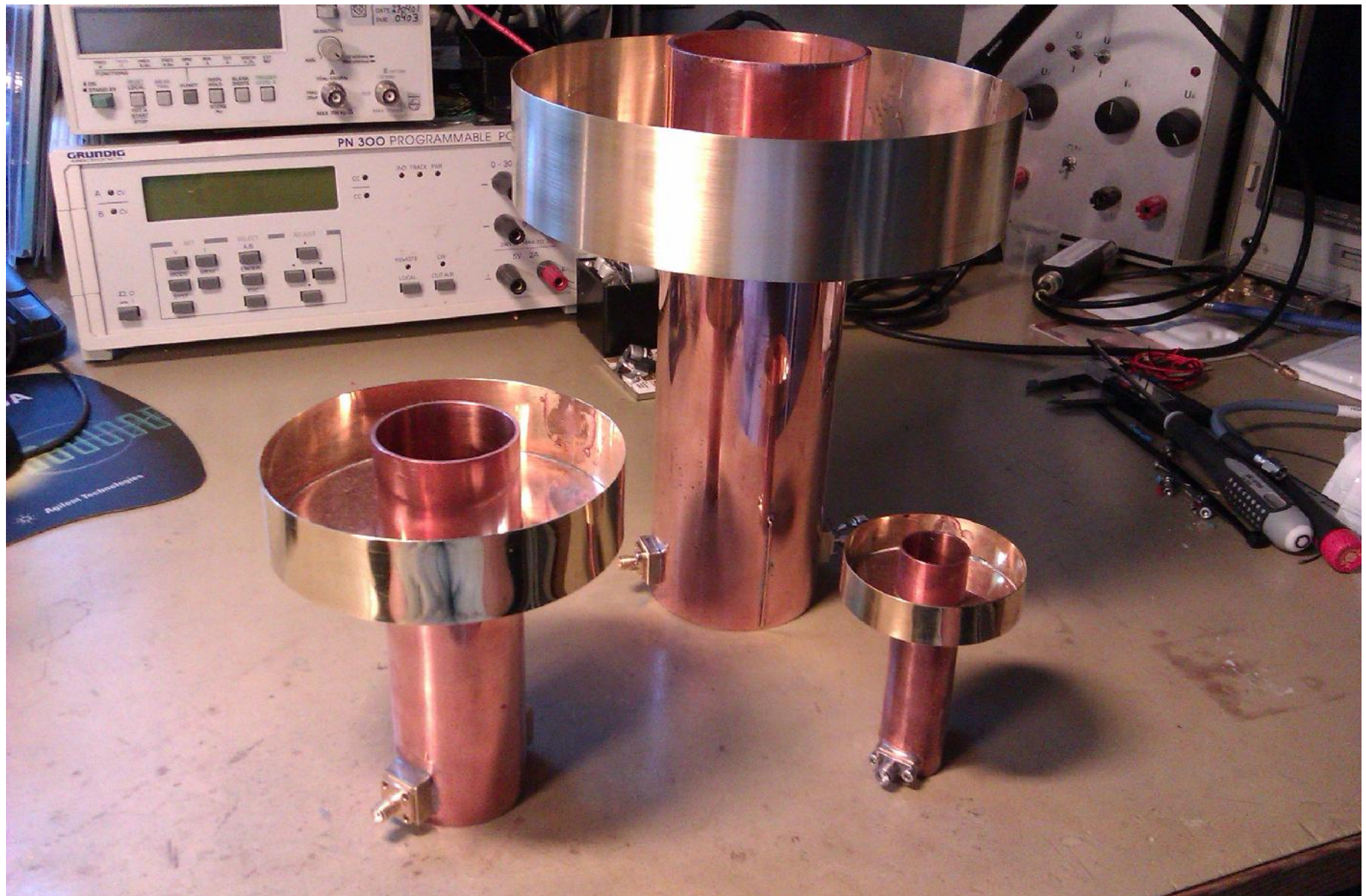


# BUILDING THE FHZ KUMAR FEEDS by SM6PGP

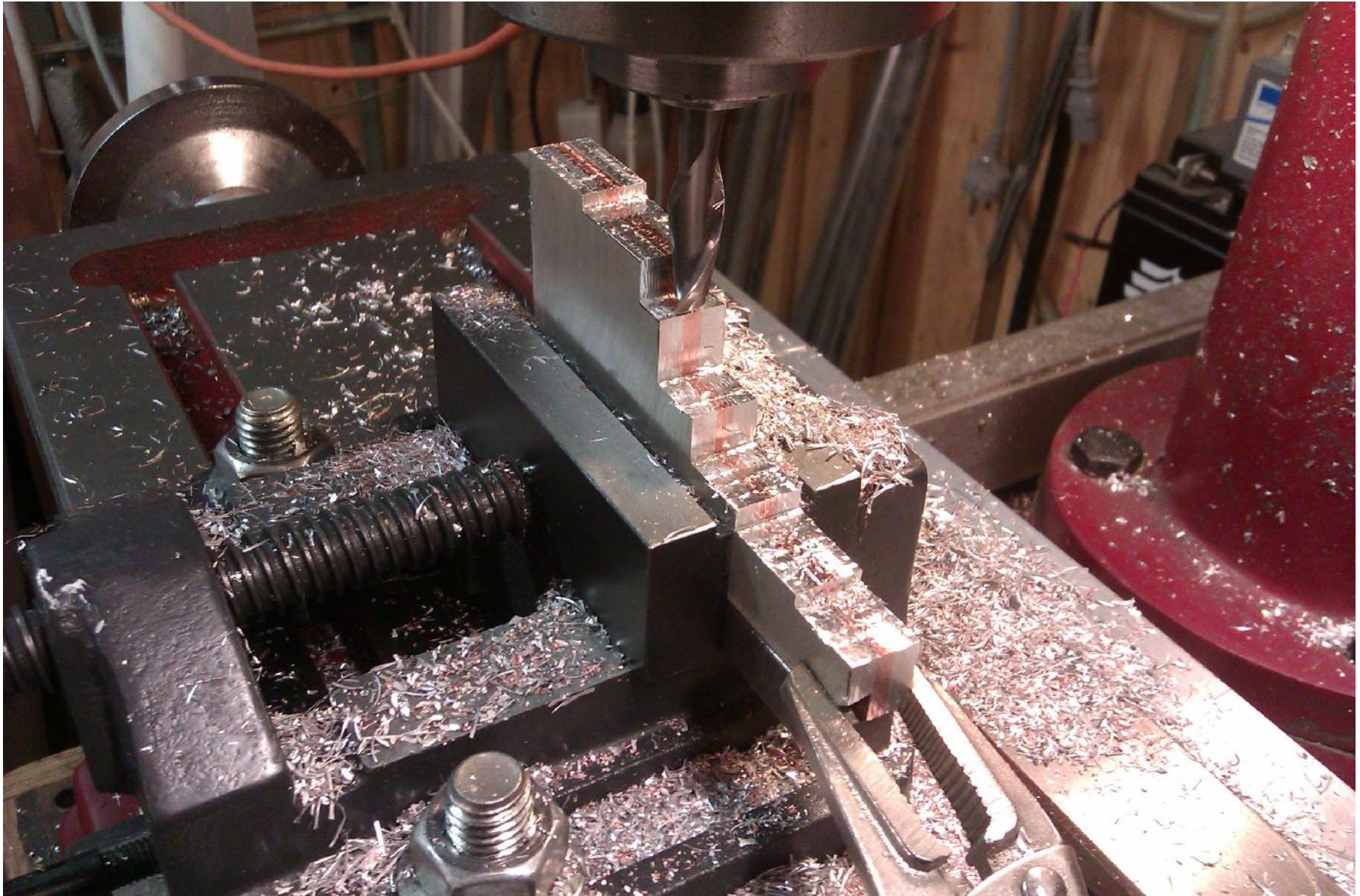


# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



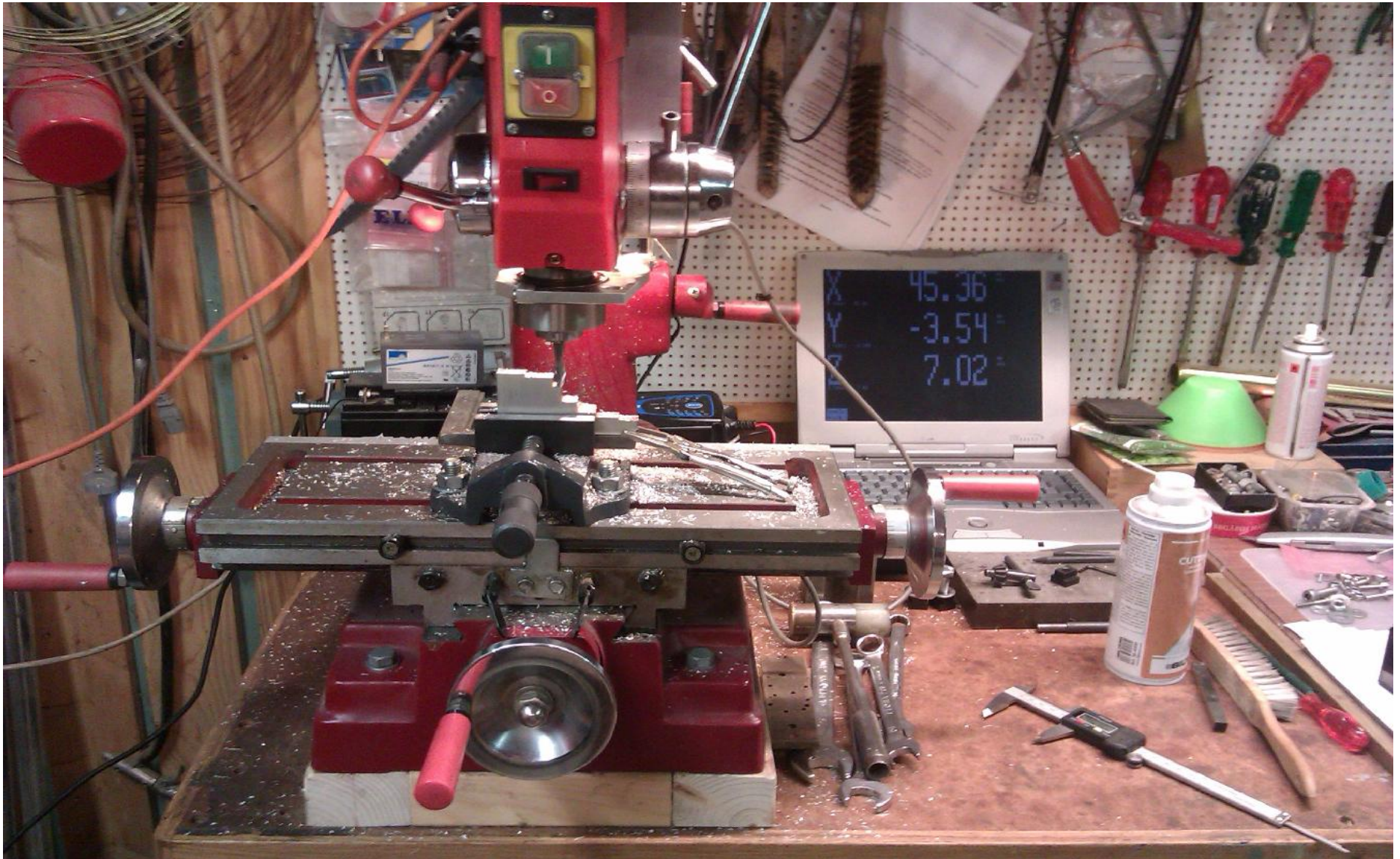
Milling radius at the SMA connector fittings, 15 x 15 mm brass

