



smart heat management

## Nextflex<sup>®</sup> Tubular Heaters

[www.nph-processheaters.com](http://www.nph-processheaters.com)

**Next Generation  
Flexible Tubular Heaters**



Made in the U.S.A.

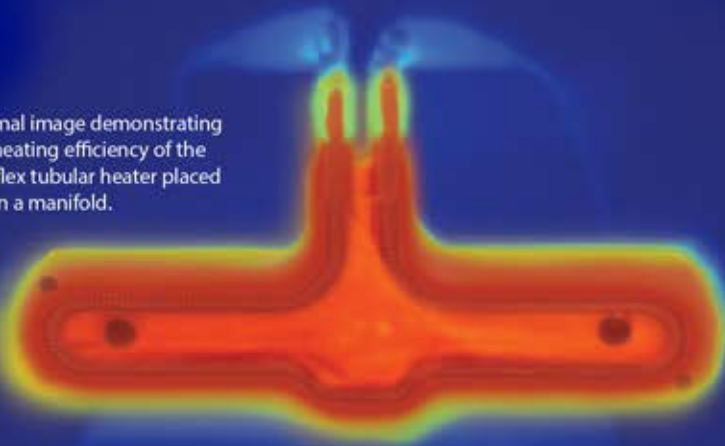


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# The Nextflex<sup>®</sup> Advantage

- User Formable**  
 Conveniently shipped in simple-to-install straight lengths.
- Same Day Shipping**  
 Nextflex heaters ship same day from stock for orders placed before 2 p.m. Eastern Standard Time.
- Supporting Tools**  
 Reduce installation time and improve performance with Nexthermal installation tools.
- Technical Support**  
 Nexthermal can assist you in selection, installation advice, and improving application performance.

Thermal image demonstrating the heating efficiency of the Nextflex tubular heater placed within a manifold.



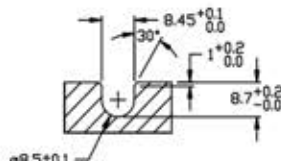
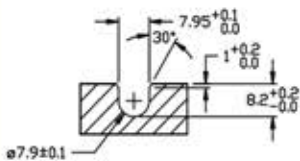
Nexthermal can add custom connections to your Nextflex.

## Installation by Pressing into a Groove

Dimensions are in mm.

**Ø 8.2 mm Heater**  
Nominal Ø 8.0 Groove

**Ø 8.7 mm Heater**  
Nominal Ø 8.5 Groove



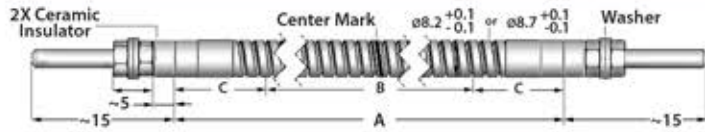
Compression Grooves

## Typical Technical Specifications

Minimum Bending Radius (Inside Ø)	R 10 mm
Maximum Temperature	700C (1292F)
High Volt Stability	1000 VAC
Insulation Resistance	> = 5M @ 500 VDC
Leakage Current	< = 0.5mA @ 253 VAC
Wattage Tolerance	±10%
Max Voltage	250 VAC
Diameter Tolerance	Nominal Ø ± 0.10 mm
Length Tolerance	±1.5%

# Nextflex Stocking List

All Nextflex heaters are 230V. Connections: M4



A: Overall heater length B: Heated length  $\pm 1.5\%$  C: Unheated length 30 mm  $\pm 5$  (35 mm not bendable)

## Decoding Nextflex Part Numbers



Length	Heated Length	8.2 mm Diameter Part Number		8.7 mm Diameter Part Number	
		Part Number	Wattage	Part Number	Wattage
300 mm	240 mm	80-0300	560W	85-0300	650W
350 mm	290 mm	80-0350	675W	85-0350	750W
400 mm	340 mm	80-0400	795W	85-0400	900W
450 mm	390 mm	80-0450	910W	85-0450	1050W
500 mm	440 mm	80-0500	1025W	85-0500	1150W
550 mm	490 mm	80-0550	1145W	85-0550	1300W
600 mm	540 mm	80-0600	1260W	85-0600	1450W
650 mm	590 mm	80-0650	1380W	85-0650	1600W
700 mm	640 mm	80-0700	1495W	85-0700	1750W
750 mm	690 mm	80-0750	1615W	85-0750	1900W
800 mm	740 mm	80-0800	1730W	85-0800	2050W
850 mm	790 mm	80-0850	1845W	85-0850	2200W
900 mm	840 mm	80-0900	1960W	85-0900	2350W
950 mm	890 mm	80-0950	2080W	85-0950	2500W
1000 mm	940 mm	80-1000	2195W	85-1000	2650W
1050 mm	990 mm	80-1050	2316W	85-1050	2800W
1100 mm	1040 mm	80-1100	2430W	85-1100	2930W
1150 mm	1090 mm	80-1150	2545W	85-1150	3060W
1200 mm	1140 mm	80-1200	2665W	85-1200	3190W
1250 mm	1190 mm	80-1250	2780W	85-1250	3320W
1300 mm	1240 mm	80-1300	2895W	85-1300	3450W
1350 mm	1290 mm	80-1350	3015W	85-1350	3580W
1400 mm	1340 mm	80-1400	3130W	85-1400	3600W
1450 mm	1390 mm	80-1450	3245W	85-1450	3600W
1500 mm	1440 mm	80-1500	3365W	85-1500	3600W
1550 mm	1490 mm	80-1550	3480W	85-1550	--
1600 mm	1540 mm	80-1600	3600W	85-1600	--
1650 mm	1590 mm	80-1650	3600W	85-1650	--
1700 mm	1640 mm	80-1700	3600W	85-1700	--
1750 mm	1690 mm	80-1750	3600W	85-1750	--
1800 mm	1740 mm	80-1800	3600W	85-1800	--
1850 mm	1790 mm	80-1850	3600W	85-1850	--
1900 mm	1840 mm	80-1900	3600W	85-1900	--
1950 mm	1890 mm	80-1950	3600W	85-1950	--
2000 mm	1940 mm	80-2000	3600W	85-2000	--
2050 mm	1990 mm	80-2050	3600W	85-2050	--
2100 mm	2040 mm	80-2100	3600W	85-2100	--

