

# CAST-X Circulation Heaters

Summary Sheet

## 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.



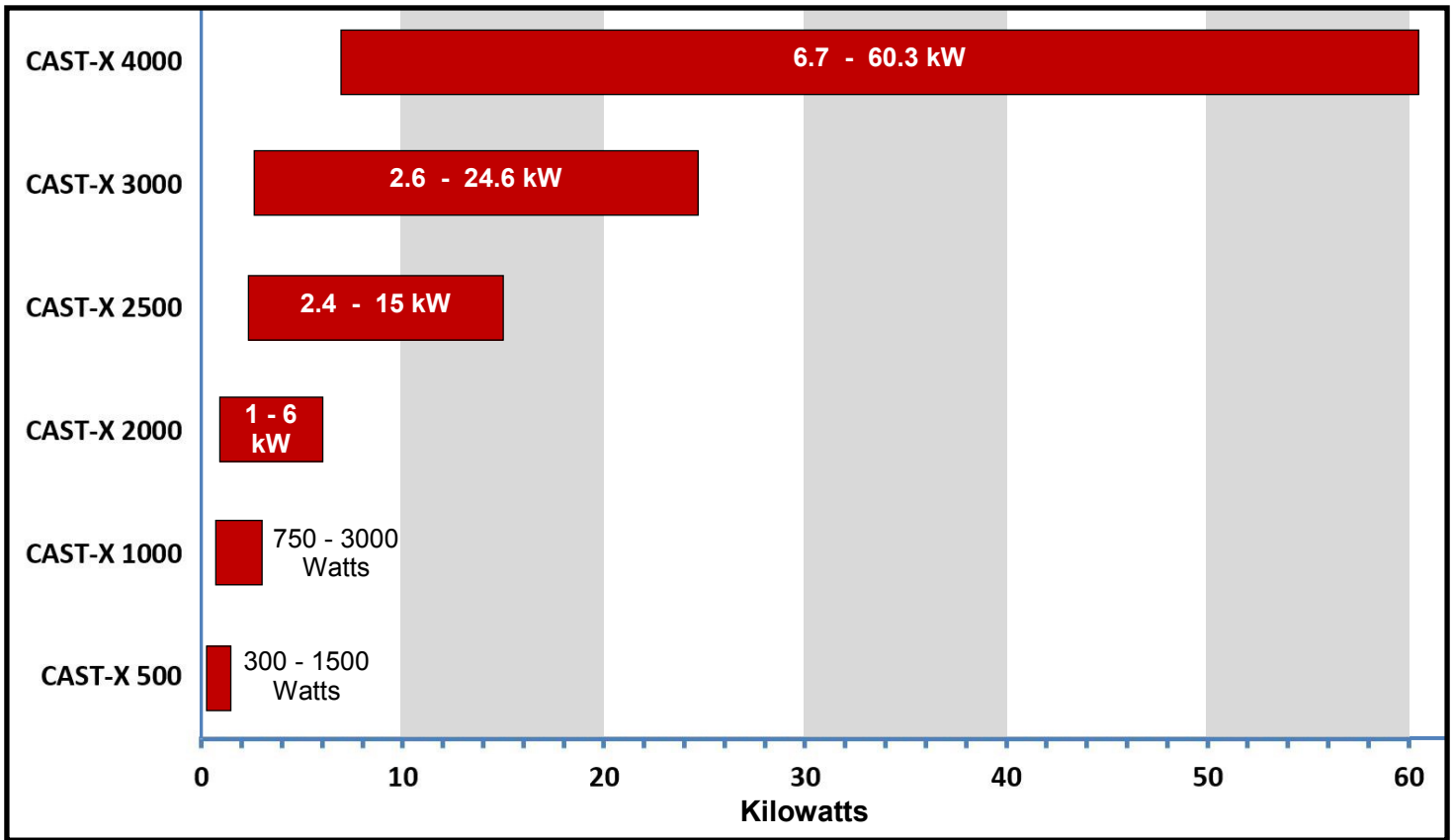
MODEL	POWER RANGE	MAX OPERATING TEMPERATURES	TUBE SPECS	STANDARD NO. OF TUBES	MAX PRESSURE (standard 316 SS)	ENCLOSURE OPTIONS
<b>CAST-X 500</b>	300 - 1500 Watts	No Enclosure: 392°F (200°C) NEMA 1 250°F (121°C) NEMA 4 250°F (121°C) NEMA 7 392°F (200°C)	OD: .250" (1/4") (6.3 mm) Wall: .028" (.7 mm)	1	3200 psi (220 bar)	No Enclosure NEMA 1 NEMA 4 NEMA 7
<b>CAST-X 1000</b>	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
<b>CAST-X 2000</b>	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	4300 psi (295 bar)	NEMA 1 NEMA 4 NEMA 7 Standard or Standoff Design
<b>CAST-X 2500</b>	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
<b>CAST-X 3000</b>	2.6 - 24.6 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	2500 psi (172 bar)	NEMA 4 NEMA 7/ATEX
<b>CAST-X 4000</b>	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	2450 psi (169 bar)	NEMA 4 NEMA 7/ATEX
<b>UNIVERSAL SOLVENT HEATER</b>	6 - 8 kW	392°F (200°C)	<u>Solvent Tube:</u> OD: .750" (3/4") (19.1 mm) Wall: .065" (1.7 mm)  <u>Cooling Tube:</u> OD: .250" (1/4") (6.3 mm) Wall: .035" (0.9 mm)	1 Solvent Tube  1 Cooling Tube	3100 psi (213 bar)	NEMA 7

## NEED ASSISTANCE ? :

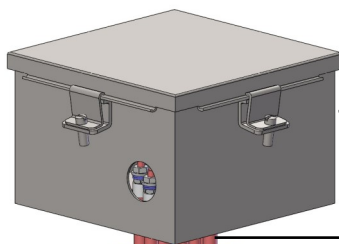
The CAS Team is ready and available to provide assistance with engineering calculations, part numbering protocols, and general application advise.  
Feel free to give us a call or email. We're here to help.

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## Power Ranges for Standard CAST-X Circulation Heaters

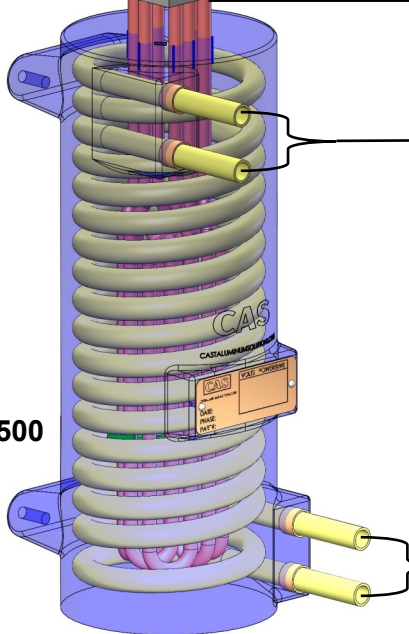


## Important Features of CAST-X Circulation Heaters



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.

CAST-X 2500

**You can safely heat flammable gases & liquids with CAST-X.**  
**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)