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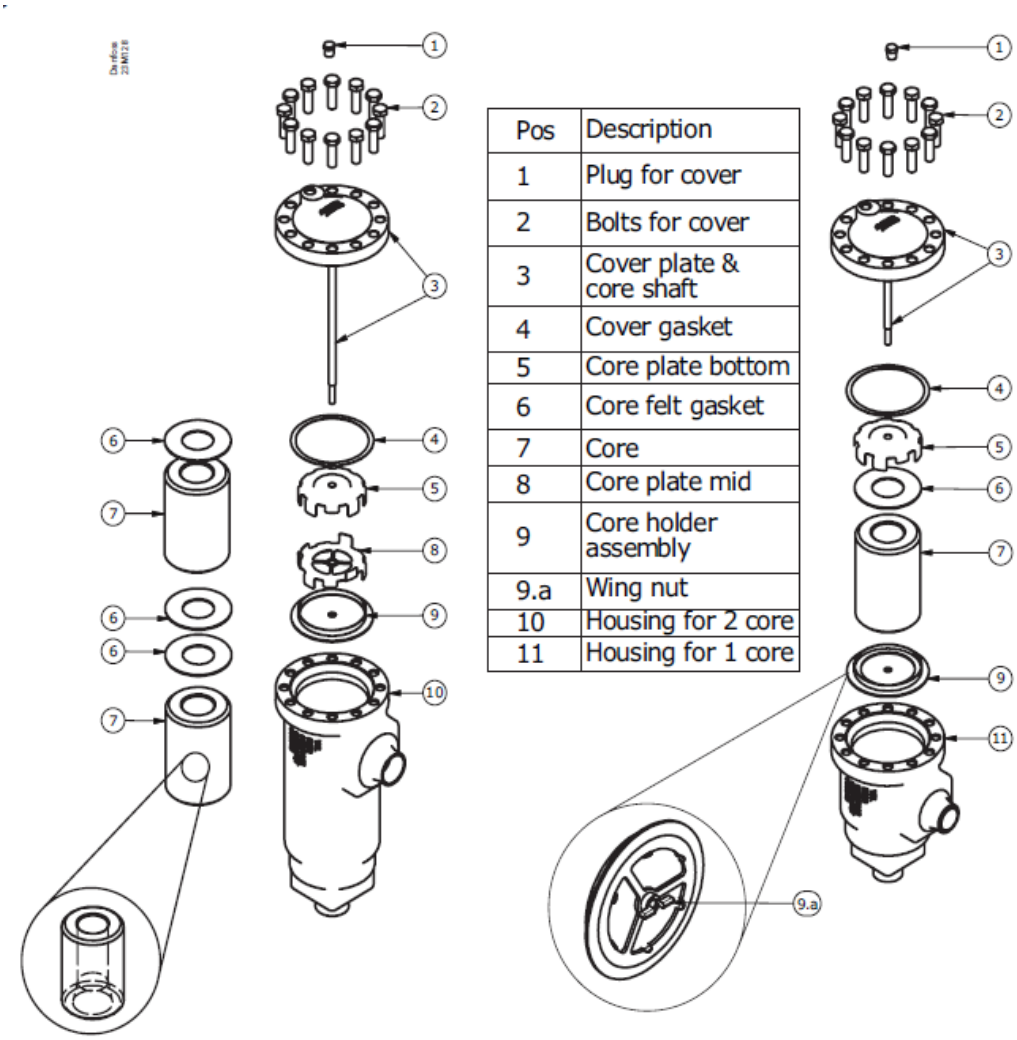
Danfoss Filter Drier Shell

