

# CAST-X High Temp 500 Circulation Heater



### SPECIFICATIONS:

**Power:**

- Up to 1500 W
- Voltage Range: 120 - 480 V

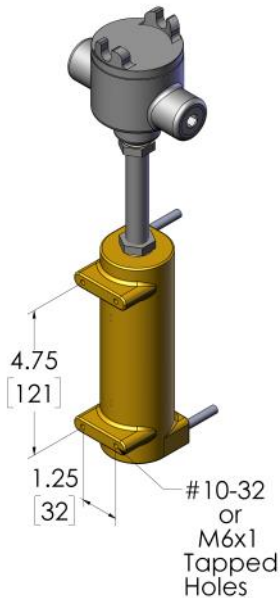
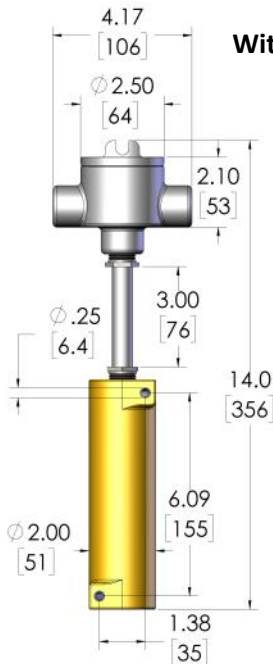
**Tubing:**

- .250" OD (1/4") (6.3 mm) .035" Wall (.88 mm)
- Overall Process Tube Length: 84" (213 cm)
- Inconel 600 material
- Max Pressure: See below chart

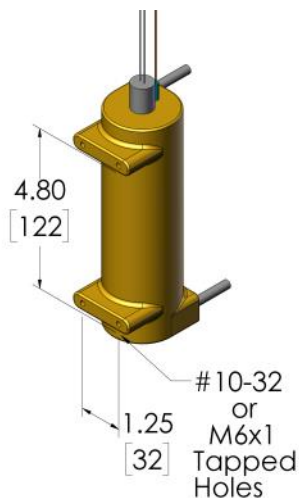
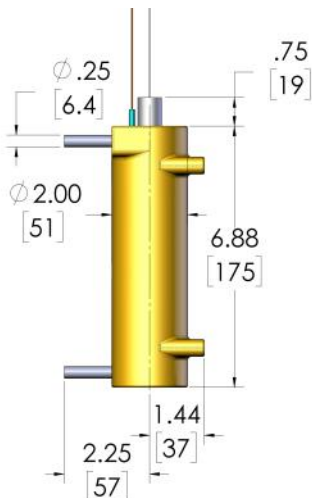
Flow-Tube Max Operating Pressures			
<i>Pressure ratings vary depending on operating temp.</i>			
°F	°C	psi	bar
200-800	93-427	5506	379
900	482	4405	304
1000	538	2918	201
1100	593	826	57

Note: Data taken from Circor/Hoke Flareless Tube Fittings Tubing Data Charts.

### With Explosion-Proof Rated Enclosure



### Without Enclosure



**Heater Body Material:**

- Cast Bronze

**Enclosures:**

- Explosion-Proof Enclosure, certified to:
    - Class 1, Div 1 & 2, Grp. B, C, D; (Explosionproof)
    - Class 2, Div 1, Grp. E, F, G; (Dust-Ignitionproof)
    - Class 2 Div 2, Grp. F, G; (Raintight)
    - Class 3 (Wet Locations)
    - NEMA 3, 4, 7CD, 9EFG
  - No Enclosure Option Also Available
- Certifications are for enclosure only.*

**Max Heater Operating Temperatures:**

- With Explosion-Proof Rated Enclosure: 1112°F (600°C)
- With No Enclosure: 1112°F (600°C)

**Temperature Sensors:**

- TC is integrated into heating element
- K or J Type Single Thermocouple Available

**Available Accessories:**

- Insulating Jacket
- Compression Fittings



**CAST-X High Temp 500  
With Optional  
Insulating Jacket**



**CAST ALUMINUM**  
*Solutions*

# CAST-X High Temp 500 Circulation Heater

## Features and Benefits

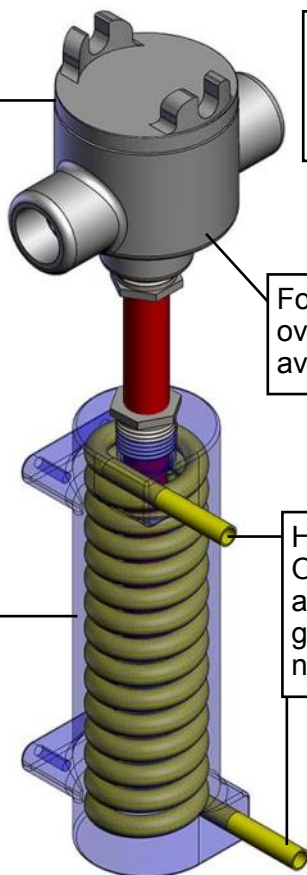
CAST-X HT 500 is available with a certified explosion-proof terminal enclosure, positioned in a "standoff" position. HT 500 is also available without an enclosure.

