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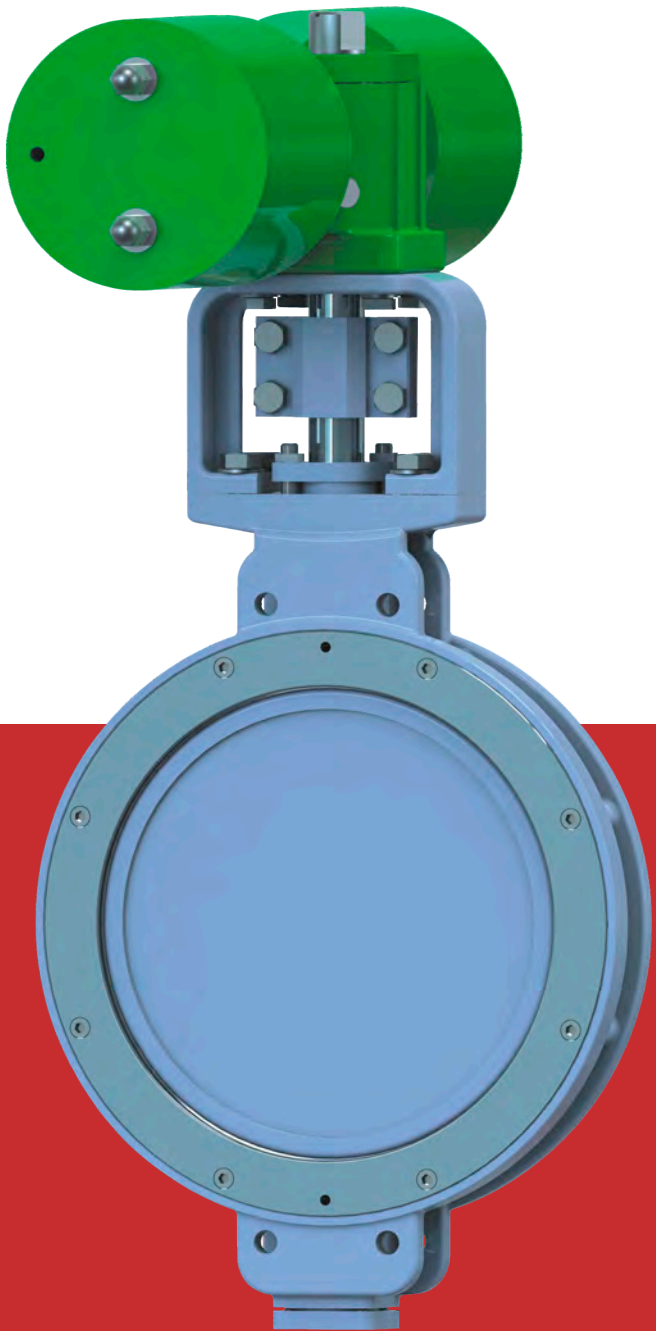
THE PEAK OF QUALITY

Angular Travel Series Control Valve



REOWO®

THE PEAK OF QUALITY

We have always been devoted to research and development
of control valves,providing you with better
service and the best products.

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Brief Introduction REOWO

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About us

Jinfeng Fluid Control Technology Co., Ltd.(REOWO) is a professional manufacturer of multi–types control valve for industrial automation located in China,which has nearly 16 years of control valve manufacturing experience. REOWO is committed to design, development, manufacturing and sales of high–grade control valve,and occupies more than 10000 square meters. It has about 120 staffs, 20 senior professional titles employees and more than 100 workers. REOWO has excellent equipment, strong technical power, and first–class inspect means.Comprehensive quality control system, keep the production in reasonable structure and reliable performance. It include chemical analysis, mechanical tests, ultrasonic thickness testing, MT, PT and RT etc. We implement advanced ERP computerized management system and 5S management system, and qualified with API,CE,TS,EAC,SIL,ISO certification.

The main products of the REOWO contain pneumatic control valve, electric control valve, self–operated regulator, pneumatic actuator, pneumatic accessories. The material of the valves covers covers WCB, Stainless Steel ,Special materials and etc. The nominal diameter is from 1/2” to 24” (15mm~600mm) . The nominal pressure is from 2.0Mpa to 42.0Mpa (150LB~2500LB). Working temperature is between –196℃~600℃。 REOWO keep every products in the guarantee period of 18 months after use, implement “three guarantees” quality solution. In quality service of products, we will reply within 24 hours and to make appropriate treatment advice after receiving your fax or Email.

REOWO carry out technological innovation,managing innovation, and service innovation, to lead the market. Improvement of the sales network, and quality tracking service of product, earned the unanimous endorsement of customers. High aspirations, forge ahead , REOWO is willing to cooperate with friends all walks of life sincerely ,and seek common development, as well as quality ,fast and comprehensive service return to customers, working together to write a new chapter in the national industry !


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Advanced Manufacturing Technology REOWO

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Advanced equipment

The latest machining equipment, which is widely applied to manufacturing reowo valves, includes a large batch of CNC machining tools (such as machining centers, CNC horizontal lathes, vertical lathes and drilling lathes) and ERP manufacturing resources integration management systems. In addition, the data between all machining workshops in reowo are mutually shared in the Intranet through optical cables, which has facilitated us to effectively centralize manufacturing resources, enhance production efficiency and efficiently improve our machining quality and process control.

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Desing and development

The technical R&D center of reowo makes use of the most advanced computer technology to enhance the quality of the existing products and develop new valve products. The design concept of reowo is to develop a kind of safe valves with cost advantage. During the new product design period, we introduce the latest engineering software such as Auto CAD and Solidworks and adopt the advanced FEA technology to verify if the design of new products is feasible before they are put into batch production, so that their design and development time is greatly shortened and the safety of final products and their optimal cost structure are ensured.

Strong Research And Development REOWO

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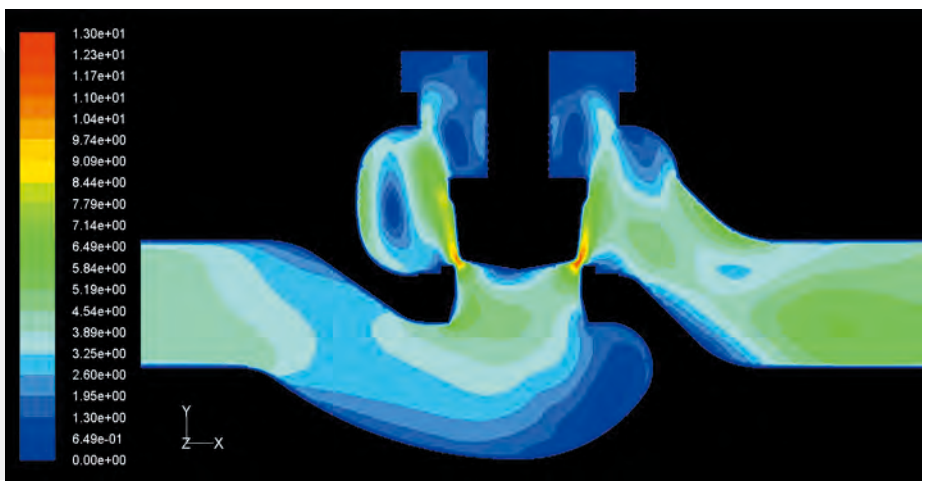

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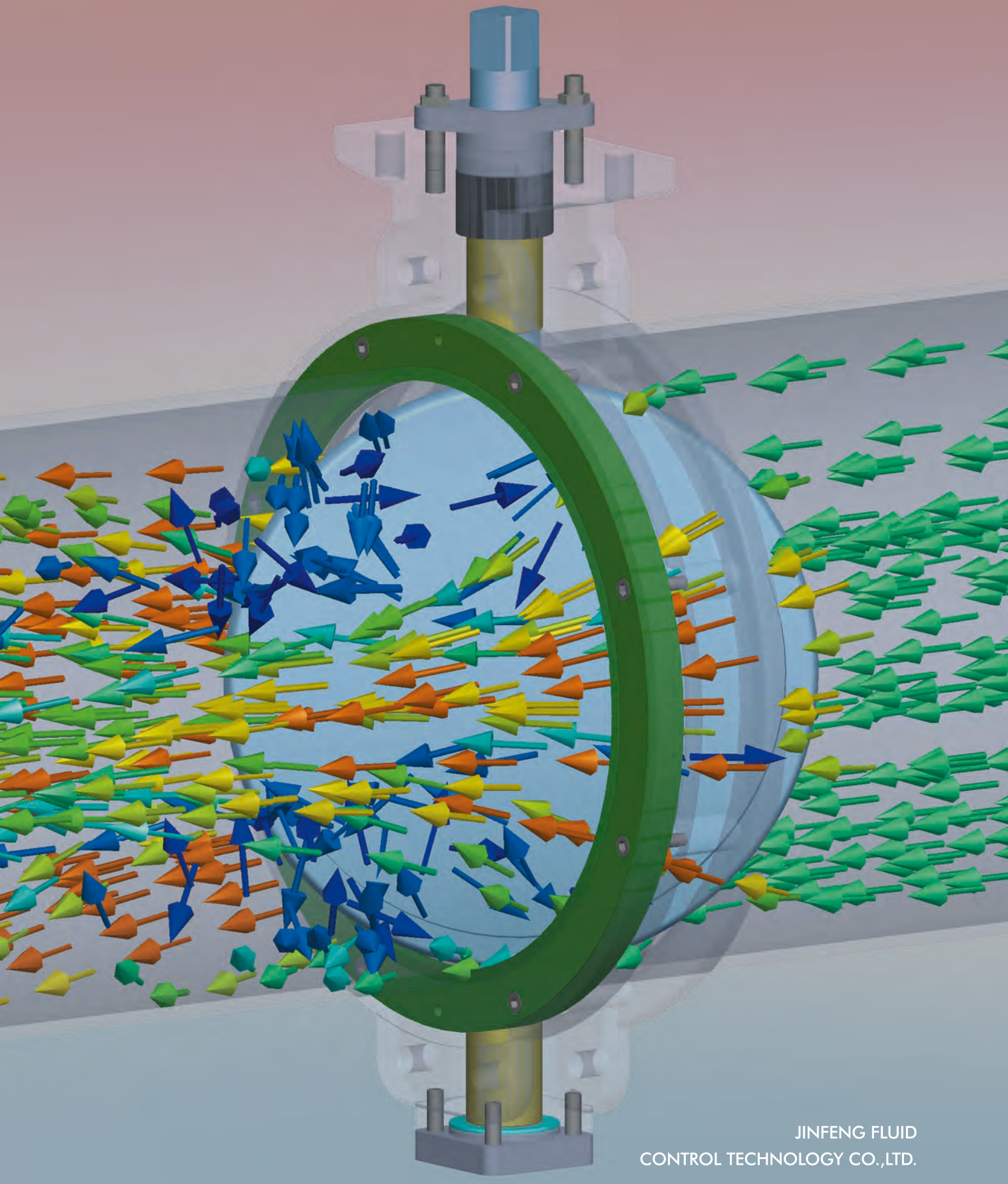

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REOWO
Fluid Control Technology

Forward

The 5/700 Series control valves are rotary motion control valves developed by reowo Company to meet therequirements for different service conditions. The 5/700 Series rotary motion control valves include: high performance butterfly valves, three–eccentric hard sealbutterfly valves,eccentric rotary valves, V ball valves, etc. With many years of design and manufacturing experience, we guarantee that we can provide customers with products of the best quality.

reowo 5/700 Series rotary motion control valves havebeen used in many applications in power station, metallurgy, chemical industry, pharmacy and other industries.

The 70E Series high performance butterfly valves have perfect performances whenever they are used for control or shut–off.

The 70D Series three–eccentric hard seal butterfly valvesare mainly used for shut–off applications in high temperatureand high pressure service conditions.

The 50P Series eccentric rotary valves have excellent control and shut–off performances.

Contents

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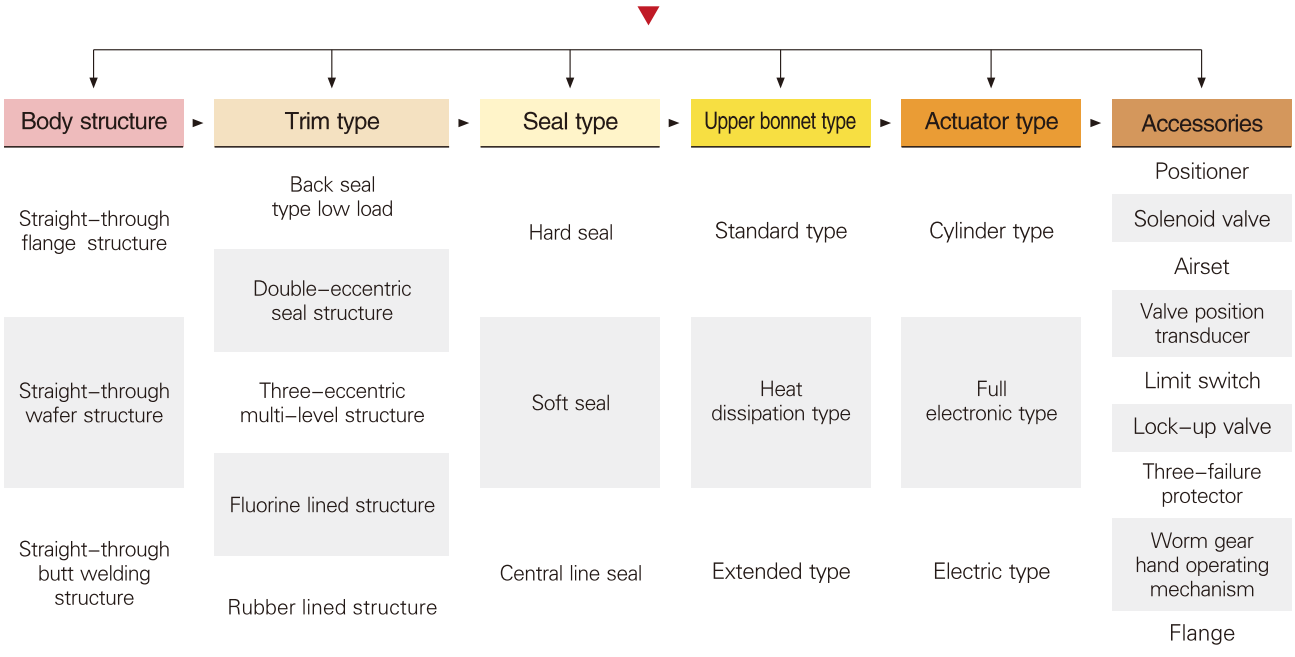
Fluid Control Technology

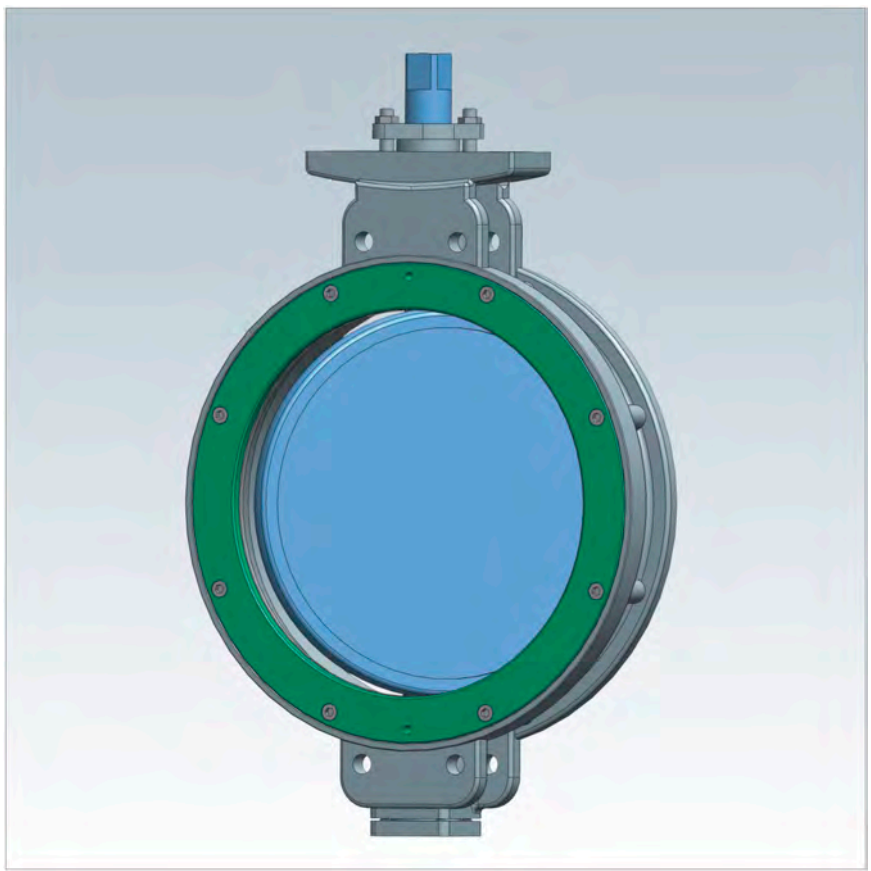
Butterfly valve configuration



Note:

- The above diagram is the configuration guide diagram for butterfly control valves. Please select the most suitable structure for control valves according to the options indicated by the arrow so as to meet the requirements of technological parameters.
- The catalog only covers some important contents in the above configuration guide diagram.
- Please check the relevant contents you are concerned with according to page P.
- If you need any detailed parameters for the electric actuator, electro–hydraulic actuator and relevant accessories that are not elaborated in the catalog, please consult reowo engineers.
- The allowable maximum differential pressure when the butterfly valve is equipped with the actuator, the CV value corresponding to the valve opening and other detailed control valve performance parameters are not listed in the catalog. If you need to know them, please consult BEIER engineers or select the most suitable control valve after calculating technological parameters according to the model selection software of reowo Company.

▶ 70E Series high–performance Butterfly Valve



▲ Outline

The 70E Series high performance butterfly valve adopts the design of double–eccentric structure. The shaft carries out double deviation from the structural center of the body and makes the disc leave the sealing seat instantly when it is opened in conjunction with the arc sealing face design of the disc, so as to reduce the friction of the sealing face. The disc has good sealing performance during closing. In addition to realizing effective compensation for the seat seal, the central self–positioning sealing seat structure design and the unique seat compensation sealing design reduce the friction during opening and closing, greatly reduce the operating force of the valve and effectively enhance the control precision of the butterfly valve. The 70E Series butterfly valve is featured by stable and reliable sealing performance, long service life, etc. It is suitable for control and shut–off applications of common corrosive gases and liquid media.

▲ Actuator and auxiliary control device

- Pneumatic
- Electric
- Pneumatic–hydraulic
- Worm gear

▲ Applications

- Air separation, chemical industry, petroleum
- Chemical fiber, electric power, metallurgy
- Pharmacy, environmental protection

▲ Manufacturing range

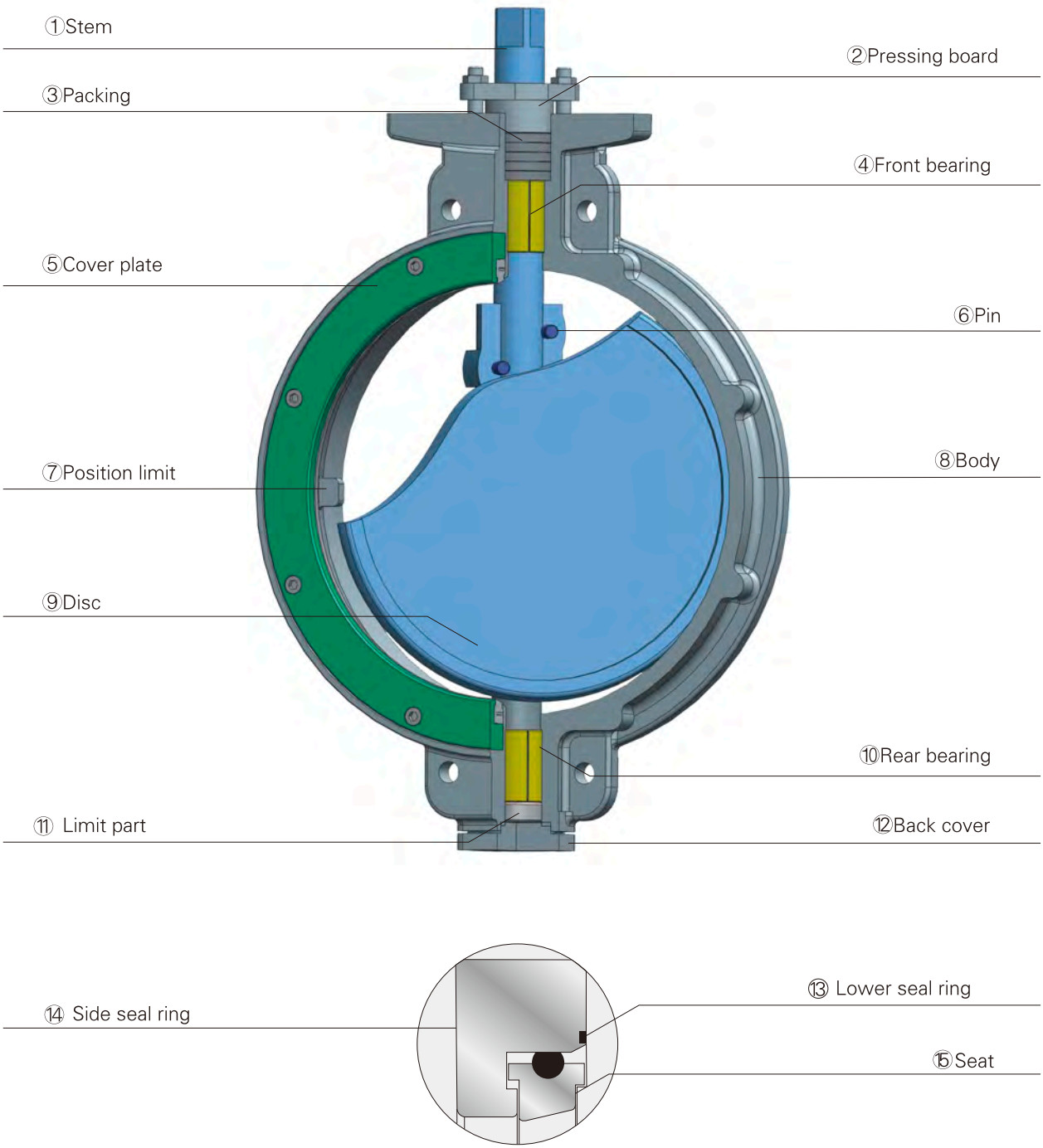
- Size range: DN2" – 48"
- Pressure rating: 150 – 300 LB
  PN1.0 – 4.0Mpa
- Connection type: wafer type, flange type

▲ Parameters of control valves:

• Trim features:	double–eccentric structure,
• Body type:	straight–through type Compensation type sealing seat, Valve disc arc surface
• Bonnet type:	standard integral type
• Flow characteristic:	approximately equal percentage
• Shut–off class:	ASME B16.104 VI (standard seat) ASME B16.104 IV (metal seat)
• Pipe connection type:	wafer type, flange type
• Applicable temperature range:	–45℃ – 250℃
• Actuator type:	pneumatic piston actuator electric actuator

REOWO
Fluid Control Technology

▶ Structural drawing of 70E Series



Materials of 70E Series

Materials of 70E Series

Number	Name	Material
1	Stem	17–4PH Stainless Steel ASTM A564Gr630 Optional：316ss，inconel718/625，Monel
3	Packing	PTFE Optional：Graphite–high density/low density
4	Front bearing	316SS Backed Ptfe，hastelloy C Backed Ptfe
5	Cover plate	Optional：316ss,ALLOY20
8	Body	Carbon Steel A216 Gr WCB Or A105 Optional：ASTM A351 CF8M Or A182 F316
9	Disc	Carbon Steel A216 Gr WCB Or A105+Surfacing SS Optional：316ss, ASTM A351 CF8M Or A182 F316 Monel,Alloy20,Aluminum Bronze,Hastelloy C
11	Limit part	17–4PH Stainless Steel ASTM A564Gr630 Optional：A182 F316/F304
14	Side seal ring	NBR Or VITON Optional：316SS
15	Seat	R.TFE.F Optional：R.TFE.C

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▶ Structural features of 70E Series

▲ Outline

The double–eccentric design of the 70E Series butterfly valve reduces the abrasion of the seat and ensures the double–way tightness function within the whole pressure range. Taking the seat as the starting point, the eccentric disc produces a function similar to that of the cam and the disc can be pulled to leave the seat without the need of using too high operating force. The function of the disc similar to that of the cam at the starting position reduces the abrasion of the seat and reduces the deformation of the seat. When the valve is opened, the disc will instantly leave the seat, and when the valve is closed, the function similar to that of the cam turns the rotary movement of the valve into linear motion, so as to effectively push the disc to contact the seat. The built–in compensation spring can effectively compensate for the abrasion of the sealing seat and enable the sealing seat to be elastic during the opening and closing process, greatly reduce friction, enhance sensitivity and make the whole valve have excellent shut–off and control functions.

Figure 1

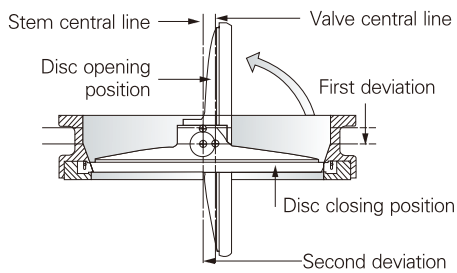


Figure 2

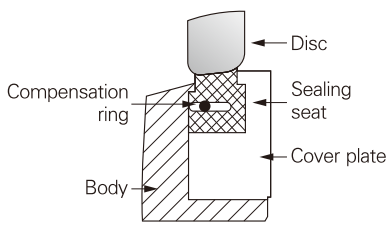
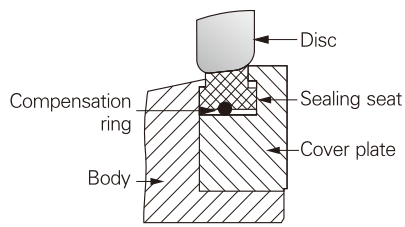


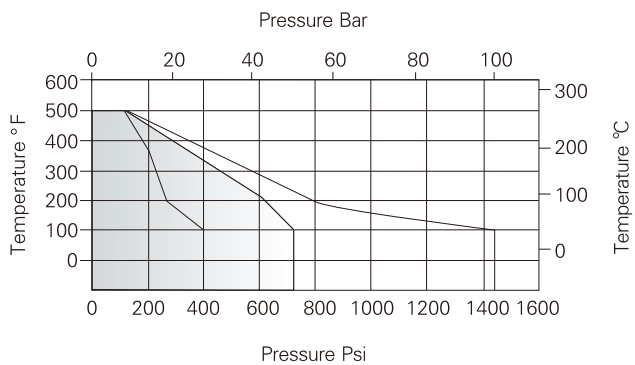
Figure 3



Seat design:

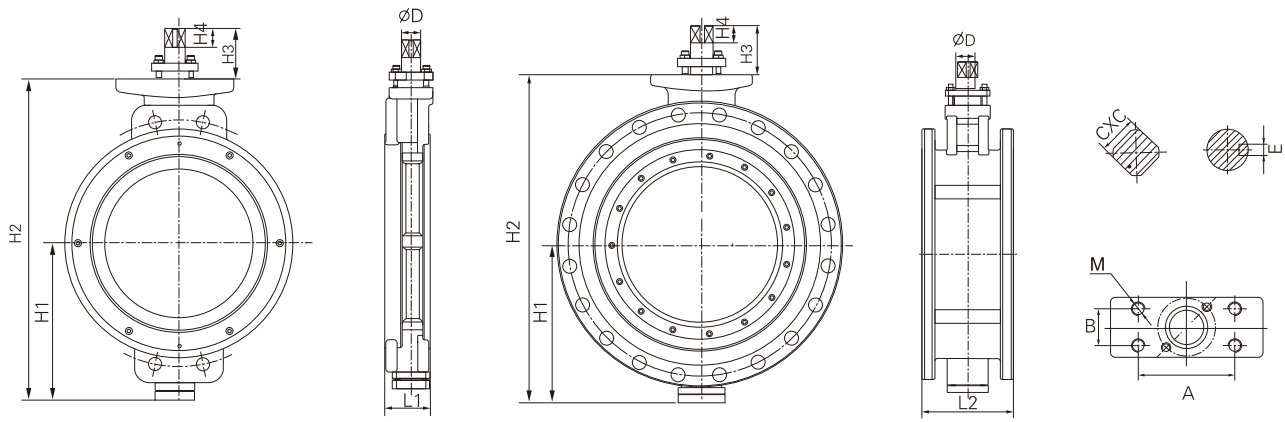
The 70E Series provides various types of seat structures:
1) The seat adopts the internally opened U groove structure. Self sealing is realized through medium pressure. The built–in compensation spring makes the sealing structure realize real dynamic sealing through the medium pressure in the system.Seat leakage: under CVx10^{-6}%.
2) The seat adopts externally opened O ring groove structure. When the disc is not completely closed, the seat has certain radial flexibility so that the seat abrasion is reduced and the torque is lowered. When the disc is closed, the pre–tightening force of the sealing face of the disc is offered to ensure sealing. Seat leakage: under CVx10^{-6}%.

