



CONTROL VALVES CATENA



CDG Valve Manufacturer

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CDG Valve Manufacturer

Co



COMPANY HISTORY

- 1963 : Founded CDG.
- 1985 : CDG brand creation.
- 1989 : Production of pneumatic actuators, and Italy FABIA to establish acooperation.
- 1992 : With the United States FAIRCHILD cooperation, Production of electric actuators.
- 2001 : Focus on the production and assembly of CDG.
- 2005 : Production of hydraulic actuators.
- 2006 : Production of valves.
- 2011 : Oil station development and use.
- 2016 : Set up a number of representative offices in China.

Company introduction

The CDG is a famous valve manufacturers, the company is headquartered in America's largest city, Detroit, Michigan is located in the northeastern United States, Canada, Detroit river north of Windsor an important port city. With strong industrial base and freight advantage.

CDG products have unique design, short delivery time, competitive price and excellent after-sales support. As a professional manufacturer of valves, it quickly became the industry leader.

CDG has more than 50 years experience in the valve industry. The r&d department USES these experiences to constantly design new products, improve existing products, and adapt to changing market demands and constantly improving international standards.

CDG can provide standard and non-standard solutions that can be customized according to customer needs.

CDG has created a wide range of reliable products. CDG is favored and admired by the world's leading EPC and oil and gas companies because of its high performance in extreme conditions. Its products are

used in power plant, petrochemical, metallurgy, papermaking, automobile and more Product certification based on customer requirements and government legislation is a guarantee of product quality. CDG USES advanced testing laboratories to ensure the durability of its products. Fire safety, high temperature and low temperature testing can be carried out under extreme conditions.

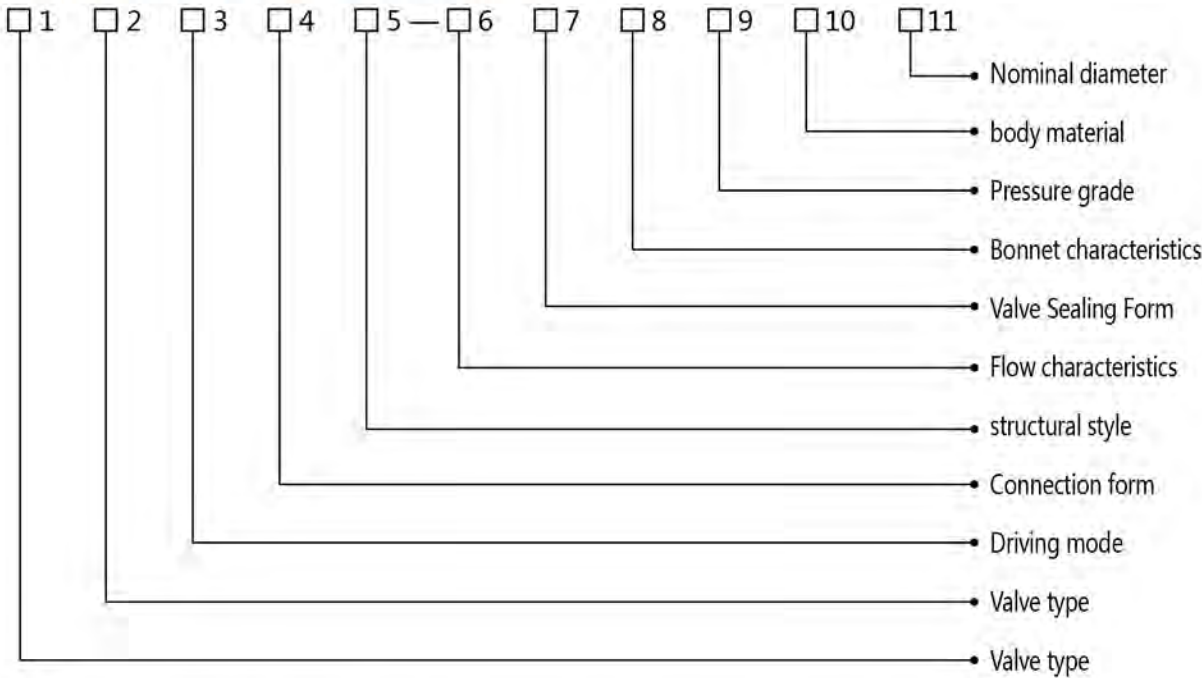
CDG good position, provide comprehensive after-sales support, fast, efficient, with unparalleled expertise. Our skilled engineers and technicians work 24 hours a day to respond to customer queries, solve problems, and provide reliable solutions. A comprehensive after-sales service creates a complete solution, customer support, covering all requirements.

CDG is a long-term, reliable, available and cost- effective partner for your existing and new business.

CDG brand is comprehensive, including valve and oil station, pneumatic actuator, electric actuator and hydraulic actuator and other related fields. To enable CDG to meet different needs it can be sold separately, and can be matched in a complete set, so that users can reduce their worries.

CDG control valves are widely used in petroleum, chemical industry, power, metallurgy, mining, urban construction, water conservancy, ships and other fields. There are two main types: unbalanced type and balanced type. The unique technology of the valve body is used to cast the contour which accords with the principle of air at the inlet and outlet of the valve body, so that the fluid entering the valve can be evenly distributed on the valve cage, so as to minimize turbulence and other unstable factors, thereby improving the flow capacity of the valve; at the same time, the turbulent flow at the outlet of the valve reduces noise and wear of the valve body to a minimum, multiple and diverse interchangeable valve internals and determinable. The characteristic curve valve cage gives users more choices. It is amazing in terms of high quality, high performance, low weight and easy maintenance. It also has the advantages of single seat valve and sleeve valve. It has all the functions of high adjustment accuracy, large cut-off pressure difference and small leakage. It is especially suitable for replacing traditional single-seat valve, double-seat valve and fine series control valve under the condition of large pressure difference between front and back.

