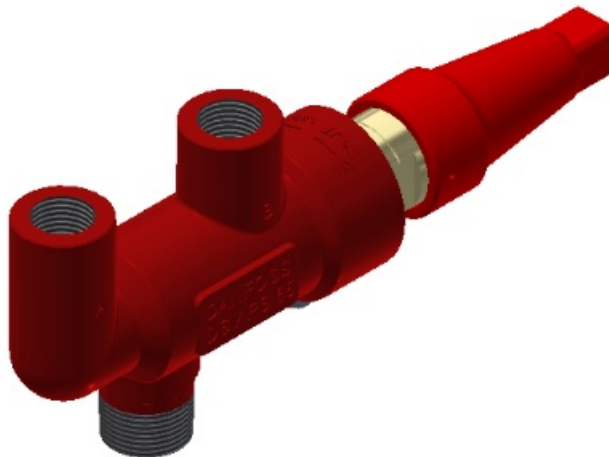


Danfoss DSV 10 Change-Over Valve Installation Guide

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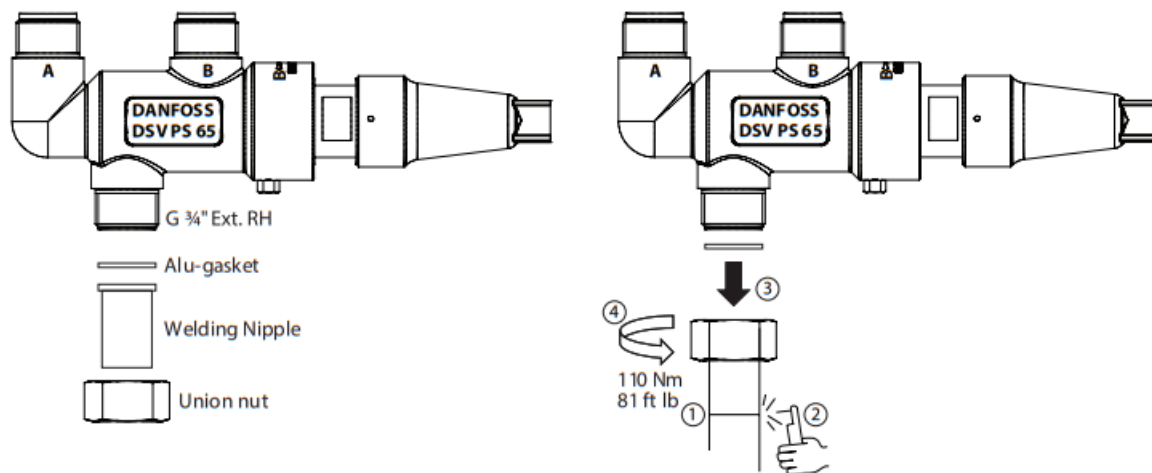
Installation Guide
Change-over valve
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DSV 10 Change-Over Valve

