

Voegt

**Forged Steel
Valves**



Check Valve

Check valves are forged from fine-grain steel and are available with threaded, socket weld or flanged ends. Most bonnet designs, including bolted, seal weld, union and bonnetless-type check valves are manufactured to meet a wide variety of service applications.

Piston or ball, spring-controlled check valve designs for horizontal or vertical (upward) flow applications for the most often specified pressure classes are available. A spring can be added to piston check valves not currently equipped with that option if specified on the order.

A swing check valve may be used for horizontal or vertical (upward) flow applications. Vogt's "Y" pattern check valves complement our "Y" pattern and In line repairable globe valve lines used in refineries, chemicals, power and related industries.

Ball check valves are primarily used for fluids of high viscosity. Piston and ball valves should not be used in applications where rusting or rust particles are present or anticipated. Swing check valves are more tolerant for applications of this nature.

Vogt check valves (non-spring-controlled) should be sized to provide a minimum of 2 psi pressure drop for ball and piston type valves and ½ psi for swing check type valves. This will ensure that the valves will not be subject to noisy operation and premature wear of parts.

Spring-controlled piston check valves are the Vogt preference for reciprocating compressor service in which a history of noisy check valve operation has been experienced.

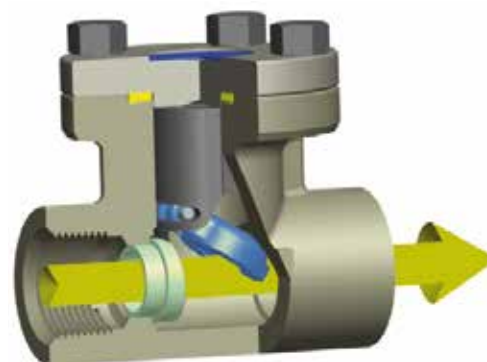
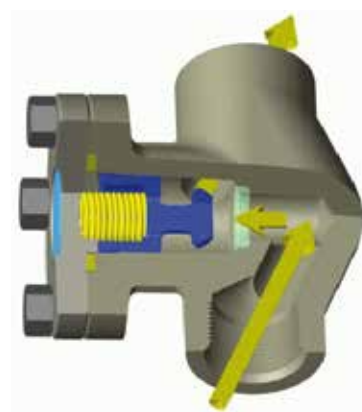
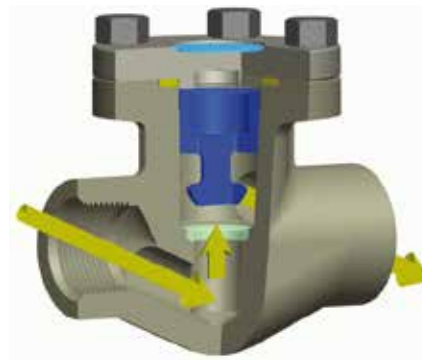
Check valves are designed to prevent reverse flow. Leakage rate for Vogt check valves with metal-to-metal seats are dependent on the amount of back pressure and the viscosity of the flowing medium. The recommended pressure differential should be 300 to 500 psi minimum for proper seating of the disc. Metal-seated check valves should not be used in gas or low back pressure liquid applications or if zero leakage is desired. See page 85 for Vogt zero leakage check valves with O-Ring sealing.

Cv values listed are for non-spring-controlled check valves only.

The Cv value for spring-control is variable due to pressure and flow against a varying spring tension as the disc opens, and therefore is not listed in the tables.

See pages 84 – 105 for check valve selections.

Drawings for currently available check valve configurations are available at:
http://VogtValves.vogtvalves.com/search_drawings.asp



Cracking/Opening pressures (701, 15701, 573, 583, 593, etc.)

½"	– 0.61 psi
¾"	– 0.61 psi
1"	– 0.52 psi
1¼"	– 0.57 psi
1½"	– 0.57 psi
2"	– 0.58 psi

Standard spring-controlled check valves have cracking pressure of 10-12 psi. Others available upon request.

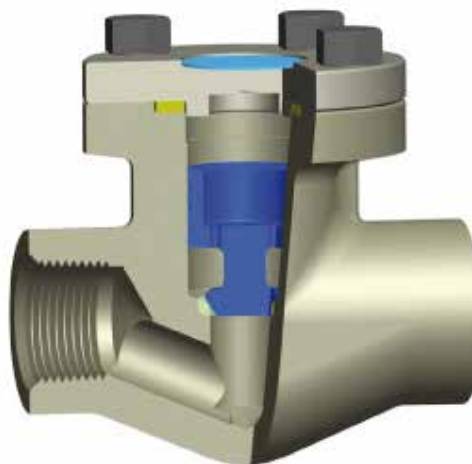
701 Check Valve

Class 800 Check Valve

Conventional Port
Full Port



see pages 86 - 88



The core of the pressure class 150, 300, 600, & 800 check valve

CONNECTION	CONV PORT	FULL PORT	BODY/BONNET	SEAT	DISC	BALL	SPRING	RATING (SEE PAGES 114 - 115)	
Threaded Socket Weld Butt Weld	701	13701	A105	HF	13% Cr			1975 PSI @ 100 F	136.2 BAR @ 38 C
	751	13751	A182 F11	HF	13% Cr			2000 PSI @ 100 F	137.9 BAR @ 38 C
	718	13718	F316/F316L		316			1920 PSI @ 100 F	132.4 BAR @ 38 C
	82718		A316H		316H			1920 PSI @ 100 F	132.4 BAR @ 38 C
	32701	33701	A350 LF2	HF	13% Cr			1975 PSI @ 100 F	136.2 BAR @ 38 C
								1975 PSI @ -50 F	136.2 BAR @ -46 C
	710	13710	A105	HF	13% Cr		302	1975 PSI @ 100 F	136.2 BAR @ 38 C
	750	13750	A182 F11	HF	13% Cr		302	2000 PSI @ 100 F	137.9 BAR @ 38 C
	780	13780	F316/F316L		316		302	1920 PSI @ 100 F	132.4 BAR @ 38 C
	32710	33710	A350 LF2	HF	13% Cr		302	1975 PSI @ 100 F	136.2 BAR @ 38 C
								1975 PSI @ -50 F	136.2 BAR @ -46 C
	B701	B13701	A105	HF		18% Cr		1975 PSI @ 100 F	136.2 BAR @ 38 C
	B751	B13751	A182 F11	HF		18% Cr		2000 PSI @ 100 F	137.9 BAR @ 38 C
	B718	B13718	F316/F316L			316		1920 PSI @ 100 F	132.4 BAR @ 38 C
	B32701	B33701	A350 LF2	HF		18% Cr		1975 PSI @ 100 F	136.2 BAR @ 38 C
								1975 PSI @ -50 F	136.2 BAR @ -46 C
	B710	B13710	A105	HF		18% Cr	302	1975 PSI @ 100 F	136.2 BAR @ 38 C
	B750	B13750	A182 F11	HF		18% Cr	302	2000 PSI @ 100 F	137.9 BAR @ 38 C
	B780	B13780	F316/F316L			316	302	1920 PSI @ 100 F	132.4 BAR @ 38 C
	B32710	B33710	A350 LF2	HF		18% Cr	302	1975 PSI @ 100 F	136.2 BAR @ 38 C
								1975 PSI @ -50 F	136.2 BAR @ -46 C

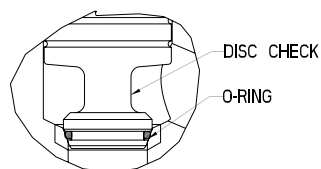
*BW end-to-end is Vogt standard and does not meet B16.10

Class 800 Check Valve

Conventional Port

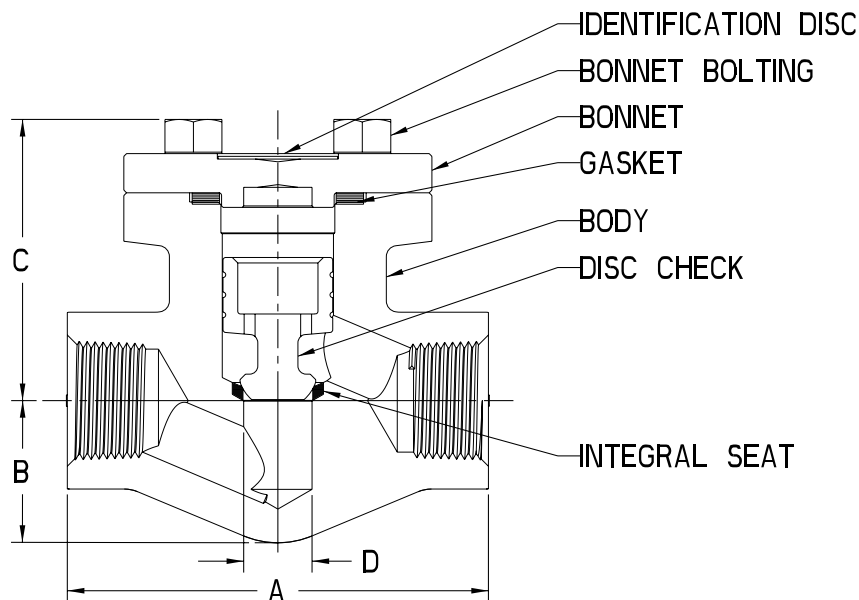
Full Port

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal Type
Piston or Ball Check
Integral Seat
ASME B16.34
API 602



Soft Insert "ZL" Ring
Zero Leakage

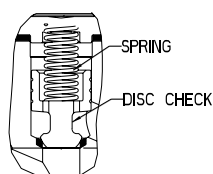
701ZL SERIES



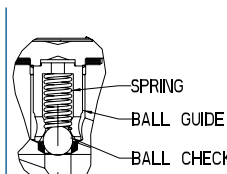
701ZLB – Buna N -20°F to 250°F
701ZLE – Ethylene Propylene ... -20°F to 300°F
701ZLN – Neoprene -20°F to 240°F
701ZLV – Viton -20°F to 400°F

See pages 118-123 for Compound Selection

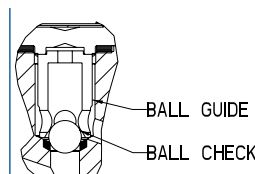
Furnished in Non-Spring Control Disc Check Valves only



