SVF FLOW CONTROLS

Series D8/T7 Ball Valve

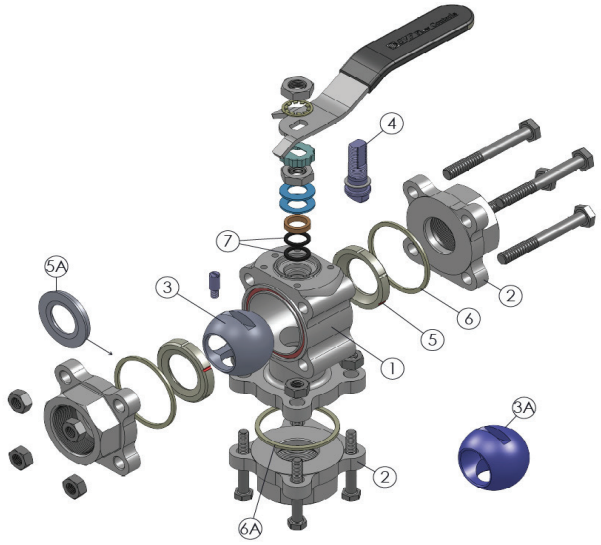
Three-Piece Diverter Ball Valve
Sizes 1/4" ~ 2"

The SVF Series D8/T7, three piece diverter valve represents the next generation in design and performance. This process quality, high-performance ball valve has been engineered and manufactured to meet all of the industry standards for quality and performance.

SERIES D8/T7 DESIGN FEATURES

- ✓ Available in a variety of flow patterns
- ✓ Self-relieving seats that reduce operating torque and improve seat life
- ✓ Encapsulated body seals to facilitate welding without disassembly (D8 Only)
- ✓ Live-loaded stem seal ensures seal-tight pressure containment even under thermal cycling
- ✓ Three-piece "swing out" design offers easy access for in-line maintenance
- ✓ ISO 5211 mounting pad for easy actuation
- ✓ Standard seat material on D8 Series is TFM1600 ™
- ✓ Blowout proof stem adds safety & reliability
- ✓ Full range of options to suit specific requirements

The Series D8/T7 Ball Valve is available with additional options. Contact SVF for more information.



MATERIALS OF CONSTRUCTION

ITEM	DESCRIPTION	MATERIALS SPECIFICATIONS
1	Body	316 Stainless Steel (ASTM A351 - CF8M) Carbon Steel (ASTM A216 - WCB)
2	End Connector	316L Stainless Steel (ASTM A351 - CF3M) Carbon Steel (ASTM A216 - WCB)
3 3A	Ball (S1 = 90°) Ball (S2 = 180°)	316 Stainless Steel (ASTM A351 - CF8M)
4	Stem	316 Stainless Steel (ASTM A276) Stainless Steel 17-4pH (ASTM A456 - 630)
5	Seat (Series D8)	TFM1600™, Delrin®, UHMWPE, PEEK, SupraLon®
5A	Seat (Series T7)	TFM1600™, SupraLon® (1-piece Seat/ Seal) No other seat material available for Series T7
6	Body Seal (D8)	PTFE, Buna "N", GRAFOIL®, UHMWPE, Viton®, EPDM, SupraLon®
6A	Body Seal (T7)	PTFE, GRAFOIL®, SupraLon®

SPECIFICATION STANDARDS OF COMPLIANCE

SVF Series D8/T7 Ball Valves are available in designs that meet the following Industry Standards:

