


W60 MC Rcvr Design.

Replace the concentric cylinder lines by hexagonal structures as a somewhat lower capacity per unit length and a considerably simpler construction results for any given center to center spacing of lines. One W6, Three A5588A tubes and one 6H6G tube are used as indicated by circles at intersection of three way corners. The stub lines are to have an outer diameter of 2" and be 4" long. all stub bypass and other electrode bypass condensers are to come out on large front and back plates, ^{and} be held by covers bolted to these. a greatly simplified construction will result.

A hand hole $3\frac{3}{4}$ " diameter is to be directly over the center conductor of each line. ~~if necessary a small hand hole $1\frac{1}{2}$ " dia may be over each tube to facilitate insertion into socket.~~

Assembly is made by first bevding a shape starting at a and zig-zag down center and ending at b. To this are brazed partitions c, d, e, f, g, h, i. At center of partitions are then brazed the fins with stub lines attached and the antenna outer conductor. The top and bottom are then welded on. Finally the front and back are attached. By careful heating from outside the silver solder may be fed in three hand holes to various seams giving an inside soldered job with associated clean appearance.

~~The bases for tube sockets will have to be inserted into three main covers their hand holes are welded on.~~ The tube sockets and tubes can be passed in three hand holes. The entire construction with exception of stub and antenna lines may be of .030" copper sheet. The covers for hand holes are to be of snap on variety  which can be pried off with screw driver. Trimmers for the dead end lines which terminate in resistors are mounted on top (one) and bottom (two) plates, directly at sides of covers and soft soldered to these plates. ~~Slightly modified construction will be necessary on first dead end resistor to allow cooling of same by liquid air.~~ Due to relatively low capacity of system the inside conductor can be about $\frac{1}{16}$ " diameter for a 275 ohm line.

6H6 with wide cathode-grid spacing gives greater stability of electron velocity potential. also by using push pull a 3DB improvement in signal to noise ratio is attained.