



Danfoss DCR Filter Drier Shell Installation Guide

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Danfoss DCR Filter Drier Shell
Installation Guide

ENGINEERING
TOMORROW



Installation guide

Filter drier, shell

Type DCR, DCR/H, DCR E



<p>Refrigerants: DCR Standard (A1, Group 2) R1233zd, R134a, R407A, R407C, R407F, R407H, R410A, R422B, R422D, R448A, R449A, R449B, R450A, R452A, R513A, R515B, etc.</p> <p>For other refrigerants, please contact Danfoss representative.</p> <p>Media Temperature: -40 - 70 °C / -40 - 160 °F</p>	<p>DCR/H (A2L, Group 1) – UL listed, for American market use only R1234yf, R1234ze, R32, R444B, R452B, R454A, R454B, R454C, R455A, R457A, R516A, etc. *Also compatible with DCR Standard Refrigerants.</p> <p>DCRE (A3, A2L, Group 1) – PED approved R1234yf, R1234ze, R32, R444B, R452B, R454A, R454B, R454C, R455A, R457A, R516A, R290, R600a, etc. *Also compatible with DCR Standard Refrigerants.</p>
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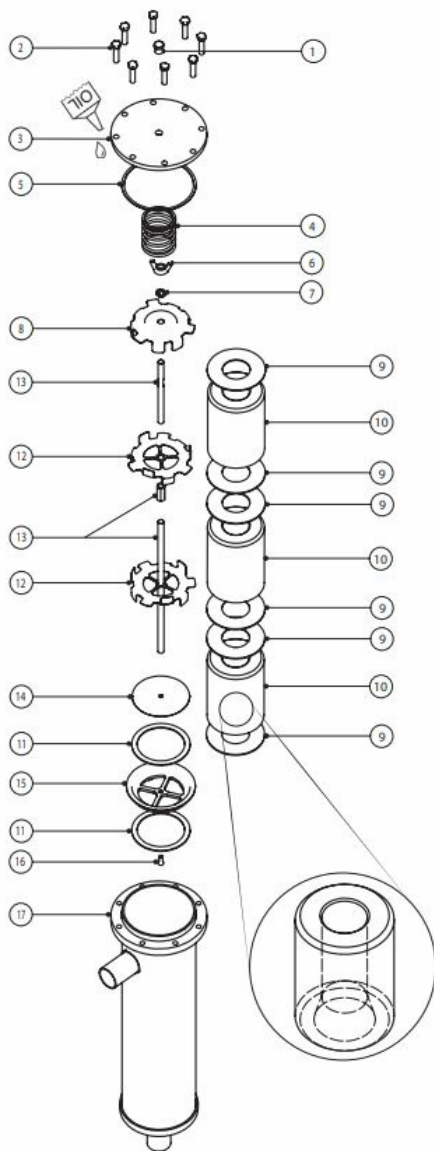
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Design

