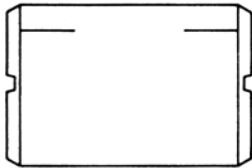
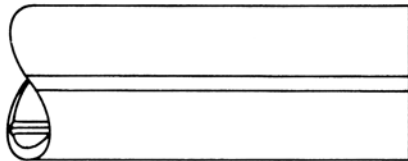


## Assembling of EPIC Casing

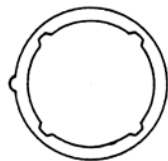
Each coupling has an internal alignment groove marked by a notch on the coupling lip. Note the scribe marks for optional rivets. Each casing section has an external alignment spline.



Coupling with Notched Ends



Casing Section with Spline



Casing Cross Section

### Required materials

- Casing sections
- Couplings (one for each section)
- Protective cap or grout valve (for casing bottom)
- Protective cap (for casing top)
- ABS-DWV solvent cement
- Casing clamps
- 3/4" vinyl electrician's tape
- Pop rivet gun (optional)
- Pop rivets (optional)
- Drill with #30 (1/8") drill bit (optional)

### Assembly overview

1. Lay out the sections of casing.
2. Install either a bottom cap or a grout valve in one section.
3. Use ABS cement to join one coupling to each casing section except the top section. If necessary, rivet joints after cementing. In deep installations, seal joints and rivets with tape to prevent sand or grout from entering the casing.
4. (Optional) Pre-assemble 10 or 20 ft. lengths of casing.
5. Assemble the remainder of the casing during installation.

**Note:** Casing in storage should be properly supported to prevent sagging. In the field, keep casing in the shade, if possible. Prolonged exposure to the heat of direct sunlight can cause warping.

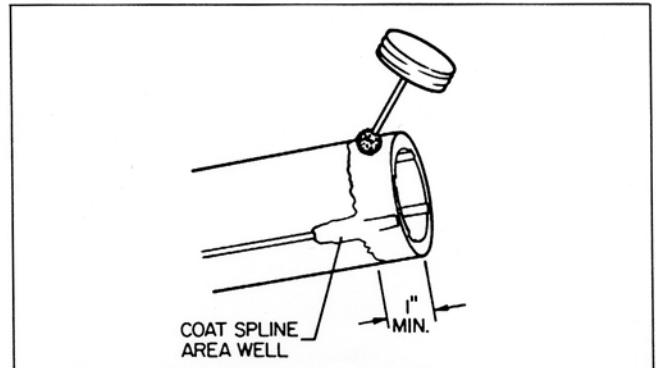
## Bottom cap and grout valve

1. Spread ABS cement evenly on section end. Coat spline area well.
2. Press bottom cap or grout valve onto casing section. Hold grout valve in place until cement sets.
3. (Optional) Install pop rivets. Use #30 (1/8") drill bit. Seal rivets with tape.

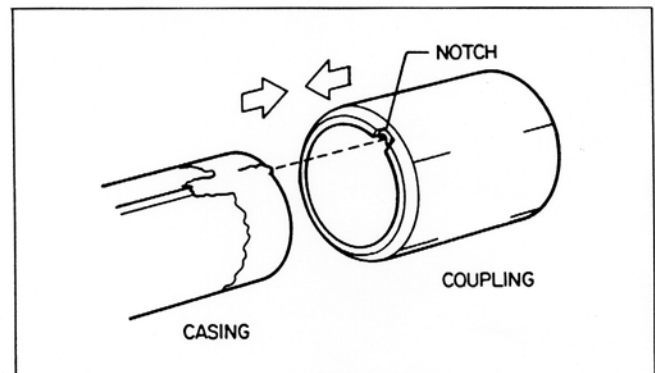
## Sections and couplings

1. Spread ABS cement evenly on section end. Avoid running cement over edge. Coat spline area well.

Keep in mind that ABS cement sets rapidly in hot weather.

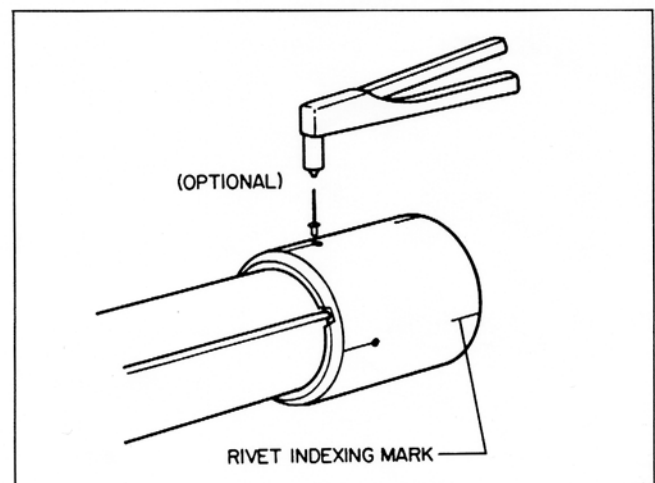


2. Align coupling notch with section spline. Push coupling and section together. End of section should slip 2.25 inches into coupling to butt against internal flange.



