Installation

To ensure professional installation, make sure all installers have undergone training by IPEX in the correct handling, joining and installation methods of IPEX thermoplastic products.

POINTS TO REMEMBER

a. YELLOW & BLUE ELASTOLIVES DO NOT REQUIRE PRE-HEATING.

   If heated, maximum temperature should not exceed 175°F. (79°C)

b. YELLOW LABLINE AND BLUE PLENUMLINE ELASTOLIVES ARE NOT INTERCHANGEABLE

c. The pipe end should be clean and there should be no deep longitudinal grooves in it.

d. It is desirable to use a chain vise to hold 3" and 4" pipe firmly during cutting and grooving operations. When grooving 1-1/2" and 2" pipe, a strap wrench should be used to hold the pipe to prevent its rotation.

e. After grooving, the pipe should be kept clean so that foreign material is not introduced into the groove.

f. Ensure the grooving tool has a sharp blade to make a clean-shouldered groove.

g. The cutting blade should always be fully retracted whenever the tool is put on or taken off the pipe. If any resistance is felt when putting the tool onto the pipe or taking it off, the blade position should be checked.

h. Each nut must be fully tightened as the installation progresses. Do not assemble the system loosely and tighten nuts last, as layout length errors will go undiscovered until such time as the nuts are finally tightened. Avoid misalignment.

i. When tightening fittings, the dry fitting surfaces tend to bind against each other preventing the nuts from being fully tightened. To overcome this, either IPEX Acid Waste Lubricant or IPEX approved petroleum jelly should be used on fitting threads and elastolives. The lubrication allows the pipe and elastolive to glide smoothly into position against the fitting sealing area and enables the nuts to be tightened to their full thread capacity.

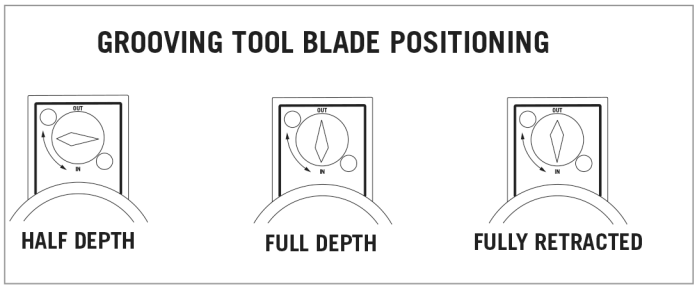
j. Use two spanner wrenches when tightening fittings. This enables the nuts to be tightened to their full thread capacity without damaging the fitting.

Procedure

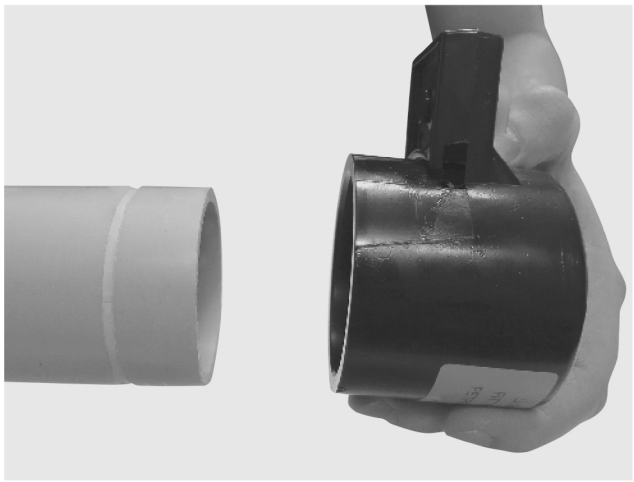
1. Ensure each fitting is supplied with the correct number of elastolives (sealing rings) and nuts.

2. Verify the grooving tool is sharp. Cut the pipe to the desired length using a tubing cutter fitted with a wheel designed for plastic pipe. A handsaw and miter box may also be used. Ensure pipe ends are square and trimmed free of burrs.

3. Examine the grooving tool to ensure that the cutting blade is fully retracted. Insert the pipe into the grooving tool.



