Technical Specifications
Rev. F - 09/2017

Masoneilan* **41005** Series

Complete Line of Rugged, Cage-Guided, Globe Valves with Lo-dB* & Anti-Cavitation Capabilities

BAKER HUGHES a GE company

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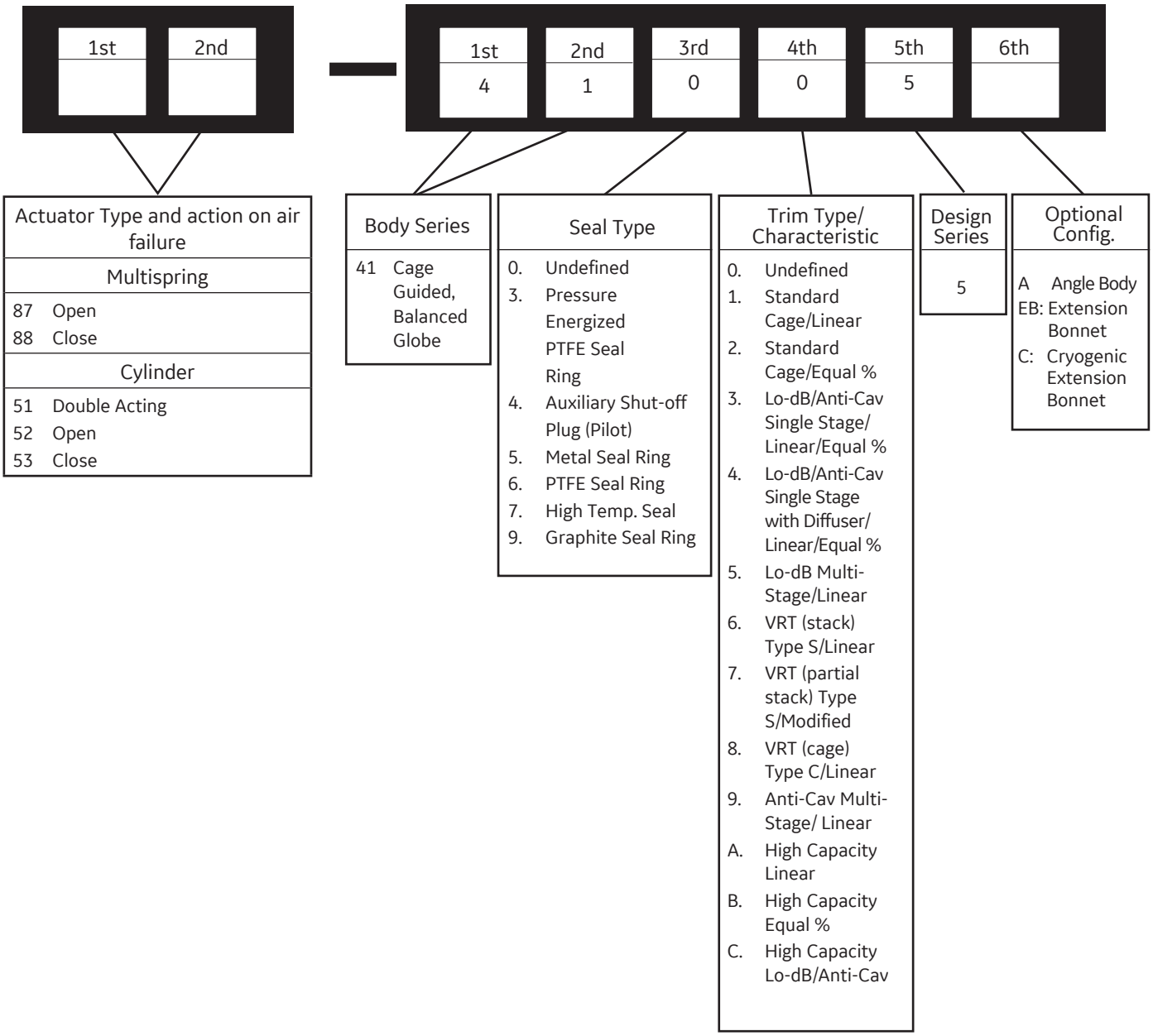
Numbering System



Engineered trim options are also available for high temperature and high pressure drop applications.
Please consult factory for details.

Ratings / Connections

◯ **Threaded** ● **Socket Weld** ■ **Butt Weld** □ **RF & RTJ**

Valve Size		ASME Class 150 to 1500 and equivalent PN				ASME Class 2500 and equivalent PN		
inch	mm							
2	50	■	●	□	◯	■	●	□
3 to 16 (1) (2)	80 to 400	■		□		■		□
3x2 (3)	80x50	■		□		■		
4x2	100x50	■		□		■		
4x3	100x80	■		□				
6x3	150x80	■		□				
6x4	150x100	■		□				
8x4	200x100	■		□				
8x6	200x150	■		□				
10x6	250x150	■		□				
10x8	250x200	■		□				
12x8	300x200	■		□				
16x12	400x300	■		□				
18	450	■		□				
20 (4)	500	■		□				
24 (5)	600	■		□				

Notes:
1. 6" High Capacity (150 mm) and 8" High Capacity (300 mm) available in ASME Classes 150 to 600 only.
2. 16" (400 mm) ASME Class 2500 available in Butt Weld end connections only.
3. Example: 3x2 size = valve with 3" body and 2" trim.
4. 20" (500 mm) available in ASME Classes 150 to 900 only.
5. 24" (600 mm) available in ASME Classes 150 to 600 only.
6. Angle body versions are available in 2" (50 mm) to 6" (150 mm) in ASME Classes 150 to 1500 with Raised Face and RTJ Flanged end connections only.
7. C onsult BHGE for DIN and special end connections and unlisted constructions.

▭ = ASME Class 2500 Ratings are available. Please consult factory for details.

Seal Type vs Temperature Range / Seat Leakage

Valve Model	Seal Type	Valve Size		Temperature Range[1]		Seat Leakage per IEC 534-4 and ANSI / FCI 70.2 Class
		inches	mm	Minimum	Maximum	
41305	Pressure Energized PTFE Seal Ring	2 - 24	50 - 600	-148°F (-100°C)	+450°F (+232°C)	IV (standard) V (optional)
		2 - 12 [3]	50 - 300		+575°F (+302°C)	
41405[2]	Auxiliary Pilot Plug with Metal Seal Ring	2	50	-320°F (-196°C)	+1050°F (+566°C)	IV (standard) V (optional)
		3 - 4	80 - 100	-320°F (-196°C)	+800°F (+427°C)	
		6 - 18	150 - 450	-320°F (-196°C)	+1050°F (+566°C)	
41505	Metal Seal Ring	2	50	-320°F (-196°C)	+1050°F (+566°C)	II
		3 - 4	80 - 100	-320°F (-196°C)	+800°F (+427°C)	II
		6 - 18	150 - 450	-320°F (-196°C)	+1050°F (+566°C)	III
		20 & 24	500 & 600	-51°F (-46°C)	+650°F (+343°C)	III
41605	PTFE Seal Ring	2 - 24	50 - 600	-20°F (-29°C)	+300°F (+149°C)	IV
41705	High Temp. Seal	4 - 12	100 - 300	-20° F (-29°C)	FTO +850°F (+454°C)	V
					FTC +1050°F (+566°C)	
41905	Graphite Seal Ring	2	50	-320°F (-196°C)	+1050°F (+566°C)	III
		3 - 4	80 - 100	-320°F (-196°C)	+800°F (+427°C)	III
		6 - 18	150 - 450	-320°F (-196°C)	+850°F (+454°C)	IV
		20 & 24	500 & 600	-51°F (-46°C)	+650°F (+343°C)	IV

Notes:
1. See Materials of Construction Tables for other temperature limitations.
2. Not available in 20" or 24" sizes.
3. Pressure Energized PTFE Seal w/ backup rings for 2-12" up to 575°F (302°C)

Seal Type vs Trim Type

Model No.	413X5	414X5 [1] [4]	415X5	416X5	417X5	419X5
Trim Type	**Seal Type**					
	Pressure Energized PTFE Seal Ring	Auxiliary Pilot Plug with Metal Seal Ring	Metal Seal Ring	PTFE Seal Ring	High Temp. Metal Seal	Graphite Seal Ring
Standard Trim 41X15/41X25	41315/41325 FTO or FTC[2]	41415/41425 FTC	41515/41525 FTO or FTC	41615/41625 FTO or FTC	41715/41725 FTO or FTC	41915/41925 FTO or FTC
Lo-dB Single Stage 41X35	41335 FTO	41435 FTC	41535 FTO	41635 FTO	41735 FTO	41935 FTO
Anti-Cavitation Single Stage 41X35	41335 FTC	41435 FTC	41535 FTC	41635 FTC	41735 FTC	41935 FTC
Lo-dB & Anti-Cavitation Single Stage with Internal Diffuser [3] 41X45	41345 FTC	41445 FTC	41545 FTC	41645 FTC	41745 FTC	41945 FTC
Lo-dB Multi-Stage 41X55	41355 FTO	-	41555 FTO	41655 FTO	41755 FTO	41955 FTO
High Pressure Anti-Cavitation VRT	41365[5] 41375[6]	-	-	-	-	-
Anti-Cavitation Multi-Stage 41X95	41395 FTC	-	41595 FTC	41695 FTC	41795 FTC	41995 FTC

Notes:
1. Flow direction for Pilot Plug Seal configuration is always FTC.
2. Seal ring must be installed in correct orientation relative to high pressure direction.
3. Flow direction with Internal Diffuser is always FTC.
4. 41405 is not available in 20" or 24" sizes.
5. 41365 available in 8", 10" and 12" sizes.
6. 41375 available in 3" to 10".
7. 41705 available in 4" to 12".

C_V and F_L versus Travel

Standard Trim

Models: 41315, 41415[1], 41515, 41615, 41715 and 41915

Flow Characteristic: LINEAR

Percent of Travel							10	20	30	40	50	60	70	80	90	100
F_L							0.94	0.94	0.93	0.93	0.92	0.92	0.91	0.91	0.90	0.90
Valve Size		ASME CLASS and equivalent PN	Orifice Diameter		Travel		Rated C_V									
inches	mm		in.	mm	in.	mm										
2	50	900-1500-2500	1.84	46.7	0.8	20.3	1.4	2.7	4.2	6	8	10	12.5	14	15.5	16
							2	4.9	8.3	13	19	25	30	35	38	40
2	50	150-600	2.5	63.5	1.5	38.1	2.7	5.1	7.9	11	15	19	23	26	29	30
3x2[2] 4x2	80x50 100x50	150-1500					4	9	15	24	35	47	57	65	71	75
3	80	2500														
3	80	150-1500	3.5	88.9	2	50.8	5	10	16	22	30	38	46	52	58	60
4x3 6x3	100x80 150x80						8	19	31	50	73	96	118	135	147	155
4	100	2500														
4	100	150-1500	4.38	111.3	2	50.8	9	16	25	35	48	60	72	83	91	95
6x4 8x4	150x100 200x100															
6	150	2500					12	29	48	77	113	149	182	209	228	240
6	150	150-1500	5.12	130.0	0.8[3]	20.3[3]	7	15	28	41	58	74	94	117	144	165
8x6 10x6	200x150 250x150															
8	200	2500			2	50.8	20	52	92	148	204	260	308	348	376	400
8	200	150-1500	6.5	165.1	1.5	38.1	17	37	71	104	145	187	237	295	361	415
10x8 12x8	250x200 300x200															
10	250	2500			2.5	36.5	32	83	147	237	326	416	493	557	602	640
10	250	150-1500	8	203.2	1.5	38.1	20	46	87	128	179	230	291	362	444	510
12	300	2500			3	76.2	50	130	230	370	510	650	770	870	940	1000
12	400	150-1500	9.75	247.65	2	50.8	31	69	131	193	270	347	439	547	670	770
16x12	400x300															
16	400	2500			3.75	95.3	70	182	322	518	714	910	1078	1218	1316	1400
16	400	150-1500	13	330.2	2.5	63.5	51	128	211	320	448	576	730	922	1114	1280
					4	101.6	104	268	464	744	1024	1304	1544	1720	1880	2000
					5	127.0	130	335	580	930	1280	1630	1930	2150	2350	2500
18	450	150-1500	14.5	368.3	3.5	88.9	84	217	376	603	829	1056	1251	1393	1523	1620
					5	127.0	120	310	536	859	1183	1506	1783	1987	2171	2310
					7	177.8	168	434	752	1205	1659	2112	2501	2786	3046	3240
20	500	150-900	19	482.6	4	101.6	79	422	790	1158	1517	1860	2182	2481	2753	3000
					6	152.4	244	792	1343	1866	2342	2762	3124	3431	3688	3900
					9	228.6	524	1356	2103	2724	3219	3604	3907	4147	4342	4500
24	600	150-600	23	330.2	4	101.6	114	608	1138	1668	2187	2688	3161	3604	4011	4300
					6	152.4	345	1115	1892	2635	3321	3933	4468	4928	5320	5600
					9	228.6	703	1832	2871	3765	4499	5094	5569	5952	6265	6500
					11	279.4	964	2327	3511	4460	5191	5749	6180	6519	6793	7000

Notes: 1. Model 41415 is not available in 20" and 24" sizes.
2. Ex. 3x2 size = valve with 3" body with standard 2" trim.
3. Travel of 1.5 inches (38.1 mm) for 41405.

