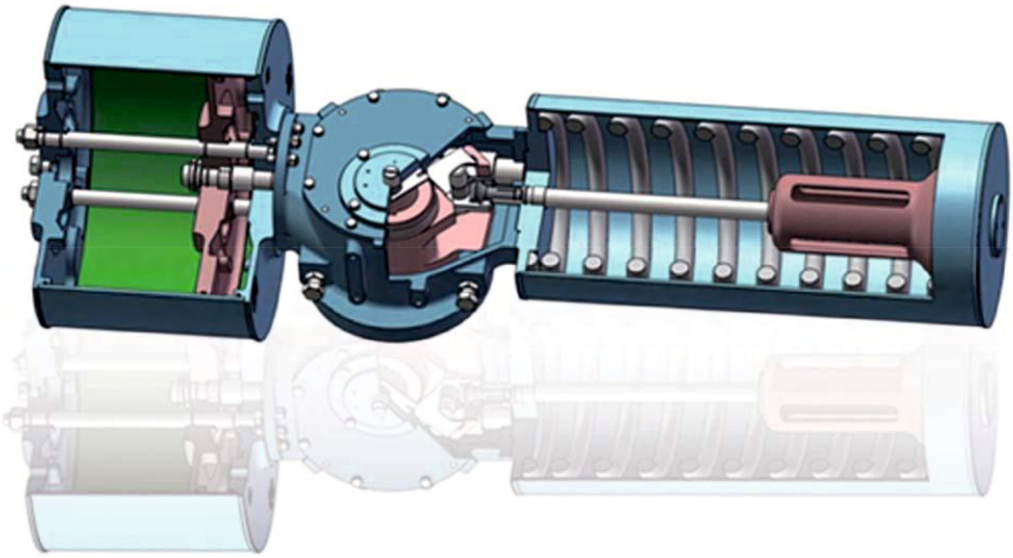
PHBB VALVES

PNEUMATIC ACTUATOR

S - SERIES - SCOTCH YOKE



High performance and high reliability
Fully compliant with the latest international regulations
Suitable for various application enviroments

Features

Waterproof Protection

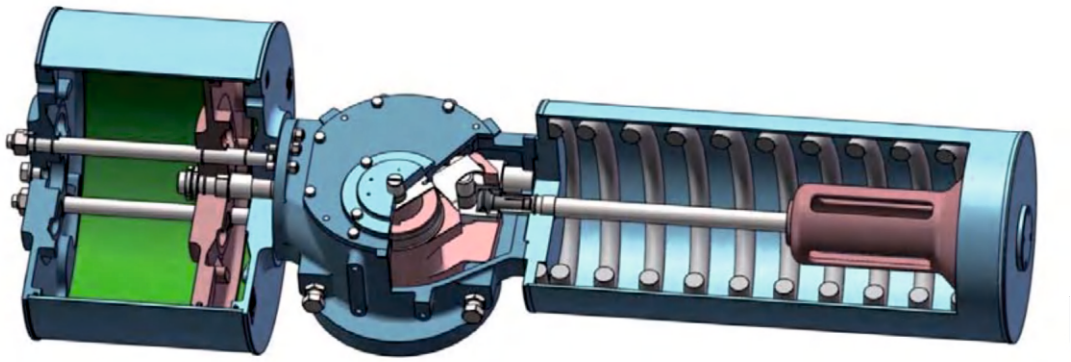
O-Rings are fitted between body and cover and other connections this ensure waterproof protection.

Application

Pneumatic Operating Press : 3-6 Bar;
Ambient Temperature :
High Temperature : -20°C - 150°C:
Low Temperature : -40°C - 80°C

Corrosion Resistant

PHBB actuator is sprayed with a multilayer protective coating to meet the environmental requirements of all kinds of working conditions. Teflon coating on the inner wall of the cylinder increases the corrosion resistance and lubrication performance.



