



Our team and our products are directed to different departments of private clinics, public centres, buildings for medical tourism, rehabilitation centres, suggesting in each field appropriate solutions basing on quality and budget needs.



Reliability

Reliability is the base of every business relationship which is developed over time.

Well-known and valuable partners, prestigious and world-wide brands, specialized commercial network and prepared and knowledgeable engineers, every step of the customer relationship is followed and managed basing on this principle, from the negotiation to the installation, to the A/S service.

Our departments follow the customer with professionalism and availability to build strong and continuous relationships with each of our customers.

Service

Basing on our experience we strongly believe that the A/S service is important as well as the commercial activity.

For all our products we can offer a competent and professional A/S service of specialized engineers and technicians, dedicated and specific tools with the complete support from the manufacturers. Every installation, user's instructions, A/S service are managed directly by our technical team and in collaboration with reliable and trained local service centers to guarantee a continuous functionality of the equipment and an optimized support for the customer.



Innovative Equipment

The ability to innovate our job and our offer is the prerogative to stay in the market and become a point of reference for many customers and patients. We believe in the innovation and what it can offer in terms of quality of service, saving costs and improving the business.

Our company is specialized in sale and distributorship of some high technological equipment, which were designed to be included in different departments and in different protocols for specialized centres of specific specialities like rehabilitation, angiology and peripheral vascular departments, CSSD, Operating Rooms and others.



Kinetrac KNX-7000

Independently from the department on which are addressed, the innovation of our equipment is based on the simplification of specialist's work, the reduction of social costs and objective results, through high technology and many years of experience of the manufacturers.



Physiotherapy Equipment – Hanmed 3D Newton



PVD Equipment – Viasonix Falcon

Physiotherapy

Hanmed - the company



Hanmed Co., Ltd is a leading manufacturer of medical devices in South Korea, and specifically specialized in new **high technological rehabilitation equipment**.



With a worldwide network of distributorship and with **CE and FDA Certificates**, Hanmed reached a number of installations in 5 continents, which nowadays can count on more than 200 units for Kinetrac KNX-7000 and 3D Newton.

A developing company which is specialized in the design and production of physiotherapy equipment dedicated to the **rehabilitation and stabilization of spine and back** and based on the traditional techniques of the manual therapy. The owner of the company, who is also the inventor and designer of the equipment, is a specialized Korean physiotherapist who developed the machines basing on his experience and traditional manual therapy techniques and theories as McKenzie, Dr. Cyriax, Dr. J. Mill Cox, Williams, Panjabi and others.



Kinetrac KNX-7000 and **3D Newton** are the main products manufactured by Hanmed. Both machines are independent and can be addressed to rehabilitation centres, but these machines can also be combined to offer therapeutical and stabilization procedure together.

Thanks to installations and reference centres some specific papers regarding Hanmed products were also published in different countries and many other studies for different indications are in process and will be published.

- (1) "TRACTION EXTENDED THERAPY OF PATIENTS WITH LUMBAR DEGENERATIVE DISEASE" – V.A. Zhirmov, D.P. Krestyanov, A.K. Vasilkin – Saint Petersburg, 2014
- (2) "THE SHORT TERM EFFECTS OF THE DECOMPRESSION (KNX-7000) AND TRACTION DEVICE ON PAIN IN PATIENTS WITH CHRONIC LOW BACK PAIN WITH OR WITHOUT RADICULAR BACK PAIN" – So-Hyun Park, Chul-Seoung Kim, Dong-Gyu Lee – Yeungnam, 2011
- (3) "THE EFFECT OF VISUAL BIOFEEDBACK ON EMG ACTIVITY OF TRUNK MUSCLES AND ENDURANCE HOLDING TIME FOR CORRECT POSITION DURING WHOLE-BODY TILT EXERCISE" – Myn-hyeok Kang, Ji-yeon Yoon, Jun-hyeok Yang – Inje, 2011
- (4) "USEFULNESS OF PARAVERTEBRAL MUSCLE FUNCTION USING 3D NEWTON" – Nami Han, Hyung Dong Kim, Dong Seok Lee – Inje, 2011
- (5) "EVALUATION OF EXERCISE EFFECT OF 3D NEWTON" – Yoon Hyuk Kim, Kyunghee, 2013
- (6) "BIOMECHANICAL ANALYSIS OF TWO-STEP TRACTION THERAPY IN THE LUMBAR SPINE" – Won Man Park, Kyungsoo Kim, Yoon Hyuk Kim – Kyunghee, 2014

Kinetrac KNX-7000 is a machine which works with 5 main functions:

- Gravitational Traction
- Massage with Roller
- Lateral and Flex/Extension Stretching
- Cervical
- Target Decompression



The soft and programmable **gravitational traction**, which is calculated from the weight of the person, guarantees a pleasant relaxation of the muscles of the back and/or cervical and, above all, in combination with the **massage with the roller**, it gives to the person the pleasure of the massage along the whole back distending on an ergonomic mattress improving the posture.

