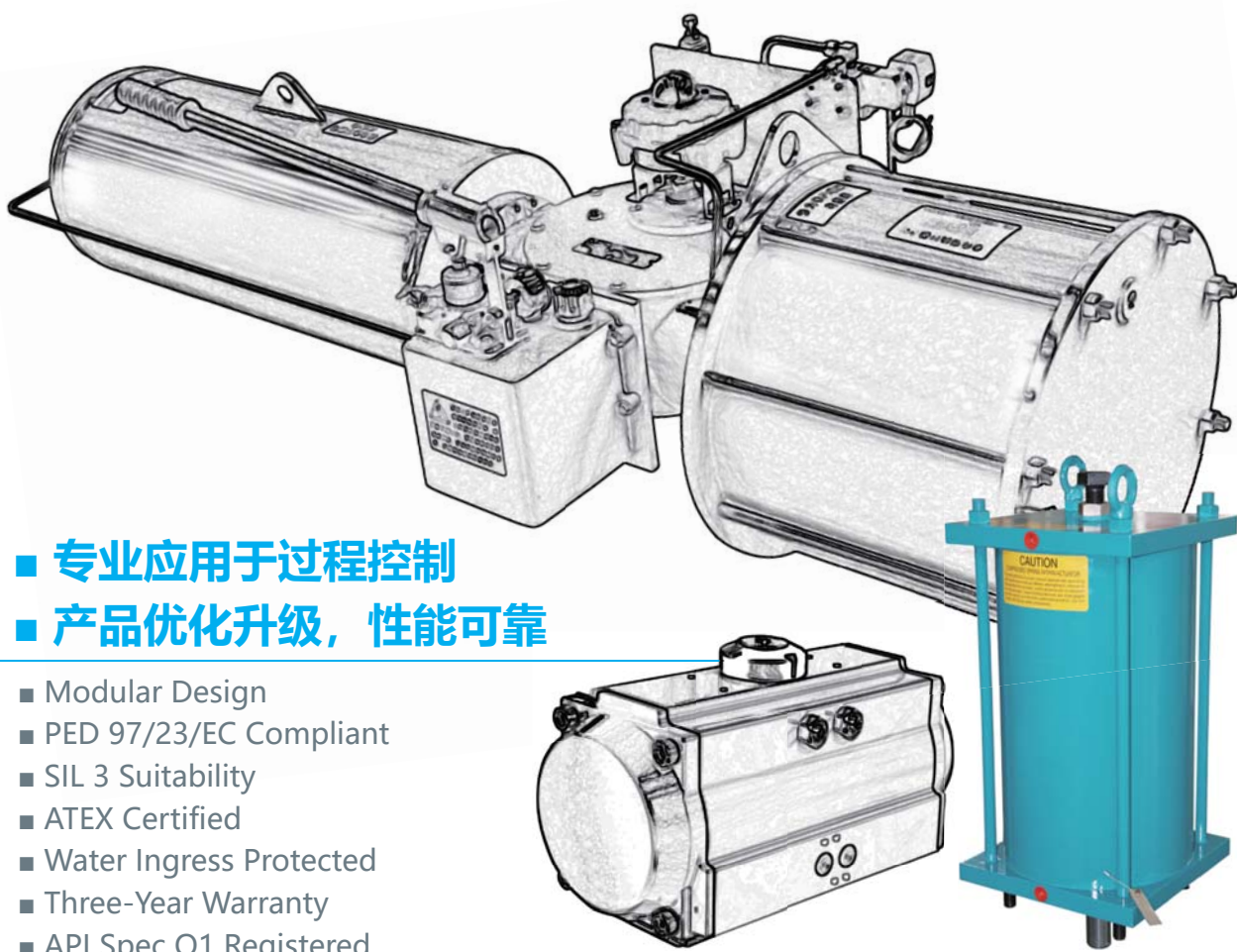


P系列直行程气动执行器

P Series Linear Pneumatic Actuator



- 专业应用于过程控制
- 产品优化升级，性能可靠

- Modular Design
- PED 97/23/EC Compliant
- SIL 3 Suitability
- ATEX Certified
- Water Ingress Protected
- Three-Year Warranty
- API Spec Q1 Registered

无锡福斯拓科科技有限公司
WUXI FORCE & TORQUE TECHNOLOGY CO., LTD.



无锡福斯拓科科技有限公司是一家深受国内外客户及用户认可的气动阀门执行器专业生产厂家。凭借20年的行业经验，福斯拓科致力于为客户提供世界一流的产品和服务。

福斯拓科产品主要包括气动阀门执行器、气动阀门附件（手轮机构、限位开关，电磁阀，过滤减压阀，电气定位器等控制附件）及气动球阀、气动蝶阀等成套阀门产品。



气动执行器产品主要包括不锈钢系列气动执行器；RT系列齿轮齿条气动执行器；HPY系列拨叉式气动执行器、拨叉式液动执行器；HPL系列直行程气动执行器、直行程液动执行器。执行器缸径从 $\phi 32 \sim \phi 1000\text{mm}$ 近百个规格，扭矩范围覆盖 $5\text{Nm} \sim 300000\text{Nm}$ 。

福斯拓科秉承“专注、专业、卓越”的经营理念，将竭诚为新老客户提供更好的技术，完善的产品和优质的服务。



FT[®] OEM/ODM

为客户提供专业的设计开发，加工制造等产品和服务。

FT[®] P SERIES ACTUATOR

多项技术优化升级，专用于过程控制的P系列气动执行机构，
经国际权威机构专业认证。

FT[®] FLUID SYSTEMS

手动，气动，液动，电动等各种驱动方式，
为客户提供先进的技术，优质的产品和服务。

FT[®] CONTROLS

FORCE & TORQUE在控制系统的设计和安装方面具有丰富经验。
集合来自世界各知名品牌控制附件，满足On/Off、Control、
ESD及PST等控制要求。

