

# RALC 杠杆式空壓缸 RALC Air lever-type Cylinder

● 氣缸內徑  $\Phi 25-\Phi 100$  ● 最大操作壓力  $7\text{kg}/\text{cm}^2$  ● Bore of cylinder (mm) :  $\Phi 25-\Phi 100$  ● Max pressure:  $7\text{kg}/\text{cm}^2$

## 產品簡介

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

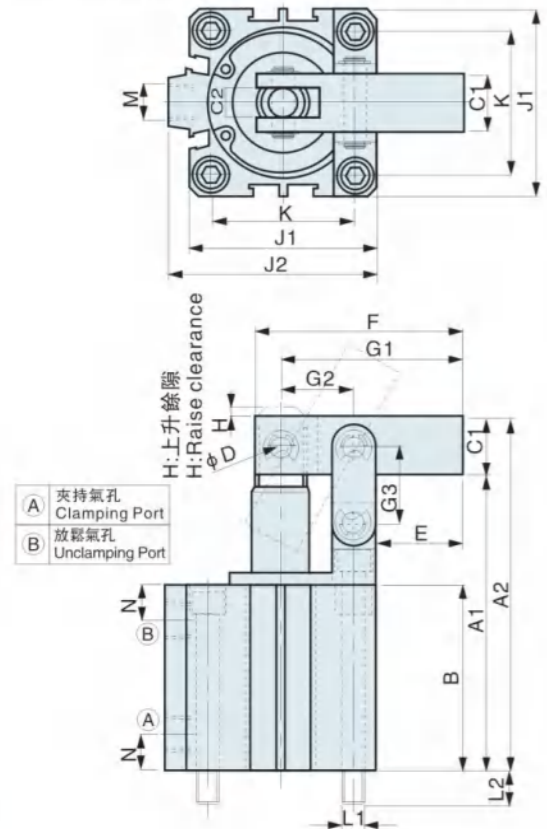
## Introduction of product

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



## 訂購標示法 Ordering Code

<b>RALC</b>	<b>MS</b>	<b>32</b>	<b>S1</b>
①	②	③	④
① 系列號 Series	RALC		
空白 Blank	標準型 Standard type		
② MS	附磁石感應 With magnetic induction		
③ 氣缸內徑 Bore of cylinder	$\Phi 25, \Phi 32, \Phi 40, \Phi 50, \Phi 63, \Phi 80, \Phi 100$		
④ 近接開關 Sensor switch	S1:1個 S2:2個 1Pcs of S1, 2Pcs of S2		



## 特性資料 Specification

氣缸內徑 Bore of cylinder	mm	$\Phi 25$	$\Phi 32$	$\Phi 40$	$\Phi 50$	$\Phi 63$	$\Phi 80$	$\Phi 100$
活塞杆徑 Bore of piston	mm	$\Phi 10$	$\Phi 12$	$\Phi 16$	$\Phi 20$	$\Phi 20$	$\Phi 25$	$\Phi 32$
總行程 Total stroke	mm	20	23	25	30	35	43	48
受壓面積 Pressure area	$\text{cm}^2$	4.91	8.04	12.57	19.63	31.37	50.26	78.53
理論夾持力 Theoretical clamping	$5\text{kg}/\text{cm}^2$	15	25	44	71	136	213	353
使用流體 Fluid	已濾清之壓縮空氣 Filtered air							
最大耐壓力 Max operation pressure ( $\text{kg}/\text{cm}^2$ )	10 $\text{kg}/\text{cm}^2$							
操作壓力範圍 Range of pressure ( $\text{kg}/\text{cm}^2$ )	1-7 $\text{kg}/\text{cm}^2$							
作動方式 Acting type	復動式 Double acting							