148R9521



148R9521

Fig. 1a. DSV 10 G inlet connection with welding nipple

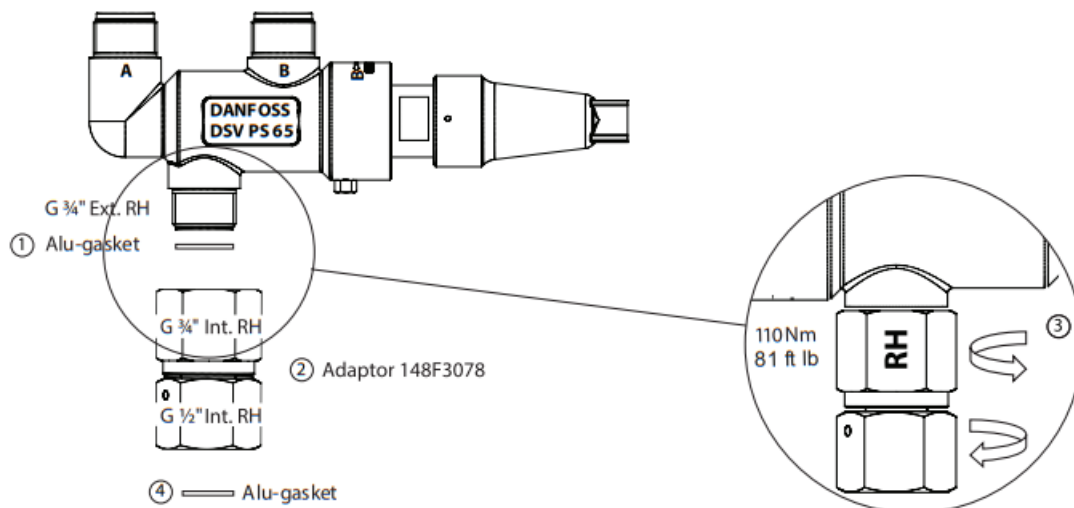


Fig. 1b. DSV 10 G inlet connection with adapter

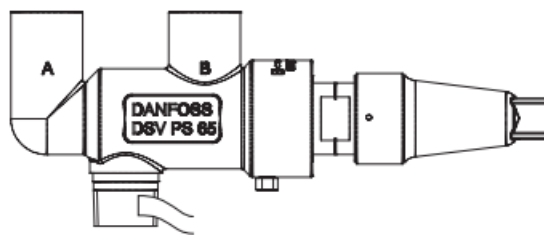


Fig. 1c. DSV 10 NPT inlet connection

