

# —Standard Valves—

4030-A  
Valve

## 4030-A VALVE

DOUBLE ENDED WATER COOLED TRIODE.

### SPECIFICATION.

#### Cathode.

Pure Tungsten filament.  
Constant voltage type.

#### Water Flow.

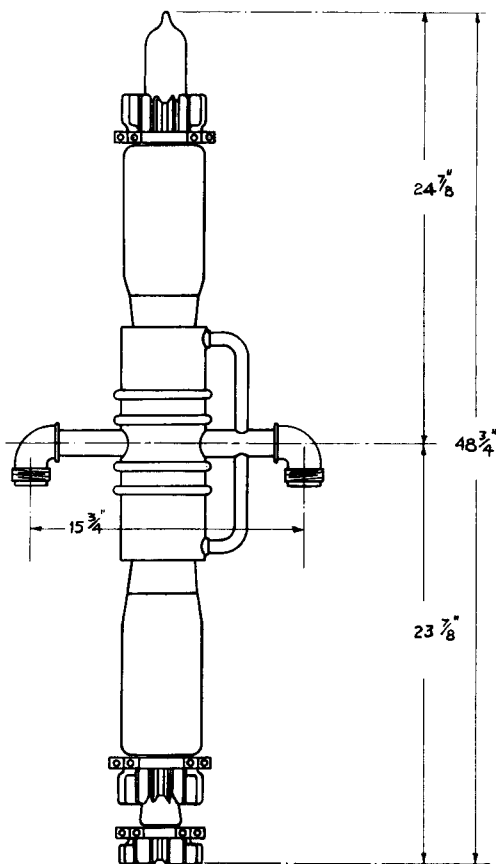
22 gallons per minute.

#### Dimensions.

Overall length  $48\frac{3}{4}$ " (124 cms.)  
Jacket diameter—  
 $5\frac{3}{8}$ " (13.5 cms.)  
Net weight 32 lbs. (14,500 gms.)

#### Constants.

Filament voltage 21 volts  
(exact filament voltage marked  
on bulb)  
Nominal filament  
current 215 amps.  
Total Emission 45 amps.  
Impedance 2,200 ohms  
Amplification factor 36  
Grid-anode capacity  $51 \mu\mu\text{F}$ .  
Anode-filament  
capacity  $14 \mu\mu\text{F}$ .  
Grid-filament  
capacity  $40 \mu\mu\text{F}$ .



### LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage	17,500 volts
Maximum direct anode current	11 amps.
Maximum anode dissipation	80 Kw.
Maximum grid dissipation	1,500 watts
Maximum frequency for above ratings	2 Mc.
Maximum anode voltage for frequency of 22 Mc.	15,000 volts

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## TYPICAL OPERATING CONDITIONS.

	Class B A.F. Amp. and Mod. for balanced 2 valve circuit
Direct anode voltage	12,500 volts
Grid bias	—150 volts
Direct anode current per valve—zero signal	1.3 amps.
Direct anode current per valve—maximum signal	6.5 amps.
Anode dissipation	36.6 Kw.
Load resistance—anode to anode	1,700 ohms
Maximum output—2 valves	90 Kw.

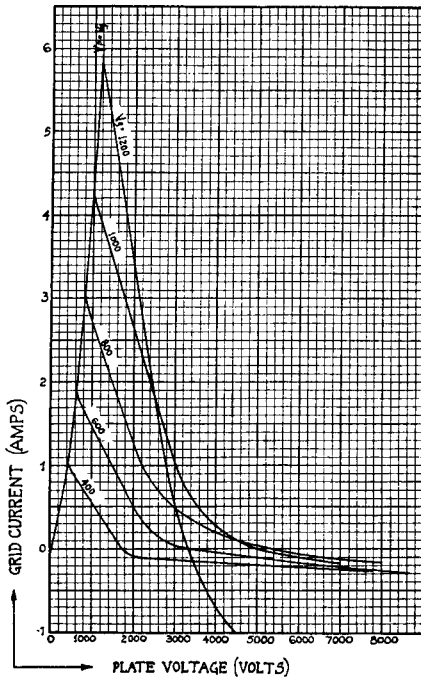
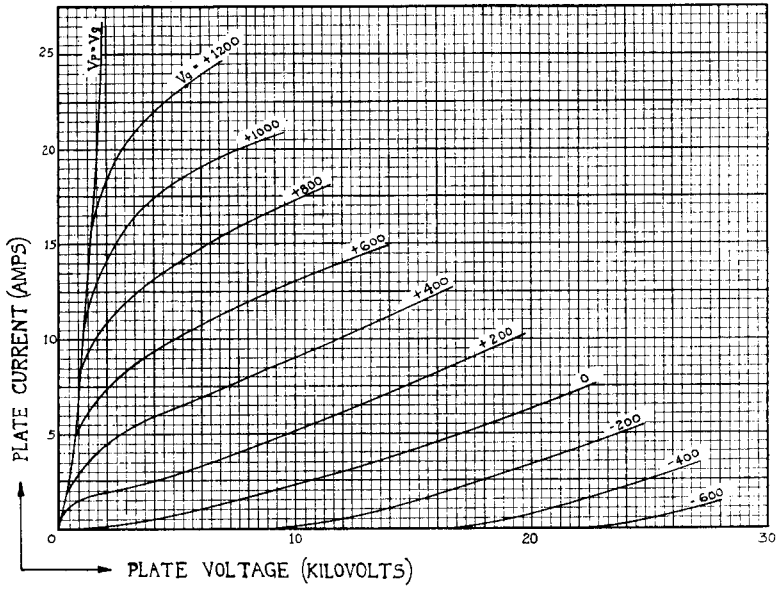
## RADIO FREQUENCY OPERATION.

	Class B Telephony Modulated carrier applied to grid			
	17.5	15	12	10 Kv.
Direct anode voltage	17.5	15	12	10 Kv.
Direct anode current	4.8	4.8	4.8	4.8 amps.
Grid bias	—400	—300	—250	—150 volts
Power output	25	22	17	12 Kw.
Anode dissipation	59	50	40	36 Kw.
FREQUENCY	2	12	19	22 Mc.

	Class C Telephony				Class C Telegraphy			
	Subject to anode modulation				Unmodulated			
	12	11	10	9	17.5	15	12	10 Kv.
Direct anode voltage	12	11	10	9	17.5	15	12	10 Kv.
Direct anode current	5	5	5	5	9.6	9.6	9.6	9.6 amps.
Grid bias	—600	—500	—450	—400	—600	—500	—450	—400 to —550 volts
Carrier output	40	35	30	20	100	88	68	48 Kw.
Anode dissipation	20	20	20	25	68	56	47	48 Kw.
FREQUENCY	2	12	19	22	2	12	19	22 Mc.

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V.4030-A.2  
Nov. 1937

PRINTED IN  
ENGLAND