

## **Delta T Systems Eco Series Temperature Control Unit**

**Standard Unit - Technical Specifications** 

### **DOE 2020 Efficiency Compliant Pumps**

This new pump design is compliant with the DOE Energy Conservation Standards. These pumps produce higher outputs measured in flow and pressure compared to the existing design. In addition, the energy consumption is significantly reduced.

#### **Heating and Cooling**

The standard 2 tank design allows for a maximum of 24KW heating in this compact cabinetry. Alternatively, the second tank could be used for a water to water heat exchanger for indirect cooling.

#### Low Maintenance combined with High Reliability

The unit also has the following safety features built in: a bimetal switch that protects the heater from overheating, circuit protection for the motor, high temperature pump seal and a dry run protection for the heater.

### **Other Design Improvements and Material Considerations**

A judicious set of design improvements and material selections makes the new generation of temperature control units less susceptible to traditional maintenance problems, and easier to maintain.

- Industrial strength frame and cabinetry
- Lift off panels on the side for easy access
- IEC compliant components
- Compact heater design which allows for higher capacity on a smaller footprint





## **Standard Equipment Features**

- 9, 12, 18 or 24KW Heater
- 250°F (121°C) Fluid Operating Temperature
- Microprocessor-Based PID Controller
- Motor Overload Protection
- Over Temperature Protection
- Low Water Pressure Protection
- High Pressure Safety Relief Valve Protection
- Liquid-Filled Delivery and Return Pressure Gauges
- Fused Transformer
- Grounded Circuit Control
- Pilot Lights indicating Separate Functions of Use
- Rugged, Heavy Gauge Sheet Metal Cabinet
- 3" Industrial-Grade Casters, swivel and lockable
- Ease of Service Design
- NEMA 1 Electrical Specifications & Wiring in Conformance with NEC Electrical Codes
- Automatic Venting
- Solid State Heating Contactor

## **Optional Features**

- Operating Temperature up to 300°F (149°C)
- 50 and 60 Hz
- 208, 230 and 460V
- Remote Start/Stop
- Remote Sensor input
- Water to Water Heat Exchanger for indirect cooling
- Stacked Units
- NFPA 79 electrical safety standards
- NEMA Classifications: 3, 4, 4X, 7 and 12 rated enclosures
- Customer-Preferred Controllers
- Audible or Visual Alarms
- Larger Solenoid Valves
- Electrical Main Disconnect
- Multiple Zones in a Cabinet or Open Frame

