

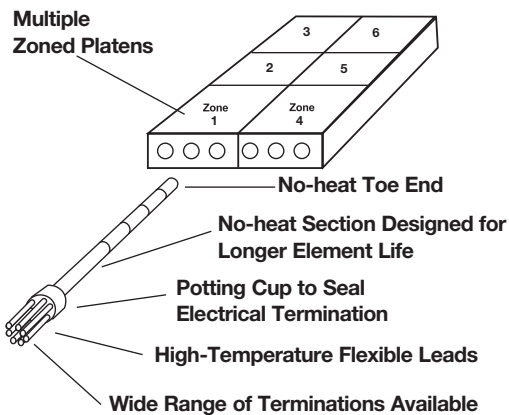
MULTICELL™ Insertion Heaters

Efficient Heat Dissipation and Long Life to Meet Your Highest Demands

The advanced design of the MULTICELL™ insertion heater from Watlow® offers three major advantages: extreme process temperature capability, independent zone control for precise temperature uniformity and loose fit design for easy insertion and removal.

Performance Capabilities

- Engineered to achieve sheath temperatures up to 2050°F (1120°C)
- Up to six independently controllable zones



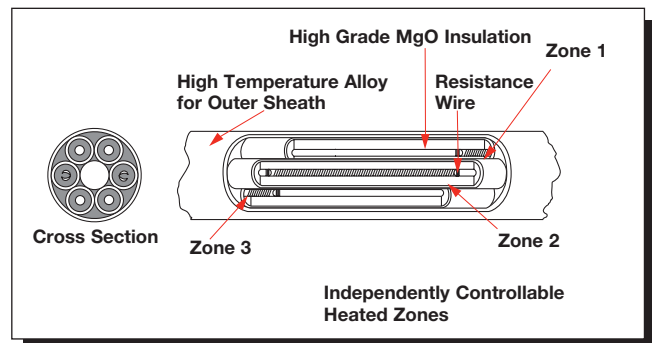
Features and Benefits

Multiple, independently controllable zones

- Allows process temperature uniformity not possible with any other single-sheathed heater

Radiant design of heater

- Allows for loose insertion in boiling holes and piping holes
- Permits easy removal and replacement with minimal down time since it will not bind or seize in the hole



Oxidized sheath

- Provides high emissivity and improves the heater's performance as oxidation increases

Individually metal-sheathed coils swaged into a larger, high-temperature alloy outer sheath

- Provides maximum protection against element burnout through the outer sheath

Quick disconnect plug and jack

- Permits fast replacement of individual elements while the press stays at operating temperature

Special bending capabilities

- Solves unusual machinery needs and keeps leads away from heated zones

Flexible leads up to 842°F (450°C)

- Protects termination from high temperature environment

Typical Applications

- Hot isothermal forming
- Soil remediation
- Hot forging dies
- Heated platens
- Super plastic forming
- Heated platens (single and multiple zones)
- Heat treating processes
- Super plastic forming with diffusion bonding
- Polysilicon ingots
- Hot gas generation
- Hazardous waste treatment systems

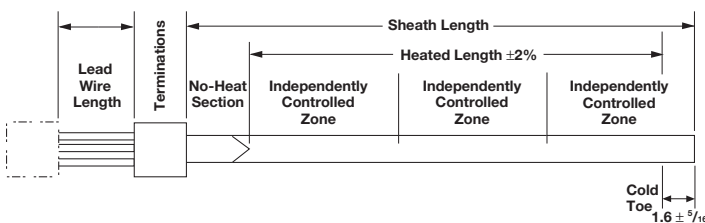
Definition of Terms

Cold Toe: A physical minimum requirement of $1\frac{5}{8} \pm \frac{5}{16}$ inch

Independent Zone: Up to three, separately controlled zones, which can be of varying lengths and wattages

Heated Length: The combined sum of all independent zones

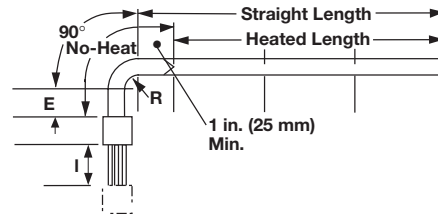
Wattage: Ratings are the combined sum of all independent zones



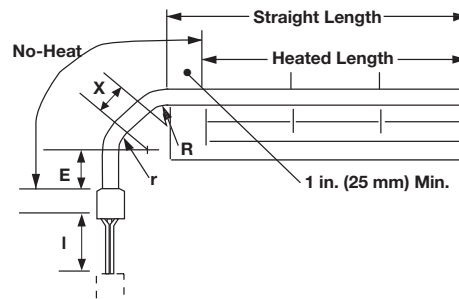
Physical Design Parameters

All bending of a MULTICELL heater is restricted to the cold area of the heater. All bend radii points must be 1 in. (25 mm) from the hot/cold junction.

