



**HPY Series Hydraulic Actuator**  
**HPY系列液动执行器**



**无锡市圣汉斯控制系统有限公司**  
**WUXI ST.HANS CONTROLS CO.,LTD.**





20世纪90年代初，随着世界加工制造业向中国的转移，无锡圣汉斯应运而生，诞生了圣汉斯的第一台执行器。经过二十多年艰苦奋斗，创新发展，圣汉斯取得了今天的成就，成为了国内乃至全世界最专业，规模最大的执行器生产厂家之一。

公司现有现在多个系列执行器：阿尔法A系列不锈钢执行器、阿尔法B系列铝合金执行器、阿尔法C系列铝合金执行器、HPY系列拨叉执行器以及气动手轮机构，阀位反馈装置，过滤减压阀等阀门控制附件。现有Ø32~Ø1000一百多个规格，扭矩从5Nm~300,000Nm都有覆盖。

公司于2010年初乔迁进入江南第一古镇梅村工业园区，新

工厂累计投入资金达一亿元人民币。公司现有员工280多人，工厂占地面积3万平方米，年产28万台执行器，年销售额过3亿元人民币。

公司本着“专注，专业，卓越”的核心理念，竭诚为新老客户提供专注的服务，更专业的技术，更卓越的产品。

In the early 1990's, coming with the trend of global manufacturing transferring to China, Wuxi ST.HANS was established, then ST.HANS's first actuator was born.

With twenty-years of hardwork and innovation, ST.HANS has achieved in becoming one of the most professional and biggest actuator manufacturers in China.

ST.HANS supplies several series of actuators, that is, Alpha A series stainless steel actuator, Alpha B series aluminum alloy actuator, Alpha C series aluminum alloy actuator and HPY pneumatic actuator. Additionally ST.HANS supplies valve control accessories such as manual override, valve position feedback device, air pressure regulator-filter, etc. Actuator ranges Ø32~Ø1000, torque 5Nm~ 300,000Nm.

In early 2010, the ST.HANS factory moved to Meicun Industry Park, the oldest town of the South River region. With a RMB50million investment, the new factory covers 30,000 square meters and hires 280 employees. It manufactures 280,000 actuators and sells around RMB 300 million annually.

Leading with its core idea of concentration & professionalism, ST.HANS will serve all its new and regular customers more attentively and professionally with more excellent products.



## 打造全球执行器及阀门附件专业供应商

*The Global Provider of Actuators*

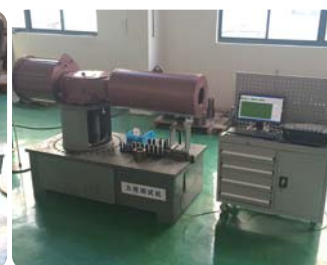


## 互赢 互利 共存 Mutually Beneficial Relationships



专注 专业 卓越  
Focus On Professionalism

## 成为您的最佳合作伙伴 To Be Your Best Partner



## 二十年的行业经验 一站式的产品和服务

Twenty years experience "one-stop" goods and services



## Structural Features

## 结构特点

Design and Construction  
设计和结构

HPY series pneumatic and hydraulic actuators provide global customers the latest in valve actuation design. It is a highly unique and reliable means of operating ball, butterfly or plug valves along with 90 degree rotating mechanisms.

HPY系列执行器采用最新的设计方案，是球阀，蝶阀，旋塞阀和其他90度旋转机械装置安全的驱动方法。

Robust yet Lightweight Design  
高强度，精小型设计

Totally enclosed weatherproof centrebody fabricated in carbon steel or ductile iron provides an excellent strength to weight ratio.

The mechanism of piston and yoke has an advantage torque output.

