



group of companies
ZARYA

MEDICAL EQUIPMENT STANDARD
CATALOG



THE ZARYA GROUP OFFERS COMPREHENSIVE HEALTHCARE SOLUTIONS.

- We develop, manufacture and supply rehabilitation aids and physiotherapy equipment, research and study new methods of recovery. The MADIN Group has its own publishing house and trains specialists in advanced methods of rehabilitation medicine.
- The Company employs an integrated approach and focuses on a number of areas, thus obtaining a large evidence base, using the latest methods, constantly improving and expanding the range of products.
- Our own testing facilities, Ekzarta Medical Rehabilitation Centre. We regularly test our equipment in actual loading conditions, do our best to meet the therapists' needs, improve the equipment ergonomics and control its quality.
- We train specialists and participate in educational and publishing activities. The International Academy of Rehabilitation Medicine cooperates with leading European and Russian specialists in kinesitherapy, PNF concept, methods of Vojta, Bobath, Kaltenborn-Evjenth, Ekzarta, etc.

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MAGNETOTURBOTRON PRO

«LUX» AND «STANDARD»

- **WIRELESS CONTROL – TOUCH TABLET**
- **USER-FRIENDLY SOFTWARE: PRE-INSTALLED TREATMENT PROGRAMS; POSSIBILITY OF MANUAL INDIVIDUAL CONFIGURATION; CREATION AND MAINTENANCE OF A PATIENT DATABASE, STATISTICS USAGE**
- **ELECTRIC BED FOR MODIFICATIONS OF THE INSTALLATION “LUX” AND “LUX XL”**
- **ILLUMINATION OF THE INNER SPACE OF THE CAMERA**

- A homogeneous rotating magnetic field with a maximum induction of 3 MT simultaneously around the entire body of the patient,
- Much more effective than local magnetotherapy,
- A wide range of indications for treatment and versatility of action.

Technical parameters	«Standard»	«Lux»	«Lux-XL»
Rated voltage of the power supply network, V	230	230	230
Maximum power consumption from the power supply network, kV * A 2 2 2	2	2	2
The weight of the treatment chamber is not more than, kg	500	540	630
Inner diameter of the treatment chamber	715	710	710
Length of the treatment chamber with a pushed/extended bed, mm	2300/3350	2670/4138	2670/4400
Electric bed drive	No	Yes (on request)	Yes (on request)
Maximum patient height, cm	190	210	210

Magnetoturbotron is a physiotherapy equipment for systemic magnetotherapy. The device has a capsule-like form with a large diameter inductor installed inside. The Magnetoturbotron generates a uniform vortical magnetic field with a maximum induction of 3 mT around the entire patient's body, which produces a positive effect on all body systems. The equipment has been produced for more than 15 years. More than a thousand devices has been manufactured, installed and successfully operated in medical institutions in Russia and the near abroad. During this time, the devices have gone through many evolutionary changes: their dimensions have been optimized, the design, electronic components and software have been improved. We are pleased to present you the newest series of devices - Magnetoturbotron PRO. The series includes three versions: Standard, Lux and Lux XL (with an elongated capsule).

The therapeutic effect of the device is associated with the development of the body's responses to the action of the magnetic field. It can be expressed in the form of physico-chemical changes, the development of nonspecific adaptive reactions on the part of the immune, nervous and humoral systems, activation of compensatory and adaptive mechanisms. A wide range of indications and versatility of action the Magnetoturbotron can be applied to the body not only for treatment, but also in the process of rehabilitation and prevention. Magnetic Therapy System is one of the main trends in modern physiotherapy.

GENERAL INDICATIONS FOR USE:

- psychosomatic disorders,
- diseases of the nervous system,
- arterial hypertension,
- diseases of the digestive system,
- diseases of the respiratory system,
- diseases of the endocrine glands,
- diseases of the genitourinary system,
- immunodeficiency conditions,
- prevention and treatment of early and late radiation reactions (during the course of radiotherapy),
- cancer rehabilitation

CONTRAINDICATIONS:

- pregnancy,
- stage II B – III circulatory failure,
- systemic blood disorders,
- foreign magnetic bodies such as pacemakers, acute viral infections,
- vasculitis and other pathological processes accompanied by persistent bleeding.

The Magnetoturbotron installation is available in three versions: «Standard», «Lux» and «Lux XL» (elongated).



«LUX»



«STANDARD»

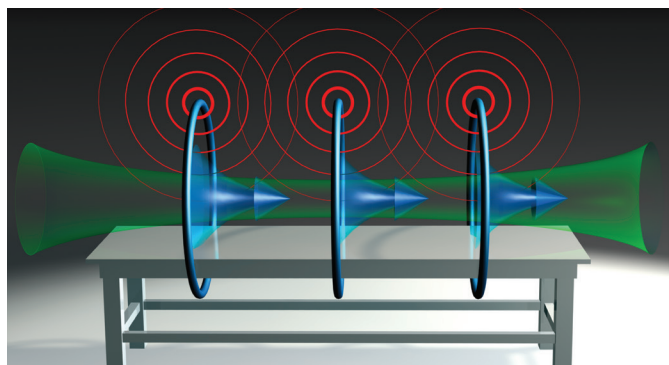
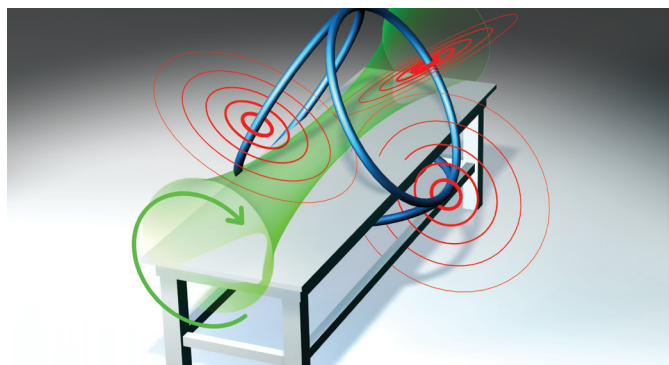


«KOLIBRI EXPERT» MAGNETIC THERAPY SYSTEM

«**Kolibri-Expert**» (UMTI-3F) is a three-phase pulsed magnetic therapy system. It generates damped alternating magnetic field pulses with induction variations of at least 3.5 mT in the center and 28 ± 6 at the solenoid surface. The equipment produces a systemic effect directing the maximum induction on the desired areas of the patient's body.

The system includes a special couch, which allows the patient to lie comfortably during the procedure, and to quickly change the configuration of the three solenoids in order to generate either a rotating («prismatic») or a pulsed («cylindric») electromagnetic field around the entire patient's body.

The magnetic field generated by the «Kolibri-Expert» Magnetic Therapy System has a pronounced spatial and temporal heterogeneity, which provides a higher biotropism compared to other types of magnetotherapy equipment. It increases the patient's sensitivity to the treatment. The magnetic field generated by «Kolibri-Expert» Magnetic Therapy System is characterized by low energy and non-thermal effect on the body. It prevents side effects and reduces the number of contraindications for magnetic therapy.



The therapeutic effect of the «Kolibri-Expert» is based on the body's response to the magnetic field, which can be as follows:

- physical and chemical changes in the main mechanisms of homeostasis,
- development of non-specific adaptive reactions of response systems (nervous, immune, humoral immunity) which regulate the body reactivity and resistance, activate the compensatory and adaptive mechanisms, etc.

«Kolibri-Expert» is:

- 4 treatment modes,
- ability to quickly change the configuration of the solenoids,
- safety and no side effects,
- mobility, small size and easy operation.

GENERAL INDICATIONS:

- musculoskeletal disorders,
- psychosomatic disorders,
- neurological disorders,
- hypertension, local circulatory system disorders,
- gastrointestinal disorders,
- respiratory diseases,
- endocrine disorders,
- genitourinary disorders,
- connective tissue diseases,
- skin diseases.

CONTRAINDICATIONS:

- pregnancy,
- stage II B – III circulatory failure,
- systemic blood disorders,
- foreign magnetic bodies such as pacemakers, acute viral infections,
- vasculitis and other pathological processes accompanied by persistent bleeding.