FT[®] MANUAL

MG, DGD, LG, SM, GM, HM等多种手动方式，
满足于直行程及角行程自动控制的应急方案。

FT[®] SERVICE

FORCE & TORQUE随时为客户提供专家级的现场支持，安装，
调试，测绘及改造服务。



技术研发



P Series Linear Pneumatic Actuator
P系列直行程气动执行器

FT FORCE & TORQUE[®]
福 斯 拓 科

质量体系保证



专利证书PATENT



特殊设计、性能可靠，应用于过程控制的完美解决方案

凭借过程行业多年的应用经验，我们可以为您的过程设备提供一整套的解决方案，以保证其可靠、高效的运行。专门为过程应用而开发的气动执行机构可以实现精确的驱动和超乎想象的低故障率。

在一个现代化的过程控制工厂，阀门执行机构动作的传动精度和可靠性尤为重要。无论是直行程的阀门还是角行程的阀门，我们都可以提供符合要求的产品。满足各种恶劣工况，危险环境的使用。

以下是我们的解决方案适用的过程行业一览。
其中包含用于危险区域的产品。

- 化工和石化行业
- 近海和海洋工业
- 石油和天然气行业
- 制药行业
- 制浆和造纸行业
- 食品和饮料行业
- 水处理和污水处理行业
- 矿产开采和冶金行业



| 防爆区域应用




Bescheinigung über die Hinterlegung der Dokumentation
Acknowledgement of receipt

Hinterlegungsnummer Deposit number	557/Ex-Ab 2793/17
Gegenstand: Gerät / Typ Subject: Equipment / type	Technische Dokumentation Technical documentation Rack and Pinion Actuator
Anschrift Address	WUXI FORCE & TORQUE TECHNOLOGY CO.,LTD. No. 26 Xinhua Road, Xinwu District, Wuxi Jiangsu, China

Die Unterlagen sind bei uns am 7/31/2017 eingegangen und werden unter o. g. Hinterlegungs-Nr. ordnungsgemäß gelagert bis 7/31/2027.
The documents are received 7/31/2017 and stored properly until 7/31/2027 under deposit number above.

Die TÜV Rheinland Industrie Service GmbH ist mit der Kenn-Nr. 0035 benannte Stelle für den Geltungsbereich der Richtlinie 2014/34/EU.
TÜV Rheinland Industrie Service GmbH has notified body number 0035 with the identification of the scope of Directive 2014/34/EU.

TÜV Rheinland Industrie Service GmbH
Anerkannte ATEX-Zertifizierungsstelle / ATEX-Notified Body No. 0035
Am Grauen Stein - 51105 Köln - Germany
(bearbeitende Stelle/executing unit:
Moltkeplatz 1, 45138 Essen)

I.A. / o. Michael Behrens 7/31/2017

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Bescheinigung über die Hinterlegung der Dokumentation
Acknowledgement of receipt

Hinterlegungsnummer Deposit number	557/Ex-Ab 2792/17
Gegenstand: Gerät / Typ Subject: Equipment / type	Technische Dokumentation Technical documentation Scotch Yoke Actuators
Anschrift Address	WUXI FORCE & TORQUE TECHNOLOGY CO.,LTD. No. 26 Xinhua Road, Xinwu District, Wuxi Jiangsu, China

Die Unterlagen sind bei uns am 7/31/2017 eingegangen und werden unter o. g. Hinterlegungs-Nr. ordnungsgemäß gelagert bis 7/31/2027.
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By TÜV Rheinland, Division Explosion Protection and Prevention Services
Protective Device Certification according the European ATEX 2014/34/EU Directive

ATEX 指令2014/34/EU (取代原始的ATEX 指令 94/9/EC)。

ATEX指令适用于:

1. 旨在用于潜在爆炸性环境的设备和保护系统;
2. 打算在潜在爆炸性环境以外但在爆炸危险方面需要或有助于设备和保护系统安全运行的安全装置、控制装置和调节装置;
3. 旨在纳入 (a) 点所述设备和保护系统的部件。

基本技术概念

危险领域 (潜在爆炸性环境) 根据相关IEC (针对IECEx) 和EN (针对ATEX) 标准的区域和安全区域进行定义, 取决于现存爆炸性环境的预期频率和持续时间。



区 0	连续或长时间或频繁存在爆炸性气体的区域
区 1	连续或偶尔在正常运行中存在爆炸性气体的区域
区 2	在正常运行中不会存在爆炸性气体, 即使存在, 也只在短暂时间内存在
区 20	爆炸性粉尘以空气中的尘埃形式连续或长时间频繁存在的区域
区 21	爆炸性粉尘以空气中的尘埃形式连续或偶尔在正常运行中存在的区域
区 22	在正常运行中不会有爆炸性粉尘以空气中的尘埃形式存在的区域, 即使存在, 也只在短暂时间内存在。
安全或非危险领域	爆炸性气体或大气粉尘因为对设备的构造、安装或使用采取了特殊预防措施所以不会大量存在的安全区域

除区域划分外, 危险领域还根据气体或粉尘组 (取决于气体或粉尘的爆炸特性) 以及温度等级 (取决于爆炸性气体的自燃温度) 进一步细分。

气体或粉尘组	代表性气体或粉尘	表面温度 °C	设备温度等级
I (煤矿易燃)	甲烷	< 450°C	T1
IIA	丙烷	< 300°C	T2
IIB	乙烯	< 200°C	T3
IIC	乙炔&氢	< 135°C	T4
IIIA	可燃纤维/絮, 如棉绒, 亚麻或人造丝	< 100°C	T5
IIIB	非导电性粉尘, 如面粉、粮食、木材和塑料	< 85°C	T6
IIIC	导电粉尘, 如镁		