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



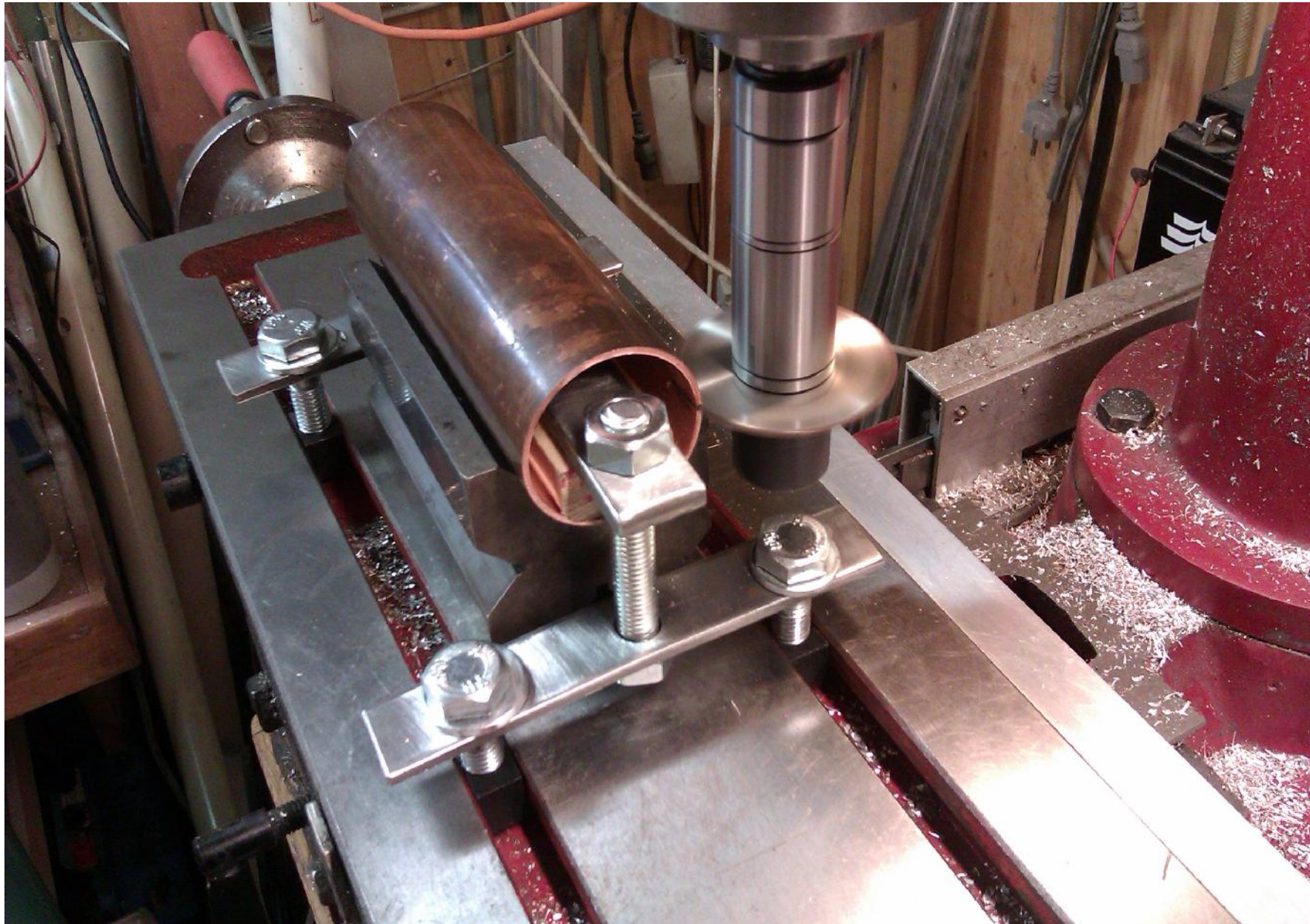
Milling 3 septum plates at the same time. 3mm aluminum plates to keep the 1mm copper plates steady.

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



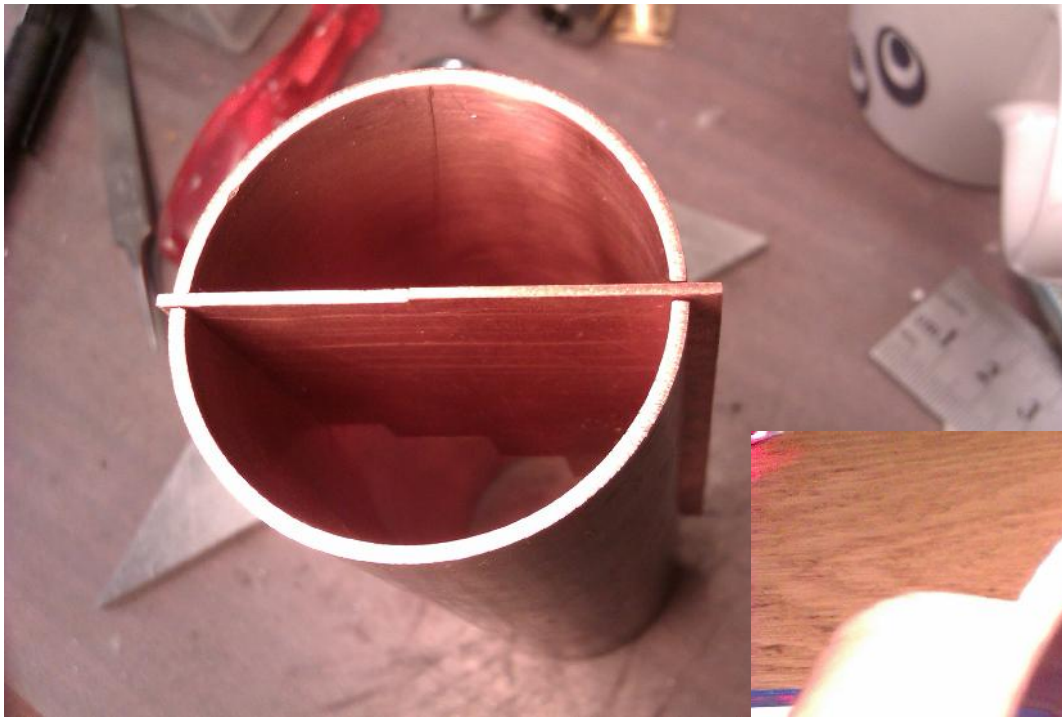
Using the DRO to get good precision, even if it is a cheap Chinese mill , and cheap chines digital scales read by a DOS program YADRO.

