

# DCV2/B Boiler feed check valves



**spirax**  
**/sarco**

# For use with elevated feedtanks to prevent flooding of a shut down boiler

The Spirax Sarco DCV2/B feed check valve is installed in the boiler feedwater line between the feedpump and the boiler. The spring in the check valve supports the head of water in the elevated feedtank when there is no pressure in the boiler, preventing the boiler flooding.

Under normal steaming conditions the check valve operates in a conventional manner to stop return flow from the boiler entering the feedline when the feedpump is not running. When the feedpump is running its pressure overcomes the spring to feed the boiler as normal.

Locating lugs engage with flange bolts to centralise valve.



Stainless steel body and internals available in sizes DN20 - 50 for boiler pressures up to 32 bar g (464 psi g).

Soft seated (EPDM) valve disc.

## Limiting conditions

The valve body is designed to PN40 and is suitable for maximum feedpump pressures of 40 bar g (580 psi g). The rubber (EPDM) seat is suitable for feedwater temperatures up to 150°C (302°F).

The valve must not be used on any fluids categorised as Group 1 according to the E.C. Directive on the classification of dangerous substances, i.e. explosive, flammable, toxic and oxidising substances.

## Available types

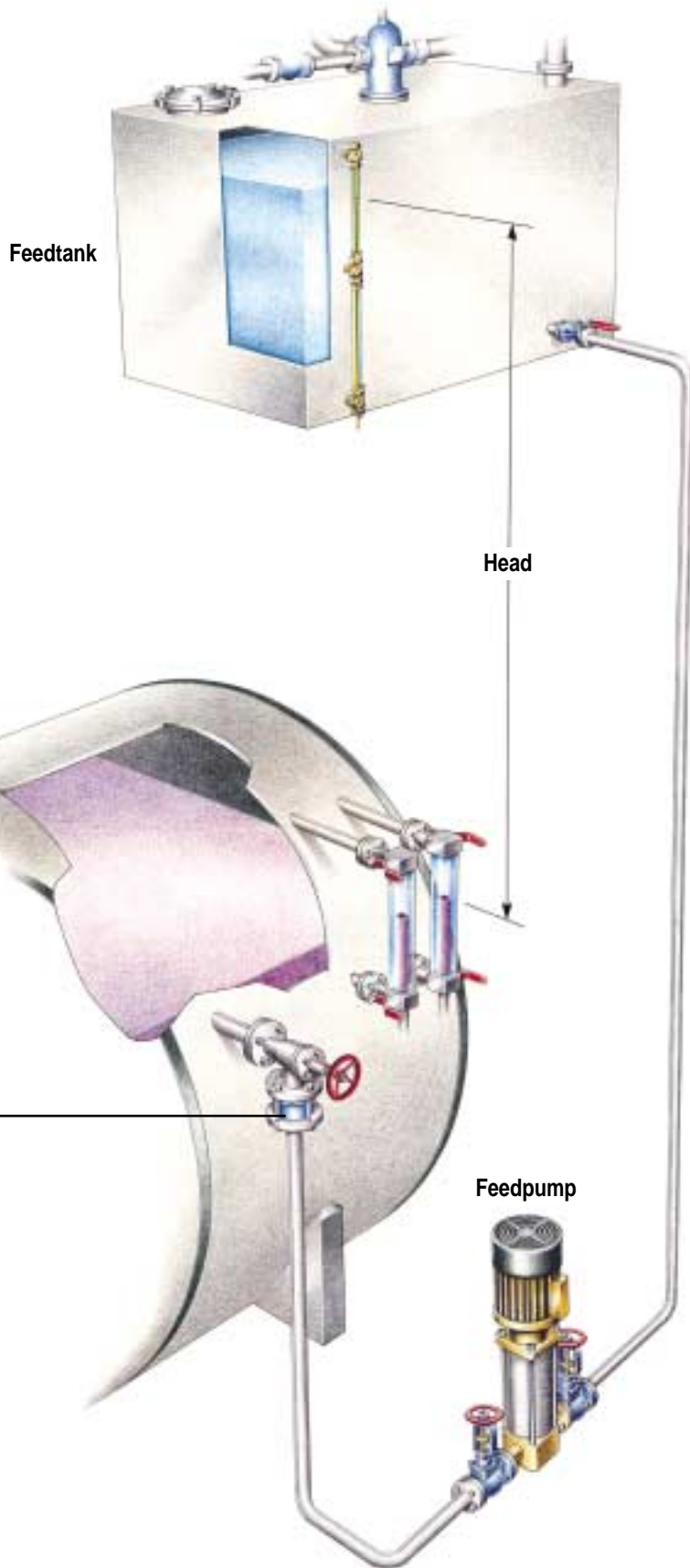
The DCV2/B check valves are made from stainless steel to resist erosion and corrosion and are available in sizes DN20, 25, 32, 40 and 50.

