

VP SERIES

BOILER VALVE





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ADVANTAGES

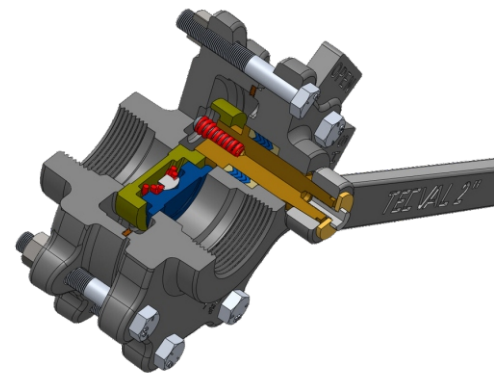
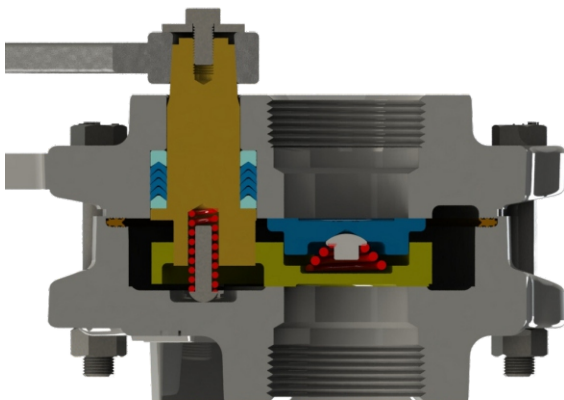
Hermetic seal

Our purge valve features a hardened stainless-steel disc obtained through lost-wax casting, with a micro-polished finish and total flatness, which guarantees a tight seal and smooth sliding. In addition, its design allows for easy cleaning of impurities accumulated on sealing surfaces, ensuring optimal operation.



Quality

TECVAL's VP Series is CRN (Canadian Registration Number) certified, which ensures that our design and manufacturing have been accepted and registered in several Canadian provinces because it meets all ASME B31.1 (Power Piping Code) technical requirements. Our commitment to quality and compliance with regulatory standards give our clients peace of mind and confidence.



Durability

We have carefully selected high-quality materials for our valve stem packing, which reduces friction and allows for smooth opening and closing. This guarantees greater durability and reliable performance over time.



