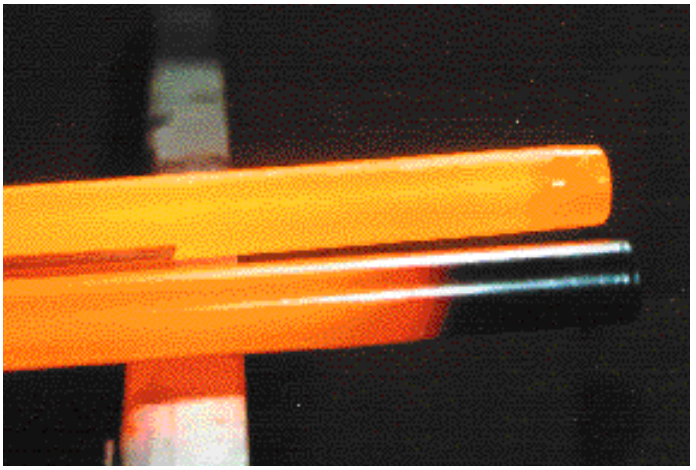
High Temperature Heater Ideal For New or Retrofit Applications Resulting In Sheath Temperatures To 1900˚F (1037˚C)



Watlow's new HOT-TOE multicell heater eliminates the unheated section typically found at the end of standard multicell constructions. Benefits of the HOT-TOE multicell are threefold: 1) heat to the full length of the assembly, 2) optimum heat distribution for extended heater life, and 3) double wall ground fault isolation.

Multicell heaters have always offered many advantages including extreme process temperature capabilities, independent zone control and a loose fit design for easy insertion and removal. Now Watlow's multicell heater line includes another valuable heater characteristic with the addition of the HOT-TOE multicell.

This HOT-TOE feature allows for optimum heat distribution with a lowered watt density for shorter length designs. By heating the full section of the unit, temperatures for internal wires are lower, therefore improving heater life. Due to the design of the HOT-TOE multicell, ground fault isolation over the heated portion can also provide improved heater safety.

Watlow's HOT-TOE multicell heaters can be engineered to achieve process temperatures to 1900°F (1037°C) and can satisfy 240 volt, single-phase power requirements for the process industry.

Designed to handle applications that demand high voltages and wattages, these multicell heaters have a rugged construction that permits the heaters to survive in conditions that would normally be lethal to many other heater types.

Applications

- SPF single zone platens
- Radiant heating
- Drying
- Environmental—VOC abatement
- Process air heating: duct heaters, circulation heaters
- Vacuum
- Flue gas cleaning (desulfurization)
- Fluidized beds
- Light metals extrusion

Features and Benefits

Inconel® 600, Incoloy® 800, or equivalent sheath material and a special internal construction

- Assures high temperature performance and corrosion protection in static air applications

Available in 0.935 inch diameter

- Configurable to existing tubular designs that may be experiencing short life

Single-phase, single zone, 240 volts

- Individual metal-sheathed coils swaged into high-temperature outer sheath
- Solves unusual machinery requirements

Single-ended termination lead wires

- Can be installed into flanges and screw plugs similar to standard product configurations

Bendable in standard multicell configurations

- Easy to apply in a wide variety of applications

Patent Pending

WATLOW

6 Industrial Loop Road
Hannibal, Missouri 63401 USA
Phone: +1 (573) 221-2816
Fax: +1 (573) 221-3723
Internet: www.watlow.com
e-mail: info@watlow.com

HAN-HTM-100

United States Sales Offices: **Atlanta/Greenville**, (770)908-9164 • **Austin**, (512)249-1900 • **Charlotte/Columbia**, (704)541-3896 • **Chicago**, (847)458-1500 • **Cincinnati**, (513)398-5500 • **Cleveland**, (330)467-1423 • **Dallas**, (972)620-6030 • **Denver**, (303)798-7778 • **Detroit**, (248)651-0500 • **Houston**, (281)440-3074 • **Indianapolis**, (317)575-8932 • **Kansas City**, (913)897-3973 • **Los Angeles**, (714)935-2999 • **Maryland/Virginia**, (410)840-8034 • **Minneapolis**, (612)431-5700 • **Nashville**, (615)264-6148 • **New England**, (603)882-1330 • **New York/New Jersey/Philadelphia**, (215)345-8130 • **New York, Upstate**, (716)438-0454 • **Orlando**, (407)351-0737 • **Phoenix**, (602)708-1995 • **Pittsburgh**, (412)322-5004 • **Portland,** (503)245-9037 • **St. Louis**, (314)878-4600 • **Sacramento**, (707)425-1155 • **San Diego**, (760)728-9188 • **San Francisco**, (408)980-9355 • **Seattle**, (425)222-4090 • **Tampa/St. Petersburg**, (813)926-3600 • **Tulsa**, (918)496-2826 • **Winston Salem/Raleigh**, (336)766-9659 • **Wisconsin**, (414)723-5990

Asian Sales Offices: **Australia,** +61 (3) 9335-6449 • **China,** +86 (21) 6229-8917 • **Japan,** +81 (03) 5403-4688 • **Korea,** +82 (02) 563-5777 • **Malaysia,** +60 (4) 641-5977 • **Singapore,** +65 777-5488 • **Taiwan,** +886 (0) 7-261-8397 **European Sales Offices:** **France,** +33 (01) 3073-2425 • **Germany,** +49 (0) 7253-9400-0 • **Italy,** +39 (02) 458-8841 • **United Kingdom,** +44 (0) 115-964-0777

