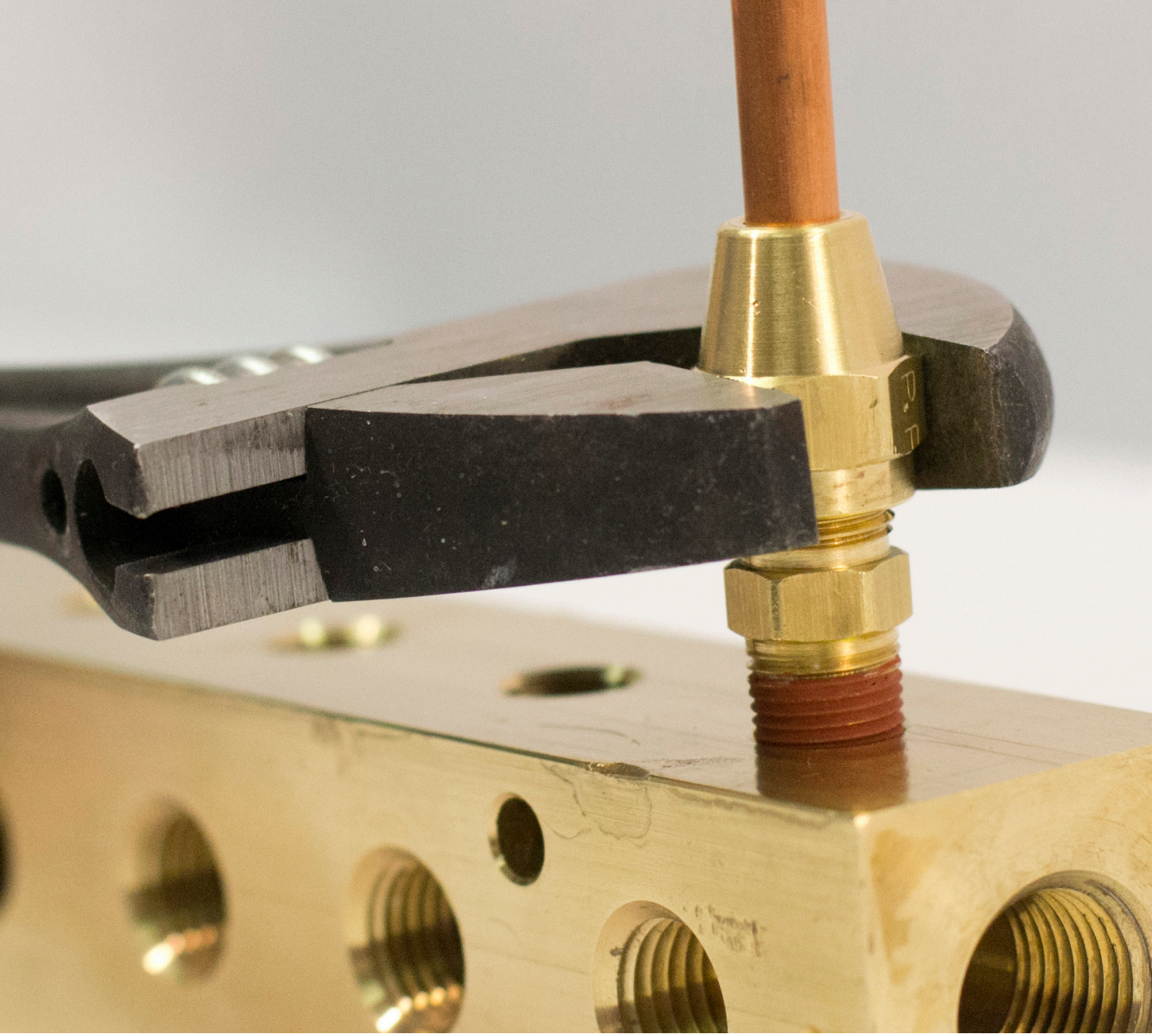

Assembly Guides

Fluid System Connectors

Parker

ENGINEERING YOUR SUCCESS.

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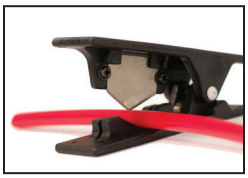
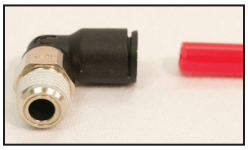
Assembly Guides

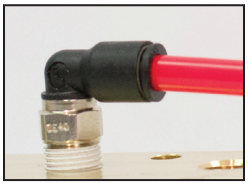
Push-to-Connect Fittings

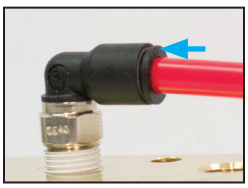
- Prestolok PLP Metal
- Prestolok PLP Composite
- Prestolok PLM
- Prestolok PLS
- Oscillating Elbows
- LIQUIFit
- TrueSeal
- Flow Controls
- PTC
- Metric Prestomatic
- Polypropylene Ball Valves

1. Cut tubing squarely – maximum of 15˚ angle allowable.
2. Check that port or mating part is clean and free of debris.
3. Mark tubing to appropriate tube insertion length. (see Tube Insertion Chart on page N22)
4. Insert tubing until it bottoms
5. Pull on tubing to verify it is fully inserted
6. To disassemble, simply press release button, hold against body and pull tubing out of fitting.