The valves are fitted with an EPDM soft faced disc and spring giving an opening differential pressure of approximately 0.7 bar (10 psi). They are recommended for feedtank heads up to 6 m (20 ft). The soft seat will ensure tight shut-off even with poor water conditions.

The valves are suitable for fitting between the following flanges: BS 4504 (DIN) Table PN6, 10, 16, 25 and 40; BS 10 Table D, E, F, and H.

# Installation

DCV2/B check valves should be installed between flanges with suitable gaskets. They can be installed in any plane and should be fitted in the boiler feedline between the feedpump and the boiler. It is recommended that they are at least 1 m (3 ft) away from the boiler feedpump to ensure that any high turbulence does not cause an increased pressure drop.



For boilers which are isolated from the steam system when they are shut down a vacuum breaker on the boiler is recommended. This will prevent the formation of a vacuum which might be sufficient to overcome the spring in the DCV2/B.

**Installation example**  
The installation shows a DCV2/B check valve mounted between flanges. The locating lugs engage with the bolts to centralise the valve.

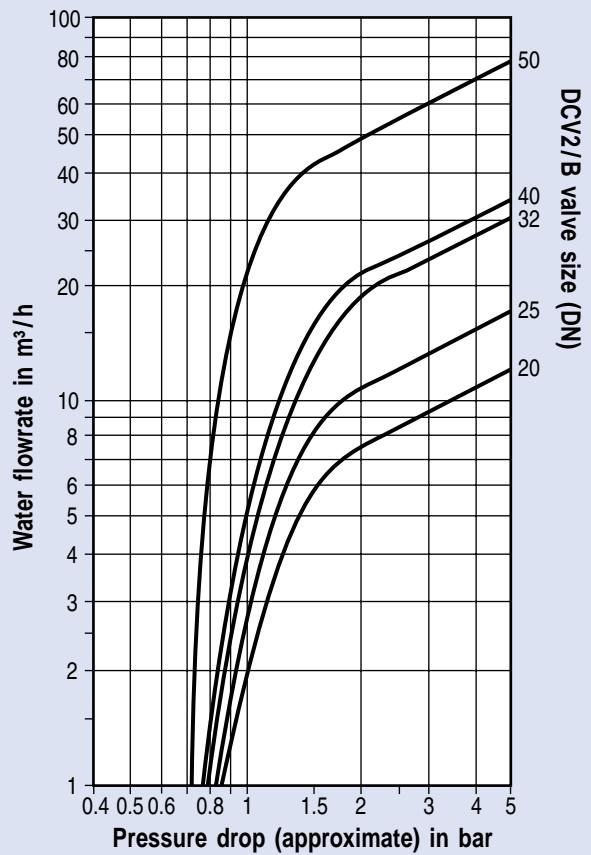
## User benefits

- Spring holds back feedtank head to prevent flooding of boiler.
- Corrosion and erosion resistant stainless steel body and internals.
- Tight shut-off achieved by use of soft seat.
- Easy installation in any plane.

## Selecting the DCV2/B

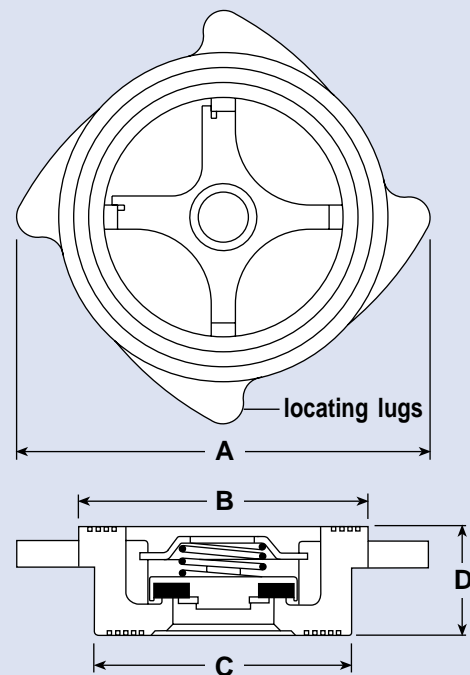
Valves should be selected to suit the feedwater line size.

When selecting the boiler feedpump always ensure that there is enough pressure available to open the DCV2/B and deliver sufficient feedwater to the boiler. A pressure drop of 0.8 bar (12 psi) should be allowed for the DCV2/B. See pressure drop chart opposite.



## Dimensions (approximate) in mm

Size	A	B	C	D
DN20	69.5	53	45	19.0
DN25	80.5	63	55	22.0
DN32	90.5	75	68	28.0
DN40	101.0	85	79	31.5
DN50	115.0	95	93	40.0



**How to order** 1 off Spirax Sarco DN40 DCV2/B boiler feed check valve.

Some of the products may not be available in certain markets.

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SB-P402-04

AB Issue 4

DCV2/B