“In terms of clinical treatment, slight traction when muscle is relaxed is effective for disc treatment.” – Dr. J. Mill Cox



Inclination from 0° to 25° manageable by software with the real-time indication of Kg of traction calculated on the weight of the person.

Possibility to set the movement of the roller from 0 to 65 steps to massage the whole back or focus in specific sections.

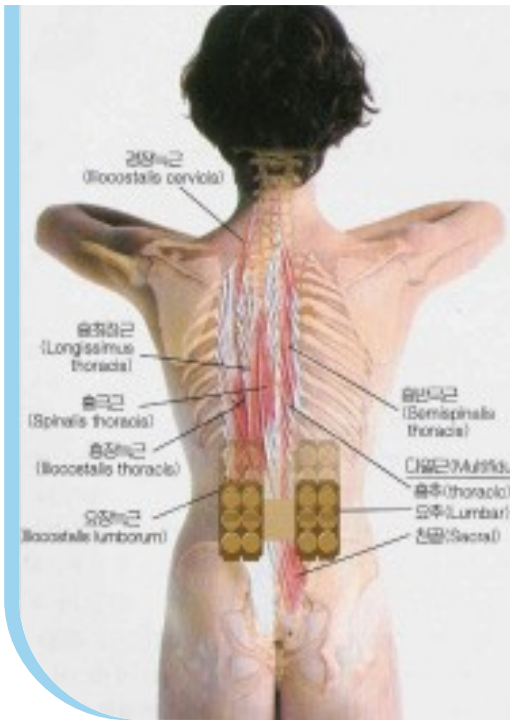
Lateral bending in both and one side at 0°-5°-10°-15° for the hip joint and lumbar spine muscles stretching.

Flex/Extension stretching at 0°-5°-10°-15° to strengthen muscle of the spine and the lower pelvic region.

Posture correction function.

- Hip joint, Lumbar -spine
- Lateral bending 0°-5°-10°-15°
- Both and one side





The roller managed by the software massages the whole back or any selected part and shortened spinal muscles.

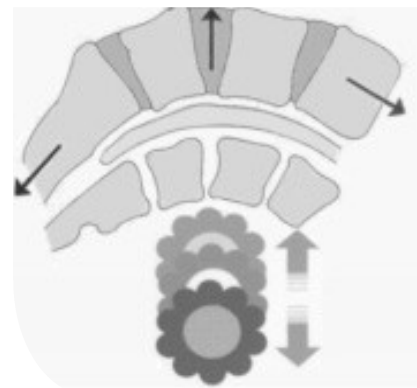
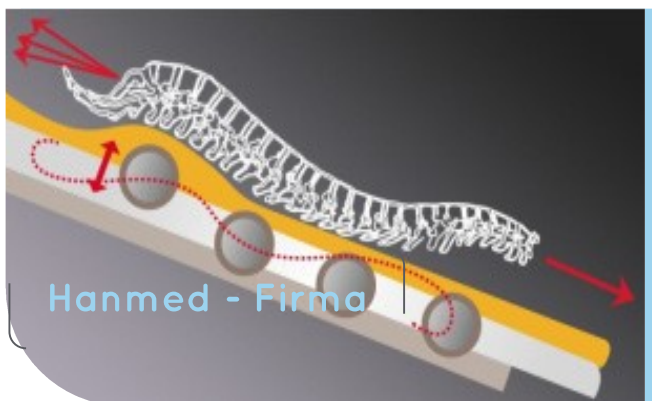
Possibility to set cervical and back protocol.

Function to release the tension in the intervertebral deep muscles, in combination with traction or at flat position.



Disc auto-sensing targeting **decompression system** which can be set by the software or through an automatic detection of the target attached to the body.

Pressing rollers make decompression to the targeted area with traction simultaneously so that the disc space is secured to lead to accurate decompression.



Dedicate accessory for **cervical** treatment with the combination of the functions for a relaxing cervical stretching and massage.

A user-friendly software to manage and set all and create customized protocols basing on the indication, the age and many other parameters evaluated by the specialist or the physiotherapist.

The KNX-7000 has a complete protocol of 15-20 minutes and bases his principles on the relaxation of muscles through soft and pleasant actions managed by the different functions.