▲ PTFE seat Pressure/temperature



Size of 70E Series

High performance butterfly valve



Body size

Valve size(DN)		PN10/16/150LB L1	L2	H1	H2	H3	H4	A	B	M	ϕD	C×C	E
3"	DN80	48	114	122	270	70	20	90	40	M10	20	17×17	--
4"	DN100	54	127	132	292	70	20	90	40	M10	20	17×17	--
5"	DN125	57	140	144	314	70	20	90	40	M10	20	17×17	--
6"	DN150	57	152	164	350	70	20	90	40	M10	20	17×17	--
8"	DN200	64	152	202	422	80	25	110	40	M12	28	22×22	--
10"	DN250	71	165	245	525	85	30	130	50	M14	32	26×26	--
12"	DN300	81	178	272	562	85	30	130	50	M14	36	28×28	--
14"	DN350	92	190	313	643	95	35	142	55	M20	42	34×34	--
16"	DN400	102	216	343	703	95	35	142	55	M20	48	40×40	--
18"	DN450	114	222	364	744	100	40	170	80	M24	50	38×38	--
20"	DN500	127	229	394	814	100	40	170	80	M24	50	38×38	--
24"	DN600	154	267	449	934	120	50	184	98	M27	65	54×54	--
28"	DN700	165	292	490	1000	120	50	184	98	M27	75	54×54	--
32"	DN800	190	318	545	1125	160	60	268	105	M27	85	--	22
36"	DN900	203	330	603	1255	160	60	268	140	M30	90	--	25
40"	DN1000	216	410	675	1395	160	60	268	140	M30	100	--	28
48"	DN1200	254	470	870	1450	160	70	268	140	M30	100	--	28

Rated CV value and trave

ValveSize		Rated CV value	ValveSize		Rated CV value
inch	mm	90°Opening	inch	mm	90°开度Opening
3	80	178	18	450	11314
4	100	430	20	500	14870
5	125	458	24	600	21450
6	150	1010	28	700	30515
8	200	2710	32	800	41603
10	250	3440	36	900	54193
12	300	4950	40	1000	56920
14	350	6485	48	1200	77390
16	400	8525	--	--	--

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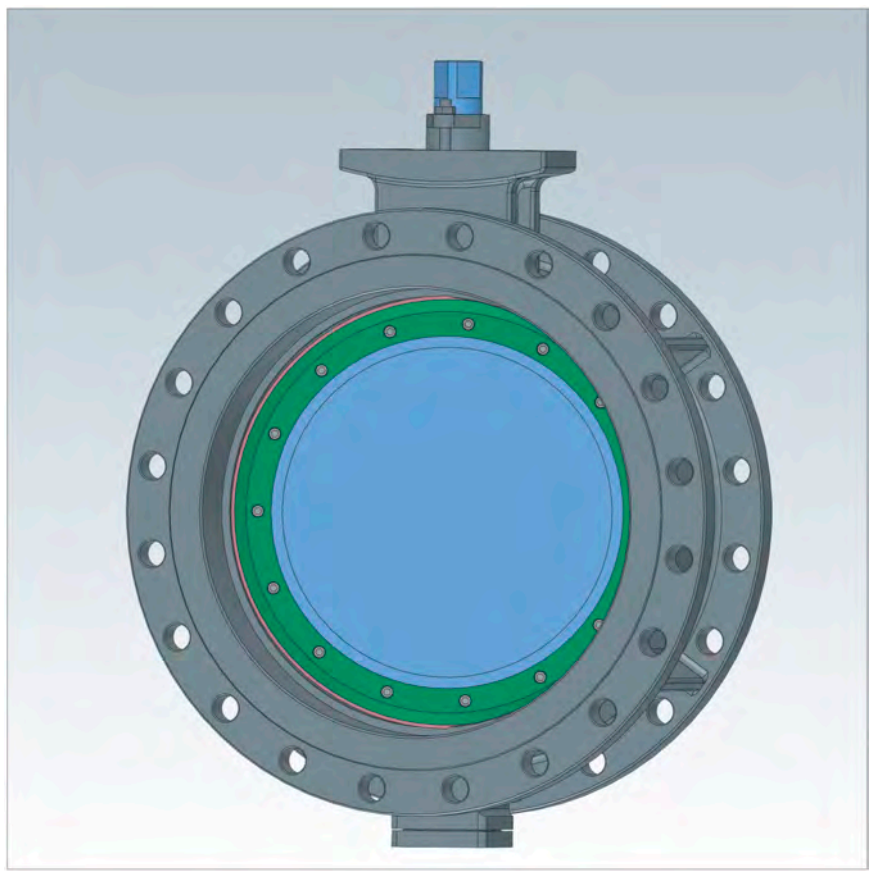
▶ 70D Series three–eccentric butterfly valve (flange type)

▲ Outline

The 70D Series three–eccentric hard seal butterfly valve adopts the design of three–eccentric structure. There is no friction between the disc and seat within the full travel range of disc opening and closing, so that the leakage caused due to seat abrasion during seat opening and closing in rotary control valves is eliminated. The seat adopts the multi–level structure and uses the combination of metal and nonmetal materials to form the sealing face. It can work excellently under the service conditions of high temperature and low temperature. The 70D Series butterfly valve is featured by long service life andexcellent sealing performance. It is suitable for control and shut–off applications of almost all gases and liquids in the industrial industrialprocesscontrol.



▲ Actuator and auxiliary control device

- Pneumatic
- Electric
- Pneumatic–hydraulic
- Worm gear

▲ Applications

- Air separation, chemical industry, petroleum
- Chemical fiber, electric power, metallurgy
- Pharmacy, environmental protection

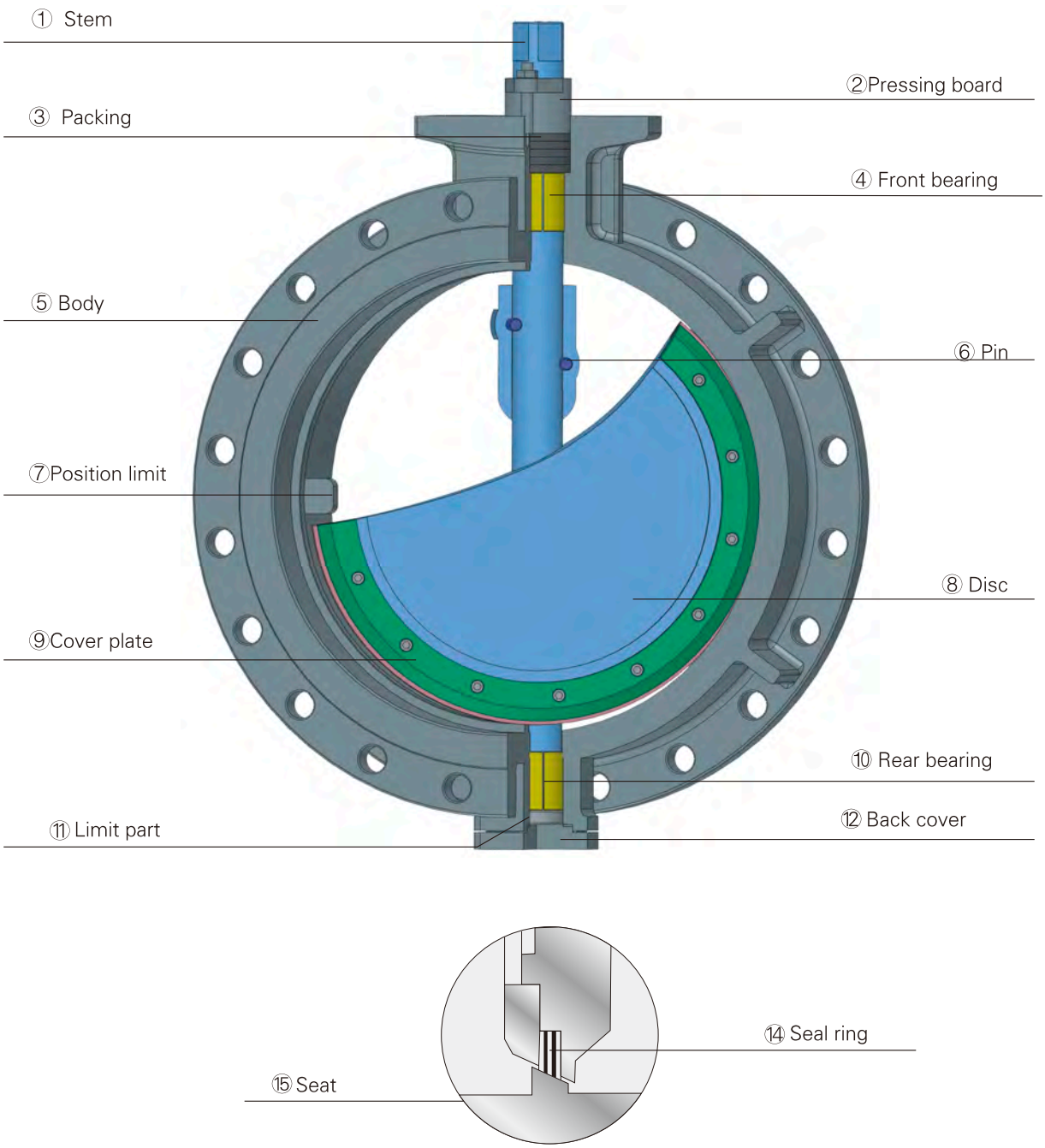
▲ Manufacturing range

- Size range: DN2" – 48"
- Pressure rating: 150 – 600 LB
  PN1.0 – 6.4Mpa
- Connection type: wafer type, flange type

▲ Parameters of control valves:

• Trim features:	three–eccentric structure, multi–level sealing seat, hard seal
• Body type:	straight–through type
• Bonnet type:	standard integral type
• Flow characteristic:	approximately equal percentage
• Shut–off class:	ASME B16.104 VI
• Pipe connection type:	wafer type, flange type
• Applicable temperature range:	–196℃ – 530℃
• Actuator type:	pneumatic piston actuator electric actuator

▶ Structural drawing of 70D Series



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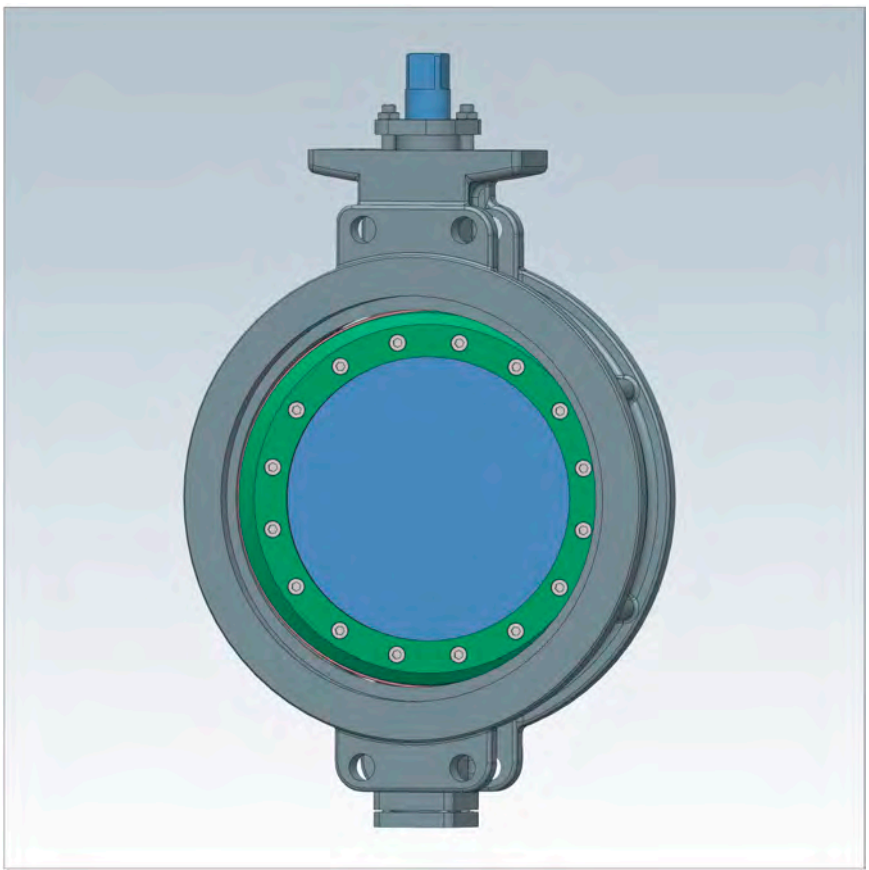
▶ Materials of 70D Series

Materials of 70E Series

Number	Name	Material
1	Stem	17–4PH Stainless Steel ASTM A564Gr630 Optional：316ss，inconel718/625，Monel
3	Packing	PTFE Optional：Graphite–high density/low density
4	Front bearing	316SS Backed Ptfe，hastelloy C Backed Ptfe
5	Body	Carbon Steel A216 Gr WCB Or A105 Optional：ASTM A351 CF8M Or A182 F316
8	Disc	Carbon Steel A216 Gr WCB Or A105+Surfacing SS Optional：316ss, ASTM A351 CF8M Or A182 F316 Monel,Alloy20,Aluminum Bronze,Hastelloy C
9	Cover plate	Optional：316ss,ALLOY20
11	Limit part	17–4PH Stainless Steel ASTM A564Gr630 Optional： A182 F316/F304
14	Seal ring	Graphite+304 Optional：PTFE
15	Seat	316ss ASTM A351 CF8M Or A182 F316 Monel,Alloy20,Aluminum Bronze,Hastelloy C

▶ 70D Series three–eccentric butterfly valve (wafer type)



▲ Outline

The 70D Series three–eccentric hard seal butterfly valve adopts the design of three–eccentric structure. There is no friction between the disc and seat within the full travel range of disc opening and closing, so that the leakage caused due to seat abrasion during seat opening and closing in rotary control valves is eliminated. The seat adopts the multi–level structure and uses the combination of metal and nonmetal materials to form the sealing face. It can work excellently under the service conditions of high temperature and low temperature. The 70D Series butterfly valve is featured by long service life and excellent sealing performance. It is suitable for control and shut–off applications of almost all gases and liquids in the industrial process control.

▲ Actuator and auxiliary control device

- Pneumatic
- Electric
- Pneumatic–hydraulic
- Worm gear

▲ Parameters of control valves:

• Trim features:	three–eccentric structure, multi–level sealing seat, hard seal
• Body type:	straight–through type
• Bonnet type:	standard integral type
• Flow characteristic:	approximately equal percentage
• Shut–off class:	ASME B16.104 VI
• Pipe connection type:	wafer type, flange type
• Applicable temperature range:	–196 ℃ – 530 ℃
• Actuator type:	pneumatic piston actuator electric actuator

▲ Applications

- Air separation, chemical industry, petroleum
- Chemical fiber, electric power, metallurgy
- Pharmacy, environmental protection

▲ Manufacturing range

• Size range:	DN2" – 48"
• Pressure rating:	150 – 600 LB PN1.0 – 6.4Mpa
• Connection type:	wafer type, flange type

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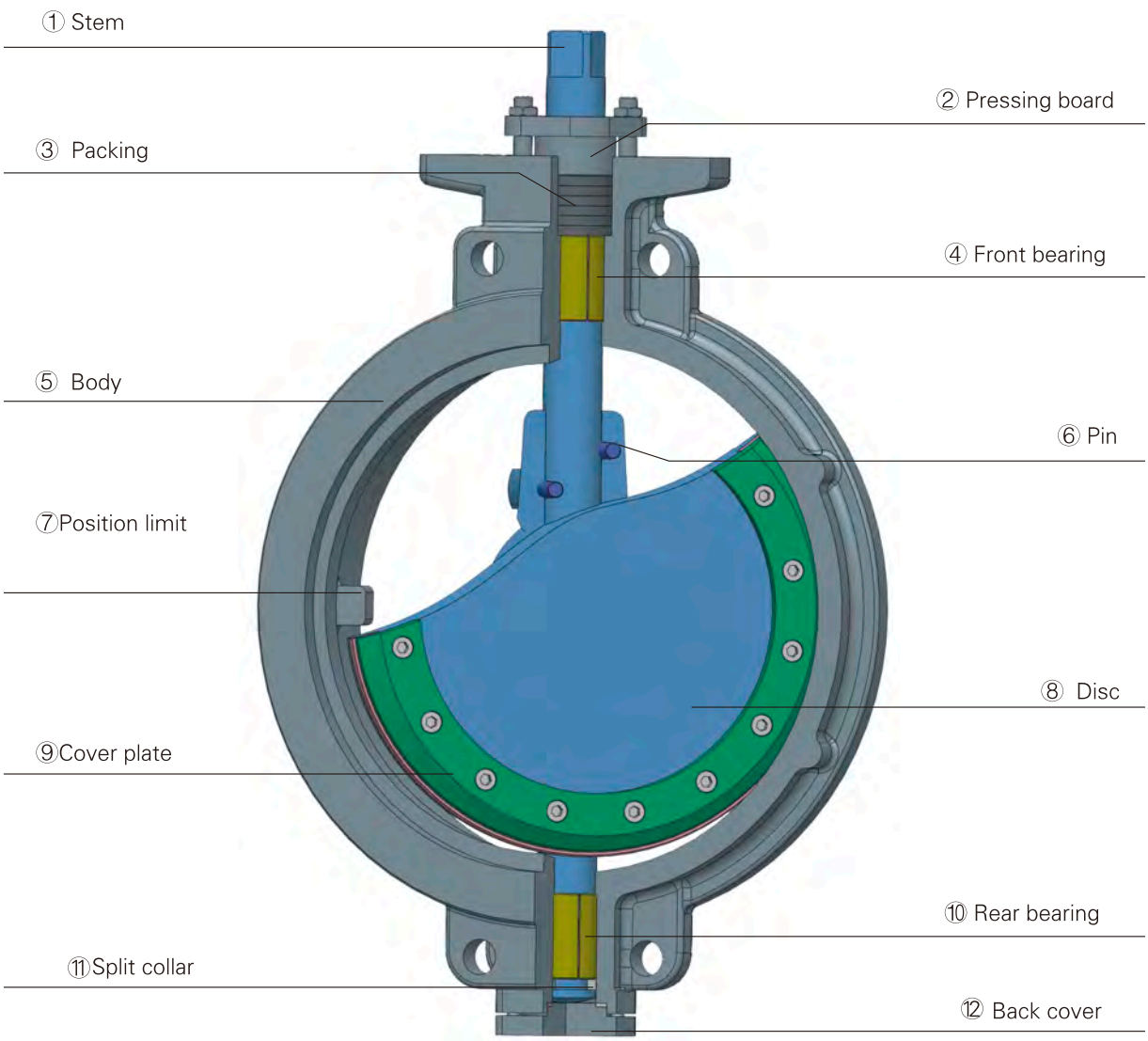
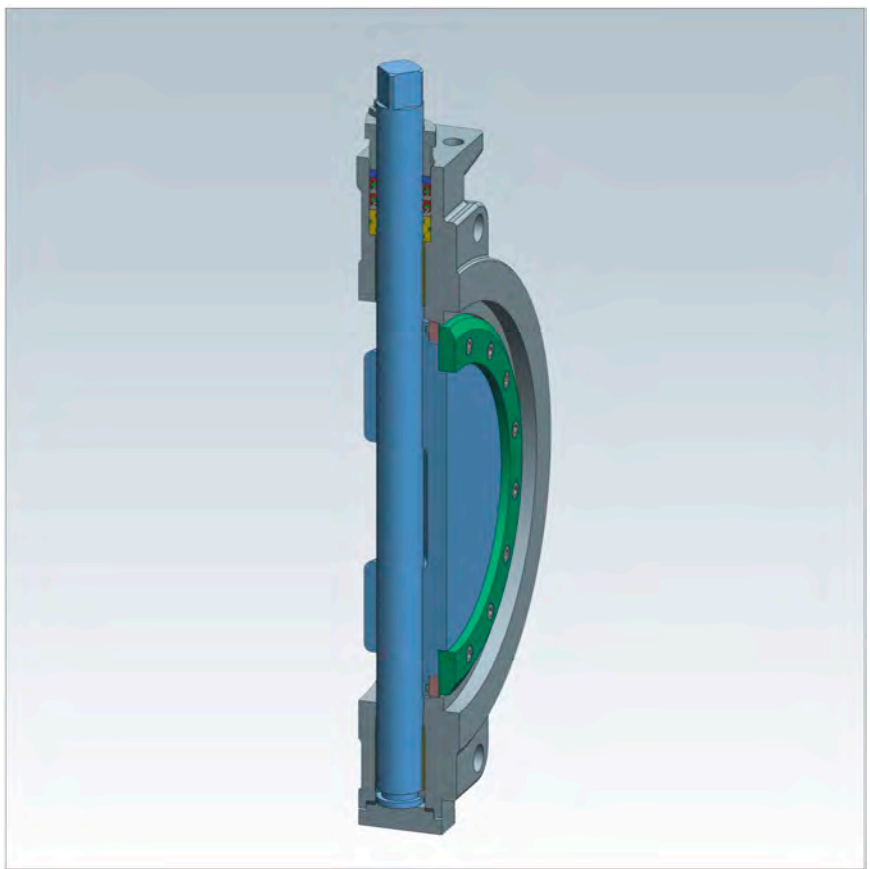
▶ Structural drawing of 70D Series

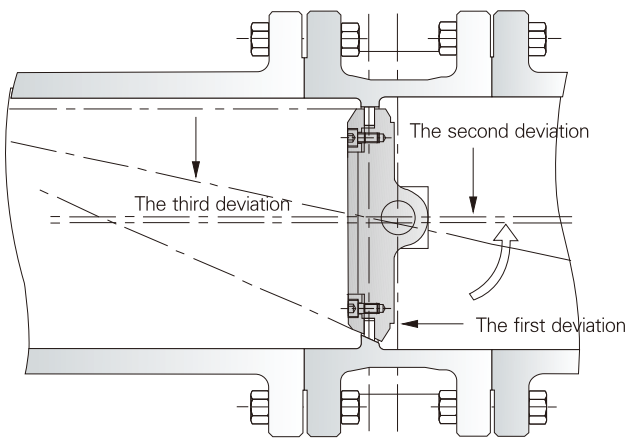


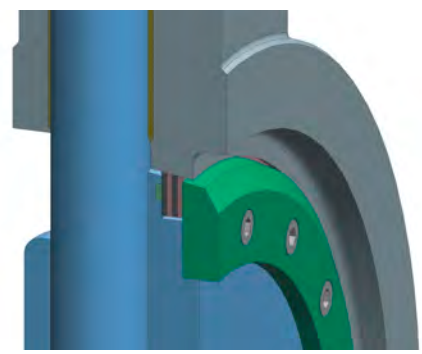
Structural features of 70D Series



Three–eccentric design

- The use of the metal hard seal under no disturbance can provide longer service life.
- The first eccentricity is that the stem deviates from the edge of the disc to ensure the sealing face will not be broken by the stem.
- The second eccentricity is that the center of the stem deviates to one side of the body center. When the disc leaves the seat, the disc turns to realize the function similar to that of the cam. When the disc enters the closing status, the disc movement is turned by the function similar to that of the cam into linear motion. During the whole movement process, the disc edge always makes no contact with the seat.
- The third eccentricity is formed by the seal parts and two tapered seats in which the rotary central shaft and valve center form the conical angle. The deviation of the two cones (forming the conical angle relative to the valve center) enables the disc to leave the seat more easily. This kind of "overlapped cone" design enables the disc to leave the seat instantly when the valve is opened. The seat is only contacted when the valve is closed, and mutual disturbance between the disc and seal is eliminated.





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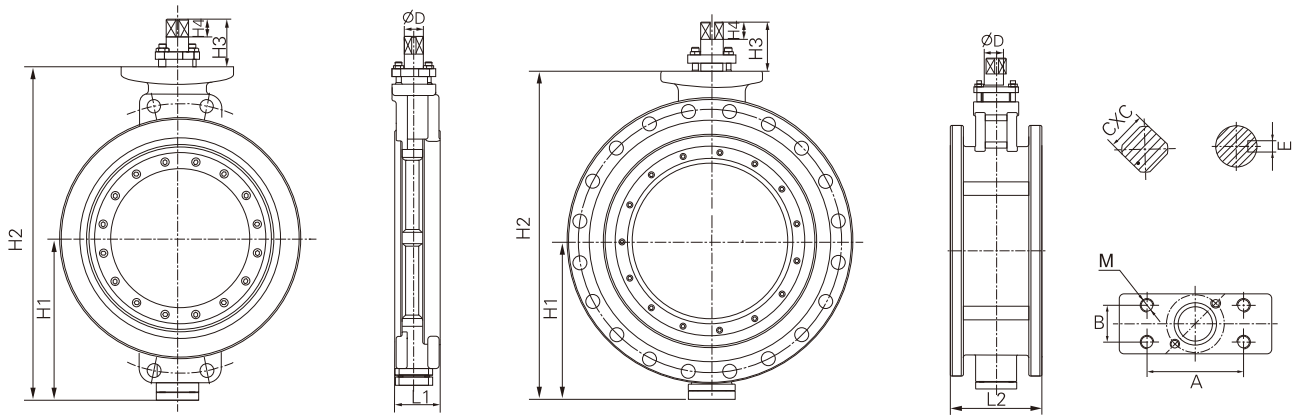
Size of 70D Series

Three-eccentric butterfly valve



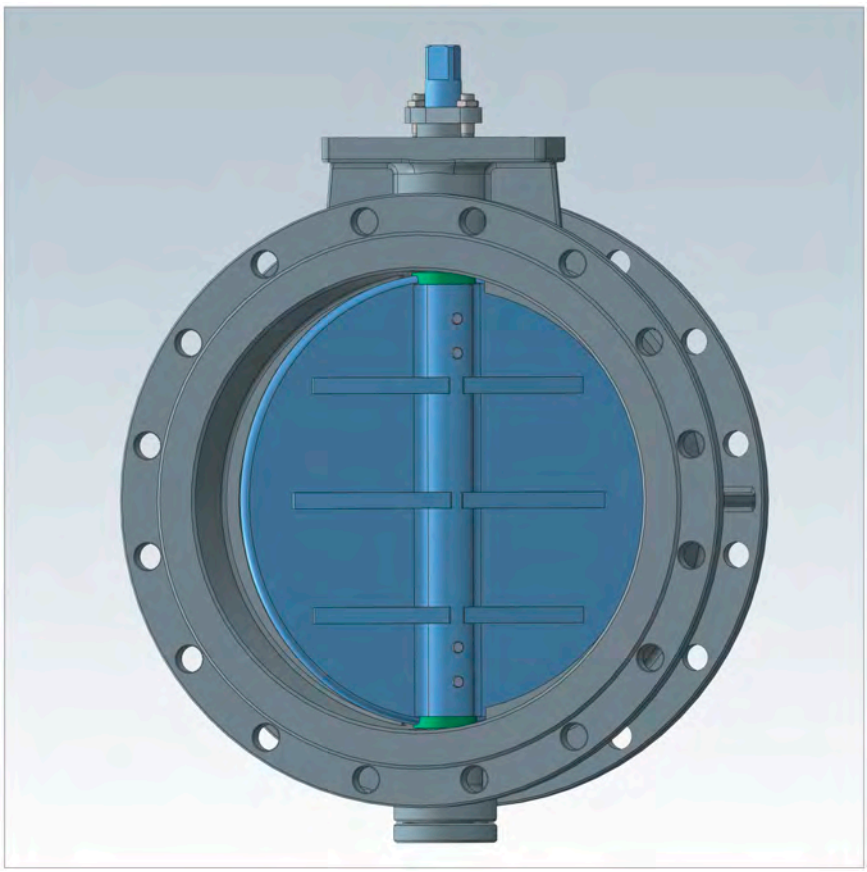
Body size

Valve size(DN)		PN10/16/150LB L1	PN10/16/150LB L2	H1	H2	H3	H4	A	B	M	ϕD	C×C	E
3"	DN80	48	114	122	270	70	20	90	40	M10	20	17×17	--
4"	DN100	54	127	132	292	70	20	90	40	M10	20	17×17	--
5"	DN125	57	140	144	314	70	20	90	40	M10	20	17×17	--
6"	DN150	57	152	164	350	70	20	90	40	M10	20	17×17	--
8"	DN200	64	152	202	422	80	25	110	40	M12	28	22×22	--
10"	DN250	71	165	245	525	85	30	130	50	M14	32	26×26	--
12"	DN300	81	178	272	562	85	30	130	50	M14	36	28×28	--
14"	DN350	92	190	313	643	95	35	142	55	M20	42	34×34	--
16"	DN400	102	216	343	703	95	35	142	55	M20	48	40×40	--
18"	DN450	114	222	364	744	100	40	170	80	M24	50	38×38	--
20"	DN500	127	229	394	814	100	40	170	80	M24	50	38×38	--
24"	DN600	154	267	449	934	120	50	184	98	M27	65	54×54	--
28"	DN700	165	292	490	1000	120	50	184	98	M27	75	54×54	--
32"	DN800	190	318	545	1125	160	60	268	105	M27	85	--	22
36"	DN900	203	330	603	1255	160	60	268	140	M30	90	--	25
40"	DN1000	216	410	675	1395	160	60	268	140	M30	100	--	28
48"	DN1200	254	470	870	1450	160	70	268	140	M30	100	--	28

High pressure body

Valve size (DN)		300LB L1	300LB L2	600LB L1	600LB L2
4"	DN100	54	127	64	190
6"	DN150	59	140	76	210
8"	DN200	73	152	89	230
10"	DN250	83	165	114	250
12"	DN300	92	178	114	270
14"	DN350	117	190	127	290
16"	DN400	133	216	140	310
18"	DN450	146	222	152	330
20"	DN500	159	229	152	350
24"	DN600	181	267	178	390

▶ 70S Series low load butterfly valve



▲ Outline

The 70S Series low load butterfly valve adopts the metal face seal design of central line structure. The metal seat surrounds the disc. This structure can reduce the seat leakage. Featured by simple structure, light weight, mature manufacturing technology and convenient maintenance, the 70S Series butterfly valve is used for flow and pressure control in low pressure service conditions and is suitable for fluids of very high temperature. It is widely used in steel, building materials, petrochemical industry, power station and other industries.

