

Specification M.O.S./CV 6005 Issue 1. Dated 25.6.59. To be read in conjunction with K.1001, excluding clauses: 5.2, 5.3, 5.5, 5.6, 5.8, 5.9, 5.12.	<table> <tr> <th colspan="2">SECURITY</th></tr> <tr> <td>Specification</td><td>Valve</td></tr> <tr> <td>Unclassified</td><td>Unclassified</td></tr> </table>	SECURITY		Specification	Valve	Unclassified	Unclassified
SECURITY							
Specification	Valve						
Unclassified	Unclassified						

TYPE OF VALVE - Monitor Diode		<u>MARKING</u>	
CATHODE - Indirectly Heated		See K1001/4	
PROTOTYPE - VX9216		<u>BASE</u>	
<u>RATING</u>		<u>CONNECTIONS</u>	
Heater Voltage (V)	6.3	A	Locating Collar - Heater & Cathode
Heater Current (A)	1.2	A	End Cap - Heater
Frequency Range (mc/s)	9,000-10,000	D	Centre Contact - Collector
Max Permissible Peak (kW) Power Input	20	B	
Max: Permissible Mean (W) Power Input	18		
Max. Ambient Temperature (°C)	70	C	
Max. Pulse Length (uS)	3	E	
		<u>TOP CAP</u>	
		See K1001/A1/D5.1.	
		<u>DIMENSIONS ETC</u>	
		See pages 3 - 9 incl.	

NOTES

- The heater voltage shall be adjusted, when the valve is running with an r.f. input, to a value 10% - 20% above that required to maintain the diode output.
- In certain approved circumstances the maximum permissible Peak Power may be higher than stated.
- The valve shall be mounted to allow free convection of the surrounding air.
- By using alternative mounts (which are not herein specified), the diode will operate over the range 8000 - 11000 Mc/s.
- In certain approved circumstances the maximum permissible pulse length may be greater than stated. Also, under approved conditions, CW may be applied to the diode.

TESTS

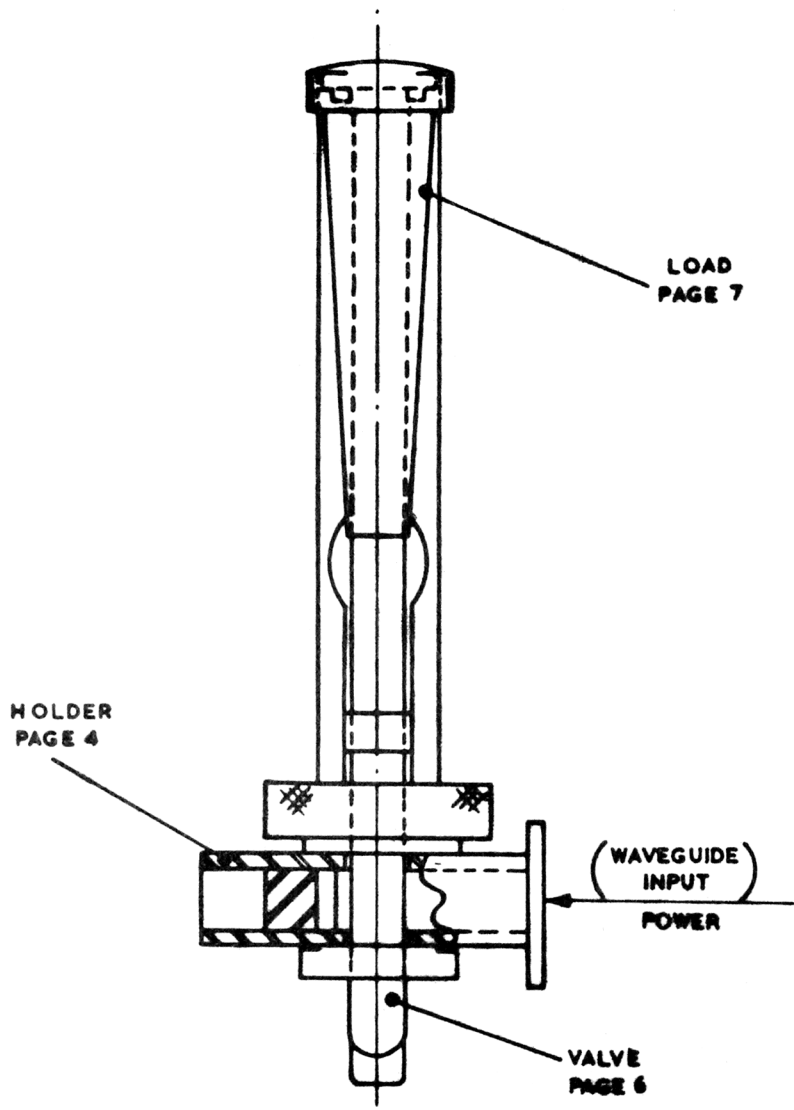
To be performed in addition to those applicable in K1001
excluding 11.4.2 (a) (d), 11.4.3.