Specifications

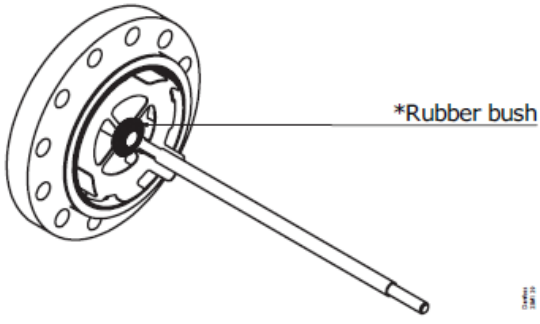
- Refrigerants: CO2 (sub critical and trans critical system)
- Media Temperature: -55 to 100 °C / -67 to 212 °F
- Maximum working pressure (PS/MWP): 90bar / 1305 psig

Design



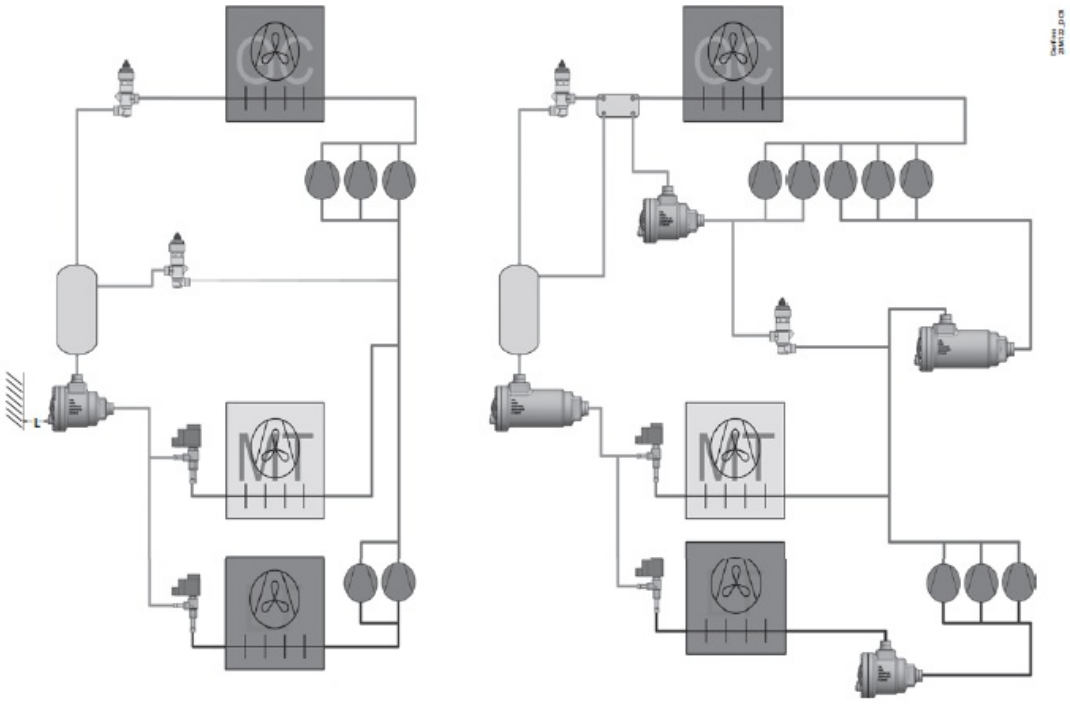
Pos	Description
1	Plug for cover
2	Bolts for cover
3	Cover plate & core shaft
4	Cover gasket
5	Core plate bottom
6	Core felt gasket
7	Core
8	Core plate mid
9	Core holder assembly
9.a	Wing nut
10	Housing for 2 core
11	Housing for 1 core

Inner taper of core always facing towards filter outlet



*Remove the rubber bush while making assembly.