▲ Actuator and auxiliary control device

- Pneumatic
- Electric
- Pneumatic–hydraulic
  Worm gear

▲ Applications

- Chemical fiber, electric power, metallurgy
- Pharmacy, environmental protection

▲ Manufacturing range

- Size range: DN4" – 120"
- Pressure rating: 150LB
  PN0.6 – 1.0Mpa
- Connection type: wafer type, flange type

▲ Parameters of control valves:

• Trim features:	metal face seat (back seat type) central line symmetrical structure
• Body type:	straight–through type
• Bonnet type:	standard integral type
• Flow characteristic:	approximately equal percentage
• Shut–off class:	ASME B16.104 II
• Pipe connection type:	wafer type, flange type
• Applicable temperature range:	–196℃ – 530℃
• Actuator type:	pneumatic piston actuator electric actuator

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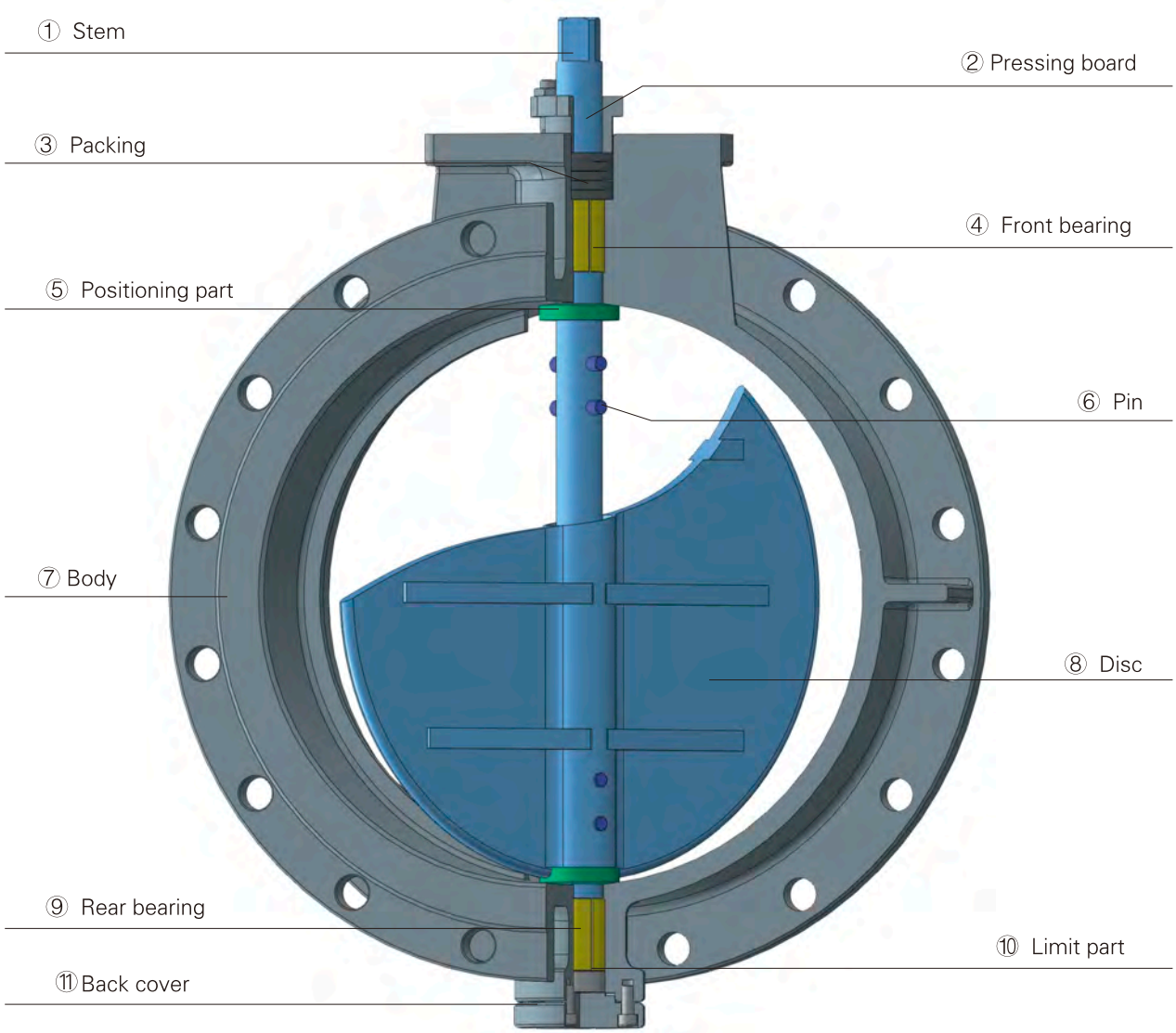
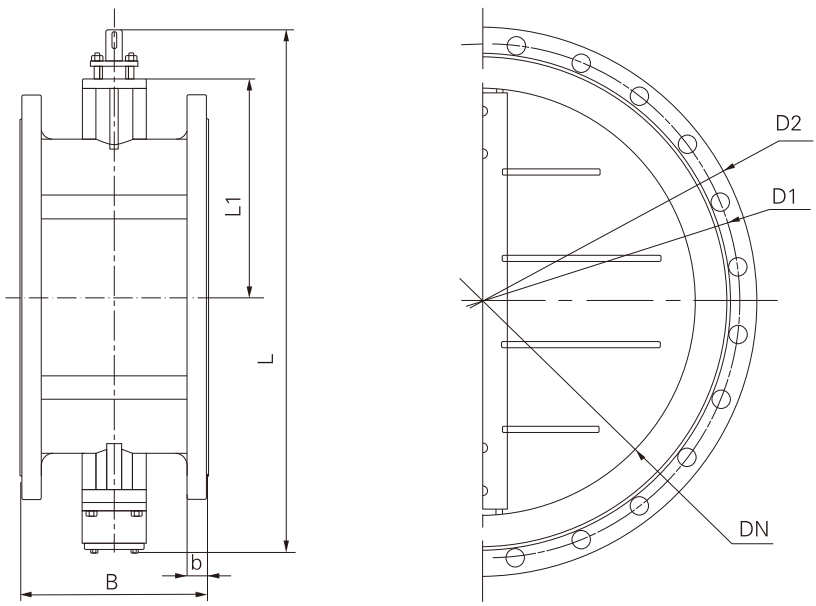
Fluid Control Technology

▶ Structural drawing of 70S Series



▶ Size of 70S Series

Low load butterfly valve



Body size

mm

DN	D1	D2	B	b	N– ϕ d	L1	L
100(4")	205	170	200	16	4– ϕ 18	130	335
125(5")	235	200	200	18	8– ϕ 18	145	345
150(6")	265	225	200	20	8– ϕ 18	141	350
200(8")	320	280		22	12– ϕ 18	170	390
250(10")	375	335	200	24	12– ϕ 18	197	440
300(12")	440	395			12– ϕ 22	220	515
350(14")	490	445			12– ϕ 22	250	565
400(16")	540	495	200	24	16– ϕ 22	270	630
450(18")	595	550			16– ϕ 22	300	680
500(20")	645	600	250	26	20– ϕ 22	325	730
600(24")	755	705			20– ϕ 26	510	1008
700(28")	860	810			24– ϕ 26	560	1118
800(32")	975	920	300	26	24– ϕ 30	618	1300
900(36")	1075	1020			24– ϕ 30	668	1400
1000(40")	1175	1120	400	26	28– ϕ 30	718	1500
1200(48")	1405	1340		32	32– ϕ 33	818	1720
1400(56")	1630	1560	450	32	36– ϕ 36	918	1920
1500(60")	1730	1660	500	34	36– ϕ 36	1000	2010
1600(64")	1830	1760			40– ϕ 36	1050	2110
1800(72")	2045	1970		36	44– ϕ 39	1150	2410
2000(80")	2265	2180		38	48– ϕ 42	1250	2610
2200(88")	2475	2390	500	42	52– ϕ 42	1437	2900
2400(96")	2685	2600	500	44	56– ϕ 42	1551	3200
2600(104")	2905	2810	500	46	60– ϕ 48	1652	3400
2800(112")	3155	3020	500	48	64– ϕ 48	1750	3700
3000(120")	3315	3220	500	50	68– ϕ 48	1850	4000

Rated CV value and travel

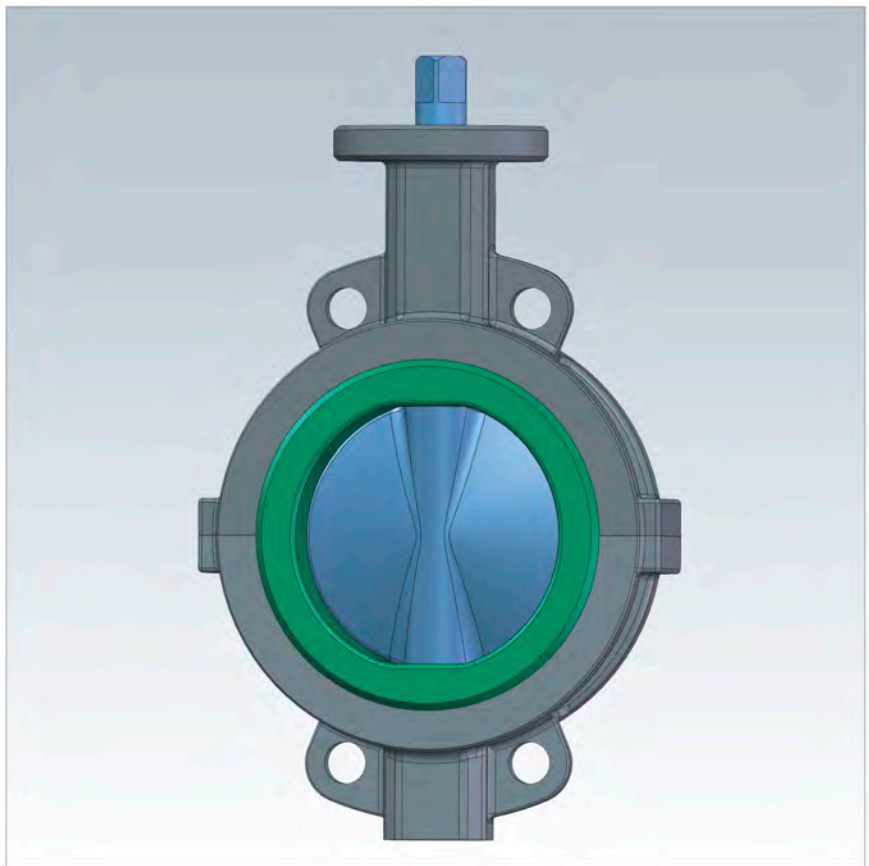
Calve SIze mm	Rated CV value 90° Opening
80	205
100	436
125	585
150	965
200	1908
250	3420
300	4920
350	5816
400	5843
450	12420
500	15160
600	20800
700	29900
800	38900
900	49000
1000	63000
1200	73000
1400	109000
1600	125000
1800	186500
2000	214600
2200	286700
2400	308600
2600	382200
2800	470000
3000	560000

REOWO
Fluid Control Technology

▶ 70M Series fluorine lined butterfly valve

▲ Outline

The 70M Series high performance fluorine lined butterfly valve adopts the central line fluorine lined structure. The body and disc are lined with PTFE, F46 or other anticorrosive materials so as to effectively avoid the corrosion of the valve by strong corrosive media. It has good sealing performance. The 70M Series butterfly valve is mainly used for control of corrosive fluids in industrial process such as chemical industry. It is an reowo solution to control and shut–off applications of various chemical corrosive media.



▲ Actuator and auxiliary control device

- Pneumatic
- Electric
- Pneumatic–hydraulic

▲ Applications

- Chemical fiber, electric power, metallurgy
- Pharmacy, environmental protection

▲ Manufacturing range

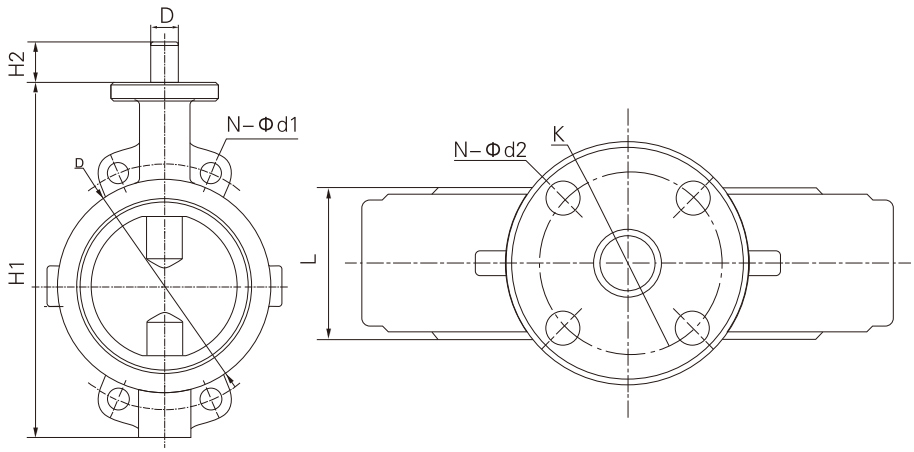
- Size range: DN2" – 24"
- Pressure rating: 150LB
  PN1.0 – 1.6Mpa
- Connection type: wafer type, flange type

▲ Parameters of control valves:

- Trim features: fluorine lined trim
- Body type: straight–through type
- Bonnet type: standard integral type
- Flow characteristic: approximately equal percentage
- Shut–off class: ASME B16.104 IV
- Pipe connection type: wafer type, flange type
- Applicable temperature range: –20℃ – 180℃
- Actuator type: pneumatic piston actuator
  electric actuator

▶ Size of 70M Series

High performance fluorine lined butterfly valve



Rated CV value and travel

Calve SIze		Rated CV value	Calve SIze		Rated CV value
Lnch	Mm	90° opening	Lnch	Mm	90° opening
2	50	70	10	250	3740
2.5	60	175	12	300	5100
3	80	265	14	350	6860
4	100	480	16	400	8960
5	125	750	18	450	11340
6	150	1350	20	500	14000
8	200	2310	24	600	20160

Body size

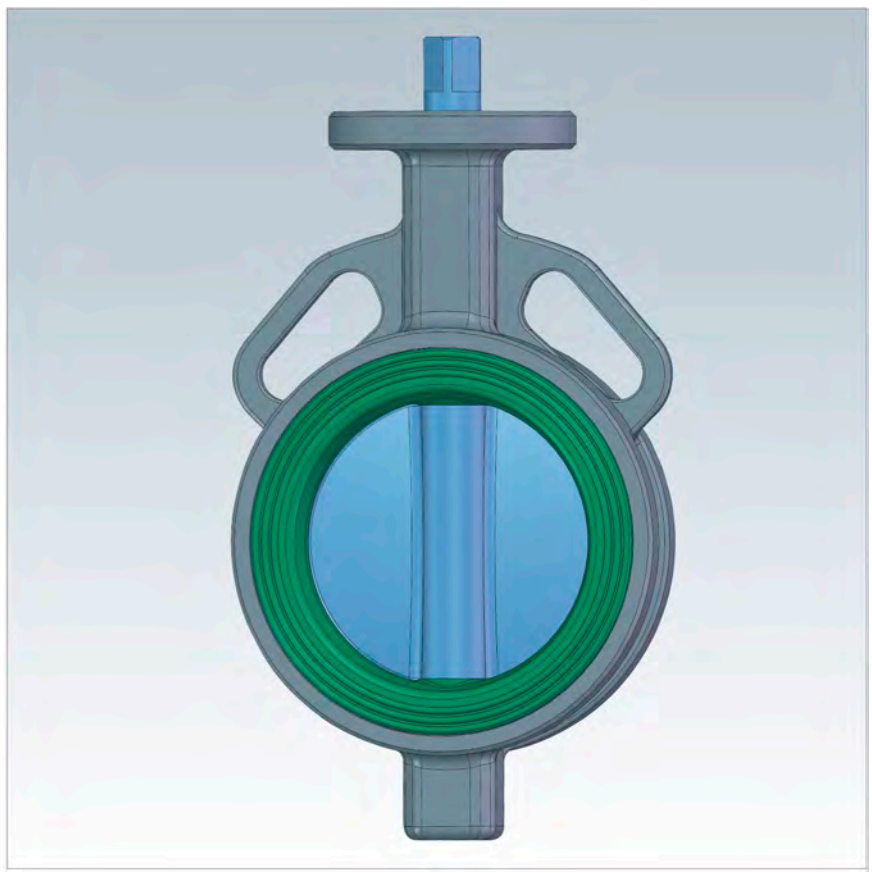
DN(mm)	L	H1	H2	PN1.0MPa		PN1.0MPa		D	k	N–Φd2
				D	N–Φd1	D	N–Φd1			
50	43	218	27	125	4– ϕ 18	125	4– ϕ 18	14	57	4– ϕ 7
65	46	235	27	145	4– ϕ 18	145	4– ϕ 18	14	57	4– ϕ 7
80	46	251	27	160	4– ϕ 18	160	8– ϕ 18	14	57	4– ϕ 7
100	52	284	27	180	8– ϕ 18	180	8– ϕ 18	16	70	4– ϕ 11
125	56	313	27	210	8– ϕ 18	210	8– ϕ 18	20	70	4– ϕ 11
150	56	339	27	240	8– ϕ 23	240	8– ϕ 23	20	70	4– ϕ 11
200	60	403	35	295	8– ϕ 23	295	12– ϕ 23	22	88	4– ϕ 14
250	68	466	35	350	12– ϕ 23	355	12– ϕ 27	22	88	4– ϕ 14
300	78	535	35	400	12– ϕ 23	410	12– ϕ 27	28	108	4– ϕ 14
350	78	605	35	460	16– ϕ 23	470	16– ϕ 27	32	108	4– ϕ 14
400	102	680	42	515	16– ϕ 27	525	16– ϕ 30	32	160	4– ϕ 21
450	114	730	42	565	20– ϕ 27	585	20– ϕ 30	32	160	4– ϕ 21
500	127	792	42	620	20– ϕ 27	650	20– ϕ 33	36	160	4– ϕ 21
600	154	850	42	725	20– ϕ 27	770	24– ϕ 36	36	215	4– ϕ 21

REOWO
Fluid Control Technology

▶ 70C Series rubber lined butterfly valve

▲ Outline

The 70C Series high performance rubber lined butterfly valve adopts the central line cavity rubber lined structure. The body and disc are lined with synthetic rubber or the body is lined with rubber, and the disc is made of high quality alloy steel, so as to effectively avoid the corrosion of the valve by media. It has good sealing performance. The 70C Series butterfly valve is widely used as an reowo solution to control and shut–off applications of water, air, petroleum, etc.



▲ Actuator and auxiliary control device

- Pneumatic
- Electric
- Pneumatic–hydraulic

▲ Applications

- Chemical fiber, electric power, metallurgy
- Pharmacy, environmental protection

▲ Manufacturing range

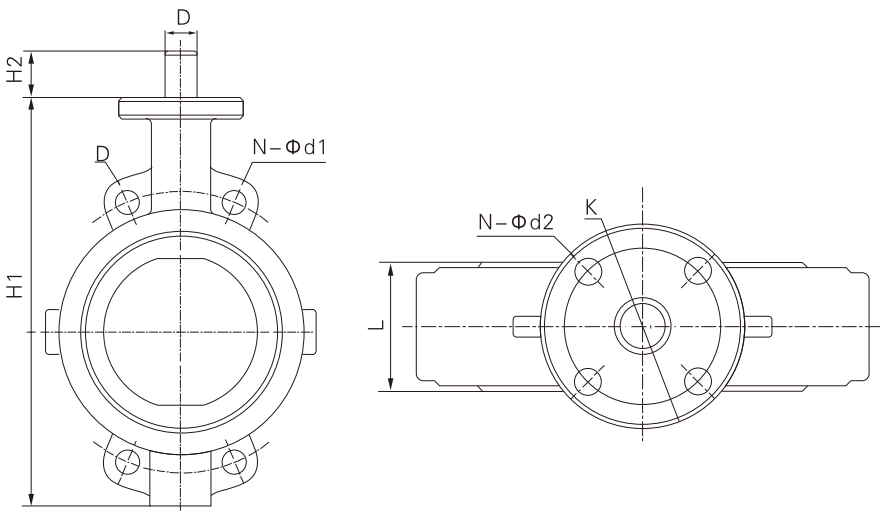
- Size range: DN2" – 24"
- Pressure rating: 150LB PN1.0–1.6Mpa
- Connection type: wafer type, flange type

▲ Parameters of control valves:

- Trim features: lined cavity
  central line symmetrical structure
- Body type: straight–through type
- Bonnet type: standard integral type
- Flow characteristic: approximately equal percentage
- Shut–off class: ASME B16.104 IV
- Pipe connection type: wafer type, flange type
- Applicable temperature range: –5℃ – 150℃
- Actuator type: pneumatic piston actuator
  Electric actuator

▶ Size of 70C Series

High performance fluorine lined butterfly valve



Rated CV value and travel

Calve SIze		Rated CV value	Calve SIze		Rated CV value
Lnch	Mm	90° opening	Lnch	Mm	90° opening
2	50	70	10	250	3740
2.5	60	175	12	300	5100
3	80	265	14	350	6860
4	100	480	16	400	8960
5	125	750	18	450	11340
6	150	1350	20	500	14000
8	200	2310	24	600	20160

Body size

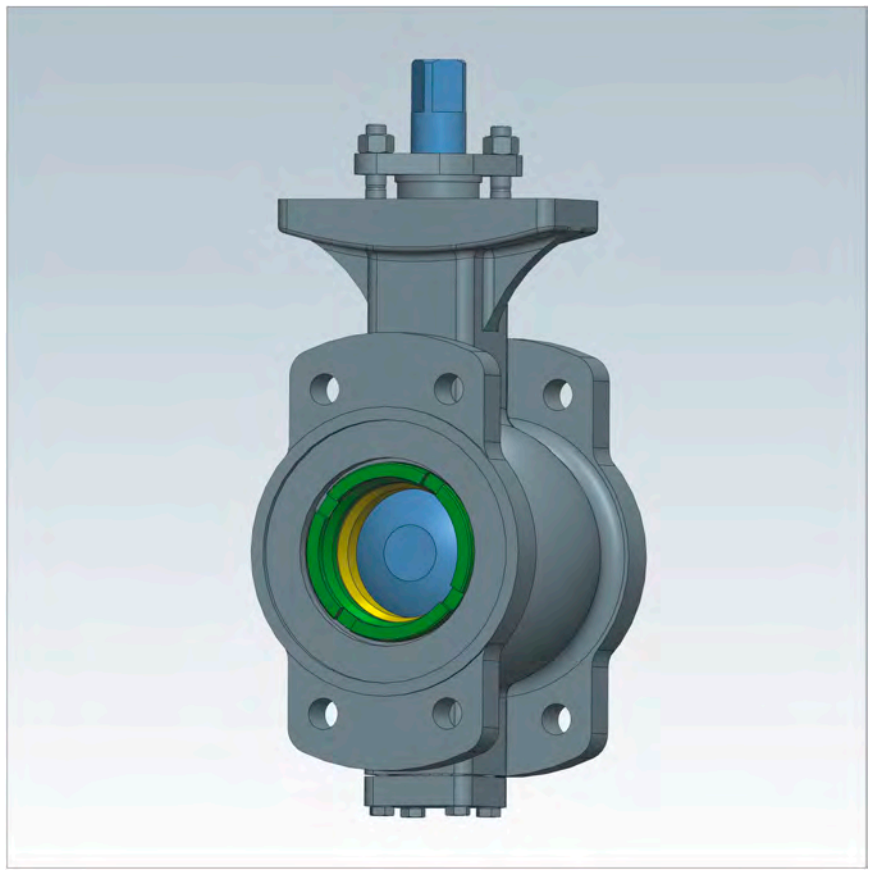
DN(mm)	L	H1	H2	PN1.0MPa		PN1.0MPa		D	k	N–Φd2
				D	N–Φd1	D	N–Φd1			
50	43	218	27	125	4– ϕ 18	125	4– ϕ 18	14	57	4– ϕ 7
65	46	235	27	145	4– ϕ 18	145	4– ϕ 18	14	57	4– ϕ 7
80	46	251	27	160	4– ϕ 18	160	8– ϕ 18	14	57	4– ϕ 7
100	52	284	27	180	8– ϕ 18	180	8– ϕ 18	16	70	4– ϕ 11
125	56	313	27	210	8– ϕ 18	210	8– ϕ 18	20	70	4– ϕ 11
150	56	339	27	240	8– ϕ 23	240	8– ϕ 23	20	70	4– ϕ 11
200	60	403	35	295	8– ϕ 23	295	12– ϕ 23	22	88	4– ϕ 14
250	68	466	35	350	12– ϕ 23	355	12– ϕ 27	22	88	4– ϕ 14
300	78	435	35	400	12– ϕ 23	410	12– ϕ 27	28	108	4– ϕ 14
350	78	605	35	460	16– ϕ 23	470	16– ϕ 27	32	108	4– ϕ 14
400	102	680	42	515	16– ϕ 27	525	16– ϕ 30	32	160	4– ϕ 21
450	114	730	42	565	20– ϕ 27	585	20– ϕ 30	32	160	4– ϕ 21
500	127	792	42	620	20– ϕ 27	650	20– ϕ 33	36	160	4– ϕ 21
600	154	850	42	725	20– ϕ 30	770	24– ϕ 36	36	215	4– ϕ 21

REOWO
Fluid Control Technology

▶ 50P Series eccentric rotary valve

▲ Outline

The 50P Series eccentric rotary valve is also called cam flex control valve. The body and bonnet of the control valve adopt the integral structure. The body cavity is of streamlined straight–through type with simple flow channel, low flow resistance and low loss of pressure drop, and the erosion of body and trim can be reduced. The rotation center of the plug is not concentric with the rotary shaft, so that the seat abrasion is reduced and service life is prolonged. In addition to having good control function, the eccentric valve also has the function of shearing the medium. Therefore, it is an reowo solution to the service conditions with media containing granules.



