



PVM Piston Valves

Description

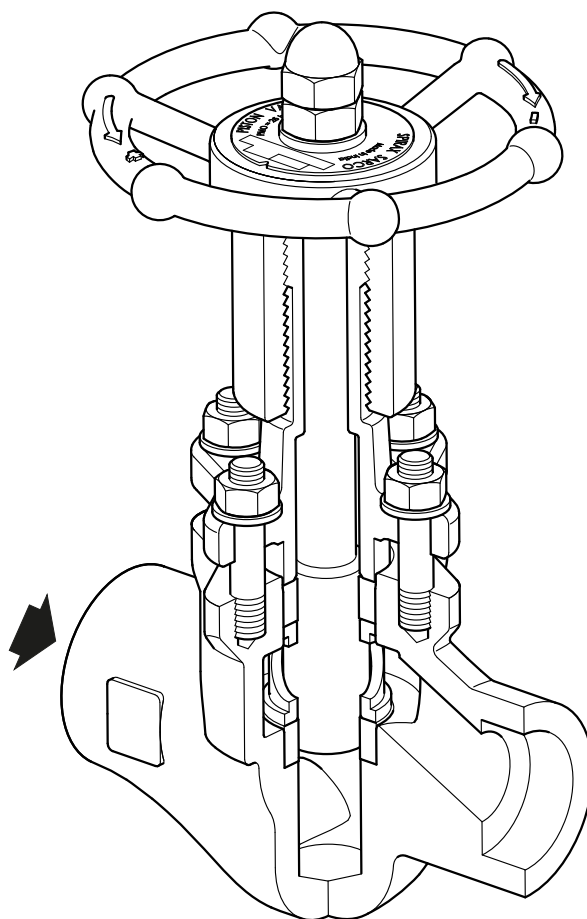
The PVM is a piston isolation valve that has been designed for use on steam, condensate and other liquid systems.

Available types:

Screwed, butt weld and socket weld connections

PVM

Carbon steel body/bonnet and stainless steel internals



1" socket weld version shown

Standards

This product fully complies with the requirements of the Indian Boiler Regulations, 1950.

Note: All certification/inspection requirements must be stated at the time of order placement.

Sizes and pipe connections

½", ¾", 1", 1¼", 1½" and 2"

Butt welded ends to EN 12627:1999BW - ASME B16.25

Screwed BSP (BS 21 / DIN 2999) or NPT to (ASME B1.20.1)

Socket weld ends to ASME B 16.11

Pressure/temperature limits

PVM

PMO	Maximum operating pressure for saturated steam service	25 bar g @ 226 °C
TMO	Maximum operating temperature	226 °C @ 25 bar g
	Minimum operating temperature	-29 °C

