

# Embracing The Needle Redux

**A** couple of months ago I demonstrated the usage of hypodermic tubing, or industrial needles, to fill many of the holes in your scale modeling needs. Mostly aviation, hypodermic tubing can replace your broken Pitot tube, gun barrels, static dischargers, fuel dumps as well as may other things hanging off wings.

Additionally, I explained the technique of diluting acrylic putties (i.e. Perfect Plastic Putty, Vallejo Plastic Putty) into a “caulk” that could be discharged through the needle to fill very small crevices with pinpoint accuracy.

This document is a supplement to that demonstration and is meant to include a couple of additional techniques and to denote from where my tools and supplies originate.

## **Additional Techniques:**



**Structural Support:** A tad hard to see here, but if you look close you’ll see part of a hypo-needle sticking out of the broken off tail rotor from my “Shelf-Queen” Group Build RAF Rescue SeaKing. You would think that simple wire would suffice, however, I must point out that this is 1/72 scale. Many wires that could be used for this repair will bend at this size. A “two-walled” pipe wont! I have used this repair technique in many instances where I’ve had to repair landing gear struts or in cases depicted here. Small hole, CA glue, DONE!

**CA Glue & Tube Placement:** This technique utilizes the “mini-vise” to perform two functions. I will



typically utilize two different needles tips for the placement of CA glue as well the insertion of the actual tube (or gun barrel in this instance). The needle to perform this process is “screwed” onto a mini-vise and is used to hold the tubing so that it may be inserted into the wing. There are many ways to perform this task, but in 1/72 scale this really does the job well!

## TOOLS

Most of the items on the next images can be obtained at the local hardware store or Amazon. There are some specialty items that can be acquired, and I will include links to those shops as appropriate.

**Needle Gauge:** This was discussed during the presentation, but I thought it prudent to reiterate it here. Typically, I will use anything from the 27Ga to 21Ga. The remainder are used to flush my airbrush.....from the trigger area forward. These were acquired from a set offered by Amazon: [120Pcs 1/2" Industrial Liquid Dispenser Needle Adhesive Glue Dispensing Blunt Tip Luer Lock](#)



Specification	ID(mm)	OD(mm)	Color	Size	Qty
14GA	1.55	2.1	Olive	1/2"	12Pcs
15GA	1.36	1.8	Amber	1/2"	12Pcs
18GA	0.84	1.27	Green	1/2"	12Pcs
20GA	0.6	0.92	Pink	1/2"	12Pcs
21GA	0.51	0.82	Purple	1/2"	12Pcs
22GA	0.41	0.72	Blue	1/2"	12Pcs
23GA	0.34	0.64	Orange	1/2"	12Pcs
25GA	0.26	0.52	Red	1/2"	12Pcs
27GA	0.21	0.42	Clear	1/2"	12Pcs
30GA	0.16	0.31	Lavender	1/2"	12Pcs

**Mini-Vise:** Many of you were surprised by the size of the vises that I use for working with the tubing. Note that my original was from Japan and was expensive..... I have found a supplier, in Cincinnati, that carries these "jeweler's vises" at a very reasonable price of \$10.95 a pop!! Cas-ker Co.: [Pin Vise with Slim Brass Handle](#)

Also note that I use these to hold the needle/tubing for the purpose of sanding...or filing to get a clean edge.





A: [Microbox 0.3-1.6 mm Drill, Set of 20](#)

B: [Jeweltool 61-80 mm Microbox Drill, Set of 20](#)

C: [Ms.Queen Lash Extension Tweezers](#)

D: Note: Though I can't find the K&S cutter (specifically) you should be able to find it at Hobby Lobby, Ed's or you can order AK's

[Tube Cutter for Plastic, Copper, Brass & Aluminum AK Interactive](#)

E: Mini-Vise – (see prior page)

F: [IMS CBLD23 Scalpel Sterile Blades #23 Carbon Steel Individually Foil Wrapped, Box of 100](#)



G: GREAT mixing cups!!! [BROADMAN CHURCH SUPPLIES Plastic, Disposable, Recyclable Communion Cups, 1000 Count](#)

H: Assorted industrial needles (see prior pages).

I: [3ml Syringe Without Needle Luer Lock 100 Pack by Tilcare](#)

J: [BSTEAN Luer Lock Dispensing Needle Tip Cap](#)



## Albion Alloys

See what's available at their [website](#), but most are available at [SprueBrothers](#) or via [Hannants](#). I will usually purchase mine via Hannants due to variety and availability. This stuff, as Jordan related, is much easier to cut and clean-up but I still utilize the needles for "caulking", placing CA glue, and structural repairs.



## Torrington Brush Works

Don't know about you but I hate purchasing a set of airbrush cleaning brushes and only being able to use 2, or 3, of 5.... The rest are throw aways or useless for airbrush cleaning purposes. SO....on Mr Fleckenstein's advice, I gave [Torrington Brush Works](#) a try!! The listing (below) is what I ordered, essentially.... Some doubles since the price was right. The depiction below represents each of the brushes, I ordered, against the size of a 1:1 scale toothpick! These are worth EVERY penny, and I expect to be purchasing more of them down the road. Thanks for the tip Mike!

<b>6855</b>	Nylon	0.02	1/4"	3"	0.01	<b>\$4.40</b>
<b>6856</b>	Nylon	0.03	1/4"	3"	0.02	<b>\$4.37</b>
<b>6857</b>	Nylon	0.04	1/2"	4"	0.03	<b>\$4.32</b>
<b>6858</b>	Nylon	0.05	1/2"	4"	0.03	<b>\$4.20</b>
<b>6859</b>	Nylon	0.06	1/2"	4"	0.04	<b>\$4.14</b>
<b>6860</b>	Nylon	0.07	3/4"	4"	0.04	<b>\$3.96</b>
<b>6861</b>	Nylon	0.08	3/4"	4"	0.05	<b>\$3.92</b>