▲ Actuator and auxiliary control device

- Pneumatic
- Electric
- Pneumatic–hydraulic

▲ Applications

- Chemical fiber, electric power, metallurgy
- Pharmacy, environmental protection

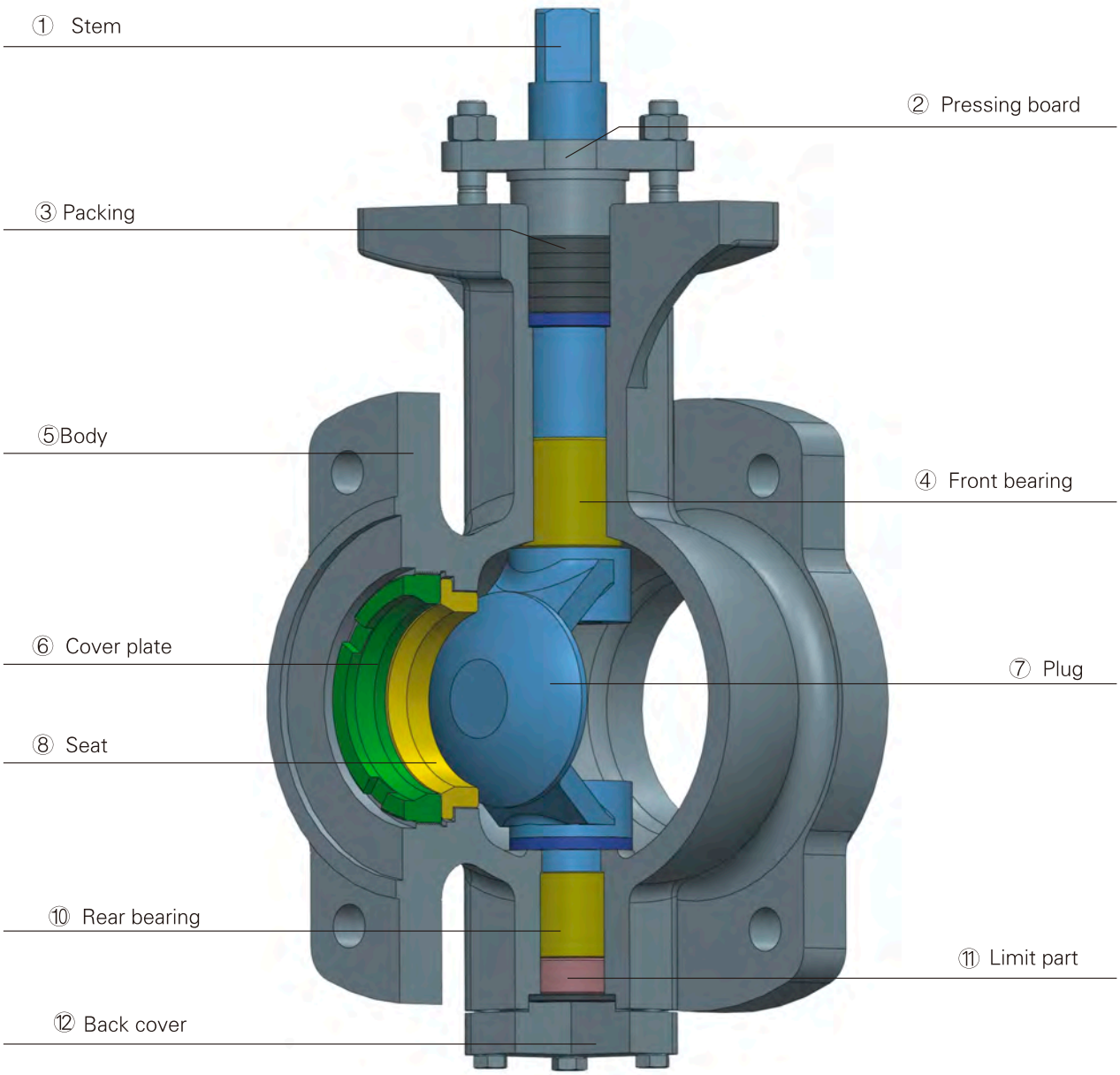
▲ Manufacturing range

- Size range: DN1" – 12"
- Pressure rating: 150 – 600LB
  PN1.0 – 6.4Mpa
- Connection type: wafer type

▲ Parameters of control valves:

- Trim features: eccentric structure
- Body type: straight–through type
- Bonnet type: standard integral type
- Flow characteristic: approximately equal percentage
- Shut–off class: ASME B16.104 IV
- Pipe connection type: wafer type, flange type
- Applicable temperature range: –196℃ – 180℃
- Actuator type: pneumatic piston actuator
  electric actuator

▶ Structural drawing of 50P Series



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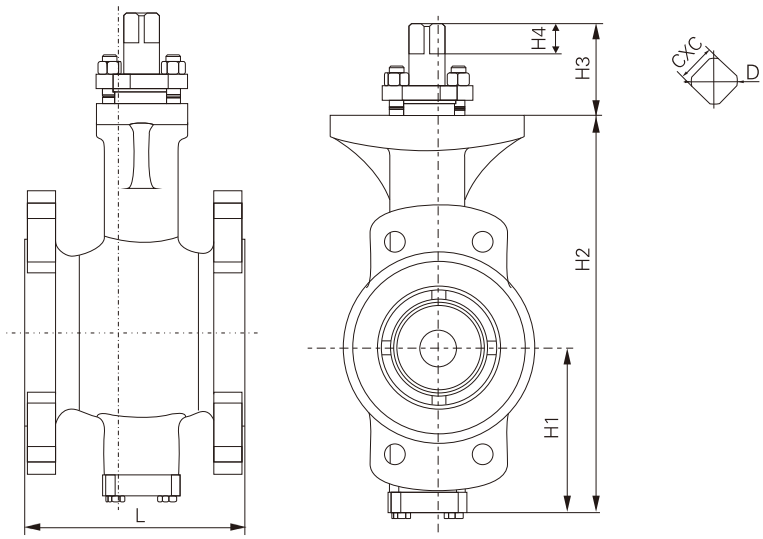
Materials of 50P Series

Materials of 50P Series

No.	Name	Material
1	Stem	17–4PH Stainless Steel ASTM A564Gr630 Optional：316ss，inconel718/625，Monel
3	Packing	PTFE V–ring Optional：Graphite–high density/low density
4	Front bearing	316SS Backed Ptfe，hastelloy C Backed Ptfe
5	Body	Carbon Steel A216 Gr WCB Or A105 Optional：ASTM A351 CF8M Or A182 F316
6	Gland	Optional：316ss，inconel718/625，Monel
7	Plug	Carbon Steel A216 Gr WCB Or A105+Surfacing SS Optional：316ss, ASTM A351 CF8M Or A182 F316 Monel,Alloy20,Aluminum Bronze,Hastelloy C
8	Seat	17–4PH Stainless Steel ASTM A564Gr630 Optional：316ss，inconel718/625，Monel
11	Limit part	17–4PH Stainless Steel ASTM A564Gr630 Optional： A182 F316/F304

▶ Size of 50P Series

Materials of 50P Series



Rated CV value and travel

Valve size inch(mm)	Metal seat Full bore	Metal seat 40% Reduced bore	Metal seat 60% Reduced bore	Soft seat Full bore
1(25)	14	6	--	14
1.5(40)	30	12	--	30
2(50)	50	20	--	50
2.5(65)	100	40	--	85
3(80)	135	54	--	120
4(100)	230	92	--	195
5(125)	320	128	--	290
6(1500)	500	200	300	480
8(200)	850	340	510	800
10(250)	1300	520	780	1150
12(300)	1750	700	1050	1550

Body size

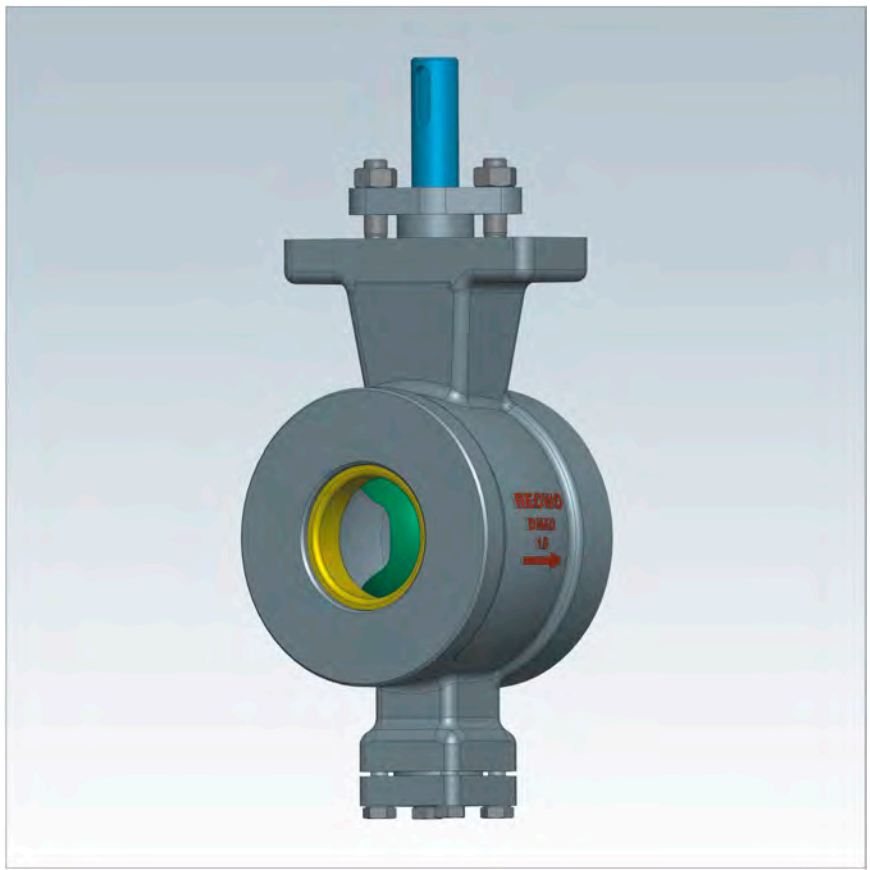
Valve size (DN)		PN16/40/64 L	H1	H2	H3	H4	D	Dxd
1"	DN25	102	74	180	68	20	18	14X14
1 1/2"	DN40	115	94	220	70	20	20	17X17
2"	DN50	124	100	243	70	20	20	17X17
2 1/2"	DN65	145	120	293	75	25	26	22X22
3"	DN80	165	124	310	75	25	28	22X22
4"	DN100	194	142	345	80	30	32	26X26
5"	DN125	213	162	397	80	30	32	26X26
6"	DN150	229	181	436	90	35	38	32X32
8"	DN200	243	214	500	90	35	45	32X32
10"	DN250	297	255	595	100	40	50	38X38
12"	DN300	338	305	705	120	50	60	45X45

REOWO
Fluid Control Technology

▶ 50V Series V ball valve

▲ Outline

The 50V Series V ball valve is a high–class control valve with right angle rotation. It is mainly used as a control valve or as an on–off valve. Compared with the O ball valve, the V ball valve is designed in such a way that its plug is provided with the V type cut of special shape, which makes it have very high shearing force and self–cleaning function in addition to having the function of controlling flow. It is especially suitable for controlling media that contain fibers and small solid granules.
The 50V Series valve is an reowo product used for control or on–off in the pipes. It is featured by compact structure, light weight, high flowing capacity, strong shut–off performance, long service life, etc. It has prominent performances especially in pulp & paper, chemical industry, petroleum, chemical fiber, electric power, metallurgy, pharmacy, environmental protection and other industries. It is an reowo choice of users.



▲ Actuator and auxiliary control device

- Pneumatic
- Electric
- Pneumatic–hydraulic

▲ Applications

- Pulp & paper, chemical industry, petroleum
- Chemical fiber, electric power, metallurgy
- Pharmacy, environmental protection

▲ Manufacturing range

- Size range: DN1" – 16"
- Pressure rating: 150LB – 300LB
  PN1.0 – 4.0Mpa
- Connection type: wafer type, flange type

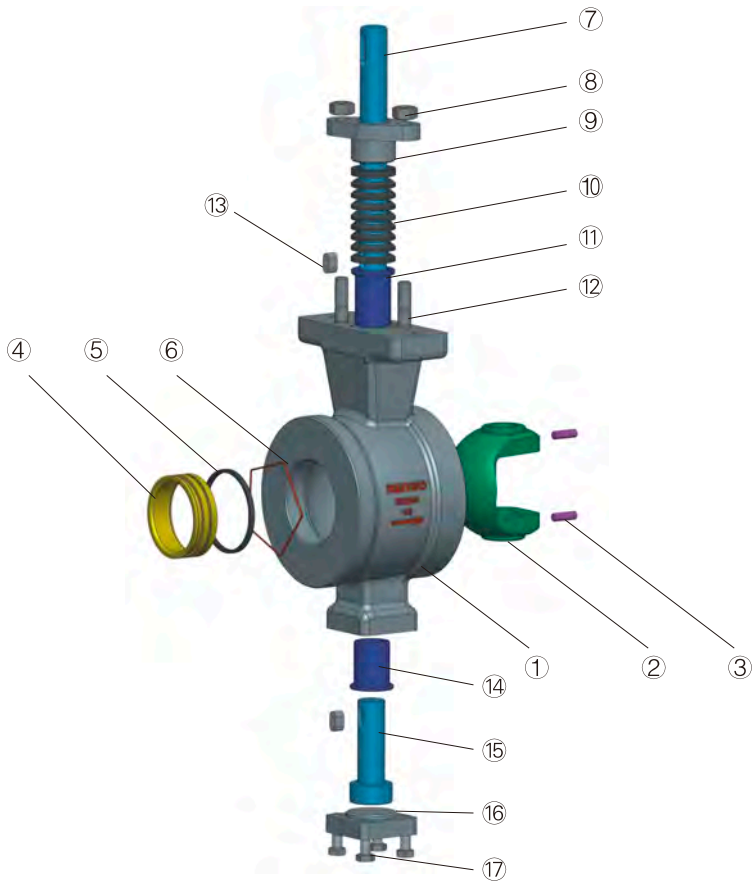
▲ Stem sealing

- The graphite packing formed through mold pressure serves as the dynamic load seal to ensure reliable sealing and long service life.
- The high strength stem can effectively transfer torque and ensure reliable on–off of the valve.
  The stem and ball are connected by spline, reducing hysteresis and dead band with excellent control performance.

▲ Seat sealing

- The seal conforms to the requirements in GB/T13927 Class D or ANSI/FCI70–2 CLASS VI.
- Reliable double–way sealing
- Excellent sealing performance in low pressure service conditions

▶ 50V series part name andmaterials



Part name and materials

Number	Name	Material		
		Stainless steel	Carbon steel	Cr–Mo steel
1	Body	ASTM A351 CF8/CF8M	ASTM A216 WCB	ASTM A217 WC6/WC9
2	Ball		ASTM A182 F304/F316	
3	Pin		ASTM A564 17–4PH	
4	Seat		ASTM A182 F304/F316+STL	
5	Seal ring		PTFE	
6	Spring		Inconel X–750	
7	Front shaft		ASTM A182 F304/F316	
8	Nut	ASTM A193 Gr.8M	ASTM A193 Gr.2H	ASTM A193 Gr.2H
9	Pressing board		ASTM A351 CF8/CF8M	
10	Packing		PTFE/柔性石墨 Flexible Graphite	
11	Upper sleeve		A36+PTFE	
12	Stud	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
13	Flat key		ASTM A182 F304/F316	
14	Lower sleeve		A36+PTFE	
15	Back shaft		ASTM A182 F304/F316	
16	Back cover	ASTM A351 CF8/CF8M	ASTM A216 WCB	ASTM A217 WC6/WC9
17	Bolt	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7

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Fluid Control Technology

▶ Structural features of 50V Series V ball valve

▲ Integral body

All wafer type and flange type valves adopt the integral structure, so that the leakage caused as a result of flange connection or locking pressure ring adopted in the body can be avoided.

▲ Stable running

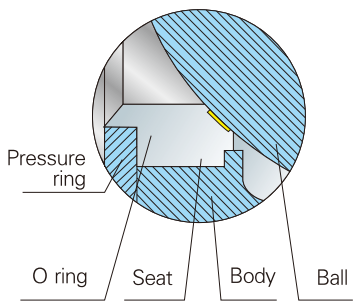
As it is provided with double bearings and low friction packing, the V ball valve needs very low torque with stable running. It can be equipped with actuators of small sizes. Therefore, this kind of valve has good control performance in addition to its low cost.

▲ Anti–wear metal seat

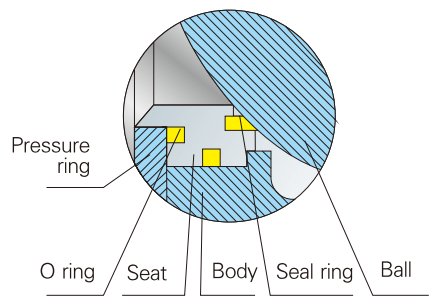
The seat of the V ball valve is very solid and resistant to wear. Its sealing face is not directly exposed in the flow channel so that its service life is longer. The seat with auxiliary pressure boosting can have good sealing performance under low differential pressure. The seat design in the valve can prevent the pipe system from affecting the sealing effect.

Various seat structural designs

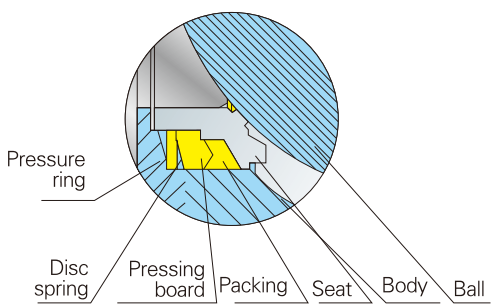
Hard seal structure



Soft seal structure



High temperature type structure



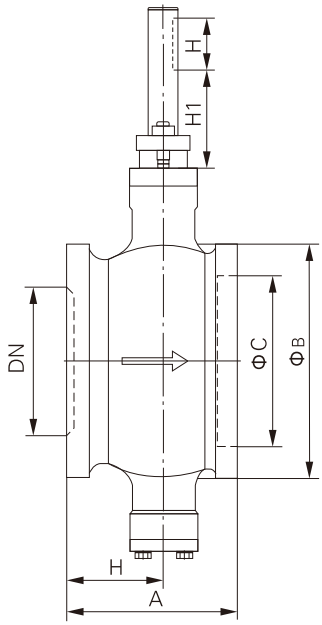
▲ Small flow control

The ball valve with DN 25mm can provide different CV values to precisely control small flow.
The typical applications include: control of the paint of the paper machine or other additives.

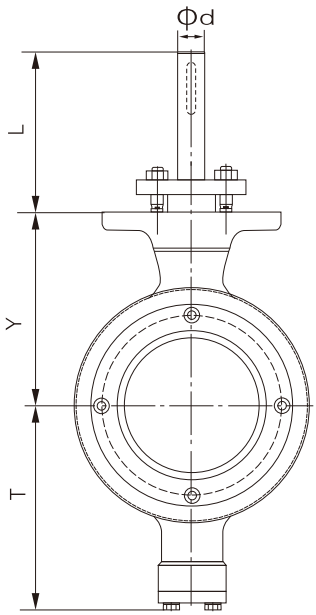
▲ PTFE seat

The V ball valve can also adopt the soft seat when it is used for service conditions to which the hard chrome seat is not applicable. In addition, the leakage in the valve using the soft seal will be lower.

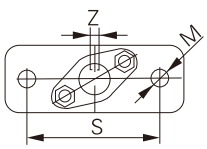
▶ Clip on type V type ball valve dimensions table

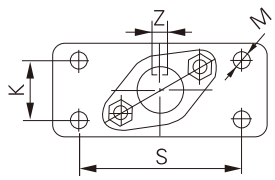


DN25–DN125(1”– 5”)



DN150–DN250(6” – 10”)

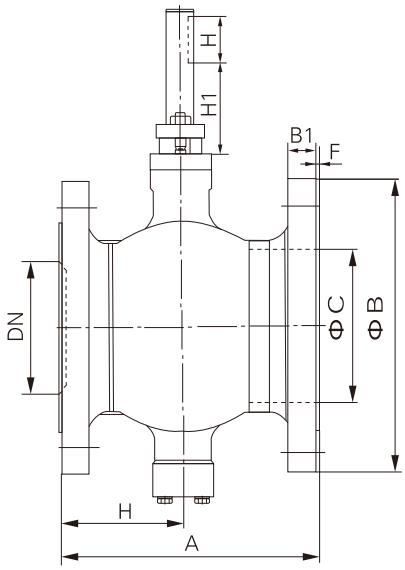


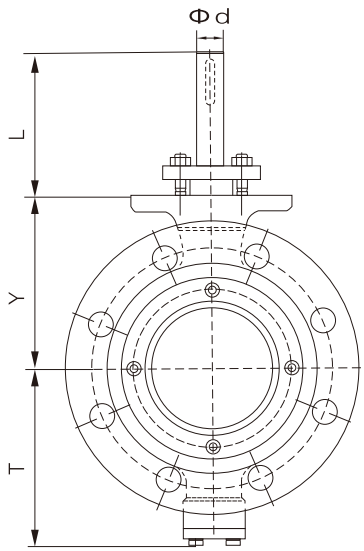


DN	A	H	B	C	T	Y	L	Φd	H1	H	S	K	M
25	50	30	68	38	81	73	102	16	64	35	75	/	2–M10
32	60	35	76	45	86	78	100	16	62	35	75	/	2–M10
40	60	35	84	50	90	80	102	16	64	35	75	/	2–M10
50	75	43	100	62	93	90	104	16	66	35	75	/	2–M10
65	100	50	118	73	108	105	102	16	64	35	75	/	2–M10
80	100	57	132	90	123	118	110	20	68	35	90	/	2–M12
100	115	65	158	115	138	130	108	20	66	35	90	/	2–M12
125	129	78	184	134	148	145	110	25	65	40	90	/	2–M12
150	160	95	216	164	170	170	124	30	69	50	110	40	2–M12
200	200	120	268	206	200	201	124	30	69	50	110	40	2–M12
250	240	148	326	260	240	237	140	40	77	60	135	40	2–M16

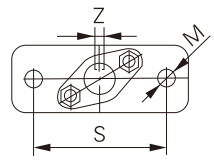
REOWO
Fluid Control Technology

▶ Flange type V type ball valve dimensions

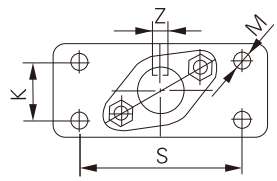




DN25–DN125(1" – 5")



DN150–DN400(6" – 16")



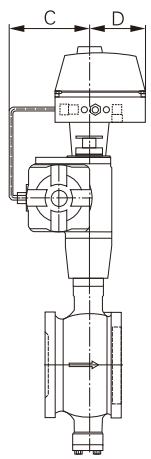
PN16

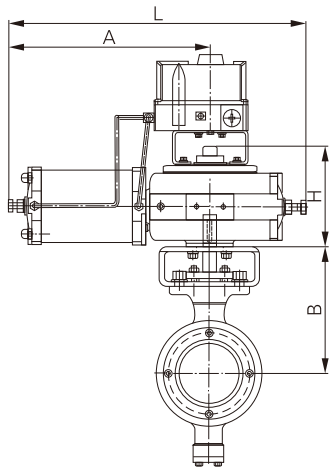
DN	A	H	B	B1	F	C	T	Y	L	Φd	H1	H	S	K	M	Z
25	102	51	115	16	2	38	81	73	102	16	64	35	75	/	2–M10	5
32	102	51	140	18	2	45	86	78	100	16	62	35	75	/	2–M10	5
40	114	57	150	18	2	50	90	80	102	16	64	35	75	/	2–M10	5
50	124	60	165	20	2	62	93	90	104	16	66	35	75	/	2–M10	5
65	145	70	185	20	2	73	108	105	102	16	64	35	75	/	2–M10	5
80	165	75	200	20	2	90	123	118	110	20	68	35	90	/	2–M12	6
100	194	92	220	22	2	115	138	130	108	20	66	35	90	/	2–M12	6
125	194	97	250	22	2	134	148	145	110	25	65	40	90	/	2–M12	8
150	229	110	285	24	2	164	170	170	124	30	69	50	110	40	2–M12	8
200	243	120	340	24	2	206	200	201	124	30	69	50	110	40	2–M12	8
250	297	148	405	26	2	260	240	237	140	40	77	60	135	40	2–M16	12
300	338	190	460	28	2	316	286	282	140	40	77	60	135	40	2–M16	12
350	400	221	520	30	2	372	330	337	170	50	105	60	140	64	2–M16	14
400	400	220	580	32	2	420	367	372	212	60	127	80	170	80	2–M20	18

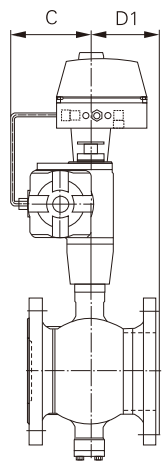
150LB

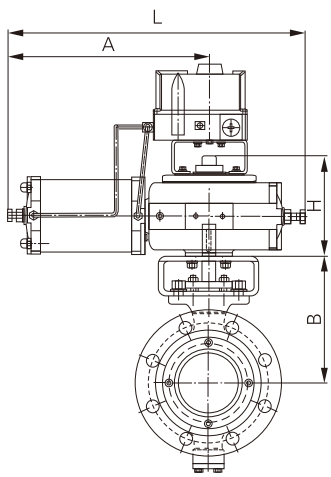
Inch	A	H	B	B1	F	C	T	Y	L	Φd	H1	H	S	K	M	Z
1	102	51	108	14.5	2	38	81	73	102	16	64	35	75	/	2–M10	5
11/4	102	51	115	14.5	2	45	86	78	100	16	62	35	75	/	2–M10	5
11/2	114	57	127	14.5	2	50	90	80	102	16	64	35	75	/	2–M10	5
2	124	60	152	16.3	2	62	93	90	104	16	66	35	75	/	2–M10	5
21/2	145	70	180	18	2	73	108	105	102	16	64	35	75	/	2–M10	5
3	165	75	191	19.5	2	90	123	118	110	20	68	35	90	/	2–M12	6
4	194	92	230	24	2	115	138	130	108	20	66	35	90	/	2–M12	6
5	194	97	225	24.3	2	134	148	145	110	25	65	40	90	/	2–M12	8
6	229	110	280	26	2	164	170	170	124	30	69	50	110	40	2–M12	8
8	243	120	340	29	2	206	200	201	124	30	69	50	110	40	2–M12	8
10	297	148	405	30.6	2	260	240	237	140	40	77	60	135	40	2–M16	12
12	338	190	485	32.2	2	316	286	282	140	40	77	60	135	40	2–M16	12
14	400	221	535	35.1	2	372	330	337	170	50	105	60	140	64	2–M16	14
16	400	220	595	37	2	420	367	372	212	60	127	80	170	80	2–M20	18

▶ Valve pneumatic double action actuator size









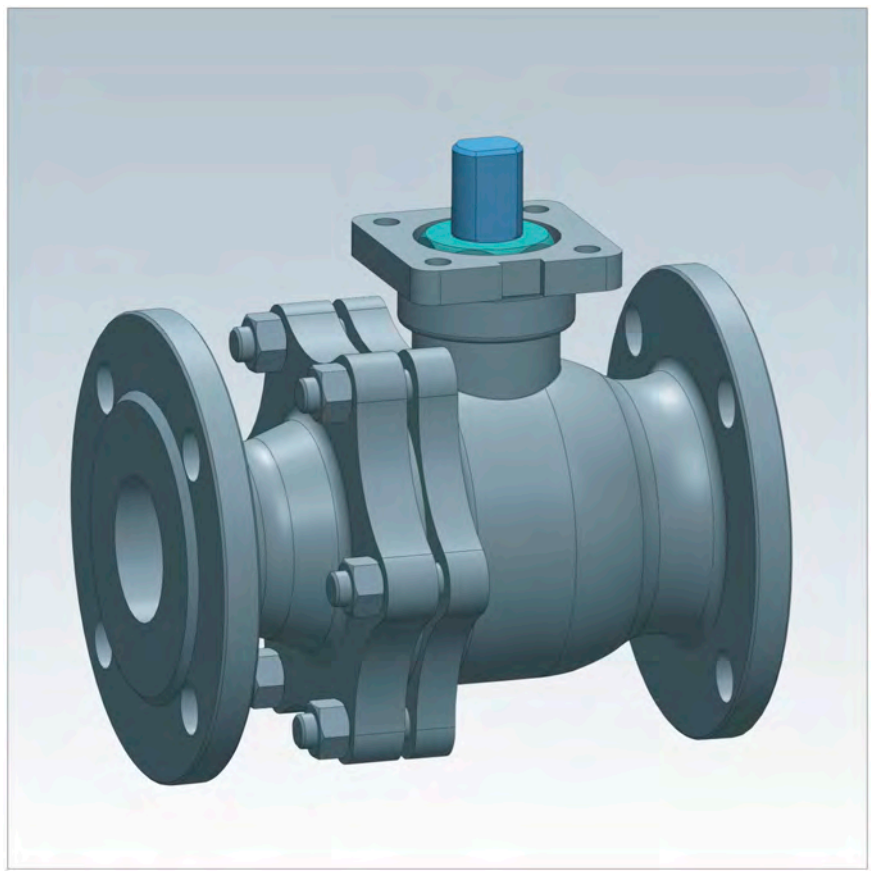
DN	A	L	B	H	C	D	D1
25	270	390	140	133	105	85	85
32	270	390	140	138	105	85	85
40	275	395	140	140	115	85	85
50	275	395	140	150	115	85	85
65	296	440	150	165	125	85	85
80	300	445	150	178	135	85	90
100	300	445	150	190	135	85	102
125	343	507	155	205	155	85	97
150	343	507	155	235	170	85	129
200	418	617	190	265	200	85	123
250	502	742	224	317	260	92	149
300	520	760	224	362	280	/	148
350	605	900	277	437	330	/	179
400	620	900	277	492	330	/	180

REOWO
Fluid Control Technology

▶ 50F Series floating ball valve

▲ Outline

The 50F Series soft seal floating ball valve has simple structure. The ball adopts the floating structure.
The single–way force acted by the medium on the ball makes the ball move closer to one side of the PTFE seat. The sealing function is realized through extruding the seat. It is mainly used for shut–off applications in low pressure service conditions.
The 50F Series valve is an reowo product used for on–off in the pipes. Featured by compact structure, light weight, high flowing capacity, strong shut–off performance, long service life, etc., it is the best choice in steam, hydrocarbon, corrosive media and other service conditions. It has prominent performances especially in chemical industry, air separation, water supply system, etc.
It is an reowo choice of users.



