

The SVF Series VB41 Characterized Flanged "V" Ball Control Valves are high performance direct mount ball valves providing high rangeability and precision throttling required for clean or dirty liquids and gases.

### SERIES VB41 DESIGN FEATURES

- ✓ Characterized "V" Ball with 15°, 30° and 60° V-Port provides "equal percentage" flow control
- ✓ Standard Fire Safe Certification to API 607 (with Grafoil Body Seals only) Anti-Static
- ✓ Standard NACE MR0175
- ✓ Built-In ISO 5211 direct mounting pad for easy automation
- ✓ Standard seat material is SupraLon™
- ✓ Available with a pneumatic or electric actuator and positioner
- ✓ Live-loaded stem packing ensures seal-tight pressure containment even under thermal cycling

### SPECIFICATION STANDARDS OF COMPLIANCE

- Design - ASME B16.34, NACE MR0175
- Face to Face: ASME B16.10
- End Flange: ASME B16.5
- Wall Thickness: ASME B16.34
- Inspection & Testing: API 598
- Fire Safe: API 607, ISO 10497

### VB41 MATERIALS OF CONSTRUCTION

ITEM #	PART NAME	MATERIALS SPECIFICATIONS
1	Body	316 Stainless Steel (ASTM A351-CF8M), Carbon Steel (ASTM A216-WCB)
2	End Cap	316 Stainless Steel (ASTM A351-CF8M), Carbon Steel (ASTM A216-WCB)
3	Ball	316 Stainless Steel (ASTM A351-CF8M)
4	Stem	316 Stainless Steel (ASTM A276-316)
5	Seat	SupraLon™, TFM1600™
6	Body Seal	316 Stainless Steel+GRAFOIL®, PTFE
7	Stem Seal	GRAFOIL® or PTFE (Both with SupraLon™ Thrust Washer)



VB41 Automated Package  
(2" Valve shown with SVF *aero*<sup>2</sup> Actuator & SVF Positioner)



15° V Ball

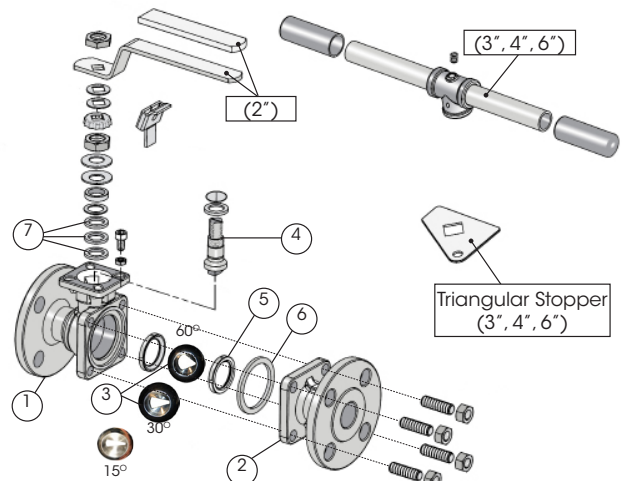


30° V Ball



60° V Ball

Parts shown sold as complete kit, not separately



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HIGH PURITY VALVES  
**CleanFLOW**

**PRO-SPEC**  
PROCESS SPECIFIC  
WWW.PRO-SPEC.NET

**QUALITY FLOWS**  
THROUGH US

### DIMENSIONS, WEIGHT, TORQUE

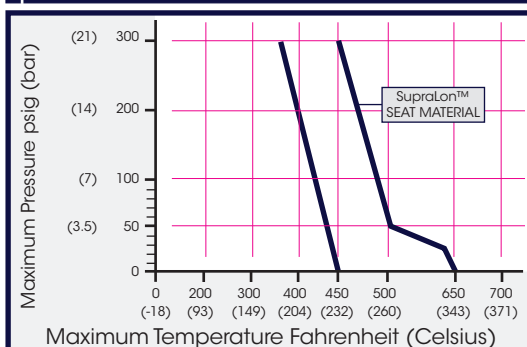
Size	A		D		L		Weight		Torque <sup>†</sup> (TFM1600™)		Torque <sup>†</sup> (SupraLon™)	
	in.	mm	in.	mm	in.	mm	lbs	kg	in-lbf	Nm	in-lbf	Nm
2"	7.00	178	7.50	190	4.41	112	24	10.9	371	42	598	68
3"	8.00	203	11.80	300	6.30	160	38	17.4	988	112	1572	178
4"	9.00	229	15.75	400	8.03	204	69	31.5	1508	171	2400	271
6"	15.50	394	31.50	800	10.85	275	161	73.6	6097	689	7926	895