## 外形尺寸表 Dimension table

單位 (Unit) : mm

ITEM	MODEL	RALC-25	RALC-32	RALC-40	RALC-50	RALC-63	RALC-80	RALC-100
標準型 Standard type	A1	65.5	78	82.5	96.6	115.5	138	163.5
	A2	78.5	94	98.5	115.6	137.5	160	188.5
	B	41	49	51.5	58.6	72.5	84	99
附磁石 With magnet	A1	75.5	93	97.5	106.6	125.5	148	173.5
	A2	88.5	109	113.5	125.6	147.5	170	198.5
	B	51	64	66.5	68.6	82.5	94	109
C1		□13	□16	□16	□19	□22	□22	□25
C2		6	8	8	10	10	10	12
D		$\Phi 5$	$\Phi 6$	$\Phi 6$	$\Phi 8$	$\Phi 8$	$\Phi 10$	$\Phi 12$
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
J1		40	44	52	62	75	94	114
J2		-	50	58	71	84.5	104	124
K		28	34	40	48	60	74	90
L1		M5 x 0.8	M5 x 0.8	M6 x 1.0	M6 x 1.0	M6 x 1.0	M8	M10
L2		10.5	11	9.5	11	11	15.5	15
M		M5 x 0.8	PT1/8	PT1/8	PT1/4	PT1/4	PT1/4	PT1/4
N		8	9	10	11	11	14	18
壓臂打開角度		75°	70°	65°	70°	65°	65°	60°

# RLCU 空壓杠杆缸 RLCU Leverage Clamping Cylinder

● 氣缸內徑  $\Phi 25-\Phi 63$  ● 最大操作壓力  $7\text{kg}/\text{cm}^2$  ● Bore of cylinder (mm) :  $\Phi 25-\Phi 63$  ● Max pressure:  $7\text{kg}/\text{cm}^2$

## 產品簡介

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

## Introduction of product

- ◆ Available in  $\Phi 25, \Phi 32, \Phi 40, \Phi 50, \Phi 63$  five sizes.
- ◆ Use high-quality seal to avoid leakage and keep long operation.
- ◆ Leverage structure design, the fixture can clamp easily, perform efficiently
- ◆ When you need to increase the length of the clamping arm, please don't exceed 1.5 times of the original length.
- ◆ Body material: Aluminum alloy 6061T6 hard coat. Piston: S45C, Hard Chromed.



## 特性資料 Specification

氣缸類型 Type		RLCU-25	RLCU-32	RLCU-40	RLCU-50	RLCU-63
氣缸內徑 Bore of cylinder (mm)		$\Phi 25$	$\Phi 32$	$\Phi 40$	$\Phi 50$	$\Phi 63$
活塞杆徑 Bore of piston (mm)		$\Phi 14$	$\Phi 16$	$\Phi 16$	$\Phi 20$	$\Phi 20$
總行程 Total stroke (mm)		22	28	30	30	30
受壓面積推推 Pressure area push $\text{cm}^2$		4.91	8.04	12.57	19.63	31.17
理論夾持力 Theoretical clamping $5\text{kg}/\text{cm}^2$		27kg	40kg	66kg	105kg	166kg
使用流體 Fluid		已濾清之壓縮空氣 Filtered air				
溫度範圍 Range of temperature ( $^{\circ}\text{C}$ )		$-10^{\circ}\text{C}$ ---- $+60^{\circ}\text{C}$				
最大耐壓力 Max operation pressure		10 $\text{kg}/\text{cm}^2$				
使用壓力範圍 Range of pressure ( $\text{kg}/\text{cm}^2$ )		4-7 $\text{kg}/\text{cm}^2$				
作動方式 Acting type		復動式 Double acting				
固定方式 Fixing type		上法蘭或外螺紋固定 upper flang or thread fixing				

