



APPLYING PLASTIC PIPE FITTINGS ON 3/8-INCH TUBING



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1. GENERAL

1.01 This instruction sheet describes the application of plastic pipe fittings on 3/8-inch plastic tubing. Nine different fittings are available for use in a variety of applications. A reducer bushing is also available for use in assembling a 1/4-inch tubing to any of these fittings. AMP-FIT[★] Hand Tool, Part No. 68317-1, or Part No. 69671, is required to crimp these assemblies to the tubing. Instructions for use, maintenance, and inspection of these hand tools are provided in instruction sheets IS 2730, supplied with P/N 68317-1, and IS 2703, supplied with P/N 69671.

1.02 This instruction sheet has been re-issued because of product improvement of the AMP-FIT fittings. Since this re-issue is a general revision, revision arrows have not been used to denote significant changes. Equipment Test Lists are not affected.

2. DESCRIPTION

2.01 Pipe fittings that are crimped to 3/8-inch tubing are shown in Figure 1 and listed by part number in Table A. In addition, available fitting kits and tools required for assembly are also listed in Table A.

2.02 Nine different fittings and a reducer bushing are available for use on 3/8-inch plastic tubing, as shown in Figure 1. Each fitting consists of a plastic molding with one or more pre-assembled stainless steel rings required to crimp the fitting to the 3/8-inch tubing. Brass inserts are supplied with each fitting for use as stiffeners in the ends of the tubing.

2.03 Any of the plastic pipe fittings shown in Figure 1 can also be used with 1/4-inch tubing. This is accomplished simply by placing the reducer bushing (J, Fig. 1) into the appropriate crimp opening of the fitting. See Paragraph 3 for PREPARATION AND ASSEMBLY.

