NELSON™ HEAT TRACING SYSTEMS

HASK-S HAZARDOUS AREA SEAL KIT

INSTALLATION INSTRUCTIONS

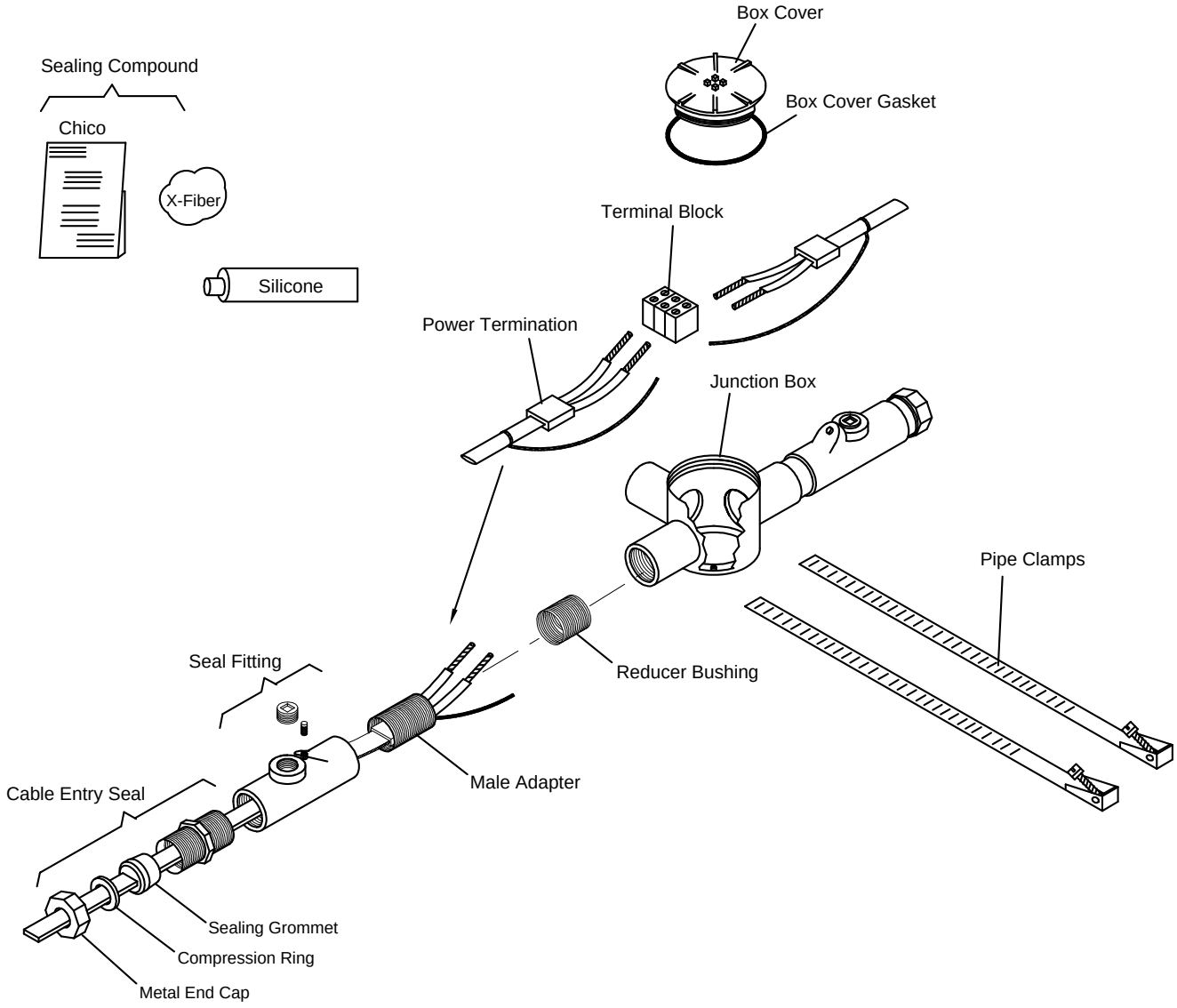
FOR DIVISION 1 CABLE SPLICE TERMINATION & EXPLOSION PROOF SEAL

DESCRIPTION

The HASK-S Hazardous Area Seal Kit provides the cable termination and explosion proof seal parts needed to make all the in-line splice electrical connections associated with all Nelson Heat Tracing Systems' self-regulating heater cables. Minimum installation temperature –40°C (-40°F).

