CAST-X Circulation Heaters

Summary Sheet

ALL CAST-X CIRCULATION HEATERS FEATURE:

- Standard CAST-X Models use Stainless Steel (316L) Flow-Tubes
- CAST-X High Temp models use Inconel 600 Flow-Tubes
- Compatible with High Pressure Applications
- UL®-Approved Heating Elements
- Perfect for Contamination-Free Applications
- Ability to Safely Heat Flammable Media
  Fluid is isolated in flow-tube, never contacting heating elements

The table below shows data for standard CAST-X models and components.
Custom tube materials, finishes and configurations are also available.
See a CAS representative for details and a formal quote on all custom orders.

MODEL	POWER RANGE	MAX OPERATING TEMPERATURES	TUBE SPECS	STANDARD NO. OF TUBES	MAX PRESSURE (standard 316 SS)	ENCLOSURE OPTIONS
CAST-X 500	300 - 1500 Watts	No Enclosure: 392°F (200°C) NEMA 1 250°F (121°C) NEMA 4 250°F (121°C) NEMA 7 392°F (200°C)	OD: .250" (1/4") (6.3 mm) Wall: .035" (.89 mm)	1	5100 psi (351 bar)	No Enclosure NEMA 1 NEMA 4 NEMA 7
CAST-X 1000	190 - 3000 Watts	No Enclosure: 662°F (350°C) NEMA 1: 608°F (320°C) with thermostat: 250°F (121°C) NEMA 4: 482°F (250°C) with thermostat: 250°F (121°C)	OD: .313" (5/16") (7.9 mm) Wall: .020" (.5 mm)	1	2100 psi (144 bar)	No Enclosure NEMA 1 NEMA 4
CAST-X 2000	.5 - 6 Kw	NEMA 1: 482°F (250°C) with standoff: 662°F (350°C) with t-stat: 250°F (121°C) NEMA 4: 350°F (175°C) with standoff: 662°F (350°C) NEMA 7: 482°F (250°C)	OD: .50" (1/2") (12.7 mm) Wall: .065" (1.7 mm)	1	5100 psi (351 bar)	NEMA 1 NEMA 4 NEMA 7 Standard or Standoff Design
CAST-X 2500	.7 - 15 kW	NEMA 1: 662°F (350°C) NEMA 4: 572°F (300°C) NEMA 7: 482°F (250°C) ATEX: 482°F (250°C)	OD: .625" (5/8") (15.9 mm) Wall: .065" (1.7 mm)	2 Standard Single Tube Available	4000 psi (275 bar)	NEMA 1 NEMA 4 NEMA 7 ATEX
CAST-X 3000	.7 - 27 kW	NEMA 4: 572°F (300°C) NEMA 7 / ATEX: 482°F (250°C)	OD: .750" (3/4") (19.1 mm) Wall: .065" (1.7 mm)	2 Standard Single Tube Available	3300 psi (227 bar)	NEMA 4 NEMA 7/ATEX
CAST-X 4000	1.2 - 60.3 kW	NEMA 4: 572°F (300°C) NEMA 7 / ATEX: 662°F (350°C)	OD: 1.0" (25.4 mm) Wall: .083" (2.1 mm)	2 Standard Single Tube Available	3100 psi (213 bar)	NEMA 4 NEMA 7/ATEX
CAST-X HIGH TEMP 500	300 - 1500 Watts	**1112°F (600°C)**	OD: .250" (1/4") (6.3 mm) Wall: .035" (.89 mm)	1	5100 psi (351 bar)	No Enclosure NEMA 7
CAST-X HIGH TEMP 2000	.5 - 6 Kw	**1112°F (600°C)**	OD: .50" (1/2") (12.7 mm) Wall: .065" (1.7 mm)	1	5100 psi (351 bar)	NEMA 4 NEMA 7