**600°C / 1112°F Max Operating Temp:** CAST-X High Temp 500 is one of very few circulation heaters capable of achieving such temperatures.

For optimal temperature control and over-temp protection, CAST-X HT 500 is available with a built-in thermocouple.

CAST-X HT heater bodies are made from cast bronze, to maintain thermal and structural integrity over a long lifespan.

**High Pressure Compatible Flow-Tubes:** Our Inconel 600 seamless flow-tubes are compatible with many high pressure gas processing applications, including natural gas and cryogas vaporization.



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### Cast Aluminum Solutions. LLC

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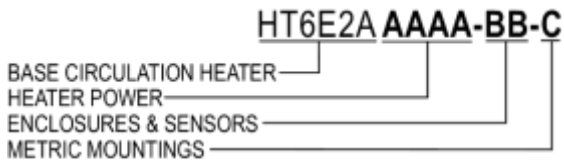
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**CAST ALUMINUM**  
*Solutions*

## CAST-X High Temp 500 Circulation Heater



Electropolished Flow-Tubes = Add "EP" to end of Part Number

Passivated Flow-Tubes = Add "P" to end of Part Number

For both, add "EP-P"

### Building a CAST-X 500 Part Number

Assigning numbers for sections AAAA and BB.

For metric mountings, assign "M" to section C.

If metric mounts are not needed, leave sec. C blank.

For assistance or special orders, contact CAS directly.

VOLTAGE, POWER, CIRCUIT TYPE				
<i>Volts refers to line volts (VL). Amps refers to line current (IL).</i>				
Section "AAAA"	Circuit Type (all are single circuit)	Volts (V)	Watts (W)	Amps (A)
300A	SINGLE PHASE	240	1200	5.0
		230	1100	4.8
		208	900	4.3
		120	300	2.5
300B	SINGLE PHASE	120	1500	12.5
300C	SINGLE PHASE	240	300	1.3
		230	275	1.2
		208	225	1.1
		120	75	0.6
300D	SINGLE PHASE	240	500	2.1
		230	460	2.0
		208	375	1.8
		120	125	1.0
300E	SINGLE PHASE	240	750	3.1
		230	690	3.0
		208	560	2.7
		120	185	1.6
300F	SINGLE PHASE	240	1000	4.2
		230	920	4.0
		208	750	3.6
		120	250	2.1
300G	SINGLE PHASE	240	1200 same as 300A	5.0
300H	SINGLE PHASE	240	1500	6.3
		230	1380	6.0
		208	1125	5.4
		120	375	3.1
300J	SINGLE PHASE	208	1125 Same as 300H	5.4
300K	SINGLE PHASE	208	900 Same as 300A	4.3
300L	SINGLE PHASE	208	750 Same as 300F	3.6
300M	SINGLE PHASE	208	565	2.7
		120	190	1.6
300N	SINGLE PHASE	120	1250	10.5
300P	SINGLE PHASE	380	1500	3.9
		240	600	2.5

**ENCLOSURES AND TEMPERATURE SENSORS**

*All thermocouples are ungrounded, for optimal performance.*

Section "BB"	Description	No. of Sensors	Enclosure
00	NO SENSOR	0	NO ENCLOSURE
0J	J-TYPE THERMOCOUPLE IN THERMOWELL	1	NO ENCLOSURE
0K	K-TYPE THERMOCOUPLE IN THERMOWELL	1	NO ENCLOSURE
E0	NO SENSOR	0	EXPLOSION PROOF
EJ	J-TYPE THERMOCOUPLE IN CARTRIDGE HEATER	1	EXPLOSION PROOF
EK	K-TYPE THERMOCOUPLE IN CARTRIDGE HEATER	1	EXPLOSION PROOF

**METRIC MOUNTING HOLES**

*Place an "M" in section D if metric mounting holes are required.  
If standard Imperial mounting holes are desired, sec. D can be left blank*

Section "D"	Metric Mounting Holes
M	M6 X 1.00 METRIC TAPPED MOUNTING HOLES

**VALUE ADDED OPTIONS FOR FLOW-TUBES**

*If you need electropolished or passivated flow-tubes, add these letters to the end of your part number. For both, indicate "EP-P"*

PN Adder	Additional Service
P	PASSIVATION: TO CLEAN FLOW-TUBE ID (USES A DILUTED NITRIC ACID FLUSH)
EP	ELECTROPOLISHED TUBE ID: RA VALUE: 10 MICROINCHES (.254 MICROMETERS)

**ACCESSORIES**

*These PNs are totally separate from the PNs for the heater*

Part Number	Component
274-55-6-1	COMPRESSION FITTINGS (HIGH PRESSURE) / PAIR (SHIPPED LOOSE)
307-0-27-1	INSULATION JACKET, MAXIMUM TEMPERATURE 1472°F (800°C)

**CUSTOM DESIGNS & COMPONENTS**

*For these options, please call a CAS Representative for a quote.*

THICK WALL TUBES FOR HIGH PRESSURE APPLICATIONS
SPECIAL TUBE FITTINGS