HOME-FLEX™ Underground IPS Fitting Assembly

Additional Instructions for Adapter Fittings Male Pipe Threads X Compression.

Attach the pipe threads end of the fitting first. It can be fit to female pipe threads of the same size. Use thread sealant, pipe joint compound, or yellow PTFE thread tape approved for use on gas pipe on the male pipe threads. Use pliers to grip the black body of the Adapter fitting while fitting the pipe threads. Tighten the pipe fitting by hand first and then with a wrench until you have achieved a gas tight connection. After the pipe threads have been fit, proceed to the steps below to assemble the adapter fitting to the yellow poly gas pipe.

HOME-FLEX™ Underground IPS fittings are for use with IPS sized yellow poly gas pipe that has been approved for use with natural gas and propane.

1. Check contents. Each product package includes a fitting and a number of stiffeners to be used on each end of pipe being connected (i.e. 2 stiffeners for a Coupler or Elbow, 3 for a Tee).

2. Cut the pipe square. There is no need to chamfer the pipe end. Ensure any burrs on the pipe are removed and the pipe is clean.

3. Insert stiffeners. Insert the supplied stiffeners into each end of the pipe being connected.

4. Push stiffener into pipe. Push the stiffener all the way into the pipe until the ridge is plush with the pipe end. This can be done by hand, or gently tapped in with a mallet if required.

5. Ensure 3 threads are showing on the fitting body. The fitting is supplied in a ready-to-use position. You do not need to disassemble the fitting prior to use. Always ensure 3 threads are exposed on the central body of the fitting prior to use.

6. Insert the pipe into the fitting. Gently slide the pipe with stiffener into the fitting until is stops. No force is required to do this. Do not try to force the pipe further into the fitting.

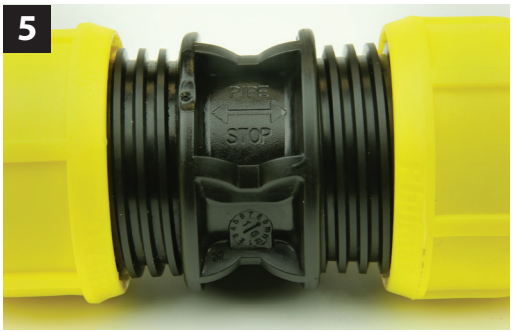
7. Tighten the fitting. While holding the end of the pipe into the fitting with gentle force, tighten the nut until the nut touches the flange on the central body of the fitting. Do not tighten further once the nut touches the flange as over tightening can damage the fitting. It is recommended that pliers are used to ensure that the nut is tight against the body of the fitting.

8. Fitting is installed. The fitting is now fully installed and ready for use. Note nut position relative to the flange on the central body.
Check for system leaks prior to backfilling.

WARNING! Improper installation or operation of the system may result in fi re, explosion, or asphyxiation. Only the components provided or specifi ed by IPEX USA LLC. for use with HOME-FLEX™ Underground or as part of the fuel gas system are to be used in the installation. Use of components from other fl exible gas piping systems other than those specified as part of the HOME-FLEX™ Underground systems is prohibited and may result in poor system performance and serious bodily injury or property damage.

HOME-FLEX® UNDERGROUND

homeflexunderground.com



HOME-FLEX™ Underground Installation Practices & Guidelines

1. HOME-FLEX Underground pipe and fittings must be installed in accordance with the Installation Practices & Guidelines outlined in this document, the System Design and Installation Guide, as well as all local plumbing, mechanical, electrical and/or building codes and laws applicable at the locale where HOME-FLEX Underground is to be installed. If you do not understand all aspects of the installation requirements and local codes, locate a qualified installer in your area who does.
2. Only the components provided or specified by IPEX USA LLC as part of the piping system are to be used in the installation.
3. Never use HOME-FLEX Underground products in aboveground applications.
4. Never use HOME-FLEX Underground products inside buildings.
5. Never install HOME-FLEX Underground pipe or fittings under a building.
6. Never encase HOME-FLEX Underground products in concrete.
7. Do not use HOME-FLEX Underground pipe fittings to connect poly gas pipes other than the specified size as marked on the fitting.
8. The minimum required depth for buried pipe will be specified by local code. If the local code does not include trench specifications, then trench and backfill in accordance with ASTM D2774 "Standard Practice for Underground Installation of Thermoplastic Pressure Piping." (*astm.org/Standard/standards-and-publications.html*)
9. Underground gas piping must be installed with sufficient clearance from any other underground structure to avoid contact, to allow maintenance, and to protect against damage from proximity to other structures. In addition, underground plastic piping shall be installed with sufficient clearance, or shall be insulated from any source of heat so as to prevent heat from impairing the serviceability and reliability of the pipe.
10. Ensure that correct stiffener is used with the correct sized pipe (size is marked on stiffener).
11. Ensure the sizing on the fitting nut matches the sizing on the pipe being connected.
12. The fitting is supplied assembled and ready to use. If the fitting is diassembled, ensure all nut components are present and in the correct orientation as pictured in Figure 4.1 (p. 14).
13. When installing PE pipe care must be taken to avoid inducing excessive stresses to the pipe and fittings.
14. Excessive bending of plastic piping systems, particularly at joints, can exceed stress limits and result in failure. Pipe, when joined with fittings, shall be laid as true to line as possible, while taking into consideration that common PE gas pipe may expand or contract 1 inch for every 10° F of temperature change per each 100 foot section of pipe. Grading and backfilling must be carried out carefully to prevent uneven settlement and therefore excessive bending. Please refer to ASTM D2774 for additional information on backfilling.
15. The use of damaged pipe where the joint is being made must be avoided. If there is a cut or groove in the pipe that section should be cut out. Sealing performance can be affected by scored or damaged pipe, so caution should be taken if present on the pipe.
16. The HOME-FLEX™ Underground gas piping system must be pressure tested for leaks in accordance with all local codes. In the absence of a specific local code that specifies the pres-sure test, refer to the latest edition of the National Fuel Gas Code NFPA 54. A copy of this code can be purchased and downloaded from *catalog.nfpa.org/NFPA-54-C3324.aspx*.

Figure 1: Fitting Nut Reassembly

WARNING!

Improper installation or operation of the system may result in fire, explosion, or asphyxiation. Only the components provided or specified by IPEX USA LLC for use with HOME-FLEX™ Underground or as part of the fuel gas system are to be used in the installation. Use of components from other flexible gas piping systems other than those specified as part of the HOME-FLEX™ Underground systems is prohibited and may result in poor system performance and serious bodily injury or property damage.

Troubleshooting Fitting Assembly and Correcting Leaks

Check for leaks. If a leak is detected, check the following:

Step 1: Ensure that all yellow nuts on the fitting are tight up against the black body of the fitting. If they are and leak persists, go to step 2.

Step 2: Loosen the yellow nut and remove the pipe from the fitting.

a. Examine the inside of the fittings to make sure it is free of dirt or any debris that will interfere with the outside of the pipe making a seal against the inside of the fitting.

b. Make sure that the outside of the pipe is clean and smooth.

c. Reassemble the pipe into the fitting follow the assembly instructions and check for leaks.

Note: It is not necessary to remove the yellow nut completely off of the fitting. If this occurs use the diagram above to reassemble the fitting properly.