F-CLASS

FAST, FLEXIBLE, FLAWLESS METAL SEATED VALVES



FEATURES & BENEFITS

Lockable T-handle, gearbox and actuated options Oversized shaft to prevent twisting Horseshoe body plates are made from less expensive WC6 (F11) material. Since they are not wetted components, they do not have to be the same material as Only four components (body, bonnet and the body, bonnet and flanges flanges) need to be manufactured on demand for any valve, regardless of size, pressure class or Optional dual packing sets material. Available in all commercially available eliminate shaft leaks materials (Hastelloy, Alloy 20, Duplex, etc.) Blow-out proof shaft design ensures safety Fully bi-directional live loaded seats compensate for thermal and pressure variances, Pressures up to Class 600 ensuring the best possible seal, even at low pressures ANSI/DIN/RTJ flanged, butt weld, NPT, BSPT, and socket weld end connections Arcuate cut ball for abrasive or high velocity applications. Optional Vari-V ball for precise Ball and seats have the most advanced flow control applications coating/surface hardening technology options available, to provide the best solution for critical applications Patented scalloped ring to prevent build-up of material between the seat and the spring Metal ball and seats are lap matched to provide tight shut-off

NOTE: NOT ALL FEATURES ARE AVAILABLE ON THE READY-TO-GO VERSION

A Cut Above

- NPS 1/2 full port to NPS 8 standard port (DN 15 to DN 200)
- Class 150 to 600
- -50°C (-58°F) TO 537°C (1000°F) *Option for 1100°F

One year guarantee or extended guarantee options for special applications

- Bi-directional sealing to handle back pressures to the full pressure rating of the valve
- Body, bonnet and flanges can be machined from bar stock for ultra-fast delivery



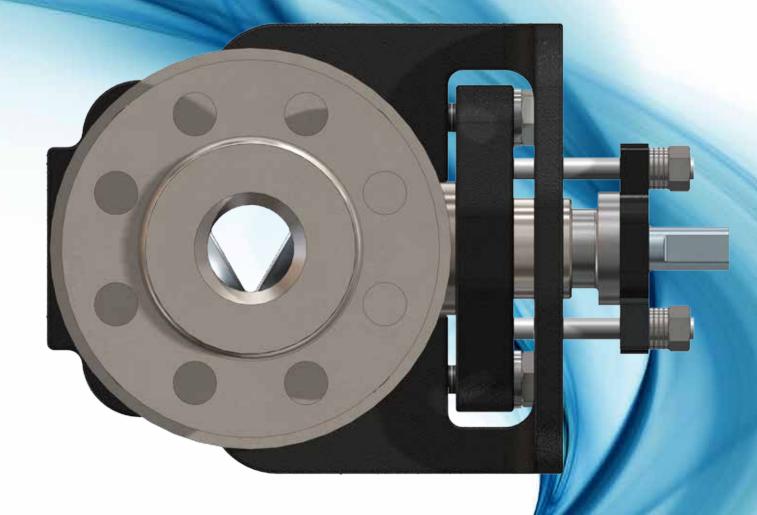
BlownAway

- 1) Shaft
- 2) Packing Adjustment Nut
- 3) Belleville Washers
- 4) Gland Plate
- 5) Upper Shaft Guide
- 6) Upper Shaft Packing
- * Optional with Premium Version

- 7) Bonnet
- 8) Thrust Washer
- 9) Lower Shaft Packing *
- 10) Lower Shaft Guide
- 11) End Cap Stud
- 12) End Cap Nut

- 13) Body Gasket
- 14) Scalloped Ring
- 15) Wedge Seal
- 16) Compression Ring
- 17) Seat Spring
- 18) Seat

- 19) Ball
- 20) End Cap
- 21) Body
- 22) Horseshoe Body Plates
- 23) Bonnet Plate



Control Freak

The **Vari-V Ball Valve** offers precise flow control through a specific profile that is machined into the ball.

When precise control of flow or pressure is required in a metal seated ball valve, the **Vari-V Ball Valve** is perfect for your tough applications. Standard 10°, 30°, 60°, 90° V's are cut in to the ball for a complete range of CV's and control requirements. Custom profile V's are used for unusual applications requiring special flow characteristics.

VARI-V VALVE BALL OPTIONS



SmartAlec

The profile of the V-ball determines the flow characteristic of the valve and can be changed to suit the application. 10°, 30°, 60° and 90° V-balls are the most commonly used, but several other profiles are available. The transition between high flow and fine control with the Vari-V is extremely smooth.

- Linear-V is a slot in the ball that can be machined for precise flow requirements.
- Filler-V is used when you need maximum flow for filling followed by precise flow to accurately control the levels.
- **High Turndown-V** maximizes flow in the open position, and provides fine flow control when the valve is partially closed.



FreeSpirit

Custom V-balls are available for applications where specific flow requirements can not be met with the standard V-balls. Using Computational Fluid Dynamics (CFD), we can create a V-ball with a specific profile to fit any application. Anti-cavitation trim is also available.