C_V and F_L versus Travel

Balanced Trim
Models: 413A5; 415A5; 416A5; 419A5 Series

Flow Characteristic: LINEAR, High Capacity

Percent of Travel							10	20	30	40	50	60	70	80	90	100
F_L							0.94	0.94	0.93	0.93	0.92	0.92	0.91	0.91	0.90	0.90
Valve Size		ASME CLASS and equivalent PN	Orifice Diameter		Travel		Rated C_V (3)									
inches	mm		in.	mm	in.	mm										
6	150	150-600	6.5	165	2.5	64	67	123	185	246	303	353	396	430	454	469
							71	132	197	262	323	377	423	458	485	501
8	200		8	203	3.5	89	109	202	303	403	497	580	649	705	745	770
							125	231	346	461	568	663	742	805	851	880

C_V and F_L versus Travel

Standard Trim
Models: 41325, 41425[1], 41525, 41625, 41725 and 41925

Flow Characteristic: EQUAL PERCENTAGE

Percent of Travel							10	20	30	40	50	60	70	80	90	100
F_L							0.94	0.94	0.94	0.94	0.94	0.94	0.93	0.92	0.92	0.90
Valve Size		ASME CLASS and equivalent PN	Orifice Diameter		Travel		Rated C_V									
in.	mm		in.	mm	in.	mm										
2	50	900-1500-2500	1.84	46.7	0.8	20.3	0.2	0.4	0.8	1.3	2.1	3.8	6.7	10	12	14
							0.5	1.1	2	3.2	5.2	9.5	17	25	31	35
2 3x2[2] 4x2	50 80x50 100x50	150-600	2.5	63.5	1.5	38.1	0.3	0.8	1.5	2.3	4	7	12	18	23	26
							0.8	2	4	6	10	18	31	46	58	65
3	80	2500														
3 4x3 6x3	80 100x80 150x80	150-1500	3.5	88.9	2	50.8	0.7	1.7	3	5	8	15	27	39	50	56
							1.8	4	8	13	21	38	67	100	124	140
4	100	2500														
4 6x4 8x4	100 150x100 200x100	150-1500	4.38	111.3	2	50.8	1.2	3	5	8	13	24	43	64	81	90
6	150	2500					3	7	13	20	33	61	107	160	200	225
6 8x6 10x6	150 200x150 250x150	150-1500	5.12	130.0	2	50.8	4	8	15	24	35	54	80	108	130	144
8	200	2500					9	21	39	60	87	135	200	269	326	360
8 10x8 12x8	200 250x200 300x200	150-1500	6.5	165.1	2.5	63.5	6	14	25	39	56	86	128	172	208	230
10	250	2500					14	34	62	97	140	215	320	430	521	575
10	250	150-1500	8	203.2	3	76.2	9	21	39	60	87	135	200	269	326	360
12	300	2500					23	53	97	151	219	337	500	672	815	900
12 16x12	400 400x300	150-1500	9.75	247.65	3.75	95.3	13	30	54	84	122	187	278	374	453	500
16	400	2500					32	75	136	212	306	471	700	941	1142	1260
16	400	150-1500	13	330.2	5	127.0	22	53	97	151	219	337	500	672	815	900
							56	133	243	378	547	842	1251	1681	2038	2250
18	450	150-1500	14.5	368.3	5	127.0	29	69	125	195	282	434	645	867	1051	1160
					7	177.8	72	171	313	487	705	1085	1612	2167	2627	2900
20	500	150-900	19	482.6	4	101.6	12	82	162	257	386	589	854	1119	1375	1620
					9	228.6	75	218	404	656	981	1426	2109	2944	3596	4050
24	600	150-600	23	330.2	6	152.4	39	139	249	386	574	852	1256	1694	2118	2520
					11	279.4	133	344	572	1005	1608	2406	3553	4814	5692	6300

Notes: 1. Model 41425 is not available in 20" and 24" sizes.
2. Ex. 3x2 size = valve with 3" body with standard 2" trim.

C_V and F_L versus Travel

Balanced Trim
Models: 413B5; 415B5; 416B5; 419B5 Series

Flow Characteristic: EQUAL PERCENT, High Capacity

Percent of Travel							10	20	30	40	50	60	70	80	90	100
F_L							0.94	0.94	0.93	0.93	0.92	0.92	0.91	0.91	0.90	0.90
Valve Size		ASME CLASS and equivalent PN	Orifice Diameter		Travel		Rated C_V (3)									
inches	mm		in.	mm	in.	mm										
6	150	150-600	6.5	165	2.5	64	20	32	53	85	131	191	261	331	394	437
							21	34	56	90	139	201	275	349	415	461
8	200		8	203	3.5	89	51	79	124	189	277	383	494	595	670	707
							63	97	152	232	340	470	607	731	822	869

C_V and F_L versus Travel

Single Stage Lo-dB/Anti-Cavitation
Models: 41335, 41435[(1)], 41535, 41635, 41735, 41935, 41X45 (with internal diffuser)

Flow Characteristic: LINEAR

Percent of Travel							10	20	30	40	50	60	70	80	90	100
F_L							0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Valve Size		ASME CLASS and equivalent PN	Orifice Diameter		Travel		Rated C_V									
in.	mm		in.	mm	in.	mm										
2	50	900-2500	1.84	46.7	0.8	20.3	1	2	3	4	5	6	7	8	9	10
							1.3	2.6	3.9	5.2	6.5	7.8	9.1	10.4	11.7	13
							1.7	3.4	5.1	6.8	8.5	10.2	11.9	13.6	15.3	17
							2.3	4.6	6.9	9.2	11.5	13.8	16.1	18.4	20.7	23
							3	6	9	12	15	18	21	24	27	30
2	50	150-600	2.5	63.5	1.5	38.1	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25
							3	6	10	13	16	19	22	26	29	32
3x2 4x2	80x50 100x50	150-1500					4	9	13	17	22	26	30	34	39	43
							6	12	17	23	29	35	41	46	52	58
3	80	2500					7	14	22	29	36	43	50	58	65	72
3 4x3 6x3	80 100x80 150x80	150-1500	3.5	88.9	2	50.8	4	8	12	16	20	24	28	32	36	40
							5	11	16	22	27	32	38	43	49	54
							7	14	22	29	36	43	50	58	65	72
							10	19	29	38	48	57	67	76	86	95
4	100	2500					13	25	38	50	63	75	88	100	113	125
4 6x4 8x4	100 150x100 200x100	150-1500	4.38	111.3	2	50.8	7	13	20	26	33	39	46	52	59	65
							9	17	26	34	43	51	60	68	77	85
							11	22	33	44	55	66	77	88	99	110
							15	30	45	60	75	90	105	120	135	150
6	150	2500					20	39	59	78	98	117	137	156	176	195
6 8x6 10x6	150 200x150 250x150	150-1500	5.12	130.0	2.5	63.5	10	20	30	40	50	60	70	80	90	100
							13	26	39	52	65	78	91	104	117	130
							18	35	53	70	88	105	123	140	158	175
							23	46	69	92	115	138	161	184	207	230
8	200	2500					30	60	90	120	150	180	210	240	270	300
8 10x8 12x8	200 250x200 300x200	150-1500	6.5	165.1	2.5	63.5	16	32	48	64	80	96	112	128	144	160
							21	42	63	84	105	126	147	168	189	210
							27	54	81	108	135	162	189	216	243	270
							36	72	108	144	180	216	252	288	324	360
10	250	2500			3	76.2	50	100	150	200	250	300	350	400	450	500
10	250	150-1500	8	203.2	2.5	63.5	20	40	60	80	100	120	140	160	180	200
							26	52	78	104	130	156	182	208	234	260
							36	72	108	144	180	216	252	288	324	360
					3.5	88.9	50	100	150	200	250	300	350	400	450	500
12	300	2500					65	130	195	260	325	390	455	520	585	650
12 16x12	400 400x300	150-1500	9.75	247.7	2.5	63.5	45	90	135	180	225	270	315	360	405	450
							60	120	180	240	300	360	420	480	540	600
					4	101.6	81	162	243	324	405	486	567	648	729	810
16	400	2500			5	127	110	220	330	440	550	660	770	880	990	1100
16	400	150-1500	13	330.2	2.5	63.5	73	146	219	292	365	438	511	584	657	730
					4	101.6	99	198	297	396	495	594	693	792	891	990
							130	260	390	520	650	780	910	1040	1170	1300
					6	152.4	180	360	540	720	900	1080	1260	1440	1620	1800
18	450	150-1500	14.5	368.3	3.5	88.9	107	214	321	428	535	642	749	856	963	1070
					5	127	139	278	417	556	695	834	973	1112	1251	1390
							185	370	555	740	925	1110	1295	1480	1665	1850
					7	177.8	243	486	729	972	1215	1458	1701	1944	2187	2430
20	500	150-900	19	482.6	4	101.6	190	380	570	760	950	1140	1330	1520	1710	1900
					6	152.4	280	560	840	1120	1400	1680	1960	2240	2520	2800
					9	228.6	350	700	1050	1400	1750	2100	2450	2800	3150	3500
24	600	150-600	23	584.2	4	101.6	270	540	810	1080	1350	1620	1890	2160	2430	2700
					6	152.4	350	700	1050	1400	1750	2100	2450	2800	3150	3500
					9	228.6	480	960	1440	1920	2400	2880	3360	3840	4320	4800
					11	279.4	540	1080	1620	2160	2700	3240	3780	4320	4860	5400
					15	381	660	1320	1980	2640	3300	3960	4620	5280	5940	6600

Notes: 1. Model 41435 is not available in 20" and 24" sizes.

2. Ex. 3x2 size = valve with 3" body with standard 2" trim.

C_V and F_L versus Travel

Balanced Single Stage Anti-Cav / LodB Trim
Models: 413C5; 415C5; 416C5; 419C5 Series

Flow Characteristic: LINEAR High Capacity

Percent of Travel							10	20	30	40	50	60	70	80	90	100
F_L							0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Valve Size		ASME CLASS	Orifice Diameter		Travel		Rated C_V (3)									
inches	mm		in.	mm	in.	mm										
6	150	150-600	6.5	165	2.5	64	27	54	81	108	135	162	189	216	243	270
							34	67	101	135	168	202	236	269	303	337
					3	76	41	82	123	164	205	246	287	328	369	410
8	200	150-600	8	203	3.5	89	52	104	155	207	259	311	362	414	466	518
							63	126	188	251	314	377	439	502	565	630

C_V and F_L versus Travel

Single-Stage Lo-dB /Anti-Cavitation
Models: 41335, 41435, 41535, 41635, 41735 and 41935

Flow Characteristic: EQUAL PERCENTAGE

Percent of Travel							10	20	30	40	50	60	70	80	90	100
F_L							0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Valve Size		ASME CLASS and equiva-lent PN	Office Diameter		Travel		Rated C_V									
in.	mm		in.	mm	in.	mm										
2	50	900-2500	1.84	46.7	0.8	20.3	0.2	0.3	0.6	1	1.6	3	5.2	7.9	9.8	11
							0.2	0.5	0.9	1.5	2.4	4.4	7.6	11.4	14.2	16
							0.3	0.7	1.3	2.1	3.4	6.3	11	16.5	20.4	23
2	50	150-600	2.5	63.5	1.5	38.1	0.3	0.8	1.5	2.4	3.8	7.1	12.4	18.5	23.1	26
3x2[1] 4x2	80x50 100x50	150-1500					0.5	1.2	2.2	3.5	5.6	10.4	18.1	27.1	33.8	38
3	80	2500					0.7	1.7	3.1	4.9	8	14.8	25.8	38.5	48	54
3 4x3 6x3	80 100x80 150x80	150-1500	3.5	88.9	2	50.8	0.6	1.3	2.7	4.4	7.1	12.8	22.5	33.6	41.6	47
							0.9	1.9	3.8	6.2	10.1	18.2	32.1	47.9	59.4	67
4	100	2500					1.2	2.7	5.5	8.9	14.4	26.1	46	68.6	85.1	96
4 6x4 8x4	100 150x100 200x100	150-1500	4.38	111.3	2	50.8	0.9	2.2	4	6.2	10.3	19	33.3	49.8	62.2	70
							1.3	3.1	5.8	8.9	14.7	27.2	47.6	71.2	88.9	100
6	150	2500					1.9	4.5	8.4	12.9	21.3	39.4	69.1	103.2	128.9	145
6 8x6 10x6	150 200x150 250x150	150-1500	5.12	130.0	2.5	63.5	3	6	12	18	27	41	61	82	99	110
							3.9	9.1	16.9	25.9	37.6	58.3	86.4	116	140.5	155
8	200	2500					5.7	13.2	24.5	37.7	54.7	84.8	125.4	168.3	203.8	225
8 10x8 12x8	200 250x200 300x200	150-1500	6.5	165.1	3	76.2	4	11	19	30	44	67	100	135	163	180
							6	15	28	44	64	97	145	195	236	260
10	250	2500					9	22	41	64	92	141	209	281	340	375
10	250	150-1500	8	203.2	3.5	88.9	6	14	25	39	56	86	128	172	208	230
							9	20	37	57	83	128	190	254	308	340
12	300	2500					12	29	53	82	119	183	270	363	439	485
12 16x12	400 400x300	150-1500	9.75	247.7	5	127	10	24	43	67	97	150	222	299	363	400
							15	34	62	97	140	215	320	430	521	575
16	400	2500					21	49	89	139	201	309	459	617	748	825
16	400	150-1500	13	330.2	6	152.4	17	39	72	112	162	249	370	497	603	665
							24	56	103	160	232	356	529	711	861	950
							34	80	146	228	329	507	752	1009	1223	1350

Note: 1. Ex. 3x2 size = valve with 3" body with standard 2" trim.