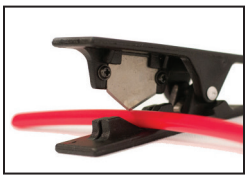


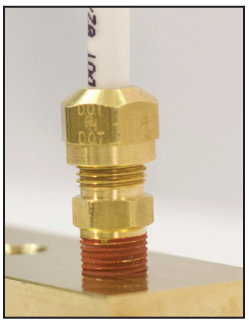


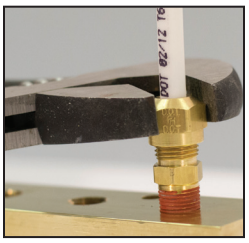
Transportation Compression Style NTA

1. Cut tubing squarely – maximum of 15˚ angle allowable.
2. Check that port or mating part is clean and free of debris.
3. Insert tubing until it bottoms on seat.
4. Tighten nut with wrench until one thread remains visible on the fitting body; (this will allow for a number of remakes) or, the nut should be screwed down finger tight, then wrench-tightened as indicated in the following table.

TUBE SIZE	ADDITIONAL NUMBER OF TURNS FROM HAND-TIGHT
3/16	2-1/2
1/4	3
3/8 &1/2	4
5/8 &3/4	3-1/2



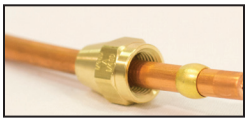


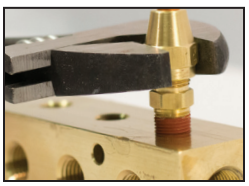


Air Brake – AB Fittings

1. Cut tubing squarely and remove burrs
2. Slide nut and sleeve onto tubing.
3. Insert tubing into fitting until bottomed on seat. The nut should be screwed down finger tight, then wrench tightened as indicated in the chart

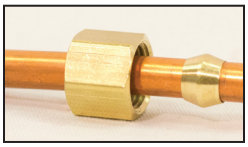
TUBE SIZE	TURNS REQUIRED TO SEAL FROM HAND-TIGHT
1/4, 3/8, 1/2	2
5/8, 3/4	3

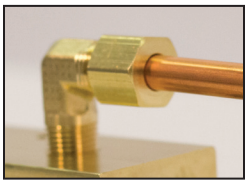


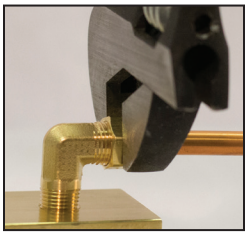


Compression

1. Slide nut then sleeve onto tubing. The thread end of the nut must face out.
2. Insert tube and bottom on the fitting shoulder
3. Assemble nut to body and tighten “hand tight”. Then wrench tighten the number of turns indicated in the table.



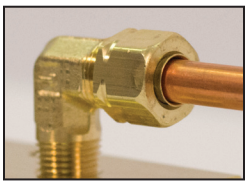


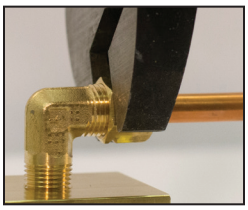


FITTING SIZE	TUBE SIZE	TURNS REQUIRED TO SEAL FROM HAND-TIGHT	
		60C WITH SOFT METAL TUBING	60PT WITH THERMOPLASTIC TUBING
2	1/8	1-1/4	—
3	3/16	1-1/4	—
4	1/4	1-1/4	2
5	5/16	1-1/4	2
6	3/8	2-1/4	2
8	1/2	2-1/4	2
10	5/8	2-1/4	2
12	3/4	2-1/4	2
14	7/8	2-1/4	—

Compress-Align

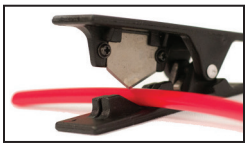
With nut finger tight on fitting body, insert tubing until it bottoms in the Fitting. Complete the seal with one wrench turn for all sizes.

