



ESTABLISHED
1923

EX-F Expanding Tube Plug



Product Name:

EX-F Expanding Tube Plug

Part Number:

Refer to Conco Standard Size Chart for EX-F Expanding Tube Plugs

Application:

For temporary and/or permanent plugging of condenser and heat exchanger tubes.

Description:

- Available for 5/8" O.D. through 1-1/4" O.D. tubes.
- Separate gripping and sealing design in one plug.
- Tested under pressure and vibration to 400 PSI and temperature to 200° F.
- Plug consists of a chloroprene expanding cylinder, grade K-2242-CF, ASTM-BC-412 at 45+/- shore(s) durometer hardness. This is used to seal the leaking tube.
- The gripping portion of the plug is made of machined vulcanized cloth fibre rod that expands when it comes into contact with water, which allows for positive gripping action.

Storage Information:

Store in cool, dry area away from heat and sunlight. Can be kept in sealed plastic bags. Long, undeterminable shelf life.

Auxiliary Equipment Required:

Deep well socket wrench.

Determination of Quantity:

Two per tube to be plugged (one for each end).

Ordering Information:

Contact Conco Services Corporation
530 Jones St.
Verona, PA 15147 USA
Toll free (US Only) 1-800-345-3476
Office +1 412-828-1166
Fax +1 412-826-8255
E-mail info@conco.net

Example Order:

22 Type EX-F Expanding Tube Plug
3/4" OD x 18 BWG
Brass
Part No. XFB3418

Availability:

Contact your Conco representative

Installation¹ Instructions:

- Clean and wipe dry the tube end to be plugged.
- Insert plug into tube into tube beyond flush of tubesheet.
- Hand tighten finger tight, then, using deep well socket wrench, turn nut 2-3 complete revolutions.
- The end of the bolt is slotted. Use a screwdriver to hold the bolt in place while tightening the nut with a 1/2" (13 mm) box wrench. Tighten to desired torque.

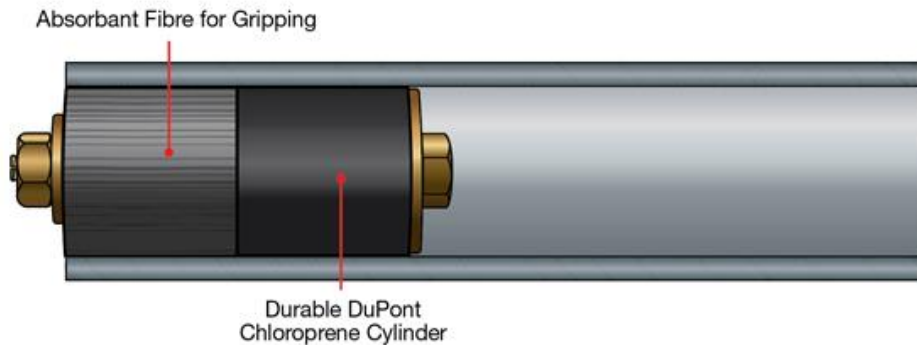
¹See detailed EX-F Installations on last page



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**CONCO STANDARD SIZE CHART
WITH PART NUMBERS FOR EX-F EXPANDING TUBE PLUGS**

