



BDV1 and BDV2 Blowdown/Depressurisation Valves

Description

The BDV depressurisation valves are designed to be fitted into 3/8", 1/2" and DN15 connections for drain/blowdown/purge and vent/ depressurisation of pipework or products.

The **BDV1** provides discharge straight through the valve, generally to be used as a drain, or for line depressurisation where discharge is directed to grade/atmosphere.

The **BDV2** provides side connection discharge, generally to be used as a vent for top pipe mounting or for line depressurisation, to ensure discharge is piped to grade/atmosphere.

BDV1/BDV2 fitted to pipeline connectors PC3_/PC4_ :

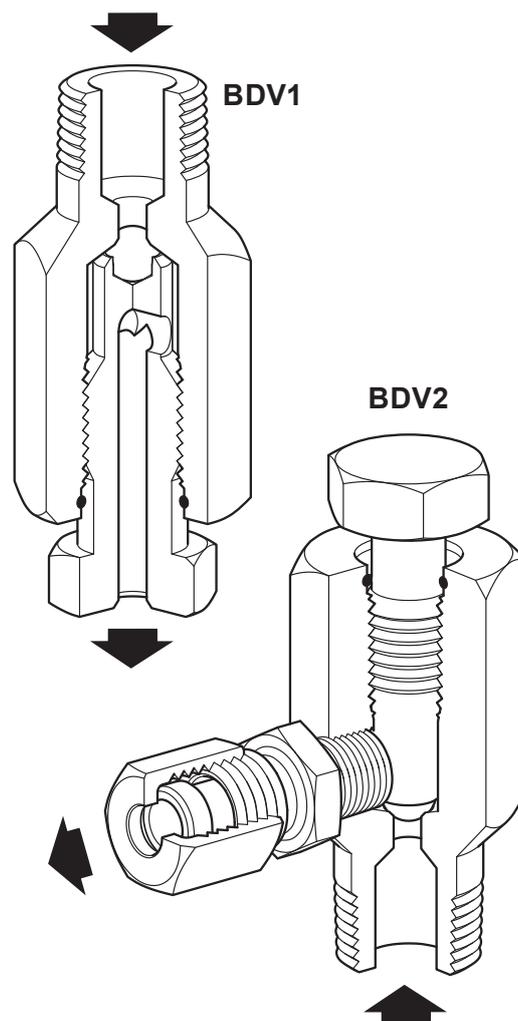
When a depressurisation valve type BDV1/BDV2 is fitted to a pipeline connector type PC3_/PC4_ designed for use with swivel connector steam traps, the valve can be used for drain/vent/depressurisation of pipework and upstream/downstream trap testing. An internal drilling is provided in certain connector bodies specifically for trap testing.

Where it is acceptable to discharge to atmosphere a BDV1 may be used for line drain and trap test service. Where it is not acceptable to discharge to atmosphere the BDV2 should be used and the piped discharge taken to a suitable point.

For upstream trap vent applications always use a BDV2.

Spirax Sarco recommendations

Applications	Installation/purpose	Recommended installation	
		Bottom	Top
Depressurisation or purge and vent	Fitted to the pipe or product to depressurise the pipeline upstream or downstream of the product.	BDV1 or BDV2	BDV2
Drain	Fitted to the bottom of the pipe or product for draining.	BDV1 or BDV2	
Vent	Fitted to the top of the pipe or product for venting.		BDV2
Blowdown	Fitted to the strainer cap or bottom of the dirt pocket for the removal of dirt.	BDV1 or BDV2	
Trap test	Fitted to a PC3_/PC4_ with cross-drilling to test the inlet and/ or outlet of the steam trap to ensure correct operation.	BDV1 or BDV2	



Standards

This product fully complies with the requirements of the Pressure Equipment Directive (PED).

Certification

This product is available with certification to EN 10204 3.1.

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

Sizes and pipe connections

Screwed 3/8" NPT and BSP (to fit DTP strainer cap) for straight through discharge.