Description of Model Formulation



- 1. Valve Type Code: CO-Regulating Valve
 - 2. Valve type code: M-labyrinth type, B-bushing type, L-cryogenic type, T-tee type, Y-Y type, C-standard type (1:3/4"-4", 2:5"-8", 3:10"-12", 4:14"-16")
 - 3. Driving mode code: 2-electro-hydraulic, 3-worm, 5-pneumatic-hydraulic, 6-pneumatic, 7-hydraulic and 9-electric (handwheel drive strategy)
 - 4. Connection form code: 4-flange type, 5-Pair clamp type, 6-weld type, 7-external thread, 8-internal thread
 - 5. Structural form codes: 5-through, 7-angle, 9-Z
 - 6. Flow Characteristic Code: 0-Equivalent Percentage, 1-Line, 2-Quick Opening
 - 7. Valve sealing form code: Y-cemented carbide, F-polytetrafluoroethylene (PTFE), H-ferrous alloy, S-spraying
 - 8. Characteristic code of valve cover: N-standard type, C-heat dissipation type, L-low temperature lengthening type, B-bellows sealing type, I-insulation jacket type
 - 9. Pressure Grade Code: Nominal Pressure Scale is Actual Number
 - 10. Valve body material code: C-WCB, I-WC6, V-WC9, D-C5/C12A, R-CF8M, L-CF3M, O-CF8, P-F91
 - 11. Nominal Path Code: Inch
- Note: Carbon steel valve body, omit this code

Body type

Straight through valve body



The streamlined through valve body with low flow resistance has the same internal cross-section area, which can provide larger flow, less pressure drop loss and stable fluid flow. Equal body wall thickness reduces valve weight.

Angle valve body



Except for the right angle of the valve body, the other structures are identical to the through regulating valve. The valve body has simple flow path and small resistance, which can avoid coking, bonding and blockage, and also facilitate self-cleaning and cleaning.

Three way valve body



The three-way valve body can be divided into two types: confluence and diversion, which are mainly used for proportional regulation or bypass regulation, occupying small space and low cost.

"Z" Valve Body



Z-shaped valve body is mainly suitable for forging in high pressure condition. It has good compressive strength. The internal flow path is simple, and it is not easy to produce eddies, reflux and other phenomena. It reduces the possibility of flash and cavitation in high pressure difference condition.

Bonnet type

Standard bonnet



Standard cover is made of material with valve body. It is suitable for working temperature ranging from -29°C~250°C with PTFE and flexible graphite fillers.

High temperature heat dissipation type



Because both overheating and supercooling will affect the performance of the valve, the high-temperature heat dissipation valve cover is used to protect fillers and accessories vulnerable to supercooling or superheating. When carbon steel is used in the main body of the valve, the applicable temperature is -29°C~425°C, and the applicable temperature is -29°C~560°C when heat-resistant alloy steel is used.

Metal bellows sealing bonnet



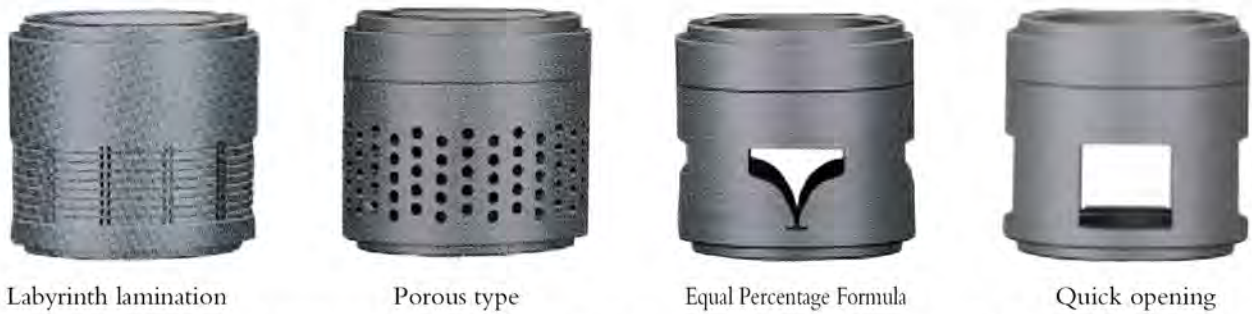
A stainless steel bellows assembly is installed in the metal bellows sealing valve cover. The medium is isolated from the outside world and the valve stem can move up and down. In addition, there are PTFE "V" packing seals on the valve cover. Once the corrugated pipe assembly is damaged, it is used as the second seal to ensure waste or environmental pollution caused by medium leakage. Metal corrugated pipe can be used to seal the valve cover when the leakage of medium fluids into the atmosphere reaches an absolute low limit, such as highly toxic, volatile and permeable media. The temperature is -60°C~425°C, nominal pressure is less than 5 MPa, and it can also be used in vacuum occasions.

Elongated bonnet



Because both overheating and supercooling will affect the performance of the valve, the extended cover is used to protect the filler and accessories from being subcooled or overheated. When carbon steel is used in the main body of the valve, the applicable temperature is -29°C~425°C, and when 304 or 316 stainless steel is used, the applicable temperature is -100°C~650°C.

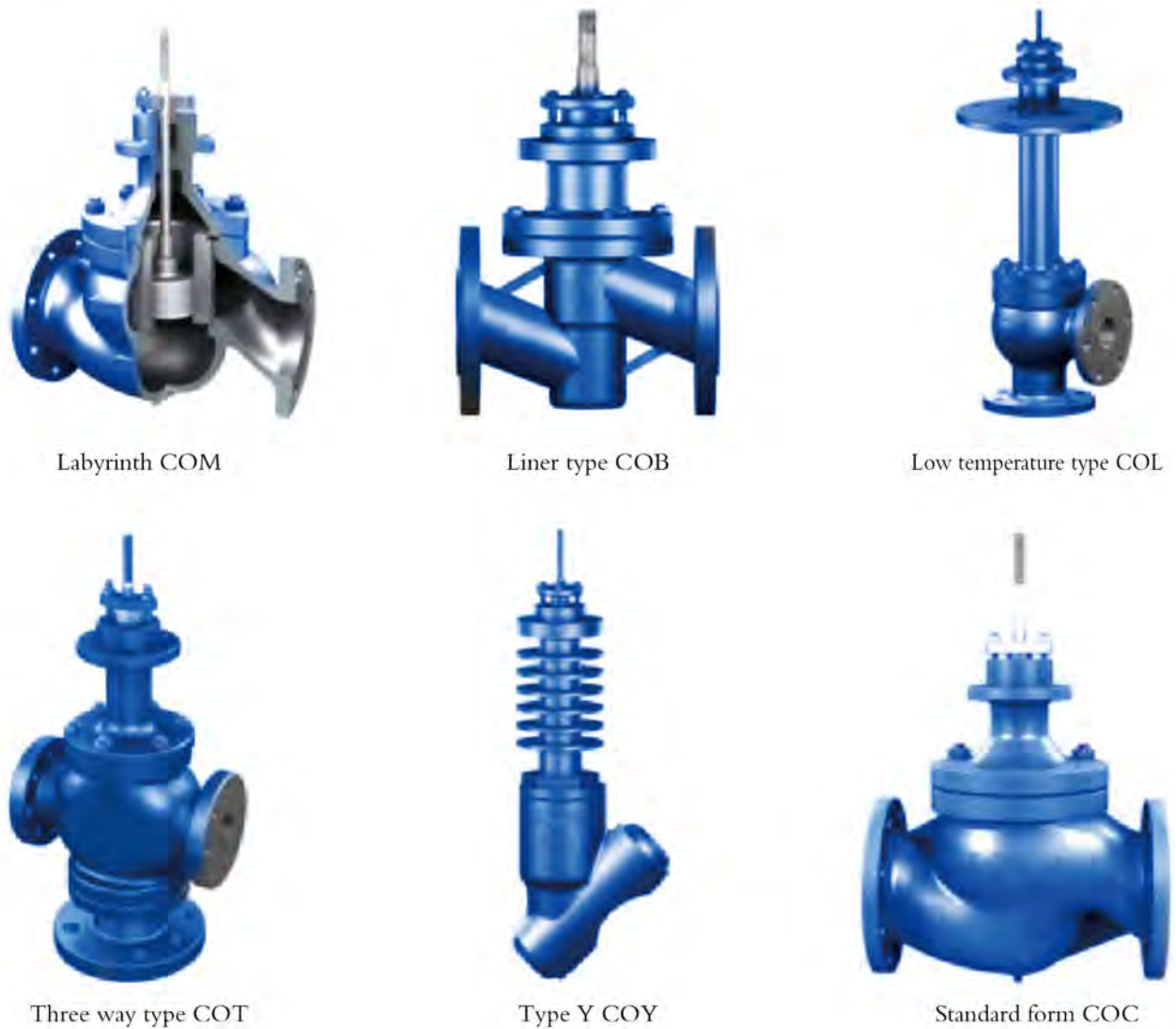
Cage type:



