

UNITHERM™ HEATED HOSE PRODUCTS

SERIES 100 ELECTRICALLY HEATED HIGH TEMPERATURE STAINLESS STEEL TUBING

Description

UNITHERM's series 100 hoses feature a smooth bore, stainless steel tube, which is electrically heated for operation to 625°F (329°C). The heated tubing is bendable for use in fixed applications where flexibility is not a requirement. The heating element is nickel alloy wire; spiral wound to extremely close tolerances, providing optimum temperature uniformity throughout the entire length. The heating element is insulated within multiple layers of high temperature, electrical insulation, which features excellent dielectric properties. All hoses come standard with ½" reinforced fiberglass insulation and are available with tough, extruded polyurethane jacket for outdoor use. All hoses are supplied electrically and hydraulically complete, ready to use.

Features

- Operating Voltage

Any single-phase voltage to 480 VAC. Depending on length hoses may be ordered to operate on 240 or 480 VA, Three-phase.

- Power Density

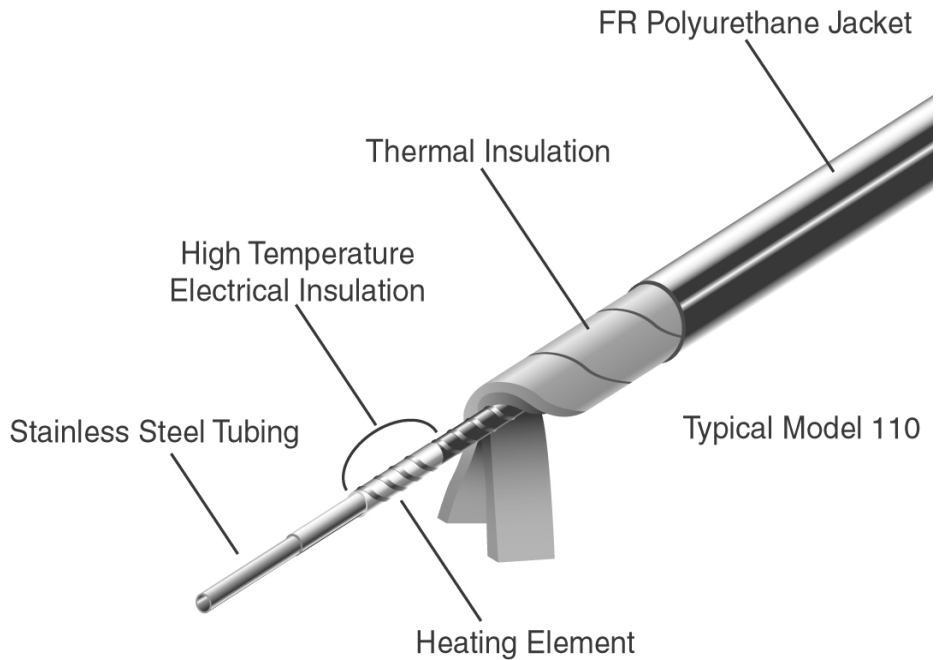
Up to 200 watts/ft. Power Density is based on the desired operating temperature, lowest ambient temperature and size of hose.

Temperature Control

Series 100 hoses must be controlled (except for the self-limiting (SL) version) to maintain the desired operating temperature. A temperature sensor is installed on the OD of the core during construction and, unless otherwise specified, will be installed 3' from the power end of the hose.

Dekoron/Unitherm's core expertise is thermal management. We build devices to maintain temperature or retard heat loss. Our expertise is what goes around the core. The expertise we attain in core material selection comes from successful use in similar applications. The ultimate responsibility for material selection is the customer's responsibility.

Form Series 100HH - 040903



This picture shows only one of many constructions available

How to order Series 100

Model No.	Tube Size	Hose Length Feet	Temperature Sensor	Operating Voltage	Are Tube Length (Inches)
110	From Specification Chart	1 ft. Increments	J= Type J Thermocouple K= Type K Thermocouple T= Thermistor R= RTD (100 OHM) N= No Sensor	Indicate actual Voltage	
EXAMPLE			110-6-10ft.J-120-3		

Typical Application	
Application	Type of use
Gas Sampling	Stack Gas Engine Emissions Instrumentation
Product Transfer	Foods Oil Fats Chemicals Wax
Viscosity Control	Paint Ink Coatings

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Model 110 Specifications – to 625°F (329°C)

Tube Size	Outside Diameter	Nominal Finished Diameter	Maximum Operating Pressure*	Minimum Bend Radius	Nominal Weight Lb/Ft.
2	1/8"	1.125"	1800 PSI	5"	.35
4	1/4"	1.375"	1800 PSI	10"	.40
5	5/16"	1.500"	1650 PSI	11"	.45
6	3/8"	1.620"	1500 PSI	12"	.55
8	1/2"	1.750"	1200 PSI	14"	.60

* At 625°F (329°C)

Temperature Differential Chart (Data based on Size No. 6 Hose)	Watts/Foot	Delta T 1/1" Insulation
**	5	180°F (82°C)
	10	240°F (116°C)
	15	340°F (171°C)
	20	440°F (227°C)
	25	535°F (279°C)
	30	615°F (324°C)

** Larger Sizes Available upon request.

Construction

Core Material	Stainless steel tubing smooth bore, type 316, welded with various wall thickness (specify with order). Seamless tubing available upon request.
Heating Element	Spiral-wound, nickel alloy wire, fully encapsulated within electrical insulation.
Electrical Insulation	1/2" reinforced fiberglass
Thermal Insulation	Indoor Service – Abrasion resistant braided polyester sleeve
External Jacket	Outdoor Service – tough, extruded polyurethane
Fittings	Model 110 comes standard with bare tube ends for attachment with compression-style fittings. The stainless steel tubes extend past the end of the heated assembly approximately 1-1/2" unless otherwise specified.
Power/Control Cable	Standard length is six (6) feet. Longer lengths are available. Optional electrical connectors can be provided.

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