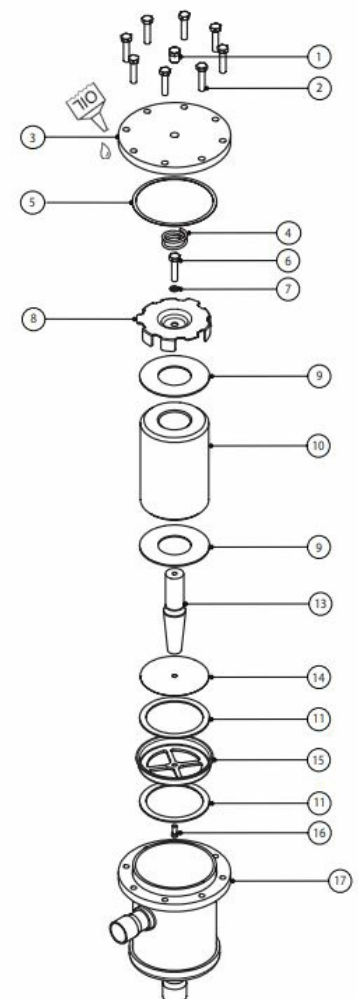
DCR and DCR/H



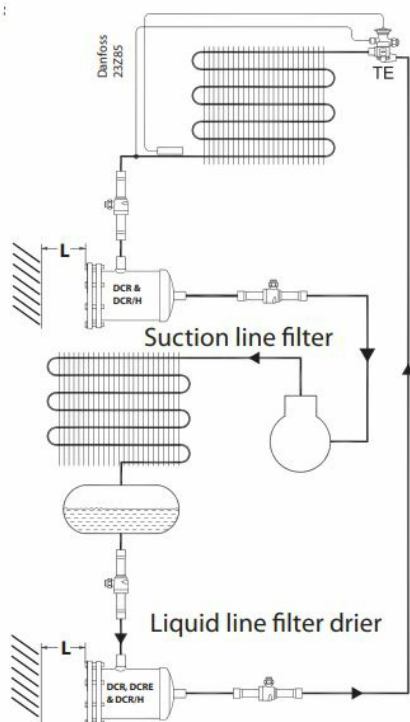
Pos.	Description
1	Plug for cover
2	Bolts for cover
3	Top cover
4	Spring
5	Top cover gasket
6	Wing nut (DCR) / Bolt (DCRE)
7	Lock washer
8	Top plate
9	Core felt gasket
10	Solid core
11	Core holder felt gasket
12	Core plate
13	Distance rod
14	Wire Mesh
15	Core holder
16	Hex Socket Head Screw
17	Shell

Inner taper of core always facing towards filter outlet. This apply for all DCR Families.

DCR E



Installation



Type		L minimum		Maximum working pressure PS / MWP [bar] / [psig]
		[mm]	[in]	
DCR	048	170	7	46 / 667
DCR/H				
DCR	096	310	13	46 / 667
DCR/H				
DCR	144	310	13	35 / 507 ¹⁾
DCR/H				46 / 667 ²⁾
DCR	192	310	13	28 / 406 ¹⁾
DCR/H				40 / 580 ²⁾
DCRE	048	170	7	50 / 725

¹⁾ For usage with strainer or as a receiver application

²⁾ For "drier" application using all the permissible cores



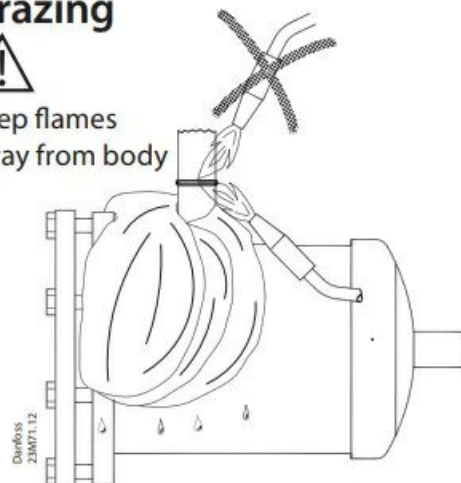
"The DCRE can only be use for A2L when the solid core is placed. DCRE is not allowed to be used as receiver."

Brazing

Brazing

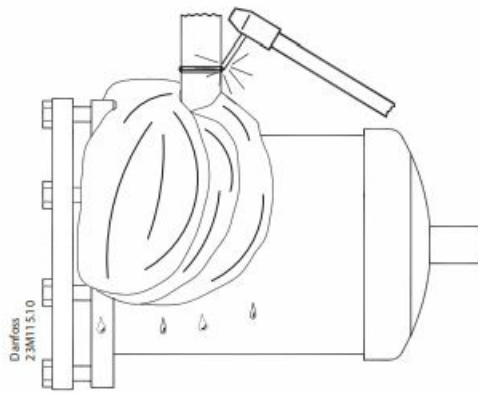


Keep flames
away from body



Connector type	Brazing material
Copper	Min. 5 % Ag
Steel	Silver-flo 55 + Easy-flow flux

Welding



Customer best practice will still be needed:

- Use wet wrap when installing.
- Braze the joints.
- Let them cool down.
- Clean the brazing /welding area after the installation (remove remaining flux with a brush).
- This is an important operation and needs to be done with great care to remove all remaining flux.
- Paint / Anti-corrosive needs to cover all open steel parts, areas where the black original paint has been burnt due to brazing and at least 3 cm approx. of the copper.
- Paint the joints twice.

