS-80
ST:Swing /Clamping	CHS	24.5:11.5/13	29.5:14.5/15	44.5:14.5/30	29.5:14.5/15	44.5:14.5/30	33:16/17	50:16/34	33:16/17	50:16/34	-
	HSC	22:9/13	26:11/15	41:11/30	26:11/15	41:11/30	30:13/17	47:13/34	30:13/17	47:13/34	30:15/15
A1 Unclamping	CHS	104	118	148	123	153	137	171	142	176	142
	HSC	101	115	145	120	150	134	168	139	173	-
A2 Unclamping	CHS	127	144	175	150	180	167	201	177	211	187
	HSC	124	140	170	148	178	166	200	175	209	-
B		76	85	100	90	105	100	117	105	122	105
C		27	30		30		34		34		34
D1		16	18		18		20		23		28
D2		27	31		31		37		48		52
D3		□19	□22		□22		□25		□32		□34
E1		M10	M10		M10		M12		M16		M16
E2		φ8	φ8		φ10		φ12		φ15		φ16
E3		M14×1.5	M16×1.5		M18×1.5		M20×1.5		M24×2		M30×2
F		10	10		10		12		15		20
G1		50	55		60		65		75		85
G2		140	160		160		180		200		220
H		9	10		10		12		15		16
ΦI		φ46	φ50		φ54		φ66		φ80		φ100
J		52	56		63		72		88		110
K		40	44		48		57		70		87
L		φ6.8	φ6.8		φ9		φ9		φ11		φ13
M		PT1/8	PT1/8		PT1/8		PT1/4		PT1/4		PT1/4
N1		8	10		12		15		17		17
N2		17	19		19		21.5		22		25
N3		46	52	67	57	72	63.5	80.5	68	85	65
Q		φ18	φ20		φ22.4		φ28		φ35.5		φ40

Unit:mm

MODEL ITEM		CHS/HSC-MF25	CHS/HSC-MF32		CHS/HSC-MF40		CHS/HSC-MF50		CHS/HSC-MF63	
ST:Swing /Clamping	CHS	24.5:11.5/13	29.5:14.5/15	44.5:14.5/30	29.5:14.5/15	44.5:14.5/30	33:16/17	50:16/34	33:16/17	50:16/34
	HSC	22:9/13	26:11/15	41:11/30	26:11/15	41:11/30	30:13/17	47:13/34	30:13/17	47:13/34
A1 Unclamping	CHS	104	118	148	123	153	137	171	142	176
	HSC	101	115	145	120	150	134	168	139	173
A2 Unclamping	CHS	127	144	175	150	180	167	201	177	211
	HSC	124	140	170	148	178	166	200	175	209
B		76	85	100	90	105	100	117	105	122
C		22	25		25		30		30	
D1		16	18		18		20		23	
D2		27	31		31		37		48	
D3		□19	□22		□22		□25		□32	
E1		M10	M10		M10		M12		M16	
E2		φ8	φ8		φ10		φ12		φ15	
E3		M14×1.5	M16×1.5		M18×1.5		M20×1.5		M24×2	
F		10	10		10		12		15	
G1		50	55		60		65		75	
G2		140	160		160		180		200	
H		9	10		10		12		15	
ΦI		φ46	φ50		φ54		φ66		φ80	
J		55	57		63		72		88	
K		42	44		48		57		70	
L		φ6.8	φ6.8		φ9		φ9		φ11	
M		19	21		23		28		32	
O-Ring		P7	P7		P9		P9		P9	
Q		φ18	φ20		φ22.4		φ28		φ35.5	

油路板型 M-S

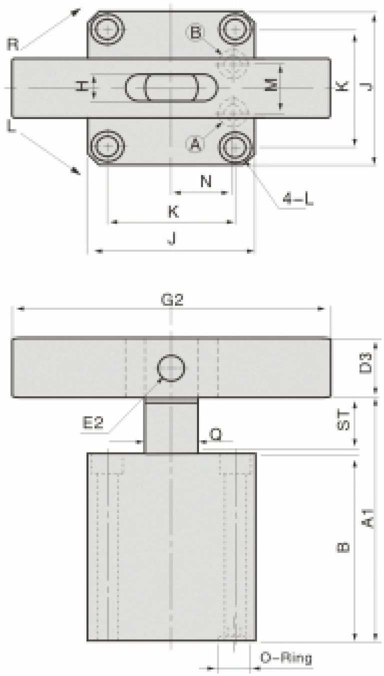
Single side swing clamp



油路板型 M-D

Double side swing clamp

註：下圖為轉角90°鬆開狀態

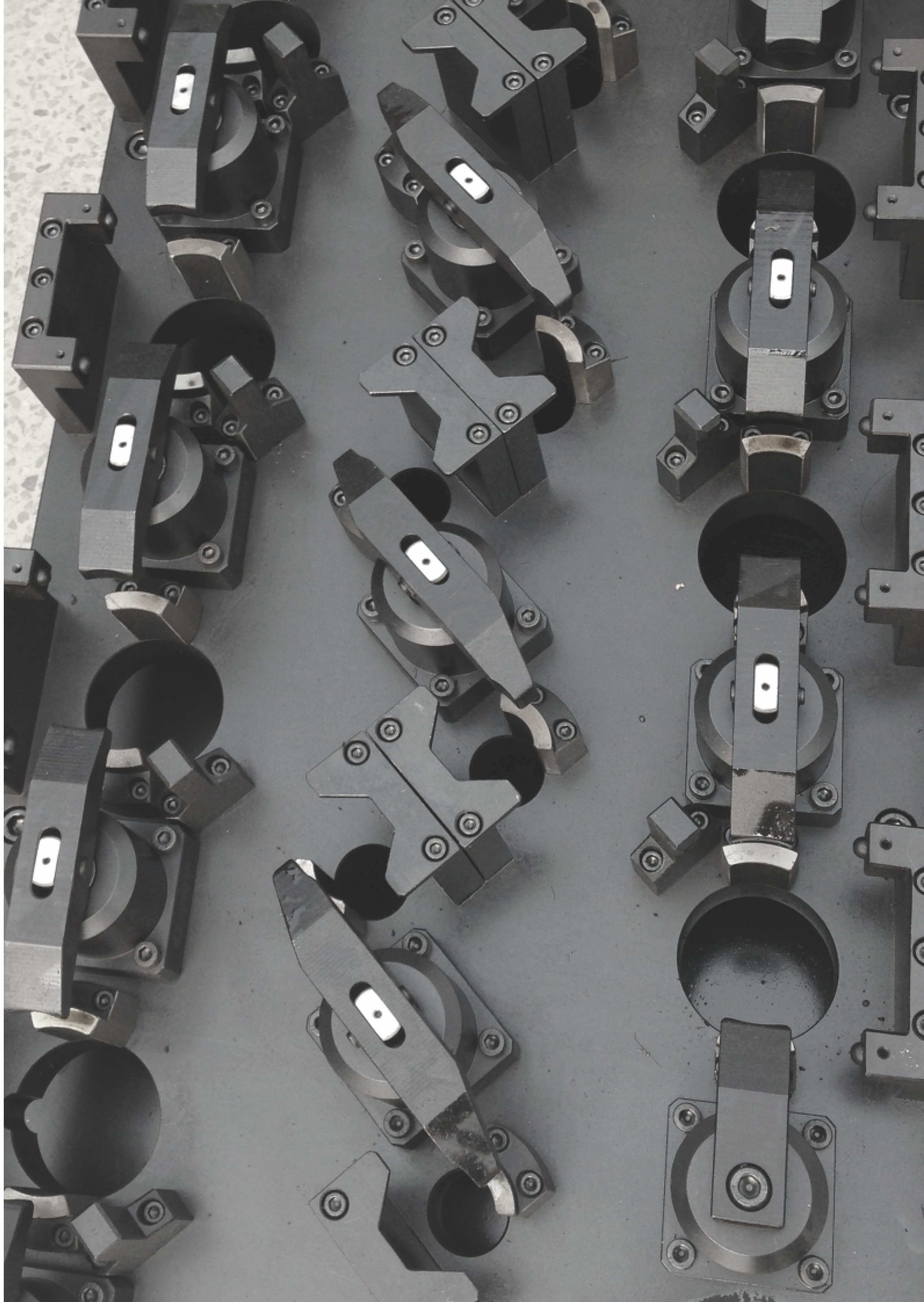


Ⓐ夾持油孔 Clamping port

Ⓑ放鬆油孔 Unclamping port

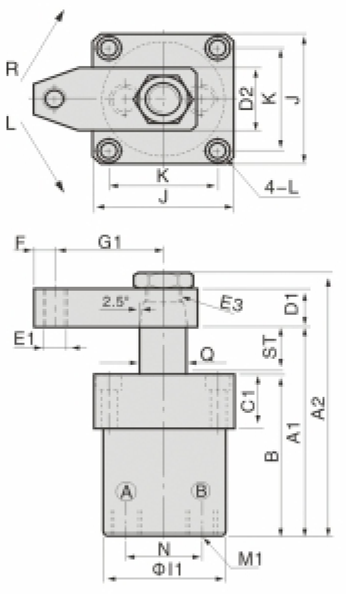
Unit:mm

MODEL / ITEM		CHS/HSC-M25	CHS/HSC-M32	CHS/HSC-M40	CHS/HSC-M50	CHS-M63
ST:Swing /Clamping	CHS	24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17	33:16/17
	HSC	22:9/13	26:11/15	26:11/15	30:13/17	
A1 Unclamping	CHS	104	118	123	137	142
	HSC	101	115	120	134	-
A2 Unclamping	CHS	127	144	150	167	177
	HSC	124	140	148	166	-
B		76	85	90	100	105
D1		16	18	18	20	23
D2		27	31	31	37	48
D3		□19	□22	□22	□25	□32
E1		M10	M10	M10	M12	M16
E2		φ8	φ8	φ10	φ12	φ15
E3		M14×1.5	M16×1.5	M18×1.5	M20×1.5	M24×2
F		10	10	10	12	15
G1		50	55	60	65	75
G2		140	160	160	180	200
H		9	10	10	12	15
J		55	57	69	75	92
K		42	44	52	58	72
L		φ6.8-φ10.5 ×6.5D	φ6.8-φ10.5 ×6.5D	φ9-φ13.5 ×9D	φ9-φ13.5 ×9D	φ11-φ17 ×11D
M		18	22	26	32	40
N		20	22	26	30	37
O-Ring		P7	P7	P8	P8	P9
Q		φ18	φ20	φ22.4	φ28	φ35.5



法蘭型 FA-S

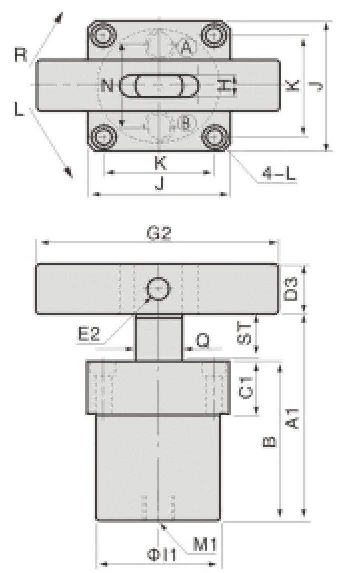
Single side swing clamp



法蘭型 FA-D

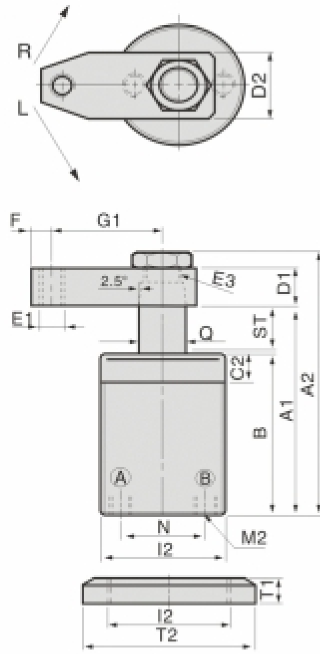
Double side swing clamp

註：下圖為轉角90°鬆開狀態



全牙型 TB-S

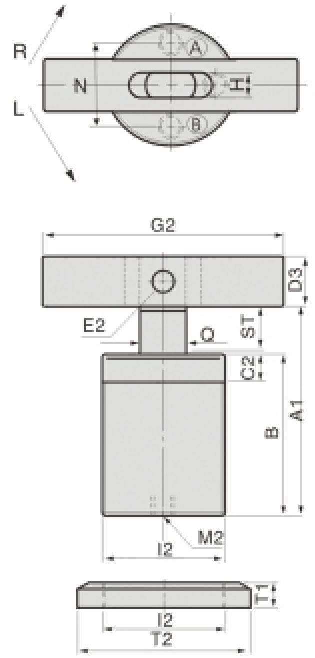
Single side swing clamp



全牙型 TB-D

Double side swing clamp

註：下圖為轉角90°鬆開狀態



Ⓐ夾持油孔 Clamping port

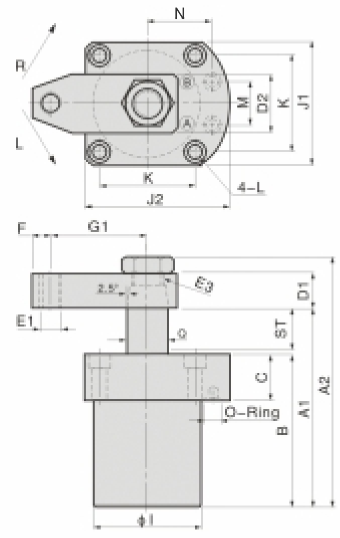
Ⓑ放鬆油孔 Unclamping port

Unit:mm

MODEL ITEM		CHS/HSC -FA25	CHS/HSC -FA32	CHS/HSC -FA40	CHS/HSC -FA50	CHS/HSC -FA63	CHS/HSC -TB25	CHS/HSC -TB32	CHS/HSC -TB40	CHS/HSC -TB50
ST:Swing /Clamping	CHS	24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17	33:16/17	24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17
	HSC	22:9/13	26:11/15	26:11/15	30:13/17	30:13/17	22:9/13	26:11/15	26:11/15	30:13/17
A1 Unclamping	CHS	104	118	123	137	142	104	118	123	137
	HSC	101	115	120	134	139	101	115	120	134
A2 Unclamping	CHS	127	144	150	167	177	127	144	150	167
	HSC	124	140	148	166	175	124	140	148	166
B		76	85	90	100	105	76	85	90	100
C1		22	25	25	30	30	-	-	-	-
C2		-	-	-	-	-	12	12	15	15
D1		16	18	18	20	23	16	18	18	20
D2		27	31	31	37	48	27	31	31	37
D3		□19	□22	□22	□25	□32	□19	□22	□22	□25
E1		M10	M10	M10	M12	M16	M10	M10	M10	M12
E2		φ8	φ8	φ10	φ12	φ15	φ8	φ8	φ10	φ12
E3		M14×1.5	M16×1.5	M18×1.5	M20×1.5	M24×2	M14×1.5	M16×1.5	M18×1.5	M20×1.5
F		10	10	10	12	15	10	10	10	12
G1		50	55	60	65	75	50	55	60	65
G2		140	160	160	180	200	140	160	160	180
H		9	10	10	12	15	9	10	10	12
ΦI1		φ45	φ50	φ58	φ68	φ81	-	-	-	-
I2		-	-	-	-	-	M45×1.5	M50×1.5	M55×1.5	M65×1.5
J		53	57	69	75	90	-	-	-	-
K		40	44	52	58	70	-	-	-	-
L		φ6.8-φ10.5×6.5D	φ6.8-φ10.5×6.5D	φ9-φ13.5×9D	φ9-φ13.5×9D	φ11-φ17×11D	-	-	-	-
M1		PT1/4	PT1/4	PT1/4	PT1/4	PT1/4	-	-	-	-
M2		-	-	-	-	-	PT1/8	PT1/8	PT1/8	PT1/8
N		28	32	40	50	63	28	32	40	50
T1×2PCS		-	-	-	-	-	10	11	11	12
T2		-	-	-	-	-	φ65	φ70	φ70	φ85
Q		φ18	φ20	φ22.4	φ28	φ35.5	φ18	φ20	φ22.4	φ28

法蘭型油路板 FAM-S

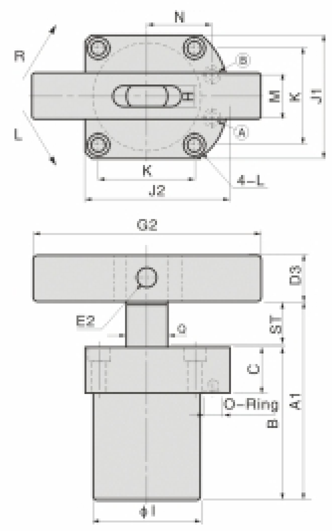
Single side swing clamp



法蘭型油路板 FAM-D

Double side swing clamp

註：下圖為轉角90°鬆開狀態



Ⓐ夾持油孔 Clamping port

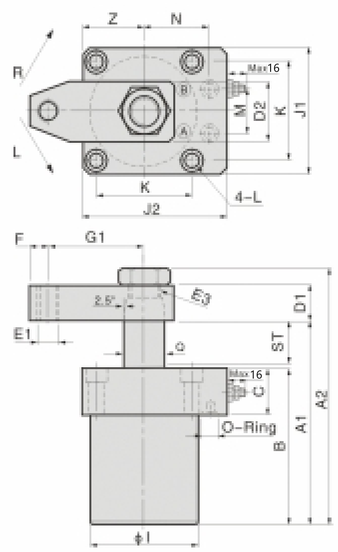
Ⓑ放鬆油孔 Unclamping port

Unit:mm

MODEL ITEM		CHS/HSC -FAM25	CHS/HSC -FAM32	CHS/HSC -FAM40	CHS/HSC -FAM50	CHS/HSC -FAM63
ST:Swing /Clamping	CHS	24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17	33:16/17
	HSC	22:9/13	26:11/15	26:11/15	30:13/17	30:13/17
A1 Unclamping	CHS	104	118	123	137	142
	HSC	101	115	120	134	139
A2 Unclamping	CHS	127	144	150	167	177
	HSC	124	140	148	165	175
B		76	85	90	100	105
C		22	25	25	30	30
D1		16	18	18	20	23
D2		27	31	31	37	48
D3		□19	□22	□22	□25	□32
E1		M10	M10	M10	M12	M16
E2		φ8	φ8	φ10	φ12	φ15
E3		M14×1.5	M16×1.5	M18×1.5	M20×1.5	M24×2
F		10	10	10	12	15
G1		50	55	60	65	75
G2		140	160	160	180	200
H		9	10	10	12	15
ΦI		φ45	φ50	φ58	φ68	φ81
J1		55	57	69	75	90
J2		64	65.5	79	87	104.5
K		42	44	52	58	70
L		φ6.8-φ10.5 ×6.5D	φ6.8-φ10.5 ×6.5D	φ9-φ13.5 ×9D	φ9-φ13.5 ×9D	φ11-φ17 ×11D
M		20	22	26	30	32
N		28	29	34.5	39	46
O-Ring		P6	P6	P9	P9	P9
Q		φ18	φ20	φ22.4	φ28	φ35.5

法蘭型油路板附調速 FAMT-S

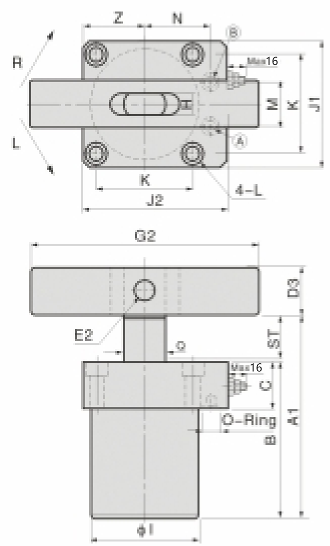
Single side swing clamp



法蘭型油路板附調速 FAMT-D

Double side swing clamp

註：下圖為轉角90°鬆開狀態



Ⓐ夾持油孔 Clamping port

Ⓑ放鬆油孔 Unclamping port

Unit:mm

MODEL ITEM		CHS -FAMT25	CHS -FAMT32	CHS -FAMT40	CHS -FAMT50	CHS -FAMT63
ST:Swing /Clamping		24.5:11.5/13	29.5:14.5/15	29.5:14.5/15	33:16/17	33:16/17
A1 Unclamping	CHS	104	118	123	137	142
A2 Unclamping	CHS	127	144	150	167	177
B		76	85	90	100	105
C		22	25	25	30	30
D1		16	18	18	20	23
D2		27	31	31	37	48
D3		□19	□22	□22	□25	□32
E1		M10	M10	M10	M12	M16
E2		φ8	φ8	φ10	φ12	φ15
E3		M14×1.5	M16×1.5	M18×1.5	M20×1.5	M24×2
F		10	10	10	12	15
G1		50	55	60	65	75
G2		140	160	160	180	200
H		9	10	10	12	15
ΦI		φ45	φ50	φ58	φ68	φ81
J1		55	57	69	75	90
J2		64	65.5	77	87	104.5
K		42	44	52	58	70
L		φ6.8-φ10.5 ×6.5D	φ6.8-φ10.5 ×6.5D	φ9-φ13.5 ×9D	φ9-φ13.5 ×9D	φ11-φ17 ×11D
M		20	22	26	30	32
N		28	29	34.5	39	46
O-Ring		P6	P6	P6	P9	P9
Q		φ18	φ20	φ22.4	φ28	φ35.5
Z		27.5	28.5	34.5	37.5	45

CPF

平行油壓轉角缸

CPF HYDRAULIC SWING CLAMP

產品特性

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

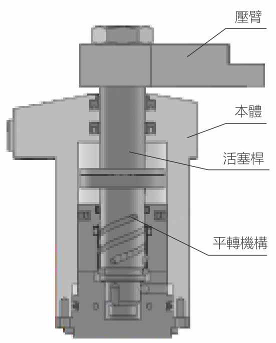
最大操作壓力：45 kgf/cm²
最小操作壓力：20 kgf/cm²
作動方式：複動式

FEATURES

The accessories of the CPF series are optimally designed to create a more compact-sized product with enhanced strength. With its special dust-proof design, this product has improved its sealing performance and protects against any particles or debris while in use. With its design to swing horizontally, this series is able to achieve space efficiency required when designing fixtures.

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

剖面圖 Sectional view



注意事項

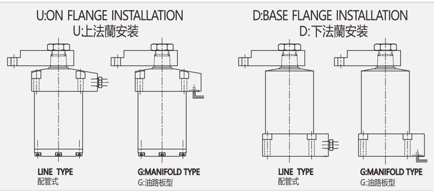
夾緊及放鬆作動速度需適當放緩。
特殊壓臂長度及重量不得超過標準壓臂的1.5倍。
壓臂旋轉示意圖及安裝拆卸方式，請參見第4頁。

NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instructions and removal methods of the clamping arm.

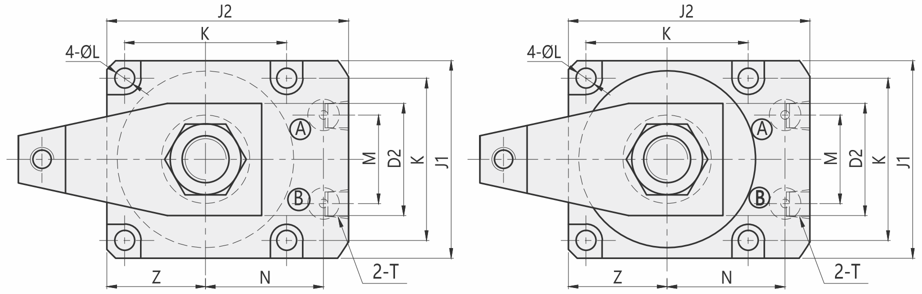
訂購標示法 ORDERING INDICATION

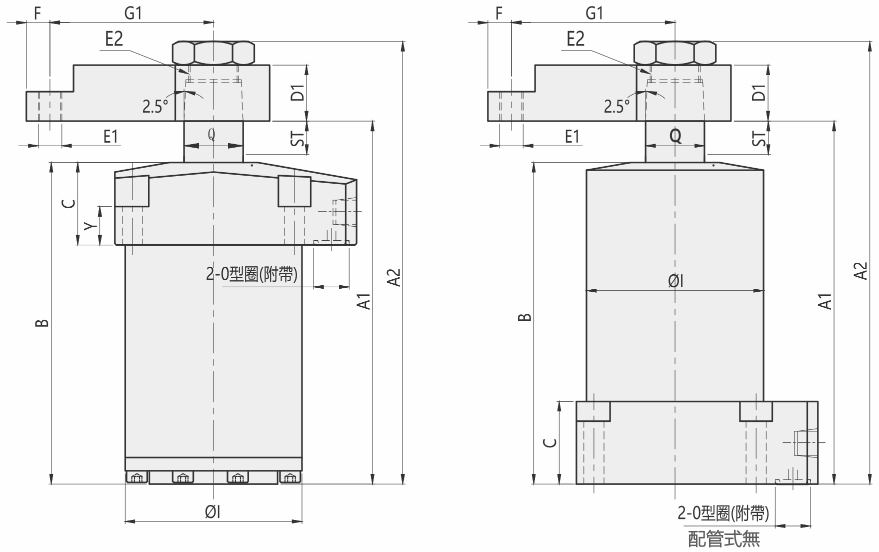
示例：CPF-35DL-90G

CPF	系列 Series	CPF
35	油缸內徑 Hydraulic cylinder inside diameter	Φ35 , Φ40
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 Swing direction	右轉R或左轉L　Turn right R or turn left L
90	轉角角度 Swing 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

備註：選配調速閥為CZL系列

CPF-XXU　CPF-XXD





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

Unit:mm

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

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (45 kgf/cm²) CLAMPING FORCE AT 45 kgf/cm² (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY UNCLAMP(cm³)	拉入容積 CYLINDER CAPACITY CLAMP(cm³)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CPF-35	291	10	10	6.47	6.47	6.47	6.47	-10~+70°C	相當於 ISO 黏度等級 的 ISO-VG-32 一般 液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CPF-40	424	10	10	9.43	9.43	9.43	9.43	-10~+70°C	

NFS

高壓轉角缸

NFS HIGH PRESSURE HYDRAULIC SWING CLAMP

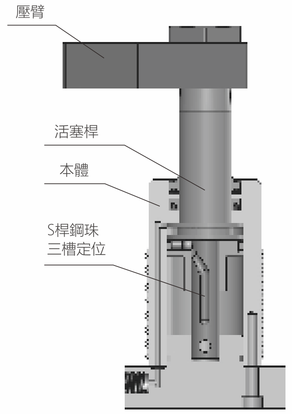
產品特性

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桿處油封上的鐵屑異物,避免下次使用異物嵌入工件.

FEATURES

A hydraulic swing clamp is a clamping device that converts hydraulic pressure into a clamping force to secure the pieces. When the NFS hydraulic swing clamp is in action, it clamps down vertically after rotating to the left or right.
The cylinder's body is manufactured with high-grade carbon steel and processed with hardened surface treatment.
The standard angle is 90 degrees, options to customize the angle at 30 degrees, 45 degrees, or 60 degrees are available. Installation of a flow control valve at the oil inlet is highly recommended to control the swinging speed and avoid inertial impact. When the hydraulic cylinder is clamping and pressing downward, the workpiece should be clamped within the lock stroke range.
During the workpiece's loading & unloading period, please be sure to clean the oil seal from the piston rod with an air gun to avoid embedding any particles and chips.

剖面圖 Sectional view(複動式)



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

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

注意事項

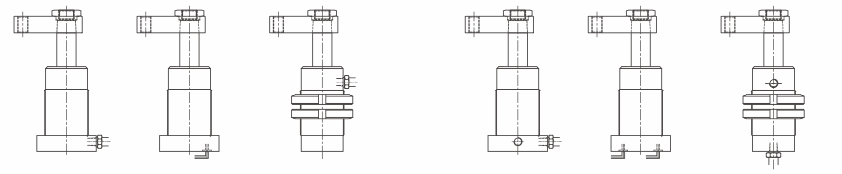
夾緊及放鬆作動速度需適當放緩。
特殊壓臂其長度和重量不得超過標準壓臂的1.5倍。
壓臂旋轉示意圖及安裝拆卸方式，請參見第4頁。可接受訂製，歡迎與本公司洽詢。

NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instructions and removal methods of the clamping arm.
Customization is available upon request, please contact us for more info.

訂購標示法 ORDERING INDICATION

示例：NFSL-25A-90F

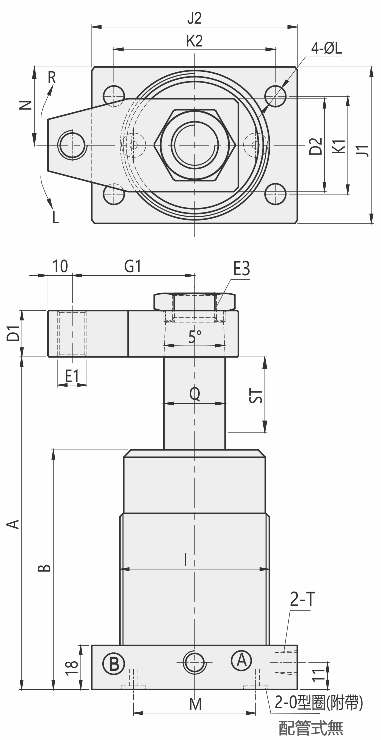
NFS	系列 Series	NFS/NDS/NFT/NDT
L	轉角方向Swing direction	右轉R或左轉L　Turn right R or turn left L
25	油缸內徑 Hydraulic cylinder inside diameter	Φ25，Φ32，Φ40
A	作動方式 Acting type	A:單動式Single acting　B:複動式Double acting  A: LINE TYPE 配管式 / F:MANIFOLD TYPE F:油路板型 / TB:THREADED BODY TB:外螺牙配管型 B: LINE TYPE 配管式 / F:MANIFOLD TYPE F: 油路板型 / TB:THREADED BODY TB:外螺牙配管型
90	轉角角度 Swing 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)

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (210 kgf/cm²) CLAMPING FORCE AT 210kgf/cm² (kgf)	轉角行程 SWING STROKE (mm)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	拉入容積 CYLINDER CAPACITY CLAMP(cm³)	推出容積 CYLINDER CAPACITY UNCLAMP(cm³)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 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

NFS

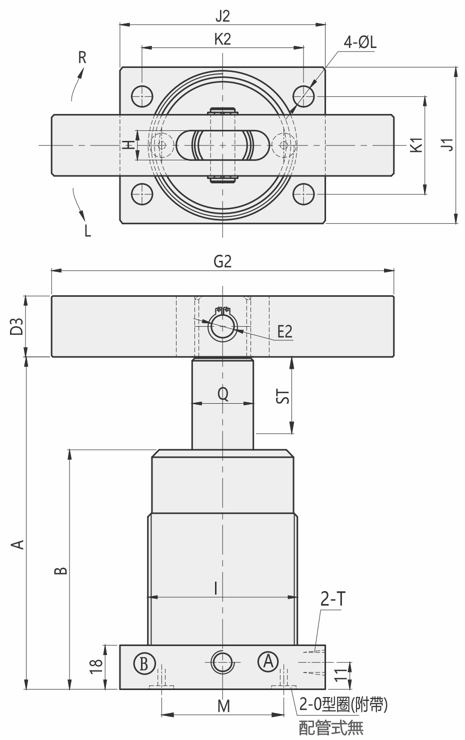
Single side swing clamp



NDS

Double side swing clamp

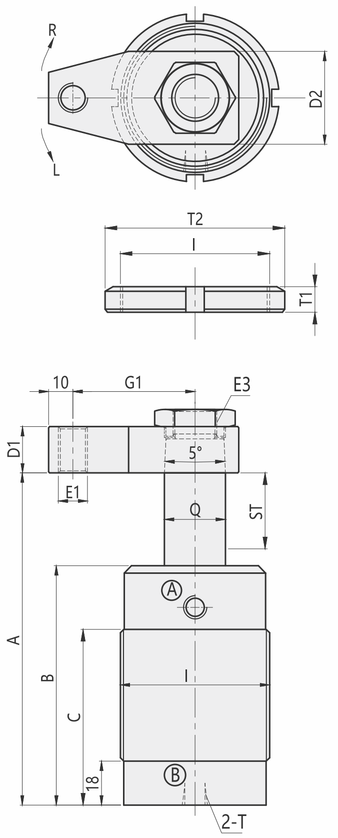
註：下圖為轉角90°鬆開狀態



Ⓐ夾持油孔 Clamping port　Ⓑ放鬆油孔 Unclamping port（單動型為排氣孔）

NFT

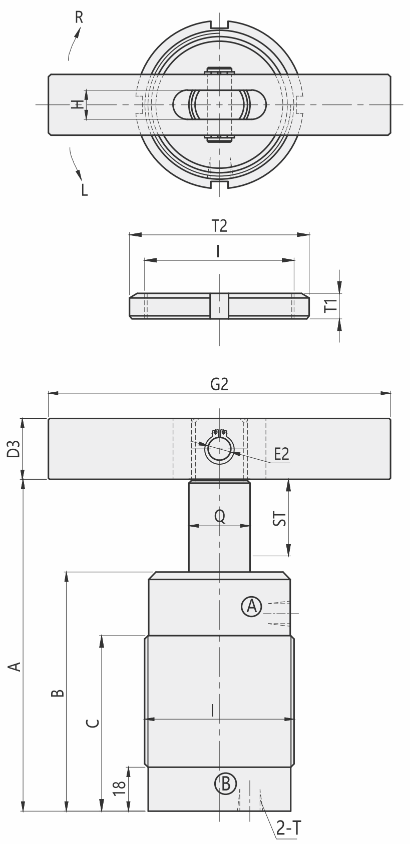
Single side swing clamp



NDT

Double side swing clamp

註：下圖為轉角90°鬆開狀態



Unit:mm

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

030

底部法蘭油壓轉角缸

030 HYDRAULIC SWING CLAMP

產品特性

無需預留孔：直接用螺栓將轉角缸固定到工作檯面，缸體的主結構在工作檯面上，可夾緊較厚的工件，允許超大件的夾持。
複動式特點:夾緊與鬆卸全靠油路來控制，按照換向閥的主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。

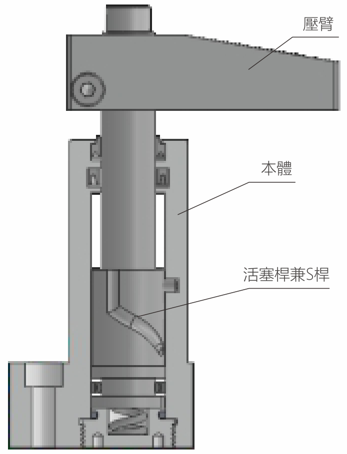
最大操作壓力：250 kgf/cm²
最小操作壓力：70 kgf/cm²
作動方式：單動和複動式

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 anti-abrasive.

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

剖面圖 Sectional view（單動式）



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4頁。

NOTE

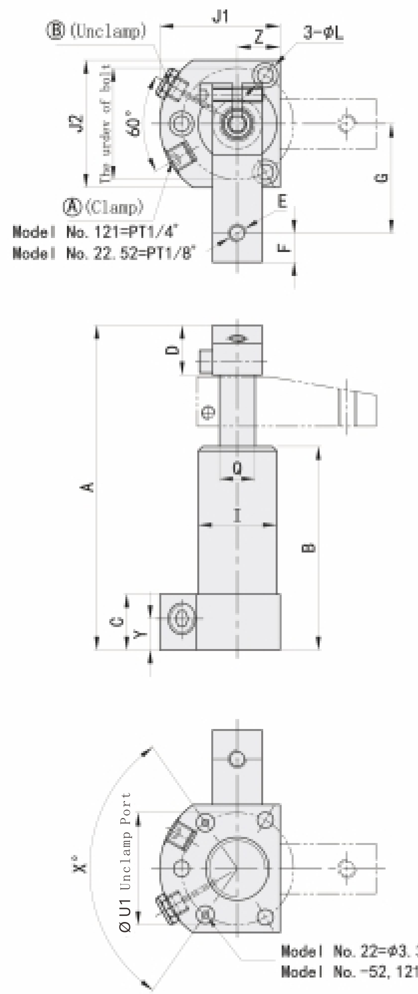
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instructions and removal methods of the clamping arm.

訂購標示法 ORDERING INDICATION

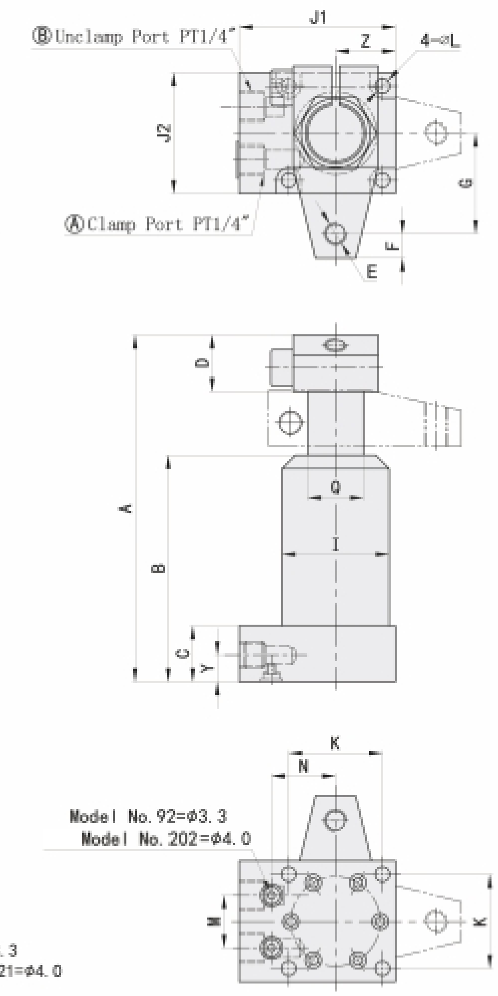
示例：030-LD92-90

030	系列 Series	030	
L	轉角方向 Swing 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 D:複動式	S:Single acting D:Double acting
92	型號 Type	22 , 52 , 92 , 121 , 202	
90	轉角角度 Swing angle	標準角度 訂做角度	Standard angle 90°(±2°) Order angle 30°(±2°)，45°(±2°)，60°(±2°)

030-22/52/121



030-92/202



Unit:mm

MODEL ITEM	030-22	030-52	030-92	030-121	030-202
ST:Swing /Clamp	16.5:8.5 /8	22.6:12.6 /10	22.1:10.1 /12	28.4:15.4 /13	27.9:13.9 /14
A鬆開狀態 Unclamping	118	145.2	155	171	175
B	78	91	101.5	110.9	110
C	25	25	25	25	25
D	16	22	25	30	32
E	M6	M8	M10	M10	M12
F	6	13	11	12	15
G	40	49	45	51	55
I	Φ28	Φ35	Φ48	Φ48	Φ63
J1	47.2	54.1	70.1	66.8	85.1
J2	45	57	54	73	70
K	-	-	42	-	55
L	Φ5.5-Φ9 x6.5D	Φ7-Φ11 x7D	Φ6.8-Φ11 x7D	Φ8.5-Φ14 x9D	Φ8.5-Φ14 x9D
M	-	-	23.6	32	29
N	-	-	28.7	-	35.1
Z	15.5	19.1	26.9	25.4	35.1
U1	Φ40	Φ50	-	Φ64	-
X	60°	110°	-	110°	-
Y	14	14	12	16	12
Q	Φ10	Φ16	Φ25	Φ22	Φ32

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力(250 kgf/cm²) CLAMPING FORCE AT 250kgf/cm² (kgf) 單動系列 Single acting	複動系列 Double acting	轉角行程 SWING STROKE (mm)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	拉入容積 CYLINDER CAPACITY CLAMP(cm³)	推出容積 CYLINDER CAPACITY UNCLAMP(cm³)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 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

050

頂部法蘭油壓轉角缸

050 HYDRAULIC SWING CLAMP

產品特性

當空間非常小時，050系列具備最小的安裝高度;但需預留孔放置轉角缸；缸體的主結構可隱藏在工作檯面；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。複動式特點：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。

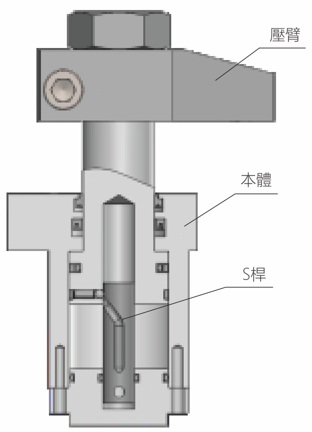
最大操作壓力：250 kgf/cm²
最小操作壓力：70 kgf/cm²
作動方式：單動和複動式

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 anti-abrasive.

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

剖面圖 Sectional view（複動型）



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4頁。

NOTE

The action and the speed of clamping / unclamping needs to be slowed dow n appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instructions and removal methods of the clamping arm.

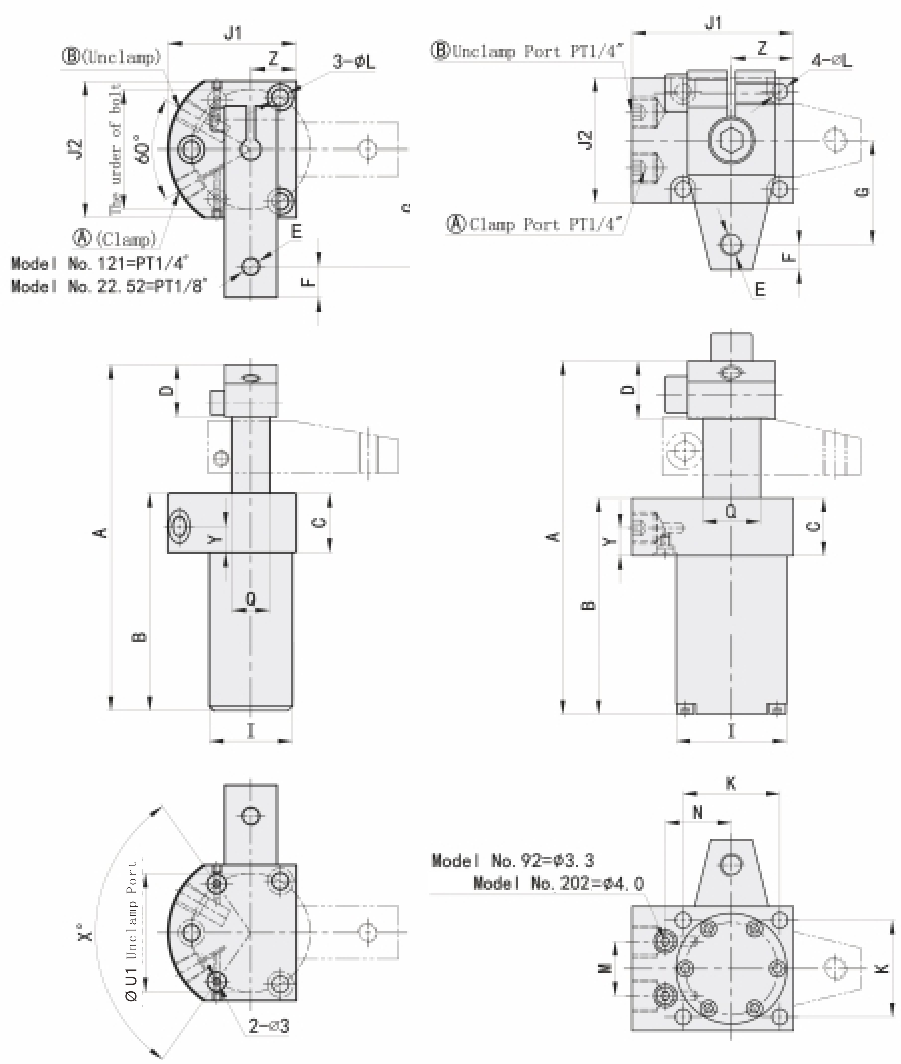
訂購標示法 ORDERING INDICATION

示例：050-LD92-90

050	系列 Series	050	
L	轉角方向 Swing 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 D:複動式	S:Single acting D:Double acting
92	型號 Type	22 , 52 , 92 , 121 , 202	
90	轉角角度 Swing angle	標準角度 訂做角度	Standard angle 90°(±2°) Order angle 30°(±2°), 45°(±2°), 60°(±2°)

050-22/52/121

050-92/202



Unit:mm

MODEL ITEM	050-22	050-52	050-92	050-121	050-202
ST:Swing /Clamp	16.5:8.5 /8	22.6:12.6 /10	22.1:10.1 /12	28.4:15.4 /13	27.9:13.9 /14
A鬆開狀態 Unclamping	118	145	153	171.5	169
B	78	91	93.5	110.9	104
C	25	25	25	25	25
D	16	22	25	30	32
E	M6	M8	M10	M10	M12
F	6	13	11	12	15
G	40	49	45	51	55
I	Φ28	Φ35	Φ48	Φ48	Φ63
J1	47.2	54.1	70.1	66.8	85.1
J2	45	57	54	73	70
K	-	-	42	-	55
L	Φ5.5-Φ9 x6.5D	Φ7-Φ11 x7D	Φ6.8-Φ11 x7D	Φ8.5-Φ14 x9D	Φ8.5-Φ14 x9D
M	-	-	23.6	32	29.2
N	-	-	28.7	-	35.6
Z	15.5	19.1	26.9	25.4	35.1
U1	Φ40	Φ50	-	Φ64	-
X	60°	110°	-	110°	-
Y	11	11	12	12	13
Q	Φ10	Φ16	Φ25	Φ22	Φ32

規格參數表 SPECIFICATIONS

型號	理論夾持力(250 kgf/cm²) CLAMPING FORCE AT 250 kgf/cm² (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)	CYLINDER CAPACITY CLAMP(cm³)	CYLINDER CAPACITY UNCLAMP(cm³)	EFF.PISTON AREA CLAMP(cm²)	EFF.PISTON AREA UNCLAMP(cm²)	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

HPS
高壓轉角缸

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，以免迴轉過快，如有迴轉不確定，請安裝流量控制閥，降低充油速度。

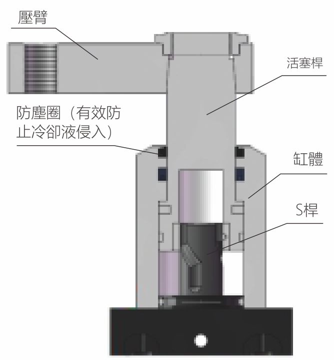
最大操作壓力：250 kgf/cm²
最小操作壓力：70 kgf/cm²
作動方式：單動和複動式

FEATURES

The clamping mechanism of the HPS series includes a swing stroke and a vertical stroke. For operational instructions, do not clamp the workpiece during the rotation. The cylinder uses high-quality oil seals and components imported directly from Germany. The smooth interior wall is processed specifically to enhance product performance and increase product lifespan. Please refer to the specification chart for the maximum fluid supply. Installation of a flow control valve is highly recommended for better control.

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

剖面圖 Sectional view



注意事項

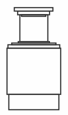
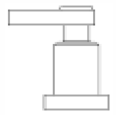
夾緊及放鬆作動速度需適當放緩。
特殊壓臂長度及重量不得超過標準壓臂的1.5倍。
壓臂旋轉示意圖及安裝拆卸方式，請參見第4頁。

NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instructions and removal methods of the clamping arm.

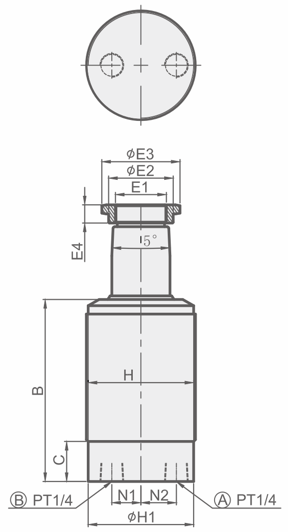
訂購標示法 ORDERING INDICATION

示例：HPS – 25SAR-90

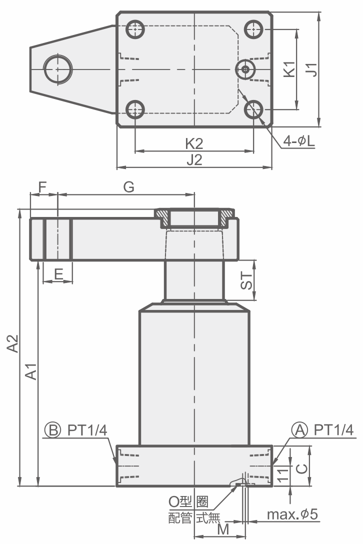
HPS	系列 Series	HPS
25	油缸內徑 Hydraulic cylinder inside diameter	Φ25，Φ32，Φ40，Φ50，Φ63
S	作動方式 Acting type	S:單動式 Single acting D:複動式 Double acting
A	安裝型式 Installation	A: 全牙型 Threaded type  B: 配管型 Line type C: 油路板型 Manifold type 
R	轉角方向 Swing direction	R: 右轉下壓型 R: Turn right L: 左轉下壓型 L: Turn left
90	轉角角度 Swing angle	標準角度 Standard angle 90°(±2°) 訂做角度 Order angle 30°(±2°)，45°(±2°)，60°(±2°)

單動式Single-Acting

THREADED TYPE



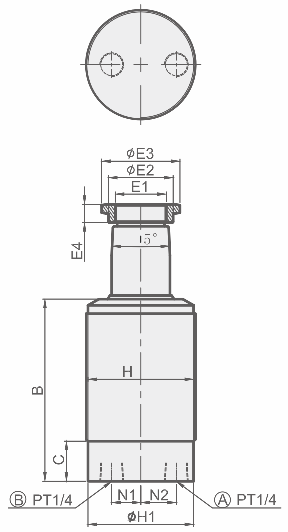
FLANGE TYPE



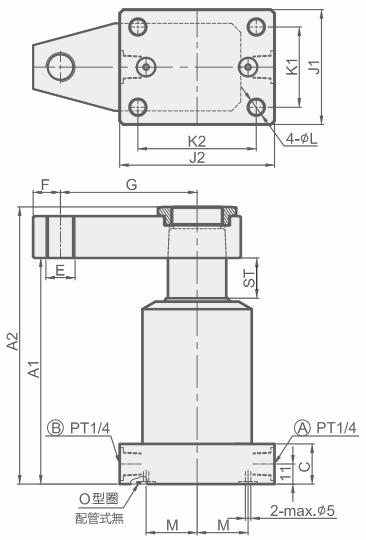
Ⓐ夾持油孔 Clamping port Ⓑ排氣孔 Vent port

複動式Double-Acting

THREADED TYPE



FLANGE TYPE



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

Unit:mm

型號	HPS-25	HPS-32	HPS-40	HPS-50	HPS-63
A1鬆開狀態	109	120.5	124	142	148
A2鬆開狀態	129	146.5	152	176	190
B	87	97	100	113	119.5
C	22	22	22	22	22
E	M10×1.5	M12×1.75	M16×2	M16×2	M20×2.5
E1	M18×1.5	M22×1.5	M28×1.5	M35×1.5	M43×1.5
ΦE2	23.5	28.5	35.5	45.5	54.5
ΦE3	27.7	33.5	43	53.1	63.5
E4	9	10	10	12	14
F	10	12	15	15	18
G	50	65	75	95	120
H	M45×1.5	M52×1.5	M60×1.5	M80×2.0	M90×2.0
ΦH1	43	50	58	78	88
J1	45	53	63	80	90
J2	65	73	85	100	115
K1	30	37	44	60	68
K2	50	57	65	80	90
ΦL	6.5	9	9	13	15
M	15	20	28	31	37.5
N1	13	14.5	16	19	25.5
N2	13	16	19.5	26.5	34
O型圈(僅C型) O-Ring(C type)	P7	P7	P7	P7	P9

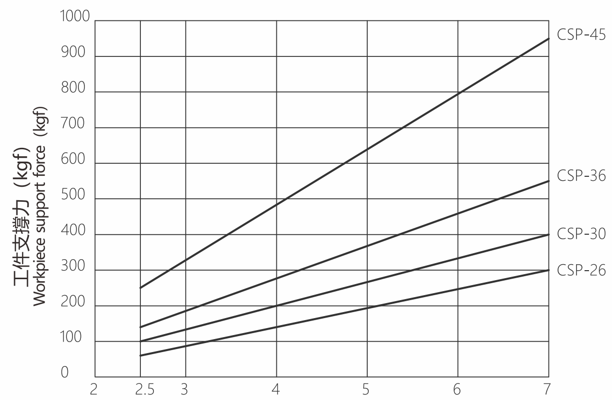
規格參數表 SPECIFICATIONS

型號	理論夾持力(250 kgf/cm²) CLAMPING FORCE AT 250 kgf/cm² (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)	CYLINDER CAPACITY CLAMP(cm³)	CYLINDER CAPACITY UNCLAMP(cm³)	EFF.PISTON AREA CLAMP(cm²)	EFF.PISTON AREA UNCLAMP(cm²)	RANGE OF TEMPERATURE(°C)
HPS-25	380	440	9	11	20	3.54	9.80	1.77	4.9	-10~+70°C
HPS-32	650	780	10	13	23	7.20	18.49	3.13	8.04	-10~+70°C
HPS-40	1140	1300	10	12	22	9.94	27.63	4.52	12.56	-10~+70°C
HPS-50	1580	1760	12	15	27	19.09	53.00	7.07	19.63	-10~+70°C
HPS-63	2560	2880	12	15	27	31.16	84.13	11.54	31.16	-10~+70°C

CSP
油壓支撐缸

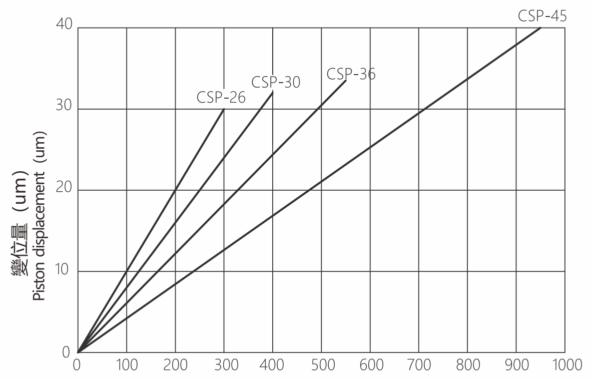
CSP HYDRAULIC SUPPORT CLAMP

油壓與工件支撐力的關係



※本圖表示靜態負荷條件下的支持力。

負荷與變位量的關係



※本圖表示供給油壓7MPa條件下的靜態負荷變化。

產品特性

★高支撐力：提高了活塞桿與夾套間的夾緊力，從而產生更高的工件支撐力。
★切削液清潔對策：為防止高壓冷卻液及切屑粉塵侵入內部結構而引發的動作不良，更換工件時可在排氣孔進行空氣清潔。空氣清潔需要專用的氣壓回路。（建議清潔氣壓0.3～0.5MPa）
★通用的配管底座：可安裝目前市售相同的日系缸規格，擁有互換性。

FEATURES

High Supporting Force: The gap between the plunger and the collet is expanded to improve its overall performance, resulting in a higher supporting force.
Cutting Fluid Cleaning Countermeasures: To prevent improper operation caused by high-pressure coolant and chip dust from entering the internal structure, air cleaning can be performed in the exhaust hole when replacing the workpiece. Air cleaning requires a specific air pressure circuit (recommended cleaning air pressure at 0.3~0.5MPa).
Universal piping base: The CSP series is compatible and interchangeable with Japanese branded cylinders that are currently on the market.

液壓上升型：

活塞桿初始狀態為下降，供給油壓使活塞桿上升並接觸工件任意位置後停止，在停止的同時油壓作用於夾套的夾緊力施加於活塞桿，使活塞桿得以穩固的支撐工件。

Hydraulic Pressure Rising Type:

The initial state of the piston rod is down. When the oil pressure is supplied, the piston rod rises and stops once contact is made with the workpiece at any position. During this period, the hydraulic pressure on the collet can grip the plunger with stronger power to generate the supporting force.

彈簧上升型：

活塞桿初始狀態為上升，將工件放置於活塞桿上因工件的重量而下降到特定距離，此時供給油壓作用於夾套的夾緊力施加於活塞桿，使活塞桿得以穩固的支撐工件。

Spring Rising Type:

The initial state of the piston rod is up, and the workpiece is placed on the piston rod and dropped to a certain distance due to the weight of the workpiece. During this period, the hydraulic pressure on the collet can grip the plunger with stronger power to generate the supporting force.

接觸力與流量及壓力關係

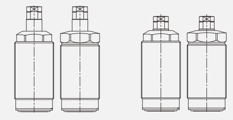
Unit:kgf

規 格	油壓(MPa) / 流量(L/min)	3	4	5	6	7
CSP-26	5	0.2	0.2	0.2	0.2	0.2
	7	0.4	0.6	0.6	0.6	0.6
	10	1	1.2	1.2	1.2	1.2
CSP-30	5	0.4	0.4	0.4	0.4	0.4
	7	1.6	1.8	1.6	1.6	1.6
	10	3.4	3.4	3.4	3.6	3.6
CSP-36	5	0.2	0.2	0.2	0.2	0.2
	7	2	2	2.2	2	2
	10	2.4	2.4	2.4	2.4	2.4
CSP-45	5	0.6	0.4	0.4	0.4	0.4
	7	3.4	3.2	3.4	3.4	3.2
	10	4	4.2	4.4	4.2	4.2

測試條件為距離油缸4mm～5mm之最大接觸力

訂購標示法 ORDERING INDICATION

示例：CSP-30BLK(MH)

CSP	系列 Series	CSP		
30	油缸外徑 Oil cylinder external diameter	M26×1.5 M30×1.5	M36×1.5 M45×1.5	
B	型式 Type	A: 彈簧上升型 B: 液壓上升型(標準)	A: Spring rising type B: Hydraulic rising type (standard)	 彈簧上升型 液壓上升型
L	壓強 Pressure	低壓7MPa	Low pressure 7MPa	
K	版式 Format	K: K Type P: P Type		
M	氣檢式 Air sensing type	無記號：標準型 M:帶氣檢	Unmarked: Standard type M： Air sensing type	
H	活塞彈簧力 Piston spring force	無記號 :標準型 H: 強彈簧(訂購前請來電諮詢)	Unmarked: Standard type H: Strong spring (please call for consultation before ordering)	

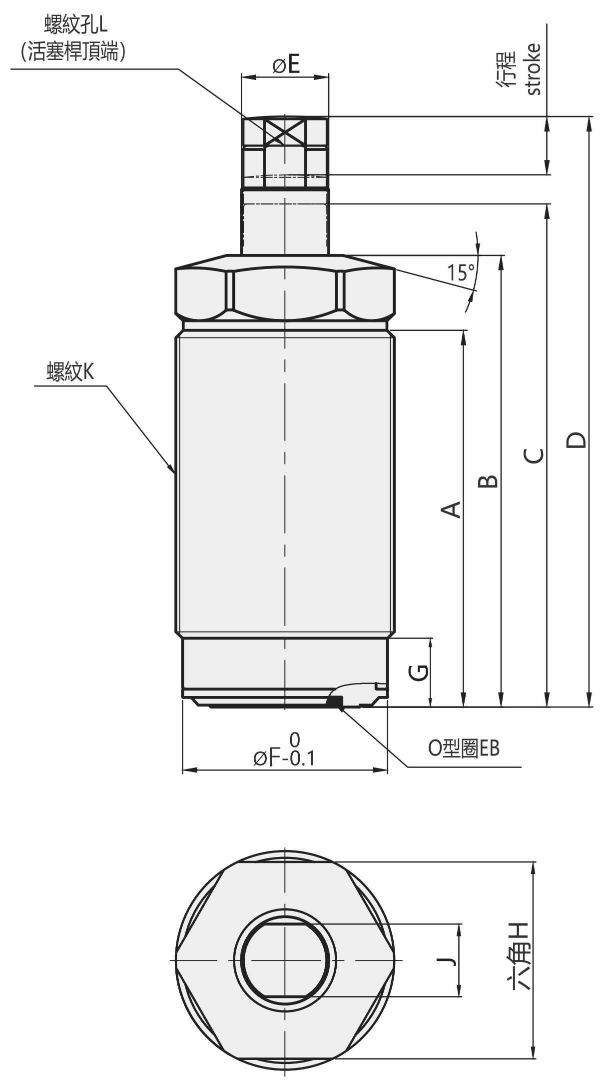
規格參數表 SPECIFICATION

型號 MODEL	工件支撐力（油壓為7MPa時）※1 WORKPIECE SUPPORT FORCE (WHEN OIL PRESSURE IS 7MPA) (kgf)	油缸流量 OIL CYLINDER FLOW（cm³）	上升彈簧力 ※2 RISING SPRING FORCE※2（kgf）	活塞桿行程 PISTON ROD STROKE (mm)	最高使用壓力 MAXIMUM WORKING PRESSURE（MPa）	最低使用壓力 MINIMUM WORKING PRESSURE（MPa）	保證耐壓 ENSURE OVERPRESSURE -RESISTANT（MPa）	使用溫度 OPERATING TEMPERATURE（℃）	質量 Quality (kg)
CSP-26	300	0.5	0.2～0.4	6.5	7	2.5	10.5	0～70	0.2
CSP-30	400	0.7	0.4～0.6	8	7	2.5	10.5	0～70	0.3
CSP-36	550	0.8	0.3～0.5	8	7	2.5	10.5	0～70	0.4
CSP-45	950	2.3	0.3～0.6	10	7	2.5	10.5	0～70	0.7

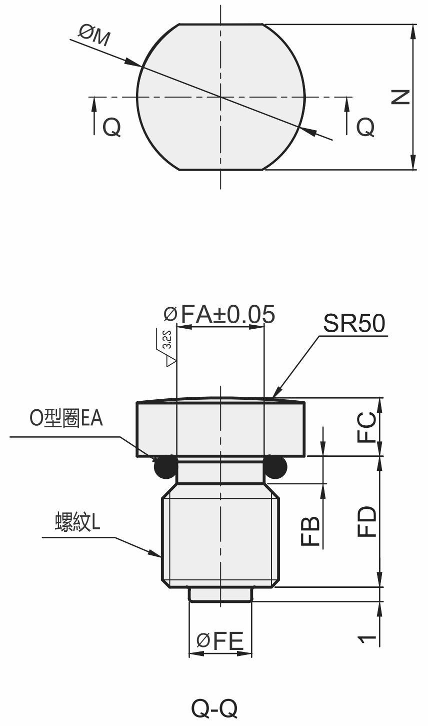
使用流體：普通礦物油基液壓油（相當於ISO-VG32）
※1:將支撐缸與夾緊缸對置使用時,為了使支撐力足夠,所使用的支撐缸支撐力應該為夾緊缸與切削負荷的1.5倍以上,請選擇型號匹配的支撐缸與夾緊缸。
※2:活塞桿上升彈簧力的數值表示彈簧設計值。該值會因活塞桿的滑動阻力、彈簧特性等而產生一定的偏差,所以上升彈簧力為參考值。

Recommended： ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
※ 1: When the support clamp and cylinder clamp are used opposite from each other, the supporting force must be 1.5 times the amount of the clamping force and cutting load in order for the support clamp to work sufficiently. Please check the compatibility of the support clamp and cylinder clamp when selecting parts.
※ 2: The plunger spring force indicates the spring design value. It may vary depending on sliding resistance of the plunger and characteristic of the spring, etc. Please use the rising spring force as a reference value.

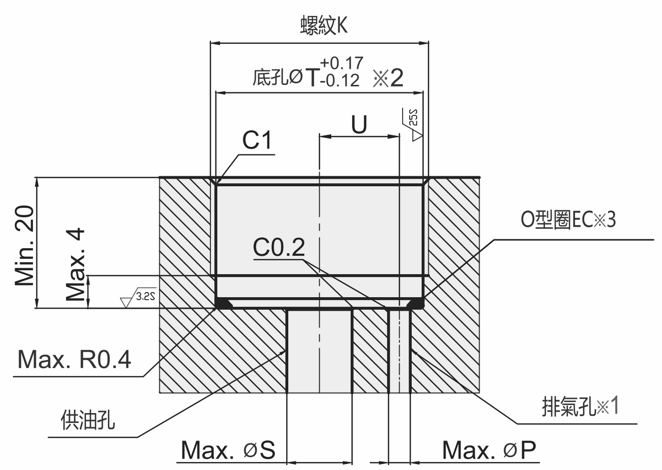
CSP-ALK油壓支撐缸外型尺寸圖



帽蓋詳圖



安裝孔加工圖



注意事項:

※1:排氣孔必須向大氣開放，且應注意防止冷卻液、切屑粉塵等侵入缸體內部。
※2:安裝孔底面最大表面粗糙度應加工在3.2S以下。
※3:附帶的O型圈EC要安裝到安裝孔內。

NOTE:

※: Vent hole must be open to the atmosphere, and attention should be paid to prevent coolant, chip dust and other intrusions into the cylinder body interior.
※2: The maximum surface roughness of the bottom of the installation hole shall be processed below 3.2S.
※3: The attached O-ring EC should be installed in the installation hole.

CSP-ALK油壓支撐缸外型尺寸及安裝部位加工尺寸表

Unit:mm

型號 Model No	CSP-26ALK	CSP-30ALK	CSP-36ALK	CSP-45ALK
A	48.2	51.7	49.7	59.2
B	57	62	58	71
C	63	69	65	78
D	72.5	81	77	92
ØE	10	12	15	16
ØF	24.3	28.2	34.2	43.2
G	8.4	9.4	9.4	9
H	24	27	32	41
J（活塞桿對邊寬）	8	10	13	13
K（公稱直徑X螺距）	M26X1.5	M30X1.5	M36X1.5	M45X1.5
L（公稱直徑X螺距）	M6X1	M8X1.25	M10X1.5	M10X1.5
ØM	9.5	11.5	12.5	12.5
N（對邊寬）	8	10	11	11
ØP	2.6	3	3	3
ØS	7.5	9	9	9
ØT	24.5	28.5	34.5	43.5
U	9	11	13	16
ØFA	4.5	6	7.8	7.8
FB	1.5	1.9	1.9	1.9
FC	3	4	4	4
FD	7.5	9	9	9
ØFE	3.5	4.3	5	5
O型圈EA（氟橡膠 硬度Hs70）	S5	S6	S8	S8
O型圈EB（氟橡膠 硬度Hs90）	AS568-013	AS568-014	AS568-014	AS568-015
O型圈EC（氟橡膠 硬度Hs90）	AS568-020	AS568-022	AS568-026	AS568-030

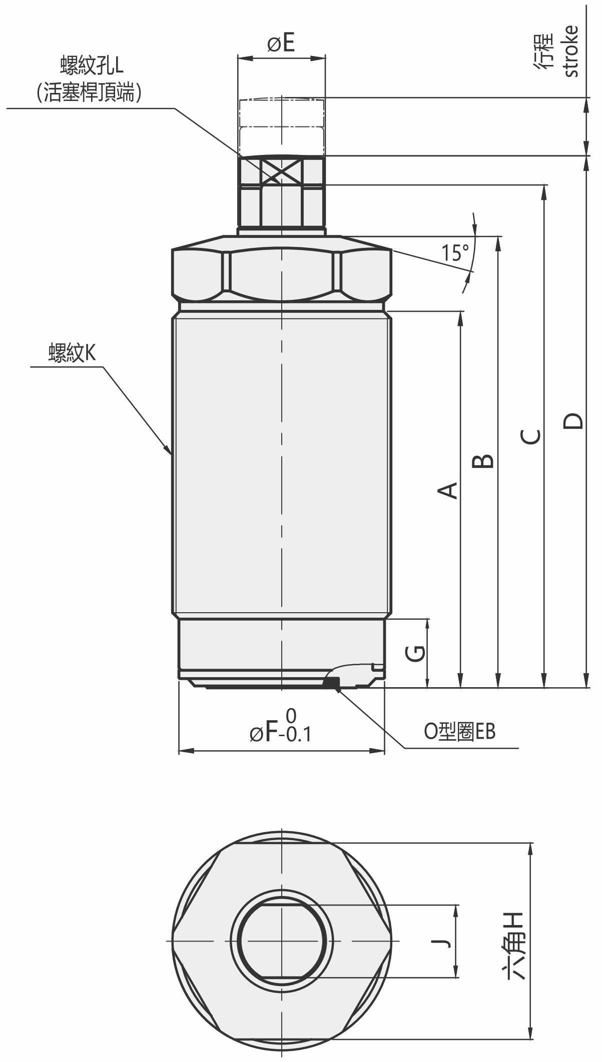
注意事項:

1、請務必安裝帽蓋，否則工件接觸彈簧將無法支撐工件，用戶自製帽蓋時，請參照帽蓋詳圖，設置O型圈槽，請務必使用附帶的O型圈，否則冷卻液等異物會入侵缸體內部，導致動作異常等故障。
2、用戶自製升起彈簧時，本公司不保證活塞桿正確作動。
3、如果O型圈破損或丟失，請務必參照型錄上的O型圈規格，不可任意更換其他O型圈尺寸，若有需要請向本公司業務聯繫。
4、輕量工件及薄型工件的情況下，請根據需求臨時固定工件，否則會有工件被頂起的現象。
5、空氣清潔迴路使用後，務必卸載氣壓，否則可能造成無法復位。
6、如果活塞桿上升速度過快，會造成活塞桿接觸工件時出現反彈的現象，並在回彈位置處夾緊，使活塞桿與工件之間產生間隙或形成衝擊，導致內部零件損壞。請通過單向流量控制閥來調整活塞桿的上升動作速度，以使其上升動作時間在0.5～1秒以上，並確認活塞桿與工件之間沒有間隙與衝擊情況後再投入使用。
7、請使用啟開壓力為0.1MPa以下的帶單向閥的流量調整閥。如果閥的啟開壓力過高，釋放時活塞桿就無法復位。

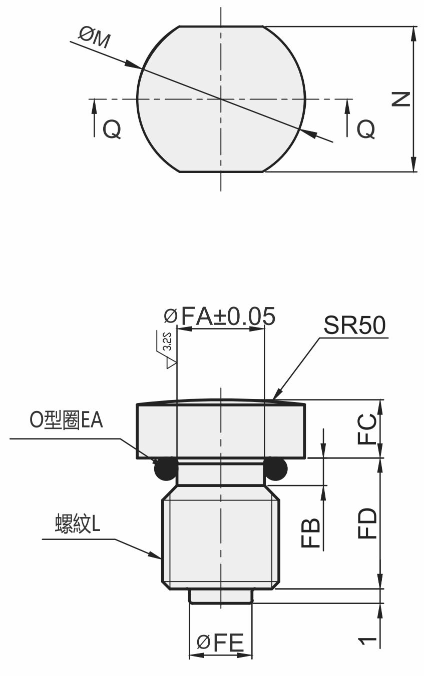
NOTE:

1、Be sure to install the cap. Otherwise, the workpiece will not be able to support the workpiece in contact with the spring. When the user makes the cap, please refer to the Cap Detailed Drawing and set O-ring groove. Please be sure to use the attached O-ring. Otherwise, foreign bodies such as coolant will intrude into the cylinder body and cause abnormal operation and other faults.
2、The Company does not guarantee the correct action of the piston rod when the user makes the rising spring by himself.
3、If the O-ring is damaged or lost, please refer to the specifications of O-ring in the catalogue, and do not change other O-ring sizes arbitrarily. If necessary, please contact our Company.
4、In the case of light and thin workpiece, please fix the workpiece temporarily according to the demand, otherwise the workpiece will be damaged.
5、The return of cleaning air pressure will cause the piston rod to be unable to reset if air is supplied all the time.
6、If the piston rod rising speed is too fast, it will cause the phenomenon of rebound when the piston rod contacts the workpiece, and clamp at the rebound position, which will cause the gap or impact between the piston rod and the workpiece, leading to the damage of the internal parts. Please adjust the rising speed of the piston rod through one-way flow control valve so that the rising action time is more than 0.5-1 second, and confirm that there is no gap and impact between the piston rod and workpiece before putting into use.
7、Please use a flow control valve with a one-way valve under the opening pressure below 0.1MPa. If the opening pressure of the valve is too high, the piston rod cannot be reset when released.

CSP-BLK油壓支撐缸外型尺寸圖

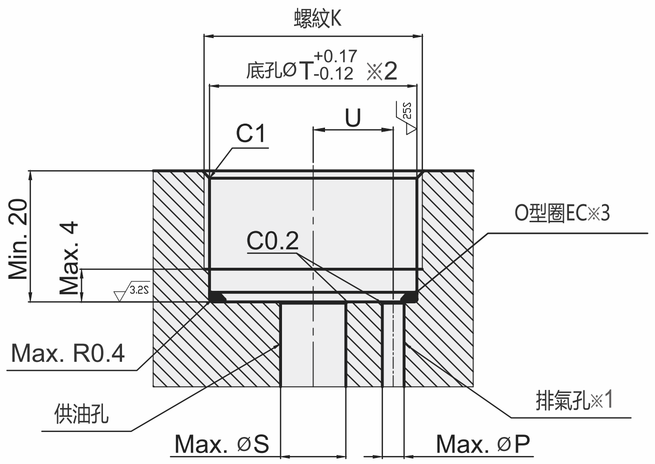


帽蓋詳圖



Q-Q

安裝孔加工圖



注意事項:

※1:排氣孔必須向大氣開放，且應注意防止冷卻液、切屑粉塵等侵入缸體內部。

※2:安裝孔底面最大表面粗糙度應加工在3.2S以下。

※3:附帶的O型圈EC要安裝到安裝孔內。

NOTE:

※1: Vent hole must be open to the atmosphere, and attention should be paid to prevent coolant, chip dust and other intrusions into the cylinder body interior.

※2: The maximum surface roughness of the bottom of the installation hole shall be processed below 3.2S.

※3: The attached O-ring EC should be installed in the installation hole.

CSP-BLK油壓支撐缸外型尺寸及安裝部位加工尺寸表

Unit:mm

型號 Model No	CSP-26BLK	CSP-30BLK	CSP-36BLK	CSP-45BLK
A	48.2	51.7	49.7	59.2
B	57	62	58	71
C	63	69	65	78
D	66	73	69	82
ØE	10	12	15	16
ØF	24.3	28.2	34.2	43.2
G	8.4	9.4	9.4	9
H	24	27	32	41
J（活塞桿對邊寬）	8	10	13	13
K（公稱直徑X螺距）	M26X1.5	M30X1.5	M36X1.5	M45X1.5
L（公稱直徑X螺距）	M6X1	M8X1.25	M10X1.5	M10X1.5
ØM	9.5	11.5	12.5	12.5
N（對邊寬）	8	10	11	11
ØP	2.6	3	3	3
ØS	7.5	9	9	9
ØT	24.5	28.5	34.5	43.5
U	9	11	13	16
ØFA	4.5	6	7.8	7.8
FB	1.5	1.9	1.9	1.9
FC	3	4	4	4
FD	7.5	9	9	9
ØFE	3.5	4.3	5	5
O型圈EA（氟橡膠 硬度Hs70）	S5	S6	S8	S8
O型圈EB（氟橡膠 硬度Hs90）	AS568-013	AS568-014	AS568-014	AS568-015
O型圈EC（氟橡膠 硬度Hs90）	AS568-020	AS568-022	AS568-026	AS568-030

注意事項:

1、請務必安裝帽蓋，否則工件接觸彈簧將無法支撐工件，用戶自製帽蓋時，請參照帽蓋詳圖，設置O型圈槽，請務必使用附帶的O型圈，否則冷卻液等異物會入侵缸體內部，導致動作異常等故障。

2、用戶自製升起彈簧時，本公司不保證活塞桿正確作動。

3、如果O型圈破損或丟失，請務必參照型錄上的O型圈規格，不可任意更換其他O型圈尺寸，若有需要請向本公司業務聯繫。

4、輕量工件及薄型工件的情況下，請根據需求臨時固定工件，否則會有工件被頂起的現象。

5、空氣清潔迴路使用後，務必卸載氣壓，否則可能造成無法復位。

6、如果活塞桿上升速度過快，會造成活塞桿接觸工件時出現反彈的現象，並在回彈位置處夾緊，使活塞桿與工件之間產生間隙或形成衝擊，導致內部零件損壞。請通過單向流量控制閥來調整活塞桿的上升動作速度，以使其上升動作時間在0.5～1秒以上，並確認活塞桿與工件之間沒有間隙與衝擊情況後再投入使用。

7、請使用啟開壓力為0.1MPa以下的帶單向閥的流量調整閥。如果閥的啟開壓力過高，釋放時活塞桿就無法復位。

NOTE:

1、Be sure to install the cap. Otherwise, the workpiece will not be able to support the workpiece in contact with the spring. When the user makes the cap, please refer to the Cap Detailed Drawing and set O-ring groove. Please be sure to use the attached O-ring. Otherwise, foreign bodies such as coolant will intrude into the cylinder body and cause abnormal operation and other faults.

2、The Company does not guarantee the correct action of the piston rod when the user makes the rising spring by himself.

3、If the O-ring is damaged or lost, please refer to the specifications of O-ring in the catalogue, and do not change other O-ring sizes arbitrarily. If necessary, please contact our Company.

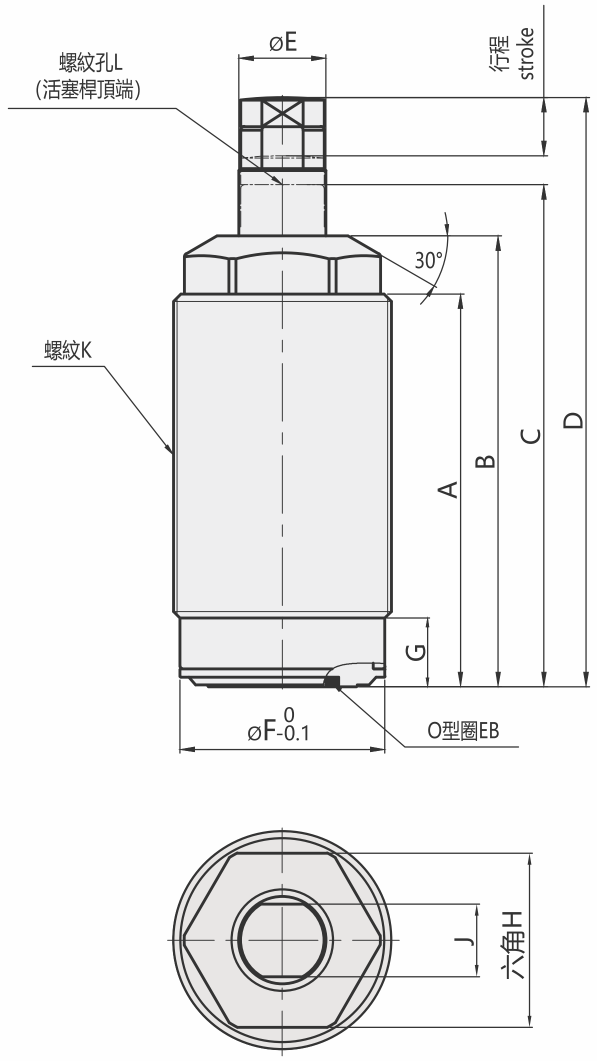
4、In the case of light and thin workpiece, please fix the workpiece temporarily according to the demand, otherwise the workpiece will be damaged.

5、The return of cleaning air pressure will cause the piston rod to be unable to reset if air is supplied all the time.

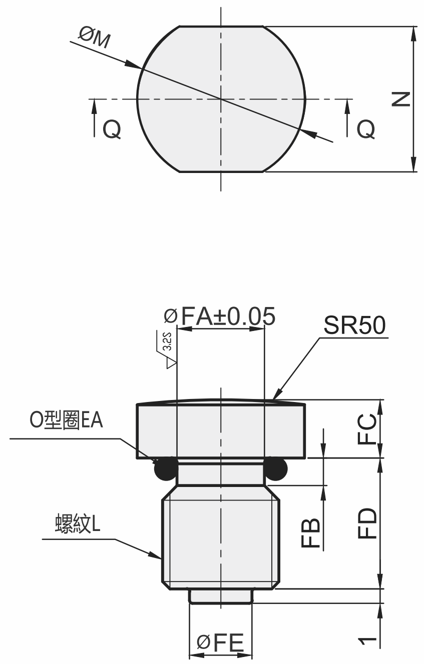
6、If the piston rod rising speed is too fast, it will cause the phenomenon of rebound when the piston rod contacts the workpiece, and clamp at the rebound position, which will cause the gap or impact between the piston rod and the workpiece, leading to the damage of the internal parts. Please adjust the rising speed of the piston rod through one-way flow control valve so that the rising action time is more than 0.5-1 second, and confirm that there is no gap and impact between the piston rod and workpiece before putting into use.

7、Please use a flow control valve with a one-way valve under the opening pressure below 0.1MPa. If the opening pressure of the valve is too high, the piston rod cannot be reset when released.

CSP-ALP油壓支撐缸外型尺寸圖

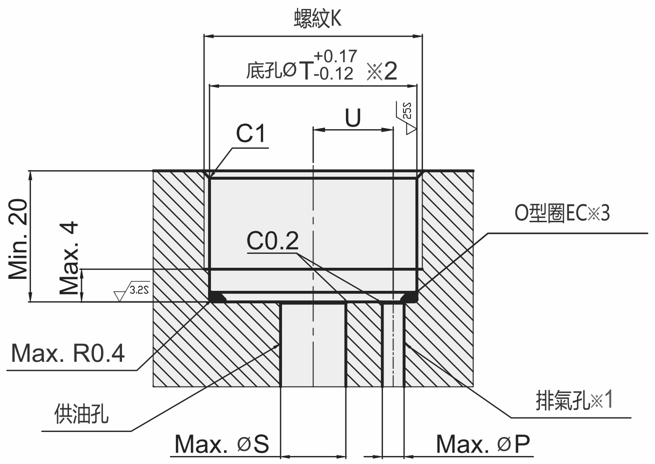


帽蓋詳圖



Q-Q

安裝孔加工圖



注意事項：

※1:排氣孔必須向大氣開放，且應注意防止冷卻液、切屑粉塵等侵入缸體內部。
※2:安裝孔底面最大表面粗糙度應加工在3.2S以下。
※3:附帶的O型圈EC要安裝到安裝孔內。

NOTE:

※1: Vent hole must be open to the atmosphere, and attention should be paid to prevent coolant, chip dust and other intrusions into the cylinder body interior.
※2: The maximum surface roughness of the bottom of the installation hole shall be processed below 3.2S.
※3: The attached O-ring EC should be installed in the installation hole.

CSP-ALP油壓支撐缸外型尺寸及安裝部位加工尺寸表

Unit:mm

型號 Model No	CSP-26ALP	CSP-30ALP	CSP-36ALP	CSP-45ALP
A	49	54	48	60
B	57	62	58	71
C	63	69	65	78
D	72.5	81	77	92
ØE	10	12	15	16
ØF	24.3	28.2	34.2	43.2
G	8.4	9.4	9.5	9.4
H	22	24	30	36
J（活塞桿對邊寬）	8	10	13	13
K（公稱直徑X螺距）	M26X1.5	M30X1.5	M36X1.5	M45X1.5
L（公稱直徑X螺距）	M6X1	M8X1.25	M10X1.5	M10X1.5
ØM	9.5	11.50	12.50	12.5
N（對邊寬）	8	10	11	11
ØP	2.6	3	3	3
ØS	7.5	9	9	9
ØT	24.5	28.5	34.5	43.5
U	9	11	13	16
ØFA	4.5	6	7.8	7.8
FB	1.5	1.9	1.9	1.9
FC	3	4	4	4
FD	7.5	9	9	9
ØFE	3.5	4.3	5	5
O形圈EA（氟橡膠 硬度Hs70）	S5	S6	S8	S8
O形圈EB（氟橡膠 硬度Hs90）	AS568-013	AS568-014	AS568-014	AS568-015
O形圈EC（氟橡膠 硬度Hs90）	AS568-020	AS568-022	AS568-026	AS568-030

注意事項：

1、請務必安裝帽蓋，否則工件接觸彈簧將無法支撐工件，用戶自製帽蓋時，請參照帽蓋詳圖，設置O型圈槽，請務必使用附帶的O型圈，否則冷卻液等異物會入侵缸體內部，導致動作異常等故障。
2、用戶自製升起彈簧時，本公司不保證活塞桿正確作動。
3、如果O型圈破損或丟失，請務必參照型錄上的O型圈規格，不可任意更換其他O型圈尺寸，若有需要請向本公司業務聯繫。
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5、空氣清潔迴路使用後，務必卸載氣壓，否則可能造成無法復位。
6、如果活塞桿上升速度過快，會造成活塞桿接觸工件時出現反彈的現象，並在回彈位置處夾緊，使活塞桿與工件之間產生間隙或形成衝擊，導致內部零件損壞。請通過單向流量控制閥來調整活塞桿的上升動作速度，以使其上升動作時間在0.5～1秒以上，並確認活塞桿與工件之間沒有間隙與衝擊情況後再投入使用。
7、請使用啟開壓力為0.1MPa以下的帶單向閥的流量調整閥。如果閥的啟開壓力過高，釋放時活塞桿就無法復位。

NOTE:

1、Be sure to install the cap. Otherwise, the workpiece will not be able to support the workpiece in contact with the spring. When the user makes the cap, please refer to the Cap Detailed Drawing and set O-ring groove. Please be sure to use the attached O-ring. Otherwise, foreign bodies such as coolant will intrude into the cylinder body and cause abnormal operation and other faults.
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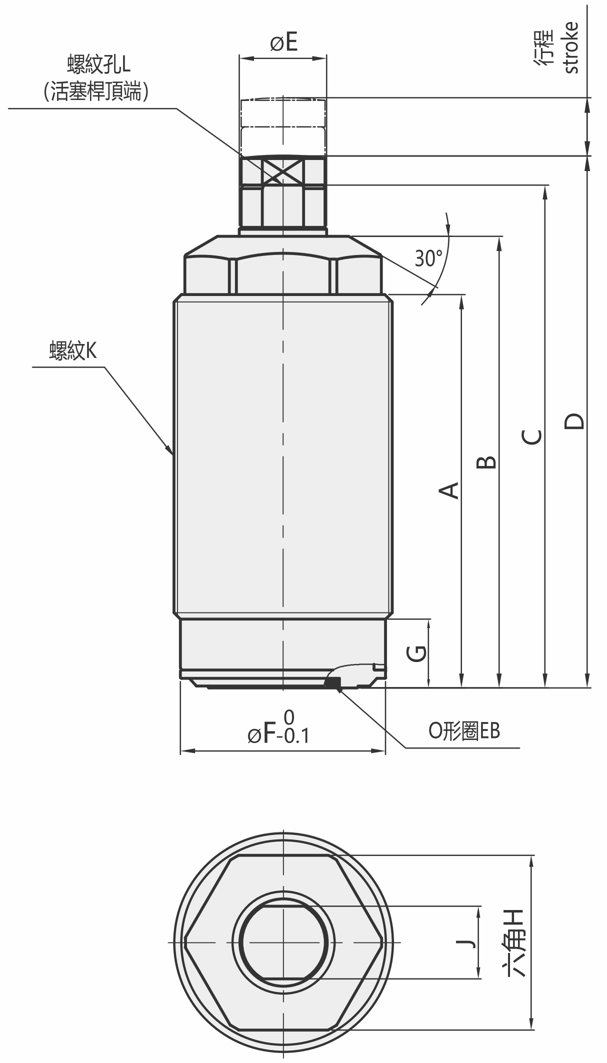
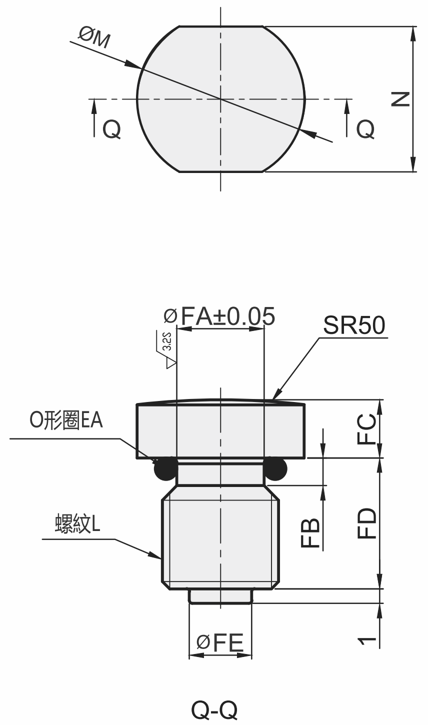
3、If the O-ring is damaged or lost, please refer to the specifications of O-ring in the catalogue, and do not change other O-ring sizes arbitrarily. If necessary, please contact our Company.
4、In the case of light and thin workpiece, please fix the workpiece temporarily according to the demand, otherwise the workpiece will be damaged.
5、The return of cleaning air pressure will cause the piston rod to be unable to reset if air is supplied all the time.
6、If the piston rod rising speed is too fast, it will cause the phenomenon of rebound when the piston rod contacts the workpiece, and clamp at the rebound position, which will cause the gap or impact between the piston rod and the workpiece, leading to the damage of the internal parts. Please adjust the rising speed of the piston rod through one-way flow control valve so that the rising action time is more than 0.5-1 second, and confirm that there is no gap and impact between the piston rod and workpiece before putting into use.
7、Please use a flow control valve with a one-way valve under the opening pressure below 0.1MPa. If the opening pressure of the valve is too high, the piston rod cannot be reset when released.

