

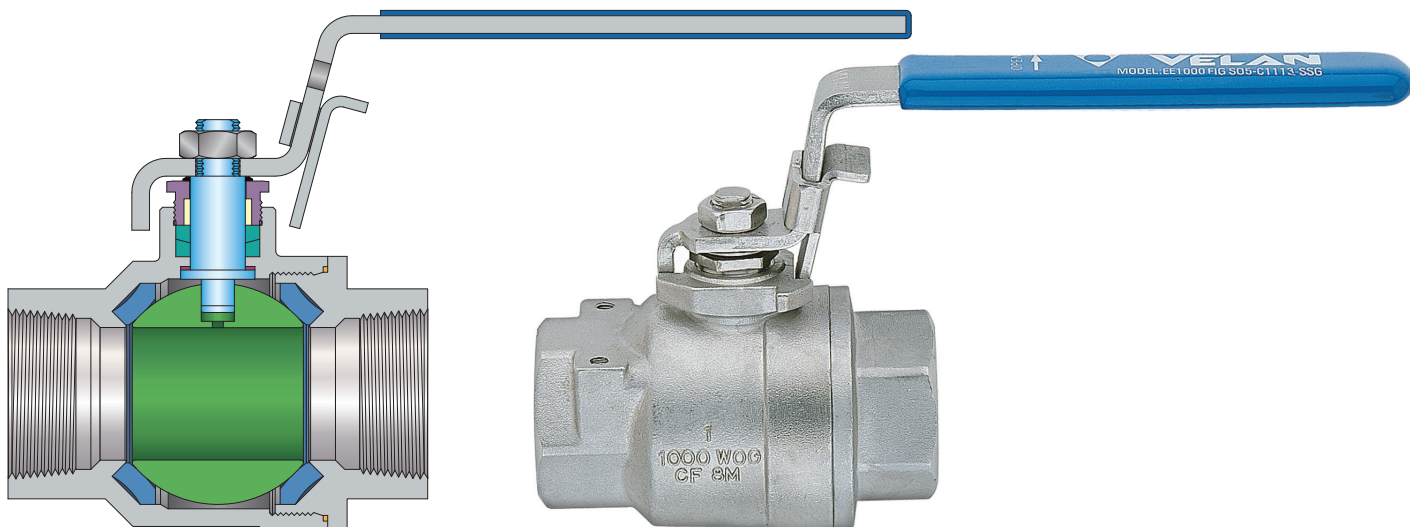


Memoryseal® EE-1000 resilient-seated ball valves

Quick sheet

End-entry, two-piece stainless steel

Full port: ¼–2 (DN 8–50), 1000/1500 WOG, threaded



Design features

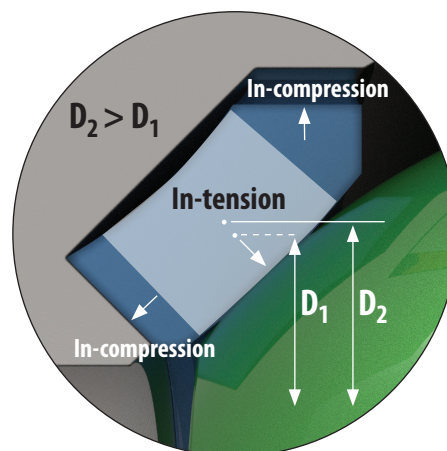
- Exclusive Memoryseal® seats compensate automatically for wear and fluctuations of pressure and temperature.
- Modified PTFE (MPTFE) seat material has a smoother surface, excellent non-stick properties, and improved flexibility.
- Multiple solid cup and cone type PTFE stem seal or optional graphite packing.
- Adjustable self-locking threaded packing nut.
- Packing nut sleeve prevents side load on packing rings. Eliminates premature wear, enhancing packing life.
- Long cycle life.
- Low, uniform torques.
- Floating stem eliminates thrust washer wear and stem shoulder assures blowout-proof safety
- Pressurized thrust washer prevents galling and provides a secondary stem seal.
- Fully enclosed body seal plus metal-to-metal seal for body and body end.
- Stainless handle with safety clip. Oval handwheel also available.
- Fire tested in accordance with API 607 Rev.5/ISO 10497.