710 SERIES



B710 SERIES



B701 SERIES

Dimensions

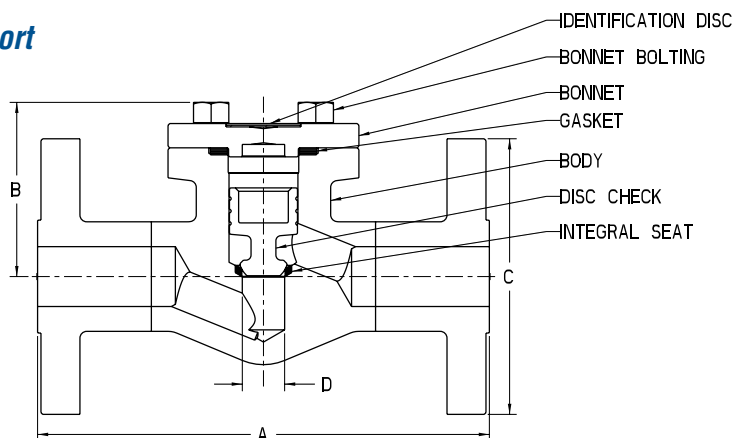
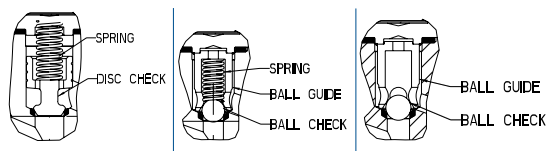
SIZE			A	B	C	D	WEIGHT	Cv*	CONVENTIONAL PORT
-04	NPS	½	3.75	1.00	2.55	0.50	3.6	2.1	
	DN	15	95	25	65	12.7	1.6		
-05	NPS	¾	4.00	1.12	2.55	0.50	3.9	3.2	
	DN	20	102	28	65	12.7	1.8		
-06	NPS	1	4.62	1.56	3.09	0.75	6.5	5.8	
	DN	25	117	40	78	19.1	2.9		
-07	NPS	1¼	6.25	2.25	4.49	1.28	17.3	13.3	
	DN	32	159	57	114	32.5	7.8		
-08	NPS	1½	6.25	2.25	4.49	1.28	16.4	18.3	
	DN	40	159	57	114	32.5	7.4		
-09	NPS	2	7.75	2.68	4.95	1.53	25.1	25.3	
	DN	50	197	68	126	38.9	11.4		

SIZE			A	B	C	D	WEIGHT	Cv*	FULL PORT
-04	NPS	½	4.00	1.12	2.55	0.50	4.0	3.2	
	DN	15	102	28	65	12.7	1.8		
-05	NPS	¾	4.62	1.56	3.09	0.75	6.8	6.9	
	DN	20	117	40	78	19.1	3.1		
-06	NPS	1	6.25	2.25	4.49	1.28	17.6	16.0	
	DN	25	159	57	114	32.5	8.0		
-07	NPS	1¼	6.25	2.25	4.49	1.28	17.3	18.3	
	DN	32	159	57	114	32.5	7.8		
-08	NPS	1½	7.75	2.68	4.95	1.53	26.0	25.5	
	DN	40	197	68	126	38.9	11.8		
-09	NPS	2	9.00	3.50	5.96	2.00	45.1	36.9	
	DN	50	229	89	151	50.8	20.5		

Forged Check Valves

Class 150 Forged Check Valve Conventional Port

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal Type
Piston Check
Integral Seat
ASME B16.34
API 602



CONNECTION	SERIES	BODY/BONNET	SEAT	DISC	BALL	SPRING	RATING	
1/16 RF Flat Face	573	A105	HF	13% Cr			285 PSI @ 100 F	19.6 BAR @ 38 C
	32573	A350 LF2	HF	13% Cr			285 PSI @ 100 F	19.6 BAR @ 38 C
							285 PSI @ -50 F	19.6 BAR @ -46 C
	578	F316/F316L		316			275 PSI @ 100 F	19.0 BAR @ 38 C
	570	A105	HF	13% Cr		302	285 PSI @ 100 F	19.6 BAR @ 38 C
	32570	A350 LF2	HF	13% Cr		302	285 PSI @ 100 F	19.6 BAR @ 38 C
							285 PSI @ -50 F	19.6 BAR @ -46 C
	579	F316/F316L		316		302	275 PSI @ 100 F	19.0 BAR @ 38 C
	B573	A105	HF		18% Cr		285 PSI @ 100 F	19.6 BAR @ 38 C
	B32573	A350 LF2	HF		18% Cr		285 PSI @ 100 F	19.6 BAR @ 38 C
							285 PSI @ -50 F	19.6 BAR @ -46 C
	B578	F316/F316L			316		275 PSI @ 100 F	19.0 BAR @ 38 C
FF	B570	A105	HF		18% Cr	302	285 PSI @ 100 F	19.6 BAR @ 38 C
	B32570	A350 LF2	HF		18% cR	302	285 PSI @ 100 F	19.6 BAR @ 38 C
							285 PSI @ -50 F	19.6 BAR @ -46 C
	B579	F316/F316L			316	302	275 PSI @ 100 F	19.0 BAR @ 38 C

Dimensions

SIZE			A	B	C	D	WEIGHT	Cv*
-04	NPS	½	4.25	2.55	3.5	0.50	5.5	2.1
	DN	15	108	65	89	12.7	2.5	
-05	NPS	¾	4.62	2.55	3.88	0.50	6.8	3.2
	DN	20	117	65	99	12.7	3.1	
-06	NPS	1	5.00	3.09	4.25	0.75	10.1	5.8
	DN	25	127	78	108	19.1	4.6	
-08	NPS	1½	6.50	4.49	5.00	1.28	22.4	18.3
	DN	40	165	114	127	32.5	10.2	
-09	NPS	2	8.00	4.94	6.00	1.53	34.2	25.3
	DN	50	203	125	152	38.9	15.5	

*The Cv values are for non-spring control valves only

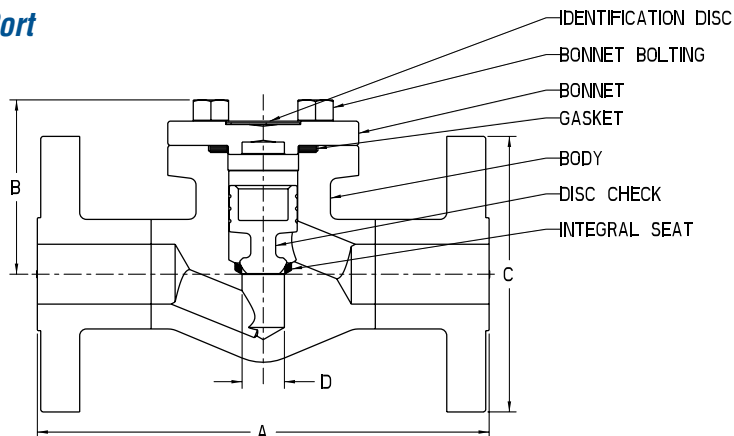
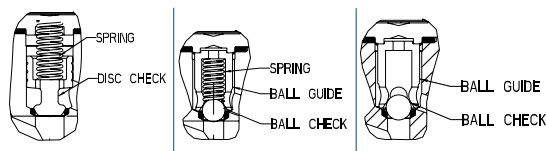
Refer to page 4 for optional trim and service configurations.
Refer to pages 126 & 127 for full materials description.

Refer to page 111-113 for end connections.
Refer to pages 114-115 for other ratings

Forged Check Valves

Class 300 Forged Check Valve Conventional Port

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal Type
Piston Check
Integral Seat
ASME B16.34
API 602



CONNECTION	SERIES	BODY/BONNET	SEAT	DISC	BALL	SPRING	RATING	
1/16 RF Flat Face	583	A105	HF	13% Cr			740 PSI @ 100 F	51.1 BAR @ 38 C
	32583	A350 LF2	HF	13% Cr			740 PSI @ 100 F	51.1 BAR @ 38 C
							740 PSI @ -50 F	51.1 BAR @ -46 C
	588	F316/F316L		316			720 PSI @ 100 F	49.6 BAR @ 38 C
	580	A105	HF	13% Cr		302	740 PSI @ 100 F	51.1 BAR @ 38 C
	32580	A350 LF2	HF	13% Cr		302	740 PSI @ 100 F	51.1 BAR @ 38 C
							740 PSI @ -50 F	51.1 BAR @ -46 C
	589	F316/F316L		316		302	720 PSI @ 100 F	49.6 BAR @ 38 C
	B583	A105	HF		18% Cr		740 PSI @ 100 F	51.1 BAR @ 38 C
	B32583	A350 LF2	HF		18% Cr		740 PSI @ 100 F	51.1 BAR @ 38 C
							740 PSI @ -50 F	51.1 BAR @ -46 C
	B588	F316/F316L			316		720 PSI @ 100 F	49.6 BAR @ 38 C
FF	B580	A105	HF		18% Cr	302	740 PSI @ 100 F	51.1 BAR @ 38 C
	B32580	A350 LF2	HF		18% Cr	302	740 PSI @ 100 F	51.1 BAR @ 38 C
							740 PSI @ -50 F	51.1 BAR @ -46 C
	B589	F316/F316L			316	302	720 PSI @ 100 F	49.6 BAR @ 38 C

Dimensions

SIZE			A	B	C	D	WEIGHT	Cv*
-04	NPS	½	6.00	2.55	3.75	0.50	6.9	2.1
	DN	15	152	65	95	12.7	3.1	
-05	NPS	¾	7.00	2.55	4.62	0.50	9.9	3.2
	DN	20	178	65	117	12.7	4.5	
-06	NPS	1	8.00	3.09	5.00	0.75	14.5	5.8
	DN	25	203	78	127	19.1	6.6	
-08	NPS	1½	9.00	4.49	6.12	1.28	29.5	18.3
	DN	40	229	114	155	32.5	13.4	
-09	NPS	2	10.50	4.94	6.50	1.53	40.3	25.3
	DN	50	267	125	165	38.9	18.3	

*The Cv values are for non-spring control valves only

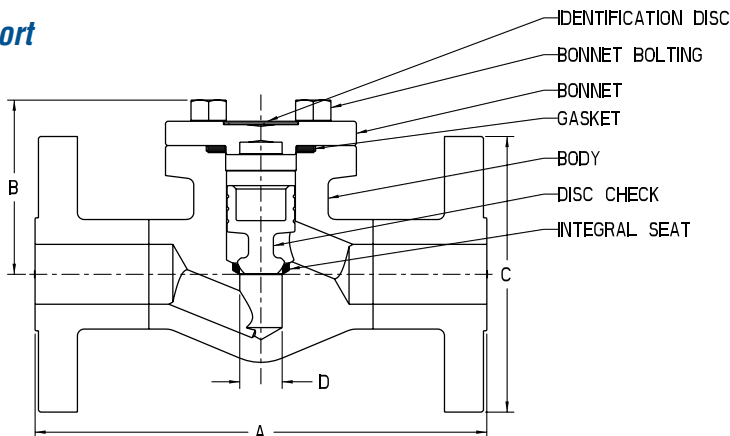
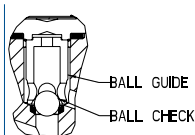
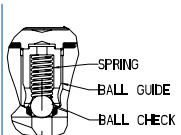
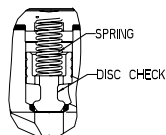
Refer to page 4 for optional trim and service configurations.
Refer to pages 126 & 127 for full materials description.