C_V and F_L versus Travel

Multi-Stage Lo-dB
Models: 41355, 41555, 41655, 41755 and 41955

Flow Characteristic: LINEAR

Percent of Travel							10	20	30	40	50	60	70	80	90	100
F_L							0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Valve Size		ASME CLASS and equivalent PN	Orifice Diameter		Travel		Rated C_V									
in.	mm		in.	mm	in.	mm										
2	50	900-2500	1.84	46.7	0.8	20.3	1.2	2.4	3.6	4.8	6	7.2	8.4	9.6	10.8	12
							1.9	3.8	5.7	7.6	9.5	11.4	13.3	15.2	17.1	19
							2.4	4.8	7.2	9.6	12	14.4	16.8	19.2	21.6	24
2	50	150-600	2.5	63.5	1.5	38.1	3	6	9	12	15	18	21	24	27	30
3x2[1] 4x2	80x50 100x50	150-1500					4	9	13	17	22	26	30	34	39	43
3	80	2500					5	11	16	21	27	32	37	42	48	53
3	80	150-1500	3.5	88.9	2	50.8	5	10	15	20	25	30	35	40	45	50
4x3 6x3	100x80 150x80						8	15	23	30	38	45	53	60	68	75
4	100	2500					10	19	29	38	48	57	67	76	86	95
4	100	150-1500	4.38	111.3	2	50.8	7	14	22	29	36	43	50	58	65	72
6x4 8x4	150x100 200x100						11	21	32	42	53	63	74	84	95	105
6	150	2500					13	26	39	52	65	78	91	104	117	130
6	150	150-1500	5.12	130.0	2.5	63.5	10	19	29	38	48	58	67	77	86	96
8x6 10x6	200x150 250x150						15	30	45	60	75	90	105	120	135	150
8	200	2500					19	38	57	76	95	114	133	152	171	190
8	200	150-1500	6.5	165.1	2.5	63.5	16	31	47	62	78	93	109	124	140	155
10x8 12x8	250x200 300x200						25	50	75	100	125	150	175	200	225	250
10	250	2500			3	76.2	30	60	90	120	150	180	210	240	270	300
10	250	150-1500	8	203.2	2.5	63.5	23	46	69	92	115	138	161	184	207	230
					3	76.2	35	70	105	140	175	210	245	280	315	350
12	300	2500					42	84	126	168	210	252	294	336	378	420
12	400	150-1500	9.75	247.7	2.5	63.5	38	75	113	150	188	225	263	300	338	375
16x12	400x300				4	101.6	60	120	180	240	300	360	420	480	540	600
16	400	2500			5	127	73	145	218	290	363	435	508	580	653	725
16	400	150-1500	13	330.2	2.5	63.5	50	100	150	200	250	300	350	400	450	500
					4	101.6	80	160	240	320	400	480	560	640	720	800
					6	152.4	111	221	332	442	553	663	774	884	995	1105
18	450	150-1500	14.5	368.3	3.5	88.9	73	146	219	292	365	438	511	584	657	730
					5	127	117	234	351	468	585	7002	819	936	1053	1170
					7	177.8	146	292	438	584	730	876	1022	1168	1314	1460
20	500	150-900	19	482.6	4	101.6	110	220	330	440	550	660	770	880	990	1100
					6	152.4	160	320	480	640	800	960	1120	1280	1440	1600
					9	228.6	230	460	690	920	1150	1380	1610	1840	2070	2300
24	600	150-600	23	584.2	4	101.6	130	260	390	520	650	780	910	1040	1170	1300
					6	152.4	190	380	570	760	950	1140	1330	1520	1710	1900
					9	228.6	280	560	840	1120	1400	1680	1960	2240	2520	2800
					11	279.4	320	640	960	1280	1600	1920	2240	2560	2880	3200
					15	381	420	840	1260	1680	2100	2520	2940	3360	3780	4200

Note: 1. Ex. 3x2 size=valve with 3" body with standard 2" trim

C_V and F_L versus Travel

Multi-Stage Anti-Cavitation
Models: 41395, 41595, 41695, 41795 and 41995

Flow Characteristic: LINEAR

Percent of Travel							10	20	30	40	50	60	70	80	90	100
F_L							0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Valve Size		ASME CLASS and equivalent PN	Orifice Diameter		Travel		Rated C_V									
in.	mm		in.	mm	in.	mm										
2	50	900-2500	1.521	38.6	0.8	20.3	0.9	1.8	2.7	3.6	4.5	5.4	6.3	7.2	8.1	9
							1.3	2.6	3.9	5.2	6.5	7.8	9.1	10.4	11.7	13
							1.5	3	4.5	6	7.5	9	10.5	12	13.5	15
2 3x2[1] 4x2	50 80x50 100x50	150-600	2.151	54.6	1.5	38.1	2.3	4.6	6.9	9.2	12	14	16	18	21	23
							3.5	7	10.5	14	18	21	25	28	32	35
3	80	2500					4.4	8.8	13.2	18	22	26	31	35	40	44
3 4x3 6x3	80 100x80 150x80	150-1500	3.15	80.0	1.5	38.1	4	8	12	16	20	24	28	32	36	40
							6.5	13	20	26	33	39	46	52	59	65
4	100	2500					8	16	24	32	40	48	56	64	72	80
4x3 6x3	100x80 150x80	150-1500	3.15	80.0	2	50.8	9.3	18.6	28	37	47	56	65	74	84	93
4 6x4 8x4	100 150x100 200x100	150-1500	4.023	102.2	2	50.8	6.5	13	20	26	33	39	46	52	59	65
							10.5	21	32	42	53	63	74	84	95	105
6	150	2500					12.5	25	38	50	63	75	88	100	113	125
6 8x6 10x6	150 200x150 250x150	150-1500	4.777	121.3	2.5	63.5	10	20	30	40	50	60	70	80	90	100
							16	32	48	64	80	96	112	128	144	160
8	200	2500					20	39	59	78	98	117	137	156	176	195
8 10x8 12x8	200 250x200 300x200	150-1500	6.146	156.1	2.5	63.5	17	34	51	68	85	102	119	136	153	170
							26	52	78	104	130	156	182	208	234	260
10	250	2500			3	76.2	32	64	96	128	160	192	224	256	288	320
10	250	150-1500	7.63	193.8	2.5	63.5	23	46	69	92	115	138	161	184	207	230
					3.5	88.9	38	76	114	152	190	228	266	304	342	380
12	300	2500					45	90	135	180	225	270	315	360	405	450
12 16x12	400 400x300	150-1500	9.373	238.1	2.5	63.5	40	80	120	160	200	240	280	320	360	400
					4	101.6	64	128	192	256	320	384	448	512	576	640
16	400	2500			5	127	80	160	240	320	400	480	560	640	720	800
16	400	150-1500	13	330.2	2.5	63.5	60	120	180	240	300	360	420	480	540	600
					4	101.6	95	190	285	380	475	570	665	760	855	950
					6	152.4	131	262	393	524	655	786	917	1048	1179	1310

Note: 1. Ex. 3x2 size=valve with 3" body with standard 2" trim

C_V and F_L versus Travel

Variable Resistance Trim (VRT) Type S
Model: 41365

Flow Characteristic: LINEAR

Percent of Travel								10	20	30	40	50	60	70	80	90	100
F_L								0.999	0.999	0.999	0.998	0.997	0.996	0.994	0.992	0.990	0.988
Valve Size		ASME CLASS and equivalent PN	Orifice Diameter		Travel		Minimum Operable C_V	Rated C_V									
in.	mm		in.	mm	in.	mm											
8	200	300 - 1500	2.99	75.9	4	101.6	2.1	12	24	36	48	60	72	84	96	108	120
10	250	300 - 1500	4.1	104.1	4	101.6	2.3	19	38	57	76	95	114	133	152	171	190
12	300	300 - 1500	4.91	124.7	4	101.6	2.8	27	54	81	108	135	162	189	216	243	270

C_V and F_L versus Travel

Variable Resistance Trim (VRT) Partial Stack Type S
Model: 41375

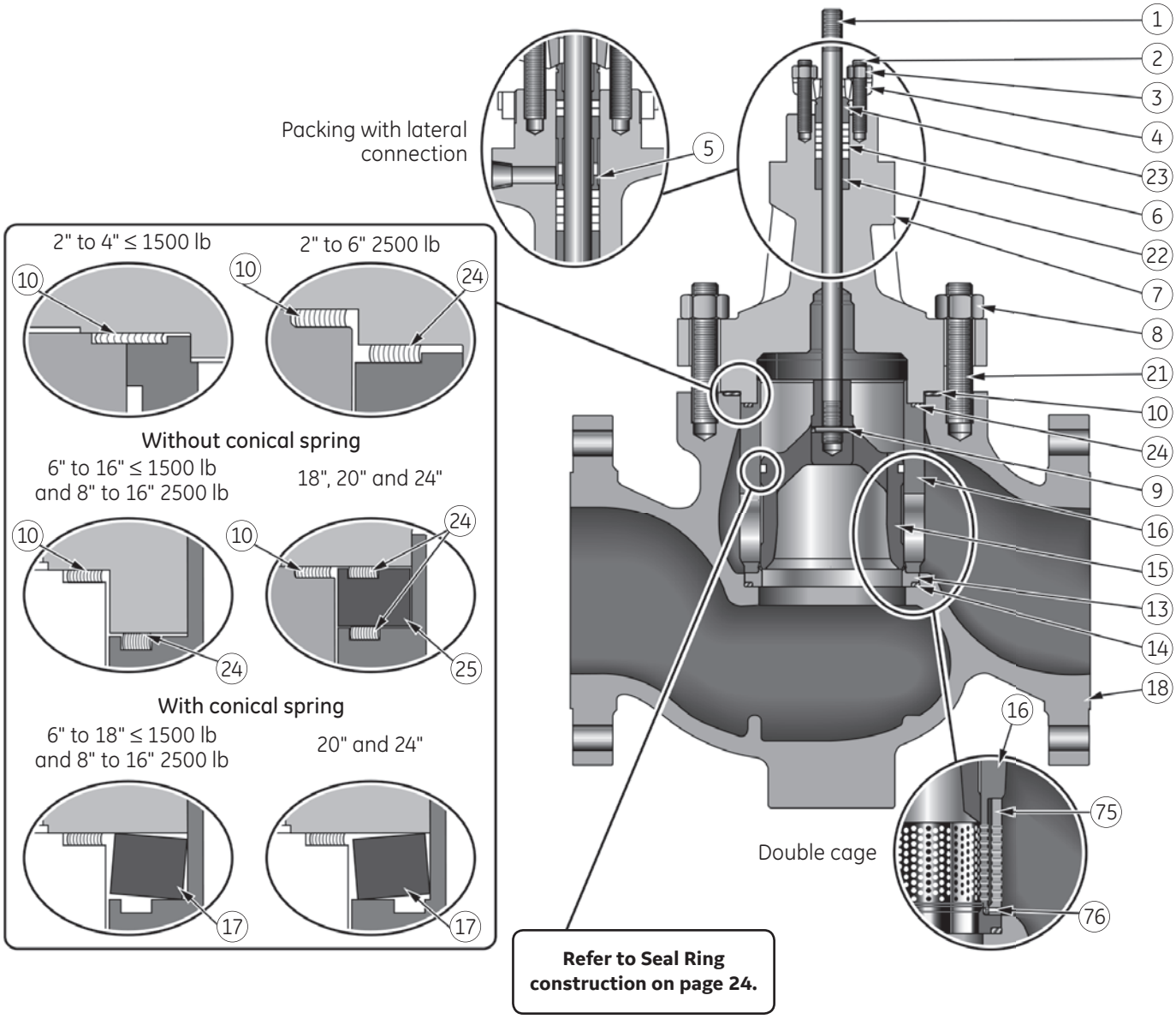
Flow Characteristic: LINEAR

Percent of Travel									10	20	30	40	50	60	70	80	90	100
Valve Size		ASME CLASS and equivalent PN	Orifice Diameter		Travel		Minimum Operable C_V		Rated C_V									
in.	mm		in.	mm	in.	mm												
3	80	150-1500	2.42	61.5	2.5	63.5	1.0	Cv	7	11	15	23	33	42	54	67	83	95
4	100	2500						Fl	0.998	0.996	0.991	0.98	0.958	0.927	0.92	0.92	0.92	0.92
4	100	150-1500	2.99	75.9	2.5	63.5	1.3	Cv	7	11	17	25	36	52	66	86	113	140
6	150	2500						Fl	0.998	0.996	0.991	0.98	0.956	0.927	0.92	0.92	0.92	0.92
6	150	150-1500	3.99	101.3	3.5	88.9	1.8	Cv	14	22	35	57	82	115	163	210	245	270
8	200	2500						Fl	0.998	0.995	0.987	0.969	0.929	0.92	0.92	0.92	0.92	0.92
8	200	150-1500	5.36	136.1	4	101.6	3.8	Cv	22	38	58	99	140	192	280	360	425	480
10	250	2500						Fl	0.998	0.994	0.984	0.962	0.926	0.92	0.92	0.92	0.92	0.92
10	250	150-1500	7.49	190.2	4	101.6	3.9	Cv	22	43	65	110	165	240	375	520	640	750
12	300	2500						Fl	0.998	0.994	0.982	0.956	0.923	0.92	0.92	0.92	0.92	0.92

Note: Throttling at less than minimum operable C_V levels for extended period of time can result in trim damage.