Test Conditions, $V_h = 6.3 \pm .1$ Volts.		TESTS	Limits		No Tested
			min.	max.	
a		I_h (Amps)	1.1	1.3	100%
b	Note 1	Matching V.S.W.R.		1.2	100%
c	Note 2	Contact Potential	35 μA		100%
d	Note 3 & 4	Peak Emission (Amps)	1½		100%
e	Adjust output to 100v peak across 68ohms $\pm 1\%$ load. Note 5.	Input	11.9 kW	13.9 kW	100%
f	No Voltages	Shock, Hammer Machine angle = 25°			T.A.

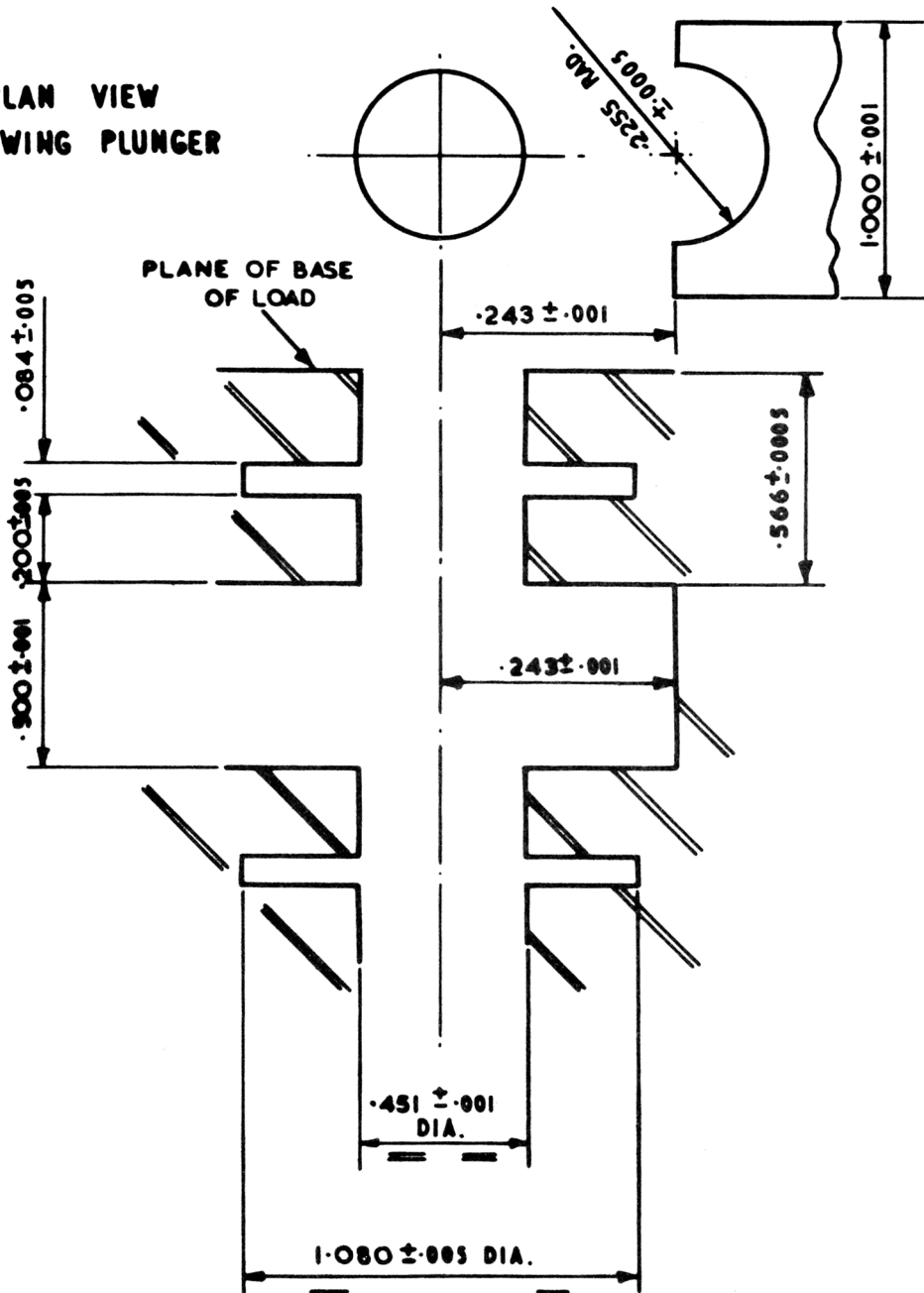
NOTES

1. The valve shall be tested in an approved holder and load at frequencies, 8,975, 9,250, 9,500, 9,750, 10,025 Mc/s each within ± 25 Mc/s. The match of the approved holder plus load will be considered satisfactory if, when using the test fixture as shown on page 8, inserted correctly in place of the valve as shown on page 3, the V.S.W.R. at the specified frequencies is less than 1.2/1.
2. Measured with a microammeter with a total load resistance of 3,000 ohms $\pm 2\frac{1}{2}\%$.
3. A warm up time of 3 mins (Min) will be allowed before carrying out this test.
4. $V_A = 700 \pm 50V$ pulse.
5. The valve shall be tested in an approved holder and load, with an approved transmitter and modulator test unit, at one frequency within the range 9,000 - 9,500 Mc/s. The Duty cycle shall be $1:1250 \pm 2\%$. A measurement shall be made with $V_h = 6.3 \pm 0.1$ V, and then the heater shall be reduced to a value not exceeding 20% above the level required to maintain the diode output. The diode output shall not change by more than ± 2 volts, and the sensitivity shall still be within the stated limits.

SKETCH, TO SHOW VALVE IN HOLDER AND LOAD.