- ANSI
- ASME
- API
- NACE
- ASTM
- DIN
- ISO
- MSS

Contact SVF for specific applications

What do you need today? ™

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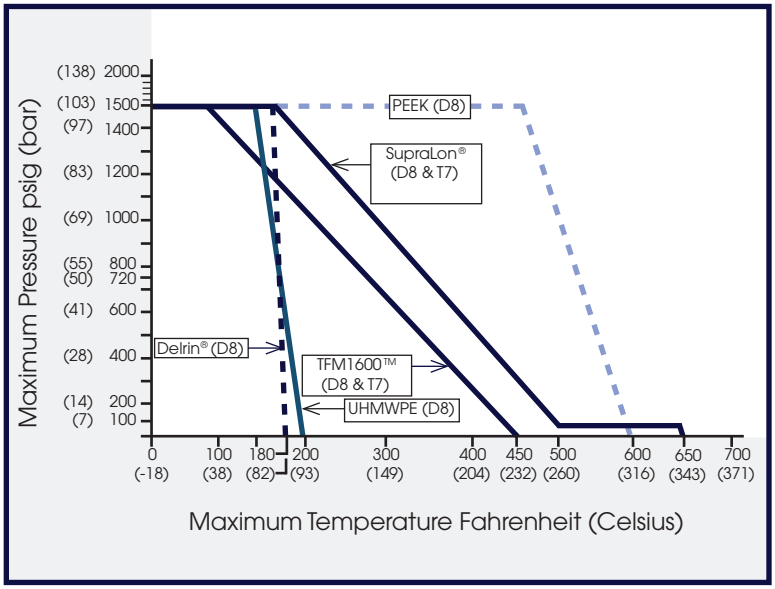
DIMENSIONS, WEIGHT, CV, TORQUE

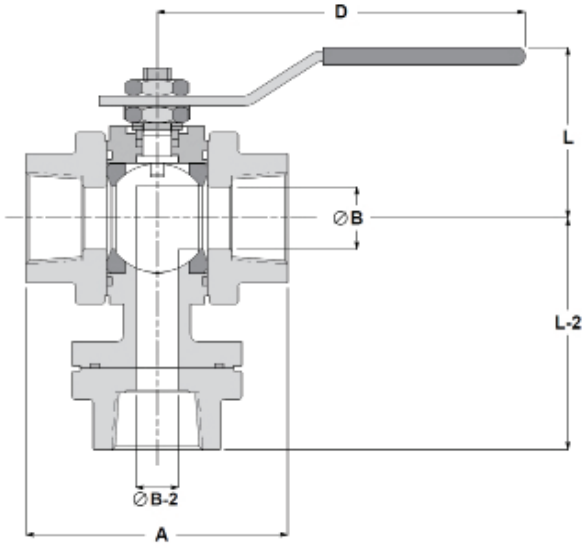
Size	A		B		B-2		D		L		L-2		Weight		Cv	Torque**	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs	kg		in-lbf	Nm
1/4"*	2.60	66	0.41	10	0.38	10	5	127	1.8	46	2.75	70	2	0.9	3	45	5
3/8"*	2.60	66	0.41	10	0.38	10	5	127	1.8	46	2.75	70	2	0.9	3	45	5
1/2"	2.60	66	0.41	10	0.38	10	5	127	1.8	46	2.75	70	2	0.9	5	45	5
3/4"	2.81	71	0.56	14	0.47	12	5	127	1.9	48	2.75	70	2	0.9	5	45	5
1"	3.70	94	0.81	21	0.63	16	6	152	2.4	61	3.45	88	4	1.8	10	100	11
1-1/2"	4.57	116	1.25	32	1.05	27	7	178	3.2	81	4.27	109	7	3.2	27	280	32
2"	5.04	128	1.50	38	1.38	35	7	178	3.3	84	4.50	114	11	5.0	36	360	41

D8/T7 - PRESSURE/TEMPERATURE CHART



* 1/4" and 3/8" end connections are Full Port

** At full differential pressure for clean fluids with TFM1600™ Seats



HOW TO ORDER SERIES D8/T7 BALL VALVES

Please refer to the last page for our comprehensive
How to Order Guide for Series D8/T7 Ball Valves.

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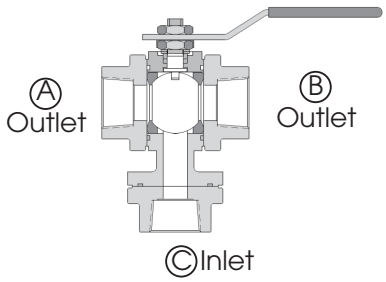
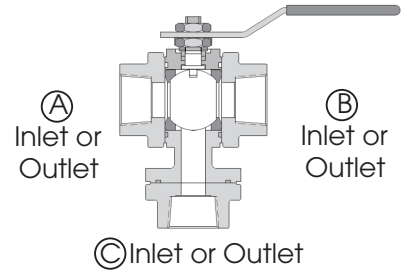
D8 DIVERTER VALVE FLOW PATHS



The D8 Diverter Valve consists of a two-piece seat and body seal with the inlet at Port C.

