

MINISTRY OF AIRCRAFT PRODUCTION (DOD)

SPECIFICATION DCD. WT.1291 Issue 2 Date : 2. 2. 44.	Tube Security Secret	To be read in conjunction with KL003
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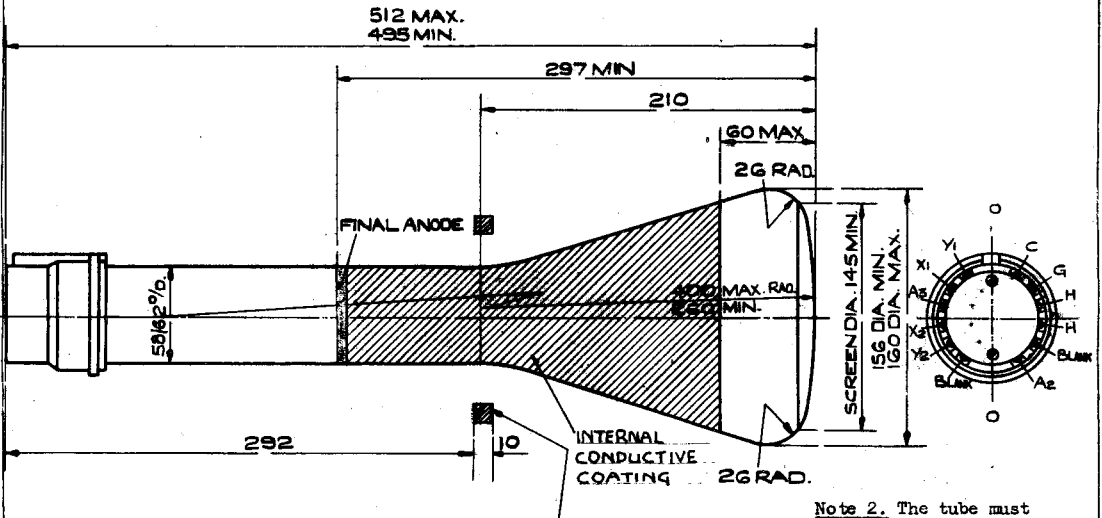
TYPE OF DEFLECTION: Suitable for Electrostatic or magnetic symmetrical deflection BULB: Internally coated with conductive coating. SCREEN: Afterglow - A Screen.	MARKING VCR 87 10E/13.
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RATING	Note	BASE 12 Contact Key base
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Heater voltage (v) Heater current (A) Maximum Final Anode Voltage (kV) 'X' plate Sensitivity (mm/v) 'Y' plate Sensitivity (mm/v)	4.0 1.1 5.5 700/va3 750/va3	DIMENSIONS & CONNECTIONS See drawing below.
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Typical Operating Conditions

Final Anode Voltage (kV)	3.0
Second Anode Voltage (v)	700
Beam Current (μ A)	40



Note 1 When viewing the screen with the DEFLECTING COILS. tube positioned such that the base spigot is uppermost, a positive voltage to X_1 plate shall deflect the spot to the right and a positive voltage applied to Y_1 plate shall deflect the spot downwards.

Note 2. The tube must have A_1 and internal conductive coating tied internally to A_3 .

ALL DIMENSIONS IN MILLIMETRES.

To be performed in addition to those applicable in K1003

Clause	Test Conditions				Test	Limits		No. Tested
	Vh	Va ₃ (kv)	Va ₂	Vg		Min.	Max.	
(a)	See K1003 clause 5.12				<u>Capacitances (pf)</u> 1. Each X or Y plate to all other electrodes 2. Grid to all other electrodes 3. One X to Y plate	-	20)	5% (10)
(b)	4.0	0	0	0	Ih (A)	-	1.2	100%
(c)	4.0	3.0	-	-	1. Line width. 2. Va ₂ (v) 3. Vg	Not greater than standard tube 0 700 At least 5v negative to cathode		100%
(d)	4.0	3.0	As in (e)	Adjusted to give cut-off	1. Vg(v) 2. Increase in negative Vg compared with value in (c) 3.	-25	-65	100%
(e)	4.0	3.0	As in (c)	-65	<u>Grid Insulation.</u> 1. Grid leakage current (uA) 2. Increase in voltmeter reading	-	13	100%
	Recommended method:- See K1003, Clause 5.4.2. Insert resistor = 5 megohms.					-	100%	
(f)	4.0	3.0	As in (d)	Any convenient value	<u>Deflection Sensitivities</u> 1. X plates (mm/V) 2. Y plates (mm/V)	400/Va ₃ 500/Va ₃	100/Va ₃ 100/Va ₃	5 (10%)
(g)	4.0	3.0	As in (c)	Any convenient value	Deviation of spot from centre of screen (mm)	-	10	100%
(h)	4.0	3.0	As in (c)	Any convenient value	<u>Useful screen Area</u> Rectangle (mm)	120x60	-	100%
(j)	4.0	3.0	As in (c)	Any convenient value	Orientation of Y axis of deflection.		±10°	100%
	Angle measured relative to axis 00' in drawing on page 1							
(k)	4.0	3.0	As in (a)	Any convenient value	Angle between X and Y axes	850	950	5% (10)
(l)	Test to be carried out in Test Set 62				The screen shall not be worse for graininess, uniformity and afterglow than the corresponding standard tubes.			100%
(m)	4.0	5.0	As in test (a)	-	<u>Life Test.</u> At the end of 500 hours the tube shall meet the specification requirements.			1%
	Normal brightness and continuous spot movement over a raster of size 120mm x 60 mm.							