

Concrete Encasement Guidelines

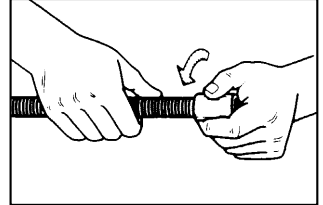
Carlson new quick connect one piece fittings are approved for concrete-tight installations. For sizes larger than 1" the use of standard Carlson® solvent weld fittings with the proper ENT cement is recommended.

1. Cut ENT square and cleanly.
2. Insert end into fitting, making sure two (2) full corrugations are snapped into fitting beyond flexible tabs (2 clicks).
3. ENT should be tied to rebar at 2-3 foot intervals to prevent flotation. Keep ENT straight. Small deflections over a long run may accumulate significant degrees of bend which will affect conductor installation. Suitable materials include wire, tie wraps, and tape.
4. When using UL solvent weld fittings for concrete tight performance:



- A. Do not use chemical primer or cleaner.
- B. Apply a light, uniform coat of cement labeled for use with ENT on the coupling and ENT.
- C. Do not use a dauber.
- D. Brush excess cement out of ENT grooves.

- E. Promptly insert ENT into fitting while cement is wet, until the stop is reached, and give a quarter turn.
- F. Do not disturb until joint is set.



Specifications for ENT (Electrical Nonmetallic Tubing)

- 1.1 Electrical Nonmetallic Tubing (ENT), is designed to replace EMT, flexible metal conduit or other raceway or cable systems, for installation in accordance with Article 331 of the National Electrical Code, other applicable sections of the Code, and local codes.
- 1.2 Any ENT used shall meet the requirements of UL Standard UL 1653 and shall be listed by Underwriters Laboratories, Inc., as suitable for its intended purpose.
- 1.3 ENT shall be recognized by a CABO National Evaluation Report for use in 1-hour and 2-hour rated construction.
- 1.4 Penetration of fire rated walls, floors or ceilings shall use classified Through-Penetration Firestop Systems described in the current Underwriters Laboratories Fire Resistance Directory.
- 1.5 Fittings and outlet boxes shall be designed for use with ENT and listed by Underwriters Laboratories. All fittings, boxes and accessories shall be from one manufacturer.
- 1.6 Only Carlson ENT Blue cement recommended specifically for use with ENT shall be used.
- 1.7 Unless indicated differently on drawings, ENT systems shall be color coded: BLUE for branch and feeder circuit wiring, YELLOW for communications, and RED for fire alarm and emergency systems.
- 1.8 ENT, fittings, and accessories shall be manufactured by Carlson.