













# EPC (USA) QTITE FITTINGS

Another quality product from Teck Leong Metals Pte Ltd

CALL NOW +65 6398 0020

www.teckleongmetals.com

 <p>900</p>	 <p>901</p>	<p><b>WHY QTITE COPPERLOC?</b></p> <ul style="list-style-type: none"> <li>• <b>Heat Free</b> – Reduces Fire Hazard; Utilises Push Fit Technology.</li> <li>• <b>Fast &amp; Simple</b> – Tool Free Easy Installation.</li> <li>• <b>Connect in under 8 seconds.</b></li> <li>• <b>Clean</b> – Heat Free; No Glues, Fluxes or Solder needed.</li> <li>• <b>No Consumable Materials</b> – Reduces Material Cost &amp; Storage.</li> <li>• <b>Permanent Fitting.</b></li> <li>• EPDM “O-ring” Design for Leak Free Seals.</li> <li>• Pre-lubed for Quick Installation.</li> <li>• Deep Cup Offers Deflection Protection.</li> <li>• NSF/ANSI NSF-372 <b>Lead Free (LF)</b>.</li> <li>• Joins Copper, CPVC and PEX Tubing.</li> <li>• AWWA C800 Compliant.</li> <li>• ARRA Compliant.</li> <li>• cUPC® Compliant.</li> <li>• Approved for Underground Installations.</li> <li>• <b>50 Year Warranty.</b></li> </ul> <p>Teck Leong Metals Pte Ltd is an authorised distributor of Elkhart Products Corporation. We work closely with EPC to offer our customers an extensive range of EPC high quality fittings.</p> <p>QTITE is available in sizes from 1/2" to 1". No other push fitting manufacturer offers both the size and breadth of the QTITE CopperLOC line of push fittings.</p> <p>The CopperLoc® is a Non-Removable Push Fitting featuring a Lead-Free dezincification resistant copper body, a Stainless Steel Grab Ring, a Nylon Separation Ring and an EPDM O-Ring.</p> <p>CopperLoc® products are manufactured utilizing proven ASTM materials and standards. Proudly Made In The USA.</p> <p><b>* COMPETITIVE PRICING *</b>  <b>* PROMPT DELIVERY *</b>  <b>* HIGHEST QUALITY *</b>  <b>* WIDE RANGE OF SIZES *</b>  <b>* GOOD SALES SUPPORT *</b></p>
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## About Us

TLM has paved the way to introduce top quality products by setting up business ties with internationally reputable mills and manufacturers worldwide. We are the exclusive distributor for international products such as **EPC (USA) fittings** and **WILKO (KOREA) Copper pipes**.

Regular site visits and dialog sessions are conducted between TLM and our mill representatives to share expert insights on the latest product developments in the market. These sessions enable us to apply our expertise and knowledge to satisfy the most demanding challenges of present day quality conscious markets.

We will continue to upgrade and build-on our in-depth expertise to invest and introduce new product grades and range to better suit the diverse needs of our customers. We are fully equipped to provide the best service, timely deliveries and product quality at competitive prices for all and we aim to forge strong and long-term business ties with our valued customers.

That is our commitment to you.

## Why Us

- We are an ISO 9001:2008 Certified company and a statutory member of the S'pore Business Federation and S'pore Metal & Machinery Association.
- TrustSg Accredited.
- Leading stockist of only Top Quality Materials from reputable manufacturers worldwide.
- Offers Highly Competitive Pricing, Resourceful, Experienced and Efficient.
- Prompt Deliveries Tracked using GPS Technology.
- Excellent Customer Support and Valued-added services.



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EPC Elkhart Products Corporation Authorized Distributor



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## Frequently Asked Questions (FAQ)

