

Installation guide

# Check and Stop valve

## Type OFC

020R54Z1



020R54Z1



**Refrigerant:**

R134a, R513A, R515B, R1234ze(E)

For other refrigerants, visit <http://store.danfoss.com/> and search for individual code, where refrigerants are listed as part of product details.

Oil: OFC valve is designed for an oil-free environment

**Media Temperature:**

Min. -40 °C / -40 °F

Max. +100 °C / +212 °F

**Max. Working Pressure:**

PS/MWP = 23 bar / 334 psig

**Contents of accessory box**

- Outlet flange (1 pcs)
- Outlet flange fasteners M16x70 (4 pcs)
- Nut M16 for outlet flange (4 pcs)
- Spring washer M16 for outlet flange (4 pcs)
- Plain washer M16 for outlet flange (4 pcs)
- O-ring for outlet flange/GBC (1 pcs)
- O-ring lubrication (2 gram)
- Inlet flange fasteners M10x40 (4 pcs)
- Spring washer M10 for inlet flange (4 pcs)
- Plain washer M10 for inlet flange (4 pcs)
- Solder staging flange for dual staging port (1 pc)
- Blind flange for dual staging port (1 pc)
- Staging port fasteners M10x35 (4 pcs)
- Spring washer M10 for staging port (4 pcs)
- Plain washer M10 for staging port (4 pcs)
- O-ring for staging port (2 pcs)
- Additional check valve springs (2 pcs):
  - Yellow spring, for 45°->89° orientation
  - Red spring, for 90°->134° orientation

**Interface Connections:**

Install valve directly on Danfoss Turbocor compressor, picture shown with vertical down installation.

All fasteners and bolts require stainless steel. Bolts with minimum class A2-70.

Ball valve clocking may be changed by removing bolts and rotating ball valve housing without retracting the ball valve assembly away from the elbow (for the type of check and stop valve).

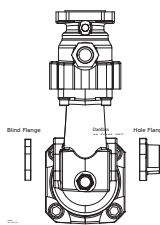
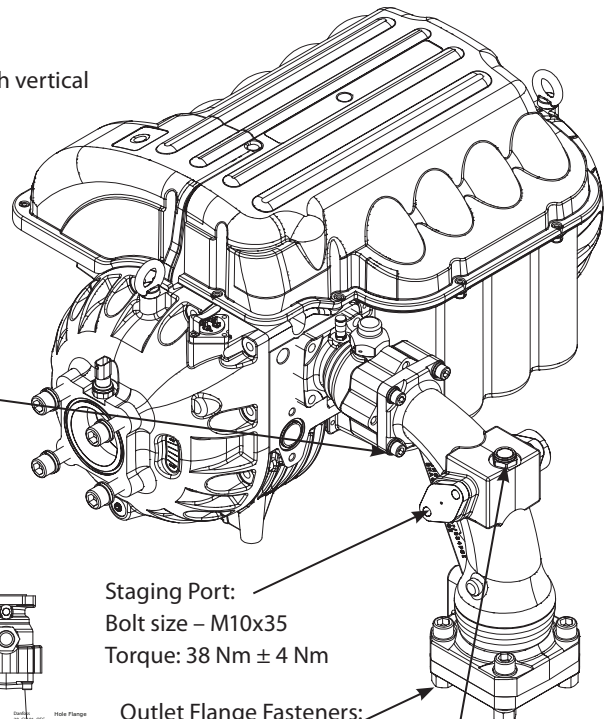


NOTE: refer to check valve orientation options below

Torque: 38 Nm ± 4 Nm

For dual staging port version:

1. Assign a staging port flow direction. (Left or right side)
2. Install the blind flange, O-ring and fasteners to block the opposite direction.
3. Install outlet flange, O-ring and fasteners.



Staging Port:  
Bolt size – M10x35  
Torque: 38 Nm ± 4 Nm

Outlet Flange Fasteners:  
Torque - 110 Nm

Sight glass:  
Torque - 50 Nm  
with Loctite (648)

**Outlet Flange Brazing:**

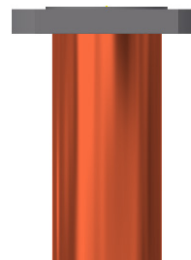
Place outer flange on evenly cut copper pipe

Min 5% Ag



**NOTE:**

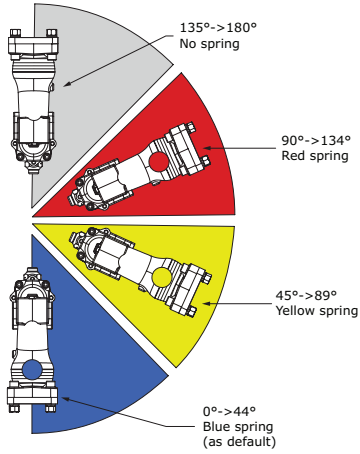
1. Ensure flange is not mounted on main housing during brazing.
2. GBC can be pre-assembled by Danfoss or installed at customer end. Torque – 110Nm.



