

Operating Instructions

Blowdown valve for bleeding dirt and sludge (model 260/260A) for Steam Boilers

1 Assembly

Before installing the valve, the following points should be noted:

- Installation may be in horizontal or vertical position.
- Pay attention to installation position. The manual lever must be able to move freely.
- Pay attention to flow direction. The arrow indicating flow direction is marked on the body of the valve.
- Remove plastic plugs, if provided. The plastic plugs are only for use during transport.
- Clean the sealing surfaces on both flanges.

Note:

To avoid water impacts, the piping behind the blowdown valve should be laid with a slope or the piping must be emptied before the blowdown process.

2 Start-up

The flange connections must be screwed tightly and must be leaktight.

Foreign bodies, corrosion products or welding residues from new systems can block the blowdown pipe in front of the blowdown valve or the valve itself in a very short time. To avoid this, the boiler must be filled up to the level of the boiler rating plate with water. After this, the boiler should be emptied again. During the emptying process, the quick shut-off blowdown valve is to be replaced by a flange adapter or by another suitable valve. The boiler should then be filled again.

While the boiler is being heated up from the cold state, the blowdown valve should be operated fully several times, at least every 15 minutes. The blowdown valve must close so that it is leaktight automatically.

The packing gland must be leaktight. For this, the inspection bore should be checked for leakage of the medium. We recommend that the intervals between blowdown procedures is shortened initially for use in unrinsed new systems.

3 Operation

Warning!

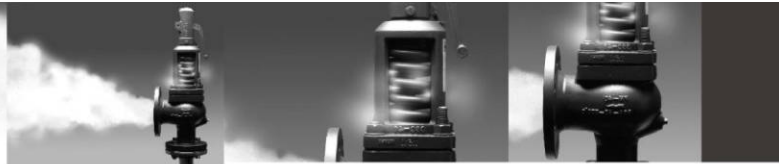
The valve is under pressure during operation. If flange connections, screw plugs or packing glands are loosened, hot water or steam will flow out. The valve is hot during operation, and can cause severe burns. Danger of crushing due to movable inner parts can cause serious injury during operation. Do not touch the quick shut-off blowdown valve when activating it. Automatically controlled quick shut-off blowdown valves are time-controlled and can open and close abruptly.

3.1 Determining the pulse/break times

To determine the blowdown pulse duration and the blowdown break time, in the first stage the entire amount of boiler water to be drained (consisting of drainage quantity) is to be determined via the desalting and blowdown process. For a rough estimate, please check the instructions noted on the leaflet.

Note:

If the boiler does not have a desalting device, or if the necessary quantity of water cannot be discharged from the boiler with the existing desalting device, the break times between the blowdown procedures should be reduced. Only when no further reduction is possible can the pulse time be increased; the pulse time should not exceed 5 seconds.



3.2 Operation using manual blowdown valve

The largest sludge removal will be achieved after a standard switching off of the boiler, when the suspended matter in the boiler has settled on the base of the boiler. In the blowdown procedure, the manual lever should be pressed quickly down as far as it will go for two seconds. The boiler should preferably be at operating pressure.

Pressing the manual lever slowly or for too long will not remove the sludge as required.

After operation, return the manual lever to its position quickly, but do not let it spring back on its own. If this is done repeatedly, this can damage the quick shut-off blowdown valve.

If the blowdown valve does not close tightly, the manual lever should be operated briefly, as described.

3.3 Operation and emergency operation of automatic blowdown valve

The pulse/break times determined are set in the automatic blowdown device (MP-1). This means that no further operation is necessary.

4 Shutting down

Can cause serious burns and scalds all over the body. Before flange connections, packing gland joints or screw plugs are loosened, all the connected pipes must be unpressurised (0 bar) and at room temperature (20 °C).

5 Measures in the event of unusual observations and operating faults

If anything unusual is observed and/or operating faults are displayed, the following table provides initial information on repair.

Observation/fault: Water leaking out at inspection bore

Cause: Packing gland leaking

Repair: Tighten packing gland. If packing gland still leaks despite being tightened, replace packing gland

Observation/fault: Boiler water is foaming

Cause: Blowdown volume too low

Repair: Reduce blowdown break time

Observation/fault: Boiler showing lack of water

Cause : Blowdown volume too high

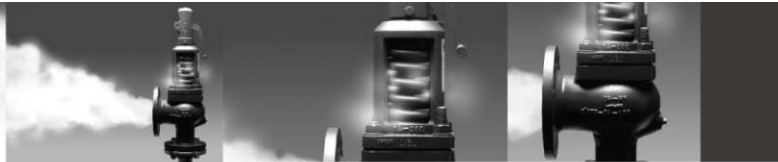
Repair: Increase blowdown break time

Cause : Quick shut-off blowdown valve leaking

Repair: Replace quick shut-off blowdown valve

6 Care and Maintenance

Manipulation of the valve while working can cause serious burns and scalds all over the body . Before the following or any other maintenance work is carried out on the valve, or flange connections, packing gland joints or screw plugs are loosened, all the connected pipes must be unpressurised (0 bar) and at room temperature (20 °C).



www.vycindustrial.com

Avenç del Daví, 22 Pol. Ind. Can Petit 08227 TERRASSA (Barcelona) SPAIN

+34 93 735 76 90 +34 93 735 81 35 119 @info@vycindustrial.com

Blowdown valves are basically maintenance-free.

After every boiler cold start, the blowdown valve should be operated once after the mean working gauge pressure has been reached. The valve must close tightly automatically.

The packing gland must be leak-tight. In this connection, the inspection bore should be inspected for leakage of the medium.

Operate blowdown valve once; the blowdown valve must close tightly automatically.

6.1 Replacing the membrane of the automatically operated blowdown valve

- Remove pressure pipe for the control of the membrane drive.
- Loosen and remove hexagon bolts and hexagon nuts.
- Remove and clean upper part of the membrane drive.
- Remove old control membrane. Clean lower part.
- Insert new control membrane and position on the perforated circle of the lower part.
- Put on upper part and position on perforated circle.
- Insert hexagon bolts, screw on with hexagon nuts and tighten.
- Mount pressure pipe for the control of the membrane drive.
- Test for leak-tightness, if necessary carefully tighten hexagon bolts.
- Grease guide bolts via the lubricating nipple at the connection sleeve of the membrane drive

Note:

Do not apply more than 5 Nm to tighten the control membrane. Any further tightening torque could damage the control membrane.

6.2 Conversion from manual to automatic blowdown valve

A manual quick shut-off blowdown valve can be automated by retrofitting with a membrane drive.

6.2.1 Mounting the membrane drive

- Loosen centring screw.
- Loosen holding bolt on fork head and pull out manual lever.
- Rest holding bolt on fork head.
- Loosen and remove hexagon bolt, remove locking lever.
- Screw in hexagon bolt and tighten.
- Place spacing washer on pressure plate.
- Coat connection sleeve of membrane drive with temperature-resistant lubricant.
- Screw on membrane drive and tighten.
- Mount pressure pipe for the control of the membrane drive.
- Operate quick shut-off blowdown valve once.

7 Replacement Parts

To order or inquire about replacement parts, please contact VYC sales department.