

General description

The electron gun represents the optical column part which is responsible for the electron beam generation.

We have mastered the complete process of the electron gun development, i.e. electron optical simulations, technical design, manufacturing and acceptance test procedure. Our specialization is the production of low-energy instruments (up to 30 keV).

We are capable of designing custom-tailored electron guns with a variety of parameters in a wide range from high resolution to high performance models.

Our standard units are equipped with tungsten-based cathodes. We produce thermionic and Schottky emission guns but our long-term experience in this field qualifies us for collaboration in the LaB6, TFE and CFE gun development too.

Standard Schottky electron guns with beam energy up to 10keV

We have designed and constructed a low voltage Schottky emission gun, whose cathode is immersed in a strong magnetic field.

It incorporates a double-stage electrostatic octupole (beam stigmatism & deflection purpose) and pneumatically controlled isolation valve.

The most attractive feature of this gun is its universal application.

It can be operated under both high resolution and high performance mode depending on the magnetic gun lens excitation. The beam current can reach up to several microamperes.