Note: For lower operating temperatures consult Spirax Sarco

	Designed for a maximum cold hydraulic test pressure of	37.5 bar g
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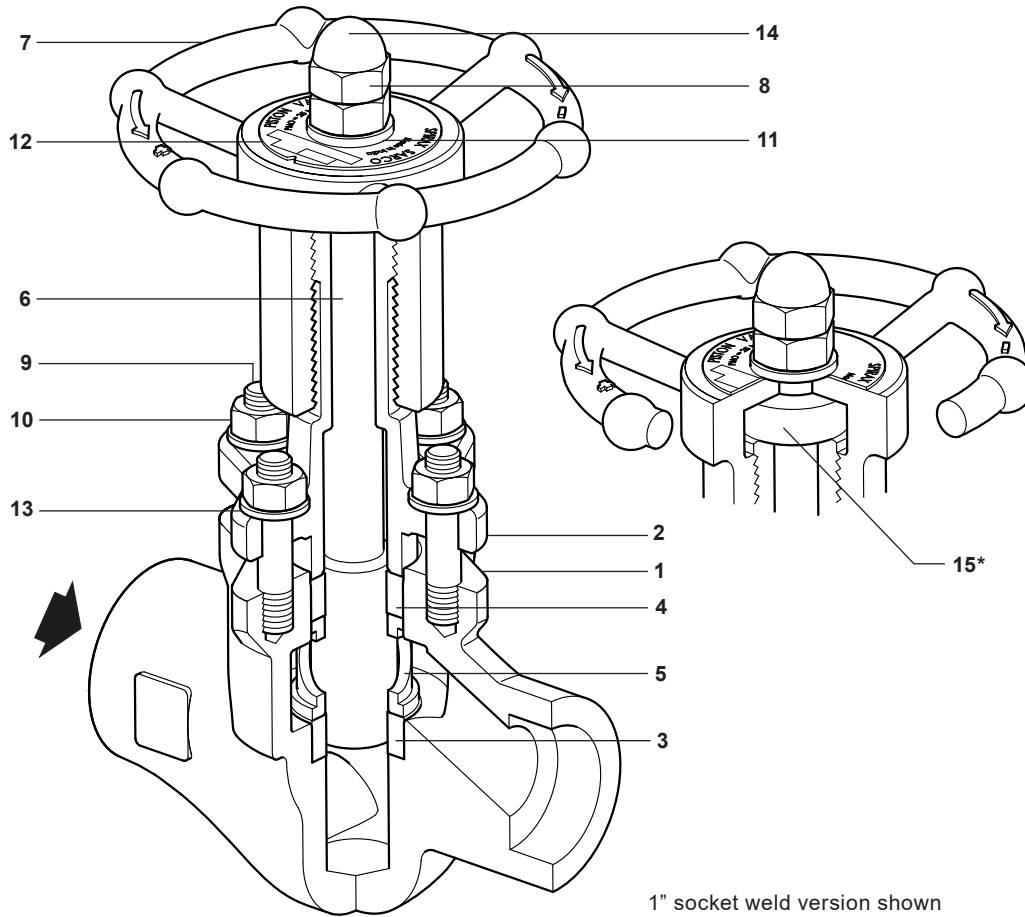
K_v values

Screwed, Socket weld and butt weld	Size	½"	¾"	1"	1¼"	1½"	2"
	K _v	3	4.5	8.5	12	20.5	32

For conversion:

$$C_v (\text{UK}) = K_v \times 0.963$$

$$C_v (\text{US}) = K_v \times 1.156$$



1" socket weld version shown

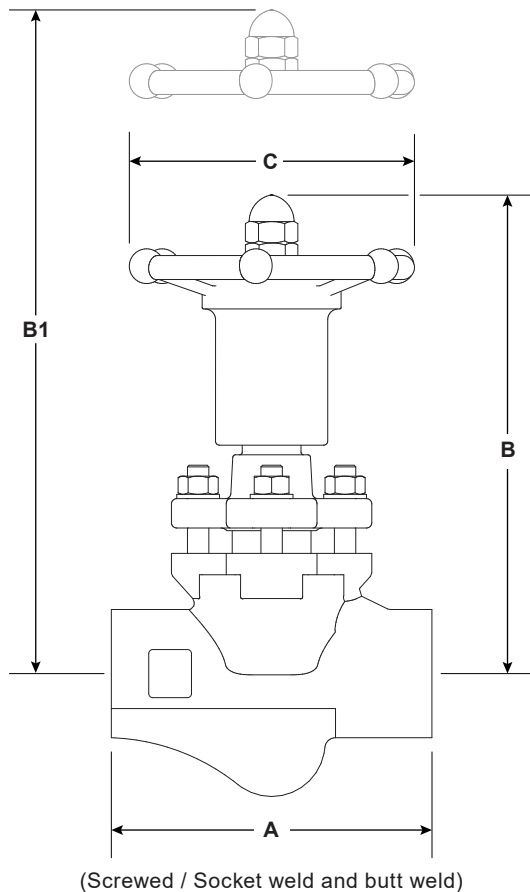
Materials

No.	Part	Material	
1	Body and Bonnet	Carbon steel	ASTM A105N
2			
3	Lower sealing rings	Graphite laminate	
		Stainless steel	
4	Upper sealing rings	Graphite laminate	
		Stainless steel	
5	Lantern bush	Stainless steel	EN 1.4057 / AISI 431
6	Piston	Stainless steel	EN 1.4401 / AISI 316
7	Handwheel	Carbon steel	
8	Handwheel nut	Carbon steel	
9	Stud bolt	Carbon steel	ASTM A193 B7
10	Nut	Carbon steel	ASTM A194 2H
11	Washer	Stainless steel	
12	Name-plate	Stainless steel	
13	Belleville washer	Stainless steel	
14	Blind nut	Carbon steel	
15*	Thrust washer	Stainless steel	Nitronic 60

