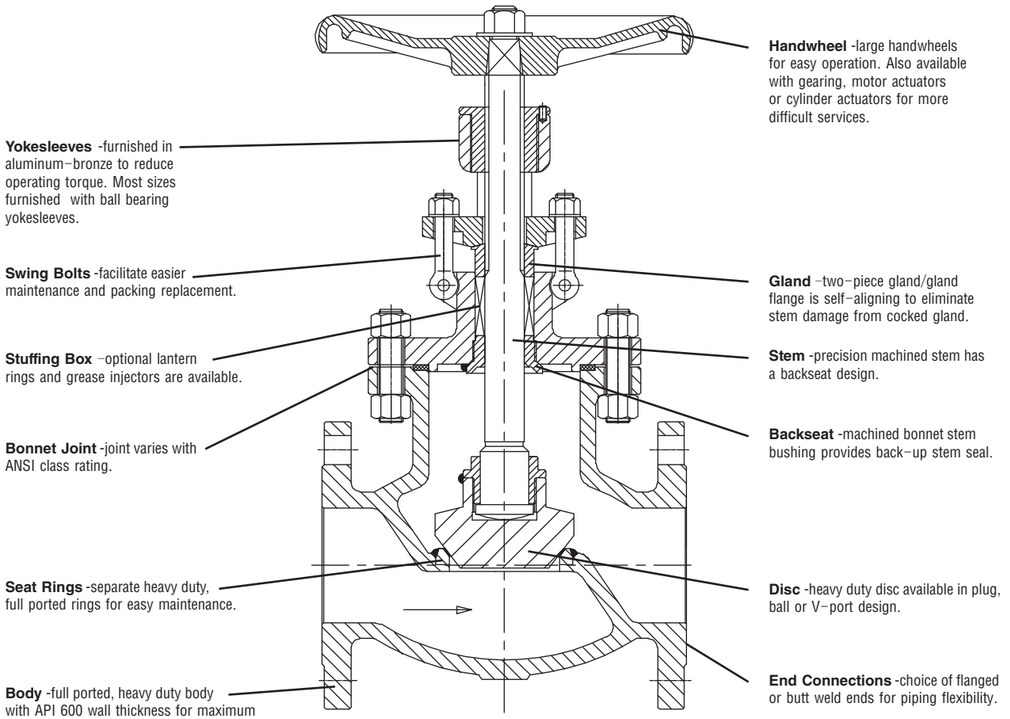
Cast Steel Bolted Bonnet Valves

CCPV

Globe Valves Major Features

Cast steel bolted bonnet globe valves are designed and manufactured to provide maximum service life and dependability. Valves meet the design requirements of AP1–600 and ANSI B16.34. Valves are available in a complete range of body/bonnet materials and trims.



Range of Materials

Standard body/bonnet materials include nine grades of carbon, low alloy and stainless steels. For special applications they can be supplied in other grades of alloy and stainless steel. There's a full range of trim materials to match any service. Optional packing and gasket materials are available for a full range of service conditions.

Actuator Flexibility

All valves are available with hand–wheels, gearing, electric motor actuators or pneumatic or hydraulic cylinder actuators.

Easy Operation

Threaded seat rings are easily accessible for repair or replacement. Packing swing bolts on most valves simplify packing replacement. All Pacifc bolted bonnet designs facilitate fast disassembly.

Longer Life

Rugged construction provides years of reliable service. A two piece packing gland prevents cocking and stem damage.

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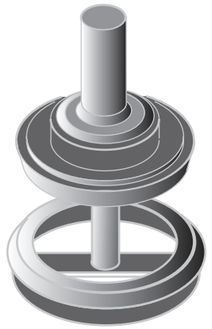
Globe Valves Optional Features

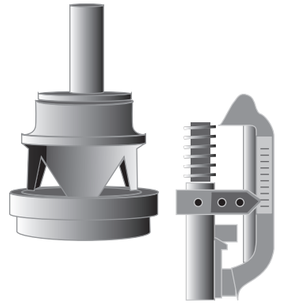
Disc Types

Globe valves are available with a choice of disc types to meet specifc shutoff and throttling applications.



