CV56 – S Band Pulse Magnetron

CV56 was derived by the very early unstrapped 8-cavity magnetron NT98, adding strap jumpers to prevent unwanted modes. The strapping developmental work was run at Cambridge by Sayers. The **Q85033** is one experimental sample with the same asymmetrical strapping scheme. CV56 was the first strapped magnetron to enter into production around the late 1941. Soon replaced by four frequency variants, including **CV56A**, **CV56B** and **CV56C**.

80 to 100 kW output pulses, at 15 kV, 15A input pulses, 1550 gauss. About 40% efficiency. Heater 6V, 1.25A start, 4.5 V operating.

It was approved for use in the Type 271Q Naval radar.

References: Callick, Metres to Microwaves, page 68.

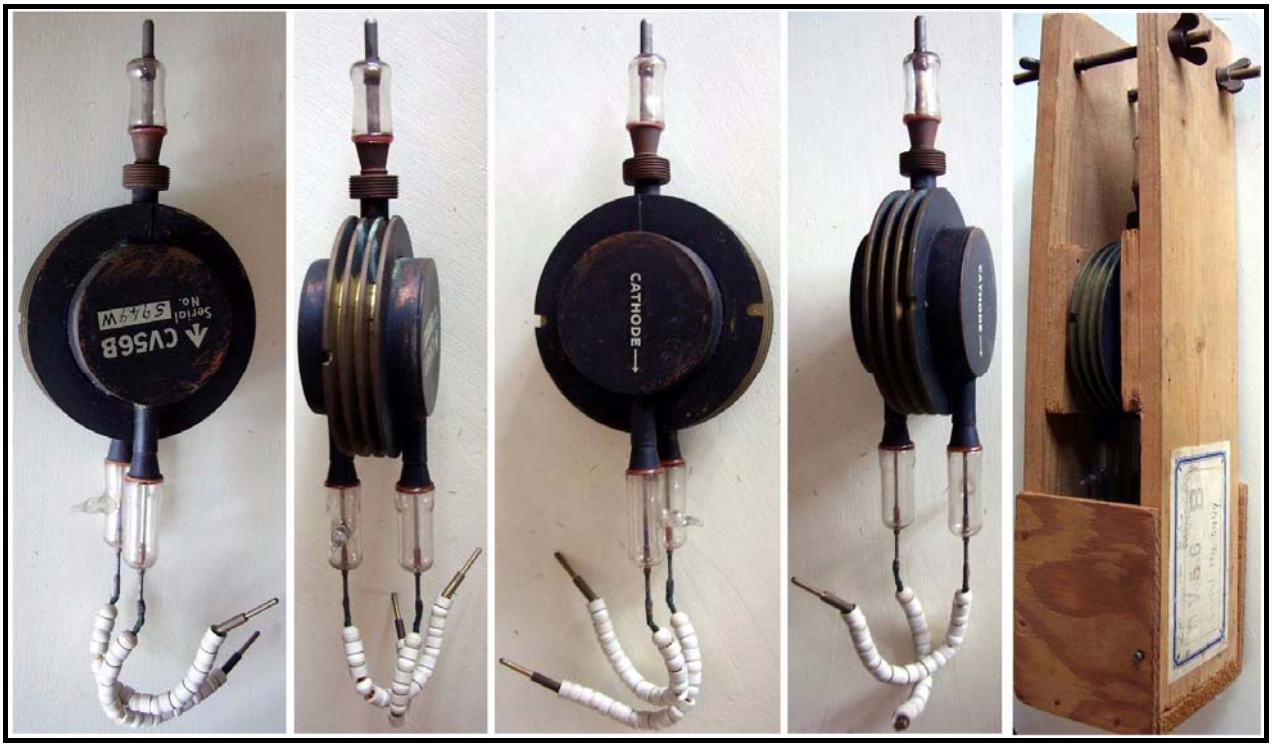
CV56A – S Band Pulse Magnetron

CV56A was derived from **CV56**, bending the straps in order to make each unit to oscillate at one of the four different frequency variants, identified by the suffix A to D. The frequency variants were introduced to prevent interference between different sets.

80 to 100 kW output pulses, with 15 kV, 15A input pulses. About 40% efficiency. Heater 8V, 1.6A.

It was used in the Type 271Q Naval radar.

CV56B – S Band Pulse Magnetron



CV56B was derived from **CV56**, bending the straps in order to make each unit to oscillate at one of the four different frequency variants, identified by the suffix A to D. The frequency variants were introduced to prevent interference between different sets.

80 to 100 kW output pulses, with 15 kV, 15A input pulses. About 40% efficiency. Heater 8V, 1.6A.

It was used in the Type 271Q Naval radar.

CV56C – S Band Pulse Magnetron

CV56C was derived from **CV56**, bending the straps in order to make each unit to oscillate at one of the four different frequency variants, identified by the suffix A to D. The frequency variants were introduced to prevent interference between different sets.

80 to 100 kW output pulses, with 15 kV, 15A input pulses. About 40% efficiency. Heater 8V, 1.6A.

It was used in the Type 271Q Naval radar.

More information on magnetrons can be found in the article **'Magnetron Tubes'** edited by Emilio Ciardiello.