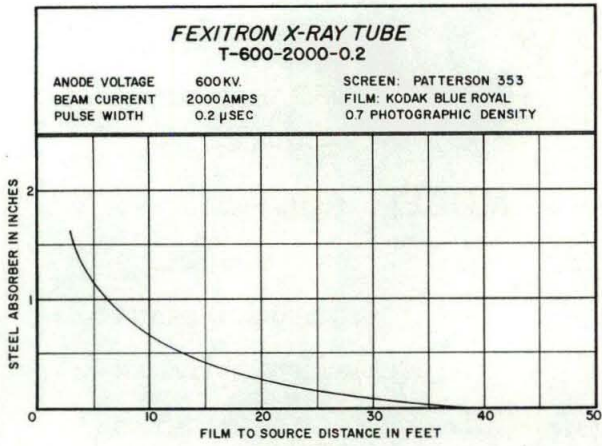
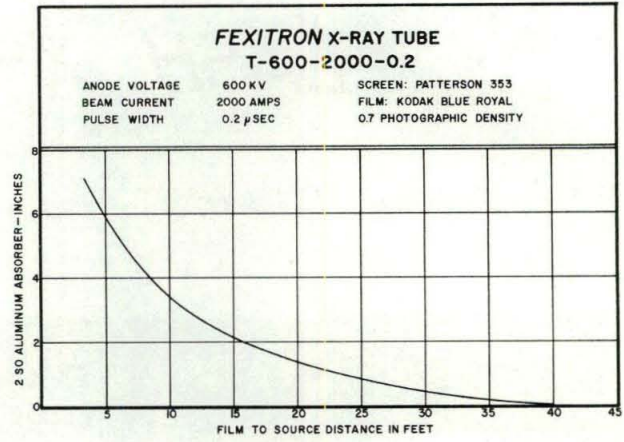


