

SAVVA Tip 160 – Bending plastic tubing and retaining the shape.

Some time ago we received this article from Dane Fraser. Thanks Dane and apologies for taking so long to use it:

From Dane:

If you have ever had to create a sharp bend in the clear tygon tubing you know how easy it can kink.

I bought a new replacement carburettor for a small engine the problem was it came with a straight fuel inlet instead of the 90° one the old one had

No problem I thought I would just use a piece of 1/4" tygon tubing for the fuel line only when I tried to make it do the sharp bend required to connect between the carb and the gas tank it would kink.

I decided to give it a preform by making a shaping mandrel or bendable forming tool that I could insert then bend the tubing.

The best thing I have found for jobs like this is lead as it is easily shaped into whatever form you need and will retain its shape as long as needed. and if required it can be straightened out again

A couple of years ago I made some half round lead sticks by melting the lead and pouring it in grooves for using in leading in seams and small dents in auto-body work. I found that was exactly the diameter I needed when folded double.

I inserted it in the tygon tubing then bent it to the shape I needed. I placed it in a cut open soft drink bottle then poured in boiling water and left it until the water cooled.

To remove the forming tool I had to straighten it out somewhat but the tubing retained its shape due to being heated in the boiling water.

Tubing and tool before forming.



lead tool inserted in tubing



Formed and in boiling water note the drink bottle deforming



tubing now formed and cooled



Lead now removed note tubing retains the formed shape



Installed on the engine

I hope this helps someone if they ever find the need to form plastic tubing.