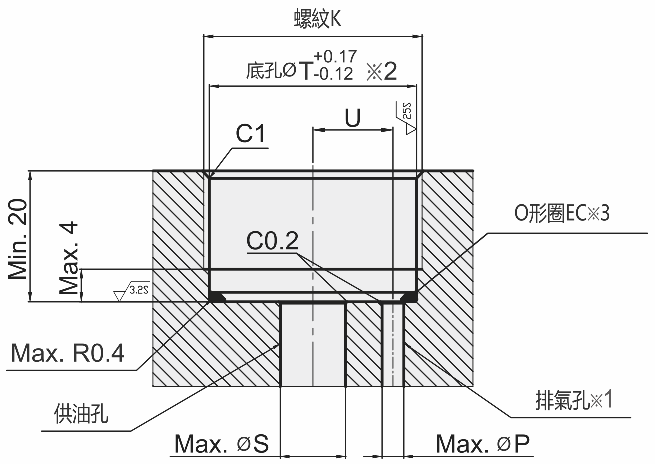
CSP-BLP油壓支撐缸外型尺寸圖



帽蓋詳圖



安裝孔加工圖



注意事項:

※1:排氣孔必須向大氣開放，且應注意防止冷卻液、切屑粉塵等侵入缸體內部。

※2:安裝孔底面最大表面粗糙度應加工在3.2S以下。

※3:附帶的O型圈EC要安裝到安裝孔內。

NOTE:

※1: Vent hole must be open to the atmosphere, and attention should be paid to prevent coolant, chip dust and other intrusions into the cylinder body interior.

※2: The maximum surface roughness of the bottom of the installation hole shall be processed below 3.2S.

※3: The attached O-ring EC should be installed in the installation hole.

CSP-BLP油壓支撐缸外型尺寸及安裝部位加工尺寸表

Unit:mm

型號 Model No	CSP-26BLP	CSP-30BLP	CSP-36BLP	CSP-45BLP
A	49	54	48	60
B	57	62	58	71
C	63	69	65	78
D	66	73	69	82
ØE	10	12	15	16
ØF	24.3	28.2	34.2	43.2
G	8.4	9.4	9.5	9.4
H	22	24	30	36
J（活塞桿對邊寬）	8	10	13	13
K（公稱直徑X螺距）	M26X1.5	M30X1.5	M36X1.5	M45X1.5
L（公稱直徑X螺距）	M6X1	M8X1.25	M10X1.5	M10X1.5
ØM	9.5	11.5	12.5	12.5
N（對邊寬）	8	10	11	11
ØP	2.6	3	3	3
ØS	7.5	9	9	9
ØT	24.5	28.5	34.5	43.5
U	9	11	13	16
ØFA	4.5	6	7.8	7.8
FB	1.5	1.9	1.9	1.9
FC	3	4	4	4
FD	7.5	9	9	9
ØFE	3.5	4.3	5	5
O形圈EA（氟橡膠 硬度Hs70）	S5	S6	S8	S8
O形圈EB（氟橡膠 硬度Hs90）	AS568-013	AS568-014	AS568-014	AS568-015
O形圈EC（氟橡膠 硬度Hs90）	AS568-020	AS568-022	AS568-026	AS568-030

注意事項:

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7、請使用啟閉壓力為0.1MPa以下的帶單向閥的流量調整閥。如果閥的啟閉壓力過高，釋放時活塞桿就無法復位。

NOTE:

1、Be sure to install the cap. Otherwise, the workpiece will not be able to support the workpiece in contact with the spring. When the user makes the cap, please refer to the Cap Detailed Drawing and set O-ring groove. Please be sure to use the attached O-ring. Otherwise, foreign bodies such as coolant will intrude into the cylinder body and cause abnormal operation and other faults.

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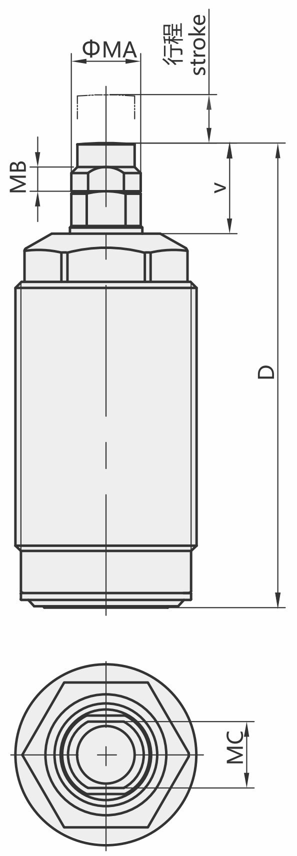
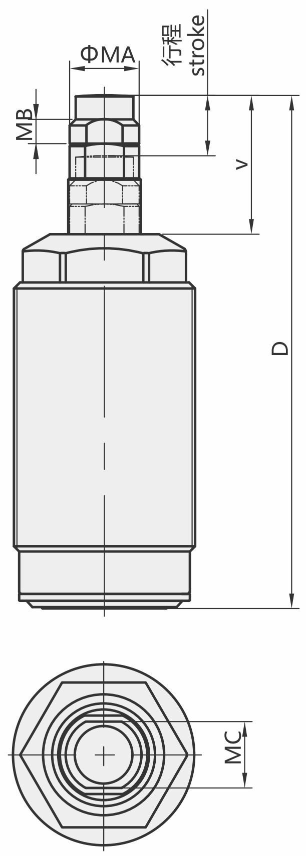
7、Please use a flow control valve with a one-way valve under the opening pressure below 0.1MPa. If the opening pressure of the valve is too high, the piston rod cannot be reset when released.

CSP-□M油壓上頂型 氣檢支撐缸外形尺寸圖

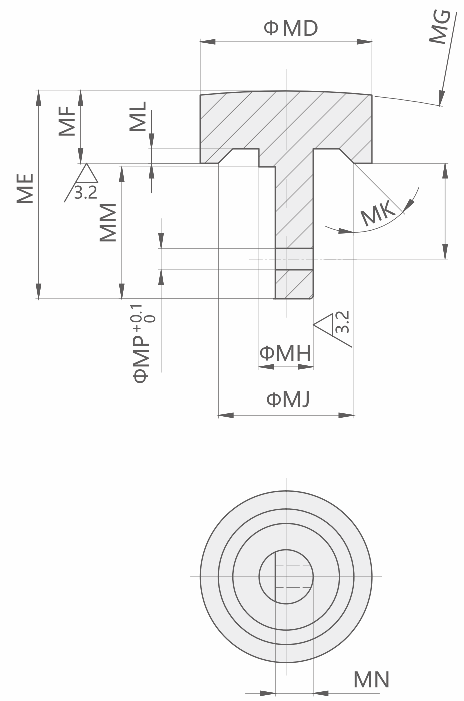


CSP-□M彈簧上頂型 氣檢支撐缸外形尺寸圖

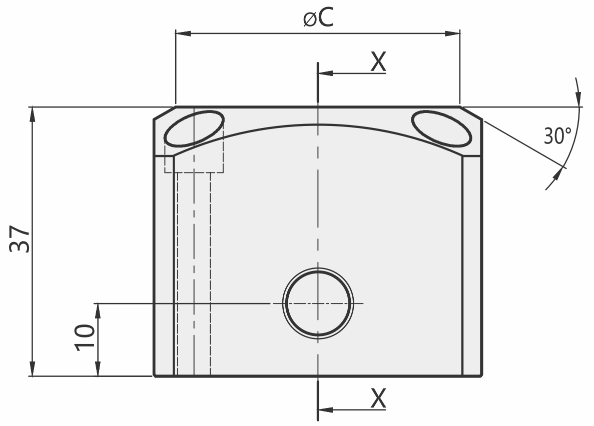


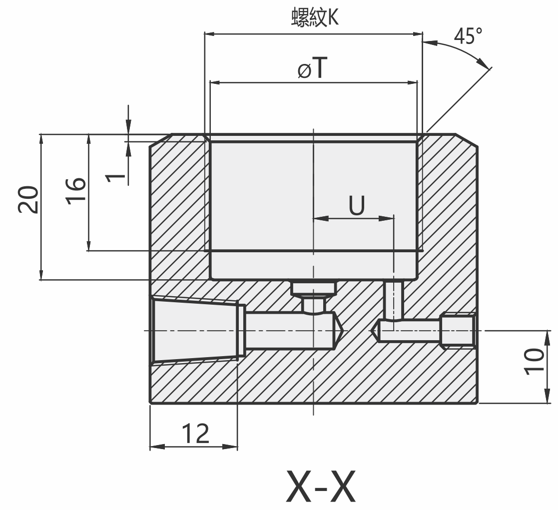
註：其他外形尺寸與非氣檢支撐缸一致

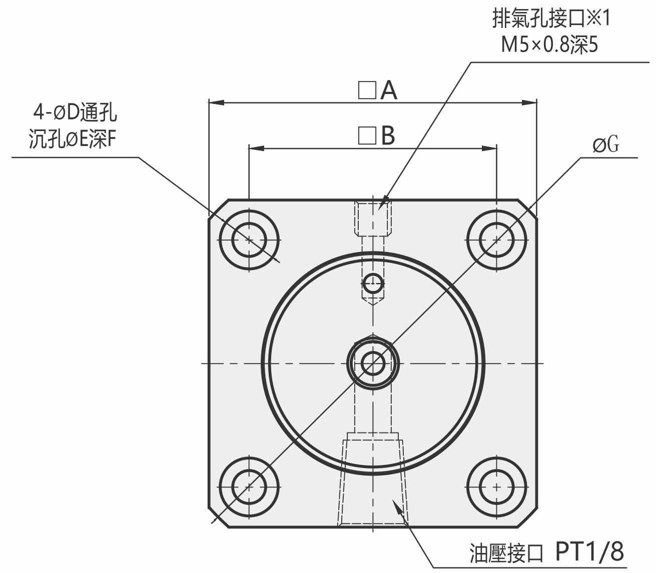
氣檢帽蓋詳圖



CSP-DF配管底座







注意事項:

※1: 冷卻液、切屑等有可能從排氣孔進入時，請接上配管。

NOTE:

※1: When coolant and chips are likely to enter through the vent holes, please connect the piping.

CSP-□M油壓氣檢支撐缸外形尺寸及氣檢帽蓋尺寸

Unit:mm

型號 Model No		CSP-26□M	CSP-30□M	CSP-36□M	CSP-45□M
行程stroke		6.5	8	8	10
D	CSP-□A□M	75.5	85	81	96
	CSP-□B□M	69	77	73	86
V	CSP-□A□M	18.5	23	23	25
	CSP-□B□M	12	15	15	15
MA		9	11.5	12.5	12.5
MB		3	4	4	4
MC		8	10	11	11
MD		8	9.5	10.5	10.5
ME		12.5	11.5	11.5	11.5
MF		3	4	4	4
MG		SR30	SR30	SR50	SR50
MH		2.5g7	3g7	4g7	5g7
MJ		6	7.5	8.5	8.5
MK		20°	45°	45°	45°
ML		0.8	0.8	0.8	0.8
MM		9.3	7.3	7.3	7.3
MN		1.7	2.1	3.2	3.2
MP		1.4	1.2	1.2	1.2
MQ		7.5	5.3	5.3	5.3

註意事項 1.氣檢回路推薦氣壓0.03～0.15Mpa，推薦使用SMC的ISA2-G、ISA3-G空氣傳感器；
2.因氣檢氣壓或拆卸工件等原因導致支撐桿退回動作遲緩時，可以在支撐桿退回動作中暫時切斷氣路供給。

CSP-DF油壓支撐缸配管式安裝座尺寸表

Unit:mm

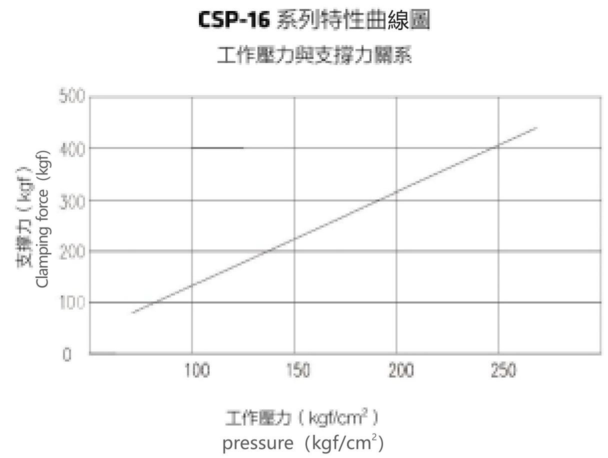
型號 Model No	CSP-26DF	CSP-30DF	CSP-36DF	CSP-45DF
A	40	45	51	60
B	29	34	38	47
ØC	34	39	45	54
ØD	4.5	4.5	5.5	5.5
ØE	8	8	9	9
F	9	9	12	12
ØG	54	60	68	80
K(公稱直徑X螺距)	M26X1.5	M30X1.5	M36X1.5	M45X1.5
ØT	24.5	28.5	34.5	43.5
U	9	11	13	16

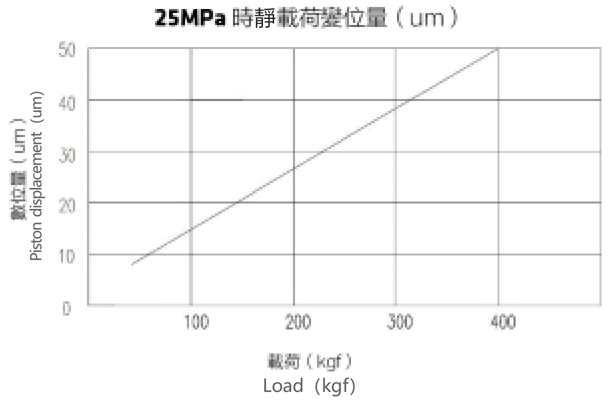
CSP

油壓支撐缸(高壓)

CSP HYDRAULIC SUPPORT CLAMP (HIGH PRESSURE)

CSP-16B





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並且停止。

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

FEATURES

TypeA:The initial state of the piston rod is down. When the oil pressure is supplied, the piston rod rises and stops once contact is made with the workpiece at any position. During this period, the hydraulic pressure on the collet can grip the plunger with stronger power to generate the supporting force.
TypeB:The initial state of the piston rod is up, and the workpiece is placed on the piston rod and dropped to a certain distancedue to the weight of the workpiece. During this period, the hydraulic pressure on the collet can grip the plunger with stronger power to generate the supporting force.

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

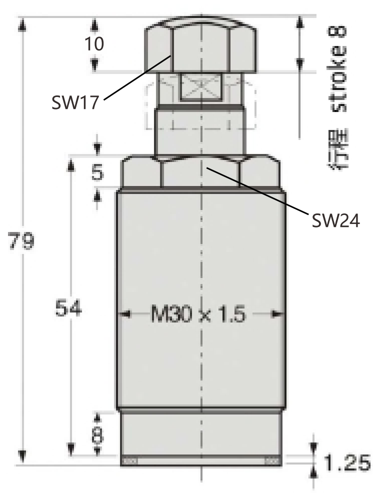
注意事項

支撐力與轉角缸的支撐力要相匹配,
支撐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
安裝時蓋可能垂直於工作面，傾斜勿超過10°
如操作壓力大於250kgf/cm²,請來電洽詢

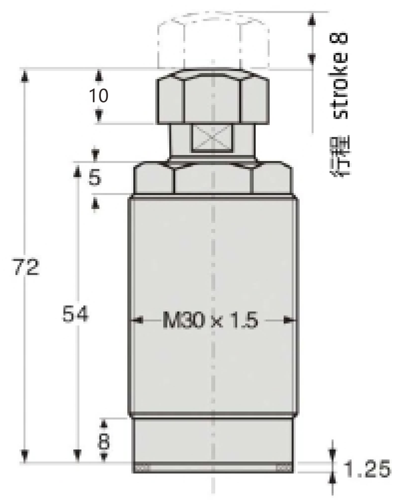
NOTE

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 f low and avoid clamping it too early.Install the supporting cylinder in the middle place best.The angle degree between the supporting cylinder and working force could not be larger than 10% while installing.
Please contact us when the operating pressure exceed 250kgf/cm².

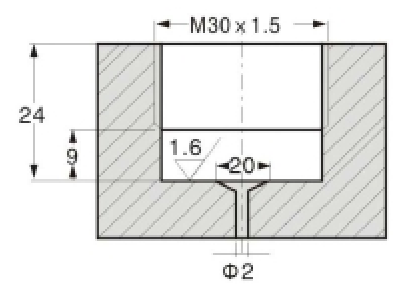
CSP-16A



CSP-16B



安裝尺寸



訂購標示法 ORDERING INDICATION

示例：CSP-16A

CSP	系列 Seriés	CSP	
16	油塞桿徑 Piston rod diameter	Φ16	
A	型式 Type	A:Type A	B:Type B

規格參數表 SPECIFICATIONS

型號 MODEL	理論支撐力(250 kgf/cm²) CLAMPING FORCE AT 250 kgf/cm² (kgf)	理論支撐力 (100 kgf/cm²) CLAMPING FORCE AT 100 kgf/cm² (kgf)	總行程 TOTAL STROKE(mm)	油壓容積 OIL CAPACITY CLAMP(cm³)	活塞桿面積 OIL CAPACITY UNCLAMP(cm³)	使用流體 USABLE FLUID
CSP-16A	410	140	8	0.60	2.01	相當於 ISO 黏度等級 的 ISO-VG-32 一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CSP-16B	410	140	8	0.60	2.01	

CSF
上法蘭油壓支撐缸

CSF HYDRAULIC SUPPORT CLAMP

產品特性

★高支撐力：提高了活塞桿與夾套間的夾緊力，從而產生更高的工件支撐力。
★切削液清潔對策：為防止高壓冷卻液及切屑粉塵侵入內部結構而引發的作動不良，更換工件時可在排氣孔進行空氣清潔。空氣清潔需要專用的氣壓回路。（建議清潔氣壓0.3～0.5MPa）

FEATURES

High Supporting Force: The gap between the plunger and the collet is expanded to improve its overall performance, resulting in a higher supporting force.
To prevent improper operation caused by high-pressure coolant and chip dust from entering the internal structure, air cleaning can be performed in the exhaust hole when replacing the workpiece. Air cleaning requires a specific air pressure circuit (recommended cleaning air pressure at 0.3~0.5MPa).

液壓上升型：
活塞桿初始狀態為下降，供給油壓使活塞桿上升並接觸工件任意位置後停止，在停止的同時油壓作用於夾套的夾緊力施加於活塞桿，使活塞桿得以穩固的支撐工件。

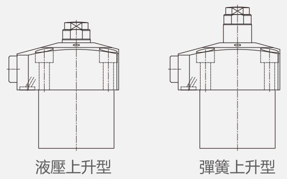
Hydraulic Pressure Rising Type:
The initial state of the piston rod is down. When the oil pressure is supplied, the piston rod rises and stops once contact is made with the workpiece at any position. During this period, the hydraulic pressure on the collet can grip the plunger with stronger power to generate the supporting force.

彈簧上升型：
活塞桿初始狀態為上升，將工件放置於活塞桿上因工件的重量而下降到特定距離，此時供給油壓作用於夾套的夾緊力施加於活塞桿，使活塞桿得以穩固的支撐工件。

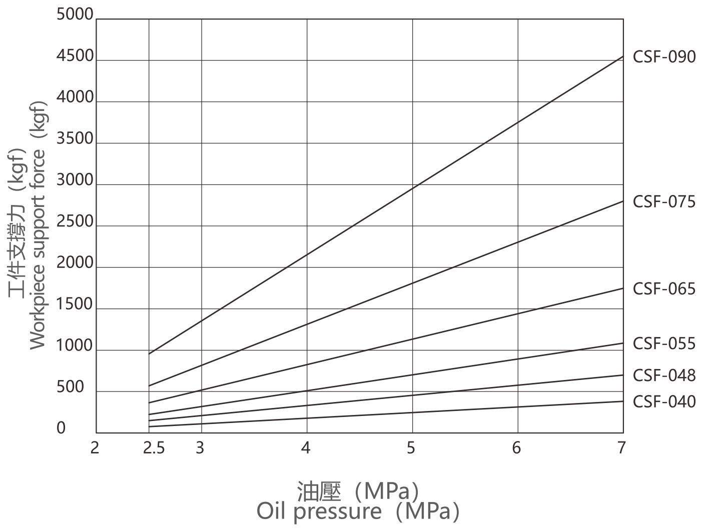
Spring Rising Type:
The initial state of the piston rod is up, and the workpiece is placed on the piston rod and dropped to a certain distance due to the weight of the workpiece. During this period, the hydraulic pressure on the collet can grip the plunger with stronger power to generate the supporting force.

訂購標示法 ORDERING INDICATION

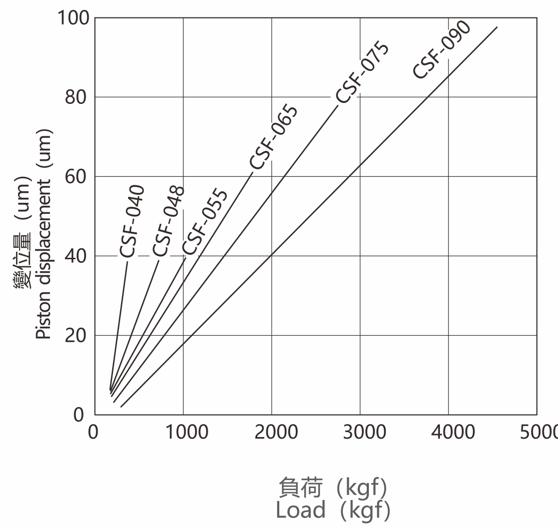
示例：CSF-040BLG

CSF	系列 Series	CSF		
040	油缸外徑 Oil cylinder external diameter	040=Ø40mm 048=Ø48mm	055=Ø55mm 065=Ø65mm	075=Ø75mm 090=Ø90mm
B	型式 Type	A :彈簧上升型 B :液壓上升型(標準)	A:Spring rising type B:Hydraulic rising type (standard)	
L	壓強 Pressure	低壓7MPa	Low pressure 7MPa	
G	版式 Type	G :油路板式(配有G螺紋堵頭) S :配管式(PT螺紋)	G: Manifold type (with G thread plug) S: Line type (PT thread)	

油壓與工件支撐力的關係



負荷與變位量的關係



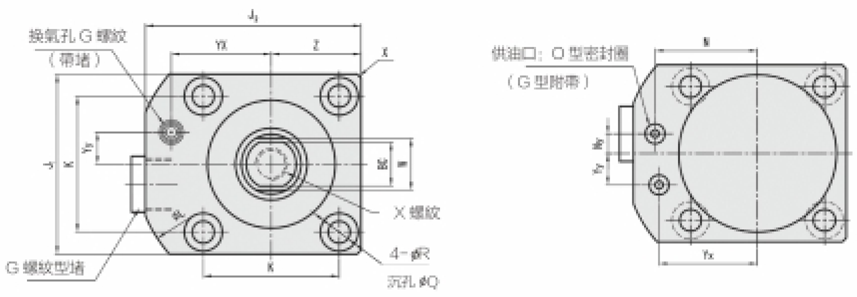
規格參數表 SPECIFICATIONS

型號 MODEL	工件支撐力（油壓為7MPa時）※1 WORKPIECE SUPPORT FORCE (WHEN OIL PRESSURE IS 7MPA)（kgf）	油缸流量 OIL CYLINDER FLOW（cm^3）	上升彈簧力 ※2 RISING SPRING FORCE※2（kgf）	活塞桿行程 PISTON ROD STROKE（mm）	最高使用壓力 MAXIMUM WORKING PRESSURE（MPa）	最低使用壓力 MINIMUM WORKING PRESSURE（MPa）	保證耐壓 ENSURE OVERPRESSURE -RESISTANT（MPa）	使用溫度 OPERATING TEMPERATURE（℃）	質量 Quality（kg）
CSF-040	385	1.2	0.5~0.8	8	7	2.5	10.5	0～70	0.6
CSF-048	700	2	0.6~1.0	10	7	2.5	10.5	0～70	0.9
CSF-055	1085	3.3	0.8~1.5	12	7	2.5	10.5	0～70	1.4
CSF-065	1750	4.8	1.0~1.5	14	7	2.5	10.5	0～70	2.2
CSF-075	2800	8.9	1.3~1.9	16	7	2.5	10.5	0～70	3.6
CSF-090	4550	13.1	1.5~2.1	20	7	2.5	10.5	0～70	6

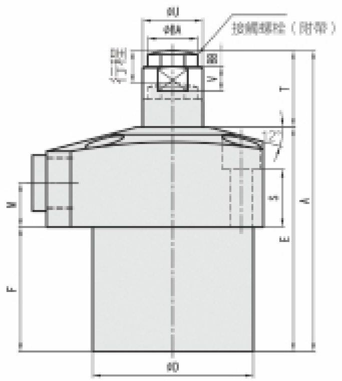
使用流體：普通礦物油基液壓油（相當於ISO-VG32)
※1:將支撐缸與夾緊缸對置使用時,為了使支撐力足夠,所使用的支撐缸支撐力應該為夾緊缸與切削負荷的1.5倍以上,請選擇型號匹配的支撐缸與夾緊缸。
※2:活塞桿上升彈簧力的數值表示彈簧設計值。該值會因活塞桿的滑動阻力、彈簧特性等而產生一定的偏差,所以上升彈簧力為參考值。

Recommended： ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
※ 1: When the support clamp and cylinder clamp are used opposite from each other, the supporting force must be 1.5 times the amount of the clamping force and cutting load in order for the support clamp to work sufficiently. Please check the compatibility of the support clamp and cylinder clamp when selecting parts.
※ 2: The plunger spring force indicates the spring design value. It may vary depending on sliding resistance of the plunger and characteristic of the spring, etc. Please use the rising spring force as a reference value.

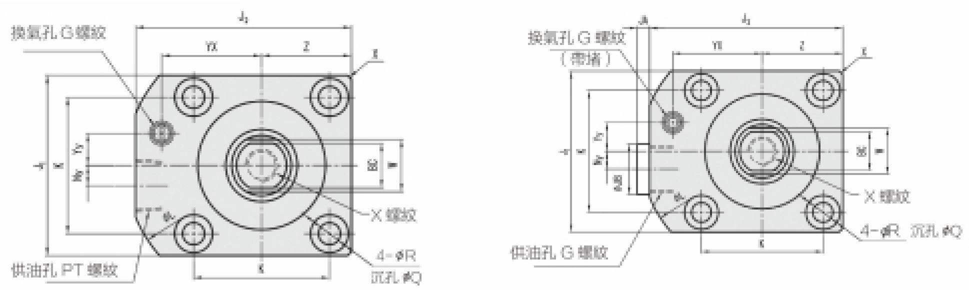
本圖所示為***AL-G型



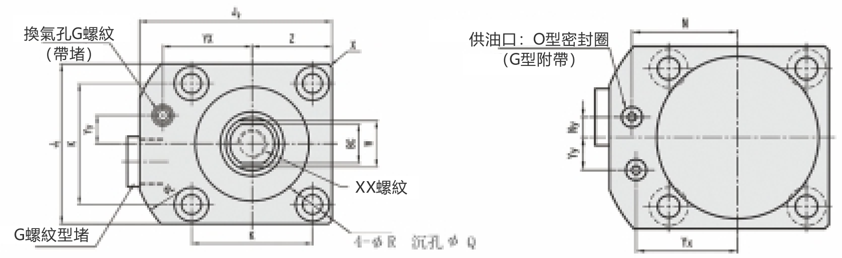
CSF-AL



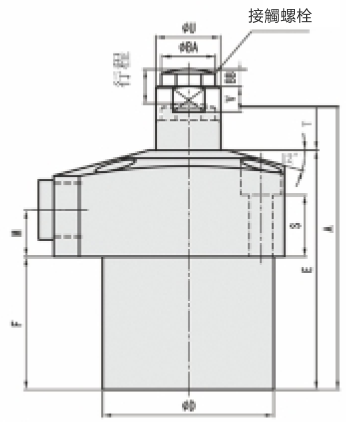
本圖所示為***AL-S型



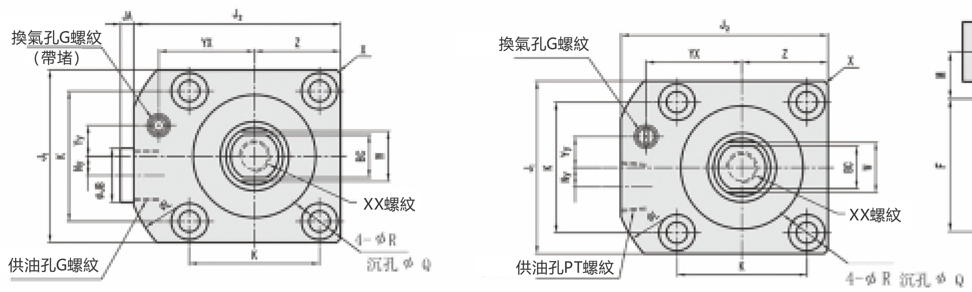
本圖所示為***BL-G型



CSF-BL



本圖所示為***BL-S型



外型尺寸及安裝部位加工尺寸表
External dimensions and machine dimensions for mounting

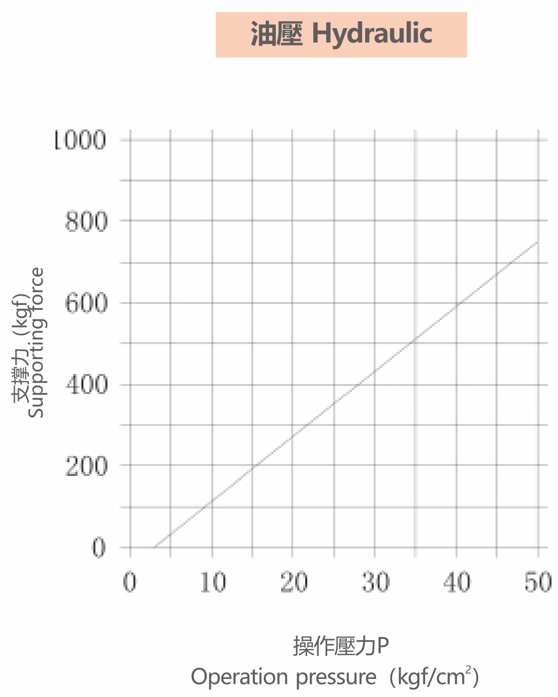
Unit:mm

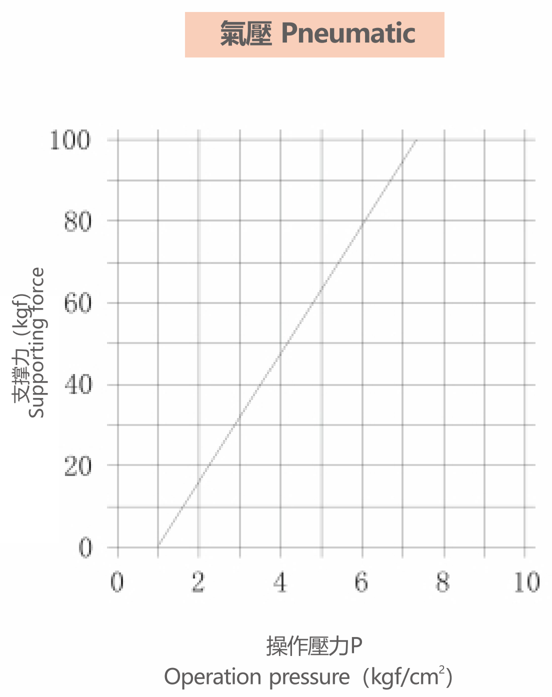
ITEM MODEL		CSF-040AL	CSF-040BL	CSF-048AL	CSF-048BL	CSF-055AL	CSF-055BL	CSF-065AL	CSF-065BL	CSF-075AL	CSF-075BL	CSF-090AL	CSF-090BL
A		75	67	85	75	97	85	115	101	142	126	169	149
B		54	54	61	61	69	69	81	81	92	92	107	107
C		45	45	51	51	60	60	70	70	80	80	95	95
D		40	40	48	48	55	55	65	65	75	75	90	90
E		56	56	64	64	70	70	85	85	107	107	128	128
F		31	31	39	39	45	45	56	56	72	72	88	88
Z		22.5	22.5	25.5	25.5	30	30	35	35	40	40	47.5	47.5
□K		□34	□34	□40	□40	□47	□47	□55	□55	□63	□63	□75	□75
L		68	68	73	73	80	80	94	94	106	106	126	126
M		11	11	11	11	11	11	11	11	13	13	13	13
N		26	26	30	30	33.5	33.5	39.5	39.5	45	45	52.5	52.5
Ny		5	5	0	0	0	0	0	0	0	0	0	0
Q		9.5	9.5	9.5	9.5	11	11	11	11	14	14	17.5	17.5
R		5.5	5.5	5.5	5.5	6.8	6.8	6.8	6.8	9	9	11	11
S		14.5	14.5	13.5	13.5	11.5	11.5	14.5	14.5	17	17	18	18
T		19	11	21	11	27	15	30	16	35	19	41	21
U		15	15	16	16	20	20	22	22	25	25	30	30
V		6	6	6	6	8	8	9	9	9	9	10.5	10.5
W		13	13	13	13	17	17	19	19	22	22	24	24
XX		M10x11	M10x11	M10x11	M10x11	M12x13	M12x13	M12x13	M12x13	M16x20	M16x20	M16x20	M16x20
Yx		25	25	28	28	31	31	37	37	42.5	42.5	50	50
Yy		8	8	11	11	13	13	14	14	15	15	15	15
X		C1	C1	C3	C3	R40	R40	R47	R47	R53	R53	R63	R63
BA		14.5	14.5	15.5	15.5	17	17	20	20	24	24	26	26
BB		5	5	5	5	7	7	7	7	8.2	8.2	8.5	8.5
BC		13	13	14	14	17	17	19	19	22	22	24	24
JA		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
行程ST		8	8	10	10	12	12	14	14	16	16	20	20
JB		14	14	14	14	14	14	14	14	19	19	19	19
供油孔 Hydraulic port	-S type	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/4	PT1/4	PT1/4	PT1/4
	-G type	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G1/4	G1/4
O型密封圈（-G型） O-ring(-G type)		P5	P5	P5	P5	P5	P5	P7	P7	P7	P7	P7	P7
換氣孔Vent port BSPT(Rc-thread)		PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8
G螺紋堵頭 G Screw plug		G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G1/4	G1/4

SP-AH

氣油壓兩用型支撐缸

SP-AH PNEUMATIC /HYDRAULIC SUPPORT CLAMP





訂購標示法 ORDERING INDICATION

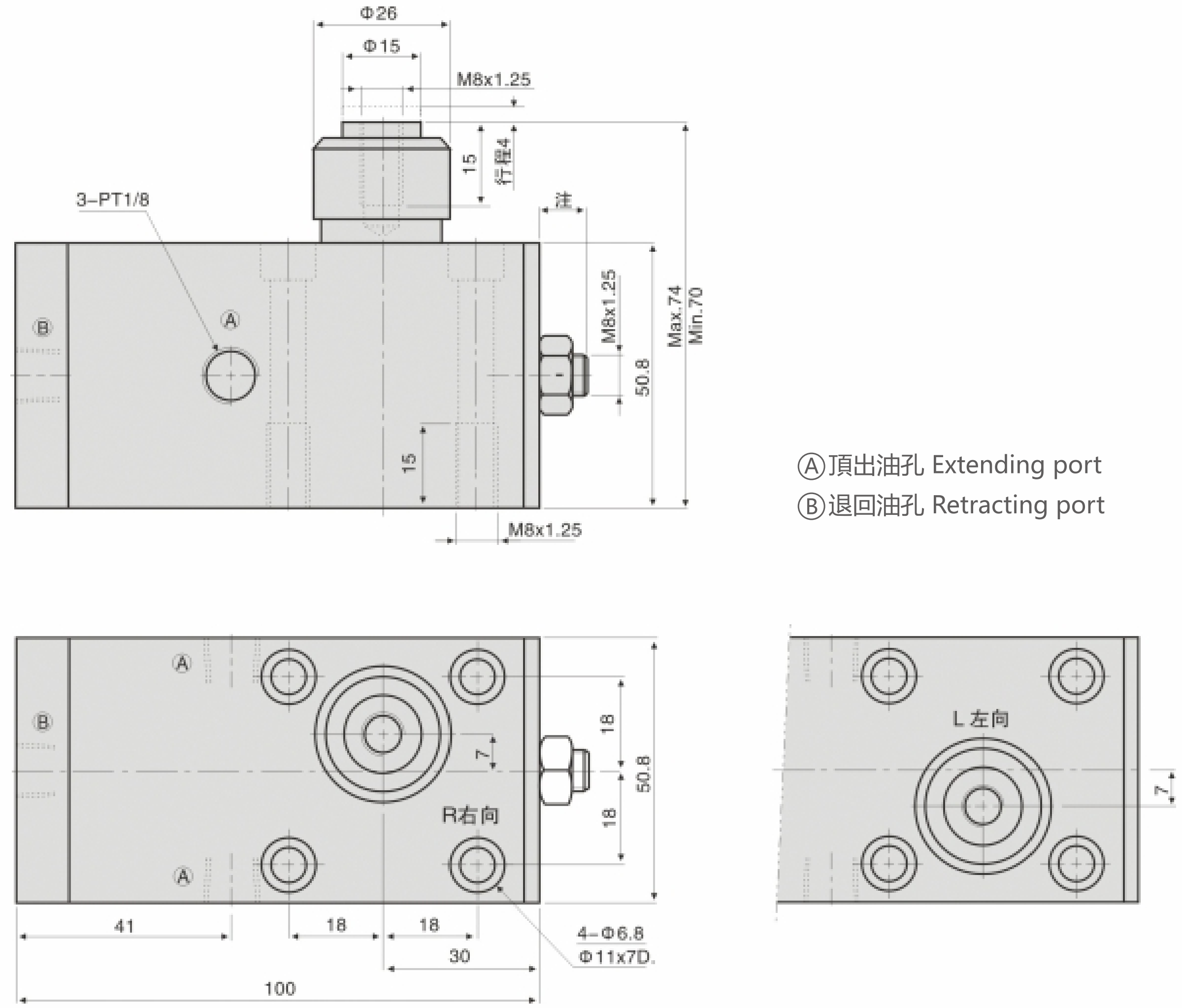
示例：SP-AH18RA

SP	系列 Series	SP
AH	氣油壓兩用型	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 B油壓頂出型	A: Spring extended piston B: Hydraulic extended piston

A：彈簧頂出型，往內調整。
B：油壓頂出型，往外調整。
附A.B型式調整螺絲

A: Spring extended piston rod-adjust inward.
B: Hydraulic extended piston rod-adjust outward.
With A and B type adjusting screw.

使用流體: 相當於黏度等級的ISO-VG-32一般液壓油或過濾之乾燥壓縮空氣
Recommended： ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade or oiled dry clean compressed air.



Ⓐ頂出油孔 Extending port
Ⓑ退回油孔 Retracting port

CLL

油壓緊湊型直線缸

CLL HYDRAULIC COMPACT LINEAR CYLINDER

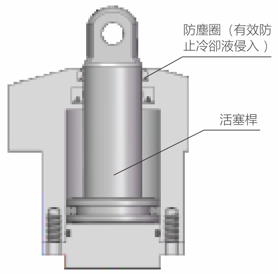
產品特性

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

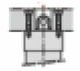
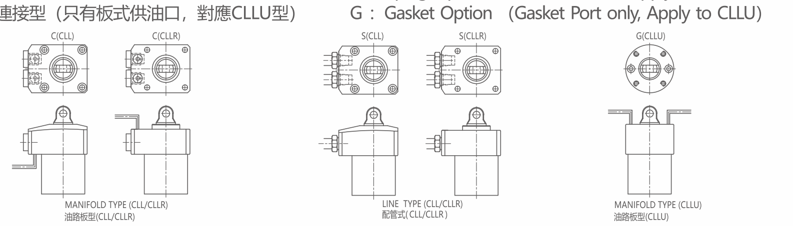
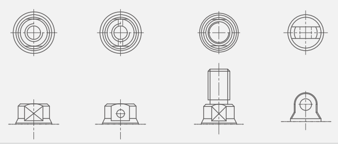
Maximum stroke is available with minimum space.CLL/CLLR/CLLU with 1 mm stroke increments and a variety of styles.

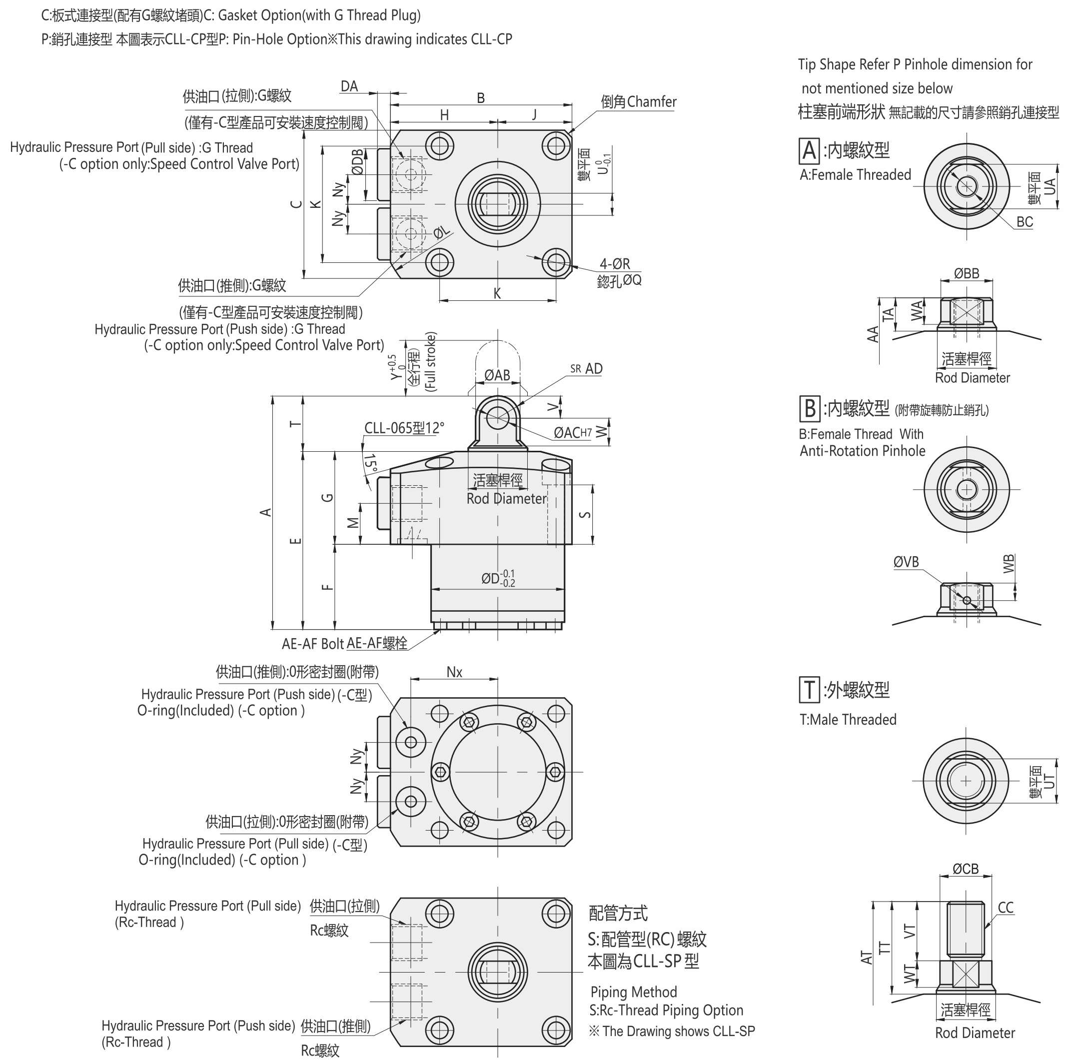
剖面圖 Sectional view



訂購標示法 ORDERING INDICATION

示例：CLL-048CA-050

CLL	系列 Series	CLL
	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)
048	本體尺寸 BodySize	036:ΦD=36 040:ΦD=40 048:ΦD=48 055:ΦD=55 065:ΦD=65 075:ΦD=75 090:ΦD=90 105:ΦD=105 註：ΦD是油缸本體外徑尺寸 Note:ΦD indicates the outer diameter of the Cylinder
C	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（只有板式供油口，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	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 
050	行程 Stroke	



規格參數表 SPECIFICATIONS

型號 MODEL	總行程 Full Stroke Y (㎜)	油缸面積 Cylinder Area(cm²) 推側 Push Side	拉側 Pull Side	油缸輸出力 (計算公式) Cylinder force (Calculation Formula) KN 推側 Push Side	拉側 Pull Side	油缸容量（計算公式) Cylinder Capacity (Calculation Formula) cm³ 推側 Push Side	拉側 Pull Side	油缸內徑 Cylinder inside diameter (mm)	活塞桿徑 Rod Diameter(mm)	最高使用壓力 Max. Operating Pressure(Mpa)	最低動作壓力 Min. Operating Pressure(Mpa)	耐壓 Withstanding Pressure(Mpa)	使用溫度 Operating Temperature (℃)	重量 Weight (kg)
CLL-036	1～50	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	0.6～0.8
CLL-040	1～50	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	0.7～0.9
CLL-048	1～75	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	1.0～1.6
CLL-055	1～75	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	1.3～2.1
CLL-065	1～75	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	1.9～3.1
CLL-075	1～75	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	2.8～4.1
CLL-090	1～75	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	4.3～6.1
CLL-105	1～75	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	5.9～8.0

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

A:內螺紋型 Female Threaded

Unit:mm

型號 Model	CLL-036	CLL-040	CLL-048	CLL-055	CLL-065	CLL-075	CLL-090	CLL-105
AA	57│Y+42	61│Y+46	64│Y+49	68│Y+53	75│Y+60	83│Y+68	93│Y+78	99│Y+84
TA	9	10	11	12	13	15	16	18
UA	12	13	14	17	19	24	30	36
WA	7.5	7.5	8.5	9	10	12	13	15
BB	14	15	17	19	22	27	33	42
BC(名稱×深度) (Nominal×Depth)	M6×12	M8×16	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

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.

全行程 Y=1～14mm時，外形尺寸與行程15mm時的油缸是一樣的（例）
CLL-036□P -010 【Y=10，A=63，E=48，F=23】CLL-036□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.) CLL-036□P-010 [Y=10, A=63, E=48, F=23]CLL-036□P-030 [Y=30, A=78, E=63, F=38]

P:銷孔連接型 Pin-Hole Option

Unit:mm

型號 Model	CLL-036	CLL-040	CLL-048	CLL-055	CLL-065	CLL-075	CLL-090	CLL-105
全行程 Full Stroke Y	1～14│15～50	1～14│15～50	1～14│15～75	1～14│15～75	1～14│15～75	1～14│15～75	1～14│15～75	1～14│15～75
A	63 │Y+48	70│Y+55	74│Y+59	80│Y+65	90 │Y+75	101 │Y+86	114│Y+99	127│Y+112
B	49	54	61	69	81	92	107	122
C	40	45	51	60	70	80	95	110
D	36	40	48	55	65	75	90	105
E	48│Y+33	51│Y+36	53│Y+38	56│Y+41	62 │Y+47	68 │Y+53	77│Y+62	81│Y+66
F	23│Y+8	26│Y+11	25│Y+10	28│Y+13	32 │Y+17	31 │Y+16	37│Y+22	36│Y+21
G	25	25	28	28	30	37	40	45
H	29	31.5	35.5	39	46	52	59.5	67
J	20	22.5	25.5	30	35	40	47.5	55
K	31.4	34	40	47	55	63	75	88
L	66	73	83	88	106	116	136	152
M	11	11	12	12	13	16	16	17
Nx	23.5	26	30	33.5	39.5	45	52.5	60
Ny	8	9	11	12	15	16	18.5	22.5
Q	7.5	9.5	9.5	11	11	14	17.5	20
R	4.5	5.5	5.5	6.8	6.8	9	11	14
S	16	14	15.5	13	15.5	17.5	16.5	17.5
T	15	19	21	24	28	33	37	46
U	6	8	10	11	13	16	19	22
V	6	8	9	10	12	14	16	21
W	7.5	9.5	10.5	12	14	17	19	23
倒角 Chamfer	C2	C3	C3	C3	C4	C5	C6	C6
AB	12	15	17	19	22	27	32	42
AC	$6^{+0.012}_{0}$	$8^{+0.015}_{0}$	$8^{+0.015}_{0}$	$10^{+0.015}_{0}$	$12^{+0.018}_{0}$	$14^{+0.018}_{0}$	$16^{+0.018}_{0}$	$20^{+0.021}_{0}$
AD	6	8	9	10	12	14	16	21
AE	-	-	6	4	6	6	8	10
AF	-	-	M4×0.7	M5×0.8	M5×0.8	M6	M6	M6
DA	3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
DB	14	14	14	14	19	19	22	22
排氣口 Air Bleed Port —C型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
供油口 Hydraulic Port —S型	RC1/8	RC1/8	RC1/8	RC1/8	RC1/4	RC1/4	RC3/8	RC3/8
O型密封圈 O-ring	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

B:內螺紋型（附帶旋轉防止銷孔） Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型號 Model	CLL-036	CLL-040	CLL-048	CLL-055	CLL-065	CLL-075	CLL-090	CLL-105
VB	2	2.5	2.5	2.5	3	4	5	6
WB	5. 5	5	6	6.5	7	8. 5	9	10.5

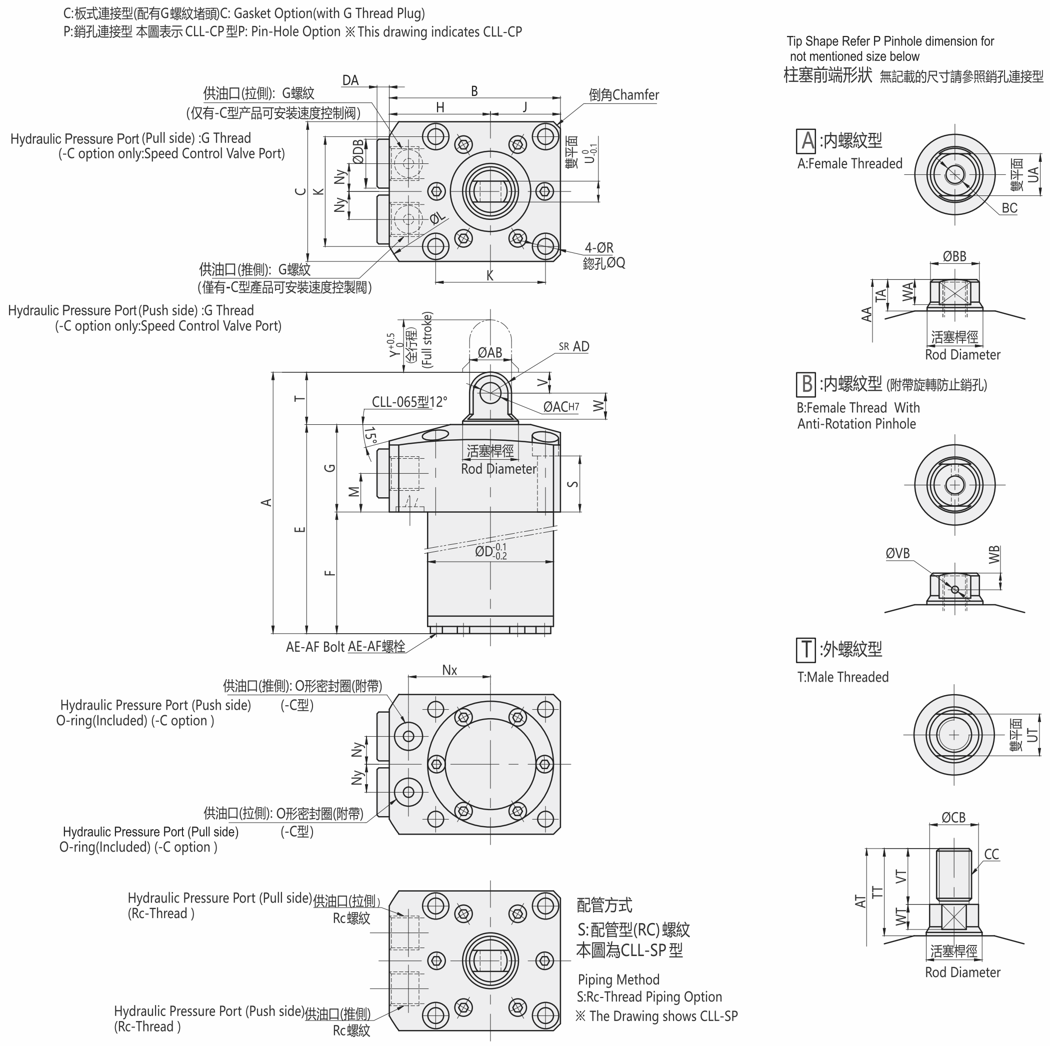
無記載的尺寸請參照P：銷孔連接型。A：內螺紋型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

T:外螺紋型 Male Threaded

Unit:mm

型號 Model	CLL-036	CLL-040	CLL-048	CLL-055	CLL-065	CLL-075	CLL-090	CLL-105
AT	73│Y+58	81│Y+66	88│Y+73	96│Y+81	107│Y+92	118│Y+103	139│Y+124	153│Y+138
TT	25	30	35	40	45	50	62	72
UT	12	14	17	17	19	24	30	36
VT	16	20	24	28	32	35	46	54
WT	7.5	7.5	8.5	9	10	12	13	15
CB	14	17	19	21	24	29	34.5	42
CC(名稱×螺距) (Nominal×Pitch)	M10×1.25	M12×1.25	M14×1.5	M16×1.5	M20×1.5	M24×1.5	M30×1.5	M36×1.5

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.



規格參數表 SPECIFICATIONS

型號	總行程	油缸面積 Cylinder Area(cm²)		油缸輸出力 (計算公式) Cylinder force (Calculation Formula) KN		油缸容量 (計算公式) Cylinder Capacity (Calculation Formula) cm³		油缸內徑	活塞桿徑	最高使用壓力 Max.	最低動作壓力 Min.	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 (℃)	Weight (kg)
CLL-036	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
CLL-040	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
CLL-048	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
CLL-055	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
CLL-065	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
CLL-075	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
CLL-090	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
CLL-105	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

A:內螺紋型 Female Threaded

Unit:mm

型號 Model	CLL-036	CLL-040	CLL-048	CLL-055	CLL-065	CLL-075	CLL-090	CLL-105
AA	Y+57	Y+61	Y+66	Y+69	Y+76	Y+89	Y+100	Y+110
TA	9	10	11	12	13	15	16	18
UA	12	13	14	17	19	24	30	36
WA	7.5	7.5	8.5	9	10	12	13	15
BB	14	15	17	19	22	27	33	42
BC(名稱×深度) (Nominal×Depth)	M6×12	M8×16	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

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.

P:銷孔連接型 Pin-Hole Option

Unit:mm

型號 Model		CLL-036	CLL-040	CLL-048	CLL-055	CLL-065	CLL-075	CLL-090	CLL-105
全行程 Full Stroke Y		51～100	51～100	76～200	76～200	76～200	76～200	76～200	76～200
A		Y+63	Y+70	Y+76	Y+81	Y+91	Y+107	Y+121	Y+138
B		49	54	61	69	81	92	107	122
C		40	45	51	60	70	80	95	110
D		36	40	48	55	65	75	90	105
E		Y+48	Y+51	Y+55	Y+57	Y+63	Y+74	Y+84	Y+92
F		Y+23	Y+26	Y+27	Y+29	Y+33	Y+37	Y+44	Y+47
G		25	25	28	28	30	37	40	45
H		29	31.5	35.5	39	46	52	59.5	67
J		20	22.5	25.5	30	35	40	47.5	55
K		31.4	34	40	47	55	63	75	88
L		66	73	83	88	106	116	136	152
M		11	11	12	12	13	16	16	17
Nx		23.5	26	30	33.5	39.5	45	52.5	60
Ny		8	9	11	12	15	16	18.5	22.5
Q		7.5	9.5	9.5	11	11	14	17.5	20
R		4.5	5.5	5.5	6.8	6.8	9	11	14
S		16	14	15.5	13	15.5	17.5	16.5	17.5
T		15	19	21	24	28	33	37	46
U		6	8	10	11	13	16	19	22
V		6	8	9	10	12	14	16	21
W		7.5	9.5	10.5	12	14	17	19	23
倒角 Chamfer		C2	C3	C3	C3	C4	C5	C6	C6
AB		12	15	17	19	22	27	32	42
AC		$6^{+0.012}_{0}$	$8^{+0.015}_{0}$	$8^{+0.015}_{0}$	$10^{+0.015}_{0}$	$12^{+0.018}_{0}$	$14^{+0.018}_{0}$	$16^{+0.018}_{0}$	$20^{+0.021}_{0}$
AD		6	8	9	10	12	14	16	21
AE		-	-	6	4	6	6	8	10
AF		-	-	M4×0.7	M5×0.8	M5×0.8	M6	M6	M6
DA		3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
DB		14	14	14	14	19	19	22	22
排氣口 Air Bleed Port	—C型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
供油口 Hydraulic Port	—S型	RC1/8	RC1/8	RC1/8	RC1/8	RC1/4	RC1/4	RC3/8	RC3/8
O型密封圈 O-ring		1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

B:內螺紋型（附帶旋轉防止銷孔） Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型號 Model	CLL-036	CLL-040	CLL-048	CLL-055	CLL-065	CLL-075	CLL-090	CLL-105
VB	2	2.5	2.5	2.5	3	4	5	6
WB	5.5	5	6	6.5	7	8.5	9	10.5

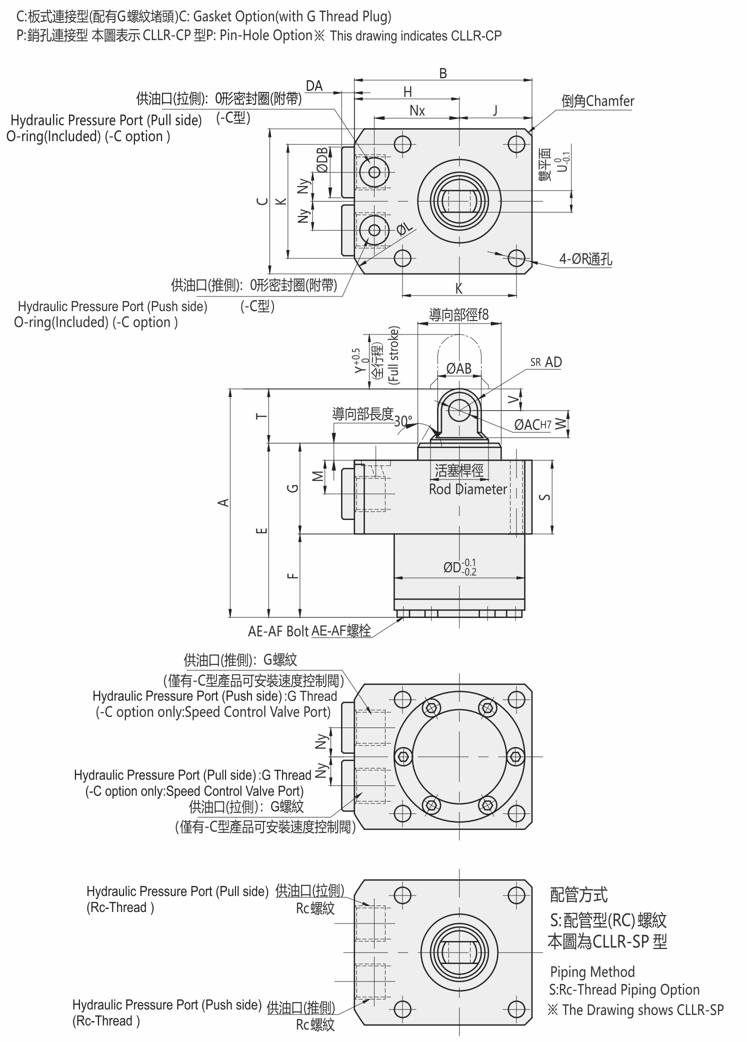
無記載的尺寸請參照P：銷孔連接型。A：內螺紋型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

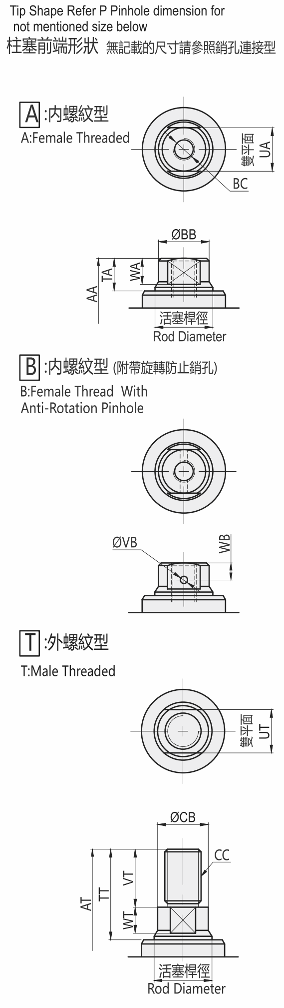
T:外螺紋型 Male Threaded

Unit:mm

型號 Model	CLL-036	CLL-040	CLL-048	CLL-055	CLL-065	CLL-075	CLL-090	CLL-105
AT	Y+73	Y+81	Y+90	Y+97	Y+108	Y+124	Y+146	Y+164
TT	25	30	35	40	45	50	62	72
UT	12	14	17	17	19	24	30	36
VT	16	20	24	28	32	35	46	54
WT	7.5	7.5	8.5	9	10	12	13	15
CB	14	17	19	21	24	29	34.5	42
CC(名稱×螺距) (Nominal×Pitch)	M10×1.25	M12×1.25	M14×1.5	M16×1.5	M20×1.5	M24×1.5	M30×1.5	M36×1.5

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.





規格參數表 SPECIFICATIONS

型號 MODEL	總行程 Full Stroke Y (mm)	油缸面積 Cylinder Area(cm²) 推側 Push Side	油缸面積 拉側 Pull Side	油缸輸出力(計算公式) Cylinder force (Calculation Formula) KN 推側 Push Side	油缸輸出力 拉側 Pull Side	油缸容量(計算公式) Cylinder Capacity (Calculation Formula) cm³ 推側 Push Side	油缸容量 拉側 Pull Side	油缸內徑 Cylinder inside diameter (mm)	活塞桿徑 Rod Diameter(mm)	最高使用壓力 Max. Operating Pressure(Mpa)	最低動作壓力 Min. Operating Pressure(Mpa)	耐壓 Withstanding Pressure(Mpa)	使用溫度 Operating Temperature (℃)	重量 Weight (kg)
CLLR-036	1～50	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	0.6～0.8
CLLR-040	1～50	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	0.7～0.9
CLLR-048	1～75	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	1.0～1.6
CLLR-055	1～75	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	1.3～2.1
CLLR-065	1～75	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	1.9～3.1
CLLR-075	1～75	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	2.8～4.1
CLLR-090	1～75	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	4.3～6.1
CLLR-105	1～75	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	5.9～8.0

A:內螺紋型 Female Threaded

Unit:mm

型號 Model	CLLR-036	CLLR-040	CLLR-048	CLLR-055	CLLR-065	CLLR-075	CLLR-090	CLLR-105
AA	57｜Y+42	61｜Y+46	64｜Y+49	68｜Y+53	75｜Y+60	83｜Y+68	93｜Y+78	99｜Y+84
TA	9	10	11	12	13	15	16	18
UA	12	13	14	17	19	24	30	36
WA	7.5	7.5	8.5	9	10	12	13	15
BB	14	15	17	19	22	27	33	42
BC(名稱×深度) (Nominal×Depth)	M6×12	M8×16	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

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.

全行程 Y=1～14mm時，外形尺寸與行程15mm時的油缸是一樣的（例）CLLR-036□P -010 【Y=10，A=63，E=48，F=23】CLLR-036□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.) CLLR-036□P-010 [Y=10, A=63, E=48, F=23]CLLR-036□P-030 [Y=30, A=78, E=63, F=38]

P:銷孔連接型 Pin-Hole Option

Unit:mm

型號 Model		CLLR-036	CLLR-040	CLLR-048	CLLR-055	CLLR-065	CLLR-075	CLLR-090	CLLR-105
全行程 Full Stroke Y		1～14｜15～50	1～14｜15～50	1～14｜15～75	1～14｜15～75	1～14｜15～75	1～14｜15～75	1～14｜15～75	1～14｜15～75
A		63 ｜Y+48	70｜Y+55	74｜Y+59	80｜Y+65	90｜Y+75	101｜Y+86	114｜Y+99	127｜Y+112
B		49	55	62	69	81	93	108	122
C		40	47	53	60	70	82	97	110
D		36	40	48	55	65	75	90	105
E		48｜Y+33	51｜Y+36	53｜Y+38	56｜Y+41	62｜Y+47	68｜Y+53	77｜Y+62	81｜Y+66
F		23｜Y+8	26｜Y+11	25｜Y+10	28｜Y+13	32｜Y+17	31｜Y+16	37｜Y+22	36｜Y+21
G		25	25	28	28	30	37	40	45
H		29	31.5	35.5	39	46	52	59.5	67
J		20	23.5	26.5	30	35	41	48.5	55
K		31.4	36	41	47	55	64	76	88
L		66	73	83	88	106	116	136	152
M		11	11	12	12	13	16	16	17
Nx		23.5	26	30	33.5	39.5	45	52.5	60
Ny		8	9	11	12	15	16	18.5	22.5
R		4.5	5.5	5.5	6.8	6.8	9	11	14
S		21	21	24	24	26	32	35	39
導向部徑 The Diameter of Mating Fit		$23^{-0.02}_{-0.05}$	$25^{-0.02}_{-0.05}$	$28^{-0.02}_{-0.05}$	$32^{-0.025}_{-0.064}$	$38^{-0.025}_{-0.064}$	$44^{-0.025}_{-0.064}$	$50^{-0.025}_{-0.064}$	$60^{-0.030}_{-0.076}$
導向長度 The Length Of Mating Fit		4	4	4	4	4	5	5	6
T		15	19	21	24	28	33	37	46
U		6	8	10	11	13	16	19	22
V		6	8	9	10	12	14	16	21
W		7.5	9.5	10.5	12	14	17	19	23
倒角 Chamfer		C2	C2	C3	C3	C4	C5	C6	C6
AB		12	15	17	19	22	27	32	42
AC		$6^{+0.012}_{0}$	$8^{+0.015}_{0}$	$8^{+0.015}_{0}$	$10^{+0.015}_{0}$	$12^{+0.018}_{0}$	$14^{+0.018}_{0}$	$16^{+0.018}_{0}$	$20^{+0.021}_{0}$
AD		6	8	9	10	12	14	16	21
AE		-	-	6	4	6	6	8	10
AF		-	-	M4×0.7	M5×0.8	M5×0.8	M6	M6	M6
DA		3.5	3.5	3.5	3.5	4.5	4.5	4.5	4.5
DB		14	14	14	14	19	19	22	22
排氣口 Air Bleed Port	—C型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
供油口 Hydraulic Port	—S型	RC1/8	RC1/8	RC1/8	RC1/8	RC1/4	RC1/4	RC3/8	RC3/8
O型密封圈 O-ring		1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

B:內螺紋型（附帶旋轉防止銷孔） Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型號 Model	CLLR-036	CLLR-040	CLLR-048	CLLR-055	CLLR-065	CLLR-075	CLLR-090	CLLR-105
VB	2	2.5	2.5	2.5	3	4	5	6
WB	5. 5	5	6	6.5	7	8. 5	9	10.5

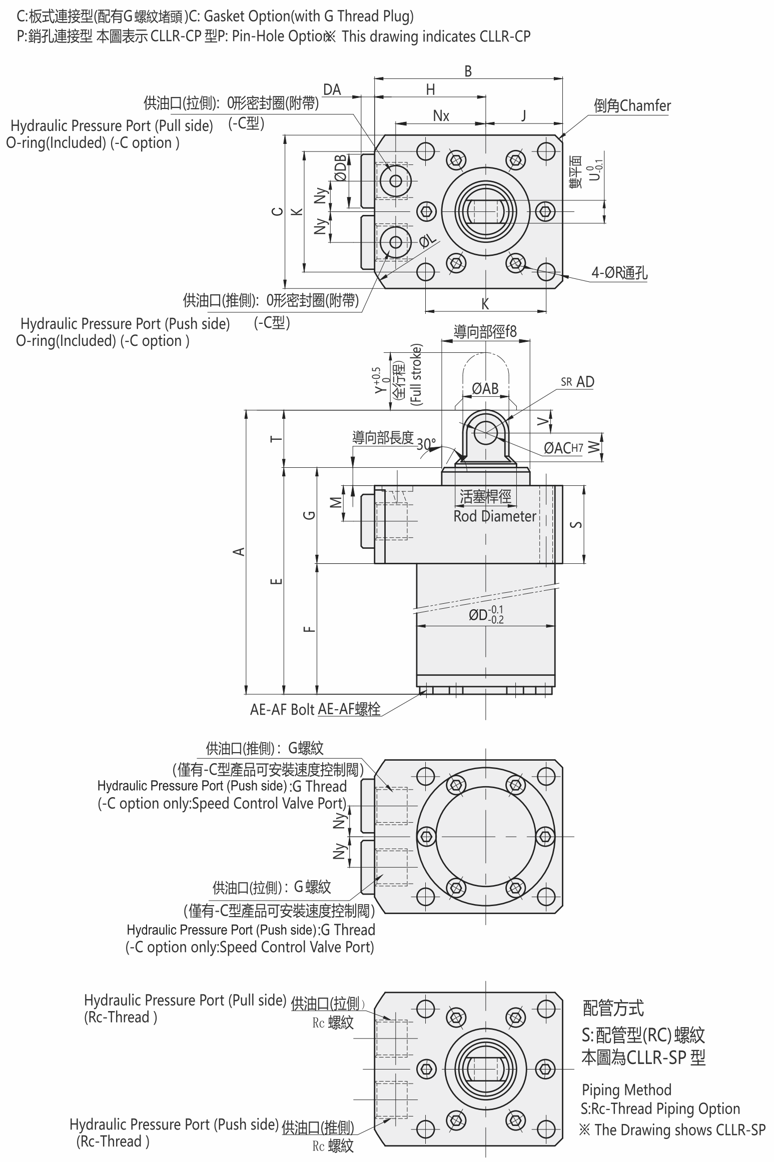
無記載的尺寸請參照P：銷孔連接型。A：內螺紋型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

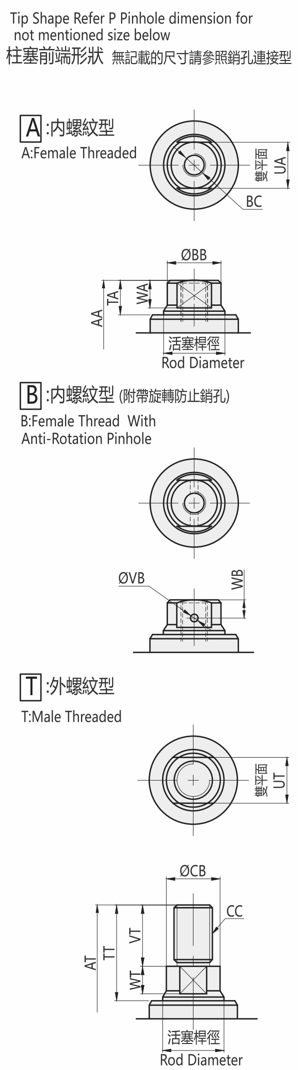
T:外螺紋型 Male Threaded

Unit:mm

型號 Model	CLLR-036	CLLR-040	CLLR-048	CLLR-055	CLLR-065	CLLR-075	CLLR-090	CLLR-105
AT	73｜Y+58	81｜Y+66	88｜Y+73	96｜Y+81	107｜Y+92	118｜Y+103	139｜Y+124	153｜Y+138
TT	25	30	35	40	45	50	62	72
UT	12	14	17	17	19	24	30	36
VT	16	20	24	28	32	35	46	54
WT	7.5	7.5	8.5	9	10	12	13	15
CB	14	17	19	21	24	29	34.5	42
CC(名稱×螺距) (Nominal×Pitch)	M10×1.25	M12×1.25	M14×1.5	M16×1.5	M20×1.5	M24×1.5	M30×1.5	M36×1.5

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.





規格參數表 SPECIFICATIONS

型號 MODEL	總行程 Full Stroke Y (mm)	油缸面積 Cylinder Area(cm²) 推側 Push Side	拉側 Pull Side	油缸輸出力 (計算公式) Cylinder force (Calculation Formula) KN 推側 Push Side	拉側 Pull Side	油缸容量 (計算公式) Cylinder Capacity (Calculation Formula) cm³ 推側 Push Side	拉側 Pull Side	油缸內徑 Cylinder inside diameter (mm)	活塞桿徑 Rod Diameter(mm)	最高使用壓力 Max. Operating Pressure(Mpa)	最低動作壓力 Min. Operating Pressure(Mpa)	耐壓 Withstanding Pressure(Mpa)	使用溫度 Operating Temperature (℃)	重量 Weight (kg)
CLLR-048	Y: 76~150	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	1.7~2.3
CLLR-055	Y: 76~150	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	2.3~3.1
CLLR-065	Y: 76~150	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	3.2~4.1
CLLR-075	Y: 76~150	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	4.4~5.3
CLLR-090	Y: 76~150	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	6.5~7.6
CLLR-105	Y: 76~150	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	9.0~9.8

A:內螺紋型 Female Threaded

Unit:mm

型號 Model	CLLR-048	CLLR-055	CLLR-065	CLLR-075	CLLR-090	CLLR-105
AA	Y+66	Y+69	Y+76	Y+89	Y+100	Y+110
TA	11	12	13	15	16	18
UA	14	17	19	24	30	36
WA	8.5	9	10	12	13	15
BB	17	19	22	27	33	42
BC(名稱×深度) (Nominal×Depth)	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

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.

P:銷孔連接型 Pin-Hole Option

Unit:mm

型號 Model		CLLR-048	CLLR-055	CLLR-065	CLLR-075	CLLR-090	CLLR-105
全行程 Full Stroke Y		76~150	76~150	76~150	76~150	76~150	76~150
A		Y+76	Y+81	Y+91	Y+107	Y+121	Y+138
B		62	69	81	93	108	122
C		53	60	70	82	97	110
D		48	55	65	75	90	105
E		Y+55	Y+57	Y+63	Y+74	Y+84	Y+92
F		Y+27	Y+29	Y+33	Y+37	Y+44	Y+47
G		28	28	30	37	40	45
H		35.5	39	46	52	59.5	67
J		26.5	30	35	41	48.5	55
K		41	47	55	64	76	88
L		83	88	106	116	136	152
M		12	12	13	16	16	17
Nx		30	33.5	39.5	45	52.5	60
Ny		11	12	15	16	18.5	22.5
R		5.5	6.8	6.8	9	11	14
S		24	24	26	32	35	39
導向部徑 The Diameter of Mating Fit		$28^{-0.020}_{-0.053}$	$32^{-0.025}_{-0.064}$	$38^{-0.025}_{-0.064}$	$44^{-0.025}_{-0.064}$	$50^{-0.025}_{-0.064}$	$60^{-0.030}_{-0.076}$
導向長度 The Length Of Mating Fit		4	4	4	5	5	6
T		21	24	28	33	37	46
U		10	11	13	16	19	22
V		9	10	12	14	16	21
W		10.5	12	14	17	19	23
倒角 Chamfer		C3	C3	C4	C5	C6	C6
AB		17	19	22	27	32	42
AC		$8^{+0.015}_{0}$	$10^{+0.018}_{0}$	$12^{+0.018}_{0}$	$14^{+0.018}_{0}$	$16^{+0.018}_{0}$	$20^{+0.021}_{0}$
AD		9	10	12	14	16	21
AE		6	4	6	6	8	10
AF		M4×0.7	M5×0.8	M5×0.8	M6	M6	M6
DA		3.5	3.5	4.5	4.5	4.5	4.5
DB		14	14	19	19	22	22
排氣口 Air Bleed Port	—C型	G1/8	G1/8	G1/4	G1/4	G3/8	G3/8
供油口 Hydraulic Port	—S型	RC1/8	RC1/8	RC1/4	RC1/4	RC3/8	RC3/8
O型密封圈 O-ring		1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

B:內螺紋型（附帶旋轉防止銷孔） Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型號 Model	CLLR-048	CLLR-055	CLLR-065	CLLR-075	CLLR-090	CLLR-105
VB	2.5	2.5	3	4	5	6
WB	6	6.5	7	8. 5	9	10.5

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

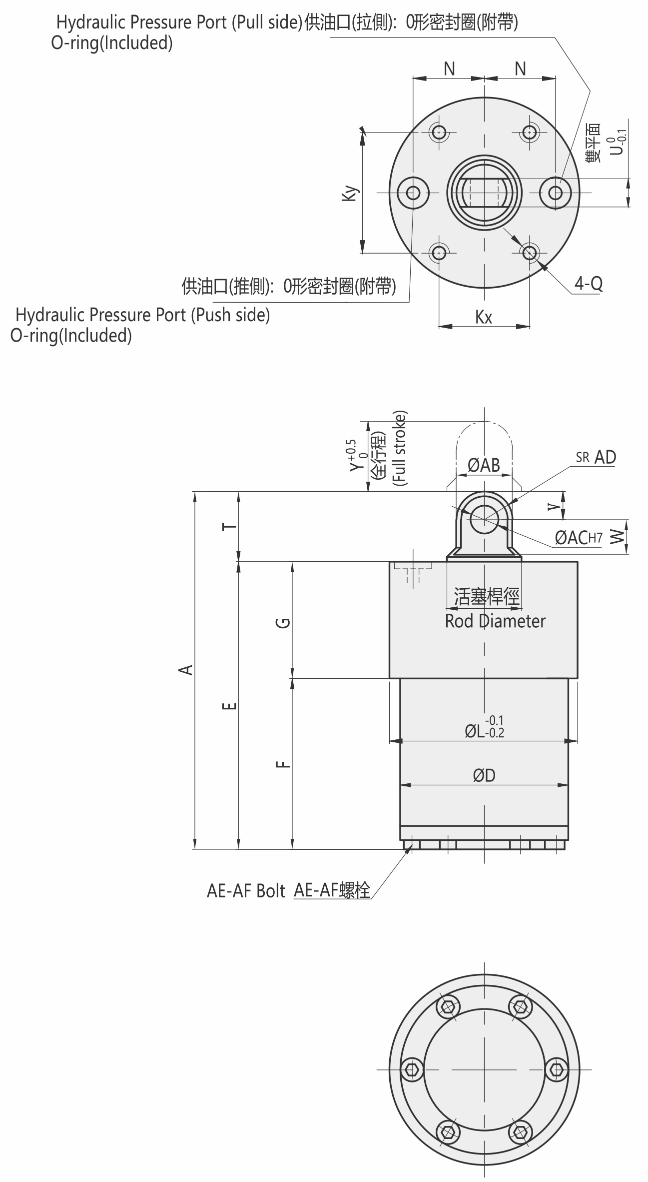
T:外螺紋型 Male Threaded

Unit:mm

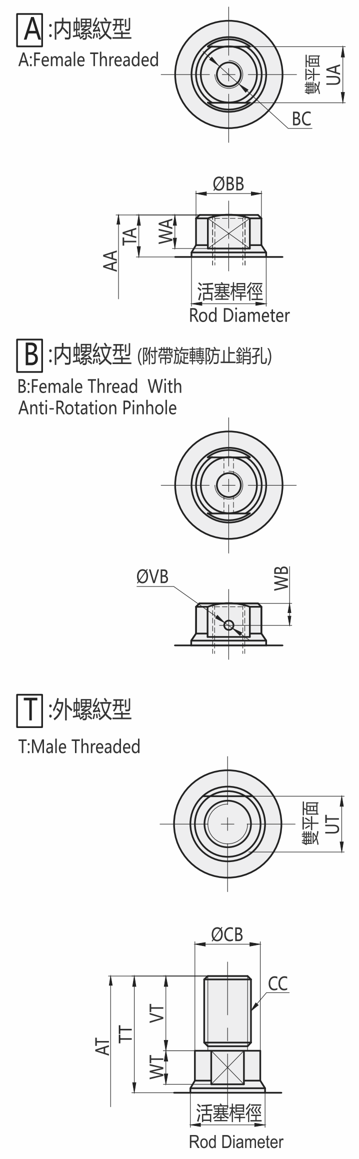
型號 Model	CLLR-048	CLLR-055	CLLR-065	CLLR-075	CLLR-090	CLLR-105
AT	Y+90	Y+97	Y+108	Y+124	Y+146	Y+164
TT	35	40	45	50	62	72
UT	17	17	19	24	30	36
VT	24	28	32	35	46	54
WT	8.5	9	10	12	13	15
CB	19	21	24	29	34.5	42
CC(名稱×螺距) (Nominal×Pitch)	M14×1.5	M16×1.5	M20×1.5	M24×1.5	M30×1.5	M36×1.5

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.

G:板式連接型 P:銷孔連接型 G: Gasket Option P:Pin-Hole Option
※本圖表示CLLU-GP型 ※This drawing indicates CLLU-GP



Tip Shape Refer P Pinhole 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



規格參數表 SPECIFICATIONS

型號 MODEL	總行程 Full Stroke Y (mm)	油缸面積 Cylinder Area(cm²) 推側 Push Side	拉側 Pull Side	油缸輸出力 (計算公式) Cylinder force (Calculation Formula) KN 推側 Push Side	拉側 Pull Side	油缸容量 (計算公式) Cylinder Capacity (Calculation Formula) cm³ 推側 Push Side	拉側 Pull Side	油缸內徑 Cylinder inside diameter (mm)	活塞桿徑 Rod Diameter(mm)	最高使用壓力 Max. Operating Pressure(Mpa)	最低動作壓力 Min. Operating Pressure(Mpa)	耐壓 Withstanding Pressure(Mpa)	使用溫度 Operating Temperature (℃)	重量 Weight (kg)
CLLU-036	1～50	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	0.6～0.8
CLLU-040	1～50	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	0.7～0.9
CLLU-048	1～75	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	1.0～1.6
CLLU-055	1～75	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	1.3～2.1
CLLU-065	1～75	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	1.9～3.1
CLLU-075	1～75	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	2.8～4.1
CLLU-090	1～75	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	4.3～6.1
CLLU-105	1～75	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	5.9～8.0

全行程 Y=1～14mm時，外形尺寸與行程15mm時的油缸是一樣的（例）CLLU-036GP -010 【Y=10，A=63，E=48，F=23】CLLU-036GP-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.) CLLU-036GP-010 [Y=10, A=63, E=48, F=23]CLLU-036GP-030 [Y=30, A=78, E=63, F=38]

P:銷孔連接型 Pin-Hole Option

Unit:mm

型號 Model	CLLU-036	CLLU-040	CLLU-048	CLLU-055	CLLU-065	CLLU-075	CLLU-090	CLLU-105
全行程 Full Stroke Y	1～14 | 15～50	1～14 | 15～50	1～14 | 15～75	1～14 | 15～75	1～14 | 15～75	1～14 | 15～75	1～14 | 15～75	1～14 | 15～75
A	63 | Y+48	70 | Y+55	74 | Y+59	80 | Y+65	90 | Y+75	101 | Y+86	114 | Y+99	127 | Y+112
D	36	40	48	55	65	75	90	105
E	48 | Y+33	51 | Y+36	53 | Y+38	56 | Y+41	62 | Y+47	68 | Y+53	77 | Y+62	81 | Y+66
F	23 | Y+8	26 | Y+11	25 | Y+10	28 | Y+13	32 | Y+17	31 | Y+16	37 | Y+22	36 | Y+21
G	25	25	28	28	30	37	40	45
Kx	23	24	27	30	36	42	54	65
Ky	30	32	36	40	48	56	64	65
L	45	48	53	60	70	83	100	116
N	17	18	20	22.5	27.5	32.5	39.5	46
Q (名稱×深度) (Nominal×Depth)	M4×0.7×8	M5×0.8×10	M5×0.8×10	M6×12	M6×12	M8×16	M10×20	M12×24
T	15	19	21	24	28	33	37	46
U	6	8	10	11	13	16	19	22
V	6	8	9	10	12	14	16	21
W	7.5	9.5	10.5	12	14	17	19	23
AB	12	15	17	19	22	27	32	42
AC	$6^{+0.012}_{0}$	$8^{+0.015}_{0}$	$8^{+0.015}_{0}$	$10^{+0.015}_{0}$	$12^{+0.018}_{0}$	$14^{+0.018}_{0}$	$16^{+0.018}_{0}$	$20^{+0.021}_{0}$
AD	6	8	9	10	12	14	16	21
AE	-	-	6	4	6	6	8	10
AF	-	-	M4×0.7	M5×0.8	M5×0.8	M6	M6	M6
O型密封圈 O-ring	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

A:內螺紋型 Female Threaded

Unit:mm

型號 Model	CLLU-036	CLLU-040	CLLU-048	CLLU-055	CLLU-065	CLLU-075	CLLU-090	CLLU-105
AA	57 | Y+42	61 | Y+46	64 | Y+49	68 | Y+53	75 | Y+60	83 | Y+68	93 | Y+78	99 | Y+84
TA	9	10	11	12	13	15	16	18
UA	12	13	14	17	19	24	30	36
WA	7.5	7.5	8.5	9	10	12	13	15
BB	14	15	17	19	22	27	33	42
BC(名稱×深度) (Nominal×Depth)	M6×12	M8×16	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

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.

