













Available Models:

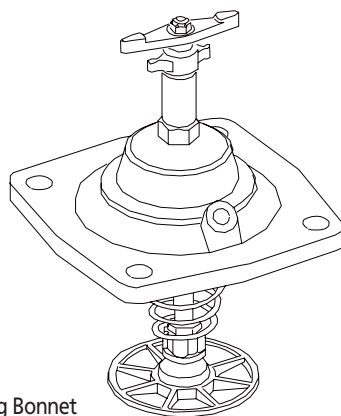
Pattern												
Connection	Threaded	Threaded	Victaulic®	Flanged	Flanged	Flanged	Flanged	Threaded	Victaulic®	Threaded	Flanged	Threaded
Material	Cast Iron	Bronze	Cast Iron	Cast Iron	Bronze	Ductile Iron	Cast Iron	Cast Iron	Cast Iron	Bronze	Ductile Iron	Ductile Iron
Max. Pressure	16bar / 230psi										25bar / 360psi	
Available Sizes	mm	inch										
	20	3/4"	•	•								
	25	1"	•	•								
	40	1 1/2"	•	•	•				•		•	
	50	2"	•	•	•	•	•		•		•	•
	65	2 1/2"	•	•								
	80	3 2/3"	•	•	•				•		•	
	80	3"	•	•	•	•	•	•	•	•		•
	100	4"			•	•	•	•	•	•		•
	150	6"			•	•	•	•	•			•
	200	8 6/8"				•	•	•				•
	200	8"				•	•	•				•
	250	10"				•	•	•				•
	300	12"				•	•	•				
	350	14"				•	•	•				
	400	16"						•				•
450	18"						•				•	
500	20"						•				•	
600	24"						•				•	

Design Specifications:

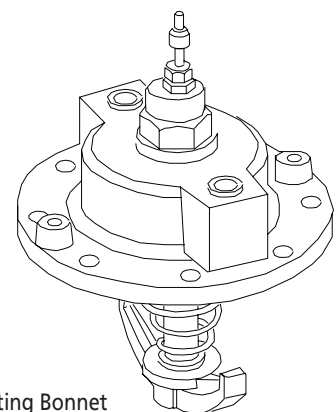
Materials	Standard	Optional *	Connections	Standard	Optional *
Body and Bonnet	Cast Iron, Ductile Iron, Bronze	Cast Steel, Stainless Steel	Flanges	ISO 2084, 2441, 5752	ANSI B16 JIS B22 AS 10
Diaphragm	Natural Rubber	NBR, EPDM, Neoprene			
Spring	SST 302	SST 316			
Nuts And Bolts	Coated Steel	SST	Threads	F-BSP	F-NPT
Coating	Polyester	Epoxy, Nylon, Rubber	Control Bores	1/8", 1/4", 1/2" NPT	

* Others Upon Request

Non Standard Bonnets:



Throttling Bonnet



Position Indicating Bonnet

Diaphragm Selection Table*

Diameter		Type	No.	Pressure Range	
mm	inch			mwc	psi
20, 25	3/4", 1"	Standard	18	12-160	17-230
		Low Pressure	85	5-100	7-140
40	1 1/2"	Standard	13	12-160	17-230
		S. Low Pressure	82	5-50	7-70
50, 65	2", 2 1/2", 323"	Standard	03	15-160	21-230
		Low Pressure	02	7-100	10-140
		S. Low Pressure	12	4-50	6-70
		Extreme	60	20-160	28-230
50 _{HP}	2" _{HP}	High Pressure	69	10-250	15-360
80, 100	3", 4"	Standard	32	12-160	17-230
		Low Pressure	05	4-100	6-140
		Extreme	61	20-160	28-230
80 _{HP}	3" _{HP}	High Pressure	70	10-250	15-360
100 _{HP}	4" _{HP}	High Pressure	71	10-250	15-360
150	6", 868	Standard	62	15-160	21-230
		Low Pressure	09	5-100	7-140
		S. Low Pressure	91	2-60	3-85
		Extreme	35	20-160	28-230
150 _{HP}	6" _{HP}	High Pressure	72	10-250	15-360
200, 300, 350	8", 12", 14"	Standard	36	7-160	10-230
		Low Pressure	37	2-100	3-140
		Extreme	63	20-160	28-230
200 _{HP}	8" _{HP}	High Pressure	73	10-250	15-360
250	10"	Standard	40	7-160	10-230
		Low Pressure	50	2-100	3-140
250 _{HP} , 400 _{HP} , 500 _{HP} , 600 _{HP}	10" _{HP} , 16" _{HP} , 20" _{HP} , 24" _{HP}	High Pressure	78	10-250	15-360
		Low Pressure	92	2-100	3-140