SCALLOPED RING

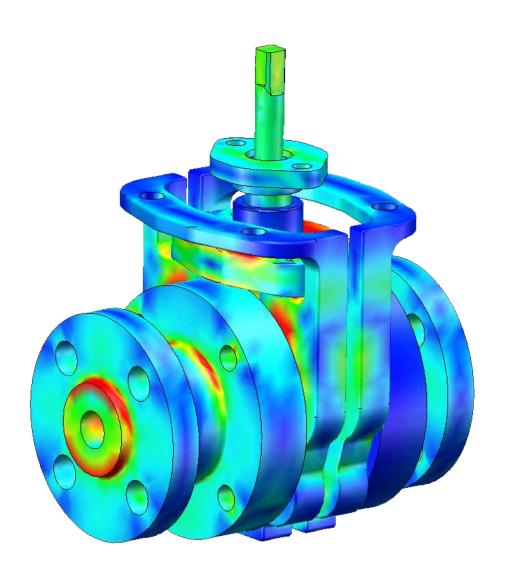


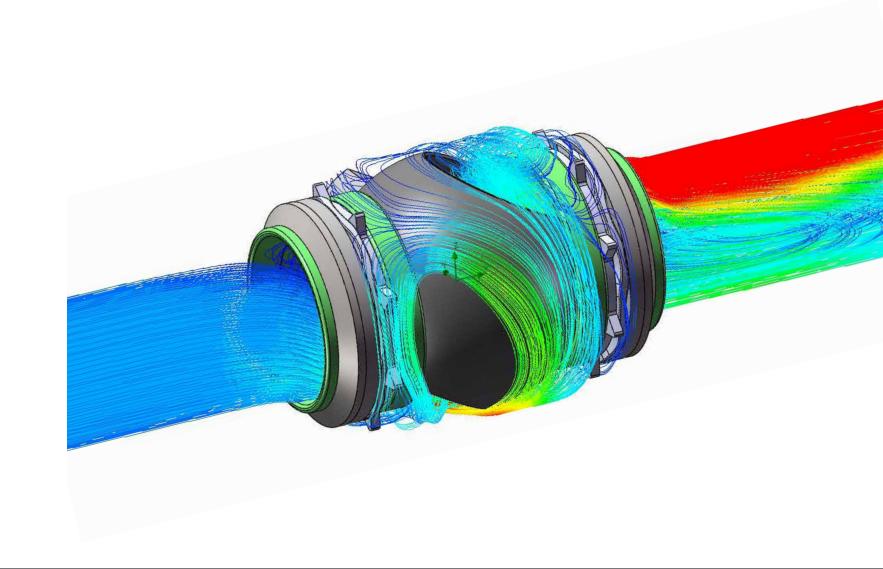
SlowPoke

An arcuate cut is a profile in the ball that reduces velocity both when the valve opens, and as it closes. When a standard ball valve is in the first and last 10° of opening, the gap between the ball and seat is an elliptical shape. The velocities are very high (especially in the corners), and erosion occurs. With an arcuate cut, the opening on the ball is close to three times larger. This reduces the velocity by spreading out the flow through a larger opening, which ultimately reduces wear on the ball and seats. An arcuate cut ball is best utilized in abrasive and high cycle applications.

SmoothOperator

A common problem with metal seated valves is the build-up of material between the upstream seat and the body. Our approach to this problem is very different from traditional valve manufacturers. Their valve designs attempt to prevent media from getting behind the seat by sealing the outer edge and back of the seat. Our philosophy is the opposite: let the media flow behind the seat, as the scalloped ring design allows material to escape just as easily.





StressReliever

Finite Element Analysis (FEA) is used in Gosco Valves' design process to predict the behavior of a valve's components by subjecting them to varying loads. This ensures structural integrity. The analysis is based on variables such as maximum pressure and temperature inside the valve, and maximum actuator torque. The illustration shows the stress distribution in a valve assembly, based on FEA analysis.