Labyrinth lamination Porous type Equal Percentage Formula Quick opening

Note: The type of valve cage is not listed. For further information, please consult the CDG engineer.

Valve type:



Labyrinth COM Liner type COB Low temperature type COL
Three way type COT Type Y COY Standard form COC

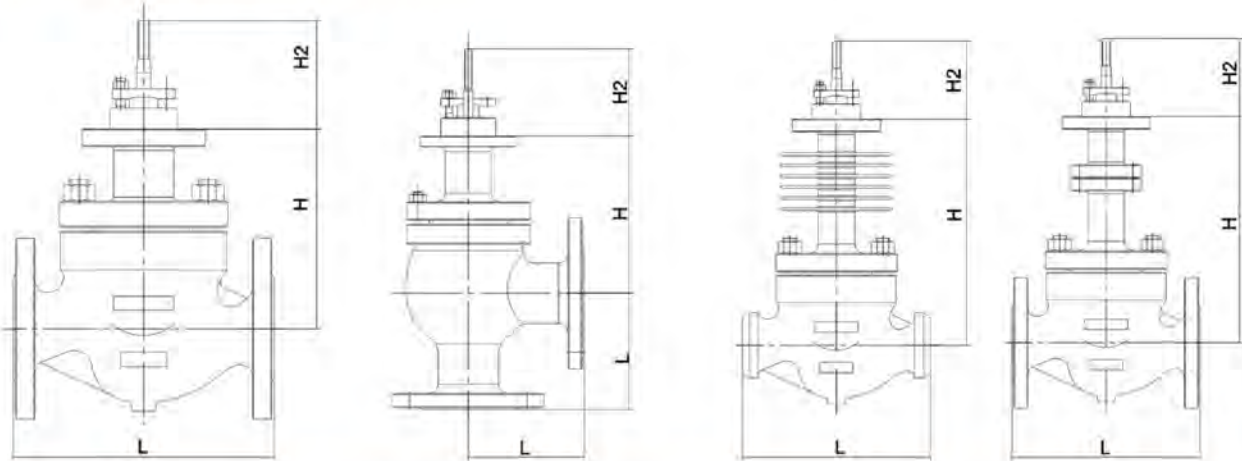
Labyrinth COM

Size Specification Range: 3/4"-12"
Pressure Range: 150Lb-2500Lb
Characteristics of valve internals: cage guide unbalanced internals, cage guide balanced internals, cage pressure type cages, sleeve guide type, quick disassembly type structure, labyrinth laminated cage combination, common double-seat or single-seat structure with balanced sealing ring
Valve body type: straight through, angle, Z type
Top Cover Type: Standard Type, High Temperature Heat Dissipation Type, Low Temperature Elongation Type
Temperature Range: -100°C ~560°C
Stem Seal Type: General Standard Packing Seal and High Temperature Packing Seal
Standard Leakage Level: CLASS IV (Standard, Metal Valve), CLASS V (Metal Seat, Balanced Sealing Ring)
Flow characteristics: equal percentage, straight line
Connection with pipeline: flange type and butt welding type
Adjustable ratio: 50:1
Standard for Flange Connection Form
Flange type: ANSI B16.5
Butt welding: ANSI B16.25
Leakage Implementation Standard: ANSI B16.104

Part name	Optional materials
Bonnet on valve body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Valve core	ASTM A182 F304/F316/F316L ASTM A276 410/420
Valve cage	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L ASTM A276 410/420
Valve seat	Hard: ASTM A182 F304/F316/F316L ASTM A276 410/420
Balancing ring	PTFE/PPL
Valve stem	ASTM S17400 17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L

Note: Special alloy materials are not listed. For further information, please consult the CDG engineer.

Valve structural dimensions



Valve dimensions NPS	Straight-through body structure (mm)							Angular body structure (mm)						
	L			H			H2	L			H			H2
	150 Lb	300 Lb	600 Lb	Standard type	Heat dissipation type	Bellows		150 Lb	300 Lb	600 Lb	Standard type	Heat dissipation type	Bellows	
3/4"	184	184	206	130	255	240	100	95	95	115	150	275	260	100
1"	184	197	210	130	255	240	100	100	100	115	150	275	260	100
1-1/4"	200	200	210	140	265	250	100	105	105	130	160	285	270	100
1-1/2"	222	235	251	145	270	270	100	115	115	130	165	290	275	100
2"	254	267	286	160	285	270	100	125	125	150	190	315	300	100
2-1/2"	276	292	311	245	350	360	135	145	145	170	285	370	400	135
3"	298	317	337	245	350	360	135	155	155	190	285	370	400	135
4"	352	368	394	255	360	370	135	175	175	215	295	380	410	135
5"	410	425	440	305	445	425	135	200	200	250	370	500	490	135
6"	451	473	508	335	485	450	135	225	225	275	390	520	520	135
8"	600(543)	620(568)	650(610)	365	520	490	135	275	275	325	430	560	560	135
10"	650(673)	660(708)	670(752)	455	635	560	150/180	-	-	-	-	-	-	-
12"	737	775	800(819)	475	675	610	150/180	-	-	-	-	-	-	-

Note: 1. Specifications and sizes not listed in the list. For further information, please consult the CDG engineer.
2. Size in parentheses. Additional instructions are required when ordering.

