



# KIT COOLING VALVES ASSEMBLY

100281-1, 2, 3, 4, & 5.



**Installation and servicing of Danfoss Turbocor® compressors by qualified and product trained personnel only. Follow these instructions and sound refrigeration/electrical/servicing practices relating to installation, commissioning, maintenance, and service.**

<p>Consult the appropriate Danfoss Turbocor Compressors Inc. (DTC) Service Manual on <a href="http://www.turbocoroem.com">www.turbocoroem.com</a> for detailed service instructions.</p>	<p><b>Never power compressor without covers in place and secured.</b></p> <p><b>Removing the mains input cover will expose you to a voltage hazard of up to 575V. Ensure the mains input power is off and locked out before removing cover.</b></p> <p><b>Before removing top cover, wait at least 20 minutes after isolating AC power to allow the high voltage capacitors to discharge.</b></p>	<p>Always wear appropriately rated safety equipment when working around equipment and/or components energized with high voltage.</p> <p><b>This equipment contains hazardous voltages that can cause serious injury or death.</b></p>	<p><b>Recover all refrigerant from compressor in accordance with local codes and ensure pressure is fully vented before the removal of refrigerant containing components.</b></p>
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## 1 - Introduction

COOLING VALVES ASSEMBLY Removal and installation.

This kit contains two (2) Cooling Valve assemblies, and all of the associated hardware and O-rings used for installation. Please refer to our Service Manual for further details regarding the replacement of the Cooling Valve assemblies.

We have made the **TTS/TGS/TTH/TGH Service Manual** available to anyone. To access the manual, you may scan the applicable QR code below or you may go to our DTC website at [www.turbocoroem.com](http://www.turbocoroem.com). At the top of the page there is a pull-down menu called "Quick Links." Click this menu and select the appropriate service manual.

Refer to the applicable QR code below to download the TTS/TGS/TTH/TGH Service Manual.

**English**



**Chinese**








2 - ORIFICE SOLENOID VALVES Removal Procedure:



1. Isolate compressor power.
2. Isolate the compressor from the refrigerant circuit and recover the refrigerant according to industry standards.
3. Remove the Service Side Cover.
4. Remove the solenoid coil retaining nuts and beveled washers.
5. Note and mark the position of each coil (left and right) as they need to be installed in the same orientation once the repair has been completed.
6. Remove the Solenoid Coils.
7. Before removing either cooling valve assembly from the compressor body, identify which cooling valve assembly goes to the left and to the right passage as there may be different orifice sizes. You can use the engraving on each orifice body to determine which goes left and right. You should also verify that the new cooling valve assemblies are the same as the ones being removed.
8. Remove the Orifice Cooling Valves from the compressor housing using a 15/16" socket.
9. Discard the old O-rings.

3 - ORIFICE SOLENOID VALVES Installation Instruction:

1. Lubricate the small and large new O-rings with O-ring lubricant and install them on the Cooling Valve assemblies.
2. Install the new Orifice Bodies into the correct cooling passage based on the information obtained in the removal instructions.
3. Tighten the Orifice Bodies with a 15/16" socket and torque to 7 Nm (62 in.lb.).
4. Lubricate and install the new O-rings for the Plunger assemblies.
5. Check that the plunger moves freely by exercising action of spring by hand ~10 cycles.
6. Insert the Plunger assemblies into the Orifice Bodies and engage the first few threads by hand.
7. Tighten the Plunger assemblies using a six-point 13mm deep socket and torque to 4 Nm (35 in.lb.).
8. Leak test and evacuate compressor in accordance with standard industry practices.
9. Install the solenoid coils onto the plunger assemblies in the correct orientation as previously noted in the Removal instructions.
10. Install the beveled washers and solenoid coil retaining nuts to secure the Solenoid Actuator Coils.
11. Install the Service Side Cover.
12. Return the compressor to normal operation.

4 - Kit Contents

QTY	Part(s) Description	Picture(s)
2	SOLENOID OPERATOR TUBE, PLUNGER AND SEAL SUB ASSY	
2	NUT-SPECIAL-SOLENOID VALVE	
2	WASHER BEVELED DISC. SOLENOID VALVE Ø13.8xØ8.7x0.5 (Not included in 100150-6)	
2	O-RING - 901864	
2	O-RING - 902075	

2	VALVE - ORIFICE SOLENOID (sizes depends on application)	
1	LUBRICATION-SUPER-O-LUBE-2G	

5 - List of Changes

Revision	Date	Description of Change
M	1/19/2022	<p>Kit numbers were updated.</p> <p>The kit old kit numbers were removed from the top of this instruction and the new ones were added.</p> <p>Below is the cross reference from the old numbers to the new numbers.</p> <p>100150 – No longer supported                      100150-1 – Replaced by 100150-10                      100150-3 – Replaced by 100150-9                      100150-4 – Replaced by 100150-10                      100150-5 – Replaced by 100150-6                      100150-7 – Replaced by 100150-11                      100150-6 – Replaced by 100281-1                      100150-8 – Replaced by 100281-2                      100150-9 – Replaced by 100281-3                      100150-10 – Replaced by 100281-4                      100150-11 – Replaced by 100281-5                      100150-12 – No longer used</p>

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