



HES
华尔士 HUAERSHI

shst

HG SERIES ACTUATORS PNEUMATIC AND HYDRAULIC



SHANGHAI SHANGTAI METER VALVE CO. , LTD
HUAERSHI AUTO-CONTROL INSTRUMENT VALVE CO.,LTD

Company address



About us

Zhejiang huaershi auto-control instrument valve co.,ltd is a professional R & D, production, sales, service in one body valve and instrument technology enterprise. In 1989, it began to manufacture pneumatic valves and pneumatic actuators. In 1998,Zhejiang huaershi auto-control instrument valve co.,ltd was registered and founded in Wenzhou, and the first generation was introduced and produced Modified (QGH Series) pneumatic actuator. In 2007, Shanghai founded Shangtai instrument valve Co., Ltd .In that year, Our company developed new products of pneumatic actuators based on DRSC and HG series The building area of the house is more than 20000 square meters.

At present, the company has 20 patents and 4 municipal high-tech project products. In 2004 has been awarded the Longwan District . High-tech enterprises, well-known trademarks, contract and trustworthy enterprises, small and medium-sized high-tech enterprises in Zhejiang Province, national level High-tech enterprise and other honorary titles. The products have obtained ISO9001 , TS, SIL, CE and other quality related Certification.

HES has provided a large number of pneumatic actuators, a variety of pneumatic ball valves, a variety of pneumatic butterflies for all walks of life Valve. Whether now or in the future, valve manufacturers, complete sets of equipment manufacturers, valve dealers, project contractors . High-tech automatic control valves for business, design institutes and end users. HES series valves and pneumatic Actuator is automatic fluid control engineering and equipment transformation of the first choice of products, we to excellent quality, high quality Service to win the trust of customers.

Zhejiang huaershi auto-control instrument valve co.,ltd always adhere to the integrity based, quality first, customer first Management policy, with availability, credibility, reliability as the three goals, to produce gas with the world's advanced level Actuator and pneumatic control valve has been appointed, to create a "HES" first-class brand. Dedicated to provide users with the better service consultation, type selection, installation, to solve all kinds of end-user complete set of engineering solutions. Warmly welcome domestic and foreign customers to have a pro guidance, let us on the road of continuous innovation, toward the world.



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HG Series Actuator

Working Parameter

Angle of revolution:0°-90°

Output torque:

Double action 600-200000Nm(5000-1800000 inlb) .

Spring return 300-50000Nm (2600-450000 inlb)

Working pressure:

Pneumatic 3-10 bar (40-145 PSIG)

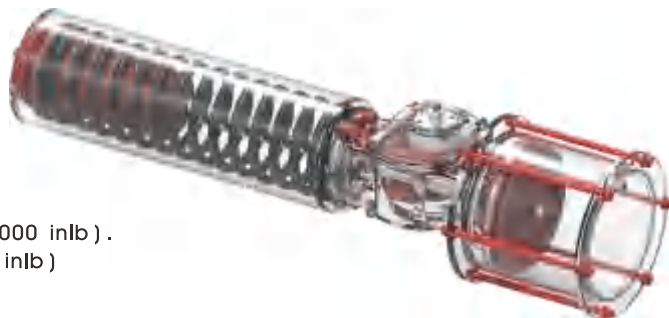
Hydraulic 100 bar (1450 PSIG)

Operating Temperature:

ST (standard)NBR O-ring -20°to80°

HT(high Temperature) FPM O-ring -15° to+ 150°

LT (low Temperature) Silicon O-ring -40° to+ 80°



Feature

Modular design:

G-series actuators have functional modules such as pneumatic power, hydraulic power, spring power and manual control. All the functional modules are subject to inter-combination and exchange, so that users can choose various modules according to functional requirements of valve process control procedure. The modules can be purchased separately, reducing inventory of spare parts.

Safety:

G-series pre-assembled spring module adopts the latest manufacturing process. It preassembles a spring in the modules, eliminating the spring of incidental release, removing potential risks, preventing malfunction and facilitating disassembly and installation.

Compact type:

G-series actuators integrate and optimize the center-of-gravity position, making the appearance more reasonable and light. Compared with other actuators with the same torque, its mass is much lighter, and needs

Water-resistant protection:

Complying with IP66 and IP67 protection standards, all parts and components are equipped with O rings at their joints, which can effectively prevent water entering the case. It is able to withstand short-term or long-term immersion in water, so that users can make a choice according to requirements.

Wearing and lubrication:

The position where the piston rod and piston slide and rub is furnished with self-lubricating bearing. The piston rod is plated with hard chrome and is provided with fine grinding and finishing. The cylinder inner wall is coated with Teflon or polished by hard chromium plating. With such outstanding lubricating property, the output energy can be directly transmitted to the valve, which reduces friction and effectively improves the utilization efficiency of springs.

Corrosion resistance:

G-series actuators, with internal protection and external coating, are reliably applicable to all kinds of environments and are in compliance with relevant national standards.

Standardization:

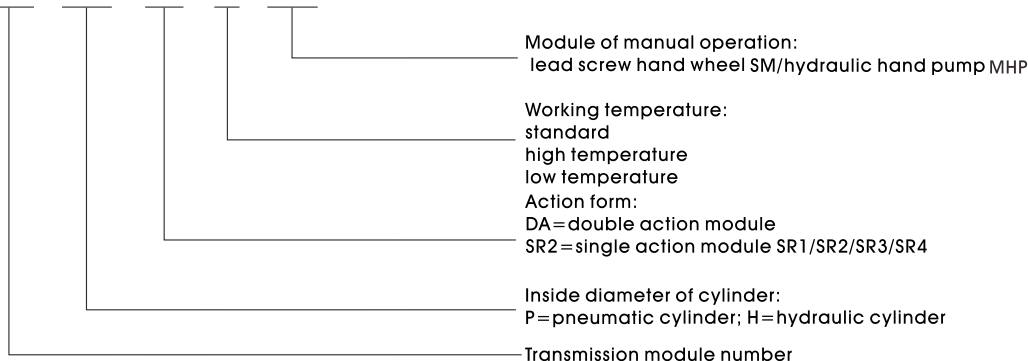
The connection size of the top drive shafts of all G-series models is the same and is in compliance with NAMUR standard, so that it is easy to install such fittings as position switch, locator.

Valve installation:

As for the installation of G-series actuators and valves, flanges and shaft key connection, the size complies with the torque range specified in ISO5211 standard.

Model Designation

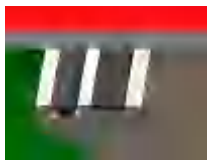
HG3 - P350 - SR2 - ST - MHP





Unique And Excellent Design

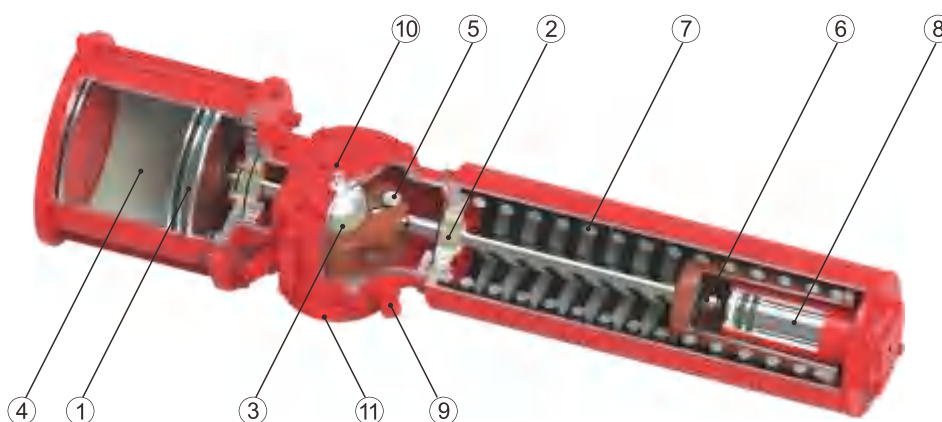
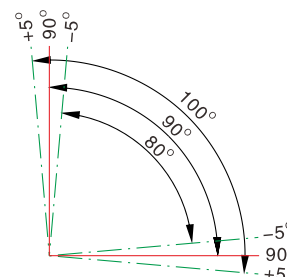
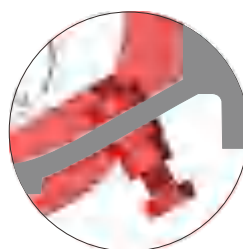
1. Piston guide ring: the pneumatic fluorocarbon guide ring made up of the material made from teflon and carbon fiber functions to separate the cylinder and piston motions, avoiding scuffing, providing good lubricating property and abrasion performance and prolonging service life.



2. Self-lubricating bearing of piston rod: functioning as lubrication and guide, it reduces the friction and increases the conduction, so that it effectively transfers energy to the drive shaft and improves the utilization efficiency of the spring.

3. Self-lubricating bearing of drive shaft: the two self-lubricating bearings, mounted at the top and the bottom, functions to support and position, and rotate and lubricate, so that they can eliminate lateral force, reduce friction and apply to work conditions without lubrication in long time.

9. Stroke adjustment screw: G-series actuators have a $\pm 5^\circ$ stroke control, so that it can freely make adjustment within the stroke of 80° - 100° .



4. Teflon coating in the cylinder bore: with hi-tech new coating of PTFE material, it, treated with special techniques and dried at high temperature, boasts strong adhesive force, good corrosion resistance and fine lubrication, substantially improving the utilization efficiency.

5. Fork rolling sleeve structure: the two rolling sleeves made of bearing steel at the top and the bottom hold the fork and slide to and fro in the groove, changing the linear motion to rotary motion. The design is innovative and the structure is simple and novel.

6. Locknut: the locknut, specially manufactured, can prevent spring getting loose or coming off in vibration.

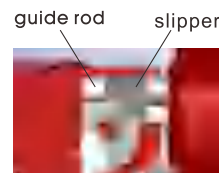
7. Spring module: the pre-assembled spring module removes the spring of incidental release, eliminates potential risks and avoids maloperation. The module, of innovative design, is safe and easy for disassembly and installation.

8. Manual hydraulic cylinder: making use of the spring space, it is internally installed in an ingenious way. It is of down size and innovative design.

10. Connection of standard accessories: The interface of all the output accessories of G-series drive shaft is the same and is in compliance with NAMUR standard. The accessories in compliance with NAMUR standard can be connected and installed in a fast and easy way.

11. Connection of standard valve: the connection size of G-series valves is in compliance with torque range specified in the Standard ISO5211.

12. Guide rod slipper: models above G5 are furnished with such slider. Supported by the guide rod, the slipper if its sliding will push the fork to rotate the output shaft to run steadily. The design mainly reduces the size and light.



13. Exhaust-air monitor: as the transmission module is totally sealed, a special exhaust-air monitor is designed to check overpressure release of pneumatic module and sealing leak, and prevent dust, corrosive atmosphere and water entering as well.

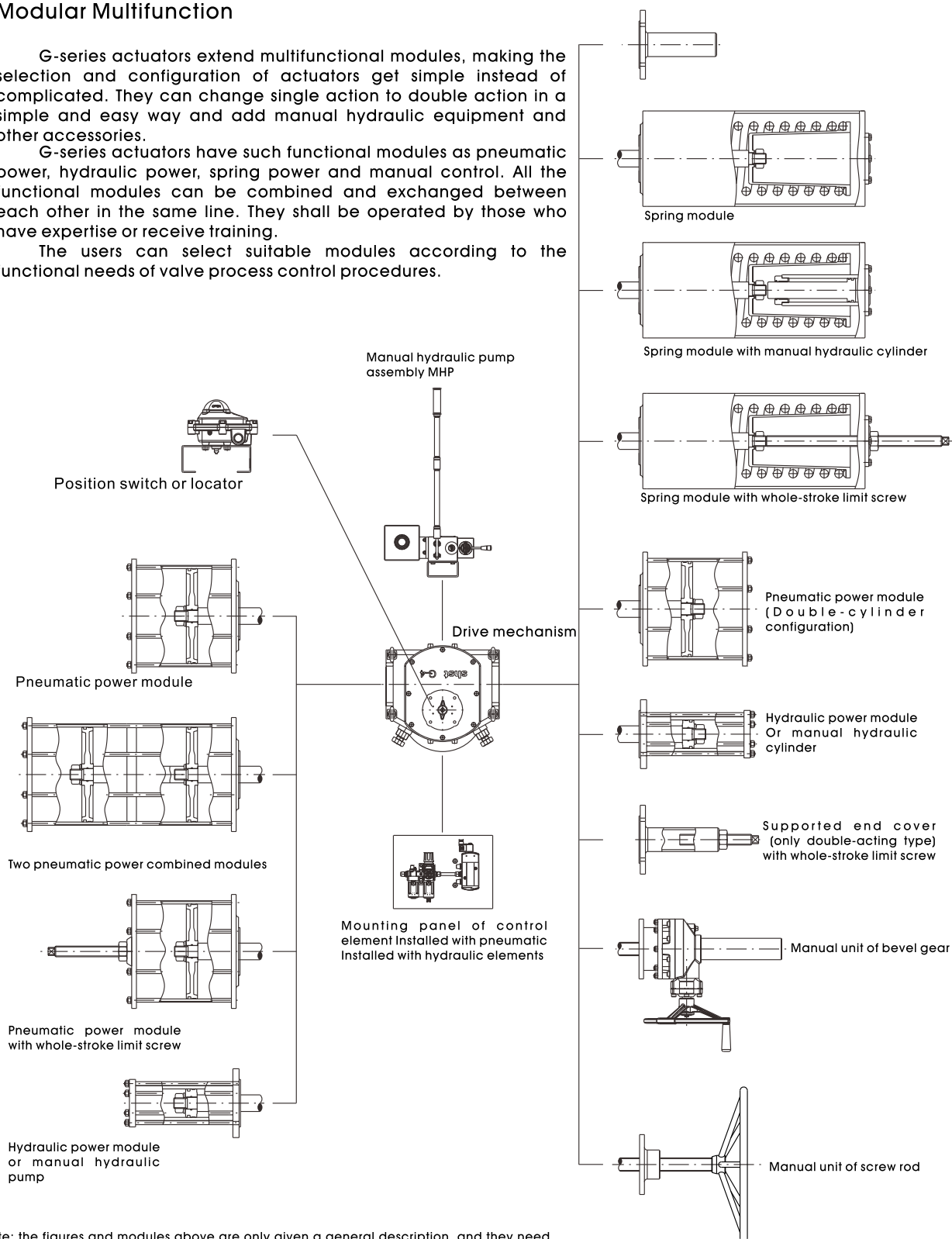


Modular Multifunction

G-series actuators extend multifunctional modules, making the selection and configuration of actuators get simple instead of complicated. They can change single action to double action in a simple and easy way and add manual hydraulic equipment and other accessories.

G-series actuators have such functional modules as pneumatic power, hydraulic power, spring power and manual control. All the functional modules can be combined and exchanged between each other in the same line. They shall be operated by those who have expertise or receive training.

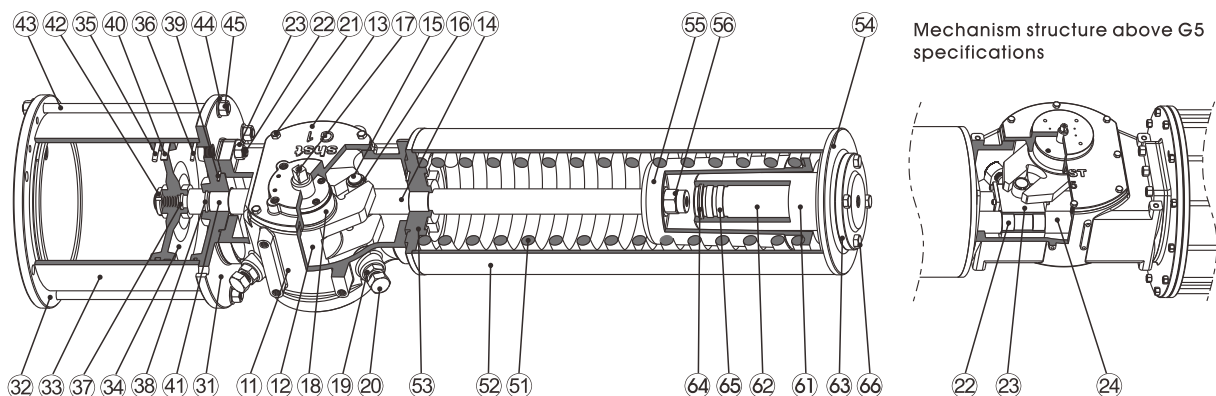
The users can select suitable modules according to the functional needs of valve process control procedures.



Note: the figures and modules above are only given a general description, and they need to be subject to the confirmed drawings provided by the supplier's technology department.



Material Diagram



Note: The picture above shows the single-action type. Please contact the technical department of the company if you have any questions.

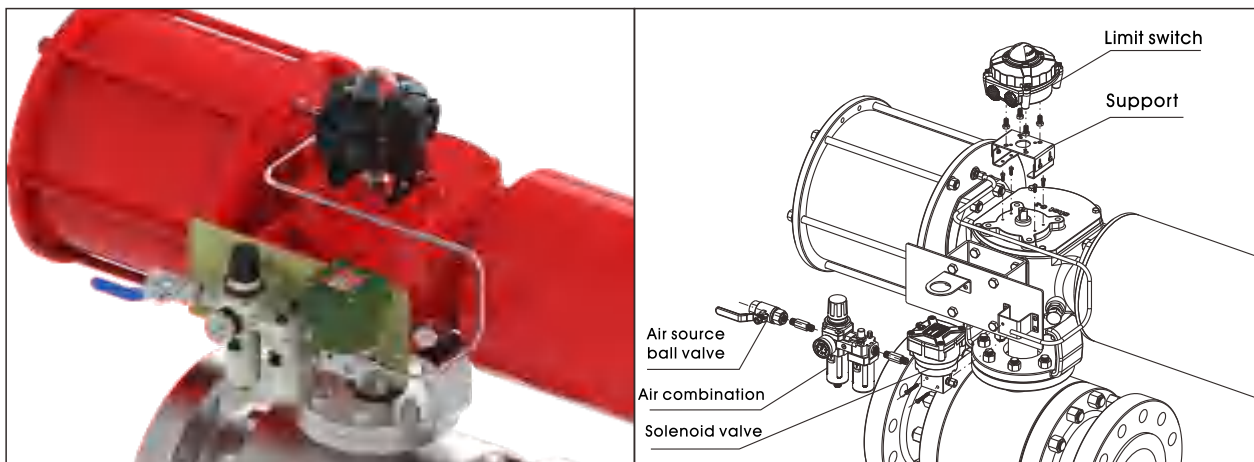
No.	Part	material	No.	Part	material
11	Case	Ductile iron	37	O ring	Rubber
12	Fork	Cast carbon steel	38	O ring	Rubber
13	Cover	Ductile iron	39	O ring	Rubber
14	Piston rod	Carbon steel	40	Guide ring	Composite material
15	Pin roll	Bearing steel	41	Lubricating bearing	Composite material
16	Rolling sleeve	Bearing steel	42	Locknut	Carbon steel
17	Output shaft	Carbon steel (chrome plated)	43	Stud bolt	Carbon steel
18	Lubricating bearing	Composite material	44	Gasket	Carbon steel
19	Nut	Carbon steel	45	Nut	Carbon steel
20	Adjusting bolt	Carbon steel	51	Compression spring	Spring steel
21	Hexagonal bolt	Carbon steel	52	Spring steel tube	Carbon steel
22	Stud bolt	Carbon steel	53	Spring seat	Carbon steel
23	Nut	Carbon steel	54	Welded flange	Carbon steel
24	Guide rod	Carbon steel (internally chrome plated)	55	Spring sleeve	Carbon steel
25	Support slipper	Carbon steel	56	Anti-escaping nut	Carbon steel
26	Lubricating bearing	Composite material	61	Hydraulic cylinder	Carbon steel (chrome plated)
31	Cylinder internal end cover	Ductile iron	62	Plunger	Carbon steel (internally chrome plated)
32	Cylinder external end cover	Ductile iron	63	Hydraulic flange	Carbon steel
33	Cylinder bock	Carbon steel (chrome plated)	64	Seal ring	Rubber
34	Piston	Ductile iron	65	Guide ring	Composite material
35	Piston O ring	Rubber	66	Hexagonal bolt	Carbon steel
36	Cover O ring	Rubber			



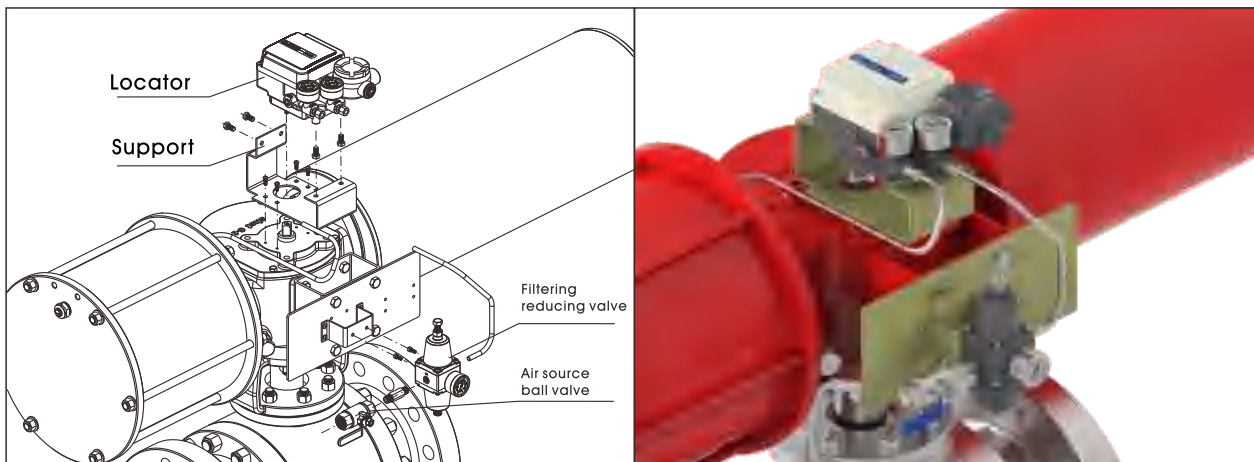
Installation Diagram Of Control

The following is a general installation diagram. As for the brand, type and appearance difference of the accessories, their installation diagram may be different, so that users can design installation diagram by themselves.

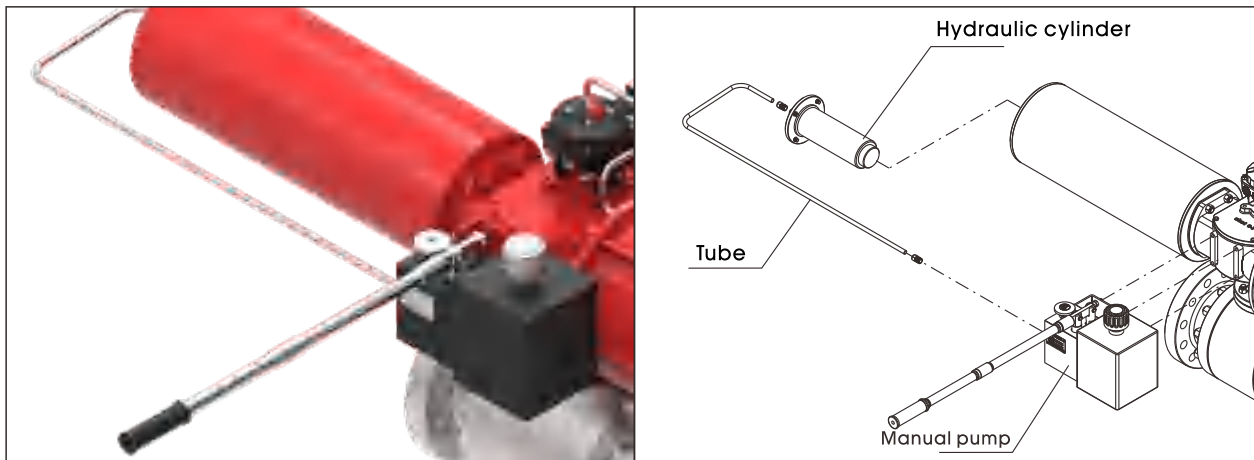
Installation of solenoid valve and limit switch



Installation of locator



Installation of MHP





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HG Series Actuator/Pneumatic Actuator Fundamental Figure



Fundamental Figure Of HG-Series Pneumatic Actuator



Double-Acting



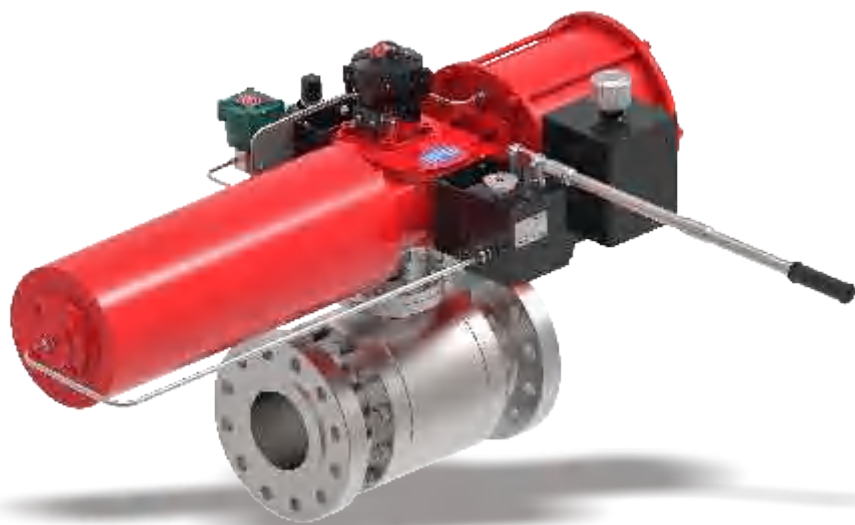
Single-Acting



Double-Acting+MHP



Single-Acting+MHP





Double-Acting

Type	Cylinder volume (L)		Switching time (S)		MAX. Pressure (bar)	Weight (KG)
	Inside	Outside	Open(inside)	close(outside)		
HG0-P180-DA	3.2	3.3	2.0	2.0	0.8	42.0
HG1-P250-DA	8.0	8.5	2.5	2.5	0.8	93.0
HG1-P300-DA	10.5	12.5	3.0	3.0	0.8	118.0
HG2-P300-DA	13.5	15.0	3.0	3.0	0.8	134.0
HG2-P350-DA	16.5	21.0	3.5	4.0	0.8	159.0
HG3-P350-DA	21.5	24.0	4.0	4.0	0.8	198.0
HG3-P400-DA	25.0	30.0	4.5	4.5	0.8	240.0
HG4-P400-DA	34.0	38.5	5.0	5.0	0.8	322.0
HG4-P500-DA	49.0	58.0	6.0	6.0	0.8	477.0
HG5-P500-DA	69.5	77.0	7.0	7.0	0.8	585.0
HG5-P600-DA	92.0	108.0	7.5	7.5	0.8	710.0
HG7-P600-DA	123.5	129.0	8.0	8.0	0.8	915.0
HG7-P720-DA	150.0	187.0	9.0	10.0	0.8	1175.0
HG8-P720-DA	207.0	214.5	10.0	10.0	0.8	1372.0
HG8-P780-DA	239.0	254.0	12.0	12.5	0.8	1778.0
HG8-P880-DA	303.0	324.0	15.0	16.0	0.8	2033.0

Single-Acting

Type	Cylinder volume (L)		Switching time (S)		MAX. Pressure (bar)	Weight (KG)
	Inside	Outside	Open(inside)	Close (spring return)		
HG0-P180-SR2	3.2	—	2.5	3.0	0.8	68.0
HG1-P250-SR2	8.0	—	3.0	3.5	0.8	164.0
HG1-P300-SR3	10.5	—	3.5	4.0	0.8	189.0
HG2-P300-SR2	13.5	—	4.0	5.0	0.8	239.5
HG2-P350-SR3	16.5	—	4.5	5.5	0.8	265.0
HG3-P350-SR2	21.5	—	5.0	6.0	0.8	362.0
HG3-P400-SR3	25.0	—	5.0	6.0	0.8	404.0
HG4-P400-SR2	34.0	—	6.0	7.0	0.8	575.0
HG4-P500-SR3	49.0	—	7.0	8.0	0.8	730.0
HG5-P500-SR2	69.5	—	9.0	10.0	0.8	1012.0
HG5-P600-SR3	92.0	—	9.0	10.0	0.8	1137.0
HG7-P600-SR2	123.5	—	10.0	12.0	0.8	1548.0
HG7-P720-SR3	150.0	—	10.0	12.0	0.8	1808.0
HG8-P720-SR2	207.0	—	12.0	14.0	0.8	2396.0
HG8-P780-SR3	239.0	—	14.0	16.0	0.8	2802.0
HG8-P880-SR3	303.0	—	17.0	18.0	0.8	3057.0

Note:1. The cylinder module and spring module in the model table are standard configuration. The data will vary with the change of the configuration, so you can consult the technology department of the company, so you can consult the technology department of the company.

2. The action time can be measures at the conditions below: (1) room temperature; (2) rotary motion 90°; (3) neutral clean gas; (4) 2-3m tube; (5) 5.0bar air source pressure and (6) no load on actuator.