Refer to page 111-113 for end connections.
Refer to pages 114-115 for other ratings

Forged Check Valves

Class 600 Forged Check Valve Conventional Port

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal Type
Piston Check
Integral Seat
ASME B16.34
API 602



CONNECTION	SERIES	BODY/BONNET	SEAT	DISC	BALL	SPRING	RATING	
1/4 RF Ring Joint RJ	593	A105	HF	13% Cr			1480 PSI @ 100 F	102.1 BAR @ 38 C
	32593	A350 LF2	HF	13% Cr			1480 PSI @ 100 F	102.1 BAR @ 38 C
							1480 PSI @ -50 F	102.1 BAR @ -46 C
	598	F316/F316L		316			1440 PSI @ 100 F	99.3 BAR @ 38 C
	590	A105	HF	13% Cr		302	1480 PSI @ 100 F	102.1 BAR @ 38 C
							1480 PSI @ 100 F	102.1 BAR @ 38 C
							1480 PSI @ -50 F	102.1 BAR @ -46 C
	599	F316/F316L		316		302	1440 PSI @ 100 F	99.3 BAR @ 38 C
	B593	A105	HF		18% Cr		1480 PSI @ 100 F	102.1 BAR @ 38 C
							1480 PSI @ 100 F	102.1 BAR @ 38 C
							1480 PSI @ -50 F	102.1 BAR @ -46 C
	B598	F316/F316L			316		1440 PSI @ 100 F	99.3 BAR @ 38 C
	B590	A105	HF		18% Cr	302	1480 PSI @ 100 F	102.1 BAR @ 38 C
							1480 PSI @ 100 F	102.1 BAR @ 38 C
							1480 PSI @ -50 F	102.1 BAR @ -46 C
	B32590	A350 LF2	HF		18% Cr	302	1480 PSI @ 100 F	102.1 BAR @ 38 C
							1480 PSI @ 100 F	102.1 BAR @ 38 C
							1480 PSI @ -50 F	102.1 BAR @ -46 C
	B599	F316/F316L			316	302	1440 PSI @ 100 F	99.3 BAR @ 38 C

Dimensions

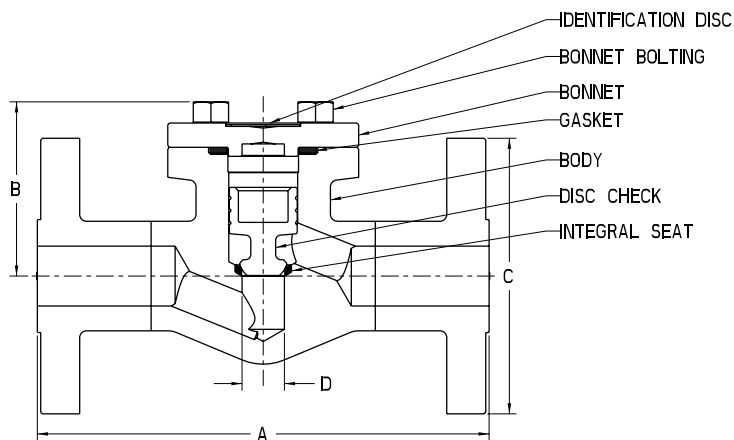
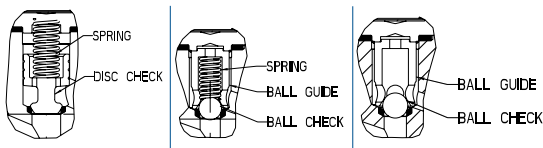
SIZE			A	B	C	D	WEIGHT	Cv*
-04	NPS	1/2	6.50	2.55	3.75	0.50	7.4	2.1
	DN	15	165	65	95	12.7	3.4	
-05	NPS	3/4	7.50	2.55	4.62	0.50	10.6	3.2
	DN	20	191	65	117	12.7	4.8	
-06	NPS	1	8.50	3.09	5.00	0.75	15.3	5.8
	DN	25	216	78	127	19.1	6.9	
-08	NPS	1 1/2	9.50	4.49	6.12	1.28	31.7	18.3
	DN	40	241	114	155	32.5	14.4	
-09	NPS	2	11.50	4.95	6.50	1.53	44.1	25.3
	DN	50	292	126	165	38.9	20.0	

*The Cv values are for non-spring control valves only

Forged Check Valves

Class 1500 Forged Check Valve Conventional

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal Type
Piston Check
Integral Seat
ASME B16.34
API 602



CONNECTION	SERIES	BODY/BONNET	SEAT	DISC	BALL	SPRING	RATING	
1/4 RF Ring Joint RJ	15593	A105	HF	13% Cr			3705 PSI @ 100 F	255.3 BAR @ 38 C
	35593	A350 LF2	HF	13% Cr			3705 PSI @ 100 F	255.3 BAR @ 38 C
							3705 PSI @ -50 F	255.3 BAR @ -46 C
	15598	F316/F316L		316			3600 PSI @ 100 F	248.2 BAR @ 38 C
	15590	A105	HF	13% Cr		302	3705 PSI @ 100 F	255.3 BAR @ 38 C
	35590	A350 LF2	HF	13% Cr		302	3705 PSI @ 100 F	255.3 BAR @ 38 C
							3705 PSI @ -50 F	255.3 BAR @ -46 C
	15599	F316/F316L		316		302	3600 PSI @ 100 F	248.2 BAR @ 38 C
	B15593	A105	HF		18% Cr		3705 PSI @ 100 F	255.3 BAR @ 38 C
	B35593	A350 LF2	HF		18% Cr		3705 PSI @ 100 F	255.3 BAR @ 38 C
							3705 PSI @ -50 F	255.3 BAR @ -46 C
	B15598	F316/F316L			316		3600 PSI @ 100 F	248.2 BAR @ 38 C

Dimensions

SIZE			A	B	C	D	WEIGHT	Cv*
-04	NPS	1/2	8.50	3.06	4.75	0.50	16.4	3.2
	DN	15	216	78	121	13	7.4	
-05	NPS	3/4	9.00	3.06	5.12	0.50	19.9	3.3
	DN	20	229	78	130	13	9.0	
-06	NPS	1	10.00	4.45	5.88	0.75	33.6	6.3
	DN	25	254	113	149	19	15.2	
-08	NPS	1 1/2	12.00	5.03	7.00	1.12	54.6	11.0
	DN	40	305	128	178	28	24.8	
-09	NPS	2	14.50	6.14	8.50	1.38	99.9	19.6
	DN	50	368	156	216	35	45.3	

*The Cv values are for non-spring control valves only

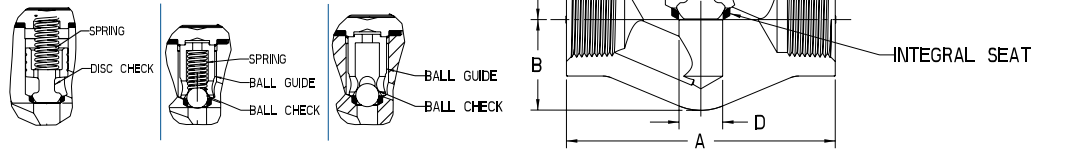
Refer to page 4 for optional trim and service configurations.
Refer to pages 126 & 127 for full materials description.

Refer to page 111-113 for end connections.
Refer to pages 114-115 for other ratings

Forged Check Valves

Class 1500 Forged Check Valve

1 Conventional Port
2 Full Port
Round Bolted Bonnet
Spiral Wound Gasket
Horizontal Type
Piston Check/Ball Check
Integral Seat
ASME B16.34
API 602



CONNECTION	CONV PORT	FULL PORT	BODY/BONNET	SEAT	DISC	BALL	SPRING	RATING	
Threaded Socket Weld SW	15701	16701	A105	HF	13% Cr			3705 PSI @ 100 F	255.3 BAR @ 38 C
	35701	36701	A350 LF2	HF	13% Cr			3705 PSI @ 100 F	255.3 BAR @ 38 C
								3705 PSI @ -50 F	255.3 BAR @ -46 C
	15718	16718	F316/F316L		316			3600 PSI @ 100 F	248.2 BAR 2@ 38 C
	15751	16751	F11 Cl.2	HF	13% Cr			3750 PSI @ 100 F	258.6 BAR @ 38 C
	15761	16761	F22 Cl.3	HF	13% Cr			3750 PSI @ 100 F	258.6 BAR @ 38 C
	15710	16710	A105	HF	13% Cr		302	3705 PSI @ 100 F	255.3 BAR @ 38 C
	35710	36710	A350 LF2	HF	13% Cr		302	3705 PSI @ 100 F	255.3 BAR @ 38 C
								3705 PSI @ -50 F	255.3 BAR @ -46 C
	15780	16780	F316/F316L		316		302	3600 PSI @ 100 F	248.2 BAR 2@ 38 C
	15750	16750	F11 Cl.2	HF	13% Cr		302	3750 PSI @ 100 F	258.6 BAR @ 38 C
	15760	16760	F22 Cl.3	HF	13% Cr		302	3750 PSI @ 100 F	258.6 BAR @ 38 C
	B15701	B16701	A105	HF		18% Cr		3705 PSI @ 100 F	255.3 BAR @ 38 C
	B35701	B36701	A350 LF2	HF		18% Cr		3705 PSI @ 100 F	255.3 BAR @ 38 C
								3705 PSI @ -50 F	255.3 BAR @ -46 C
	B15718	B16718	F316/F316L			316		3600 PSI @ 100 F	248.2 BAR 2@ 38 C
	B15751	B16751	F11 Cl.2	HF		18% Cr		3750 PSI @ 100 F	258.6 BAR @ 38 C
	B15761	B16761	F22 Cl.3	HF		18% Cr		3750 PSI @ 100 F	258.6 BAR @ 38 C
	B15710	B16710	A105	HF		18% Cr	302	3705 PSI @ 100 F	255.3 BAR @ 38 C
	B35710	B36710	A350 LF2	HF		18% Cr	302	3705 PSI @ 100 F	255.3 BAR @ 38 C
								3705 PSI @ -50 F	255.3 BAR @ -46 C
	B15780	B16780	F316/F316L			316	302	3600 PSI @ 100 F	248.2 BAR 2@ 38 C
	B15750	B16750	F11 Cl.2	HF		18% Cr	302	3750 PSI @ 100 F	258.6 BAR @ 38 C
	B15760	B16760	F22 Cl.3	HF		18% Cr	302	3750 PSI @ 100 F	258.6 BAR @ 38 C