B:內螺紋型（附帶旋轉防止銷孔） Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型號 Model	CLLU-036	CLLU-040	CLLU-048	CLLU-055	CLLU-065	CLLU-075	CLLU-090	CLLU-105
VB	2	2.5	2.5	2.5	3	4	5	6
WB	5. 5	5	6	6.5	7	8. 5	9	10.5

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

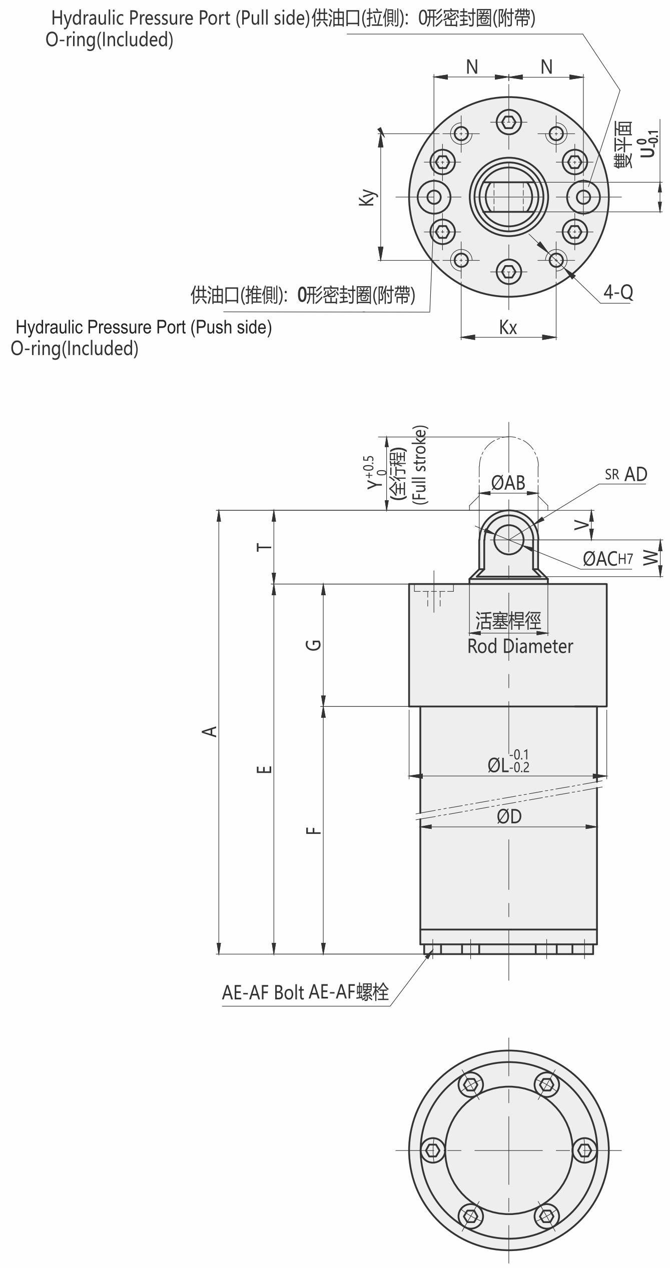
T:外螺紋型 Male Threaded

Unit:mm

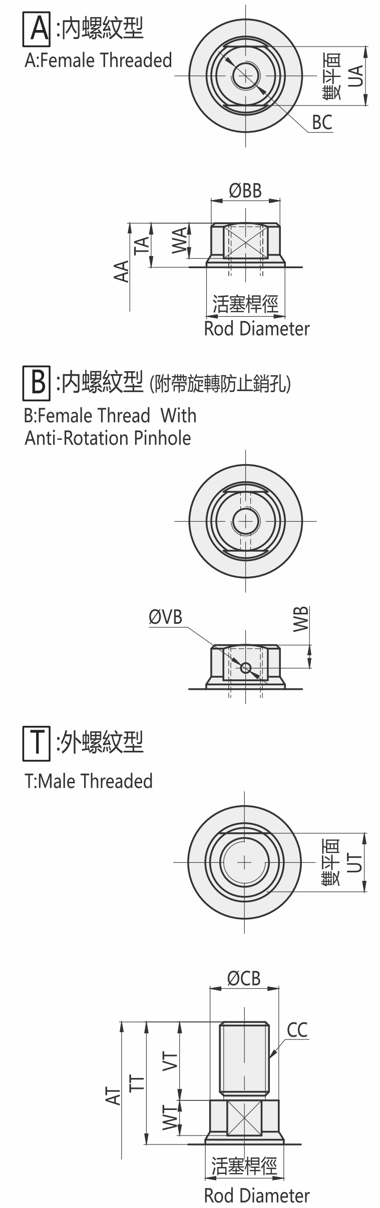
型號 Model	CLLU-036	CLLU-040	CLLU-048	CLLU-055	CLLU-065	CLLU-075	CLLU-090	CLL-105
AT	73 | Y+58	81 | Y+66	88 | Y+73	96 | Y+81	107 | Y+92	118 | Y+103	139 | Y+124	153 | Y+138
TT	25	30	35	40	45	50	62	72
UT	12	14	17	17	19	24	30	36
VT	16	20	24	28	32	35	46	54
WT	7.5	7.5	8.5	9	10	12	13	15
CB	14	17	19	21	24	29	34.5	42
CC(名稱×螺距) (Nominal×Pitch)	M10×1.25	M12×1.25	M14×1.5	M16×1.5	M20×1.5	M24×1.5	M30×1.5	M36×1.5

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.

G:板式連接型 P:銷孔連接型 G: Gasket Option P:Pin-Hole Option
※本圖表示CLLU-GP型 ※ This drawing indicates CLLU-GP



Tip Shape Refer P Pinhole 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



規格參數表 SPECIFICATIONS

型號 MODEL	總行程 Full Stroke Y (mm)	油缸面積 Cylinder Area(cm²) 推側 Push Side	拉側 Pull Side	油缸輸出力 (計算公式) Cylinder force (Calculation Formula) KN 推側 Push Side	拉側 Pull Side	油缸容量(計算公式) Cylinder Capacity (Calculation Formula) cm³ 推側 Push Side	拉側 Pull Side	油缸內徑 Cylinder inside diameter (mm)	活塞桿徑 Rod Diameter(mm)	最高使用壓力 Max. Operating Pressure(Mpa)	最低動作壓力 Min. Operating Pressure(Mpa)	耐壓 Withstanding Pressure(Mpa)	使用溫度 Operating Temperature (℃)	重量 Weight (kg)
CLLU-048	76~150	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	1.7~2.3
CLLU-055	76~150	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	2.3~3.1
CLLU-065	76~150	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	3.2~4.1
CLLU-075	76~150	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	4.4~5.3
CLLU-090	76~150	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	6.5~7.6
CLLU-105	76~150	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	9.0~9.8

P:銷孔連接型 Pin-Hole Option

Unit:mm

型號 Model	CLLU-048	CLLU-055	CLLU-065	CLLU-075	CLLU-090	CLLU-105
全行程 Full Stroke Y	76~150	76~150	76~150	76~150	76~150	76~150
A	Y+76	Y+81	Y+91	Y+107	Y+121	Y+138
D	48	55	65	75	90	105
E	Y+55	Y+57	Y+63	Y+74	Y+84	Y+92
F	Y+27	Y+29	Y+33	Y+37	Y+44	Y+47
G	28	28	30	37	40	45
KX	27	30	36	42	54	65
KY	36	40	48	56	64	65
L	53	60	70	83	100	116
N	20	22.5	27.5	32.5	39.5	46
Q (名稱×深度) (Nominal×Depth)	M5×0.8×10	M6×12	M6×12	M8×16	M10×20	M12×24
T	21	24	28	33	37	46
U	10	11	13	16	19	22
V	9	10	12	14	16	21
W	10.5	12	14	17	19	23
AB	17	19	22	27	32	42
AC	$8^{+0.015}_{0}$	$10^{+0.015}_{0}$	$12^{+0.018}_{0}$	$14^{+0.018}_{0}$	$16^{+0.018}_{0}$	$20^{+0.021}_{0}$
AD	9	10	12	14	16	21
AE	6	4	6	6	8	10
AF	M4×0.7	M5×0.8	M5×0.8	M6	M6	M6
O型密封圈 O-ring	1BP5	1BP5	1BP7	1BP7	1BP7	1BP7

A:內螺紋型 Female Threaded

Unit:mm

型號 Model	CLLU-048	CLLU-055	CLLU-065	CLLU-075	CLLU-090	CLLU-105
AA	Y+66	Y+69	Y+76	Y+89	Y+100	Y+110
TA	11	12	13	15	16	18
UA	14	17	19	24	30	36
WA	8.5	9	10	12	13	15
BB	17	19	22	27	33	42
BC(名稱×深度) (Nominal×Depth)	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

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.

B:內螺紋型（附帶旋轉防止銷孔） Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型號 Model	CLLU-048	CLLU-055	CLLU-065	CLLU-075	CLLU-090	CLLU-105
VB	2.5	2.5	3	4	5	6
WB	6	6.5	7	8. 5	9	10.5

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

T:外螺紋型 Male Threaded

Unit:mm

型號 Model	CLLU-048	CLLU-055	CLLU-065	CLLU-075	CLLU-090	CLLU-105
AT	Y+90	Y+97	Y+108	Y+124	Y+146	Y+164
TT	35	40	45	50	62	72
UT	17	17	19	24	30	36
VT	24	28	32	35	46	54
WT	8.5	9	10	12	13	15
CB	19	21	24	29	34.5	42
CC(名稱×螺距) (Nominal×Pitch)	M14×1.5	M16×1.5	M20×1.5	M24×1.5	M30×1.5	M36×1.5

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.

CCNA
油壓緊湊型直線缸

CCNA HYDRAULIC COMPACT LINEAR CYLINDER

產品特性

以最小空間實現大的行程。

最大操作壓力: 70 kgf/cm²
最小操作壓力: 10 kgf/cm²
耐壓: 105kgf/cm²

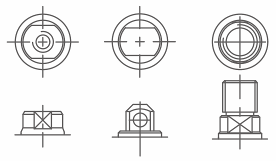
FEATURES

Maximum stroke is available with minimum space.

Max:operating pressure: 70kgf/cm²
Min:operating pressure: 10kgf/cm²
Withstanding pressure: 105kgf/cm²

訂購標示法 ORDERING INDICATION

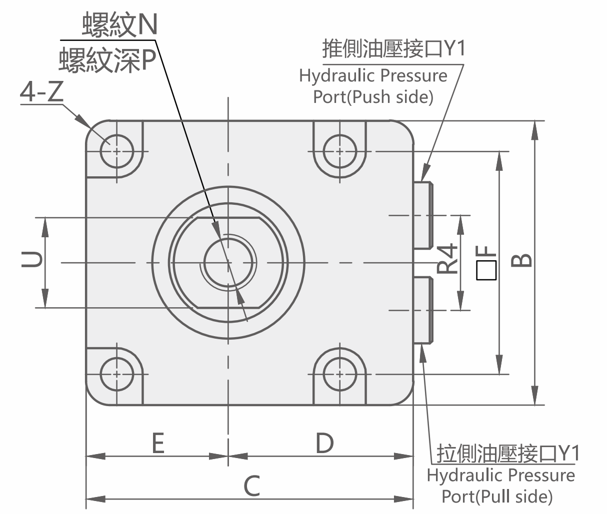
示例: CCNA02-10T

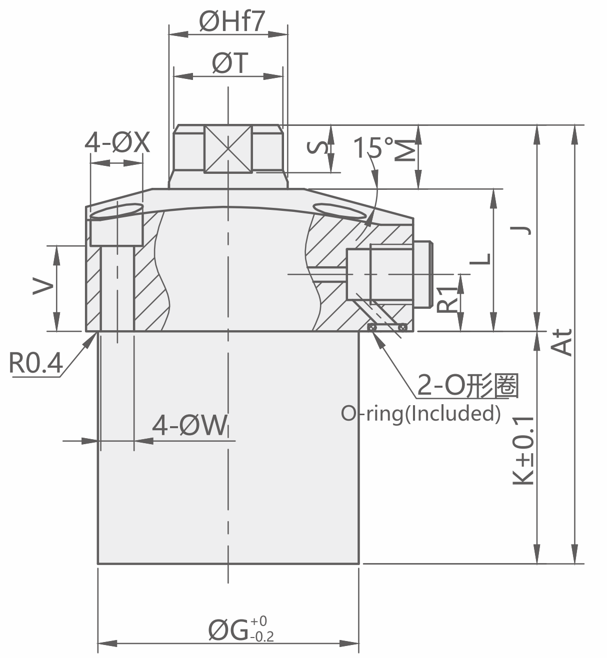
CCNA	系列 Series	CCNA
02	02/04/06/10/16/25	
10	行程 Stroke	CCNA02: 10/15/20/30/40/50/60/70 CCNA04: 10/15/20/30/40/50/60/70 CCNA06: 10/15/20/30/40/50/60/70/80/90 CCNA10: 10/20/30/40/50/60/70/80/90/100 CCNA16: 10/20/30/40/50/60/70/80/90/100 CCNA25: 20/30/40/50/60/70/80/90/100/110
T	活塞桿前端形裝 Shape of Piston Tip	T :內螺紋型 Female Threaded P :銷孔連接型 Pin-Hole Option M :外螺紋型 Male Threaded 

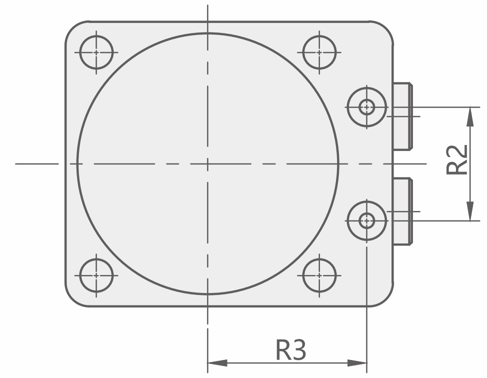
規格參數表 SPECIFICATIONS

型號 MODEL	油缸面積 Cylinder Area(cm²) 推側 Push Side	油缸面積 Cylinder Area(cm²) 拉側 Pull Side	油缸輸出力 Cylinder force (Calculation Formula) KN 推側 Push Side	油缸輸出力 Cylinder force (Calculation Formula) KN 拉側 Pull Side	油缸容量 Cylinder Capacity (Calculation Formula) cm³ 推側 Push Side	油缸容量 Cylinder Capacity (Calculation Formula) cm³ 拉側 Pull Side	油缸內徑 Cylinder inside diameter (mm)	活塞桿徑 Rod Diameter(mm)	使用溫度範圍 Operating Temperature (℃)	使用流體 Usable Fluid
CCNA02	4.9	2.9	0.49xP	0.29xP	0.49xS	0.29xS	Φ25	Φ16	0~+70°c	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CCNA04	7.1	4.5	0.71xP	0.45xP	0.71xS	0.45xS	Φ30	Φ16	0~+70°c	
CCNA06	9.6	5.7	0.96xP	0.57xP	0.96xS	0.57xS	Φ35	Φ22.4	0~+70°c	
CCNA10	15.2	10.3	1.52xP	1.03xP	1.52xS	1.03xS	Φ44	Φ25	0~+70°c	
CCNA16	24.6	17.6	2.46xP	1.76xP	2.46xS	1.76xS	Φ56	Φ30	0~+70°c	
CCNA25	38.5	28.6	3.85xP	2.86xP	3.85xS	2.86xS	Φ70	Φ35.5	0~+70°c	

T :內螺紋型 Female Threaded





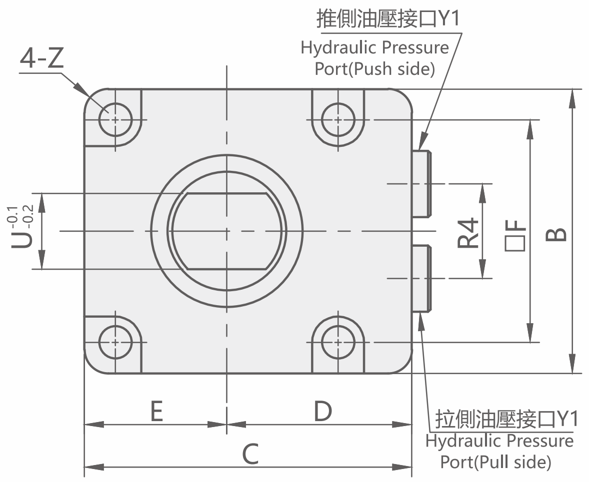


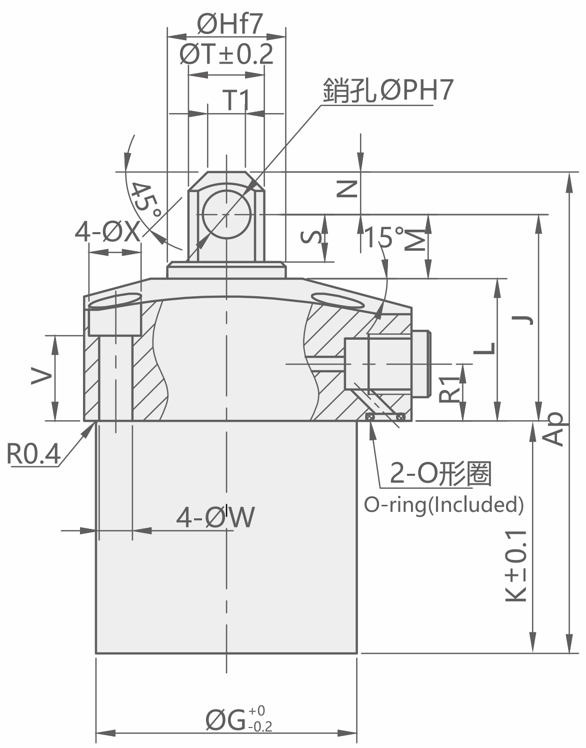
T :內螺紋型 Female Threaded　　Unit:mm

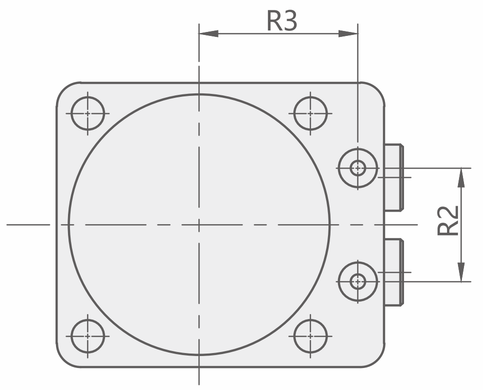
型號 Model		CCNA02-□T	CCNA04-□T	CCNA06-□T	CCNA10-□T	CCNA16-□T	CCNA25-□T
B		45	50	57	70	86	108
C		55	60	66	82	96	120
D		32.5	35	37.5	47	53	66
E		22.5	25	28.5	35	43	54
F		35	40	46	56	68	88
ΦG		39	47	53	63	78	100
ΦH		$16^{-0.016}_{-0.034}$	$18^{-0.016}_{-0.034}$	$22.4^{-0.020}_{-0.041}$	$25^{-0.020}_{-0.041}$	$30^{-0.020}_{-0.041}$	$35.5^{-0.025}_{-0.050}$
J		38	39.5	42.5	51	57	65.5
L		27.5	28	30	37.5	41.5	48.5
M		10.5	11.5	12.5	13.5	15.5	17
N		M8×1.25	M8×1.25	M10×1.5	M12×1.75	M16×2.0	M20*2.5
P		14	14	18	21	27	33
R1		12.5	12.5	12.5	14	14	21
R2		22	24	28	36	45	50
R3		25	28	30.5	36	42	57
R4		20	22	26	30	38	50
S		7	8	9	10	12	14
ΦT		14±0.2	16±0.2	20±0.2	23±0.2	28±0.2	33.5±0.2
U		12	14	17	19	24	30
V		18	17	17	20	20	20
ΦW		5.5	5.5	6.8	9	11	14
ΦX		9.5	9.5	11	14	17.5	20
Y1		G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z		R3	R5	R5	R6	R7	R10
O形圈 (氟橡膠Hs90)		P7	P7	P7	P8	P8	P10
At 行程	10	66	70.5	74	88.5	96	-
	15	66	70.5	74	-	-	-
	20	81	85.5	89	88.5	96	115.5
	30	81	85.5	89	108.5	116	115.5
	40	101	105.5	109	108.5	116	135.5
	50	101	105.5	109	128.5	136	135.5
	60	121	125.5	129	128.5	136	155.5
	70	121	125.5	129	148.5	156	155.5
	80	-	-	149	148.5	156	175.5
	90	-	-	149	168.5	176	175.5
	100	-	-	-	168.5	176	195.5
	110	-	-	-	-	-	195.5
K 行程	10	28	31	31.5	37.5	39	-
	15	28	31	31.5	-	-	-
	20	43	46	46.5	37.5	39	50
	30	43	46	46.5	57.5	59	50
	40	63	66	66.5	57.5	59	70
	50	63	66	66.5	77.5	79	70
	60	83	86	86.5	77.5	79	90
	70	83	86	86.5	97.5	99	90
	80	-	-	106.5	97.5	99	110
	90	-	-	106.5	117.5	119	110
	100	-	-	-	117.5	119	130
	110	-	-	-	-	-	130

註:可選裝CVCF調速閥

P :銷孔連接型 Pin-Hole Option





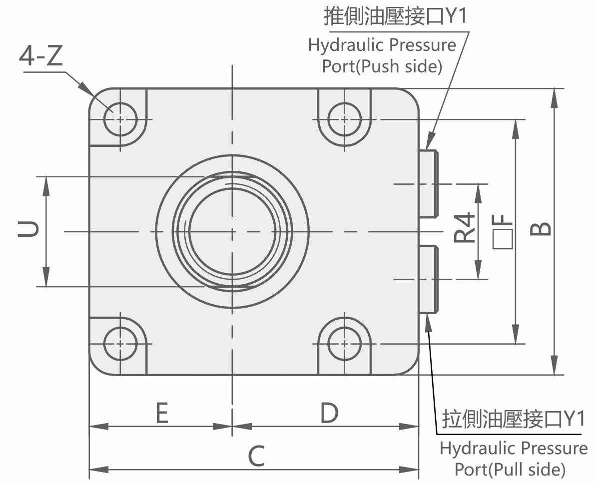


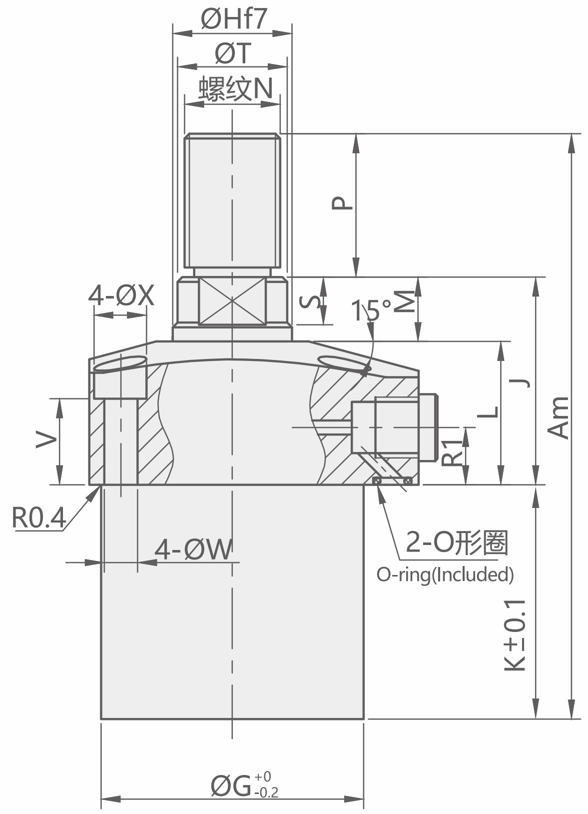
P :銷孔連接型 Pin-Hole Option Unit:mm

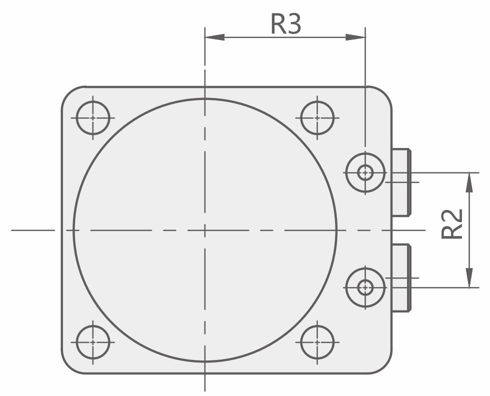
型號 Model		CCNA02 -□P	CCNA04 -□P	CCNA06 -□P	CCNA10 -□P	CCNA16 -□P	CCNA25 -□P
B		45	50	57	70	86	108
C		55	60	66	82	96	120
D		32.5	35	37.5	47	53	66
E		22.5	25	28.5	35	43	54
F		35	40	46	56	68	88
ΦG		39	47	53	63	78	100
ΦH		$16^{-0.016}_{-0.034}$	$18^{-0.016}_{-0.034}$	$22.4^{-0.020}_{-0.041}$	$25^{-0.020}_{-0.041}$	$30^{-0.020}_{-0.041}$	$35.5^{-0.025}_{-0.050}$
J		42.5	44.5	50.5	60	67	79.5
L		27.5	28	30	37.5	41.5	48.5
M		10	10.5	12.5	13.5	14.5	18
N		5	6	8	9	11	13
ΦP		$6^{-0.012}_{-0}$	$6^{-0.012}_{-0}$	$8^{-0.015}_{-0}$	$10^{-0.015}_{-0}$	$12^{-0.018}_{-0}$	$14^{-0.018}_{-0}$
R1		12.5	12.5	12.5	14	14	21
R2		22	24	28	36	45	50
R3		25	28	30.5	36	42	57
R4		20	22	26	30	38	50
S		6.5	7	9	10	10.8	14.5
ΦT		10	12	14	16	20	26
ΦT1		5	5	6	8	10	14
U		6	6	8	11	14	16
V		18	17	17	20	20	20
ΦW		5.5	5.5	6.8	9	11	14
ΦX		9.5	9.5	11	14	17.5	20
Y1		G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z		R3	R5	R5	R6	R7	R10
O形圈(氟橡胶Hs90)		P7	P7	P7	P8	P8	P10
Ap 行程	10	70.5	75.5	82	97.5	106	-
	15	70.5	75.5	82	-	-	-
	20	85.5	90.5	97	97.5	106	129.5
	30	85.5	90.5	97	117.5	126	129.5
	40	105.5	110.5	117	117.5	126	149.5
	50	105.5	110.5	117	137.5	146	149.5
	60	125.5	130.5	137	137.5	146	169.5
	70	125.5	130.5	137	157.5	166	169.5
	80	-	-	157	157.5	166	189.5
	90	-	-	157	177.5	186	189.5
	100	-	-	-	177.5	186	209.5
	110	-	-	-	-	-	209.5
K 行程	10	28	31	31.5	37.5	39	-
	15	28	31	31.5	-	-	-
	20	43	46	46.5	37.5	39	50
	30	43	46	46.5	57.5	59	50
	40	63	66	66.5	57.5	59	70
	50	63	66	66.5	77.5	79	70
	60	83	86	86.5	77.5	79	90
	70	83	86	86.5	97.5	99	90
	80	-	-	106.5	97.5	99	110
	90	-	-	106.5	117.5	119	110
	100	-	-	-	117.5	119	130
	110	-	-	-	-	-	130

註:可選裝CVCF調速閥

M :外螺紋型 Male Threaded







M :外螺紋型 Male Threaded Unit:mm

型號 Model		CCNA02 -□M	CCNA04 -□M	CCNA06 -□M	CCNA10 -□M	CCNA16 -□M	CCNA25 -□M
B		45	50	57	70	86	108
C		55	60	66	82	96	120
D		32.5	35	37.5	47	53	66
E		22.5	25	28.5	35	43	54
F		35	40	46	56	68	88
ΦG		39	47	53	63	78	100
ΦH		$16^{-0.016}_{-0.034}$	$18^{-0.016}_{-0.034}$	$22.4^{-0.020}_{-0.041}$	$25^{-0.020}_{-0.041}$	$30^{-0.020}_{-0.041}$	$35.5^{-0.025}_{-0.050}$
J		58	64.5	70	81	92	110.5
L		27.5	28	30	37.5	41.5	48.5
M		10.5	11.5	12.5	13.5	15.5	17
N		M12x1.25	M14x1.5	M16x1.5	M20x1.5	M24x1.5	M30x1.5
P		20	25	27.5	30	35	45
R1		12.5	12.5	12.5	14	14	21
R2		22	24	28	36	45	50
R3		25	28	30.5	36	42	57
R4		20	22	26	30	38	50
S		7	8	9	10	12	14
ΦT		14±0.2	16±0.2	20±0.2	23±0.2	28±0.2	33.5±0.2
U		12	14	17	19	24	30
V		18	17	17	20	20	20
ΦW		5.5	5.5	6.8	9	11	14
ΦX		9.5	9.5	11	14	17.5	20
Y1		G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z		R3	R5	R5	R6	R7	R10
O形圈(氟橡胶Hs90)		P7	P7	P7	P8	P8	P10
Am 行程	10	86	95.5	101.5	118.5	131	-
	15	86	95.5	101.5	-	-	-
	20	101	110.5	116.5	118.5	131	160.5
	30	101	110.5	116.5	138.5	151	160.5
	40	121	130.5	136.5	138.5	151	180.5
	50	121	130.5	136.5	158.5	171	180.5
	60	141	150.5	156.5	158.5	171	200.5
	70	141	150.5	156.5	178.5	191	200.5
	80	-	-	176.5	178.5	191	220.5
	90	-	-	176.5	198.5	211	220.5
	100	-	-	-	198.5	211	240.5
	110	-	-	-	-	-	240.5
K 行程	10	28	31	31.5	37.5	39	-
	15	28	31	31.5	-	-	-
	20	43	46	46.5	37.5	39	50
	30	43	46	46.5	57.5	59	50
	40	63	66	66.5	57.5	59	70
	50	63	66	66.5	77.5	79	70
	60	83	86	86.5	77.5	79	90
	70	83	86	86.5	97.5	99	90
	80	-	-	106.5	97.5	99	110
	90	-	-	106.5	117.5	119	110
	100	-	-	-	117.5	119	130
	110	-	-	-	-	-	130

註:可選裝CVCF調速閥

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。
除著座面外，一次裝卡就可實現5面加工（工序集約化）。

低壓（1～7MPa）
單動式

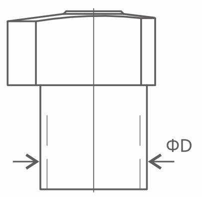
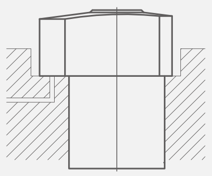
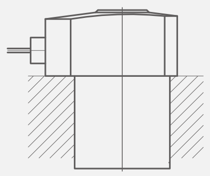
FEATURES

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.)

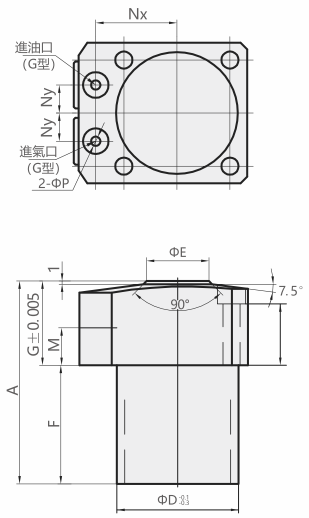
Low pressure (1~7mpa)
Single acting

訂購標示法 ORDERING INDICATION

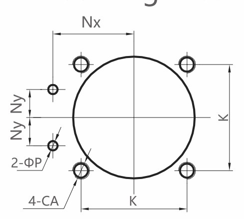
示例：CFP-39G

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  G:板式連接型（配有 R 螺紋堵頭） S  S:外配管型（R c螺紋）

外形尺寸
External Dimensions

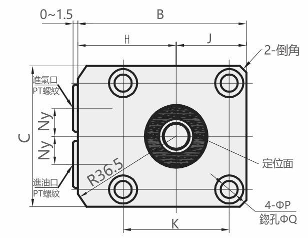


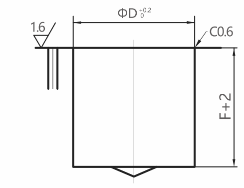
安裝部位加工尺寸
Machining Dimensions of Mounting Area



Unit:mm

型號 Model No	CFP-39	CFP-55	CFP-65	CFP-75	CFP-90
全行程 Full Stroke Y	6.7	7.5	8.5	10	12
夾緊行程 Clamping Stroke	3.8	5	5.3	7	8.7
A	65	74	85	100	120
B	54	69	81	92	107
C	45	60	70	80	95
D	39	55	65	75	90
E	20	25	30	38	47.5
F	38	47	57	68	83
G	27	27	28	32	37
H	31.5	39	46	52	59.5
J	22.5	30	35	40	47.5
K	34	47	55	63	75
L	73	88	106	116	136
M	12	12	12	16	16
Nx	26	33.5	39.5	45	52.5
Ny	9	12	15	16	18.5
P	3	3	5	5	5
Q	9	11	11	14	17.5
R	5.5	6.8	6.8	9	11
S	18.5	16.5	17	19	21
倒角 Chamfer	3	3	4	5	6
CA (Nominal×Pitch)	M5 x 0.8	M6 x 1.0	M6 x 1.0	M8 x 1.25	M10 x 1.25
供油口Hydraulic Port Rc 螺紋(Rc-Thread)	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
噴氣清潔用供氣口 Air Blow Port Rc 螺紋(Rc-Thread)	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
冷卻液排出口 Coolant Discharge Port Rc 螺紋 (Rc-Thread)	Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
O形密封圈 O-ring / G 型 G option	1BP5	1BP5	1BP7	1BP7	1BP7
R 螺紋堵頭 R-Thread Plug	R1/8	R1/8	R1/8	R1/4	R1/4





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。
※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φD的深度。
※5.本加工表示G：板式連接時的情況。
※6.使用流體：相當於ISO黏度等級的ISO-VG-32一般液壓油。
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.
※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 f luid: General Hydraulic Oil Equivalent to ISO-VG-32.
Prepare mounting bolts according to the mounting height.Please refer to S dimensions.

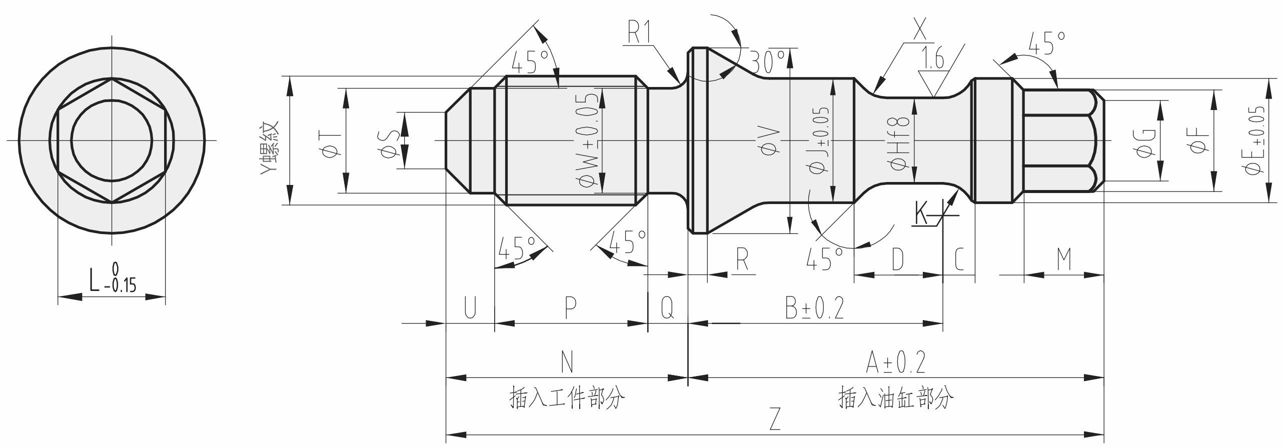
規格參數表 SPECIFICATIONS

型號 MODEL	油缸夾緊側面積 CYLINDER AREA FOR LOCKING (cm²)	夾緊力 (計算公式)※1 CLAMPING FORCE (CALCULATION FORMULA)※1 (kn)	全行程 FULL STROKE (mm)	夾緊行程 LOCK STROKE (mm)	油缸夾緊側容量 CYLINDER CAPACITY(LOCK SIDE) (cm³)	釋放彈簧力 RELEASE SPRING FORCE (n)	導套複位彈簧力 SLEEVE RETURN SPRING FORCE (n)	容許偏心量 ALLOWABLE OFFSET (mm)	最高使用壓力 MAX.OPERATING PRESSURE(mpa)	最低動作壓力 MIN.OPERATING PRESSURE(mpa)	耐壓 WITHSTANDING PRESSURE(mpa)	推薦氣壓(噴氣清潔用) Withstanding Pressure (Mpa)	使用溫度 OPERATING TEMPERATURE (℃)	重量 WEIGHT (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

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).

選配項：牽引螺栓
Accessories：Pull Bolt

CLZ - 39 - CFP1



大於Greater than	小於less than	公差Tolerance
-	6	±0.1
6	30	±0.2
30	120	±0.3

注意事項

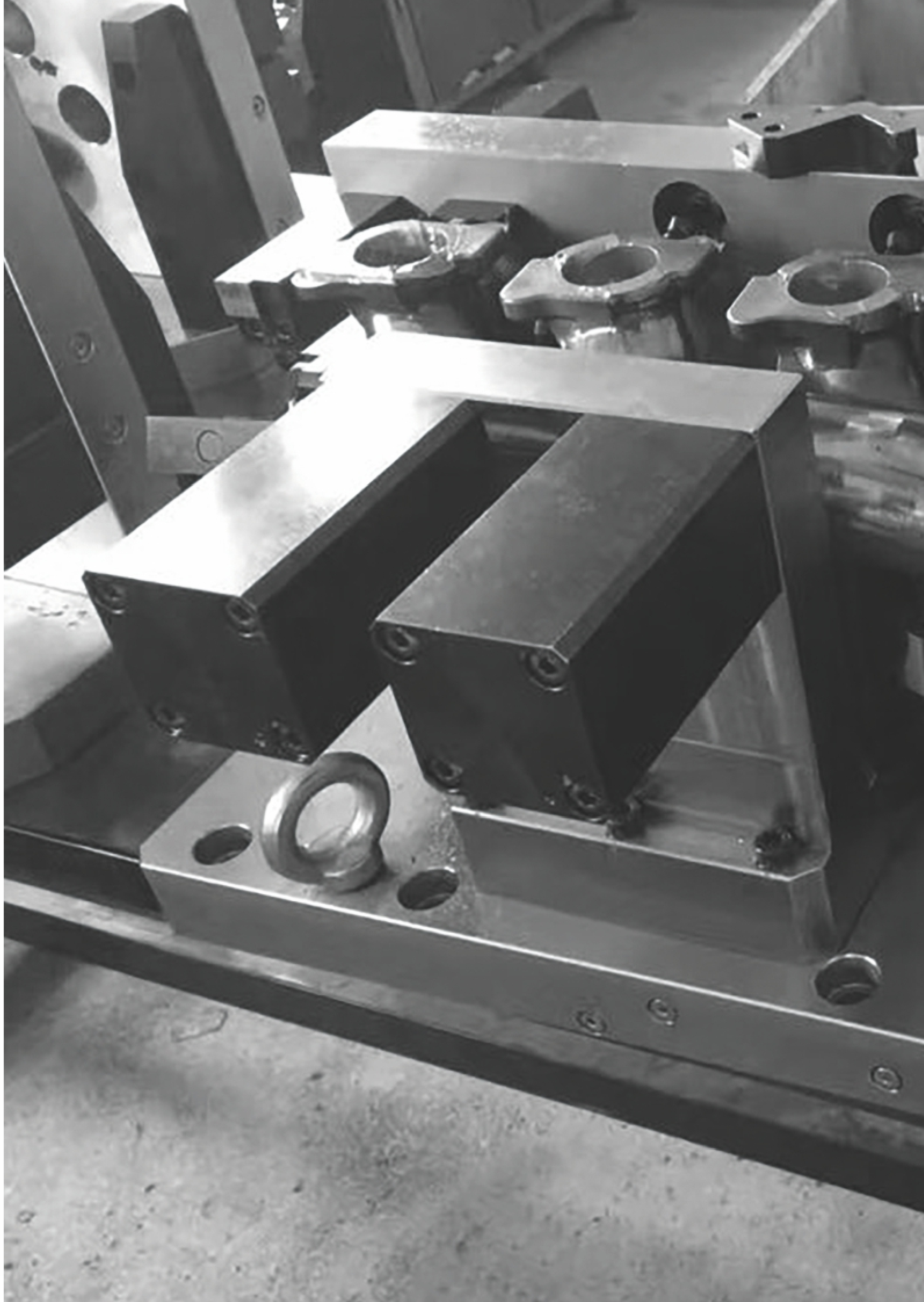
1. 牽引螺栓（CLZ-CFP1）的設計應滿足油缸著座面與工件底面間隙在 0（密接）~0.3mm以內。
2. 設計製作牽引螺栓時，請參考本圖。・無公差尺寸表示的請按右表的要求進行加工

Notes

1. When using CLZ-CFP1 pull bolt, the space between the top of the clamp and the bottom of the work piece must be 0 (firm contact) to 0.3 mm
2. Refer to this figure when manufacturing pull bolts.・Dimensions for clamp mounting must be strictly followed. ・If tolerance is not specified, dimensions should refer to the graph on the right.

Unit:mm

型號 Model	CLZ-39 -CFP1	CLZ-55 -CFP1	CLZ-65 -CFP1	CLZ-75 -CFP1	CLZ-90 -CFP1
對應機器型號 Corresponding Product Model	39	55	65	75	90
A	25.8	30	35.5	45	56
B	15.8	18	21.5	27	33.5
C	2	2.6	3	3.8	5
D	5.5	7.5	8	10.5	12.5
E	7.7	9.7	11.5	14.5	18.5
F	6.3	9.1	9.1	11.3	14.8
G	5	7.5	7.5	9.5	12.2
H	$5.3^{-0.010}_{-0.028}$	$6.5^{-0.013}_{-0.035}$	$8^{-0.013}_{-0.035}$	$10^{-0.013}_{-0.035}$	$12.5^{-0.016}_{-0.043}$
J	7.7	9.7	11.5	14.5	18.5
K	R2	R2.5	R3	R3.75	R4.76
L	5.5	8	8	10	13
M	5	7	7	8.5	11
N	15	18	20	26	33
P	9.5	12	13.5	18	22
Q	2.5	2.5	2.5	3	4
R	1.2	1.2	1.5	2	2.5
S	3.5	4	5	7	8.5
T	6.5	8.2	10	13.5	17
U	3	3.5	4	5	7
V	11.5	13.5	16	21	26
W	6.5	8.2	10	13.5	17
X	R2	R2.5	R3	R4	R5
Y（標稱×間距）(Nominal×Pitch)	M8×1.25	M10×1.5	M12×1.75	M16×2	M20×2.5
Z	40.8	48	55.5	71	89



CHTB

薄型油壓缸

CHTB HYDRAULIC PUSH PULL CYLINDER

產品特性

體積小，節省空間，安裝空間受限制時的選擇。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。

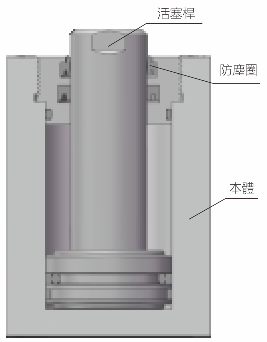
最大操作壓力：140 kgf/cm²
最小操作壓力：5 kgf/cm²
作動方式：複動式

FEATURES

The CHTB series' compact construction helps conserve work space and can be utilized in restricted areas. With the standardized structure, the cylinder can be installed directly and does not require any accessories to operate. The CHTB hydraulic cylinders are manufactured with industrial grade carbon steel. The smooth interior is processed specifically to enhance product performance and increase product lifespan.

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

剖面圖 Sectional view

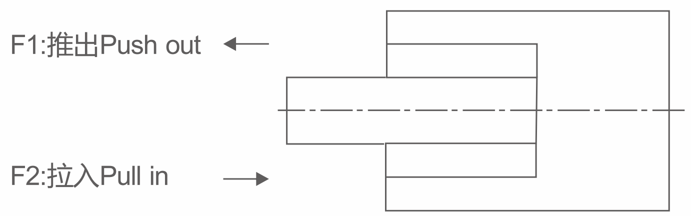


注意事項

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。

NOTE

Customization is available upon request, please contact us for more info.
CHTB-LAM and CHTB-LWM series, stroke 10mm without keyway and parallel key.



訂購標示法 ORDERING INDICATION

示例：CHTB-SD32-20N

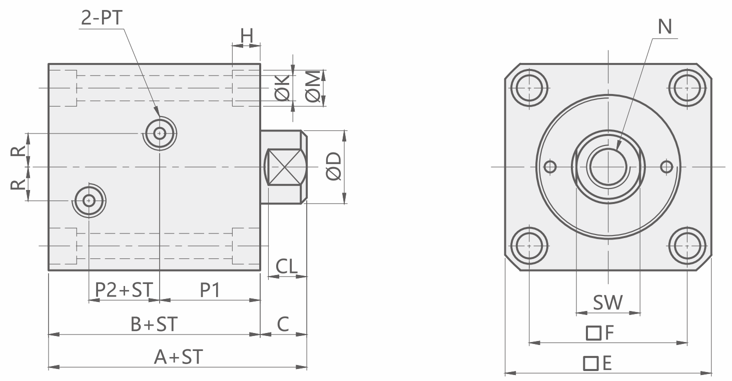
CHTB	系列 Series	CHTB
SD	安裝型式 Mounting type	SD: 軸向單軸安裝型 Axial single end rod type SW: 軸向雙軸安裝型 Axial double end rod type SDMA: 軸向前油路板型 Axial front manifold type SDMB: 軸向後油路板型 Axial back manifold type LA: 側向單軸安裝型 Lateral single end rod type LW: 側向雙軸安裝型 Lateral double end rod type LAM: 側向油路板單軸安裝型 Lateral 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	5mm,10mm,15mm,20mm,25mm,30mm,35mm,40mm,50mm 其它行程請來電諮詢 For other stroke, please inquire.
N	軸端形式 Rod end type	N: 內牙 N: Female thread W: 外牙 W: Male thread

規格參數表 SPECIFICATIONS

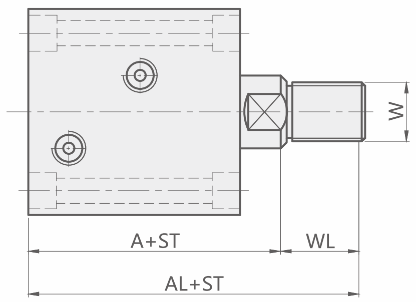
油缸內徑 HYDRAULIC CYLINDER INSIDE DIAMETER(mm)	活塞桿徑 PISTON DIAMETER(mm)	受壓面積 PRESSURE AREA(Cm²)		操作壓力 OPERATION PRESSURE(kgf/cm²) 10		35		70		100		140		使用溫度範圍 RANGE OF TEMPERATURE(°C)
		F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	-10~+60°C
Φ20	Φ12	3.14	2.01	31	20	110	71	220	141	314	201	440	281	-10~+60°C
Φ25	Φ14	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	CHTB Φ45	50.27	34.37	503	344	1759	1203	3519	2406	5027	3437	7038	4812	-10~+60°C
	CHTM Φ40	50.27	37.7	503	377	1759	1320	3519	2639	5027	3770	7038	5278	-10~+60°C

使用流體：相當於ISO黏度等級的ISO-VG-32一般液壓油
Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

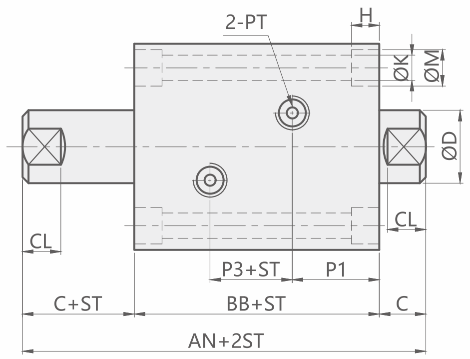
SD-N軸向單軸安裝之軸端內牙型



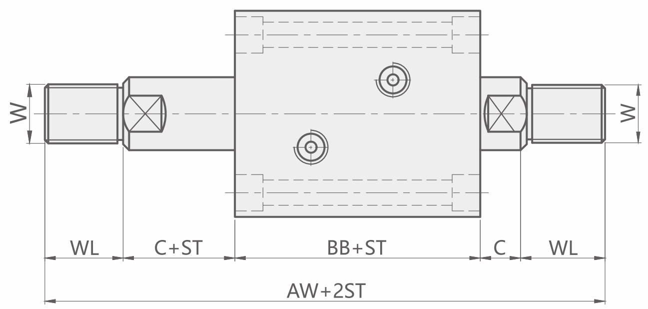
SD-W軸向單軸安裝之軸端外牙型



SW-N軸向雙軸安裝之軸端內牙型

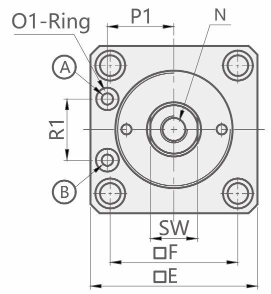


SW-W軸向雙軸安裝之軸端外牙型

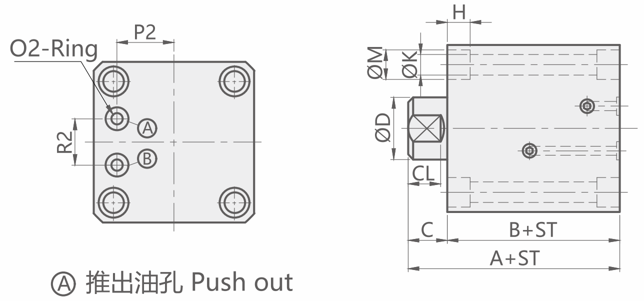


ST=Stroke

SDMA-N軸向前油路板之軸端內牙型

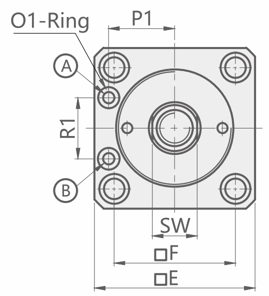


SDMB-N軸向後油路板之軸端內牙型

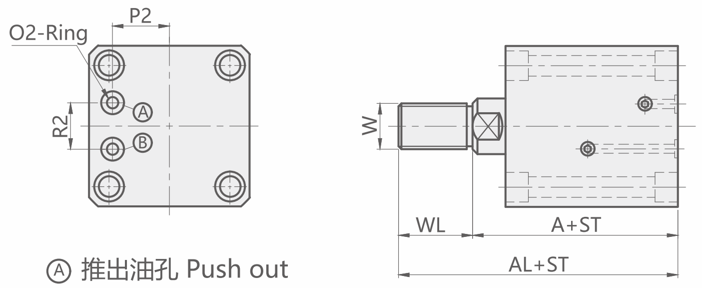


Ⓐ 推出油孔 Push out
Ⓑ 拉入油孔 Pull in

SDMA-W軸向前油路板之軸端外牙型



SDMB-W軸向後油路板之軸端外牙型



Ⓐ 推出油孔 Push out
Ⓑ 拉入油孔 Pull in

CHTB Hydraulic axial mounting type SD & SW

Unit:mm

Bore	Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
A	51	53	64	65	71	80	95	105
AL	71	75	89	95	106	120	140	165
AN	–	–	89	90	97	108	127	140
AW	–	–	139	150	167	188	217	260
B	43	45	54	55	60	67	78	88
BB	–	–	69	70	75	82	93	106
C	8	8	10	10	11	13	17	17
CL	6	6	7	7	8	10	14	14
D	12	14	20	25	30	35	45	56
SW	10	12	17	22	27	32	41	50
E	42	48	62	70	80	94	114	134
F	30	36	47	52	58	69	86	102
H	5.5	5.5	6.5	9	11	13	15	17.5
K	5.6	5.6	6.8	9	11	13	15	18
M	9	9	11	14	18	20	22	26
N	M8x1.25x12D	M10x1.5x15D	M12x1.75x15D	M16x2.0x20D	M20x2.5x25D	M27x3.0x35D	M30x3.5x35D	M36x4.0x40D
W	M10x1.25	M12x1.25	M16x1.5	M22x1.5	M26x1.5	M30x1.5	M39x1.5	M48x1.5
WL	20	22	25	30	35	40	45	60
P1	22.5	23	28	28	29.5	31	33	39
P2	11	12	14	15	18	20	27	28
P3	–	–	13	14	16	20	27	28
R	5	5	10	10	10	10	15	15
PT	1/8	1/8	1/4	1/4	1/4	3/8	3/8	3/8

CHTB Hydraulic axial mounting type SDMA & SWMB

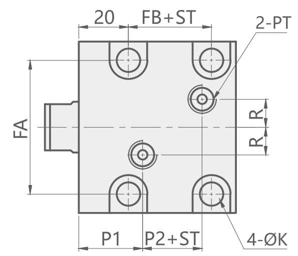
Unit:mm

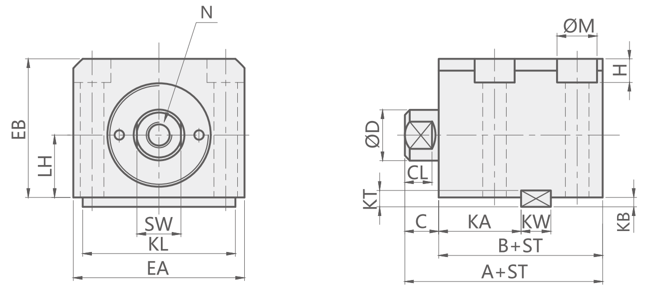
Bore		Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80
A		51	53	64	65	71	80	95
AL		71	75	89	95	106	120	140
B		43	45	54	55	60	67	78
C		8	8	10	10	11	13	17
CL		6	6	7	7	8	10	14
D		12	14	20	25	30	35	45
SW		10	12	17	22	27	32	41
E		42	48	62	70	80	94	114
F		30	36	47	52	58	69	86
H		5.5	5.5	6.5	9	11	13	15
K		5.6	5.6	6.8	9	11	13	15
M		9	9	11	14	18	20	22
N		M8x1.25 x12D	M10x1.5 x15D	M12x1.75 x15D	M16x2.0 x20D	M20x2.5 x25D	M27x3.0 x35D	M30x3.5 x35D
W		M10x1.25	M12x1.25	M16x1.5	M22x1.5	M26x1.5	M30x1.5	M39x1.5
WL		20	22	25	30	35	40	45
SDMA	P1	16.5	19.5	24	27	32	38	47
	R1	13	18	24	26	27	35	45
	O1	S4	P4	P6	P6	P6	P8	P11
SDMB	P2	13	16	20	24	29	35	44
	R2	11	13	20	20	20	26	30
	O2	P5	P7	P9	P9	P9	P11	P11

CHTB Hydraulic side mounting type LA & LW

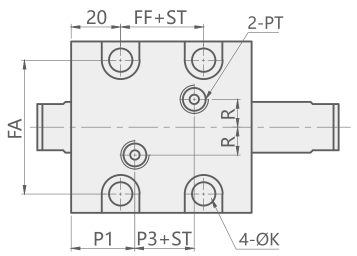
Unit:mm

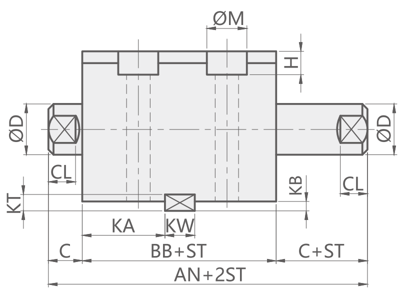
LA-N側向單軸安裝之軸端內牙型





LW-N側向雙軸安裝之軸端內牙型





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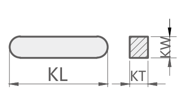
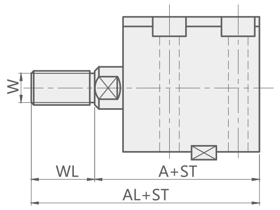
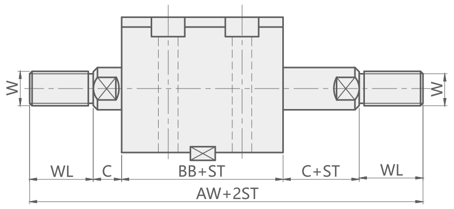


ST=Stroke

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



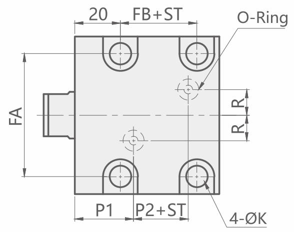
Bore	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
A	64	65	71	80	98	105
AL	89	95	106	120	143	165
AN	89	90	97	108	129	140
AW	139	150	167	188	219	260
B	54	55	60	67	81	88
BB	69	70	75	82	95	106
C	10	10	11	13	17	17
CL	7	7	8	10	14	14
D	20	25	30	35	45	56
SW	17	22	27	32	41	50
EA	70	80	94	114	134	160
EB	56	64	74	89	109	12
LH	25	29	34	42	52	62
FA	56	62	74	90	110	134
FB	24	23	27	32	41	44
FF	32	32	35	42	41	44
H	9	11	13	15	15	17
K	9	11	13	15	15	18
M	14	18	20	22	22	26
N	M12x1.75 x15D	M16x2.0 x20D	M20x2.5 x25D	M27x3.0 x35D	M30x3.5 x35D	M36x4 x40D
W	M16x1.5	M22x1.5	M26x1.5	M30x1.5	M39x1.5	M48x1.5
WL	25	30	35	40	45	60
P1	28	28	29.5	31	35	39
P2	14	15	18	20	28	28
P3	13	14	16	20	25	28
R	10	10	10	10	15	15
PT	1/4	1/4	1/4	3/8	3/8	3/8
KW	12	12	14	16	16	16
KT	8	8	9	10	10	10
KL	63	70	80	100	100	100
KA	28	28	29	31	34	34
KB	4.5	4.5	5	5.5	5.5	5.5

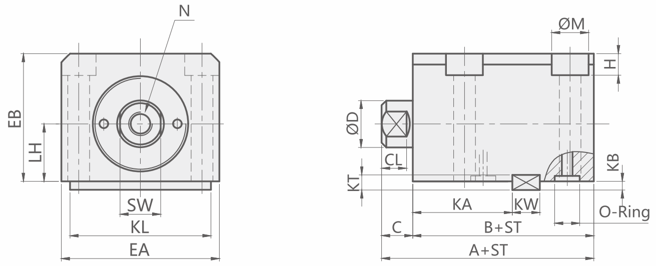
CHTB Hydraulic manifold type LAM & LWM

Unit:mm

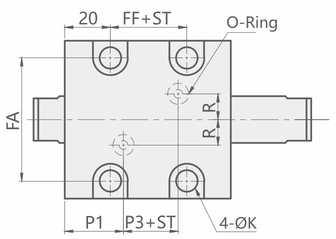
註：行程＜20的無鍵槽及平鍵

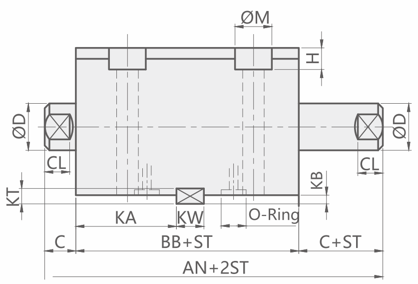
LAM-N側向油路板單軸安裝之軸端內牙型





LWM-N側向油路板雙軸安裝之軸端內牙型





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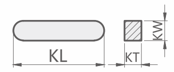
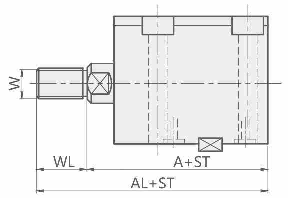
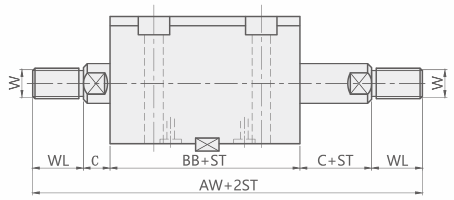


ST=Stroke

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



Bore	Φ32	Φ40	Φ50	Φ63	Φ80
A	64	65	71	80	98
AL	89	95	106	120	143
AN	89	90	97	108	-
AW	139	150	167	188	-
B	54	55	60	67	81
BB	69	70	75	82	-
C	10	10	11	13	17
CL	7	7	8	10	14
D	20	25	30	35	45
SW	17	22	27	32	41
EA	70	80	94	114	134
EB	56	64	74	89	109
LH	25	29	34	42	52
FA	56	62	74	90	110
FB	24	23	27	32	41
FF	32	32	35	42	-
H	9	11	13	15	15
K	9	11	13	15	15
M	14	18	20	22	22
N	M12x1.75 x15D	M16x2.0 x20D	M20x2.5 x25D	M27x3.0 x35D	M30x3.5 x35D
W	M16x1.5	M22x1.5	M26x1.5	M30x1.5	M39x1.5
WL	25	30	35	40	45
P1	28	28	29.5	31	35
P2	14	15	18	20	28
P3	13	14	16	20	-
R	10	10	10	10	15
O	P9	P9	P11	P11	P11
KW	12	12	14	16	16
KT	8	8	9	10	10
KL	63	70	80	100	100
KB	4.5	4.5	5	5.5	5.5
KA	38	38	40	42	52

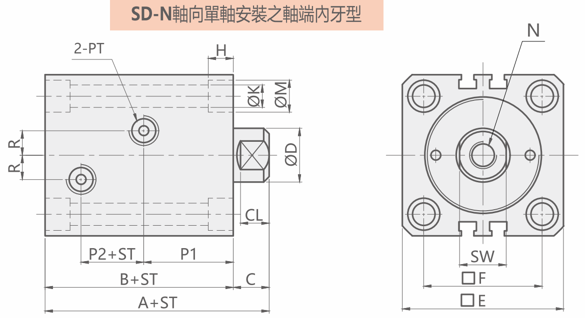
訂購標示法 ORDERING INDICATION

示例：CHTM-SD32-20N-S1 D/A

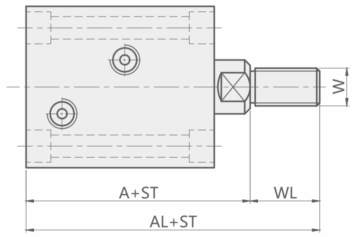
CHTM	系列 Series	CHTM
SD	安裝方式 Mounting type	SD：軸向單軸安裝型Single end rod type SW：軸向雙軸安裝型Double end rod type
32	油缸內徑 Hydraulic cylinder inside diameter	Φ32 , Φ40 , Φ50 , Φ63 , Φ80
20	標準行程 Standard stroke	10,20,30,40,50
N	軸端形式 Rod end type	N：內牙 Female thread N W：外牙Male thread W
S1 D/A	近接開關 Sensor switch	一個S1,2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

注：標配近接形狀為二線式　　Note: The standard connection switch is two-wire type.

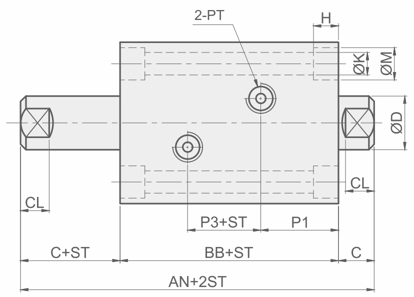
SD-N軸向單軸安裝之軸端內牙型



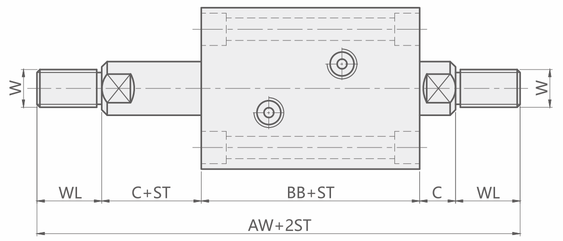
SD-W軸向單軸安裝之軸端外牙型



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



ST=Stroke

CHTM Hydraulic axial mounting type SD & SW

Unit:mm

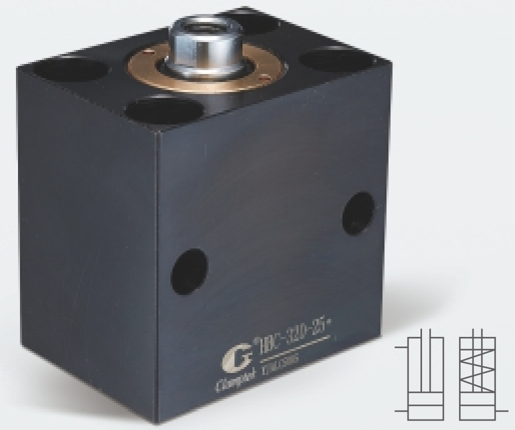
Bore	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
A	83	80	86	97	112	117
AL	108	110	121	142	167	187
AN	104	101	109	120	140	148
AW	154	161	179	210	250	288
B	73	70	75	84	95	100
BB	84	81	87	94	106	114
C	10	10	11	13	17	17
CL	7	7	8	10	14	14
D	20	25	30	35	40	56
SW	17	21	27	32	37	50
E	62	70	80	94	114	134
F	47	52	58	69	86	102
H	6.5	9	11	13	15	17.5
K	6.8	9	11	13	15	18
M	11	14	18	20	22	26
N	M12x1.75x15D	M16x2.0x20D	M20x2.5x25D	M27x3.0x33D	M30x3.5x33D	M36x4x40D
W	M16x1.5	M20x1.5	M24x1.5	M30x1.5	M36x1.5	M48x1.5
WL	25	30	35	45	55	70
P1	27	27	28	30	35	39
P2	29	27	31	36	38	36
P3	30	27	31	34	36	36
R	10	10	10	10	15	15
PT	1/4	1/4	1/4	1/4	3/8	3/8

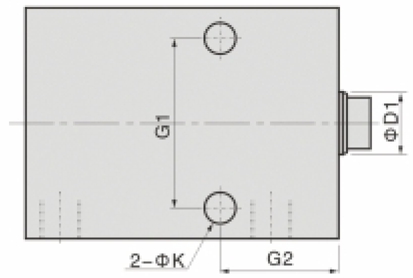
註：使用壓力≧10MPa時，缸體需要採用不鏽鋼材質。

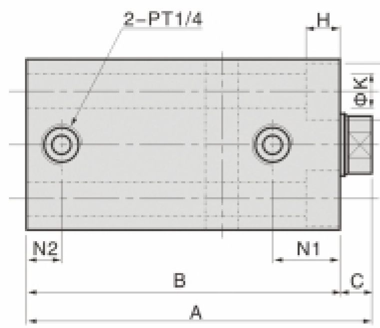
HBC

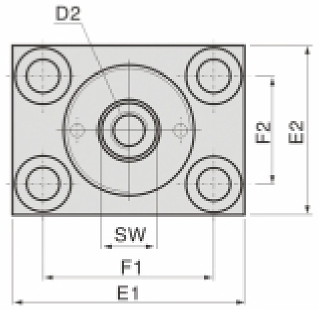
塊型油壓缸

HBC HYDRAULIC BLOCK CYLINDER









Dimension table Unit:mm

Bore		Φ16		Φ25		Φ32		Φ40	
Single acting	Stroke	8	20	8	20	10	20	10	20
	A	62	97	71	101	85	110	89	114
	B	56	91	64	94	75	100	79	104
Double acting	Stroke	16	50	20	50	25	50	25	50
	A	62	97	71	101	85	110	89	114
	B	56	91	64	94	75	100	79	104
C		6		7		10		10	
D1		10		16		20		25	
D2		M6×1.0 12Deep		M10×1.5 15Deep		M12×1.75 15Deep		M16×2.0 25Deep	
SW		8		13		17		22	
E1		60		65		75		85	
E2		35		45		55		63	
F1		40		50		55		63	
F2		22		30		35		40	
G1		30		50		55		63	
G2		30		33		38		40	
H		6.5		9		11		11	
K		6.8		9		11		11	
M		11		14		18		18	
N1		16.5		18		22		24	
N2		11		11		11		11	

產品特性

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

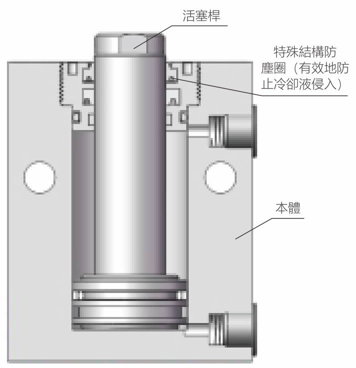
最大操作壓力：300 kgf/cm²
最小操作壓力：100 kgf/cm²
作動方式： 單動式和複動式

FEATURES

The HBC series is optimally designed with imported oil seals from Germany to help improve pressure resistance. With its standardized structure, this cylinder is interchangeable with other standard hydraulic push-pull cylinders from other brands. The installations are dual with axial and lateral types. Acting Type Options: Single-Acting or Double-Acting Type

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

剖面圖 Sectional view（複動型）



注意事項

可接受訂製（300 < P < 500）,歡迎與本公司洽詢

NOTE

Customization is available upon request (300 < P < 500), please contact us for more info.

訂購標示法 ORDERING INDICATION

示例：HBC-32S-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

規格參數表 SPECIFICATIONS

F1: 推出Push out F2: 拉入Pull in

油缸內徑 HYDRAULIC CYLINDER INSIDE DIAMETER(mm)	活塞桿徑 PISTON DIAMETER(mm)	受壓面積 PRESSURE AREA(Cm²)		操作壓力 OPERATION PRESSURE(kgf/cm²)				使用流體 USABLE FLUID
				100		300		
		F1	F2	F1	F2	F1	F2	
Φ16	Φ10	2.01	1.22	201	122	603	366	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
Φ25	Φ16	4.91	2.9	491	290	1473	870	
Φ32	Φ20	8.04	4.9	804	490	2412	1470	
Φ40	Φ25	12.57	7.66	1257	766	3771	2298	

DBA&DBC

緊湊型直線油壓缸

DBA&DBC HYDRAULIC BLOCK CYLINDER

產品特性

此系列產品結構緊湊，安裝方便。

最大操作壓力：350 kgf/cm²
最小操作壓力：10 kgf/cm²

FEATURES

This series of products have compact structure and convenient installation.

Max.operating pressure:350kgf/cm²
Min.operating pressure:10kgf/cm²

注意事項

使用CZL（速度控製閥）時請使用7MPa以下

NOTE

If used with CZL,the operating pressure should be below 7MPa.

訂購標示法 ORDERING INDICATION

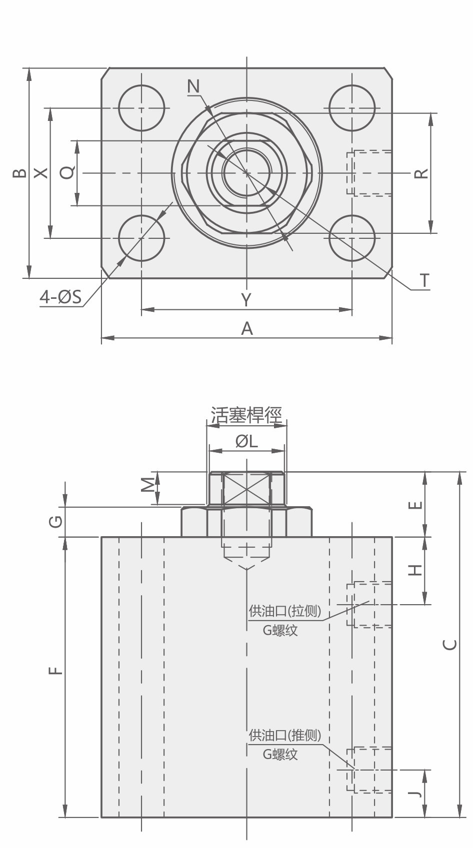
示例：DBA-032CS

DBA	系列 Series	DBA&DBC	
032	油缸內徑 Hydraulic cylinder inside diameter	032（025/032/040/050）	
C	配管方式 Piping Method	B：外配管型（G螺紋） C：板式連接型（附帶G螺紋堵頭）	B：Pipe type（G thread） C：Gasket type（with G thread plug）
S	行程代碼 Stroke	S:全行程25 M:全行程50	S: Total stroke 25mm M:Total stroke 50mm

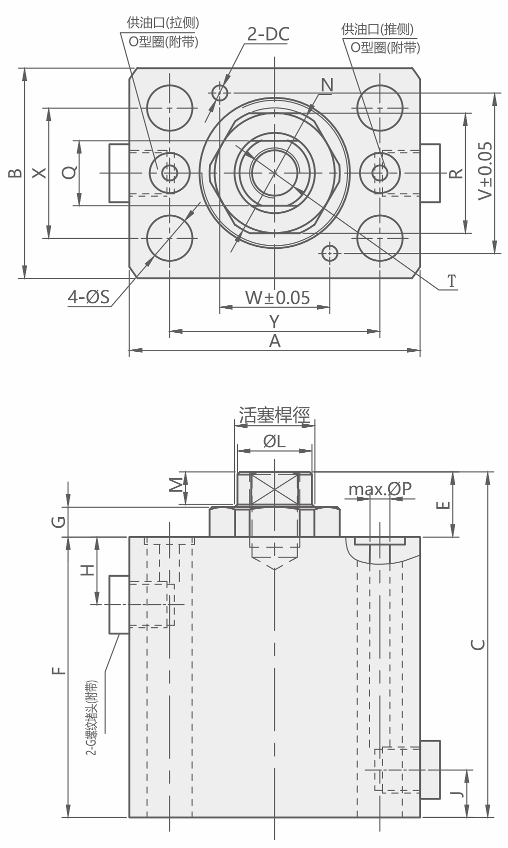
規格參數表 SPECIFICATIONS

型號 MODEL	總行程 CLAMPING STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm³)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(℃)	使用流體 USABLE FLUID
DBA/DBC-025	S:25/M:50	12.3/24.5	7.3/14.5	4.9	2.9	0～+70℃	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
DBA/DBC-032	S:25/M:50	20.1/40.2	12.3/24.5	8.0	4.9	0～+70℃	
DBA/DBC-040	S:25/M:50	31.4/62.8	19.1/38.3	12.6	7.7	0～+70℃	
DBA/DBC-050	S:25/M:50	49.1/98.2	29/58	19.6	11.6	0～+70℃	

DBA-B 配管型



DBA-C 板式連接型



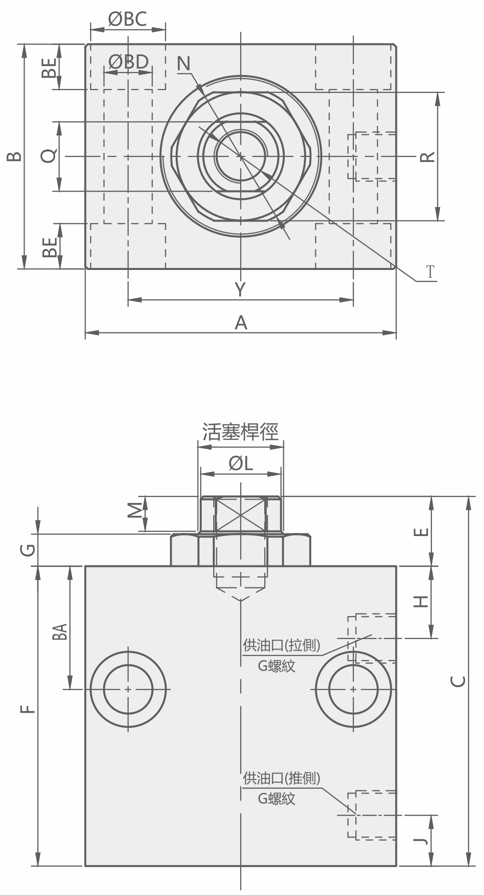
外形尺寸表

Unit:mm

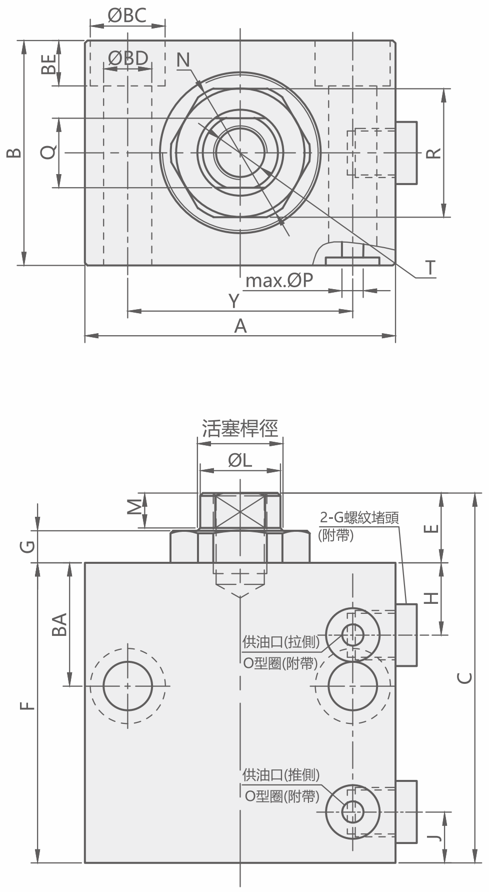
型號 Model	DBA-025		DBA-032		DBA-040		DBA-050	
行程代碼	S	M	S	M	S	M	S	M
A	58		70		80		100	
B	42		50		55		65	
C	69	94	78	103	86	111	92	117
E	13		15		17		18	
F	56	81	63	88	69	94	74	99
G	6		6.5		7		7	
H	11.5		15		17		18	
J	9.5		10		12		13	
K	17.5		17.5		21		21	
L	15.5		19.5		24.3		31.3	
M	6.5		8		9.3		10.3	
N	26.5		33		40		50	
P	3		5		5		5	
Q	13		17		21		27	
R	24		30		36		46	
S	9		11		11		13.5	
T	M10螺紋深15		M12螺紋深18		Ml6螺紋深23		M20螺紋深28	
V	32		38		44		52	
W	22		26		32		44	
X	26		30		35		42	
Y	42		50		60		76	
DC*1	Φ3深5		Φ5深5		Φ5深5		Φ5深5	
供油口 B型	G1/8		G1/8		G1/4		G1/4	
G螺紋堵頭 C型	G1/8		G1/8		G1/4		G1/4	
O形密封圈 C型	P5		P7		P7		P7	
活塞桿徑	Φ16		Φ20		Φ25		Φ32	

註意事項：*1：能使用DC孔和彈簧銷對油缸進行定位

DBC-B 配管型



DBC-C 板式連接型



外形尺寸表

Unit:mm

型號 Model	DBC-025		DBC-032		DBC-040		DBC-050	
行程代碼	S	M	S	M	S	M	S	M
A	58		70		80		100	
B	42		50		55		65	
C	69	94	78	103	86	111	92	117
E	13		15		17		18	
F	56	81	63	88	69	94	74	99
G	6		6.5		7		7	
H	11.5		15		17		18	
J	9.5		10		12		13	
K	17.5		17.5		21		21	
L	15.5		19.5		24.3		31.3	
M	6.5		8		9.3		10.3	
N	26.5		33		40		50	
P	3		5		5		5	
Q	13		17		21		27	
R	24		30		36		46	
T	M10螺紋深15		M12螺紋深18		M16螺紋深23		M20螺紋深28	
Y	42		50		60		76	
BA	23		27		32		34	
BC	14		17.5		17.5		20	
BD	9		11		11		13.5	
BE	8.5		10.5		10.5		12.5	
供油口 B型	G1/8		G1/8		G1/4		G1/4	
G螺紋堵頭 C型	G1/8		G1/8		G1/4		G1/4	
O形密封圈 C型	P5		P7		P7		P7	
活塞桿徑	Φ16		Φ20		Φ25		Φ32	

CVM
油壓擴徑定位銷
HYDRAULIC EXPANSION LOCATING PIN

產品特性

重複定位精度 CVM：± 3 µm
定位銷與工件孔之間的間隙為零

最大操作壓力：70 kgf/cm²
最小操作壓力：25 kgf/cm²

FEATURES

Locating Repeatability CVM：± 3 µm
Zero clearance between reference hole, locating pin with high accuracy

Max.operating pressure: 70 kgf/cm²
Min.operating pressure: 25 kgf/cm²

訂購標示法 ORDERING INDICATION

示例：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)  D 錐銷 Datum C 菱形套 Cut 定位方向標記 Cut Mark
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：「CVM12-D-A125」時 工件孔徑：Φ12.5H8 對應 CVM12-D 規格 Example 1：CVM12-D-A125 CVM12-D with Workpiece Hole Diameter of Φ12.5H8$^{+0.027}_{0}$ 例 2：「CVM09-C-A093」時 工件孔徑：Φ9.3H8 對應 CVM09-C 規格 Example 2：CVM09-C-A093 CVM09-C with Workpiece Hole Diameter of Φ9.3H8$^{+0.022}_{0}$ 例 2：「CVM09-C-A093」時 工件孔徑：Φ9.3H8 對應 CVM09-C 規格 Example 3：CVM18-D-S CVM18-D with Workpiece Hole Diameter of Φ18H8$^{+0.027}_{0}$

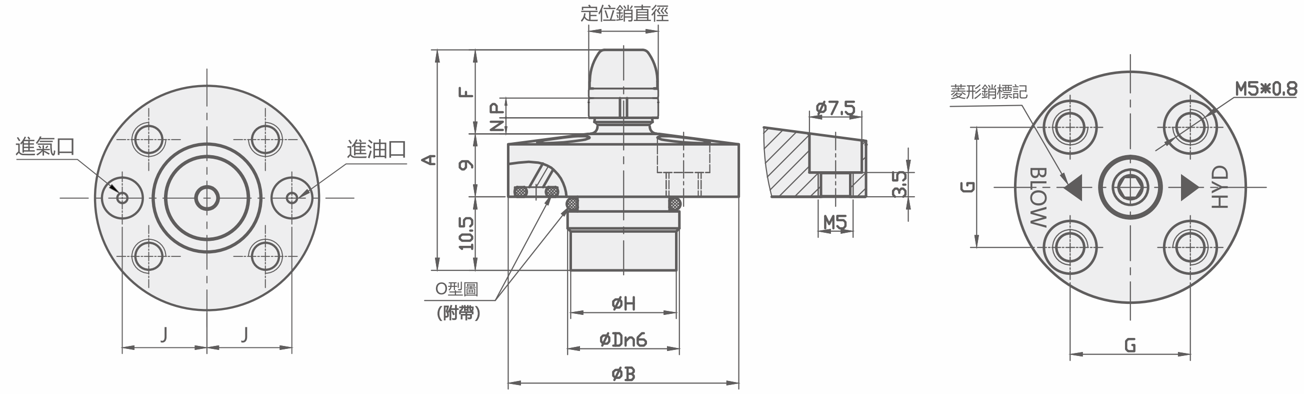
型號 Model No.	S：標準徑 Standard Diameter	A□□□準標準徑 Substandard Diameter
CVM08	8H8	8.1H8 ~ 8.8H8
CVM09	9H8	8.9H8 ~ 9.9H8
CVM10	10H8	10.1H8 ~ 11.3H8
CVM12	12H8	11.4H8 ~ 12.7H8
CVM13	13H8	12.8H8 ~ 14.2H8
CVM15	15H8	14.3H8 ~ 15.7H8
CVM16	16H8	15.8H8 ~ 16.9H8
CVM18	18H8	17.0H8 ~ 17.9H8
CVM18	18H8	18.1H8 ~ 18.4H8
CVM20	20H8	18.5H8 ~ 19.9H8

規格參數表 SPECIFICATION

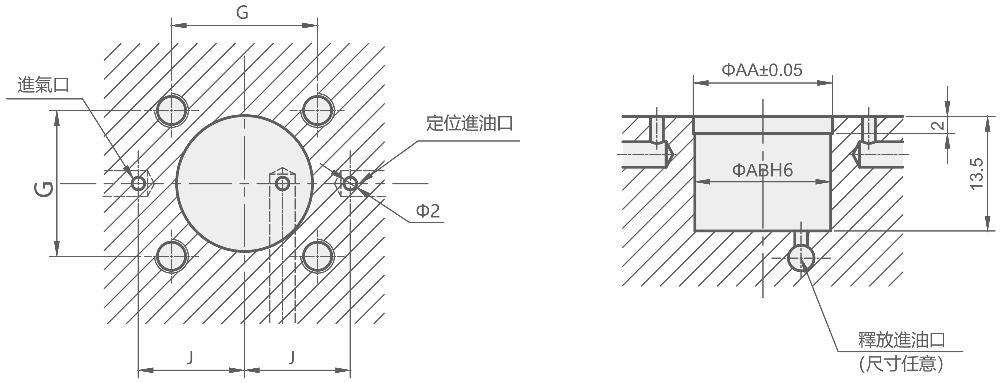
型號 MODEL	工件孔徑 Workpiece Hole Diameter 標準徑 Standard Diameter mm	準標準徑 ※1 Substandard Diameter※1 mm	重復定位精度 Locating Repeatability mm	容許偏心量（C：菱形銷）Offset Tolerance (C:cut) mm	定位力※2 2.5MPa 時	5.0MPa 時	7.0MPa 時	容許剪切載荷※3 Allowable Thrust Load※3 KN	定位側油缸容 Cylinder Capacity (Lock side) cm³	釋放側油缸容量 Cylinder Capacity (Release Side) cm³	最高使用壓力 Max. Operating Pressure MPa	最低動作壓力 Min. Operating Pressure MPa	使用溫度 Operating Temperature(℃)	重量 Weight (g)	使用流體 Usable Fluid
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	90	相當於 ISO 黏度等級的 ISO-VG-32 一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
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	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	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	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	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	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	

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



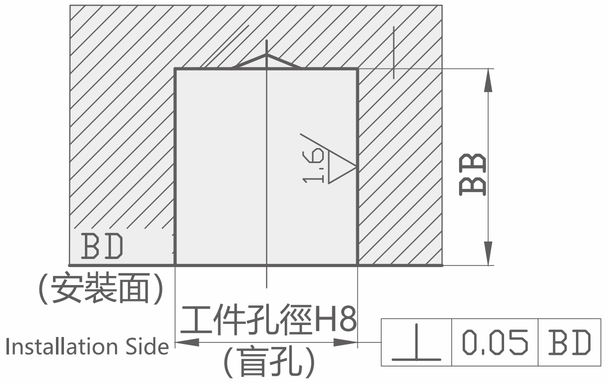
註意事項

※ 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)

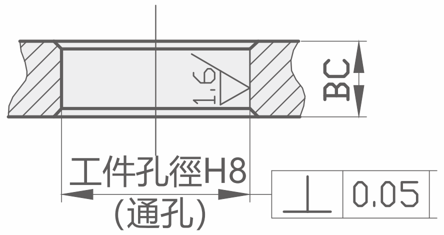
Notes

※ 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



Workpiece Hole Diameter



Workpiece Hole Diameter

規格參數表 SPECIFICATIONS

型號 MODEL	工件孔徑 Workpiece Hole Diameter 標準徑 Standard Diameter mm	準標準徑 ※[1] Substandard Diameter※[1] mm	定位銷孔徑 Datum Diameter 釋放時 (MAX) When Releasing (MAX) mm	(標準徑) (Standard) 全行程時 (MIN) When Full Stroke(MIN) mm	定位销径 Datum Diameter 釋放時 (MAX) When Releasing (MAX) mm	(準標準徑) (Substandard) 全行程時 (MIN) When Full Stroke(MIN) mm	全行程 Full Stroke mm	容許偏心量 (C：菱形銷) 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定位銷徑 標準徑時 Standard Datum Diameter		O形密封圈S O-ring S	O形密封圈T O-ring T	Y	AA	AB	AC	BB	BC
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°)	AS568-005(70°)	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 -014(90°)	AS568-005(70°)	6.5	19.1	16H6 $^{+0.011}_{0}$	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

註意事項 NOTE

設計方面的註意事項CVM通用Notes for Design CVM common

1. 確認規格

● 使用前請確認各產品的規格。
CVM 型產品採用油壓定位，油壓釋放結構。

1.Check Specifications

● Please use each product according to the specifications.
CVM locates and releases with hydraulic pressure.