* Standard Diaphragm: Nylon Reinforced Natural Rubber. Optional Materials: Nitrile, EPDM, Neoprene Available Upon Request.

** HP = High Pressure

Pressure Rating

Pressure rating of series 100 valves is body strength, connection standard and diaphragm type.

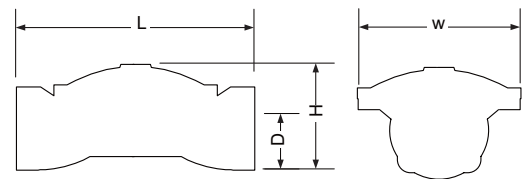
Pressure rating of valve body of standard models: 16 Bar / 230 psi.

Pressure rating of valve body of high pressure models: 25 Bar / 360 psi.

Connection standard is marked on the identification plate, assembled on the valve body.

Diaphragms operation pressure range is presented at the above table.

Dimensions and Weights



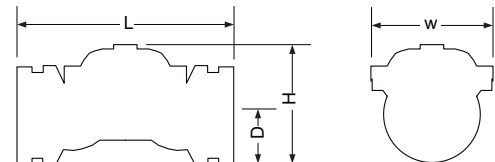
Straight Flow, Threaded Connection

Valve Size		L				H				D		W		Weight			
		Cast Iron		Bronze		Cast Iron		Bronze						Cast Iron		Bronze	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs	Kg	Lbs
20	3/4	115	4.53	112	4.41	43	1.69	43	1.69	20	0.79	68	2.68	1	2.2	1	2.2
25	1	120	4.72	119	4.69	52	2.05	52	2.05	24	0.94	68	2.68	1	2.2	1	2.2
40	1 1/2	170	6.69	149	5.87	93	3.66	86	3.39	33	1.3	93	3.66	2.2	4.9	1.8	4
50	2	188	7.4	184	7.24	115	4.53	101	3.98	42	1.65	112	4.41	3.2	7	2.6	5.7
65	2 1/2	219	8.62	212	8.35	118	4.65	109	4.29	46	1.81	112	4.41	3.6	7.9	3.4	7.5
80 _{LF}	323	225	8.86	221	8.7	126	4.96	116	4.57	54	2.13	112	4.41	4.5	9.9	3.9	8.5
80	3	316	12.44	316	12.44	135	5.31	135	5.31	53	2.09	200	7.87	11	24		

* LF = Low Flow

Straight Flow, Grooved Connection (Vic.)

Valve Size		L		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs
40	1 1/2	177	6.97	81	3.19	26	1.02	93	3.66	1.8	4
50	2	190	7.48	100	3.94	33	1.3	112	4.41	2.6	5.7
80 _{LF}	323	201	7.91	120	4.72	47	1.85	112	4.41	3	6.6
80	3	286	11.26	124	4.88	47	1.85	200	7.87	11	24.3
100	4	317	12.48	133	5.24	60	2.36	194	7.64	12	26.4
150	6	392	15.43	250	9.84	82	3.23	300	11.81	31	68.3

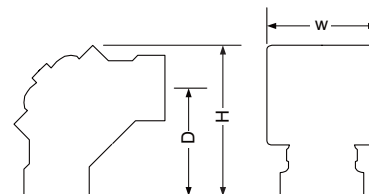


Angle Flow, Grooved Connection (Vic.)