Dimensions

SIZE	A	B	C	D	WEIGHT	Cv*	CONVENTIONAL PORT	SIZE	A	B	C	D	WEIGHT	Cv*	FULL PORT
-04 NPS ½	4.50	1.56	3.22	0.50	7.5	3.2		-04 NPS ½	4.50	1.56	3.22	0.50	7.5	3.2	
DN 15	114	40	82	13	3.4	3.2		DN 15	114	40	82	13	3.4	3.2	
-05 NPS ¾	4.50	1.56	3.22	0.50	7.4	3.3		-05 NPS ¾	6.25	2.25	4.45	0.75	18.1	6.9	
DN 20	114	40	82	13	3.4	3.3		DN 20	159	57	113	19	8.2	6.9	
-06 NPS 1	6.25	2.25	4.45	0.75	18.0	6.3		-06 NPS 1	7.75	2.68	5.05	1.12	30.1	16.0	
DN 25	159	57	113	19	8.2	6.3		DN 25	197	68	128	28	13.7	16.0	
-07 NPS 1¼	7.75	2.68	5.05	1.12	29.9	13.3		-07 NPS 1¼	7.75	2.68	5.05	1.12	29.9	18.3	
DN 32	197	68	128	28	13.6	13.3		DN 32	197	68	128	28	13.6	18.3	
-08 NPS 1½	7.75	2.68	5.05	1.12	29.2	11.0		-08 NPS 1½	9.00	3.50	6.14	1.38	54.0	25.5	
DN 40	197	68	128	28	13.2	11.0		DN 40	229	89	156	35	24.5	25.5	
-09 NPS 2	9.00	3.50	6.14	1.38	53.7	19.6		-09 NPS 2	9.00	3.50	6.56	2.00	49.7	36.9	
DN 50	229	89	156	35	24.4	19.6		DN 50	229	89	167	51	22.5	36.9	

*NOTE: The Cv values are for non-spring control valves only

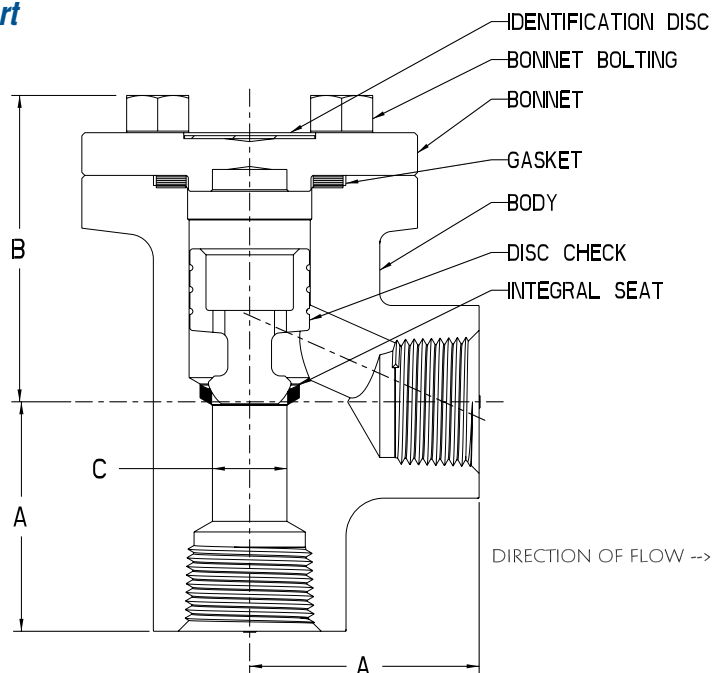
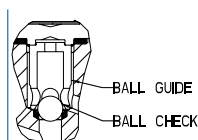
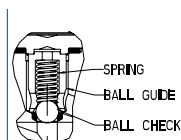
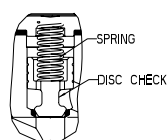
Refer to page 4 for optional trim and service configurations.
Refer to pages 126 & 127 for full materials description.

Refer to page 111-113 for end connections.
Refer to pages 114-115 for other ratings

Forged Check Valves

Class 800 Forged Check Valve Conventional Port

Round Bolted Bonnet
Spiral Wound Gasket
Angle Type
Piston Check/Ball Check
Integral Seat
ASME B16.34
API 602



CONNECTION	SERIES	BODY/BONNET	SEAT	DISC	BALL	SPRING	RATING	
Threaded Socket Weld	A701	A105	HF	13% Cr			1975 PSI @ 100 F	136.2 BAR @ 38 C
	A710	A105	HF	13% Cr		302	1975 PSI @ 100 F	136.2 BAR @ 38 C
	AB701	A105	HF		18% Cr		1975 PSI @ 100 F	136.2 BAR @ 38 C
	AB710	A105	HF		18% Cr	302	1975 PSI @ 100 F	136.2 BAR @ 38 C

Dimensions

SIZE			A	B	C	WEIGHT	Cv*
-04	NPS	½	1.62	2.52	0.50	3.2	2.3
	DN	15	41	64	12.7	1.5	
-05	NPS	¾	1.75	2.52	0.50	3.5	3.5
	DN	20	44	64	12.7	1.6	
-06	NPS	1	2.31	3.09	0.75	6.0	9.5
	DN	25	59	78	19.1	2.7	
-07	NPS	1¼	2.44	4.00	1.28	12.8	19.7
	DN	32	62	102	32.5	5.8	
-08	NPS	1½	2.44	4.00	1.28	12.3	28.2
	DN	40	62	102	32.5	5.6	
-09	NPS	2	3.56	5.58	1.53	30.9	49.5
	DN	50	90	142	38.9	14.0	

*NOTE: The Cv values are for non-spring control valves only

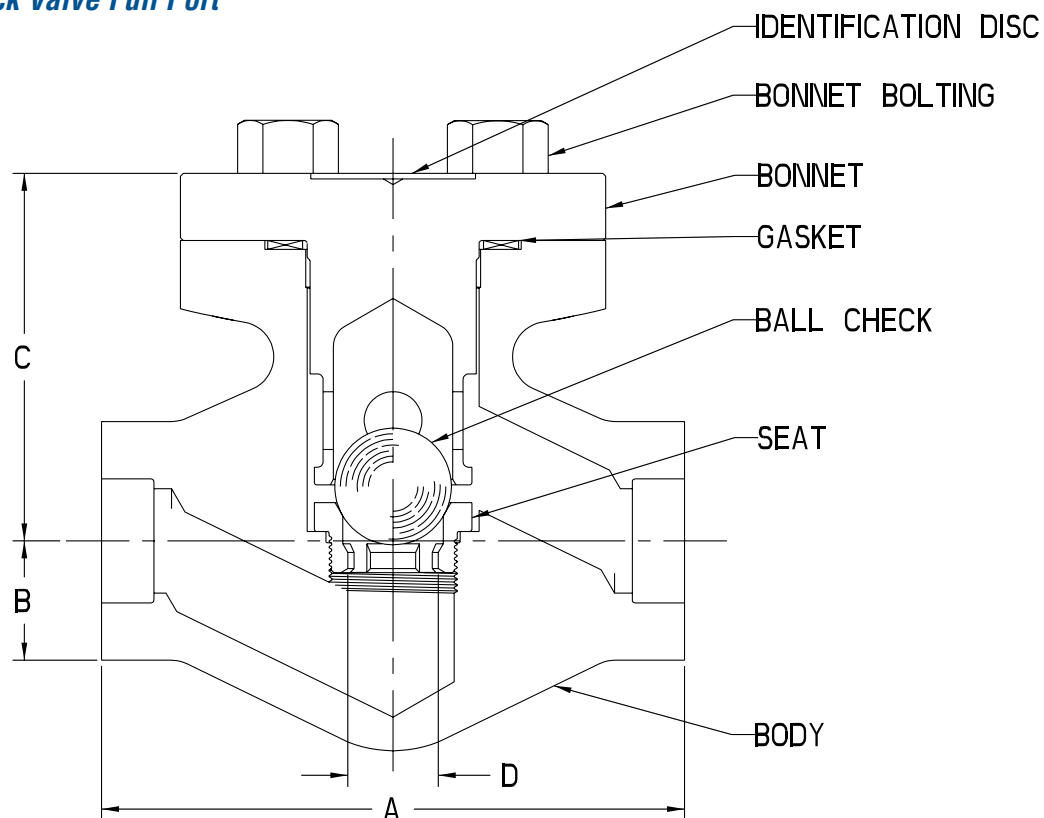
Refer to page 4 for optional trim and service configurations.
Refer to pages 126 & 127 for full materials description.

Refer to page 111-113 for end connections.
Refer to pages 114-115 for other ratings

Forged Check Valves – For HF Alkylation Service

Class 800 Forged Check Valve Full Port

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal Type
Ball Check
Removable Seat
ASME B16.34
UOP APPROVED



CONNECTION	SERIES	BODY/BONNET	TRIM	RATING	
Socket Weld	SWB43721HF2	A105	MONEL	1975 PSI @ 100 F	136.2 BAR @ 38 C
	SWB43721HF4				
	SWB43721HF5				

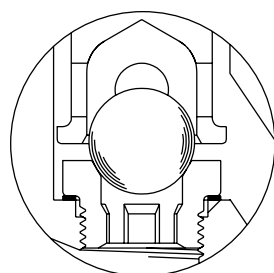
Dimensions

SIZE			A	B	C	D	WEIGHT	Cv
-04	NPS	½	4.00	1.12	2.56	0.41	3.5	0.7
	DN	15	102	28	65	10.4	1.6	
-05	NPS	¾	4.62	1.56	3.06	0.66	6.5	5.9
	DN	20	117	40	78	16.8	2.9	
-06	NPS	1	6.25	2.25	4.50	1.00	17.5	11.8
	DN	25	159	57	114	25.4	7.9	
-08	NPS	1½	7.75	2.69	4.88	1.44	25.8	22.6
	DN	40	197	68	124	36.6	11.7	
-09	NPS	2	9.00	3.50	5.94	1.88	47.4	32.6
	DN	50	229	89	151	47.8	21.5	