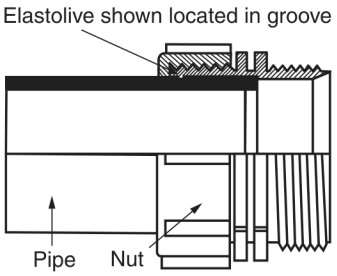
4. Set the grooving blade at the half-depth position and rotate the tool in a counter-clockwise direction. After one complete turn, set the blade at the full-depth position and again rotate the tool one full turn counter-clockwise. Fully retract the blade and remove the tool from the pipe.A shallow groove has now been formed around the pipe. Any material left as a feather edge in the groove should be removed. Care should be taken not to damage the square edge (shoulder) of the groove, particularly at the edge near the spigot end of the pipe as this is the primary sealing surface.



Feathered or rounded edges may indicate a worn tool and possible leakage. Make sure the groove shoulders are sharp.

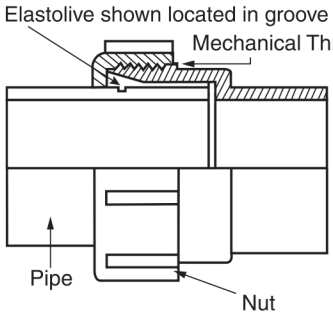
Installation Procedures

1-1/2" and 2" Joint Details



Once engaged in the groove, the elastolive virtually becomes part of the pipe and when the nut is tightened, the pipe is locked into the fitting.

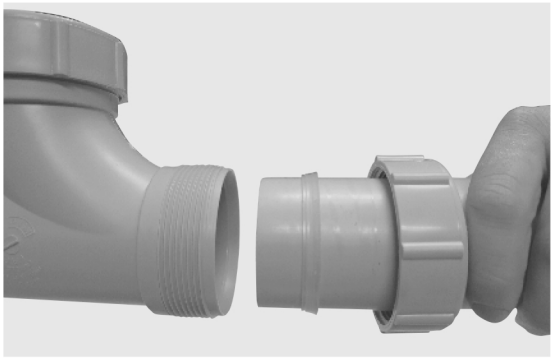
3" and 4" Joint Details



The 3" and 4" joint design differ from smaller versions in that the sealing ridges are located on the fitting and the elastolive extends to the end of the pipe.

5. Place the nut onto the pipe with the threaded side to the spigot end of the pipe. Take the elastolive, stretch it and pull it over the pipe with the thick edge first and the taper pointing to the spigot end of the pipe. Slide it down the pipe and onto the groove. Once on the groove "work it" a bit to make sure that the rib on the underside of the elastolive engages the full circumference of the groove.

   Note: Use IPEX Acid Waste Lubricant on 3" and 4" elastolives to aid installation when sliding elastolives on to pipe.

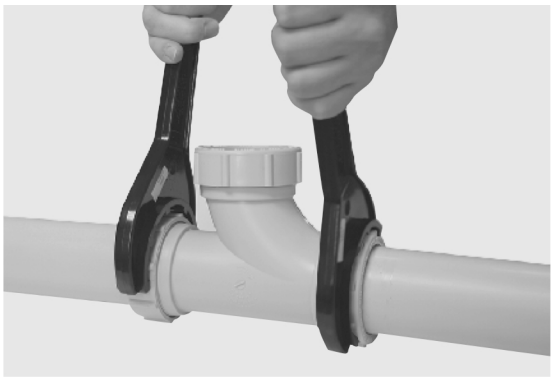


*If you are working on a job that has the old translucent non-elastic olives, consult your "heat olive" Technical Bulletin or call IPEX Customer Services for technical information.

6. Apply IPEX Acid Waste Lubricant or IPEX approved petroleum jelly to both the thread and the elastolive then push the pipe squarely into the fitting.

   Note: All factory shipped fitting nuts must be disassembled for lubrication.

7. Hand-tighten the nut, then tighten using a spanner wrench. For stability and leverage, two spanner wrenches may be used as depicted. The nut must be tightened to achieve full thread engagement.



The joint is now ready for testing.

Average Number of Joint per kilogram of IPEX Acid Waste Lubricant*

Pipe size (in)	No. of Joints / kg
1-1/2	250
2	250
3	100
4	67

* The figures in the table are estimates based on laboratory tests

Note: Due to the many variables in the field, these figures should be used as a general guideline only.