TOWER/TERM BLK INSULATION

112060.

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.

Consult the appropriate Danfoss LLC Service Manual on www.turbocoroem.com for detailed service instructions.	**Never power compressor without covers in place and secured.** **Removing covers or opening panels will expose you to hazardous voltages. Ensure the mains input power is off and locked out before removing covers or opening panels.** **Before removing covers or opening panels, wait at least 20 minutes after isolating AC power to allow the high voltage capacitors to discharge.**	Always wear appropriately rated safety equipment when working around equipment and/or components energized with high voltage. **This equipment contains hazardous voltages that can cause serious injury or death.**	**Recover all refrigerant from compressor in accordance with local codes and ensure pressure is fully vented before the removal of refrigerant containing components.**

1 - Introduction

TOWER/TERM BLK INSULATION.

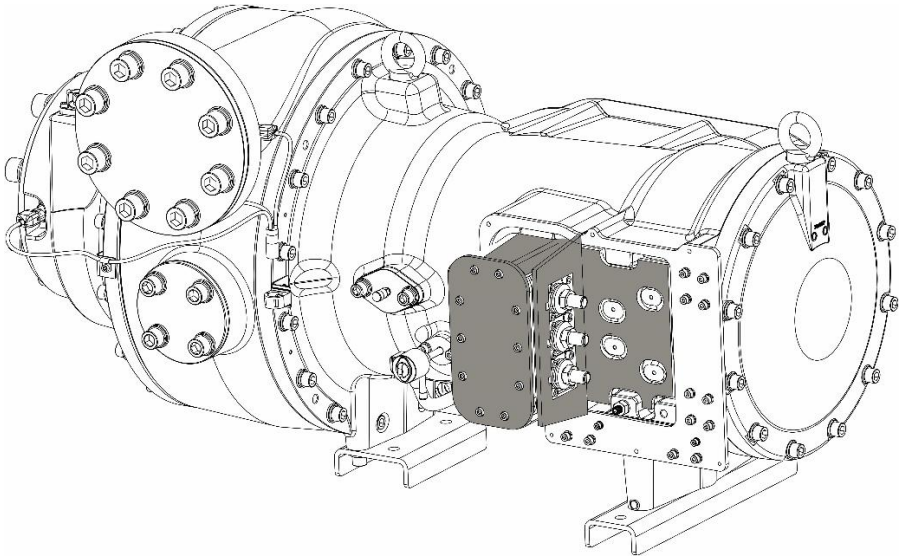

Figure 1 – Insulation Applied

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This kit contains the Tower and Terminal Block insulation. This instruction will focus on the installation of the insulation. Please refer to our Service Manual for details regarding the removal and replacement of the other items mentioned below.

To access the manual, you may scan the applicable QR code below or you may go to our DTC website at www.turbocoroem.com. At the bottom of the page there is a Section named "Categories" that includes various menus including one for Manuals.

Refer to the applicable QR code below to download the VT Series Service Manual.

English

Chinese

2 - Electrical Isolation

Before servicing either the Compressor or VFD, isolate the VFD power by completing the following steps:

• • • DANGER! • • •

Wait for the capacitors to fully discharge before performing any service or repair work. Wait time is a minimum of 20 minutes and voltage level of DC bus voltage should be checked and confirmed that it is below national and local safe handling voltage requirements to allow safe access. Failure to wait the specified time after power has been removed before doing service or repair could result in death or serious injury.

1. Turn off the Mains Input power to the VFD.
2. Lockout/Tagout (LOTO) the mains disconnect to ensure no accidental or unauthorized reapplication of the Mains Input power can occur.
3. Carefully open the VFD door and look for the light to go out on the Drive.
4. Shut the door once it is verified that the lights are no longer illuminated.
5. Using an appropriately rated voltage meter, confirm that the AC voltage is isolated.
6. Wait at least 20 minutes for the DC bus capacitors to discharge.
7. Open the VFD door taking particular care not to touch ANY components inside the VFD.
8. Using an appropriately rated voltage meter, check the DC bus at the terminals marked #81 and #82 that feed the DC-DC for DC voltage level. If the voltage is above 5 volts direct current (VDC), wait five (5) minutes and recheck until voltage is below 5 VDC.