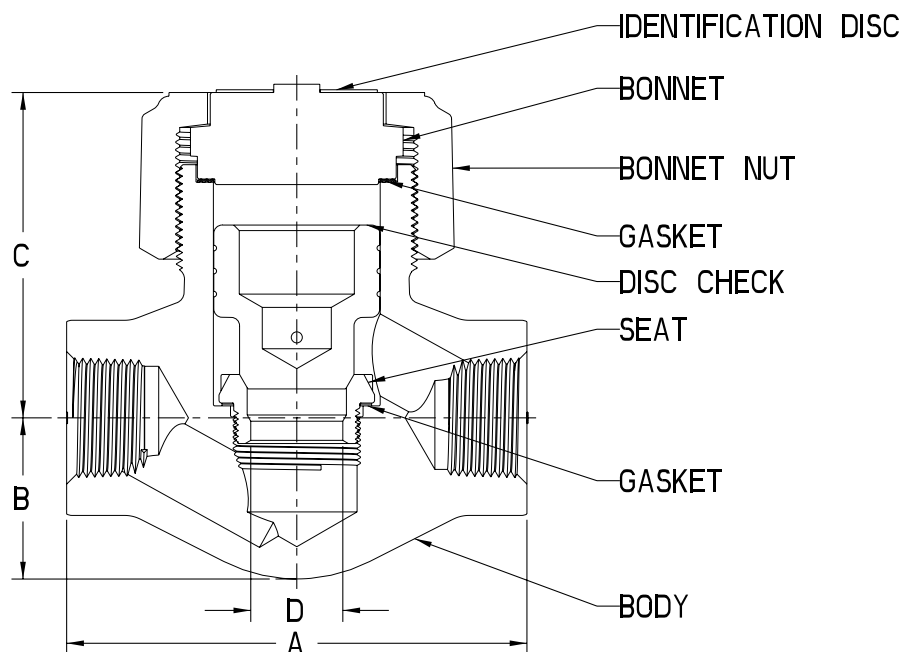
Forged Check Valves

Class 800 Forged Check Valve Full Port

Union Bonnet
Flat Gasket Joint
Horizontal Type
Piston Check/Ball Check
Renewable Seat
ASME B16.34
API 602



BALL CHECK



CONNECTION		SERIES	BODY/BONNET	TRIM	RATING	
Threaded Socket Weld	SW	9091	A105	13% Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
		B9091		13% Cr Seat		
				18% Cr Ball		

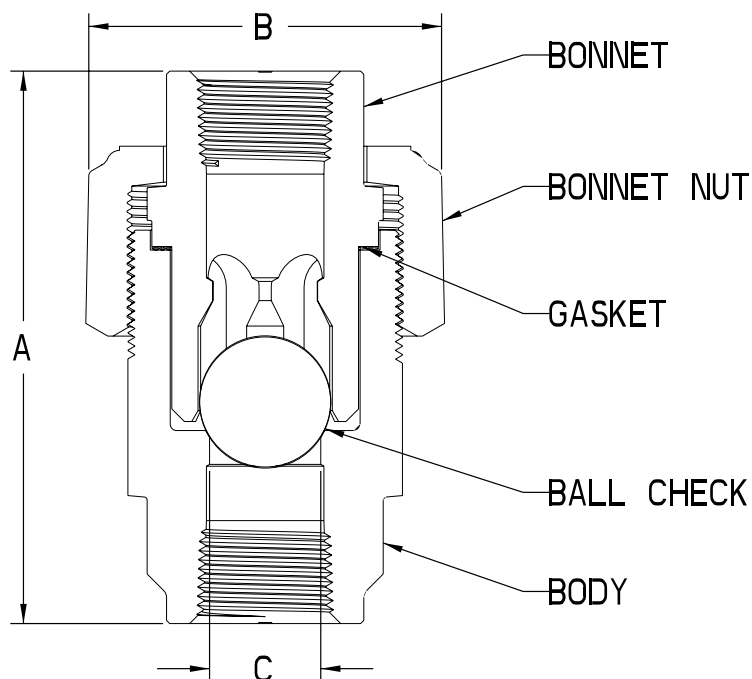
Dimensions

SIZE			A	B	C	D	WEIGHT	Cv
-04	NPS	½	3.38	1.12	2.96	0.53	4.1	3.6
	DN	15	86	28	75	14	1.9	
-05	NPS	¾	4.00	1.50	3.31	0.75	6.6	6.7
	DN	20	102	38	84	19	3.0	
-06	NPS	1	5.00	1.75	3.62	1.00	8.9	11.8
	DN	25	127	44	92	25	4.0	
-07	NPS	1¼	6.25	2.38	3.96	1.19	14.4	20.2
	DN	32	159	60	101	30	6.5	
-08	NPS	1½	6.75	2.67	4.62	1.48	22.5	26.1
	DN	40	171	68	117	38	10.2	
-09	NPS	2	8.25	3.12	4.85	1.94	43.3	40.0
	DN	50	210	79	123	49	19.6	

Forged Check Valves

Class 800 Forged Check Valve Full Port

Union Bonnet
 Flat Gasket Joint
 Horizontal or Vertical Upward Flow
 Ball Check
 Integral Seat
 ASME B16.34



CONNECTION	SERIES	BODY/BONNET	TRIM	RATING	
Threaded Socket Weld SW	54853	A105	13% Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
	54863	F316/F316L	316	1920 PSI @ 100 F	132.4 BAR @ 38 C

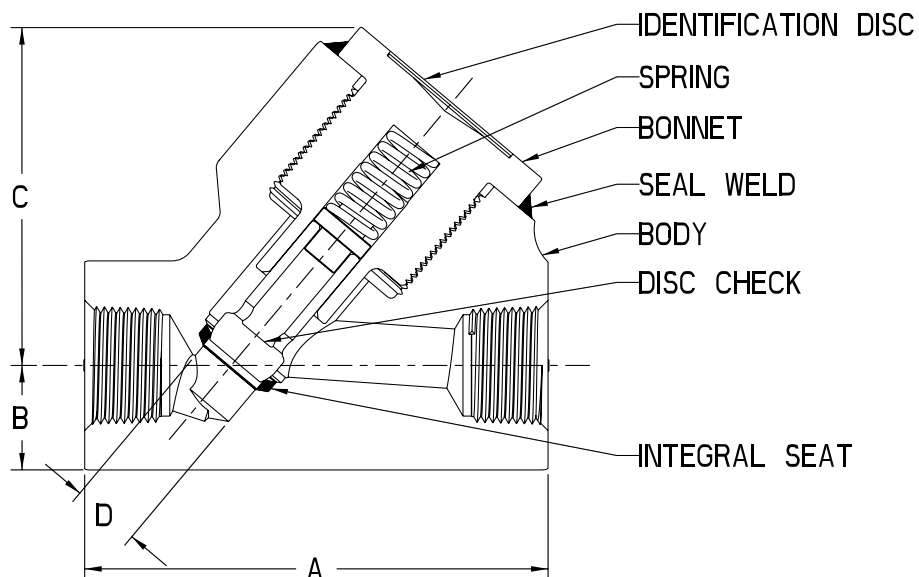
Dimensions

SIZE			A	B	C	WEIGHT	Cv
-04	NPS	½	3.38	2.74	0.55	2.3	8.7
	DN	15	86	70	14	1.0	
-05	NPS	¾	3.88	3.18	0.81	3.8	15.1
	DN	20	99	81	21	1.7	
-06	NPS	1	5.29	3.46	1.06	6.2	30.5
	DN	25	134	88	27	2.8	
-07	NPS	1¼	5.46	3.79	1.28	8.0	29.1
	DN	32	139	96	33	3.6	
-08	NPS	1½	5.62	4.46	1.53	11.6	37.7
	DN	40	143	113	39	5.3	
-09	NPS	2	6.72	4.94	2.00	18.2	45.3
	DN	50	171	125	51	8.3	

Forged Check Valves

Class 1690 Forged Check Valve Conventional Port

Welded Bonnet
 "Y" Pattern
 Horizontal or Vertical Upward Flow
 Spring Control Hard Faced Piston Check
 Integral Hard Faced Seat
 ASME B16.34 LTD Pressure Class



CONNECTION	SERIES	BODY/BONNET	TRIM	SEAT	SPRING	RATING	
Threaded Socket Weld SW	1610	A105	13% Cr	HF	302 SS	4225 PSI @ 100 F	291.3 BAR @ 38 C
	1611	A182 F11					
	1622	A182 F22					
	1691	A182 F91					

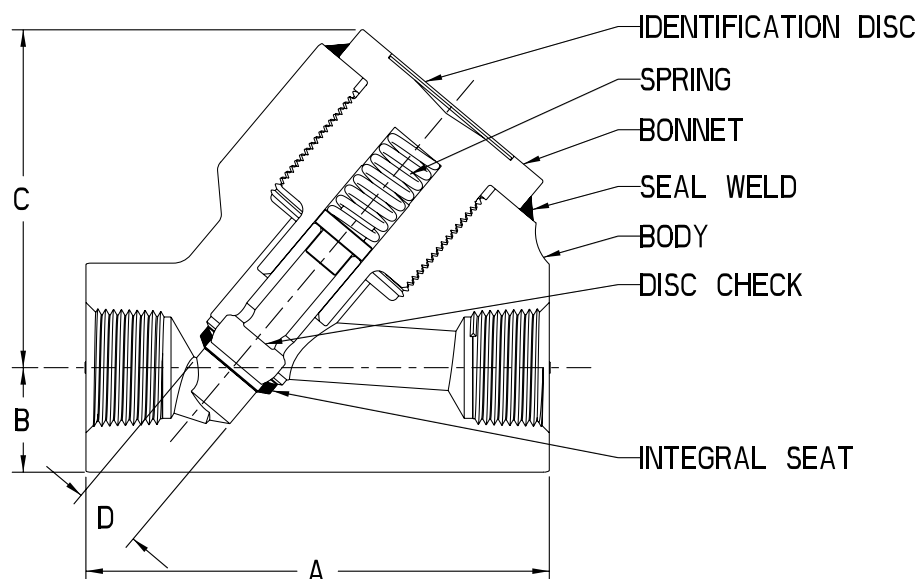
Dimensions

SIZE			A	B	C	D	WEIGHT	Cv
-04	NPS	½	4.00	0.81	2.71	0.50	4.3	-
	DN	15	102	21	69	13	2.0	
-05	NPS	¾	4.00	0.81	2.71	0.50	4.1	-
	DN	20	102	21	69	13	1.9	
-06	NPS	1	5.12	1.16	3.74	0.75	9.6	-
	DN	25	130	29	95	19	4.4	
-07	NPS	1¼	7.50	1.69	5.02	1.54	24.3	-
	DN	32	191	43	128	39	11.0	
-08	NPS	1½	7.50	1.69	5.02	1.53	23.7	-
	DN	40	191	43	128	39	10.8	
-09	NPS	2	7.50	1.69	5.02	1.53	22.3	-
	DN	50	191	43	128	39	10.1	

