ISO9001-2015国际质量
管理体系认证企业

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Clamptek

PNEUMATIC & HYDRAULIC CLAMPS

气油压缸系列

CATALOGUE 2024

CLAMPTEK

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PNEUMATIC & HYDRAULIC CLAMPS

气油压缸系列

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CLAMPING THE POWER TO CONTROL

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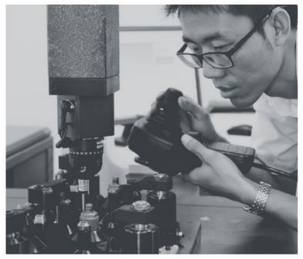


INTRODUCTION
公司介绍

嘉刚的技术研发源于台湾，嘉刚总部位于台湾，生产基地设立于东莞。凭借着强大的产品开发、制造、销售能力，特别是在夹具夹持元件领域中获得客户对嘉刚品牌的认同与信赖，嘉刚人坚持不懈的辛勤努力，为中国的工业装备业作出巨大的贡献。嘉刚于1974年由邱魏聪哲先生创立于台湾。1999年在东莞厚街镇创建生产工厂。2013年为扩大生产规模，工厂搬迁至东莞东城桑园工业区的新厂区。嘉刚公司不仅生产肘节夹钳，还重点投入开发高精密气油压缸、液压站，并将产品服务线延伸到代理盈锡精密锁定螺母、东培精密轴承、弘旺联轴器及德国HALDER工装夹具配件。

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 Industial Park of Dongcheng District of Dongguan City in 2013.

Clamptek uses the clamps as the tools for clamping and fixturing. It also efficiently organizednized 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

夹持力计算公式

推拉缸理论出力计算

推力F=P×A　　拉力 F = P×(A - a)
F:推拉缸夹持力 (kgf)
P:使用压力 (kgf/cm²)
A:活塞受力面积 (cm²)
a:活塞杆径面积 (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: Operating pressure (cm²)
a: Piston rod area (cm²)

杠杆缸理论夹持力计算

F=P×A×L1÷L2
F:推拉缸夹持力 (kgf)
P:使用压力 (kgf/cm²)
A:活塞受力面积 (cm²)
L1:活塞杆中心点至杠杆支撑点距离(mm)
L2:杠杆支撑点至压臂压点距离(mm)

PUSH-PULL CLAMPS FORCE CALCULATION FORMULA

F=P×A×L1÷L2
F:Leverage clamp force (kgf)
P:Operating pressure (kgf/cm²)
A: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)

转角缸理论夹持力计算

F=P×A2 =P×(A1-a)
F:推拉缸夹持力 (kgf)
P:使用压力 (kgf/cm²)
A:活塞受力面积 (cm²)
a:活塞杆径面积 (cm²)
A2:活塞受拉入端力面积 (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)

作动缸实际出力可以用上述公式计算结果乘上使用安全系数(一般建议实际出力为理论出力之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 mmH₂O	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

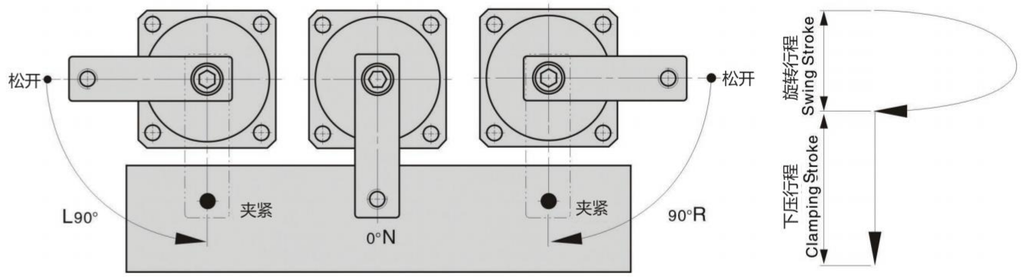
转角缸转角方向是指下压时转角方向。

Note:The swing direction is defining under clamping condition.

SINGLE SIDE SWING CLAMP

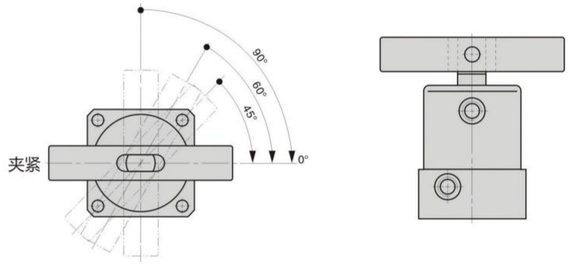
单边压板旋转示意图

Single Side Swing Clamp
注：转角方向是指下压时转角方向



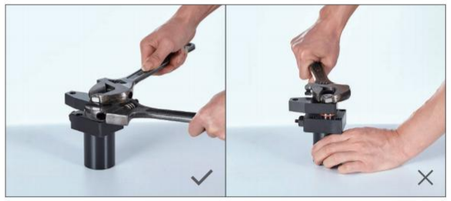
DOUBLE SIDE SWING CLAMP

双边压板旋转示意图



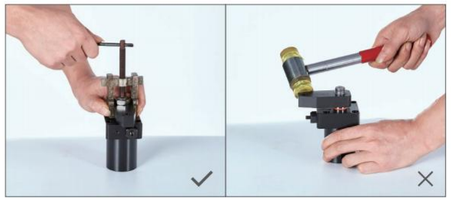
CLAMPING ARM MOUNTING METHODS

压板锁紧操作方式



CLAMPING ARM REMOVAL METHODS

压板拆卸操作方式



INDEX 产品目录索引

HYDRAULIC LEVERAGE CLAMPS 油压杠杆缸系列

HYDRAULIC SWING CLAMPS 油压转角缸系列

HYDRAULIC SUPPORT CLAMPS 油压支撑缸系列

HYDRAULIC PUSH-PULL CYLINDERS 薄型油压缸系列

注: ★ 为亮点产品系列。 ★ It means "Highlight" product.

INDEX 产品目录索引

HYDRAULIC EXPANSION LOCATION PIN 扩径定位销系列

HYDRAULIC SINGLE CYLINDERS 单动缸系列

VALVES 阀系列

ROTARY JOINT & OTHER HYDRAULIC PRODUCTS 旋转接头及其它油压系列

注: ★ 为亮点产品系列。 ★ It means "Highlight" product.

INDEX 产品目录索引

注: ★ 为亮点产品系列。 ★ It means "Highlight" product.

180

上法兰型传感器内置式油压缸

UPPER FLANGE TYPE AIR SENSOR BUILT-IN HYDRAULIC COMPACT CLAMP

产品特性

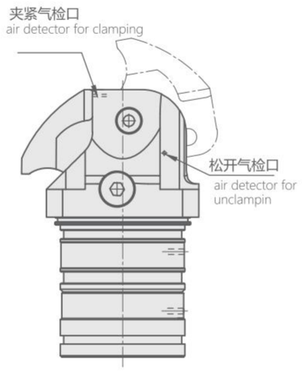
1.此系列油缸具有高夹紧力与高刚性,并大幅度扩大了加长型压板的使用范围,占用空间小。
2.操作方便，安全系数高，高压条件下也能发挥高密封性能，油缸通过气检开关向终端控制箱发出信号，就能知道油缸处于夹紧或松开状态。

最大操作压力：250kgf/cm²
最小操作压力：20kgf/cm²（无气检时）
最小操作压力：70kgf/cm²（有气检时）

FEATURES

1. This series of clamps has high clamping force and high rigidity, which greatly expands the use of the elongated clamping plate, little space for installation.
2. Easy operation with high safety, high sealing performance can also be used under high pressure conditions, the clamp send a signal to the terminal control box through the air sensors, then you can know that the clamps in the clamping or unclamping state.

Max. operating pressure: 250kgf/cm²
Min. operation pressure: 20kgf/cm² (without air sensors)
Min. operation pressure: 70kgf/cm² (with air sensors)



注：该系列油缸夹紧气检和松开气检不能同时存在
Note: The detection for clamping and unclamping of this series can not exist at the same time.

注意事项

夹紧及放松动作需适当放缓，为进行确认动作，需设置空气传感器。气口需排气，务必防止冷却液、切削渣的侵入，使用时请保持向气口供气状态。

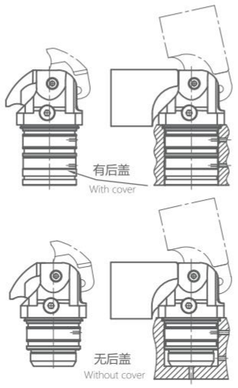
NOTE

Clamping/unclamping actions need to be slowed down appropriately, and an air sensor should be set up for confirmation. The air outlet needs to exhaust. Be sure to prevent the intrusion of coolant and cutting slag, keep the air inlet in the supply state when using.

订购标示法 ORDERING INDICATION

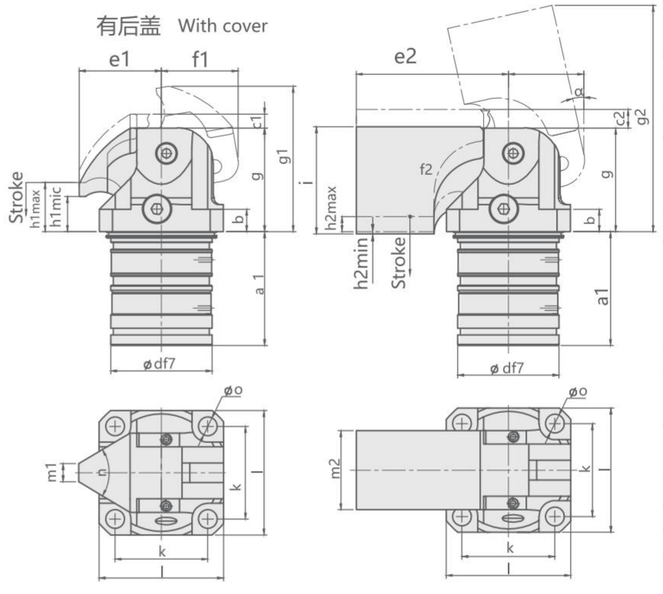
示例：1804-110A

180	系列Series	180
4	大小(参照规格表) Size(please refer to specification)	3/4
110	压臂和本体类型 Type for clamping arm and body	110(标准短压臂) Standard short clamping arm 130(标准长压臂) Standard long clamping arm 111(标准短压臂，本体无后盖) Standard short clamping arm, body without cover 131(标准长压臂，本体无后盖)Standard long clamping arm, body without cover *(产品不附带压臂)*(The product didn't include clamping arm)
A	检测类型 Detection type	A：放松检测 Detection for unclamping B：无检测 Without detection 无字母：夹紧和过夹紧检测 No letter: Clamping and with clamping detection



型号	油缸能力 (油压25MPa时)	夹紧力 (油压25MPa时)	夹紧臂长度	最大行程	夹紧行程	内径∅	杆径∅	夹紧受压容积	松开受压面积	空气压力调节范围	使用温度范围
MODEL	CYLINDER CAPACITY AT 25MPa(KN)	CLAMPING FORCE AT AT 25MPa(KN)	LENGTH OF CLAMPING ARM(mm)	MAX. STROKE (mm)	CLAMPING STROKE(mm)	INSIDE DIAMETERΦ(mm)	ROD DIAMETERΦ(mm)	EFF. CAPACITY CLAMP(cm³)	EFF. AERA UNCLAMP(cm²)	RANGE OF AIR PRESSURE ADJUSTMENT(MPa)	RANGE OF TEMPERATURE(℃)
1803-1XX	7.5	7.3	36.5	7	6.5	28	17	6.4	10.2	0.3~0.6	0~70℃
1804-1XX	10.5	10.2	36.5	8.5	8	33	19	10.5	15.7	0.3~0.6	0~70℃

外形尺寸图 External Dimensions

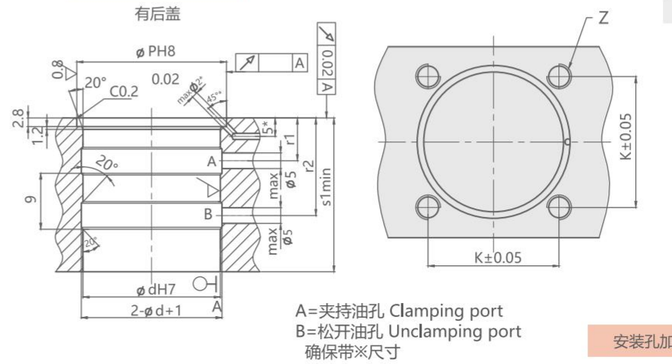


外形尺寸表

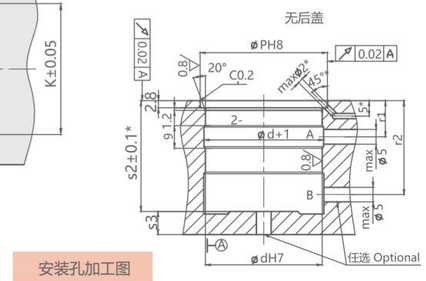
Unit:mm

型号 Model item	1803-1XX	1804-1XX
α±1	15°	16°
a1	48.5	50.5
a2	40.6	40.8
b	10	10
c1	7	8.5
c2	7	8.5
ØdH7/f7	40	45
e1	36.5	36.5
e2	67.5	67.5
f1	32	35
f2	32	35
g	43	46
g1max	63.5	65.5
g2min./max	98.7/99.7	101/103
h1max	22	23.5
h1min	15.5	15.5
h2max	5.5	7
h2min	1	1
i	44.5	47.5
k	36.5	41
l	48	55
m1	8	8
m2	32	35
n	56.1°	62°
Øo	6.2	8.2
ØpH8	44	49
r1	14	14
r2	31	31
s1min	49	51
s2±0.1	40.7	40.9
s3min	9	10
z	M6	M8

安装孔加工图



A=夹持油孔 Clamping port
B=松开油孔 Unclamping port
确保带※尺寸



安装孔加工图

180

下法兰型传感器内置式油压缸

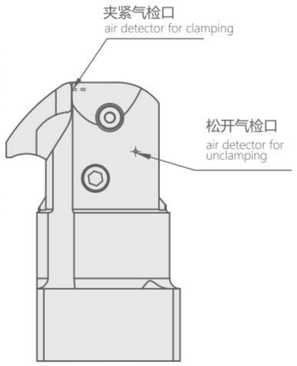
DOWN FLANGE TYPE AIR SENSOR BUILT-IN HYDRAULIC COMPACT CLAMP

产品特性

1.此系列油缸具有高夹紧力与高刚性,并大幅度扩大了加长型压板的使用范围,占用空间小。
2.操作方便，安全系数高，高压条件下也能发挥高密封性能，油缸通过气检开关向终端控制箱发出信号，就能知道油缸处于夹紧或松开状态。

FEATURES

1. This series of clamps has high clamping force and high rigidity, which greatly expands the use of the elongated clamping plate, little space for installation.
2. Easy operation with high safety, high sealing performance can also be used under high pressure conditions, the clamp send a signal to the terminal control box through the air sensors, then you can know that the clamps in the clamping or unclamping state.



最大操作压力：250kgf/cm²
最小操作压力：20kgf/cm²（无气检时）
最小操作压力：70kgf/cm²（有气检时）

Max. operating pressure: 250kgf/cm²
Min. operation pressure: 20kgf/cm² (without air sensors)
Min. operation pressure: 70kgf/cm² (with air sensors)

注意事项

夹紧及放松动作需适当放缓，为进行确认动作，需设置空气传感器。气口需排气，务必防止冷却液、切削渣的侵入，使用时请保持向气口供气状态。

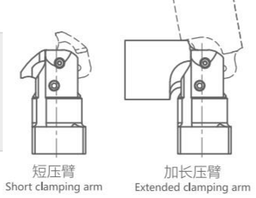
NOTE

Clamping/unclamping actions need to be slowed down appropriately, and an air sensor should be set up for confirmation. The air outlet needs to exhaust. Be sure to prevent the intrusion of coolant and cutting slag, keep the air inlet in the supply state when using.

订购标示法 ORDERING INDICATION

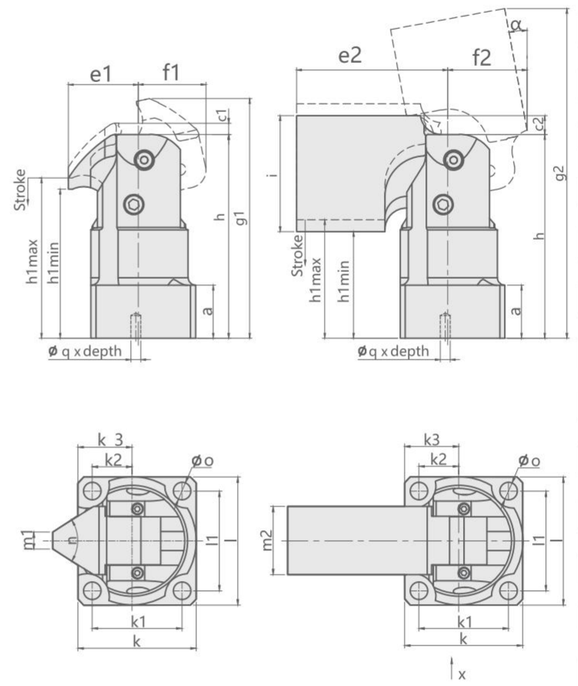
示例：1802-210C

180	系列Series	180
2	大小(参照规格表) Size(please refer to specification)	2/3/4
210	压臂和本体类型 Type for clamping arm and body	210(标准短压臂) Standard short clamping arm 230(标准长压臂) Standard long clamping arm *(产品不附带压臂)(The product didn't include clamping arm)
C	检测类型 Detection type	A：放松检测 Detection for unclamping B：无检测 Without detection 无字母：夹紧和过夹紧检测 No letter: Clamping and with clamping detection

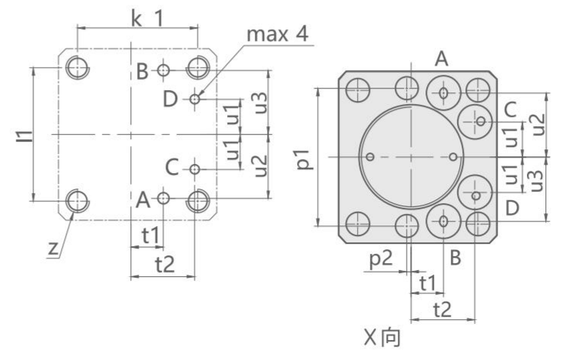


型号	油缸F能力 (油压25MPa时)	夹紧力 (油压25MPa时)	夹紧臂长度	最大行程	夹紧行程	内径∅	杆径∅	夹紧油量	松开油量	最大流量	空气压力调节范围	使用温度范围
MODEL	CYLINDER CAPACITY AT 25MPa(KN)	CLAMPING FORCE AT AT 25MPa(KN)	LENGTH OF CLAMPING ARM(mm)	MAX. STROKE (mm)	CLAMPING STROKE(mm)	INSIDE DIAMETER∅(mm)	ROD DIAMETER∅(mm)	OIL CAPACITY CLAMP(cm³)	OIL CAPACITY UNCLAMP(cm³)	MAX. FLOW RATE (cm³)	RANGE OF AIR PRESSURE ADJUSTMENT(MPa)	RANGE OF TEMPERATURE(℃)
1802-2XX	4	3.7	28	5	4.5	22	14	3.2	5.4	5.5	0.3~0.6	0~70℃
1803-2XX	7.5	7.3	36.5	7	6.5	28	18	6.4	10.2	11	0.3~0.6	0~70℃
1804-2XX	10.5	10.2	36.5	8.5	8	33	19	10.5	15.7	25	0.3~0.6	0~70℃

外形尺寸图 External Dimensions



安装孔加工图



外形尺寸表

Unit:mm

型号 Model item	1802-2XX	1803-2XX	1804-2XX
α1°	10.5°	15°	16°
a	21	24	24
c1	5	7	8.5
c2	12	7	8.5
e1	28	36.5	36.5
e2	60	67.5	67.5
f1	26	32	35
f2	31	32	35
g1min/max	95.1/95.4	115/9	117.5
g2min/max	130.5/133.8	150.9/152	153.6/155.6
h	80.8	95.4	98.6
h1max	64.3	74.4	76.1
h1min	59.8	67.9	68.1
h	46.8	57.9	59.6
h2min	42.3	51.4	51.6
i	46	44.5	47.5
k	41.5	52	54
k1	31.5	38	41
k2	14	16	18
k3	19	23	24.5
l	45	58	59
l1	35	44	46
m1	6	8	8
m2	24	32	35
n°	55.8°	56.1°	62°
Øo	6.2	8.2	8.2
p1±0.02	35	44	48
p2±0.1	0	0	3
Øq+0.05xD	6x9	8x17	8x17
t1	8.5	10	11
t2	16.7	21.5	21.2
u1	9.2	12.5	13.5
u2	16.8	20	23
u3	16.8	20	22
z	M6	M8	M8

A=夹持油孔 Clamping port
B=松开油孔 Unclamping port
C=夹紧气检口 Clamping monitoring
D=松开气检口 Unclamping monitoring

C360

紧凑型杠杆油压缸

C360 HYDRAULIC LEVERAGE CLAMP

产品特性

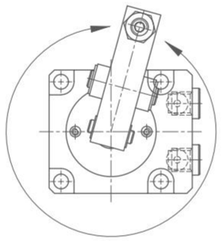
此系列产品结构紧凑，压臂可360°旋转，使用安装方便。

最大操作压力：100kgf/cm²
最小操作压力：10kgf/cm²

FEATURES

This series of products has a compact structure, the pressure arm can be rotated 360°, easy to use and install.

Max. operating pressure: 100 kgf/cm²
Min. operating pressure:10 kgf/cm²



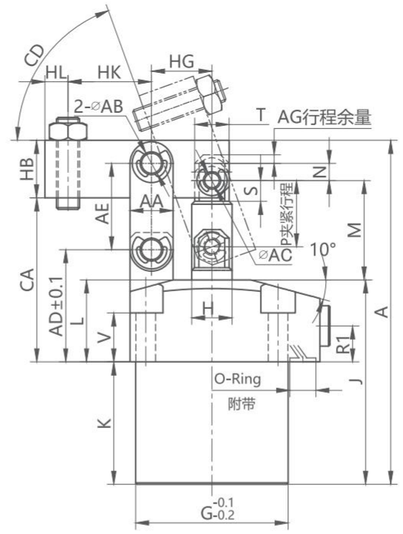
订购标示法 ORDERING INDICATION

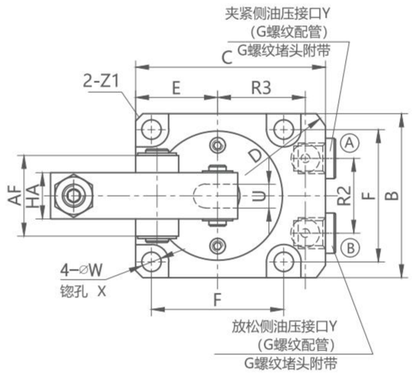
示例：C360-32

C360	系列 Series	C360(压臂360°可旋转)
32	油缸内径 Hydraulic insde diameter	25/32/40/50/63

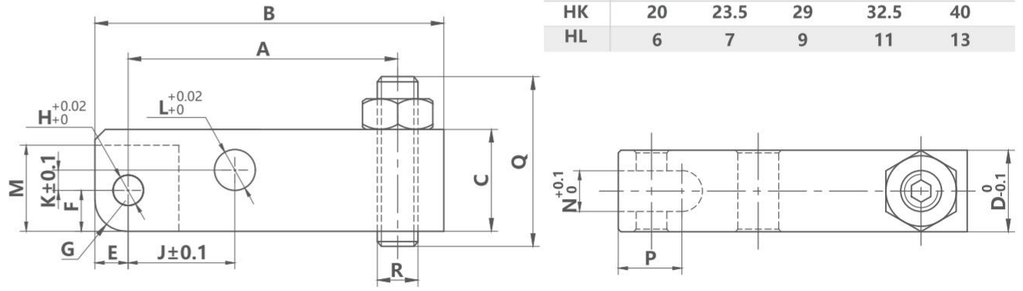
规格参数表 SPECIFICATIONS

型号	理论夹持力 (70kgf/cm²)	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70kgf/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
C360-25	257	16.5	19.5	95.5	73.5	4.9	3.77	-10~+70°c	相当于ISO黏度等级的ISO-VG-32一般液压油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
C360-32	431	20	23	184	144.9	8.0	6.3	-10~+70°c	
C360-40	667	24.5	27.5	346.5	275	12.6	10	-10~+70°c	
C360-50	1120	29.5	32.5	637	513.5	19.6	15.8	-10~+70°c	
C360-63	1739	35	38	1185.6	999.4	31.2	26.3	-10~+70°c	





Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port



Unit:mm

MODEL ITEM	C360 -25	C360 -32	C360 -40	C360 -50	C360 -63
A	88.7	100	115	136.2	157.9
B	42	50	62	75	90
C	56	61	72	87.5	101
ΦD	Φ78	Φ82	Φ95	Φ114	Φ128
E	21	25	31	37.5	45
F	33	40	50	60	73
G	36	43	54	65	78
H	12	15	18	22	25
J	55.2	59	67	77.7	88.4
K	28.2	32	38	43.7	52.4
L	27	27	29	34	36
M	24.5	29	36	43.5	51.5
N	4.5	5.5	7.2	9	10.8
P	16.5	20	24.5	29.5	35
R1	13	13	13	15	15
R2	20	22	28	32	36
R3	26.5	28	33	40	46
S	6	7.2	9.6	12	14.4
ΦT	Φ10	Φ12	Φ16	Φ20	Φ24
U	5	6	8	10	12
V	20	18	17	20	20
ΦW	Φ4.8	Φ5.8	Φ6.8	Φ8.8	Φ10.8
ΦX	Φ8.5	Φ10	Φ11	Φ14	Φ17
Y	G1/8	G1/8	G1/8	G1/4	G1/4
Z1	C3	C3	C3.5	C4	C5
O型圈 O-Ring	2-P7	2-P7	2-P7	2-P9	2-P9
AA	12	14	18	22	26
ΦAB	Φ6	Φ7	Φ9	Φ11	Φ13
ΦAC	Φ5	Φ6	Φ8	Φ10	Φ12
AD	33	34	37.5	44.5	48
AE	21.5	27	30.5	37	44.5
AF	22	26	34	42	52
AG	3	3	3	3	3
CA	46.5	50	57	67.5	75.5
CD	约71°	约72°	约71°	约71°	约70°
HA	12	14	18	22	26
HB	14	18	20	25	30
HG	15	18	22	26.5	32
HK	20	23.5	29	32.5	40
HL	6	7	9	11	13

C360系列油压杠杆缸压臂尺寸

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
C360-25	35	46	14	12	5	5	R5	Φ5	15	3	Φ6	11	5	14	25	M6
C360-32	41.5	54.5	18	14	6	6	R6	Φ6	18	5	Φ7	14	6	17	35	M8
C360-40	51	68	20	18	8	8	R8	Φ8	22	3	Φ9	18	8	22	40	M10
C360-50	59	80	25	22	10	10	R10	Φ10	26.5	4	Φ11	22	10	27	50	M12
C360-63	72	97	30	26	12	12	R12	Φ12	32	5	Φ13	27	12	33	60	M16

CGL

多爪杠杆式油压缸

CGL MULTI-CLAW HYDRAULIC LEVERAGE CLAMP

产品特性

1.独特的旋转连接杆设计，使用油缸可以360度旋转设计灵活性高，节约时间。
2.采用外螺纹安装方式，大大缩小了安装所占面积。
3.与标准连杆夹具相比，显著增加了垂直夹紧行程，允许通过工件表面的孔进行夹持。
4.可以用一个旋转油缸夹住两个零件或通过零件孔穿过节约生产成本。
5.多缸在夹紧过程中，在夹紧面平滑的情况下，夹紧够每个压板之间的误差在1.5mm以内6.内置油压通路，能更好的防止油、水、铁等异物进入油孔、防止油缸内部堵塞导致夹具异常。
6.所有型号缸体大小尺寸均统一，更换型号可以避免法兰盘重新设计。
7.所有压板仅做展示使用，如需压板请单独购买。

最大操作压力：250kgf/cm²
最小操作压力：15kgf/cm²

FEATURES

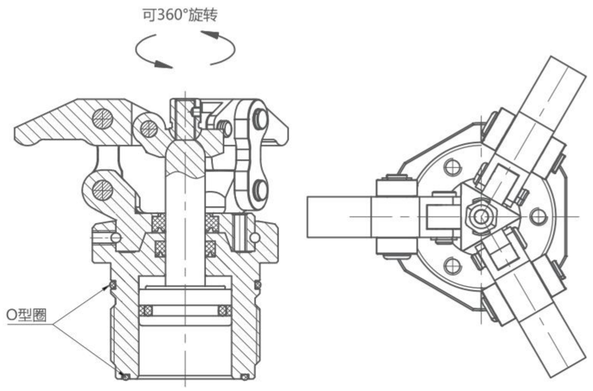
1. Unique rotary connection rod design, when using the cylinder can be 360 degrees rotation, high flexibility and time saving.
2. The installation of external thread greatly reduces the area occupied by the installation.
3. Compared with the standard leverage clamp, significantly increased the vertical clamping stroke and clamping is allowed through holes in the workpiece surface.
4. Production costs can be saved by clamping two parts with one rotary cylinder or through the part hole .
5. In the clamping process of the multi-claw cylinder, when the clamping surface is smooth, the clamping error between each clamp plate is within 1.5mm.
6. Built-in oil pressure path, can better prevent oil, water, iron filing and other foreign bodies into the oil hole, to prevent internal blockage of the cylinder resulting in fixture abnormalities.
7. The size of all types of cylinder block is uniform, and the replacement model can avoid flanges redesign.

Max. operating pressure: 250 kgf/cm²
Min. operating pressure:15 kgf/cm²

注意事项 ORDERING INDICATION

夹紧及放松动作速度需适当放缓
压板及配件仅做展示使用，压板可定制，如需要请联系我们。

The action and the speed of clamping / unclamping needs to be slowed down appropriately.
All pressure plates are for display only , and customization is available upon request, please contact us for more info.



订购标示法 ORDERING INDICATION

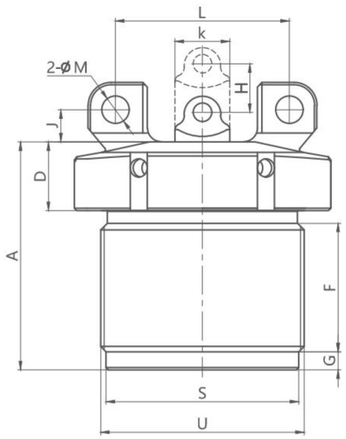
示例：CGLS-HG

CGL	系列Series	CGL	
S	油缸类型 Cylinder type	E 两爪缸 S 三爪缸	E Two-jaw cylinder S Three-jaw cylinder
HG	油压压力 Cylinder pressure	LG 标准型 HG 增力型	LG Standard type HG Reinforcement type

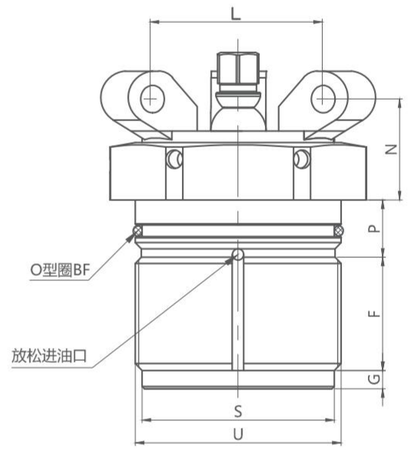
型号	夹紧力在 25MPa时	活塞杆夹紧行程	有效活塞面积(夹紧)	机油容量 OLL CAPACITY(cm³)		最大流量
MODEL	CLAMPING FORCE AT 25MPa(KN)	PISTON ROD CLAMPING STROKE(mm)	EFF.PISTON AREA CLAMP(cm²)	夹紧 CLAMP	放松 UNCLAMP	MAX.FLOW (cm³/s)
CGLE-LG	3	16	1.76	2.3	8.4	0.45
CGLE-HG	9	16	6.15	0.8	0.8	1.67
CGLS-LG	3	16	1.76	2.3	8.4	0.45
CGLS-HG	9	16	6.15	8.4	0.8	1.67

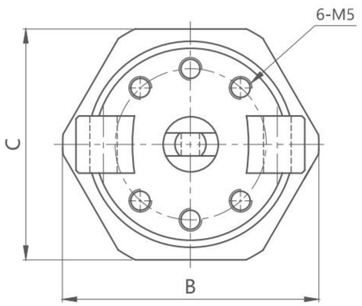
CGL多爪杠杆式油压缸外形尺寸图

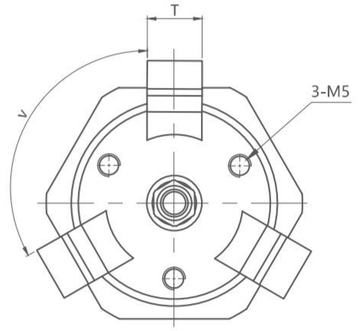
两爪缸标准型



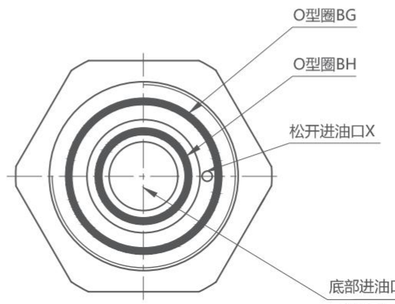
三爪缸增力型

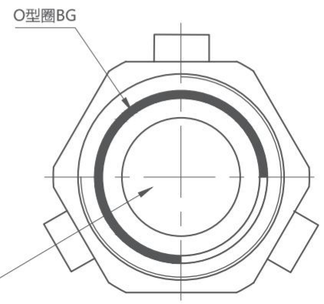






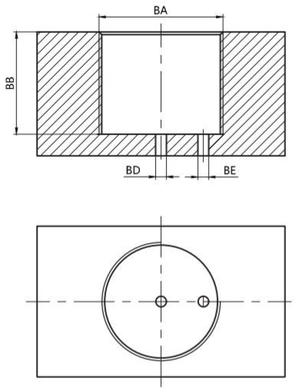
底面图



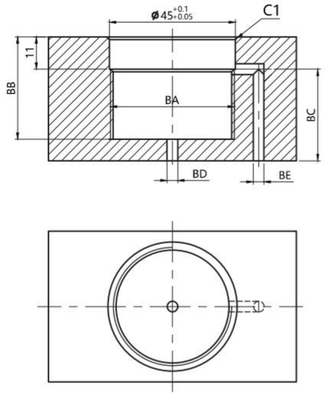


CGL多爪杠杆式油压缸安装尺寸图

标准型



增力型



Unit:mm

型号	单位	CGLE-LG	CGLE-HG	CGLS-LG	CGLS-HG
A	mm	50	50	50	50
B	mm	56	56	56	56
C	mm	50.5	50.5	50.5	50.5
D	mm	15	15	15	15
F	mm	35	35	35	35
E	mm	28	18.5	28	28
G	mm	4	4	4	4
Max.H	mm	16	16	16	16
J	mm	7	7	7	7
K	mm	12	12	12	12
L	mm	38	38	37.8	37.8
ΦM	mm	6	6	6	6
N	mm	22	22	22	22
P	mm	3.2	12.5	3.2	12.5
∅Q	mm	4	4	4	4
∅R	mm	5	5	5	5
S	mm	42	42	42	42
T	mm	12	12	12	12
U	mm	M45*1.5	M45*1.5	M45*1.5	M45*1.5
V	°	180	180	180	180
BA	mm	M45*1.5	M45*1.5	M45*1.5	M45*1.5
BB	mm	35	35	35	35
BC	mm	-	23	-	23
BD	mm	3	3	3	3
BE	mm	3	3	3	3
X	mm	3	3	3	3
	BF mm	-	41.5 x2	-	41.5 x2
o型圈	BG mm	AS028 34.65*1.78	A0S028 34.65*1.78	AS028 34.65*1.78	AS028 34.65*1.78
	BH mm	AS028 34.65*1.78	-	AS018 18.77*1.78	-

压板型号说明

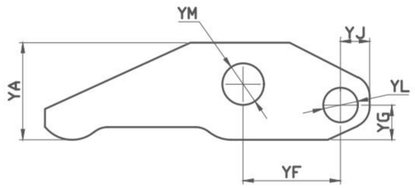
CGL	*	-	*
多爪杠杆式油压	油缸类型		压板类型
	E 两爪缸		01标准压板
	S 三爪缸		02可安装压钉标准压板

*所有图中展示均为嘉刚标准压板压钉尺寸，特殊尺寸和压钉需联系客服定制;

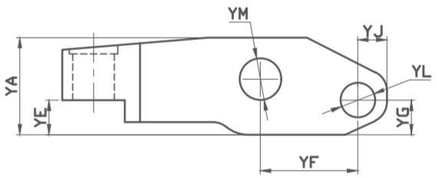
*压板、压钉带安装配件需另外购买，如不需要购买，零件内容尺寸请联系客服;

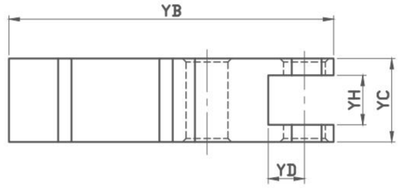
压板外形尺寸图

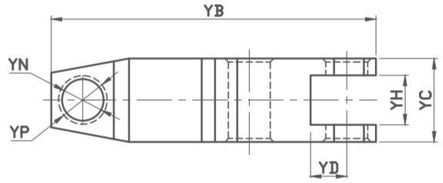
标准压板



可安装压钉







Unit:mm

型号	单位	CGLE-LG	CGLS-HG
YA	mm	14	14
YB	mm	45	42.5
YC	mm	12	12
YD	mm	5.2	5.2
YE	mm	-	5
YF	mm	14	14
YG	mm	5	5
YH	mm	7.1	7.1
YJ	mm	4.2	4.2
YK	mm	6	6
YL	mm	5	5
YM	mm	6	6
YN	mm	-	6
YP	mm	-	7

CCG

微型杠杆油压缸

CCG MINIATURE LEVERAGE CLAMP

产品特性

此系列产品具有高夹紧力和最小空间的要求。

FEATURES

This series clamp stand out for high clamping forces and minimun space requirements.

最大操作压力：200kgf/cm²
最小操作压力：30kgf/cm²

Max.operating pressure:200kgf/cm²
Min.operating pressure:30kgf/cm²

注意事项

可根据客户要求生产不同的压臂

NOTE

Different clamping arm can be produced according to customer requirements.

订购标示法 ORDERING INDICATION

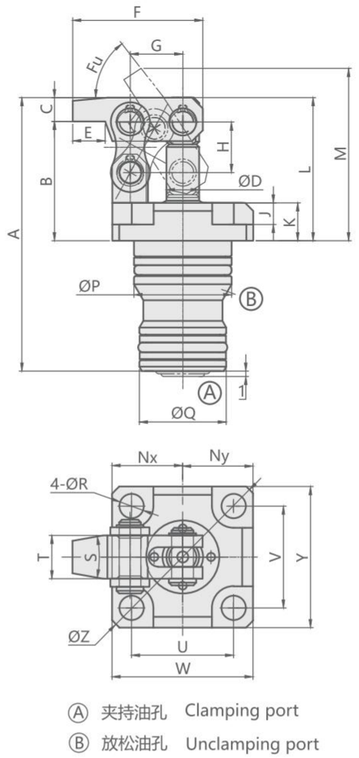
示例：CCG6-200CD

CCG	系列 Series	CCG	
6	活塞杆径 Rod Diameter(mm)	6:∅D=6mm 8:∅D=8mm	(∅D表示油缸活塞杆尺寸) (∅D represents the cylinder rod diameter)

规格参数表 SPECIFICATIONS

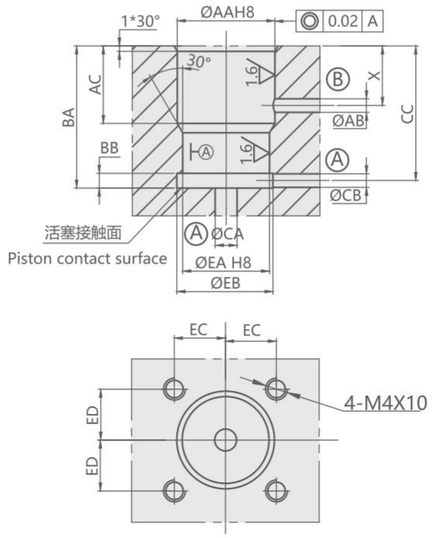
型号	理论夹持力 (200 kgf/cm²)	夹紧行程	行程余量	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围
MODEL	CLAMPING FORCE AT 200kgf/cm²(kgf)	CLAMPING STROKE(mm)	EXTRA STROKE(mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY UNCLAMP(cm³)	CYLINDER CAPACITY CLAMP(cm³)	EFF.PISTON AREA UNCLAMP(cm²))	EFF.PISTON AREA CLAMP(cm²))	RANGE OF TEMPERATURE(°C)
CCG6-200CD	93	9.3	1.5	10.8	0.6	0.9	0.51	0.79	0~+70°c
CCG8-200CD	146	12	2	14	1.5	2.2	1.04	1.54	0~+70°c

外形尺寸图 External Dimensions



Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

安装部位加工尺寸 Machining Dimensions of Mounting Area



Unit:mm

型号 Model item	CCG6-200CD	CCG8-200CD
A	50.4	65.9
B	22	27.4
C	4.4	6.5
D	6	8
E	6	8
F	24	35
Fu	52°	59°
G	9.7	12.3
H	9.3	12
J	4	4
K	7	8
L	26.4	33.9
M	31.8	43.8
Nx	13	16.5
Ny	13	15.5
P	18	26
Q	16	23
R	4.5	5
S	20°	30°
T	8	11.5
U	18.8	24
V	18.8	25
W	26	32
Y	26	33
Z	35	42
X	11±1	13±1
AA	18	26
AB	2.5	4~6
AC	14.3	16.5
BA	25 $^{+0.3}_{+0.2}$	33 $^{+0.3}_{+0.2}$
BB	1.5	5
CA	4	5~10
CB	——	4~6
CC	——	30.5
EA	16	23
EB	16.5	23.5
EC	9.4	12
ED	9.4	12.5

CLKA

高动力&扎实型杠杆式油压缸

CLKA HYDRAULIC LEVERAGE CLAMP

产品特性

此系列产品配件采用优化设计,与传统产品比较夹紧能力提高了。产品支撑点部位与缸体采用一体化结构,使体积更加扎实,提高了产品强度。产品采用了专用防尘设计,提高了防尘和密封性,实现了高密封性。产品法兰下部采用缩小设计,适合夹具要求的紧凑化和轻量化。

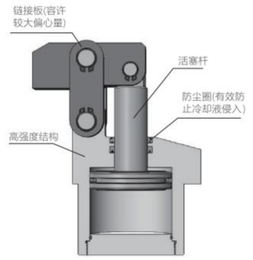
最大操作压力: 70 kgf/cm²
最小操作压力: 10 kgf/cm²

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/cm²
Min. operating pressure:10 kgf/cm²

剖面图 Sectional view



注意事项

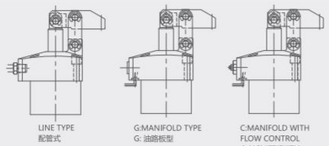
夹紧及放松作动速度需适当放缓。
可接受订制,欢迎与本公司洽询。

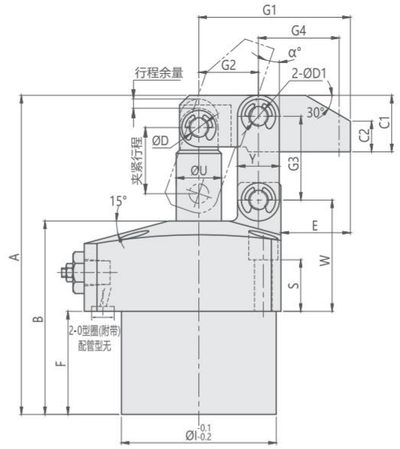
NOTE

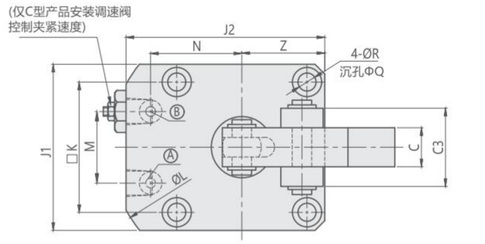
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Customization is available upon request, please contact us for more info.

订购标示法 ORDERING INDICATION

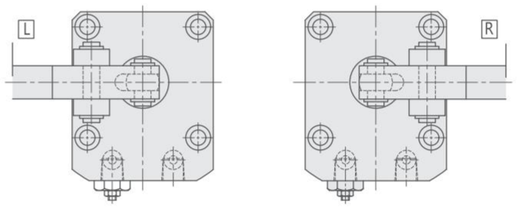
示例: CLKA-036CML

CLKA	系列 Series	CLKA
036	主体尺寸 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 Blank: Line type G: 油路板式 G: Manifold type C: 油路板式附调速 C: Manifold with flow type 
M	检测方式 Air detect way	无符号:无(标准) No sign: No (standard) D: 探头用双杆型 D: Double end rod option for probe M: 适用于空气传感版式连接型 M: Suitable for air sensor type connection N: 适用于空气感测器配管型 N: Suitable for air sensor piping type
L	压臂安装方向 Lever direction	空白: 标准 Blank: Standard L: 左 R: 右 L: Left R: Right





压臂安装方向 Lever Direction



Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

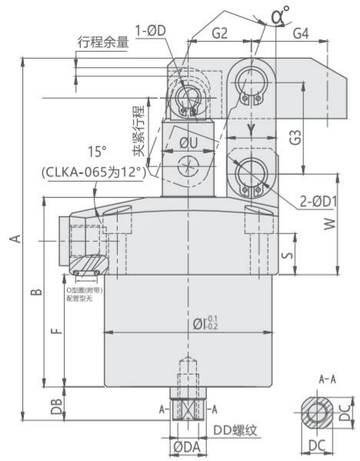
Unit:mm

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

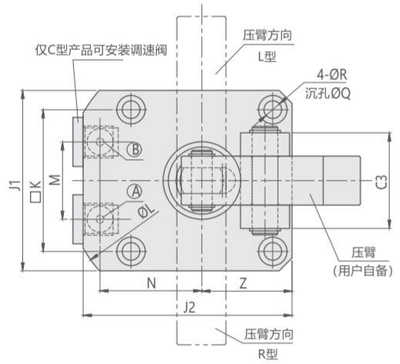
规格参数表 SPECIFICATIONS

型号	理论夹持力 (70 kgf/cm²)	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/cm² (kgf)	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)	USABLE FLUID
CLKA-036	203	16	18.5	7.03	5.57	3.80	3.01	-10~+70°C	相当于ISO黏度等级的ISO-VG-32一般 液压油 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	

注：本图为CLKA-GD型夹持状态



Ⓐ夹持油孔 Clamping port
Ⓑ放松油孔 Unclamping port



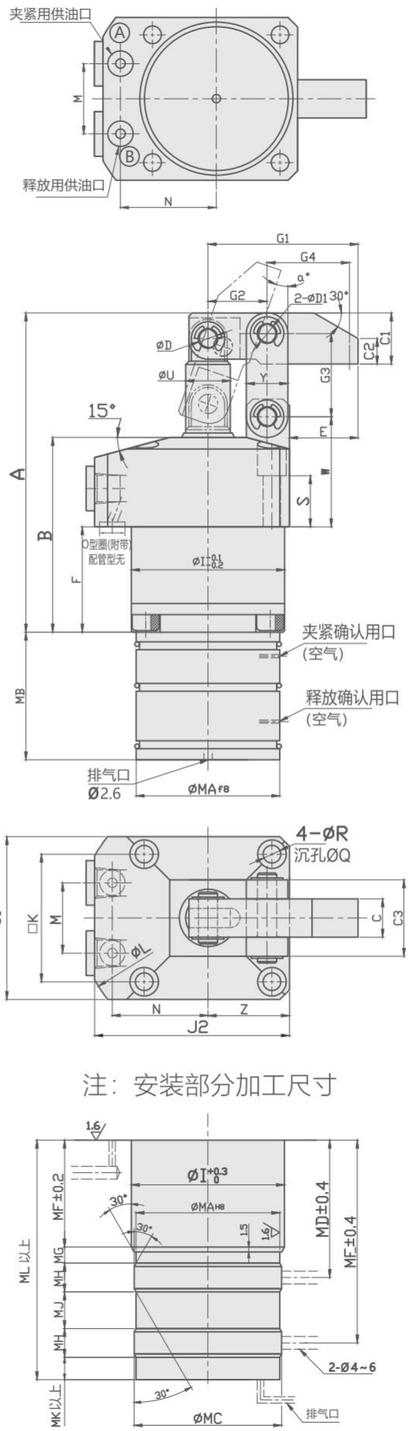
Unit:mm

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名称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

规格参数表 SPECIFICATION

型号 MODEL	理论夹持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	夹紧行程 CLAMPING STROKE (mm)	总行程 TOTAL STROKE(mm)	推出容积 CYLINDER CAPACITY CLAMP(cm³)	拉入容积 CYLINDER CAPACITY UNCLAMP(cm³)	推出受压面积 EFF.PISTON AREA CLAMP(cm²)	拉入受压面积 EFF.PISTON AREA UNCLAMP(cm²)	使用温度范围 RANGE OF TEMPERATURE(℃)	使用流体 USABLE FLUID
CLKA-036D	214	16	18.5	7.4	6.9	4.02	3.55	-10~+70℃	相当于ISO黏度等级的ISO-VG-32—般液压油 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℃	
CLKA-048D	304	20.5	23.5	13.0	13	5.53	5.53	-10~+70℃	
CLKA-055D	409	23	26	21.0	19.8	8.08	7.61	-10~+70℃	
CLKA-065D	771	26.5	29.5	42.4	37.7	14.4	12.8	-10~+70℃	
CLKA-075D	1187	32	35	74.2	69.8	21.2	19.94	-10~+70℃	
CLKA-090D	2052	38	41	138.5	123.7	33.8	30.2	-10~+70℃	
CLKA-105D	2880	46	49	233.8	197.8	47.7	40.35	-10~+70℃	

注：本图为CLKA-GM型夹持状态



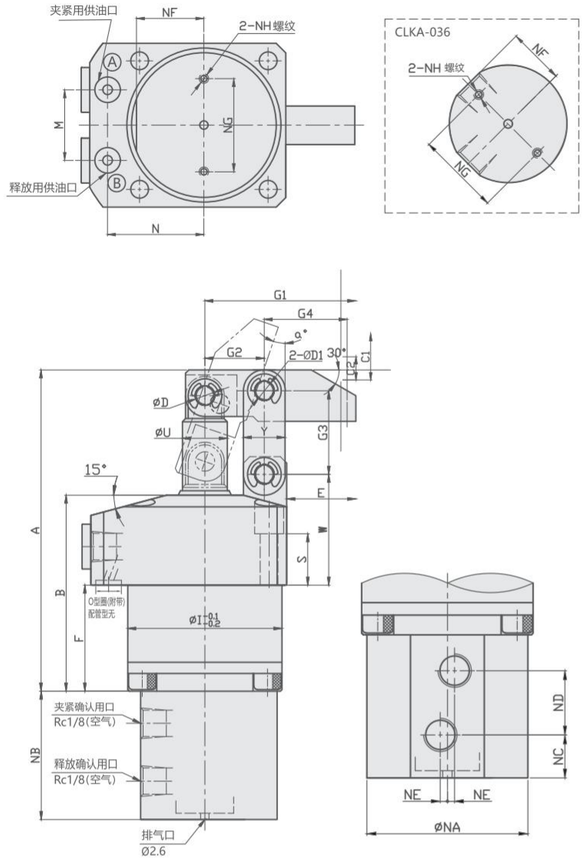
注：安装部分加工尺寸

Unit:mm

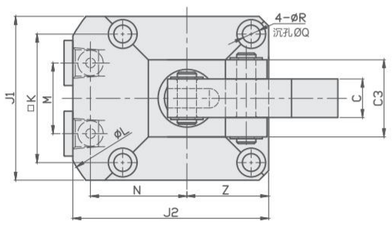
MODEL ITEM	CLKA-036M	CLKA-040M	CLKA-048M	CLKA-055M	CLKA-065M	CLKA-075M	CLKA-090M	CLKA-105M
A	78.5	88.5	100	114	134.5	153	186	223
J2	49	54	61	69	81	94.5	109.5	127
J1	40	45	51	60	70	85	100	120
I	36	40	48	55	65	75	90	105
B	48	55	61	68.5	80.5	86	107	129
F	23	30	33	40.5	50.5	49	67	79
C	10	12	12	16	19	22	25	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

Ⓐ夹持油孔 Clamping port
Ⓑ放松油孔 Unclamping port

注：本图为CLKA-GN型夹持状态



注:排气口须向大气排放,并防止冷却液切削粉等侵入。
直接接触冷却液时NH螺纹处应安装配件进行防止冷却液浸入处置。但是,不得堵塞排气口。

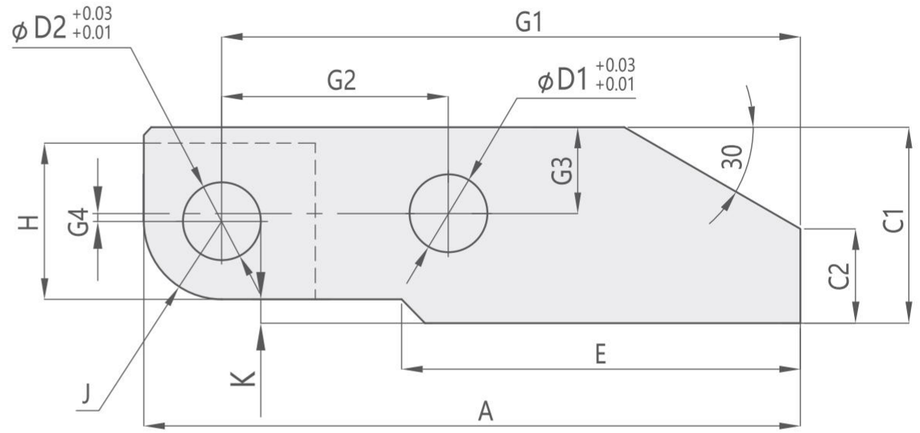


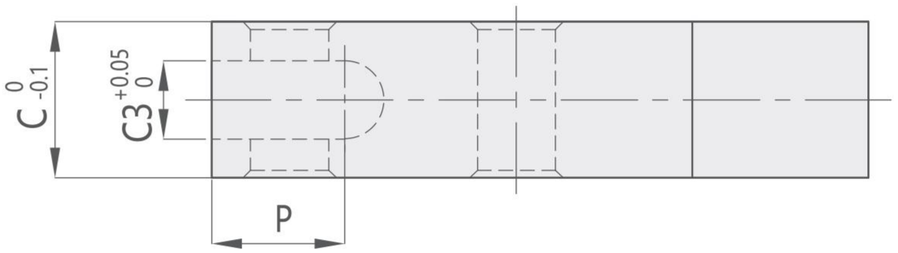
Ⓐ夹持油孔 Clampingport
Ⓑ放松油孔 Unclamping port

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(公称x深度)(Nominal xDepth)	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 压臂尺寸
CLKA CLAMPING ARM DIMENSION





CLKA油压杠杆缸压臂尺寸 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	16	18	15	68	100	44	16	6	37	R15	4	32

CLKW

传感器内置式杠杆缸

CLKW AIR SENSING LEVERAGE CLAMP

产品特性

此系列产品动作端内置有动作确认机构，最适用于实现设备的自动化。通过连接空气传感器，检出压差，实现确认动作。通过夹紧动作确认，能实现安全可靠地将工件搬入搬出。内置传感阀，可实现超薄型的夹具设计。简单的油路孔设计。

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.

最大操作压力：70 kgf/cm²
最小操作压力：5 kgf/cm²

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

注意事项

夹紧及放松作动速度需适当放缓。
为进行确认动作，须设置空气传感器。
气口须进行大气开放，务必防止冷却液、切削渣的侵入。
使用时请保持向气口常态供气状态。

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.

订购标示法 ORDERING INDICATION

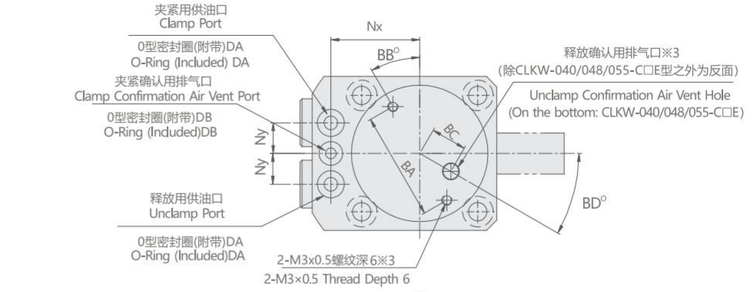
示例：CLKW-048CRE

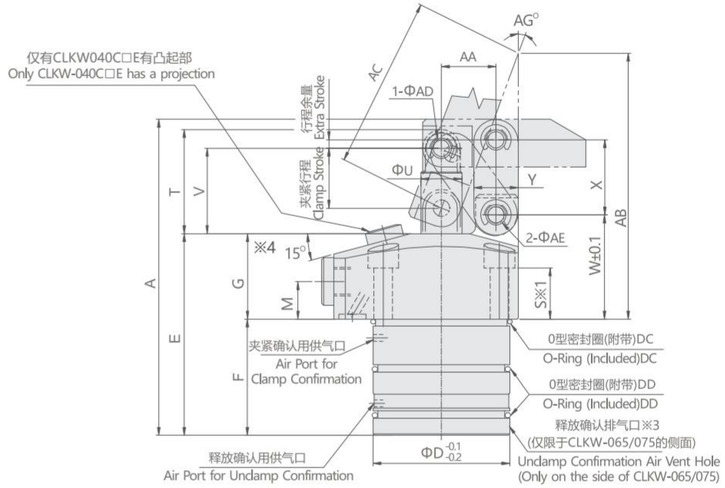
CLKW	系列 Series	CLKW
048	主体尺寸 Body size	040：ΦD=40mm　065：ΦD=65mm　ΦD表示本体油缸外径尺寸 048：ΦD=48mm　075：ΦD=75mm　Outer diameter ΦD of the cylinder 055：ΦD=55mm
C	板式连接型(附带G螺纹堵头) Gasket Option(With G Thread Plug)	附带G螺纹堵头可安装速度控制阀(CZL)(用户另行购买) With G Thread Plug(able to attach Speed Control Valve) (Order the valve separately Recommended:CZL)
R	压臂安装方向 Lever direction	L：左　L：Left 空白：中央　Blank：Center R：右　R：Right
E	传感阀符号 Sensing Valve	E：夹紧·释放动作确认型　E：Clamp-Unclamp Confirmation（Both） H：夹紧动作确认型　H：Clamp Confirmation Only J：释放动作确认型　J：Unclainp Confirmation Only

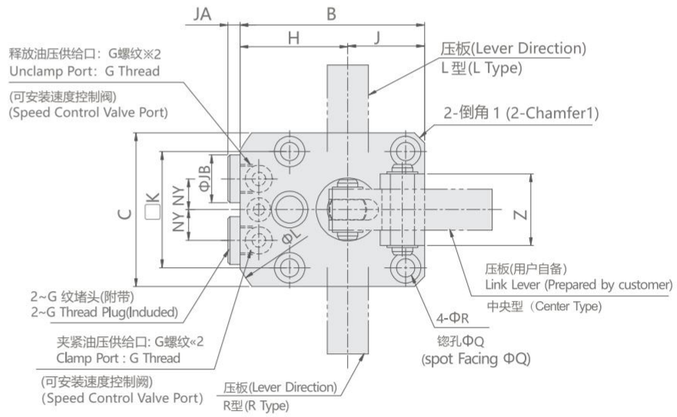
注:推荐使用气缸0.1-0.2MPa，空气感测器为SMC的ISA2-HE45N
Note: Recommended Operating Air Pressure 01~0.2MPa. Air Sensor: ISA2-HE45N(SMC)

夹紧·释放动作确认型
CLAMP-UNCLAMP CONFIRMATION

※本图表示CLKW-CE的夹紧状态
The drawing shows the Clamped state of CLKW-CE







注意事项

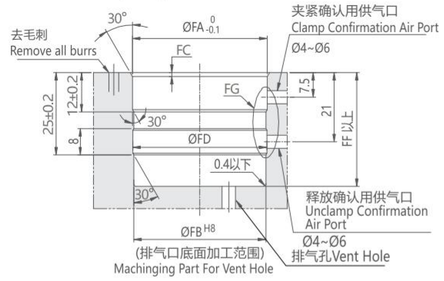
※1.本产品未附带安装紧栓。请用户参考S尺寸并根据安装高度自行配备。
※2.本产品未附带速度控制阀。请用户自行配备。
※3.排气孔必须进行大气开放，且务必防止冷却液-切削物的侵入。
冷却液会直接飞溅时，请在M3螺纹上设置垫块儿儿，有效防止冷却液的侵入。 且务必保证排气孔不被堵塞。
※4.只有CLKW-065法兰的倾斜角度为12°。

NOTE

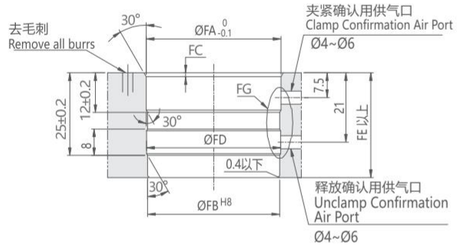
※1. This product does not come with mounting bolts.
Please prepare them according to the mounting height, refer to dimension"S".
※2. Speed control valve is sold separately.
※3. Please keep the air vent hole clear and open to prevent the intrusion of coolant and chips. If exposed to coolant, place a blocker 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.

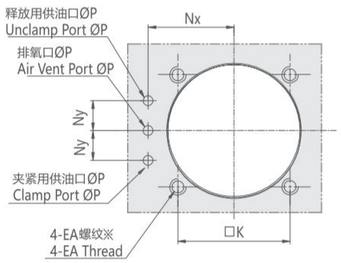
安装部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA

盲孔 For Blind Hole



贯通孔 For Through Hole





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
夹紧用供油口:G螺纹 Clamp Port:G Thread 释放用供油口:G螺纹 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°)

注意事项

※请参考S尺寸并根据安装高度决定安装螺栓的EA螺纹孔的深度。

NOTE

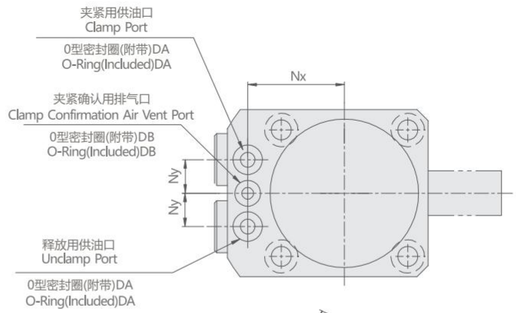
※EA tapping depth the mounting bolt should be decided according to the mounting height referring to dimensions"S".

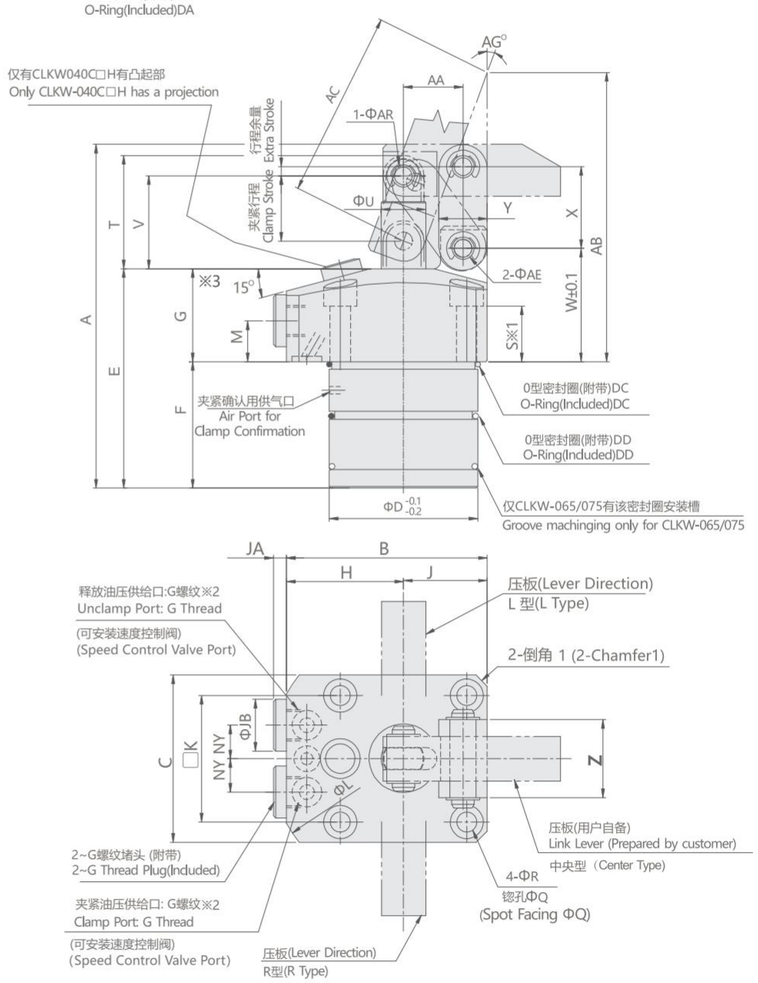
规格参数表 SPECIFICATIONS

型号 MODEL	理论夹持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	夹紧行程 CLAMPING STROKE (mm)	总行程 TOTAL STROKE(mm)	推出容积 CYLINDER CAPACITY CLAMP(cm³)	拉入容积 CYLINDER CAPACITY UNCLAMP(cm³)	推出受压面积 EFF.PISTON AREA CLAMP(cm²)	拉入受压面积 EFF.PISTON AREA UNCLAMP(cm²)	使用温度范围 RANGE OF TEMPERATURE(°C)	使用流体 USABLE FLUID
CLKW-040	290	17.5	20.5	10.9	8.6	5.31	4.17	0-+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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	

夹紧动作确认型
CLAMP CONFIRMATION ONLY

※本图表示CLKW-CH的夹紧状态
The drawing shows the clamped state of CLKW-CH





注意事项

※1.本产品未附带安装螺栓。请用户参考S尺寸并根据安装高度自行配备。
※2.本产品未附带速度控制阀。请用户自行配备。
※3.只有CLKW-065法兰的倾斜角度为12°

NOTE

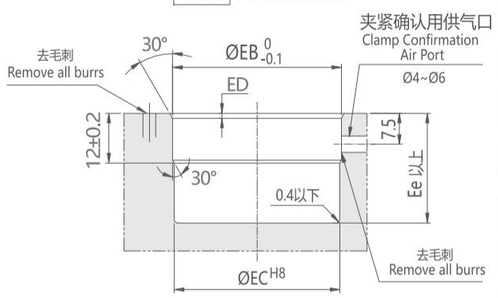
※1. Mounting bolts are not provided with the product. Please prepare them according to the mounting height referring to dinmension"S".
※2. Speed control valve is sold separately.
※3.Flange inclination angle is 12 ° only for CLKW-065.

安装部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA

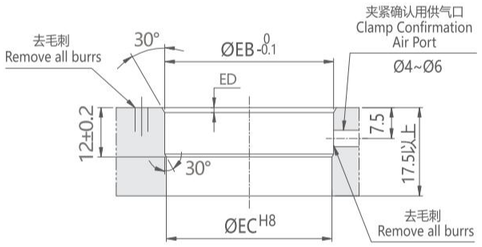
Unit:mm

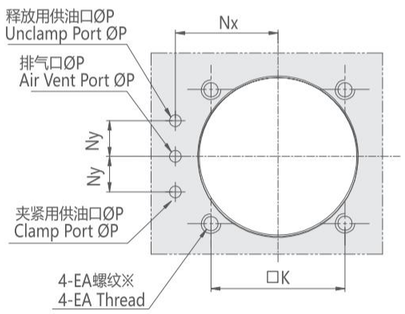
MODEL ITEM	CLKW-040C□H	CLKW-048C□H	CLKW-055C□H	CLKW-065C□H	CLKW-075C□H
A	88.5	99.5	109	124.5	145.5
B	54	61	69	81	94.5
C	45	51	60	70	85
D	40	48	55	65	75
E	55	60.5	63.5	70.5	78.5
F	30	32.5	35.5	40.5	41.5
G	25	28	28	30	37
H	31.5	35.5	39	46	52
J	22.5	25.5	30	35	42.5
K	34	40	47	55	63
L	72	81	88	106	116
M	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
夹紧用供油口:G螺纹 Clamp PortG Thread 释放用供油口:G螺纹 Unclamp PortG 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 (内线x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°)

盲孔 For Blind Hole



贯通孔 For Through Hole





注意事项

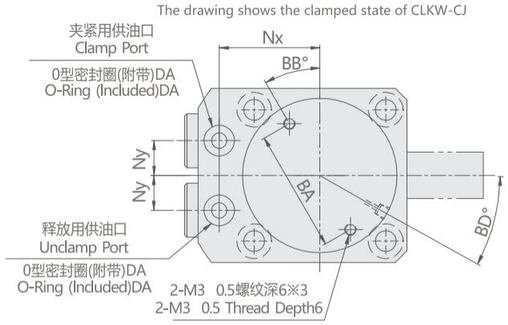
※请参考S尺寸并根据安装高度决定安装螺栓的EA螺纹孔的深度。

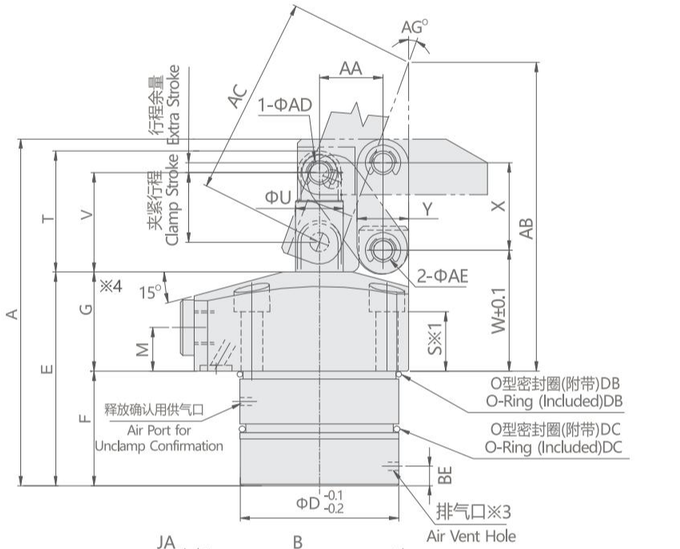
NOTE

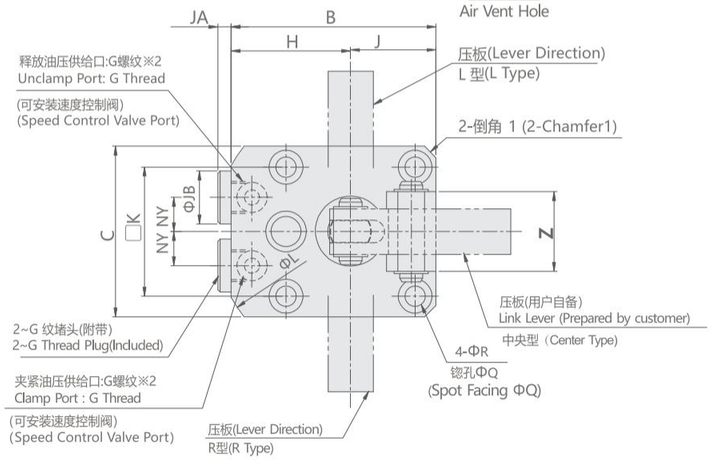
※EA tapping depth the mounting bolt should be decided according to the mounting height referring to dimensions"S".

释放动作确认型
UNCLAMP CONFIRMATION ONLY

※本图表示CLKW-CJ的夹紧状态
The drawing shows the clamped state of CLKW-CJ







注意事项

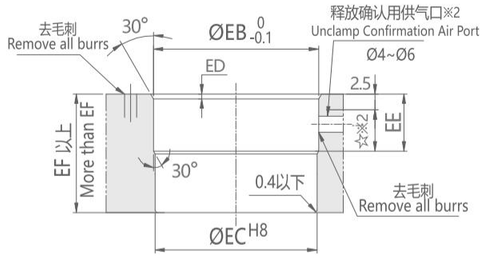
※1.本产品未附带安装螺栓。请用户参考S尺寸并根据安装高度自行配备。
※2.本产品未附带速度控制阀。请用户自行配备。
※3.排气孔必须进行大气开放，且务必防止冷却液-切削物的侵入。
冷却液会直接飞溅时，请在M3*S纹上设置垫块儿，有效防止冷却液的侵入。 且务必保证排气孔不被堵塞。
※4.只有CLKW-065法兰的倾斜角度为12。

NOTE

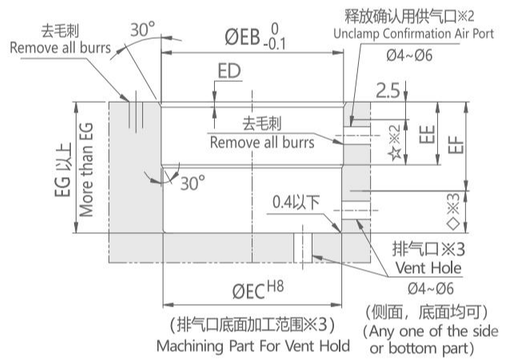
※1. Mounting bolts are not provided with the product. Please prepare them according to the mounting height referring to dimension"S"
※2.Speed control valve is sold separately.
※3. Please keep clear condition at the air vent hole ,If exposed to coolant, place a blocker on the M3 thread to prevent coolant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

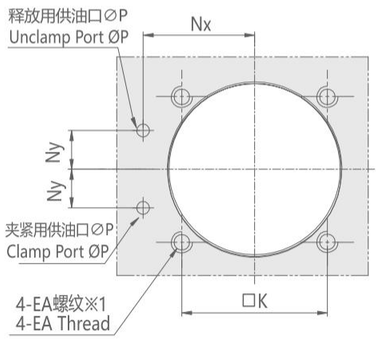
安装部位加工尺寸
Machining Dimensions of Mounting Area

贯通孔 For Through Hole



盲孔 For Blind Hole





Unit:mm

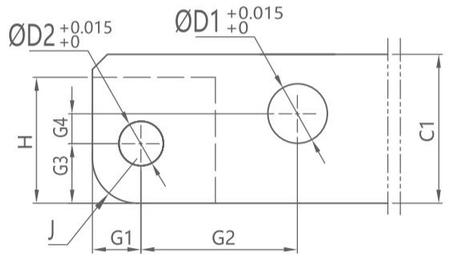
MODEL ITEM	CLKW-040□J	CLKW-048□J	CLKW-055□J	CLKW-065□J	CLKW-075□J
A	84.5	95	104	121.5	144.5
B	54	61	69	81	94.5
C	45	51	60	70	85
D	40	48	55	65	75
E	51	56	58.5	67.5	77.5
F	26	28	30.5	37.5	40.5
G	25	28	28	30	37
H	31.5	35.5	39	46	52
J	22.5	25.5	30	35	42.5
K	34	40	47	55	63
L	72	81	88	106	116
M	11	12	12	13	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
夹紧用供油口:G螺纹 Clamp Port:G Thread 释放用供油口:G螺纹 Unclamp Port:G Thread	G1/8	G1/8	G1/8	G1/4	G1/4
O型密封圈 O-Ring — DA	1BP5	1BP5	1BP5	1BP7	1BP7
O型密封圈 O-Ring — DB	38x1.5 (内径×线径)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-040(70°)
O型密封圈 O-Ring — DC	AS568-028(70°)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-039(70°)

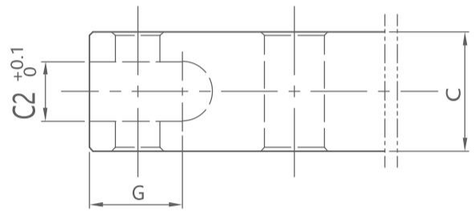
注意事项

※1.请参考S尺寸并根据安装高度决定安装螺栓的EA螺纹孔的深度。
※2.请将释放确认用供气口设置于图示☆范围内。
※3.排气口可设置在侧面或底面。
从侧面加工时，请设置在图示◊范围内。
从底面加工时，请设置在图示ØEC范围内。

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.





CLKW油压杠杆缸臂尺寸

Unit:mm

型号 MODEL	C	C1	C2	D1	D2	G	G1	G2	G3	G4	H	J
CLKW-040	12 0 -0.1	14	6	6	6	11.5	5.5	16	5.5	2.5	12	R5.5
CLKW-048	12 0 -0.1	16	6	6	6	13	6	18.5	6	3.5	13	R6
CLKW-055	16 0 -0.1	20	8	8	6	12.5	6	21	6	6	13	R6
CLKW-065	19 0 -0.1	25	10	10	8	16	8	24.5	8	7.5	17.5	R8
CLKW-075	22 0 -0.1	32	11	12	10	20	10	30	10	9.5	22	R10

CLKA-P

高动力&扎实型杠杆式油压缸

CLKA-P HYDRAULIC LEVERAGE CLAMP

产品特性

此系列产品配件采用优化设计,与传统产品比较夹紧能力提高了。产品支撑点部位与缸体采用一体化结构,使体积更加扎实,提高了产品强度。产品采用了专用防尘设计,提高了防尘和密封性,实现了高密封性。产品法兰下部采用缩小设计,适合夹具要求的紧凑化和轻量化。

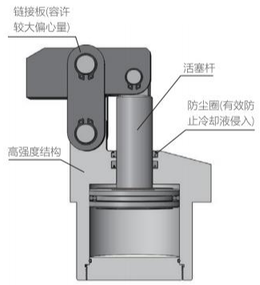
最大操作压力：70 kgf/cm²
最小操作压力：10 kgf/cm²

FEATURES

The accessories of the CLKA-P series are optimally designed and the damping capacity has increased immensely compared to the traditional products. The cylinder and is 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

剖面图 Sectional view



注意事项

夹紧及放松作动速度需适当放缓。
可接受定制，欢迎与本公司洽谈。

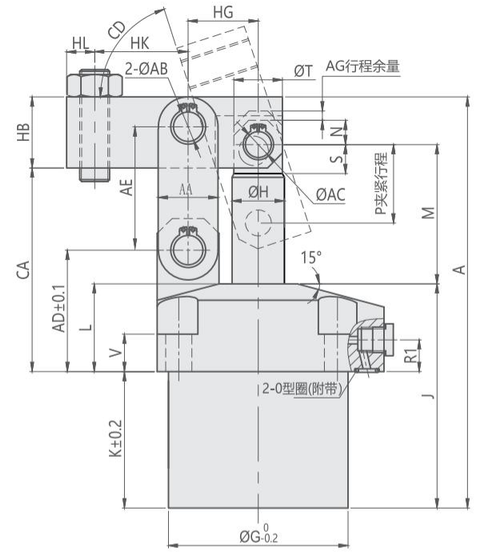
NOTE

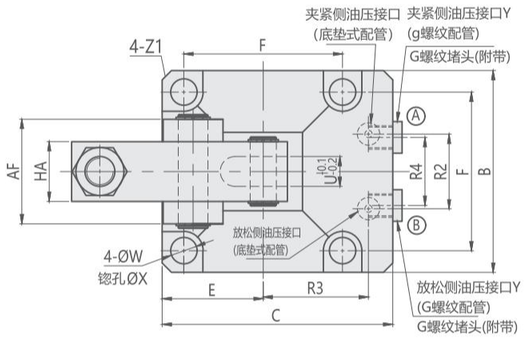
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Customization is available upon request, please contact us for more info.

订购标示法 ORDERING INDICATION

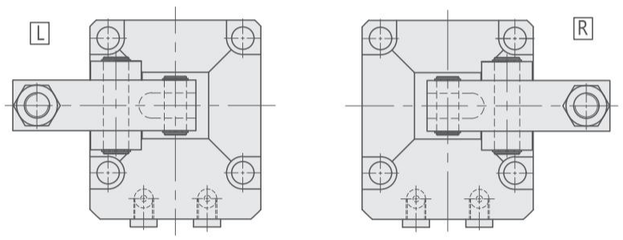
示例：CLKA – 040PL

CLKA-P	系列 Series	CLKA-P	
040	040/048/055/065/075/105		
L	压臂安装方向 Lever direction	空白：标准 R：右 L：左	Blank: Standard R:Right L:Left





压臂安装方向 Lever Direction



Ⓐ夹持油孔 Clamping port
Ⓑ放松油孔 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	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Z1	C1.5	C2.5	C2.5	C3	C3.5	C5.5
0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
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

规格参数表 SPECIFICATIONS

型号	理论夹持力 (70 kgf/cm²)	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/cm² (kgf)	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(℃)	USABLE FLUID
CLKA-040P	283	17.5	20.5	10	7.7	4.9	3.77	0~+70℃	相当于ISO黏度等级的ISO-VG-32一般液压油 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℃	
CLKA-055P	486	23	26	25	21	9.6	8.06	0~+70℃	
CLKA-065P	814	26.5	29.5	44.8	38.9	15.2	13.2	0~+70℃	
CLKA-075P	1346	33	36	88.6	74.5	24.6	20.66	0~+70℃	
CLKA-105P	2020	42	45	173.3	145.5	38.5	32.35	0~+70℃	

CBLU

方块&紧凑型
杠杆式油压缸

CBLU HYDRAULIC LEVERAGE CLAMP

产品特性

此系列产品配件采用优化设计,与传统产品比较夹紧能力提高了。产品支撑点部位与缸体采用一体化结构,使体积更加紧凑提高了产品强度。产品采用了专用防尘设计,提高了防尘和密封性,实现了高密封性。产品采用方块型设计,不需垫块安装方便。

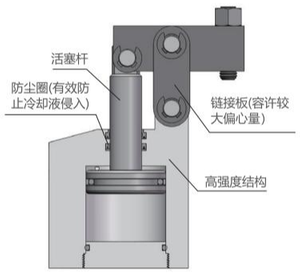
最大操作压力：70 kgf/cm²
最小操作压力：10 kgf/cm²

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/cm²
Min. operating pressure:10 kgf/cm²

剖面图 Sectional view



注意事项

夹紧及放松作动速度需适当放缓。

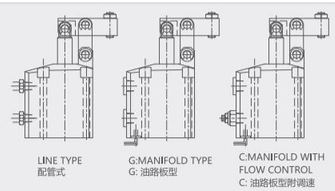
NOTE

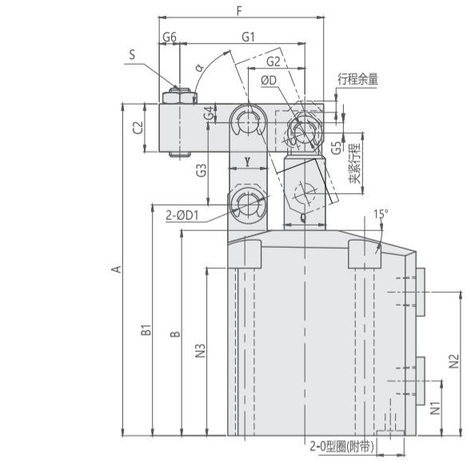
The action and the speed of clamping / unclamping needs to be slowed down appropriately.

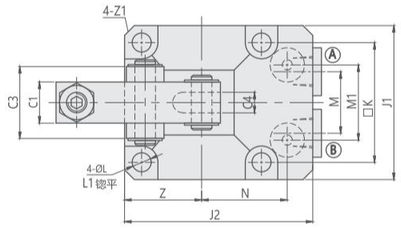
订购标示法 ORDERING INDICATION

示例：CBLU-30CL

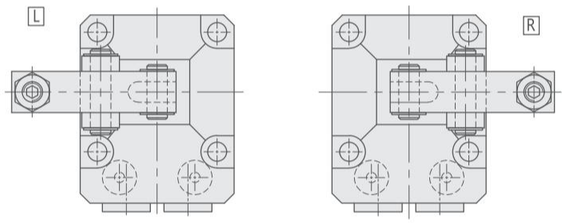
CBLU	系列 Series	CBLU	
30	油缸内径 Hydraulic cylinder inside diameter	Φ 25 , Φ 30 , Φ 35 , Φ 45 Φ 55 , Φ 70	
C	油口型式Port type	空白：配管式 G：油路板式 C：油路板式附调速	Blank: Line type G:Manifold type C:Manifold with flow type
L	压臂安装方向 Lever direction	空白:标准 L：左 R：右	Blank：Standard L：Left R：Right







压臂安装方向 Lever Direction



Ⓐ夹持油孔 Clamping port
Ⓑ放松油孔 Unclamping port

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

规格参数表 SPECIFICATIONS

型号	理论夹持力 (70 kgf/cm²)	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/cm² (kgf)	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)	USABLE FLUID
CBLU-25	283	17.5	20. 5	10.00	5.69	4.91	2.78	-10~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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

连杆气/油压缸(眼镜蛇缸)

CLF5H PNEUMATIC / HYDRAULIC LEVERAGE CLAMP

产品特性

此系列产品设计中采用连杆机构,在解除夹持状态时,压臂可拉到低于夹持面的位置,减少对工件装卸的干涉,因此操作方便,缸体采用一体成型。
产品动作轨迹非常小,用传统的转角缸/杠杆缸都难以夹持到的部位均可以达到夹持作用,并可以减少对周围机器设备的干扰,达到节省工作空间的目的。产品采用了专用防尘设计,防止了切削及冷却液的渗入,实现了高密封性,因此在比较恶劣的环境下也能使用。

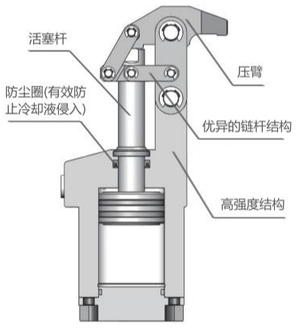
油缸 最大操作压力: 70 kgf/cm²
最小操作压力: 10 kgf/cm²
气缸 最大操作压力: 7 kgf/cm²
最小操作压力: 3 kgf/cm²

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.

Hydraulic type Max. operating pressure: 70 kgf/cm²
Min. operating pressure: 10 kgf/cm²
Pneumatic type Max. operating pressure: 7 kgf/cm²
Min. operating pressure: 3 kgf/cm²

剖面图 Sectional view



注意事项

夹紧及放松动作速度需适当放缓。
气缸缸体材料为铝合金。

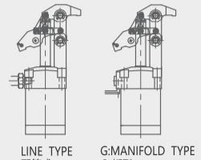
NOTE

The action and the speed of clamping / unclamping needs to be slowed down appropriately.
The material of pneumatic type is AL.

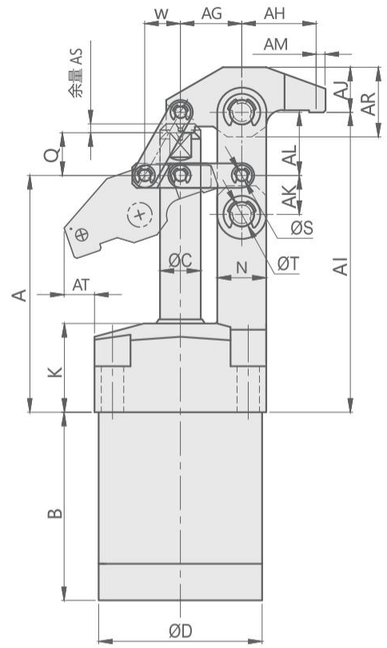
订购标示法 ORDERING INDICATION

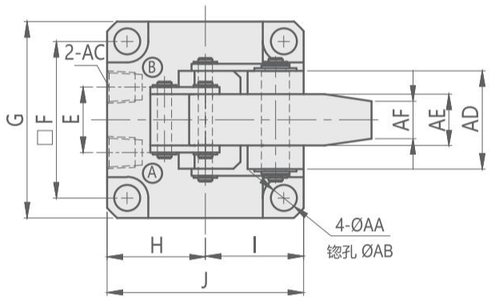
示例: CLF5H-32GQ

CLF5H	系列 Series	CLF5H		
32	缸内径 Hydraulic cylinder inside diameter	Φ 25,Φ 32,Φ 40,Φ 50		
G	型式 Port type	空白: 配管式 G: 板式	Blank: Line type G: Manifold type	
Q	驱动方式 Working type	空白: 油压缸 Q: 气压缸	Blank: Hydraulic Q: Pneumatic	



LINE TYPE 配管式





Ⓐ夹持油孔 Clamping port
Ⓑ放松油孔 Unclamping port

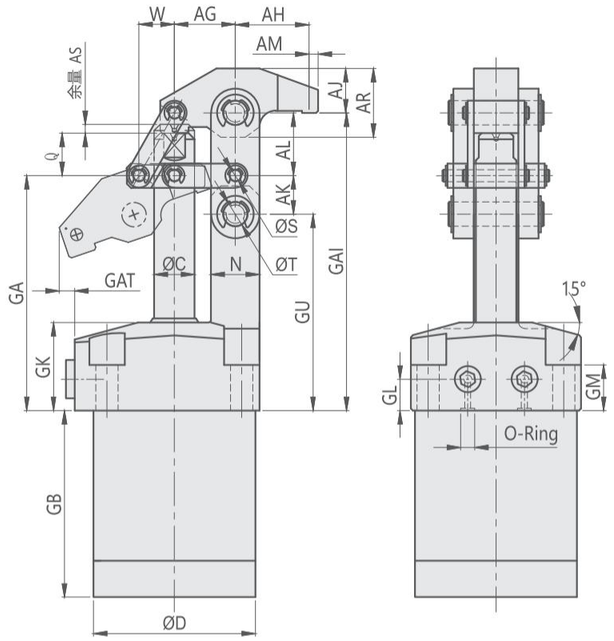
Unit:mm

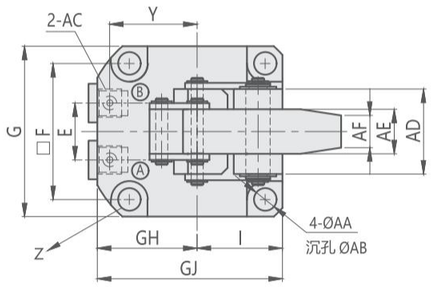
MODEL ITEM	CLF5H-25	CLF5H-32	CLF5H-40	CLF5H-50
A	70	75	89.5	101.5
B	59.5	70.5	79.5	86.5
C	14	14	16	20
D	47	55	65	80
E	21	21	25	28
F	40	47	55	67
G	50	59	69	84
H	25	29.5	34.5	42
I	25	29.5	34.5	42
J	50	59	69	84
K	30.5	30.5	37.5	43.5
L	11.5	11.5	13.5	15.5
M	16	15.5	20.5	22.5
N	12	16	20	24
Q	12	14	20	21
S	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

规格参数表 SPECIFICATIONS

型号	理论夹持力 CLAMPING FORCE		夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	油压在70 kgf/cm² AT 70 kgf/cm²(kgf)	气压在7 kgf/cm² AT 7 kgf/cm²(kgf)	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)	USABLE FLUID
CLF5H-25	290	29	31.5	34	16.69	11.46	4.91	3.37	-10~+70°C	相当于 ISO 粘度等级 的 ISO-VG-32 一般 液压油, 气动款使用干燥之压缩空气。 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade, Filtered dry compressed air for pneumatic type.
CLF5H-32	441	44.1	35.5	38	30.55	25.08	8.04	6.60	-10~+70°C	
CLF5H-40	709	70.9	41	44	55.26	46.46	12.56	10.56	-10~+70°C	
CLF5H-50	1136	113	47	50	98.15	82.45	19.63	16.49	-10~+70°C	

G: MANIFOLD TYPE G油路板型

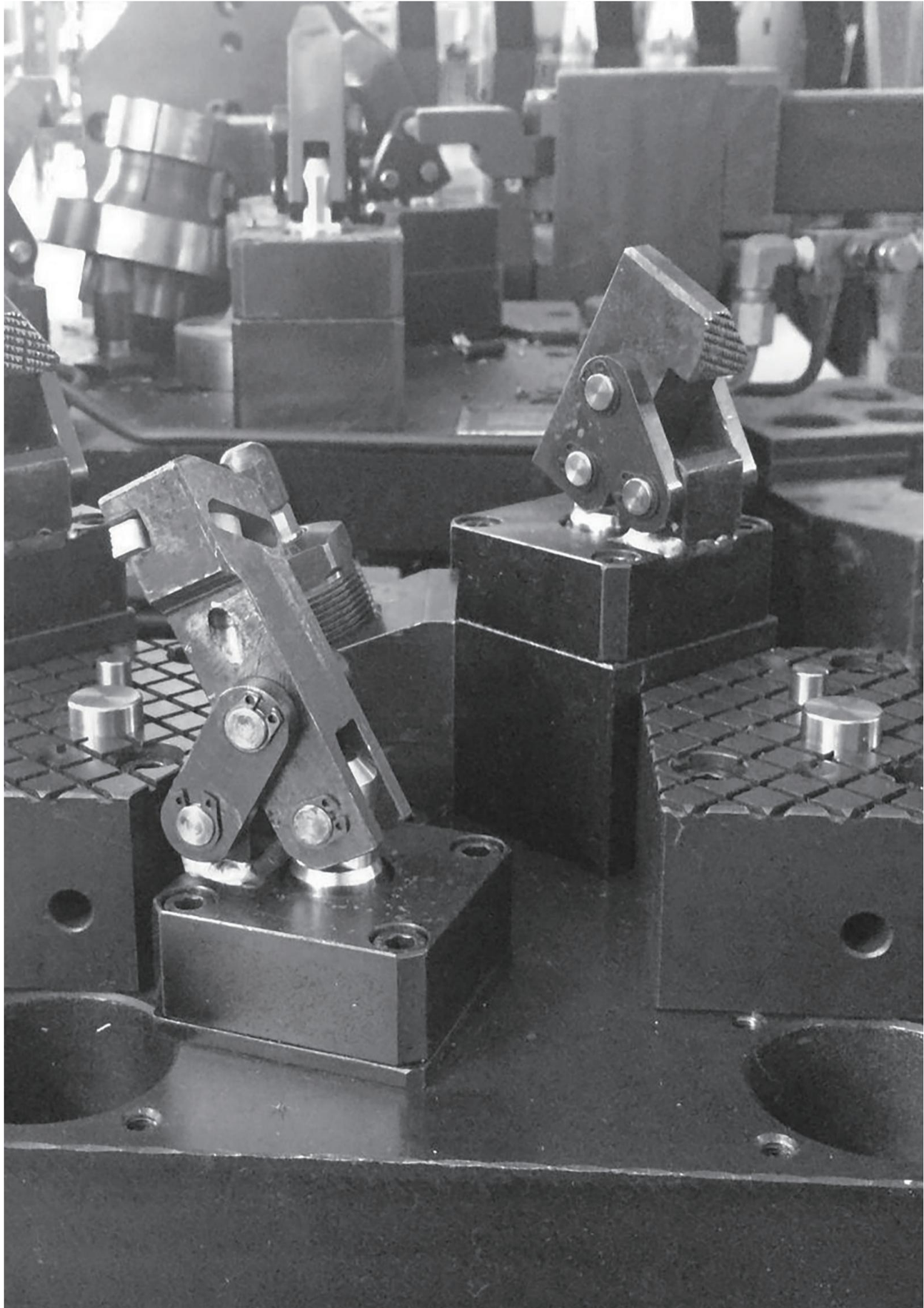




Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

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
杠杆式油压缸

CHLC HYDRAULIC LEVERAGE CLAMP

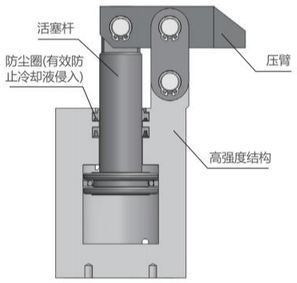
产品特性

此型式油压缸夹持机构为杆原理,活塞推出为夹紧状态夹持力大于转角缸,主要机构零件安装在缸体外部,易于维护。
缸体及夹持机构材料均采用机械构造用碳素钢，坚固耐用，使用寿命长。活塞材质采用45钢,热处理表面镀铬。

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.

剖面图 Sectional view



最大操作压力：70 kgf/cm²
最小操作压力：10 kgf/cm²
作动方式：复动式

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

注意事项

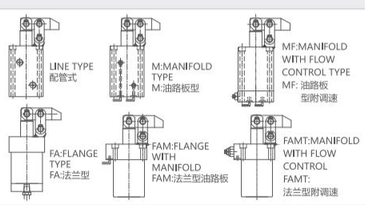
夹紧及放松作动速度需适当放缓。

NOTE

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

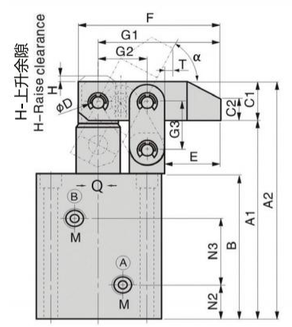
订购标示法 ORDERING INDICATION

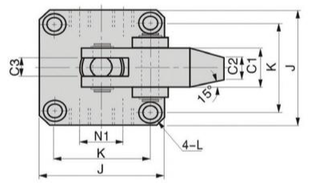
示例：CHLC – M25RA

CHLC	系列 Series	CHLC		
M	型式 Type	空白：配管式 M：油路板型 MF：油路板型附调速 FA：法兰型 FAM: 法兰型油路板 FAMT：法兰型附调速	Blank: Line type M：Manifold type MF：Manifold with flow control FA：Flange type FAM：Flange with manifold FAMT：Flange with flow control	
25	油缸内径 Hydraulic cylinder inside diameter	Φ25，Φ32，Φ40 Φ50 ，Φ63		
R	压臂安装方向 Lever direction	L：左 R：右	L:Left R:Right	注：详情见后面图 Note:Please refer to the CAD drawing for the details.
A	一体成型 A: Integrated			

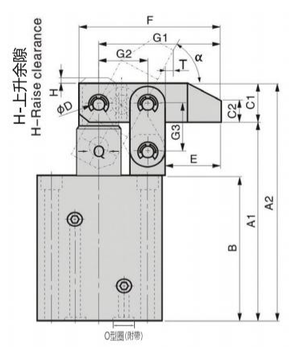
备注:配管式，MF油路板型附调速以及FA法兰型只有单一方向。
Note:The line type ,MF and FA only have single direction.

