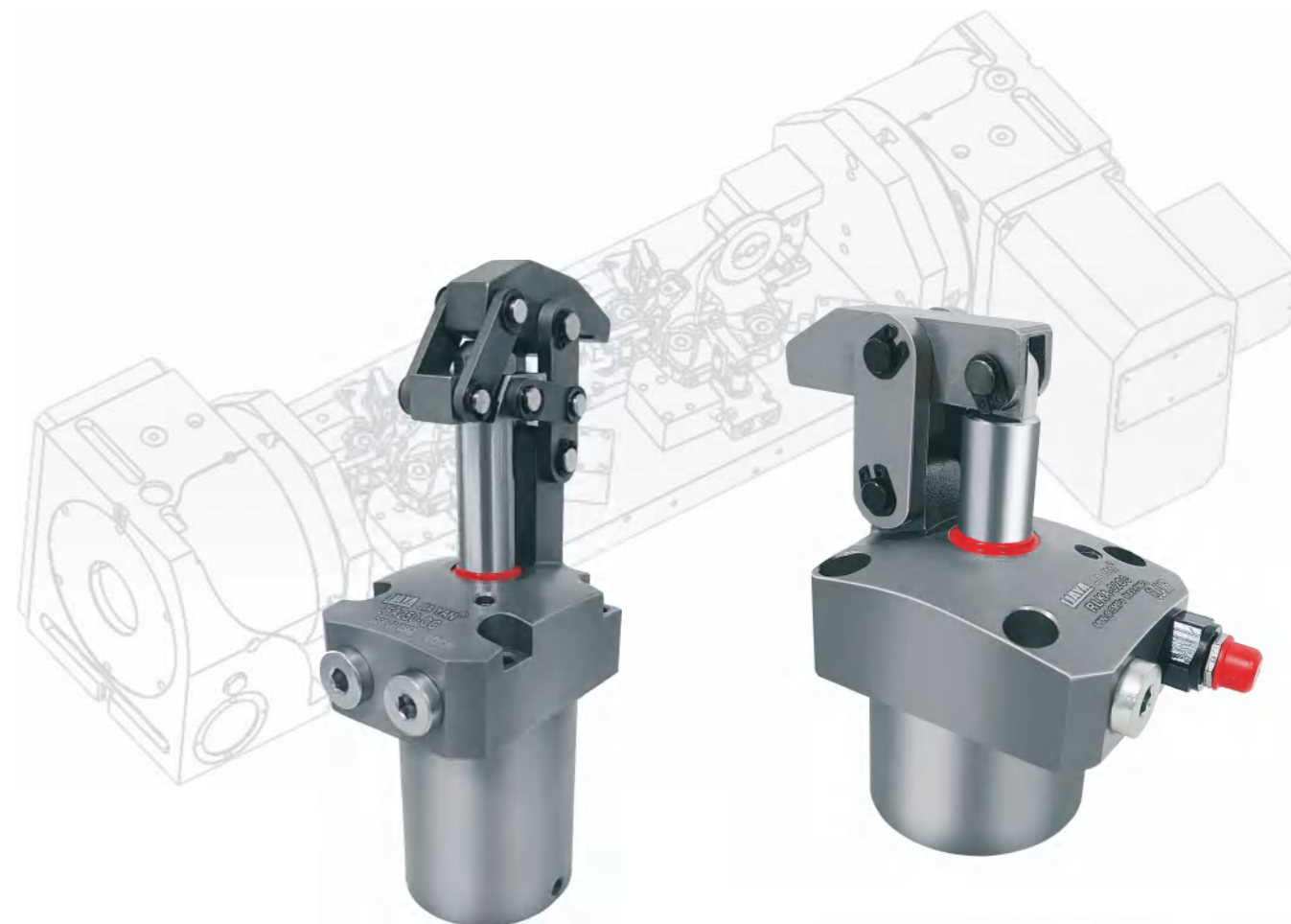


衷心希望本手册能给你带来方便!

