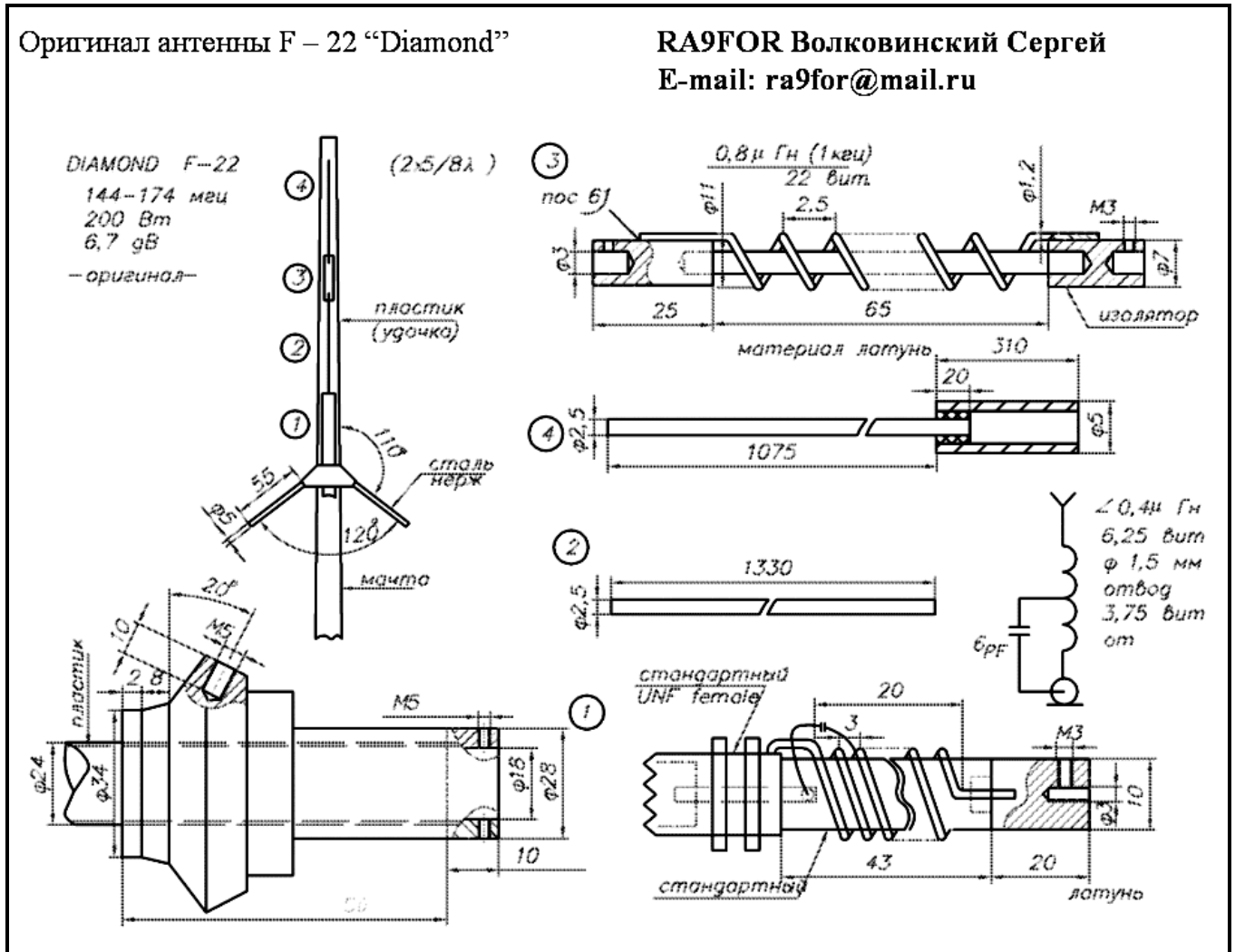
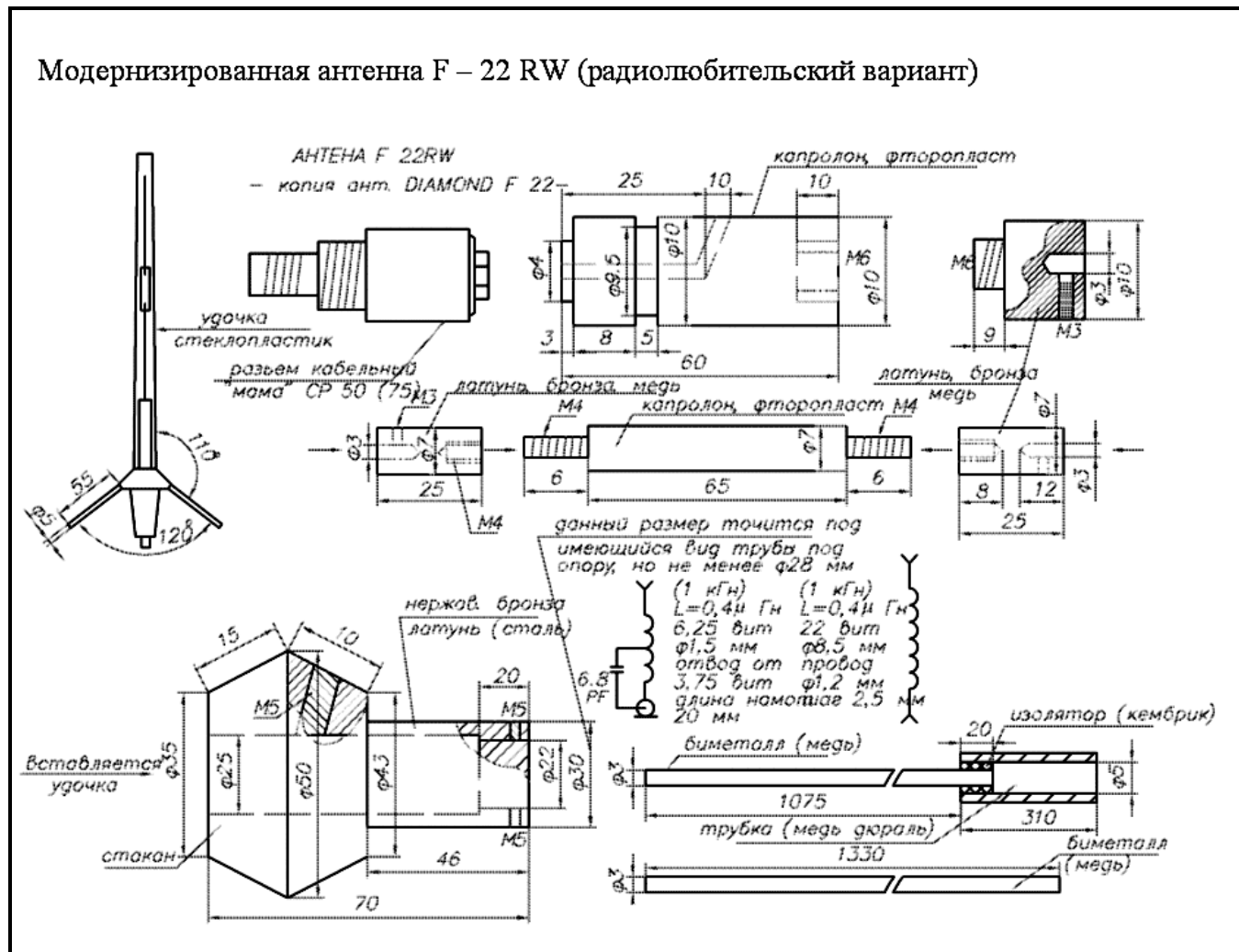


