

## VACMOBILE VACUUM\* GLAND FITTINGS

\* **WARNING: NOT FOR PRESSURE USE!**

### Description and benefits

The Vacmobile vacuum gland fitting provides an easy-to-use, rugged and reusable method of making vacuum-tight connections to resin traps, manifolds and molds. The gland fittings seal directly to the outside of polyethylene and other rigid and semi-rigid tubing and indirectly via an aluminium adapting tube to flexible walled vacuum hose. The fittings are presently available to suit 3/8" to 10 mm, 1/2" to 13 mm, 5/8" (15.9 mm) & 3/4" (19.05 mm) outside diameter tubing.

The main elements of the gland system are shown in the exploded view of Figure 1. The gland nipple is designed to be O-ring sealed to the lid of a resin trap or the wall of a vacuum manifold. It can also be O-ring sealed to an adapting piece bonded into a mold.

If used as recommended below, there will be minimal resin buildup when used for resin trapping. Cleanup time and consumable costs will be reduced. By means of a test plug, or a test loop of vacuum tubing (if pairs of fittings are available), the Vacmobile gland system will simplify testing for vacuum integrity.

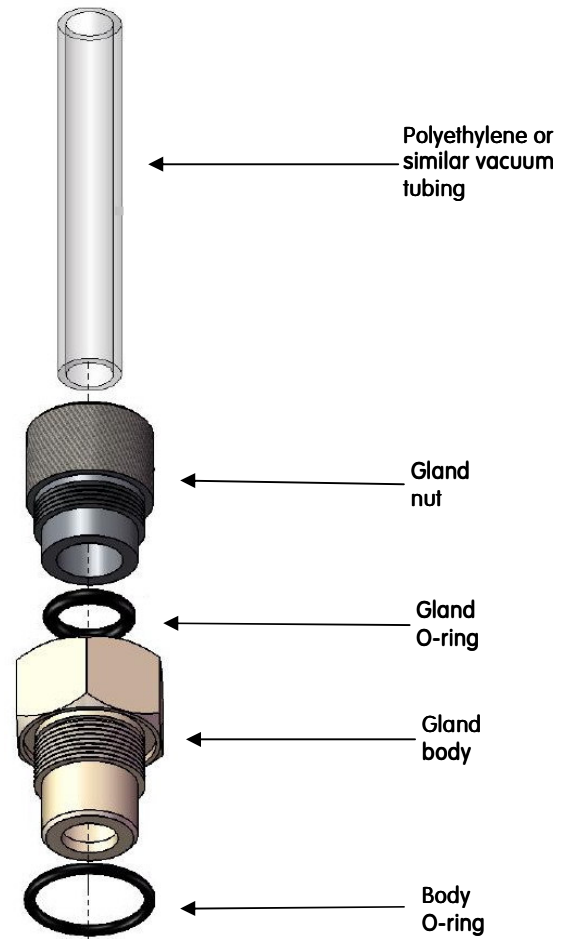


Figure 1. Exploded view of gland fitting system

### Instructions for use with resin traps and mould connections:

#### (Using polyethylene tubing and the standard gland fitting with the internal "stop")

When connecting vacuum tubing to the lids of resin traps, manifolds and molds, it is usually desirable for the tubing to stop just below the underside of the resin trap lid, or just at the mold surface. This is achieved in the standard Vacmobile fitting with a small shoulder provided at the base of the gland body. Refer to Figure 3 on the following page. To use the fitting with the internal stop:

1. If the fitting has been used previously, unscrew the gland nut. Remove the O-ring and clean out any residue remaining from previous uses. Occasional re-coating with a mould release liquid such as Meguiars MV-85 should assist resin removal.
2. If the thread on the gland nut appears dry, apply a small amount of grease to the thread.
3. Replace the gland O-ring. Unless the tubing used is an exceptionally tight fit do not lubricate the O-ring. Fit this dry. Screw in the gland nut one to two turns only. Do not tighten the gland nut to the extent that it begins to squash the O-ring. Refer to Figure 2 on the following page. Note that the gland nut should be partially screwed in **before the tube is inserted**. Partially re-inserting the nut before fitting the tube will reduce the risk of the nut cross threading when the tubing is not straight.
4. Use clean, undamaged tubing and cut the tube end square using a purpose-designed tubing cutter. Do not cut tubing with scissors, wire cutters or a knife! These cutting methods are unlikely to produce the neat square end required to seal against the stop to minimize resin buildup.
5. Insert the squarely cut tube and push it past the moderate resistance of the O-ring until the tube clearly hits the internal stop. Refer to figure 3.
6. Hand-tighten the gland nut and check that it is tight enough to resist tubing pull-out..
7. To remove the tube. Wait until the resin has cured. Partially loosen the gland nut and pull out the tube. If the tubing is difficult to pull out, unscrew the gland nut completely.