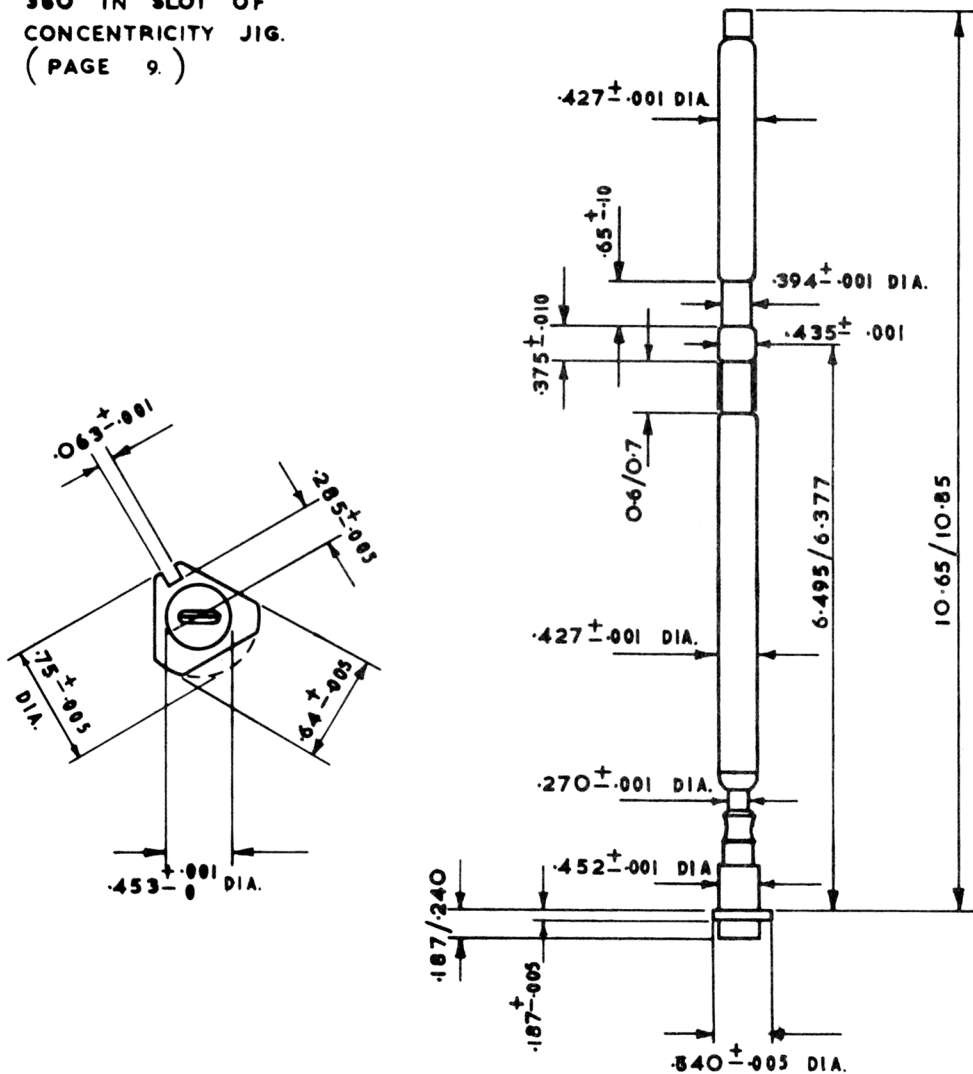


ALL DIMS IN INCHES.

PLAN VIEW
