The Company has a necessary technical infrastructure for the development and production of vacuum-tube devices. Some of the available technological areas are shown in Figs. 1-3

Figure .1

Fig. 1 illustrates the mechanical section.

The ideology of creating a mechanical section is that the section is equipped with accurate universal machines and staffed by highly qualified personnel, which enables us to produce prototypes of products and accessories and modifying commercially available tooling and welded components.

Components for the mass-produced devices are ordered at the enterprises specializing in manufacturing mechanical parts.

Cathodes are the heart of any vacuum-tube device. The cathode unit is headed by Professor O. Maslennikov Doctor of Engineering Science, the only PhD in the field of cathode production in Russia, operating in the industry and having large experience in the development and implementation of cathodes in real devices.

Figs. 2-5 illustrate a view of furnace area, assembly area, pyrometrical and osmium plating units, an appearance and parameters of the developed cathode assemblies, electron-optical systems, components of the klystron cathode legs, produced in the assembly area/

Fig. 2 1. High-temperature units for cathode production
2. Views of the cathode area
3. Osmium plating units
4. Hydrogen furnace

Fig. 3 Assembly area

Electron guns

The electron guns with developing and produced cathodes

Fig. 4

Types of cathode assemblies

dispenser cathodes microcathodes

The organization has a closed technological cycle of design, manufacturing and testing the cathode assemblies and cathode legs.
Figs. 6-7 illustrate other technological areas and production line required for manufacture of vacuum-tube devices:

Galvanizing area

Chromizing unit galvanic line

Fig. 6

Exhaust unit Hydrogen furnace

Fig. 7

The organization has a whole complex of technological and test equipment for the manufacture of vacuum-tube devices and their components.
Different getters are an important element of the vacuum-tube devices is. The "Basic technology and components for vacuum-tube devices" Company is an exclusive organization in Russia which has a full set of processing equipment, developed processes and qualified personnel for production of all kinds of getters used in modern vacuum-tube devices .

Models of produced getters and getter pumps manufactured by the company are shown in Fig. 8

The Company specializes in the creation and production of:

- X-ray tubes, and more particularly multi-emitter tubes and field-emission cathodes;

Multiple-beam klystron for accelerators

Basic characteristics	Existing
Operating frequency, GHz	2,856
Output pulse power, MBT	6
Average output power, kWt	25
Cathode voltage, kWt	52
Efficiency, %	45
Amplification, gain, dB	50
Mass with the focusing system, kg	90
Note	For accelerators

Multi-beam klystrons of different capacities in different frequency bands.

Fig. 9

Klystron components

Klystron components

Klystron cathode portion

Channels in control electrode

Welded block of klystron cavities

Fig. 10

When creating a klystron, a proprietary technology is used for increasing the efficiency up to values higher than the world's best achievements, the cutting-edge technologies in the field of cathode manufacturing enables us to create devices with a high service life; accelerators based on the developed klystrons and gamma and X-ray emitters.

Multibeam klystron and the accelerating section in radiation protection:
1 - klystron;
2 - The accelerating section in a protective case.

The accelerator wit removed cover

Accelerating section

Fig. 11