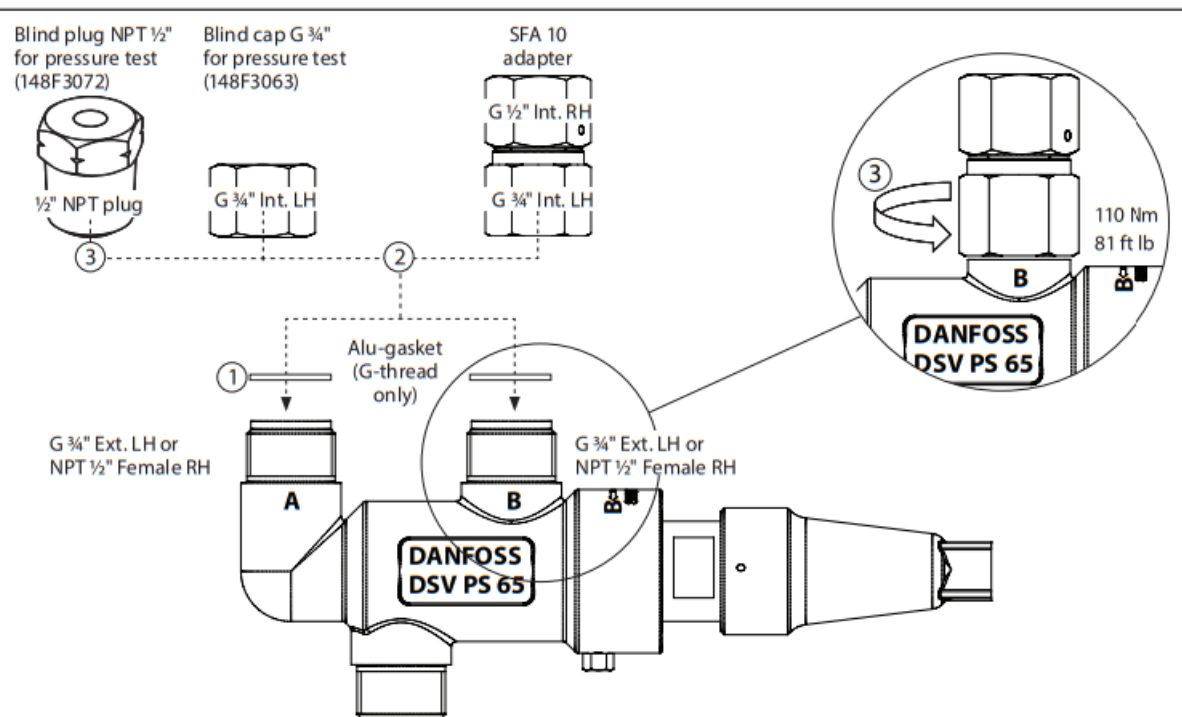


Fig. 2. Adapter/ blind cap/plug installation

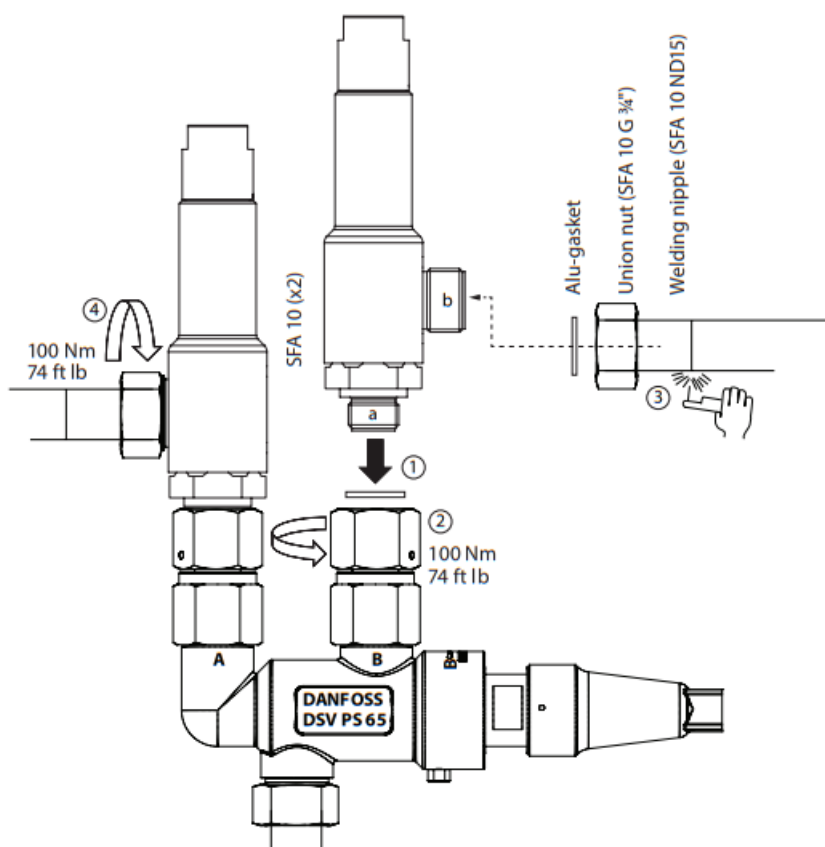


Fig. 3a. SFA 10 G (x2) installation



NOTE: Add G4500 grease (148F3064) to thread a and b on all SFA valves.

