

**COT Series Hot Oil TCU**

With rapid response to all your needs for process heating and cooling, our hot oil COT Series high temperature control units are no exception. Engineered to withstand the rigors of high temperature heat transfer fluid recirculation, the COT Series is designed for a wide range of processing applications from 100° F (38° C) to 550° F (288° C).

**Standard Features**

- 550° F (288° C) maximum operating temperature
- Branch fusing
- Non-fused lockable rotary disconnect
- Independent safety thermostat
- Y-strainer on From Process line
- Pressure-activated bypass valve
- To Process pressure gauge
- Dual stage immersion heater with IEC contactors
- Simplified internal design delivers efficient heat transfer
- An off-the-shelf, DIN-style, auto-tuning PID fuzzy logic controller accurate to within +/- 1° F
- High-flow pumps with 18 gpm to 50 gpm capacities
- Compact footprint: 24" (610 mm) x 34" D (864 mm) x 62" H (1575 mm) [ ≤ 24 kW heater]

**Optional Features**

- Drain valve
- Lexan® cover
- Advanced controller
- U-tube type heat exchangers
- 208/3/60, 230/3/60, 380/3/50, 415/3/50, 575/3/60 operating voltage
- CE certification
- High tank level alarm, general fault visual alarm, high tank level alarm
- Hour meter
- Analog flow gauge



### Specifications

| Model                                 |                         | COT                                    |           |                    |          | COT        |           |                    |             |
|---------------------------------------|-------------------------|--|-----------|--------------------|----------|------------|-----------|--------------------|-------------|
|                                       |                         | 1 hp                                   | 1.5 hp    | 2 hp               | 3 hp     | 1 hp       | 1.5 hp    | 2 hp               | 3 hp        |
| Full Load<br>Amps,<br>460/3/60<br>VAC | 12 kW heater            | 17                                     | 18        | 19                 | 20       | 34         | 36        | 38                 | 40          |
|                                       | 18 kW heater            | 25                                     | 26        | 27                 | 28       | 50         | 52        | 54                 | 56          |
|                                       | 24 kW heater            | 32                                     | 33        | 34                 | 35       | 64         | 66        | 68                 | 70          |
|                                       | 36 kW heater            | 47                                     | 48        | 49                 | 50       | 94         | 96        | 98                 | 100         |
|                                       | 48 kW heater            | 62                                     | 63        | 64                 | 65       | 124        | 126       | 128                | 130         |
| Reservoir Capacity (gal)              |                         | 17 gallons each zone                   |           |                    |          |            |           |                    |             |
| TEFC<br>Pump                          | HP (kW)                 | 1 (0.75)                               | 1.5 (1.1) | 2 (1.5)            | 3 (2.2)  | 1 (0.75)   | 1.5 (1.1) | 2 (1.5)            | 3 (2.2)     |
|                                       | Flow, gpm<br>(lpm)      | 18 (68)                                |           | 24 (91)            | 40 (227) | 18 (68)    |           | 24 (91)            | 50<br>(227) |
|                                       | Pressure,<br>psig (bar) | 30 (2.0)                               | 50 (3.4)  | 30/50<br>(2.0/5.4) | 50 (5.4) | 30 (2.0)   | 50 (3.4)  | 30/50<br>(2.0/5.4) | 50 (5.4)    |
|                                       | Connection<br>Size, in. | 1"                                     |           |                    | 1.5"     | 1"         |           |                    | 1.5"        |
| Dimensions                            | Height, in.             | 62 (1,575)                             |           |                    |          |            |           |                    |             |
|                                       | Width, in.              | 24 (610)                               |           |                    |          | 48 (1,220) |           |                    |             |
|                                       | Depth, in.              | 34 (864) ≤ 24 kW<br>44 (1,118) > 24 kW |           |                    |          |            |           |                    |             |
| Shipping Weight, lbs. (kg)            |                         | ≤ 24 kW<br>> 24 kW                     |           |                    |          |            |           |                    |             |

### Controller Options

| Controller  | Options  |
|---|--|
| Standard  | 4 to 20 mA retransmission of process variable (E5CK only) not available with modulating valve.<br>4 to 20 mA remote set point & retransmission of process variable (E5AK only)<br>Communication: RS-232, RS-485, RS-485 SPI (Athena 16 CT)<br>Remote probe: local/remote control (remote probe and internal probe change to 100 ohm RTD) |
| Advanced  | 4 to 20 mA remote set point and retransmission of process variable, set point, or flow rate<br>Communication: RS-232 Modbus, RS-485 Modbus, RS-485 SPI, Ethernet IP via Modbus RTU<br>Remote probe ①   |
| Remote control enclosure with 20 ft. cable (additional cable available at extra charge) |  |

① Remote probe with advanced controller allows customer to either monitor or control from a customer supplied type J or K thermocouple or 100 or 1000 ohm RTD. Additional cost to have probe supplied by manufacturer.

[www.colortronicna.com](http://www.colortronicna.com)

#### Corporate Headquarters:

Colortronic North America, Inc.  
4100 Market Place  
Flint, MI 48507  
PH: 810-720-7300  
FX: 810-720-2598  
[colortronicweb@corpemail.com](mailto:colortronicweb@corpemail.com)

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