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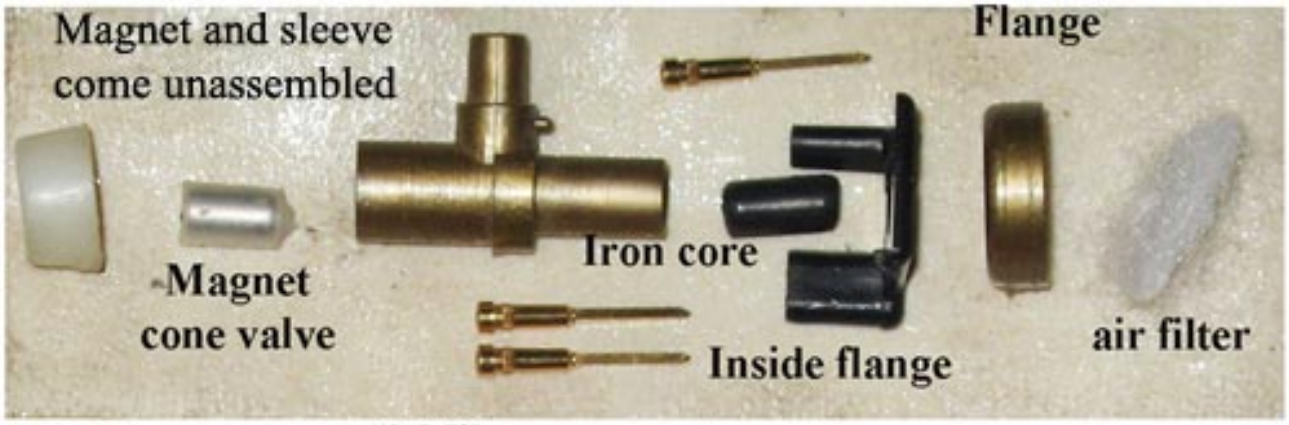