O.D.	BWG	Brass	Bronze	Stainless	Titanium
5/8"	16	XFB5816	XFZ5816	XFQ5816	XFT5816
5/8"	17	XFB5817	XFZ5817	XFQ5817	XFT5817
5/8"	18	XFB5818	XFZ5818	XFQ5818	XFT5818
5/8"	19	XFB5819	XFZ5819	XFQ5819	XFT5819
5/8"	20	XFB5820	XFZ5820	XFQ5820	XFT5820
5/8"	21	XFB5821	XFZ5821	XFQ5821	XFT5821
5/8"	22	XFB5824	XFZ5824	XFQ5824	XFT5824
3/4"	16	XFB3416	XFZ3416	XFQ3416	XFT3416
3/4"	17	XFB3417	XFZ3417	XFQ3417	XFT3417
3/4"	18	XFB3418	XFZ3418	XFQ3418	XFT3418
3/4"	19	XFB3419	XFZ3419	XFQ3419	XFT3419
3/4"	20	XFB3420	XFZ3420	XFQ3420	XFT3420
3/4"	21	XFB3421	XFZ3421	XFQ3421	XFT3421
3/4"	22	XFB3422	XFZ3422	XFQ3422	XFT3422
7/8"	16	XFB7816	XFZ7816	XFQ7816	XFT7816
7/8"	17	XFB7817	XFZ7817	XFQ7817	XFT7817
7/8"	18	XFB7818	XFZ7818	XFQ7818	XFT7818
7/8"	19	XFB7819	XFZ7819	XFQ7819	XFT7819
7/8"	20	XFB7820	XFZ7820	XFQ7820	XFT7820
7/8"	21	XFB7821	XFZ7821	XFQ7821	XFT7821
7/8"	22	XFB7822	XFZ7822	XFQ7822	XFT7822
1"	16	XFB1116	XFZ1116	XFQ1116	XFT1116
1"	17	XFB1117	XFZ1117	XFQ1117	XFT1117
1"	18	XFB1118	XFZ1118	XFQ1118	XFT1118
1"	19	XFB1119	XFZ1119	XFQ1119	XFT1119
1"	20	XFB1120	XFZ1120	XFQ1120	XFT1120
1"	21	XFB1121	XFZ1121	XFQ1121	XFT1121
1"	22	XFB1122	XFZ1122	XFQ1122	XFT1122
1-1/8"	16	XFB9816	XFZ9816	XFQ9816	XFT9816
1-1/8"	17	XFB9817	XFZ9817	XFQ9817	XFT9817
1-1/8"	18	XFB9818	XFZ9818	XFQ9818	XFT9818
1-1/8"	19	XFB9819	XFZ9819	XFQ9819	XFT9819
1-1/8"	20	XFB9820	XFZ9820	XFQ9820	XFT9820
1-1/8"	21	XFB9821	XFZ9821	XFQ9821	XFT9821
1-1/8"	22	XFB9822	XFZ9822	XFQ9822	XFT9822
1-1/4"	16	XFB5416	XFZ5416	XFQ5416	XFT5416
1-1/4"	17	XFB5417	XFZ5417	XFQ5417	XFT5417
1-1/4"	18	XFB5418	XFZ5418	XFQ5418	XFT5418
1-1/4"	19	XFB5419	XFZ5419	XFQ5419	XFT5419
1-1/4"	20	XFB5420	XFZ5420	XFQ5420	XFT5420
1-1/4"	21	XFB5421	XFZ5421	XFQ5421	XFT5421
1-1/4"	22	XFB5422	XFZ5422	XFQ5422	XFT5422





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Installation steps for Conco EX-F (expanding) tube plugs

Make sure the tube is clean and dry before attempting to install the plug.

If the tube is dirty, use a bottle brush or a piece of scouring pad to remove the fouling, and then dry the tube. If there is residual water lying in the tube, use a piece of paper towel, foam rubber or rag to “dam up” the water before trying to dry the tube ID. Leaving the piece of paper towel, foam rubber or rag in the tube will not cause any future problems. Once the end of the tube is clean and dry, you are ready to proceed to the next step.

Tighten the nut, to manually expand the plug, until the plug fits snugly in the tube.

A snug fit means that the plug needs to be pushed into the tube because it's now slightly larger than the tube. A 7/16" box wrench will help tighten the nut. To determine whether you have expanded the plug enough, try sticking the first section into the tube... if the plug slides in easily, expand it some more. It is important to make sure the plug (EX4 only) fits snugly into the tube to keep it from being sucked down into the tube by the vacuum leak and to prevent the plug from turning in the tube during the final tightening step.

Push the plug into the tube until the end of the bolt is even with the end of the tube or slightly past the end (outlet end).

If the plug has been sufficiently expanded, it should almost be a tight fit and require some effort to push it into the tube. If it goes in too easily, continue to expand the plug until you have that snug fit.

Using a 7/16" socket, tighten the nut using three complete revolutions (turns) of the wrench, but Do Not Tighten Past This Point! You will be able to “feel” the plug tighten up. In this case, more is not better! If the plug turns in the tube, then remove it and go back to step one. If the tube is clean and dry, the rubber seals will “bite” into the tube and the tightening process will be easily accomplished. Three turns of the wrench is all that will be needed for the plug to be correctly installed. If the plug still turns in the tube... verify that you are using the correct size plug for that tube.

Summary – clean and dry is the single most important step in the whole installation process. Expand the tube until it is snug when you push it into the tube. Push the plug in until it is just past the end of the tube and tighten with 3 turns of a 7/16" wrench.

**Double nutting can be done to further ensure that the plugs stay tight in the tubes, but it is not required. Simply install a second brass, stainless or titanium nut and tighten... do not over-tighten. If the plug does not “feel” tight, remove it and start over.