# **MULTICOIL<sup>™</sup> Tubular Heaters**

## Multiple Coils and Thermocouples Packaged in One Sheath for Quick Installation

The tubular element with multiple coils and/or thermocouples inside one sheath from Watlow<sup>®</sup> answers the need for a versatile, innovative tubular heater. Watlow's patented method of packaging a thermocouple inside of a heater with one or more resistance coils, gives the ability to sense a heaters' internal temperature accurately, every time.

Moreover, this is the first tubular heater in the industry with three-phase capability. The three coil, three-phase heater will offer a compact package solution while delivering the full power required in a compact heater package. Previously three separate heaters would have been required to do the same job; therefore Watlow's MULTICOIL<sup>™</sup> heater capabilities save money.

## **Performance Capabilities**

- Watt densities up to 60 W/in<sup>2</sup> (9.3 W/cm<sup>2</sup>)
- Sheath temperatures up to 1600°F (870°C)
- 304 and 316 stainless steel sheath temperatures up to 1200°F (650°C)

## **Typical Applications**

- Foodservice
- Process
- Medical
- Milled groove
- Plastics
- Plating
- Oven heating
- Semiconductor



## **Features and Benefits**

#### Three-phase capability

• Results in one element versus three, lower amperage, reduced installation time and lower overall cost

#### Single-ended (Sensor not available with this package)

• Allows for mounting in a <sup>1</sup>/<sub>2</sub> inch NPT or <sup>3</sup>/<sub>4</sub> inch NPT fitting with three-phase capability

#### Multiple coil operations

- Reduces inventory by allowing dual voltage capability
- Versatile forming capabilities
- · Forms into many configurations

#### Internal construction with sensor

 Allows space savings because drilling and tapping of flange is unnecessary; plus, the interior thermocouple eliminates contamination buildup around the external sensing tip, reducing the possibility of false readings



## **Options**

### **Option A**



3-phase tubular, 0.475 and 0.490 inch diameter.

### **Option C**



1-phase tubular with one resistance wire and two thermocouples, 0.475 and 0.490 inch diameter.

## **Option D**



1-phase tubular with one resistance coil and one thermocouple, 0.375, 0.430, 0.475 and 0.490 inch diameter.

## **Specifications**

#### **Termination Styles**

 Lead wires 392°F (200°C) Sil-a-Blend<sup>®</sup> or 482°F (250°C) GGS.

#### **Moisture Seals (Required)**

Moisture seal options include:

- Epoxy with temperature rating up to 356°F (180°C). Typical applications include water/oil immersion.
- Lavacone with temperature rating up to 221°F (105°C). Typical application includes air heating.
- High-temperature ceramic rated up to 2800°F (1538°C).
- · Contact a Watlow representative for other moisture seal options.

#### Mounting options

- Mounting brackets
- Locator washers
- Mounting collars
- · Water-tight bulkheads

## **Option E**



1-phase tubular with three different one phase circuits, 0.475 and 0.490 inch diameter.

### **Option F**



1-phase tubular with two resistance coils, 0.375, 0.430, 0.475 and 0.490 inch diameter.

#### Maximum trim length

• 237 in. (6020 mm), heater designs with trim length greater than 120 in. (3048 mm) must be reviewed by your Watlow representative.

#### Sheath materials

 Alloy 600, 800, 840, 304 and 316 stainless steel, contact a Watlow representative for other sheath material options.

#### Internal thermocouple options

 Type K is used. Contact a Watlow representative for Type J thermocouple options.

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

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