▲ Actuator and auxiliary control device

- Pneumatic
- Electric
- Pneumatic–hydraulic

▲ Applications

- Chemical industry and air separation equipment
- Coal liquefaction or coal gasification
- Hydrocarbon
- Power plant
- Water supply and heat supply systems

▲ Manufacturing range

- Size range: DN15 – 200
- Pressure rating: 150LB – 300LB
  PN1.0 – 4.0Mpa
- Connection type: flange type

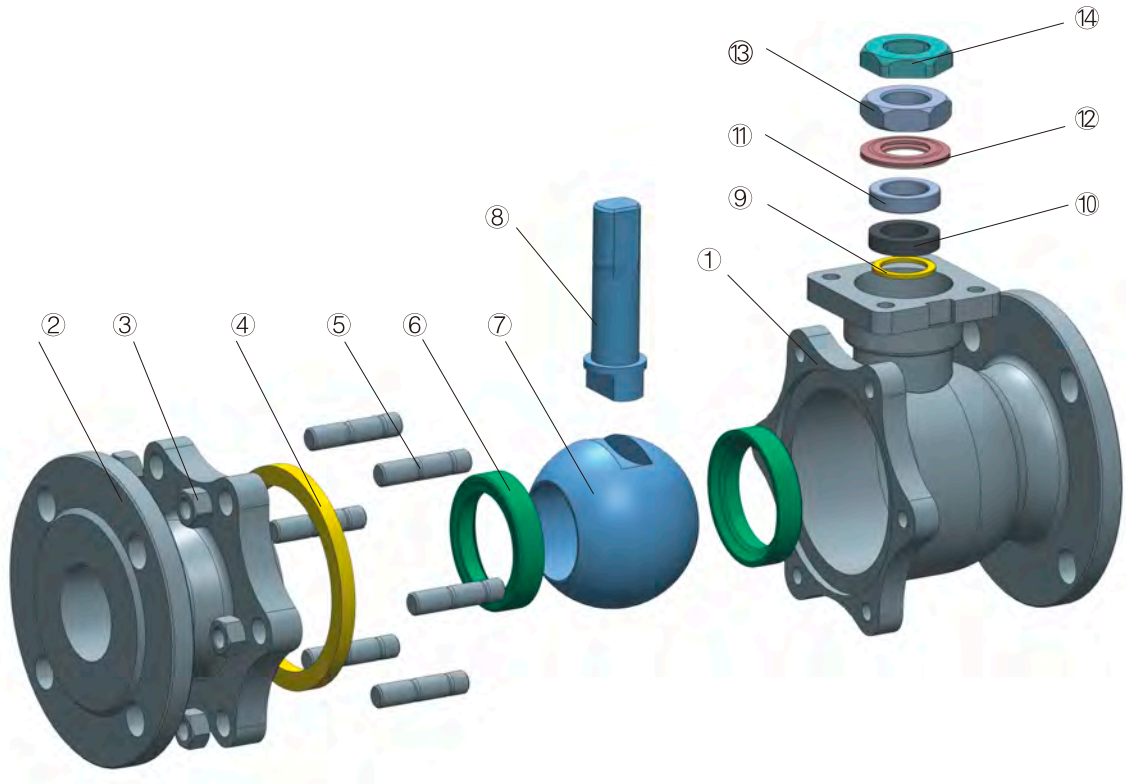
▲ Stem sealing

- The graphite packing formed through mold pressure serves as the dynamic load seal to ensure reliable sealing and long service life.
- The high strength stem can effectively transfer torque and ensure reliable on–off of the valve.
- The stem and ball fit tightly with each other, reducing hysteresis and dead band with excellent control performance.

▲ Seat sealing

- The seal conforms to the requirements in GB/T13927 Class D or ANSI/FCI70–2 CLASS VI.
- Reliable double–way sealing
- Excellent sealing performance in low pressure service conditions

▶ 50F series part name and materials



Part name and materials

Number	Name	Material		
		Stainless steel	Carbon steel	Cr–Mo steel
1	Body	ASTM A351 CF8/CF8M	ASTM A216 WCB	ASTM A217 WC6/WC9
2	Adapter	ASTM A351 CF8/CF8M	ASTM A216 WCB	ASTM A217 WC6/WC9
3	Nut	ASTM A193 Gr.8M	ASTM A193 Gr.2H	ASTM A193 Gr.2H
4	Sealing gasket		PTFE	
5	Stud	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
6	Seat		PTFE	
7	Ball		ASTM A182 F304/F316	
8	Stem		ASTM A564 17–4PH	
9	Packing gasket		ASTM A276 304	
10	Packing		Flexible graphite	
11	Flat washer		ASTM A276 304	
12	Disc spring		Inconel X–750	
13	Lock nut	ASTM A193 Gr.8M	ASTM A193 Gr.2H	ASTM A193 Gr.2H
14	Cap		ASTM A276 304	

REOWO
Fluid Control Technology

Structural features of 50F Series softseal floating ball valve

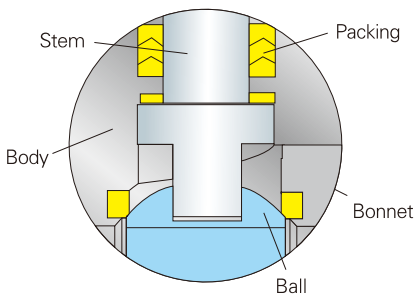


Figure 1

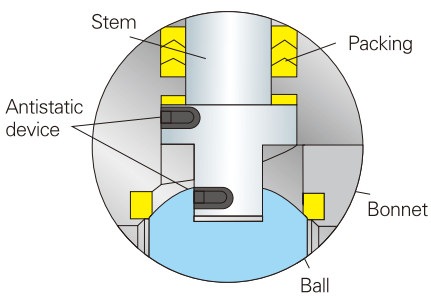


Figure 2

Blow–out proof stem

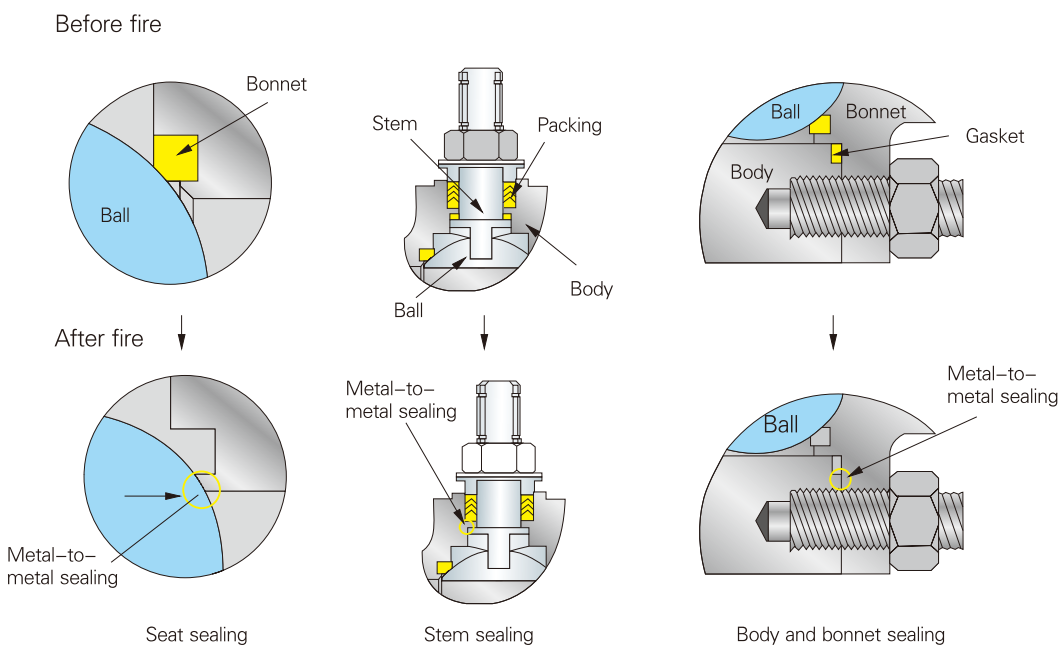
The stem and ball are separate. One end of the stem that is near to the ball is designed into the integral T type structure. It is protected by the upper protruded platform on the body to ensure that the stem will not be blown out under any pressure and play the function of back seal (figure 1).

Antistatic device

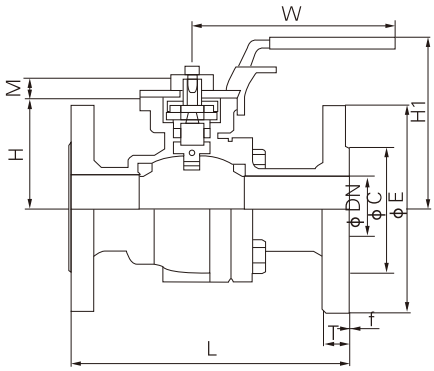
The antistatic device is a standard design of REOWO floating ball valves. The stem is installed with the spring grounding plunger to maintain continuous contact between the ball, stem and body and form a conduction circuit to transfer the electric charge, avoiding static electricity accumulation produced due to friction during the valve opening and closing. The static electricity accumulation is very dangerous in some service conditions (figure 2).

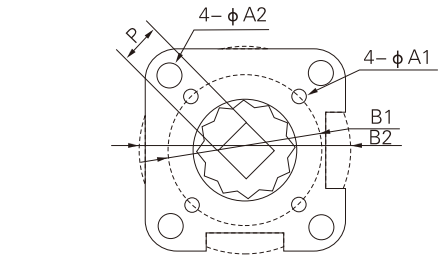
Fire safe design

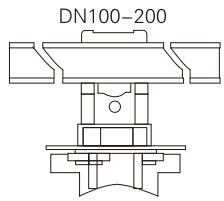
When the nonmetal seals are damaged or decomposed by high temperature in case of fire, the ball is pushed by the pressure to contact the metal lip seat and realize metal–to–metal sealing so as to shut off the fluids and minimize internal leakage In addition, the fire safe metal seat can prevent the erosion of the soft seal seat by the medium pressure and reduce creep deformation of the soft seal seat. All floating ball valves are designed to be fire safe and are tested and certified in accordance with API 607..

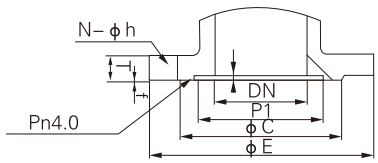


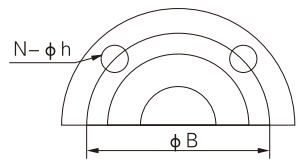
Size of 50F Series











GBMain appearance and conneclion size table — PN1.6Mpa

DN(mm)	L	ϕE	ϕB	ϕC	D1	T	f	F1	N–ϕh	H	H1	W	M	P	A1	A2	B1	B2
15	130	95	65	46	--	14	2	--	4–14	48.0	79	135	9.0	9.0	6.0	6.0	36.0	42.0
20	130	105	75	56	--	16	2	--	4–14	53.0	84	135	9.0	9.0	6.0	6.0	36.0	42.0
25	140	115	85	65	--	16	2	--	4–14	64.0	95	170	11.0	11.0	6.0	7.0	42.0	50.0
32	165	140	100	76	--	18	2	--	4–18	71.0	103	170	11.0	11.0	6.0	7.0	42.0	50.0
40	165	150	110	84	--	18	2	--	4–18	76.0	111	200	14.0	14.0	7.0	9.0	50.0	50.0
50	203	165	125	99	--	20	2	--	4–18	85.0	120	200	14.0	14.0	7.0	9.0	70.0	70.0
65	222	185	145	118	--	20	2	--	4–18	104.0	153	300	17.0	17.0	9.0	11.0	70.0	70.0
80	241	200	160	132	--	20	2	--	4–18	114.0	163	300	17.0	17.0	9.0	11.0	70.0	102.0
100	305	220	180	156	--	22	2	--	4–18	140.0	182	400	22.0	22.0	nϕn	11.0	nϕn	102.0
125	356	250	210	184	--	22	2	--	4–18	183.0	260	500	27.0	27.0	14.0	nϕn	125.0	nϕn
150	394	285	240	211	--	24	2	--	4–22	202.0	280	800	27.0	27.0	14.0	nϕn	125.0	nϕn
200	457	340	295	266	--	24	2	--	12–22	253.0	--	1100	27.0	27.0	14.0	nϕn	125.0	nϕn

GBMain appearance and conneclion size table — PN2.5Mpa

DN(mm)	L	ϕE	ϕB	ϕC	D1	T	f	F1	N–ϕh	H	H1	W	M	P	A1	A2	B1	B2
15	130	95	65	46	--	14	2	--	4–14	48.0	79	135	9.0	9.0	6.0	6.0	36.0	42.0
20	130	105	75	56	--	16	2	--	4–14	53.0	84	135	9.0	9.0	6.0	6.0	42.0	42.0
25	140	115	85	65	--	16	2	--	4–14	64.0	95	170	11.0	11.0	6.0	7.0	42.0	50.0
32	165	140	100	76	--	18	2	--	4–18	71.0	103	170	11.0	11.0	6.0	7.0	42.0	50.0
40	165	150	110	84	--	18	2	--	4–18	76.0	111	200	14.0	14.0	7.0	9.0	50.0	70.0
50	203	165	125	99	--	20	2	--	4–48	85.0	120	200	14.0	14.0	7.0	9.0	50.0	70.0
65	241	185	145	118	--	22	2	--	4–18	104.0	153	300	17.0	17.0	9.0	11.0	70.0	102.0
80	283	200	160	132	--	24	2	--	12–26	114.0	163	300	17.0	17.0	9.0	11.0	70.0	102.0
100	305	235	190	156	--	24	2	--	4–22	140.0	180	400	22.0	22.0	nϕn	11.0	nϕn	102.0
125	381	270	220	184	--	26	2	--	4–26	183.0	260	500	27.0	27.0	14.0	Nϕn	125.0	nϕn
150	403	300	250	211	--	28	2	--	4–26	202.0	180	800	27.0	27.0	14.0	nϕn	125.0	nϕn
200	502	360	310	284	--	30	2	--	4–18	253.0	--	1100	27.0	27.0	14.0	nϕn	125.0	nϕn

GBMain appearance and conneclion size table — PN4.0Mpa

DN(mm)	L	ϕE	ϕB	ϕC	D1	T	f	F1	N–ϕh	H	H1	W	M	P	A1	A2	B1	B2
15	130	5	65	46	40	14	2	4	4–14	48.0	79	135	9.0	9.0	6.0	6.0	36.0	42.0
20	130	105	75	56	51	16	2	4	4–14	53.0	84	135	9.0	9.0	6.0	6.0	42.0	42.0
25	140	115	85	65	58	16	2	4	4–14	64.0	95	170	11.0	11.0	6.0	7.0	42.0	50.0
32	165	140	100	76	66	18	2	4	4–18	71.0	103	170	11.0	11.0	6.0	7.0	42.0	50.0
40	165	150	110	84	76	18	2	4	4–18	76.0	111	200	14.0	14.0	7.0	9.0	50.0	70.0
50	203	165	125	99	88	20	2	4	4–18	85.0	120	200	14.0	14.0	7.0	9.0	50.0	70.0
65	241	185	145	118	110	22	2	4	8–18	104.0	153	300	17.0	17.0	9.0	11.0	70.0	102.0
80	283	200	160	132	121	24	2	4	8–18	114.0	163	300	17.0	17.0	9.0	11.0	70.0	102.0
100	305	235	190	156	150	24	2	4.5	8–22	140.0	180	400	22.0	22.0	nϕn	11.0	nϕn	102.0
125	381	270	220	184	176	26	2	4.5	8–26	183.0	260	500	27.0	27.0	14.0	Nϕn	125.0	nϕn
150	403	300	250	211	204	28	2	4.5	8–26	202.0	180	800	27.0	27.0	14.0	nϕn	125.0	nϕn
200	502	375	320	284	260	30	2	4.5	12–30	253.0	--	1100	27.0	27.0	14.0	nϕn	125.0	nϕn

REOWO
Fluid Control Technology

▶ 50GR Series soft seal trunnion ball valve

▲ Outline

The 50GR Series soft seal trunnion ball valve is a high performance soft seal ball valve developed by our company through digesting and absorbing the latest international technologies on the basis of many years of ball valve design and manufacturing experience, suitable for chemical industry, petrochemical industry, anticorrosive application and other service conditions.
The 50G Series valve is an reowo product used for on–off in the pipes. Featured by compact structure, light weight, high flowing capacity, strong shut–off performance, long service life, etc., it is the best choice in steam, hydrocarbon, corrosive media and other service conditions. It has prominent performances especially in chemical industry, air separation, water supply system, etc. It is an reowo choice of users.

▲ Actuator and auxiliary control device

- Pneumatic
- Electric
  Pneumatic–hydraulic

▲ Applications

- Chemical industry and air separation equipment
- Coal liquefaction or coal gasification
- Hydrocarbon
- Power plant
- Water supply and heat supply systems

▲ Manufacturing range

- Size range: DN2" – 40"
- Pressure rating: 150LB – 900LB
  PN1.0 – 15.0Mpa
- Connection type: flange type,butt welding type

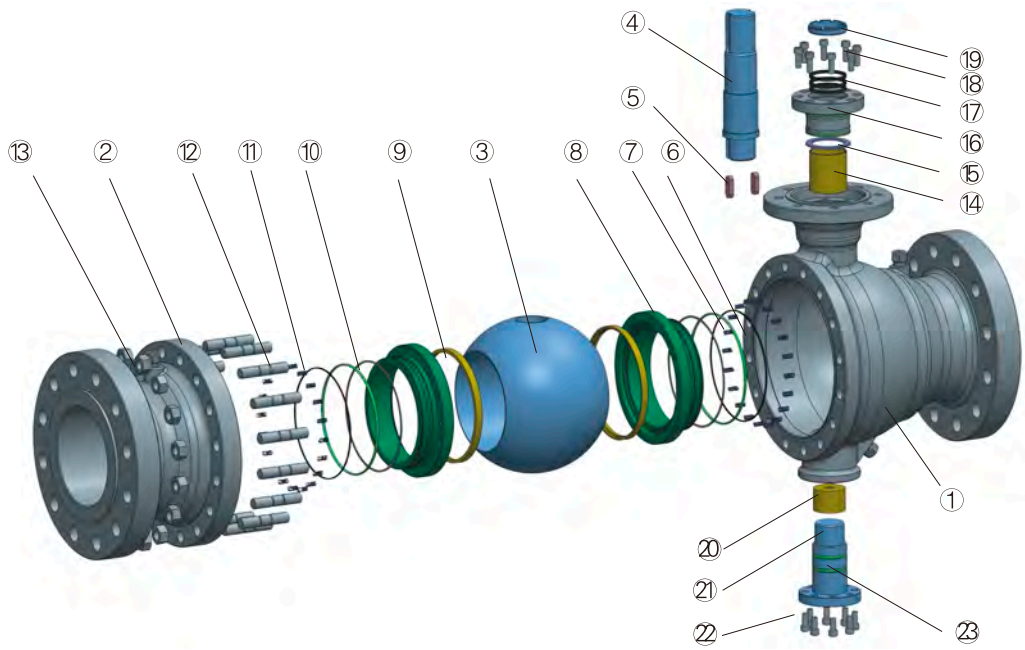
▲ Stem sealing

- The graphite packing formed through mold pressure serves as the dynamic load seal to ensure reliable sealing and long service life.
- The high strength stem can effectively transfer torque and ensure reliable on–off of the valve.
- The stem and ball fit tightly with each other, reducing hysteresis and dead band with excellent control performance.

▲ Seat sealing

- The seal conforms to the requirements in GB/T13927 Class D or ANSI/FCI70–2 CLASS VI.
- Reliable double–way sealing
- Excellent sealing performance in low pressure service conditions

50GR series part name and materials



Part name and materials

Number	Name	Material		
		Stainless steel	Carbon steel	Cr–Mo steel
1	Body	ASTM A351 CF8/CF8M	ASTM A216 WCB	ASTM A217 WC6/WC9
2	Adapter	ASTM A351 CF8/CF8M	ASTM A216 WCB	ASTM A217 WC6/WC9
3	Ball		ASTM A182 F304/F316	
4	Stem		ASTM A564 17–4PH	
5	Key		ASTM A182 F304/F316	
6	Fire safe ring		Graphite	
7	Support ring		PTFE	
8	Seat		PTFE/RTFE	
9	Seat support ring		ASTM A182 F304/F316	
10	Seal ring		FKM	
11	Spring		Inconel X–750	
12	Stud	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
13	Nut	ASTM A193 Gr.8M	ASTM A193 Gr.2H	ASTM A193 Gr.2H
14	Bearing		A36+PTFE	
15	Sliding bearing		A36+PTFE	
16	Packing box		ASTM A182 F304/F316	
17	Packing		Flexible graphite	
18	Inner hexagon screw	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
19	Set screw		ASTM A182 F304/F316	
20	Lower bearing		A36+PTFE	
21	Lower stem		ASTM A564 17–4PH	
22	Inner hexagon screw	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
23	O ring		FKM	

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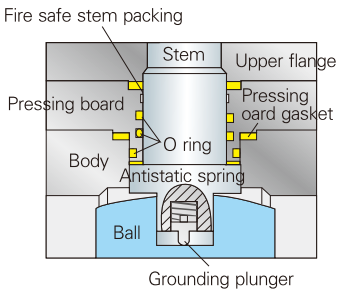
Fluid Control Technology

▶ Structural features of 50GRSeries softseal trunnion ball Valve

Design features

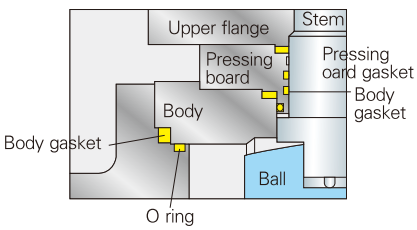


▲ Blow–out proof stem

The stem and ball are separate. One end of the stem that is near to the ball is designed into the integral T type structure. The gland flange can block the T–shaped stem to prevent it from being blown out by cavity pressure.

▲ Antistatic device

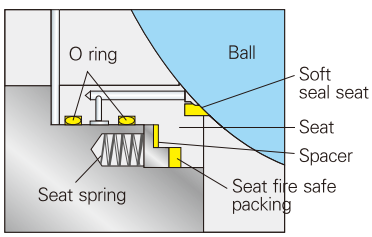
The antistatic device is a standard design of REOWO ball valves. The stem is installed with the spring grounding plunger to maintain continuous contact between the ball, stem and body and form a conduction circuit to transfer the electric charge, avoiding static electricity accumulation produced due to friction during the valve opening and closing or due to fluid impact on body cavity. The static electricity accumulation is very dangerous for the pipelines in some service conditions.



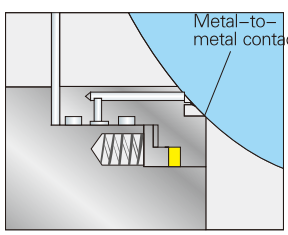
▲ Super fire safe design

External leakage prevention:
Under normal conditions, leakage from the stem area is prevented with the design of two O rings and a graphite gasket. Leakage at the places that connect the body with bonnet is also prevented by an O ring and a body graphite gasket. After the O rings are damaged in case of fire, the gland graphite gasket, body graphite gasket and stem graphite packing will prevent external leakage of the fluids.

Internal leakage prevention:
When the nonmetal seals such as O ring, soft seal seat and seat ring are decomposed by fire, the metal seat lip will be pushed by the pre–tightening force of the spring to contact the ball and shut off the fluids in the pipeline, minimizing internal leakage in the valve channel. In addition, the flexible graphite seat packing is compressed by the seat spring to prevent leakage of the fluids between the body and seat.



Before fire



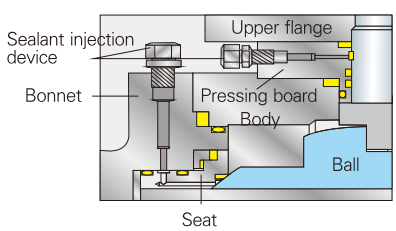
After fire

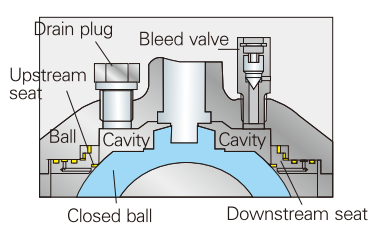
▲ Emergency sealant injection system

For 6 inch (DN150) and larger REOWO trunnion ball valves, the sealant injection fittings will be installed on the stem and seats. When the sealing materials (seat seal ring or O ring) are damaged or decomposed by fire or other accidents, the stem and seat leakage can be prevented by the injection of sealant into these fittings. The fitting is provided with a check valve to provide backup sealing and prevent backflow

▲ Double block and bleed

The two seats of the trunnion ball valve can shut off the fluids from the upstream and downstream sides, realizing the double block function. When the ball is fully opened or fully closed, even the pressure is simultaneously applied to both sides of the valve, the valve cavity and channel are isolated from each other, and the residual medium in the cavity can be discharged by the bleed valve.



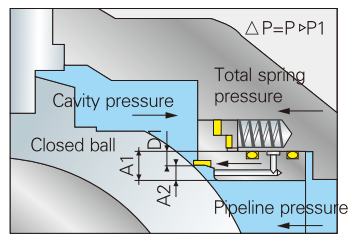


▶ Structural features of 50GR Series softseal trunnion ball valve

▲ Cavity pressure relief

When the cavity pressure (Pc) is lower than seat spring pressure (Fs) and pipeline pressure (P1), i.e., △PXD1 < Fs, the ball and seat are in close contact with each other to ensure sealing. When the cavity pressure (Pc) is higher than seat spring pressure (Fs) and pipeline pressure (P1), i.e., △PXD1 > Fs, the cavity pressure will slightly push the seat away to produce a small interval between the seat and the ball. Therefore, the excess pressure in the cavity will be automatically discharged into the pipeline, and the pressure balance between the cavity and pipeline (upstream or downstream side) is restored.

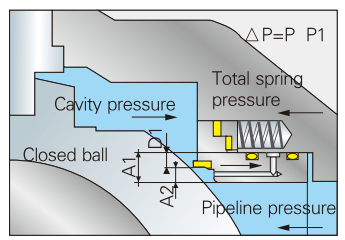
A: $\triangle P^2 \times D1 \leqslant Fs$



▲ Self relieving seats (single piston effect)

The pressure of fluids at the upstream and downstream sides pushes the seat toward the ball. If the cavity pressure produced by the medium is higher than the spring pre-tightening force and the fluid pressure, the seat will be pushed by the cavity pressure to leave the ball. Any excess pressure produced in the cavity will be automatically discharged when the valve is fully opened or fully closed.

B: $\triangle P^2 \times D1 \leqslant Fs$

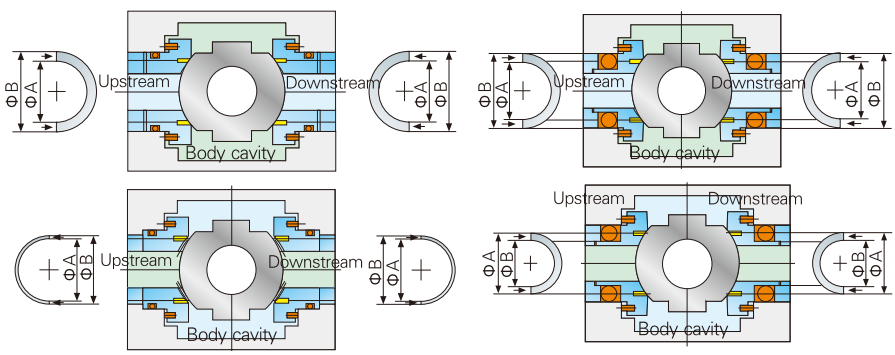


▲ Double piston effect seats

The upstream and downstream pressure creates thrust to always push the seat toward the ball and maintain the status of sealing. The double piston effect ball valve does not have the cavity self relief function. Therefore, it is generally required that the valve should be installed with the automatic pressure relief valve on its body so that when the cavity pressure is too high, the pressure will be discharged by the automatic pressure relief valve.

Standard structure
Single piston effect (self relieving seat

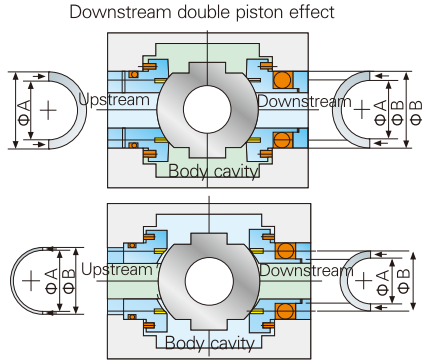
Optional structure
Double piston effect



▲ Upstream self relieving seat and downstream double piston effect seat

The upstream side adopts the self relieving seat design. The fluid pressure pushes the seat toward the ball and forms sealing. When the cavity pressure is too high, the upstream self relieving seat will be pushed to leave the ball, and any excess pressure in the cavity will be automatically discharged toward the upstream side. The downstream side adopts the double piston effect seat design. The fluid pressure always pushes the seat toward the ball and the downstream seat is always under the status of sealing.