«RWAVE» EXTRACORPOREAL MAGNETIC STIMULATION SYSTEM

- NO STRESS FACTORS
- NO PAIN OR DISCOMFORT DURING THE PROCEDURE
- HYGIENE AND SANITARY SAFETY
- HIGH CAPACITY

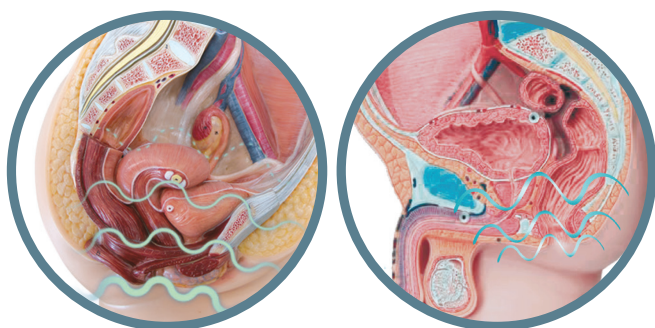
Technical specifications	RWave
Capacity, kW	1.5
The duration of one stimulation pulse at the output of the control unit, μ s	270 ± 50
Frequency, Hz	1-100
Induction on the surface of therapeutic chair, T	4
Impulse	Smooth impulse increase/decrease
Control	Tablet remote control
Programs	18 preset + manual mode
Database management	Software app
Height adjustment	gas lift system/ electric actuator



Extracorporeal Magnetic Stimulation System of the neuromuscular apparatus of the pelvic floor «RWave» - is a highly effective non-invasive method for treating various neuromuscular disorders of the pelvic floor in men and women.

The device is a specialized chair with a magnetic inductor built into the seat.

The device sends discrete pulses that affect nerve fibers and stimulate the contraction of the pelvic floor muscles and pelvic organs followed by relaxation. Their training takes place, blood supply improves, rhythmic processes normalize.



CONTRAINDICATION:

– FOR MEN:

- chronic pelvic pain,
- chronic prostatitis category III,
- erectile dysfunction,
- premature ejaculation,
- urinary incontinence,
- post-operative recovery after radical prostatectomy,
- lower ureteral calculi,
- urinary incontinence/rectal incontinence in children.

– FOR WOMEN:

- chronic pelvic pain,
- chronic inflammatory disease of the pelvic organs,
- urinary incontinence,
- preparation for IVF to improve the uterine lining,
- Pelvic Congestion Syndrome,
- female sexual dysfunction(anorgasmia),
- postpartum Recovery (strengthen and restore pelvic floor).

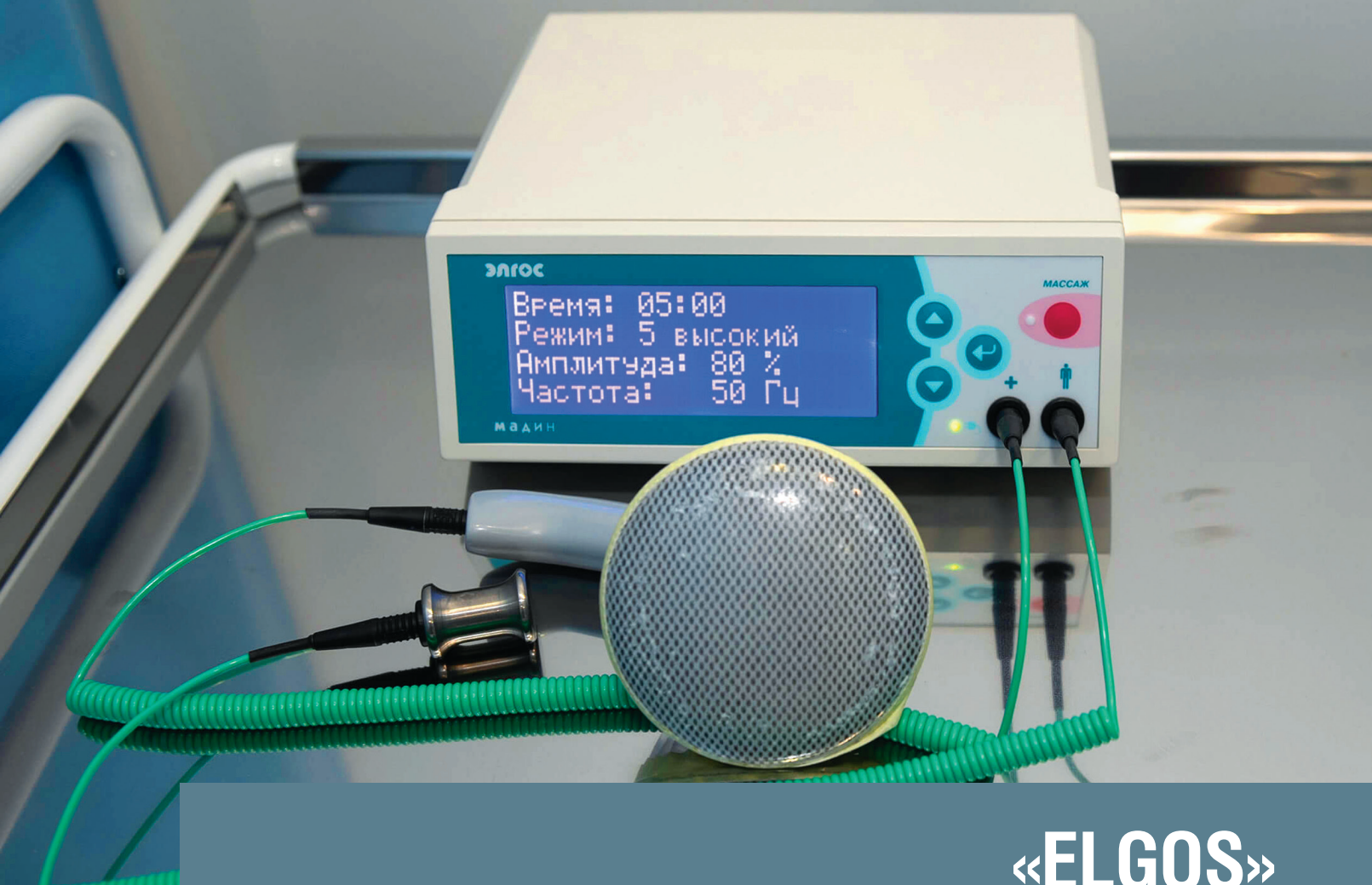
GENERAL CONTRAINDICATIONS:

- the general contraindications to physiotherapy
- pregnancy,
- acute hemorrhoids,
- bleeding,
- cardiac pacemaker, insulin pumps, intrauterine device, falloprosthesis made from magnetic materials.

! Attention, may influence the length of the menstrual cycle.



«RWAVE»



«ELGOS» ELECTROSTATIC MASSAGER

The effect of «Elgos» Electrostatic Massager is based on the deep tissue oscillation.

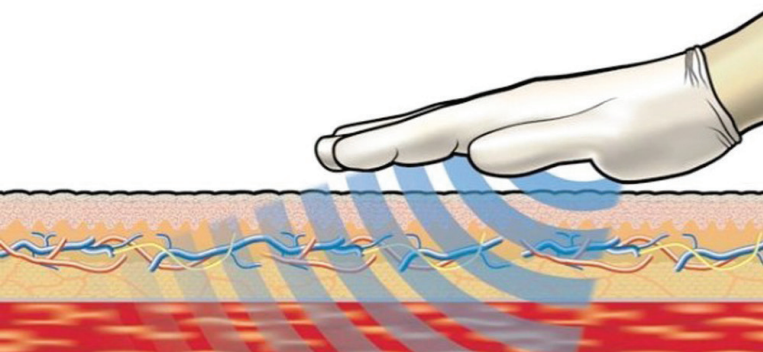
The method includes exposure of the patient's body to a low-frequency electrostatic field of high intensity with changeable modes (the ratio of the pulse/pause duration) and with varying intensity. The electrostatic field induces varying vibrations in tissues, extending to a considerable depth. Oscillatory processes have analgesic and antispastic effect, improve tissue trophism, local hemodynamics and lymph circulation, promote tissue regeneration.

«Elgos» Electrostatic Massager has a wide range of applications in medicine, cosmetology and professional sports.

