



NT57T silica valve, with anode (left) and grid (right) connections at the top, and filament at the bottom. This valve has two 'hairpin' filaments, each with a pair of wires. The NT57T was the thoriated filament version of the NT57, the first valve to be made specifically for use in radar. The NT86, developed from the NT57T, had three filaments. Silica glass has a very high melting point (between 1500 and 1700 C) and a low coefficient of thermal expansion. Normal glass softens at around 450 C. Because of these properties, silica glass does not crack by heat.

The NT57T was used in Chain Home MB2 radar and was later replaced by the [VT98](#).



Filament voltage	9V
Filament current	35A
Max anode voltage	20kV
Max anode dissipation	50W
Total emission	18A
Amplification factor	16
Typical operating conditions	
Anode voltage	3kV
Control grid voltage	-25V
Anode current	270mA
Mutual conductance	3.2mA/V
Anode impedance	5k ohms



Filament connections and the filament tensioning spring.



Anode and grid connections.





The glass makes it hard to get a good shot of the internals, but the anode and grid can be seen here.



The main picture of this valve features on the cover of the August 2003 issue of *The Collector*, published by the [Tube Collectors Association](#).

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