Optional structure
Downstream double piston effect



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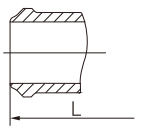
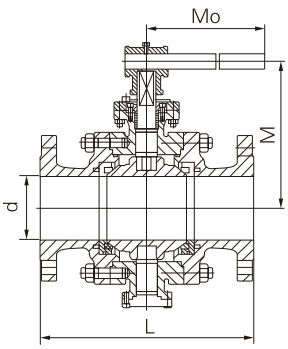
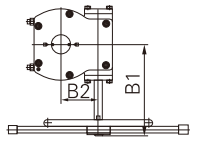
Size of 50GR Series

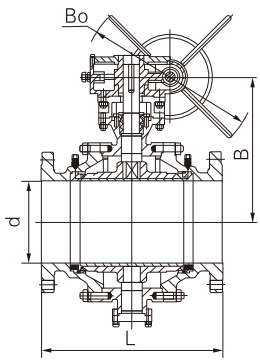


Welding End

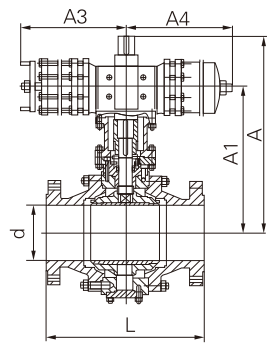


Handle operion

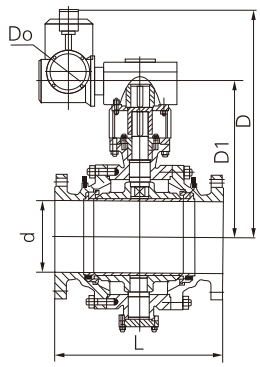




Worm gear operation



pneumatic operation



electric operation

Main Dimensions — **PN1.6MPa CLASS 150** — **mm**

Dimensions		L			d	Manual		Worm Gear Drive				Pneumatic				Electric			Weight	
DN	NPS	RF	WE	RJ		M	Mo	B	Bo	B1	B2	A	A1	A3	A4	D	D1	Do	RF	WE
50	2	178	216	191	49	107	230	/	/	/	/	217	174	89	181	/	/	/	12	11
65	2½	191	241	203	62	125	400	/	/	/	/	308	248	148	257	/	/	/	16	15.3
80	3	203	283	216	74	152	400	/	/	/	/	318	258	148	257	/	/	/	22	21.3
100	4	229	305	241	100	178	650	/	/	/	/	407	322	287	287	/	/	/	35	34
125	5	356	381	406	125	252	1050	/	/	/	/	480	395	287	287	/	/	/	58	55.4
150	6	394	457	470	150	272	1050	378	400	200	106	562	457	378	378	554	337	508	74	72
200	8	457	521	546	201	/	/	421	400	200	108	700	595	378	378	606	421	508	205	201
250	10	533	559	622	252	/	/	482	400	200	108	735	630	378	378	667	482	508	322	310
300	12	610	635	699	303	/	/	549	600	330	144	858	728	530	530	734	549	508	460	447
350	14	686	762	775	334	/	/	582	600	330	144	1013	883	530	530	784	582	508	576	536
400	16	762	838	876	385	/	/	687	800	370	220	1319	1154	680	680	889	587	508	864	814
450	18	864	914	927	436	/	/	730	800	370	220	1389	1224	680	680	981	730	305	1280	1210
500	20	914	991	1080	487	/	/	772	800	370	220	1459	1294	680	680	1023	772	305	1600	1500
600	24	1067	1143	/	589	/	/	995	800	515	279	1060	915	1455	1455	168	995	305	3540	3000
650	26	1143	1245	/	633	/	/	1022	800	515	279	1234	1089	1455	1455	1334	1071	305	3930	3240
700	28	1245	1346	/	684	/	/	1088	800	515	279	1140	980	1655	1655	1459	1155	305	4500	3710
750	30	1295	1397	/	735	/	/	1153	800	515	279	1195	1035	1655	1655	1515	1211	305	5370	4530
800	32	1372	1524	/	779	/	/	1223	800	570	368	1338	1149	1960	1960	1649	1316	458	5940	4870
850	34	1473	1626	/	830	/	/	1307	800	570	368	/	/	/	/	1649	1361	458	6615	5305
900	36	1524	1727	/	874	/	/	1374	800	570	368	/	/	/	/	1766	1433	458	7540	6010
1000	40	1753	1956	/	976	/	/	1468	960	575	220	/	/	/	/	1854	1521	458	9320	7400

Note:in the column of'L' in the sheet,RF means the structural length of raisead flange,WE meansstructural length of weldedand RJ meand the structural length of ring joint type.

Size of 50GR Series

Main Dimensions — PN4.0 Mpa CLASS 300 — mm

Dimensions		L			d	Manual		Worm Gear Drive				Pneumatic				Electric			Weight	
DN	NPS	RF	WE	RJ		M	Mo	B	Bo	B1	B2	A	A1	A3	A4	D	D1	Do	RF	WE
50	2½	216	216	232	49	107	230	/	/	/	/	234	174	148	257	/	/	/	/	/
65	2	241	241	257	62	125	400	/	/	/	/	308	248	148	257	/	/	/	/	/
80	3	283	283	298	74	152	400	/	/	/	/	343	258	287	287	/	/	/	/	/
100	4	305	305	321	100	178	650	/	/	/	/	407	322	287	287	/	/	/	/	/
125	5	381	381	/	125	252	1050	/	/	/	/	500	395	378	378	/	/	/	/	/
150	6	406	457	419	150	272	1050	378	400	200	106	562	457	378	378	552	337	508	118	98
200	8	502	521	517	201	/	/	421	400	200	108	700	595	378	378	606	421	508	255	225
250	10	568	559	584	252	/	/	482	600	330	144	760	630	530	530	667	482	508	370	330
300	12	648	635	664	303	/	/	549	600	330	144	858	728	530	530	751	549	508	533	493
350	14	762	762	778	334	/	/	582	800	370	220	1048	883	680	680	784	582	305	640	600
400	16	838	838	854	385	/	/	687	800	370	220	1319	1154	680	680	938	687	305	1030	930
450	18	914	914	930	436	/	/	730	800	370	220	1369	1224	1455	1455	981	730	305	1542	1402
500	20	991	991	1010	487	/	/	772	800	515	279	1459	1294	1455	1455	1045	772	305	2100	1900
600	24	1143	1143	1165	589	/	/	995	800	515	279	1075	915	1665	1665	1268	995	305	3430	2860
650	26	1245	1245	1270	633	/	/	1022	800	515	279	1249	1089	1665	1665	1375	1071	305	4340	3620
700	28	1346	1346	1372	684	/	/	1088	800	515	279	1140	980	1665	1665	1459	1155	305	4960	4140
750	30	1397	1397	1422	735	/	/	1153	80	570	368	1195	1035	1960	1960	1515	1211	305	5950	4960
800	32	1524	1524	1553	779	/	/	1223	800	570	368	1338	1149	1960	1960	1649	1316	.458	6760	5640
850	34	1626	1626	1654	830	/	/	1307	800	570	368	/	/	/	/	1649	1361	458	8280	6900
900	36	1727	1727	1756	874	/	/	1374	960	575	220	/	/	/	/	1883	1433	458	9640	8040
1000	40	1930	1930	/	976	/	/	1468	960	575	220	/	/	/	/	1971	1521	458	11730	9680

REOWO
Fluid Control Technology

▶ Size of 50GR Series

Main Dimensions — PN6.4 Mpa CLASS 600 — mm

Dimensions		L			d	Manual		Worm Gear Drive				Pneumatic				Electric			Weight	
DN	NPS	RF	WE	RJ		M	Mo	B	Bo	B1	B2	A	A1	A3	A4	D	D1	Do	RF	WE
50	2½	292	292	295	49	107	400	/	/	/	/	234	174	148	257	/	/	/	35	29
65	2	330	330	333	62	125	650	/	/	/	/	33	248	287	287	/	/	/	38	31
80	3	356	356	359	74	152	650	/	/	/	/	343	258	287	287	/	/	/	55	45
100	4	432	432	435	100	178	1050	/	/	/	/	407	322	287	287	/	/	/	102	78
125	5	508	508	/	125	/	/	/	/	/	/	500	395	378	378	/	/	/	160	120
150	6	559	559	562	150	/	/	389	400	200	108	562	457	378	378	522	337	508	232	182
200	8	660	660	664	201	/	/	449	600	330	144	725	595	530	530	606	421	508	390	310
250	10	787	787	791	252	/	/	497	600	300	144	760	630	530	530	684	482	508	710	590
300	12	838	838	841	303	/	/	550	800	370	220	893	728	680	1455	751	549	508	960	790
350	14	889	889	892	334	/	/	582	800	370	220	1048	883	1455	680	784	582	305	1700	1490
400	16	991	991	994	385	/	/	687.	800	370	220	1319	1154	1455	1455	960	687	305	1970	1720
450	18	1092	1092	1095	436	/	/	730	800	515	279	1384	1224	1665	1665	1003	730	305	2180	1830
500	20	1194	1194	1200	487	/	/	780	800	515	279	1459	1294	1665	1665	1045	772	305	3250	2770
600	24	1397	1397	1407	589	/	/	995	800	515	279	1075	915	1665	1665	1328	995	305	4880	4030
650	26	1448	1448	1461	633	/	/	1038	800	515	279	1249	1089	1960	1960	1375	1071	305	5830	4840
700	28	1549	1549	1562	684	/	/	1088	800	570	368	1140	980	1960	1960	1459	1155	305	6700	5610
750	30	1651	1651	1664	735	/	/	1157	800	570	368	/	/	/	/	1661	1211	305	7450	6210
800	32	1778	1778	1794	779	/	/	1190	800	570	368	/	/	/	/	1766	1316	458	8470	7060
850	34	1930	1930	1946	830	/	/	1246	960	575	220	/	/	/	/	1694	1361	458	10360	8640
900	36	2083	2083	2099	874	/	/	1292	960	575	220	/	/	/	/	1883	1433	458	12080	10070
1000	40	2337	2337	/	976	/	/	1361	960	575	220	/	/	/	/	1971	1521	458	15420	12850

▶ Size of 50GR Series

Main Dimensions — PN15.0 Mpa CLASS 900 mm

Dimensions		L			d	Manual		Worm Gear Drive				Pneumatic				Electric			Weight	
DN	NPS	RF	WE	RJ		M	Mo	B	Bo	B1	B2	A	A1	A3	A4	D	D1	Do	RF	WE
50	2	368	368	371	49	123	650	/	/	/	/	234	174	148	257	522	337	508	50	40
65	2½	419	419	422	62	136	800	/	/	/	/	308	248	148	257	606	421	508	75	60
80	3	381	381	384	74	/	/	185	400	200	106	343	258	287	287	684	482	508	92	70
100	4	457	457	460	100	/	/	225	400	200	108	427	322	378	378	822	549	508	146	109
125	5	/	/	/	/	/	/	/	/	/	/	/	/	/	/	855	582	305	/	/
150	6	610	610	613	150	/	/	389	600	330	144	587	457	530	530	991	687	305	339	284
200	8	737	737	740	201	/	/	449	600	330	144	725	595	530	530	1003	730	305	640	540
250	1	838	838	841	252	/	/	497	800	370	220	795	630	680	680	1105	772	305	960	800
300	12	965	965	968	303	/	/	550	800	370	220	837	728	1455	1455	1445	995	305	1330	1110
350	14	1029	1029	1038	322	/	/	582	800	370	220	1048	883	1455	1455	1521	1071	305	1640	1370
400	16	1130	1130	1140	373	/	/	687	800	515	279	1314	1154	1665	1665	1605	1155	305	2240	1910
450	18	1219	1219	1232	423	/	/	730	800	515	279	1384	1224	1665	1665	1661	1211	305	2770	2310
500	20	1321	1321	1334	471	/	/	780	800	515	279	1459	1294	1665	1665	1766	1316	458	3740	3120
600	24	1549	1549	1568	570	/	/	995	800	515	279	1075	915	1960	1960	1881	1316	458	5560	4640
650	26	1651	1651	1674	617	/	/	1038	800	570	368	1249	1089	1960	1960	1953	1433	458	7070	5880
700	28	1753	1753	1776	665	/	/	1088	800	570	368	1140	980	1960	1960	1971	1521	458	8070	6730
750	30	1880	1880	1902	712	/	/	1157	800	570	368	/	/	/	/	2036	1586	610	9680	8070
800	32	2030	2030	2054	760	/	/	1190	960	575	220	/	/	/	/	2255	1736	610	11000	9170
850	34	2159	2159	2188	808	/	/	1246	960	575	220	/	/	/	/	2400	1880	610	13470	11230
900	36	2286	2286	2315	855	/	/	1292	960	575	220	/	/	/	/	2465	1945	610	15700	13090
1000	40	2410	2410	2438	959	/	/	1361	960	630	295	/	/	/	/	2574	2054	610	20040	16700

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▶ 50GY Series hard seal trunnion ball valve

▲ Outline

In the 50GY Series hard seal trunnion ball valve, the seat surface is subjected to hardening treatment, the ball is coated with tungsten carbide and the sealing seat is loaded by the spring. It has excellent sealing performance under a wide varieties of pressures and temperatures, ensuring stable running under high temperature and high pressure service conditions. The optimized stem design makes the whole valve maintain the lowest operating torque. The 50GY Series valve is mainly used in severe service conditions such as high temperature, high pressure, strong corrosion and other service conditions with media containing granules. Due to its advantages, the hard seal ball valve is widely applied and receives more and more favor from customers.

▲ Actuator and auxiliary control device

- Pneumatic
- Electric
  Pneumatic–hydraulic

▲ Applications

- Chemical industry and air separation equipment
- Coal liquefaction or coal gasification
- Hydrocarbon
- Power plant
- Water supply and heat supply systems

▲ Manufacturing range

- Size range: DN1" – 20"
- Pressure rating: 150LB – 600LB
  PN1.0 – 6.4Mpa
- Connection type: flange type,butt welding type

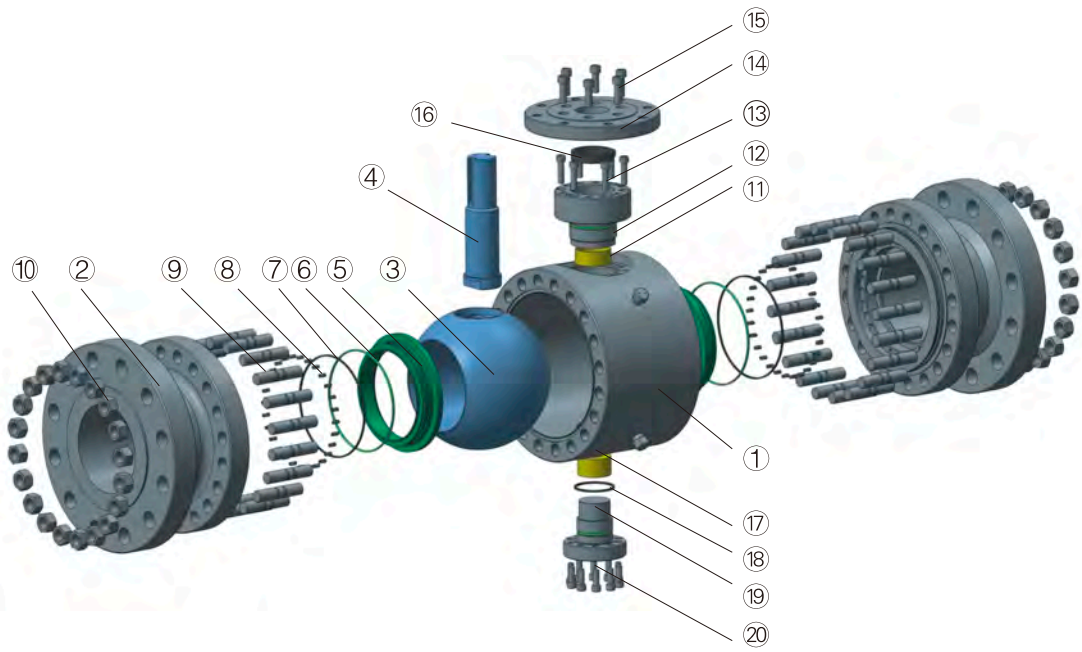
▲ Stem sealing

- The graphite packing formed through mold pressure serves as the dynamic load seal to ensure reliable sealing and long service life.
- The high strength stem can effectively transfer torque and ensure reliable on–off of the valve.
- The stem and ball fit tightly with each other, reducing hysteresis and dead band with excellent control performance.

▲ Seat sealing

- The seal conforms to the requirements in GB/T13927 Class D or ANSI/FCI70–2 CLASS VI.
- Reliable double–way sealing
- Excellent sealing performance in low pressure service conditions

▶ 50GY series part name andmaterials



Part name and materials

Number	Name	Material		
		Stainless steel	Carbon steel	Cr–Mo steel
1	Body	ASTM A182 F304/F316	ASTM A105	ASTM A182GR.F11/F22
2	Adapter	ASTM A182 F304/F316	ASTM A105	ASTM A・182GR.F11/F22
3	Ball		ASTM A182 F304/F316	
4	Stem		ASTM A564 17–4PH	
5	Seat		ASTM A182 F304/F316+STL	
6	Seat ring		FKM	
7	Fire safe ring		Flexible graphite	
8	Spring		Inconel X–750	
9	Stud	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
10	Nut	ASTM A193 Gr.8M	ASTM A193 Gr.2H	ASTM A193 Gr.2H
11	Upper sleeve		A36+PTFE	
12	Packing box		ASTM A182 F304/F316	
13	Inner hexagon screw	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
14	Connection plate	ASTM A182 F304/F316	ASTM A105	ASTM A182GR.F11/F22
15	Inner hexagon screw	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
16	Packing		Flexible graphite	
17	Lower sleeve		A36+PTFE	
18	Lower cover sealing gasket		Flexible graphite	
19	Back shaft		ASTM A182 F304/F316+STL	
20	Inner hexagon screw	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7

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▶ Structural features of 50GYSeries hardseal trunnion ball Valve

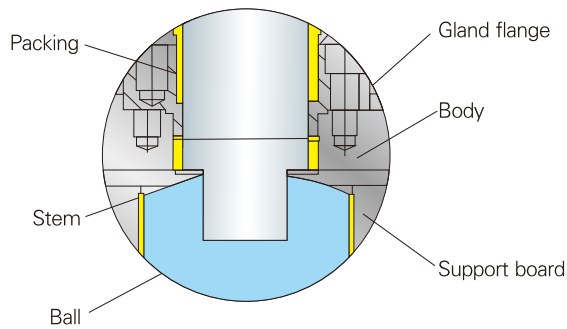
▲ Blow–out proof stem

The bottom end of the stem adopts the integral T type structure, which is a blow–out proof design. The side entry type stem structure is inserted into the body to ensure stem safety under any pressure. In addition, it also has the function of back seal to further ensure reliable sealing.

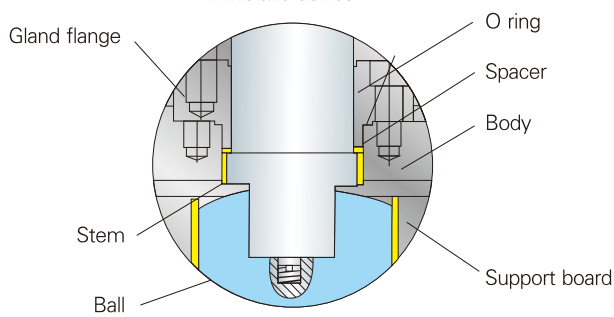
▲ Fire safe and antistatic design

The fire safe and antistatic design is a standard design of REOWO ball valves. The seal assembly (seat, body, spacer, packing, etc.) of REOWO metal hard seal ball valves is made of metal or graphite of excellent fire safe performance to realize fire safety. Continuous metal contact between the ball, stem and body is maintained and a conduction circuit is formed to transfer the electric charge and avoid static electricity accumulation produced due to friction during the valve opening and closing or due to fluid impact on body cavity.

Schematic diagram of ball valve blow–out proof structure



Antistatic device



▲ Low leakage packing design (suitable for the graphite packing structure metal hard seal ball valve)

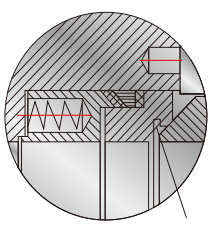
The metal hard seal ball valve is often used in severe service condition. To ensure the overall sealing performance of the valve, the graphite packing structure metal hard seal ball valve adopts low leakage packing. The packing is composed of parallel layers and tapered seal layers. It is a flexible graphite assembly with such performances as high temperature resistance, low stress release, low creep deformation, etc. With these performances, the friction produced when the stem turns is effectively reduced and stable sealing performance at the stem under long running conditions is ensured.

▲ Various types of seat structures

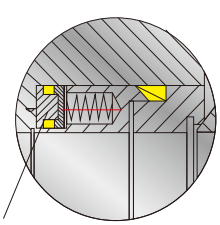
❶ The elastic seat with automatic compensation function is adopted. The sealing face is hard alloy to ensure reliable sealing, high temperature resistance, wear resistance, corrosion resistance and long service life. Due to the features of the metal sealing face, fire safe performance can be realized in a real sense. It is applicable to high temperature (–50℃ – 400℃) and granules service conditions.

❷ In severe service conditions with media containing granules, the solid small granules and dust will enter the spring structure, influencing normal work of the pre–tightening spring. REOWO metal hard seal provides the optional seat structure to effectively prevent solid granules from entering the spring hole and influencing the pre–tightening function of the spring, so as to enable the ball and seat to achieve good shearing and self–cleaning functions. It is suitable for controlling media containing granules and fibers.

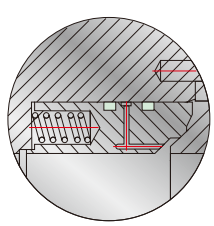
❸ In some chemical industries, the conventional soft seal trunnion ball valve cannot meet the requirements of the highly corrosive media, and it is required to enhance the sealing performance and sealing class to the utmost extent. REOWO has developed the metal hard seal ball valve suitable for normal temperature & middle temperature (–50℃ – 250℃). The metal–to–metal sealing method is adopted between the ball and seat, and O ring sealing structure is adopted at the packing and seat, so as to effectively enhance overall sealing performance of the valve and reduce the torque.



❶ Elastic seat design

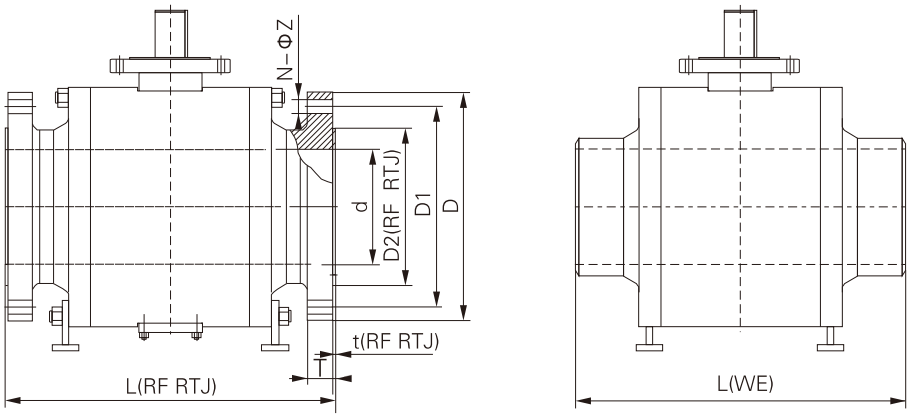


Dust proof structure design ❷



❸

▶ Size of 50GY Series



ANSI Class150 285 psi

Nominal Size		(RF)								(RTJ)			(BW)
DN	NPS	d	L(RF)	D	D1	D2(RF)	T	t(RF)	N–ΦZ	L(RTJ)	D2(RTJ)	t(RTJ)	L(WE)
25	1	25	127	110	79.5	51	11	2.0	4–Φ15	140	64	6.4	165
32	1 1/4	32	140	115	89	64	11	2.0	4–Φ15	153	73	6.4	178
40	1 1/2	38	165	125	98.5	73	13	2.0	4–Φ15	178	83	6.4	190
50	2	49	178	150	120.5	92	14	2.0	4–Φ19	191	102	6.4	216
65	2 1/2	62	191	180	139.5	105	16	2.0	4–Φ19	203	121	6.4	241
80	3	74	203	190	152.5	127	17	2.0	4–Φ19	216	133	6.4	283
100	4	100	229	230	190.5	157	22	2.0	4–Φ19	241	171	6.4	305
150	6	150	394	280	241.5	246	23.5	2.0	8–Φ22	407	219	6.4	457
200	8	200	457	345	298.5	270	27	2.0	8–Φ22	470	273	6.4	521
250	10	250	533	405	362	324	28.5	2.0	12–Φ26	546	330	6.4	559
300	12	300	610	485	432	381	30	2.0	12–Φ26	623	406	6.4	635
350	14	350	686	535	476	413	33	2.0	12–Φ29.5	696	425	6.4	762
400	16	400	762	600	540	470	35	2.0	16–Φ29.5	775	483	6.4	838
450	18	450	864	635	578	534	38	2.0	16–Φ32.5	877	546	6.4	914
500	20	500	914	700	635	584	41	2.0	16–Φ32.5	927	597	6.4	991

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▶ Size of 50GY Series

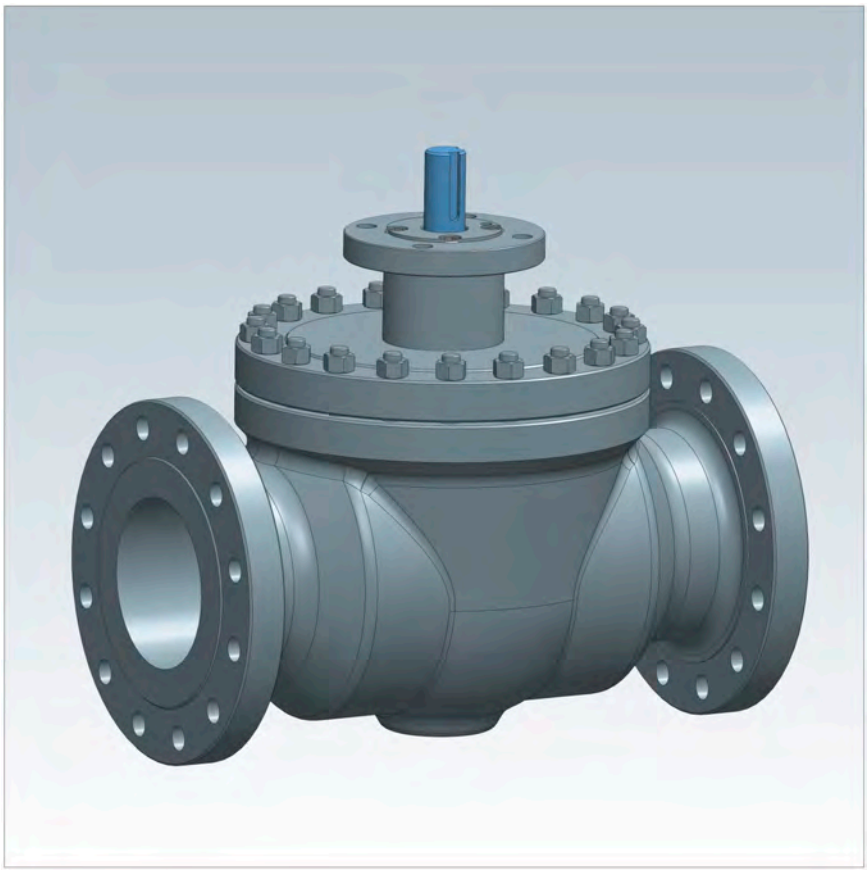
ANSI Class300 740 psi

Nominal Size		(RF)								(RTJ)			(BW)
DN	NPS	d	L(RF)	D	D1	D2(RF)	T	t(RF)	N–ΦZ	L(RTJ)	D2(RTJ)	t(RTJ)	L(WE)
25	1	25	165	125	89	51	16	2.0	4–Φ19	178	70	6.4	165
32	1 1/4	32	178	135	98.5	64	17	2.0	4–Φ19	191	79	6.4	178
40	1 1/2	38	190	155	114.5	73	19	2.0	4–Φ22	203	90	6.4	190
50	2	49	246	165	127	92	21	2.0	8–Φ19	232	108	8	216
65	2 1/2	62	241	190	149	105	24	2.0	8–Φ22	257	127	8	241
80	3	74	283	210	168.5	127	27	2.0	8–Φ22	289	146	8	283
100	4	100	305	255	200	157	30	2.0	8–Φ22	321	175	8	305
150	6	150	403	320	270	216	35	2.0	12–Φ22	419	241	8	403
200	8	201	502	380	330	270	40	2.0	12–Φ22	518	302	8	521
250	10	250	568	445	387.5	324	46	2.0	16–Φ29.5	584	356	8	559
300	12	300	648	520	451	381	49	2.0	16–Φ32.5	664	413	8	635
350	14	350	762	585	514.5	413	52	2.0	20–Φ32.5	778	457	8	762
400	16	400	838	65	571.5	470	55.5	2.0	20–Φ35.5	854	508	8	838
450	18	450	914	710	628.5	534	58.5	2.0	24–Φ35.5	930	575	8	914
500	20	500	991	770	686	584	61.5	2.0	24–Φ35.5	1007	635	8	991

ANSI Class600 1480psi

Nominal Size		(RF)								(RTJ)			(BW)
DN	NPS	d	L(RF)	D	D1	D2(RF)	T	t(RF)	N–ΦZ	L(RTJ)	D2(RTJ)	t(RTJ)	L(WE)
25	1	25	246	125	89	51	18	7.0	4–Φ19	178	70	6.4	216
32	1 1/4	32	229	135	98.5	64	21	2.0	4–Φ19	191	79	6.4	229
40	1 1/2	38	241	155	114.5	73	23	2.0	4–Φ22	203	90	6.4	241
50	2	49	292	165	127	92	26	2.0	8–Φ19	232	108	8	292
65	2 1/2	62	330	190	149	105	29	2.0	8–Φ22	257	127	8	330
80	3	74	356	210	168.5	127	32	2.0	8–Φ22	289	146	8	356
100	4	100	432	275	216	157	38	2.0	8–Φ22	321	175	8	432
150	6	150	559	355	292	216	41	7.0	12–Φ29.5	562	241	8	559
200	8	200	660	420	349	270	48.5	7.0	12–Φ32.5	663	302	8	660
250	10	250	787	510	432	324	56.5	7.0	16–Φ35.5	790	356	8	787
300	12	300	838	560	489	381	60	7.0	20–Φ35.5	841	413	8	838
350	14	350	889	605	527	413	63	7.0	20–Φ39	892	457	8	889
400	16	400	991	685	603	470	69.5	7.0	20–Φ42	994	508	8	991
450	18	450	1092	745	654	534	76	7.0	20–Φ45	1095	575	8	1092
500	20	500	1194	815	724	584	82	7.0	20–Φ45	1197	635	8	1194

▶ 50T Series top entry ball valve



▲ Outline

The 50T Series top entry ball valve adopts the unique top entry structure. The ball is installed from the top of the body. When the valve has malfunction on the pipeline and needs repairing, there is no need to disassemble the valve from the pipeline. Just remove its middle flange bolts and nuts, take off the bonnet and stem assembly from the body, and take out the ball and seat assembly. The ball and seat can be repaired on the line.
The 50T Series valve is mainly used on process control pipelines in petroleum or chemical industry. Its use and maintenance are convenient. The angle between the seat and body is 10° .
The seat can realize self–locking. On the pipeline, when the seat receives relatively high pressure, the seat will not make any movement. Therefore, the valve of this structure has the features of gate valves and advantages of ball valves.