3 - Removal Instructions

1. Isolate compressor power as described in the Electrical Isolation section above prior to performing any service procedures.
2. Remove the Motor Power Cover.
3. Remove the Terminal Block Assembly.
4. If the insulation is being replaced, carefully remove the existing insulation, and clean up any residual adhesive with isopropyl alcohol (or equivalent).

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4 - Installation Instructions

NOTE: The illustrations listed below are shown with the Mains Input Brackets removed. These brackets do not need to be removed when adding the insulation.

After the insulation description in the steps below, a number in parenthesis is used to match the insulation identified in Section 5 - Kit Contents.

1. Peel the back of the Tower Power Bolt Insulation **(1)** that will be applied to the compressor tower where the High-Power Feedthroughs are located. Then line it up with large cutout for the High-Power Feedthroughs. Refer to Figure *2* – Insulation Around High-Power Feedthroughs.
2. Carefully apply the insulation against the compressor tower. Press firmly along the entire section of insulation to ensure there are no gaps between the insulation and the compressor tower.

WARNING: Any air gaps under the insulation could allow condensation to form.

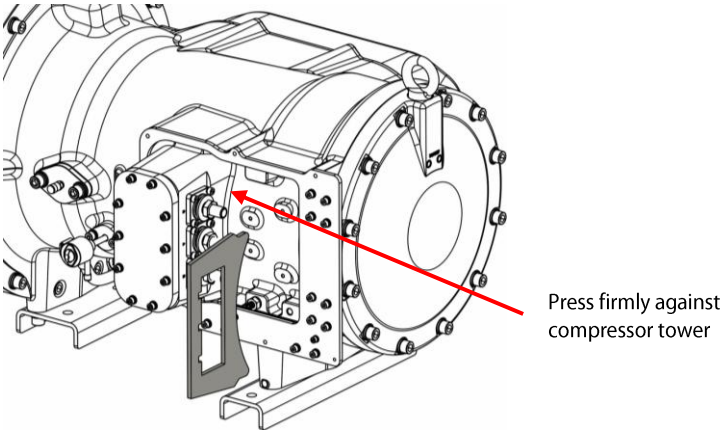

Figure 2 – Insulation Around High-Power Feedthroughs

3. Peel the back of the Main Housing Insulation **(2)** that will be applied to the compressor underneath the Terminal Block Assembly. Then line it up with the four (4) cutouts and the raised areas on the compressor housing. Refer to Figure *3* – Insulation Under Terminal Block. When properly placed, the insulation should be against the insulation installed in the previous step.

NOTE: It is important to make sure there are no gaps where the two pieces of insulation meet.

4. Carefully apply the insulation against the housing. Press firmly along the entire section of insulation to ensure there are no gaps between the insulation and the compressor housing.