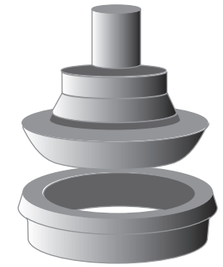
Plug Disc

Simplest and most economical disc type available. The disc is stem guided on all sizes. Disc has a differential angle front the seat to provide a line contact for maximum sealing. Simplest disc type for feld repair.



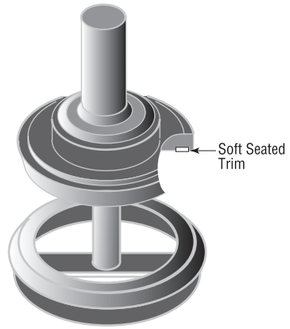
V–Port Disc

Optional disc confguration, where more linear throttling characteristics are required. The bottom of the disc is guided by the body seat ring for maximum disc stability in throttling applications. Valves with V–port trim are provided with non–revolving stems and position indicator assem–blies on the yoke. Ideal for non– severe throttling service where near linear characteristics are required.



Ball Type Disc

Optional disc confguration which provides line contact between spherical disc and conical body seat. This design minimizes galling tendency with non–hardened stain–less steel seats and is less likely to stick in the body seat.

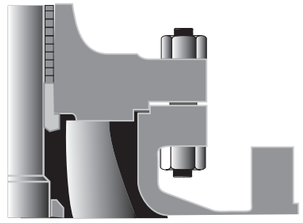


Optional Soft Seated Trim

All globe valves are available with optional Tefon disc. The molded tefon ring is bonded into a groove in the disc for maximum service life. This design is excellent for lower temperature service where tight shut – off is required. Specify "T" trim (see page 38).

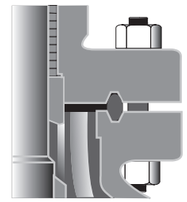
Standard Bonnet Joints

Body/bonnet joints on designed for rugged services with a more than adequate number of bonnet bolts. The standard joint varies, depending on valve class. These standard joints are shown.



Class 150 – The standard, circular bonnet joint is the simplest and most economical confguration for low pressure services. The male and female joint confnes the gasket O.D. and I.D. Our standard gasket is corrugated metal, but fat gaskets of other materials are available when specifed.

Class 300 – The circular male and female bonnet joint is self–aligning and encapsulates the gasket. Our standard gasket is double jacketed metal. Valves in these classes are also available with spiral wound or ring joint gaskets when specifed.



Class 600 and 900 – The circular ring joint bonnet seal has proven to be the best bolted high pressure bonnet joint available. The ring joint is self–aligning; the gasket may be reused unless it is physically dam–aged. Valves in these classes are also available with spiral wound gasket bonnet joints when specifed.

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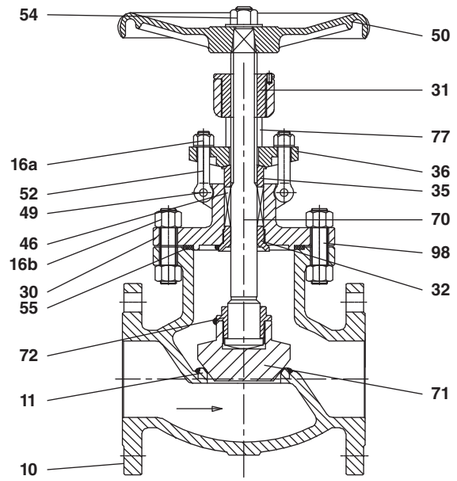
Materials of Construction: Globes Valves



	Part Name	Material
54	Handwheel Nut	Carbon Steel
50	Handwheel	Malleable or Ductile Iron
31	Yokesleeve	Ductile Ni–Resist or Aluminum–Bronze
77	Yoke	Carbon Steel
16a	Eyebolt Nut	Carbon Steel
36	Gland Flange	Carbon Steel
52	Eyebolt	Carbon Steel
35	Gland	300 Series SS
49	Eyebolt Pin	Carbon Steel
	Trim Parts	
72	Disc Nut	
32	Bonnet Stem Bushing	
70	Stem (See page 38 for Trim Materials)	
71	Disc (See Note 1)	
11	Seat Ring (See Note 1)	