Body S/A Construction

Models 41X15, 41X25, 41X35, 41X45, 41X55, 41X95, 41XA5, 41XB5, & 41XC5

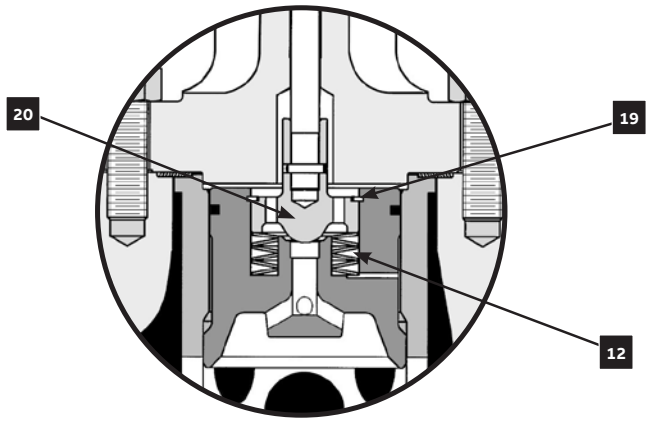


Note: 6" HC and 8" HC are not available with conical spring construction.

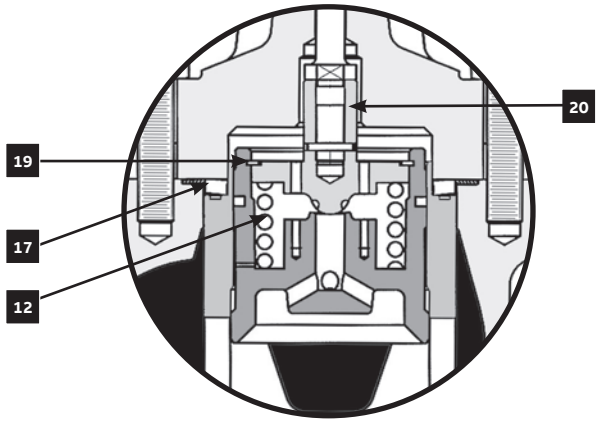
Body S/A Construction

Models 41X15, 41X25, 41X35, 41X45, 41X55, 41X95, 41XA5, 41XB5, & 41XC5

Ref. No.		Part Name
	1	Valve Plug Stem
	2	Packing Flange Stud
	3	Packing Flange Nut
	4	Packing Flange
	5	Packing Spacer
●	6	Packing
	7	Bonnet
	8	Valve Body Nut
	9	Plug Stem Pin
●	10	Body Gasket
✻	12	Pilot Spring(s)
	13	Seat Ring
●	14	Seat Ring Gasket
	15	Valve Plug (or Piston)
	16	Cage
✛	17	Conical Spring
	18	Valve Body
✻	19	Retaining Ring
✻	20	Auxiliary Pilot Plug
	21	Valve Body Stud
	22	Guide Bushing
	23	Packing Follower
●	24	Cage Gasket
✪ ●	31	Tec Seal
❍ ●	35	Ni-resist® Seal Ring
★ ●	40	PTFE Seal Ring
★ ●	41	Nordel® Backup Ring
▲	42	High Temp Seal
❑ ●	45	Graphite Seal Ring
●	46	Ni-resist® Backup Ring
	75	Double cage
	76	Pin



Pilot Balanced Construction Model 41405
Sizes 2" to 4" shown



Pilot Balanced Construction Model 41405
Applications above 450°F (232°C) to 1050°F (566°C)
Sizes 6" to 18" shown

✻ For 41405 Series Valves Only
✛ For all Valves Sizes above 450°F (232°C)
★ For 41605 Series Valves Only
● Recommended Spare Parts
▲ For use with 41705 Series Valves Only
❑ For 41905 Series Valves Only
❍ For 41405 / 41505 Series Valves Only
✪ For 41305 Series Valves Only

Note: 6" HC and 8" HC are not available with pilot construction.

Materials of Construction

Models 41X15, 41X25, 41X35, 41X45, 41X55, & 41X95 / Models 41XA5, 41XB5 & 41XC5 limited to 575°F
Standard Carbon Steel Version

Ref. No	Temperature Range		-20°F (-29°C)	450°F (232°C)	650°F (343°C)	800°F (427°C)
	Description		Standard Materials			
1	Plug Stem		17-4 PH St. St. ASTM A564 GR 630		See Optional Materials	
2	Packing Flange Stud		304 St. St. ASTM A193 GR B8			
3	Packing Flange Nut		304 St. St. ASTM A194 GR 8			
4	Packing Flange		Carbon Steel ASTM A105 Zinc Plated			
5	Packing Spacer		303 St. St. ASTM A582 TY 303			
6	Packing		PTFE / Carbon Fiber (ANSI Class 150-900) PTFE / Carbon and Graphite Wiper Rings (ANSI Class 1500 and 2500)		See Optional Materials	
7	Valve Bonnet		Carbon Steel ASTM A216 Grade WCC			
8	Valve Body Nut		Carbon Steel ASTM A194 GR 2H			
9	Plug Stem Pin		316 St. St. ASTM A479 TY 316			
10	Valve Body Gasket		316L St. St. w/Flexible Graphite Filler (Spiral Wound)			
12	Pilot Spring(s) (41405 Only)	2" to 4"	Inconel X-750 AMS 5598 (Stacked Washers)			
		6" to 16"	Inconel X-750 ASTM B637 GR 688			
13	Seat Ring		410 St. St. ASTM A479 TY 410 Hardened		See Optional Materials	
14	Seat Ring Gasket		316L St. St. w/Flexible Graphite Filler (Spiral Wound)			
15	Valve Plug		17-4 PH St. St. ASTM A747 GR CB7CU-1 Condition H1075		See Optional Materials	
16	Cage		Martensitic St. St. ASTM A487 GR CA6NM CL B Hard Chrome Plated			
17	Conical Spring[1] (6" to 24")		See Note 1	17-4 PH ASTM A564 GR 630 Condition H1075	Inconel X-750 ASTM B637 + Shot Peening	
18	Valve Body		Carbon Steel ASTM A216 Grade WCC			
19	Retaining Ring (41405 Only)		Inconel X-750 AMS 5598			
20	Auxiliary Pilot Plug (41405 Only)	2" to 4"	410 St. St. ASTM A479 TY 410 Hardened			
		6" to 16"	Martensitic St. St. ASTM A487 GR CA6NM CL B with Chrome Plated Guide and Hardfaced Seat			
21	Valve Body Stud		Alloy Steel ASTM A193 GR B7			
22	Guide Bushing		440C St. St. ASTM A276 TY 440C			
23	Packing Follower		Solution Annealed 316L St. St. Hrc 22 Maximum			
-	Internal Diffuser[2] (6" to 24")		316 St. St. ASTM A479 TY 316 with Hardfaced Seat			
24	Cage Gasket[3]		316L St. St. w/Flexible Graphite Filler (Spiral Wound)		See Note 3	
30	Retainer		17-4 PH St. St. H1075			
31	Seal Ring		See Page 24			
35						
40						
41						
42						
45						
46						

Notes: 1. Conical spring only required for valve sizes 6" to 24" for applications > 450°F (232°C).
2. Internal Diffuser includes an internal 316SS Seat Ring with hardfaced seat. This part replaces the Seat Ring (Ref. No. 13) when this option is selected. See graphic on page 15.
3. Cage gasket only required for valve sizes 6" to 24" for applications ≤ 450°F (232°C) and all applications for 2" to 6" ANSI 2500 Class ratings only.

Review use of optional materials and configurations for temperature ranges indicated. Standard materials listed may still be applicable depending on specific service conditions. Consult Masoneilan for appropriate material combinations.

Materials of Construction

Models 41X15, 41X25, 41X35, 41X45, 41X55, & 41X95 / Models 41XA5, 41XB5 & 41XC5 limited to 575°F
Standard Stainless Steel Version[1]

Ref. No	Temperature Range	-320°F (-196°C)	-148°F (-100°C)	-50°F (-46°C)	-20°F (-29°C)	450°F (232°C)	650°F (343°C)	800°F (427°C)	850°F (454°C)	950°F (510°C)	1050°F (566°C)
	Description	**Standard Materials**									
1	Plug Stem	See Optional Materials			316 St. St. ASTM A479 TY 316			See Optional Materials			
7 18	Valve Bonnet[2] Valve Body	316 St. St. ASTM A351 GR CF8M									
13	Seat Ring	316 St. St. ASTM A479 TY 316 with Hardfaced Seat									
15	Valve Plug	316 St. St. ASTM A479 TY 316 with Hardfaced Seat									
16	Cage	316 St. St. ASTM A479 TY 316 Chrome-Plated						See Optional Materials			
17	Conical Spring (6" to 16")[3]	See Optional Materials				Inconel X-750 ASTM B637 + Shot Peening					
20	Auxiliary Pilot Plug (41405 Only)	316 St. St. ASTM A479 TY 316 with Chrome Plated Guide and Hardfaced Seat									
22	Guide Bushing	316 St. St. ASTM A479 TY 316 with Hardfacing									
		Stellite or Equivalent 6 UNS 30006 (HRC 22 Max.)									
21	Valve Body Stud				ASTM A193 GR B7 – ZINC PLATING		A 193 Gr B7	ASTM A 193 Gr B16			
			ASTM A320 GR L7 ZINC PLATING								
		ASTM A 193 GR B8 class 2 (optional for 2" and 3" ASME class 300 and 600 only)									
		ASTM A453 GRADE 660 or ASTM A193 GRADE B8RA[4]									
8	Valve Body Nut				ASTM A194 GR 2H – ZINC PLATING		A 194 Gr 2H				
			ASTM A194 GR 7 – ZINC PLATING					ASTM A 194 Gr 7			
		ASTM A 194 Gr 8 (optional for 2" and 3" ASME class 300 and 600 only)									
		ASTM A 194 Gr 8[4]									
30	Retainer	17-4 PH St. St. H1075 Hardfacing Stellite No. 6 on 316 St. St.									

Notes:
1. Materials for other components are same as listed for Standard Carbon Steel Version.
2. Extension bonnet : use a low temperature extension bonnet between -46°C and -100°C. Use a cryogenic bonnet between -101°C and -196°C.
3. Conical spring only required for valve sizes 6" to 24" for applications > 450°F (232°C).
4. Bolting must be checked by the Engineering Department.

Optional Configurations and Materials

Ref. No.	Temperature Range		-320°F (-196°C)	-100°F (-73°C)	-50°F (-46°C)	-20°F (-46°C)	650°F (343°C)	800°F (427°C)	1050°F (566°C)
	Description		**Optional Materials**						
1	Plug Stem		A286 Super Alloy ASTM A638 GR 660						
6	Packing		PTFE / Carbon Fiber						
					LE* Packing[1]				
			Flexible Graphite						
7	Valve Bonnet					Chrome-Moly Steel ASTM A217 Grade WC6 or Grade WC9			
18	Valve Body			Carbon Steel ASTM A 352 Grade LCC					
13	Seat Ring	2" to 4"	316 St. St. ASTM A479 TY 316 with Hardfaced Seat						
		6" to 16"		Martensitic St. St. ASTM A487 GR CA6NM CL A with Hardfaced Seat					
15	Valve Plug			Martensitic St. St. ASTM A487 GR CA6NM CL B Nitride					
16	Cage			Martensitic St. St. ASTM A487 GR CA6NM CL B Nitrided					
			316 St. St. ASTM A479 TY 316 Nitrided						
20	Auxiliary Pilot Plug (2" to 4") (41405 Only)			Martensitic St. St. ASTM A487 GR CA6NM CL B with Chrome Plated Guide and Hardfaced Seat					

Notes:
1. LE Packing for low emissions applications is limited to the maximum operating pressure and temperature range shown in Figure 1. Consult BHGE for material combinations for temperatures below –20°F (-29°C) or above 800°F (427°C).

Review use of optional materials and configurations for temperature ranges indicated. Standard materials listed may still be applicable depending on specific service conditions. Consult Masoneilan for appropriate material combinations.

Materials of Construction

Optional Bolting Materials

Ref. No	Temperature Range	-320°F (-196°C) to -150°F (-101°C)	-150°F (-101°C) to -20°F (-29°C)	850°F (454°C) to 950°F (510°C)	950°F (510°C) to 1050°F (566°C)
	Description	Optional Materials			
8	Valve Body Nut[1]	304 SS ASTM A194 Grade 8	Alloy Steel ASTM A194 Grade 4	Alloy Steel ASTM A194 Grade 8	304 SS ASTM A194 Grade 8
21	Valve Body Stud[1]	Super Alloy ASTM A453 Grade 660	Alloy Steel ASTM A320 Grade L7	Alloy Steel ASTM A193 Grade B16	Super Alloy ASTM A453 Grade 660

Note: 1. Use following materials for 2" and 3" sizes ANSI Class 300/600 at temperatures below -20°F (-29°C).
Studs - 304 SS ASTM A193 Grade B8 Class 2 • Nuts – 304 SS ASTM A194 Grade 8.