Applications

The EE-1000 is a full port all stainless steel valve for corrosive service.

Velan Memoryseal® ball valve technology

The Velan sealing memory is induced into the seats during the assembly process. When the ball is inserted into the valve body, it partially flattens the seat, creating a tensile stress in the seat center. As a result, the seat core increases in diameter from D_1 to D_2 and, like a stretched elastic band, pushes against the ball. This ensures reliable sealing even at vacuum or low pressures.

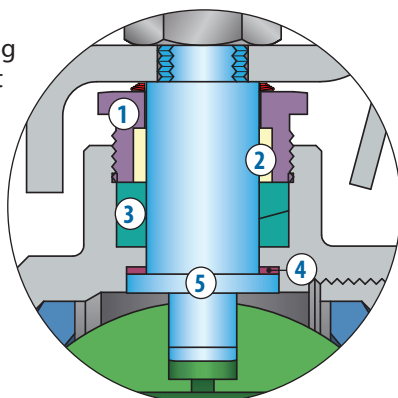


Benefits of Memoryseal® concave-convex flexible, in-tension seats with induced sealing memory

- Greater strength, less fatigue
- Positive bi-directional shutoff
- Uniform torque
- Compensate for temperature fluctuations
- Eliminate cold flow effects
- High cycle life

Stem seal design

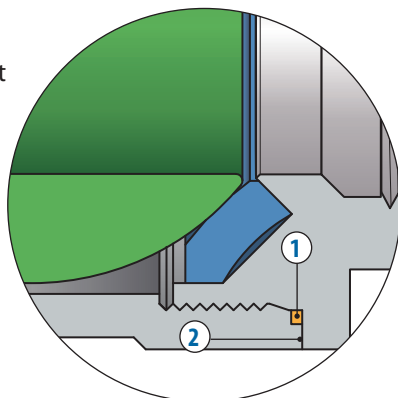
- ① Adjustable self-locking threaded packing nut
- ② Packing nut sleeve prevents side thrust
- ③ PTFE cup and cone packing rings⁽¹⁾
- ④ RPTFE thrust washer
- ⑤ Blowout-proof stem



Superior body seal design

Memoryseal® designs incorporate a secondary metal-to-metal contact area in addition to the primary gasket. This end-entry valve uses a solid PTFE seal with metal-to-metal back-up contact.

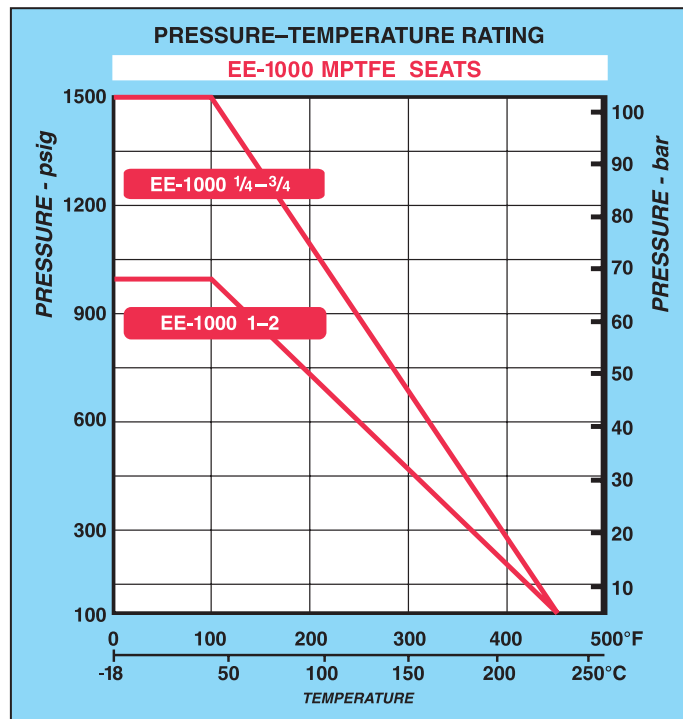
- ① PTFE seat seal contact
- ② Metal-to-metal contact