安全仪表系统应用

Certificate



No.: 968/V 1067.00/18

Product tested	Pneumatic Actuators	Certificate holder	Wuxi Force & Torque Technology Co., Ltd. No. 26 Xinhua Road Xinwu District Wuxi Jiangsu P.R. China
Type designation	P series scotch yoke actuators Proxy-abc/Proxy-abx (For detailed information see test report)		
Codes and standards	IEC 61508 Parts 1-2 and 4-7:2010		
Intended application	Safety Function: On demand, the complete pneumatic actuator assembly actuate a valve into a safety position. The safety position of the actuator can correspond to either "closed" or "open". The actuators are suitable for use in a safety instrumented system up to SIL 2 (low demand mode). Under consideration of the minimum required hardware fault tolerance HFT = 1 the actuators may be used in a redundant architecture up to SIL 3.		
Specific requirements	The instructions of the associated Installation, Operating and Safety Manual shall be considered.		
Summary of test results see back side of this certificate			
Valid until 2023-09-27			
The issue of this certificate is based upon an examination, whose Report No. 968/V 1067.00/18 dated 2018-09-27. This certificate is valid only for products which are identical with this			
 TÜV Rheinland Industrie Service GmbH Bereich Automation Funktionale Sicherheit Am Grauen Stein 51 Köln, 2018-09-27 Certification Body Safety & Security			

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Inspection Certificate



Certificate No. 968/INS 216.00/19

Client / Certificate Owner	Beijing Research Center of CNOOC China Ltd. Building B, CNOOC Plaza, No. 6 Taiyanggong south Chaoyang District Beijing P.R. China
Product	Final Element Combination of turnon mounted ball valves and actuator
Type designation	Ball Valve; Suzhou Dousun 12" / class 1500 Actuator: Wuxi Force & Torque P series
Standards applied for inspection	IEC 61508-2:2010 (in extracts)
Inspection Results	The scope of this inspection is the reliability calculation requirements of IEC 61508 / SIL 2 of the final element subsystem consisting out of already certified turnon valves and actuators. Result: The reliability data of the final element comb the requirements of relevant standards. The instructions of the Safety Manuals and the individual certifications must be considered before and during any use in safety related applications.
Inspection Period	2018-11-01 - 2019-10-01
 Dr.-Ing. Thorsten Gantvoort TÜV Rheinland Industrie Service GmbH Bereich Automation Funktionale Sicherheit Am Grauen Stein, 51105 Köln	
Cologne, 2019-10-25 TÜV Rheinland Industrie Service GmbH Am Grauen Stein, 51105 Köln	
Inspection Report: TÜV Rheinland Industrie Service GmbH Business Area Energy Systems and Automation Business Field Certification - Functional Safety, www.tuv.com	

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Certificate



No.: 968/V 1067.00/18

Product tested	Pneumatic Actuators	Certificate holder	Wuxi Force & Torque Technology Co., Ltd. No. 26 Xinhua Road Xinwu District Wuxi Jiangsu P.R. China
Type designation	P series rack and pinion actuators PRaxxx/PRaxxx-by (For detailed information see test report)		
Codes and standards	IEC 61508 Parts 1-2 and 4-7:2010		
Intended application	Safety Function: On demand, the complete pneumatic actuator assembly actuate a valve into a safety position. The safety position of the actuator can correspond to either "closed" or "open". The actuators are suitable for use in a safety instrumented system up to SIL 2 (low demand mode). Under consideration of the minimum required hardware fault tolerance HFT = 1 the actuators may be used in a redundant architecture up to SIL 3.		
Specific requirements	The instructions of the associated Installation, Operating and Safety Manual shall be considered.		
Summary of test results see back side of this certificate.			
Valid until 2023-09-27			
The issue of this certificate is based upon an examination, whose results are documented in Report No. 968/V 1067.00/18 dated 2018-09-27. This certificate is valid only for products which are identical with the product tested.			
 TÜV Rheinland Industrie Service GmbH Bereich Automation Funktionale Sicherheit Am Grauen Stein, 51105 Köln Köln, 2018-09-27 Certification Body Safety & Security for Automation & Control Dr.-Ing. Thorsten Gantvoort			