KIT CONTENTS

- 1 Junction Box
- 1 Box Cover Gasket
- 1 Tube of Silicone
- 1 Sealing Compound
- 1 X Fiber
- 2 Pipe Clamps
- 2 Seal Fittings
- 2 Male Adapters
- 2 Reducer Bushings
- 2 Power Terminations
- 1 Terminal Block
- 2 Cable Entry Seals
- 1 Conduit Plug



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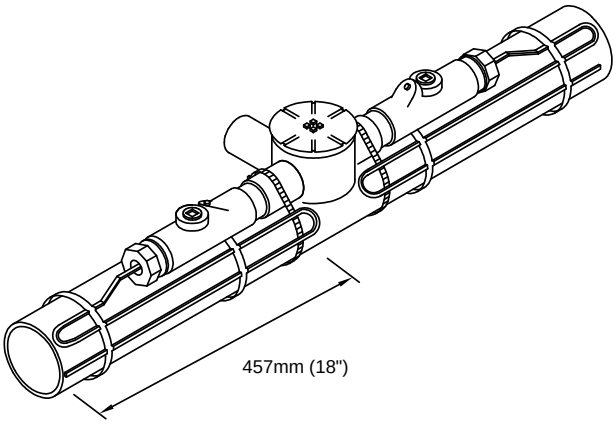
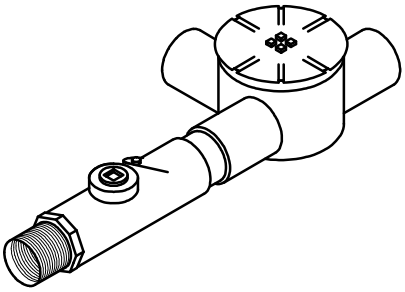
JUNCTION BOX CONNECTION



❶ Allow 457mm (18”) of heater cable for each side to compensate for heat loss of the termination kit.

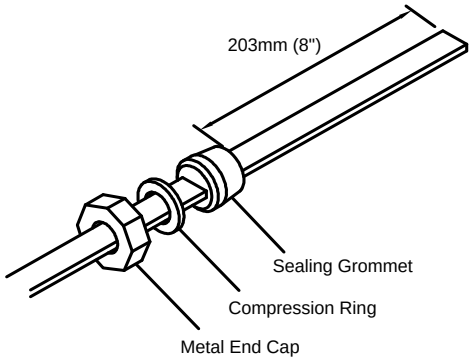


❷ Thread the reducer bushing into the junction box. Then thread the male adapter into the reducer bushing. Finally, thread the seal fitting into the male adapter. Tighten to a minimum of 5 full threads of engagement.

Note: If the seal fitting is to be mounted in vertical position, mount with the slanted small hole plug upwards.

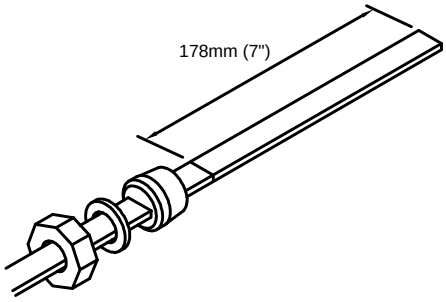
❸ Remove the metal end cap, black compression ring and sealing grommet from the cable entry seal and thread the cable entry seal into the seal fitting. Tighten to a minimum of 5 full threads of engagement.

❹ Repeat steps 2-3 for the other seal fitting.