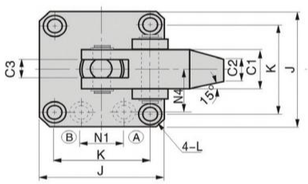
LINE TYPE 配管式

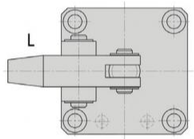




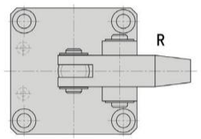
M: MANIFOLD TYPE M油路板型







Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port



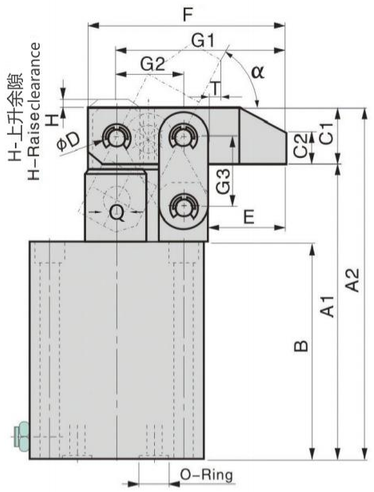
Unit:mm

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

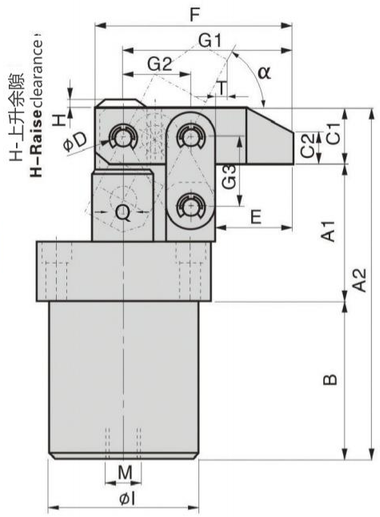
规格参数表 SPECIFICATIONS

型号	理论夹持力 (70 kgf/cm²)	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/cm² (kgf)	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)	USABLE FLUID
CHLC-25	252	22	25	12.28	5.93	4.91	2.37	-10~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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	

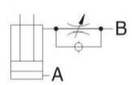
油路板附调速 CHLC-MF



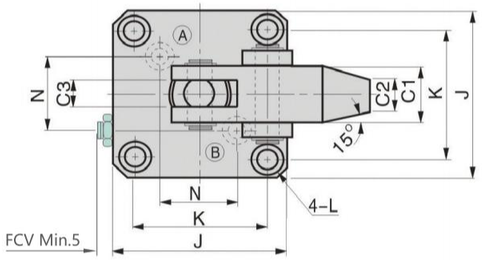
法兰型 CHLC -FA

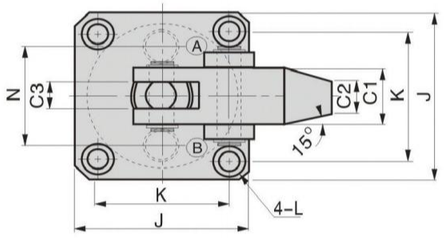


CHLC-MF



Ⓐ 夹持油孔 Clamping port Ⓑ 放松油孔 Unclamping port

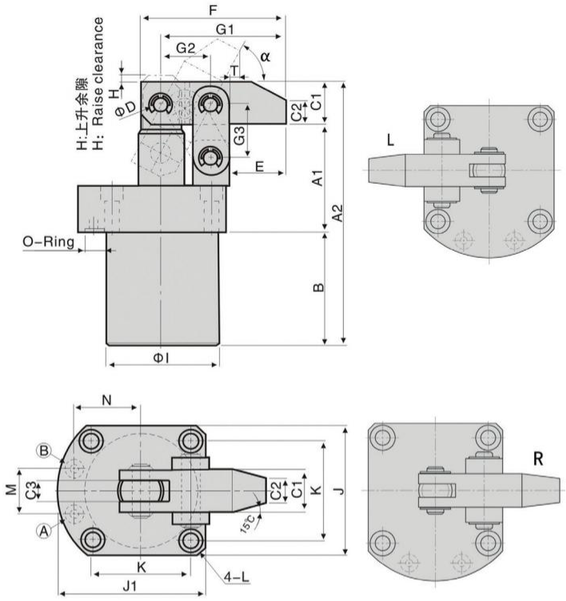




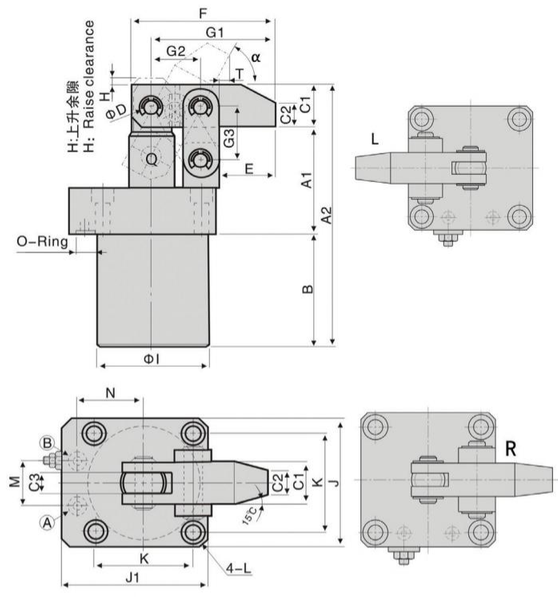
Unit:mm

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

法兰型油路板 CHLC-FAM



法兰型附调速 CHLC -FAMT



Ⓐ 夹持油孔 Clamping port Ⓑ 放松油孔 Unclamping port

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

杠杆式油压缸

LHC01 HYDRAULIC LEVERAGE CLAMP

单动式 复动式

产品特性

此系列产品有五种可供选择的缸径：Φ25,Φ32,Φ40,Φ50,Φ63。本产品使用了高性能的密封圈，避免了油缸的泄漏，且其寿命长。
应用了横杆原理，使工件容易夹紧，提高效率。缸体所用的材质是45钢，活塞材质是45钢热处理，表面镀铬。缸体一体成型。

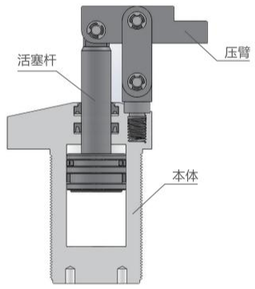
最大操作压力：70 kgf/cm²
最小操作压力：20 kgf/cm²
作动方式:单动式和复动式

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

剖面图 Sectional view(复动型)



注意事项

夹紧及放松作动速度需适当放缓。

NOTE

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

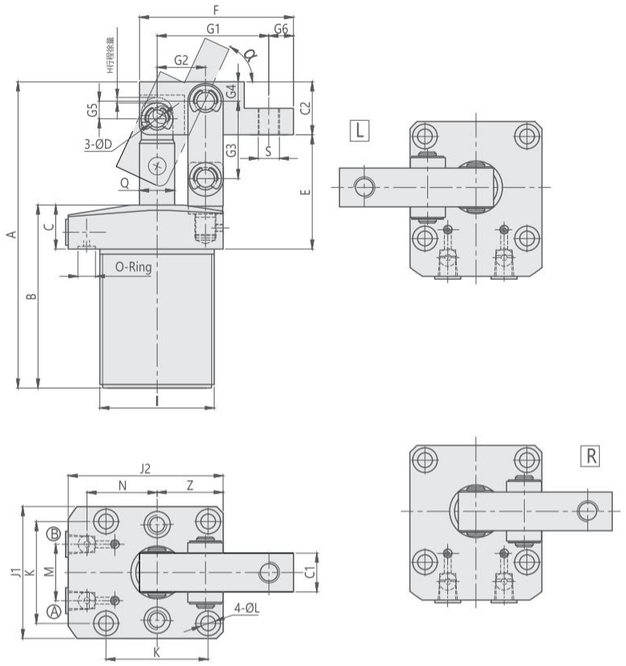
订购标示法 ORDERING INDICATION

示例：LHC01D-40CRAW

LHC01	系列 Series	LHC01
D	作动方式 Acting type	D：复动式 D: Double acting S：单动式 S: Single acting
40	油缸内径 Hydraulic cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63
C	空白：配管油路板共用 C：油路板附调速	Blank：Containing oil board sharing C：Manifold with flow control
R	压臂安装方向 Lever direction	Blank：空白 R：右，L：左
A	缸体一体成型	A：Integrated
W	W:缸体上三方具有压臂安装座孔	W: Clamping arm can be installed in three directions.

备注：一体成型的没有W型
Note: An integrated can not be made W type.

压臂安装方向 Lever Direction



Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port
(单动型Ⓑ为排气孔)

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

规格参数表 SPECIFICATIONS

型号	理论夹持力 (70 kgf/cm²)	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/cm² (kgf)	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)	USABLE FLUID
LHC01S-25	158	22	24	11.78	-	4.91	-	-10~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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

摇臂式油压杠杆缸

CYS ROCKER HYDRAULIC LEVERAGE CLAMP

CYS-3005

CYS-3006

产品特性

摇臂式夹紧器适合用于快速换模用(Quick Die change)工位。
夹臂(rocker clamp arm)的运作行程短，便于安装无干扰，特适合狭小的安装控制项。
可以用手将夹臂朝自己所希望的方向旋转，模具的组装脱落容易。
产品因用枢销连接构成可以坚固,安全地使用。

使用油压范围: 15~250kgf/cm²
使用环境温度: 0~60°C
作动方式:单动式

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 fall off the mold. 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.

Operating Pressure:15-250kgf/cm²
Operating Temperature:0-60°C
Single acting

注意事项

利用下面的螺母和标准T-槽形螺母等进行安装,依据托架孔高度的面，可以以多种方法调整夹紧高度。

NOTE

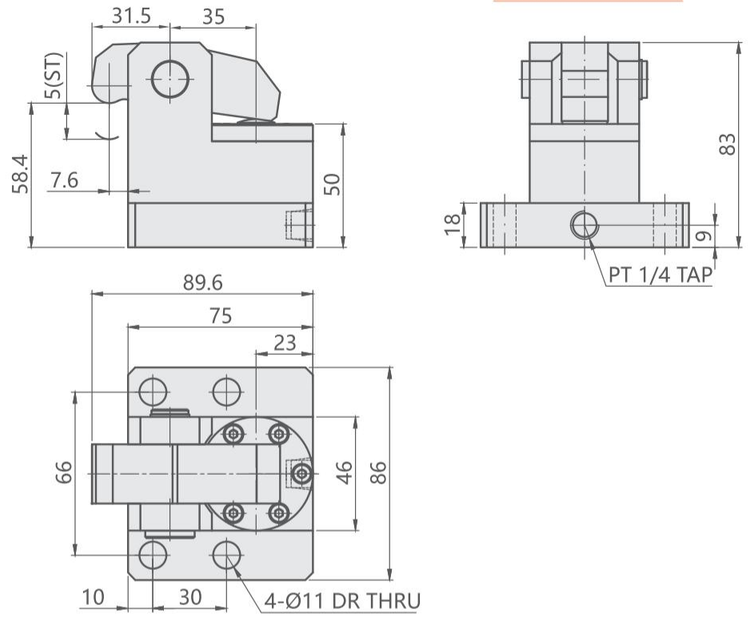
It can be installed using a female thread on the bottom and a standard T-slot nut, and the clamping height can be adjusted by the space according to the mounting hole height.

订购标示法 ORDERING INDICATION

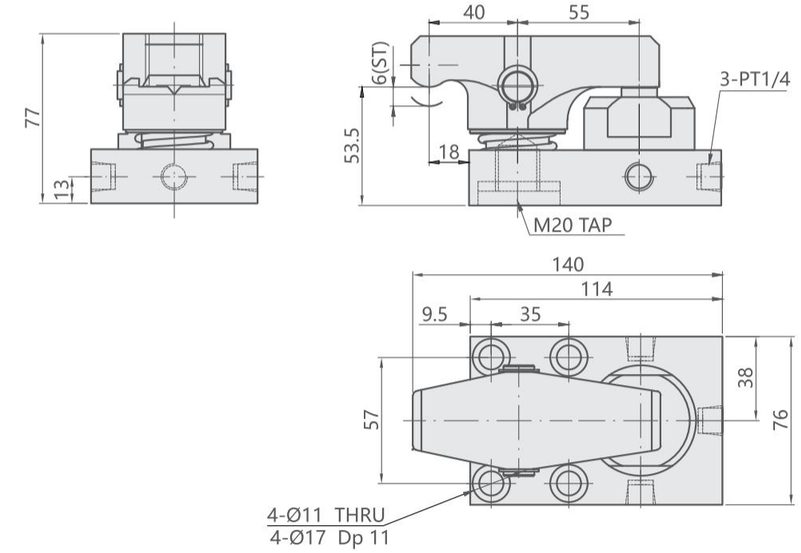
示例：CYS-3005

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

型号 CYS-3005



型号 CYS-3006



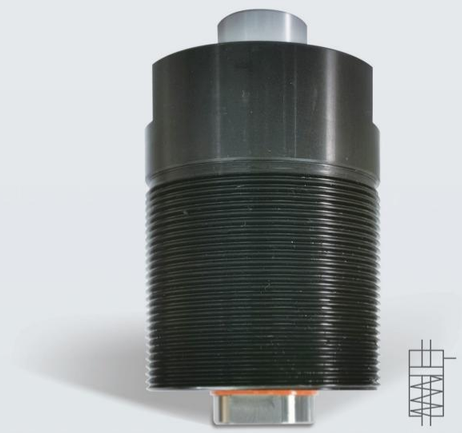
规格参数表 SPECIFICATIONS

型号 MODEL	行程 STROKE (mm)	油缸容量 CYLINDER CAPACITY(cm³)	油缸面积 CYLINDER AREA(cm²)	最大夹紧力 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

空心式夹紧器

CLP HOLLOW CLAMP



产品特性

主杆孔贯通,端部有内螺纹,根据安装工位,可以用于拉开或推开的功能。

使用油压范围:15-250kgf/cm²
活塞速度:8~100mm/s
使用环境温度:0-60°C
油路尽量要大
作动方式：单动式

FEATURES

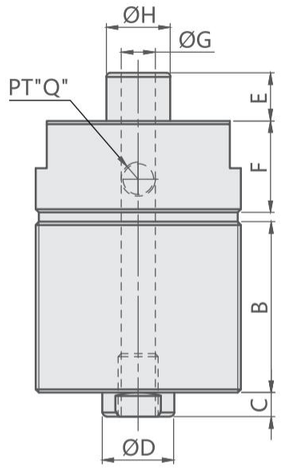
There is a hole through the rod so bolts can be used,as there is a female screw at the end.Depending on the mounting position it can be used for pushing or pulling.

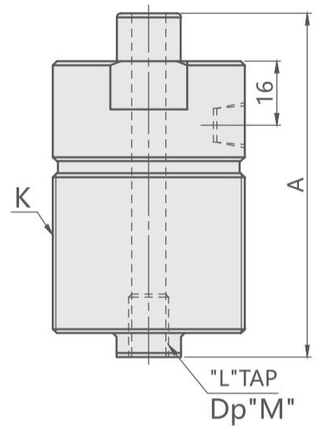
Operating Pressure:15-250kgf/cm²
Piston Speed:8~100mm/s
Operating Temperature:0-60°C
Make piping size as big as possible.
Single acting.

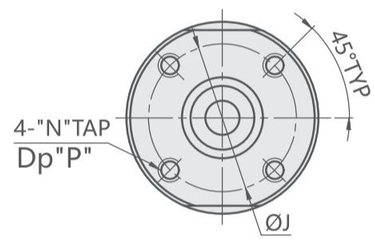
订购标示法 ORDERING INDICATION

示例：CLP-2808

CLP	系列 Series	CLP
28	油缸内径 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

规格参数表 SPECIFICATIONS

型号 MODEL	行程 STROKE (mm)	油缸容量 CYLINDER CAPACITY(cm³)	油缸面积 CYLINDER AREA(cm²)	最大夹紧力 MAXIMUM CLAMPING FORCE(kgf)	内径 INSIDE DIAMETER(mm)	重量 WEIGHT(kg)
CLP-2808	8	3.31	4.14	1000	Ø28	0.85
CLP-4012	12	9.18	7.65	1900	Ø40	1.91
CLP-6320	20	43.08	21.54	5300	Ø63	4.28

CCLT

紧凑型单动
杠杆式油压缸

CCLT SINGLE ACTING LEVERAGE CLAMP

产品特性

此系列产品配件采用新改革设计,与传统产品比较夹紧能力提高了。产品支撑点部位与缸体采用一体化结构,使体积更加扎实,提高了产品强度。产品采用了专用防尘设计,提高了防尘和密封性,实现了高密封性。产品法兰下部采用缩小型设计，最适合夹具要求的紧凑性和轻量性。

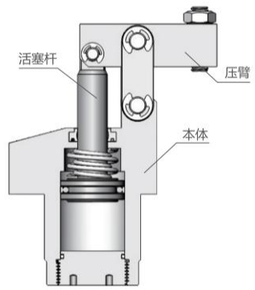
最大操作压力：70kgf/cm²
最小操作压力：25kgf/cm²

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 dustproof design,to make sure a high sealing performance.Product with lower flange design,more suitable for compact and light fixture.

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

剖面图 Sectional view(单动型)



注意事项

夹紧及放松作动速度需适当放缓。
可接受订制，欢迎与本公司洽询。

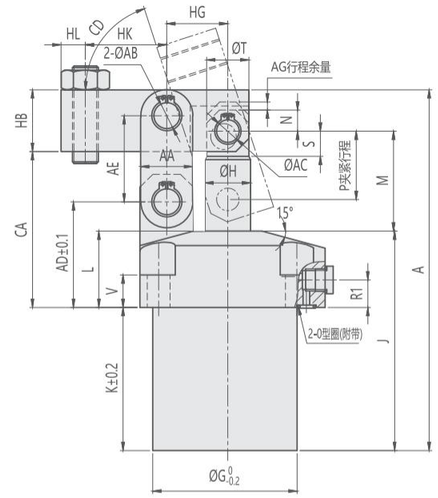
NOTE

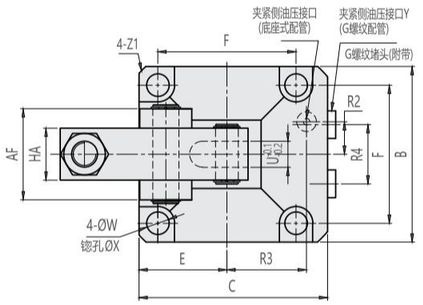
The speed of clamping and unclamping action needs to be slowed down appropriately.Orders with customized request are available, welcome to contact us.

订购标示法 ORDERING INDICATION

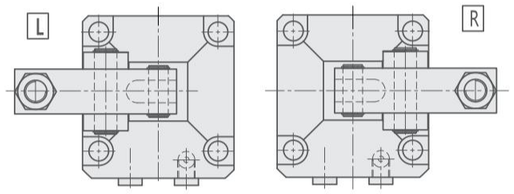
示例：CCLT-02L

CCLT	系列 Series	CCLT	
02	02/04/06/10/16/25		
L	压臂安装方向 Lever Direction	空白:标准 Blank:Standard	L:左 R:右 L:Left R:Right





压臂安装方向 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

规格参数表 SPECIFICATIONS

型号	理论夹持力 (70 kgf/cm²)	夹紧行程	总行程	推出容积	推出受压面积	使用温度范围	弹簧阻抗	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/cm² (kgf)	CLAMPING STROKE (mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY CLAMP(cm³)	EFF.PISTON AREA CLAMP(cm²)	RANGE OF TEMPERATURE(°C)	SPRING FORCE (kgf)	USABLE FLUID
CCLT-02	245	17.5	20.5	10	4.9	0~+70°C	25	相当于ISO黏度等级的ISO-VG-32一般液压油 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	

CLV

高压单动小巧型杠杆式油压缸

CLV HYDRAULIC SINGLE ACTION LEVERAGE CLAMP (HTGH PRESSURE)

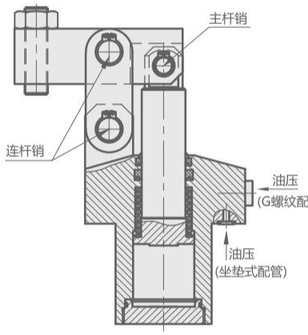
产品特性

此系列油缸产品配件采用优化设计，外型小巧，采用高压设计，与传统产品比较夹持能力提高了，产品支撑点部　位与缸体采用一体化结构，使夹持更加扎实，提高了产品　强度。产品采用了专用防尘设计，提高了防尘和密封性，实现了高密封性。

FEATURES

This series of the CLV series are optimally design, with compact appearance and high pressure design which improves the clamping capacity compared with 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.

剖面图 Sectional view



最大操作压力：350kgf/cm²
最小操作压力：35kgf/cm²
动作方式：单动式

Max.operating pressure:350kgf/cm²
Min.operating pressure:35kgf/cm²
Single acting

注意事项

夹紧及放松动作速度需适当放缓。可接受定制，欢迎与本公司洽询。

NOTE

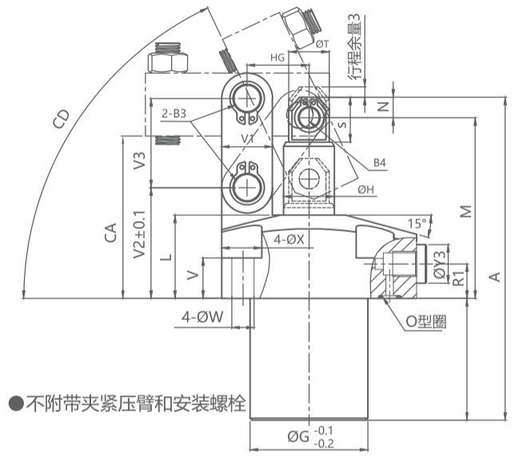
The action and the speed of clamping / unclamping needs to be slowed down appropriately.Customization is available upon request, please contact us for more info.

订购标示法 ORDERING INDICATION

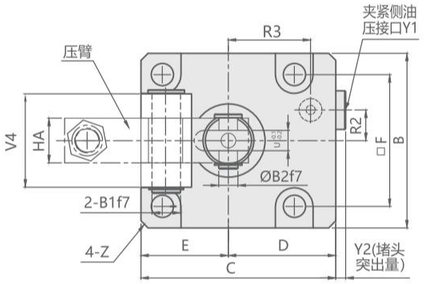
示例：CLV06-FN

CLV	系列 Series	CLV
06	06/10/16/25	
L	压臂安装方向 Lever direction	F：标准　Blank：Standard R：右　R：Right L：左　L：left
N	小巧型	N: Mini type

外形尺寸图 External Dimensions



●不附带夹紧压臂和安装螺栓

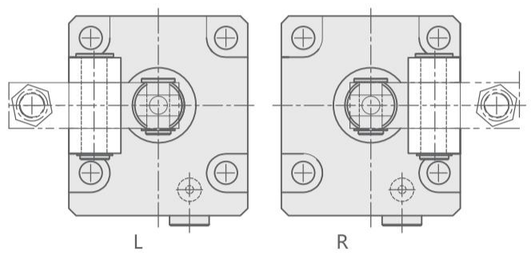


外形尺寸 External Dimensions

Unit:mm

型号	CLV06-□N	CLV10-□N	CLV16-□N	CLV25-□N
A	115	134	160	190.5
B	60	70	86	108
C	69	77	96	110
D	39	42	53	56
E	30	35	43	54
F	47	54	65	85
∅G	44	48	58	66
∅H	16	20	25	30
K	43.5	53	60	69
L	32	33.5	41	47
M	65.5	73	89	108.5
N	6	8	11	13
R1	15	15	17	21
R2	11.5	13	15	20
R3	30	33	40	43
S	13	17	21.8	27.5
∅T	12	15	20	26
U(对边宽)	8	10	11	16
V	17	17	20	21
V1	15	19	25	32
V2	41.5	45	54.5	65
V3	30	35.5	44	53
V4	28	37	46	56
∅W	6.8	9	11	14
∅X	12	15	18.5	20.5
Y1	G1/8	G1/8	G1/4	G1/4
Y2	3.8	3.8	4.8	4.8
Y3	14	14	19	19
Z	C2.5	C3	C3.5	C5.5
∅B1	8 -0.013 -0.028	10 -0.013 -0.028	14 -0.016 -0.034	16 -0.016 -0.034
∅B2	6 -0.010 -0.022	8 -0.013 -0.028	12 -0.016 -0.034	14 -0.016 -0.034
B3(卡环)	STW-8	STW-10	STW-14	STW-16
B4(卡环)	STW-6	STW-8	STW-12	STW-14
CA	59.5	65	80	96
CD	约70°	约70°	约69°	约72°
HA	16	19	22	32
HG	21	24.5	30.5	37.5
□型圈(Hs90)	P9	P9	P9	P9

压臂安装方向



型号 MODEL	油缸能力(油压为35MPa时) HYDRAULIC CYLINDER CAPACITY AT 35MPa(KN)	杆径 ROD DIAMETER(mm)	油缸面积(夹紧) HYDRAULIC CYLINDER AREA WHEN CLAMPING (cm²)	全行程 TOTAL STROKE (mm)	夹紧行程 CLAMPING STROKE (mm)	最大流量 MAX. FLOW RATE (cm³)	油缸容量 CYLINDER CAPACITY (cm³)	使用油压范围 RANGE OF PRESSURE(MPa)	使用环境温度 RANGE OF TEMPERATURE(°C)	使用流体 USABLE FLUID
CLV06-□N	6.8	16	2.0	26	23	0.54	5.2	3.5 ~ 35MPa	0 ~ 70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 Recommended:ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CLV10-□N	10.5	20	3.1	29.5	26.5	1.00	9.3	3.5 ~ 35MPa	0 ~ 70°C	
CLV16-□N	16.7	25	4.9	36	33	1.93	17.7	3.5 ~ 35MPa	0 ~ 70°C	
CLV25-□N	24.0	30	7.1	45	42	3.55	31.8	3.5 ~ 35MPa	0 ~ 70°C	

CTMA

复动杠杆油压缸

CTMA HYDRAULIC DOUBLE ACTION LEVERAGE CLAMP (HIGH PRESSURE)

产品特性

优异的防止冷却液侵入结构。即使对高压冷却液也具备有很高的密封性能，通过使用高性能的耐腐蚀防尘材料，即使长期使用于冷却液中也不会降低密封性能，可以直接安装速度控制阀. Model CZT(由用户自行购买),有3种压板夹紧方向可选。

最大操作压力：350kgf/cm²
最小操作压力：35kgf/cm²

FEATURES

Excellent Coolant Resistance our exclusive dust seal is designed to protect against high pressure coolant.It also has high durability against chlorine-based Coolant by using a sealing material with excellent chemical resistance.Able to attach speed control valve directly. Speed control valve(CZT) is sold separately. Three clamping directions are available.

Max.operating pressure:350kgf/cm²
Min.operating pressure:35kgf/cm²

注意事项

夹紧及放松作动速度需适当放缓

NOTE

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

订购标示法 ORDERING INDICATION

示例：CTMA-025CR

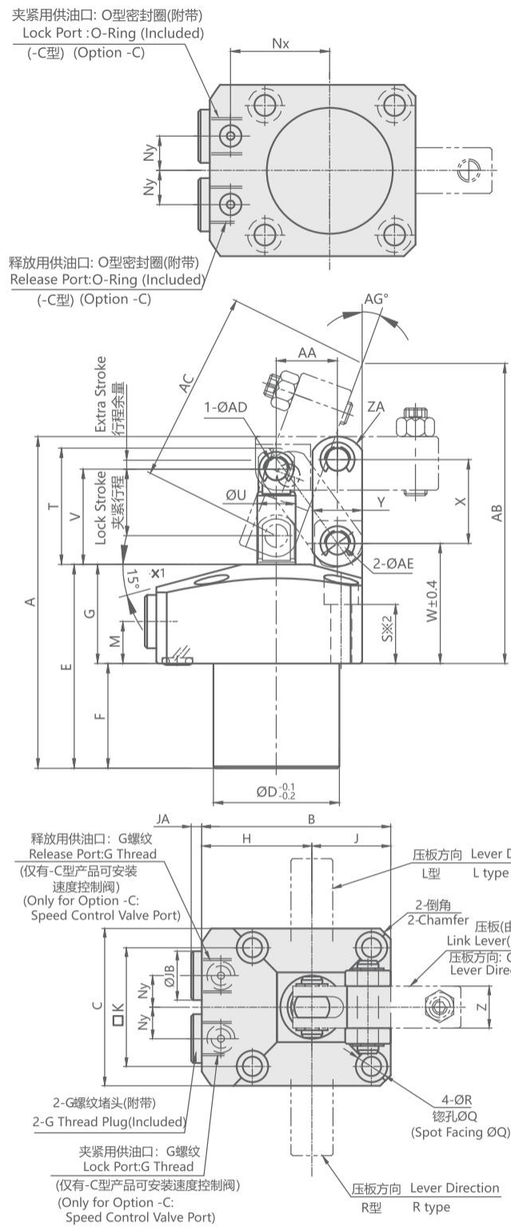
CTMA	系列 Series	CTMA
025	主体尺寸 Body size	025: ∅D=33mm　100: ∅D=48mm　∅D表示本体油缸外径尺寸 040: ∅D=36mm　160: ∅D=60mm　Outer diameter (∅D) of the cylinder 060: ∅D=43mm　250: ∅D=70mm
C	型式 Type	B: 外配管型（G螺纹）　B: G Thread Piping Option(No Gasket Port) C: 板式连接型(附带G螺纹堵头)　C: Gasket Option(With G Thread Plug)
R	压臂安装方向 Lever direction	L:左　空白:中央　R:右 L:Left　Blank:Center　R:Right

注：速度控制阀(CZT)由用户另行购买 Note: Speed control valve(CZT) is sold separately.

规格参数表 SPECIFICATIONS

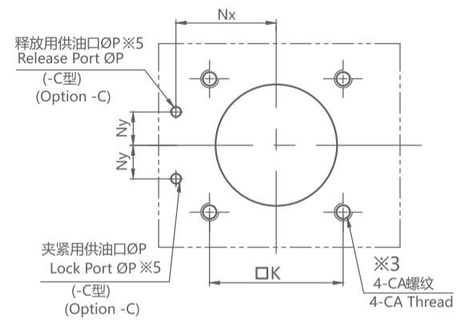
型号 MODEL	理论夹持力 (350kgf/cm²) CLAMPING FORCE AT 350kgf/cm²(kgf)	夹紧行程 CLAMPING STROKE(mm)	行程余量 EXTRA STROKE(mm)	总行程 TOTAL STROKE(mm)	推出容积 CYLINDER CAPACITY CLAMP(cm³)	拉入容积 CYLINDER CAPACITY UNCLAMP(cm³)	推出受压面积 EFF.PISTON AREA CLAMP(cm²))	拉入受压面积 EFF.PISTON AREA UNCLAMP(cm²)	使用温度范围 RANGE OF TEMPERATURE(°C)
CTMA-025	308	17.5	3	20.5	0.5	2.1	1.13	0.35	0~+70°c
CTMA-040	424	20.5	3	23.5	1.0	3.6	1.539	0.409	0~+70°c
CTMA-060	645	23	3	26	2.6	6.6	2.545	1.006	0~+70°c
CTMA-100	1018.5	26.5	3	29.5	3.7	11.2	3.801	1.256	0~+70°c
CTMA-160	1724	32	3	35	8.2	21.6	6.158	2.357	0~+70°c
CTMA-250	2441.7	38	3	41	7.7	33	8.042	1.884	0~+70°c

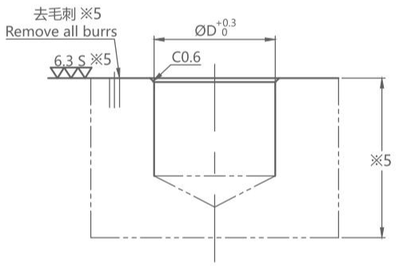
外形尺寸 External Dimensions



C: 板式连接型(附带G螺纹堵头)
C: Gasket Option(With G Thread Plug)
※本图表示CTMA-C型的夹紧状态。
※The drawing shows the Clamping state of CTMA-C.

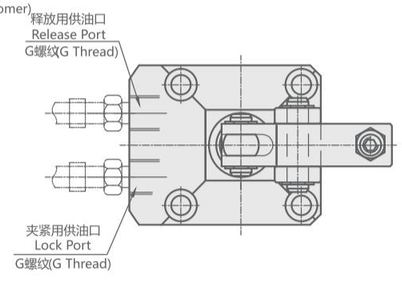
安装部位加工尺寸
Machining Dimensions of Mounting Area





配管方式 Piping Method

B: 外配管型(G螺纹)
B: Piping Option(G Thread)
※本图表示CTMA-BC型的夹紧状态。
※The drawing shows the clamping state of CTMA-BC.



注意事项

※1.只有CTMA-100法兰的倾斜角度为12°。
※2.本产品未附带安装螺栓，请用户参考S尺寸并根据安装高度自行配备。
※3.请参考S尺寸并根据安装高度决定安装螺栓的CA螺纹深度。
※4.请参考F尺寸,并根据安装高度决定本体安装孔ΦD的深度。
※5.本加工表示-C：板式连接型的情况。

NOTE

※1. Flange inclination angle is 12°only for CTMA-100.
※2. Mounting bolts are not provided .Please prepare them according to the mounting height referring to dimension"S".
※3.CA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimension 'S'.
※4.The depth of the body mounting hole ΦD should be decided according to the mounting height referring to dimension 'F'.
※5.The machining dimension is for -C:Gasket option.

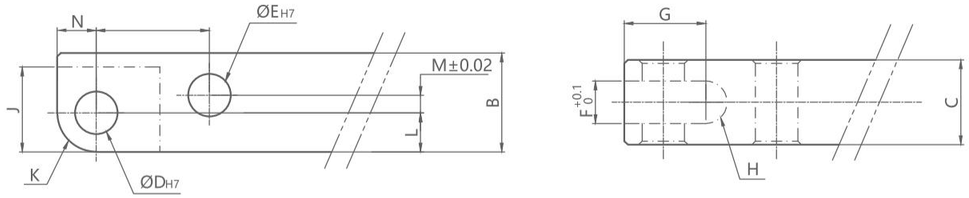
外形尺寸及安装部位加工尺寸表
External Dimensions and Machining Dimensions for Mounting

Unit:mm

型号 Model item	CTMA-025□□	CTMA-040□□	CTMA-060□□	CTMA-100□□	CTMA-160□□	CTMA-250□□
全行程 Full Stroke	20.5	23.5	26	29.5	35	41
夹紧行程 Lock Stroke	17.5	20.5	23	26.5	32	38
行程余量 Extra Stroke	3	3	3	3	3	3
A	87	97.5	108.5	122.5	151	175.5
B	54	61	69	82.5	94.5	109.5
C	45	51	60	73	85	100
D	33	36	43	48	60	70
E	53.5	58.5	63	68.5	84	96.5
F	27.5	30.5	33	35.5	46	54.5
G	26	28	30	33	38	42
H	31.5	35.5	39	46	52	59.5
J	22.5	25.5	30	36.5	42.5	50
K	34	40	47	57	65	75
L	73	81	88	103	116	136
M	11	12	13	14	16	17
Nx	26	30	33.5	40	45	52.5
Ny	9	10	12	15	16	18.5
P	3	3	3	3	5	5
Q	9	9	11	14	17.5	20
R	5.5	5.5	6.8	9	11	14
S	15.5	16.5	16	17.5	17.5	18
T	30.5	35	37.5	45	55	64.5
U	10	12	14	18	22	28
V	25	29	31.5	37	45	52
W	31.5	34.5	37.5	42	49	54.5
X	22	26	30	35.5	43.5	52.5
Y	13	13	16	19	25	28
Z	21	21	28	37	40	49
ZA	R7.5	R7.5	R10	R12	R15	R16
倒角 Chamfer	3	3	3	4	5	8
AA	16	18.5	21	24.5	30	36
AB	78.7	92.4	103.9	118.4	131.8	148.5
AC	50.2	61.2	71.7	83	90.8	104.6
AD	6	6	6	8	10	12
AE	6	6	8	10	12	15
AG	20.2	18.9	19.9	20.5	21.5	22.4
CA (Nominal X Pitch)	M5 X0.8	M5 X0.8	M6 X1	M8X1.25	M10X1.5	M12X1.75
JA	3	3	3	3	3.5	3.5
JB	14	14	14	14	19	19
G 螺纹 G Thread	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4
O形密封圈(-C型) O-ring (Option-C)	1BP5	1BP5	1BP5	1BP5	1BP7	1BP7

杠杆压板设计尺寸 Link Lever Design Dimension

※ 供设计制作压板时参考。※ Reference for designing link lever。



压板尺寸 External Dimensions

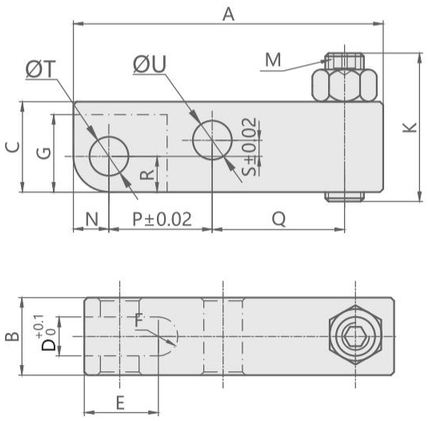
Unit:mm

MODEL ITEM	CTMA-025	CTMA-040	CTMA-060	CTMA-100	CTMA-160	CTMA-250
A	M6	18.5	21	24.5	30	36
B	14	16	20	25	32	38
C	$12^{\ 0}_{-0.3}$	$12^{\ 0}_{-0.3}$	$16^{\ 0}_{-0.3}$	$19^{\ 0}_{-0.3}$	$22^{\ 0}_{-0.3}$	$25^{\ 0}_{-0.3}$
D	$6^{+0.012}_{\ 0}$	$6^{+0.012}_{\ 0}$	$6^{+0.012}_{\ 0}$	$8^{+0.015}_{\ 0}$	$10^{+0.015}_{\ 0}$	$12^{+0.018}_{\ 0}$
E	$6^{+0.012}_{\ 0}$	$6^{+0.012}_{\ 0}$	$8^{+0.015}_{\ 0}$	$10^{+0.015}_{\ 0}$	$12^{+0.018}_{\ 0}$	$15^{+0.018}_{\ 0}$
F	6	6	8	10	11	13
G	11.5	13	12.5	16	20	24
H	R3	R3	R4	R5	R5.5	R6.5
J	12	13	13	17.5	22	26
K	R5.5	R6	R6	R8	R10	R11
L	5.5	6	6	8	10	11
M	2.5	3.5	6	7.5	9.5	13
N	5.5	6	6	8	10	11

注意事项

1.设计加工压板时请勿超出上表中规定的尺寸范围，否则夹紧力将无法满足规格值并可能造成变形，卡滞，动作不正常的故障。
2.压板安装用销钉请使用附带的销钉(⌀ADf6, ⌀AEf6)。

附件：压板
Accessories: Link Lever



注意事项

1.材质：S45C。
2.压板安装用销钉请使用附带的销钉(⌀ADf6,⌀AEf6)。

NOTE

1.Do not exceed the size range speciƀed in the table above when designing and processing the clamping plate. Otherwise, the clamping force will not meet the speciƀcations and may cause deformation, stuck, and abnormal operation.
2.Please use the attached pin(equivalent to ⌀ADf6, ⌀AEf6) as the mounting pin for lever Clamping plae

Unit:mm

MODEL ITEM	CTMA-025	CTMA-040	CTMA-060	CTMA-100	CTMA-160	CTMA-250
A	48	54	64	74.5	88.5	102.5
B	$12^{\ 0}_{-0.3}$	$12^{\ 0}_{-0.3}$	$16^{\ 0}_{-0.3}$	$19^{\ 0}_{-0.3}$	$22^{\ 0}_{-0.3}$	$25^{\ 0}_{-0.3}$
C	14	16	20	25	32	38
D	6	6	8	10	11	13
E	14.5	16	16.5	21	25.5	30.5
F	R3	R3	R4	R5	R5.5	R6.5
G	12	13	13	17.5	22	26
K	23	26	32	39	47	56
M	M6	M6	M8	M10	M12	M16
N	5.5	6	6	8	10	11
P	16	18.5	21	24.5	30	36
Q	20.5	23.5	29	32	37.5	41.5
R	5.5	6	6	8	10	11
S	2.5	3.5	6	7.5	9.5	13
T	$6^{+0.012}_{\ 0}$	$6^{+0.012}_{\ 0}$	$6^{+0.012}_{\ 0}$	$8^{+0.015}_{\ 0}$	$10^{+0.015}_{\ 0}$	$12^{+0.018}_{\ 0}$
U	$6^{+0.012}_{\ 0}$	$6^{+0.012}_{\ 0}$	$8^{+0.015}_{\ 0}$	$10^{0.015}_{0}$	$12^{+0.015}_{\ 0}$	$15^{+0.018}_{\ 0}$

NOTE

1.Material: S45C.
2.Please use the attached pin(equivalent to ⌀ADf6,⌀AEf6)as the mounting pin for Clamping plae.

CCLW

高压紧凑型杠杆式油压缸

CCLW HIGH PRESSURE LEVERAGE CLAMP

产品特性

此系列产品配件采用优化设计,与传统产品比较夹紧能力提高了。产品支撑点部位与缸体采用一体化结构,使体积更加扎实,提高了产品强度。产品采用了专用防尘设计,提高了防尘和密封性,实现了高密封性。产品法兰下部采用缩小设计,适合夹具要求的紧凑化和轻量化。

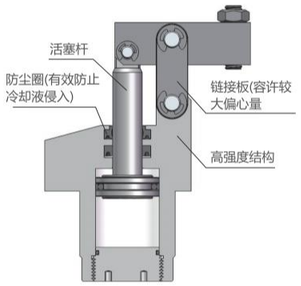
最大操作压力：350kgf/cm²
最小操作压力：10kgf/cm²
CCLW-04除外，最小操作压力30 kgf/cm²
作动方式：复动式

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
Except CCLW-04, Min.operating pressure: 30kgf/cm²
Double acting

剖面图 Sectional view



注意事项

夹紧及放松作动速度需适当放缓。
可接受订制，欢迎与本公司洽询。

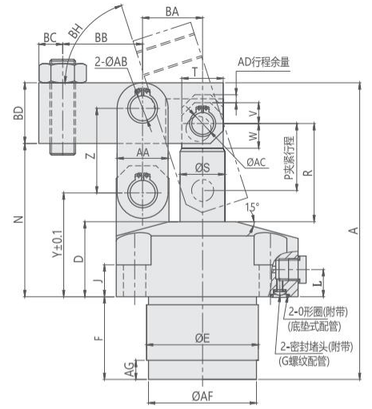
NOTE

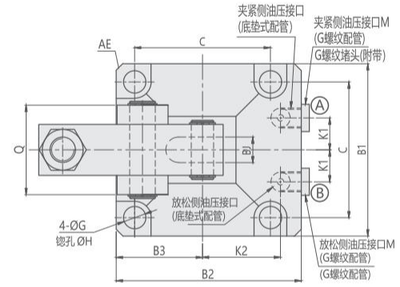
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Customization is available upon request, please contact us for more info.

订购标示法 ORDERING INDICATION

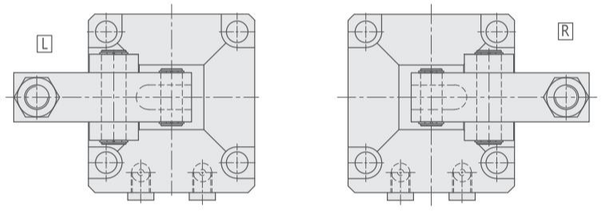
示例：CCLW-04L

CCLW	系列 Series	CCLW	
04	04/06/10/16/25		
L	压臂安装方向 Lever direction	空白:标准 R：右 L: 左	Blank: Standard R: Right L: Left





压臂安装方向 Lever Direction



Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 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
0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	约71°	约70°	约70°	约69°	约72°
BJ	$6^{-0.1}_{-0.2}$	$8^{-0.1}_{-0.2}$	$10^{-0.1}_{-0.2}$	$11^{-0.1}_{-0.2}$	$16^{-0.1}_{-0.2}$

规格参数表 SPECIFICATIONS

型号	理论夹持力 (150 kgf/cm²)	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
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	相当于ISO黏度等级的ISO-VG-32一般液压油 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	

SGYT-30

三杆一体旋转油压缸

SGYT-30 THREE-ROD ROTARY HYDRAULIC SWING CLAMP

产品特性

此旋转油缸具有三点下压夹紧功能，同时配件采用优化设计，使体积更加紧凑，提高了产品的强度。产品采用了专用防尘设计，提高了防尘和密封性，实现高密封性。

FEATURES

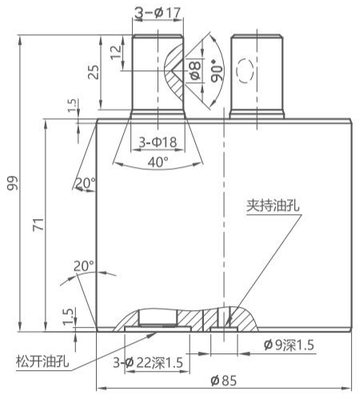
The rotary hydraulic cylinder has a three-point downward clamping function, and the accessories are optimized to make the volume more compact and improve the strength of the product. The product adopts special dustproof design, improves dustproof and sealing, and achieves high sealing.

订购标示法 ORDERING INDICATION

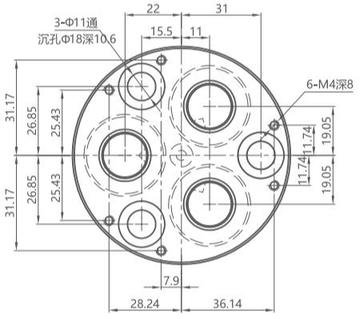
示例：SGYT-30R-90

SGYT-30	系列 Series	SGYT-30
R	转角方向Swing direction	L: 左旋 L: Left R: 右旋 R: Right
90	转角角度 Swing angle	90°

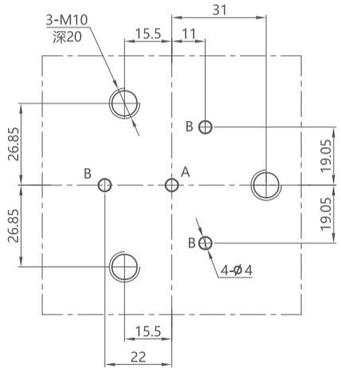
外形尺寸图



A=夹持油孔 Clamping port
B=松开油孔 Unclamping port



安装底座尺寸图



活塞杆径	油缸内径	转角行程	夹紧行程	总行程	单个油缸压紧侧面积	使用压力范围
PISTON ROD DIAMETER(mm)	HYDRAULIC CYLINDER INSIDE DIAMETER(mm)	SWING STROKE (mm)	CLAMPING STROKE (mm)	TOTAL STROKE (mm)	AREA OF CLAMPING SIDE OF SINGLE CYLINDER(cm²)	RANGE OF TEMPERATURE(MPa)
18mm	30mm	8	10	18	4.52	1.5-25

S106-0P20

转向节专用油压转角杠

S106-0P20 SPECIAL HYDRAULIC SWING CLAMP FOR STEERING KNUCKLE

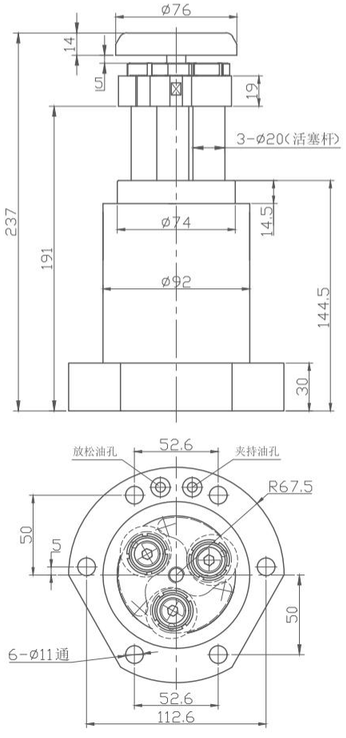
订购标示法 ORDERING INDICATION

示例：S106-0P20

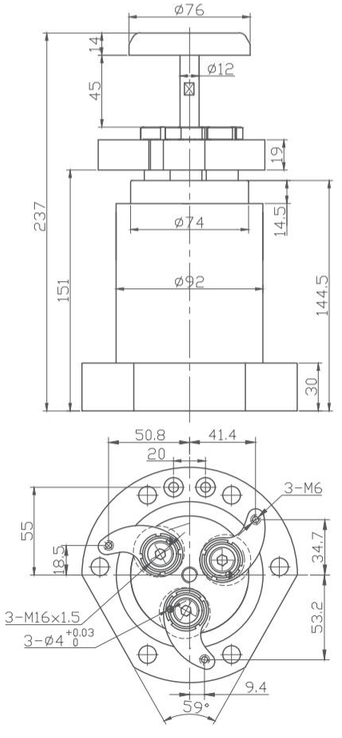
规格参数表 SPECIFICATIONS

型号	理论夹持力 (70kgf/cm²)	转角行程	夹紧行程	拉入容积	推出容积	拉入受压面积	推出受压面积	使用压力范围	使用温度范围
MODEL	CLAMPING FORCEAT 70 kgf/cm²(kgf)	SWING STROKE(mm)	CLAMPING STROKE(mm)	CYLINDER CAPACITY CLAMP(cm³)	CYLINDER CAPACITY UNCLAMP(cm³)	EFF.PISTON AREA CLAMP(cm²)	EFF.PISTON AREA UNCLAMP(cm²)	RANGE OF PRESSURE(MPa)	RANGE OF TEMPERATURE(℃)
S106-OP20	3-343	15	25	3-19.6	3-32.16	3-4.9	3-8.04	3~7MPa	-10~+70℃
使用流体相当于ISO粘度等级的ISO-VG-32一般液压油		Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade							

松开状态



右转90°夹紧状态



CHA

油压转角缸

CHA HYDRAULIC SWING CLAMP

产品特性

此系列产品配件采用优化设计，使体积更加紧凑，提高了产品强度。产品采用了专用防尘设计,提高了防尘和密封性实现了高密封性。
产品结构设计具有高抗扭矩性，实现了高耐久性。

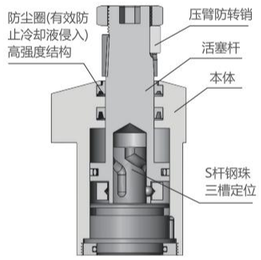
最大操作压力：70kgf/cm²
最小操作压力：15kgf/cm²
作动方式：复动式

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: 70kgf/cm²
Min. operation pressure: 15kgf/cm²
Double acting

剖面图 Sectional view



注意事项

夹紧及放松作动速度需适当放缓。
压臂安装拆卸方式，请参见第4页。
可接受订制，欢迎与本公司洽询。

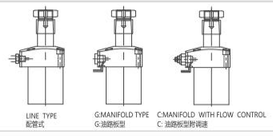
NOTE

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.

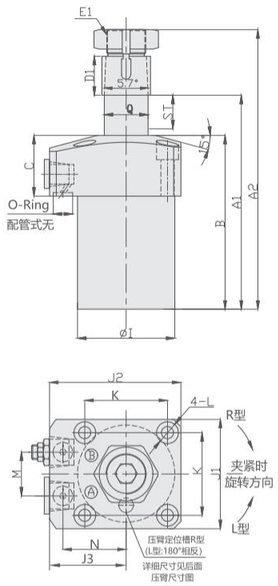
订购标示法 ORDERING INDICATION

示例：CHA-040SL-90GM

CHA	系列 Series	CHA
040	主体尺寸 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	压臂型式 Clamping arm type	S:单边压臂　S: Single side arm D:双边压臂　D: Double side arm　(注:双压臂的无双出杆型)
L	转角方向 Swing direction	L：左　R：右　L:Left　R:Right
90	转角角度 Swing angle	标准角度　Standard angle 90°(±2°) 可订做角度　Order angle 30°(±2°),45°(±2°),60°(±2°)
G	型式 Type	空白：配管式　Blank: Line type G：油路板型　G: Manifold type C：油路板式附调速　C: Manifold with flow control
Q	加长行程 Extended stroke	具体规格请参见尺寸数据表，Please refer the spec in the dimension table. 注：加长行程无气检型　Note: extended stroke no air sensor option
M	无符号：空白(标准) M：空气感测器板式连接型 N：空气感测器管式连接型 ※D：双出杆型	Blank: Standard M: Air sensor manifold option N: Air sensor piping option ※D: Double end rod option

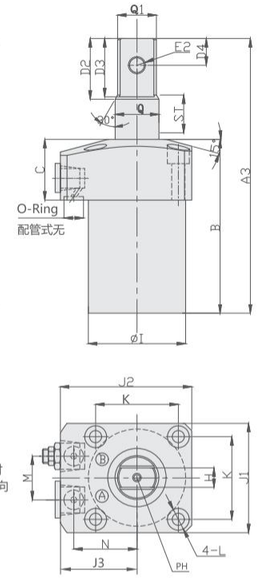


SINGLE SIDE SWING CLAMP



DOUBLE SIDE SWING CLAMP

注：下图为转角90°松开状态



Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

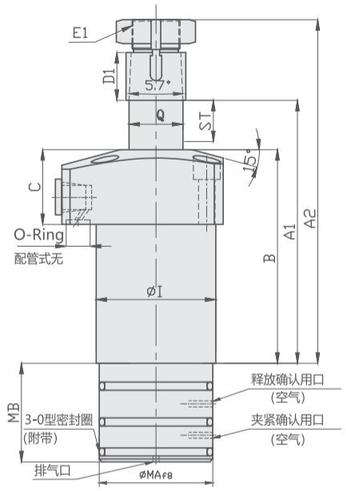
Unit:mm

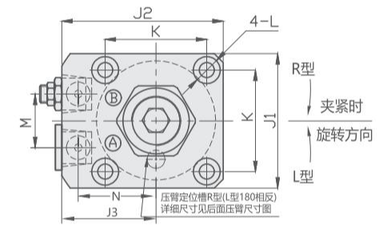
MODEL ITEM	CHA-036	CHA-040	CHA-048	CHA-055	CHA-065	CHA-075	CHA-090	CHA-105
ST:Swing /Clamp	13.5:5.5/8	14.5:6.5/8	15.5:7.5/8	18.5:8.5/10	20:10/10	24:12/12	26:14/12	32:16/16
A1松开状态 Unclamping	80	88	96.5	109.5	116	135	148	178
A2松开状态 Unclamping	104	115	128.5	145.5	156	181	203	240
A3松开状态 Unclamping	102	113	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(仅G/C型) O-Ring(G/Ctype)	P5	P5	P5	P5	P7	P7	P7	P7

规格参数表 SPECIFICATIONS

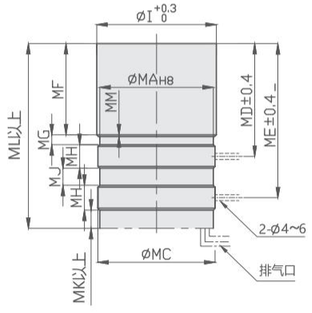
型号	理论夹持力 (70 kgf/cm²)	转角行程	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/cm² (kgf)	SWING STROKE (mm)	CLAMPING STROKE (mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY UNCLAMP(cm³)	CYLINDER CAPACITY CLAMP(cm³)	EFF.PISTON AREA UNCLAMP(cm²)	EFF.PISTON AREA CLAMP(cm²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CHA-036	220	5.5	8	13.5	6.63	4.24	4.91	3.14	-10~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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	

注：下图以CHA-M型松开状态





注：安装部位加工尺寸

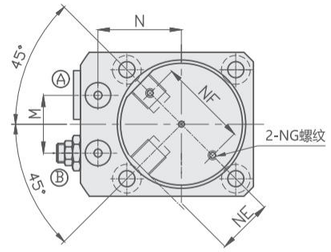


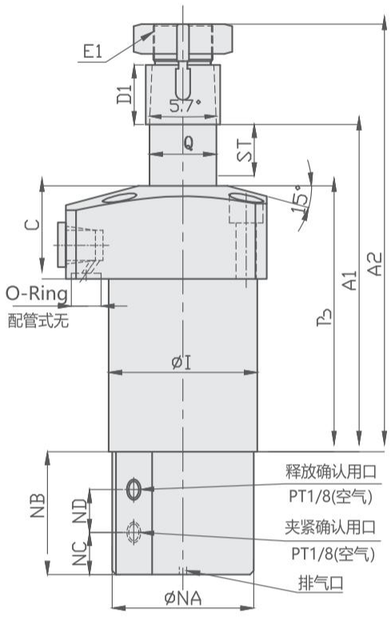
Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

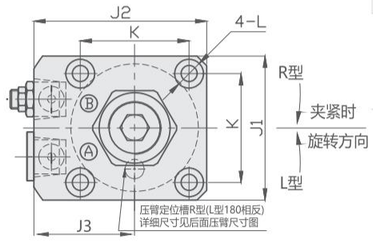
Unit:mm

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松开状态 Unclamping	80	88	96.5	109.5	116	135	148	178
A2松开状态 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(仅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

注:下图以CHA-N型松开状态







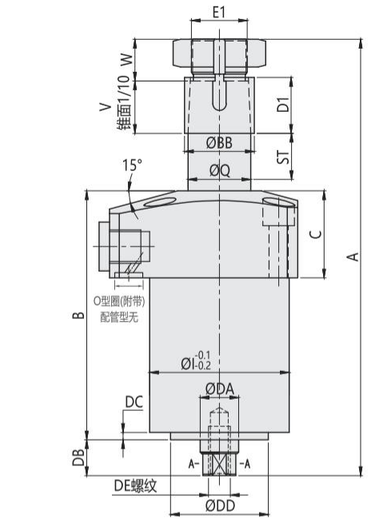
Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

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松开状态 Unclamping	80	88	96.5	109.5	116	135	148	178
A2松开状态 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(仅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 (公称x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

Unit:mm

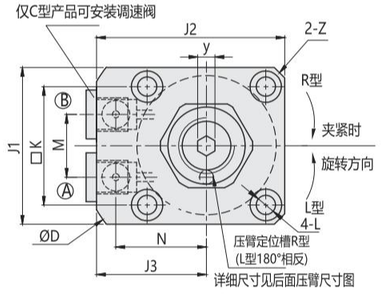
注：本图为CHA-G※D型松开状态



Ⓐ 夹持油孔 Clamping port A-A

Ⓑ 放松油孔 Unclamping port

仅C型产品可安装调速阀

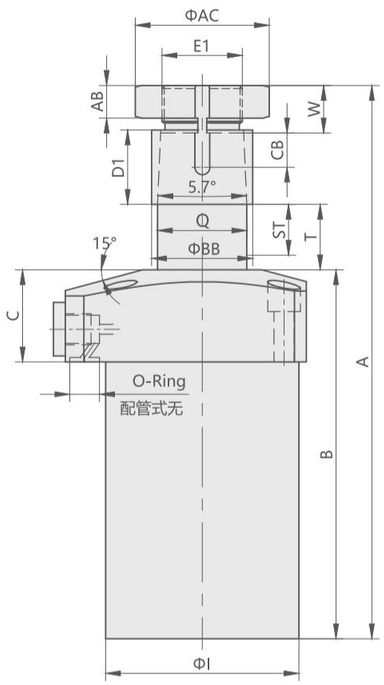


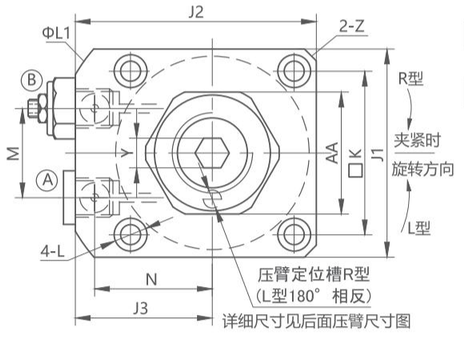
MODEL ITEM	CHA-036※D	CHA-040※D	CHA-048※D	CHA-055※D	CHA-065※D	CHA-075※D	CHA-090※D	CHA-105※D
ST:Swing /Clamp	13.5:5.5/8	14.5:6.5/8	15.5:7.5/8	18.5:8.5/10	20:10/10	24:12/12	26:14/12	32:16/16
A1松开状态 Unclamping	114.5	128	141.5	158.5	169	194	216	253
B	67	74.5	82	92	97	112	123	147
C	25	25	28	30	31	38	46	56
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(仅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

规格参数表 SPECIFICATIONS

型号	理论夹持力 (70 kgf/cm²)	转角行程	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/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(°C)	USABLE FLUID
CHA-036※D	247.8	5.5	8	13.5	6.48	4.78	4.8	3.54	-10~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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°C	
CHA-048※D	486.5	7.5	8	15.5	14.27	10.77	9.21	6.95	-10~+70°C	
CHA-055※D	721	8.5	10	18.5	25.27	19.06	13.66	10.3	-10~+70°C	
CHA-065※D	938	10	10	20	37.76	26.8	18.88	13.4	-10~+70°C	
CHA-075※D	1421	12	12	24	66.34	48.7	27.64	20.3	-10~+70°C	
CHA-090※D	2065	14	12	26	111.28	76.7	42.8	29.5	-10~+70°C	
CHA-105※D	2891	16	16	32	119.87	132.2	62.46	41.3	-10~+70°C	

下图表示CHA-*R-90*-Q松开状态



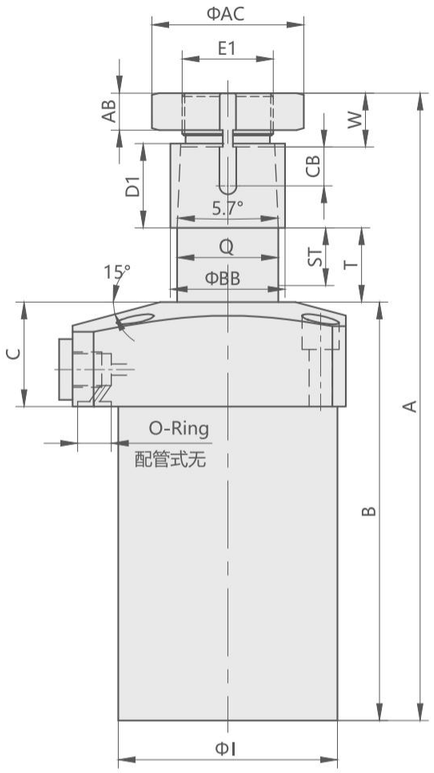


Ⓐ 夹持油孔 Clamping port

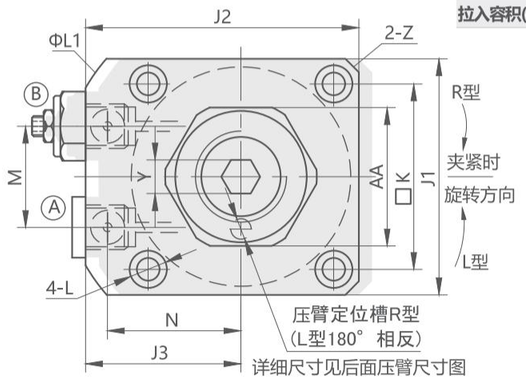
Ⓑ 放松油孔 Unclamping port

MODEL ITEM	CHA-036□□-Q□				CHA-040□□-Q□			CHA-048□□-Q□		
选型	Q15	Q20	Q25	Q30	Q15	Q20	Q25	Q15	Q20	Q25
ST全行程	20.5	25.5	33	38	21.5	26.5	34.5	22.5	27.5	36
转角行程	5.5	5.5	8	8	6.5	6.5	9.5	7.5	7.5	11
直线行程	15	20	25	30	15	20	25	15	20	25
A松开状态	125	140	162.5	177.5	136	151	175	149.5	164.5	190
B	78.5	88.5	103.5	113.5	85.5	95.5	111.5	93	103	120
C	25	25	25	25	25	25	25	28	28	28
D1	14	14	14	14	16	16	16	19	19	19
E1	M14×1.5				M16×1.5			M20×1.5		
ΦI	Φ36	Φ36	Φ36	Φ36	Φ40	Φ40	Φ40	Φ48	Φ48	Φ48
J1	40	40	40	40	45	45	45	51	51	51
J2	49	49	49	49	54	54	54	61	61	61
J3	29	29	29	29	31.5	31.5	31.5	35.5	35.5	35.5
K	□31.4				□34			□40		
L	Φ4.5-Φ7.5×5D				Φ5.5-Φ9×6D			Φ5.5-Φ9×6D		
ΦL1	Φ66	Φ66	Φ66	Φ66	Φ73	Φ73	Φ73	Φ83	Φ83	Φ83
M	16	16	16	16	18	18	18	22	22	22
N	23.5	23.5	23.5	23.5	26	26	26	30	30	30
Q	Φ15	Φ15	Φ15	Φ15	Φ18	Φ18	Φ18	Φ22	Φ22	Φ22
T	22.5	27.5	35	40	23.5	28.5	36.5	24.5	29.5	38
Y	5	5	5	5	6	6	6	8	8	8
Z	C2	C2	C2	C2	C3	C3	C3	C3	C3	C3
W	11	11	11	11	12	12	12	14	14	14
AA	22	22	22	22	24	24	24	30	30	30
AB	7	7	7	7	8	8	8	9	9	9
ΦAC	Φ24.5				Φ26.5	Φ26.5	Φ26.5	Φ33	Φ33	Φ33
ΦBB	Φ17	Φ17	Φ17		Φ20	Φ20	Φ20	Φ25	Φ25	Φ25
CB	6.5	6.5	6.5	6.5	6.5	6.5	6.5	7.5	7.5	7.5
配管式油口	2-PT1/8				2-PT1/8			2-PT1/8		
O型圈(仅G/C型)	2-P5				2-P5			2-P5		
推出容积(cm³)	10.9	13.5	17.5	20.2	16.2	20	26	24.2	29.6	38.7
拉入容积(cm³)	7.2	8.9	11.6	13.3	10.8	13.3	17.3	15.8	19.3	25.2

下图表示CHA-*R-90*-Q松开状态

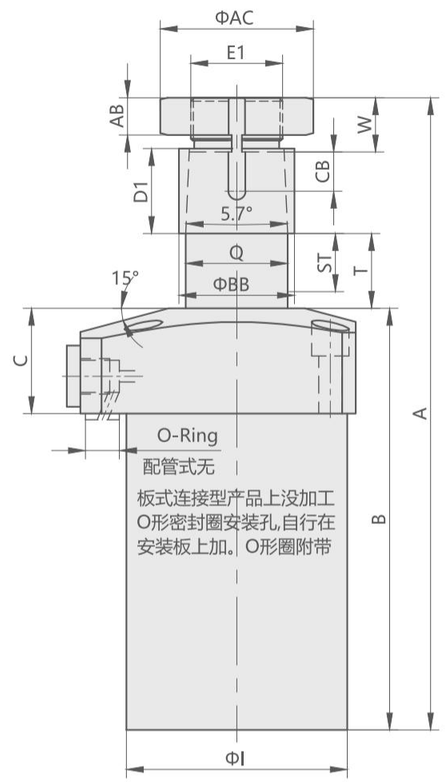


MODEL ITEM	CHA-055□□-Q□			CHA-065□□-Q□				CHA-075□□-Q□		CHA-090□□-Q□	
选型	Q15	Q20	Q25	Q15	Q20	Q25	Q30	Q20	Q25	Q20	Q25
ST全行程	23.5	28.5	33.5	25	30	35	40	32	37	34	39
转角行程	8.5	8.5	8.5	10	10	10	10	12	12	14	14
直线行程	15	20	25	15	20	25	25	20	25	20	25
A松开状态	160.5	175.5	190.5	171	186	201	216	205	220	227	242
B	99	109	119	104	114	124	134	125	135	136	145
C	30	30	30	31	31	31	31	38	38	46	46
D1	22	22	22	25	25	25	25	31	31	38	38
E1	M22×1.5			M27×1.5				M30×1.5		M39×1.5	
ΦI	Φ55	Φ55	Φ55	Φ65				Φ75	Φ75	Φ90	Φ90
J1	60	60	60	70	70	70	70	80	80	95	95
J2	69	69	69	81	81	81	81	92	92	107	107
J3	39	39	39	46	46	46	46	52	52	59.5	59.5
K	□47			□55				□63		□75	
L	Φ6.8-Φ11×7D			Φ6.8-Φ11×7D				Φ9-Φ14×9D		Φ11-Φ17.5×11D	
ΦL1	Φ88			Φ106				Φ116	Φ116	Φ136	Φ136
M	24	24	24	30	30	30	30	32	32	37	37
N	33.5	33.5	33.5	39.5				45	45	52.5	52.5
Q	Φ25	Φ25	Φ25	Φ30	Φ30	Φ30	Φ30	Φ35.5	Φ35.5	Φ45	Φ45
T	25.5	30.5	35.5	27	32	37	42	34	39	36	41
Y	8	8	8	10	10	10	10	10	10	14	14
Z	C3	C3	C3	C4	C4	C4	C4	C5	C5	C6	C6
W	15	15	15	16	16	16	16	16	16	18	18
AA	32	32	32	41	41	41	41	46	46	55	55
AB	10	10	10	11	11	11	11	11	11	12	12
ΦAC	Φ35.5			Φ45				Φ50	Φ50	Φ60	Φ60
ΦBB	Φ28	Φ28	Φ28	Φ34				Φ40	Φ40	Φ49	Φ49
CB	9.5	9.5	9.5	11.5	11.5	11.5	11.5	12.5	12.5	11.5	11.5
配管式油口	2-PT1/8			2-PT1/4				2-PT1/4		2-PT3/8	
O型圈(仅G/C型)	2-P5			2-P7				2-P7		2-P7	
推出容积(cm³)	35.7	43.3	50.9	51.1	61.3	71.5	81.7	96.6	111.7	154.2	176.9
拉入容积(cm³)	24.2	29.4	34.5	33.5	40.2	46.9	53.6	65	75.1	100.3	115.1

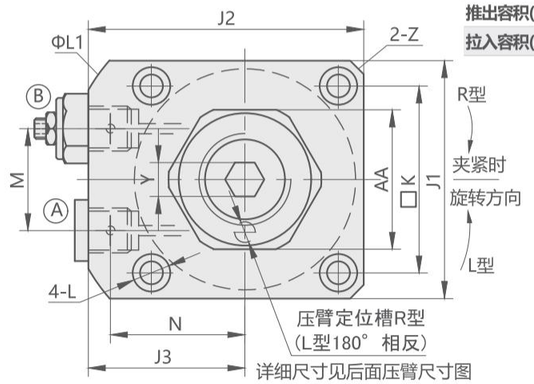


Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

下图表示CHA-*R-90*-Q松开状态

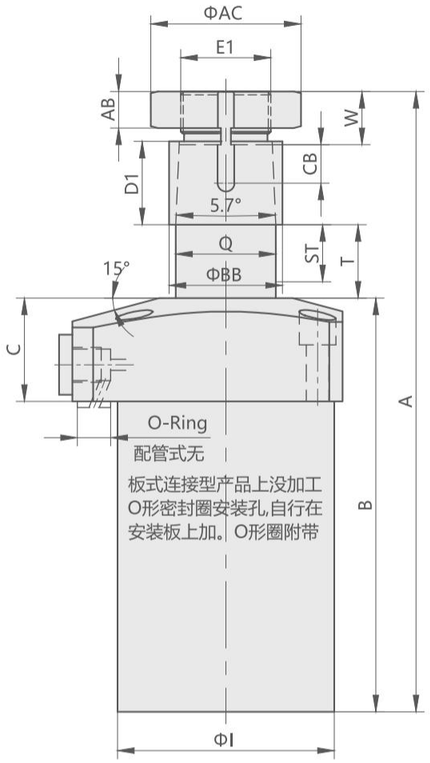


MODEL ITEM	CHA-036□□-Q□	CHA-040□□-Q□			CHA-048□□-Q□		
选型	Q35	Q30	Q35	Q40	Q30	Q35	Q40
ST全行程	43	9.5	44.5	49.5	41	46	51
转角行程	8	39.5	9.5	9.5	11	11	11
直线行程	35	30	35	40	30	35	40
A松开状态	192.5	190	205	220	205	220	235
B	123.5	121.5	131.5	141.5	130	140	150
C	25	25	25	25	28	28	28
D1	14	16	16	16	19	19	19
E1	M14×1.5	M16×1.5			M20×1.5		
ΦI	Φ36	Φ40	Φ40	Φ40	Φ48	Φ48	Φ48
J1	40	45	45	45	51	51	51
J2	49	54	54	54	61	61	61
J3	29	31.5	31.5	31.5	35.5	35.5	35.5
K	□31.4	□34	□34	□34	□40	□40	□40
L	Φ4.5-Φ7.5×5D	Φ5.5-Φ9×6D			Φ5.5-Φ9×6D		
ΦL1	Φ66	Φ73	Φ73	Φ73	Φ83	Φ83	Φ83
M	16	18	18	18	22	22	22
N	23.5	26	26	26	30	30	30
Q	Φ15	Φ18	Φ18	Φ18	Φ22	Φ22	Φ22
T	45	41.5	46.5	51.5	43	48	53
Y	5	6	6	6	8	8	8
Z	C2	C3	C3	C3	C3	C3	C3
W	11	12	12	12	14	14	14
AA	22	24	24	24	30	30	30
AB	7	8	8	8	9	9	9
ΦAC	Φ24.5	Φ26.5	Φ26.5	Φ26.5	Φ33	Φ33	Φ33
ΦBB	Φ17	Φ20	Φ20	Φ20	Φ25	Φ25	Φ25
CB	6.5	6.5	6.5	6.5	7.5	7.5	7.5
配管式油口	2-PT1/8	2-PT1/8			2-PT1/8		
O型圈(仅G/C型)	2-P5	2-P5			2-P5		
推出容积(cm³)	22.8	29.8	22.3	24.8	28.7	32	35.7
拉入容积(cm³)	15.1	19.8	22.3	24.8	28.7	32	35.7

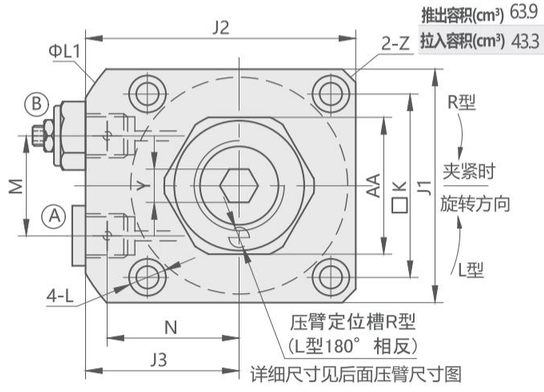


Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

下图表示CHA-*R-90*-Q松开状态

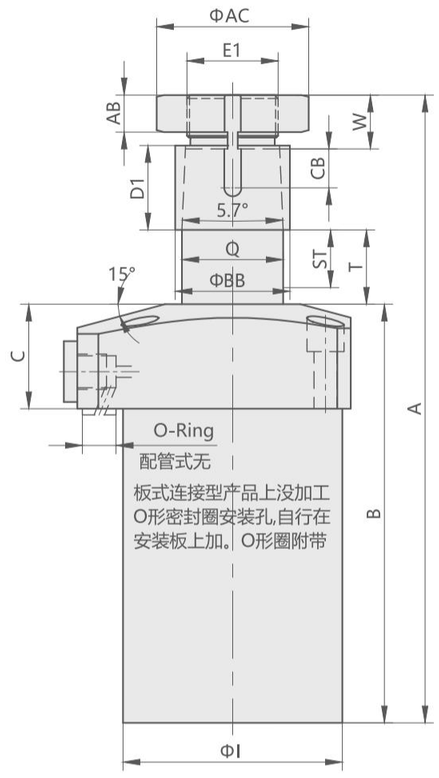


MODEL ITEM	CHA-055□□-Q□					CHA-065□□-Q□					CHA-075□□-Q□				
选型	Q30	Q35	Q40	Q45	Q50	Q35	Q40	Q45	Q50		Q30	Q35	Q40	Q45	Q50
ST全行程	42	47	52	57	62	50	55	60	65		42	47	55	60	65
转角行程	12	12	12	12	12	15	15	15	15		12	12	15	15	15
直线行程	30	35	40	45	50	35	40	45	50		30	35	40	45	50
A松开状态	216	231	246	261	276	246	261	276	291		235	250	274	289	304
B	136	146	156	166	176	154	164	174	184		145	155	171	181	191
C	30	30	30	30	30	31	31	31	31		38	38	38	38	38
D1	22	22	22	22	22	25	25	25	25		31	31	31	31	31
E1	M22×1.5					M27×1.5					M30×1.5				
ΦI	Φ55	Φ55	Φ55	Φ55	Φ55	Φ65	Φ65	Φ65	Φ65		Φ75	Φ75	Φ75	Φ75	Φ75
J1	60	60	60	60	60	70	70	70	70		80	80	80	80	80
J2	69	69	69	69	69	81	81	81	81		92	92	92	92	92
J3	39	39	39	39	39	46	46	46	46		52	52	52	52	52
K	□47					□55					□63				
L	Φ6.8-Φ11×7D					Φ6.8-Φ11×7D					Φ9-Φ14×9D				
ΦL1	Φ88	Φ88	Φ88	Φ88	Φ88	Φ106	Φ106	Φ106	Φ106		Φ116				
M	24	24	24	24	24	30	30	30	30		32	32	32	32	32
N	33.5	33.5	33.5	33.5	33.5	39.5	39.5	39.5	39.5		45	45	45	45	45
Q	Φ25	Φ25	Φ25	Φ25	Φ25	Φ30	Φ30	Φ30	Φ30		Φ35.5				
T	44	49	54	59	64	52	57	62	67		44	49	57	62	67
Y	8	8	8	8	8	10	10	10	10		10	10	10	10	10
Z	C3	C3	C3	C3	C3	C4	C4	C4	C4		C5	C5	C5	C5	C5
W	15	15	15	15	15	16	16	16	16		16	16	16	16	16
AA	32	32	32	32	32	41	41	41	41		46	46	46	46	46
AB	10	10	10	10	10	11	11	11	11		11	11	11	11	11
ΦAC	Φ35.5					Φ45	Φ45	Φ45	Φ45		Φ50	Φ50	Φ50	Φ50	Φ50
ΦBB	Φ28	Φ28	Φ28	Φ28	Φ28	Φ34	Φ34	Φ34	Φ34		Φ40	Φ40	Φ40	Φ40	Φ40
CB	9.5	9.5	9.5	9.5	9.5	11.5	11.5	11.5	11.5		12.5	12.5	12.5	12.5	12.5
配管式油口	2-PT1/8					2-PT1/4					2-PT1/4				
O型圈(仅G/C型)	2-P5					2-P7					2-P7				
推出容积(cm³)	63.9	71.5	79.1	86.7	94.3	102.1	112.3	122.6	132.7		126.8	141.9	166	181.1	196.2
拉入容积(cm³)	43.3	48.4	53.6	58.7	63.9	67	73.7	80.4	87.1		85.3	95.4	111.7	121.8	132

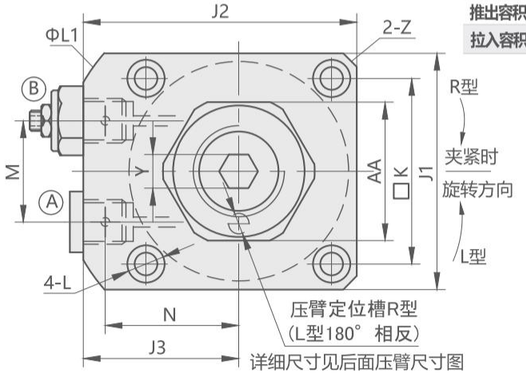


Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

下图表示CHA-*R-90*-Q松开状态



MODEL ITEM	CHA-090□□-Q□					CHA-0105□□-Q□					
选型	Q30	Q35	Q40	Q45	Q50	Q25	Q30	Q35	Q40	Q45	Q50
ST全行程	44	49	57	62	67	41	46	41	56	61	66
转角行程	14	14	17	17	17	17	16	16	16	16	16
直线行程	30	35	40	45	50	25	30	35	40	45	50
A松开状态	257	272	296	311	326	267	282	297	312	327	342
B	156	166	182	192	202	162	172	182	192	202	212
C	46	46	46	46	46	56	56	56	56	56	56
D1	38	38	38	38	38	44	44	44	44	44	44
E1	M39×1.5					M48×1.5					
ΦI	Φ90	Φ90	Φ90	Φ90	Φ90	Φ105	Φ105	Φ105	Φ105	Φ105	Φ105
J1	95	95	95	95	95	110	110	110	110	110	110
J2	107	107	107	107	107	122	122	122	122	122	122
J3	59.5	59.5	59.5	59.5	59.5	67	67	67	67	67	67
K	□75	□75	□75	□75	□75	□88	□88	□88	□88	□88	□88
L	Φ11-Φ17.5×11D					Φ14-Φ20×14D					
ΦL1	Φ136	Φ136	Φ136	Φ136	Φ136	Φ152	Φ152	Φ152	Φ152	Φ152	Φ152
M	37	37	37	37	37	45	45	45	45	45	45
N	52.5	52.5	52.5	52.5	52.5	60	60	60	60	60	60
Q	Φ45	Φ45	Φ45	Φ45	Φ45	Φ55	Φ55	Φ55	Φ55	Φ55	Φ55
T	46	51	59	64	69	43	48	53	58	63	68
Y	14	14	14	14	14	14	14	14	14	14	14
Z	C6	C6	C6	C6	C6	C6	C6	C6	C6	C6	C6
W	18	18	18	18	18	19	19	19	19	19	19
AA	55	55	55	55	55	65	65	65	65	65	65
AB	12	12	12	12	12	12	12	12	12	12	12
ΦAC	Φ60	Φ60	Φ60	Φ60	Φ60	Φ71	Φ71	Φ71	Φ71	Φ71	Φ71
ΦBB	Φ49	Φ49	Φ49	Φ49	Φ49	Φ60	Φ60	Φ60	Φ60	Φ60	Φ60
CB	11.5	11.5	11.5	11.5	11.5	13.5	13.5	13.5	13.5	13.5	13.5
配管式油口	2-PT3/8					2-PT3/8					
O型圈(仅G/C型)	2-P7					2-P7					
推出容积(cm³)	199.6	222.3	258.6	281.3	303.9	266.7	299.2	331.7	364.2	396.7	429.3
拉入容积(cm³)	129.8	144.4	168.2	182.9	197.7	169.3	190	210.6	231.3	251.9	272.6



Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

CLHW

传感器内置式转角缸

CLHW AIR SENSING SWING CLAMP

产品特性

此系列产品动作端内置有动作确认机构,最适用于实现设备的自动化。
通过连接空气传感器，检出压差，实现确认动作。
通过夹紧动作确认，能实现安全可靠地将工件搬入搬出。
内置传感阀，可实现超薄型的夹具设计。
简单的油路孔设计。

最大操作压力：70kgf/cm²
最小操作压力：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 CLHW series has taken a new and improved compact design and is most suitable for achieving automation.

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

注意事项

夹紧及放松作动速度需适当放缓。为进行确认动作，须设置空气传感器。气口须进行大气开放，务必防止冷却液，切削渣的侵入。使用时请保持向气口常态供气状态。

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.

订购标示法 ORDERING INDICATION

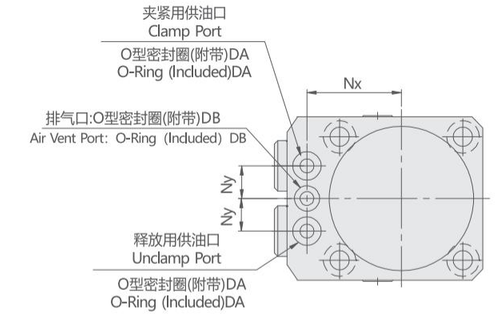
示例：CLHW-048CRE

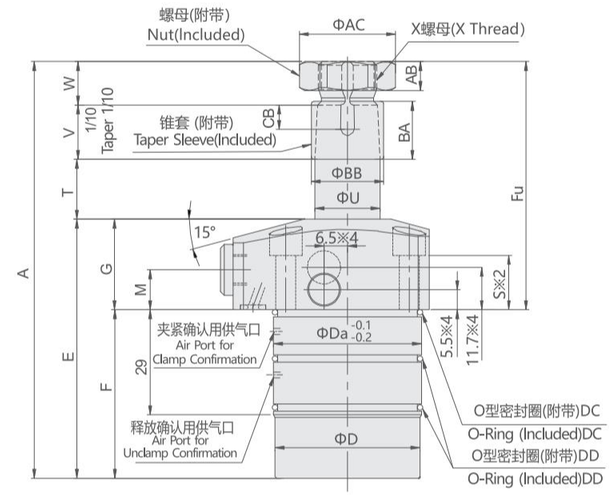
CLHW	系列 Series	CLHW		
048	主体尺寸 Body size	040: ΦD=40mm 048: ΦD=48mm 055: ΦD=55mm	065: ΦD=65mm 075: ΦD=75mm	ΦD表示本体油缸外径尺寸 Outer diameter (ΦD) of the cylinder
C	板式连接型(附带G螺纹堵头) Gasket Option(With G Thread Plug)	附带G螺纹堵头可安装速度控制阀(CZL)(用户另行购买) With G Thread Plug (able to attach Speed Control Valve) (Order the valve separately.Recommended:CZL)		
R	夹紧时的旋转方向 Swing Direction When Clamping	R：顺时针方向 L：逆时针方向	R: Clockwise L: Counter-Clockwise	
E	传感阀符号 Sensing Valve	E：夹紧释放动作确认型 H：夹紧动作确认型 J：释放动作确认型	E: Clamp-Unclamp Confirmation(Both) H: Clamp Confirmation Only J:Unclamp Confirmation Only	

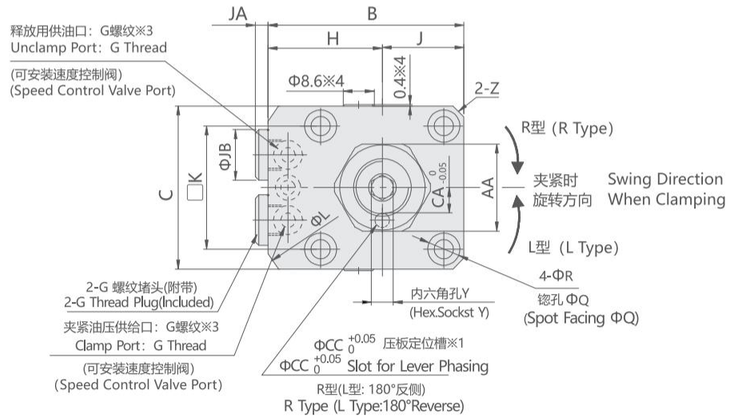
注：推荐使用气缸0.1-0.2MPa,空气感测器为SMC的ISA2-HE45N。
Note: Recommended Operating Air Pressure 01~0.2MPa. Air Sensor: ISA2-HE45N(SMC)

夹紧•释放动作确认型
CLAMPUNCLAMP CONFIRMATION

※本图表示CLHW-CRE的释放状态
The drawing shows the unclamped state of CLHW-CRE







注意事项

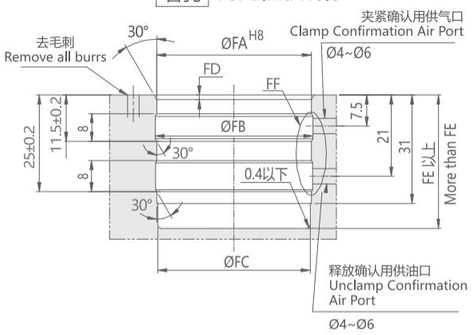
※1.压板定位用槽在夹紧时朝向供油口侧。
※2.本产品未附带安装螺栓。
请用户参考S尺寸并根据安装高度自行配备。
※3.本产品未附带速度控制阀，请用户自行配备。
※4.仅有CLHW-040如记载尺寸，传感阀是从本体凸出来的。

NOTE

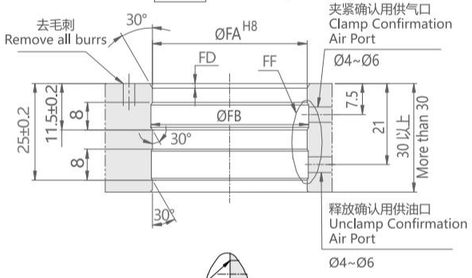
※1.The slot for lever phasing faces the port side when clamped.
※2.Mounting bolts are not provided . Please prepare them according to the mounting height referring to dimension"S".
※3.Speed control valve is sold separately.
※4.The valve of CLHW-040 is protruded as shown in the drawing.

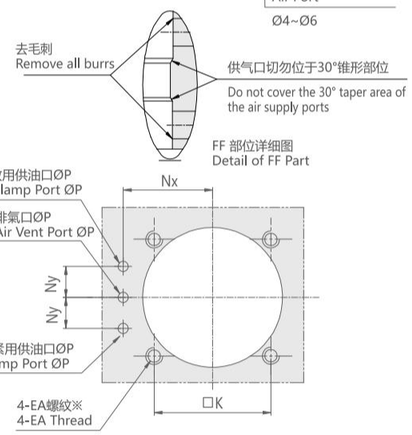
安装部位加工尺寸
Machining Dimensions of Mounting Area

盲孔 For Blind Hole



贯通孔 For Through Hole





注意事项

※请参考S尺寸并根据安装高度决定安装螺栓的EA螺纹孔的深度。

NOTE

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

Unit:mm

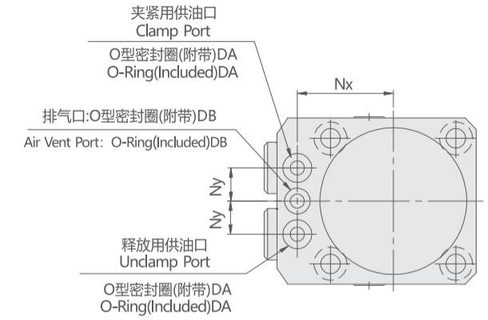
MODEL ITEM	CLHW-040C□E	CLHW-048C□E	CLHW-055C□E	CLHW-065C□E	CLHW-075C□E
A	115	128.5	145.5	156	181
B	54	61	69	81	92
C	45	51	60	70	80
D	40	48	55	65	75
Da	40.8	49	56	66	76
E	71.5	79	89	94	109
F	46.5	51	59	63	71
Fu	68.5	77.5	86.5	93	110
G	25	28	30	31	38
H	31.5	35.5	39	46	52
J	22.5	25.5	30	35	40
K	34	40	47	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
夹紧用供油口: G螺纹 Clamp Port:G Thread 释放用供油口: G螺纹 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	38x1.5(内径×线径)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-040(70°)

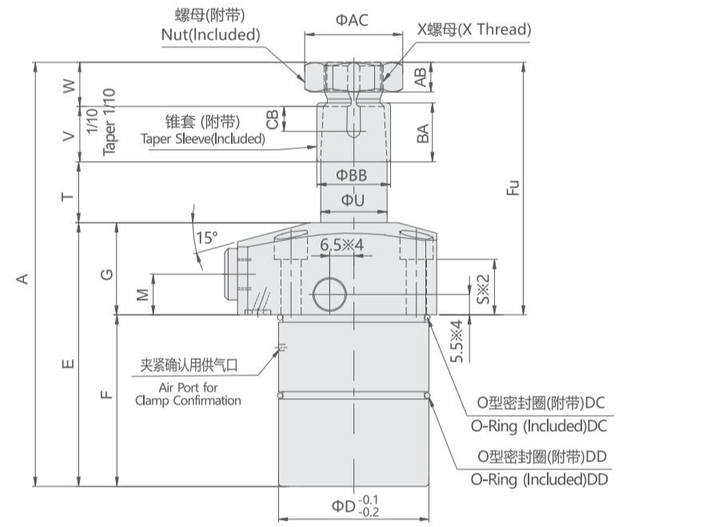
规格参数表 SPECIFICATIONS

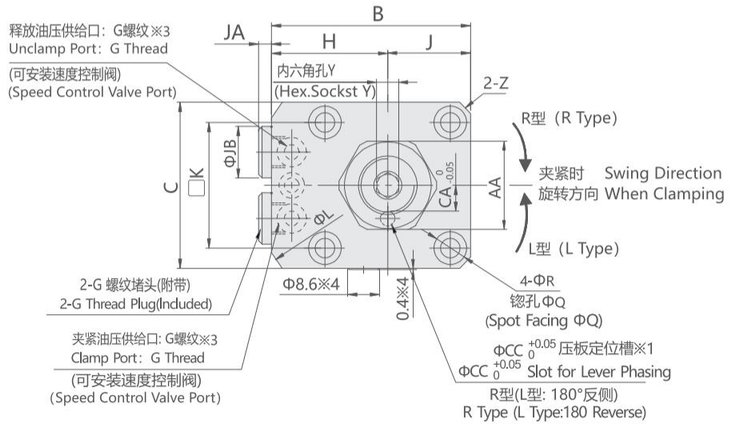
型号 MODEL	理论夹持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	转角行程 SWING STROKE (mm)	夹紧行程 CLAMPING STROKE (mm)	总行程 TOTAL STROKE(mm)	推出容积 CYLINDER CAPACITY CLAMP(cm³)	拉入容积 CYLINDER CAPACITY UNCLAMP(cm³)	推出受压面积 EFF.PISTON AREA CLAMP(cm²)	拉入受压面积 EFF.PISTON AREA UNCLAMP(cm²)	使用温度范围 RANGE OF TEMPERATURE(°C)
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

夹紧动作确认型
CLAMP CONFIRMATION ONLY

※本图表示CLHW-CRH的夹紧状态
The drawing shows the clamped state of CLHW-CRH







注意事项

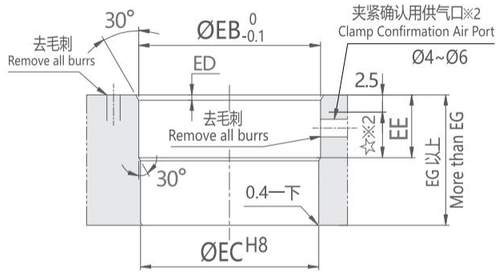
※1.压板定位用槽在夹紧时朝向供油口侧。
※2.本产品未附带安装螺栓。请用户参考S尺寸并根据安装高度自行配备。
※3.本产品未附带速度控制阀，请用户自行配备。
※4.仅有CLHW0401如记载尺寸，传感阀是从本体凸出来的。

NOTE

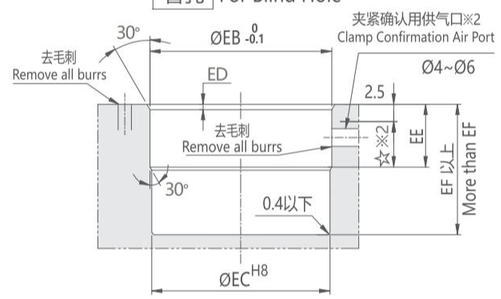
※1.The slot for lever phasing faces the port side when clamped.
※2.Mounting bolts are not provided. Please prepare them according to the mounting height referring to dimension"S".
※3.Speed control valve is sold separately.
※4.The valve of CLHW-040 is protruded as shown in the drawing.

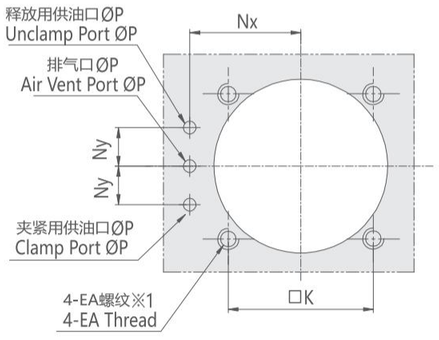
安装部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA

贯通孔 For Through Hole



盲孔 For Blind 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
夹紧用供油口:G螺纹 Clamp Port: G Thread 释放用供油口:G螺纹 Undamp Port: G Thread		G1/8	G1/8	G1/8	G1/4	G1/4
O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°)

注意事项

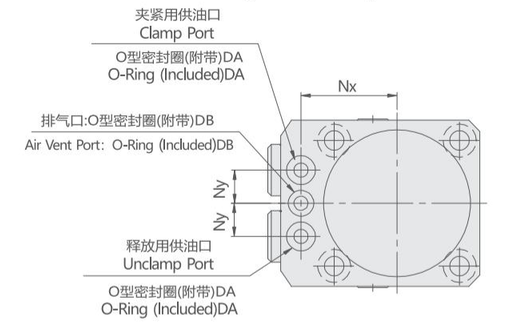
※1.请参考S尺寸并根据安装高度决定安装螺栓的EA螺纹孔的深度。
※2.请将夹紧确认用供气口设置于图示☆范围内。

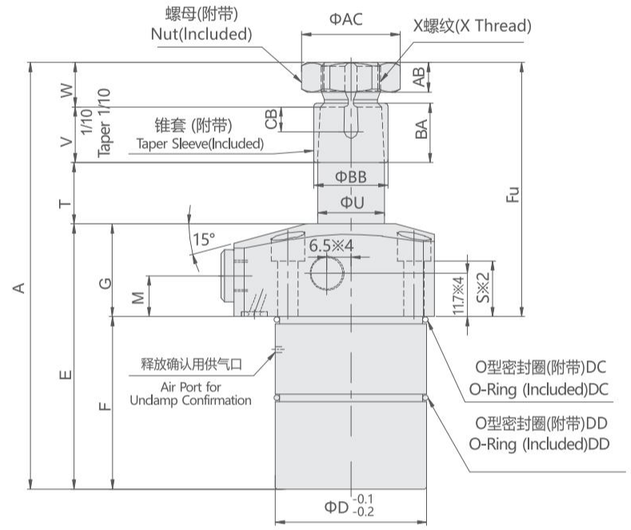
NOTE

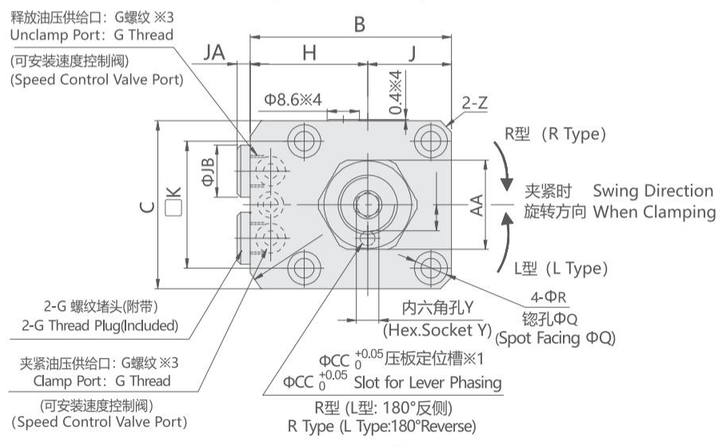
※1.EA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimension"S".
※2. Provide the air port for clamp confirmation within the part☆.

释放动作确认型
UNCLAMP CONFIRMATION ONLY

※本图表示CLHW-CRJ的释放状态
The drawing shows the unclamped state of CLHW-CRJ







注意事项

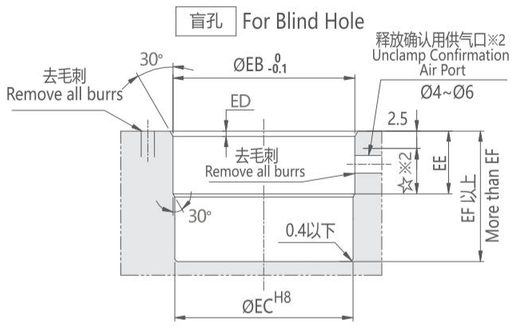
※1.压板定位用槽在夹紧时朝向供油口侧。
※2.本产品未附带安装螺栓。请用户参考S尺寸并根据安装高度自行配备。
※3.本产品未附带速度控制阀，请用户自行配备。
※4.仅有CLHW-040如记载尺寸，传感阀是从本体凸出来的。

NOTE

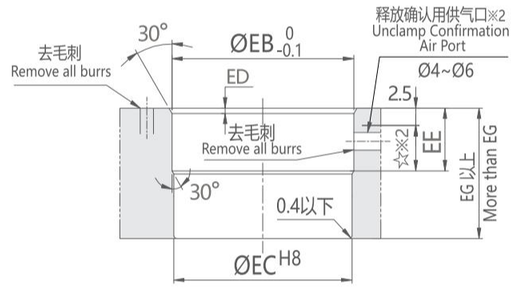
※1.The slot for lever phasing faces the port side when clamped.
※2.Mounting bolts are not provided. Please prepare them according to the mounting height referring to dimension"S".
※3.Speed control valve is sold separately.
※4.The valve of CLHW-040 is protruded as shown in the drawing.