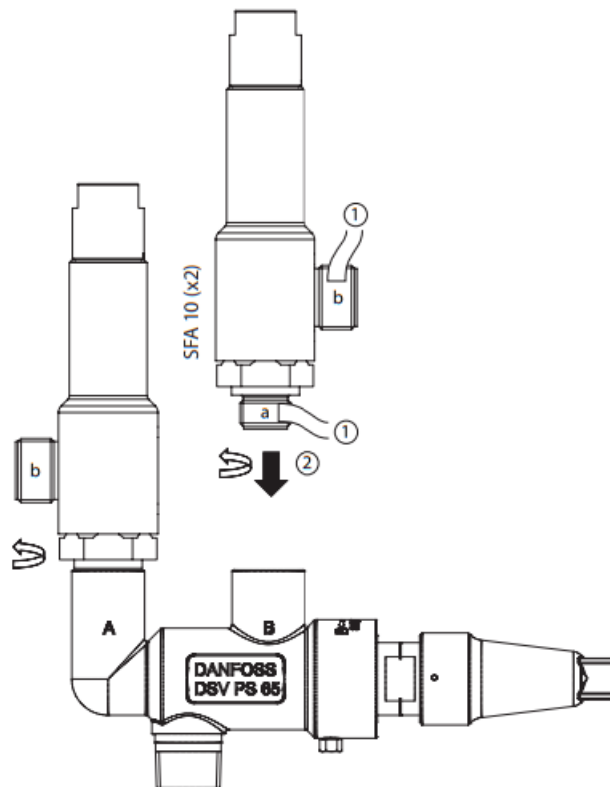


Fig. 3b. SFA 10 NPT (x2) installation

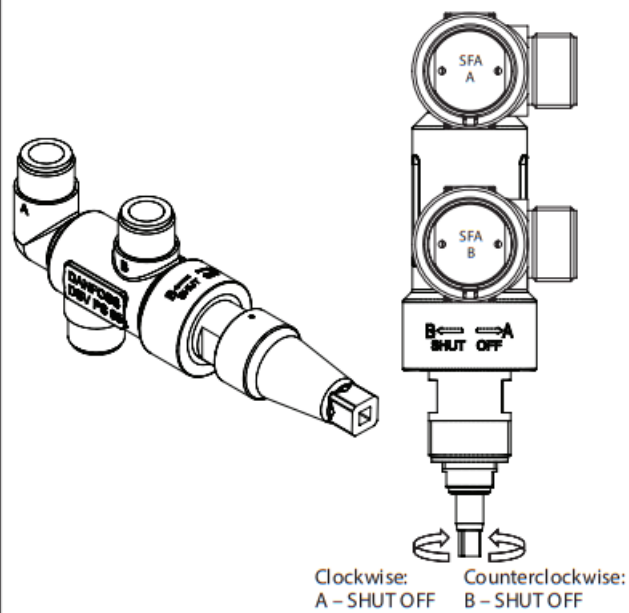


Fig. 4. Operating DSV 10



When demounting one of the SFA valves for a period make sure to cover the outlet opening by a proper cover to avoid dust/dirt entering the DSV e.g. blind cap (148F3063).

Refrigerants

Applicable to R717, R744, HFC and HCFC

Temperature range

-50 °C – 100 °C (-58 °F – 212 °F)

Pressure range

The DSV 10 valve is designed for a max. working pressure of 65 bar (944 p.s.i.g).

Installation

The DSV change-over valve is installed together with safety valves (SFA).

This installation guide must be complemented with the installation guide for the specific safety valves to secure all details are covered.

Important:

The inlet/outlet pipe dimensions must not be smaller than those of the welding nipples.

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.

During welding avoid welding debris and dirt in the threads of the connections and in the adjacent pipes.

Before assembly clean all parts exposed to debris and dirt.

DSV 10 G inlet connection with welding nipple (see fig. 1a)

1. Assemble the union nut and welding nipple and place the assembly further to the system piping
2. Fully weld the welding nipple to the system piping and cool down the assembly
3. Place the alugasket inside the union nut and install the DSV 10 by turning the union nut counter-clockwise
4. Tighten to torque 110 Nm (81 ft lb)

DSV 10 G inlet connection with adapter (see fig. 1b)

1. Place alugasket (G) inside the union nut with “RH” marking to the inlet
2. Connect the union nut with inlet
3. Turn clockwise and tighten to torque 110 Nm (81 ft lb)
4. Place the alugasket inside the other union nut and connect to the system piping by turning the union nut clockwise and tighten sufficiently

Important:

Counter-hold one union nut when turning the other union nut to avoid unintentionally loosening of the nut!

DSV 10 NPT inlet connection (see fig. 1c)

1. Put sufficient Teflon tape or similar sealing material on the DSV 10 inlet
2. Mount the DSV 10 inlet by turning it clockwise
3. Align and tighten by applying a sufficient torque

Adapter/ blind cap installation (see fig. 2)

1. Place alugasket (G) on the A/B outlets
2. Connect SFA 10 adapters (G) to the outlets A/B. For pressure testing set-up use blind caps (G) or plugs (NPT) with sufficient Teflon selling to seal A and B
3. Turn counter-clockwise and tighten sufficiently. On G-version to torque 110 Nm (81 ft lb)

Important:

Assure a tight assembly by counter-holding the nut at the DSV inlet when turning adapters/SFAs at DSV outlet.

SFA 10 G (x2) installation (see fig. 3a)

1. Place the alugasket inside the union nut, add G4500 grease (148F3064) to thread a, and install the SFA by turning the union nut counter-clockwise
2. Tighten to torque 100 Nm (74 ft lb)
3. Prepare and assemble the outlet connection as described in the DSV 10 G inlet connection section
4. Add G4500 grease (148F3064) to thread b, and tighten the outlet connection to torque 100 Nm (74 ft lb)

Important:

Assure a tight assembly by counter-holding the nut at the DSV inlet when turning adapters/SFAs at DSV outlet.

SFA 10 NPT (x2) installation (see fig. 3b)

1. Put sufficient Teflon tape or similar sealing material on the SFA 10 inlet and outlet
2. Mount the SFA 10 inlet by turning it clockwise
3. Align and tighten by applying a sufficient torque
4. Connect the SFA 10 outlet to the discharge piping system

Operating Instructions (see fig. 4)

When the spindle is turned fully clockwise to mechanical stop, the DSV is opened to outlet B. When the spindle is turned fully counterclockwise to mechanical stop the DSV is opened to outlet A.

Corrosion protection

The DSV valves are factory painted with a red oxide primer. The external surface of the valve housing must be prevented against corrosion with a suitable protective coating after installation and assembly.

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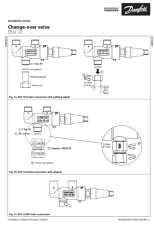
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