



**Brief Description**

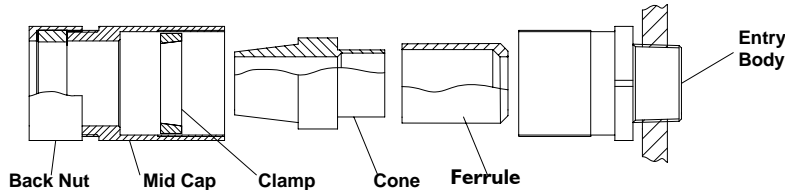
Peppers UL-C\*\* Compound-filled cable glands featuring Croclock® are for outdoor use in the appropriate Hazardous Locations with armored Marine Shipboard cables. They give environmental protection Type 4X. A termination suitable for EMC protection can be made using armored cables.

**Warning**

PLEASE STUDY CAREFULLY BOTH PAGES OF THESE INSTRUCTIONS BEFORE INSTALLATION. These glands should not be used in any application other than those mentioned here or in our Data Sheets, unless Peppers states in writing that the product is suitable for such application. Peppers can take no responsibility for any damage, injury or other consequential loss caused where the glands are not installed or used according to these instructions. This leaflet is not intended to advise on the selection of cable glands. Further guidance can be found in the National Electric Code, clause 500.

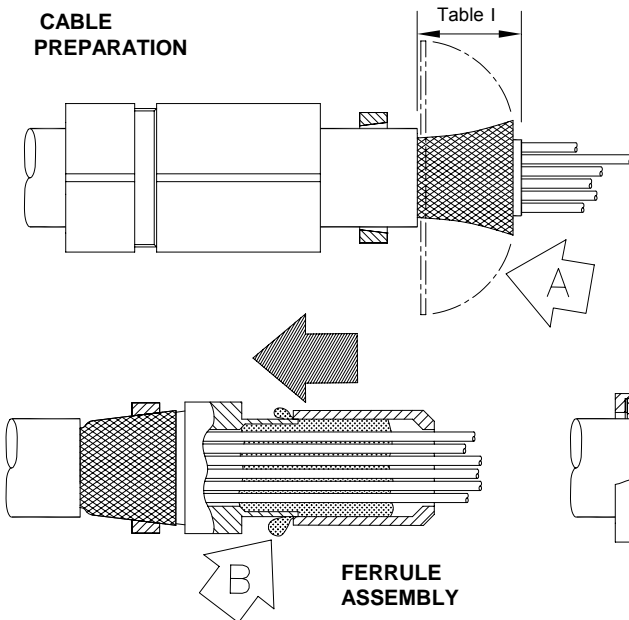
**STEP-BY-STEP FITTING INSTRUCTIONS**

**SPLIT GLAND**

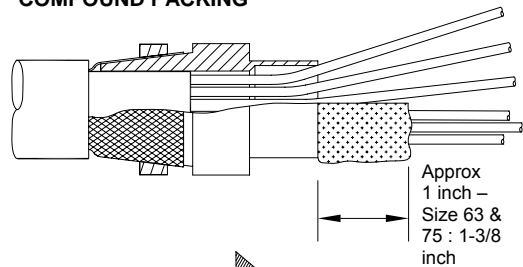


Gland size	Armor length
16 – 20	3/4in
25	1in
32 – 40	1-1/4in
50S – 75	1-1/2in

**CABLE PREPARATION**



**COMPOUND PACKING**



**FERRULE ASSEMBLY**

**COMPLETED INSTALLATION**

**STEP-BY-STEP FITTING INSTRUCTIONS**

- 1 Split gland as shown
- 2 Fit Entry Body to enclosure using wrench. **Do not exceed max torque for enclosure**
- 3 Slide Back Nut, Mid Cap and Clamp onto cable as shown
- 4 **CABLE PREPARATION**
  - A Strip off outer jacket, length to suit installation. **B** Cut armor. For approximate exposed lengths see Table 1
  - C Remove inner sheath. Remove protective foils, and any cords/fillers from around and between the cores level with the inner sheath. Take care not to cut the insulating sleeves of the cores. Using Listed sleeving, pigtail and sleeve screens to be passed through compound and Entry Body
  - D Tease out armor using a suitable tool (e.g. thin screwdriver) and splay out radially as shown (arrow A)
- 5 Slide Cone all the way back onto inner sheath. Press down armor around cone. Slide Clamp onto armor. Trim armor if required. Insert cable through Entry Body and engage Cone into Entry Body (Ferrule may be left off to aid Step 6)
- 6 Clamp armor onto Cone by screwing Mid Cap onto Entry Body then fully tightening using wrench
- 7 Unscrew Mid Cap to visually check armor is securely clamped. Pull out cable and Cone

**HEALTH AND SAFETY WARNING** The resin used in the compound can cause eye and skin irritation. For your personal protection, wear the gloves supplied while mixing and applying. The uncured compound should not be allowed to come into contact with foodstuffs.