3. The weight in the table excludes any accessory.



Double-Acting Output Torque (Nm)

Type	Stoke Position	Pressure(bar)								
		3.0	3.5	4.0	4.5	5.0	5.5	6.0	7.0	8.0
HG0-P180-DA	Start/End	660	780	890	1000	1110	1220	1330	1550	1770
	Medium MIN. Value	360	420	480	540	600	660	720	840	960
HG1-P250-DA	Start/End	1550	1810	2070	2330	2590	2850	3110	3630	4150
	Medium MIN. Value	840	980	1120	1260	1400	1540	1680	1960	2240
HG1-P300-DA	Start/End	2220	2590	2960	3330	3700	4070	4440	5180	5920
	Medium MIN. Value	1200	1400	1600	1800	2000	2200	2400	2800	3200
HG2-P300-DA	Start/End	2710	3160	3610	4070	4520	4970	5420	6320	7230
	Medium MIN. Value	1460	1710	1950	2200	2440	2680	2930	3420	3900
HG2-P350-DA	Start/End	3690	4300	4920	5530	6150	6760	7380	8610	9840
	Medium MIN. Value	1990	2320	2660	2990	3320	3650	3990	4650	5320
HG3-P350-DA	Start/End	4480	5230	5970	6720	7470	8220	8960	10460	11950
	Medium MIN. Value	2420	2820	3230	3630	4040	4440	4840	5650	6460
HG3-P400-DA	Start/End	5850	6830	7800	8780	9750	10730	11700	13660	15610
	Medium MIN. Value	3160	3690	4220	4740	5270	5800	6330	7380	8440
HG4-P400-DA	Start/End	7110	8300	9480	10670	11850	13040	14220	16600	18970
	Medium MIN. Value	3840	4480	5120	5760	6400	7050	7690	8970	10254
HG4-P500-DA	Start/End	11110	12960	14810	16660	18520	20370	22220	25930	29630
	Medium MIN. Value	6000	7010	8010	9010	10010	11010	12010	14020	16020
HG5-P500-DA	Start/End	14400	16810	19210	21610	24010	26410	28810	33620	38420
	Medium MIN. Value	7780	9080	10380	11680	12980	14280	15570	18170	20770
HG5-P600-DA	Start/End	20740	24200	27650	31110	34570	38030	41480	48400	55310
	Medium MIN. Value	11210	13080	14950	16820	18690	20560	22430	26170	29910
HG7-P600-DA	Start/End	25410	29650	33890	38120	42360	46600	50830	59310	67780
	Medium MIN. Value	13740	16030	18320	20610	22900	25190	27480	32060	36640
HG7-P720-DA	Start/End	36690	42810	48930	55040	61160	67280	73390	85630	97860
	Medium MIN. Value	19840	23150	26450	29760	33070	36380	39680	46300	52910
HG8-P720-DA	Start/End	43360	50590	57820	65050	72280	79510	86730	101190	115650
	Medium MIN. Value	23440	27350	31250	35160	39070	42970	46880	54700	62510
HG8-P780-DA	Start/End	50880	59360	67840	76320	84800	93280	101760	118720	135680
	Medium MIN. Value	27510	32090	36680	41260	45850	50440	55020	64190	73360
HG8-P880-DA	Start/End	64760	75560	86350	97140	107940	118730	129530	151120	172710
	Medium MIN. Value	35020	40850	46690	52520	58360	64200	70030	81710	93380

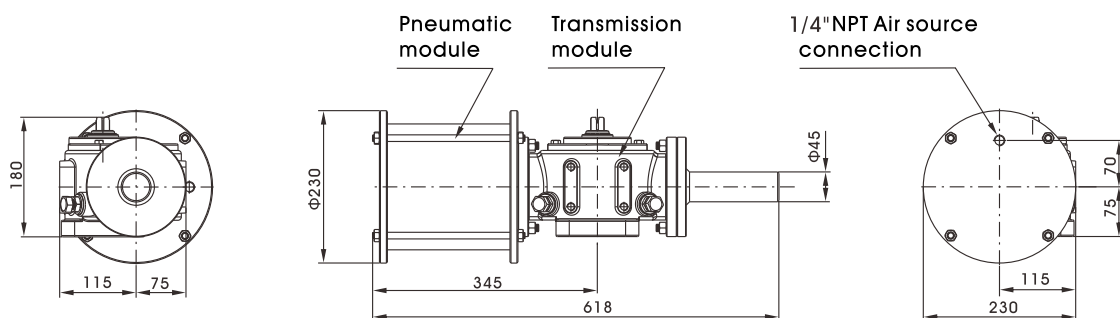


Single-Acting Output Torque (Nm)

Type	Stoke Position	Spring Torque Output	Air Pressure Torque							
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	7.0
HG0-P180-SR2	Start	520	310	420	530	650	760	870	980	1200
	Middle	230	120	180	240	300	360	420	480	600
	End	340	140	250	360	470	580	690	800	1030
HG1-P250-SR2	Start	1210	710	960	1220	1480	1740	2000	2260	2780
	Middle	550	284	420	560	700	840	980	1120	1400
	End	840	340	600	860	1120	1370	1639	1900	2410
HG1-P300-SR3	Start	1750	990	1360	1730	2100	2470	2840	3210	3950
	Middle	800	400	600	800	1000	1200	1400	1600	2000
	End	1230	470	840	1210	1580	1950	2320	2690	3430
HG2-P300-SR2	Start	2130	1270	1720	2170	2620	3070	3530	3980	4880
	Middle	960	490	740	980	1230	1470	1720	1960	2450
	End	1440	570	1020	1470	1920	2380	2830	3280	4190
HG2-P350-SR3	Start	2900	1790	2400	3020	3630	4250	4860	5480	6710
	Middle	1300	690	1020	1360	1690	2020	2350	2690	3350
	End	1900	790	1400	2020	2630	3250	3860	4480	5710
HG3-P350-SR2	Start	3660	2170	2920	3660	4410	5160	5910	6650	8150
	Middle	1610	809	1210	1610	2020	2420	2820	3230	4040
	End	2300	820	1560	2310	3060	3800	4550	5300	6790
HG3-P400-SR3	Start	4800	2850	3830	4800	5780	6750	7730	8700	10660
	Middle	2100	1060	1590	2120	2640	3170	3700	4230	5280
	End	3000	1050	2030	3000	3980	4950	5930	6900	8860
HG4-P400-SR2	Start	6050	3730	4920	6110	7290	8480	9660	10850	13220
	Middle	2540	1290	1930	2580	3220	3860	4500	5140	64220
	End	3370	1060	2250	3430	4620	5800	6990	8170	10550
HG4-P500-SR3	Start	9460	5830	7680	9530	11390	13240	15090	16940	20650
	Middle	3980	2020	3020	4020	5020	6020	7020	8030	10030
	End	5270	1640	3490	5340	7200	9050	10900	12750	16460
HG5-P500-SR2	Start	12180	7220	9630	12030	14430	16830	19230	21630	26440
	Middle	5220	2560	3860	5162	6460	7750	9050	10350	12950
	End	7180	2260	4660	7070	9470	11870	14270	16670	21480
HG5-P600-SR3	Start	17170	10580	14040	17500	20960	24410	27870	31330	38240
	Middle	7380	3820	5690	7560	9430	11300	13170	15040	18780
	End	10150	3570	7030	10480	13940	17400	20850	24310	31230
HG7-P600-SR2	Start	21790	13320	17550	21790	26030	30260	34500	38740	47210
	Middle	9160	4570	6860	9150	11440	13730	16020	18310	22890
	End	12090	3620	7850	12090	16320	20560	24800	29030	37510
HG7-P720-SR3	Start	31550	19190	25300	31420	37540	43650	49770	55890	68120
	Middle	13260	6580	9880	13190	16500	19800	23110	26420	33030
	End	17500	5140	11260	17380	23490	29610	35730	41840	54080
HG8-P720-SR2	Start	33550	22180	29410	36640	43870	51100	58330	65550	80010
	Middle	14790	8640	12550	16460	20360	24270	28180	32090	39900
	End	21170	9800	17030	24260	31490	38720	45950	53170	67630
HG8-P780-SR3	Start	42790	22490	30970	39460	47940	56420	64900	73380	90340
	Middle	18490	9020	13600	18190	22770	27360	31940	36530	45700
	End	28380	8080	16570	25050	33530	42010	50490	58970	75930
HG8-P880-SR3	Start	53730	33820	44610	55400	66200	76990	87790	98580	120170
	Middle	22890	12120	17960	23790	29630	35470	41300	47140	58810
	End	30940	11020	21820	32610	43410	54200	65000	75790	97380

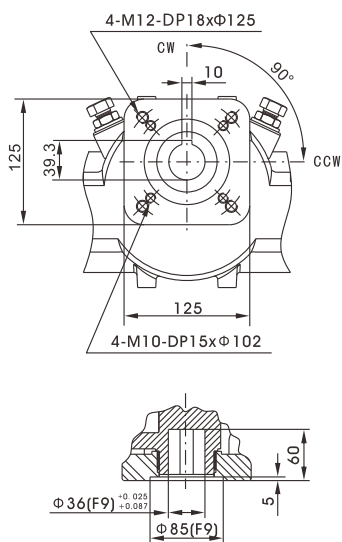


HG0-P180-DA Physical Dimension

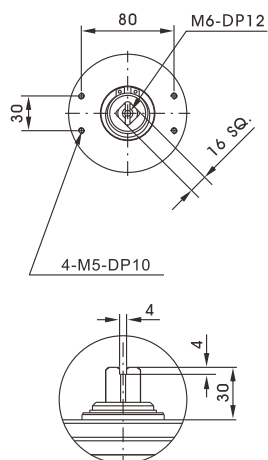


Connection Size

Connection size of bottom valve

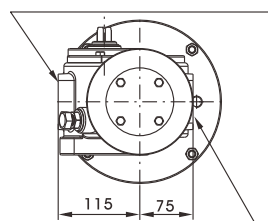


Top connection size

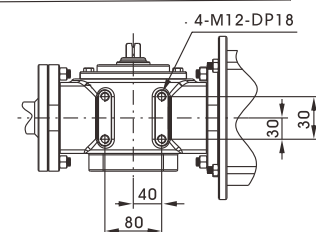


Side connection size

Mounting surface of accessories
(recommended to install solenoid
valve, filter, etc.)

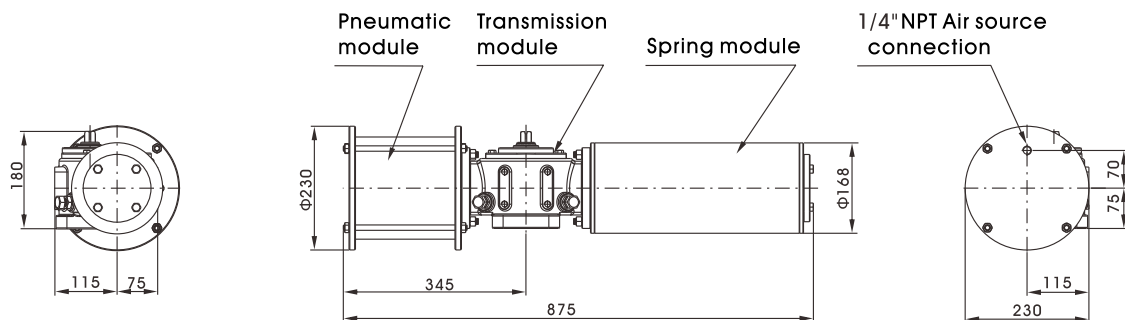


Mounting surface of accessories
(recommended to install MHP, etc.)

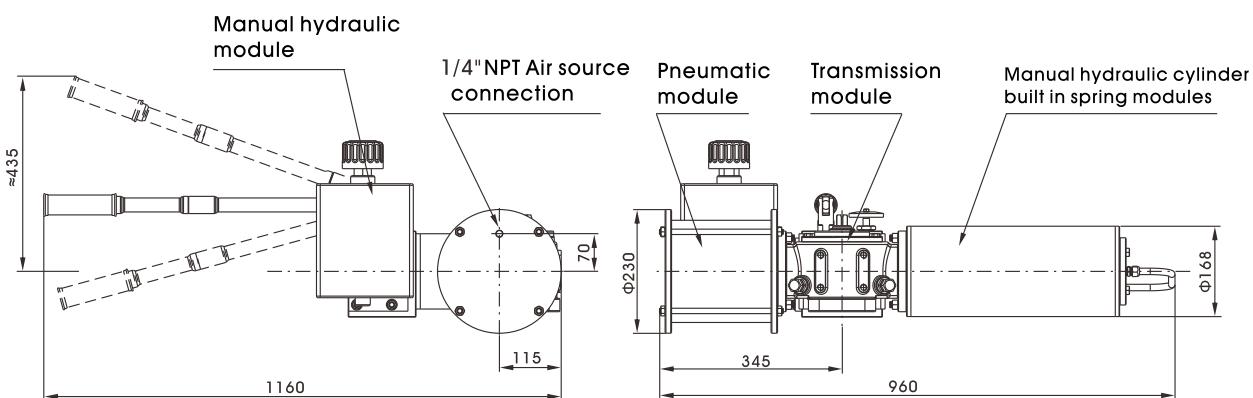




HG0-P180-SR2 Physical Dimension

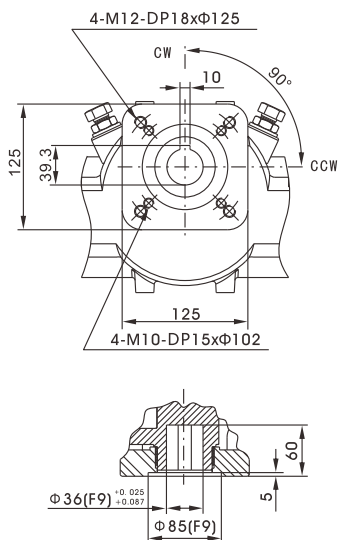


HG0-P180-SR2-MHP Physical Dimension

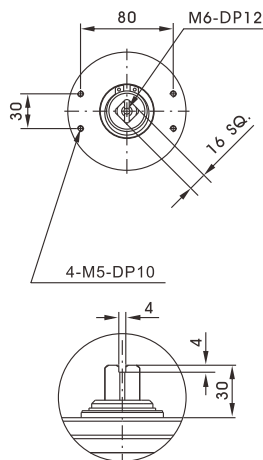


Connection Size

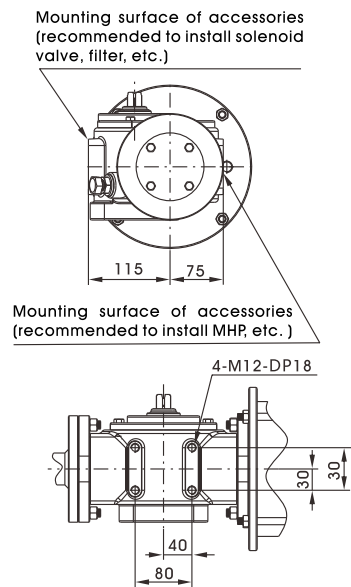
Connection size of bottom valve



Top connection size

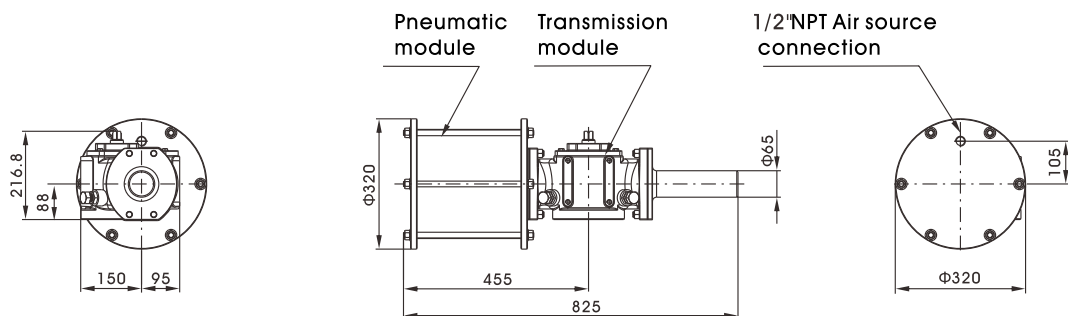


Side connection size

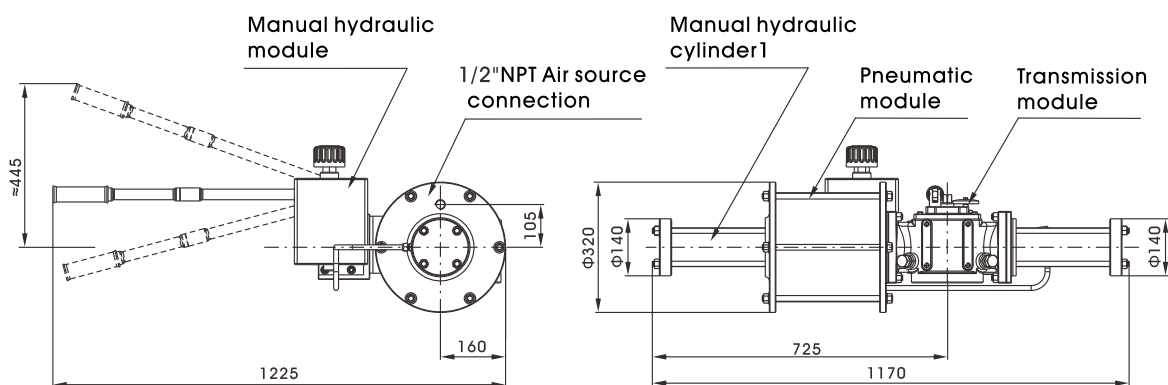




HG1-P250-DA Physical Dimension

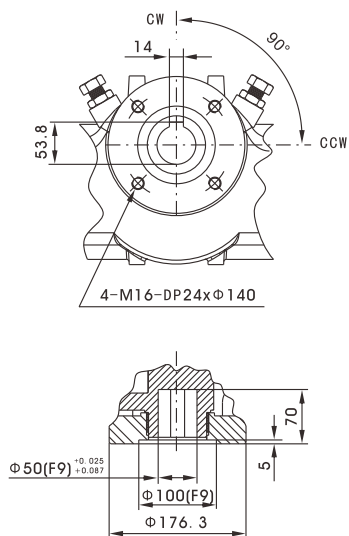


HG1-P250-DA-MHP Physical Dimension

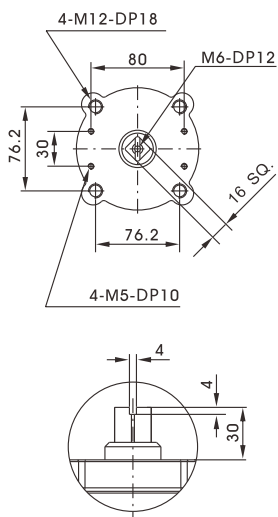


Connection Size

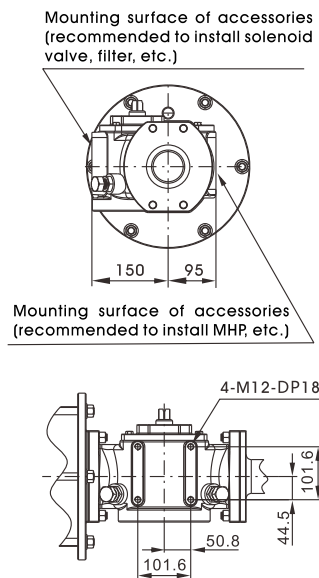
Connection size of bottom valve



Top connection size

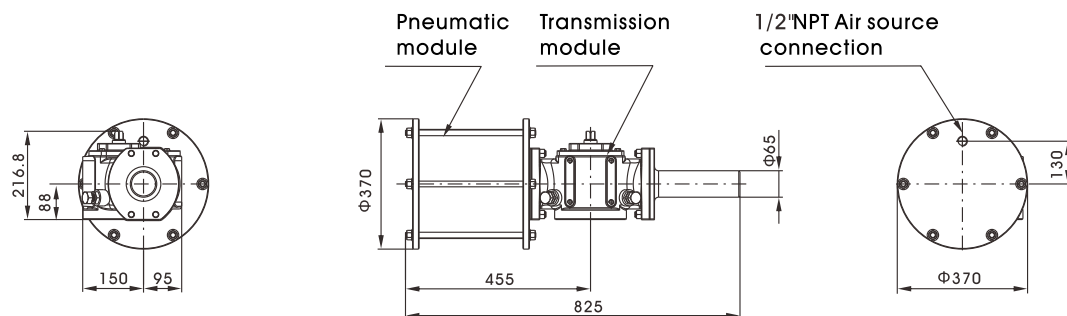


Side connection size

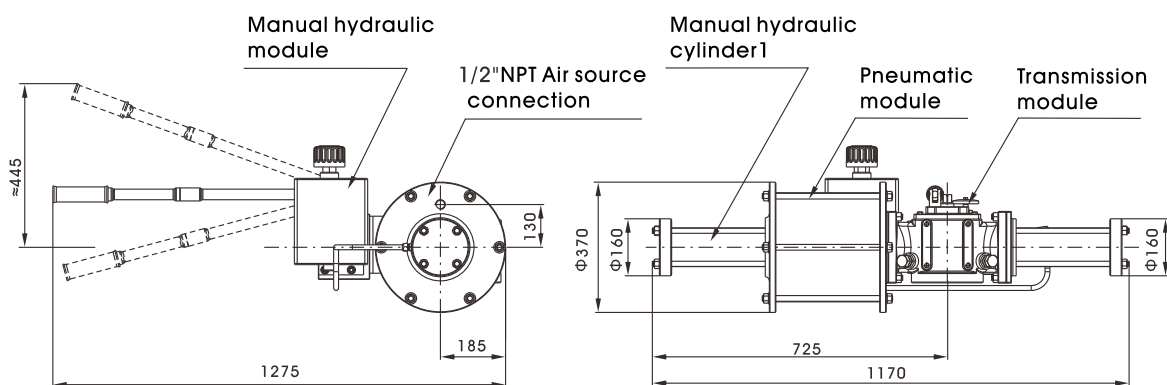




HG1-P300-DA Physical Dimension

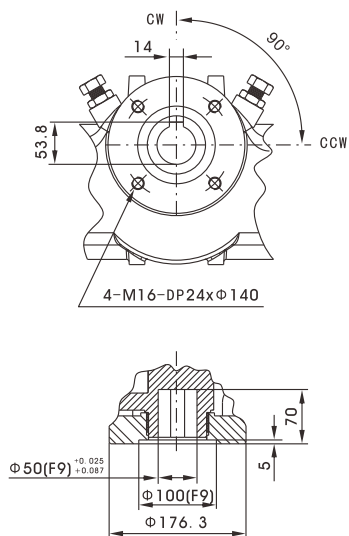


HG1-P300-DA-MHP Physical Dimension

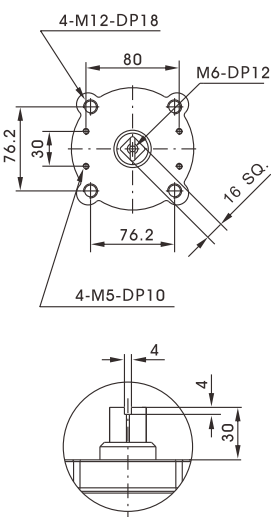


Connection Size

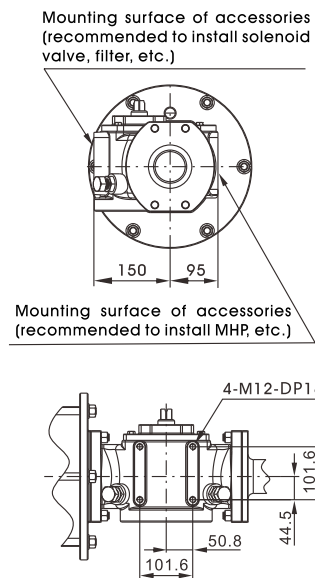
Connection size of bottom valve



Top connection size

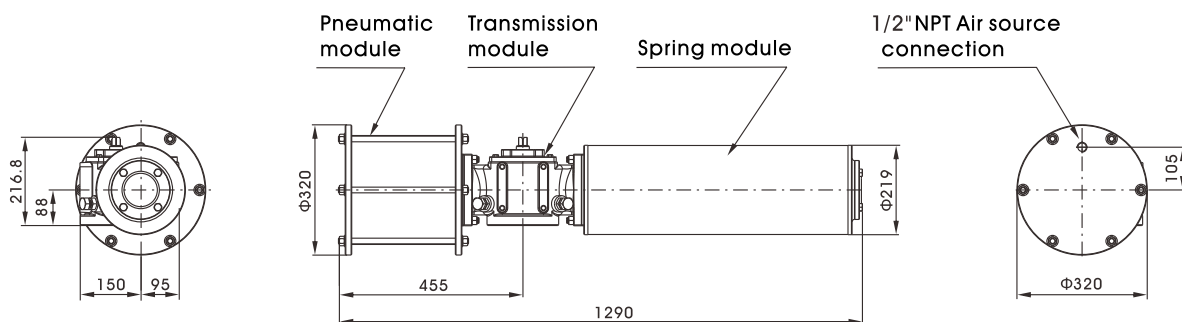


Side connection size

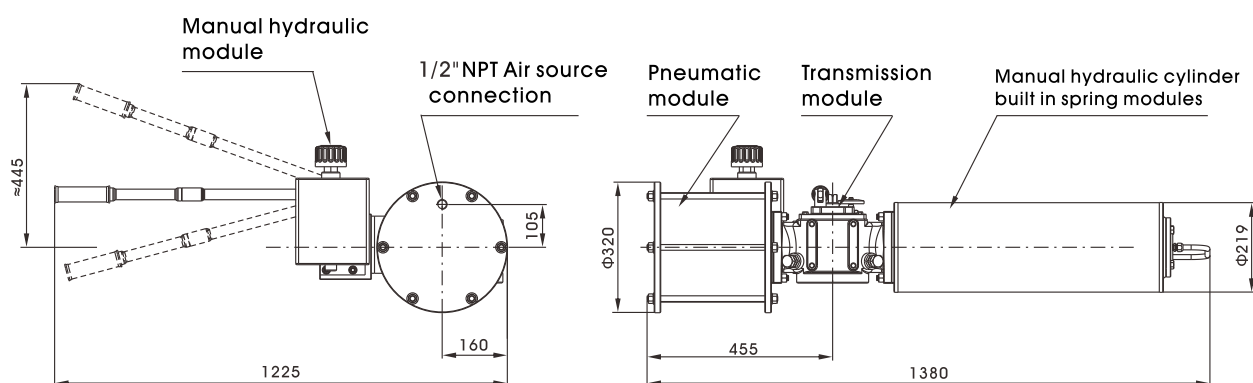




H1G1-P250-SR2 Physical Dimension

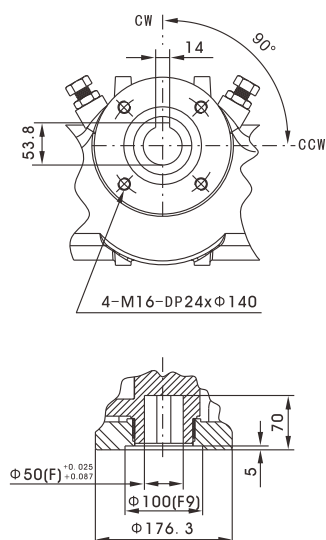


HG1-P250-SR2-MHP Physical Dimension

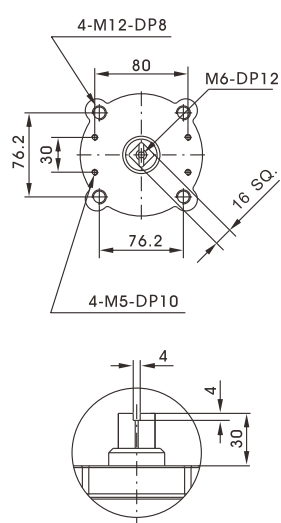


Connection Size

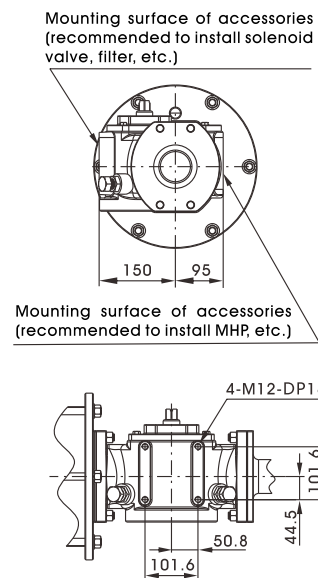
Connection size of bottom valve



Top connection size

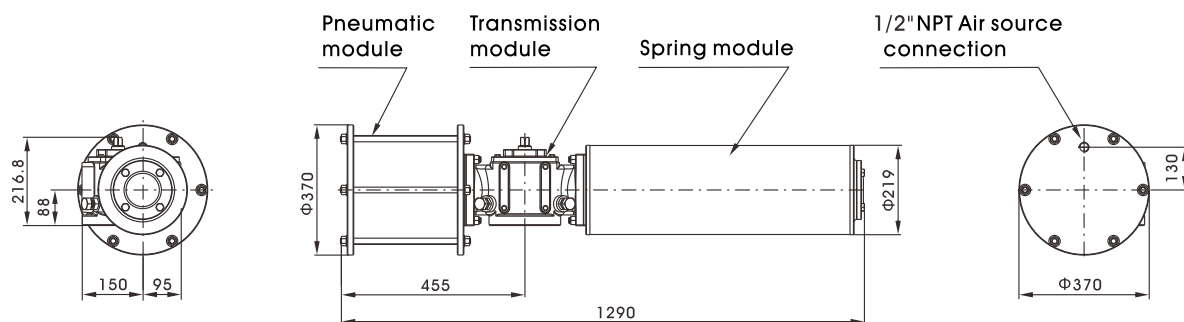


Side connection size

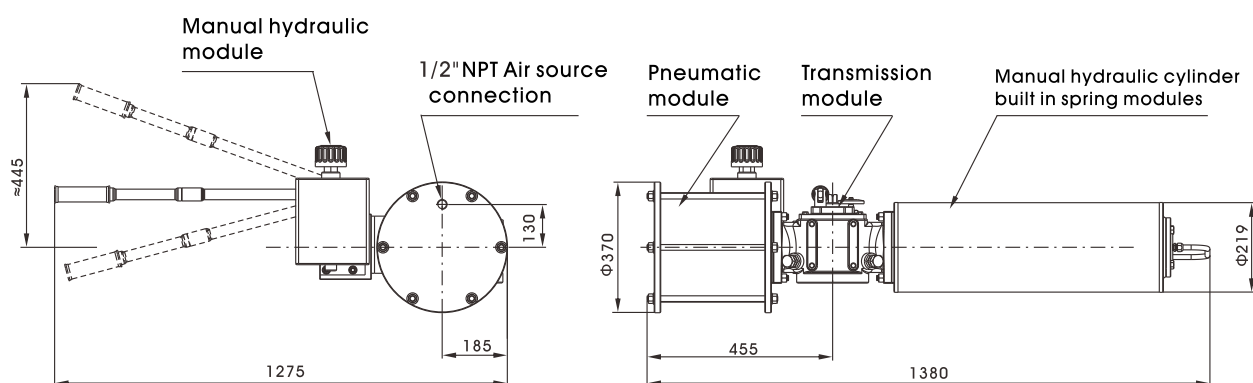




HG1-P300-SR3 Physical Dimension

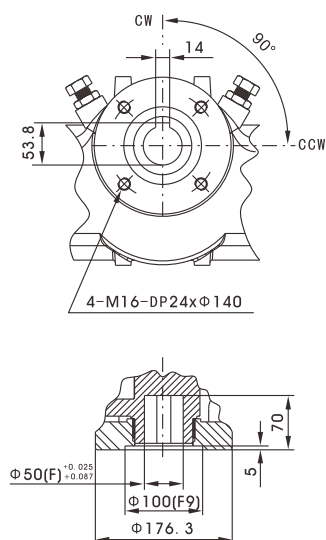


HG1-P300-SR3-MHP Physical Dimension

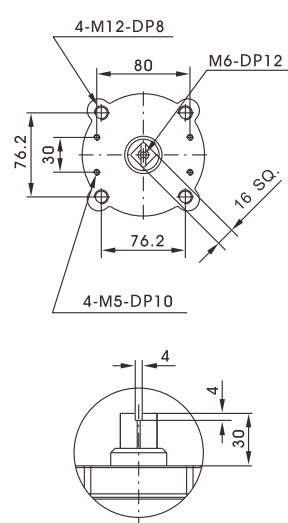


Connection Size

Connection size of bottom valve

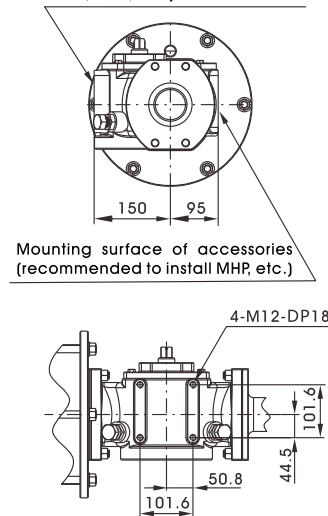


Top connection size



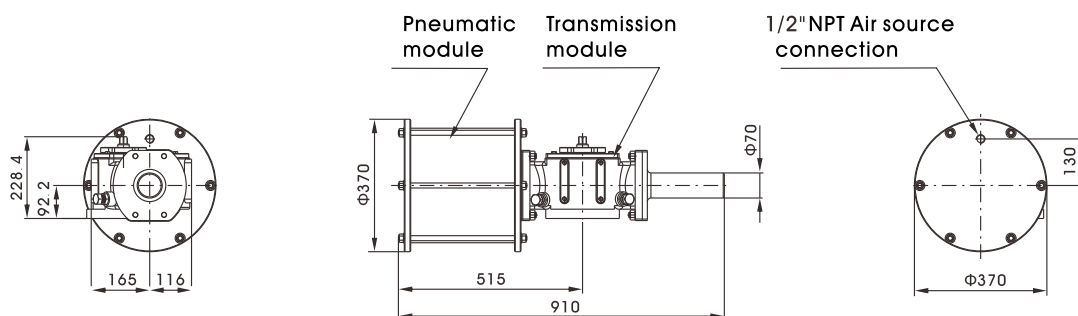
Side connection size

Mounting surface of accessories (recommended to install solenoid valve, filter, etc.)