Forged Check Valves

Class 2500/2680 Forged Check Valve Full Port

Welded Bonnet
"Y" Pattern
Horizontal or Vertical Upward Flow
Spring Control Hard Faced Piston Check
Integral Hard Faced Seat
ASME B16.34 LTD Pressure Class



CONNECTION	SERIES	BODY/BONNET	TRIM	SEAT	SPRING	RATING		CLASS
Threaded	2610	A105	13% Cr	HF	302 SS	6250 PSI @ 100 F	430.9 @ 38 C	2500 LTD
	2611	F11 Cl.2						
	2622	F22 Cl.3						
	2691	F91						
Socket Weld	SW2610	A105	13% Cr	HF	302 SS	6700 PSI @ 100 F	461.9 @ 38 C	2680 LTD
	SW2611	F11 Cl.2						
	SW2622	F22 Cl.3						
	SW2691	F91						

Dimensions

SIZE			A	B	C	D	WEIGHT	Cv
-04	NPS	½	4.00	0.81	2.71	0.50	4.3	-
	DN	15	102	21	69	13	2.0	
-05	NPS	¾	5.12	1.16	3.74	0.75	9.9	-
	DN	20	130	29	95	19	4.5	
-06	NPS	1	5.12	1.16	3.74	0.75	9.6	-
	DN	25	130	29	95	19	4.4	
-08	NPS	1½	8.25	2.06	5.37	1.53	38.9	-
	DN	40	210	52	136	39	17.6	
-09	NPS	2	8.25	2.06	5.37	1.53	36.9	-
	DN	50	210	52	136	39	16.7	

Forged Check Valves

Class 2500/2680 Forged Check Valve Full Port

Screw Bonnet

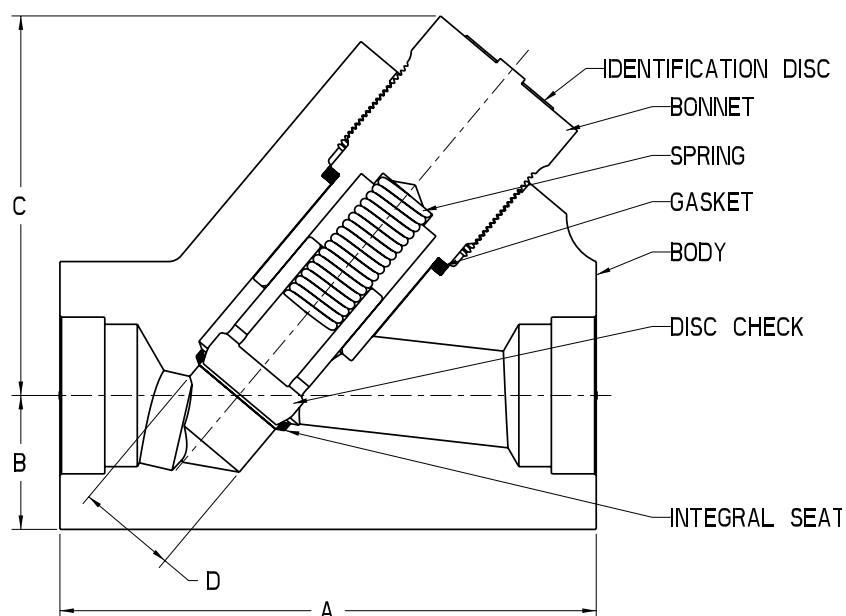
"Y" Pattern

Horizontal or Vertical Upward Flow

Spring Control Hard Faced Piston Check

Integral Hard Faced Seat

ASME B16.34 LTD Pressure Class



CONNECTION	SERIES	BODY/BONNET	TRIM	SEAT	SPRING	RATING		CLASS
Threaded	R2610	A105	13% Cr	HF	302 SS	6250 PSI @ 100 F	430.9 @ 38 C	2500 LTD
	R2611	F11 Cl.2						
	R2622	F22 Cl.3						
	R2691	F91						
Socket Weld	SWR2610	A105	13% Cr	HF	302 SS	6700 PSI @ 100 F	461.9 @ 38 C	2680 LTD
	SWR2611	F11 Cl.2						
	SWR2622	F22 Cl.3						
	SWR2691	F91						

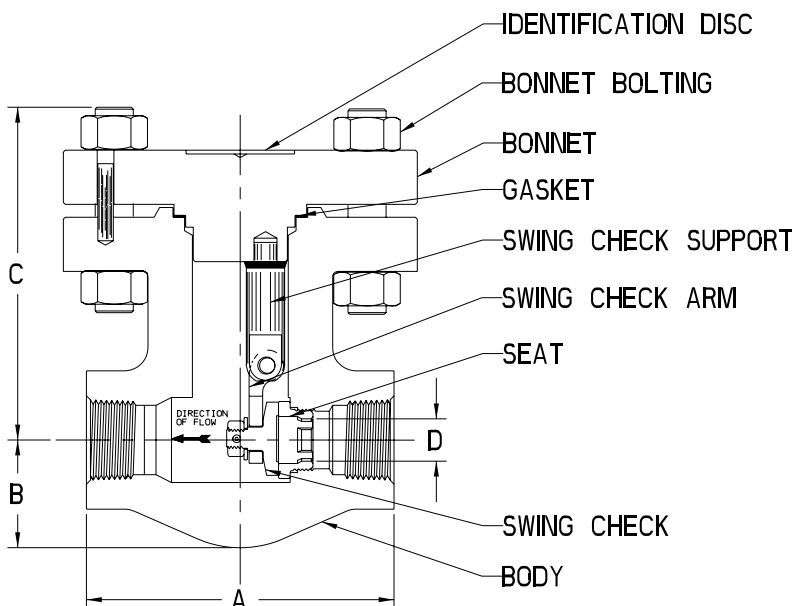
Dimensions

SIZE			A	B	C	D	WEIGHT	Cv
-04	NPS	½	4.00	0.81	3.20	0.50	4.6	-
	DN	15	102	21	81	13	2.1	
-05	NPS	¾	5.12	1.16	4.23	0.75	10.6	-
	DN	20	130	29	107	19	4.8	
-06	NPS	1	5.12	1.16	4.23	0.75	10.3	-
	DN	25	130	29	107	19	4.7	
-08	NPS	1½	8.25	2.06	5.84	1.53	40.0	-
	DN	40	210	52	148	39	18.1	
-09	NPS	2	8.25	2.06	5.48	1.53	38.0	-
	DN	50	210	52	148	39	17.2	

Forged Check Valves— Meets API-600 Required Wall Thicknesses

Class 800 Forged Check Valve Conventional Port

Round Bolted Bonnet
Flat Gasket Joint
Horizontal or Vertical Upward Flow
Swing Check
Removable Seat
ASME B16.34 LTD
Meets API600 Required Wall Thickness



CONNECTION		SERIES	BODY/BONNET	TRIM	RATING	
Threaded Socket Weld	SW	4835	A105	13% Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
		34835	A350 LF2		1975 PSI @ 100 F	136.2 BAR @ 38 C
					1975 PSI @ -50 F	136.2 BAR @ 38 C

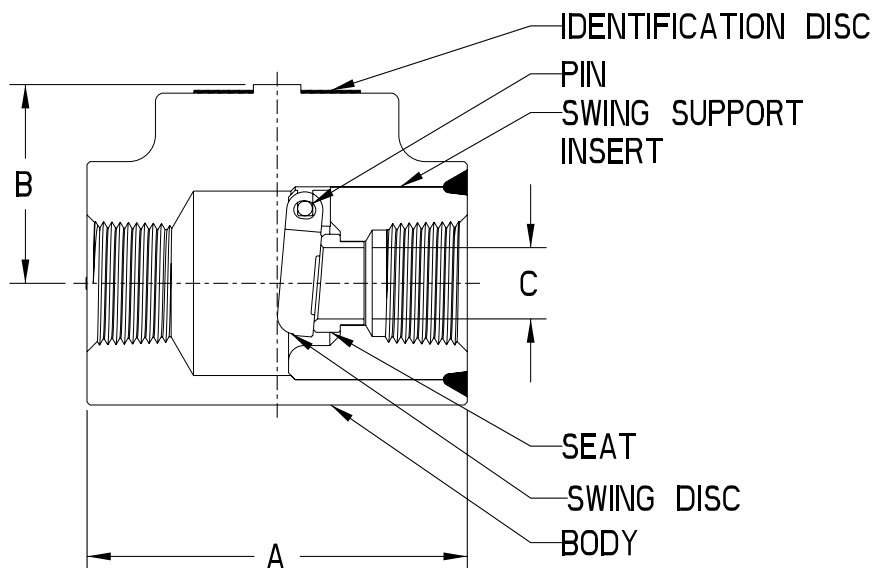
Dimensions

SIZE			A	B	C	D	WEIGHT	Cv
-04	NPS	1/2	4.00	1.31	4.62	0.34	13.2	3.3
	DN	15	102	33	117	8.6	6.0	
-05	NPS	3/4	4.00	1.31	4.62	0.39	13.0	4.4
	DN	20	102	33	117	9.9	5.9	
-06	NPS	1	5.00	1.75	5.50	0.69	22.1	17.0
	DN	25	127	44	140	17.5	10.0	
-07	NPS	1 1/4	6.50	2.19	6.38	0.97	29.1	28.2
	DN	25	165	56	162	24.6	13.2	
-08	NPS	1 1/2	6.50	2.19	6.38	1.19	30.2	43.0
	DN	25	165	56	162	30.2	13.7	
-09	NPS	2	7.25	2.64	6.94	1.44	39.9	63.0
	DN	50	184	67	176	36.6	18.1	

Forged Check Valves

Class 800 Forged Check Valve Conventional Port

No Bonnet
Horizontal or Vertical Upward Flow
Swing Type Check
Welded Seat Insert
Hard Faced Seat
ASME B16.34



CONNECTION	SERIES	BODY/BONNET	TRIM	RATING	
Threaded Socket Weld SW	S74	A105	13% Cr	1975 PSI @ 100 F	136.2 BAR @ 38 C
	S32074	A350 LF2			