Wear Resistant

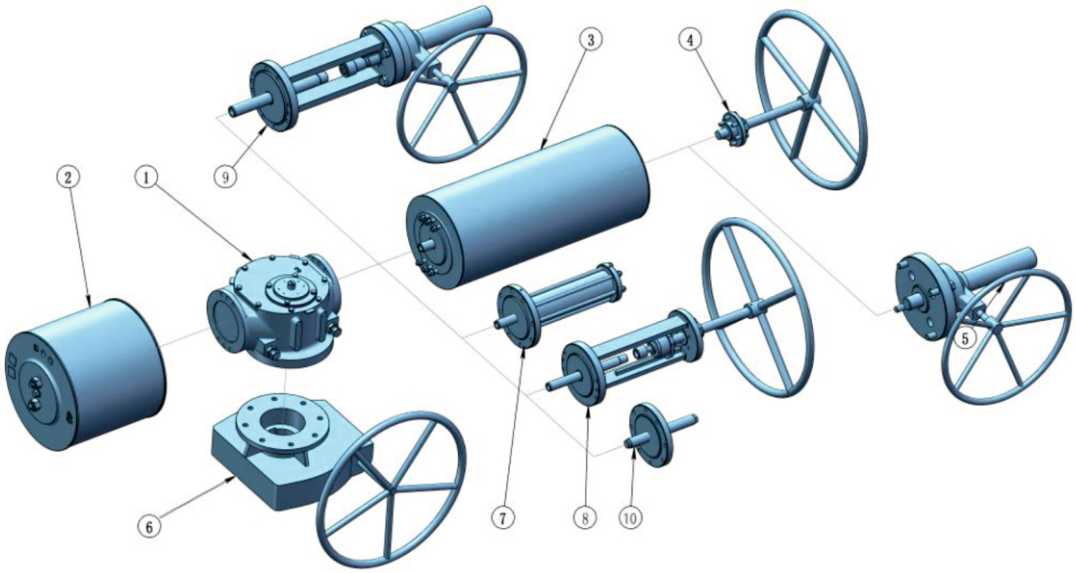
Self-lubricating bearing is used on piston rod, guide bar and other moving parts, which provides excellent wear resistance and extends the life of the sliding parts.

Modular Design

PHBB actuator uses modular design, each body module can choose different cylinder modules and spring modules to meet the various needs of torque. modular design makes assembly easier, and is conducive to on-site maintenance.

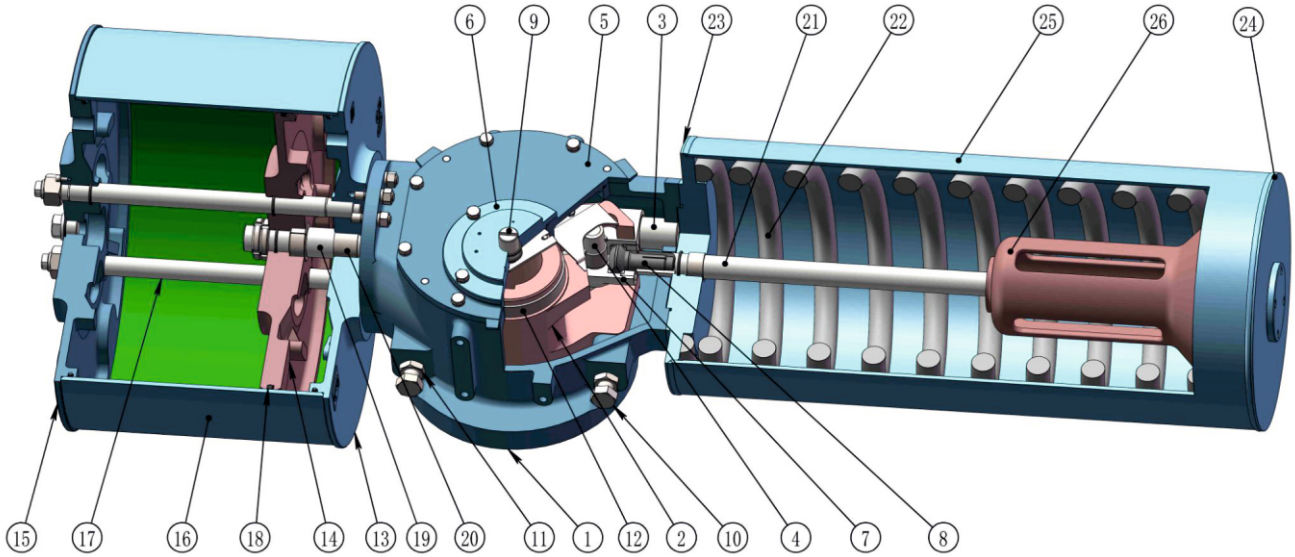
Cylinder With Internal Tension Rod

The cylinder is designed with internal tension rod to reduce the size of the cylinder. The internal tension rod has the function of supporting and guiding for the piston to prevent the eccentric wear of the cylinder.