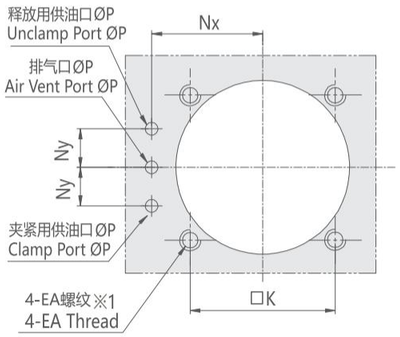
安装部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA

盲孔 For Blind Hole



贯通孔 For Through Hole





Unit:mm

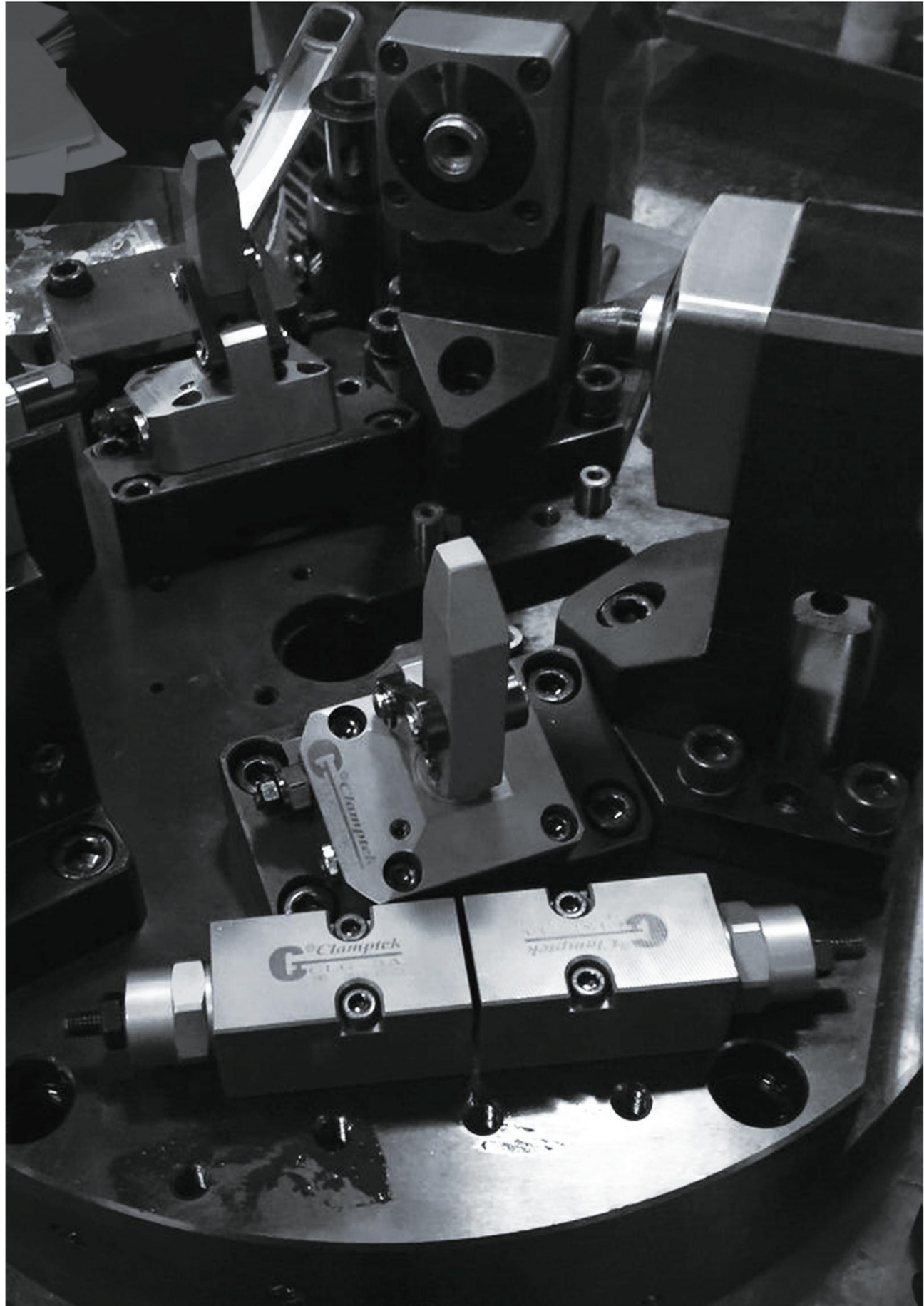
MODEL ITEM	CLHW-040C□J	CLHW-048C□J	CLHW-055C□J	CLHW-065C□J	CLHW-075C□J
A	115	128.5	145.5	156	181
B	54	61	69	81	92
C	45	51	60	70	80
D	40	48	55	65	75
E	71.5	79	89	94	109
F	46.5	51	59	63	71
Fu	68.5	77.5	86.5	93	110
G	25	28	30	31	38
H	31.5	35.5	39	46	52
J	22.5	25.5	30	35	40
K	34	40	47	55	63
L	73	83	88	106	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
夹紧用供油口: G螺纹 Clamp Port :G Thread 释放用供油口: G螺纹 Unclamp Port :G Thread	G1/8	G1/8	G1/8	G1/4	G1/4
O型密封圈 O-Ring DA	1BP5	1BP5	1BP5	1BP7	1BP7
O型密封圈 O-Ring DB	AS568-007(90°)	1BP5	1BP5	1BP7	1BP7
O型密封圈 O-Ring DC	38x1.5(内径x线径)	AS568-031(70°)	AS568-034(70°)	AS568-037(70°)	AS568-040(70°)
O型密封圈 O-Ring DD	AS568-028(70°)	AS568-031(70°)	AS568-033(70°)	AS568-036(70°)	AS568-039(70°)

注意事项

※1.请参考S尺寸并根据安装高度决定安装螺栓的EA螺纹孔的深度。
※2.请将释放确认用供气口设置于图示☆范围内。

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
油压转角缸

CHA-P HYDRAULIC SWING CLAMP

产品特性

此系列产品配件采用优化设计，使体积更加紧凑，提高了产品强度。产品采用了专用防尘设计,提高了防尘和密封性,实现了高密封性。
产品结构设计具有高抗扭矩性，实现了高耐久性。

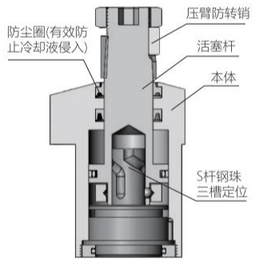
最大操作压力：70 kgf/cm²
最小操作压力：15 kgf/cm²
作动方式：复动式

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

剖面图 Sectional view



注意事项

夹紧及放松作动速度需适当放缓。
压臂安装拆卸方式，请参见第4页。
可接受订制，欢迎与本公司洽询。

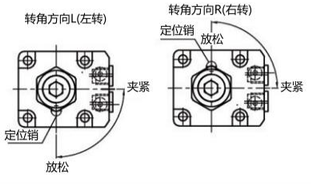
NOTE

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.

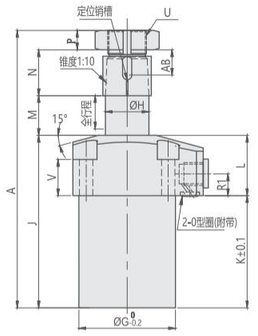
订购标示法 ORDERING INDICATION

示例: CHA-040PSL-90

CHA-P	系列 Series	CHA-P	
040	036/040/048/055/065/075/105		
S	压臂型式 Clamping arm type	S：单边压臂 D：双边压臂	
L	转角方向 Swing direction	L：左 R：右	L：Left R：Right
90	转角角度 Swing angle	标准角度 可订做角度	Standard angle 90°（±2°） Order angle 30°（±2°），45°（±2°），60°（±2°）

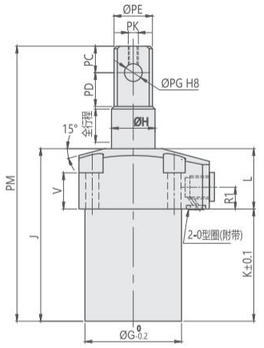


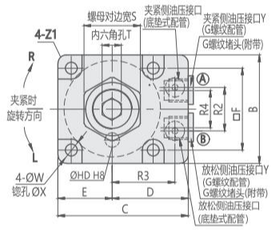
SINGLE SIDE SWING CLAMP

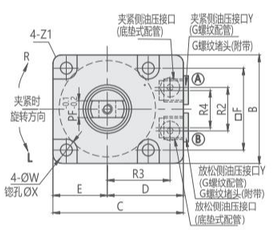


DOUBLE SIDE SWING CLAMP

注:下图为转角90°松开状态







Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 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(夹紧臂厚度)	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(螺母对边宽)	19	22	27	30	36	46	55
T(内六角孔)	5	6	6	8	8	10	14
U(推荐紧固扭矩)	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
定位销	Φ3(h8)×8	Φ4(h8)×10	Φ4(h8)×10	Φ5(h8)×10	Φ6(h8)×12	Φ6(h8)×12	Φ6(h8)×14

规格参数表 SPECIFICATIONS

型号	理论夹持力 (70 kgf/cm²)	转角行程	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/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(°C)	USABLE FLUID
CHA-036P	238	8	8	16	7.9	5.4	4.9	3.4	0~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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

方块形油压转角缸

CBTU HYDRAULIC SWING CLAMP

产品特性

此系列产品配件采用优化设计，使体积更加紧凑，提高了产品强度。产品采用了专用防尘设计， 提高了防尘和密封性实现了高密封性。
产品结构设计具有高抗扭矩性，实现了高耐久性。

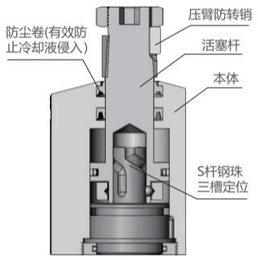
最大操作压力：70 kgf/cm²
最小操作压力：15 kgf/cm²
作动方式：复动式

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：70 kgf/cm²
Double acting

剖面图 Sectional view



注意事项

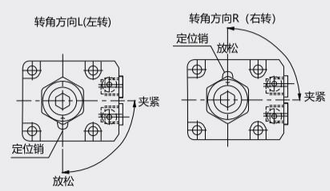
夹紧及放松作动速度需适当放缓。
压臂安装拆卸方式，请参见第4页。
可接受订制，欢迎与本公司洽询。

NOTE

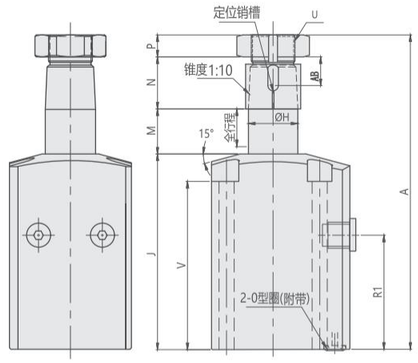
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
Please refer to Page 4 for installation instructions or removal methods of the clamping arm.
Customization is available upon request, please contact us for more info.

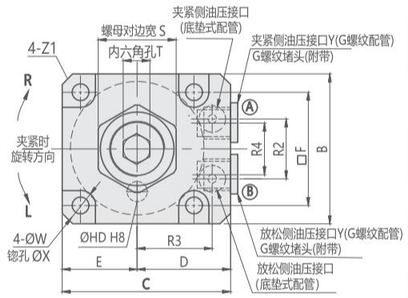
订购标示法 ORDERING INDICATION

示例：CBTU-02L-90

CBTU	系列 Series	CBTU		
02	02/04/06/10/16/25			
L	转角方向 Swing direction	L：左 R：右	L:Left R:Right	
90	转角角度Swing angle	标准角度 可订做角度	Standard angle 90°(±2°) Order angle 0°，30°(±2°)，45°(±2°)，60°(±2°)	

备注：选配调速阀为CZL系列





Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 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(夹紧臂厚度)	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(螺母对边宽)	22	27	30	36	46	55
T(内六角孔)	6	6	8	8	10	14
U(推荐紧固扭矩)	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	$4^{+0.018}_{0}$	$4^{+0.018}_{0}$	$5^{+0.018}_{0}$	$6^{+0.018}_{0}$	$6^{+0.018}_{0}$	$6^{+0.018}_{0}$
定位销	Φ4(h8)×10	Φ4(h8)×10	Φ5(h8)×10	Φ6(h8)×12	Φ6(h8)×12	Φ6(h8)×14

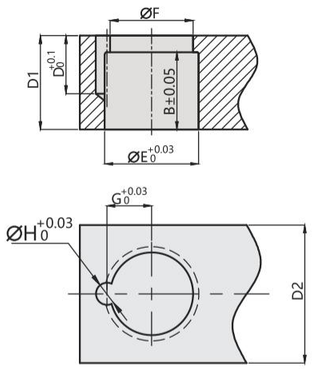
规格参数表 SPECIFICATIONS

型号	理论夹持力 (70 kgf/cm²)	转角行程	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 70 kgf/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(°C)	USABLE FLUID
CBTU-02	284.2	10	8	18	11.9	7.4	6.6	4.06	0~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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

压臂 配件尺寸

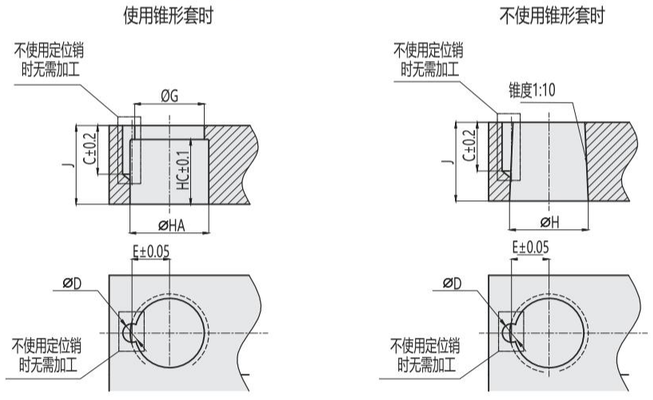
CHA 系列



CHA油压转角缸压臂尺寸 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



CHA-P/CBTU油压转角缸压臂尺寸 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

供给油压 MPa	夹紧器输出KN	夹紧力 KN 压板长度L(mm) L=30	L=40	L=50	L=60	L=80	L=100	L=120	L=150	最大压板长度(L) (mm)
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
最高使用压力(MPa)		7.0	7.0	7.0	7.0	7.0	6.9	6.3	5.6	

Model: CHA-040

供给油压 MPa	夹紧器输出KN	夹紧力 KN 压板长度L(mm) L=40	L=50	L=60	L=70	L=80	L=100	L=120	L=150	最大压板长度(L) (mm)
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
最高使用压力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.4	

Model: CHA-048

供给油压 MPa	夹紧器输出KN	夹紧力 KN 压板长度L(mm) L=50	L=60	L=80	L=100	L=120	L=140	L=160	L=200	最大压板长度(L) (mm)
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
最高使用压力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	6.6	5.7	

Model: CHA-055

供给油压 MPa	夹紧器输出KN	夹紧力 KN 压板长度L(mm) L=50	L=60	L=80	L=100	L=120	L=140	L=160	L=200	最大压板长度(L) (mm)
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
最高使用压力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	6.4	5.6	

Model: CHA-065

供给油压 MPa	夹紧器输出KN	夹紧力 KN 压板长度L(mm) L=50	L=60	L=80	L=100	L=120	L=140	L=160	L=200	最大压板长度(L) (mm)
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
最高使用压力(MPa)		7.0	7.0	7.0	7.0	6.8	6.1	5.6	4.8	

Model: CHA-075

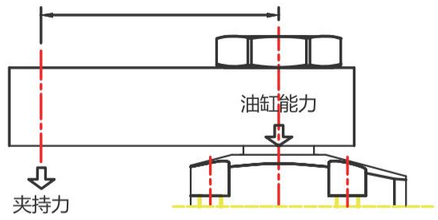
供给油压 MPa	夹紧器输出KN	夹紧力 KN 压板长度L(mm) L=50	L=60	L=80	L=100	L=120	L=140	L=160	L=200	最大压板长度(L) (mm)
7	14.21	12.4	12.2	11.7	11.3	10.9	10.5	不可使用		147
6.5	13.19	11.5	11.3	10.9	10.5	10.2	9.8	9.5		163
6	12.18	10.6	10.4	10.1	9.7	9.4	9.0	8.7		184
5.5	11.16	9.7	9.6	9.2	8.9	8.6	8.3	8.0	7.5	209
5	10.15	8.9	8.7	8.4	8.1	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
最高使用压力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	6.9	5.9	

Model: CHA-090

供给油压 MPa	夹紧器输出KN	夹紧力 KN 压板长度L(mm) L=60	L=75	L=100	L=120	L=140	L=170	L=200	L=250	最大压板长度(L) (mm)
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
最高使用压力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.8	

Model: CHA-105

供给油压 MPa	夹紧器输出KN	夹紧力 KN 压板长度L(mm) L=80	L=100	L=120	L=140	L=170	L=200	L=250	L=300	最大压板长度(L) (mm)
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
最高使用压力(MPa)		7.0	7.0	7.0	7.0	7.0	7.0	6.4	5.8	



Model: CHA-036P

油压 MPa	油工能力 KN	夹紧力 KN 夹紧臂长度 L mm								最大臂长 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

油压 MPa	油工能力 KN	夹紧力 KN 夹紧臂长度 L mm								最大臂长 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

油压 MPa	油工能力 KN	夹紧力 KN 夹紧臂长度 L mm								最大臂长 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

油压 MPa	油工能力 KN	夹紧力 KN 夹紧臂长度 L mm								最大臂长 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

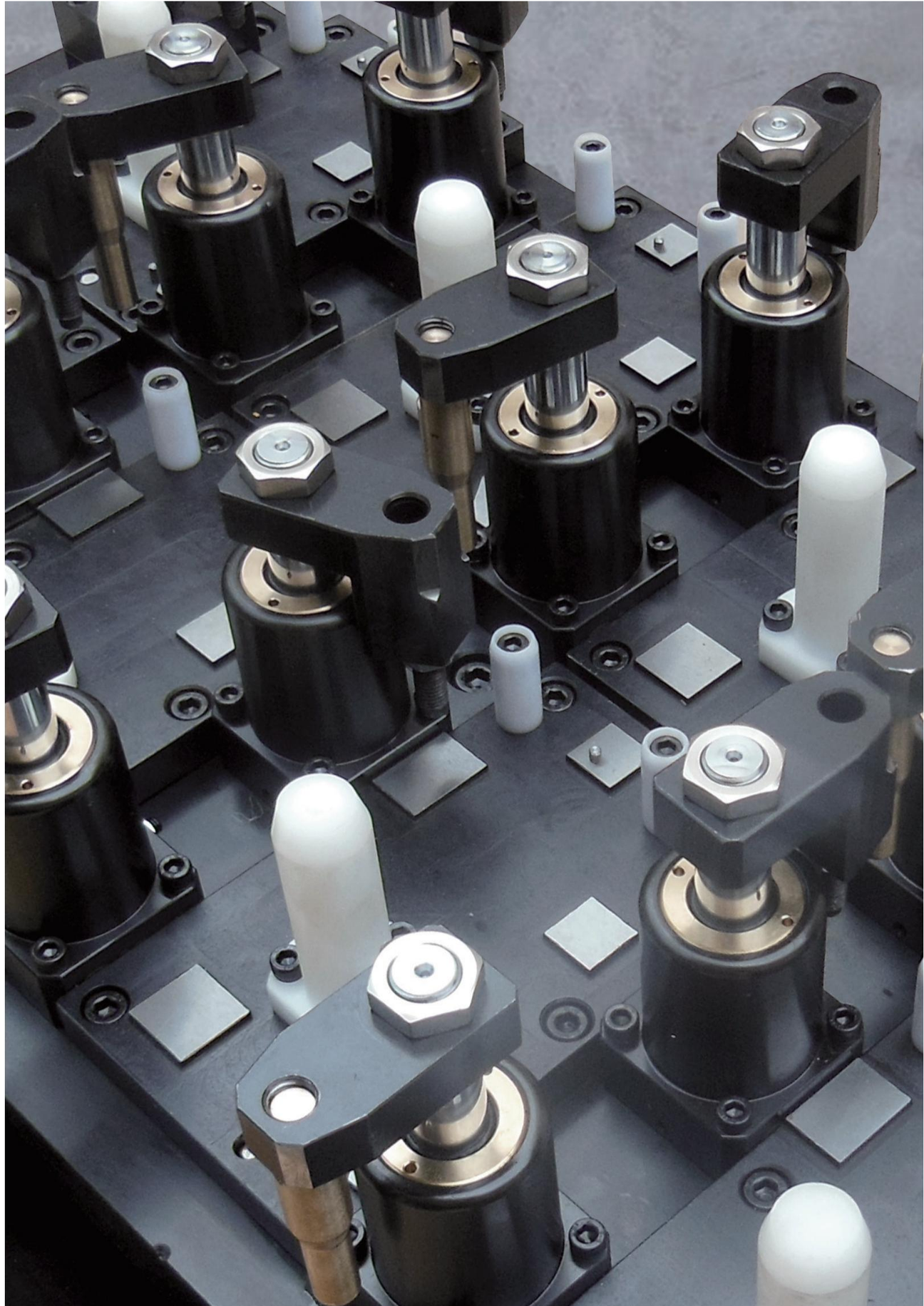
油压 MPa	油工能力 KN	夹紧力 KN 夹紧臂长度 L mm								最大臂长 Max.L (mm)
		60	80	100	120	140	160	180	200	
7	9.9	8.3	7.9	7.5	不可使用					102
6.5	9.2	7.7	7.3	7.0						113
6	8.5	7.1	6.8	6.4	6.1					127
5.5	7.8	6.5	6.2	5.9	5.6	5.4				144
5	7.1	5.9	5.6	5.4	5.1	4.9	4.7			167
4.5	6.4	5.3	5.1	4.8	4.6	4.4	4.2	4.0		199
4	5.7	4.7	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

油压 MPa	油工能力 KN	夹紧力 KN 夹紧臂长度 L mm								最大臂长 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

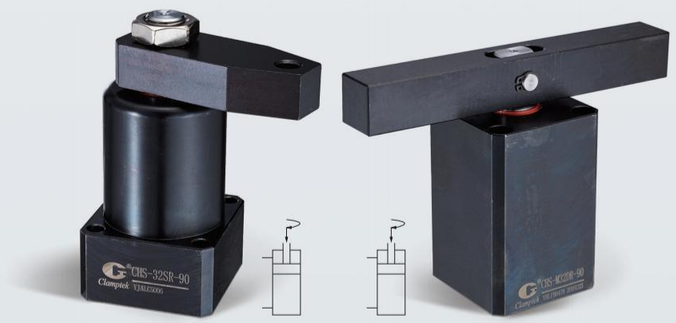
Model: CHA-105P/CBTU-25

油压 MPa	油工能力 KN	夹紧力 KN 夹紧臂长度 L mm								最大臂长 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
油压转角缸

CHS HYDRAULIC SWING CLAMP



产品特性

本产品适用于量产零件之专用机及MC治具,为提高生产效率的好帮手。主要功能为油压缸作动时,活塞下压行程中压板会旋转到设计的角度,再沿著直线继续下压直到压板夹紧工件。
建议使用油压转角缸,请加装流量控制阀,避免速度过快,以及转角行程中,请勿夹持工件。缸体材质采用机械构造用碳素钢,内壁特殊加工处理,表面光滑,使用寿命长。

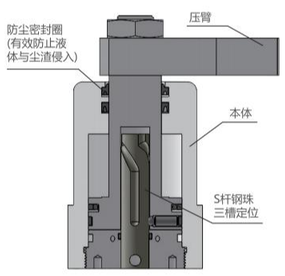
最大操作压力：70 kgf/cm²
最小操作压力：15 kgf/cm²
作动方式：复动式

FEATURES

The CHS 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.

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

剖面图 Sectional view



注意事项

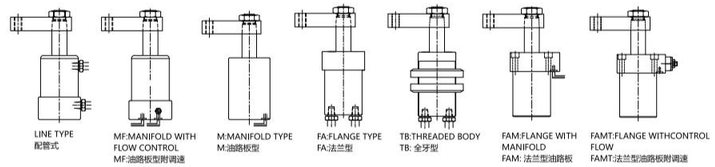
夹紧及放松作动速度需适当放缓。
特殊压臂长度及重量不得超过标准压臂的1.5倍。
压臂旋转示意图及安装拆卸方式，请参见第4页。

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.

订购标示法 ORDERING INDICATION

示例：CHS-MF25SR-90-E-M-S1D

CHS	系列 Series	CHS
MF	类型Type	空白：配管式 Line type　TB：全牙型 Threaded body MF：油路板附调速 Manifold with flow control　FAM: 法兰型油路板 Flange with manifold M：油路板型 Manifold type　FAMT:法兰型油路板附调速 Flange with flow control FA：法兰型 Flange type  LINE TYPE 配管式 / MF:MANIFOLD WITH FLOW CONTROL MF:油路板型附调速 / M:MANIFOLD TYPE M:油路板型 / FA:FLANGE TYPE FA:法兰型 / TB:THREADED BODY TB: 全牙型 / FAM:FLANGE WITH MANIFOLD FAM: 法兰型油路板 / FAMT:FLANGE WITHCONTROL FLOW FAMT:法兰型油路板附调速
25	油缸内径 Hydraulic cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63
S	压板型式 Clamping arm type	S:单边压板 S: Single side arm D:双边压板 D: Double side arm
R	转角方向 Swing direction	R:顺时针右转 R: Turn right　L:逆时针左转 L: Turn left　N:0°不旋转 N:0° No swing
90	转角角度 Swing angle	标准角度 Standard angle 90°（±2°）　订做角度 Order angle 0°, 45°（±2°）,60°（±2°）
E	行程加长 Extended travel	行程加长型 Stroke extension(具体加长型见后面规格尺寸表)
M	带磁石 Magnet	其中Φ25缸径和FA/TB/FAM/FAMT类型无磁感应型
S1D	近接开关 Proximity Switch	S1：1个　S2：2个　电压AC 4~120V D:直流　电流 5~40MA A:交流

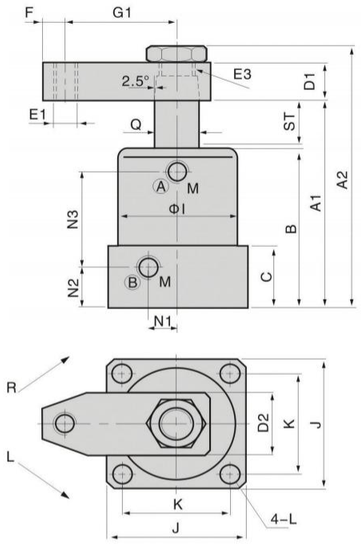
规格参数表 SPECIFICATIONS

型号 MODEL	理论夹持力 (70 kgf/cm²) CLAMPING FORCE AT 70 kgf/cm² (kgf)	转角行程 SWING STROKE (mm)		标准垂直行程 STANDARD CLAMPING STROKE (mm)	加长垂直行程 EXTENDED CLAMPING STROKE (mm)	标准总行程 STANDARD TOTAL STROKE (mm)	加长总行程 EXTENDED TOTAL STROKE (mm)	标准拉入容积 OIL STANDARD CAPACITY CLAMP (cm³)	加长行程拉入容积 OIL EXTENDED CAPACITY CLAMP (cm³)	标准行程推出容积 OIL STANDARD CAPACITY UNCLAMP (cm³)	加长行程推出容积 OIL EXTENDED CAPACITY UNCLAMP (cm³)	拉入受压面积 EFF.PISTON AREA CLAMP (cm²)	推出受压面积 EFF.PISTON AREA UNCLAMP (cm²)	使用温度范围 RANGE OF TEMPERATURE (℃)
CHS-25	166	CHS	11.5	13	-	24.5	-	5.81	-	12.03	-	2.37	4.91	-10~+70℃
CHS-32	343	CHS	14.5	15	30	29.5	44.5	14.45	21.81	23.72	37.38	4.9	8.04	-10~+70℃
CHS-40	603	CHS	14.5	15	30	29.5	44.5	25.43	38.36	37.05	55.89	8.62	12.56	-10~+70℃
CHS-50	943	CHS	16	17	34	33	50	44.45	67.35	64.78	98.15	13.47	19.63	-10~+70℃
CHS-63	1488	CHS	16	17	34	33	50	70.16	106.3	102.83	155.8	21.26	31.16	-10~+70℃
CHS-80 仅配管式 Only Line type	2639	CHS	15	15	-	30	-	113.1	-	150.72	-	37.7	50.27	-10~+70℃

使用流体:相当于ISO黏度等级的ISO-VG-32一般液压油
Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

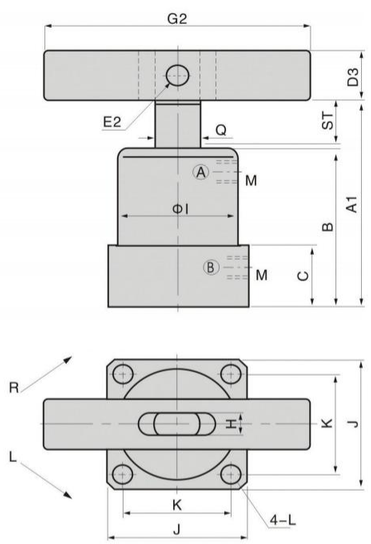
配管式 LINE TYPE-S

Single side swing clamp



配管式 LINE TYPE-D

Double side swing clamp
注:下图为转角90°松开状态



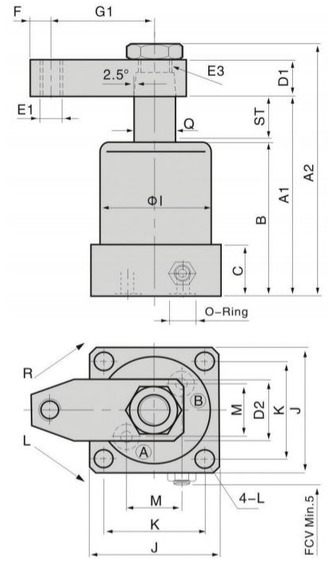
Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

Unit:mm

MODEL ITEM	CHS-25	CHS-32		CHS-40		CHS-50		CHS-63		CHS-80
ST:Swing/Clamping	24.5:11.5/13	29.5:14.5/15	44.5:14.5/30	29.5:14.5/15	44.5:14.5/30	33:16/17	50:16/34	33:16/17	50:16/34	-
A1 Unclamping	104	118	148	123	153	137	171	142	176	142
A2 Unclamping	127	144	175	150	180	167	201	177	211	187
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

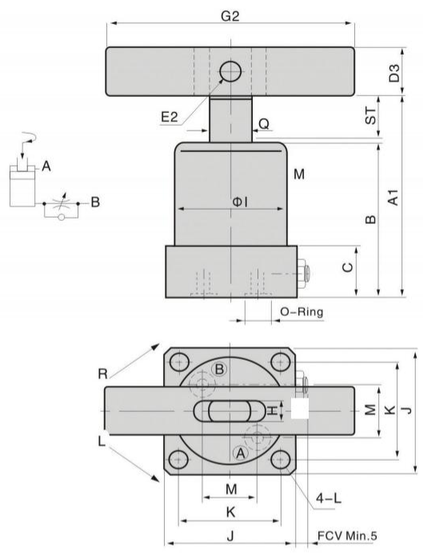
油路板附调速 MF-S

Single side swing clamp



油路板附调速 MF-D

Double side swing clamp
注:下图为转角90°松开状态



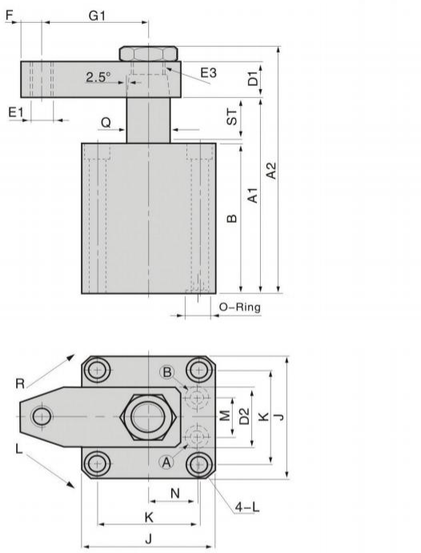
Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

Unit:mm

MODEL ITEM	CHS-MF25	CHS-MF32		CHS-MF40		CHS-MF50		CHS-MF63	
ST:Swing/Clamping	24.5:11.5/13	29.5:14.5/15	44.5:14.5/30	29.5:14.5/15	44.5:14.5/30	33:16/17	50:16/34	33:16/17	50:16/34
A1 Unclamping	104	118	148	123	153	137	171	142	176
A2 Unclamping	127	144	175	150	180	167	201	177	211
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

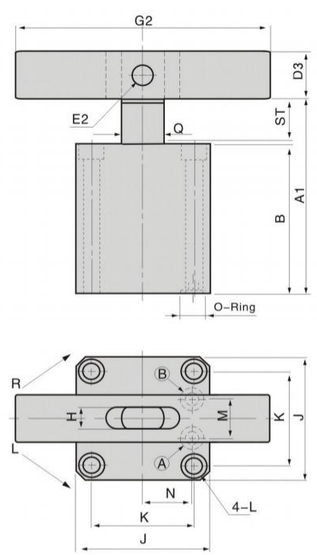
Single side swing clamp



油路板型 M-D

Double side swing clamp

注:下图为转角90°松开状态



Ⓐ 夹持油孔 Clamping port

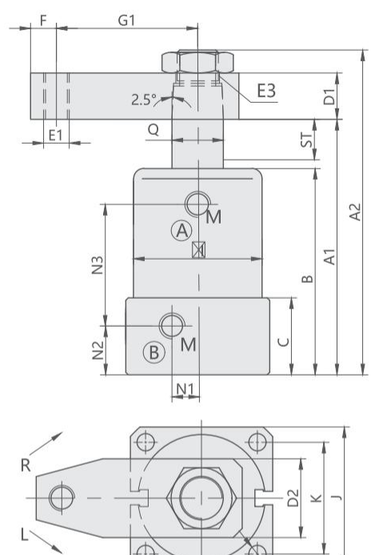
Ⓑ 放松油孔 Unclamping port

Unit:mm

MODEL ITEM	CHS-M25	CHS-M32	CHS-M40	CHS-M50	CHS-M63
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	104	118	123	137	142
A2 Unclamping	127	144	150	167	177
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

配管式LINE TYPE-SM

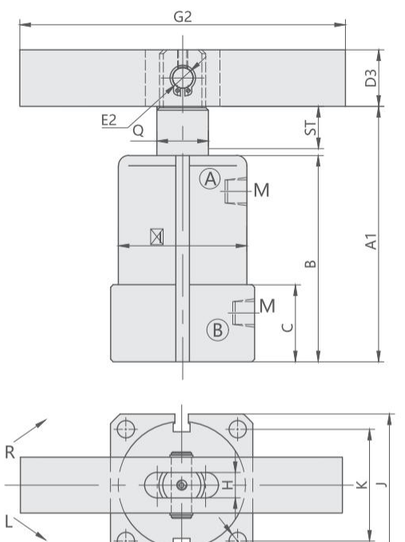
Single side swing clamp



配管式LINE TYPE-DM

Double side swing clamp

注：下图为转角90°松开状态



Ⓐ夹持油孔 Clamping port

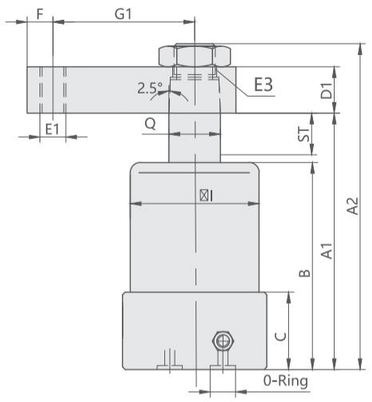
Ⓑ放松油孔 Unclamping port

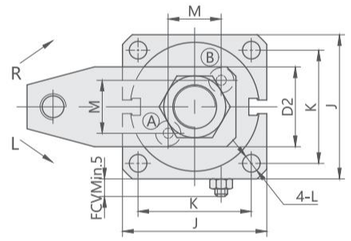
Unit:mm

MODEL ITEM	CHS-32-M		CHS-40-M		CHS-50-M		CHS-63-M	
ST:Swing/Clamping	29.5:14.5/15	44.5:14.5/30	29.5:14.5/15	44.5:14.5/30	33:16/17	50:16/34	33:16/17	50:16/34
A1 Unlamping	128	158	133	163	147	181	152	186
A2 Unlamping	154	185	160	190	177	211	187	221
B	95	110	100	115	110	127	115	132
C	30		30		34		34	
D1	18		18		20		23	
D2	31		31		37		48	
D3	□22		□22		□25		□32	
E1	M10		M10		M12		M16	
E2	ø8		ø10		ø12		ø15	
E3	M16x1.5		M18x1.5		M20x1.5		M24x2	
F	10		10		12		15	
G1	55		60		65		75	
G2	160		160		180		200	
H	10		10		12		15	
ø I	ø50		ø54		ø66		ø80	
J	56		63		72		88	
K	44		48		57		70	
L	ø6.8		ø9		ø9		ø11	
M	PT1/8		PT1/8		PT1/4		PT1/4	
N1	10		12		15		17	
N2	19		19		21.5		22	
N3	62	77	67	82	73.5	90.5	78	95
Q	ø20		ø22.4		ø28		ø35.5	

油路板附调速 MF-SM

Single side swing clamp

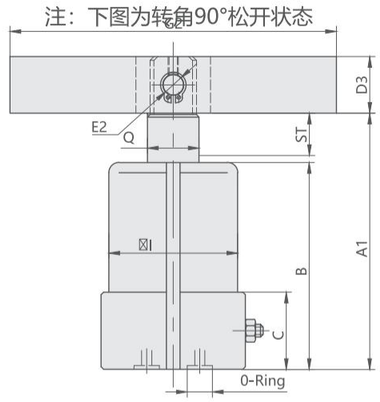


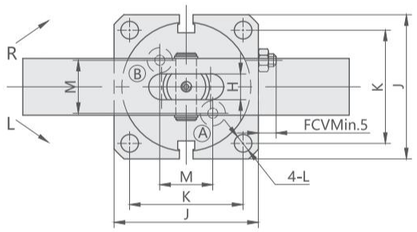


油路板附调速MF-DM

Double side swing clamp

注：下图为转角90°松开状态





Ⓐ 夹持油孔 Clamping port

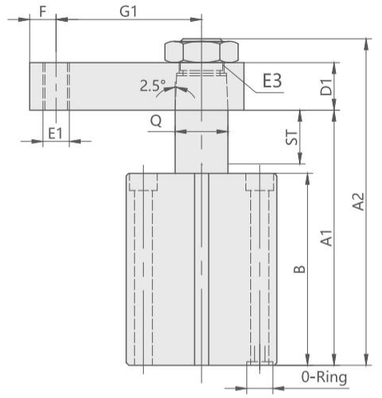
Ⓑ 放松油孔 Unclamping port

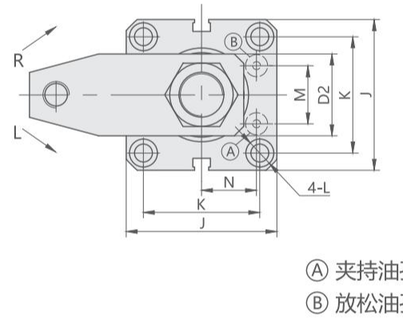
Unit:mm

MODEL ITEM	CHS-MF32-M		CHS-MF40-M		CHS-MF50-M		CHS-MF63-M	
ST:Swing/Clamping	29.5:14.5/15	44.5:14.5/30	29.5:14.5/15	44.5:14.5/30	33:16/17	50:16/34	33:16/17	50:16/34
A1 Unlamping	128	158	133	163	147	181	152	186
A2 Unlamping	154	185	160	190	177	211	187	221
B	95	110	100	115	110	127	115	132
C	25		25		30		30	
D1	18		18		20		23	
D2	31		31		37		48	
D3	□22		□22		□25		□32	
E1	M10		M10		M12		M16	
E2	⌀8		⌀10		⌀12		⌀15	
E3	M16x1.5		M18x1.5		M20x1.5		M24x2	
F	10		10		12		15	
G1	55		60		65		75	
G2	160		160		180		200	
H	10		10		12		15	
Φ	⌀50		⌀54		⌀66		⌀80	
J	57		63		72		88	
K	44		48		57		70	
L	⌀6.8		⌀9		⌀9		⌀11	
M	21		23		28		32	
0-Ring	P7		P9		P9		P9	
Q	⌀20		⌀22.4		⌀28		⌀35.5	

油路板型 M-SM

Single side swing clamp

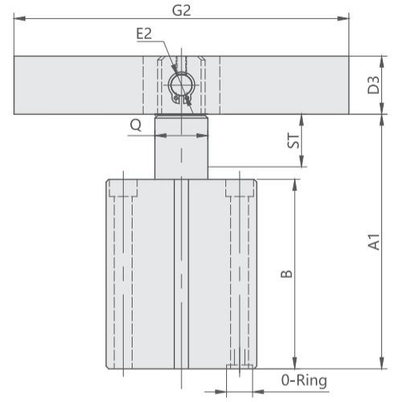


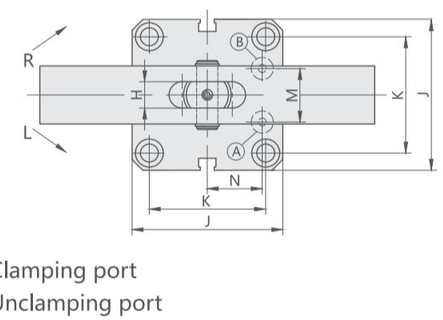


油路板型M-DM

Double side swing clamp

注：下图为转角90°松开状态





Ⓐ 夹持油孔 Clamping port

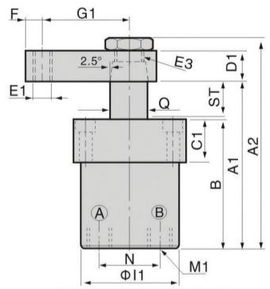
Ⓑ 放松油孔 Unclamping port

Unit:mm

MODEL ITEM	CHS-M32-M	CHS-M40-M	CHS-M50-M	CHS-M63-M
ST:Swing/Clamping	29.5:14.5/15	29.5:14.5/15	33:16/17	33:16/17
A1 Unlamping	128	133	147	152
A2 Unlamping	154	160	177	187
B	95	100	110	115
D1	18	18	20	23
D2	31	31	37	48
D3	□22	□22	□25	□32
E1	M10	M10	M12	M16
E2	⌀8	⌀10	⌀12	⌀15
E3	M16x1.5	M18x1.5	M20x1.5	M24x2
F	10	10	12	15
G1	55	60	65	75
G2	160	160	180	200
H	10	10	12	15
J	57	69	75	92
K	44	52	58	72
L	⌀6.8-⌀10.5x6.5D	⌀9-⌀13.5x9D	⌀9-⌀13.5x9D	⌀11-⌀17x11D
M	22	26	32	40
N	22	26	30	37
0-Ring	P7	P8	P8	P8
Q	⌀20	⌀22.4	⌀28	⌀35.5

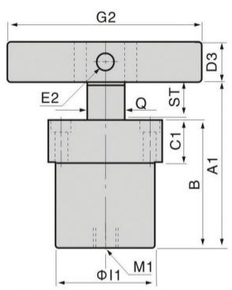
法兰型FA-S

Single side swing clamp



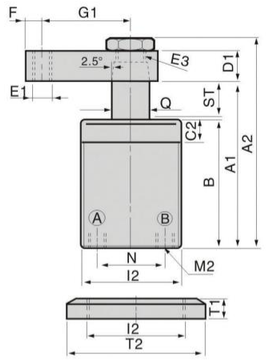
法兰型FA-D

Double side swing clamp
注:下图为转角90°松开状态



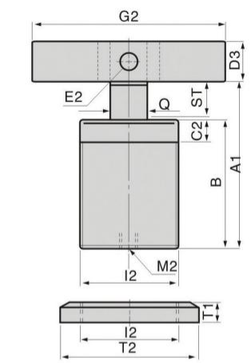
全牙型 TB-S

Single side swing clamp

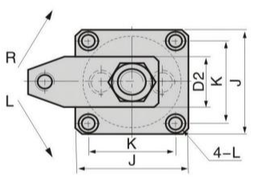


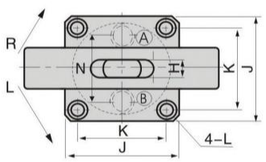
全牙型 TB-D

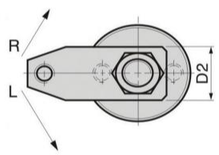
Double side swing clamp
注:下图为转角90°松开状态

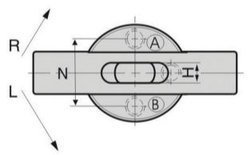


Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port







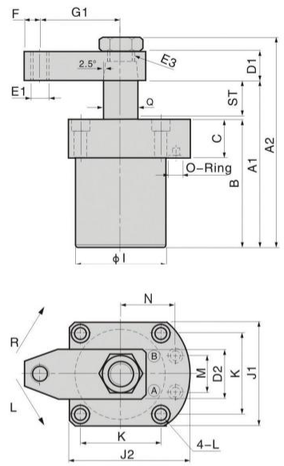


Unit:mm

MODEL ITEM	CHS-FA25	CHS-FA32	CHS-FA40	CHS-FA50	CHS-FA63	CHS-TB25	CHS-TB32	CHS-TB40	CHS-TB50
ST:Swing /Clamping	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
A1 Unclamping	104	118	123	137	142	104	118	123	137
A2 Unclamping	127	144	150	167	177	127	144	150	167
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

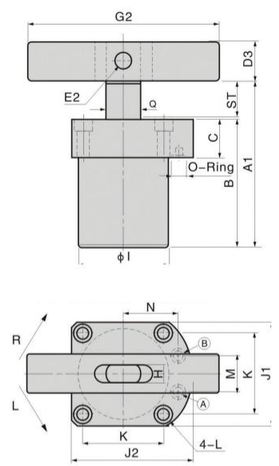
法兰型油路板 FAM-S

Single side swing clamp



法兰型油路板 FAM-D

Double side swing clamp
注:下图为转角90°松开状态



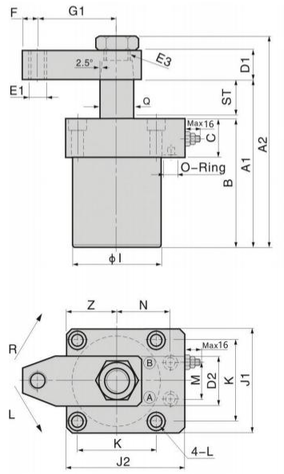
Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

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	104	118	123	137	142
A2 Unclamping	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	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

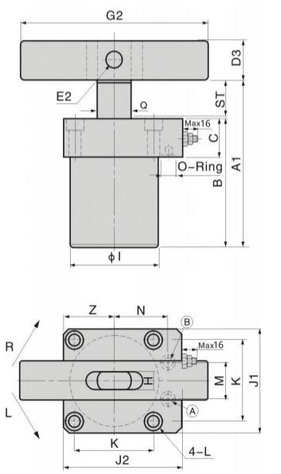
法兰型油路板附调速FAMT-S

Single side swing clamp



法兰型油路板附调速FAMT-D

Double side swing clamp
注:下图为转角90°松开状态



Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 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	104	118	123	137	142
A2 Unclamping	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
平行油压转角缸

CPF HYDRAULIC SWING CLAMP

产品特性

此系列产品配件采用优化设计,使体积更加紧凑,提高了产品强度。产品采用了专用防尘设计,提高了防尘和密封性,实现了高密封性。
产品平行转角设计节省了空间,适合夹具要求的紧凑化。

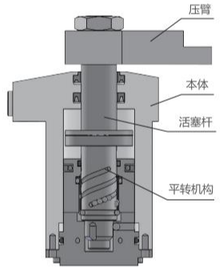
最大操作压力：45kgf/cm²
最小操作压力：20kgf/cm²
作动方式：复动式

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

剖面图 Sectional view



注意事项

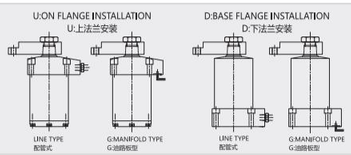
夹紧及放松作动速度需适当放缓。
特殊压臂长度及重量不得超过标准压臂的1.5倍。
压臂旋转示意图及安装拆卸方式，请参见第4页。

NOTE

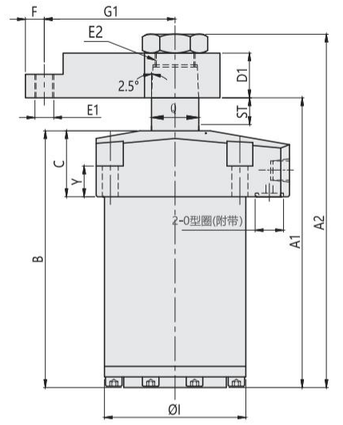
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instructions and removal methods of the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

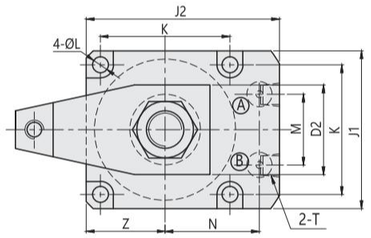
订购标示法 ORDERING INDICATION

示例：CPF-35DL-90G

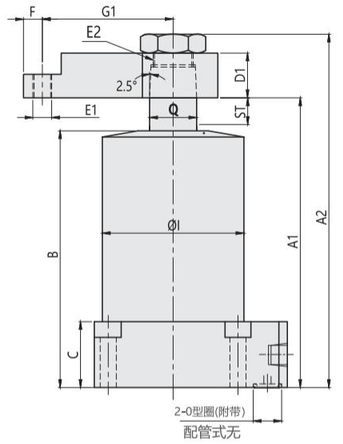
CPF	系列 Series	CPF
35	油缸内径 Hydraulic cylinder inside diameter	Φ35 , Φ40
D	安装方式 Installation	U:上法兰安装 On flange installation U:下法兰安装 Base flange installation 
L	转角方向 Swing direction	右转R或左转L　Turn right R or turn left L
90	转角角度 Swing angle	标准角度　Standard angle 90°(±2°) 订做角度　Order angle 0°，45°(±2°)，60°(±2°)
G	型式 Type	空白：配管式　Line type　　G: 油路板型　Manifold type

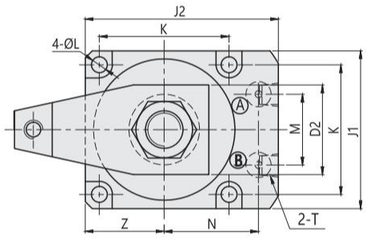
CPF-XXU





CPF-XXD





Unit:mm

MODEL ITEM	CPF-35U	CPF-40U	CPF-35D	CPF-40D
行程Stroke	10	10	10	10
A1松开状态 Unclamp	114	123	114	123
A2松开状态 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(仅G型) O-Ring(G type)	P6	P9	P6	P9

Ⓐ 夹持油孔 Clamping port
Ⓑ 放松油孔 Unclamping port

规格参数表 SPECIFICATIONS

型号	理论夹持力 (45 kgf/cm²)	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 45 kgf/cm² (kgf)	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(°C)	USABLE FLUID
CPF-35	291	10	10	6.47	6.47	6.47	6.47	-10~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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	

CTLA

复动转角油压缸

CTLA HYDRAULIC DOUBLE-ACTING SWING CLAMP

产品特性

优良的结构设计,大幅扩大了压板长度的使用范围,适合高速动作的耐久性,有优异的防冷却液侵入结构,可以直接安装速度控制阀。

最大操作压力：350kgf/cm²
最小操作压力：70kgf/cm²

FEATURES

Excellent structural design, greatly expand the use of the length of the plate, suitable for high-speed action durability, With excellent anti-coolant intrusion structure, speed control valves can be installed directly.

Max.operating pressure:350kgf/cm²
Min.operating pressure:70kgf/cm²

注意事项

夹紧及放松作动速度需适当放缓，特殊压臂长度及重量不得超过标准压臂的1.5倍。

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.

订购标示法 ORDERING INDICATION

示例：CTLA-0402CR

CTLA	系列 Series	CTLA
0402	主体尺寸 Body size	0402:∅D=28.5mm　1002:∅D=43mm　∅D表示本体油缸法兰下部的外径尺寸 0602:∅D=33mm　1602:∅D=46mm　Outer diameter (∅D) of the cylinder 0802:∅D=36mm
C	配管方式 Piping Method	B: 外配管型（G螺纹,无板式连接口） B: G Thread Piping Option(No Gasket Port) C: 板式连接型(附带G螺纹堵头) C: Gasket Option(With G Thread Plug)
R	夹紧时的旋转方向 Swing direction when Clamping	R:顺时针方向　R:Turn right L:逆时针方向　L:Turn left

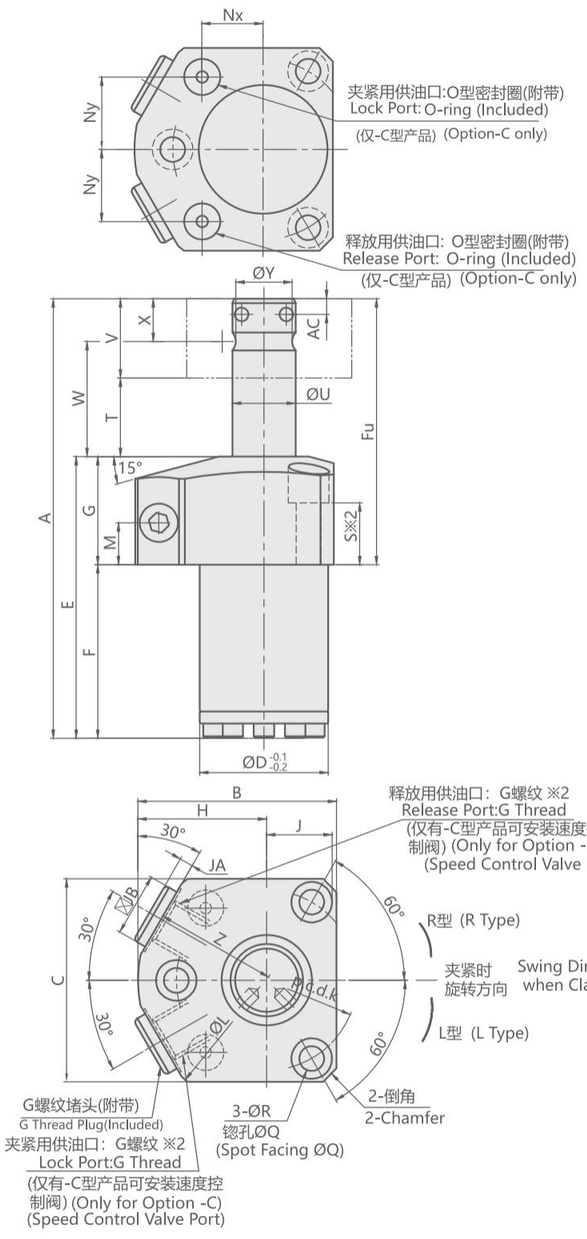
注：速度控制阀(CZT)由用户另行购买 Note: Speed control valve(CZT) is sold separately.

规格参数表 SPECIFICATIONS

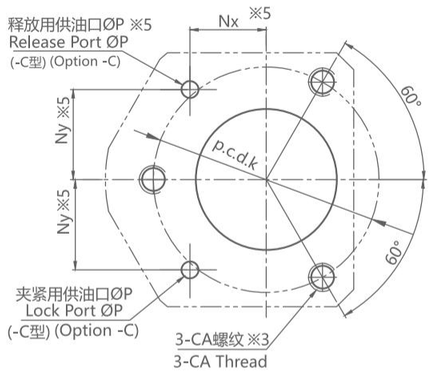
型号	理论夹持力 (350kgf/cm²)	夹紧行程	转角行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围
MODEL	CLAMPING FORCEAT 350kgf/cm²(kgf)	CLAMPING STROKE(mm)	EXTRA STROKE(mm)	TOTAL STROKE(mm)	CYLINDER CAPACITY UNCLAMP(cm³)	CYLINDER CAPACITY CLAMP(cm³)	EFF.PISTON AREA UNCLAMP(cm²))	EFF.PISTON AREA CLAMP(cm²))	RANGE OF TEMPERATURE(°C)
CTLA-0402	350	8	6	14	3.6	1.4	2.545	1.005	0~+70°c
CTLA-0602	508	8	7	15	5.2	2.2	3.463	1.453	0~+70°c
CTLA-0802	690	10	8	18	8.1	3.6	4.524	1.979	0~+70°c
CTLA-1002	980	10	9.5	19.5	12.9	5.5	6.605	2.804	0~+70°c
CTLA-1602	1459	13	11	24	21.8	10	9.079	4.17	0~+70°c

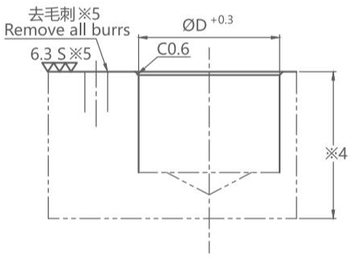
外形尺寸 External Dimensions

C: 板式连接型(附带G螺纹堵头)　C: Gasket Option(With G Thread Plug)
※本图表示CTLA-2CL型的释放状态。
※The drawing shows the released state of CTLA-2CL.

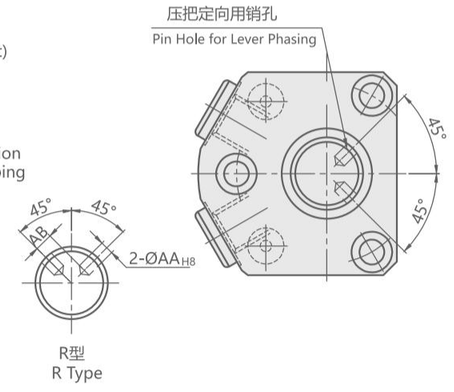


安装部位加工尺寸
Machining Dimensions of Mounting Area





夹紧状态
Lock State



注意事项

※1本产品未附带安装螺栓。请用户参考S尺寸并根据安装高度自行配备。
※2.本产品未附带速度控制阀。请用户自行配备。
※3.请参考S尺寸并根据安装高度决定安装螺栓的CA螺纹深度。
※4.请参考F尺寸,并根据安装高度决定本体安装孔∅D的深度。
※5.本加工表示-C：板式连接型的情况。

NOTE

※1.Mounting bolts are not provided . Please prepare them according to the mounting height referring to dimension"S".
※2.Speed control valve is sold separately.
※3.CA tapping depth of the mounting bolt should be decided according to the mounting height referring to dimension'S'.
※4.The depth of the body mounting hole ∅D should be decided according to the mounting height referring to dimension'F'.
※5.The machining dimension is for -C:Gasket option.

Unit:mm

型号 MODEL NO	CTLA-0402□□	CTLA-0602□□	CTLA-0802□□	CTLA-1002□□	CTLA-1602□□
全行程 Full Stroke	14	15	18	19.5	24
转角行程 Swing Stroke	6	7	8	9.5	11
夹紧行程 Lock Stroke	8	8	10	10	13
A	97.5	105	119	134.5	159.5
B	44	48	50.5	59.5	62
C	45	52	54	65	68
D	28.5	33	36	43	46
E	62.5	66	74	83	99.5
F	38.5	41	49	55	69.5
Fu	59	64	70	79.5	90
G	24	25	25	28	30
H	28.5	30	31.5	36.5	38
J	15.5	18	19	23	24
K	40	45	48	57	60
L	57	60	63	73	76
M	10	10	10	10	10
Nx	13.5	15	16	18	20
Ny	16	17.5	18.5	22	22
P	3	3	3	3	3
Q	9	11	11	14	14
R	5.5	6.8	6.8	9	9
S	14.5	14	14	14.5	16
T	16	17	20	21.5	26
U	14	16	18	22	25
V	19	22	25	30	34
W	25.5	28	32.5	36.5	43
X	9.5	11	12.5	15	17
Y	12.5	14	16	19.5	22
Z	27	28.5	30	33	35
AA	$3^{+0.014}_{0}$	$4^{+0.018}_{0}$	$4^{+0.018}_{0}$	$4^{+0.018}_{0}$	$4^{+0.018}_{0}$
AB	4	4	5	7	8.5
AC	3.5	4.5	4.5	4.5	5
CA(Nominal X Pitch)	M5×0.8	M6×1	M6×1	M8×1.25	M8×1.25
JA	3	3	3	3	3
JB	14	14	14	14	14
倒角 Chamfer	3	(Φ60)	(Φ63)	(Φ73)	(Φ76)
G 螺纹 G Thread	G1/8	G1/8	G1/8	G1/8	G1/8
0型密封（-C型） 0-ring(Option-C)	1BP5	1BP5	1BP5	1BP5	1BP5
压板定向稍（附带） (Lever Phasing Pin (Included)	Φ3×6	Φ4×8	Φ4×8	Φ4×8	Φ4×8

NFS
高压转角缸

NFS HIGH PRESSURE HYDRAULIC SWING CLAMP

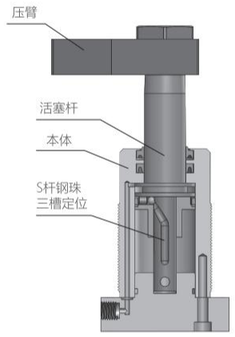
产品特性

向左或向右旋转后垂直下压达到夹持目的。
标准角度90度,可订做角度30度45度、60度。缸体为高级碳钢材质表面硬化处理。
入油口请加装流量控制阀,控制转角速度,避免惯性撞击。
下压夹持时,应于垂直行程内夹紧工件.每次上下工作时,务必以气枪清洁活塞杆处油封上的铁屑异物,避免下次使用异物嵌入工件。

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.

剖面图 Sectional view(复动式)



最大操作压力：210 kgf/cm²
最小操作压力：70 kgf/cm²
作动方式：单动和复动式

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

注意事项

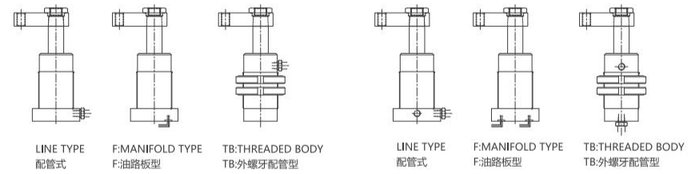
夹紧及放松作动速度需适当放缓。
特殊压臂其长度和重量不得超过标准压臂的1.5倍。
压臂旋转示意图及安装拆卸方式，请参见第4页。可接受订制，欢迎与本公司洽询。

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.

订购标示法 ORDERING INDICATION

示例: NFSL-25A-90F

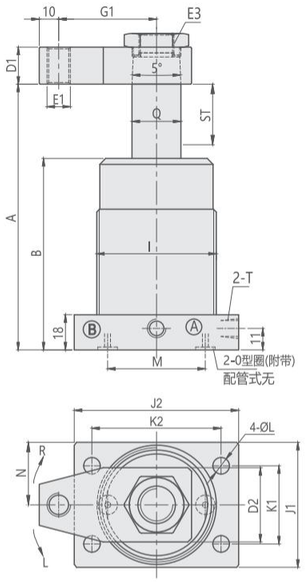
NFS	系列 Series	NFS/NDS/NFT/NDT
L	转角方向Swing direction	右转R或左转L　Turn right R or turn left L
25	油缸内径 Hydraulic cylinder inside diameter	Φ25，Φ32，Φ40
A	作动方式 Acting type	A:单动式Single acting　A:复动式Double acting 
90	转角角度 Swing angle	标准角度　Standard angle 90°(±2°) 订做角度　30°±2°,45°±2°, 60°±2°　Order angle30°(±2°),45°(±2°),60°(±2°)
F	安装型式 Mounting type	空白：配管型　Line type F：油路板型　Manifold type　(外螺牙无油路板式)

规格参数表 SPECIFICATIONS

型号	理论夹持力 (210 kgf/cm²)	转角行程	夹紧行程	总行程	拉入容积	推出容积	拉入受压面积	推出受压面积	使用温度范围
MODEL	CLAMPING FORCE AT 210kgf/cm² (kgf)	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)
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

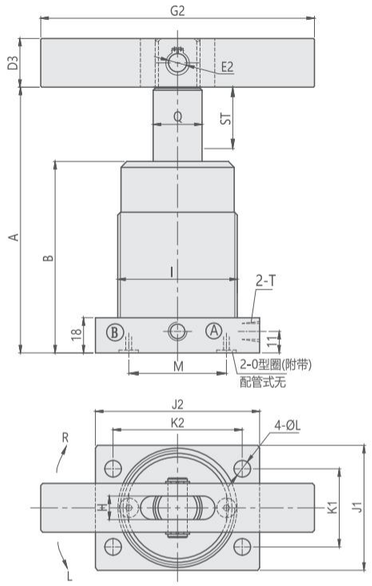
Single side swing clamp



NDS

Double side swing clamp

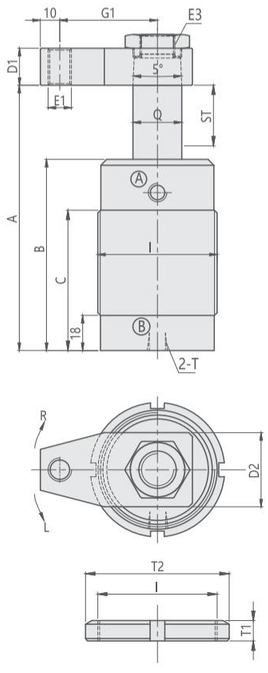
注:下图为转角90°松开状态



Ⓐ 夹持油孔 Clamping port　Ⓑ 放松油孔 Unclamping port(单动型为排气孔)

NFT

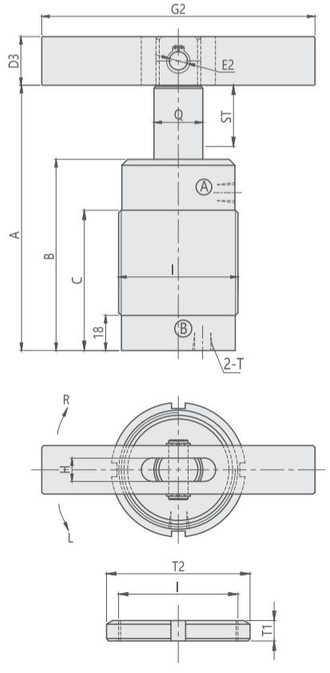
Single side swing clamp



NDT

Double side swing clamp

注:下图为转角90°松开状态



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松开状态 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(仅F型) O-Ring(F type)	P7	P7	P7	P7	P7	P7

030
底部法兰油压转角缸

030 HYDRAULIC SWING CLAMP

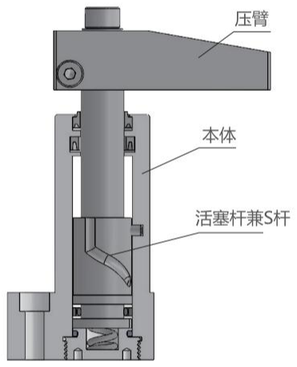
产品特性

无需预留孔:直接用螺栓将转角缸固定到工作台面，缸体的主结构在工作台面上，可夹紧较厚的工件，允许超大件的夹持。
复动式特点:夹紧与松卸全靠油路来控制,按照换向阀的方向交替来控制转角缸的夹紧和松卸行程，压臂形状与单动缸相同。
单动式特点:内部系统化比较简单，没有卸载系统，卸载时靠弹簧回力完成松卸行程,外部管路的阀门及附件较少，使配套系统比较简单。创新的压臂设计能满足多种场合。
缸体材质合用碳钢，经渗碳氮化处理，表面硬度高，缸体内面硬度高耐磨损。

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 undamping 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.

剖面图 Sectional view（单动式）



最大操作压力：250 kgf/cm²
最小操作压力：70 kgf/cm²
作动方式：单动和复动式

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

注意事项

夹紧及放松作动速度需适当放缓。
特殊压臂长度及重量不得超过标准压臂的1.5倍。
压臂旋转示意图及安装拆卸方式，请参见第4页。

NOTE

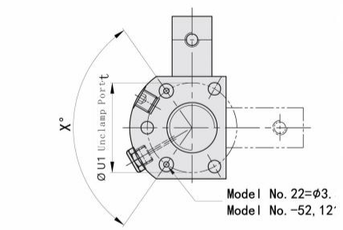
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instructions and removal methods of the clamping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

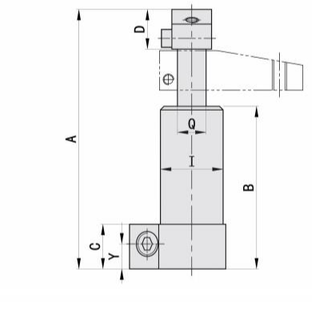
订购标示法 ORDERING INDICATION

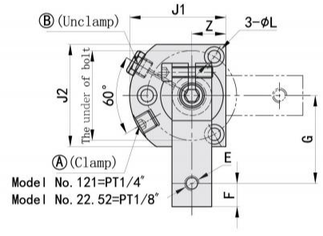
示例：030-LD92-90

030	系列 Series	030	
L	转角方向 Swing direction	右转R或左转L	Turn right R or turn left L
D	作动方式 Acting type	S:单动式 D:复动式	S:Single acting D:Double acting
92	型号 Type	22 , 52 , 92 , 121 , 202	
90	转角角度 Swing angle	标准角度 订做角度	Standard angle 90°(±2°) Order angle 30°(±2°)，45°(±2°)，60°(±2°)

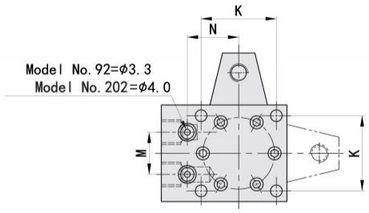
030-22/52/121

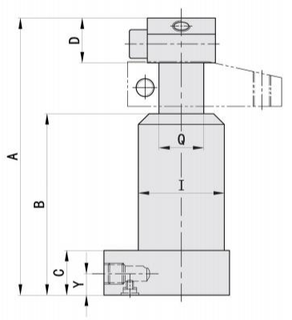


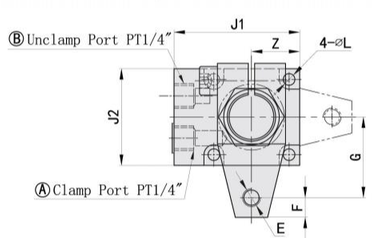




030-92/202







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松开状态 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

规格参数表 SPECIFICATIONS

型号	理论夹持力(250 kgf/cm²) CLAMPING FORCE AT 250kgf/cm² (kgf)		转角行程	夹紧行程	总行程	拉入容积	推出容积	拉入受压面积	推出受压面积	使用温度范围
MODEL	单动系列 Single acting	复动系列 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)
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

顶部法兰油压转角缸

050 HYDRAULIC SWING CLAMP

产品特性

当空间非常小时，050系列具备最小的安装高度;但需预留孔放置转角缸;缸体的主结构可隐藏在工作台面;安装简单，只用三四个螺栓就能固定;对称法兰设计使转角缸采用三点或四点螺体对称固定。
050分为单动式和复动式两种。
复动式特点:夹紧与松卸完全靠油路控制，按照换向阀的方向交替来控制转角缸的夹紧与松卸过程。
单动式特点:内部系统化比较简单，没有卸载系统，卸载时靠弹簧回力完成松卸行程外部管路的阀门及附件较少,使配套系统比较简单。
单动式可以空载回程。缸体材质合用碳钢，经渗碳氮化处理，表面硬度高缸体内面硬度高耐磨损。

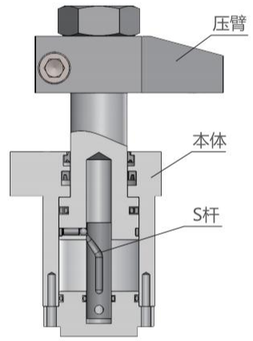
最大操作压力：250kgf/cm²
最小操作压力：70kgf/cm²
作动方式：单动和复动式

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

剖面图Sectional view (复动型)



注意事项

夹紧及放松作动速度需适当放缓。
特殊压臂长度及重量不得超过标准压臂的1.5倍。
压臂旋转示意图及安装拆卸方式，请参见第4页。

NOTE

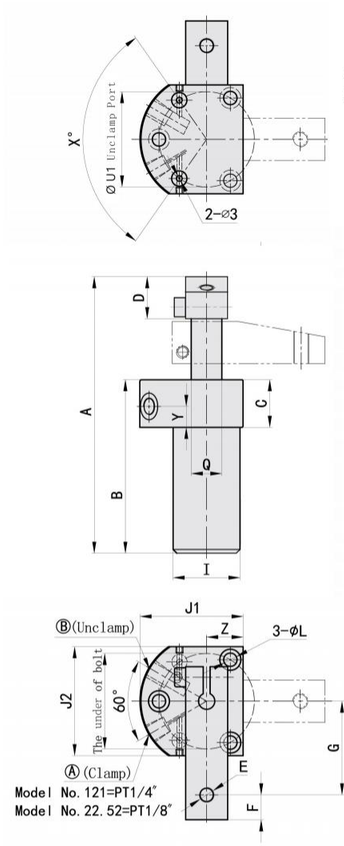
The action and the speed of clamping / unclamping needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instructions and removal methods of the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

订购标示法 ORDERING INDICATION

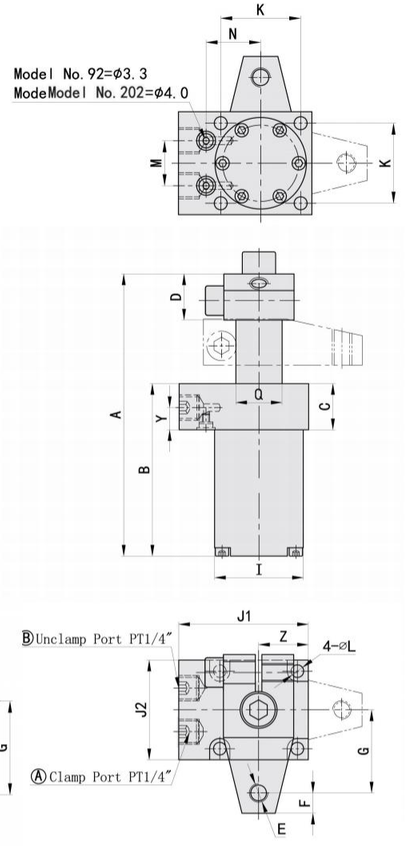
示例：050-LD92-90

050	系列 Series	050	
L	转角方向 Swing direction	右转R或左转L	Turn right R or turn left L
D	作动方式 Acting type	S:单动式 D:复动式	S:Single acting D:Double acting
92	型号 Type	22 , 52 , 92 , 121 , 202	
90	转角角度 Swing angle	标准角度 订做角度	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松开状态 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

规格参数表 SPECIFICATIONS

型号 MODEL	理论夹持力(250 kgf/cm²) CLAMPING FORCE AT 250 kgf/cm² (kgf) 单动系列 Single acting	复动系列 Double acting	转角行程 SWING STROKE (mm)	夹紧行程 CLAMPING STROKE (mm)	总行程 TOTAL STROKE(mm)	拉入容积 CYLINDER CAPACITY CLAMP(cm³)	推出容积 CYLINDER CAPACITY UNCLAMP(cm³)	拉入受压面积 EFF.PISTON AREA CLAMP(cm²)	推出受压面积 EFF.PISTON AREA UNCLAMP(cm²)	使用温度范围 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
高压转角缸

HPS HIGH PRESSURE HYDRAULIC SWING CLAMP

产品特性

此型式油压缸适用于夹持工件取放空间保持净空,方便工件取放高压夹持。
油压缸夹持动作为下压式，含有旋转行程(请勿夹持工件)以及垂直下压行程。本产品使用德制油封及进口零件，缸体内壁经特殊加工处理表面光滑确保使用性能及寿命。
最大充油速度请参考特性资料，请勿使用过大充油速度，以免回转过快，如有回转不确定，请安装流量控制阀，降低充油速度。

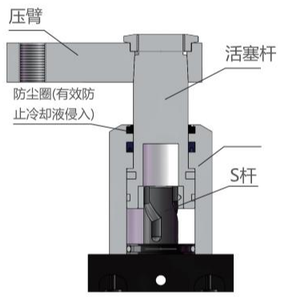
最大操作压力：250 kgf/cm²
最大操作压力：70 kgf/cm²
作动方式：单动和复动式

FEATURES

The clamping mechanism of the HPS series includes a swing stroke and a vertical stroke. For operational nstructions, do not clamp the workpiece during therotation. 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

剖面图 Sectional view



注意事项

夹紧及放松作动速度需适当放缓。
特殊压臂长度及重量不得超过标准压臂的1.5倍。
压臂旋转示意图及安装拆卸方式，请参见第4页。

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.

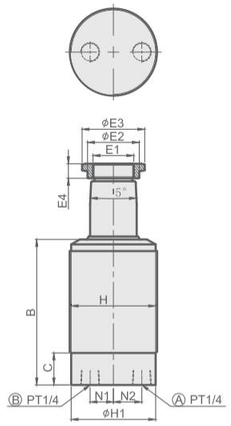
订购标示法 ORDERINGINDICATION

示例：HPS-25SAR-90

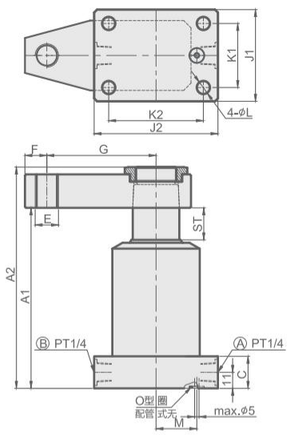
HPS	系列 Series	HPS	
25	油缸内径 Hydraulic cylinder inside diameter	Φ25，Φ32，Φ40，Φ50，Φ63	
S	作动方式 Acting type	S:单动式 Single acting D:复动式 Double acting	
A	安装型式 Installation	A: 全牙型 Threaded type	B:配管型 Line type C: 油路板型 Manifold type
R	转角方向 Swing direction	R:右转下压型 R: Turn right L: 左转下压型 L: Turn left	
90	转角角度 Swing angle	标准角度 Standard angle 90°(±2°) 订做角度 Order angle 30°(±2°)，45°(±2°)，60°(±2°)	

单动式 Single-Acting

HREADED TYPE



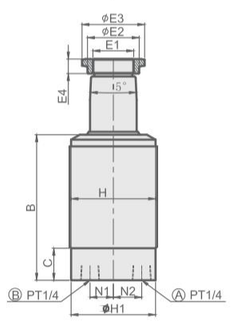
FLANGE TYPE



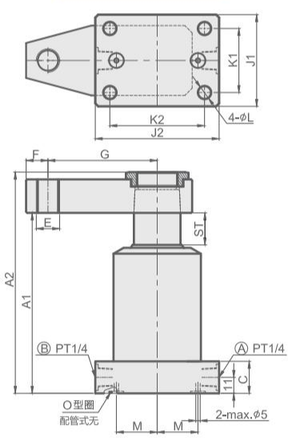
Ⓐ夹持油孔 Clamping port Ⓑ排气孔 Vent port

复动式 Double-Acting

THREADED TYPE



FLANGE TYPE



Ⓐ 夹持油孔 Clamping port Ⓑ 放松油孔 Unclamping port

Unit:mm

型号	HPS-25	HPS-32	HPS-40	HPS-50	HPS-63
A1松开状态	109	120.5	124	142	148
A2松开开状态	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(仅C型) O-Ring(C type)	P7	P7	P7	P7	P9

规格参数表 SPECIFICATIONS

型号	理论夹持力 (250 kgf/cm²) CLAMPING FORCE AT 250 kgf/cm² (kgf)		转角行程	夹紧行程	总行程	拉入容积	推出容积	拉入受压面积	推出受压面积	使用温度范围
MODEL	单动系列 Single acting	复动系列 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	15	5	20	3.54	9.80	1.77	4.9	-10~+70°C
HPS-32	650	780	18	5	23	7.20	18.49	3.13	8.04	-10~+70°C
HPS-40	1140	1300	17.5	4.5	22	9.94	27.63	4.52	12.56	-10~+70°C
HPS-50	1580	1760	18.5	8.5	27	19.09	53.00	7.07	19.63	-10~+70°C
HPS-63	2560	2880	18	9	27	31.16	84.13	11.54	31.16	-10~+70°C

CSP
油压支撑缸

CSP HYDRAULIC SUPPORT CLAMP

产品特性

★高支撑力:提高了活塞杆与夹套间的夹紧力，从而产生更高的工件支撑力。
★切削液清洁对策:为防止高压冷却液及切屑粉尘侵入内部结构而引发的作动不良，更换工件时可在排气孔进行空气清洁。空气清洁需要专用的气压回路。(建议清洁气压0.3~0.5MPa)
★通用的配管底座:可安装目前市售相同的日系缸规格，拥有互换性。

液压上升型:

活塞杆初始状态为下降，供给油压使活塞杆上升并接触工件任意位置后停止，在停止的同时油压作用于夹套的夹紧力施加于活塞杆，使活塞杆得以稳固的支撑工件。

弹簧上升型

活塞杆初始状态为上升，将工件放置于活塞杆上因工件的重量而下降到特定距离，此时供给油压作用于夹套的夹紧力施加于活塞杆，使活塞杆得以稳固的支撑工件。

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.

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.

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.

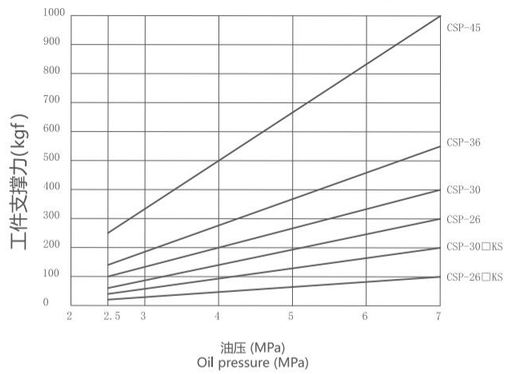
接触力与流量及压力关系

Unit:kgf

规格	油压(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

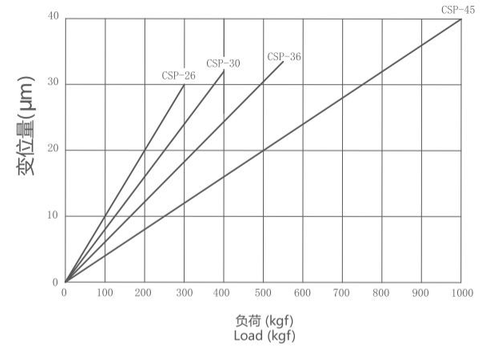
测试条件为距离油缸4mm~5mm之最大接触力

油压与工件支撑力的关系



※本图表示静态负荷条件下的支持力。

负荷与变位量的关系



※本图表示供给油压7MPa条件下的静态负荷变化。

订购标示法 ORDERING INDICATION

示例：CSP-30BLK(MH)

CSP	系列 Series	CSP	
30	油缸外径 Oil cylinder external diameter	M26x1.5 M30x1.5	M36x1.5 M45x1.5
B	型式 Type	A:弹上升型 B:液压上升型(标准)	A: Spring rising type B: Hydraulic rising type (standard)
L	压强 Pressure	低压 7MPa	Low pressure 7MPa
K	版式 Format	K :K 标准版 P: P Type	KS短行程版
M	气检式 Air sensing type	无记号:标准型 M:带气检	Unmarked: Standard type M: Air sensing type
H	活塞弹簧力 Piston spring force	无记号:标准型 H:强弹簧	Unmarked: Standard type H: Strong spring

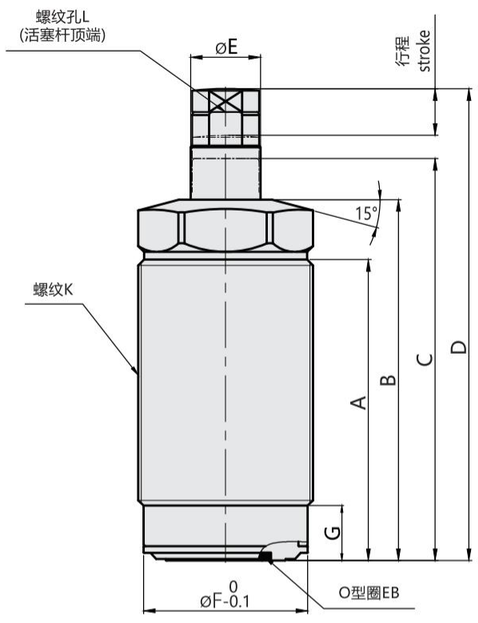
规格参数表 SPECIFICATIONS

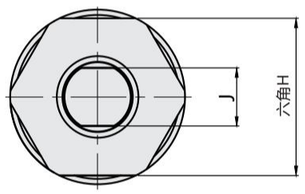
型号		工件支撑力(油压为7MPa时) ※1	油缸流量	上升弹簧力	活塞杆行程	使用压力范围	帽盖最大允许质量	使用温度	质量
MODEL		WORKPIECE SUPPORT FORCE (WHEN OIL PRESSURE IS 7MPA) (kgf)	OIL CYLINDER FLOW (cm^3)	RISING SPRING FORCE (N)	PISTON ROD STROKE (mm)	MAXIMUM WORKING PRESSURE (MPa)	MAX.ALLOW ABLE MASS OF CAP(Kg)	OPERATING TEMPERATURE (℃)	Quality (kg)
CSP-26	P/K	300	0.5	2~4	6.5	2.5-7	0.05	0~70	0.2
	KS	100	0.3	2~4	5	2.5-7	0.05	0~70	0.1
CSP-30	P/K	400	0.7	4~6	8	2.5-7	0.05	0~70	0.3
	KS	200	0.5	4~6	6	2.5-7	0.05	0~70	0.2
CSP-36		550	0.8	3~5	8	2.5-7	0.05	0~70	0.4
CSP-45		950	2.3	3~6	10	2.5-7	0.05	0~70	0.7

使用流体：普通矿物油基液压油 (相当于ISO-VG32)
※1: 将支撑缸与夹紧缸对置使用时为了使支撑力足够所使用的支撑缸支撑力应该为夹紧缸与切削负荷的1.5倍以上请选择型号匹配的支撑缸与夹紧缸
※2:活塞杆上升弹簧力的数值表示弹簧设计值。该值会因活塞杆的滑动阻力、弹簧特性等而产生一定的偏差,所以上升弹簧力为参考值。

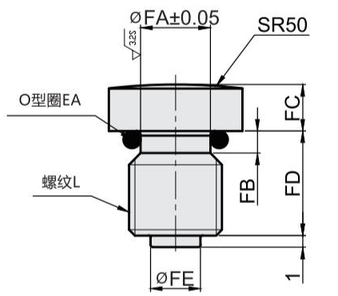
Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
※ 1: When the support clamp and cylinder clamp are used opposite from each other, the supporting force must be 1.5 times the amount of the clamping force and cutting load in order for the support clamp to work sufficiently. Please 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油压支撑缸外型尺寸图

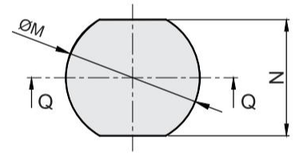




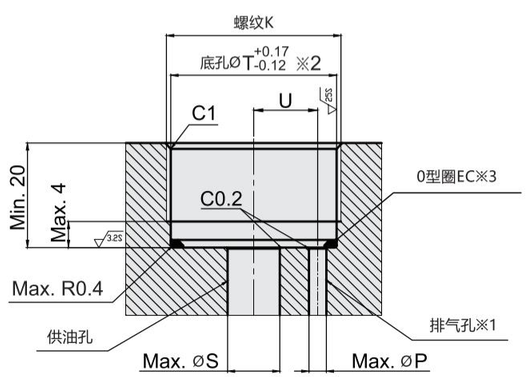
帽盖详图



Q-Q



安装孔加工图



注意事项:

※1:排气孔必须向大气开放，且应注意防止冷却液
切屑粉塵等侵入缸体内部。
※2:安装孔底面最大表面粗糙度应加工在3.2S以下。
※3:附带的O型圈EC要安装到安装孔内。

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油压支撑缸外型尺寸及安装部位加工尺寸表

Unit:mm

型号 Model No	CSP-26ALK	CSP-26ALKS	CSP-30ALK	CSP-30ALKS	CSP-36ALK	CSP-45ALK
A	48.2	33.2	51.7	33.2	49.7	59.2
B	57	39.5	62	41	58	71
C	63	45.5	69	48	65	78
D	72.5	53.5	81	58	77	92
øE	10	10	12	12	15	16
øF	24.3	24.3	28.2	28.2	34.2	43.2
G	8.4	8.4	9.4	9.4	9.4	9
H	24	24	27	27	32	41
J（活塞杆对边宽）	8	8	10	10	13	13
K（公称直径X螺距）	M26X1.5	M26X1.5	M30X1.5	M30X1.5	M36X1.5	M45X1.5
L（公称直径X螺距）	M6X1	M6X1	M8X1.25	M8X1.25	M10X1.5	M10X1.5
øM	9.5	9.5	11.5	11.5	12.5	12.5
N（对边宽）	8	8	10	10	11	11
øP	2.6	2.6	3	3	3	3
øS	7.5	7.5	9	9	9	9
øT	24.5	24.5	28.5	28.5	34.5	43.5
U	9	9	11	11	13	16
øFA	4.5	4.5	6	6	7.8	7.8
FB	1.5	1.5	1.9	1.9	1.9	1.9
FC	3	3	4	4	4	4
FD	7.5	7.5	9	9	9	9
øFE	3.5	3.5	4.3	4.3	5	5
O形圈EA（氟橡胶 硬度Hs70）	S5	S5	S6	S6	S8	S8
O形圈EB（氟橡胶 硬度Hs90）	AS568-013	AS568-013	AS568-014	AS568-014	AS568-014	AS568-015
O形圈EC（氟橡胶 硬度Hs90）	AS568-020	AS568-020	AS568-022	AS568-022	AS568-026	AS568-030

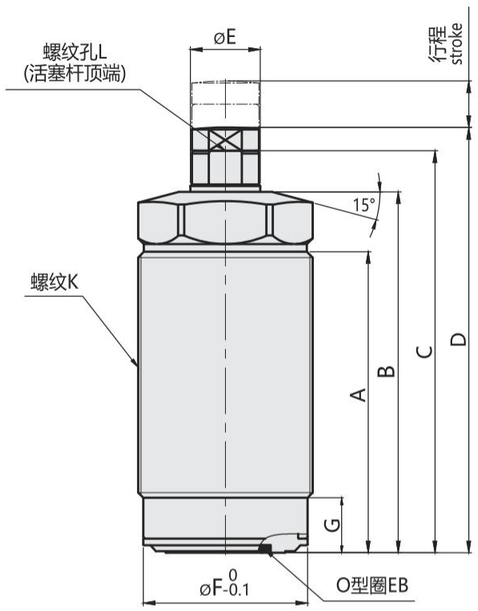
注意事项

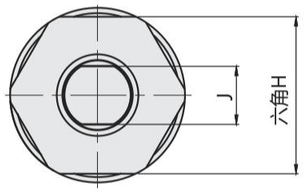
1、请务必安装帽盖，否则工件接触弹簧将无法支撑工件，用户自制帽盖时，请参照帽盖详图，设置O型圈槽，请务必使用附带的O型圈否则冷却液等异物会入侵缸体内部，导致动作异常等故障。
2、用户自制升起弹簧时，本公司不保证活塞杆正确作动。
3、如果O型圈破损或丢失，请务必参照型录上的O型圈规格，不可任意更换其他O型圈尺寸，若有需要请向本公司业务联系。
4、轻量工件及薄型工件的情况下，请根据需求临时固定工件，否则会有工件被顶起的现象。
5、空气清洁回路使用后，务必卸载气压，否则可能造成无法复位。
6、如果活塞杆上升速度过快，会造成活塞杆接触工件时出现反弹的现象，并在回弹位置处夹紧，使活塞杆与工件之间产生间隙或形成冲击，导致内部零件损坏。请通过单向流量控制阀来调整活塞杆的上升动作速度，以使其上升动作时间在0.5~1秒以上，并确认活塞杆与工件之间没有间隙与冲击情况后再投入使用。
7、请使用启开压力为0.1MPa以下的带单向阀的流量调整阀。如果阀的启开压力过高，释放时活塞杆就无法复位。

NOTE

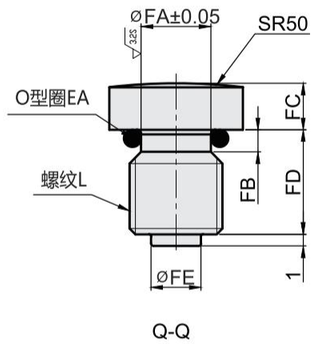
1、Be sure to install the cap. Otherwise, the workpiece will not be able to support the workpiece in contact with the spring. When the user makes the cap, please refer to the cap detailed drawing and set O-ring groove. Please be sure to use the attached O-ring. Otherwise, foreign bodies such as coolant 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 fow 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油压支撑缸外型尺寸图





帽盖详图



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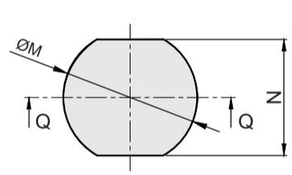
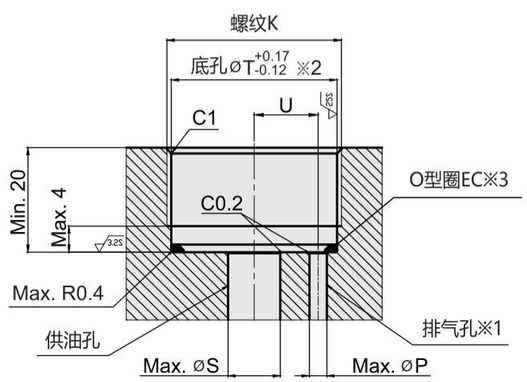


安装孔加工图



注意事项:

※1.排气孔必须向大气开放，且应主意防止冷却液切屑粉塵等侵入缸体内部。

※2:安装孔底面最大表面粗糙度应加工在3.2S以下。

※3:附带的O型圈EC要安装到安装孔内。

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油压支撑缸外型尺寸及安装部位加工尺寸表

Unit:mm

型号 Model No	CSP-26BLK	CSP-26BLKS	CSP-30BLK	CSP-30BLKS	CSP-36BLK	CSP-45BLK
A	48.2	33.2	51.7	33.2	49.7	59.2
B	57	39.5	62	41	58	71
C	63	45.5	69	48	65	78
D	66	48.5	73	52	69	82
øE	10	10	12	12	15	16
øF	24.3	24.3	28.2	28.2	34.2	43.2
G	8.4	8.4	9.4	9.4	9.4	9
H	24	24	27	27	32	41
J（活塞杆对边宽）	8	8	10	10	13	13
K（公称直径X螺距）	M26X1.5	M26X1.5	M30X1.5	M30X1.5	M36X1.5	M45X1.5
L（公称直径X螺距）	M6X1	M6X1	M8X1.25	M8X1.25	M10X1.5	M10X1.5
øM	9.5	9.5	11.5	11.5	12.5	12.5
N（对边宽）	8	8	10	10	11	11
øP	2.6	2.6	3	3	3	3
øS	7.5	7.5	9	9	9	9
øT	24.5	24.5	28.5	28.5	34.5	43.5
U	9	9	11	11	13	16
øFA	4.5	4.5	6	6	7.8	7.8
FB	1.5	1.5	1.9	1.9	1.9	1.9
FC	3	3	4	4	4	4
FD	7.5	7.5	9	9	9	9
øFE	3.5	3.5	4.3	4.3	5	5
O形圈EA（氟橡胶 硬度Hs70）	S5	S5	S6	S6	S8	S8
O形圈EB（氟橡胶 硬度Hs90）	AS568-013	AS568-013	AS568-014	AS568-014	AS568-014	AS568-015
O形圈EC（氟橡胶 硬度Hs90）	AS568-020	AS568-020	AS568-022	AS568-022	AS568-026	AS568-030

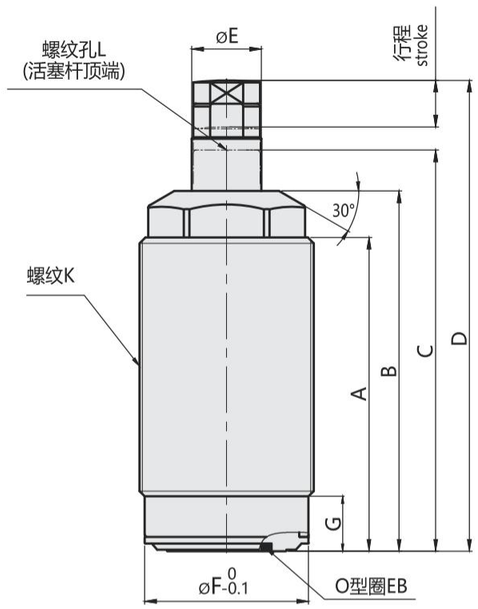
注意事项

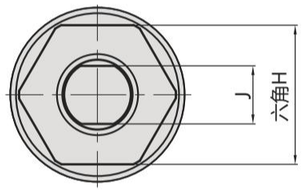
1、请务必安装帽盖，否则工件接触弹簧将无法支撑工件，用户自制帽盖时，请参照帽盖详图，设置O型圈槽，请务必使用附带的O型圈否则冷却液等异物会入侵缸体内部，导致动作异常等故障。
2、用户自制升起弹簧时，本公司不保证活塞杆正确作动。
3、如果O型圈破损或丢失，请务必参照型录上的O型圈规格，不可任意更换其他O型圈尺寸，若有需要请向本公司业务联系。
4、轻量工件及薄型工件的情况下，请根据需求临时固定工件，否则会有工件被顶起的现象。
5、空气清洁回路使用后，务必卸载气压，否则可能造成无法复位。
6、如果活塞杆上升速度过快，会造成活塞杆接触工件时出现反弹的现象，并在回弹位置处夹紧，使活塞杆与工件之间产生间隙或形成冲击，导致内部零件损坏。请通过单向流量控制阀来调整活塞杆的上升动作速度，以使其上升动作时间在0.5~1秒以上，并确认活塞杆与工件之间没有间隙与冲击情况后再投入使用。
7、请使用启开压力为0.1MPa以下的带单向阀的流量调整阀。如果阀的启开压力过高，释放时活塞杆就无法复位。

NOTE

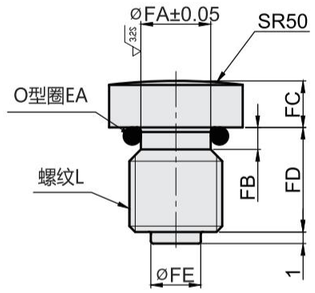
1、Be sure to install the cap. Otherwise, the workpiece will not be able to support the workpiece in contact with the spring. When the user makes the cap, please refer to the cap detailed drawing and set O-ring groove. Please be sure to use the attached O-ring. Otherwise, foreign bodies such as coolant 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 fow 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油压支撑缸外型尺寸图





帽盖详图



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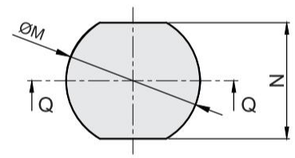
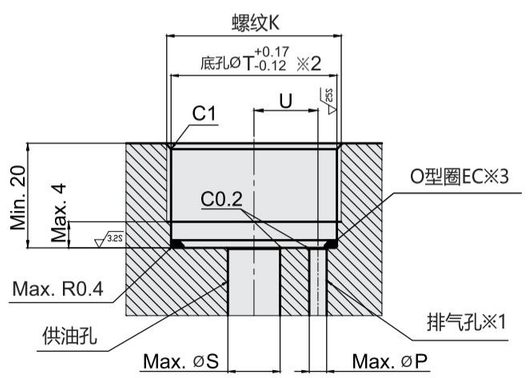


安装孔加工图



注意事项:

※1.排气孔必须向大气开放，且应主意防止冷却液切屑粉塵等侵入缸体内部。

※2:安装孔底面最大表面粗糙度应加工在3.2S以下。

※3:附带的O型圈EC要安装到安装孔内。

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油压支撑缸外型尺寸及安装部位加工尺寸表

Unit:mm

型号 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(活塞杆对边宽)	8	10	13	13
K(公称直径X螺距)	M26X1.5	M30X1.5	M36X1.5	M45X1.5
L(公称直径X螺距)	M6X1	M8X1.25	M10X1.5	M10X1.5
ØM	9.5	11.5	12.5	12.5
N(对边宽)	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 (氟橡胶 硬度Hs70)	S5	S6	S8	S8
O型圈EB（氟橡胶 硬度Hs90)	AS568-013	AS568-014	AS568-014	AS568-015
O型圈EC（氟橡胶硬度Hs90)	AS568-020	AS568-022	AS568-026	AS568-030

注意事项:

1、请务必安装帽盖，否则工件接触弹簧将无法支撑工件，用户自制帽盖时，请参照帽盖详图，设置O型圈槽，请务必使用附带的O型圈，否则冷却液等异物会入侵缸体内部，导致动作异常等故障。

2、用户自制升起弹簧时，本公司不保证活塞杆正确作动。

3、如果O型圈破损或丢失，请务必参照型录上的O型圈规格，不可任意更换其他O型圈尺寸，若有需要请向本公司业务联系。

4、轻量工件及薄型工件的情况下，请根据需求临时固定工件，否则会有工件被顶起的现象。

5、空气清洁回路使用后，务必卸载气压，否则可能造成无法复位。

6、如果活塞杆上升速度过快，会造成活塞杆接触工件时出现反弹的现象，并在回弹位置处夹紧，使活塞杆与工件之间产生间隙或形成冲击，导致内部零件损坏。请通过单向流量控制阀来调整活塞杆的上升动作速度，以使其上升动作时间在0.5~1秒以上，并确认活塞杆与工件之间没有间隙与冲击情况后再投入使用。

7、请使用启开压力为0.1MPa以下的带单向阀的流量调整阀。如果阀的启开压力过高，释放时活塞杆就无法复位。

NOTE:

1、Be sure to install the cap. Otherwise, the workpiece wil 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-ringing in the catalogue, and do not change other O-ring sizes arbitrarily, If necessary please contact our company.

