

# —Standard Valves—

4278-A  
Valve

## 4278-A VALVE

TETRODE.

### SPECIFICATION.

#### Cathode.

Thoriated Tungsten filament.  
Constant voltage type.

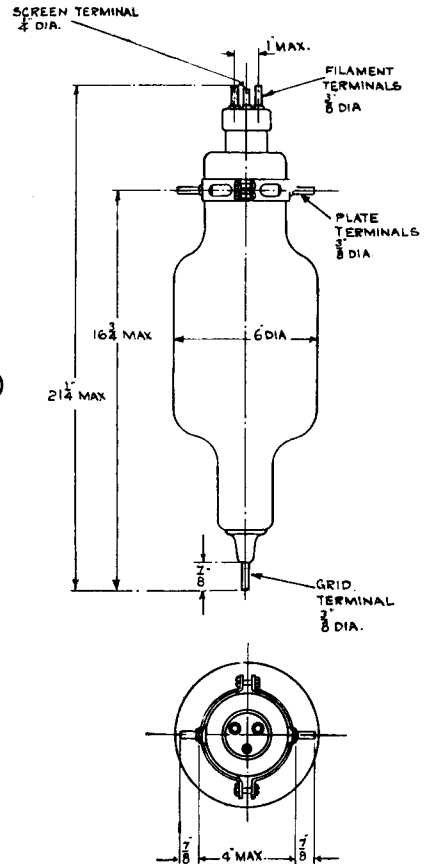
#### Dimensions.

Overall length  $21\frac{1}{4}$ " (54 cms.)  
Maximum diameter 6" (15.2 cms.)  
Net weight  $3\frac{1}{8}$  lbs. (1,500 gms.)

#### Constants.

Filament voltage 10 volts  
Nominal filament current 15.6 amps.  
Total emission 6 amps.  
\*Impedance 105,000 ohms  
\*Amplification factor 400  
Control grid-anode capacity 0.60  $\mu\mu\text{F}$ .  
Input capacity 31  $\mu\mu\text{F}$ .  
Output capacity 29.4  $\mu\mu\text{F}$ .

\* at  $V_p = 3,000$  volts,  $V_{g1} = 75$  volts.  
 $V_{g2} = 750$  volts.



### LIMITING CONDITIONS FOR SAFE OPERATION.

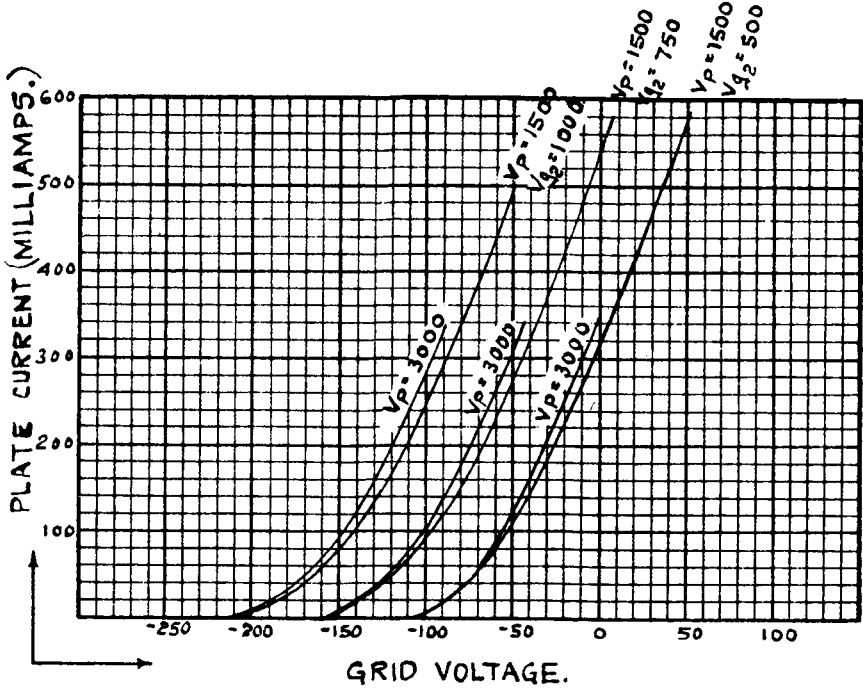
Maximum direct anode voltage	3,000 volts
Maximum screen-grid voltage	750 volts
Maximum direct anode current	0.600 amps.
Maximum anode dissipation	800 watts
Maximum screen-grid dissipation	75 watts
Maximum control-grid dissipation	50 watts
Maximum frequency for above ratings	30 Mc.
Maximum anode voltage for frequency of 50 Mc.	2,000 volts

