

Product Information Report

Push-To-Connect (PTC) Fittings



Overview

Push-to-connect fittings allow an instant connection of the tube to the fitting simply by pushing the tube into the fitting. No other operation is required.

Features

- Easy installation and removal – no tools required
- Reusable – connect and disconnect numerous times
- Positive seal – instant sealing and holding
- Full flow – fittings seal on outside diameter of the tubing

Selection

LF3000 – Industrial (Compressed Air)

LF3600 – Food Grade (all liquids and gases compatible with the materials of the fitting)

LF3800 – Stainless Steel (all liquids and gases compatible with the materials of the fitting)

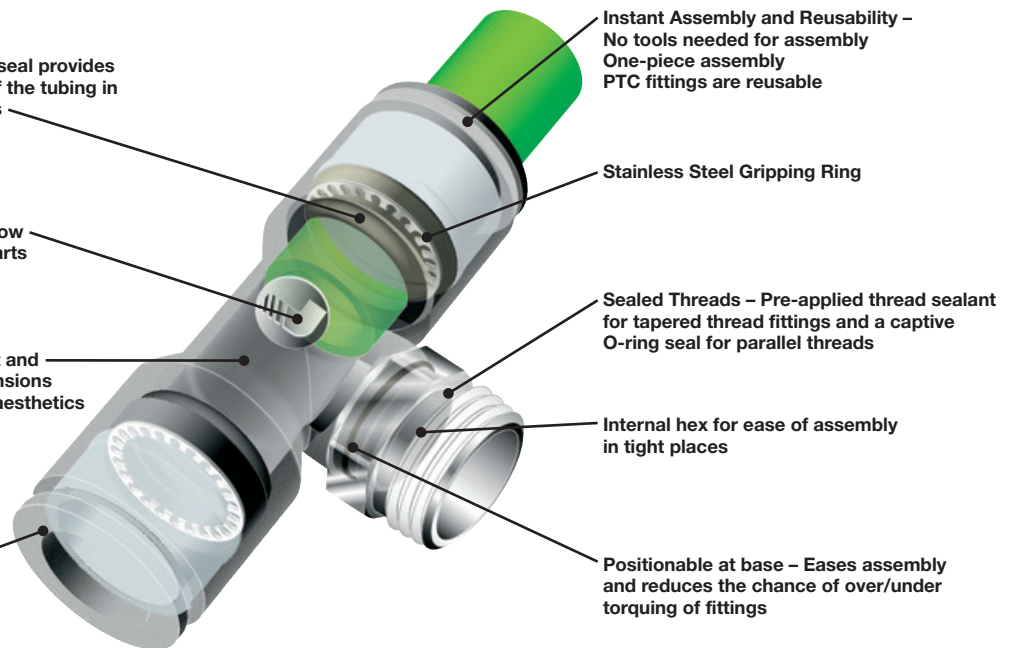
Advantages

Automatic Sealing – The 'D' seal provides a positive seal on the O.D. of the tubing in static and dynamic positions

Full-flow design means no flow restrictions by assembled parts

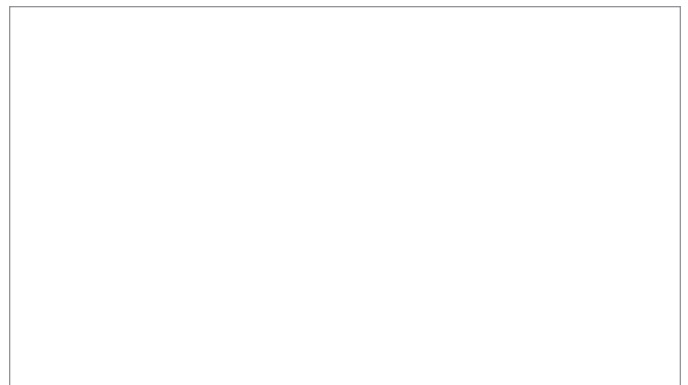
Engineered body is compact and appealing – Optimized dimensions satisfy the ergonomics and aesthetics of pneumatic installations

Push-button release for simple removal of tubing



Applications

- Valves
- Motors
- Grippers
- Pneumatics
- Robotics
- Automotive (D.O.T. type may be required)
- Food processing
- Medical and pharmaceutical
- Chemical and petrochemical
- FRLs (filters, regulators, lubricators)



Recommended Installation Torque

- 10–32 UNF: 13 lb.-in.
- 1/8" NPT: 70 lb.-in.
- 1/4" NPT: 100 lb.-in.
- 3/8" NPT: 250 lb.-in.
- 1/2" NPT: 308 lb.-in.