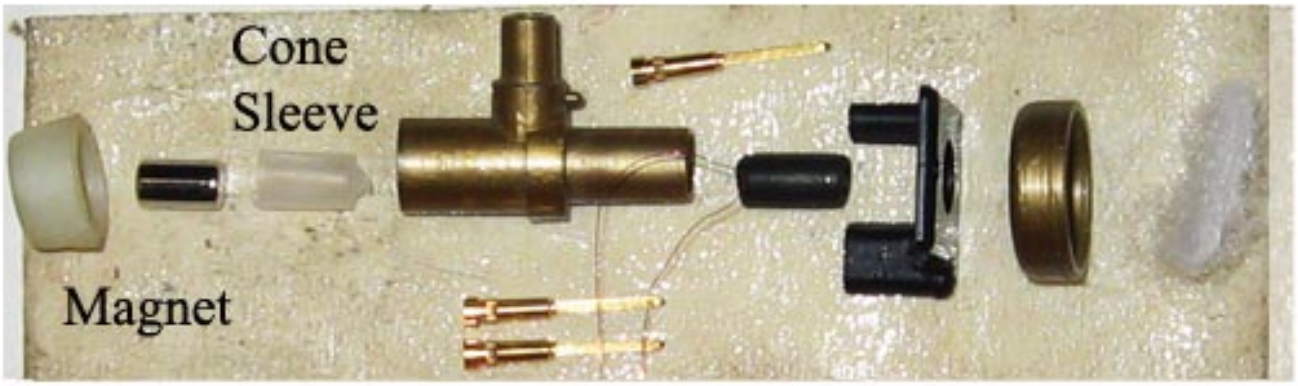
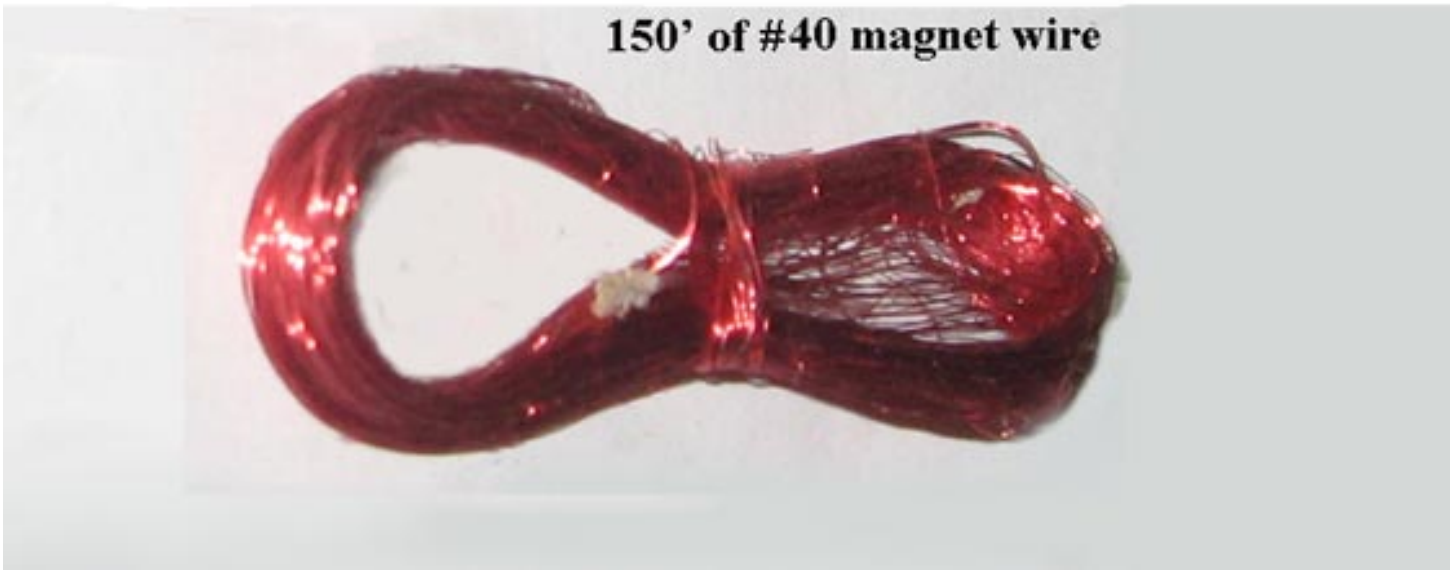
M125 Assembly Notes and specifications