For additional information please look at our website www.itmedicalgroup.com

3D Newton is a **multidirectional gravitational training system** which works with the gravity force as resistance in different directions to strengthen deep and surface back and trunk muscles, combining the physical activity with a correction of postural perception.



3D Newton is the ideal exercise device for **lumbopelvic stability** in people with low back pain and to prevent it. Physical and mental activity with an aslope from 0° to 60° and through the **biofeedback**.

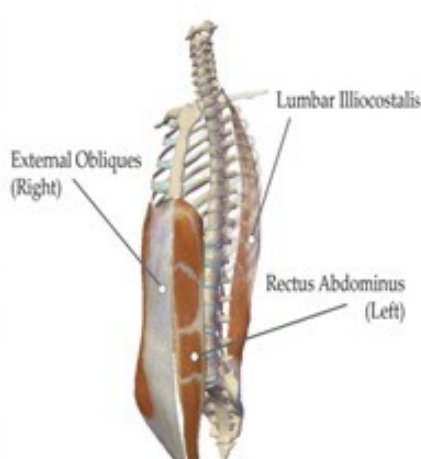
Rotation from 0° to 360° and inclination in 8 different directions to activate different groups of muscles and joints in the back and in the trunk.

Exercises to rivitalize motor nerve, proprioceptive exercises, balance, deep stabilizer muscles activation, muscles strengthen, postural correction and others.

“Active subsystem provides segmental stability and produce movement with stability.” – Gibbons and Comerford

3D Newton gives the possibility, through a precise objective individuation of the level of perception and strenght at the different directions, to make customized training protocol to strength, at the same time, all the muscular groups involved and correct the posture basing on the automatic evaluation of the right position by the person's mind.

Through a completely open and user-friendly software the specialist can create customized protocol and, changing aslope, hold time, direction or other parameters, **train and activate both deep and surface back and trunk muscles**.



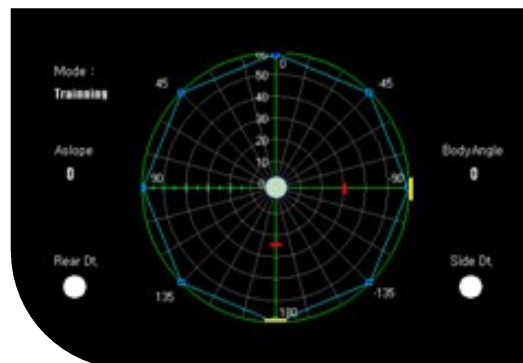
Strengthen in local and global muscles increase the lumbopelvic stability, which is fundamental for the low back pain.

The combination of this physical activity with the biofeedback indicates 3D Newton also for postural correction, prevention of injuries and other indications.

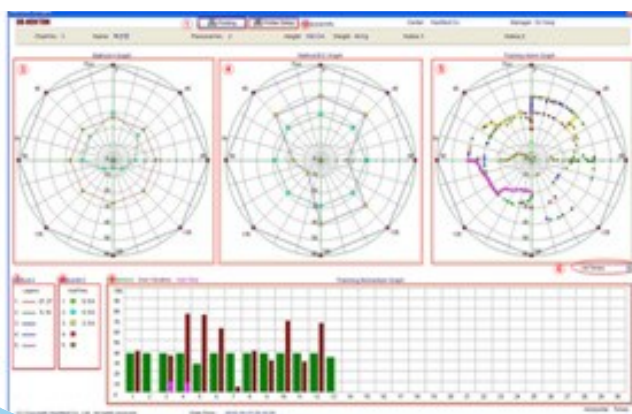
Possibility to make two different tests to evaluate the person before creating the protocol.

Test A for the “sense of balance” to determine at which angle the body of the person becomes unstable in all the 8 directions and **Test B** for the “muscular evaluation” which determines the time after which the body of the person becomes unstable in all the 8 directions.

Self-monitoring of postural alignment through the **visual and audio biofeedback** with the mini-monitor.



Possibility to measure the exercise and obtain objective graph and informations about the tests, training, the protocol and the comparison with history of the person.



3D Newton has a protocol of 10-15 minutes and bases its principles on the combination between multidirectional gravitational physical activity and the correction of postural perception through a visual and audio biofeedback.

The complete history of each person can be managed with the software and printed.

It is also possible to combine the 3D Newton with a **dedicated surface EMG device** to measure the activity of surface muscles from the activation during the inclination to the strengthen activity during rotation and hold time.



- Gravity Force
- Multi direction
- EMG
- Visual Biofeedback

For additional information please look at our website www.itmedicalgroup.com