

# ARCTIC TRACE<sup>®</sup>

## INSTALLATION INSTRUCTIONS

### Type GUAT26D Hazardous Location Power Connection and Butt Splice Kit for Temperature Limiting Submersible Heating Cable



SEAL OFF



SEALING FIBER

JUNCTION BOX



SEALING COMPOUND



GROUND TERMINATION



SEALING GLAND

**WARNING:** to prevent electric shock or fire, this product must be installed correctly. Water ingress must be avoided before and during the installation. Ground fault equipment protection must be used on each heating cable circuit as arcing may not be stopped by conventional circuit breakers. Before installing the product read the instructions completely. Do not use substitute parts or vinyl electrical tape.

Kit Contents	
1	3/4" GE Enclosure
1	3/4" Conduit plug
1	Sealing fiber Dam
1	352C 3/4" Hazardous Water Proof Strain Relief Sealing Gland
1	10-12 AWG Crimp Grounding Ring Connector
1	Sealing Compound
1	3/4" Seal Off sealing fitting
1	3/4" Short Nipple



Class 1, Div. 1 & 2, Groups C and D:  
 Class I, Zone 1 & 2, Groups IIB, IIA  
 Class II, Div. 1 & 2 Groups E,F,G  
 Class III  
 240Vac Maximum

# INSTALLATION

## **⚠WARNING**

*Hazard of Electric Shock. Disconnect all power before starting. All installations must be effectively grounded in accordance with the National Electrical Code to eliminate shock hazard.*

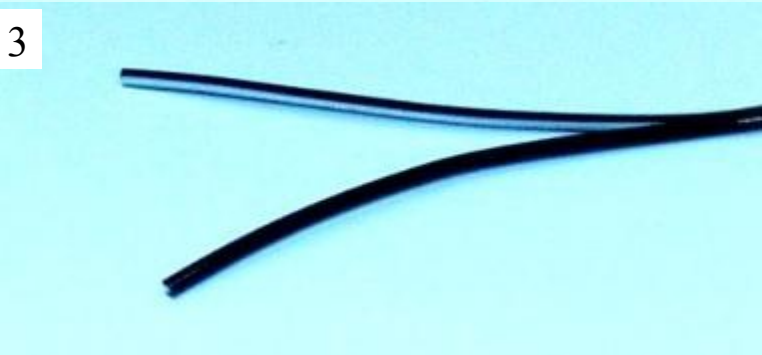
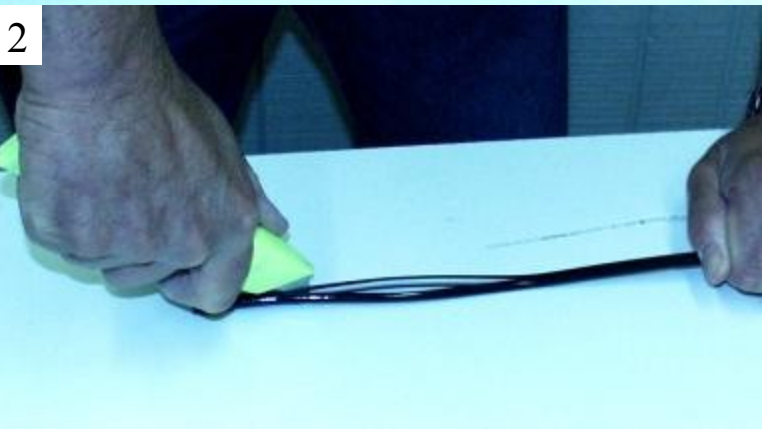
## **⚠WARNING**

*The system designer is responsible for the safety of this equipment and should install adequate back-up controls and safety devices with their electric heating equipment. Where the consequences of failure could result in personal injury or property damage, back-up controls are essential.*

## **⚠WARNING**

*Explosion Hazard. Turn off power before removing junction box cover at all times.*

1. Place Arctic Trace on suitable wood working surface. Pull back metallic braid Approximately 6" to 8".
2. Insert sharp razor knife in the center of the Arctic Trace between the two 12 gauge carrier bus wires. With the blade firmly imbedded in the wood below carefully pull the Arctic Trace through the blade separating the two 12 gauge bus wires
3. Strip back the two over jackets and remove them. Strip off any remaining heater element assuring it will not contact the metal braid.
4. Carefully tape the junction between the stripped wire and power buss wires with 3M Temflex 1700 Vinyl electrical tape or equal isolating any exposed metal heater element insuring no metal heating element will make contact with the ground braid.