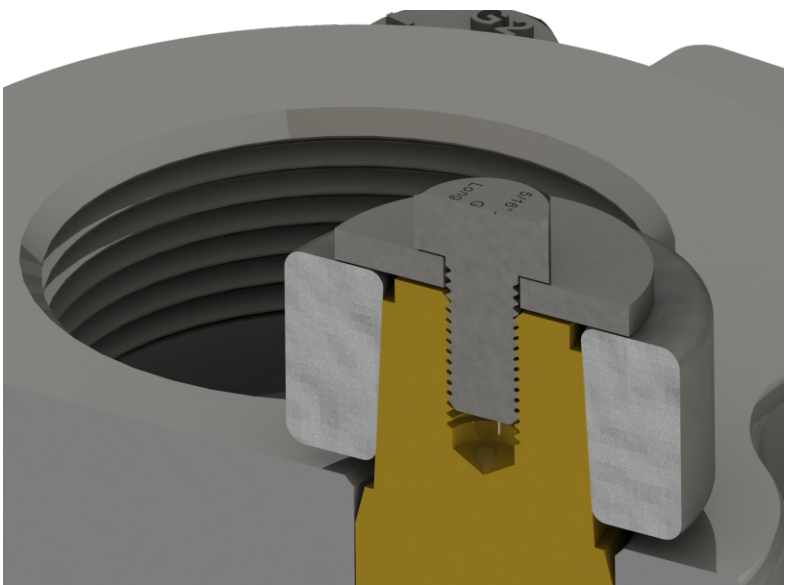
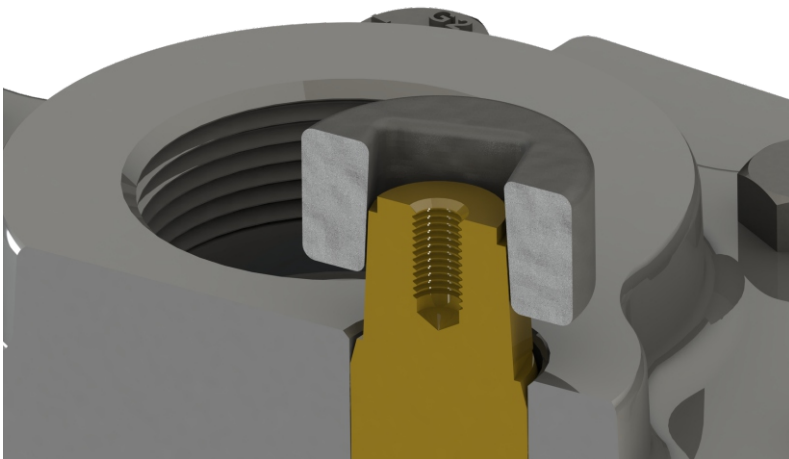
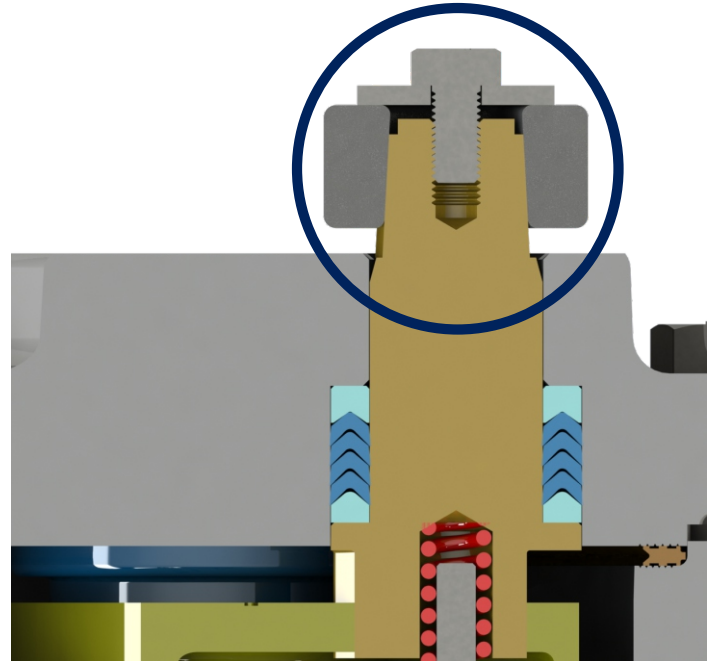
Design

Our valve is manufactured in compliance with the ASME B16.1 and B16.4 international standards, which guarantee robust and safe design. These standards ensure that our valve meets the strictest quality level in the industry.

Angular lever-stem design

TECVAL's boiler valve stands out for its special design in the adjustment mechanism between the lever and the valve stem.

Its precise angle allows for perfect contact between the stem and the lever quadrant walls.



