STARFLOW[™] Circulation Heaters

Circulation Heaters Available For Quick Shipment

The STARFLOW[™] circulation heater is engineered to heat a flowing gas stream to a maximum outlet temperature of 1000°F (537°C). The 316L stainless steel chamber houses a small diameter sheathed element, which allows quick response to both heat-up and cool down cycles.

Watlow's starwound, coiled cable heater provides extremely efficient and reliable heating by maximizing the contact area of the gas or fluid with the element. Because the element is sheathed, the unit can operate in gas streams requiring a clean environment and in atmospheres containing contaminants and moisture. This provides superior performance compared to units with internally exposed or open element wires.

Performance Capabilities

- Temperatures up to 1000°F (537°C), 316L stainless steel sheath
- Maximum watt densities to 30 W/in² (4.7 W/cm²)
- Maximum voltage to 240V

Features and Benefits

Small diameter heater

- Allows for quick response time
- Internal starwound element
- Provides fast, efficient heating
- **Sheathed element**
- Provides the ability to heat in clean or impure streams

Flexibility in configurations

- Allows adaptability to any process
- 316L stainless steel
- Provides a rugged and corrosion resistant construction

Electropolishing available on all wetted surface

- Reduces particulate contamination
- Note: contact factory for ultra-high purity applications
- Low pressure loss
- Minimizes flow restriction
- Note: not suitable for use as a pressure vessel

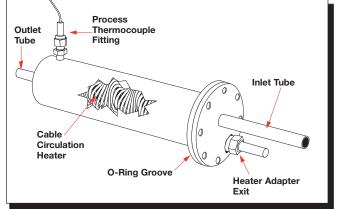
Type J or K thermocouples

Provides precise control and high-limit safety

Replaceable heater and thermocouple

- Reduces replacement cost
- Shipment from stock
- Reduces downtime

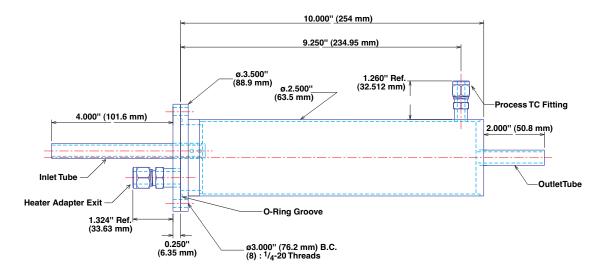




Typical Applications

- Semiconductor processing
- Curing and drying
- Electronics
- Heat shrinking
- Thermal forming/sealing





Ordering Information

To order, complete the code number to the right with the information below.

	1	2	3	4	5	6	7 ⊤_	8	9	10 1	11 12	2 13	3 14
	С	н	T		L			-		J	ΤT	Т	Т
3-4. Type of Inlet ET = ¼ in. (6 mm) O.D. tube JT = ½ in. (13 mm) O.D. tube													
5-6. Type of Outlet ET = ½ in. (6 mm) O.D. tube JT = ½ in. (13 mm) O.D. tube													
7-10. Heater Wattage 0375 = 120V, 375 W 0500 = 120V, 500 W 0750 = 120V, 750 W 1500 = 240V, 1500 W 2000 = 240V, 2000 W 3000 = 240V, 3000 W]				
11. Internal Thermocouple Calibration (Heater) J = Type J K = Type K													
12. Surface Finish of Assembly and Heater X = Unfinished E = Electropolished													
13. Process Thermocouple Calibration (Assembly) J = Type J K = Type K													
14. O-Ring Material —													

- $A = Viton^{\circ} 500^{\circ}F (260^{\circ}C)$
- $M = Alloy X750^{\circ} 1300^{\circ}F (704^{\circ}C)$
- T = Teflon[®] encapsulated Viton[®] 392°F (200°C)

Watlow[®] is a registered trademark of Watlow Electric Manufacturing Company. STARFLOW[™] is a registered trademark of Watlow Electric Manufacturing Company.

To be automatically connected to the nearest North American Technical Sales Office:

1-800-WATLOW2 • www.watlow.com • inquiry@watlow.com

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