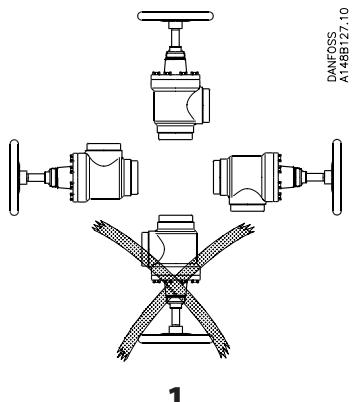


Instructions

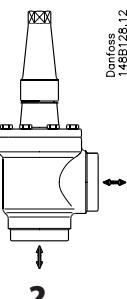
SVA-S/L 15-200

148R9549

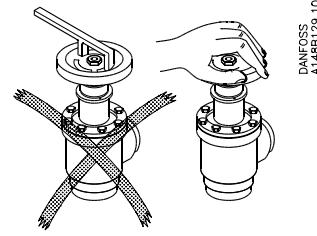
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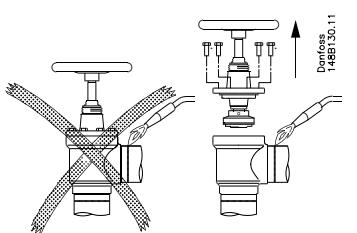
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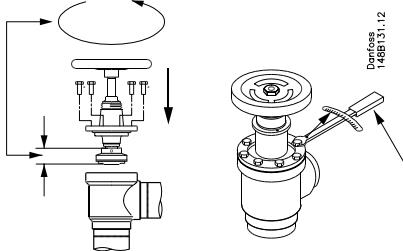
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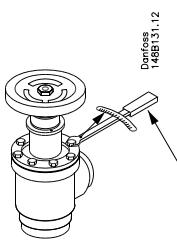
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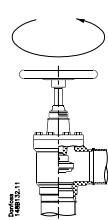
5a



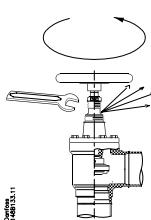
5b

	Nm	LB-feet
DN 15-20	22	16
DN 25-32-40-50	44	32
DN 65	75	53
DN 80	44	32
DN 100	75	53
DN 125-150	183	135
DN 200	370	272

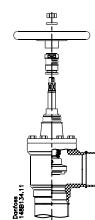
Maintenance



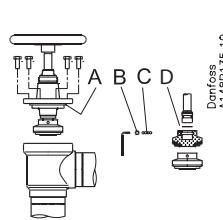
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7

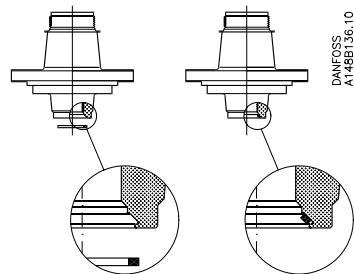


8



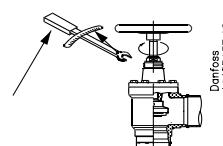
9

Only DN 80 - 200



10

	Nm	LB-feet
DN 15-20	50	37
DN 25-40	75	55
DN 50-65	95	70
DN 80-100	150	111
DN 125-150	250	184
DN 200	80	59



11

ENGLISH

Installation

Refrigerants

Applicable to all refrigerants, including H₂S and flammable hydrocarbons and non-corrosive gases or liquids, with due consideration given to valve materials.

Pressure and temperature range

SVA-S/L (DN 15-65) 52 bar (754 psi) at -50°C/+50°C (-58°F/+122°F)

SVA-S/L (DN 80-200) 50 bar (725 psi) at -50°C/+50°C (-58°F/+122°F)

Installation

The valve must be installed with the spindle vertically upwards or in horizontal position (fig. 1). Valves should be opened by hand without the use of tools or other devices (fig. 3). 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 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. 4) to prevent damage to the sealing parts in the packing gland and between the valve body and bonnet, as well as the teflon gasket in the valve seat. Only materials and welding methods, compatible with the valve housing material, must be welded to the valve housing. 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 +150°C/+302°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 teflon 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 replaced in the valve body (fig. 5a).

Tightening

Tighten the bonnet with a torque wrench, to the values indicated in the table (fig. 5b).

Colours and identification

The SVA valves are painted with a red oxide primer in the factory. 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 guarded against corrosion with a suitable protective coating after installation and assembly.

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

Maintenance

Packing gland

When performing service and maintenance, replace the complete packing gland only, which is available as a spare part. As a general rule, the packing gland must not be removed if there is internal pressure in the valve. However, if the following precautionary measures are taken, the packing gland can be removed with the valve still under pressure:

Backseating (fig. 6)

To backseat the valve, turn the spindle counter-clockwise until the valve is fully open.

Pressure equalization (fig. 7)

In some cases, pressure forms behind the packing gland. Hence a handwheel or similar should be fastened on top of the spindle while the pressure is equalized. The pressure can be equalized by slowly screwing out the gland.

Removal of packing gland (fig. 8)

Handwheel and packing gland can now be removed.

Dismantling the valve (fig. 9)

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 teflon cone ring has been damaged, the whole cone assembly must be replaced.

Replacement of the cone (fig. 9)

Unscrew the cone screw (pos. B) with an Allen key.

SVA-S/L 15-40	2.0 mm A/F
SVA-S/L 50-65	2.5 mm A/F
SVA-S/L 80-100	4 mm A/F
SVA-S/L 125-150	5 mm A/F
SVA-S/L 200	6 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-S/L 10-20	10 pcs.
SVA-S/L 25-65	14 pcs.
SVA-S/L 80-200	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 disk spring and replace the balls (pos. C). Refit the cone screw in again using Loctite No. 648. to ensure that the screw is properly fastened.

Replacement of backseat seal (fig. 10)

For sizes DN 80-200 only:

The valve backseat is a special teflon ring. If this is damaged, it must be replaced. Screw the spindle out of the bonnet. Carefully remove the original backseat seal and mount a new one in the angled contact surface directly inside the opening in the bonnet. Avoid folding and damage to the teflon ring, or damage to the contact surface at the top of the valve during assembly.

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. 5a).

Tightening

Tighten the bonnet with a torque wrench, to the values indicated in the table (fig. 5b). Tighten the packing gland with a torque wrench, to the values indicated in the table (fig. 11).

Use only original Danfoss parts, including packing glands, sealing parts and gaskets for replacement. Materials of new parts are certified for the relevant refrigerant.

In cases of doubt, please contact Danfoss. Danfoss accepts no responsibility for errors and omissions. Danfoss Industrial Refrigeration reserves the right to make changes to products and specifications without prior notice.