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



Cutting slots into the wave guide tube by using a slitting saw. The two cuts were done in the same setup. (Now I am doing only one cut and using a fixture to keep the septum plate centered, 3cm / 9 cm feed.)

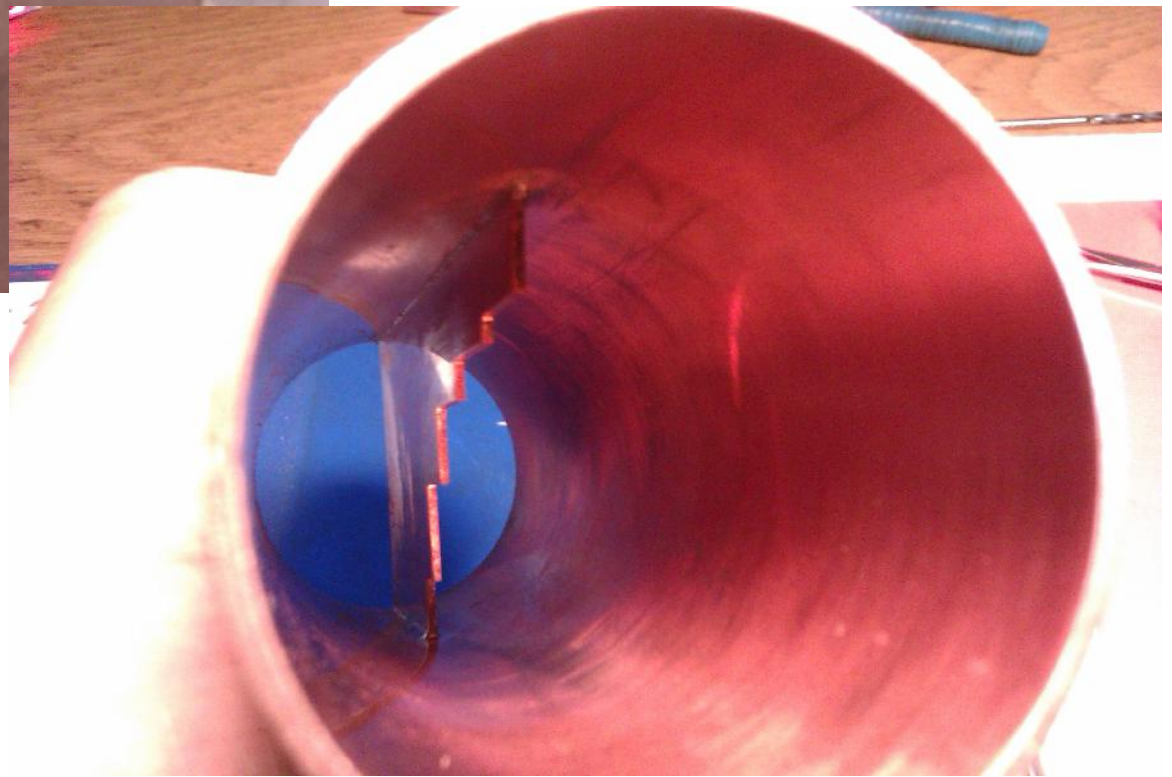
# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



Testing septum plate fitting

Tried to braze the septum plate but it was difficult to get enough heat to the copper-tube.

I prefer soft solder – avoiding getting the copper heated up that much that it gets soft.



Septum plate soldered (soft solder) into place

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



Turning a 60 mm center hole into the choke bottom plate. Outside diameter is still rough at this step, cut to dimension with a hacksaw