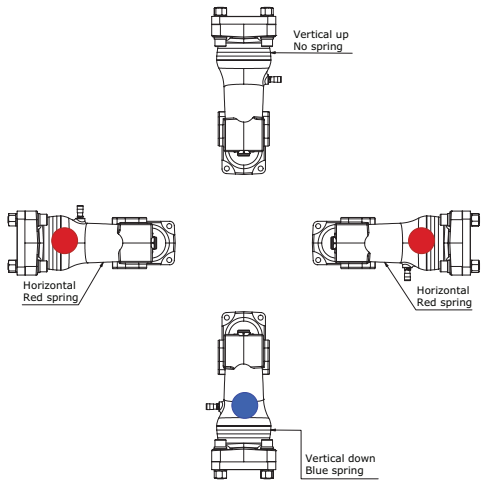
Info for UK customers only: Danfoss Ltd., 22 Wycombe End, HP9 1NB, GB

**Orientation:**

**For check and stop valve:**

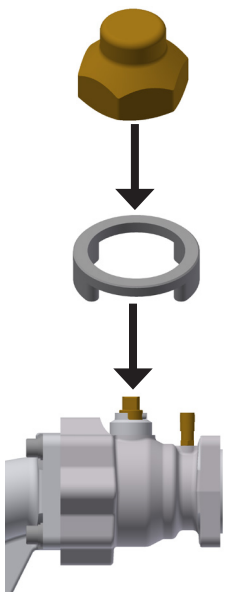


**For check valve without ball valve:**

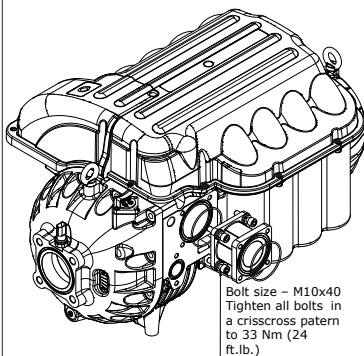


**For check and stop valve:**

Always reinstall the lock ring and cap to its original position after opening/ closing the ball valve



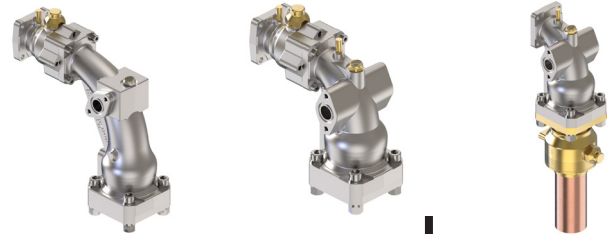
**For spacer:**



**When changing check valve spring:**

1. Remove check valve insert from main housing
2. Remove check valve head
3. Remove spring and replace with correct color based on intended orientation
4. Reinstall the check valve head and insert to its original position
5. Install outlet flange, O-ring and fasteners

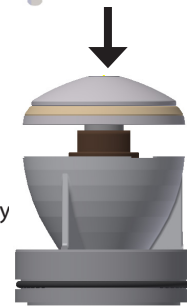
**Main housing**



Check valve insert

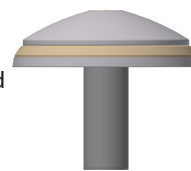


**NOTE:** Use silicone lubricant spray at O-ring if needed

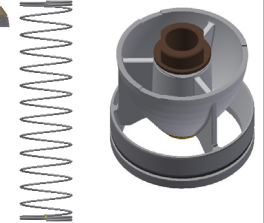


Check valve base

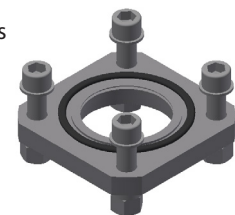
Check valve head



Check valve spring



Outlet flange, O-ring and fasteners



**NOTE:** Apply provided lubrication to O-ring



**NOTE:** The external surface of the OFC steel weld flanges must be guarded against corrosion with a suitable protective coating after installation and assembly.