

COMPRESSED AIR SYSTEM PIPING 1/2-10"

Quick-Lock & Big-Lock Piping



Why Champion?

Innovative Design & Function

With the quality expected of all marine-grade aluminum fittings combined with our unique gripping technology, you will be even more impressed by our piping offering than ever before. Our piping system is easier to install than plastic and delivers a quality of air, nitrogen, vacuum or inert gas that is equal to that of a high cost stainless steel system.

Our **NeXt Generation** of piping products offers an incredible rating of 300 PSI and 300°F across all the fittings in the product family. It is also meeting food grade regulations, and has a LIFETIME warranty covering all piping and fittings in the product series. Our USA production facilities will be providing expansive stock to our warehouses so that our Quick-Lock and Big-Lock product will be available when you need it.

Our **NeXt Generation** of Champion Quick-Lock & Big-Lock products has taken our best piping product and made it even better.

Our Champion Guarantee

- Lifetime warranty on all piping and fittings
- Leak free at 300 psi & 300°F
- Food-grade compliant
- Easiest installation/modification process
- Unmatched commitment to safety
- Quickest shipment of orders in the industry
- Zero maintenance

Most Advanced Technology in the Industry

- Lightest and strongest product
- Corrosion-resistant piping & fittings
- Produced with 100% recyclable materials

Compatible with All Industry Conditions

- Mineral oil
- Glycol

40 X 20 MM

- Compressed air condensate
- Food grade environments
- Thermal variations between -4°F (-20°C) to 300°F (149°C)
- Pressure up to 300 psi (21 bar)
- UV radiation (direct sunlight exposure)

Total Piping & Fitting Product Solution

Champion offers a total solution for Compressed Air, Vacuum, Nitrogen and Inert Gas applications. Ranging in size from 14 mm ($\frac{1}{2}$ ") to 63 mm ($\frac{2}{2}$ ") for Quick-Lock and 70 mm ($\frac{2}{2}$ ") to 273 mm (10") for Big-Lock, Champion offers four color options to meet all system demands.

With the pairing of Quick-Lock and Big-Lock, Champion can easily provide piping for any application from a 1–2 bay garage to a large industrial manufacturing facility.

Big-Lock Clamp-to-Connect Fitting 73-273 mm 21/2-10"

Quick-Lock Push-to-Connect Fitting

14-63 mm ½-2½″



Did You Know?

Our Quick-Lock and Big-Lock products are preferred by many mechanical firms today for their ease of use and ability to form a dependable no-leak tight seal.

High Quality Aluminum Piping Systems

- Lightest product in the market
- Fastest installed system compared to all others available
- Structurally as strong as carbon steel
- One-tenth the weight of same diameter steel
- Tube and fittings manufactured from non-corrosive marinegrade aluminum
- Guaranteed highest quality air delivery
- Material construction and design allows highest flow rates and lowest pressure drops
- System flexibility means simple modifications and/or additions
- Lifetime leak-free guarantee
- "Green": Our piping is manufactured from 100% recyclable materials

Available in 4 Color Options		
Blue	Compressed Air	
Green	Nitrogen	
Gray	Vacuum	
Black	Inert Gas	



Technical Specifications





Push to Connect Marine Grade Aluminum

C	COMPONENT PART	MATERIAL
1	Body	A380 Aluminum Powder Coated
2	Nut	A380 Aluminum Powder Coated
3	Plug	AISI 304 Stainless Steel (Optional, Ported, Straight Union Connector)
4	Safety Ring	Polymer
5	Clamping Washer	AISI 304 Stainless Steel
6	Double O-Ring Seals	Buna N, High Nitrile Viton (Available Upon Request)

Clamp to Connect Marine Grade Aluminum

(COMPONENT PART	MATERIAL
1	Body	A380 Aluminum Powder Coated
2	Seal	Buna N, High Nitrile Viton (Available Upon Request)
3	Bolts	Carriage / Grade 5 / Zinc Plated

Component Technical Data

ITEM	VALUE
Temperature	Minimum: -4°F (-20°C) Maximum: Viton 300°F (149°C) Maximum: Nitrile 176°F (80°C)
Pressure	Minimum: -29.6 Hg (-0.99 bar) Maximum: 300 psi (21 bar)
Fire Resistance	System does not stoke or propagate fires
Compatibility	Compressed Air, Vacuum, Inert Gases
Male Threads	National pipe thread ISO 228
Female Threads	National pipe thread ISO 228

Tubing Technical Data

ITEM	VALUE
Pressure: psi/bar	300/21
Thermal Conductivity at 77°F	209 W/m-k -1450 BTU-in/hr
Tubing Length	16 ft
Expansion Coefficient (Avg @ 68° to 212°F per°F)	23.4 um/m-°C / 13 uin/in-°F
Extruded Aluminum	Aluminum 6063/AA6063-T5
Heat Capacity	0.9 J/g-°C / 0.215 BTU-in/hr-ft 2
Chemical Composition	Si: 0.2 - 0.6 - Mg: 0.45 ÷ 0.9 - Fe: 0.35
Ultimate Tensile Strength	21.0 ksi / 21,000 psi
Designations	AA 6063 Alloy
Modulus of Elasticity	68.9 GPa / 10,000 ksi
Heat Treatment	Thermal Heat Treat "T5"
Tensile Strength	15.0 ksi min / 15,000 psi
Surface Treatment	PPG Duracron Protective Coating
Brinell Hardness	60 ÷ 70 HB
Density	2.7 g/cc - 0.0975 in/in ³
Melting Point	615°C to 650°C / 1140 to 1210°F
Electrical Resistivity at 68°F	19 ohm-Cir. Mil/Foot
Percentage Elongation	8%

Lifetime Warranty

Champion is proud to provide our Lifetime Warranty Program covering all pipe and fittings for the Quick-Lock and Big-Lock compressed air product lines. This warranty is possible due to the long history of producing high quality products, continuing our tradition of excellence and customer satisfaction.

We are 100% committed to supplying the finest products available to our customers and always doing our best to exceed their expectations. This Lifetime Warranty is a testament to that commitment!



Champion is committed to delivering superior products built with the exceptional standards you expect.



1301 North Euclid Avenue Princeton, Illinois 61356 USA www.ChampionPneumatic.com



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