See below for balance

Note 1: Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

	Part Name	Carbon Steel	LCB	LC3	WC6	WC9
46	Packing (G)	Graphitic	PTFE (A)	PTFE (A)	Graphitic	Graphitic
30	Bonnet	ASTM A216 Gr WCB	ASTM A352 Gr LCB	ASTM A352 Gr LC3	ASTM A217 Gr WC6	ASTM A217 Gr WC9
55	Bonnet Gasket					
	Class 150 & 300	Mild Steel (F)	304 SS (A) (F)	304 SS (A) (F)	304 SS (F)	304 SS (F)
	Class 600 & up	Steel ring	304 SS ring	304 SS ring	304 SS ring	304 SS ring
16b	Bonnet Stud Nuts	ASTM A194 Gr 2H	ASTM A194 Gr 7	ASTM A194 Gr 7	ASTM A194 Gr 2H	ASTM A194 Gr 2H
98	Bonnet Studs	ASTM A193 Gr B7	ASTM A320 Gr L7	ASTM A320 Gr L7	ASTM A193 Gr B7 (B)	ASTM A193 Gr B7 (B)
10	Body	ASTM A216 Gr WCB	ASTM A352 Gr LCB	ASTM A352 Gr LC3	ASTM A217 Gr WC6	ASTM A217 Gr WC9

	Part Name	C5	C12	CA6NM	CF8C	CF8M
46	Packing (G)	Graphitic	Graphitic	Graphitic	Graphitic	Graphitic
30	Bonnet	ASTM A217 Gr C5	ASTM A217 Gr C12	ASTM A487 Gr CA6NM	ASTM A351 Gr CF8C	ASTM A351 Gr CF8M
55	Bonnet Gasket					
	Class 150 & 300	Corr. 304 SS (F)	Corr. 304 SS (F)	Corr. 304 SS (F)	Corr. 347 SS (F)	Corr. 316 SS (F)
	Class 600 & up	304 SS ring	304 SS ring	304 SS ring	347 SS ring	316 SS ring
16b	Bonnet Stud Nuts	ASTM A194 Gr 2H (C)	ASTM A194 Gr 2H (C)	ASTM A194 Gr 2H	ASTM A194 Gr 2H (D)	ASTM A194 Gr 2H (E)
98	Bonnet Studs	ASTM A193 Gr B7 (C)	ASTM A193 Gr B7 (C)	ASTM A193 Gr B7	ASTM A193 Gr B7 (D)	ASTM A193 Gr B7 (E)
10	Body	ASTM A217 Gr C5	ASTM A217 Gr C12	ASTM A487 Gr CA6NM	ASTM A351 Gr CF8C	ASTM A351 CF8M

(**A**) Limits std. const. to + 500°F.
(**B**) Limits std. const. to + 1000°F Special const. for max. temp. between + 1000°F and + 1100°F available on application.
(**C**) Limits std. const. to + 1000°F Special const. for max. temp. between + 1000°F and + 1200°F available on application.
(**D**) Limits std. const to temp. between –20°F and + 1000°F. Special const. for temp. between + 1000°F and + 1200°F available on application.
(**E**) Limits std. const. to temp. between – 20°F and + 1000°F. Special const. or lower temp or temp. between + 1000°F and + 1200°F available on application.
(**F**) Class 150 gaskets are corrugated. Class 300 gaskets are double jacketed construction.

(**G**) For services over 850°F Pacifc Valves recommends special high temperature packing. Please consult factory when ordering.

THE RIGHT IS RESERVED TO CHANGE OR MODIFY PRODUCT DESIGN OR CONSTRUCTION WITHOUT PRIOR NOTICE AND WITHOUT INCURRING ANY OBLIGATION TO MAKE SUCH CHANGES AND MODIFICATIONS ON PRODUCTS PREVIOUSLY OR SUBSEQUENTLY SOLD.

