



# General Service Bulletin

## Low Oil Pressure Due to Debris in the Regulator of CentraVac™ Chillers

---

**ATTENTION:** Warnings, Cautions and Notices appear at appropriate sections throughout this literature. Read these carefully:

**⚠ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.

**NOTICE:** Indicates a situation that could result in equipment or property-damage only accidents.

---

### ⚠ WARNING

#### Proper Field Wiring and Grounding Required!

All field wiring **MUST** be performed by qualified personnel. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow requirements for field wiring installation and grounding as described in NEC and your local/state electrical codes. Failure to follow code could result in death or serious injury.

### ⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

**⚠ WARNING****Personal Protective Equipment (PPE) Required!**

Installing/servicing this unit could result in exposure to electrical, mechanical and chemical hazards.

- Before installing/servicing this unit, technicians **MUST** put on all Personal Protective Equipment (PPE) recommended for the work being undertaken. **ALWAYS** refer to appropriate MSDS sheets and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate MSDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection and handling recommendations.
- If there is a risk of arc or flash, technicians **MUST** put on all Personal Protective Equipment (PPE) in accordance with NFPA 70E or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit.

Failure to follow recommendations could result in death or serious injury.

## Introduction

The purpose of this general service bulletin is to inform the field of recommended actions before changing the oil filter on a CenTraVac chiller when low differential oil pressure is encountered.

**This is an informational bulletin.**

**Any CenTraVac chiller oil filter changed due to low differential oil pressure issues could be affected.**

**This is NOT a potential safety issue.**

## Background

Engineering has examined oil filters that were returned after changing due to low differential oil pressure issues. Nothing was found in the filter that would cause the pressure drop reported. Thus, it is suspected that debris in the oil pressure regulator was present and when the new filter was installed and the regulator adjusted, the debris was washed off the valve seat and the differential pressure was restored. Engineering has examined oil pressure regulating valve blocks that had debris located at the diaphragm seat area that would cause loss of differential oil pressure due to bypassing oil around the diaphragm.

## Action

Before changing the oil filter when low differential oil pressure is encountered in the field, Trane recommends:

1. Back the stem screw out enough to relieve pressure on the diaphragm.  
**Note:** *Do not back the stem screw out so far as to remove the screw or cause excess force on the stem.*
2. With the chiller off, cycle the oil pump on and run for one minute.
3. Repeat the process described in [Step 1](#) and [Step 2](#) a total of three times to flush the debris off the valve seat.  
**Note:** *Starting and stopping the oil pump in combination with the regulator stem backed out causes the valve to open and flush the debris off the valve seat and into the oil filter.*
4. After cycling multiple times, leave the pump on and try adjusting the oil pressure regulator to maintain the correct 18 to 22 psid oil pressure.
  - a. If the pressure is able to be regulated, allow the chiller to operate and observe the oil pressure to see if it maintains stable pressures in the 18 to 22 psid range. If the oil pressure remains stable, then debris on the valve seat was the most likely the cause of the low oil pressure; because the debris has now been removed, the chiller should operate properly.
  - b. If the oil pressure still will not regulate to 18 to 22 psid after cycling and stays low, replace the filter and see if the oil pressure returns to normal.
  - c. If the oil pressure still does not return to normal, replace the oil pressure regulating valve assembly and inspect the seat in the block when the original diaphragm is removed.
    - i. If the valve seat has debris that can't be easily removed, the regulator block should be removed and the valve seat and oil passages cleaned.
    - ii. If the valve seat in the block is damaged, the entire block assembly must be replaced.

## Questions

Contact the CenTraVac Technical Support Team with questions regarding this general service bulletin. To contact them, send a message to [TechService@trane.com](mailto:TechService@trane.com).

CenTraVac, Trane, and the Trane logo are trademarks or registered trademarks of Trane in the United States and other countries.



Trane optimizes the performance of homes and buildings around the world. A business of Ingersoll Rand, the leader in creating and sustaining safe, comfortable and energy efficient environments, Trane offers a broad portfolio of advanced controls and HVAC systems, comprehensive building services, and parts. For more information, visit [www.Trane.com](http://www.Trane.com).

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.