



Warning: Be aware of the pressure levels of your system. Connecting or disconnecting fittings while the system is pressurized can be very dangerous.



Push-in Fittings Installation Procedure

A. Installation of Pipe Fittings:

- Tighten fitting by hand, then turn approximately 2-3 turns with a wrench until reaching the desired torque. If the fitting is not pre-coated with sealant, or has been used and the sealant is not in good condition, apply Teflon sealant tape to the threads.

B. Installation of Tubing into Fitting:

- Slowly push a clean and perpendicularly cut tube into the fitting until it comes to a dead stop.
- Pull the tubing back gently until the grip ring or collet of the fitting grips onto the tubing and provides a good seal.
- Use Polyethylene, Polypropylene, Polyurethane or Nylon tubing designed for instant fittings.
- Hard metal tubing can be used for all metal Stainless Steel and all Brass fittings if the tubing is pre-grooved.

C. Removal of Tubing from Fitting:

- Push in evenly on the two long oval sides of the Release Button.
- Pull out the tube while depressing the Release Button.
- To reuse tubing, cut off the lodged portion of the previously used tubing in an even and perpendicular fashion.

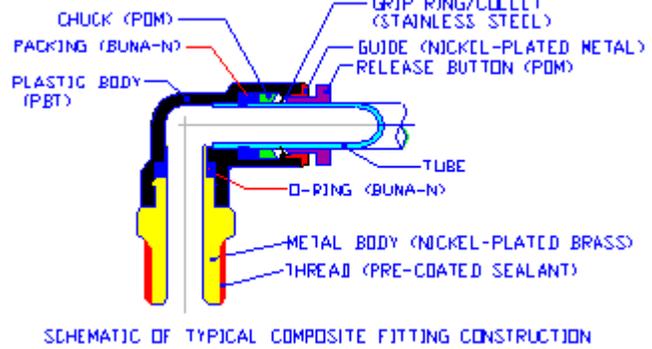
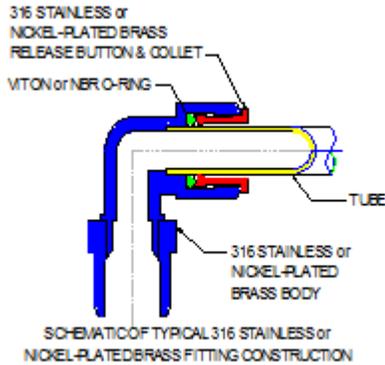
Recommendation of Torque for Tightening Fittings

| Fitting Thread Size | Torque [lb-ft] | Torque [kgf/cm] |
|---------------------|----------------|-----------------|
| 10-32, M5-M6 | 1.0-1.5 | 14-21 |
| NPT 1/8, R 1/8 | 5.0-6.5 | 70-90 |
| NPT 1/4, R 1/4 | 8.5-10.0 | 120-140 |
| NPT 3/8, R 3/8 | 16.0-17.5 | 220-240 |
| NPT 1/2, R 1/2 | 20.0-21.5 | 280-300 |

Recommended Tubing Material

| Tubing Material | Specified Size | Hardness (Durometer) |
|--------------------------|---------------------|----------------------|
| Polyurethane | ± 0.006" (± 0.15mm) | Shore A 85 or Higher |
| Polyethylene | ± 0.004" (± 0.1mm) | Shore D 44 or Higher |
| Polypropylene | ± 0.004" (± 0.1mm) | Shore D 44 or Higher |
| Nylon | ± 0.004" (± 0.1mm) | Shore D 44 or Higher |
| Pre-grooved Metal Tubing | ± 0.004" (± 0.1mm) | |

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Specifications & Typical Materials of Construction

| Specifications | Composite Push-In Air Fittings | | Stainless Steel Fittings | Nickel-Plated Brass Fittings |
|-----------------------------|--|-------------------------|---|------------------------------|
| | Standard (Purple Button) | K Series (Black Button) | | |
| Maximum Operating Pressure | 150psi @ 72°F | 180psi @ 72°F | 250psi @ 72°F | 250psi @ 72°F |
| Vacuum | 0-29.5 inHg (750 mmHg) | | 0-30 inHg (760 mmHg) | 0-30 inHg (760 mmHg) |
| Operating Temperature | 32-140°F (0-60°C) | | 5-230°F (-15 to 110°C) | 5-230°F (-15 to 110°C) |
| Recommended Tubing Material | Polyurethane, Nylon, Polyethylene, Polypropylene | | Polyurethane, Nylon, Polyethylene, Polypropylene, Hard Metal Tubing (must be pre-grooved) | |
| Metal Body | Brass, Nickel-Plated | | 316 Stainless Steel | Nickel-Plated Brass |
| Plastic Body | PBT (Polybutylene terephthalate) | | None | None |
| Release Button | POM (Poly oxy methylene copolymer) | | 316 Stainless Steel | Nickel-Plated Brass |
| Grip Ring of Collet | 300 Series Stainless Steel Grip Ring | | 316 Stainless Steel Collet | Nickel-Plated Brass Collet |
| O-Ring | NBR (Buna-N) | | Viton | NBR (Buna-N) |
| Thread Sealant | Teflon | | None | Teflon |
| Service | AIR ONLY | | Air, Liquid | Air, Liquid |