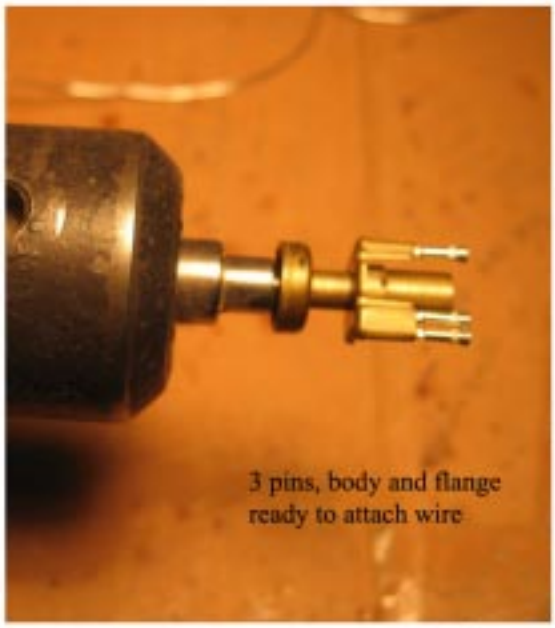
3 Milmax connectors
gold plated



Another view of the assembly



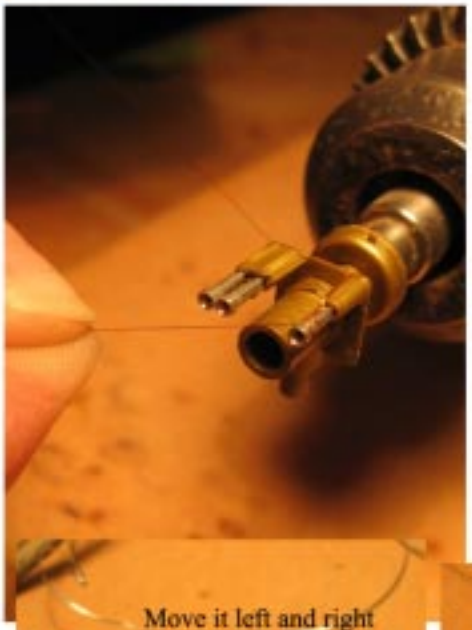
M125 MIDI Valve



3 pins, body and flange ready to attach wire

Wrap wire around as shown going on to the bottom from your thumb and forefinger.

Wire winds from bottom laying in the groove as shown and wrapping 3 times around the single pin to hold it.

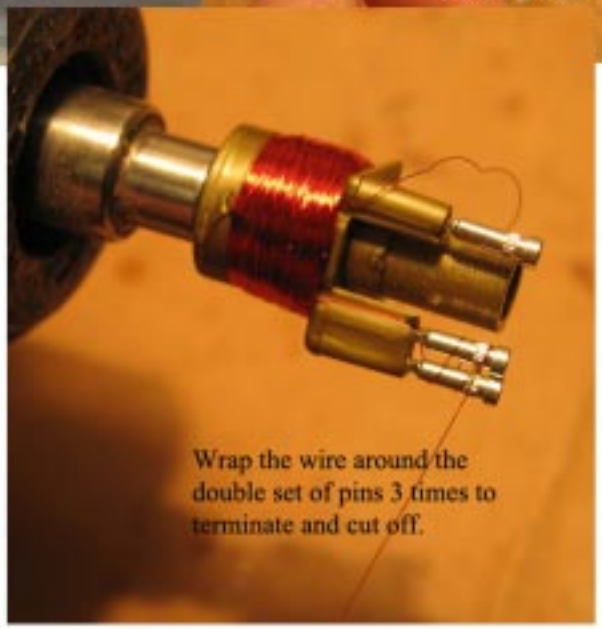


Zero counter by pusshing black reset button on left.

Step on switch to begin winding coil. Pinch the wire as it winds just enough to keep it snug.

Move it left and right to keep the coil even.

The winder will automatically stop when it reaches the preset number of turns.

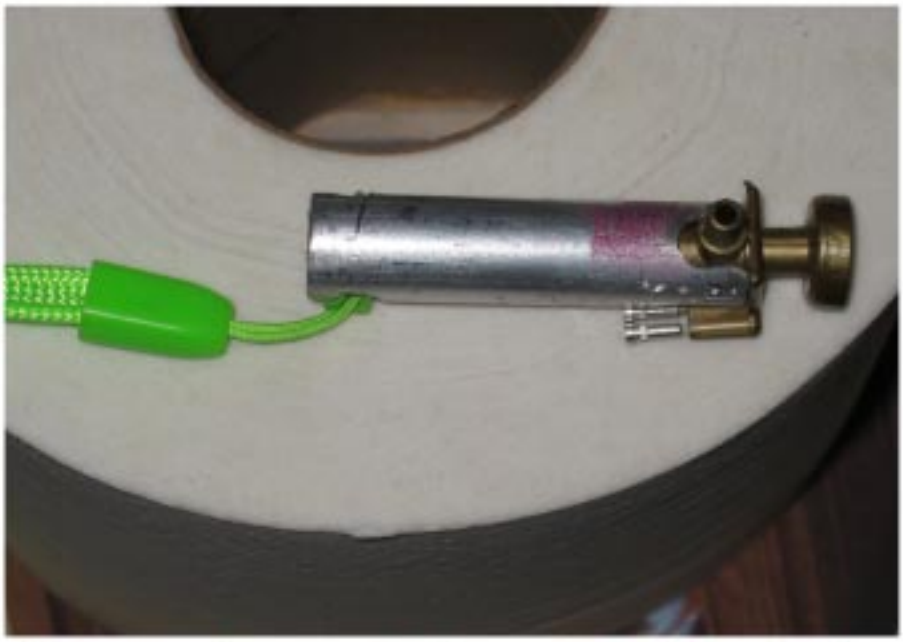


Wrap the wire around the double set of pins 3 times to terminate and cut off.