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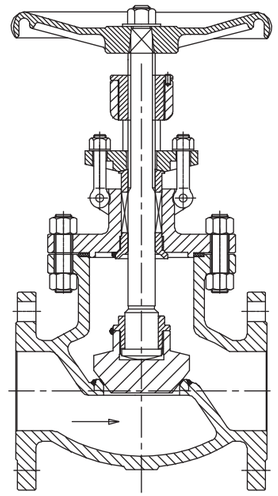
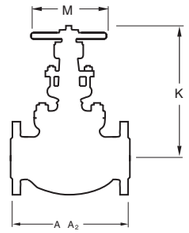
Cast Steel Bolted Bonnet Valves

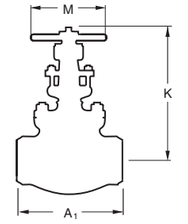
Globe Valves • ANSI Class 150

FEATURES

- Full range of body/bonnet materials
- Full range of trim materials
- Choice of plug or ball disc
- OS&Y construction
- Flanged or butt weld ends
- Full port design-API wall thickness
- Renewable seat rings – also available seal welded
- Male and female bonnet joint
- Corrugated metal bonnet gasket
- Meet design requirements of ANSI B16.5, B16.34, B16.25, B16.10 and API–600







DIMENSIONS and WEIGHTS

Dim	Description		VALVE SIZES (inches) 1.5	2	2.5	3	4	6	8	10	12
A	Face to Face Flanged Ends	in.	6.50	8.00	8.50	9.50	11.50	16.00	19.50	24.50	27.50
		mm	165	203	216	241	292	406	495	622	699
A_1	End to End Weld Ends	in.	6.50	8.00	8.50	9.50	11.50	16.00	19.50	24.50	27.50
		mm	165	203	216	241	292	406	495	622	699
A_2	Face to Face RTJ	in.	7.00	8.50	9.00	10.00	12.00	16.50	20.00	25.00	28.00
		mm	178	216	229	254	305	419	508	635	711
K	Center to Top Open	in.	11.42	12.44	12.99	14.37	16.30	19.87	24.53	31.61	33.03
		mm	290	316	330	364	414	505	623	803	839
M	Handwheel Dia.	in.	8	8	10	10	10	14	18	18	18
		mm	203	203	254	254	254	356	457	457	457
	Weight Flanged Ends	lbs	30	50	69	84	138	238	411	598	824
		kg	14	23	32	38	63	108	186	271	374
	Weight Weld Ends	lbs	23	42	56	69	117	199	361	527	718
		kg	11	19	25	31	53	90	164	239	326

Note:
1. Dimensions, weights and other engineering data are subject to change or modifcation. This data is not to be used for construction unless confrmed by the factory.

RELATED DATA

See Technical Data section for: Temperature/pressure data; Raised face or ring joint fanges; Butt weld ends; Flow calculations (Cv).
See Actuators & Accessories section for: Bevel gear, spur gear, chain wheel, motor or cylinder actuators; Bypasses, drains or auxiliary piping; Special packing, etc.

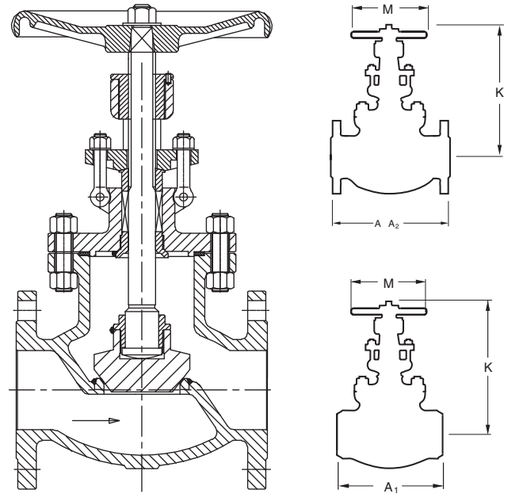
Cast Steel Bolted Bonnet Valves

CCPV

Globe Valves • ANSI Class 300

FEATURES

- Full range of body/bonnet materials
- Full range of trim materials
- Choice of plug or ball disc
- OS&Y construction
- Flanged or butt weld ends
- Full port design – API wall thickness
- Renewable seat rings – also available seal welded
- Male and Female bonnet joint
- Double jacketed graphite bonnet gasket
- Anti-friction ball bearing yoke sleeve 10" and larger
- Meet design requirements of ANSI B16.5, B16.34, B16.25, B16.10 and API–600