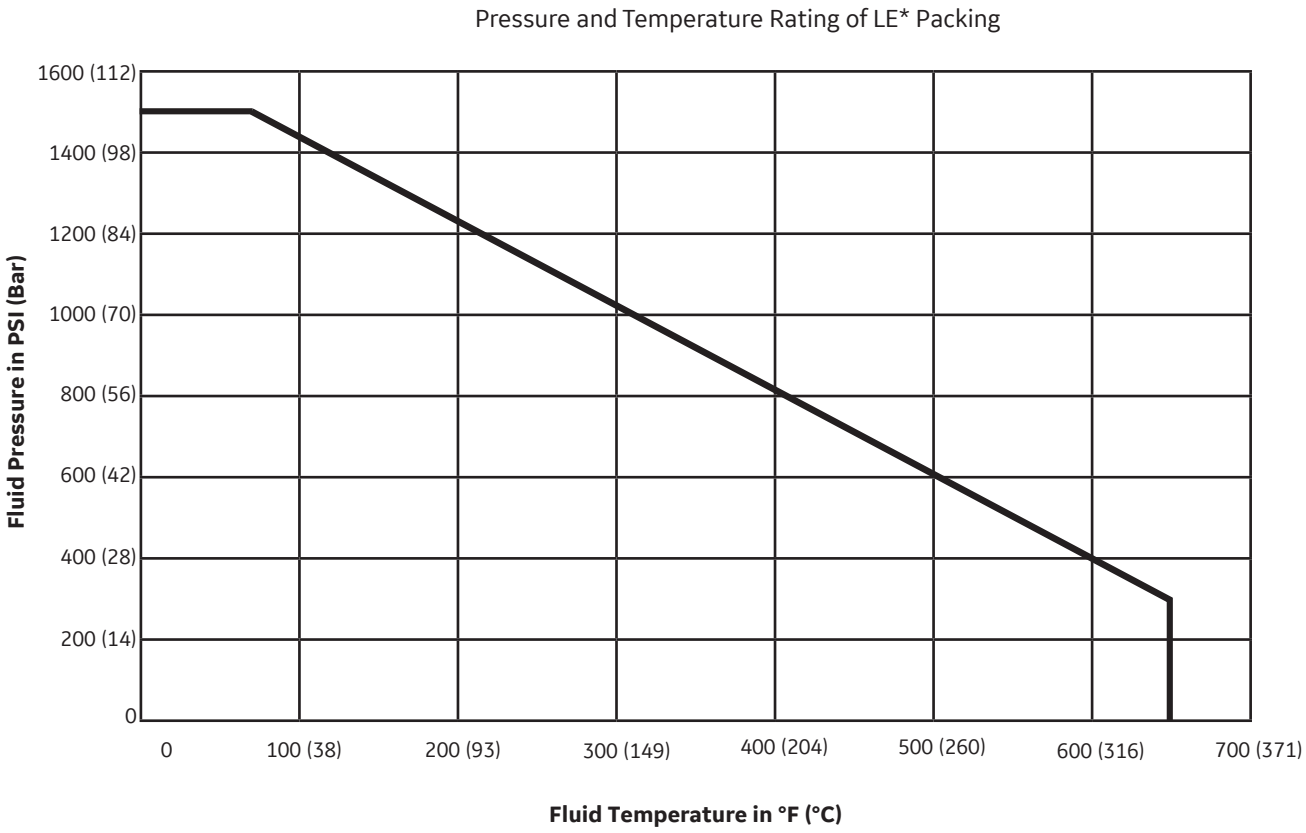


Figure 1

Materials of Construction

NACE[1] Configuration and Material Options

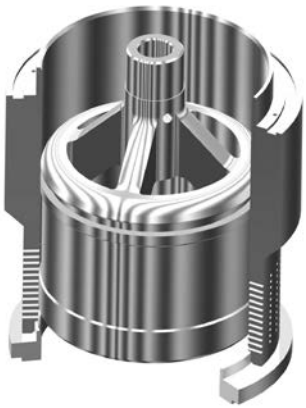
Models 41X15, 41X25, 41X35, 41X45, 41X55, 41X95 / Models 41XA5, 41XB5 & 41XC5 limited to 575° F

Ref. No	Temperature Range	-20°F (-29°C)	650°F (343°C)
	Description	Standard and Optional Materials	
1	Plug Stem	316 St. St. ASTM A479 TY 316 (HRC 22 Max.)	
		Super Alloy ASTM A638 GR 660 (HRC 35 Max.)	
2	Packing Flange Stud	304 St. St. ASTM A193 GR B8(2)	
		304 St. St. ASTM A193 Gr B8(3) (HRC 22 Max.)	
3	Packing Flange Nut	304 St. St. ASTM A194 GR 8(2)	
		304 St. St. ASTM A194 GR 8A(3) (HRC 22 Max.)	
4	Packing Flange	Corrosion Protected Carbon Steel (HRC 22 Max.)	
5	Packing Spacer	304 St. St. ASTM A479 TY 304	
6	Packing	304 St. St. ASTM A479 TY 304	
7	Valve Bonnet	Carbon Steel ASTM A216 Grade WCC (HRC 22 Max.)	
		Carbon Steel ASTM A105 (HRC 22 Max.)	
		316 St. St. ASTM A351 Gr CF8M (HRC 22 Max.)	
8	Valve Body Nut	Alloy Steel ASTM A194 GR 2H(2)	
		Alloy Steel ASTM A194 Gr 2HM(3)	
9	Plug Stem Pin	316 St. St. ASTM A479 TY 316 (HRC 22 Max.)	
10	Valve Body Gasket	316L St. St. w/Flexible Graphite Filler (Spiral Wound)	
12	Pilot Spring(s) (41405 Only) 2" to 4"	Inconel X-750 AMS 5598 (HRC 50 Max.)	
	Pilot Spring(s) (41405 Only) 6" to 16"	Inconel X-750 ASTM B637 GR 688 (HRC 50 Max.)	
13	Seat Ring	316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.)	
14	Seat Ring Gasket	316L St. St. w/Flexible Graphite Filler (Spiral Wound)	
15	Valve Plug	316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.)	
		Martensitic St. St. ASTM A487 GR CA6NM CL B (HRC 22 Max.)	
16	Cage	316 St. St. ASTM A479 TY 316 Hard Chrome Plated (HRC 22 Max.)	
		Martensitic St. St. ASTM A487 GR CA6NM CL B Hard Chrome Plated (HRC 23 Max.)	
17	Conical Spring[1] (6" to 24")	Inconel X-750 ASTM B637 + Shot Peening	
18	Valve Body	Carbon Steel ASTM A216 Grade WCC (HRC 22 Max.)	
		316 St. St. ASTM A351 Gr CF8M (HRC 22 Max.)	
19	Retaining Ring (41405 Only)	Inconel X-750 AMS 5598 (HRC 50 Max.)	
20	Auxiliary Pilot Plug (41405 Only)	316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.)	
		Martensitic St. St. ASTM A487 GR CA6NM CL B Chrome Plated Guide and Hardfaced Seat (HRC 23 Max.)	
21	Valve Body Stud	Alloy Steel ASTM A193 GR B7(2)	
		Alloy Steel ASTM A193 Gr B7M(3)	
22	Guide Bushing	Stelliteor Equivalent 6 UNS 30006 (HRC 22 Max.)	
		316 St. St. ASTM A479 TY 316 with Hardfacing (HRC 22 Max.)	
23	Packing Follower	316 St. St. ASTM A479 TY 316 (HRC 22 Max.)	
-	Internal Diffuser[2] (6" to 24") (not shown)	316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.)	
24	Cage Gasket[3]	316L St. St. w/Flexible Graphite Filler (Spiral Wound)	
30	Retainer	CA6NM ASTM 487 Gr CA 6 NM Class B	
		Hardfacing Stellite No. 6 on 316 St. St.	
31, 35, 40, 41, 42, 45, 46	Seal Ring	See Page 24	
--	Drive Nut (not shown)	Carbon Steel SAE 1117(2)	
		Carbon Steel ASTM A105 or SAE 1010-1025(3)	

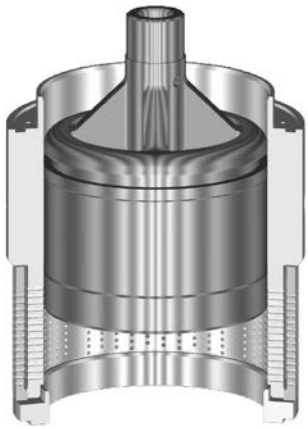
Notes: 1. Standard materials and processes are in accordance with the requirements of NACE specification MR0103. Applications requiring compliance to MR0175-2003 or ISO15156 must be reviewed by Masoneilan.

2. Materials designated for these parts conform to NACE Class III bolting requirements. (Non-Exposed)
3. Materials designated for these parts conform to NACE Class I or Class II bolting requirements. (Exposed)
4. Cage gasket only required for valve sizes 6" to 24" for applications ≤ 450°F (232°C) and all applications for 2" to 6" ANSI 2500 Class ratings only.
5. Seal ring materials for Model 41605 (PTFE Seal Ring) will be replaced with Glass-Reinforced PTFE External Seal Ring (Ref. No. 40) and Viton Internal Seal Ring (Ref. No. 41). Maximum temperature for Models 41305 and 41605 limited to 450°F (232°C).

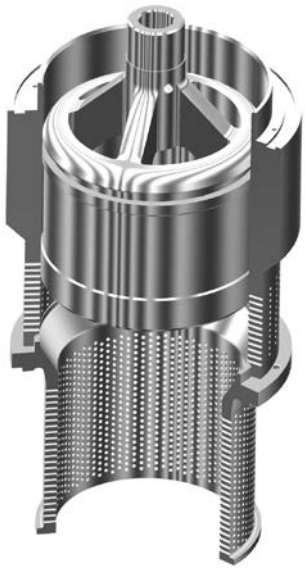
Trim Types



Models 41335 - 41535 - 41635 - 41735 - 41935
413C5 - 415C5 - 416C5 - 419C5
Single Stage Low Noise Trim FTO
Anti-Cavitation Trim FTC

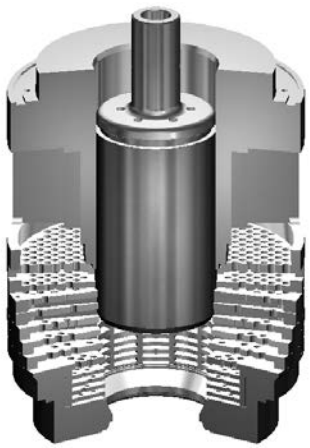


Models 41355 - 41555 - 41655 - 41755 - 41955
Multi-Stage Low Noise Trim FTO

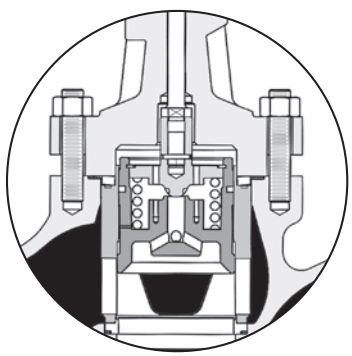


Model 41045
Single Stage with Internal Diffuser
(Sizes 6" - 24")

Models 41395 - 41595 - 41695 - 41795 - 41995
Single Stage Low Noise Trim FTO
Anti-Cavitation Trim FTC



Model 41365 - 41375
High Pressure Anit-Cavitation VRT



Model 41405
Pilot Balanced Construction FTC

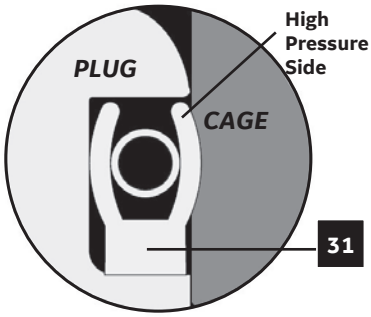
Seal Ring Construction

Model 41305

Seal Type:
Pressure Energized Polymeric

Leakage:
Class IV Standard (Class V Optional)

Temperature:
-148°F (-100°C) to +450°F (+232°C)



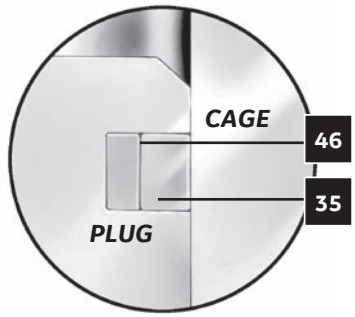
Seal Shown in FTO Orientation

Models 41405 and 41505

Seal Type:
Metal

Leakage:
From Class II to Class V (with pilot)

Temperature:
-320°F (-196°C) to +1050°F (+566°C)



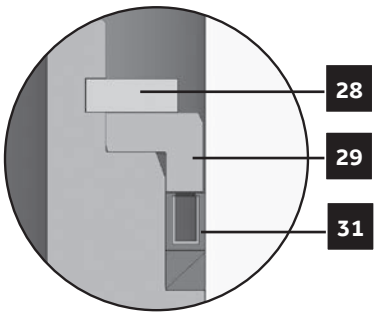
Model 41305[3]

Optional High Temperature Version

Seal Type:
Pressure Energized Polymeric

Leakage:
Class IV Standard

Temperature:
+450°F (+232°C) to +600°F (+316°C)

