

## 1B22 – Spark Gap



Argon-Hydrogen filled spark gap, for use as pulse switch in radar modulators. Corona trigger electrode inside the cathode, to start firing.

Aluminum cathode with nickel or iron anode rod inside. The tube must be operated with the cathode opening downward; the aluminum eroded by sparks is mostly transferred to anode, leaving approximately constant the electrode spacing through the useful life.

2.7 kV firing voltage, 75A peak.

Introduced by Western Electric (Bell Labs) during WWII. Samples above were manufactured by W.E. and Westinghouse. A couple used in the modulator of the airborne radar ASH, AN/APS4, to drive the [725A](#) magnetron with 105 kW input pulses. Described in the [BSTJ, volume 25, October 1946](#).

Registered to Western Electric only in 1948, when obsolete, RMA record [667](#).