

Glass Lined Metal Tubing-GLT™

- Chemical Inertness of Glass - Strength of Steel
- Ideal for Chromatography and Critical Flow Applications
- Available in 1/16" to 1/8" OD and 0.3mm to 4.0mm ID
- Suitable for high and low temperatures and pressures
- Simply bent and fabricated into complex flow systems



GLT is an ideal tubing for use in instrumentation and process applications where corrosion resistance, inertness, smoothness and the ability to operate over wide temperature ranges is required for transporting gases and liquids.

Tubing sizes

The tubing is available in a range of internal and external sizes from 1/16" to 1/8" OD and 0.3 mm ID to 1.8 mm ID.

Applications

GLT™'s applications include LC, GC and SFC columns, GC, LC and SFC flow lines, Capillary Injector and Detector fittings, Critical Process flow lines, Applications involving Corrosive Solvents, Process Instruments, Laboratory Equipment, Manifolds, Fittings and Adapters, Connectors, Inert Probes.

Special applications hardware

SIS is able to produce special hardware, in GLT™ or stainless steel to customer specifications. Requests for

non-standard components should be accompanied by an accurate engineering drawing indicating tolerances on all dimensions.

GLT™ user fabrication methods

Temperature: GLT™ will withstand continuous use at temperatures up to 600°C and if desired can be electrically heated by applying a low voltage across the metal casing.

Bending: GLT™ can be bent without damage to the glass lining by heating it with a gas-air burner in the region where the bend is required. When the metal tubing turns medium red (approx. 800°C) it can slowly be bent to the desired angle while still in the flame. It is possible for the 1/16" and 1/8" O.D. GLT™ to be coiled. It is important that the tubing is not bent while it is cold.

Cutting: The GLT™ may be cut using a wet silicon-carbide cut-off wheel. The ends should then be ground square and the tubing washed and dried. The ends of the glass liner can be flame polished by heating to a medium red.

Silver Soldering: After first removing the black oxide layer the metal sheath can be silver soldered to other components by conventional methods. It is important however that excessive heat is not applied to the tubing. On completion of soldering, the components should not be quenched, but allowed to cool slowly to ambient temperatures.

Connections: The use of SGE Graphlok™ high temperature graphite ferrules is recommended for connecting GLT™ directly into unions or alternatively, PTFE ferrules can be used for low temperatures. Use low hold-up unions for 1/16" GLT™.

For very high pressure applications such as LC we can machine a thread onto the outer metal casing of 1/8" GLT™. Then using suitable fittings and natural unfilled Vespel ferrules, the tubing can be used at pressures up to 650 atmospheres (10,000 psi).

1/16" OD GLT™

Diameter (mm)	0.3		0.4		0.5		0.7		0.8	
Length (cm)	Part No.	Price	Part No.	Price	Part No.	Price	Part No.	Price	Part No.	Price
30	082707		082712		082717		082722		0827352	
60	082708		-	-	082718		082723		0827353	
90	082709		-	-	082719		082724		0827354	
180	082710		-	-	082720		082725		0827355	

1/8" OD GLT™

Diameter (mm)	0.50		0.75		1.0		1.5		1.8	
Length (cm)	Part No.	Price	Part No.	Price	Part No.	Price	Part No.	Price	Part No.	Price
30	0827375		082732		082737		082742		082747	
60	0827376		082733		082738		082743		-	-
90	0827377		082734		082739		-	-	-	-
180	-	-	082735		082740		082745		082750	

1/4" OD GLT™

Diameter (mm)	2.0		4.0	
Length (cm)	Part No.	Price	Part No.	Price
30	-	-	082767	
60	-	-	082768	
90	082760		-	-
180	-	-	082770	