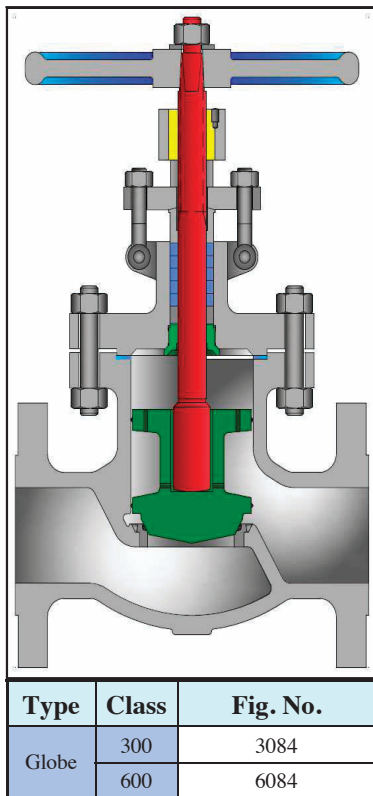




API 600 WALL UPRIGHT AND ANGLE NON-RETURN VALVES
 BOLTED BONNET, ASME CLASSES 300 AND 600
 CAST CARBON OR ALLOY STEEL



STANDARD MATERIALS
 (Other materials available)

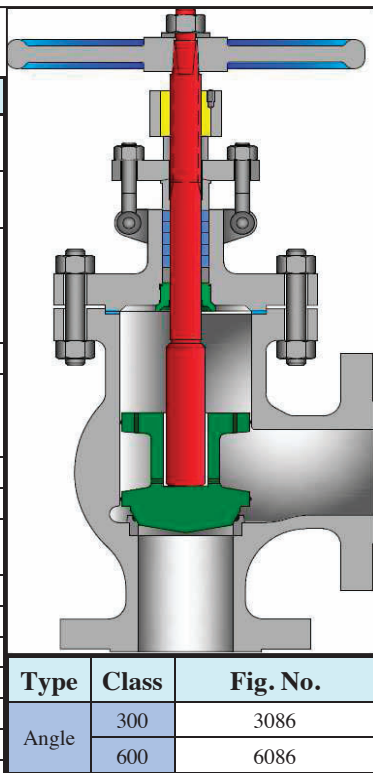
PART	MATERIALS		
Body	A216 Gr. WCB	A217 Gr. WC6	A217 Gr. WC9
Bonnet	A216 Gr. WCB	A217 Gr. WC6	A217 Gr. WC9
Disc	A105 or A216 WCB + 13% Cr Faced (1)	A217 WC6 + Stellite 6 Faced	A217 WC9 + Stellite 6 Faced
Disc Nut	SST 410		
Seat Ring	Carbon Steel + Stellite 6 Faced	A182 F11 + Stellite 6 Faced	A182 F22 + 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.



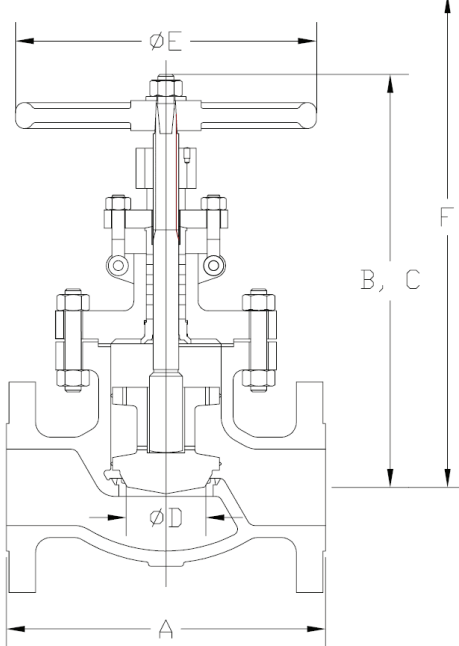
DESIGN FEATURES:

- **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)

- **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

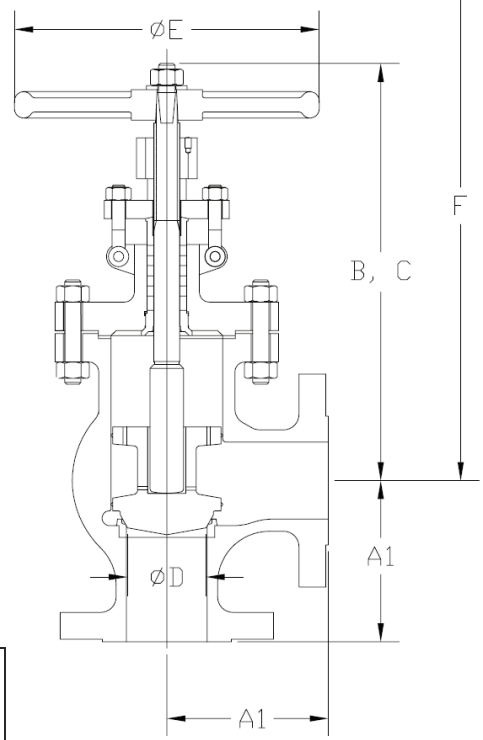
NON-RETURN VALVE DIMENSIONS (CLASS 300 AND 600).

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		kg	Globe	mm		mm	kg	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	480	730										
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	925	1030	447	429								
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	1425	1390	1300	2000								
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	1900	1860	2000	3000								
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												