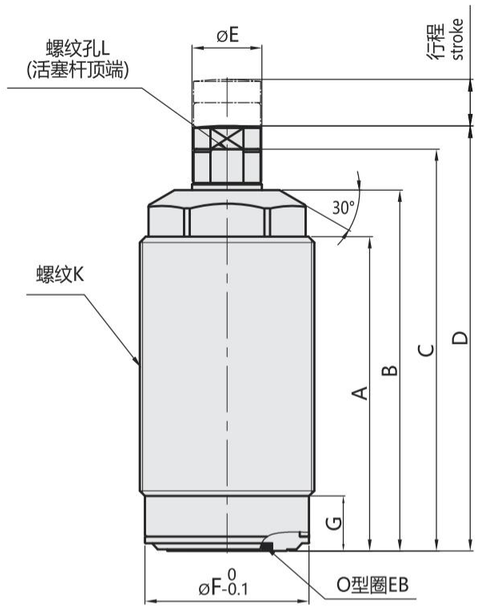
4、In the case of light and thin workpiece, please fix the workpiece temporarily according to the demand, otherwise the workpiece will be damaged.

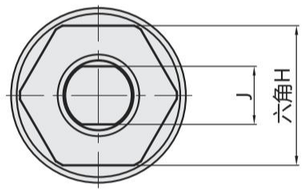
5、The return of cleaning air pressure will cause the piston rod to be unable to reset if air is supplied all the time.

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.

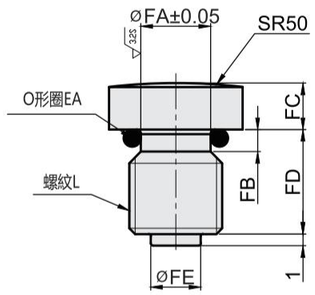
7、Please use a fow control valve with a one-way valve under the opening pressure below 0.1MPa. If the opening pressure of the valve is too high, the piston rod cannot be reset when released.

CSP-BLP油压支撑缸外型尺寸图

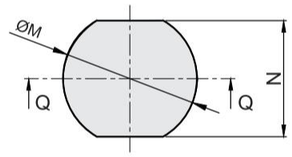




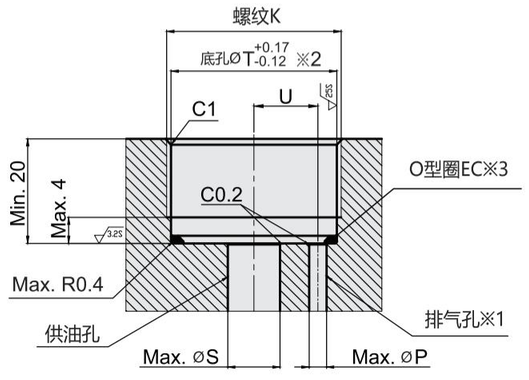
帽盖详图



Q-Q



安装孔加工图



注意事项:

※1.排气孔必须向大气开放，且应主意防止冷却液切屑粉塵等侵入缸体内部。
※2:安装孔底面最大表面粗糙度应加工在3.2S以下。
※3:附带的O型圈EC要安装到安装孔内。

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油压支撑缸外型尺寸及安装部位加工尺寸表

Unit:mm

型号 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(活塞杆对边宽)	8	10	13	13
K(公称直径X螺距)	M26X1.5	M30X1.5	M36X1.5	M45X1.5
L(公称直径X螺距)	M6X1	M8X1.25	M10X1.5	M10X1.5
ØM	9.5	11.5	12.5	12.5
N(对边宽)	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 (氟橡胶 硬度Hs70)	S5	S6	S8	S8
O型圈EB（氟橡胶 硬度Hs90)	AS568-013	AS568-014	AS568-014	AS568-015
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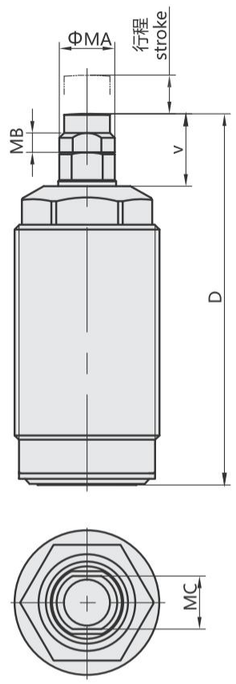
6、如果活塞杆上升速度过快，会造成活塞杆接触工件时出现反弹的现象，并在回弹位置处夹紧，使活塞杆与工件之间产生间隙或形成冲击，导致内部零件损坏。请通过单向流量控制阀来调整活塞杆的上升动作速度，以使其上升动作时间在0.5~1秒以上，并确认活塞杆与工件之间没有间隙与冲击情况后再投入使用。
7、请使用启开压力为0.1MPa以下的带单向阀的流量调整阀。如果阀的启开压力过高，释放时活塞杆就无法复位。

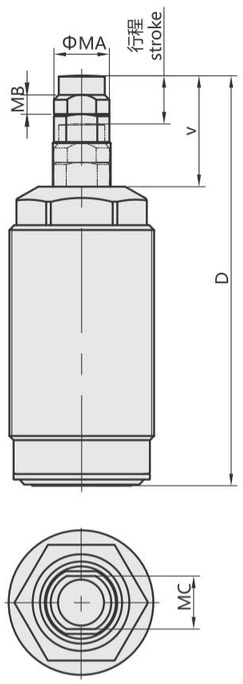
NOTE:

1、Be sure to install the cap. Otherwise, the workpiece wil 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-ringing 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 fow 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油压上顶型 气检支撑缸外形尺寸图

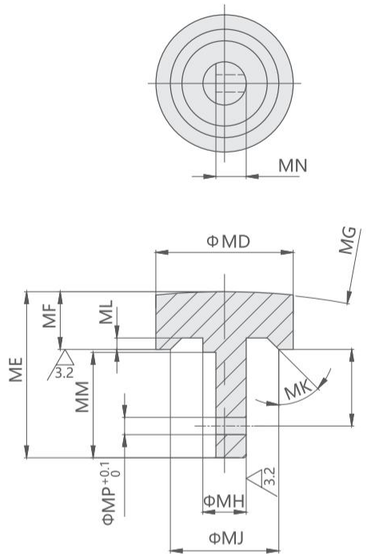


CSP-□M弹簧上顶型 气检支撑缸外形尺寸图



注:其他外形尺寸与非气检支撑缸一致

气检帽盖详图



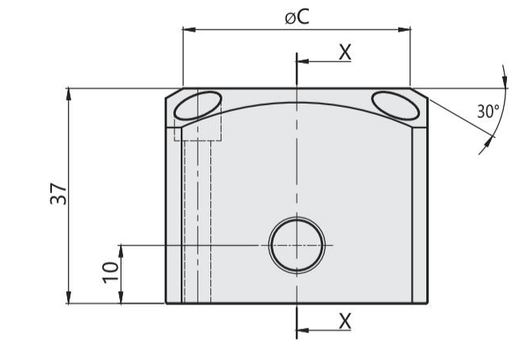
CSP-□M油压气检支撑缸外形尺寸及气检帽盖尺寸

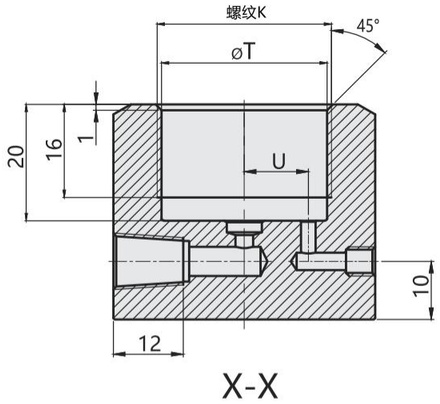
Unit:mm

型号 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

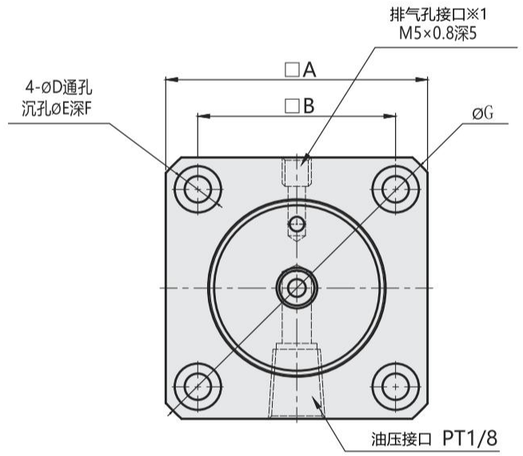
注意事项：1.气检回路推荐气压0.03~0.15MPa，推荐使用SMC的ISA2-G、ISA3-G空气传感器;
2.因气检气压或拆卸工件等原因导致支撑杆退回动作迟缓时,可以在支撑杆退回动作中暂时切断气路供给。

CSP-DF配管底座





X-X



注意事项：

※1.冷却液、切屑等有可能从排气孔进入时，请接上配管。

NOTE:

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

CSP-DF油压支撑缸配管式安装座尺寸表

Unit:mm

型号 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(公称直径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

CTNC

高压支撑缸

CTNC HIGH PRESSURE HYDRAULIC SUPPORT CLAMP

产品特性

★高支撑力：改进夹套与支撑杆的结构，产生更高的工件支撑力。

★高耐压：使用压力范围为7～35Mpa。

★通用的安装底座：与目前市售的日系缸拥有相同规格，具有互换性。

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.

★High pressure: The range of working pressure is 7 ~ 35MPa.

★Universal mounting base: The CTNC series is compatible and interchangeable with Japanese branded cylinders that are currently on the market.

液压上升型：
支撑杆初始位置为下降，供给油压使支撑杆上升并接触工件后停止，同时供给油压作用于夹套的加紧力施加于支撑杆，使支撑杆稳固的支撑工件

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.

弹簧上升型：
支撑杆初始位置为上升，放上工件，支撑杆就会因工件重量而下降到设定位置，然后在供给油压作用夹套的加紧力施加于支撑杆，使支撑杆稳固的支撑工件

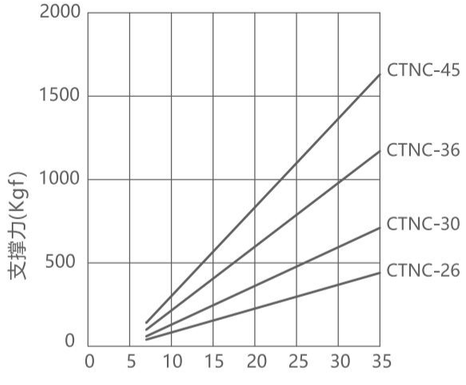
Spring Rising Type:
The initial state of the piston rod is up, and the workpiece is placed on the piston rod and dropped to a certain distance due to the weight of the workpiece. During this period, the hydraulic pressure on the collet can grip the plunger with stronger power to generate the supporting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

订购标示法 ORDERING INDICATION

示例：CTNC-30B

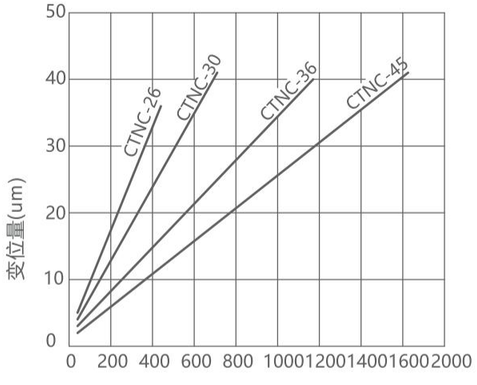
CTNC	系列 Series	CTNC
30	油缸外径 Hydraulic cylinder outside diamater	M26*1.5 ,M30*1.5,M36*1.5,M45*1.5
B	型式 Type	A: 弹簧上升型 A:Spring rising type B: 液压上升型 B:Hydraulic rising type

油压与支撑力的关系



本图表示静态负荷条件下的支撑力

负荷与变位量的关系



本图表示供给油压35MPa条件下静态负荷变位量

规格参数表 SPECIFICATIONS

型号 MODEL	支撑力(油压35Mpa时) WORKPIECE SUPPORT FORCE WHEN OIL PRESSURE IS 35MPa(kgf)	油缸容量 OIL CYLINDER CAPACITY(cm^3)	上升弹簧力 RISING SPRING FORCE(N)	支撑杆行程 STROKE FOR SUPPORT ROD(mm)	最高使用压力 MAX. WORKING PRESSURE(MPa)	最低使用压力 MIN. WORKING PRESSURE(MPa)	使用温度 OPERATING TEMPERATURE(°C)	质量 QUALITY(Kg)
CTNC-26	440	0.3	4～8	6.5	35	7	0～70°C	0.15
CTNC-30	710	0.6	5～11	8	35	7	0～70°C	0.2
CTNC-36	1170	1.1	6～14	10	35	7	0～70°C	0.3
CTNC-45	1630	1.8	8～22	12	35	7	0～70°C	0.75

注意事项

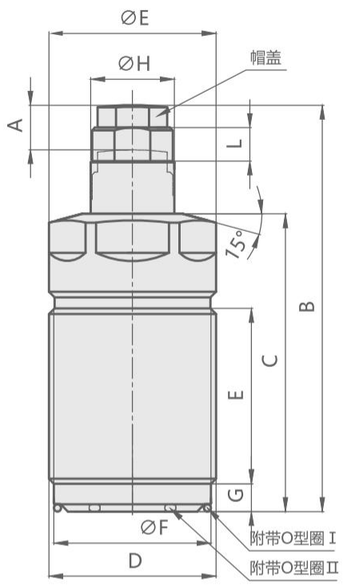
1.当支撑缸与加紧缸对置使用时，选型时一定注意，所选支撑缸支撑力应大于加紧缸加紧力的1.5倍以上。
2.自制帽盖时请参照帽盖详图尺寸，且需考虑帽盖的重量及弹簧力，否则会出现支撑缸动作不良的现象。
3.保持通过排气口供气，可有效的防止切削液、切削粉尘等侵入支撑缸内部。
4.如果支撑杆上升速度过快，在支撑杆接触工件时会产生反弹并在弹回位置被夹紧，造成支撑杆与工件之间出现间隙。防止出现这种情况请使用进油节流的流量阀进行调节，使支撑杆上升动作时间在0.5～1秒左右，确认支撑缸与工件没有间隙后再投入使用。

NOTE

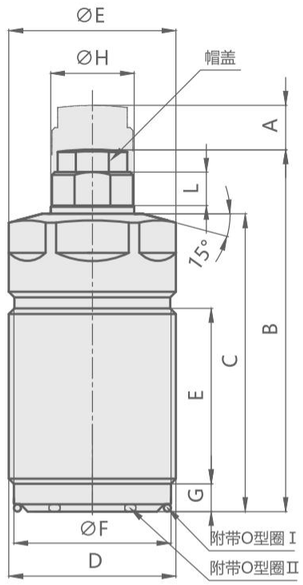
1.When the support clamp and cylinder clamp are used opposite from each other, pay attention to the selection, the supporting force should be more than 1.5 times of the cylinder clamping force.
2.Please refer to the cap detailed drawing when the user makes the cap, and consider the weight of the cap and the spring force, otherwise there will be poor operation of the support cylinder.
3.Keep the vent hole open to the atmosphere, which can effectively prevent cutting fluid and cutting dust from invading the inside of the support cylinder.
4.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.

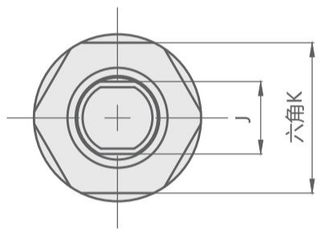
外形尺寸

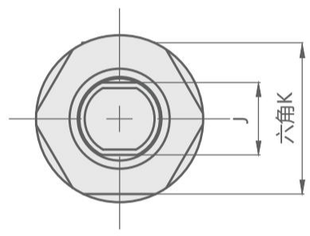
A型



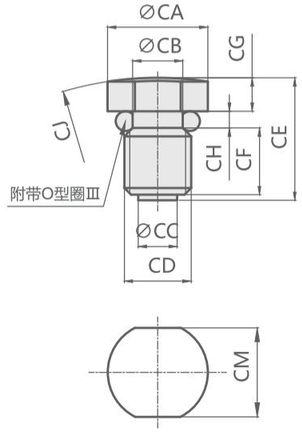
B型



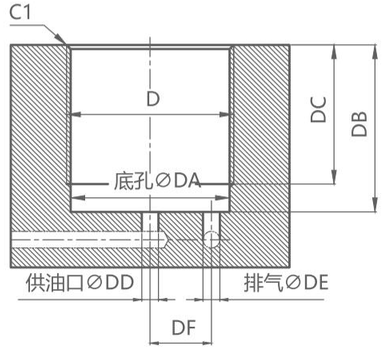




帽盖详图



安装部位加工尺寸



外形尺寸表(单位:mm)

Unit:mm

型号 Model		CTNC-26	CTNC-30	CTNC-36	CTNC-45
A	行程	6.5	8	10	12
B	A型	66.5	73	86.5	100
	B型	60	65	76.5	88
C		48.5	53.5	64.5	71.5
D		M26×1.5	M30×1.5	M36×1.5	M45×1.5
E		27.5	31.5	51.2	55.2
F		24.2	28.2	34.2	43.2
G		5	5	5	6
H		12	15	18	22
J		10	13	14	19
K		24	27	32	41
L		6	6	6.5	9
CA		11.5	12.5	12.5	16.5
CB		6	7.8	7.8	9.7
CC		5	6	6	7.4
CD		M8	M10	M10	M12
CF		7.1	7.1	7.1	8
CE		14	14	14	18
CG		4	4	4	6
CH		1.9	1.9	1.9	3
CJ		SR30	SR50	SR50	SR80
CM		10	11	11	14
DA		24.5	28.5	34.5	43.5
DB		13～32	13～36	15～55	18～60
DC		DB-4	DB-4	DB-4	DB-5
DD		2～6	2～6	2～6	2～8
DE		2	22	3	3
DF		9.5	11	13	15
O型圈O-ring Ⅰ		AS568-020(90°)	AS568-022(90°)	AS568-026(90°)	AS568-030(90°)
O型圈O-ringⅡ		AS568-013(90°)	AS568-014(90°)	AS568-015(90°)	AS568-017(90°)
O型圈O-ringⅢ		S6	S8	S8	S10

CSP

油压支撑缸（高压）

CSP HYDRAULIC SUPPORT CLAMP (HIGH PRESSURE)

产品特性

A型：夹缩支撑在初始位置时,支撑头在内部弹簧的作用下处于最上端,工作时依靠工件在下放时的重力下压支撑头使之同步向下,在工件稳妥的放在治具上时就停止下行,支撑头也停止下行,加油压后支撑缸锁死给工件提供支撑并停止运行。
B型：上行支撑,在初始位置时,支撑头位于最下端,工件放好后给支撑缸加油压使支撑头上行.至碰到工件时支撑头立刻停止上行并继续加压至锁死,这样支撑头就在当前位置给工件提供支撑并且停止。

最大操作压力:250 kgf/cm²
最小操作压力:100 kgf/cm²
作动方式:单动式

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 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.

Max.operating pressure:250 kgf/cm²
Min.operating pressure :100 kgf/cm²
Single acting

注意事项

支持力与转角缸的支持力要相匹配
支持力至少为单个转角缸夹持力的150%
不能超过最大流速，避免过早锁死
基本上在中间位置放置支撑缸
安装时盖可能垂直于工作面，倾斜勿超过10°
如操作压力大于250kgf/cm²,请来电洽询

NOTE

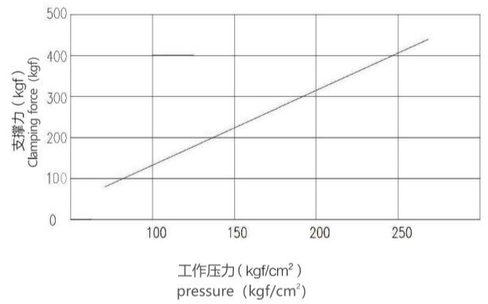
The supporting force must match the clamp force of the swing clamp.
The supporting force at least is equal to 150% of the clamp force of a swing clamp.
Do not exceed the maximum velocity of flow and avoid clamping it too early.
Install the supporting cylinder in the middle place best.
The angle degree between the supporting cylinder and working force could not be largerthan 10% while installing.
Please contact us when the operating pressure exceed 250kgf/cm².

订购标示法 ORDERINGINDICATION

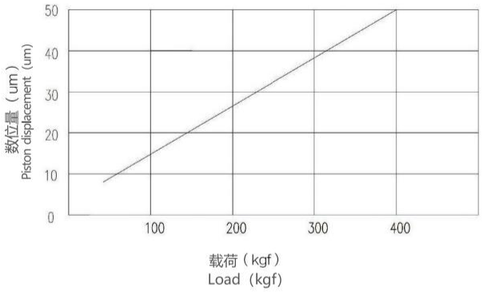
示例：CSP-16A

CSP	系列 Series	CSP	
16	油塞杆径 Piston rod diameter	Φ16	
A	型式 Type	A:Type A	B:Type B

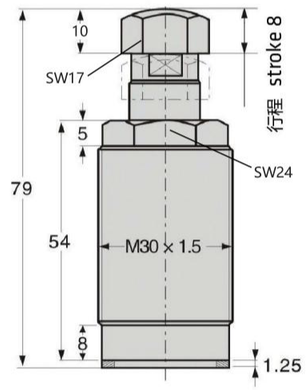
CSP-16系列特性曲线图
工作压力与支撑力关系



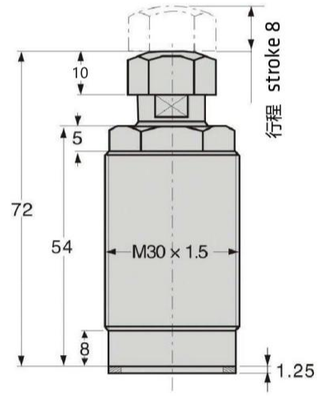
25MPa 时静载荷变位量（um）



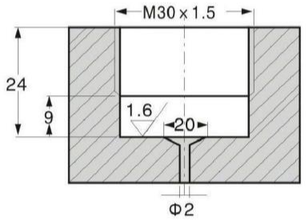
CSP-16A



CSP-16B



安装尺寸



规格参数表 SPECIFICATIONS

型号	理论支撑力(250 kgf/cm²)	理论支撑力 (100 kgf/cm²)	总行程	油压容积	活塞杆面积	使用流体
MODEL	CLAMPING FORCE AT 250 kgf/cm² (kgf)	CLAMPING FORCE AT 100 kgf/cm² (kgf)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm³)	OIL CAPACITY UNCLAMP(cm³)	USABLE FLUID
CSP-16A	410	140	8	0.60	2.01	相当于ISO黏度等级的 ISO-VG-32 一般液压油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CSP-16B	410	140	8	0.60	2.01	

HSP

油压支撑缸（高压）

HSP HYDRAULIC SUPPORT CLAMP (HIGH PRESSURE)

产品特性

A型：夹缩支撑在初始位置时,支撑头在内部弹簧的作用下处于最上端,工作时依靠工件在下放时的重力下压支撑头使之同步向下,在工件稳妥的放在治具上时就停止下行,支撑头也停止下行,加油压后支撑缸锁死给工件提供支撑并停止运行。
B型：上行支撑,在初始位置时,支撑头位于最下端,工件放好后给支撑缸加油压使支撑头上行.至碰到工件时支撑头立刻停止上行并继续加压至锁死,这样支撑头就在当前位置给工件提供支撑并且停止。

最大操作压力:500 kgf/cm²
最小操作压力:100kgf/cm²
作动方式:单动式

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 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.

Max. operating pressure： 500 kgf/cm²
Min. operating pressure： 100 kgf/cm²
Single acting

注意事项

支持力与转角缸的支持力要相匹配
支持力至少为单个转角缸夹持力的150%
不能超过最大流速，避免过早锁死
基本上在中间位置放置支撑缸
安装时盖可能垂直于工作面，倾斜勿超过10°

NOTE

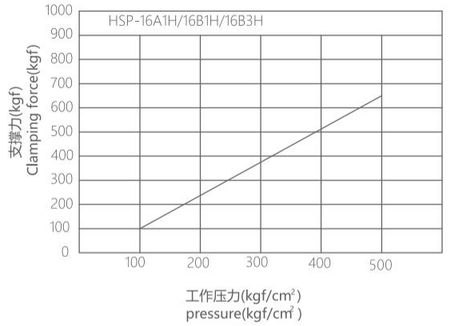
The supporting force must match the clamp force of the swing clamp.
The supporting force at least is equal to 150% of the clamp force of a swing clamp.
Do not exceed the maximum velocity of flow and avoid clamping it too early.
Install the supporting cylinder in the middle place best.
The angle degree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

订购标示法 ORDERING INDICATION

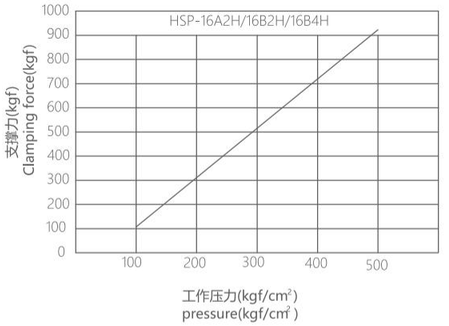
示例： HSP-16B1H

HSP	系列 Series	HSP
16	油塞杆径 Piston rod diameter	Φ16
B	型式 Type	A:Type A　B:Type B
1H	行程 Stroke	详见HSP规格参数表 Please refer to the detailed with specifications

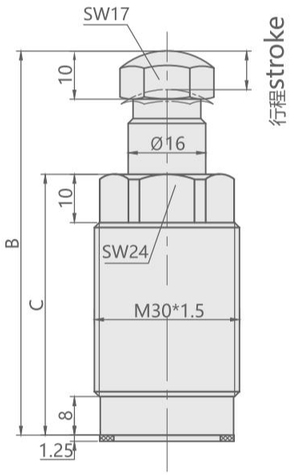
HSP-16系列特性曲线图
工作压力与支撑力关系



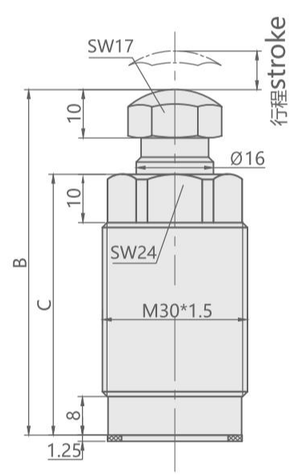
HSP-16系列特性曲线图
工作压力与支撑力关系



HSP-16A



HSP-16B



型号 MODEL	支撑力(500 kgf/cm²) CLAMPING FORCE AT 500 kgf/cm² (kgf)	活塞杆行程 TOTAL STROKE(mm)	油缸容积 OIL CAPACITY CLAMP(cm³)	B	C	使用温度范围 RANGE OF TEMPERATURE(°C)	使用流体 USABLE FLUID
HSP-16A1H	650	8	1.49	79	54	0~+70°c	相当于ISO粘度等级的ISO-VG-32一般液压油 General Hydraulic Oil Equivalent to ISO-VG-32
HSP-16A2H	950	8	2.11	89	64	0~+70°c	
HSP-16B1H	650	8	2.12	71	54	0~+70°c	
HSP-16B2H	950	8	2.74	81	64	0~+70°c	
HSP-16B3H	650	15	2.67	78	61	0~+70°c	
HSP-16B4H	950	15	3.28	88	71	0~+70°c	

CSF

上法兰油压支撑缸

CSF HYDRAULIC SUPPORT CLAMP

产品特性

★高支撑力:提高了活塞杆与夹套间的夹紧力，从而产生更高的工件支撑力。
★切削液清洁对策:为防止高压冷却液及切屑粉尘侵入内部结构而引发的作动不良，更换工件时可在排气孔进行空气清洁。空气清洁需要专用的气压回路。(建议清洁气压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).

液压上升型:

活塞杆初始状态为下降，供给油压使活塞杆上升并接触工件任意位置后停止，在停止的同时油压作用于夹套的夹紧力施加于活塞杆，使活塞杆得以稳固的支撑工件。

弹簧上升型:

活塞杆初始状态为上升，将工件放置于活塞杆上因工件的重量而下降到特定距离，此时供给油压作用于夹套的夹紧力施加于活塞杆，使活塞杆得以稳固的支撑工件。

Hydraulic Pressure Rising Type:

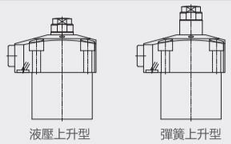
The initial state of the piston rod is down. When the oil pressure is supplied, the piston rod rises and stops once contact is made with the workpiece at any position. During this period, the hydraulic pressure on the collet can grip the plunger with stronger power to generate the supporting force.

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.

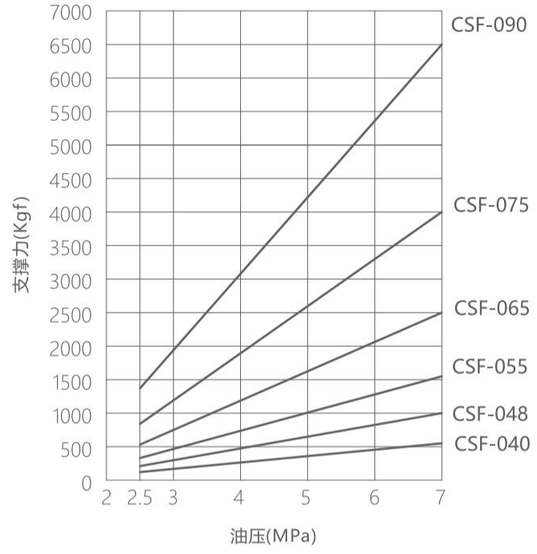
订购标示法 ORDERING INDICATION

示例：CSF-040BLG

CSF	系列 Series	CSF		
040	主体尺寸 Body diameter	040=⌀40mm 048=⌀48mm	055=⌀55mm 065=⌀65mm	075=⌀75mm 090=⌀90mm
B	型式 Type	A:弹上升型 B:液压上升型(标准)	A:Spring rising type B:Hydraulic rising type (standard)	
L	压强 Pressure	低压7MPa	Low pressure 7MPa	
G	配管方式 Type	G:油路板式(配有G螺纹堵头) S:配管式(PT螺纹)	G: Manifold type (with G thread plug) S: Line type (PT thread)	

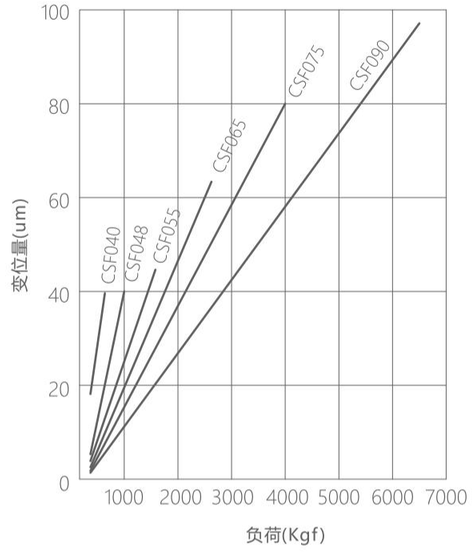
支撑力曲线图

*本图表示静态负荷条件下的支撑力。



负荷/变位量曲线图

*本图表示供给油压在7Mpa条件下的静态负荷下的变化



规格参数表 SPECIFICATIONS

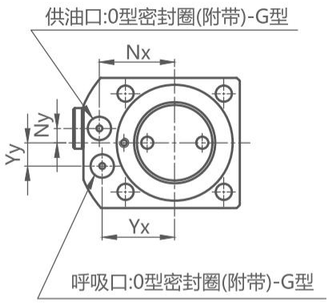
型号	工作支撑力(油压国7Mpa时)	油缸容量	上升弹簧力	活塞杆行程	最高使用压力	最低使用压力	保证耐压	使用温度	质量
MODEL	WORKPIECE SUPPORT FORCE (WHEN OIL PRESSURE IS 7MPA) (kgf)	OIL CYLINDER CAPACITY(cm^3)	RISING SPRING FORCE(kgf)	PISTON ROD STROKE (mm)	MAXIMUM WORKING PRESSURE (MPa)	MINIMUM WORKING PRESSURE (MPa)	ENSURE OVERPRESSURE -RESISTANT (MPa)	OPERATING TEMPERATURE (℃)	Quality (kg)
CSF-040	550	1.2	0.5~0.8	8	7	2.5	10.5	0~70	0.6
CSF-048	1000	2	0.5~1.4	10	7	2.5	10.5	0~70	0.9
CSF-055	1550	3.3	1.2~1.8	12	7	2.5	10.5	0~70	1.4
CSF-065	2500	4.8	1.4~2.5	14	7	2.5	10.5	0~70	2.2
CSF-075	4000	8.9	2.3~3.3	16	7	2.5	10.5	0~70	3.6
CSF-090	6500	13.1	2.5~4.0	20	7	2.5	10.5	0~70	6

使用流体:普通矿物油基液压油(相当于ISO-VG32)
※1:将支撑缸与夹紧缸对置使用时,为了使支撑力足够所使用的支撑缸支撑力应该为夹紧缸与切削负荷的1.5倍以上请选择型号匹配的支撑缸与夹紧缸。
※2:活塞杆上升弹簧力的数值表示弹簧设计值。该值会因活塞杆的滑动阻力、弹簧特性等而产生一定的偏差,所以上升弹簧力为参考值。

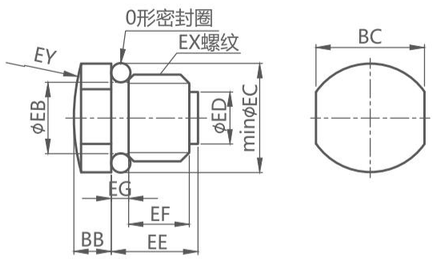
Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
※ 1: When the support clamp and cylinder clamp are used opposite from each other, the supporting force must be 1.5 times the amount of the clamping force and cutting load in order for the support clamp to work sufficiently. Please 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.

外形尺寸

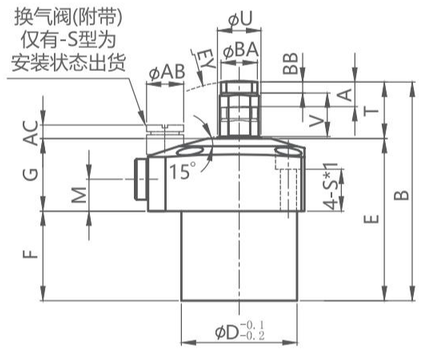
※本图表示为CSF-G型初始状态



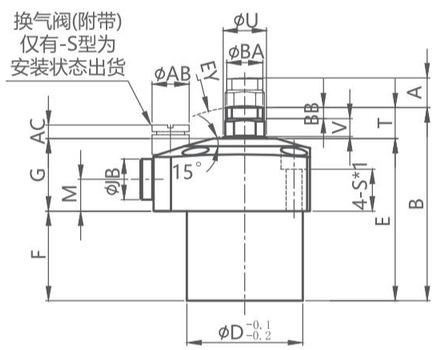
接触螺栓设计尺寸



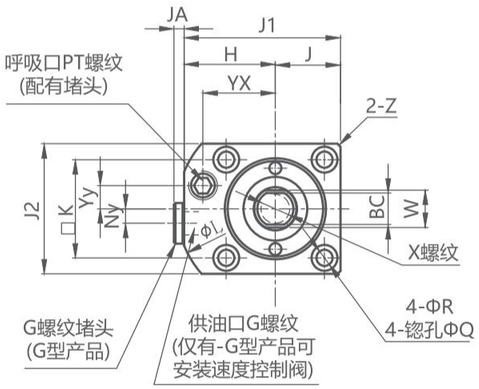
CSF-A型 弹簧上升型

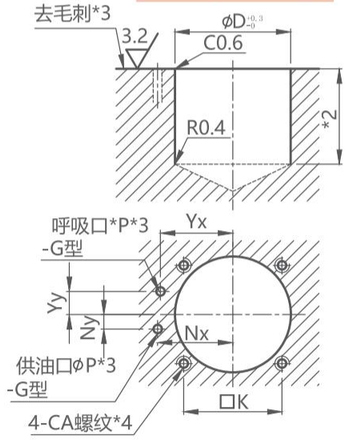


CSF-B型 液压上升型



安装部位加工尺寸





注意事项

※1.本产品未附带安装螺栓，请客户根据安装高度并参照S尺寸自行配置使用。
※2.请参考F尺寸，并根据安装高度决定本体安装孔ΦD的深度。
※3.本加工表示-G板式连接型的情况。
※4.请参考S尺寸，并根据安装高度决定安装螺栓的CA螺纹深度。

NOTE

※1.This product does not come with mounting bolts, please configure according to the installation height and refer to the S-size.
※2.Refer to the F dimension and determine the depth of DD of the mounting hole based on the mounting height.
※3.This processing represents the case of -G plate connection type.
※4.Please refer to the S-dimension and determine the CA thread depth of the mounting bolt according to the mounting height.

外形尺寸及安装部位加工尺寸表

型号Model		CSF-040	CSF-048	CSF-055	CSF-065	CSF-075	CSF-090
A	行程	8	10	12	14	16	20
B	A型	75	85	97	115	142	169
	B型	67	75	85	101	126	149
J1		54	61	69	81	92	107
J2		45	51	60	70	80	95
D		40	48	55	65	75	90
E		56	64	70	85	107	128
F		31	39	45	56	72	88
G		25	25	25	29	35	40
H		31.5	35.5	39	46	52	59.5
J		22.5	25.5	30	35	40	47.5
K		34	40	47	55	63	75
L		68	73	80	94	106	126
M		11	11	11	11	13	13
Nx		26	60	33.5	39.5	45	52.5
Ny		5	0	0	0	0	0
P		3	3	3	5	5	5
Q		9.5	9.5	11	11	14	17.5
R		5.5	5.5	6.8	6.8	9	11
S		14.5	13.5	11.5	14.5	17	18
T	A型:	19	21	27	30	35	41
	B型:	11	11	15	16	19	21
U		15	16	20	22	25	30
V		6	6	8	9	9	10.5
W		13	13	17	19	22	24
X(标称X深度)		M10X11	M10X11	M12X13	M12X13	M16X20	M16X20
Yx		25	28	31	37	42.5	50
Yy		8	11	13	14	15	15
Z(倒角)		C1	C3	R40	R47	R53	R63
AB		12	12	12	12	12	12
AC		5	4	3.5	2	1.5	0
BA		12.5	12.5	16.5	16.5	21.5	21.5
BB		4	4	6	6	9	9
BC		11	11	14	14	19	19
CA		M5	M5	M6	M6	M8	M10
EY		SR50	SR50	SR80	SR80	SR125	SR125
JA		3.5	3.5	3.5	3.5	4.5	4.5
JB		14	14	14	14	19	19
供油口	-G型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4
	-S型	PT1/8	PT1/8	PT1/8	PT1/8	PT1/4	PT1/4
G螺纹堵头	-G型	G1/8	G1/8	G1/8	G1/8	G1/4	G1/4
O型密封圈(G型)		P5	P5	P5	P7	P7	P7
呼吸口PT螺纹		PT1/8	PT1/8	PT1/8	PT1/8	PT1/8	PT1/8

接触螺栓设计制作尺寸表

※客户自行设计制作非出厂附带的接触螺栓(配件)时，请参考接触螺栓设计制作尺寸表。

型号	CSF-040	CSF-048	CSF-055	CSF-065	CSF-075	CSF-090
EB	8.2	8.2	10	10	13.5	13.5
EC	12.5	12.5	16.5	16.5	21.5	21.5
ED	6	6	7.5	7.5	10.5	10.5
EE	10	10	12	12	16	16
EF	7	7	8	8	11	11
EG	2	2	3	3	4	4
EX	M10	M10	M12	M12	M16	M16
O型密封圈	S8(NOK制品)	S8(NOK制品)	S10(NOK制品)	S10(NOK制品)	AS568-014(70°)	AS568-014(70°)

SP-AH

气油压两用型支撑缸

SP-AH PNEUMATIC /HYDRAULIC SUPPORT CLAMP

订购标示法 ORDERING INDICATION

示例：SP-AH18RA

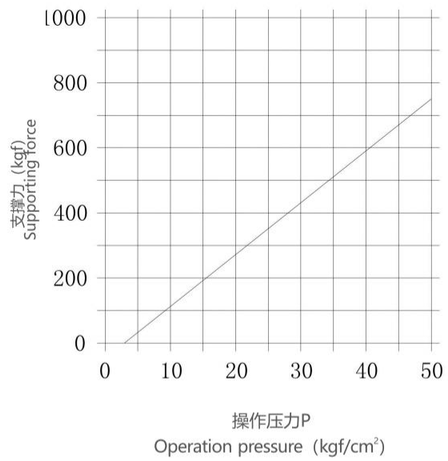
SP	系列 Series	SP
AH	气油压两用型	Pneumatic/hydraulic type
18	顶杆轴径	Diameter of the extended piston rod
R	R：右向 L：左向	R：Turn right L：Turn left
A	A弹簧顶出型 B油压页出型	A: Spring extended piston B: Hydraulic extended piston

A:弹簧顶出型，往内调整。
B:油压顶出型，往外调整
附AB型式调整螺丝

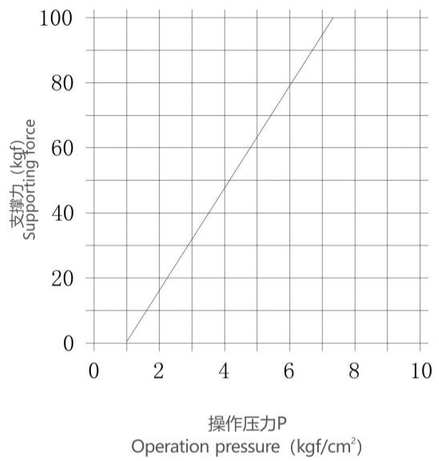
A: Spring extended piston rod-adjust inward.
B: Hydraulic extended piston rod-adjust outward.
With A and B type adjusting screw.

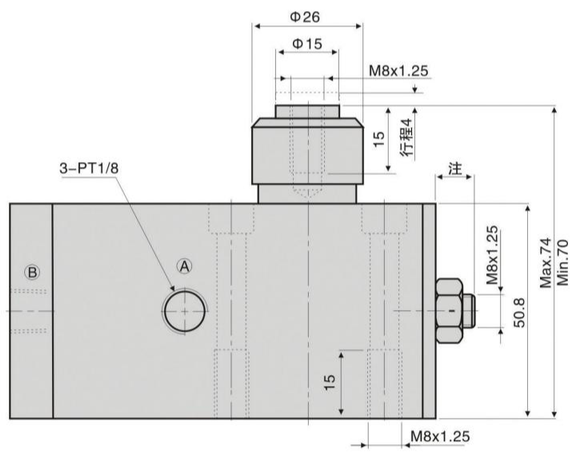
使用流体:相当于黏度等级的ISO-VG-32一般液压油或过滤之干燥压缩空气
Recommended： ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade or oiled dry clean compressed air.

油压 Hydraulic

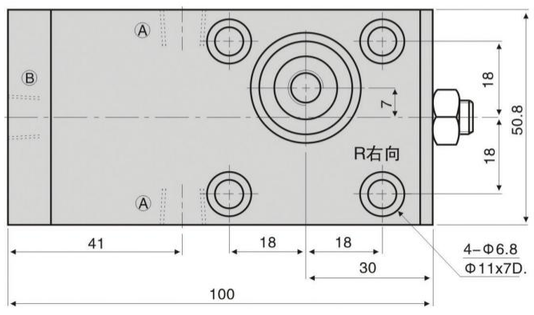


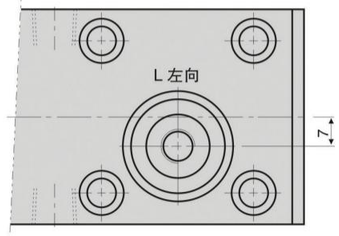
气压 Pneumatic





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





CLL

油压紧凑型直线缸

CLL HYDRAULIC COMPACT LINEAR CYLINDER

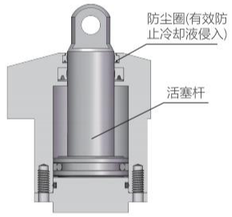
产品特性

以最小空间实现大的行程,CLL/CLLR/CLLU可以1mm为单位指定行程又可以在丰富组合中进行选择。

FEATURES

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

剖面图 Sectional view

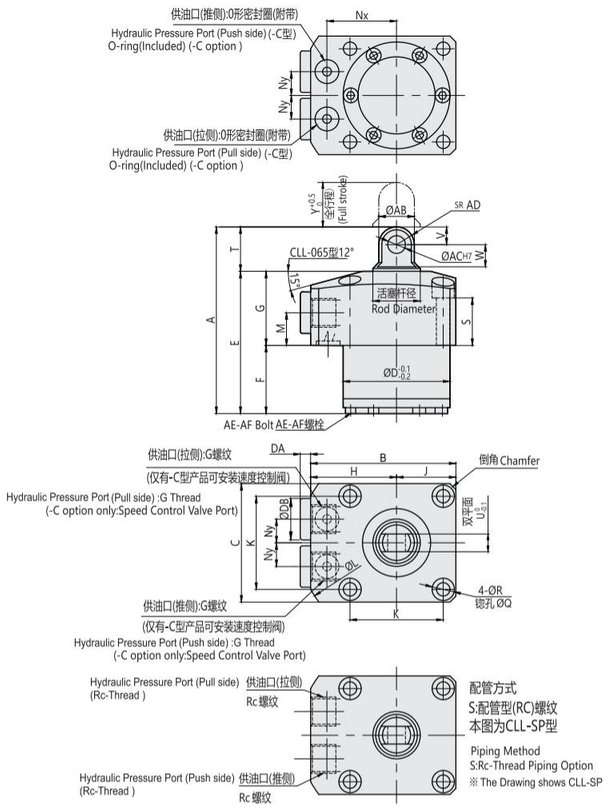


订购标示法 ORDERING INDICATION

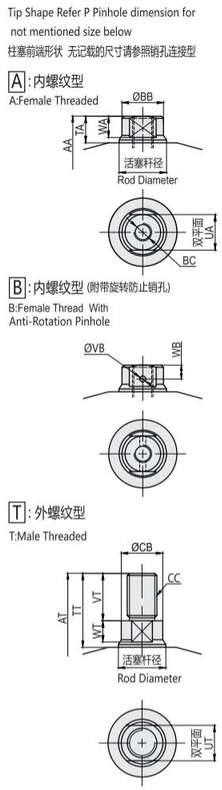
示例：CLL-048CA-050

CLL	系列 Series	CLL
	安装方式 Mounting Methods	CLL:法兰下部安装型 Top Flange CLLR:法兰上部安装型 Bottom Flange CLLU:法兰上部安装型(节省空间型) Bottom Flange (Compact)
048	本体尺寸 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 注:ΦD是油缸本体外径尺寸 Note:ΦD indicates the outer diameter of the Cylinder
C	配管方式 Piping Method	C:版式连接型(附带G螺纹堵头，对应CLL/CLLR型) S:配管型(Rc螺纹，对应CLL/CLLR型) G:板式连接型(只有板式供油口，对应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	活塞前端形状 Shape of Piston Tip	A：内螺纹型 B:内螺纹型(附带旋转防止销孔) T：外螺纹型 P:销孔连接型 A： Female Threaded B： Female Threaded（With Anti-Rotation Pinhole) T： Male Threaded P： Pin-Hole Option
050	行程 Stroke	

C:板式连接型(配有G螺纹堵头)C: Gasket Option(with G Thread Plug)
P:销孔连接型本图表示 CLL-CP型P: Pin-Hole Option※This drawing indicates CLL-CP



Tip Shape Refer P Pinhole dimension for not mentioned size below
柱塞前端形状 无记载的尺寸请参照销孔连接型



规格参数表 SPECIFICATIONS

型号	总行程	油缸面积 Cylinder Area(cm²)		油缸输出力 (計算公式) Cylinder force (Calculation Formula) KN		油缸容量(计算公式) Cylinder Capacity (Calculation Formula) cm³		油缸内径	活塞杆径	最高使用压力 Max.	最低动作压力 Min.	耐压	使用温度	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	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

使用流体：相当于ISO黏度等级的ISO-VG-32一般液压油　Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32

A:内螺纹型 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 (名称x深度) (Nominal×Depth)	M6×12	M8×16	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

无记载的尺寸请参照P：销孔连接型。
Refer P pinhole option dimension for not mentioned size below.

全行程Y=1~14mm时，外形尺寸与行程15mm时的油缸是一样的(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:销孔连接型 Pin-Hole Option

Unit:mm

型号 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
排气口 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:内螺纹型(附带旋转防止销孔)　Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型号 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

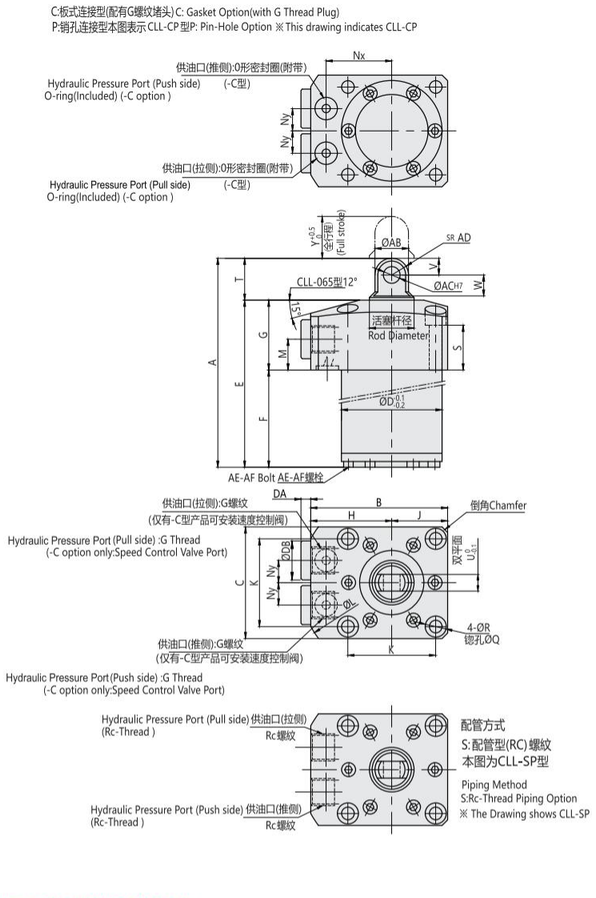
无记载的尺寸请参照P：销孔连接型　A：内螺纹型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

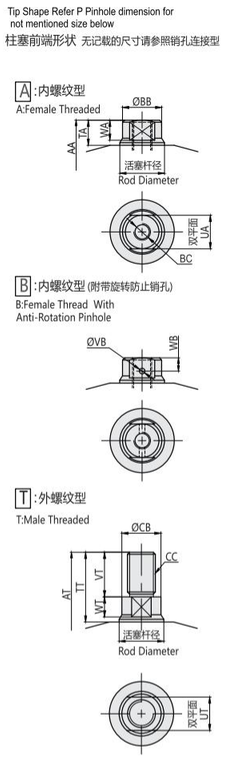
T:外螺纹型 Male Threaded

Unit:mm

型号 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 (名称x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

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.





规格参数表 SPECIFICATIONS

型号	总行程	油缸面积 Cylinder Area(cm²)		油缸输出力 (计算公式) Cylinder force (Calculation Formula) KN		油缸容量(计算公式) Cylinder Capacity (Calculation Formula) cm³		油缸内径	活塞杆径	最高使用压力 Max.	最低动作压力 Min.	耐压	使用温度	重量
MODEL	Full Stroke Y (mm)	推测 Push Side	推测 Pull Side	推测 Push Side	推测 Pull Side	推测 Push Side	推测 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:内螺纹型 Female Threaded

Unit:mm

型号 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 (名称x深度) (Nominal×Depth)	M6×12	M8×16	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

P:销孔连接型 Pin-Hole Option

Unit:mm

型号 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
排气口 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:内螺纹型 (附带旋转防止销孔)

型号 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

无记载的尺寸请参照P：销孔连接型 A：内螺纹型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

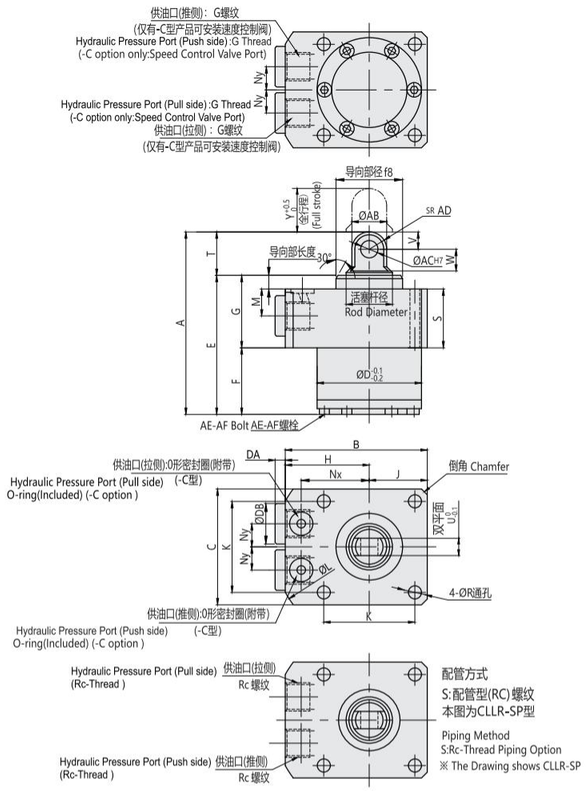
T:外螺纹型 Male Threaded

Unit:mm

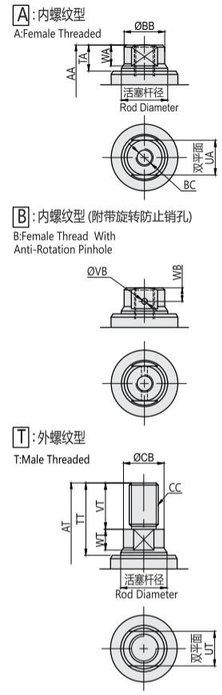
型号 Model	CLL-036	CLL-040	CLL-048	CLL-055	CLL-065	CLL-075	CLL-090	CLL-105
AT	Y+73	Y+81	Y+90	Y+97	Y+108	Y+124	Y+146	Y+164
TT	25	30	35	40	45	50	62	72
UT	12	14	17	17	19	24	30	36
VT	16	20	24	28	32	35	46	54
WT	7.5	7.5	8.5	9	10	12	13	15
CB	14	17	19	21	24	29	34.5	42
CC (名称x螺距) (Nominal×Pitch)	M10×1.25	M12×1.25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

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

C:板式连接型(配有G螺纹堵头) C: Gasket Option(with G Thread Plug)
P:销孔连接型本图表示 CLLR-CP 型P: Pin-Hole Option※ This drawing indicates CLLR-CP



Tip Shape Refer P Pinhole dimension for not mentioned size below
柱塞前端形状 无记载的尺寸请参照销孔连接型



规格参数表 SPECIFICATIONS

型号	总行程	油缸面积 Cylinder Area(cm²)		油缸输出力 (计算公式) Cylinder force (Calculation Formula) KN		油缸容量 (计算公式) Cylinder Capacity (Calculation Formula) cm³		油缸内径	活塞杆径	最高使用压力 Max.	最低动作压力 Min.	耐压	使用温度	重量
MODEL	Full Stroke Y (mm)	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	Cylinder inside diameter (mm)	Rod Diameter(mm)	Operating Pressure(Mpa)	Operating Pressure(Mpa)	Withstanding Pressure(Mpa)	Operating Temperature (℃)	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:内螺纹型 Female Threaded

Unit:mm

型号 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 (名称x深度) (Nominal×Depth)	M6×12	M8×16	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

全行程Y=1～14mm时，外形尺寸与行程15mm时的油缸是一样的(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:销孔连接型 Pin-Hole Option

Unit:mm

型号 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
导向部径 The Diameter of Mating Fit	$23^{-0.02}_{-0.05}$	$25^{-0.02}_{-0.05}$	$28^{-0.02}_{-0.05}$	$32^{-0.025}_{-0.064}$	$38^{-0.025}_{-0.064}$	$44^{-0.025}_{-0.064}$	$50^{-0.025}_{-0.064}$	$60^{-0.030}_{-0.076}$
导向长度 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
排气口 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:内螺纹型 (附带旋转防止销孔) Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型号 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

无记载的尺寸请参照P：销孔连接型 A：内螺纹型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

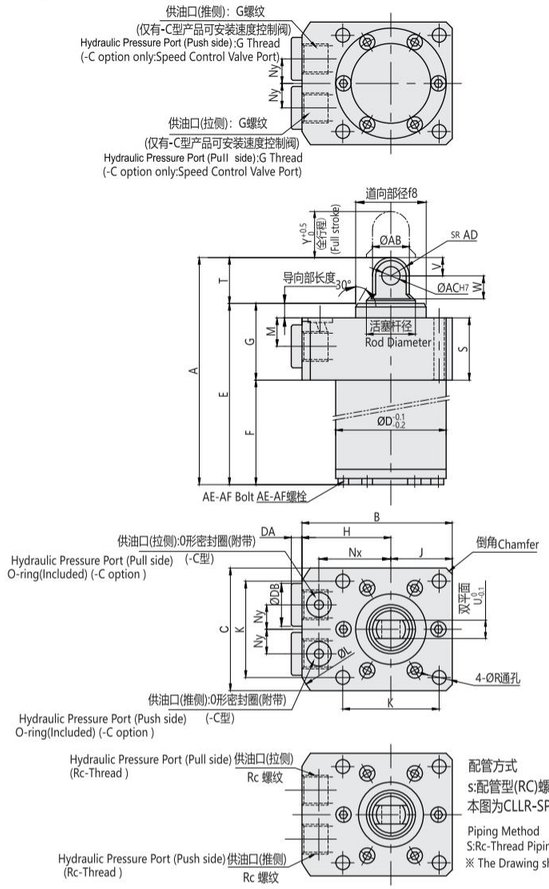
T:外螺纹型 Male Threaded

Unit:mm

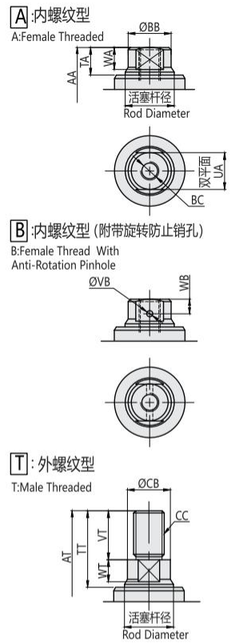
型号 Model	CLLR-036	CLLR-040	CLLR-048	CLLR-055	CLLR-065	CLLR-075	CLLR-090	CLLR-105
AT	73|Y+58	81|Y+66	88|Y+73	96|Y+81	107|Y+92	118|Y+103	139|Y+124	153|Y+138
TT	25	30	35	40	45	50	62	72
UT	12	14	17	17	19	24	30	36
VT	16	20	24	28	32	35	46	54
WT	7.5	7.5	8.5	9	10	12	13	15
CB	14	17	19	21	24	29	34.5	42
CC (名称x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

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

C:板式连接型(配有G螺纹堵头) C: Gasket Option(with G Thread Plug)
P:销孔连接型本图表示 CLLR-CP 型P: Pin-Hole Option※ This drawing indicates CLLR-CP



Tip Shape Refer P Pinhole dimension for not mentioned size below
柱塞前端形状 无记载的尺寸请参照销孔连接型



规格参数表 SPECIFICATIONS

型号	总行程	油缸面积 Cylinder Area(cm²)		油缸输出力 (计算公式) Cylinder force (Calculation Formula) KN		油缸容量 (计算公司) Cylinder Capacity (Calculation Formula) cm³		油缸内径	活塞杆径	最高使用压力 Max.	最低动作压力 Min.	耐压	使用温度	重量
MODEL	Full Stroke Y (mm)	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	Cylinder inside diameter (mm)	Rod Diameter(mm)	Operating Pressure(Mpa)	Operating Pressure(Mpa)	Withstanding Pressure(Mpa)	Operating Temperature (℃)	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:内螺纹型 Female Threaded

Unit:mm

型号 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 (名称x深度) (Nominal×Depth)	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

P:销孔连接型 Pin-Hole Option

Unit:mm

型号 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
导向部径 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
导向长度 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
排气口 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:内螺纹型 (附带旋转防止销孔) Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型号 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

无记载的尺寸请参照P：销孔连接型 A:内螺纹型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

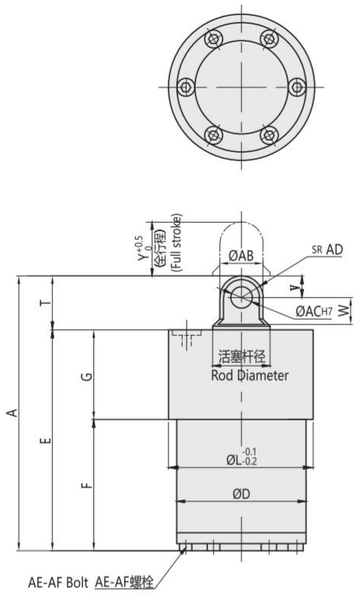
T:外螺纹型 Male Threaded

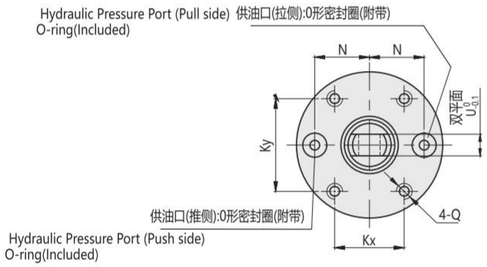
Unit:mm

型号 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 (名称x螺距) (Nominal×Pitch)	M14×1.5	M16×1.5	M20×1.5	M24×1.5	M30×1.5	M36×1.5

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

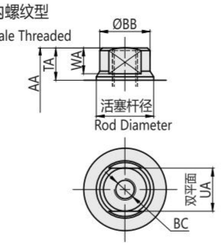
C:板式连接型 P:销孔连接型 G: Gasket Option P:Pin-Hole Option
※ 本图表示CLLU-GP型 ※ This drawing indicates CLLU-GP



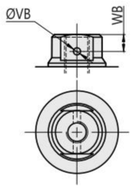


Tip Shape Refer P Pinhole dimension for not mentioned size below
柱塞前端形状 无记载的尺寸请参照销孔连接型

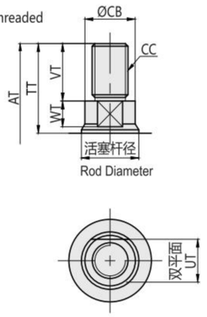
A :内螺纹型
A:Female Threaded



B :内螺纹型 (附带旋转防止销孔)
B:Female Thread With Anti-Rotation Pinhole



T :外螺纹型
T:Male Threaded



规格参数表 SPECIFICATIONS

型号	总行程	油缸面积 Cylinder Area(cm²)		油缸输出力 (计算公式) Cylinder force (Calculation Formula) KN		油缸容量 (计算公式) Cylinder Capacity (Calculation Formula) cm³		油缸内径	活塞杆径	最高使用压力 Max.	最低动作压力 Min.	耐压	使用温度	重量
MODEL	Full Stroke Y (mm)	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	Cylinder inside diameter (mm)	Rod Diameter(mm)	Operating Pressure(Mpa)	Operating Pressure(Mpa)	Withstanding Pressure(Mpa)	Operating Temperature (℃)	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时，外形尺寸与行程15mm时的油缸是一样的(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:销孔连接型 Pin-Hole Option

Unit:mm

型号 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 (名称x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:内螺纹型 Female Threaded

Unit:mm

型号 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 (名称x深度) (Nominal×Depth)	M6×12	M8×16	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

B:内螺纹型 (附带旋转防止销孔) Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型号 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

无记载的尺寸请参照P：销孔连接型 A:内螺纹型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

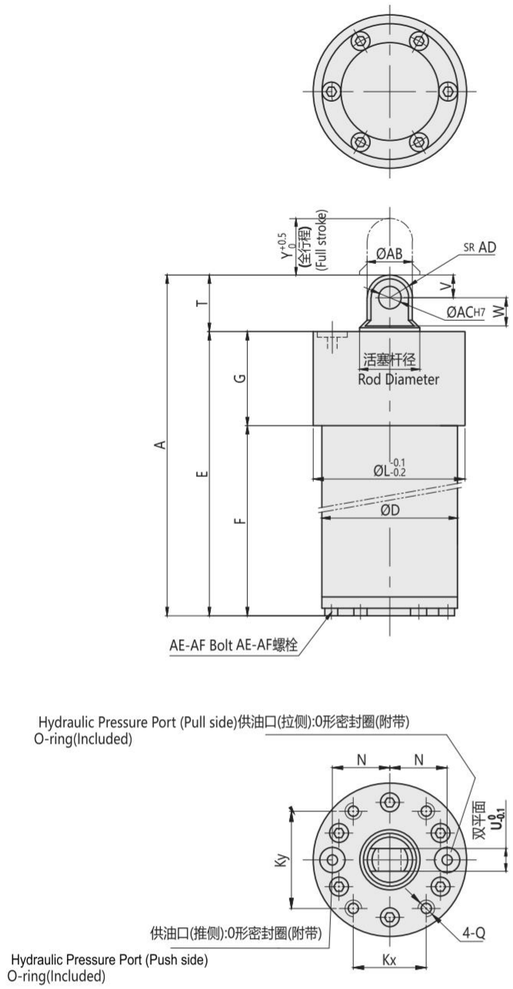
T:外螺纹型 Male Threaded

Unit:mm

型号 Model	CLLU-036	CLLU-040	CLLU-048	CLLU-055	CLLU-065	CLLU-075	CLLU-090	CLLU-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 (名称x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

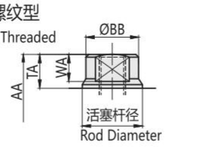
无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

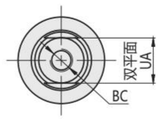
C:板式连接型 P:销孔连接型　G: Gasket Option　P:Pin-Hole Option
※本图表示CLLU-GP型 ※ This drawing indicates CLLU-GP



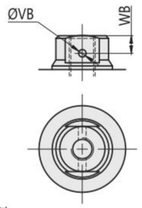
Tip Shape Refer P Pinhole dimension for not mentioned size below
柱塞前端形状 无记载的尺寸请参照销孔连接型

A:内螺纹型
A:Female Threaded

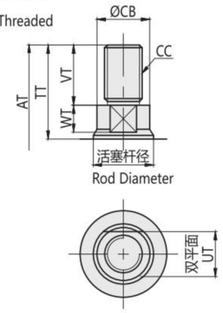




B:内螺纹型 (附带旋转防止销孔)
B:Female Thread With Anti-Rotation Pinhole



T:外螺纹型
T:Male Threaded



规格参数表 SPECIFICATIONS

型号	总行程	油缸面积 Cylinder Area(cm²)		油缸输出力 (計算公式) Cylinder force (Calculation Formula) KN		油缸容量 (计算公式) Cylinder Capacity (Calculation Formula) cm³		油缸内径	活塞杆径	最高使用压力 Max.	最低动作压力 Min.	耐压	使用温度	重量
MODEL	Full Stroke Y (mm)	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	Cylinder inside diameter (mm)	Rod Diameter(mm)	Operating Pressure(Mpa)	Operating Pressure(Mpa)	Withstanding Pressure(Mpa)	Operating Temperature (℃)	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:销孔连接型 Pin-Hole Option

Unit:mm

型号 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 (名称x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:内螺纹型 Female Threaded

Unit:mm

型号 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 (名称x深度) (Nominal×Depth)	M8×16	M10×20	M12×24	M16×32	M20×40	M24×48

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

B:内螺纹型（附带旋转防止销孔） Female Threaded with Anti-Rotation Pin Hole

Unit:mm

型号 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

无记载的尺寸请参照P：销孔连接型　A:内螺纹型
Refer P pinhole option / A female thread option, dimensions not mentioned size in the chart below

T:外螺纹型 Male Threaded

Unit:mm

型号 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 (名称x螺距) (Nominal×Pitch)	M14×1.5	M16×1.5	M20×1.5	M24×1.5	M30×1.5	M36×1.5

无记载的尺寸请参照P：销孔连接型
Refer P pinhole option dimension for not mentioned size below.

CCNA

油压紧凑型直线缸

CCNA HYDRAULIC COMPACT LINEAR CYLINDER

产品特性

以最小空间实现大的行程。

最大操作压力：70 kgf/cm²
最小操作压力：10 kgf/cm²
耐压：105 kgf/cm²

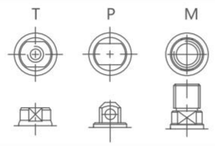
FEATURES

Maximum stroke is available with minimum space

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

订购标示法 ORDERING INDICATION

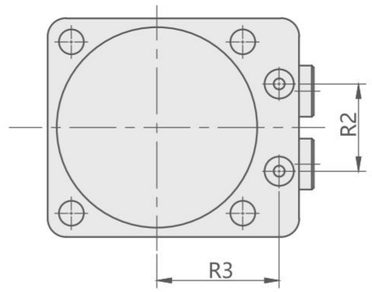
示例：CCNA02-10T

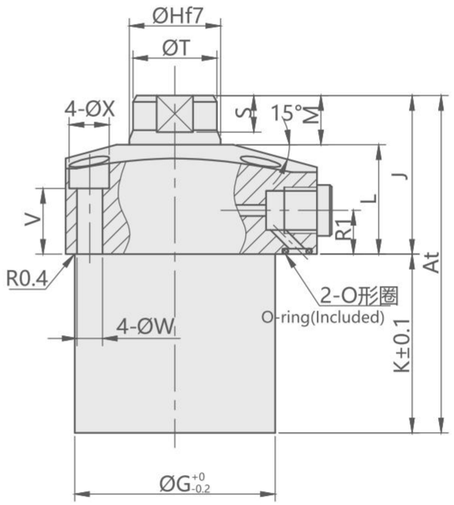
CCNA	系列 Series	CCNA
02	02/04/06/10/16/25	
10	行程 Stroke	CCNA02：10/15/20/30/40/50/60/70 CCNA04：10/15/20/30/40/50/60/70 CCNA06：10/15/20/30/40/50/60/70/80/90 CCNA10：10/20/30/40/50/60/70/80/90/100 CCNA16：10/20/30/40/50/60/70/80/90/100 CCNA25：20/30/40/50/60/70/80/90/100/110
T	活塞杆前端型式 Shape of Piston Tip	T:内螺纹型 Female Threaded P:销孔连接型 Pin-Hole Option M:外螺纹型 Male Threaded 

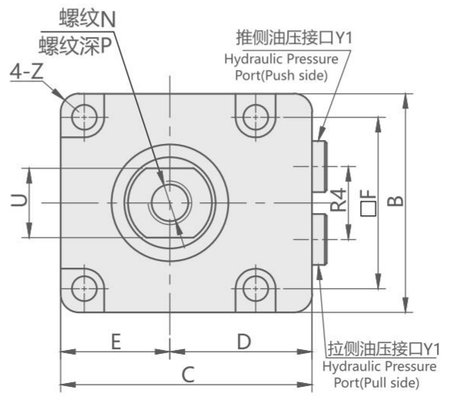
规格参数表 SPECIFICATIONS

型号	油缸面积 Cylinder Area(cm²)		油缸输出力 Cylinder force (Calculation Formula) KN		油缸容量 Cylinder Capacity (Calculation Formula) cm³		油缸内径	活塞杆径	使用温度范围	使用流体
MODEL	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	推侧 Push Side	拉侧 Pull Side	Cylinder inside diameter (mm)	Rod Diameter(mm)	Operating Temperature (℃)	Usable Fluid
CCNA02	4.9	2.9	0.49xP	0.29xP	0.49xS	0.29xS	Φ25	Φ16	0~+70°c	相当于ISO黏度等级的ISO-VG-32一般液压油 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:内螺纹型 Female Threaded







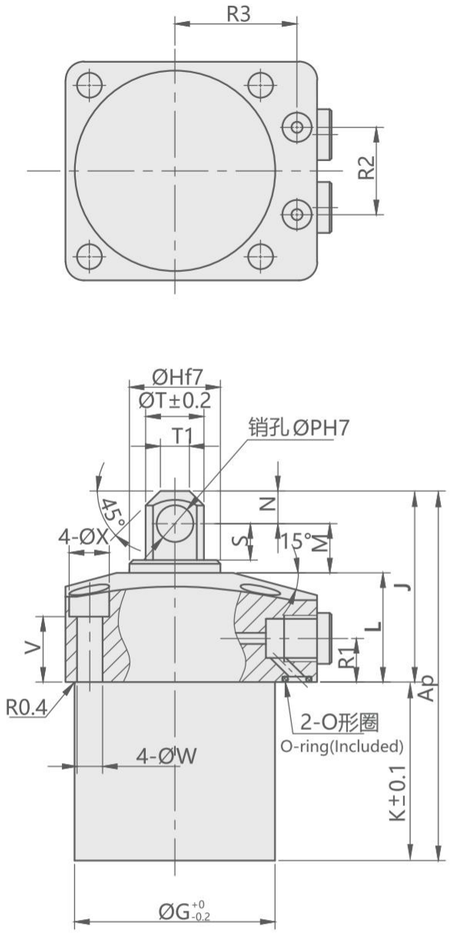
T:内螺纹型 Female Threaded

Unit:mm

型号 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		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

注:可选装CVCF调速阀

P:销孔连接型 Pin-Hole Option

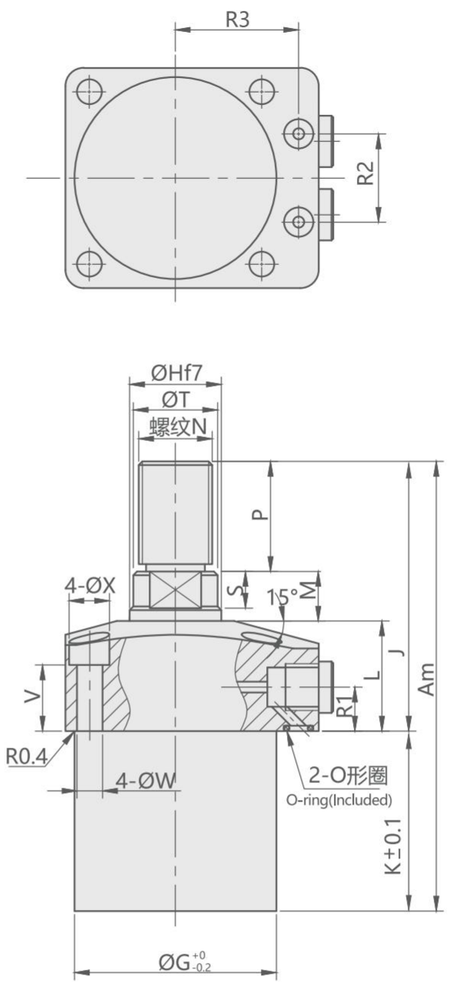


P :销孔连接型 Pin-Hole Option　　Unit:mm

型号 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		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

注:可选装CVCF调速阀

M :外螺纹型 Male Threaded



M :外螺纹型 Male Threaded　　Unit:mm

型号 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		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

注:可选装CVCF调速阀

CFP

油压钢球锁紧下拉缸

CFP HYDRAULIC PULL STUD CLAMP

产品特性

使用工件的通孔或螺纹孔，下拉牵引螺栓的油缸。
除着座面外，一次装卡就可实现5面加工（工序集约化）

低压（1~7MPa）
单动式

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.)

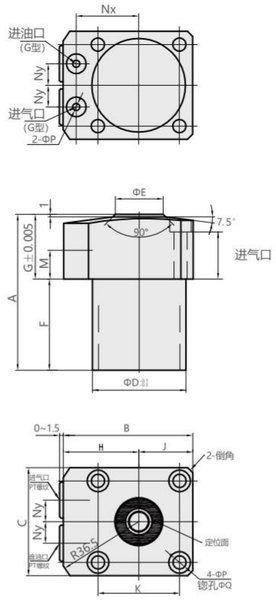
Low pressure(1~7MPa)
Single acting

订购标示法 ORDERING INDICATION

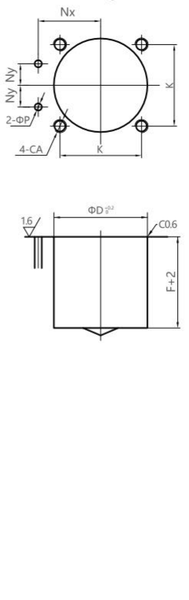
示例：CFP-39G

CFP	系列 Series	CFP
39	油缸外径 Body Size	39: ΦD=39mm 55: ΦD=55mm 65: ΦD=65mm 75: ΦD=75mm 90: ΦD=90mm
G	配管方式 Piping Method	G:板式速接型（配有R螺纹堵头） S:外配管型（Rc螺纹）

外形尺寸
External Dimensions



安装部位加工尺寸
Machining Dimensions of Mounting Area



注意事项:

※1.R螺纹堵头的突出量存在0~1.5mm的差异。
※2.本产品未附带安装螺栓。
※3.请参考S尺寸，并根据安装高度决定安装螺栓用CA螺纹深度。
※4.请参考F尺寸，并根据安装高度决定本体安装孔中ΦD的深度。
※5.本加工表示G:板式连接时的情况。
※6.使用流体:相当于ISO黏度等级的ISO-VG-32一般液压油。
请用户参照S尺寸并根据安装高度自行配备

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 ΦD for the mounting hole on the unit should be decided by customer according to the mounting height using the F dimensions as a reference.
※5. This machining drawing shows G: Gasket option.
※6.Usable fluid: General Hydraulic Oil Equivalent to ISO-VG-32.
Prepare mounting bolts according to the mounting height.Please refer to S dimensions.

Unit:mm

型号 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
夹紧行程 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 螺纹(Rc-Thread)		Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
喷气清洁用供气口 Air Blow Port Rc 螺纹(Rc-Thread)		Rc1/8	Rc1/8	Rc1/8	Rc1/4	Rc1/4
冷却液排出口 Coolant Discharge Port Rc 螺纹(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 螺纹堵头 R-Thread Plug		R1/8	R1/8	R1/8	R1/4	R1/4

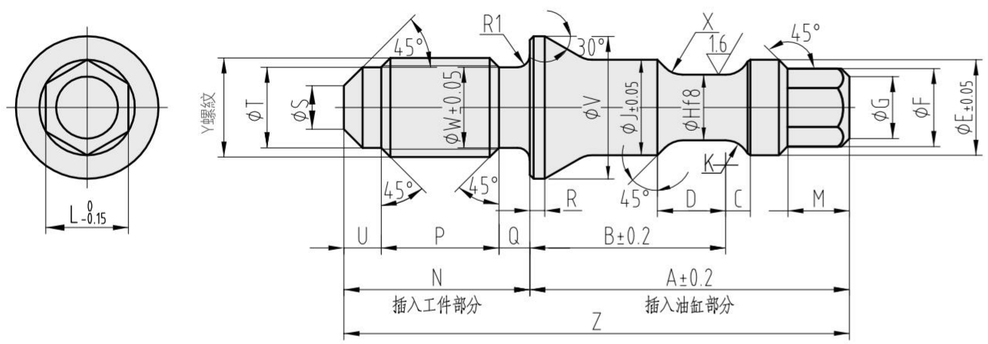
规格参数表 SPECIFICATIONS

型号 MODEL	油缸夹紧侧面积 CYLINDER AREA FOR LOCKING (cm²)	夹紧力(计算公式)※1 CLAMPING FORCE (CALCULATION FORMULA)※1 (kn)	全行程 FULL STROKE (mm)	夹紧行程 LOCK STROKE (mm)	油缸夹紧侧容量 CYLINDER CAPACITY(LOCK SIDE) (cm³)	释放弹簧力 RELEASE SPRING FORCE (n)	导套复位弹簧力 SLEEVE RETURN SPRING FORCE (n)	容许偏心量 ALLOWABLE OFFSET (mm)	最高使用压力 MAX.OPERATING PRESSURE(mpa)	最低动作压力 MIN.OPERATING PRESSURE(mpa)	耐压 WITHSTANDING PRESSURE(mpa)	推荐气压(喷气清洁用) Withstanding Pressure (Mpa)	使用温度 OPERATING TEMPERATURE (°C)	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

注意事项※1.在夹紧力(计算公式)中, 符号，F: 夹紧力(KN)、P: 供给液压(MPa)。
Note ※1. Clamping force (Calculation formula) symbols show F : Clamping Force (KN), P : Supply Hydraulic Pressure (MPa).

选配项：牵引螺栓
Accessories：Pull Bolt

CLZ - 39 - CFP1



Unit:mm

型号 Model	CLZ-39 -CFP1	CLZ-55 -CFP1	CLZ-65 -CFP1	CLZ-75 -CFP1	CLZ-90 -CFP1
对应机器型号 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 (标称×间距) (Nominal×Pitch)	M8×1.25	M10×1.5	M12×1.75	M16×2	M20×2.5
Z	40.8	48	55.5	71	89

大于 Greater than	小于 less than	公差 Tolerance
-	6	±0.1
6	30	±0.2
30	120	±0.3

注意事项

1. 牵引螺栓 (CLZ-CFP1) 的设计应满足油缸著座面与工件底面间隙在0(密接)~0.3mm以内。
2.设计制作牵引螺栓时，请参考本图。·无公差尺寸表示的请按右表的要求进行加工

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.

CYTH

单动型直线油压缸

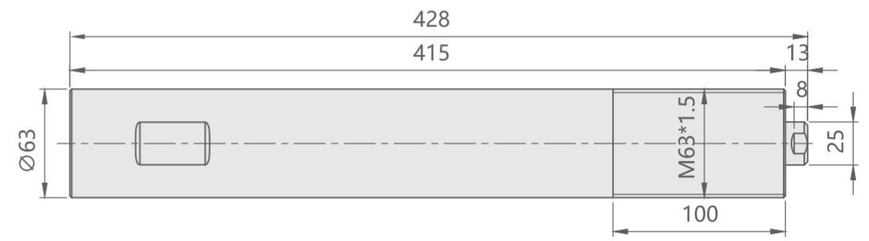
CYTH SINGLE ACTING HYDRAULIC CYLINDER

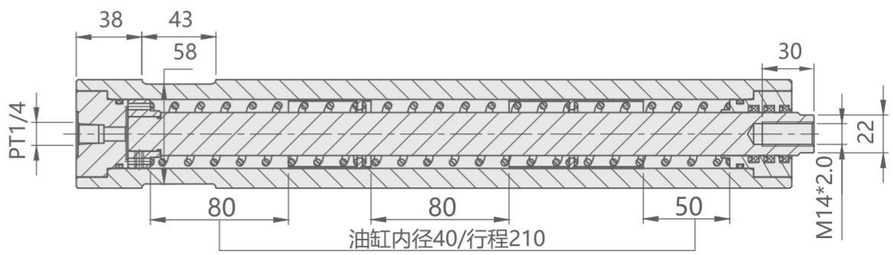
产品特性资料

使用压力范围: 3~25MPa(起动压力是3MPa)
使用温度范围: -10 ~ +60(C)
工作流体: 滤清之标准液压油

SPECIFICATIONS

The range of pressure(MPa): 3~25MPa
Range of temperature(C): -10 ~ +60(C)
Power Fluid: Filtered oil





CHTB

薄型油压缸

CHTB HYDRAULIC PUSH PULL CYLINDER

产品特性

体积小，节省空间，安装空间受限制时的选择。标准化规格，直接安装，不需其它配件，降低成本。
缸体材质采用机械构造用碳素钢，内壁特殊加工处理，表面光滑，使用寿命长。轴向，侧向油路板型免配管，提升整体美观。

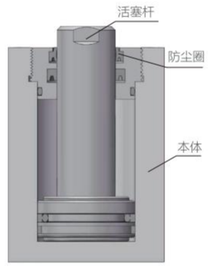
最大操作压力：140 kgf/cm²
最小操作压力：5 kgf/cm²
作动方式：复动式

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

剖面图 Sectional view

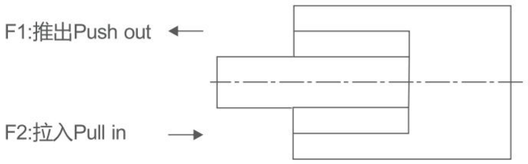


注意事项

可接受订制，欢迎与本公司洽询。
CHTB-LAM和CHTB-LWM系列，
行程10mm无附键槽及平键。

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.



订购标示法 ORDERING INDICATION

示例：CHTB-SD32-20N

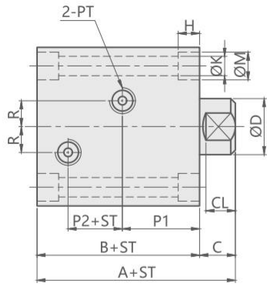
CHTB	系列 Series	CHTB	
SD	安装型式 Mounting type	SD： SW： SDMA： SDMB： LA： LW： LAM： LWM：	轴向单轴安装型 Axial single end rod type 轴向双轴安装型 Axial double end rod type 轴向前油路板型 Axial front manifold type 轴向后油路板型 Axial back manifold type 侧向单轴安装型 Lateral single end rod type 侧向双轴安装型 Lateral double end rod type 侧向油路板单轴安装型 Lateral manifold single end rod type 侧向油路板双轴安装型 Lateral manifold double end rod type
32	油缸内径 Hydraulic cylinder inside diameter	Φ20，Φ25，Φ32，Φ40，Φ50，Φ63，Φ80	
20	标准行程 Standard stroke	5mm,10mm,15mm,20mm,25mm,30mm,35mm,40mm,50mm 其它行程请来电咨询 For other stroke，please inquire.	
N	轴端形式 Rod end type	N：内牙 W：外牙	N：Female thread W：Male thread

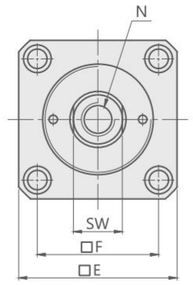
规格参数表 SPECIFICATIONS

油缸内径		活塞杆径	受压面积		操作压力										使用温度范围
HYDRAULIC CYLINDER INSIDE DIAMETER(mm)		PISTON DIAMETER(mm)	PRESSURE AREA(Cm²)		OPERATION PRESSURE(kgf/cm²)										RANGE OF TEMPERATURE(℃)
					10		35		70		100		140		
			F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	-10~+60℃
Φ20		Φ12	3.14	2.01	31	20	110	71	220	141	314	201	440	281	-10~+60℃
Φ25		Φ14	4.91	3.37	49	34	172	118	344	236	491	337	687	472	-10~+60℃
Φ32		Φ20	8.04	4.9	80	49	281	172	563	343	804	490	1126	686	-10~+60℃
Φ40		Φ25	12.57	7.66	126	77	440	268	880	536	1257	766	1760	1072	-10~+60℃
Φ50		Φ30	19.64	12.57	196	126	687	440	1375	880	1964	1257	2750	1760	-10~+60℃
Φ63		Φ35	31.17	21.55	312	216	1091	754	2182	1509	3117	2155	4364	3017	-10~+60℃
Φ80	CHTB	Φ45	50.27	34.37	503	344	1759	1203	3519	2406	5027	3437	7038	4812	-10~+60℃
	CHTM	Φ40	50.27	37.7	503	377	1759	1320	3519	2639	5027	3770	7038	5278	-10~+60℃

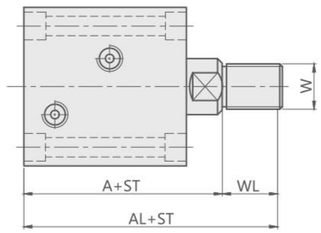
使用流体:相当于ISO黏度等级的ISO-VG-32一般液压油
Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

SD-N轴向单轴安装之轴端内牙型

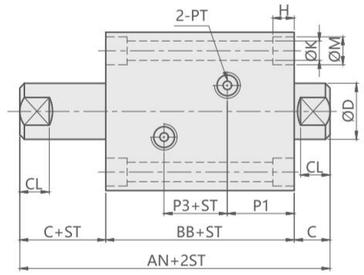




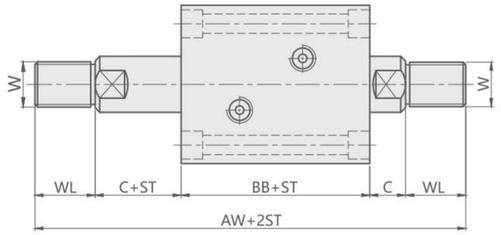
SD-W轴向单轴安装之轴端外牙型



SW-N轴向双轴安装之轴端内牙型



SW-W轴向双轴安装之轴端外牙型

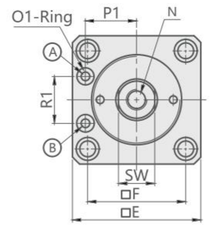


ST=Stroke

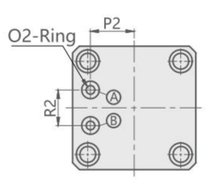
CHTB Hydraulic axial mounting type SD & SW Unit:mm

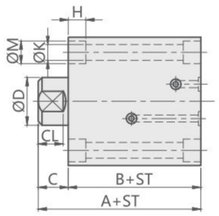
Bore	Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
A	51	53	64	65	71	80	95	105
AL	71	75	89	95	106	120	140	165
AN	–	–	89	90	97	108	127	140
AW	–	–	139	150	167	188	217	260
B	43	45	54	55	60	67	78	88
BB	–	–	69	70	75	82	93	106
C	8	8	10	10	11	13	17	17
CL	6	6	7	7	8	10	14	13
D	12	14	20	25	30	35	45	56
SW	10	12	17	22	27	32	41	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

SDMA-N轴向前油路板的轴端内牙型



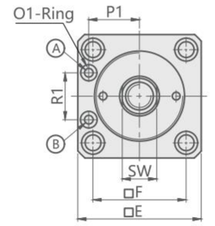
SDMB-N轴向后油路板之轴端内牙型



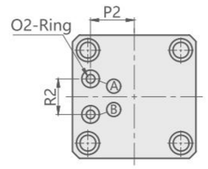


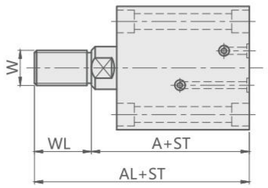
Ⓐ 推出油孔 Push out
Ⓑ 拉入油孔 Pull in

SDMA-W轴向前油路板之轴端外牙型



SDMB-W轴向后油路板之轴端外牙型



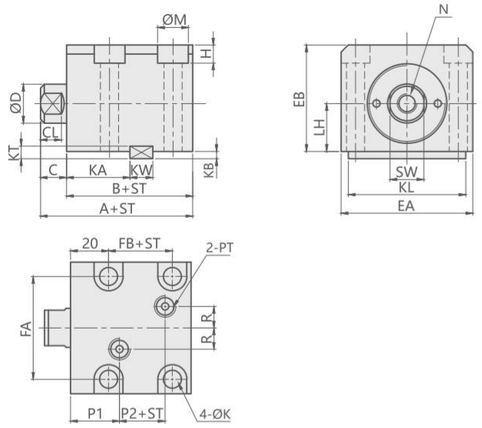


Ⓐ 推出油孔 Push out
Ⓑ 拉入油孔 Pull in

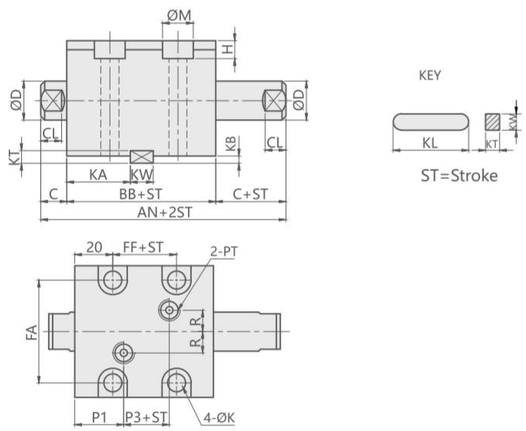
CHTB Hydraulic axial mounting type SDMA & SWMB Unit:mm

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

LA-N侧向单轴安装之轴端内牙型

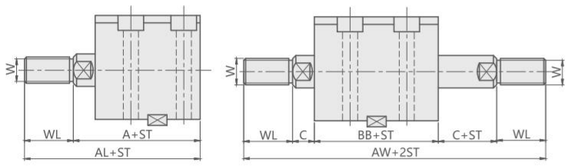


LW-N侧向双轴安装之轴端内牙型



LA-W侧向单轴安装之轴端外牙型

LW-W侧向双轴安装之轴端外牙型



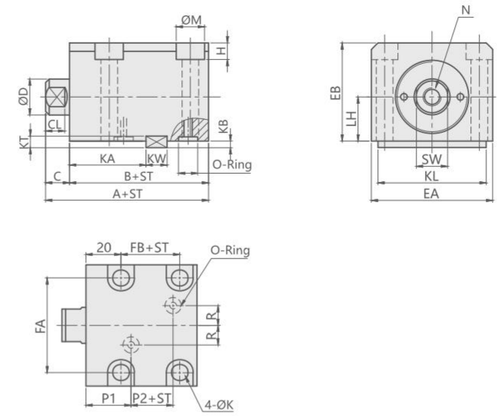
CHTB Hydraulic side mounting type LA & LW

Unit:mm

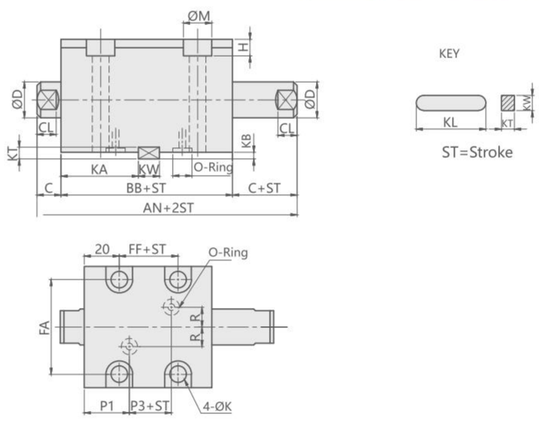
Bore	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
A	64	65	71	80	98	105
AL	89	95	106	120	143	165
AN	89	90	97	108	129	140
AW	139	150	167	188	219	260
B	54	55	60	67	81	88
BB	69	70	75	82	95	106
C	10	10	11	13	17	17
CL	7	7	8	10	14	13
D	20	25	30	35	45	56
SW	17	22	27	32	41	50
EA	70	80	94	114	134	160
EB	56	64	74	89	109	129
LH	25	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

注: 行程<20的无键槽及平键

LAM-N侧向油路板单轴安装之轴端内牙型

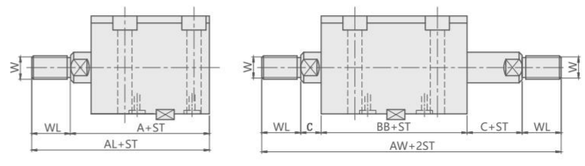


LWM-N侧向油路板双轴安装之轴端内牙型



LAM-W侧向油路板单轴安装之轴端外牙型

LWM-W侧向油路板双轴安装之轴端外牙型



CHTB Hydraulic manifold type LAM & LWM

Unit:mm

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

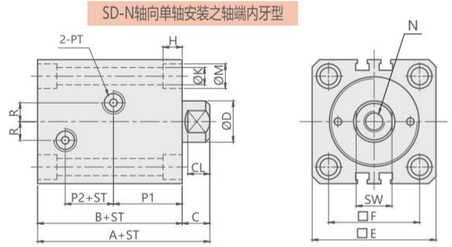
订购标示法 ORDERING INDICATION

示例：CHTM-SD32-20N-S1 D/A

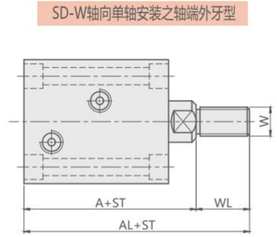
CHTM	系列 Series	CHTM	
SD	安装方式 Mounting type	SD:轴向单轴安装型Single end rod type SW:轴向双轴安装型Double end rod type	
32	油缸内径 Hydraulic cylinder inside diameter	Φ32 , Φ40 , Φ50 , Φ63 , Φ80	
20	标准行程 Standard stroke	10,20,30,40,50	
N	轴端形式 Rod end type	N: 内牙 Female thread N W: 外牙Male thread W	
S1 D/A	近接开关 Sensor switch	一个S1,2个S2 电压AC4-120V 电流5-40mA	1Pcs of S1, 2Pcs of S2 Pressure AC 4-120V Electricity 5-40mA

注:标配近接形状为二线式　　Note: The standard connection switch is two-wire type.

