







## NEW - SMALL FOOTPRINT CHEMICAL HEATER

Best-in-class heating for wet-process chemistries. Designed to support advanced Ultra High-Purity (UHP) requirements. ChemHeat flow path utilizes all fluoropolymer wetted materials, an o-ringless sealing design, and the capability to detect any breach in the fluid path. Suitable for all non-flammable chemistries in either single pass or recirculating flow applications.



ChemHeat

 Temperature: Up to 203°F (95°C)	 Pressure: Up to 475 kPa (69 PSI) at 95°C (203°F)			
 Watts: 2kW to 6kW	 Certifications: CE, UL 499, CSA C22.2 #88, Semi S2			
 Volts: 120 to 480 volts, Single phase or 3 phase				
 Compatibility				
<input checked="" type="checkbox"/> YES acids	<input checked="" type="checkbox"/> YES water	<input checked="" type="checkbox"/> YES bases	<input type="checkbox"/> NO solvents	<input type="checkbox"/> NO gases

### FEATURES

#### Innovative Design for Ultra-High-Purity (UHP)

- Cleanroom assembled
- Chemistry contained within PTFE tubing to eliminate environmental exposure
- No wetted o-rings
- Patented purge technology detects breaches in the fluid path, prevents chemical permeation and extends heater life (MTFB).

#### Modular & Configurable

- Reduced tool design space requirements
- Easily retrofits to existing tools
- Customized inlet/outlet options available

#### Low Internal Volume

- Fast heat-up
- Reduced chemistry costs
- Precise and stable temperature control

#### Safety & Reliability

- Internal grounding clear of the fluid path
- Lower surface temperatures
- Extended life of heater due to patented purge protection

### APPLICATIONS

- Semiconductor Wet Processes
- Filtration
- Sterilization/Cleaning
- Surface Finishing

# ChemHeat In-line High Purity Chemical Heater

---

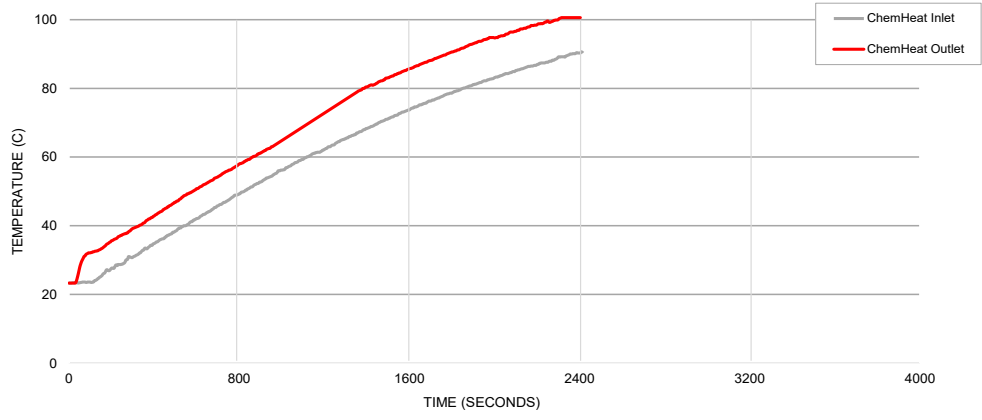
## SPECIFICATIONS

Wattages	2kW to 6kW	
Voltages	120 volts to 480 volts, single phase or 3 phase	
Temperature Range	Up to 203°F (95°C).	
Pressure	475 kPa (69 PSI) at 203°F (95°C) for 12.7mm (1/2 inch) FLARETEK® 475 kPa (69 PSI) at 203°F (95°C) for 19.05mm (3/4 inch) FLARETEK® 324 kPa (47 PSI) at 203°F (95°C) for 25.4mm (1 inch) inlet/outlet FLARETEK® 475 kPa (69 PSI) at 203°F (95°C) for All Super 300 TYPE PILLAR®	
Fluid Connections	Inlet/Outlet Types/Sizes  FLARETEK® 12.7mm (0.5 inch), 19.05mm (0.75 inch), or 25.4mm (1.0 inch)  SUPER 300 TYPE PILLAR® (300 SP) 12.7mm (1/2 inch), 19.05mm (3/4 inch), or 25.4mm (1 inch)  Custom inlet/outlets also available	Drain  9.5mm (0.375 inch), or 12.7mm (0.5 inch ) flared, or Super 300 Type Pillar®
Wetted Surfaces	PFA and PTFE fluoropolymer No wetted "O" rings	
Dimensions	225mm (8.86 inch) x 508mm (20 inch) x 147mm (5.79 inch)	
Watt Density	≤ 9.5 /in <sup>2</sup>	
Safety Features	Element temperature sensor Choice between Type E, J, K thermocouple, 100-Ohm RTD, or 1000-Ohm RTD (2, 3, or 4 wire)  Internal ground plane  Patented purge protection and leak detection	