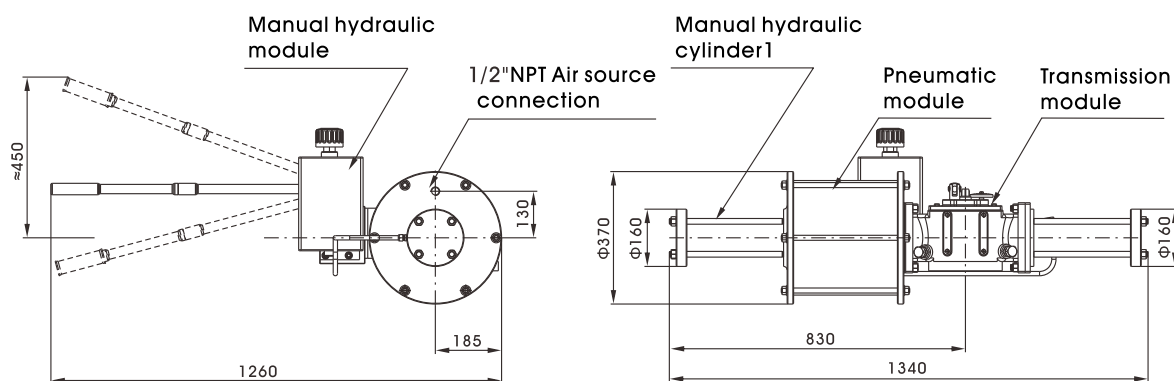




HG2-P300-DA Physical Dimension

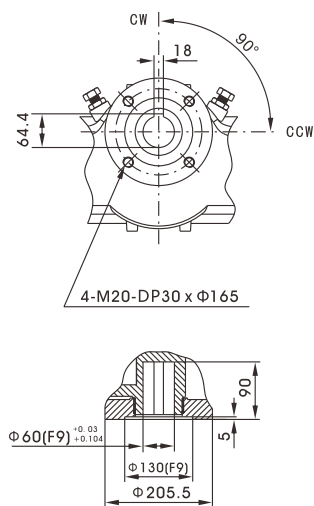


HG2-P300-DA-MHP Physical Dimension

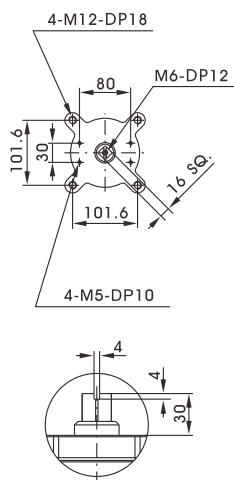


Connection Size

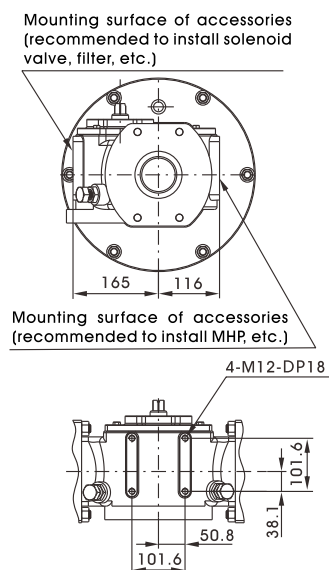
Connection size of bottom valve



Top connection size

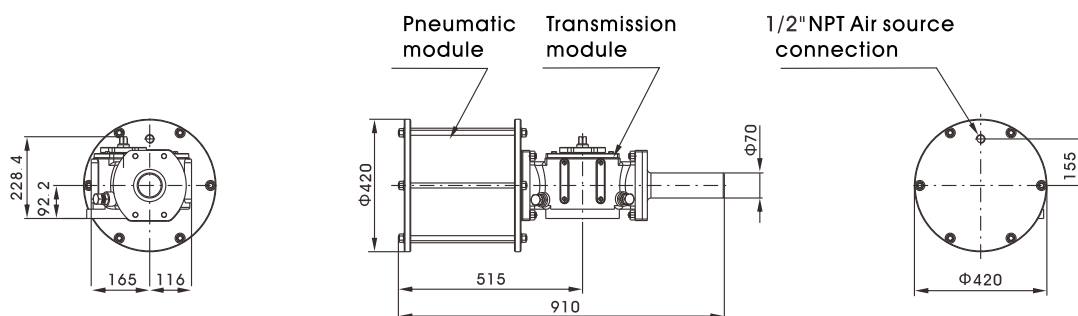


Side connection size

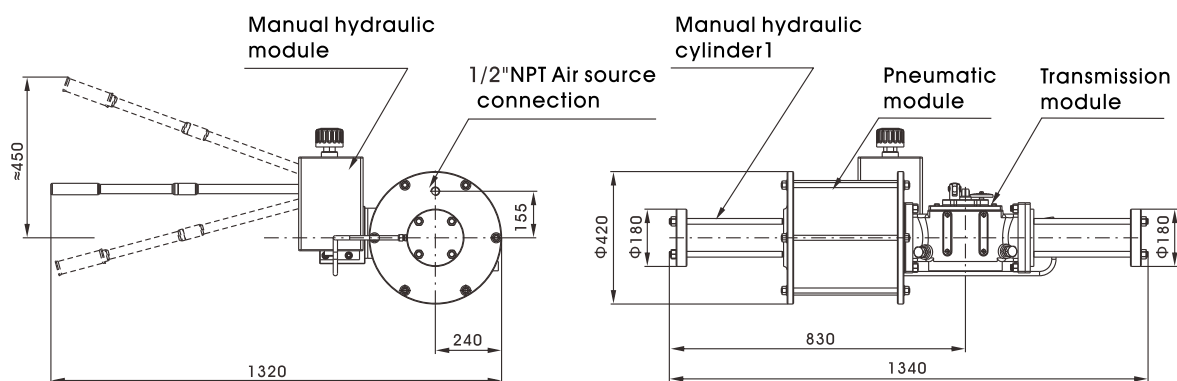




HG2-P350-DA Physical Dimension

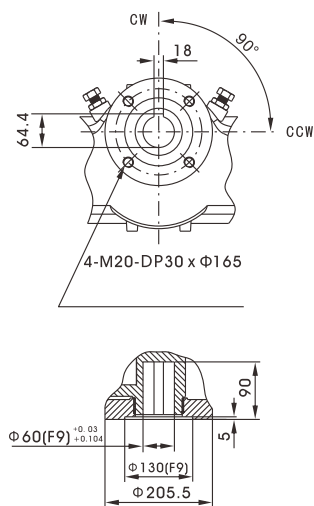


HG2-P350-DA-MHP Physical Dimension

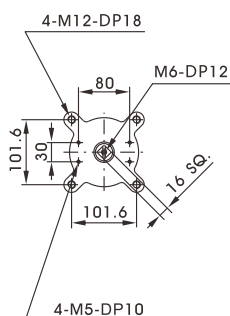


Connection Size

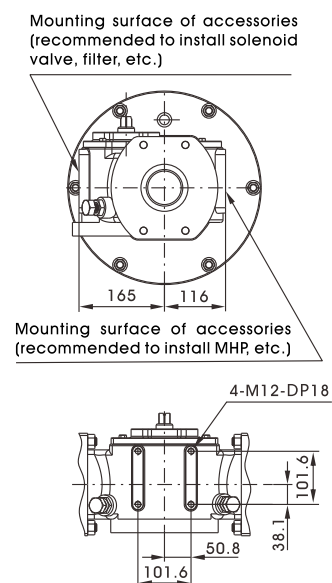
Connection size of bottom valve



Top connection size

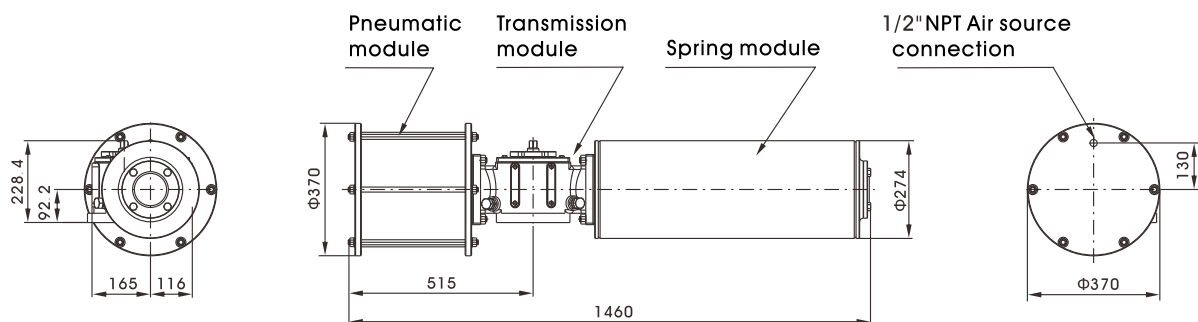


Side connection size

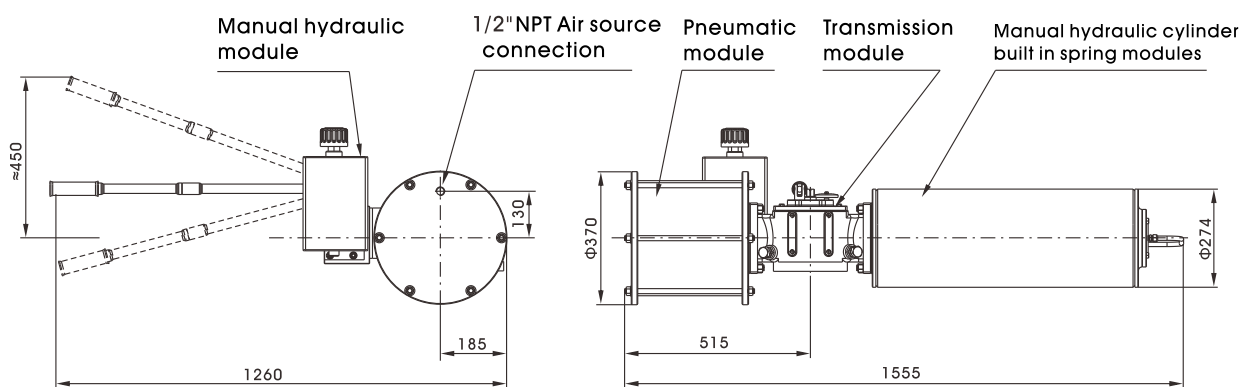




HG2-P300-SR2 Physical Dimension

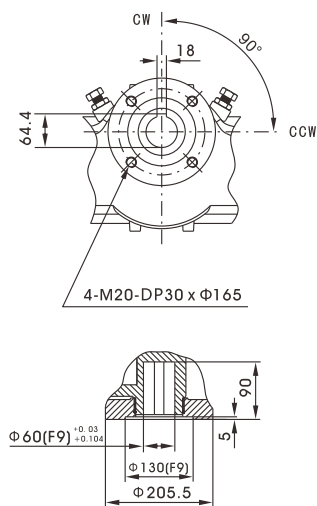


HG2-P300-SR2-MHP Physical Dimension

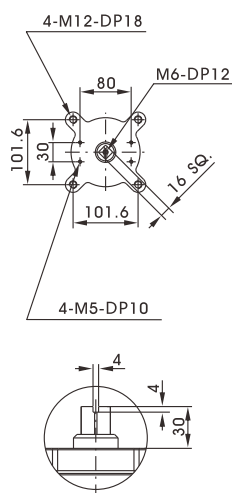


Connection Size

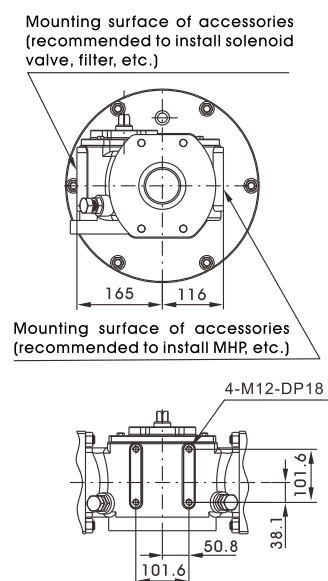
Connection size of bottom valve



Top connection size

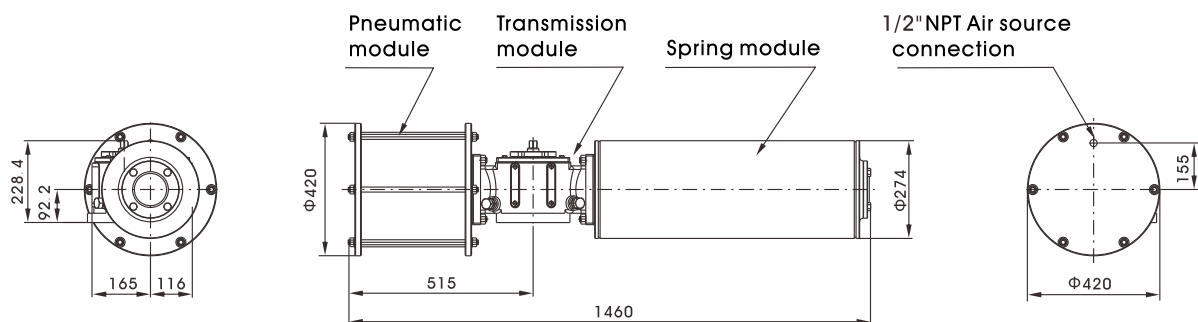


Side connection size

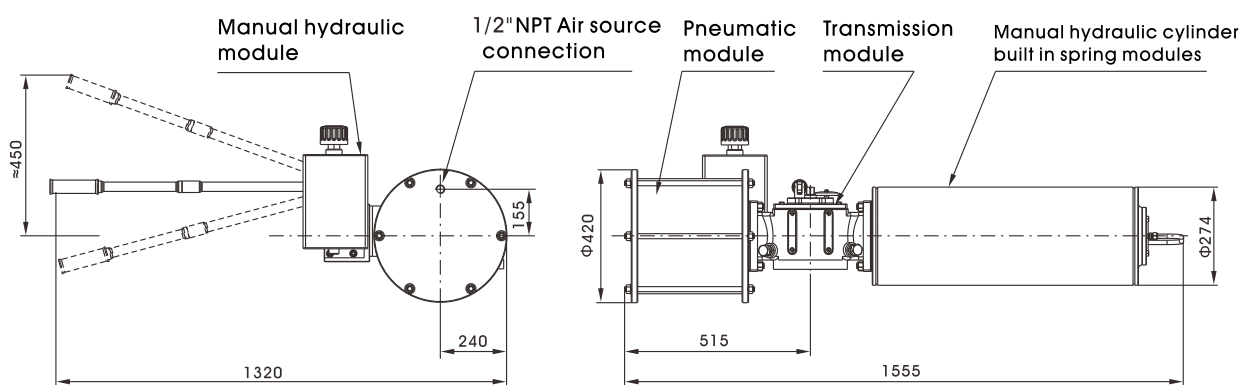




HG2-P350-SR3 Physical Dimension

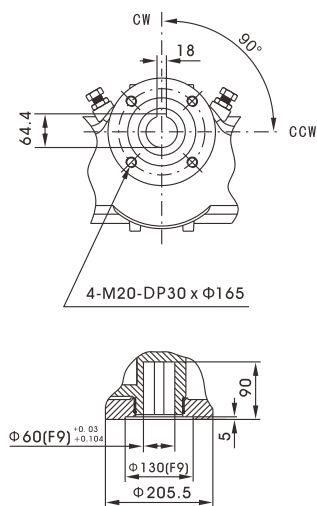


HG2-P350-SR3-MHP Physical Dimension

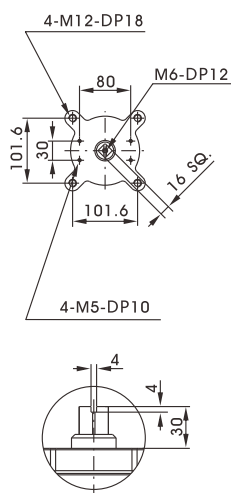


Connection Size

Connection size of bottom valve

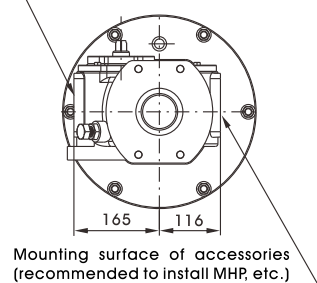


Top connection size

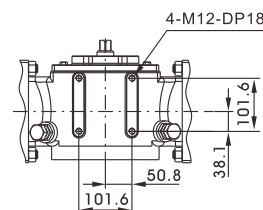


Side connection size

Mounting surface of accessories (recommended to install solenoid valve, filter, etc.)

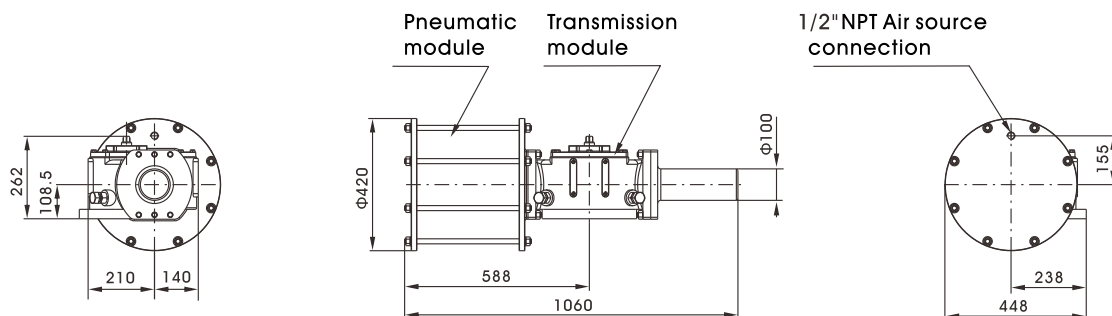


Mounting surface of accessories (recommended to install MHP, etc.)

