Tube of the Month

The 3X2500A Family

In the late 1940s, Eimac was working on large, external anode tubes. One of their first was the 3X2500A3. It was a glass insulated tube with a dissipation of 2500 watts. This was a general purpose triode with a mu of 20. Many applications for this tube didn't require high frequency operation, so the 3X2500F3 was produced. Same tube but with heavy filament leads soldered to the contacts. No need for an expensive socket. In the 1950s, Eimac started converting tubes over to ceramic insulation and the new tube was the 3CX2500A3 followed by the 3CX3000A3 with an improved plate construction. With the popularity of grounded grid construction, additional grid turns were added and the 3CX3000A7 was added to the family. Hams noticed this new tube. The older A1 and A3 tubes had a mu of between 5 and 20, but the new A7 had a mu of 160. Eimac eventually added a water jacket to these tubes and designated them 3CW5000A*. Recently hams have requested new tubes with a flange welded to the grid ring, so the tube can be mounted directly to the chassis.

Most of the "A" type tubes could go up to 110 MHz so were a common amplifier in FM broadcast as well as RF heating, AM broadcast and RADAR pulse.

These A7 tubes were practical for 6 meter amplifier service especially for high duty cycle applications like JT56A. The tube had been very popular with hams on 160 meters for several years. The filament requires 7.5 volts at 51 amps. The connections need to be very good at this current so having a socket for testing is very useful. I was given some bronze fingers and an Eimac center filament bushing, so the associated socket was the result. It could be attached directly to the chassis for grounded grid or mounted below the chassis with small insulators for a conventional grid driven amplifier. A filament transformer was wound that could be used with the socket. It makes a good display mount until I need it.

Visit the museum at N6JV.com
Norm N6JV


Eimac 3CX3000A7
MADE IN U.S.A.