M125 MIDI valve

Soldering fixture

This Aluminum fixture helps absorb extra heat from the soldering process.



You must be certain that you don't melt the plastic when you solder the wire to the pins. Be quick. Burn the shellac off the wire first!

1. Test Milmax connections...***free of solder inside..with tool.***
   If the connector is plugged with solder, put MIDI valve in the Recycle bin.
   If it is good proceed to #2.

2. Test ohms...137 to 148 ohms? If no continuitry, try re soldering. If after ressoldeing no continuity is detected put in recycle bin.
   If good, proceed to #3.

3. Test MIDI valve with 12vdc. You should hear the valve clicking freely.

4. Place in bag or box mark good. The green felt will indicate that it has passed all the above tests and is good to use.

#40 Magnet Wire
Shellac coated

Comes anywhere from:

.0025" (insulation burned off) .0028" with insulation to
.0030" (insulation burned off) .0036" with Insulation.

Unfortunately, magnet wire varies too much to rely on it. You must check the ohms on each valve. Too much, unwind some. Too little, you must rewind it.

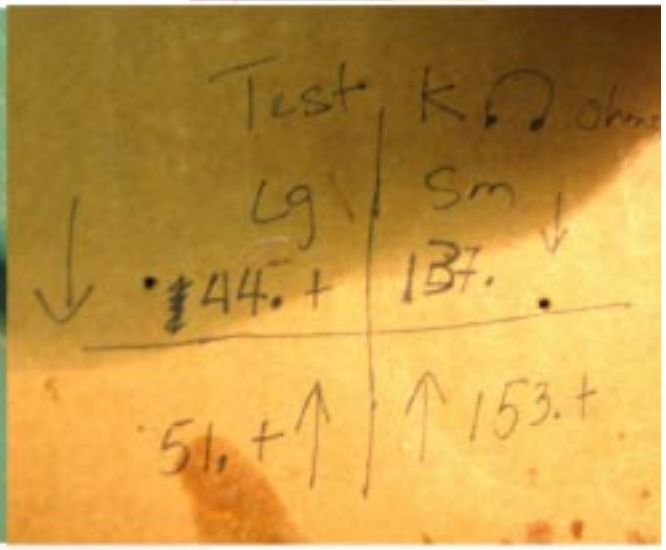
Absolute losest value to except is 137 ohms Maximum is 148, shoot for 142 ohms.

See page for "setting the core"

The wire insulation should be burned off before soldering.

A roll pin must be inserted a predetermined depth into the valve body as shown using the arbor press and fixture shown.

Use Right side



The magnet must be inserted into it's plastic sleeve with the correct pole first using this fixture then inserted into the body.

The white cap must be pushed on as shown

Setting the core

With the back edge of a dial calipers measure the distance from the edge of the outside flange to the roll pin after it has been inserted. Be very careful that it is exactly 3.00mm in as shown above. Make a fixture for a small arbor press to keep it accurate time after time. If it is too far in you will need more than 12 volts to lift the magnet valve. If it is less than 3.00mm then it may not come back after being energized, or it will be slow on returning. Use a 9volt battery to test it and a 12vdc power supply with 3amps to run it.