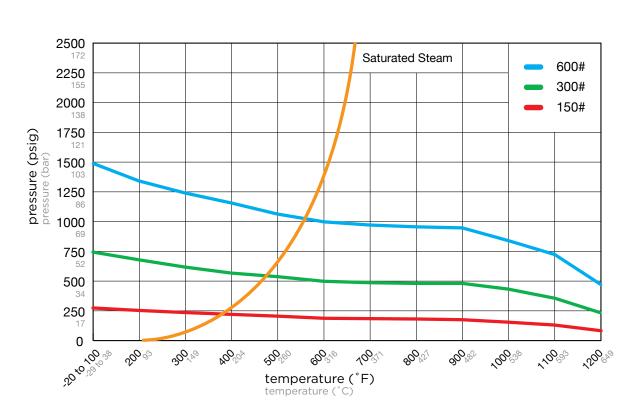
Fluid Performer

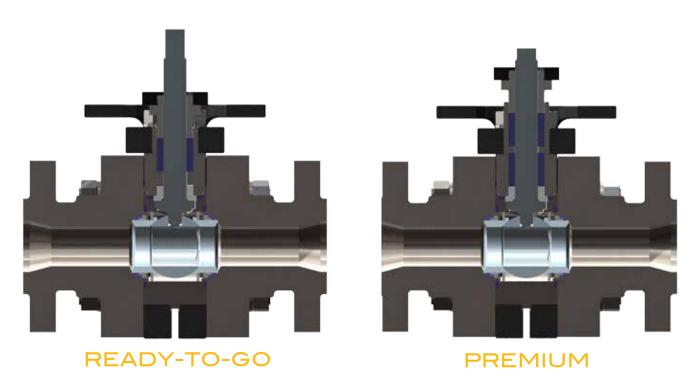
Computational Fluid Dynamics (CFD) is used to calculate the flow through the trim of a valve. It determines locations of high velocity and high flow, and assists in trim engineering for specific applications where velocities need to be controlled. CFD is also used to determine the flow coefficient (C_v) of Gosco Vari-V balls and aids in designing them to custom specifications. The illustration shows flow through a trim set at 45° open.



A thermochemical surface treatment in which Boron atoms are diffused into the surface of a base metal to form borides. It creates a new intermetallic layer with a hardness off the Rockwell C scale (1700 Vickers minimum). The base metal is chosen to handle the temperature, abrasion and corrosion of the process, and has a superior wear resistance to that of coatings.

OPERATIONAL INFORMATION



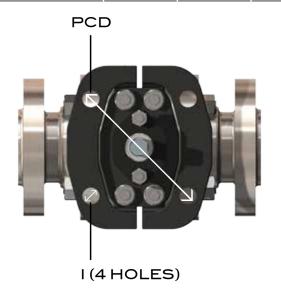


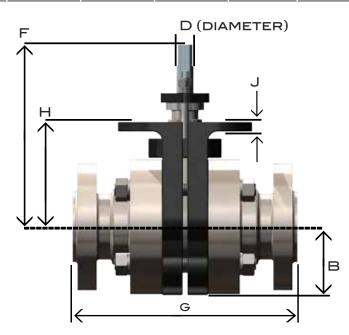
	READY-TO-GO	PREMIUM
SHAFT	A286 (ASTM A638)	A286 (ASTM A638) or Inconel 718 (AMS 5663)
BALL/SEAT MATERIAL	Borided Inconel 718	Borided Inconel 718
BALL PROFILE	Arcuate Cut Ball	Arcuate Cut Ball or Vari-V Ball
CORE COMPONENTS (BODY, BONNET & ENDS)	ASTM A351 Gr. CF8M or A479 Gr. 316	Any commercially available material
TEMPERATURE RATING	-50°C to 537°C (-58°F to 1000°F)	-50°C to 537°C (-58°F to 1000°F)
SEALING TYPE	Fully bi-directional MSS-SP-61 or API 6D (On/Off only)	Fully bi-directional MSS-SP-61, API 6D (On/Off), ANSI FCI 70-2, Class IV, V or VI (Modulating)
PACKING TYPE	Single Packing (Chevron PTFE or Graphite)	Dual Packing (Chevron PTFE or Graphite)

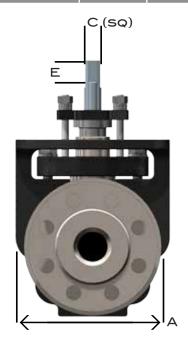
DIMENSIONAL INFORMATION

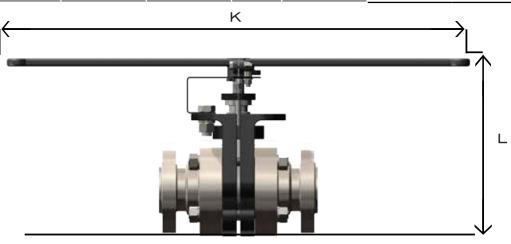
Column values inches/millimetres.

