# STC Composite Push-In Fittings Elbow Union EU Specifications



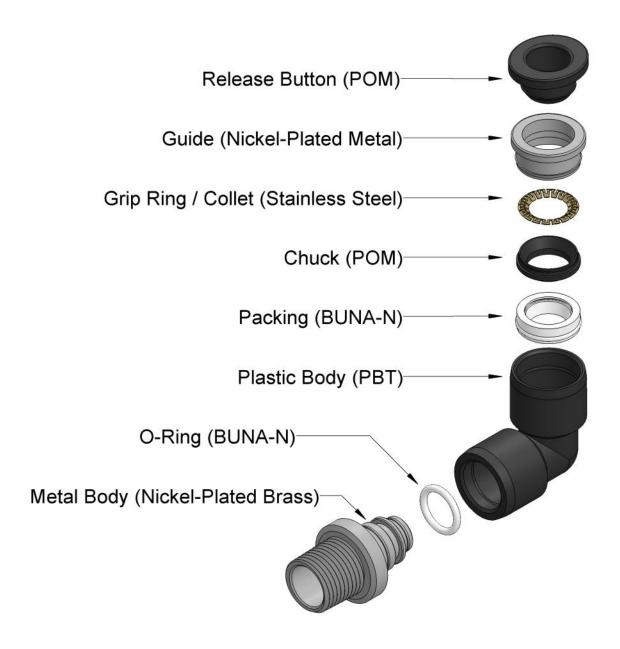
# **Elbow Union EU Specifications**

Specifications				
Operating Pressure Range	0 - 180 PSI (0 - 1200 kPa)			
Vacuum	0 - 29.5" Hg (750 mm Hg)			
Operating Temperature	32 - 140°F (0 - 60°C)			
Recommended Tubing Material	Polyurethane, Nylon, Polyethylene, Polypropylene			
Metal Body	Brass, Nickel Plated			
Plastic Body	PBT (Polybutylene Terephthalate)			
Release Button	POM (Polyoxymethylene copolymer)			
Grip Ring or Collet	300 Series Stainless Steel			
O-Ring	NBR (Buna-N)			
Thread Sealant	Teflon			
Service	FOR AIR			



## **Composite Push-In Fitting Components**

# Composite Push-In Fitting Materials of Construction



## **Material Test Reports**

This document certifies that STC products have been subjected to quality assurance procedures and meet the material and performance specifications published by Sizto Tech Corporation (STC). The products have been manufactured, processed, inspected, and tested according to STC internal requirements and ISO 9001 standards.

ISO 9001:2015 Certificate Number: Qnb17180318

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Individual materials and components used in this product have been tested and conform to applicable published standards according to chart below. Please be advised that STC does not conduct its own material analysis of all raw materials, rather, STC relies on the statements of its material suppliers & reserves the rights to independently test raw materials if necessary. Material Test Reports may be available for specific products upon request.

Material	Use Location	Material Standard	
316 Stainless Steel	Metal Fittings, Valves, Air Cylinders	ASTM A240/A2666	
304 Stainless Steel	Valves, Air Cylinders	ASTM A240/A666	
CF8M Stainless Steel	Valves	ASTM A351/A743	
Brass	Valves	ASTM B36/B62	
Nickel-Plated Brass	Composite Fittings	ASTM B456/B927	
Acetal Homopolymer (Delrin)	Valves	ASTM D4181/D6778—14	
Acetal Copolymer (POM)	Composite Fittings	ASTM D4181/D6778—14	
FKM (Viton)	Seals	ASTM D1418	
PTFE (Teflon)	Valves, Seals	ASTM D3294—15	
NBR (Buna N)	Seals	ASTM D1387—06	
EPDM	Seals	ASTM D3568—03	
Polybutylene Terephthalate (PBT)	Composite Fittings	ASTM D4000	



## **Composite Push-In Fitting Installation Procedure**

### A. Installation of Pipe Fittings

1. Tighten fitting by hand, then turn it 2-3 turns with a wrench until it reaches the desired torque listed. If the fittings are not pre-coated with sealant, or is used and the sealant is not in good condition, apply Teflon sealant tape to the threads.

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, R1/8	5 - 6.5	70 - 90			
NPT 1/4, R1/4	8.5 - 10	120 - 140			
NPT 3/8, R 3/8	16 - 17.5	220 - 240			
NPT 1/2, R 1/2	20 - 21.5	280 - 300			

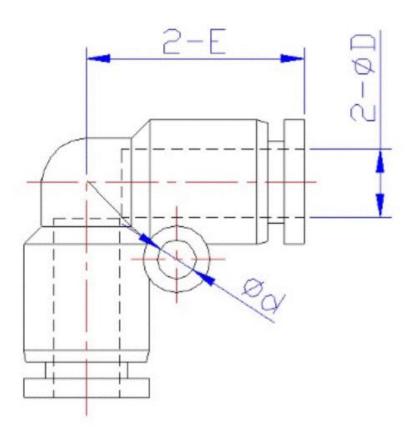
#### B. Installation of Tubing into Fitting:

- 1. Slowly push a clean and perpendicularly cut tube into the fitting until it comes to a dead stop.
- 2. Gently pull the tubing back until the Grip Ring or Collet of the fitting grips onto the tubing and has a good seal.
- 3. Use Polyethylene, Polypropylene, Polyurethane, or Nylon tubing designed for instant fittings.
- C. Removal of Tubing from Fitting:
  - 1. Push in evenly on the two long, oval sides of the Release Button.
  - 2. Pull out the tube while depressing the Release Button.
  - 3. To reuse the tubing, cut off the lodged portion of the previously used tubing in an even and perpendicular fashion.
- D. Recommended Tubing Material, Size, and Hardness Requirements:

Tubing Material	Specified Size	Hardness (Durometer)
Polyurethane	+/- 0.006" (+/-0.15 mm)	Shore A 85 or higher
Polyethylene	+/- 0.004" (+/-0.1 mm)	Shore D 44 - D75
Polypropylene	+/- 0.004" (+/-0.1 mm)	Shore D 44 - D75
Nylon	+/- 0.004" (+/-0.1 mm)	Shore D 44 - D75
Pre-grooved Metal Tubing	+/- 0.004" (+/-0.1 mm)	



# **Composite Push-In Fitting Dimensions**



Elbow Union EU Dimensions					
Model	ΦD	Фd	E		
EU 5/32	5/32	3.2	17.5		
EU 3/16	3/16	3.2	17.8		
EU 1/4	1/4	3.2	19		
EU 5/16	5/16	3.2	22.8		
EU 3/8	3/8	4.2	26.3		
EU 1/2	1/2	4.3	29.6		
EU 04	4	3.2	17.5		
EU 06	6	3.2	19		
EU 08	8	3.2	22.8		
EU 10	10	4.2	26.3		
EU 12	12	4.3	29.6		
EU 14	14	5.1	31.7		
EU 16	16	5.1	33		
Note: Dimensions are for reference only. Field verify dimensions prior to installation for critical dimensions.					



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