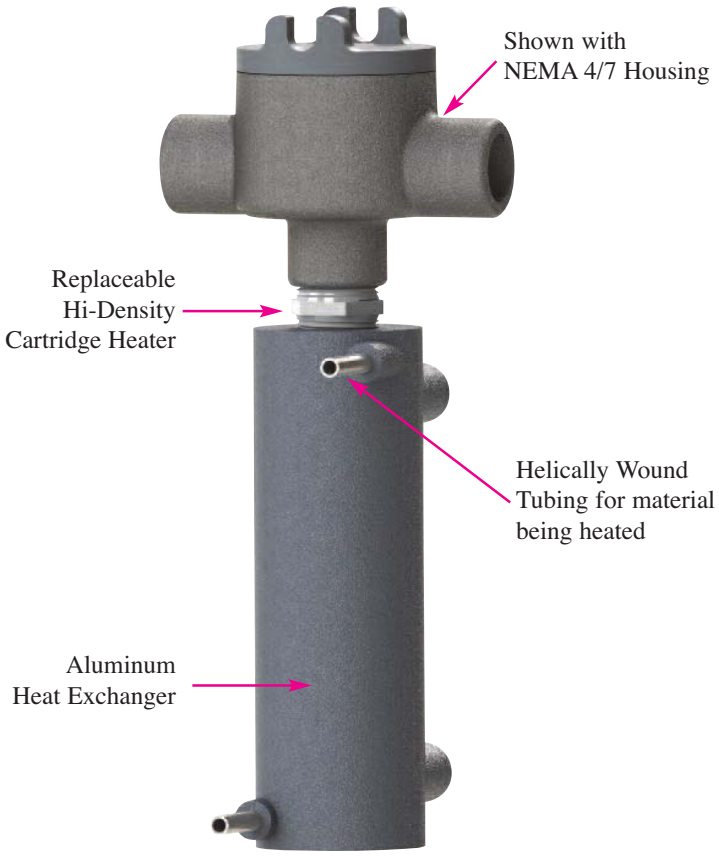
Cast-In Heaters

Circulation Heaters

CHX-100 Series Circulation Heater



Standard Design Features

- *Seamless 316 SS Tubing for fluid flow*
- *Replaceable 5/8" diameter Hi-Density Cartridge Heater*
- *Cast Aluminum heat exchanger body*
- *Operating pressure up to 3000 PSI*
- *Operating temperature up to 350°F (177°C)*
- *NEMA 4/7 enclosure with standoff standard*

Optional Design Features

- *Process Thermocouple*
- *Overtemperature Thermocouple*
- *High Limit Thermostat*

Typical Applications

- *Solvent heating (MEK, NMP, ACT, EKC, others)*
- *Heating of Air, CO2, Nitrogen and similar gases*
- *Heating of non-flammable gases*
- *De-ionized water heating*
- *Steam generation*
- *Glycol heating*
- *Heating ink in printing*
- *Diesel and Fuel heating*
- *Packaging sterilization*
- *Analytical instrumentation*
- *Food and beverage heating*
- *Coating and Paint heating*

Construction

The CHX-100 circulation heater is a compact lightweight unit used for heating gases or liquids. The material being heated is pumped through the coiled seamless 316 SS tubing which has been cast into an aluminum body that acts as the heat exchanger. A replaceable Hi-Density cartridge set into a hole bored into the aluminum is the heat source. The material being heated never comes into contact with the HD cartridge heater.