- TWO MODELS ARE AVAILABLE: STATIONARY AND PORTABLE
- HAS ANALGESIC AND ANTISPASMODIC EFFECTS
- CONTRIBUTES TO A SIGNIFICANT REDUCTION IN SWELLING OF TISSUES
- CAUSES ANTI-INFLAMMATORY AND ANTIFIBROTIC EFFECTS
- ENHANCES HEMODYNAMICS AND MICROCIRCULATION
- ALLOWS TO IMPROVE LYMPH FLOW AND TISSUE TROPHICITY
- ACCELERATES REPARATIVE REGENERATIVE PROCESSES
- INCREASES TISSUE ELASTICITY

TECHNICAL SPECIFICATIONS OF ELGOS ELECTROSTATIC MASSAGER:

- 5 treatment modes,
- Output voltage: 0 to 430 V (0 to 100% on the device interface),
- Output signal frequency: 5-250 Hz,
- Procedure duration: 1-30 minutes,
- Overall dimensions, mm:
 - Stationary: 235x205x90,
 - Portable: 211x142x85.
- Weight: 2 kg,
- Power supply:
 - 220 ± 23V, 50 Hz for stationary equipment,
 - 3 AA batteries 1.2 V for portable equipment.



STATIONARY

GENERAL INDICATIONS:

- abnormally low or high muscle tone, muscular disorders,
- various pains,
- blood and Lymph Diseases, edema,
- trophic changes in soft tissues.
- prevention of premature aging
- treatment and prevention of cellulite
- fast recovery after cosmetic surgery
- milk stasis.

CONTRAINDICATIONS:

- acute infections,
- skin infections,
- active tuberculosis,
- thrombophlebitis,
- erysipelas,
- malignant tumors in patients who did not undergo radical operations,
- acute decompensated cardiovascular diseases,
- electronic implantable cardioverter defibrillators (pacemakers),
- pregnancy,
- electromagnetic hypersensitivity.



PORTABLE



«REATERRA» TREADMILL

- IS GOOD FOR CARDIAC AND NEUROLOGICAL REHABILITATION
- TWO TYPES OF BIOFEEDBACK ACCORDING HRS AND WALKING SPEED
- POWERFUL AC MOTOR ENSURES STABLE OPERATION EVEN UNDER INCREASED LOADS

Opportunities for connecting medical and research equipment: 1 USB port for exporting data from the treadmill, + 1 RS 232 for equipment.

Options: Use as a device for effort tests.

There are 4 types of handrails: Short non-adjustable, long non-adjustable, long adjustable, with covers for children's rehabilitation.

Body weight unloading system: electric lift with a backup power source (built-in batteries) that provides at least 4 lift / lower cycles in the event of an emergency power outage + specialized safety vest. Possibility of joint use with lifting system «ReaPort».

Technical specifications	
Patient's height, min.	80 cm
Patient's weight, max.	150 kg
The range of UP/DOWN belt inclination	-25 to +25%
Belt movement direction	Forward/backward
Speed range	0 to 10 km/h
Belt speed increment	0.1 km/h
Handrail height adjustment, cm	100 to 130
Handrail width adjustment, cm	51 to 81

SPECIAL OPTIONS FOR CARDIAC REHABILITATION

Wireless heart
rate sensor



Cardio workouts with
preset capacity



Sound signal when exceeding
the set heart rate range

Cardio workouts within the set
heart rate range



SPECIAL OPTIONS FOR NEUROLOGICAL REHABILITATION



Unloading system with body
weight support such as com-
fortable vests: 4 sizes

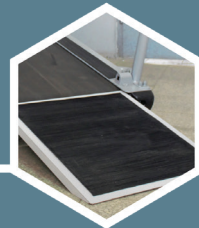
Additional arm
Supports



Belt edge
Sensor



Wheelchair
access ramp

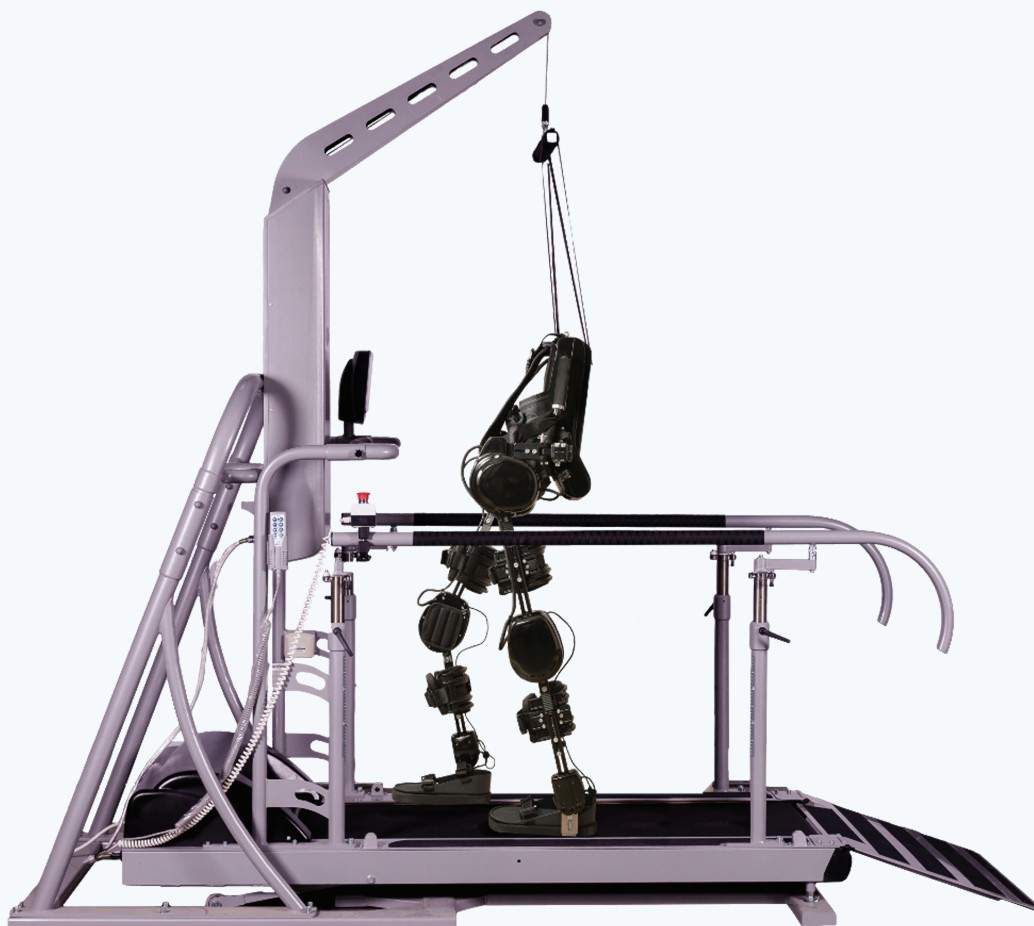


Emergency stop
button



Seats for the
medical staff
for convenient work with the
patient's arms and legs





«REATERRA» TREADMILL



«ReaTerra» is a bio-feedback based walking simulator with ergometric testing option, unloading system and programmable individual loads depending on gender, age and fitness level. Such options as speed, movement direction and elevation angle of the structure are adjustable.

The patient's heart rate can be measured using a wireless sensor. The presence of a cardiorehabilitation option with the possibility of testing according to internal protocols, the ability to work on pulse-dependent rehabilitation profiles: work on the minimum and maximum heart rate, work on a given percentage of the maximum possible heart rate, the ability to create individual rehabilitation profiles, a 6-minute walking test to determine the functional class according to CHF. 2 options for setting an individual load for a patient, generally accepted in cardiorehabilitation, have been implemented: according to heart rate and according to a preset capacity.

A speed adaptation system has been implemented that adjusts the speed of the running surface to the speed of the patient. This makes it possible to use the «ReaTerra» treadmill and the «E-helper» medical exoskeleton together. There is a program for assessing the characteristics of the gait: the length of the step is an indication of symmetry. It can be equipped with the «Madis» virtual environment system: visual simulation of a patient's walk in different locations – in a forest, in a city, etc. Allows you to stimulate the patient's activity by introducing an additional character into the game.

The process of classes can be controlled from the built-in touch screen or tablet. A remote control is also provided. Treadmill can be used for cardio and neurorehabilitation, locomotor training, medical fitness, stress testing (with an external stress-system connected or using preinstalled programs in the menu).