Valve Size	Α	В	С	D	E	F		G		н	Weight (lbs/kg)		l Hole Dia PC	PCD	ISO		K		
(NPS - DN)	^					·	150	300	600		150	300	600	(x4)	, 65	150	.	, C	_
1/2" FP (NPS 1/2 - DN 15)	5/127.0	2.25/57.2	0.373/0.95	0.5/1.3	0.531/13.5	5.84/148.3	4.25/10.8	5.5/14.0	6.5/16.5	3.43/87.0	19/8.6	20/9.1	23/10.5	0.41/10.3	4.016/102.0	FA10	0.38/9.5	16.9/429.3	5.86/148.8
3/4" SP (NPS 3/4 - DN 20)	5/127.0	2.25/57.2	0.373/0.95	0.5/1.3	0.531/13.5	5.84/148.3	4.62/11.7	6/15.2	7.5/19.1	3.43/87.0	21/9.5	23/10.5	26/11.8	0.41/10.3	4.016/102.0	FA10	0.38/9.5	16.9/429.3	5.86/148.8
3/4" FP (NPS 3/4 - DN 20)	6/152.4	2.75/69.9	0.498/1.26	0.625/1.6	0.719/18.3	7.57/192.2	4.62/11.7	6/15.2	7.5/19.1	4.25/108.0	29/13.2	35/15.9	38/17.3	0.56/14.3	4.921/125.0	FA12	0.38/9.5	25/635.0	7.54/191.5
1" SP (NPS 1 - DN 25)	6/152.4	2.75/69.9	0.498/1.26	0.625/1.6	0.719/18.3	7.57/192.2	5/12.7	6.5/16.5	8.5/21.6	4.25/108.0	31/14.1	34/15.5	45/20.5	0.56/14.3	4.921/125.0	FA12	0.38/9.5	25/635.0	7.54/191.5
1" FP (NPS 1 - DN 25)	6/152.4	2.75/69.9	0.498/1.26	0.625/1.6	0.719/18.3	7.57/192.2	5/12.7	6.5/16.5	8.5/21.6	4.25/108.0	31/14.1	34/15.5	45/20.5	0.56/14.3	4.921/125.0	FA12	0.38/9.5	25/635.0	7.54/191.5
1-1/2" SP (NPS 1-1/2 - DN 40)	6/152.4	2.75/69.9	0.498/1.26	0.625/1.6	0.719/18.3	7.57/192.2	6.5/16.5	7.5/19.1	9.5/24.1	4.25/108.0	35/15.9	42/19.1	53/24.1	0.56/14.3	4.921/125.0	FA12	0.38/9.5	25/635.0	7.54/191.5
1-1/2" FP (NPS 1-1/2 - DN 40)	7.75/196.9	3.5/88.9	0.748/1.90	0.875/2.2	1.063/27.0	9.34/237.2	6.5/16.5	7.5/19.1	9.5/24.1	5.38/136.5	60/27.3	67/30.5	80/36.4	0.81/20.7	6.496/165.0	FA16	0.50/12.7	33.5/850.9	9.35/237.5
2" SP (NPS 2 - DN 50)	7.75/196.9	3.5/88.9	0.748/1.90	0.875/2.2	1.063/27.0	9.34/237.2	7/17.8	8.5/21.6	11.5/29.2	5.38/136.5	65/29.5	76/34.5	97/44.1	0.81/20.7	6.496/165.0	FA16	0.50/12.7	33.5/850.9	9.35/237.5
2" FP (NPS 2 - DN 50)	8.5/215.9	3.89/98.8	0.748/1.90	1/2.5	1.125/28.6	10.15/257.8	7/17.8	8.5/21.6	11.5/29.2	6.13/155.6	92/41.8	98/44.5	123/55.9	0.81/20.7	7.5/190.5	N/A	0.63/15.9	33.5/850.9	10.1/256.5
3" SP (NPS 3 - DN 80)	8.5/215.9	3.89/98.8	0.748/1.90	1/2.5	1.125/28.6	10.15/257.8	8/20.3	11.12/28.2	14/35.6	6.13/155.6	108/49.1	126/57.3	150/68.2	0.81/20.7	7.5/190.5	N/A	0.63/15.9	33.5/850.9	10.1/256.5
3" FP (NPS 3 - DN 80)	10.88/276.2	5.07/128.8	1.248/3.17	1.5/3.8	1.813/46.1	13.33/338.5	8/20.3	11.12/28.2	14/35.6	7.88/200.0	167/75.9	198/90.0	241/109.5	0.94/23.8	8.75/222.3	N/A	0.75/19.1		
4" SP (NPS 4 - DN 100)	10.88/276.2	5.07/128.8	1.248/3.17	1.5/3.8	1.813/46.1	13.33/338.5	9/22.9	12/30.5	17/43.2	7.88/200.0	188/85.5	221/100.5	291/132.3	0.94/23.8	8.75/222.3	N/A	0.75/19.1		
4" FP (NPS 4 - DN 100)	13.25/336.6	6.25/158.8	1.248/3.17	1.75/4.4	1.875/47.6	15.05/382.3	9/22.9	12/30.5	17/43.2	9.13/231.8	289/131.4	329/149.5	450/204.5	1.09/27.8	10/254.0	N/A	0.88/22.2	GEARBOX REQUIRED	
6" SP (NPS 6 - DN 150)	13.25/336.6	6.25/158.8	1.248/3.17	1.75/4.4	1.875/47.6	15.05/382.3	15.5/39.4	15.88/40.3	22/55.9	9.13/231.8	428/294.5	459/208.6	571/259.5	1.09/27.8	10/254.0	N/A	0.88/22.2		
6" FP (NPS 6 - DN 150)	16.75/425.5	8/203.2	1.498/3.80	2/5.1	2.125/54.0	17.05/433.1	15.5/39.4	15.88/40.3	22/55.9	11.50/292.1	611/277.7	648/294.5	901/409.5	1.22/31.0	12/304.8	N/A	1.00/25.4		
8" SP (NPS 8 - DN 200)	16.75/425.5	8/203.2	1.498/3.80	2/5.1	2.125/54.0	17.05/433.1	18/45.7	19.75/50.2	26/66.0	11.50/292.1	679/308.6	746/339.1	1030/468.2	1.22/31.0	12/304.8	N/A	1.00/25.4		









