MELAZ-D, DENTAL LASER DEVICE

Description
MELAZ-D organically combines functionalities of a drill, a scalpel and a coagulator.

Technical specifications
- radiation wavelength 2.94 µm
- average radiation power from 01 up to 10 W
- pulse repetition rate 1-10 Hz
- pulse duration 400 µs
- dimensions 550×300×700 mm
- weight 40 kg
- power supply 220 W / 50 Hz
- power consumption 2200 W

Output product: the device.

Technical appraisal and economic benefits
- Due to the coagulating properties, laser radiation allows one to carry out practically bloodless gingival cuts. Sterilizing effect of laser radiation reduces the healing time and enables the therapy of oral infections and parodontosis treatment.
- The device provides high-accuracy treatment of caries cavities. Laser radiation is completely absorbed by the tooth surface, does not penetrate into deep layers, and does not cause overheating of adjacent dental tissues. Pulse character of radiation lowers the irritating effect on the tooth pulp and painfulness of opening of the tooth channel.
- The laser radiation parameters can be controlled in a wide power range, which allows dentists to develop new original techniques.
- The processor system controls all blocks of the device, stores the modes of various procedures and supports them during operation.
- Contactless, silent and vibration-free operation enables manipulations in difficult to access mouth areas.
- The device is transportable and easily installed in dental specialties in the handiest position.

Application areas
Medicine. Stomatology:
- Removal of hard tooth tissues affected by caries;
- Formation and sterilization of a dental cavity for sealing;
- Cutting dentine and cement;
- Updating of enamel, removal of dental tartar, gingival cuts;
- Coagulation of soft tissues;
- Treatment of aphtoid ulcers.

Development stage
Technological documentation and infrastructure necessary for organization of manufacture are available. The device is under clinical trials at the Dentistry Chair of the Novosibirsk Medical Academy.

Patent situation
Under preparation.
Commercial offers
Device manufacture on the order.
Organization of manufacture.
Partner search.

Estimated cost
Contractual price depending on the set.

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