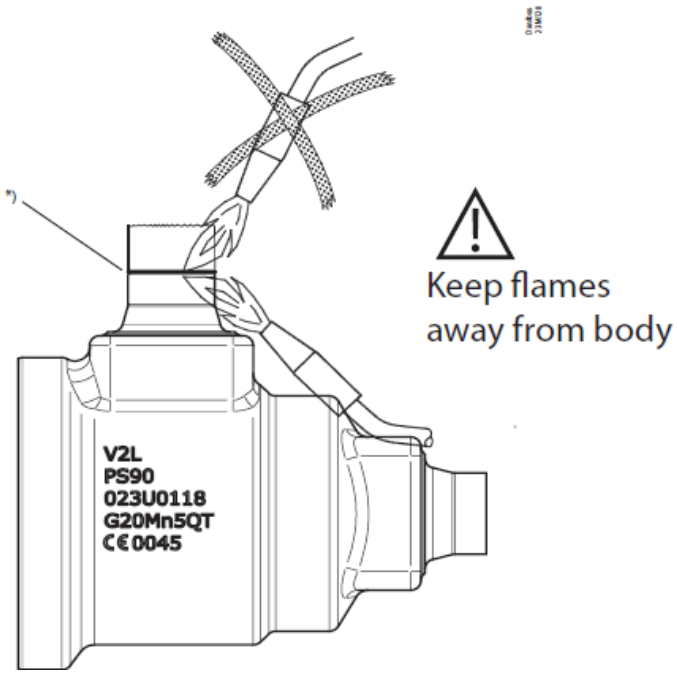
Installation



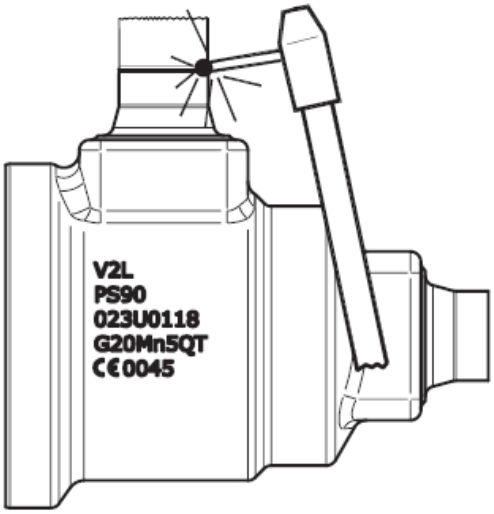
Type	L minimum	
	[mm]	[in]
DCR 048	250	9.8
DCR 096	400	15.8

Be careful of liquid refrigerant trap in the system as may result in very high internal pressures while heated up. Ensure proper pump down before removing the DCR cover Also drain out residual refrigerant before removing cover bolts.

Brazing



Welding



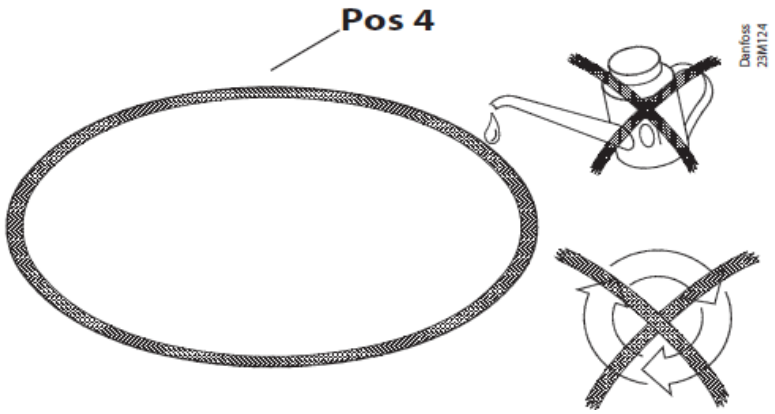
Connector type *	Brazing material
Steel	Silver-flo 55 + Easy-flow flux

Customer best practice will still be needed:

- Remove cover assembly before brazing/welding.
- Do not remove core shaft from the cover.
- Brazing/Welding of the joints to be done by certified welder.
- Let them cool down.
- Clean the brazing /welding area after the instal-lation (remove remaining flux with a brush).