OPTIONAL T-HANDLE

PRESSURE / TEMPERATURE CHARTS



SS: A351 Gr CF8M / A479, Gr 316 F22: A217 Gr WC9 / A182 Gr F22 Class 3 Working Pressures by Class. Bar/psi Working Pressures by Class. Bar/psi Temperature °C / °F 150 300 600 Temperature °C / °F 150 300 600 -29 to 38 / -20 to 100 18.9 / 275 49.6 / 719 99.3 / 1440 -29 to 38 / -20 to 100 19.8 / 287 51.7 / 750 103.4 / 1500 50 / 122 18.4 / 267 48.1 / 698 96.2 / 1395 50 / 122 19.5 / 283 51.7 / 750 103.4 / 1500 100 / 212 16.2 / 235 42.2 / 612 84.4 / 1224 100 / 212 17.7 / 257 51.5 / 747 103 / 1494 150 / 312 14.8 / 215 38.5 / 558 77 / 1117 150 / 312 15.8 / 229 50.3 / 730 100.3 / 1455 13.7 / 199 35.7 / 518 71.3 / 1034 200 / 392 13.8 / 200 48.6 / 705 97.2 / 1410 200 / 392 46.3 / 672 92.7 / 1345 250 / 482 12.1 / 176 33.4 / 484 66.8 / 969 250 / 482 12.1 / 176 300 / 572 10.2 / 148 31.6 / 458 63.2 / 917 300 / 572 10.2 / 148 42.9 / 622 85.7 / 1243 325 / 617 9.3 / 135 30.9 / 448 61.8 / 896 325 / 617 9.3 / 135 41.4 / 601 82.6 / 1198 350 / 662 8.4 / 122 30.3 / 440 60.7 / 880 350 / 662 8.4 / 122 40.3 / 585 80.4 / 1166 375 / 707 7.4 / 107 29.9 / 434 59.8 / 867 375 / 707 7.4 / 107 38.9 / 564 77.6 / 1125 400 / 752 6.5 / 94 29.4 / 427 58.9 / 854 400 / 752 6.5 / 94 36.5 / 529 73.3 / 1063 425 / 797 425 / 797 5.5 / 80 35.2 / 511 70 / 1015 5.5 / 80 29.1 /422 58.3 / 846 450 / 842 4.6 / 67 28.8 / 418 57.7 / 837 450 / 842 4.6 / 67 33.7 / 489 67.7 / 982 31.7 / 460 63.4 / 920 475 / 887 3.7 / 53 28.7 / 416 573 / 831 475 / 887 3.7 / 54 500 / 932 2.8 / 41 28.2 / 409 56.5 / 820 500 / 932 2.8 / 41 28.2 / 409 56.5 / 820 1.4 / 20 25.2 / 366 18.4 / 267 538 / 1000 50 / 725 538 / 1000 1.4 / 20 36.9 / 535 SL: A351 Gr CF3M / A479 Gr 316L Duplex A995 Gr 1B / A479 Gr S31803 Super Duplex A995 Gr 6A / A479 Gr S32760 Working Pressures by Class. Bar/psi Working Pressures by Class. Bar/psi Temperature °C / °F 150 300 600 Temperature °C / °F 150 300 600 -29 to 38 / -20 to 100 41.4 / 601 82.7 / 1199 15.9 / 231 -29 to 38 / -20 to 100 51.7 / 750 103.4 / 1500 155.1 / 2250 50 / 122 15.3 / 222 40 / 580 80 / 1160 100 / 212 13.3 / 193 34.8 / 505 69.6 / 1010 50 / 122 51.7 / 750 103.4 / 1500 155.1 / 2250 150 / 312 12 / 174 31.4 / 455 100 / 212 50.7 / 735 101.3 / 1469 152 / 2205 62.8 / 911 200 / 392 11.2 / 162 29.2 / 424 58.3 / 846 150 / 312 45.9 / 666 91.9 / 1333 137.8 / 1999 250 / 482 10.5 / 152 27.5 / 399 42.7 / 619 85.3 / 1237 54.9 / 796 200 / 392 128 / 1857 300 / 572 10 / 145 26.1 / 379 52.1 / 756 250 / 482 40.5 / 487 80.9 / 1173 121.4 / 1761 325 / 617 9.3 / 135 25.5 / 370 300 / 572 38.9 / 564 77.7 / 1127 116.6 / 1691 51 / 739 76.3 / 1107 350 / 662 8.4 / 122 25.1 / 364 50.1/ 727 325 / 617 38.2 / 554 114.5 / 1661 375 / 707 7.4 / 107 24.8 / 360 49.5 / 718 F11: A217 Gr WC6 / A182 Gr F11 Class 2 400 / 752 6.5 / 94 24.3 / 352 48.6 / 705 Working Pressures by Class. Bar/psi 425 / 797 5.5 / 80 23.9 / 346 47.7 / 692 Temperature °C / °F 150 300 600 450 / 842 4.6 / 67 23.4 / 339 46.8 / 679 -29 to 38 / -20 to 100 19.8 / 287 51.7 / 750 103.4 / 1500 CS: A216 Gr WCB / A105 103.4 / 1500 50 / 122 19.5 / 283 51.7 / 750 Working Pressures by Class. Bar/psi 100 / 212 51.5 / 747 103 / 1494 17.7 / 257 Temperature °C / °F 150 300 600 150 / 312 15.8 / 229 49.7 / 721 99.5 / 1443 -29 to 38 / -20 to 100 19.6 / 284 51.1 / 741 102.1 / 1481 200 / 392 13.8 / 200 48 / 696 95.9 / 1391 50 / 122 250 / 482 46.3 / 672 92.7 / 1344 19.2 / 278 50.1 / 727 100.2 / 1453 12.1 / 175 42.9 / 622 85.7 / 1243 100 / 212 17.7 / 257 46.6 / 676 93.2 / 1352 300 / 572 10.2 / 148 150 / 312 15.8 / 229 45.1 / 654 90.2 / 1308 325 / 617 9.3 / 135 41.4 / 600 82.6 / 1198 200 / 392 13.8 / 200 43.8 / 635 8.4 / 122 40.3 / 585 80.4 / 1166 87.6 / 1271 350 / 662 250 / 482 12.1 / 175 41.9 / 608 83.9 / 1217 375 / 707 7.4 / 107 38.9 / 564 77.6 / 1125 36.5 / 529 300 / 572 10.2 / 148 39.8 / 577 79.6 / 1155 400 / 752 6.5 / 94 73.3 / 1063 325 / 617 9.3 / 135 38.7 / 561 77.4 / 1123 425 / 797 5.5 / 80 35.2 / 511 70 / 1015 350 / 662 37.6 / 545 33.7 / 489 67.7 / 982 8.4 / 122 75.1 / 1089 450 / 842 4.6 / 67 375 / 707 7.4 / 107 72.7 / 1054 475 / 887 31.7 / 460 63.4 / 920 36 4 / 528 37/54

