

MaxiZone High Temperature Insertion Heaters

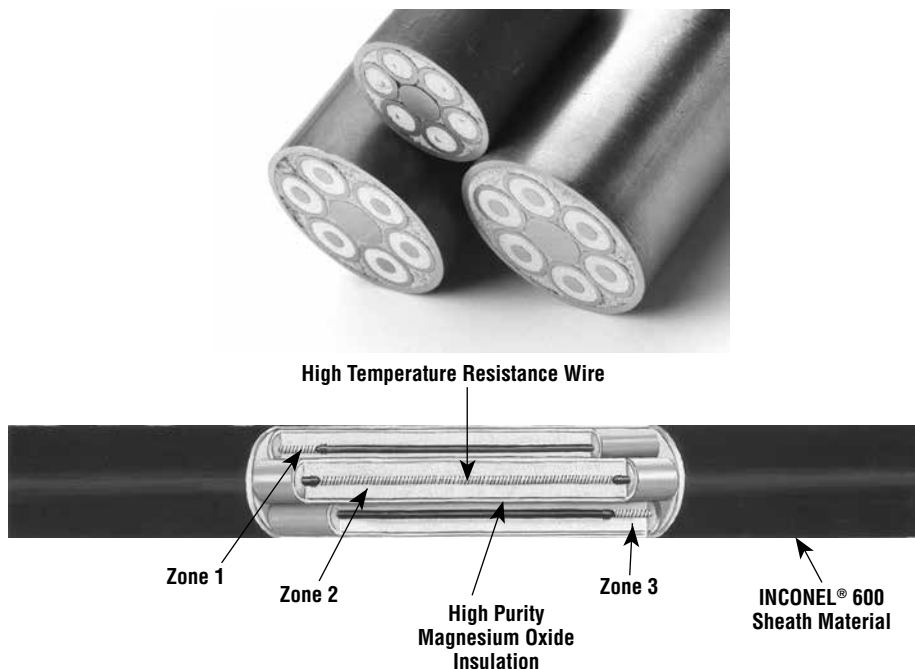
- Working Temperatures from 1500°F to 1800°F (815°C to 982°C)
- Inconel® 600 Sheath
- Exact, Uniform Temperatures with 2 or 3 Independently Controllable Zones
- Radiant Heat Transfer Allows Undersized Heaters for Easy Removal and Replacement
- Special Bending Capabilities
- Standard Diameter 0.495" (12.5 mm), 0.685 (17.4 mm) and 0.935" (23.75 mm) with Lengths of 18 Inches (457 mm) to 15 Feet (4572 mm)
- Quick Disconnect Plug and Jack

Description

The MaxiZone® High Temperature insertion heaters produce continuous sheath temperatures to 1,800°F (982°C). They are designed to achieve precise, uniform temperatures with two or three independently controlled heating zones along the length of the sheath. Radiant heat transfer enables MaxiZone heaters to be smaller than the openings in which they are to be placed for easy insertion and removal.

Applications:

- Zone control in high temperature platens
- Titanium or carbon fiber hot forming process (super plastic)
- Aerospace, aircraft manufacturing
- Metal die casting
- Super heated gas
- Fluidized beds catalytic reaction



MaxiZone Plug for 2 or 3 zone application.*



Two to Six separate metal sheathed elements are arranged and swaged in place in an INCONEL® 600 Outside Sheath

Specifications

Working Temperature.....	1,500° - 1,800°F (815°-982°C)
Avail. Diameters	.495 ± .005 in. (12.5 ± .127mm) (Single Zone Only)
	.685 ± .005 in. (17.4 ± .127mm)
	.935 ± .005 in. (23.75 ± .127mm)
	Other Diameters available. Consult Factory.
Lengths.....	18 in-15 ft. (457.2 -4,572 mm) ±3%
Heated Length Tolerance.....	Consult Factory
Sheath Material	INCONEL® 600
Resistance Tolerance	+10% / -5%
Wattage Tolerance.....	+5% / -10%
Power.....	30 to 50 W/in ²
Voltage.....	110 to 480 Vac

MaxiZone Quick Disconnect Plug

Part #	Zones	No. of Wires	Max. Voltage	Max. Amps
PCW-7183-1	2	4	250	15A/Zone
PCW-6570P	3	6	250	15A/Zone

*Other plugs are available for single zone applications.