SHOWING PLUNGERHOLDER ELECTRICAL SPEC^N.

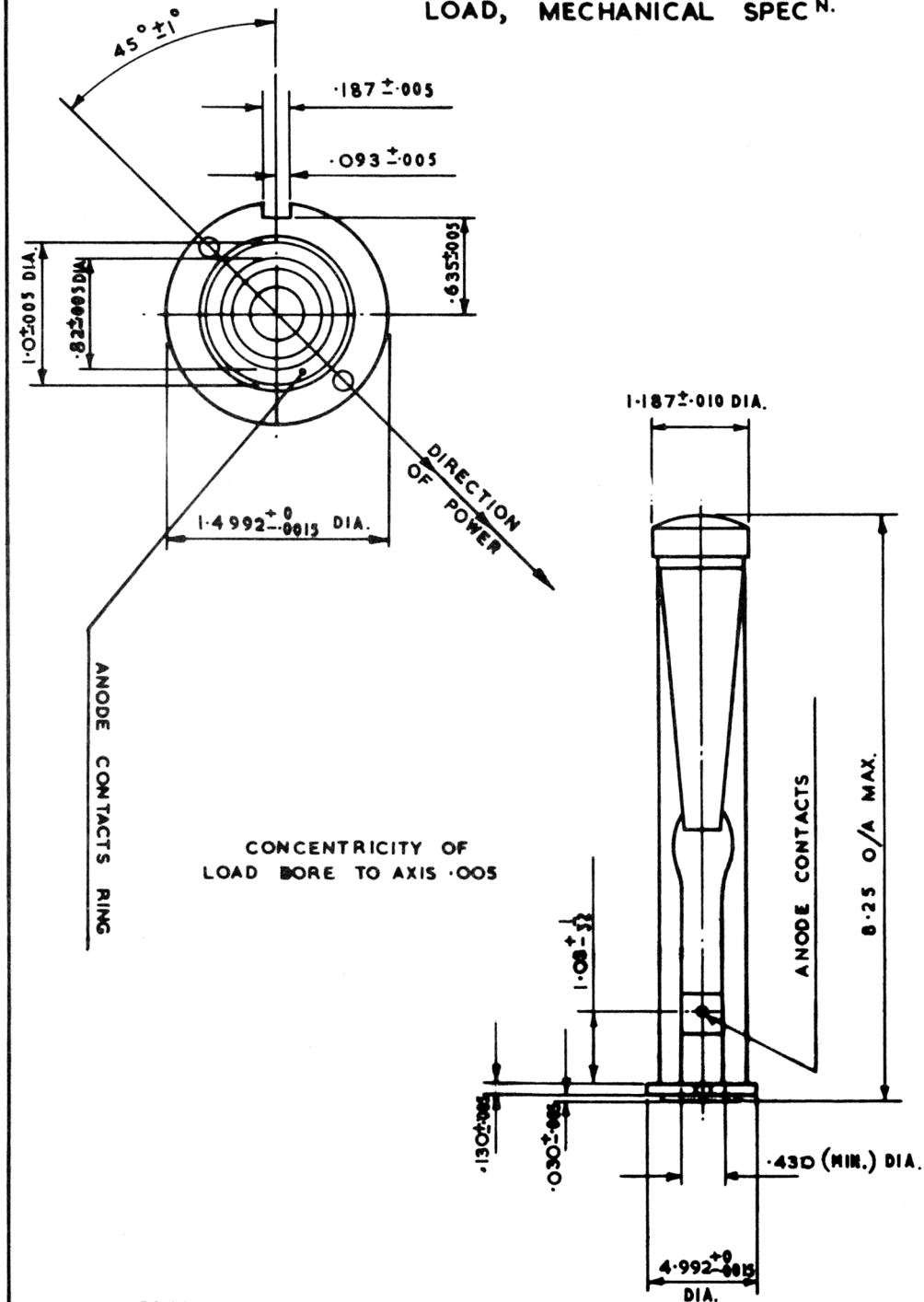
VALVE, OUTLINE.