# INSTALLATION

5. Slip the metallic braid back over the bus wires and use a pencil or blunt instrument to open the braid. Pull the bus wires through the braid as shown.
6. Cut to length needed and Carefully strip 1/4" of insulation from the bus wires as shown in Fig B.
7. Assemble GUAT26D as shown. Pull wire and braid through sealing grommet. Position as shown in seal off Fig D. Crimp the ground connectors to metallic braid using a suitable crimping tool using Panduit CT-100 crimping tool or equivalent. Prep the power connection buss wires by striping of 1/4" Teflon insulation. Connect ground brain to junction box with ground screw provided.
8. Before proceeding check electrical integrity of the circuit by connecting 500 VDC Megger between power buss wires and ground braid. Do not use a Megger with an excess of 2500 VDC. Minimum acceptable reading should be 20 megohms per circuit, regardless of length.
9. Dam sealing fitting as show in CHICO X-Fiber kit. Mix and pour sealing compound in sealing fitting in accordance with instructions furnished with compound.
10. Connect power and ground as shown in Fig F. Connect with GFCI or GFEP as required by State and local Codes.
11. For Butt splice use kit UGAT26D and as many EYSX21SP wire seal off kit as needed to make the splice of power connection Fig B.



FIG A

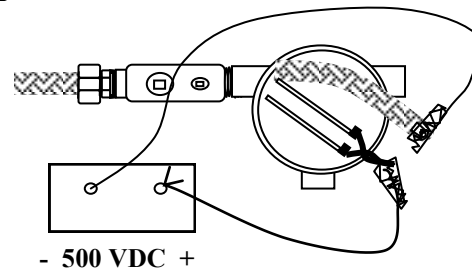
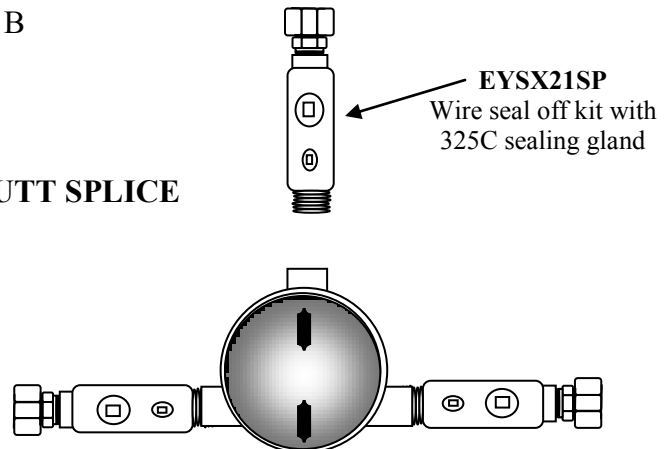


