MELAZ-D, SURGICAL LASER DEVICE

Description
The multipurpose surgical device surpasses the cauterodyne in cutting and styptic properties.

Technical specifications
- Radiation wavelength: 1.06, 1.32 µm
- Average radiation power: up to 70 W
- Pulse repetition rate: 1-100 Hz
- Pulse duration: 0.2-20 µs
- Dimensions: 550×300×700 mm
- Weight: 40 kg
- Power supply: 220 W/50-60 Hz
- Power consumption: 2500 W

Output product: the device.

Technical appraisal and economic benefits
- The use of the special optical tool enables contact and non-contact surgery operations.
- Depending on the character of operation, switching of the laser radiation wavelength allows intensification of cutting or coagulating properties of laser radiation.
- Laser radiation is delivered by an optical fiber.
- Minimal blood losses due to unique properties of laser radiation.
- Sterilizing effect of radiation considerably reduces the healing time of operative wounds.
- The possibility of controlling the laser radiation parameters within a wide power range allows developing new original techniques.
- The processor system controls all blocks of the device, stores modes for various procedures, and supports them during operation.

Application area
General surgery, gynecology, urology, oncology, neurosurgery (with the use of bronchoscopes, gastrosopes, endoscopes and laparoscopes).

Development stage
Technological documentation and necessary infrastructure for the manufacture organization are available. The device is under clinical trials at the State Central Tuberculosis Hospital No. 1 and at the Scientific-Research Institute of Traumatology and Orthopedics (Novosibirsk).

Patent situation
Under preparation.

Commercial offers
Device manufacture to the order.
Organization of manufacture.
Partner search.

Estimated cost
Contractual price.
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