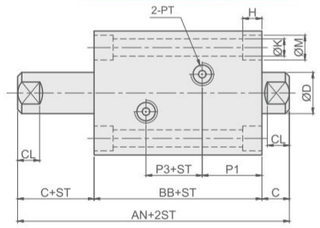
SD-N轴向单轴安装之轴端内牙型



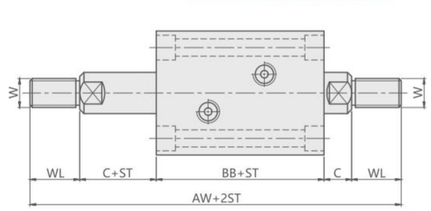
SD-W轴向单轴安装之轴端外牙型



SW-N轴向双轴安装之轴端内牙型



SW-W轴向双轴安装之轴端外牙型



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	13
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

注：使用压力≥10MPa时，缸体需要采用不锈钢材质。

HBC
块型油压缸

HBC HYDRAULIC BLOCK CYLINDER

产品特性

本系列油压缸为德规尺寸,采用进口油封保证耐压标准化规格,具互换性。
安装型式为轴向,侧向两用型,作动方式分为单动常入型与复动式。

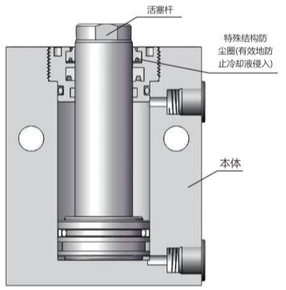
最大操作压力：300 kgf/cm²
最小操作压力：100 kgf/cm²
作动方式：单动式和复动式

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

剖面图 Sectional view（复动型）



注意事项

可接受订制(300<P<500)，欢迎与本公司洽询

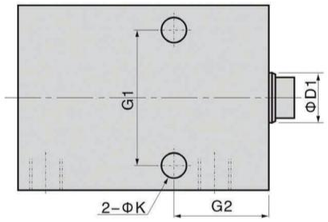
NOTE

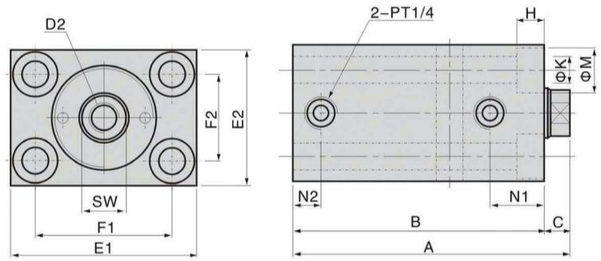
Customization is available upon request (300 < P <500), please contact us for more info.

订购标示法 ORDERING INDICATION

示例：HBC-32S-20

HBC	系列 Series	HBC
32	油缸内径 Hydraulic cylinder inside diameter	Φ16,Φ25,Φ32,Φ40
S	作动方式 Acting type	S单动Single-acting D双动Double-acting
20	标准行程 Standard stroke	请参考尺寸表 Refer to the dimension table





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

规格参数表 SPECIFICATIONS

F1: 推出Push out　F2: 拉入Pull in

油缸内径	活塞杆径	受压面积		操作压力				使用流体
HYDRAULIC CYLINDER INSIDE DIAMETER(mm)	PISTON DIAMETER(mm)	PRESSURE AREA(Cm²)		OPERATION PRESSURE(kgf/cm²)				USABLE FLUID
				100		300		
		F1	F2	F1	F2	F1	F2	
Φ16	Φ10	2.01	1.22	201	122	603	366	相当于ISO黏度等级的ISO-VG-32一般液压油 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

紧凑型直线油压缸

DBA&DBC HYDRAULIC BLOCK CYLINDER

产品特性

此系列产品结构紧凑，安装方便

FEATURES

This series of products have compact structure and convenient installation.

最大操作压力：350 kgf/cm²
最小操作压力：10 kgf/cm²

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

注意事项

使用CZL(速度控制阀)时请使用7MPa以下

NOTE

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

订购标示法 ORDERING INDICATION

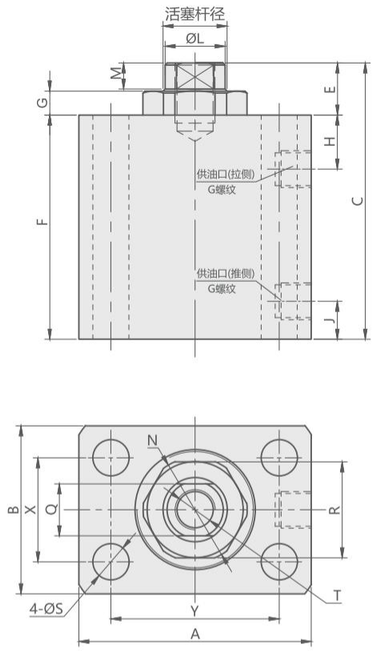
示例：DBA-032CS

DBA	系列 Series	DBA&DBC	
032	油缸内径 Hydraulic cylinder inside diameter	032（025/032/040/050）	
C	配管方式 Piping Method	B：外配管型 (G螺纹) C：板式连接型(附带G螺纹堵头)	B：Pipe type（G thread） C：Gasket type（with G thread plug）
S	行程代码 Stroke	S:全行程25 M:全行程50	S: Total stroke 25mm M:Total stroke 50mm

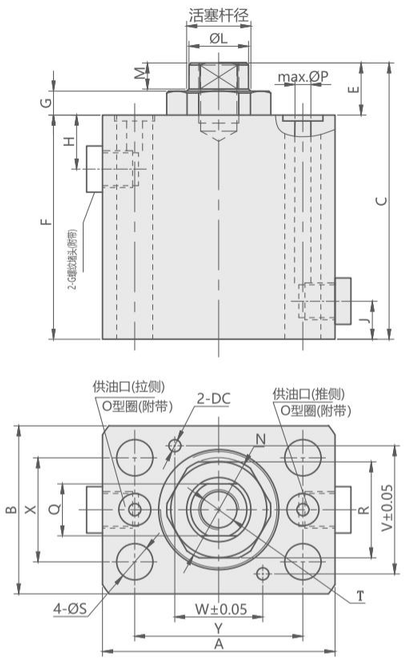
规格参数表 SPECIFICATIONS

型号	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING STROKE(mm)	CYLINDER CAPACITY CLAMP(cm^3)	CYLINDER CAPACITY UNCLAMP(cm^3)	EFF.PISTON AREA UNCLAMP(cm^2)	EFF.PISTON AREA CLAMP(cm^2)	RANGE OF TEMPERATURE(℃)	USABLE FLUID
DBA/DBC-025	S:25/M:50	12.3/24.5	7.3/14.5	4.9	2.9	0~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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°C	
DBA/DBC-040	S:25/M:50	31.4/62.8	19.1/38.3	12.6	7.7	0∽+70°C	
DBA/DBC-050	S:25/M:50	49.1/98.2	29/58	19.6	11.6	0∽+70°C	

DBA-B 配管型



DBA-C 板式连接型



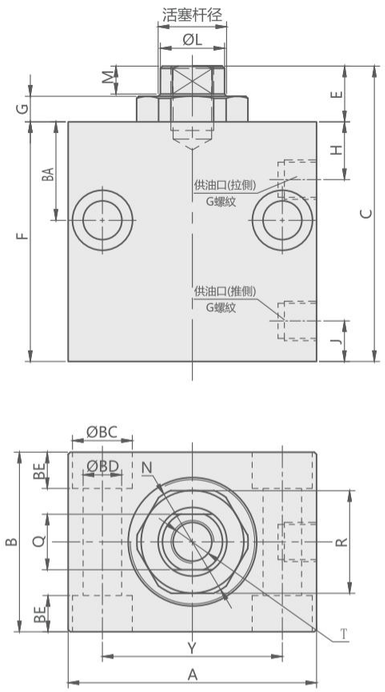
外形尺寸表

Unit:mm

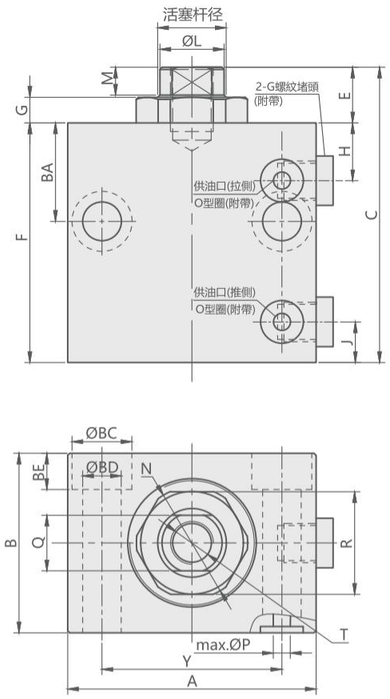
型号 Model	DBA-025		DBA-032		DBA-040		DBA-050	
行程代码	S	M	S	M	S	M	S	M
A	58		70		80		100	
B	42		50		55		65	
C	69	94	78	103	86	111	92	117
E	13		15		17		18	
F	56	81	63	88	69	94	74	99
G	6		6.5		7		7	
H	11.5		15		17		18	
J	9.5		10		12		13	
L	15.5		19.5		24.3		31.3	
M	6.5		8		9.3		10.3	
N	26.5		33		40		50	
P	3		5		5		5	
Q	13		17		21		27	
R	24		30		36		46	
S	9		11		11		13.5	
T	M10螺纹深15		M12螺纹深18		M16螺纹深23		M20螺纹深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螺纹堵头 C型	G1/8		G1/8		G1/4		G1/4	
O形密封圈 C型	P5		P7		P7		P7	
活塞杆径	Φ16		Φ20		Φ25		Φ32	

注意事项:*1：能使用DC孔和弹簧销对油缸进行定位

DBC-B 配管型



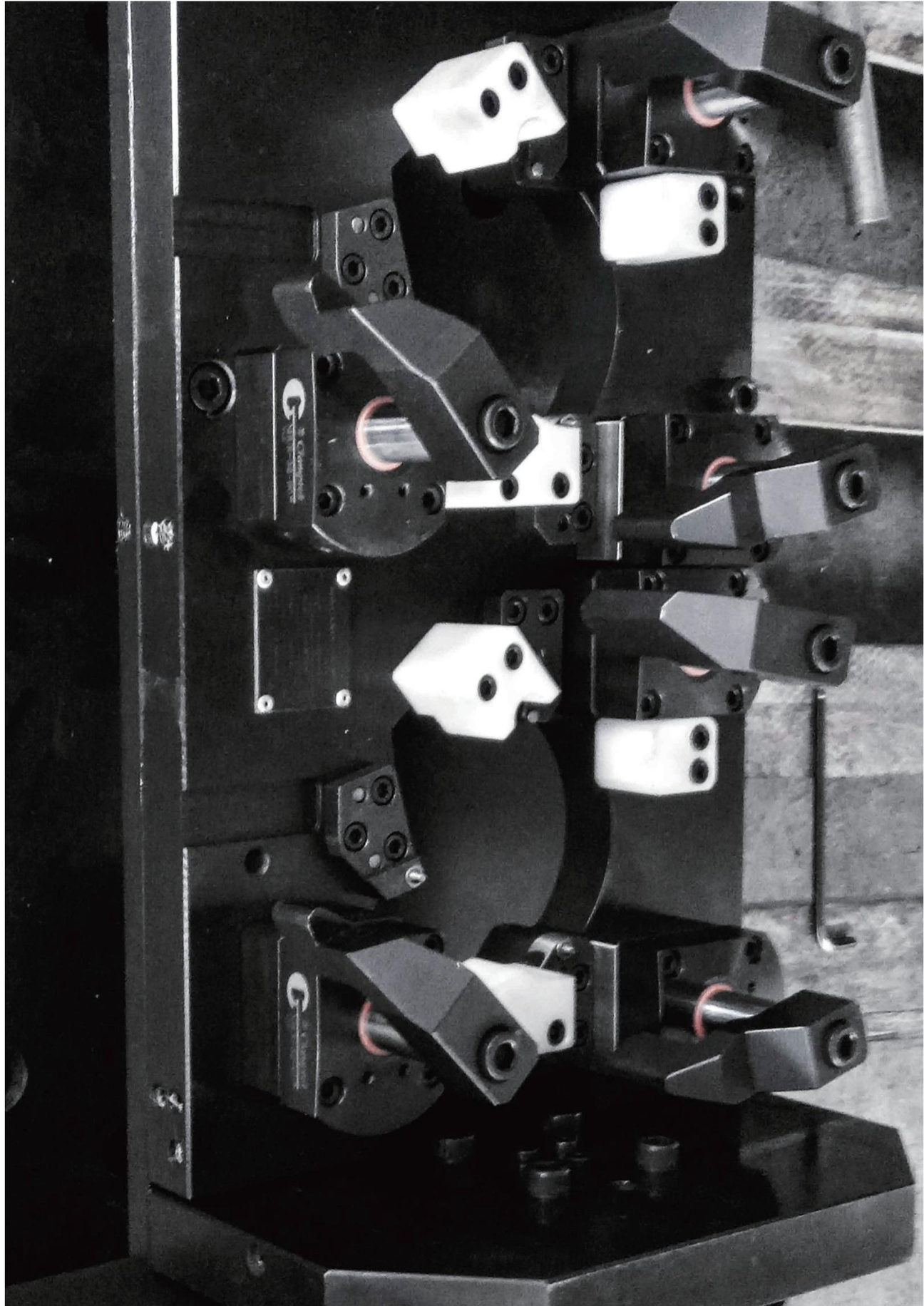
DBC-C 板式连接型



外形尺寸表

Unit:mm

型号 Model	DBC-025		DBC-032		DBC-040		DBC-050	
行动代码	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	
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螺纹深15		M12螺纹深18		M16螺纹深23		M20螺纹深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螺纹堵头 C型	G1/8		G1/8		G1/4		G1/4	
O形密封圈 C型	P5		P7		P7		P7	
活塞杆径	Φ16		Φ20		Φ25		Φ32	



CVM

油压扩径定位销

CVM HYDRAULIC EXPANSION LOCATING PIN

产品特性

重复定位精度CVM:±3μm
定位销与工件孔之间的间隙为零

最大操作压力:70 kgf/cm²
最小操作压力:25 kgf/cm²

FEATURES

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

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

订购标示法 ORDERING INDICATION

示例：CVM 12 - D-S

CVM	系列 Series	
12	工件孔径（标准孔径） 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	功能分类 Functions	D： 锥销（基准定位用） C： 菱形销 (1个方向定位用) D： Datum (for Reference Locating) C： Cut (for One Direction Locating) D 锥销 Datum　C 菱形套 Cut　定位方向标记 Cut Mark
S	对应工件孔径 Applicable Workpiece Hole Diameter	S： 标准径 Standard Diameter A□□□：准标准径 Substandard Diameter ※记载范例 ※Example 例 1：「CVM12-D-A125」时 工件孔径：Φ12.5H8 对应 CVM12-D 规格 Example 1：CVM12-D-A125 CVM12-D with Workpiece Hole Diameter of $\Phi12.5H8^{+0.027}_{0}$ 例 2：「CVM09-C-A093」时 工件孔径：Φ9.3H8 对应 CVM09-C 规格 Example 2：CVM09-C-A093 CVM09-C with Workpiece Hole Diameter of $\Phi9.3H8^{+0.022}_{0}$ 例3：「CVM 18-D-S」 工件孔径：Φ18H8 对应 CVM18-D 规格 Example 3：CVM18-D-S CVM18-D with Workpiece Hole Diameter of $\Phi18H8^{+0.027}_{0}$

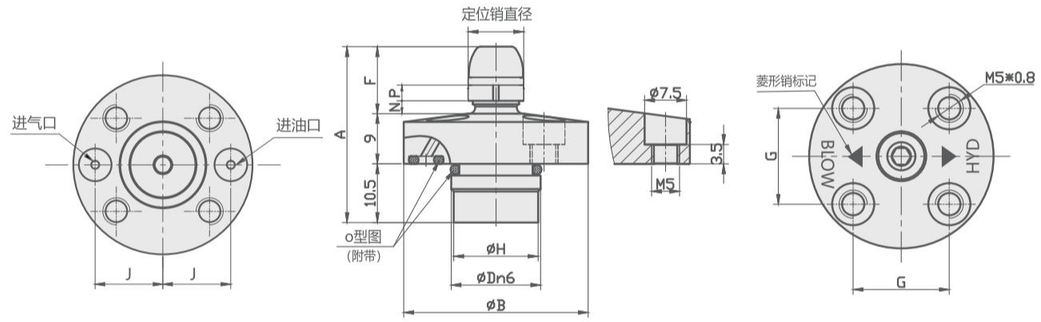
型号 Model No.	S:标准径 Standard Diameter	A□□□准标准径 Substandard Diameter
CVM08	8H8	8.1H8 ~ 8.8H8
CVM09	9H8	8.9H8 ~ 9.9H8
CVM10	10H8	10.1H8 ~ 11.3H8
CVM12	12H8	11.4H8 ~ 12.7H8
CVM13	13H8	12.8H8 ~ 14.2H8
CVM15	15H8	14.3H8 ~ 15.7H8
CVM16	16H8	15.8H8 ~ 16.9H8
CVM18	18H8	17.0H8 ~ 17.9H8
CVM18	18H8	18.1H8 ~ 18.4H8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

规格参数表 SPECIFICATION

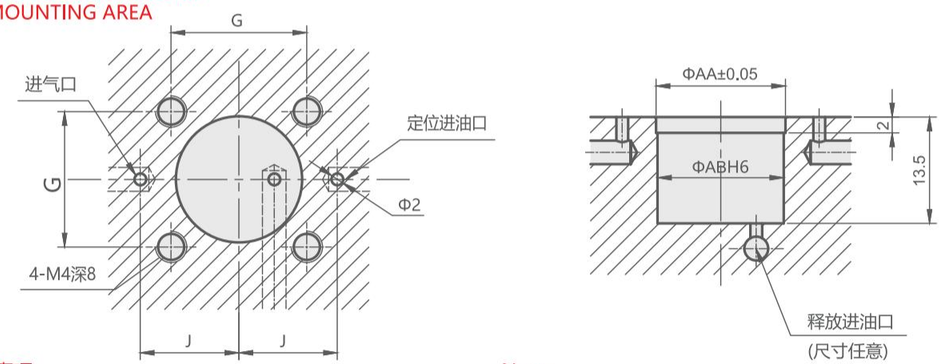
型号 MODEL	工件孔径 Workpiece Hole Diameter 标准径 Standard Diameter mm	准标准径※1 Substandard Diameter※ mm	重复定位精度 Locating Repeatability mm	容许偏心量 (C:菱形销) Offset Tolerance (C:cut) mm	定位力※2 2.5MPa时	5.0MPa时	7.0MPa时	容许剪切载荷※3 Allowable Thrust Load※ KN	定位侧油缸容量 Cylinder Capacity (Lock side) cm³	释放侧油缸容量 Cylinder Capacity (Release Side) cm³	最高使用压力 Max. Operating Pressure MPa	最高使用压力 Min. Operating Pressure MPa	使用温度 Operating Temperature(℃)	重量 Weight (g)	使用流体 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	相当于ISO黏度等级的ISO-VG-32一般液压油 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

※本图所示CVM-D的释放状态(油压供给时)
※This drawing shows the released state of CVM-C.
(When supplying release hydraulic pressure)



安装部位加工尺寸 MACHINING DIMENSIONS OF MOUNTING AREA



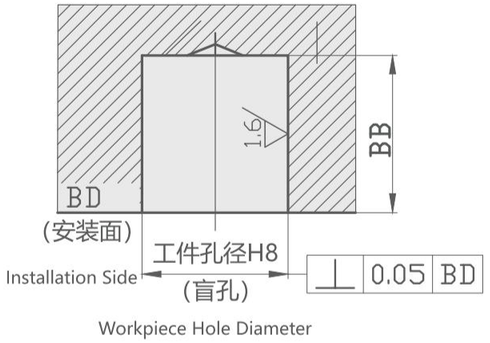
注意事项

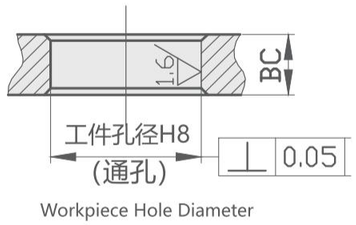
※1.只有-C:菱形销上印有识别标记。 ◄► 是表示定位方向
※2.M5x08螺纹是在卸下定位销时使用的。
※3.法兰侧面刻印有供给口名称。（HYD:定位用供油口，BLOW:空气清洁用供气口）

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(托盘)的加工尺寸
WORKPIECE (PALLET) MACHINING DIMENSIONS





规格参数表 SPECIFICATIONS

型号	工件孔径 Workpiece Hole Diameter		定位销孔径 Datum Diameter	(标准径) (Standard)	定位销径 Datum Diameter	(准标准径) (Substandard)	全行程 Full Stroke mm	容许偏心量 (C:菱形销)
MODEL	标准径 Standard Diameter mm	准标准径※1 Substandard Diameter※ mm	释放时(MAX) When Releasing (MAX) mm	全行程时(MIN) When Full Stroke(MIN) mm	释放时(MAX) When Releasing (MAX) mm	全行程时(MIN) When Full Stroke(MIN) mm		Offset Tolerance (C:cut) mm
CVM08	8H8	8.1 ~ 8.8	7.94	8.05	工件孔径 Workpiece Hole Diameter - 0.06	工件孔径 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	工件孔径 Workpiece Hole Diameter - 0.08	工件孔径 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	工件孔径 Workpiece Hole Diameter - 0.11	工件孔径 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定位销径标准径时 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	工件孔径 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	工件孔径 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	工件孔径 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

注意事项 NOTE
设计方面的注意事项CVM通用Notes for Design CVM common

1.确认规格
●使用前请确认各产品的规格。
CVM 型产品采用油压定位，油压释放结构。

2.定位销的设置
●定位销是用于定位的，并不具有夹紧功能。请另行设置夹紧缸。

3.建议将空气清洁回路的直径设定在Φ6mm 以上。

4.关于定位销的安装方向(相位)
●-C:菱形销(CVM)是以-D:基准销(CVM)为基
准进行旋转方向定位的。所以安装时必须注意-C(菱形销)的相位

CVM时
安装-C(菱形销)时，请将-C(菱形销)的定定位方向标记垂直于-D
(基准销)。(-C(菱形销)本体的法兰上面印有定位方向标记:▲。)

5.关于 Z 轴方向的基准面
●本型号产品无著座面(Z轴方向基准面)。
请另行设置Z轴方向定位的着座面。
并在定位销的法兰上面与工件(托盘)之间设置间隙。
(推荐间隙:0.5~1mm)

6.关于定位销的高度调整
●扩径定位销的高度比着座面的高度低时，可以在定位销下面设置垫块调整定位销的高度。

7.工件(托盘)垂直姿势(挂壁式)使用时
●装卸工件(托盘)时请防止工件(托盘)浮起或倾斜现象。如果在浮起的状态下进行定位，就有可能导致装置的损坏。
● 释放时，工件(托盘)有可能坠落时，请在外部设置预夹紧装置。
● 工件(托盘)垂直姿势(挂壁式)使用会导致定位销内部滑动部位的偏磨损。请定期确认定位精度，如果超出容许范围，请立即更换装置。

8.关于工件(托盘)的重量
●请将工件(托盘)水平姿势(平置)使用时的工件(托盘)重量设定为

$$\text{工件重量} \leq \frac{\text{1台定位销的定位力}}{\text{工件着座面的摩擦系数}}$$

●请将工件(托盘)垂直姿势(挂壁式)使用的工件(托盘)的重量设定为

$$\text{工件重量} \quad \text{1台定位销的定位力}$$

●如果在上记姿势之外使用时，请另行询问。

1.Check Specifications
●Please use each product according to the specifi cations.
CVM locates and releases with hydraulic pressure.

2.Setting Up the Clamps
●The datum cylinder is a positioning cylinder and has no clamping mechanism.A clamp must be provided separately.

3.It is recommended to use the air flow path overΦ6mm.

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) ocates 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 ßange on the CVM-C unit that shows the locating direction.)

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.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.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. conPrm the positioning precision in a regular manner In case the allowed range is exceeded, change the machine.

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

$$\text{工件重量} \leq \frac{\text{1台定位销的定位力}}{\text{工件着座面的摩擦系数}}$$

●请将工件(托盘)垂直姿势(挂壁式)使用的工件(托盘)的重量设定为

$$\text{工件重量} \quad \text{1台定位销的定位力}$$

●如果在上记姿势之外使用时，请另行询问。

9.关于Z轴方向的倾斜

● 如果工件(托盘)在倾斜状态下进行装卸，定位销的扩径部位与工件孔产生别紧力而造成定位销及工件(托盘)的损坏。因此在装卸工件(托盘)时，对于定位销的倾斜度应在 4/100~5/100(约2~3°)以下。

●工件(托盘)装卸时，在工件(托盘)倾斜的状态下装卸(特别是卸下)时，会导致定位销的损坏。请设置导向销(粗导销)。

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.关于工件孔周边的壁厚

● 如果工件孔周围存在薄壁部分，定位动作会造成工件孔变形，并导致定位力不能满足规定值。使用前请进行夹紧试验，将供给油压调整至最适合的油压状态。

10.Thickness around the Workpiece Hole

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

安装施工方面注意事项 NOTE

● 设计方面的注意事项CVM

1)关于CVM定位销安装孔的间距精度

●请将CVM定位销安装孔的间距精度保证在士0.02mm以内。容许偏心量(-C:菱形销)≥定位销间距精度+工件孔间距精度(±0.02)。请参考下示JIS B0613中心距离容许差[2 级]。

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.

中心距离的分类 CENTER DISTANCE CLASSIFICATION		中心距离的容许差 CENTER DISTANCE ACCURACY
大于 Greater than	小于 or less	2级 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)确认液压油

2)机器的安装

●请使用附带的安装螺栓(强度等级12.9)，并按照下表给出的紧固力矩进行安装。为了避免设备倾斜，请均等地紧固螺栓。

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.

型号 Model No.	安装螺栓名称 Thread Size	紧固力矩 Tightening Torque (Nm)
CVM	M4×0.7	3.2

3)拆卸

●请利用顶起用螺纹，在保持设备平行的状态下进行拆卸

●为了防止顶起用螺栓损坏安装用螺纹的端面，请使用平行销对螺纹的端面采取保护措施。

4)扩径定位销的油口位置

CVM:HYD定位用供油口、BLOW:喷气清洁用供气口

定位油压是由定位用供油口实施供给。

5)请将喷气清洁回路外径设定在Φ6(内径Φ4)以上。

●为确保喷气清洁的效果，推荐使用外径Φ6(内径Φ4)以上的气管。

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 (inside diameter Φ4) or larger.

CTC

外螺纹小型油压单动缸

CTC HYDRAULIC THREAD CYLINDER

产品特性

外螺纹小型单动缸采用进口油封及零件,确保品质，使用时漏油量少，高压夹持中保持长时间不漏油。外螺纹式小型单动缸体积小，使用于夹具上，能在小的空间内排列使用。
此型式油压缸使用于顶出场合，弹簧退回，无法使用于拉式场合上。安装时尽可能垂直于工作面，倾斜勿超过10°。缸体底部需置放一只锁紧防漏垫圈。

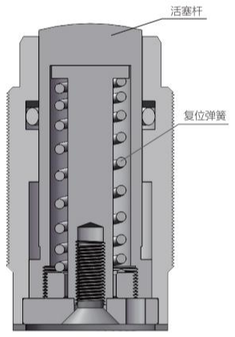
最大操作压力：250 kgf/cm²
最小操作压力：20 kgf/cm²
作动方式:单动式

FEATURES

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

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

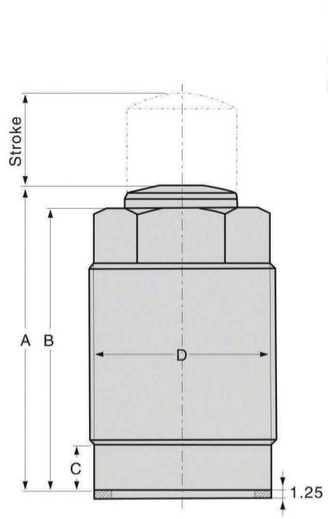
剖面图 Sectional view



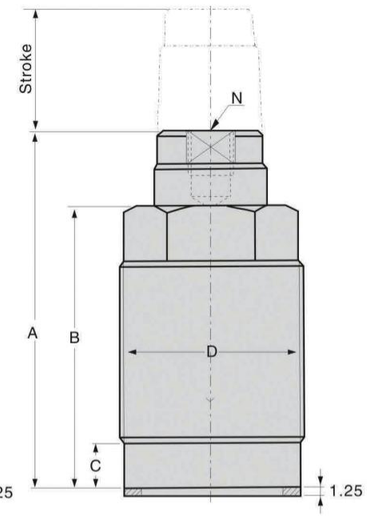
订购标示法 ORDERINGINDICATION

示例：CTC-16A

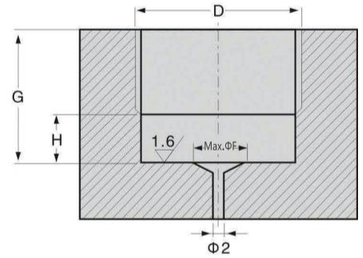
CTC	系列 Series	CTC	
16	活塞杆径 Piston diameter	Φ12,Φ16,Φ20,Φ25	
A	类型 type	分为A、B两种	It can be divided into A and B



TYPE A



TYPE B



Mounting Dimensions

规格参数表 SPECIFICATIONS

型号 MODEL	理论夹持力(250 kgf/cm²) CLAMPING FORCE AT 250kgf/cm² (kgf)	总行程 TOTAL STROKE(mm)	推出容积 CYLINDER CAPACITY CLAMP(cm³)	推出受压面积 EFF.PISTON AREA CLAMP(cm²)	弹簧阻抗 SPRING FORCE(kgf)	使用流体 USABLE FLUID
CTC-12A	247.5	10	2.14	1.13	6~13	相当于ISO黏度等级的ISO-VG-32一般液压油 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

注:理论夹持力=受压面积x工作压力-弹簧阻抗
弹簧阻抗指其最大理论值

CTC-K

外螺纹小型油压单动缸

CTC-K HYDRAULIC THREAD CYLINDER

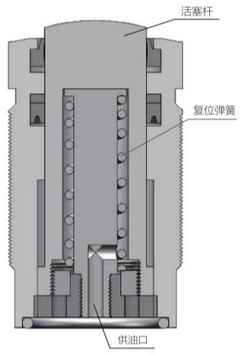
产品特性

外螺纹小型单动缸采用进口油封及零件，确保品质,使用时漏油量极少,高压夹持中保持长时间不漏油。外螺纹式小型单动缸体积小，使用于夹具上，能在小空间内排列使用。
此型式油压缸使用于顶出场合，弹簧退回,无法使用于拉式场合上。安装时尽可能垂直于工作面，倾斜勿超过10°。
缸体底部需置放一只锁紧防漏垫圈。

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 hydralic 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.

剖面图 Sectional view

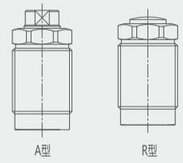


最大操作压力：250 kgf/cm²
最小操作压力：20 kgf/cm²
作动方式:单动式

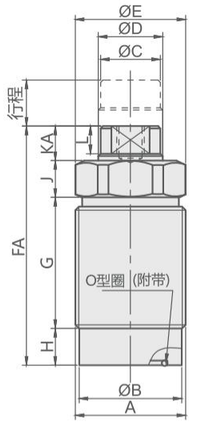
Max.operating pressure：250 kgf/cm²
Min.operating pressure：20 kgf/cm²
Single acting

订购标示法 ORDERINGINDICATION

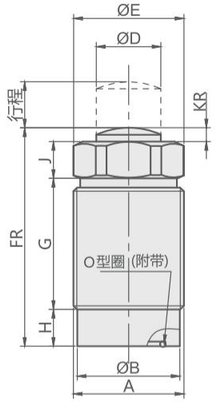
示例：CTC-K024AL

CTC-K	系列 Series	CTC-K	
024	016/022/024/030/036/045/055		
A	类型 TYPE	分为A、R两种	It can be divided into A and R  A型 R型
L	行程 STROKE	(具体行程见尺寸表)	Please refer to the dimension table for the more details

A型



R型

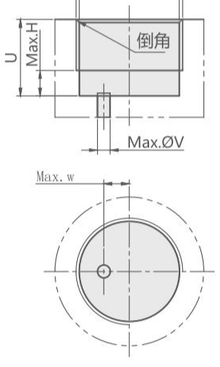


外形尺寸及安装部位加工尺寸表
External dimensions and machine dimensions for mounting

Unit:mm

MODEL		CTC-K016	CTC-K022	CTC-K024	CTC-K030	CTC-K036	CTC-K045	CTC-K055
A		M16×1.5	M22×1.5	M24×1.5	M30×1.5	M36×1.5	M45×1.5	M55×2
B		14.3	20.3	22.3	28.3	34.3	43.3	52.6
C		7.5	11.2	13	17	19	28	34.5
D		8	12	14	18	22.4	30	35.5
E		15.5	21.2	24.5	30	35.5	45	55
FA行程代码	S	35	35	39.5	43.5	51	59	64
	M	41	43	47	52.5	64	72	79.5
	L	50	56	63.5	72	85	94.5	102
G行程代码	S	18.5	13	17.5	18	23.5	23	27
	M	24.5	21	25	27	36.5	36	42.5
	L	33.5	34	41.5	46.5	57.5	58.5	65
H		6	8	8	9	10	12	12
J		5	7	7	8	8	12	12
KA		5.5	7	7	8.5	9.5	12	13
L		4	5.5	5.5	7	8	10	11
MA		M5×8	M6×7	M6×7	M8×10	M8×10	M10×11	M12×12
N		7	10	10	14	17	24	30
P		14	19	22	27	32	41	50
T		14.5	20.5	22.5	28.5	34.5	43.5	53
U行程代码	S	12＜U＜23	14＜U＜20	14＜U＜24	15＜U＜26	16＜U＜32	18＜U＜34	20＜U＜38
	M	12＜U＜29	14＜U＜28	14＜U＜32	15＜U＜35	16＜U＜45	18＜U＜47	30＜U＜53
	L	12＜U＜38	14＜U＜2H	14＜U＜48	15＜U＜54	16＜U＜66	18＜U＜69	20＜U＜76
V		3	3	3	6	6	8	8
W		0	3.5	5.5	6	8	10	13
倒角		C1	C1	C1	C1	C1	C1	C1.5
O形圈		P9	AS569-015	AS568-017	AS568-020	AS568-120	P31.5	P39

安装部位加工尺寸



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

Unit:mm

MODEL		CTC-K016	CTC-K022	CTC-K024	CTC-K030	CTC-K036	CTC-K045	CTC-K055
A		M16×1.5	M22×1.5	M24×1.5	M30×1.5	M36×1.5	M45×1.5	M55×2
B		14.3	20.3	22.3	28.3	34.3	43.3	52.6
D		8	12	14	18	22.4	30	35.5
E		15.5	21.2	24.5	30	35.5	45	55
FR行程代码	S	31	30.5	35	38	45	51	56
	M	37	38.5	42.5	47	58	64	71.5
	L	46	51.5	59	66.5	79	86.5	94
G行程代码	S	18.5	13	17.5	18	23.5	23	27
	M	24.5	21	25	27	36.5	36	42.5
	L	33.5	34	41.5	46.5	57.5	58.5	65
H		6	8	8	9	10	12	12
J		5	7	7	8	8	12	12
KR		1.5	2.5	2.5	3	3.5	4	5
P		14	19	22	27	32	41	50
T		14.5	20.5	22.5	28.5	34.5	43.5	53
U行程代码	S	12＜U＜23	14＜U＜20	14＜U＜24	15＜U＜26	16＜U＜32	18＜U＜34	20＜U＜38
	M	12＜U＜29	14＜U＜28	14＜U＜32	15＜U＜35	16＜U＜45	18＜U＜47	30＜U＜53
	L	12＜U＜38	14＜U＜41	14＜U＜48	15＜U＜54	16＜U＜66	18＜U＜69	20＜U＜76
V		3	3	3	6	6	6	8
W		0	3.5	5.5	6	8	10	13
倒角		C	C1	C1	C1	C1	C1	C1.5
O形圈		P9	AS568-015	AS568-017	AS568-020	AS568-120	P31.5	P39

规格参数表 SPECIFICATIONS

型号 MODEL	理论夹持力 (250 kgf/cm²) CLAMPING FORCE AT 250kgf/cm² (kgf)	总行程 TOTAL STROKE(mm)	推出容积 CYLINDER CAPACITY CLAMP(cm³)	推出受压面积 EFF.PISTON AREA CLAMP(cm²)	使用温度范围 RANGE OF TEMPERATURE(°C)	使用流体 USABLE FLUID
CTC-K016	120	S:6/M:10L:16	0.3/0.5/0.8	0.5	0~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CTC-K022	280	S:6/M:10L:16	0.9/1.1/1.8	1.1	0~+70°C	
CTC-K024	388	S:8/M:12/L:20	1.2/1.8/3.1	1.5	0~+70°C	
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

外螺纹小型油压单动缸

CTC-P HYDRAULIC THREAD CYLINDER

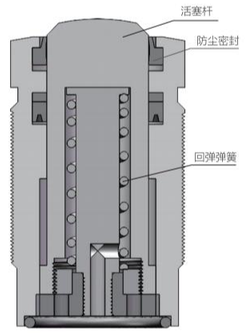
产品特性

外螺纹小型单动缸采用进口油封及零件，确保品质，使用时漏油量少，高压夹持中保持长时间不漏油。外螺纹式小型单动缸体积小，使用于夹具上，能在小空间内排列使用。
此型式油压缸使用于顶出场合，弹簧退回，无法使用于拉式场合上。安装时尽可能垂直于工作面，倾斜勿超过10°。
缸体底部需置放一只锁紧防漏垫圈。

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 smal 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.

剖面图 Sectional view

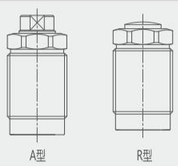


最大操作压力：350 kgf/cm²
最小操作压力：20 kgf/cm²
作动方式：单动式

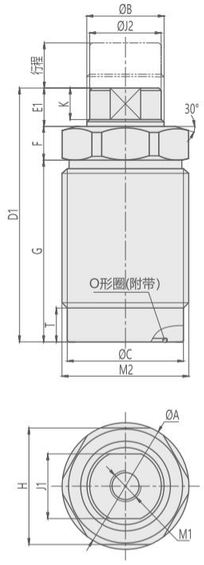
Max.operating pressure：350 kgf/cm²
Min.operating pressure：20 kgf/cm²
Single acting

订购标示法 ORDERINGINDICATION

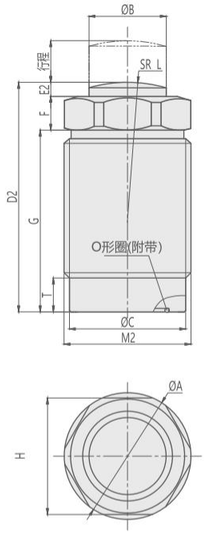
示例：CTC-P022A-10

CTC-P	系列 Series	CTC-P		
022	022/025/030/036/048/055			
A	类型 TYPE	分为A型/R型两种	It can be divided into A and R	 A型 R型
10	行程 STROKE	(具体行程见尺寸表)	Please refer to the dimension table for the more details	

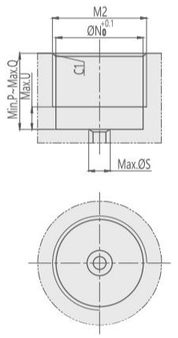
A型



B型



安装部位加工尺寸



外形尺寸及安装部位加工尺寸表
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

规格参数表 SPECIFICATIONS

型号 MODEL NO.	理论夹持力 (350 kgf/cm²) CLAMPING FORCE AT 350kgf/cm² (kgf)	总行程 TOTAL STROKE(mm)	推出容积 CYLINDER CAPACITY CLAMP(cm³)	推出受压面积 EFF.PISTON AREA CLAMP(cm²)	使用温度范围 RANGE OF TEMPERATURE(°C)	使用流体 USABLE FLUID
CTC-P022	397	5/10/15	0.6/1.1/1.7	1.13	0~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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

外螺纹小型油压单动拉缸

CTC-PD HYDRAULIC THREAD PULL CYLINDER

产品特性

外螺纹小型单动缸采用进口油封及零件，确保品质，使用时漏油量少，高压夹持中保持长时间不漏油。外螺纹式小型单动缸体积小，使用于夹具上，能在小空间内排列使用。
此型式油缸使用于拉式场合，弹簧顶出无法用于顶出场合。安装时尽可能垂直于工作面，倾斜勿超过10°。
缸体底部需置放一只锁紧防漏垫圈。

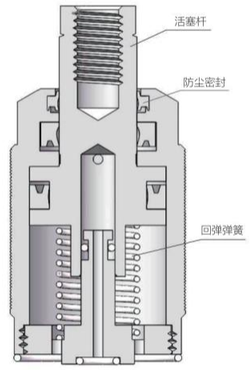
最大操作压力：350 kgf/cm²
最小操作压力：20 kgf/cm²
作动方式：单动式

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 ong 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

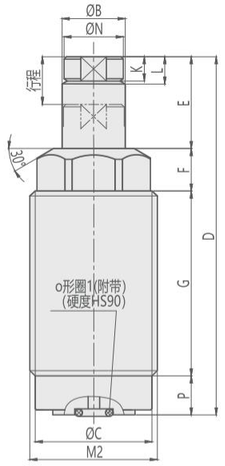
剖面图 Sectional view



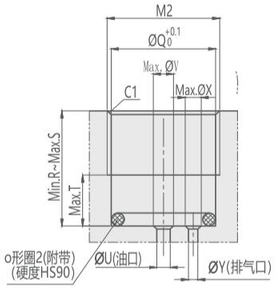
订购标示法 ORDERING INDICATION

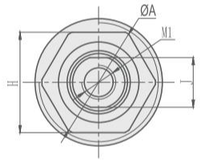
示例：CTC-PD022-10

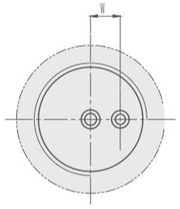
CTC-PD	系列 Series	CTC-PD
022	022/025/030/036/048/058	
10	行程 STROKE	(具体行程见尺寸表) Please refer to the dimension table for the more details



安装部位加工尺寸







外形尺寸及安装部位加工尺寸表
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

规格参数表 SPECIFICATIONS

型号	理论夹持力 (350 kgf/cm²)	油缸内径	总行程	拉入容积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 350kgf/cm² (kgf)	HYDRAULIC CYLINDER INSIDE DIAMETER(mm)	TOTAL STROKE(mm)	OIL CAPACITY CLAMP(cm³)	EFF.PISTON AREA CLAMP(cm²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CTC-PD022	296	16	5/10	0.5/0.9	0.84	0~+70°C	相当于ISO黏度等级的ISO-VG-32一般液压油 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

油压顺序阀 （日式规格）

CLG HYDRAULIC SEQUENCE VALVE (JAPAN SPECIFICATION)

注意事项

1次侧供油量过多有时会导致不能准确的进行顺序动作。
请在1次侧油孔前面安装内置有单向阀的流量调节阀，或者在油压源上进行流量控制。

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.

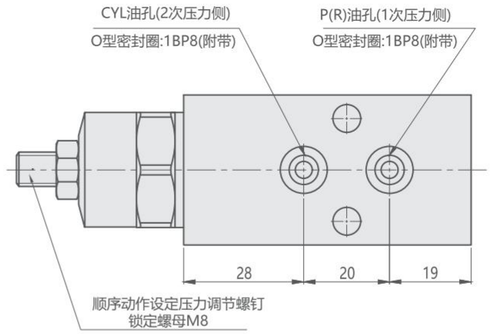
订购标示法 ORDERING INDICATION

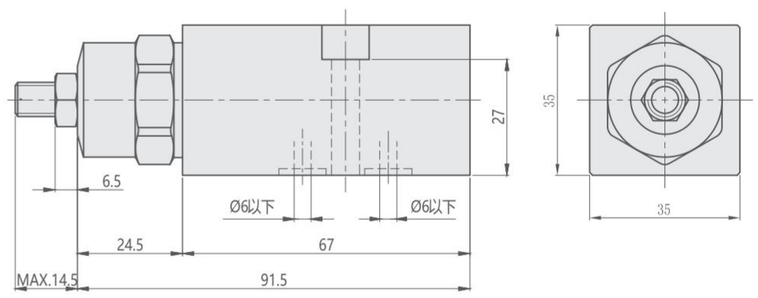
示例：CLG-3A(5.0MPa)

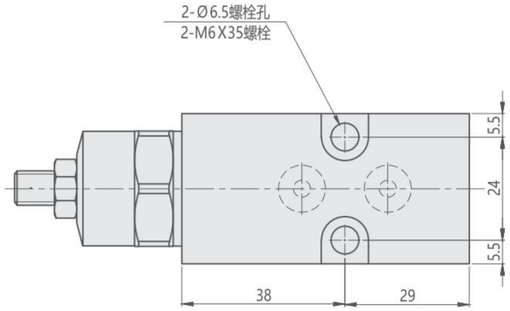
CLG	系列 Series	CLG
3	顺序动作压力调整范围 Sequential action pressure adjustment range	3: 1.0~6.0 MPa 6: 5.0~18.0MPa
A	A油路板型式	A Manifold type
5.0MPa	设定压力(顺序动作压力的设定值) Set pressure(Set valve for sequence operating pressure)	1使用压力与设定压力的压差应设定在1MPa以上。 2.多台顺序阀并联于回路中使用时，相互间设定压力的压差应在1MPa以上。 1.The pressure difference between 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.

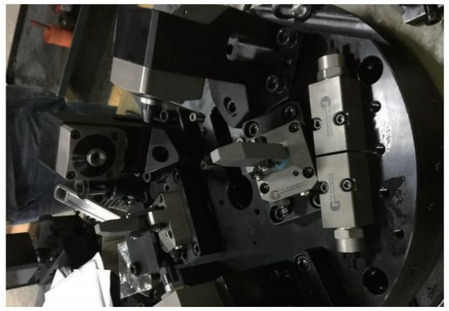
规格参数表 SPECIFICATIONS

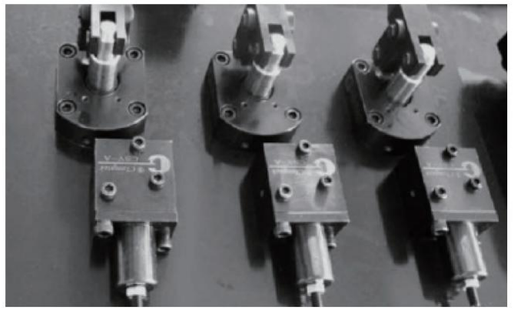
型号	顺序动作压力调整范围	使用压力范围	调节螺钉压力变化值（MPa/每圈）	开启压力	使用温度	使用流体
MODEL	SEQUENTIAL ACTION PRESSURE ADJUSTMENT RANGE(MPa)	OPERATING PRESSURE RANGE(MPa)	ADJUSTING SCREW TURN RATIO(MPa/REV)	CRACKING PRESSURE (MPa)	OPERATING TEMPERATURE(℃)	USABLE FLUID
CLG-3A	1.0~6.0	2.0~35.0	1.0	0.01	0~70℃	相当于ISO黏度等级的ISO-VG-32一般液压油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℃	











SV-AT1

时间顺序阀

SV-AT1 TIME SEQUENCE VALVE

产品特性

以时间阀与流量阀为基础，结合了时间阀与流量阀的特点,减少了使用数量与安装空间，适用于复杂环境的安装。缸径Φ20，启动压力为2MPa，最高工作压力7MPa。

时间范围:1S-10S。
时间范围会因被调整油缸的缸径大小、
行程及油缸压力的变化而有所差别。

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 Φ20, 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.

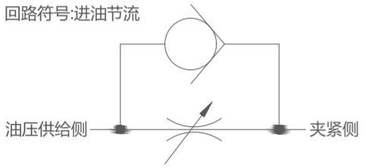
注意事项

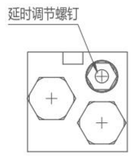
将密封螺母松开，调节时间顺序阀至所需时间，右旋调节杆时间变长，左旋调节杆时间变短:
调整好时间后，将密封螺母锁紧。
温馨提示:请在回油时调整时间阀。
使用流体:相当于ISO黏度等级的ISO-VG-32一般液压油。

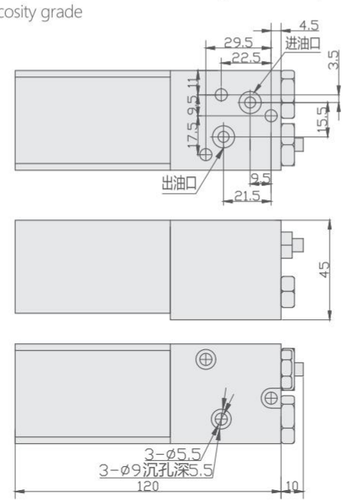
NOTE

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 fuid: Recommended:ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

原理图



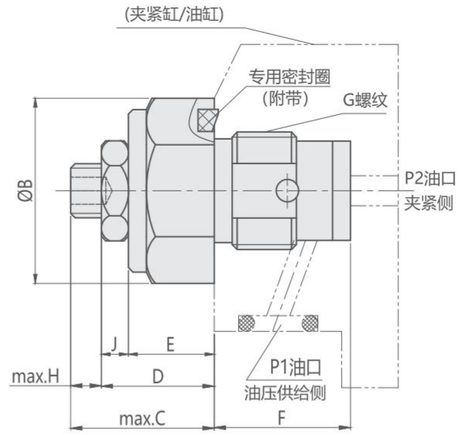


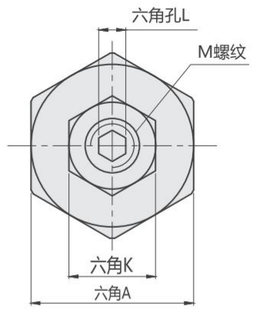


CZL

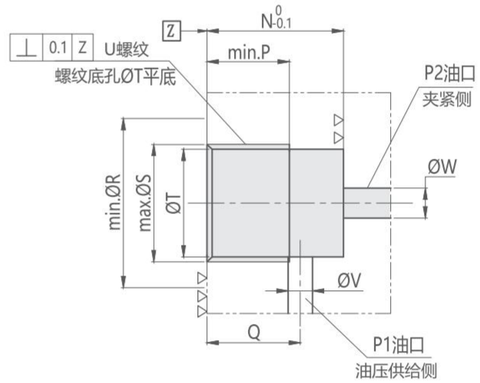
速度控制阀(低压用)

CZL SPEED CONTROL VALVE(LOW PRESSURE)





安装孔加工图



注意事项

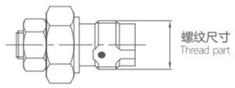
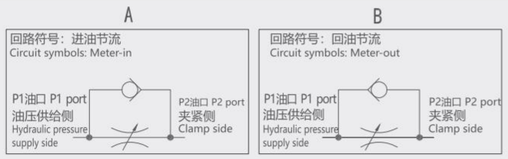
1.控制侧完全开启时的最小流道面积与上表的最大流道面积相等。
2.必须按本体推荐紧固力矩安装速度控制阀。速度控制阀端面为金属密封结构，紧固力矩不足将无法进行流量调整。
3.不可将曾经使用过的速度控制阀再用于其它油缸上。否则可能会因油缸的G螺纹底面深度差异而导致金属密封不严密，从而无法进行流量调整。

NOTE

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

订购标示法 ORDERING INDICATION

示例：CZL-10B

CZL	系列 Series	CZL		
10	G螺纹尺寸 G thread size	10:螺纹尺寸G1/8 20:螺纹尺寸G1/4 30:螺纹尺寸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进油节流 Meter-in B回油节流 Meter-out		

规格参数表 SPECIFICATIONS

型号	最高使用压力	耐压	控制方式	G螺纹尺寸	开启压力	最大流道面积	使用温度	本体推荐紧固力矩(N.m)	使用流体
MODEL	MAX. OPERATING PRESSURE(MPa)	WITHSTANDING PRESSURE(MPa)	CONTROL METHOD	G THREAD SIZE	CRACKING PRESSURE (MPa)	MAX. PASSAGE AREA(mm^2)	OPERATING TEMPERATURE(℃)	RECOMMEND TIGHTENING FOR MAIN BODY(N.m)	USABLE FLUID
CZL-10A	7	10.5	进油节流Meter-in	G1/8	0.04	2.6	0~70°C	10	相当于ISO黏度等级的ISO-VG-32一般液压油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CZL-20A	7	10.5	进油节流Meter-in	G1/4	0.04	5.0	0~70°C	25	
CZL-30A	7	10.5	进油节流Meter-in	G3/8	0.04	11.6	0~70°C	35	
CZL-10B	7	10.5	回油节流Meter-out	G1/8	0.12	2.6	0~70°C	10	
CZL-20B	7	10.5	回油节流Meter-out	G1/4	0.12	5.0	0~70°C	25	
CZL-30B	7	10.5	回油节流Meter-out	G3/8	0.12	10.2	0~70°C	35	

注意事项

1.▿▿▿部将成为密封面，注意切勿受损。
2.▿▿部将成为CZL端面的金属密封面，注意切勿受损。(去毛刺时注意）。
3.加工孔交差部位切勿残留削屑、毛刺等异物。
4.使用时请按图所示，将P1油口设定为油压供给侧，将P2油口设定为夹紧侧。
5.如安装市场上销售的G螺纹规格的堵头和接头时，请将尺寸表内的[※1] 设定为 12.5。

NOTE

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

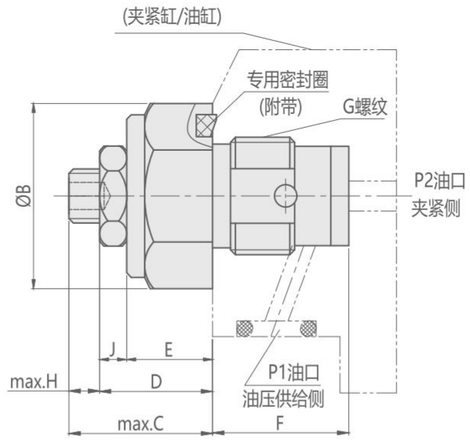
Unit:mm

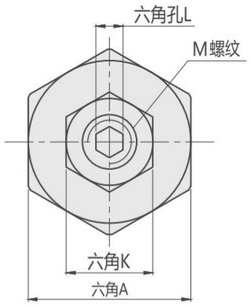
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W
CZL-10	14	15.5	15	12	8.5	11.6	G1/8	3	3.5	10	3	M6x0.75	11.5	8.5	9	16	10	8.7	G1/8	2~3	2.5~5
CZL-20	18	20	16	13	9.5	15.1	G1/4	3	3.5	10	3	M6x0.75	15	11※1	11.5	20.5	13.5	11.5	G1/4	3~4	3.5~7
CZL-30	22	24	19	16	11	17.6	G3/8	3	5	13	4	M8x0.75	17.5	13	13	24.5	17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

CZT

速度控制阀(高压用)

CZT SPEED CONTROL VALVE(HIGHT PRESSURE)





注意事项

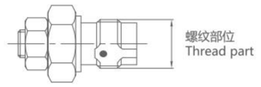
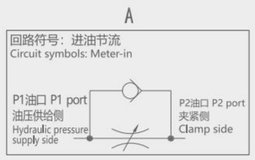
1.控制侧完全开放时的最小流道面积与上表的最大流道面积相等。
2.必须按本体推荐紧固力矩安装速度控制阀。速度控制阀端面为金属密封结横，紧固力矩不足将无法进行流量调整。
3.不可将曾经使用过的速度控制阀再用於其它油缸上。否则可能会因油缸的G螺纹底面深度差异而导致金属密封不严密,从而无法进行流量调整。

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(CZT) to other clamps.Flow control will not be made because the bottom depth difference of G thread makes metal sea insufficient.

订购标示法 ORDERING INDICATION

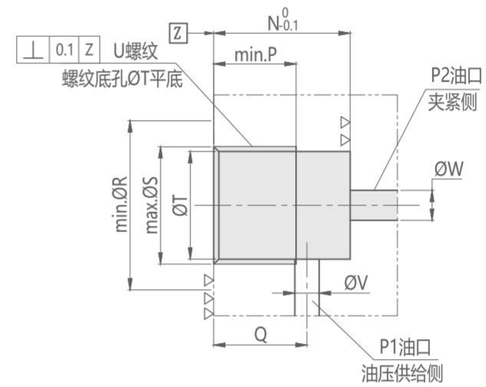
示例：CZT-10A

CZT	系列 Series	CZT		
10	G螺纹尺寸 G thread size	10：螺纹尺寸G1/8 20：螺纹尺寸G1/4 30：螺纹尺寸G3/8	Thread part G1/8 thread Thread part G1/4 thread Thread part G1/ 8 thread	
A	控制方式 Control method	A进油节流 Meter-in		

规格参数表 SPECIFICATIONS

型号	最高使用压力	耐压	控制方式	G螺纹尺寸	开启压力	最大流道面积	使用温度	本体推荐紧固力矩(N.m)	使用流体
Model	MAX. OPERATING PRESSURE(MPa)	WITHSTANDING PRESSURE(MPa)	CONTROL METHOD	G THREAD SIZE	CRACKING PRESSURE (MPa)	MAX. PASSAGE AREA(mm²)	OPERATING TEMPERATURE(℃)	RECOMMEND TIGHTENING FOR MAIN BODY(N.m)	USABLE FLUID
CZT-10A	35	40	进油节流Meter-in	G1/8	0.04	2.6	0~70℃	10	相当于ISO黏度等级的ISO-VG-32一般液压油 Recommended: ISO-VG-32 hydraulic oil equivalent toISO viscosity grade
CZT-20A	35	40	进油节流Meter-in	G1/4	0.04	5.0	0~70℃	25	

安装孔加工图



注意事项

1.▽▽▽部将成为密封面，注意切勿受损。
2.▽▽部将成为CZT端面的金属密封面，注意切勿受损。(去毛刺时注意)。
3.加工孔交差部位切勿残留削屑、毛刺等异物。
4.使用时请按图所示，将P1油口设定为油压供给侧，将P2油口设定为夹紧侧。
5.如安装市场上销售的G螺纹规格的堵头和接头时，请将尺寸表内的[※1] 设定为12.5。
6.控制的产品容量较小时，可能无法充分控制速度(推荐容量3cm³以上)。

NOTE

1. As the ▽▽▽ area is sealing part , pay attention not to damage it.
2. As the ▽▽ area is the metal sealing part at the CZT 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
CZT-10	14	15.5	15	12	8.5	12.6	G1/8	3	3.5	10	3	M6x0.75	12.5	8.5	9.5	16	10	8.7	G1/8	2.5~3.5	2.5~5
CZT-20	18	20	16	13	9.5	16.1	G1/4	3	3.5	10	3	M6x0.75	16	11	12	20.5	13.5	11.5	G1/4	3.5~4.5	3.5~7

CVCF

速度控制阀(低压用)

CVCF SPEED CONTROL VALVE(LOW PRESSURE)

注意事项

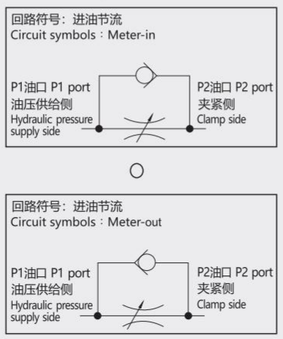
1.控制侧完全开放时的最小流道面积与上表的最大流道面积相等。
2.必须按本体推荐紧固力矩安装速度控制阀。速度控制阀端面为金属密封结构，紧固力矩不足将无法进行流量调整。
3.不可将曾经使用过的速度控制阀再用于其它油缸上。否则可能会因油缸的G螺纹底面深度差异而导致金属密封不严密,从而无法进行流量调整。

NOTE

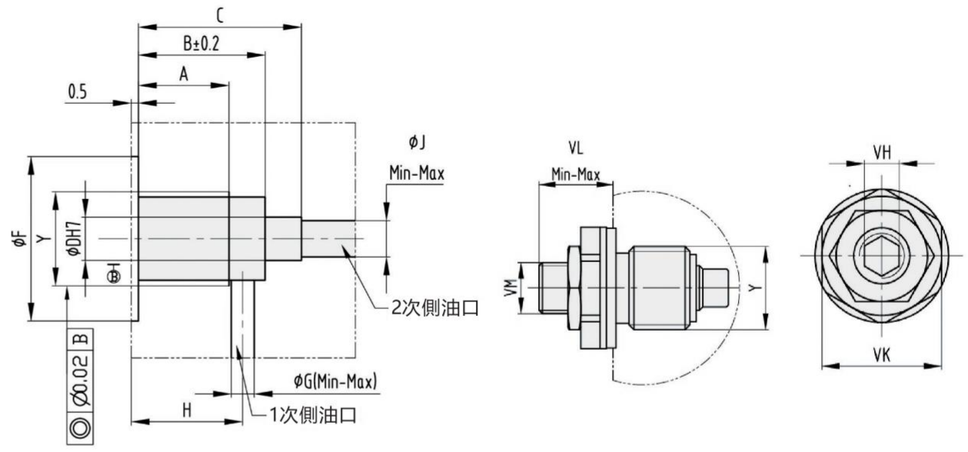
1.Minimum passage area when fully opened is the same as the maximum passage area in the table above.
2.It must be mounted with recommended torque. Because of the structure of the metal seal, if mounting torque is insufficient. the flow control valve may not be able to adjust the flow rate.
3. Dont use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

订购标示法 ORDERING INDICATION

示例： CVCF-010

CVCF	系列 Series	CVCF		
01	G螺纹尺寸 G thread size	10: 螺纹尺寸G1/8 20: 螺纹尺寸G1/4 30: 螺纹尺寸G3/8	Thread part G1/8 thread Thread part G1/4 thread Thread part G1/8 thread	
0	控制方式 Control method	无记号：进油节流 0：回油节流	Meter-in Meter-out	无记号 

安装孔加工圖



规格参数表 SPECIFICATIONS

型号 MODEL	最高使用压力 MAX. OPERATING PRESSURE(MPa)	耐压 WITHSTANDING PRESSURE(MPa)	控制方式 CONTROL METHOD	G螺纹尺寸 G THREAD SIZE	开启压力 CRACKING PRESSURE (MPa)	使用温度范围 OPERATING TEMPERATURE(℃)	本体推荐紧固力矩(N.m) RECOMMEND TIGHTENING FOR MAIN BODY(N.m)	使用流体 USABLE FLUID
CVCF-01	7	10.5	进油节流Meter-in	G1/8	0.04	0~70°C	10	相当于ISO黏度等级的ISO-VG-32一般液压油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
CVCF-02	7	10.5	进油节流Meter-in	G1/4	0.04	0~70°C	30	
CVCF-03	7	10.5	进油节流Meter-in	G3/8	0.04	0~70°C	35	
CVCF-010	7	10.5	回油节流Meter-out	G1/8	0.12	0~70°C	10	
CVCF-020	7	10.5	回油节流Meter-out	G1/4	0.12	0~70°C	30	
CVCF-030	7	10.5	回油节流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-010	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-020	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-030	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.拆装时请用梅花扳手或套筒扳手。
2.当夹紧器采用坐垫式配管时，流量控制阀可以安装在油压介面处(G螺纹部)。
3.请在无油压状态下进行流量调整。否则会造成密封件损坏。
4.左图表示进油节流(CVCF□)的安装状态。
5.出厂时流量调整螺丝为全打开状态。夹紧器安装后要调整为全封闭状态后一点一点慢慢地调整动作速度。

CVCH

速度控制阀（高压用）

CVCH SPEED CONTROL VALVE(HIGHT PRESSURE)

注意事项

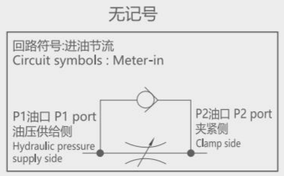
1.控制侧完全开启时的最小流道面积与上表的最大流道面积相等。
2.必须按本体推荐紧固力矩安装速度控制阀。速度控制阀端面为金属密封结构，紧固力矩不足将无法进行流量调整。
3.不可将曾经使用过的速度控制阀再用于其它油缸上。否则可能会因油缸的G螺纹底面深度差异而导致金属密封不严密，从而无法进行流量调整。

NOTE

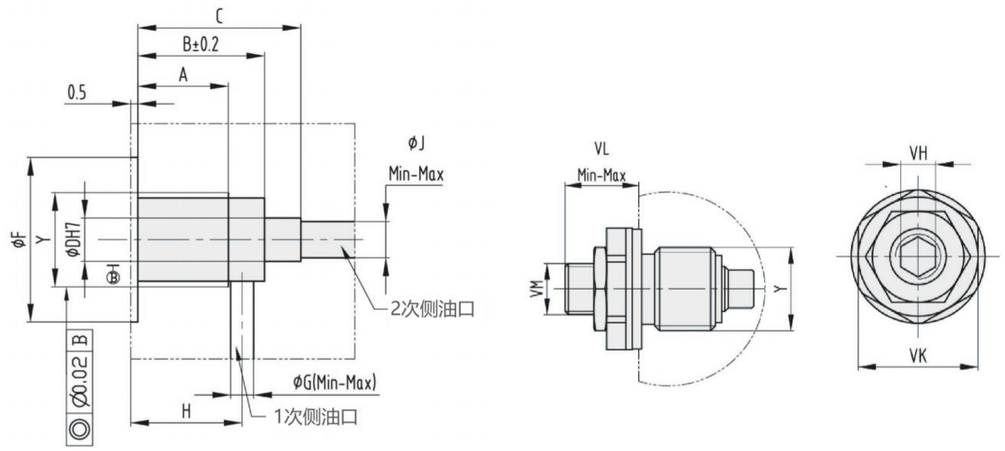
1. Minimum passage area when fully opened is the same as the maximum passage area in the table above.
2. It must be mounted with recommended torque. Because of the structure of the metal seal, if mounting torque is insufficient, the flow control valve may not be able to adjust the flow rate.
3.Don't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

订购标示法 ORDERING INDICATION

示例：CVCH-01

CVCH	系列 Series	CVCH
01	G螺纹尺寸 G thread size	10：螺纹尺寸G1/8 20：螺纹尺寸G1/4
无记号	控制方式 Control method	无记号：进油节流　Meter-in 无记号 

安装孔加工图



规格参数表 SPECIFICATIONS

型号	最高使用压力	耐压	控制方式	G螺纹尺寸	开启压力	使用温度范围	本体推荐紧固力矩(N.m)	使用流体
Model	MAX. OPERATING PRESSURE(MPa)	WITHSTANDING PRESSURE(MPa)	CONTROL METHOD	G THREAD SIZE	CRACKING PRESSURE (MPa)	OPERATING TEMPERATURE(℃)	RECOMMEND TIGHTENING FOR MAIN BODY(N.m)	USABLE FLUID
CVCH-01	40	50	进油节流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 toISO viscosity grade
CVCH-02	40	50	进油节流Meter-in	G1/4	0.04	0~70°C	30	

Unit:mm

Model	A	B	C	D	F	G	H	J	Y	VH	VK	VL	VM
CVCH-01	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
CVCH-02	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

注:
1.拆装时请用梅花扳手或套筒扳手。
2.当夹紧器采用坐垫式配管时，流量控制阀可以安装在油压界面处（G螺纹部）。
3.请在无油压状态下进行流量调整。否则会造成密封件损坏。
4.左图表示进油节流（CVCH□）的安装状态。
5.出厂时流量调整螺丝为全打开状态。夹紧器安装后要调整为全封闭状态后一点一点慢慢地调整动作速度。
6.控制的产品容量较小时，可能无法充分控制速度（推荐容量3cm^{3}以上）。

CSV/CLSV

油压顺序阀

CSV/CLSV HYDRAULIC SEQUENCE VALVE

产品特性

此型式油压顺序阀，适用于夹具回路，由压力决定油压缸之顺序动作，体积小，耐高压，安装于回路中，不需其他控制，即可得到顺序动作确实之效果。
本产品提供A:油路板型B:配管型两种型式，可依夹具整体设计安装方式需要作适当选择。

最大操作压力：250kgf/cm² (CLSV:70kgf/cm²)
最小操作压力：25kgf/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 has the characteristics of small volume、compact structure 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: 250kgf/cm² (CLSV:70kgf/cm²)
Min. operation pressure: 25kgf/cm²

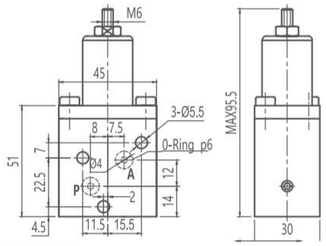
注意事项

多个顺序阀并联于回路中使用时，相互间设定压力差不得小于10kgf/cm²。工作压力和设定压力差值必须要10kgf/cm²以上。请根据使用压力，选用合适作动弹簧。

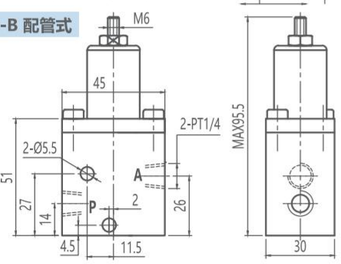
NOTE

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

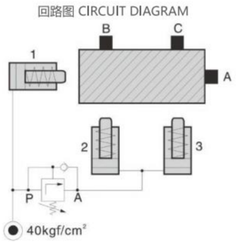
CSV-A 油路板式



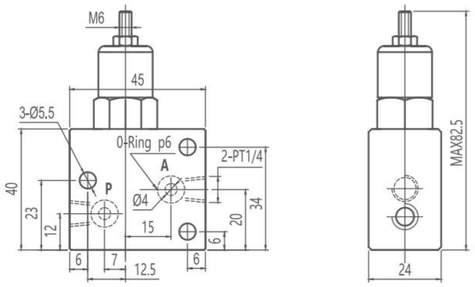
CSV-B 配管式



回路图 CIRCUIT DIAGRAM



CLSV-A 油路版型 使用压力范例
CLSV-B 配管式 25-70kgf/cm² ● 40kgf/cm²



订购标示法 ORDERING INDICATION

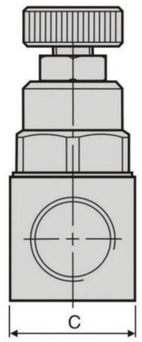
示例：CSV-A CLSV-A CSV-B CLSV-B

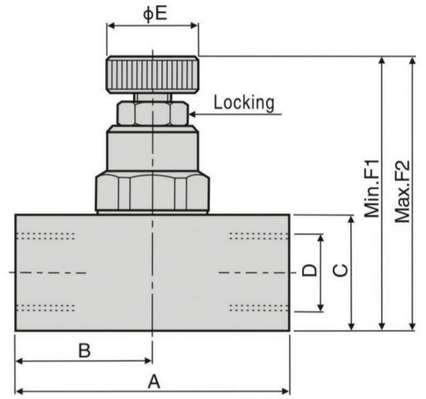
CSV-A CLSV-A	油路板型 Manifold type	25-250 kgf/cm² 25-70 kgf/cm²
CSV-B CLSV-B	配管式Line type	25-250 kgf/cm² 25-70 kgf/cm²

CFCV/CFTC

油压流量阀

CFCV/CFTC HYDRAULIC FLOW CONTROL VALVE





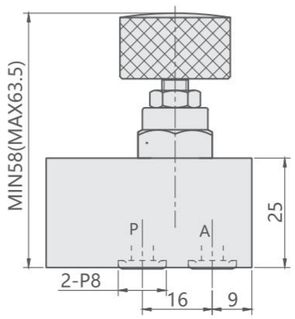
Max. operating pressure: 210 kgf/cm²

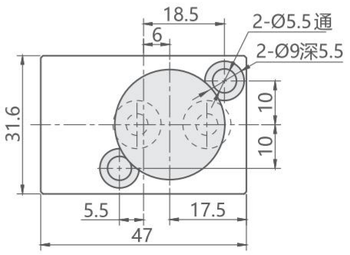
Unit:mm

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

使用流体：相当于ISO黏度等级的ISO-VG-32一般液压油
Recommended：ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

CFTC-02G-21A板式油压流量阀

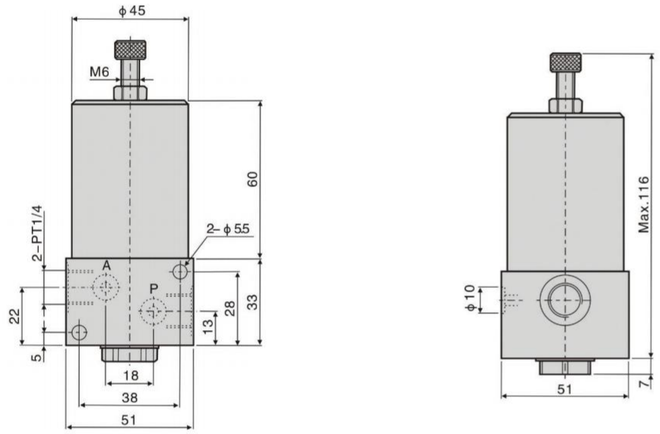




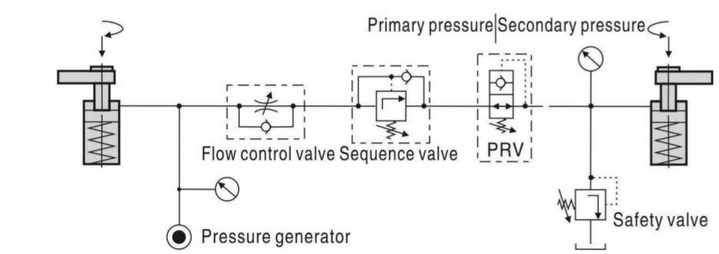
CPRV

油压减压阀

CPRV HYDRAULIC PRESSURE REDUCING VALVE



CIRCUIT DIAGRAM

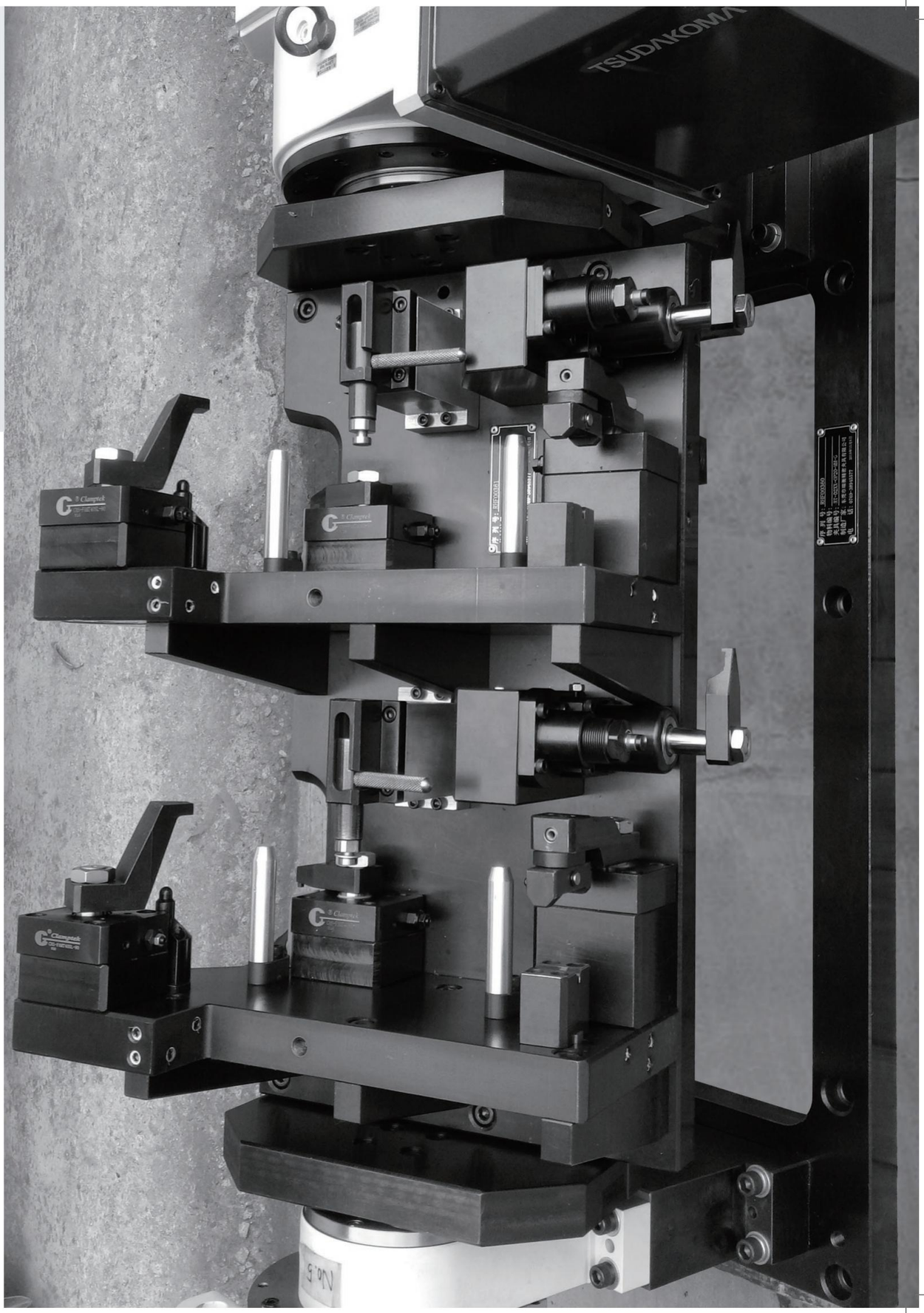


订购标示法 ORDERING INDICATION

示例：CPRV-M021

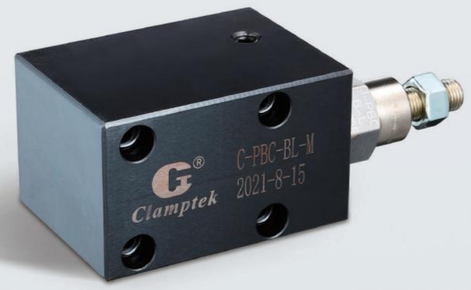
CPRV	系列 Series	CPRV
M	接管方式 Piping method	空白：配管式 Blank：Line type M：油路板型 M:Manifold type
02	型号 Model	A Manifold type
1	压力调整范围 Pressure range (kgf/cm²)	1 5-30 2 10-50 3 20-120 4 30-240 5 50-380

使用流体：相当于ISO黏度等级的ISO-VG-32一般液压油
Recommended：ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade



引导式减压阀

PILOT OPERATED REDUCING VALVES



规格参数表 SPECIFICATIONS

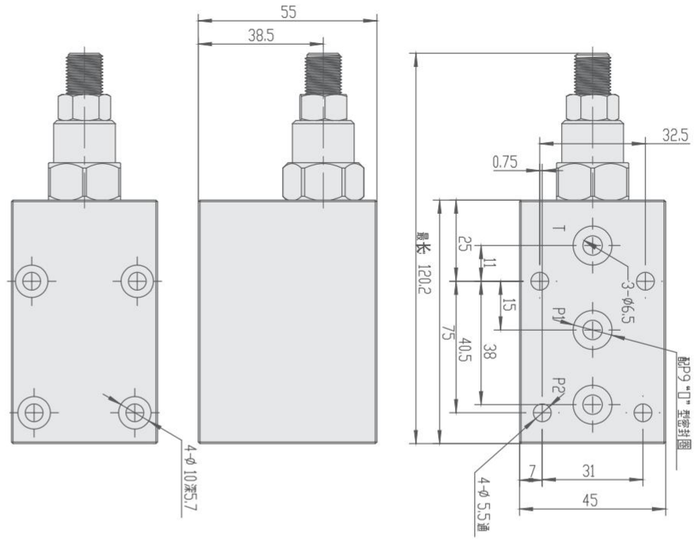
型号	压力调整范围	最高使用压力	流量	使用温度	使用流体
MODEL	ACTUATING PRESSURE RANGE (MPa)	MAX.OPERATING PRESSURE (MPa)	RATED FLOW (l/min)	RANGE OF TEMPERATURE(℃)	USABLE FLUID
C-PBC-*	A:0.7-21MPa B:0.35-10.5MPa D:0.2-6MPa	21MPa	40L/min	0-70℃	相当于ISO黏度等级的ISO-VG-32一般液压油Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

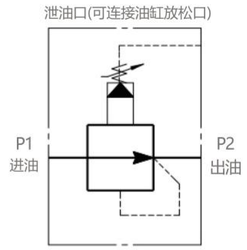
订购标示法 ORDERING INDICATION

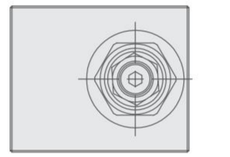
示例：C-PBC-AL-T

C	系列 Series	C
PBC	规格 Valve Size	PBC: 40L/min
A	压力调整范围 Actuating pressure range(MPa)	A:0.7-21 B:0.35-10.5 D:0.2-6
L	旋钮型式 Knob Type	L:防漏,螺杆调整 Leakage Proof,Bolt rod Adjust
T	类型 Type	M：油路板型 Manifold type T：配管式： Line type

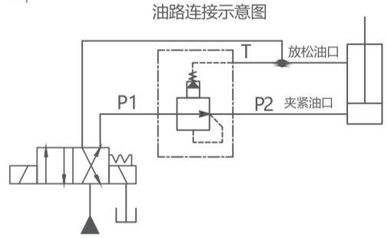
C-PBC-※L-M 安装尺寸



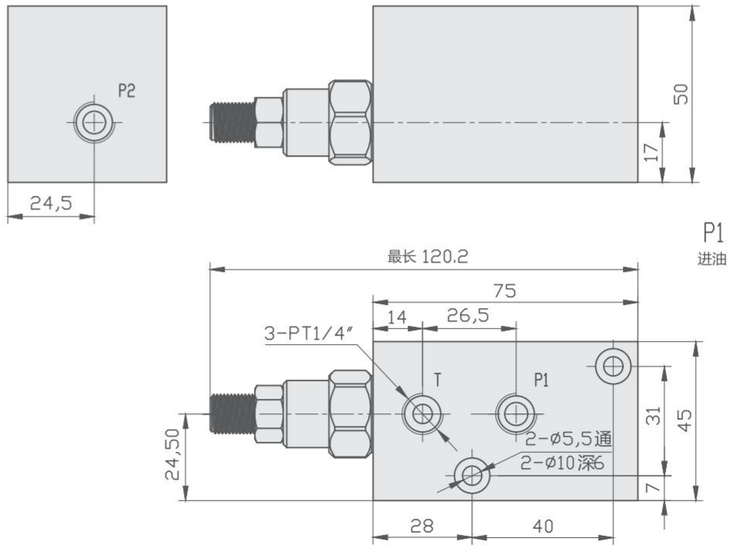


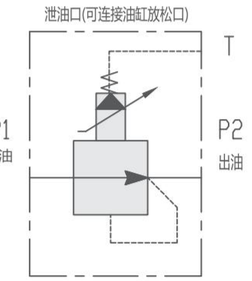


油路连接示意图



C-PBC-※L-T 安装尺寸





引导式顺序阀

PILOT OPERATED SEQUENCE VALVES

规格参数表 SPECIFICATIONS

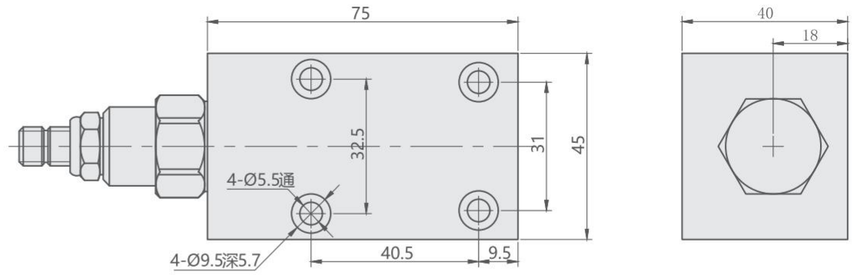
型号	压力调整范围	最高使用压力	流量	使用温度	使用流体
MODEL	ACTUATING PRESSURE RANGE (MPa)	MAX.OPERATING PRESSURE (MPa)	RATED FLOW (l/min)	RANGE OF TEMPERATURE(℃)	USABLE FLUID
C-SCCA-LAN	3.5-21MPa	35MPa	60L/min	0-70℃	相当于ISO黏度等级的ISO-VG-32 一般液压油 Recommended: ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

订购标示法 ORDERING INDICATION

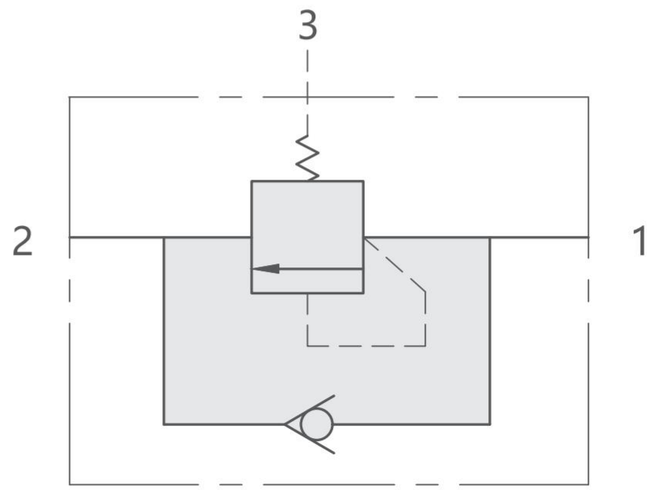
示例：C-SCCA-LAN

C	系列 Series	C
SCCA	规格 Valve Size	SCCA : 60L/min
L	旋钮型式 Knob Type	L: 螺杆调整　Bolt rod Adjust
A	压力调整范围 Actuating pressure range MPa	A:3.5-21MPa
N	密封件材料	N:丁腈橡胶

安装尺寸



油路连接示意图



CWD-B

气动顺序阀

CWD-B PNEUMATIC SEQUENCE VALVE

产品特性 FEATURES

型号	最高使用压力	最低使用压力	耐压	延迟时间*1*2*3*4	最小通路面积	使用温度	重量	使用流体:过滤之干燥压缩空气
MODEL	MAX. OPERATING PRESSURE(Mpa)	MIN. OPERATING PRESSURE(Mpa)	WITHSTANDING PRESSURE(Mpa)	DELAYED TIME * 1 * 2 * 3 * 4 (sec)	MIN.PASSAGE AREA (m^2)	OPERATING TEMPERATURE(℃)	MASS (kg)	USABLE FLUID: OILED DRY CLEAN COMPRESSED AIR
CWD-B	0.6	0.2	1.5	1~10	4.0	0~70	0.2	过滤之干燥空气 Dry air

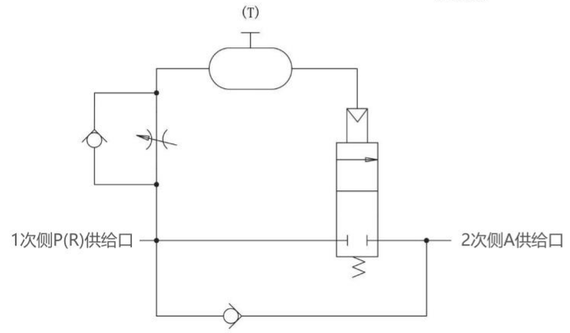
注意事项

1.初始动作时的延迟时间可能因放置时间而延长。
2.可使用T埠增设储气箱，增加容量，从而延长延迟时间。
3.如果超过设定延迟时间2次侧执行元件仍未动作时，必须先将1次侧供给气压降到零，然后再进行确认作业。
4.确认延迟时间时应先拴紧延迟时间调整螺栓部的固定螺母后再行确认。

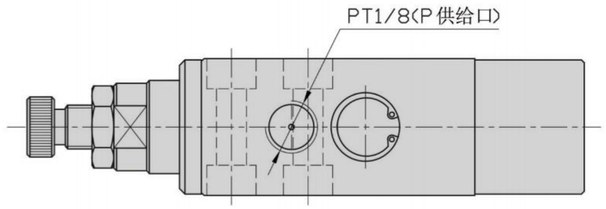
NOTE

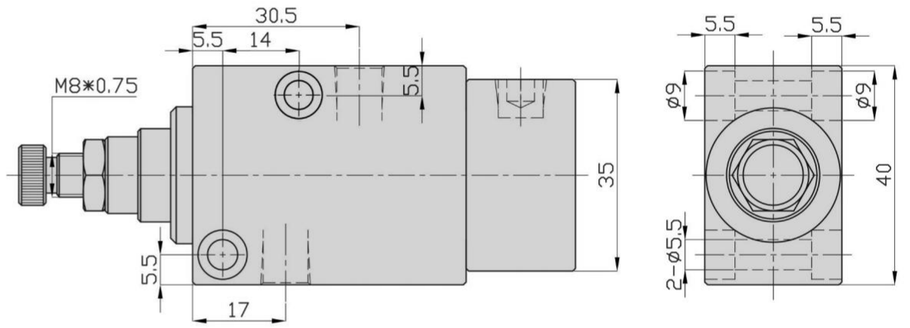
1. If unused for a long period of time, the delay is longer than initial set time.
2.It can extend the time delay from the tank and its capacity increases by using T port.
3.If actuators on outgoing side does not operate after the time delayed setting, verify setting after pressure returns to zero.
4.Confirmation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

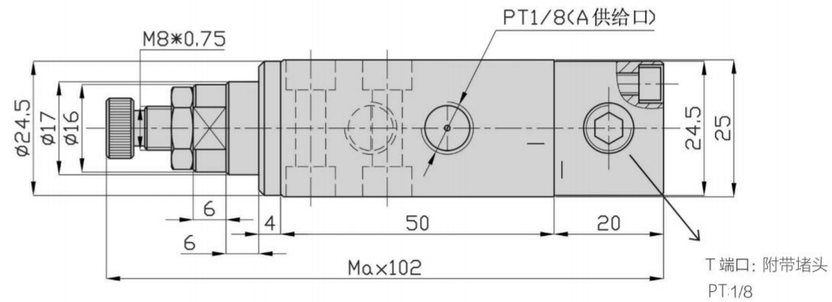
回路符号



※ 必须使用经过滤器过滤后的清洁空气，以免异物侵入内部。







注意事项

实际延迟时间因回路条件而异。
切勿过于拴紧或旋松延迟时间调整螺栓否则可能会导致产品的损伤。

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

油路旋转接头

CRA HYDRAULIC ROTARY JOINT

新产品说明

根据国内机加客户的不断提升，对四轴夹具的要求也越来越多，我们对客户的反馈信息进行了筛选，为客户量身设计了这款CRA旋转接头，欢迎大家选购。如您在选型时有任何疑问，请随时与我司技术人员联系。感谢您的支持！

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!

规格参数表 SPECIFICATIONS

型号		CRA/CRB/CRC-2	CRA/CRB/CRC-4	CRA/CRB/CRC-6
回路数		2回路	4回路	6回路
使用流体		相当于ISO黏度等级ISO-VG-32一般液压油		
最高使用压力(MPa)		25		
允许转数		因流体压力而异		
使用环境温度(°C)		0~70		
配管介面尺寸		PT1/8		
质量(kg)	255	3.18	3.80	- -
	320	3.57	4.37	4.18
	400	3.76	4.76	5.17

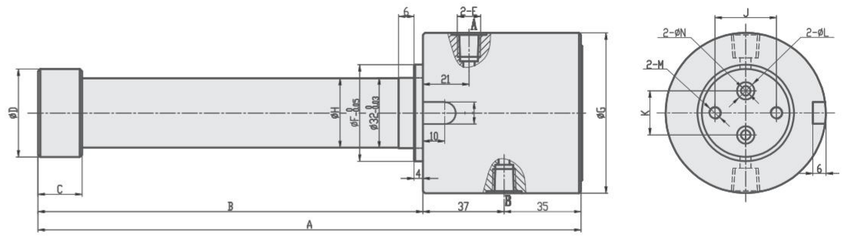
订购标示法 ORDERING INDICATION

示例：CRA-2-255

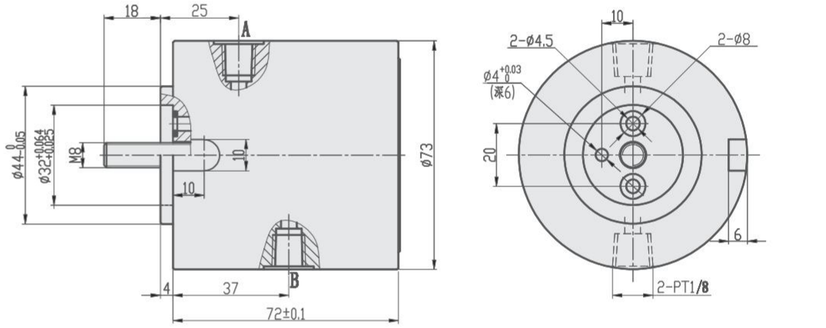
型式	回路数	四轴型号
CRA:旋转接头	2	255/320/400
CRB:配油器	4	
CRC:连接轴	6	320/400

CRA/CRB/CRC-2

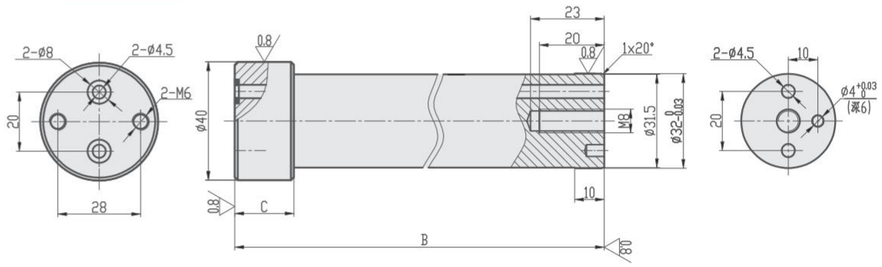
CRA-2



CRB-2



CRC-2

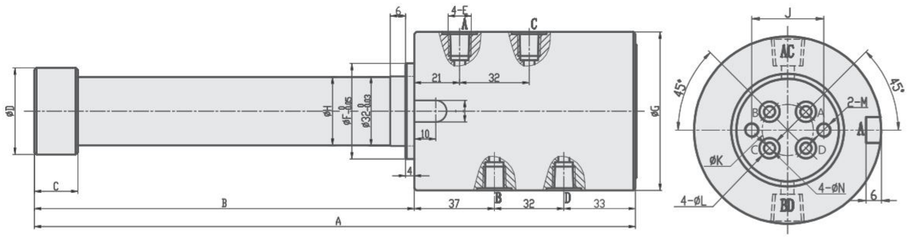


Unit:mm

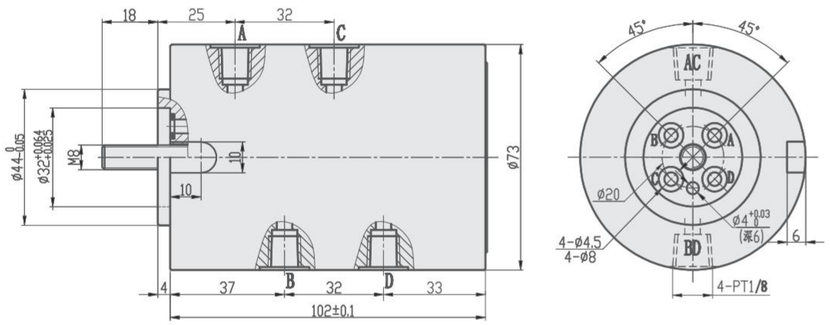
型号 Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
CRA/CRC-2-255	247	175	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5
CRA/CRC-2-320	317	245	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5
CRA/CRC-2-400	362	290	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5

CRA/CRB/CRC-4

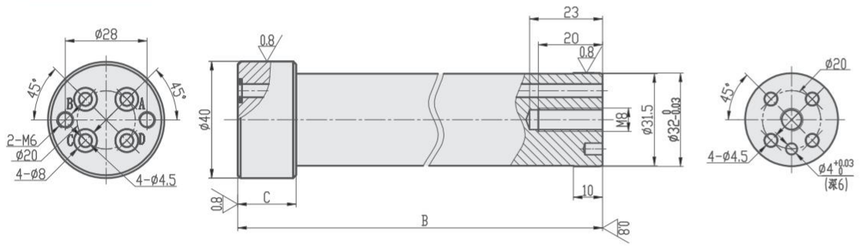
CRA-4



CRB-4



CRC-4

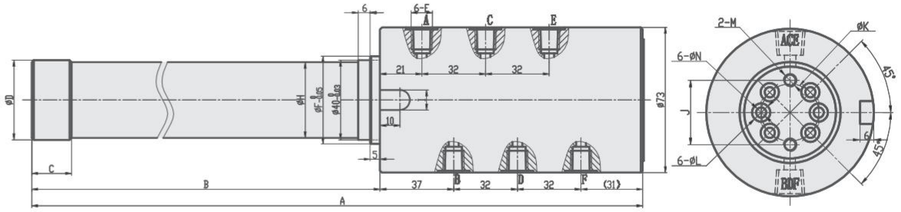


Unit:mm

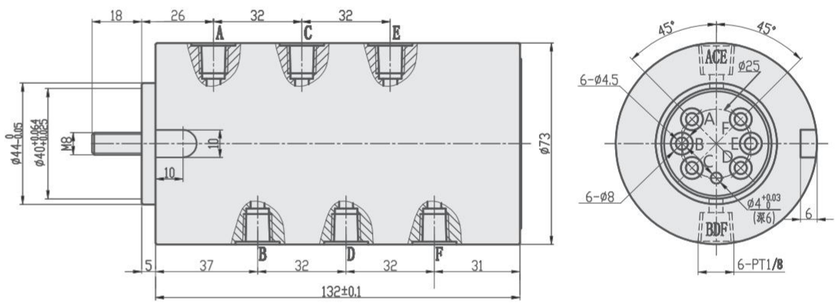
型号 Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
CRA/CRC-4-255	277	175	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5
CRA/CRC-4-320	347	245	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5
CRA/CRC-4-400	392	290	20	40	PT1/8	44	73	31.5	10	28	20	8.0	M6	4.5

CRA/CRB/CRC-6

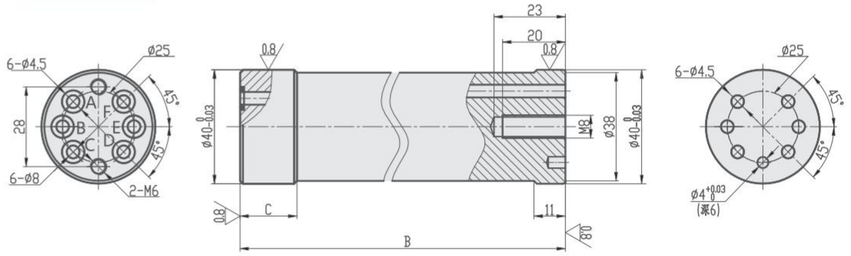
CRA-6



CRB-6



CRC-6



Unit:mm

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

CRAF

油路旋转接头

CRAF HYDRAULIC ROTARY JOINT

规格参数表 SPECIFICATIONS

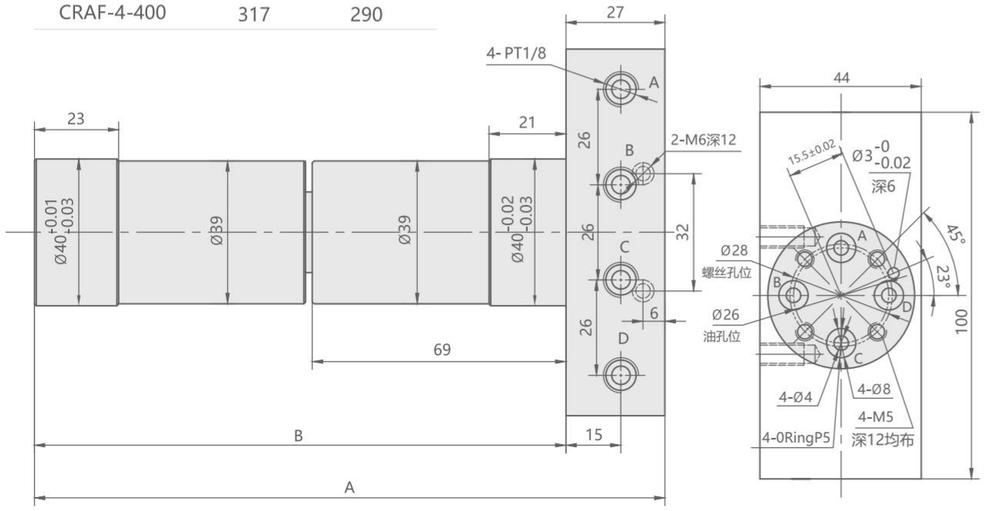
型号 MODEL	CRAF-4	CRAF-6	CRAF-8
回路数	4回路	6回路	8回路
允许转速	因流体/压力而异		
使用压力范围 The range of pressure(MPa)	Max:25MPa		
使用温度范围 Range of temperature(°C)	10°~70(°C)		
工作流体 Power Fluid	滤清之标准液压油Filtered oil		

订购标示法 ORDERING INDICATION

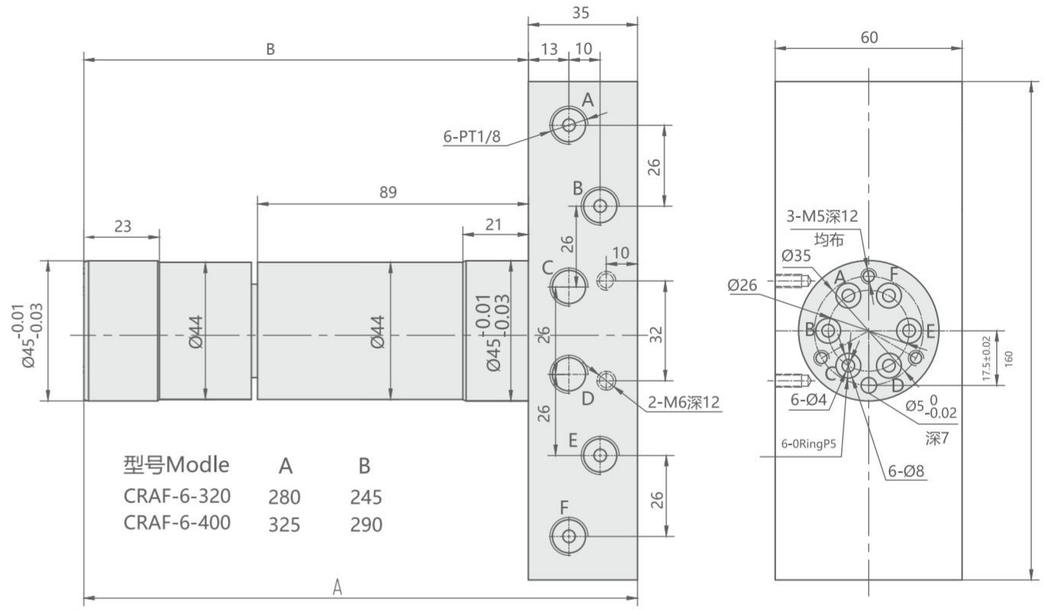
示例：CRAF-4-255

型号Modle	A	B
CRAF-4-255	202	175
CRAF-4-320	272	245
CRAF-4-400	317	290

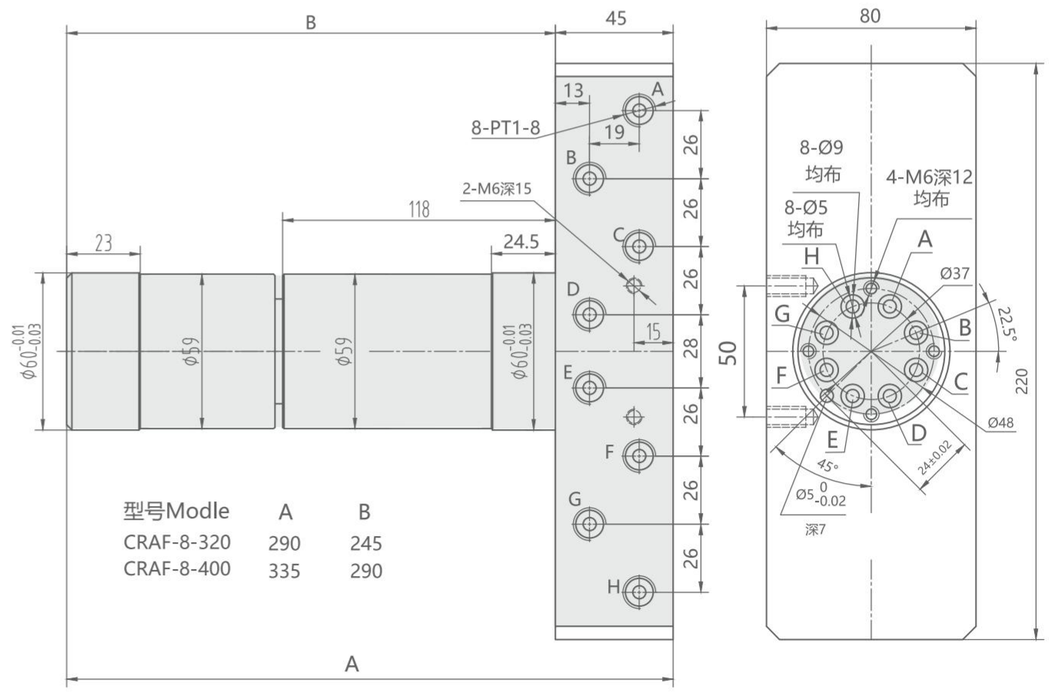
CRAF-4



CRAF-6



CRAF-8



CJRC
旋转接头

CJRC ROTARY JOINT

产品特性

旋转接头适用于油压/气压/的供给。
采用专业开发的低摩擦密封件，从而实现了低转矩、顺畅的旋转动作。此接头是兼具了刚性/耐久性/密封性的嘉刚公司设计的长寿命旋转接头。供给口数量可选择2、4、6、8供给口。

FEATURES

This product suitable for hydraulic and pneumatic supply.
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.