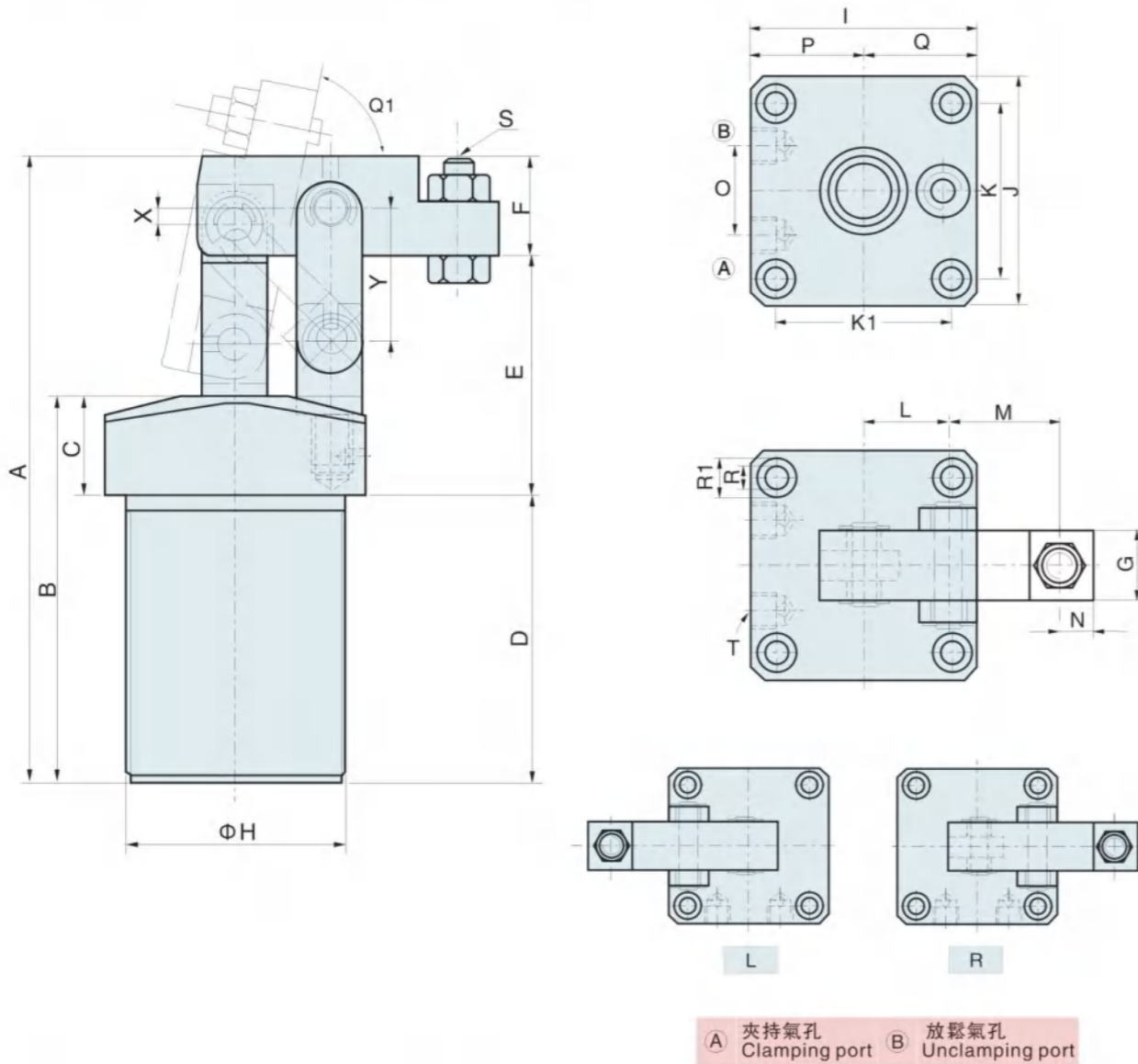
## 訂購標示法 Ordering Code

<b>RLCU</b>	<b>-</b>	<b>40</b>	<b>R</b>
①		②	③

① 系列號 Series	RLCU
② 氣缸內徑 Bore of cylinder	$\Phi 25, \Phi 32, \Phi 40, \Phi 50, \Phi 63$
③	R/L/空白 (壓臂安裝方式)

## RLCU空壓杠杆缸 RLCU Leverage Clamping Cylinder

●氣缸內徑Φ25-Φ63 ●最大操作壓力7kg/cm<sup>2</sup> ●Bore of cylinder (mm) : Φ25-Φ63 ●Max pressure: 7kg/cm<sup>2</sup>