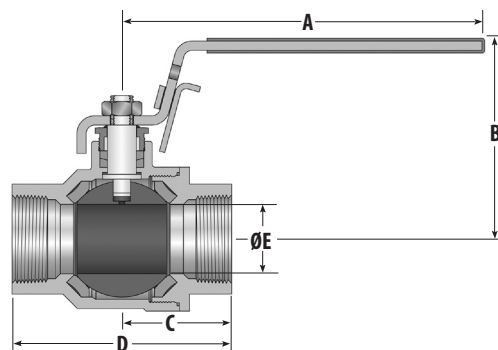
Standard materials

Part	Stainless steel
Body	CF8M
Body end cap	CF8M
Stem	SS 316
Ball	SS 316
Thrust washer	RPTFE
Seat	MPTFE
Packing nut	SS 304
Packing ring ⁽¹⁾	PTFE
Packing nut sleeve	RPTFE
Body seal	PTFE
Handle nut	Stainless
Locking device	SS 304
Handle	SS 304
Spring	SS 302

⁽¹⁾ Graphite packing available. Use graphite packing for service above 400°F (204°C).



Note: Above chart shows sizes in NPS.















Dimensions, weights, and C_vs

Size NPS DN	Full port						
	A	B	C	D	ØE	Weight lb/kg	C _v
¼ 8	4.81 122	2.25 57	1.03 26	2.06 52	0.36 9	0.4 0.2	5
⅜ 10	4.81 122	2.25 57	1.03 26	2.06 52	0.36 9	0.4 0.2	6
½ 15	5.00 127	2.60 66	1.27 32	2.5 64	0.5 13	0.9 0.4	14
¾ 20	5.19 132	2.97 75	1.56 40	3.12 79	0.81 21	1.8 0.8	50
1 25	6.57 167	3.16 80	1.87 48	3.74 95	1 25	2.5 1.1	93
1¼ 32	7.85 199	4.16 106	2.12 54	4.24 108	1.25 32	4.6 2.1	170
1½ 40	7.85 199	4.34 110	2.38 61	4.75 121	1.5 38	5.8 2.6	250
2 50	8.19 208	4.76 121	2.88 73	5.74 146	2 51	10.1 4.6	450

Note: Dimensions shown in inches and mm. K_v is the metric equivalent of C_v. K_v = C_v × 0.864

How to order Velan Memoryseal EE-1000 resilient-seated ball valves

Type of connection	Size of connection	Model number/ Class	Port	Type	Body	Trim (ball /stem)	Seat	Special service
A	B	C	D	E	F	G	H	I
	 				 	 		
S	0 8	— C	1	1	1 3	— S S	T	A

Example: NPS 2 (DN 50) threaded, EE-1000 end-entry (two-piece), full port valve in stainless steel with PTFE seats for standard service.

A TYPE OF CONNECTION	F BODY MATERIAL
S Thread NPT	13 SS CF8M
B SIZE OF CONNECTION	G TRIM MATERIAL (ball/stem)
Sizes shown in NPS (DN)	Code Ball Stem
03 ½ (15) 04 ¾ (20) 05 1 (25) 06 1¼ (32) 07 1½ (40) 08 2 (50)	SS 316 316
C MODEL NUMBER / CLASS	H SEAT MATERIAL
C EE-1000	C Graphite reinforced PTFE G Glass-reinforced PTFE
	E MPTFE T PTFE
D PORT	I SPECIAL SERVICE
1 Full port	A Standard W Seal joint
	C Chlorine Z Fire-tested to API 607 rev. 5 ISO 10497
E TYPE	
1 End-entry (two-piece)	

Note: Velan valves for NACE service comply with the metallurgical requirements of the current NACE MR0103 and MR0175 / ISO 15156. Material selection is dependent on the actual environment and it is therefore the equipment End User's responsibility to ensure that the materials are suitable for the intended service. Please contact Velan for any questions regarding the application of our products for NACE service.