❺ Slide a metal end cap, compression ring and sealing grommet over each heater cable. Position each sealing grommet 203mm (8”) from each heater cable end.

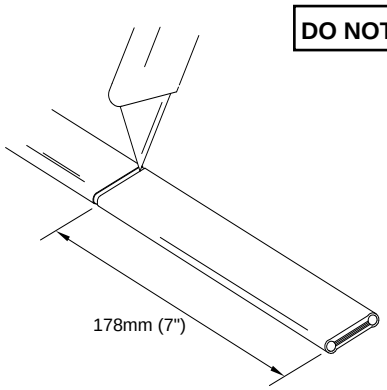
Note: Each metal end cap, compression ring and sealing grommet must be oriented to fit correctly into each cable entry seal.



❻ Prepare all heater cables for termination. Proceed to *“Overjacket Stripping Procedures”* on sheet 3.

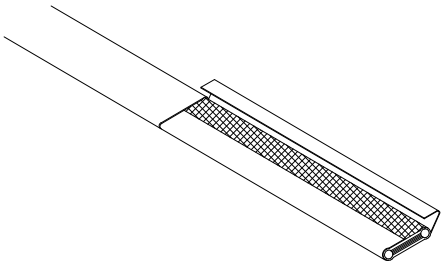
OVERJACKET STRIPPING PROCEDURES

⚠ WARNING:
DO NOT CUT BRAID

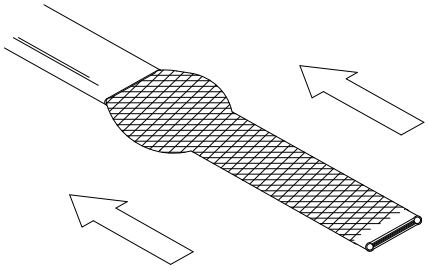


❶ Lightly cut around heater overjacket 178mm (7") from the end. Bend cable to break overjacket.

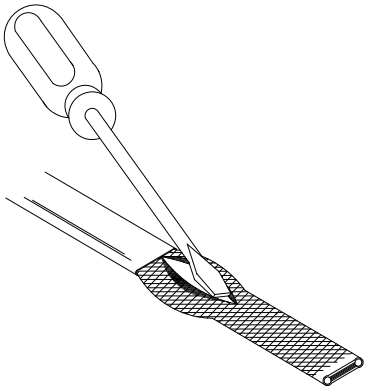
❷ Lightly cut overjacket up the center between first cut mark and the cable end. Bend cable to break overjacket.



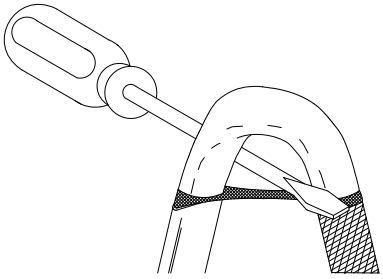
❸ Remove overjacket from heater cable.



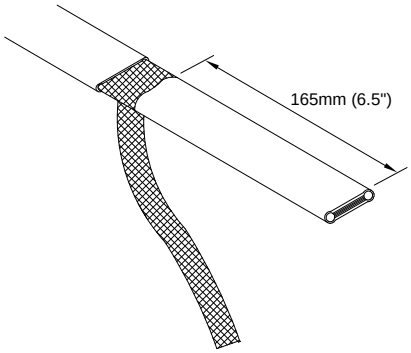
❹ Move braid back toward the overjacket, creating a bulge.



❺ At the bulge, separate the braid to make an opening.



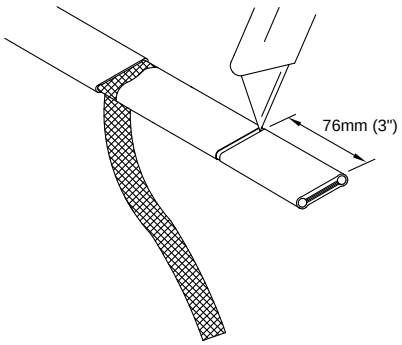
❻ While bending the heater cable, work it through the braid opening.



