



## Cartridge Heater Solutions



## who is Nexthermal?



Nexthermal is a new name for a company that has focused passion and energy toward the creation of electric heating elements, systems and engineering services since 1986.

Nexthermal solves heating application challenges and creates dramatic process capability improvements for our customers.

Our customers' requirements, product development plans and competitive position in the marketplace drive our smart heat management innovation. Ingenuity, collaboration and a sense of urgency converts concepts to products and capabilities.

*If heat is vital to your process...  
add **Nexthermal** to your team!*

As you engage **Nexthermal** our goal is that you conclude we are:

- **Approachable** — Sincerely committed to help you.
- **Dynamic** — Responding with a sense of urgency.
- **Knowledgeable** — Your heat management expert.
- **International** — American roots with a global reach.



# Standard Cartridge Heater Configuration Chart

Diameter Tolerances		Construction		Thermo-couple		Sheath Material			Stainless NPT Size	
Standard Swage to Size Tolerance	Premium Centerless Grind Tolerance	Maximum Heater Length	High Watt Density	Medium Watt Density	J	K	SS321	Incoloy 800		eheat
.125"		.1240-.1201"	4.0"	●				●	Teflon Plug & Leads Only	
.250"	.248-.244"	.2488-.2472"	60.0"	●	●	●	●	●	●	.125"
.3125"	.3105-.3066"	.3114-.3098"	70.0"	●	●	●	●	●	●	.125"
.375"	.373-.369"	.3732-.3717"	80.0"	●	●	●	●	●	●	.250"
.500"	.498-.494"	.4972-.4957"	100.0"	●	●	●	●	●	●	.375"
.625"	.623-.619"	.6232-.6217"	100.0"	●	●	●	●	●	●	.500"
.6875"		.6866-.6850"	100.0"	●	●	●	●	●		.500"
.750"	.748-.744"	.7492-.7476"	100.0"	●	●	●	●	●		.750"
1.0"		.9984-.9969"	100.0"	●		●	●	●		1.00"
6.2mm		6.18-6.14mm	1524 mm	●	●	●	●	●		
6.5mm		6.48-6.44mm	1524 mm	●	●	●	●	●	●	.125"
7.0mm*		6.98-6.94mm	1524 mm	●	●	●	●	●		
8.0mm		7.98-7.94mm	1178 mm	●	●	●	●	●	●	.125"
9.0mm*		8.98-8.94mm	1178 mm	●	●	●	●	●	●	
9.5mm*		9.48-9.44mm	2032 mm	●	●	●	●	●	●	.250"
10.0mm		9.98-9.94mm	2032 mm	●	●	●	●	●	●	.250"
11.0mm*		10.98-10.94mm	2032 mm	●	●	●	●	●		
12.0mm*		11.98-11.94mm	2540 mm	●	●	●	●	●		
12.5mm		12.48-12.44mm	2540 mm	●	●	●	●	●	●	.375"
13.0mm*		12.98-12.94mm	2540 mm	●	●	●	●	●		
14.0mm*		13.98-13.94mm	2540 mm	●	●	●	●	●		
15.0mm*		14.98-14.94mm	2540 mm	●	●	●	●	●		
16.0mm		15.98-15.94mm	2540 mm	●	●	●	●	●	●	.500"
17.5mm*		17.48-17.44mm	2540 mm	●	●	●	●	●		
18.0mm*		17.98-17.94mm	2540 mm	●	●	●	●	●		
19.0mm*		18.98-18.94mm	2540 mm	●	●	●	●	●		.750"
20.0mm		19.98-19.94mm	2540 mm	●	●	●	●	●		.750"
22.0mm*		21.98-21.94mm	2540 mm	●	●	●	●	●		

## \*Non Standard Metric Diameters with Special Construction

		Temp. Rating		Movement	Moisture
		°F	°C		
Potting Options	Ceramic	1000	538	Good	Not Recommended
	Silicone - Standard	500	260	Excellent	Excellent
	Silicone - High Temp.	650	343	Excellent	Excellent
	Epoxy	600	315	Very Good	Very Good
	Teflon® Plug	450	232	Very Good	Not Recommended
Lead Options	Fiberglass (Standard)	482	250	Good	Not Recommended
	Teflon®	500	260	Excellent	Excellent
	Silicone	356	180	Excellent	Excellent
	Silicone Cable	356	180	Excellent	Excellent
	High Temp. Fiberglass	932	500	Not Recommended	Not Recommended

Lead Protection				Exit and Removal			
Fiberglass Sleeve	Braided Metal Sleeve	Armor Cable	Gas Proof Armor	Right Angle Exit	Right Angle Block	Flange	Knock Out Tab
							

This chart is representative of standard cartridge heater configurations. Please call Nexthermal at 263-964-0271 for additional options, special configurations, and assemblies.

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Industrial Heat Sources

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## Nexthermal heaters...



Improve effectiveness  
and life of electric  
vehicle batteries

Extend the capabilities of  
existing hot runner injection  
molding designs and assist  
new product development

Helped make disease  
detection of Malaria,  
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2000 other diseases  
faster, more affordable  
and portable

Participated in the 2010  
Olympics testing for  
controlled substances  
and creating snow

Enable mass  
spectrometry  
systems to detect  
parts per billion

Improve aerospace hydraulic  
system responsiveness and  
energy efficiency

Create energy savings  
opportunity and more  
hygienic design for food  
production companies

# nexthermal

*Imagine what we can do when we  
combine experience and innovate together.*