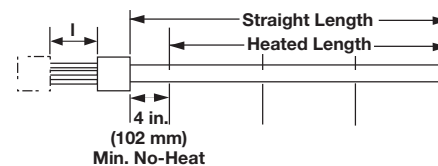
“L”



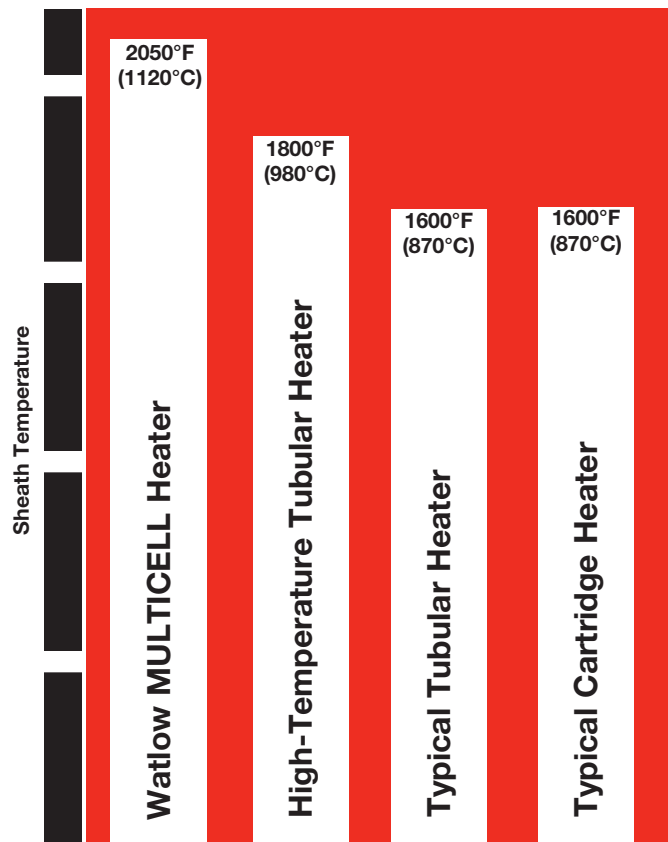
Drop



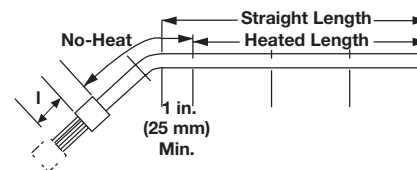
Straight



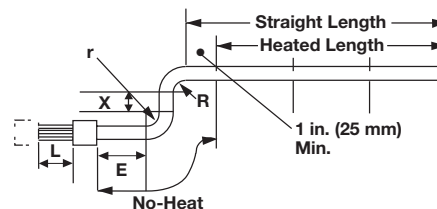
MULTICELL Heaters: The High Temperature Choice



Angle

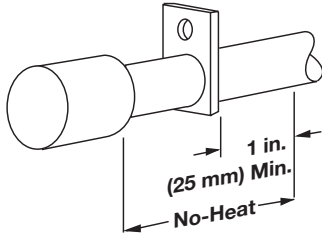


Crank

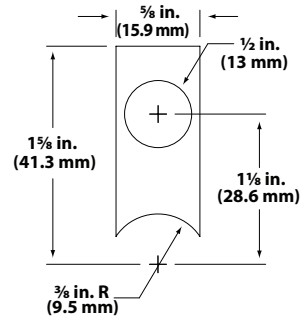


Tab Styles

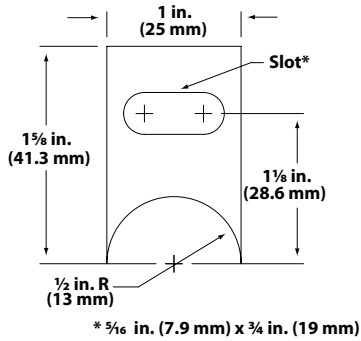
Full View



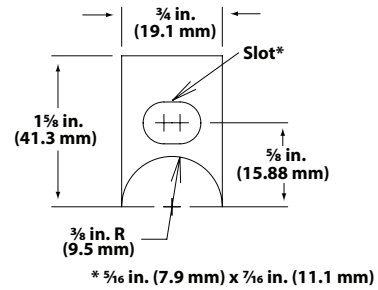
Style S1



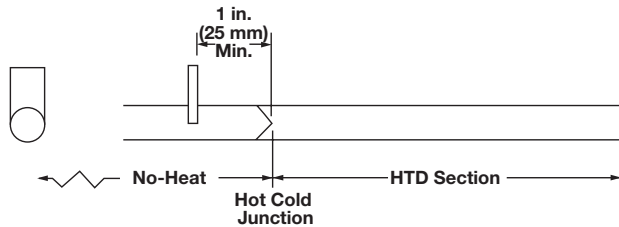
Style S2



Style S3



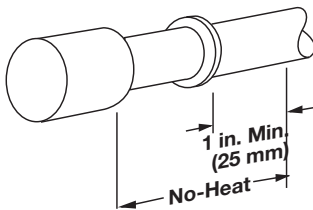
Weldments to the MULTICELL Heater Element



