CAST-X Circulation Heaters

Summary Sheet

CAS CAST ALUMINUM Solutions

ALL CAST-X CIRCULATION HEATERS FEATURE:

- Stainless Steel (316L) Flowpath Tubes
- Non-Welded Construction
- UL®-Approved Heating Elements
- Cast-In Heating Elements
  (except CAST-X 500: replaceable cartridge heater)
- Ability to Heat Liquids or Gases
- Ability to Safely Heat Flammable Media
  (isolated in flowpath tube: *never contacts 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	750 - 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" (1.7 mm)	1	2100 psi (144 bar)	No Enclosure NEMA 1 NEMA 4
CAST-X 2000	1 - 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	2.4 - 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	4000 psi (275 bar)	NEMA 1 NEMA 4 NEMA 7 ATEX
CAST-X 3000	2.6 - 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	3300 psi (228 bar)	NEMA 4 NEMA 7/ATEX
CAST-X 4000	6.7 - 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	3100 psi (214 bar)	NEMA 4 NEMA 7/ATEX
UNIVERSAL SOLVENT HEATER	6 - 8 kW	392°F (200°C)	Solvent Tube: OD: .750" (3/4") (19.1 mm) Wall: .065" (1.7 mm) Cooling Tube: OD: .250" (1/4") (6.3 mm) Wall: .035" (0.9 mm)	1 Solvent Tube 1 Cooling Tube	3300 psi (228 bar)	NEMA 7

NEED ASSISTANCE ? :

The CAS Team is ready and available to provide assistance with engineering calculations, part numbering protocols, and general application advise. Feel free to give us a call or email. We're here to help.

Cast Aluminum Solutions
Tel: 888-367-3992 or 630-879-2696
Sales@CastAluminumSolutions.com
www.CastAluminumSolutions.com

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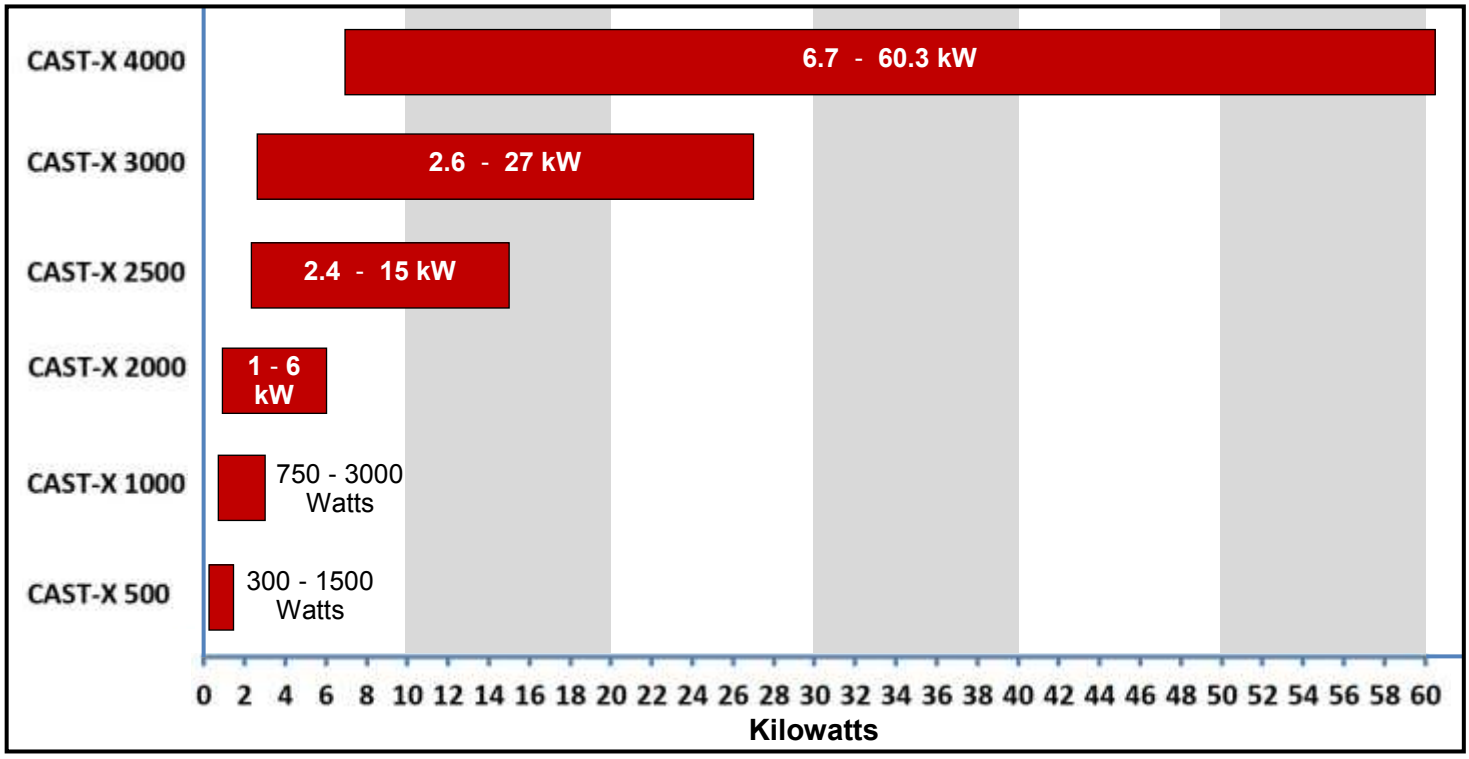
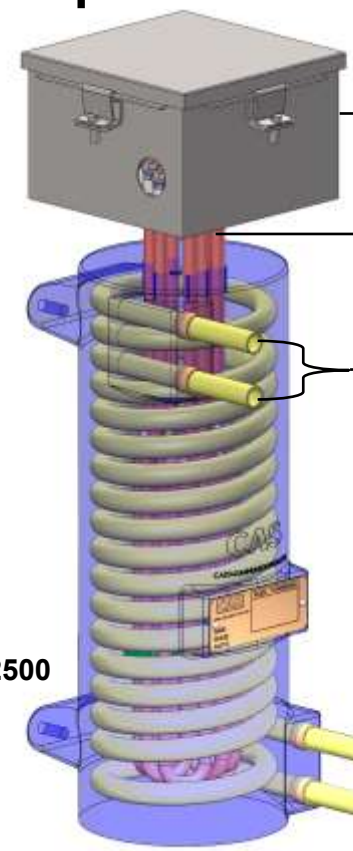
Power Ranges for Standard CAST-X Circulation Heaters



Important Features of CAST-X Circulation Heaters



CAST-X 2500

Power supply, high-limit switch and thermocouple connections are housed in safety-certified electrical enclosures.

CAS offers a variety of moisture-resistant, explosion-proof and general-purpose enclosures, to meet your application's needs.

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

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

For example, CAST-X 2500 tubes are rated to 4000 psi / 275 bar.

Additional tube materials & coatings are also available.

You can safely heat flammable gases & liquids with CAST-X.
(perfect for natural gas, aerospace, petrochemical applications)

Media is isolated in tubes, never touching heating elements.

This design also prevents contamination.
(perfect for food, medical, and semiconductor applications)

Also: Tubes are "self-draining" (important safety feature)

Tube Configuration Options: For CAST-X Models with two flowpath tubes there are many options.

Single Tube: Although two tubes are available, only one is utilized. The extra tube acts a spare.
Parallel: Media flows through Tube 1 then through Tube 2, for maximum dwell time and increased Delta-T.
Series: Media flows simultaneously in and out of Tubes 1 & 2, for maximum flow-rate.