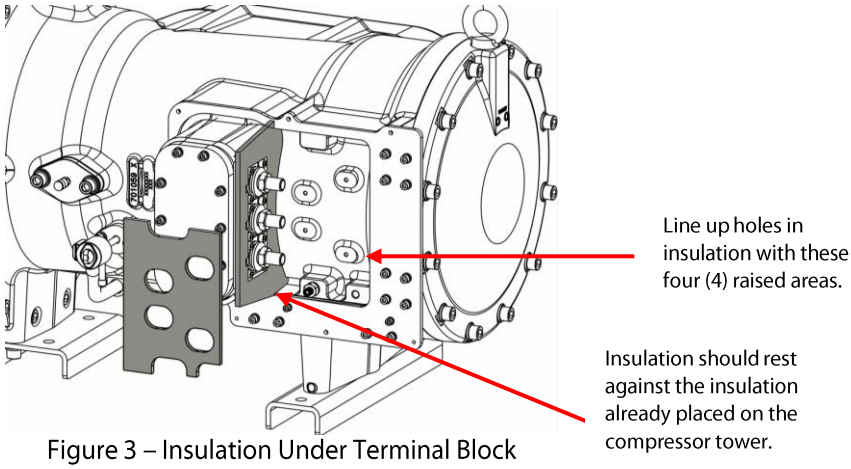

Figure 3 – Insulation Under Terminal Block

5. Peel the back of the Tower Insulation **(3)** that will be applied to the compressor tower.

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6. Carefully apply the insulation around the compressor tower. Begin on the location as shown in Figure 4 – Insulation Around Tower. Press firmly along the entire section of insulation to ensure there are no gaps between the insulation and the compressor tower.

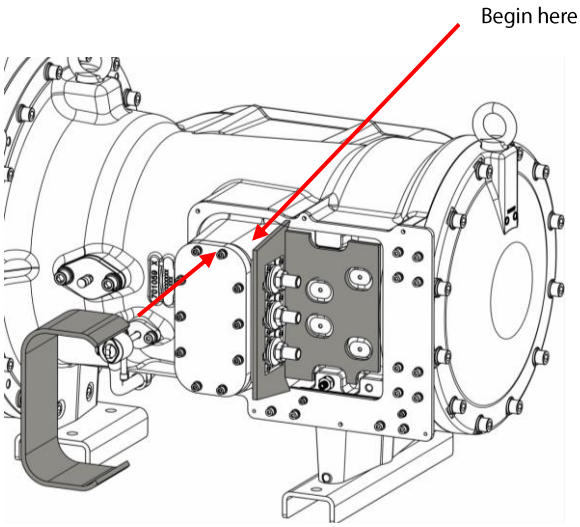

Figure 4 – Insulation Around Tower

7. Peel the back of the Top Plate Insulation **(4)** that will be applied to the Tower Plate. Then line it up with the 10 cutouts for the socket head cap screws. Refer to Figure 5 – Insulation on Tower Plate.
8. Carefully apply the insulation to the Tower Plate. Press firmly along the entire section of insulation to ensure there are no gaps between the insulation and the Tower Plate.

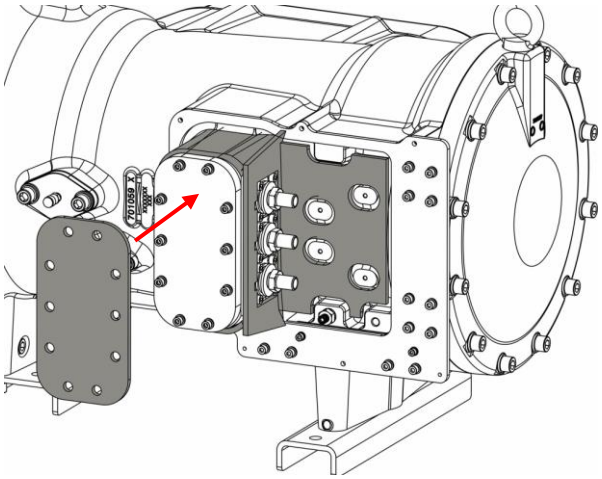

Figure 5 – Insulation on Tower Plate

9. Install the Terminal Block Assembly.
10. Install the Motor Power Cover.
11. Return the compressor to normal operation.

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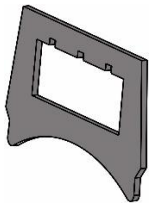
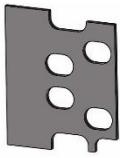
5 - Kit Contents

QTY	Part(s) Description	Picture(s)
1	INSULATION, TOWER POWER BOLT **(1)**	
1	INSULATION, MAIN HOUSING **(2)**	
1	INSULATION, TOWER **(3)**	
1	INSULATION, TOP PLATE **(4)**	

6 - List of Changes

Revision	Date	Description of Change
A	12/3/2025	New release