Heater Diameter	Platen Hole Size	Minimum Heated Length Per Zone	Minimum Heated Length	Maximum Heated Length
.495" (12.5 mm)	.563 or .625" (14.3 or 15.9 mm)	—	8" (203.2 mm)	170" (4318 mm)
.685" (17.4 mm)	.75 or .875 (19.05 or 22 mm)	8" (203.2 mm)	8" (203.2 mm)	172" (4369 mm)
.935" (23.75 mm)	1 or 1.25" (25.4 or 31.75 mm)	8" (203.2 mm)	8" (203.2 mm)	165" (4191 mm)

*.495 diameter available in single zone only

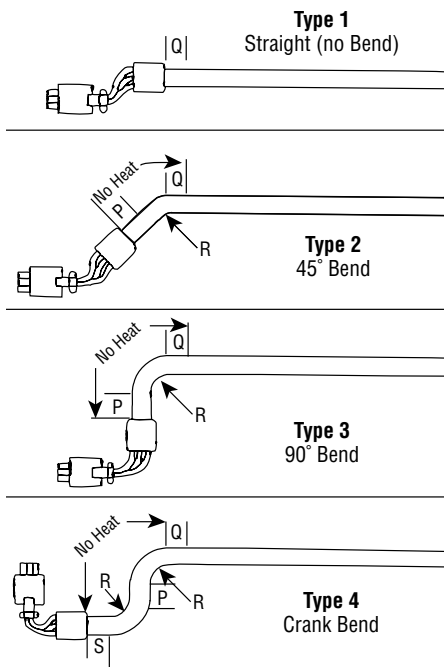
** Overtemperature thermocouple option for .685 and .935 diameters only

MaxiZone

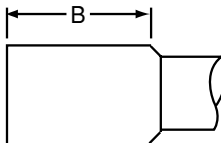
High Temperature Insertion Heaters (*cont'd.*)

Bend Type	Heater Diameter	P (Std. Min.)	R (Std. Min.)	Q* (Std. Min.)	S (Std. Min.)	Min Cold Section at Terminal End**
Type 1 Straight (No Bend)	0.495 in. (12.5 mm)	---	---	2 in. (50.8 mm)	---	Equal to Q
	0.685 in. (17.4 mm)	---	---	2 in. (50.8 mm)	---	Equal to Q
	0.935 in. (23.75 mm)	---	---	2 in. (50.8 mm)	---	Equal to Q
Type 2 45°	0.495 in. (12.5 mm)	4 in. (101.6 mm)	1.125 in. (28.5 mm)	1 in. (25.4 mm)	---	6 in. (152.4 mm)
	0.685 in. (17.4 mm)	4 in. (101.6 mm)	1.5 in. (38.1 mm)	1 in. (25.4 mm)	---	6.5 in. (165.1 mm)
	0.935 in. (23.75 mm)	4 in. (101.6 mm)	2.5 in. (63.5 mm)	1 in. (25.4 mm)	---	7.5 in. (190.5 mm)
Type 3 90°	0.495 in. (12.5 mm)	4 in. (101.6 mm)	1.125 in. (28.5 mm)	1 in. (25.4 mm)	---	7.25 in. (184.15 mm)
	0.685 in. (17.4 mm)	4 in. (101.6 mm)	1.5 in. (38.1 mm)	1 in. (25.4 mm)	---	8 in. (203.2 mm)
	0.935 in. (23.75 mm)	4 in. (101.6 mm)	2.5 in. (63.5 mm)	1 in. (25.4 mm)	---	9.75 in. (247.65 mm)
Type 4 Crank	0.495 in. (12.5 mm)	1.5 in. (38.1 mm)	1.125 in. (28.5 mm)	1 in. (25.4 mm)	2.5 in. (63.5 mm)	8.5 in. (215.9 mm)
	0.685 in. (17.4 mm)	1.5 in. (38.1 mm)	1.5 in. (38.1 mm)	1 in. (25.4 mm)	3 in. (76.2 mm)	10.25 in. (260.35 mm)
	0.935 in. (23.75 mm)	1.5 in. (38.1 mm)	2.5 in. (63.5 mm)	1 in. (25.4 mm)	4 in. (101.6 mm)	12 in. (304.8 mm)

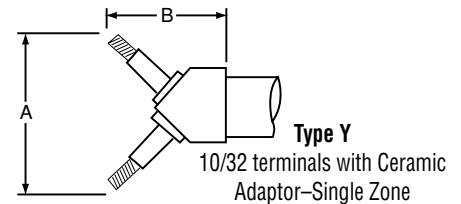
Bending Options



Transition Adaptors



Type L Leads
1, 2 or 3 Zone



MaxiZone Diameter	A	B
.495" (23.75 mm)	1-3/8"	1-1/2"
.685" (17.4 mm)	1-3/8"	1-1/2"
.935" (23.75 mm)	1-3/8"	1-1/2"

MaxiZone Diameter	A	B
.495" (23.75 mm)	1-1/4"	1-1/4"
.685" (17.4 mm)	1-1/4"	1-1/4"
.935" (23.75 mm)	1-5/8"	1-5/8"

Ordering Information

Complete the model number using the matrix provided.

Model

MaxiZone High Temperature Insertion Heater ¹				
Code		Diameter:		
50		0.495		
60		0.685		
90		0.935		
Code		Length		
XXA		Multiple Digit Length Code: "XX" refers to length in inches (whole number value) "A" refers to decimal equivalent portion of remaining length (example: 331 = 33.125 inches)		
Code		Serial Number		
0000		Assigned at Factory		
MZ	90	XXA	0000	Typical Model Number

¹ MaxiZone® heaters are design-specific products based on application. Consult factory.

² Other diameters available. Contact factory.