

Specification MAP/CV1530/Issue 2 Dated 13.12.45. To be read in conjunction with K1003	<u>SECURITY</u>	
	<u>Specification</u> RESTRICTED	<u>Tube</u> RESTRICTED

→ Indicates a change

<u>TYPE OF DEFLECTION</u> - Magnetic <u>TYPE OF FOCUS</u> - Electrostatic <u>BULB</u> - Internally coated with conductive coating. <u>SCREEN</u> - YM36			<u>MARKING</u> VCR.530 10CV/1530	
			<u>BASE</u> I.O.	
<u>RATING</u>			Pin	Electrode
Heater Voltage (V)	4.0		1	No connection
Heater Current (A)	1.0		2	First Anode
Max. First Anode Voltage (kV)	1.45	A	3	Second Anode
Max. Third Anode Voltage (kV)	8.0	A	4	No connection
			5	Grid
			6	Cathode
			7	Heater
			8	Heater
			Side Contact	Third Anode
<u>TYPICAL OPERATING CONDITIONS</u>			<u>SIDE CONTACT</u>	
Third Anode Voltage (kV)	7.0		Flush Type.	
Second Anode Voltage (kV)	1.0		<u>DIMENSIONS AND CONNECTIONS</u>	
First Anode Voltage (kV)	1.25	B	See drawing on page 4.	
Working Beam Current (peak) (µA)	250			
Working First Anode Current (µA)	500	B		

NOTES

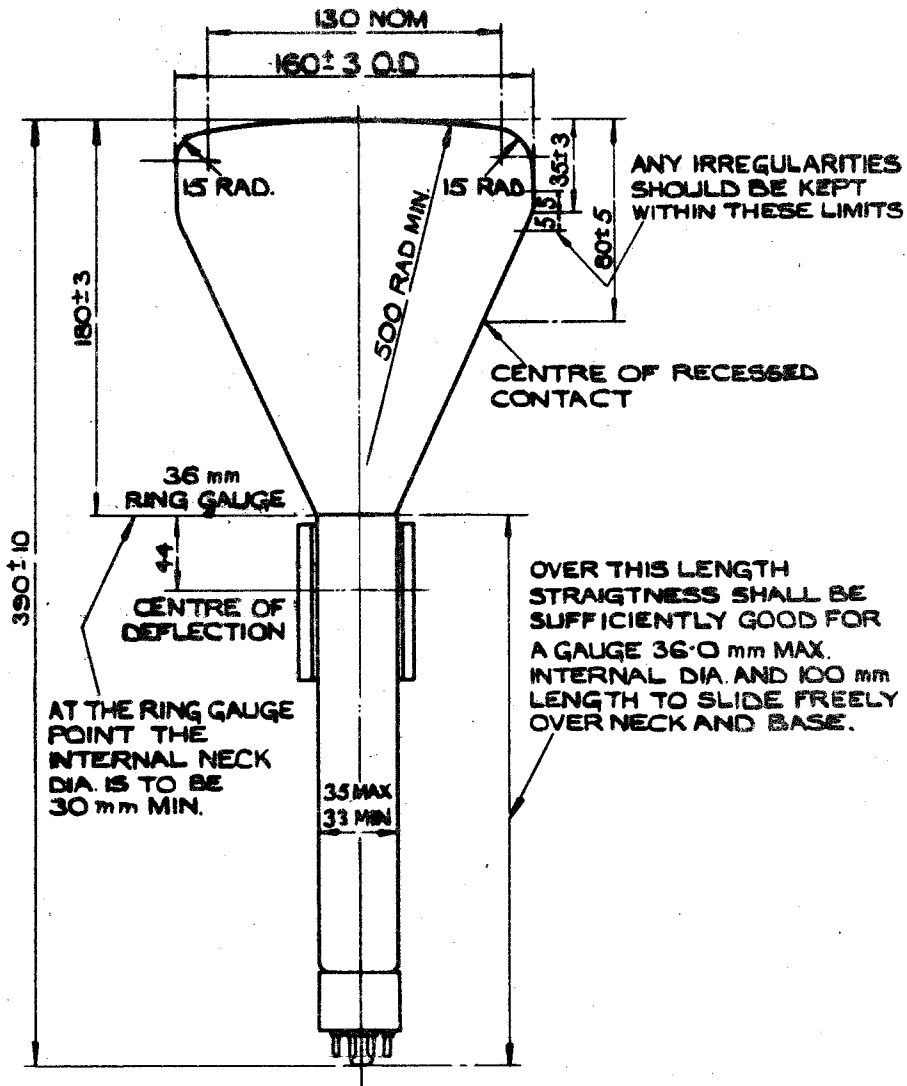
- A:- The tube shall be capable of operating with these voltages at a pressure equivalent to 4.45<sup>m</sup> of mercury at 15°C.
- B:- The first anode must always be at least 50V. positive to the second anode and the supply network must take account of variations in first anode current from zero to working value.

