

TCO-U SERIES

Hot Oil Units



Technical Specifications

The TCO-U Series Oil Temperature Control Unit provides accurate temperature control with a range up to 550°F (288°C). The TCO-U Series Oil Temperature Control Unit include operator-friendly features such as single-pass tank design and an easy-to-use controller for simple, precise operation.

Features

Standard Features

- Temperature range from 100°F to 550°F (38°C to 288°C)
- Available Heaters: 12 kW, 18 kW, 24 kW, 36 kW, 48 kW
- Eurotherm 3216 micro-processor controller
- Positive displacement pump capable of reversing to evacuate the process
- Easily removable panels for quick access to internal components
- Pressure activated bypass valve
- Configurable auto vent sequence to automatically vent air from the system at start-up
- Independent high temperature safety thermostat to protect from heater overload
- Motor branch circuit overcurrent protection with phase loss and overload trip detection
- Y-strainer on the From Process line
- Forward-facing "To Process" pressure gauge
- Pressure switch for low pump pressure shutdown
- Audible alarms
- Low level alarm for reservoir

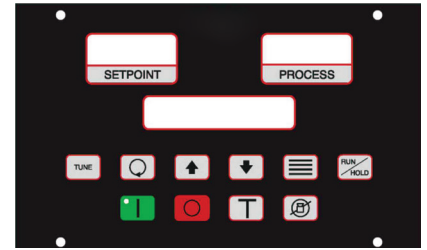
- Drain valve for heat transfer fluid removal and change
- 1 year parts and labor warranty at the factory
- 3 year controller warranty
- UL Listed sub-panel
- 460v/3ph standard

Optional Features

- Operating voltages: 575/3/60, 380/3/50, 415/3/50, 208/3/60, 230/3/60
- Advanced Controller with more robust informational display
- Remote Controls enclosure to allow operators full access to unit control from a desired location
- Hour meter to monitor pump run time
- Closed loop heat exchanger for the ability to cool the heat transfer fluid
- General fault visual alarm to alert operators of unit issues
- Multi-zone capable in various design styles that include common wiring and/or piping
- Protective Lexan® controls cover for additional protection in harsh environments

Advanced Controller

- PID control for both heating and cooling
- Built-in Ramp/Soak feature
- Setpoint, To Process, From Process and DT displays
- Autovent sequence (adjustable from 1 to 10 minutes)
- 2 line by 20 character LCD to display status information and alarms
- Auto shut down feature cools the unit in stages
- Built-in Auto-tuning feature to optimize unit performance
- Communication Options: 4-20 mA remote set point and retransmission of PV; SPI protocol, RS-485; Ethernet IP via Modbus RTU;



Specifications

Model		Full Load Amps, 460/3/60 VAC					Reservoir Capacity , gal (L)
		12 kW	18 kW	24 kW	36 kW	48kW	
TCO-U	1 hp	17	25	32	47	62	17 each zone (64)
	1.5 hp	18	26	33	48	63	
	2 hp	19	27	34	49	64	
	3 hp	20	28	35	50	65	
2TCO-U	1 hp	34	50	64	94	124	
	1.5 hp	36	52	66	96	126	
	2 hp	38	54	68	98	128	
	3 hp	40	56	70	100	130	

Model		TEFC Pump			
		HP (kW)	Flow, gpm (lpm)	Pressure, psig (bar)	Connection Size
TCO-U	1 hp	1 (0.75)	18 (68)	30 (2.0)	1"
	1.5 hp	1.5 (1.1)		50 (3.4)	
	2 hp	2 (1.5)	30/50 (2.0/3.4)	1.5"	
	3 hp	3 (2.2)	50 (3.4)		
2TCO-U	1 hp	1 (0.75)	18 (68)	30 (2.0)	1"
	1.5 hp	1.5 (1.1)		50 (3.4)	
	2 hp	2 (1.5)	30/50 (2.0/3.4)	1.5"	
	3 hp	3 (2.2)	50 (3.4)		

Model		Dimensions			Shipping Weight, lbs. (kgs).		
		Height, in. (cm)	Width, in. (cm)	Depth, in. (cm)	≤ 24 kW	> 24 kW	
TCO-U	1 hp	62 (158)	24 (61)	34 (86) ≤ 24 kW, 44 (112) > 24 kW	700 (317)	950 (430)	
	1.5 hp						
	2 hp						
	3 hp						
2TCO-U	1 hp	62 (158)	48 (122)		34 (86) ≤ 24 kW, 44 (112) > 24 kW	1400 (635)	1900 (861)
	1.5 hp						
	2 hp						
	3 hp						
						1700 (771)	2100 (952)