2.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。

2.Setting Up the Clamps

● The datum cylinder is a positioning cylinder and has no clamping mechanism. A clamp must be provided separately.

3. 建議將空氣清潔回路的直徑設定在 Φ6mm 以上。

3.It is recommended to use the air flow path over Φ6mm.

4. 關於定位銷的安裝方向 (相位)

● -C: 菱形銷 (CVM) 是以 -D: 基準銷 (CVM) 為基準進行旋轉方向定位的。所以安裝時必須註意 -C(菱形銷) 的相位

CVM 时
安装 -C(菱形销) 时，请将 -C(菱形销) 的定位方向标记垂直於 -D (基准销)。(-C(菱形销) 本體的法蘭上面印有定位方向標記：▲。)

4.Clamp Mounting Direction (Phase)

● The reference position (origin) is determined by CVM-D (Datum: for Reference Locating). CVM-C (Cut: for One Direction Locating) locates in one direction (Y-axis), so phasing is necessary

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

5. 關於 Z 軸方向的基準面

● 本型號產品無著座面（Z 軸方向基準面）。
請另行設置 Z 軸方向定位的着座面。
並在定位銷的法蘭上面與工件（托盤）之間設置間隙。
（推薦間隙：0.5 ～ 1mm）

5.Reference Surface towards Z-axis

● Datum cylinder has no seat face (Z axis datum face).
Please prepare 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)

6. 關於定位銷的高度調整

● 擴徑定位銷的高度比着座面的高度低時，可以在定位銷下面設置墊塊調整定位銷的高度。

6.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.

7. 工件（托盤）垂直姿勢（掛壁式）使用時

● 裝卸工件（托盤）時請防止工件（托盤）浮起或傾斜現象。如果在浮起的狀態下進行定位，就有可能導致裝置的損壞。
● 釋放時，工件（托盤）有可能墜落時，請在外部設置預夾緊裝置。
● 工件(托盤)垂直姿勢(掛壁式)使用會導致定位銷內部滑動部位的偏磨損。請定期確認定位精度，如果超出容許範圍，請立即更換裝置。

7.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.

8. 關於工件（托盤）的重量

● 請將工件(托盤)水平姿勢(平置)使用時的工件(托盤)重量設定為

$$\text{工件重量} \leq \frac{1\ \text{臺定位銷的定位力}}{\text{工件着座面的摩擦系數}}$$

● 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。

8.Workpiece (Pallet) Weight

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

$$\text{工件重量} \leq \frac{1\ \text{臺定位銷的定位力}}{\text{工件着座面的摩擦系數}}$$

● 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。

9. 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，定位銷的擴徑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）。

9. 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.

10. 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。

10.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.

安裝施工方面註意事項 NOTE

● 設計方面的註意事項CVM

1） 關於CVM定位銷安裝孔的間距精度

● 請將CVM定位銷安裝孔的間距精度保證在±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(±0.02)。請參考下示 JIS B 0613 中心距離容許差 [2 級]。

Notes for to CVM

1) Distance Accuracy of CVM

● Distance accuracy of the CVM's mounting hole should be within±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.

中心距離的分類 CENTER DISTANCE CLASSIFICATION		中心距離的容許差 CENTER DISTANCE ACCURACY
大於 Greater than	小於 or less	2級 class2
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

1）確認液壓油

2）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。

1) Check the Usable Fluid

2) 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.

型號 Model No.	安裝螺栓名稱 Thread Size	緊固力矩 Tightening Torque (Nm)
CVM	M4×0.7	3.2

3）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。

4）擴徑定位銷的油口位置

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。

5) 請將噴氣清潔回路外徑設定在Φ6(內徑Φ4) 以上。

● 為確保噴氣清潔的效果，推薦使用外徑Φ6(內徑Φ4)以上的氣管。

3) 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.

4) Port Location of Datum Cylinder

CVM: HYD : Hydraulic Lock Port、BLOW : Air Blow Port

Hydraulic pressure is supposed to be supplied from lock port

5) Please use air blow circuit with outside diameter. Φ6 (inside diameterΦ4) or larger.

● To do an effective air blow, it is recommended to use air piping with outside diameter Φ6 (insidediameter Φ4) or larger.

CTC
外螺紋小型油壓單動缸

CTC HYDRAULIC THREAD CYLINDER

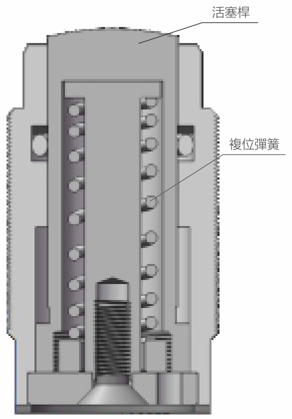
產品特性

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。安裝時儘可能垂直於工作面，傾斜勿超過10°。
缸體底部需置放一隻鎖緊防漏墊圈。

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.

剖面圖 Sectional view



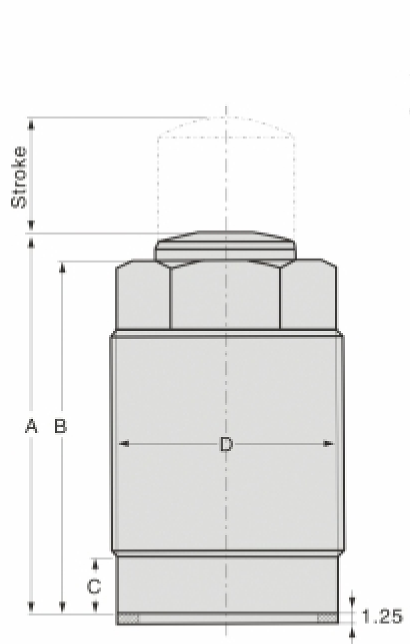
最大操作壓力：250 kgf/cm²
最小操作壓力：20 kgf/cm²
作動方式： 單動式

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

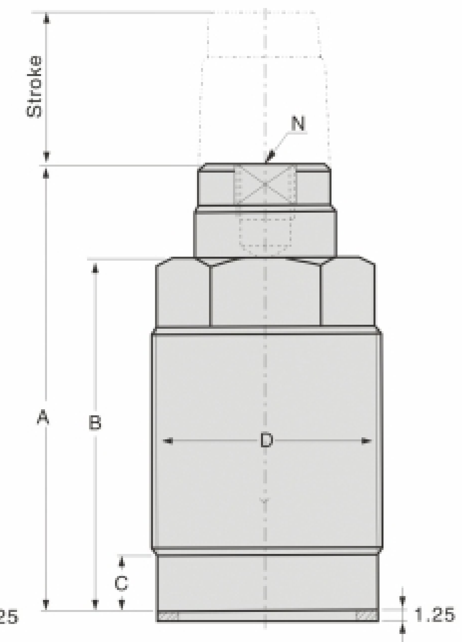
訂購標示法 ORDERING INDICATION

示例：CTC-16A

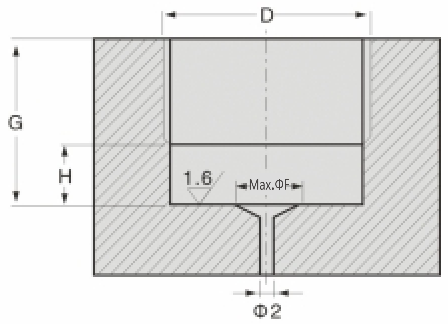
CTC	系列 Series	CTC	
16	活塞桿徑 Piston diameter	Φ12,Φ16,Φ20,Φ25	
A	類型 type	分為A、B兩種	It can be divided into A and B



TYPE A



TYPE B



Mounting Dimensions

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力(250 kgf/cm²) CLAMPING FORCE AT 250kgf/cm² (kgf)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	彈簧阻抗 SPRING FORCE(kgf)	使用流體 USABLE FLUID
CTC-12A	247.5	10	2.14	1.13	6~13	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CTC-16A	475	12	4.24	2.00	6~16	
CTC-20A	765	15	7.29	3.14	9~16	
CTC-25A	1210	16	11.85	4.90	16~33	
CTC-12B	247.5	10	2.14	1.13	6~13	
CTC-16B	475	12	4.24	2.00	6~16	
CTC-20B	765	15	7.29	3.14	9~16	
CTC-25B	1210	16	11.85	4.90	16~33	

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

註：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

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，能在小空間內排列使用。
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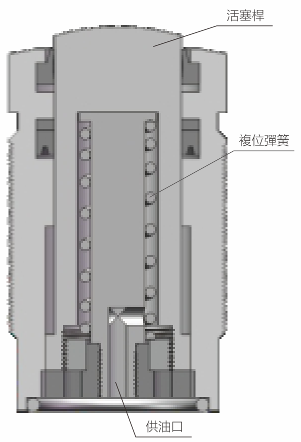

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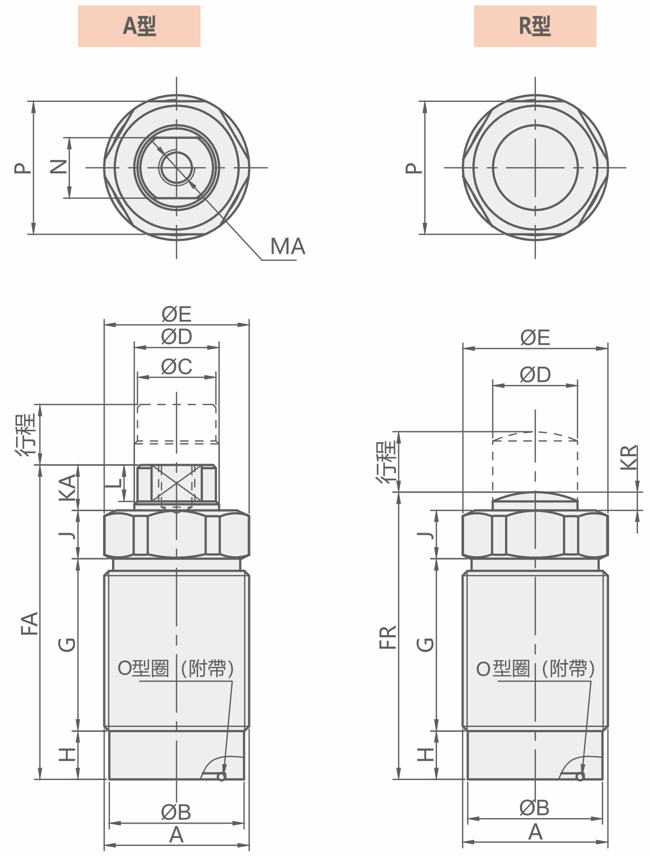
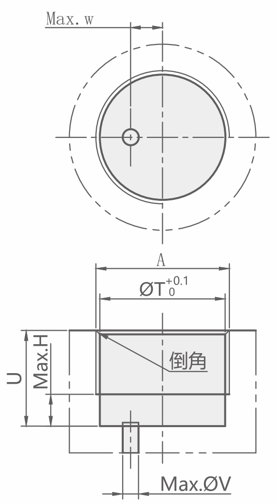


外形尺寸及安裝部位加工尺寸表
External dimensions and machine dimensions for mounting

Unit:mm

MODEL		CTC-K024	CTC-K030	CTC-K036	CTC-K045	CTC-K055
A		M24×1.5	M30×1.5	M36×1.5	M45×1.5	M55×2
B		22.3	28.3	34.3	43.3	52.6
C		13	17	19	28	34.5
D		14	18	22.4	30	35.5
E		24.5	30	35.5	45	55
FA行程代碼	S	39.5	43.5	51	59	64
	M	47	52.5	64	72	79.5
	L	63.5	72	85	94.5	102
G行程代碼	S	17.5	18	23.5	23	27
	M	25	27	36.5	36	42.5
	L	41.5	46.5	57.5	58.5	65
H		8	9	10	12	12
J		7	8	8	12	12
KA		7	8.5	9.5	12	13
L		5.5	7	8	10	11
MA		M6×7	M8×10	M8×10	M10×11	M12×12
N		10	14	17	24	30
P		22	27	32	41	50
T		22.5	28.5	34.5	43.5	53
U行程代碼	S	14＜U＜24	15＜U＜26	16＜U＜32	18＜U＜34	20＜U＜38
	M	14＜U＜32	15＜U＜35	16＜U＜45	18＜U＜47	30＜U＜53
	L	14＜U＜48	15＜U＜54	16＜U＜66	18＜U＜69	20＜U＜76
V		3	6	6	8	8
W		5.5	6	8	10	13
倒角		C1	C1	C1	C1	C1.5
O形圈		AS568-017	AS568-020	AS568-120	P31.5	P39

安裝部位加工尺寸



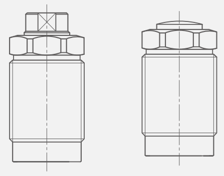
外形尺寸及安裝部位加工尺寸表
External dimensions and machine dimensions for mounting

Unit:mm

MODEL		CTC-K024	CTC-K030	CTC-K036	CTC-K045	CTC-K055
A		M24×1.5	M30×1.5	M36×1.5	M45×1.5	M55×2
B		22.3	28.3	34.3	43.3	52.6
D		14	18	22.4	30	35.5
E		24.5	30	35.5	45	55
FR行程代碼	S	35	38	45	51	56
	M	42.5	47	58	64	71.5
	L	59	66.5	79	86.5	94
G行程代碼	S	17.5	18	23.5	23	27
	M	25	27	36.5	36	42.5
	L	41.5	46.5	57.5	58.5	65
H		8	9	10	12	12
J		7	8	8	12	12
KR		2.5	3	3.5	4	5
P		22	27	32	41	50
T		22.5	28.5	34.5	43.5	53
U行程代碼	S	14＜U＜24	15＜U＜26	16＜U＜32	18＜U＜34	20＜U＜38
	M	14＜U＜32	15＜U＜35	16＜U＜45	18＜U＜47	30＜U＜53
	L	14＜U＜48	15＜U＜54	16＜U＜66	18＜U＜69	20＜U＜76
V		3	6	6	6	8
W		5.5	6	8	10	13
倒角		C1	C1	C1	C1	C1.5
O形圈		AS568-017	AS568-020	AS568-120	P31.5	P39

訂購標示法 ORDERING INDICATION

示例：CTC-K024AL

CTC-K	系列 Series	CTC-K	
024	024/030/036/045/055		
A	類型 TYPE	分為A、R兩種	It can be divided into A and R  A型 R型
L	行程 STROKE	(具體行程見尺寸表)	Please refer to the dimension table for the more details

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (250 kgf/cm²) CLAMPING FORCE AT 250kgf/cm² (kgf)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CTC-K024	388	S:8/M:12/L:20	1.2/1.8/3.1	1.5	0~+70°C	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
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/L:32	11.9/19.8/31.7	9.9	0~+70°C	

CTC-P

外螺紋小型油壓單動缸

CTC-P 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，能在小空間內排列使用。
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。安裝時儘可能垂直於工作面，傾斜勿超過10°。
缸體底部需置放一隻鎖緊防漏墊圈。

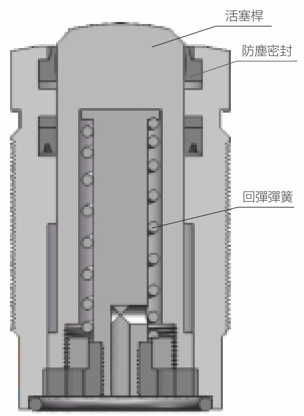
最大操作壓力：350 kgf/cm²
最小操作壓力：20 kgf/cm²
作動方式：單動式

FEATURES

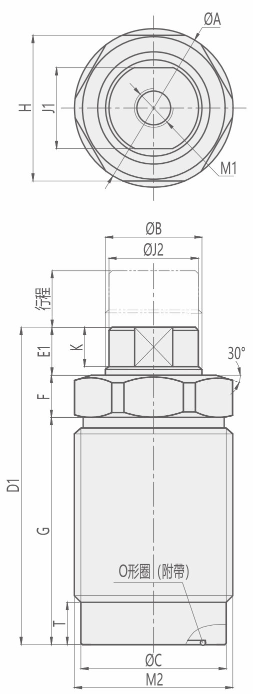
The Thread-body single acting hydraulic cylinder use imported oil seal and accessories to guarantee the quality . No oil leakage while clamping in high pressure for a long time.The volume of the thread-body single acting hydraulic cylinder is small. It can be utilized in a small space in the fixture.This 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: 350 kgf/cm²
Min. operating pressure: 20 kgf/cm²
Single acting

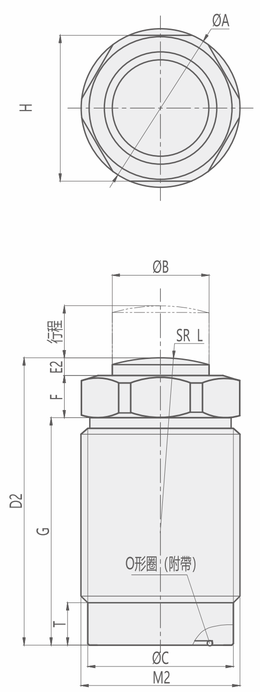
剖面圖 Sectional view



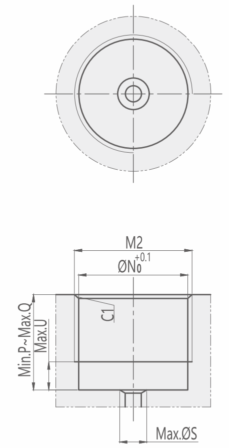
A型



R型



安裝部位加工尺寸



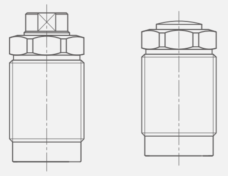
外形尺寸及安裝部位加工尺寸表
External dimensions and machine dimensions for mounting

Unit:mm

MODEL		CTC-P022	CTC-P025	CTC-P030	CTC-P036	CTC-P048	CTC-P055
A		24	26	33	40	50	55
B		12	14	18	22.4	32	35.5
C		20.3	23.3	28.3	34.3	46	52.6
D1 行程	5	31	36	40.5	44.5	-	-
	10	41	47	51.5	54.5	67.5	-
	12	-	-	-	-	-	67
	15	51.5	58	62.5	66.5	80.5	-
	20	-	68	72.5	-	92	81.5
	25	-	-	-	87.5	-	-
	32	-	-	-	-	118.5	104.5
D2 行程	5	27	31	34	36.5	-	-
	10	37	42	45	46.5	57	-
	12	-	-	-	-	-	56
	15	47.5	53	56	58.5	70	-
	20	-	63	66	-	81.5	70.5
	25	-	-	-	79.5	-	-
	32	-	-	-	-	108	93.5
E1		7	8.5	10	12	16	17.5
E2		3	3.5	3.5	4	5.5	6.5
F		8	9	10.5	12.5	14	15
M1		M6X1深6	M6X1深11	M8X1.25深13	M8X1.25深13	M12X1.75深18	M12X1.75深18
M2		M22X1.5	M25X1.5	M30X1.5	M36X1.5	M48X1.5	M55X2.0
G 行程	5	16	18.5	20	20	-	-
	10	26	29.5	31	30	37.5	-
	12	-	-	-	-	-	34.5
	15	36.5	40.5	42	42	50.5	-
	20	-	50.5	52	-	62	49
	25	-	-	-	63	-	-
	32	-	-	-	-	88.5	72
H		22	24	30	36	46	50
J1		10	12	14	19	27	30
J2		11	13	17	21.4	30	32.5
K		5.5	6.5	7.5	9.5	12.5	13.5
L		20	25	32	40	50	60
N		20.5	23.5	28.5	34.5	46.5	53
P		13	14	15	17	20	24
Q 行程	5	15.5	18	19.5	19.5	-	-
	10	25.5	29	30.5	29.5	37	-
	12	-	-	-	-	-	35.5
	15	36	40	41.5	41.5	50	-
	20	-	50	51.5	-	61.5	48
	25	-	-	-	62.5	-	-
	32	-	-	-	-	88	71
S		8	10	14	19	26	34
T		7	7	7	7	7	10
U		6	6	6	6	6	9
O形圈		AS568-015	AS568-016	AS568-019	AS568-022	AS568-126	AS568-129

訂購標示法 ORDERING INDICATION

示例：CTC-P022A-10

CTC-P	系列 Series	CTC-P	
022	022/025/030/036/048/055		
A	類型 TYPE	分為A型/R型兩種	It can be divided into A and R  A型 R型
10	行程 STROKE	(具體行程見尺寸表)	Please refer to the dimension table for the more details

規格參數表 SPECIFICATIONS

型號	理論夾持力 (350 kgf/cm²)	總行程	推出容積	推出受壓面積	使用溫度範圍	使用流體
MODEL NO.	CLAMPING FORCE AT 350kgf/cm² (kgf)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm³)	EFF.PISTON AREA CLAMP(cm²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CTC-P022	397	5/10/15	0.6/1.1/1.7	1.13	0~+70°C	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CTC-P025	540	5/10/15/20	0.8/1.5/2.3/3.1	1.54	0~+70°C	
CTC-P030	897	5/10/15/20	1.3/2.5/3.8/5.1	2.55	0~+70°C	
CTC-P036	1398	5/10/15/25	2.0/3.9/5.9/9.9	3.94	0~+70°C	
CTC-P048	2846	10/15/20/32	8.0/12.0/16.0/20.1	8.04	0~+70°C	
CTC-P055	3500	12/20/32	11.9/19.8/31.7	9.90	0~+70°C	

CTC-PD

外螺紋小型油壓單動拉缸

CTC-PD HYDRAULIC THREAD PULL 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，能在小空間內排列使用。
此型式油缸使用於拉式場合，彈簧頂出，無法用於頂出場合。安裝時儘可能垂直於工作面，傾斜勿超過10°。
缸體底部需置放一隻鎖緊防漏墊圈。

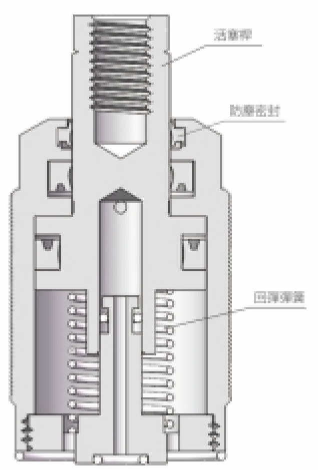
最大操作壓力：350 kgf/cm²
最小操作壓力：20 kgf/cm²
作動方式： 單動式

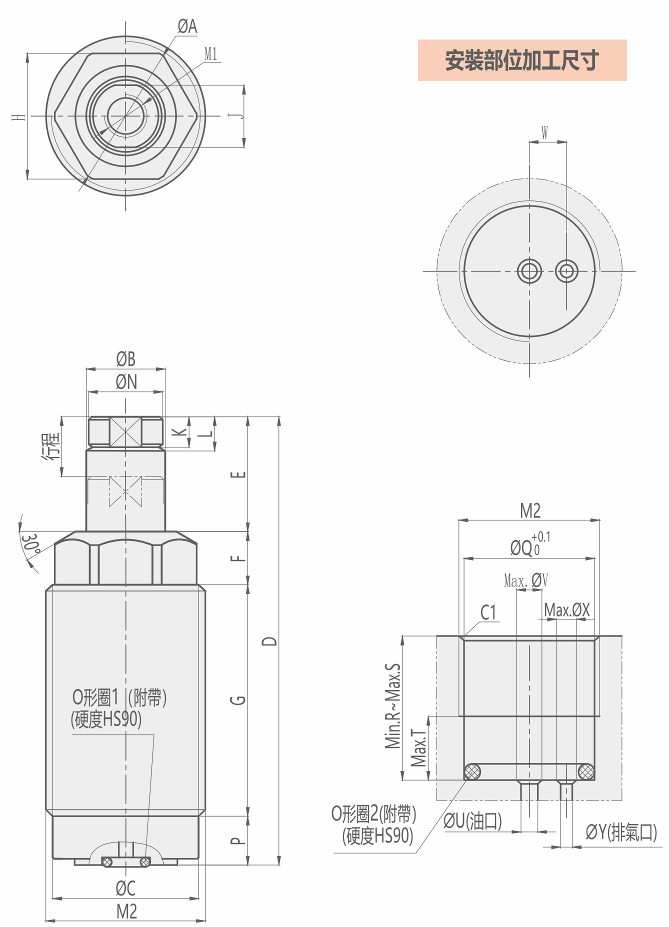
FEATURES

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: 350 kgf/cm²
Min. operating pressure: 20 kgf/cm²
Single acting

剖面圖 Sectional view





外形尺寸及安裝部位加工尺寸表
External dimensions and machine dimensions for mounting

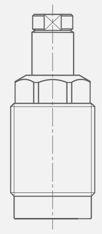
Unit:mm

MODEL		CTC-PD022	CTC-PD025	CTC-PD030	CTC-PD036	CTC-PD048	CTC-PD058
A		19	21.5	27	33	45	55
B		10	10	12	16	20	25
C		20.3	23.3	28.3	34.3	46.3	56.3
D 行程	5	51	51	-	-	-	-
	10	65	65	69	73	80	88
	20	-	-	96	101	109	116
E 行程	5	10	10	-	-	-	-
	10	15	15	16	17	19	20.5
	20	-	-	26	27	29	30.5
F		7.5	8	9.5	11.5	13.5	16.5
G 行程	5	27	26.5	-	-	-	-
	10	36	35.5	35.5	35.5	35.5	38
	20	-	-	52.5	53.5	54.5	56
H		17	19	24	30	41	50
J		8	8	10	14	17	22
K		4.5	4.5	5.5	6.5	8.5	10
L		5	5	6	7	9	10.5
M1		M6X1深11	M6X1深11	M8X1.25深18	M10X1.5深20	M12X1.75深22	M16X2深27
M2		M22X1.5	M25X1.5	M30X1.5	M36X1.5	M48X1.5	M58X1.5
N		9.5	9.5	11.5	15.5	19.5	24.5
P		6.5	6.5	8	9	12	13
Q		20.5	23.5	28.5	34.5	46.5	56.5
R		13	14	15	17	20	20
S 行程	5	32.5	32	-	-	-	-
	10	41.5	41	42.5	43.5	46.5	50
	20	-	-	59.5	61.5	65.5	68
T		5.5	5.5	7	8	11	12
U		3	3	3	4	6	6
V		5	5	5	5	7	7
W		7	7.5	9.5	12	15	18
X		4	4	4	4	4	4
Y		3	3	3	3	3	3
O形圈1		P6	P6	P6	P6	P8	P8
O形圈2		AS568-017	AS568-019	AS568-022	AS568-026	AS568-031	AS568-034

訂購標示法 ORDERING INDICATION

示例：CTC-PD022-10

CTC-PD	系列 Series	CTC-PD
022	022/025/030/036/048/058	
10	行程 STROKE	(具體行程見尺寸表) Please refer to the dimension table for the more details



規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (350 kgf/cm²) CLAMPING FORCE AT 350kgf/cm² (kgf)	油缸內徑 HYDRAULIC CYLINDER INSIDE DIAMETER(mm)	總行程 TOTAL STROKE(mm)	拉入容積 OIL CAPACITY CLAMP(cm³)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CTC-PD022	296	16	5/10	0.5/0.9	0.84	0~+70°C	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CTC-PD025	489	18	5/10	0.7/1.4	1.37	0~+70°C	
CTC-PD030	806	22	10/20	2.3/4.6	2.29	0~+70°C	
CTC-PD036	1326	28	10/20	3.8/7.5	3.76	0~+70°C	
CTC-PD048	2265	36	10/20	6.4/12.8	6.40	0~+70°C	
CTC-PD058	3918	46	10/20	11.1/22.2	11.07	0~+70°C	

CLG

油壓順序閥（日式規格）

CLG HYDRAULIC SEQUENCE VALVE (JAPAN SPECIFICATION)

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.
Please use a flow control valve to adjust flow volume from the pressure source.

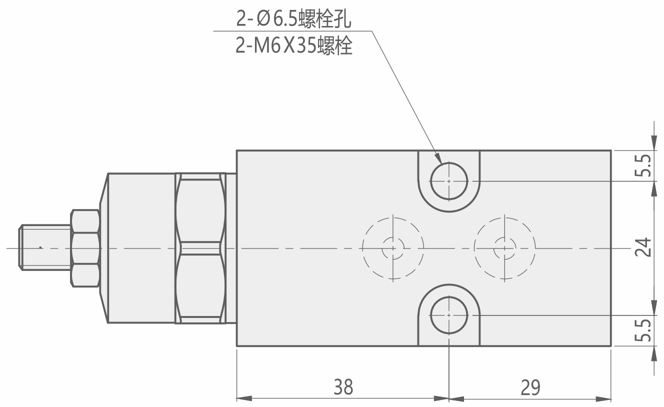
訂購標示法 ORDERING INDICATION

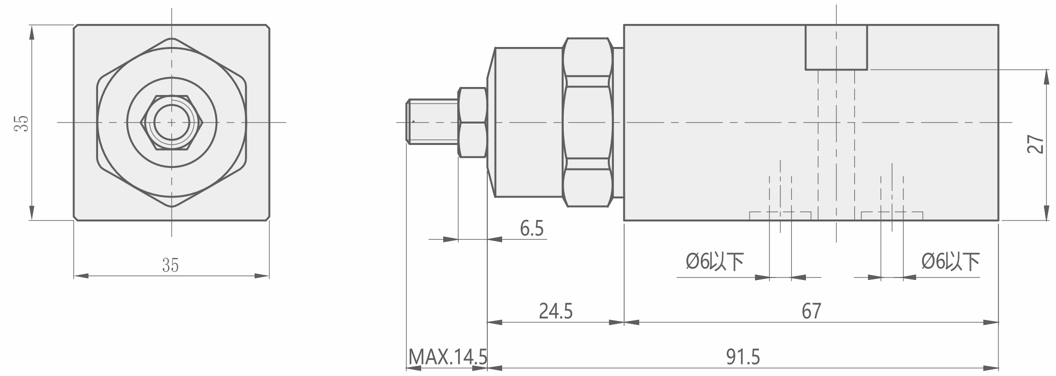
示例：CLG-3A(5.0MPa)

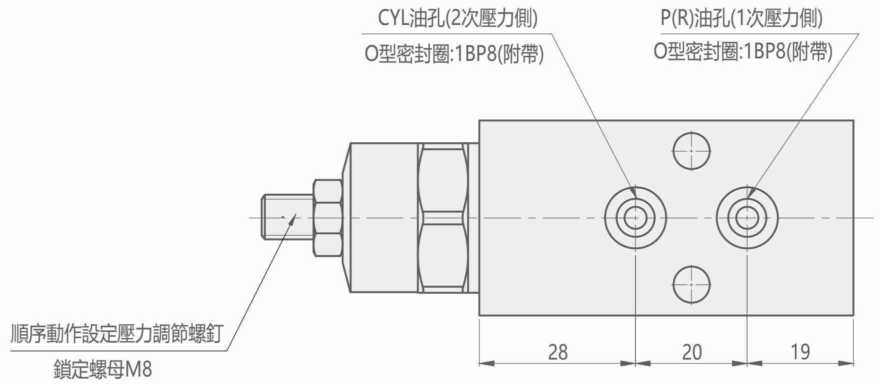
CLG	系列 Series	CLG
3	順序動作壓力調整範圍 Sequential action pressure adjustment range	3: 1.0~6.0 MPa 6: 5.0~18.0MPa
A	A油路板型式	A Manifold type
5.0MPa	設定壓力（順序動作壓力的設定值） Set pressure(Set valve for sequence operating pressure)	1.使用壓力與設定壓力的壓差應設定在1MPa以上。 2.多台順序閥並聯於迴路中使用時，相互間設定壓力的壓差應在1MPa以上。 1.The pressure difference between the working pressure and the set pressure should be set above 1MPa 2.When multiple sequence valves are used in the circuit, the pressure difference between the set pressures should be set above 1MPa

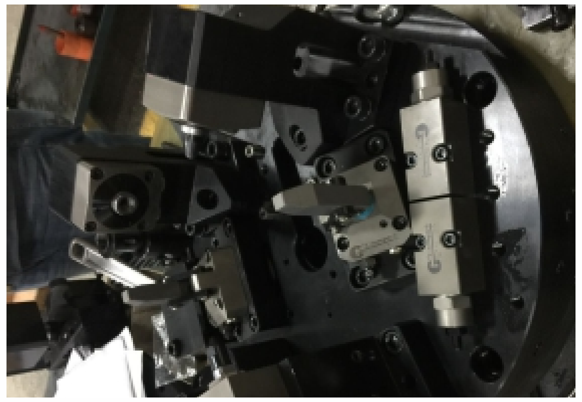
規格參數表 SPECIFICATIONS

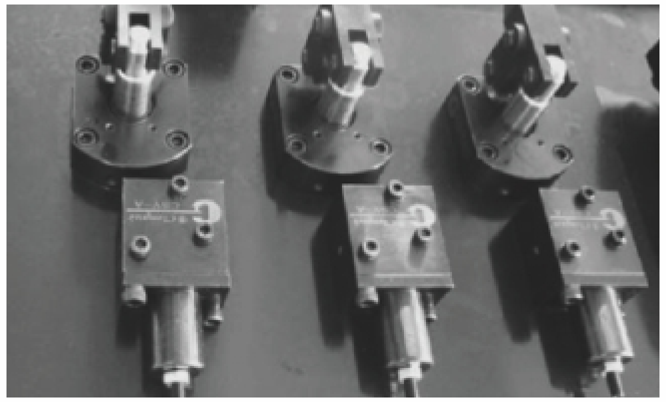
型號 MODEL	顺序动作壓力調整範圍 SEQUENTIAL ACTION PRESSURE ADJUSTMENT RANGE(MPa)	使用壓力範圍 OPERATING PRESSURE RANGE(MPa)	調節螺釘壓力變化值（MPa/每圈） ADJUSTING SCREW TURN RATIO(MPa/REV)	開啟壓力 CRACKING PRESSURE (MPa)	使用溫度 OPERATING TEMPERATURE(°C)	使用流體 USABLE FLUID
CLG-3A	1.0~6.0	2.0~35.0	1.0	0.01	0~70°C	相當於ISO黏度等級的ISO-VG-32一般液壓油Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CLG-6A	5.0~18.0	6.0~35.0	2.8	0.01	0~70°C	











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，適用於複雜環境的安裝；缸徑φ20，啟動壓力為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。

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.

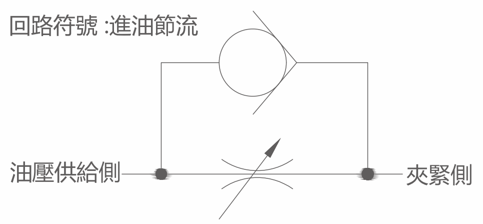
注意事項

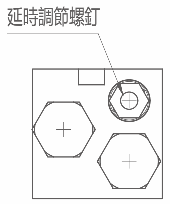
將密封螺母鬆開，調節時間順序閥至所需時間，右旋調節桿時間變長，左旋調節桿時間變短：
調整好時間後，將密封螺母鎖緊。
溫馨提示：請在回油時調整時間閥。
使用流體：相當於ISO黏度等級的ISO-VG-32一般液壓油。

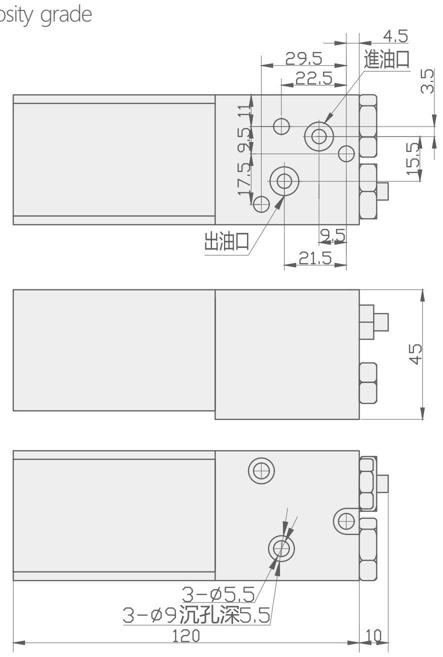
NOTE

When the sealing nut was loosening, please adjust the time sequence valve to the required time, and turn the adjusting lever time longer, less time for left-turning adjusting lever.
After adjusting the time, lock the sealing nut tight.
Please adjust the time valve when returning oil.
Usable fluid: Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

原理圖



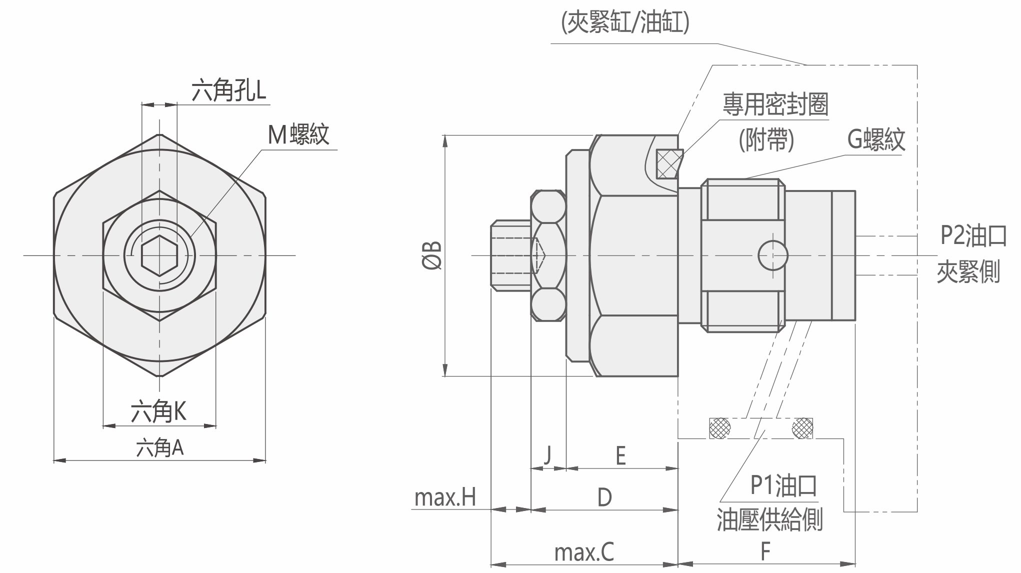




CZL

速度控制閥（低壓用）

CZL SPEED CONTROL VALVE(LOW PRESSURE)



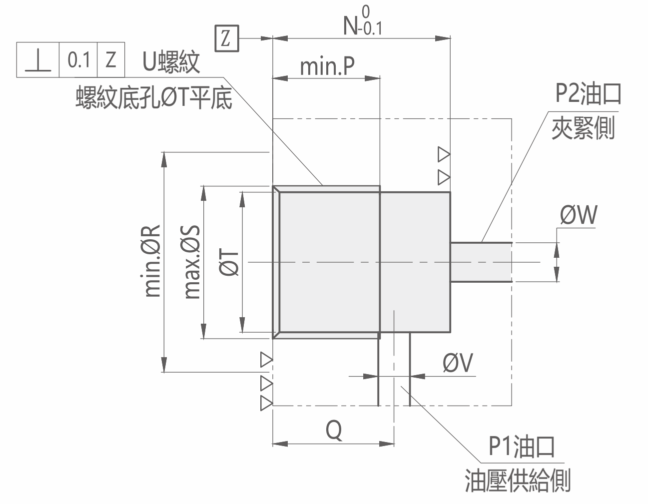
注意事項

1.控制側完全開啟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. Dont 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.

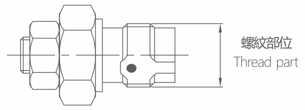
安裝孔加工圖



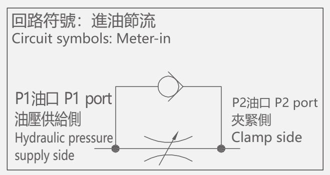
訂購標示法 ORDERING INDICATION

示例：CZL-10B

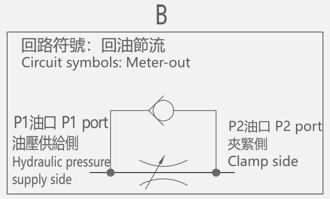
CZL	系列 Series	CZL	
10	G螺紋尺寸 G thread size	10: 螺紋尺寸G1/8 20: 螺紋尺寸G1/4 30: 螺紋尺寸G3/8	Thread part G1/8 thread Thread part G1/4 thread Thread part G1/8 thread
B	控制方式 Control method	A進油節流 Meter-in B回油節流 Meter-out	



A



B



規格參數表 SPECIFICATIONS

型號 MODEL	最高使用壓力 MAX. OPERATING PRESSURE(Mpa)	耐壓 WITHSTANDING PRESSURE(Mpa)	控制方式 CONTROL METHOD	G螺紋尺寸 G THREAD SIZE	開啟壓力 CRACKING PRESSURE (MPA)	最大流道面積 MAX. PASSAGE AREA(mm^2)	使用溫度 OPERATING TEMPERATURE(°C)	本體推薦緊固力矩(N.m) RECOMMEND TIGHTENING FOR MAIN BODY(N.m)	使用流體 USABLE FLUID
CZL-10A	7	10.5	進油節流Meter-in	G1/8	0.04	2.6	0~70°C	10	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CZL-20A	7	10.5	進油節流Meter-in	G1/4	0.04	5.0	0~70°C	25	
CZL-30A	7	10.5	進油節流Meter-in	G3/8	0.04	11.6	0~70°C	35	
CZL-10B	7	10.5	回油節流Meter-out	G1/8	0.12	2.6	0~70°C	10	
CZL-20B	7	10.5	回油節流Meter-out	G1/4	0.12	5.0	0~70°C	25	
CZL-30B	7	10.5	回油節流Meter-out	G3/8	0.12	10.2	0~70°C	35	

註意事項

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.加工孔交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

11. 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 specificaiton are considered to be mounted,"※1" in the table should be 12.5.

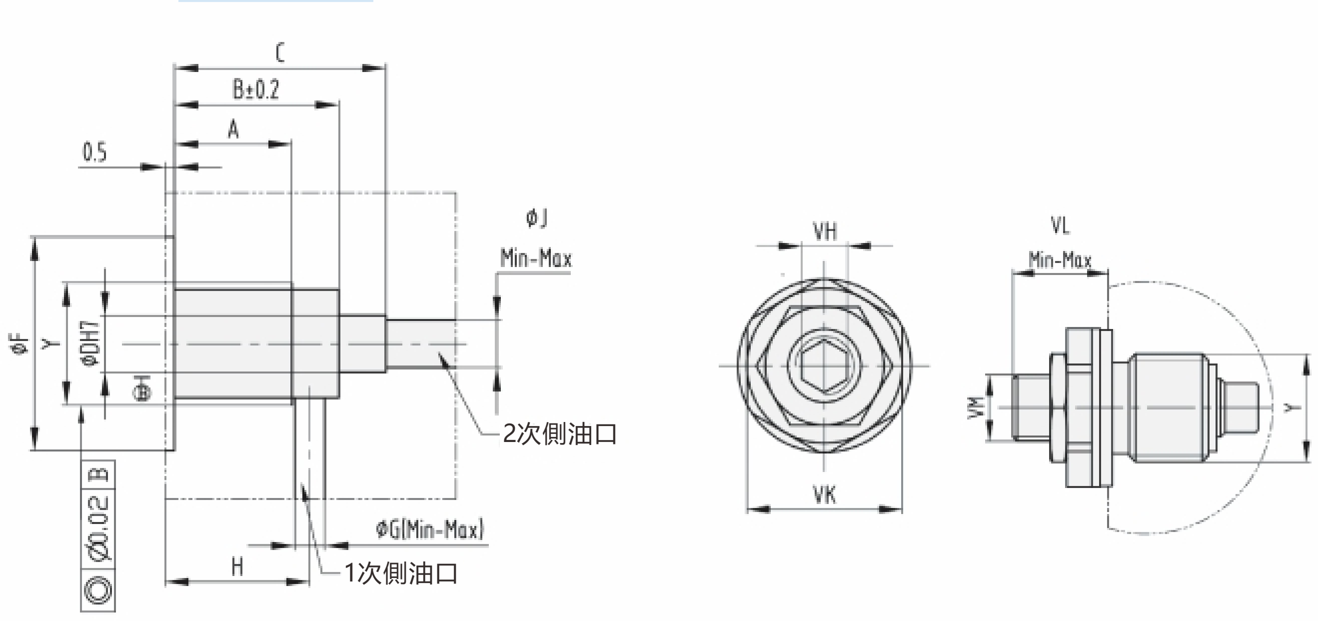
Unit:mm

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W
CZL-10	14	15.5	15	12	8.5	11.6	G1/8	3	3.5	10	3	M6x0.75	11.5	8.5	9	16	10	8.7	G1/8	2~3	2.5~5
CZL-20	18	20	16	13	9.5	15.1	G1/4	3	3.5	10	3	M6x0.75	15	11※1	11.5	20.5	13.5	11.5	G1/4	3~4	3.5~7
CZL-30	22	24	19	16	11	17.6	G3/8	3	5	13	4	M8x0.75	17.5	13	13	24.5	17	15	G3/8	4~5	4.5~9

CVCF

速度控制閥（低壓用）

CVCF SPEED CONTROL VALVE(LOW PRESSURE)



注意事項

1.控制側完全開啟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

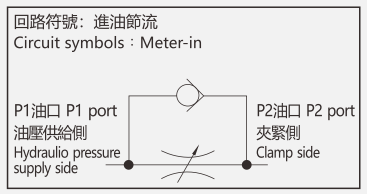
1. Minimum passage area when fully opened is the same as the maximum passage area in the table above.
2. It must be mounted with recommended torque. Because of the structure of the metal seal, if mounting torque is insufficient, the flow control valve may not be able to adjust the flow rate.
3. Dont 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

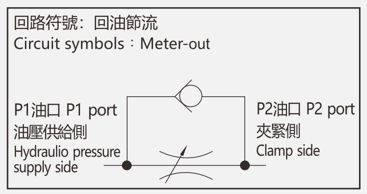
示例：CVCF-01O

CVCF	系列 Series	CVCF	
01	G螺紋尺寸 G thread size	10: 螺紋尺寸G1/8 20: 螺紋尺寸G1/4 30: 螺紋尺寸G3/8	Thread part G1/8 thread Thread part G1/4 thread Thread part G1/8 thread
O	控制方式 Control method	無記號：進油節流 O：回油節流	Meter-in Meter-out

無記號



O



規格參數表 SPECIFICATIONS

型號 MODEL	最高使用壓力 MAX. OPERATING PRESSURE(Mpa)	耐壓 WITHSTANDING PRESSURE(Mpa)	控制方式 CONTROL METHOD	G螺紋尺寸 G THREAD SIZE	開啟壓力 CRACKING PRESSURE (MPA)	使用溫度範圍 OPERATING TEMPERATURE(°C)	本體推薦緊固力矩(N.m) RECOMMEND TIGHTENING FOR MAIN BODY(N.m)	使用流體 USABLE FLUID
CVCF-01	7	10.5	進油節流Meter-in	G1/8	0.04	0~70°C	10	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CVCF-02	7	10.5	進油節流Meter-in	G1/4	0.04	0~70°C	30	
CVCF-03	7	10.5	進油節流Meter-in	G3/8	0.04	0~70°C	35	
CVCF-01O	7	10.5	回油節流Meter-out	G1/8	0.12	0~70°C	10	
CVCF-02O	7	10.5	回油節流Meter-out	G1/4	0.12	0~70°C	30	
CVCF-03O	7	10.5	回油節流Meter-out	G3/8	0.12	0~70°C	35	

Unit:mm

Model	A	B	C	D	F	G	H	J	Y	VH	VK	VL	VM
CVCF-01 CVCF-01O	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
CVCF-02 CVCF-02O	13	18	22.5	$6^{+0.012}_{0}$	21.5	3.5~5	14.5~15.5	3.5~6	G1/4	5	17	7.5~11.5	M8×0.75
CVCF-03 CVCF-03O	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

注:
1.拆裝時請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介面處（G螺紋部）。
3.請在無油壓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（CVCF□）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封閉狀態後一點一點慢慢地調整動作速度。

CSV

油壓順序閥

CSV HYDRAULIC SEQUENCE VALVE

產品特性

此型式油壓順序閥，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

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

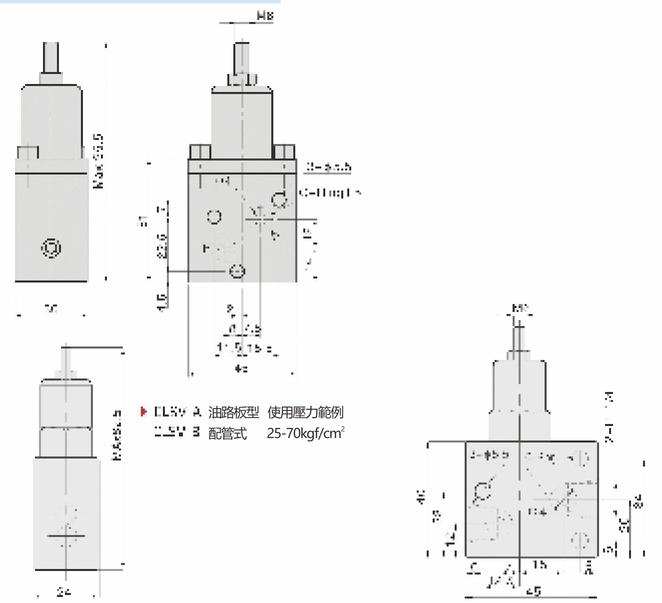
註意事項

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。

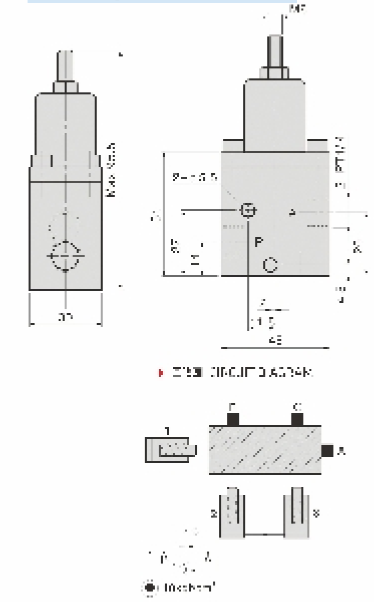
NOTE

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.

CSV-A/CLSV-A 油路板式



CSV-B/CLSV-B 配管式



訂購標示法 ORDERING INDICATION

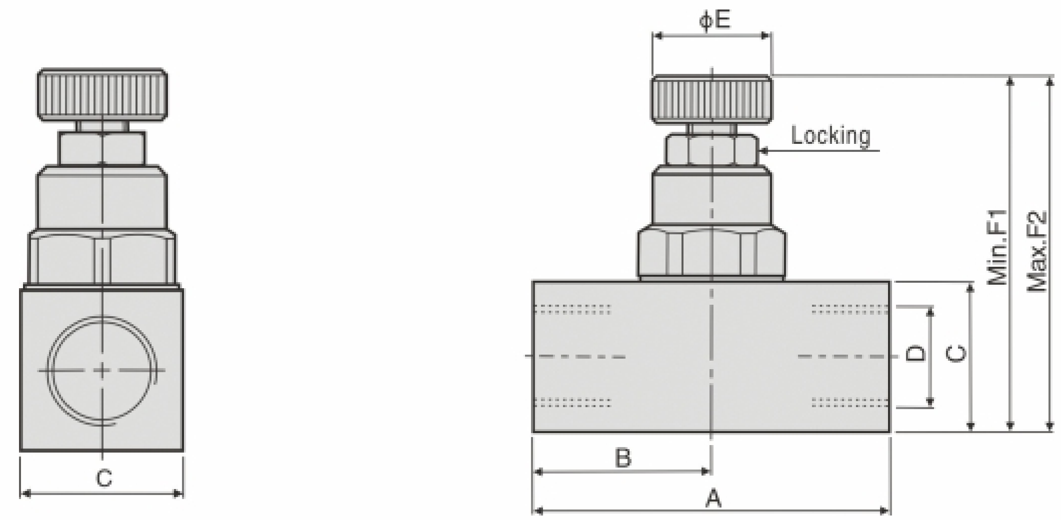
示例：CSV-A CLSV-A CSV-B CLSV-B

CSV-A CLSV-A	油路板型 Manifold type	25-250 kgf/cm² 25-70 kgf/cm²
CSV-B CLSV-B	配管式Line type	25-250 kgf/cm² 25-70 kgf/cm²

CFCV/CFTC

油壓流量閥

CFCV/CFTC HYDRAULIC FLOW CONTROL VALVE



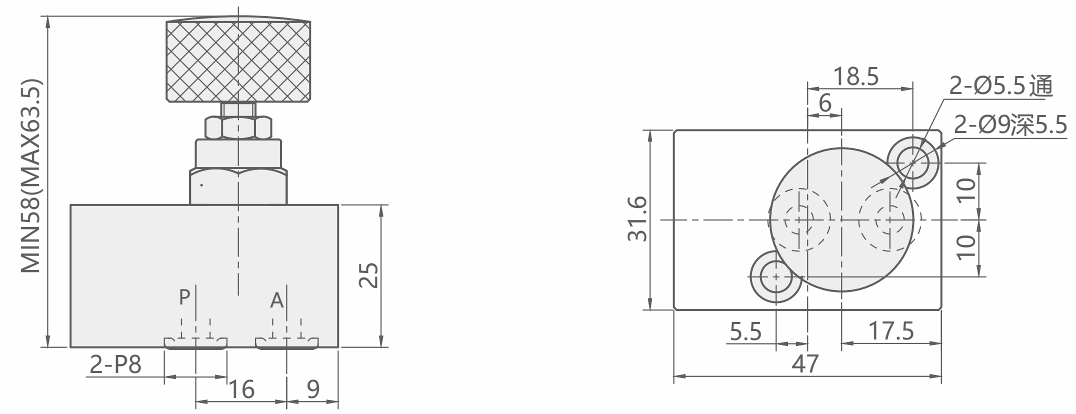
Max. operating pressure: 210 kgf/cm²

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：相當於ISO黏度等級的ISO-VG-32一般液壓油
Recommended：ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

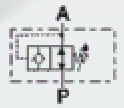
CFTC-02G-21A板式油壓流量閥

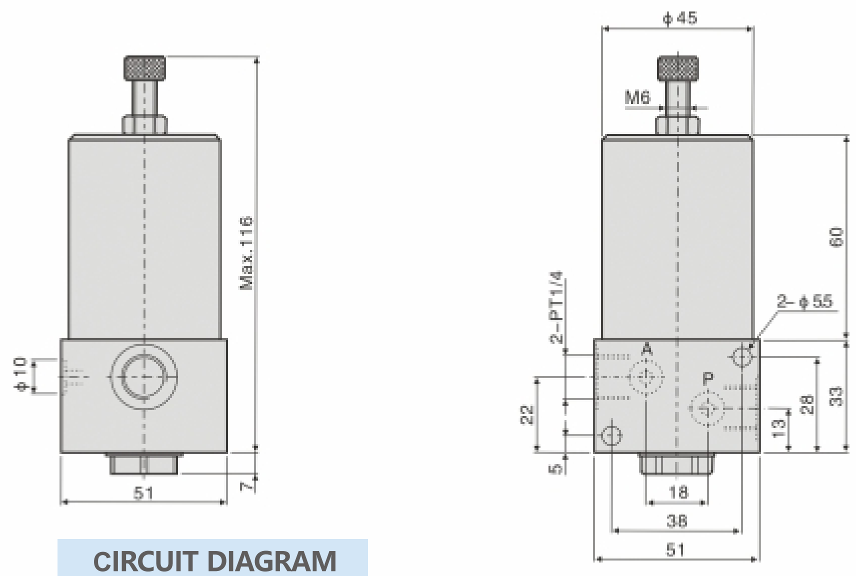


CPRV

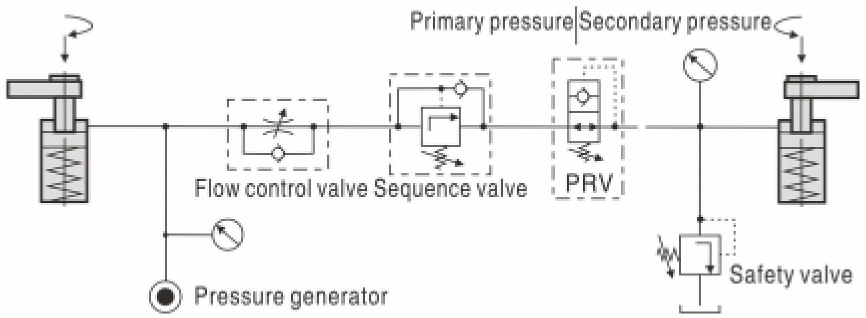
油壓減壓閥

CPRV HYDRAULIC PRESSURE REDUCING VALVE





CIRCUIT DIAGRAM

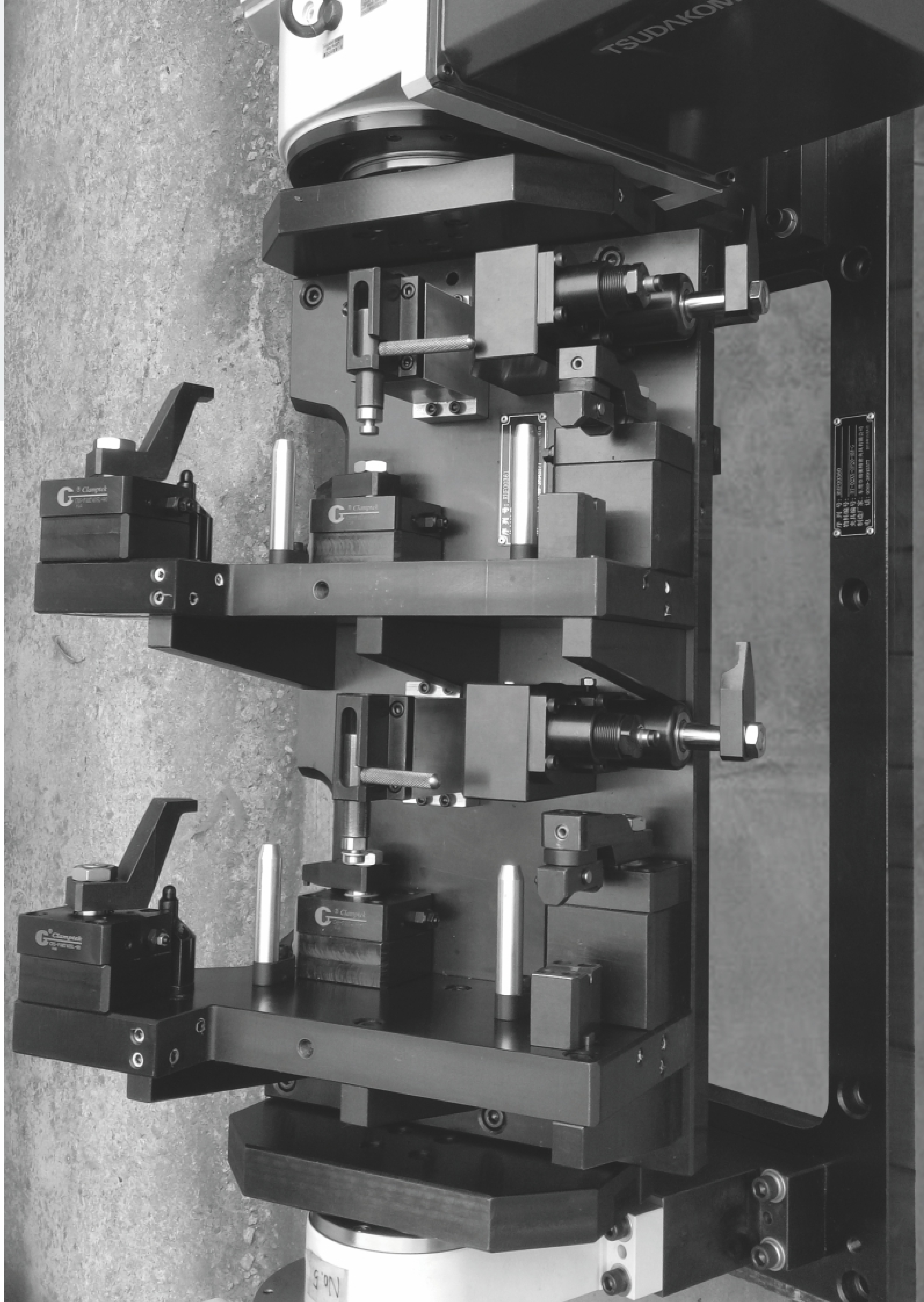


訂購標示法 ORDERING INDICATION

示例：CPRV-M021

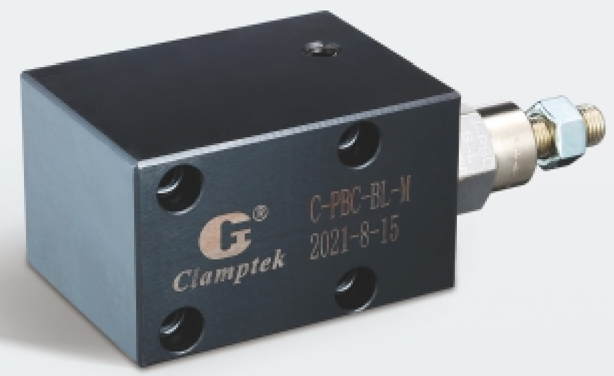
CPRV	系列 Series	CPRV	
M	接管方式 Piping method	空白：配管式 Blank：Line type M：油路板型 M:Manifold type	
02	型號 Model	A Manifold type	
1	壓力調整範圍 Pressure range (kgf/cm²)	1 2 3 4 5	5-30 10-50 20-120 30-240 50-380

使用流體：相當於ISO黏度等級的ISO-VG-32一般液壓油
Recommended：ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade



引導式減壓閥

PILOT OPERATED REDUCING VALVES



規格參數表 SPECIFICATIONS

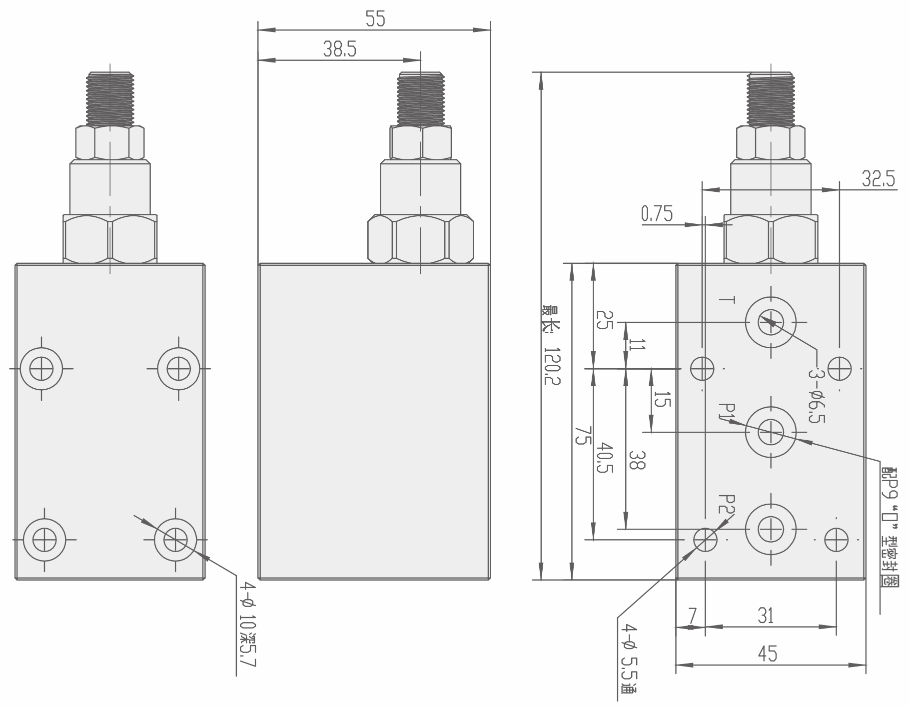
型號 MODEL	壓力調整範圍 ACTUATING PRESSURE RANGE (mpa)	最高使用壓力 MAX.OPERATING PRESSURE (mpa)	流量 RATED FLOW (l/min)	使用溫度 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
C-PBC-*	A:0.7-21MPa B:0.35-10.5MPa D:0.2-6MPa	21MPa	40L/min	0-70℃	相當於ISO黏度等級的ISO-VG-32 一般液壓油Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

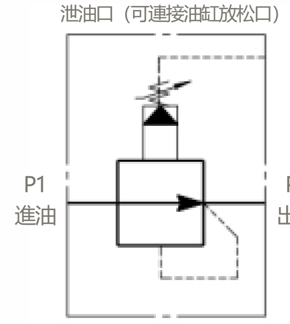
訂購標示法 ORDERING INDICATION

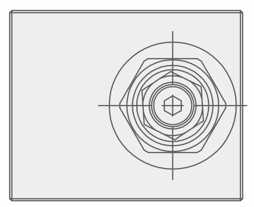
示例：C-PBC-AL-T

C	系列 Series	C
PBC	規格 Valve Size	PBC: 40L/min
A	壓力調整範圍 Actuating pressure range Mpa	A:0.7-21 B:0.35-10.5 D:0.2-6
L	旋鈕型式 Knob Type	L:防漏,螺桿調整 Leakage Proof,Bolt rod Adjust
T	類型 Type	M：油路板型 Manifold type T：配管式： Line type

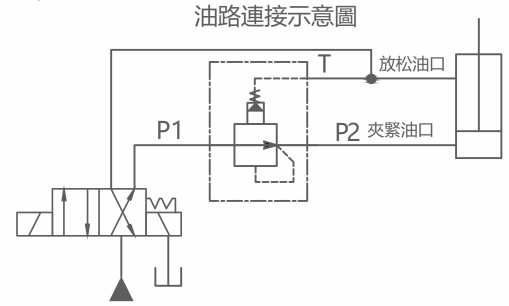
C-PBC-※L-M 安裝尺寸



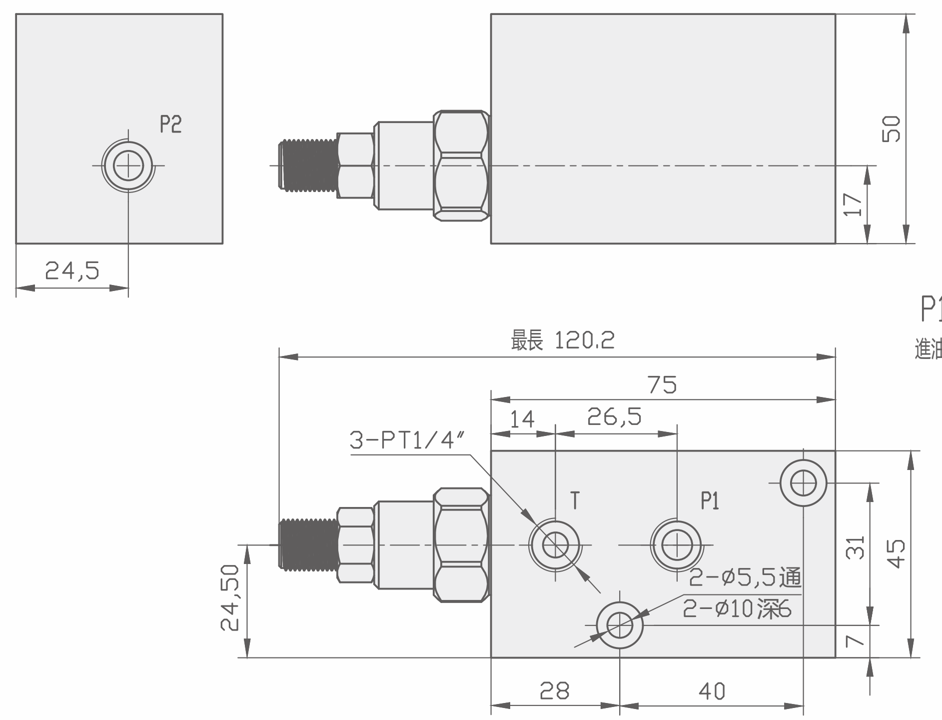


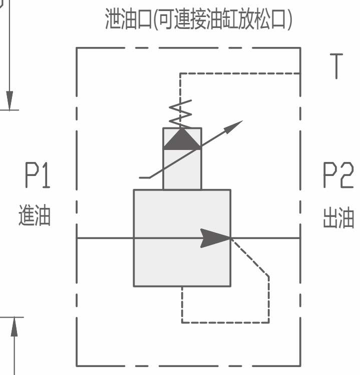


油路連接示意圖



C-PBC-※L-T 安裝尺寸





引導式順序閥

PILOT OPERATED SEQUENCE VALVES

規格參數表 SPECIFICATIONS

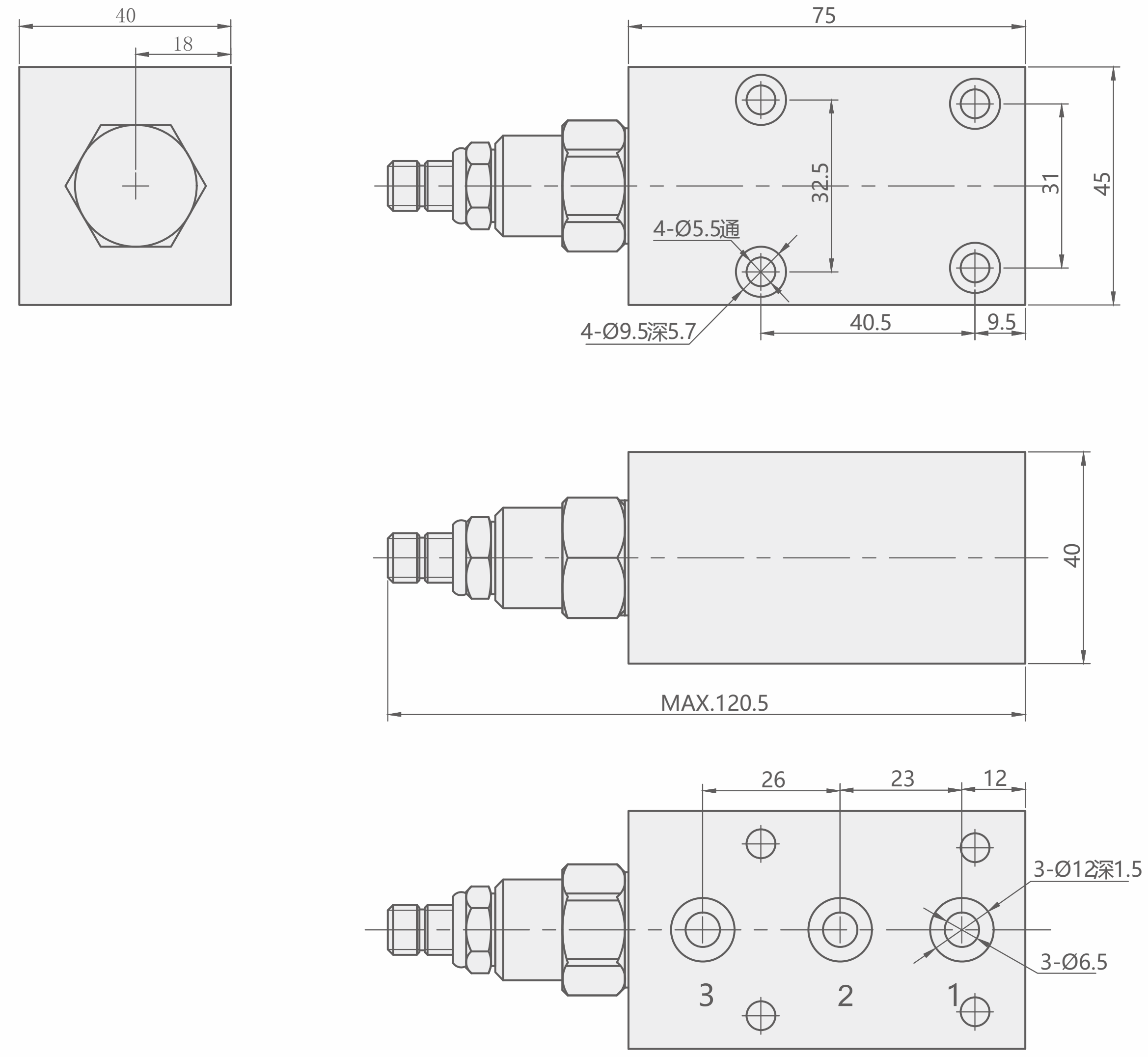
型號 MODEL	壓力調整範圍 ACTUATING PRESSURE RANGE (mpa)	最高使用壓力 MAX.OPERATING PRESSURE (mpa)	流量 RATED FLOW (l/min)	使用溫度 RANGE OF TEMPERATURE(℃)	使用流體 USABLE FLUID
C-SCCA-LAN	3.5-21MPa	35MPa	60L/min	0-70℃	相當於ISO黏度等級的ISO-VG-32 一般液壓油Recommended: ISO-VG- 32 hydraulic oil equivalent to ISO viscosity grade

訂購標示法 ORDERING INDICATION

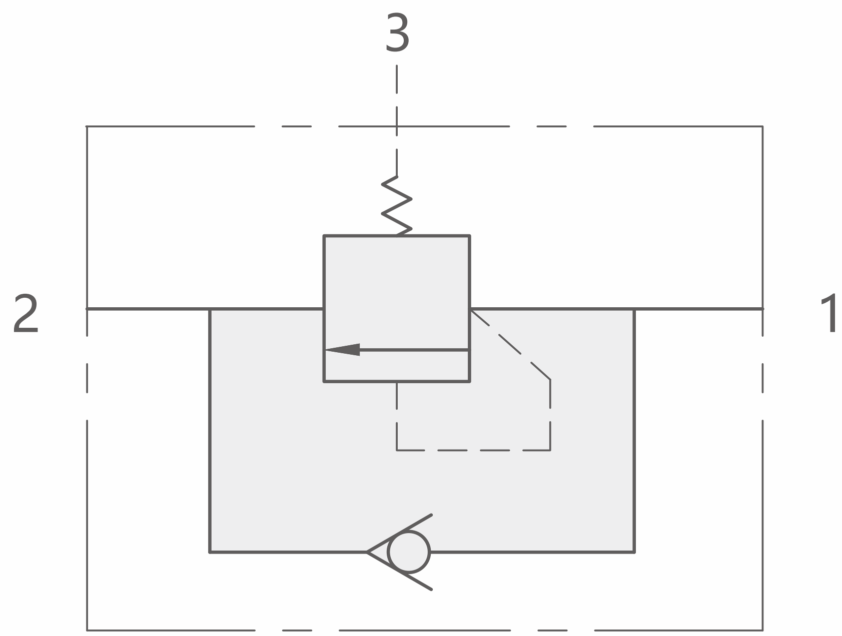
示例：C-SCCA-LAN

C	系列 Series	C
SCCA	規格 Valve Size	SCCA : 60L/min
L	旋鈕型式 Knob Type	L: 螺桿調整　Bolt rod Adjust
A	壓力調整範圍 Actuating pressure range Mpa	A:3.5-21MPa
N	密封件材料	N: 丁腈橡胶

安裝尺寸



油路連接示意圖



CWD-B

氣動順序閥

CWD-B PNEUMATIC SEQUENCE VALVE

產品特性 FEATURES

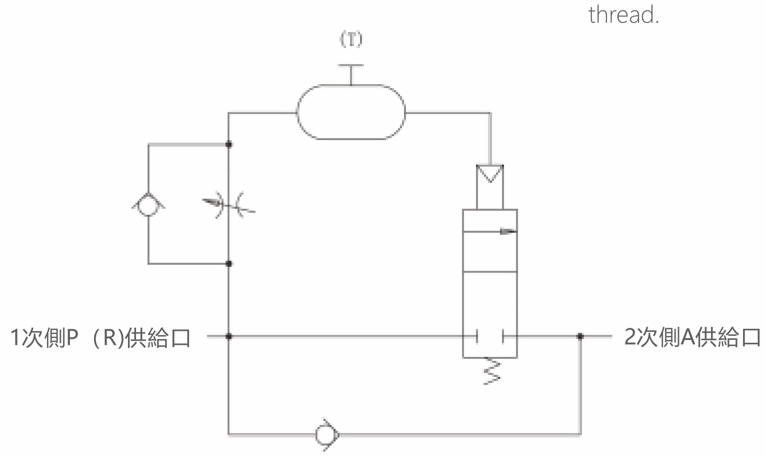
型號 MODEL	最高使用壓力 MAX. OPERATING PRESSURE(Mpa)	最低使用壓力 MIN. OPERATING PRESSURE(Mpa)	耐壓 WITHSTANDING PRESSURE(Mpa)	延遲時間*1*2*3*4 DELAYED TIME *1*2*3*4 (sec)	最小通路面積 MIN.PASSAGE AREA (m^2)	使用溫度 OPERATING TEMPERATURE(℃)	重量 MASS (kg)	使用流體：過濾之乾燥壓縮空氣 USABLE FLUID: OILED DRY CLEAN COMPRESSED AIR
CWD-B	0.6	0.2	1.5	1~10	4.0	0~70	0.2	過濾之乾燥空氣 Dry air

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埠增設儲氣箱，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。

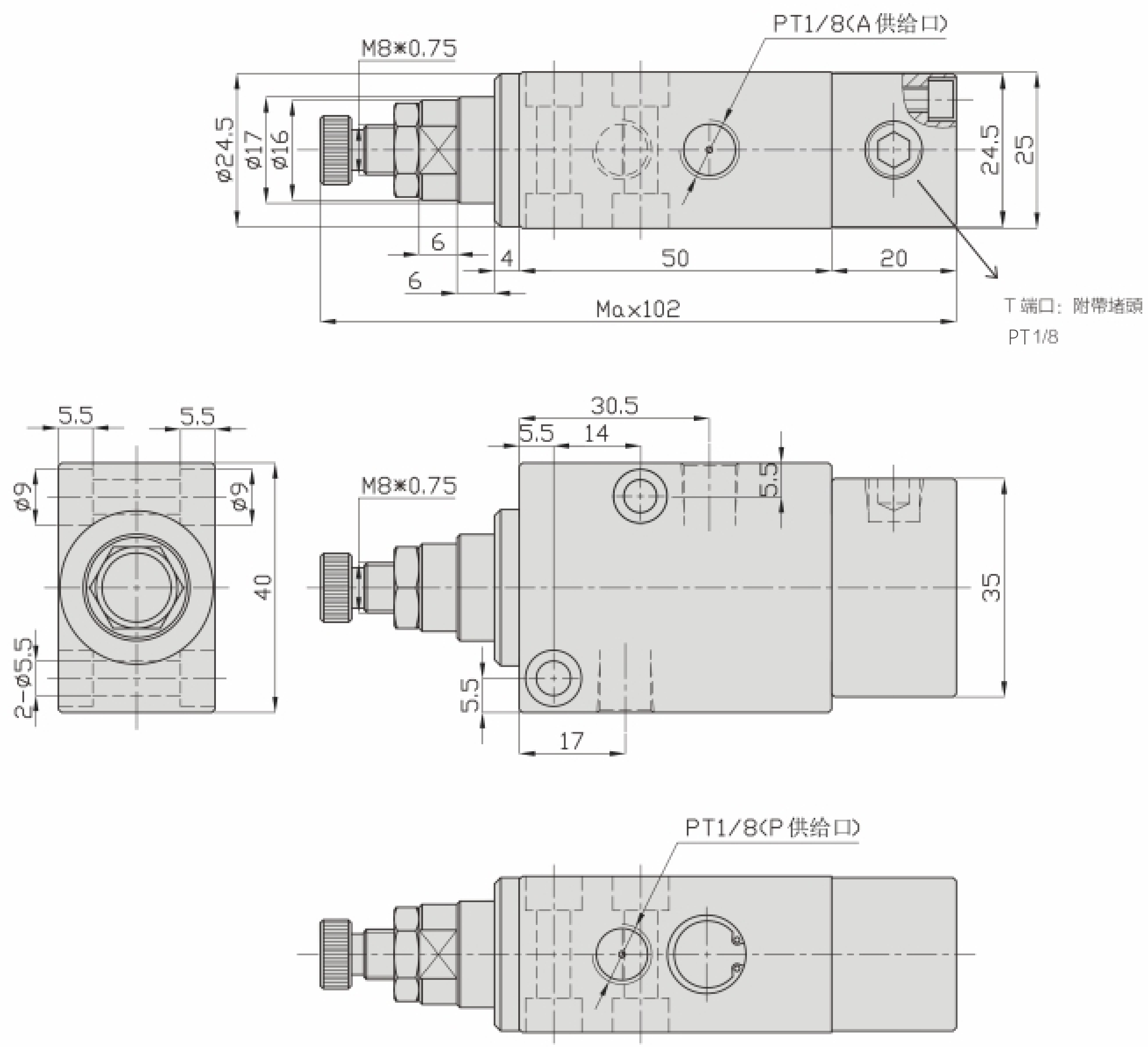
NOTE

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.



迴路符號

※ 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

實際延遲時間因迴路條件而異。
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

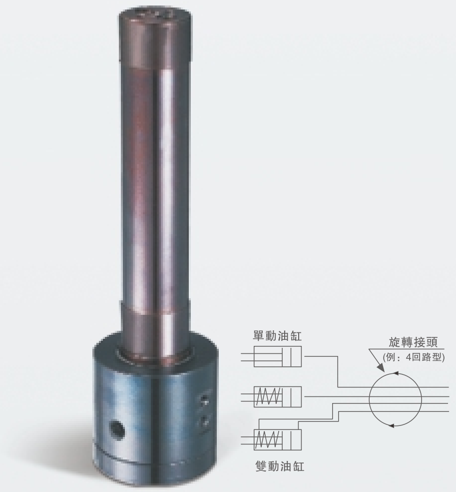
NOTE

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

CRA

油路旋轉接頭

CRA HYDRAULIC 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，我們對客戶的反饋信息進行了篩選，為客戶量身設計了這款CRA旋轉接頭，歡迎大家選購。如您在選型時有任何疑問，請隨時與我司技術人員聯繫。感謝您的支持！

NEW PRODUCT INFORMATION

According to the continuous improvement of domestic machining customers, there are more and more requirements for four-axis fixtures. We have screened the feedback information of customers and customized the CRA rotary joint for customers. Welcome to buy. If you have any questions about the model selection, please feel free to contact our technician . Thank you for your support!