**A COMPREHENSIVE SAFETY DATA SHEET PROVIDED BY THE COMPOUND MANUFACTURER IS AVAILABLE ON REQUEST**

- 8 Check compound has not passed its "Use By" date. It has a work life of about 45 minutes at 60-80°F (16-27°C), during which time it can be

**UL-C\*\* Marine Shipboard Cable Gland featuring CROCLOCK® – ASSEMBLY INSTRUCTIONS FOR SAFE USE**

worked and shaped. It gradually stiffens and then hardens. Full cure takes 24 hours at 60-80°F (16-27°C), but takes longer at lower temperatures. E.g. at 40°F (5°C) full cure takes about seven days. Mix the putty and pack the fitting at 68°F (20°C).

- 9 Trim any hardened pieces from ends of stick. Mix the compound by rolling, folding and breaking. Ease mixing by cutting large sticks in half. Fully mixed compound has a uniform yellow color with no streaks
- 10 Support cable and rear gland assembly. Splay out cores. Starting at the middle, fill the Cone cup by packing small amounts of rolled-out compound around and between the cores. Re-straighten each core and work outwards until all gaps are filled. Pack around the outside of the outer cores. Push compound down to make sure the Cone cup is filled
- 11 Similarly build up compound in and around the protruding cores. Apply the compound in rolled-out strips wherever possible so that unbroken layers are formed. Where joins occur in the fill or there are suspected holes, work the compound together to ensure a gas-tight seal. The cylinder of compound should project approx 1 in (or 1½ in for sizes 63 & 75 - see diagram). Retrieve Ferrule and pass it over cores. Locate and press Ferrule onto Cone, and remove squeezed-out compound (arrow B). Pass cores through Entry Body. Engage Ferrule in Entry Body and screw on Mid Cap. Tighten with wrench to close up the Ferrule Assembly
- 12 Slacken off Mid Cap to inspect Cable Unit. Where the cores exit the Ferrule, projecting compound must not foul the Entry Body. Bundle cores with cable-tie, cord or tape so they are not disturbed. Leave to cure. Cores may be disturbed after 1 hour.
- 13 Re-assemble Cable Unit to Entry Body and tighten Mid Cap using wrench. Hold Mid Cap with wrench and tighten Back Nut onto cable. Ensure jacket seal makes full contact with cable, then tighten Back Nut 1 extra turn.

**Gland trade sizes, cable sizes (inch) and construction**

Gland Size	Trade Size	Max No of Cores	Inner Sheath Max	Outer Jacket Size			
				Standard		Reduced Bore	
				Min	Max	Min	Max
16	½ in	1	0.46	0.362	0.531	0.264	0.406
20S	½ in	4	0.46	0.453	0.63	0.37	0.492
20	½ in	8	0.551	0.61	0.831	0.563	0.693
25	¾ in	16	0.787	0.799	1.079	0.689	0.941
32	1 in	30	1.035	1.051	1.339	0.984	1.201
40	1¼ in	60	1.267	1.299	1.598	1.154	1.425
50S	2 in	5	1.503	1.551	1.839	1.499	1.669
50	2 in	5	1.736	1.799	2.094	1.618	1.909
63S	2½ in	4	1.972	2.051	2.343	1.846	2.157
63	2½ in	4	2.204	2.299	2.591	2.118	2.409
75S	3 in	4	2.44	2.551	2.843	2.469	2.677
75	3 in	4	2.677	2.799	3.071	2.618	2.89

**Installation Guidance**

Point	Advice
1	This product is intended for Marine Shipboard Class I Division 1 Group ABCD applications, using Marine Shipboard cables and installed according to National Electric Code clause 500, US Coast Guard Electrical Engineering Regulations and Ship Safety Electrical Standards.
2	Installation should only be carried out by a competent electrician, skilled in cable gland installation.
3	NO INSTALLATION SHOULD BE CARRIED OUT UNDER LIVE CONDITIONS.
4	Once installed do not dismantle except for occasional inspection. The gland is not serviceable and spare parts are not supplied.
5	Parts are not interchangeable with any other design. If manufacturers' parts are mixed, certification will be invalidated.
6	Do not damage enclosure entry threads on assembly. Check the number of full turns of thread engaged is 5 (8 for parallel threads)
7	Environmental and ingress protection may be reduced when using unjacketed cable

**Interpretation of Markings.** Markings on the outside of this gland carry the following meanings: -

Cable Gland Type & Size	
UL	Product range
C	Barrier gland with Croclock® universal clamp ring Cable Seal Type :- Epoxy resin-based cement
B	Main component material : B = brass; S = stainless steel
R	Optional reduced bore jacket seal (colored red).
20S	Gland size
1/2NPT	Trade size

4X	Ingress and corrosion protection rating
----	---

Hazardous Location codes	
CLI DIV1 ABCD	Ignitable gas mixtures present which can include:- Group A – acetylene; Group B – hydrogen; Group C – ethylene; Group D – propane

-25 +85°C	Operating temperature range -25°C to +85°C (-13°F to +185°F)
-----------	---

\*Croclock® is a Registered Trade Mark of Peppers Cable Glands Limited