Rated CV Value and Travel

Valve size (inch)	Pug size (mm)	Rated CV		Storke (mm)
		EQ%	Linear	
3/4" 1" 1-1/4"	10	1.6	-	16
	12	2.5	-	16
	15	4	-	16
	20	6.3	-	16/25
1-1/2"	15	4	-	25
	20	6.3	8	25
	25	10	14	25
2"	25	6.3	8	25
	25	10	14	25
	32	17	20	25
2-1/2"	25	10	14	40
	32	17	20	40
	40	24	30	40
3"	32	17	20	40
	40	24	30	40
	50	44	50	40
4"	40	24	30	40
	50	44	50	40
	65	68	85	40
5"	80	99	125	60
6"	100	175	200	60
8"	125	275	310	60
10"	150	360	420	100
12"	200	630	690	100

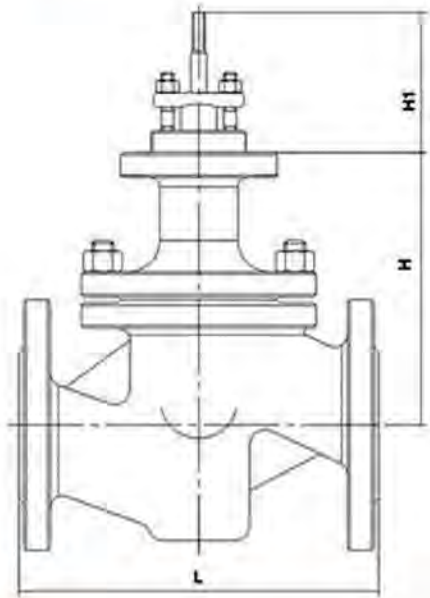
Bushing type COB

- Size Specification Range: 3/4"-12"
- Pressure Range: 150Lb
- Internal features: unbalanced internal spool, lined seat, fully lined spool
- Valve body type: general type
- Top Cover Type: General Type, Bellows Elongation Type (optional)
- Temperature Range: -45°C ~150°C
- Stem Seal Type: Standard Packing Seal and Bellows Seal Double Seal (optional)
- Standard leak level: CLASSVI
- Flow characteristics: equal percentage, straight line
- Connection with pipeline: flange type
- Adjustable ratio: 50:1
- Standard for Flange Connection Form
- Flange type: ANSI B16.5
- Leakage Implementation Standard: ANSI B16.104

Part name	Optional materials
Bonnet on valve body	ASTM A216 WCB+FEP ASTM A216 WCB/WCB+PTFE/PFA
Valve cage	ASTM A182 F304+FEP
Valve core	ASTM A182 F304+PTFE/PFA
Valve seat	FEP/PTFE/PFA
Valve stem	ASTM A182 F304+FEP ASTM A182 F304+PTFE/PFA

Note: Special alloy materials are not listed. For further information, please consult the CDG engineer.

Valve structural dimensions



Valve dimensions NPS	L (mm)	H (mm)		H1 (mm)
		Standard form	Bellows type	
3/4"	150	190	290	100
1"	160	190	290	100
1-1/4"	180	200	300	100
1-1/2"	200	205	305	100
2"	230	230	320	100
2-1/2"	290	310	420	135
3"	310	320	420	135
4"	350	340	430	135
5"	400	380	495	135
6"	480	400	520	135
8"	600	430	560	135
10"	730	-	-	150/180
12"	850	-	-	150/180

Note: Specifications and sizes not listed in the list. For further information, please consult the CDG Engineer.

Rated CV Value and Travel

Valve size (inch)	Pug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
3/4"	6	0.4	-	10
	8	1	-	10
	10	1.6	-	10
	12	2.5	-	10
	15	4	-	10
	20	6.3	8	10
1"	6	0.4	-	16
	8	1	-	16
	10	1.6	-	16
	12	2.5	-	16
	15	4	-	16
	20	6.3	8	16
	25	10	12	16
1-1/4"	32	17	20	16
1-1/2"	40	24	30	25
2"	50	44	50	25
2-1/2"	65	68	85	40
3"	80	99	125	40
4"	100	175	200	40
5"	125	275	310	60
6"	150	360	420	60
8"	200	630	690	60
10"	250	900	1000	100
12"	300	1440	1600	100

Low temperature type COL

Size Specification Range: 3/4"~12"

Pressure Range: 150Lb~900Lb

Valve internals features: cage guide unbalanced internals, quick disassembly structure, cage pressure seat (for stainless steel body)

Valve body type: through type, angle type

Top Cover Type: Elongation Type

Temperature range: -196°C ~200°C

Stem Seal Type: General Standard Packing Seal and Bellows Seal

Standard Leakage Class: CLASS IV (Standard, Metal Seat), CLASS VI (DN100 caliber below optional, soft seat)