Answers to Using QTITE Fittings with Certain Chemicals and Applications

- Yes: Hot Water (up to 180°F) max. working pressure 200 psi
- Yes: Chilled Water max. working pressure 200 psi
- Yes: Vacuum
- Yes: Water Glycol Mixture (approved glycols: ethylene, propylene, butylene, glycol – up to 100% concentration)
- Yes: Air (cleaned, dried, filtered)
- Yes: Window Washer Fluid
- No: Chlorine
- No: Low Pressure Steam (max. working pressure 15 psi)
- Yes: Oxygen (note: Oxygen for medical gas application – NO)
- Yes: Nitrogen (max. working pressure 140 psi)
- Yes: Argon (max. working pressure 140 psi)
- No: Medical gas
- No: All Petroleum Products (e.g., oil, grease, diesel fuel, gasoline)
- No: DWV Pipe
- No: Natural Gas (not supported at this time but may be in the future)
- No: Refrigerants (not supported at this time but may be in the future)
- No: Fire Protection Systems (not supported at this time but may be in the future)
- No: Paint Lines like those found in car manufacturing plants (The QTITE fittings and seals currently offered are not compatible because of the silicone lubricant used on the seal)

## What is the procedure for soldering near a QTITE connection?

- Fabricate the solder joint prior to installing the QTITE fitting. Insure the pipe is cooled before installing a QTITE fitting. See the QTITE installation manual for further details.

## As an inspector, how do I know if I am looking at a good joint?

- Pressure test – same as a solder joint.

## With what are the sealing elements in QTITE fittings lubricated?

- The seals are lubricated with an ANSI/NSF 61 listed silicone grease. If it is necessary to lubricate the seals in the field, use water only. Do not use other lubricants. In particular, do not use any petroleum-based lubricants (petroleum and EPDM are incompatible).

## How long will the EPDM seal last?

- When properly installed the EPDM seal and connection will last as long as the copper pipe with which it is joined (50+ years).

## How was the life testing conducted for the seals and fittings?

- The life testing is a hot and cold thermal cycle test described in the IAPMO IGC 188 and ANSI/NSF61 test methods.

## How do I fabricate a system in tight places when using QTITE?

- If necessary, pre-fabricate connections that are in tight places and then install.

## Does the QTITE system require the use of special valves?

- No. Users can continue with their favourite valve line by using the threaded adapters or by stubbing-out the valves.

## What is the warranty for QTITE?

- QTITE fittings carry a 50-year warranty against defects in material and workmanship from the manufacturer, EPC.

## Can you turn a QTITE fitting on the tube without damaging the integrity of the joint?

- Yes. The fitting can be turned (rotated) after assembly and will not affect the integrity of the joint. Installers should take this product feature into consideration and support tube assemblies during installation and in the final installation.

## What level of turbulence is caused by QTITE fittings and will it cause premature wear in copper tubing?

- The long radius of QTITE elbows reduces the turbulence typically experienced with traditional short radius elbows. Not chamfering the ID of the tube end is the largest contributing factor to turbulence and premature failure of any copper plumbing system.

## Is QTITE approved for underground use?

- Yes. Please check local plumbing codes.



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## Are short radius 90°s available with QTITE?

- No. QTITE fittings have a long radius.

## To what degree does the temperature rating go up or down as pressure in a QTITE system changes?

- None. The QTITE pressure rating is 200 psi working pressure and 600 psi test pressure at all temperatures between 0°F and 250°F, for various liquids, and various gasses.

## Can a user solder the female "C" end of a QTITE fitting?

- No. QTITE fitting cups are not designed to be soldered. See installation instructions for further details.

## What are the flow rates through QTITE fittings?

- Because of the long radius, the flow rate is better than the standard short radius solder fittings. Flow rates and flow rate calculations are the same as those used for solder fitting installations.

## How do QTITE joints hold up to freezing temperatures?

- Copper water systems should not be allowed to freeze. When water freezes, it expands and creates pressures that exceed plumbing system pressure capabilities – i.e. tubes and fittings burst!

## What should a user do if a QTITE system leaks?

- In general, QTITE fittings only leak due to one of three reasons:
  - 1) The water pipe was not properly chamfered prior to installation
  - 2) The copper tubing was not properly inserted
  - 3) O-Ring damaged at insertion

- A leaking QTITE fitting cannot be repaired. The fitting must be replaced.

## Is QTITE compatible with the cleaning agents used to disinfect a new plumbing system?

- Yes, see installation manual for additional information.

## What should be done if a user accidentally cuts the seal with the copper tubing?

- If the seal is damaged by inserting the copper pipe, the fitting must be replaced. Please note the following:
  - 1) The tube must be chamfered as detailed in the instruction manual before installation. This will prevent damage to the seal.
  - 2) The tube should not be inserted into the fitting at an angle.
  - 3) Rotate the tube as it is inserted into the QTITE fitting. This aligns the tube and fitting during installation.