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



Turning the outer diameter

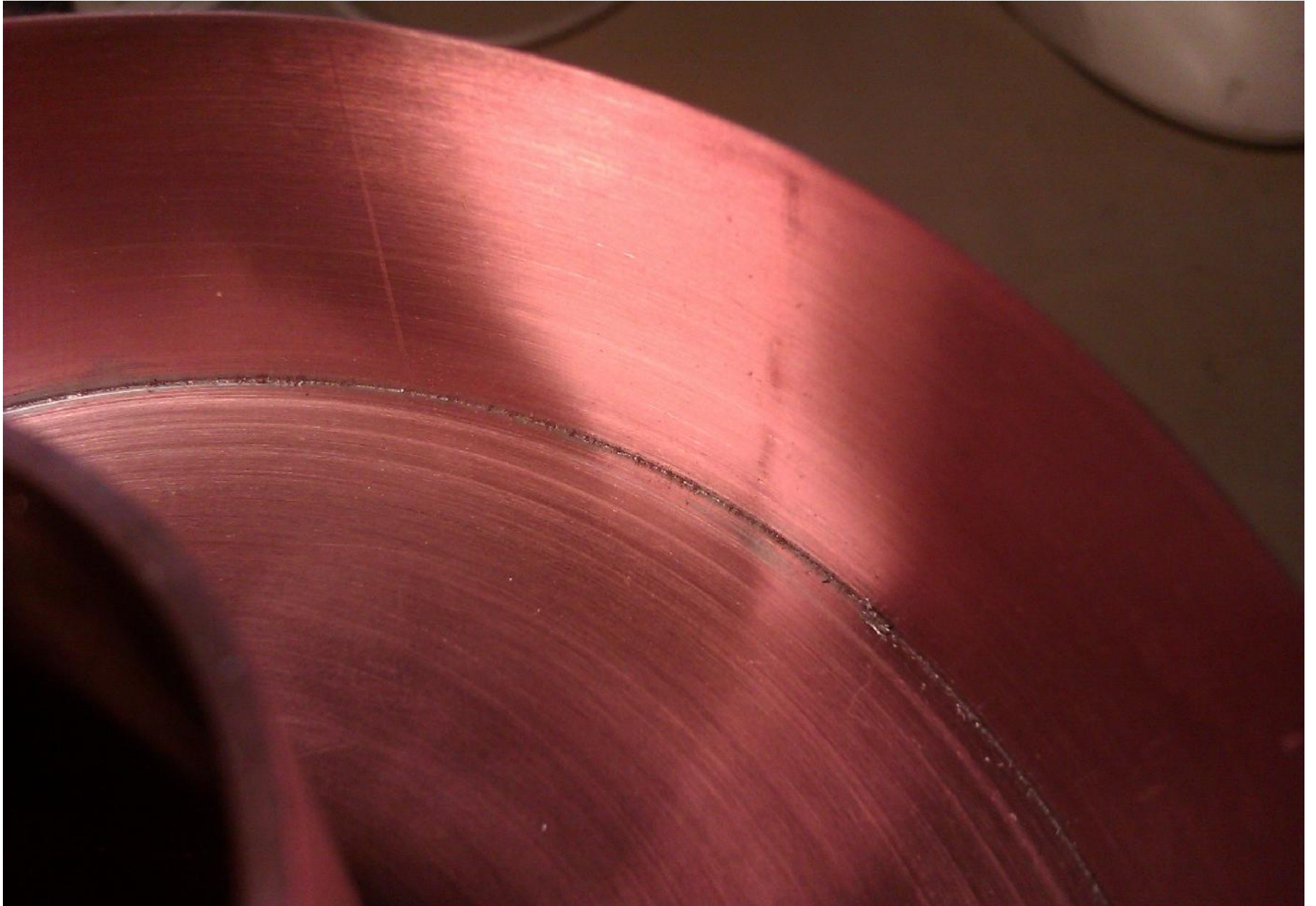


# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



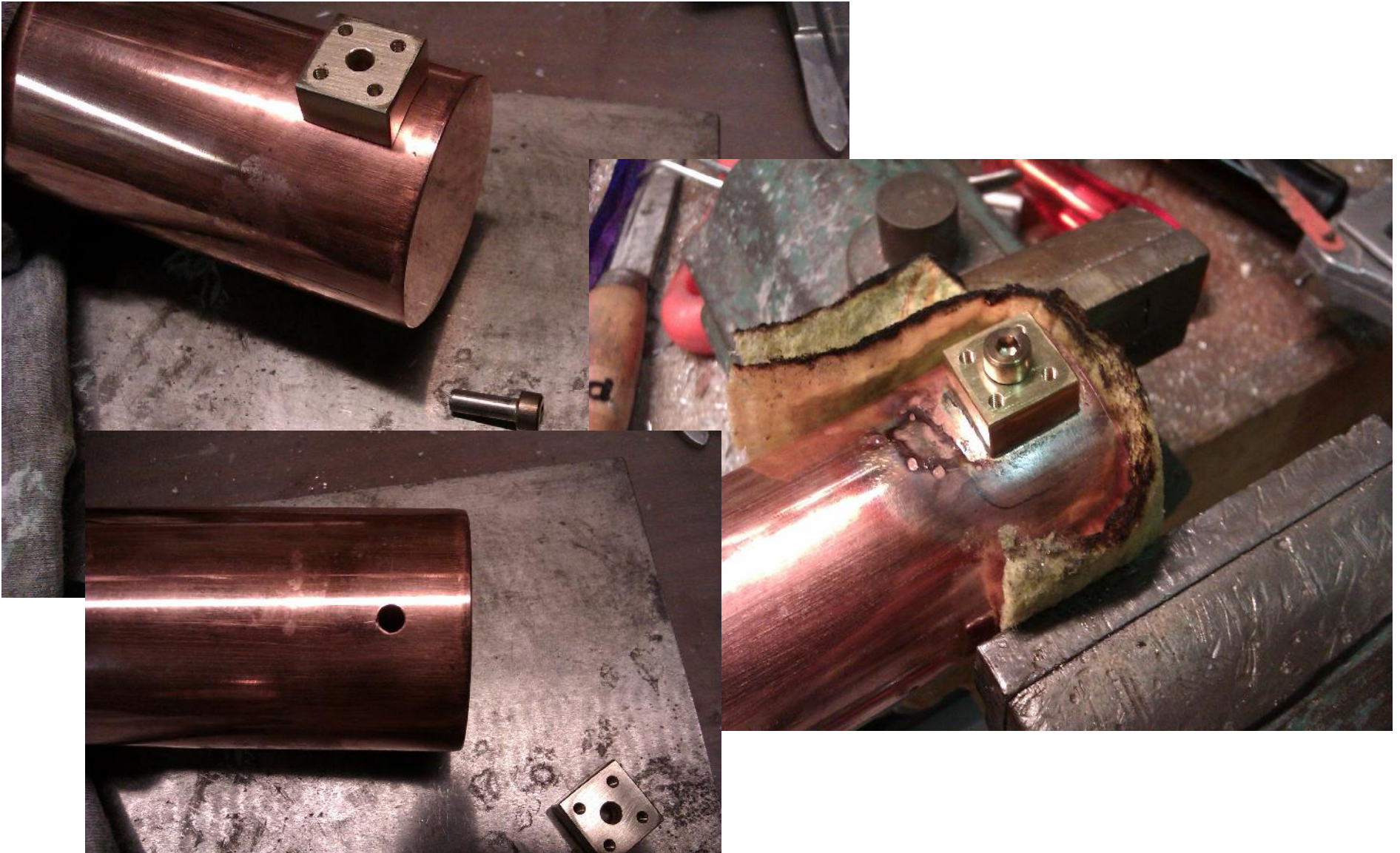
Preparing for soldering step

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