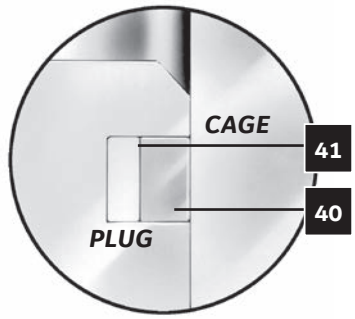


Model 41605

Seal Type:
TFE and Resilient Inner

Leakage:
Class IV Standard

Temperature:
-20°F (-29°C) to +300°F (+149°C)



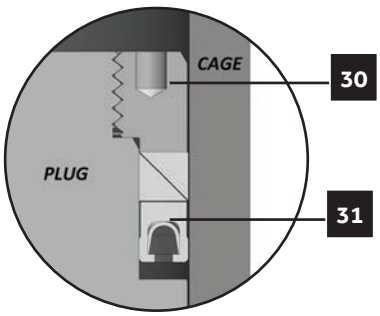
Model 41305[4] [5]

Optional High Temperature Version (non VRT)

Seal Type:
Pressure Energized Polymeric

Leakage:
Class IV Standard (Class V Optional)

Temperature:
-148°F (-100°C) to +575°F (+302°C)



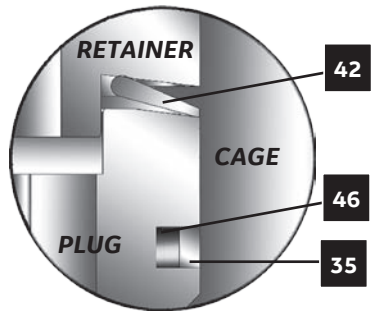
Model 41705

Seal Type:
Metal

Leakage:
Class V

Temperature: (FTC)
-20°F (-29°C) to +1050°F (+566°C)

Temperature: (FT0)
-20°F (-29 C) to +850°F (+454°C)

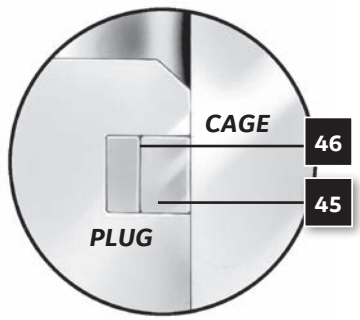


Model 41905

Seal Type:
Graphite and Metal Inner

Leakage:
Class III and Class IV Standard

Temperature:
-320°F (-196°C) to +850°F (+454°C)



Seal Ring Construction

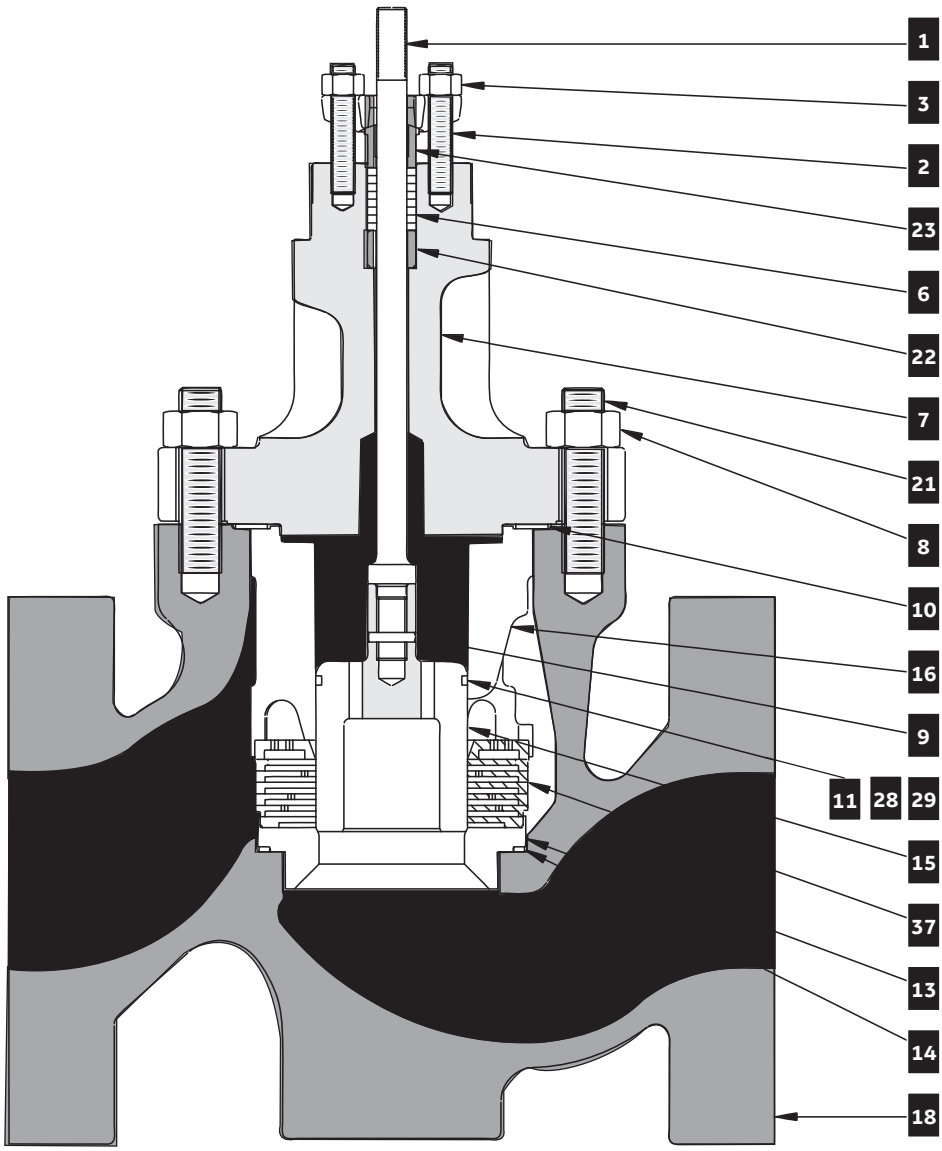
Ref. No.	Temperature Range	-320°F (-196°C)	-148°F (-100°C)	-20°F (-29°C)	300°F (+149°C)	450°F (+232°C)	600°F (+316°C)	650°F (+343°C)	850°F (+454°C)	1050°F (+566°C)
	Description	Materials								
31	Seal Ring		PTFE + 25% Graphite and ELGILOY Spring							
	Seal Ring						Fluoroly A21[3]			
35	External Seal Ring	NiResist ASTM A439 Type D3							Nitrided CA6NM	
40	External Seal Ring			Bronze PTFE						
				Glass Reinforced PTFE[1]						
41	Internal Seal Ring			Nordel						
				Viton [1] [2]						
42	High Temp. Seal	Surface Hardened Inconel 718								
45	External Seal Ring	Graphite								
46	Internal Seal Ring	NiResist ASTM A439 Type D3								

Notes:
1. Optional materials for NACE service. Viton not recommended for water or steam service.
2. Viton is recommended for oil and hydrocarbon service.
3. Optional high temperature seal for 41365 and 41375 VRT.
4. Optional high temperaure seal for 41305 non-VRT applications.
5. FTO & FTC capable.

Materials of Construction

Models 41365 & 41375 VRT

Ref. No		Part Name
	1	Plug Stem
	2	Packing Flange Stud
	3	Packing Flange Nut
	4	Packing Flange
	5	Packing Spacer
•	6	Packing
	7	Valve Bonnet
	8	Valve Body Nut
	9	Plug Stem Pin
•	10	Valve Body Gasket
•	11	Seal Ring
	13	Seat Ring
•	14	Seat Ring Gasket
	15	Valve Plug
	16	Cage
	18	Valve Body
	21	Valve Body Stud
	22	Guide Bushing
	23	Packing Follower
•	24	Cage Gasket
	28	Retaining Ring
	29	Retaining Ring
	37	Stack
•	Recommended Spare Parts	



Materials of Construction

Models 41365 & 41375 VRT
Standard Carbon Steel Version

Ref. No	Temperature Range		-20°F (-29°C)	450°F (232°C)	600°F (316°C)
	Description		Standard Materials		
1	Plug Stem		174 PH St. St. ASTM A564 GR 630		
2	Packing Flange Stud		304 St. St. ASTM A193 GR B8		
3	Packing Flange Nut		304 St. St. ASTM A194 GR 8		
4	Packing Flange		Carbon Steel ASTM A105 Zinc Plated		
5	Packing Spacer		303 St. St. ASTM A582 TY 303		
6	Packing		Kevlar PTFE (Crane 285K) (ANSI Class 150-900) PTFE/Carbon and Graphite Wiper Rings (ANSI Class 1500 and 2500)		
7	Valve Bonnet		Carbon Steel ASTM A216 Grade WCC		
8	Valve Body Nut		Carbon Steel ASTM A194 GR 2H		
9	Plug Stem Pin		316 St. St. ASTM A479 TY 316		
10	Valve Body Gasket		316L St. St. w/Flexible Graphite Filler (Spiral Wound)		
11	Seal Ring	Stan-dard	PTFE + Graphite (25%) with ELGILOY Spring		
		Optional			Fluoroly A21
13	Seat Ring		410 St. St. ASTM A479 TY 410 Hardened		
14	Seat Ring Gasket		316L St. St. w/Flexible Graphite Filler (Spiral Wound)		
15	Valve Plug	3" to 6"	440C St. St. ASTM A276 TY 440C		
		8" and 10"	17-4 PH St. St. ASTM A747 Gr CB7CU-1 Condition H900		
16	Cage		Martensitic St. St. ASTM A487 GR CA6NM CL B Hard Chrome Plated		
18	Valve Body		Carbon Steel ASTM A216 Grade WCC		
21	Valve Body Stud		Alloy Steel ASTM A193 GR B7		
22	Guide Bushing		440C St. St. ASTM A276 TY 440C		
23	Packing Follower		303 St. St. ASTM A582 TY 303		
24	Cage Gasket[3]		316L St. St. w/Flexible Graphite Filler (Spiral Wound)		
28	Retaining Ring				ASTM A564 Gr 632 H950 St. St
29	Retaining Ring				316 St. St. ASTM A479 TY 316
30	Retaining Ring		Hardfacing Stellite No.6 on 316 Stainless Steel		
			ASTM A487 Gr CA 6 NM Class B		
			17-4 PH Stainless Steel H1075		
			ASTM A479 UNS S31803 + Chrome Plating		
			ASTM A479 UNS S31803 + Hardfacing		
37	Stack		410 St. St. QT ASTM A743 Grade CA15		

Materials of Construction

Models 41356 & 41375 VRT
Standard Stainless Steel Version

Ref. No	Temperature Range	20°F (-29°C)	450°F (232°C)
	Description	Standard Materials	
1	Plug Stem	A286 Super Alloy ASTM A638 GR 660	
2	Packing Flange Stud	304 St. St. ASTM A193 GR B8	
3	Packing Flange Nut	304 St. St. ASTM A194 GR 8	
4	Packing Flange	Carbon Steel ASTM A105 Zinc Plated	
5	Packing Spacer	303 St. St. ASTM A582 TY 303	
6	Packing	Kevlar PTFE (Crane 285K) (ANSI Class 150-900) PTFE/Carbon and Graphite Wiper Rings (ANSI Class 1500 and 2500)	
7	Valve Bonnet	316 St. St. ASTM A351 GR CF8M	
8	Valve Body Nut	Carbon Steel ASTM A194 GR 2H	
9	Plug Stem Pin	316 St. St. ASTM A479 TY 316	
10	Valve Body Gasket	316L St. St. w/Flexible Graphite Filler (Spiral Wound)	
11	Seal Ring	PTFE + Graphite (25%) with ELGILOY Spring	
13	Seat Ring	316 St. St. ASTM A479 TY 316 with Hardfaced Seat	
14	Seat Ring Gasket	316L St. St. w/Flexible Graphite Filler (Spiral Wound)	
15	Valve Plug	316 St. St. ASTM A479 TY 316 with Hardfaced Seat	
16	Cage	316 St. St. ASTM A479 TY 316 Chrome-Plated	
18	Valve Body	316 St. St. ASTM A351 GR CF8M	
21	Valve Body Stud	Alloy Steel ASTM A193 GR B7	
22	Guide Bushing	316 St. St. ASTM A479 TY 316 with Hardfacing	
23	Packing Follower	303 St. St. ASTM A582 TY 303	
24	Cage Gasket[(3)]	316L St. St. w/Flexible Graphite Filler (Spiral Wound)	
28	Retaining Ring	ASTM A564 Gr 632 H950 St. St.	
29	Retaining Ring	316 St. St. ASTM A479 TY 316	
37	Stack	410 St. St. QT ASTM A743 Grade CA15	

Note: Materials for other components are as listed for Standard Carbon Steel Version.

