

WESTINGHOUSE **X-RAY TUBES**

**AIR INSULATED 150-200 KV
 LIGHT AND DEEP THERAPY
 X-RAY TUBES
 TYPES WL311 & 312**



WL311



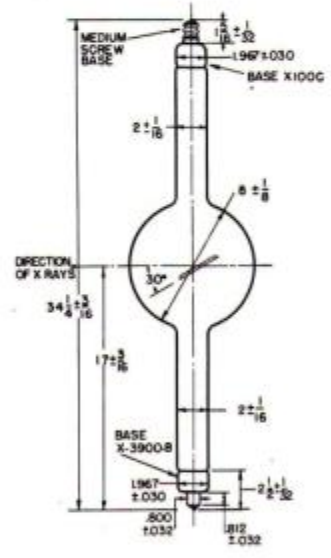
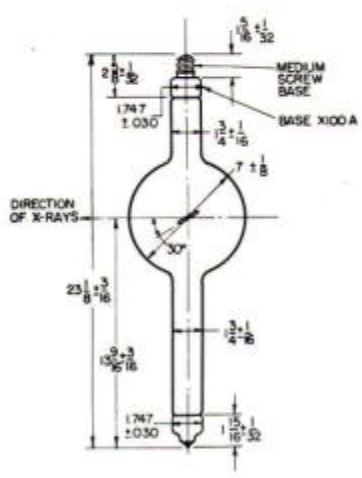
WL312

VOLTAGE RATINGS

TUBE TYPE	HALF OR FULL WAVE RECTIFIED	CONSTANT POTENTIAL
WL311	150 KVP	
WL312	200 KVP	200 KVP

APPLICATION

These tubes are designed for operation in open lead glass bowls or therapy shields of the conventional type.



SPECIFICATIONS

FOCAL SPOTS:

Ring type focal spots are used which cover a large part of the target area.

FILAMENT CHARACTERISTICS:

Filament currents range from 4.0 to 4.5 amperes and voltages from 5.0 to 6.5 volts.

RATING DATA:

WL312 DEEP THERAPY TUBE

KVP	Milliamperes—Continuous			
	Without Blower		With Blower	
	Pulsating	Constant Potential	Pulsating	Constant Potential
200	8.0	6.4	10.0	8.0
190	8.4	6.7	10.5	8.4
180	8.8	7.0	11.0	8.8
170	9.3	7.5	11.7	9.3
160	10.0	8.0	12.5	10.0
150	10.8	8.6	13.5	10.8

Recommended starting and minimum voltage 140 KVP.

**STARTING INSTRUCTIONS:**

Initial application of energy should be at the recommended starting voltage and at low current values. The voltage and current should then be gradually increased to the desired operating conditions.

WL311 LIGHT THERAPY TUBE

KVP Pulsating	Milliamperes—Continuous	
	Without Blower	With Blower
150	6.0	8.0
125	7.2	9.6
100	9.0	12.0

Recommended starting and minimum voltage 100 KVP.

GENERAL DESIGN INFORMATION**BULB:**

Bulbs are made of hard high transmission glass and are capable of withstanding a high degree of thermal shock.

ANODE:

The 30° angle targets are made of discs of Westinghouse tungsten and operate at high temperature. The large target of the deep therapy type has rolled edges to prevent warping.

ANODE COOLING

Targets are radiation cooled. Under rated operating conditions equilibrium is established between energy input and dissipation.