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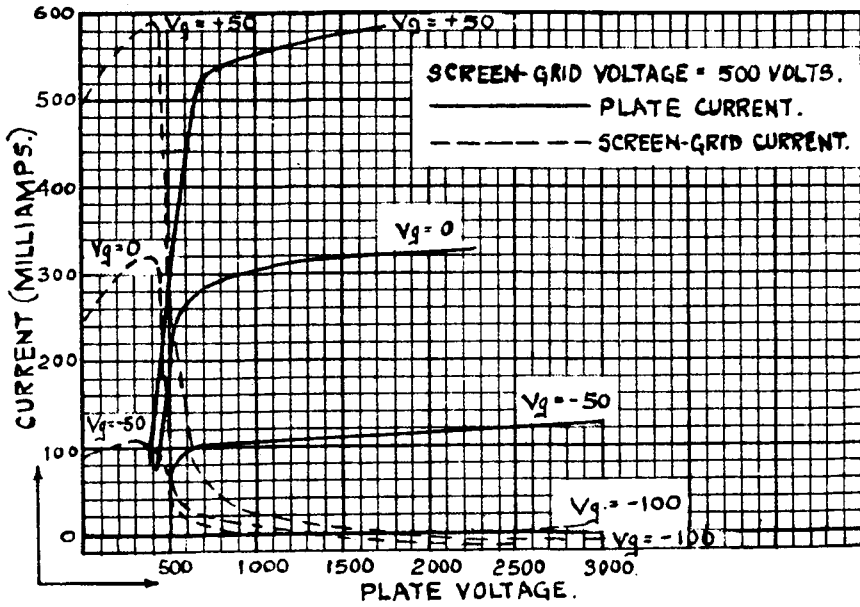
## TYPICAL OPERATING CONDITIONS. RADIO FREQUENCY OPERATION.

	Class B Telephony		Class C Telephony		Class C Telegraphy	
	Modulated Carrier applied to grid		Subject to anode modulation		Unmodulated	
Direct anode voltage	3,000	2,500	2,250	1,750	3,000	2,500 volts
Direct anode current	0.400	0.480	0.400	0.500	0.500	0.500 amps.
Direct screen-grid voltage	500	500	500	500	500	500 volts
Control grid bias	—110	—110	—165	—165	—165	—165 to —220 volts
Carrier output	400	400	600	580	1,000	850 watts
Anode dissipation	800	800	300	295	500	400 watts



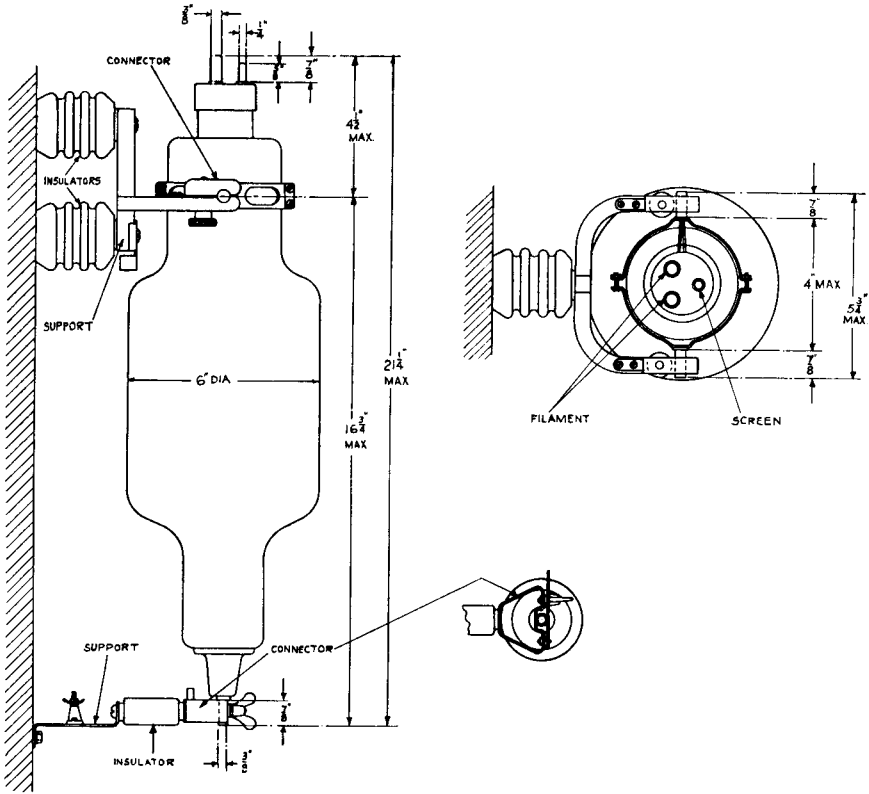
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