3. (Optional) Install pop rivets. In very cold or humid weather, rivets hold joint while ABS cement dries. In deep hole installations, rivets help hold weight of casing.

Drill #30 (1/8") holes using scribe lines on coupling as guide. Four rivets can be installed at each end of the coupling. In deep installations, seal joints and rivets with tape.



# Assembling EPIC Telescoping Couplings

Telescoping couplings are used to accommodate up to 6" of settlement or heave.

Couplings slip over casing ends and are held in place with pop rivets. When settlement occurs, the casing deforms slightly, slipping over the pop rivet to allow telescoping action.

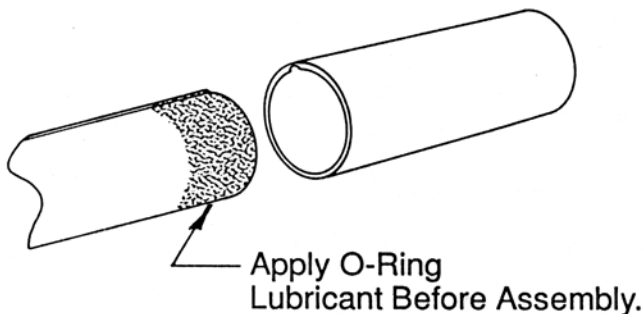
**Note:** Epic telescoping couplings are compatible only with EPIC and EPIC QL casing.

## Required Materials

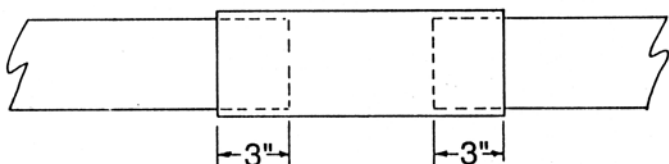
- Telescoping couplings
- 3/4" vinyl electrician's tape
- Mastic sealing tape
- Pop rivet gun
- Pop rivets
- Drill with #30 (1/8") drill bit (optional)
- O-ring lubricant

## Assembly

1. Apply a liberal amount of o-ring lubricant to casing end.
2. Align telescoping coupling with casing alignment spline.

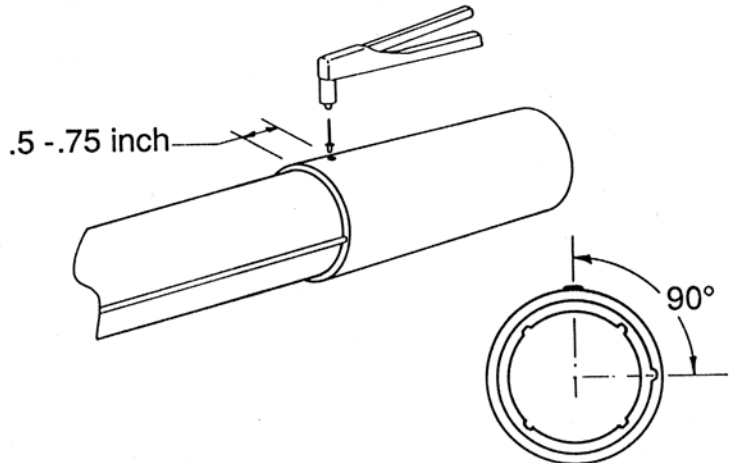


3. To accommodate approximately 6" of settlement, push casing ends about 3" into coupling.

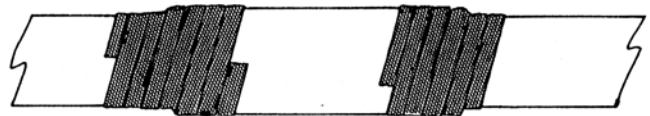


4. When casing is installed in fills, no rivets are required. When casing is installed in boreholes, riveting is recommended. One rivet at each end of the coupling is usually sufficient in water-filled boreholes. Additional rivets may be required for deep or dry boreholes.

To avoid placing rivets in casing grooves, drill hole 90° from casing spline, about .5 to .75 inches from coupling end.



5. Seal joints and rivets with mastic and wrap with tape.



## Please Note:

Grooves at casing ends have been tapered prior to shipment, to facilitate inclinometer probe tracking through telescoping couplings. If casing is installed in lengths shorter than 10 feet (shortened in the field), the installer must use a rat-tailed file to taper the new groove ends.