

# Customer Notification

B-CN-228-EN REV D

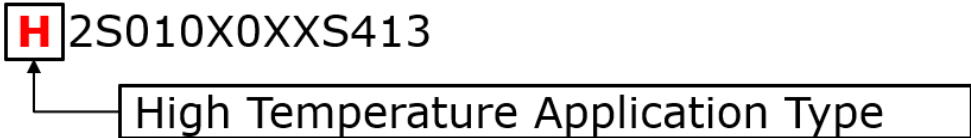
September 11, 2024

**SUBJECT: High Temp Application Release \*\*Spare Part Kit 100309-8 Update\*\***

## Purpose

**A new component has been added to spare parts kit 100309-8. This kit can be used to convert a TTS/TGS model series standard temperature compressor to a high temperature compressor in the field. Please refer to the bold text at the end of the Spare Parts section on Page 3 for details.**

The purpose of this bulletin is to inform our customers of the **release of new TTS/TGS/TTH/TGH High Temperature application options** offered by Danfoss Turbocor® that will allow compressors to operate under high saturated suction temperature conditions (High SST/High Temperature).

TTS350HE **H** 2S010X0XXS413

High Temperature Application Type

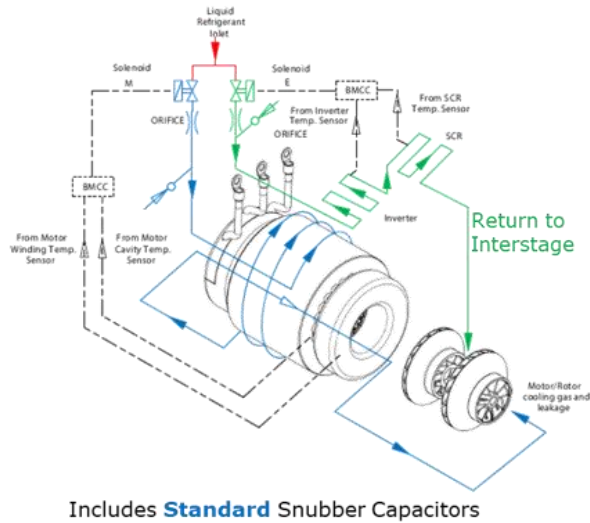
Major Revision "H" and later TTS/TGS series compressors manufactured in both Tallahassee and Haiyan will be available for order with high temperature application type. Customers may select the option "H" for character 9 in the TypeCode to select this for High SST conditions.

The high temperature application type is now available for TTH375 and TGH285 in addition to TTS350/TTS400/**TTS450**/TTS700/TGS310/**TGS380**/TGS390/TGS490/TGS520 compressors. It is only compatible with software version 4.3.0 and later. Please note that TTH375 and TGH285 standard temperature compressors cannot be converted to high temperature compressors. Please refer to the DTC Applications Manual for additional information regarding high temperature applications.

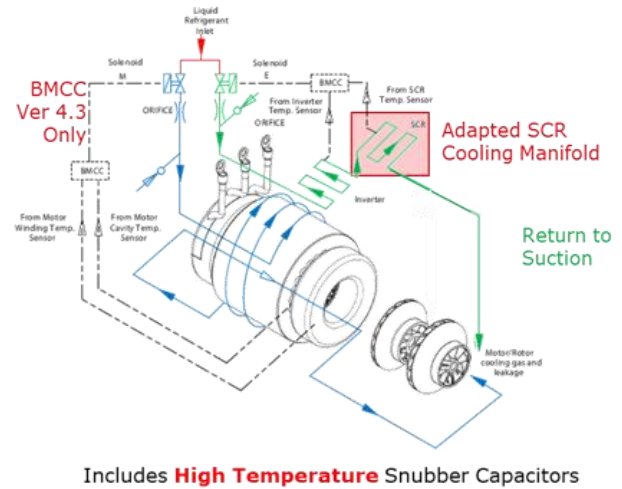
## Summary

The High SST is a modified variant of the standard temperature application model designed to operate with higher evaporating temperatures. This enables higher leaving chilled water temperatures and allows for applications within Data Center Chillers operating with a maximum evaporating temperature of 30°C (86°F).

On standard temperature compressors, the inverter temperature limits the operating capacity of the compressor as SST increases. The High Temperature application type has a modified manifold to improve inverter cooling and avoid triggering high-inverter temperature alarms at high SST conditions. This new manifold improves the top-side inverter cooling circuit by blocking the return to interstage and redirecting the cooling to return to suction.