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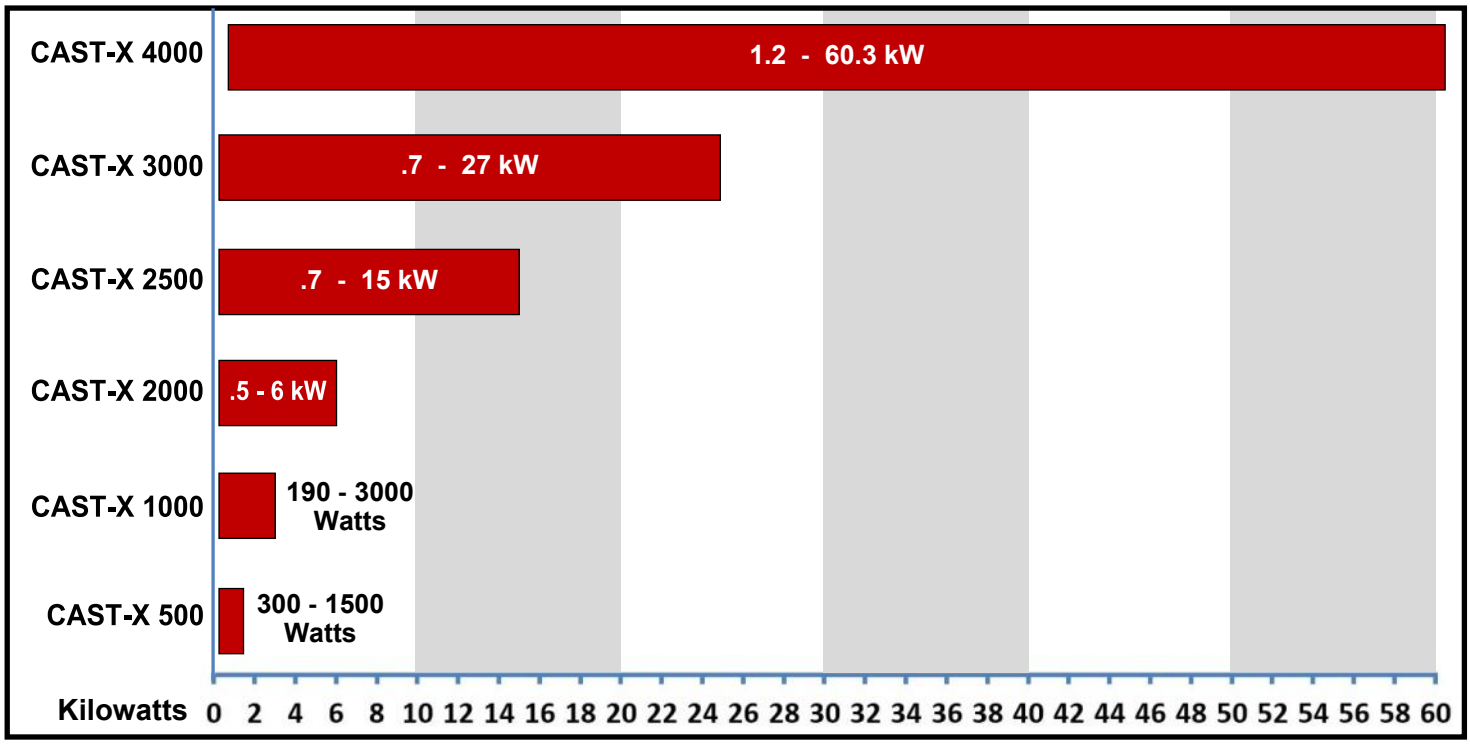
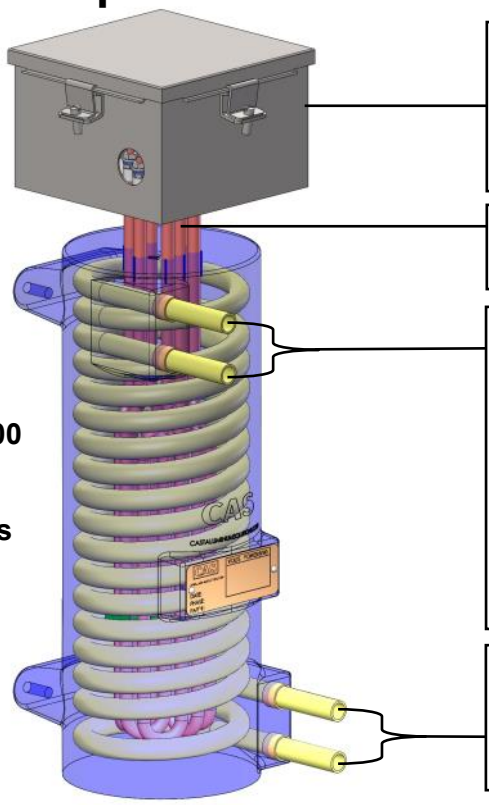
Power Ranges for Standard CAST-X Circulation Heaters



Important Features of CAST-X Circulation Heaters



CAST-X 2500 with Dual Flow-Tubes

Power wires, high-limit switches and thermocouple connections are housed in safety-certified terminal enclosures.

CAS offers a variety of moisture-resistant, explosion-proof and general-purpose enclosures, to meet a range of requirements.

Heating elements (orange) and flow-tubes (yellow) are cast into the aluminum body: *this produces excellent heat transfer.*

Heated fluids are isolated in SST tubes, never touching the heating elements or any other components inside the heater.

Safely heat flammable gases & liquids with CAST-X Heaters.
(perfect for natural gas, aerospace fuel, petrochemical heating)

This "no contact design" is also suitable for high purity processes.
(perfect for food, medical, and semiconductor applications)

Standard CAST-X units have Seamless Stainless Steel (316L) flow-tubes. *These are compatible with high-pressure processes.*

Flow-tubes are “self-draining” (an important safety feature).

Single and dual-tube units are available, depending on the model.

Dual tube models can run in multiple flow formats (see below)

CAST-X 500, 1000, and 2000 Models have a Single Flow-Tube

CAST-X 2500, 3000, and 4000 Models are Available with 2 Flow-Tubes, Which Can Be Run in 3 Basic Configurations:

- **Single Tube:** Only 1 of the 2 tubes is utilized. This will not hurt the heater or the empty flow-tube.
- **Series Flow:** Media flows through Tube 1 then through Tube 2, for maximum dwell time.
- **Parallel Flow:** Media flows simultaneously in and out of Tubes 1 & 2, to maximize flow-rates.