

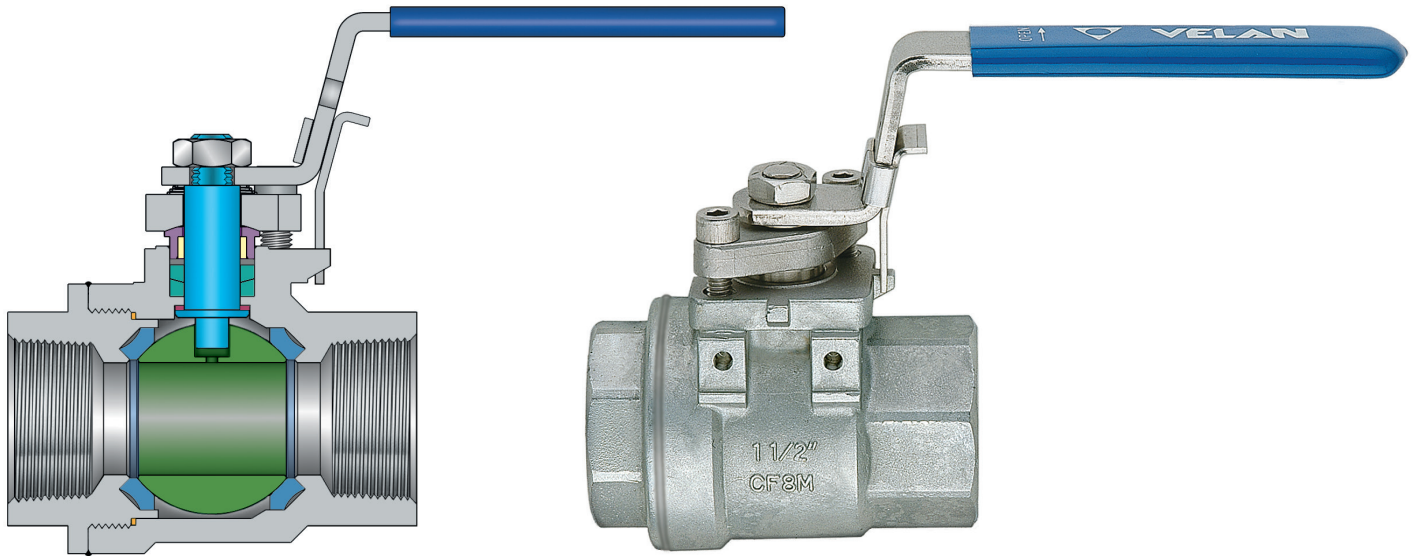


Memoryseal® EP-2000 resilient-seated ball valves

Quick sheet

End-entry, two-piece, carbon and stainless steel

Regular port, NPS 1/2–2 (DN 15–50), 1500/2000 WOG, threaded



Design features

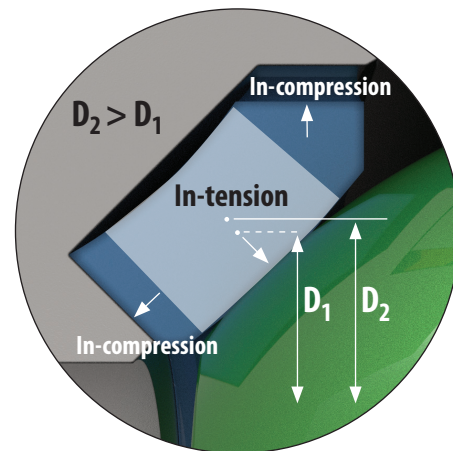
- Exclusive Memoryseal® seats compensate automatically for wear and fluctuations of pressure and temperature.
- Modified PTFE (MPTFE) seat material.
- Multiple solid cup and cone type PTFE stem seal or graphite packing.
- Adjustable self-aligning packing flange.
- Gland bushing sleeve prevents side thrust.
- Long cycle life.
- Low, uniform torques.
- Blowout-proof stem.
- 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. Body seal protects threads from medium.
- Rugged two-piece design with wall thickness to B16.34.
- Stainless handle with safety clip. Oval handwheel also available.
- Seal welded as standard.
- Fire tested in accordance with API 607 Rev.5/ISO 10497.

Applications

The EP-2000 is a regular port WCB or CF8M heavy duty valve for oilfields, chemical, and general use.

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.

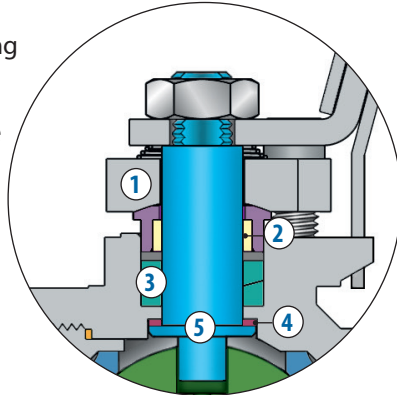


Benefits of Memoryseal® concave-convex flexible, in-tension seats with induced sealing memory

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

Stem seal design

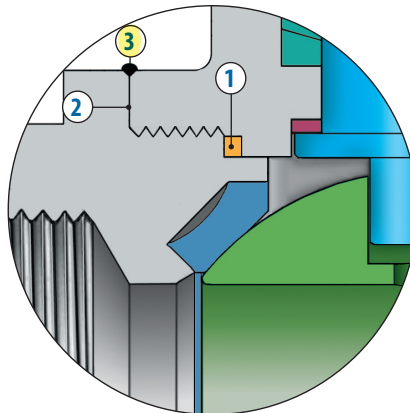
- ① Adjustable self-aligning packing flange
- ② Gland bushing sleeve prevents side thrust
- ③ PTFE cup and cone packing rings⁽¹⁾
- ④ RPTFE thrust washer
- ⑤ Blowout-proof stem



Superior body seal design

All body seal designs incorporate a secondary metal-to-metal contact area in addition to the primary gasket designs. This two-piece valve uses solid PTFE seals with metal-to-metal back-up contact.