选配项 OPTIONS

分类	供给口数量	特点	使用流体
CLASSIFICATION	THE NUMBER OF THE PORTS	FEATURES	USABLE FLUID
无中央供给口 No Center Through Port	2/4/6/8 供给口 Port	低转矩(紧凑型) Low Rotary Torque (Compact Design)	一般液压油：7MPa以下 General Hydraulic Oil : 7 MPa or less 气压 1MPa以下Air:1MPa or Less

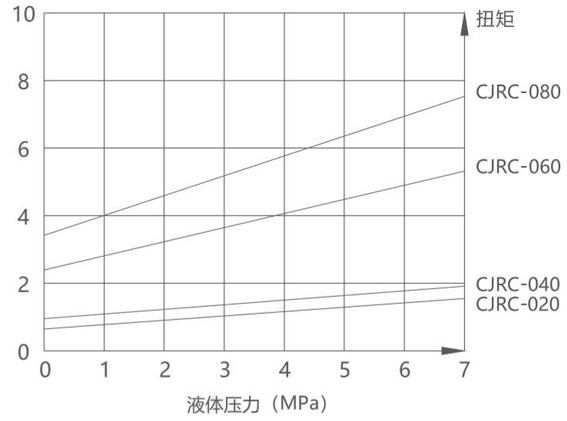
订购标示法 ORDERING INDICATION

示例：CJRC-020SA

CJRC	系列 Series	CJRC
02	供给口数量 The Number of the Ports	02： 2 供给口 2 ports 04： 4 供给口 4 ports 06: 6供给口6ports 08: 8供给口8ports
0	无中央供给口 Center Through Port	0： 无中心供给口 No Center Through Port
S	1次侧配管方式 Mounting Direction	B： 外配管式(G螺纹) Piping Option（BSPP Thread (G-Thread)） S： 外配管式(Rc螺纹) Piping Option（BSPT (Rc-Thread)）
A	2次侧配管方式 Secondary Side Piping Method	A： 板式连接·外配管并用在(附带R螺纹堵头) A: Both Gasket and Piping Options（With BSPT Plug (R-Thread Plug)） D： 板式连接·外配管并用在(附带G螺纹堵头) D： Both Gasket and Piping Options （With BSPP (G-Thread Plug)）

注意事项 Note
1.如需要上接配管方式以外连接方式时，请另行咨询。
1.Please contact us if you need a piping option different than what is shown in model code of catalogue.

能力曲线图(转矩:参考值)
PERFORMANCE CURVE
(ROTARY TORQUE：REFERENCE VALUE)



型号 MODEL	转矩 ROTARY TORQUE (N·m)			
流体压力 FLUID PRESSURE (MPa)	CJRC-020	CJRC-040	CJRC-060	CJRC-080
7	1.5	1.8	5.5	7.5
6	1.4	1.7	5.1	6.9
5	1.4	1.6	4.7	6.4
4	1.3	1.5	4.3	5.8
3	1.2	1.5	4.0	5.3
2	1.1	1.4	3.6	4.7
1	1.1	1.3	3.2	4.2
0	1.0	1.2	2.8	3.6

注意事项

1.本图表示转矩(N·m)与流体压力(MPa)之间的关系。
2.启动转矩偶尔会出现大于曲线图所示转矩2倍的情况。而且会因搁置时间等条件而发生变化。
3.转矩为参考值

NOTE

1. This graph shows the relationship between the rotary torque and the fluid 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 value.

规格参数表 SPECIFICATIONS

型号 MODEL	使用压力 OPERATING PRESSURE (MPa)		供给口 Ports		中央供给口 CENTER THROUGH PORT	容许旋转速度 (7MPa時)※1 ALLOWABLE ROTARY SPEED (AT 7MPA)※1(MIN-1)	重量 WEIGHT(kg)	使用温度 OPERATING TEMPERATURE(℃)	使用流体 USABLE FLUID
	油 OIL	空气 AIR	供给口数量 NUMBER	最小通路面积 MIN. PASSAGE AREA(mm²)					
CJRC-020	0～7.0	0～1.0	2	19.6	无Nothing	280	4.5	-10～70	普通液压油或空气 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	无Nothing	280	5.5	-10～70	
CJRC-060	0～7.0	0～1.0	6	19.6	无Nothing	200	8.0	-10～70	
CJRC-080	0～7.0	0～1.0	8	19.6	无Nothing	200	8.6	-10～70	

注意事项

1.容许旋转速度是指在最高使用压力(油压7MPa)下的值
1油气并用时，油膜有可能渗入气压回路，请在两回路间设置残液排放回路。
2.连续运转会导致内部密封件发热，因此请避免连续运转。

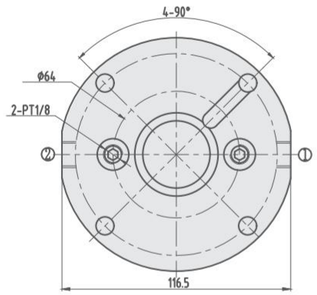
NOTE

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.

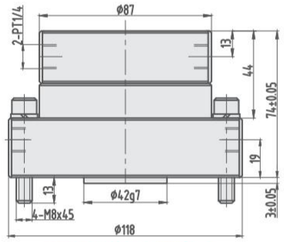
外形尺寸：CJRC-020
External Dimensions：CJRC-020

※本图表示CJRC-020SA(2回路)
※This drawing indicates CJRC-020SA(2 Port Circuit)

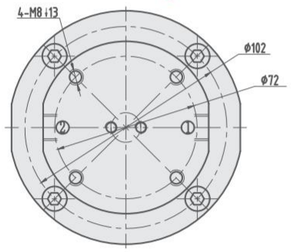
1次侧供给口或2次侧供给口需要G螺纹时，请另行咨询。
When G thread is necessary for a primary side or secondary side port,please contact us separately.



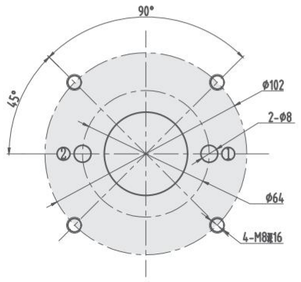
停止侧Stop Side

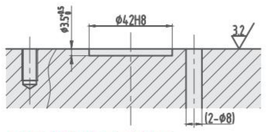


旋转侧Rotating Side



安装部位加工尺寸
Machining Dimensions of Mounting Area





仅板式连接需要此项

订购标示法 ORDERING INDICATION
CJRC-020BA
SD

B S:1次侧配管方式 Primary Side Piping Method
A D:2次侧配管方式 Secondary Side Piping Method

1.旋转侧请使用螺栓固定法兰部，停止侧请只对旋转方向进行固定。
2.停止侧的配管请使用软管。
3.油气并用时，油膜有可能渗入气压回路，请在两回路间设置残液排放回路。
4.连续运转会导致内部密封件发热，因此请避免连续运转。
5.各供给口均标有及介面编号。
6.2次侧使用Rc1/4介面采用外配管方式连接时，请使用附带的R1/8螺纹堵头塞住板式连介面。当使用板式连介面时，请安装O形密封圈和R1/4螺纹堵头。

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次侧供给口 Incoming Port
2-Rc1/4螺纹 Rc-1/4 Thread
2次侧供给口 Outgoing Port
2-Rc1/4螺纹 2-Rc-1/4 Thread
R螺纹堵头(附带) With BSPT Plug(R-Thread Plug)
4-M8x45螺栓(附带)
4-M8×1.25×45 Bolt (Included)

12-Rc1/8螺纹 2-Rc-1/8 Thread
R螺纹堵头(附带) With BSPT Plug (R-Thread Plug)
2次侧供给口 Outgoing Port
2-板式连介面2-Gasket Port
O形密封圈: 1BP12(附带)
O-ring: 1BP12 (Included)

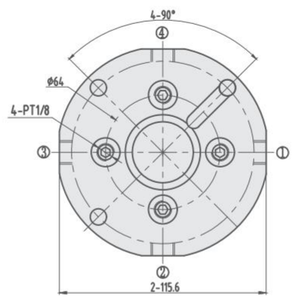
※1.只有板式连接方式需要此项加工。
2.安装面(O形密封圈的密封面)的表面粗糙度按6.3S加工。

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

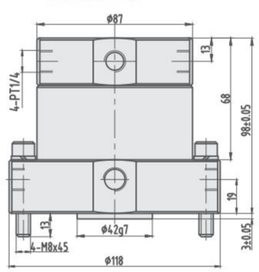
外形尺寸：CJRC-040
External Dimensions：CJRC-040

※本图表示CJRC-040SA(4回路)
※This drawing indicates CJRC-040SA(4 Port Circuit)

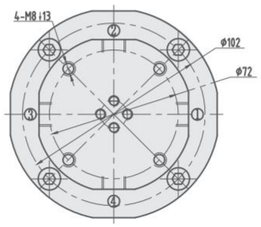
1次侧供给口或2次侧供给口需要G螺纹时，请另行咨询。
When G thread is necessary for a primary side or secondary side port,please contact us separately.



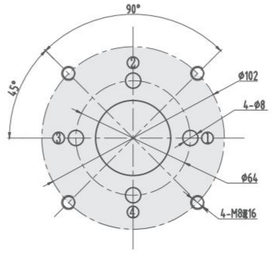
停止侧Stop Side

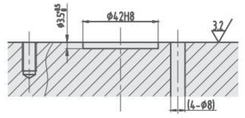


旋转侧Rotating Side



安装部位加工尺寸
Machining Dimensions of Mounting Area





仅板式连接需要此项

订购标示法 ORDERING INDICATION
CJRC-040BA
SD

B S:1次侧配管方式 Primary Side Piping Method
A D:2次侧配管方式 Secondary Side Piping Method

1.旋转侧请使用螺栓固定法兰部，停止侧请只对旋转方向进行固定。
2.停止侧的配管请使用软管。
3.油气并用时，油膜有可能渗入气压回路，请在两回路间设置残液排放回路。
4.连续运转会导致内部密封件发热，因此请避免连续运转。
5.各供给口均标有及介面编号。
6.2次侧使用Rc1/4介面采用外配管方式连接时，请使用附带的R1/8螺纹堵头塞住板式连介面。当使用板式连介面时，请安装O形密封圈和R1/4螺纹堵头。

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次侧供给口 Incoming Port
2-Rc1/4螺纹Rc-1/4 Thread
2次侧供给口 Outgoing Port
2-Rc1/4螺纹 2-Rc-1/4 Thread
R螺纹堵头(附带)With BSPT Plug (R-Thread Plug)
4-M8×45 螺栓(附带)
4-M8×1.25×45 Bolt (Included)

12-Rc1/8螺纹 2-Rc-1/8 Thread
R螺纹堵头(附带) With BSPT Plug (R-Thread Plug)
2次侧供给口 Outgoing Port
2-板式连介面2-Gasket Port
O形密封圈: 1BP12(附带)
O-ring: 1BP12 (Included)

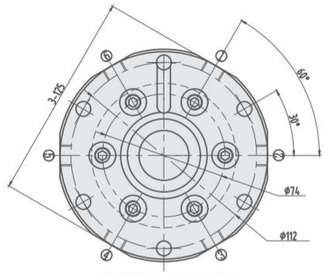
※1.只有板式连接方式需要此项加工。
2.安装面(O形密封圈的密封面)的表面粗糙度按6.3S加工。

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

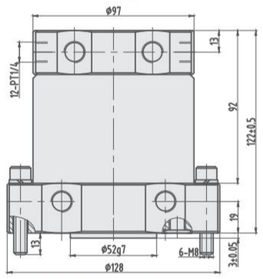
外形尺寸：CJRC-060
External Dimensions：CJRC-060

※本图表示CJRC-060SA(6回路)
□This drawing indicates CJRC-060SA(6 Port Circuit)

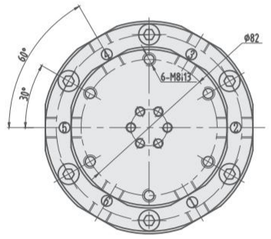
1次侧供给口或2次侧供给口需要G螺纹时，请另行咨询。
When G thread is necessary for a primary side or secondary side port,please contact us separately.



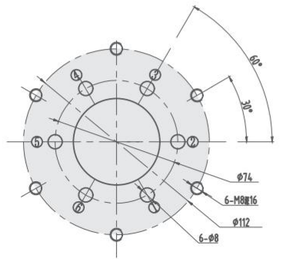
停止侧Stop Side



旋转侧Rotating Side



安装部位加工尺寸
Machining Dimensions of Mounting Area



订购标示法 ORDERING INDICATION
CJRC-060BA
SD

B S:1次侧配管方式 Primary Side Piping Method
A D:2次侧配管方式 Secondary Side Piping Method

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3.油气并用时，油膜有可能渗入气压回路，请在两回路间设置残液排放回路。
4.连续运转会导致内部密封件发热，因此请避免连续运转。
5.各供给口均标有及介面编号。
6.2次侧使用Rc1/4介面采用外配管方式连接时，请使用附带的R1/8螺纹堵头塞住板式连介面。当使用板式连介面时，请安装O形密封圈和R1/4螺纹堵头。

1. The rotation side must be fixed the flange part with of bolt, and restrain only the rotation direction of the stop side.
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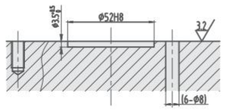
2-Rc1/4螺纹Rc-1/4 Thread
2次侧供给口 Outgoing Port
2-Rc1/4螺纹 2-Rc-1/4 Thread
R螺纹堵头(附带)With BSPT Plug (R-Thread Plug)
4-M8×45 螺栓(附带)
4-M8×1.25×45 Bolt (Included)

12-Rc1/8螺纹 2-Rc-1/8 Thread
R螺纹堵头(附带) With BSPT Plug (R-Thread Plug)
2次侧供给口 Outgoing Port
2-板式连介面2-Gasket Port
O形密封圈: 1BP12(附带)
O-ring: 1BP12 (Included)



仅板式连接需要此项

※1.只有板式连接方式需要此项加工。
2.安装面(O形密封圈的密封面)的表面粗糙度按6.3S加工。

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1. Roughness of mounting surface (O-ring seal surface)should be 6.3S or less.

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

※本图表示CJRC-060SA(8回路)
□This drawing indicates CJRC-080SA(8 Port Circuit)

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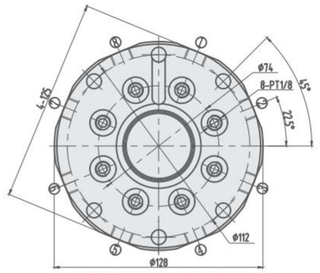
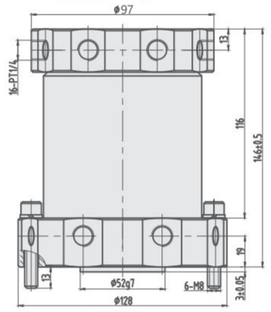
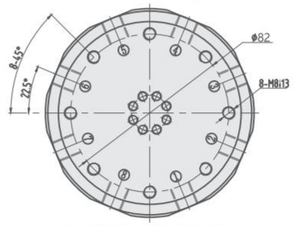
When G thread is necessary for a primary side or secondary side port,please contact us separately.



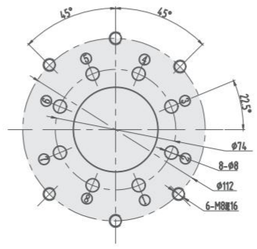
停止侧Stop Side



旋转侧Rotating Side



安装部位加工尺寸
Machining Dimensions of Mounting Area



订购标示法 ORDERING INDICATION
CJRC-080BA
SD

B S:1次侧配管方式 Primary Side Piping Method
A D:2次侧配管方式 Secondary Side Piping Method

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3.油气并用时，油膜有可能渗入气压回路，请在两回路间设置残液排放回路。
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2-Rc1/4螺纹 2-Rc-1/4 Thread
R螺纹堵头(附带)With BSPT Plug (R-Thread Plug)
4-M8×45 螺栓(附带)
4-M8×1.25×45 Bolt (Included)

12-Rc1/8螺纹 2-Rc-1/8 Thread
R螺纹堵头(附带) With BSPT Plug (R-Thread Plug)
2次侧供给口 Outgoing Port
2-板式连介面2-Gasket Port
O形密封圈: 1BP12(附带)
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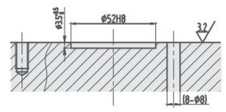

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1. Roughness of mounting surface (O-ring seal surface)should be 6.3S or less.

HB

油压增压器

HB HYDRAULIC BOOSTER

产品特性

本产品机构内附油压顺序阀，预压式特性操作时可将作动缸充满油，达到预先设定之压力，顺序阀动作，即可获得倍数增压。
适用于油压专用机，MC治具低压回路中，部份油压缸需高压操作之场合，仅需一只电磁阀或安装于管路中，即可操作HB增压器，可将低油压自动转换成高油压，获得高压夹持。

FEATURES

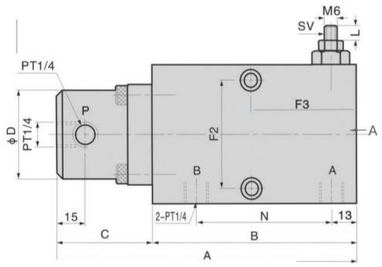
A hydraulic sequential valve is attached to this booster .When operating,it oils cylinder and makes it be at the dual pressure and let the sequential valve act , and then it will have multiple boosting pressure.It's fit for hydraulic special purpose machine and MC clamp in low pressure circuit. It needs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

最大操作压力：50kgf/cm²

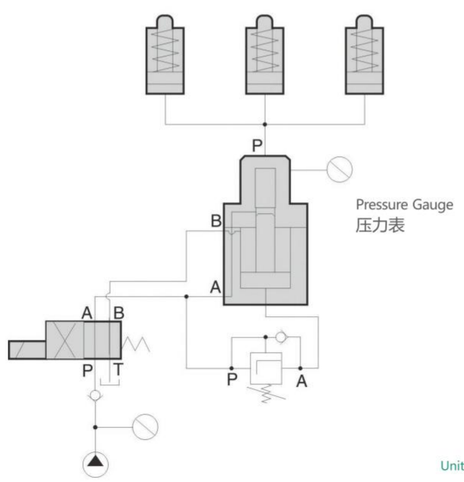
最小操作压力：20kgf/cm²

Max. operating pressure: 50kgf/cm²

Min. operation pressure: 20kgf/cm²



回路图 Circuit diagram



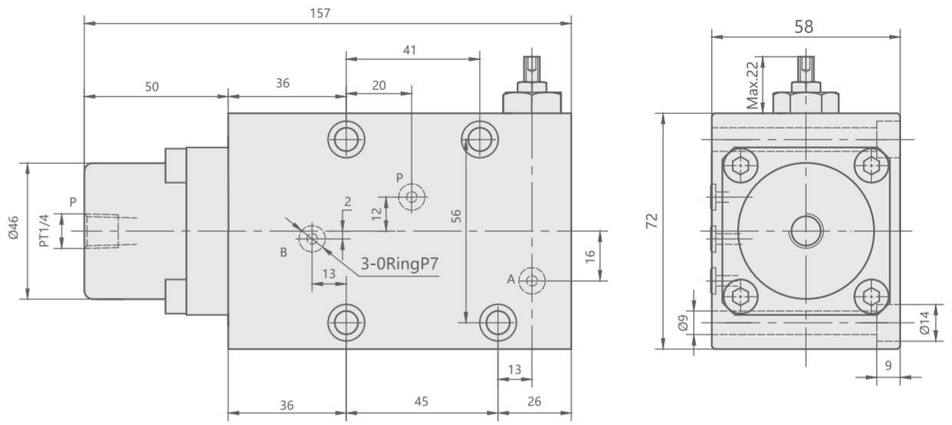
Unit:mm

型号 Model	增压倍数 Multiple boost	高压吐出量 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

使用流体：相当于ISO黏度等级的ISO-VG-32一般液压油　Recommended：ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

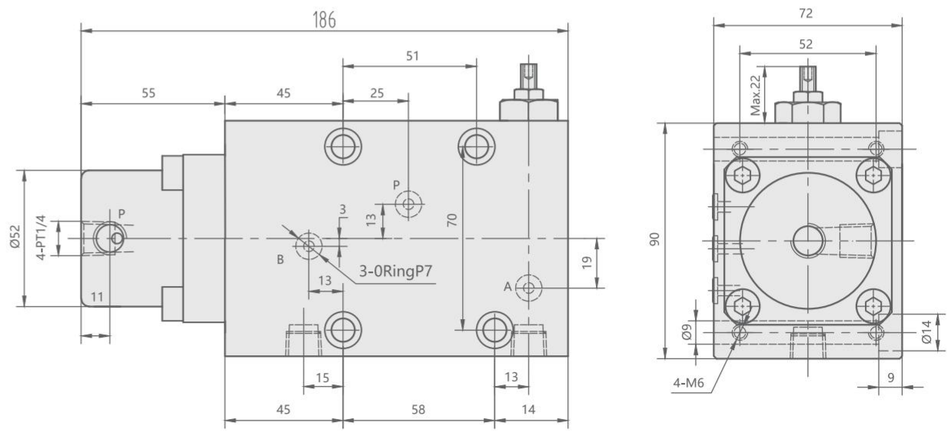
最高操作压力50kg/cm²
Max.operation pressure

油路板型 Manifold type	HB-M3.5X15
	HB-M5X10
	HB-M9X6



最高操作压力120kg/cm²
Max.operation pressure

配管式 Line type	HB-3.2X25
油路板型 Manifold type	HB-M3.2X25
增压倍数 Multiple boost	3.2
高压吐出量 High pressure output	25cc



CJSS
弹簧式蓄能器

CJSS SPRING ACCUMULATOR

产品特性

透过弹簧式蓄能器吸收压力变动，防止因异常高压或低压而导致系统压力变化。

FEATURES

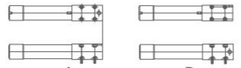
Accumulator absorbs the pressure fluctuation so that it prevents system pressure from variation due to the high or low abnormal pressure.

选配项 OPTIONS

分类	基准使用压力
CLASSIFICATION	STANDARD OPERATING PRESSURE
低压用弹簧式蓄能器 Spring Accumulator for Low Pressure	2/3/4/ MPa

订购标示法 ORDERING INDICATION

示例：CJSS-402HSB

CJSS	系列 Series	CJSS
4	基准使用压力 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	安装方向 Mounting Direction	H：横向安装 H： Horizontal Mounting  V：纵向安装 V： Vertical Mounting
S	配管方式 Piping Method	C： 外配管型 (G螺纹)Piping Option (BSPP Thread (G-Thread) S：外配管型 (Rc螺纹)Piping Option (BSPT (Rc-Thread) G：板式连接型 Gasket Option GC： 板式+外配管型(G螺纹)型Gasket + Piping Option (BSPP Thread (G-Thread) GS： 板式+外配管型(Rc螺纹)型Gasket + Piping Option (BSPT (Rc-Thread)
B	配管方向(H:仅限横向安装且为外配管型： C/S/GC/GS 的情况下) Piping Direction Selected for both H: Horizontal Mounting and Piping Method: C/S/GC/GS	A： 上面配管　A： Top Piping B： 侧面配管　B： Side Piping ※ V： 选择纵向安装时，即为[无标记]。 ※ For V： Vertical Mounting, Piping Direction is 「Blank」. ※ H：横向安装且为外配管型:选择G时，即为[无标记]。 ※ For H: Horizontal Mounting and Piping Method: G, Piping Direction is 「Blank」.  A　B

特性表的解读方法

通过弹簧式蓄能器吸收压力变动，以防止因异常高压或低压而导系统压力变化。

HOW TO READ THE CHARACTERISTIC FORM

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	阀类的容积	温度变化量	使用压力	热膨胀系数
Clamp Used	Piping	Valve Capacity	Temperature Change： ΔT	Operating Pressure： P	Thermal Expansion Coefficient： α
CHA-55×4 台 (1台油夹紧时的油容量 ： 26.7cm3)	内径φ6×2m (1mφ的配管容积：28.3cm3)	20cm³	—20℃	4.0MPa	8×10⁻⁴

选型方法

1.夹具回路容积(V)的计算
油缸容积+配管容积+阀类的容积
V = (26.7×4) + (28.3×2) + 20 = 183.4 cm³

2.变化容积 (▵V) 的计算
夹具回路容量(V)x热膨胀系数(α)温度变化量(▵T)
ΔV = 183.4 × (8×10⁻⁴) × (-20) = -2.93 cm³

3.蓄能器型号的选定
根据使用压力(P)= 4.0MPa，选定 CJSS4□□□
根据变化容积 (ΔV)= -2.93cm³，选定 CJSS405 (变化容积超出范围时，请考虑容积大的[CJSS410] 弹簧式蓄能器。)

4.弹式蓄能器特性的确认
温度变化(-20°C)后的压力： 2.92MPa
残余吐出容积的剩余值： 2.07cm³

5.请选定安装方向、配管口、配管方向。

SELECTION METHOD

1. Calculate Fixture Circuit Capacity (V)
Clamp Capacity + Pipe Capacity + Valve Capacity
V =(26.7x4) +(28.3x2) + 20 = 183.4 cm³

2.Calculate Change in Capacity (▵V)
Fixture Circuit Capacity (V) x Thermal Expansion Coefpcient (α)x Amount of Temperature Change (▵T) ， ▵V = 183.4 x (8x10⁻⁴ x(-20)=-2.93 cm³

3. Select Accumulator Mode
Operating Pressure (P)= 4.0MPa select CJSS4□□□
Change in Capacity (▵V)= -2.93cm³ select CJSS405.(If the required discharge capacity is greater than range select larger accumulator [e.g.CJSS410].)

4. Check the Accumulator Characteristics
Pressure after Temperature Change (-20°C) : 2.92MPa
Residual Oil Discharge Margin : 2.07cm³

5. Select the Attachment and Piping Methods.

注意事项

1.请考虑弹簧力的固有差异，在选择油容积时留有余量。
【余量油量的标准：CJSS□02···0.5cm³、CJSS□05···1.0cm³、CJSS□10···1.5cm³】

NOTE

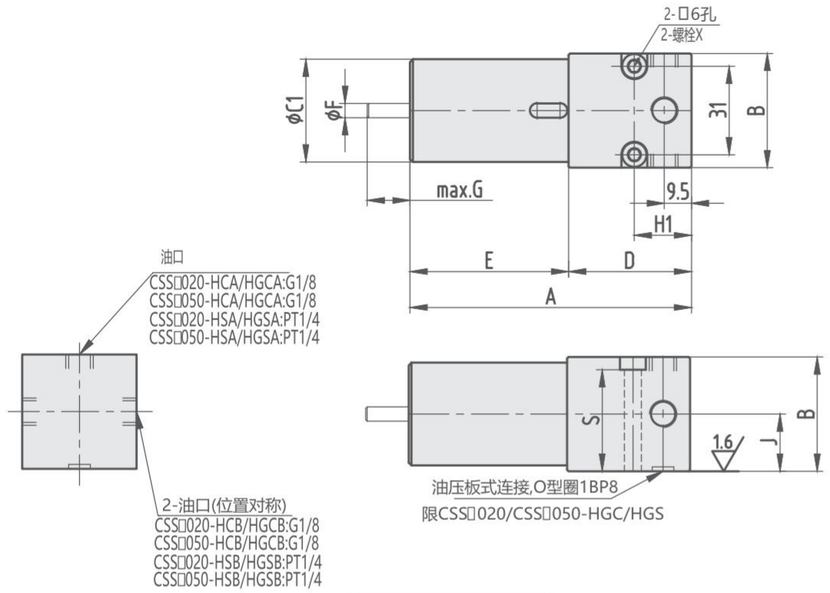
1. When marking your selection, calculate tolerance for the oil capacity taking the spring force deviation into consideration.
[Approximate amount of spare oil： CJSS□02···0.5cm³、CJSS□05·..1.0cm³、CJSS□10···1.5cm³]

规格参数表 SPECIFICATIONS

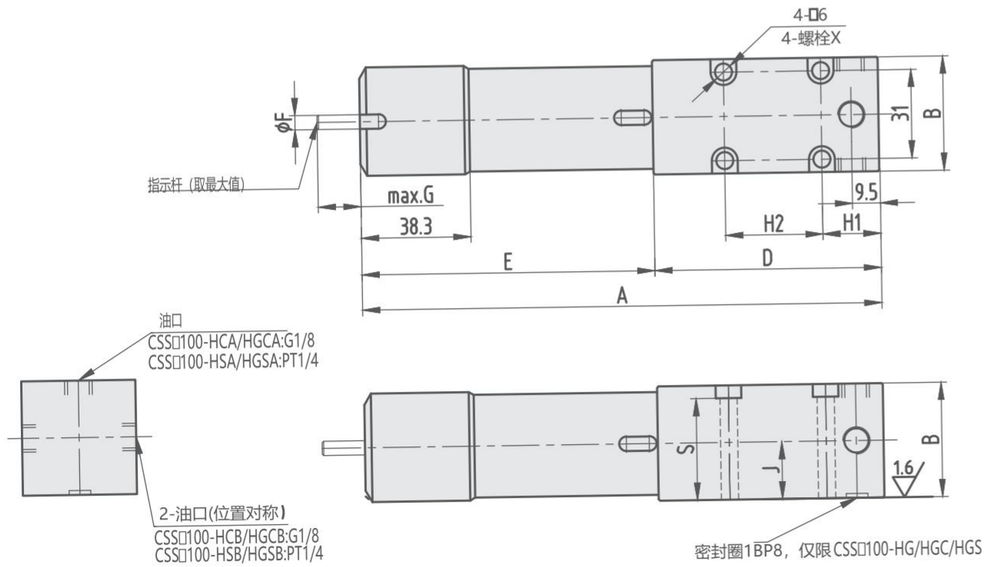
型号 MODEL	基准使用压力 STANDARD OPERATING PRESSURE (MPa)	耐压 WITHSTANDING PRESSURE (MPa)	吐出油量 DISCHARGE OIL CAPACITY (cm³)	吸入油量 ABSORBING CAPACITY (cm³)	压缩系数 (β) ※1 Compression Factor(β) ※1 (MPa/cm³)	重量 WEIGHT(kg)	使用温度 OPERATING TEMPERATURE(℃)	使用流体 USABLE FLUID
CJSS-202	2.0	14.0	2.5	1.0	0.40	0.8	0~70	相当于ISO黏度等级的ISO-VG-32一般液压油 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□□

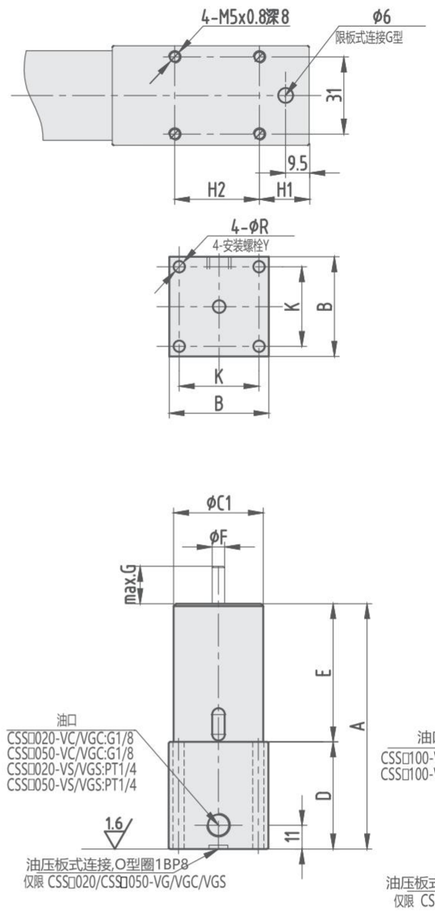


CJSS□ 10-H□□

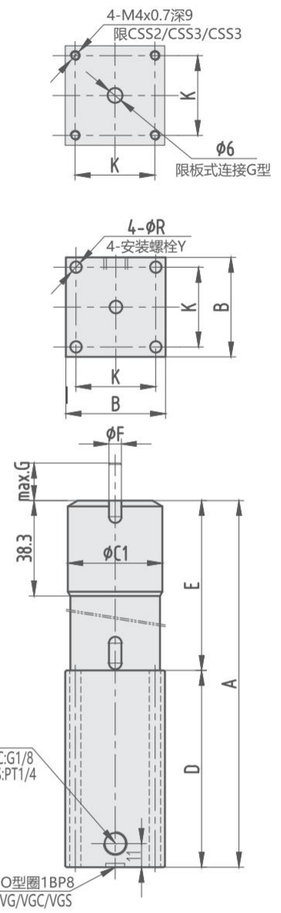


安装部位加工尺寸
MACHINING DIMENSIONS OF MOUNTING AREA

CJSS□02-V□



CJSS□10-V□



Unit:mm

MODEL	A	B	C1	C2	D	E	F	G※1	H1	H2	J	K	R	S	安装螺栓X Mounting Bolt X	安装螺栓X 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.指示器会随压力变化而顶出。计划空间布置时需要考虑指示器的最大顶出量，以避免与其他部位的干涉。
※2.G(板式连接型)的安装面(O形密封圈密封面)的表面粗糙度应按6.3S加工。
1.请勿擅自对本产品进行解体。产品内置有弹簧，擅自拆卸往往会导致零部件弹出，非常危险。

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

储能器

ADB-A ACCUMULATOR

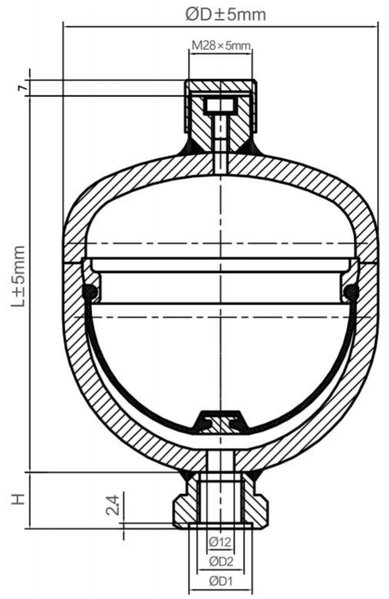
产品特性

隔膜式蓄能器具有储存能量、吸收冲击、补偿漏损、传递压力作紧急能源等作用。在液压系统中，能避免管路元件损坏，延长设备的使用寿命减少停工损失，提高系统的可靠性和工作效率，节约能源。具有结构紧凑、体积小、重量轻等优点。特别适合于工程矿山机械、汽车工业工程装载机械、林业机械、液压机床、液压夹具和液压试验机等使用。

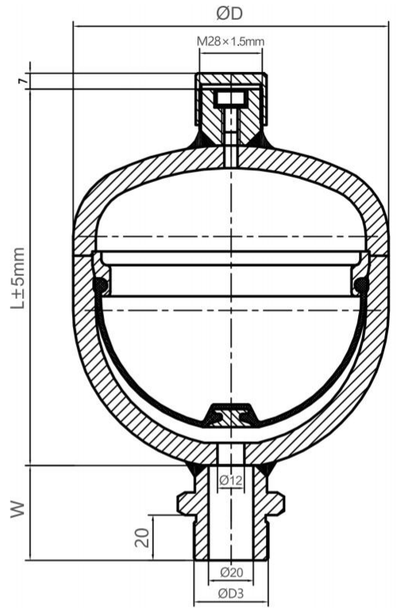
订购标示法 ORDERING INDICATION

示例：ADB-A/0075-33

ADB	系列 Series	ADB
A	连接方式	A型 C型
0.075	公称容积	0.075L~3.5L
33	公称压力	33MPa
备注	充氮压力值	隔膜式蓄能器根据最低使用压力充存氮气。 充氮压力为最低工作压力的0.8倍, 订购时请备注充氮压力值。



A 型连接口



C型连接口

ADB数据表

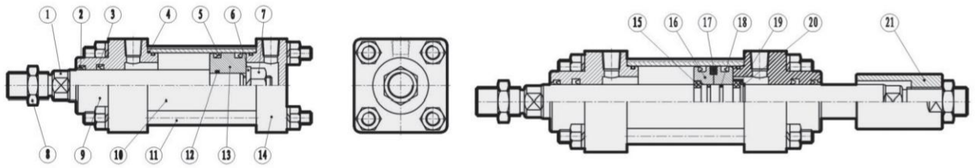
Unit:mm

型号 MODEL	公称容积 L	工作压力 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
系列轻型油压缸

CMO SERIES
HYDRAULIC CYLINDER

轻型油压缸结构图 INSIDE STRUCTURE



CMOB　　CMODR

NO	零件名 Part name	数量 Quantity	NO	零件名 Part name	数量 Quantity	NO	零件名 Part name	数量 Quantity
1	活塞杆Piston rod	1	8	轴心螺母Rod nut	1	15	半卡环Half snap ring	2
2	防尘油封Dustproof seal	1	9	前端盖Rod cover	1	16	铜活塞Copper piston	1
3	轴用油封Oil seal for shaft	1	10	缸筒Cylinder tube	1	17	磁环Magnet ring	1
4	O型圈 Gasket	2	11	拉悍Tie rod	4	18	O型圈 Gasket	2
5	活塞油封Piston seal	2	12	O型圈Gasket	1	19	挡环Baffle ring	1
6	弹性垫圈Spring washer	1	13	活塞Piston	1	20	轴用挡圈Washer on shaft	1
7	螺母 Nut	1	14	后端盖End cover	1	21	可调螺母Adjustable nut	1

轻型油压缸特性资料 Specifications

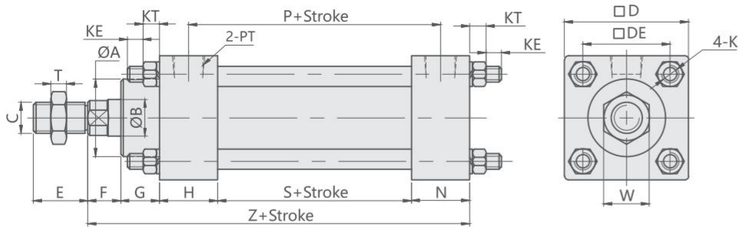
油缸内径Hydraulic cylinder inside diameter(mm)	Φ30	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125
工作流体Power Fluid	以滤清之标准液压油Filtered Oil						
缸管材质Material of cylinder barrel	碳钢管 Carbon steel STKM-13c/ 白铁管 Stainless tubes SUS 304/AL Tube A6063TDS-T5						
使用压力范围The range of pressure(MPa)	0.3-7.0 MPa(3-70kg/cm²)						
使用速度范围The range of speed (mm/sec)	8~300(mm/sec)						
使用温度范围Range of temperature(℃)	-10 ~ + 60 (℃)						
标准活塞长度Length of standard piston (PM)	30	30	30	30	35	50	50
订制行程于1501-2500mm间活塞长度(PM) Piston length when the stroke is between 1501-2500 mm	60	60	60	60	70	100	100
订制行程于2501-4000mm间活塞长度(PM) Piston length when the stroke is between 2501-4000 mm	120	120	120	120	140	150	150

订购标示法 ORDERING INDICATION

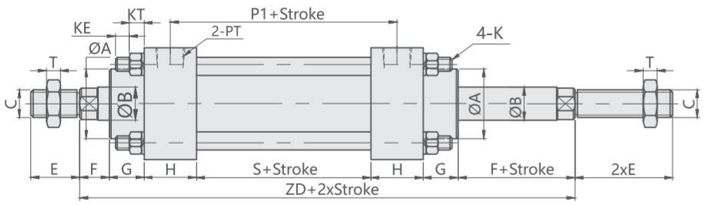
示例：CMOB-R-D-63/25-100-LB-Y

CMOB	系列 Series	CMOB标准型 Standard type　CMOD 双轴型 Double Rods type
R	磁性感应 Magnetic	无记号：不附磁石　Blank: No magnet R：内附磁石　R:Magnet
D	固定缓冲型式 Flxed Cushioning Type	无记号:无　Blank: No cushion　D:双侧缓冲 cushions on both ends F:前盖侧缓冲 cushion on head cover　B:后盖侧缓冲 cushion on end cover
63	油缸内径 Hydraulic cylinder inside diameter	Φ30　Φ40　Φ50　Φ63　Φ80　Φ100　Φ125
25	轴心 Rod	标准Standard　Φ16　Φ20　Φ20　Φ25　Φ30　Φ35　Φ50 最大Max　-　Φ25　Φ30　Φ35　Φ40　Φ50　Φ60 无记号:标准轴心 Blank: standard rod
100	行程 Stroke	无记号:标准轴心 钢管Steel barrel（Φ30-Φ125）　最大行程：4米　Max:4m 白钢管Iron barrel（Φ40-Φ100）　最大行程：2.8米 Max:2.8m 标准行程Standard stroke：50，100，150，200，250，300，350，400，450，500，600，700，800，900，1000.
LB	缸体固定型式 Accessories for body	FA 前法兰型 Front flange　CA 單耳型 Single trunnion FB 后法兰 Rear flange　CB 雙耳型Double trunnion LB 脚座型 Foot mount　CBP CB+Pin CB with pin TC 耳轴型 Trunnion type　CAB CA+P+CB
Y	轴心固定型式 Accessories for rod	Y Y型接头 Y joint　PHS 鱼眼接头 Rod-eye joint YP Y+Pin Y with pin　T T型接头 T joint I I型接头 I joint　H 焊套接头Welding sleeve joint KG 浮动接头 Floating joint　A 可调螺帽Adjustable nut

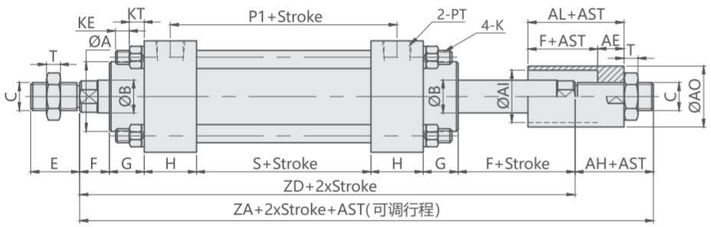
CMOB基本型 CMOB BASIC TYPE



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	75	75	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	80	80	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	79	80	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	81	81	3/8"	M10X1.25	10	10.5	50	32	13	162	247	212	35	20	35	45	40
Φ80	62	30	M26x1.5	106	74	40	20	32	37	35	91	92	1/2"	M12X1.25	10	13	55	35	13	179	268	233	35	20	40	50	40
Φ100	78	35	M30x1.5	122	89	45	20	32	37	37	117	117	1/2"	M14X1.5	10	14.5	80	41	13	206	298	258	40	25	45	60	45
Φ125	85	50	M40x2.0	147	110	55	25	31	40	40	120	120	1/2"	M16X1.5	10	17	80	55	15	216	322	272	50	30	60	80	55

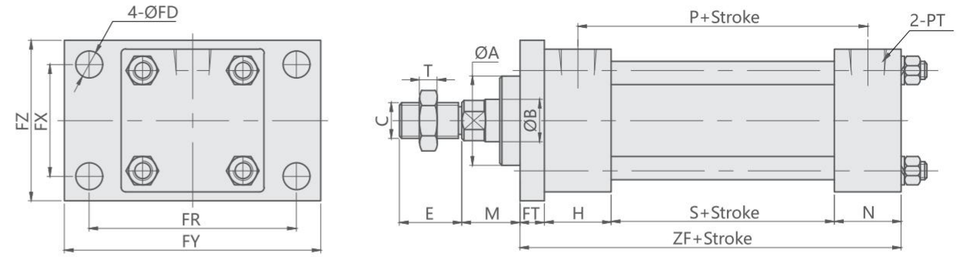
注意事项

1.轴心加大如未注明长度尺寸时，依照本公司规定自行加工。
2.CFO系列行程未超过1500mm时，活塞长度(PM)如附表，订制行程如超过1500mm时，活塞长度参阅特性资料表。
3.CMO系列行程超过2000mm(含)时，须加拉杆中间固定座。
4.CMO系列缸径40-50油缸之行程超过500mm(含)以上时，轴心牙改为M18*P1.5。
5.AST为客户指定之可调行程。

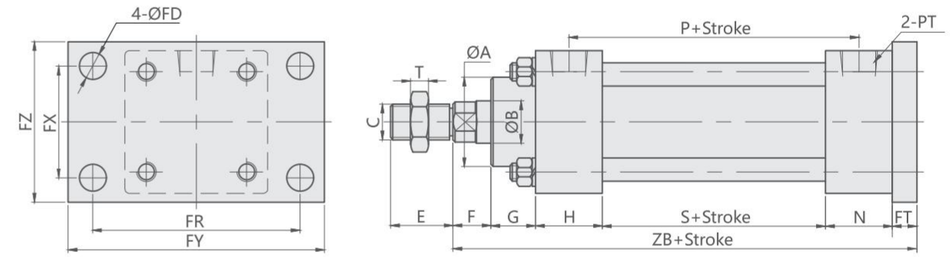
NOTE

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, whose stroke is equal to or more than 500mm.
5. AST stands for the adjustable stroke designated by customers.

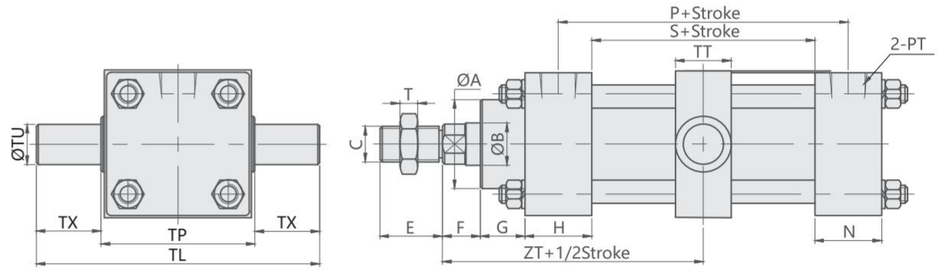
CMOB-FA 前法兰型 CMOB-FA FRONT FLANGE TYPE



CMOB-FB 后法兰型 CMOB-FB REAR FLANGE TYPE



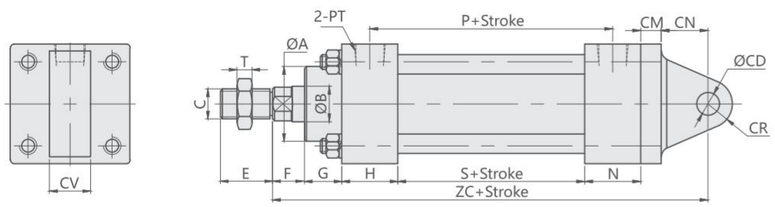
CMOB+TC 中耳轴型 CMOB+TC MIDDLE TRUNNION TYPE



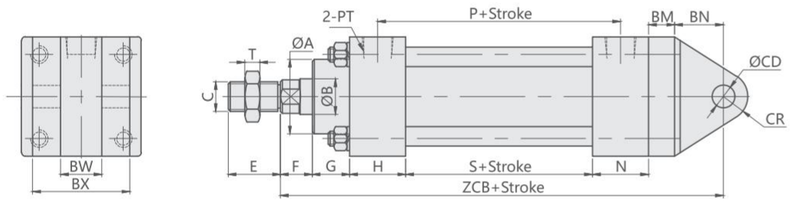
Unit:mm

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

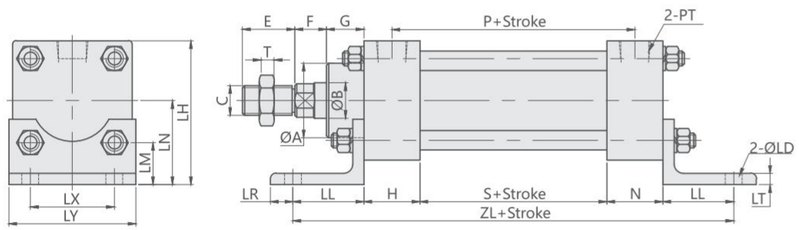
CMOB+CA 单耳型 Single Trunnion Mounting Type



CMOB+CB 双耳型 Double Trunnion Mounting Type



CMOB+LB 前后脚座型 Front & Rear Foot Mounting Type



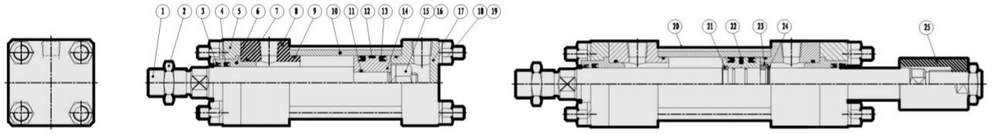
Unit:mm

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	75	1/4"	50	8	159	10	10	11	20	16	162	12	22	16	48	156	9	60	35	18	28	10	5	34	53
Φ40	40	20	M16x1.5	28	17	20	30	30	80	3/8"	50	8	183	12	13	11	25	22	187	14	26	22	62	186	9	77	45	22.5	38	12	6	45	68
Φ50	45	20	M16x1.5	28	17	20	30	28	79	3/8"	50	8	181	12	13	12	24	22	185	14	26	22	68	184	11	81	46	21	38	12	6	50	73
Φ63	55	25	M22x1.5	40	20	30	31	31	81	3/8"	50	13	212	20	24	19	31	30	212	18	32	30	81	188	11	96	53	23	38	12	6	60	88
Φ80	62	30	M26x1.5	40	20	32	37	35	91	1/2"	55	13	247	30	30	18	50	30	247	18	50	31	61	199	13	113	60	23	36	14	6	74	105
Φ100	78	35	M30x1.5	45	20	32	37	37	117	1/2"	80	13	279	35	35	18	55	35	279	18	55	36	76	250	16	139	78	33.5	48	27	9	89	127
Φ125	85	50	M40x2.0	55	25	31	40	40	120	1/2"	80	15	289	35	35	18	55	35	289	18	55	36	76	262	18	161	87	32	51	24	9	110	150

CHO
系列重型油压缸

CHO SERIES
HYDRAULIC CYLINDER

重型油压缸结构图 INSIDE STRUCTURE



CHOB

CHOD

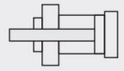
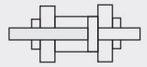
NO	零件名Part name	数量Quantity	NO	零件名Part name	数量Quantity	NO	零件名Part name	数量Quantity
1	活塞杆Piston rod	1	9,11	O型圈Gasket	3	18	螺母nut	8
2	锁紧螺母Locking nut	1	10	缸筒Cylinder tube	1	19	弹性垫圈Spring washer	8
3	防尘油封Dustproof seal	1	12	耐磨环Wearing ring	1	20	拉杆Tie rod	4
4	轴用油封Oil seal for shaft	1	13	活塞油封Piston seal	2	21	半卡环Half snap ring	2
5	压盖Gland	1	14	活塞Piston	1	22	磁环Magnet ring	1
6	导向套Guide sleeve	1	15	螺母Nut	1	23	挡环Baffle ring	1
7	O型圈Gasket	1	16	弹性垫圈Spring washer	1	24	轴用挡圈Rod baffle ring	1
8	前端盖Rod cover	1	17	后端盖End cover	1	25	可调螺母Adjustable nut	1

重型油压缸特性资料 Specifications

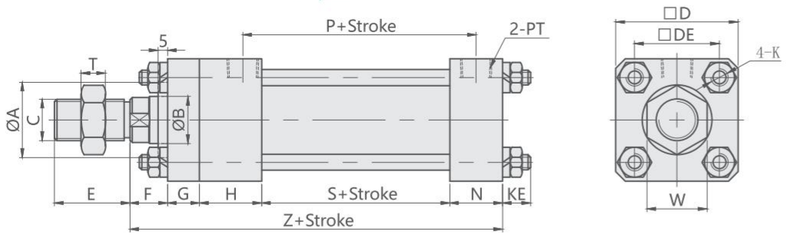
油缸内径Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150	Φ180	Φ200
工作流体 Power Fluid	以滤清之标准液压油 Filtered Oil								
缸管材质 Material of cylinder barrel	碳钢管Carbon steel STKM-13c/白铁管Stainless tubes SUS 304								
使用压力范围 The range of pressure(MPa)	0.3-14 MPa(3-140kg/cm²)								
使用速度范围 The range of speed (mm/sec)	8~300(mm/sec)								
使用温度范围 Range of temperature(℃)	-10 ~ + 60 (℃)								
缓冲行程 Cushion stroke(mm)	25	25	25	30	35	40	45	50	55
标准活塞长度 Length of standard piston (PM)	30	35	35	50	60	70	60	70	70
订制行程于1501-2500mm 间活塞长度 (PM) Piston length when the stroke is between 1501-2500 mm	60	70	70	80	100	100	100	140	140
订制行程于2501-4000mm间活塞长度 (PM) Piston length when the stroke is between 2501-4000 mm	120	140	140	150	180	180	180	200	200

订购标示法 ORDERING INDICATION

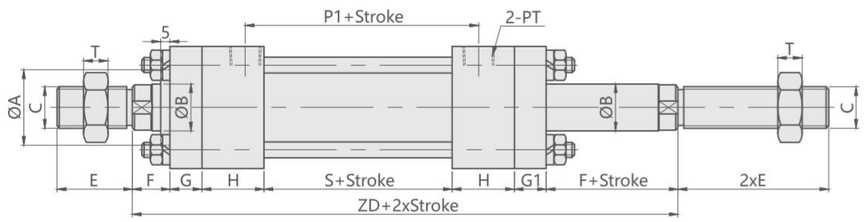
示例:CHOB-R-D-63/35-100-LB-Y

CHOB	系列 Series	CHOB 标准型 Standard type  CHOD 双轴型 Double Rods type 
R	磁性感应 Magnetic	无记号:不附磁石 Blank: No magnet R: 内附磁石 （适用Φ40-Φ100）With magnet 本系列适用Φ40-Φ100 apply to bore Φ40-Φ100
D	固定缓冲型式 Fixed Cushioning Type	无记号:无 Blank: No cushion D: 双侧缓冲 cushions on both ends F: 前盖侧缓冲 cushion on head cover B: 后盖侧缓冲 cushion on end cover
63	油缸内径 Hydraulic cylinder inside diameter	Φ40 Φ50 Φ63 Φ80 Φ100 Φ125 Φ150 Φ180 Φ200
35	轴心 Rod	标准Standard Φ25 Φ30 Φ35 Φ40 Φ50 Φ60 Φ80 Φ100 Φ100 最大Max - Φ35 Φ40 Φ50 Φ60 Φ80 Φ100 Φ120 Φ120 无记号:标准轴心 Blank: standard rod
100	行程 Stroke	钢管Steel barrel（Φ40-Φ125） 最大行程：4米 Max:4m 白钢管Iron barrel（Φ40-Φ100） 最大行程：2.8米 Max:2.8m 标准行程Standard stroke：50，100，150，200，250，300，350，400，450，500，600，700，800，900，1000.
LB	缸体固定型式 Accessories for body	FA 前法兰型 Front flange  CA 单耳型 Single trunnion  FB 后法兰 Rear flange  CB 双耳型Double trunnion  LB 脚座型 Foot mount  CBP CB附Pin CB with pin  TC 耳轴型 Trunnion type  CAB CA+P+CB  LA 脚座型 Foot type 
Y	轴心固定型式 Accessories for rod	Y Y型接头 Y joint  PHS 鱼眼接头 Rod-eye joint  YP Y+Pin Y with pin  T T型接头 T joint  I I型接头 I joint  H 焊套接头Welding sleeve joint  KG 浮动接头 Floating joint  A 可调螺帽Adjustable nut 

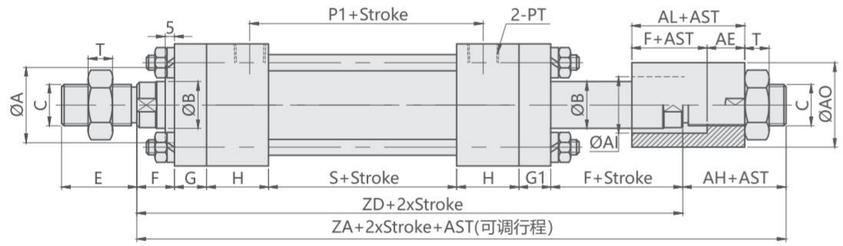
CHOB基本型 CHOB BASIC TYPE



CHOD 双轴型 CHOD DOUBLE END ROD TYPE



CHOD-A 双轴型附可调帽 CHOD-A ADJUSTABLE DOUBLE END ROD TYPE



Unit:mm

CHOB-CHOD TYPE																									A(可调行程)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

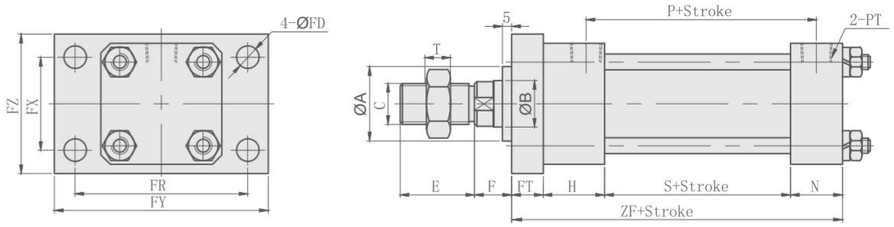
注意事项

1.轴心加大如未注明长度尺寸时，依照本公司规定自行加工。
2.CHO系列行程未超过1500mm时，活塞长度(PM)如附表，订制行程如超过1500mm时，活塞长度(PM)请参阅特性资料表。
3.本系列行程超过2000mm(含)时，须加拉杆中间固定座。
4.本系列行程轴心螺帽规格M50mm(含)以上时，其外径为圆形。
5.AST为客户指定之可调行程。

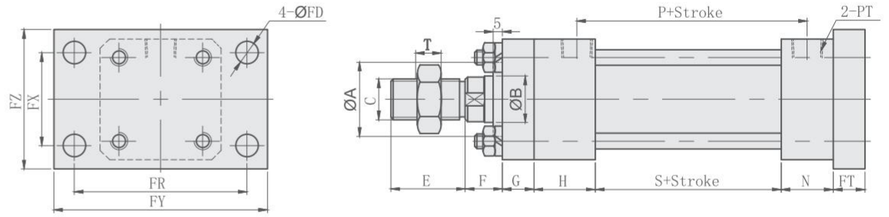
NOTE

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.
3Middle 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 rod nut is equal to or more than M50mm.
5.AST stands for adjustable stroke designated by customers.

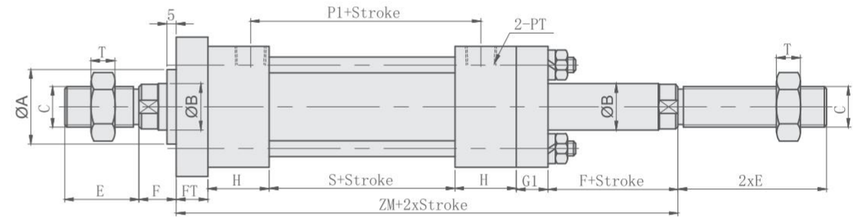
CHOB-FA前法兰型 CHOB-FA FRONT FLANGE TYPE



CHOB-FB后法兰型 CHOB-FB REAR FLANGE TYPE



CHOD-FA 双轴前法兰型 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

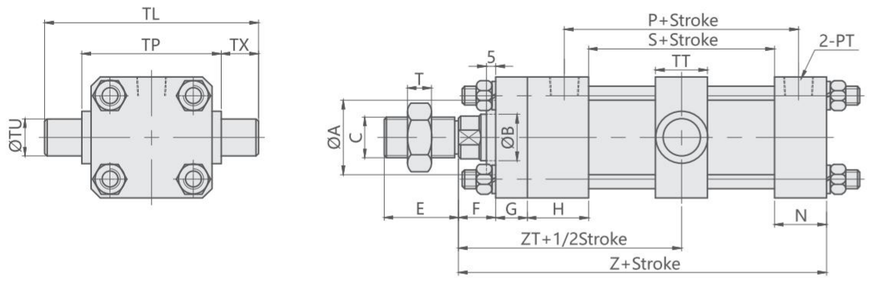
注意事项

1.轴心加大如未注明长度尺寸时，依照本公司规定自行加工。
2.CHO系列行程未超过1500mm时，活塞长度(PM)如附表，订制行程如超过1500mm时，活塞长度(PM)请参阅特性资料表。
3.本系列轴心螺帽规格M50mm(含以上时)，其外径为圆形。

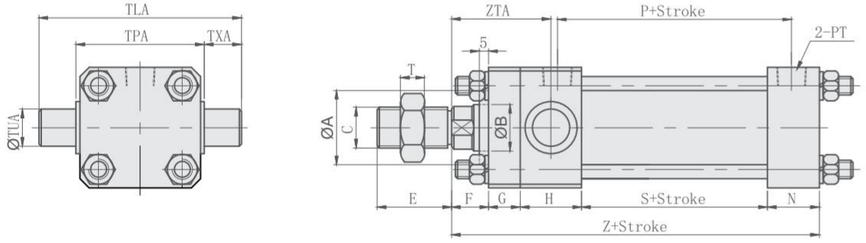
NOTE

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 round when the size of rod nut is more than M50mm.

CHOB+TC中耳轴型CHOB+TC MIDDLE TRUNNION TYPE



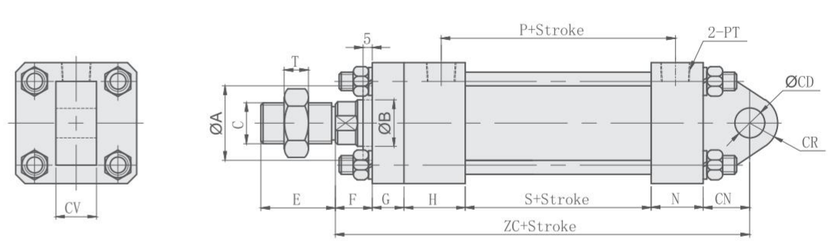
CHOB+TA前耳轴型CHOB+TA FRONT TRUNNION TYPE



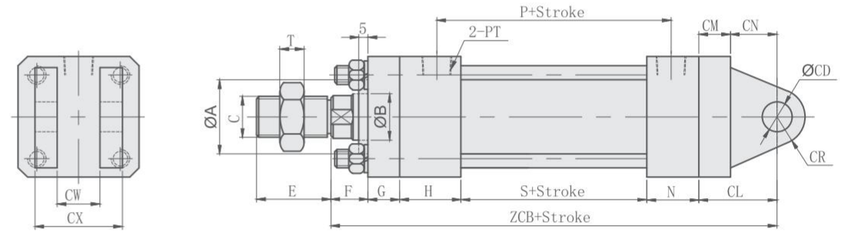
Unit:mm

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单耳环型 CHOB+CA SINGLE TRUNNION



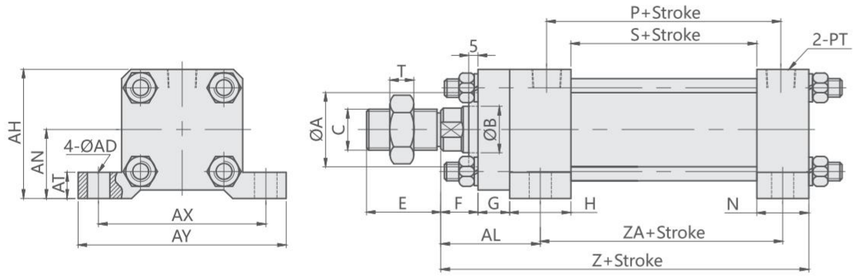
CHOB+CB 双耳环型 CHOB+CB DOUBLE TRUNNION



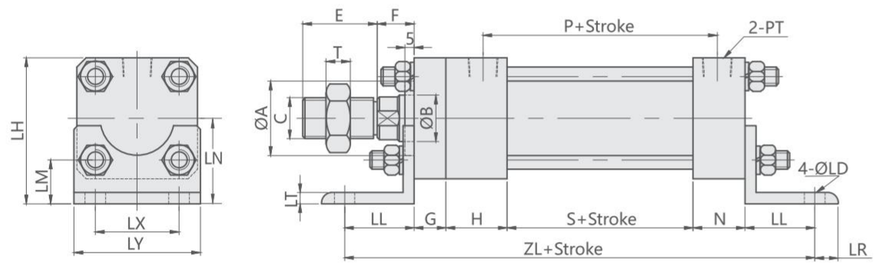
Unit:mm

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 左右脚座型 CHOB+LA FEET SEAT TYPE

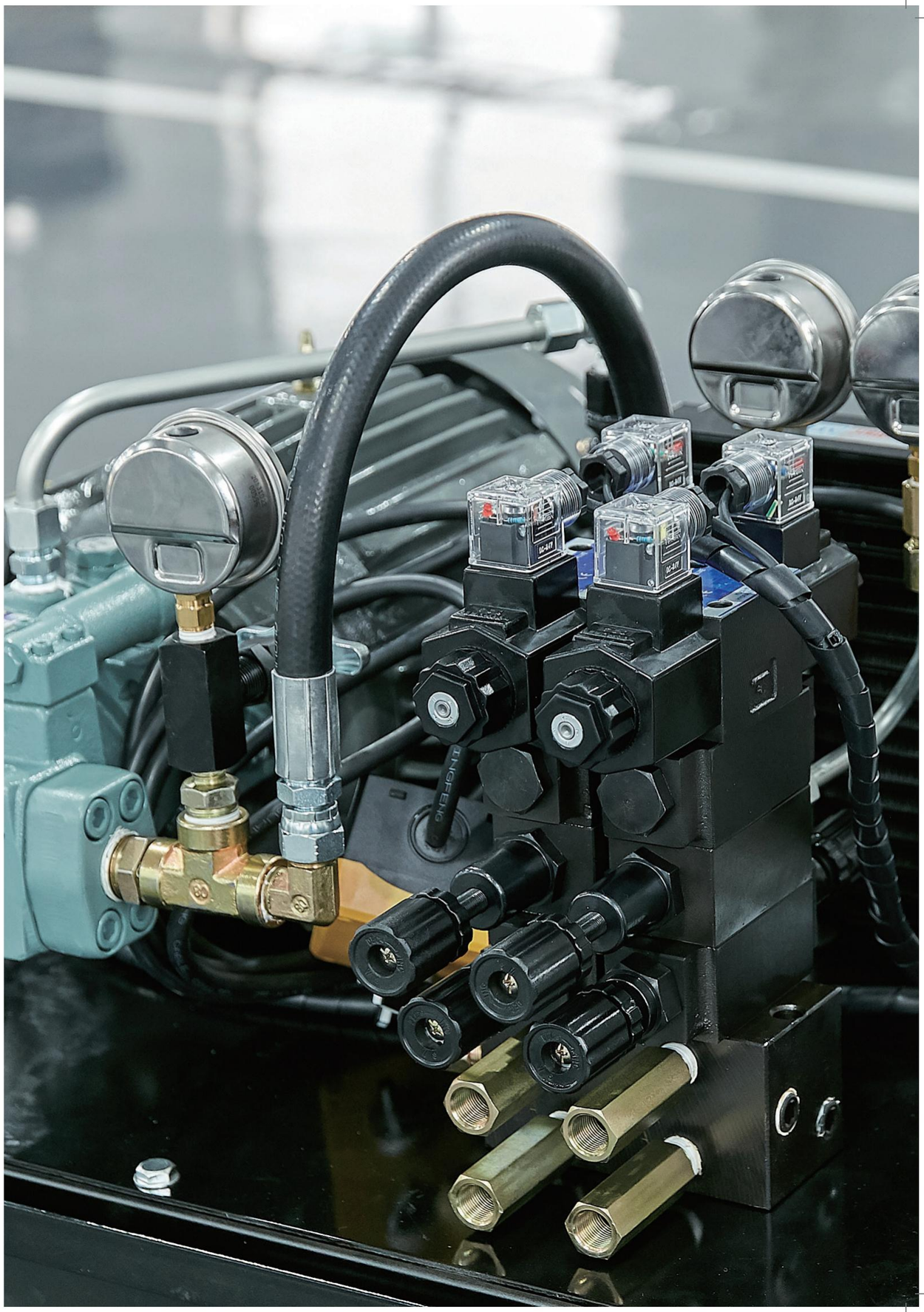


CHOB+LB 前后脚座型 CHOB+LB COURSE OF A TYPE



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	57.5
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	57
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

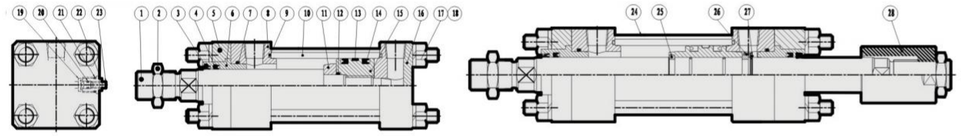


CFO

系列可调缓冲油压缸

CFO SERIES 14 MPA ADIUSTABLE CUSHIONING HYDRAULIC CYLINDER

可调缓冲油压缸结构图 INSIDE STRUCTURE



CFOBD

CFODD

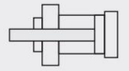
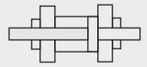
NO	零件名Part name	数量 Quantity	NO	零件名Part name	数量 Quantity	NO	零件名Part name	数量 Quantity
1	活塞杆Piston rod	1	10	缸筒 Cylinder tube	1	19	可调螺母 Adjustable nut	1
2	锁紧螺母Locking nut	1	11	缓冲套 Cushion collar	1	20.21	O型圈 Gasket	2
3	防尘油封 Dustproof seal	1	12	O型圈Gasket	1	22	六角螺母 Hexagon nut	1
4	轴用油封 Oil seal for shaft	1	13	耐磨环Wearing ring	1	23	调节丝杆Adjustable lead screw	1
5	压盖 Gland	1	14	活塞油封Piston seal	2	24	拉杆Tie rod	4
6	导向套Guide sleeve	1	15	活塞Piston	1	25	半卡环Half snap ring	2
7	O型圈Gasket	1	16	后端盖End cover	1	26	挡环Baffle ring	1
8	前端盖 Rod cover	1	17	螺母Nut	8	27	轴用挡圈Rod baffle ring	1
9	O型圈 Gasket	2	18	弹性垫圈Spring washer	8	28	可调螺母Adjustable nut	1

可调缓冲油压缸特性资料 Specifications

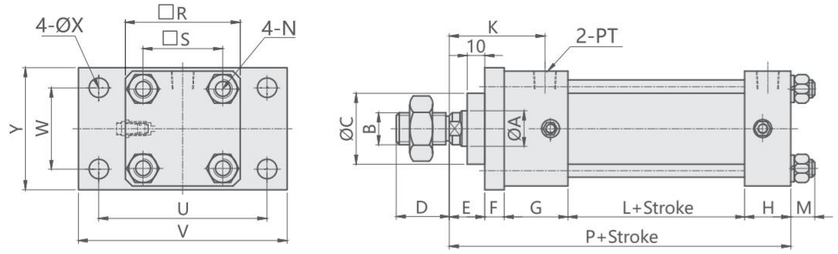
油缸内径 Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125
工作流体 Power Fluid	以滤清之标准液压油 Filtered Oil					
缸管材质 Material of cylinder barrel	碳钢管Carbon steel STKM-13c/白铁管Stainless tubes SUS 304					
使用压力范围 The range of pressure(MPa)	0.3-14 MPa (3-140kg/cm²)					
使用速度范围 The range of speed (mm/sec)	8~300(mm/sec)					
使用温度范围 Range of temperature(℃)	-10 ~ + 60 (℃)					
缓冲行程 Cushion stroke(mm)	25	25	25	25	30	30
标准活塞长度 Length of standard piston (PM)	30	32	36	40	59	59
订制行程于1501-2500mm 间活塞长度 (PM) Piston length when the stroke is between 1501-2500 mm	60	65	65	80	120	120

订购标示法 ORDERING INDICATION

示例：CFOB-R-D-63/35-100-LB-Y

CFOB	系列 Series	CFOB 标准型 Standard type  CFOD 双轴型 Double Rods type 
R	磁性感应 Magnetic	无记号:不附磁石 Blank: No magnet R: 内附磁石 (适用Φ40-Φ100) With magnet 本系列适用Φ40-Φ100 apply to bore Φ40-Φ100
D	固定缓冲型式 Fixed Cushioning Type	无记号:无 Blank: No cushion D: 双侧缓冲 cushions on both ends F：前盖侧缓冲cushion on head cover B:后盖侧缓冲 cushion on end cover
63	油缸内径 Hydraulic cylinder inside diameter	Φ40 Φ50 Φ63 Φ80 Φ100 Φ125
35	轴心 Rod	Φ20 Φ30 Φ35 Φ40 Φ50 Φ60 无记号:标准轴心 Blank: standard rod
100	行程 Stroke	钢管Steel barrel（Φ40-Φ200） 最大行程：4米 Max:4m 白钢管Iron barrel（Φ40-Φ100） 最大行程：2.8米 Max:2.8m 标准行程Standard stroke：50，100，150，200，250，300，350，400，450，500，600，700，800，900，1000.
LB	缸体固定型式 Accessories for body	FA前法兰型Front flange type  LA 脚座型 Foot type  FB后法兰型 Rear flange type  TC 耳轴型 Trunnion type  LB脚座型Foot type  CA 单耳型 Single trunnion type  CB双耳环型Double trunnion type  CAB CA+P+CB  CBP CB 附Pin CB with pin 
Y	轴心固定型式 Accessories for rod	Y Y型接头Y joint  PHS 鱼眼接头 Rod-eye joint  YP Y+Pin Y with pin  T T型接头 T joint  I I型接头 I joint  H 焊套接头Welding sleeve joint  KG 浮动接头 Floating joint  A 可调螺帽Adjustable nut 

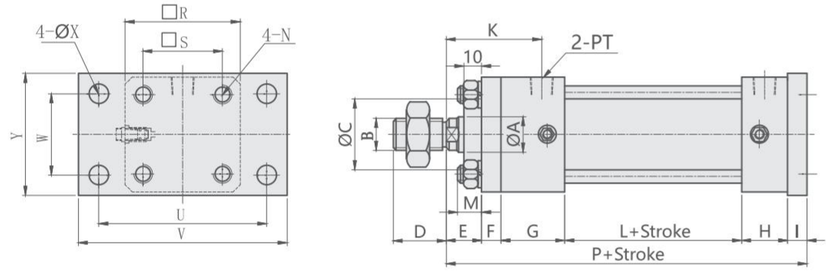
标准 CFOBD+FA型 前法兰型 Front Flange Mounting Type



Unit:mm

本体尺寸dimensions																安装相关尺寸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

标准 CFOBD+FB型 后法兰型 Rear Flange Mounting Type



Unit:mm

本体尺寸dimensions																安装相关尺寸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

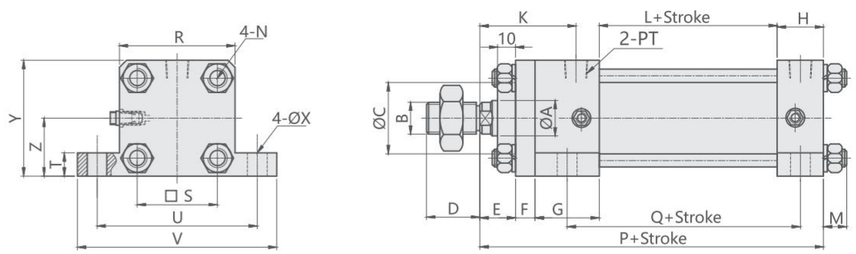
注意事项

1.轴心加大如未注明长度尺寸时，依照本公司规定自行加工。
2.CFO系列行程未超过1500mm时，活塞长度(PM)如附表，订制行程如超过1500mm时，活塞长度参阅特性资料表。
3.本系列行程超过2000mm(含)时，须加拉杆中间固定座。
4.本系列轴心螺帽规格M50mm(含)以上时，其外径为圆形。
5.AST为客户指定之可调行程。

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 series 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.

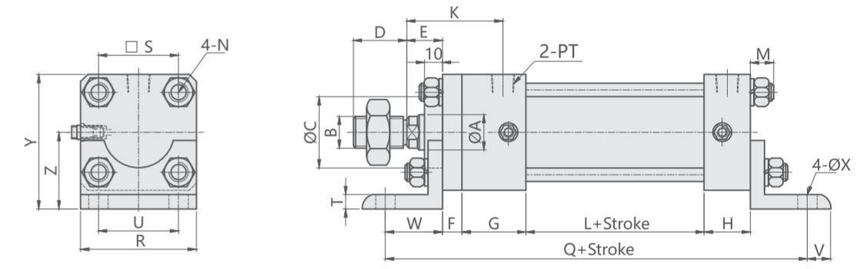
标准 CFOBD+LA型 左右脚座型 Right & Left Foot Mounting Type



Unit:mm

本体尺寸dimensions																安装相关尺寸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

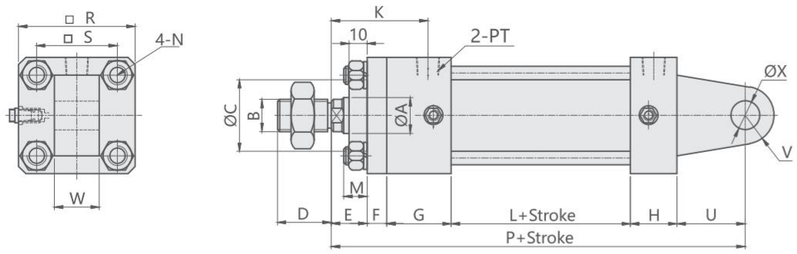
标准 CFOBD+LB型 前后脚座型 Front & Rear Foot Mounting Type



Unit:mm

本体尺寸dimensions																安装相关尺寸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

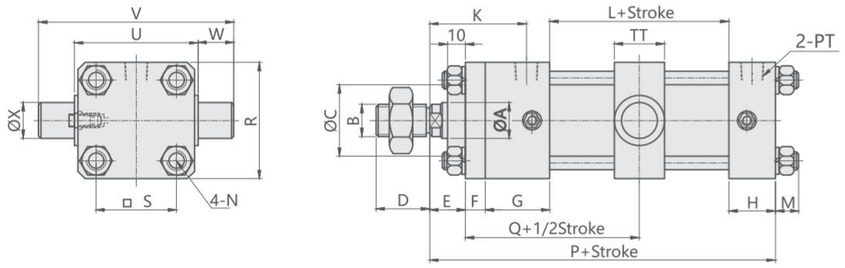
标准 CFOBD+CA型 单耳型 Single Trunion Mounting Type



Unit:mm

本体尺寸dimensions												安装相关尺寸mounting dimensions							
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

标准 CFOBD+TC型 耳轴型 Trunnion Mounting Type



Unit:mm

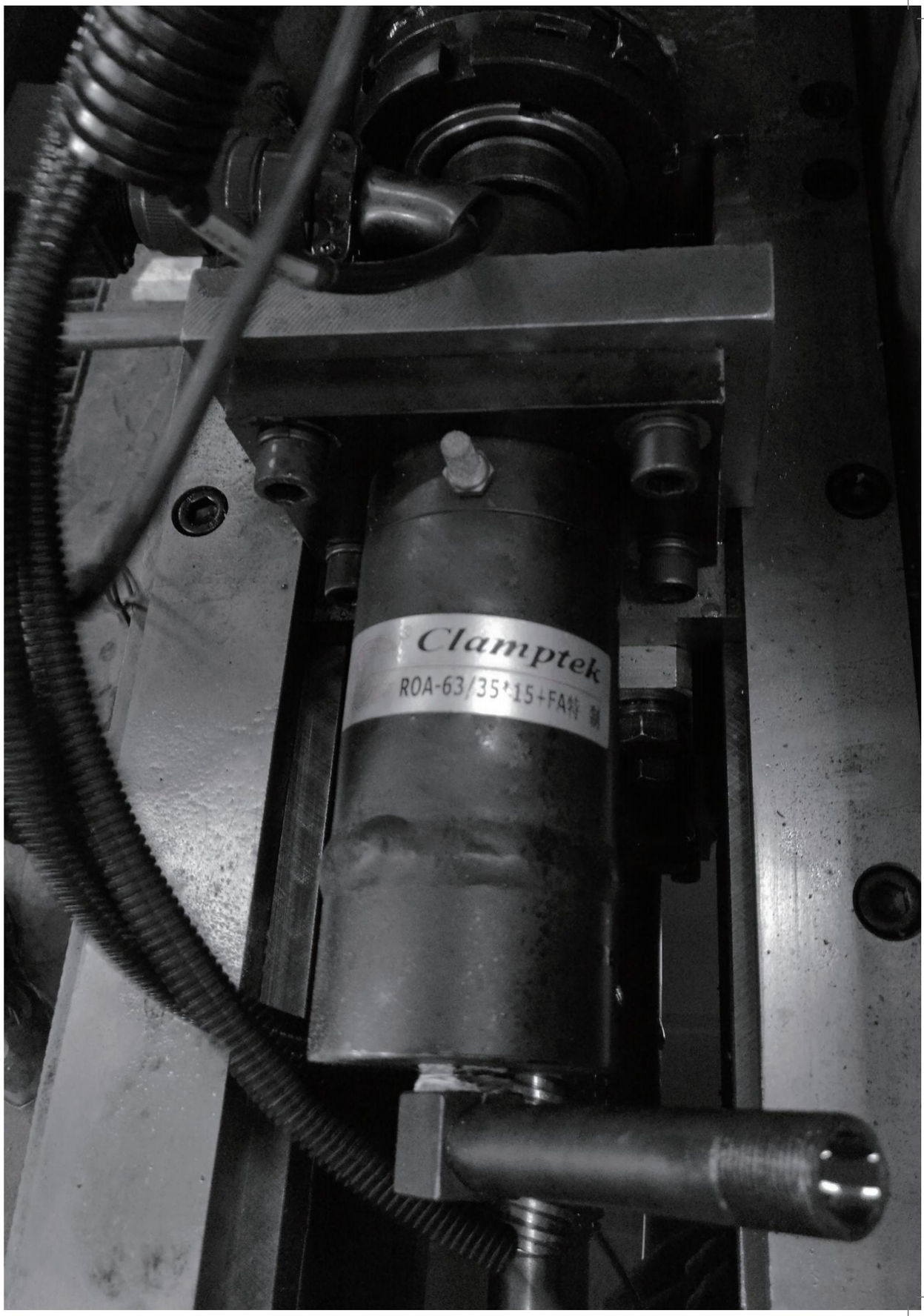
本体尺寸dimensions															安装相关尺寸mounting dimensions					
BORE	A	B	D	E	F	G	H	K	L	M	N	R	S	PT	P	Q	U	V	W	X	TT
Φ40	20	M18x1.5	30	20	11	36	26	54	50	13	M10x1.5	65	45	1/4"	143	72	69	109	20	20	28
Φ50	30	M26x1.5	35	30	13	42	34	68	50	13	M10x1.5	75	52	3/8"	169	80	85	135	25	25	33
Φ63	35	M30x1.5	40	35	15	42	34	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.轴心加大或缩小时如未注明长度尺寸时，依照本公司规定自行加工
2.CFO40系列行程超过500mm以上时，轴心牙加大为M18xP1.5。
3.CFO系列行程未超过1499mm时，活塞长度(PM)依据表组装，行程如超过1500mm以上时，活塞长度(PM)请参阅特性资料表。
4.前盖螺帽(ΦJ)与轴心螺帽(W)规格大于M50时，其外径为圆型W，J指其外径。
5.AST为客户指定之可调行程。

NOTE

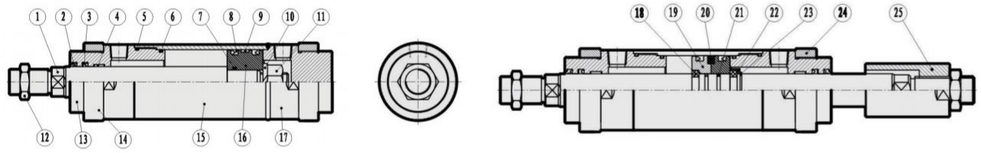
1. For rods extending or reducing processing,if the length is not specified,then it should follow our company's stipulation for processing.
2. Rod thread tooth should be extending into M18*P1.5 for CFO series bore size 40 whose stroke is more than 500mm.
3. For the CFO series whose stroke is not exceeding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

CRO SERIES 14 MPA ROUND HYDRAULIC CYLINDER

圆型油压缸结构图 INSIDE STRUCTURE



CROB　　CROD

NO	零件名 Part name	数量 Quantity	NO	零件名 Part name	数量 Quantity	NO	零件名 Part name	数量 Quantity
1	活塞杆Piston rod	1	10	弹性垫卷Spring washer	2	18	半卡环 Half snap ring	2
2	防尘油封Dustproof seal	1	11	螺母 Nut	1	19	铜活塞 Copper piston	1
3	轴用油封Oil seal for shaft	1	12	轴心螺母Rod nut	1	20	磁环 Magnet Ring	1
4	导向带Guidance tape	1	13	前端盖 Rod cover	1	21	O型圈 Gasket	1
5	O型环Gasket	1	14	锁紧螺母Lock Nut	1	22	挡环 Baffle Ring	1
6	O型环Gasket	1	15	缸筒 Cylinder tube	1	23	轴用挡圈 Washer On Shaft	1
7	O型环Gasket	1	16	活塞 Piston	1	24	锁紧螺母 Lock Nut	1
8	活塞油封Piston seal	2	17	后端盖End cover	1	25	可调螺母 Adjustable Nut	1
9	耐磨环Wearing ring	1						

可调缓冲油压缸特性资料 Specifications

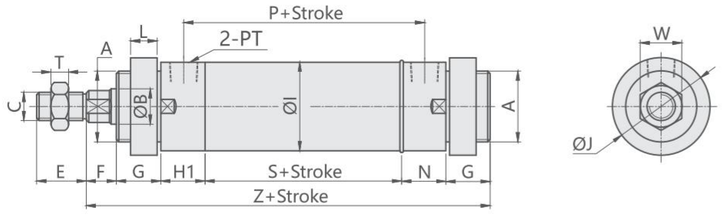
油缸内径Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125
工作流体 Power Fluid	以滤清之标准液压油 Filtered Oil					
缸管材质 Material of cylinder barrel	碳钢管 Carbon steel STKM-13c/白铁管Stainless tubes SUS 304					
使用压力范围 The range of pressure(MPa)	0.3-14 MPa(3-140kg/cm²)					
使用速度范围 The range of speed (mm/sec)	8~300(mm/sec)					
使用温度范围 Range of temperature(℃)	-10 ~ + 60 (℃)					
标准活塞长度 Length of standard piston（PM）	30	35	35	50	60	70
订制行程于1501-2500mm间活塞长度（PM） Piston length when the stroke is between 1501-2500 mm	60	70	70	100	100	120
订制行程于2501-4000mm间活塞长度（PM） Piston length when the stroke is between 2501-4000 mm	90	100	100	150	180	200

订购标示法 ORDERING INDICATION

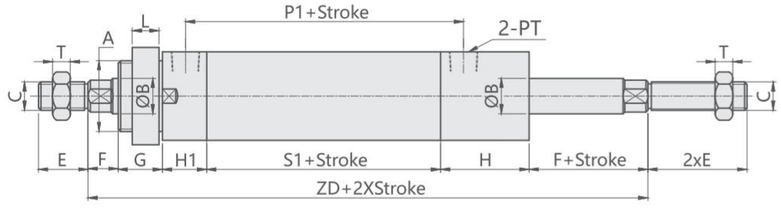
示例： CROB-R-D-63/35-100-LB-Y

CROB	型式 Type	CROA(平尾型) Flat tail type　CROB(B型) B type　CROC(CA型) CA type　CROD(双轴型) Double rods
R	磁性感应 Magnetic	无记号：不附磁石 Blank: No magnet R：内附磁石（适用Φ40-Φ100）With magnet 本系列适用Φ40-Φ100 apply to bore Φ40-Φ100
D	固定缓冲型式 Fixed Cushioning Type	无记号:无 Blank: No cushion　D：双侧缓冲 cushions on both ends F:前盖侧缓冲 cushion on head cover　B：后盖侧缓冲 cushion on end cover
63	油缸内径 Hydraulic cylinder inside diameter	Φ40 Φ50 Φ63 Φ80 Φ100 Φ125
35	轴心 Rod	标准Standard Φ20 Φ25 Φ35 Φ40 Φ50 Φ60 最大Max Φ25 Φ30 Φ40 Φ50 Φ70 Φ80 无记号:标准轴心 Blank: standard rod
100	行程 Stroke	钢管Steel barrel（Φ40-Φ200）最大行程：4米 Max:4m 白钢管Iron barrel（Φ40-Φ200）最大行程：2.8米 Max:2.8m
LB	缸体固定型式 Accessories for body	FA前法兰型 Front flange type　LA 脚座型 Foot type FB后法兰型 Rear flange type　TC 耳轴型 Trunnion type
Y	轴心固定型式 Accessories for rod	Y Y型接头 Y joint　PHS 鱼眼接头 Rod-eye joint YP Y+Pin Y with pin　T T型接头 T joint I I型接头 I joint　H 焊套接头 Welding sleeve joint KG 浮动接头 Floating joint　A 可调螺帽 Adjustable nut

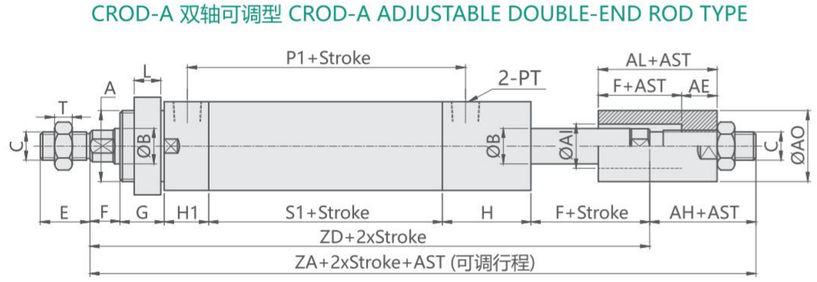
CROB 标准型 CROB STANDARD TYPE



CROD 标准型 CROB STANDARD TYPE



CROD-A 双轴可调型 CROD-A ADJUSTABLE DOUBLE-END ROD TYPE



Unit:mm

CROB-CROD TYPE																						A(可调行程)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

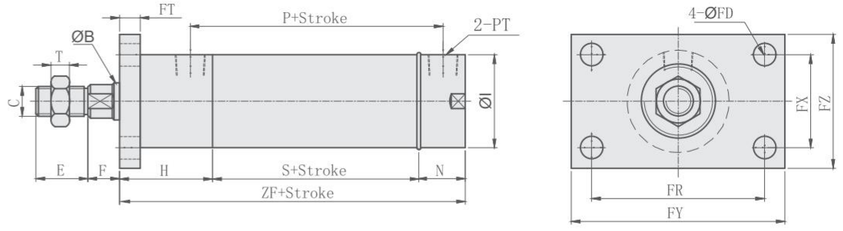
注意事项

1.轴心加大或缩小时如未注明长度尺寸时，依照本公司规定自行加工。
2.CRO系列行程未超过1499mm时，活塞长度(PM)依据表组装，行程如超过1500mm以上时，活塞长度(PM)请参阅特性资料表。
3.前盖螺帽(中J)与轴心螺帽(W)规格大于M50时，其外径为圆形WJ指其外径。
4AST为客户指定之可调行程。

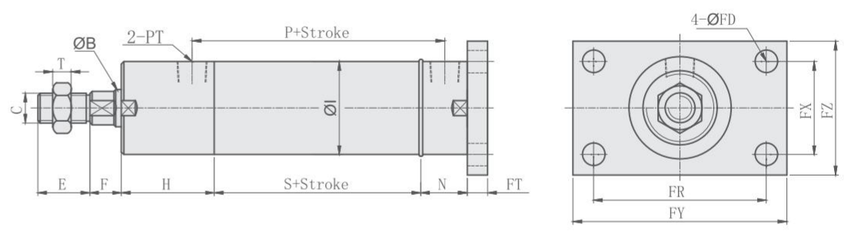
NOTE

1. For rods extending or reducing processing,if the length is not specified,then itshould follow our company's stipulation for processing.
2. For the CRO series whose stroke is not exceeding 1499mm,the length of pistonconforms 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(J) and rod nut (W) is more than M50,WJ refer to its external diameter.
4.AST stands for adjustable stroke designated by customers.