全气候防护性中心箱体模块采用碳钢或者球铁材质，确保了足够的强度。

活塞式及传动拨叉式提供了最佳的扭矩输出特性。

## Manual Override Options 手动功能

独立的侧向手动装置是阀门或者执行器非常重要的一个部件。圣汉斯有各种手动方式满足不同的需求。手动方式有丝杠、齿轮、离合式齿轮，液压手动等方案。

A dependable manual override facility is an important part in many valve/actuator applications. ST.HANS has a variety of override options available to meet virtually any requirement. Available options include open or enclosed screws in both gear reducer and declutch override gear box, as well as a number of hydraulic override solutions.

Extensive Product Range  
产品拓展

ST.HANS offers the most extensive line of fluid power valve actuators. Products include low and high pressure pneumatic, hydraulic and pneumatic-hydraulic actuators.

圣汉斯可以提供多种驱动方式的阀门执行器，包括低气压，高气压气动、液动和气液联动等。

Minimum Maintenance  
免维护工作

Every HPY actuator is built to provide long and efficient service with minimum maintenance. The design, engineering and materials used in their construction ensure optimum performance even in the harshest environments.

每一个HYP执行器都可以在免维护情况下提供长期高效的工作。

## Modular Design 模块化设计

HPY series actuators share a modular construction design. The centre body is available in six sizes. A pneumatic or hydraulic cylinder can be attached to either or both sides. A spring cartridge can also be fitted to either side for ESD (emergency shut down) applications. Modular construction and stocking of components facilitates quick delivery times.

HPY系列执行器采用了模块化设计。中间箱体有6个规格，气缸或者液压缸可以单面安装也可以双面安装。需要紧急切断的工况，可以在箱体一侧安装一个弹簧复位模块。模块化设计的部件具有可替换，可仓储等特性，可以满足较短的供货周期。

Complete Control Solutions  
各种控制方案

Air Control component packages are a part of any actuator/valve installation.

ST.HANS has extensive experience in the design and assembly of all types of air control systems to satisfy any customer requirement for on/off, control or ESD service. Packages can be mounted on a panel or in a cabinet and mounted either on the actuator or at a remote location.

气动控制系统是任何阀门和执行器的一个重要组成部分。圣翰斯在气路控制方面具有丰富的经验，满足客户有关开关、调节和紧急切断等各方面的要求。气路系统可以安装在一个面板或者控制箱内，可以安装在执行器上或者单独放置。

## Performance Characteristics

### 性能特点

- The pinion full conform to the latest standards of ISO5211, NAMUR. The dimensions can be customized and the stainless steel is available.

A Position indicator acc. to NAMUR is convenient for mounting accessories such as Limit Switch box, Positioner and so on.

- The different materials rubber and PFA encapsulated O-rings can be used in a wider range of temperature and condition. The double O-ring and bearing design ensures the stability and dependability of the cylinder modular.

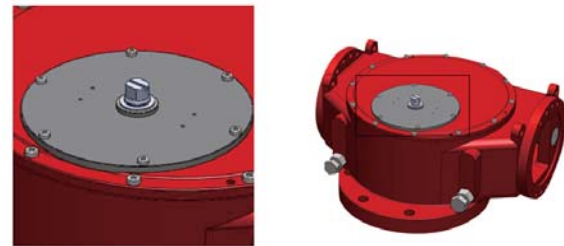


各种材质橡胶密封圈及PFA包覆密封圈满足各种工况使用。双O形密封圈及导向环设计，确保气缸模块的稳定性及可靠性。

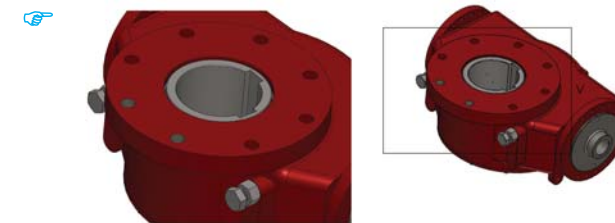
- Operating Ranges HPY actuators have torque outputs for spring-return models in excess of 110,000 Nm and double-acting models in excess of 240,000 Nm. Operating pressures are: 3~10Bar  
HPY单作用执行器可以提供超过110,000Nm，双作用可以提供超过300,000Nm的力矩输出。  
工作压力: 3~10巴