Valve Size		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs
80	3	240	9.45	170	6.69	200	7.87	10.5	23.1
100	4	250	9.84	185	7.28	200	7.87	11.5	25.4

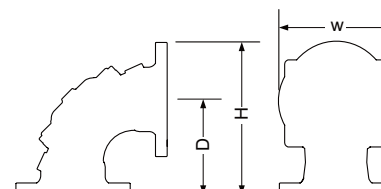
Angle Flow, Threaded Connection

Valve Size		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs
40	1 1/2	110	4.33	75	2.95	93	3.66	1.7	3.7
50	2	136	5.35	90	3.54	112	4.41	2.4	5.3
80 _{LF}	323	165	6.5	114	4.49	112	4.41	3.6	7.9
80	3	239	9.41	145	5.71	200	7.87	10.8	23.8



Angle Flow, Flanged Connection

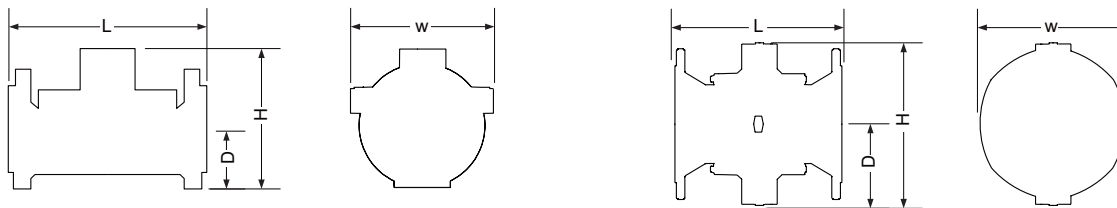
Valve Size		H		D		W		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs
80	3	278	10.9	174	6.85	200	7.87	18	39.7
100	4	300	11.8	185	7.28	230	9.06	21	46.3
150	6	380	15	230	9.06	300	11.8	45	99.2



Dimensions and Weights

Straight Flow, Flanged Connection - Standard Models 16 Bar/230 psi

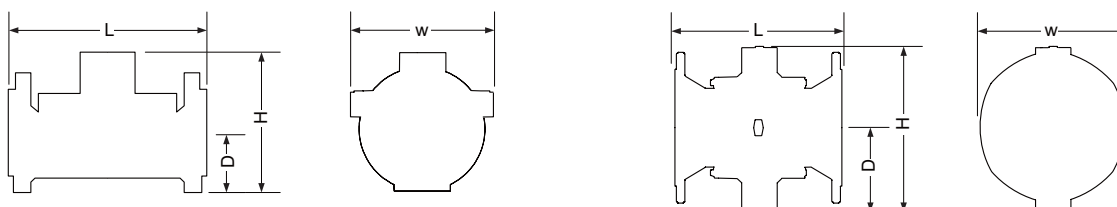
Valve Size		L		H		D		W		Weight					
										Cast Iron		Duct. Iron		Bronze	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs	Kg	Lbs	Kg	Lbs
50	2	200	7.87	166	6.54	85	3.35	166	6.54	7.2	15.8	7.7	17	8	17.6
80 _{LF}	323	200	7.87	202	7.95	105	4.13	200	7.87	11	24.3	11.8	26		
80	3	285	11.22	200	7.87	105	4.13	200	7.87	17	37.5	18.2	40.1	19	42
100	4	305	12.01	230	9.06	110	4.33	230	9.06	22	48.5	24	53	24	53
150	6	390	15.35	314	12.36	145	5.71	300	11.8	46	101	49	108	51	112
200 _{LF}	868	385	15.16	350	13.78	170	6.69	365	14.4	50	110	54	119		
200	8	460	18.11	400	15.75	170	6.69	365	14.4	80	176	86	190	89	196
250	10	535	21.06	445	17.52	205	8.07	440	17.3	117	258	125	276	131	289
300	12	580	22.83	495	19.49	240	9.45	490	19.3	156	344	167	368	147	324
350	14	580	22.83	495	19.49	270	10.6	540	21.3	182	401	172	379	180	397