### 外形尺寸表 Dimension table

單位 (Unit) :mm

ITEM	A	B	C	D	E	F	G	H	I	J	K	K1	L	M	O	N	P	Q	R	R1	S	T	Q1	X	Y
MODEL																									
RLCU-25	128.5	86.5	25	61.5	50	17	16	M40x1.5	50	50	37	37	18	23	23	7	25	25	5.5	9	M6x1.0	M5	70°	4.5	26
RLCU-32	149.5	97.5	25	72.5	57	20	18	M50x1.5	60	60	45	45	22	30	23	8	30	30	6.5	11	M8x1.25	PT1/8	75°	5	33
RLCU-40	157.5	97.5	25	72.5	60	25	20	M55x1.5	65	65	50	50	24	32	26	10	32.5	32.5	6.5	11	M8x1.25	PT1/8	78°	4	33
RLCU-50	174	104	25	79	65	30	22	M65x1.5	75	75	58	58	27.5	36	32	14	37.5	37.5	8.5	14	M12x1.75	PT1/8	70°	10	44
RLCU-63	179	105	25	80	69	30	22	M80x1.5	90	90	70	70	32	42	35	14	45	45	8.5	14	M12x1.75	PT1/8	60°	10	48

## RSW空壓支撐缸 RSW Pressure Supporting Cylinder

●氣缸內徑Φ9-Φ12 ●最大操作壓力10kg/cm<sup>2</sup> ●Bore of cylinder (mm) : Φ9-Φ12 ●Max pressure: 10kg/cm<sup>2</sup>