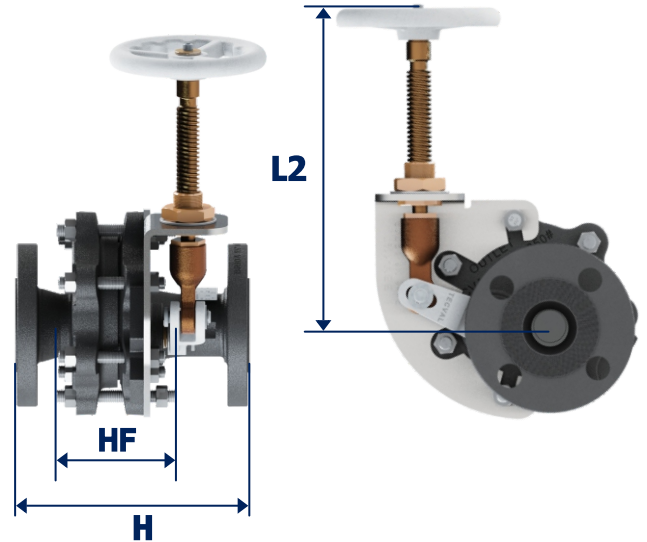
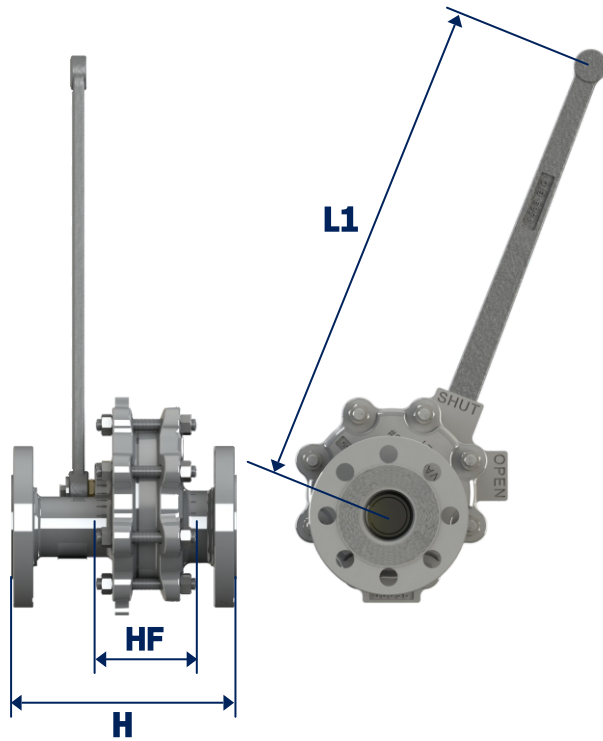
This smart mechanism eliminates all clearance, preventing early wear of both the lever and the stem, and prevents lever oscillation and idle movements; in other words, even if the lever moves, the design ensures that the stem moves synchronously to the desired point. This ensures smooth and correct operation, always providing an efficient and reliable operating experience.

With the TECVAL boiler valve, our customers can rely on optimal performance without worrying about unwanted clearances or inaccurate movements.

DIMENSIONS

Quick Opening

Slow Opening



D I M E N S I O N S	Size	Quick Opening		Slow Opening			
		Threaded	Flanged		L1	L2	
		HF	H			Open	Close
		FNPT 250#	250#	300#			
1"	96.2	194.3	194.3	247	231	303.2	
1¼"	96.2	194.3	200.4	247	242	307	
1½"	117.2	223.5	284.2	320	226	295	
2"	118.7	230	290	460	301	223	

W E I G H T	Size	Quick Opening			Slow Opening		
		Threaded	Flanged		Threaded	Flanged	
		FNPT 250#	250#	300#	FNPT 250#	250#	300#
1"	9.4	9.8	15.6	12.8	13.2	19.8	
1¼"	9.4	9.8	16	12.8	13.2	19.8	
1½"	13.5	17.2	20.4	16.2	21.3	-	
2"	15.4	21.4	24.8	17.7	23.8	-	

*Dimension in millimeters (mm)

