Installation guide

Shut-off valves

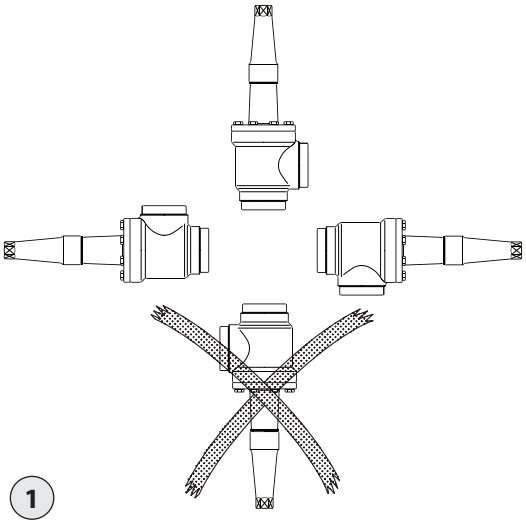
SVA-65BT 50-100

089

148R9554

148R9554

Installation



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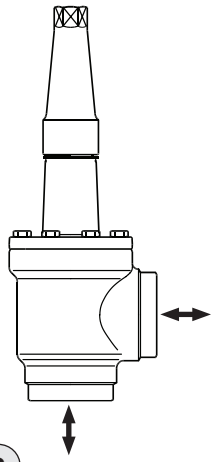

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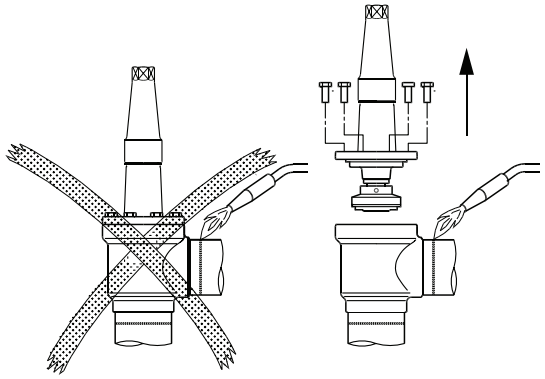

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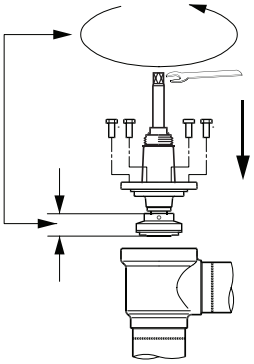

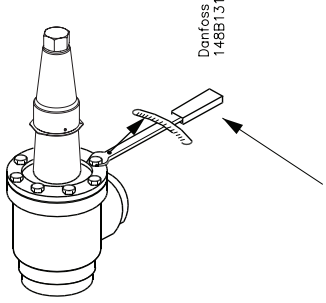

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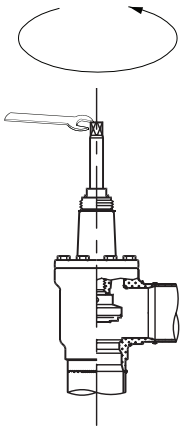
Type	Bolts*	Max. Nm	Max. LB-feet
DN 50	M10x30	44	32
DN 65	M12x30	74	54
DN 80	M10x30	44	32
DN 100	M12x30	75	55

***Always use 42CrMo4, DIN 933**

Maintenance



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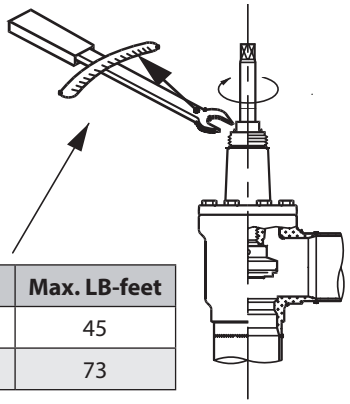
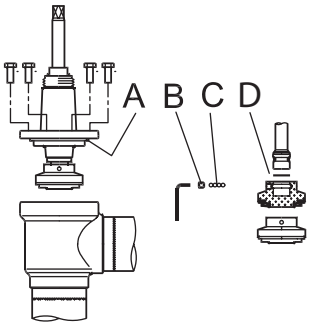


Type	Max. Nm	Max. LB-feet
DN 50-65	60	45
DN 80-100	100	73

6



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Імпортер:ТОВ з ii "Данфосс ТОВ" 04080, Київ 80, п/с 168, Україна

Info for UK customers only : Danfoss Ltd., 22 Wycombe End, HP9 1NB, GB

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ENGLISH

Installation

Refrigerants
R717 (Ammonia).

The valve is only recommended for use in closed circuits. For further information please contact Danfoss.