FIG B

**BUTT SPLICE**



# INSTALLATION

FIG B

Heat Trace Power cold lead detail

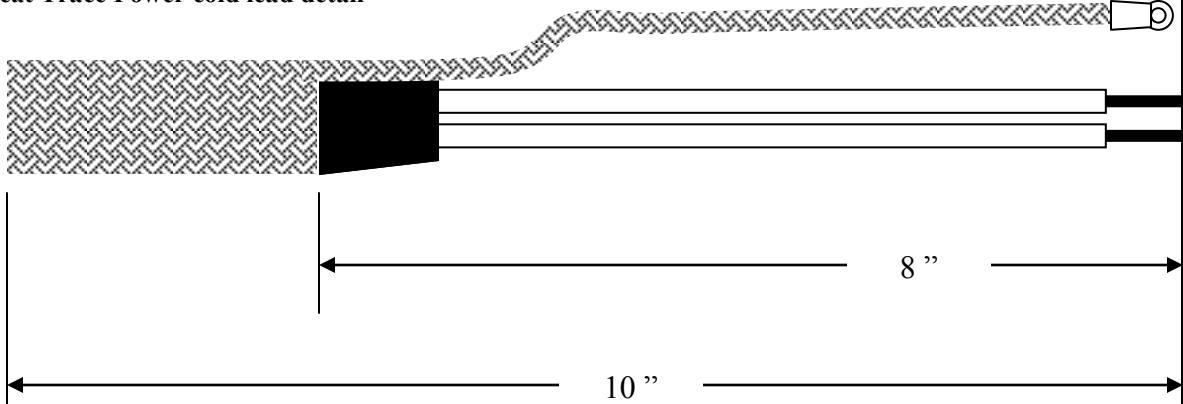


FIG D

Seal off assembly detail PN EYSX21SP

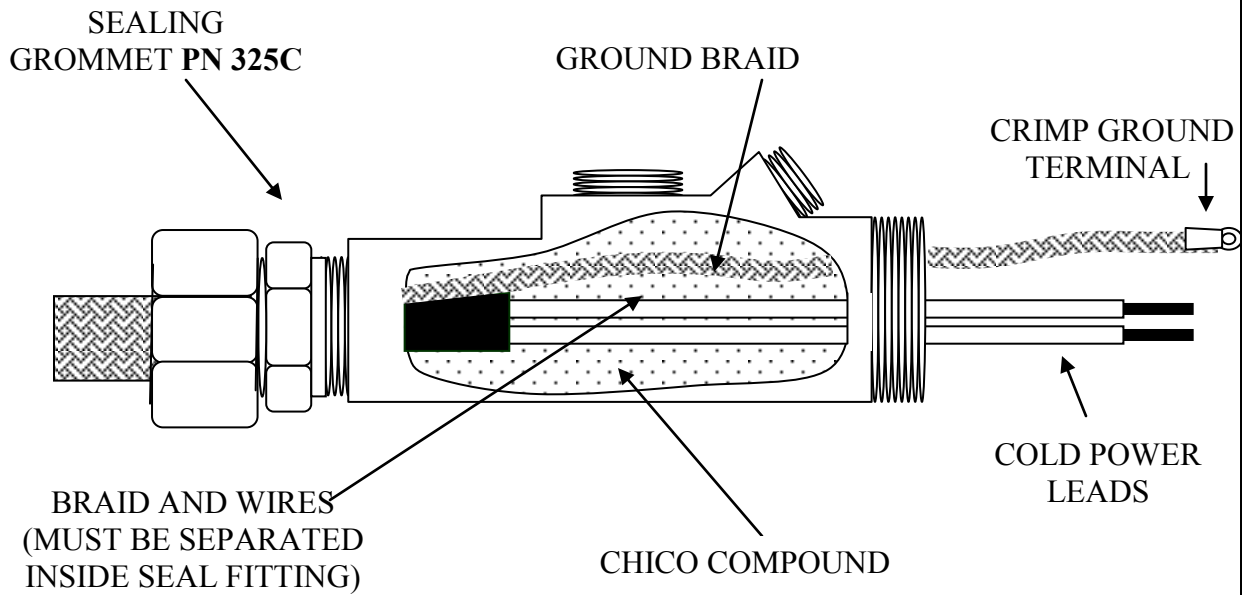
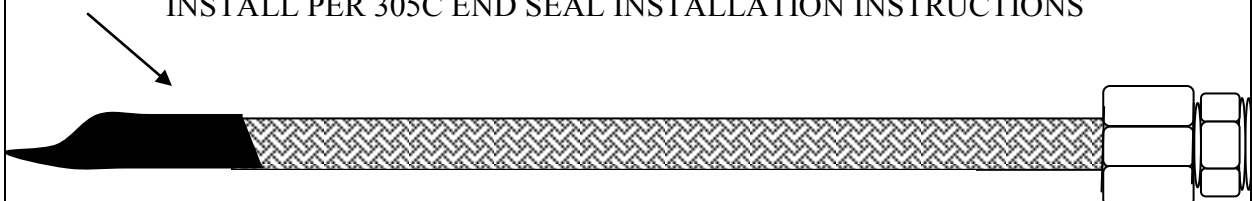


FIG E

End Seal Termination detail

FOR END TERMINATION OF EXPOSED HEATING CABLE USE PN 305CHAZ  
INSTALL PER 305C END SEAL INSTALLATION INSTRUCTIONS



# Surface Mounting or Inside the Pipe or Vessel Installation Hazardous Locations

Arctic Trace may be installed inside pipe or vessel or on pipe or vessel surface for freeze protection or viscosity control of process fluids or gases.

**Arctic Trace Installation:**

Cut Arctic Trace cable to length and install on pipe or vessel surface or inside pipe or vessel. Refer to Arctic Trace installation instructions.

**Power Connection:**

Connect heat trace to power using a GUATU26D hazardous location power connection kit. Install as shown in Fig G for heat tracing application inside pipe or vessel. Install as shown in Fig H for heat tracing application on pipe or vessel surface.