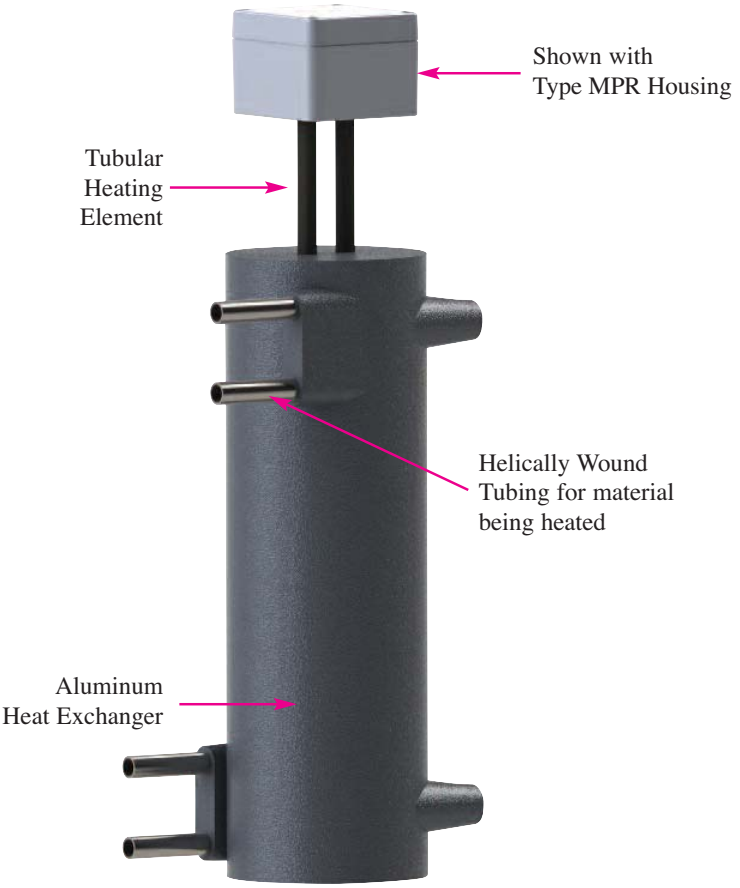
Standard (Non-Stock) Sizes and Ratings

Heater Length (in)	Watts	Volts	Terminal Box Type	Tube Fitting Type	Thermocouple				Thermostat	Part Number
					Calibration Type	Style	Termination Type	Lead Length (in)		
6.5	300	120	Nema 4/7	—	J	Spring Adjustable	Std. Plug	60	—	CHX10010
6.5	300	208	—	—	—	—	—	—	Yes	CHX10070
6.5	300	240	Nema 4	—	K	Armor Cable Adjustable	Std. Plug	48	—	CHX10085
6.5	500	240	Nema 4	—	J	Spring Adjustable	Spade Lugs	48	—	CHX10135
6.5	500	208	Nema 4/7	—	—	—	—	—	Yes	CHX10148
6.5	750	208	—	—	J	Spring Adjustable	Spade Lugs	36	—	CHX10165
6.5	750	240	Nema 4	—	K	Armor Cable Adjustable	Std. Plug	60	—	CHX10182
12.5	900	240	Nema 4/7	HS	—	—	—	—	Yes	CHX10210
12.5	1000	240	Nema 4/7	—	K	Armor Cable Adjustable	Std. Plug	60	—	CHX10220
12.5	1200	240	Nema 4/7	HS	J	Spring Adjustable	Spade Lugs	36	—	CHX10235
12.5	1500	240	Nema 4/7	—	K	Armor Cable Adjustable	Std. Plug	48	—	CHX10242
12.5	1500	120	Nema 4/7	HS	K	Armor Cable Adjustable	Std. Plug	60	—	CHX10248

Cast-In Heaters

Circulation Heaters

CHX-200 Series Circulation Heater



Standard Design Features

- *Seamless 316 SS Tubing for fluid flow*
- *Cast-In Tubular Heater*
- *Cast Aluminum heat exchanger body*
- *Operating pressure up to 3000 PSI*
- *Operating temperature up to 392°F (200°C)*
- *Type C2 (General Purpose) housing with standoff*

Optional Design Features

- *Process Thermocouple*
- *Overtemperature Thermocouple*
- *Type MPR (Moisture Resistant) or Type EP (Explosion Resistant) Housings*

Typical Applications

- *Solvent heating (MEK, NMP, ACT, EKC, others)*
- *Heating of Air, CO2, Nitrogen and similar gases*
- *Heating of non-flammable gases*
- *De-ionized water heating*
- *Steam generation*
- *Glycol heating*
- *Heating ink in printing*
- *Diesel and Fuel heating*
- *Packaging sterilization*
- *Analytical instrumentation*
- *Food and beverage heating*
- *Coating and Paint heating*

Construction

The CHX-200 circulation heater is a compact lightweight unit used for heating gases or liquids. The material being heated is pumped through the coiled seamless 316 SS tubing which has been cast into an aluminum body that acts as the heat exchanger. A tubular heating element is the heat source. The material being heated never comes into contact with the heating element.