Solder flows very nicely into the gap

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



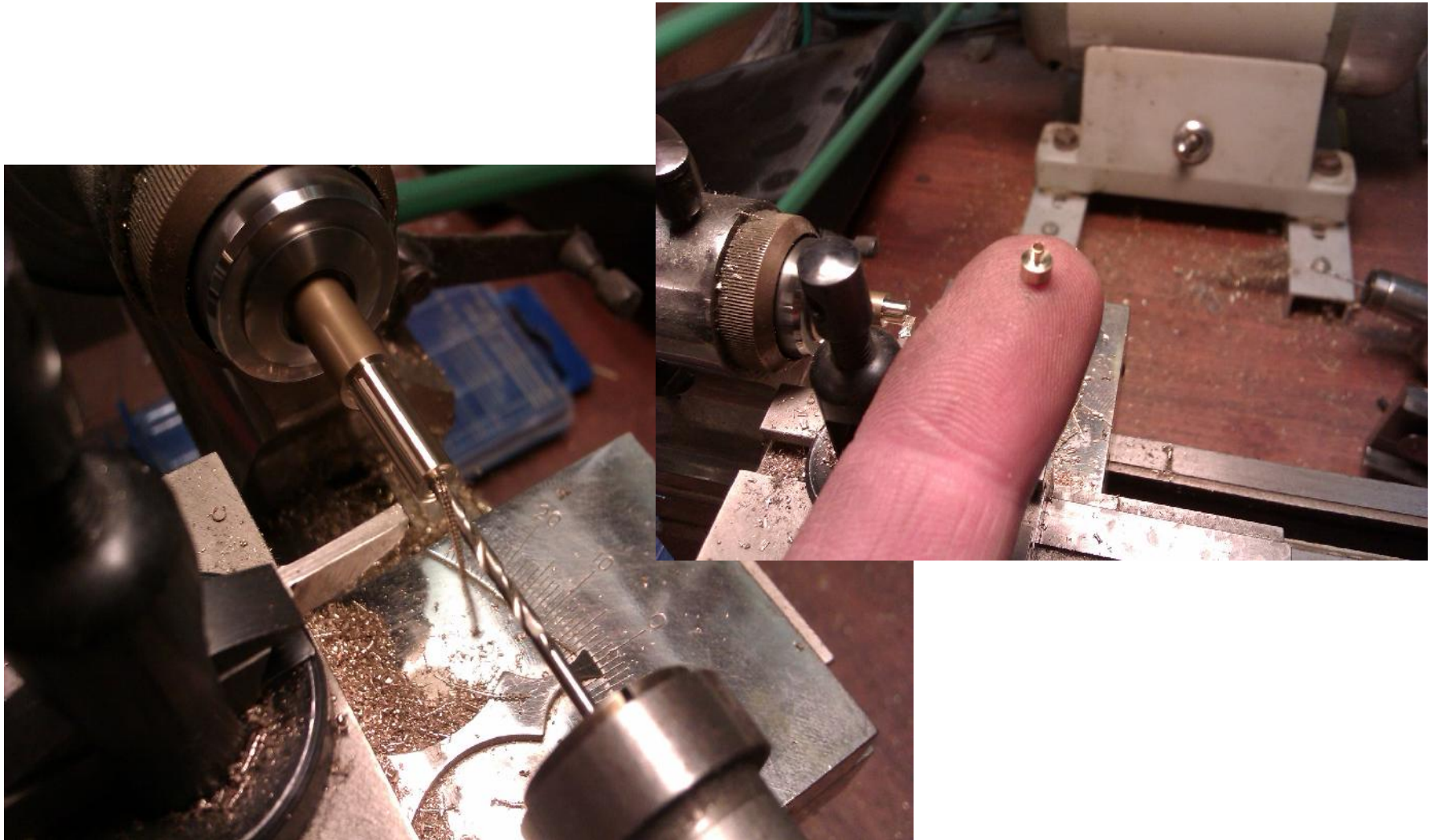
WG bottom plate soldered and now soldering the SMA connector fittings

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



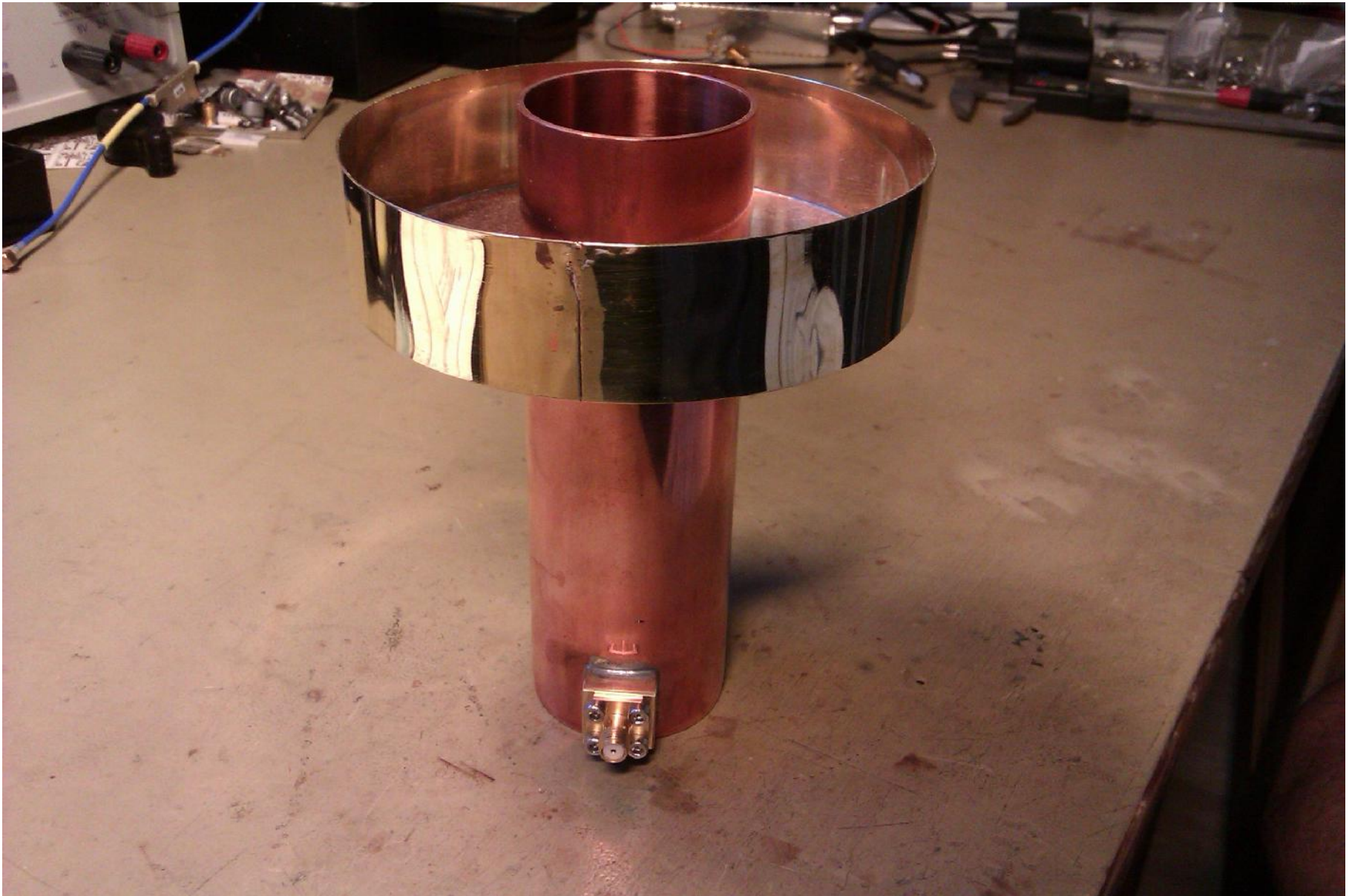
Soldering the Choke assembly to the WG.