- Operating temperatures:  
Standard -20°C to +80°C.  
Optional trims include:  
High Temperature -15°C to +150°C  
Low Temperature -40°C to +80°C  
工作温度:  
标准 -20°C ~ +80°C  
高温 -15°C to +150°C  
低温 -40°C to +80°C

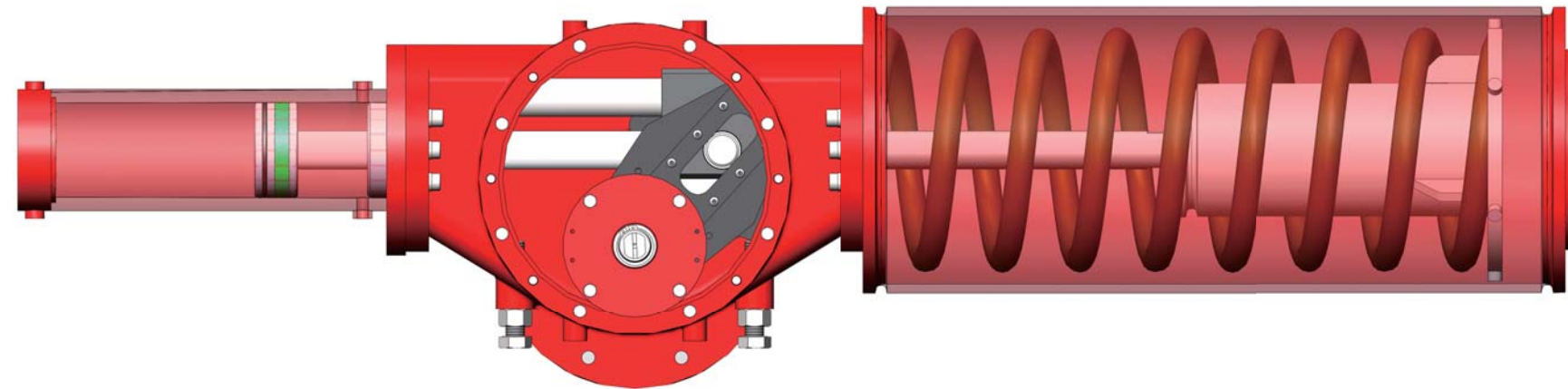
- 输出轴同时符合NAMUR、ISO5211标准。也可按客户要求尺寸定制。  
NAMUR 标准指示器便于安装位置开关、定位器等附件。



- Made from low friction, long-life compound material, to avoid the direct contact between metals. The maintenance and replacement are easy and convenient.  
采用低摩擦、长寿命复合材料，避免了金属与金属的直接接触，维修更换简单方便。

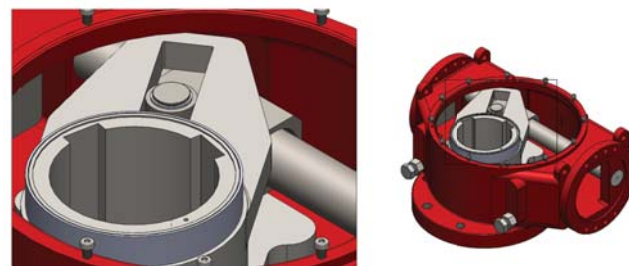
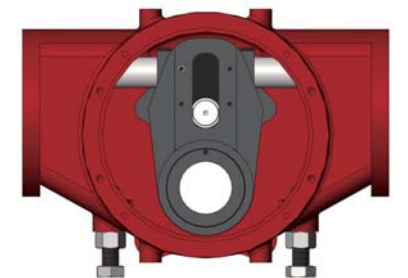


