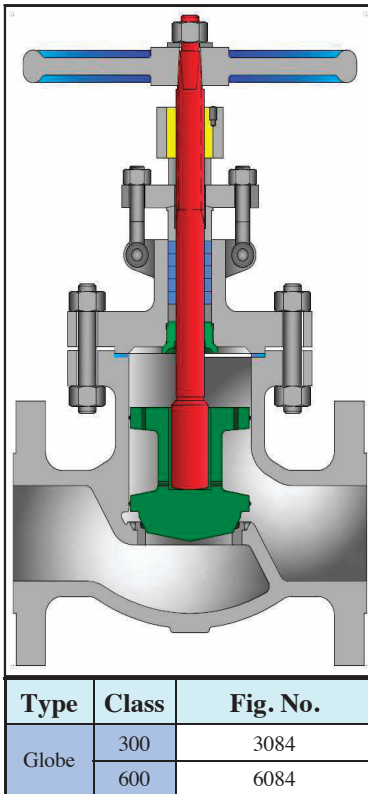




DESIGN FEATURES:

- **Standard trim** is API trim 8 for class 300 carbon steel valves and API trim 5 for all chrome alloy valves and class 600 carbon steel valves for optimal performance under normal conditions. Other trim materials available on request.
- **Wall thickness** per heavy wall API 600 requirements.
- **Seat faces** lapped for smooth finish and superior sealing.
- **Swivel** disc for optimal seating and longer seat life.
- **Stems** of hand wheel operated valves are rotating / rising design.
- **Each** valve is shell, seat and backseat pressure tested per industry standard API 598.
- **Gland** is two piece gland / gland flange design for optimal alignment and uniform packing compression.
- **End Flanges** have the following raised faces per ASME B16.5:
Class 300: 1/16" (2mm)
Class 600: 1/4" (7mm)

STANDARD MATERIALS (Other materials available)

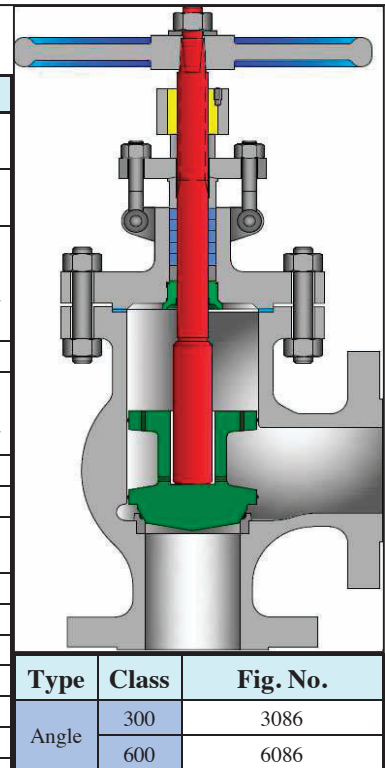
PART	MATERIALS		
Body	A216 Gr. WCB	A217 Gr. WC6	A217 Gr. WC9
Bonnet	A216 Gr. WCB	A217 Gr. WC6	A217 Gr. WC9
Disc	A105 or A216 WCB + 13% Cr Faced (1)	A217 WC6 + Stellite 6 Faced	A217 WC9 + Stellite 6 Faced
Disc Nut	SST 410		
Seat Ring	Carbon Steel + Stellite 6 Faced	A182 F11 + Stellite 6 Faced	A182 F22 + Stellite 6 Faced
Stem	SST 410		
Stem Bushing	A 439 Ductile NI-Resist Gr. D2		
Stem Bushing Set Screw	Steel		
Gland Flange	Carbon Steel		
Eye Bolt	A193 Gr. B7		
Eye Bolt Nut	A194 Gr. 2H		
Groove Pin	Steel		
Gland	SST 410		
Packing	Graphite		
Packing Washer	SST 410		
Gasket	Spiral Wound SST with Graphite		
Back Seat	SST 410		
Hand Wheel	Malleable Iron or Steel		
Hand Wheel Nut	Malleable Iron or Steel		
Body / Bonnet Stud	A193 Gr. B7	A193 Gr. B16	
Body / Bonnet Nut	A194 Gr. 2H	A194 Gr. 7	
Identification Plate	Series 300 SST		

(1) Class 600 discs have stellite facing.

