



Danfoss Type DCR Shell Filter Drier Installation Guide

[Home](#) » [Danfoss](#) » Danfoss Type DCR Shell Filter Drier Installation Guide 

Danfoss Type DCR Shell Filter Drier



Contents

- [1 Filter drier, shell](#)
- [2 Design](#)
- [3 Installation](#)
- [4 How to tighten the bolts](#)
- [5 Customer Support](#)
- [6 Documents / Resources](#)
 - [6.1 References](#)
- [7 Related Posts](#)

Filter drier, shell

Refrigerants:

DCR Standard (A1, Group 2)
R1233zd, R134a, R407A, R407C, R407F, R407H, R410A, R422B, R422D, R448A, R449A, R449B, R450A, R452A, R513A, R515B, etc.

For other refrigerants, please contact Danfoss representative.

Media Temperature: -40 – 70 °C / -40 – 160 °F

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.

DCRE (A3, A2L, Group 1) – PED approved

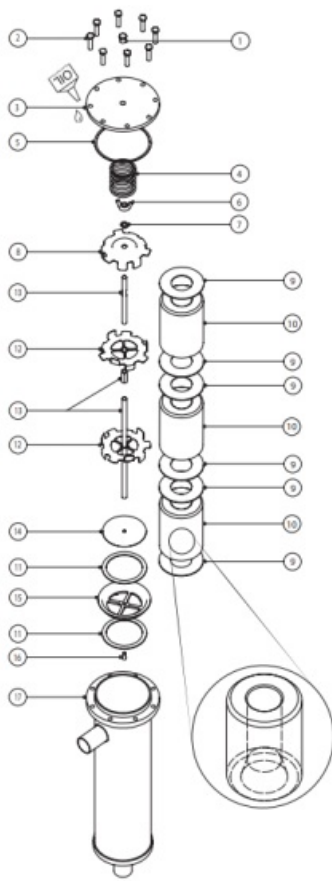
R1234yf, R1234ze, R32, R444B, R452B, R454A, R454B, R454C, R455A, R457A, R516A, R290, R600a, etc.

*Also compatible with DCR Standard Refrigerants.

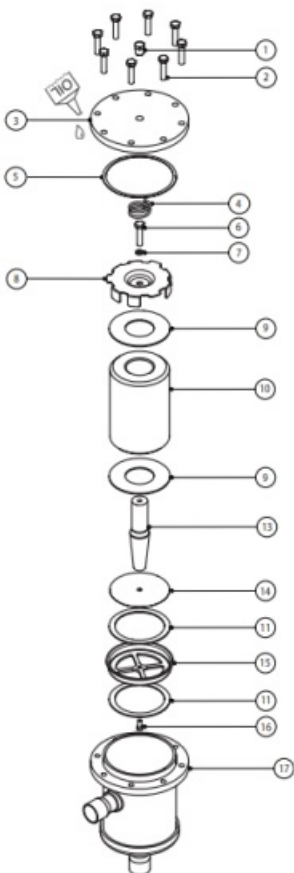
Design

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

DCR and DCR/H

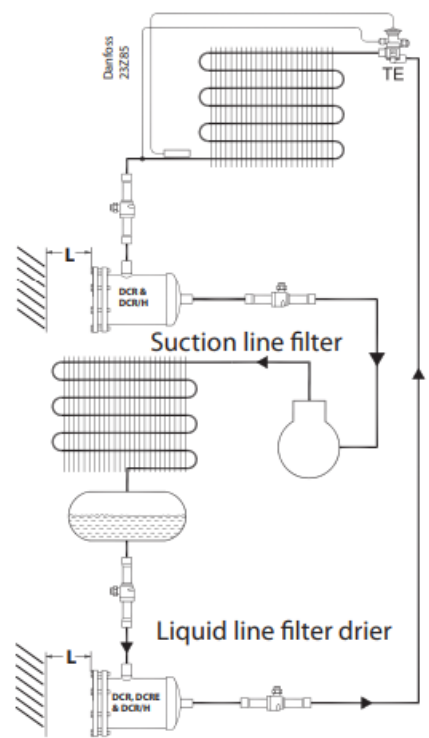


DCR E



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

Installation



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

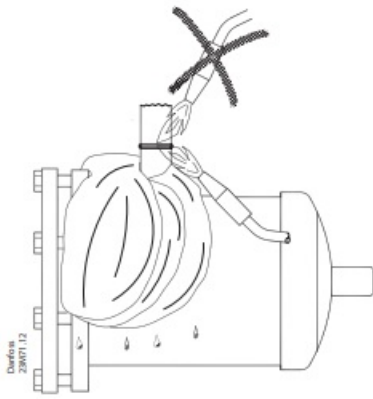


“The DCRE can only be use for A2L when the solid core is placed. DCRE is not allowed to be used as receiver.”

Brazing

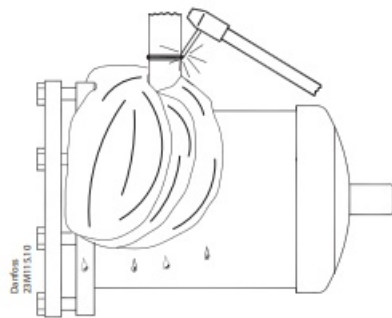


Keep flames away from body



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.

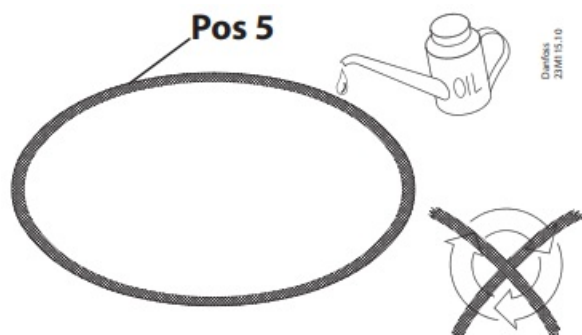
There are 2 gaskets:

- DCR and DCR/H
- DCRE

Recommendation:

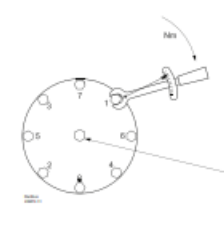
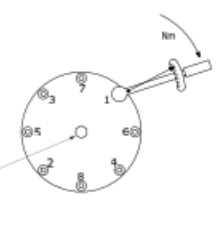
Apply a small amount of oil to the gasket before assembly.
Preferably synthetic POE or PVE oil, although any general-purpose oil can be used.

Gasket



Note: Do not reuse the gasket

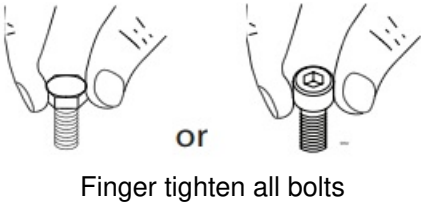
How to tighten the bolts

DCR & DCRE	DCR/H
<div><div><p>Ratcheting wrench of 13mm</p></div><div><p>Allen wrench of 6mm</p></div></div>	

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			
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

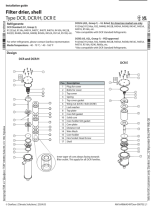
* Each step must be applied following the sequence of the image.

Customer Support

© Danfoss | Climate Solutions | 2024.05 AN164986434975en-000702 | 1



Documents / Resources

	Danfoss Type DCR Shell Filter Drier [pdf] Installation Guide Type DCR, Type DCR Shell Filter Drier, Shell Filter Drier, Filter Drier, Drier
---	--

References

- [User Manual](#)

Manuals+, Privacy Policy

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.