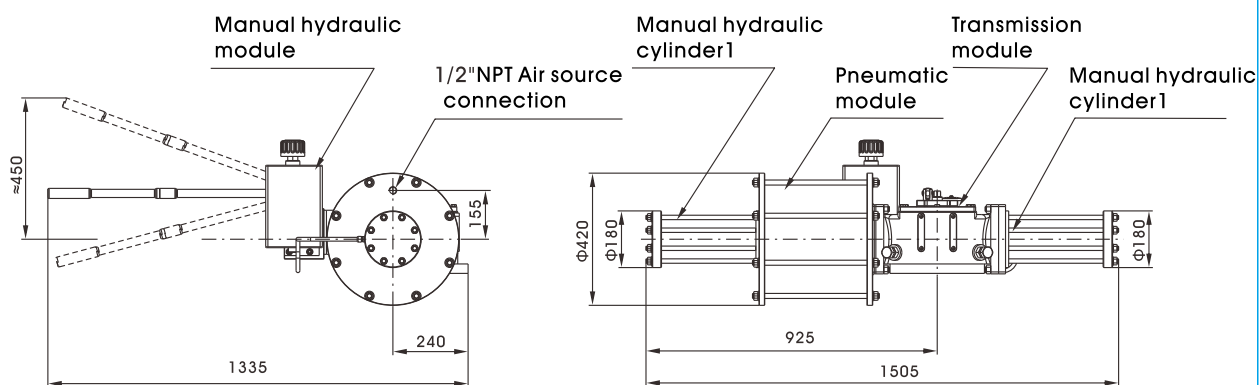




HG3-P350-DA Physical Dimension

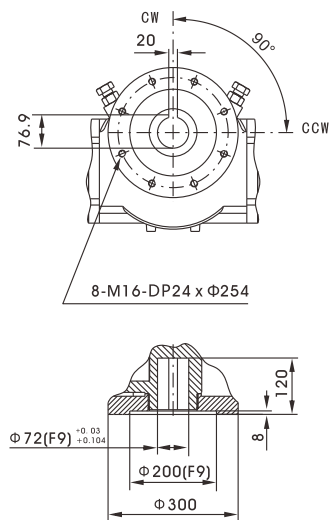


HG3-P350-DA-MHP Physical Dimension

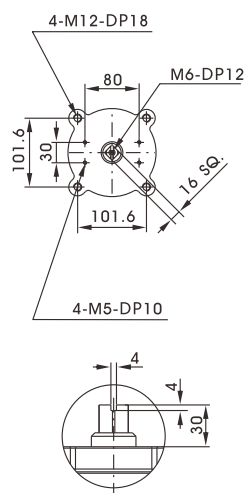


Connection Size

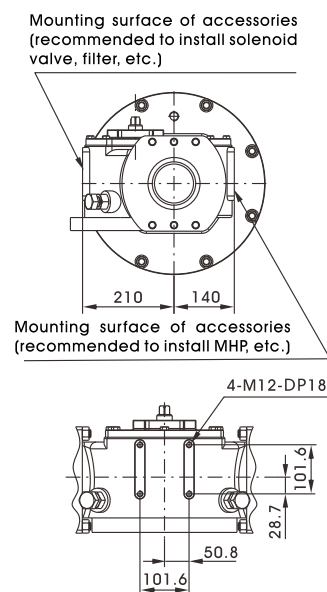
Connection size of bottom valve



Top connection size

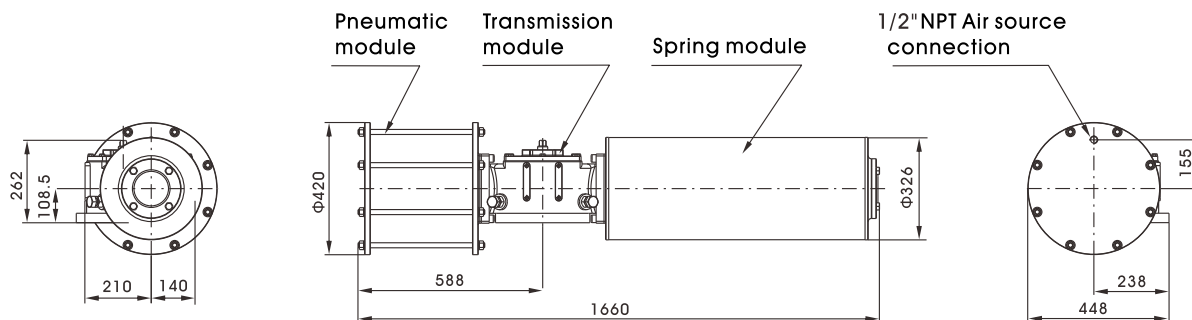


Side connection size

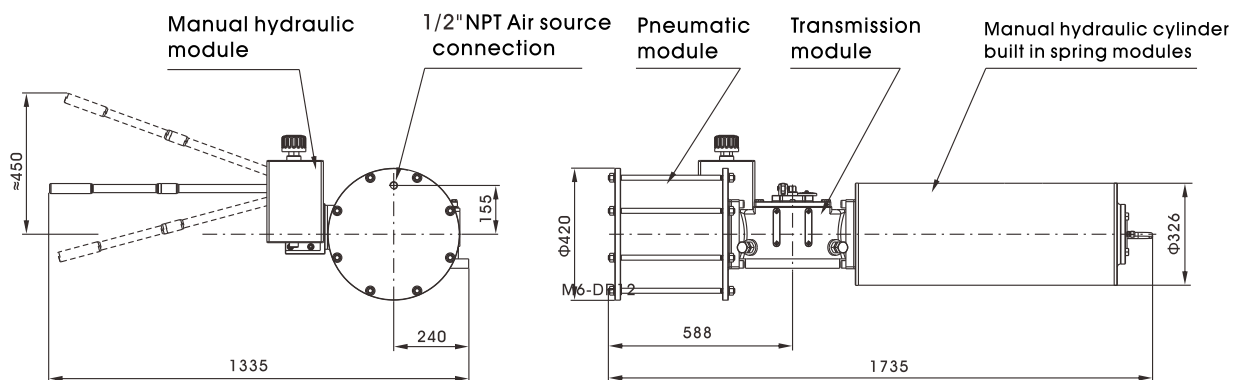




HG3-P350-SR2 Physical Dimension

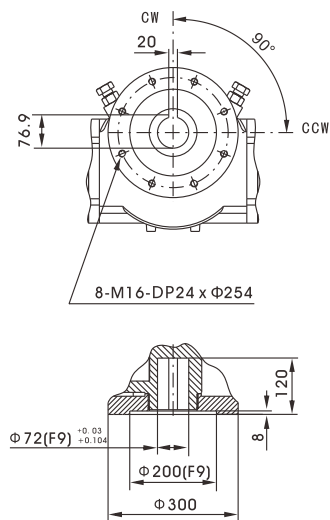


HG3-P350-SR2-MHP Physical Dimension

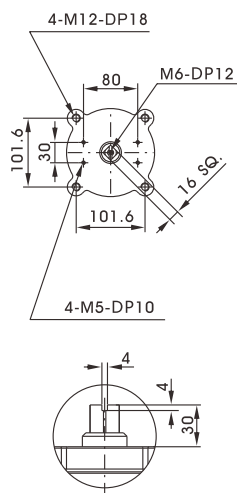


Connection Size

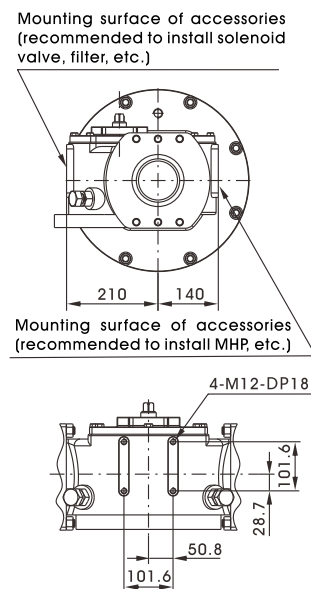
Connection size of bottom valve



Top connection size

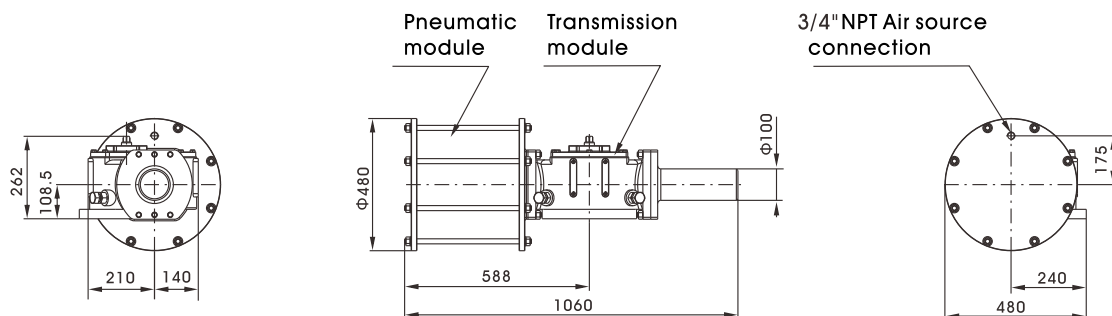


Side connection size

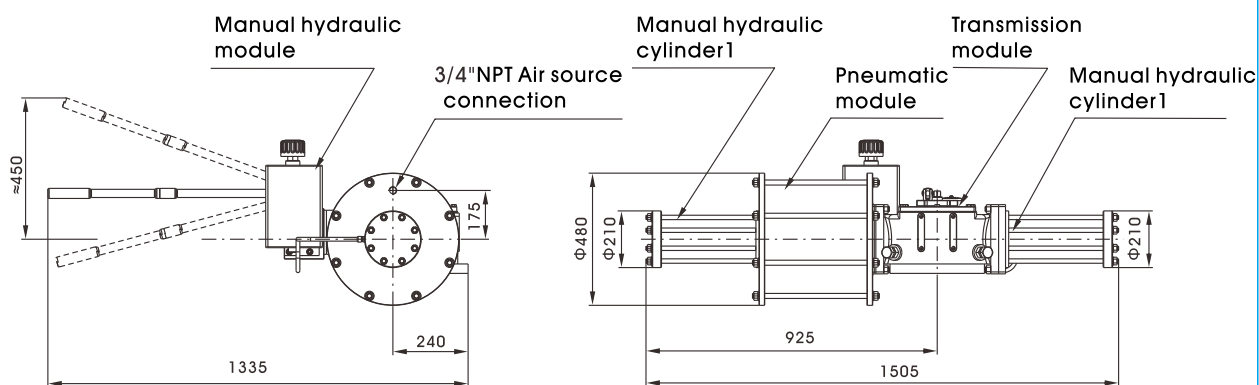




HG3-P400-DA Physical Dimension

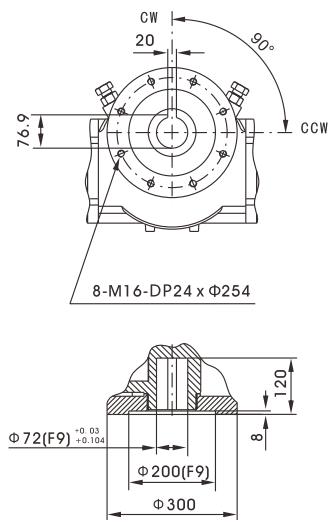


HG3-P400-DA-MHP Physical Dimension

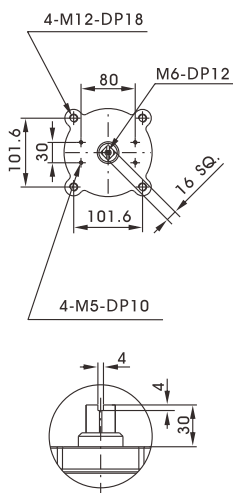


Connection Size

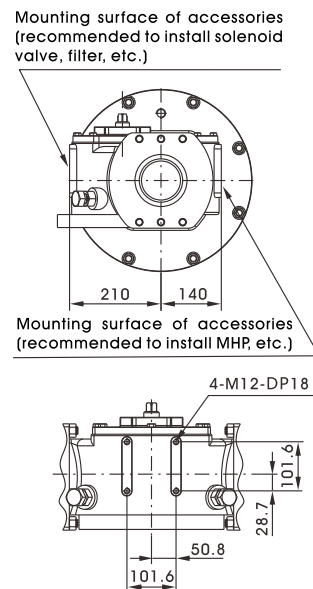
Connection size of bottom valve



Top connection size

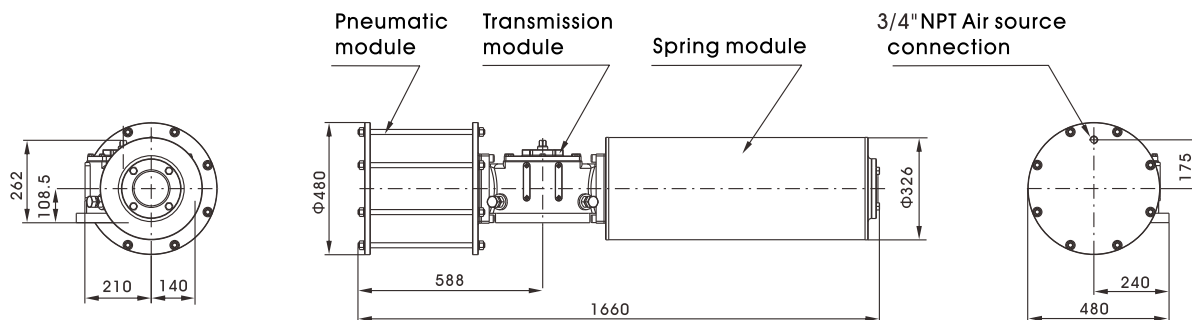


Side connection size

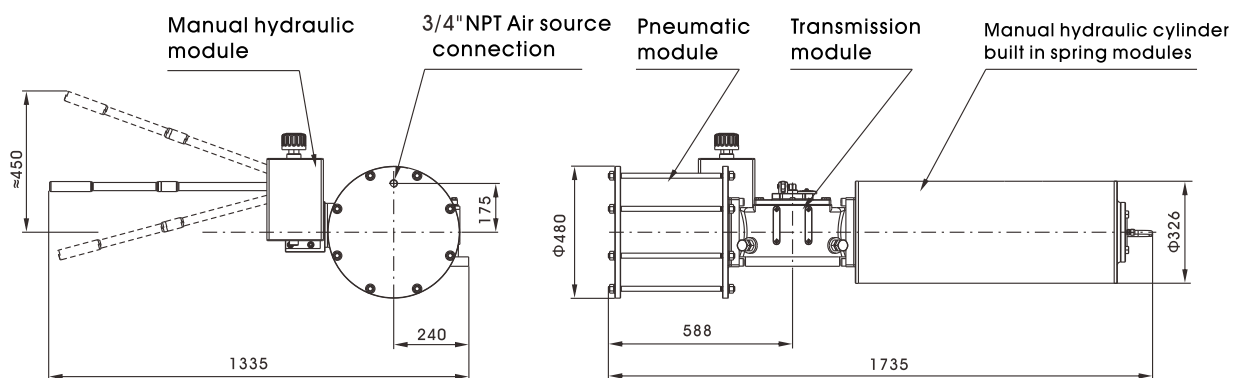




HG3-P400-SR3 Physical Dimension

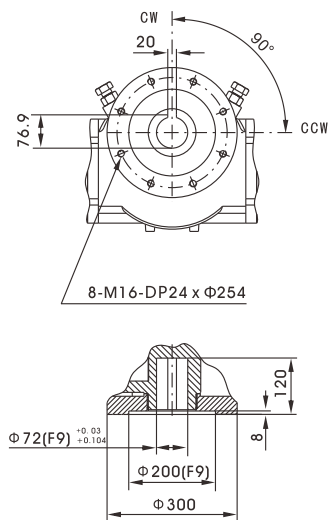


HG3-P400-SR3-MHP Physical Dimension

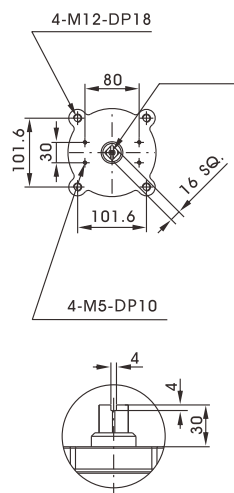


Connection Size

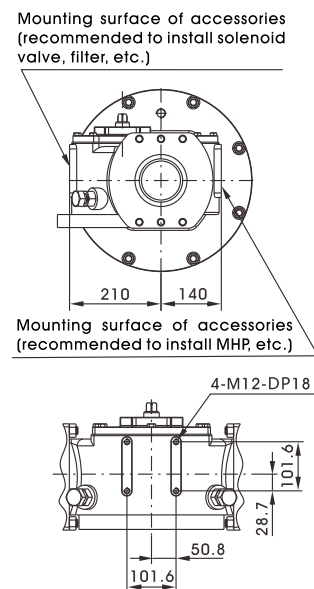
Connection size of bottom valve



Top connection size

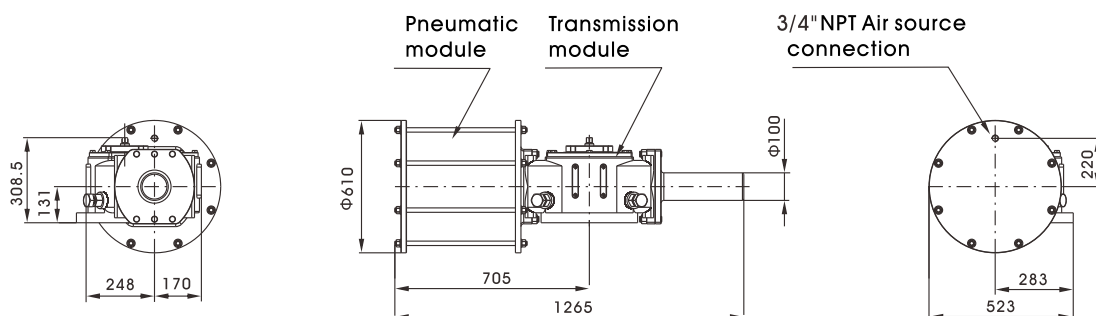


Side connection size

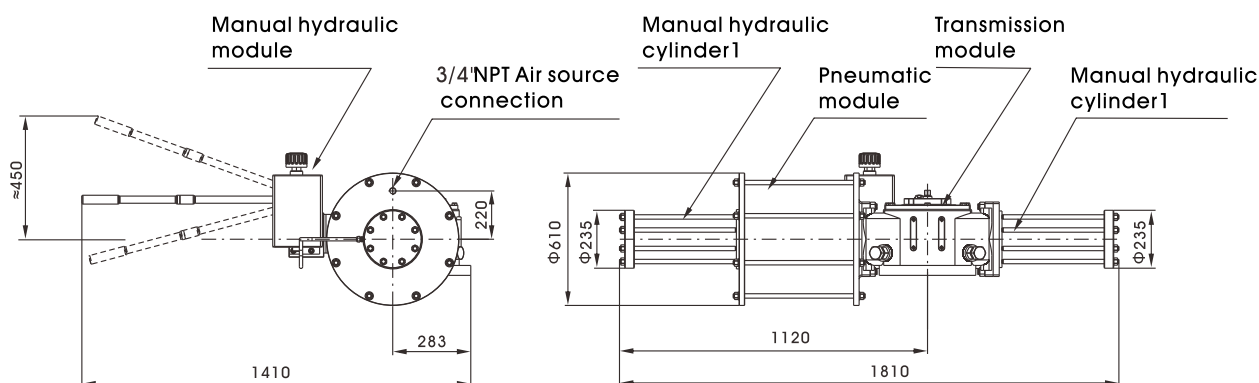




HG4-P500-DA Physical Dimension

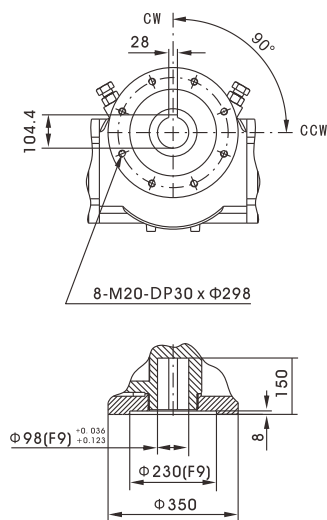


HG4-P500-DA-MHP Physical Dimension

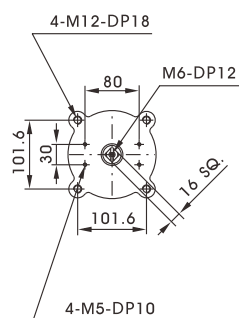


Connection Size

Connection size of bottom valve

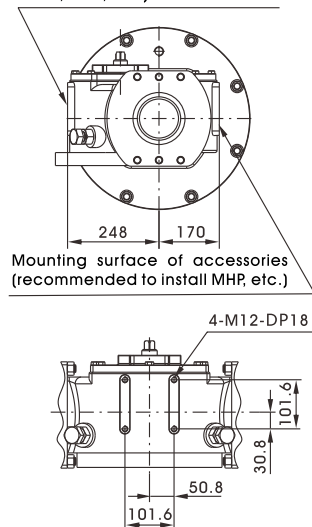


Top connection size



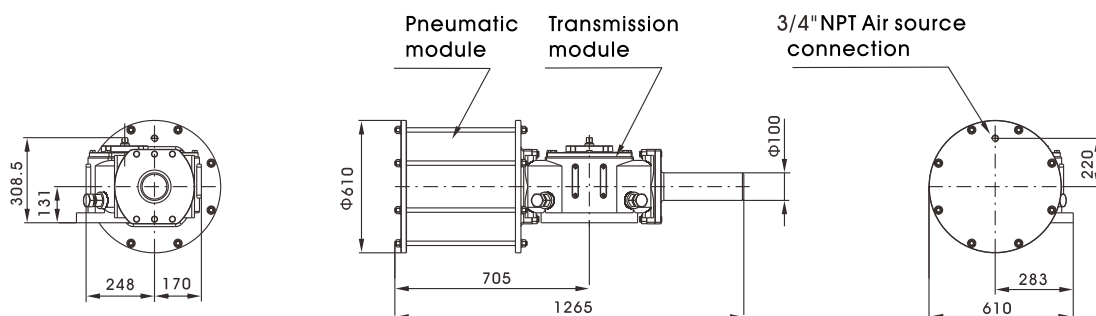
Side connection size

Mounting surface of accessories
(recommended to install solenoid
valve, filter, etc.)

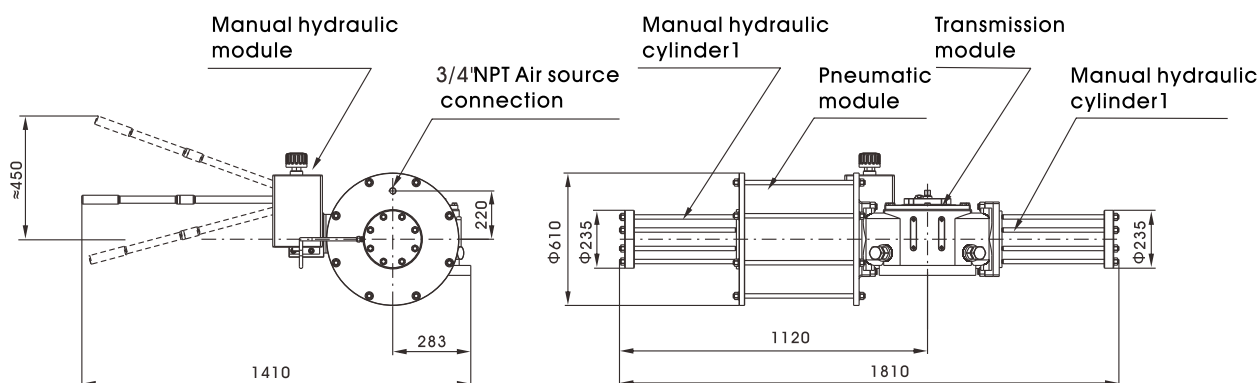




HG4-P500-DA Physical Dimension

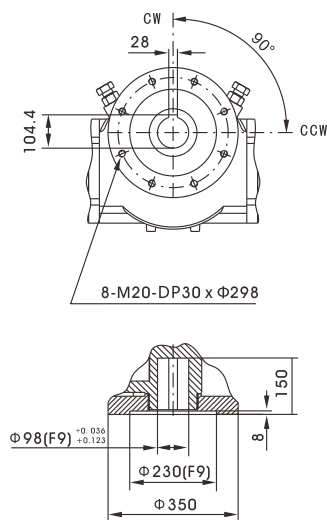


HG4-P500-DA-MHP Physical Dimension

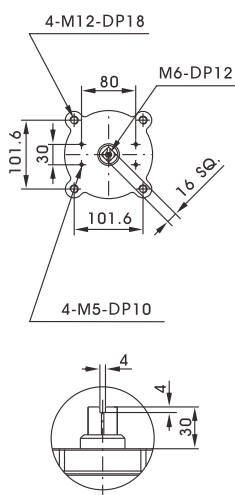


Connection Size

Connection size of bottom valve

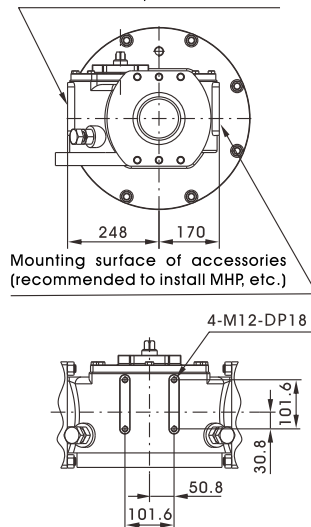


Top connection size



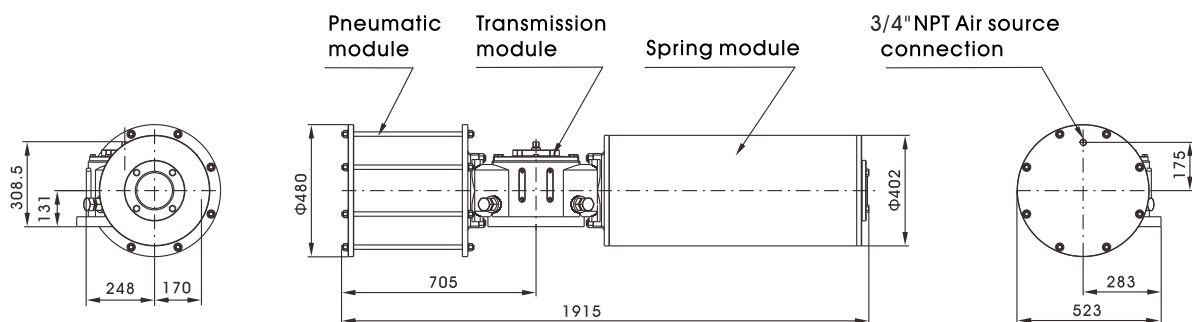
Side connection size

Mounting surface of accessories
(recommended to install solenoid
valve, filter, etc.)

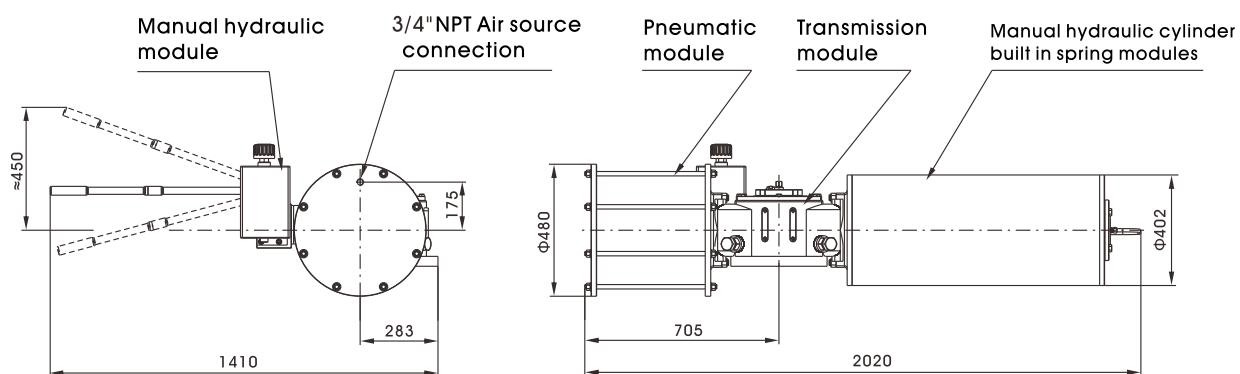




HG4-P400-SR2 Physical Dimension

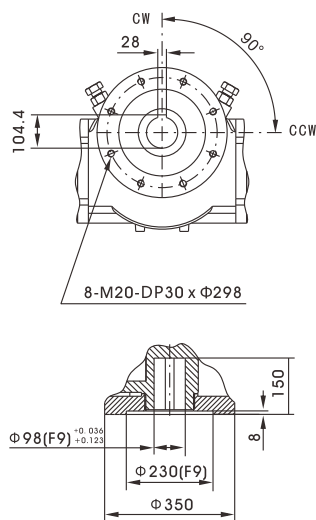


HG4-P400-SR2-MHP Physical Dimension

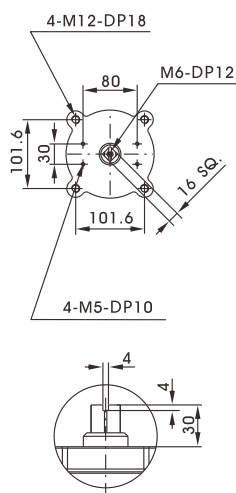


Connection Size

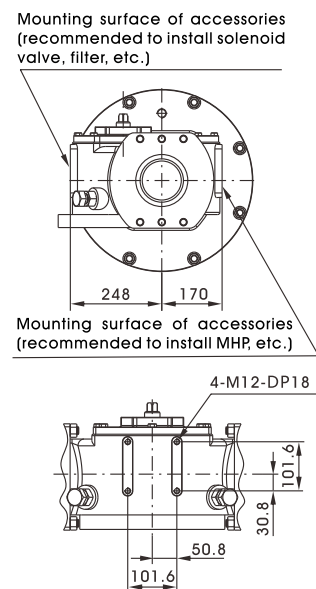
Connection size of bottom valve



Top connection size

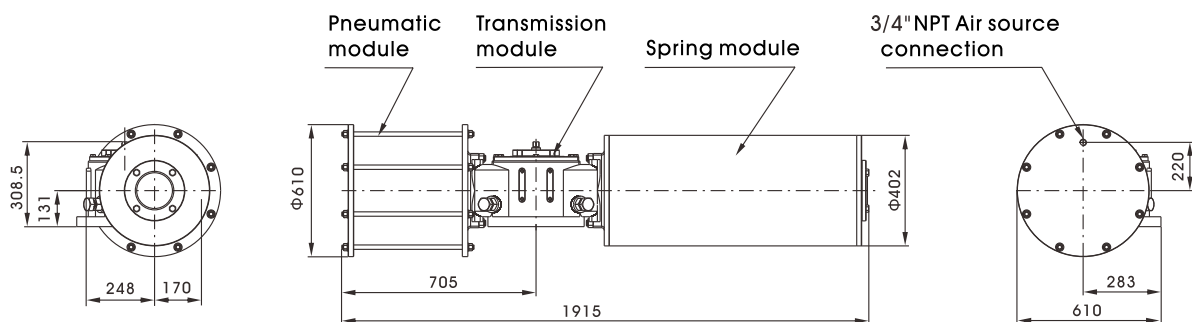


Side connection size

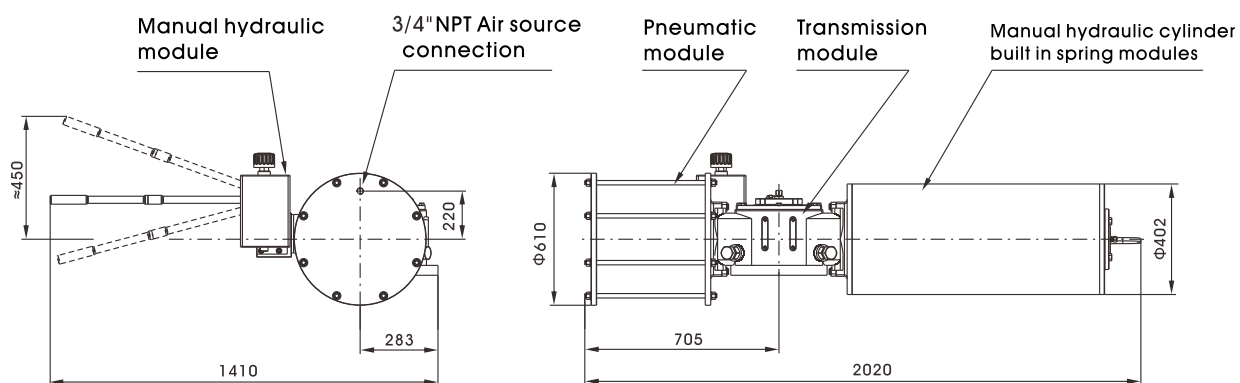




HG4-P500-SR3 Physical Dimension

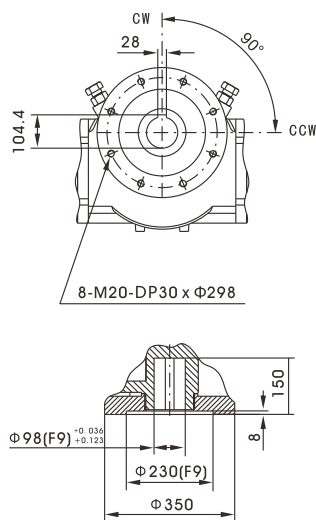


HG4-P500-SR3-MHP Physical Dimension

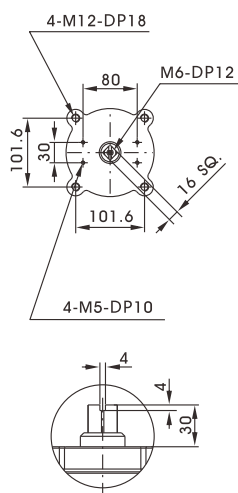


Connection Size

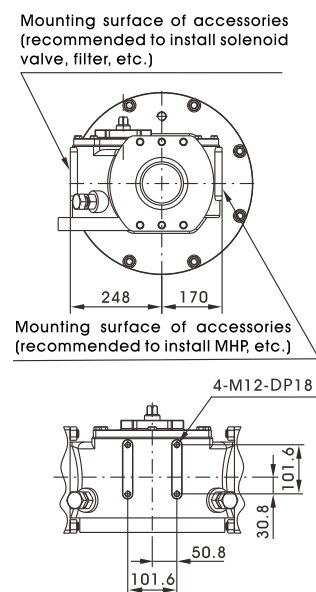
Connection size of bottom valve



Top connection size

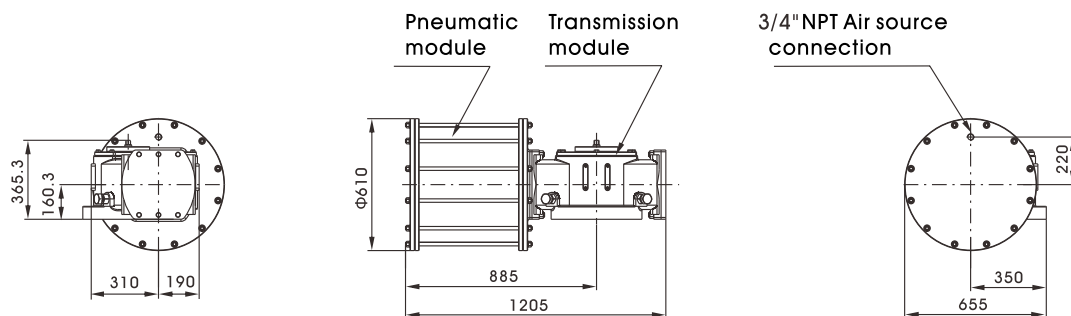


Side connection size

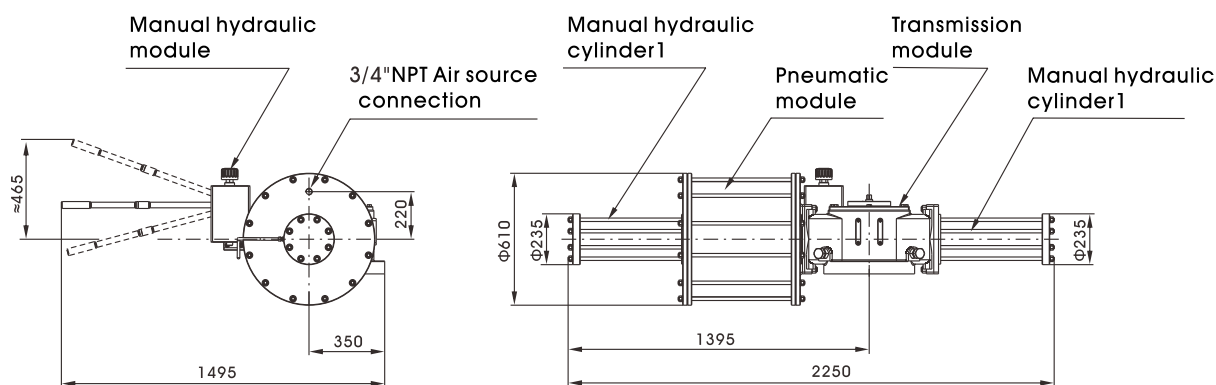




HG5-P500-DA Physical Dimension

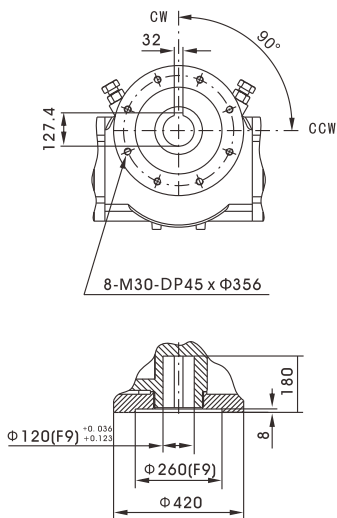


HG5-P500-DA-MHP Physical Dimension

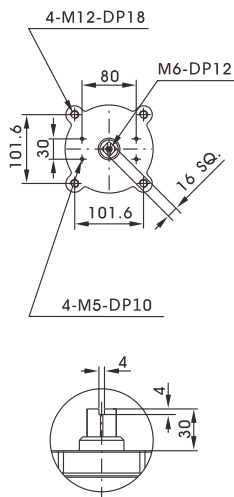


Connection Size

Connection size of bottom valve

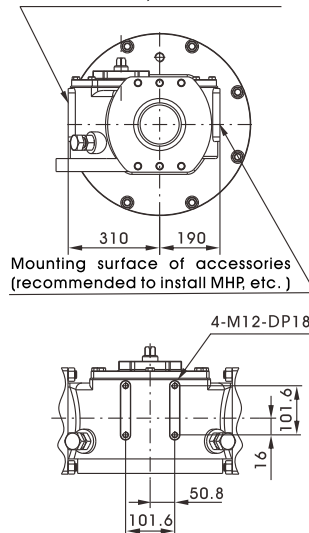


Top connection size



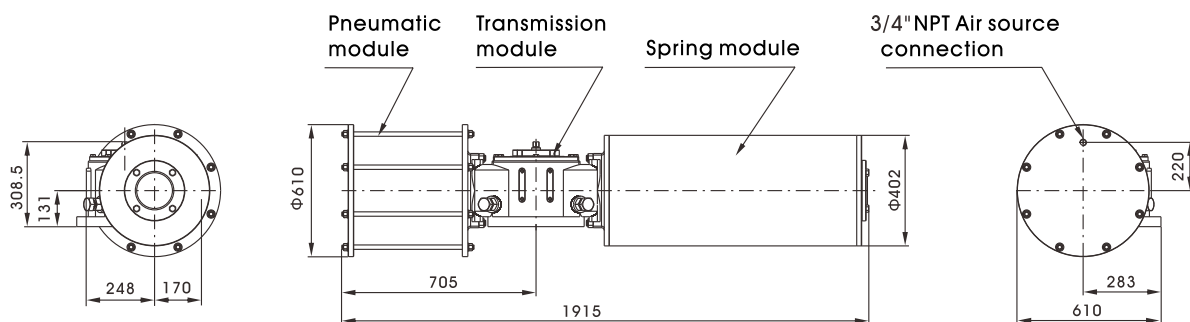
Side connection size

Mounting surface of accessories
(recommended to install solenoid
valve, filter, etc.)

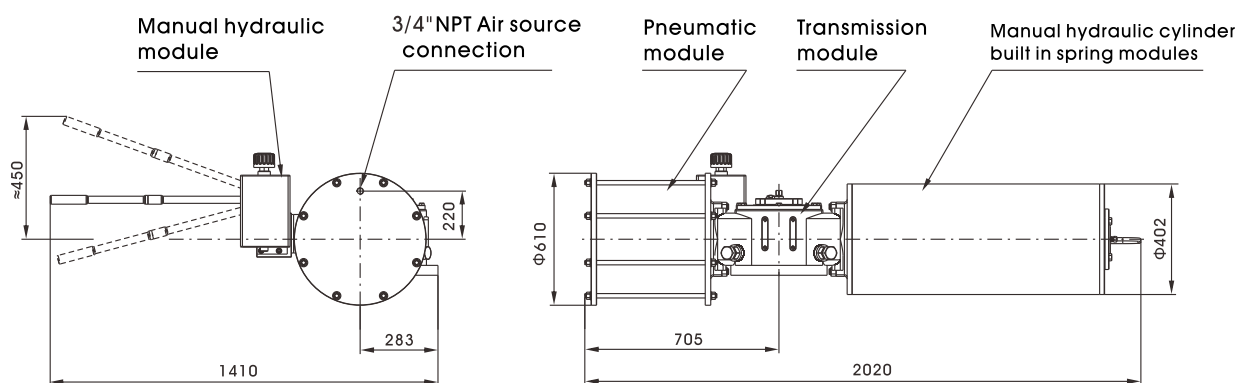




HG4-P500-SR3 Physical Dimension

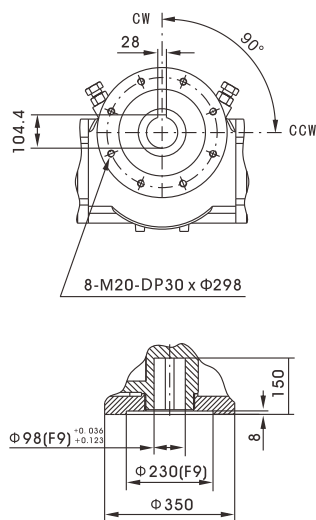


HG4-P500-SR3-MHP Physical Dimension

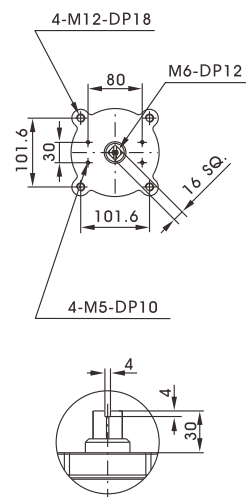


Connection Size

Connection size of bottom valve

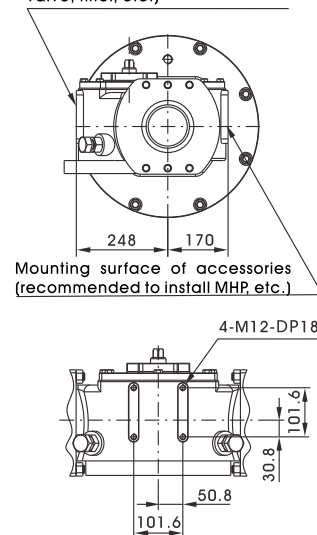


Top connection size



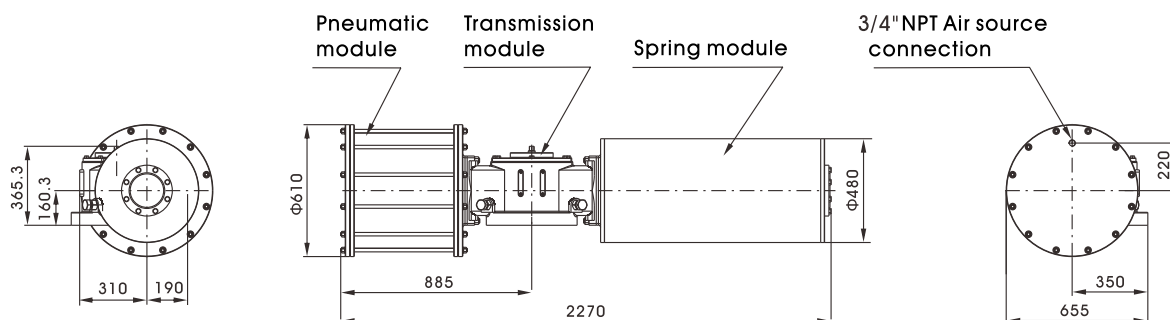
Side connection size

Mounting surface of accessories
(recommended to install solenoid valve, filter, etc.)