❼ Pull the braid tight.

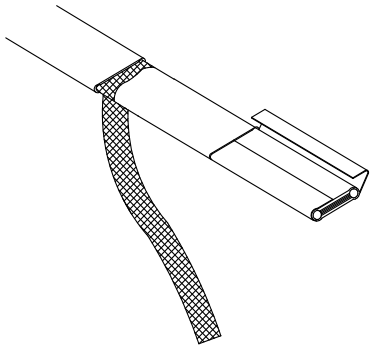
❽ Proceed to *"Outer Jacket Stripping Procedures"* on sheet 4.

OUTER JACKET STRIPPING PROCEDURES

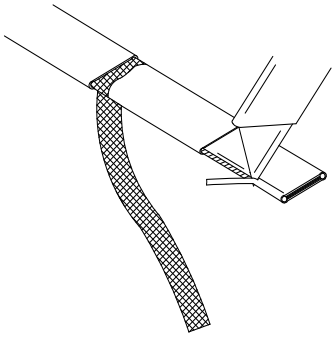


❶ Lightly cut around heater outer jacket 76mm (3") from the end. Bend cable to break outer jacket.

❷ Lightly cut the outer jacket up the center between the first cut mark & the cable end. Bend cable to break outer jacket.



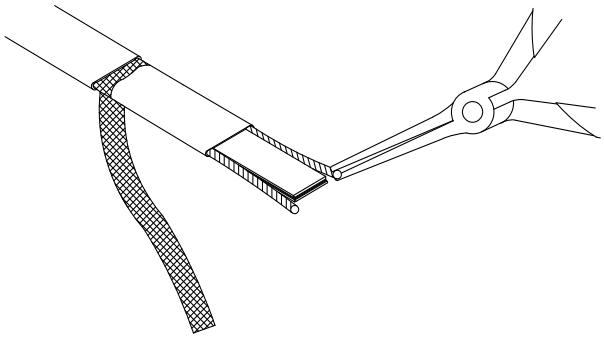
❸ Remove the jacket from the heater cable.



❹ Shave the core material from the outside of each bus wire.

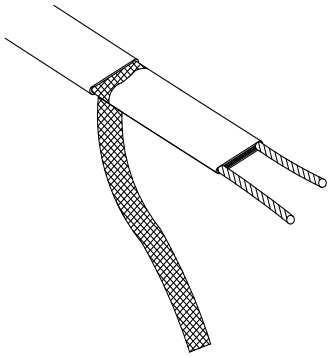
⚠ WARNING:

DO NOT CUT BUS WIRES



❺ Starting at the end, pull each bus wire away from the core material.

❻ Remove exposed core material.



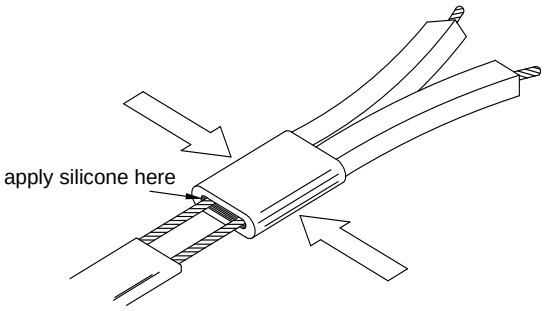
❼ Cut 6mm (0.25") off the end of each bus wire.

❽ Proceed to *"Power Termination"* on sheet 5.

