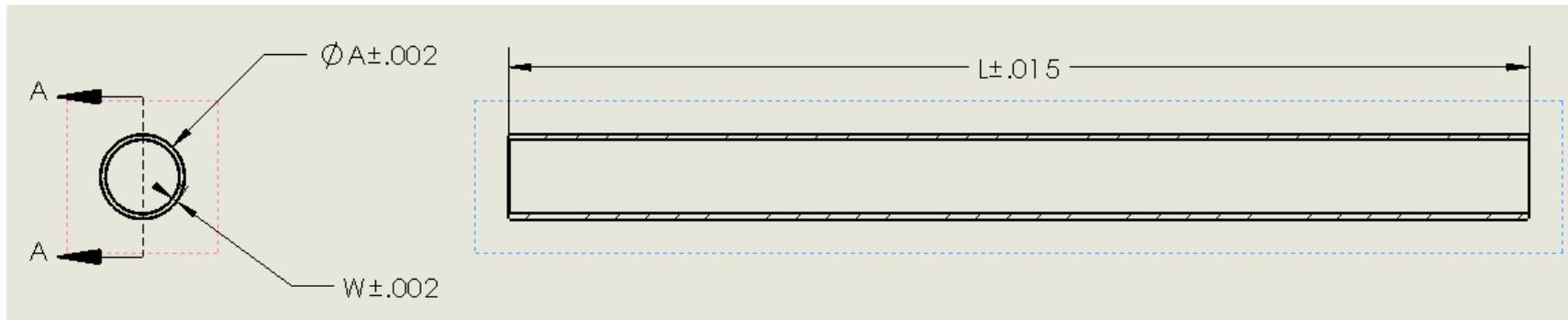


More Pinch-Off Tube Information and FAQs

VPE has been selling pinch-off tubes for the past two decades. There are many advantages in using vacuum annealed tubes for pinch-off applications, especially if your application operates in vacuum or requires outgassing. We stock many sizes of OFE copper tubing and can build custom pinch-off tubes to your specified needs. The lengths suggested below are not set in stone.



OD number	2	3	4	6	8	12
ϕA	1/8	3/16	1/4	3/8	1/2	3/4
W	.025	.032	.032	.032	.035	.035
L	1.0-6.0	1.0-6.0	2.0-6.0	2.0-10.0	2.0-10.0	2.0-10.0

1. All dimensions are in inches. Tolerances and dimensions are shown above.
2. Lengths increase in increments of .5". Other lengths and tighter tolerances are available upon request.
3. Material is seamless OFE Copper per ASTM F68.B75 (UNS C10100).
4. ID and OD have an edge break/deburr at each end of 0.005"-0.010".
5. Tubes are annealed in high vacuum. Hydrogen processing can be done upon request.
6. Packaged in ultra-low outgassing bags and back filled with dry nitrogen.

FAQs

Q: Can I braze flanges and weld adapters onto the ends?

A: Yes you can. VPE can high vacuum braze conflat flanges, KF flanges or weld adapters onto these for using a braze alloy that is suitable for high vacuum application. We can also braze custom adapters onto pinch-off tubes. We can offer quotes for brazing these and have significant price breaks at large quantities or blanket orders.

Q: Do you carry certain stock sizes?

A: We currently do not have an inventory of tubes. Due to the wide variety of tube sizes that we get requests for we make these tubes to order. We do offer a small number of sample tubes as we always build extras for orders.

Q: What prevents a tube from sealing when pinched off?

A: There are two likely causes of a tube failing to seal. One is due to contamination of the ID via oxidization or foreign material, and a thick layer of oxidation will prevent the tube from sealing. The second cause of failing to seal is due to scratches in the ID, which can leave potential leak paths.

Q: Can I braze or solder these tubes?

A: Yes you can, when soldering or brazing these tubes we highly suggest doing so in a controlled atmosphere, either in vacuum or with flowing inert gas (such helium, nitrogen or argon). The reason being is that temperatures reached in brazing or soldering can leave oxide contamination. VPE can vacuum braze a number of fittings on that include stainless steel conflate flanges, VCR fittings, weld adapters and KF flanges.

Q: What other materials are available?

A: OFE copper is suitable for many applications but for a high corrosion resistant application we recommend small diameter nickel tubing. Aluminum is also used, but is only available upon special request.

Q: Can I bake out a pinch-off tube?

A: Yes but only if there is a high vacuum inside the tube. Copper is reactive at temperature and formation of carbides and oxides can occur inside the tube, preventing pinch-off. For example copper oxide starts forming above 100C. A more corrosion resistant material would be better suited if hot gasses are being pumped through the pinch-off tube.