



HEATED SAMPLE LINES

Neptech Inc. manufactures Flexotherm™ Heated Sample Lines expressly for use in the chemical analysis of exhaust gases.

Our heated lines are designed to be tough enough to endure the rigors of life in a test cell.

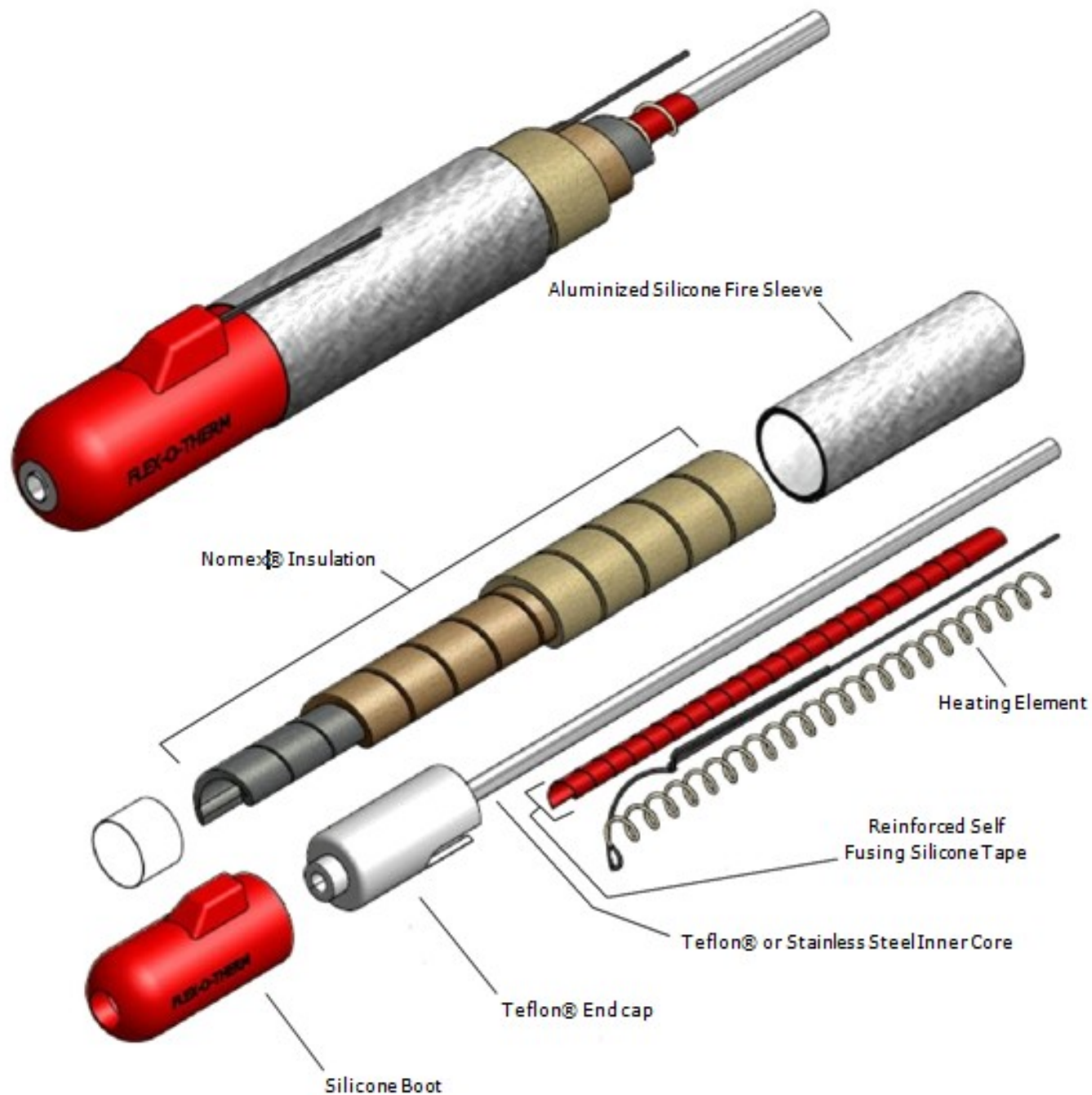
FEATURES

- High performance insulation and pressure tested hose cores
- Nearly indestructible hose-end caps
- Heating elements are made of high grade heat conducting alloys
- Extreme flexibility in any temperature conditions
- Inner sample cores of PFA, Teflon™, PTFE Teflon™, or 316 Stainless Steel
- Customer specified temperature range
- Stainless Steel braid provides outstanding resistance to heat, pressure, pulsing, flexing and vibration
- The positive braid lock ensures that strain is absorbed by the braid and not the core
- Rapid access to electrical terminals and tube junctions
- Innovative Re-Core design for quick repair on damaged or contaminated sample core
- Variety of operational voltages