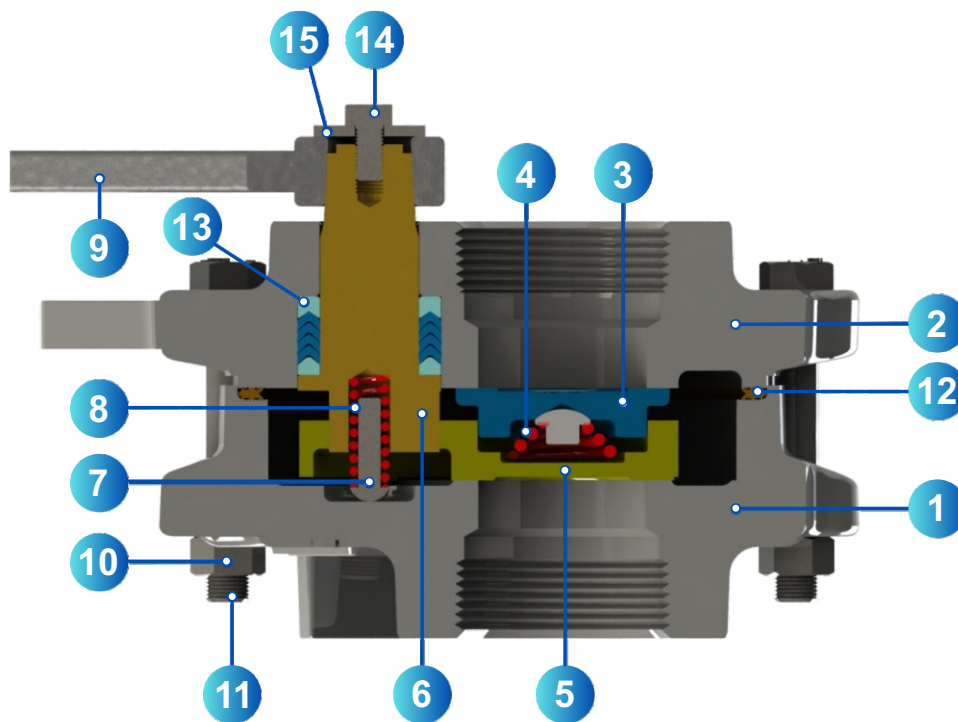
*Weight in kilograms (kg)

TECHNICAL DATA

PSIG Pressure Rating		Type of connection	Body material
Pressure rating	Maximum allowed pressure		
250#	250 @ 450°F	Threaded / Flanged	Iron
300#	485 @ 698°F	Threaded / Flanged	Steel