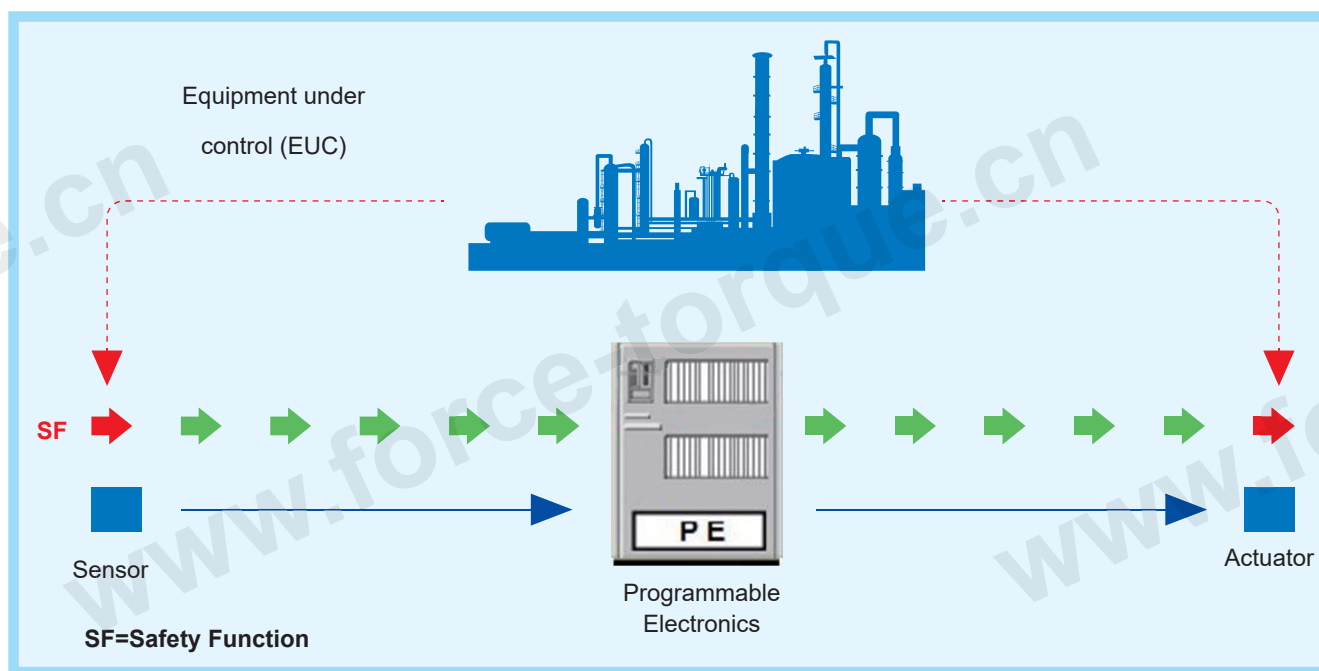
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安全仪表系统应用



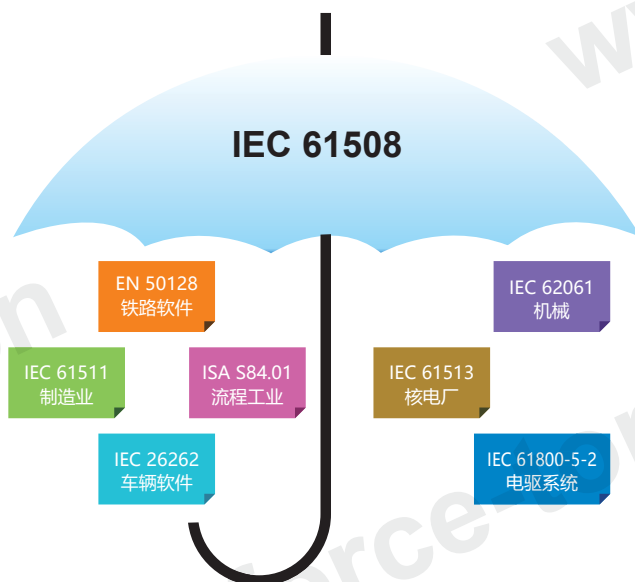
功能安全标准要求



■ 不规范产品引发的安全事故造成人员和财产重大损失



By TÜV Rheinland, Division Explosion Protection and Prevention Services
Functional Safety and IEC 61508 & SIL (Safety Integrity Level) - 安全完整性等级



为了防止事故的发生,减少由此带来的损失,保证企业的高度稳定运转,一套能够检测装置的异常动作,并对可能发生的潜在危害作出相应动作的系统是必不可少的。

安全仪表系统(Safety Instrumented System, SIS)正是基于该目的被提出来的。安全仪表系统包括传感器、逻辑运算器和最终执行元件。

Functional safety is a concept applicable across all industry sectors. It is fundamental to the enabling of complex technology used for safety-related systems. It provides the assurance that the safety-related systems will offer the necessary risk reduction required to achieve safety for the equipment.

The oil and gas industry, nuclear plants and the machinery sector, to name but a few, all rely heavily on functional safety to achieve safety for the equipment giving rise to the hazards.

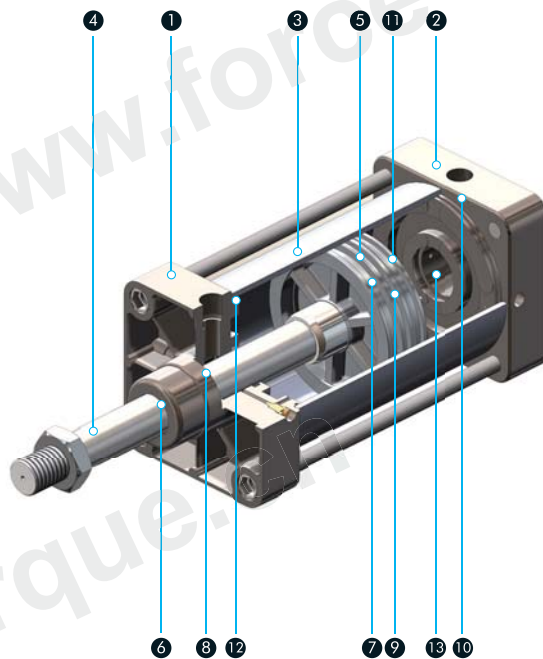


产品特点

Product Features

1. 行程限位杆位置可调,具体行程应用可咨询工厂;
2. 单作用的弹簧活塞杆螺母锁定, 以防止未经授权对弹簧筒误拆卸;
3. 缸径 $\varnothing 80$ - $\varnothing 320$ 缸体材质为铝合金;
4. 驱动杆材质为碳钢镀铬处理, 有不锈钢材质可以选用;
5. 执行器外观颜色可以根据客户要求定制;
6. 需定制推力、行程、压力等要求请与工厂联系