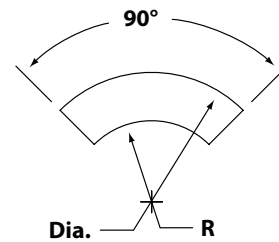
Tabs and rings are used to hold the heater in place and keep it from creeping. Available in carbon steel, 304 and 316 SS.

Ring Styles

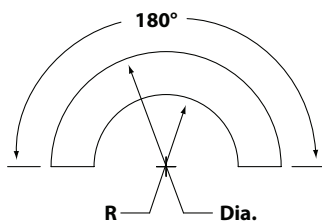
Full View



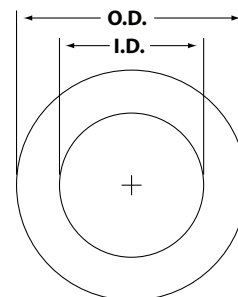
Style S4



Style S5

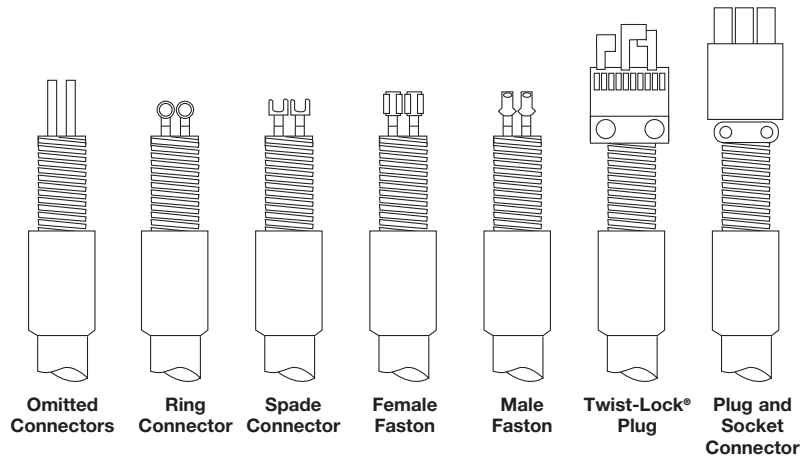


Style H1



Termination Assemblies

All termination assemblies are available with potting sleeves or cups, with or without armor flex lead wire protection. Please specify **potting vessel** and **lead cover option** when ordering.



Note: Termination illustrations shown with armorflex covering.

Options

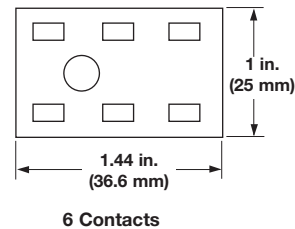
Plug and Socket and Twist-Lock® Plug Variations

Three zone heaters requiring a quick disconnect plug will typically be supplied with a six contact plug and socket. Twist-Lock® plug variations are typically supplied with single zone MULTICELL heaters. When ordering a Twist-Lock® plug, please specify the **type** as shown below.

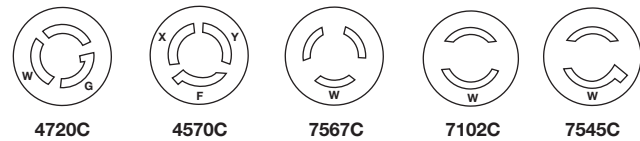
For any other plug variations, please contact your Watlow representative.

Note: Mating connectors are also available for plug terminations listed. Contact your Watlow representative.

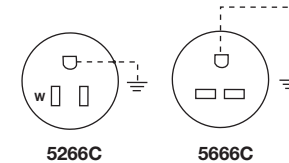
Plug and Socket



Twist-Lock®



Straight



Male Plug	Zones	Type	Voltage	Amperage	Blade Type
P406-CCT	3	6 wire	600	30	Straight
4570C	1	3 wire	250	15	Twist-Lock®
4720C	1	3 wire	125	15	Twist-Lock®
5266C	1	3 wire	125	15	Straight
5666C	1	3 wire	250	15	Straight
7102C	1	2 wire	250	20	Twist-Lock®
7545C	1	2 wire	250	15	Twist-Lock®
7567C	1	3 wire	125	10	Twist-Lock®

Watlow® is a registered trademark of Watlow Electric Manufacturing Company.
MULTICELL™ is a trademark of Watlow Electric Manufacturing Company.
Twist-Lock® is a registered trademark of Hubbell Incorporated.

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

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