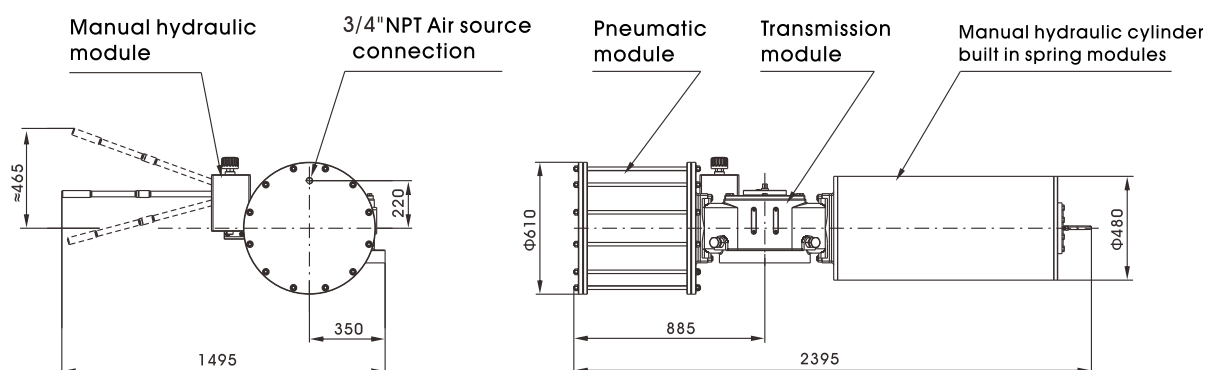




HG5-P500-SR2 Physical Dimension

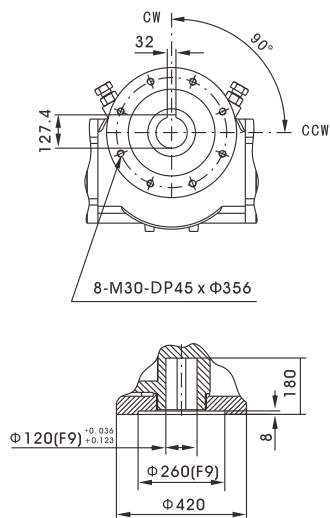


HG5-P500-SR2-MHP Physical Dimension

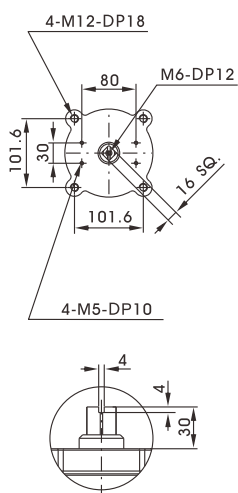


Connection Size

Connection size of bottom valve

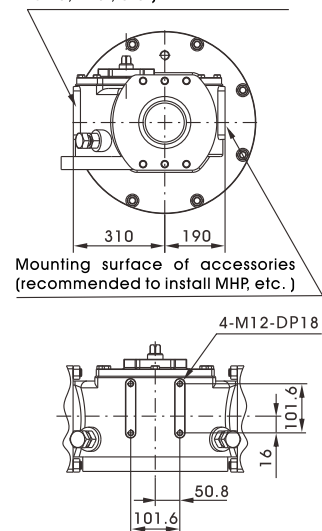


Top connection size



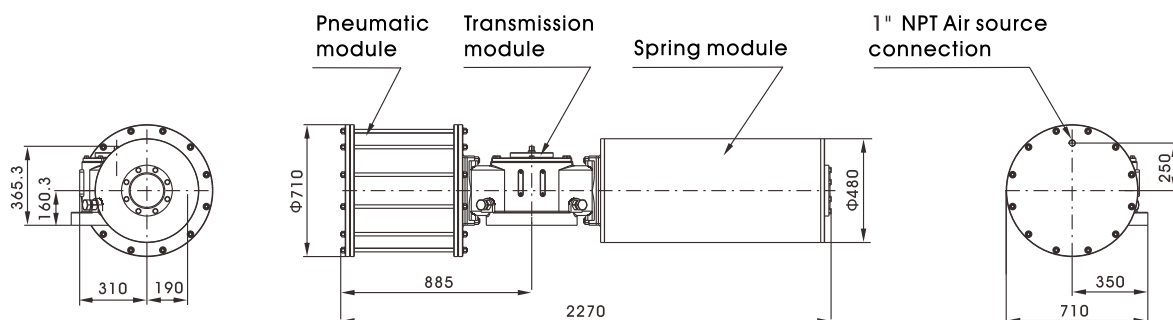
Side connection size

Mounting surface of accessories
(recommended to install solenoid
valve, filter, etc.)

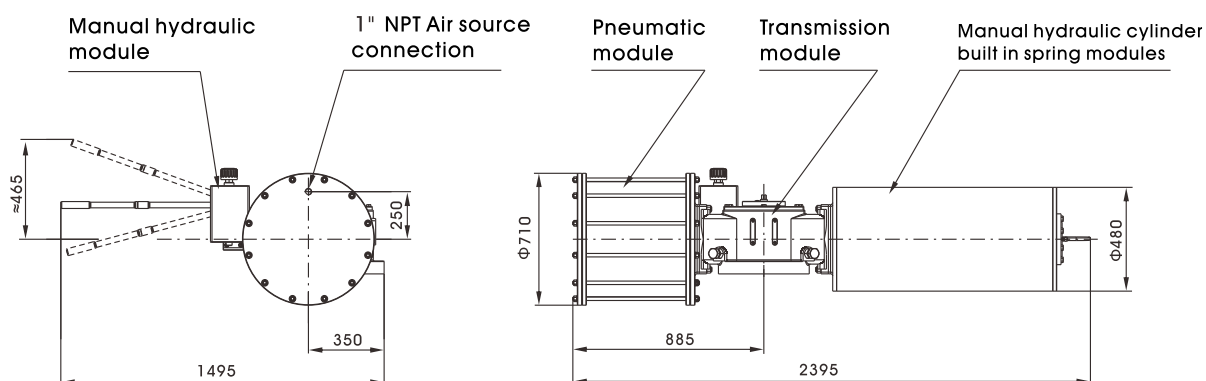




HG5-P600-SR3 Physical Dimension

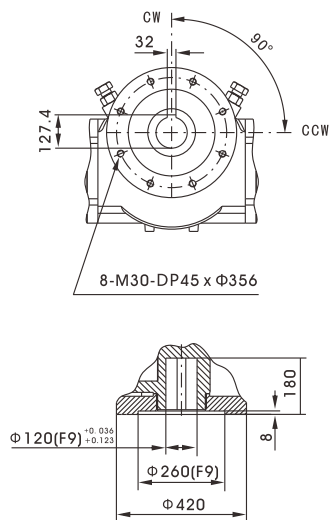


HG5-P600-SR3-MHP Physical Dimension

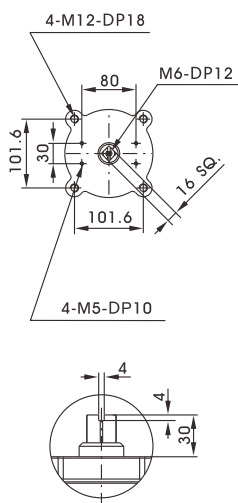


Connection Size

Connection size of bottom valve

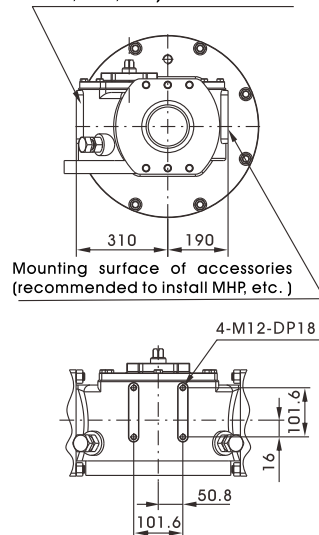


Top connection size



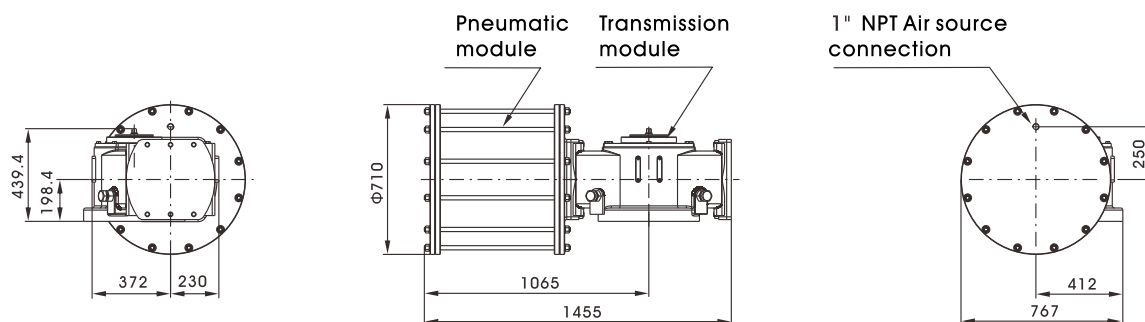
Side connection size

Mounting surface of accessories (recommended to install solenoid valve, filter, etc.)

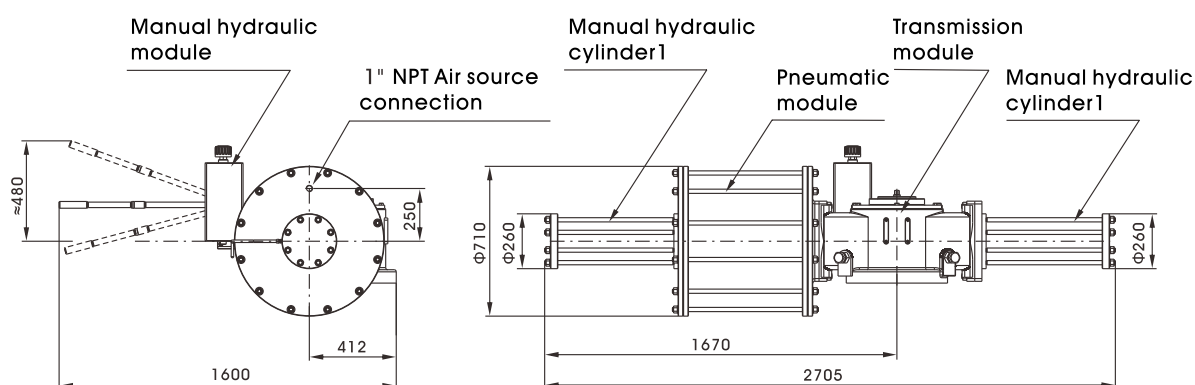




HG7-P600-DA Physical Dimension

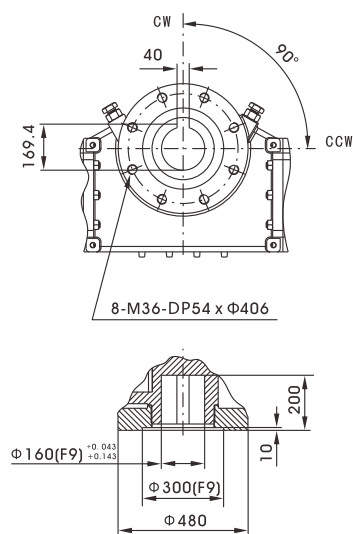


HG7-P600-DA-MHP Physical Dimension

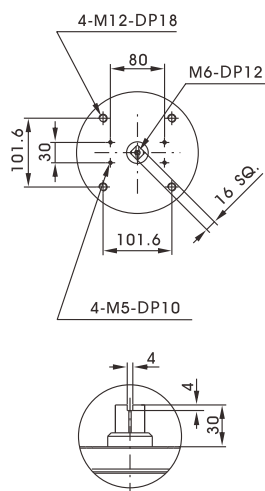


Connection Size

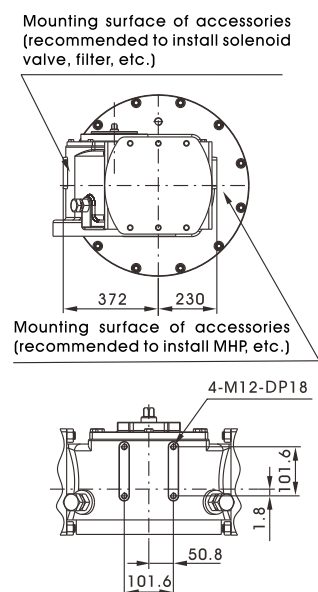
Connection size of bottom valve



Top connection size

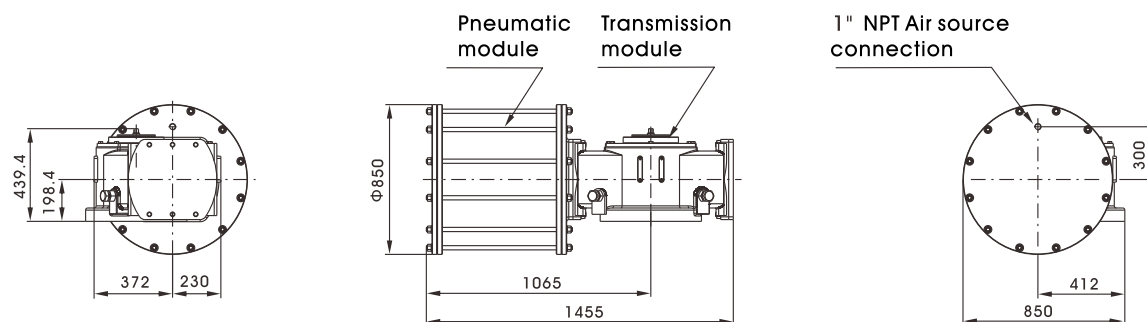


Side connection size

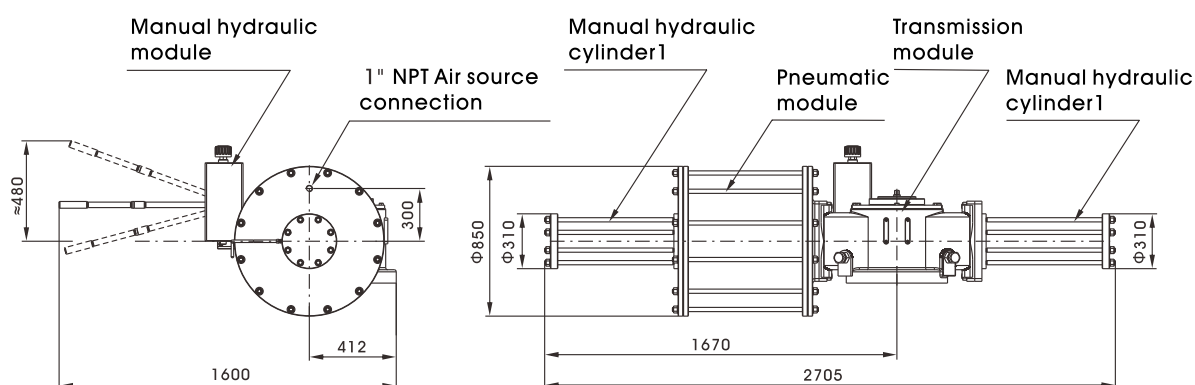




HG7-P720-DA Physical Dimension

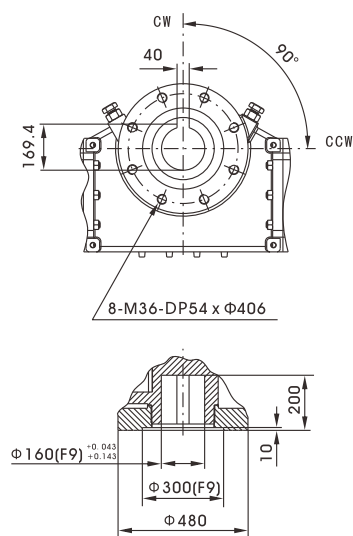


HG7-P720-DA-MHP Physical Dimension

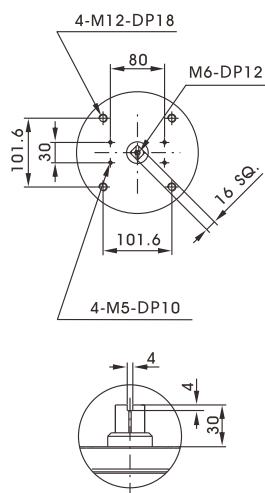


Connection Size

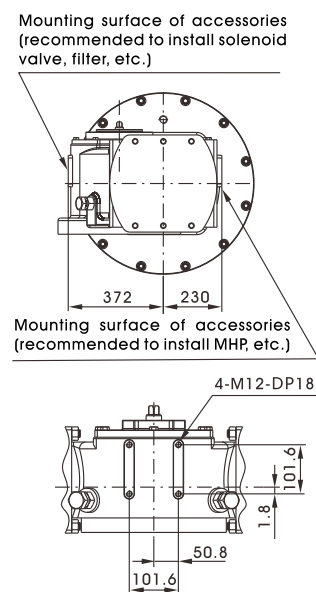
Connection size of bottom valve



Top connection size

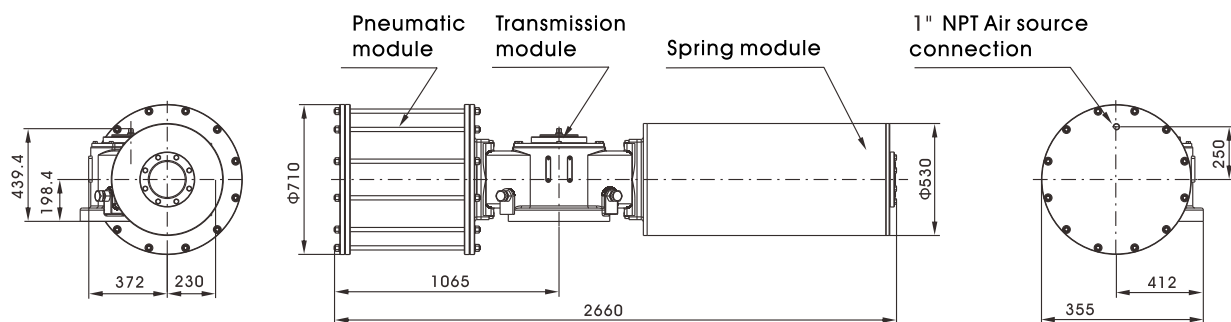


Side connection size

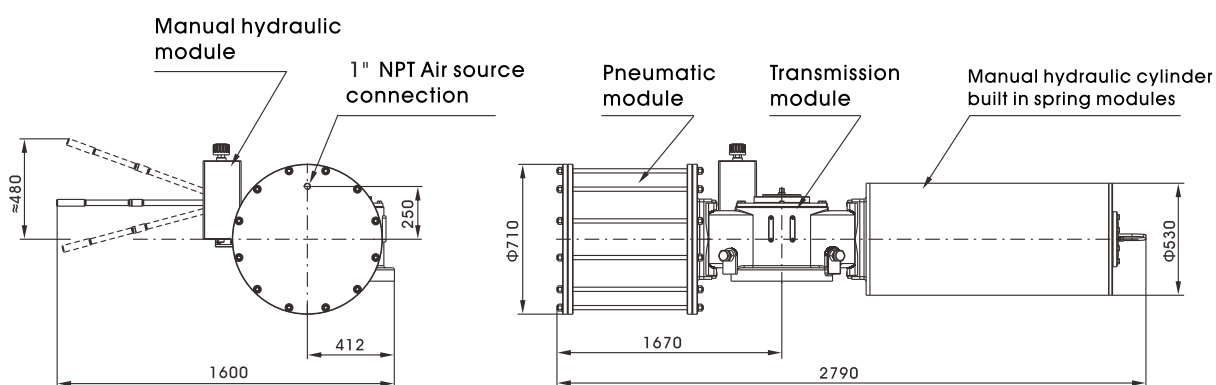




HG7-P600-SR2 Physical Dimension

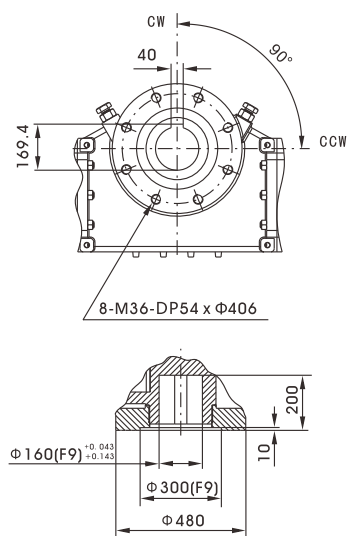


HG7-P600-SR2-MHP Physical Dimension

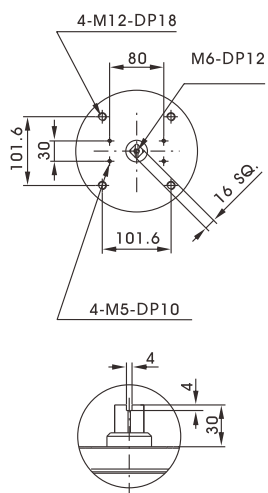


Connection Size

Connection size of bottom valve

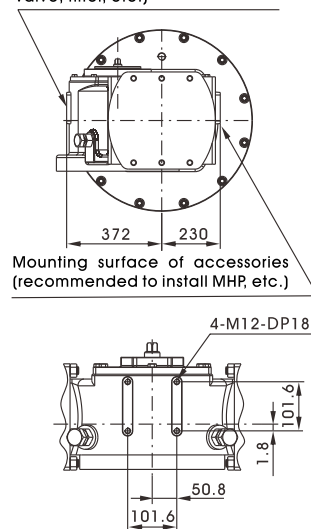


Top connection size



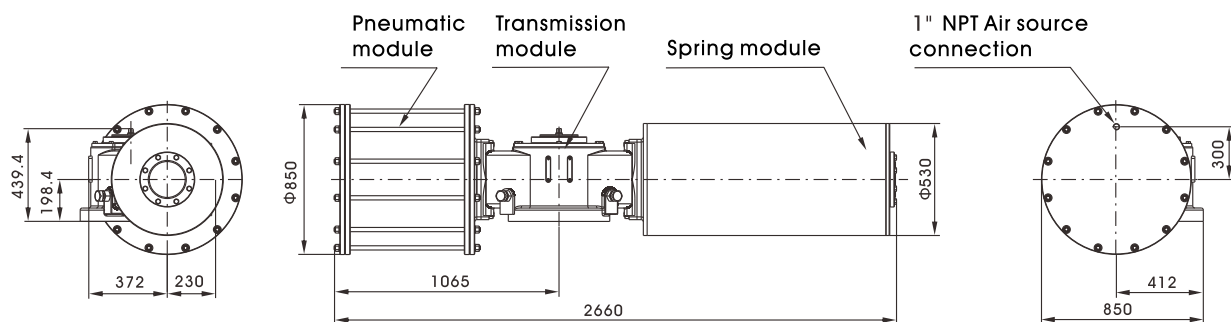
Side connection size

Mounting surface of accessories (recommended to install solenoid valve, filter, etc.)

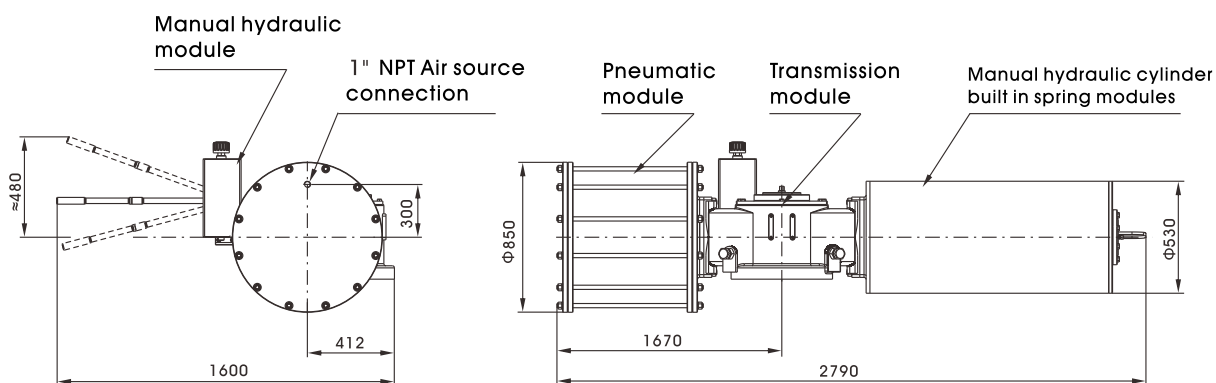




HG7-P720-SR3 Physical Dimension

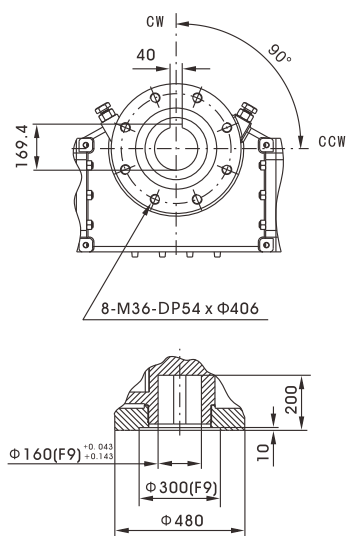


HG7-P720-SR3-MHP Physical Dimension

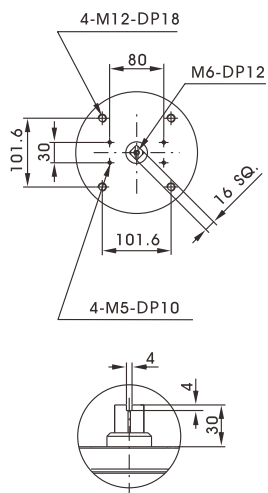


Connection Size

Connection size of bottom valve

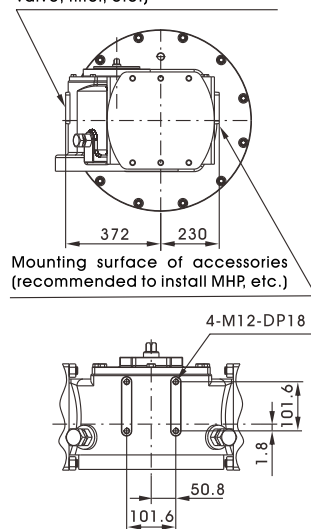


Top connection size



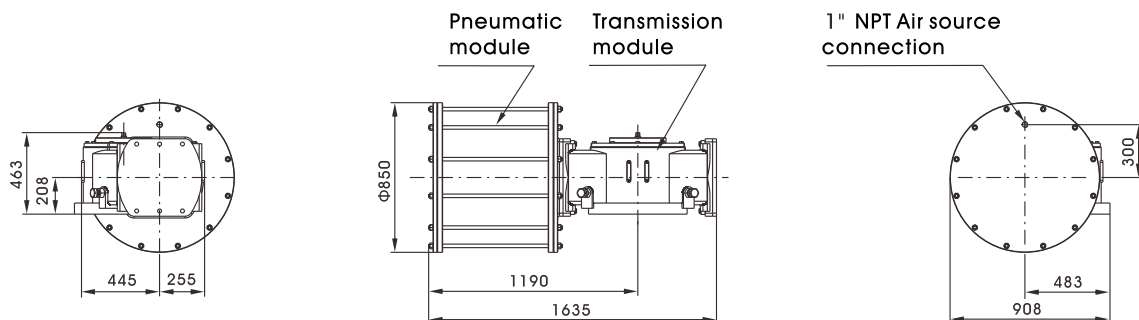
Side connection size

Mounting surface of accessories
(recommended to install solenoid
valve, filter, etc.)