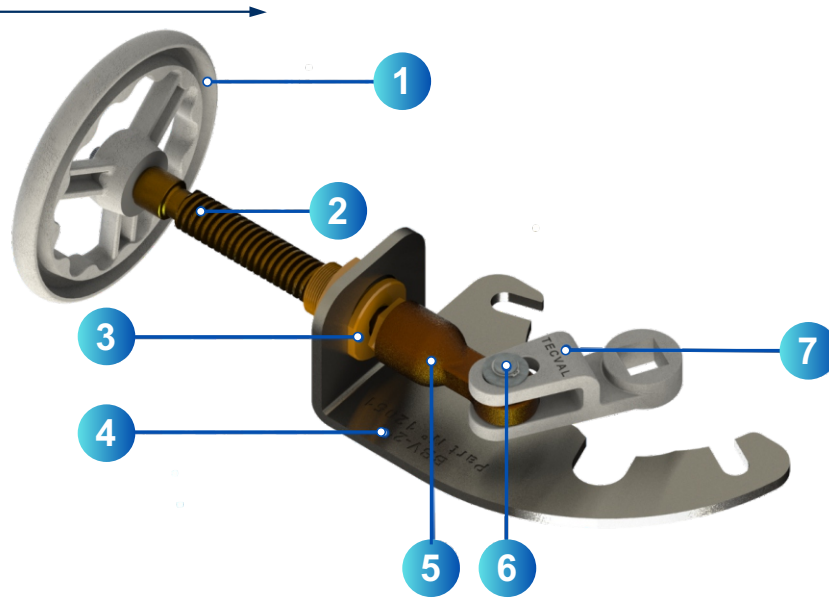
CONSTRUCTION MATERIALS

Main valve →



N°	Description	Classification	
		250#	300#
1	Inlet body	Cast iron A126 Gr. B.	Carbon steel
2	Outlet body	Cast iron A126 Gr. B.	Carbon steel
3	Disc	AISI 420 hardened	AISI 420 hardened
4	Disc spring	AISI 302	AISI 302
5	Disc holder	AISI 1045	AISI 1045
6	Stem	Bronze	Bronze
7	Stem pivot	Carbon Steel	Carbon Steel
8	Stem spring	AISI 302	AISI 302
9	Lever	Ductile iron	Ductile iron
10	Nut	Grade 2 steel	Grade 2H steel
11	Screw	Grade 2 steel	Grade 8 steel
12	Body packing	Flexitalic SS / Graphite	Flexitalic SS / Graphite
13	Stem packing	V-PTFE + Elastomer	Phosphor bronze / graphite
14	Stem screw	Steel	Steel
15	Stem washer	AISI 304	AISI 304

Slow opening kit

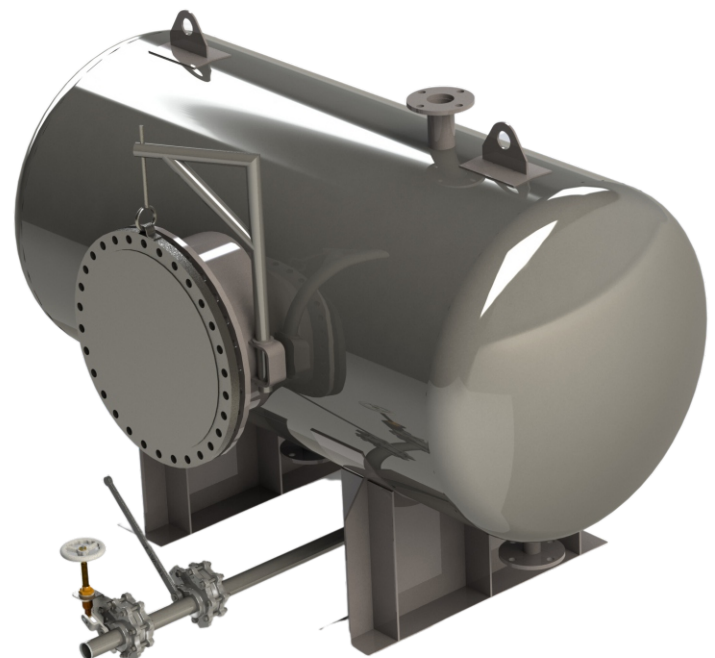


Nº	Description	Construction Materials
1	Handwheel	Handwheel
2	Outlet body	Brass
3	Disc	Phosphor bronze
4	Disc spring	HR steel sheet
5	Disc holder	Bronze / Iron
6	Stem	AISI 304 stainless steel
7	Stem	Ductile Iron ASTM 536 Gr. 64-45-12

INSTALLATION

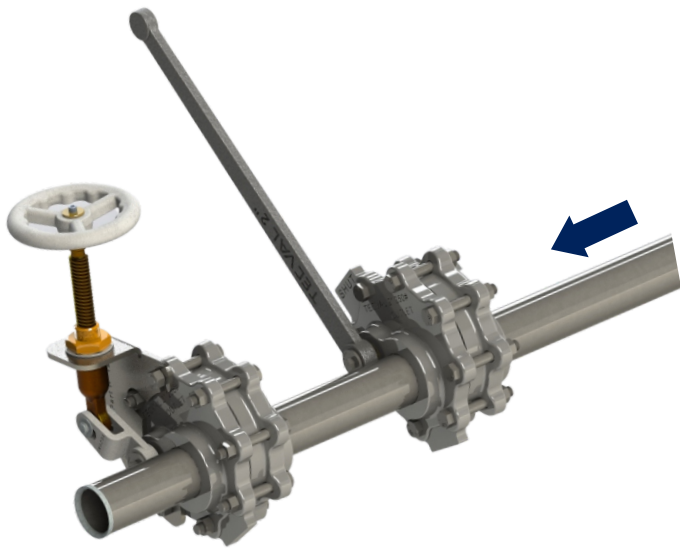
Proper installation of boiler valves is described below. It complies with ASME B31.1 Power Piping Code, in particular sections C.4 and C.12 of paragraph 122.1.7.