OPTIONS:

- unloading body weight system: electric lift + safety vest,
- virtual reality system «Madis»,
- handrails: 4 types optional,
- seats for the medical staff (2 pcs.),
- additional arm support (left and right),
- wheelchair access ramp.

RELIABILITY:

- emergency stop button,
- belt edge sensor,
- sound signal when exceeding the set heart rate range.





«E-HELPER» MEDICAL EXOSKELETON

Exoskeleton «E-Helper» is designed taking into account current trends in medical rehabilitation, assistive technologies and adaptation of the complex to the anthropomorphic measurement of the patient. Medical exoskeletons are intended for rehabilitation of patients after temporary disability of lower limbs.. Based on modern data, regenerative and compensatory processes in the CNS (due to stroke or trauma etc.) are maintained due to a biological phenomenon of neural plasticity.

● NEURAL PLASTICITY IS THE ABILITY OF CNS TO STRUCTURALLY AND FUNCTIONALLY REORGANIZE NEURONAL ELEMENTS AND SYSTEMS

Multiple studies have demonstrated the possibility of activation of neural plasticity processes in patients with balance and gait disorders due to boosting of the afferent flow from paretic extremities. Regular, lengthy, and targeted training can ensure adequate and continuous afferent supply. Exorehabilitation provides that possibility.

Technical specifications of the «E-Helper» exoskeleton:

- system of quick settings according the anthropometric data of the patient,
- 8 hours of autonomous operation,
- patient weight up to 110 kg, height – 150-190 cm,
- ability to climb stairs, turn around,
- reducing motors with added durability,
- built-in microcomputer, patient base management, statistics collection.

What improves the effectiveness of rehabilitation?

- Separate adjustment of motor power for each leg. This function can be used for rehabilitation of patients with hemiparesis.
- Initiation of the first step. During physical rehabilitation it is important to detect even the slightest muscle strain and to continue the ensuing movement.
- Dynamic evaluation of spasticity. Exoskeleton monitors the change in power of the electrical motors that provide movement to the extremities.

EASY TO PUT ON:

- The extremities of the exoskeleton have joints that allow them to fold out sideways.

Exoskeleton with integrated synchronized FES, EMG and BFB:

- Integrated 8-16 channel functional electrical stimulation (FES) system with a convenient location of wires and electrodes.
- Integrated 8-16 channel electromyography (EMG) system to assess the inclusion of muscles in the motor activity process, to assess the dynamics of changes in process of rehabilitation.

Initiation of movement is realized by:

- monitoring by the system of pressure exerted by the patient's limb on the splint,
- tracking by the system of changes in the position of the body,
- tracking muscle activity from EMG sensors.

Receiving information for the movement initiation from EMG sensors is the most accurate way to detect muscle activity. At the beginning of the restoration of motor activity, when the impulse reaches the muscle, but there is still no movement, only with the help of EMG can we identify the emerging pattern of movement..

«E-Helper» can be used in conjunction with the virtual environment system «Madis» and «ReaTerra» treadmill:

- Reduces workload for the medical staff.
- Increases the safety of rehabilitation process.

WHO WILL BENEFIT FROM «EXOREHABILITATION»?

- patients recovering from stroke with mobility issues,
- patients after a traumatic brain injury with mobility issues,
- patients with traumatic injury of the spine,
- patients with gait pathologies due to musculoskeletal system disorders,
- patients with cerebral palsy and multiple sclerosis with mobility issues.





«**ANIKA**» REHABILITATION GLOVE

- **ANIKA IS A BIO-FEEDBACK BASED SIMULATOR USED TO REGAIN FINE MOTOR SKILLS AND MOTOR COORDINATION**
- **GLOVE WITH MOTION SENSORS + SPECIALIZED SOFTWARE**
- **SOFTWARE SERVER VERSION IS AVAILABLE**
- **THE DEVICE CAN BE USED FOR THE REMOTE REHABILITATION**

OPTIONS AND ADVANTAGES:

- Data collection, examination, diagnostics,
- Selection of individual programs and difficulty levels,
- Patient motivation in game form,
- Progress data collection, rehab program adjustment in real time,
- Treatment data is stored on the server.

THE AID IS EFFECTIVE FOR THE FOLLOWING:

- Restoring fine motor skills after suffering illnesses and injuries,
- Infantile Cerebral Palsy,
- Parkinson's disease,
- Stroke rehabilitation.



GENERAL OPERATION PRINCIPLES AND STAGES:

Anika Rehab Complex consists of a glove and computer software. Sensors are applied to the back of the hand, forearm and distal phalanges to record movements and transmit information about them to the program.

The first stage includes examination and diagnostics.

The number of passive and active movements of fingers, wrists and forearms is recorded. The final results are saved. The program analyzes the data and determines options for the patient.

The second stage is rehabilitation. Exercises of varying difficulty are offered to the patient based on the analysis results. The complex is based on visual feedback. The process is displayed on the monitor in real time for the patient to control the correctness of the exercises. The therapist receives objective and accurate information on the patient's actions in real time. Thus, the therapist can configure the program and choose the most suitable exercises for each particular case. The workout is arranged in a game format, which motivates the patient to repeat the movements and increases the effectiveness of rehabilitation process.

The third stage includes control and adjustment of the rehabilitation process.

The rehabilitation data is stored in the program for the therapist to monitor treatment process and adjust it if required. The program provides remote interaction with specialists of the health care institution. In this case, the program stores information on the statistics server available for the therapist at any time.





«IMITRON» WALKING SIMULATOR

- ACTIVE AND PASSIVE MECHANOTHERAPY OF LOWER LIMBS
 - MOTOR REHABILITATION AFTER STROKE AND SPINAL INJURIES
-
- FOR MEDICAL REHABILITATION CENTRES AND HOME EXERCISES
 - TWO VERSIONS (FOR CHILDREN AND ADULT PATIENTS) ARE AVAILABLE

Technical specifications	«Imitron» (for adult patients)	«Imitron» (for children)
Patient's weight, max.	150 kg	60 kg
Patient's height	145–185 cm	110–145 cm
Dimensions (L x W x H)	100 x 85 x 135 cm	100 x 70 x 120 cm
Weight	55 kg	45 kg



«Imitron» **Walking Simulator** is available in two versions: For adult patients and for children. Both versions can be equipped with an electronic measurement unit to measure walking speed, count steps and record the workout duration.

OPERATION:

With the help of hand movements, the patient synchronously moves the structural elements supporting his/her lower limbs. The torso stabilization system helps to maintain an upright position, and the patient moves his/her lower limbs with help of hand work, due to which a walking process is simulated.

«Imitron» **Walking Simulator** allows exercising leg muscles and joints in a passive mode. The upper limbs and the shoulder girdle also work actively. The muscles of the back and abdomen are exercised, the body and pelvis turn and bend. The simulator can be used by patients with the thoracic and cervical spinal cord injuries. Additional supports are provided for such patients.



GENERAL INDICATIONS:

- hemi-, para- and tetraparesis after brain diseases or spinal cord injuries,
- leg paralysis and paresis,
- cerebral palsy and other congenital neuromuscular disorders,
- strokes.

EFFECTS:

- reducing the risk of osteoporosis,
- dynamic load on bones and muscles (exercising),
- prevention of joint instability and osteoarthritis,
- improved blood circulation,
- respiratory system stimulation,
- prevention of urinary tract infections,
- improving the emotional and mental state of the patient.

THE STANDARD SUPPLY INCLUDES:

- 1 walking simulator,
- 1 support for the lumbar spine with a belt retainer,
- 2 knee straps.

ADDITIONAL OPTIONS:

- electronic step counter (built-in),
- 2 additional side supports,
- 1 additional back support,
- 1 additional chest support,
- special gloves.





«BALANCE-MASTER»

BALANCE SIMULATOR

«**BALANCE-MASTER**» is a bio-feedback simulator. It is designed to restore balance, develop movement coordination and balance.

It is used to treat patients with neurological disorders and impaired musculoskeletal system, and for the rehabilitation of patients with spinal cord and brain injuries. A built-in motion sensor and additional software allows the therapist to stimulate the patient's motivation with interactive training games and to monitor the recovery dynamics.