POWER TERMINATION

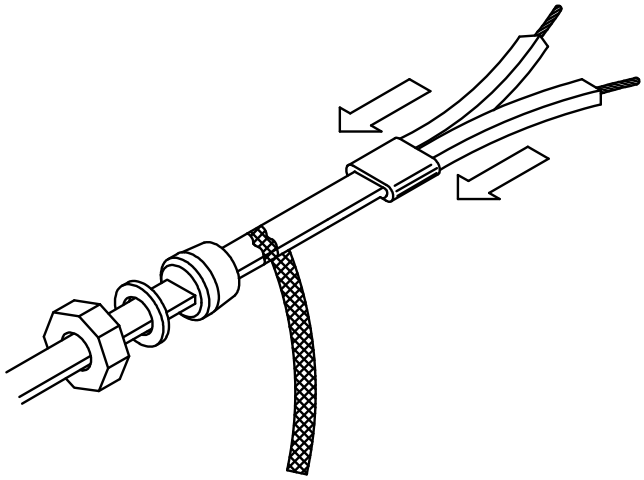
⚠ WARNING:

- **Bus wires must not touch or cross while inserting into power termination.**
- **Only power terminations specifically approved for the vendors style and type of heater cable must be used.**



❶ Insert bus wires into power termination.

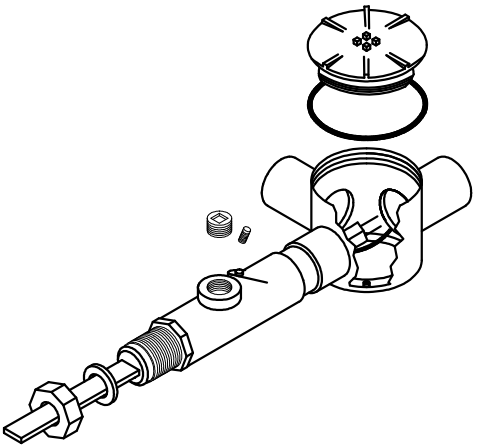
❷ Squeeze power termination opening and fill with silicone.



❸ Push power termination to overlap jacket.

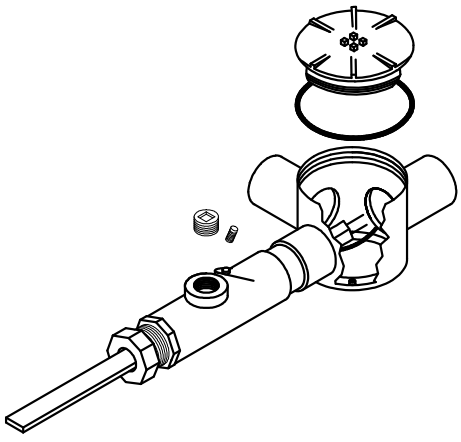
❹ Proceed to *"Seal Fitting Installation"* on sheet 6.

SEAL FITTING INSTALLATION



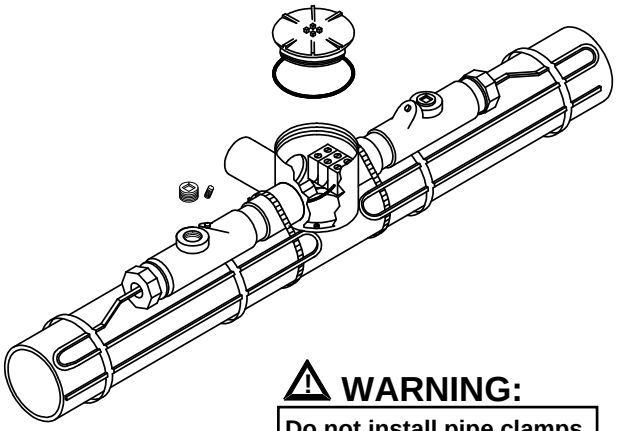
❶ Remove box cover and box cover gasket from junction box; place a power termination through each cable entry seal and seal fitting. Slide forward until the sealing grommet is flush with the entry seal.

Note: The heater cable must be positioned in the seal fitting so the braid transition point is visible through the seal fitting opening. See Detail "A" on sheet 8 for example.



❷ Slide the compression ring and metal end cap forward and thread onto the cable entry seal. Tighten to 51 foot pounds.

❸ Repeat steps 1-2 for the other seal fitting.



⚠ WARNING:

Do not install pipe clamps over the heater cables.