## The effective pin VHF antenna F-22 RW

This antenna design is developed based on the construction of the factory antenna company DIAMOND F-22, a drawing of which is called "Original".



RW-radioamateur option, explains the origin of the name. The design of the antenna used available materials and cost about 300 rubles. At first glance, the design may seem complex, but the advantage of the front rods antennas such as "quarters", 5 / 8, J-antenna, and even branded ARX-2 (B), CRX-2 (B) will be obvious and will take pleasure in working in air.



The basis of the antenna is Fiberglass rods. When choosing rods need to consider the following:

- Looking inside the rods, the walls should have the structure steklotekstolita and may have getinaksa the color (brown). Not in any way be taken steklouglerodisty composition: it is black in appearance with a rough surface structure, the material is not radioprozrachny.
- The length of rods should be 5.5 ... 6 meters.
- Diameter of the second degree from the bottom should be 24 ... 25 mm.

Then with the rods removed all sending metal ring, remove the very thin top and bottom of the holder of the tribes. The remaining tribes would be a shell dish. The material for the linen dish can be made of brass, bronze, not rzhaveyuschey wire, galvanizing, but the best from obmednennogo bimetal. "Glass" preferably made of material not rzhaveyuschego. Counterweights may be of Durant.

When assembling the lower contour of sweat start to the central vein connector silver wire 1.5 ... 2 mm and prodergivyut its central hole in the frame of the coil to the wire left in the lateral hole above the connector. All terminals frameworks wrap coils together with the glue type BF. The upper contour wound separately on the frame diameter of 8.5 mm, and then put in the frame and the ends of the coil to a point skeleton sweat. Thus the upper circuit is air. Then the coil is fixed to the frames with the help of varnish or glue.

I want to draw attention to the discharge of condensate. As a result of temperature and humidity inside the rods accumulated condensate, which flows down and poured through the gap between the connector and a glass base. The gap formed by the mounting screws do not stop for building the connector, and cut for the second thread. Cloth antenna assembly with the coils is inserted through the bottom hole of the glass and mounted stop screws. Inside the antenna rods kept using segments kembrika. Not in any way, do not use foam, because it absorb the moisture, and with a sharp point break the wall of rods, and that happened to their original antenna F-22 DIAMOND repitore in R 3.

Top cloth antenna has capacitive load, which provides shirokopolostnost and adjusts the frequency. Around: capacitive load on the displacement of 5mm alters the resonance frequency of the antenna at 1mGts. The tube capacitive load is placed firmly on the canvas using the antenna insulation material (can be used kembrik isolation or with the appropriate wire diameter). The glass tube is inserted into the grounds, inside which allow the antenna feeder. Pipe reason may be of any length in view of its attachment to the existing mast.

Input resistance 50 ohm antenna, enhancing factor of about 6.5 dB, a bandwidth with SWR 1.3 ~ 2 MHz.

This antenna design has already been applied in radio UA9FGM, RA9FSL, RA9FOR, as well as repitore R 3 and two more are ready for a new repitora R 2. During the year work on this antenna, I held radio Ulyanovsk, Izhevsk, Perm Kachkanar and throughout the region ..

I would like to thank for their help in the design of antenna Vladimir Fadeev RA9FSL.

Sergei Volkovinsky (RA9FOR).