Technical specifications	
Overall dimensions	140 x 108 x 82,5 cm
Maximum power consumption	250 W
Mains voltage	220 B, 50 Hz
Maximum load	120 kg
Range of balancing angles	
Lever position I	no free movements are allowed
Lever position II	0...6°
Lever position III	0...12°

«**Balance Master**» Simulator is used to perform complex rehabilitation exercises in a vertical position. It corrects errors when transmitting a signal from the brain to the muscles. The simulator prepares the patient for making the first step. It provides gradual adaptive training for the correct movement patterns. The simulator is equipped with an electric lifting device and an auxiliary belt to verticalize the patient from a sitting position.

Applications:

- Recovery from brain injuries and spinal cord injuries,
- Stroke recovery,
- Maintaining the muscle tone in elderly patients,
- Treatment of patients with Parkinson's disease,
- Symptomatic therapy for multiple sclerosis.

OPERATION:

The patient is placed on the simulator, his/her feet, knees, and pelvis are fixed. The patient's body is stabilized. The rehab procedure is made in the form of a computer game. The patient controls its action by deflecting his/her torso in different directions. The program reads the patient's motions with help of special sensors installed on the simulator, and displays the data on the monitor. The program can be adjusted depending on the results.

- Exercises are made in the form of a game,
- Bio-feedback allows the therapist to quickly track treatment and rehab progress.
- Exceptional stability of the simulator and reliable fixation prevent the fear of losing balance and falling down.



EFFECTS:

- Learning correct movement patterns,
- Spasticity reduction,
- Balance training,
- Movement rehabilitation,
- Stimulation of the gastrointestinal and urinary systems,
- Osteoporosis prevention

VERSION

STANDARD CONFIGURATION 1:

- Balance Master Simulator with mechanical lifting device.

STANDARD CONFIGURATION 2:

- Balance Master Simulator with electric lifting device.

ADDITIONAL OPTIONS:

- Motion sensor + bio-feedback software,
- Additional leg support,
- Additional head and back support.

* Supplied upon request are: Laptop, monitor, monitor stand, HDMI cable (not rated as medical equipment).





«ALTER STEP» DYNAMIC STAIR TRAINER

«Alter Step» Dynamic Stair Trainer is a dynamic simulator for the musculoskeletal system training and recovering from injuries, strokes, cerebral palsy, cerebrovascular diseases and other nervous system pathologies which affect walking function. Alter Step Dynamic Stair Trainer combines two devices: rails and a four-step stair with anti-slip coating. The stairs are easily adjusted for each patient depending on his/her individual characteristics. The stairs are adjusted in the range 0 - 15 cm high by an electric drive. It means that patients can start leg exercises in early rehab stages. It greatly benefits to the process of restoring the motor functions of lower limbs. The simulator in the flat position (at zero step height) is used as parallel bars in rehabilitative & physical therapies. The height and width of handrails can be adjusted.

Technical specifications	
Overall dimensions, mm	2490/2850x890x1100/1600
Max. load, kg	150
Wheelchair ramp length, mm	600/900
Step height, cm	0 – 15
Power supply, V/Hz	220/50
Power consumption, V	20

«Alter Step» Dynamic Stair Trainer can be equipped with one or two ramps for patients in wheelchairs. It is easy to use and comfortable for patients with impaired mobility. The simulator can be used in rehabilitation departments and centres, health care institutions, nursing homes, neuro and cardiac rehabilitation centers.

«ALTER STEP» DYNAMIC STAIR TRAINER:

- Promotes the patient motivation,
- Helps to overcome the psychological barrier of making the first step,
- Saves the therapist's time and efforts,
- Can be used by the patient for self-directed training

VERSIONS AVAILABLE:

- «Alter Step» Dynamic Stair Trainer with a short ramp (600 mm),
- «Alter Step» Dynamic Stair Trainer with a long ramp (900 mm),
- «Alter Step» Dynamic Stair Trainer with two ramps (600 mm each).



At customer's option «Alter Step» could have a «two-sided» design. The stair trainer can consist of two staircases and a platform (Fig. 1) or a staircase, a platform and a ramp (Fig. 2).





«EKZARTA» KINESIOTHERAPY SUSPENSION SYSTEM

- **SELECTION OF THE OPTIMAL LOAD LEVEL.**
- **RESTORATION OF THE NEUROMUSCULAR CONTROL.**
- **ELIMINATION OF PAIN SYNDROME.**
- **DEVELOPMENT OF CORRECT MOVEMENT PATTERNS**

The equipment is used together with the «Ekzarta» method to examine the functions of the fascial muscular chains and to create and implement a rehab program based on the diagnosis. The optimal load level is achieved with different exercises. The rehab program is aimed at restoring neuromuscular control, eliminating biomechanical disorders in joints and developing correct movement patterns.

OPERATION:

The patient is placed on a table driven by a Kinezo-Expertrelectric drive. Slings are fixed under the patient's limbs, pelvis and/or chest using carabiners on cables hanging down from the ceiling structure. A wide sling mounted on thick elastic straps can be placed under the patient's body to facilitate exercising. In the stretched position, this sling is used to lift the body or its parts upward. Then the table is lowered or the sling cables are pulled up lifting the patient's arms and legs. As a result, the patient's body or its parts are suspended. A rehabilitation session includes a number of exercises.

There is a set of head suspension slings (for exercises involving the cervical spine), as well as suspension slings for arms, legs, pelvis and chest. The patient's pelvis and/or chest are suspended on elastic straps to facilitate exercise and lift the body upward against gravity. The exercise load can be easily adjusted by changing the strap elasticity. There are 6 ways to decrease or increase the load thus selecting the difficulty level for a patient with any severity of motor impairments or severe pain.

- The equipment is used for doing special rehab exercises.
- The patient is suspended with all muscles relaxed and with almost absolute absence of the gravity effect. The therapist gradually and safely increases the amplitude of movements with very little resistance from the patient's muscles.
- Activates core muscles.

Complex movements are split into simple ones for patients with neurological disorders (stroke, cerebral palsy, spinal cord injuries, etc.), worked out, and then combined into movement patterns.

«Ekzarta» Kinesitherapy Suspension System is fully adapted for almost any functional exercises and includes all the necessary accessories (slings, elastic straps, ropes, rollers, Ekzarta Balance sensory motor cushions, etc.).



APPLICATIONS:

- spine and/or joint pain,
- arthritis of the large joints,
- frozen shoulder,
- stiff-person syndrome,
- spinal disc herniation,
- infantile cerebral palsy,
- stroke,
- spinal cord injuries,
- rehab fitness.

INSTALLATION DIMENSIONS:

- ceiling structure, (L x W x H), mm, kg - 1780 x 800 x 230,
- floor structure, mm (L x W x H) - 2190 x 1780 x 2300.





«REAPORT» PATIENT LIFTING SYSTEM

The «ReaPort» system is intended for transporting non-walking patients or patients with mobility difficulties indoors within one floor of a building, both in a medical institution and in a residential area. Also for rehabilitation and training of gait, motor function and strengthening of the muscular system, it allows you to train the correct physiological gait.

Rail systems are perfect for professional as well as private applications. Make the transfer of the patient to a wheelchair, bed, massage table, between rooms for hygiene procedures and therapeutic activities easier. The system consists of a lifting unit, a control panel, a set of rails and fastenings, and a supporting structure for the patient.

