

# EIMAC

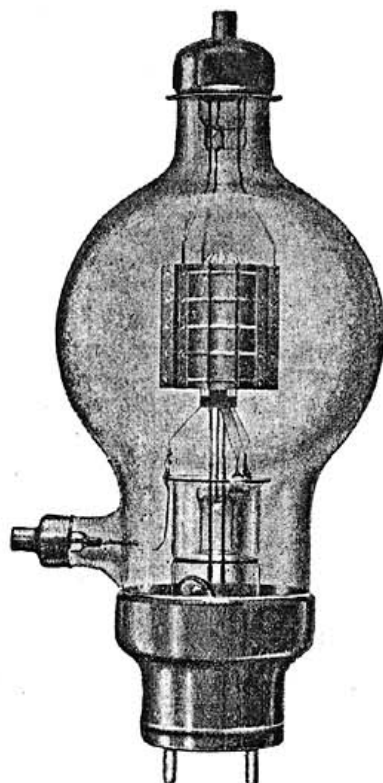
## 500T

### LOW CAPACITY, HIGH POWER, RADIATION COOLED TRIODE

THE 500T is a radiation-cooled triode having continuous plate dissipation capabilities of 500 watts. The 500T has many unusual constructional features that greatly increase the versatility of this tube. The extremely low interelectrode capacities, the heavy leads, high electrode insulation, and the large, rugged cathode are features which permit the successful operation of the 500T at the very high radio frequencies.

Excellent electrical characteristics account for the fine performance of this tube at the low radio frequencies and as a class "B" modulator. The 500T is capable of operating at very high plate efficiencies permitting radio frequency and audio frequency outputs of many times the plate dissipation rating.

The electrodes of the 500T are fabricated from completely degassed tantalum. The use of this expensive material for the electrodes permits the manufacturer of the 500T to permanently guarantee this tube from ever going soft through gas released from accidental overload. Broadcast stations will be particularly interested in the trouble free performance and long tube life of the EIMAC 500T.



EIMAC 500T

### EIMAC 500T CHARACTERISTICS AND RATINGS

Filament Volt. (AC) 7½ to 8 volts  
 Filament Current (approx.) 20 amps  
 Amplification Factor (average) 13.5  
 Grid-Plate Capacitance 4.5 mmfds  
 Grid-Filament Capacitance 6.0 mmfds  
 Plate-Filament Capacitance .8 mmfds  
 Bulb GT 56 Nonex  
 Base Special  
 Overall height 16½ inches  
 Maximum Diameter 7 inches

#### Maximum Ratings on all Frequencies Less Than 40 Megacycles

Max. Plate Voltage 4000 volts  
 Max. Plate Current .600 amps  
 Max. Grid Current (DC) .125 amps  
 Max. Plate Dissipation 500 watts

• • •

#### Typical Operating Conditions on Frequencies Less Than 40 Megacycles

Plate voltage	2000	3000	4000
Plate current (amps)	.450	.450	.450
Grid current (amps)	.100	.100	.100
Grid bias voltage	400	600	800
Power output (watts)	650	1000	1350

Under the above noted normal maximum conditions of operation the EIMAC 500T is capable of a power output in excess of 1800 watts. Commercial communication companies will be interested to know that a pair of EIMAC 500T tubes operating under special conditions of operation will give an antenna power in excess of 5000 watts. This practical application of radiation-cooled tubes does away with the necessity of water cooling when outputs of the above noted magnitude are required. Write for more detailed information on this new modern method of operating vacuum tubes.

The Federal Communication Commission's ratings do not take into account this tube's excellent electrical characteristics or utilize the tube's full capabilities. The present F. C. C. ratings must take into consideration all types of vacuum tubes and is based on a plate efficiency of 60 per cent for high level modulation. The plate dissipation rating of the 500T is 500 watts, which gives this tube the following F. C. C. ratings:

For high level modulation.....carrier power 750 watts  
 For low level modulation.....carrier power 250 watts  
 For grid bias modulation.....carrier power 125 watts

## EITEL - McCULLOUGH, INC.

SAN BRUNO, CALIFORNIA  
 U. S. A.

CABLE "EIMAC"