規格參數表 SPECIFICATIONS

型號		CRA/CRB/CRC-2	CRA/CRB/CRC-4	CRA/CRB/CRC-6
迴路數		2迴路	4迴路	6迴路
使用流體		相當於ISO黏度等級ISO-VG-32一般液壓油		
最高使用壓力（MPa)		25		
允許轉數		因流體壓力而異		
使用環境溫度（℃)		0~70		
配管介面尺寸		PT1/8		
質量(kg)	255	3.18	3.80	- -
	320	3.57	4.37	4.18
	400	3.76	4.76	5.17

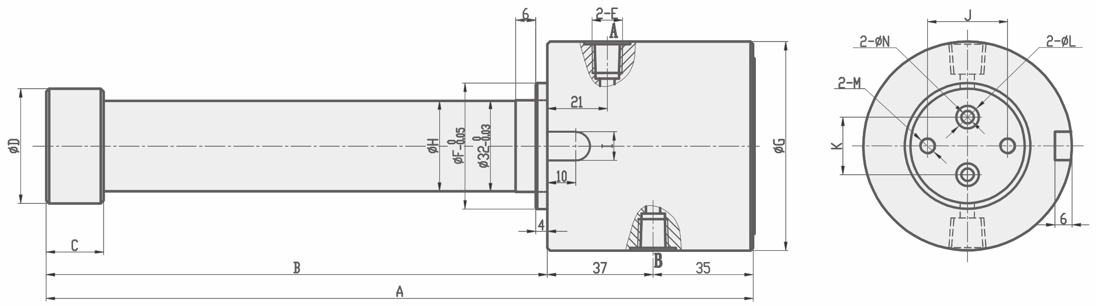
訂購標示法 ORDERING INDICATION

示例：CRA-2-255

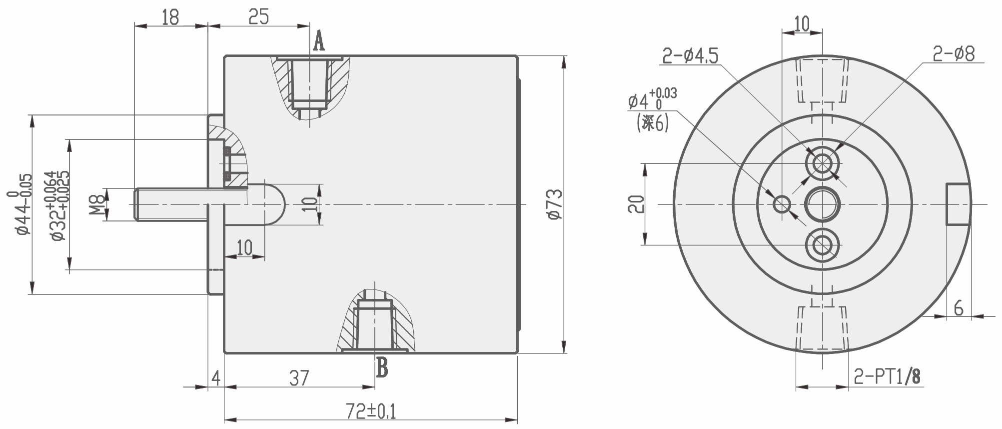
型式	迴路數	四軸型號
CRA:旋轉接頭	2	255/320/400
CRB:配油器	4	255/320/400
CRC:連接軸	6	320/400

CRA/CRB/CRC-2

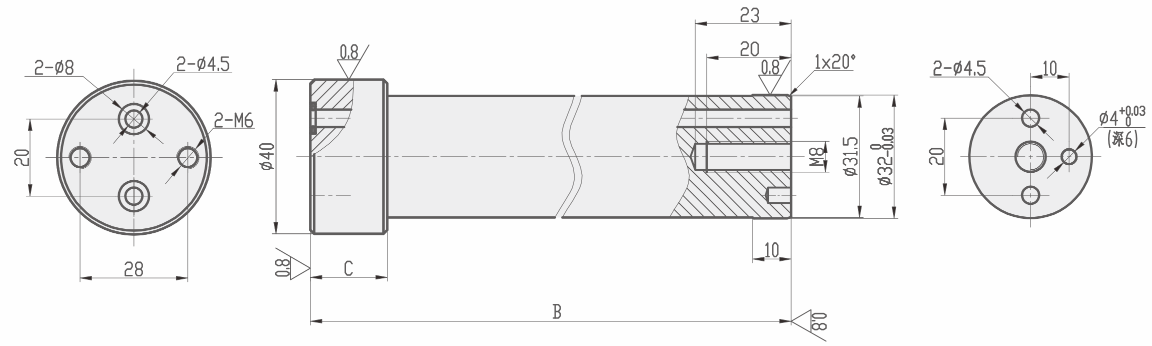
CRA-2



CRB-2



CRC-2

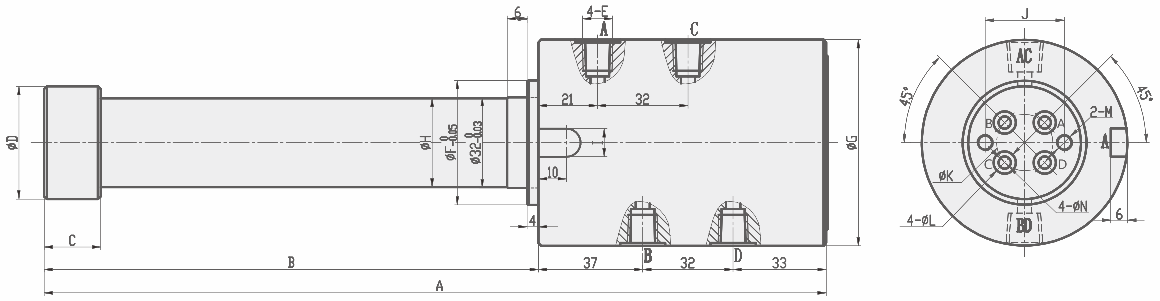


Unit:mm

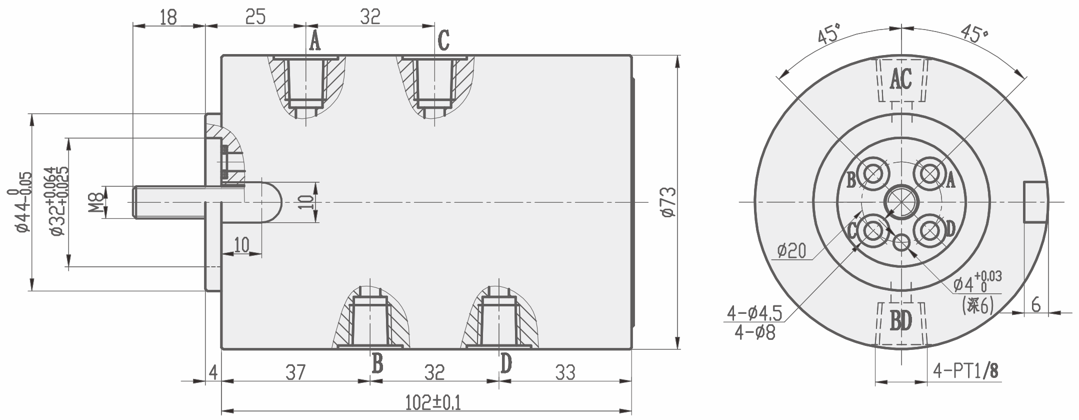
型號 Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
CRA/CRB/CRC-2-255	247	175	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5
CRA/CRB/CRC-2-320	317	245	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5
CRA/CRB/CRC-2-400	362	290	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5

CRA/CRB/CRC-4

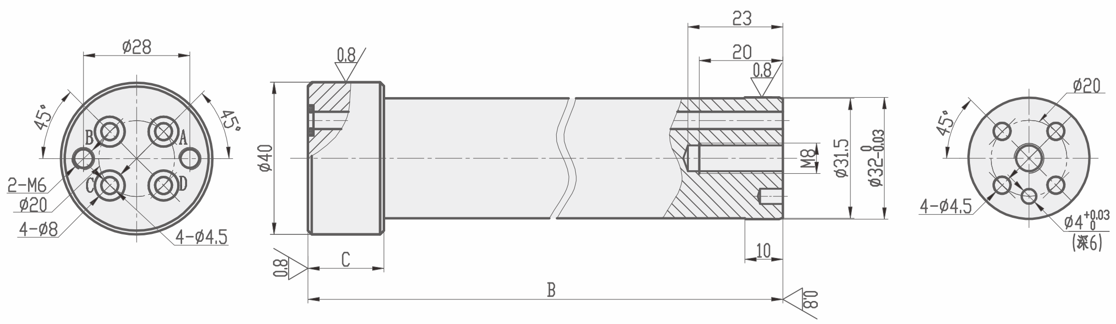
CRA-4



CRB-4



CRC-4

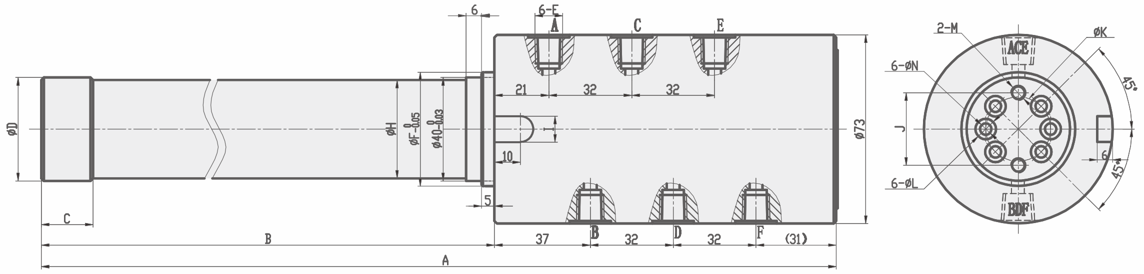


Unit:mm

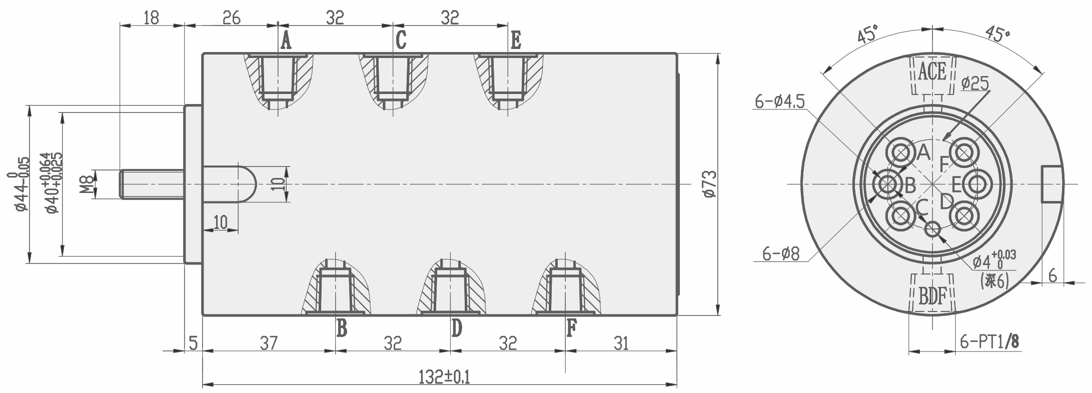
型號 Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
CRA/CRB/CRC-4-255	277	175	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5
CRA/CRB/CRC-4-320	347	245	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5
CRA/CRB/CRC-4-400	392	290	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5

CRA/CRB/CRC-6

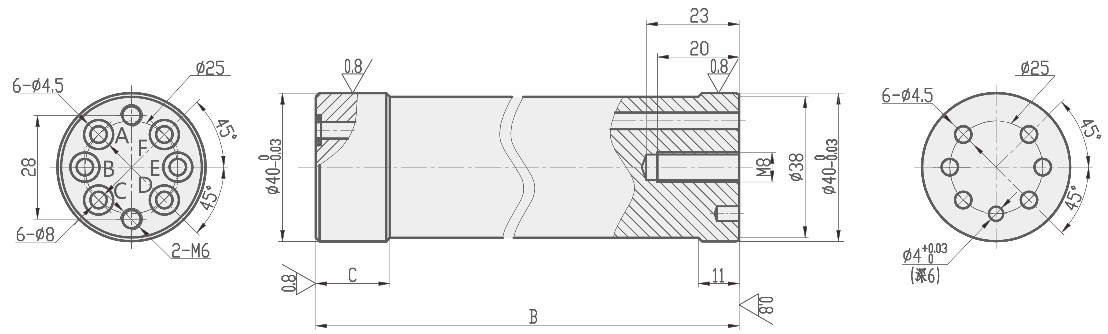
CRA-6



CRB-6



CRC-6

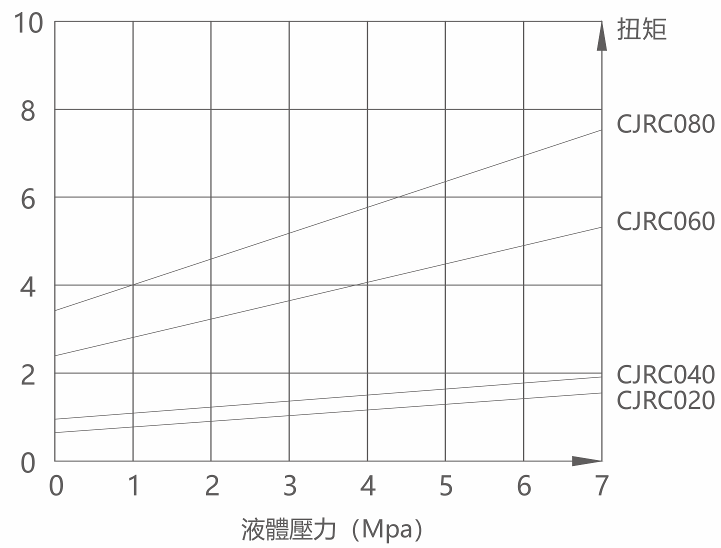


Unit:mm

型號 Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
CRA/CRB/CRC-6-320	377	245	20	40	PT1/8	44	73	38	10	28	25	8.0	M6	4.5
CRA/CRB/CRC-6-400	422	290	20	40	PT1/8	44	73	38	10	28	25	8.0	M6	4.5

CJRC
旋轉接頭

CJRC ROTARY JOINT



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)			
流體壓力 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

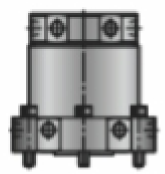
產品特性

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。此接頭是兼具了剛性/耐久性/密封性的嘉剛公司設計的長壽命旋轉接頭。供給口數量可選擇2、 4、6、8供給口。

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.

選配項 OPTIONS

	分類	供給口數量	特點	使用流體
	CLASSIFICATION	THE NUMBER OF THE PORTS	FEATURES	USABLE FLUID
	無中央供給口 No center Through Port	2/4/6/8 供給口 Port	低轉矩 (緊湊型) Low Rotary Torque (Compact Design)	一般液壓油：7MPa以下 General Hydraulic Oil: 7 MPa 氣壓：1MPa以下 Air: 1 MPa or Less

訂購標示法 ORDERING INDICATION

示例：CJRC-020SA

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

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

注意事项

1. 本圖表示轉矩 (N・m) 與流體壓力 (MPa) 之間的關係。
2. 啟動轉矩偶爾會出現大於曲線圖所示轉矩 2 倍的情況。而且會因擱置時間等條件而發生變化。
3. 轉矩為參考值

NOTE

1. This graph shows the relationship between the rotary torque and the ßuid pressure.
2. 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.
3. The rotary torque is a reference level.

規格參數表 SPECIFICATIONS

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時)※1	重量	使用溫度	使用流體
MODEL	油 OIL	空氣 AIR	供給口數量 NUMBER	最小通路面積 MIN. PASSAGE AREA(mm^2)	CENTER THROUGH PORT	ALLOWABLE ROTARY SPEED (AT 7MPA)※1(MIN-1)	WEIGHT(kg)	OPERATING TEMPERATURE(℃)	USABLE FLUID
CJRC-020	0～7.0	0～1.0	2	19.6	無Nothing	280	4.5	-10～70	普通液壓油或空氣 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade or dry air
CJRC-040	0～7.0	0～1.0	4	19.6	無Nothing	280	5.5	-10～70	
CJRC-060	0～7.0	0～1.0	6	19.6	無Nothing	200	8.0	-10～70	
CJRC-080	0～7.0	0～1.0	8	19.6	無Nothing	200	8.6	-10～70	

注意事项

※ 1. 容許旋轉速度是指在最高使用壓力(油壓7MPa)下的值
1. 油氣並用時，油膜有可能滲入氣壓迴路，請在兩迴路間設置殘液排放迴路。
2. 連續運轉會導致內部密封件發熱，因此請避免連續運轉。

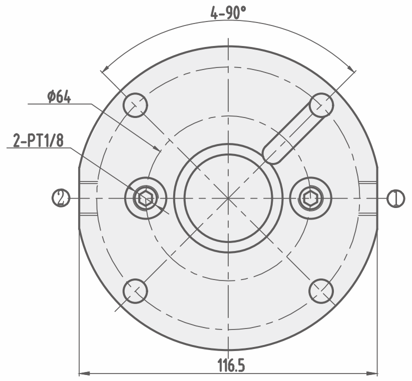
NOTE

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

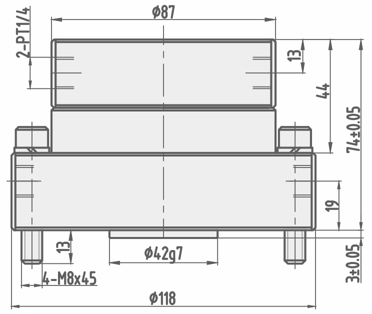
外形尺寸：CJRC-020
External Dimensions：CJRC-020

※ 本圖表示CJRC-020SA(2迴路)
□This drawing indicates CJRC-020SA(2 Port Circuit)

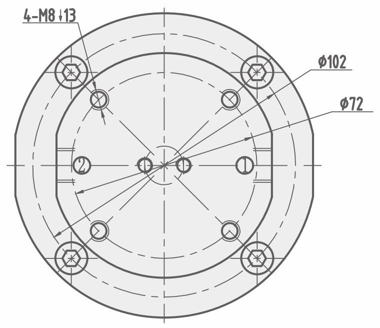
1次側供給口或2次側供給口需要G螺紋時，請另行諮詢。
When G thread is necessary for a primary side or secondary side port,please contact us separately



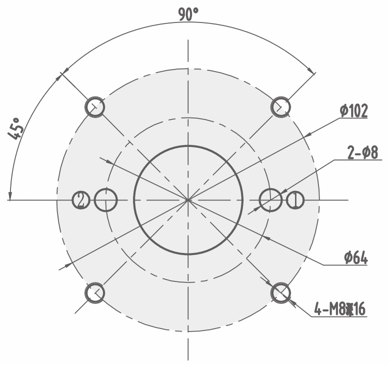
停止側Stop Side



旋轉側 Rotating Side



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



訂購標示法 ORDERING INDICATION
CJRC-020BA
SD

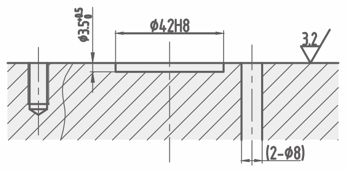
B S :1次側配管方式 Primary Side Piping Method
A D :2次側配管方式 Secondary Side Piping Method

1.旋轉側請使用螺栓固定法蘭部，停止側請只對旋轉方向進行固定。
2. 停止側的配管請使用軟管。
3. 油氣並用時，油膜有可能滲入氣壓迴路，請在兩迴路間設置殘液排放迴路
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. 各供給口均標有及介面編號。
6. 2次側使用Rc1/4介面採用外配管方式連接時，請使用附帶的R1/8螺紋堵頭塞住板式連介面。當使用板式連介面時，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)

12-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-板式連介面 2-Gasket Port
0形密封圈：1BP12(附帶)
O-ring：1BP12 (Included)



僅板式連接需要此項

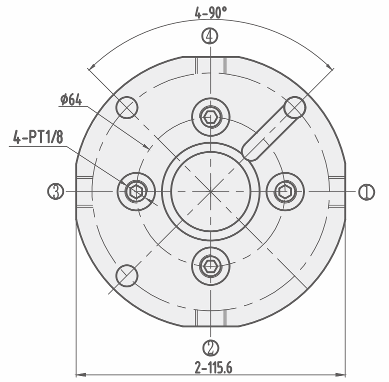
※1. 只有板式連接方式需要此項加工。
1. 安裝面(O形密封圈的密封面)的表面粗糙度 按6.3S加工。

※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.

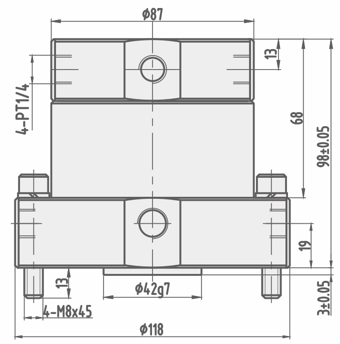
外形尺寸：CJRC-040
External Dimensions：CJRC-040

※ 本圖表示CJRC-040SA(4迴路)
□This drawing indicates CJRC-040SA(4 Port Circuit)

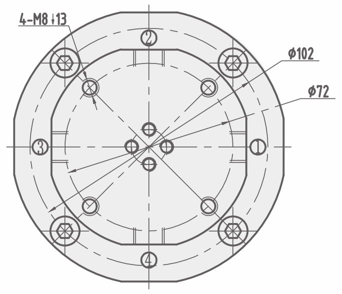
1次側供給口或2次側供給口需要G螺紋時，請另行諮詢。
When G thread is necessary for a primary side or secondary side port,please contact us separately



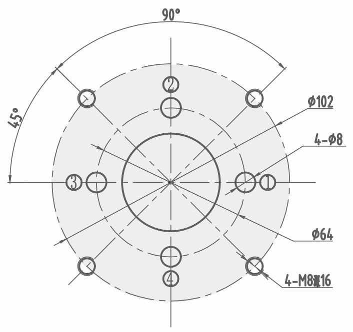
停止側Stop Side



旋轉側 Rotating Side



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



訂購標示法 ORDERING INDICATION
CJRC-040BA
SD

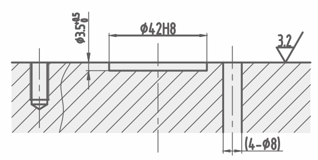
B S :1次側配管方式 Primary Side Piping Method
A D :2次側配管方式 Secondary Side Piping Method

1.旋轉側請使用螺栓固定法蘭部，停止側請只對旋轉方向進行固定。
2. 停止側的配管請使用軟管。
3. 油氣並用時，油膜有可能滲入氣壓迴路，請在兩迴路間設置殘液排放迴路
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. 各供給口均標有及介面編號。
6. 2次側使用Rc1/4介面採用外配管方式連接時，請使用附帶的R1/8螺紋堵頭塞住板式連介面。當使用板式連介面時，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)

12-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-板式連介面 2-Gasket Port
0形密封圈：1BP12(附帶)
O-ring：1BP12 (Included)



僅板式連接需要此項

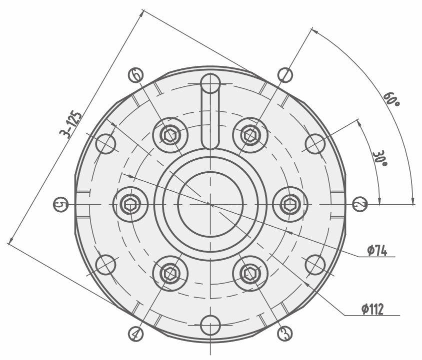
※1. 只有板式連接方式需要此項加工。
1. 安裝面(O形密封圈的密封面)的表面粗糙度 按6.3S加工。

※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.

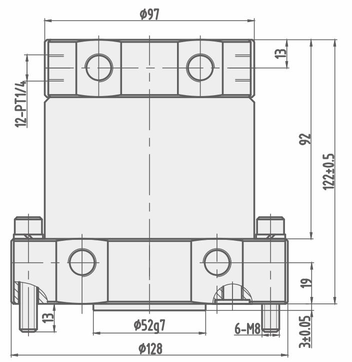
外形尺寸：CJRC-060
External Dimensions：CJRC-060

※ 本圖表示CJRC-060SA(6迴路)
□This drawing indicates CJRC-060SA(6 Port Circuit)

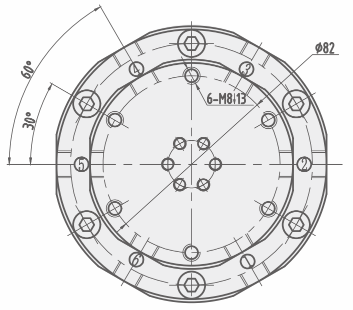
1次側供給口或2次側供給口需要G螺紋時，請另行諮詢。
When G thread is necessary for a primary side or secondary side port,please contact us separately



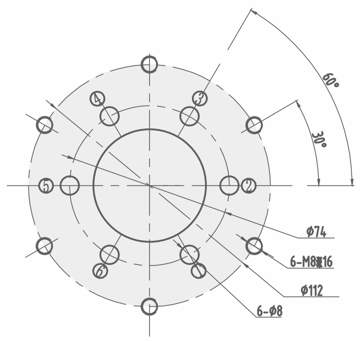
停止側Stop Side



旋轉側 Rotating Side



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



訂購標示法 ORDERING INDICATION
CJRC-060BA
SD

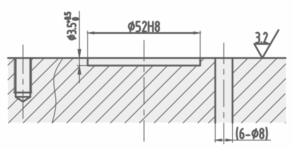
B S :1次側配管方式 Primary Side Piping Method
A D :2次側配管方式 Secondary Side Piping Method

1.旋轉側請使用螺栓固定法蘭部，停止側請只對旋轉方向進行固定。
2. 停止側的配管請使用軟管。
3. 油氣並用時，油膜有可能滲入氣壓迴路，請在兩迴路間設置殘液排放迴路
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. 各供給口均標有及介面編號。
6. 2次側使用Rc1/4介面採用外配管方式連接時，請使用附帶的R1/8螺紋堵頭塞住板式連介面。當使用板式連介面時，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)

12-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-板式連介面 2-Gasket Port
O形密封圈：1BP12(附帶)
O-ring：1BP12 (Included)



僅板式連接需要此項

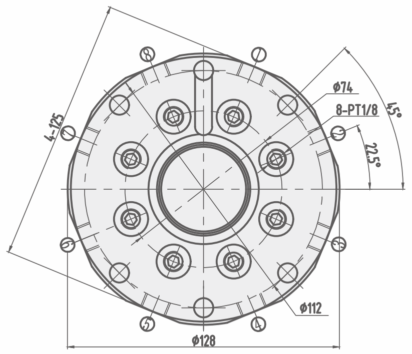
※1. 只有板式連接方式需要此項加工。
1. 安裝面(O形密封圈的密封面)的表面粗糙度 按6.3S加工。

※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.

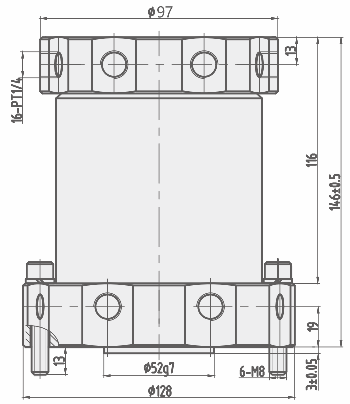
外形尺寸：CJRC-080
External Dimensions：CJRC-080

※ 本圖表示CJRC-080SA(8迴路)
□This drawing indicates CJRC-080SA(8 Port Circuit)

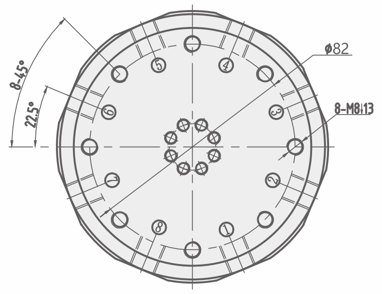
1次側供給口或2次側供給口需要G螺紋時，請另行諮詢。
When G thread is necessary for a primary side or secondary side port,please contact us separately



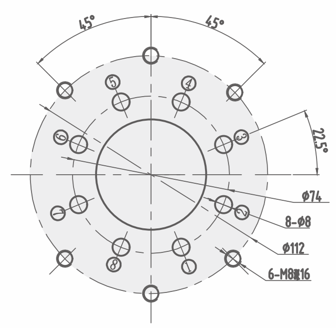
停止側Stop Side



旋轉側 Rotating Side



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



訂購標示法 ORDERING INDICATION
CJRC-080BA
SD

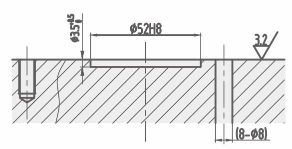
B S :1次側配管方式 Primary Side Piping Method
A D :2次側配管方式 Secondary Side Piping Method

1.旋轉側請使用螺栓固定法蘭部，停止側請只對旋轉方向進行固定。
2. 停止側的配管請使用軟管。
3. 油氣並用時，油膜有可能滲入氣壓迴路，請在兩迴路間設置殘液排放迴路
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. 各供給口均標有及介面編號。
6. 2次側使用Rc1/4介面採用外配管方式連接時，請使用附帶的R1/8螺紋堵頭塞住板式連介面。當使用板式連介面時，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)

12-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-板式連介面 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.

HB

油壓增壓器

HB HYDRAULIC BOOSTER

產品特性

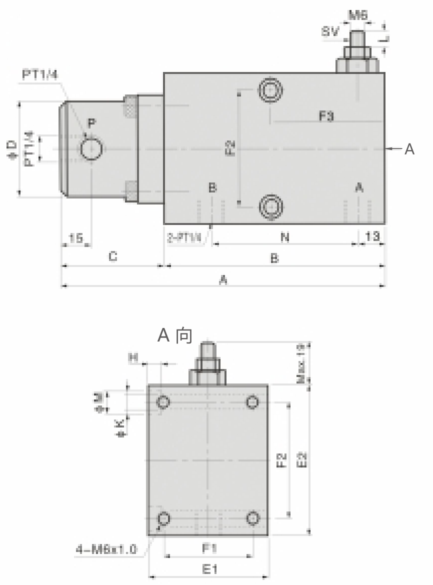
本產品機構內附油壓順序閥，預壓式特性操作時可將作動缸充滿油，達到預先設定之壓力，順序閥動作，即可獲得倍數增壓。適用於油壓專用機，MC治具低壓迴路中，部份油壓缸需高壓操作之場合，僅需一隻電磁閥或安裝於管路中，即可操作HB增壓器，可將低油壓自動轉換成高油壓，獲得高壓夾持。

最大操作壓力：50 kgf/cm²
最小操作壓力：20 kgf/cm²

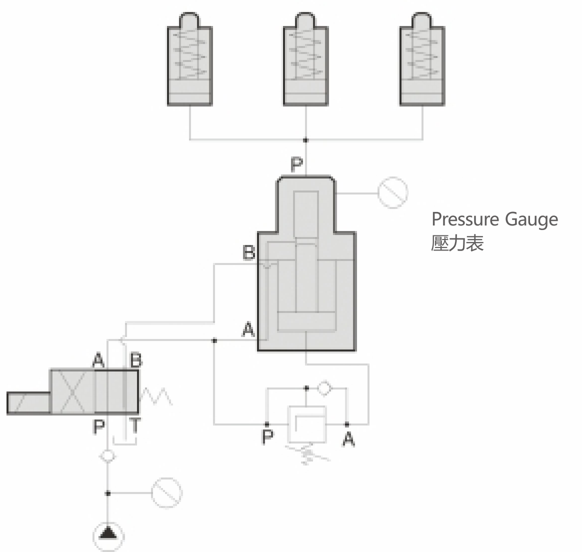
FEATURES

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



回路圖 Circuit diagram



Unit:mm

型號 Model	增壓倍數 Multiple boost	高壓吐出量 High pressure output	A	B	C	ΦD	E1	E2	F1	F2	F3	H	ΦK	ΦM	N
HB-9×6	9	6CC	157	107	50	Φ46	58	72	43	56	55	7	Φ7	Φ11	71
HB-8×22	8	22CC	210	139	71	Φ58	82	95	62	80	70	9	Φ9	Φ14	96
HB-5×35	5	35CC	210	139	71	Φ58	82	95	62	80	70	9	Φ9	Φ14	96
HB-3.8×45	3.8	45CC	210	139	71	Φ58	82	95	62	80	70	9	Φ9	Φ14	96

使用流體：相當於ISO黏度等級的ISO-VG-32一般液壓油　Recommended：ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

CJSS
彈簧式蓄能器

CJSS SPRING ACCUMULATOR

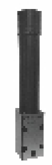
產品特性

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

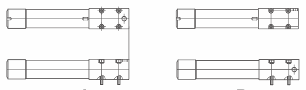
Accumulator absorbs the pressure fluctuation so that it prevents system pressure from variation due to the high or low abnormal pressure.

選配項 OPTIONS

	分類	基準使用壓力
	CLASSIFICATION	STANDARD OPERATING PRESSURE
	低壓用彈簧式蓄能器 Spring Accumulator for Low Pressure	2/3/4/ MPa

訂購標示法 ORDERING INDICATION

示例：CJSS-402HSB

CJSS	系列 Series	CJSS
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： 2.5cm³　　05： 5.0cm³　　10： 10.0cm³
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 H：Horizontal Mounting and Piping Method：C/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」.  A　　B

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	配管	閥類的容積	溫度變化量	使用壓力	熱膨脹係數
Clamp Used	Piping	Valve Capacity	Temperature Change：ΔT	Operating Pressure：P	Thermal Expansion Coefficient：α
CHA-55×4 台 （1 台油缸夾緊時的油缸容量 ： 26.7cm3）	內徑φ6×2m （1m 的配管容積：28.3cm3）	20cm³	—20℃	4.0MPa	8×10^{-4}

選型方法

1. 夾具迴路容積（V）的計算
油缸容積＋配管容積＋閥類的容積
$V = (26.7\times4) + (28.3\times2) + 20 = 183.4\ cm^3$

2. 變化容積（ΔV）的計算
夾具迴路容量（V）× 熱膨脹係數（α）× 溫度變化量（ΔT）
$\Delta V = 183.4 \times (8\times10^{-4}) \times (-20) = -2.93\ cm^3$

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。）

4. 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

5. 請選定安裝方向、配管口、配管方向。

SELECTION METHOD

1. Calculate Fixture Circuit Capacity (V)
Clamp Capacity + Pipe Capacity + Valve Capacity
$V = (26.7\times4) + (28.3\times2) + 20 = 183.4\ cm^3$

2. Calculate Change in Capacity (ΔV)
Fixture Circuit Capacity (V) x Thermal Expansion CoefÞcient (α)x Amount of Temperature Change (ΔT) ， ΔV = 183.4 × (8×10 -4) × (-20) = -2.93 cm³

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].)

4. Check the Accumulator Characteristics (Graph on the right)
Pressure after Temperature Change (-20℃)： 2.92MPa
Residual Oil Discharge Margin： 2.07cm³

5. Select the Attachment and Piping Methods.

注意事项

1. 請考慮彈簧力的固有差異，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】

NOTE

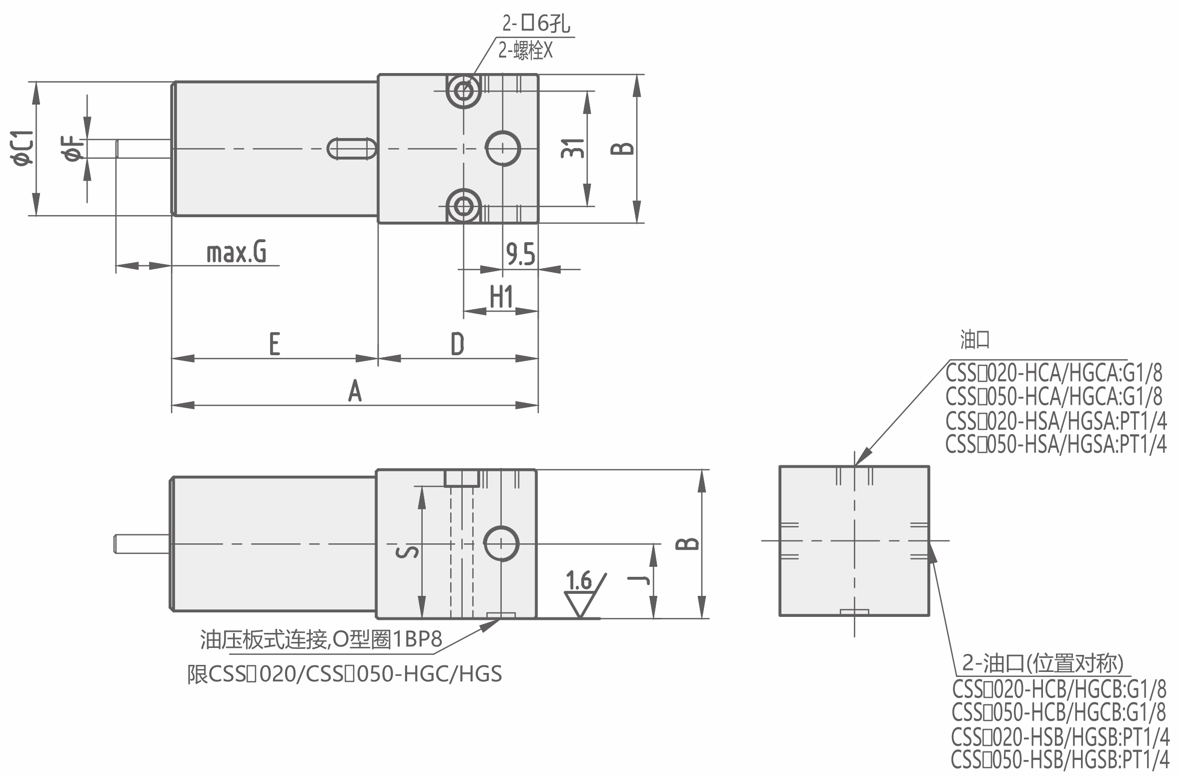
1. When marking your selection, calculate tolerance for the oil capacity taking the spring force deviation into consideration.
【Approximate amount of spare oil：CJSS□02···0.5cm³、CJSS□05···1.0cm³、CJSS□10···1.5cm³】

規格參數表 SPECIFICATIONS

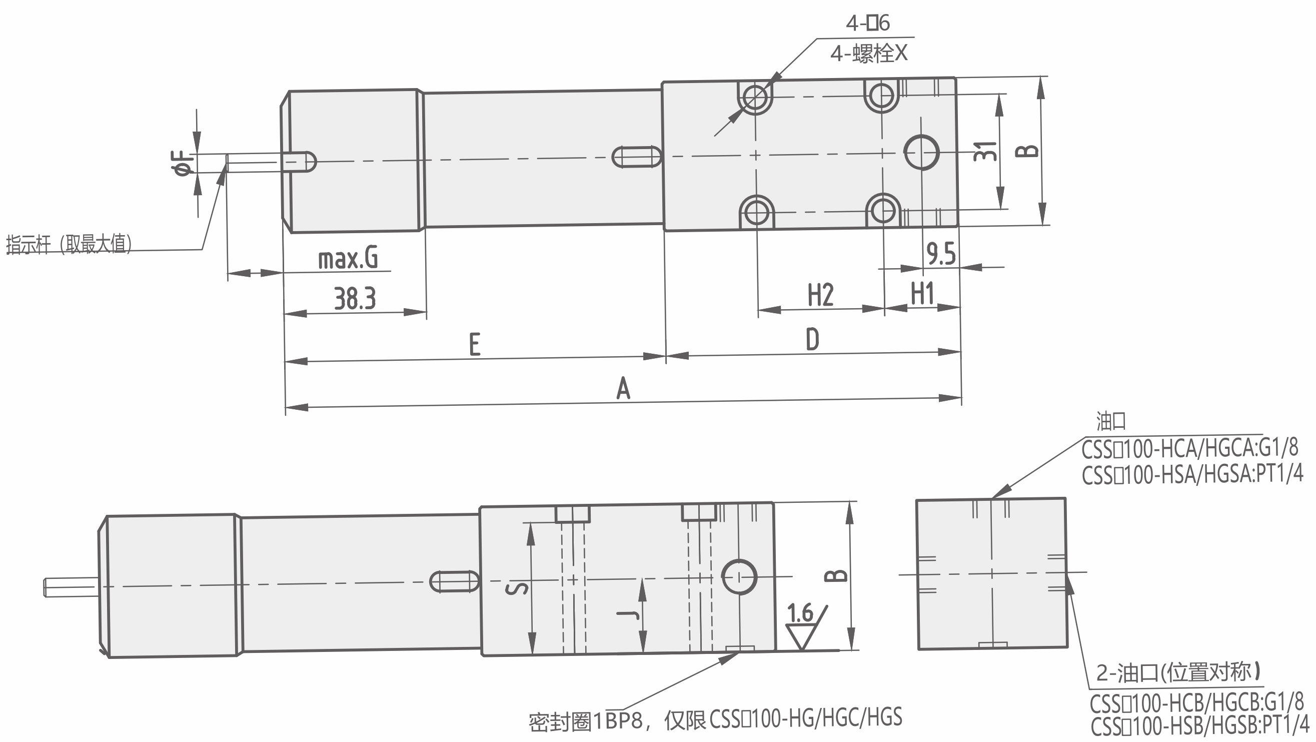
型號	基準使用壓力	耐壓	吐出油量	吸入油量	壓縮係數（β）※1	重量	使用溫度	使用流體
MODEL	STANDARD OPERATING PRESSURE (MPa)	WITHSTANDING PRESSURE (MPa)	DISCHARGE OIL CAPACITY (cm³)	ABSORBING CAPACITY (cm³)	Compression Factor(β) ※1 (MPa/cm³)	WEIGHT(kg)	OPERATING TEMPERATURE(℃)	USABLE FLUID
CJSS-202	2.0	14.0	2.5	1.0	0.40	0.8	0~70	相當於ISO黏度等級的ISO-VG-32一般液壓油 Recommended：ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CJSS-205	2.0	14.0	5.0	2.0	0.31	1.0	0~70	
CJSS-210	2.0	14.0	10.0	4.0	0.16	1.7	0~70	
CJSS-302	3.0	14.0	2.5	1.0	0.40	0.8	0~70	
CJSS-305	3.0	14.0	5.0	2.0	0.33	1.1	0~70	
CJSS-310	3.0	14.0	10.0	4.0	0.17	1.7	0~70	
CJSS-402	4.0	14.0	2.5	1.0	0.49	0.8	0~70	
CJSS-405	4.0	14.0	5.0	2.0	0.37	1.1	0~70	
CJSS-410	4.0	14.0	10.0	4.0	0.18	2.0	0~70	

外形尺寸 EXTERNAL DIMENSIONS

CJSS□02-H□□ CJSS□05-H□□

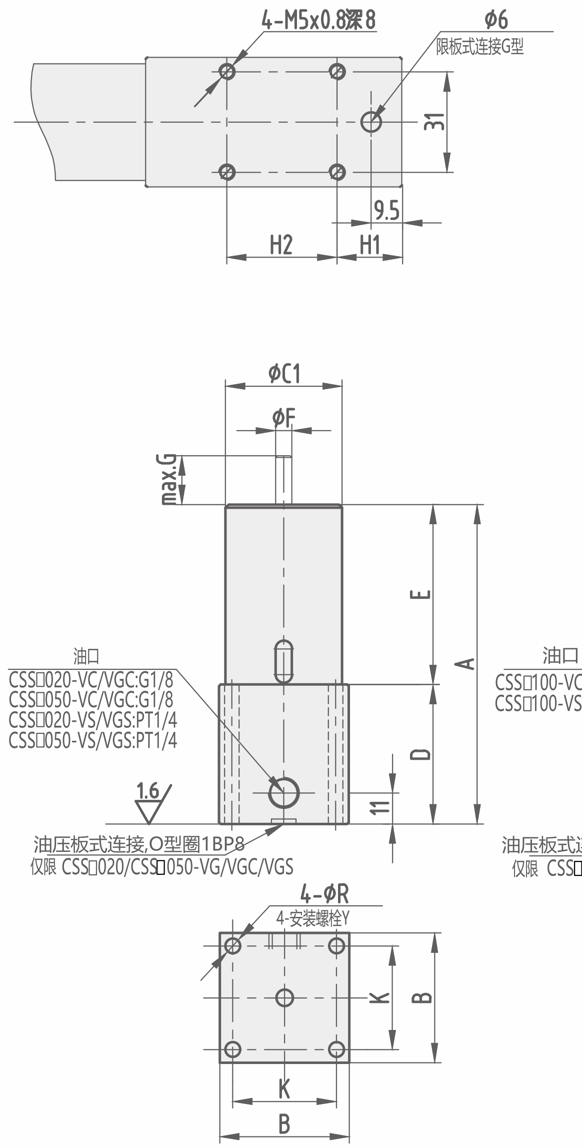


CJSS□10-H□□

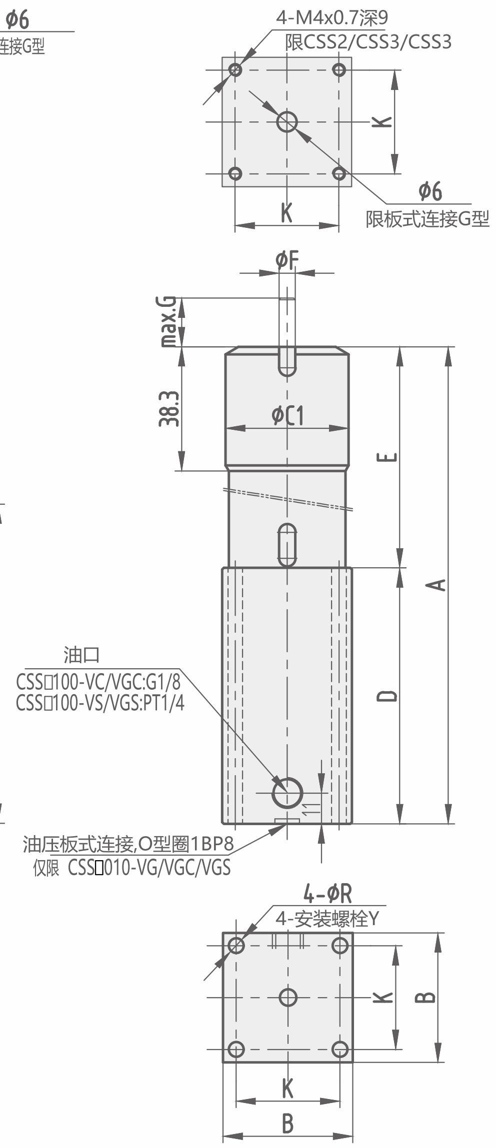


安裝部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA

CJSS□02-V□



CJSS□10-V□



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

注意事项

※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，擅自拆卸往會導致零部件彈出，非常危險。

NOTE

※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.

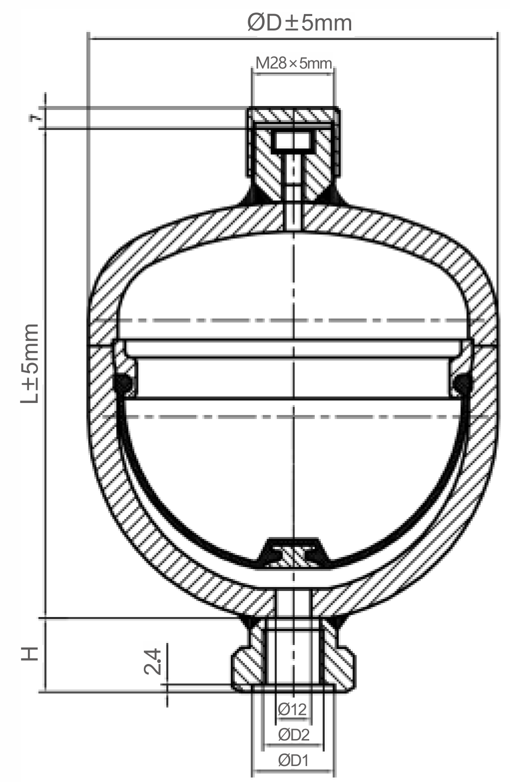
1. Do not disassemble. Components include pressured spring parts. It is dangerous to disassemble.

ADB-A
儲能器

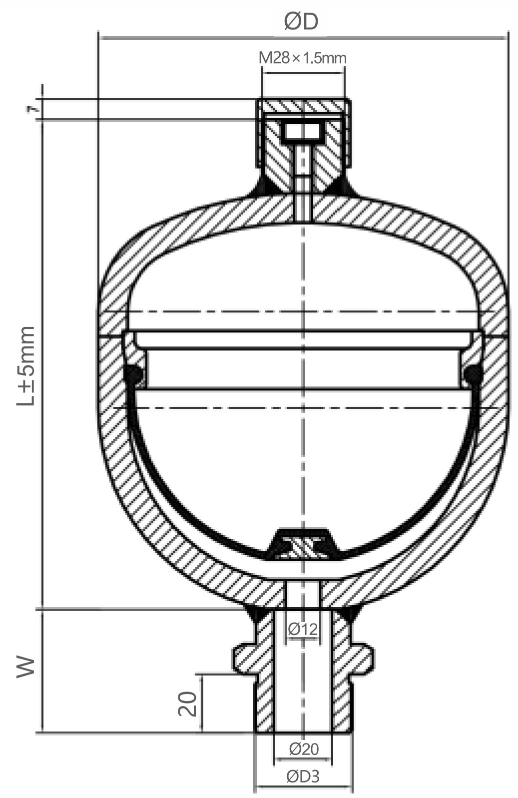
ADB-A Accumulator

產品特性

隔膜式蓄能器具有儲存能量、吸收沖擊、補償漏損、傳遞壓力作緊急能源等作用。在液壓系統中，能避免管路元件損壞，延長設備的使用壽命，減少停工損失，提高系統的可靠性和工作效率，節約能源。具有結構緊湊、體積小、重量輕等優點。特別適合於工程礦山機械、汽車工業、工程裝載機械、林業機械、液壓機床、液壓夾具和液壓試驗機等使用。



A型連接口



C型連接口

訂購標示法 ORDERING INDICATION

示例：ADB-A/0.075-33

ADB	系列 Series	ADB
A	連接方式	A型 C型
0.075	公稱容積	0.075L~3.5L
33	公稱壓力	33MPa
备注	充氮壓力值	隔膜式蓄能器根據最低使用壓力充存氮氣。 充氮壓力為最低工作壓力的0.8倍， 訂購時請備註充氮壓力值。

ADB數據表

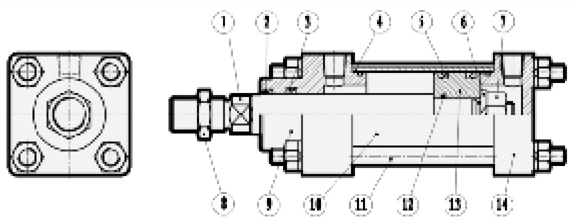
Unit:mm

型號 MODEL	公稱容積 L	工作壓力 MPa	ΦD mm	L mm	H mm	W mm	ΦD1 mm	ΦD2 (O型圈)	ΦD3
ADB	0.075	33	64	95	25	32	28	G1/2 (28x3.1)	M18x1.5
	0.16		74	105					
	0.25		84	110					
	0.32		93	118					
	0.5		107	138					
	0.6		115	147		42			M33x1.5
	0.75		125	151					
	1		140	167					
	1.4		154	185					
	2		173	202	30		35	G3/4 (35x3.1)	M45x1.5
	2.8		173	259					
	3.5		173	305					

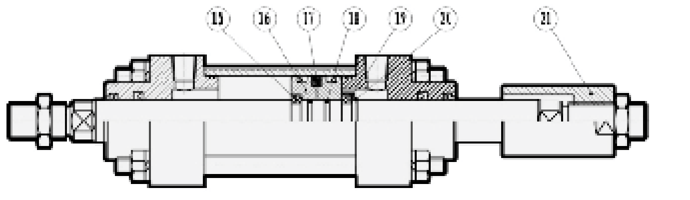
CMO
系列輕型油壓缸

CMO SERIES HYDRAULIC CYLINDER

輕型油壓缸結構圖 INSIDE STRUCTURE



CMOB



CMODR

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	活塞桿 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	拉桿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 Specifications

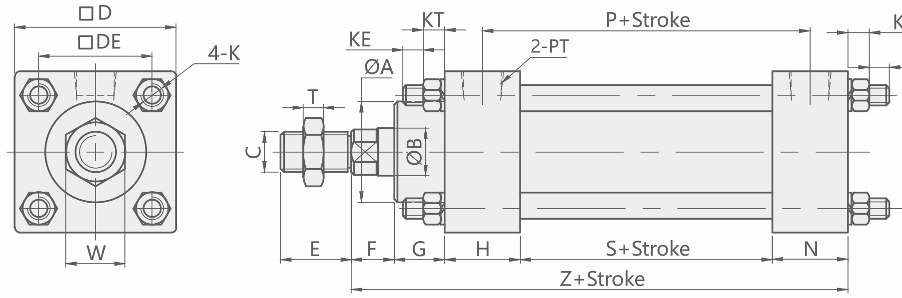
油缸內徑Hydraulic cylinder inside diameter(mm)	Φ30	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125
工作流體 Power Fluid	以濾清之標準液壓油 Filtered Oil						
缸管材質Material of cylinder barrel	碳鋼管Carbon steel STKM-13c/白鐵管 Stainless tubes SUS 304/AL Tube A6063TDS-T5						
使用壓力範圍The range of pressure(MPa)	0.3-7.0 MPA(3-70kg/cm²)						
使用速度範圍The 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
訂製行程於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
訂製行程於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

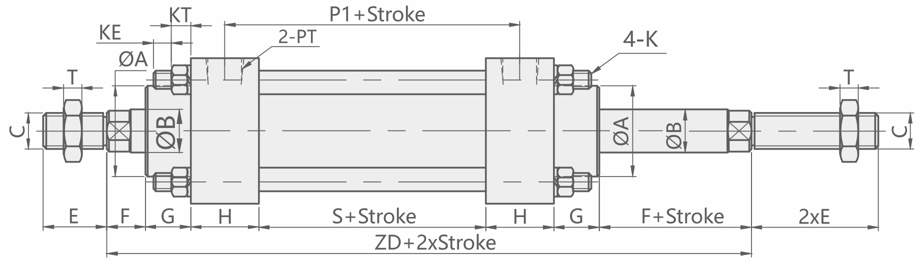
示例：CMOB-R-D-63/25-100-LB-Y

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 Blank: No magnet R：內附磁石 R:Magnet
D	固定緩衝型式 Flxed 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	Φ30 Φ40 Φ50 Φ63 Φ80 Φ100 Φ125
25	軸心 Rod	標準Standard Φ16 Φ20 Φ20 Φ25 Φ30 Φ35 Φ50 最大Max - Φ25 Φ30 Φ35 Φ40 Φ50 Φ60 無記號：標準軸心 Blank: standard rod
100	行程 Stroke	鋼管Steel barrel（Φ30-Φ125） 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：50，100，150，200，250，300，350，400，450，500，600，700，800，900，1000.
LB	缸體固定型式 Accessories for body	FA 前法蘭型 Front flange FB 後法蘭 Rear flange LB 腳座型 Foot mount TC 耳軸型 Trunnion type CA 單耳型 Single trunnion CB 雙耳型Double trunnion CBP CB+Pin CB with pin CAB CA+P+CB
Y	軸心固定型式 Accessories for rod	Y Y型接頭 Y joint YP Y+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 sleeve joint A 可調螺帽Adjustable nut

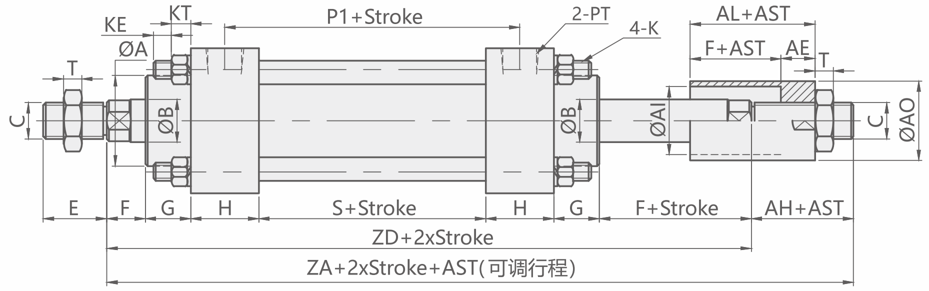
CMOB基本型 CMOB BASIC TYPE



CMOD 双轴型 CMOD DOUBLE-END ROD



CMOD-A双轴可调型 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	71	71	1/4"	M8X1.25	8	8.5	50	22	8	128	181	156	25	17	20	30	30
Φ40	40	20	M16x1.5	64	45	28	17	20	30	30	76.5	76.5	3/8"	M8X1.25	8	8.5	50	23.5	8	147	209	184	25	18	30	35	35
Φ50	45	20	M16x1.5	70	50	28	17	20	30	28	76.5	77	3/8"	M10X1.25	10	10.5	50	23.5	8	145	209	184	25	18	30	35	35
Φ63	55	25	M22x1.5	85	60	40	20	30	31	31	77	77	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	87	87	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	115	115	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

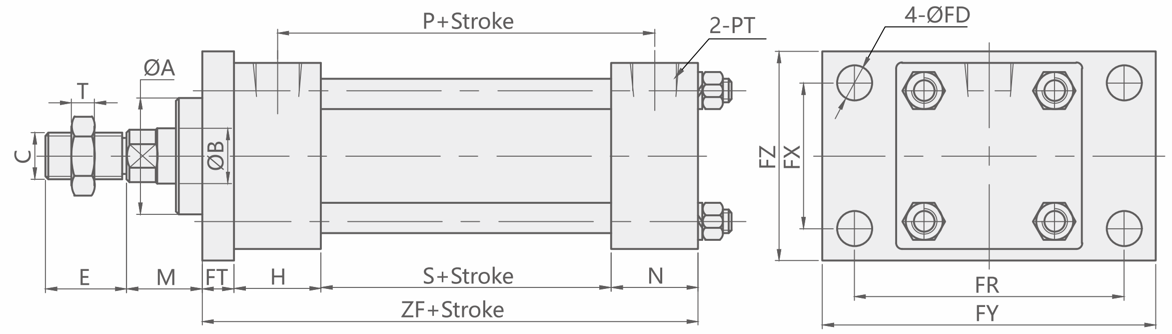
注意事项

1.軸心加大如未註明長度尺寸時，依照本公司規定自行加工。
2.CMO系列行程未超過1500mm時，活塞長度（PM）如附表，訂製行程如超過1500mm時，活塞長度參閱特性資料表。
3.CMO系列行程超過2000mm(含）時，須加拉桿中間固定座。
4.CMO系列缸徑40-50油缸之行程超過500mm（含）以上時，軸心牙改為M18*P1.5。
5.AST為客戶指定之可調行程。

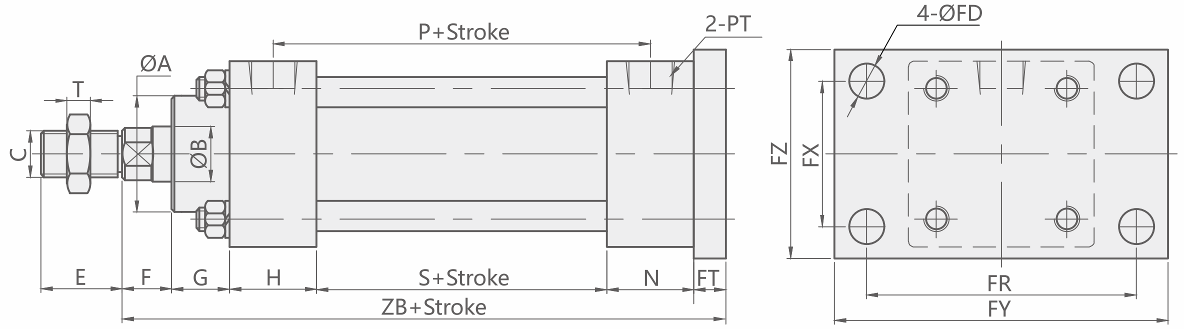
NOTE

1. For rods extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. 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.
3.Middle rod holder must be installed for those CMO series whose stroke is equal to or more than 2000mm.
4. 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.
5. AST stands for the adjustable stroke designated by customers.

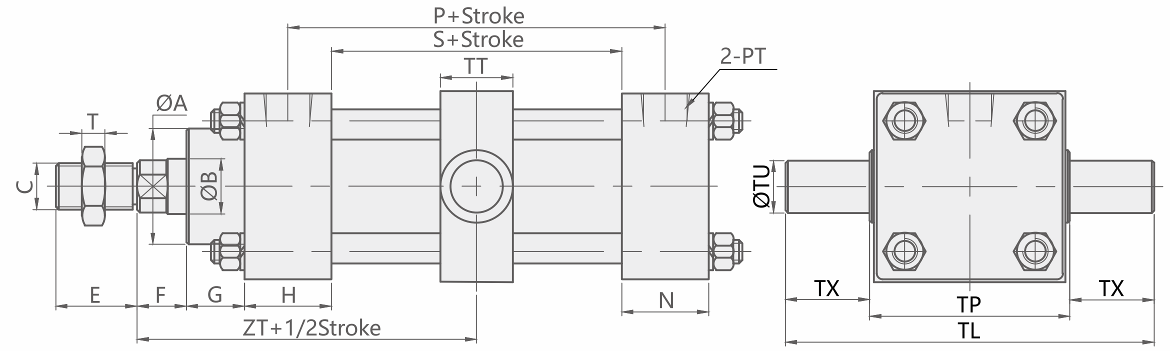
CMOB-FA 前法蘭型 CMOB-FA FRONT FLANGE TYPE



CMOB-FB 後法蘭型 CMOB-FB REAR FLANGE TYPE



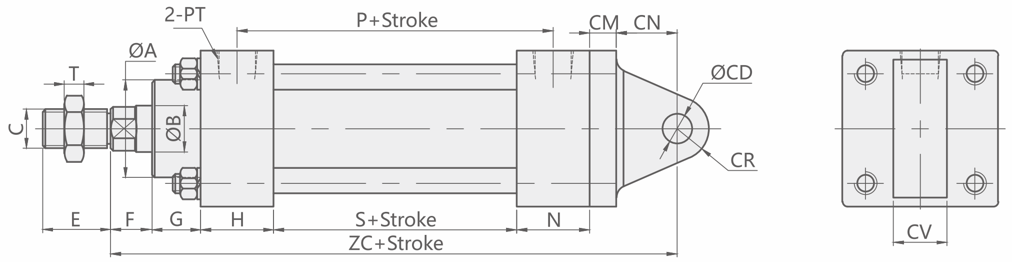
CMOB+TC 中耳軸型 CMOB+TC MIDDLE TRUNNION TYPE



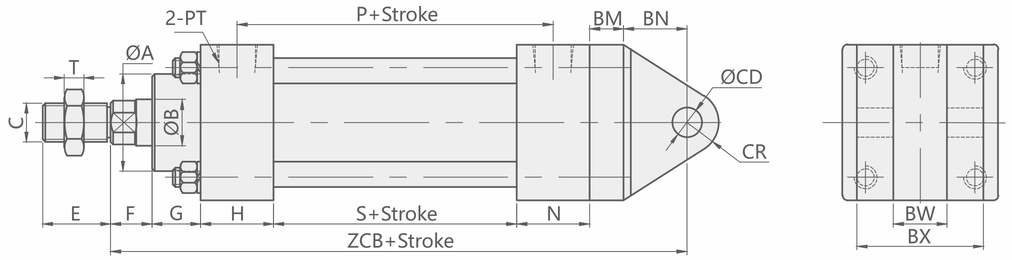
Unit:mm

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	71	71	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	76.5	76.5	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	76.5	77	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	77	77	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	87	87	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	115	115	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

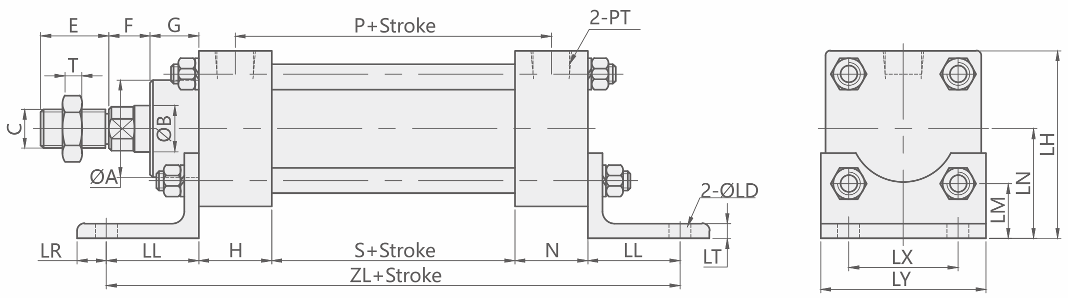
CMOB+CA單耳型 Single Trunnion Mounting Type



CMOB+CB双耳型 Double Trunnion Mounting Type

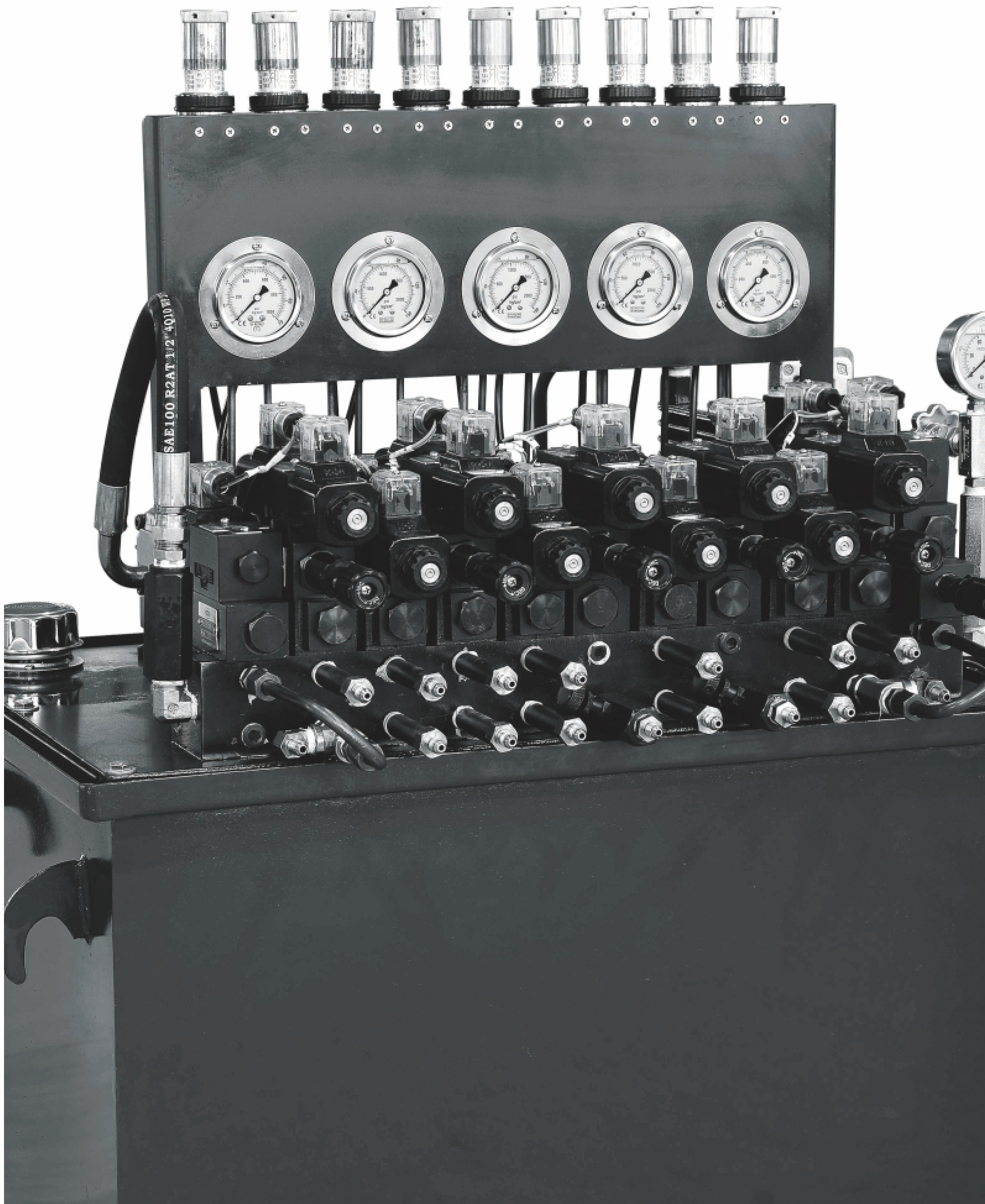


CMOB+LB 前後腳座型 Front & Rear Foot Mounting Type



Unit:mm

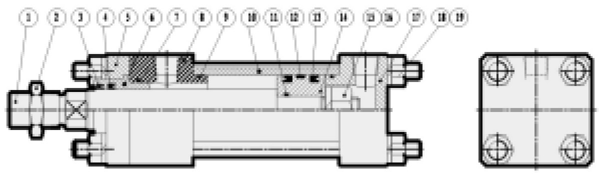
CMOB TYPE													CA+CB TYPE											LB TYPE									
BORE	ΦA	ΦB	C	E	F	G	H	N	P	PT	S	T	ZC	ΦCD	CR	CM	CN	CV	ZCB	BM	BN	BW	BX	ZL	ΦLD	LH	LN	LM	LL	LR	LT	LX	LY
Φ30	30	16	M14x1.5	28	13	15	25	25	71	1/4"	50	8	159	10	10	11	20	16	162	12	22	16	48	156	9	60	35	18	28	10	5	34	53
Φ40	40	20	M16x1.5	28	17	20	30	30	76.5	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	76.5	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	77	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	87	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	115	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



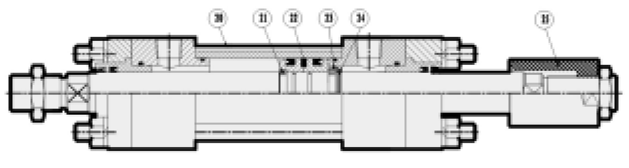
CHO
系列重型油壓缸

CHO SERIES HYDRAULIC CYLINDER

重型油壓缸結構圖 INSIDE STRUCTURE



CHOB



CHOD

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	活塞桿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	拉桿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 Specifications

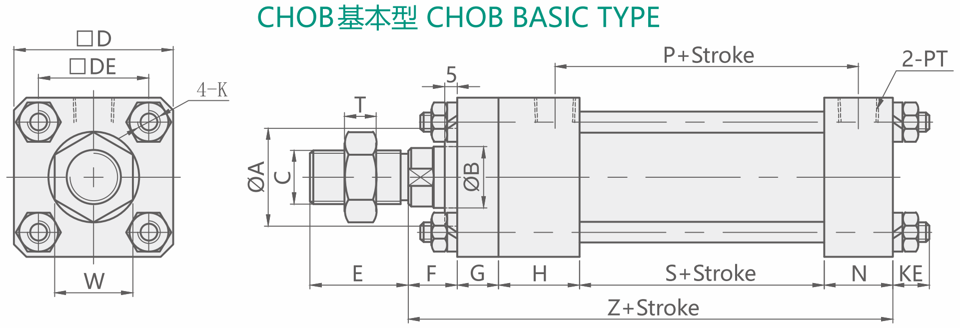
油缸內徑Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150	Φ180	Φ200
工作流體 Power Fluid	以濾清之標準液壓油 Filtered Oil								
缸管材質Material of cylinder barrel	碳鋼管Carbon steel STKM-13c/白鐵管 Stainless tubes SUS 304								
使用壓力範圍The range of pressure(MPa)	0.3-14 MPA(3-140kg/cm^2)								
使用速度範圍The 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
訂製行程於1501-2500mm間活塞長度（PM) Piston length when the stroke is between 1501-2500 mm	60	70	70	80	100	100	100	140	140
訂製行程於2501-4000mm間活塞長度（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

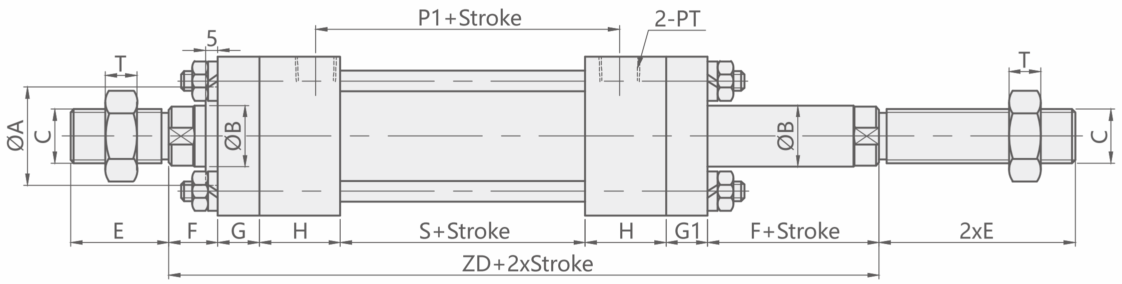
示例：CHOB-R-D-63/35-100-LB-Y

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	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 Φ150 Φ180 Φ200
35	軸心 Rod	標準Standard Φ25 Φ30 Φ35 Φ40 Φ50 Φ60 Φ80 Φ100 Φ100 最大Max - Φ35 Φ40 Φ50 Φ60 Φ80 Φ100 Φ120 Φ120 無記號：標準軸心 Blank: standard rod
100	行程 Stroke	鋼管Steel barrel（Φ40-Φ125） 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：50，100，150，200，250，300，350，400，450，500，600，700，800，900，1000.
LB	缸體固定型式 Accessories for body	FA 前法蘭型 Front flange FB 後法蘭 Rear flange LB 腳座型 Foot mount TC 耳軸型 Trunnion type LA 腳座型 Foot type CA 單耳型 Single trunnion CB 雙耳型Double trunnion CBP CB附Pin CB with pin CAB CA+P+CB
Y	軸心固定型式 Accessories for rod	Y Y型接頭 Y joint YP Y+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 sleeve joint A 可調螺帽Adjustable nut

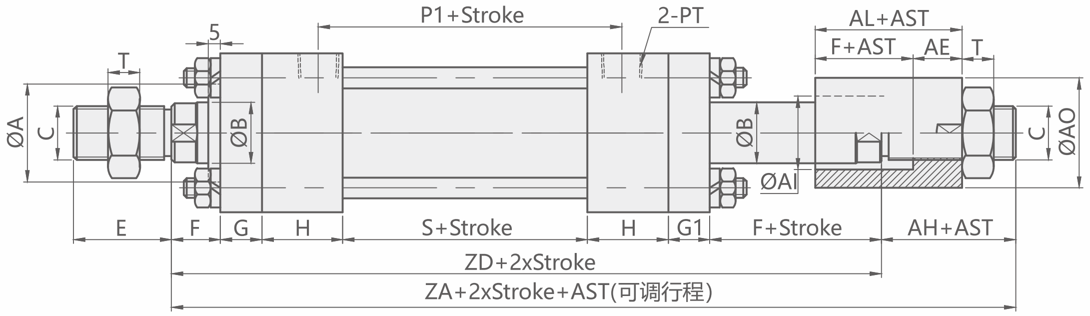
CHOB基本型 CHOB BASIC TYPE



CHOD 双軸型 CHOD DOUBLE END ROD TYPE



CHOD-A 双軸型附可調帽 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"	M10x1.25	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

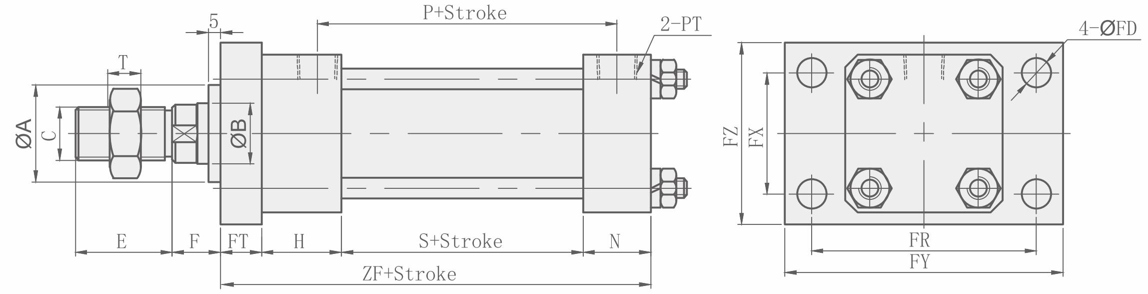
注意事項

1.軸心加大如未註明長度尺寸時，依照本公司規定自行加工。
2.CHO系列行程未超過1500mm時，活塞長度（PM）如附表，訂製行程如超過1500mm時，活塞長度（PM）請參閱特性資料表。
3.本系列行程超過2000mm(含）時，須加拉杆中間固定座。
4.本系列行程軸心螺帽規格M50mm(含）以上時，其外徑為圓形。
5.AST為客戶指定之可調行程。

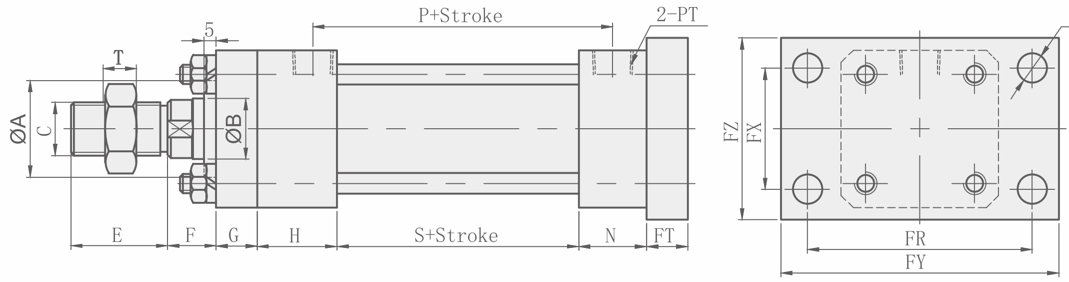
NOTE

1. For rods extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. 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.
3.Middle rod holder must be installed for those CHO series whose stroke is equal to or more than 2000mm.
4. The external diameter would be round when the size of red nut is equal to or more than M50mm.
5. AST stands for adjustable stroke designated by customers.

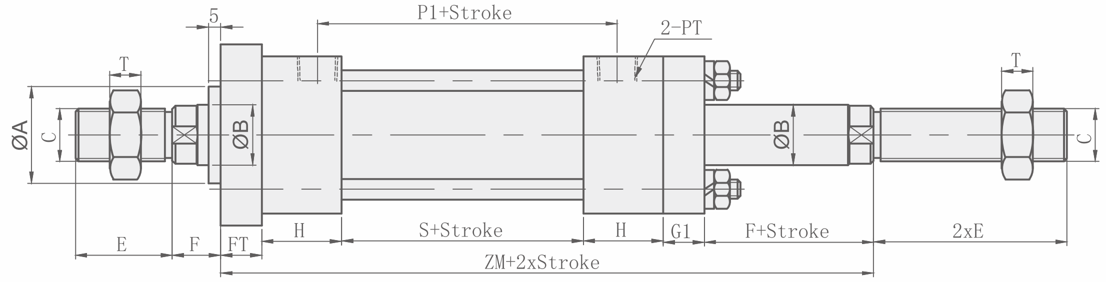
CHOB-FA 前法蘭型 CHOB-FA FR0NT FLANGE TYPE



CHOB-FB 後法蘭型 CHOB-FB REAR FLANGE TYPE



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



Unit:mm

								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

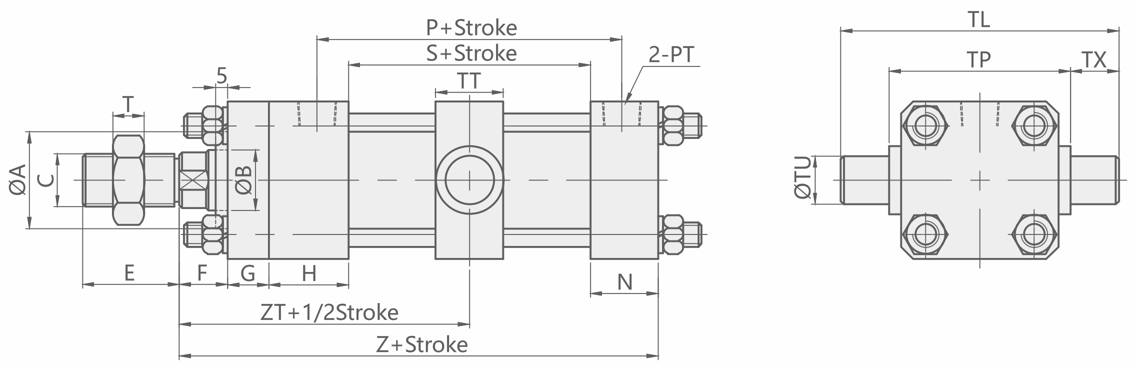
注意事項

1.軸心加大如未註明長度尺寸時，依照本公司規定自行加工。
2.CHO系列行程未超過1500mm時，活塞長度（PM）如附表，訂製行程如超過1500mm時，活塞長度（PM）請參閱特性資料表。
3.本系列軸心螺帽規格M50mm（含以上時），其外徑為圓形。

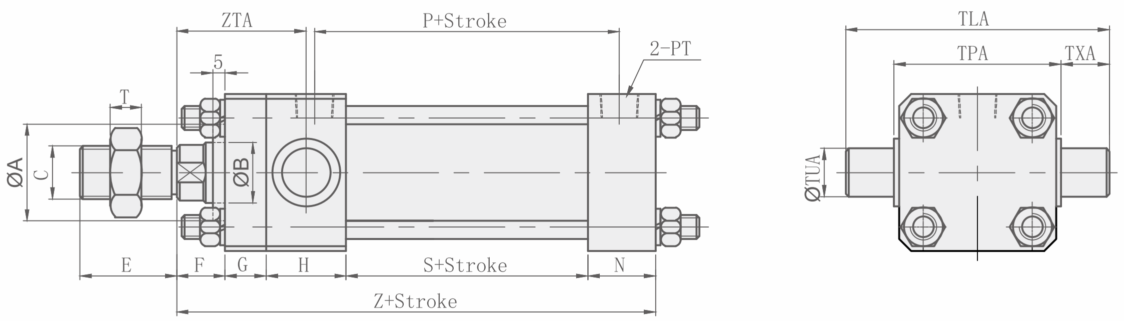
NOTE

1. For rods extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. 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.
3.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



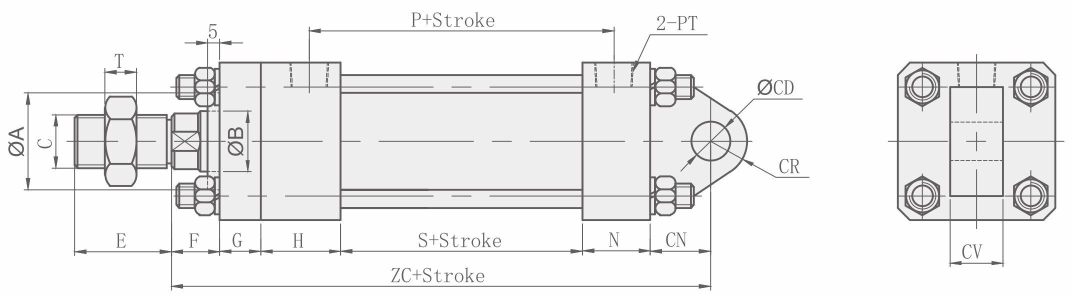
CHOB+TA前耳軸型CHOB+TA FRONT TRUNNION TYPE



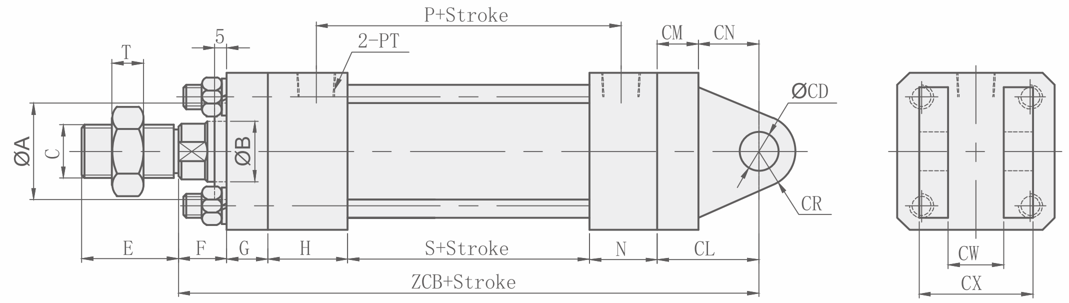
Unit:mm

CHOB TYPE														TC TYPE						TA TYPE				
BORE	ΦA	ΦB	C	E	F	G	H	N	P	PT	S	T	Z	ZT	ΦTU	TL	TP	TT	TX	ΦTUA	TLA	TPA	TXA	ZTA
Φ40	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
Φ50	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
Φ63	55	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
Φ80	60	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
Φ100	80	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
Φ125	90	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
Φ150	110	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
Φ180	135	100	M90xP2.0	100	35	40	65	55	172	1"	120	20	315	200	80	403	243	98	80					
Φ200	135	100	M90xP2.0	100	40	40	65	60	175	1"	120	20	325	205	90	452	272	108	90					

CHOB+CA 單耳环型 CHOB+CA SINGLE TRUNNION



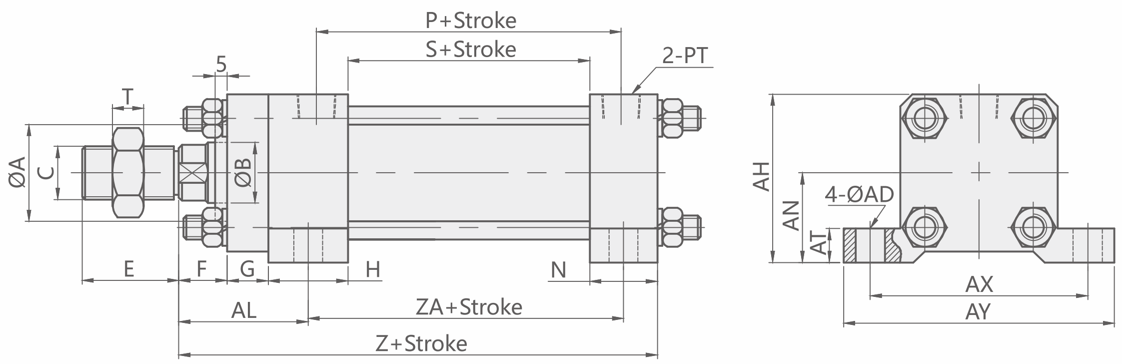
CHOB+CB 双耳环型 CHOB+CB DOUBLE TRUNNION



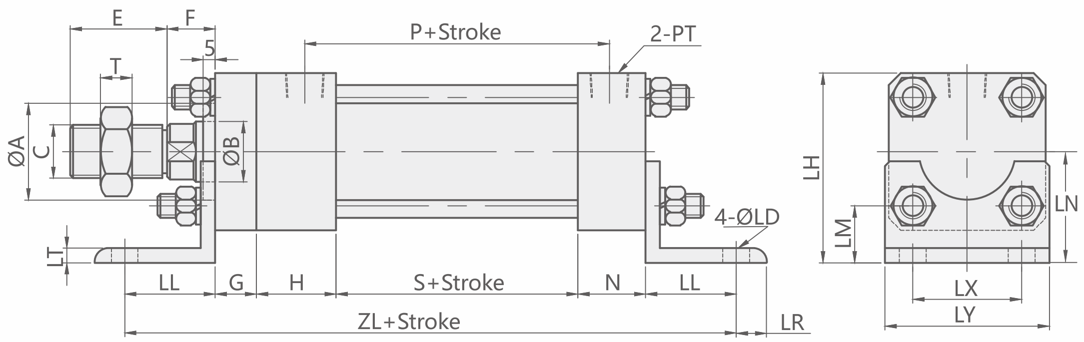
Unit:mm

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

CHOB+LA 左右腳座型 CHOB+LA FEET SEAT TYPE

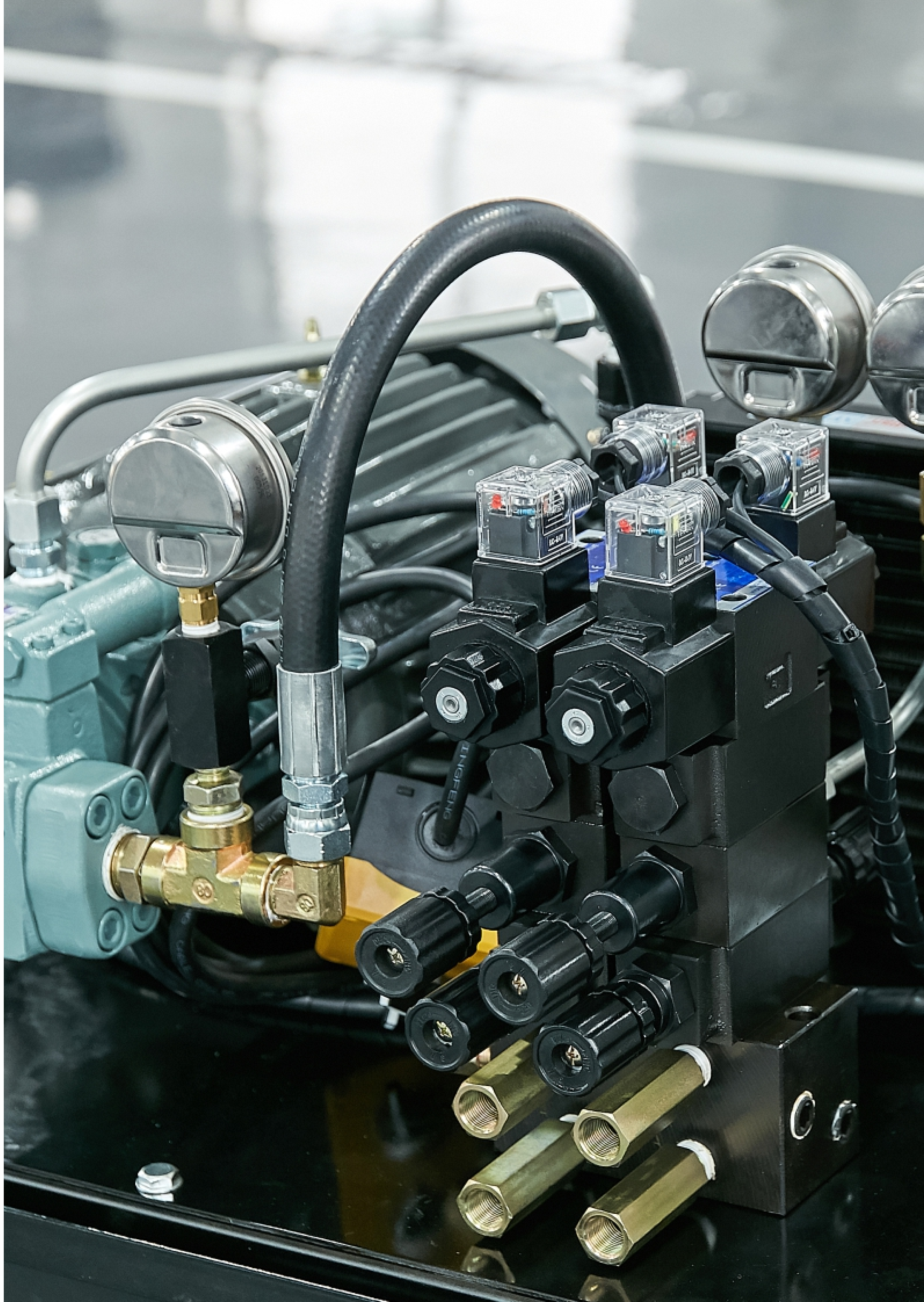


CHOB+LB 前後腳座型 CHOB+LB COURSE OF A TYPE



Unit:mm

CHOB TYPE													LA TYPE									LB TYPE									
BORE	ΦA	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	LN
Φ40	40	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	46
Φ50	50	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	54
Φ63	55	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	57
Φ80	60	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	76
Φ100	80	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	93
Φ125	90	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	114
Φ150	110	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	125
Φ180	135	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	150
Φ200	135	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	170

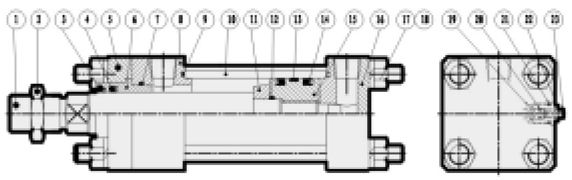


CFO

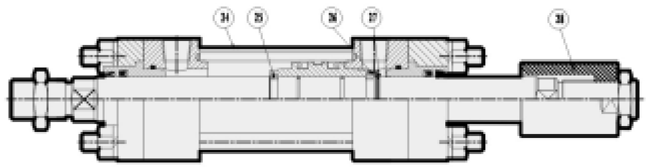
系列可調緩衝油壓缸

CFO SERIES 14 MPA 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	活塞桿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	調節絲桿Adjustable lead screw	1
5	壓蓋Gland	1	14	活塞油封Piston seal	2	24	拉桿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 Specifications

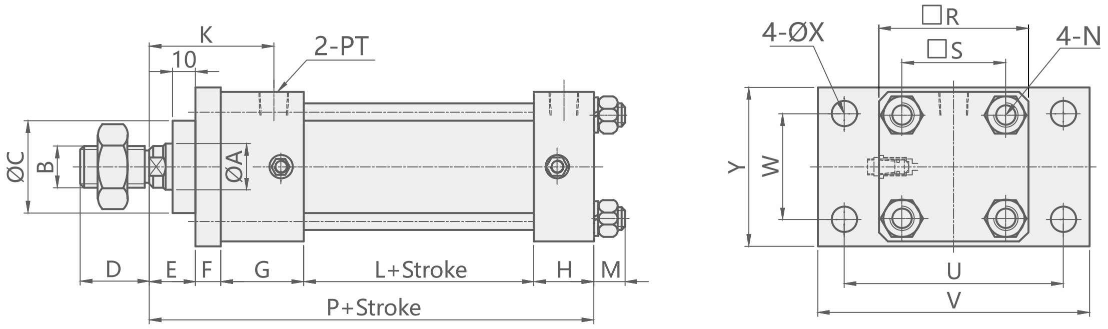
油缸內徑Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125
工作流體 Power Fluid	以濾清之標準液壓油 Filtered Oil					
缸管材質Material of cylinder barrel	碳鋼管Carbon steel STKM-13c/白鐵管 Stainless tubes SUS 304					
使用壓力範圍The range of pressure(MPa)	0.3-14 MPA(3-140kg/cm²)					
使用速度範圍The range of speed (mm/sec)	8~300(mm/sec)					
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
訂製行程於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

示例：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	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
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：50，100，150，200，250，300，350，400，450，500，600，700，800，900，1000.
LB	缸體固定型式 Accessories for body	FA前法蘭型 Front flange type FB後法蘭型 Rear flange type LB腳座型Foot type CB雙耳環型Double trunnion type CBP CB 附Pin CB with pin LA 腳座型 Foot type TC 耳軸型 Trunnion type CA 單耳型 Single trunnion type CAB CA+P+CB
Y	軸心固定型式 Accessories for rod	Y Y型接頭 Y joint YP Y+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 sleeve joint A 可調螺帽Adjustable nut

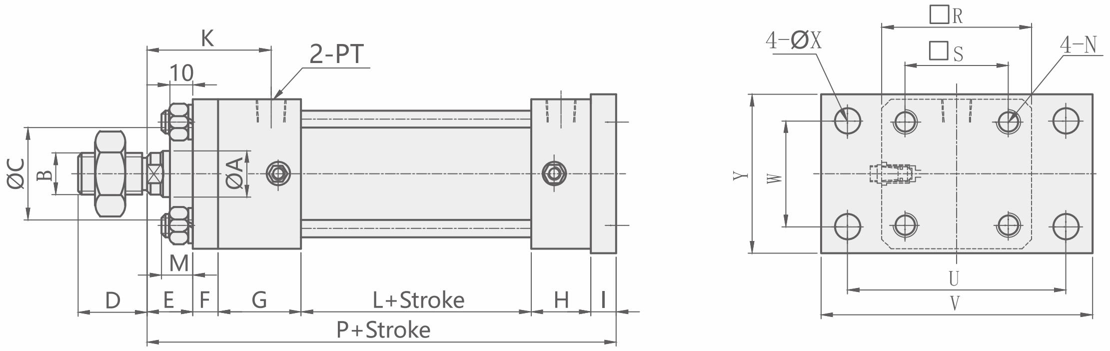
標準 CFOBD+FA型 前法蘭型 Front Flange Mounting Type



Unit:mm

本體尺寸dimensions																安裝相關尺寸mounting dimensions						
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dimensions																安裝相關尺寸mounting dimensions						
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

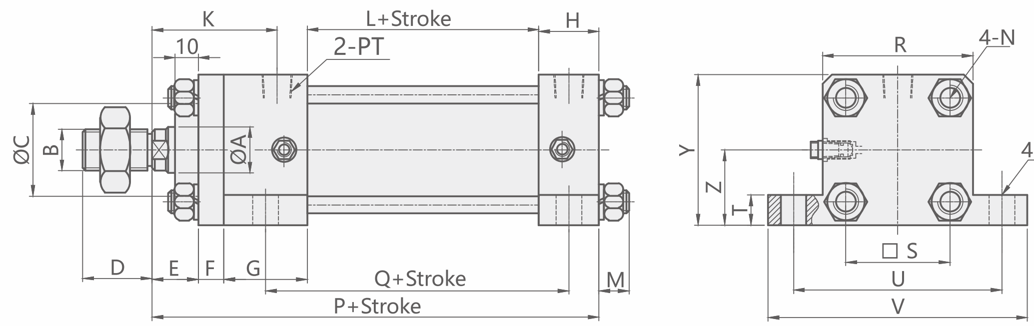
注意事項

1.軸心加大如未註明長度尺寸時，依照本公司規定自行加工。
2.CFO系列行程未超過1500mm時，活塞長度（PM）如附表，訂製行程如超過1500mm時，活塞長度(PM)請參閱特性資料表。
3.本系列行程如超過2000(含）mm時，須加拉桿中間固定座。
4.本系列軸心螺帽規格M50mm（含）以上時，其外徑為圓形。
5.AST為客戶指定之可調行程。

NOTE

1.For axis extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. 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.
3. Middle rod holder must be installed for those HO whose stroke is equal to or more than 2000mm.
4.The external diameter would be round when the size of rod nut is equal to or more than M50mm.
5.AST stands for the adjustable stroke designated by customers.