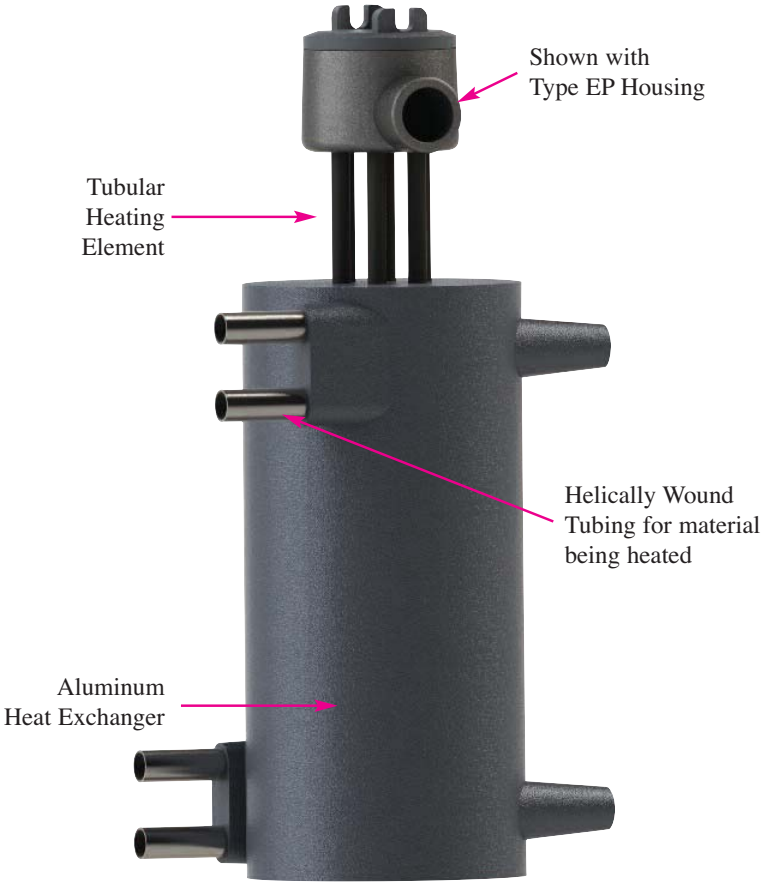
Standard (Non-Stock) Sizes and Ratings

Heater Length (in)	Watts	Volts	Phase	Termination Type	Terminal Box Type	Tube Config.	Tube Fitting Type	Thermocouple				T-Stat	Part Number
								Calibration Type	Style	Termination Type	Lead Length (in)		
13.5	1500	240	1	T7	Type EP	Single	—	J	Spring Adjustable	Std. Plug	48	—	CHX20015
13.5	1500	480	1	T7	—	Single	—	—	—	—	—	—	CHX20022
13.5	2250	240	1	T	Type C2	Single	—	K	Armor Cable Adjustable	Std. Plug	60	—	CHX20037
13.5	1500	208	1	T	Type C2	Single	—	J	Spring Adjustable	Spade Lugs	48	—	CHX20042
13.5	3000	240	1	T7	Type MPR	Single	—	—	—	—	—	—	CHX20065
17.75	3000	240	1	T7	—	Single	—	J	Spring Adjustable	Spade Lugs	60	—	CHX20072
17.75	3000	208	1	T	Type C2	Single	—	K	Armor Cable Adjustable	Std. Plug	48	Yes	CHX20084
17.75	4500	240	3	T7	Type MPR	Single	HS	—	—	—	—	—	CHX20086
17.75	3000	240	1	T	Type C2	Dual	—	K	Armor Cable Adjustable	Std. Plug	48	—	CHX20094
17.75	4500	240	1	T	Type C2	Single	HS	J	Spring Adjustable	Spade Lugs	60	Yes	CHX20098
23.75	6000	480	1	T7	Type MPR	Dual	—	K	Armor Cable Adjustable	Std. Plug	48	—	CHX20105
23.75	7500	480	1	T7	Type MPR	Single	HS	K	Armor Cable Adjustable	Std. Plug	60	—	CHX20112
23.75	9000	240	3	T7	Type EP	Dual	—	K	Armor Cable Adjustable	Std. Plug	60	—	CHX20118
23.75	12000	240	3	T7	Type EP	Dual	—	K	Spring Adjustable	Std. Plug	60	—	CHX20122
23.75	12000	480	3	T7	Type EP	Single	—	K	Armor Cable Adjustable	Std. Plug	48	—	CHX20132