VALVE MUST BE
TESTED FOR CONCENTRICITY
BY ROTATION THRO'
360° IN SLOT OF
CONCENTRICITY JIG.
(PAGE 9.)

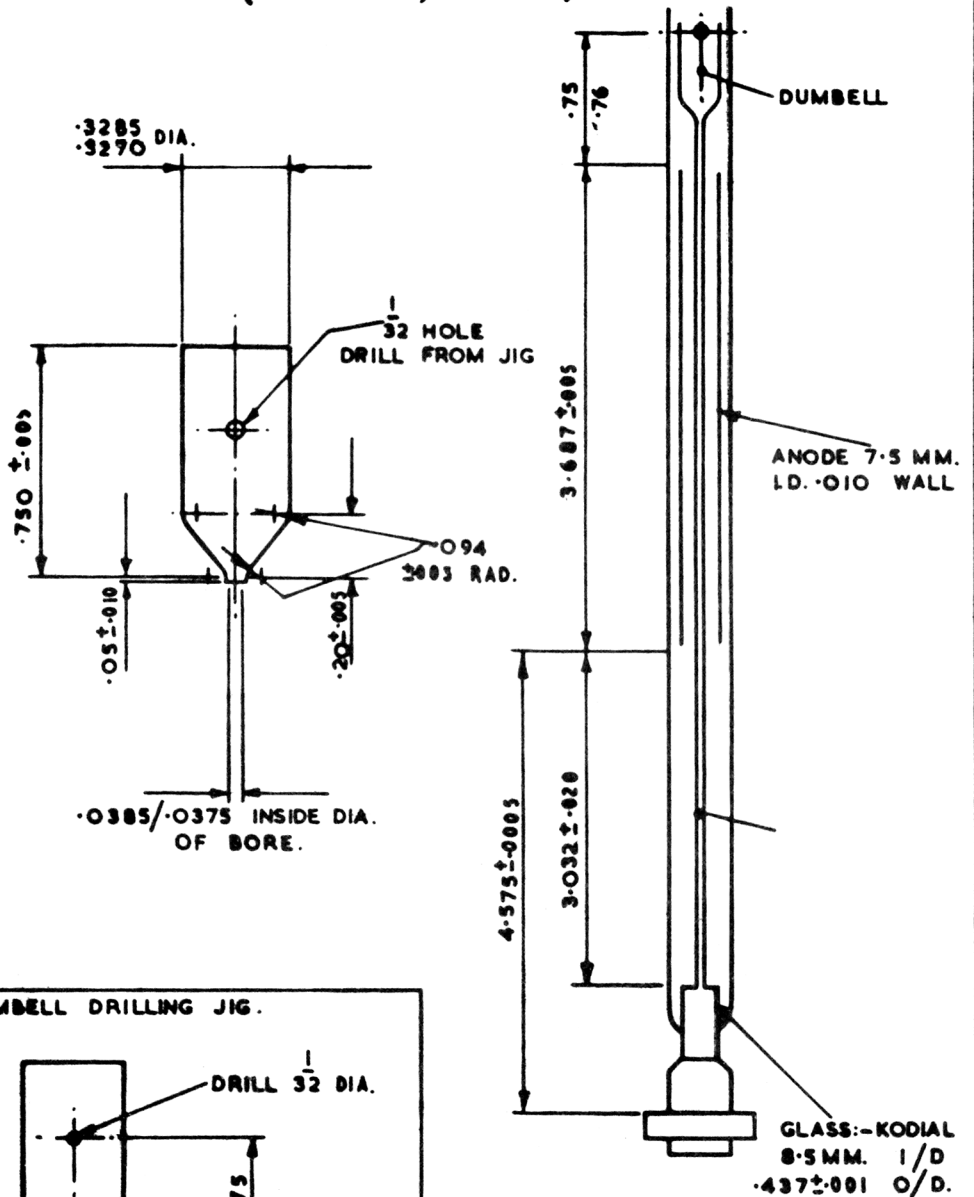


ALL DIMS. IN INCHES.

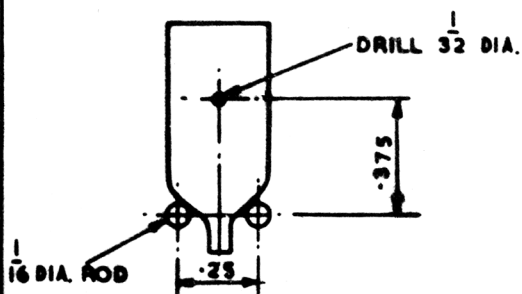
LOAD, MECHANICAL SPEC N.



TEST FIXTURE FOR LOAD AND HOLDER. (SEE NOTE 1, PAGE 2.)