### RSW產品特性

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

### RSW Product features

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

### 注意:

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

### Attention:

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

### 產品簡介

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

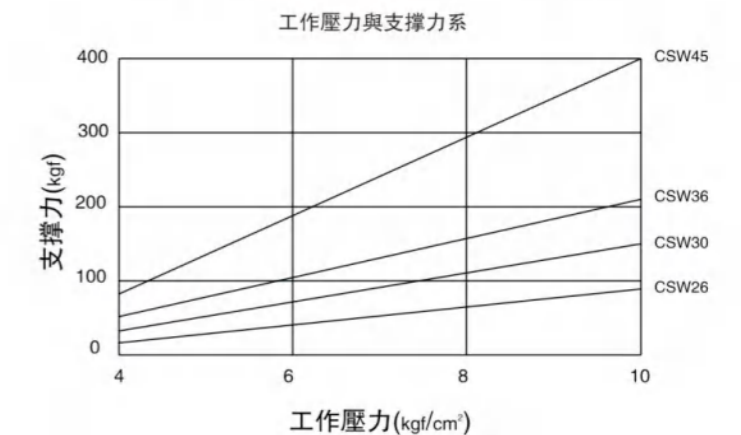
### Introduction of product

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

### 訂購標示法 Ordering Code

RSW -- 26 -- AL

### 特性曲線圖 RSW-\*\*\*L

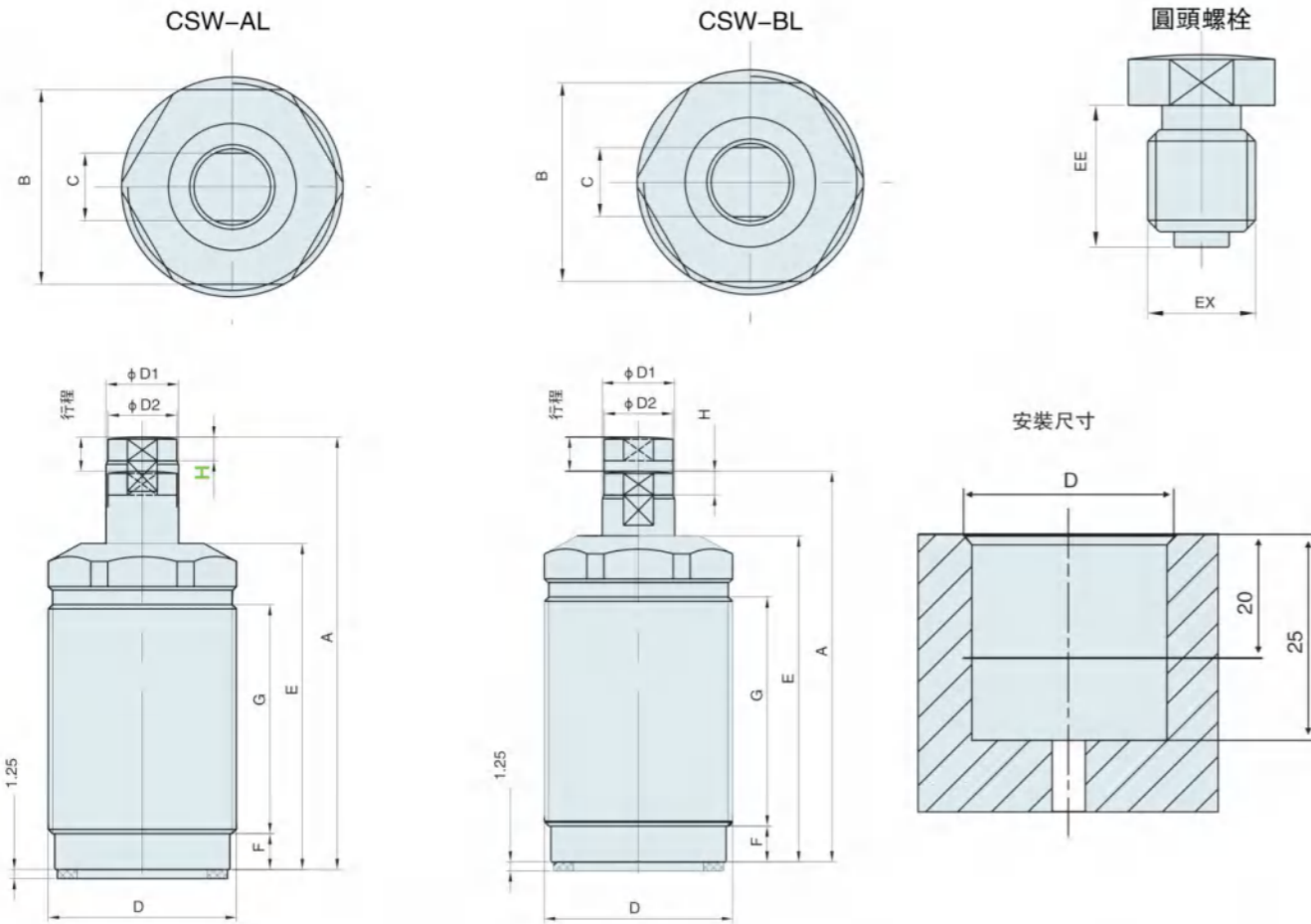


# RSW空壓支撐缸 RSW Pressure Supporting Cylinder

●氣缸內徑Φ9-Φ12 ●最大操作壓力10kg/cm<sup>2</sup> ●Bore of cylinder (mm) : Φ9-Φ12 ●Max pressure: 10kg/cm<sup>2</sup>

## 特性資料 Specification

類型Type	RSW-26	RSW-30	RSW-36	RSW-45
使用壓力範圍Range of pressure(kg/cm <sup>2</sup> )	4 ~ 10kg/cm <sup>2</sup>			
行程 Stroke(mm)	6.5	6.5	8	8
活塞杆徑Bore of piston(mm)	φ9	φ9	φ10	φ12
支撐力(kgf)/工作壓力(kgf/cm <sup>2</sup> ) Support(kgf)/Pressure of work(kgf/cm <sup>2</sup> )	27/5	50/5	70/5	130/5
作動方式Acting type	單動式 Single acting			