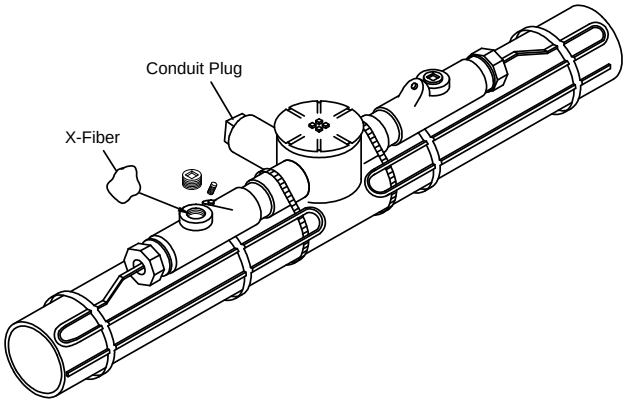
❹ Mount the junction box to pipe using pipe clamps.

❺ Connect bus wires to the terminal block. Connect ground braid from both heater cables to green ground screw.

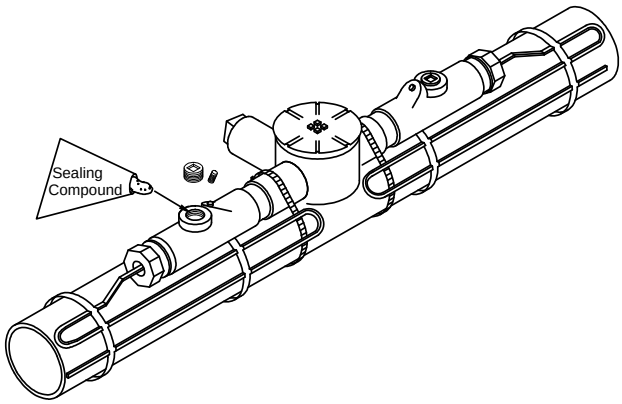
❻ Place the box cover gasket and box cover onto the junction box and plug the unused conduit opening using the conduit plug.

❼ Proceed to *"Sealing Compound Procedure"* on sheet 7.

SEALING COMPOUND PROCEDURE



❶ Center the heater cable in the conduit opening. Using the X fiber, pack around the heater cable forming a dam to hold the sealing compound.