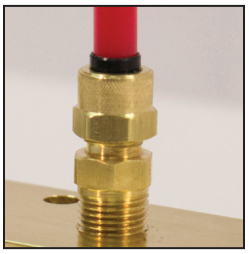


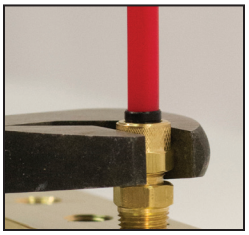


Poly-Tite

1. Cut tubing squarely – maximum of 15° angle allowable.
2. Check that port or mating part is clean and free of debris.
3. Insert tube end until it bottoms in the Poly-Tite fitting and tighten knurl/ hex nut finger-tight, plus one wrench turn.





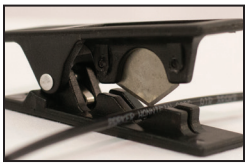


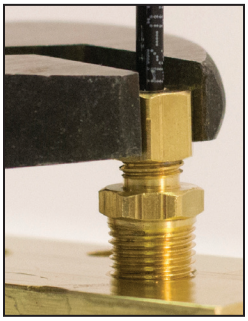
Hi-Duty

1. Cut tube squarely and cleanly removing all burrs.
2. Grasp fitting. Do not remove nut.
3. Insert tube in fitting through nut until tube seats firmly against tube shoulder in body.
4. Grip tube firmly to prevent turning and tighten nut to finger-tight. Continue to tighten for one and three-quarter additional turns (one and one-half turns for 1/2” size fittings) for a positive, leak proof seal. During tightening a slight “give” will be felt. This “give” indicates the sleeve has been sheared from the nut. It is not necessary to tighten the nut all the way down.

Transmission Fittings

1. Cut tubing squarely and remove burrs
2. Insert tubing into fitting until bottomed
3. Tighten nut 1 1/2 turns from finger tight

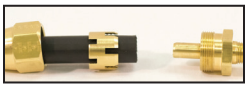




Air Brake Hose Ends

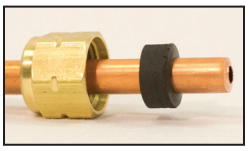
1. Slide nut onto hose
2. Slide sleeve onto hose with tapered edge toward fitting body
3. Bottom hose into fitting
4. Tighten nut until it contacts body hex

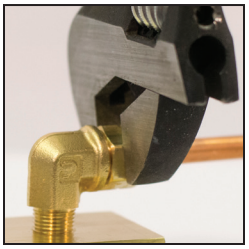
Note: When reassembling fitting, body and nut should be inspected. Only reuse if parts are in proper condition. Sleeves should never be Reused.



Vibra-Lok

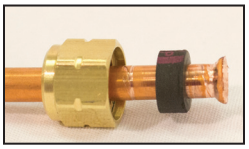
1. Cut the tubing squarely removing burrs
2. Slip nut and sleeve over tube
3. Bottom tubing into fitting and tighten nut until stop is reached. The elastic sleeve ordinarily will extrude slightly around the tube at the end of the nut. This extrusion further aids in isolating the tube from the nut.





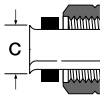
For Higher Pressure applications

4. Consult pressure chart to determine if tubing should be belled
5. Slip nut and sleeve over tube. The sleeve should be positioned near end of tubing just behind the surface to be belled
6. Bell tubing with standard 45˚ flaring tool or 90˚ punch. The size of bell should be approximately that shown.



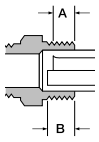
Recommended Size of Bell

TUBE O.D.	BELL DIA. C
1/8	.190-.160
3/16	.255-.225
1/4	.318-.288
5/16	.381-.351
3/8	.444-.414
1/2	.569-.539
5/8	.694-.664
3/4	.819-.789
7/8	.944-.914



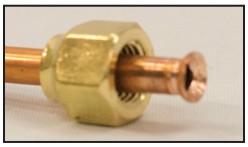
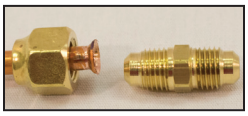
Tube Length Calculator
This table shows distance tube extends beyond face of Vibra-Lok fitting body on installation with bell on tubing and without bell on tubing.

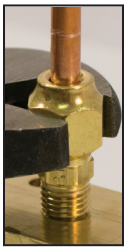
O.D. OF TUBE	A WITH BELL	B WITHOUT BELL
1/8	3/16	3/16
3/16	3/16	7/32
1/4	3/16	1/4
5/16	3/16	1/4
3/8	3/16	1/4
1/2	3/16	11/32
5/8	3/16	TUBING SHOULD BE BELLED
3/4	3/16	
7/8	1/4	



45° Flare Fittings

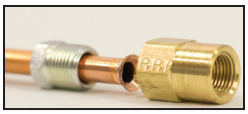
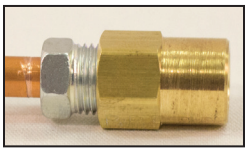
1. Cut tubing squarely and clean tube end thoroughly to remove burrs.
2. Place nut onto tube. Place threaded end of nut toward end of tube.
3. Flare tube end with flaring tool to provide 45° flare.
4. Clamp tube flare between nut and nose of fitting body by screwing nut on finger-tight. Tighten with a wrench an additional 1/4 to 1/2 turn past finger-tight for a metal-to-metal seal.