DIMENSIONS and WEIGHTS

Dim	Description		VALVE SIZES (inches) 1.5	2	2.5	3	4	6	8	10	12
A	Face to Face Flanged Ends	in.	9.00	10.50	11.50	12.50	14.00	17.50	22.00	24.50	28.00
		mm	229	267	292	318	356	445	559	622	711
A_1	End to End Weld Ends	in	9.00	10.50	11.50	12.50	14.00	17.50	22.00	24.50	28.00
		mm	229	267	292	318	356	445	559	622	711
A_2	Face to Face RTJ	in.	9.50	11.13	12.13	13.12	14.63	18.13	22.62	25.13	28.63
		mm	241	283	308	333	371	460	575	638	727
K	Center to Top Open	in.	–	13.78	15.39	16.54	19.37	24.41	31.22	45.08	49.61
		mm	–	350	391	420	492	620	793	1145	1260
M	Handwheel Dia.	in.	8	8	10	10	14	18	18	34	34
		mm	203	203	254	254	356	457	457	864	864
	Weight Flanged Ends	lbs	60	79	104	137	224	388	635	1258	1698
		kg	27	36	47	62	102	176	288	571	770
	Weight Weld Ends	lbs	47	66	85	110	183	321	539	1114	1474
		kg	21	30	39	50	83	146	244	505	669

Note:
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RELATED DATA
See Technical Data section for: Temperature/pressure data; Raised face or ring joint fanges; Butt weld ends; Flow calculations (Cv).
See Actuators & Accessories section for: Bevel gear, spur gear, chain wheel, motor or cylinder actuators; Bypasses, drains or auxiliary piping; Special packing, etc.

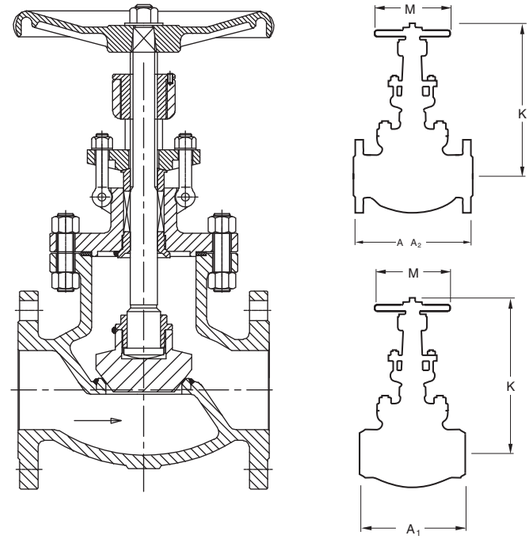
CCPV

Cast Steel Bolted Bonnet Valves

Globe Valves • ANSI Class 600

FEATURES

- Full range of body/bonnet materials
- Full range of trim materials
- Choice of plug or ball disc
- OS&Y construction
- Flanged or butt weld ends
- Full port design – API wall thickness
- Renewable seat rings – also available seal welded
- Ring joint bonnet gasket
- Anti friction ball bearing yoke sleeve 6" and larger
- Meet design requirements of ANSI B16.5, B16.34, B16.25, B16.10 and API–600



DIMENSIONS and WEIGHTS

Dim	Description		VALVE SIZES (inches) 1.5	2	2.5	3	4	6	8	12
A	Face to Face Flanged Ends	in.	9.50	11.50	13.00	14.00	17.00	22.00	26.00	33.00
		mm	241	292	330	356	432	559	660	838
A_1	End to End Weld Ends	in.	9.50	11.50	13.00	14.00	17.00	22.00	26.00	33.00
		mm	241	292	330	356	432	559	660	838
A_2	Face to Face RTJ	in.	9.50	11.63	13.13	14.13	17.13	22.13	26.13	33.13
		mm	241	295	333	359	435	562	664	841
K	Center to Top Open	in.	–	15.43	17.00	18.82	20.87	26.57	28.39	42.28
		mm	–	392	432	478	530	675	721	1074
M	Handwheel Dia.	in.	8	10	10	14	18	24	24	34
		mm	203	254	254	356	457	610	610	864
	Weight Flanged Ends	lbs	76	115	138	191	318	782	1224	2820
		kg	34	52	63	87	144	355	555	1280
	Weight Weld Ends	lbs	70	97	116	166	272	656	1100	2500
		kg	32	44	53	75	123	298	499	1134

Note:
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RELATED DATA
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