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



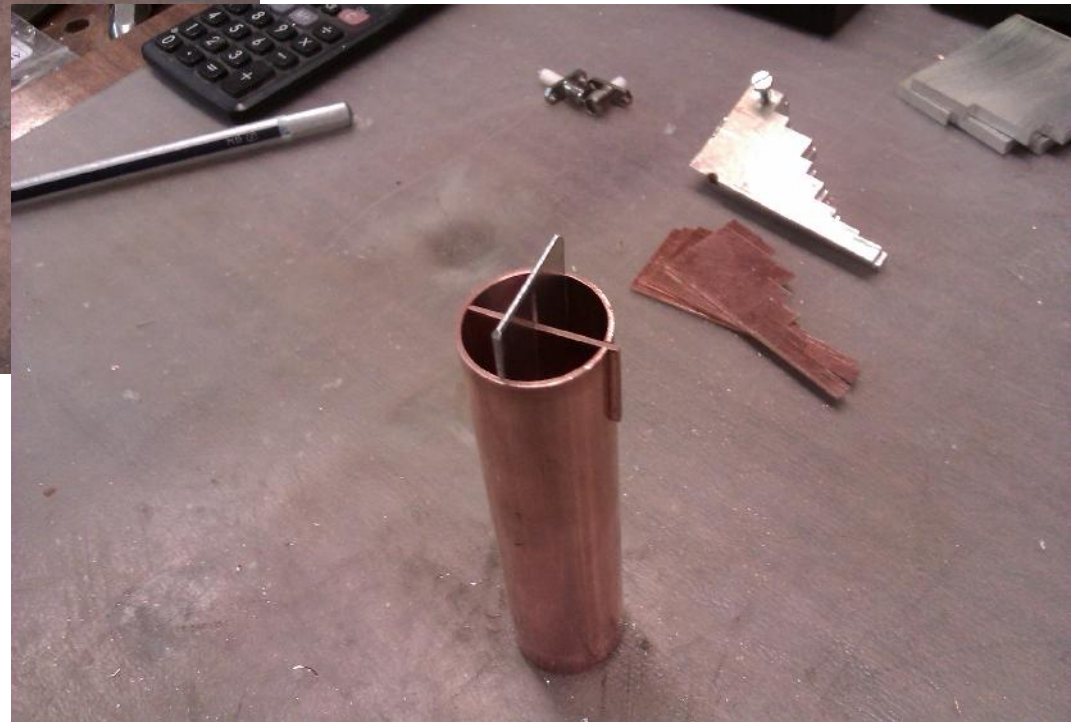
Dont drop it on the floor !

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



Finished ! – connect to the NWA and make the fine tuning of the feed probes

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



Easier to just cut one slot into the tube and use a fixture to keep the septum plate centered while soldering. This method have been used at the 3/9 cm feed.

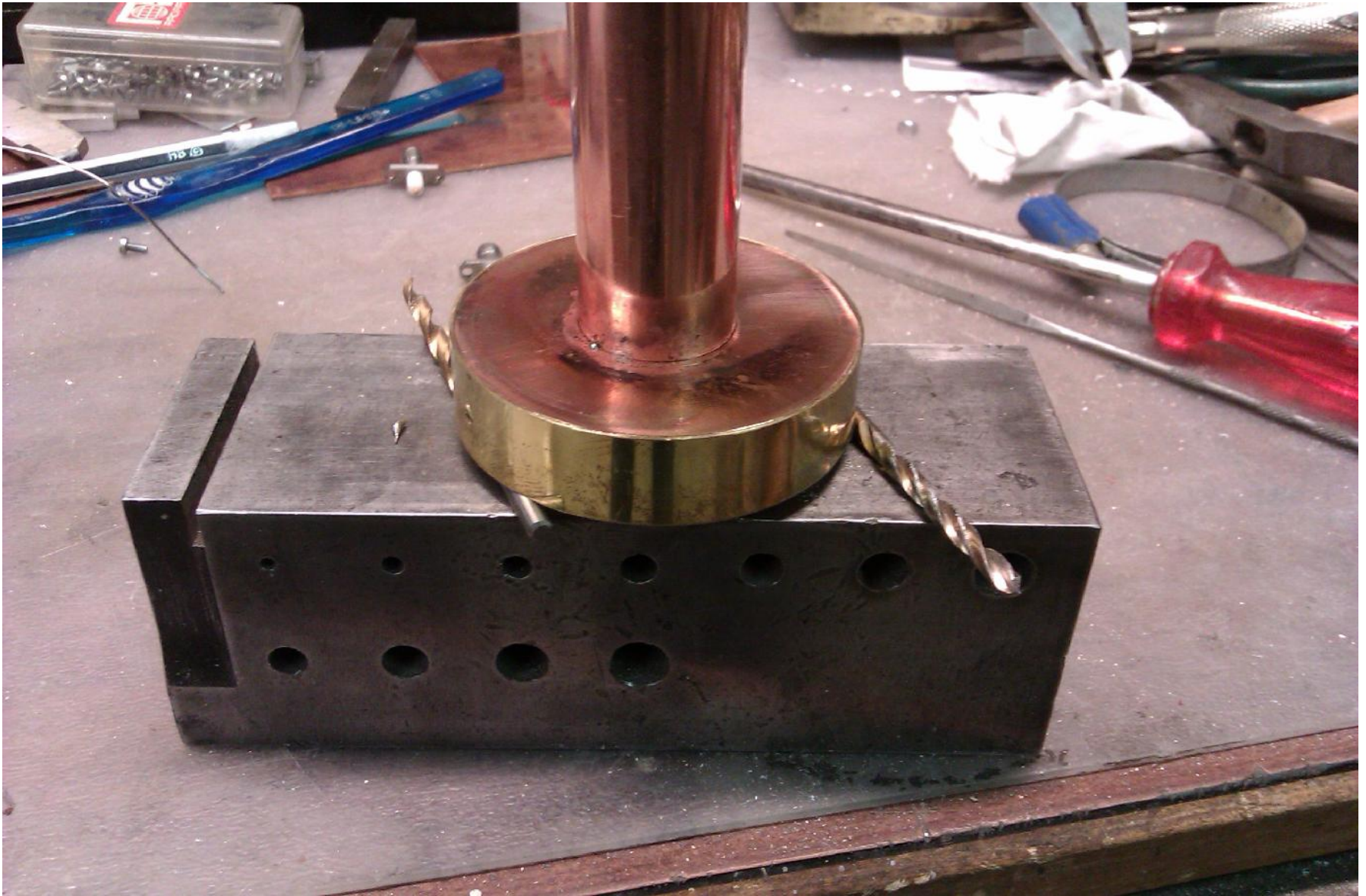
# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