▲ Actuator and auxiliary control device

- Pneumatic
- Electric
  Pneumatic–hydraulic

▲ Applications

- Chemical industry and air separation equipment
- Coal liquefaction or coal gasification
- Hydrocarbon
- Power plant
- Water supply and heat supply systems

▲ Manufacturing range

- Size range: DN2" – 48"
- Pressure rating: 150LB – 600LB
  PN1.0 – 6.4Mpa
- Connection type: flange type

▲ Stem sealing

- The graphite packing formed through mold pressure serves as the dynamic load seal to ensure reliable sealing and long service life.
- The high strength stem can effectively transfer torque and ensure reliable on–off of the valve.
- The stem and ball fit tightly with each other, reducing hysteresis and dead band with excellent control performance.

▲ Seat sealing

- The seal conforms to the requirements in GB/T13927 Class D or ANSI/FCI70–2 CLASS VI.
- Reliable double–way sealing
- Excellent sealing performance in low pressure service conditions

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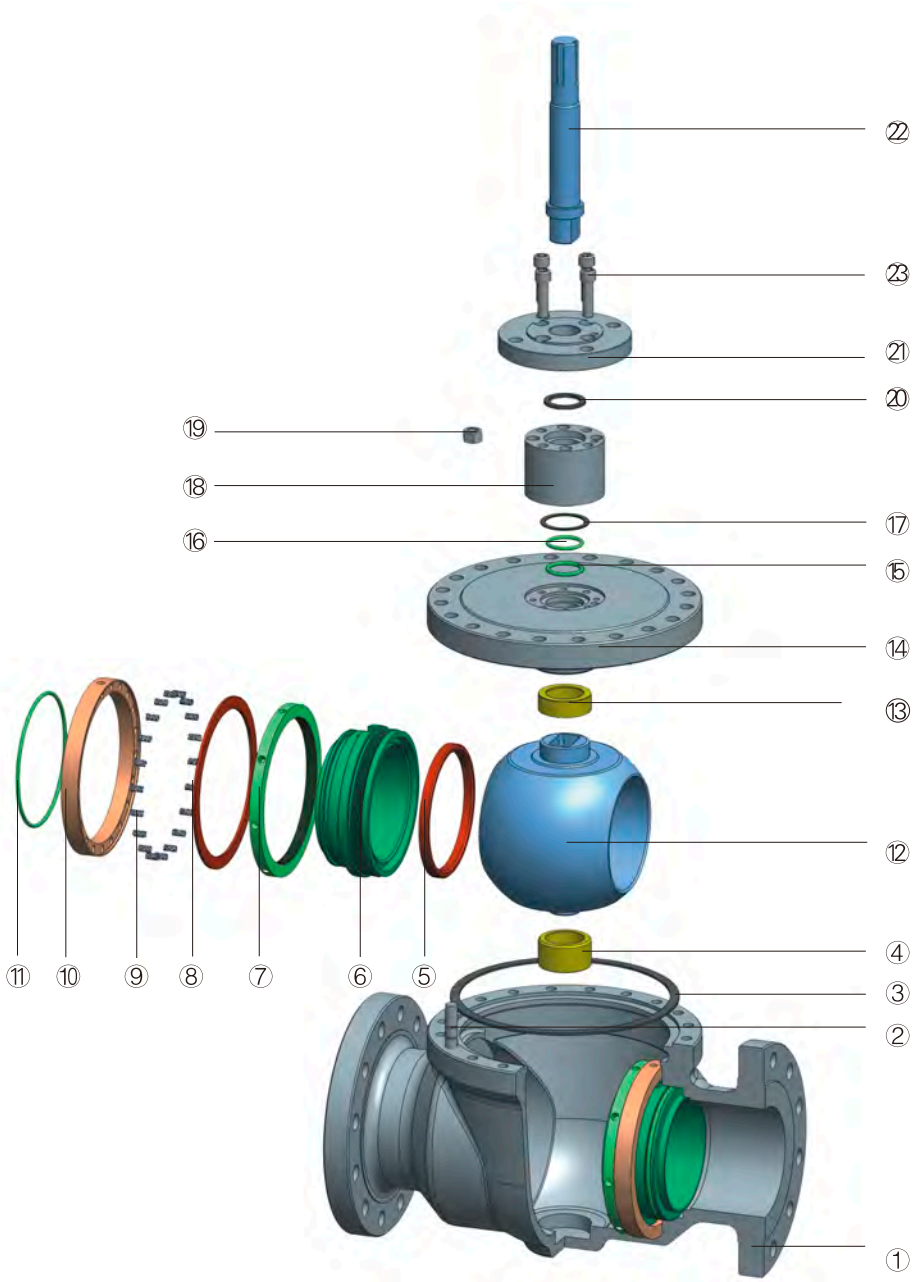
50T series part name and materials



50T series part name and materials

Part name and materials

Number	Name	Material		
		Stainless steel	Carbon steel	Cr–Mo steel
1	Body	ASTM A351 CF8/CF8M	ASTM A216/WCB	ASTM A217 WC6/WC9
2	Stud	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
3	Bonnet seal ring		304+Flexible graphite	
4	Lower sleeve		A36+PTFE	
5	Seat		PTFE	
6	Seat support ring		ASTM A182 F304/F316	
7	Adjusting ring		ASTM A182 F304/F316	
8	Spring retainer ring		ASTM A182 F304/F316	
9	Spring		Inconel X–750	
10	Spring seat		ASTM A182 F304/F316	
11	Fire safe ring		Flexible graphite	
12	Ball		ASTM A182 F304/F316	
13	Upper sleeve		A36+PTFE	
14	Bonnet	ASTM A182 F304/F316	ASTM A105	ASTM A182GR.F11/F22
15	Seal ring 1		FKM	
16	Seal ring 2		FKM	
17	Seal ring 3		Flexible graphite	
18	Packing box	ASTM A182 F304/F316	ASTM A105	ASTM A182GR.F11/F22
19	Nut	ASTM A193 Gr.8M	ASTM A193 Gr.2H	ASTM A193 Gr.2H
20	Packing		Flexible graphite	
21	Connection plate	ASTM A182 F304/F316	ASTM A105	ASTM A182GR.F11/F22
22	Inner hexagon screw	ASTM A193 Gr.B8M	ASTM A193 Gr.B7	ASTM A193 Gr.B7
23	Stem		ASTM A564 17–4PH	

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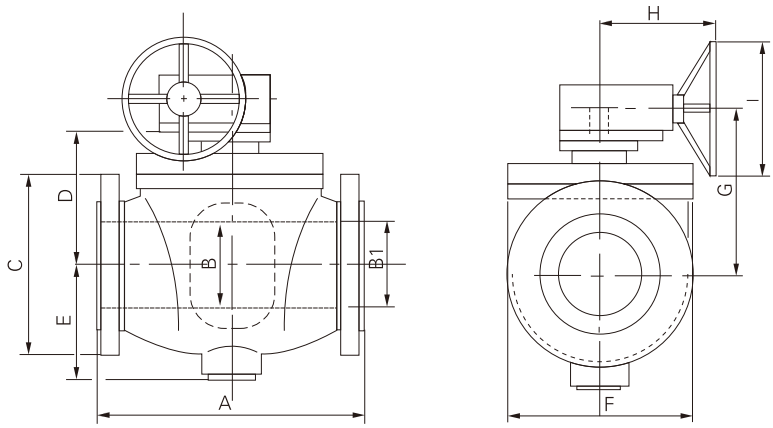
▶ Size of 50T series

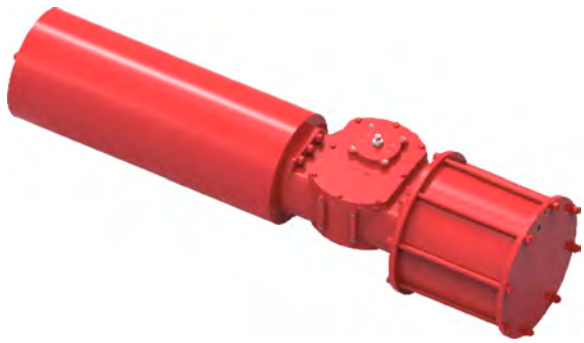


Top Entry–Overall Dimensions

Size	TYPE	A			B	B1	C	D	E	F	G	H	I
		RF	RTJ	WE									
2	T	292	295	292	51	51	152	212	85	190	450	--	--
3	T	356	359	356	77	77	191	228	112	230	600	--	--
4	T	432	435	432	102	102	229	272	145	263	600	--	--
6	T	559	562	559	152	152	279	281	220	325	333	297	350
8	T	660	664	660	203	203	343	320	260	405	384	360	500
10	T	787	791	787	254	254	406	360	311	490	424	360	500
12	T	838	841	838	305	305	483	403	366	570	467	340	700
14	T	869	892	869	337	337	535	453	428	660	517	340	700
16	T	991	994	991	387	387	595	459	450	700	519	545	700
18	T	1092	1095	1092	438	438	635	502	473	755	577	575	700
20	T	1194	1200	1194	489	496	700	551	580	870	626	575	700
22	T	11295	1305	1295	540	540	750	578	590	955	653	575	700
24	T	1397	1406	1397	591	591	815	606	600	1050	696	579	700
26	T	1448	1460	1448	635	635	870	675	635	1075	765	570	700
28	T	1549	1562	1549	686	686	925	735	700	1165	625	579	700
30	T	1651	1664	1651	736	736	985	795	775	1250	865	579	700
32	T	1778	1794	1778	832	781	1060	840	825	1325	1012	605	620
34	T	1930	1946	1930	876	852	1110	875	880	1410	1047	605	620
36	T	2065	2096	2065	781	876	1170	931	930	1475	1103	606	620
40	T	2537	2537	2537	1022	978	1290	1015	1025	1640	1170	950	1400
42	T	2437	2437	2437	978	1022	1345	1065	1060	1710	1220–	950	1400
48	T	2540	2540	2540	1168	1168	1510	1180	1225	1940	1335	950	1400

▶ HG series actuator

Single acting actuator
OLT(low temperature) silicon O–ring –40 to +80℃



Double acting actuator

▲ Working Parameter

- Angle of revolution: 0 – 90°
- Output torque: Double action 1500–100000Nm, Spring retum: 600–20000Nm
- Working pressure: Pneumatic 3–10bar, Hydraulic 100bar
- Operating Temperature: ST (standard) NBR O–ring –20 to +80℃, HT (high temperature) FPM O–ring –15to +150℃, LT (low temperature) silicon O–ring –40 to +80℃

▲ Featur

- 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 a ccording 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.

- **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.

- 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

- **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.

- **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.

- **Corrosion resistance:**
  G–series actuators, with internal protection and external coating,are reliably applicable to all kinds of environments and are incompliance with relevant national standards.

- **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 ISO521 1 standard.

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▶ HG series actuator output torque

Double acting output torque (Unit): N.m

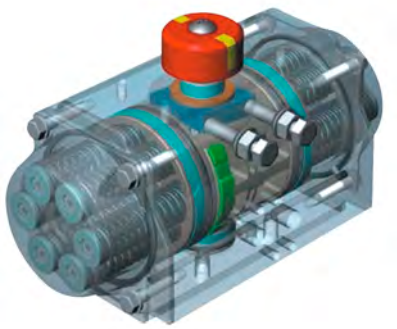
Type	Stoke Position	Pressure(bar)								
		3.0	3.5	4.0	4.5	5.0	5.5	6.0	7.0	8.0
HG0-P180-DA	Start/End	660	780	890	1000	1110	1220	1330	1550	1770
	Medium MIN. Value	360	420	480	540	600	660	720	840	960
HG1-P250-DA	Start/End	1550	1810	2070	2330	2590	2850	3110	3630	4150
	Medium MIN. Value	840	980	1120	1260	1400	1540	1680	1960	2240
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
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
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
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
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
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

Single acting output torque features (Unit): N.m

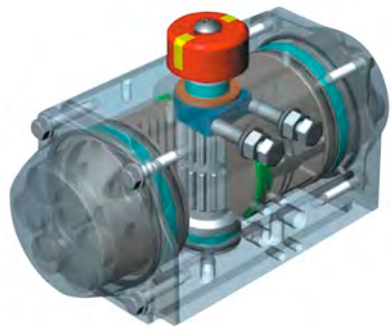
Type	Stoke Position	Spring Torque Output	Air Pressure Torque							
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	7.0
HG0-P180-SR2	Start	520	310	420	530	650	760	870	980	1200
	Middle	230	120	180	240	300	360	420	480	600
	End	340	140	250	360	470	580	690	800	1030
HG1-P250-SR2	Start	1210	710	960	1220	1480	1740	2000	2260	2780
	Middle	550	284	420	560	700	840	980	1120	1400
	End	840	340	600	860	1120	1370	1639	1900	2410
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
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
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
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
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
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

DR/SC Rack and Pinion Actuator

DA/SC Rack and pinion actuator



Single acting actuator



Double acting actuator

Featur

- The rack, gear wheel and the two pistons are designedin in symmetric structure to perform stably and rapidly with high accuracy and high power output. The rotation in the inverse direction can be performed by simply changing the assembling location of the pistons.
- The extruded cylinder body is made of high quality stainless steel with fine machined socket and hard anodized outer surface(teflon coat + anodisation would be provided at special occasion) to prolong the service life and lower the coefficient of friction.
- One–piece design is adopted. All type of single acting actuators and double acting actuators are provided with same cylinder body and end cap. The acting module could be easily changed by installing or demounting springs.
- Combined preload securlity group spring could be mounted or increased/decreased easily and safely during assembling or during in fleld usage.
- The two sole adjusting screws at the side surface of the actuator which has been already installed on the valve could make the adjustment of location of the valve opening and closing more convenient and accurdte. The special adjusting screws which are much longer would be provided if full stroke adjustment is needed.
- Multifunctional location indicator, in field visible indicator and standard socket in accordance to VDI/VDE3845, NAMUR could be installed and export all the accessories such as limit switch cabinet, elecrtic localizer and position sensor (JEELON, P+F,Turck).
- The air supply interface is built according to NUMAR criterion. To the interface the NUMAR solenoid valve can be installed directly.
- The composite material made bearing shell at the back of the rack, the deflector ring of the pistons as well as the bearing shaff of the output shaff are provided with more lubrication to protect them against the metal–metal friction. Thus, a prolong service life and the low friction could be quaranteed.
- All the fasteners are made of stainless steel to be resistant to corrosion for a long time.
- The pontes are built in according to latest version of ISO5211, DIN3337 (F03–F25) to guarantee the interchangeability and versatility of the products.

REOWO
Fluid Control Technology

▶ DA/SC series actuator output torque

Double acting output torque

(Unit): N.m

TYPE	2.5bar	3.0bar	3.5bar	4.0bar	4.5bar	5.0bar	5.5bar	6.0bar	7.0bar	8.0bar
DR00006										
DR00015	8.3	10.0	11.6	13.3	15.0	16.6	18.3	19.9	23.3	26.6
DR00030	14.7	17.6	20.5	23.5	26.4	29.3	32.2	35.2	41.0	46.9
DR00060	29.1	34.9	40.7	46.5	52.3	58.2	64.0	69.8	81.4	93.0
DR00100	45.7	54.9	64.0	73.2	82.3	91.5	101	110	128	146
DR00150	66.5	79.7	93.0	106	120	133	146	160	186	213
DR00220	107	129	150	172	193	215	236	258	301	344
DR00300	138	166	194	221	249	277	304	332	387	443
DR00450	217	261	304	348	391	434	478	521	608	695
DR00600	283	340	397	453	510	567	623	680	793	907
DR00900	383	459	536	612	689	765	842	918	1071	1224
DR01200	531	638	744	850	956	1063	1169	1275	1488	1700
DR02000	935	1122	1309	1496	1683	1870	2057	2244	2618	2992
DR03000	1347	1617	1886	2156	2425	2695	2964	3234	3772	4311
DR05000	2350	2821	3291	3761	4231	4701	5171	5641	6581	7521
DR10000										

Single acting output torque features

(Unit): N.m

TYPE	Spring Quantity	Air Pressure Torque																				Spring Torque	
		2.5bar		3.0bar		3.5bar		4.0bar		4.5bar		5.0bar		5.5bar		6.0bar		7.0bar		8.0bar			
		0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	90° Start	0° End
SC00015	05	4.9	3.4	6.6	5.1	8.2	6.8	9.9	8.4	11.6	10.1	13.2	11.7									4.9	3.4
	06	4.2	2.5	5.9	4.1	7.6	5.8	9.2	7.4	10.9	9.1	12.5	10.8	14.2	12.4							5.8	4.1
	07			5.2	3.2	6.9	4.8	8.5	6.5	10.2	8.1	11.9	9.8	13.5	11.5	15.2	13.1					6.8	4.7
	08					6.2	3.8	7.9	5.5	9.5	7.2	11.2	8.8	12.8	10.5	14.5	12.1	17.8	15.5			7.8	5.4
	09							7.2	4.5	8.9	6.2	10.5	7.8	12.2	9.5	13.8	11.2	17.2	14.5	20.5	17.8	8.8	6.1
	10									8.2	5.2	9.8	6.9	11.5	8.5	13.2	10.2	16.5	13.5	19.8	16.8	9.7	6.8
	11											9.2	5.9	10.8	7.6	12.5	9.2	15.8	12.5	19.1	15.9	10.7	7.4
	12													10.1	6.6	11.8	8.2	15.1	11.6	18.4	14.9	11.7	8.1
SC00030	05	9.1	6.2	12	9.1	15	12	17.9	15	20.8	17.9	23.7	20.8									8.5	5.5
	06	8	4.5	10.9	7.4	13.8	10.3	16.8	13.3	19.7	16.2	22.6	19.1	25.6	22.1							10.2	6.7
	07			9.8	5.7	12.7	8.7	15.7	11.6	18.6	14.5	21.5	17.4	24.5	20.4	27.4	23.3					11.8	7.8
	08					11.6	7	14.6	9.9	17.5	12.8	20.4	15.8	23.3	18.7	26.3	21.6	32.1	27.5			13.5	8.9
	09							13.4	8.2	16.4	11.1	19.3	14.1	22.2	17	25.2	19.9	31	25.8	36.9	31.6	15.2	10
	10									15.3	9.4	18.2	12.4	21.1	15.3	24.1	18.2	29.9	24.1	35.8	29.9	16.9	11.1
	11											17.1	10.7	20	13.6	22.9	16.5	28.8	22.4	34.7	28.2	18.6	12.2
	12													18.9	11.9	21.8	14.8	27.7	20.7	33.5	26.6	20.3	13.3
SC00060	05	18	11.7	23.8	17.6	29.6	23.4	35.4	29.2	41.2	35	47.1	40.8									17.3	11.1
	06	15.8	8.3	21.6	14.1	27.4	19.9	33.2	25.7	39	31.5	44.8	37.3	50.7	43.2							20.8	13.3
	07			19.4	10.6	25.2	16.4	31	22.3	36.8	28.1	42.6	33.9	48.4	39.7	54.3	45.5					24.2	15.5
	08					23	13	28.8	18.8	34.6	24.6	40.4	30.4	46.2	36.2	52	42	63.7	53.7			27.7	17.7
	09							26.6	15.3	32.4	21.1	38.2	27	44	32.8	49.8	38.6	61.5	50.2	73.1	61.8	31.1	19.9
	10									30.2	17.7	36	23.5	41.8	29.3	47.6	35.1	59.2	46.7	70.9	58.4	34.6	22.1
	11											33.8	20	39.6	25.8	45.4	31.7	57	43.3	68.7	54.9	38.1	24.3
	12													37.4	22.4	43.2	28.2	54.8	39.8	66.4	51.4	41.5	26.5
SC00100	05	27.4	16.8	36.5	26	45.7	35.1	54.8	44.3	63.9	53.4	73.1	62.6									28.9	18.3
	06	23.7	11.1	32.8	20.2	42	29.3	51.1	38.5	60.3	47.6	69.4	56.8	78.6	65.9							34.7	22
	07			29.2	14.4	38.3	23.6	47.5	32.7	56.6	41.9	65.7	51	74.9	60.1	84	69.3					40.4	25.7
	08					34.6	17.8	43.8	26.9	52.9	36.1	62.1	45.2	71.2	54.4	80.4	63.5	98.6	81.8			46.2	29.4
	09							40.1	21.2	49.3	30.3	58.4	39.5	67.5	48.6	76.7	57.7	95	76	113	94.3	52	33
	10									45.6	24.5	54.7	33.7	63.9	42.8	73	52	91.3	70.2	110	88.5	57.8	36.7
	11											51.1	27.9	60.2	37	69.3	46.2	87.6	64.5	106	82.8	63.5	40.4
	12													56.5	31.3	65.7	40.4	84	58.7	102	77	69.3	44
SC00150	05	41.1	27	54.4	40.3	67.7	53.6	81	66.8	94.2	80.1	108	93.4									39.4	25.3
	06	36.1	19.1	49.3	32.4	62.6	45.7	75.9	58.9	89.2	72.2	103	85.5	116	98.8							47.3	30.4
	07			44.3	24.5	57.6	37.8	70.8	51.1	84.1	64.3	97.4	77.6	111	90.9	124	104					55.2	35.4
	08					52.5	29.9	65.8	43.2	79.1	56.5	92.3	69.7	106	83	119	96.3	146	123			63.1	40.5
	09							60.7	35.3	74	48.6	87.3	61.9	101	75.1	114	88.4	140	115	167	142	71	45.5
	10									68.9	40.7	82.2	54	95.5	67.3	109	80.5	135	107	162	134	78.8	50.6
	11											77.2	46.1	90.5	59.4	104	72.7	130	99	157	126	86.7	55.6
	12													85.4	51.5	98.7	64.8	125	92	152	118	94.6	60.7
Sc00220	05	63.3	41.8	87.8	63.3	109	84.7	131	106	152	128	174	149									65.6	41
	06	58.1	28.7	79.6	50.1	101	71.6	123	93.1	144	115	165	136	187	158							78.7	49.3
	07			71.3	37	92.8	58.5	114	80	136	101	157	123	179	144	200	166					91.8	57.5
	08					84.6	45.4	106	66.9	128	88.3	149	110	171	131	192	153	235	196			105	65.7
	09							97.9	53.8	119	75.2	141	96.7	162	118	184	140	227	183	270	226	118	74
	10									111	62.1	133	83.6	154	105	176	127	219	170	261	212	131	82
	11											124	70.5	146	92	167	113	210	156	253	199	144	90.3
	12													138	78.8	159	100	202	143	245	186	157	98.5

▶ DA/SC series actuator output torque

Single acting output torque features (Unit): N.m

TYPE	Spring Quantity	Air Pressure Torque																				Spring Torque	
		2.5bar		3.0bar		3.5bar		4.0bar		4.5bar		5.0bar		5.5bar		6.0bar		7.0bar		8.0bar			
		0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	0° Start	90° End	90° Start	0° End
SC00300	05	85.9	55.9	114	84	141	111	169	139	197	167	224	194									82.5	52.5
	06	75.4	39.4	103	67	131	95	158	122	186	150	214	178	241	205							98.9	62.9
	07			92.6	50.6	120	78	148	106	176	134	203	161	231	189	259	217					115	73.4
	08					110	62	137	89.4	165	117	193	145	221	173	248	200	304	256			132	83.9
	09							127	72.9	155	101	182	128	210	156	238	184	293	239	348	294	148	94.4
	10									144	84	172	112	200	140	227	167	283	223	338	278	165	105
	11											161	95.3	189	123	217	151	272	206	327	261	181	115
	12													179	107	206	134	262	190	317	245	198	126
SC00450	05	135	88.2	178	132	222	175	265	219	309	262	352	305									129	82.3
	06	119	62.4	162	106	205	149	249	193	292	236	336	280	379	323							155	98.7
	07			146	80.1	189	124	232	167	276	210	319	254	363	297	406	341					181	115
	08					173	97.7	216	141	259	185	303	228	346	272	390	315	477	402			206	132
	09							200	115	243	159	286	202	330	246	373	289	460	376	547	463	232	148
	10									227	133	270	177	313	220	357	263	444	350	531	437	258	165
	11											254	151	297	194	340	238	427	324	514	411	284	181
	12													280	168	324	212	411	299	498	386	310	197
SC00600	05	171	117	228	174	285	231	341	287	398	344	455	401									166	112
	06	149	84	206	141	262	197	319	254	376	311	432	367	489	424							199	135
	07			183	108	240	164	296	221	353	278	410	334	466	391	523	448					233	157
	08					217	131	274	188	331	244	387	301	444	358	501	414	614	528			266	179
	09							252	154	308	211	365	268	422	324	478	381	592	494	705	608	299	202
	10									286	178	343	235	399	291	456	348	569	461	683	575	332	224
	11											320	201	377	258	433	315	547	428	660	541	365	247
	12													354	225	411	281	524	395	638	508	399	269
SC00900	05	225	146	301	222	378	299	454	375	531	452	607	528									237	158
	06	193	98.3	270	175	346	251	423	328	499	404	576	481	652	557							284	190
	07			238	127	315	204	391	280	468	357	544	433	621	510	697	586					332	221
	08					283	157	359	233	436	310	512	386	589	463	665	539	818	692			379	253
	09							328	186	404	262	481	339	557	415	634	492	787	645	940	798	426	284
	10									373	215	449	291	526	368	602	444	755	597	908	750	474	316
	11											418	244	494	320	571	397	724	550	877	703	521	347
	12													463	273	539	350	692	503	845	656	569	379
SC01200	05	319	216	425	323	532	429	638	535	744	641	850	748									315	212
	06	277	153	383	260	489	366	595	472	702	578	808	685	914	791							378	255
	07			340	197	447	303	553	409	659	515	765	622	872	728	978	834					441	297
	08					404	240	510	346	617	452	723	559	829	665	935	771	1148	984			504	340
	09							468	283	574	389	680	496	787	602	893	708	1105	921	1318	1133	567	382
	10									532	326	638	433	744	539	850	645	1063	858	1275	1070	630	425
	11											595	370	702	476	808	582	1020	795	1233	1007	693	467
	12													659	413	766	519	978	732	1191	944	756	510
SC02000	05	501	319	688	506	875	693	1062	880	1249	1067	1436	1254									616	434
	06	414	196	601	383	788	570	975	757	1162	944	1349	1131	1536	1318							740	521
	07			514	259	701	446	888	633	1075	820	1262	1007	1449	1194	1636	1381					863	608
	08					614	323	801	510	988	697	1175	884	1362	1071	1549	1258	1923	1632			986	695
	09							714	387	901	574	1088	761	1275	948	1463	1135	1837	1509	2211	1883	1109	782
	10									815	451	1002	638	1189	825	1376	1012	1750	1386	2124	1760	1233	869
	11											915	514	1102	701	1289	888	1663	1262	2037	1636	1356	955
	12													1015	578	1202	765	1576	1139	1950	1513	1479	1042
SC03000	05	780	565	1050	834	1319	1104	1589	1373	1858	1643	2128	1912									783	567
	06	667	408	936	678	1206	947	1475	1217	1745	1486	2014	1756	2284	2025							939	680
	07			823	521	1092	791	1362	1060	1631	1330	1901	1599	2170	1869	2440	2138					1096	794
	08					979	634	1249	904	1518	1173	1787	1443	2057	1712	2326	1981	2865	2520			1252	907
	09							1135	747	1405	1017	1674	1286	1943	1555	2213	1825	2752	2364	3291	2903	1409	1021
	10									1291	860	1561	1130	1830	1399	2100	1668	2638	2207	3177	2746	1565	1134
	11											1447	973	1717	1242	1986	1512	2525	2051	3064	2590	1722	1247
	12													1603	1086	1873	1355	2412	1894	2951	2433	1878	1361
SC05000	05	1333	1017	1803	1487	2273	1957	2743	2427	3214	2897	3684	3367									1334	1017
	06	1130	750	1600	1220	2070	1690	2540	2161	3010	2631	3480	3101	3950	3571							1600	1221
	07			1396	954	1866	1424	2337	1894	2807	2364	3277	2834	3747	3304	4217	3774					1867	1424
	08					1663	1157	2133	1627	2603	2097	3073	2567	3543	3037	4013	3508	4954	4448			2134	1628
	09							1930	1360	2400	1831	2870	2301	3340	2771	3810	3241	4750	4181	5690	5121	2400	1831
	10									2196	1564	2666	2034	3136	2504	3607	2974	4547	3914	5487	4854	2667	2035
	11											2463	1767	2933	2237	3403	2707	4343	3648	5283	4588	2934	2238
	12													2729	1971	3200	2441	4140	3381	5080	4321	3200	2442

The darkened recommendation index under the air pressure torque are in accordance with the spring return torque datas and the spring number.