These guidelines guarantee correct valve installation, following international standards and ensuring safe and efficient operation in industrial boiler systems.

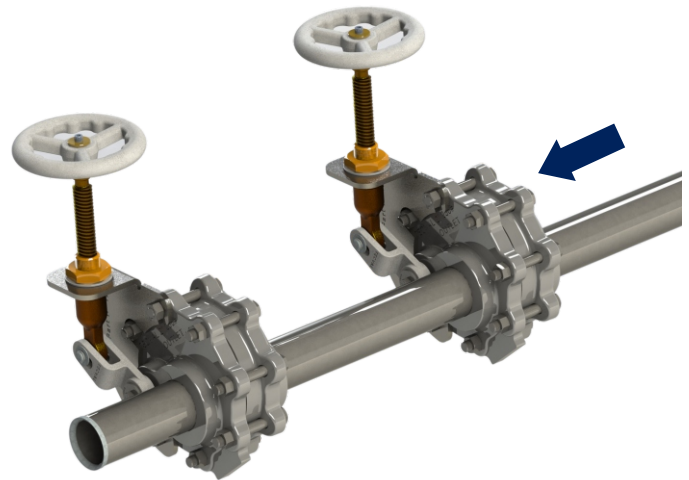


Installation according to ASME B31.1 (Par. 122.1.7 C.4)

For all boilers [except electric steam boilers having a normal water content not exceeding 100 gallons (380 L), traction-purpose and portable steam boilers] with allowable working pressure in excess of 100 psig, each bottom blowoff pipe shall have two slow-opening valves, or one quick-opening valve at the boiler nozzle, followed by a slow-opening valve.



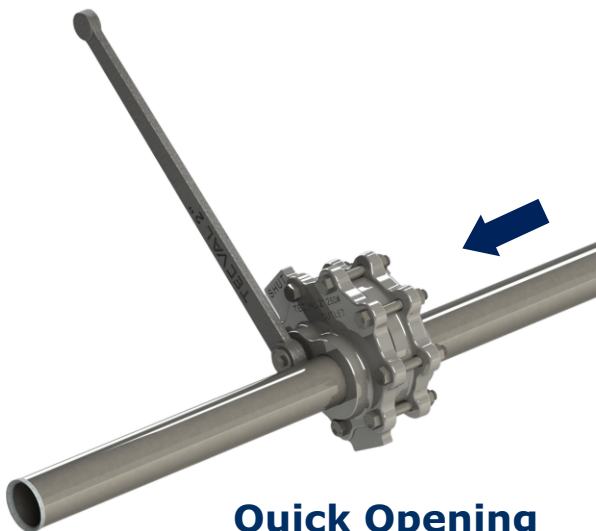
Option 1



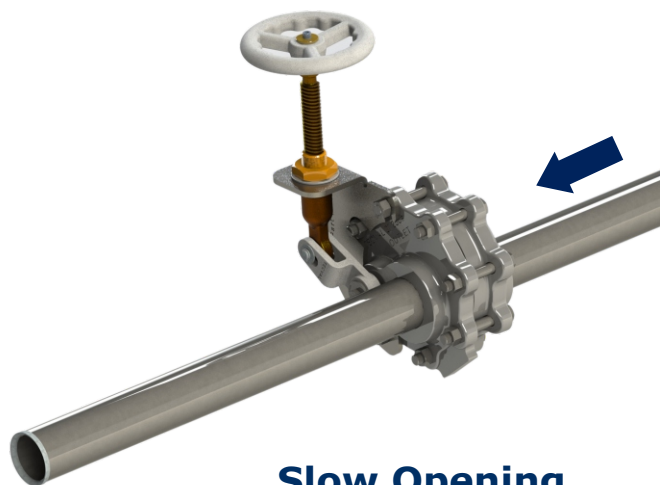
Option 2

Installation according to ASME B31.1 (Par. 122.1.7 C.12)