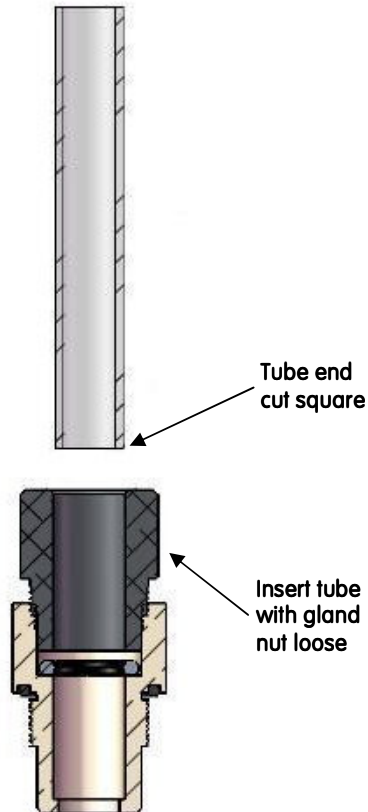


Figure 2.  
Insertion of tube into loosely assembled gland

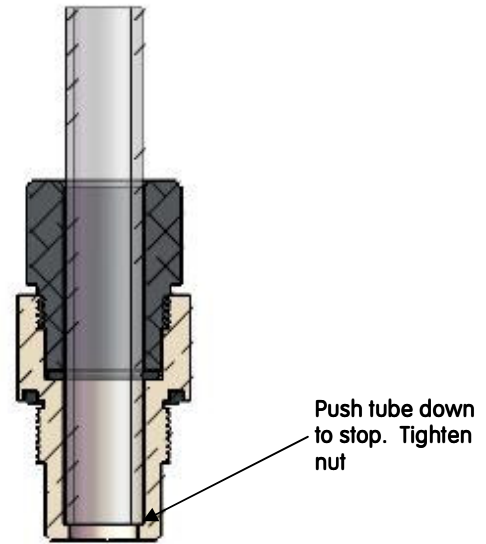


Figure 3.  
Completed connection

#### Using modified fitting with internal "stop" removed

When used for supplying degassed resin, it may be necessary to pass the tubing through the gland and down into the resin pot. For this application, either purchase a gland body without the stop, or carefully drill out the stop in the standard body fitting to the same diameter as the fitting bore. To use the fitting without the internal stop:

1. Cut the tube end to the desired shape. For de-gassing use this may be an acute angle to prevent the tube from sealing against the bottom of the resin bucket.
2. If necessary, mark the tube with the desired depth of penetration through the gland.
3. Make sure the O-ring is in place and loosely fit the gland nut.
4. Insert the tube to the depth required.
5. Hand tighten the gland nut.

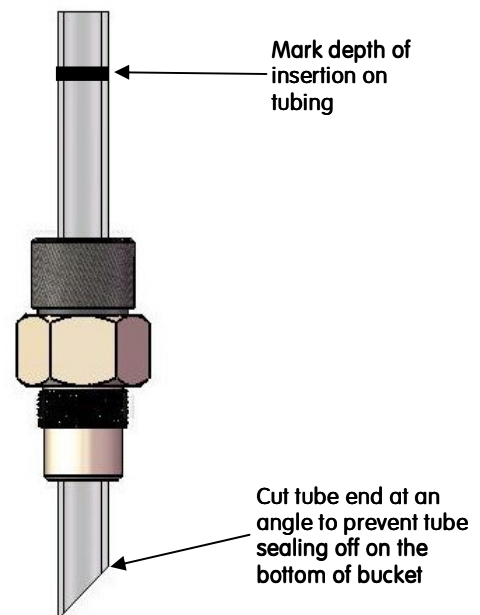


Figure 4. Use of fitting with stop removed