FERRANTI
RADAR TUBE

21/04HB

A 21in. diagonal Rectangular Tube with a metal backed screen and external conductive coating. Designed primarily for use as a Radar Display Tube.

FOCUS	Magnetic.
DEFLECTION	Magnetic.
Deflection Angle...	90°.
SCREEN	Metal Backed.
Phosphor	Type 'H'
Fluorescence	Orange.
Afterglow...	Orange.
Persistence	Very Long.

For further details, refer to Screen Type 'T' phosphor characteristics at the front of this section of the handbook. This tube can also be supplied with other screen phosphors.

PHYSICAL DETAILS.

Base	B12A (Duodecal).
Anode Cap	CT8 (Cavity Type).
Max. Overall Length	514 mm.
Nom. Neck Diameter	37 mm.
For other dimensions see drawing.	
Mounting Position	Any.

This tube has an external conductive coating which may be used for E.H.T. smoothing.

BASE CONNECTIONS.

Pin 1—Heater.	Pin 7—No Connection.
Pin 2—Grid.	Pin 8—No Pin.
Pin 3—No Pin.	Pin 9—No Pin.
Pin 4—No Pin.	Pin 10—1st Anode.
Pin 5—No Pin.	Pin 11—Cathode.
Pin 6—No Connection.	Pin 12—Heater.
Side Contact—2nd Anode.	

HEATER.

Heater Voltage	6·3 volts.
Heater Current	0·3 amp.

RATINGS.

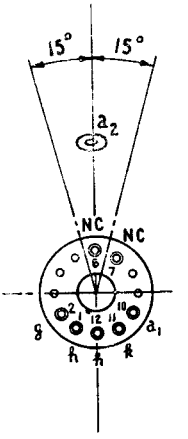
Max. A_1 Voltage	500 volts.
Max. A_2 Voltage	18 kV.
Min. A_1 Voltage	200 volts.
Min. A_2 Voltage	12 kV.
Max. V_{h-k}	200 volts.
Max. R_{g-k}	1·5 MΩ
Max. R_{h-k}	1·0 MΩ
Max. A_1 Supply Impedance ...	1·5 MΩ

TYPICAL OPERATION.

1st Anode Voltage	300 volts.
2nd and 4th Anode Voltage ...	16 kV.
*Vg for visual cut off	–40 to –80 volts.
Focus	See Note †
An ion trap magnet is not required.	

CAPACITANCES.

C_{k-all}	<8 pF.
C_{g-all}	<8 pF.
$C_{a-ext.\ coating}$	1500 pF. (approx.).



Base Connections Underside View of Base

*The grid should never be positive with respect to the cathode, except during the period immediately after switching off, when it may be allowed to rise to + 1 volt.

†The recommended centre of the magnetic length of the focus unit should be approx. 100 mm. from the Reference Line.

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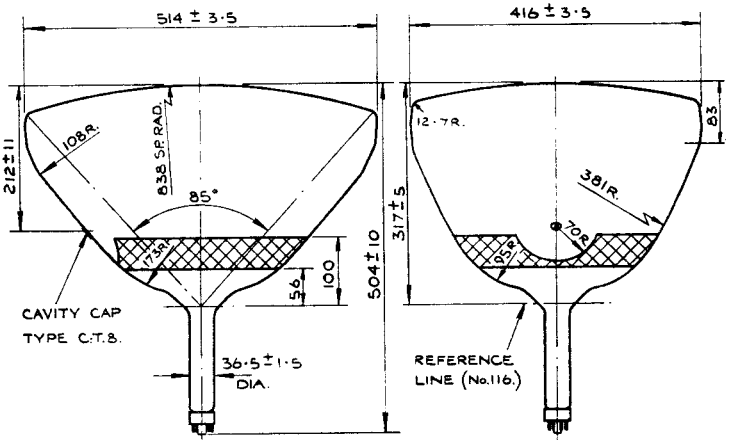

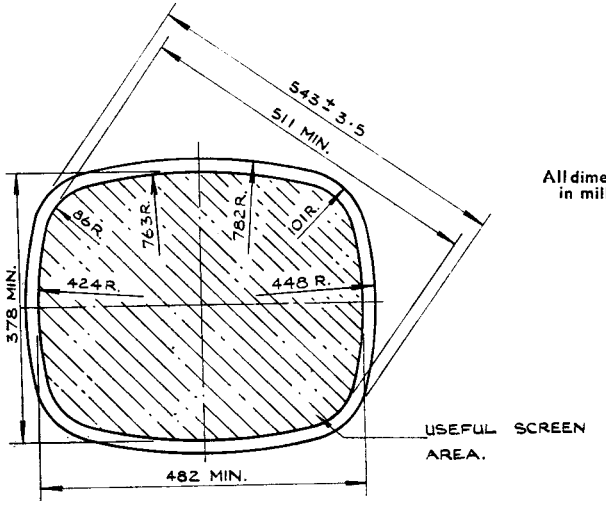

All dimensions are in millimetres