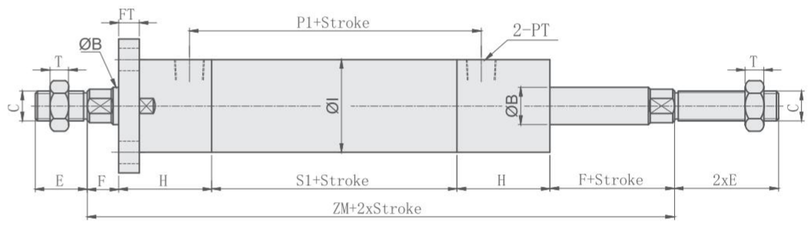
CROA+FA 前法兰型 CROA+FA FRONT FLANGE TYPE



CROB+FB 后法兰型 CROB+FB REAR FLANGE TYPE



CROD+FA 双轴前法兰型 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

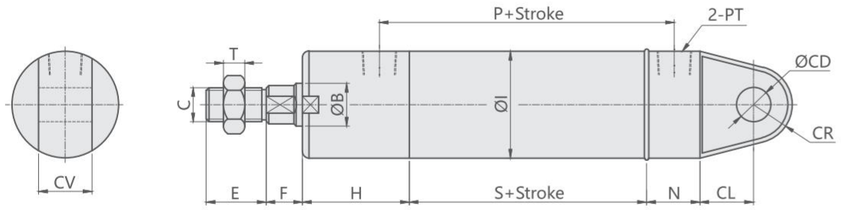
注意事项

1.轴心加大或缩小时如未注明长度尺寸时，依照本公司规定自行加工。
2.CRO系列行程未超过1499mm时，活塞长度(PM)依据表组装，行程如过1500mm以上时，活塞长度(PM)请参阅特性资料表。
3.前盖螺帽(中J)与轴心螺帽(W)规格大于M50时，其外径为圆形WJ指其径。
4.AST为客户指定之可调行程

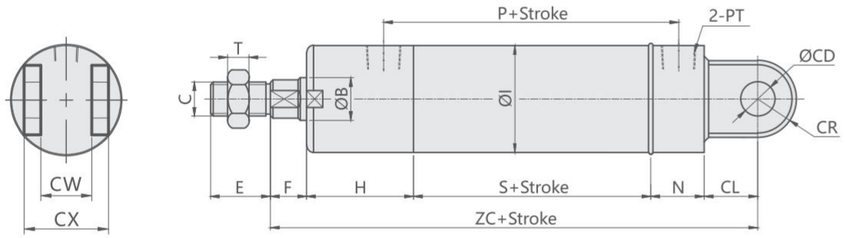
NOTE

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 adiustable stroke designated by customers.

CRO+CA 单耳环型 CRO+CA SINGLE TRUNNION TYPE



CRO+CB 双耳环型 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

注意事项

1.轴心加大或缩小时如未注明长度尺寸时，依照本公司规定自行加工。
2.CRO系列行程未超过1499mm时，活塞长度(PM)依据表组装，行程如超过1500mm时，活塞长度(PM)请参阅特性资料表。
3.前盖螺帽(ΦJ)与轴心螺帽(W)规格大于M50时，其外径为圆形,W,指其外径。
4.AST为客户指定之可调行程。

NOTE

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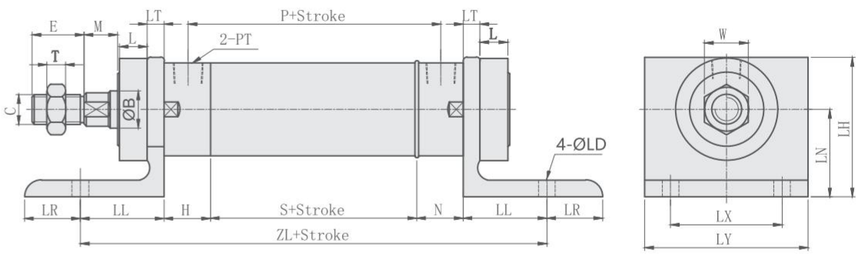
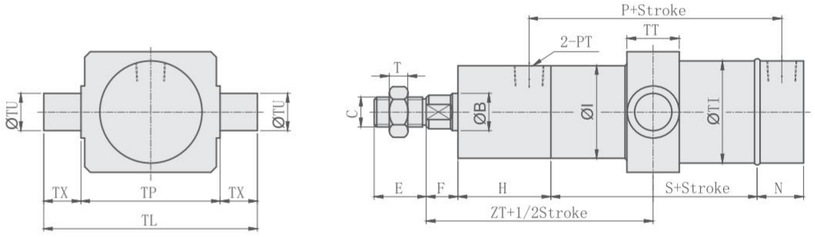
CROB+LB 前后脚座型 CROB+LB FOOT MOUNT TYPE



CROA+TC 中间耳轴型 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

注意事项

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3.前盖螺帽(ΦJ)与轴心螺帽(W)规格大于M50时，其外径为圆形,W,指其外径。
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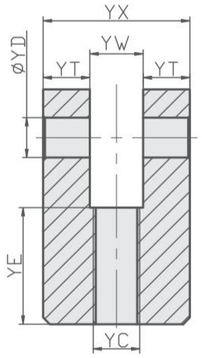
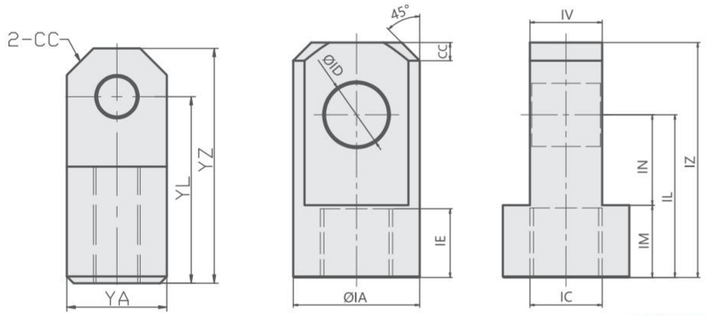
CMO/CHO/CRO/CFO
油压缸轴心配件

CMO/CHO/CRO/CFO HYDRAULIC CYLINDER AXIS ACCESSORIES

Y型接头 Y CONNECTORS



I型接头 I CONNECTORS



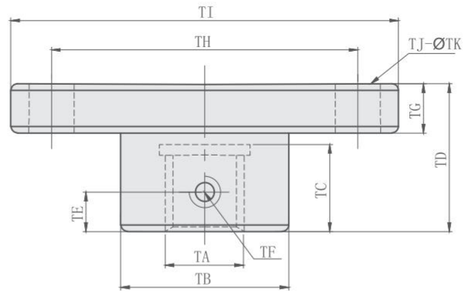
Unit:mm

Y型接头 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

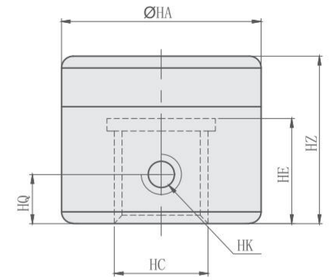
Unit:mm

I型接头 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型接头 T CONNECTORS



H型焊套接头 H WELDING JOINT



Unit:mm

T型接头 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

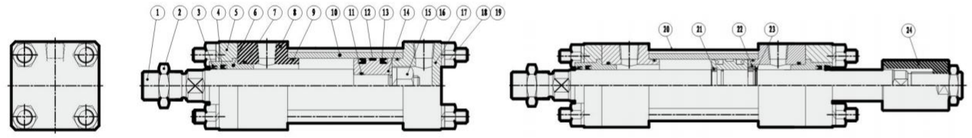
Unit:mm

H型焊套接头 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
系列重型油压缸

CGO SERIES 21 MPA TIE-ROD HYDRAULIC OIL CYLINDER

重型油压缸结构图 INSIDE STRUCTURE



CGOB　　CGOD

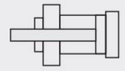
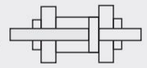
NO	零件名 Part name	数量 Quantity	NO	零件名 Part name	数量 Quantity	NO	零件名 Part name	数量 Quantity
1	活塞杆 Piston rod	1	9	O型圈Gasket	2	17	后端盖End cover	1
2	锁紧螺母 Locking nut	1	10	缸筒Cylinder tube	1	18	螺母nut	8
3	防尘油封 Dustproof seal	1	11	O型圈Gasket	1	19	弹性垫圈 Spring washer	8
4	轴用油封 Oil seal for shaft	1	12	耐磨环 Wearing ring	1	20	拉杆Tie rod	4
5	压盖 Gland	1	13	活塞油封 Piston seal	2	21	半卡环Half snap ring	2
6	导向套Guide sleeve	1	14	活塞 Piston	1	22	挡环Baffle ring	1
7	O型圈Gasket	1	15	螺母 Nut	1	23	轴用挡圈 Rod baffle ring	1
8	前段盖Rod cover	1	16	弹性垫圈Spring washer	1	24	可调螺母Adjustable nut	1

重型油压缸特性资料 Specifications

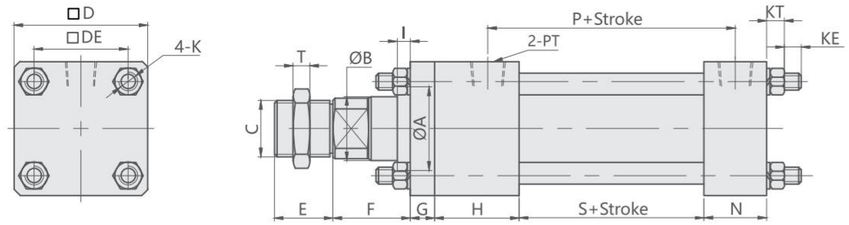
油缸内径Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ140	Φ150	Φ160
工作流体Power Fluid	以滤清之标准液压油Filtered Oil								
缸管材质Material of cylinder barrel	碳钢管Carbon steel STKM-13c/白铁管 Stainless tubes SUS 304								
使用压力范围The range of pressure(MPa)	0.3-21 MPa(3-210kg/cm²)								
使用速度范围The range of speed (mm/sec)	8~300(mm/sec)								
使用温度范围Range of temperature(°C)	-10 ~ + 60 (℃)								
缓冲行程Cushion stroke(mm)	25	25	25	25	30	30	30	30	30
标准活塞长度Length of standard piston (PM)	40	44	51	57	65	71	74	84	92
订制行程于1501-2500mm 间活塞长度 (PM) Piston length when the stroke is between 1501-2500 mm	80	88	100	110	120	140	140	160	170
订制行程于2501-4000mm 时活塞长度 (PM) Customized stroke is 2501-4000mm	160	170	200	210	220	250	260	270	270

订购标示法 ORDERING INDICATION

示例：CGOB-D-63/35-100-LB-Y

CGOB	系列 Series	CGOB 标准型 Standard type  CGOD 双轴型 Double Rods type 
D	固定缓冲型式 Flxed Cushioning Type	无记号:无 Blank: No cushion D: 双侧缓冲 cushions on both ends F：前盖侧缓冲 cushion on head cover B: 后盖侧缓冲 cushion on end cover
63	油缸内径 Hydraulic cylinder inside diameter	Φ40 Φ50 Φ63 Φ80 Φ100 Φ125 Φ140 Φ150 Φ160
35	轴心Rod 缓冲用轴心	缓冲用轴心 Φ25 Φ30 Φ35 Φ45 Φ50 Φ70 Φ80 Φ90 最大Max - Φ35 Φ40 Φ50 Φ60 Φ80 Φ90 Φ100 标准Standard Φ20 Φ25 Φ35 Φ45 Φ50 Φ70 Φ80 Φ90 无记号:标准轴心 Blank: standard rod
100	行程 Stroke	钢管Steel barrel（Φ40-Φ200） 最大行程：4米 Max:4m 白铁管Iron barrel（Φ40-Φ200） 最大行程：2.8米 Max:2.8m
LB	缸体固定型式 Accessories for body	FA前法兰型Front flange type  CA单耳环型Single trunnion type  FB后法兰型Rear flange type  CB双耳环型Double trunnion type  LB脚座型Foot mount type  CBP CB附PIN CB with PIN  TC耳轴型Trunnion type  CAB CA+P+CB 
Y	轴心固定型式 Accessories for rod	Y Y型接头 Y joint  PHS 鱼眼接头 Rod-eye joint  YP Y+Pin Y with pin  T T型接头 T joint  I I型接头 I joint  H 焊套接头Welding sleeve joint  KG 浮动接头 Floating joint  A 可调螺帽Adjustable nut 

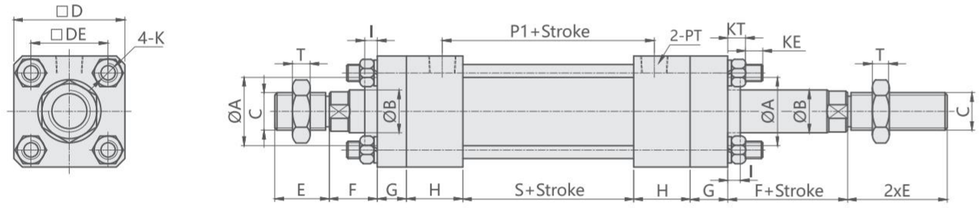
标准 CGOB 标准型 Single Rod Type



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

标准 CGOD型 标准双轴型 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

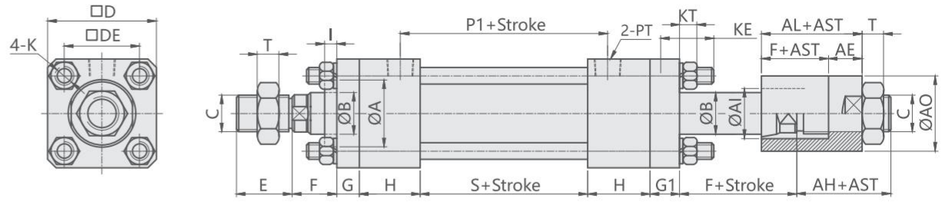
注意事项

1.轴心加大如未注明长度尺寸时，依照本公司规定自行加工。
2.CGO系列行程未超过1500mm时，活塞长度(PM)如附表，订制行程如超过1500mm时，活塞长度(PM)请参阅特性资料表。
3.本系列行程如超过2000(含)mm时，须加拉杆中间固定座。
4.本系列轴心螺帽规格M50mm(含)以上时，其外径为圆形。
5.AST为客户指定之可调行程。

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.

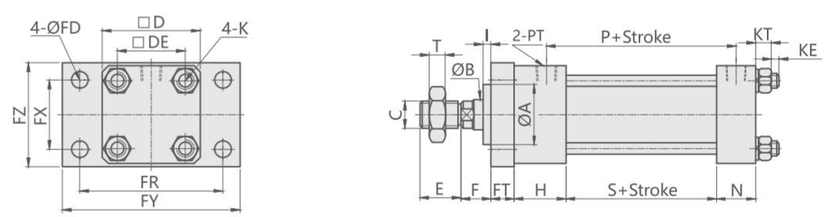
标准CGOD+A型 双轴型附可调帽 Double Rods with Adjustable Nut Type



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

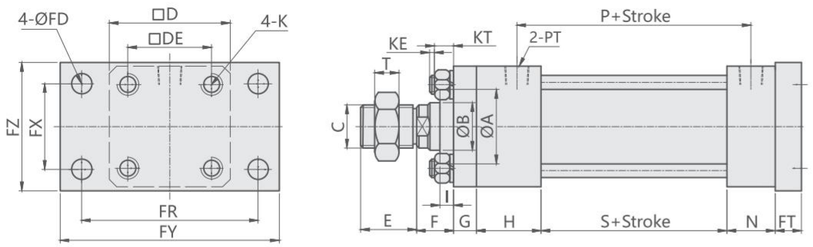
标准CGOB+FA型 前法兰型 Front Flange Mounting Type



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

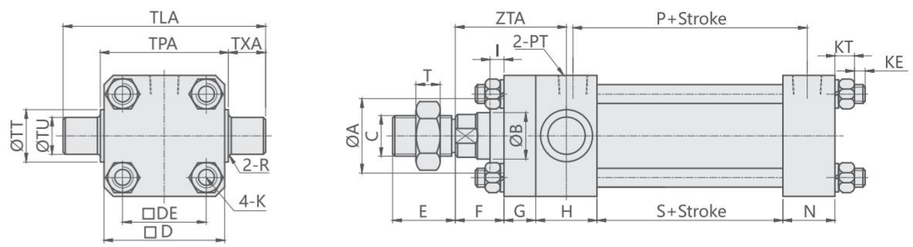
标准CGOB+FB型 后法兰型 Rear Flange Mounting Type



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

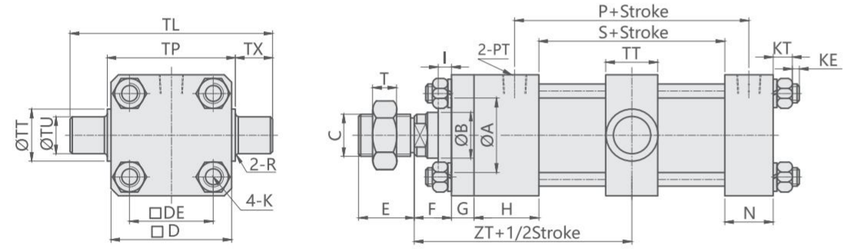
标准CGOB+TA型 前耳轴型 Front Trunnion Mounting Type



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

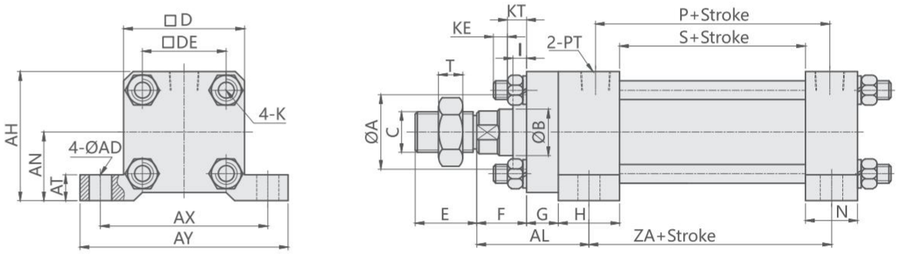
标准CGOB+TC型 中间耳轴型 Middle Trunnion Mounting Type



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

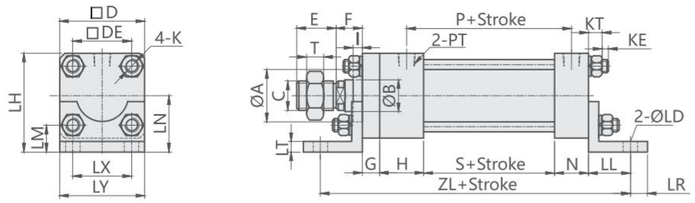
标准CGOB+LA型 左右脚座型 Right & Left Foot Mounting Type



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

标准 CGOB+LB型 前后脚座型 Front & Rear Foot Mounting Type



Unit:mm

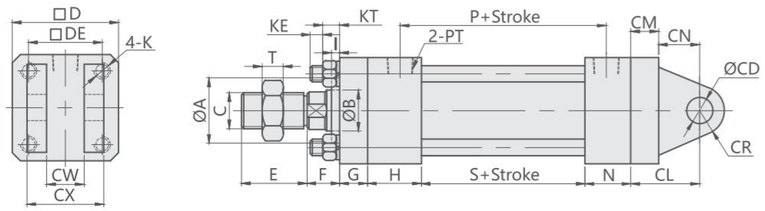
BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	T	ΦLD	LR	LL	ZL	LT	LH	LM	LX	LY	LN
Φ40	40	25	M22*1.5	70	50	25	30	17	47	9	32	98	3/8"	M12*1.5	10	13	64	13	14	20	42	244	8	83	23	50	70	48
Φ50	50	30	M26*1.5	85	62	30	30	20	52	9	37	106	1/2"	M14*1.5	10	15	68	13	16	22	46	269	10	100	26.5	62	85	57.5
Φ63	55	35	M30*1.5	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

标准 CGOB+CA 单耳型 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

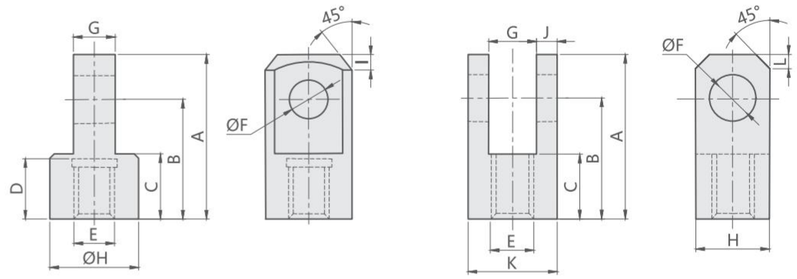
标准 CGOB+CB型 双耳型 Double Trunnion Type



Unit:mm

BORE	ΦA	ΦB	C	□D	□DE	E	F	G	H	I	N	P	PT	K	KE	KT	S	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	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	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	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	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	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	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	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	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	30	80	90	145	100.5	200

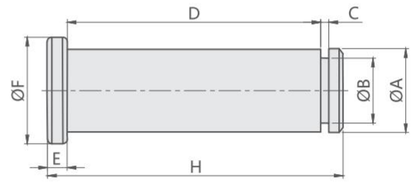
CGO 系列型接头I、Y型接头 CGO Series I,Y type connector



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.接头销 GB Plate.Y Joint Pin



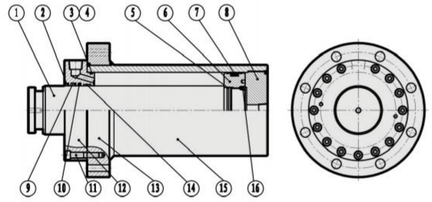
Unit:mm

BORE	ΦA	ΦB	C	D	E	ΦF	H
Φ40	$\Phi20^{-0.02}_{-0.072}$	$\Phi19^{0}_{-0.11}$	1.1	65	5	Φ25	77
Φ50	$\Phi25^{-0.02}_{-0.072}$	$\Phi23.9^{0}_{-0.21}$	1.3	73	5	Φ30	85
Φ63	$\Phi31.5^{-0.02}_{-0.072}$	$\Phi28.6^{0}_{-0.21}$	1.3	81	5	Φ36	93
Φ80	$\Phi40^{-0.025}_{-0.087}$	$\Phi37.5^{0}_{-0.25}$	1.7	101	8	Φ50	118
Φ100	$\Phi50^{-0.025}_{-0.087}$	$\Phi47^{0}_{-0.25}$	2.2	127	8	Φ60	144
Φ125	$\Phi63^{-0.03}_{-0.104}$	$\Phi60^{0}_{-0.3}$	2.7	151	10	Φ70	173
Φ140	$\Phi71^{-0.03}_{-0.104}$	$\Phi67^{0}_{-0.3}$	2.7	161	10	Φ80	183
Φ150	$\Phi80^{-0.03}_{-0.104}$	$\Phi76.5^{0}_{-0.3}$	2.7	201	10	Φ90	223
Φ160	$\Phi80^{-0.03}_{-0.104}$	$\Phi76.5^{0}_{-0.3}$	2.7	201	10	Φ90	223

CHRO
系列大型油压缸

CHRO SERIES 21MPA ROUND HYDRAULIC CYLINDER

大型油压缸结构图 INSIDE STRUCTURE



CHROA

NO	零件名 Part name	数量 Quantity	NO	零件名 Part name	数量 Quantity	NO	零件名 Part name	数量 Quantity
1	活塞杆Piston rod	1	7	活塞专用密封圈 Piston Seal	2	13	法兰板 Front flange	1
2	防尘油封Dustproof seal	1	8	后端盖 End cover	1	14	导向带 Guidance tape	1
3	O型圈Gasket	1	9	轴用油封Oil seal for shaft	1	15	缸筒 Cylinder tube	1
4	O型圈支撑环Gasket support ring	1	10	活塞杆阶梯封 Rod ladder seal	1	16	止动螺钉 Lock screw	1
5	O型圈Gasket	1	11	内六角螺钉Socket Head cup screw	15			
6	活塞Piston	1	12	前端盖Rod Cover	1			

大型油压缸特性资料 Specifications

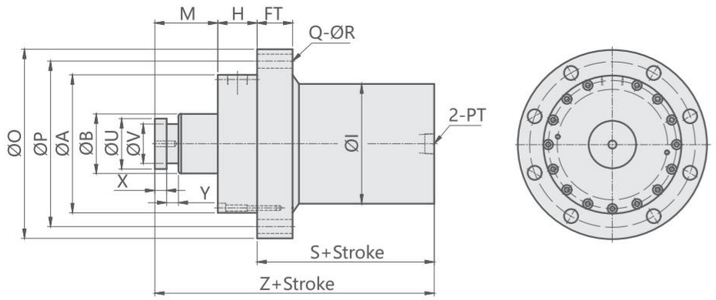
油缸内径Hydraulic cylinder inside diameter(mm)	Φ125	Φ150	Φ180	Φ200	Φ225	Φ250	Φ280	Φ300
工作流体Power Fluid	以滤清之标准液压油 Filtered Oil							
缸管材质Material of cylinder barrel	碳钢管Carbon steel STKM-13c/白铁管 Stainless tubes SUS 304							
使用压力范围The range of pressure(MPa)	1-21MPa(10-210kg/cm²)							
使用速度范围The range of speed (mm/sec)	8~500(mm/sec)							
使用温度范围Range of temperature(°C)	-30 ~ +100 (°C)							
标准活塞长度Length of standard piston (PM)	60	60	70	70	70	70	70	70
订制行程于1501-2500mm间活塞长度 (PM) Piston length when the stroke is between 1501-2500 mm	120	120	140	140	140	140	140	150
订制行程于2501-4000mm间活塞长度 (PM) Customized stroke is 2501-4000mm	200	200	200	200	200	200	200	200

订购标示法 ORDERING INDICATION

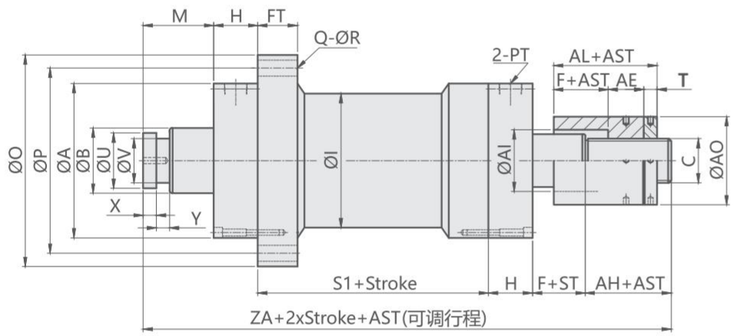
示例：CHROA-125/60-100-Y-DM

CHROA	系列 Series	CHROA PT在法兰前 PT in front of flange	CHROB PT 在法兰后 PT in rear of flange
		CHROC CA型 CA type	CHROD 双轴型 Double Rods type
		CHROE 法兰在后侧 Rear flange type	
125	油缸内径 Hydraulic cylinder inside diameter	Φ125 Φ150 Φ180 Φ200 Φ225 Φ250 Φ280 Φ300	
60	轴心Rod	标准Standard Φ60 Φ80 Φ100 Φ125 Φ140 Φ160 Φ180 Φ200 最大Max Φ80 Φ100 Φ120 Φ140 Φ160 Φ200 Φ220 Φ250	
100	行程 Stroke	钢管Steel barrel（Φ125-Φ300）	最大行程：4米 Max:4m
Y	轴心固定型式 Accessories	YP Y附Pin	TW 半月套 TW rod end mounting
		Y connectors with pin	TH 半月套+焊套TH rod end mounting
		I I型接头 I connectors	A 可调螺帽Adjustable nut
DM	无记号:心车沟 Blank: Standard DM: 车牙型 DM type		

标准 CHROA 型 标准A型 Single Rod Type



标准 CHROD 型 双轴型附可调帽 Double Rods with Adjustable Nut Type



Unit:mm

CHROA-CHROD TYPE																						A(可调帽)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

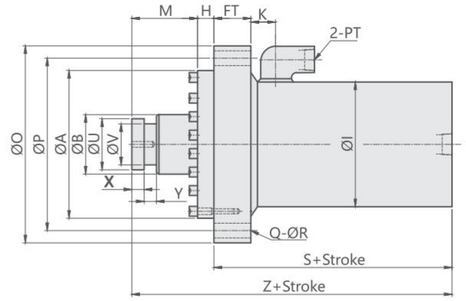
注意事项

1.CHRO行程超过1500mm时，活塞长度(PM)自行加长，其加长尺寸请参阅特性资料表。
2.本系列轴心加大时，其相关尺寸依加大比例自行放大。
3.AST为客户指定之可调行程。

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 rod is extending.
3.AST stands for adiustable stroke designated by customers.

标准CHROB型标准B型 Single Rod 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

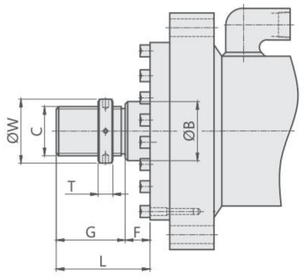
注意事项

1.CHRO行程超过1500mm时，活塞长度(PM)自行加长，其加长尺寸请参阅特性资料表。
2.本系列轴心加大时，其相关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 the other part proportionally extends when the rod is extending.

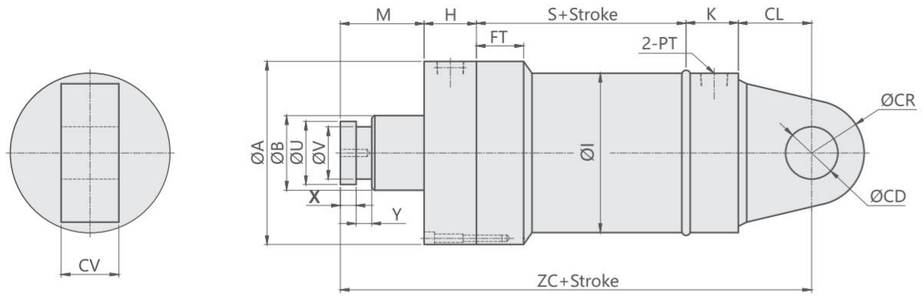
外牙型规格表 Vertical screw of rod



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

标准 CHROC型 单耳轴型 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

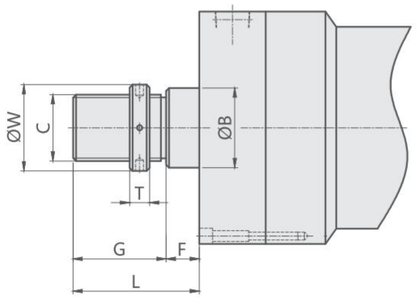
注意事项

1.CHRO行程超过1500mm时，活塞长度(PM)自行加长，其加长尺寸请参阅特性资料表。
2.本系列轴心加大时，其相关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 rod is extending.

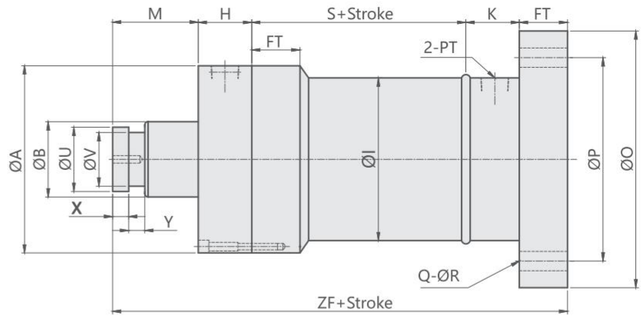
外牙型规格表 Vertical screw of rod



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

标准 CHROE型 后法型 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

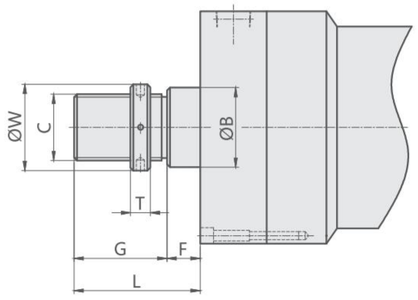
注意事项

1.CHRO行程超过1500mm时，活塞长度(PM)自行加长，其加长尺寸请参阅特性资料表。
2.本系列轴心加大时，其相关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 rod is extending.

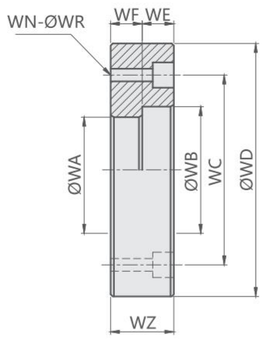
外牙型规格表 Vertical screw of rod



Unit:mm

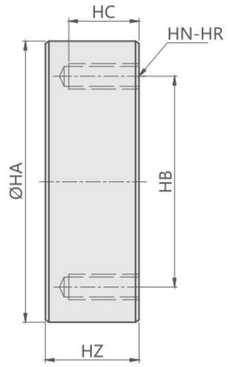
BORE	B	C	F	G	L	T	W
Φ125	60	M50XP2.0	25	70	95	15	65
Φ150	80	M70XP2.0	25	80	105	20	95
Φ180	100	M90XP2.0	30	100	130	30	120
Φ200	125	M100XP2.0	30	120	150	30	140
Φ225	140	M120XP3.0	30	140	170	30	160
Φ250	160	M140XP3.0	30	150	180	35	190
Φ280	180	M160XP4.0	30	160	190	40	210
Φ300	200	M180XP4.0	35	160	195	40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

大型油压缸轴心配件尺寸 Accessories For CHRO Series Cylinders



Unit:mm

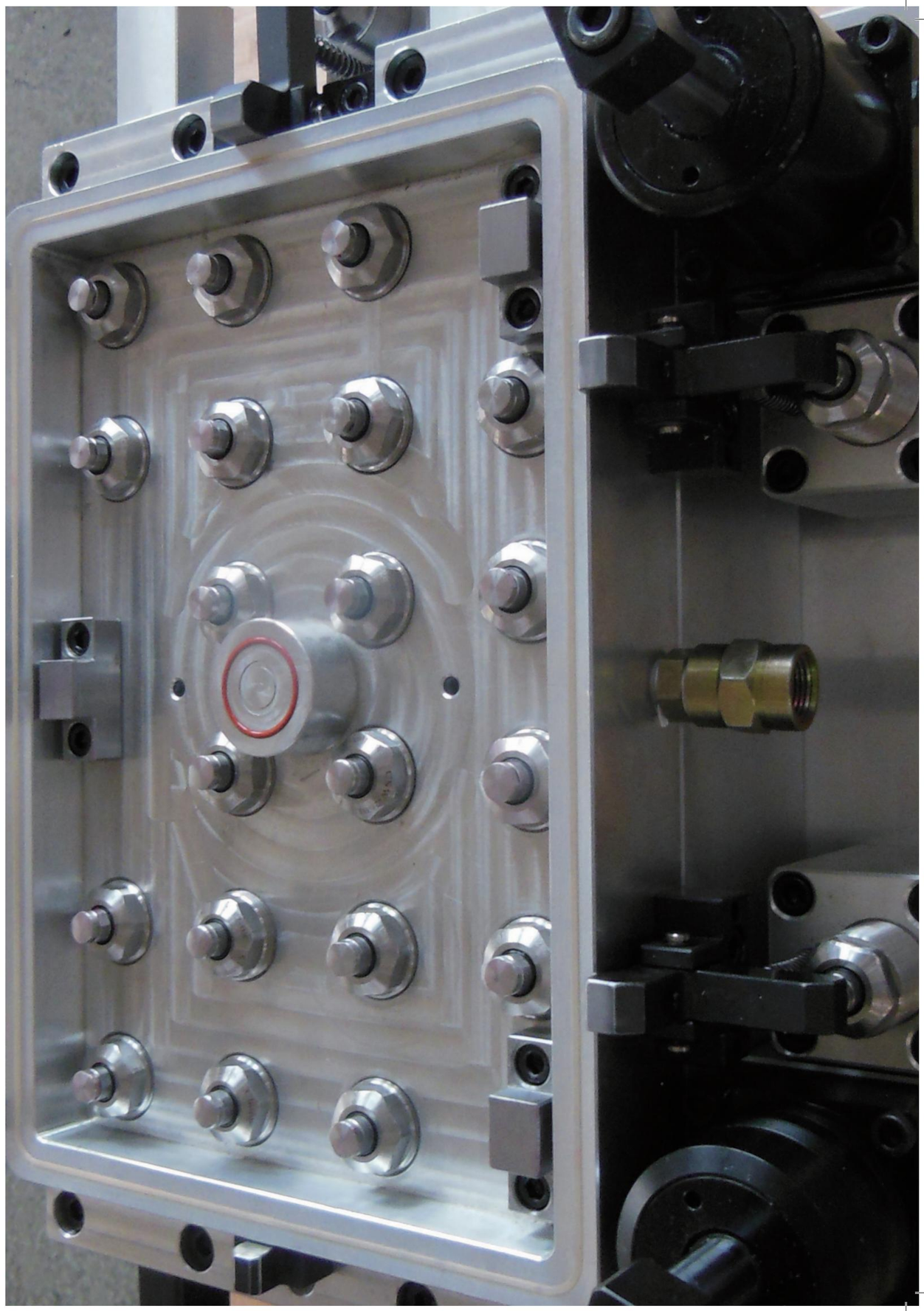
TW 半月套 TW Rod end Mounting									
TYPE	WA	WB	WC	WD	WE	WF	WN	WR	WZ
TW-125	50	60	90	120	15	15	6	12	30
TW-150	70	80	110	140	15	15	6	12	30
TW-180	85	95	140	180	20	20	6	14	40
TW-200	100	115	160	200	25	25	6	14	50
TW-225	120	135	180	220	25	25	8	18	50
TW-250	140	155	210	260	30	30	8	18	60
TW-280	150	175	140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



Unit:mm

TH 焊接图板 TH Rod end Mounting						
TYPE	HA	HB	HC	HN	HR	HZ
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焊接高压缸

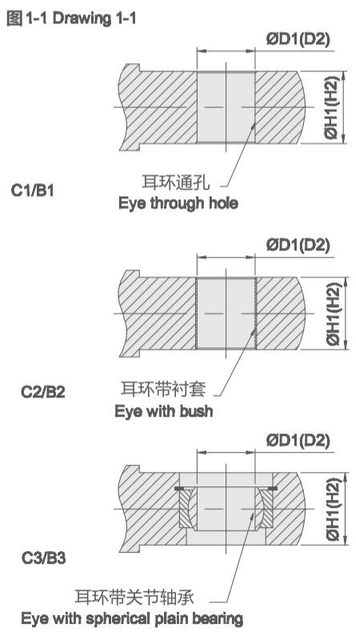
CHSG HYDRAULIC CYLINDER

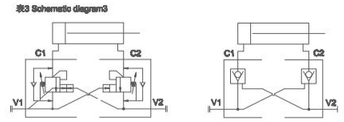
订购标示法 ORDERING INDICATION

示例： CHSG-D-d-100-XX-XX-XX

系列 Series	CHSG	
油工内径 Hydraulic cylinder inside diameter	Φ40，Φ50，Φ63，Φ80，Φ100，Φ125，Φ150，Φ180，Φ200，Φ220，Φ250	
活塞杆径 Piston rod diameter	Φ25，Φ30，Φ35，Φ45，Φ55，Φ70/Φ80，Φ100，Φ120，Φ120，Φ140，Φ160	
行程Stroke		
缸体固定型式 Barrel fixing type	FA	前法兰型 Front flange
	FB	后法兰 Rear flange
	TC	铰轴 Cardinal axes
	C1	耳环通孔Eye through port
	C2	耳环带衬套Eye with bush
	C3	耳环带关节轴承 Eye with spherical plain bearing
活塞杆端速接方式 Piston rod end connection method	W	外螺纹 Exterior thread
	N	内螺纹 Inner thread
	B1	耳环通孔Eye through port
	B2	耳环带衬套Eye with bush
	B3	耳环带关节轴承 Eye with spherical plain bearing

图 1-1 Drawing 1-1

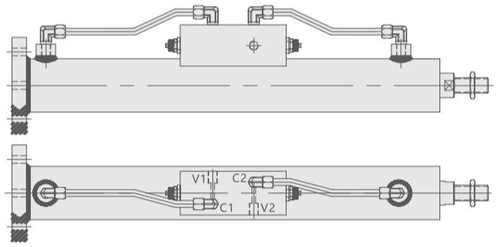


阀配件 Valve accessories	空白：无 CB：带双向平衡（抗衡）阀 CO：带双向液控单向阀 Blank: No CB: With modular counter balance valve CO: With modular pilot operated check valve	注3 Schematic diagram3  注:带双向平衡(抗衡)阀或带双向液控单向阀，适用于外负荷变化而要求行走速度平稳、容易控制、锁紧时间较长、防止重物因自重下落、防止油管爆裂油缸下落 Note: With modular counter balance valve or with modular pilot 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.

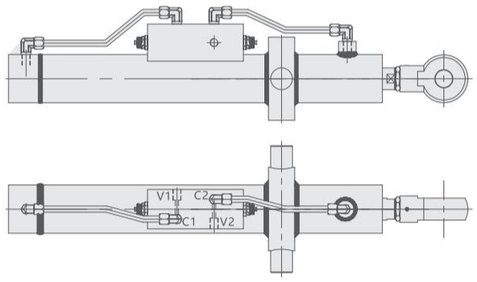
大型油压缸特性资料 Specifications

油缸内径Hydraulic cylinder inside diameter(mm)	Φ40 Φ50 Φ63 Φ80 Φ100 Φ125 Φ150 Φ180 Φ200 Φ220 Φ250
使用流体 Usable fluid	Recommended ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
缸管材质 Material of cylinder barrel	碳钢管Carbon steel STKM-13A~C
使用压力范围The range of pressure(MPa)	10~210 kgf/cm^2
使用速度范围The range of speed (mm/sec)	8~500(mm/sec)
使用温度范围Range of temperature(℃)	-30 ~ +100 (℃)

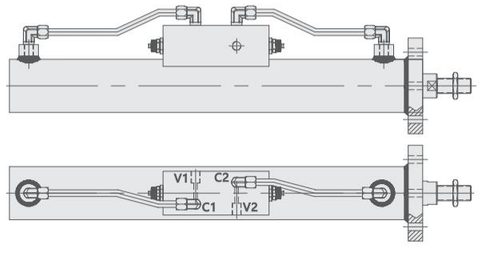
后法兰 REAR FLANGE



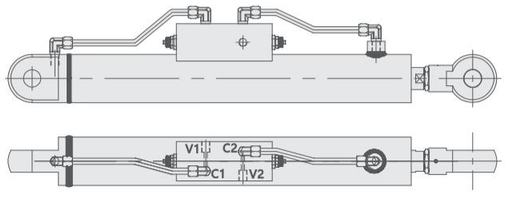
铰轴 CAEDINAL AXES



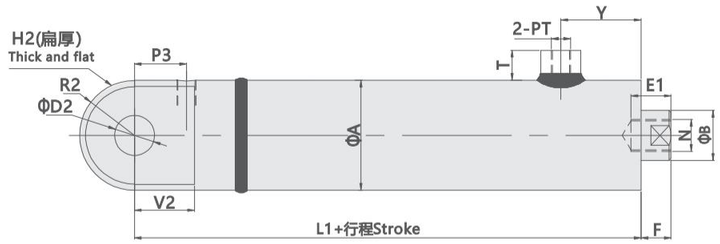
前法兰 FRONT FLANGE



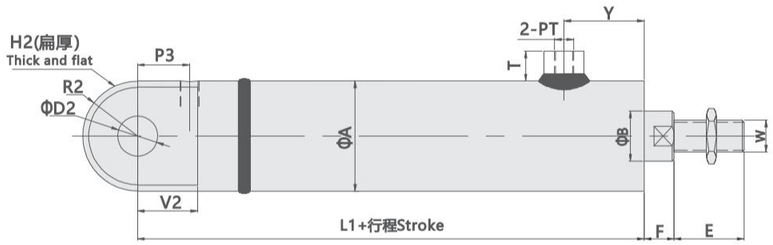
耳环 EYE



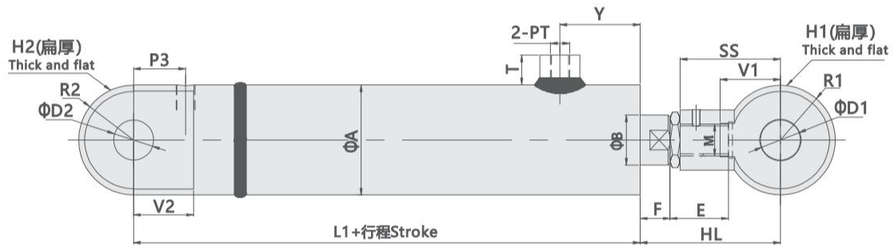
后耳环、内牙 REAR EYE INTERIOR THREAD



后耳环、外牙 REAR EYE EXTERIOR THREAD



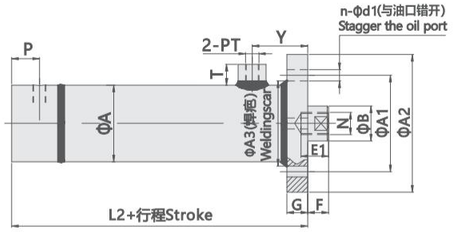
后耳环、前耳环 REAR EYE FRONT EYE



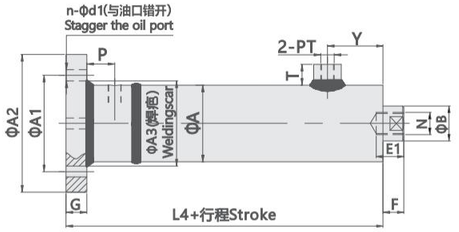
Unit:mm

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

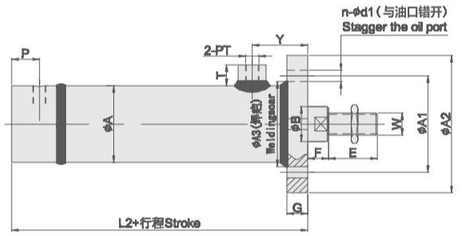
前法兰、内牙 FRONT FLANGE INTERIOR THREAD



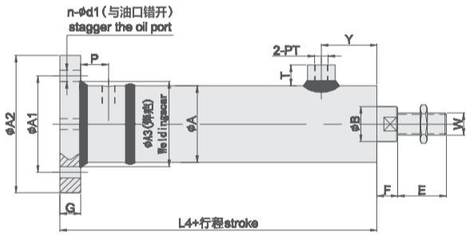
后法兰、内牙 REAR FLANGE INTERIOR THREAD



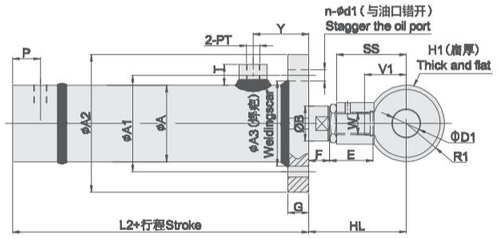
前法兰、外牙 REAR FLANGE EXTERIOR THREAD



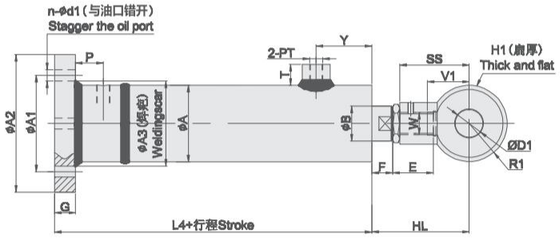
后法兰、外牙 REAR FLANGE EXTERIOR THREAD



前法兰、前耳环 FRONT FLANGE FRONT EYE



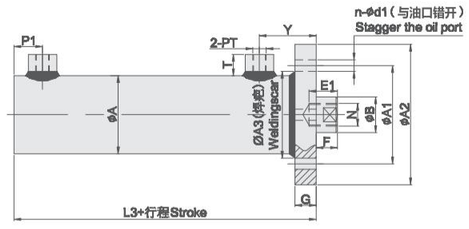
后法兰、前耳环 REAR FLANGE FRONT EYE



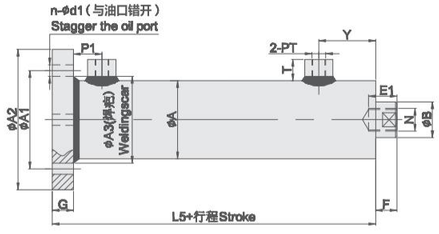
Unit:mm

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

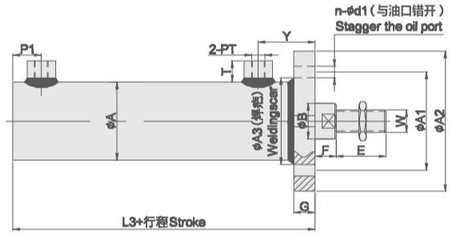
前法兰、内牙
FRONT FLANGE INTERIOR THREAD



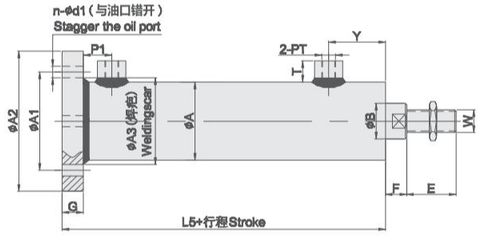
后法兰、内牙
REAR FLANGE INTERIOR THREAD



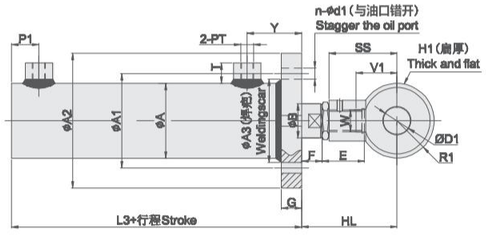
前法兰、外牙
FRONT FLANGE EXTERIOR THREAD



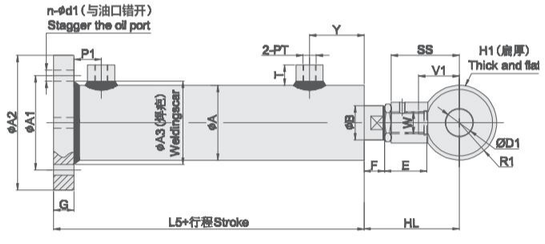
后法兰、外牙
REAR FLANGE EXTERIOR THREAD



前法兰、前耳环
FRONT FLANGE FRONT EYE



后法兰、前耳环
REAR FLANGE FRONT EYE

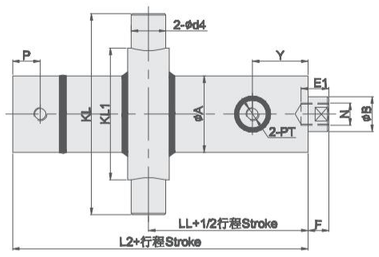


Unit:mm

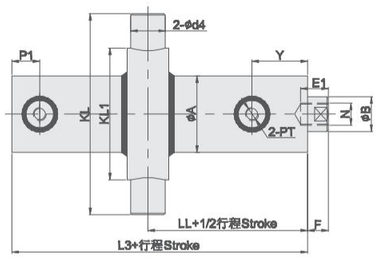
HSG系列油缸外形尺寸 Dimension table

BORE	A	B	N	W	E	E1	F	G	A1	A2	A3	n-d1	SS	V1	Y	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

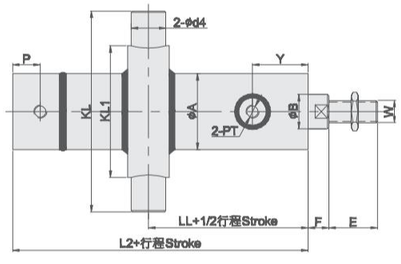
(Φ40-Φ100缸径)铰轴、内牙
(Φ40-Φ100BORE) CARDINAL AXES INTERIOR THREAD



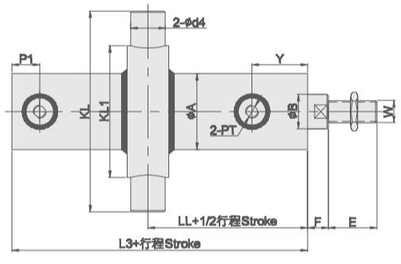
(Φ125-Φ250缸径)铰轴、内牙
(Φ125-Φ250BORE) CARDINAL AXES INTERIOR THREAD



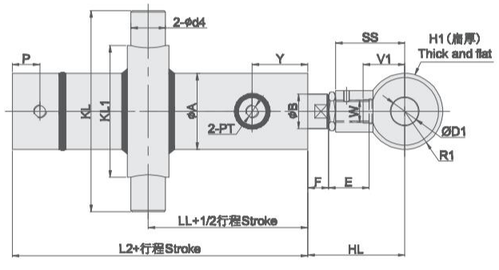
(Φ40-Φ100缸径)铰轴、外牙
(Φ40-Φ100BORE) CARDINAL AXES EXTERIOR THREAD



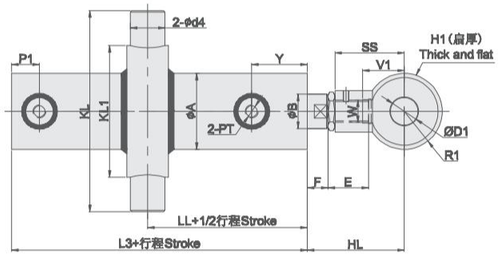
(Φ125-Φ250缸径)铰轴、外牙
(Φ125-Φ250BORE) CARDINAL AXES EXTERIOR THREAD



(Φ40-Φ100缸径)铰轴、前耳环
(Φ40-Φ100BORE) CARDINAL AXES FRONT EYE



(Φ125-Φ250缸径)铰轴、前耳环
(Φ125-Φ250BORE) CARDINAL AXES FRONT EYE



Unit:mm

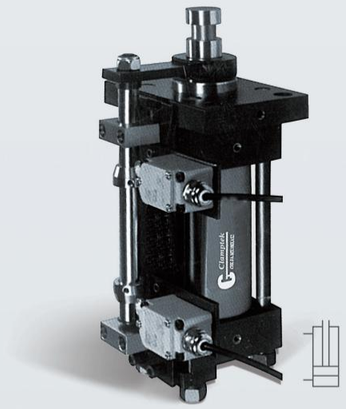
HSG系列油缸外形尺寸 Dimension table

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

柱型模具油压缸

CHK COLUMN-TYPE HYDRAULIC CYLINDER



产品说明

CHK柱型模具油为通用型中高压油缸，特别适用于压铸模具领域,通用性广泛。
CHK柱型模具油缸增加了导出系统可准确的控制油缸行程。
CHK柱型模具油缸内部增加了缓冲装置提高了油缸及模具行程滑块的寿命。

最大操作压力：140 kgf/cm²
最小操作压力：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

注意事项

可接受订制，欢迎与本公司洽询。

NOTE

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

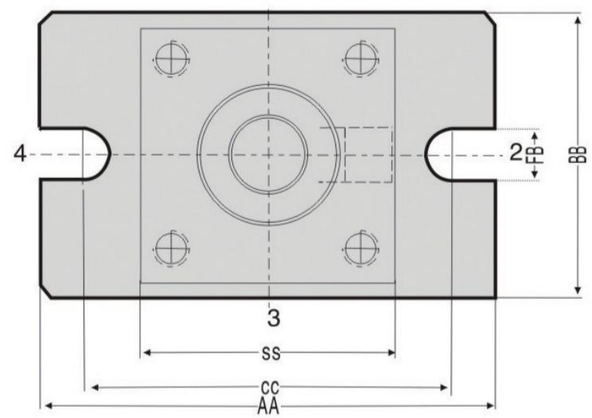
订购标示法 ORDERING INDICATION

示例：CHK-FA80-100D-S2

CHK	系列 Series	CHK
FA	安装型式 Fixing type	FA前法兰安装
80	油缸内径 Hydraulic cylinder inside diameter	Φ40, Φ50, Φ63 , Φ80 , Φ100 , Φ125 , Φ150, Φ180, Φ200, Φ220, Φ250.
100	行程 Stroke	依客户需要
D	活塞杆连接方式 Piston connection type	A型：脖子型 B型：外牙型 C型：内牙型 D型：窄圆脖子型 E型：窄圆外牙型 F型：宽圆型
S2	行程开关数量	S1：一个 S2：两个 S1 of 1 pc, S2 of 2 pcs

使用流体:普通矿物油基液压油（相当于ISO-VG-32）
Recommended ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade

FA(特殊型)尺寸参考图 FA(SPECIAL TYPE)REFERENCE DRAWING



Unit:mm

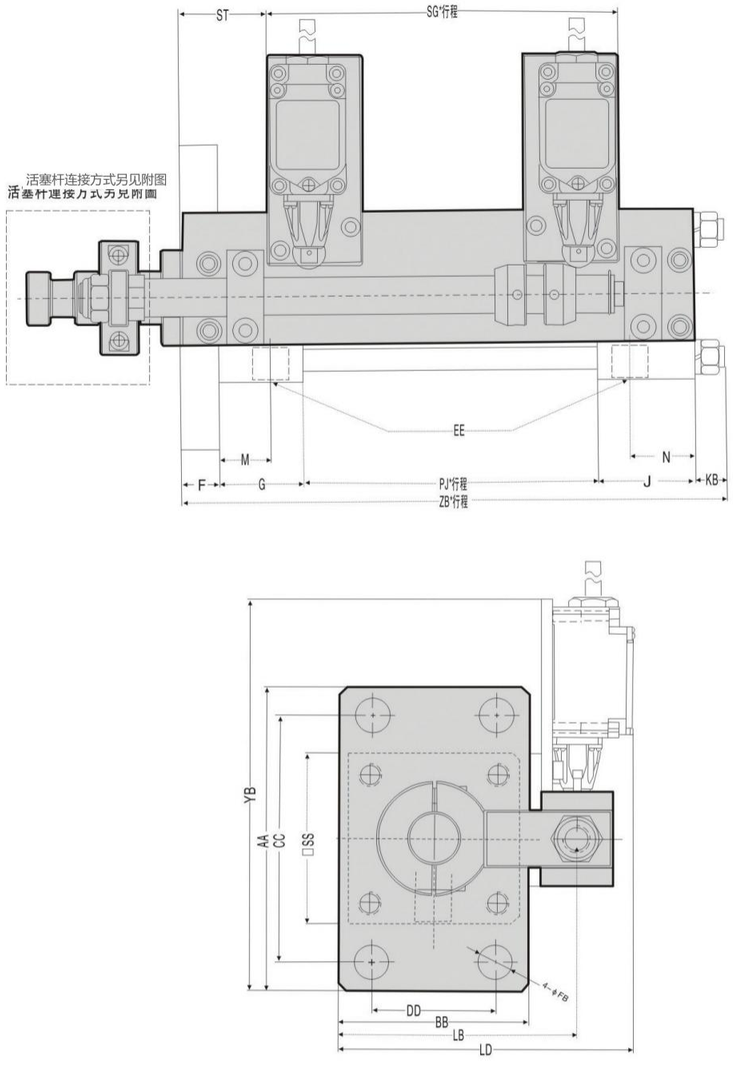
BORE	活塞杆径	AA	BB	CC	FB	SS
40	18	118	70	94	14	65
50	22	135	85	108	18	75
63	28	160	100	130	18	90
80	36	185	122	150	22	110
100	45	220	145	180	26	135
125	56	255	175	210	33	165
150	70	305	212	254	33	196
180	80	365	250	300	39	236
200	90	405	280	335	42	265
220	100	470	335	395	45	310
250	110	515	355	425	48	330

注:AA.BB.CC.FB是参考值，可限据客户要求制作。

柱型模具油压缸特性资料 Specifications

油缸内径Hydraulic cylinder inside diameter(mm)	Φ40	Φ50	Φ63	Φ80	Φ100	Φ125	Φ150	Φ180	Φ200	Φ220	Φ250
缸管材质Material of cylinder barrel	碳钢管 Carbon steel STKM-13C										
最小缓冲行程Min. Cushion stroke(mm)	50	50	50	50	80	80	80	100	100	100	100
使用温度范围Range of temperature(℃)	-10 ~ +70 (℃)										

注:油缸行程小于最小缓冲行程时不配缓冲装置

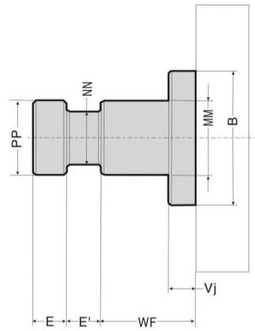


Unit:mm

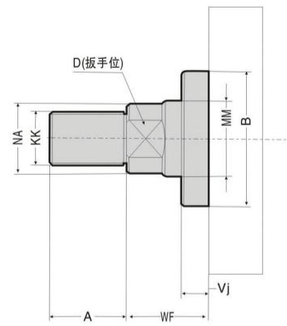
BORE	活塞杆径	EE(PT)	M	N	F	G	J	KB	ST	AA	BB	CC	DD	LB	SS	LD	ΦFB	YB	SG	PJ	ZB
40	18	3/8	17	13	18	38	28	15	41	118	70	94	40	95	65	125	10	186	83	46	145
50	22	3/8	29	21	20	44	36	15	46	135	85	108	50	110	75	140	14	194	84	54	169
63	28	1/2	27	19	20	44	36	16	46	160	100	130	65	125	90	155	18	207	84	54	170
80	36	1/2	28	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柱型模具油缸活塞杆连接方式的尺寸图
CONNECTION DRAWING OF SHAFT FOR CHK COLUMN-TYPE HYDRAULIC CYLINDER

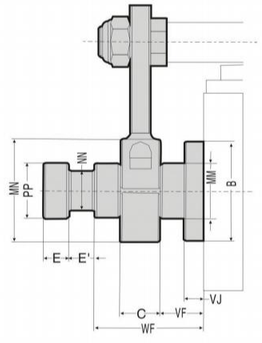
A型-脖子型



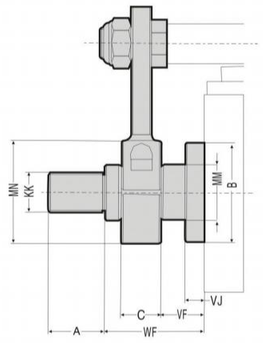
B型-外牙型



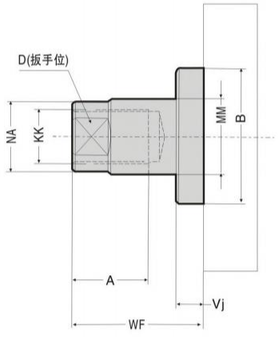
D型-窄圆脖子型



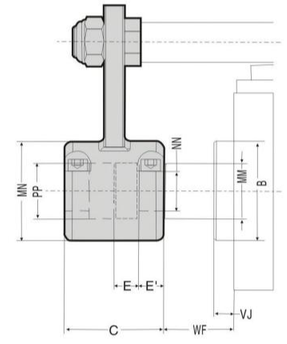
E型-窄圆外牙型



C型-内牙型



F型-宽圆型



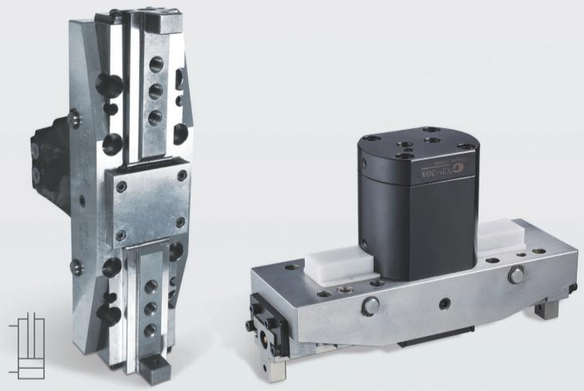
Unit:mm

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

CP

同步油缸

CP SYNCHRONOUS CLAMP



产品特性

曲柄型二滑块同步油缸,滑块行程长。
折动面均经硬化及精密研磨，并直接润滑。
高夹持精度,防尘效果特佳。

最大操作压力：35kgf/cm²
最小操作压力：10kgf/cm²

FEATURES

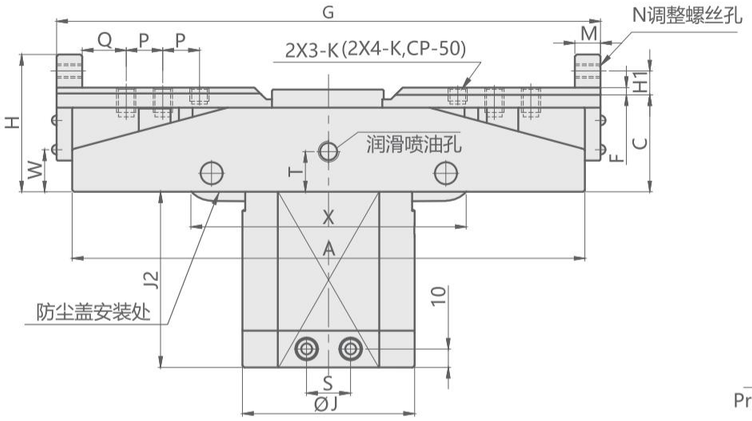
It's a CRANK type 2 slider synchronous clamp cylinder with long slider stroke.
Matching surface of all parts hardened,groud and lubricated directly. Construction of high rigidity and high clamping accuracy.

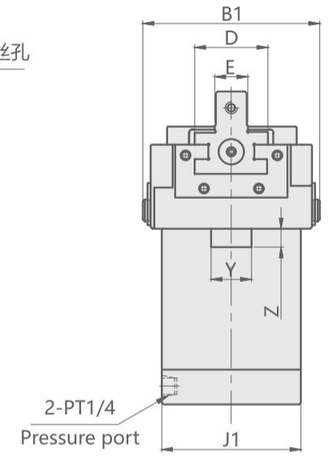
Max. operating pressure: 35kgf/cm²
Min. operation pressure: 10kgf/cm²

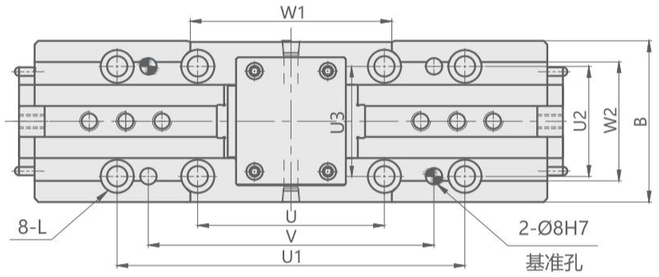
型号 Model	CP-20 CP-20W	CP-30A CP-30AW	CP-30 CP-30W	CP-50 CP-50W	CP-70 CP-70W
推出受压面积 Eff.piston area clamp (cm²)	28.27	28.27	28.27	38.48	50.26
滑块行程 Slider stroke (mm)	20	30	30	50	70
理论夹持力 (35kgf/cm²) Clamping force at 35kgf/cm²	1653	1806	1806	2071	2603
使用温度范围 Range of temperature(℃)	-10 ~ + 70 (℃)				

使用流体: 普通矿物油基液压油 (相当于ISO-VG-32)
Recommended ISO-VG-32 hydraulic oil equivalent to ISO viscosity grade
W：表示防尘盖

CP 外形尺寸







Unit:mm

MODEL	A	B	B1	C	D	E(h6)	F	G MAX	G MIN	H	H1	J	J1	J2	K	L	M	N
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
CP-70	346	120	126	89	55	32	5	429	359	114	15	115	-	146	M14xP2.0	M12	16	M8xP1.25

Unit:mm

MODEL	P	Q	S	T	U	U1	U2	U3	V	W	W1	W2	X	Y	Z	含防尘盖 X	含防尘盖 Y	含防尘盖 Z
CP-20	18	20	24	22	102	190	60	-	156	32	110	65	150	22	4	171	41	7
CP-30A	20	24	25	22	102	190	60	-	156	20	120	65	156	22	6	181	41	15
CP-30	20	24	25	22	102	190	60	-	156	23	110	65	156	22	6	181	41	15
CP-50	21	28	30	32	105	230	85	-	195	22	140	88	180	30	10	184	50	18
CP-70	23	28	30	56	118.5	276	96	95	240	40	155	90	218	29	15	240	55	27

CFVA

对心夹钳

CFVA CLAMPING CYLINDER

产品特性

二滑块同步油缸，具有高精度重复定位行程。传动面经硬化 及精密研磨，并直接润滑。高夹持精度，防尘效果特佳。

最大操作压力：70 kgf/cm²
最小操作压力：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

注意事项

夹紧及放松作动速度需适当放缓。
可接受订制，欢迎与本公司洽询。

NOTE

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

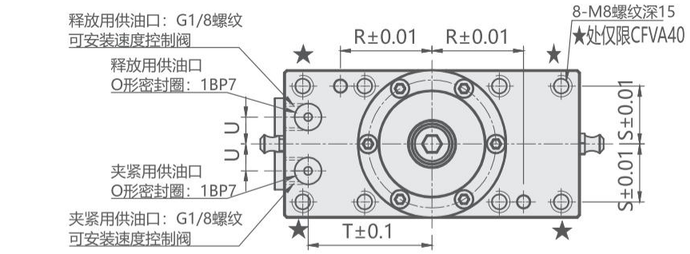
订购标示法 ORDERING INDICATION

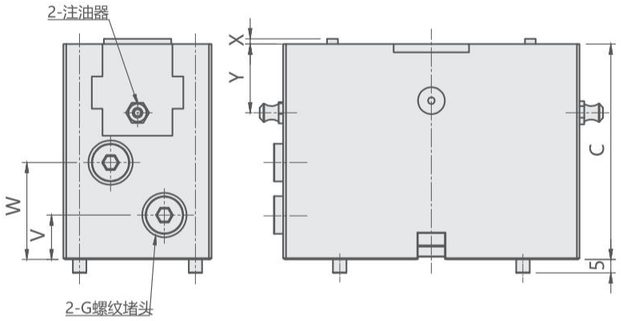
示例： CFVA-063

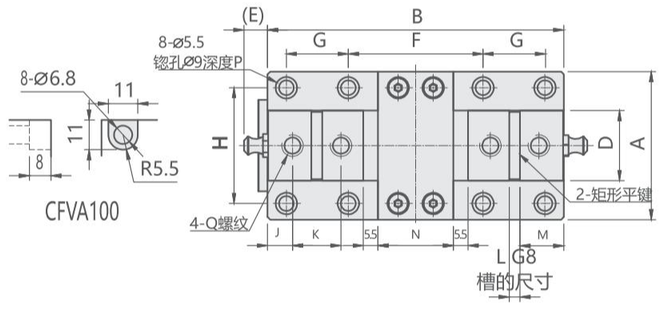
CFVA	系列 Series	CFVA
063	缸径 cylinder diameter	040/063/100

外形尺寸

Unit:mm

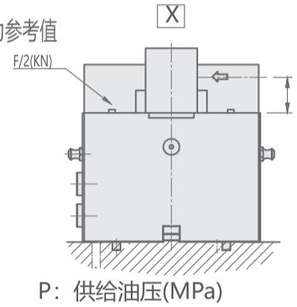






型号 Model No	CFVA-040	CFVA-063	CFVA-100
A	50	55	60
B	100	110	120
C	72	80	85
D	23	26	28
E	9	15	15
F	45	50	65
G	20	23	20
H	39	43	49
J	7	9	9
K	18	18	22
L	$4^{+0.022}_{+0.004}$	$4^{+0.022}_{+0.004}$	$5^{+0.022}_{+0.004}$
M	14	16	17.5
N	24	28	28
P	6	7	-
Q(公称*深度)	M6*12	M8*13	M10*15
R	32	35	42.5
S	19.5	21.5	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
矩形平键	4*4*20	4*4*25	5*5*25

夹紧力参考值



P：供给油压(MPa)

型号	夹紧力计算公式	供给油压P(MPa)	夹紧力(KN)	夹紧点高度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

规格参数表 SPECIFICATIONS

型号	夹紧行程(单边)	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
CFVA-040	5	10	5.5	5.5	6.0	6.0	0°~+70°C	使用流体:普通矿物油基液压油(相当于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°C	
CFVA-100	5	10	14.4	14.4	15.8	15.8	0°~+70°C	

ROA

夹紧油缸

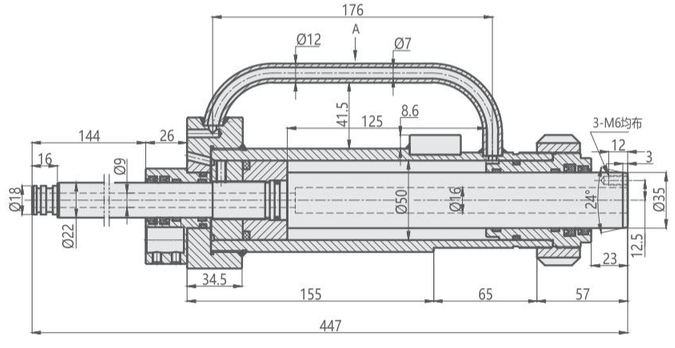
ROA CLAMPING CYLINDER

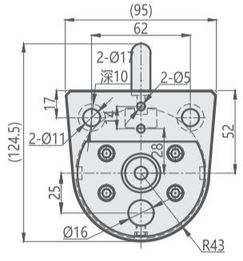
夹紧油压缸特性资料 Specifications

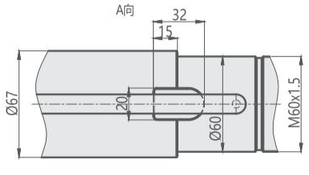
使用压力范围The range of pressure(MPa)	0.5-10MPa
使用温度范围 Range of temperature(℃)	Range of temperture(℃) -10 ~ +60(℃)
使用速度范围The range of speed (mm/sec)	The range of speed(mm/sec) 8 ~ 300(mm/sec)
工作流体 Power Fluid	滤清之标准液压油 Filtered oil

订购标示法 ORDERING INDICATION

示例： ROA-50-125-FA-T







非标工程缸(重型油压缸)

Non-standard hydraulic cylinder

自动
平衡系统

AUTO BALANCE SYSTEM

产品特性

无需外接动力,节省能源。
可适应高转速时快速平稳提升下降，无噪音，改善配重油压系统之缺点。
在加工过程可使精度及光洁度大幅提升,减去微震动，延长螺杆及电机使用寿命。
安装简单。正确使用下，基本无需任何保养

订购标示法 ORDERING INDICATION

示例：HPT-30-08

HPT	氮气充填压力(MPa)
30	容积（L）
08	系列编号

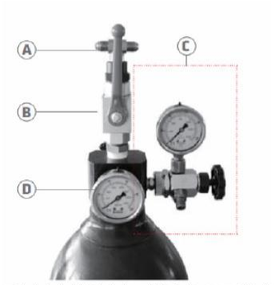
注: 氮气最大充填压力9MPa

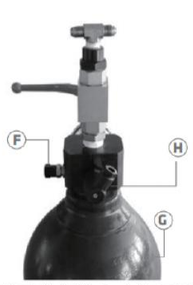
订购时需一并提供下述咨询

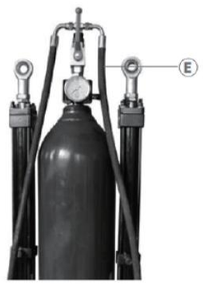
1.配重重量 _____ KG
2.最大位移速度 _____ M/min
3.实际位移行程_____ mm
4.配重油缸数量_____ pcs
5.油管长度 _____ mm

6.配重油缸类型□活塞式□柱塞式
7.配重缸入油方向□前盖入油口□后盖入油
8.如配重缸有特殊尺寸要求请提供相关图面或与本公司服务人员联络，若无特殊要求请参照本公司RO及HO系列产品尺寸.

*Currently sold in Mainland China only.





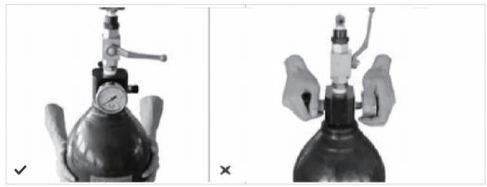


图中红色虚线框中之充、排氮气阀 (C) 及其连接之充气管 (E) 为选配部件,标准产品不含此两项部件 (需另购)。

说明

A.出油口:连接油缸用
B.球阀:液压油开关，逆时针方向为开，氮气瓶与油缸油液互通；顺时针方向为关，氮气瓶与油缸油液截断。
c.充、排放气阀(选配部件，需另购):氮气瓶充、排气工具。
D.耐震压力表:可显示系统压力。
E.充气管(选配部件，需另购):一端连接氮气源，另一端连接充、排气阀，作为氮气源与氮气瓶传输管道。
F.充、排气口:加气及泄压连介面。
G.氮气瓶:储存液压油及氮气。
H.压力开关:当系统压力低于设定值时，压力开关将输出信号，提醒使用者及时充气补充压力。

搬运方法



压力开关设定
压力开关设定，平衡系统上设有一压力开关，当平衡系统压力大于设定值时:

当平衡系统压力小于设定值时:

设定值出厂时会设定好贵公司机器所需压力值，如需自行设定，请用一字螺丝刀拆下保护帽，内有一字螺丝槽，顺时针旋转压力升高，逆时针旋转压力降低，请自行调到合适位置，此处压力称为设定值。

压力开关接线说明:
1.压力开关使用电压为220V或DC24V，拆除压力开关保护帽，接入压力开关接线柱
2.开机后调节合适的设定值
3设定值调节好之后装上保护帽

泄压步骤

1.先确定球阀为关闭状态。
2.取下充、排气口上之螺帽。
3.确定充、排气阀上截止阀为关闭状态后将充、排气阀正确安装于充、排气口上，用扳手锁紧。
4.缓慢开启充、排气阀上之截止开关。
5.观察充、排气阀上之压力表，当压力表缓慢降低至所需压力时将截止阀关闭，卸下充、排气阀。
6.用肥皂水涂抹在充、排气口，测试是否泄漏。
7.将充、排气口螺帽锁紧。

充气步骤

1.先确定球阀为关闭状态。
2.取下充、排气口上之螺帽。
3.确定充、排气阀上截止阀为关闭状态后将充、排气阀正确安装于充、排气口上,用扳手锁紧。
4.使用充气管正确连接氮气源及充、排气阀。
5.开启氮气源开关，并缓慢开启充、排气阀上截止阀。
6.观察充、排气阀上之压力表，当压力缓慢升高至所需压力时将充、排气阀与氮气源截止阀关闭，卸下充、排气阀。
7.用肥皂水涂抹在充、排气口，测试是否泄漏。
8.将充、排气口螺帽锁紧。

使用注意事项

1.安装完成后球阀依逆时针方向缓慢旋转(严禁急速打开球阀)。
2.球阀扳手依逆时针缓慢旋转至45°位置后先暂停，用手轻握油管，会感觉液压油在管内流动。
3.当液压油慢慢充满管路及油缸后再完全打开球阀，使油缸的出力与主轴重量达到平衡。
4.机器运转过程中禁止关闭球阀,球阀上扳手请取下放置工具箱，避免因误触发生故障或危险。

容积	瓶身高度L	外径D
6.3L	525	140
10L	705	152
20L	740	219
30L	1010	219
40L	1350	219
60L	1350	267
80L	1740	267

CALC/YALC/YJGL

杠杆式气压缸

CALC/YALC/YJGL PNEUMATIC LEVERAGE CLAMP

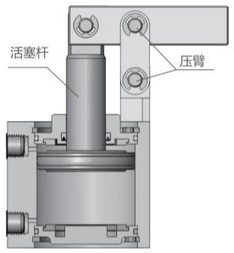
产品特性

此型式气压缸，采用标准规格化治具缸，加装杠杆式夹持机构，活塞推出为夹紧状态，主要机构零件安装于缸体外部，易于维护。缸体材质采用铝合金，内壁表面光滑，具耐磨性，使用寿命长，夹持机构材料均采用机械构造用碳素钢，坚固耐用。
本系列各种型号均可安装磁性感应开关。

FEATURES

The 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.

剖面图 Sectional view



最大操作压力：7kgf/cm²
最小操作压力：3kgf/cm²
作动方式：复动式

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

注意事项

夹紧及放松作动速度需适当放缓

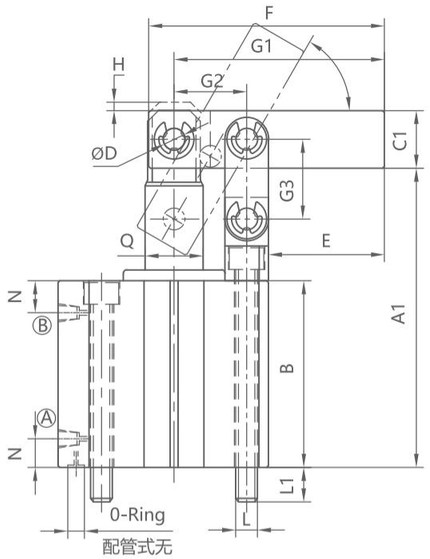
NOTE

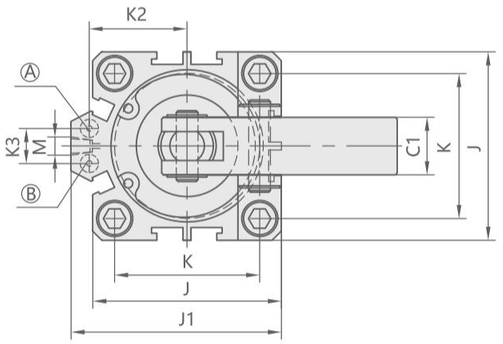
The speed of clamping and unclamping action needs to be slowed down appropriately.

订购标示法 ORDERING INDICATION

示例：CALC-MS32F-S1

CALC	系列 Series	CALC/YALC/YJGL
MS	空白: Blank MS	标准型 Standard type 附磁石感应 With magnetic induction
32	气缸内径 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63 , Φ80 , Φ100
F	气路版式	
S1	感应开关 Sensor switch	S1: 1个 S1: 1 pc of S1 S2: 2个 S2: 2 pc of S2





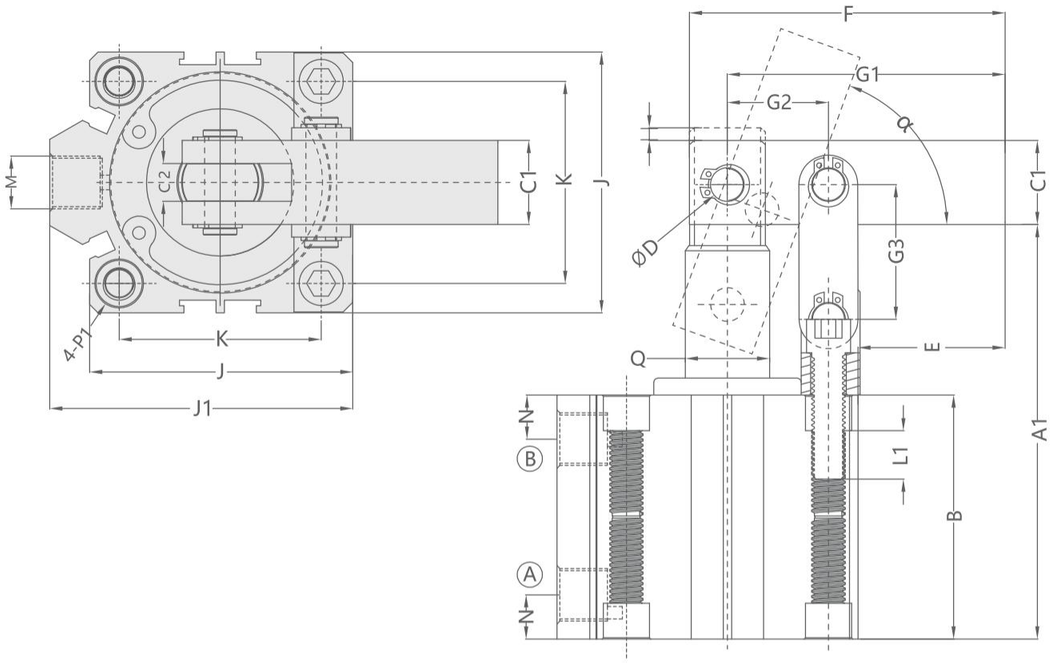
Ⓐ 夹持气孔 Clamping port
Ⓑ 放松气孔 Unclamping port

Unit:mm

型号 Model		CALC-25	CALC-32	CALC-40	CALC-50	CALC-63	CALC-80	CALC-100
标准型 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		42	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
配管式	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
气路版式	K2	-	23	27	33	40	49	59
	K3	-	7	7	13	13	14	14
	O环	-	S3	S3	P4	P4	P5	P5

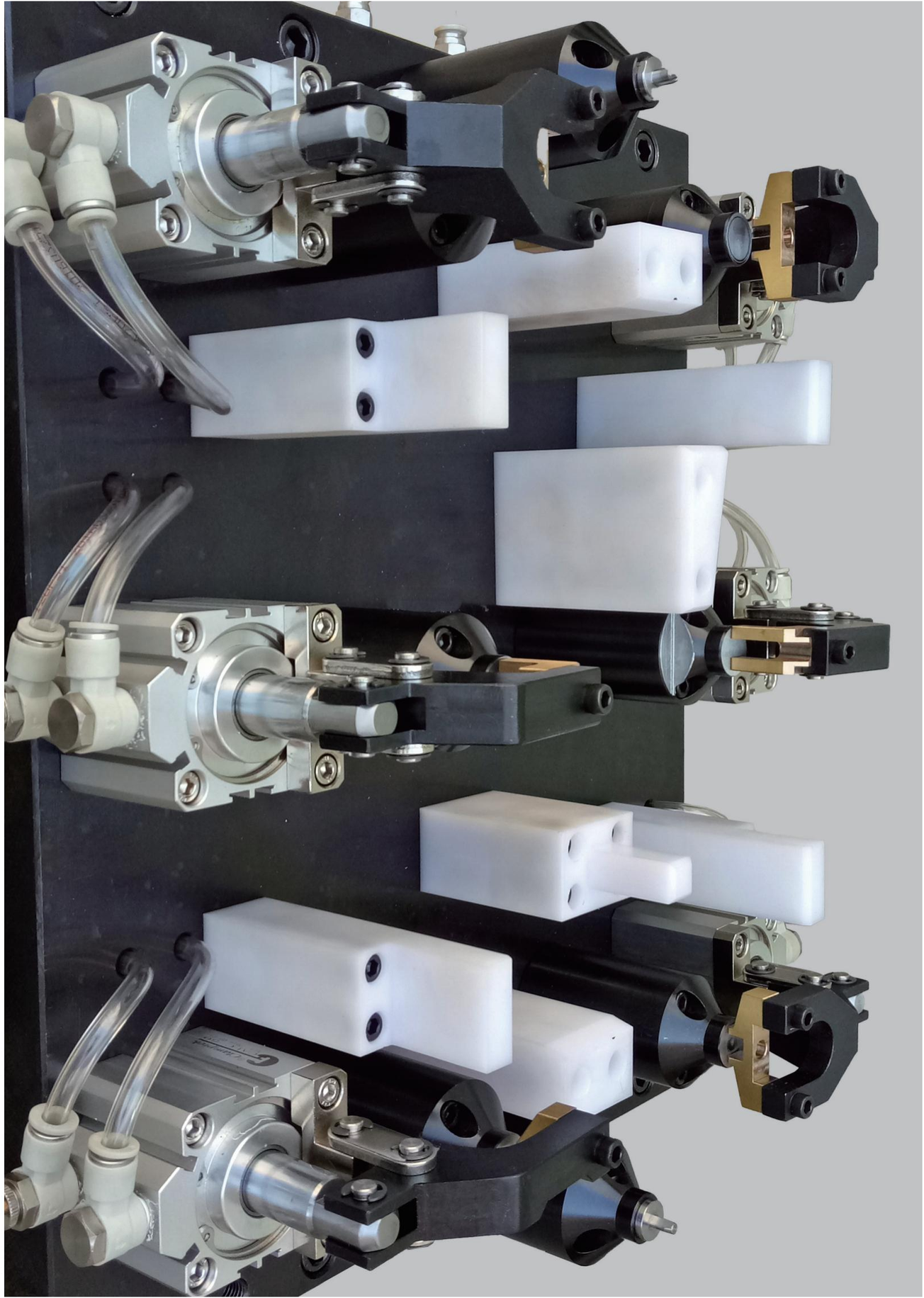
规格参数表 SPECIFICATIONS

型号	理论夹持力 (7kgf/cm²)	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 7kgf/cm² (kgf)	CLAMPING STROKE (mm)	TOTAL STROKE(mm)	EFF.PISTON CAPACITY CLAMP(cm³)	CYLINDER CAPACITY UNCLAMP(cm³)	EFF.PISTON AREA CLAMP(cm²)	EFF.PISTON AREA UNCLAMP(cm²)	RANGE OF TEMPERATURE(°C)	USABLE FLUID
CALC/YALC/YJGL-25	20	17	20	9.82	8.24	4.91	4.12	-10~+60°C	过滤之干燥压缩空气 Filtered dry compressed air
CALC/YALC/YJGL-32	31	20	23	18.49	15.89	8.04	6.91	-10~+60°C	
CALC/YALC/YJGL-40	56	22	25	31.40	26.40	12.57	10.56	-10~+60°C	
CALC/YALC/YJGL-50	91	27	30	58.89	49.47	19.63	16.49	-10~+60°C	
CALC/YALC/YJGL-63	169	32	35	109.06	98.00	31.16	28	-10~+60°C	
CALC/YALC/YJGL-80	279	40	43	216.03	195.22	50.24	45.4	-10~+60°C	
CALC/YALC/YJGL-100	469	45	48	376.80	338.4	78.5	70.5	-10~+60°C	



Unit:mm

型号 Model		YALC-25/ YJGL-25	YALC-32/ YJGL-32	YALC-40/ YJGL-40	YALC-50/ YJGL-50	YALC-63/ YJGL63	YALC-80/ YJGL-80	YALC-100/ YJGL-100
标准型 Standard type	A1	68	78.5	84	88.5	116	138	163.5
	B	41	49.5	51	58	72	81	99
附磁石型 With magnet	A1	78	88.5	94	98.5	126	148	173.5
	B	51	59.5	61	68	82	91	109
C1		□12	□16	□16	□20	□22	□22	□25
C2		6.1	8.1	8.1	10.1	10.1	10.1	12.2
ΦD		φ6	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
L1		8	8	9.5	11	11	15.5	15.5
M		M5x0.8	PT1/8	PT1/8	PT1/4	PT1/4	PT1/4	PT1/4
N		8	9.5	10	11	12	14	17
a		77°	75°	73°	73°	75°	65°	60°
Q		φ10	φ12	φ16	φ20	φ20	φ25	φ32
P1(不配安装螺丝)		YALC-25/YJGL-25	双边沉孔φ8.2	深5.5	牙M6X1.0	通孔5.1		
		YALC-32/YJGL-32	双边沉孔φ8.2	深5.5	牙M6X1.0	通孔5.1		
		YALC-40/YJGL-40	双边沉孔φ10.2	深8.5	牙M8X1.25	通孔6.5		
		YALC-50/YJGL-50	双边沉孔φ11	深8.5	牙M8X1.25	通孔6.5		
		YALC-63/YJGL-63	双边沉孔φ11	深8.5	牙M8X1.25	通孔6.5		
		YALC-80/YJGL-80	双边沉孔φ14	深11	牙M12X1.75	通孔9.2		
		YALC-100/YJGL-100	双边沉孔φ17.6	深12.5	牙M14X2	通孔11.3		



CPLCU

气压杠杆缸

CPLCU PNEUMATIC LEVERAGE CLAMP

产品特性

缸体的材质采用铝合金，活塞杆材质是45钢,热处理，表面镀铬。
本产品使用了的密封圈，可避免了气缸的泄漏，且其寿命长。
应用了杠杆原理，使工件容易夹紧，提高效率。

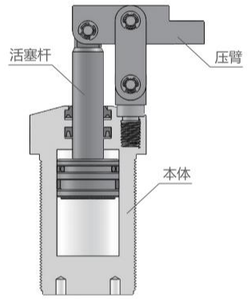
最大操作压力：7kgf/cm²
最小操作压力：3kgf/cm²
作动方式：复动式

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: 7kgf/cm²
Min. operation pressure: 3kgf/cm²
Double acting

剖面图 Sectional view



注意事项

夹紧及放松作动速度需适当放缓。

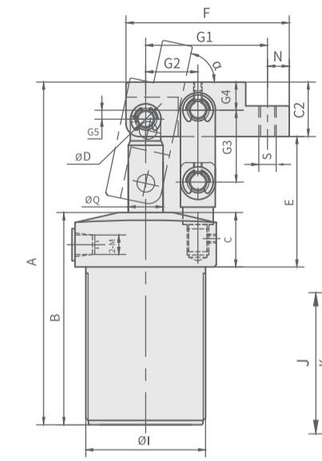
NOTE

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

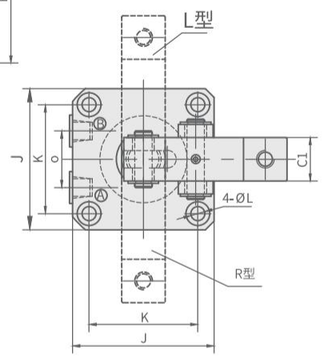
订购标示法 ORDERING INDICATION

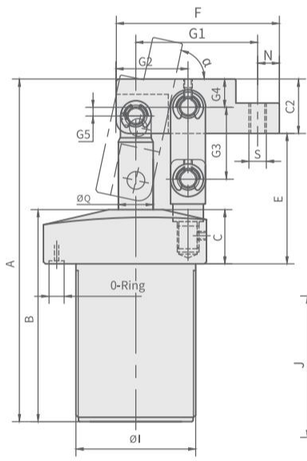
示例：CPLCU-40R-WF

CPLCU	系列 Series	CPLCU	
40	气缸内径 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63	
R	压臂安装方式 Lever arm direction	标准型：空白 L：左 R：右	Standard：Blank L：Left R：Right
W	W:缸体上三方具有压臂安装座孔		
F	气路版式		

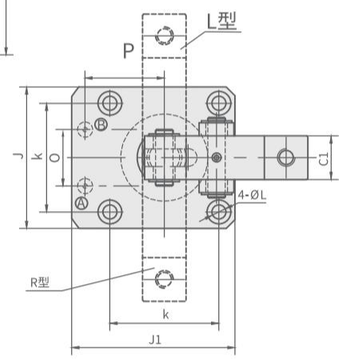


配管式 LINE TYPE





气路板式-F



Ⓐ 夹持气孔 Clamping port
Ⓑ 放松气孔 Unclamping port

Unit:mm

型号 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°
气路板式 J1	60	70	75	88	108
气路板式 P	26	30.5	33	38	48
气路板式 O环	P3	P7	P7	P7	P7

规格参数表 SPECIFICATIONS

型号 MODEL	理论夹持力 (7kgf/cm²) CLAMPING FORCE AT 7kgf/cm² (kgf)	夹紧行程 CLAMPING STROKE (mm)	总行程 TOTAL STROKE(mm)	推出容积 CYLINDER CAPACITY CLAMP(cm³)	拉入容积 CYLINDER CAPACITY UNCLAMP(cm³)	推出受压面积 EFF.PISTON AREA CLAMP(cm²)	拉入受压面积 EFF.PISTON AREA UNCLAMP(cm²)	使用温度范围 RANGE OF TEMPERATURE(℃)	使用流体 USABLE FLUID
CPLCU-25	27	20	24	11.78	8.09	4.91	3.37	-10~+60℃	过滤之干燥压缩空气 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

气压转角缸

ASC PNEUMATIC SWING CLAMP

产品特性

本产品适用于量产零件之专用机及MC治具，提高生产效率的帮手。
主要功能为气压缸作动时，活塞下压行程中压板会旋转到设计的角度，再沿著直线继续下压直到压板夹紧工件。
建议使用气压转角缸，请加装流量控制阀，避免速度过快，以及转角行程中，请勿夹持工件，导致损坏缸体及内部零件。
缸体材质采用铝合金，表面硬膜处理，内壁表面光滑，使用寿命长。

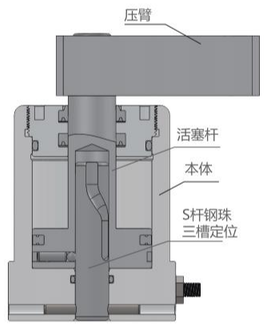
最大操作压力：7 kgf/cm²
最小操作压力：4 kgf/cm²
作动方式：复动式

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. operation pressure: 4 kgf/cm²
Double acting

剖面图 Sectional view



注意事项

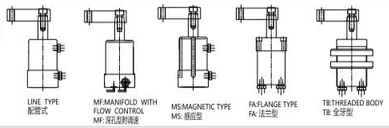
夹紧及放松作动速度需适当放缓。
特殊压臂长度及重量不得超过标准压臂的1.5倍。压臂旋转示意图及安装拆卸方式，请参见第4页。

NOTE

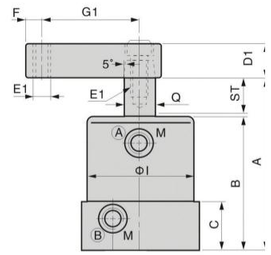
The speed of clamping and unclamping action needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to Page 4 for installation instructions or removal methods of the clamping arm.
Customization is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

订购标示法 ORDERING INDICATION

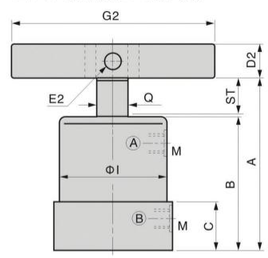
示例：ASC-MF32SR-90E

ASC	系列 Series	ASC
MF	类型 Type	空白：配管式 Blank: Line type MS：感应型 MS: Magnetic type MF: 深孔型附调速 MF: Manifold with flow contro FA: 法兰型 FA: Flange type TB:全牙型 TB: Threaded body 
32	气缸内径 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63
S	压板型式 Clamping arm type	S: 单边压板 D: 双边压板 S: Single side arm D: Double side arm
R	转角方向 Rotating direction	R: 顺时针右转 L: 逆时针左转 N: 0°不旋转 R: Turn right L: Turn left N: 0°No swing
90	转角角度 Rotating angle	标准角度 Stardard angle 90°（±2°） 订做角度 Order angle 0°,45°(±2°) ,60°（±2°）
E	行程加长 Stroke extension	(具体行程加长型号详见后面尺寸表)

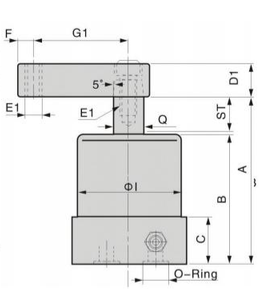
配管式 LineType-S
Single side swing clamp



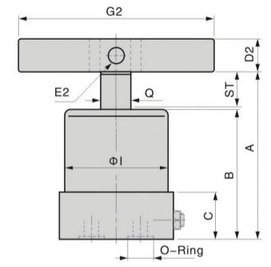
配管式 LineType-D
Double side swing clamp
注: 下图为转角90°松开状态

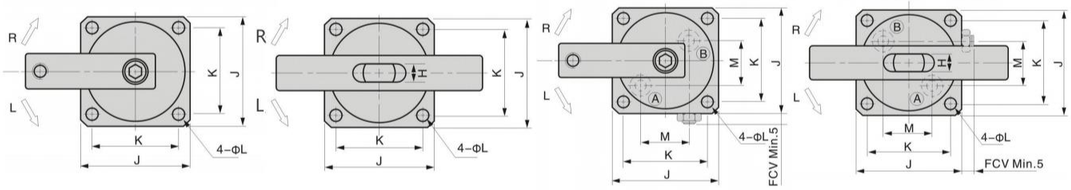


深孔型附调速MF-S
Single side swing clamp



深孔型附调速MF-D
Double side swing clamp
注: 下图为转角90°松开状态





Ⓐ 夹持气孔 Clamping port
Ⓑ 放松气孔 Unclamping port

Unit:mm

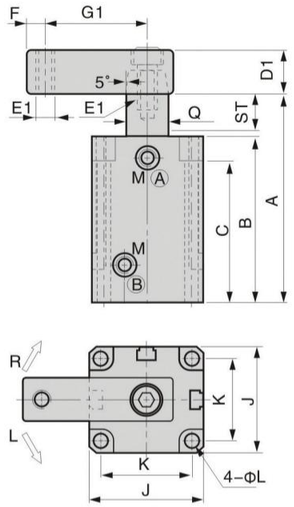
MODEL	ST:Swing /Clamping	A松开状态 Unclamp	B	C	D1	D2	E1	E2	F	G1	G2	H	ΦI	J	K	L	M	O-RING	Q
ASC-25	22:9/13	89	65	23	□16	–	M6×1.0	–	6	35	–	–	Φ35	38	30	Φ4.6	M5×0.8	–	Φ14
ASC-32	26:11/15	108	78	28	□19	□19	M8×1.25	Φ8	8	50	140	9	Φ46	50	40	Φ5.6	PT1/8	–	Φ16
	41:11/30	138	93																
ASC-40	26:11/15	108	78	28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

规格参数表 SPECIFICATIONS

型号	理论夹持力 (7kgf/cm²)	转角行程	夹紧行程	总行程	推出容积	拉入容积	推出受压面积	拉入受压面积	使用温度范围	使用流体
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(°C)	USABLE FLUID
ASC-25	24	9	13	22	12.28	7.41	4.91	3.37	-10~+60°C	过滤之干燥压缩空气 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°C	
ASC-40	74	11	15/30	26/41	32.66/51.5	27.43/43.26	12.56	10.55	-10~+60°C	
ASC-50	115	13	17/34	30/47	58.89/92.26	49.47/77.5	19.63	16.49	-10~+60°C	
ASC-63	196	13	17/34	30/47	93.48/146.45	84.06/131.69	31.16	28.02	-10~+60°C	

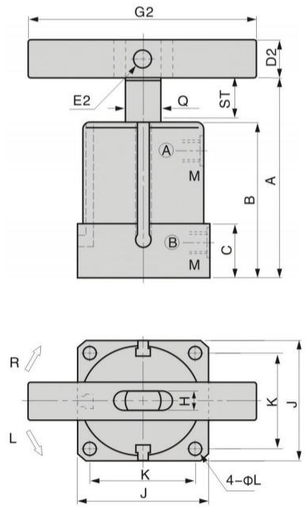
感应式 MS25S

Single side swing clamp



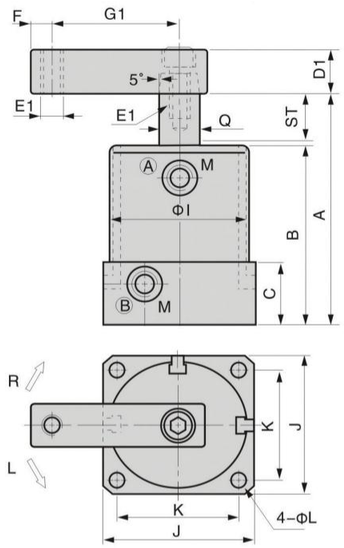
感应式 MS32D-63D

Double side swing clamp
注: 下图为转角90°松开状态



感应式 MS32S-63S

Single side swing clamp

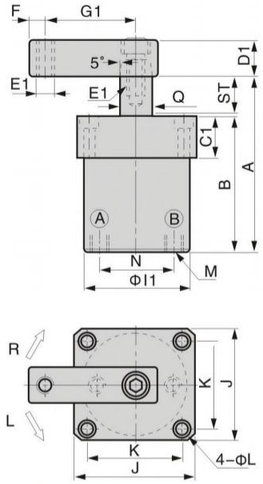


Unit:mm

MODEL	ST:Swing /Clamping	A松开状态 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

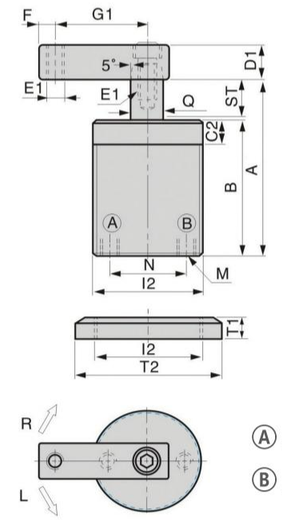
法兰型FA-S

Single side swing clamp



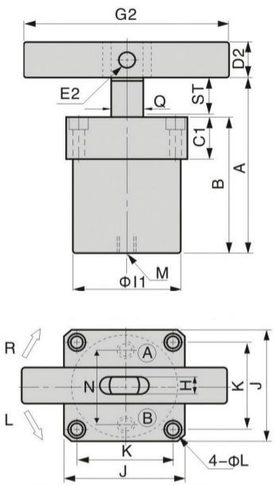
全牙型TB-S

Single side swing clamp



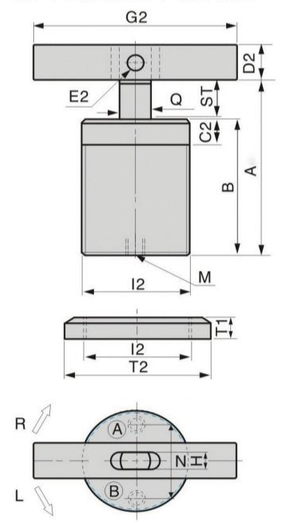
法兰型FA-D

Double side swing clamp
注: 下图为转角90°松开状态



全牙型TB-D

Double side swing clamp
注: 下图为转角90°松开状态



Ⓐ 夹持气孔 Clamping port

Ⓑ 放松气孔 Unclamping port

Unit:mm

MODEL	ST:Swing /Clamping	A松开状态 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

NAU

上法兰气路板型气压转角缸

NAU PNEUMATIC SWING CLAMP

产品特性

缸体的材料是铝合金，表面进行了发黑处理，表面热处理增加其耐磨性。
压紧的方法有单臂和双臂两种。

FEATURES

Aluminum alloy body Blackening,Surface heat-treatment for product good wear-resisting .
The type of clamping includes single side swing clamp and double side swing clamp.

