CAST-X 1000 Circulation Heater

SAFE HEATING FOR VOLATILE, VISCOUS OR MILDLY CORROSIVE MATERIALS

This innovative and cost-effective cast construction provides multiple advantages compared to traditional circulation heaters. The CAST-X 1000 circulation heater’s aluminum mass maintains heat accurately and consistently, resulting in an optimum level of temperature control with process temperatures up to 250°F (121°C). The aluminum body also efficiently conducts heat away from the tubular elements, prolonging life. The CAST-X 1000 operates up to 2100 psi allowing economic high pressure operation.

The CAST-X 1000 circulation heater from Cast Aluminum Solutions consists of a helically coiled tube cast into an aluminum body with tubular elements. The aluminum body blankets the tubular elements and acts as the heat transfer media between the elements and the coiled tube circulating the heated fluid. This innovative and cost-effective cast construction provides multiple advantages compared to traditional circulation heaters. The CAST-X 1000 circulation heater’s aluminum mass maintains heat accurately and consistently, resulting in an optimum level of temperature control. The aluminum body also efficiently conducts heat away from the tubular elements, prolonging heater life. The reliable construction of the CAST-X 1000 circulation heater allows fluid to circulate through a coiled tube instead of in direct contact with tubular elements. This feature eliminates hot spots that typically result from contact between tubular elements and the heated fluid. The robust, rugged design of the CAST-X 1000 circulation heater delivers problem-free operation in a more compact size than traditional heat exchangers. The CAST-X 1000 circulation heater is appropriate for numerous applications and may be customized to meet specific customer needs.

APPLICATIONS
Solvent Heating  Glycol Heating for Heat Transfer Systems
Analytical Instrumentation  Steam Generation
Paint Heating  Food and Beverage Heating
General Industrial Applications

FEATURES AND BENEFITS
Fluid path constructed independent from heater sheath
Allows sensitive materials to be heated safely and effectively
Ensures safety because heater failure will not cause leaks or significant damage
Provides cost effective material compatibility due to minimal material usage and non-welded construction

Operates to 2100 psi with appropriate fittings
Allows economic, high pressure operation Integrated thermostat and enclosure

Integrated thermostat and enclosure
Permits ease of installation and use
Eliminates additional parts and wiring

Over-temperature snap action switch
Offers cost effective, over-temperature protection

Self-draining construction
Saves time and money
Reduces material degradation caused by trapped material
CAST-X 1000
Circulation Heater

SAFE HEATING FOR VOLATILE, VISCOUS OR MILDLY CORROSIVE LIQUIDS

Dimensions

NEMA 4 HOUSING
WITHOUT THERMOSTAT

NEMA 4 HOUSING
WITH SINGLE POLE THERMOSTAT

Specifications
- 120, 240 or 480V, 3kW max. single-phase
- Process temperatures to 250°F (121°C)
- (4) 1/4 - 20, 3/8 in. (10 mm) deep mounting holes
- 5/16 in. (7.94 mm) O.D. inlet/outlet, 316 SS wetted surface
- NEMA 1 sheet metal enclosure
- Optional insulated body, process thermocouples and snap action high-limit thermostats
- Max working fluid pressure: 2100 psi (145 Bar)

Non Standard Options
- NEMA 7 enclosures
- Passivated or electropolished wetted surfaces
- Custom fittings and sensor

Ordering Information
To order, complete the number code with the information below.

**Cast-X 1000**: 5/16 in. (7.94 mm) O.D. inlet/outlet, 304 SS wetted surface, NEMA 1 housing

**Heater Wattage:**
- 200A = 240V, 3000 W, 1-phase
- 200B = 480V, 3000 W, 1-phase
- 200C = 120V, 750 W, 1-phase
- 200D = 240V, 750 W, 1-phase

**Enclosures and Thermostats:**
- S2 = NEMA 1 housing with 30 to 250°F (-1 to 121°C) single pole thermostat
- SJ = NEMA 1 housing with Type J process T/C in t-well
- SK = NEMA 1 housing with Type K process T/C in t-well
- W0 = NEMA 4 housing, no thermostat
- W2 = NEMA 4 housing with 30 to 250°F (-1 to 121°C) single pole thermostat
- WJ = NEMA 4 housing with Type J process T/C in t-well
- WK = NEMA 4 housing with Type K process T/C in t-well
- High Limit: 1 = Snap action high limit set at 260°F (127°C)

**Accessories:**
- Compression fitting 274-55-6-4
- Insulation jacket 307-0-2-1

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