# DELTA T SYSTEMS The True Measure of Temperature Control

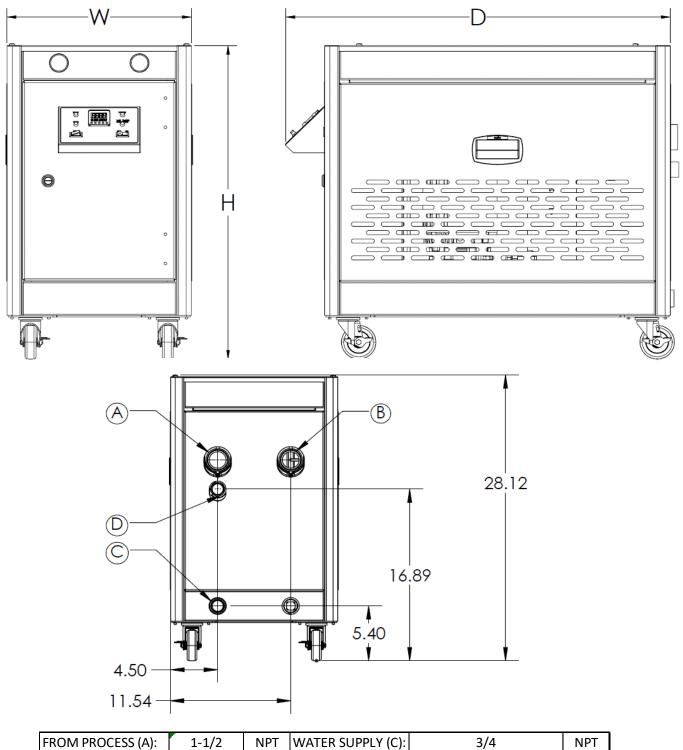
## DELTA T SYSTEMS

| Model   | Heating<br>Capacity<br>(KW) | Pump Size<br>(HP) | Minimum Circuit Ampacity |      |      | Dimensions (in) |       |       | Shipping<br>Weight |
|---------|-----------------------------|-------------------|--------------------------|------|------|-----------------|-------|-------|--------------------|
|         |                             |                   | 460V                     | 230V | 208V | Height          | Width | Depth | (lbs)              |
| ESW-09C | 9                           | 3/4               | 15.8                     | 31.5 | 35.5 | 28.0            | 16.0  | 34.9  | 304                |
| ESW-12C | 12                          | 3/4               | 20.3                     | 40.5 | 51.1 | 28.0            | 16.0  | 34.9  | 305                |
| ESW-18C | 18                          | 3/4               | 29.3                     | 58.5 | 66.8 | 28.0            | 16.0  | 34.9  | 313                |
| ESW-24C | 24                          | 3/4               | 38.3                     | 76.5 | -    | 28.0            | 16.0  | 34.9  | 315                |
| ESW-09D | 9                           | 1                 | 16.3                     | 32.5 | 36.9 | 28.0            | 16.0  | 34.9  | 307                |
| ESW-12D | 12                          | 1                 | 20.8                     | 41.5 | 52.5 | 28.0            | 16.0  | 34.9  | 308                |
| ESW-18D | 18                          | 1                 | 29.8                     | 59.5 | 68.1 | 28.0            | 16.0  | 34.9  | 316                |
| ESW-24D | 24                          | 1                 | 38.8                     | 77.5 | -    | 28.0            | 16.0  | 34.9  | 318                |
| ESW-09E | 9                           | 1-1/2             | 17.1                     | 34.3 | 38.6 | 28.0            | 16.0  | 34.9  | 308                |
| ESW-12E | 12                          | 1-1/2             | 21.6                     | 43.3 | 54.3 | 28.0            | 16.0  | 34.9  | 309                |
| ESW-18E | 18                          | 1-1/2             | 30.6                     | 61.3 | 69.9 | 28.0            | 16.0  | 34.9  | 317                |
| ESW-24E | 24                          | 1-1/2             | 39.6                     | 79.3 | -    | 28.0            | 16.0  | 34.9  | 319                |
| ESW-09F | 9                           | 2                 | 18.0                     | 36.0 | 40.5 | 28.0            | 16.0  | 34.9  | 309                |
| ESW-12F | 12                          | 2                 | 22.5                     | 45.0 | 56.1 | 28.0            | 16.0  | 34.9  | 310                |
| ESW-18F | 18                          | 2                 | 31.5                     | 63.0 | 71.8 | 28.0            | 16.0  | 34.9  | 318                |
| ESW-24F | 24                          | 2                 | 40.5                     | 81.0 | -    | 28.0            | 16.0  | 34.9  | 320                |
| ESW-09G | 9                           | 3                 | 19.1                     | 38.3 | 43.1 | 28.0            | 16.0  | 34.9  | 319                |
| ESW-12G | 12                          | 3                 | 23.6                     | 47.3 | 58.8 | 28.0            | 16.0  | 34.9  | 320                |
| ESW-18G | 18                          | 3                 | 32.6                     | 65.3 | 74.4 | 28.0            | 16.0  | 34.9  | 328                |
| ESW-24G | 24                          | 3                 | 41.6                     | 83.3 | -    | 28.0            | 16.0  | 34.9  | 330                |

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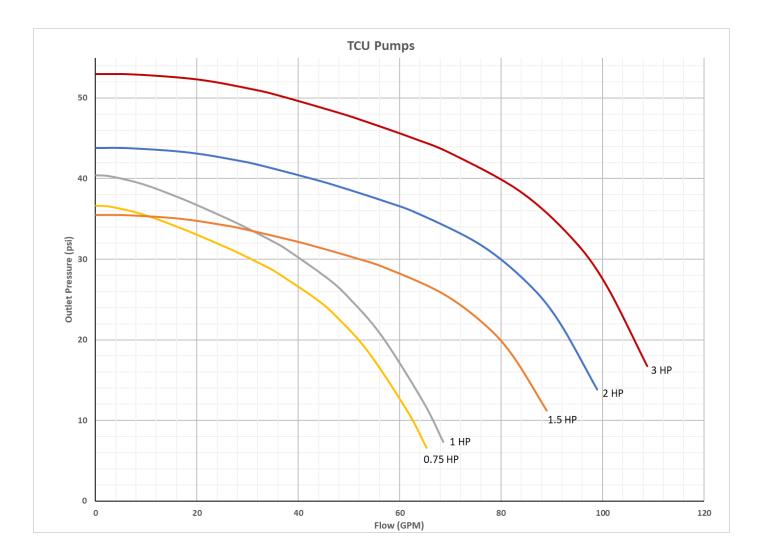
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| FROM PROCESS (A): | 1-1/2 | NPT | WATER SUPPLY (C): | 3/4                 | NPT |
|-------------------|-------|-----|-------------------|---------------------|-----|
| TO PROCESS (B):   | 1-1/2 | NPT | DRAIN (D):        | MATCH SOLENOID SIZE | NPT |

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