To convert metric values to imperial, divide by 25.4 (Example:  $500 / 25.4 = 19.685$ )

● Indicates Nextflex part numbers available for same-day shipping on orders placed by 2 p.m. EST.

## Best Practices

- Refer to the Nextflex expansion factors (lengthening of heater as it is installed into curved sections) to calculate required heater size.
- Always use a hard Nylon® hammer when forming into the groove to avoid deforming the casing.
- The last 35mm of the heaters' unheated sections should be installed straight. Do not bend cold section sticking outside of the manifold.
- Cover plate or retaining clips recommended to hold heater in place for best results and heat transfer.
- All installations must be electrically grounded.
- Heated lengths must be within the manifold groove.

## Recommended Expansion Chart

(Pressed and Potted Installation)

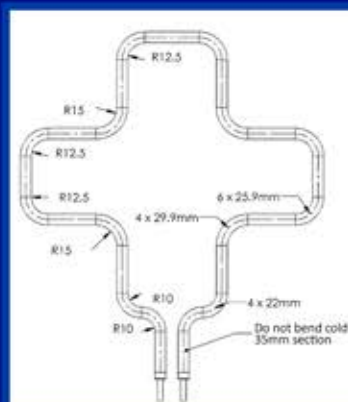
As you form a Nextflex in a groove, specifically in a radius, the heater will grow. The tighter the radius, the greater the growth.

## Expansion Factors (Pressed and Potted Installation)

Diameter	R 10	R 12.5	R 15	> R 15
8.0 mm	.92	.93	.94	.96
8.5 mm	.94	.95	.95	.96

Because the Nextflex will grow during installation, you will need a shorter starting heater length to compensate. When calculating, multiply the groove centerline arc length of each bend by the above expansion factors to determine the appropriate Nextflex length.

Add these resulting numbers together, along with those of any straight lengths. (Straight lengths do not expand during installation and do not need to be adjusted.) This will be the actual length of the heater required for proper installation.



This diagram is an example of a centerline arc length, illustrating the necessary values required to determine heater length.

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## Nextflex® Heater Installation

**Measurement Prep** (These steps can be skipped if you already have the center of the groove marked.)



### Measurement 1

Press a cord into the manifold groove (a 24-2 extension cord works well).



### Measurement 2

Mark the location of the groove starting and ending points on the cord.

**Note:** Because the heater length will grow during installation, consult the expansion chart on page 2 to ensure proper heater selection.



### Measurement 3

Measure the length between the two marks and make a third mark at the center point.



### Measurement 4

Press the cord back in the groove, starting with one groove end line at the end of the manifold groove. Install to the center point of the groove and mark the center point on the manifold. You are now ready to install the Nextflex.

## Installation Instructions



### Step 1

Starting at the center of the groove, use the Nextflex forming tool to bend the Nextflex heater at the center mark consistent with the tool bend.



### Step 2

Hold the Nextflex heater directly above the groove at the point of installation. Strike the Nextflex heater hard to seat it well. Form and install in 1 to 2 inch sections (25 to 50 mm) in short lengths to prevent rebending. Always start by installing the heater at the center mark at the center location of the groove.



### Step 3

It is important to make sure the Nextflex heater is directly above the groove prior to striking. Form and install in 1 to 2 inch sections (25 to 50 mm).

**NOTE:** Heater is flexible due to annealing. Multiple bends in the same location work harden the heater. For best results, form the heater as precisely as possible prior to installing in the groove.



### Step 4

Keeping the heater flat and controlling the forming tool with your free hand, bend curves so they are directly above the groove.

**IMPORTANT:** Make sure the straight section of the groove is fully installed prior to forming your bend.



### Step 5

One strong strike is more effective than two soft strikes. If your groove dimensions are correct, you will not damage the internal heater.



### Step 6

The Nextflex staking tool is a key component to seat the heater properly, improve heat transfer and maximize heater life. Strike hard to stake every 3/4 inch ≈ 20 mm.