Flow characteristics: equal percentage, straight line

Connection with pipeline: flange type and butt welding type

Adjustable ratio: 50:1

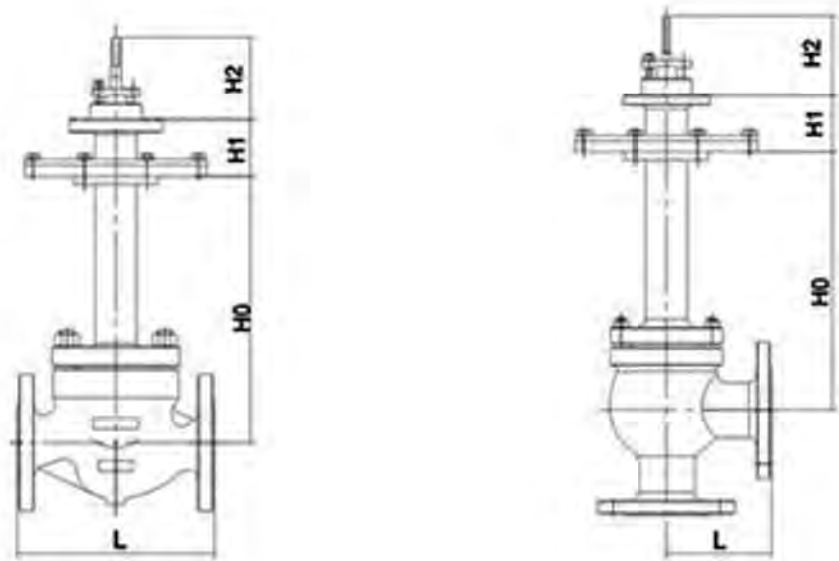
Flange type: ANSIB16.5

Butt welding: ANSIB16.25

Leakage Implementation Standard: ANSIB16.104

Part name	Optional materials
Bonnet on valve body	ASTM A351 CF8/CF8M ASTM A182 F304/F316 5083 II Lead Alloy/5052 Aluminum Alloy
Valve core	ASTM A182 F304/F316/F316L
Valve cage	ASTM A351 CF8/CF3/CF8M/CF3M
Valve seat	ASTM A182 F304/F316/F316L
Valve stem	ASTM A276 F304/F316/F316L
Corrugated pipe	304/316

Note: Special alloy materials are not listed. For further information, please consult the CDG engineer.



Valve structural dimensions

Valve dimensions (NPS)	Straight-through body structure			H1 (mm)	H2 (mm)	Angular body structure			H1 (mm)	H2 (mm)	H0 (mm)	
	L (mm)					L (mm)					-100~- 60℃	-196~- 100℃
	150Lb	300Lb	600Lb			150Lb	300Lb	600Lb				
3/4"	184	184 (194)	206	60	100	95	95	115	60	100	500	500
1"	184	197	210	60	100	100	100	155	60	100		
1-1/4"	200	200	210	60	100	105	105	130	60	100		
1-1/2"	222	235	251	65	100	115	115	130	65	100		
2"	254	267	286	70	100	125	125	150	70	100		
2-1/2"	276	292	311	95	135	145	145	170	95	135	600	800
3"	298	317	337	105	135	155	155	190	105	135		
4"	352	368	394	105	135	175	175	215	105	135		
5"	410	425	440	130	135	200	200	250	130	135	700	900
6"	451	473	508	130	135	225	225	275	130	135		
8"	600 (543)	620 (568)	650 (610)	140	135	275	275	325	140	135		

Note: ① Size in parentheses should be specified separately when ordering.
② Specifications and sizes not listed in the list. For further information, please consult the CDG engineer.

Rated CV Value and Travel

Valve size (inch)	Pug size (mm)	Rated CV		Storke (mm)
		EQ%	Linear	
3/4" 1"	6	0.4	-	10/16
	7	0.63	-	10/16
	8	1	-	10/16
	9	1.2	-	10/16
	10	1.6	-	10/16
	12	2.5	-	10/16
	15	4	-	10/16
1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4" 5" 6" 8"	20	6.3	8	10/16
	25	10	12	16
	32	17	20	16
	40	24	30	25
	50	44	50	25
	65	68	85	40
	80	99	125	40
100 125 150 200	175	200	200	40
	275	310	310	60
	360	420	420	60
	620	690	690	60

Three way type COT

Size Specification Range: 3/4"~12"

Pressure Range: 150Lb~600Lb

Valve internals features: dual seat structure, seat guide internals

Valve body type: three-way type

Top Cover Type: Normal Temperature Standard Type, High Temperature Heat Dissipation Type,

Low Temperature Elongation Type

Temperature range: -100°C ~425°C .

Stem Seal Type: General Standard Packing Seal, High Temperature Packing Seal, Bellows Seal

Standard Leakage Class: CLASS III (Standard, Metal Seat)

Flow characteristics: equal percentage, straight line

Connection with pipeline: flange type and butt welding type

Adjustable ratio: 30:1

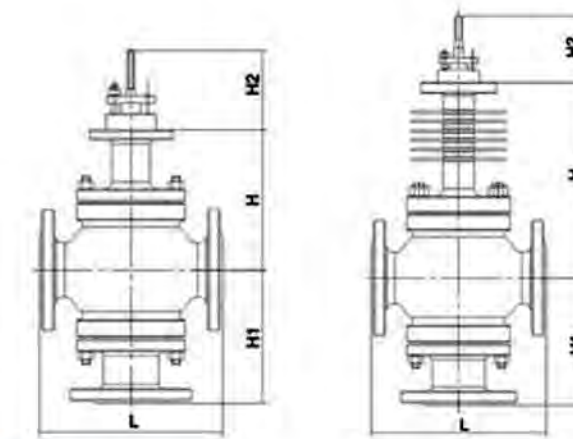
Flange type: ANSI B16.5

Butt welding: ANSI B16.25

Leakage Implementation Standard: ANSIB16.104

Part name	Optional materials
Bonnet on valve body	ASTM A216 WCB/WCC ASTM A217 Wc6/ WC9 ASTM A105
	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Valve core	ASTM A182 F304/F316/F316L ASTM A276 410/420
valve seat	Hard: ASTM A182 F304/F316/F316L ASTM A276 410/420
Valve stem	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/316L

Note: Special alloy materials are not listed. For further information, please consult the CDG engineer.



Valve structural dimensions

Valve dimensions NPS	L (mm)			H (mm)			H1 (mm)					
	150Lb	300 Lb	600 Lb	Ordinary type	Heat dissipation type	Bellows	Confluence			shunt		
							150Lb	300 Lb	600 Lb	150Lb	300 Lb	600 Lb
3/4"	180	180	190	165	290	275	138	138	-	-	-	-
1"	185	185	200	180	305	290	150	150	160	150	150	160
1-1/4"	200	200	210	185	310	295	160	160	170	160	160	170
1-1/2"	220	220	235	200	325	310	165	165	175	165	165	185
2"	250	250	265	205	330	315	180	180	190	180	180	190
2-1/2"	275	275	295	270	355	385	200	200	210	200	200	228
3"	300	310	320	280	375	395	220	220	230	237	237	247
4"	350	355	370	295	390	410	230	230	240	260	260	270
5"	410	425	440	345	475	465	270	270	295	298	298	323
6"	450	460	475	355	485	480	295	295	315	320	320	340
8"	550	560	570	395	550	520	360	360	380	390	390	410
10"	650	660	670	510	710	635	400	400	420	465	465	485
12"	740	785	800	560	760	695	480	480	510	548	548	578

Note: ① Size in parentheses should be specified separately when ordering.