⚠ Do not install gasket before soldering.

Note: Confirm correct top cover Gasket is selected.

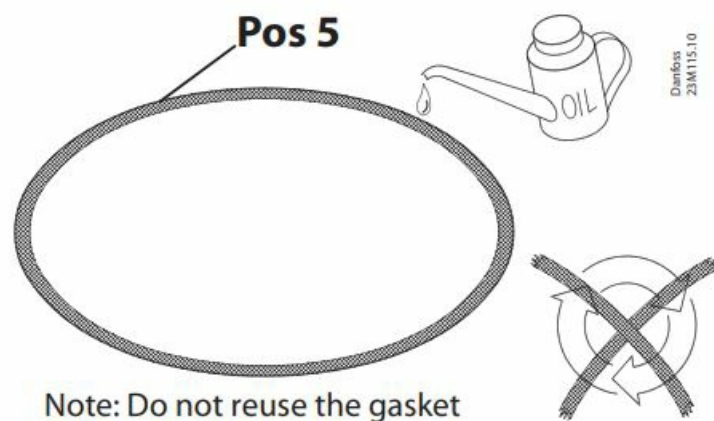
There are 2 gaskets:

- DCR and DCR/H
- DCRE

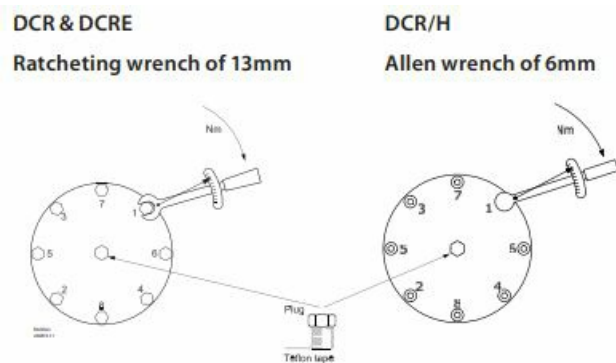
Recommendation:

Apply a small amount of oil to the gasket before assembly. Preferably synthetic POE or PVE oil, although any general-purpose oil can be used.

Gasket





How to tighten the bolts



Optional Plug, recommended tightening torque: Plug: 1/4" NPT: 50 Nm / 36.87 ft-lb applying 2 to 3 wraps of teflon tape.

The torque values mentioned only apply to bolts supplied by Danfoss.

	DCR M8-1.5 x 35mm A2-70 Hex head	DCRE M10-1.5 x 40mm A2-70 Hex head	DCR/H M8-1.5 x 35mm G12.9 Socket head
Step 1	 or  Fingertighten all bolts		
Step 2	3 Nm / 2.21 ft lb	5 Nm / 3.69 ft lb	4 Nm / 2.95 ft lb
Step 3	10 Nm / 7.37 ft lb	20 Nm / 14.75 ft lb	13 Nm / 9.59 ft lb
Step 4	20 Nm / 14.75 ft lb	35 Nm / 25.81 ft lb	25 Nm / 18.44 ft lb
Step 5	28 Nm / 20.65 ft lb	50 Nm / 36.88 ft lb	35 Nm / 25.81 ft lb

* Each step must be applied following the sequence of the image. AN164986434975en-000702 | 2

Documents / Resources

	Danfoss DCR Filter Drier Shell [pdf] Installation Guide 023R950 4, 23Z85, 23M71.12, 23M115.10, DCR Filter Drier Shell, DCR, Filter Drier Shell, Drier Shell, Shell
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References

- [User Manual](#)

[Manuals+.](#) [Privacy Policy](#)

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