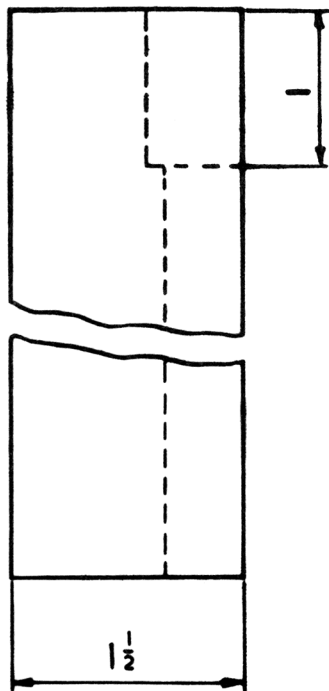
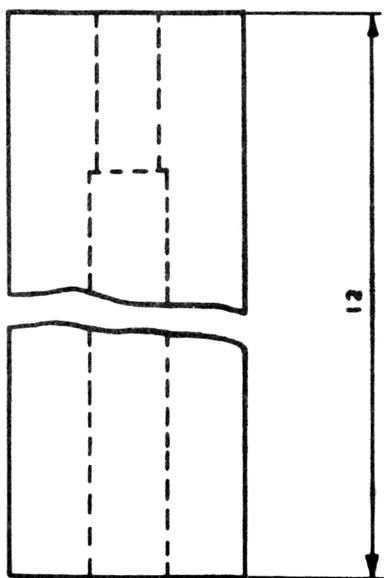
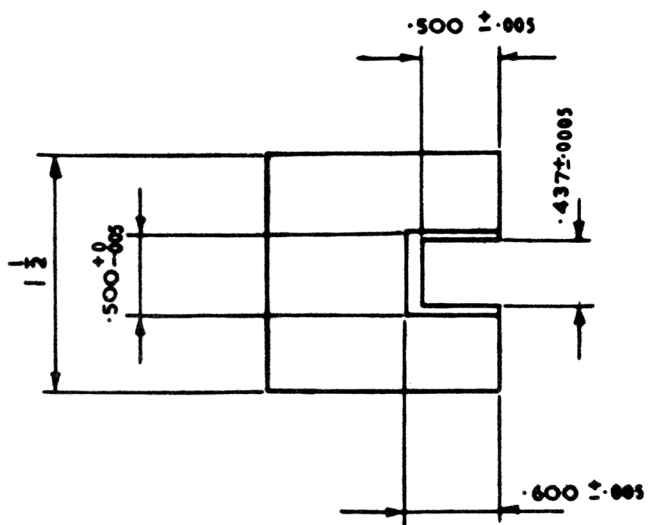


DUMBELL DRILLING JIG.



ALL DIMENSIONS IN INS. EXCEPT
WHERE OTHERWISE STATED.

VALVE CONCENTRICITY JIG.



ALL DIMS IN INCHES.