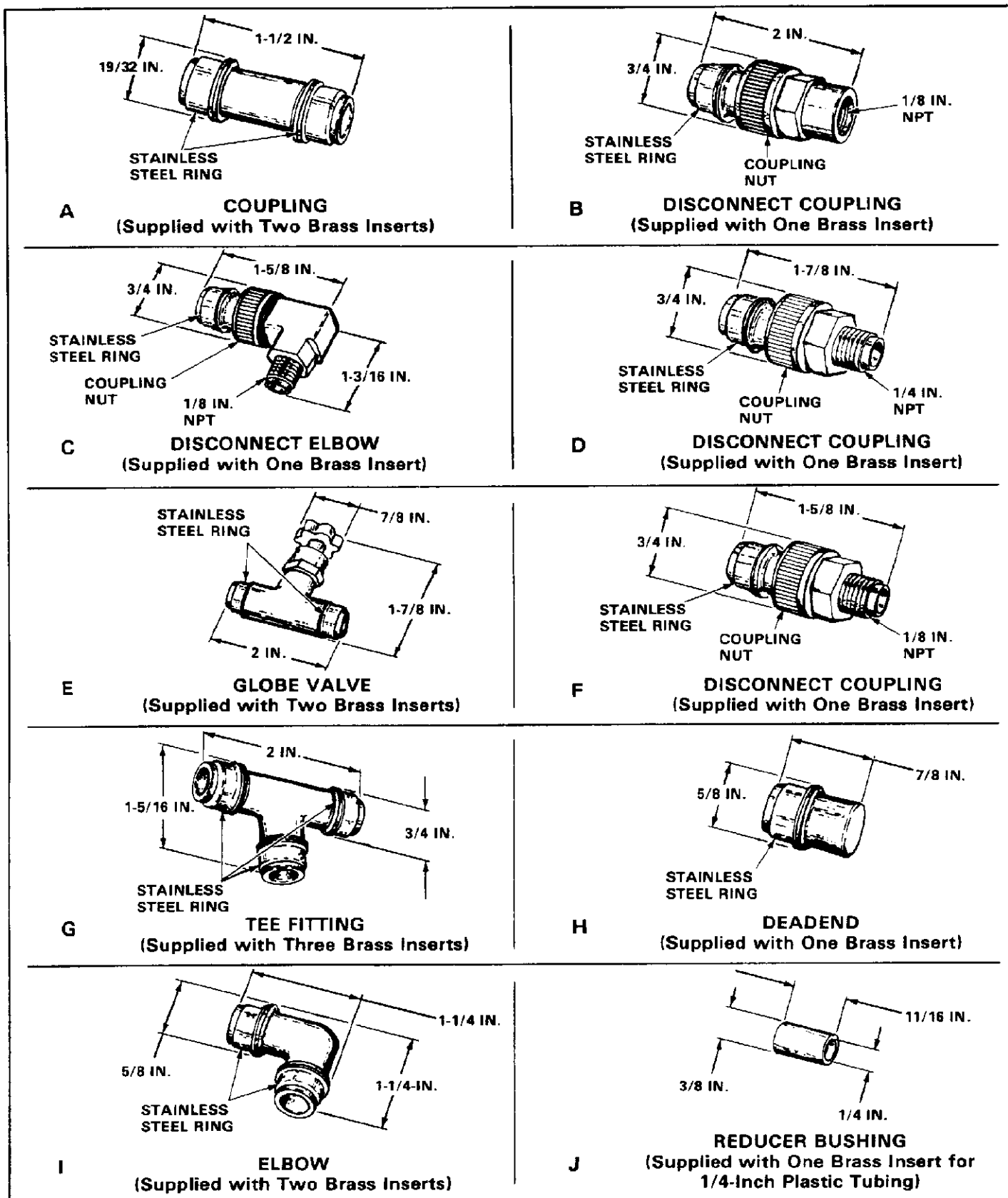


Fig. 1—Plastic Pipe Fittings for 3/8-In. Tubing

2.04 The plastic pipe fittings available (Fig. 1) are described as follows.

(a) **The Coupling (A, Fig. 1)** is used for joining two ends of 3/8-inch plastic tubing.

(b) **The Disconnect Coupling (B, Fig. 1)** connects 3/8-inch plastic tubing to any 1/8-inch male NPT fitting. The knurled, captive nut on this coupling permits convenient discon-

section of the coupling before or after assembly into the air distribution system.

(c) **The Disconnect Elbow (C, Fig. 1)** connects 3/8-inch plastic tubing to any 1/8-inch female NPT fitting. It provides a 90-degree elbow, with a knurled, captive nut for convenient disconnection of the coupling before or after assembly.

(d) **The Disconnect Coupling (D, Fig. 1)** connects 3/8-inch plastic tubing to any 1/4-inch female NPT fitting. It also features a knurled, captive nut for convenient disconnection of the coupling before or after assembly.

(e) **The Globe Valve (E, Fig. 1)** connects two ends of 3/8-inch plastic tubing and provides a shut-off capability.

(f) **The Disconnect Coupling (F, Fig. 1)** connects 3/8-inch plastic tubing to any 1/8-inch female NPT fitting. This coupling also features a knurled, captive nut for convenient disconnection of the coupling before or after assembly.

(g) **The Tee Fitting (G, Fig. 1)** is used to tap into a 3/8-inch plastic tubing.

(h) **The Deadend (H, Fig. 1)** is used to seal a section of 3/8-inch plastic tubing.

(i) **The Elbow (I, Fig. 1)** connects two ends of 3/8-inch plastic tubing through a 90-degree elbow.

(j) **The Reducer Bushing (J, Fig. 1)** is used in the crimp opening of any of the fittings listed in Figure 1 to permit the crimping of 1/4-inch plastic tubing. The Reducer Bushing can also be used to adapt the exit ports of a Manifold Assembly to 1/4-inch plastic tubing. See AMP Instruction Sheet IS 2707.