## Is an OD chamfer required if I use a replacement-type cutter wheel?

- Yes. Failure to chamfer the tube OD will result in a damaged o-ring and a leak. Failure to chamfer the tube voids the fitting warranty.



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## Product Certification

Elkhart Products Corporation manufactures products which meet the following specifications:

- ASME B16.15 Cast Bronze Threaded Fittings
- ASME B16.18 Cast Copper Alloy Solder Joint Pressure Fittings
- ASME B16.22 Wrought Copper and Copper Alloy Solder Joint Pressure Fittings
- ASME B16.23 Cast Copper Alloy Solder Joint Drainage Fittings - DWV
- ASME B16.24 Bronze Pipe Flanges and Flanged Fittings
- ASME B16.26 Cast Copper Alloy Fittings for Flared Copper Tube
- ASME B16.29 Wrought Copper & Wrought Copper Alloy Solder Joint Drainage Ftgs-DWV
- MSS SP104 Wrought Copper Solder Joint Pressure Fittings
- MSS SP106 Cast Copper Alloy Flanged Fittings; Class 125,150 and 300
- MSS SP109 Welded Fabricated Copper Solder Joint Pressure Fittings
- MSS SP123 Non Ferrous Threaded & Solder Joint Unions For Use With Cu Water Tube

EPC's **Wrot Copper Solder Joint Fittings** are manufactured to comply with the material performance and installation/joining dimensions of ANSI B16.22-1995. The materials used to manufacture these fittings are also in compliance with the following specifications:

## Tubular Wrought Copper:

- ASTM B75 Alloy C12200, Standard Specification for Seamless Copper Tube, or.

## Products Made From Sheet:

- ASTM B152 Alloy C11000, Standard Specification for Copper Sheet, Strip, Plate and Rolled Bar.

## Cast Products:

- ASTM B584 Alloy C84400, Standard Specification for Copper Alloy Sand Castings for General Applications. Federal Specification WW-U-516 for Type 111, Class A and Class B Copper Alloy Unions.

## Fitting Material:

- Copper Alloy #122, Phosphorus Deoxidized-High Residual Phosphorus (DHP).

## Typical Chemical Composition:

- Copper: 99.9% , Phosphorus: 0.015-0.40%

## Dimensions & Specifications:

EPC Welded fittings are produced in accordance with specifications shown in Manufactures Standardization Society (MSS) SP-109 for wrought copper & copper alloy solder-joint pressure fittings.

## Testing:

Each fitting is individually tested with air under water. The burst pressure of EPC welded fittings exceeds the recommended working pressure of comparable diameter, annealed, straight, seamless ASTM B88-96-A type L copper water tube by a safety factor of 4:1 or more.

## The Advantages of Fittings From EPC:

- **American Made, American Strong** – 50-year Manufacturer Warranty.
- **Reduced Installation Costs** - EPC Wrot Copper Fittings heat up more rapidly than cast and thus effect a savings in time and fuel.
- **Smooth Inside Surface** - Being fabricated from copper tube, EPC Wrot Fittings have no rough surfaces to collect waste or deter flow.
- **Full Flow Capacity** - EPC Wrot Fittings have the same inside diameters as the rest of the installation.
- **Wrot Copper** - The physical properties of copper tube from which EPC Wrot Fittings are made eliminate the danger of leakage from sand holes or poor castings.
- **Less Bulky than Cast** - This facilitates handling, particularly on prefab installations, yet EPC Wrot Fittings have the same strength as tube. This can also be a money saver on transportation costs.
- **More Rugged** - Due to fabrication processes, EPC Wrot Fittings are stronger and more rugged than tube with which they are used.
- **Priced Competitively** - EPC Wrot Fittings cost no more than their cast counterparts.
- **Neat Appearance** - In matching the colour and appearance of the tube, EPC Wrot Fittings contribute toward a neater and more workmanlike installation.
- **Accurate Pitch** - EPC Wrot Fittings are made with accurately machined dies which ensure the proper pitch required for installations.
- **Boxed and Labelled** - EPC Fittings are boxed in convenient quantities to facilitate handling and storage, and for protection against damage and dirt. Box contents are easily identified by bar coded, easy-to-read labels.



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