

HVT- 50

5kV Terminations for Non-Shielded Power Cable

General Instructions

Suggested Installation Equipment (not supplied with kit)

- Cable preparation tools
- Raychem P63 cable preparation kit or cable manufacturer approved solvent
- Clean, lint-free cloths
- Non-conducting abrasive cloth, 120 grit or finer
- Electrician's tape
- Connector(s) and installation tools
- Raychem recommended torch

Recommended Raychem Torches

Install heat-shrinkable cable accessories with a "clean burning" torch, i.e., a propane torch that does not deposit conductive contaminants on the product.

Clean burning torches include the Raychem FH-2629 (uses refillable propane cylinders) and FH-2616A1 (uses disposable cylinder).

Safety Instructions

Warning: When installing electrical power system accessories, failure to follow applicable personal safety requirements and written installation instructions could result in fire or explosion and serious or fatal injuries.

To avoid risk of accidental fire or explosion when using gas torches, always check all connections for leaks before igniting the torch and follow the torch manufacturer's safety instructions.

To minimize any effect of fumes produced during installation, always provide good ventilation of confined work spaces.

As Raychem has no control over field conditions which influence product installation, it is understood that the user must take this into account and apply his own experience and expertise when installing product.

Adjusting the Torch

Adjust regulator and torch as required to provide an overall 12- inch bushy flame. The FH-2629 will be all blue, the other torches will have a 3- to 4-inch yellow tip. Use the yellow tip for shrinking.

Regulator Pressure

FH-2616A1	Full pressure
FH-2629	15 psig

Cleaning the Cable

Use an approved solvent, such as the one supplied in the P63 Cable Prep Kit, to clean the cable. Be sure to follow the manufacturer's instructions. Failure to follow these instructions could lead to product failure.

Some newer solvents do not evaporate quickly and need to be removed with a clean, lint-free cloth. Failure to do so could change the volume resistivity of the substrate or leave a residue on the surface.

Please follow the manufacturer's instructions carefully.

General Shrinking Instructions

- Apply outer 3- to 4-inch tip of the flame to heat-shrinkable material with a rapid brushing motion.
- Keep flame moving to avoid scorching.
- Unless otherwise instructed, start shrinking tube at center, working flame around all sides of the tube to apply uniform heat.

To determine if a tube has completely recovered, look for the following, especially on the back and underside of the tube:

1. Uniform wall thickness.
2. Conformance to substrate.
3. No flat spots or chill marks.
4. Visible sealant flow if the tube is coated.

Note: When installing multiple tubes, make sure that the surface of the last tube is still warm before positioning and shrinking the next tube. If installed tube has cooled, re-heat the entire surface.

Installation Instructions

1. Product selection.

Check kit selection with cable diameter dimensions in Table 1.

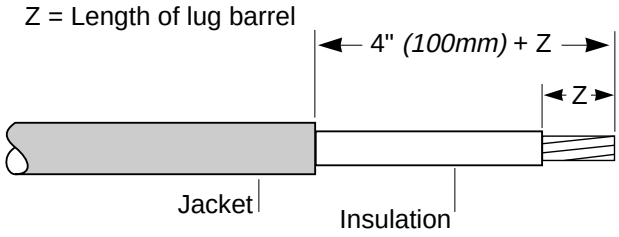
Table 1

Kit	Conductor Size	Minimum/Maximum Insulation Diameter	Max Jacket Diameter
HVT-51	#4-2/0 AWG	0.45-0.80" *(11-20mm)*	0.85" *(21mm)*
HVT-52	3/0-500 kcmil	0.70-1.25" *(18-32mm)*	1.30" *(33mm)*
HVT-53	750-1500 kcmil	1.10-2.05" *(28.52mm)*	2.15" *(55mm)*

2. Prepare cable.

Remove the cable jacket and insulation as shown.

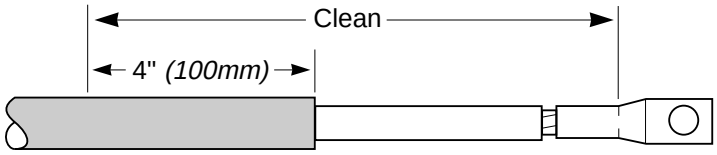
If no lug is used, remove 2" *(50mm)* of insulation.



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3. Install lug; clean cable.

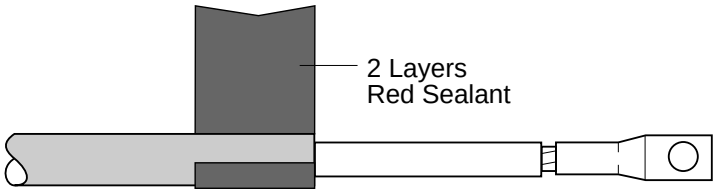
Install lug. Clean cable as shown.



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4. Apply red sealant to cable jacket.

Using light tension, wrap 2 layers of red sealant around the cable jacket at the cutback as shown.

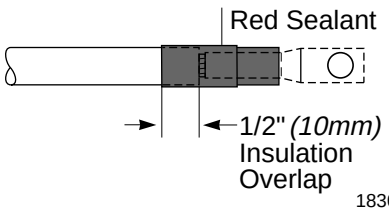


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5. Apply red sealant to lug.

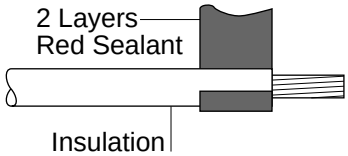
Using light tension, wrap the remainder of the red sealant on lug barrel, overlapping the insulation as shown. Build up lug diameter to cable insulation.

a. With lug



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b. Without lug

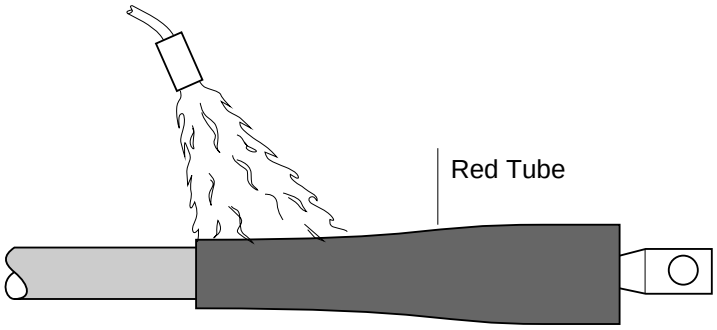


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6. Position red tube; shrink in place.

Position the red tube at the bottom edge of the red sealant on the jacket.

Begin shrinking at the ground end and work to the lug. Apply heat to lug for 10 seconds to soften sealant.



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7. Termination is complete.

Allow to cool before moving or placing in service.



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