TECHNICAL INFORMATION

Length (meters)	Watts	Amps at 120 VAC	Amps at 230 VAC
1	49	0.41	0.205
2	98	0.82	0.41
3	148	1.23	0.615
4	197	1.64	0.82
5	246	2.05	1.025
6	295	2.46	1.23
7	344	2.87	1.435

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Series	Tube Material	Tube Size	Voltage	Sensor Type	Operational Temperature	Exterior Sleeve Type	Port Type	Options	Line Length	Lead Length
Series	GT - Operates at 376°F ± 20°F (191°C ± 11°C) GD - Operates at 257°F (125°C) GS - Designed to Customer Supplied Specifications									
Tube Material <small>(Non SS Overbraid Teflon® Product Available)</small>	E - PTFE Teflon® PE - PEEK S - 316 Stainless Steel EPS - Electropolished Stainless Steel					P - PFA Teflon® F - FEP CS - Corrugated Stainless Steel (specify size) N11 - Nylon 11 (specify size)				
Tube Size	<u>Teflon®</u> 4/2 - 1/4" O.D. x 1/8" I.D. (0.635cm x 0.318cm) 4/3 - 1/4" O.D. x 3/16" I.D. (0.635cm x 0.476cm) 6/4 - 3/8" O.D. x 1/4" I.D. (0.953cm x 0.635cm) 6/5 - 3/8" O.D. x 5/16" I.D. (0.953cm x 0.794cm)					<u>Stainless Steel</u> 4 - 1/4" O.D. x 0.035" Wall (0.635cm x 0.089cm) 6 - 3/8" O.D. x 0.035" Wall (0.953cm x 0.089cm) 8 - 1/2" O.D. x 0.035" Wall (1.27cm x 0.089cm)				
Voltage	<u>Power</u> A - 110 / 115 / 120 VAC B - 208 VAC C - 220 / 230 / 240 VAC D - 440 / 450 / 460 VAC					<u>Power Connector</u> A - 7 Pin AMP™ (Power Pins 3-5) 10 Amp Max Load T - Mini Twist Lock (NEMA ML2-15) (standard) W - Straight-Blade (NEMA 5-15) (typical wall outlet) M - Molex 3-Pin N - None, Flying Leads S - Special / Custom (specify NEMA code or Connector P/N)				
Sensor Type and Placement	E - E-Type Thermocouple J - J-Type Thermocouple K - K-Type Thermocouple R - RTD					N - T/C Non-Lead Side L - Lead Side				
Operational Temperature	Specify in Degrees _____ (please specify °F or °C)									
Exterior Sleeve Type	M - Black Mesh S - Aluminized Rust-Red Silicone CT - Corrugated Tubing					A - Aluminized Gray Silicone AC - Armored Cover				
Port Type	MX - Mex (specify size, length, etc.) 6S - 3/8" (0.9525cm) Tube Stub 4S - 1/4"					8MS - 8mm Tube Stub				
Options	P - Profiled w/ Data (Specify Process) SL - Slaved each end SN - SilcoNert® Coating (Ammonia Resistant)									
Line Length	Customer Specification (Please specify in inches or meters)									
Lead Length	Customer Specification (Please specify in inches or meters)									

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Warning: Please read instructions carefully before operating with this product.

Before using the Flexotherm™ Heated Sample Line in your application, please refer to the harness type you specified in your build and follow the suggestions for proper usage below:

Slave Harness: If the line was built with a “slave” harness, confirm proper connection. Slave Harnesses utilize a RED loom covering. These harnesses are used for small connection heaters or hot pockets. These feeds provide live power when the heating element is on. There is no other form of control on the RED harness. Exercise caution and assure the load connected to this harness conforms to the line’s operating temperature and duty cycle.

Feed-Through Harness: If the line was built with a “Feed-Through” harness, confirm proper connection. Feed-Through harnesses utilize a BLUE loom covering. These are basically a built-in extension cord assembly that includes an AC Power Lead and an associated thermocouple extension line. There are no connections to the heated line power or temperature sensor. These harnesses are used to control another device (Line, Filter, Hot Pocket, etc.) that may be attached to the end of the heated line. One end of the harness must be connected to a separate temperature controller with the other end connected to the auxiliary device.

While using the Flexotherm™ Heated Sample Line in your application, please adhere to the following recommendations to ensure that your line is not damaged.

Avoid Combustibles: Never operate in a combustible or wet environment. This line is not suited for combustible material or gases.

Compatibility: Properly connect the line to a Neptech Inc. Temperature Controller.
(Note: Neptech Inc. cannot guarantee compatibility with other types of temperature controllers,) (Use only PID Capable Controllers)

Connections: Prior to applying power, make sure the temperature sensor is properly connected

Placement: Avoid direct contact of lines. Excess heat will damage and overheat the line. This will cause line failure



Avoid crushing, tugging, or kinking the line. Damage to the heating element or core may occur.



Do not cut or modify the line in any way.



Place Heated Lines in a way as to avoid walking over, tripping, hazards, or driving over the line.