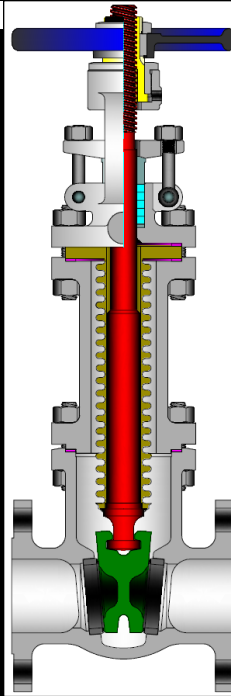


STANDARD MATERIALS (Other materials available)

PART	MATERIALS	
Body	A216 Gr. WCB	A351 Gr. CF8M (1)
Bonnet / Yoke arm	A216 Gr. WCB	A351 Gr. CF8M
Wedge	A216 WCB + 316 Faced	A351 Gr. CF8M
Seat Ring	Carbon Steel + Stellite 6 Faced	SST 316 + Stellite 6 Faced
Stem	SST 316	
Stem Bushing	A 439 Ductile NI-Resist Gr. D2	
Stem Bushing Lock Nut	Steel	SST 316
Bellows	316Ti	
Gland Flange	Carbon Steel	Series 300 SST
Eye Bolt	A193 Gr. B7	A193 Gr. B8
Eye Bolt Nut	A194 Gr. 2H	A194 Gr.8
Groove Pin	Steel	Series 300
Gland	SST 316	
Packing	Graphite	PTFE
Packing Washer / Packing Spacer	SST 316	SST 316
Gasket	Class 150: Corrugated SST Encapsulated w/ Graphite Class 300: Spiral Wound SST with Graphite	Class 150: PTFE Class 300: Spiral Wound SST with PTFE
Back Seat	SST 316	SST 316
Hand Wheel	Malleable Iron or Steel	
Hand Wheel Nut	Malleable Iron or Steel	
Key	Steel	
Lubricant Fitting	Steel	
Body / Bonnet Stud	A193 Gr. B7	A193 Gr. B8
Body / Bonnet Nut	A194 Gr. 2H	A194 Gr.8
Bearing Cap	Carbon Steel	Series 300 SST
Cap Screws	Steel	
Identification Plate	Series 300 SST	

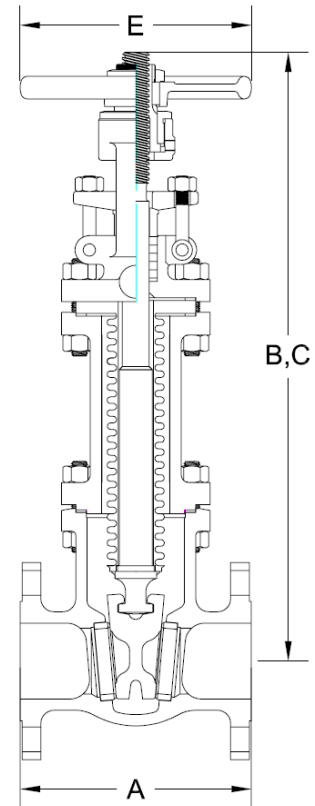


Class	Fig. No.
150	1503
300	3003

DESIGN FEATURES:

- **Standard trim** is API trim 12 with 316Ti bellows.
- **Stems** are non-rotating with surface finish to maximize packing seal for low fugitive emissions.
- Other **Bellows** material options are available. Bellows are hydro-formed rather than welded.
- **Each** valve is shell, seat and backseat pressure tested per industry standard API 598.
- **Each** valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test report, inspection report and certificate of conformance.
- **Other** available options as follows:
 - Alternate valve materials such as chrome and stainless steel alloys
 - Alternate trim materials
 - Bypass, drain and other auxiliary connections
 - Gear, motor, and cylinder actuators available
 - NACE service
 - Special cleaning for applications such as oxygen or chlorine
 - Other options available as specified

(1) Weld end valve body A351 Gr. CF3M


Design Specifications

Item	Applicable Specification	in	ASME 150					ASME 300			
			A		B	C	E	A	B	C	E
			FE	WE							
Wall thickness	API 600	2	7.00	8.50	18.8	21.1	7.0	8.50	21.5	23.9	7.0
		50	178	216	477	535	178	216	547	608	178
Pressure - temperature ratings	ASME B16.34	2 ½	7.50	9.50	20.6	23.4	7.0	9.50	24.9	27.8	7.0
		65	190	241	523	594	178	241	633	705	178
General valve design	API 600 & B16.34 & MSS SP-117	3	8.00	11.12	24.0	27.2	9.1	11.12	30.9	34.4	9.1
		80	203	282	609	692	230	282	785	875	230
End to End dimensions	ASME B16.10	4	9.00	12.00	30.3	34.6	10.0	12.00	35.9	40.4	10.0
		100	229	305	769	880	254	305	913	1027	254
Flange design	ASME B16.5	5	10.00	15.00	38.3	45.0	12.0	15.00	44.3	50.9	14.0
		125	254	381	974	1143	305	381	1124	1294	356
Butt Weld design	ASME B16.25	6	10.50	15.88	39.9	46.5	12.0	15.88	45.0	51.7	14.0
		150	267	403	1014	1182	305	403	1144	1314	356
Materials	ASTM	8	11.50	16.50	49.0	57.8	14.0	16.50	56.0	64.7	16.0
		200	292	419	1244	1467	356	419	1423	1644	406
		10	13.00	18.00	59.3	70.1	16.0	18.00	69.0	79.8	20.0
		250	330	457	1507	1781	406	457	1752	2026	508
		12	14.00	19.75	74.3	87.3	20.0	19.75	75.8	88.9	20.0
		300	356	502	1887	2217	508	502	1925	2257	508

WE = Butt weld ends

FE = Flanged ends

B = Center to top closed

C = Center to top open

ADDITIONAL SIZES, MATERIALS AND CLASSES AVAILABLE UPON REQUEST.