Note: *Thrust washer is only applicable to 1/2" / DN15 size

Dimensions/weights (approximate) in mm and kg
Screwed, socket weld and butt weld

Size	A	B	B1	C	Weight
1/2"	85	92	112	75	1.1
3/4"	100	102	142	95	1.6
1"	120	134	174	115	2.8
1 1/4"	140	160	196	150	4.0
1 1/2"	160	180	220	150	6.5
2"	185	210	265	201	15.0



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-IBR174-01-EN-ISS2) supplied with the product.

Caution: Valve keys should not be used to operate these valves.

Installation note:

Install the valve in the direction of flow given by the arrow on the body. The valve can be installed in any plane but not with the handwheel below the valve body.

Disposal

The product is recyclable. No ecological hazard is anticipated with the disposal of this product, providing due care is taken.

How to order

Example: 1 off Spirax Sarco 1/2" PVM piston valve having screwed NPT connections. The valve is to be supplied with IBR certification. The K_V is to be 3.0.

Spare parts

Spare parts are available as indicated. No other parts are supplied as spares.

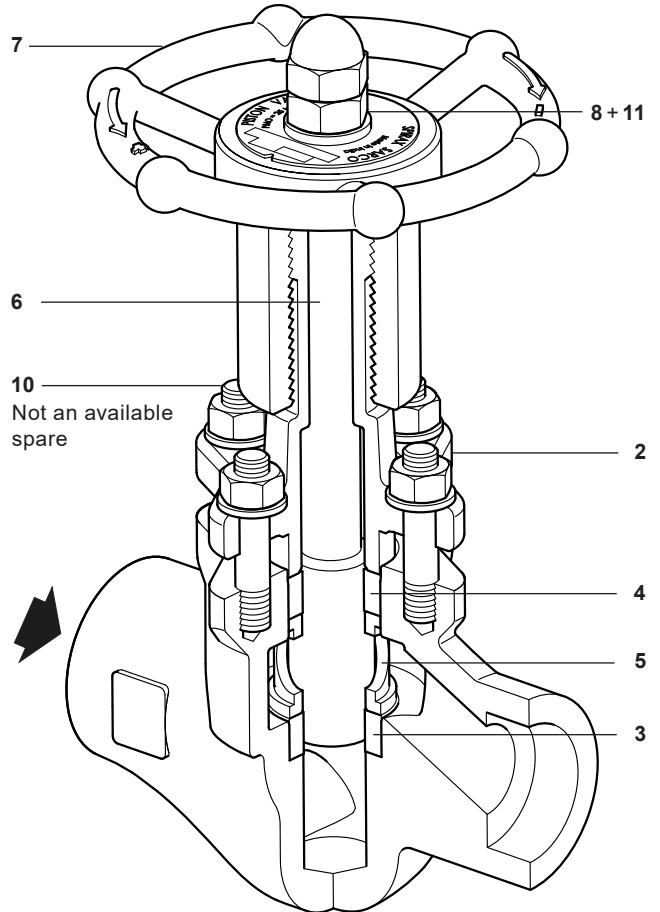
Available spares

Set of sealing rings	3 and 4
Bonnet assembly	2, 3, 4, 5, 6, 7, 8, and 11



How to order spares

Always order spares by using the description given above and state the size and type of valve.

Example: 1 - Bonnet assembly for a Spirax Sarco 1/2" PVM piston valve.



Recommended tightening torques

Item	Size	 or 	N m
10	1/2"	13 A/F	12
	3/4"	13 A/F	15
	1"	13 A/F	18
	1 1/4"	17 A/F	90
	1 1/2"	22 A/F	90
	2"	26 A/F	90

Caution: The torque of the studs is calculated to optimise the use of the product. An excessive torque can damage the valve internals (particularly if the product is open). The studs of valve can be retightened to extend the life of it, but only when it is closed and not more than the recommended torque.