Straight Flow, Flanged Connection - High Pressure Models 25 Bar/360 psi

Valve Size		L		H		D		W		Weight	
										Kg	Lbs
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs
50	2	228	8.98	169	6.65	85	3.35	175	6.9	10	22
50 _{TH}	2 _{TH}	250	8.98	120	6.65	42	1.65	175	6.9	6	13
80	3	310	12.2	237	9.33	105	4.13	200	7.87	30	66.1
100	4	356	14.02	263	10.35	120	4.72	260	10.24	38	83.8
150	6	436	17.17	378	14.88	150	5.91	320	12.6	75	165.3
200	8	530	20.87	481	18.94	180	7.09	400	15.75	123	271
250	10	636	25.04	546	21.5	215	8.46	495	19.49	190	419
400	16	715	28.15	830	32.68	310	12.2	830	32.68	433	955
450	18	715	28.15	830	32.68	340	13.39	830	32.68	460	1014
500	20	900	35.43	970	38.19	490	19.29	980	38.58	674	1486
600	24	900	35.43	970	38.19	490	19.29	980	38.58	696	1534

* TH = Threaded



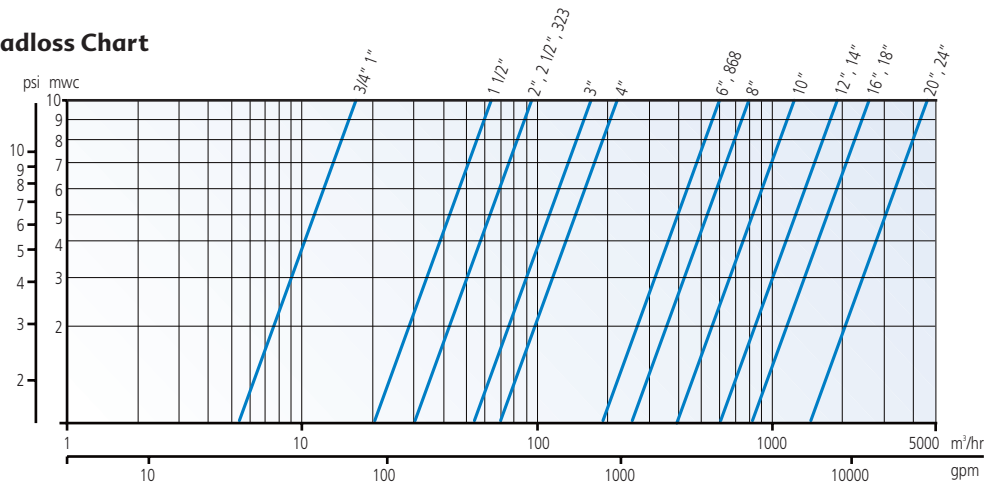
Hydraulic Performance

Valve Size	mm	20	25	40	50	65	80 _{LF}	80	100	150	200 _{LF}	200	250	300	350	400	450	500	600
	inch	3/4	1	1 1/2	2	2 1/2	323	3	4	6	868	8	10	12	14	16	18	20	24
Max. Flow Continuance	m ³ /hr	6	10	25	40	40	40	90	100	350	350	480	970	1400	1400	2500	2500	3890	5500
	gpm	26.4	44	110	176	176	176	396	440	1540	1540	2112	4268	6160	6160	11000	11000	17116	24200
Max. Flow Intermittent	m ³ /hr	16	27	68	109	109	109	245	273	955	955	1309	2645	3818	3818	6818	6818	10609	10609
	gpm	72	120	300	480	480	480	1080	1200	4200	4200	5760	11640	16800	16800	30000	30000	46680	46680
Minimal Flow	m ³ /hr	< 1																	
	gpm	< 5																	
Kv	m ³ /hr @ 1 bar	15	22	64	95	95	95	170	220	600	670	800	1250	1900	1900	2600	2600	5370	5370
Cv	gpm @ 1 psi	17	26	75	110	110	110	200	260	700	780	930	1460	2220	2220	3030	3030	6275	6275
Kv *	m ³ /hr @ 1 bar	-	-	-	78	-	-	120	200	550	-	800	1300	-	-	2600	2600	5370	5370
Cv *	gpm @ 1 psi	-	-	-	91	-	-	140	230	640	-	930	1520	-	-	3030	3030	6275	6275