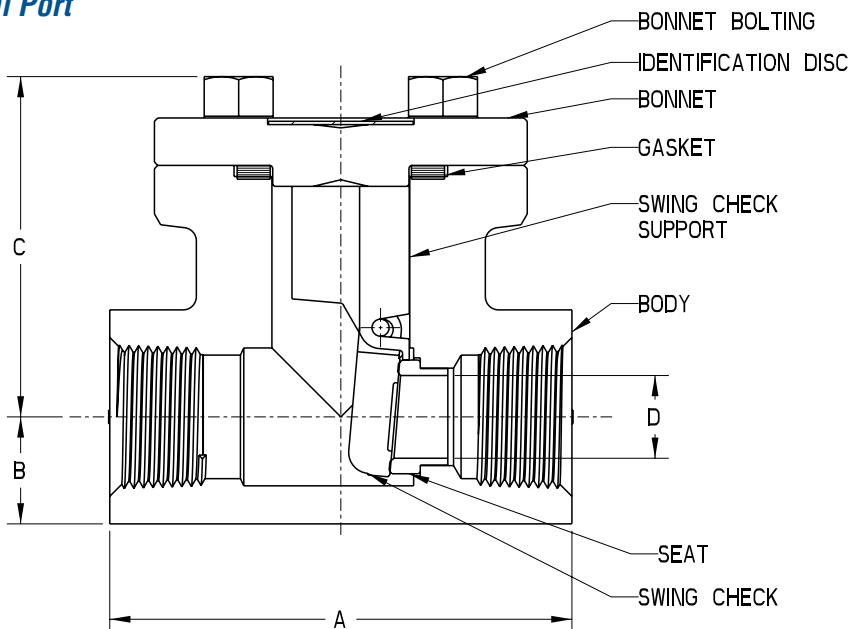
Dimensions

SIZE			A	B	C	WEIGHT	Cv
-04	NPS	½	3.50	1.75	0.50	4.6	9.2
	DN	15	89	44	13	2.1	
-05	NPS	¾	3.50	1.75	0.50	4.4	6.8
	DN	20	89	44	13	2.0	
-06	NPS	1	4.00	2.00	0.75	5.5	22.0
	DN	25	102	51	19	2.5	
-08	NPS	1 ½	5.00	2.50	1.25	10.4	54.6
	DN	40	127	64	32	4.7	
-09	NPS	2	6.62	3.38	1.50	23.9	81.9
	SN	50	168	86	38	10.8	

Forged Check Valves

Class 800 Check Valve Conventional Port

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal or Vertical Upward Flow
Swing Check
Hard Faced Seat
ASME B16.34
API 602



CONNECTION	SERIES	BODY/BONNET	DISC	SEAT	RATING	
Threaded Socket Weld	S701	A105	13% Cr	316 HF	1975 PSI @ 100 F	136.2 BAR @ 38 C
	S32701	A350 LF2	13% Cr	316 HF	1975 PSI @ 100 F	136.2 BAR @ 38 C
					1975 PSI @ -50 F	136.2 BAR @ -46 C
	S718	F316/F316L	HF	316 HF	1920 PSI @ 100 F	132.4 BAR @ 38 C
	S751	F11 Cl.2	13% Cr	13% Cr HF	2000 PSI @ 100 F	137.9 BAR @ 38 C
	S761	F22 Cl.3				

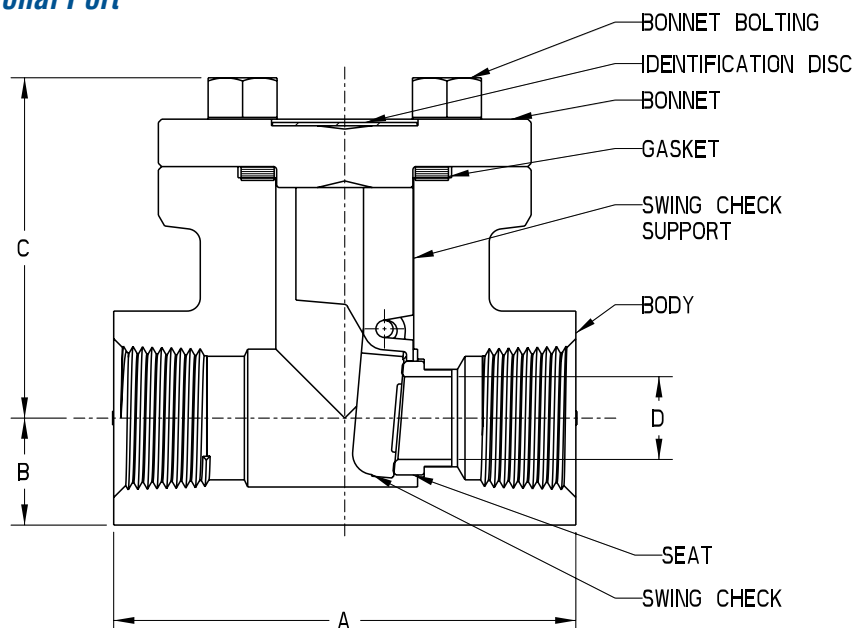
Dimensions

SIZE			A	B	C	D	WEIGHT	Cv
-04	NPS	½	3.38	0.78	2.35	0.50	3.3	9.2
	DN	15	86	20	60	12.7	1.5	
-05	NPS	¾	3.38	0.78	2.35	0.50	3.1	6.8
	DN	20	86	20	60	12.7	1.4	
-06	NPS	1	4.19	0.97	3.09	0.75	5.5	22.0
	DN	25	106	25	78	19.1	2.5	
-08	NPS	1½	5.44	1.28	4.48	1.25	12.9	54.6
	DN	40	138	33	114	31.8	5.9	
-09	NPS	2	5.94	1.56	4.94	1.50	16.7	81.9
	DN	50	151	40	125	38.1	7.6	

Forged Check Valves

Class 1500 Check Valve Conventional Port

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal or Vertical Upward Flow
Swing Check
Hard Faced Seat
ASME B16.34
API 602



CONNECTION	SERIES	BODY/BONNET	DISC	SEAT	RATING	
Threaded Socket Weld SW	S15701	A105	13% Cr	316 HF	3705 PSI @ 100 F	255.3 BAR @ 38 C
	S35701	A350 LF2	13% Cr	316 HF	3705 PSI @ 100 F	255.3 BAR @ 38 C
					3705 PSI @ -50 F	255.3 BAR @ -46 C
	S15718	F316/F316L	HF	316 HF	3600 PSI @ 100 F	248.2 BAR @ 38 C
	S15751	F11 Cl.2	13% Cr	13% Cr HF	3750 PSI @ 100 F	258.6 BAR @ 38 C
	S15761	F22 Cl.3	13% Cr	13% Cr HF	3750 PSI @ 100 F	258.6 BAR @ 38 C

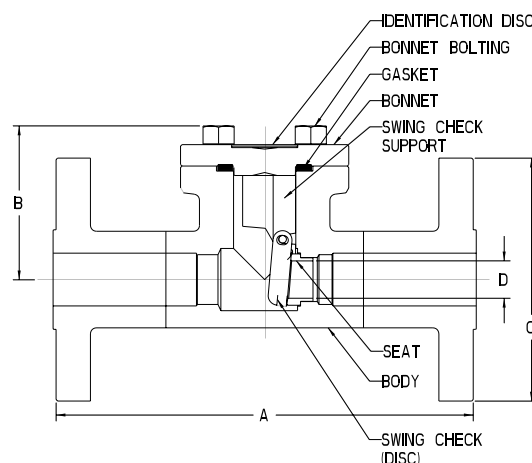
Dimensions

SIZE			A	B	C	D	WEIGHT	Cv
-04	NPS	½	4.00	0.97	3.22	0.50	6.5	9.2
	DN	15	102	25	82	12.7	2.9	
-05	NPS	¾	4.00	0.97	3.22	0.50	6.3	6.8
	DN	20	102	25	82	12.7	2.9	
-06	NPS	1	4.75	1.28	4.45	0.75	13.7	22.0
	DN	25	121	33	113	19.1	6.2	
-08	NPS	1½	5.25	1.56	5.05	1.25	20.2	54.6
	DN	40	133	40	128	31.8	9.2	
-09	NPS	2	7.00	1.88	6.45	1.50	38.2	81.9
	DN	50	178	48	164	38.1	17.3	

Forged Check Valves

Class 150, 300, 600 Forged Check Valve Conventional Port

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal or Vertical Upward Flow
Swing Check
Hard Faced Seat
ASME B16.34
API 602



CONNECTION	SERIES	BODY/BONNET	DISC	SEAT	RATING		CLASS
1/16 RF	S673	A105	13% Cr	316 HF	285 PSI @ 100 F	19.6 BAR @ 38 C	150
	S32673	A350 LF2	13% Cr	316 HF	285 PSI @ 100 F	19.6 BAR @ 38 C	
					285 PSI @ -50 F	19.6 BAR @ -46 C	
1/16 RF	S678	F316/F316L	HF	316 HF	275 PSI @ 100 F	19.0 BAR 2@ 38 C	300
	S683	A105	13% Cr	316 HF	740 PSI @ 100 F	51.1 BAR @ 38 C	
					740 PSI @ -50 F	51.1 BAR @ -46 C	
1/16 RF	S688	F316/F316L	HF	316 HF	720 PSI @ 100 F	49.6 BAR 2@ 38 C	600
	S693	A105	13% Cr	316 HF	1480 PSI @ 100 F	102.1 BAR @ 38 C	
					1480 PSI @ -50 F	101.1 BAR @ 38 C	
1/4 RF	S32693	A350 LF2	13% Cr	316 HF	1480 PSI @ 100 F	102.1 BAR @ -46 C	600
	S698	F316/F316L	HF	316 HF	1440 PSI @ 100 F	99.3 BAR 2@ 38 C	