1. Drive module	3. Spring module	5. Bevel gear manual module	7. Hydraulic manual module	9. Double-acting bevel gear manual module
2. Cylinder module	4. Screw manual module	6. Clutch manual module	8. Double-acting screw manual module	10. Limit module

Assembly Drawing



No.	Name	Material
1	Body	Ductile Iron
2	Yoke	Ductile Iron
3	Guide Bar	Alloy Steel
4	Pin	Alloy Steel
5	Body Cover	Ductile Iron
6	Cover	Carbon Steel
7	Guide Block	Ductile Iron
8	Connectors	Alloy Steel
9	Drive Shaft	Stainless Steel

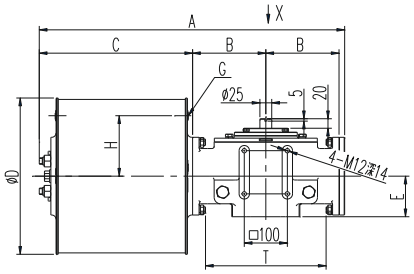
No.	Name	Material
10	Adjust Bolt	Stainless Steel
11	Nut	Stainless Steel
12	Yoke Bearing	DU Bearing
13	Cylinder Cover	Ductile Iron
14	Piston	Ductile Iron
15	Cylinder Cover	Ductile Iron
16	Cylinder	Carbon Steel
17	Cylinder Tension Rod	Alloy Steel
18	Sealing Ring	NBR

No.	Name	Material
19	Piston Rod	Alloy Steel
20	Piston Rod Bearing	DU Bearing
21	Tension Rod	Alloy Steel
22	Spring	Alloy Steel
23	Spring Cover	Carbon Steel
24	Spring Cover	Carbon Steel
25	Spring Cylinder	Carbon Steel
26	Spring Seat	Ductile Iron

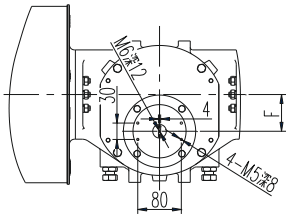
Cylinder Volume

Model	Cylinder Effective Volume (L)												
	200	250	300	350	400	500	600	700	700 D	800	800 D	900	1000
PS1	6. 8	10. 6	15. 4	18. 2									
PS2		10. 6	15. 4	18. 2	21. 3								
PS3			18. 4	21. 7	27. 5	43							
PS4				26. 6	33. 7	53	76						
PS5						69	100	145		189			
PS6							124	180	360	234		296	
PS7								214		275	550	353	430