3. PREPARATION AND ASSEMBLY

3.01 The plastic pipe fittings that have both a crimp connection and a threaded connection (B, C, D, and F, Fig. 1) can be assembled either connected or disconnected. Assemble the threaded connection to another fitting, valve, etc., as follows:

- (a) Coat fitting threads (1/8-inch or 1/4-inch NPT) with pipe thread compound. Do *not* use pipe thread compound on disconnect threads.
- (b) Hand tighten connection, and then use a wrench to tighten an additional 1-1/2 turns, leaving two or three threads exposed.
- (c) If crimp section was disconnected, re-connect crimp section and hand tighten connection. If crimp section was not disconnected, ensure

that crimp section is hand tightened to threaded section of fitting.

Tubing Preparation

3.02 Prepare plastic tubing for assembly to any of the plastic pipe fittings as follows:

- (a) Cut tubing squarely. See Figure 2.
- (b) Remove any burrs from both the outer diameter and the inner diameter of the tubing.
- (c) Push the insert, supplied with the fitting, into the tubing and then push the tubing fully into the fitting (Fig. 2).

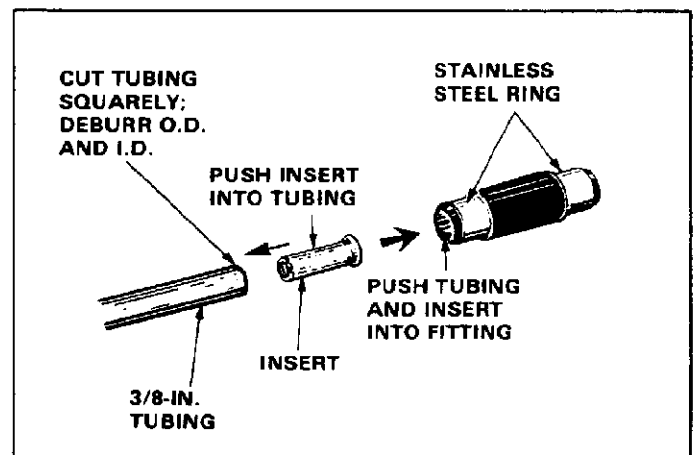


Fig. 2—Tubing Preparation

Note: An insert must always be used in a crimp assembly. Ensure that insert is used, and also ensure that tubing is **fully** inserted into crimp fitting when fitting is being crimped.

Crimping

3.03 If crimping with AMP-FIT Hand Tool 69671, as shown in Figure 3, follow the procedures listed in AMP Instruction Sheet IS 2703. If crimping with Hand Tool 68317-1, use AMP Instruction Sheet IS 2730.

Use of Reducer Bushing

3.04 The Reducer Bushing (J, Fig. 1) can be used in any of the plastic pipe fittings to connect 1/4-inch plastic tubing. Prepare tubing and plastic pipe fitting as follows:

- (a) Cut tubing squarely. See Figure 4.
- (b) Remove any burrs from both the outer diameter and the inner diameter of the tubing.
- (c) Push the insert, supplied with the Reducer Bushing, into the tubing.