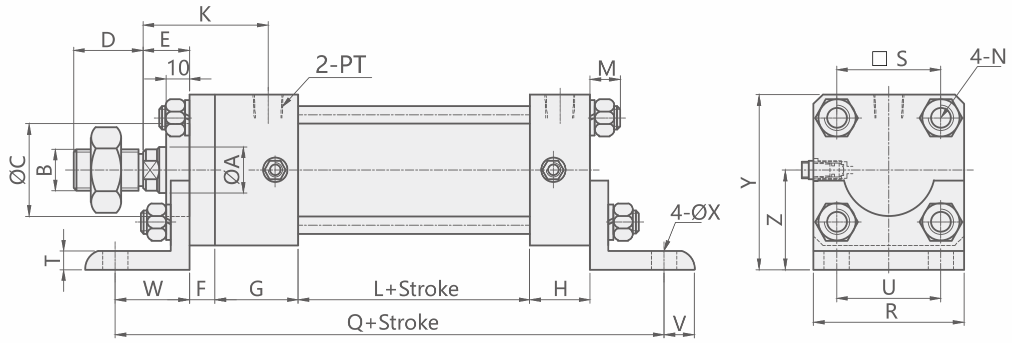
標準 CFOBD+LA型 左右腳座型 Right & Left Foot Mounting Type



Unit:mm

本體尺寸dimensions																安裝相關尺寸mounting dimensions							
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

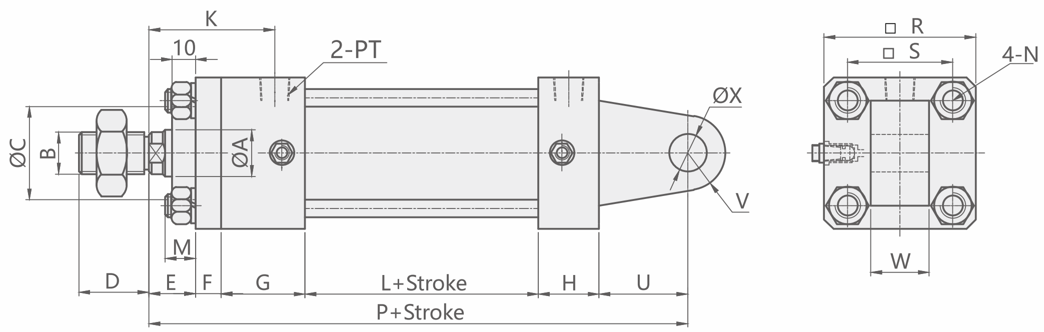
標準 CFOBD+LB型 前後腳座型 Front & Rear Foot Mounting Type



Unit:mm

本體尺寸dimensions																安裝相關尺寸mounting dimensions							
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

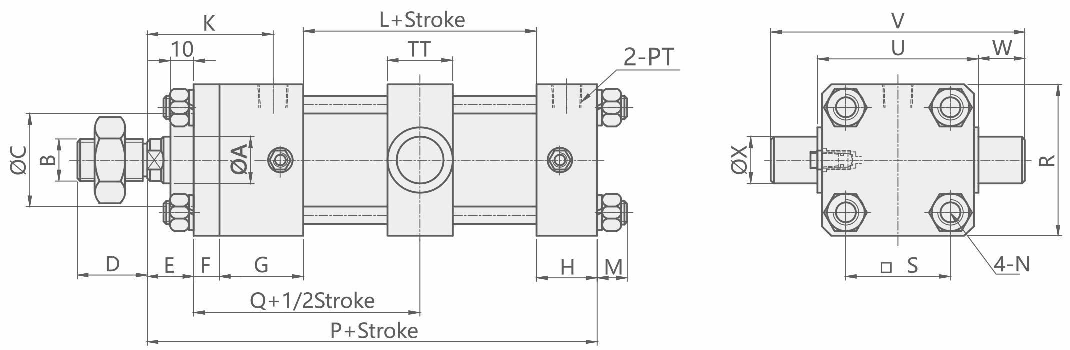
標準 CFOBD+CA型 單耳型 Single Trunion Mounting Type



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

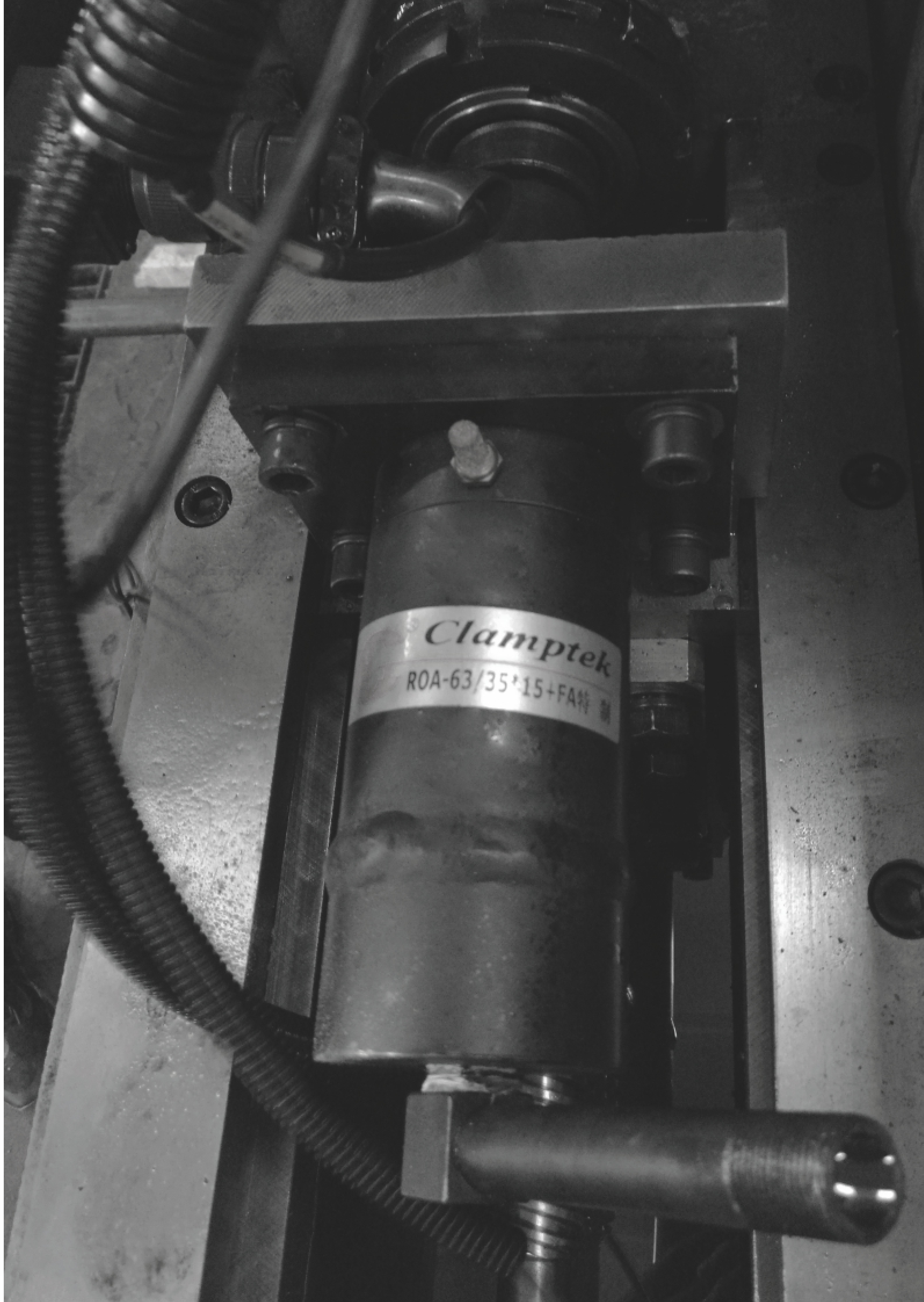
本體尺寸dimension															安裝相關尺寸mounting dimension					
BORE	A	B	D	E	F	G	H	K	L	M	N	R	S	PT	P	Q	U	V	W	X	TT
Φ40	20	M18x1.5	30	20	11	36	26	54	50	13	M10x1.5	65	45	1/4"	143	72	69	109	20	20	28
Φ50	30	M26x1.5	35	30	13	42	34	68	50	13	M10x1.5	75	52	3/8"	169	80	85	135	25	25	33
Φ63	35	M30x1.5	40	35	15	42	34	75	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

注意事项

1.軸心加大或縮小時如未註明長度尺寸時，依照本公司規定自行加工。
2.CFO40系列行程超過500mm以上時，軸心牙加大為M18xP1.5。
3.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。
4.前蓋螺帽（ΦJ）與軸心螺帽（W）規格大於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。

NOTE

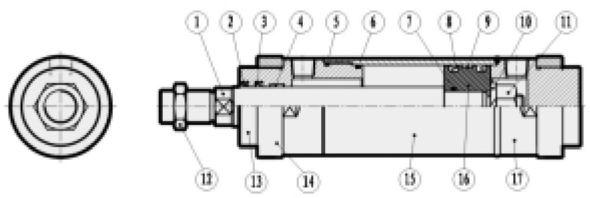
1. For rods extending or reducing processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. Rod thread tooth should be extending into M18*P1.5 for CFO series bore size 40 whose stroke is more than 500mm.
3. For the CFO series whose stroke is not exceeding 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.
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.



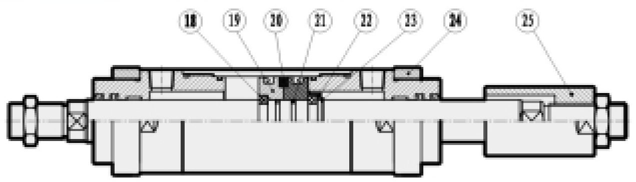
CRO
系列圓型油壓缸

CRO SERIES 14 MPA ROUND HYDRAULIC CYLINDER

圓型油壓缸結構圖 INSIDE STRUCTURE



CROB



CROD

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	活塞桿 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						

可調緩衝油壓缸特性資料 Specifications

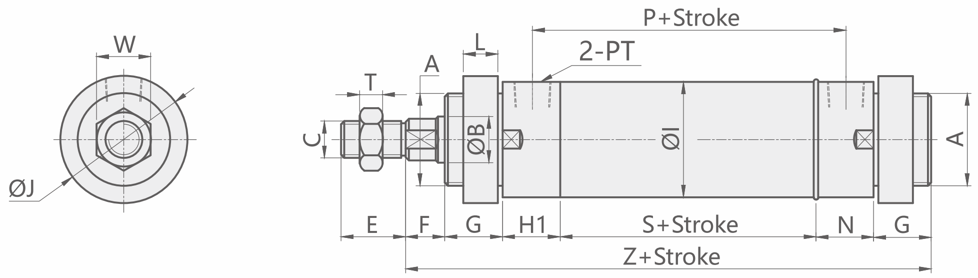
油缸內徑Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125
工作流體 Power Fluid	以濾清之標準液壓油 Filtered Oil					
缸管材質Material of cylinder barrel	碳鋼管Carbon steel STKM-13c/白鐵管 Stainless tubes SUS 304					
使用壓力範圍The range of pressure(MPa)	0.3-14 MPA(3-140kg/cm²)					
使用速度範圍The range of speed (mm/sec)	8~300(mm/sec)					
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
訂製行程於1501-2500mm間活塞長度 (PM) Piston length when the stroke is between 1501-2500 mm	60	70	70	100	100	120
訂製行程於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

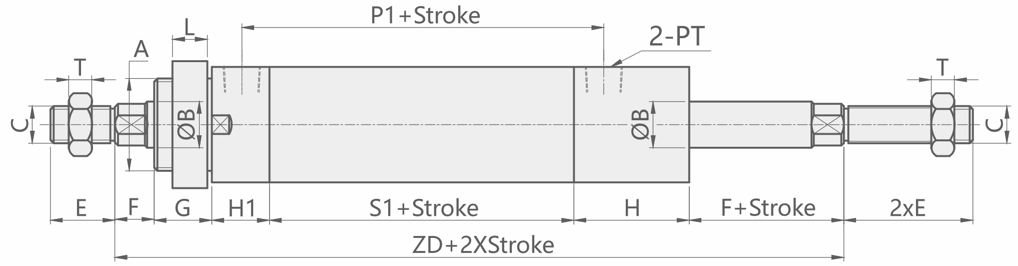
示例：CROB-R-D-63/35-100-LB-Y

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 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	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
35	軸心 Rod	標準Standard Φ20 Φ25 Φ35 Φ40 Φ50 Φ60 最大Max Φ25 Φ30 Φ40 Φ50 Φ70 Φ80 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-Φ200） 最大行程：2.8米 Max:2.8m
LB	缸體固定型式 Accessories for body	FA前法蘭型 Front flange type FB後法蘭型 Rear flange type LA 腳座型 Foot type TC 耳軸型 Trunnion type
Y	軸心固定型式 Accessories for rod	Y Y型接頭 Y joint YP Y+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 sleeve joint A 可調螺帽Adjustable nut

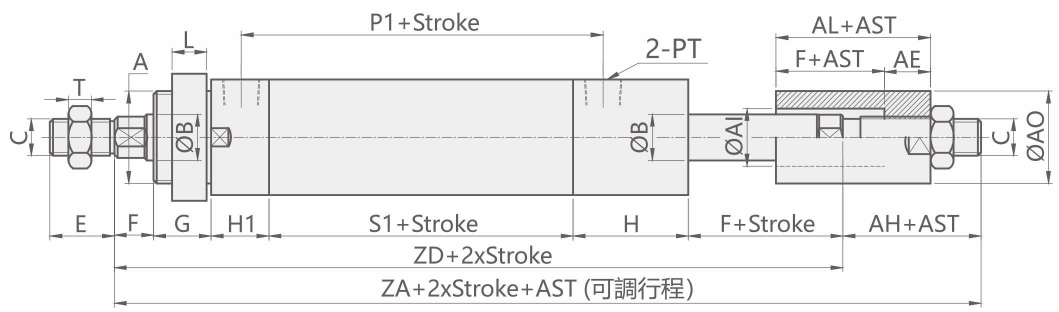
CROB 標準型 CROB STANDARD TYPE



CROD 標準型 CROD STANDARD TYPE



CROD-A 双軸可調型 CROD-A ADJUSTABLE DOUBLE-END ROD TYPE



Unit:mm

CROB-CROD TYPE																									A(可調行程)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

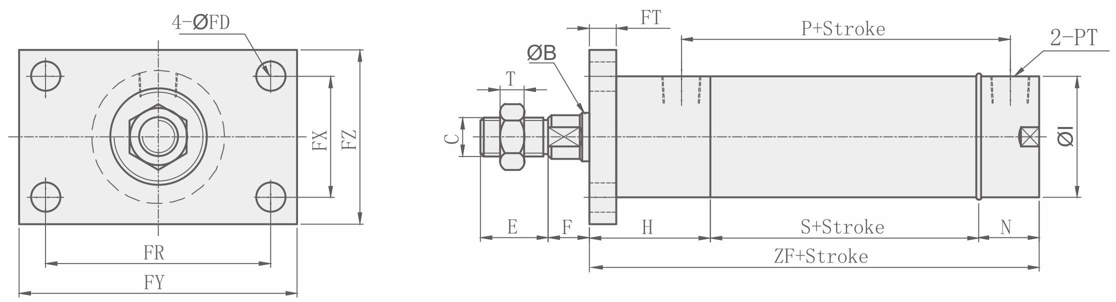
注意事項

1.軸心加大或縮小時如未註明長度尺寸時，依照本公司規定自行加工。
2.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。
3.前蓋螺帽(ΦJ)與軸心螺帽(W)規格大於M50時，其外徑為圓形,W, J 指其外徑。
4.AST為客戶指定之可調行程。

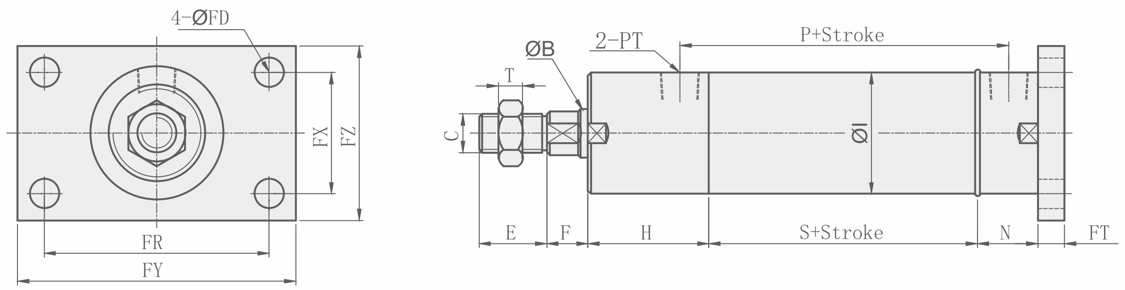
NOTE

1. For rods extending or reducing processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. 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.
3. 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.
4. AST stands for adjustable stroke designated by customers.

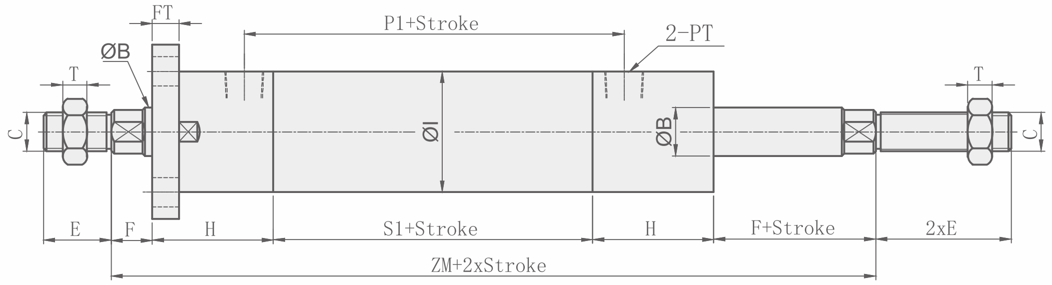
CROA+FA 前法蘭型 CROA+FA FR0NT FLANGE TYPE



CROB+FB 後法蘭型 CROB+FB REAR 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

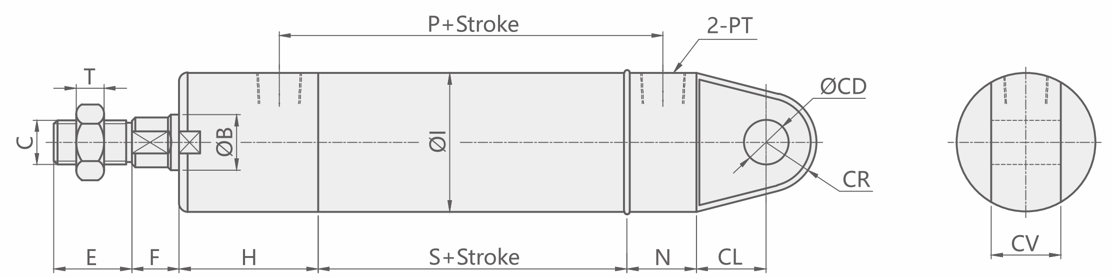
注意事項

1.軸心加大或縮小時如未註明長度尺寸時，依照本公司規定自行加工。
2.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。
3.前蓋螺帽(ΦJ)與軸心螺帽(W)規格大於M50時，其外徑為圓形,W, J 指其外徑。
4.AST為客戶指定之可調行程。

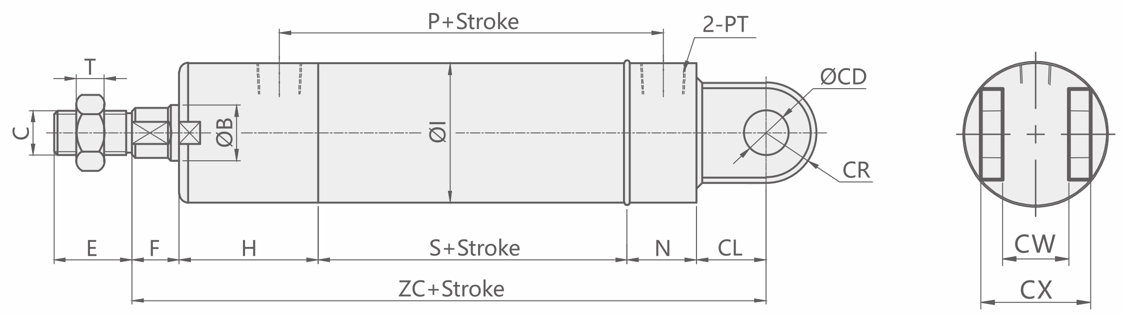
NOTE

1. For rods extending or reducing processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. 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.
3. 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.
4. AST stands for adjustable stroke designated by customers.

CRO+CA 單耳環型 CRO+CA SINGLE TRUNNION 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

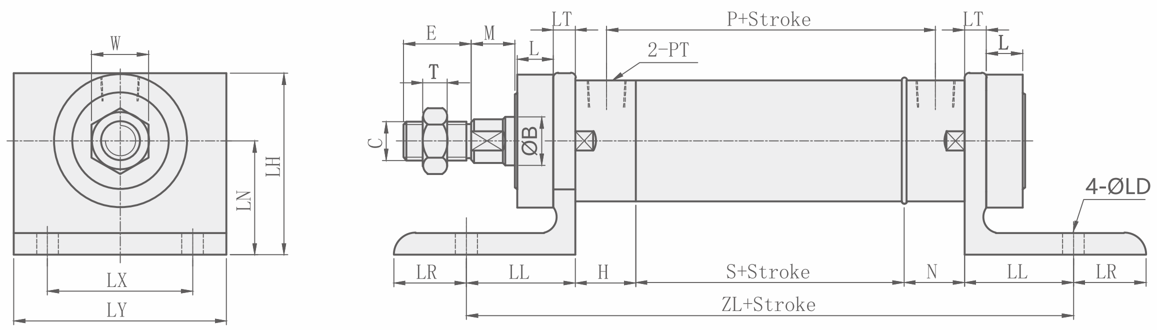
注意事項

1.軸心加大或縮小時如未註明長度尺寸時，依照本公司規定自行加工。
2.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。
3.前蓋螺帽(ΦJ)與軸心螺帽(W)規格大於M50時，其外徑為圓形,W, J 指其外徑。
4.AST為客戶指定之可調行程。

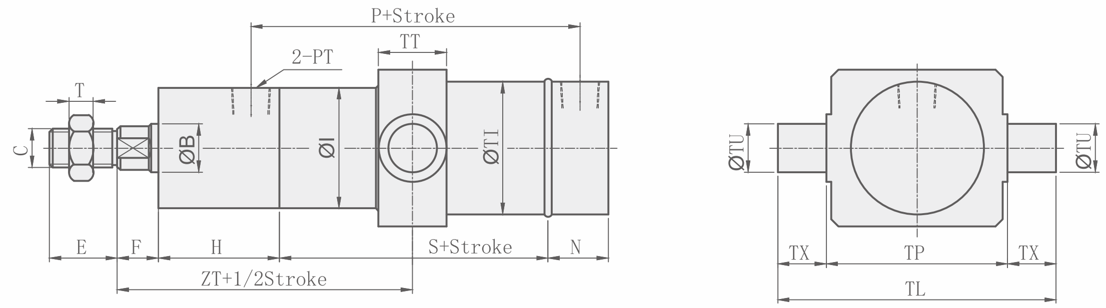
NOTE

1. For rods extending or reducing processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. 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.
3. 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.
4. AST stands for adjustable stroke designated by customers.

CROB+LB 前後腳座型 CROB+LB FOOT MOUNT 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	28	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

注意事項

1.軸心加大或縮小時如未註明長度尺寸時，依照本公司規定自行加工。
2.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。
3.前蓋螺帽(ΦJ)與軸心螺帽(W)規格大於M50時，其外徑為圓形,W, J 指其外徑。
4.AST為客戶指定之可調行程。

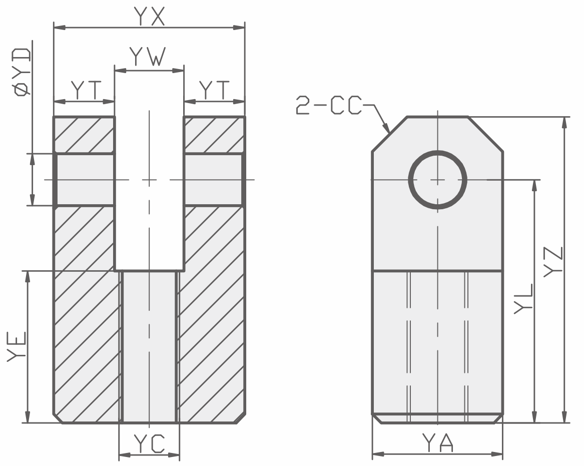
NOTE

1. For rods extending or reducing processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. 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.
3. 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.
4. AST stands for adjustable stroke designated by customers.

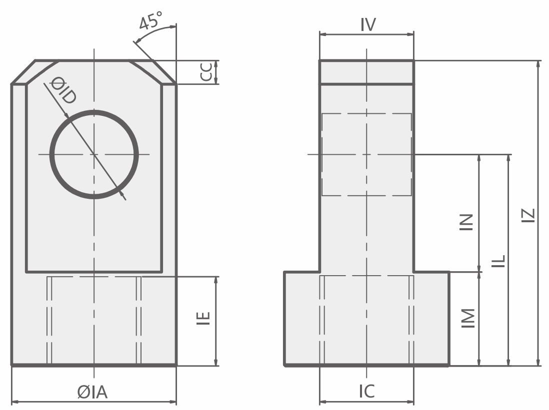
CMO/CHO/CRO/CFO
油壓缸軸心配件

CMO/CHO/CRO/CFO HYDRAULIC CYLINDER AXIS ACCESSORIES

Y型接頭 Y CONNECTORS



I型接頭 I CONNECTORS



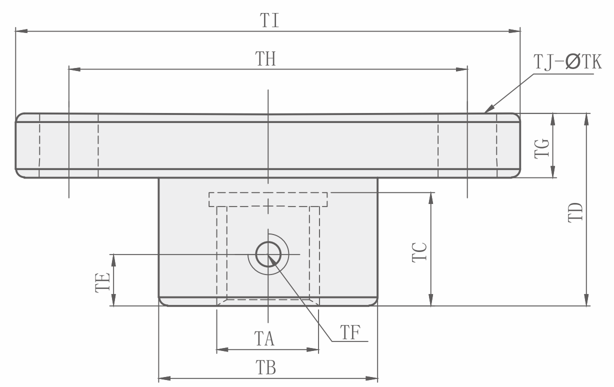
Unit:mm

Y型接頭 ROD CLEVIS						MATERIAL : 45 #				
TYPE	YA	YC	YD	YE	YL	YT	YW	YX	YZ	CC
MY-014	30	M14x1.5	12	35	56	14	16	44	70	8
MY-016	30	M16x1.5	12	35	56	14	16	44	70	8
MY-018	30	M18x1.5	12	35	56	14	16	44	70	8
MY-022	45	M22x1.5	20	35	70	14	24	52	93	10
MY-026	50	M26x1.5	20	35	70	15	28	58	96	10
MY-030	55	M30x1.5	20	41	80	20	32	72	107	12
MY-030A	55	M30x1.5	25	41	80	22	40	84	107	12
MY-40	70	M40x2.0	35	47	93	20	30	70	127	15
MY-50	80	M40x2.0	40	50	100	22.5	35	80	140	15

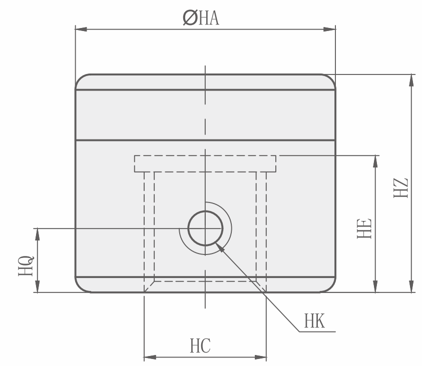
Unit:mm

I型接頭 I ROD CLEVIS						MATERIAL : 45 #				
TYPE	IA	IC	ID	IE	IL	IM	IN	IV	IZ	CC
FI-014	30	M14XP1.5	16	18	37	21	16	15	52	5
FI-016	30	M16XP1.5	16	18	37	21	16	15	52	5
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 ROD END MOUNTING							MATERIAL : 45 #				
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

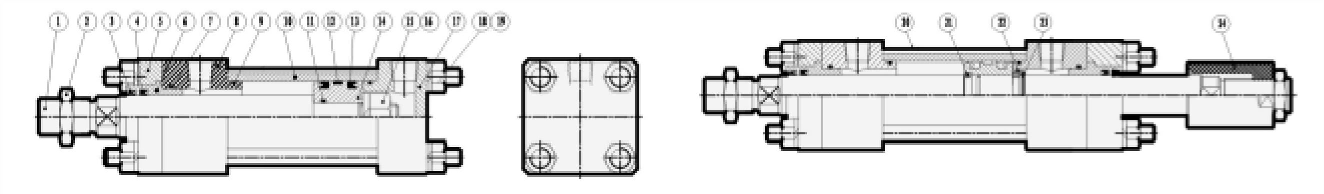
H型焊套接頭H ROD END MOUNTING				MATERIAL : 45 #		
TYPE	ΦHA	HC	HE	HK	HQ	HZ
H-010	20	M10xP1.25	20	M6XP1.0	10	30
H-014	35	M14xP1.5	25	M8XP1.25	12	40
H-016	35	M16xP1.5	25	M8XP1.25	12	40
H-018	35	M18xP1.5	25	M8XP1.25	12	40
H-022	40	M22xP1.5	32	M8XP1.25	15	50
H-026	45	M26xP1.5	32	M8XP1.25	15	50
H-030	50	M30xP1.5	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

系列重型油壓缸

CGO SERIES 21 MPA TIE-ROD HYDRAULIC OIL CYLINDER

重型油壓缸結構圖 INSIDE STRUCTURE



CGOB　　CGOD

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	活塞桿Piston rod	1	9	O型圈Gasket	2	17	後端蓋End cover	1
2	鎖緊螺母Locking nut	1	10	缸筒Cylinder tube	1	18	螺母nut	8
3	防塵油封Dustproof seal	1	11	O型圈Gasket	1	19	彈性墊圈Spring washer	8
4	軸用油封Oil seal for shaft	1	12	耐磨環Wearing ring	1	20	拉桿Tie rod	4
5	壓蓋Gland	1	13	活塞油封Piston seal	2	21	半卡環Half snap ring	2
6	導向套Guide sleeve	1	14	活塞Piston	1	22	擋環Baffle ring	1
7	O型圈Gasket	1	15	螺母Nut	1	23	軸用擋圈Rod baffle ring	1
8	前端蓋Rod cover	1	16	彈性墊圈Spring washer	1	24	可調螺母Adjustable nut	1

重型油壓缸特性資料 Specifications

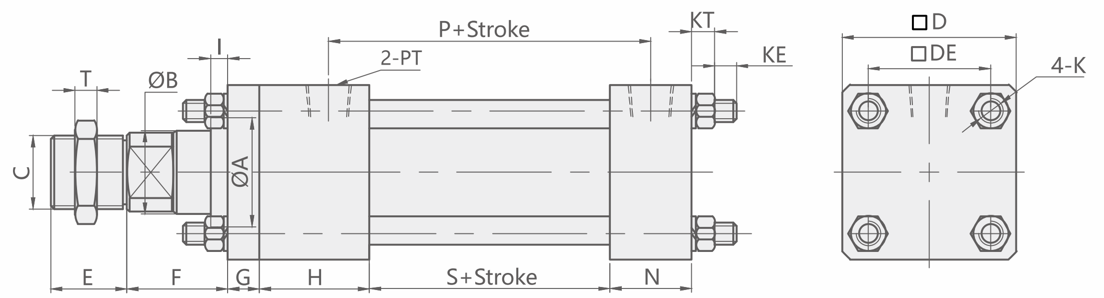
油缸內徑Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ140	Φ150	Φ160
工作流體 Power Fluid	以濾清之標準液壓油 Filtered Oil								
缸管材質Material of cylinder barrel	碳鋼管Carbon steel STKM-13c/白鐵管 Stainless tubes SUS 304								
使用壓力範圍The range of pressure(MPa)	0.3-21 MPA(3-210kg/cm²)								
使用速度範圍The range 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
訂製行程於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
訂製行程於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

示例：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	固定缓衝型式 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	緩衝用軸心　Φ25　Φ30　Φ35　Φ45　Φ50　Φ70　Φ80　Φ90 最大Max　-　Φ35　Φ40　Φ50　Φ60　Φ80　Φ90　Φ100 標準Standard　Φ20　Φ25　Φ35　Φ45　Φ50　Φ70　Φ80　Φ90 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-Φ200）　最大行程：2.8米 Max:2.8m
LB	缸體固定型式 Accessories for body	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 for rod	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

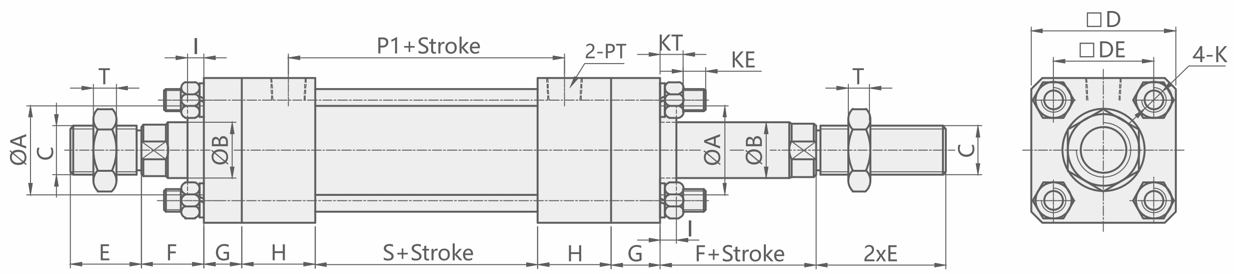
標準 CGOB 標準型 Single Rod Type



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 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

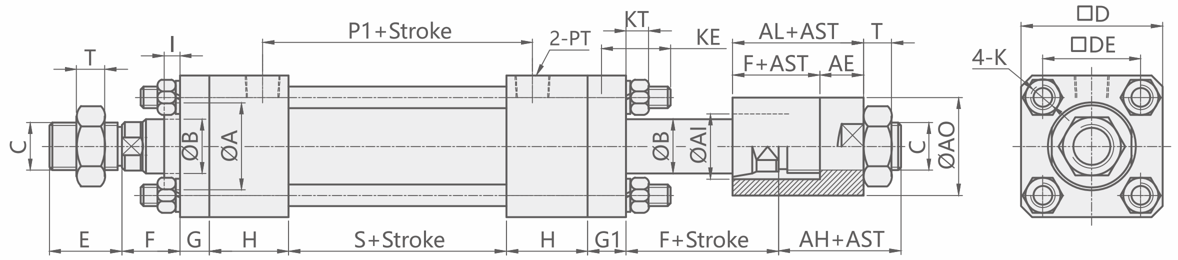
注意事項

1.軸心加大如未註明長度尺寸時，依照本公司規定自行加工。
2.CGO系列行程未超過1500mm時，活塞長度（PM)如附表，訂製行程如超過1500mm時，活塞長度（PM)請參閱特性資料表。
3.本系列行程如超過2000（含）mm時，須加拉杆中間固定座。
4.本系列軸心螺帽規格M50mm（含）以上時，其外徑為圓形。
5.AST為客戶指定之可調行程。

NOTE

1. For rods extending processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. 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.
3. Middle rod holder must be installed for those CGO whose stroke is equal to or more than 2000mm.
4. The external diameter would be round when the size of rod nut is equal to or more than M50mm.
5. AST stands for adjustable stroke designated by customers.

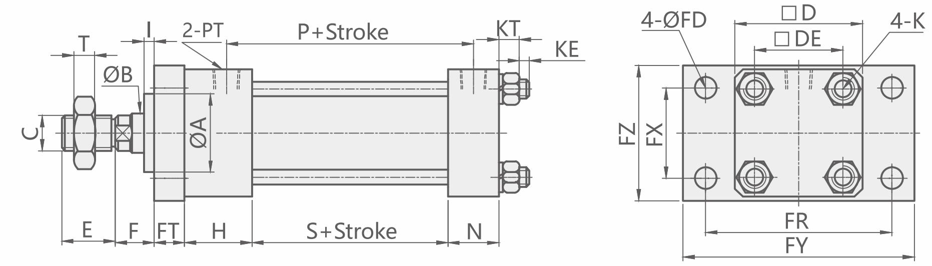
標準 CGOD+A型 雙軸型附可調帽 Double Rods with Adjustable Nut Type



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

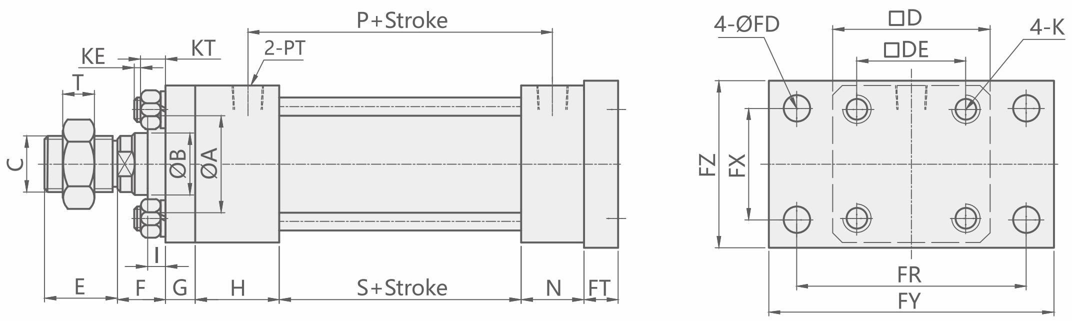
標準 CGOB+FA型 前法蘭型 Front Flange Mounting Type



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

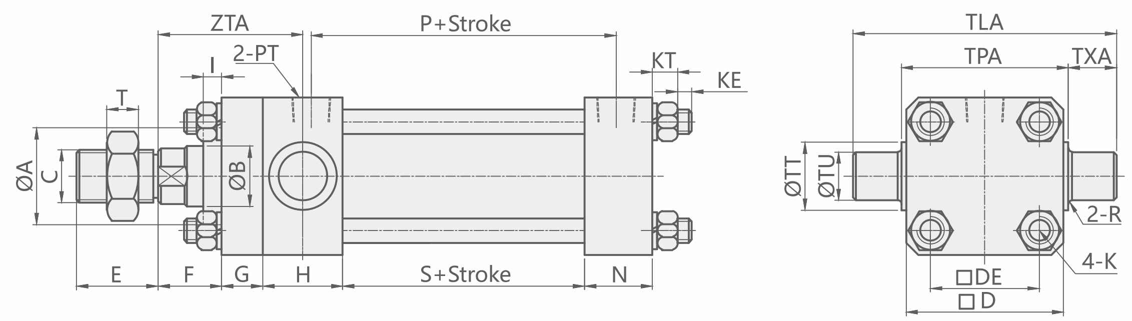
標準 CGOB+FB型 後法蘭型 Rear Flange Mounting Type



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

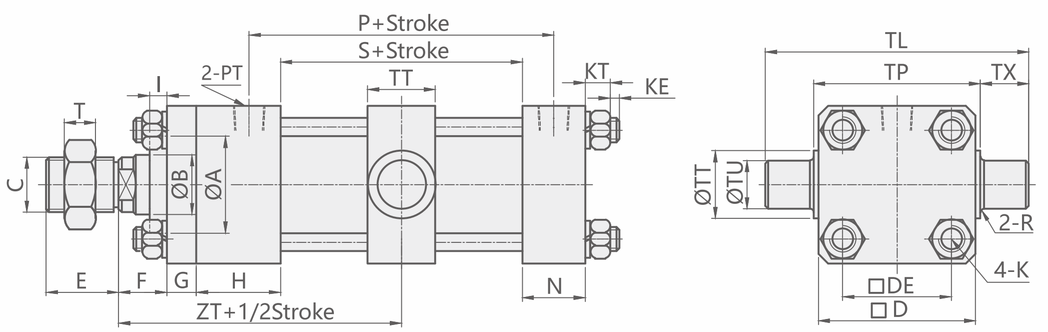
標準 CGOB+TA型 前耳軸型 Front Trunnion Mounting Type



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

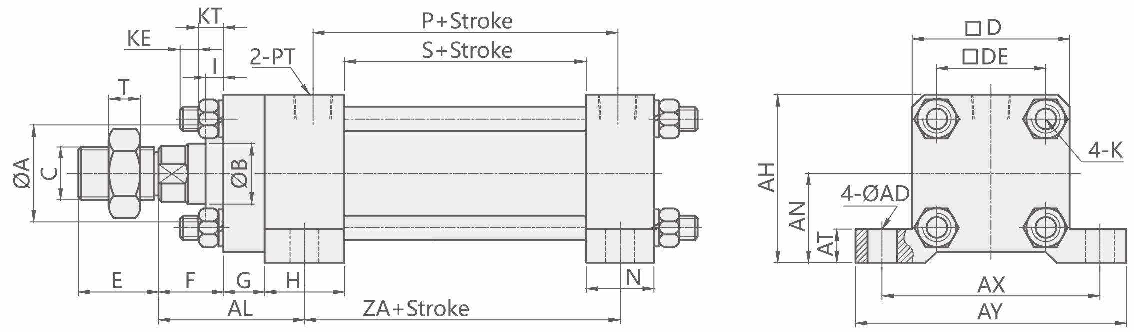
標準 CGOB+TC型 中間耳軸型 Middle Trunnion Mounting Type



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

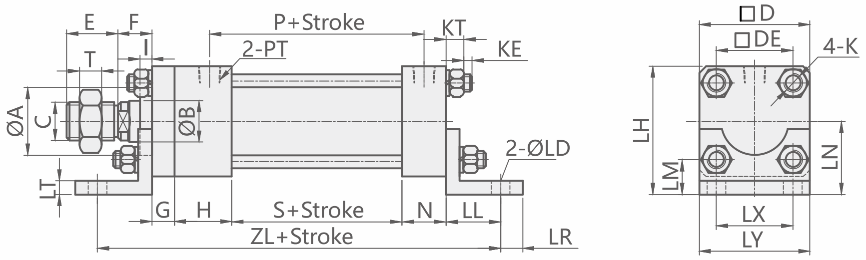
標準 CGOB+LA型 左右腳座型 Right & Left Foot Mounting Type



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	AH	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

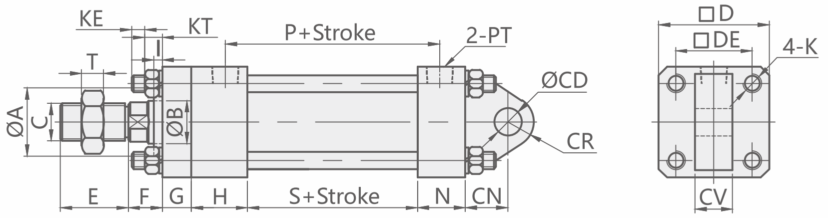
標準 CG0B+LB型 前後腳座型 Front & Rear Foot Mounting Type



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

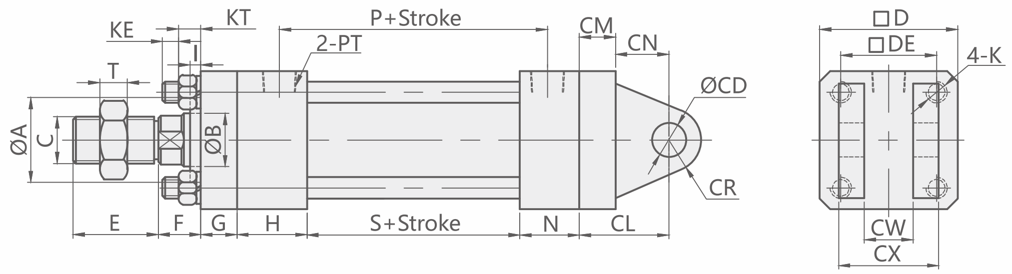
標準 CG0B+CA 單耳型 Single Trunnion Mounting Type



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

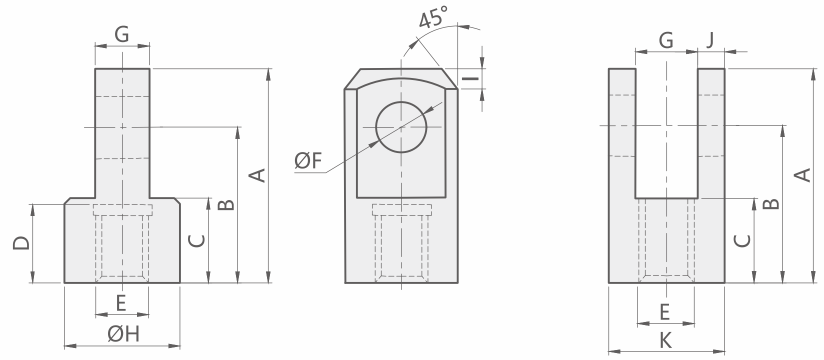
標準 CG0B+CB型 雙耳型 Double Trunnion Type



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

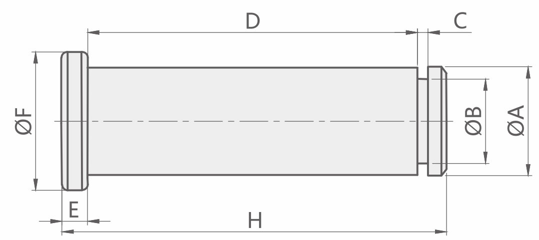
CG0 系列型接頭.Y型接頭　CGO Series I,Y type connector



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



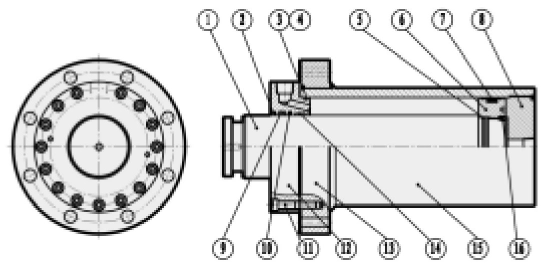
Unit:mm

BORE	ΦA	ΦB	C	D	E	ΦF	H
Φ40	Φ20 $^{-0.02}_{-0.072}$	Φ19 $^{0}_{-0.11}$	1.1	65	5	Φ25	77
Φ50	Φ25 $^{-0.02}_{-0.072}$	Φ23.9 $^{0}_{-0.21}$	1.3	73	5	Φ30	85
Φ63	Φ31.5 $^{-0.02}_{-0.072}$	Φ28.6 $^{0}_{-0.21}$	1.3	81	5	Φ36	93
Φ80	Φ40 $^{-0.025}_{-0.087}$	Φ37.5 $^{0}_{-0.25}$	1.7	101	8	Φ50	118
Φ100	Φ50 $^{-0.025}_{-0.087}$	Φ47 $^{0}_{-0.25}$	2.2	127	8	Φ60	144
Φ125	Φ63 $^{-0.03}_{-0.104}$	Φ60 $^{0}_{-0.3}$	2.7	151	10	Φ70	173
Φ140	Φ71 $^{-0.03}_{-0.104}$	Φ67 $^{0}_{-0.3}$	2.7	161	10	Φ80	183
Φ150	Φ80 $^{-0.03}_{-0.104}$	Φ76.5 $^{0}_{-0.3}$	2.7	201	10	Φ90	223
Φ160	Φ80 $^{-0.03}_{-0.104}$	Φ76.5 $^{0}_{-0.3}$	2.7	201	10	Φ90	223

CHRO
系列大型油壓缸

CHRO SERIES 21 MPA 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	活塞桿Piston rod	1	7	活塞專用密封圈 Piston Seal	2	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	活塞桿階梯封 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 Specifications

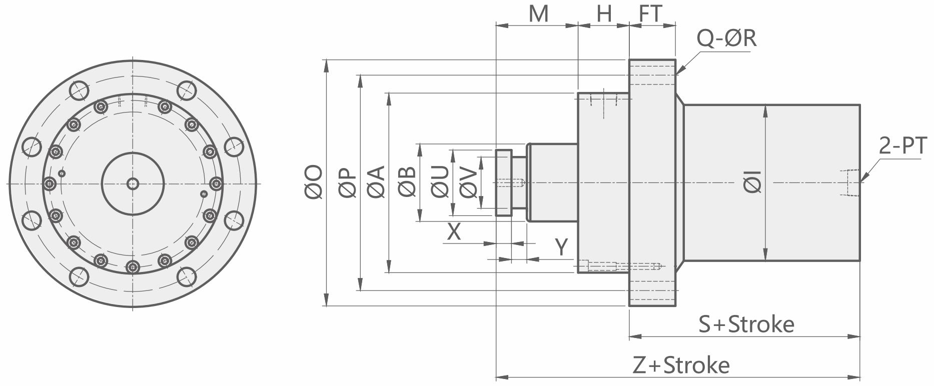
油缸內徑Hydraulic cylinder inside diameter(mm)	Φ125	Φ150	Φ180	Φ200	Φ225	Φ250	Φ280	Φ300
工作流體 Power Fluid	以濾清之標準液壓油 Filtered Oil							
缸管材質Material of cylinder barrel	碳鋼管Carbon steel STKM-13c/白鐵管 Stainless tubes SUS 304							
使用壓力範圍The range of pressure(MPa)	1-21MPA(10-210kg/cm²)							
使用速度範圍The range of 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	70
訂製行程於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
訂製行程於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

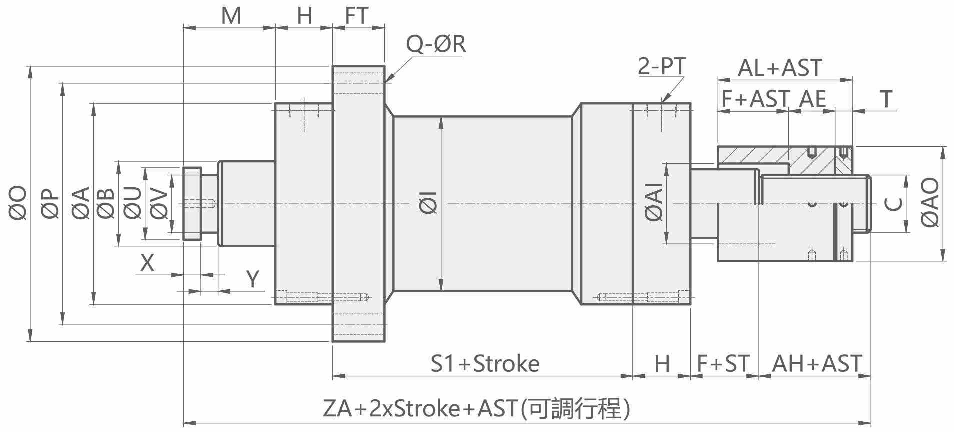
示例：CHROA-125/60-100-Y-DM

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	Φ125 Φ150 Φ180 Φ200 Φ225 Φ250 Φ280 Φ300
60	軸心 Rod	標準Standard Φ60 Φ80 Φ100 Φ125 Φ140 Φ160 Φ180 Φ200 最大Max Φ80 Φ100 Φ120 Φ140 Φ160 Φ200 Φ220 Φ250
100	行程 Stroke	鋼管Steel barrel（Φ125-Φ300） 最大行程：4米 Max:4m
Y	軸心固定型式 Accessories	YP Y附Pin Y connectors with pin I I型接頭 I connectors TW 半月套 TW rod end mounting 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 CHROD 型 雙軸型附可調帽 Double Rods with Adjustable Nut Type



Unit:mm

CHROA-CHROD TYPE																								A(可調帽)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	AH	AE	AI	AO	AL
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	50	35	70	100	60
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	60	40	95	120	65
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	70	40	120	150	70
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	70	40	140	180	70
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	75	45	160	200	75
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	85	50	190	240	80
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	90	50	210	260	80
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	100	60	230	290	95

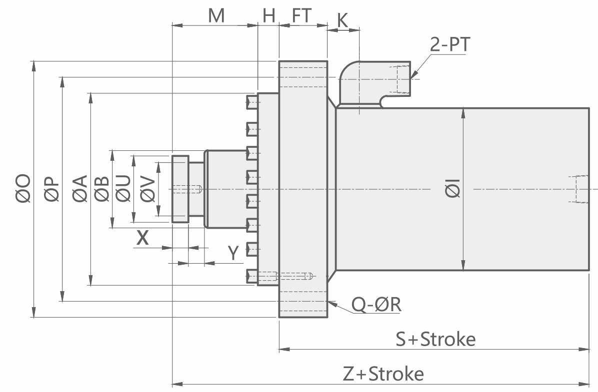
注意事项

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。

NOTE

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CHROB型標準B型Single Rod B Type



Unit:mm

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

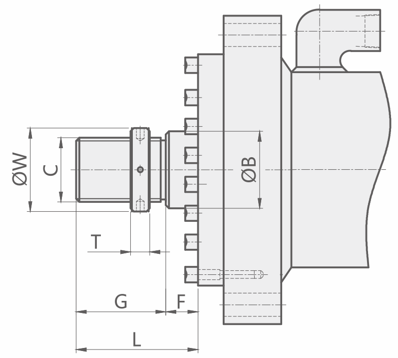
注意事項

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。

NOTE

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.

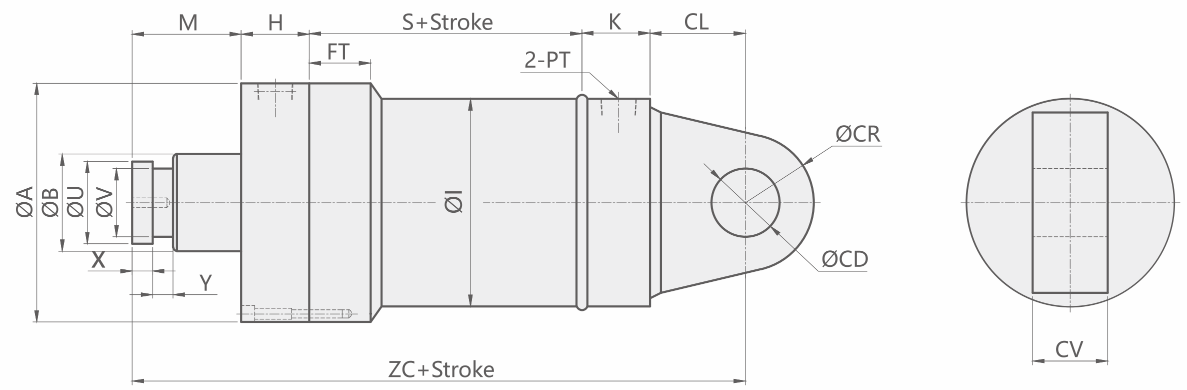
外牙型規格表 Vertical screw of rod



Unit:mm

CHROB TYPE							
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

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

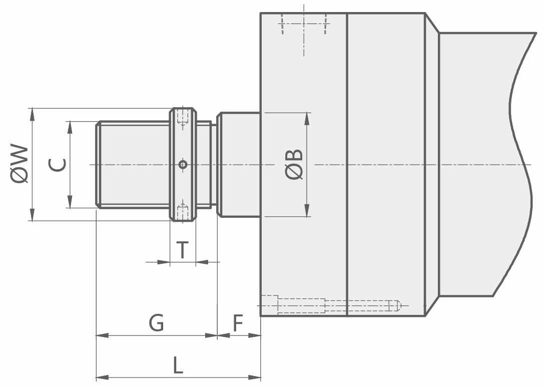
注意事項

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。

NOTE

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.

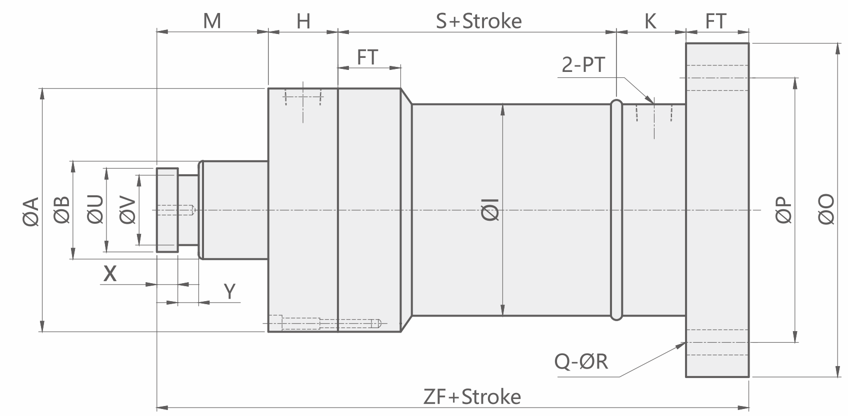
外牙型規格表 Vertical screw of rod



Unit:mm

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

標準 CHR0E型 後法蘭型 Rear Flange Mounting 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

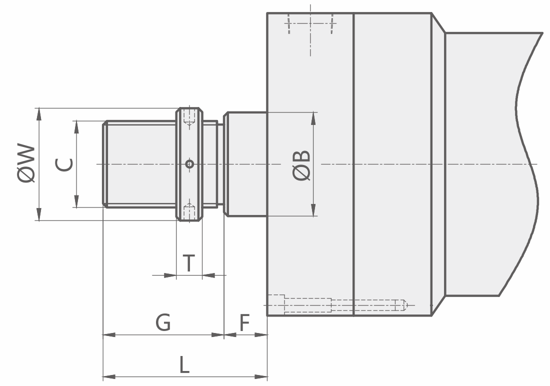
注意事項

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。

NOTE

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.

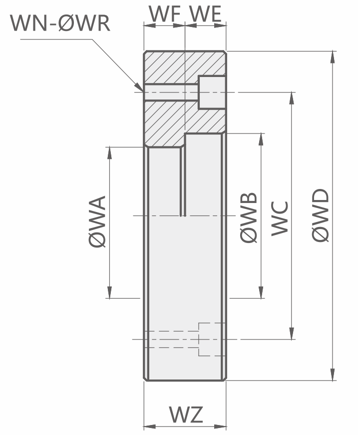
外牙型規格表 Vertical screw of rod



Unit:mm

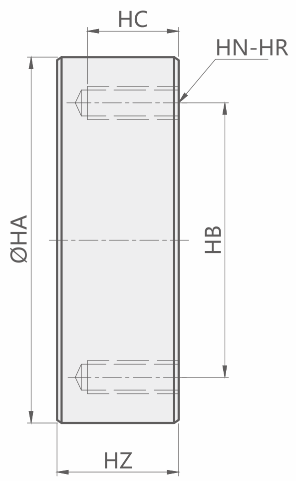
BORE	B	C	F	G	L	T	W
Φ125	60	M50XP2.0	25	70	95	15	65
Φ150	80	M70XP2.0	25	80	105	20	95
Φ180	100	M90XP2.0	30	100	130	30	120
Φ200	125	M100XP2.0	30	120	150	30	140
Φ225	140	M120XP3.0	30	140	170	30	160
Φ250	160	M140XP3.0	30	150	180	35	190
Φ280	180	M160XP4.0	30	160	190	40	210
Φ300	200	M180XP4.0	35	160	195	40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

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



Unit:mm

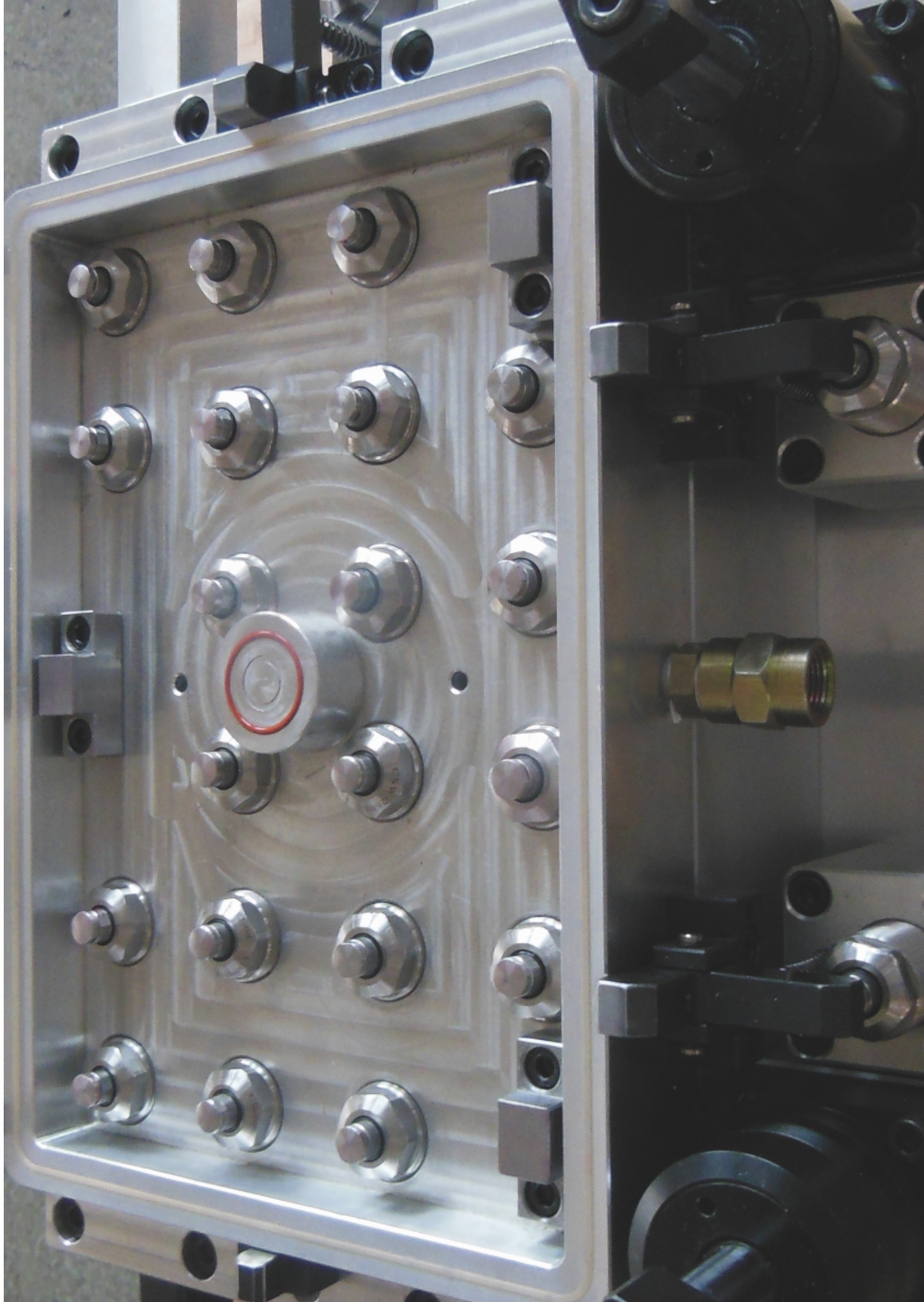
TW 半月套 TW Rod end Mounting									
TYPE	WA	WB	WC	WD	WE	WF	WN	WR	WZ
TW-125	50	60	90	120	15	15	6	12	30
TW-150	70	80	110	140	15	15	6	12	30
TW-180	85	95	140	180	20	20	6	14	40
TW-200	100	115	160	200	25	25	6	14	50
TW-225	120	135	180	220	25	25	8	18	50
TW-250	140	155	210	260	30	30	8	18	60
TW-280	150	175	140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



Unit:mm

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

Material:SS41



CHSG

CHSG焊接高壓缸

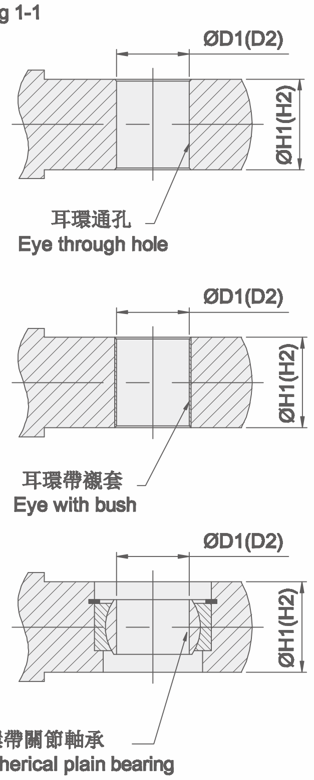
CHSG HYDRAULIC CYLINDER

訂購標示法 ORDERING INDICATION

示例：CHSG-D-d-100-XX-XX-XX

系列 Series	CHSG	
油缸內徑 Hydraulic cylinder inside diameter	Φ40，Φ50，Φ63，Φ80，Φ100，Φ125，Φ150，Φ180，Φ200，Φ220，Φ250	
活塞杆徑 Piston rod diameter	Φ25，Φ30，Φ35，Φ45，Φ55，Φ70/Φ80，Φ100，Φ120，Φ120，Φ140，Φ160	
行程Stroke		
缸體固定型式 Barrel fixing type	FA	前法蘭型 Front flange
	FB	後法蘭 Rear flange
	TC	鉸軸 Cardinal axes
	C1	耳環通孔Eye through port
	C2	耳環帶襯套Eye with bush
	C3	耳環帶關節軸承 Eye with spherical plain bearing
活塞桿端連接方式 Piston rod end connection method	W	外螺紋 Exterior thread
	N	內螺紋 Inner thread
	B1	耳環通孔Eye through port
	B2	耳環帶襯套Eye with bush
	B3	耳環帶關節軸承 Eye with spherical plain bearing

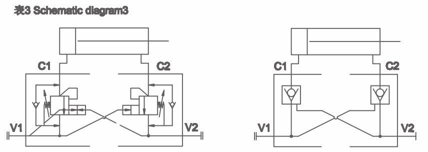
圖1-1 Drawing 1-1



C1/B1

C2/B2

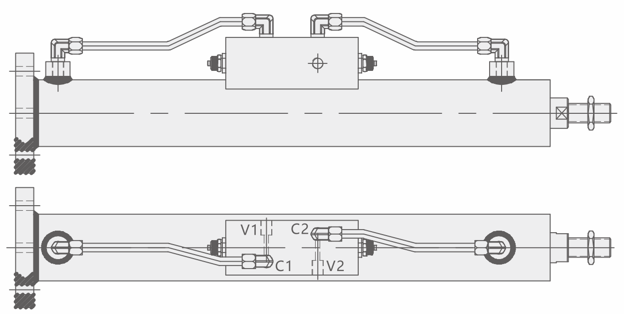
C3/B3

閥配件 Valve accessories	空白：無 CB：帶雙向平衡（抗衡）閥 CO：帶雙向液控單向閥 Blank: No CB: With modular counter balance valve CO: With modular pilot operated check valve	 註：帶雙向平衡（抗衡）閥或帶雙向液控單向閥，適用於外負荷變化而要求行走速度平穩、容易控製、鎖緊時間較長、防止重物因自重下落、防止油管爆裂油缸下落。 Note: With modular counter balance valve or with modular pilot operated check valve are applicable to make sure the cylinder working steadily, easy to control, long fasten time, not falling because of dead weight ,and not falling because of pipe burst when external load changes.

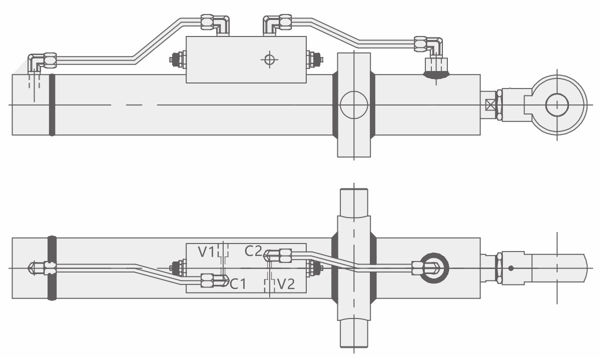
大型油壓缸特性資料 Specifications

油缸內徑Hydraulic cylinder inside diameter(mm)	Φ40 Φ50 Φ63 Φ80 Φ100 Φ125 Φ150 Φ180 Φ200 Φ220 Φ250
使用流體 Usable fluid	Recommended ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
缸管材質Material of cylinder barrel	碳鋼管 Carbon steel STKM-13A~C
使用壓力範圍The range of pressure(MPa)	10~210 kgf/cm^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 (℃)

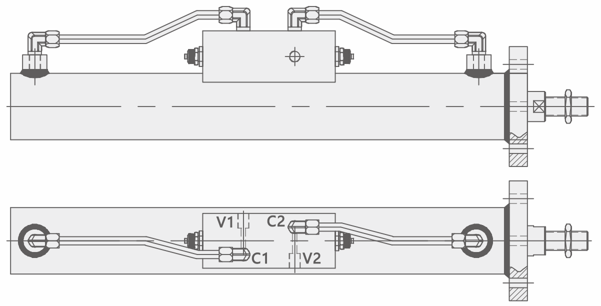
後法蘭 REAR FLANGE



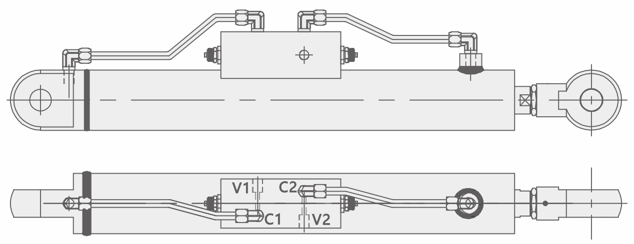
鉸軸 CAEDINAL AXES



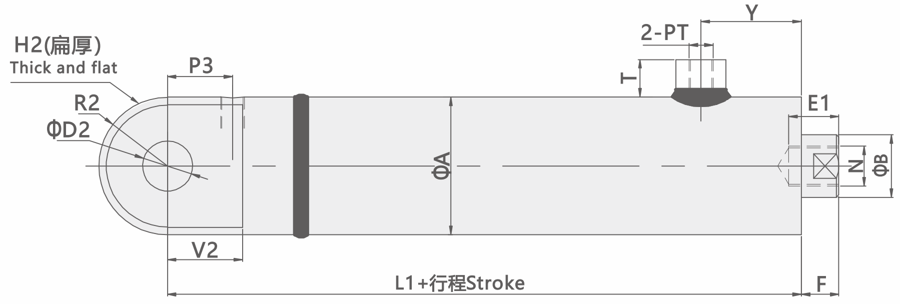
前法蘭 FRONT FLANGE



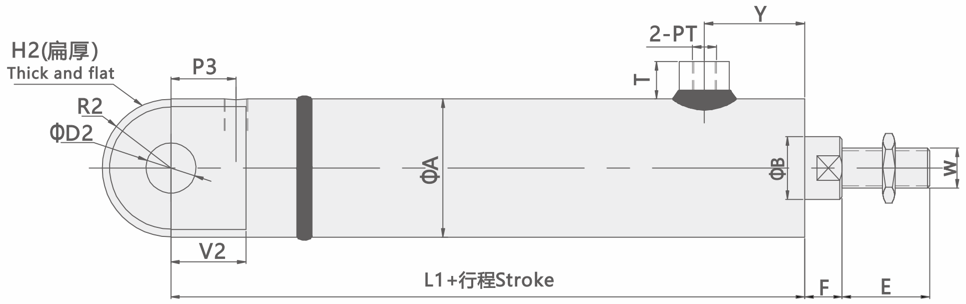
耳環 EYE



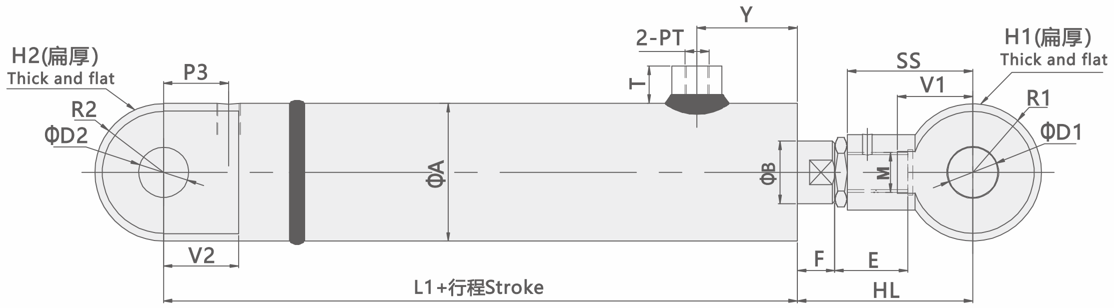
後耳環、內牙 REAR EYE INTERIOR THREAD



後耳環、外牙 REAR EYE EXTERIOR THREAD



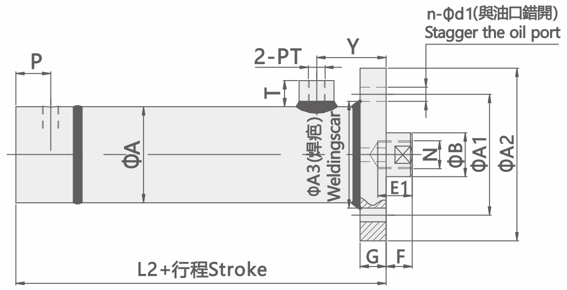
後耳環、前耳環 REAR EYE FRONT EYE



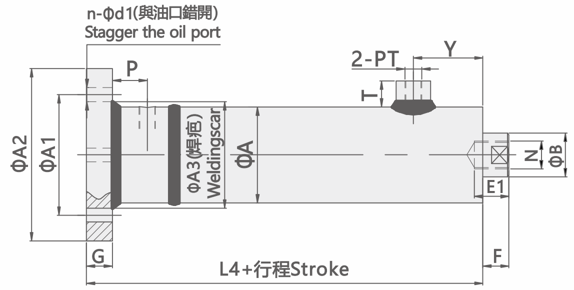
Unit:mm

HSG系列油缸外形尺寸 Dimension table																							
BORE	A	B	N	W	E	E1	F	SS	V1	V2	Y	P3	T	PT	H1	H2	R1	R2	D1	D2	HL	L1	
Φ40	55	25	M16×1.5	M16×1.5	35	20	15	50	30	30	40	26	15	3/8 "	25	25	25	25	20	20	80	153	
Φ50	65	30	M20×1.5	M24×1.5	35	25	20	60	40	40	45	34	15	3/8 "	35	35	35	35	30	30	95	173	
Φ63	83	35	M27×1.5	M30×1.5	40	33	20	65	40	40	45	34	15	3/8 "	35	35	35	35	30	30	100	173	
Φ80	102	45	M30×1.5	M39×1.5	50	40	20	80	50	50	55	44	20	1/2 "	45	45	45	45	40	40	115	244	
Φ100	127	55	M42×2	M48×1.5	50	45	25	110	65	65	65	60	20	1/2 "	60	60	60	60	50	50	150	265	
Φ125	152	70/80	M52×2	M64×2	60	55	30	140	65	65	78	67	25	3/4 "	60	60	60	60	50	50	190	297	
Φ150	180	100	M68×2	M80×2	80	70	35	160	75	75	75	65	25	3/4 "	70	70	70	70	60	60	215	315	
Φ180	219	120	M85×2	M90×2	100	90	40	190	85	85	90	85	30	1 "	80	80	80	80	70	70	255	390	
Φ200	245	120	M85×3	M90×2	100	90	40	210	95	95	105	100	30	1 "	90	90	90	90	80	80	275	440	
Φ220	273	140	M105×3	M120×3	120	100	50	220	105	105	105	190	35	1-1/4 "	90	90	90	90	90	90	90	450	
Φ250	299	160	M140×3	M140×3	140	110	50	230	115	115	125	225	35	1-1/4 "	110	110	110	110	100	100	100	500	

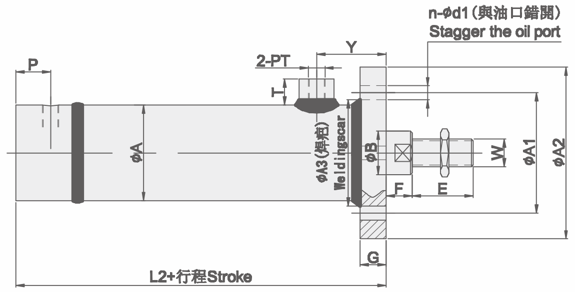
前法蘭、內牙 FRONT FLANGE INTERIOR THREAD



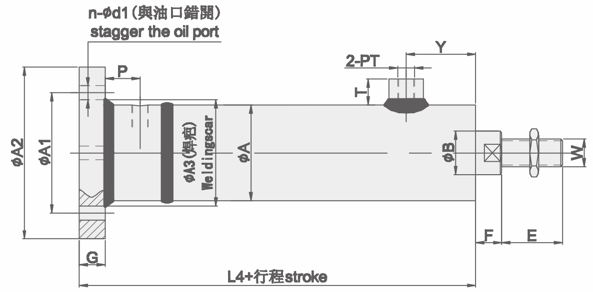
後法蘭、內牙 REAR FLANGE INTERIOR THREAD



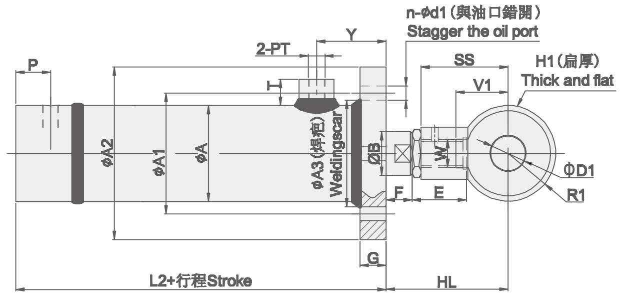
前法蘭、外牙 FRONT FLANGE EXTERIOR THREAD



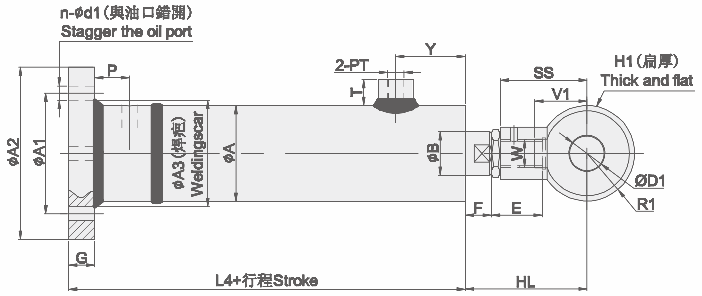
後法蘭、外牙 REAR FLANGE EXTERIOR THREAD



前法蘭、前耳環 FRONT FLANGE FRONT EYE



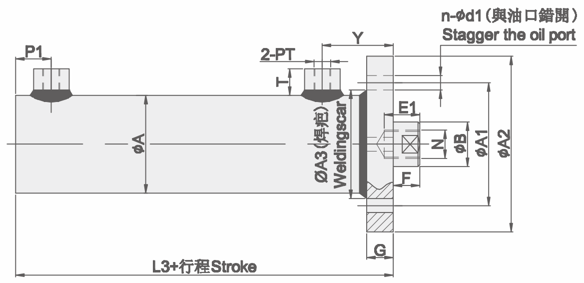
後法蘭、前耳環 REAR FLANGE FRONT EYE



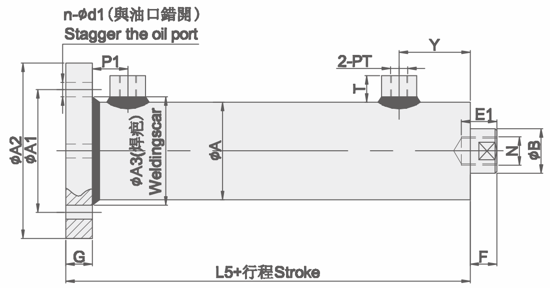
Unit:mm

HSG系列油缸外形尺寸 Dimension table																						
BORE	A	B	N	W	E	E1	F	G	A1	A2	A3	n-d1	SS	V1	Y	P	T	PT	H1	R1	D1	HL	L2	L4
Φ40	55	25	M16×1.5	M16×1.5	35	20	15	15	80	99	65	6-Φ8	50	30	40	20	15	3/8 "	25	25	20	80	113	128
Φ50	65	30	M20×1.5	M24×1.5	35	25	20	15	90	109	75	6-Φ10	60	40	45	20	15	3/8 "	35	35	30	95	123	138
Φ63	83	35	M27×1.5	M30×1.5	40	33	20	17	110	128	100	6-Φ10	65	40	45	20	15	3/8 "	35	35	30	100	128	145
Φ80	102	45	M30×1.5	M39×1.5	50	40	20	25	145	173	118	6-Φ14	80	50	55	25	20	1/2 "	45	45	40	115	164	189
Φ100	127	55	M42×2	M48×1.5	50	45	25	25	180	207	145	6-Φ18	110	65	65	25	20	1/2 "	60	60	50	150	184	209