 C_v is defined as the flow of water at 7°F in US gallons per minute though a valve with a 1 psi pressure drop.

Valve Size	Vari-V	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	Non Vari-V Ball C _v 's
1/2" FP	10° 30° 60° 90°	2.95 5.76 10.13 15.28	2.36 3.99 6.93 9.83	1.94 3.15 4.56 6.29	1.53 2.22 3.18 4.10	1.19 1.46 2.02 2.57	0.84 0.89 1.32 1.58	0.51 0.51 0.73 0.84	0.13 0.14 0.15 0.16	0.00 0.02 0.03 0.03	0.00 0.00 0.00 0.00	23
3/4" SP	10° 30° 60° 90°	3.01 4.96 8.16 11.18	2.22 3.62 5.84 7.73	1.84 2.89 4.54 5.57	1.31 2.13 3.00 3.87	1.01 1.45 1.82 2.39	0.71 0.83 1.18 1.36	0.49 0.53 0.67 0.83	0.12 0.13 0.14 0.15	0.00 0.04 0.04 0.04	0.00 0.00 0.00 0.00	15
3/4" FP	10° 30° 60° 90°	4.27 8.43 16.84 27.63	3.55 6.45 11.09 17.52	2.70 4.88 7.59 11.28	2.13 3.51 5.12 6.70	1.55 2.18 3.17 4.14	1.19 1.49 2.09 2.47	0.66 0.79 0.95 1.29	0.37 0.38 0.41 0.46	0.03 0.03 0.03 0.03	0.00 0.00 0.00 0.00	45
1" SP	10° 30° 60° 90°	4.03 7.63 15.82 19.37	3.29 5.93 10.80 13.37	2.48 4.59 7.47 9.17	2.02 3.30 4.74 6.28	1.50 2.38 3.18 4.07	0.98 1.33 1.96 2.47	0.58 0.72 0.95 1.44	0.34 0.35 0.36 0.60	0.01 0.01 0.01 0.02	0.00 0.00 0.00 0.00	30
1" FP	10° 30° 60° 90°	5.88 12.34 26.91 40.62	4.97 9.86 17.37 26.78	4.25 7.50 12.47 17.96	3.28 5.36 8.19 11.74	2.14 3.89 5.45 7.48	1.74 2.41 3.45 4.49	1.06 1.63 2.16 2.55	0.84 0.95 0.97 1.09	0.22 0.24 0.26 0.28	0.00 0.00 0.00 0.00	77
1 1/2" SP	10° 30° 60° 90°	5.166 9.675 20.97 33.48	4.581 8.46 14.031 23.481	3.69 5.967 9.927 15.534	2.817 4.536 7.299 9.396	2.088 3.195 4.536 6.219	1.431 2.07 2.88 3.933	0.981 1.386 1.764 2.142	0.594 0.612 0.855 0.936	0.189 0.207 0.216 0.234	0.00 0.00 0.00 0.00	82
1 1/2" FP	10° 30° 60° 90°	12.76 28.60 55.73 96.99	11.06 22.35 40.16 62.87	7.65 15.23 26.54 38.90	5.94 11.38 17.53 24.95	5.21 8.30 11.87 15.69	3.50 5.48 7.31 9.73	2.41 2.46 3.07 5.46	0.89 1.37 1.59 2.37	0.00 0.46 0.34 0.62	0.00 0.00 0.00 0.00	192
2" SP	10° 30° 60° 90°	13.41 27.15 49.56 80.14	10.22 20.92 35.81 52.63	8.12 15.36 24.77 35.60	5.98 11.54 17.20 23.75	4.74 7.25 10.88 14.43	3.88 4.90 7.21 9.03	2.43 3.43 4.10 5.42	1.28 1.37 1.71 2.07	0.00 0.41 0.37 0.00	0.00 0.00 0.00 0.00	120