REOWO
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▶ Commonly used accessories of reowo

Positioner (Siemens ABB AZBIL SAMSON YTC SMC)

Name	Model	Manufacturer	Remark
Positioner	6DR500	SIEMENS	Intelligent(HART)
	V18345	ABB	Intelligent] (three–failure protector)
	AVP1/300	AZBIL	Intelligent
	YT–1000L/R	YTC	Mechanical
	HEP15/16/17	Homemade	Mechanical

Solenoid valve (ASCO SMC)

Name	Model	Manufacturer	Remark
Solenoid valve	G551H401MO	ASCO	Explosion–proof
	G551AOO1MS		Non–explosion–proof
	SY7210–4G–02–220	SMC	Non–explosion–proof
	SY7210–4G–02–24		Non–explosion–proof

Airset (CKD SMC)

Name	Model	Manufacturer	Remark
Airset	AW30–03BG	SMC	Rc3/8
	AW40–04BG		Rc1/2
	T50	Homemade	Rc3/8
	AW2000–02		Rc3/8

The purpose of selecting valve accessories is to accomplish overall functions and control features of control valves.
The commonly used accessories of reowo include positioner, Airset, solenoid valve, air valve, valve position transducer, limit switch, speed booster (amplifier), lock valve, air storage cylinder, etc. Different accessories have different purposes, so suitable accessories shall be selected according to different control purposes.

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Limit switch（AZBIL YTC）

Name	Model	Manufacturer	Remark
Limit switch	1LS19JB1	AZBIL	Non–explosion–proof (SPDT)
	1LX5001		Explosion–proof dIIBT4 d II CT6(H2)
	1LX5700		D II CT6(H2)
	APL210N	YTC	Non–explosion–proof/ rotary motion
	APL310N		Non–explosion–proof/ rotary motion

Air valve（SMC）、Speed booster、Lock valve

Name	Model	Manufacturer	Remark
Air valve	VPA342–02	SMC	Rc1/2 two–position three–way
	VPA542–03		Rc1/2 two–position three–way
	VPA742–04		Rc1/2 two–position three–way
Speed booster	IL100–02	SMC	Rc1/4
	IL100–03		Rc3/8
Lock valve	IL201	SMC	Single acting (maintaining position)
	IL211		Double acting (maintaining position)
	CL420H	KOSO	For air bag air supply

REOWO
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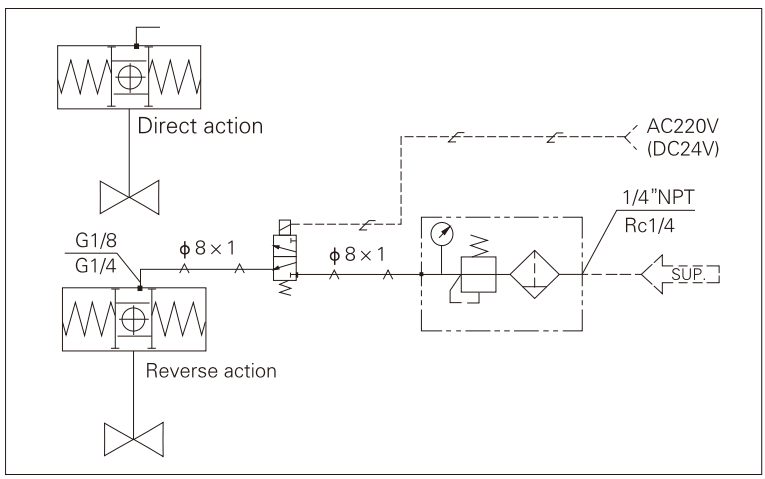
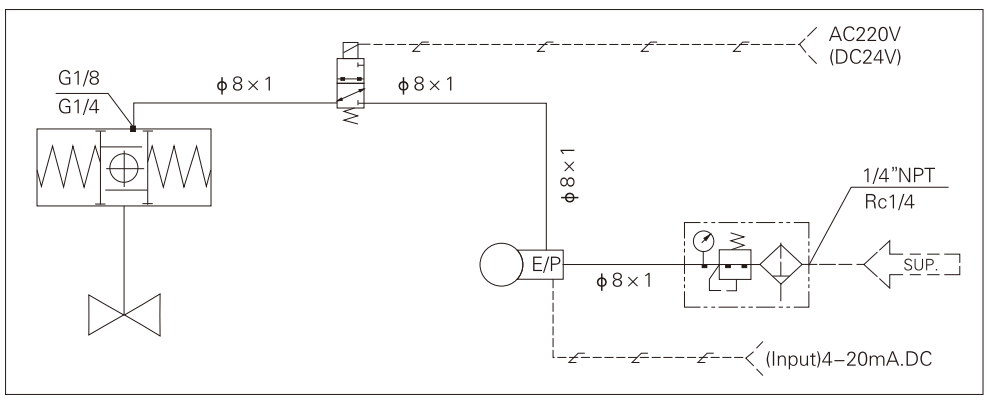
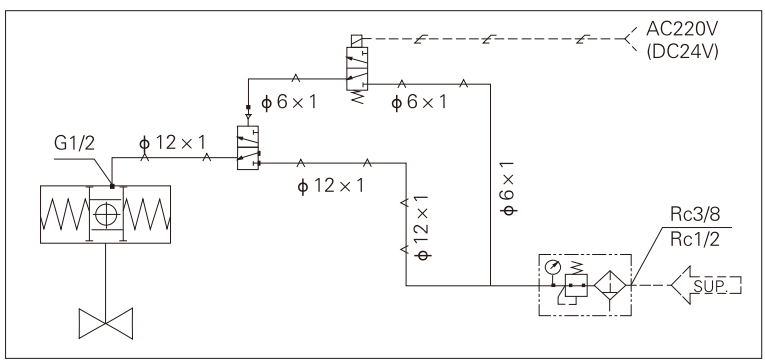
▶ Commonly used control loops of reowo control valves



1.1



1.2



1.3

1、Equipped with RW L single acting cylinder rotary motion actuator

▲ 1.1

* Solenoid valve excitation: valve action, power failure: spring return
* Air failure: spring return

▲ 1.2

* Solenoid valve excitation: positioner controlled
* Solenoid valve power failure: valve to close
* Air failure: spring return, valve to close

▲ 1.3

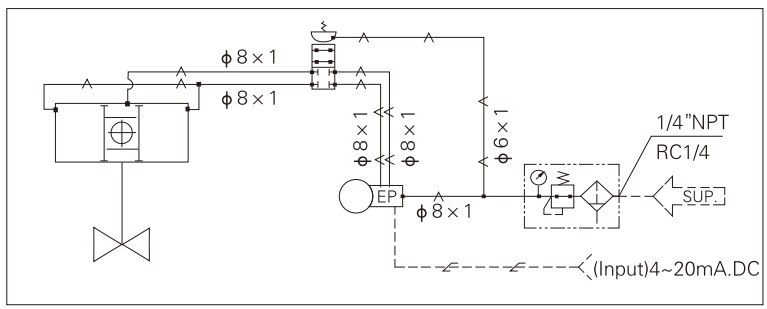
* Solenoid valve excitation: control the air valve, valve to open
* Power failure: spring return, valve to close
* Air failure: spring return, valve to close

▶ Commonly used control loops of reowo control valves

2、Equipped with RW double acting cylinder rotary motion actuator

▲ 2.1

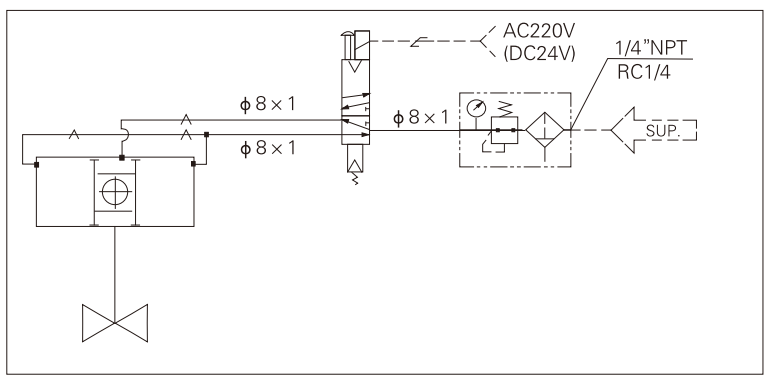
* Double acting: signal increase, valve to close
* Air failure: control valve to retain the original position



2.1

▲ 2.2

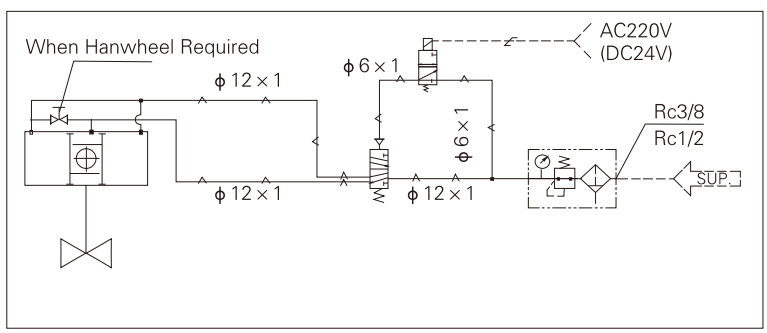
* Double acting: solenoid valve excitation, pressure increase, valve to open
* Power failure: any position
* Air failure: any position



2.2

▲ 2.3

* Solenoid valve excitation: control the air valve, valve to close
* Power failure: any position
* Air failure: any position



2.3

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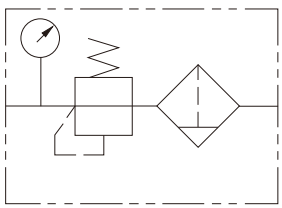
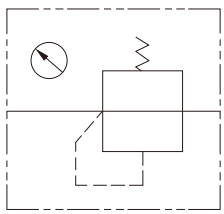
▶ Commonly used control loops of reowo control valves

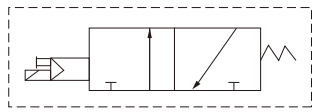
3、 The meanings of the symbols are as follows:



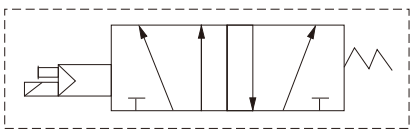
Airset



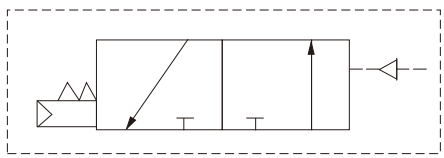
Pressure relief valve



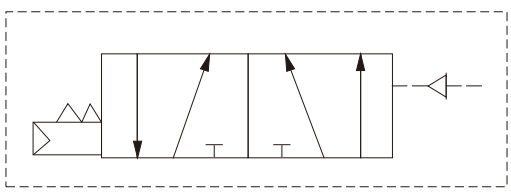
Two–position
three–way solenoid valve



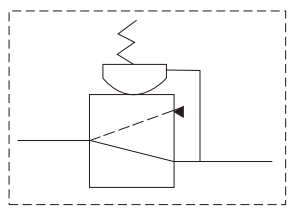
Two–position five–way solenoid valve



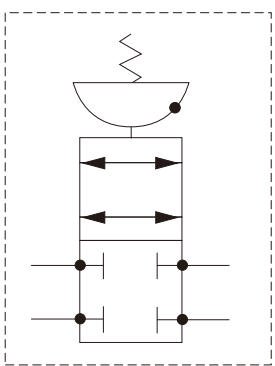
Two–position three–way air valve



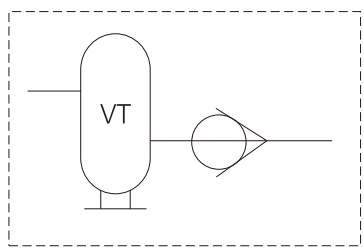
Two–position five–way air valve



Lock–up valve

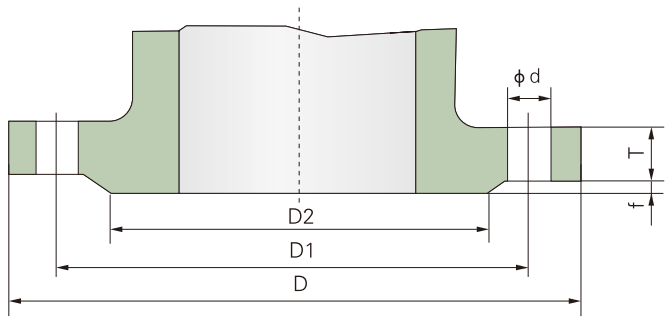


Lock–up valve



Air bag

▶ GB steel pipe flanges JB/T79.1~94



JB/T79.1 PN1.6 2.5MPa （RF）

PN1.6MPa Flange demension

CaliberNPS	D	D1	D2	f	T	ϕ d	BolttBol
20	105	75	55	2	14	14	4–M12
25	115	85	65	2	14	14	4–M12
32	135	100	78	2	16	18	4–M12
40	145	110	85	3	16	18	4–M16
50	160	125	100	3	16	18	4–M16
65	180	145	120	3	18	18	4–M16
80	195	160	135	3	20	18	8–M16
100	215	180	155	3	20	18	8–M16
125	245	210	185	3	22	18	8–M16
150	280	240	210	3	24	23	8–M20
200	335	295	265	3	26	23	12–M20
250	405	355	320	3	30	25	12–M22
300	460	410	375	4	30	25	12–M22
350	520	470	432	4	34	25	16–M27
400	580	525	485	4	36	30	16–M27
450	640	585	545	4	40	30	20–M27
500	705	650	608	5	44	34	20–M30
600	840	770	718	5	48	41	20–M36
700	910	840	788	5	50	41	24–M36
800	1020	950	898	5	52	41	24–M36

PN2.5MPa Flange demension

Caliber NPS	D	D1	D2	f	T	ϕ d	BolttBol
20	105	75	55	2	16	14	4–M12
25	115	85	65	2	16	14	4–M12
32	135	100	78	2	18	18	4–M16
40	145	110	85	3	18	18	4–M16
50	160	125	100	3	20	18	4–M16
65	180	145	120	3	22	18	4–M16
80	195	160	135	3	22	18	8–M16
100	230	190	160	3	24	23	8–M20
125	270	220	188	3	28	25	12–M22
150	300	250	218	3	30	25	12–M22
200	360	310	278	3	34	25	12–M22
250	425	370	332	3	36	30	16–M27
300	485	430	390	4	40	30	16–M27
350	550	490	448	4	44	34	20–M30
400	610	550	505	4	48	34	20–M30
450	660	600	555	4	50	34	20–M36
500	730	660	610	4	52	41	24–M36
600	840	770	718	5	56	41	24–M36
700	955	875	815	5	60	48	24–M42

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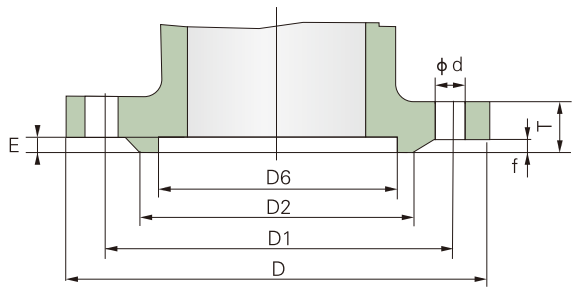
▶ GB steel pipe flanges JB/T79.2~4—94



JB/T79.2 PN4.0 6.4 10.0MPa （FM）

PN4.0MPa Flange deminsion

NPS	D	D1	D2	D6	f	E	T	ϕ d	Bol
20	105	75	55	51	2	4	16	14	4–M12
25	115	85	65	58	2	4	16	14	4–M12
32	135	100	78	66	2	4	18	16	4–M16
40	145	110	85	76	3	4	18	18	4–M16
50	160	125	100	88	3	4	20	18	4–M16
65	180	145	120	110	3	4	22	18	8–M16
80	195	160	135	121	3	4	22	18	8–M16
100	230	190	160	150	3	4.5	24	23	8–M20
125	270	220	188	176	3	4.5	28	26	8–M22
150	300	250	218	204	3	4.5	30	26	8–M22
200	375	320	282	260	3	4.5	38	30	12–M27
250	445	385	345	313	3	4.5	42	34	12–M30
300	510	430	408	364	4	4.5	46	34	16–M30
350	570	510	465	422	4	5	52	34	16–M30
400	655	585	535	474	4	5	58	41	16–M36

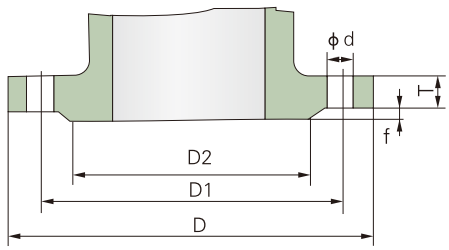
PN6.4MPa Flange deminsion

NPS	D	D1	D2	D6	f	E	T	ϕ d	Bol
20	125	90	68	51	2	4	20	18	4–M16
25	135	100	78	58	2	4	22	18	4–M16
32	160	110	82	66	2	4	24	23	4–M20
40	165	125	95	76	33	4	24	23	4–M20
50	175	135	105	88	3	4	26	23	4–M20
65	200	160	130	110	3	4	28	23	4–M20
80	210	170	140	121	3	4	30	23	8–M20
100	250	200	168	150	3	4.5	32	25	8–M22
125	285	240	202	176	3	4.5	36	30	8–M27
150	340	280	240	204	3	4.5	38	34	8–M30
200	405	345	300	260	3	4.5	44	34	12–M30
250	470	400	352	313	3	4.5	48	41	12–M30
300	530	460	412	364	4	4.5	54	41	16–M36
350	595	525	475	422	4	5	60	41	16–M36
400	670	585	525	474	4	5	66	48	16–M42

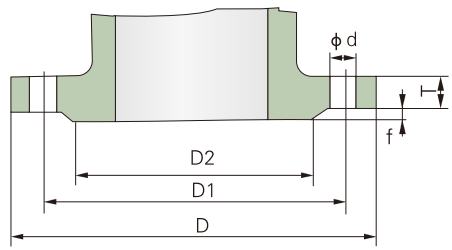
PN10.0MPa Flange deminsion

NPS	D	D1	D2	D6	f	E	T	ϕ d	Bol
20	125	90	68	51	2	4	22	18	4–M16
25	135	100	78	58	2	4	24	18	4–M16
32	160	110	82	66	2	4	24	23	4–M20
40	165	125	95	76	3	4	26	23	4–M20
50	195	145	112	88	3	4	28	25	4–M22
65	220	170	138	110	3	4	32	25	8–M22
80	230	180	148	121	3	4	34	25	8–M22
100	265	210	172	150	3	4.5	38	30	8–M27
125	310	250	210	176	3	4.5	42	34	8–M30
150	350	290	250	204	3	4.5	46	34	12–M30
200	430	360	312	260	3	4.5	54	41	12–M36
250	500	430	382	313	3	4.5	60	41	16–M42
300	585	500	442	364	4	4.5	70	48	16–M48
350	655	560	498	422	4	5	76	54	16–M48
400	715	620	558	474	4	5	80	54	16–M48

ANSI steel pipe flanges ANSI B16.5



Class 150Lb （RF）Flange



Class300/600Lb（RF）Flange

Class 150 Flange dmension

NPS		D		D1		D2		f		T		ϕ d		Bol	
In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	Quantity	Diameter
3/4"	20	3.875	98	2.75	70	1.688	43	0.06	1.6	0.44	11.2	0.625	15	4	1 /2
1	32	4.25	108	3.125	79.5	2	51	0.06	1.6	0.44	12	0.625	15	4	1 /2
1 1/2"	40	5	127	3.875	98.5	2.875	73	0.06	1.6	0.56	15	0.625	15	4	1 /2
2	50	6	152	4.75	120.5	3.62	92	0.06	1.6	0.62	15.9	0.75	19	4	5 /8
1 1/2"	65	7	178	5.5	139.5	4.12	105	0.06	1.6	0.69	17.5	0.75	19	4	5 /8
3	80	7.5	190	6	152.5	5	127	0.06	1.6	0.75	19.1	0.75	19	4	5 /8
4	100	9	229	7.5	190.5	6.19	157	0.06	1.6	0.94	23.9	0.75	19	8	5 /8
5	125	10	254	8.5	216.5	7.31	186	0.06	1.6	0.94	23.9	0.88	22	8	3 /4
6	150	11	279	9.5	241.5	8.5	216	0.06	1.6	1	25.4	0.88	22	8	3 /4
8	200	13.5	343	11.75	298.5	10.62	270	0.06	1.6	1.12	28.6	0.88	22	8	3/4
10	250	16	406	14.25	368	12.75	324	0.06	1.6	1.19	30.2	1	25	12	7 /8
12	300	19	483	17	432	15	381	0.06	1.6	1.25	31.8	1	25	12	7 /8

Class 300 Flange dmension

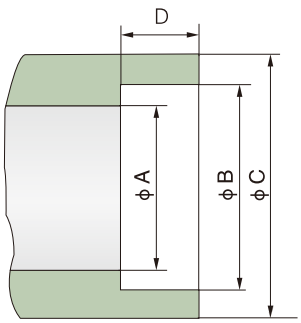
NPS		D		D1		D2		f		T		ϕ d		Bol	
In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	Quantity	Diameter
3/4"	20	4.63	117	3.25	82.5	1.69	43	0.06	1.6	0.63	16	0.75	19	4	1 /2
1	32	4.88	124	3.5	89	2	51	0.06	1.6	0.69	18	0.75	19	4	5 /8
1 1/2"	40	6.13	156	4.5	114.5	3.38	73	0.06	1.6	7.07	21	0.88	22	4	5 /8
2	50	6.5	165	5	127	3.62	92	0.06	1.6	0.88	22.3	0.75	19.22	4	3 /4
1 1/2"	65	7.5	190	5.88	149	4.12	105	0.06	1.6	1	25.4	0.88	22	4	5 /8
3	80	8.25	210	6.62	168	5	127	0.06	1.6	1.12	28.6	0.88	22	4	3 /4
4	100	10	254	7.88	200	6.19	157	0.06	1.6	1.25	31.8	0.88	22	8	3 /4
5	125	11	279	9.25	235	7.31	186	0.06	1.6	1.38	35	0.88	22	8	3 /4
6	150	12.5	318	10.62	270	8.5	216	0.06	1.6	1.44	36.6	0.88	22	12	3 /4
8	200	15	381	13	330	10.62	270	0.06	1.6	1.62	41.3	1	25	12	7 /8
10	250	17.5	444	15.25	387.5	12.75	324	0.06	1.6	1.88	47.7	1.12	29	16	1
12	300	20.5	521	17.75	451	15	381	0.06	1.6	2	50.8	1.25	32	16	11 /8

Class600 Flange dmension

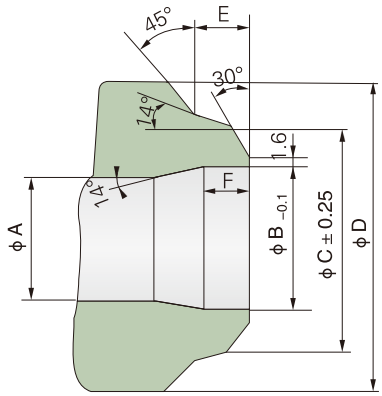
NPS		D		D1		D2		f		T		ϕ d		Bol	
In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	Quantity	Diameter
3/4"	20	4.63	118	3.25	82.5	1.69	43	0.25	6.4	0.63	16	0.75	19	4	5 /8
1	32	4.88	124	3.5	89	2	51	0.25	6.4	0.69	18	0.75	19	4	5 /8
1 1/2"	40	6.13	156	4.5	114.5	3.38	73	0.25	6.4	0.88	23	0.88	22	4	3 /4
2	50	6.5	165	5	127	3.62	92	0.25	6.4	1	25.4	0.75	19	8	5 /8
2 1/2"	65	7.5	190	5.88	149	4.12	105	0.25	6.4	1.12	28.6	0.88	22	8	3 /4
3	80	8.25	210	6.62	168	5	127	0.25	6.4	1.25	31.8	0.88	22	8	3 /4
4	100	10.75	273	8.5	216	6.19	157	0.25	6.4	1.5	38.1	1	25	8	7 /8
5	125	13	330	10.5	266.5	7.31	186	0.25	6.4	1.75	44.5	1.12	29	8	1
6	150	14	356	11.5	292	8.5	216	0.25	6.4	1.88	47.7	1.12	29	12	1
8	200	16.5	419	13.75	349	10.62	270	0.25	6.4	2.19	55.6	1.25	32	12	11 /8
10	250	20	508	17	432	12.75	324	0.25	6.4	2.5	63.5	1.38	35	16	11 /4
12	300	22	559	19.25	489	15	381	0.25	6.4	2.62	66.7	1.38	35	20	11 /4

REOWO
Fluid Control Technology

▶ Valve booy welding joint (ANSI900、1500、2500)



Sw Welding Type



BW Welding Type

Size of welding side joint table 1
SW Size table 1 of SW welding end Size of welding side joint table 1

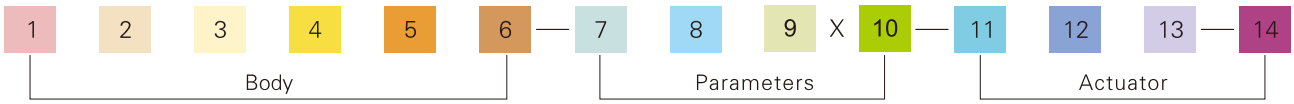
DN(mm)	PN(MPa)	A	B	C	D
40	ANSI 900	35	49.1	74	30
	ANSI 1500	34.4	49.1	74	21
	ANSI 2500	34.4	49.1	84	21
50	ANSI 900	48	61.1	92	24
	ANSI 1500	48	61.1	92	24
	ANSI 2500	38	61.1	103	25
80	ANSI 900	67	90	118	30
	ANSI 1500	67	90	130	30
	ANSI 2500	52	90	133	20

Size of welding side joint table 2
BW Size table 2 of BW welding end2 Size of welding side joint table 2

DN(mm)	PN(MPa)	A	B	C	D	E	F
80	ANSI 900	63	--	--	103	--	9
	ANSI 1500	63	66.9	89.1	120	20	9
	ANSI 2500	52	--	--	133	--	15
100	ANSI 900	84	--	--	134	--	9
	ANSI 1500	84	87.3	114.3	152	25	9
	ANSI 2500	73	--	--	177	--	15
150	ANSI 900	126	128.8	165.2	194	33	9
	ANSI 1500	126	128.8	165.2	218	33	9
	ANSI 2500	110	120	200	260	35	30
200	ANSI 900	190	192	--	260	--	
	ANSI 1500	178	192	260	290	30	20
	ANSI 2500	146	150	220	322	50	

▶ Model establishment descriptions

Model establishment descriptions



Body descriptions

1Code	Control valve
7	Butterfly valve
5	Ball valve

2Code	Body type
0	Straight–through
3	Three–way

3Code	Butterfly valve trim	3代号	Butterfly valve trim
E	High performance	P	Eccentric rotary valve
D	Three– eccentric	V	V ball valve
S	Low load	G	Trunnion ball valve
M	Fluorine lined	F	Floating ball valve
C	Rubber lined	T	Top entry ball valve

4Code	Bonnet type
1	Standard
2	Heat dissipation
3	Extended
4	Cryogenic
5	Heat preservation jacket

5Code	Connection type
1	Flange
2	Wafer
3	Butt welding
4	Thread
5	Lug type

6Code	Seal type
Y	Hard seal
R	Soft seal

9Code	10Code	7Code	8Code
PN	Flow characteristic	DN	Plug size
	D Equal percentage Z Linear K Quick open	Filled according to the actual parameters	

THE PEAK OF QUALITY

REOWO®

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