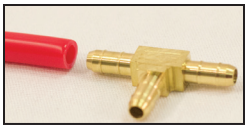
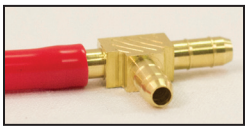
Inverted Flare

1. Cut tubing squarely and clean to remove burrs
2. Place nut onto tube. Place threaded end of nut toward end of tube.
3. Flare tube end with flaring tool to provide 45˚ flare
4. On thin wall copper, welded or brazed tubing, use double flare to prevent pinch-off or cracked flares
5. Clamp tube flare between nut and nose of fitting body by screwing nut on finger tight. Tighten nut with a wrench an additional 1/4 to 1/2 turn past finger tight for a metal-to-metal seal.

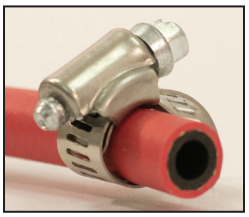
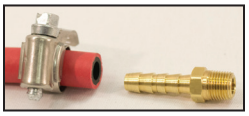
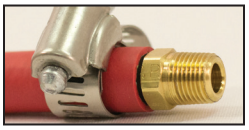
Dubl-Barb

Cut tube squarely and simply push tube over the two barbs

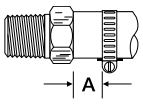



Hose Barbs

1. Cut hose cleanly and squarely to length.
2. Slide clamp on hose.
3. Lubricate hose. Push hose on fitting until bottomed against stop ring or hex.
4. Position hose clamp as shown and secure with a screwdriver or wrench. Maintain “A” dimension for proper clamp positioning.

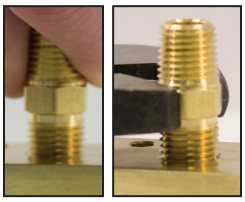
HOSE SIZE	HOSE CLAMP	A
3/16	97 HC-3	1/4
1/4	97 HC-3	1/4
5/16	97 HC-6	1/4
3/8	97 HC-6	1/8
1/2	97 HC-8	1/8
5/8	97 HC-12	1/8
3/4	97 HC-12	1/8



Pipe Fittings

Straight Fittings

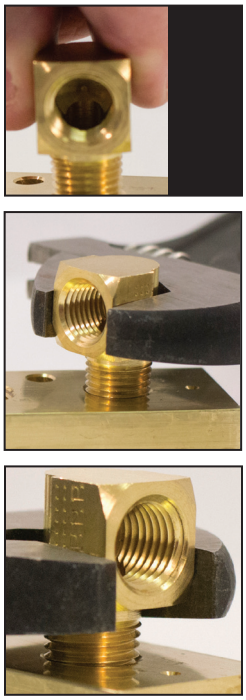
1. Hand tighten external thread into internal thread
2. Tighten an additional 2 turns with a wrench up to 1/2" male pipe thread.
3. Above 1/2" 1 1/2 to 2 1/2 turns.



Elbow or Tee Fittings

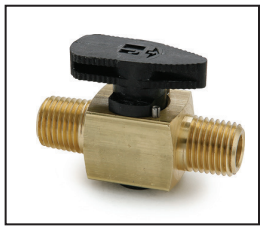
1. Hand tighten external thread into internal thread
2. Tighten an additional 1 to 1 1/2 turns with a wrench
3. Tighten fitting, clockwise to align with tubing. (Never counter clockwise)

Note: To minimize the possibility of a leaking threaded joint after assembling Male to female pipe threads, neither end should be backed out (loosened) Once the assembly has been made.



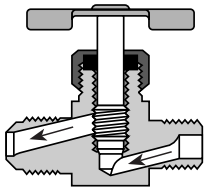
Plug Valves

To assure sealability and reliable performance, the valve must be installed So that the flow media travels in the direction of the arrow on the valve handle.



Needle Valves

Needle valves should always be installed with the pressure against the seat.



NEMA Rated Bulkhead

1. Drill panel to required diameter
2. Install sealing washer onto brass body.
3. Install fitting body through panel and secure with lock washer and jam nut.
4. Using a wrench to hold the fitting body torque the jam nut to spec per below table.

Note: For sealing bulkheads the sealing washer must be installed between the body hex and panel. To ensure a leak tight connection the panel surface must be kept flat and deburred after the drilling operation. It must be free from dirt, debris, and other contamination.

THREAD SIZE	MIN. TORQUE FT-LBS	MAX. TORQUE FT-LBS
5/8-18	15	20
3/4-16	15	25
1-14	40	50

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