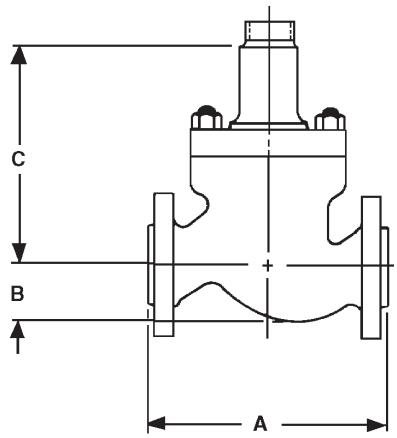
Materials of Construction

NACE[1] Configuration and Material Options
Models 41356 & 41375 VRT

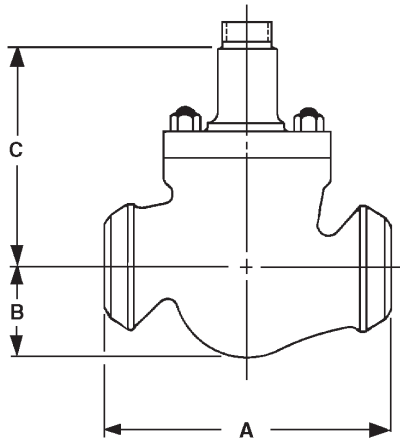
Ref. No	Temperature Range		-20°F (-29°C)	450°F (232°C)	600°F (316°C)
	Description		Standard Materials		
1	Plug Stem		A286 Super Alloy ASTM A638 GR 660		
2	Packing Flange Stud		304 St. St. ASTM A193 GR B8[2]		
			304 St. St. ASTM A193 GR B8[3] (HRC 22 Max.)		
3	Packing Flange Nut		304 St. St. ASTM A194 GR 8[2]		
			304 St. St. ASTM A194 GR 8A[3] (HRC 22 Max.)		
4	Packing Flange		Corrosion Protected Carbon Steel (HRC 22 Max.)		
5	Packing Spacer		304 St. St. ASTM A479 TY 304		
6	Packing		Kevlar PTFE (Crane 285K) (ANSI Class 150-900) PTFE/Carbon and Graphite Wiper Rings (ANSI Class 1500 and 2500)		
7	Valve Bonnet		Carbon Steel ASTM A216 Grade WCC (NRC 22 Max.)		
			316 St. St. ASTM A351 Gr CF8M (HRC 22 Max)		
8	Valve Body Nut		Carbon Steel ASTM A194 GR 2H[2]		
			Carbon Steel ASTM A194 GR 2HM[3]		
9	Plug Stem Pin		316 St. St. ASTM A479 TY 316 (HRC 22 Max.)		
10	Valve Body Gasket		316L St. St. w/Flexible Graphite Filler (Spiral Wound)		
11	Seal Ring	Standard	PTFE + Graphite (25%) with ELGILOY Spring		
		Optional		Fluoroly A21	
13	Seat Ring		316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.)		
14	Seat Ring Gasket		316L St. St. w/Flexible Graphite Filler (Spiral Wound)		
15	Valve Plug		316 St. St. ASTM A479 TY 316 with Hardfaced Seat (HRC 22 Max.)		
16	Cage		Martensitic St. St. ASTM A487 GR CA6NM CL B Hard Chrome Plated		
18	Valve Body		Carbon Steel ASTM A216 Grade WCC (NRC 22 Max.)		
			316 St. St. ASTM A351 Gr CF8M (HRC 22 Max)		
21	Valve Body Stud		Alloy Steel ASTM A193 GR B7[2]		
			Alloy Steel ASTM A 193 GRADE B7M		
22	Guide Bushing		316 St. St. ASTM A479 TY 316 with Hardfacing		
23	Packing Follower		316 St. St. ASTM A479 TY 316 (HRC 22 Max.)		
24	Cage Gasket[3]		316L St. St. w/Flexible Graphite Filler (Spiral Wound)		
28	Retaining Ring			ASTM A564 Gr 632 H950 St. St	
29	Retaining Ring			316 St. St. ASTM A479 TY 316	
37	Stack		Inconel 718 ASTM B637 Solution Annealed and Precipitation Hardened		

Notes: 1. Standard materials and processes are in accordance with the requirements of NACE specification MR0103. Applications requiring compliance to MR0175-2003or ISO15156 must be reviewed by BHGE.
2. Materials designated for these parts conform to NACE Class III bolting requirements. (Non-Exposed)
3. Materials designated for these parts conform to NACE Class 1 or Class II bolting requirements. (Exposed)

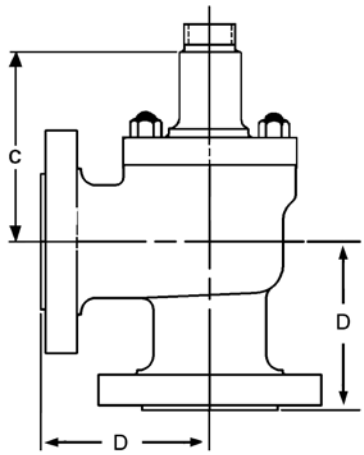
Dimensions (inches)



Flanged



Butt, Socket Weld or Screwed Ends



Angle

Pressure Class		A										
		ANSI Class 150 and equivalent PN		ANSI Class 300 and equivalent PN			ANSI Class 600 and equivalent PN			ANSI Class 900 and equivalent PN		
Valve Size		RF	RTJ	BW & SW	RF	RTJ	BW & SW	RF	RTJ	BW & SW	RF	RTJ
in.	mm											
2	50	10.00	10.50	11.26	10.50	11.12	11.26	11.24	11.38	14.76	14.74	14.88
3 3x2[2]	80 80x50	11.75	12.25	13.27	12.50	13.12	13.27	13.25	13.37	18.11 (1)	17.38 (1)	17.48 (1)
4 4x2 4x3	100 100x50 100x80	13.86	14.33	15.51	14.50	15.12	15.51	15.50	15.62	20.87 (1) 20.87	20.12 (1) 20.12	20.24 (1) 20.24
6 6HC 6x3 6x4	150 150 HC 150x80 150x100	17.75	18.27	20	18.64	19.25	20	20	20.12	30.24 - 30.24 30.24	28.12 - 28.12 28.12	28.24 - 28.24 28.24
8 8HC 8x4 8x6	200 200 HC 200x100 200x150	21.38	21.87	24.02	22.38	22.99	24.02	24	24.13	32.76 - 32.76 32.76	36.00 - 36.00 36.00	36.00 - 36.00 36.00
10 10x6 10x8	250 250x150 250x200	26.50	27.00	29.61	27.88	28.50	29.61	29.62	29.72	39.02	43.00	43.12
12 12x8	300 300x200	29.02	29.53	32.24	30.51	31.14	32.24	32.25	32.36	44.49	44.49	44.61
16 16x12	400 400x300	40.00	40.51	43.62	41.61	42.25	43.62 (1)	43.62	43.74	55.98 (1)	54.72 (1)	55.08 (1)
18	450	44.76	45.08	48.82	46.85	47.32	48.82[3]	51.50	51.97	64.72	58.03	58.50
20	500	65.43	65.91	71.14	67.09	67.80	74.41	69.57	69.80	84.72	71.06	71.57
24	600	78.70	79.21	86.22	80.94	81.81	94.33	83.46	83.86	-	-	-

Notes:
1. Consult BHGE.
2. Ex. 3x2 size = valve with 3" body x standard 2" trim.
3. Applies to Schedule 40 only. Schedule 80 Face to Face is 58.27 in.
4. HC is High Capacity

Dimensions (inches)

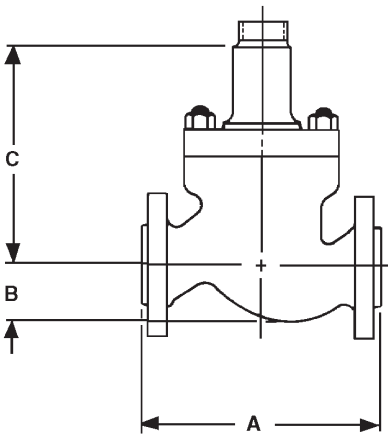
Pressure Class		A			A			B max					C max				
		ANSI Class 1500 and equivalent PN			ANSI Class 2500 and equivalent PN			ANSI 150 / 300	ANSI 600	ANSI 900	ANSI 1500	ANSI 2500	ANSI 150 / 300	ANSI 600	ANSI 900	ANSI 1500	ANSI 2500
Valve Size		BW & SW	RF	RTJ	BW & SW	RF	RTJ										
in.	mm																
2	50	14.76	14.74	14.88	15.75	17.17	17.24	3.70	3.70	2.24	2.24	5.12	9.84	9.84	8.50	8.50	10.31
3	80	18.11	18.13	18.23	19.61	19.13	19.33	4.49	4.49	5.63	5.63	6.89	11.81	11.81	11.81	11.81	14.06
3x2	80x50 (2)	(1)	(1)	(1)	(1)	(1)	(1)	4.57	4.57	5.63	5.63	(1)	9.88	9.88	10.39	10.39	(1)
4	100	20.87	20.88	21.00	22.64	23.66	23.98	5.51	5.51	6.26	6.26	7.87	12.99	12.99	12.99	12.99	14.76
4x2	100x50	(1)	(1)	(1)	(1)	(1)	(1)	5.51	5.51	6.06	6.06	(1)	10.28	10.28	10.08	10.08	(1)
4x3	100x80	20.87	20.88	21.00	(1)	(1)	(1)	5.51	5.51	6.26	6.26	(1)	12.68	12.68	12.68	12.68	(1)
6	150	30.24	30.24	30.47	32.24	29.33	29.45	7.80	7.80	8.54	8.54	10.35	15.35	15.35	15.35	15.35	15.39
6HC	150 HC	-	-	-	-	-	-	5.47	5.47	-	-	-	15.51	15.51	-	-	-
6x3	150x80	30.24	30.24	30.47	(1)	(1)	(1)	7.48	7.48	6.30	6.30	(1)	12.68	12.68	12.60	12.60	(1)
6x4	150x100	30.24	30.24	30.47	(1)	(1)	(1)	7.48	7.48	6.30	6.30	(1)	13.46	13.46	13.27	13.27	(1)
8	200	32.76	38.25	38.62	40.51	35.12	35.67	7.32	7.52	7.52	8.07	11.81	19.53	19.53	20.51	20.51	17.72
8HC	200 HC	-	-	-	-	-	-	7.48	7.67	-	-	-	16.46	16.46	-	-	-
8x4	200x100	32.76	38.25	38.62	(1)	(1)	(1)	8.74	8.74	6.69	6.69	(1)	14.41	14.41	12.99	12.99	(1)
8x6	200x150	32.76	38.25	38.62	(1)	(1)	(1)	8.74	8.74	6.77	6.77	(1)	17.05	17.05	15.35	15.35	(1)
10	250				50.00	42.72	43.54	8.66	8.98	9.06	9.61	14.25	21.65	21.65	22.44	22.44	24.21
10x6	250x150	39.02	46.00	46.38	(1)	(1)	(1)	9.13	9.13	9.09	9.09	(1)	18.46	18.46	15.35	15.35	(1)
10x8	250x200				(1)	(1)	(1)	9.13	9.13	8.58	8.74	(1)	19.65	19.65	20.51	20.51	(1)
12	300	44.49	47.95	48.58	55.98	46.93	47.76	12.80	13.19	13.58	14.17	16.30	24.41	24.41	24.65	24.65	24.90
12x8	300x200	(1)	(1)	(1)	(1)	(1)	(1)	9.53	9.53	9.84	9.84	(1)	19.53	19.53	20.51	20.51	(1)
16	400	55.98	59.37	60.24	72.44	-	-	17.32	17.72	18.11	19.09	17.36	27.32	27.32	31.69	31.69	27.52
16x12	400x300	(1)	(1)	(1)	(1)	-	-	17.72	17.72	17.83	18.78	(1)	25.59	25.59	27.40	27.40	(1)
18	450	72.05	61.34	61.81	-	-	-	20.43	20.91	20.91	21.97	-	33.62	33.62	39.13	42.09	-
20	500	-	-	-	-	-	-	26.34	26.77	27.24	-	-	34.13	35.59	37.40	-	-
24 (3)	600	-	-	-	-	-	-	31.65	32.28	-	-	-	40.00	41.18	-	-	-
24 (4)	600	-	-	-	-	-	-	31.65	32.28	-	-	-	47.99	49.17	-	-	-

Notes:
1. Consult BHGE
2. Ex. 80x50 size = valve with 80mm body x standard 50mm trim.
3. 11" Nominal stroke length
4. 15" Nominal stroke length
5. HC is High Capacity

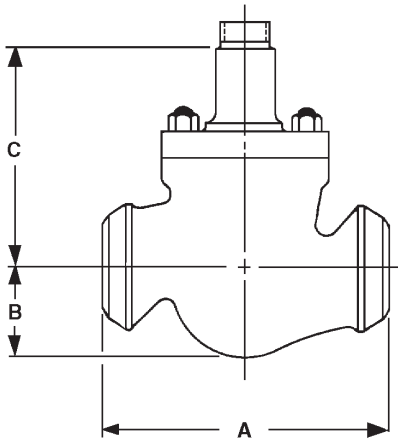
Angle Body S/A (inches)

Pressure Class		D									
		ANSI Class 150 and equivalent PN		ANSI Class 300 and equivalent PN		ANSI Class 600 and equivalent PN		ANSI Class 900 and equivalent PN		ANSI Class 1500 and equivalent PN	
Valve Size		RF	RTJ	RF	RTJ	RF	RTJ	RF	RF	RF	RTJ
in.	mm										
2	50	5.15	5.38	5.27	5.58	5.78	5.84	7.27	7.35	7.27	7.35
3	80	5.92	6.17	6.29	6.61	7.04	7.12	8.89	8.97	9.28	9.36
4	100	7.71	7.94	8.04	8.34	8.53	8.61	10.38	10.46	10.78	10.86
6	150	8.34	8.59	8.77	9.09	11.02	11.07	12.04	12.10	13.89	14.01