Only one blowoff valve, which shall be of a slow-opening type, is required on forced circulation for and electric steam boilers having a normal water content not exceeding 100 gallons. Electric boilers not exceeding having a normal water content not exceeding 100 gallons, but with a MAWP greater than 100 psig, must only use a manual quick-opening or slow-opening valve, regardless of their size.



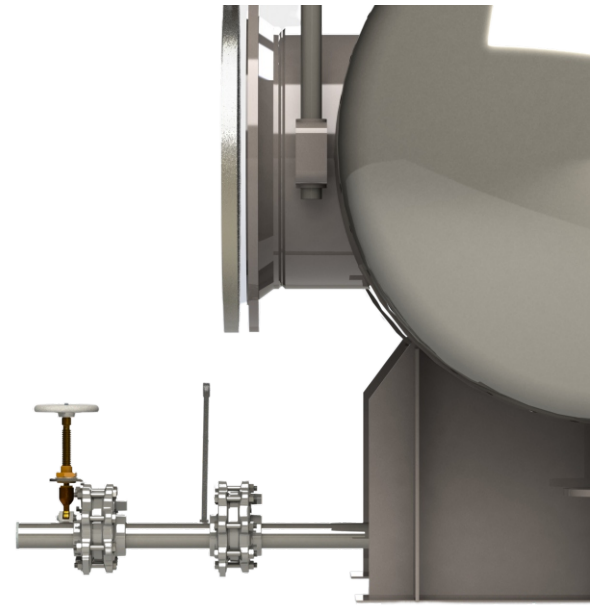
Quick Opening



Slow Opening

Purge and drain piping - external piping not related to the boiler

Draining and purge piping systems should be self-draining and bag-free. If this is not the case, drain valves should be installed at low points to allow for system drainage prior to operation. In order to minimize water hammer in purge systems, 3D diameter piping bends (minimum) must be used instead of elbows, and "Y" or lateral fittings must be used instead of "T" fittings.