ITEM	MODEL	RSW-26AL	RSW-26BL	RSW-30AL	RSW-30BL	RSW-36AL	RSW-36BL	RSW-45AL	RSW-45BL
A		68.5	62	75.5	69	81	73	95	87
B		24	24	27	27	32	32	41	41
C		8	8	8	8	8	8	10	10
D		M26x1.5	M26x1.5	M30x1.5	M30x1.5	M36x1.5	M36x1.5	M45x1.5	M45x1.5
E		53	53	60	60	64	64	76	76
F		7.4	7.4	9.4	9.4	9.4	9.4	9	9
G		36.8	36.8	40.3	40.3	44.3	44.3	53.2	53.2
H		3	3	3	3	6	3	4	4
D1		φ9	φ9	φ9	φ9	φ10	φ10	φ12	φ12
D2		φ9	φ9	φ9	φ9	φ9	φ9	φ11.5	φ11.5
EE		8	8	8	8	8	8	10	10
EX		M6	M6	M6	M6	M6	M6	M8	M8

# RS/HSC油壓轉角缸 RS/HSC Hydraulic Swing Clamp Cylinder

●油缸內徑Φ25-Φ63 ●最大操作壓力70kg/cm<sup>2</sup> ●Bore of cylinder (mm) : Φ25-Φ63 ●Max pressure:70kg/cm<sup>2</sup>

## 產品簡介

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

## Introduction of product

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



## 特性資料 Specification

油缸內徑 Bore of cylinder (mm)	Φ25	Φ32	Φ40	Φ50	Φ63
活塞杆徑 Bore of piston (mm)	Φ18	Φ20	Φ22.4	Φ28	Φ35.5
轉角行程 Swing stroke(mm)	9	11	11	13	13
垂直行程標準/加長Clamping stroke (mm) std/incr	13	15/30	15/30	17/34	17/34
受壓面積拉入/推出 Pressure area pull/push (cm <sup>2</sup> )	2.37/4.91	4.9/8.04	8.63/12.57	13.47/19.63	21.28/31.17
理論夾持力 Theoretical clamping (30kg/cm <sup>2</sup> )	71	147	259	404	647
使用流體 Fluid	已濾清之標準液壓油 Filtered oil				
使用溫度範圍 Range of temperature	-10~+60℃				
最大耐壓力 Max operation pressure(kg/cm <sup>2</sup> )	100kg/cm <sup>2</sup>				
使用壓力範圍Range of pressure(kg/cm <sup>2</sup> )	10--70kg/cm <sup>2</sup>				
轉角方向 Rotating direction	順時針右轉R或逆時針左轉L Turn right R or turn left L				
轉角角度 Rotating angle	標準角度90° (±2°) 訂做角度0°、45° (±2°)、60° (±2°) Standard angle 90° (±2°), order angle 0°、45° (±2°)、60° (±2°)				
作動方式 Acting type	復動式 Double acting				

選型號注意事項: HSC時壓板配合錐度為1:10, 選RS時壓板配合錐度為5°。

## 訂購標示法 Ordering Code

RS/HSC MF 25 S R × 90 E

系列別 Series 型式 Type 油缸內徑 Bore of Cylinder 壓板型式 Clamping arm type 轉角方向 Rotating Direction 轉角角度 Rotating Angle 行程加長型 Stroke extension Line type

25: Φ25mm  
32: Φ32mm  
40: Φ40mm  
50: Φ50mm  
63: Φ63mm

S: 單邊壓板 S: Single side arm  
D: 雙邊壓板 D: Double side arm

R: 順時針右轉 R: Turn right  
L: 逆時針左轉 L: Turn left  
N: 0° 不旋轉 N: 0° No swing

空白: 配管式 Blank: Line type  
MF: 油路板附調速 MF: Manifold with flow control  
M: 油路板型 M: Manifold type  
FA: 法蘭型 FA: Flange type  
TB: 全牙型 TB: Threaded body  
FAM: 法蘭型油路板 FAM: Flange with manifold  
FAMT: 法蘭型油路板附調速 FAMT: Flange with flow control