

# Airfin Cooler

Means of reducing  
the temperatures  
surrounding a  
mechanical seal



Model 625 FC Air Motor  
Code: WCA26748333

Model 625 FC Electric Motor  
3 phase Code: WCA14020233  
1 phase Code: WCA18856933

Model 625 NC  
Code: WCA14640733

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## Installation Instructions

## Description

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The Airfin Cooler provides a reliable means of reducing the temperature surrounding a mechanical seal, without the use of cooling water.

There are three models of Airfin Coolers. The Model 625 NC operates by means of natural convection. Hot air rises up through the center of the coiled tubing, drawing cool air in from the sides and bottom. The two Model 625 FC units are identical to the above model, except they are equipped with motor driven squirrel cage type blower wheels.

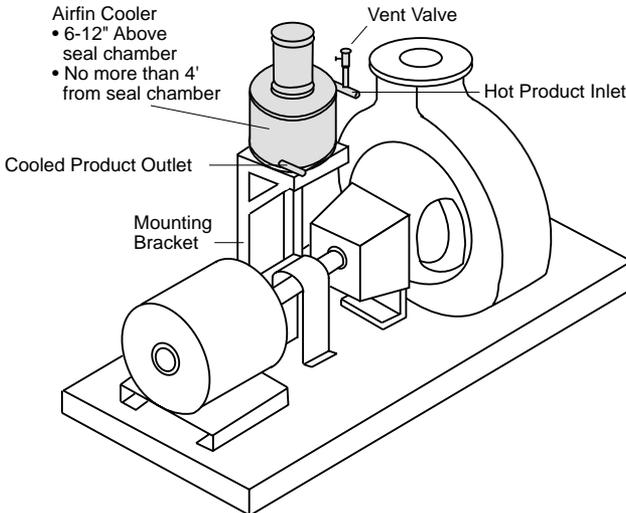
## 1 Installation

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- 1.1 All models must be mounted in a vertical position, adjacent to and above the seal chamber. The piping, or tubing, to and from the Airfin Cooler should be as short as possible. See Figure 1.

### Typical Installation of Airfin Cooler

Figure 1

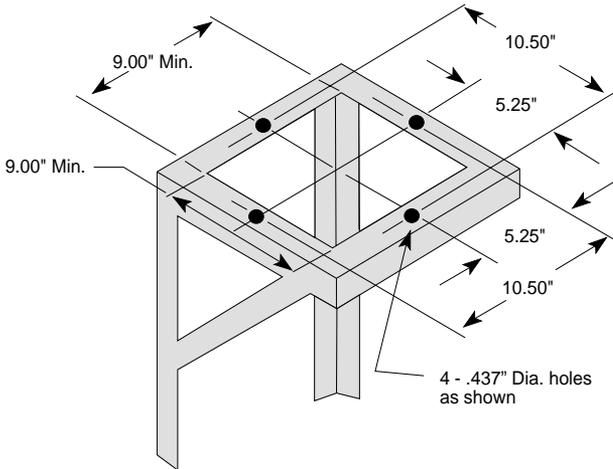


- 1.2 The Airfin Cooler should be mounted in a location where it will be free from all obstructions on the top, bottom, and sides. Failure to do so will result in an appreciable reduction in heat transfer efficiency.
- 1.3 Please read the complete instructions before starting installation. Be sure you have a copy of the proper Airfin Cooler assembly drawing.

- 1.4 Select the proper location. It will be necessary to fabricate or purchase a mounting bracket to suit your particular installation. See Figure 2 for recommended mounting bracket dimensions. The Airfin Cooler should be located 6-12" above and no more than 4' from the seal chamber.

### Mounting Bracket Details

Figure 2



- 1.5 Carefully place the Airfin Cooler on the mounting bracket. The Airfin Cooler should be positioned so that the least amount of elbows or tube bends are needed for the inlet and outlet piping.

Note: If the inlet and outlet fittings are not in the desired positions, the coil assembly can be rotated 360° to any desired position. Loosen the four hex head bolts (Part No. 10 of Model 625 FC and Part No. 5 of Model 625 NC) and rotate the cooling coil/shroud assembly to the desired position. Be sure to tighten the four hex head bolts securely.

- 1.6 After the unit has been placed on the mounting bracket in the desired position, secure it down with four hex nuts (3/8" - 16 UNC-2B) with lock washers.
- 1.7 Consult your assembly drawing for the connections size and location. The hot product line to the Airfin Cooler should be piped to the top of the unit and the cooled product outlet line should be piped from the bottom of the unit. Connect the inlet and outlet lines with suitable piping or tubing.
- 1.8 Be sure to install a vent valve in the hot product inlet line. The vent valve should be located at the highest point in the piping.
- 1.9 The Model 625 FC Airfin Cooler has a 1/3 HP motor. Consult the assembly drawing for your motor specifications.

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## 2 Operation

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- 2.1 Inspect the Airfin Cooler to insure that the cooling coil has not been painted, sprayed with oil, or covered with dirt or dust. Insure that there are no obstructions on the top, bottom, and sides.
- 2.2 Apply power momentarily to the motor on the Model 625 FC to check for rotation. If the rotation is in the wrong direction, rewire the motor.
- 2.3 Open the pump suction valve and fill the system with product. Crack the vent valve in the hot product line and vent all air from the system.
- 2.4 Check all fittings for leaks and make required adjustments. Do not tighten fittings excessively.
- 2.5 Apply power to the motor on the Model 625 FC and start the pump, for the 625 NC model start the pump.

## Maintenance

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The Airfin Cooler is relatively maintenance free. To insure maximum heat transfer efficiency, keep the cooling coils dry and free of dirt and dust. Periodically, clean the cooling coil by blowing air or steam through the protective shroud.

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