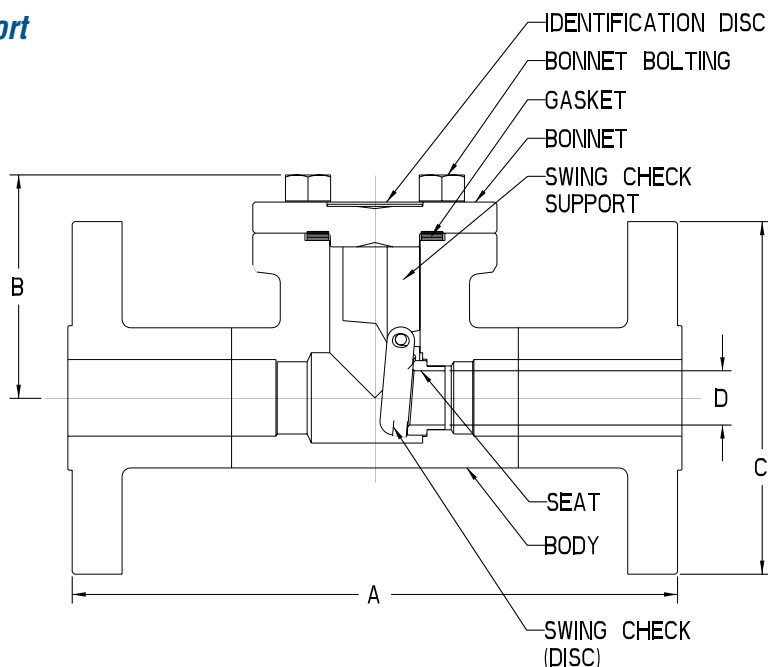
Dimensions

			A						C						WEIGHT			
SIZE			150	300	600	B	150	300	600	D	150	300	600	Cv				
-04	NPS	½	4.25	5.5	6.5	2.35	3.50	3.75	3.75	0.50	4.9	6.4	7.0	9.2				
	DN	15	108	140	165	60	89	95	95	12.7	2.2	2.9	3.2					
-05	NPS	¾	4.62	6.00	7.50	2.35	3.88	4.70	4.62	0.50	6.4	9.2	10.2	6.8				
	DN	20	117	152	191	60	99	119	117	12.7	2.9	4.2	4.6					
-06	NPS	1	5.00	8.50	8.50	3.09	4.28	4.88	5.00	0.75	9.3	13.4	14.2	22.0				
	DN	25	127	216	216	78	109	124	127	19.1	4.2	6.1	6.4					
-08	NPS	1½	6.50	9.50	9.50	4.48	5.00	6.12	6.12	1.25	19.0	26.2	28.0	54.6				
	DN	40	165	241	241	114	127	155	155	31.8	8.6	11.9	12.7					
-09	NPS	2	8.00	10.50	11.50	4.93	6.00	6.50	6.50	150	33.4	39.5	43.4	81.9				
	DN	50	203	267	292	125	152	165	165	38.1	15.1	17.9	19.7					

Forged Check Valves

Class 1500 Check Valve Conventional Port

Round Bolted Bonnet
Spiral Wound Gasket
Horizontal or Vertical Upward Flow
Swing Check
Hard Faced Seat
ASME B16.34
API 602



CONNECTION	SERIES	BODY/BONNET	DISC	SEAT	RATING	
1/4 RF	S15693	A105	13% Cr	316 HF	3705 PSI @ 100 F	255.3 BAR @ 38 C
	S35693	A350 LF2	13% Cr	316 HF	3705 PSI @ 100 F	255.3 BAR @ 38 C
					3705 PSI @ -50 F	255.3 BAR @ -46 C
	S15698	F316/F316L	HF	316 HF	3600 PSI @ 100 F	248.2 BAR 2@ 38 C

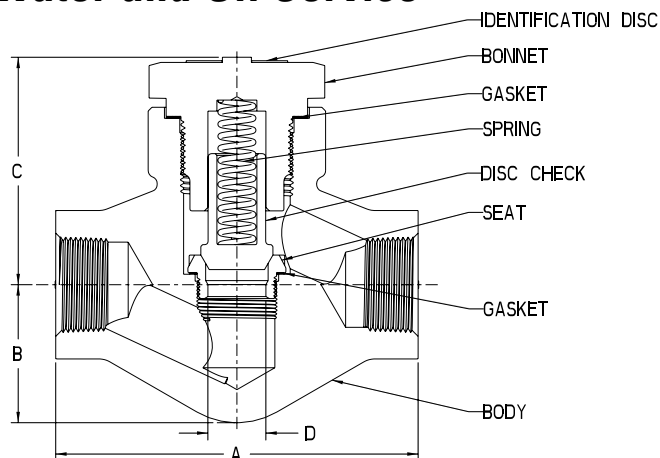
Dimensions

SIZE			A	B	C	D	WEIGHT	Cv
-04	NPS	½	8.50	3.06	4.75	0.50	16.4	9.2
	DN	15	216	78	121	12.7	7.4	
-05	NPS	¾	9.00	3.06	5.12	0.50	19.9	6.8
	DN	20	229	78	130	12.7	9.0	
-06	NPS	1	10.00	4.45	5.88	0.75	31.8	22.0
	DN	25	254	113	149	19.1	14.4	
-08	NPS	1½	12.00	5.05	7.00	1.25	50.0	54.6
	DN	40	305	128	178	31.8	22.7	
-09	NPS	2	14.50	6.45	8.50	1.50	90.2	81.9
	DN	50	368	164	216	38.1	40.9	

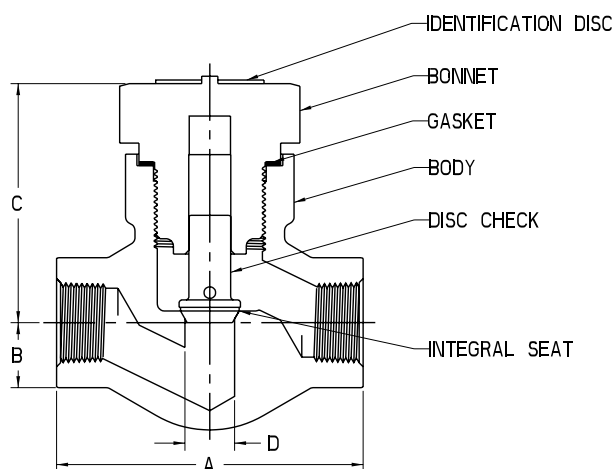
Forged Check Valves – For Air, Water and Oil Service

Type 3000 Forged Check Valve

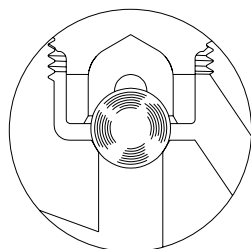
Screw Bonnet
Flat Gasket Joint
Horizontal or Vertical Upward Flow for 2191
Horizontal Flow for 1551
Spring Control
Piston Check
Renewable Seat
Non-shock pressure
Temperature Not to Exceed 450°F
Not Recommended for Steam or Dry Gas Service



MODEL 2191



1551 FOR OIL SERVICE ONLY



BALL CHECK

Screw Bonnet
Flat Gasket Joint
Horizontal Type
Piston or Ball Check
Integral Seat

CONNECTION	SERIES	BODY/BONNET	DISC	SEAT	SPRING	RATING	
Threaded Socket Weld SW	1551	A105	13% Cr	INTG	N/A	3000 PSI @ 100 F 3000 PSI @ 450 F	206.8 BAR @ 38 C 206.8 BAR @ 232 C
	B1551	A105	18% Cr Ball				
	2191	A105	13% Cr	13% Cr	302 SS		

Dimensions

SIZE	A	B	C	D	WEIGHT	Cv*
-04	NPS ½	3.38	1.12	3.09	0.52	3.8
	DN 15	86	28	78	13	1.7
-05	NPS ¾	4.00	1.50	3.50	0.53	5.8
	DN 20	102	38	89	14	2.6
-06	NPS 1	5.00	1.75	3.90	0.75	8.7
	DN 25	127	44	99	19	3.9
-07	NPS 1¼	6.25	2.38	3.92	1.00	13.6
	DN 32	159	60	100	25	6.2
-08	NPS 1½	6.75	2.67	4.27	1.22	20.4
	DN 40	171	68	108	31	9.3
-09	NPS 2	8.25	3.37	4.09	1.47	41.2
	DN 50	210	86	124	37	18.7

2191

SIZE	A	B	C	D	WEIGHT	Cv*
-04	NPS ½	3.38	1.12	2.81	0.50	3.7
	DN 15	86	28	71	13	1.7
-05	NPS ¾	4.00	1.50	3.50	0.56	6.0
	DN 20	102	38	89	14	2.7
-06	NPS 1	5.00	1.75	3.90	0.81	8.7
	DN 25	127	44	99	21	3.9
-07	NPS 1¼	6.25	2.38	3.75	1.06	13.7
	DN 32	159	60	95	27	6.2
-08	NPS 1½	6.75	2.69	4.25	1.28	20.6
	DN 40	171	68	108	33	9.3
-09	NPS 2	8.25	3.37	4.87	1.53	40.1
	DN 50	210	86	124	39	18.2

B1551

1551

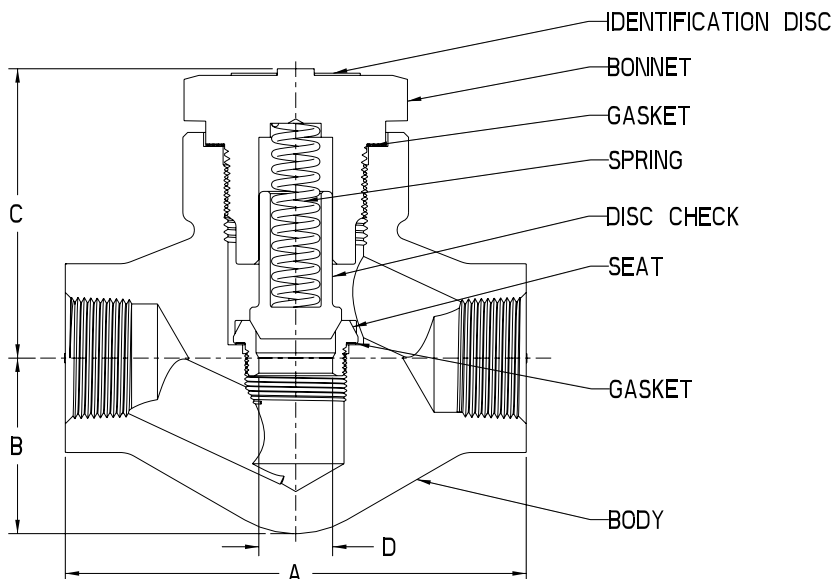
Refer to page 4 for optional trim and service configurations.
Refer to pages 126 & 127 for full materials description.

Refer to page 111-113 for end connections.
Refer to pages 114-115 for other ratings

Forged Check Valves – For Air, Water and Oil Service

Type 6000 Forged Check Valve

Screw Bonnet
Flat Gasket Joint
Horizontal or Vertical or Upward Flow
Spring Control
Piston Check
Renewable Seat
Non-shock pressure
Temperature Not to Exceed 450°F
Not Recommended for Steam or Dry Gas Service



CONNECTION	SERIES	BODY/BONNET	DISC	SEAT	SPRING	RATING
Threaded Socket Weld	SW	4881 A105	13% Cr	13% Cr	302 SS	6000 PSI @ 100 F 6000 PSI @ 450 F 413.7 BAR @ 38 C 413.7 BAR @ 232 C

Dimensions

SIZE	A	B	C	D	WEIGHT	Cv
-04	4.00	1.50	3.12	0.41	5.7	-
-05	5.00	1.75	3.50	0.53	7.2	-
-06	6.25	2.38	4.00	0.75	14.5	-
-07	6.75	2.67	4.39	1.00	22.3	-
-08	8.25	3.37	4.65	1.22	41.6	-
-09	8.50	3.38	5.75	1.47	51.9	-