The Mounting Flange is up to the ISO 5211.  
底部与阀门连接法兰的尺寸符合ISO 5211标准。

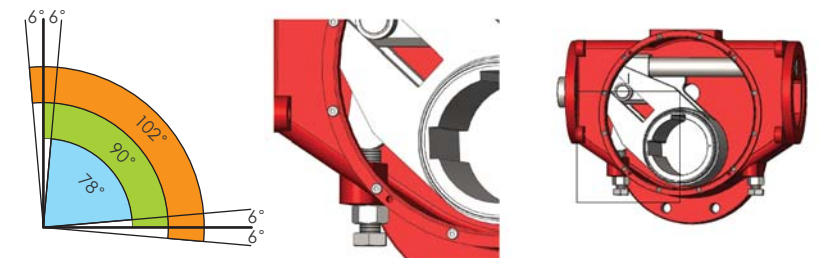


- HPY actuators are available with either B or C body modules. The B body modules provide efficient operation at both the break and end positions. The C body modules have a torque advantage in applications where higher break torque is needed to unseat the valve, with less critical needs at the run or full open positions.

HPY执行器可以提供B和C两种传动箱模块。B传动箱能够提供起点和终点相同的输出力矩，更符合类似球阀的力矩需求。C传动箱能够提供更大的起始输出扭矩，更符合类似蝶阀的力矩需求。



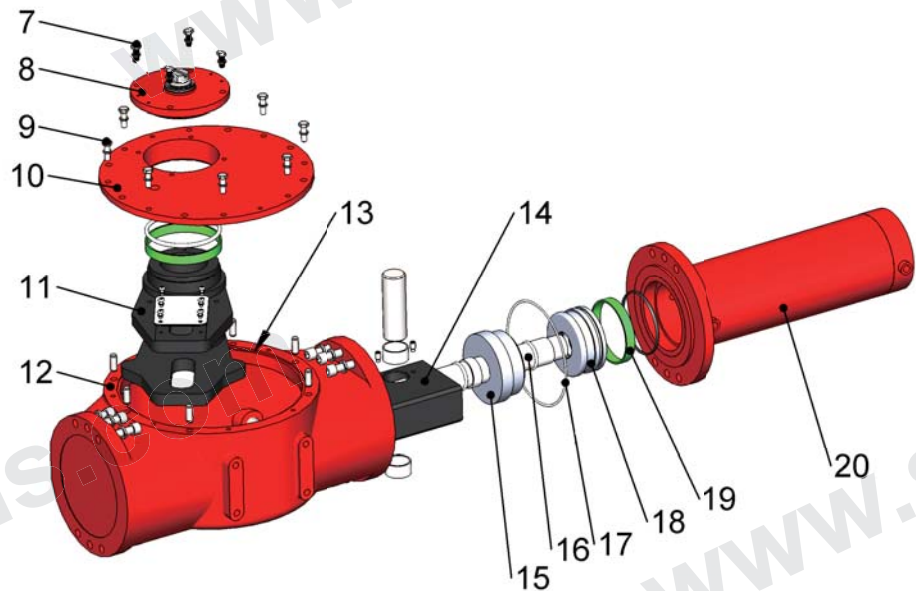
- Integral bi-directional travel stops, adjustable from -6° to 96° of total valve travel, assist the HPY Series in prolonging valve seat integrity.  
两个独立的行程调节螺钉可以进行方便、精确±6°的调节开、关位置。