The device of the lifting block has two versions:

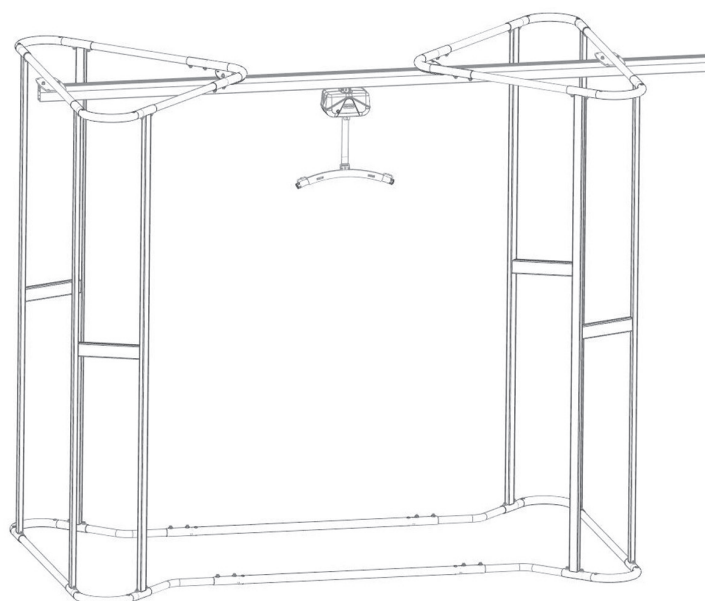
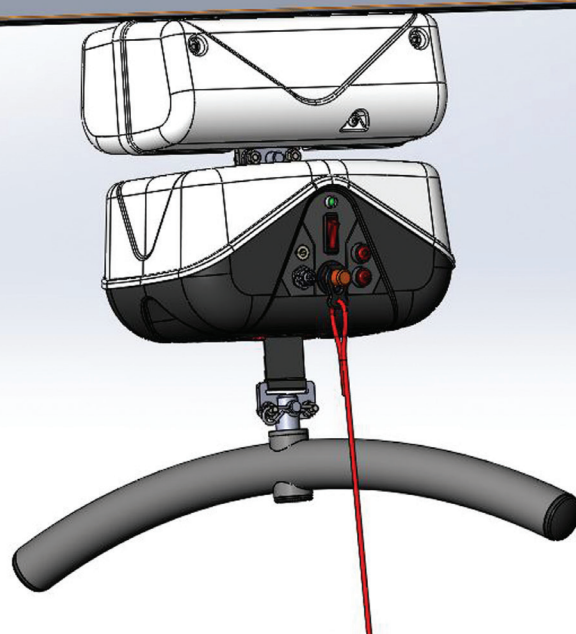
- Static (for patient movement and rehabilitation).
- Dynamic (for advanced rehabilitation of motor function).
Allows you to compensate for up to 70 kg of the patient's body weight, which helps the process of restoring motor activity.

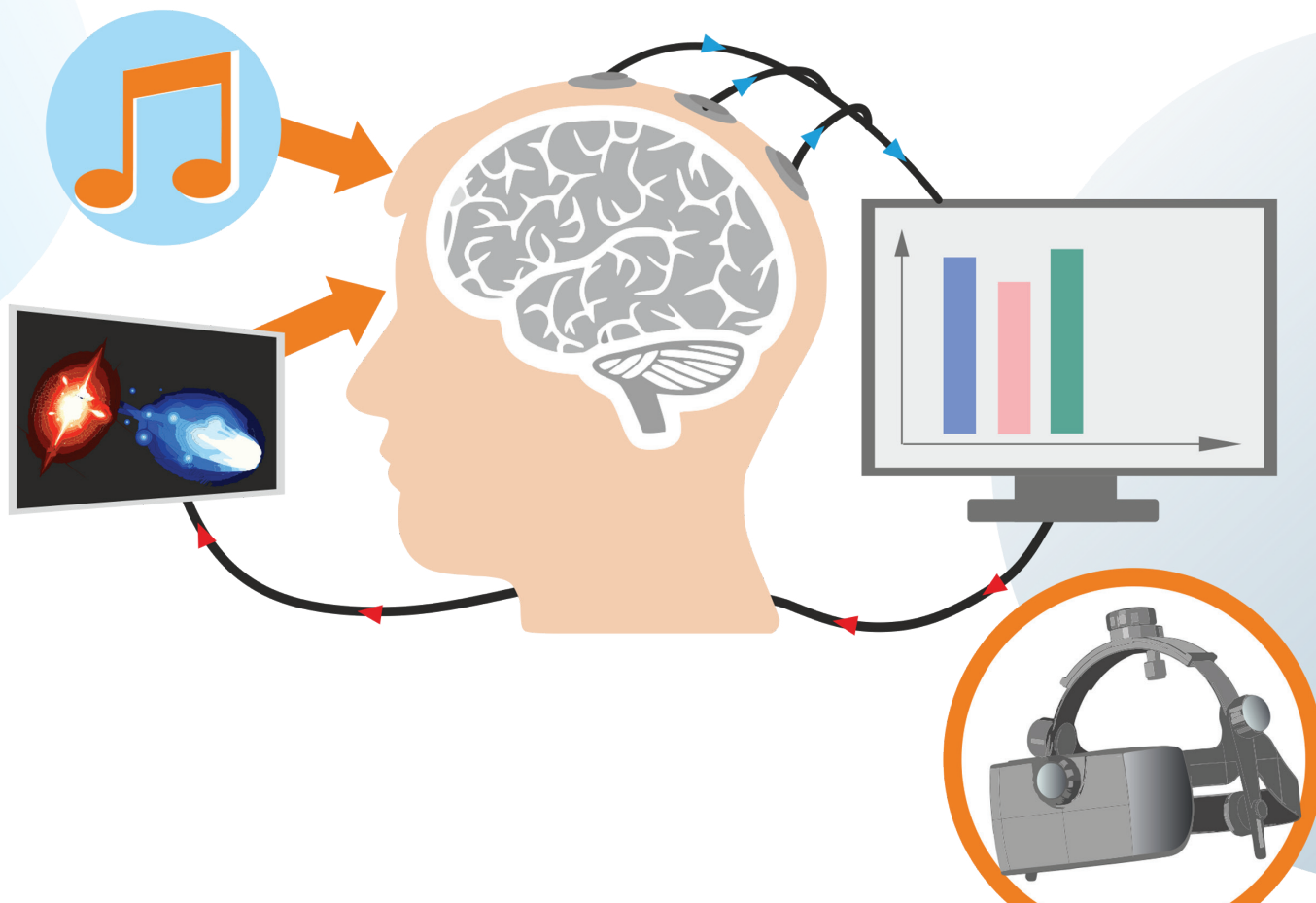


The ReaPort system is available in the following modifications:

- Rail standard - can be produced in three versions according to the maximum load capacity (150/200/250 kg.).
 - fixed rail or fixed on the ceiling or on a free-standing frame structure and a static lifting unit.
- Rail modification with dynamic weight compensation.
 - two stationary rails, parallel and rigidly fixed on the ceiling or on a free-standing frame structure and a dynamic lifting unit.
- Portal mobile modification.
- Verticalizer modification.

- **FOR THE MODIFICATION RAIL STANDARD IT IS PROVIDED THE POSSIBILITY OF MOVING FROM ONE ROOM TO ANOTHER**





«NEUROOPTIMA» AUDIOVISUAL COMPLEX

- **THE NEUROOPTIMA COMPLEX IMPLEMENTS A TWO-LOOP BIOFEEDBACK ON THE ECLECTIC ACTIVITY OF THE BRAIN AND HEART RATE. THE DEVICE IS INTENDED FOR ADAPTIVE NEUROSTIMULATION TO CORRECT PSYCHOSOMATIC CONDITIONS OF VARIOUS ETIOLOGIES, INCLUDING STRESSFUL**

Social upheavals, psycho-traumatic crises and extreme factors of modern life form a state of psycho-emotional tension and stress in a person, which lead to a violation of adaptation mechanisms and multiple functional disorders. Under conditions of chronic complex exposure, this causes a failure of the body's defense systems, the appearance of persistent functional disorders, and then a disease. Since the drug treatment of such initially emerging «discomfort syndromes» is difficult, non-drug methods of systemic exposure are especially in demand, providing effective correction of psychogenic functional disorders in the human body and its timely return to the optimal state.

The apparatus was developed on the basis of scientific works of the Institute of Cell Biophysics of the Russian Academy of Sciences.

The correction process consists in registering the neurosignal and heart rhythm with the help of a helmet and forming, on their basis, individual sound and light stimuli presented to a person in online mode. The device allows you to adjust brain activity based on its own parameters, concentrating on the dominant individual rhythms. Dynamic adjustment of stimulation to the current state of the body allows to purposefully modulate the activities of individual nerve structures and increase neuroplasticity.