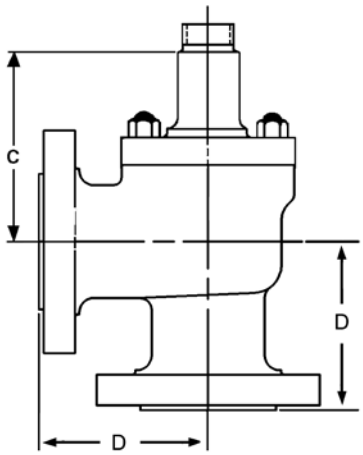
Dimensions (mm)



Flanged



Butt, Socket Weld or Screwed Ends



Angle

Pressure Class		A										
		ANSI Class 150 and equivalent PN		ANSI Class 300 and equivalent PN			ANSI Class 600 and equivalent PN			ANSI Class 900 and equivalent PN		
Valve Size		RF	RTJ	BW & SW	RF	RTJ	BW & SW	RF	RTJ	BW & SW	RF	RTJ
in.	mm											
2	50	254	266.5	286	266.5	282.5	286	285.5	289	375	374.5	378
3 3x2	80 80x50[2]	298.5	311	337	317.5	333.5	337	336.5	339.5	460 (1)	441.5 (1)	444 (1)
4 4x2 4x3	100 100x50 100x80	352	364	394	368.5	384	394	393.5	397	530 (1) 530	511 (1) 511	514 (1) 514
6 6 HC 6x3 6x4	150 150 HC 150x80 150x100	451	464	508	473	489	508	508	511	768 - 768 768	714 - 714 714	717 - 717 717
8 8HC 8x4 8x6	200 200 HC 200x100 200x150	543	555.5	610	568.5	584	610	609.5	613	832 - 832 832	914.5 - 914.5 914.5	917.5 - 917.5 917.5
10 10x6 10x8	250 250x150 250x200	673	686	752	708	724	752	752	755	991	1092	1095
12 12x8	300 300x200	737	750	819	775	791	819	819	822	1130	1130	1133
16 16x12	400 400x300	1016	1029	1108	1057	1073	1108 (1)	1108	1111	1422 (1)	1390 (1)	1399 (1)
18	450	1137	1145	1240	1190	1202	1240[3]	1308	1320	1644	1474	1486
20	500	1662	1674	1807	1704	1722	1890	1767	1773	2152	1805	1818
24	600	1999	2012	2190	2056	2078	2396	2120	2130	-	-	-

Notes:
1. Consult BHGE.
2. Ex. 80x50 size = valve with 80mm body x standard 50mm trim.
3. Applies to Schedule 40 only. Schedule 80 Face to Face is 1480 mm.
4. HC is High Capacity

Dimensions (mm)

Pressure Class		A			A			B max					C max				
		ANSI Class 1500 and equivalent PN			ANSI Class 2500 and equivalent PN			ANSI 150 / 300	ANSI 600	ANSI 900	ANSI 1500	ANSI 2500	ANSI 150 / 300	ANSI 600	ANSI 900	ANSI 1500	ANSI 2500
Valve Size		BW & SW	RF	RTJ	BW & SW	RF	RTJ										
in.	mm																
2	50	375	374.5	378	400	436	438	94	94	57	57	130	250	250	216	216	262
3	80	460	460.5	463	498	486	491	114	114	143	143	175	300	300	300	300	357
3x2	80x50[2]	(1)	(1)	(1)	(1)	(1)	(1)	116	116	143	143	(1)	251	251	264	264	(1)
4	100	530	530.5	533.5	575	601	609	140	140	159	159	200	330	330	330	330	375
4x2	100x50	(1)	(1)	(1)	(1)	(1)	(1)	140	140	154	154	(1)	261	261	256	256	(1)
4x3	100x80	530	530.5	533.5	(1)	(1)	(1)	140	140	159	159	(1)	322	322	322	322	(1)
6	150	768	768	774	819	745	748	198	198	217	217	263	390	390	390	390	391
6HC	150 HC	-	-	-	-	-	-	138	139	-	-	-	394	394	-	-	-
6x3	150x80	768	768	774	(1)	(1)	(1)	190	190	160	160	(1)	322	322	320	320	(1)
6x4	150x100	768	768	774	(1)	(1)	(1)	190	190	160	160	(1)	342	342	337	337	(1)
8	200	832	971.5	981	1029	892	906	186	191	191	205	300	496	496	521	521	450
8HC	200HC	-	-	-	-	-	-	190	195	-	-	-	418	418	-	-	-
8x4	200x100	832	971.5	981	(1)	(1)	(1)	222	222	170	170	(1)	366	366	330	330	(1)
8x6	200x150	832	971.5	981	(1)	(1)	(1)	222	222	172	172	(1)	433	433	390	390	(1)
10	250				1270	1085	1106	220	228	230	244	362	550	550	570	570	615
10x6	250x150	991	1168	1178	(1)	(1)	(1)	232	232	231	231	(1)	469	469	390	390	(1)
10x8	250x200				(1)	(1)	(1)	232	232	218	222	(1)	499	499	521	521	(1)
12	300	1130	1218	1234	1422	1192	1213	325	335	345	360	415	620	620	626	626	632
12x8	300x200	(1)	(1)	(1)	(1)	(1)	(1)	242	242	250	250	(1)	496	496	521	521	(1)
16	400	1422	1508	1530	1840	-	-	440	450	460	485	441	694	694	805	805	699
16x12	400x300	(1)	(1)	(1)	(1)	-	-	450	450	453	477	(1)	650	650	696	696	(1)
18	450	1830	1558	1570	-	-	-	519	531	531	558	-	854	854	994	1069	-
20	500	-	-	-	-	-	-	669	680	692	-	-	867	904	950	-	-
24[3]	600	-	-	-	-	-	-	804	820	-	-	-	1016	1046	-	-	-
24[4]	600	-	-	-	-	-	-	804	820	-	-	-	1219	1249	-	-	-

Notes:
1. Consult BHGE.
2. Ex. 80x50 size = valve with 80mm body x standard 50mm trim.
3. 11" Nominal stroke length
4. 15" Nominal stroke length
5. HC is High Capacity

Angle Body S/A (mm)

Pressure Class		D									
		ANSI Class 150 and equivalent PN		ANSI Class 300 and equivalent PN		ANSI Class 600 and equivalent PN		ANSI Class 900 and equivalent PN		ANSI Class 1500 and equivalent PN	
Valve Size		RF	RTJ	RF	RTJ	RF	RTJ	RF	RF	RF	RTJ
in.	mm										
2	50	131	137	134	142	147	148	185	187	185	187
3	80	150	157	160	168	179	181	226	228	236	238
4	100	196	202	204	212	217	219	264	266	274	276
6	150	212	218	223	231	280	281	306	307	353	356

Weights

Globe Style Body S/A Weights (lbs)

Valve Size		Flanged Connection						Threaded / Welded Connection			
in.	mm	ANSI Class 150 and equiva-lent PN	ANSI Class 300 and equiva-lent PN	ANSI Class 600 and equiva-lent PN	ANSI Class 900 and equiva-lent PN	ANSI Class 1500 and equiva-lent PN	ANSI Class 2500 and equiva-lent PN	ANSI Class 600 and equiva-lent PN	ANSI Class 900 and equiva-lent PN	ANSI Class 1500 and equiva-lent PN	ANSI Class 2500 and equiva-lent PN
2	50	99	99	88	121	121	320	88	88	88	(1)
3	80	176	187	187	265	287	518	165	220	220	(1)
3x2	80x50	143	154	165	198	220	(1)	132	154	154	(1)
4	100	231	254	265	463	496	860	209	386	397	(1)
4x2	100x50	176	198	209	331	364	(1)	154	254	265	(1)
4x3	100x80	209	220	243	397	430	(1)	187	331	331	(1)
6	150	397	430	518	893	1036	1653	408	750	816	(1)
6HC	150 HC	389	389	506	-	-	-	396	-	-	-
6x3	150x80	320	364	441	739	893	(1)	342	595	661	(1)
6x4	150x100	353	386	474	805	948	(1)	364	650	717	(1)
8	200	772	827	937	1400	1698	2679	783	1146	1323	(1)
8HC	200 HC	662	662	935	-	-	-	781	-	-	-
8x4	200x100	584	639	750	1157	1466	(1)	584	915	1091	(1)
8x6	200x150	628	683	794	1257	1554	(1)	628	1003	1179	(1)
10	250	1168	1257	1378	2227	2646	4806	1124	1863	2006	(1)
10x6	250x150	838	926	1047	1775	2194	(1)	794	1422	1554	(1)
12	300	1532	1631	2116	2932	4288	7176	1819	2458	3329	(1)
12x8	300x200	1135	1235	1720	2502	3671	(1)	1422	2028	2723	(1)
16	400	3274	3472	3847	6338	7959	-	3318	5666	6294	(1)
16x12	400x300	3009	3197	3395	5776	7363	-	2877	5093	5699	(1)
18	450	3583	3869	5192	8267	12765	-	4652	7507	11023	-
20	500	6989	7363	9160	11729	-	-	8311	11442	-	-
24[1]	600[1]	10659	11431	13702	-	-	-	13062	-	-	-
24[2]	600[2]	11343	12037	14429	-	-	-	13814	-	-	-

Note: 1. Consult BHGE, 2. HC is High Capacity

Globe Style Body S/A Weights (kg)

Valve Size		Flanged Connection						Threaded / Welded Connection			
in.	mm	ANSI Class 150 and equiva-lent PN	ANSI Class 300 and equiva-lent PN	ANSI Class 600 and equiva-lent PN	ANSI Class 900 and equiva-lent PN	ANSI Class 1500 and equiva-lent PN	ANSI Class 2500 and equiva-lent PN	ANSI Class 600 and equiva-lent PN	ANSI Class 900 and equiva-lent PN	ANSI Class 1500 and equiva-lent PN	ANSI Class 2500 and equiva-lent PN
2	50	45	45	40	55	55	145	40	40	40	(1)
3	80	80	85	85	120	130	235	75	100	100	(1)
3x2	80x50	65	70	75	90	100	(1)	60	70	70	(1)
4	100	105	115	120	210	225	390	95	175	180	(1)
4x2	100x50	80	90	95	150	165	(1)	70	115	120	(1)
4x3	100x80	95	100	110	180	195	(1)	85	150	150	(1)
6	150	180	195	235	405	470	750	185	340	370	(1)
6 HC	150 HC	177	177	230	-	-	-	180	-	-	-
6x3	150x80	145	165	200	335	405	(1)	155	270	300	(1)
6x4	150x100	160	175	215	365	430	(1)	165	295	325	(1)
8	200	350	375	425	635	770	1215	355	520	600	(1)
8 HC	200 HC	301	301	425	-	-	-	355	-	-	-
8x4	200x100	265	290	340	525	665	(1)	265	415	495	(1)
8x6	200x150	285	310	360	570	705	(1)	285	455	535	(1)
10	250	530	570	625	1010	1200	2180	510	845	910	(1)
10x6	250x150	380	420	475	805	995	(1)	360	645	705	(1)
12	300	695	740	960	1330	1945	3255	825	1115	1510	(1)
12x8	300x200	515	560	780	1135	1665	(1)	645	920	1235	(1)
16	400	1485	1575	1745	2875	3610	-	1505	2570	2855	(1)
16x12	400x300	1365	1450	1540	2620	3340	-	1305	2310	2585	(1)
18	450	1625	1755	2355	3750	5790	-	2110	3405	5000	-
20	500	3170	3340	4155	5320	-	-	3770	5190	-	-
24[1]	600[1]	4835	5185	6215	-	-	-	5925	-	-	-
24[2]	600[2]	5145	5460	6545	-	-	-	6266	-	-	-

Note: 1. Consult BHGE, 2. HC is High Capacity

Weights

Angle Style Body S/A Weights (lbs)

Valve Size		Flanged Connection				
		ANSI Class 150 and equivalent PN	ANSI Class 300 and equivalent PN	ANSI Class 600 and equivalent PN	ANSI Class 900 and equivalent PN	ANSI Class 1500 and equivalent PN
in.	mm					
2	50	77	79	82	110	110
3	80	154	165	165	231	254
4	100	209	220	243	419	463
6	150	353	375	452	838	992

Angle Style Body S/A Weights (kg)

Valve Size		Flanged Connection				
		ANSI Class 150 and equivalent PN	ANSI Class 300 and equivalent PN	ANSI Class 600 and equivalent PN	ANSI Class 900 and equivalent PN	ANSI Class 1500 and equivalent PN
in.	mm					
2	50	35	36	37	50	50
3	80	70	75	75	105	115
4	100	95	100	110	190	210
6	150	160	170	205	380	450

Options

Extension Bonnets	Custom Trim Materials
Environmental Capabilities (LE Packing)	U.O.P. Trim Materials
Lubricator & Isolation Valve	Other Materials
Other Flange Facings	Soft Seat (IEC 534-4 and ANSI Class VI)
Limit Stops	Non-Destructive Examination
Body Drain Plug	Oxygen Cleaning
Reducer and Nipple Connections	Electric Actuators
NACE Compliance	

For Accessories and additional Options, please consult BHGE.

NOTES:

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