Only Available on Major Revision H Compressors



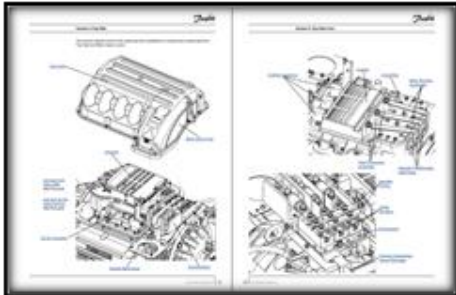
**Figure 1 - Standard Temperature Configuration TTS/TGS**

**Figure 2 - High Temperature Configuration TTS/TGS**

The maximum SST limit for standard and high temperature applications varies by application and operating conditions. Please refer to the DTC Applications Manual for further information regarding maximum SST for your application. The Danfoss TurboCor Compressor Performance Rating Engine (CPR) is being developed for exact limitations and will be communicated in a separate bulletin. Please contact DTC Applications group for more information.

High Temperature application compressors should only be used for applications above 12°C (53.6°F). Standard Temperature application compressors should be used for applications from -1°C (30.2°F) to 12°C (53.6°F).

All high temperature applications will have an additional list price increase of \$561/468€ due to increased material costs. Standard temperature applications remain unchanged.



The new High Temperature Compressors are now available for ordering by Turbocor® OEMs. The standard lead time for these new compressors is initially eight (8) weeks.

Danfoss Turbocor® Technical Publications have been updated to include the new high temperature application compressors and can be found on our website ([www.turbocoroem.com](http://www.turbocoroem.com)).

### **Spare Parts**

There are some new spare part kits that have been created which are specific to the high temperature application compressors. These have been included in the latest Spare Parts Guide.

To convert a TTS/TGS model series standard temperature compressor to a high temperature compressor, the following items are required:

- 100309-8 - Heatsink, Cooling Manifold SCR Assembly
- 201055-xxxxxxx-xxx 4.3.0 BMCC\*
- 100417-2 - CAPACITOR INVERTER SNUBBER, 0.47Y1000

\*BMCC PNs are not unique between application option ST (Standard Temperature) and HT (High Temperature); however, HT applications require software version 4.3.0 and later to operate.



**NOTE:** This only applies to **Major Revision H compressors** and later and cannot be applied to prior revisions.

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**Due to a recent update to some of our compressors, we have added a Tall SCR Manifold Return Brass Fitting to spare part kit 100309-8.**

**Due to a recent update to standardize the TTS/TGS SCR Manifold (reference Bulletin B-CN-366 Rev A), we are adding a Taller SCR Manifold Return Brass Fitting to spare part kit 100309-8. Depending on the compressor configuration, the fitting may be required.**

**Most Revision H compressors manufactured after May 31, 2024 have a short SCR Manifold Return Brass Fitting. This short fitting is *not* compatible with the High SST SCR Cooling Manifold and *must* be swapped with the Tall SCR Manifold Return Brass Fitting. Refer to Table 1 – SCR Manifold Return Brass Fitting Comparison on Page 4 for proper identification of the SCR Return Brass Fittings.**

**Table 1 – SCR Manifold Return Brass Fitting Comparison**

Short SCR Manifold Return Brass Fitting	Tall SCR Manifold Return Brass Fitting
	

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**Action Required**

Customers wishing to purchase the new High Temperature Application compressors can contact their Key Account Manager to determine pricing. With compressor pricing and Type Code defined, customers can place an order with Danfoss Customer Service at [turbocor.cs.na@danfoss.com](mailto:turbocor.cs.na@danfoss.com).

A separate bulletin will be distributed for 4.3.0 firmware containing compressor configuration options and spare part BMCC part numbers.

As a result of the High Temperature Application product launch, the following two manuals have been updated and released:

- M-AP-001-EN Applications and Installation Manual Rev S.1 (or later)
- M-SP-001-EN TT and TG Spare Parts Manual Rev F.7 (or later)

Please reference these updated manuals going forward for all TTS/TGS/TTH/TGH compressors.

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**Need Assistance**

For more information, please contact your Key Account Manager or our Applications group at [dtcapplications@danfoss.com](mailto:dtcapplications@danfoss.com).