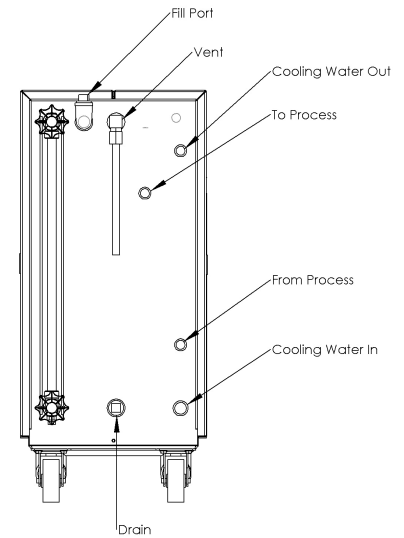


## Quickstart Installation Checklist

(Refer to main manual for complete installation instructions).



1. Connect 3-phase power based on nameplate data.
2. Install properly sized plumbing between portable chiller and primary processing equipment (supply and return).
3. Install properly sized plumbing between temperature control unit and cooling water supply and return. You must provide cooling water at 25 psig to 75 psig (172.4 kPa to 517.1 kPa/1.7 bar to 5.2 bar).
4. Ensure proper pump rotation. (The pump motor should be moving clockwise while looking at the motor fan end).



## Unit Operation

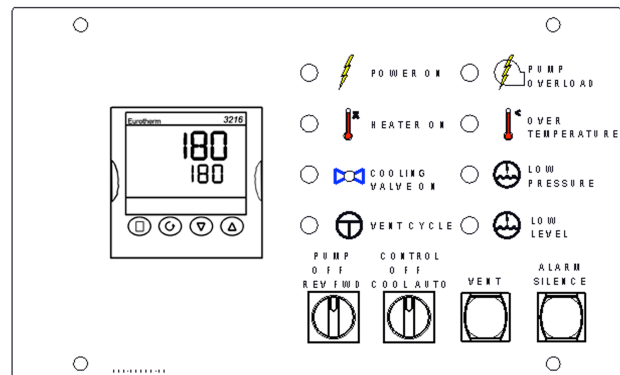
(Refer to main manual and controller manual for complete operating instructions).

### Start Up

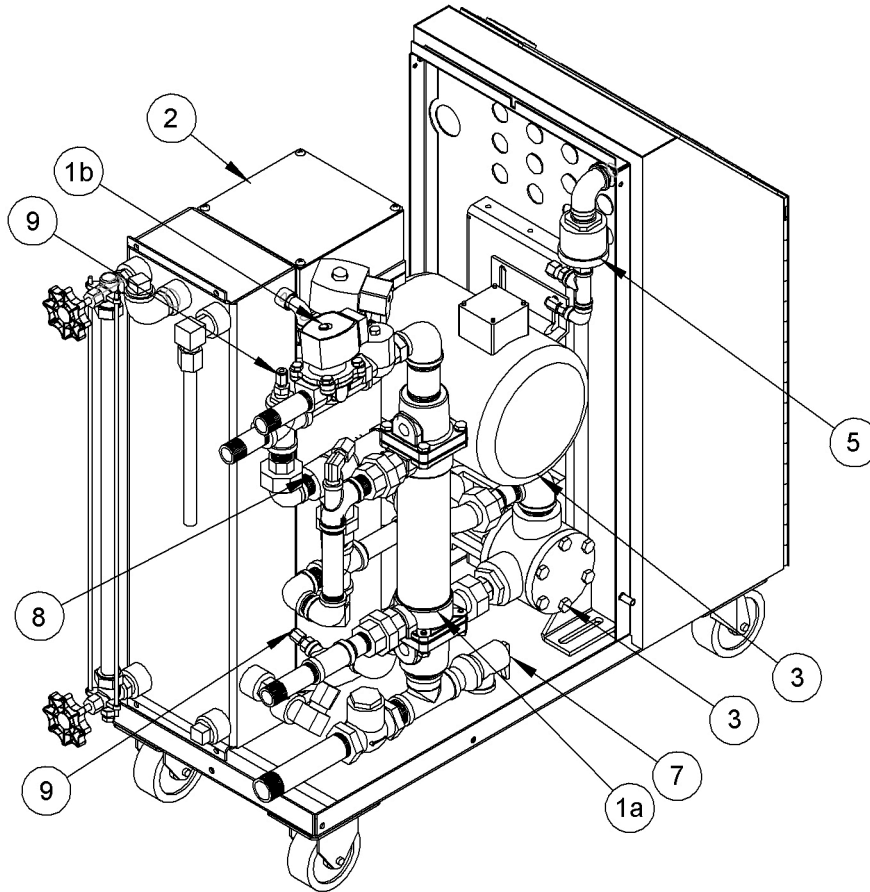
1. Add fluid to the reservoir tank until the level is near the top of the sight glass.
2. Turn disconnect switch to ON position.
3. Turn the **Pump Rev|Off|Fwd** switch to **Fwd** to start the pump.
4. Maintain the level about 4 inches from the bottom of the sight glass.
5. Air and Oil will be vented through the Vent Solenoid and into the reservoir tank for 10 minutes.
6. 2 minutes after the unit has built at least 5psi of pressure, select a set point of 100°F (**PV**) by pressing the  **Up Arrow** or  **Down Arrow** keys, and switch unit into the "Auto" mode.
7. With 2 minute intervals increase the setpoint to 150 and 200°F.
8. Select a setpoint of 215°F (102°C) and continue to run until no more steam appears and pressure has stabilized.