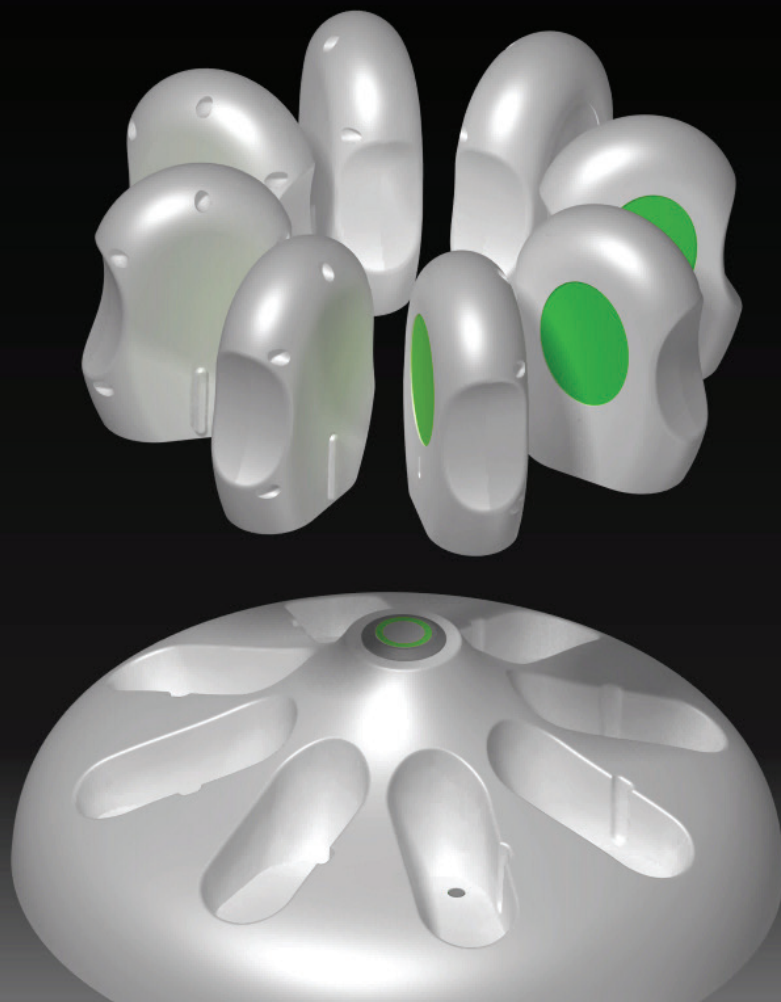
The complex is intended for use in medical rehabilitation for recovery after neurological diseases, for the correction of stress-induced functional disorders; to improve cognitive skills in children with minor brain dysfunction and other neurological diseases. The complex produced by the Zarya Group of Companies is based on the impact through the patient's intuitive (unconscious) mastering of self-regulation skills, i.e. it is not the patient who consciously keeps his psychological state within the given limits, but the system regulates the patient's state and with the help of various influence factors (color / sound), returns him to the optimal parameters.

THE COMPLEX PROVIDES THE POSSIBILITY OF USING TWO TYPES OF ELECTRODES:

- dry solid gel disposable electrodes,
- standard reusable electrodes (require special conductive gel)/

THE HELMET CAN BE CONNECTED TO PC VIA WIRED AND WIRELESS (BLUETOOTH) CONNECTION.

AVAILABLE “MOBILE” MODE WITHOUT CONNECTION TO PC.



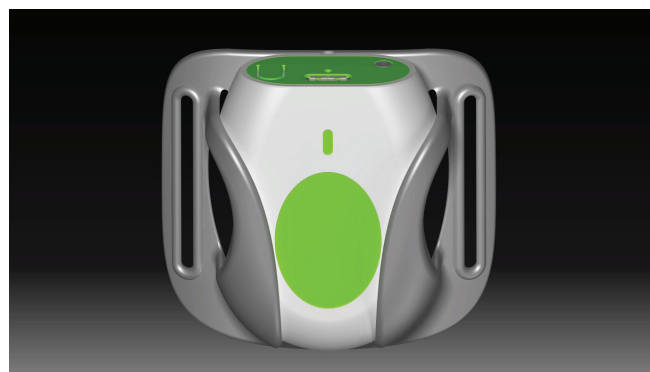
«MIOHELP» DEVICE FOR FES AND EMG

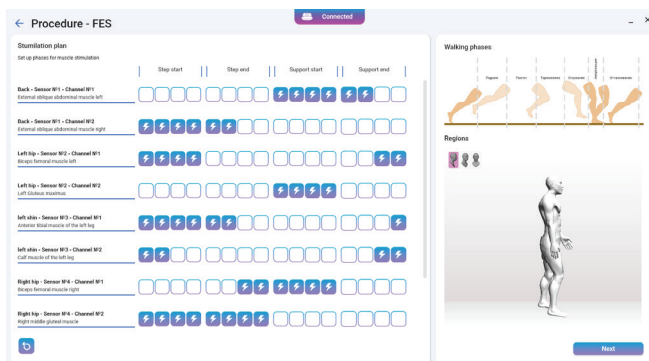
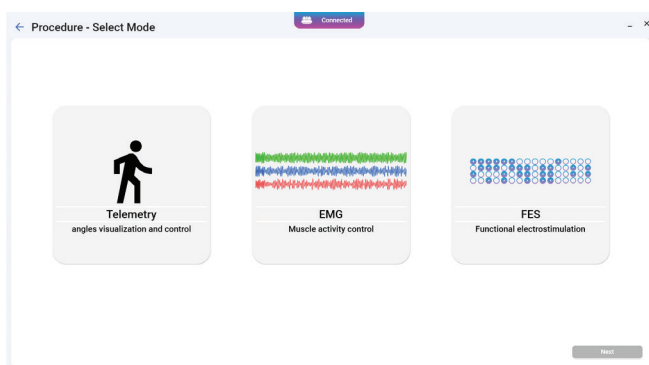
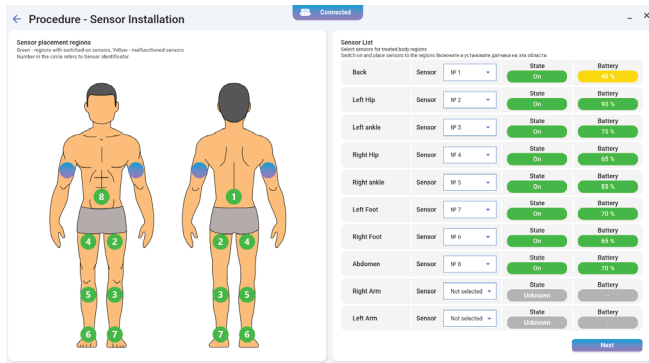
The device is designed for functional muscle stimulation during walking.

Sensors perform three functions:

- **THE MAIN ONE IS TELEMETRY - SENSORS DETERMINE THE POSITION ONE OR ANOTHER PART OF THE BODY IN SPACE**
- **ELECTROMYOGRAPHY**
- **FUNCTIONAL ELECTRICAL STIMULATION**

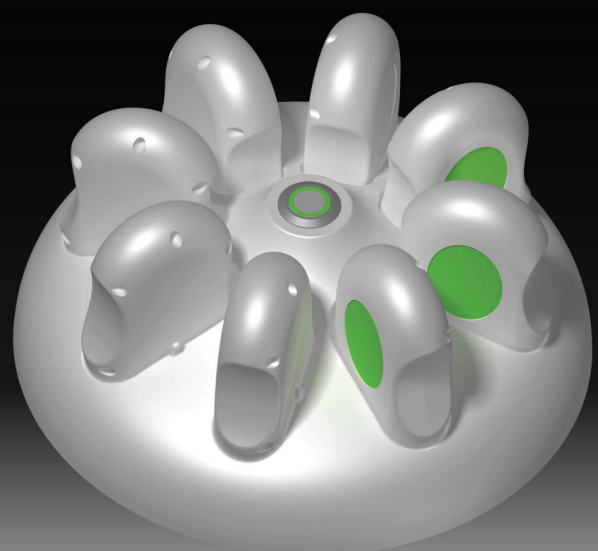
The sensors are wireless, each sensor has two channels for EMG registration or electrical stimulation. They are installed on the patient's body using special elastic fasteners with adjustable size.





Sensors are installed on certain parts of the patient's body, by default - left shin, right shin, left hip, right hip, back. This configuration allows you to build a three-dimensional avatar that repeats the movements of the patient.