### VB41 Cv VALUES

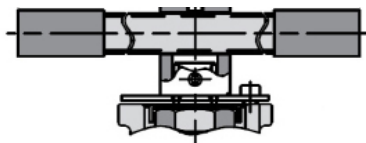
← IDEAL CONTROL RANGE →

Size	V Angle	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
2"	15°	0.01	0.47	2.14	3.82	6.25	9.43	12.78	16.96	21.42	24.21
	30°	0.02	1.18	2.59	5.7	9.84	15.25	23.02	32.12	42.09	42.18
	60°	0.05	1.51	2.76	6.9	12.08	19.63	31.35	47.42	70.82	81.13
3"	15°	0.01	2.52	6.51	10.76	17.86	26.26	32.75	41.45	52.00	62.74
	30°	0.02	1.88	6.1	12.01	20.45	31.24	44.97	61.75	84.75	103.82
	60°	0.06	2.24	8.09	17.3	29.89	47.73	73.19	106.87	157.58	190.4
4"	15°	0.02	4.7	7.3	11.4	19.3	25.4	34.6	45.7	59.4	65.8
	30°	0.08	4.24	11.07	21.56	36.32	56.01	81.77	113.91	157.89	176.19
	60°	0.09	5.64	15.02	29.85	51.1	83.04	132.96	212.46	340.9	401.72
6"	15°	0.02	7.6	12.3	22.8	39.9	54.3	65.9	94.1	114.5	136.2
	30°	0.03	4.41	17.35	39.34	70.13	108.15	160.02	226.81	301.33	387.09
	60°	0.10	6.49	26.68	62.56	112.45	183.18	289.67	437.26	654.69	782.39

### PRESSURE/TEMPERATURE CHART

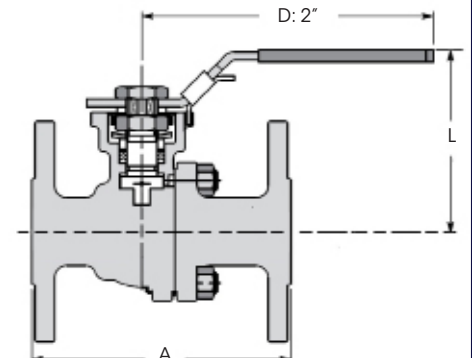


D: 3", 4", 6"



**HIGH PRESSURE DROPS:**  
Engineered to withstand high pressure drops while providing leak-free operation, the SVF "V" Ball Series delivers the precise control required in today's process control industries. The  $\Delta P$  limit is up to 500 psi for liquids and up to 300 psi for steam. Consult SVF for additional information on valve sizing and pressure drop limitations for your particular application.

<sup>†</sup> Torques at full differential pressure



### HOW TO ORDER SERIES VB41 BALL VALVES

Please refer to the next page for our comprehensive  
How to Order Guide for Series VB41 Ball Valves.

Ordering Code Sequence (Columns 1 thru 11)

1	2	3	4	5	6
SERIES	BODY	ENDS	BALL	STEM	SEAT MATERIAL
VB41	4 = Carbon Steel ASTM A216 WCB 6 = 316 Stainless Steel ASTM A351 CF8M	4 = Carbon Steel ASTM A216 WCB 6 = 316 Stainless Steel ASTM A351 CF8M	6 = 316 Stainless Steel ASTM A351 CF8M	6 = 316 Stainless Steel ASTM A276 316	S = SupraLon (Standard)  A = TFM1600™

7	8	9	10	11
BODY SEAL	END CONNECTIONS	VALVE SIZE	OPTIONS*	SPECIAL SERVICES*
G = GRAFOIL (Standard)  T = PTFE	RF1 =  150# Flanged Ends (Raised Face)	020 = 2"  030 = 3"  040 = 4"  060 = 6"	V1 = 15° V-Port Control Ball V3 = 30° V-Port Control Ball V6 = 60° V-Port Control Ball D1 = 15° V-port Ball & ISO Stem Extension DV = 30° V-port Ball & ISO Stem Extension D7 = 60° V-port Ball & ISO Stem Extension	00 = None XC = Oxygen Cleaned SF = Degreased (Silicone Free) UH = Vent / Relief Hole**

Order Example: (VB414466SGRF1020V600) The Part Number will contain 20 digits.

Ordering Code Sequence >>	1	2	3	4	5	6	7	8	9	10	11
Sample Part Number >>	VB41	4	4	6	6	S	G	RF1	020	V6	00
	Valve Series	Body Material	End Material	Ball	Stem	Seat Material	Seat Material	End Connections	Valve Size	Options*	Special Services*

**Note:**

Manual Valves are supplied with lockable lever handles.

Anti-Static Device is part of the standard assembly of these Valves.

\* Not all Options or Special Services available on all ball valves. Consult SVF for additional information.

\*\*Vent Hole is on the Upstream Side.