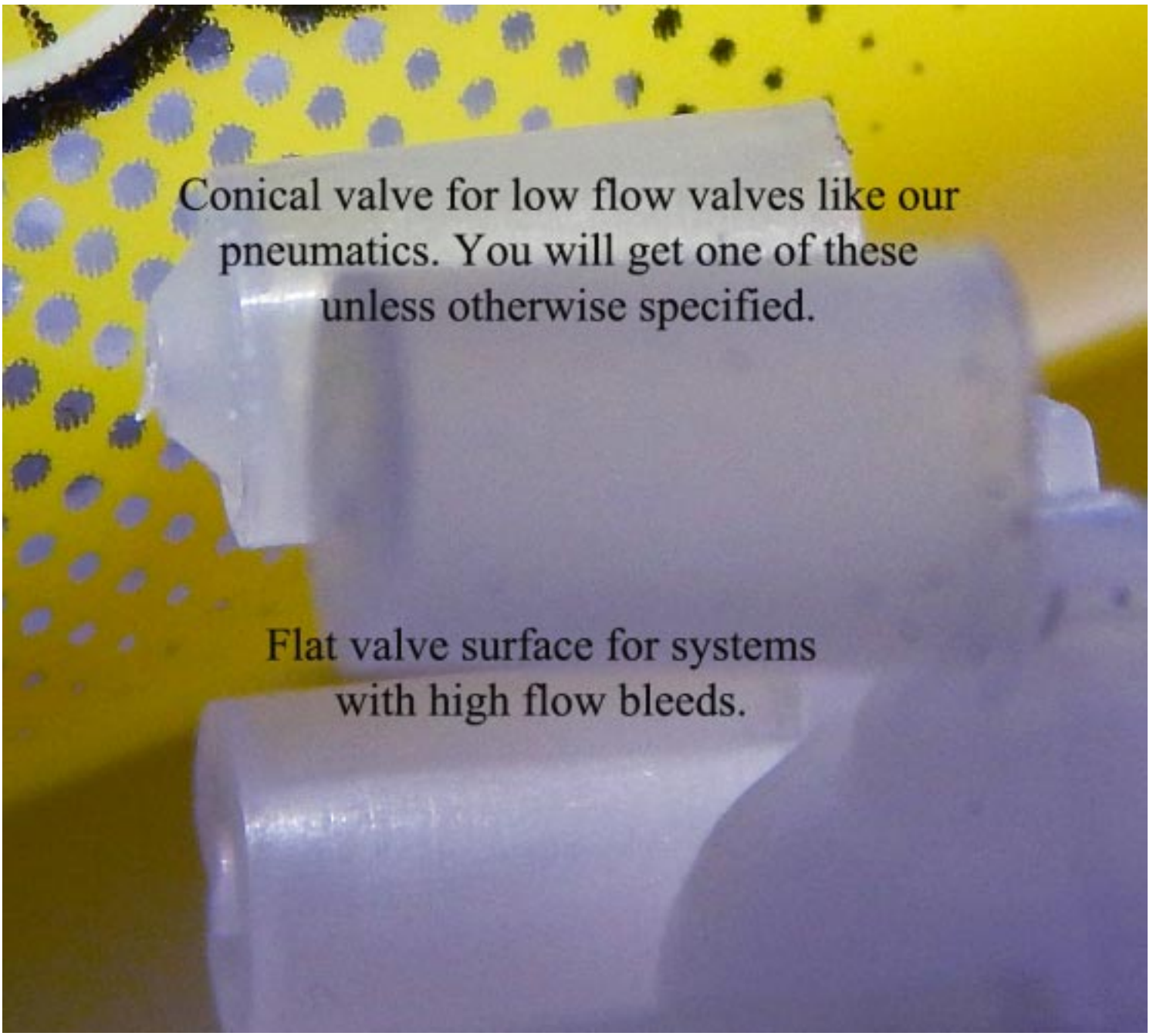



Each MIDI valve gets a filter which you may need to precut with the tools provided. Use Scotch Indrustrial Adhesive 4475.

Each MIDI valve must be tested both for resistance. Around 152 ohms is standard. Plus or minus 8 may work. Test it with a 9 volt battery with the positive pole on the double pins and listen for the magnet to click. If it doesn't click, it isn't working.

Optional tape coil wrap or heat shrink. Heat shrink may be sized with a heat gun, never a lighter.





Conical valve for low flow valves like our pneumatics. You will get one of these unless otherwise specified.
Flat valve surface for systems with high flow bleeds.