The system is managed through specialized software that allows you to: maintain a database of patients and their classes. When conducting several classes, the option of a summary analysis of several procedures is available. Before each procedure, the initial registration of the patient's gait is carried out, which allows using a 3D avatar to individually adjust the stimulation pattern for each patient. The system provides instructions for connecting leads to the most commonly used muscles, and also allows to implement custom locations. The program allows to configure the mode stimulation by walking phases: each full step is divided into 16 available phases. While walking, the functional electrical stimulation system monitors for cyclicity. During each procedure (depending on the configuration), angles in the patient's joints are recorded.





KNEE MODULE «EXITUS» WITH MICROPROCESSOR CONTROL

- **KNEE MODULE «EXITUS» IS CAPABLE TO AUTOMATICALLY ADJUST TO THE GAITE THE USER'S WALK**

The knee module with microprocessor control is an important part of the prosthesis for people with leg amputation at hip level.

Unlike a real «biological» knee, the prosthetic module must control flexion and straightening “knee joint” without direct knowledge of the patient’s intentions or changes in the environment.

The module’s autonomy is 2-3 days, depending on the walking mode.





The microprocessor collects and processes data on walking parameters and calculates the currently required bending and straightening force in real time, controlling the module, it provides a controlled phase supports and transfers, insures, protects against stumbles, allows you to change the speed in a timely manner, adjust the emphasis, safely overcome ascents and descents. The delivery package includes both specialized software for the prosthetist and an application for the needs of the user.

The knee module "Exitus" is similar in functionality to the product of the world leader «OttoBock» - C- Leg.





«KINEZO EXPERT» REHABILITATION TABLES

- **MAX. LOAD: 180 KG**
- **CONVENIENT FRAME HEIGHT SWITCH**
- **VARIOUS OPTIONS ARE AVAILABLE FOR DIFFERENT APPLICATIONS**
- **CERTIFIED HIGH-QUALITY SPARE PARTS**

Kinezo Expert tables are available in four models with electric drives differing in the number of sections and motors. The electric drive can be used with a load of up to 180 kg.

Model	Number of sections and motors	Characteristic features
«Kinezo Expert-2» Massage Table	2 sections, one motor	Gas struts raise and lower the head section.
«Kinezo-Expert-3» Massage Table	3 sections, one motor	Gas struts raise and lower the head and leg sections.
«Kinezo Expert-7» Massage Table	7 sections, one motor	Additional armrests are installed in the head and middle sections. The armrests installed in the head section can be lowered down, and the armrests installed in the chest section can rotate down on the axis.
«Kinezo Expert-7/2M» Massage Table	7 sections, two motors, pivot function	The middle section can be raised up. The second motor is controlled with a small remote under the chest section.

KINEZO

Expert



«Kinezo Expert» massage tables are ideal for various applications in medical and rehabilitation centres, spas, hospitals, massage rooms and beauty salons.

Table height can be easily adjusted with an electric drive. The frame height switch ensures smooth raising and lowering of the table on either side with an easy foot movement without distraction from the procedure.

Regardless of the table configuration, the highest product quality and its characteristics remain unchanged: :

- LINAK electric drive for smooth height adjustment;
- STABILUS gas struts for setting the inclination angle of individual sections;
- frame switch for height adjustment on all sides;
- face hole in the upper section;
- wheels with a one-touch lift and lock option;
- adjustable legs to compensate for the uneven floor;
- wear-proof upholstery is made from certified materials.

APPLICATIONS:

- massage,
- manual therapy,
- physiotherapy,
- kinesitherapy.





«KINEZO EXPERT» FOR BOBATH & VOJTA THERAPY

- **TABLES FOR BOBATH & VOJTA THERAPY HAVE A VERY LARGE WORK SURFACE AND HIGH DURABILITY, ALLOWING THE THERAPIST TO STAND ON THE TABLE WITH THE PATIENT LYING ON IT**

Wide «Kinezo Expert» kinesitherapy tables are designed for rehabilitation after injuries and diseases damaging the central nervous system and accompanied by impaired motor activity. They are cerebral palsy, strokes, brain injuries, spinal cord injuries, and musculoskeletal disorders. Kinezo Expert tables are perfect for Bobath & Vojta therapy and PNF therapy.

Model	Number of sections	Characteristic features
Kinezo Expert B1 therapy table	1 section	width: 120 or 160 cm
Kinezo Expert B2 therapy table	2 section	width: 120 or 160 cm
Kinezo Expert B3 therapy table	3 section	width: 120 or 160 cm

KINEZO

Expert



«Kinezo Expert» tables are equipped with an electric drive and a 120 to 160 cm wide couch with a load capacity of up to 180 kg. Since different methods and operating conditions require purely individual parameters of kinesitherapy tables, we offer affordable basic equipment and a large number of additional options. Lockable wheels ensure safe and secure lock of the table for continuous operation. When necessary, it can be moved quickly and easily to the right place. The frame height switch ensures smooth one-touch table raising and lowering on both sides without distraction from the procedure.

THE STANDARD CONFIGURATION OF KINESITHERAPY TABLES INCLUDES:

- two different electric control devices: frame or remote control,
- gas struts to change the angle of the individual sections,
- adjustable legs to compensate for uneven floor.

In addition, you can order a lockable wheelbase.

APPLICATIONS:

- Bobath and Vojta therapy,
- physiotherapy,
- kinesitherapy,
- manual therapy,
- massage.





VERTICALIZERS

«KINEZO EXPERT»

«Kinezo Expert» verticalizers are used to move the patient to an upright position, prepare him/her for standing and walking, and prevent negative consequences of a prolonged lying position.

Kinezo Expert electric verticalizers are available in three models differing in the number of motors, sections and adjustment options.

Model	Number of sections and motors, characteristic features
«Kinezo Expert 1»	One section, verticalization available
«Kinezo Expert 1/2M»	One section, two motors, verticalization available
«Kinezo Expert 2/2M»	Two sections, two motors, verticalization available

KINEZO

Expert

«Kinezo Expert» verticalizing tables are used in rehab therapy for patients who cannot stand up without help. They are used to move the patient to an upright position, prepare him/her for standing and walking, and prevent negative consequences of a prolonged lying position. Our equipment is used for rehabilitation in intensive care units. Besides, it is suitable for home therapy.

APPLICATIONS:

- stroke,
- spinal cord injuries,
- brain injuries,
- recovery after neurological surgery.



STANDARD CONFIGURATION INCLUDES:

- electric drive for smooth table adjustment,
- gas struts for setting the inclination angle of the head section,
- adjustable foot supports with anti-slip coating,
- soft chest fixation,
- soft leg fixation,
- table.

The table can be equipped with a face hole in the head section upon the customer's request, in order to use it as a massage table or kinesitherapy table.





THERAPEUTIC MUD

«TOMED»

● TOMED - THERAPEUTIC MUD WITH ACTIVE HUMIC ACIDS

«Tomed» products are made only from specially selected and environmentally friendly chemical-free peat. The raw material has humic acids in an inactive state. In the production of the «Tomed» processing is aimed at transferring humic acids into an active state. These active acids have pronounced therapeutic effects.

● THIS UNIQUE PRODUCT COMBINES NATURAL REMEDIES AND INNOVATIVE TECHNOLOGIES

- Therapeutic mud TOMED has its own thermal effect.
- The highest biological activity compared to other therapeutic muds.
- The mud is easy of use and does not require additional equipment.
- The procedure is cost-effective.

«TOMED» APPLICATOR

- Blister with 10 mud wipes.
- Convenient to use for local procedures
- The effect is similar to traditional methods mud therapy.
- A complete course of treatment can be done at home for lack of time.



«TOMED» APPLICATOR

- The lowest consumption of mud (5-10 gr. Per joint).
- You don't need a mud preparing facilities.
- Economical option for use in health resorts.



«TOMED» AQUA

- Concentrated aqueous solution of humic compounds for bathing and syringing.



CLINICAL EFFECTS:

- regenerative, antioxidant, anti-toxic effect,
- restoration of impaired metabolic energy balance,
- bacteriostatic and bactericidal action,
- immunocorrective effect,
- improved microcirculation,
- cosmetic effects.

INDICATION FOR TOPICAL USE OF «TOMED»:

- diseases of the nervous system, consequences of injuries and neurosurgical operations,
- diseases of the musculoskeletal system: arthropathy, osteoarthritis,
- systemic lesions of the connective tissue, soft tissue diseases,
- skin diseases: dermatitis, eczema, papulosquamous disorders, urticaria, keratoses, etc.





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