鉴于本手册中涉入的标准技术要求及各种尺寸,随着技术改进会进行修改,恕不另行通知,本手册中文字资料及图片均为我公司版权所有,翻印盗用必究。



全新专利结构与传统产品任意互换



- ◆ 增壓器
- ◆ 減壓閥
- ◆ 順序閥
- ◆ 工件夾緊缸
- ◆ 工件支撐缸
- ◆ 工件杠杆缸
- ◆ 單動夾緊缸
- ◆ 氣動油壓單元



ISO9001:2000认证

汽車工業裝備優選品牌
工件夾具產品專業制造商

油壓系列

BTU旋轉式夾緊器 01-04 	CTU旋轉式夾緊器 04-12 	BLU連杆式夾緊器 13-17 
CLU連杆式夾緊器 18-22 	CNA推拉式夾緊器 23-32 	VEF順序閥 33-34 
VRC減壓閥 35-36 	VCF流量控制閥 (先購件) 37-38 	DNR氮氣彈簧 39-42 
LKA 高動力&扎實型杠杆式油壓缸 LKA High power & compact clamp Hydraulic Leverage-type cylinder 43-44 		
RAS 空壓轉角缸 RAS Air Swing Clamp cylinder 45-50 	ASR 空壓轉角缸 ASR Air Swing Clamp Cylinder 51-56 	RSU 上法蘭配管式空壓 轉角缸 RSU Uppers Flange Swing Clamp Cylinder 57-58 
RAU 上法蘭氣路板型 空壓轉角缸 RAU Uppers Flange Swing Clamp Cylinder 59-60 	RSB 空壓塊狀轉角缸 RSB PneumatiC Swing Clamp Block version 61-22 	RALC 杠杆式空壓缸 RALC Air lever-type Cylinder 63 
RLCU 空壓杠杆缸 RLCU Leverage Clamping Cylinder 64-65 	RSW 空壓支撐缸 RSW Pressure Spporting Cylinder 66-67 	

油壓系列

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RTB 薄型油壓缸 RTB Hydraulic thin-type Cylinder 84-89 	HTM70 薄型感應油壓缸 (SD.SDMB) TM 70 Magnetic-Type Hydraulic Cylinder SD.SDMB 90 	RTM 薄型感應油壓缸 (SD.SW) RTM Hydraulic thin-type Cylinder SD.SW 91 
RBC 塊型油壓缸 RBC Hydraulic Block Cylinder 92 	RLCK 杠杆式油壓缸 RLCK Hydraulic Leverage-type Cylinder 93-94 	RLCK 杠杆式油壓缸(FA 法蘭型油路板附調速) RLCK Hydraulic Leverage- type Cylinder FA Flange type manifold with flow control 95 
RLCK 杠杆式油壓缸(FAM 法蘭型油路板) RLCK Hydraulic Leverage-type Cylinder FAM Flange with flow contrd 96 	RLCK 杠杆式油壓缸(FCM 法蘭型油路板附調速) RLCK Hydraulic Leverage-type Cylinder FCM Flange with flow contrd 97 	RLCK 杠杆式油壓缸(FAMT 法蘭型油路板附調速) RLCK Hydraulic Leverage-type Cylinder FAMT Flange with flow contrd 98 
HLC 杠杆式油壓缸 (MF油路板附調速) HLC Hydraulic Leverage -type Cylinder MF Maniflod with flow control 99 	RLCOK 杠杆式油壓缸 RLCOK Hydraulic Leverage-type Cylinder 100-101 	RL-16 塊型油壓缸 RL-16 Block-type Hydraulic Cylinder 102 
RKC 外螺紋小型油壓 單動缸 RKC Thread-body Single Acting Hydraulic Cylinder 103-104 	RSP 油壓支撐缸 RSP Hydraulic Supporting Cylinder 105-107 	RSF 油壓支撐缸 RSF Hydraulic Supporting Cylinder 108-110 