### Shut Down

1. Switch the Mode switch to the "Manual Cool" position.
2. Allow temperature to stabilize at 120°F (50°C).
3. Turn the **Pump Rev|Off|Fwd** switch to **Off** to de-energize the unit.



**Spare Parts Location**  
(See next page for Spare Parts List)





**COT-C Series Oil Temperature Control Units**  
 Reference Manual (PN: 682.94403.00) for  
**Complete Operation and Installation Instructions**  
 (Available online at [www.colortronicna.com](http://www.colortronicna.com))

**Spare Parts List**  
 (See previous page for Spare Parts Location)

<b>Cooling Heat Exchanger - Valves</b> 1a 1b		<b>Complete Heat Exchanger</b>		
	1.5 sq. ft.	106.00024.00		
	½ inch (1.3 cm)	732.00012.02		
<b>Immersion Heaters</b> 2		<b>230/3/60</b>	<b>460/3/60</b>	<b>575/3/50</b>
	6-kW (1 req'd)	722.00138.02	722.00138.05	722.00138.06
	6-kW contactor	726.00270.02	726.00268.02	726.00265.02
<b>Motor Pumps</b> 3		<b>230/3/60</b>	<b>460/3/60</b>	<b>575/3/50</b>
	Pump	075.00381.02	075.00381.02	075.00381.02
	¾-HP (0.56 kW) motor	720.09217.00	720.09217.00	720.09024.00
	¾-HP (0.56 kW) MCP	726.00334.00	726.00330.00	726.00330.00
<b>Pump Seal Kits</b> 4				
	Pump	162.00030.		
<b>Common Parts</b> 5 6 7 8 9		Pressure switch **	733.00029.00	
		Safety thermostat	724.00041.00	
		Relief valve	044.00138.00	
		Ful-flo bypass valve	044.00292.00	
		Type "K" thermocouple	701.00036.00	
		Temperature control module (Eurotherm 3216)	724.00756.00	
<b>Sterling Document #</b>	2005-spares-tcu			

\*\* Reference complete manual (PN: 682.94402.00) for proper settings and installation.

### Troubleshooting - Quick Guide

Problem	Possible cause	Solution
Unit does not turn on	No power	Check main disconnect, fuses, wiring, and power lead to unit.
	Wrong voltage supplied to unit	Voltage must be within plus or minus 10% of nameplate rating
	Defective START push button	Replace
	Control circuit fuse blown	Replace
	Defective control transformer	Check transformer. Replace if necessary.
Unit does not run	Broken or loose wire in pump motor control circuit	Locate and repair
	Pump motor contactor holding coil is open	Repair or replace
	Pump overload light on	Reset and test each leg for balanced amp draws
Temperature fluctuations/rapid cycling from hot to cold.	Undersized connectors/lines.	Increase size of connectors/fluid lines.
	Long connecting lines between unit and mold.	Move the unit closer to the process and shorten connecting lines.
	Blocked line in process.	Check process for debris or deposits. Clean mold.
	Carbon build-up in unit piping or fittings.	Clean or replace affected piping. Replace fluid.
Unit overheats or does not cool.	Water supply to unit is turned OFF.	Open water supply.
	Water drain is plugged or excessive back pressure in drain line.	Clear drain line or eliminate back pressure condition.
	Heat exchanger tubes plugged by lime deposits.	Remove tube bundles; clean/replace as required.
	Faulty solenoid valve.	Test solenoid valve by switching to Manual Cool mode and listen for valve operation. Replace if faulty.
Unit does not heat/can not achieve set point.	Loss of fluid in process.	Check all lines/connections/fittings.
	Vent valve open.	Allow vent timer to run out; <b>or</b> , check valve operation when unit is cold by opening the fill port.
	Faulty/dirty solenoid valve; usually detected when there is a steady stream or trickle of water out of the drain line.	Switch to Manual Cool mode several times to flush valve. If the leak continues, disconnect the power to the unit, turn off the water supply, and clean or replace the solenoid.
	Degraded fluid.	Drain and replace fluid.
	Defective heater contactor.	Visual inspection of coil and contacts. Repair/replace defective contactors.
	Defective immersion heater.	Check resistance on all three (3) legs of heater with an ohmmeter. If not all equal, contact factory for replacement heater.
	Heater burnout.	Check resistance on all three (3) legs of heater with an ohmmeter. Replace heater as needed.
	Heater contactors are not energizing, but HEAT LED is on.	Set process temperature to maximum and check for control voltage at heater contactor.