Installation Recommendations and Instructions

Industrial Push-to-Connect Fittings Quick Assembly

Connection

- 1 Achieve a square cut edge with a tube cutter.
- 2 Simply push the tubing until it can go no further. Holding and sealing is accomplished instantaneously.
- 3 Pull on the tubing to verify gripping action.

Disconnection

- 1 Make sure there is no air flow.
- 2 Depress the manual push button, then pull the tube out.

Industrial Push-to-Connect Fittings Quick List

Do's

- 1 Tighten by hand. Make final adjustment with wrench at the hex.
- 2 Achieve a square cut and clean edge.
- 3 Use Lawson Tube Cutter (pin 87666)
- 4 Allow adequate bend radius of tube.
- 5 Simply push the tubing until it can go no further. Holding and sealing is accomplished instantaneously.

Don'ts

- 1 Avoid using wrench on push-to-connect end.
- 2 Avoid drastic angle cutting which can lead to an improper seal.
- 3 Avoid using a knife or a dull tool to cut the tubing. Avoid burrs, dirt, and anything that can hinder full flow.
- 4 Avoid kinking the tubing and side load against the collet or gripping ring which can cause leaks.
- 5 Avoid contaminating substances in fittings and cartridges.

Installation Recommendations and Instructions

Fitting Series	Global Connect (General-Purpose)	LF3000 (Industrial)	LF3600 (Food Grade)	LF3800 (Stainless Steel)
Suitable Uses	Compressed Air	Compressed Air	All liquids and gasses compatible with the materials of the fitting	All fluids compatible with the fitting material
Working Pressure	150 PSI (10 BAR)	290 PSI (20 BAR) max. for gripping ring 260 PSI (18 BAR) max. for collet technology, 3/16"	7 to 290 PSI (0.5 to 20 BAR) – Short Leg Fittings 7 to 435 PSI (0.5 to 30 BAR) – Straight and Long Leg Fittings	7 to 290 PSI (0.5 to 20 BAR) – Short Leg Fittings 7 to 435 PSI (0.5 to 30 BAR) – Straight and Long Leg Fittings
Working Temperature	32°F to 140°F (0°C to 60°C)	-4°F to +175°F (-20°C to 80°C) LF3000 gripping ring 5°F to 155°F (-15°C to +68°C) LF3000 collet technology, 3/16"	-4°F to +250°F (-20°C to +121°C)	5°F to 230°F (-15°C to +110°C)
Vacuum Capability	Dependent on temperature and type of tubing	Vacuum of 28" Hg (99% vacuum)	Vacuum of 28" Hg (99% vacuum)	Vacuum of 28" Hg (99% vacuum)
Body	Straight: Brass, nickel-plated Shapes: Polyamide	Glass-reinforced nylon 6.6	High phosphorus FDA chemical nickel-plated brass	316 Stainless Steel
Collar	Acetal copolymer	Nylon		
Backup Washer			High phosphorus FDA chemical nickel-plated brass	304L Stainless Steel
'D' Seal		Nitrile		
O-ring	Nitrile	Nitrile	FKM fluoroelastomer (FPM) conforming to FDA standard	FKM
Base	Nickel-plated brass with PTFE thread sealant on tapered components	Nickel-plated brass with thread sealant on tapered components and captive seal on parallel threads	High phosphorus FDA chemical nickel-plated brass	316 Stainless Steel
Collet		Brass (only in collet technology fittings, 3/16")	High phosphorus FDA chemical nickel-plated brass	303L Stainless Steel
Compatible Tubing	Semi-rigid nylon, flexible polyurethane	Semi-rigid nylon, flexible polyurethane, low-density polyethylene, fluoropolymer	Semi-rigid nylon, flexible polyurethane, low-density polyethylene, fluoropolymer FEP140	Semi-rigid nylon, flexible polyurethane, low-density polyethylene, fluoropolymer FEP140, stainless and copper when grooved
Cost Ratio	0.51	1.0	1.58	15.37