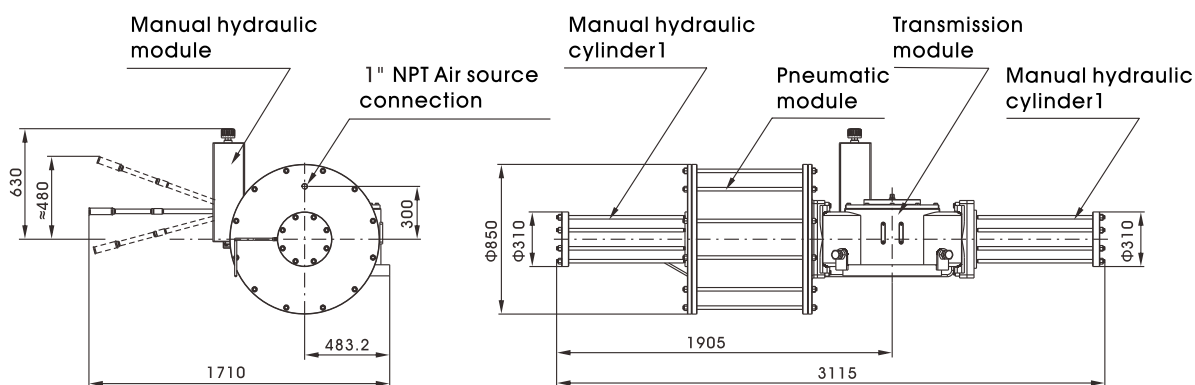




HG8-P720-DA Physical Dimension

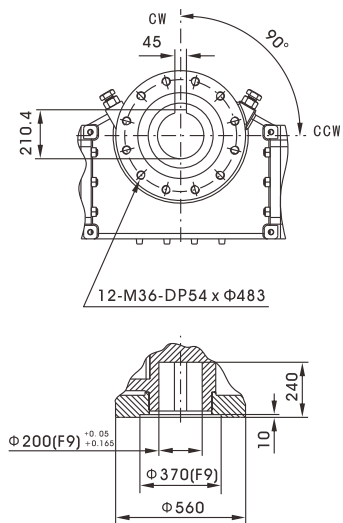


HG8-P720-DA-MHP Physical Dimension

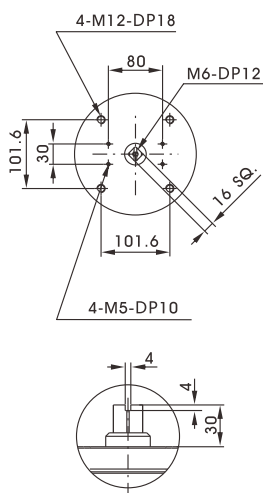


Connection Size

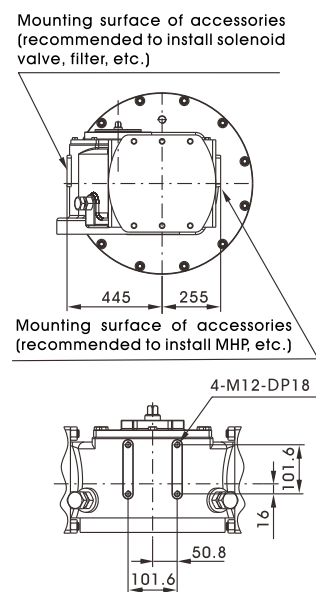
Connection size of bottom valve



Top connection size

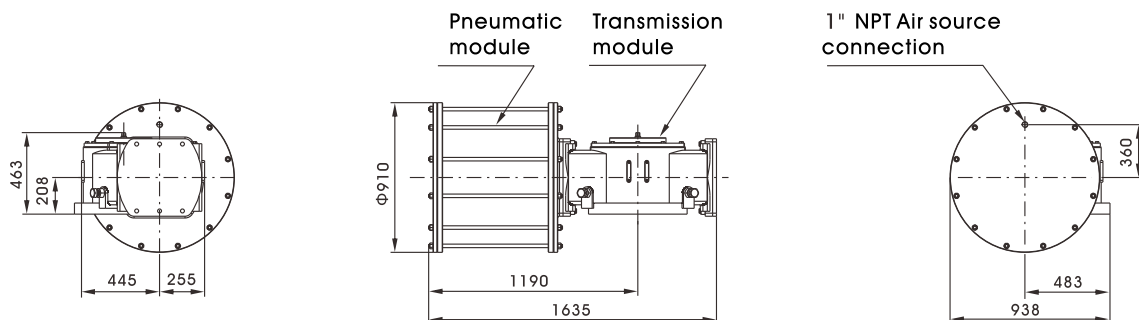


Side connection size

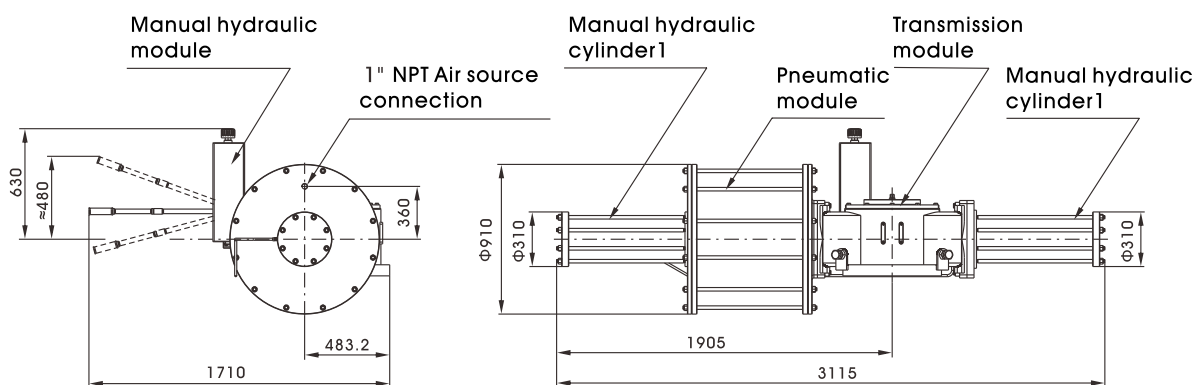




HG8-P780-DA Physical Dimension

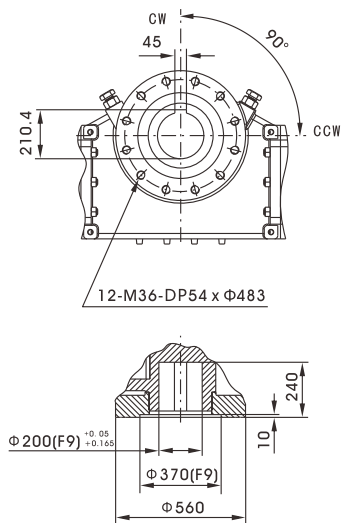


HG8-P780-DA-MHP Physical Dimension

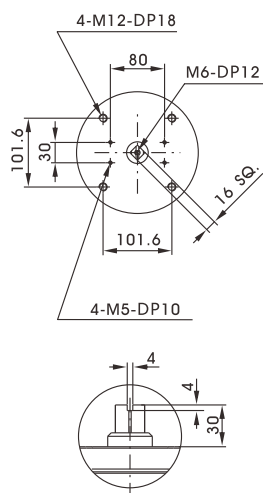


Connection Size

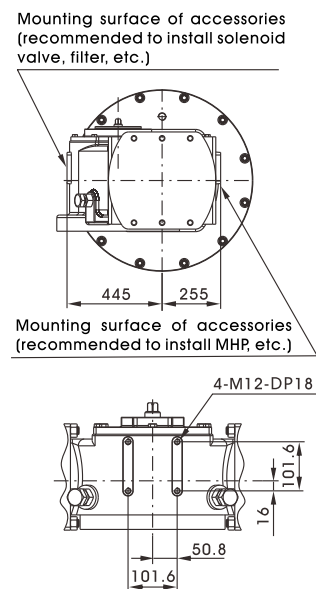
Connection size of bottom valve



Top connection size

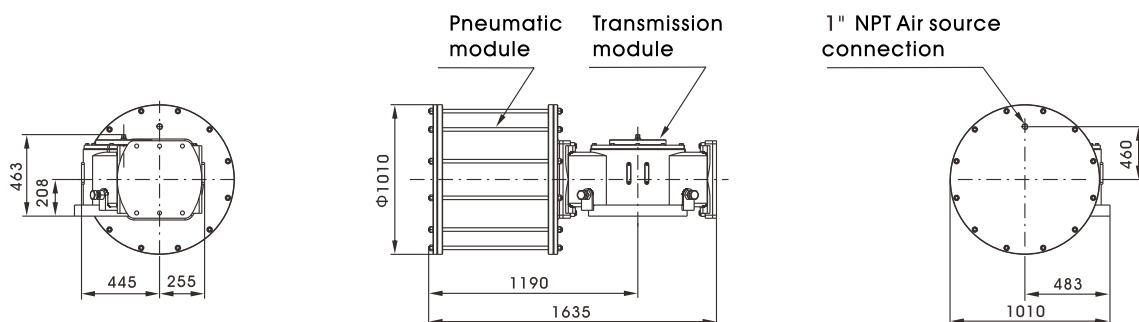


Side connection size

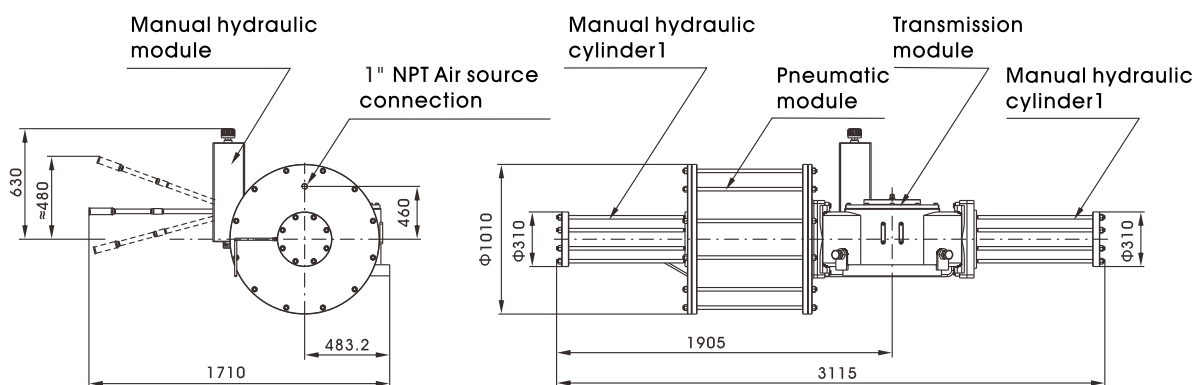




HG8-P880-DA Physical Dimension

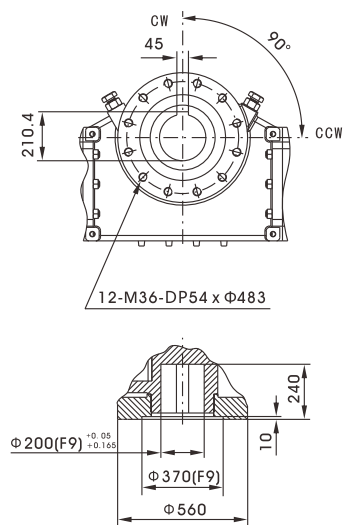


HG8-P880-DA-MHP Physical Dimension

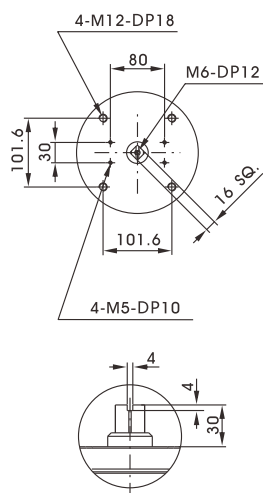


Connection Size

Connection size of bottom valve

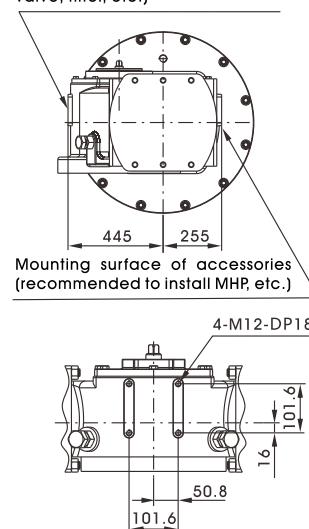


Top connection size



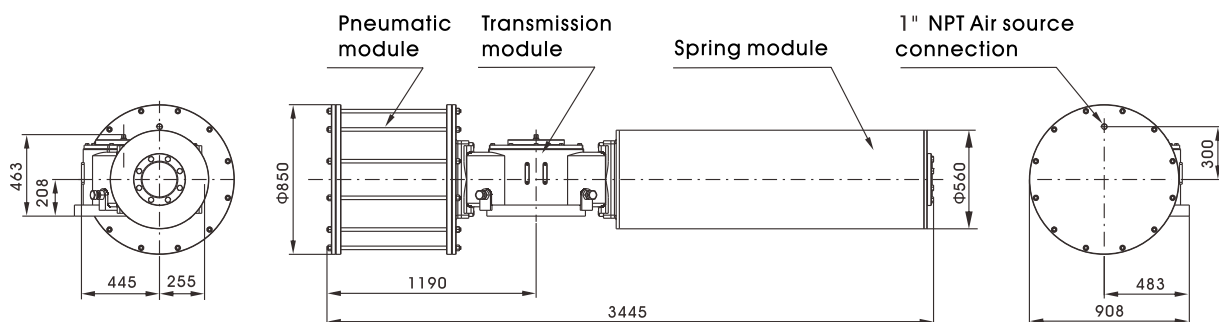
Side connection size

Mounting surface of accessories (recommended to install solenoid valve, filter, etc.)

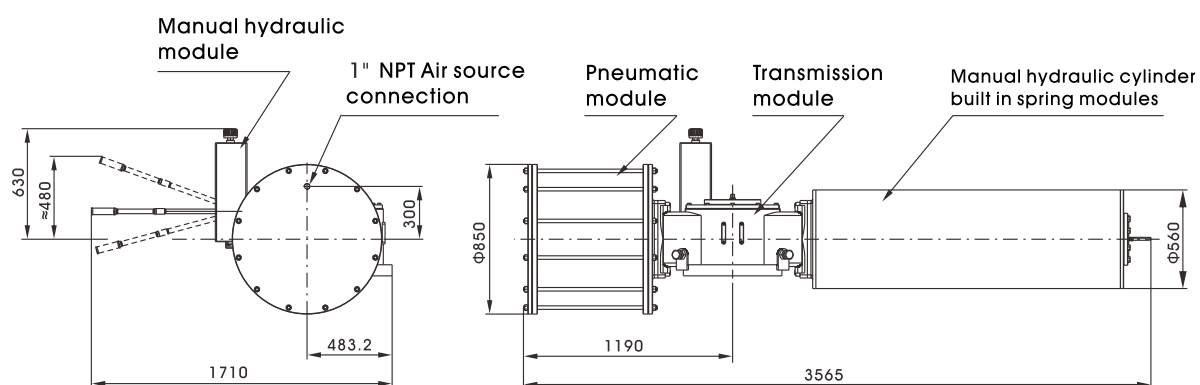




HG8-P720-SR2 Physical Dimension

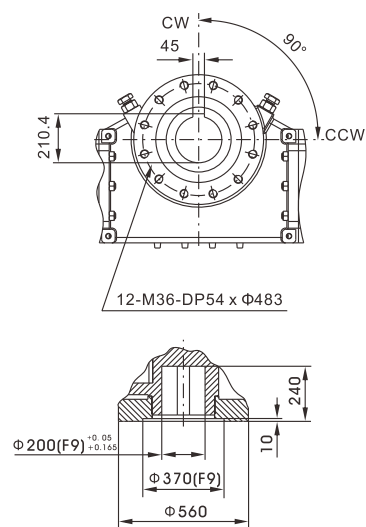


HG8-P720-SR2-MHP Physical Dimension

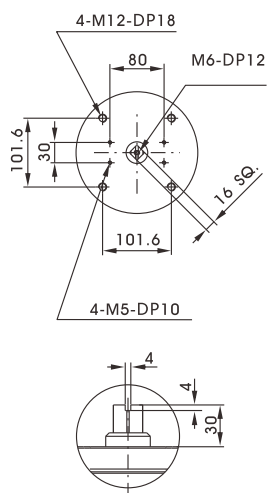


Connection Size

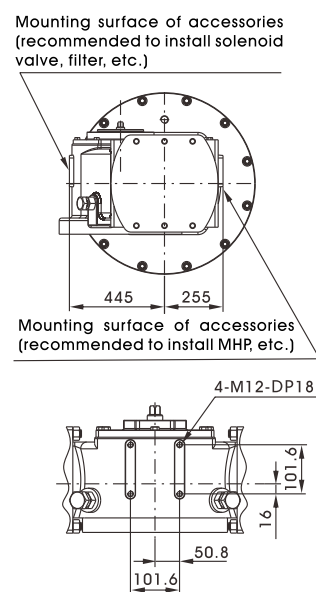
Connection size of bottom valve



Top connection size

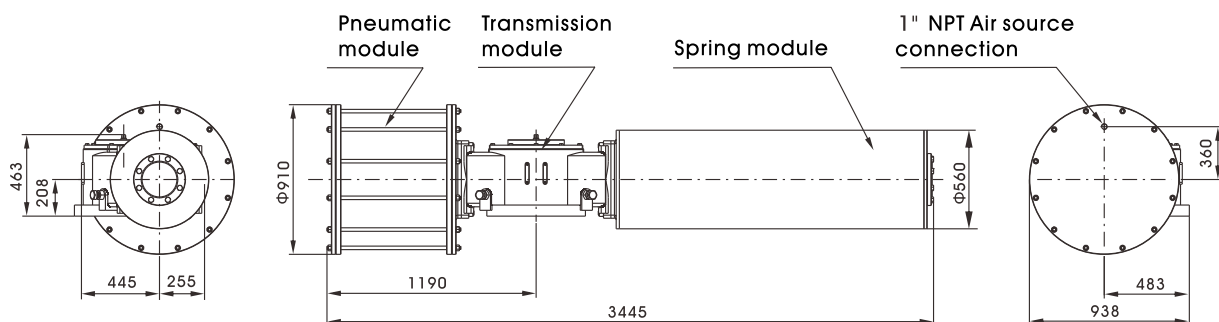


Side connection size

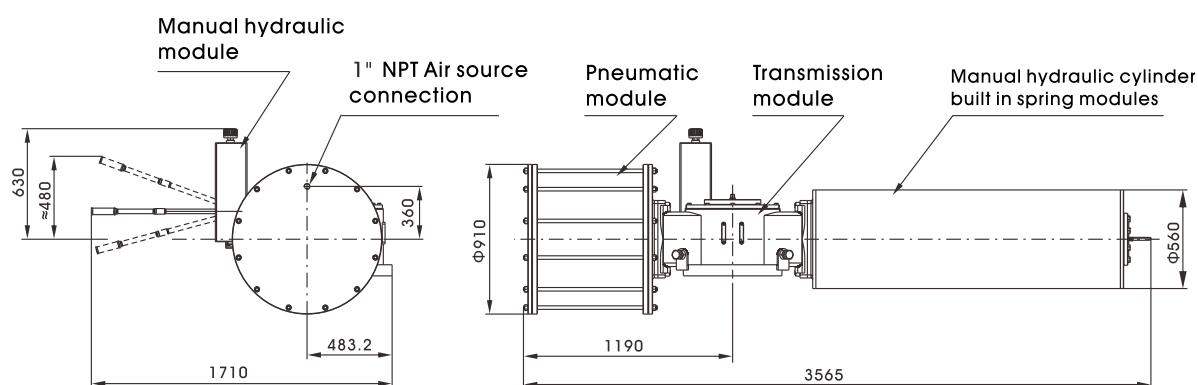




HG8-P780-SR3 Physical Dimension

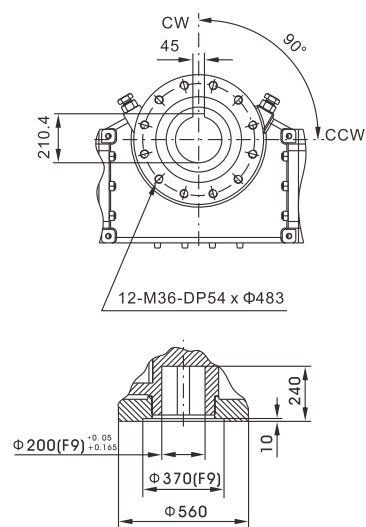


HG8-P780-SR3-MHP Physical Dimension

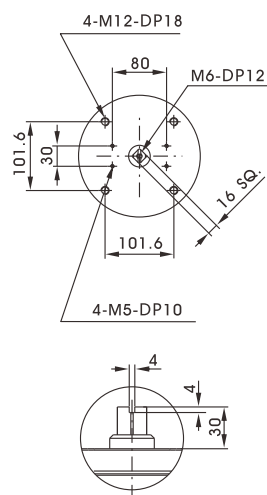


Connection Size

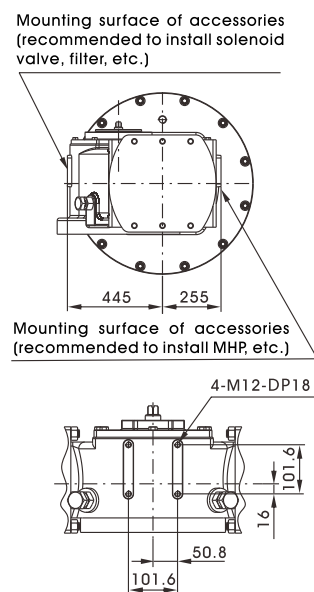
Connection size of bottom valve



Top connection size

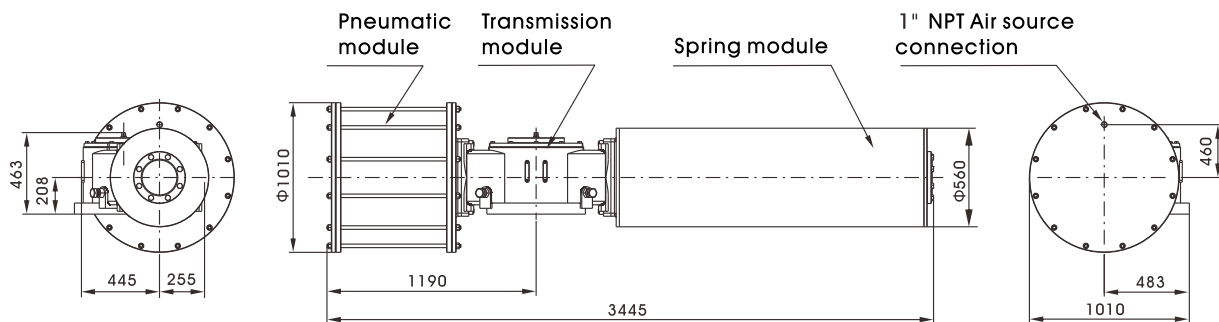


Side connection size

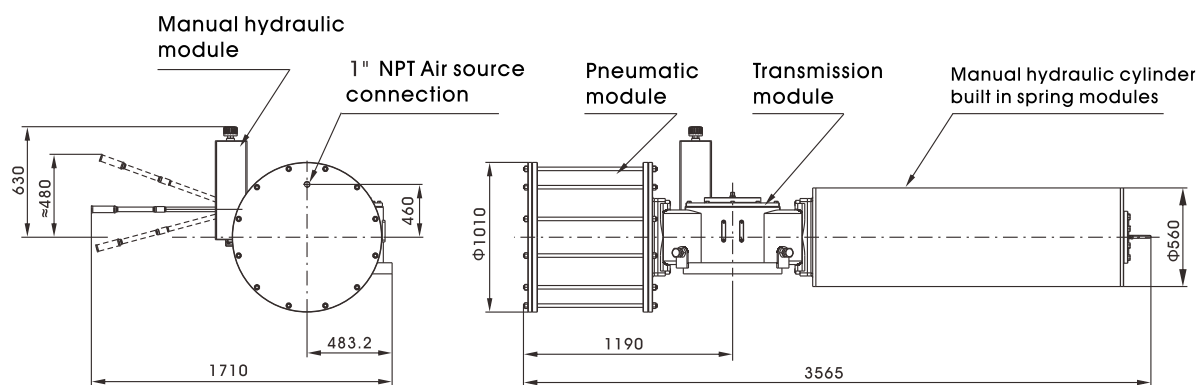




HG8-P880-SR3 Physical Dimension

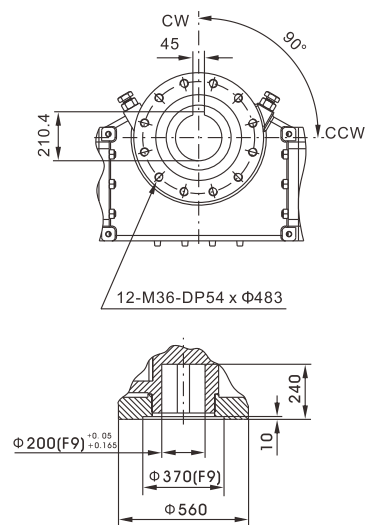


HG8-P880-SR3-MHP Physical Dimension

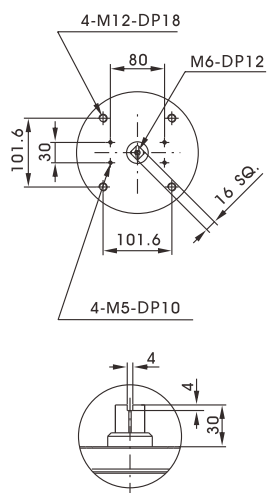


Connection Size

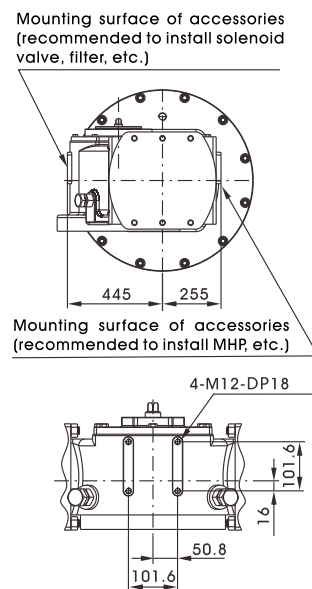
Connection size of bottom valve



Top connection size



Side connection size





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HG Series Actuator/ Hydraulic Actuator Fundamental Figure



Fundamental Figure Of HG-Series Hydraulic Actuator



Double-Acting



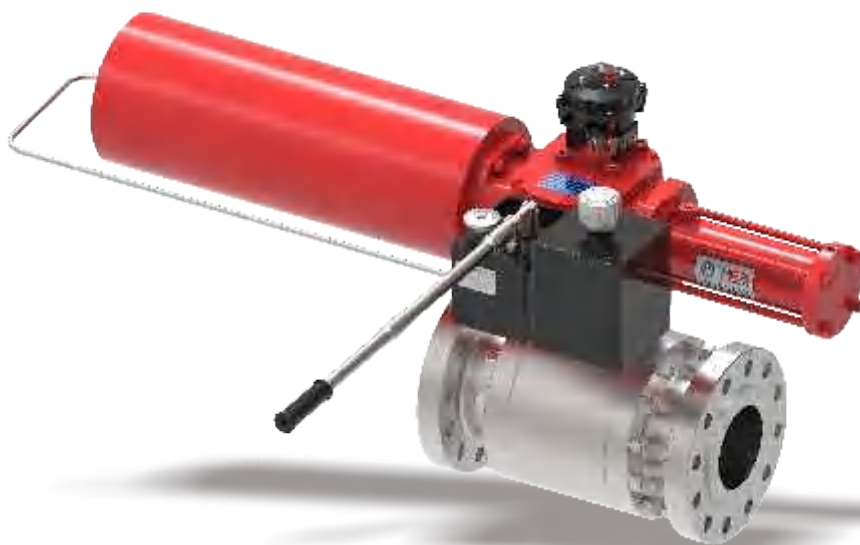
Single-Acting



Double-Acting + MHP



Single-Acting + MHP





Double-Acting

Type	Hydraulic pump volume (L)		Switching time (S)		MAX. Pressure (bar)	Weight (KG)
	Inside	Outside	Open(inside)	close(outside)		
HG0-H63-DA	0.4	0.45	—	—	80.0	36.0
HG1-H80-DA	0.55	0.85	—	—	80.0	60.0
HG2-H95-DA	0.95	1.4	—	—	80.0	84.0
HG3-H110-DA	1.5	2.25	—	—	80.0	140.0
HG4-H130-DA	2.35	3.75	—	—	80.0	248.0
HG5-H160-DA	5.35	7.15	—	—	80.0	401.0
HG7-H180-DA	8.15	10.9	—	—	80.0	623.0
HG8-H220-DA	15.5	19.3	—	—	80.0	905.0

Single-Acting

Type	Hydraulic pump volume (L)		Switching time (S)		MAX. Pressure (bar)	Weight (KG)
	Inside	Outside	Open(inside)	close(outside)		
HG0-H63-SR2	0.4	—	—	—	80.0	61.0
HG1-H80-SR2	0.55	—	—	—	80.0	131.0
HG2-H95-SR2	0.95	—	—	—	80.0	189.0
HG3-H110-SR2	1.5	—	—	—	80.0	305.0
HG4-H130-SR2	2.35	—	—	—	80.0	524.0
HG5-H160-SR2	5.35	—	—	—	80.0	835.0
HG7-H180-SR2	8.15	—	—	—	80.0	1233.0
HG8-H220-SR2	15.5	—	—	—	80.0	1928.0

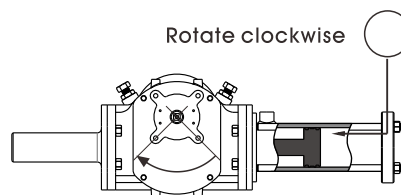
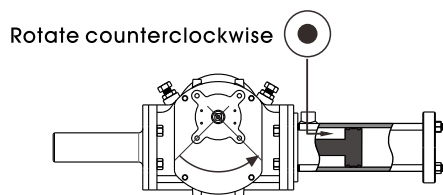
Note: 1. The cylinder module and spring module in the model table are standard configuration. The data will vary with the change of the configuration, so you can consultate the technology department of the company.
2. As for the action time, the users can decide the switching time according to the caliber of the hydraulic power equipment furnished to the hydraulic oil volume.
3. The weight in the table excludes any accessory.



Double-Acting Output Torque (Nm)

Type	Stoke position	Direction of rotation	Hydraulic pressure (bar)							
			35	40	50	60	70	80	90	100
HG0-H63-DA	Start/End		950	1090	1360	1630				
	Medium MIN. value		515	590	730	880				
	Start/End		900	1030	1300	1580				
	Medium MIN. value		480	560	700	850				
HG1-H80-DA	Start/End		1860	2020	2650	3180				
	Medium MIN. value		1000	1140	1430	1720				
	Start/End		1730	2000	2530	3060				
	Medium MIN. value		940	1080	1370	1650				
HG2-H95-DA	Start/End		3170	3620	4530	5430				
	Medium MIN. value		1710	1960	2450	2940				
	Start/End		2960	3420	4320	5230				
	Medium MIN. value		1600	1850	2340	2830				
HG3-H110-DA	Start/End		5160	5900	7380	8850				
	Medium MIN. value		2790	3190	3980	4780				
	Start/End		4860	5600	7070	8550				
	Medium MIN. value		2620	3020	3820	4620				
HG4-H130-DA	Start/End		8760	10010	12520	15020	17530			
	Medium MIN. value		4730	5410	6760	8120	9470			
	Start/End		8040	9290	11790	14300	16800			
	Medium MIN. value		4340	5020	6367	7730	9080			
HG5-H160-DA	Start/End		17210	19670	24590	29510	34430			
	Medium MIN. value		9300	10630	13290	15950	18610			
	Start/End		16270	18730	23650	28570	33480			
	Medium MIN. value		8790	10120	12780	15440	18100			
HG7-H180-DA	Start/End		26690	30500	38120	45750	53380	61000		
	Medium MIN. value		14420	16480	20610	24730	28850	32970		
	Start/End		25180	28990	36620	44240	51870	59490		
	Medium MIN. value		13610	15670	19790	23910	28030	32160		
HG8-H220-DA	Start/End			53980	67480	80980	94480	107970		
	Medium MIN. value			29180	36470	43770	51070	58360		
	Start/End			52200	65700	79190	92690	106190		
	Medium MIN. value			28210	35510	42800	50100	57400		

Note: The standard configuration is that the piston produces a torque and rotates counterclockwise when pressurized at the inside, and produces a torque and rotate clockwise when pressurized at the outside.





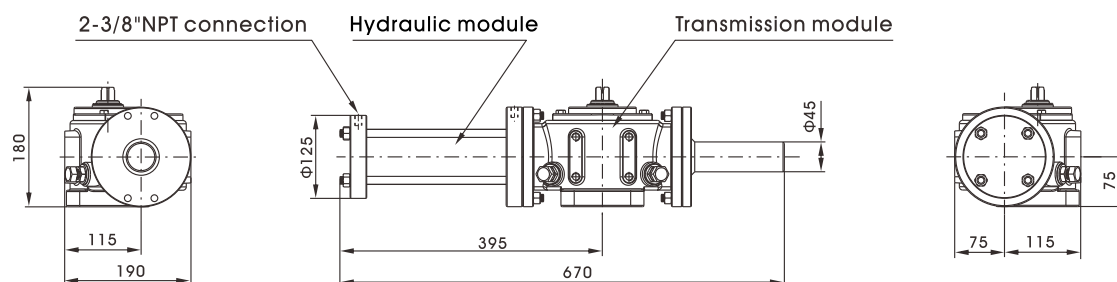
Single-Acting Output Torque

Type	Stoke position	Spring torque output	Hydraulic pressure (bar)							
			35	40	50	60	70	80	90	100
HG0-H63-SR2	Start	520	410	520	740	960				
	Middle	230	170	230	250	470				
	End	340	240	340	560	780				
HG1-H80-SR2	Start	1210		790	1200	1620	2030			
	Middle	550		330	550	770	990			
	End	840		430	840	1250	1660			
HG2-H95-SR2	Start	2130		1370	2070	2770	3480			
	Middle	960		550	930	1310	1690			
	End	1440		670	1370	2080	2780			
HG3-H110-SR2	Start	3660		2370	3540	4710	5890			
	Middle	1610		910	1550	2180	2810			
	End	2300		1020	2190	3360	4530			
HG4-H130-SR2	Start	6050			5510	7290	9070			
	Middle	2540			2250	3220	4180			
	End	3370			2840	4620	6400			
HG5-H160-SR2	Start	12180		8720	12700	16680	20650			
	Middle	5220		3370	5520	7670	9820			
	End	7180		3760	7740	11720	15690			
HG7-H180-SR2	Start	21790			18500	24620	30740			
	Middle	9160			7380	10680	13990			
	End	12090			8800	14920	21040			
G8-H220-SR2	Start	33550		25530	37240	48950	60670			
	Middle	14790		9960	16290	22620	28950			
	End	21170		11320	23030	34750	46460			

Note: 1. In the table, the position at the beginning is 0° or 90°, and 45° at the middle, and 0° or 90° at the end.
2. The shaded part in the table is the best symmetric array of the spring module and hydraulic power torque value, which is the recommended preference.
3. The users can make a choice according the needs of the product's control characteristics.

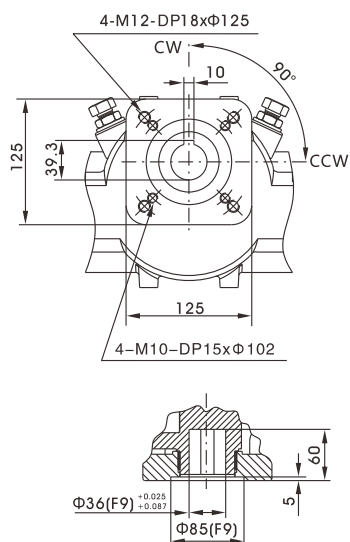


HG0-H63-DA Physical Dimension

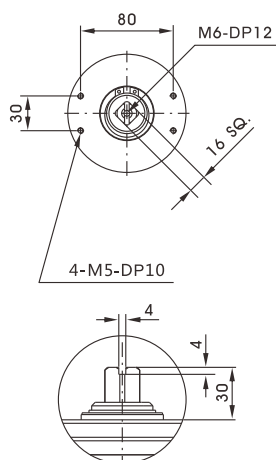


Connection Size

Connection size of bottom valve

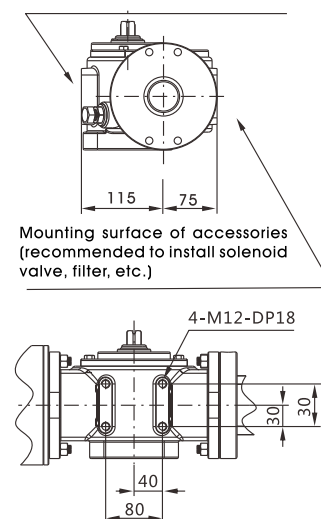


Top connection size



Side connection size

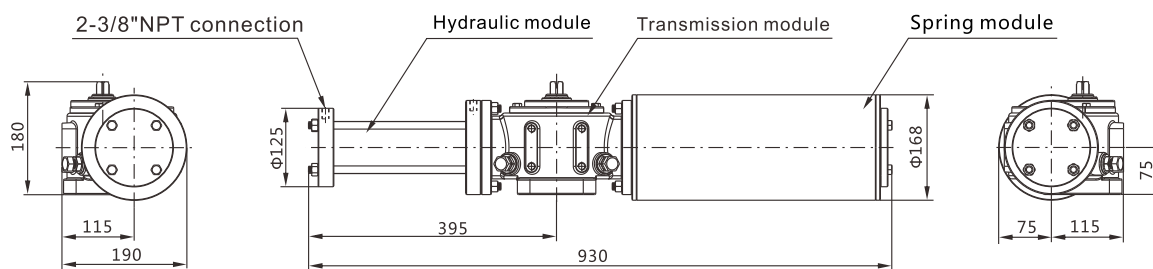
Mounting surface of accessories
(recommended to install manual
hydraulic pump, etc.)



