





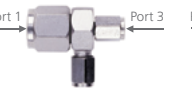
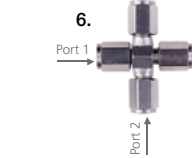


## Connections | GC Unions

Making Joining Matter

GC Unions are available in two material types: stainless steel and Glass Lined Tubing (GL T™ lined unions).

- Stainless steel unions come in a variety of tube sizes and configurations for example: straight through, reducing, tees, crosses and bulkheads.
- GL T unions are inert and mainly used for connecting fused silica tubing of various internal diameters.

All GC unions are supplied with the appropriate nuts, ferrules and/or sealing rings.

Union types	1. Straight through unions	3. Reducing unions	5. Union tees	7. Glass lined mini unions	8. SilTite mini unions
	2. Bulkhead unions	4. Reducing bulkhead unions	6. Union cross		
Images	<p>1.</p>  <p>2.</p> 	<p>3.</p>  <p>4.</p> 	<p>5.</p>  <p>6.</p> 	<p>7.</p> 	<p>8.</p> 
Material characteristics	<ul style="list-style-type: none"> <li>• Available in Stainless steel or Glass lined (GLT) Stainless steel.</li> </ul>	<ul style="list-style-type: none"> <li>• Stainless steel.</li> </ul>	<ul style="list-style-type: none"> <li>• Stainless steel.</li> </ul>	<ul style="list-style-type: none"> <li>• Glass Lined (GLT) Stainless Steel.</li> </ul>	<ul style="list-style-type: none"> <li>• Glass Lined (GLT) Stainless Steel.</li> <li>• SilTite® Mini Union utilize the SilTite technology – coupling SilTite ferrules with SilTite nuts.</li> </ul>
Connections suitable	<ul style="list-style-type: none"> <li>• Connecting tubing of the same diameter.</li> <li>• Glass lined tubing (GLT) and plastic tubing.</li> </ul>	<ul style="list-style-type: none"> <li>• For connecting tubing of different diameters.</li> <li>• Suitable for glass lined tubing (GLT), metal and plastic tubing.</li> </ul>	<ul style="list-style-type: none"> <li>• Union tees have the ability to have different size legs for different size tubing.</li> </ul>	<ul style="list-style-type: none"> <li>• Connecting fused silica and capillary tubing.</li> <li>• Tubing of different sizes can also be connected. However, mini union ferrules for the tubing that is different than the normal usage need to be purchased separately.</li> </ul>	<ul style="list-style-type: none"> <li>• Recommended as the best option for attaching fused silica tubing in the laboratory.</li> <li>• Please note that standard Mini Union nuts cannot be used with SilTite ferrules.</li> </ul>

## Connections | GC Unions continued

Union types	1. Straight through unions 2. Bulkhead unions	3. Reducing unions 4. Reducing bulkhead unions	5. Union tees 6. Union cross	7. Glass lined mini unions	8. SilTite mini unions
Features, benefits and applications	<ul style="list-style-type: none"> <li>• Low dead volume.</li> <li>• Non-swaging, easy to remove fittings that will not deform tubing.</li> <li>• High temperature operations - ferrules are the temperature limiting component.</li> </ul>	<ul style="list-style-type: none"> <li>• Non-swaging, easy to remove fittings that will not deform tubing.</li> <li>• No back ferrule required. Gives greater flexibility with regards to micro-control valves. Suitable for glass lined (GLT), metal and plastic tubing.</li> </ul>	<ul style="list-style-type: none"> <li>• Allows splitting of the flow between two or more outlets.</li> <li>• Suitable for glass lined (GLT), metal and plastic tubing.</li> <li>• Non-swaging, easy to remove fittings that will not deform tubing.</li> <li>• No back ferrule required.</li> <li>• The male/female tees can be stacked in order to make a manifold of 1/16" tubing which can be used for drying samples or splitting sample stream to multiple outlets.</li> </ul>	<ul style="list-style-type: none"> <li>• Inert due to glass lining.</li> <li>• Smaller in size than standard 1/16" unions, less of a heat sink and do not put extra weight on fused silica tubing connections.</li> <li>• Fused silica connections due to the reduced weight and thermal mass.</li> </ul>	<ul style="list-style-type: none"> <li>• Allows for tubing to be connected without concern of leakage from temperature cycling or fear of getting pieces of the ferrule stuck inside the tubing.</li> </ul>
Sizes available	<ul style="list-style-type: none"> <li>• 1/16" to 1/4".</li> </ul>	<ul style="list-style-type: none"> <li>• 1/16" to 1/8", 1/16" to 1/4".</li> </ul>	<ul style="list-style-type: none"> <li>• GC produces four different Tee configurations:               <ol style="list-style-type: none"> <li>1) All legs for 1/16"</li> <li>2) One leg 1/8" and two legs 1/16"</li> <li>3) One leg 1/4" and two legs 1/16"</li> <li>4) The union cross is a four port union all set up to connect 1/16" tubing.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• 0.4 mm ID (for use with tubing &lt;0.25 mm ID).</li> <li>• 0.5 mm ID (for use with tubing 0.32 mm ID).</li> <li>• 0.8 mm ID (for use with tubing 0.45 and 0.53 mm ID).</li> </ul>	<ul style="list-style-type: none"> <li>• 0.4 mm ID (for use with tubing &lt; 0.25 mm ID).</li> <li>• 0.5 mm ID (for use with tubing 0.32 mm ID).</li> <li>• 0.8 mm ID (for use with tubing 0.45 and 0.53 mm ID).</li> <li>• 1/32".</li> </ul>

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