② Specifications and sizes not listed in the list. For further information, please consult the CDG engineer.

Rated CV Value and Travel

Valve size (inch)	Pug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
3/4"	20	6.3	10	
1"	25	8.5	16	
1-1/4"	32	13	16	
1-1/2"	40	21	25	
2"	50	34	25	
2-1/2"	65	52	40	
3"	80	85	40	
4"	100	135	40	
5"	125	210	60	
6"	150	340	60	
8"	200	535	60	
10"	250	800	100	
12"	300	1260	100	

Type Y COY

Size Specification Range: 3/4"~4"

Pressure Range: 150Lb~2500Lb

Valve internals features: cage pressure seat unbalanced internals

Body type: Y type

Top Cover Type: Standard Type

High temperature heat dissipation type

Medium Flange Sealing Form: Thread Tightening, High Pressure Self-Tightening Sealing

Temperature Range: -29°C ~560°C

Stem Seal Type: General Standard Packing Seal and High Temperature Packing Seal

Standard Leakage Level: Approximate to Zero Leakage (Metal Seat)

Flow Characteristics: Quick Open

Connection with Pipeline: Butt Welding

Butt welding: ANSI B16.25

Part name	Optional materials
Bonnet on valve body	ASTM A105 ASTM A182 F22/F11/12Cr1MoV
Valve cage	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 304/316/316L
Valve core	12Cr1MoV/15Cr1Mo ASTM A182F304/F316
Valve seat	ASTM A182 F304/F316/F316L+STL ASTM A276 410/420
Valve stem	17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L

Note: Special alloy materials are not listed. For further information, please consult the CDG engineer.

Standard form COC1

Size Specification Range: 3/4"~4"

Pressure Range: 150Lb-2500Lb

Characteristics of inner parts: cage-oriented unbalanced, top-oriented unbalanced, cage-pressure seat, core circular sealing surface, seat-oriented unbalanced, cage-oriented unbalanced, cage-oriented balanced, sleeve-oriented, porous cage combination, dual-core pressure relief quick disassembly structure, single/double seat structure, standard split/one cage, quick disassembly structure

Valve body types: straight through, angular and Z

Top Cover Form: Standard Type, High Temperature Heat Dissipation Type, Elongation Type

Temperature range: -100°C ~560°C

Stem Seal Type: General Standard Packing Seal, High Temperature Packing Seal, Bellows Seal

Standard Leakage Level: CLASS IV (Standard, Metal Seat), CLASS V (Optional, Metal Seat), CLASS VI (Optional, Soft Seat)

Flow characteristics: equal percentage, straight line, fast opening

Connection with pipeline: flange type and butt welding type

Adjustable ratio: 50:1

Standard for Flange Connection Form

Flange type: ANSI B16.5

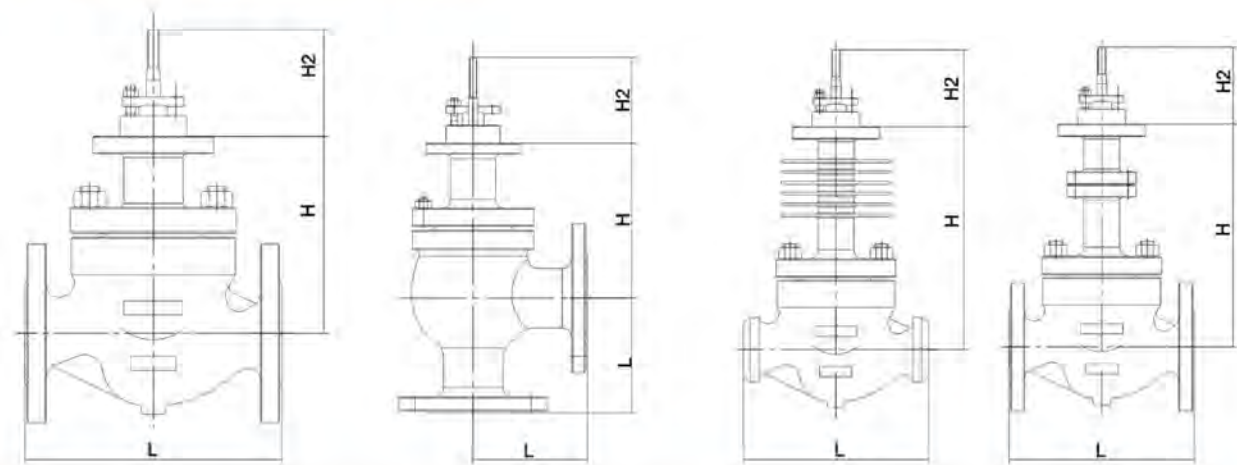
Butt welding: ANSI B16.25

Leakage Implementation Standard: ANSI B16.104

Part name	Optional materials
Bonnet on valve body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 304/316/316L
Valve core	ASTM A182 F304/F316/F316L ASTM A276 410/420
Valve cage	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Valve seat	Hard: ASTM A182 F304/F316/F316L ASTM A276 410/420
	Soft: PTFE/PPL
Valve stem	ASTM S17400 17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L

Note: Special alloy materials are not listed. For further information, please consult the CDG engineer.

Valve structural dimensions



Valve dimensions NPS	Straight-through body structure (mm)							Angular body structure (mm)						
	L			H			H2	L			H			H2
	150 Lb	300 Lb	600 Lb	Standard form	Heat dissipation type	Bellows type		150 Lb	300 Lb	600 Lb	Standard form	Heat dissipation type	Bellows type	
3/4"	184	184	206	130	255	240	100	95	95	115	150	275	260	100
1"	184	197	210	130	255	240	100	100	100	115	150	275	260	100
1-1/4"	200	200	210	140	265	250	100	105	105	130	160	285	270	100
1-1/2"	222	235	251	145	270	270	100	115	115	130	165	290	275	100
2"	254	267	286	160	285	270	100	125	125	150	190	315	300	100
2-1/2"	276	292	311	245	350	360	135	145	145	170	285	370	400	135
3"	298	317	337	245	350	360	135	155	155	190	285	370	400	135
4"	352	368	394	255	360	370	135	175	175	215	295	380	410	135

Note: 1、 For dimensions above 900Lb, please consult CDG Engineer for further information.
2、 ≥ 1500Lb only for butt welding end.