SMA connector fittings made in another way, in this case for two hole connectors

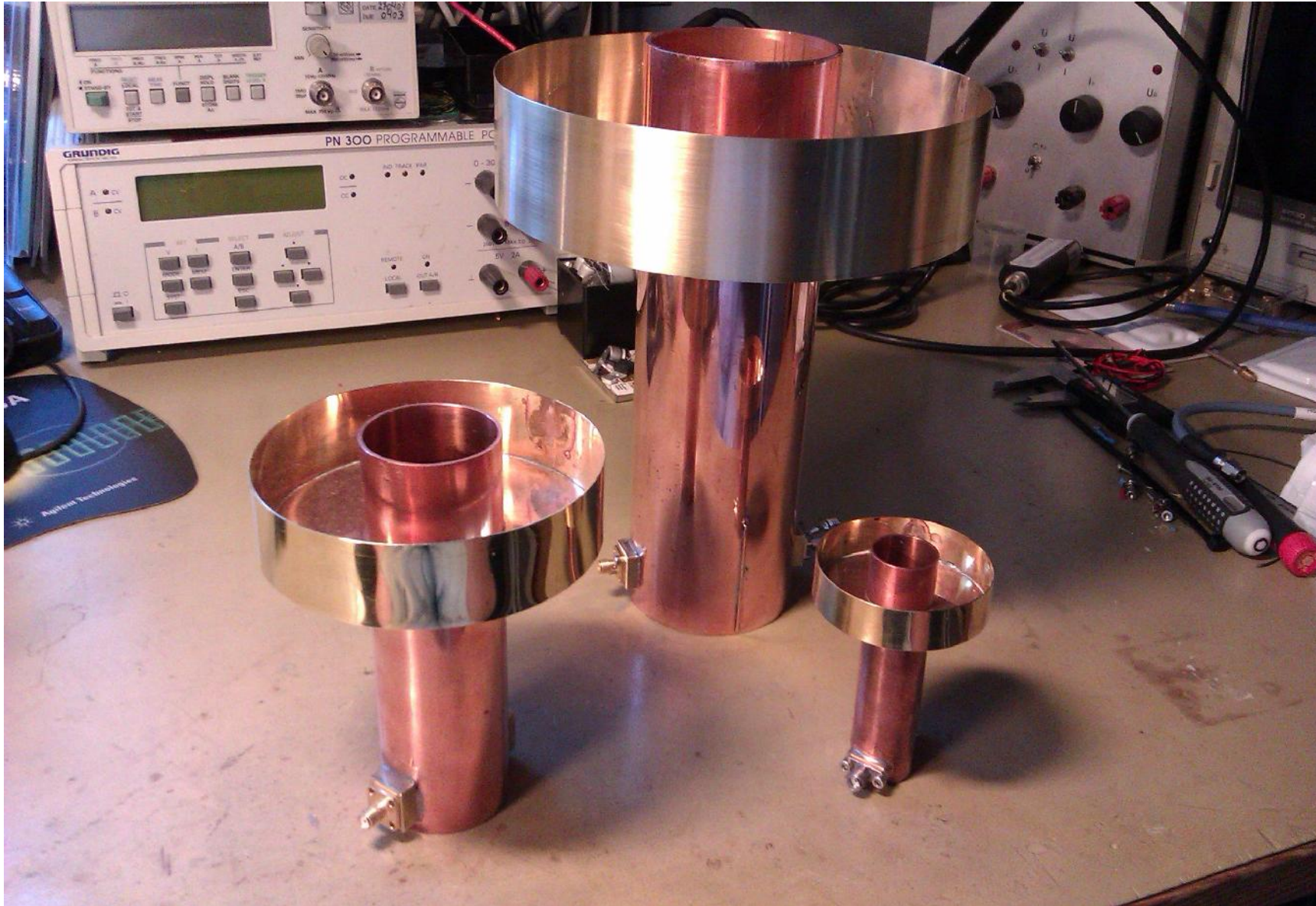


# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



Getting the choke assembly at the wanted distance from wg mouth.

# BUILDING THE FHZ KUMAR FEEDS by SM6PGP



The FEED FAMILY, 10368 MHz, 5760 MHz and 3400 MHz (9cm feed is not finished, 20130523).