## Parts and Materials

### 零件与材料



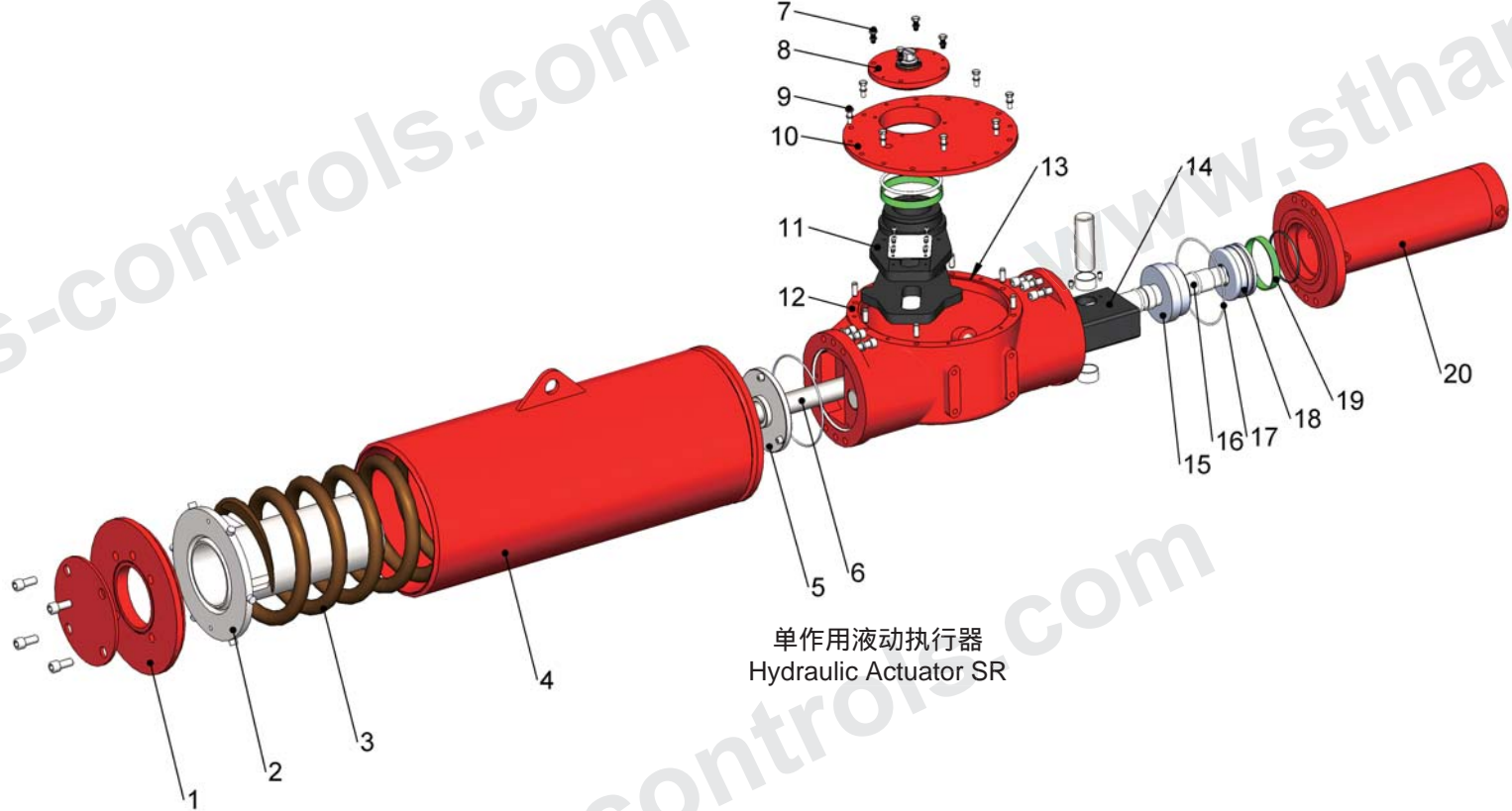
双作用液动执行器  
Hydraulic Actuator DA

#### 弹簧筒模块 Spring Modular

项目号	零件号 Name	数量 Qty.	材料 Materials
1	弹簧筒盖 Flange Cap	1	碳钢 Carbon Steel
2	弹簧座 Spring Seat	1	碳钢 Carbon Steel
3	弹簧 Spring	1	弹簧钢 Spring Steel
4	弹簧筒 Spring Body	1	碳钢 Carbon Steel
5	衬套座 Bear Seat	1	碳钢 Carbon Steel
6	弹簧拉杆 Spring Stem	1	合金钢 Alloy Steel