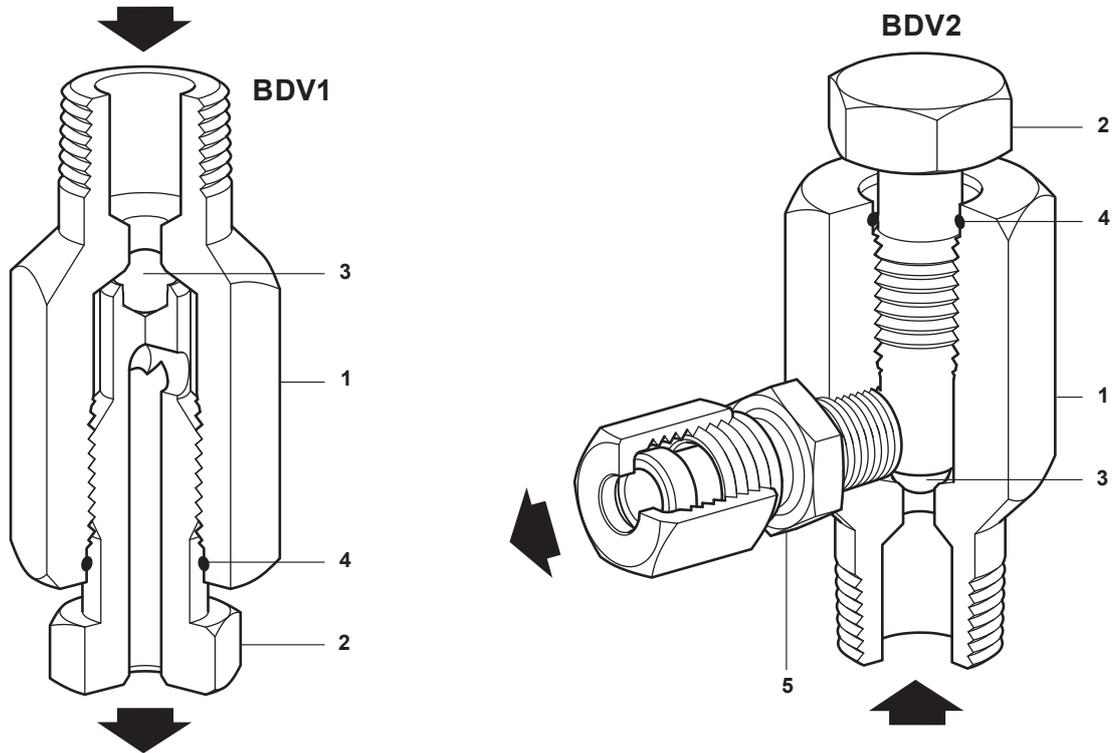
BDV1 Screwed 1/2" NPT and BSP for straight through discharge.

Socket weld DN15 pipe end schedule 80 to suit ANSI B 16.11 Class 3000 for straight through discharge.

Screwed 3/8" and 1/2" BSP fitted with 1/8" BSP compression fitting for side discharge with 6 mm O/D tube.

BDV2 Screwed 3/8" and 1/2" NPT fitted with 1/8" NPT compression fitting for side discharge with 1/4" O/D tube

Socket weld DN15 with 1/8" NPT compression fitting for side discharge with 1/4" O/D tube.



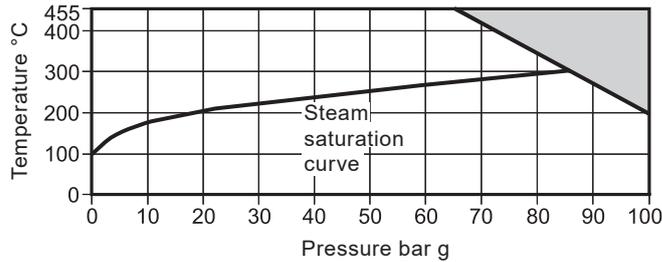
Materials

No.	Part	Material	
1	Valve body	Stainless steel	ASTM A182 F304/F304L
2	Valve screw	Stainless steel	ASTM A276 431
3	Valve cone	Stainless steel	AISI 440 B
4	Retaining ring	Stainless steel	BS 2056 302 S26
5	Compression fitting (BDV2 only)	Carbon steel	

Pressure/temperature limits

Note: When the BDV1 and BDV2 are fitted for use as blowdown valves on other products, the limiting conditions are that of the lowest rated part. See the appropriate TI as listed in the table below for technical data:

FTC80	ASTM body	TI-P179-02	TD42	TI-P068-22
	EN body	TI-P179-03	TD42L, TD42LA, TD42H and TD42HA	TI-S01-03
BPC32Y		TI-P005-01	TD42S2	TI-P068-07
BPS32Y		TI-P005-03	TD42S3	TI-P068-23
PC20		TI-P128-15	TD62	TI-P068-08
SMC32Y		TI-P076-10	UTD30L, UTD30LA, UTD30H and UTD30HA	TI-P154-01
TD3-3		TI-P068-04		



The product **must not** be used in this region.