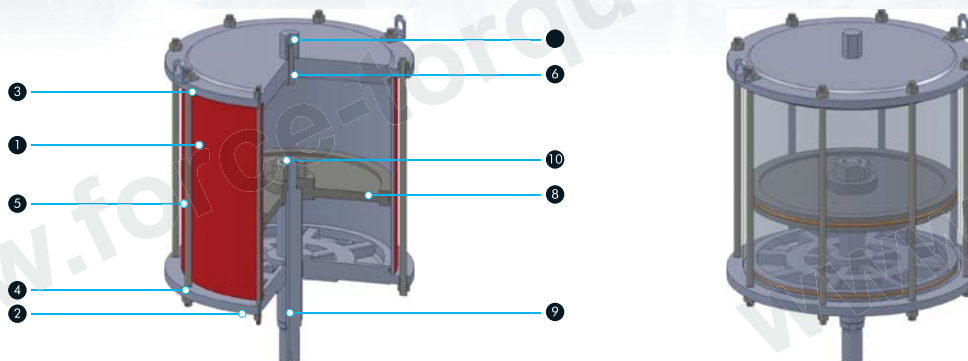
1. Adjustable travel stop for the rod-retract position, piston bottoms out for the rod-extend position. Specific travel applications available, consult factory.
- 2.Spring rod nut is locked to prevent unauthorized disassembly of the spring cartridge
- 3.Pneumatic cylinder ranges $\varnothing 80$ - $\varnothing 320$, the material of body is hard anodized aluminum .
- 4.The material of drive rod is carbon steel with chrome plated. Optional material available like stainless steel ect.
- 5.The coating color are upon customer request.
- 6.Consult factory for customized thrust, travel and pressure requirements.



Ø80-Ø320结构图

Ø80-Ø320 Construction

序号 No.	名称 Description	材质 Material	保护 Protection	数量 Qty.
1	前端盖 Front Cap	铝合金 Alluminum Alloy	表面烤漆 Painted	1
2	后端盖 End Cap	铝合金 Alluminum Alloy	表面烤漆 Painted	1
3	缸筒 Body	铝合金 Aluminum alloy	硬质氧化 Hard Anodized	1
4	活塞杆 Piston Rod	合金钢 Alloy Steel	表面镀铬 Chrome Plated	1
5	活塞 Piston	铸铝 Cast Alluminum	-	1
6	轴用密封圈 U-ring (piston rod)	NBR	-	1
7	孔用圈 Y-ring (piston)	NBR	-	2
8	标准轴承套 Bearing	免润滑轴承 Surface Lubricating Bearing	-	1
9	软磁条 Magnet	塑胶 Plastic	-	1
10	缓冲针阀 Bufferscrew	合金钢 Aolly Steel	-	2
11	支撑环 Wear Ring	PTFE	-	1
12	O型圈 O-ring(end cap)	NBR	-	2
13	缓冲圈 Cushion Seal	NBR	-	2



Ø280-Ø1000双作用结构图

Ø280-Ø1000 Construction of Double Acting Pneumatic Actuators

序号 No.	名称 Name	材质 Material	数量 Qty.
1	缸筒 Body	碳钢 Carbon Steel	1
2	前端盖 Front Cap	球墨铸铁 Ductile Iron	1
3	后端盖 End Cap	球墨铸铁 Ductile Iron	1
4	螺母 Nut	碳钢 Carbon Steel	n
5	拉杆 Bolt	碳钢 Carbon Steel	n
6	限位螺栓 Adjust screw	碳钢 Carbon Steel	1
7	限位螺帽 Nut	碳钢 Carbon Steel	1
8	活塞 Piston	球墨铸铁 Ductile Iron	1
9	活塞杆 Stem	合金钢 Alloy Steel	1
10	活塞杆锁紧螺母 Lock Nut	碳钢 Carbon Steel	1