**Heat Trace End Seal:**

Install 305C water proof end seal to any exposed heat

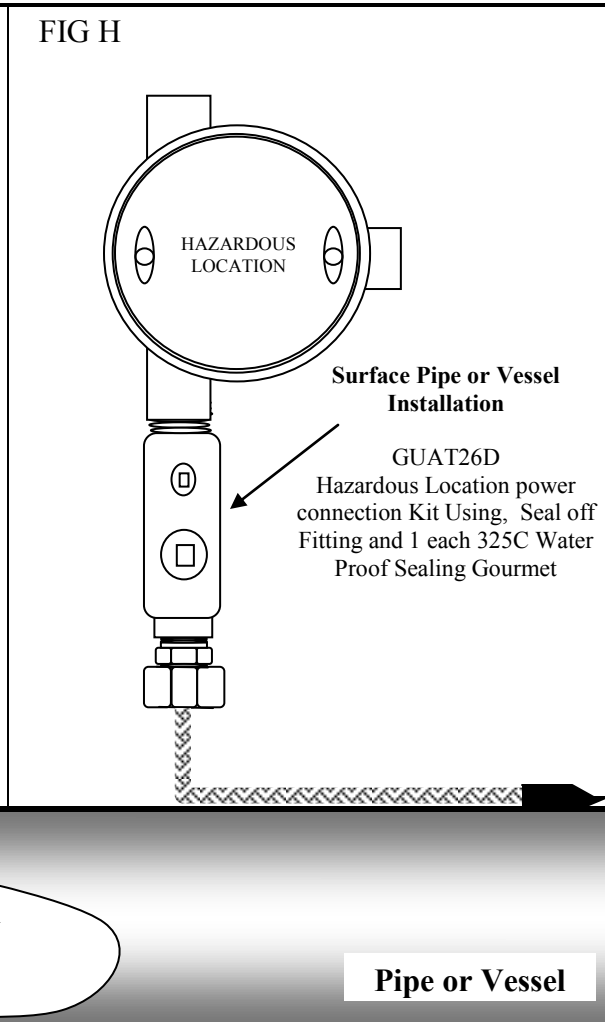
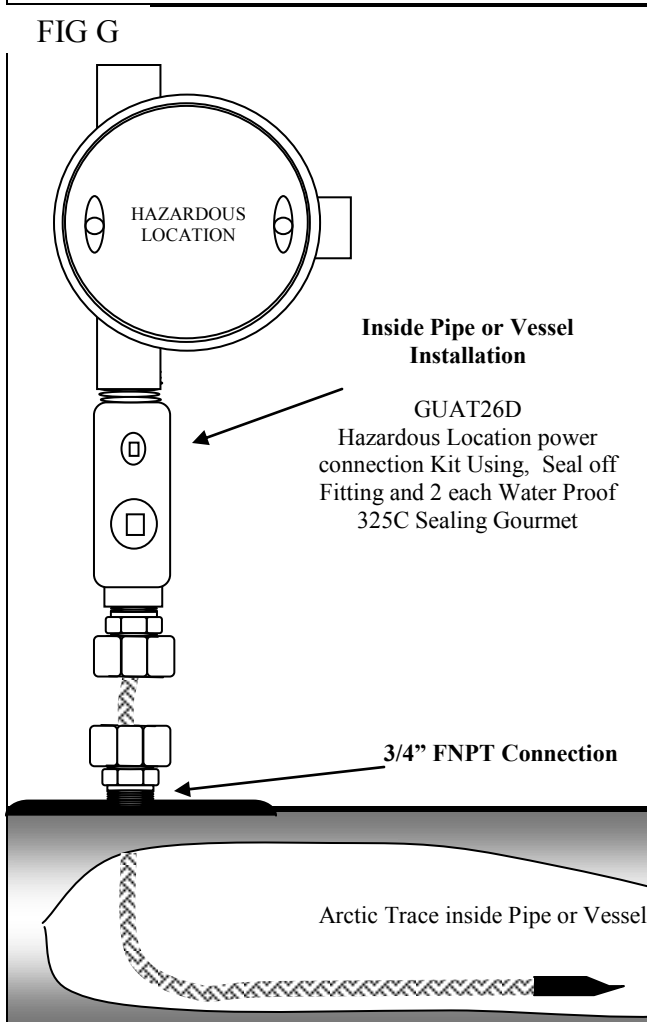
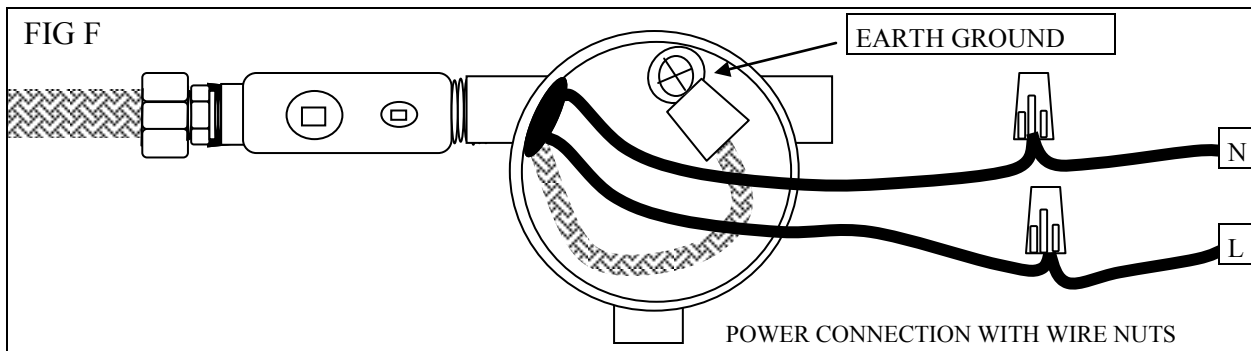
trace end of line in accordance with end seal kit installation. The kit will provide the required electrical insulation, braid coverage and stop and water liquid or gas infiltration into heating cable.