2" FP	10° 30° 60° 90°	21.53 47.47 92.06 173.40	16.98 37.46 69.69 110.49	16.01 27.32 49.08 73.44	12.47 20.75 31.92 48.50	10.07 14.12 21.36 29.56	5.26 9.65 13.98 18.56	4.43 6.53 8.52 11.54	2.37 3.05 4.21 5.13	0.79 1.15 1.31 1.44	0.00 0.00 0.00 0.00	358
3" SP	10° 30° 60° 90°	16.767 37.566 74.898 125.46	13.338 30.222 54.036 80.856	11.052 23.544 39.915 55.467	8.082 16.668 26.982 37.188	6.3 12.24 18.369 24.813	4.509 7.731 11.304 15.912	2.781 4.239 6.597 8.784	1.773 2.304 3.339 4.743	0.441 0.477 0.585 0.891	0.00 0.00 0.00 0.00	350
3" FP	10° 30° 60° 90°	47.02 105.15 190.26 388.90	32.65 80.57 136.08 235.03	26.34 58.10 112.14 157.48	19.84 42.90 82.22 99.49	15.89 29.96 54.10 64.78	12.27 19.58 27.6 38.4	7.97 12.14 15.80 22.2	3.98 5.04 13.54 11.64	1.81 1.96 11.06 3.53	0.00 0.00 0.00 0.00	858
4" SP	10° 30° 60° 90°	44.07 95.43 171.46 283.27	33.64 77.54 139.82 208.78	27.16 57.24 103.63 147.71	21.85 42.34 68.86 98.21	16.37 28.95 47.12 62.96	11.61 19.77 27.80 41.66	8.46 13.05 16.79 25.34	4.82 6.04 7.85 10.82	1.66 2.06 2.07 3.15	0.00 0.00 0.00 0.00	607
4" FP	10° 30° 60° 90°	58.97 160.29 332.17 652.17	52.74 131.67 243.98 401.89	43.58 100.78 174.60 262.88	33.52 72.91 118.86 170.63	25.93 53.71 81.15 111.42	18.16 35.10 51.80 73.39	11.12 19.49 24.79 43.49	7.42 10.73 15.34 24.32	3.66 3.90 6.48 7.20	1.65 1.34 1.01 1.38	1512
6" SP	10° 30° 60° 90°	71.0 164.0 270.0 409.0	58.0 129.0 213.0 329.0	45.0 95.0 163.0 244.0	35.0 70.0 115.0 166.0	26.0 51.0 76.0 110.0	20.0 36.0 51.0 72.0	13.0 22.0 31.0 44.0	7.0 11.0 15.0 22.0	3.1 4.1 4.8 7.4	0.00 0.00 0.00 0.00	1055
6" FP	10° 30° 60° 90°	148.0 367.0 816.0 1292.0	112.0 286.0 568.0 890.0	91.0 205.0 414.0 581.0	76.0 146.0 272.0 382.0	55.0 104.0 177.0 234.0	40.0 70.0 110.0 145.0	30.0 47.0 67.0 88.0	19.0 25.0 34.0 45.0	7.4 9.0 10.0 14.4	0.00 0.00 0.00 0.00	3664
8" SP	10° 30° 60° 90°	134.0 338.0 648.0 1106.0	112.0 270.0 513.0 768.0	92.0 209.0 378.0 538.0	86.0 159.0 260.0 360.0	54.5 109.0 175.0 242.0	35.5 75.0 112.0 148.0	28.0 46.0 65.0 82.0	17.0 24.0 32.0 42.0	6.8 8.7 10.0 13.0	0.00 0.00 0.00 0.00	2060

For valve sizes larger than 8", please contact Gosco Valves for Cv information.