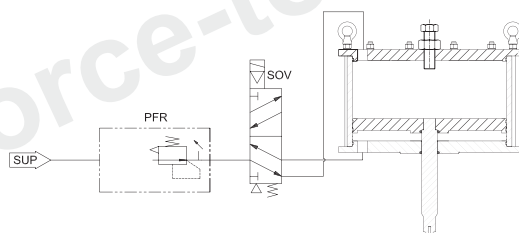
双作用输出力对照表

Output Torque Table of Pneumatic Actuators with Double Acting

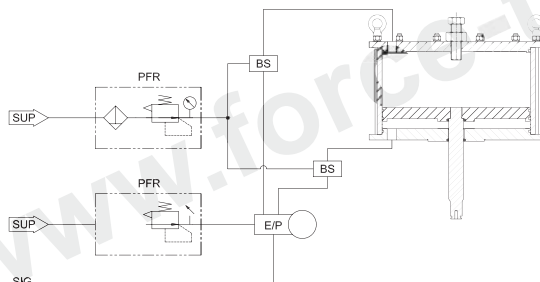
气缸直径 Ø (mm)	活塞杆 直径 Ø (mm)	气缸输出力N 气源压力单位MPa													
		0.3		0.35		0.4		0.45		0.5		0.55		0.6	
		推力 N	拉力 N	推力 N	拉力 N	推力 N	拉力 N	推力 N	拉力 N	推力 N	拉力 N	推力 N	拉力 N	推力 N	拉力 N
50	20	589	495	687	577	785	659	883	742	981	824	1,079	907	1,178	989
63	20	935	840	1,090	981	1,246	1,121	1,402	1,261	1,558	1,401	1,714	1,541	1,869	1,681
80	25	1,507	1,360	1,758	1,587	2,010	1,813	2,261	2,040	2,512	2,267	2,763	2,493	3,014	2,720
100	25	2,355	2,208	2,748	2,576	3,140	2,944	3,533	3,312	3,925	3,680	4,318	4,048	4,710	4,416
125	32	3,680	3,439	4,293	4,012	4,906	4,585	5,520	5,158	6,133	5,731	6,746	6,304	7,359	6,877
160	40	6,029	5,652	7,034	6,594	8,038	7,536	9,043	8,478	10,048	9,420	11,053	10,362	12,058	11,304
200	40	9,420	9,043	10,990	10,550	12,560	12,058	14,130	13,565	15,700	15,072	17,270	16,579	18,840	18,086
250	40	14,719	14,342	17,172	16,732	19,625	19,123	22,078	21,513	24,531	23,903	26,984	26,294	29,438	28,684
280	40	18,463	18,086	21,540	21,101	24,618	24,115	27,695	27,130	30,772	30,144	33,849	33,158	36,926	36,173
300	40	21,195	20,818	24,728	24,288	28,260	27,758	31,793	31,227	35,325	34,697	38,858	38,167	42,390	41,636
320	40	24,115	23,738	28,134	27,695	32,154	31,651	36,173	35,608	40,192	39,564	44,211	43,520	48,230	47,477
350	40	28,849	28,472	33,657	33,217	38,465	37,963	43,273	42,708	48,081	47,453	52,889	52,199	57,698	56,944
400	40	37,680	37,303	43,960	43,520	50,240	49,738	56,520	55,955	62,800	62,172	69,080	68,389	75,360	74,606
450	50	47,689	47,100	55,637	54,950	63,585	62,800	71,533	70,650	79,481	78,500	87,429	86,350	95,378	94,200
500	60	58,875	58,027	68,688	67,698	78,500	77,370	88,313	87,041	98,125	96,712	107,938	106,383	117,750	116,054
560	60	73,853	73,005	86,162	85,173	98,470	97,340	110,779	109,508	123,088	121,675	135,397	133,843	147,706	146,010
600	60	84,780	83,932	98,910	97,921	113,040	111,910	127,170	125,898	141,300	139,887	155,430	153,876	169,560	167,864
630	60	93,470	92,622	109,048	108,059	124,627	123,496	140,205	138,933	155,783	154,370	171,362	169,807	186,940	185,244
700	60	115,395	114,547	134,628	133,638	153,860	152,730	173,093	171,821	192,325	190,912	211,558	210,003	230,790	229,094
800	70	150,720	149,566	175,840	174,494	200,960	199,421	226,080	224,349	251,200	249,277	276,320	274,204	301,440	299,132
900	70	190,755	189,601	222,548	221,201	254,340	252,801	286,133	284,402	317,925	316,002	349,718	347,602	381,510	379,202
702	80	229,283	227,776	267,497	265,738	305,710	303,701	343,924	341,663	382,138	379,626	420,352	417,589	458,566	455,551
1000	80	235,500	233,993	274,750	272,992	314,000	311,990	353,250	350,989	392,500	389,988	431,750	428,987	471,000	467,986
1100	80	284,955	283,448	332,448	330,689	379,940	377,930	427,433	425,172	474,925	472,413	522,418	519,654	569,910	566,896
802	80	299,933	298,426	349,922	348,163	399,910	397,901	449,899	447,638	499,888	497,376	549,877	547,114	599,866	596,851
1200	80	339,120	337,613	395,640	393,882	452,160	450,150	508,680	506,419	565,200	562,688	621,720	618,957	678,240	675,226
902	100	379,155	376,800	442,348	439,600	505,540	502,400	568,733	565,200	631,925	628,000	695,118	690,800	758,310	753,600
1300	100	397,995	395,640	464,328	461,580	530,660	527,520	596,993	593,460	663,325	659,400	729,658	725,340	795,990	791,280
1400	100	461,580	459,225	538,510	535,763	615,440	612,300	692,370	688,838	769,300	765,375	846,230	841,913	923,160	918,450
1002	100	468,645	466,290	546,753	544,005	624,860	621,720	702,968	699,435	781,075	777,150	859,183	854,865	937,290	932,580
1500	100	529,875	527,520	618,188	615,440	706,500	703,360	794,813	791,280	883,125	879,200	971,438	967,120	1,059,750	1,055,040
1102	100	567,555	565,200	662,148	659,400	756,740	753,600	851,333	847,800	945,925	942,000	1,040,518	1,036,200	1,135,110	1,130,400
1202	120	674,849	671,458	787,324	783,367	899,798	895,277	1,012,273	1,007,186	1,124,748	1,119,096	1,237,223	1,231,006	1,349,698	1,342,915
1402	120	919,769	916,378	1,073,064	1,069,107	1,226,358	1,221,837	1,379,653	1,374,566	1,532,948	1,527,296	1,686,243	1,680,026	1,839,538	1,832,755
2000	120	942,000	938,609	1,099,000	1,095,044	1,256,000	1,251,478	1,413,000	1,407,913	1,570,000	1,564,348	1,727,000	1,720,783	1,884,000	1,877,218
2300	150	1,245,795	1,240,496	1,453,428	1,447,246	1,661,060	1,653,995	1,868,693	1,860,744	2,076,325	2,067,494	2,283,958	2,274,243	2,491,590	2,480,993
1204	160	1,357,168	1,333,041	1,583,363	1,555,214	1,809,557	1,777,387	2,035,752	2,009,561	2,261,947	2,221,734	2,488,141	2,443,908	2,714,336	2,666,081

双作用气路原理图

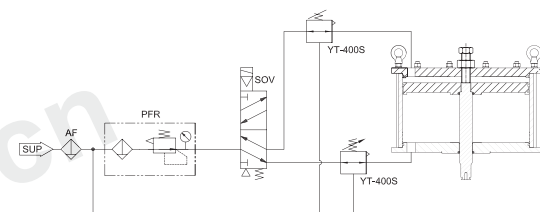
Pneumatic Schematic of Double Acting Pneumatic Actuator