---

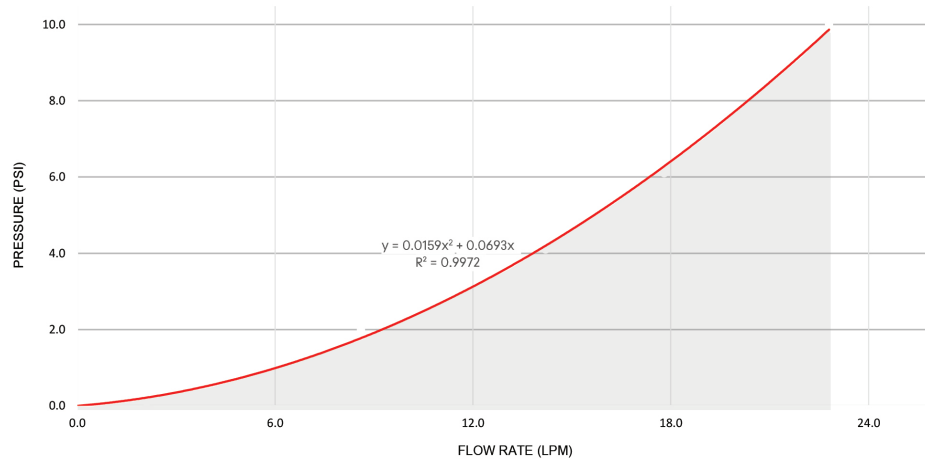
ChemHeat HEAT-UP TIME - 40 Liter Bath, 6KW (480V)

# HEAT-UP CURVE

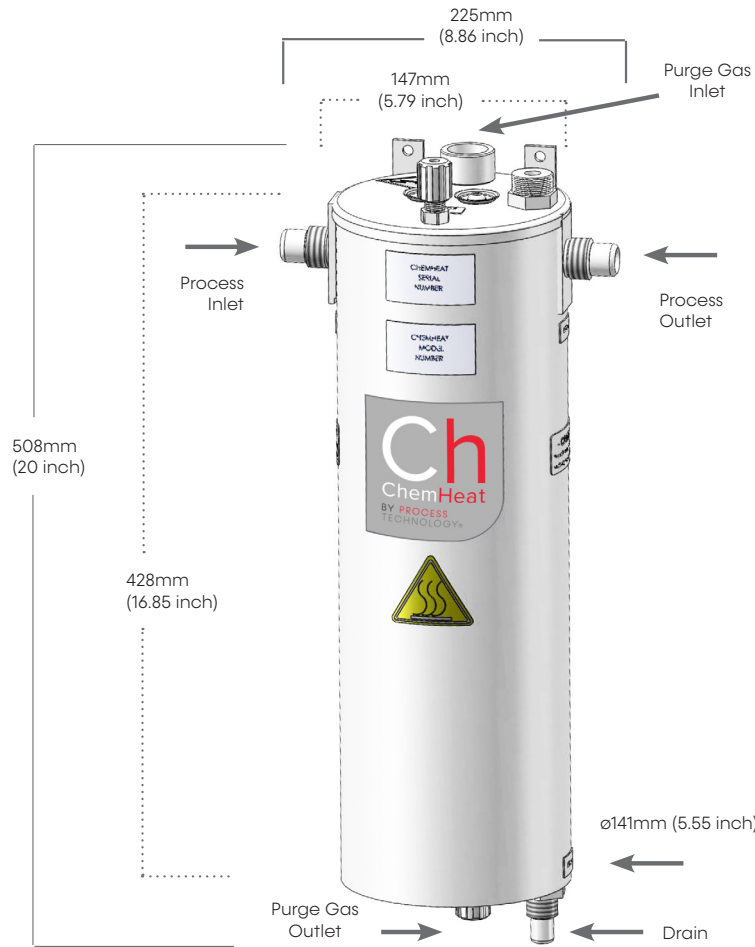


ChemHeat PRESSURE DROP 6kw - 3/4 I/O Fittings

# PRESSURE DROP



## DIMENSIONS



## MODEL NUMBER BREAKDOWN

<b>CH</b>		<b>2</b>	<b>-</b>	<b>6</b>	<b>1</b>	<b>A</b>	<b>A</b>	<b>E</b>	<b>-</b>	<b>O</b>	<b>-</b>
-----------	--	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

Series	Wattage	Voltage	Phase	Inlet/Outlet Connection	Drain Connection	Element Sensor Type	Process Sensor Type	Options
CH = ChemHeat Series	2 = 2000	1 = 208	1 = single phase	A = 1/2 inch Flared	A = 1/2 inch Flared	E = Type E thermocouple	O = No Sensor (standard)	Blank = No Option
	3 = 3000	2 = 240	3 = three phase	B = 3/4 inch Flared	V = 1/2 inch Super 300 Pillar	J = Type J thermocouple	E = Type E thermocouple*	X## = Longer wire length (inches)
	4 = 4000	3 = 380		C = 1 inch Flared	S = 3/8 inch Flared	K = Type K thermocouple	J = Type J thermocouple*	## = Custom design
	5 = 5000	4 = 400		V = 1/2 inch Super 300 Pillar	T = 3/8 inch Super 300 Pillar	H = 100-Ohm RTD (2-wire)	K = Type K thermocouple*	CB = PP bracket
	6 = 6000	5 = 415		W = 3/4 inch Super 300 Pillar		R = 1000-Ohm RTD (2-wire)	H = 100-Ohm RTD (2-wire)*	
		6 = 480		X = 1 inch Super 300 Pillar			R = 1000-Ohm RTD (2-wire)*	
		7 = 440						
		9 = 220						
		10 = 200						
		12 = 120						
		15 = 230						
		16 = 460						

\* add \$ for process sensor