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To be performed in addition to those applicable in K1003

	Test Conditions					Test	Limits		No. Tested
	Vh	Va3 (kV)	Va2 (kV)	Va1 (kV)	Vg		Min.	Max.	
a	See K1003/5.12.					<u>INTERELECTRODE CAPACITANCE (pF)</u> Cg- all	-	25	5%(10)
b	4.0	0	0	0	0	Ih (A)	0.7	1.2	100%
c	4.0	7.0	Adjust for optimum focus	1.25	Adjust to cut off	Vg (V) Value to be noted	-	-100	100%
d	4.0	7.0	ditto	1.25	-	1. Vg (V)	-1	-	100%
						2. Change in value of Vg from test(c) (V)	-	55	100%
						3. Within the range of grid voltage from out off to standard light output the beam current shall increase continuously.			100%
e	4.0	7.0	ditto	1.25	-	1. Line width (mm)	-	0.8	100%
						2. Va2 (V)	900	1200	100%
<p><u>DEFLECTION</u> - With a sinewave time base of 70 Kc/s nom. and line length of 135 mm. in X and Y directions successively, the line width will be measured at the centre of the trace.</p> <p><u>GRID</u> - The grid will be pulsed positively with amplitude equal to the value obtained in test (d.2), the nominal values of pulse duration and recurrence being 100 usecs. and 100 c/s respectively.</p>									
f	4.0	7.0	Any convenient value	1.25	-100	<u>GRID INSULATION</u> 1. Leakage current (uA)	-	20	100%
						2. Increase in in voltmeter reading	-	100%	100%
g	4.0	7.0	ditto	1.25	Any convenient value	Deviation of spot from centre of screen (mm)	-	10	100%
See K1003/5.4.2. Resistor = 5 MΩ									

	Test Conditions					Test	Limits		No. Tested
	Vh	Va3 (kV)	Va2 (kV)	Va1 (kV)	Vg		Min.	Max.	
h	4.0	7.0	Any convenient value	1.25	Any convenient value	<u>USEFUL SCREEN AREA</u> Diameter (mm)	135	-	100%
j	4.0	7.0	-	1.25	ditto	1. The screen shall not be worse for graininess than a standard pattern. 2. The variation of brightness over any part of the area shall not exceed a 2 : 1 ratio.			100%
	Deflecting field to give a raster covering the useful screen area. The spot shall be defocussed such that separate lines shall not be discernable on the raster.								
k	Test to be performed using Test Set 331.					After-glow (secs.)	4	16	10%



AT THE RING GAUGE POINT THE INTERNAL NECK DIA. IS TO BE 30 mm MIN.

THE ANGLE BETWEEN THE PLANES THROUGH THE TUBE AXIS AND THE CENTRE OF THE SIDE CONTACT, AND THE TUBE AXIS AND THE KEY IN THE SPIGOT OF THE BASE SHALL NOT BE MORE THAN ± 10°

ALL DIMENSIONS IN MILLIMETRES