Design Specifications

Item	Applicable Specification
Wall thickness	API 600
Pressure - temperature ratings	ASME B16.34
General valve design	B16.34
End to End dimensions	ASME B16.10
Flange design	ASME B16.5
Butt Weld design	ASME B16.25
Materials	ASTM

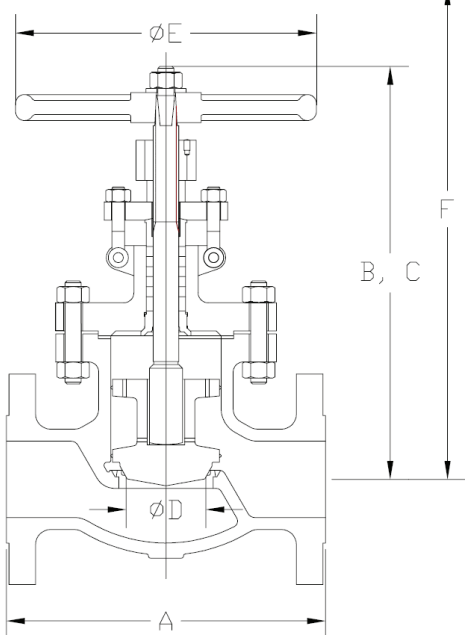
NOTE: See page 52 for flow, safety and maintenance information.



- **Weld ends** are available per ASME B16.25 or per customer's specification.
- **Impactor** hand wheel design standard on the following sizes to assist seating.
6" and larger class 300
4" and larger class 600
- **NON-RETURN** valve discs are fully body guided for smooth operation; internal pressure equalization eliminates need for external equalizer pipe.
- **Each** valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test, inspection result 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

NON-RETURN VALVE DIMENSIONS (CLASS 300 AND 600).

SIZE	ASME 300					ASME 600				
	A (1)	B	C	D	E	A (1)	B	C	D	E
in	FE					FE				
4	14.00	16.7	18.0	4.00	14	17.00	20.2	21.7	4.00	18
100	356	423	458	102	356	432	514	552	102	450
6	17.50	21.0	23.2	6.00	18	22.00	25.7	27.9	6.00	24
150	445	534	589	152	450	559	653	709	152	610
8	22.00	23.9	26.3	8.00	22	26.00	29.1	31.6	7.87	28
200	559	606	669	203	560	660	739	803	200	710
10	24.50	29.7	35.1	10.00	24	31.00	32.7	38.9	9.75	28
250	622	753	892	254	610	787	830	988	248	710
12	28.00	34.2	41.2	12.00	28	33.00	47.8 (2)		11.75	32
300	711	868	1047	305	710	838	1215 (2)		298	800



FE = Flanged ends

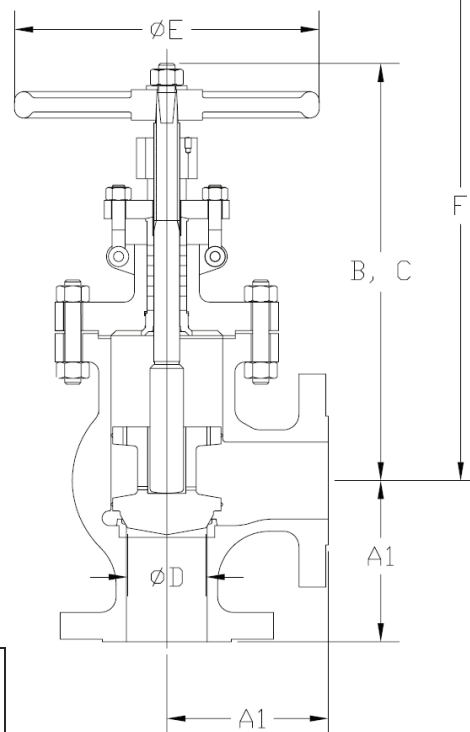
B = Center to top closed

C = Center to top open

F = Dismantling
Dimension

C_v = Flow coefficient

- (1) The center to end length, A1, is half of the end to end length, A.
- (2) Gear operators standard on 12" class 600 valves. Height is to top of actuator.
- (3) NOTE: Weld ends are available upon request.



ADDITIONAL SIZES, MATERIALS AND CLASSES AVAILABLE UPON REQUEST.

NON-RETURN TECHNICAL INFORMATION (CLASS 300 AND 600)

SIZE	ASME 300										ASME 600									
	F				WT				C _v		F				WT				C _v	
	Globe	in	Angle	in	Globe	lb	Angle	lb			Globe	in	Angle	in	Globe	lb	Angle	lb		
mm		mm		mm		kg		kg	Globe	Angle		mm		mm		kg		kg	Globe	Angle
4	21.0		23.0		170		165		200	300	25.0		27.0		280		255		200	300
100	535		580		77		75				630		685		127		116			
6	27.5		30.5		295		275		480	730	32.0		35.0		580		570		480	730
150	690		770		134		125				815		895		263		259			
8	30.5		34.5		580		540		880	1300	36.5		40.5		985		945		850	1300
200	770		880		263		245				925		1030		447		429			
10	34.0		39.5		875		810		1400	2100	41.0		46.5		1425		1390		1300	2000
250	870		1005		397		367				1045		1180		646		630			
12	40.0		46.0		1160		1090		2000	3100	47.0		51.5		1900		1860		2000	3000
300	1010		1165		526		494				1190		1300		862		844			