Rated CV Value and Travel

Valve size (inch)	Pug size (mm)	Rated CV		Storke (mm)
		EQ%	Linear	
3/4"	6	0.4	-	10/16
	7	0.63	-	10/16
	8	1	-	10/16
	9	1.2	-	10/16
	10	1.6	-	10/16
	12	2.5	-	10/16
	15	4	-	10/16
1"	20	6.3	8	10/16
	25	10	12	16
	32	17	20	16
	40	24	30	25
	50	44	50	25
	65	68	85	40
	80	99	125	40
2"	100	175	200	40

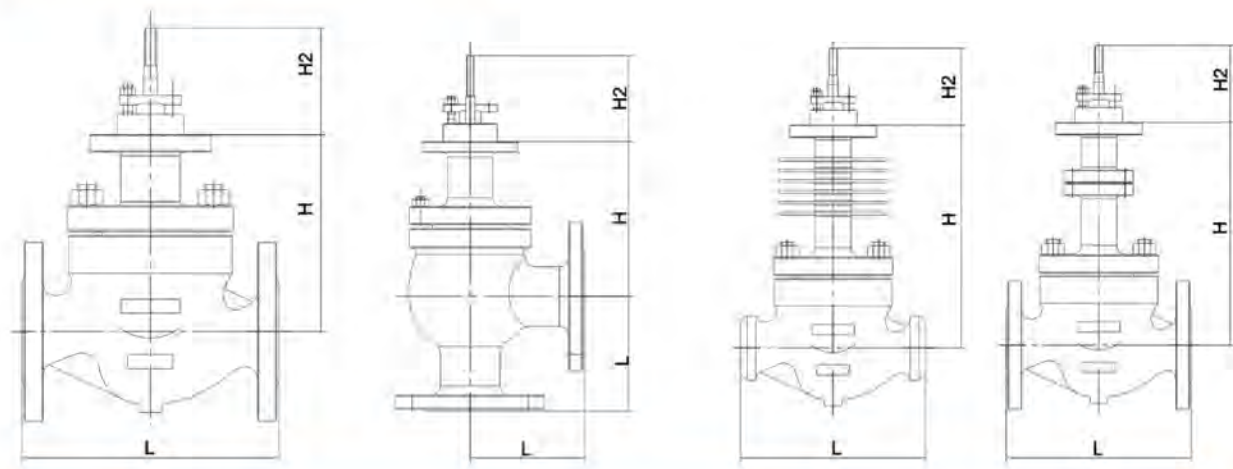
Standard form COC2

Size Specification Range: 5"-8"
Pressure Range: 150Lb-2500Lb
Characteristics of inner parts: cage-oriented unbalanced, cage-oriented balanced, top-oriented unbalanced, cage-pressure seat, with balanced sealing ring, seat-oriented unbalanced, cage-oriented unbalanced, cage-oriented balanced cage, sleeve-oriented, porous cage combination, dual-core pressure relief quick-disassembly structure, single/double-seat structure, standard split/one valve cage
Valve body types: straight through, angular and Z
Top Cover Form: Standard Type, High Temperature Heat Dissipation Type, Elongation Type
Temperature range: -100°C ~560°C
Stem Seal Type: General Standard Packing Seal, High Temperature Packing Seal, Bellows Seal
Standard Leakage Level: CLASS IV (Standard, Metal Seat), CLASS V (Optional, Metal Seat), CLASS VI (Optional, Soft Seat)
Flow characteristics: equal percentage, straight line, fast opening
Connection with pipeline: flange type and butt welding type
Adjustable ratio: 50:1
Standard for Flange Connection Form
Flange type: ANSI B16.5
Butt welding: ANSI B16.25
Leakage Implementation Standard: ANSI B16.104

Part name	Optional materials
Bonnet on Valve body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Valve core	ASTM A182 F304/F316/F316L ASTM A276 410/420
Valve cage	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Valve seat	Hard: ASTM A182 F304/F316/F316L ASTM A276 410/420
	Soft: PTFE/PPL
Valve stem	ASTM S17400 17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L

Note: Special alloy materials are not listed. For further information, please consult the CDG engineer.

Valve structural dimensions



Valve dimensions NPS	Straight-through body structure (mm)							Angular body structure (mm)						
	L			H			H2	L			H			H2
	150 Lb	300 Lb	600 Lb	Standard form	Heat dissipation type	Bellows type		150 Lb	300 Lb	600 Lb	Standard form	Heat dissipation type	Bellows type	
5"	410	425	440	305	445	425	135	200	200	250	370	500	490	135
6"	451	473	508	335	485	450	135	225	225	275	390	520	520	135
8"	600(543)	620(568)	650(610)	365	520	490	135	275	275	325	430	560	560	135

Note: 1. For dimensions above 900Lb, please consult CDG Engineer for further information.
2. ≥ 1500Lb only for butt welding end.
3. Size in parentheses. Additional instructions are required when ordering.

Rated CV Value and Travel

Valve size (inch)	Pug size (mm)	Rated CV		Storke (mm)
		EQ%	Linear	
5"	125	275	310	60
6"	150	360	420	60
8"	200	630	690	60

Standard form COC3

Size Specification Range: 10"-12"

Pressure Range: 150Lb-2500Lb

Characteristics of inner parts: cage guide unbalanced, cage guide balanced, cage pressure seat, balanced sealing ring, seat guide unbalanced, cage guide unbalanced, cage guide balanced, sleeve guide, porous cage combination, double core pressure relief quick disassembly structure, single/double seat structure, standard split/one cage

Valve body types: straight through, angular and Z

Top Cover Form: Standard Type, High Temperature Heat Dissipation Type, Elongation Type

Temperature range: -100°C ~560°C

Stem Seal Type: General Standard Packing Seal, High Temperature Packing Seal, Bellows Seal

Standard Leakage Level: CLASS IV (Standard, Metal Seat), CLASS V (Optional, Metal Seat), CLASS VI (Optional, Soft Seat)