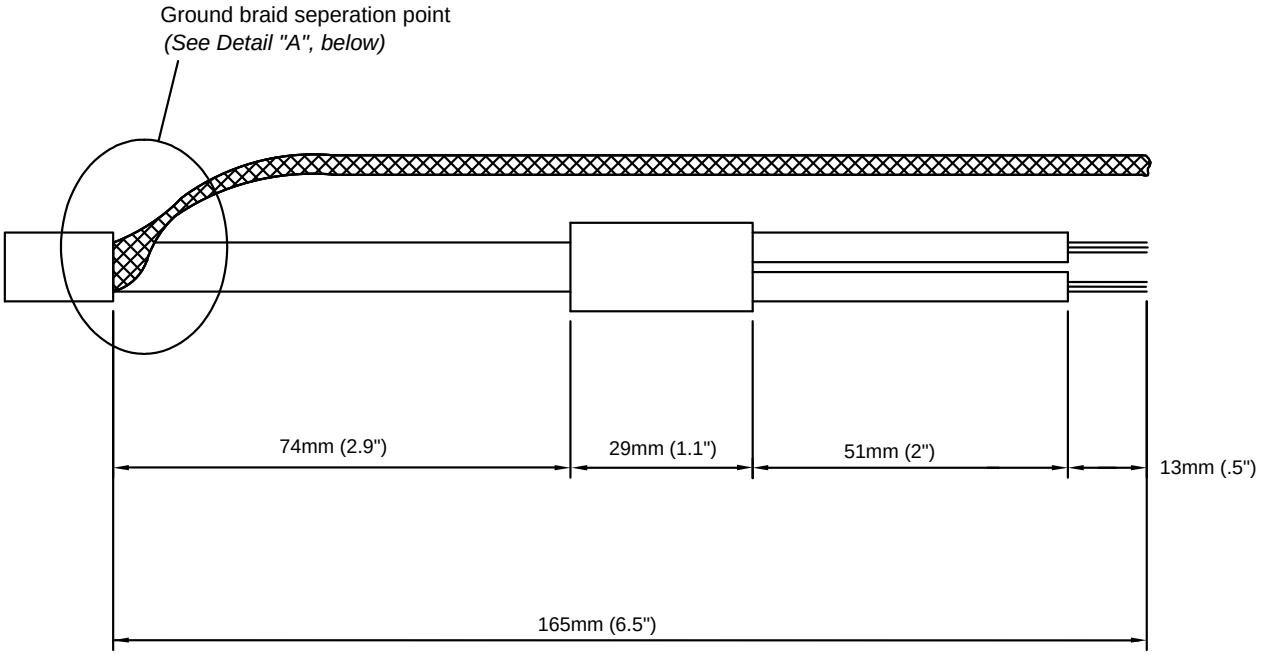


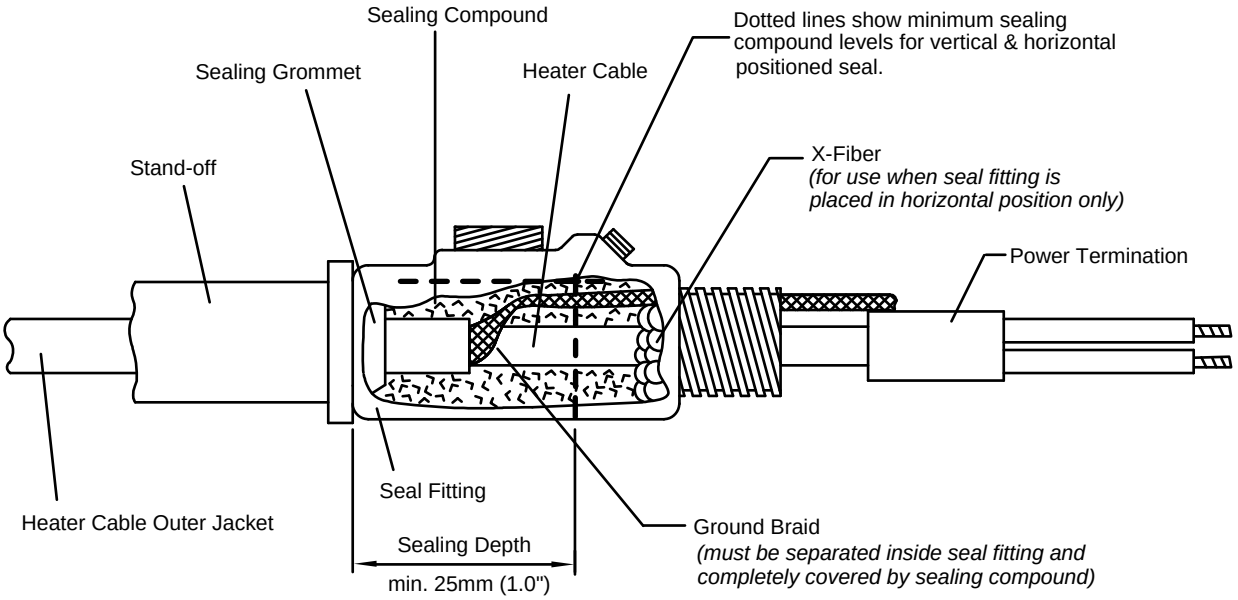
❷ Mix the sealing compound according to instructions on the pouch, (knead to mix liquid and powder in pouch). Snip off a corner of the pouch and fill the seal.

⚠ WARNING:

Sealing compound must completely cover the braid transition point. See Detail "A" on sheet 8 for reference.

TEMPLATE





DETAIL "A"

Nelson Heat Tracing Systems products are supplied with a limited warranty. Complete Terms and Conditions may be found on Nelson's website at www.nelsonheaters.com.