Flow Paths are:
- Inlet Port Ⓒ to Outlet Port Ⓐ
- Inlet Port Ⓒ to Outlet Port Ⓑ

T7 THREE-WAY VALVE FLOW PATHS



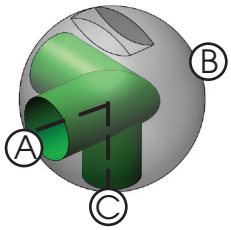
The T7 Three-Way Valve consists of a one-piece seat and body seal, allowing the inlet to be at any one of the ports A, B, or C.

Flow Paths are:
- Inlet Port Ⓒ to Outlet Port Ⓐ
- Inlet Port Ⓒ to Outlet Port Ⓑ
- Inlet Port Ⓐ to Outlet Port Ⓒ
- Inlet Port Ⓑ to Outlet Port Ⓒ

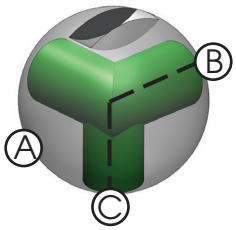
OPERATION

The D8 Diverter Valve or T7 Three-Way Valve can be supplied with either 90° operation (S1 ball) or 180° operation (S2 ball).

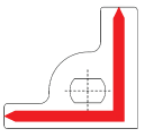
S1 (90° Operation)



Ports C and A Open (0°)



Ports C and B Open (90°)

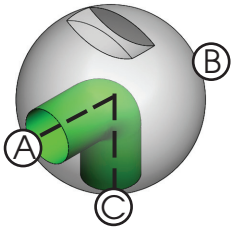


For S1 (90° Operation), the Stop Plate is an integral part of the handle.

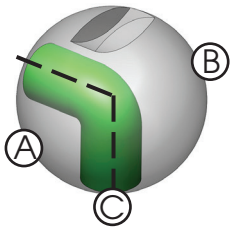
NOTE: It is normal that media will flow from Port "C" to both Ports "A" & "B" while the ball is being rotated from one flow path to the other.

Contact SVF for additional flow paths

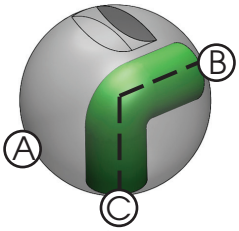
S2 (180° Operation)



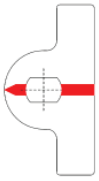
Ports C and A Open (0°)



Ports A and B Closed (90°)



Ports C and B Open (180°)



For S2 (180° Operation), the Stop Plate is a separate part (Refer to #20 on the Materials of Construction).

NOTE: Media flow will not occur when the handle is in-line (parallel) with the body of the valve. This is the CLOSED/SHUT-OFF position (Refer to D8/T7 IOM).

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Ordering Code Sequence (Columns 1 thru 11)

1	2	3	4	5	6
SERIES	BODY	ENDS	BALL	STEM	SEAT MATERIAL
D800 =	4 = Carbon Steel ASTM A216 WCB 6 = 316 Stainless Steel ASTM A351 CF8M	4 = Carbon Steel ASTM A216 WCB 6 = 316L Stainless Steel ASTM A351 CF3M	6 = 316 Stainless Steel ASTM A351 CF8M 6 = 316 Stainless Steel ASTM A351 CF8M	6 = 316 Stainless Steel ASTM A276-316 M = Stainless Steel 17-4 pH ASTM A564 630	A = TFM1600™ D = Delrin** U = UHMWPE K = PEEK (Requires 17-4 Stem - Code M) S = SupraLon