Cast-In Heaters

Circulation Heaters

CHX-300 Series Circulation Heater



Standard Design Features

- ✳ *Seamless 316 SS Tubing for fluid flow*
- ✳ *Cast-In Tubular Heater*
- ✳ *Cast Aluminum heat exchanger body*
- ✳ *Operating pressure up to 3000 PSI*
- ✳ *Operating temperature up to 392°F (200°C)*
- ✳ *Type C2 (General Purpose) housing with standoff*

Optional Design Features

- ✳ *Process Thermocouple*
- ✳ *Overtemperature Thermocouple*
- ✳ *Type MPR (Moisture Resistant) or Type EP (Explosion Resistant) Housings*

Typical Applications

- ➵ *Solvent heating (MEK, NMP, ACT, EKC, others)*
- ➵ *Heating of Air, CO2, Nitrogen and similar gases*
- ➵ *Heating of non-flammable gases*
- ➵ *De-ionized water heating*
- ➵ *Steam generation*
- ➵ *Glycol heating*
- ➵ *Heating ink in printing*
- ➵ *Diesel and Fuel heating*
- ➵ *Packaging sterilization*
- ➵ *Analytical instrumentation*
- ➵ *Food and beverage heating*
- ➵ *Coating and Paint heating*

Construction

The CHX-300 circulation heater is a compact lightweight unit used for heating gases or liquids. The material being heated is pumped through the coiled seamless 316 SS tubing which has been cast into an aluminum body that acts as the heat exchanger. A tubular heating element is the heat source. The material being heated never comes into contact with the heating element.

Standard (Non-Stock) Sizes and Ratings

Heater Length (in)	Watts	Volts	Phase	Termination Type	Terminal Box Type	Tube Config.	Tube Fitting Type	Thermocouple				T-Stat	Part Number
								Calibration Type	Style	Termination Type	Length (in)		
13.5	3000	240	1	T7	Type EP	Single	—	J	Spring Adjustable	Std. Plug	48	—	CHX30012
13.5	3000	480	1	T7	—	Single	—	—	—	—	—	—	CHX30016
13.5	4500	240	1	T	Type C2	Single	—	K	Armor Cable Adjustable	Std. Plug	36	—	CHX30022
13.5	3000	208	1	T	Type C2	Single	—	J	Spring Adjustable	Spade Lugs	48	—	CHX30028
13.5	4500	240	1	T7	Type MPR	Single	HS	—	—	—	—	Yes	CHX30036
19.5	6000	240	1	T7	—	Single	—	J	Armor Cable Adjustable	Spade Lugs	60	—	CHX30044
19.5	6000	480	1	T	Type C2	Dual	—	K	Spring Adjustable	Std. Plug	48	Yes	CHX30048
19.5	7500	240	3	T7	Type MPR	Single	HS	—	—	—	—	—	CHX30054
19.5	7500	480	3	T	Type C2	Dual	—	K	Armor Cable Adjustable	Std. Plug	60	—	CHX30056
19.5	9000	480	3	T	Type C2	Single	HS	J	Spring Adjustable	Spade Lugs	48	—	CHX30062
25.5	12000	480	3	T7	Type MPR	Dual	—	K	Armor Cable Adjustable	Std. Plug	36	—	CHX30068
25.5	12000	480	3	T7	Type MPR	Dual	HS	K	Spring Adjustable	Std. Plug	60	—	CHX30071
25.5	12000	240	3	T7	Type EP	Dual	—	K	Armor Cable Adjustable	Std. Plug	48	—	CHX30075
25.5	18000	240	3	T7	Type EP	Dual	—	K	Spring Adjustable	Std. Plug	60	—	CHX30078
25.5	18000	480	3	T7	Type EP	Dual	—	K	Armor Cable Adjustable	Std. Plug	48	—	CHX30084