最大操作压力：7 kgf/cm²
最小操作压力：4 kgf/cm²
作动方式：复动式

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

注意事项

夹紧及放松作动速度需适当放缓。
特殊压臂长度及重量不得超过标准压臂的1.5倍。
压臂旋转示意图及安装拆卸方式，请参见第4页。

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.

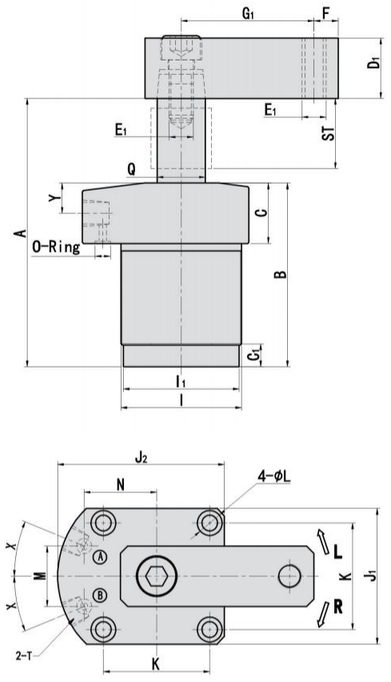
订购标示法 ORDERING INDICATION

示例：NAU-L-40×90

NAU	系列 Series	NAU
L	转角方向Rotating direction	右转R或左转L Turn right R or turn left L
40	气缸内径 Cylinder inside diameter	Φ32 , Φ40 , Φ50 , Φ63
90	转角角度 Rotating angle	标准角度 Standard angle 90°(±2°) 订做角度 Order angle 0°,45°(±2°) ,60°(±2°)

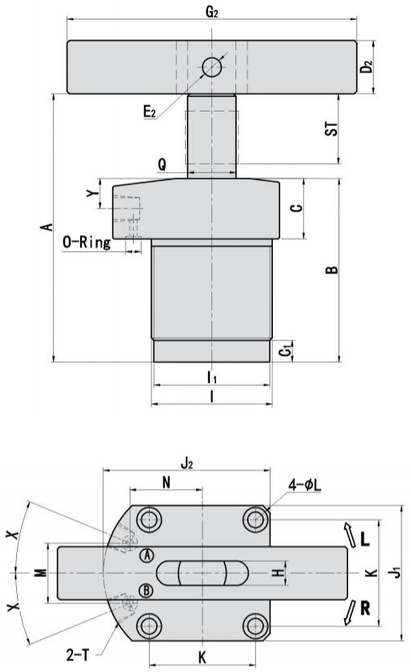
NAU

Single side swing clamp



NAUD

Double side swing clamp
注：下图为转角90°松开状态



Ⓐ 夹持气孔 Clamping port
Ⓑ 放松气孔 Unclamping port

型号	理论夹持力 (7kgf/cm²)	转角行程	夹紧行程	总行程	拉入容积	推出容积	拉入受压面积	推出受压面积	使用温度范围
MODEL	CLAMPING FORCE AT 7kgf/cm² (kgf)	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)
NAU-32	34	14	15	29	14.21	23.32	4.9	8.04	-10~+60°C
NAU-40	66	14	15	29	27.32	36.42	9.42	12.56	-10~+60°C
NAU-50	115	14	15	29	47.82	56.93	16.49	19.63	-10~+60°C
NAU-63	184	14	15	29	76.13	90.36	26.25	31.16	-10~+60°C

Unit:mm

MODEL	ST:Swing /Clamping	A松开状态 Unclamp	B	C	C1	D1	D2	E1	E2	F	G1	G2	H	I	I1	J1	J2	K	L	M	N	T	X	Y	Q	O-Ring
NAU-32 NAUD-32	29:14/15	111	76	25	9	□ 25	□ 22	M10	Φ8	10	55	120	10	M50×1.5	Φ48	56	69	44	Φ6.5-Φ10.5×6.5D	24.9	30	PT1/8	22.5°	12.5	Φ20	P5
NAU-40 NAUD-40	29:14/15	113.6	80	27	9	□ 25	□ 22	M10	Φ8	10	55	120	10	M55×1.5	Φ53	62	71.5	48	Φ6.5-Φ10.5×6.5D	26	31.4	PT1/8	22.5°	14	Φ20	P5
NAU-50 NAUD-50	29:14/15	114.5	80	27	9	□ 25	□ 22	M10	Φ8	10	55	120	10	M65×1.5	Φ63	74	87	57	Φ8.5-Φ14×9D	27.4	37.6	PT1/8	20°	14	Φ20	P7
NAU-63 NAUD-63	29:14/15	118	85	32	9	□ 32	□ 25	M12	Φ10	11	75	140	12	M80×1.5	Φ77	88	105.5	70	Φ11-Φ16.5×11D	38	46	PT1/8	22.5°	19	Φ25	P7

PB

感应式气压转角缸

PB PNEUMATIC SWING CLAMP

产品特性

设计简单，结构紧凑，重量轻，寿命长以及高的夹持力使它成为一种好的夹具。
本产品有长行程及短行程两种可任意选择上面和下面安装。
广泛应用于工业自动化，例如: 薄片金属的夹持、输送带上工件的夹紧输送，以及包装流水线作业。

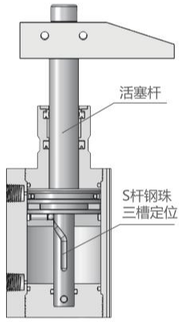
最大操作压力：7 kgf/cm²
最小操作压力：4 kgf/cm²
作动方式：复动式

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. operation pressure: 4 kgf/cm²
Double acting

剖面图 Sectional view



注意事项

夹紧及放松作动速度需适当放缓。
特殊压臂长度及重量不得超过标准压臂的1.5倍。压臂旋转示意图及安装拆卸方式，请参见第4页。

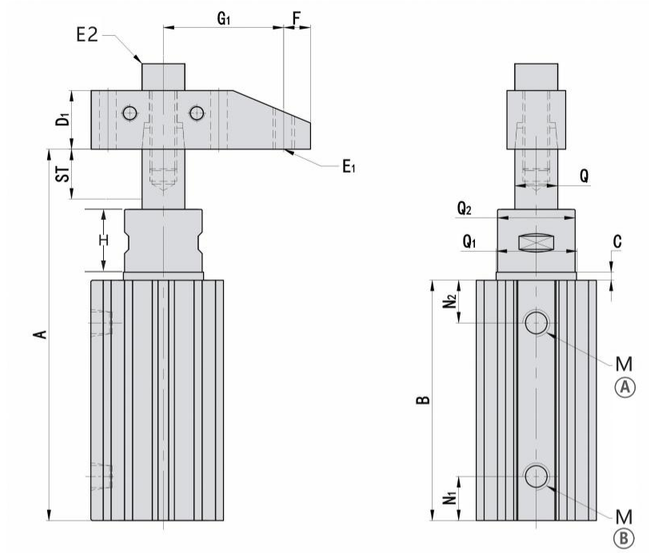
NOTE

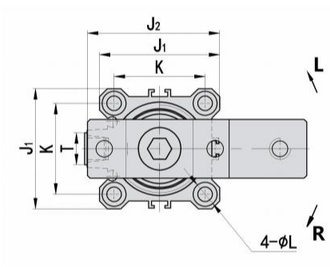
The speed of clamping and unclamping action needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to Page 4 for installation instructions or removal methods of the clamping arm.

订购标示法 ORDERING INDICATION

示例：PBS-40R-90-S2

PB	系列 Series	PB
S	行程 Stroke	长行程L　L: Long stroke 短行程S　S:Short stroke
40	气缸内径 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50
R	转角方向 Rotating direction	右转R或左转L Turn right or turn left
90	转角角度 Rotating angle	标准角度 Stardard angle 90°（±2°） 订做角度 Order angle 0°,45°（±2°),60°（±2°）
S2	感应开关 Sensor switch	S1：1个　S1:1 pc of S1 S2：2个　S2:2 pcs of S2





Ⓐ 夹持气孔 Clamping port
Ⓑ 放松气孔 Unclamping port

规格参数表 SPECIFICATIONS

型号	理论夹持力 (7kgf/cm²)	转角行程	夹紧行程	总行程	拉入容积	推出容积	拉入受压面积	推出受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 7kgf/cm² (kgf)	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)	USABLE FLUID
PBS-25	24	9.5	10	19.5	6.57	9.57	3.37	4.91	-10~+60°C	过滤之干燥压缩空气 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	

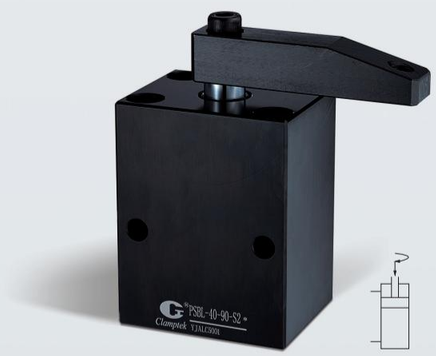
Unit:mm

MODEL	ST:Swing /Clamping	A松开状态 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

气压块状转角缸

PSB PNEUMATIC SWING CLAMP



产品特性

设计简单，结构紧凑，重量轻，寿命长以及高的夹持力使它成为一种好的夹具。
本产品有可加装感应器，可任意选择上面和下面及侧面安装。

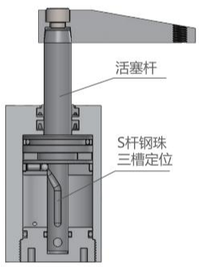
FEATURES

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.

最大操作压力：7 kgf/cm²
最小操作压力：4 kgf/cm²
作动方式：复动式

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

剖面图 Sectional view



注意事项

夹紧及放松作动速度需适当放缓。
特殊压臂长度及重量不得超过标准压臂的1.5倍。
压臂旋转示意图及安装拆卸方式，请参见第4页。

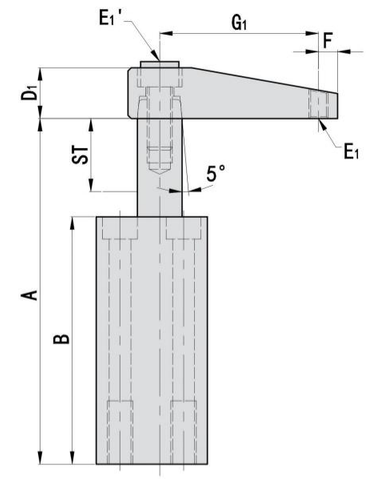
NOTE

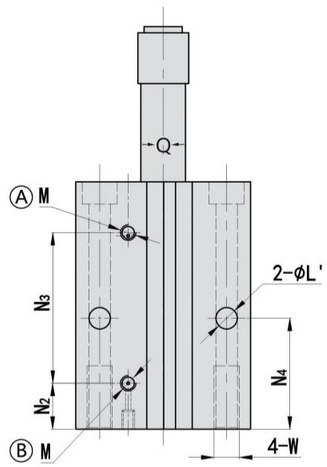
The speed of clamping and unclamping action needs to be slowed down appropriately.
The length and weight of the customized clamping arm shall not exceed 1.5 times of the standard clamping arm.
Please refer to page 4 for the rotation diagram, installation instruction and removal methods of the clamping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

订购标示法 ORDERING INDICATION

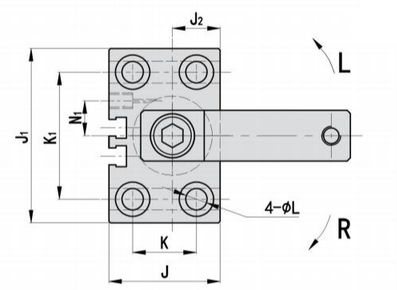
示例：PSB-40-90-S1

PSB	系列 Series	PSB
L	转角方向 Rotating direction	右转R或左转L Turn right or turn left
40	气缸内径 Cylinder inside diameter	Φ25 , Φ32 , Φ40 , Φ50 , Φ63
90	转角角度 Rotating angle	标准角度 Stardard angle 90°（±2°） 订做角度 Order angle 0°,45°（±2°),60°（±2°）
S1	感应开关 Sensor switch	S1：1个　S1:1 pc of S1 S2：2个　S2:2 pcs of S2





Ⓐ 夹持气孔 Clamping port
Ⓑ 放松气孔 Unclamping port



E2

规格参数表 SPECIFICATIONS

型号	理论夹持力 (7kgf/cm²)	转角行程	夹紧行程	总行程	拉入容积	推出容积	拉入受压面积	推出受压面积	使用温度范围	使用流体
MODEL	CLAMPING FORCE AT 7kgf/cm² (kgf)	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)	USABLE FLUID
PSB-25	24	13	14	27	9.10	13.26	3.37	4.91	-10~+60℃	过滤之干燥压缩空气 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松开状态 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

气压支撑缸

CSW PNEUMATIC SUPPORT CLAMP

产品特性

气压上升型:
活塞杆初始状态为下降，供给气压使活塞杆上升并接触供件任意位置后停止，在停止的同时气压作用于夹套的夹紧力施加于活塞杆，使活塞杆得以稳固的支撑工件。

弹簧上升型:
活塞杆初始状态为上升，将工件放置于活塞杆上因工件的重量而下降到特定距离，此时供给气压作用于夹套的夹紧力施加于活塞杆，使活塞杆得以稳固的支撑工件。

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.

订购标示法 ORDERING INDICATION

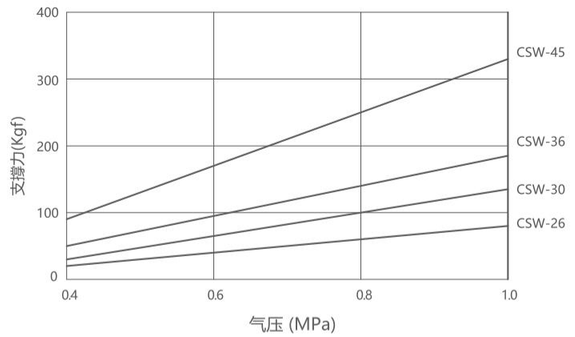
示例：CSW-30BLP

CSW	系列 Series	CSW			
30	气缸外径 Cylinder external inside diameter	M26×1.5	M36×1.5	M30×1.5	M45×1.5
B	型式 type	A: 弹簧上升型 B: 气压上升型(标准)		A: Spring rising type B: Pneumatic rising type(standard)	弹簧上升型 气压上升型
L	压强 Pressure	低压 1MPa		Low Pressure 1 Mpa	
P	版本 Version				
L	弹簧力	无记号：标准型 L:弱弹簧型		No mark：Standard L:Low spring	

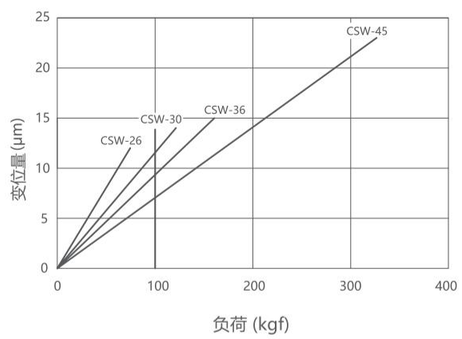
规格参数表 SPECIFICATIONS

型号	理论夹持力	理论支撑力	行程	气缸容积	帽盖最大允许质量	活塞杆面积	使用流体
MODEL	CLAMPING FORCE AT 10kgf/cm²(kgf)	CLAMPING FORCE AT 4kgf/cm²(kgf)	STROKE (mm)	CYLINOED CAPACITY(cm³)	Max.allowable mass of cap(Kg)	PISTON AREA(cm²)	USABLE FLUID
CSW-26AL	80	20	6.5	1.20	0.025	0.64	过滤之干燥压缩空气 Filtered dry compressed air
CSW-26BL	80	20	6.5	1.20	0.025	0.64	
CSW-30AL	130	30	6.5	1.80	0.025	0.64	
CSW-30BL	130	30	6.5	1.80	0.025	0.64	
CSW-36AL	190	50	8	2.70	0.025	0.79	
CSW-36BL	190	50	8	2.70	0.025	0.79	
CSW-45AL	350	90	8	4.80	0.025	1.13	
CSW-45BL	350	90	8	4.80	0.025	1.13	

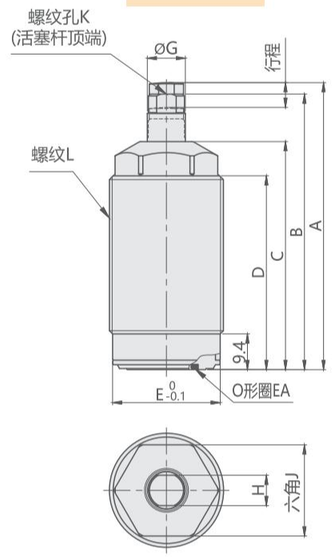
气压与工件支撑力的关系



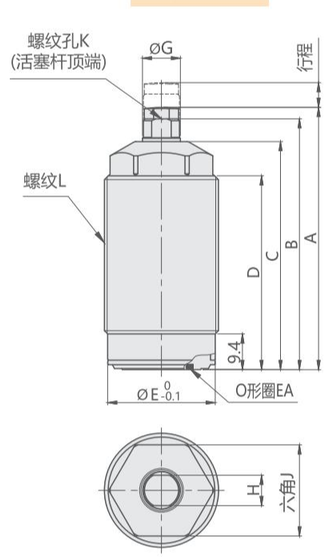
负荷与变位量的关系



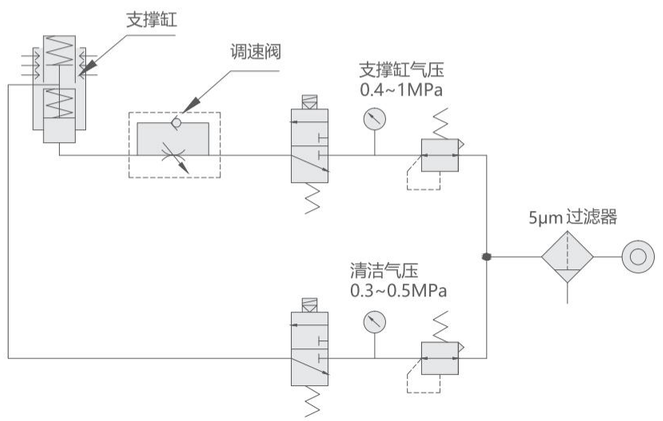
CSW-AL



CSW-BL



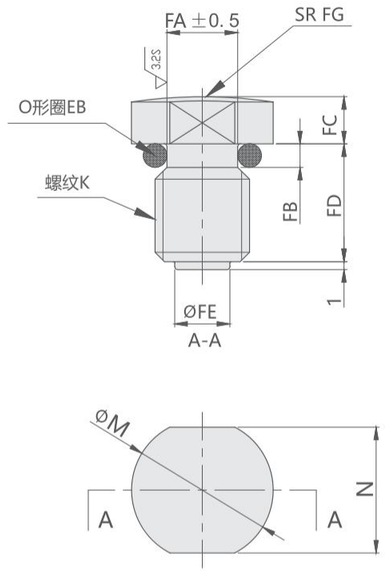
气压回路图



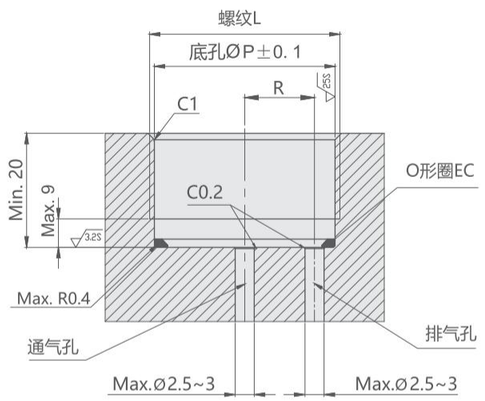
注意事项

1.请通过调速阀来调整支撑杆的上升动作度，以使其上升动作时间在0.5秒以上。
2.请避免以下使用方法。否则会导致支撑缸动作不顺及支撑力下降。
×向支撑杆施加偏心负荷
×施加超过额定支撑力的负荷
×锁定时转动支撑杆
3.请使通气孔与大气连通，且必须阻止切液、切屑等异物进入。否则会导致支撑缸损坏。
4.请仅在换夹工件时进行空气清洁。空气清洁时，支撑杆会有上升。

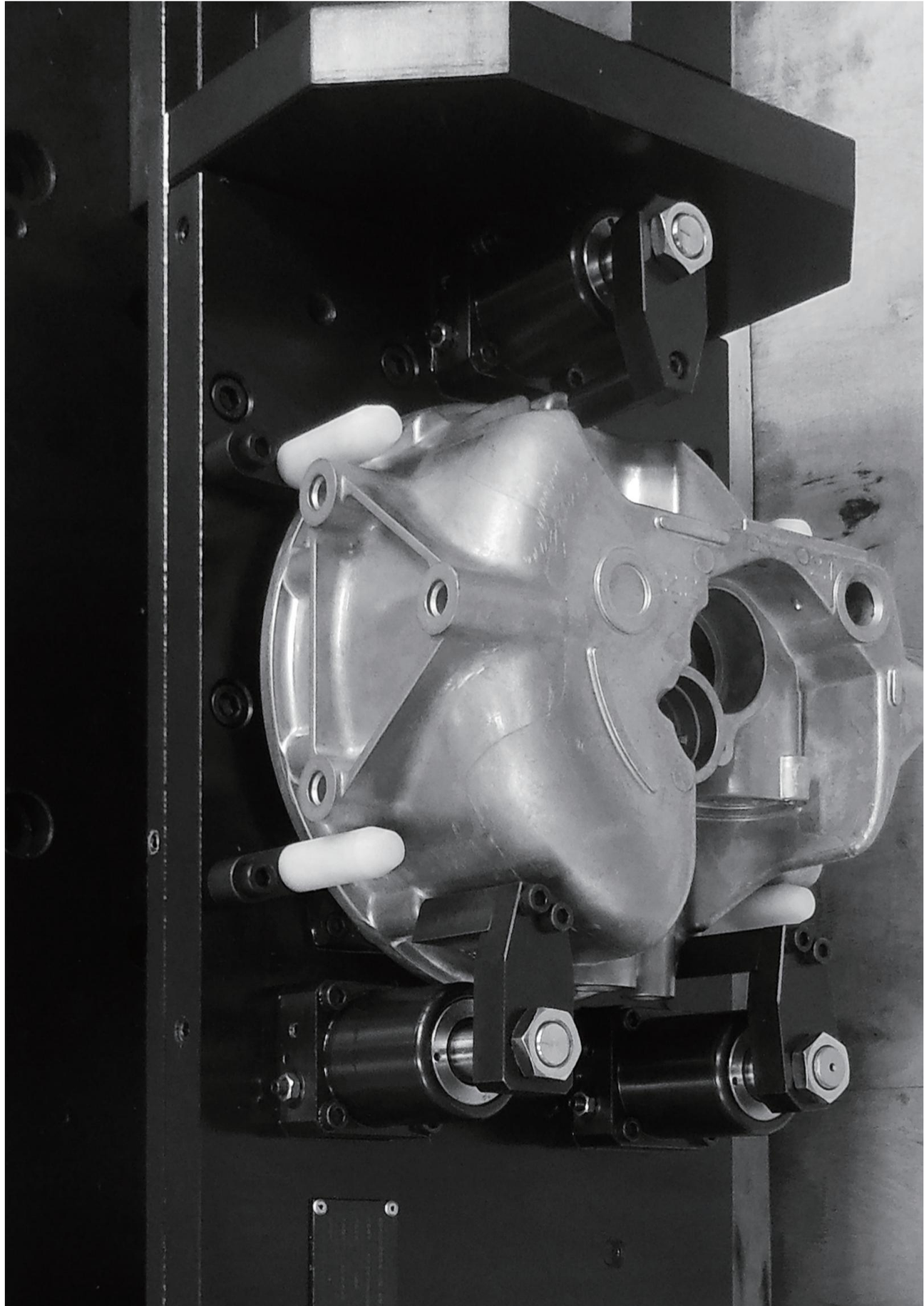
帽盖详图



安装尺寸



型号	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 (活塞杆对边宽)	8	8	8	8	8	8	10	10
J (六角对边宽)	22	22	24	24	30	30	36	36
K (公称直径X螺距)	M6x1	M6x1	M6x1	M6x1	M6x1	M6x1	M8x1.25	M8x1.25
L (公称直径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 (对边宽)	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型圈EA (氟橡胶硬度Hs90)	AS568-013	AS568-013	AS568-014	AS568-014	AS568-014	AS568-014	AS568-015	AS568-015
O型圈EB (氟橡胶硬度Hs70)	S5	S5	S5	S5	S5	S5	S6	S6
O型圈EC (氟橡胶硬度Hs90)	AS568-020	AS568-020	AS568-022	AS568-022	AS568-026	AS568-026	AS568-030	AS568-030



UCQ2

薄型铝合金气缸

UCQ2 THIN-TYPE PNEUMATIC CYLINDER

产品特性 FEATURES

气缸内径 (mm)	Φ12	Φ16	Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
标准行程 (mm)	5 , 10 , 15 , 20 , 25 , 30 , 35 , 40 , 45 , 50									
行程范围 (mm)	Max:30		Max:50							
使用温度范围 (℃)	-10 ~ +60 ℃									

最大操作压力：10 kgf/cm²　　Max. operating pressure: 10 kgf/cm²

最小操作压力：1 kgf/cm²　　Min. operation pressure: 1 kgf/cm²

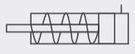
注意事项

UCQ2系列可附磁性感应（单动不附磁性感应）
行程在50mm以上属于特殊定制

NOTE

Magnetic piston(optional).
Stroke in more than 50 mm belongs to special custom.

单双动气缸 DOUBLE-SINGLE ACTING CYLINDERS

单动常入型 (压回) Single acting-normally retracted piston rod type	UCQ2...S	
单动常出型 (压出) Single acting-normally extended piston rod type	UCQ2...T	
双动单轴标准型 Double acting-single end rod type	UCQ2...	
双动单轴型附磁性感应 Double acting-single end rod type(piston with magnet)	UCDQ2...	
双动双轴型 Double acting-double end rod type	UCQ2W...	
双动双轴型附磁性感应 Double acting-double end rod type(piston with magnet)	UCDQ2W...	

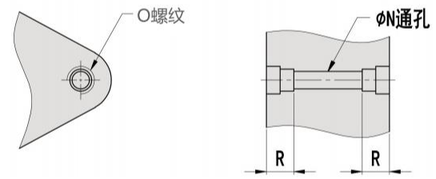
订购表示法 ORDERING INDICATION

示例：UCDQ2WB20-10-SMDA73*2

UC	系列 Series	UC
D	磁性感应 Magnetic	无: 无附磁性感应　D: 内附磁性感应　Nil: No magnet　D: With magnet
Q2W	活塞杆 Piston rod	Q2: 单轴　Q2W: 双轴 Q2: Single end rod　Q2W: Double end rod
B	安装方法 Mounting method	A: 两端内螺纹　B: 通孔(标准) A:Female thread　B:Hole
20	气缸内径 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	动作型式 Acting	无：双动　Nil: Double acting S: 单动 (压回)　S: Single acting(Retracted) T: 单动(压出)　T: Single acting(Extended)
M	轴端型式 Rod end	无: 内牙　M: 外牙　Nil：Female　M：Male
D-A73	近接开关 Rod end	D-A72:AC220V 5-10mA　D-A73:DC24V 5-40mA AC100V 5-20mA
2	数量 Quantity	1:1pcs　2:2pcs

使用流体: 过滤之干燥压缩空气　Usable fluid: Oiled Dry Clean Compressed Air

两端内螺纹

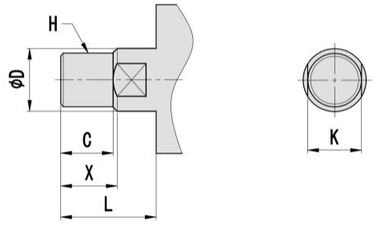


UCQ2A / UCDQ2A

Unit:mm

缸径 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

杆端外螺纹

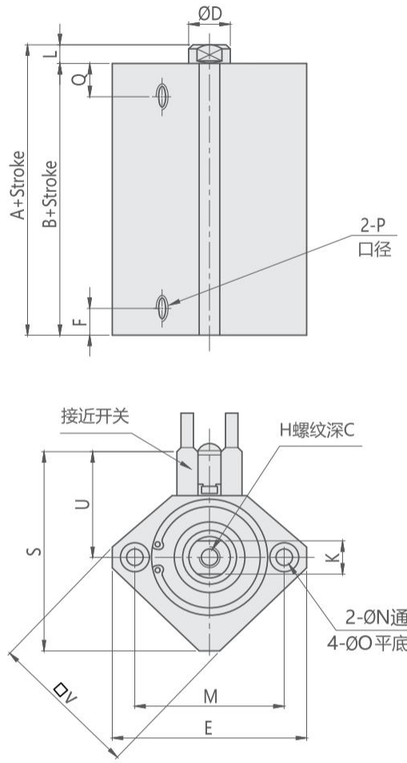


Unit:mm

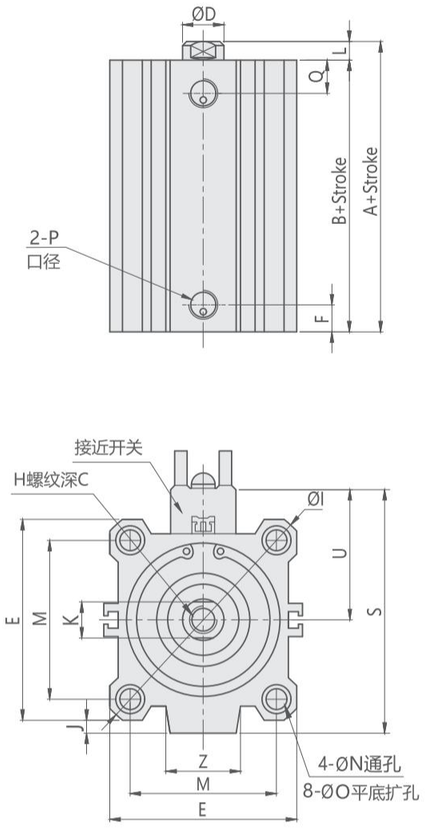
缸径BORE	12	16	20	25	32	40	50	63	80	100
C	9	10	12	15	20.5	20.5	26	26	32.5	32.5
X	10.5	12	14	17.5	23.5	23.5	28.5	28.5	35.5	35.5
ΦD	6	8	10	12	16	16	20	20	25	30
H	M5×0.8	M6×1.0	M8×1.25	M10×1.25	M14×1.5	M14×1.5	M18×1.5	M18×1.5	M22×1.5	M26×1.5
L	14	15.5	18.5	22.5	28.5	28.5	33.5	33.5	43.5	43.5
K	5	6	8	10	14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

UCQ2B/UCDQ2B TYPE

Bore Ø12 ~ Ø25



Bore Ø32 ~ Ø100



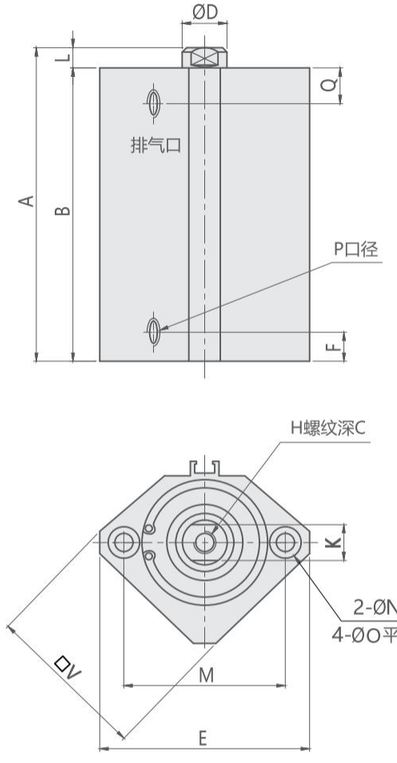
Unit:mm

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

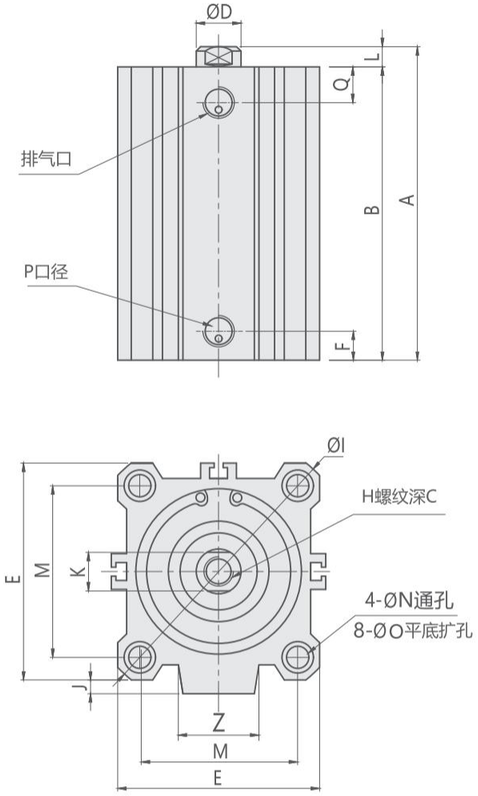
注: 带[*] 号为磁性气缸尺寸 Remark: With [*] mark is for magnetic cylinder dimensions.

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

Bore Ø12 ~ Ø25



Bore Ø32 ~ Ø50



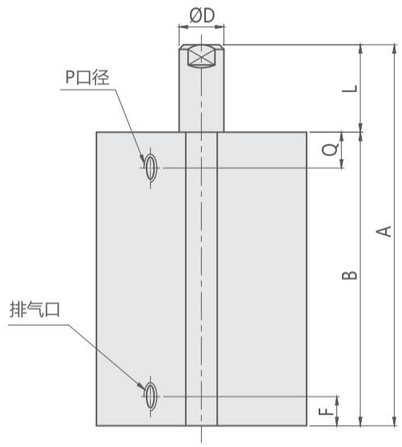
Unit:mm

缸径 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

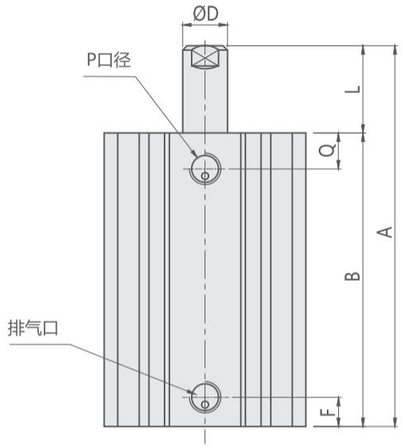
注: 以上A及B的尺寸已包含行程长度 Remark: Above A and B size contains stroke length

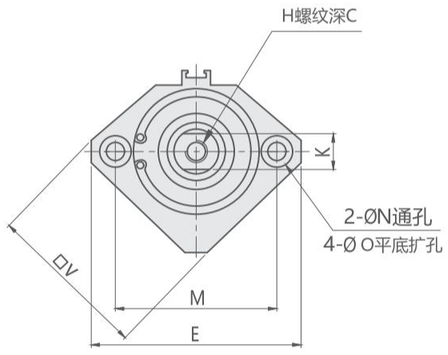
UCQ2B...T TYPE
UCQ2A...T TYPE

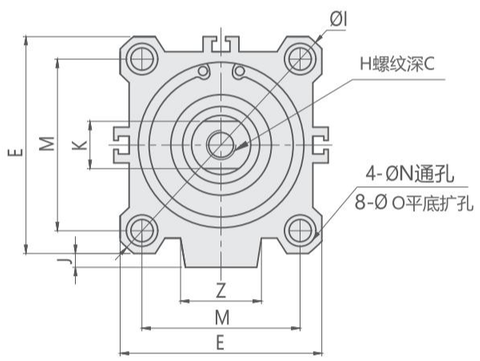
Bore Ø12 ~ Ø25



Bore Ø32 ~ Ø50







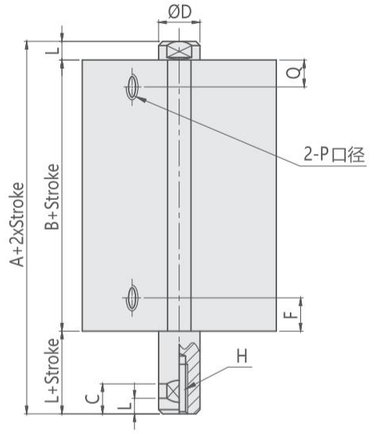
Unit:mm

缸径 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

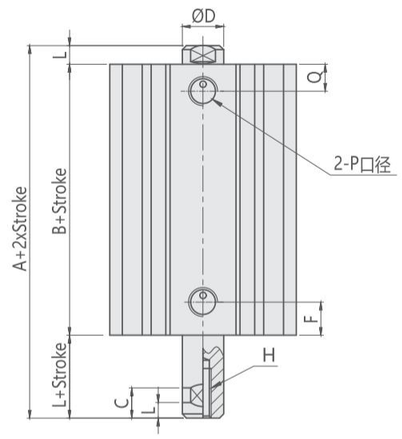
注:以上A及B的尺寸已包含行程长度　Remark: Above A and B size contains stroke length.

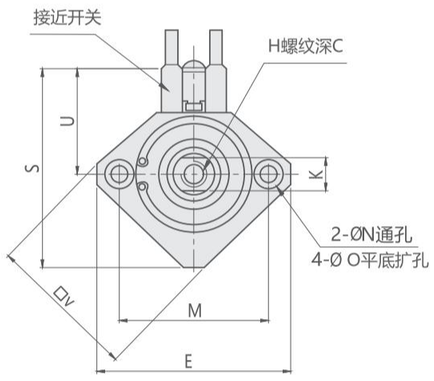
UCQ2W...B.../UCDQ2W...B...TYPE
UCQ2W...A.../UCDQ2W...A...TYPE

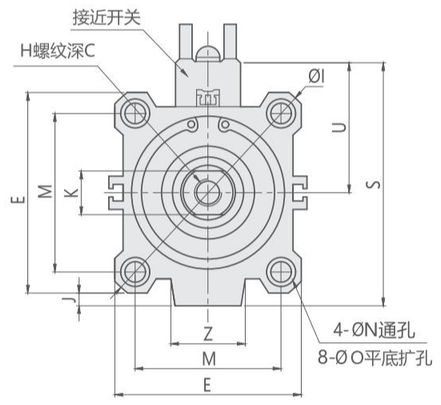
Bore Ø12 ~ Ø25



Bore Ø32 ~ Ø100







Unit:mm

缸径 DIAMETER	行程范围 (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

注:带(*)号为磁性气缸尺寸　Remark: With (*) mark is for magnetic cylinder dimensions.

SDA

薄型铝合金气缸

SDA THIN-TYPE PNEUMATIC CYLINDER

产品特性 FEATURES

气缸内径 (mm)	Φ12	Φ16	Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
标准行程 (mm)	5 , 10 , 15 , 20 , 25 , 30 , 35 , 40 , 45 , 50									
行程范围 (mm)	Max:60		Max:100	Max:120						
使用温度范围 (°c)	-10 ~ +60 ℃									

最大操作压力：10kgf/cm²
最小操作压力：1 kgf/cm²
作动方式：复动式

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

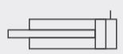
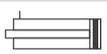
注意事项

行程在50mm以上属于特殊定制

NOTE

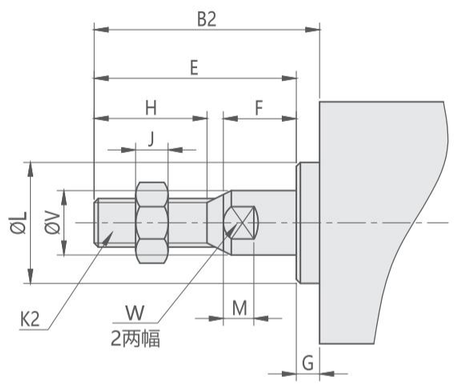
Stroke in more than 50 mm belongs to special custom.

双动气缸 DOUBLE ACTING CYLINDERS

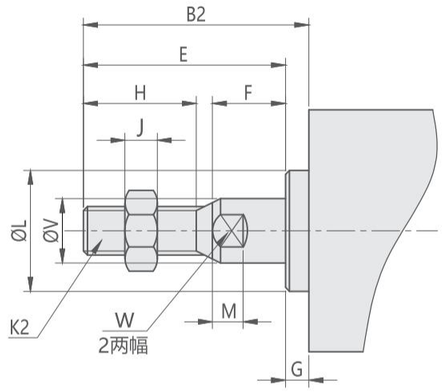
双动单轴标准型 Double acting-single end rod type	SDA	
双动单轴型附磁性感应 Double acting-single end rod type (piston with magnet)	SDAS	
双动双轴型标准 Double acting-double end rod type	SDAD	
双动双轴型附磁性感应 Double acting-double end rod type (piston with magnet)	SDADS	
双动双轴可调行程 Adjustable stroke cylinder(adjustable stroke:A:25mm,B:50mm)	SDAJ	
双动双轴可调行程附磁性感应型 Adjustable stroke cylinder (piston with magnet)(adjustable stroke:A:25mm,B:50mm)	SDAJS	

杆端外螺纹

Bore Ø12～Ø16



Bore Ø20 ～ Ø100



订购标示法 ORDERING INDICATION

示例：SDADS20-10-B

SDA	系列 Series	SDA/SDAD/SDAJ
D	活塞杆 Piston rod	无:单轴 D:双轴 J:双轴可调 Nil: Single end rod D: Double end rod J: Double rod of adjustable stroke rod
S	磁性感应 Magnetic	无:无附磁性感应 S:内附磁性感应 Nil: No magnet S: With magnet
20	气缸内径 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	轴端型式 Rod end	无: 内牙 B: 外牙 Nil: Female B: Male

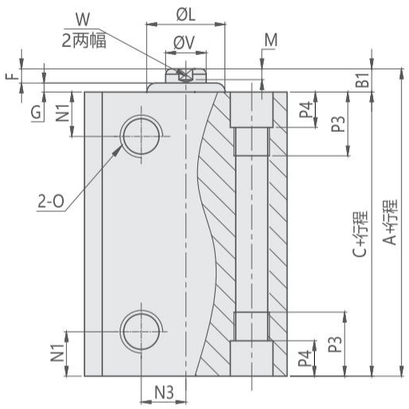
使用流体：过滤之干燥压缩空气 Usable fluid: Oiled Dry Clean Compressed Air

Unit:mm

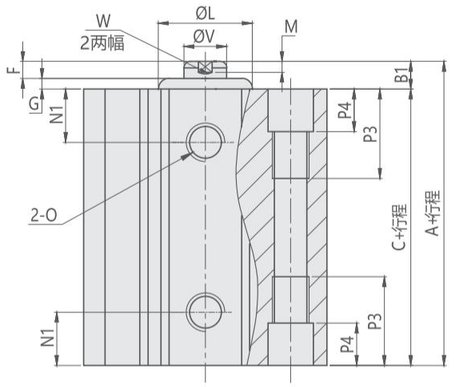
DIAMETER 缸径	B2	E	F	G	H	J	K2	L	M	V	W
12	17	16	4	1	10	4	M5×0.8	10.2	2.8	6	5
16	17.5	16	4	1.5	10	4	M5×0.8	11	2.8	6	5
20	20.5	19	4	1.5	13	5	M6×1.0	15	2.8	8	6
25	23	21	4	2	15	6	M8×1.25	17	2.8	10	8
32	25	22	4	3	15	6	M10×1.25	22	2.8	12	10
40	35	32	4	3	25	8	M14×1.5	28	2.8	16	14
50	37	33	5	4	25	11	M18×1.5	38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

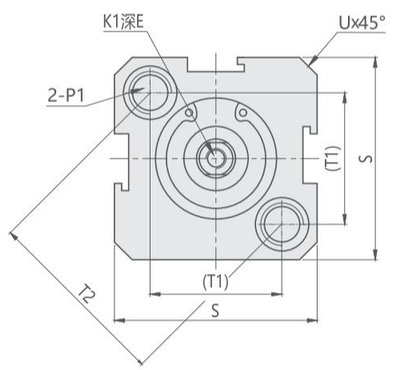
SDA/SDAS TYPE

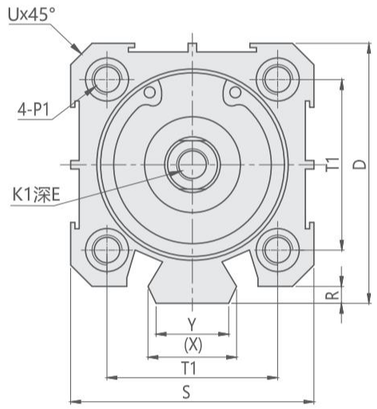
Bore Ø12 ~ Ø16



Bore Ø20～Ø100





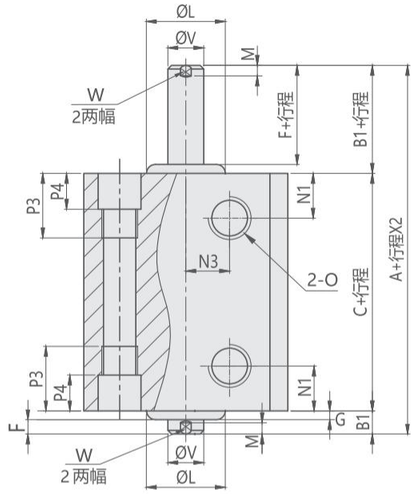


Unit:mm

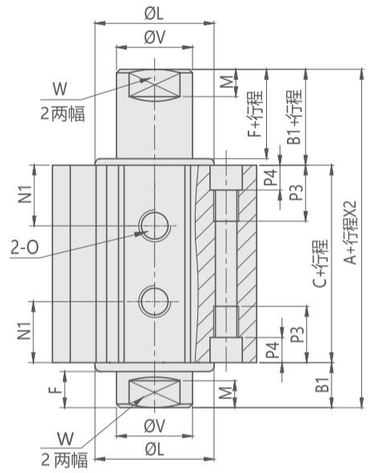
缸径 DIAMETER	标准型			附磁型			D	E		F	G	K1	L	M	N1	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
	A	B1	C	A	B1	C		行程 ≤10	行程 >10																				
12	22	5	17	32	5	27	-	6	6	4	1	M3×0.5	10.2	2.8	6.3	6	M5×0.8	双边:Φ6.5牙M5×0.8 通孔Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	24	5.5	18.5	34	5.5	28.5	-	6	6	4	1.5	M3×0.5	11	2.8	7.3	6.5	M5×0.8	双边: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	双边: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	双边: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	双边: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	双边: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	双边: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	双边: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	双边: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	双边:Φ17.5牙M14×2 通孔Φ11.3	30	13	10	114	90	-	3.65	32	27	35	26

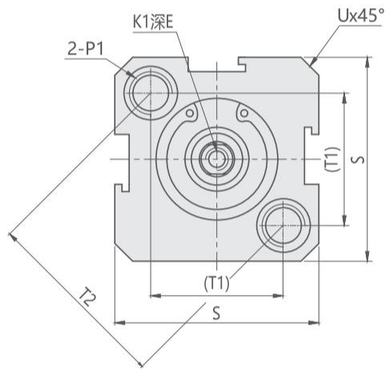
SDAD/SDAS TYPE

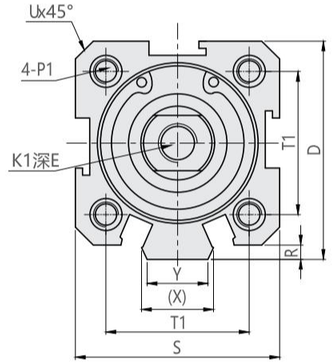
Bore Ø12～Ø16



Bore Ø20～Ø100





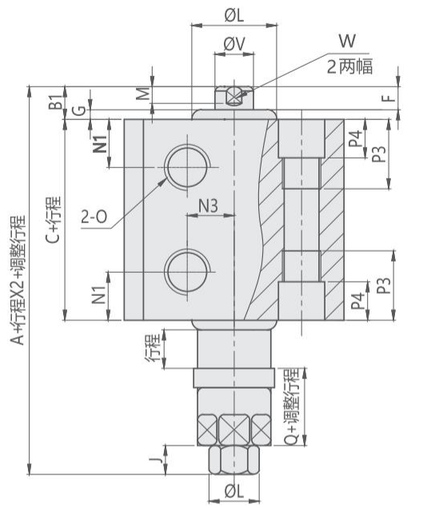


Unit:mm

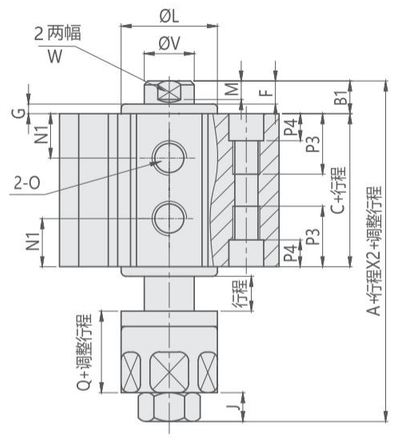
缸径 DIAMETER	标准型			附磁型			D	E		F	G	K1	L	M	N1	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
	A	B1	C	A	B1	C		行程 ≤10	行程 >10																				
12	27	5	17	37	5	27	-	6		4	1	M3×0.5	10.2	2.8	6.3	6	M5×0.8	双边:Φ6.5牙M5×0.8 通孔Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	29.5	5.5	18.5	39.5	5.5	28.5	-	6		4	1.5	M3×0.5	11	2.8	7.3	6.5	M5×0.8	双边: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时为6.5)		4	1.5	M4×0.7	15	2.8	7.5	-	M5×0.8	双边: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时为7)		4	2	M5×0.8	17	2.8	8	-	M5×0.8	双边: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	双边: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	双边: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	双边: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	双边: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	双边: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	双边:Φ17.5牙M14×2 通孔Φ11.3	30	13	10	114	90	-	3.65	32	27	35	26

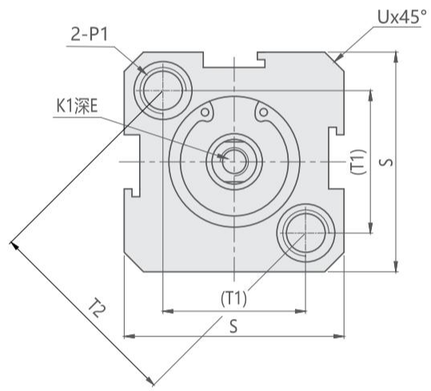
SDAJ/SDAS TYPE

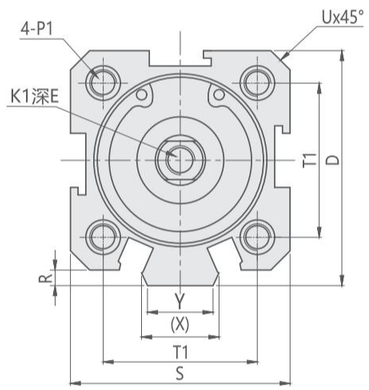
Bore Ø12 ~ Ø16



Bore Ø20 ~ Ø100







Unit:mm

缸径 DIAMETER	标准型			附磁型			D	E		F	G	J	K1	L	M	N1	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
	A	B1	C	A	B1	C		行程 ≤10	行程 >10																					
12	40	5	17	50	5	27	-	6		4	1	4	M3×0.5	10.2	2.8	6.3	6	M5×0.8	双边: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	双边: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时为6.5)		4	1.5	5	M4×0.7	15	2.8	7.5	-	M5×0.8	双边: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时为7)		4	2	6	M5×0.8	17	2.8	8	-	M5×0.8	双边: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	双边: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	双边: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	双边: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	双边: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	双边: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	双边:Φ17.5牙M14×2 通孔Φ11.3	30	13	10	114	90	-	3.65	32	27	35	26

DE

无拉杆式铝合金气缸

DE PNEUMATIC CYLINDER

产品特性 FEATURES

气缸内径 (mm)	Φ32	Φ40	Φ50	Φ63	Φ80	Φ100
标准行程 (mm)	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500					
使用温度范围 (°c)	-10 ~ +60 ℃					

最大操作压力：10kgf/cm²
最小操作压力：1 kgf/cm²

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

注意事项

DEB系列可附磁性感应
本系列空气缸符合ISO6430规格

NOTE

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

双动气缸 DOUBLE ACTING CYLINDERS

双动单轴标准型 Double acting-single end rod type	DEB	
双动单轴型附磁性感应 Double acting-single end rod type (piston with magnet)	DEB...M	
双动双轴型标准 Double acting-double end rod type	DED	
双动双轴型附磁性感应 Double acting-double end rod type (piston with magnet)	DED...M	
双动双轴可调行程 Adjustable stroke cylinder(adjustable stroke:A:25mm,B:50mm)	DEN...N...A DEN...N...B	
双动双轴可调行程附磁性感应型 Adjustable stroke cylinder (piston with magnet)(adjustable stroke:A:25mm,B:50mm)	DEN...M...A DEN...M...B	

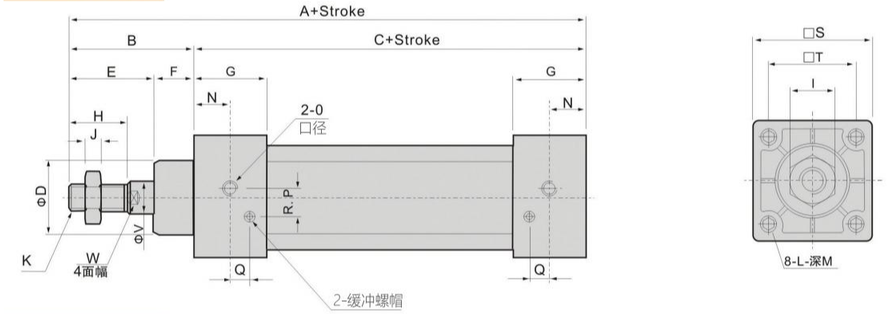
订购标示法 ORDERING INDICATION

示例：DEN50M125-B-FA-Y-LN21R*2

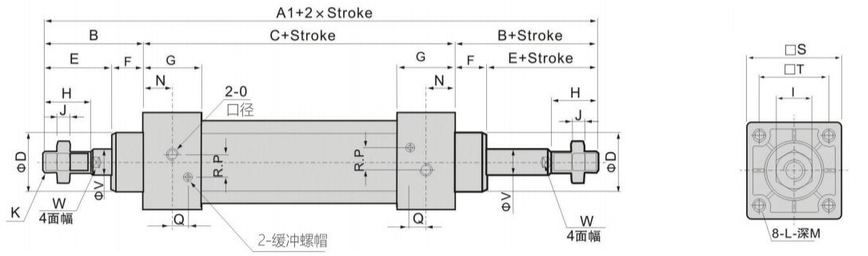
DEN	系列 Series	DEB/DED/DEN		
50	气缸内径 Cylinder inside diameter	Φ32 ，Φ40 ，Φ50 ，Φ63 Φ80 ，Φ100		
M	磁性感应 Magnetic	N: 无附磁性感应 M: 内附磁性感应 N: No magnet M: With magnet		
125	行程 Stroke	25， 50， 75 , 100 , 125 , 150 , 175 , 200 , 225 , 300 , 350, 400 , 450 , 500		
B	可调行程 Adjustable stroke	A: 可调25mm A:Adjustable 25mm	B: 可调50mm B:Adjustable 50mm	C: 可调75mm C: Adjustable 75mm
FA-Y	配件 Accessories	FA:前法兰 Front flange FB:后法兰 After flange TC:中间轴销 Intermediate pivot	CA:单耳座 Male pivot CB:双耳座 Female pivot LB:支架 Axial foot	Y:Y型接明 Rod clevis G:鱼眼接头 Oscillating eye K:浮动接头 Compensating joint
LN21R	近接开关 Sensor switch			
2	数量 Quantity	1:1pcs 2:2pcs		

使用流体: 过滤之干燥压缩空气 Usable fluid: Oiled Dry Clean Compressed Air

DEB TYPE



DED TYPE

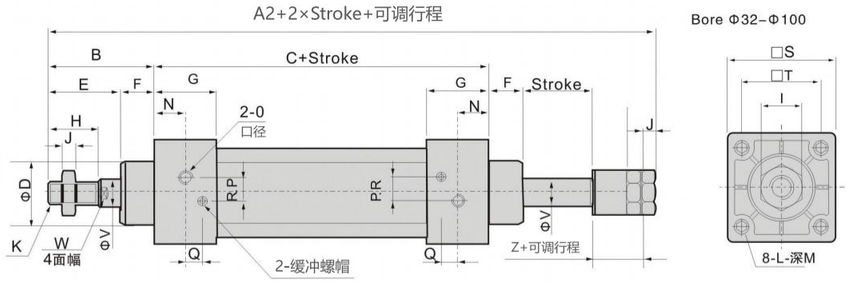


Unit:mm

缸径 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

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

DEN TYPE

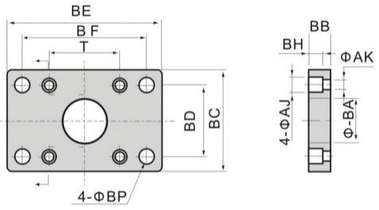


Unit:mm

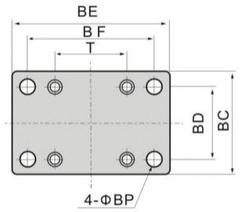
缸径 DIAMETER	A2	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	V	W	Z
32	182	47	93	28	32	15	27.5	22	17	6	M10×1.25	M6×1	9.5	13.75	G1/8 "	3.5	7.5	7	45	33	12	10	21
40	185	49	93	32	34	15	27.5	24	17	7	M12×1.25	M6×1	9.5	13.5	G1/4 "	6	8.2	9	50	37	16	14	21
50	196	57	93	38	42	15	27.5	32	23	8	M16×1.5	M6×1	9.5	13.5	G1/4 "	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

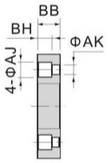
注：附磁型与不附磁型之尺寸相同 Remark:The dimensions of magnetic type are same as no-magnetic type

FA TYPE

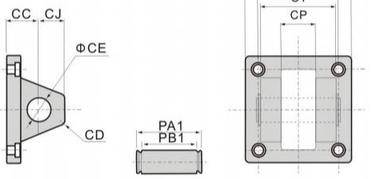


FB TYPE

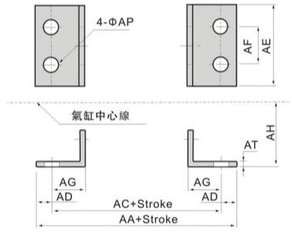




CB TYPE



LB TYPE



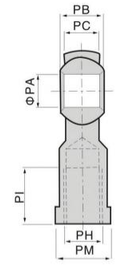
安装配件尺寸 ACCESSORIES

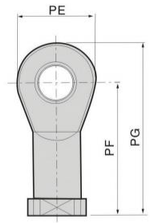
Unit:mm

缸径	FA前法兰										FB后法兰									
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

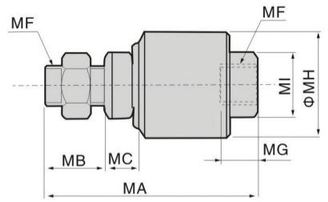
缸径	CB双耳座								LB支架									
DIAMETER	CC	CD	CE	CJ	CP	CT	PA1	PB1	S	T	AA	AC	AD	AE	AF	AG	AH	AP	AT
32	19	3	12	13	16.3	32	41	33.5	48	33	153	134	9.5	50	33	20.5	28	9	3.2
40	19	3	14	13	20.3	44	51.8	45.5	50	37	169	140	14.5	57	36	23.5	30	12	3.2
50	19	5	14	15	20.3	52	60.3	54	62	47	173	149	12	68	47	28	36.5	12	3.2
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鱼眼接头OSCILLATING EYE





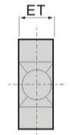
K浮动接头COMPENSATING JOINT

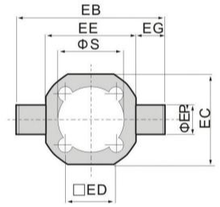


Unit:mm

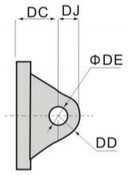
缸径	G鱼眼接头									K浮动接头						
DIAMETER	PA	PB	PC	PE	PF	PG	PH	PI	PM	MA	MB	MC	MF	MG	MH	MI
32	10	14	11	26	43	56	M10×1.25	21	17	58	22	7	M10×1.25	12	26	17
40	12	16	12	30	50	65	M12×1.25	24	19	58	22	8	M12×1.25	12	28	19
50	16	21	15	38	64	83	M16×1.5	33	22	90	27	10	M16×1.5	14	45	27
63	16	21	15	38	64	83	M16×1.5	33	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

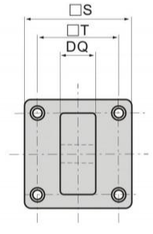
TC TYPE



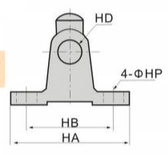


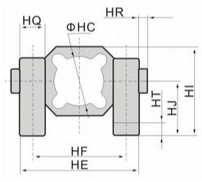
CA TYPE



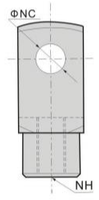


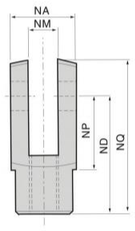
TC-M TYPE





Y接头 Y ROD CIEVIS(WITH PIN)





安装配件尺寸 ACCESSORIES

Unit:mm

缸径	TC中间轴销									TC-M 支撑架									
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

缸径	CA单耳座							Y接头						
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
夹紧气缸

CTK CLAMPING CYLINDER

产品特性

气缸缸体使用铝合金材料，经气化铝处理，更具耐磨及耐腐蚀性。采用无给油轴承及耐磨密封环使用寿命长。
多个配管位置可供选择。
附缓冲型可有效减缓封缸盖之冲击。
附磁性环型可搭配选用磁簧开关。

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.

最大操作压力：10kgf/cm²
最小操作压力：1 kgf/cm²
作动方式：复动式

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

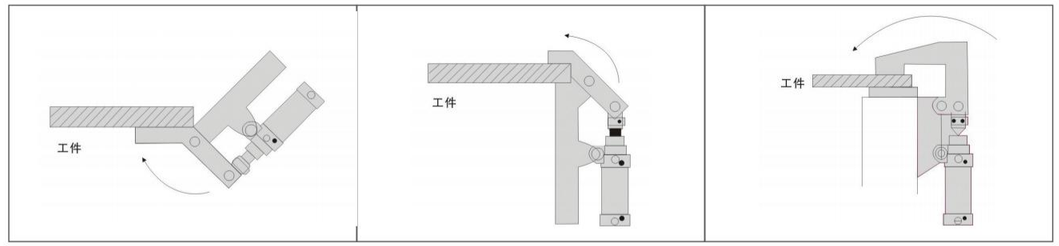
订购标示法 ORDERING INDICATION

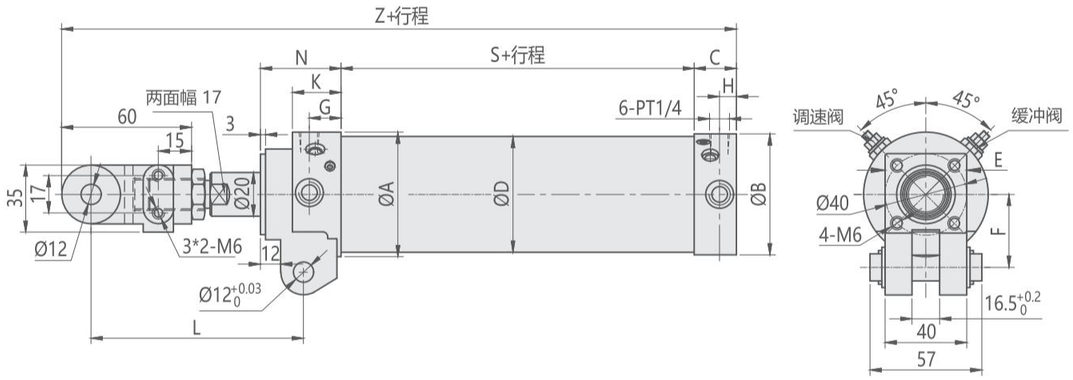
示例：CTK-50-100MY

CTK	系列 Series	CTK	
50	气缸内径 Cylinder inside diameter	Φ50 , Φ63	
100	行程 Stroke	50 ， 75 ， 100 ， 125 ， 150	
M	附磁石 With magnet	无：无附磁石 M：附磁石	Nil: without magnet M: Magnet
Y	接头配件 Accessory	无 Y：Y接头 I：I 接头	Nil: no accessory Y: Y joint I: I joint

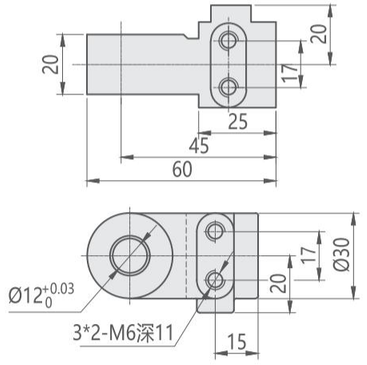
使用流体: 过滤之干燥压缩空气
Usable fluid: Oiled Dry Clean Compressed Air

使用范例

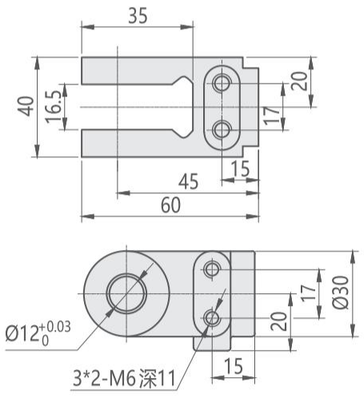




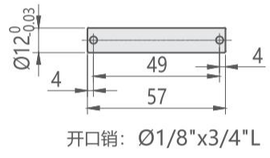
I 接头



Y 接头



插 销



Unit:mm

缸径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

机械夹爪

GRIPPERS

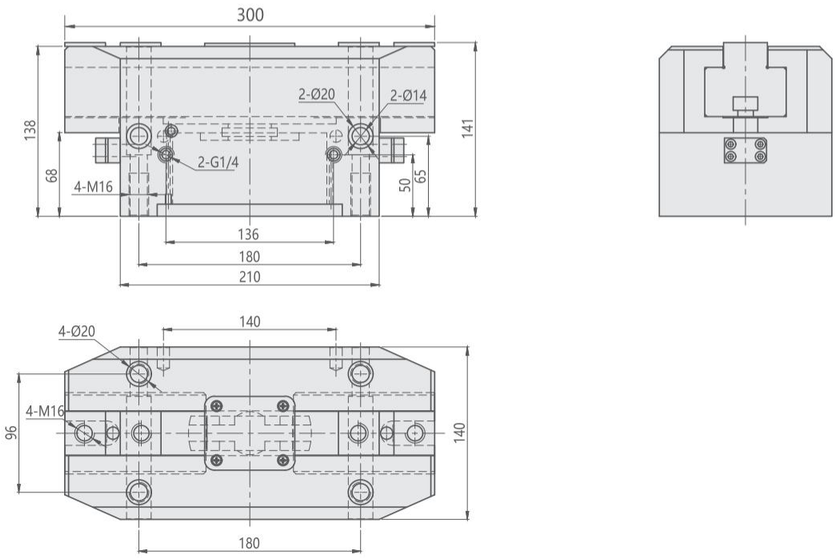
产品特性

利用锥度滑动的楔形面压驱动方式。
简洁可靠的结构。
开放式设计，可自由搭配夹持工件。

规格参数表 SPECIFICATION

产品规格	开闭范围(mm)	最大附件长度(mm)	连接口	理论夹持力(开)	理论夹持力(闭)	空气消耗量/周期(cm^3)
CH-125	70	70	PF(G)1/8	848N	830N	987.6

使用流体:过滤之干燥压缩空气
Usable fluid: Oiled Dry Clean Compressed Air



AHP
气动增压泵

AHP PNEUMATIC BOOSTER PUMP

产品特性

利用空气压驱动增压泵,输出油压力,作为油压缸之动力源，流量大于一般增压倍数，连续式增压，作动缸无增压行程之限制。
以空气调压阀调整压力,达到增压倍数即停止驱动,油压压降时,泵将会自动补偿,特别适用于长时间油压夹持,节省能源,不产生油温，经济方便。
A型:安装ISO规格油路板及电磁阀,适用于单动或复动油压缸。
安装电磁球阀改善内泄量问题,保固气动泵浦使用寿命。
B型:附配管座P.T孔,可连接油压手动阀操作。
双泵组合可选购增压比,特别适用于低压与高压同时使用之夹治具。
油箱体积小,节省空间,安装容易。

FEATURES

The booster pump is driven by air to output hydraulic pressure. As a power source for hydraulic cylinder，It's 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 il 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.

最大操作压力：6 kgf/cm²

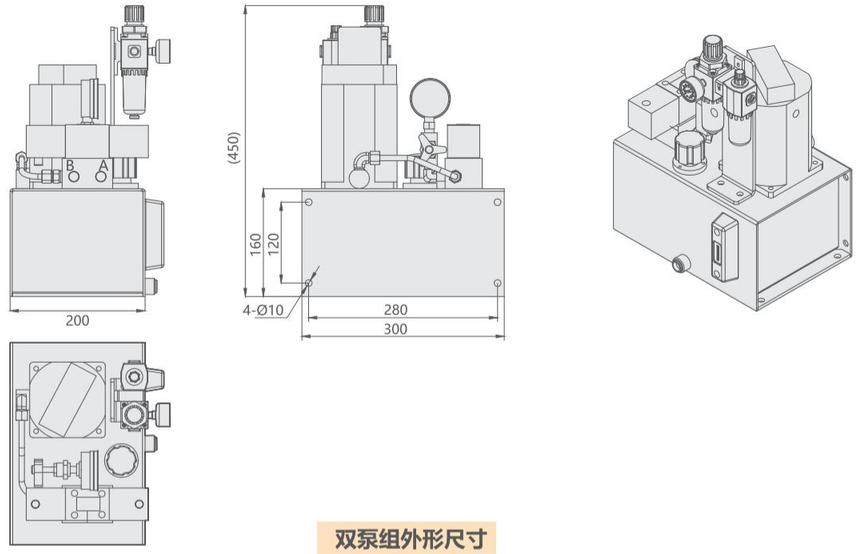
Max. operating pressure: 6 kgf/cm²

订购标示法 ORDERING INDICATION

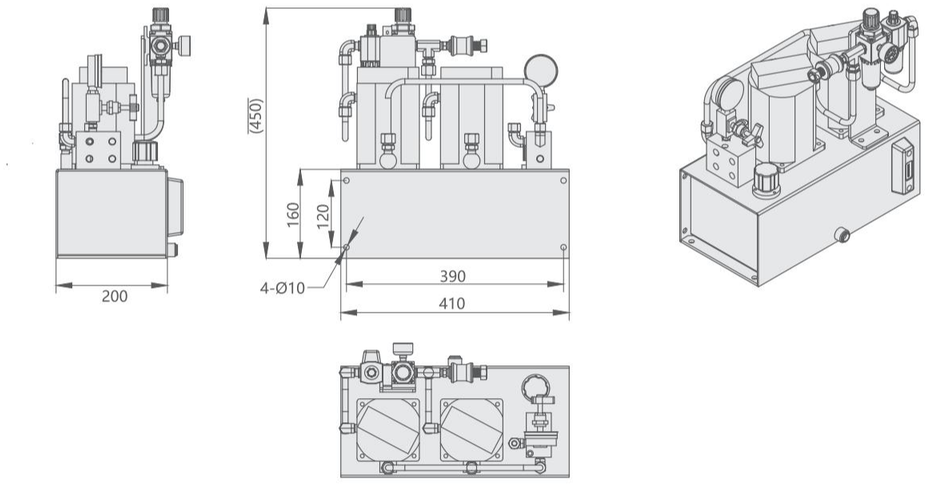
示例：AHP-10-S-A-AC110V

AHP	系列 Series	AHP
10	增压倍数 Booster pressure rate	05,10,16,25,44
S	泵浦形式	S：单泵 Single pump D：双泵 Double pump
A	控制型式 Control type	A：ISO规格油路板 Manifold, magnet valve B：配管压P.T孔 Distributing tube seat P.T port
AC110V	线圈型式 Coil type	AC110V，AC220V，DC24V

单泵组外形尺寸



双泵组外形尺寸



规格参数表 SPECIFICATION

增压倍数	油压吐出量	油箱容积	使用液压油
BOOSTER PRESSURE RATE	HYDRAULIC FLUID EXPELLED (l/min)	OIL TANK CAPACITY	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

螺杆

PTA/PTB/PTC/PTD

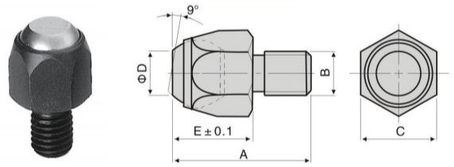
PTA动向钢珠螺杆

材质：本体S45C 钢珠SUJ2
硬度：本体HRC35° 钢珠HRC62°

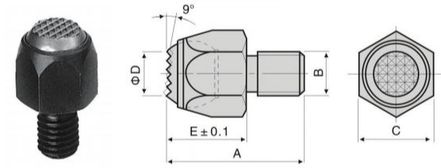
PTA SWIVEL CLAMPING SCREW

Material: Body : S45C Steel ball : SUJ2
Hardness: Body: HR35° Steel ball: HRC62°

PTA1



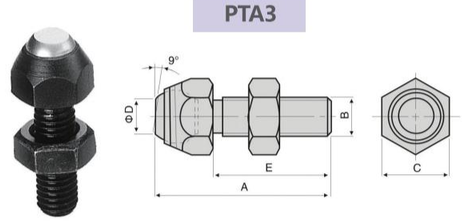
PTA2



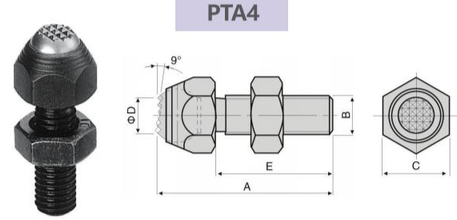
Unit:mm

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
单重(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
单重(g)	25	55	55	140	330	595	1030

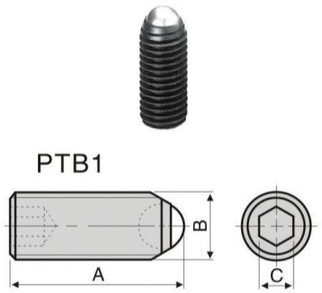
PTB动向钢珠螺杆

材质：本体SCM21 钢珠SUJ2
硬度：本体HRC32°~38° 钢珠HRC62°

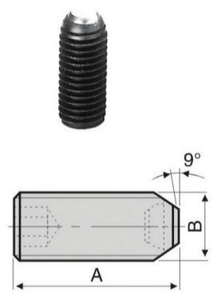
PTB SWIVEL (SHOULDER) CLAMPING SCREW

Material: Body : SCM21 steel ball : SUJ2
Hardness: Body: HRC32°~38° steel ball: HRC62°

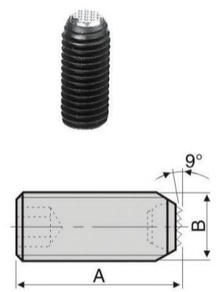
PTB1



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
单重(g)	2.4	3.8	3.2	5.8	9	6.7	11.2	16.2	12.5	20	30	40

Unit:mm

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

Unit:mm

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

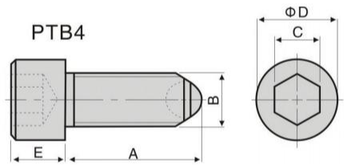
PTB动向钢珠螺杆

PTB SWIVEL (SHOULDER) CLAMPING SCREW

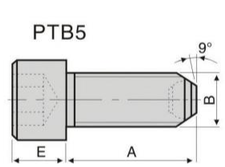
材质：本体SCM21　　钢珠SUJ2
硬度：本体HRC32°~38°　钢珠HRC62°

Material: Body : SCM21 steel ball : SUJ2
Hardness: Body: HRC32°~38° steel ball: HRC62°

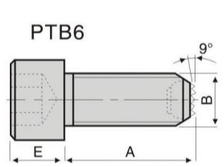
PTB4



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
单重(g)	5.3	7.4	9.5	13.5	20	24	26	34	46	40	50	70	83	90

Unit:mm

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

Unit:mm

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

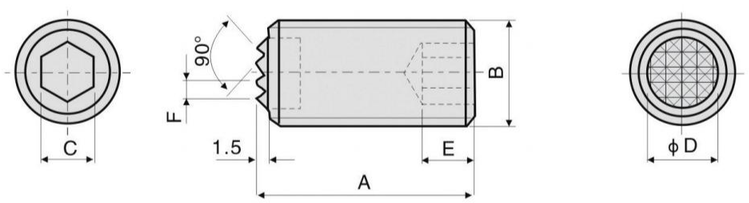
PTC齿型螺杆

PTC GRIPPER SCREW

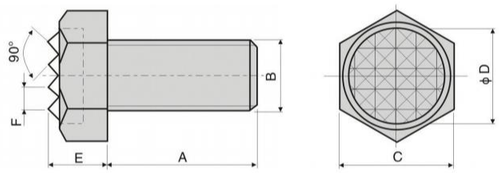
材质：本体S45C　　齿形SKH9
硬度：本体HRC35°　齿形HRC60°

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
单重(g)	15	30	22	45	37	78	58	120

Unit:mm

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

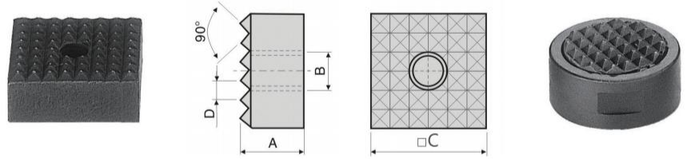
PTD支持件

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

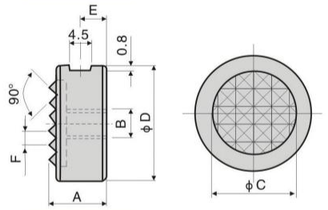
PTD GRIPPER NUT

Material for PTD1/PTD2/PTD3: body : SKH9　Hardness: HRC60°
Material for PTD4/PTD5: body : SCM440　Hardness: HRC60°

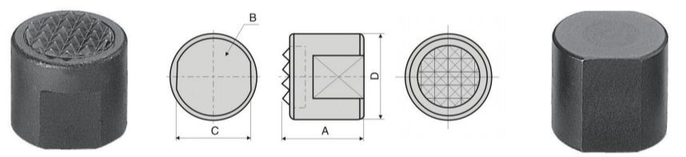
PTD1



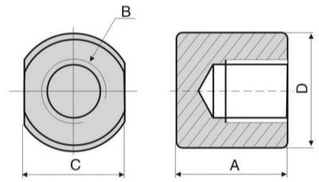
PTD2



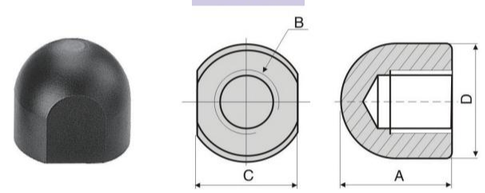
PTD3



PTD4



PTD5

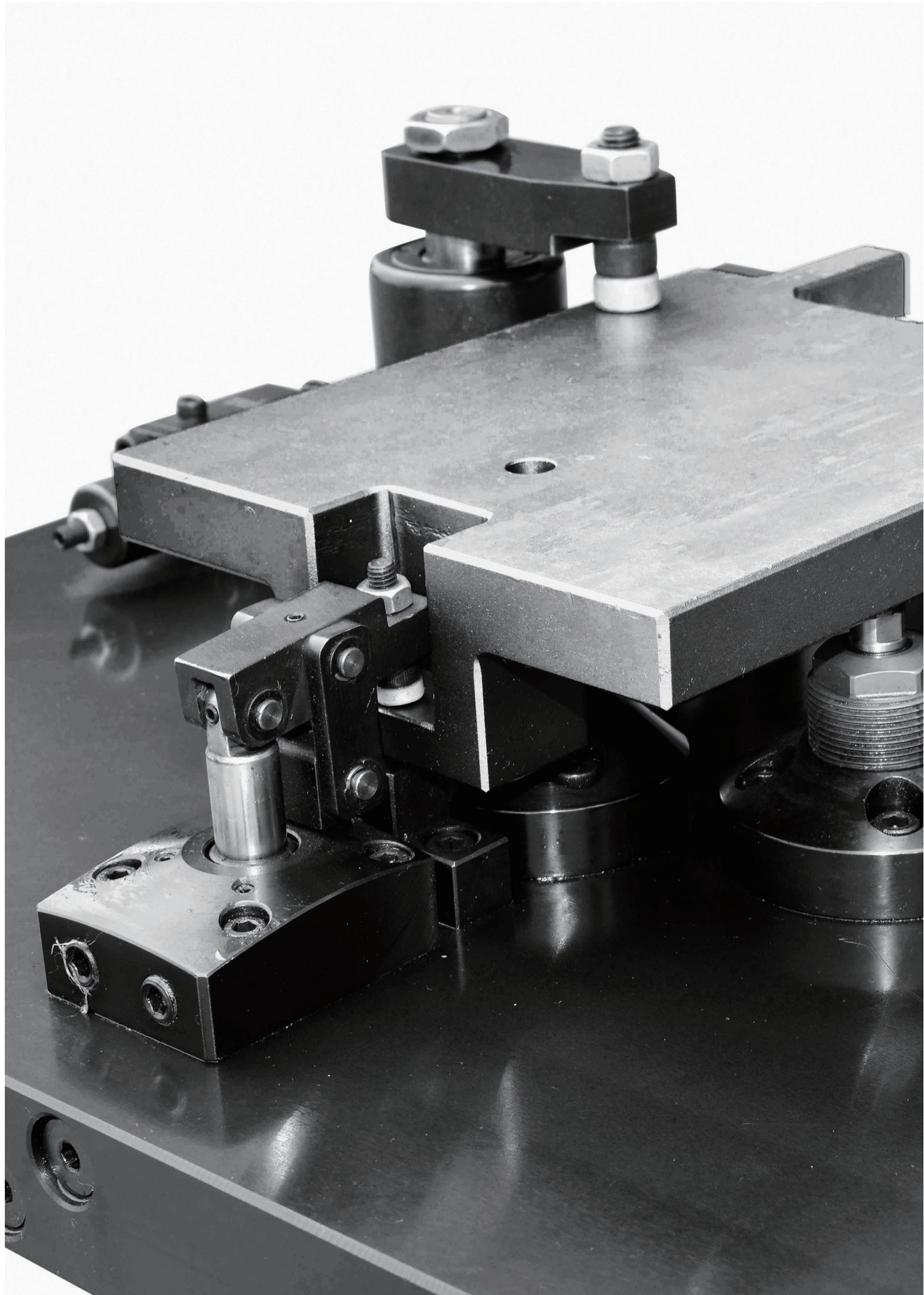


Unit:mm

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
单重(g)	8	10	30	43	43	80	43	76	42	63

Unit:mm

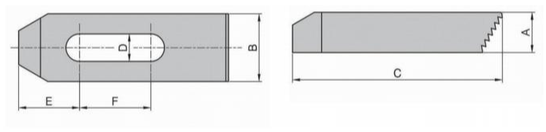
MODEL	PTD2-0110	PTD2-0212	PTD2-0316	PTD2-0420	PTD2-0525
A	10	12	12	12	12
B	M5x0.8	M6x1.0	M6x1.0	M6x1.0	M6x1.0
C	8.1	9.6	13	16.3	19.5
D	10	12	16	20	25
E	3.4	4	4	4	4
F	2.3	3	3	3	3
单重(g)	5	8	16	25	40



BLOCK-CLAMP
压板
CP25/CP28/CP27

CP25压板
CP25 STEP CLAMP

材质Material: Steel 45
热处理Heat Treatment: HRC 32°~38°
表面发黑处理Surface: Black oxidating
用途:与SU25配合使用Application: Used with SU25 together

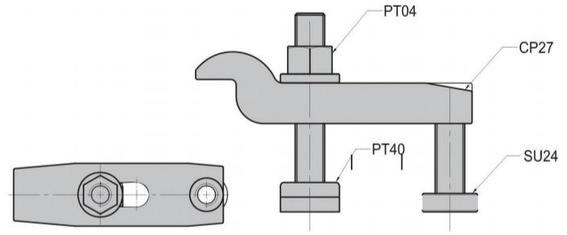


Unit:mm

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鸟型压板组
CP28 GOOSE NECK CLAMP

材质Material: Steel 45
热处理Heat Treatment: HRC 32°~38°
表面发黑处理Surface: Black oxidating.

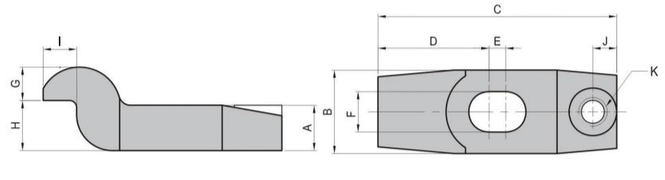


Unit:mm

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鸟型压板
CP27 THREADED GOOSE NECK CLAMP

材质Material: Steel 45
热处理Heat Treatment: HRC 32°~38°
表面发黑处理Surface: Black oxidating.



Unit:mm

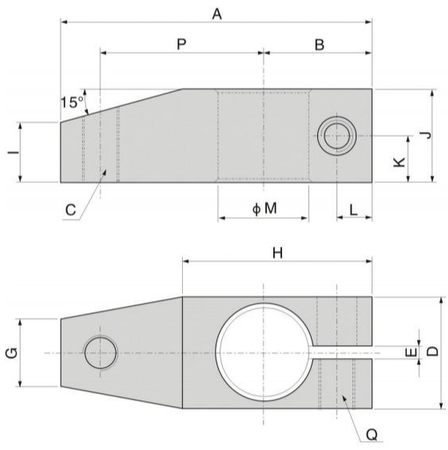
MODEL	A	B	C	D	E	F	G	H	I	J	K	kg
CP27-16100	19	35	100	46.5	7	17	14	21	14	10	M12×1.75	0.78
CP27-16150	22	45	150	62	26	17	15	24	22	12	M6×2.0	1.7

CLAMPING ARM ACCESSORIES

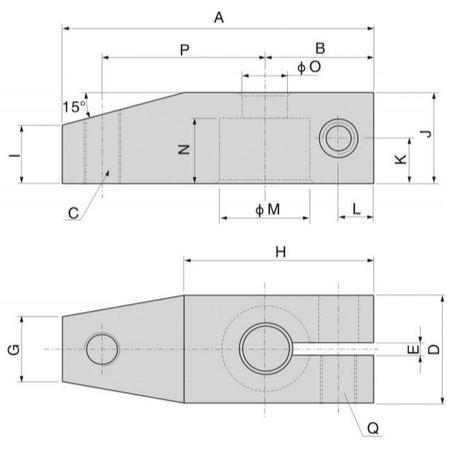
压臂配件尺寸

030/050 系列

单 动 Single acting



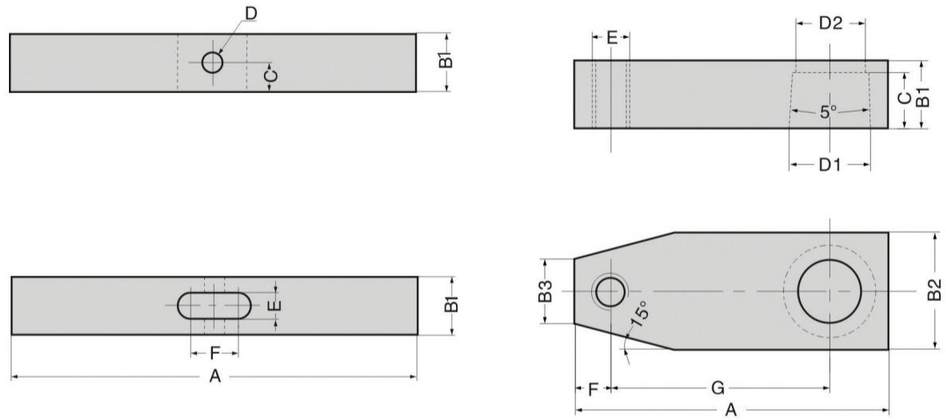
复 动 Double acting



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	单动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	单动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	复动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	复动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

型号	标准型攻牙	标准型无牙	加长型无牙										
MODEL	A STANDARD WITH THREAD	A STANDARD WITHOUT THREAD	A EXTENSION	B1	B2	B3	C	D	D1	D2	E	F	G
CHS-25	74	74	100	16	27	15	13	-	Φ18	Φ15	M10x1.5	10	50
CHS-32	81	81	110	18	31	17	14	-	Φ20	Φ17	M10x1.5	10	55
CHS-40	86	86	120	18	31	17	15	-	Φ22.4	Φ19	M10x1.5	10	60
CHS-50	96	96	130	20	37	19	16	-	Φ28	Φ21	M12x1.75	12	65
CHS-63	114	114	150	23	48	24	18	-	Φ35.5	Φ25	M16x2.0	15	75
CHS-25D	-	140	200	□19	-	-	9.5	Φ8	-	-	9	16	-
CHS-32D	-	160	230	□22	-	-	11	Φ8	-	-	10	19	-
CHS-40D	-	160	230	□22	-	-	11	Φ10	-	-	10	21	-
CHS-50D	-	180	260	□25	-	-	12.5	Φ12	-	-	12	26	-
CHS-63D	-	200	-	□32	-	-	16	Φ15	-	-	15	33	-

PRODUCT WEIGHT
产品重量表

CHTB薄型油压缸 CHTB HYDRAULIC PUSH-PULL CYLINDER

Unit:kg

BORE/STROKE			5	10	15	20	25	30	40	50
Φ20	SD	N	-	0.63	-	0.74	-	0.85	-	-
Φ20	SD	W	-	0.68	-	0.79	-	0.9	-	-
Φ25	SD	N	-	0.87	-	1.01	-	1.15	1.29	1.43
Φ25	SD	W	-	0.92	-	1.06	-	1.2	1.34	1.48
Φ32	SD	N	1.61	1.73	1.85	1.97	2.09	2.21	2.45	2.69
Φ32	SD	W	1.71	1.83	1.95	2.07	2.19	2.31	2.55	2.79
Φ32	LA	N	-	1.71	-	1.97	-	2.23	2.49	2.75
Φ32	LA	W	-	1.81	-	2.07	-	2.33	2.59	2.85
Φ40	SD	N	2.0	2.15	2.3	2.45	2.6	2.75	3.05	3.35
Φ40	SD	W	2.2	2.35	2.5	2.65	2.8	2.95	3.25	3.55
Φ40	LA	N	-	2.19	-	2.53	-	2.87	3.21	3.55
Φ40	LA	W	-	2.39	-	2.73	-	3.07	3.41	3.75
Φ50	SD	N	2.78	2.96	3.14	3.32	3.5	3.68	4.04	4.4
Φ50	SD	W	3.03	3.21	3.39	3.57	3.75	3.93	4.29	4.65
Φ50	LA	N	-	3.24	-	3.68	-	4.12	4.56	5
Φ50	LA	W	-	3.49	-	3.93	-	4.37	4.81	5.25
Φ63	SD	N	4.24	4.48	4.72	4.96	5.2	5.44	5.92	6.4
Φ63	SD	W	4.69	4.93	5.17	5.41	5.65	5.89	6.37	6.85
Φ63	LA	N	-	5.22	-	5.84	-	6.46	7.08	7.7
Φ63	LA	W	-	5.67	-	6.29	-	6.91	7.53	8.15
Φ80	SD	N	7.46	7.8	8.14	8.48	8.82	9.16	9.84	10.52
Φ80	SD	W	8.31	8.65	8.99	9.33	9.67	10.01	10.69	11.37

注：本表记载为单轴心标准品 Remark: This form isstandard product with single shalt

CHS/HSC油压转角缸 CHS/HSC HYDRAULIC SWING CLAMP

Unit:kg

型号	配管式		MF 深孔型附调速		M油路板型	FA法兰型	FAM法兰型油路板	TB 全牙型
MODEL	LINE TYPE		MANIFOLD WITH FLOW CONTROL		MANIFOLD TYPE	FLANGE TYPE	FLANGE WITH MANIFOLD	THREADED TYPE
	标准行程 Standard stroke	加长行程 Extension stroke	标准行程 Standard stroke	加长行程 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气压转角缸 ASC PNEUMATIC SWING CLAMP

Unit:kg

型号	配管式		MF 深孔型附调速		MS感应型	FA法兰型	TB 全牙型
MODEL	LINE TYPE		MANIFOLD WITH FLOW CONTROL		MAGNETIC TYPE	FLANGE TYPE	THREADED TYPE
	标准行程 Standard stroke	加长行程 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	-

① CTC ② CSV/CPRV/CFCV ③ HB ④ CALC ⑤ HPS Unit:kg

型号 MODEL	重量 WEIGHT(kg)	型号 MODEL	重量 WEIGHT(kg)	型号 MODEL	重量 WEIGHT(kg)	型号 MODEL	重量 WEIGHT(kg)	型号 MODEL	重量 WEIGHT(kg)	型号 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外螺纹单动油压缸 CTC Threaded cylinder
② CSV/CPRV/CFCV油压阀 CSV/CPRV/CFCV Hydraulic valve
③ HB增压器阀 HB Hydraulic booster
④ CALC杠杆式气压缸 CALC Pneumatic leverage camp
⑤ HPS高压转角缸 HPS High pressure swing camp

CHLC杠杆式油压缸 CHLC HYDRAULIC LEVERAGE CLAMP

Unit:kg

型号	配管式	MF油路板附调速	M油路板型	FA法兰型	FAM法兰型油路板
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
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快速手动夹钳 Toggle Clamps

快速气动夹钳 Pneumatic Toggle Clamps

油压缸系列 Hydraulic Clamps Series

气压缸系列 Pneumatic Clamps Series

液压站 Hydraulic Power Units

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德国HALDER弹性定位柱塞
HALDER Spring Plungers

盈锡精密锁紧螺母
Yinsh Lock Nuts

东培精密轴承
TPI Bearing

弘旺连轴器
HW Coupling

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