



Triode Type CAT 3

(RF AMPLIFIER AND OSCILLATOR)

General. The CAT 3 is a water-cooled anode transmitting triode fitted with a tungsten filament. It is suitable for use as an RF amplifier or oscillator at frequencies up to 20 Mc/s.

Cooling. The anode forms part of the valve envelope and is designed for cooling by water circulated in direct contact with the anode. The flow of water should not be less than 2.5 gallons per minute. All cooling supplies must be started before the application of any supply voltages.

Filament Starting. The cold filament resistance is approximately 0.03Ω . The filament current must not exceed 75 A, even momentarily, at any time.

Mounting. The valve must be mounted with the anode in a vertical position and be completely supported by the water jacket. Rigid connections must be made to the anode only.

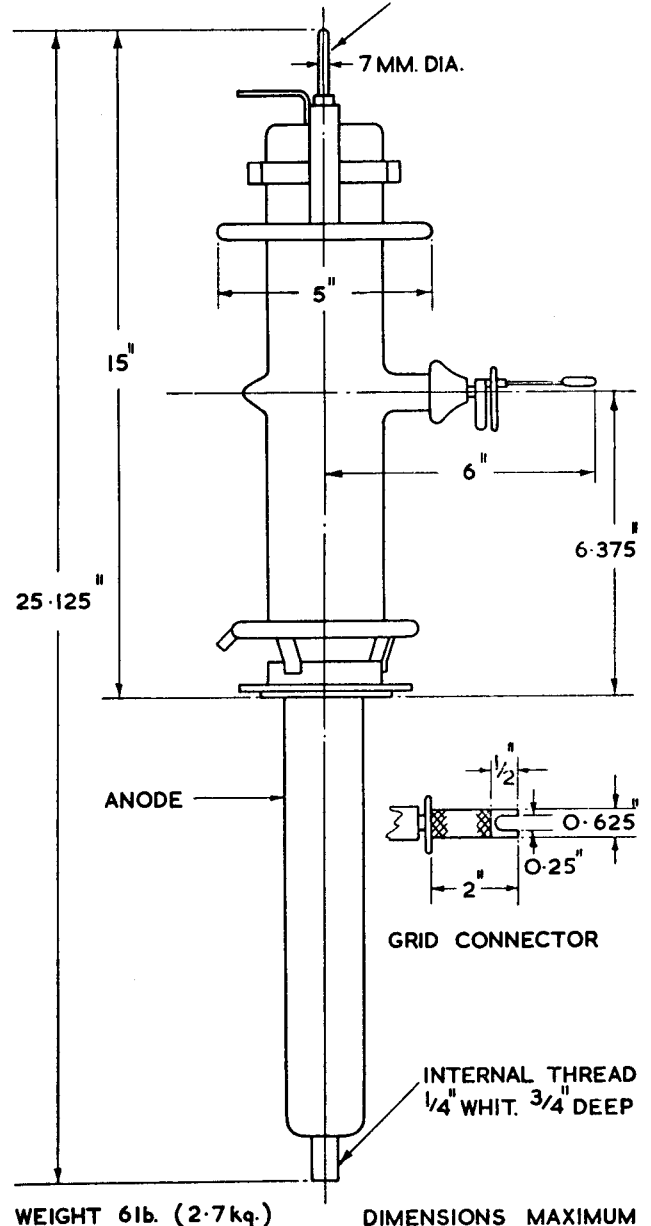
Seasoning. Whenever a new valve is put into service or when a valve has been idle for periods of approximately two months, it must be seasoned by operating, for at least one hour, at half the normal anode voltage and current. The anode voltage should then be increased slowly to the normal value.

APPROXIMATE DATA

V_f	18-20	V^*
I_f	50	A
I_e (at 90% saturation)	5	A
μ	taken at V_a 10 kV, V_{g1} 0 V	40
r_a		
$V_{a(max)}$	10	kV
$P_{a(max)}$	5	kW
$P_{g1(max)}$	300	W
$f_{(max)}$	3	Mc/s
C_{a-g1}	23.1	pF
C_{a-f}	1.98	pF
C_{g1-f}	20.5	pF

*Each valve is marked with the filament voltage to give 5 A emission at 90% saturation.

FILAMENT LEAD CENTRES 20MM.



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