PERFORMANCE DATA



STEEL PENETRATION - 600 KV; 0.2 μ s

Figure 1



ALUMINUM PENETRATION - 600 KV; 0.2 μ s

Figure 2

DIMENSIONAL DRAWING

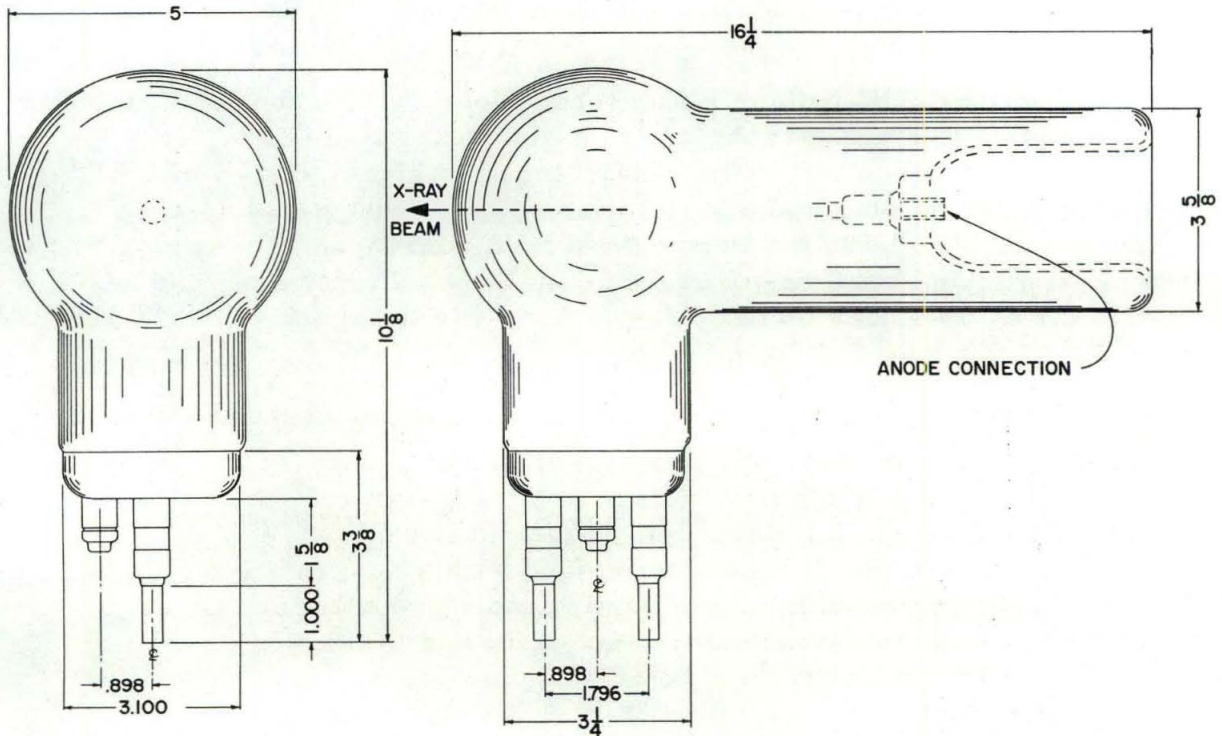


Figure 3

PERFORMANCE RATINGS

	<u>MAXIMUM RATINGS</u>	<u>TYPICAL OPERATION</u>
PEAK POWER:	1200 megawatts at 0.2 microsecond	1020 megawatts at 0.2 microsecond
ANODE:	Tungsten	Tungsten
ANODE TEMPERATURE:	3000° K	2000° K
ANODE VOLTAGE:	600 kv	550 kv
BEAM CURRENT:	2000 amperes	1850 amperes
PULSE DURATION:	0.2 microsecond	0.2 microsecond
PULSE OVERSHOOT:	Maximum 5%	Up to 5%
NEGATIVE OVERSHOOT:	Maximum 10%	Up to 10%
CATHODE:	T-F emission, Tungsten	T-F emission, Tungsten
CATHODE VOLTAGE:	9 volts ac, 50-60 cps	8.5 to 9 volts ac
CATHODE CURRENT:	180 amperes	160 to 180 amperes (pulsed for 1 sec.)
X-RAY SOURCE SIZE:	9.4 mm dia.	9.4 mm dia.
DOSAGE RATE:	2×10^8 R/sec at 3"	

CHARACTERISTICS

BEAM DIRECTION:	Parallel to anode axis
COOLING:	Air circulation not required.
RESIDUAL PRESSURE:	10^{-12} mm of Hg.
LIFE:	Cathode life is determined by evaporation and therefore is a function of current and power level at which the tube is operated; general experience with FEXITRON tubes at typical operating voltages indicates an average life of several hundred pulses - see FEXITRON Operating Instructions for methods of extending tube life.
TIME INTERVAL BETWEEN PULSES:	Nominally 3 minutes; for more rapid repetition rates see special tube bulletin.
DURATION OF FILAMENT CURRENT:	The filament operating time should be restricted to not greater than 3 seconds per x-ray pulse (see auxiliary equipment data sheet on FEXITRON Sequential Timer).
TUBE PERFORMANCE:	The performance of FEXITRON x-ray tubes is shown in Figures 1 and 2. All tubes are individually tested at full ratings.
BASE CONNECTIONS:	The anode end of the FEXITRON x-ray tube terminates in a female receptacle with inside diameter of 0.277" suited for use with a giant banana plug (Johnson No. 108) and the cathode end is provided with 3/8" diameter copper base pins.
PHYSICAL DIMENSIONS:	Length: 16-1/4" Diameter: 5" inches (see outline drawing)
PRICE:	\$980 Discounts available on quantities over 40 tubes; write for schedule.



COLT .45 AUTOMATIC PISTOL: BULLET IN FLIGHT

Flash x-ray picture taken with FEXITRON PS-600-2000-0.2 system. Film-to-source distance - 12 feet; 500 kilovolts, 1300 amperes, 0.2 microsecond pulse. Pistol hand held; 220 grain bullet stopped in flight just before exit from barrel.

FIELD EMISSION CORPORATION

McMINNVILLE, OREGON