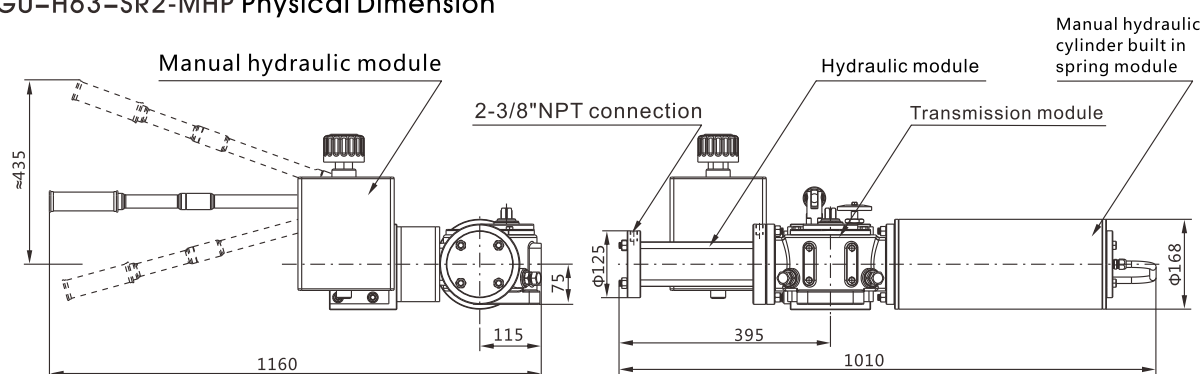
Mounting surface of accessories
(recommended to install solenoid
valve, filter, etc.)



HG0-H63-SR2 Physical Dimension

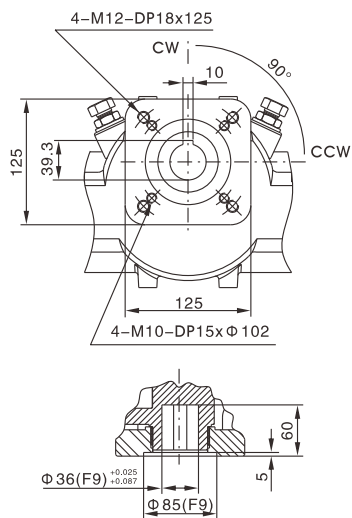


HG0-H63-SR2-MHP Physical Dimension

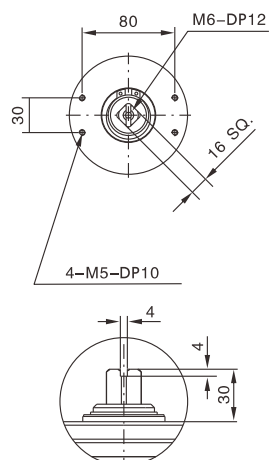


Connection Size

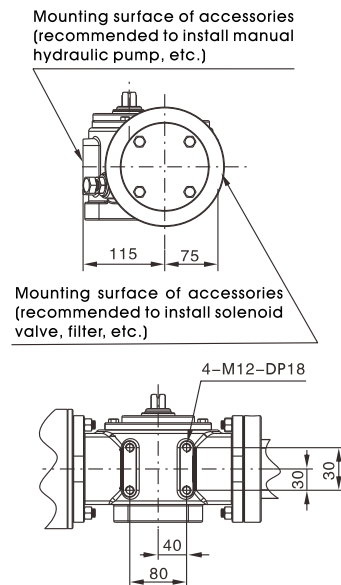
Connection size of bottom valve



Top connection size

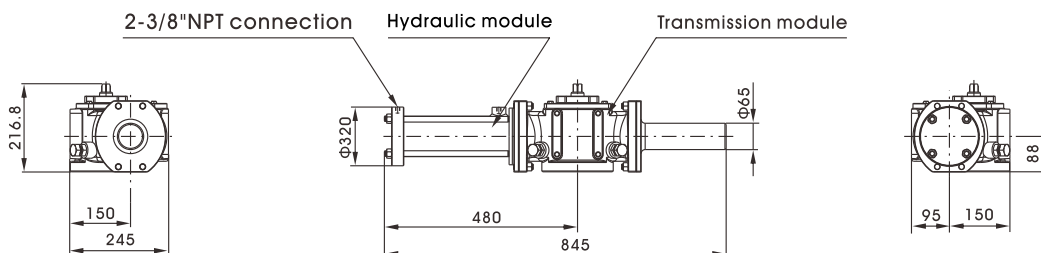


Side connection size

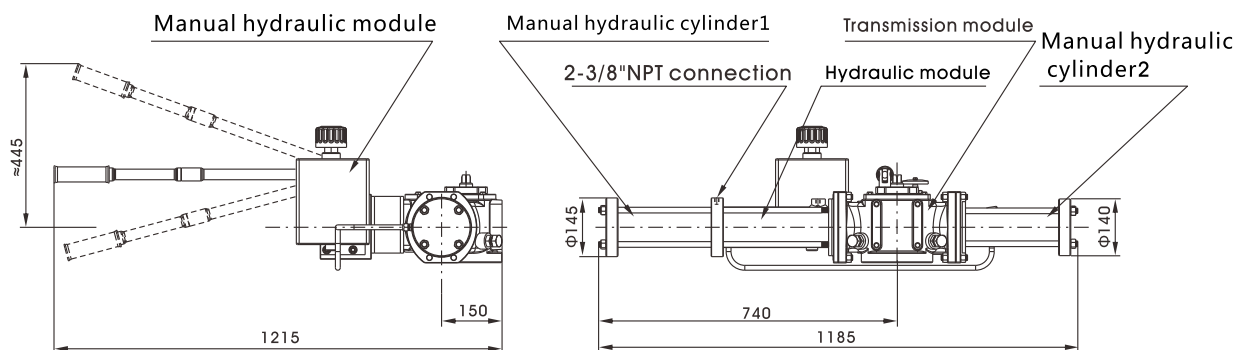




HG1-H80-DA Physical Dimension

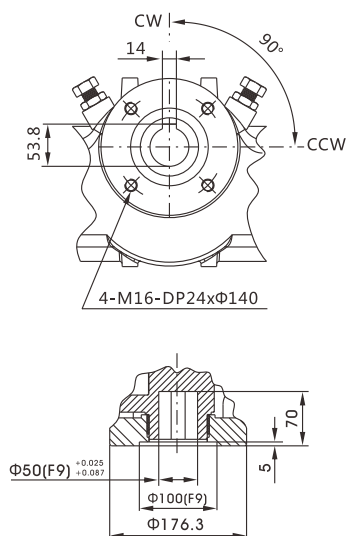


HG1-H80-DA-MHP Physical Dimension

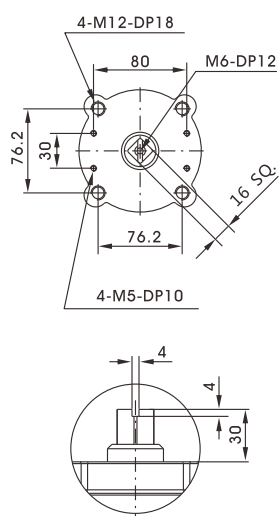


Connection Size

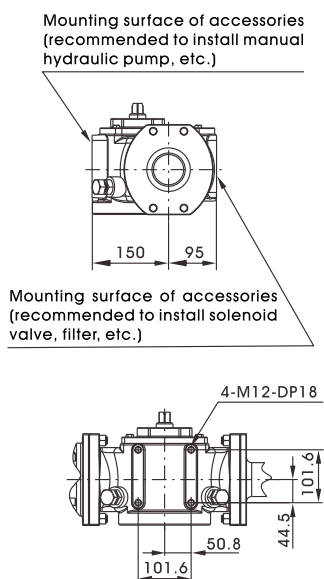
Connection size of bottom valve



Top connection size

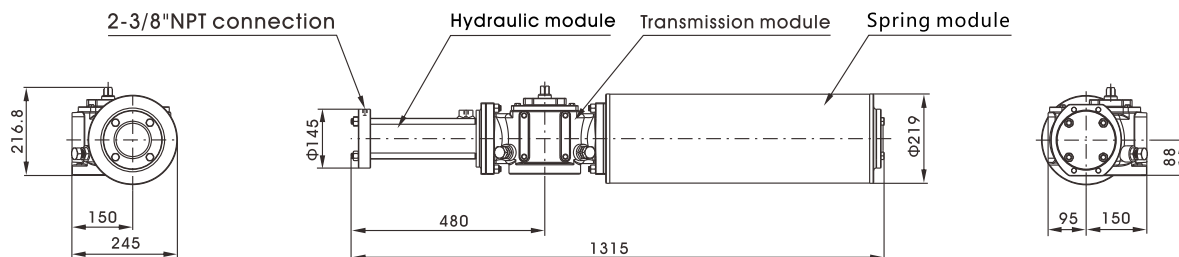


Side connection size

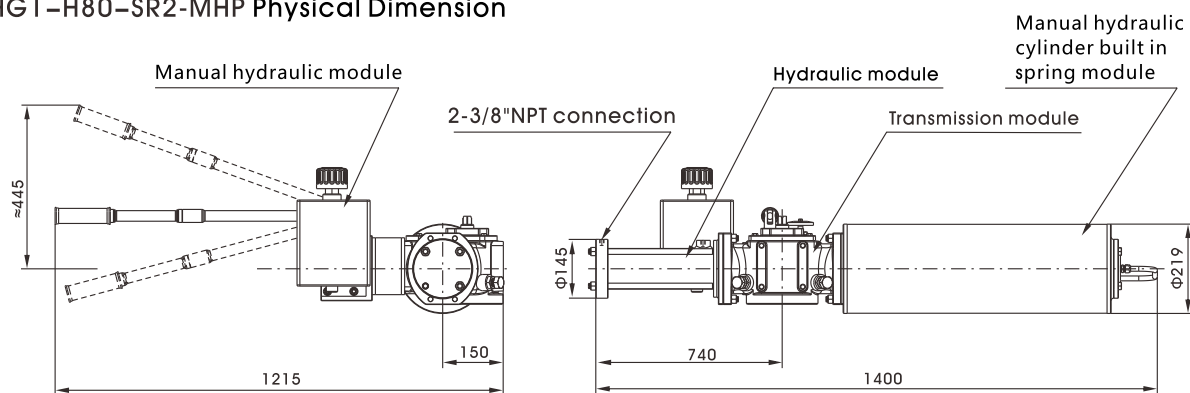




HG1-H80-SR2 Physical Dimension

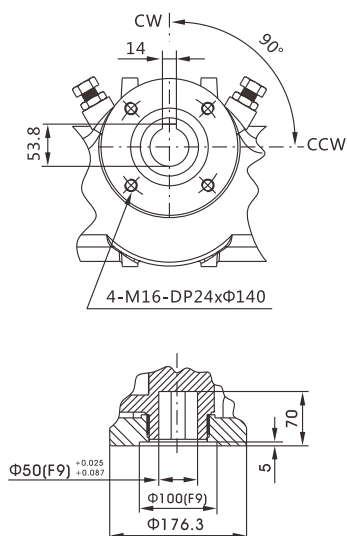


HG1-H80-SR2-MHP Physical Dimension

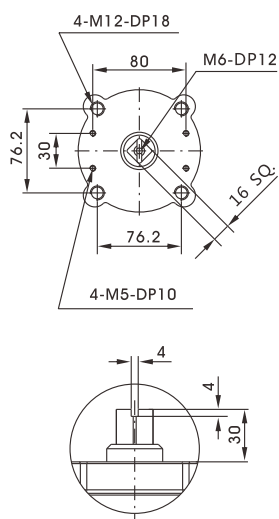


Connection Size

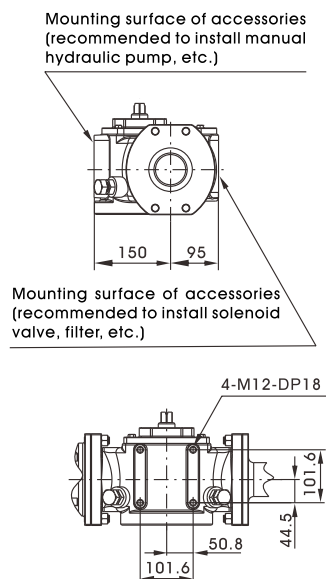
Connection size of bottom valve



Top connection size

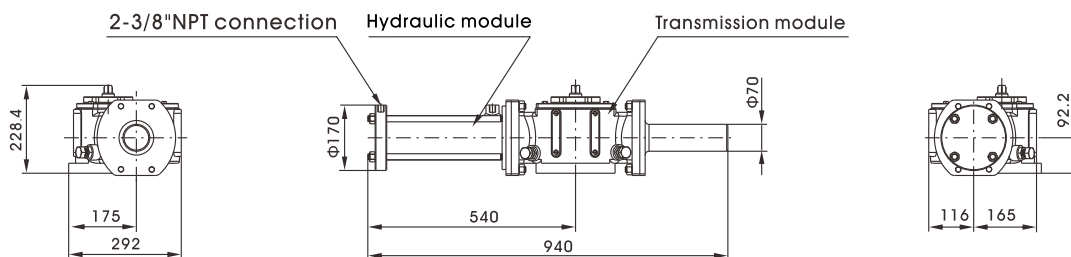


Side connection size

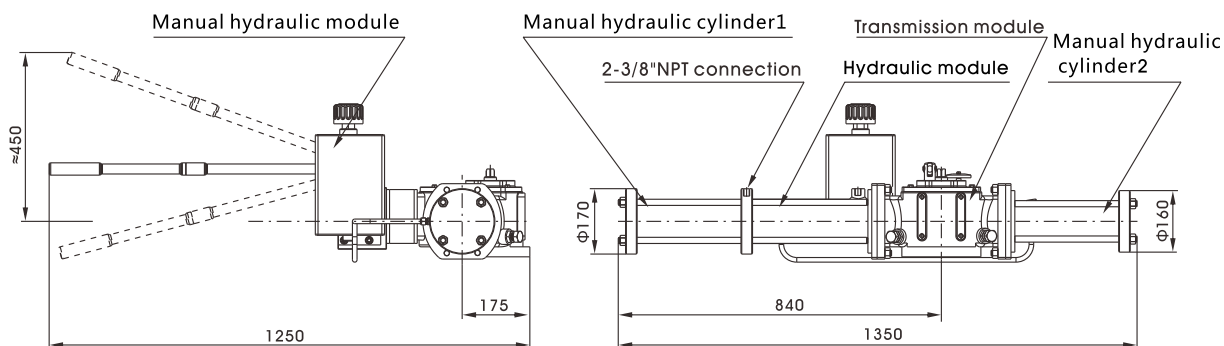




HG2-H95-DA Physical Dimension

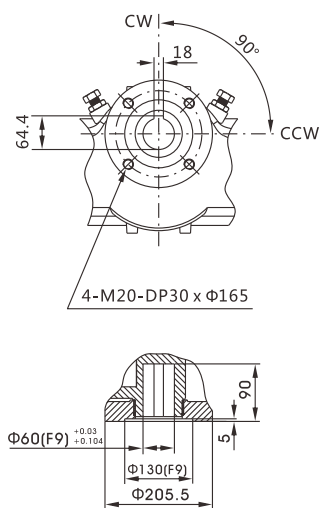


HG2-H95-DA-MHP Physical Dimension

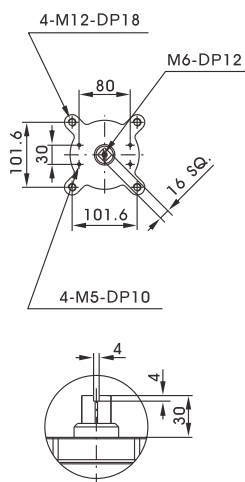


Connection Size

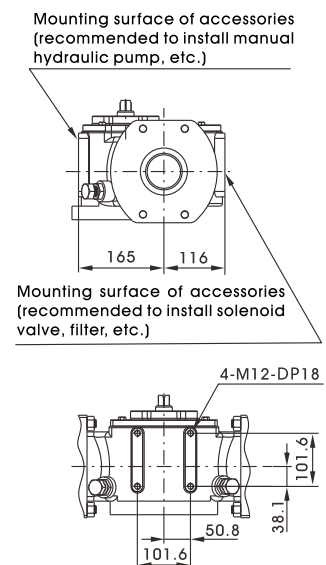
Connection size of bottom valve



Top connection size

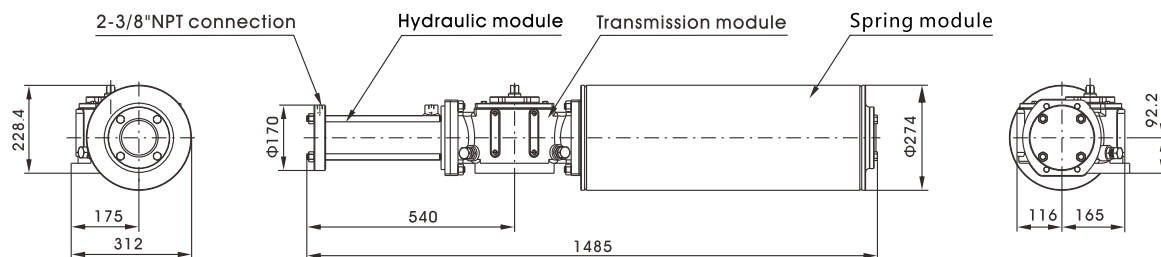


Side connection size

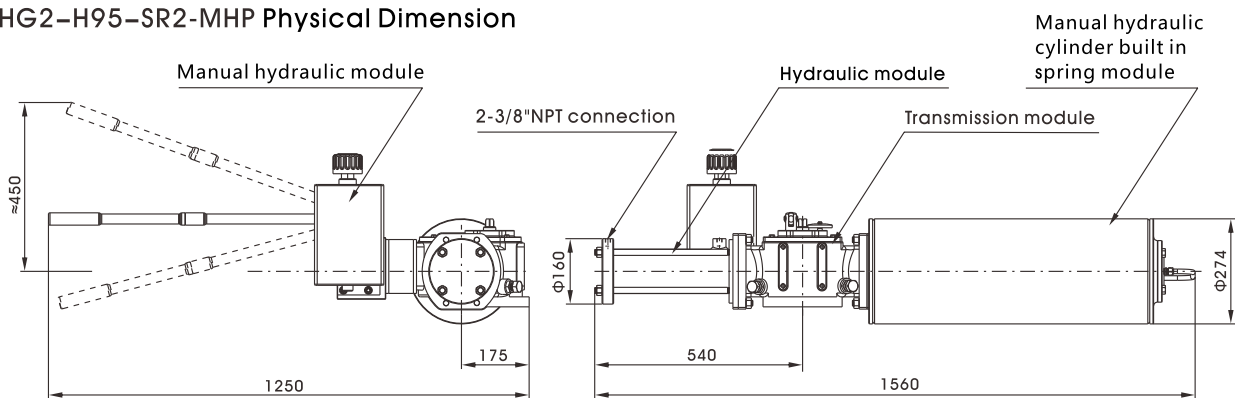




HG2-H95-SR2 Physical Dimension

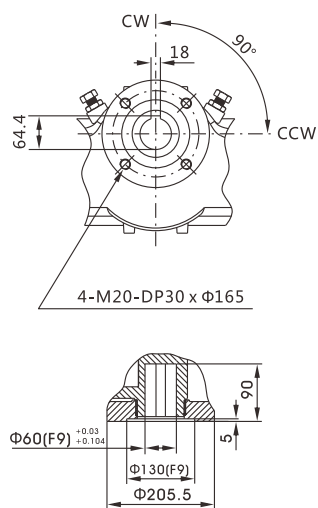


HG2-H95-SR2-MHP Physical Dimension

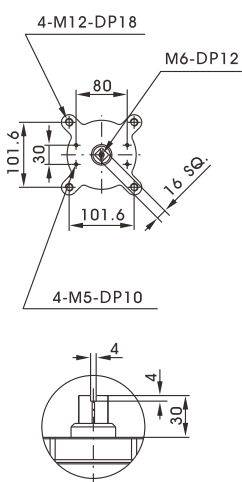


Connection Size

Connection size of bottom valve

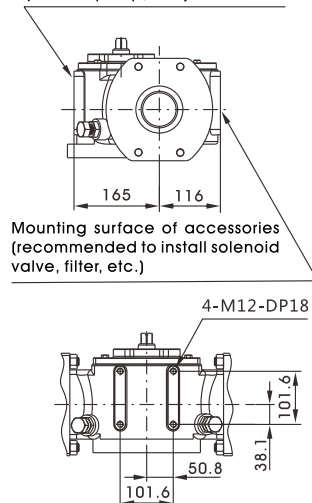


Top connection size



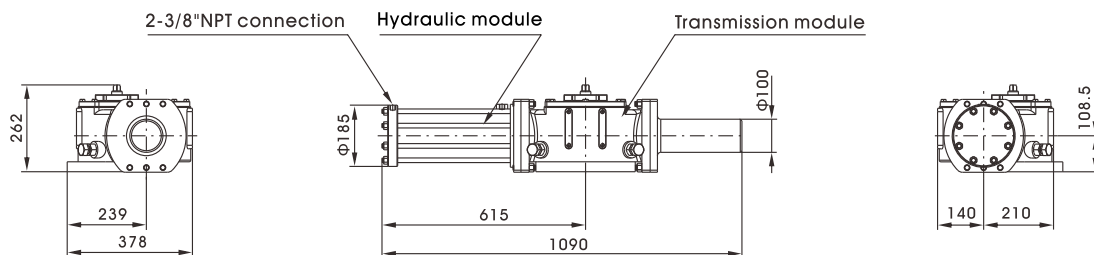
Side connection size

Mounting surface of accessories
(recommended to install manual
hydraulic pump, etc.)

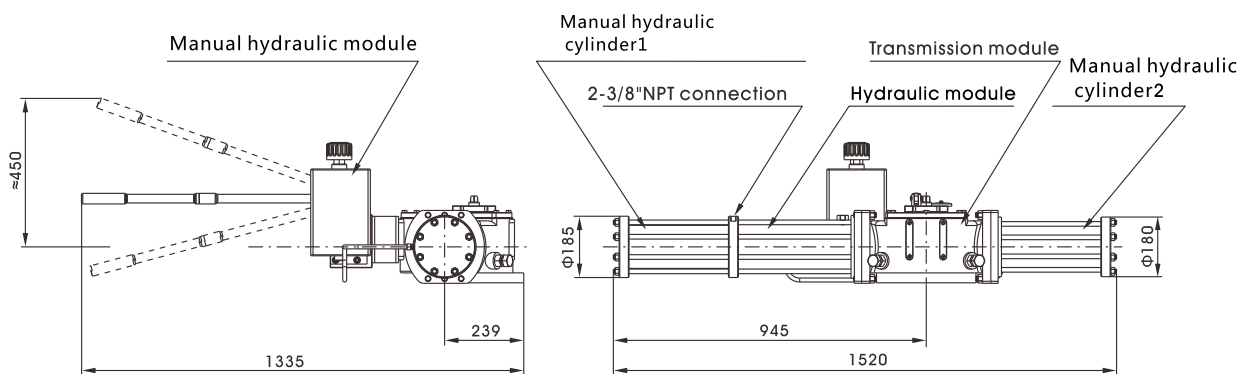




HG3-H110-DA Physical Dimension

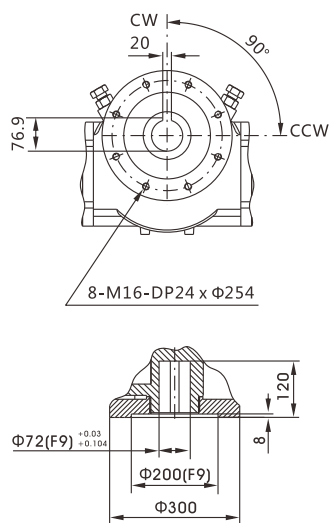


HG3-H110-DA-MHP Physical Dimension

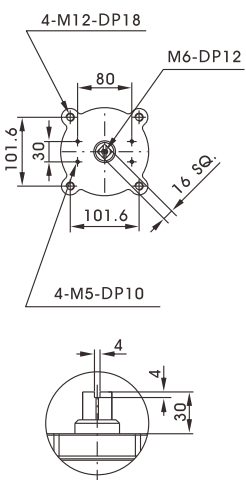


Connection Size

Connection size of bottom valve

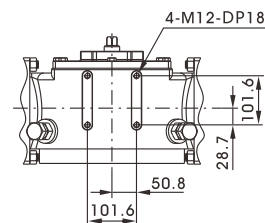
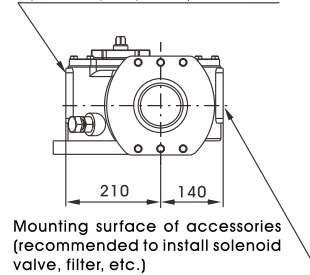


Top connection size



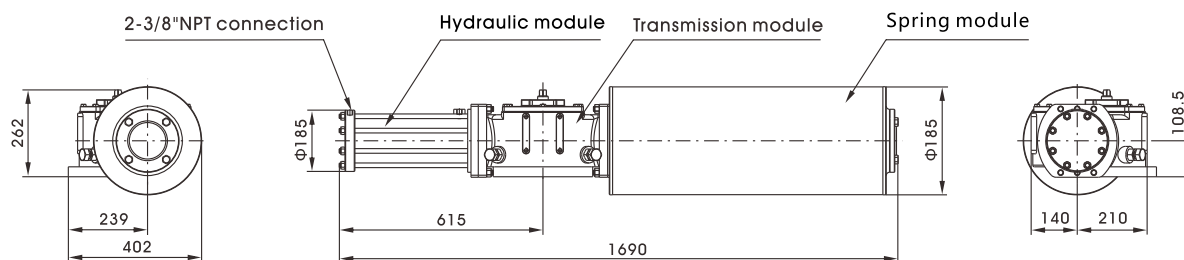
Side connection size

Mounting surface of accessories
(recommended to install manual
hydraulic pump, etc.)

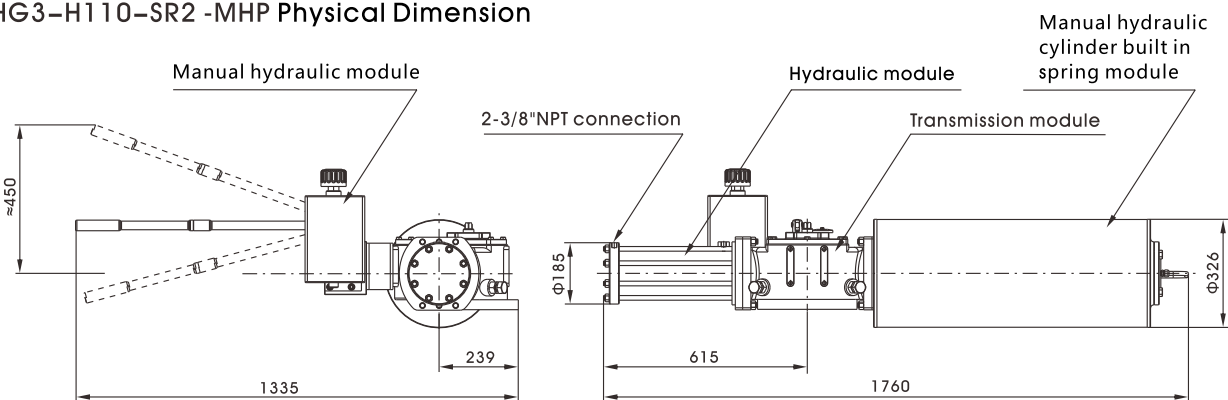




HG3-H110-SR2 Physical Dimension

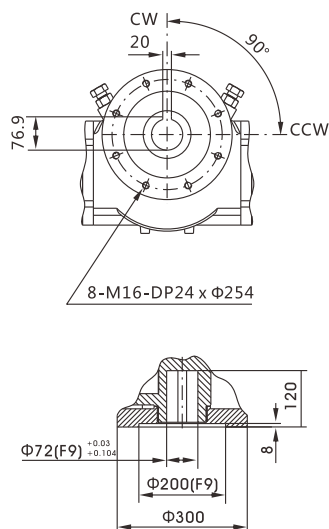


HG3-H110-SR2 -MHP Physical Dimension

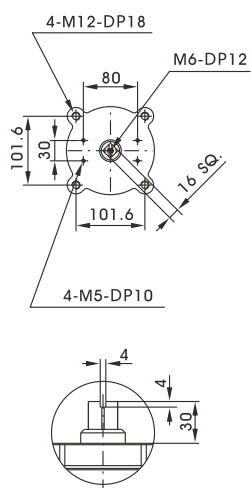


Connection Size

Connection size of bottom valve

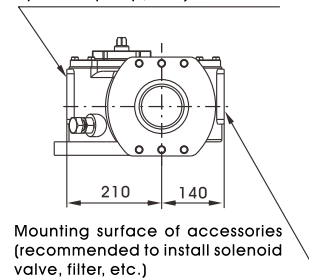


Top connection size

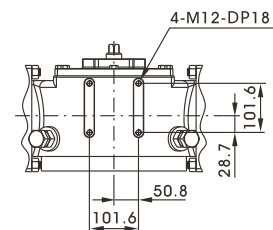


Side connection size

Mounting surface of accessories
(recommended to install manual
hydraulic pump, etc.)

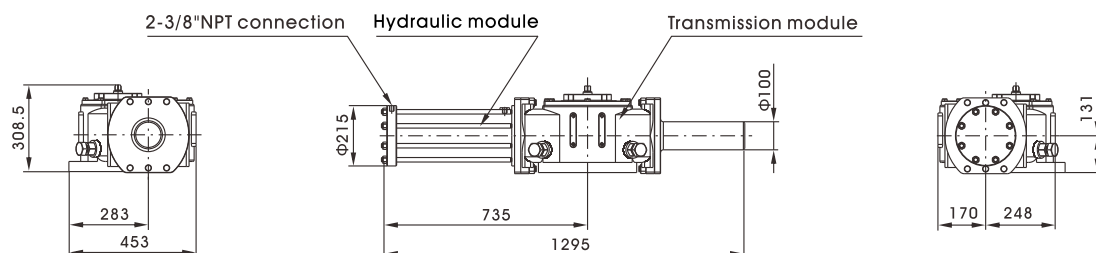


Mounting surface of accessories
(recommended to install solenoid
valve, filter, etc.)

