MEDILEX, UV OPHTHALMOLOGIC LASER SYSTEM

Description
MEDILEX UV opthalmologic laser system enables treatment of various pathologies of eye cornea by the method of phototherapeutic keratectomy and LASIC method with the use of microkeratom. At phototherapeutic keratectomy the non-uniform cornea surface is smoothed out and nontransparent surface layers damaged by disease are removed. At correction of eye refraction anomalies the curvature radius of cornea surface is changed.

Technical specifications
- laser type: ArF
- radiation wavelength: 193 nm
- pulse energy: 250 mJ (maximum)
- pulse repetition rate: 1–10 Hz (maximum 20 Hz)
- pulse duration: 12 ns
- ablation area: 0.5–7 mm diameter
- energy density at the cornea surfaces: 120–200 mJ/sm²
- power supply: 220V/6A, 50 Hz
- dimensions: 1718×1260×1416 mm
- weight – 400 kg

The form of the product release – the device.

Technical appraisal and economic benefits
- The unique optical system with replaceable multislot rotating and non-rotating masks, providing high possibilities for the choice of a profile of a tissue ablation from spherical to strongly cylindrical and irregular, is used in MEDILEX. The masks are placed directly in the optical system.
- MEDILEX allows therapeutic treatment: removal tumours, infected tissues and scars in the central part of cornea, prevention of epithelium rejection. Masks of smaller sizes are used for these purposes.
- MEDILEX enables faster treatment of herpetic keratitis, as compared with traditional methods, and operations of open-angle glaucoma using round and rectangular masks.
- Monitoring of the unit parameters and the mode of operations is carried out by PC software system.
- MEDILEX is economical in exploitation and ecologically safe.

Application areas
MEDILEX is designed for eye microsurgery and provides optimum conditions for correction of myopia, hypermetropia and their combinations with astigmatism up to 5 diopters.

Development stage
The Ministry of Health license for batch production is received.

Patent situation
Covered by the patents of Russian Federation, USA, Great Britain, and Spain.

Commercial offers
Manufacturing on order.
Organization of manufacture.

Estimated cost
The price depends on the set.
Contacts
Cand.Sc. Nikolay G. Nikulin, Scientific Secretary
Institute of Laser Physics, Siberian Branch of the Russian Academy of Sciences
13, Prosp. Akademika Lavrentyeva, Novosibirsk, 630090, Russia
Phone: (383) 333-33-92
Fax: (383) 333-33-92
E-mail: nikulin@laser.nsc.ru
http://www.laser.nsc.ru/