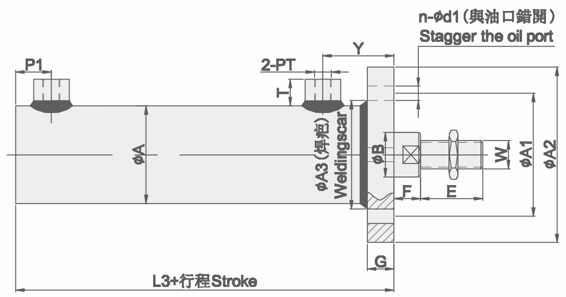
前法蘭、內牙
FRONT FLANGE INTERIOR THREAD



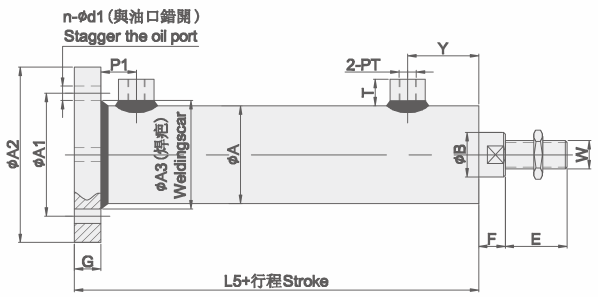
後法蘭、內牙
REAR FLANGE INTERIOR THREAD



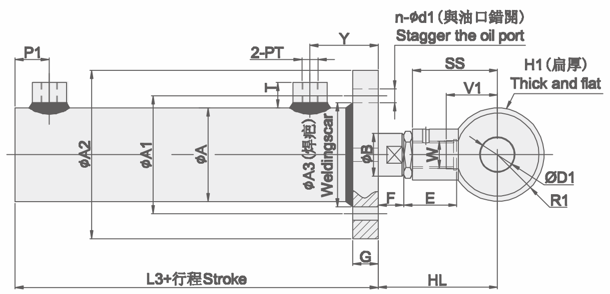
前法蘭、外牙
FRONT FLANGE EXTERIOR THREAD



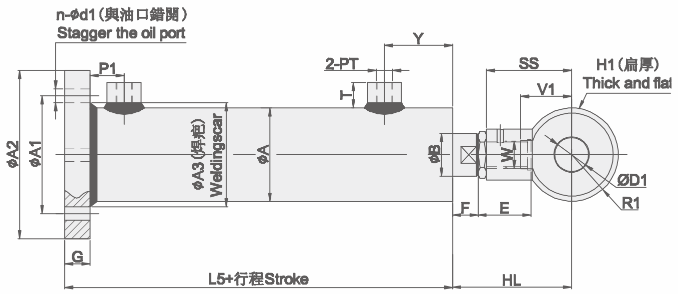
後法蘭、外牙
REAR FLANGE EXTERIOR THREAD



前法蘭、前耳環
FRONT FLANGE FRONT EYE



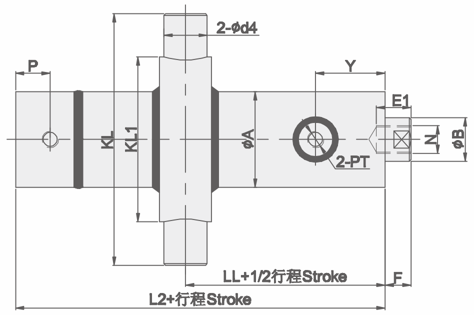
後法蘭、前耳環
FRONT FLANGE FRONT EYE



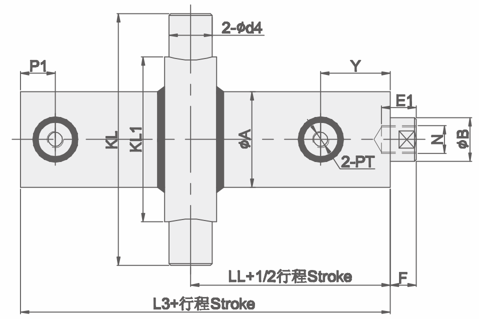
Unit:mm

HSG系列油缸外形尺寸 Dimension table																							
BORE	A	B	N	W	E	E1	F	G	A1	A2	A3	n-d1	SS	V1	Y	P1	T	PT	H1	R1	D1	HL	L3	L5
Φ125	152	70/80	M52×2	M64×2	60	55	30	30	210	237	170	8-Φ18	140	65	78	45	25	3/4 "	60	60	50	190	210	240
Φ150	180	100	M68×2	M80×2	80	70	35	40	245	282	200	8-Φ22	160	75	75	55	25	3/4 "	70	70	60	215	235	275
Φ180	219	120	M85×2	M90×2	100	90	40	50	285	322	240	8-Φ24	190	85	90	70	30	1 "	80	80	70	255	395	345
Φ200	245	120	M85×3	M90×2	100	90	40	60	320	362	270	8-Φ26	210	95	105	85	30	1 "	90	90	80	275	335	395
Φ220	273	140	M105×3	M120×3	120	100	50	60	355	402	300	8-Φ29	220	105	105	85	35	1-1/4 "	90	90	90	295	345	405
Φ250	299	160	M140×3	M140×3	140	110	50	80	390	447	330	8-Φ32	230	115	125	110	35	1-1/4 "	110	110	100	305	385	465

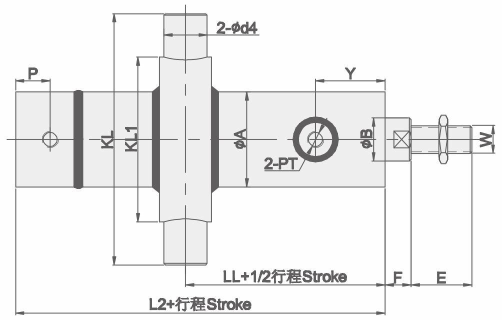
(Φ40-Φ100缸徑) 鉸軸、內牙
(Φ40-Φ100BORE) CARDINAL AXES、INTERIOR THREAD



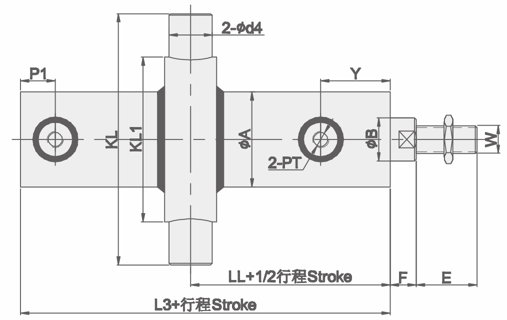
(Φ125-Φ250缸徑) 鉸軸、內牙
(Φ125-Φ250BORE) CARDINAL AXES、INTERIOR THREAD



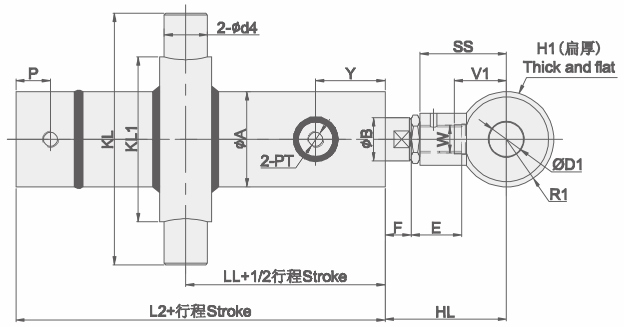
(Φ40-Φ100缸徑) 鉸軸、外牙
(Φ40-Φ100BORE) CARDINAL AXES、EXTERIOR THREAD



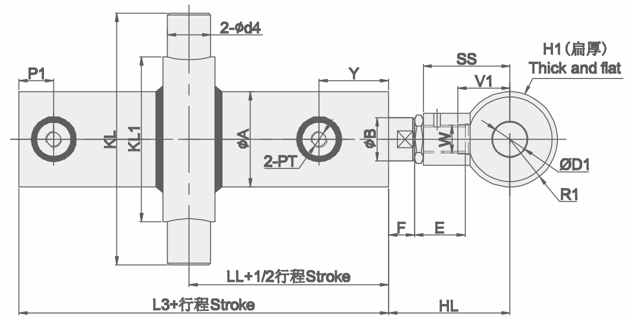
(Φ125-Φ250缸徑) 鉸軸、外牙
(Φ125-Φ250BORE) CARDINAL AXES、EXTERIOR THREAD



(Φ40-Φ100缸徑) 鉸軸、前耳環
(Φ40-Φ100BORE) CARDINAL AXES、FRONT EYE



(Φ125-Φ250缸徑) 鉸軸、前耳環
(Φ125-Φ250BORE) CARDINAL AXES、FRONT EYE



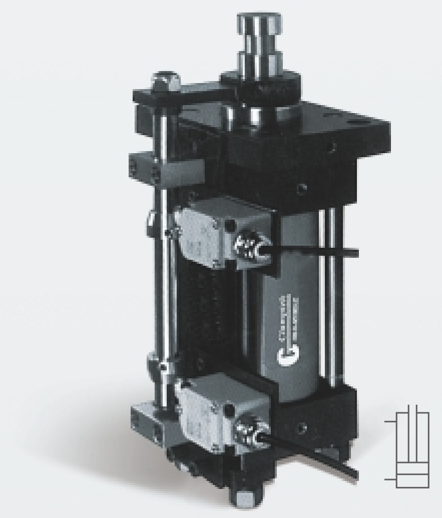
Unit:mm

HSG系列油缸外形尺寸 Dimension table																								
BORE	A	B	N	W	E	E1	F	SS	P1	V1	Y	P	R1	PT	D1	H1	HL	KL	KL1	d4	LL	L2	L3	最小行程
Φ40	55	25	M16×1.5	M16×1.5	35	20	15	50	-	30	40	20	25	3/8 "	20	25	80	145	95	25	65	113	-	50
Φ50	65	30	M20×1.5	M24×1.5	35	25	20	60	-	40	45	20	35	3/8 "	30	35	95	155	105	30	70	123	-	50
Φ63	83	35	M27×1.5	M30×1.5	40	33	20	65	-	40	45	20	35	3/8 "	30	35	100	171	115	30	70	128	-	50
Φ80	102	45	M30×1.5	M39×1.5	50	40	20	80	-	50	55	25	45	1/2 "	40	45	115	185	125	40	90	164	-	50
Φ100	127	55	M42×2	M48×1.5	50	45	25	110	-	65	65	25	60	1/2 "	50	60	150	230	155	50	110	184	-	60
Φ125	152	70/80	M52×2	M64×2	60	55	30	140	45	65	78	-	60	3/4 "	50	60	190	260	185	50	120	-	210	80
Φ150	180	100	M68×2	M80×2	80	70	35	160	55	75	75	-	70	3/4 "	60	70	215	305	215	60	130	-	235	80
Φ180	219	120	M85×2	M90×2	100	90	40	190	70	85	90	-	80	1 "	70	80	255	360	255	70	160	-	295	80
Φ200	245	120	M85×3	M90×2	100	90	40	210	85	95	105	-	90	1 "	80	90	275	405	285	80	180	-	335	80
Φ220	273	140	M105×3	M120×3	120	100	50	220	85	105	105	-	90	1-1/4 "	90	90	295	455	320	90	180	-	345	80
Φ250	299	160	M120×3	M140×3	140	110	50	230	110	115	125	-	110	1-1/4 "	100	110	305	500	350	100	205	-	385	90

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

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

注意事項

可接受訂製，歡迎與本公司洽詢。

NOTE

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

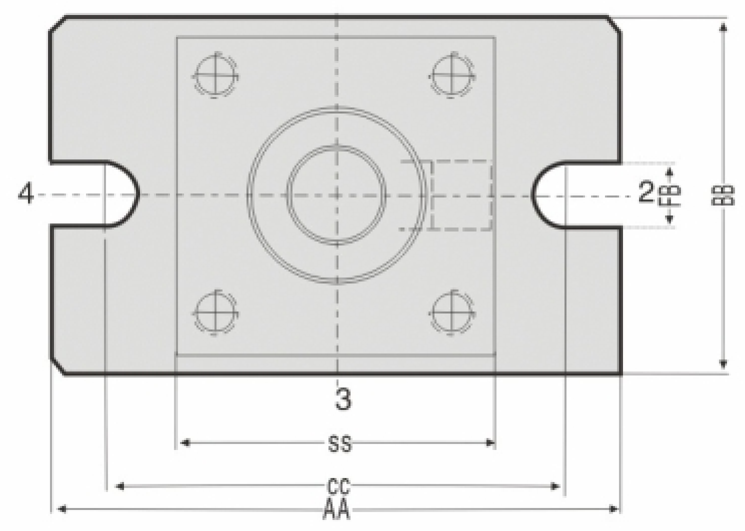
訂購標示法 ORDERING INDICATION

示例：CHK-FA80-100D-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, Φ50, Φ63, Φ80, Φ100, Φ125, Φ150, Φ180, Φ200, Φ220, Φ250.
100	行程 Stroke	依客戶需要
D	活塞桿連接方式 Piston connection type	A型：脖子型 B型：外牙型 C型：內牙型 D型：窄圓脖子型 E型：窄圓外牙型 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: 普通礦物油基液壓油 (相當於ISO-VG-32)
Recommended ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

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



Unit:mm

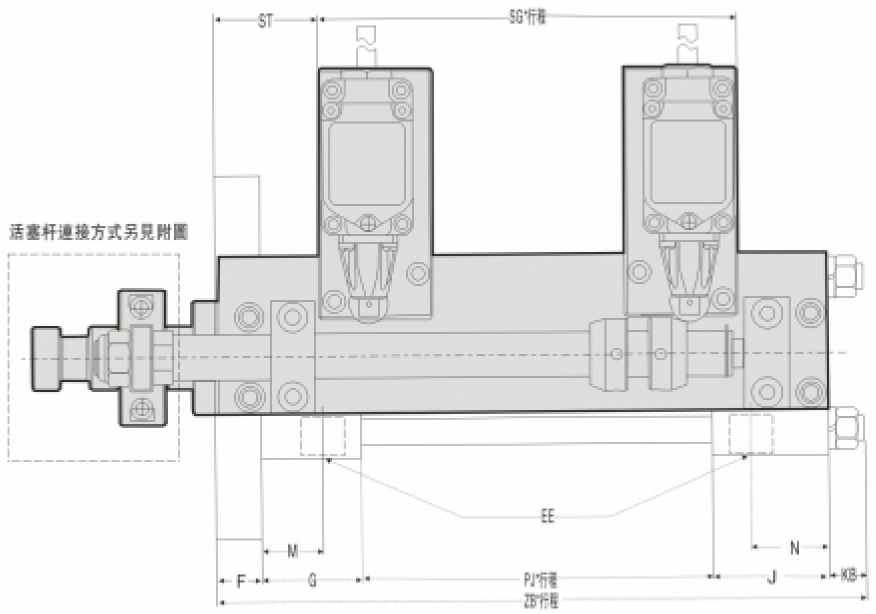
BORE	活塞桿徑	AA	BB	CC	FB	SS
40	18	118	70	94	14	65
50	22	135	85	108	18	75
63	28	160	100	130	18	90
80	36	185	122	150	22	110
100	45	220	145	180	26	135
125	56	255	175	210	33	165
150	70	305	212	254	33	196
180	80	365	250	300	39	236
200	90	405	280	335	42	265
220	100	470	335	395	45	310
250	110	515	355	425	48	330

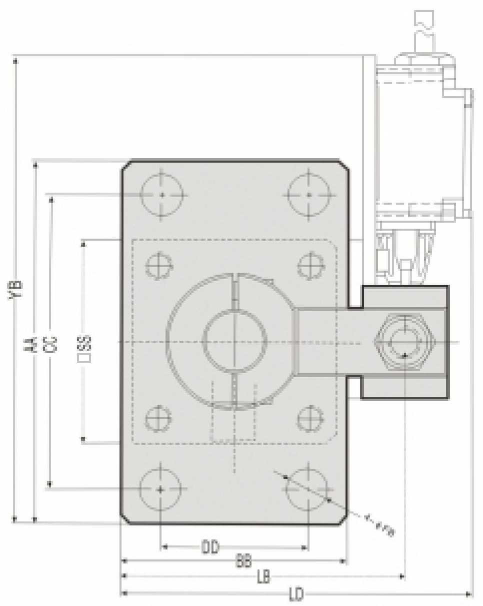
註：AA.BB.CC.FB是參考值，可根據客戶要求製作。

柱型模具油壓缸特性資料 Specifications

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 barrel	碳鋼管 Carbon steel STKM-13C										
最小緩衝行程Min. 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 (℃)										

註：油缸行程小於最小緩衝行程時不配緩衝裝置。

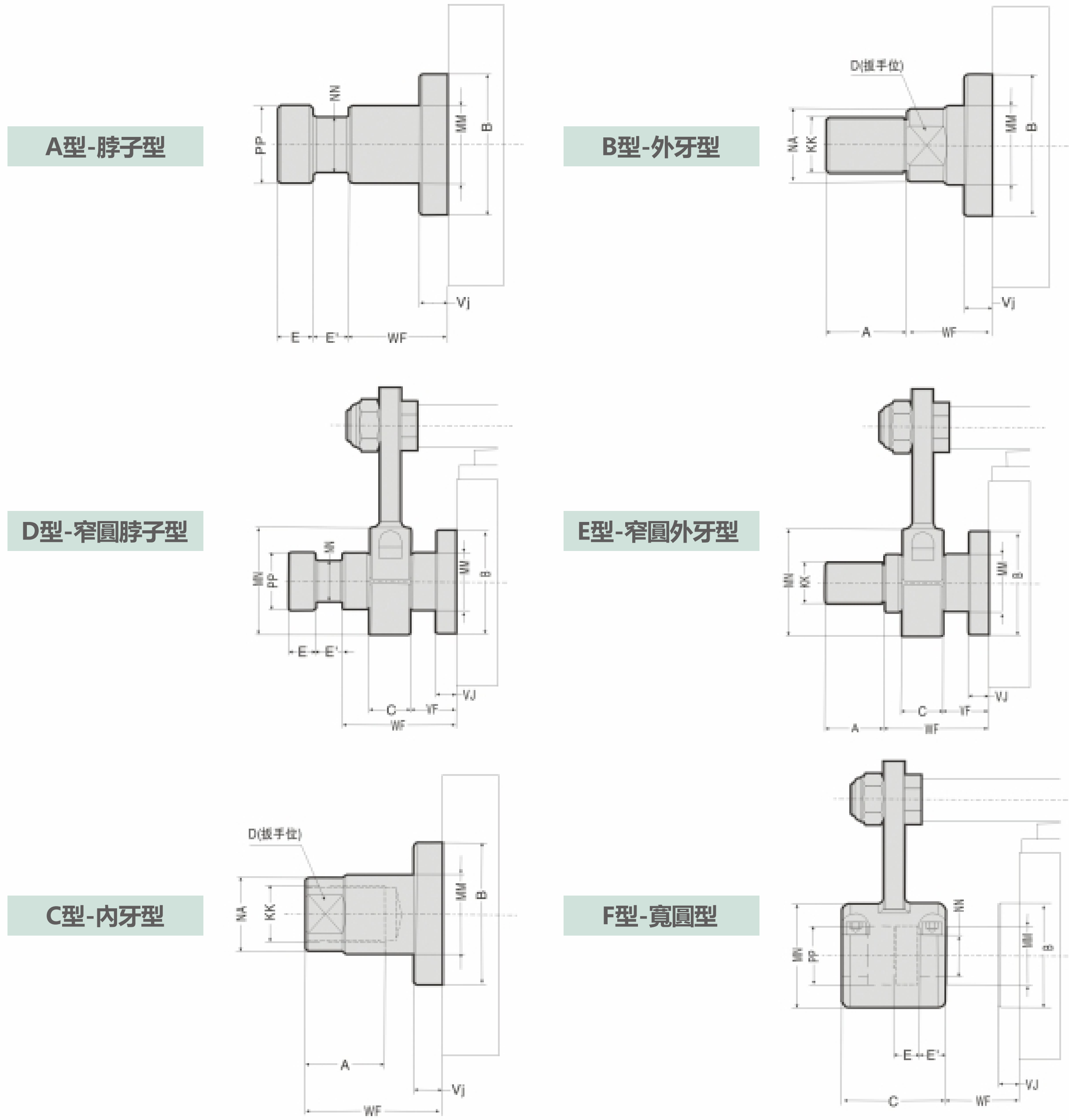




Unit:mm

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

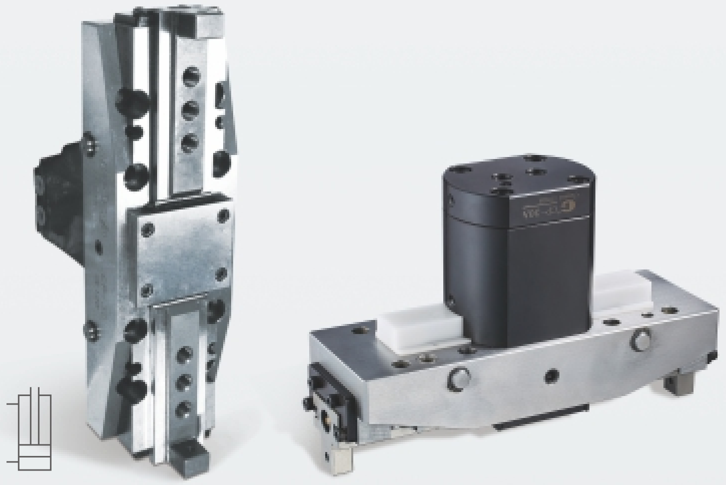
CHK柱型模具油缸活塞桿連接方式的尺寸圖
CONNECTION DRAWING OF SHAFT FOR CHK COLUMN-TYPE HYDRAULIC CYLINDER



Unit:mm

BORE	活塞桿徑 ΦMM	ΦPP	ΦNN	E	E'	KK	A	ΦB	D	ΦNA	VJ	VF	WF A/F型	WF B型	WF C型	WF D型	WF E型	C D/E型	C F型	ΦMN D/E型	ΦMN 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/cm^2
最小操作壓力：10 kgf/cm^2

FEATURES

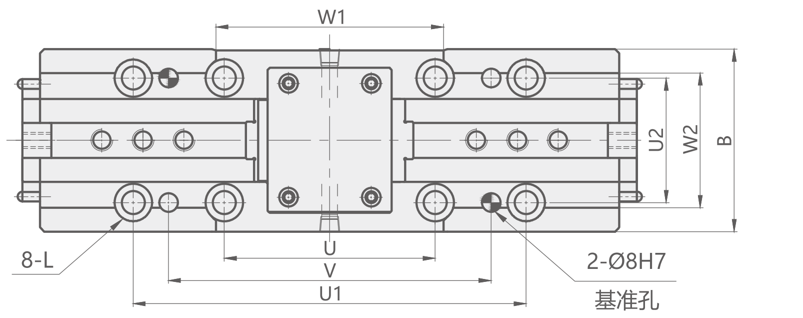
It's a CRANK type 2 slider synchronous clamp cylinder with long slider stroke.
Matching surface of all parts hardened,groud and lubricated directly.
Construction of high rigidity and high clamping accuracy.

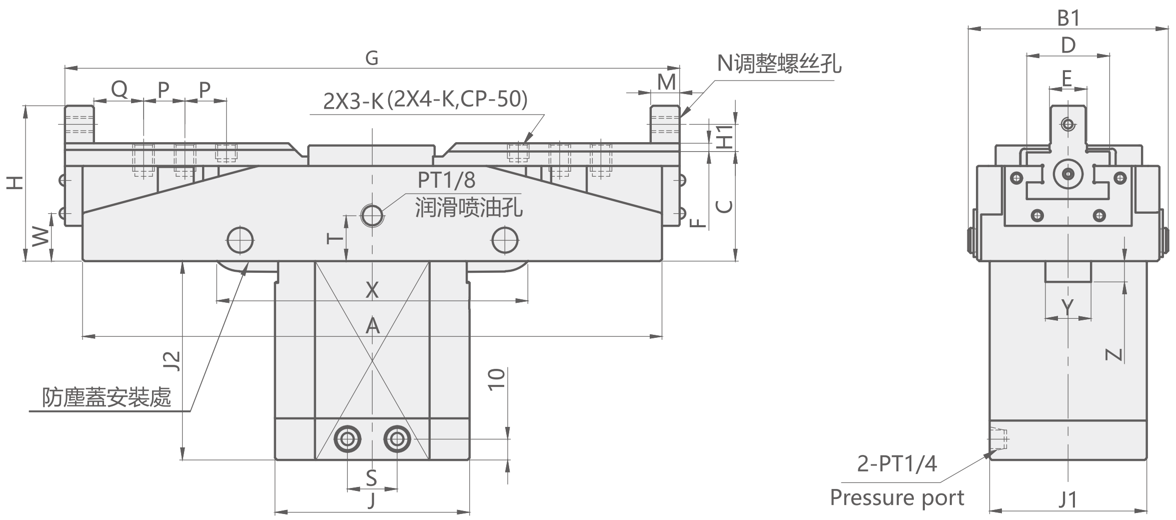
Max. operating pressure 35 kgf/cm^2
Min. operating pressure 10 kgf/cm^2

型號Model	CP-20 CP-20W	CP-30A CP-30AW	CP-30 CP-30W	CP-50 CP-50W
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/cm2) Clamping force at 35kgf/cm2	1653	1806	1806	2071
使用溫度範圍 Range of temperature(℃)	-10 ~ + 70 (℃)			

使用流體: 普通礦物油基液壓油 (相當於ISO-VG-32)
Recommended ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
W：表示防塵蓋

CP 外形尺寸





Unit:mm

MODEL	A	B	B1	C	D	E(h6)	F	G		H	H1	J	J1	J2	K	L	M	N
								MAX	MIN									
CP-20	215	88	96	53	40	18	4	249	229	75	13	94	76	83.5	M10xP1.5	M10	12	M6xP1
CP-30A	250	88	96	53	40	18	4	295	265	75	13	94	76	96	M10xP1.5	M10	14	M6xP1
CP-30	280	88	96	53	40	22	4	327	297	75	13	94	76	96	M12xP1.75	M10	14	M6xP1
CP-50	300	110	115	65	50	28	5	369	319	90	15	105	-	120	M12xP1.75	M10	16	M8xP1.25

Unit:mm

MODEL	P	Q	R	S	T	U	U1	U2	V	W	W1	W2	X	Y	Z	含防尘盖		
																X	Y	Z
CP-20	18	20	66	25	22	102	190	60	156	32	110	65	150	22	4	171	41	7
CP-30A	20	24	96	25	22	102	190	60	156	20	120	65	156	22	6	181	41	15
CP-30	20	24	98	25	22	102	190	60	156	23	110	65	156	22	6	181	41	15
CP-50	21	28	102	30	32	105	230	85	195	22	140	80	180	30	10	184	50	18

CFVA
對心夾鉗
CFVA CLAMPING CYLINDER

產品特性

二滑塊同步油缸，具有高精度 重復定位行程。傳動面經硬化 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：70 kgf/cm²
最小操作壓力：15 kgf/cm²

FEATURES

2 Slider synchronous clamp cylinder,with high precision repeated positioning stroke.Transmission surface of all parts hardened,groud and lubricated directly. Construction of high rigidity and high clamping accuracy.

Max. operating pressure 70 kgf/cm²
Min. operating pressure 15 kgf/cm²

注意事項

夾緊及放松作動速度需適當放緩。
可接受訂製，歡迎與本公司洽詢。

NOTE

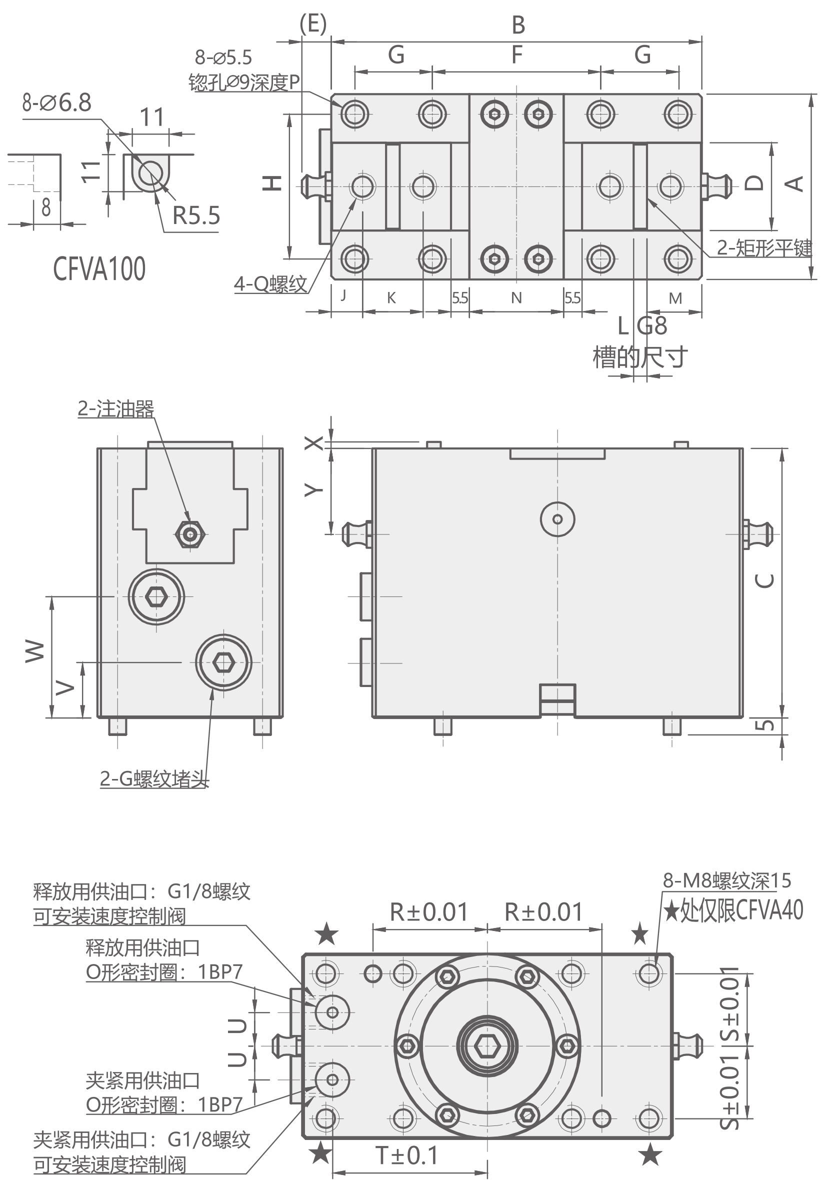
The speed of clamping / unclamping action needs to be slowed down appropriately.
Customization is available upon request, please contact us for more info.

訂購標示法 ORDERING INDICATION

示例：CFVA-063

CFVA	系列 Series	CFVA
063	缸徑 cylinder diameter	040/063/100

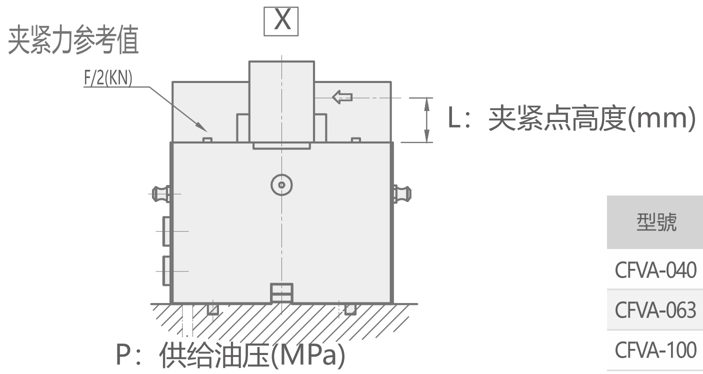
外形尺寸



Unit:mm

型號 Model No	CFVA-040	CFVA-063	CFVA-100
A	50	55	60
B	100	110	120
C	72	80	85
D	23	26	28
E	9	15	15
F	45	50	65
G	20	23	20
H	39	43	49
J	7	9	9
K	18	18	22
L	$4^{+0.022}_{+0.004}$	$4^{+0.022}_{+0.004}$	$5^{+0.022}_{+0.004}$
M	14	16	17.5
N	24	28	28
P	6	7	-
Q(公稱*深度)	M6*12	M8*13	M10*15
R	32	35	42.5
S	19.5	21.5	24.5
T	41	46	51
U	9	10	10
V	15	16.5	17
W	31	36	36.5
X	2	2	2.5
Y	23.5	25.5	29.5
矩形平鍵	4*4*20	4*4*25	5*5*25

夹紧力参考值



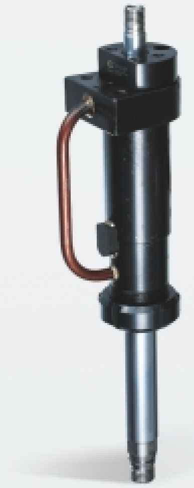
型號	夾緊力計算公式	供給油壓P(MPa)	夾緊力(KN)	夾緊點高度L(mm)
CFVA-040	F=(148*P)/(183+L)	7	4.86	30
CFVA-063	F=(272*P)/(204+L)	7	8.14	30
CFVA-100	F=(480*P)/(226+L)	7	13.13	30

規格參數表 SPECIFICATIONS

型號	夾緊行程(單邊)	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
CFVA-040	5	10	5.5	5.5	6.0	6.0	0°~+70℃	使用流體: 普通礦物油基液壓油 (相當於ISO-VG-32) Recommended ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CFVA-063	5	10	9.1	9.1	10	10	0°~+70℃	
CFVA-100	5	10	14.4	14.4	15.8	15.8	0°~+70℃	

ROA
夾緊油缸

ROA CLAMPING CYLINDER

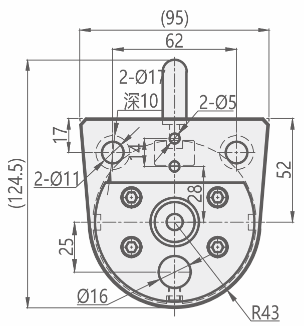


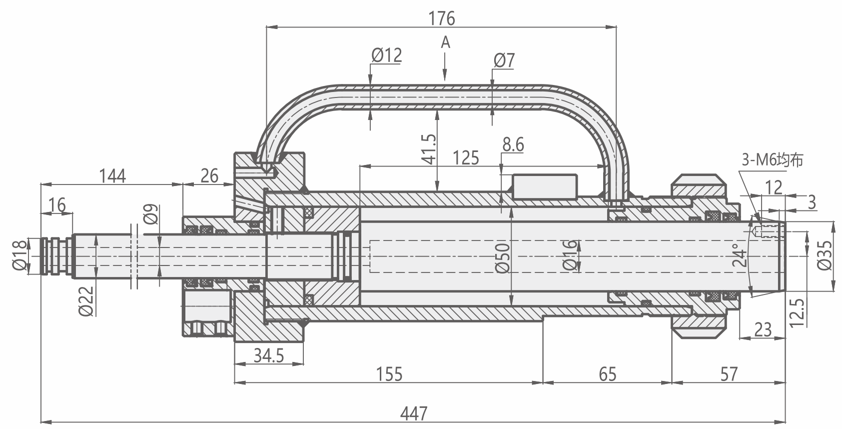
夾緊油壓缸特性資料 Specifications

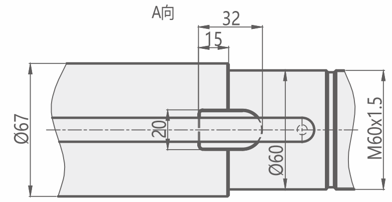
使用壓力範圍The range of pressure(MPa)	0.5-10MPa
使用溫度範圍Range of temperature(℃)	Range of temperture(C) -10 ~ +60(C)
使用速度範圍The range of speed (mm/sec)	The range of speed(mm/sec) 8 ~ 300(mm/sec)
工作流體 Power Fluid	濾清之標準液壓油 Filtered oil

訂購標示法 ORDERING INDICATION

示例：ROA-50-125-FA-T







非標工程缸(重型油壓缸)
Non-standard hydraulic cylinder

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

示例：HPT-30-08

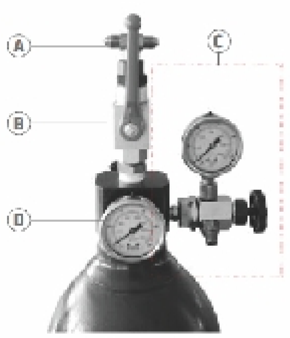
HPT	氮氣充填壓力(MPa)
30	容積（L）
08	系列編號

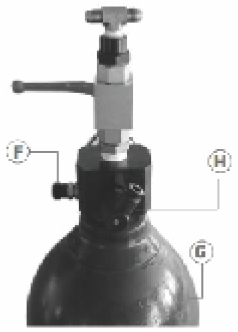
註：氮氣最大充填壓力9MPa

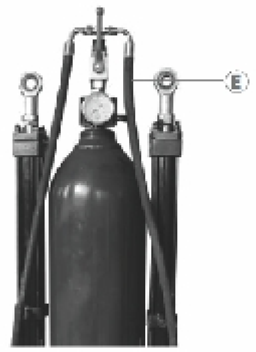
訂購時需一併提供下述諮詢

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.

*Currently sold in Mainland China only.





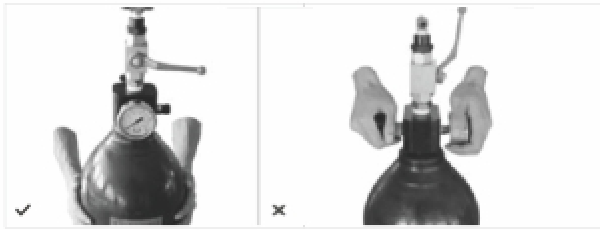


圖中紅色虛線框中之充、排氮氣閥（C）及其連接之充氣管（E）為選配部件,標準產品不含此兩項部件（需另購）。

說明

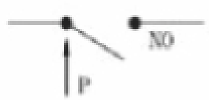
A.出油口：連接油缸用
B.球閥：液壓油開關，逆時針方向為開，氮氣瓶與油缸油液互通；順時針方向為關，氮氣瓶與油缸油液截斷。
C.充、排放氮閥（選配部件，需另購）:氮氣瓶充、排氣工具。
D.耐震壓力表：可顯示系統壓力。
E.充氣管（選配部件，需另購）：一端連接氮氣源，另一端連接充、排氣閥，作為氮氣源與氮氣瓶傳輸管道。
F.充、排氣口：加氣及洩壓連介面。
G.氮氣瓶：儲存液壓油及氮氣。
H.壓力開關：當系統壓力低於設定值時，壓力開關將輸出信號，提醒使用者及時充氣補充壓力。

搬運方法



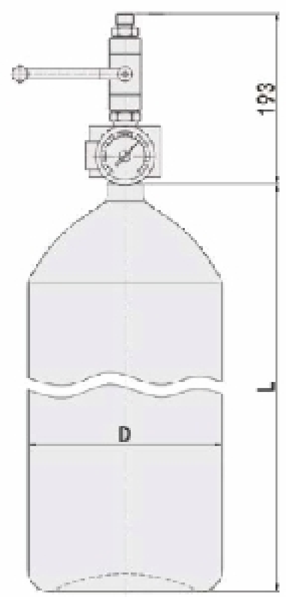
壓力開關設定
壓力開關設定，平衡系統上設有一壓力開關，當平衡系統壓力大於設定值時:

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.緩慢開啟充、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.開啟氮氣源開關，並緩慢開啟充、排氣閥上截止閥。
6.關察充、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.球閥扳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後再完全打開球閥,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,球閥上扳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

CALC

槓桿式氣壓缸

CALC PNEUMATIC LEVERAGE CLAMP

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，具耐磨性，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。

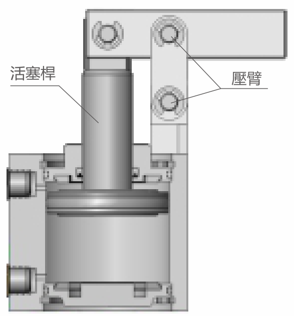
最大操作壓力：7 kgf/cm²
最小操作壓力：3 kgf/cm²
作動方式：複動式

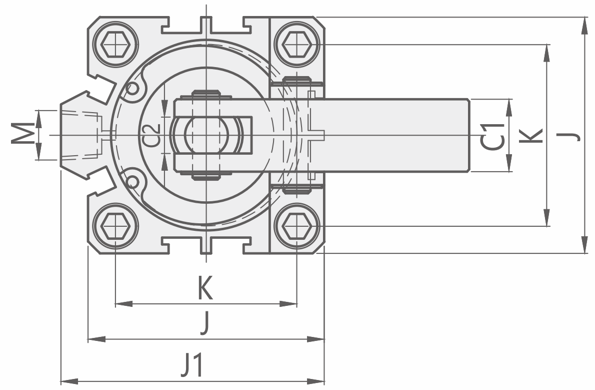
FEATURES

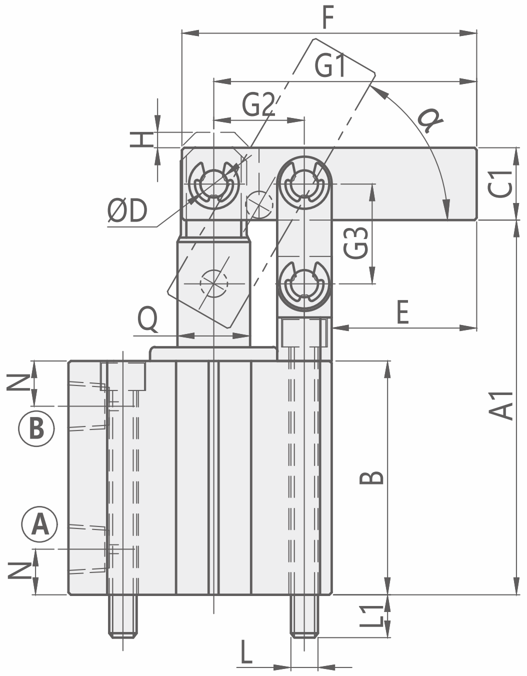
The CALC series is a type of pneumatic cylinder that uses a standard lever-type clamping mechanism based on the principle of leverage. When the piston is pushed out, the pneumatic cylinder is in its clamped state. The main component parts are installed externally, which is optimal for product maintenance. The cylinder body is made with aluminum alloy for anti-abrasion, whereas the mechanical components are made with carbon steel to enhance durability and product lifespan. Options to include magnetic induction switches are available amongst various models, please contact us for more information.

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

剖面圖 Sectional view







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

Unit:mm

型號 Model		CALC-25	CALC-32	CALC-40	CALC-50	CALC-63	CALC-80	CALC-100
標準型 Standard type	A1	65.5	78	82.5	96.6	115.5	138	163.5
	B	41	49	51.5	58.6	72.5	84	99
附磁石型 With magnet	A1	75.5	93	97.5	106.6	125.5	148	173.5
	B	51	64	66.5	68.6	82.5	94	109
C1		□13	□16	□16	□19	□22	□22	□25
C2		6	8	8	10	10	10	12
ΦD		Φ5	Φ6	Φ6	Φ8	Φ8	Φ10	Φ12
E		25	31	32	35	38.5	47	53
F		50	60	65	75	85	105	125
G1		45	53	58	66	76	94	110
G2		14	17	20	23	29.5	37	45
G3		17	20	22	27	32	40	45
H		3	3	3	3	3	3	3
J		40	44	52	62	75	94	114
J1		–	50	58	71	84.5	104	124
K		28	34	40	48	60	74	90
L		M5X0.8	M5X0.8	M6X1.0	M6X1.0	M6X1.0	M8	M10
L1		10.5	11	9.5	11	11	15.5	15
M		M5X0.8	PT1/8	PT1/8	PT1/4	PT1/4	PT1/4	PT1/4
N		8	9	10	11	11	14	18
α		75°	70°	65°	70°	65°	65°	60°
Q		Φ10	Φ12	Φ16	Φ20	Φ20	Φ25	Φ32

注意事項

夾緊及放鬆作動速度需適當放緩。

NOTE

The speed of clamping and unclamping action needs to be slowed down appropriately.

訂購標示法 ORDERING INDICATION

示例：CALC-MS32-S1

CALC	系列 Series	CALC
MS	空白：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　S1:1 pc of S1 S2：2個　S2:2 pcs of S2

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 $(7kgf/cm^2)$ CLAMPING FORCE AT $7kgf/cm^2$ (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 EFF.PISTON CAPACITY CLAMP(cm^2)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm^3)	推出受壓面積 EFF.PISTON AREA CLAMP(cm^2)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm^2)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CALC-25	20	17	20	9.82	8.24	4.91	4.12	-10~+60°C	過濾之乾燥壓縮空氣 Filtered dry 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	

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。
本產品使用了的密封圈，可避免了氣缸的泄漏，且其壽命長。
應用了槓桿原理，使工件容易夾緊，提高效率。

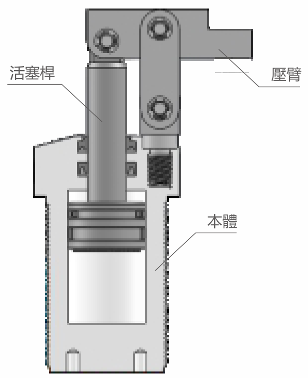
最大操作壓力：7 kgf/cm²
最小操作壓力：3 kgf/cm²
作動方式：複動式

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

剖面圖 Sectional view



注意事項

夾緊及放鬆作動速度需適當放緩。

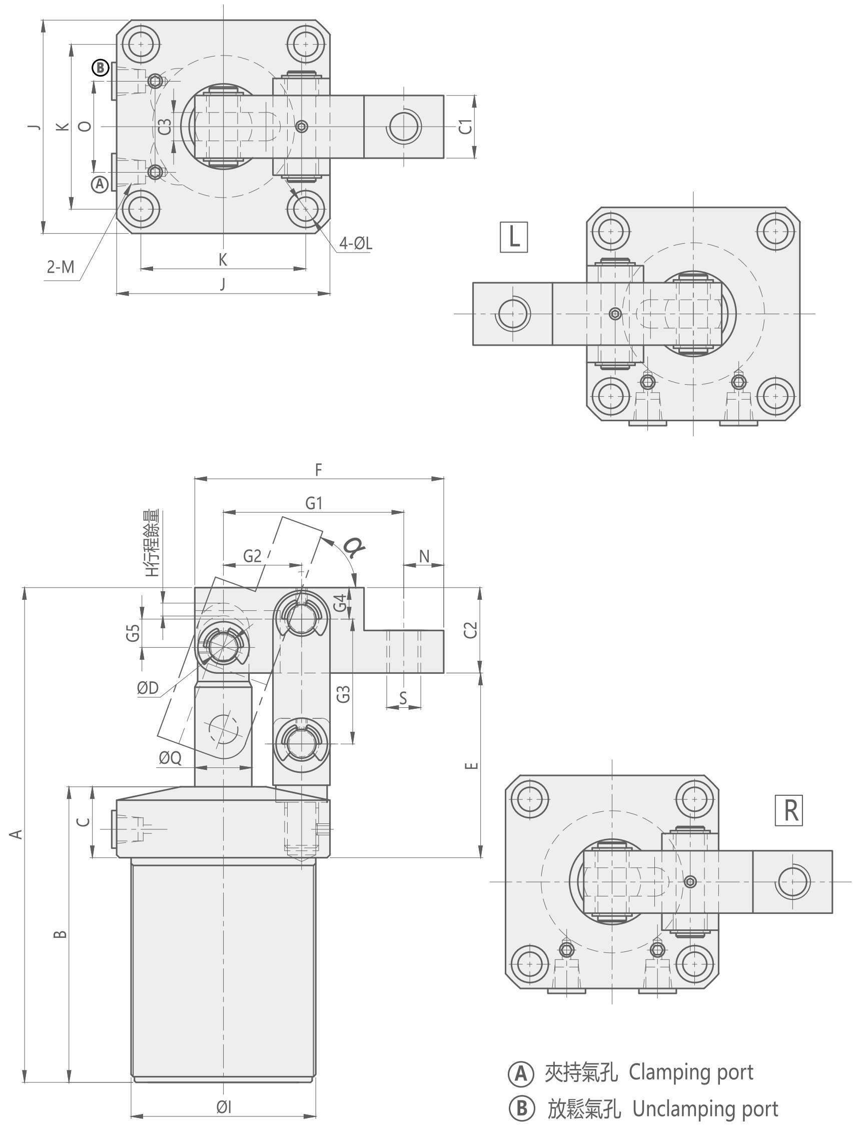
NOTE

The speed of clamping and unclamping action needs to be slowed down appropriately.

訂購標示法 ORDERING INDICATION

示例：CPLCU-40R-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	標準型：空白 L：左 R：右	Standard：Blank L：Left R：Right
W	W：缸體上三方具有壓臂安裝座孔		



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

Unit:mm

型號 Model	CPLCU-25	CPLCU-32	CPLCU-40	CPLCU-50	CPLCU-63
A	128.5	149.5	157.5	174	179
B	86.5	97.5	97.5	104	105
C	25	25	25	25	25
C1	16	18	20	22	22
C2	17	20	25	30	30
C3	6	8	8	10	10
ΦD	Φ6	Φ6	Φ8	Φ10	Φ10
E	50	57	60	65	69
F	55	68	75	87.5	98
G1	41	52	56	63.5	74
G2	18	22	24	27.5	32
G3	26	33	33	44	48
G4	6.5	8	13	11	11
G5	4.5	5	4	10	10
H	2	4	3	3	3
ΦI	M40x1.5	M50x1.5	M55x1.5	M65x1.5	M80x1.5
J	50	60	65	75	90
K	37	45	50	58	70
L	Φ5.5-Φ9x5.5D	Φ6.5-Φ11x6.5D	Φ6.5-Φ11x6.5D	Φ8.5-Φ14x8.5D	Φ8.5-Φ14x8.5D
M	M5	PT1/8	PT1/8	PT1/8	PT1/8
N	7	8	10	14	14
O	23	23	26	32	35
Q	Φ14	Φ16	Φ16	Φ20	Φ20
S	M6	M8	M8	M12	M12
α	70°	75°	78°	70°	60°

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (7kgf/cm²) CLAMPING FORCE AT 7kgf/cm² (kgf)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	推出容積 CYLINDER CAPACITY CLAMP(cm³)	拉入容積 CYLINDER CAPACITY UNCLAMP(cm³)	推出受壓面積 EFF.PISTON AREA CLAMP(cm²)	拉入受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
CPLCU-25	27	20	24	11.78	8.09	4.91	3.37	-10~+60℃	過濾之乾燥壓縮空氣 Filtered dry compressed air
CPLCU-32	42	28	32	25.73	19.30	8.04	6.03	-10~+60℃	
CPLCU-40	67	30	33	41.45	34.82	12.56	10.55	-10~+60℃	
CPLCU-50	107	30	33	64.78	54.42	19.63	16.49	-10~+60℃	
CPLCU-63	170	30	33	102.83	92.47	31.16	28.02	-10~+60℃	

ASC

氣壓轉角缸

ASC PNEUMATIC SWING CLAMP

產品特性

本產品適用於量產零件之專用機及MC治具，提高生產效率的幫手。
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，再沿著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。

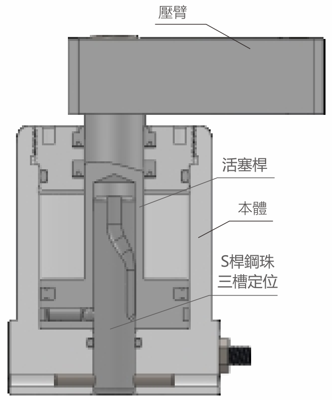
最大操作壓力：7 kgf/cm²
最小操作壓力：4 kgf/cm²
作動方式：複動式

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

剖面圖 Sectional view



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4頁。

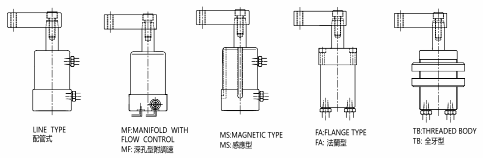
NOTE

The speed of clamping and unclamping action needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to Page 4 for installation instructions or removal methods of the clamping arm.
Customization is available upon request, please contact us for more info.

訂購標示法 ORDERING INDICATION

示例：ASC-MF32SR-90E

ASC	系列 Series	ASC
MF	類型Type	空白：配管式 Blank: Line type MS：感應型 MS: Magnetic type MF:深孔型附調速 MF: Manifold with flow control FA:法蘭型 FA: Flange type TB:全牙型 TB: Threaded body
32	氣缸內徑 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 Stardard angle 90°（±2°） 訂做角度 Order angle 0°,45°（±2°）,60°（±2°）
E	行程加長 Stroke extension	(具體行程加長型號詳見後面尺寸表)

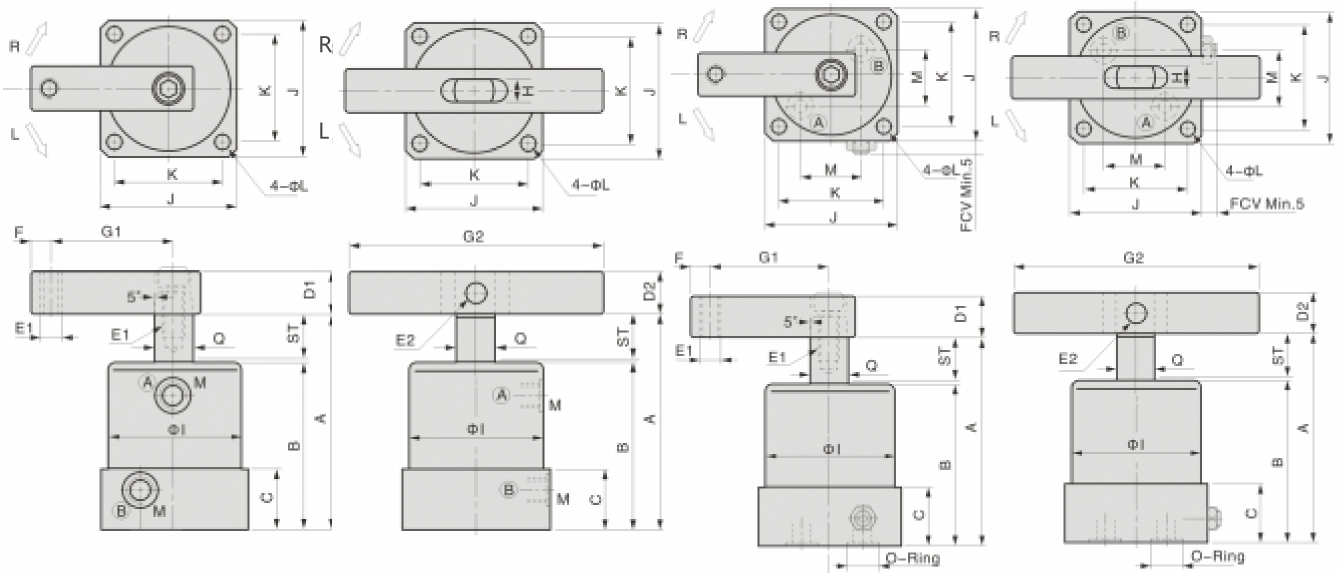


配管式LineType-S
Single side swing clamp

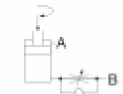
配管式LineType-D
Double side swing clamp
註：下圖為轉角90°鬆開狀態

深孔型附調速MF-S
Single side swing clamp

深孔型附調速MF-D
Double side swing clamp
註：下圖為轉角90°鬆開狀態



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



Unit:mm

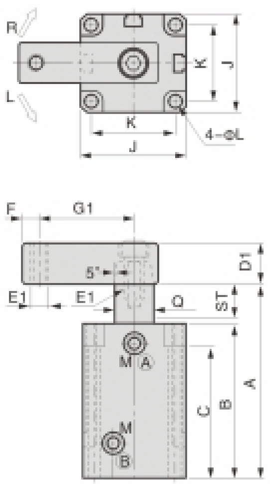
MODEL	ST:Swing /Clamping	A鬆開狀態 Unclamp	B	C	D1	D2	E1	E2	F	G1	G2	H	ΦI	J	K	L	M	O-RING	Q
ASC-25	22:9/13	89	65	23	□16	–	M6×1.0	–	6	35	–	–	Φ35	38	30	Φ4.6	M5×0.8	–	Φ14
ASC-32	26:11/15 41:11/30	108 138	78 93	28	□19	□19	M8×1.25	Φ8	8	50	140	9	Φ46	50	40	Φ5.6	PT1/8	–	Φ16
ASC-40	26:11/15 41:11/30	108 138	78 93	28	□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

規格參數表 SPECIFICATIONS

型號	理論夾持力 (7kgf/cm²)	轉角行程	夾緊行程	總行程	推出容積	拉入容積	推出受壓面積	拉入受壓面積	使用溫度範圍	使用流體
MODEL	CLAMPING FORCE AT 7kgf/cm² (kgf)	Swing stroke (mm)	CLAMPING STROKE (mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY UNCLAMP(cm³)	CYLINDER CAPACITY CLAMP(cm³)	EFF.PISTON AREA UNCLAMP(cm²)	EFF.PISTON AREA CLAMP(cm²)	RANGE OF TEMPERATURE(℃)	USABLE FLUID
ASC-25	24	9	13	22	12.28	7.41	4.91	3.37	-10~+60℃	過濾之乾燥壓縮空氣 Filtered dry compressed air
ASC-32	42	11	15/30	26/41	20.9/32.96	15.68/24.73	8.04	6.03	-10~+60℃	
ASC-40	74	11	15/30	26/41	32.66/51.5	27.43/43.26	12.56	10.55	-10~+60℃	
ASC-50	115	13	17/34	30/47	58.89/92.26	49.47/77.5	19.63	16.49	-10~+60℃	
ASC-63	196	13	17/34	30/47	93.48/146.45	84.06/131.69	31.16	28.02	-10~+60℃	

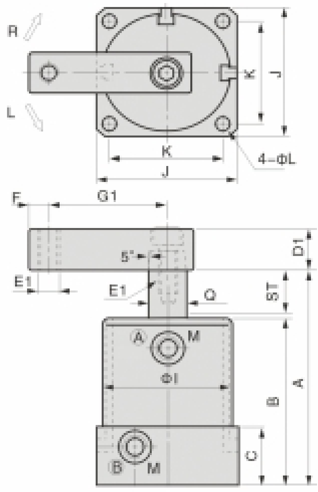
感應式MS25S

Single side swing clamp



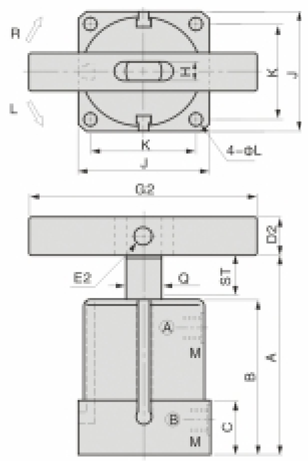
感應式MS32S-63S

Single side swing clamp



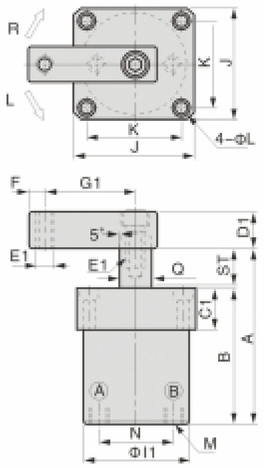
感應式MS32D-63D

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



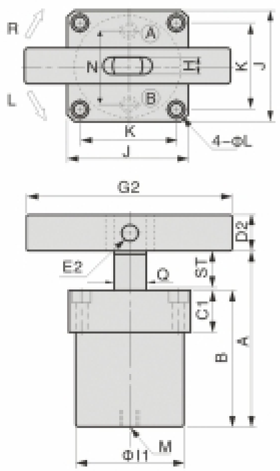
法蘭型FA-S

Single side swing clamp



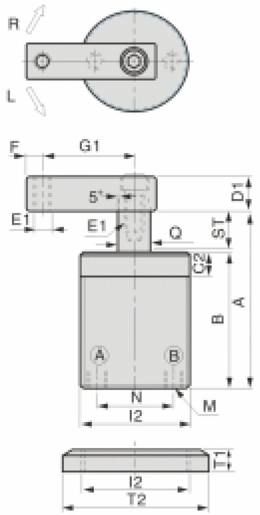
法蘭型FA-D

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



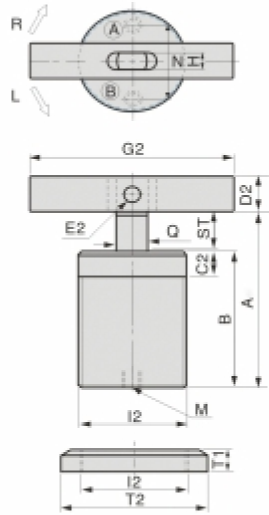
全牙型TB-S

Single side swing clamp



全牙型TB-D

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



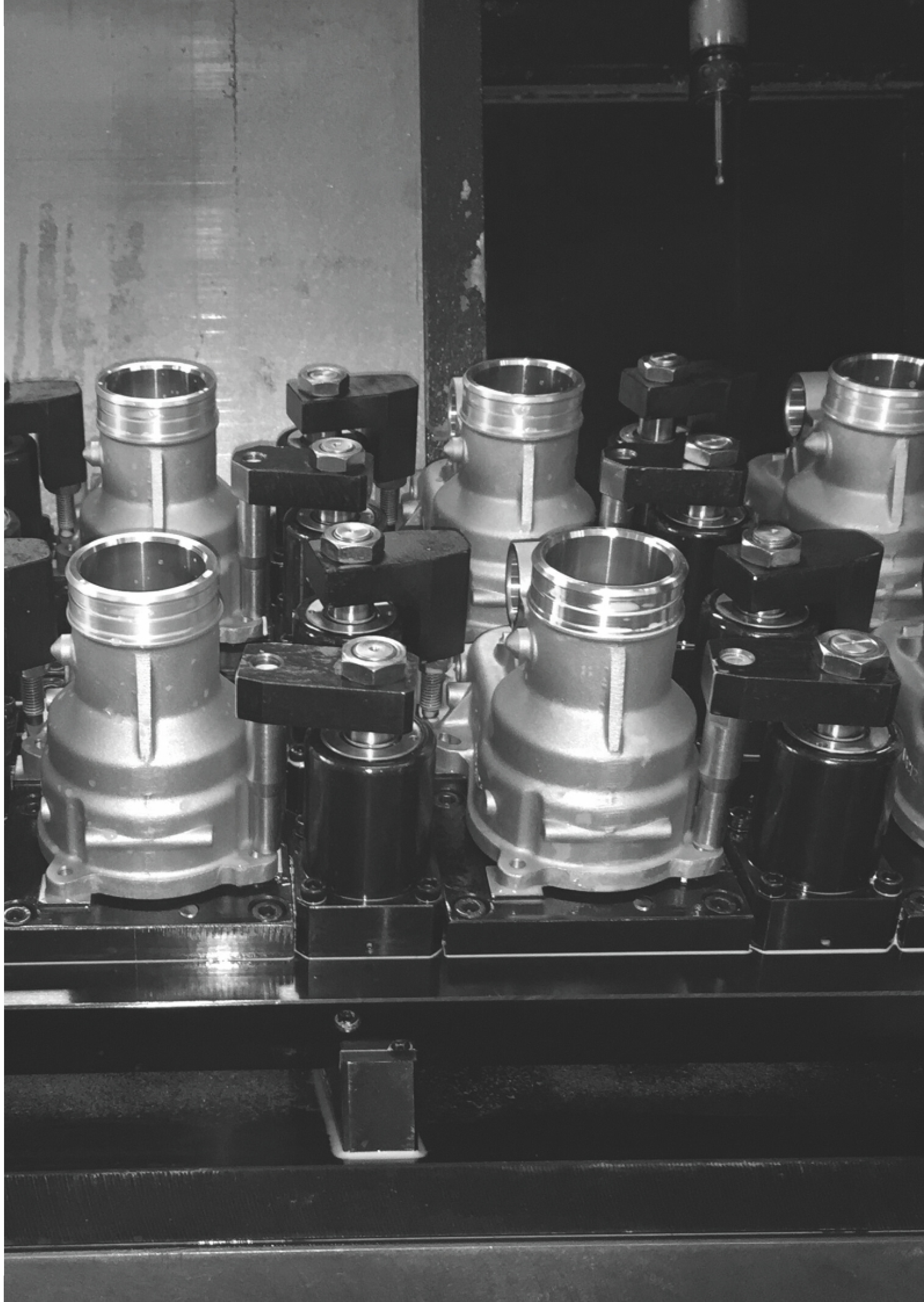
Ⓐ 夾持氣孔 Clamping port　Ⓑ 放鬆氣孔 Unclamping port

Unit:mm

MODEL	ST:Swing /Clamping	A鬆開狀態 Unclamp	B	C1	C2	D1	D2	E1	E2	F	G1	G2	H	ΦI1	I2	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

Unit:mm

MODEL	ST:Swing /Clamping	A鬆開狀態 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

感應式氣壓轉角缸

PB PNEUMATIC SWING CLAMP

產品特性

設計簡單，結構緊湊，重量輕，壽命長以及高的夾持力使它成為一種好的夾具。
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。

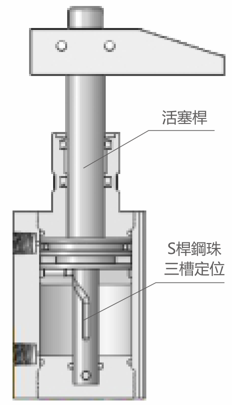
最大操作壓力：7 kgf/cm²
最小操作壓力：4 kgf/cm²
作動方式：複動式

FEATURES

Simple and compact structure, lightweight, high clamping capacity, and long product lifespan.
This series has the option of choosing a long or a short stroke, which can be installed at the top or the bottom.
It is widely used in industrial automation, such as clamping of sheet metal, clamping of workpieces on conveyor belts, and packaging assembly line operations.

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

剖面圖 Sectional view



注意事項

夾緊及放鬆作動速度需適當放緩。
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4頁。

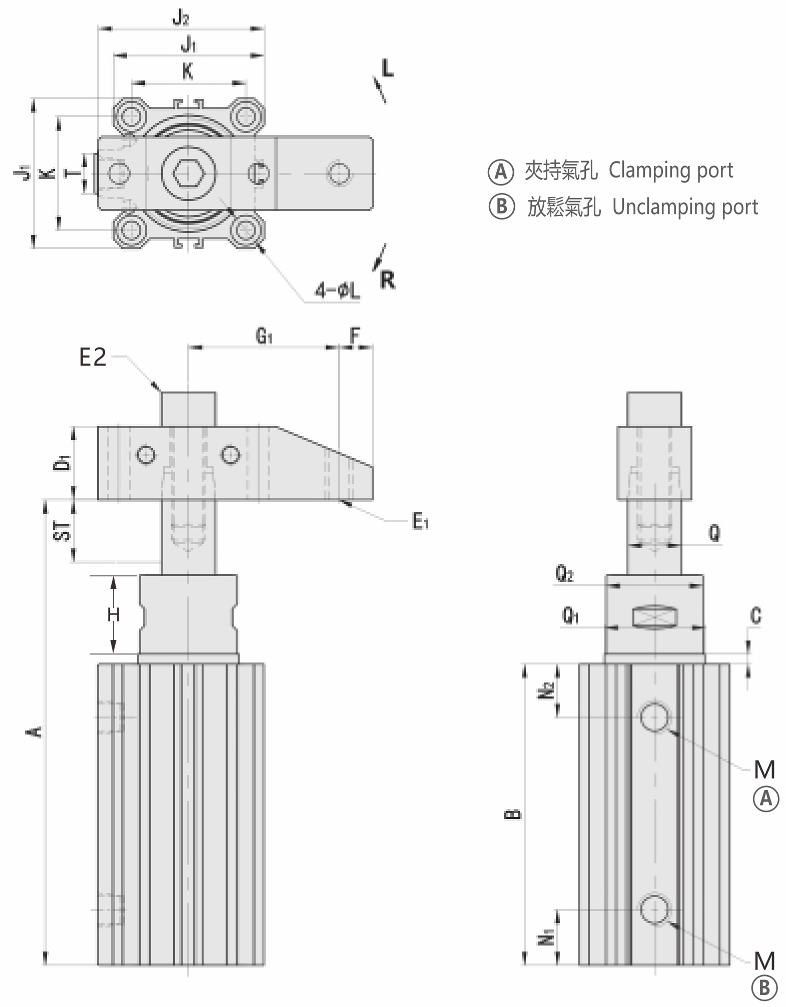
NOTE

The speed of clamping and unclamping action needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to Page 4 for installation instructions or removal methods of the clamping arm.
Customization is available upon request, please contact us for more info.

訂購標示法 ORDERING INDICATION

示例：PBS-40R-90-S2

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 Stardard 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



規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (7kgf/cm²) CLAMPING FORCE AT 7kgf/cm² (kgf)	轉角行程 Swing stroke (mm)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	拉入容積 CYLINDER CAPACITY CLAMP(cm³)	推出容積 CYLINDER CAPACITY UNCLAMP(cm³)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 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 Filtered dry 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	

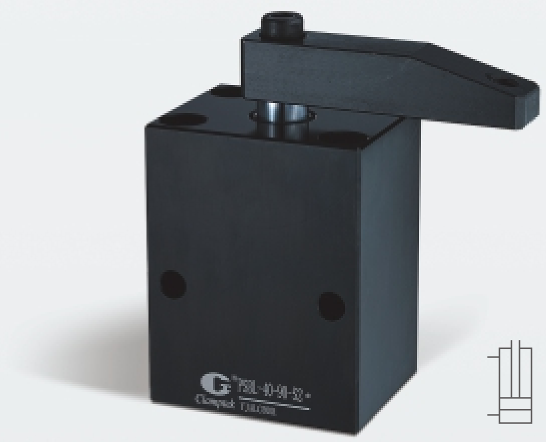
Unit:mm

MODEL	ST:Swing /Clamping	A鬆開狀態 Unclamp	B	C	D1	E1	E2	F	G1	H	J1	J2	K	L	M	N1	N2	Q	Q1	Q2	T
PBS-25	19.5:9.5/10	109	73	3	□16	M6	M8	7	32	9	40	42	28	Φ5.5-Φ9×9D	M5	16.5	14	Φ14	Φ26	Φ25	11
PBL-25	29.5:9.5/20	129	83																		
PBS-32	25:15/10	134	80	3	□22	M8	M10	10	45	23.5	45	49.5	34	Φ5.5-Φ9×9D	PT1/8	16.5	16	Φ16	Φ30	Φ29	14.8
PBL-32	35:15/20	154	90																		
PBS-40	25:15/10	134.5	80	3	□22	M8	M10	10	45	24.5	52	57	40	Φ5.5-Φ9×12D	PT1/8	19	16	Φ16	Φ30	Φ29	14.8
PBL-40	35:15/20	154.5	90																		
PBS-50	39:19/20	186.5	101.5	3.5	□25	M10	M12	10	65	39	64	71	50	Φ6.6-Φ11×13D	PT1/4	24	17	Φ20	Φ37	Φ36	20
PBL-50	69:19/50	246.5	131.5																		

PSB

氣壓塊狀轉角缸

PSB PNEUMATIC SWING CLAMP



產品特性

設計簡單，結構緊湊，重量輕，壽命長以及高的夾持力使它成為 一種好的夾具。
本產品可加裝感應器.可任意選擇上面和下面及側面安裝。

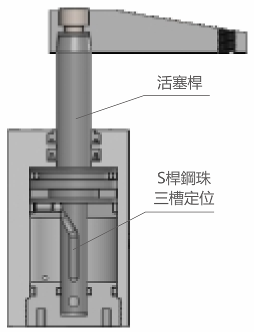
最大操作壓力：7 kgf/cm²
最小操作壓力：4 kgf/cm²
作動方式：複動式

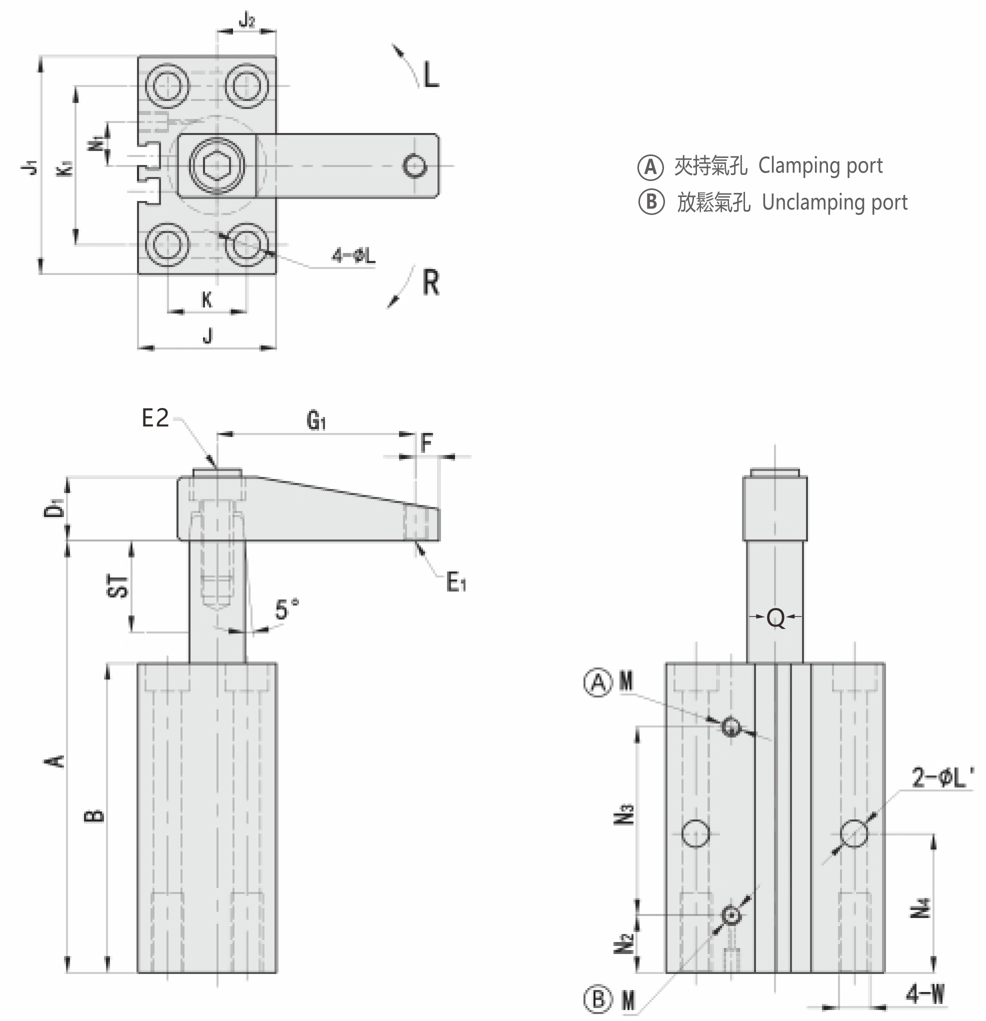
FEATURES

Simple and compact structure, lightweight, high clamping capacity, and long product lifespan. This product can be equipped with sensor switches with the option to install on the top, bottom or on the side.

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

剖面圖 Sectional view





注意事項

夾緊及放鬆作動速度需適當放緩。
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4頁。

NOTE

The speed of clamping and unclamping action needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instruction and removal methods of the clamping arm.

訂購標示法 ORDERING INDICATION

示例：PSBL-40-90-S1

PSB	系列 Series	PSB
L	轉角方向 Rotating direction	右轉R或左轉L Turn right or turn left
40	氣缸內徑 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63
90	轉角角度 Rotating angle	標準角度 Stardard 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

規格參數表 SPECIFICATIONS

型號 MODEL	理論夾持力 (7kgf/cm²) CLAMPING FORCE AT 7kgf/cm² (kgf)	轉角行程 Swing stroke (mm)	夾緊行程 CLAMPING STROKE (mm)	總行程 TOTAL STROKE(mm)	拉入容積 CYLINDER CAPACITY CLAMP(cm³)	推出容積 CYLINDER CAPACITY UNCLAMP(cm³)	拉入受壓面積 EFF.PISTON AREA CLAMP(cm²)	推出受壓面積 EFF.PISTON AREA UNCLAMP(cm²)	使用溫度範圍 RANGE OF TEMPERATURE(°C)	使用流體 USABLE FLUID
PSB-25	24	13	14	27	9.10	13.26	3.37	4.91	-10~+60℃	過濾之乾燥壓縮空氣 Filtered dry compressed air
PSB-32	42	16	14	30	18.06	24.12	6.02	8.04	-10~+60℃	
PSB-40	74	15	15	30	31.68	37.68	10.56	12.56	-10~+60℃	
PSB-50	116	17	15	32	52.80	62.82	16.5	19.63	-10~+60℃	
PSB-63	196	15	15	30	84.06	93.48	28.02	31.16	-10~+60℃	

Unit:mm

MODEL	ST:Swing /Clamping	A鬆開狀態 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

CSW

氣壓支撐缸

CSW PNEUMATIC SUPPORT CLAMP

產品特性

氣壓上升型：
活塞桿初始狀態為下降，供給氣壓使活塞桿上升並接觸供件任意位置後停止，在停止的同時氣壓作用於夾套的夾緊力施加於活塞桿，使活塞桿得以穩固的支撐工件。

彈簧上升型：
活塞桿初始狀態為上升，將工件放置於活塞桿上因工件的重量而下降到特定距離，此時供給氣壓作用於夾套的夾緊力施加於活塞桿，使活塞桿得以穩固的支撐工件。

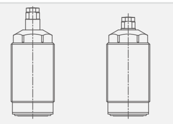
FEATURES

Air pressure rising type:
The initial state of the piston rod is falling. The supply air pressure makes the piston rod rise and stop after getting into contact with any position of the supply part. At the same time,the clamping force acting on the clamp cover by air pressure is applied to the piston rod, so that the piston rod can firmly support the workpiece.

Spring rising type:
The initial state of the piston rod is rising, and the workpiece is placed on the piston rod and lowered to a certain distance due to the weight of the workpiece. At this time, the clamping force acting on the clamp cover by supply air pressure is applied to the piston rod, so that the piston rod can firmly support the workpiece.

訂購標示法 ORDERING INDICATION

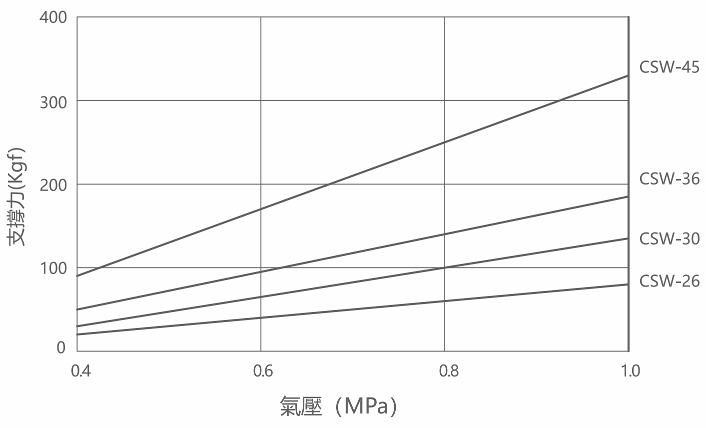
示例：CSW-30BLP

CSW	系列 Series	CSW		
30	氣缸外徑 Cylinder external inside diameter	M26×1.5 M36×1.5 M30×1.5 M45×1.5		
B	型式 type	A :彈簧上升型 B :氣壓上升型(標準)	A: Spring rising type B: Pneumatic rising type(standard)	
L	壓強 Pressure	低壓1MPa	Low Pressure 1 Mpa	
P	版本 Version			

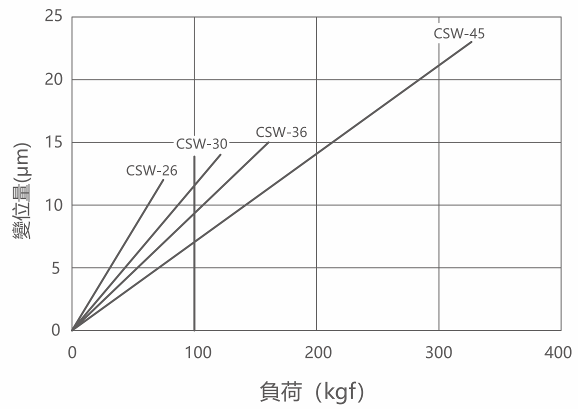
規格參數表 SPECIFICATIONS

型號 MODEL	理論支撐力 CLAMPING FORCE AT 10kgf/cm²(kgf)	理論支撐力 CLAMPING FORCE AT 4kgf/cm²(kgf)	行程 STROKE (mm)	氣缸容積 CYLINOED CAPACITY(cm³)	活塞桿面積 PISTON AREA(cm²)	使用流體 USABLE FLUID
CSW-26AL	80	20	6.5	1.20	0.64	過濾之乾燥壓縮空氣 Filtered dry compressed air
CSW-26BL	80	20	6.5	1.20	0.64	
CSW-30AL	130	30	6.5	1.80	0.64	
CSW-30BL	130	30	6.5	1.80	0.64	
CSW-36AL	190	50	8	2.70	0.79	
CSW-36BL	190	50	8	2.70	0.79	
CSW-45AL	350	90	8	4.80	1.13	
CSW-45BL	350	90	8	4.80	1.13	

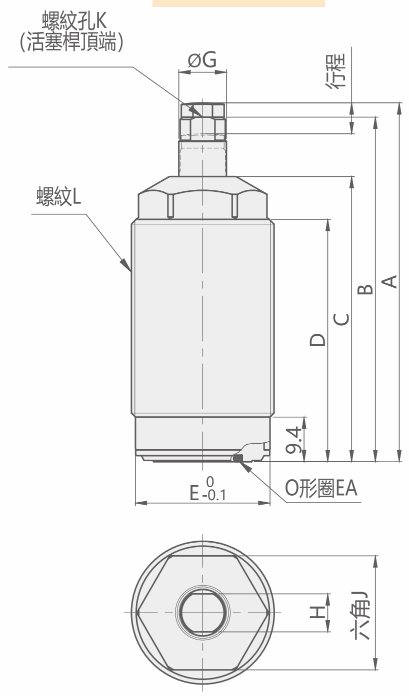
氣壓與工件支撐力的關係



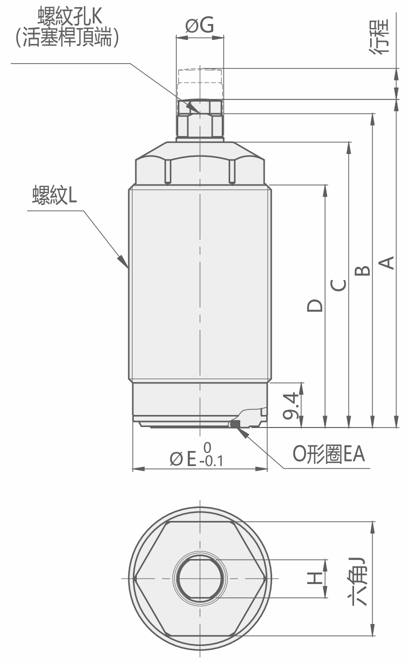
負荷與變位量的關係



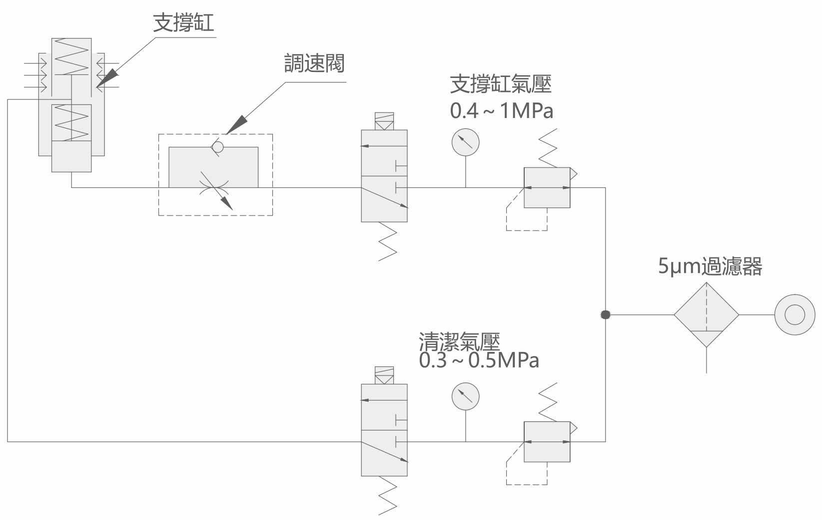
CSW-AL



CSW-BL



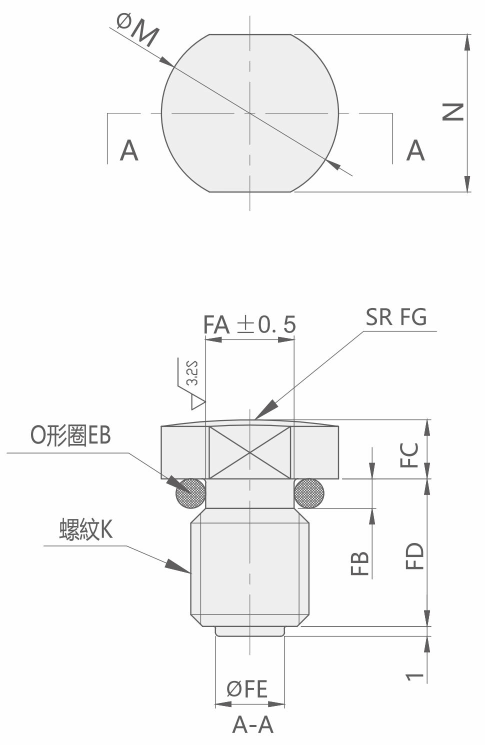
氣壓回路圖



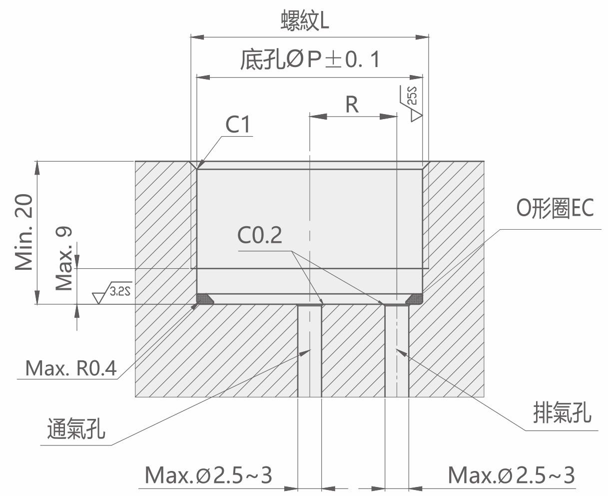
注意事項

1. 請通過調速閥來調整支撐桿的上升動作度,以使其上升動作時間在0.5秒以上。
2. 請避免以下使用方法。否則會導致支撐缸動作不順及支撐力下降。
 ×向支撐桿施加偏心負荷
 ×施加超過額定支撐力的負荷
 ×鎖定時轉動支撐桿
3. 請使通氣孔與大氣連通，且必須阻止切液、切屑等異物進入。否則會導致支撐缸損壞。
4. 請僅在換夾工件時進行空氣清潔。空氣清潔時，支撐桿會有上升。

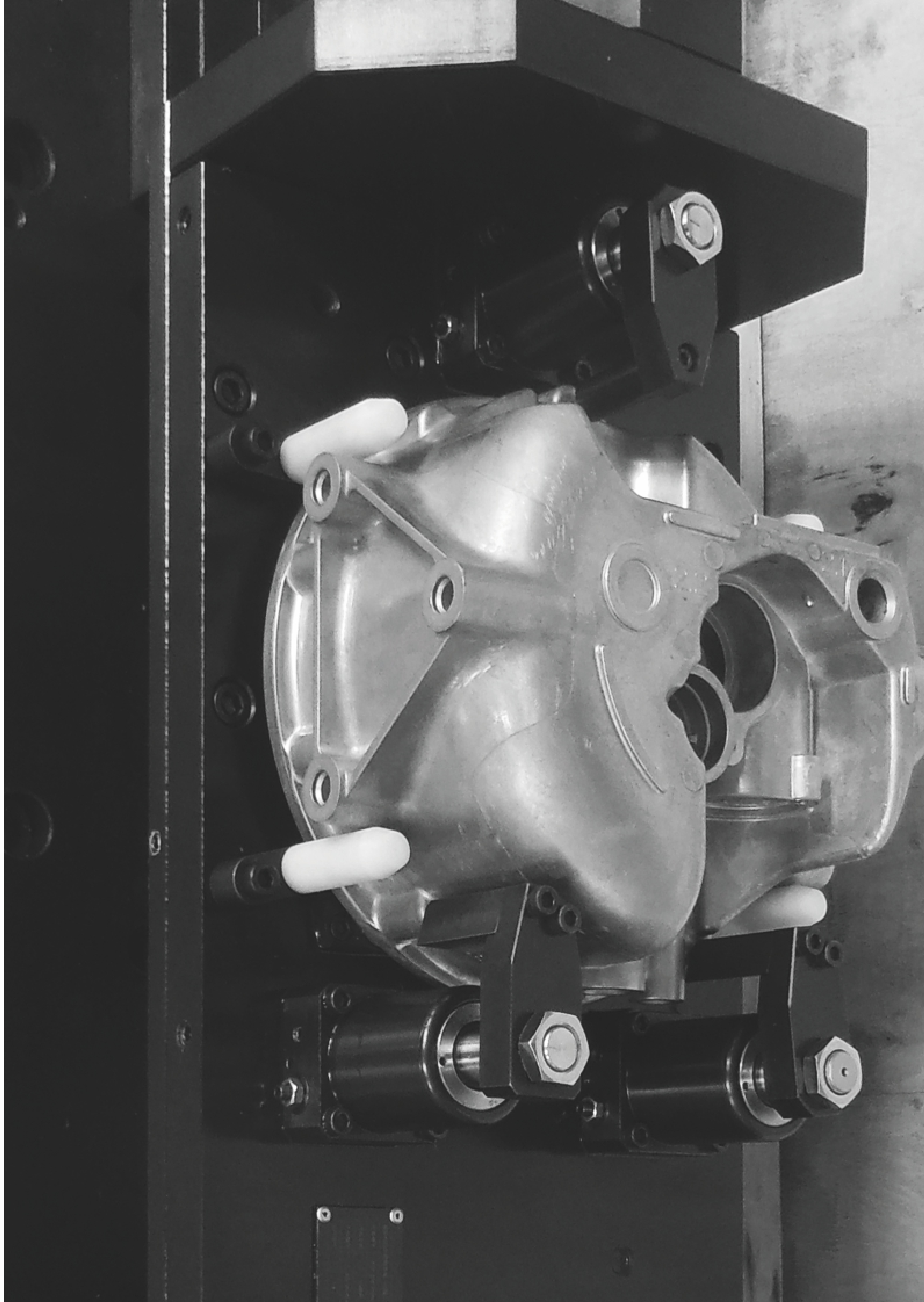
帽蓋詳圖



安裝尺寸



型號	CSW-26AL	CSW-26BL	CSW-30AL	CSW-30BL	CSW-36AL	CSW-36BL	CSW-45AL	CSW-45BL
A	68.5	62	75.5	69	81	73	95	87
B	65.5	59	72.5	66	78	70	91	83
C	53	53	60	60	64	64	76	76
D	44	44	51	51	52	52	61	61
ØE	24.3	24.3	28.3	28.3	34.3	34.3	43.3	43.3
ØG	10	10	10	10	10	10	12	12
H（活塞桿對邊寬）	8	8	8	8	8	8	10	10
J(六角對邊寬)	22	22	24	24	30	30	36	36
K(公稱直徑X螺距)	M6x1	M6x1	M6x1	M6x1	M6x1	M6x1	M8x1.25	M8x1.25
L(公稱直徑X螺距)	M26x1.5	M26x1.5	M30x1.5	M30x1.5	M36x1.5	M36x1.5	M45x1.5	M45x1.5
ØM	9	9	9	9	9	9	11.5	11.5
N(對邊寬)	8	8	8	8	8	8	10	10
ØFA	4.5	4.5	4.5	4.5	4.5	4.5	6	6
FB	1.5	1.5	1.5	1.5	1.5	1.5	1.9	1.9
FC	3	3	3	3	3	3	4	4
FD	7.5	7.5	7.5	7.5	7.5	7.5	9	9
ØFE	3.5	3.5	3.5	3.5	3.5	3.5	4.3	4.3
ØP	24.5	24.5	28.5	28.5	34.5	34.5	43.5	43.5
R	9	9	11	11	13	13	15	15
O形圈EA（氟橡膠硬度Hs90）	AS568-013	AS568-013	AS568-014	AS568-014	AS568-014	AS568-014	AS568-015	AS568-015
O形圈EB（氟橡膠硬度Hs70）	S5	S5	S5	S5	S5	S5	S6	S6
O形圈EC（氟橡膠硬度Hs90）	AS568-020	AS568-020	AS568-022	AS568-022	AS568-026	AS568-026	AS568-030	AS568-030



UCQ2
薄型鋁合金氣缸

UCQ2 THIN-TYPE PNEUMATIC CYLINDER

產品特性 FEATURES

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（°C）	-10 ~ +60 ℃									

最大操作壓力：10 kgf/cm²
最小操作壓力：1 kgf/cm²

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

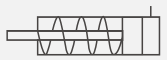
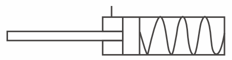
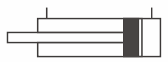
注意事項

UCQ2系列可附磁性感應（單動不附磁性感應）
行程在50mm以上屬於特殊定製

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...	