油壓系列

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<p>RFS 高壓轉角缸 RFS High Pressure Swing Clamping Cylinder</p>  <p>125-126</p>	<p>RB 油壓增壓器 RB Hydraulic Booster</p>  <p>127</p>	<p>RV 油壓順序閥 Hydraulic Sequence Valve</p>  <p>128</p>
<p>RVL 油壓減壓閥 Hydraulic Pressure Reducing Valve</p>  <p>129</p>	<p>FCV 油壓流量閥 Hydraulic Flow Control Valve</p>  <p>129</p>	<p>RA 油壓旋轉接頭 Hydraulic rotary joint</p>  <p>130-131</p>
<p>MO 系列輕型油壓缸 Mo Light Duty Hydraulic Cylinder</p>  <p>132-135</p>	<p>HO 系列重型油壓缸 HO Series heavy duty Oil Cylinder</p>  <p>136-141</p>	<p>RO 系列圓型油壓缸 RO Series Oil Cylinder</p>  <p>142-146</p>
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工程油缸系列

氣缸系列

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<p>RALC 上法蘭空壓缸 RALC Upper flange pneumatic</p>  <p>199-200</p>	<p>CGC-N2□E□ 擴張型夾緊器 CGC-N2□E□ Expansion clamp</p>  <p>201-226</p>	<p>CLV□-□N 單動型連杆式夾緊器 CLV□-□N single action link clamp</p>  <p>227-236</p>
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<p>CSU□□-□□ 工件支撐器 CSU□□-□□ work support</p>  <p>298-307</p>	<p>CSU-H□-□ 工件支撐器 CSU-H□-□ work support</p>  <p>308-317</p>	<p>CST□-□ 工件支撐器 CST□-□ work support</p>  <p>318-320</p>
<p>CVH□□-□ 帕斯卡對心台鉗 CVH□□-□ pascal type centering vise</p>  <p>321-328</p>	<p>WRB□ 旋轉接頭 WRB□ swing joint</p>  <p>329-330</p>	

配件系列

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<p>PTC 齒型螺桿 Tooth Type Screw</p>  <p>334</p>	<p>PTD 支持件 Supporting Parts</p>  <p>335</p>	<p>030/040/050 壓臂外形尺寸及規格 030/040/050 Arm Dimension And Specification</p> <p>336</p>
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- 一、單邊壓板長度客戶需自行變更時，其長度勿超過G值的1.2倍，以避免活塞杆變重傾斜。若設計上必須超過時。建議使用雙邊系列產品，以延長缸體壽命。雙（單）邊夾皆需考慮壓板過長時，壓板本身之重量是否過重，使用調速閥過度慢空（油）壓流速。以避免慣性造成轉角機構損壞。另外勿以未調壓（速）之空氣源直接使用于油壓轉角缸上。
- 二、在下壓夾持時，切勿于轉角行程中即夾持工件，應于垂直行程的範圍內夾持。否則將嚴重損壞缸體。
- 三、每次上下工件時，請務必用氣槍清洗活塞及油封上附着之鐵屑異物，以避免異物在轉角瞬間嵌入油封內造成泄漏。
- 四、氣壓缸于使用時，務必安裝三點組合及調速閥，以有效除濕、潤滑，及避免慣性撞擊導致轉角卡死，延長使用壽命。
- 五、單邊壓板因配管管路問題需變換方向時，請務必以扳手固定壓板，再鬆開螺絲，由下往上將壓板敲離轉向即可，切勿側向施力或撞擊；鎖緊時亦同，以免轉角機械不當受力，造成損壞。
- 六、理論夾持力以 $F=PX_A$ 計算而得，事實上需考慮摩擦力，單動缸另需考慮彈簧之回復力所造成之損失。一般般經論取理論值的85%（謹供參考）為其實際夾持力。
- 七、轉角方向以下壓時的方向為主，區分為左轉（L）和右轉（R），標示于缸體標籤上。
- 八、使用之動力源切勿超過額定最大使用壓力與最高流量值。