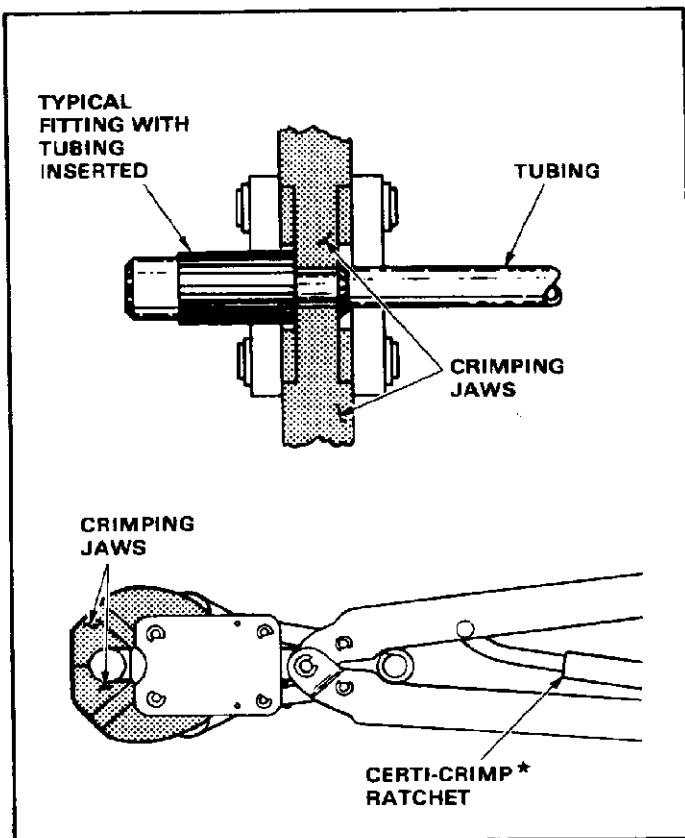


Fig. 3—Crimping Tool 69671

- (d) Push the Reducer Bushing into the crimp fitting (Fig. 4).
- (e) Push tubing (with insert installed) into Reducer Bushing in the crimp fitting. Ensure that Reducer Bushing and tubing are *fully* inserted into fitting when fitting is being crimped.
- (f) Crimp fitting as instructed in Paragraph 3.03.

4. ORDERING INFORMATION

4.01 Plastic pipe fittings for use on 3/8-inch plastic tubing, available fitting kits, and tools required for assembly can be ordered as listed in Table A through your local AMP representative.

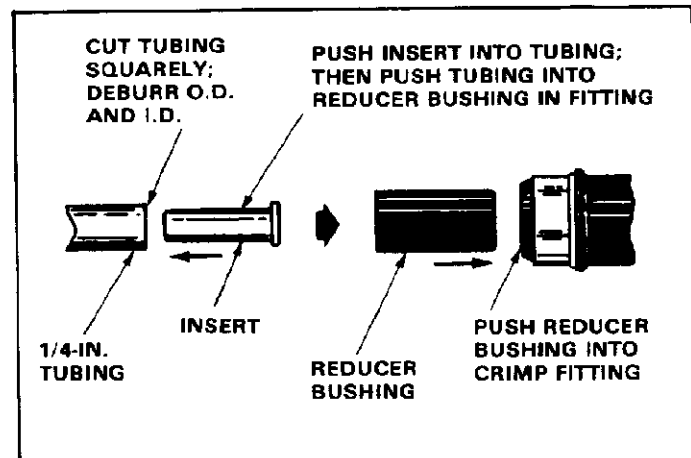


Fig. 4—Use of Reducer Bushing

TABLE A
PLASTIC PIPE FITTINGS AND ASSOCIATED TOOLING FOR USE ON 3/8-INCH PLASTIC TUBING

FITTING	PART NO.
Coupling (A, Fig. 1)	561302-1
Disconnect Coupling (with 1/8-in. female NPT) (B, Fig. 1)	561309-1
Disconnect Elbow (with 1/8-in. male NPT) (C, Fig. 1)	561314-1
Disconnect Coupling (with 1/4-in. male NPT) (D, Fig. 1)	561312-1
Globe Valve (E, Fig. 1)	561306-1
Disconnect Coupling (with 1/8-in. male NPT) (F, Fig. 1)	561310-1
Tee Fitting (G, Fig. 1)	561304-1
Deadend (H, Fig. 1)	561308-1
Elbow (I, Fig. 1)	561318-1
Reducer Bushing (to adapt 3/8-in. fitting to 1/4-in. tubing) (J, Fig. 1)	561335-1
FITTING KIT	PART NO.
AMP-FIT Fitting Kit — Contains assortment of above fittings and AMP-FIT Hand Tool No. 68317-1.	561344-1
AMP-FIT Fitting Kit — Contains assortment of above fittings and AMP-FIT Hand Tool No. 69671.	561344-2
AMP-FIT Fitting Kit — Contains assortment of above fittings — without hand tool.	561344-3
TOOL	PART NO.
AMP-FIT Hand Tool — Used for crimping operation, Paragraph 3.03.	69671
AMP-FIT Hand Tool — Alternate crimping tool, Paragraph 3.03.	68317-1