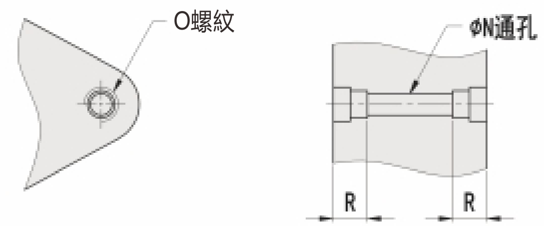
訂購標示法 ORDERING INDICATION

示例：UCDQ2WB20-10-SMDA73*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	活塞桿 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 Nil: Double acting S：單動（壓回） S: Single acting(Retracted) T：單動（壓出） 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 ßuid: Oiled Dry Clean Compressed Air

兩端內螺紋

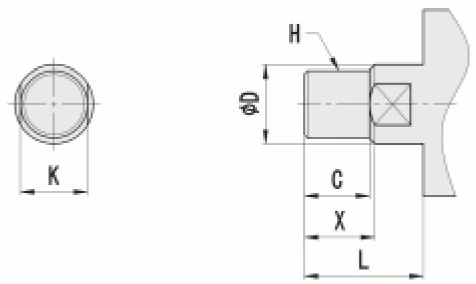


UCQ2A / UCDQ2A

Unit:mm

缸徑 BORE	12	16	20	25	32	40	50	63	80	100
O	M4×0.7	M4×0.7	M6×1.0	M6×1.0	M6×1.0	M6×1.0	M8×1.25	M10×1.5	M12×1.75	M12×1.75
R	7	7	10	10	10	10	14	18	22	22

桿端外螺紋

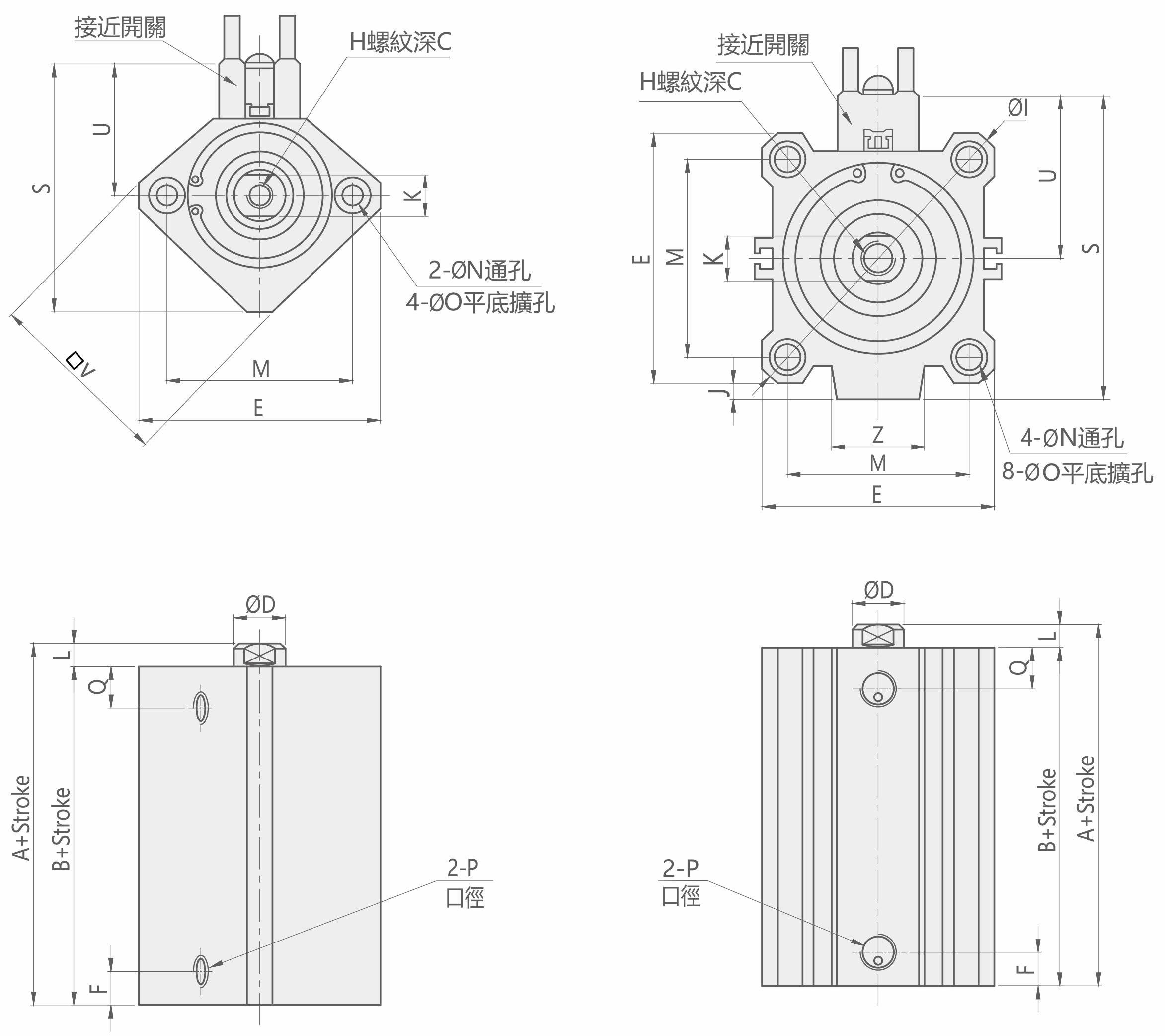


Unit:mm

缸徑 BORE	12	16	20	25	32	40	50	63	80	100
C	9	10	12	15	20.5	20.5	26	26	32.5	32.5
X	10.5	12	14	17.5	23.5	23.5	28.5	28.5	35.5	35.5
ΦD	6	8	10	12	16	16	20	20	25	30
H	M5×0.8	M6×1.0	M8×1.25	M10×1.25	M14×1.5	M14×1.5	M18×1.5	M18×1.5	M22×1.5	M26×1.5
L	14	15.5	18.5	22.5	28.5	28.5	33.5	33.5	43.5	43.5
K	5	6	8	10	14	14	17	17	22	27

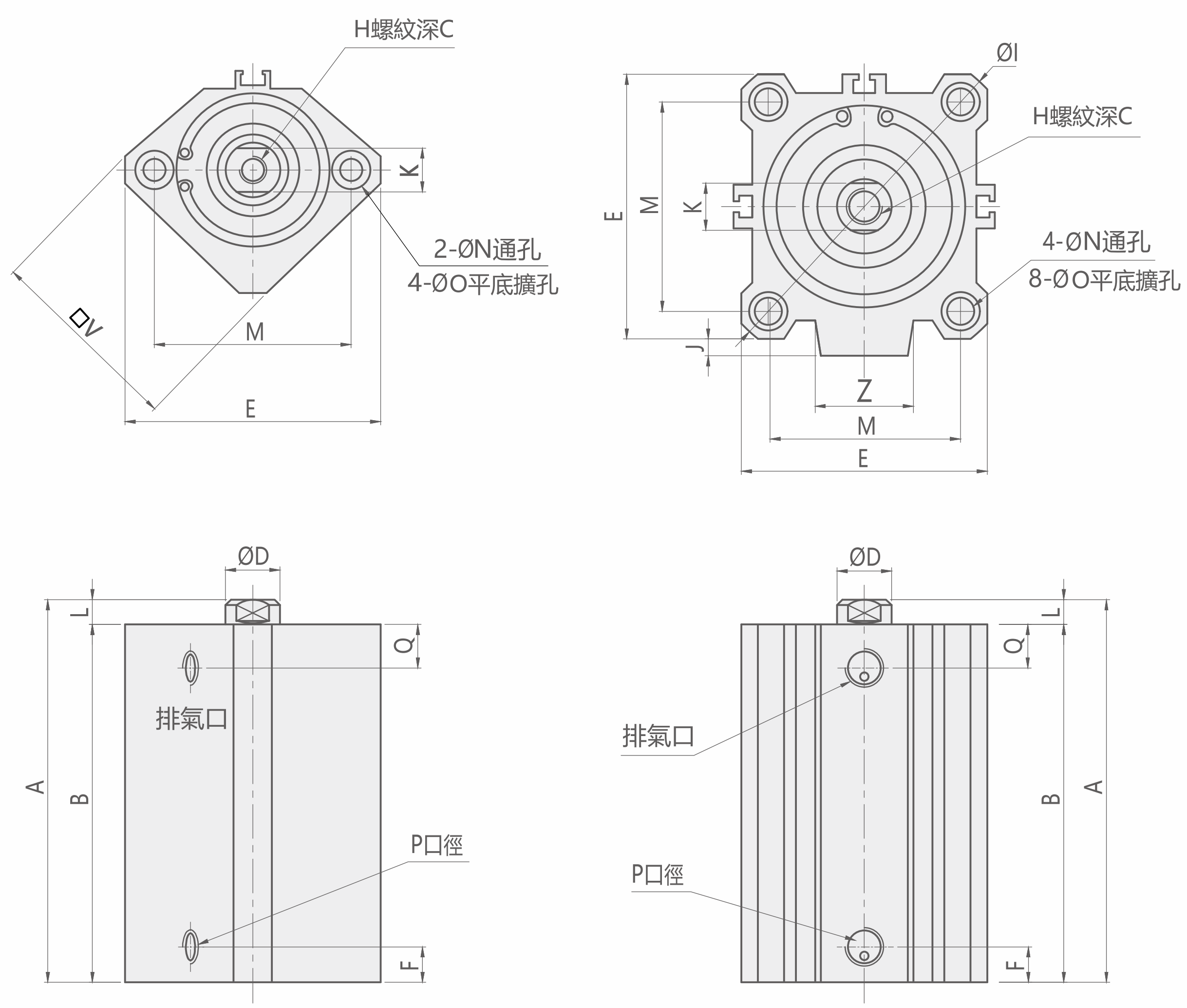
UCQ2B/UCDQ2B TYPE

Bore Ø12～Ø25　　Bore Ø32～ Ø100



UCQ2B...S TYPE
UCQ2A...S TYPE

Bore Ø12～ Ø25　　Bore Ø32～ Ø50



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

註：帶「*」號為磁性氣缸尺寸　Remark：With「*」mark is for magnetic cylinder dimensions.

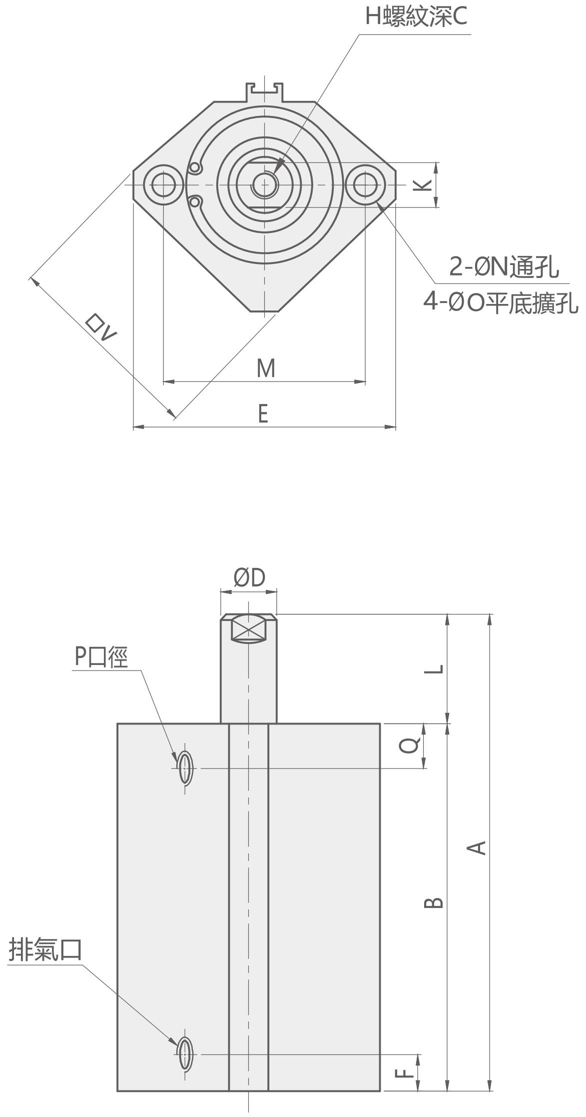
Unit:mm

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										5st	10st	20st	5st	10st		
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

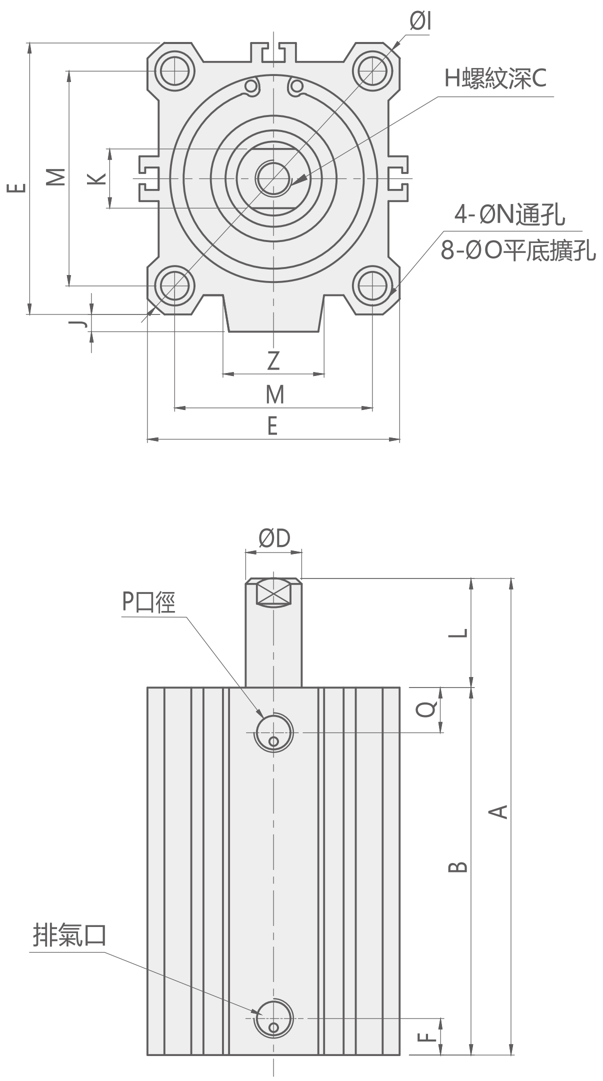
註：以上A及B的尺寸已包含行程長度　Remark：Above A and B size contains stroke length .

UCQ2B...T TYPE
UCQ2A...T TYPE

Bore Ø12～Ø25



Bore Ø32～Ø50



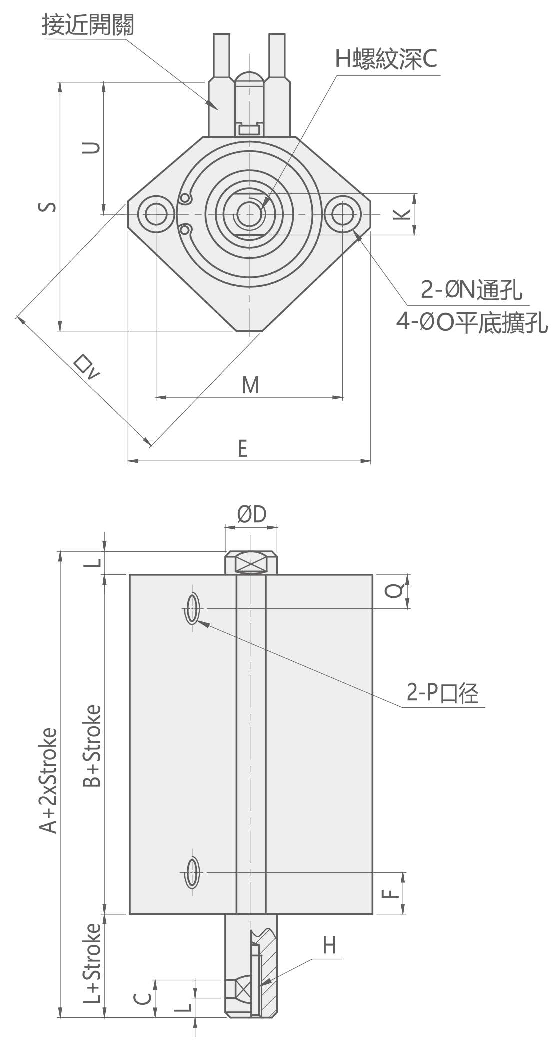
Unit:mm

缸徑 DIAMETER	A			B			ΦD	E	F		H	C	ΦI	J	K	L			M	N	ΦO	P			Q		V	Z
	5st	10st	20st	5st	10st	20st			5st	10st						5st	10st	20st				5st	10st	20st	5st	10st		
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

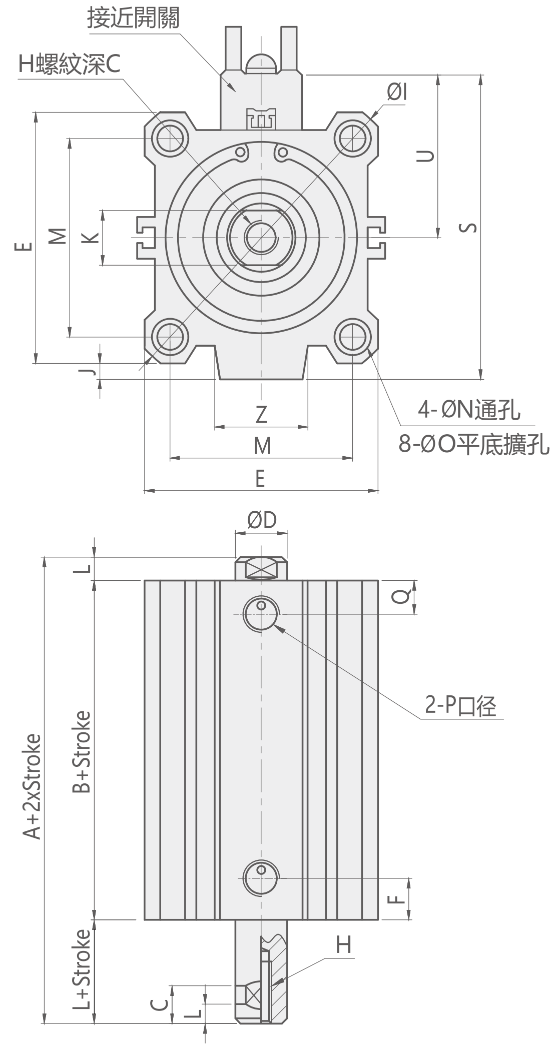
註：以上A及B的尺寸已包含行程長度　Remark：Above A and B size contains stroke length .

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

Bore Ø12～Ø25



Bore Ø32～Ø100



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	Q*	S	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	G1/8	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

註：帶「*」號為磁性氣缸尺寸　Remark：With「*」mark is for magnetic cylinder dimensions.

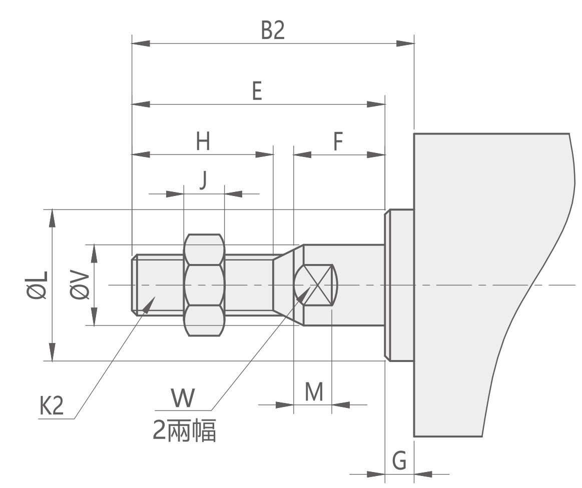
SDA

薄型鋁合金氣缸

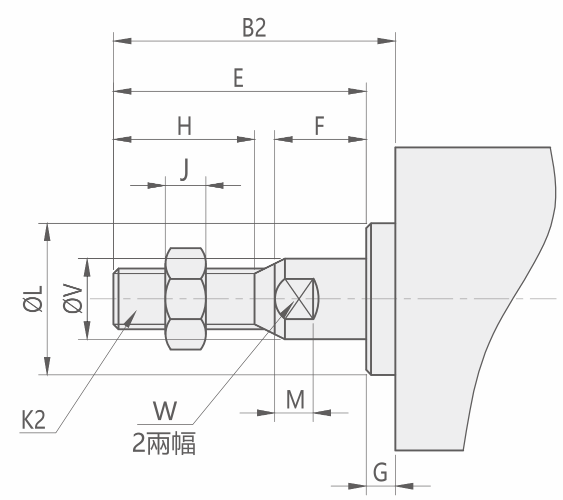
SDA THIN-TYPE PNEUMATIC CYLINDER

桿端外螺紋

Bore Ø12～Ø16



Bore Ø20～Ø100



產品特性 FEATURES

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:120						
使用溫度範圍（°C）	-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

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

注意事項

行程在50mm以上屬於特殊定製

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

訂購標示法 ORDERING INDICATION

示例：SDADS20-10-B

SDA	系列 Series	SDA/SDAD/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 Magnetic	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

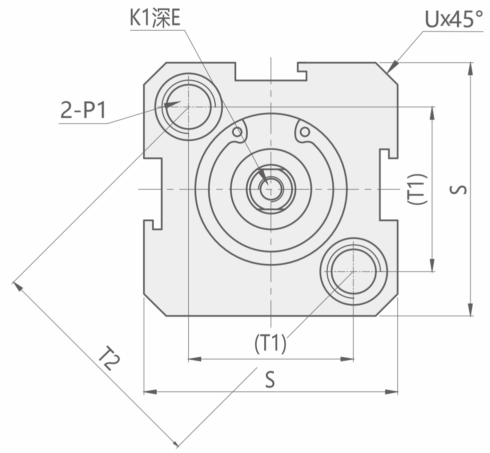
使用流體：過濾之乾燥壓縮空氣 Usable fluid: Oiled Dry Clean Compressed Air

Unit:mm

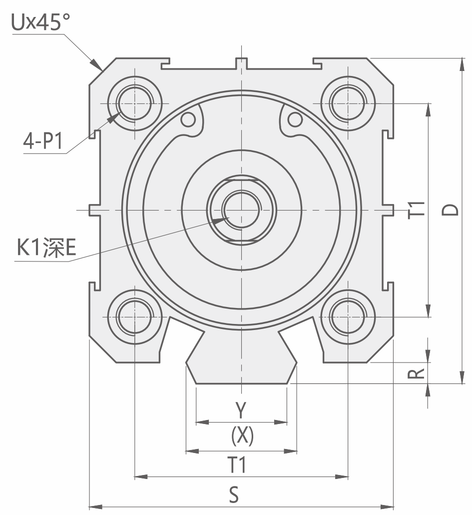
DIAMETER缸徑	B2	E	F	G	H	J	K2	L	M	V	W
12	17	16	4	1	10	4	M5×0.8	10.2	2.8	6	5
16	17.5	16	4	1.5	10	4	M5×0.8	11	2.8	6	5
20	20.5	19	4	1.5	13	5	M6×1.0	15	2.8	8	6
25	23	21	4	2	15	6	M8×1.25	17	2.8	10	8
32	25	22	4	3	15	6	M10×1.25	22	2.8	12	10
40	35	32	4	3	25	8	M14×1.5	28	2.8	16	14
50	37	33	5	4	25	11	M18×1.5	38	2.8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

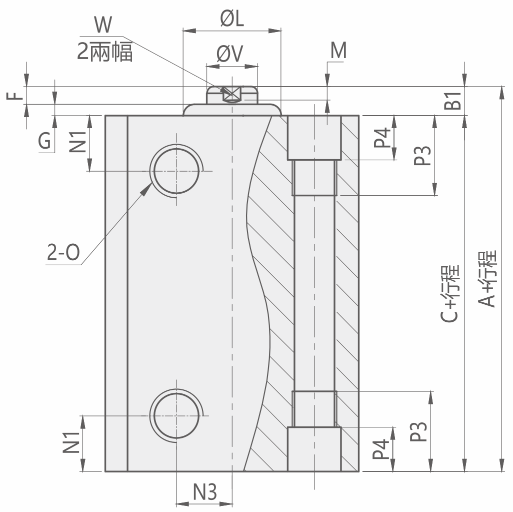
SDA/SDAS TYPE

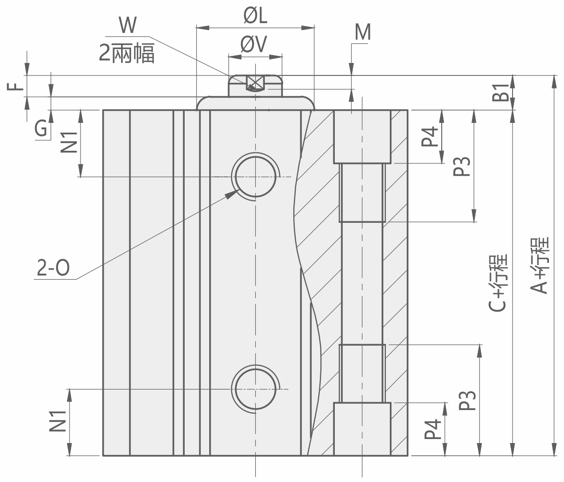
Bore Ø12 ~ Ø16



Bore Ø20～Ø100

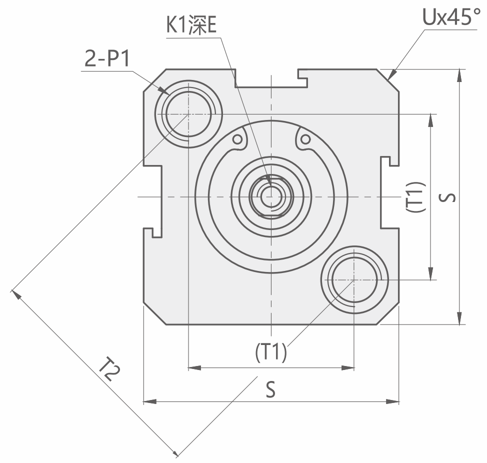




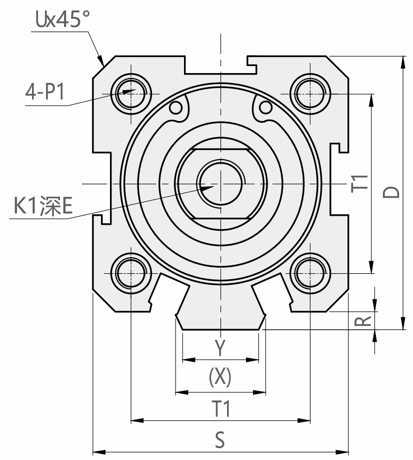


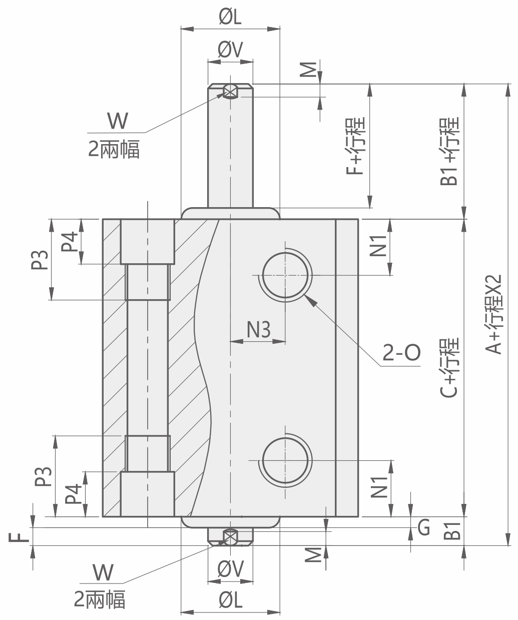
SDAD/SDADS TYPE

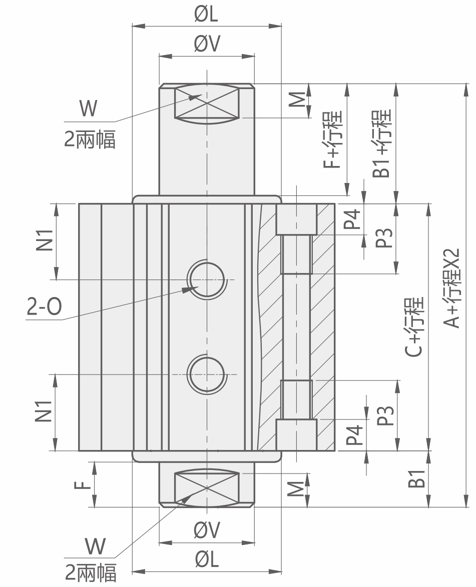
Bore Ø12～Ø16



Bore Ø20～Ø100







Unit:mm

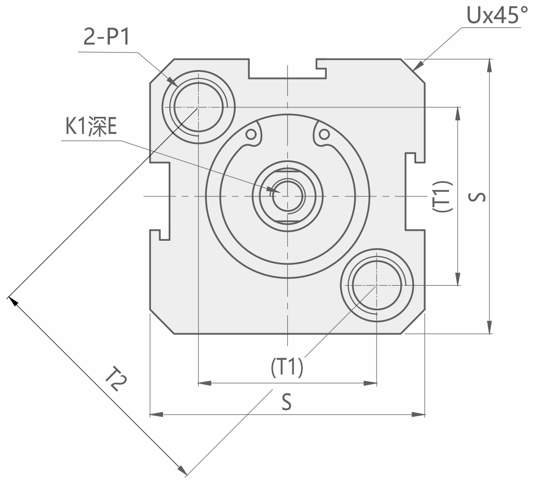
缸徑 DIAMETER	標準型			附磁型			D	E		F	G	K1	L	M	N1	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
	A	B1	C	A	B1	C		行程≤10	行程>10																				
12	22	5	17	32	5	27	-	6	6	4	1	M3×0.5	10.2	2.8	6.3	6	M5×0.8	雙邊:Φ6.5牙M5×0.8 通孔Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	24	5.5	18.5	34	5.5	28.5	-	6	6	4	1.5	M3×0.5	11	2.8	7.3	6.5	M5×0.8	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

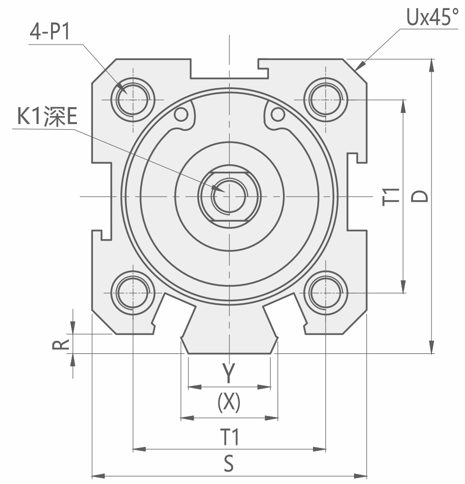
缸徑 DIAMETER	標準型			附磁型			D	E		F	G	K1	L	M	N1	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
	A	B1	C	A	B1	C		行程≤10	行程>10																				
12	27	5	17	37	5	27	-	6		4	1	M3×0.5	10.2	2.8	6.3	6	M5×0.8	雙邊:Φ6.5牙M5×0.8 通孔Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	29.5	5.5	18.5	39.5	5.5	28.5	-	6		4	1.5	M3×0.5	11	2.8	7.3	6.5	M5×0.8	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

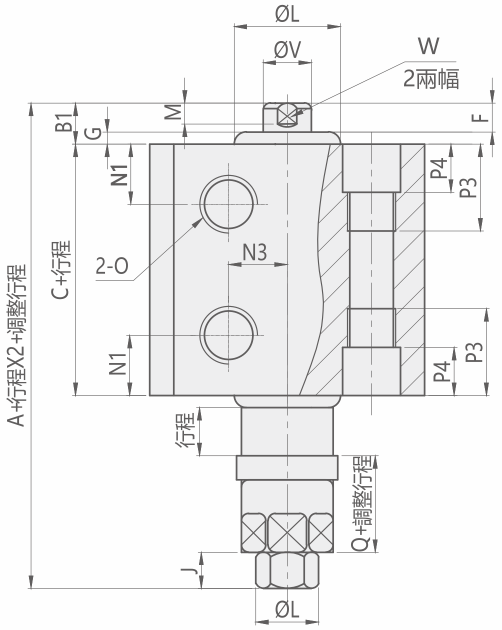
SDAJ/SDAJS TYPE

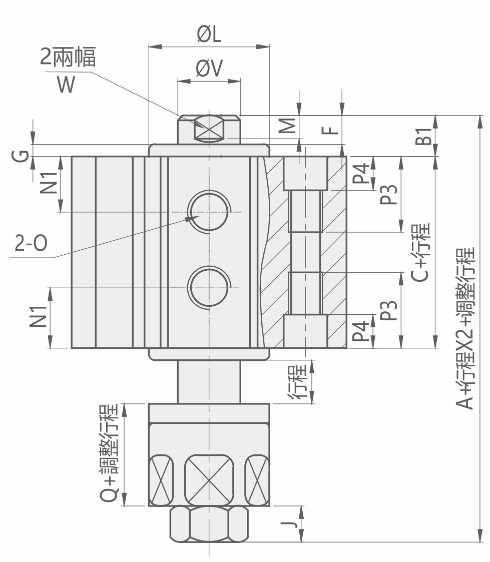
Bore Ø12～Ø16



Bore Ø20～Ø100







Unit:mm

缸徑 DIAMETER	標準型 A	標準型 B1	標準型 C	附磁型 A	附磁型 B1	附磁型 C	D	E 行程≤10	E 行程>10	F	G	J	K1	L	M	N1	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
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 FEATURES

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

最大操作壓力：10 kgf/cm²
最小操作壓力：1 kgf/cm²

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

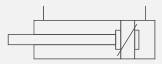
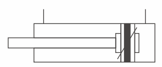
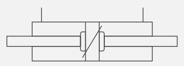
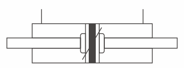
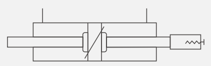
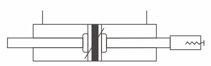
注意事項

DEB系列可附磁性感應
本系列空壓缸符合ISO 6430規格

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	
雙動雙軸型標準 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	

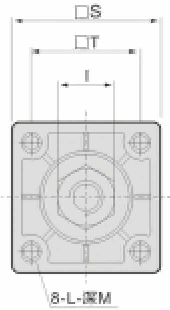
訂購標示法 ORDERING INDICATION

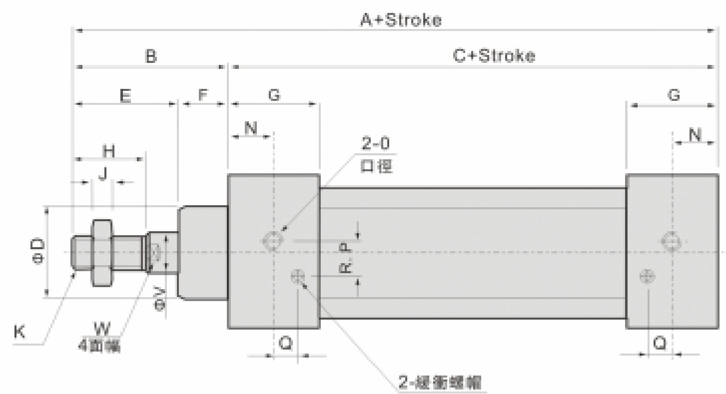
示例：DEN50M125-B-FA-Y-LN21R*2

DEN	系列 Series	DEB/DED/DEN
50	氣缸內徑 Cylinder inside diameter	Φ32 ，Φ40 ，Φ50 ，Φ63 Φ80 ，Φ100
M	磁性感應 Magnetic	N:無附磁性感應 M:內附磁性感應 N: No magnet M: 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 FB:後法蘭 After flange TC:中間軸銷 Intermediate pivot CA:單耳座 Male pivot CB:雙耳座 Female pivot LB:支架 Axial foot Y:Y型接頭 Rod clevis G:魚眼接頭 Oscillating eye K:浮動接頭 Compensating joint
LN21R	近接開關 Sensor switch	
2	數量 Quantity	1:1pcs　2:2pcs

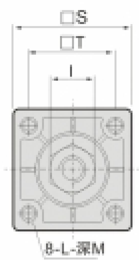
使用流體：過濾之乾燥壓縮空氣　Usable fluid: Oiled Dry Clean Compressed Air

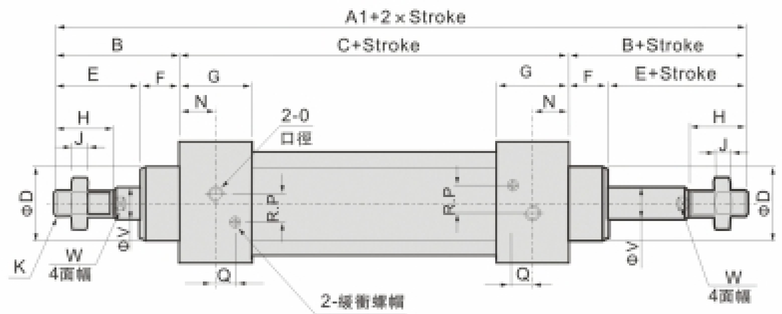
DEB TYPE





DED TYPE



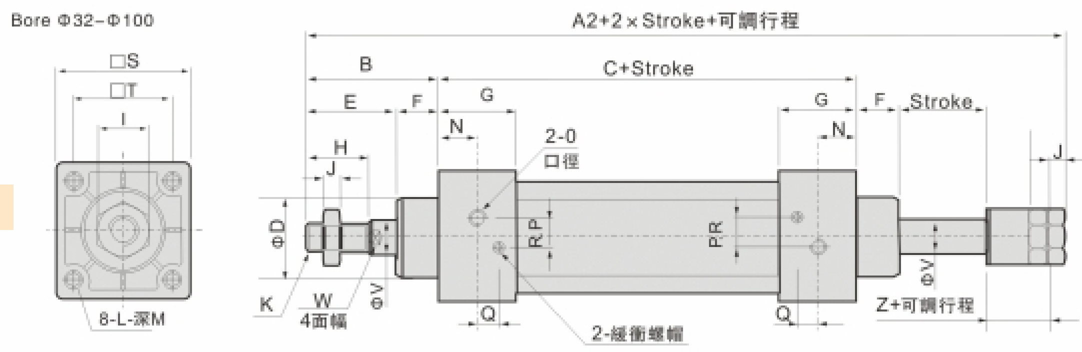


Unit:mm

缸徑 DIAMETER	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

註：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.

DEN TYPE

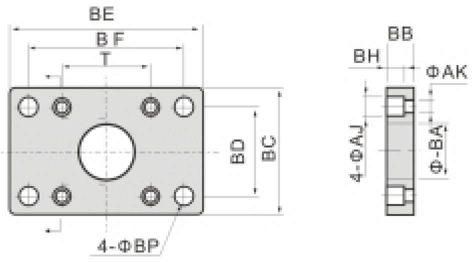


Unit:mm

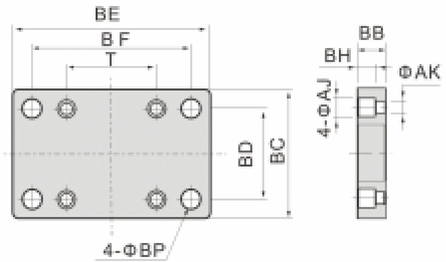
缸徑 DIAMETER	A2	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	V	W	Z
32	182	47	93	28	32	15	27.5	22	17	6	M10×1.25	M6×1	9.5	13.75	G1/8 "	3.5	7.5	7	45	33	12	10	21
40	185	49	93	32	34	15	27.5	24	17	7	M12×1.25	M6×1	9.5	13.5	G1/4 "	6	8.2	9	50	37	16	14	21
50	196	57	93	38	42	15	27.5	32	23	8	M16×1.5	M6×1	9.5	13.5	G1/4 "	8.5	8.2	9	62	47	20	17	23
63	199	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	23
80	243	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	29
100	249	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	29

註：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.

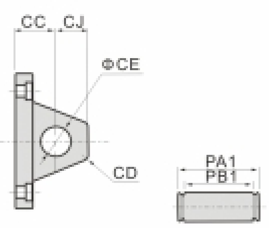
FA TYPE



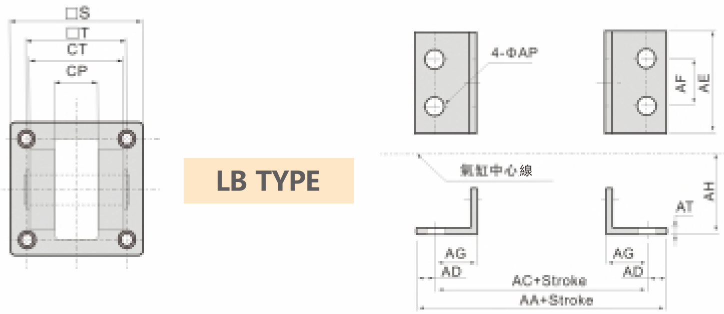
FB TYPE



CB TYPE



LB TYPE



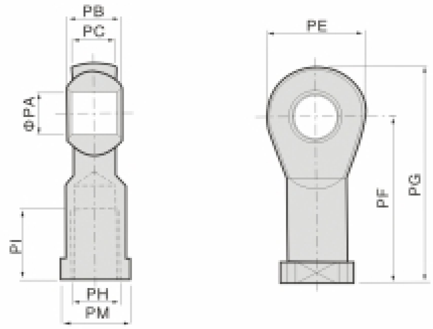
安裝配件尺寸 ACCESSORIES

Unit:mm

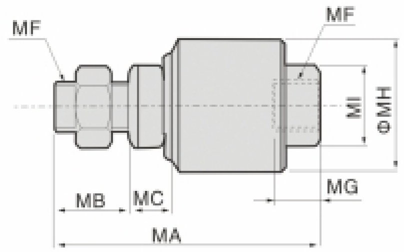
缸徑	FA前法蘭										FB後法蘭									
DIAMETER	BA	BB	BC	BD	BE	BF	BH	AJ	AK	BP	T	BB	BC	BD	BE	BF	BH	AJ	AK	BP	T
32	28.3	10	47	33	72	58	6.5	10.5	6.5	7	33	10	47	33	72	58	6.5	10.5	6.5	7	33
40	32.3	10	52	36	84	70	6.5	10.5	6.5	7	37	10	52	36	84	70	6.5	10.5	6.5	7	37
50	38.3	10	65	47	104	86	6.5	13.5	8.5	9	47	10	65	47	104	86	6.5	13.5	8.5	9	47
63	38.3	12	76	56	116	98	8.5	13.5	8.5	9	56	12	76	56	116	98	8.5	13.5	8.5	9	56
80	47.3	16	95	70	143	119	10.5	16.6	10.5	12	70	16	95	70	143	119	10.5	16.6	10.5	12	70
100	47.3	16	115	84	162	138	10.5	16.6	10.5	12	84	16	115	84	162	138	10.5	16.6	10.5	12	84

缸徑	CB雙耳座										LB支架								
DIAMETER	CC	CD	CE	CJ	CP	CT	PA1	PB1	S	T	AA	AC	AD	AE	AF	AG	AH	AP	AT
32	19	3	12	13	16.3	32	41	33.5	48	33	153	134	9.5	50	33	20.5	28	9	3.2
40	19	3	14	13	20.3	44	51.8	45.5	50	37	169	140	14.5	57	36	23.5	30	12	3.2
50	19	5	14	15	20.3	52	60.3	54	62	47	173	149	12	68	47	28	36.5	12	3.2
63	19	5	14	15	20.3	52	60.3	54	75	56	184	158	13	80	56	31	41	12	3.2
80	32	8	20	21	32.3	64	73.8	65.5	94	70	200	168	16	97	70	30	49	14	4
100	32	8	20	21	32.3	64	73.8	65.5	112	84	210	174	18	112	84	30	57	14	4

G魚眼接頭OSCILLATING EYE



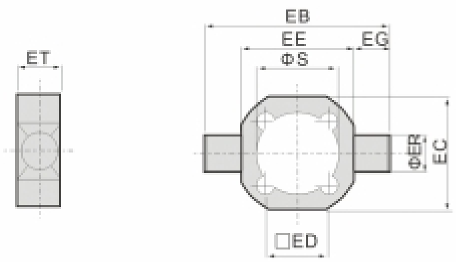
K浮動接頭COMPENSATING JOINT



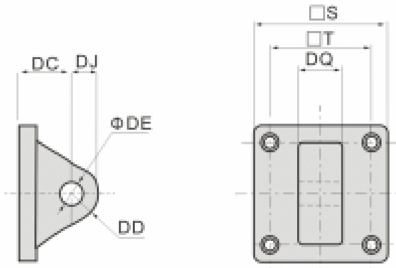
Unit:mm

缸徑	G魚眼接頭								K浮動接頭						
DIAMETER	PA	PB	PC	PE	PF	PG	PH	PI	PM	MA	MB	MC	MF	MG	MH	MI
32	10	14	11	26	43	56	M10×1.25	21	17	58	22	7	M10×1.25	12	26	17
40	12	16	12	30	50	65	M12×1.25	24	19	58	22	8	M12×1.25	12	28	19
50	16	21	15	38	64	83	M16×1.5	33	22	90	27	10	M16×1.5	14	45	27
63	16	21	15	38	64	83	M16×1.5	33	22	90	27	10	M16×1.5	14	45	27
80	20	25	18	46	77	100	M20×1.5	40	32	102	29	13	M20×1.5	18	53	33
100	20	25	18	46	77	100	M20×1.5	40	32	102	29	13	M20×1.5	18	53	33

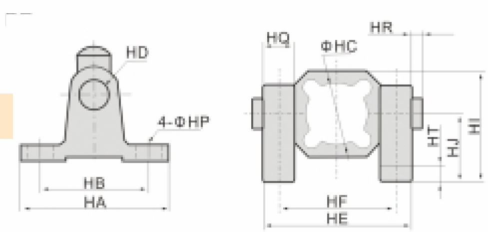
TC TYPE



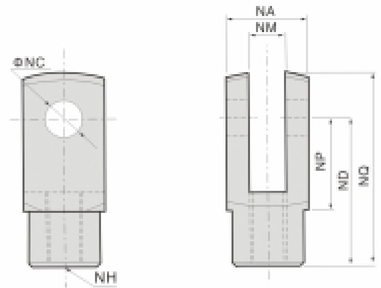
CA TYPE



TC-M TYPE



Y接頭 Y ROD CIEVIS(WITH PIN)



安裝配件尺寸 ACCESSORIES

Unit:mm

缸徑	TC 中間軸銷								TC-M 支撐架										
DIAMETER	EB	EC	ED	EE	EG	EP	ET	S	HA	HB	HC	HD	HE	HF	HI	HJ	HQ	HR	HT	HP
40	113	63	37	63	25	25	30	45.5	110	80	45.5	22	109	86	81.5	50	23	2	12	12
50	126	76	47	76	25	25	30	55.5	110	80	55.5	22	122	99	88	50	23	2	12	12
63	138	88	56	88	25	25	30	68.5	110	80	68.5	22	134	111	94	50	23	2	12	12
80	164	114	70	114	25	25	30	87.5	120	80	87.5	22	160	137	127	70	23	2	14	14
100	182	132	84	432	25	25	40	107.5	120	80	107.5	22	178	155	136	70	23	2	14	14

缸徑	CA單耳座							Y接頭					
DIAMETER	S	T	DC	DD	DE	DJ	DQ	NA	NC	ND	NH	NM	NP	NQ
32	48	33	34	14	12	14	16	19	10	40	M10×1.25	10	20	52
40	50	37	34	14	14	14	20	25.4	12	48	M12×1.25	12	24	62
50	62	47	34	15	14	15	20	32	16	64	M16×1.5	16	32	83
63	75	56	34	15	14	15	20	32	16	64	M16×1.5	16	32	83
80	94	70	48	20	20	20	32	44.4	20	80	M20×1.5	20	40	105
100	112	84	48	20	20	20	32	44.4	20	80	M20×1.5	20	40	105

CTK
夾緊氣缸

CTK CLAMPING CYLINDER

產品特性

氣缸缸體使用鋁合金材料，經氧化鋁處理，更具耐磨及耐腐蝕性。採用無給油軸承及耐磨密封環使用壽命長。
多個配管位置可供選擇。
附緩衝型可有效減緩封缸蓋之衝擊。
附磁性環型可搭配選用磁簧開關。

FEATURES

The body of the cylinder is made of aluminum alloy, after the vaporization of aluminum processing, it is more wear resistance and corrosion resistance. With the no oil bearing and wear-resisting sealing ring, the cylinder has a long service life.
Multiple piping position to choose.
The cylinder with the buffer action can effectively slow speed and weaken the impact force on the cylinder head.
The cylinder with a magnetic ring can match with magnetic reed switch.

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

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

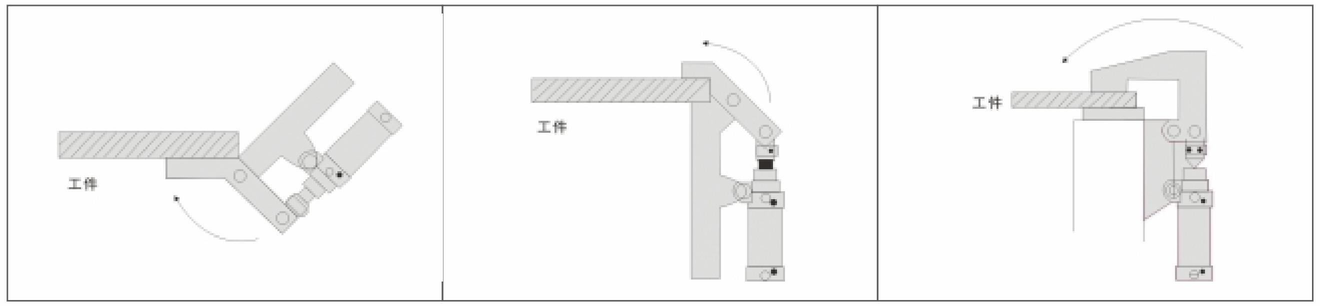
訂購標示法 ORDERING INDICATION

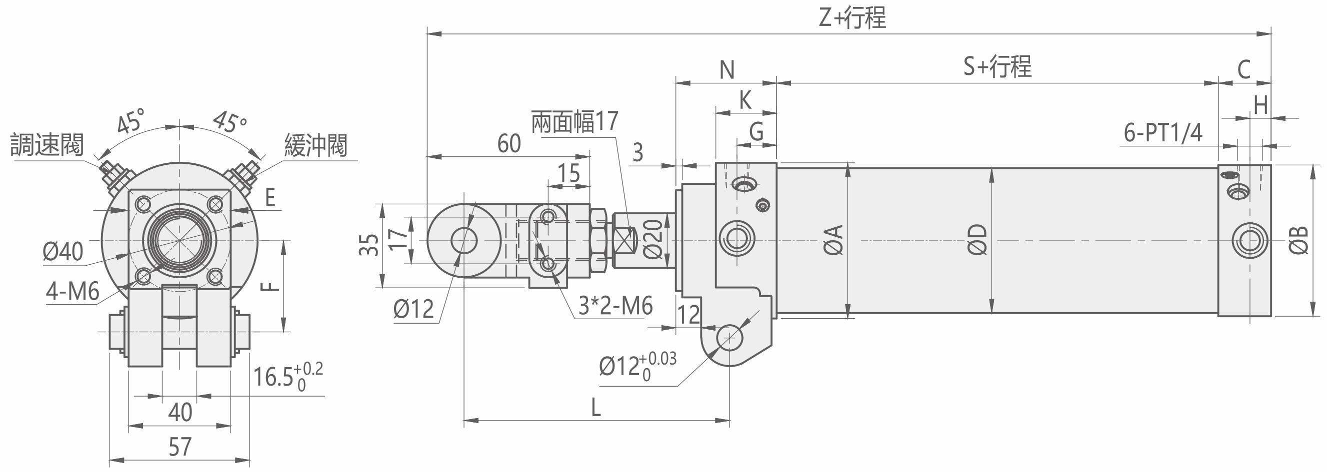
示例：CTK-50-100MY

CTK	系列	CTK	
50	氣缸內徑 Cylinder inside diameter	Φ50，Φ63	
100	行程 Stroke	50 ，75，100 ，125 ，150	
M	附磁石 With magnet	無：無附磁石 M：附磁石	Nil: without magnet M: Magnet
Y	接頭配件 Accessory	無 Y：Y接頭 I ：I接頭	Nil: no accessory Y: Y joint I: I joint

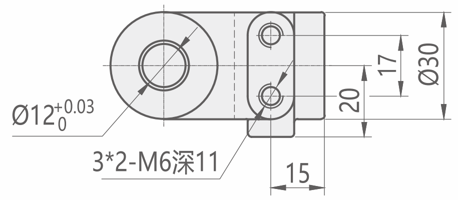
使用流體：過濾之乾燥壓縮空氣
Usable fluid: Oiled Dry Clean Compressed Air

使用範例





I 接頭



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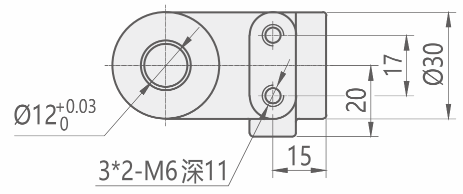

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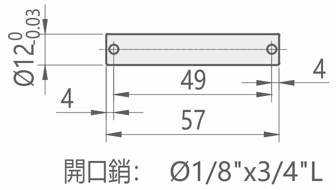
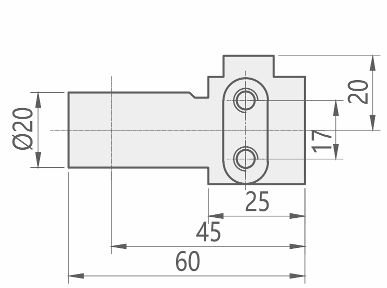
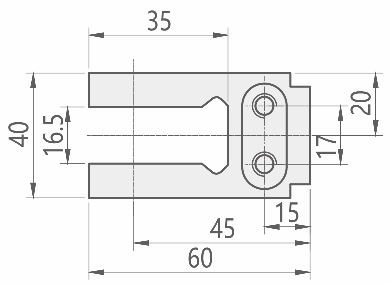




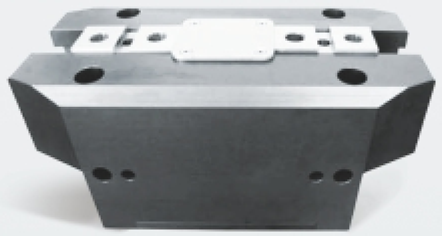


Unit:mm

缸徑BORE	ΦA	ΦB	ΦD	C	E	F	G	H	K	N	L	S	Z
50	60	58	58	25	40	36	19	10	29	48	97	46	205
63	74	72	69	25	50	36	19	10	29	48	97	46	205

機械夾爪

GRIPPERS



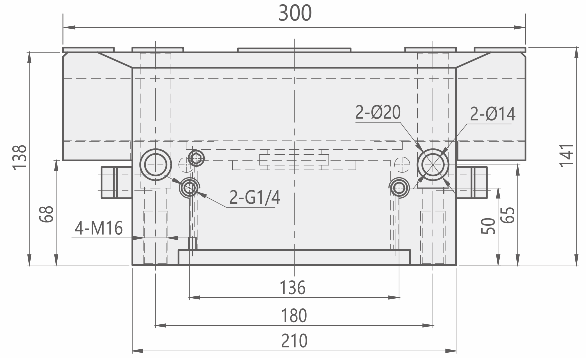
產品特性

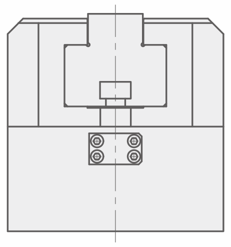
利用錐度滑動的楔形面壓驅動方式。
簡潔可靠的結構。
開放式設計，可自由搭配夾持工件。

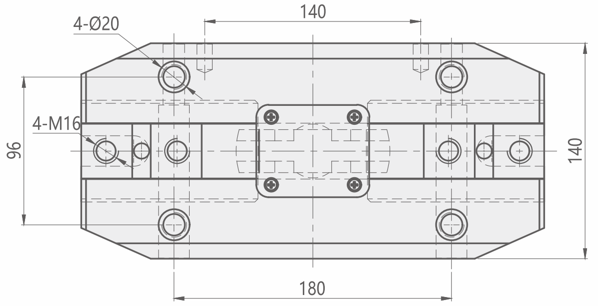
規格參數表 SPECIFICATION

產品規格	開閉範圍(mm)	最大附件長度(mm)	連接口	理論夾持力(開)	理論夾持力(閉)	空氣消耗量/周期(cm³)
CH-125	70	70	PF(G)1/8	848N	830N	987.6

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



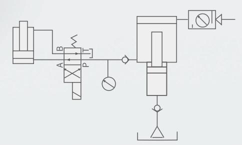




AHP

氣動增壓泵

AHP PNEUMATIC BOOSTER PUMP



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.安裝电磁球閥改善內泄量問題,保固氣動泵浦使用壽命.
B型:附配管座P.T孔,可連接油壓手手動閥操作.
雙泵浦爭門組合可選購增壓比,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 valve,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 saying 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.

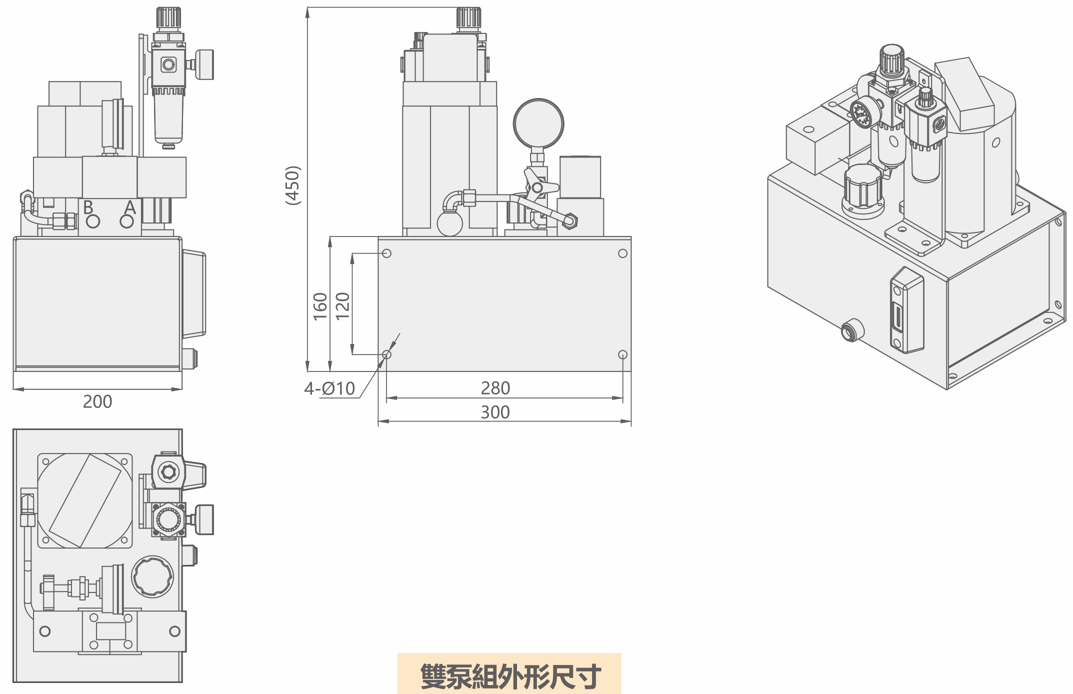
Max. operating pressure: 6 kgf/cm²

訂購標示法 ORDERING INDICATION

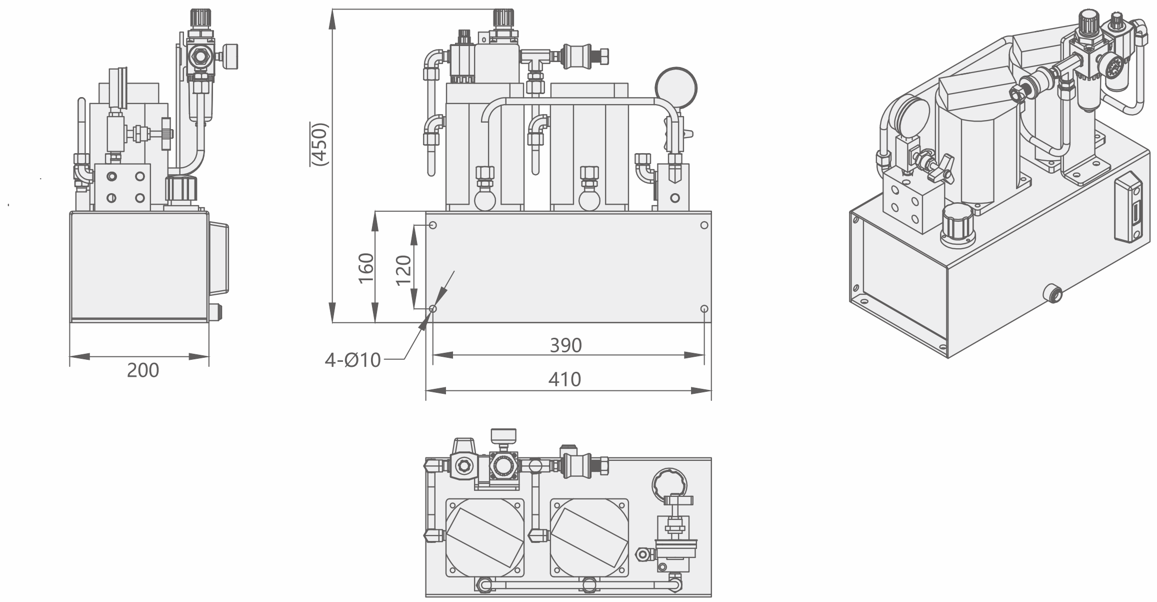
示例: AHP-10-S-A-AC110V

AHP	系列	AHP
10	增壓倍數 Booster pressure rate	05,10,16,25,44
S	泵浦形式	S: 單泵 Single pump D: 雙泵 Double pump
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
AC110V	線圈型式 Coil type	AC110V , AC220V , DC24V

單泵組外形尺寸



雙泵組外形尺寸



規格參數表 SPECIFICATION

增壓倍數 BOOSTER PRESSURE RATE	油壓吐出量 HYDRAULIC FLUID EXPELLED (l/min)	油箱容積 OIL TANK CAPACITY	使用液壓油 OIL
05	12	单泵 single pump 5L 双泵 Double pump 7.8L	ISO-VG32#
10	5		
16	3		
25	2.5		
44	1.4		

CLAMPING SCREW

螺桿

PTA/PTB/PTC/PTD

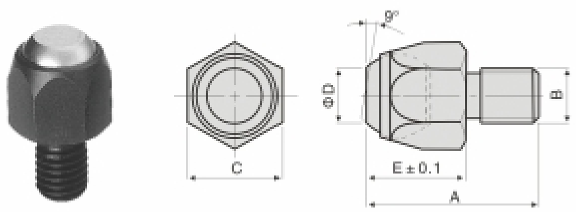
PTA 動向鋼珠螺桿

PTA SWIVEL CLAMPING SCREW

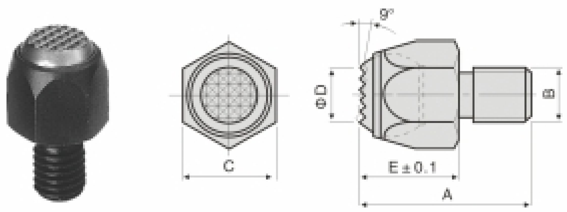
材質：本體S45C　鋼珠SUJ2
硬度：本體HRC35° 鋼珠HRC62°

Material: Body : S45C Steel ball : SUJ2
Hardness: Body: HRC35° Steel ball : HRC62°

PTA1



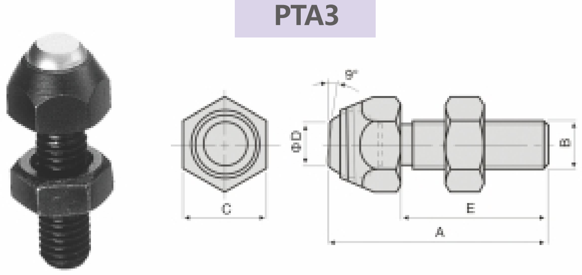
PTA2



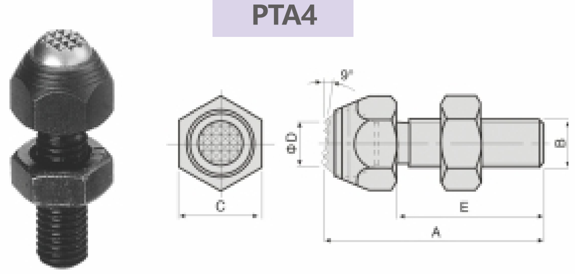
Unit:mm

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
單重(g)	12	15	25	70	140	280	560	880

PTA3



PTA4



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
單重(g)	25	55	55	140	330	595	1030

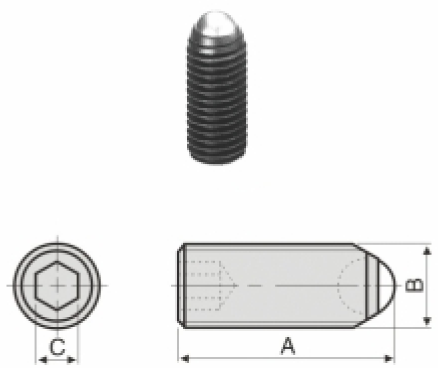
PTB 動向鋼珠螺桿

PTB SWIVEL (SHOULDER) CLAMPING SCREW

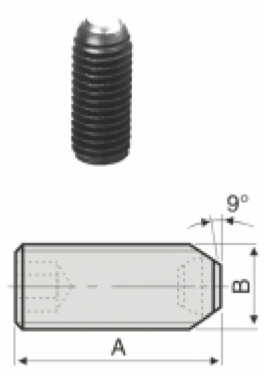
材質：本體SCM21　鋼珠SUJ2
硬度：本體HRC32°~38°　鋼珠HRC62°

Material: body : SCM21 steel ball : SUJ2
Hardness: body: HRC32°~38° steel ball : HRC62°

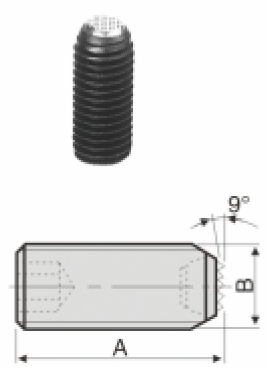
PTB1



PTB2



PTB3



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
單重(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
單重(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
單重(g)	16.2	12.5	20	30	40	28	40	45	55	65

PTB 動向鋼珠螺桿

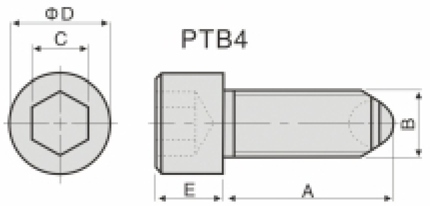
PTB SWIVEL (SHOULDER) CLAMPING SCREW

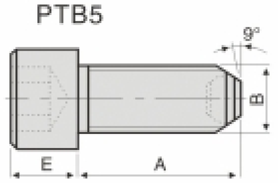
材質：本體SCM21　　鋼珠SUJ2
硬度：本體HRC32°~38°　鋼珠HRC62°

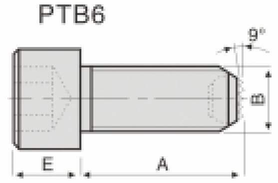
Material: body : SCM21 steel ball : SUJ2
Hardness: body: HRC32°~38° steel ball : HRC62°

PTB4 　　　 PTB5 　　　 PTB6









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
單重(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
單重(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
單重(g)	40	50	70	83	90	110	13	170

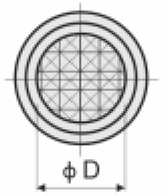
PTC 齒型螺桿

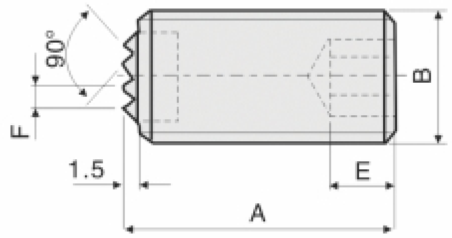
PTC GRIPPER SCREW

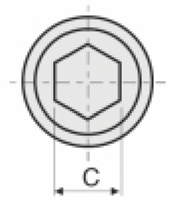
材質：本體S45C　　齒形SKH9
硬度：本體HRC35°　齒形HRC60°

Material: body : S45C steel ball : SKH9
Hardness: body: HRC35° steel ball : HRC60°

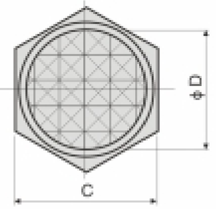
PTC1

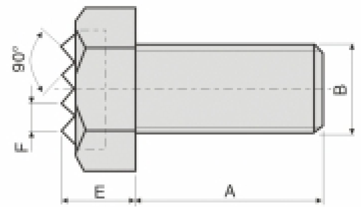







PTC2



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
單重(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
單重(g)	8	15	30	35	35	50	85	100	160	205

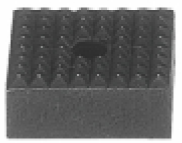
PTD 支持件

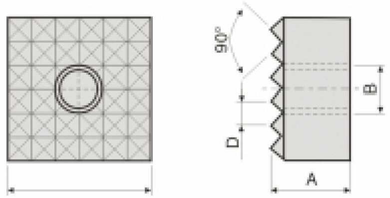
PTD1/PTD2/PTD3　材質：SKH9　　硬度HRC60°
PTD4/PTD5　　　材質：SCM440　硬度HRC60°

PTD GRIPPER NUT

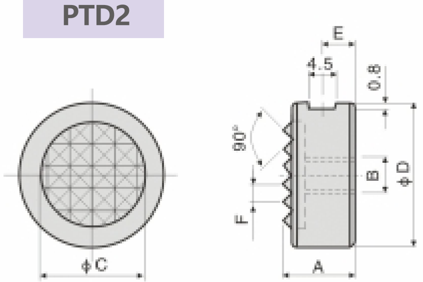
Material for PTD1/PTD2/PTD3: body : SKH9 Hardness: HRC60°
Material for PTD4/PTD5: body : SCM440 Hardness: HRC60°

PTD1

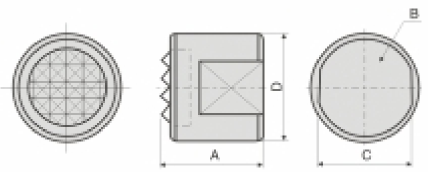




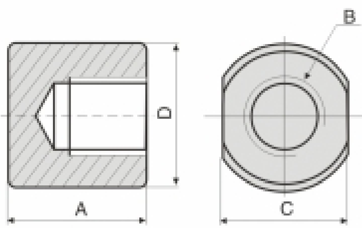
PTD2



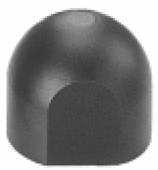
PTD3

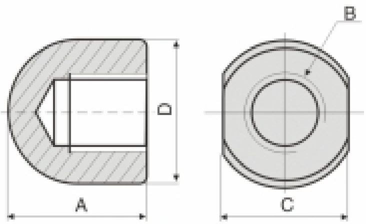


PTD4



PTD5



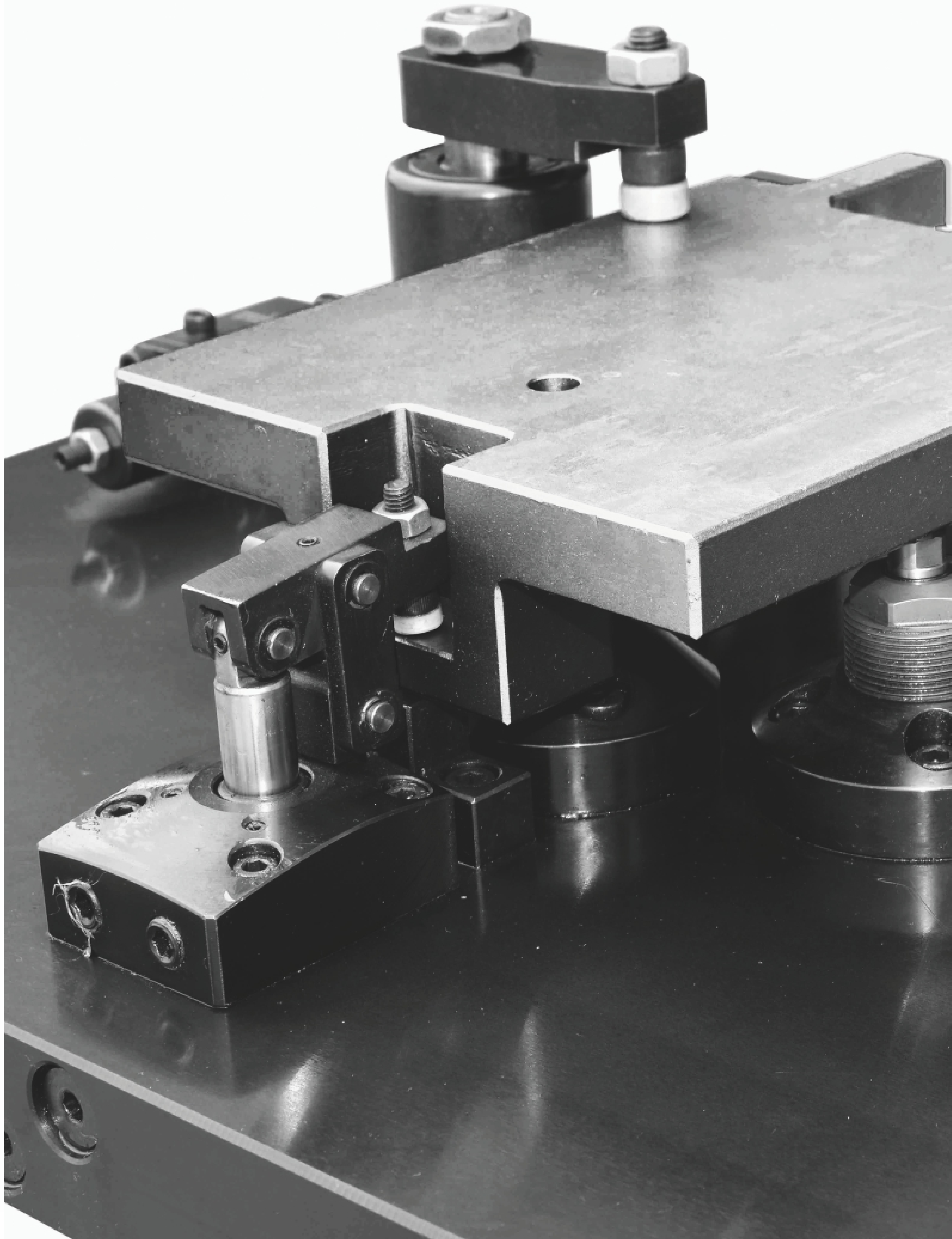


Unit:mm

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
單重(g)	8	10	30	43	43	80	43	76	42	63

Unit:mm

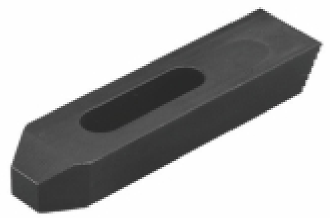
MODEL	PTD2-0110	PTD2-0212	PTD2-0316	PTD2-0420	PTD2-0525
A	10	12	12	12	12
B	M5x0.8	M6x1.0	M6x1.0	M6x1.0	M6x1.0
C	8.1	9.6	13	16.3	19.5
D	10	12	16	20	25
E	3.4	4	4	4	4
F	2.3	3	3	3	3
單重(g)	5	8	16	25	40

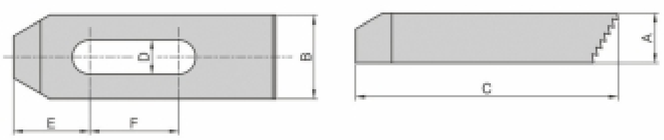


BLOCK-CLAMP
壓板
CP25/CP28/CP27

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



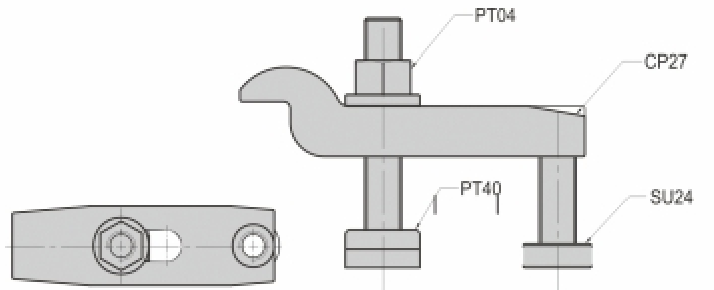


Unit:mm

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.

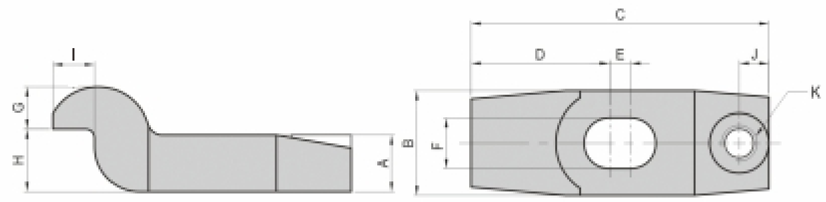


Unit:mm

MODEL	CP27	PT40	PT04	SU24	kg
CP28-ZC-40	16100	16100	1624	12060	1.5
CP28-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

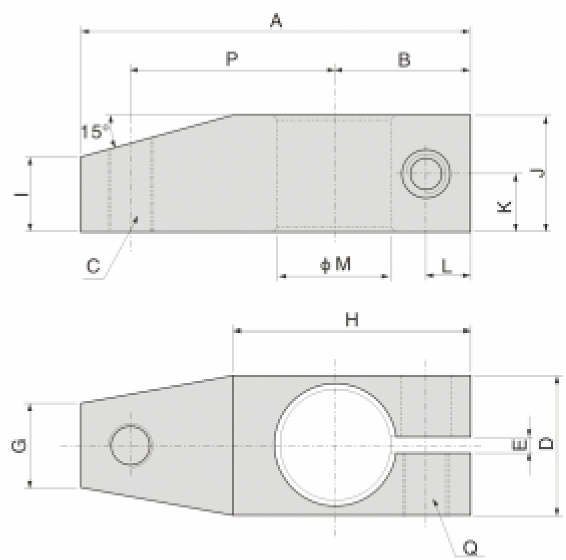
MODEL	A	B	C	D	E	F	G	H	I	J	K	kg
CP27-16100	19	35	100	46.5	7	17	14	21	14	10	M12×1.75	0.78
CP27-16150	22	45	150	62	26	17	15	24	22	12	M6×2.0	1.7

CLAMPING ARM ACCESSORIES

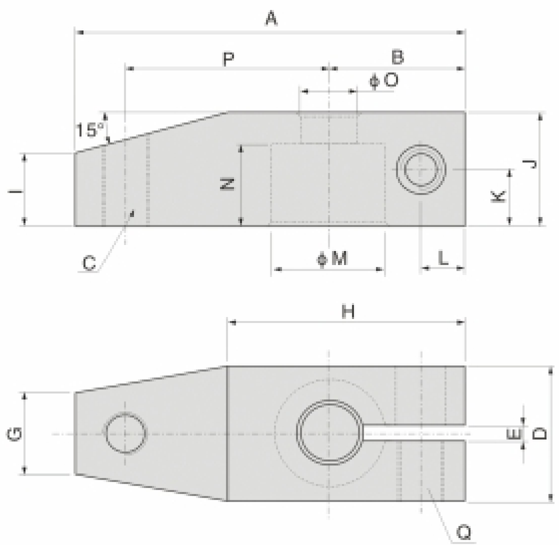
壓臂配件尺寸

030/050 系列

單 動 Single acting



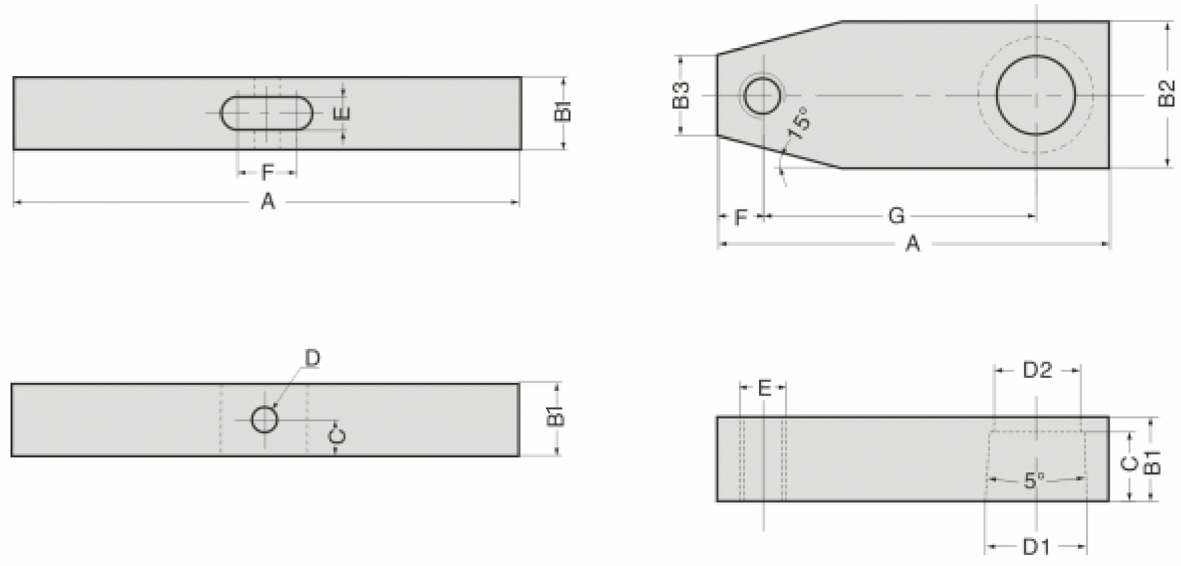
複 動 Double acting



Unit:mm

Type			A	B	C英制 (Imperial system)	C公制 (Metric system)	D	E	G	H	I	J	K	L	M	N	O	P	Q
030/050	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
030/050	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
030/050	複動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
030/050	複動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



Unit:mm

型號 MODEL	標準型攻牙 A STANDARD WITH THREAD	標準型無牙 A STANDARD WITHOUT THREAD	加長型無牙 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	-

PRODUCT WEIGHT
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

註：本表記載為單軸心標準品　Remark: This form isstandard product with single shalt

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	□□□ THREADED TYPE	□□□ 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槓桿式氣壓缸 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氣壓轉角缸 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槓桿式油壓缸 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4大代理產品


德國HALDER 彈出定位柱塞
HALDER Spring Plungers


盈錫精密鎖緊螺母
Yinsh Lock Nuts


東培精密軸承
TPI Bearing


弘旺連軸器
HW Coupling

CLAMPTEK LEADING THE GLOBAL CLAMPING TECHNOLOGY
嘉剛引領全球夾具技術