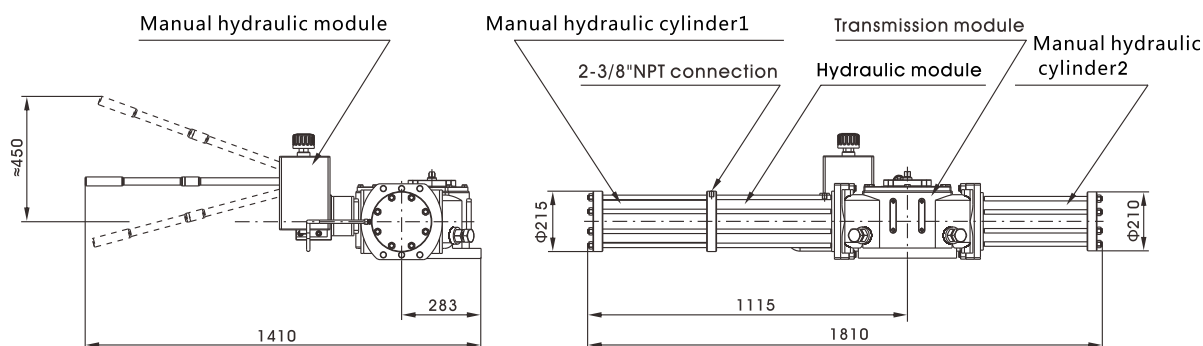




HG4-H1 30-DA Physical Dimension

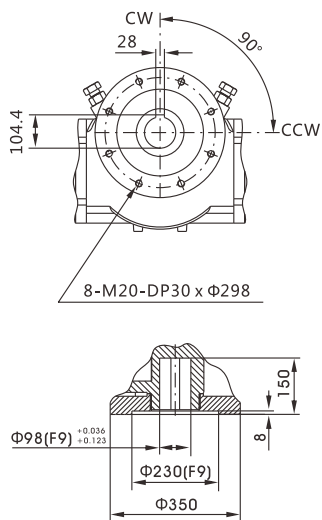


HG4-H1 30-DA-MHP Physical Dimension

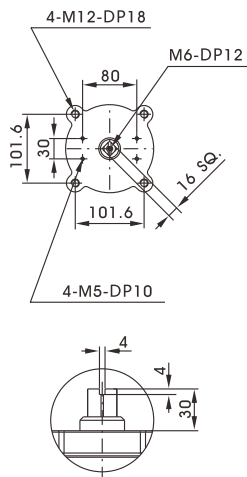


Connection Size

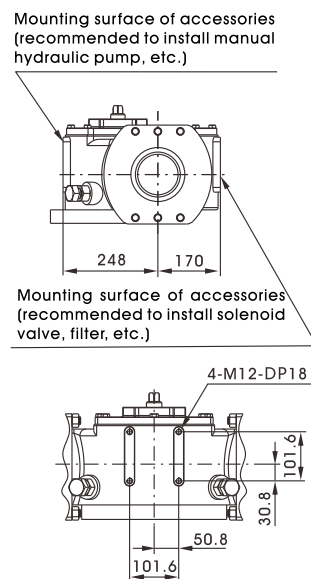
Connection size of bottom valve



Top connection size

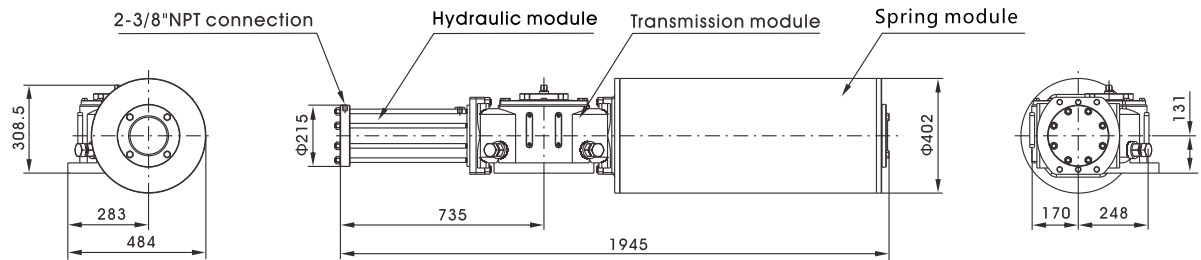


Side connection size

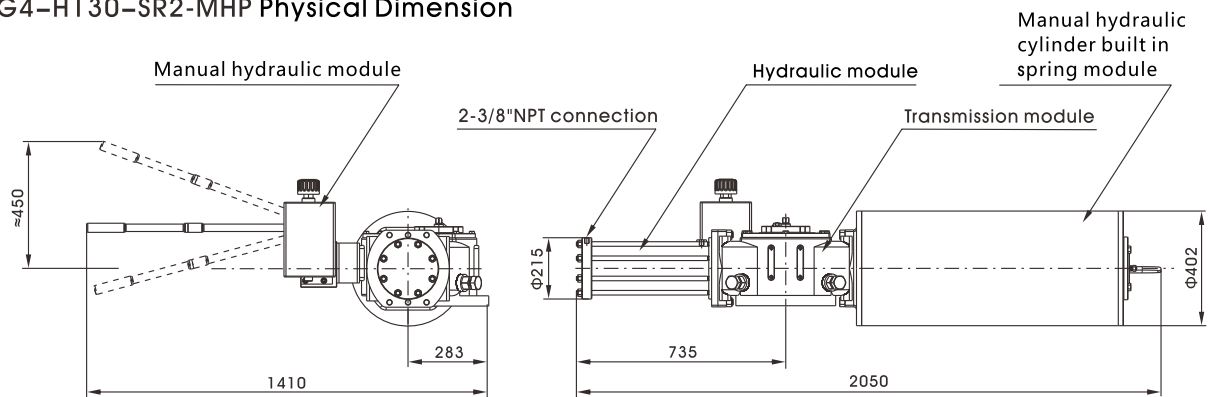




HG4-H130-SR2 Physical Dimension

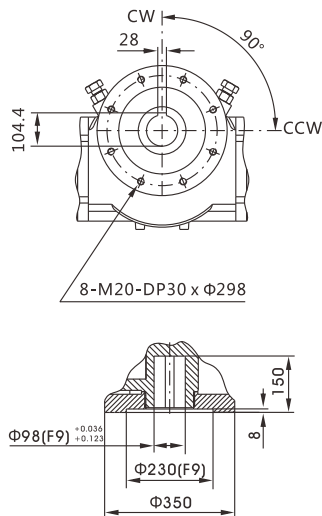


HG4-H130-SR2-MHP Physical Dimension

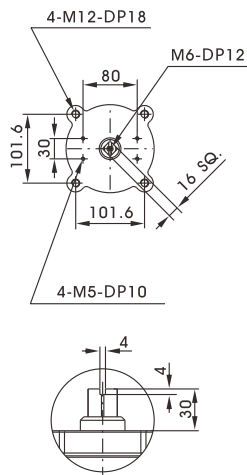


Connection Size

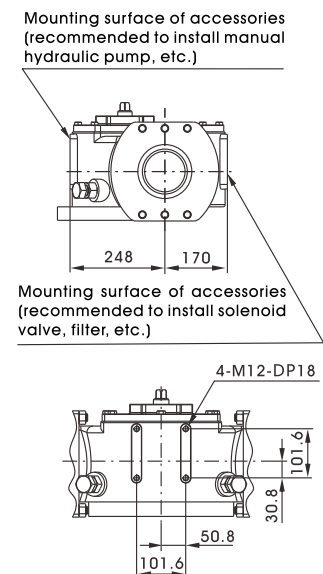
Connection size of bottom valve



Top connection size

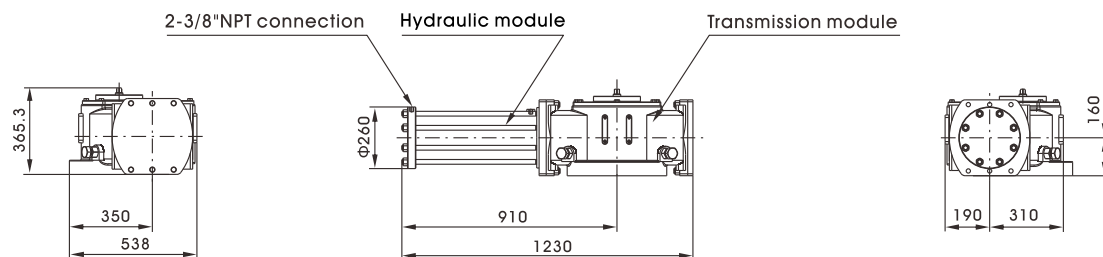


Side connection size

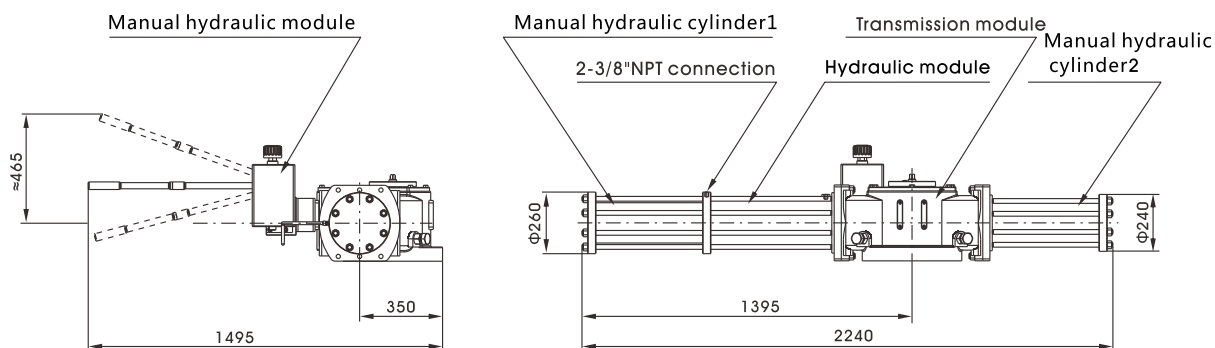




HG5-H160-DA Physical Dimension

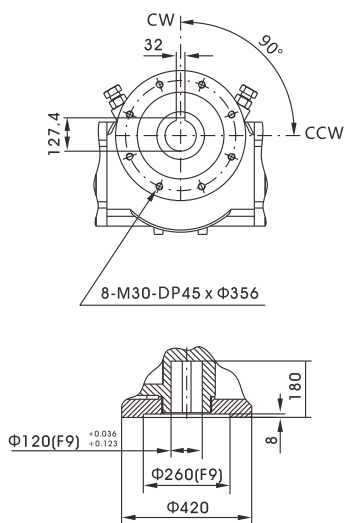


HG5-H160-DA-MHP Physical Dimension

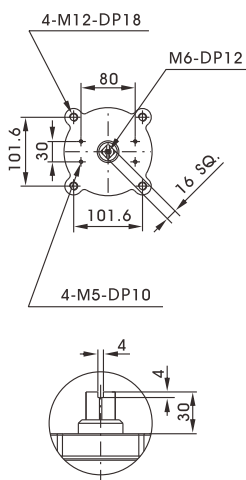


Connection Size

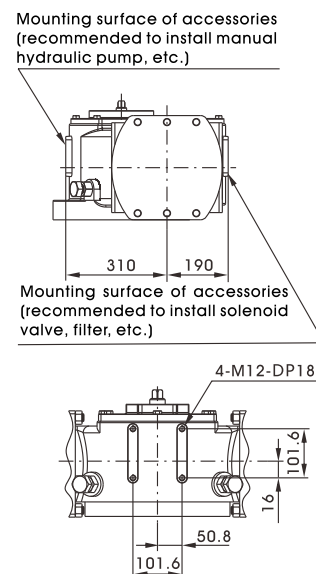
Connection size of bottom valve



Top connection size

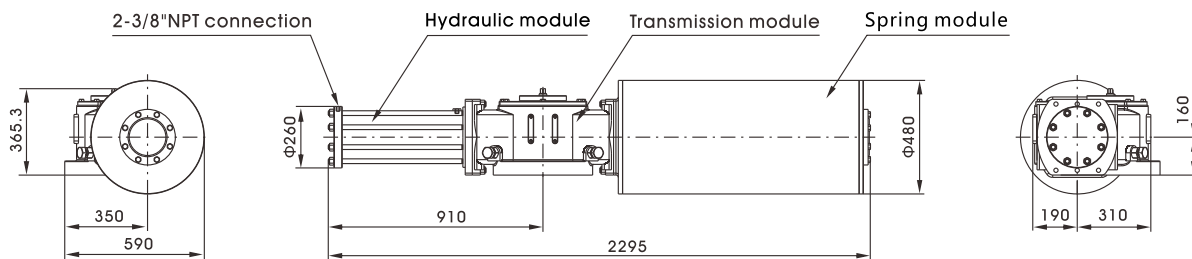


Side connection size

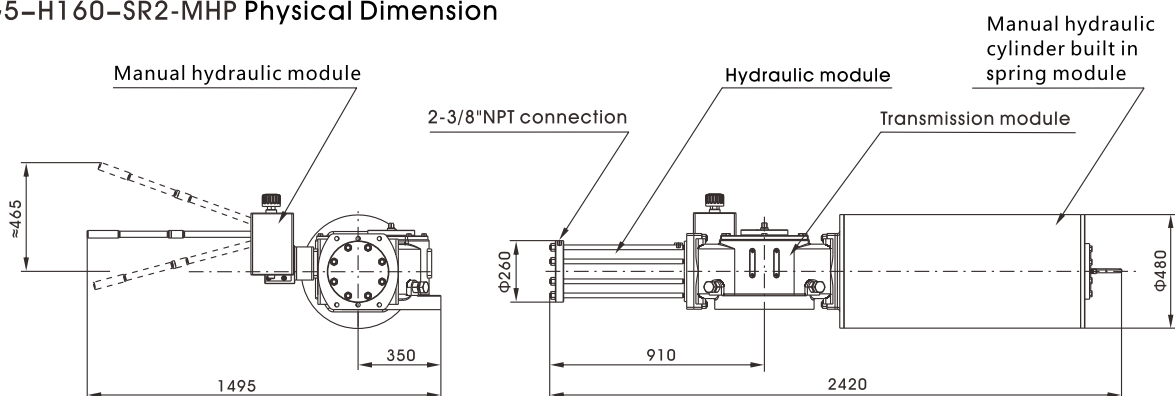




HG5-H160-SR2 Physical Dimension

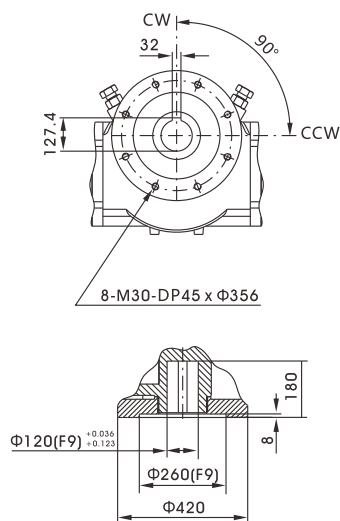


HG5-H160-SR2-MHP Physical Dimension

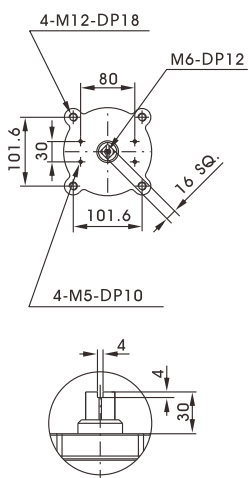


Connection Size

Connection size of bottom valve

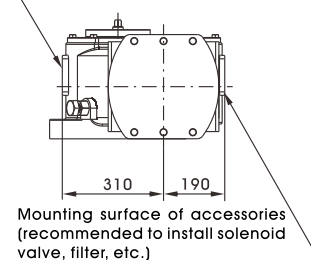


Top connection size

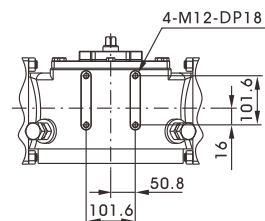


Side connection size

Mounting surface of accessories
(recommended to install manual
hydraulic pump, etc.)

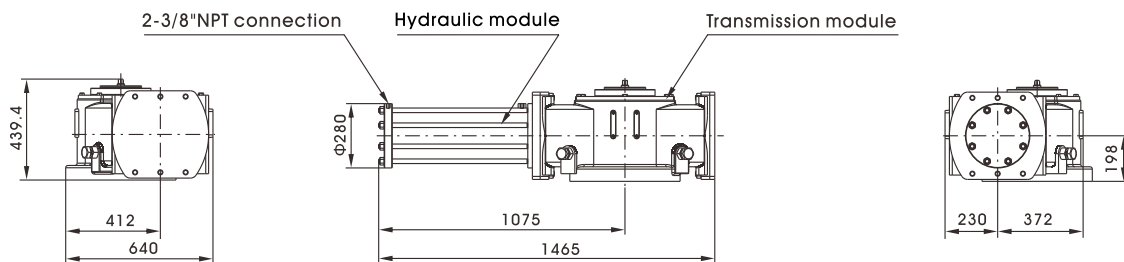


Mounting surface of accessories
(recommended to install solenoid
valve, filter, etc.)

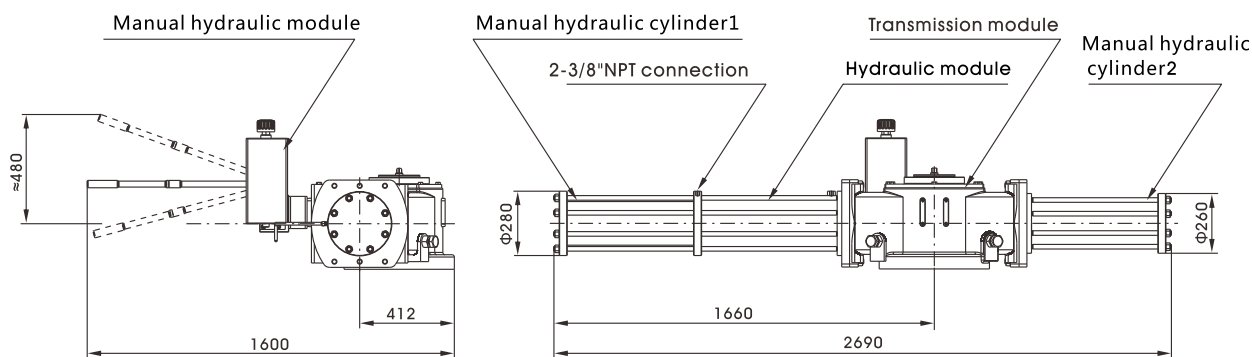




HG7-H180-DA Physical Dimension

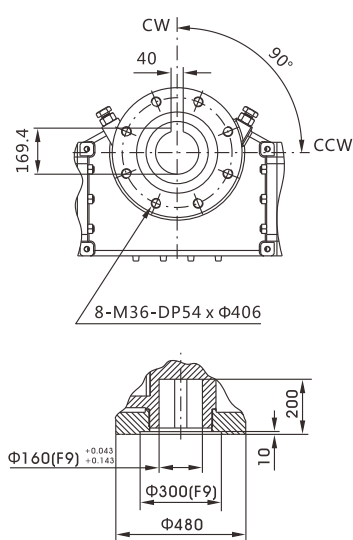


HG7-H180-DA-MHP Physical Dimension

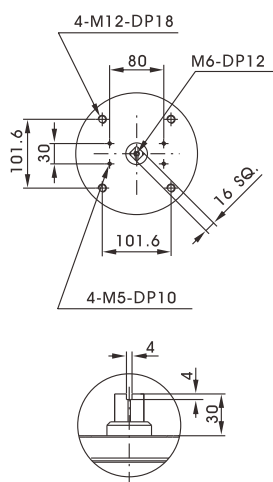


Connection Size

Connection size of bottom valve

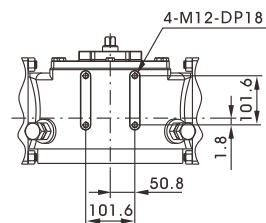
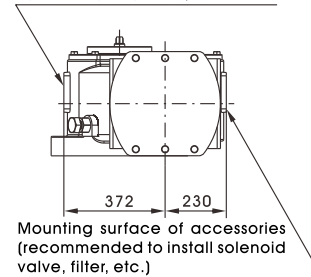


Top connection size



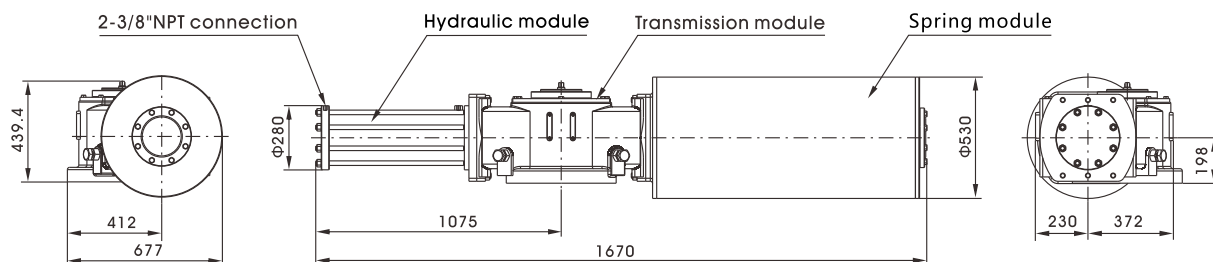
Side connection size

Mounting surface of accessories
(recommended to install manual
hydraulic pump, etc.)

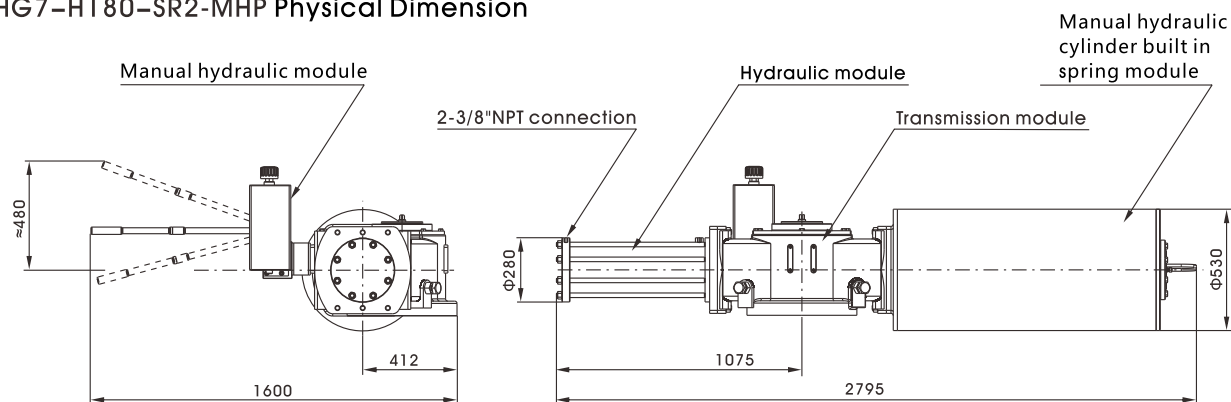




HG7-H180-SR2 Physical Dimension

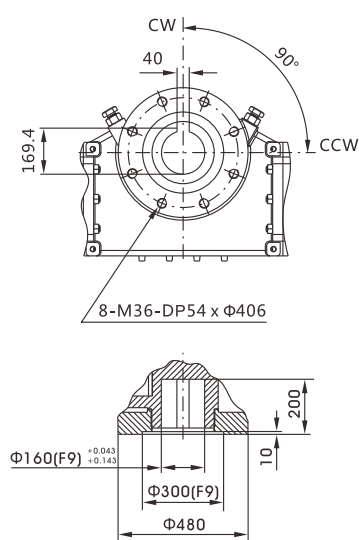


HG7-H180-SR2-MHP Physical Dimension

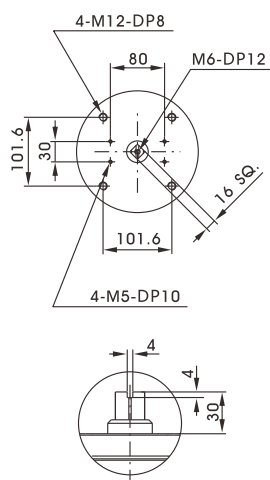


Connection Size

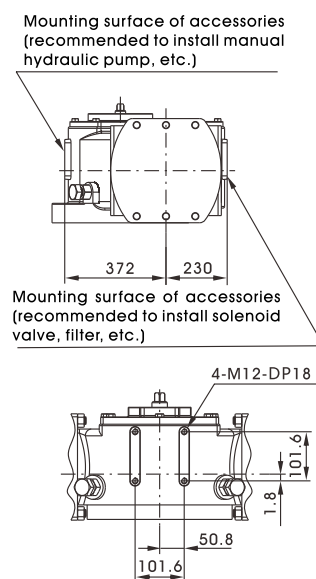
Connection size of bottom valve



Top connection size

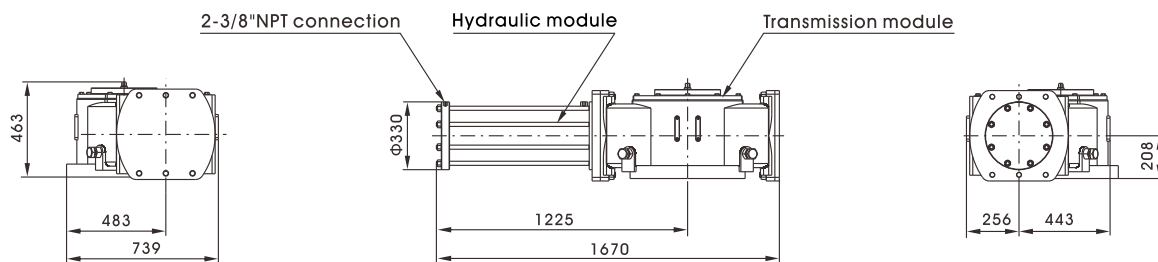


Side connection size

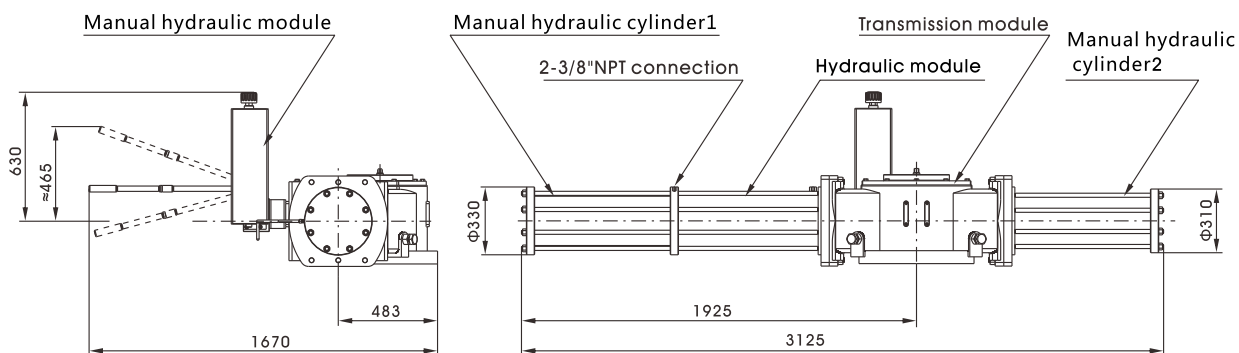




HG8-H220-DA Physical Dimension

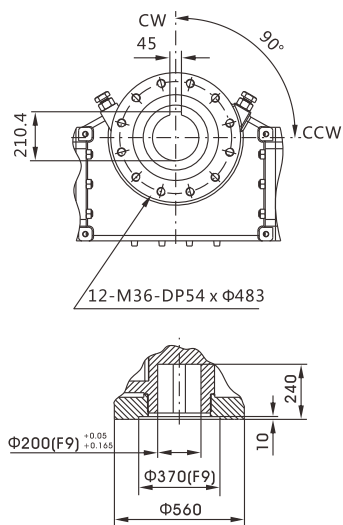


HG8-H220-DA-MHP Physical Dimension

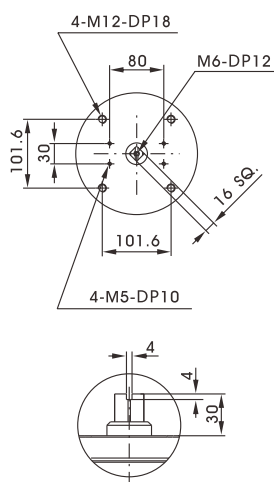


Connection Size

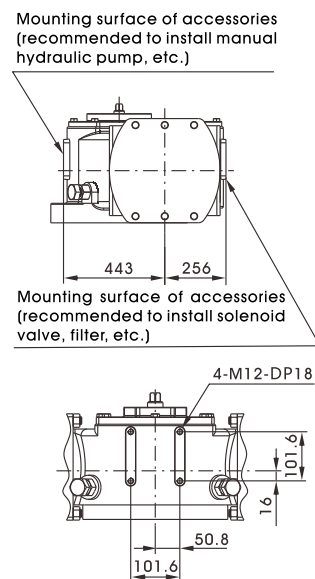
Connection size of bottom valve



Top connection size

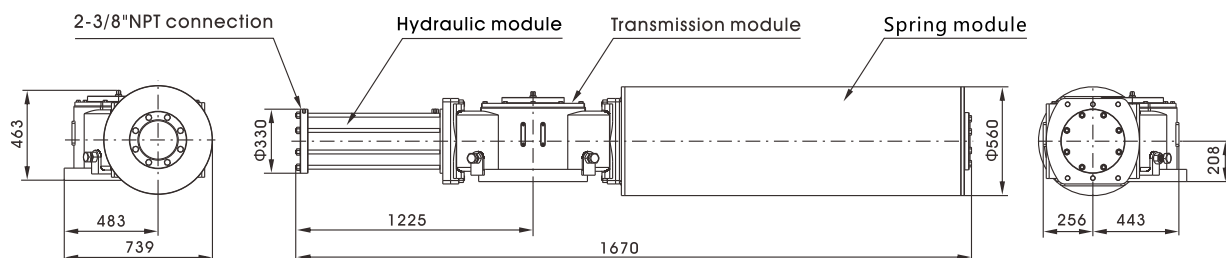


Side connection size

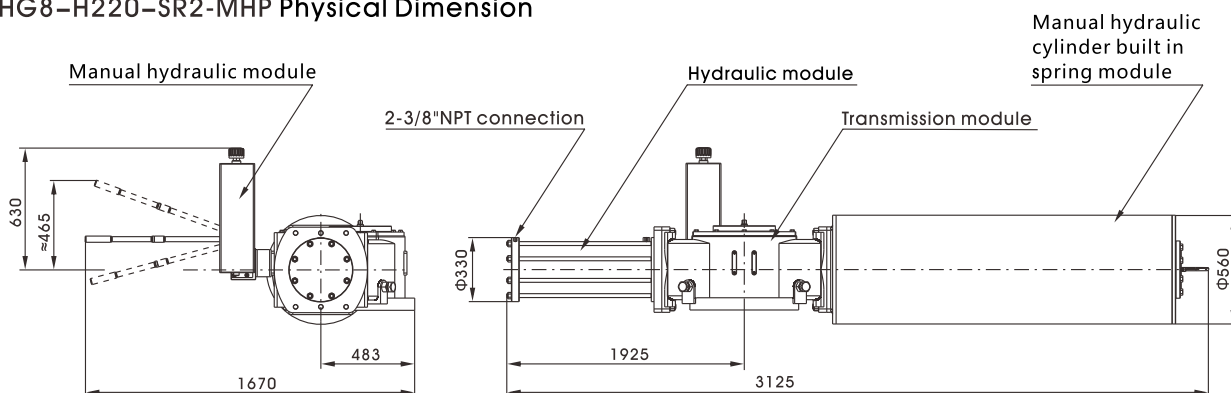




HG8-H220-SR2 Physical Dimension

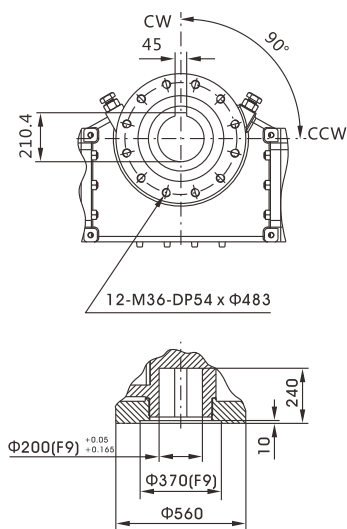


HG8-H220-SR2-MHP Physical Dimension

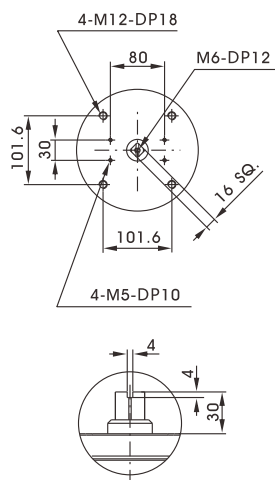


Connection Size

Connection size of bottom valve



Top connection size



Side connection size

Mounting surface of accessories
(recommended to install manual
hydraulic pump, etc.)