#### 箱体模块 Centre Body Modular

项目号	零件号 Name	数量 Qty.	材料 Materials
7	螺钉 Screw	n	碳钢 Carbon Steel
8	顶盖组件 Indicator	1	碳钢 Carbon Steel
9	螺钉 Screw	n	碳钢 Carbon Steel
10	箱盖 Centre Body Cap	1	球墨铸铁 Ductile Iron
11	拨叉 Yoke	1	球墨铸铁 Ductile Iron
12	箱体 Centre Body	1	球墨铸铁 Ductile Iron
13	箱盖密封圈 Cap O-ring	1	耐油橡胶 Rubber
14	导向传动组件 Drive Mechanism	1	合金钢 Alloy Steel



单作用液动执行器  
Hydraulic Actuator SR

#### 液压缸组件 Hydraulic Cylinder Components

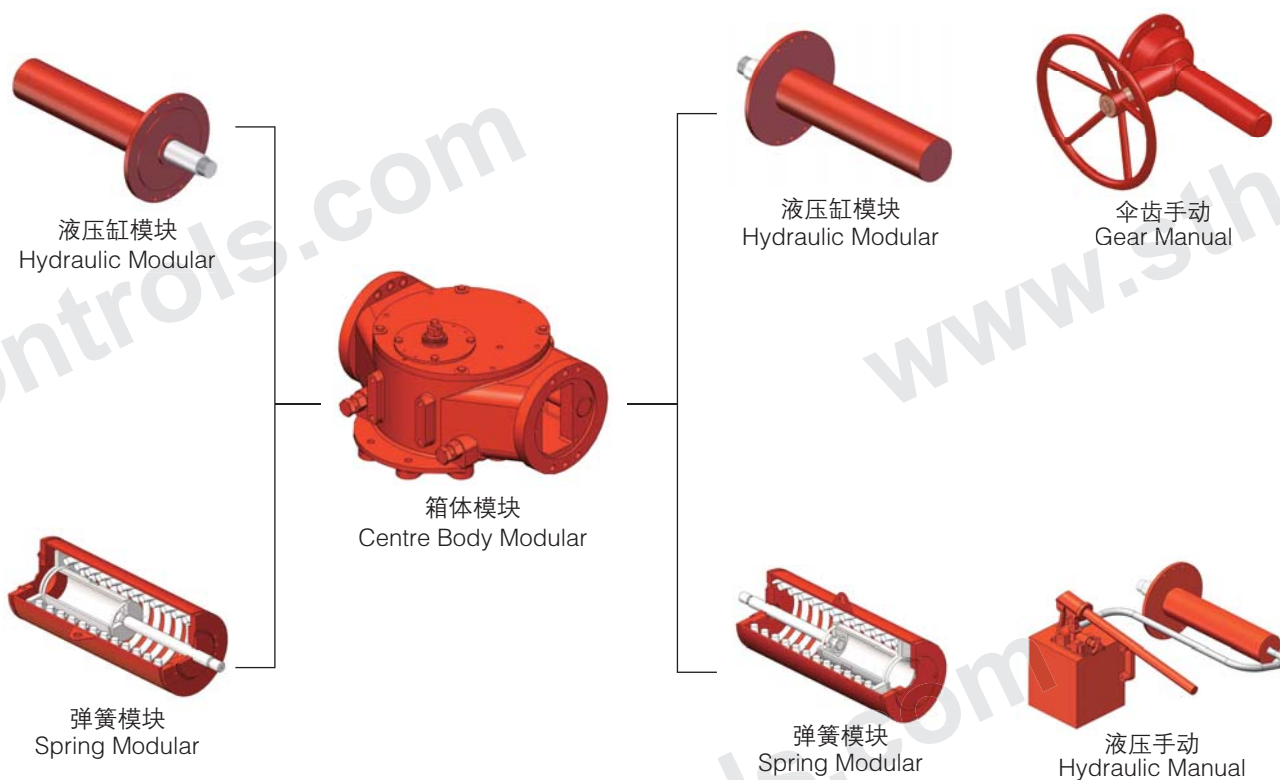
项目号	零件号 Name	数量 Qty.	材料 Materials
15	导向 Guide	1	45# Ductile Iron
16	活塞杆 Piston Stem	1	45# Rubber
17	O型圈 O-ring	n	丁腈橡胶 NBR
18	活塞 Piston	1	45# Resin
19	支撑圈 Cylinder Body	n	聚四氟乙烯+青铜粉 PTFE+Lapis Powder
20	缸体组件 Body Components	1	