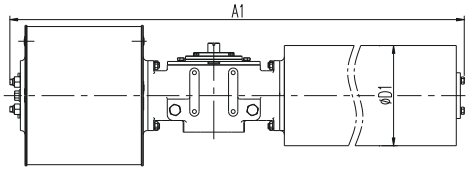
Dimension Drawing



Double acting



View X

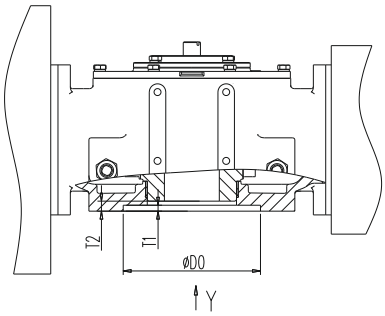


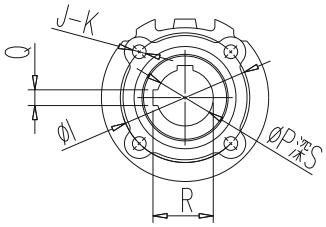
Spring return acting

Dimension Sheet

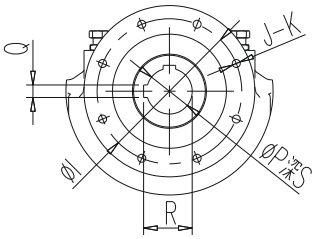
Model	Double acting(mm)				Spring return(mm)						
	A	B	C	ΦD	E	F	G	H	T	A1	ΦD1
PS1 -200	658	145	356	223	88	60	RC 3/8	80	235	1370	220
PS1 -250	658	145	356	280	88	60	RC 1/2	110	235	1370	220
PS1 -300	658	145	356	332	88	60	RC 1/2	124	235	1370	220
PS1 -350	658	145	356	362	88	60	RC 1/2	132	235	1370	220
PS2 -250	709	170	356	280	94	74	RC 1/2	110	285	1440	274
PS2 -300	709	170	356	332	94	74	RC 1/2	124	285	1440	274
PS2 -350	709	170	356	362	94	74	RC 1/2	132	285	1440	274
PS2 -400	725	170	372	413	94	74	RC 3/4	158	285	1456	274
PS3 -300	828	195	423	332	98	89	RC 1/2	124	320	1600	327
PS3 -350	828	195	423	362	98	89	RC 1/2	132	320	1600	327
PS3 -400	828	195	423	413	98	89	RC 3/4	158	320	1600	327
PS3 -500	828	195	423	514	98	89	RC 3/4	202	320	1600	327
PS4 -350	982	238	492	362	115	108	RC 1/2	132	396	1932	408
PS4 -400	982	238	492	413	115	108	RC 3/4	158	396	1932	408
PS4 -500	982	238	492	514	115	108	RC 3/4	202	396	1932	408
PS4 -600	982	238	492	616	115	108	RC 3/4	244	396	1932	408
PS5 -500	1217	298	606	514	163	140	RC 3/4	202	505	2275	508
PS5 -600	1217	298	606	616	163	140	RC 3/4	244	505	2275	508
PS5 -700	1217	298	606	739	163	140	RC 1	305	505	2275	508
PS5 -800	1217	298	606	839	163	140	RC 1-1/2	355	505	2275	508
PS6 -600	1536	370	766	616	203	171	RC 3/4	244	620	2702	682
PS6 -700	1536	370	766	739	203	171	RC 1	305	620	2702	682
PS6 -800	1536	370	766	839	203	171	RC 1-1/2	355	620	2702	682
PS6 -900	1536	370	766	947	203	171	RC 1-1/2	402	620	2702	682
PS6-700 D	-	370	1500	739	203	171	RC 1	305	620	3436	682
PS7 -700	1760	425	880	739	214	203	RC 1	305	690	3590	682
PS7 -800	1760	425	880	839	214	203	RC 1-1/2	355	690	3590	682
PS7 -900	1760	425	880	947	214	203	RC 1-1/2	402	690	3590	682
PS7-1000	1760	425	880	1048	214	203	RC 2	456	690	3590	682
PS7-800 D	-	425	1725	839	214	203	RC 1-1/2	355	690	4435	682

Connection Dimension Drawing





PS1~2



PS3~7

View Y
(The actuator moves clockwise to the bottom)

Connection dimension sheet

Model	Dimension (mm)								
	ΦI	J-K	ΦP	S	Q	R	ΦDO	T1	T2
PS1	140	4-M16	60	145	18	64.4	100	10	14
PS2	165	4-M20	72	155	20	76.9	130	10	15
PS3	254	8-M16	80	175	22	85.4	200	6	7
PS4	298	8-M20	100	200	28	106.4	230	10	12
PS5	356	8-M30	160	295	40	169.4	260	10	15
PS6	406	8-M36	180	360	45	190.4	300	10	21
PS7	483	12-M36	220	380	50	231.4	370	10	20

Manual Override

Model		Standard		Optional	
		Manual form	Installation location	Manual form	Installation location
Double Acting	PS1 -xxx	MW (Worm gear manual)	Between actuator and valve	MSD(Screw manual)	Side of the cabinet
	PS2 -xxx	MW (Worm gear manual)	Between actuator and valve	MSD(Screw manual)	Side of the cabinet
	PS3 -xxx	MW (Worm gear manual)	Between actuator and valve	MSD(Screw manual)	Side of the cabinet
	PS4 -xxx	MHD (Hydraulic manual)	Side of the cabinet	MGD(Bevel gear manual)	Side of the cabinet
	PS5 -xxx	MHD (Hydraulic manual)	Side of the cabinet	MGD(Bevel gear manual)	Side of the cabinet
	PS6 -xxx	MHD (Hydraulic manual)	Side of the cabinet		
	PS7 -xxx	MHD (Hydraulic manual)	Side of the cabinet		
Spring Return	PS1 -xxx-SR	MS (Screw manual)	Outside of the spring tube		
	PS2 -xxx-SR	MS (Screw manual)	Outside of the spring tube		
	PS3 -xxx-SR	MS (Screw manual)	Outside of the spring tube	MG(Bevel gear manual)	Outside of the spring
	PS4 -xxx-SR	MG(Bevel gear manual)	Outside of the spring tube		
	PS5 -xxx-SR	MG(Bevel gear manual)	Outside of the spring tube	MH (Hydraulic manual)	Inside the outer end of the spring barrel
	PS6 -xxx-SR	MH (Hydraulic manual)	Outside of the spring tube		
	PS7 -xxx-SR	MH (Hydraulic manual)	Outside of the spring tube		

⚠ Be careful

Pressure – temperature ratings & other performance data published in this catalogue is to be considered as a general guideline. For specific applications users are requested to contact PHBB. While this catalogue has been complied with utmost care, we assume no responsibility for errors or inadequacy. Information provided in this catalogue is subject to change without notice for error rectification, design modification, new product introduction, discontinuation or any other cause PHBB considers necessary.

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