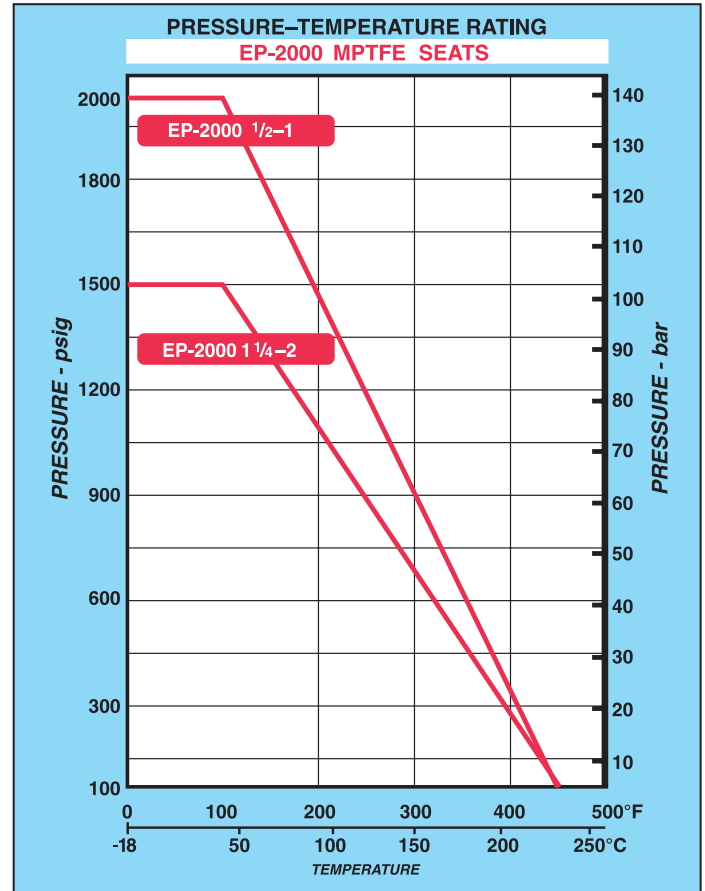
- ① PTFE seat seal contact
- ② Metal-to-metal contact
- ③ Seal joint (optional)



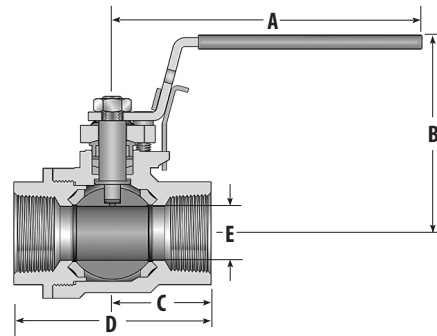
Standard materials

Part	Carbon steel	Stainless steel
Body	WCB	CF8M
Body end cap	WCB	CF8M
Stem		SS 316
Ball		SS 316
Thrust washer		RPTFE
Seat		MPTFE
Packing flange	WCB	CF8M
Gland bushing		SS 304
Packing ring ⁽¹⁾		PTFE
Gland bolt	Alloy steel	Gr. 304
Gland bushing sleeve		RPTFE
Body seal		PTFE
Handle nut		Stainless
Locking device		SS 304
Handle		SS 304
Spring		SS 302
Packing washer		SS 316

(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						C _v
	A	B	C	D	E	Weight lb/kg	
1/2	5.46	3.32	1.26	2.5	0.5	1.2	10
15	139	84	32	64	13	0.5	
3/4	5.46	3.38	1.5	2.92	0.63	1.5	19
20	139	86	38	74	16	0.7	
1	5.92	4.07	1.69	3.46	0.81	3	39
25	150	103	43	88	21	1.4	
1 1/4	5.92	4.26	2.12	4.2	1.01	4.3	65
32	150	108	54	107	26	2	
1 1/2	7.82	4.87	2.28	4.55	1.25	6.3	87
40	199	124	58	116	32	2.9	
2	7.82	5.06	2.57	5.14	1.5	8.7	112
50	199	129	65	131	38	3.9	

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

How to order Velan Memoryseal EP-2000 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	— P	0	1	1 3	— S S	T	A

Example: NPS 2 (DN 50) threaded, EP-2000 end-entry (two-piece) , regular port valve with PTFE seats in stainless steel.

A TYPE OF CONNECTION	F BODY MATERIAL
S Thread NPT	02 WCB 13 SS CF8M
B SIZE OF CONNECTION	G TRIM MATERIAL (ball/stem)
Sizes shown in NPS (DN)	Code Ball Stem
03 ½ (15) 05 1 (25) 07 1½ (40)	SS 316 316
04 ¾ (20) 06 1¼ (32) 08 2 (50)	
C MODEL NUMBER / CLASS	H SEAT MATERIAL
P EP-2000	C Graphite reinforced PTFE G Glass-reinforced PTFE
	E MPTEF T PTFE
D PORT	I SPECIAL SERVICE
0 Regular port	A Standard W Seal joint
	C Chlorine Z Fire-tested to API 607 rev. 5 ISO 10497
E TYPE	G Oxygen
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.