- This is an important operation and needs to be done with great care to remove all remaining flux.
- The external surface has TLP(Zink) coating to protect corrosion, however we recommend painting the DCR after installation for maximum corrosion protection.
- After brazing/welding use suitable coating on the connector surface to avoid any rust in the field.

Gasket

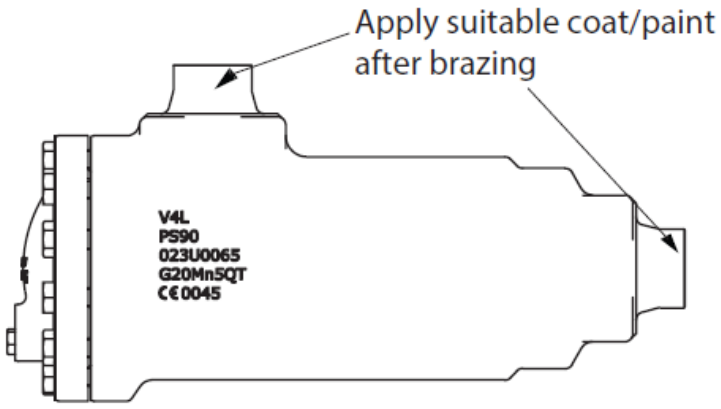


Do not install DCR insert before Brazing / welding

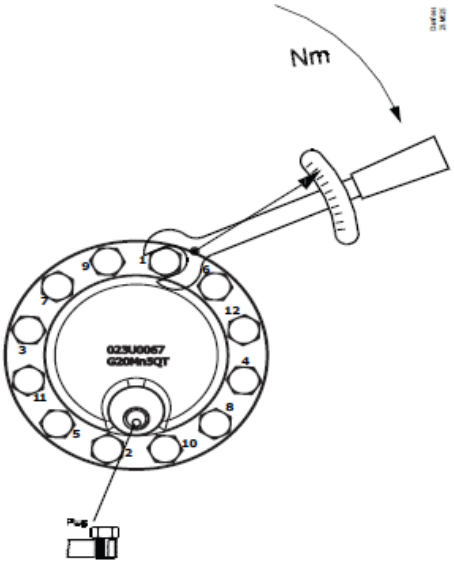
Note: Confirm correct top cover gasket is selected for DCR

Do not reuse the gasket

Do not use Oil/Grease on Gasket



How to tighten the bolts



DCR Bolts M12*1.75	
Step 1	Finger tight all the bolts
Step 2	10 N.m/7.4 lbf.ft
Step 3	20 N.m/15 lbf.ft
Step 4	40 N.m/30 lbf.ft
Step 5	80 N.m /59 lbf.ft

* Repeat until complete tightness has been reached.

Component	**Size**	**Torque (N.m/ lbf.ft)**
Cover bolts	M12*1.75	80/59
Plug**	1/4” NPT	50/37
Plug**	1/2” G	50/37
Core Shaft	M10	30/22

Wing nut	M8	1.5 /1.10 (Hand tight)

Note:

** Replace the plug for example with schrader/Needle valve etc..

FAQ

Can I reuse the gasket for the DCR cover?

No, do not reuse the gasket. Ensure to select the correct top cover gasket for DCR and do not use Oil/Grease on the gasket.

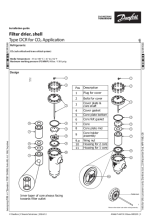
What should I do with the rubber bush during assembly?

Remove the rubber bush while making assembly.

What type of connector and brazing material should be used?

Use Steel material with Silver-flo 55 + Easy-flow flux for brazing.

Documents / Resources

	Danfoss Filter Drier Shell [pdf] Installation Guide 023R9548, 23M128, 23M129, Filter Drier Shell, Drier Shell, Shell

References

- User Manual

Danfoss 023R9548, 23M128, 23M129, Danfoss, Drier Shell, Filter Drier Shell, Shell

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