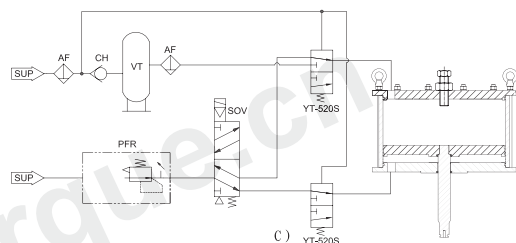
双作用开关型
DA On-Off



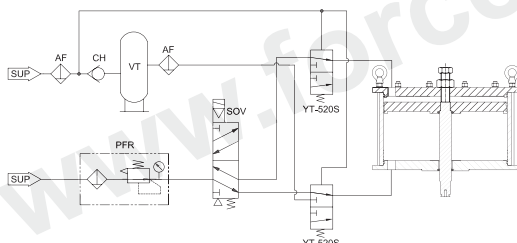
双作用调节型（带增速器）
DA Control with Booster Relay



双作用开关型（失气故障保位）
DA On-Off (FL)



双作用开关型（故障关FC）
DA On-Off (FC with Air Tank)



双作用开关型（故障开FO）
DA On-Off (FO with Air Tank)

手动形式 Manual



DA



DA+SM



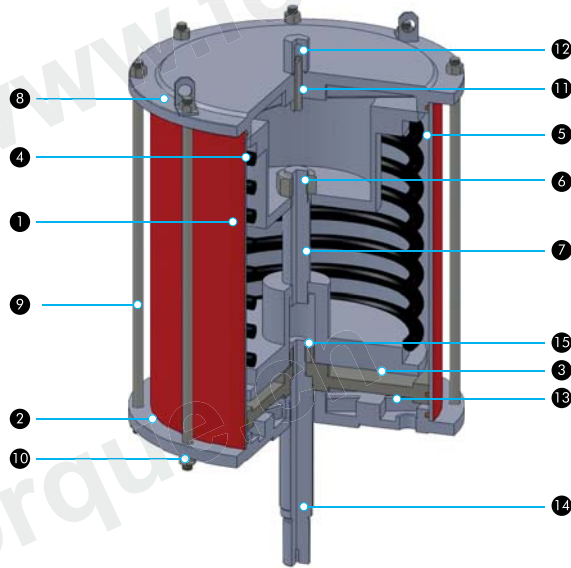
DA+GM



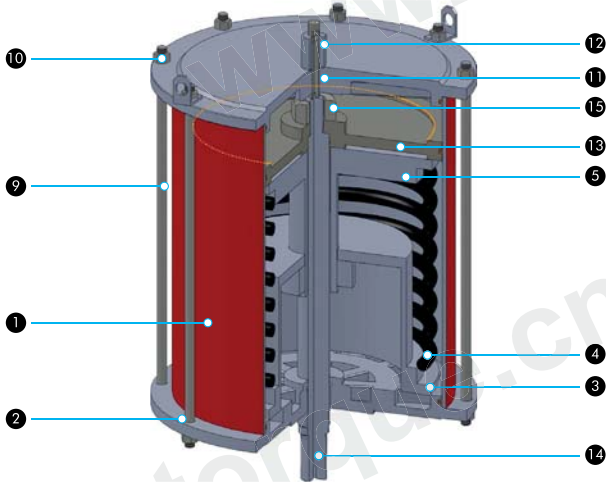
DA+HM

单作用结构图

Construction of Spring Return Pneumatic Actuators



FC



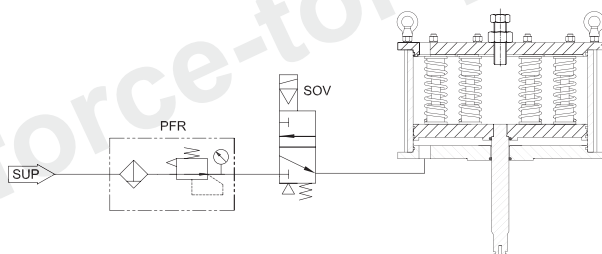
FO

零件号 No.	名称 Name	材料 Material	数量 Qty.
1	缸筒 Body	碳钢 Carbon Steel	1
2	缸盖 Cap	球墨铸铁 Ductile Iron	1
3	弹簧座 Spring Seat	碳钢 Carbon Steel	1
4	弹簧 Spring	弹簧钢 Spring steel	n
5	弹簧座 Spring Seat	碳钢 Carbon Steel	1
6	螺母 Nut	碳钢 Carbon Steel	1
7	弹簧拉杆 Spring Stem	合金钢 Alloy Steel	1
8	缸盖 Cap	球墨铸铁 Ductile Iron	1
9	拉杆 Bolt	碳钢 Carbon Steel	n
10	螺母 Screw	碳钢 Carbon Steel	n
11	限位螺钉 Bolt	碳钢 Carbon Steel	1
12	限位螺帽 Nut	碳钢 Carbon Steel	1
13	活塞 Piston	球墨铸铁 Ductile Iron	1
14	活塞杆 Stem	合金钢 Alloy Steel	1
15	活塞杆锁紧螺母 Lock Nut	碳钢 Carbon Steel	1

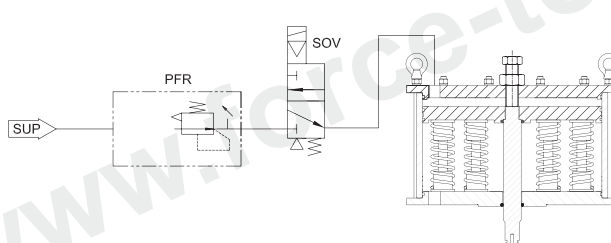
Remark: The output torque of spring return actuator is based on actual stroke and spring force.