**Code Compliance:**

All wiring and safety devices need to be installed in accordance with State and Local codes.

**Heat Trace wiring:**

Power connection should be connected in the junction box using wire nuts and crimp ground fitting shown in Fig F.



**Pipe or Vessel**

# One Year Limited Warranty

du Alaska hereby warrants to the original purchasing consumer that its Arctic Trace heating cable is free from defects in material and workmanship for a period of one (1) year from the date of original installation. du Alaska's obligation under the terms of this limited warranty shall be limited to repairing or replacing, at du Alaska's option, free of charge, F.O.B. from its factory, any part or parts of the Arctic Trace heating cable which in its sole judgment is found to be defective; and providing further that the claim be made within one (1) year from the date of original installation and said part or parts be returned as directed by du Alaska at the time the claim is made.

This warranty applies to installations in the open ambient air. The warranty shall also apply to installation in clean water under a pressure of no more than 200 PSIG if the heat seal cap has been sealed to the wire by hot air gun welding in such a manner that no leak exists between the heat seal cap and the able Tefzel cover. No warranty whatsoever exists in any other installation or manner of installation.

All information concerning the product supplied by du Alaska is furnished upon the express condition that the customer shall make its own assessment to determine the product's suitability for a particular purpose.

**WARRANTY EXCLUSIONS.** *Except as expressly stated herein and to the fullest extent permitted by law, we shall not be liable for direct, indirect, incidental, consequential or other types of damages arising out of resulting from the purchase or use of the product. This Limited Warranty is in lieu of all other warranties, express or implied, specifically including, but not limited to, implied warranties of merchantability or fitness for a particular purpose.* The remedies under this warranty are only as set forth herein (except as to the extent they are required by any applicable laws) and du Alaska neither assumes nor authorizes anyone to assume for it any other obligations. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the foregoing limitations or exclusions may not apply to you. In such states, liability shall be limited to the extent allowed by state law. We do not warrant this product against normal wear and tear, unauthorized modifications or alterations, improper use, improper maintenance, accident, misuse, negligence, theft, loss or damage from outside causes.

## Hazardous Locations Accessories:

352C	Hazardous Locations 3/4" water proof strain relief pressure fitting.	TXR	Thermostat
		TXL	Thermostat
EYS2116SP	Hazardous Locations seal off kit.	GU	Power Connection and splice Boxes
GUAT26C	Hazardous Locations power connection and splice kit	FXC	Power Connection and splice Boxes
		FXS	Tumbler Switches
GUP	Hazardous Locations Junction boxes	FXS	Ground Fault Interrupter
FXCS	Pilot Light	FXB	Power Connection and Splice Boxes
305C	Hazardous Locations water proof end seal termination kit.	206C or 207C	Ordinary location water proof strain relief strain relief pressure fitting

### **CAUTION**

**This product must only be installed by a qualified electrician, who fully understands electrical equipment placement, and must never under any circumstance be placed in service without the use of an adequate ground fault circuit interrupter to protect personnel from shock or injury.**

**After this equipment has been placed in service it must be tested to ensure all wiring and safety devices are working.**

**All National, State, and Local Electrical Codes must be followed.**

**If this product is not installed properly fire, death, or injury may result.**



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