Body design conditions	ANSI Class 600 (ISO PN100)
PMA Maximum allowable pressure	100 bar g @ 200 °C
TMA Maximum allowable temperature	455 °C @ 66 bar g
Minimum allowable temperature	0 °C
PMO Maximum operating pressure for saturated steam service	85 bar g
TMO Maximum operating temperature	455 °C @ 66 bar g
Minimum operating temperature	0 °C
Δ PMX Maximum differential pressure	80 bar g
PMOB Maximum operating backpressure is 100% of the upstream pressure	
Minimum operating pressure for satisfactory operation	0 bar g
Designed for a maximum cold hydraulic test pressure of:	150 bar g

K_v values

K_v value 0.48 (cold)

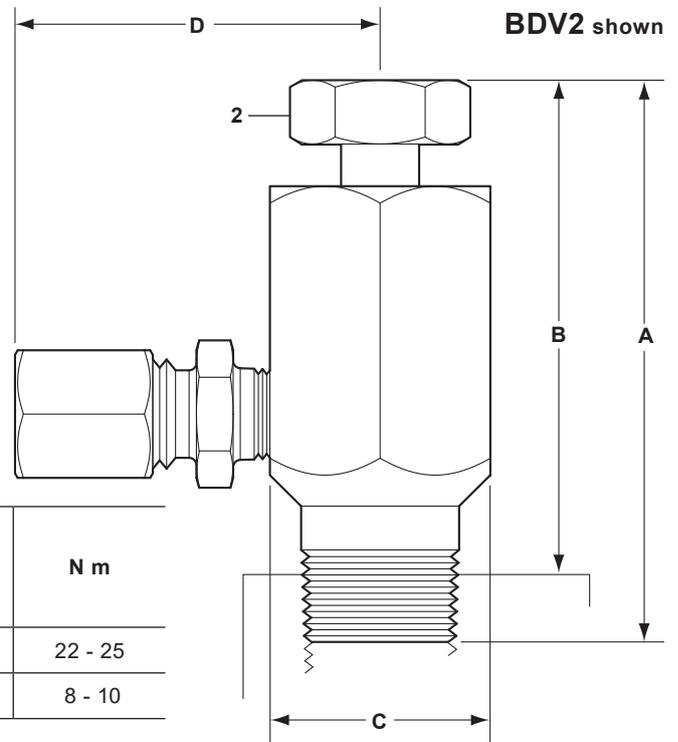
For conversion:

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

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

Dimensions/weights (approximate) in mm and kg

Type		A Overall length	B Installed	C A/F width	D	Weight
BDV1		62	54	24	-	0.17
BDV2	BSP	62	54	24	40	0.20
	NPT	62	54	24	44	0.20



Recommended tightening torques

Item	Part	 or mm 	N m
2	Valve screw	17 mm A/F	22 - 25
5	Compression fitting nipple	14 mm A/F	8 - 10

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P600-02) supplied with the product.

Warning - Pressure

BDV1 and BDV2 valves are generally used to depressurise a system/vessel prior to maintenance or removal. Do not assume that the system has depressurised even if a pressure gauge indicates zero.

Consider the direction of the depressurised flow and ensure that this will not cause a hazard to yourself or others. Suitable tubing should be fitted to ensure a safe discharge.

Warning - Temperature

Allow time for temperature to normalise after depressurisation to avoid danger of burns.

Installation note:

Where BDV1 or BDV2 depressurisation valves are fitted to PC3_ or PC4_ pipeline connectors see IM-P128-06.

Maintenance note:

The BDV is a maintenance free product with long life expectancy.

Disposal

This 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 DN15 BDV1 depressurisation valve having austenitic stainless steel body with male pipe end Schedule 80 connections to ANSI B 16.11 Class 3000.