单作用气路原理图

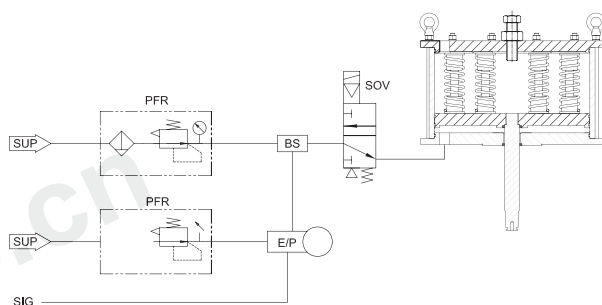
Pneumatic Schematic of Spring Return Pneumatic Actuator



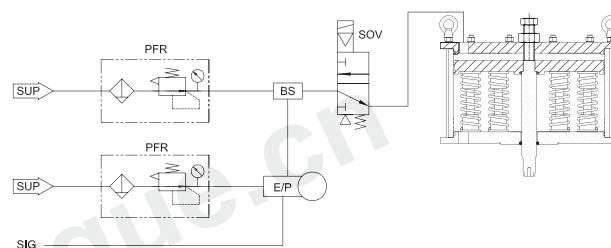
单作用开关型FC
SR On-Off (FC)



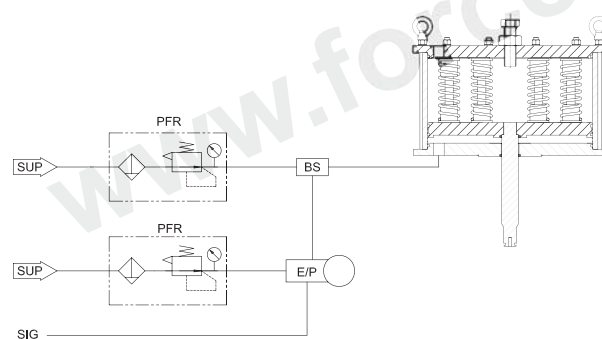
单作用开关型FO
SR On-Off (FO)



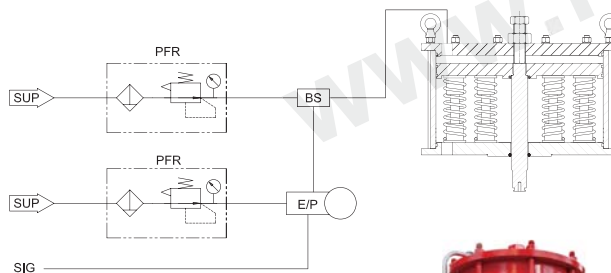
单作用调节型FC (故障复位)
SR Control (FC)



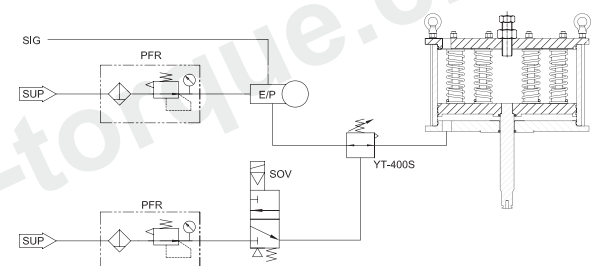
单作用调节型FO (故障复位)
SR Control (FO)



单作用调节型FC (带增速器)
SR Control FC with Booster Relay



单作用调节型FO (带增速器)
SR Control FO with Booster Relay



单作用调节型FC (带断电、断信号、断气保位功能)
SR Control with Power-Off, Signal Loss, Air Failure Protection



手动形式
Manual



SR



SR+SM

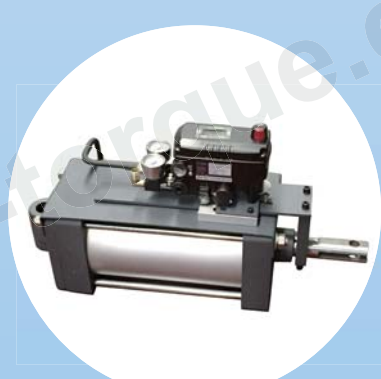


SR+GM



SR+HM





订购信息

How to Order

单元 UNIT	1	2	3	4	5	6	7	产品代号Product Code
内容 CONTENT	系列 Series	气缸 Cylinder	行程 Stroke	动作形式 Acting Type	弹簧规格 Spring	手动方式 Manual	Specific Requirements 特殊要求	PL-500*100-SRC4+HM+LT
代号 Code	PL	500	100	SRC	4	HM	LT	
示例 Example	PL	500	100	SRC	4	HM	LT	

PL Series
Pneumatic Actuator

80~1000

根据客户要求
Upon Customer Requirements

DA	双作用 Double Acting
SRC	单作用气开 Air to Open
SRO	单作用气关 Air to Close

SM	丝杆 Screw Manual
GM	伞齿 Gear Manual
HM	液压 Hydraulic Manual

LLT	Ultra-low Temperature 超低温 -60℃
LT	Low Temperature 低温 (-40℃ to +80℃)
HT	High Temperature 高温 (-20℃ to +150℃)
HC	High Cycle 高频设计
C	Customized 非标定制

弹簧尺寸 Spring Size
弹簧尺寸 Spring Size

技术参数

工作介质：干燥洁净的压缩空气、天然气、氮气等无腐蚀性气体
环境温度：常温：-20℃~+80℃
 高温：-15℃~+150℃
 低温：-40℃~+80℃
 超低温：-60℃

通用参数

双动作型	单动作（弹簧复位）型
工作压力：0.3MPa-0.8MPa	工作压力：0.3MPa-0.8MPa
设计压力：1MPa	设计压力：1MPa
输出推力：见输出推力表	输出推力：需根据实际参数选型计算