Pressure and temperature range
65 bar (942 psi)

SVA-65BT Top complete:
0 °C – +190 °C (32 °F – +374 °F)

SVL-65BT Housing:
0 °C – +200 °C (32 °F – +392 °F)

Installation
The valve must be installed with the spindle vertically upwards or in horizontal position (fig. 1). The valve is designed to withstand a high internal pressure. However, the piping system should be designed to avoid liquid traps and reduce the risk of hydraulic pressure caused by thermal expansion. It must be ensured that the valve is protected from pressure transients like "liquid hammer" in the system.

Attention!
SVA-65BT are shut-off valves and must always be either fully closed or fully open. Half open positions are not allowed.

Recommended flow direction
To achieve optimum flow conditions, the valve should be installed with the flow towards the valve cone as indicated by the arrow on the side of the valve body (fig. 2). Flow in the opposite direction is also acceptable (fig. 2), but slightly reduces the k_v- / C_v value.

Welding
The bonnet should be removed before welding (fig. 3) to prevent damage to the sealing parts in the packing gland and between the valve body and bonnet, as well as the peak gasket in the valve seat. Only materials and welding methods, compatible with the valve housing material, must be used. The valve should be cleaned internally to remove welding debris on completion of welding and before the valve is reassembled.

Avoid welding debris and dirt in the threads of the housing and the bonnet.

Removing the bonnet can be omitted provided that:

The temperature in the area between the valve body and bonnet during welding does not exceed +190 °C/+374 °F.

This temperature depends on the welding method as well as on any cooling of the valve body during the welding itself.

(Cooling can be ensured by, for example, wrapping a wet cloth around the valve body.) Make sure that no dirt, welding debris etc. get into the valve during the welding procedure.

Be careful not to damage the peak cone ring.
The valve housing must be free from stresses (external loads) after installation.

Stop valves must not be mounted in systems where the outlet side of the valve is open to atmosphere. The outlet side of the valve must always be connected to the system or properly capped off, for example with a welded-on end plate.

Assembly
Remove welding debris and any dirt from pipes and valve body before assembly. Check that the cone has been fully screwed back towards the bonnet before it is reinstalled in the valve body (fig. 4).

Tightening
Always use bolts quality stated in fig. 4. Tighten the bonnet with a torque wrench, to the values indicated in the table (fig. 4).

Please note that the table (fig. 4) containing maximum torque must be adhered to and **never exceeded**.

Corrosion protection and identification
Precise identification of the valve is made via the ID ring at the top of the bonnet, as well as by the stamping on the valve body. The external surface of the valve housing must be protected against corrosion with a suitable protective coating after installation and assembly.

Protection of the ID ring when repainting the valve is recommended.

Maintenance

Backseating (fig. 5)
To backseat the valve, turn the spindle counter-clockwise until the valve is fully open.

Packing gland
It is not recommended to replace the packing gland.

If required, it is possible to carefully tighten the packing gland. Make sure not to apply a very high force. Danfoss recommends tightening the packing gland in small steps with a torque wrench, checking the tightness in each step.

Maximum torque values are listed in the table (fig. 6).

Dismantling the valve (fig. 7)
Do not remove the bonnet while the valve is still under pressure.

Check that the flat gasket (pos. A) has not been damaged.

- Check that the spindle is free of scratches and impact marks.
- If the reinforced peak ring has been damaged, the whole cone assembly must be replaced.

Replacement of the cone (fig. 7)
Unscrew the cone screw (pos. B) with an Allen key.

SVA-65BT, 50-65 ..... 2.5 mm A/F
SVA-65BT, 80-100 .....4 mm A/F

(An Allen key is included in the Danfoss Industrial Refrigeration gasket set).
To remove the balls compress the disk spring (pos. D) and remove the balls (pos. C).

Number of balls in pos. C:

SVA-65BT, 50-65 .....14 pcs.
SVA-65BT, 80-100 .....13 pcs.

The cone can then be removed. Place the new cone on the spindle and remember to place the disk spring (pos. D) between the spindle and the cone. Compress the the disk spring and replace the balls (pos. C). Reinstall the cone screw using Loctite No. 648. to ensure that the screw is properly fastened.

Assembly
Remove any dirt from the body before the valve is assembled. Check that the cone has been screwed back towards the bonnet before it is replaced in the valve body (fig. 4).

Tightening
Always use bolts quality stated in (fig. 4). Tighten the bonnet with a torque wrench, to the values indicated in the table (fig. 4). Please note that the table (fig. 4) containing maximum torque must be adhered to and **never exceeded**.

If required, it is possible to carefully tighten the packing gland. Make sure not to apply a very high force. Danfoss recommends tightening the packing gland in small steps with a torque wrench, checking the tightness in each step.

Maximum torque values are listed in the table `(fig. 6).

Danfoss A/S
Climate Solutions • danfoss.com • +45 7488 2222

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