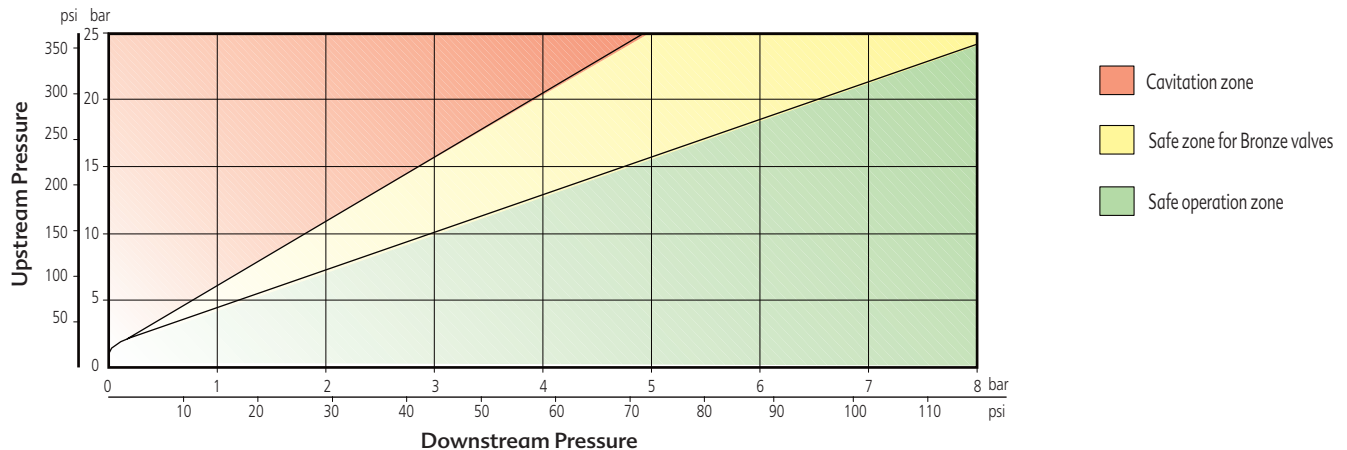
* High pressure models

$$\Delta P(\text{Bar}) = \left(\frac{Q[\frac{\text{m}^3}{\text{hr}}]}{Kv} \right)^2 \quad \Delta P(\text{Psi}) = \left(\frac{Q[\text{gpm}]}{Cv} \right)^2$$

Headloss Chart



Cavitation Data



Main Components:

Pilot valves for superb regulation at high reliability

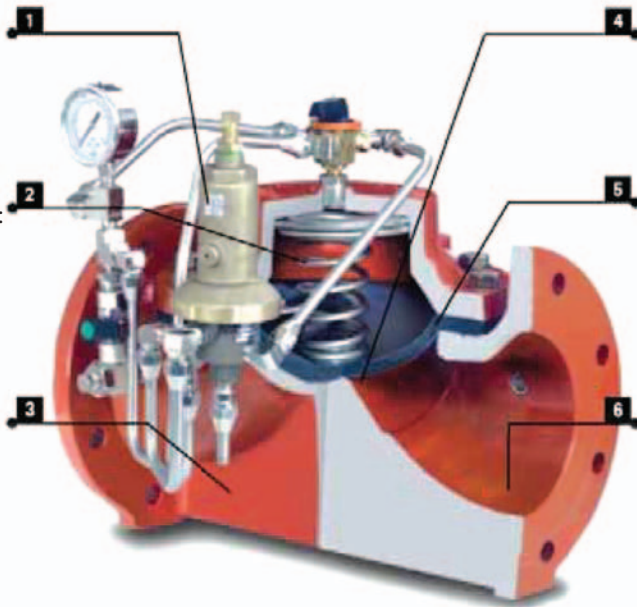
Internal SST spring: allows the use of wide range of diaphragm rubber types

Polymeric coating, UV and corrosion resistant

Unique Design Creating low losses at high flow rates

Flexible reinforced diaphragm-no bearing, guides or internal seals used

Wide materials variety



Components

Component No.	Description
1	Body
2	Bonnet
3	Diaphragm
4	Spring
5	Spring Disc
6	Bolt
7	Short Bolt
8	Washer
9	Nut
10	Suspension Ring (Hook)