Flow characteristics: equal percentage, straight line, fast opening

Connection with pipeline: flange type and butt welding type

Adjustable ratio: 50:1

Standard for Flange Connection Form

Flange type: ANSI B16.5

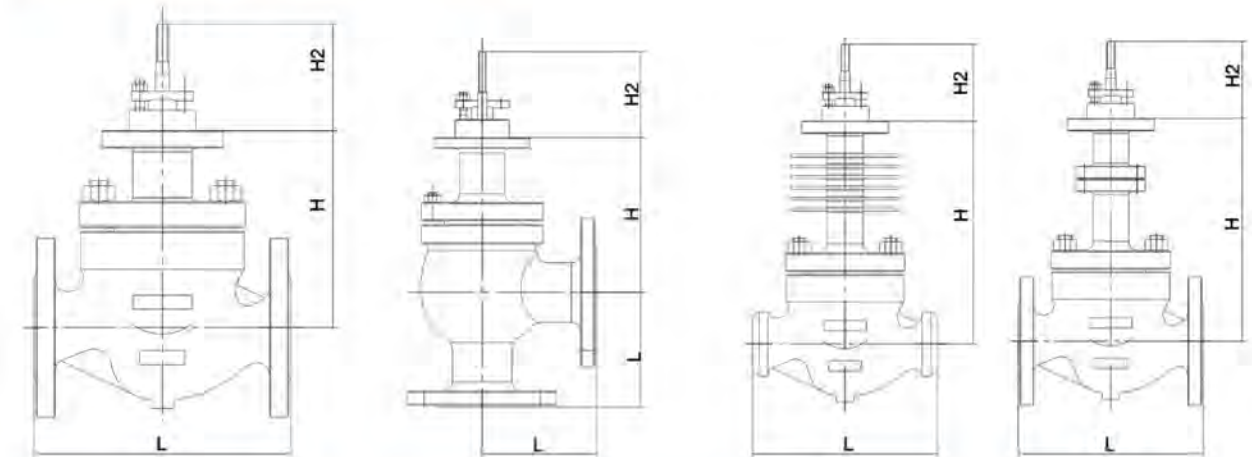
Butt welding: ANSI B16.25

Leakage Implementation Standard: ANSI B16.104

Part name	Optional materials
Bonnet on Valve body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Valve core	ASTM A182 F304/F316/F316L ASTM A276 410/420
Valve cage	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Valve seat	Hard: ASTM A182 F304/F316/F316L ASTM A276 410/420
	Soft: PTFE/PPL
Valve stem	ASTM S17400 17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L

Note: Special alloy materials are not listed. For further information, please consult the CDG engineer.

Valve structural dimensions



Valve dimensions NPS	Straight-through body structure (mm)						
	L			H			H2
	150Lb	300Lb	600Lb	Standard form	Heat dissipation type	Bellows type	
10"	673	708	752	455	635	560	150/180
12"	737	775	800 (819)	475	675	610	150/180

Note: 1. For dimensions above 900Lb, please consult CDG Engineer for further information.

2. ≥ 1500Lb only for butt welding end.

3. Size in parentheses. Additional instructions are required when ordering.

Rated CV Value and Travel

Valve size (inch)	Pug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
10"	250	900	1000	100
12"	300	1440	1600	100

Standard form COC4

Size Specification Range: 14"-16"

Pressure Range: 150Lb-900Lb

Valve internals features: cage guide unbalanced, cage pressure seat, sleeve guide, double spool pressure relief quick disassembly structure, double seat structure, standard split/one valve cage

Valve body types: straight through, angular and Z

Top Cover Form: Standard Type, High Temperature Heat Dissipation Type, Elongation Type

Temperature range: -100°C ~560°C

Stem Seal Type: General Standard Packing Seal, High Temperature Packing Seal, Bellows Seal

Standard Leakage Level: CLASS IV (Standard, Metal Seat), CLASS V (Optional, Metal Seat), CLASS VI (Optional, Soft Seat)

Flow characteristics: equal percentage, straight line

Connection with pipeline: flange type and butt welding type

Adjustable ratio: 50:1

Standard for Flange Connection Form

Flange type: ANSI B16.5

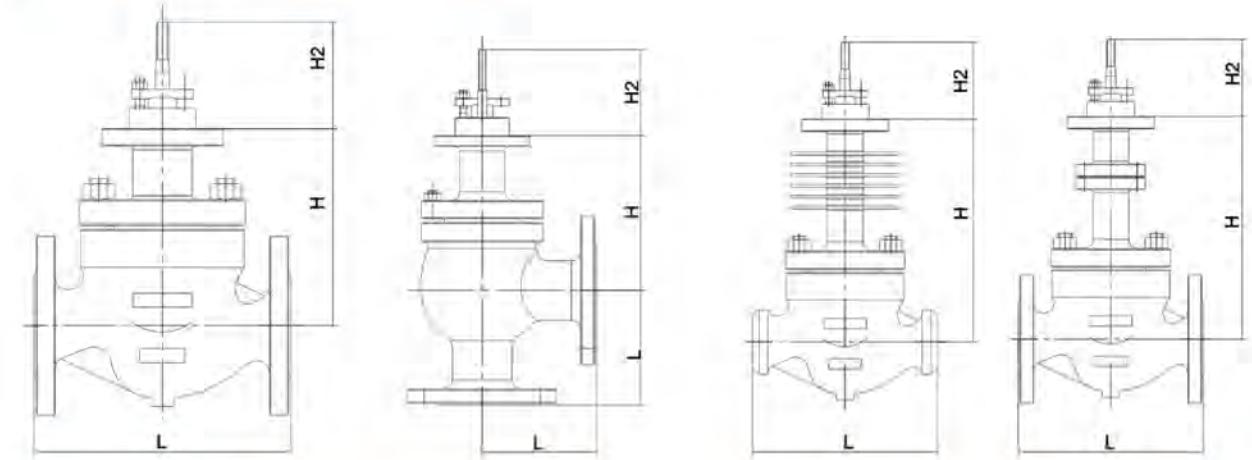
Butt welding: ANSI B16.25

Leakage Implementation Standard: ANSI B16.104

Part name	Optional materials
Bonnet or Valve body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Valve core	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L ASTM A276 410/420
Valve cage	ASTM A351 CF8/CF3/CF8M/CF3M ASTM A182 F304/F316/F316L
Valve seat	Hard: ASTM A182 F304/F316/F316L ASTM A276 410/420
	Soft: PTFE/PPL
Valve stem	ASTM S17400 17-4PH ASTM A276 410/420 ASTM A276 F304/F316/F316L

Note: Special alloy materials are not listed. For further information, please consult the CDG engineer.

Valve structural dimensions



Valve dimensions NPS	Straight-through body structure (mm)						
	L			H			H2
	150Lb	300Lb	600Lb	Standard form	Heat dissipation type	Bellows type	
14"	850	850	-	550	750	-	150/180
16"	950	950	-	575	780	-	150/180

Note: 900Lb shape and size, if you need to know, please consult CDG engineer.

Rated CV Value and Travel

Valve size (inch)	Pug size (mm)	Rated CV		Stroke (mm)
		EQ%	Linear	
14"	350	1800	-	100
16"	400	2100	-	100/120