## Modular Design

### 模块化设计

HP执行器采用最新模块化的设计。可以在不需要专用工具的情况下轻松实现单作用，双作用，手动操作等模块的组合和更换。

The HP Series adds an extra measure of versatility with its field serviceable modular configuration. It can be altered from a single acting to a double-acting and add a hydraulic manual override after installation. Both the module and spring modules are removable without the need for special tools or disassembly of any modules.



**HPY-B08-0402RLH-DA**

DA: 双作用; SR: 单作用

DA: Double Acting SR: Single Acting

表示液压系列  
Hydraulic Actuator

RL: 无杆腔作为接油口 (如图1);

R: 有杆腔作为接油口 (如图2)

空: 有杆腔无杆腔都作为接油口 (如图3)。

RL: Rodless Cavity as oil port(Figure1)

R: Rod Cavity as oil port(Figure2)

NA: Both Rod Cavity and Rodless Cavity as oil port(Figure3)

液压缸数量: 2 (即双缸)

Hydraulic Cylinder Quantity: 2 (double cylinder)

液压缸缸径: 40

Hydraulic Cylinder Diameter: 40

箱体编号, 详同气动执行器

Center Body No., same as pneumatic actuator

系列号 Series No.

备注: 其余命名方法同气动执行器

Remark: Other naming method is the same as pneumatic actuator.

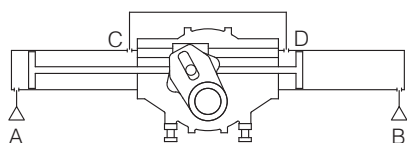


图1, RL: 无杆腔油口A,B作为接油口, 有杆腔油口C, D连通

例如: HPY-B08-0402RLH-DA

Figure1, RL: Rodless Cavity A, B as oil port, Rod Cavity C, D connected

Example: HPY-B08-0402RLH-DA

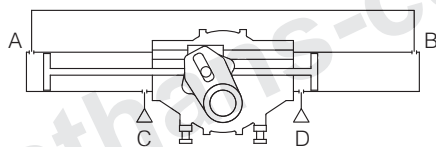


图2, R: 有杆腔油口C, D作为接油口, 无杆腔油口A, B连通

例如: HPY-B08-0402RH-DA

Figure2, R: Rod Cavity C, D as oil port, Rodless Cavity A, B connected

Example: HPY-B08-0402RH-DA

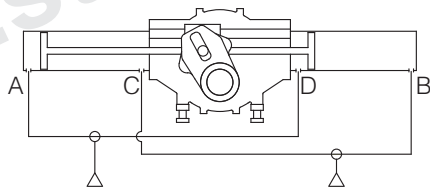


图3, 空: 接口A, D连通, 共同作为一个油口; 接口C, B连通作为一个油口。

两个液压缸的有杆腔和无杆腔共同配合完成执行器动作要求。

例如: HPY-B08-0402H-DA

Figure3, NA: A, D connected as one oil port; C, B connected as one oil port.

The rod cavity and rodless cavity of two hydraulic cylinders coordinates to perform actuator action requests.

Example: HPY-B08-0402RH-DA





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