- 1、 If users want to change the length or the single arm of a clamping cylinder, it should be noted that the length must be less than 1.2 times G value in order to avoid the serious slanting of the piston rod. If the length in design needs to be larger than the aforesaid limit value, it is better to use products having double arms in order to extend the use life of the cylinder.
- 2、 When using double/single arms of which the lengths are very long, it is necessary to consider whether the weight of the clamping arm is too heavy or not, and to use a throttle to appropriately slow down the flow rate of the air/oil in order to avoid the damage of the swing clamp cylinder.
- 3、 Workpiece should not be clamped within a swing stroke during the downward pressing of clamping arm, and should be clamped within the vertical stroke; otherwise, the cylinder will be seriously damaged.
- 4、 During the loading and unloading of a workpiece, it is necessary to use an air gun to clean the piston and the seal for removing the iron slag or foreigner objects attached thereon in order to prevent the foreigner objects from entering the seal to cause oil leakage.
- 5、 When using the pneumatic cylinder, it is necessary to use a device having F.R.L. function and a throttle in order to effectively remove the moisture, lubricate the cylinder and avoid the damage of the swing mechanism due to the inertia impact of the clamping arm in order to extend the use life of the cylinder.
- 6、 If the direction of the single arm needs to be changed due to the problem of piping, it should use a wrench to fix the clamping arm first, and then unscrew the screw and knock the clamping arm upward to change its direction. It should not apply the lateral force to the clamping arm or laterally impact the clamping arm, which should be also noted when locking the clamping arm in order to avoid the damage of the swing mechanism due to improper force applied thereon.
- 7、 The theoretical clamping force is derived from the formula: $F=px_A$. In fact, the friction must be taken into consideration; further, it should take the loss due to the restoring force of the spring into consideration when using single-acting cylinders. In general, the actual clamping force is 85% (just for reference) of the theoretical clamping force.
- 8、 The direction of the swing is directed to be the direction of the downward pressing of the clamping arm, including clockwise direction (Right)
- 9、 The power source should not exceed the rated maximum pressure and the highest flow value,
F: Filters R: Regulators L: Lubricators



正確鎖壓板

不正確鎖壓板

正確拆壓板

不正確拆壓板



已在中國及主要國家取得專利

采用專用的防塵設計,實現高密封性,使用耐腐蝕防塵材料,可以應對各種冷卻液,也不會降低密封性能

本結構轉角油缸已在本公司通過100萬次壽命測試

下法蘭結構,通用性強,圓柱體錐型設計,可有效地防止冷卻液和加工削粉的停留

活塞杆和轉向杆整體設計,采用世界首創的三槽V型結構,實現高剛性化,配有自定心機構,定位更精確.

大口徑鋼球在動作時可自由旋轉,將與活塞杆的阻力降到最低.

適合高速動作
采用大口徑鋼球和深V槽配置,實現高剛性化.

專利設計,實現了非凡的高能力
各零部件的最佳設計和雙向導向設計
夾緊力比傳統產品提高了25%,并可使用加長型壓板的長度達2.5倍.

復動高速轉角缸

一、理論出力計算方式

1、轉角缸理論夾持力計算

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

F: 轉角缸夾持力(kg)

P: 使用壓力(kgf/cm²)

A1: 活塞受力面積(cm²)

a: 活塞杆徑面積(cm²)

A2: 活塞拉入端受力面積

2、杠杆缸理論夾持力計算

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

F: 杠杆缸夾持力(kg)

P: 使用壓力(kgf/cm²)

A: 活塞受力面積(cm²)

L1: 活塞杆中心點至杠杆支撐點距離(mm)

L2: 杠杆支撐點至壓臂壓點距離(mm)

3、空壓及油壓缸理論出力計算

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

F: 轉角缸夾持力(kg)

P: 使用壓力(kgf/cm²)

A: 活塞受力面積(cm²)

a: 活塞杆徑面積(cm²)

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

二、壓力互換表

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

注: 轉角缸轉角方向是指下壓時轉角方向。