Latin American Sales Office: **Mexico,** +52 (42) 17-6235

For other product information, call Watlow's FAX REPLY: **United States** +1 (800) 367-0430 • **Outside the United States** +1 (732) 885-6344

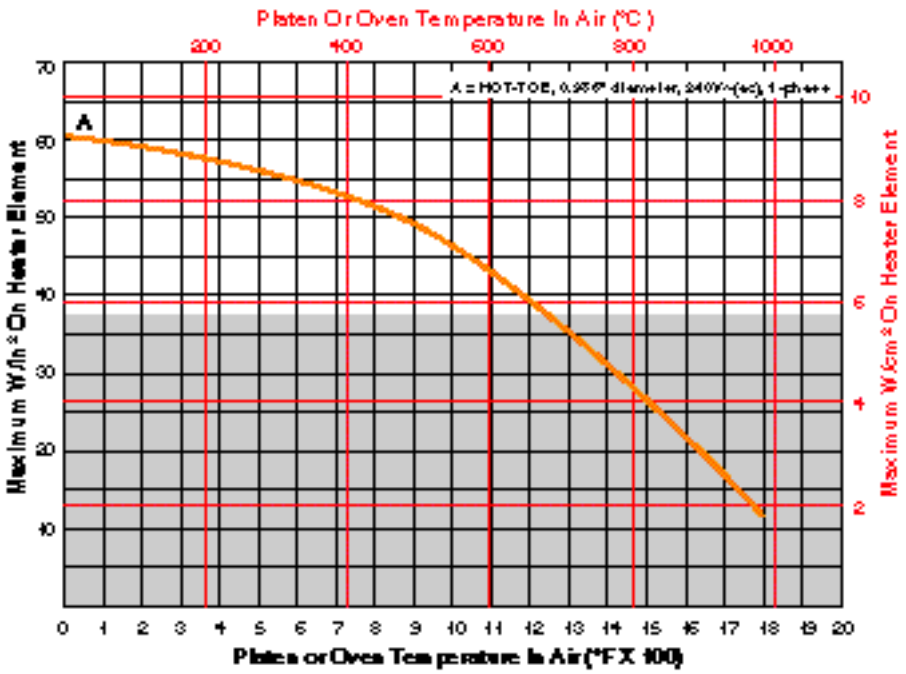
Standard Specifications

Diameter inches	Bending Style	Sheath Length Min./Max. inches	(mm)	Minimum No-Heat Length inches	(mm)	Total Heated Length Min./Max. inches	(mm)
0.935 Hot Toe	Straight	12	(305)	2	(51)	10	(254)
		66	(1676)			64	(1626)

Single Zone HOT-TOE

This chart should be used to verify the correct watt density for a platen or oven application assuming no air flow.

To use the chart, select platen or oven temperature from X axis. Find the intersection with curve A. Determine maximum watt density by reading left or right to intersection with Y axis.



Note: Shaded area is standard. Non-shaded area, consult factory.

* Other designs and voltages with higher temperature capabilities are available. Consult factory.

Ordering Information

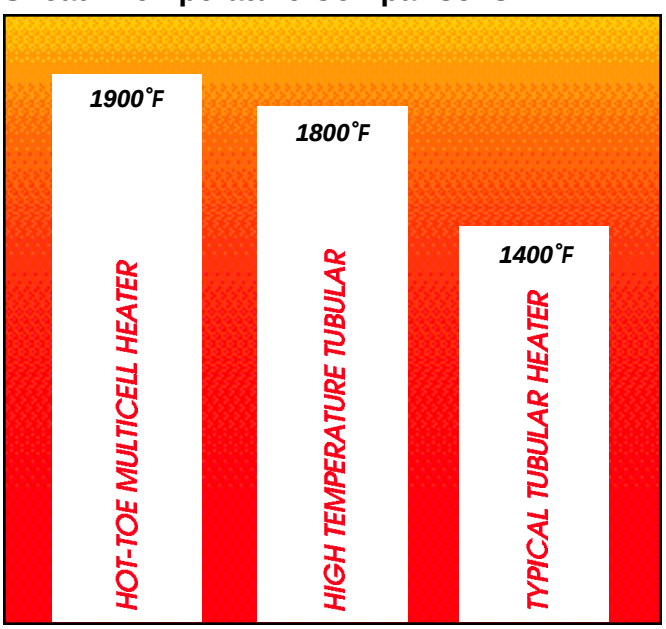
To order please specify:

- Volts
- Watts
- Heater sheath material
- Lead wire temperature rating
- Heated length
- No-heat length—lead end only
- Overall sheath length
- Formation—if desired
- Mounting option, stop bracket, etc.
- Process temperature

Inconel® and Incoloy® are registered trademarks of the Special Metals Corporation.

Your Authorized Watlow Distributor is:

Sheath Temperature Comparisons



*Assuming normal design practices.

Printed in the USA on Recycled Paper, 15% Postconsumer Waste