7	8	9	10	11
BODY SEAL	END CONNECTIONS	VALVE SIZE	OPTIONS*	SPECIAL SERVICES*
T = PTFE B = Buna "N" G = GRAFOIL U = UHMWPE V = Viton E = EPDM S = SupraLon	SE0 = Screwed Ends (FNPT) SW0 = Socket Weld Ends BW0 = Butt Weld Ends Schedule 40 wall (Standard) Butt Weld Ends: BWA = Schedule 5 BWB = Schedule 10	002 = 1/4" (Full Port) 003 = 3/8" (Full Port) 005 = 1/2" 007 = 3/4" 010 = 1" 015 = 1-1/2" 020 = 2"	00 = None S1 = 3-Way Ball, 90°, "LL" Port S2 = 3-Way Ball, 180°, "L" Port AU = S1 Ball & Locking Device AV = S1 Ball & Oval Handle AW = S1 Ball & ISO Cast Stem Extension AZ = S2 Ball & Locking Device A3 = S1 Ball & Oval Handle A4 = S2 Ball & ISO Cast Stem Extension JZ = S1 Ball, Locking Device & ISO Cast Stem Extension J8 = S1 Ball, Locking Device & Oval Handle KA = S2 Ball, Locking Device & ISO Cast Stem Extension KF = S2 Ball, Locking Device & Oval Handle	00 = None XC = Oxygen Cleaned SF = Degreased (Silicone Free) HC = High Cycle Stem Kit

Order Example: (D8006666ATSE0010S100) The Part Number will contain 20 digits.

Ordering Code Sequence >>	1	2	3	4	5	6	7	8	9	10	11
Sample Part Number >>	D800	6	6	6	6	A	T	SE0	010	S1	00
	Valve Series	Body Material	End Material	Ball	Stem	Seat Material	Seal Material	End Connections	Valve Size	Options*	Special Services*

* Not all Options or Special Services available on all ball valves. Consult SVF for additional information.
** Delrin seats cannot be used for Oxygen service.

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Ordering Code Sequence (Columns 1 thru 11)

1	2	3	4	5	6
SERIES	BODY	ENDS	BALL	STEM	SEAT MATERIAL
T700 =	4 = Carbon Steel ASTM A216 WCB 6 = 316 Stainless Steel ASTM A351 CF8M	4 = Carbon Steel ASTM A216 WCB 6 = 316L Stainless Steel ASTM A351 CF3M	6 = 316 Stainless Steel ASTM A351 CF8M	6 = 316 Stainless Steel ASTM A276-316	T = PTFE** N = NRG** A = TFM1600™ S = SupraLon

7	8	9	10	11
BODY SEAL	END CONNECTIONS	VALVE SIZE	OPTIONS*	SPECIAL SERVICES*
T = PTFE** N = NRG** A = TFM1600™ S = SupraLon	SE0 = Screwed Ends (FNPT) SW0 = Socket Weld Ends BW0 = Butt Weld Ends Schedule 40 wall (Standard) Butt Weld Ends: BWA = Schedule 5 BWB = Schedule 10	002 = 1/4" (Full Port) 003 = 3/8" (Full Port) 005 = 1/2" 007 = 3/4" 010 = 1" 015 = 1-1/2" 020 = 2"	00 = None S1 = 3-Way Ball, 90°, "LL" Port S2 = 3-Way Ball, 180°, "L" Port AU = S1 Ball & Locking Device AV = S1 Ball & Oval Handle AW = S1 Ball & ISO Cast Stem Extension AZ = S2 Ball & Locking Device A3 = S1 Ball & Oval Handle A4 = S2 Ball & ISO Cast Stem Extension JZ = S1 Ball, Locking Device & ISO Cast Stem Extension J8 = S1 Ball, Locking Device & Oval Handle J9 = S2 Ball, Locking Device & ISO Cast Stem Extension KE = S2 Ball, Locking Device & Oval Handle	00 = None XC = Oxygen Cleaned SF = Degreased (Silicone Free) HC = High Cycle Stem Kit

Order Example: (T7006666TTSE0010S100) The Part Number will contain 20 digits.

Ordering Code Sequence >>	1	2	3	4	5	6	7	8	9	10	11
Sample Part Number >>	T700	6	6	6	6	T	T	SE0	010	S1	00
	Valve Series	Body Material	End Material	Ball	Stem	Seat Material	Seal Material	End Connections	Valve Size	Options*	Special Services*

* Not all Options or Special Services available on all ball valves. Consult SVF for additional information.
** PTFE & NRG "1 Piece Seat & Seal" are the only materials available for "T7" Valve Series.

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