69.4 / 1007

500 / 932

538 / 1000

25.7 / 373

14.9 / 216

51.5 / 747

29.8 / 432

2.8 / 41

1.4 / 20

34.7 / 503

28.8 / 418

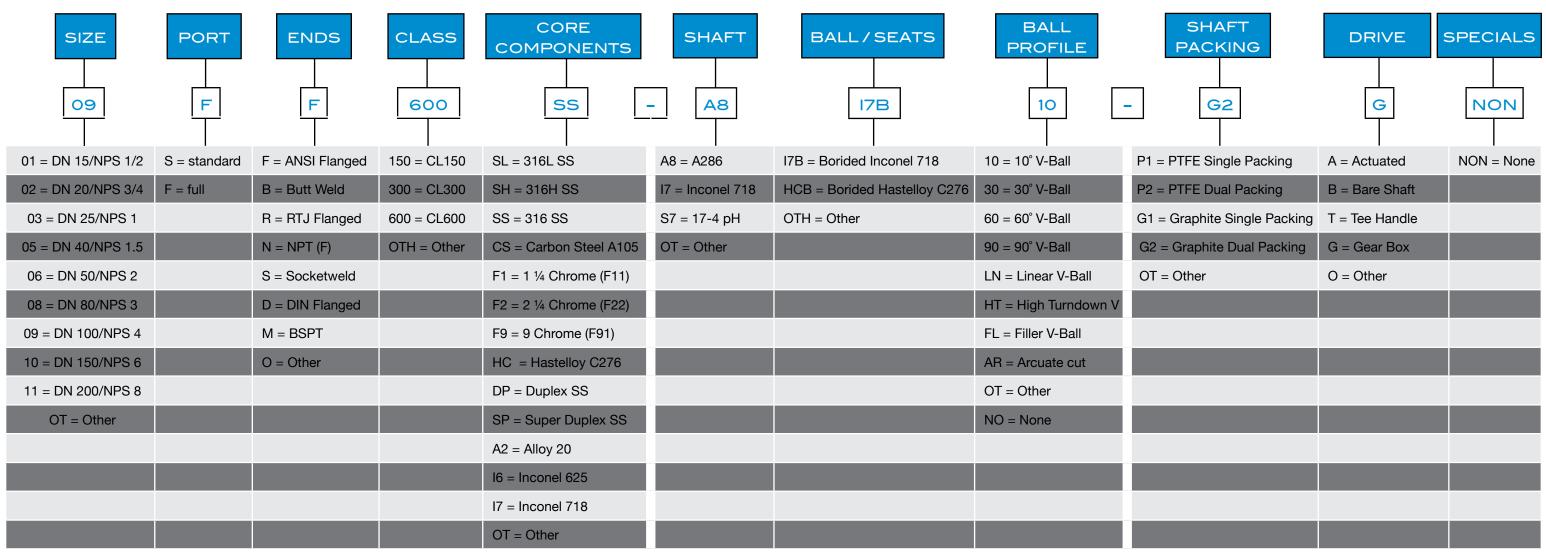
6.5 / 94

5.5 / 80

400 / 752

PART NUMBERING SYSTEM

(e.g. part number: 09FF600-SSA817B10-G2GNON)



Example valve: DN 100 / NPS 4, full port, Class 600 ANSI flanged, 316SS body, A286 shaft, Borided Inconel 718 ball and seats, 10° V-Ball, dual graphite packing, gearbox, no special †

WARRANTY

WARRANTY - The Seller warrants its products against defects in material or workmanship, when used on those services approved by the Seller, for a period of one (1) year from date of original shipment. The Seller's liability under this warranty shall be limited to repair or replacement at Seller's option of such defective products, F.O.B. factory, upon proof of defect satisfactory to Seller. Seller shall have no further liability for damages of any kind, including but not limited to personal injuries and property damage, resulting from use of Seller's product. This warranty is expressly in lieu of all other warranties, either express or implied, including any implied warranty as to merchantability or fitness for any particular purpose. Special and consequential damages: In no event shall Seller be liable for any consequential or special damages arising from any breach of these terms and conditions from the use of its products.

DESIGN TESTING & SPECIFICATIONS

- ASTM A 194/A193M-96b Alloy Steel and Stainless Steel Bolting Materials for High Temperature Service
- ASTM A 194/A194M-96 Carbon and Alloy Steel Nuts for High Pressure and High Temperature Service
- ANSI/ASME B1.3M Screw Thread Gauging System for Dimensional Acceptability
- ANSI/ASME B16.10 Face-to-Face and End-to-End Dimensions of Valves
- ANSI/ASME B16.34 Valves-Flanged, Threaded and Welding Ends
- MSS SP-25 Standard Marking System for Marking Valves, Fittings, Flanges and Unions
- CSA B51-95 Boiler, Pressure Vessel and Pressure Piping Code
- \bullet Mill certificates, PMI, and additional non-destructive testing are available if required
- API 608 Metal Ball Valves Flanged, Threaded and Welding ends
- API 598 Valve Inspection and Testing
- API 6D Pipeline Valves
- ISO 9001: 2008
- MSS-SP-61 Pressure Testing of Valves
- ANSI FCI 70-2 Control Valve Seat Leakage Classifications