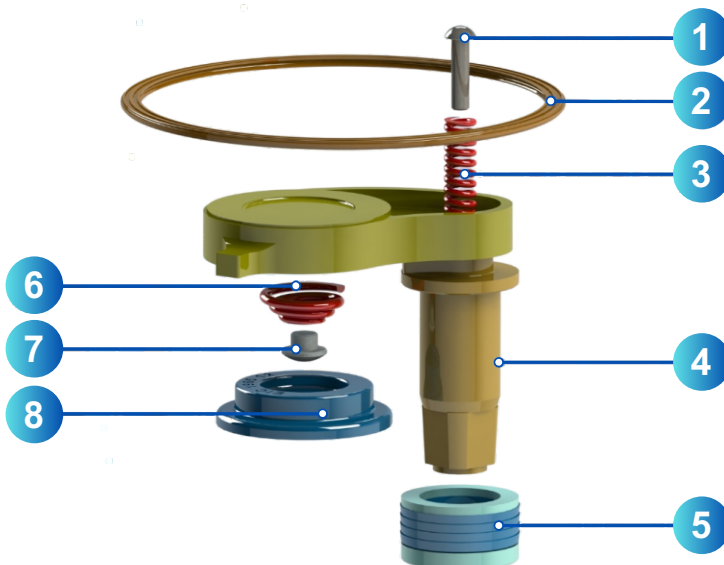


REPLACEMENT KIT

SOFT PARTS KIT (2, 5)			
Size	1"-1¼"	1½"	2"
Code	SP000689	SP000538	SP00539

STEM REPAIR KIT (1, 3, 4)		
Size	1"-1¼"	1½" - 2"
Code	PT007880	PT007866

SEAL KIT (6, 7, 8)			
Size	1"-1¼"	1½"	2"
Code	PT007748	PT007747	PT007790



1. Stem pivot
2. Body packing
3. Stem spring
4. Stem
5. Stem packing
6. Disc spring
7. Disc pivot
8. Disc

AUTOMATED PURGE VALVE

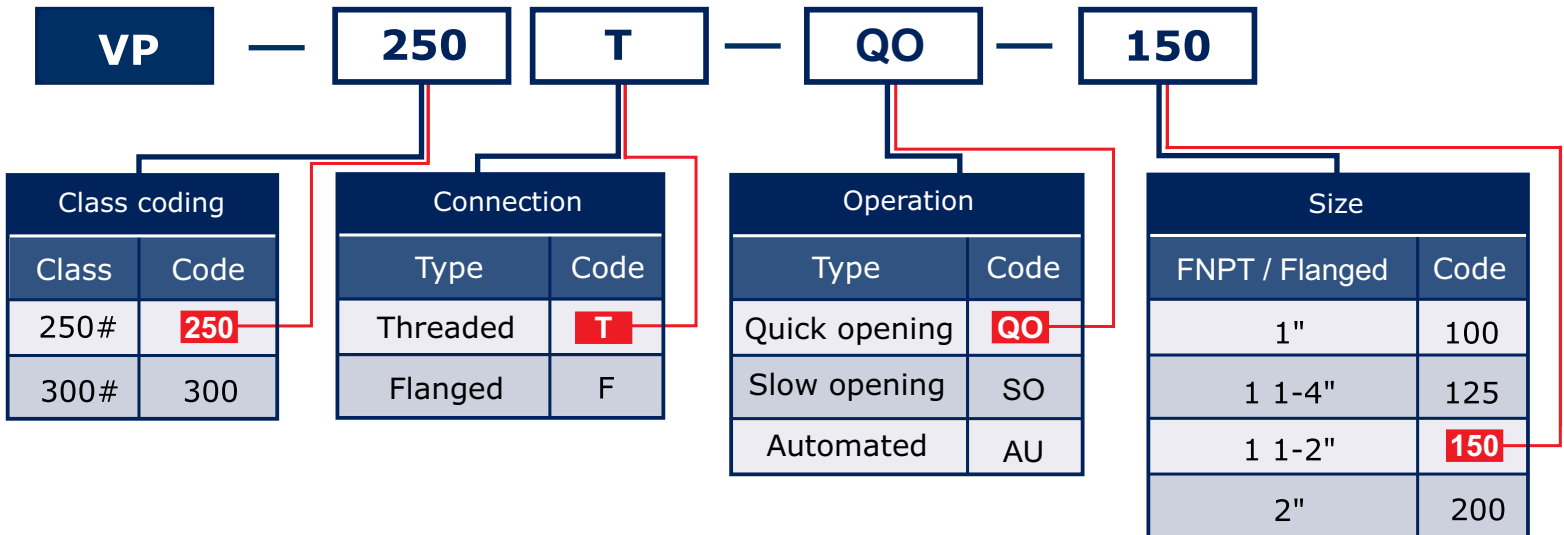
TECVAL'S automated purge valve allows undissolved solids, sludge, scale and sediment accumulated at the bottom of a boiler to be drained.

- ☒ Double-acting actuator: Minimum 30 psi and maximum 60 psi supply pressure.
- ☒ Single-acting actuator: Minimum 50 psi and maximum 60 psi supply pressure.
- ☒ 1/4" pneumatic supply connection for actuators.



ORDER CODE

This is an example of the code used for ordering a 1 1/2" boiler valve with a pressure rating of 250 #, threaded FNPT, quick opening (QO).





We are Operational Reliability

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