

## ***KROTON EXPERT bis laparoscopic trainer***

### ***Product description:***

Kroton Expert laparoscopic trainer is a device designed for perfecting laparoscopic skills, intended for surgeons, gynaecologists and urologists as part of their professional training. The set includes the trainer set in a foldable table, a screen on a rack with blockable wheels, an external training camera with a fixing handle, and relevant software.

The trainer mirrors the anatomical shape of the human abdomen subjected to insufflation. 23 ports used for inserting laparoscopic tools are located in a manner corresponding to their location during laparoscopic procedures. This allows to assume correct posture while training and to arrange one's wrists correctly while holding tools.

In order for the training to become fully comprehensive, Kroton has come up with the widest offer of models available in the market. They have been designed in a manner allowing the student to be directed smoothly through a full training cycle of laparoscopic skills – from learning eye-hand coordination to practicing basic medical procedures, with accurately simulated human tissues.

### ***Trainer elements – basic version:***

- **Dome** in the shape mirroring operational conditions, equipped with 23 tool ports, LED lighting, a handle stably fixing individual models and a flap cutting off external light sources;
- **Foldable table** of adjustable height, fixed on a rack equipped with holes to be used for storing laparoscopic tools to achieve more effective organization of work during training;
- **Rack** on 4 blockable wheels facilitating trainer transport, complete with a screen handle;
- **External Full HD laparoscopic training camera** (1920×1080 pixels) with high depth of field, comparable to cameras used in operating theatres, and with the potential for free movement on all planes (X,Y,Z) and work in any of the 23 ports. The training set is the only one to be found in the market to allow additional practice in a team of 2 people, mirroring real-life conditions. An additional gooseneck-type handle ensures stable blocking of the camera for the purposes of individual training;
- **Computer with an “all-in-one” touch screen**
- **Software** allowing to:
  - set up user accounts,
  - measure time,
  - record and replay training sessions within individual accounts,
  - copy the recordings made onto a USB stick
  - take frame-by-frame photos,
  - analyse students' progress based on the training sessions recorded,
  - change camera settings,

***Additional / optional equipment:***

- **Set of laparoscopic tools**, e.g.: holder, dissector, scissors and grasper;
- **Basic training models** from the widest offer available in the market (<https://kroton.info/pl/27-laparoskopowe>) allowing for practice of the simplest skills from the scope of eye-hand coordination ending with advanced medical procedures. The models are characterised by very good imitation of human tissues and, thanks to the usage of the flexi web plus system, unique durability. This is translated into the potential for repeated practice without loss of quality. The material used provides physical feedback as concerns the resistance carried by the tools;
- Possibility of adding other, **advanced models** (simulating an actual human pelvis) and preparing brand new ones, at the customer's individual order;
- **Box for models and laparoscopic tools**;
- **Supervisor's software** allowing:
  - to simultaneously preview multiple training sessions on the supervisor's computer, allowing to monitor 4 to 8 trainers joined by means of LAN;
  - the supervisor to provide indications by means of a cursor appearing on a selected screen, showing a selected spot. The training participant sees the supervisor's cursor on their trainer screen;
  - for the possibility of conducting two-way sound communication with a selected trainer in order to provide instructions for the correct completion of the task. The supervisor uses the microphone on their computer to remotely send sound to a selected trainer and receive sound back from individual trainers.
- **Case.**

***CE compliant product***

**Catalogue No**

TRA002b

**Device dimensions**

200 x 100 x 90 cm

**Delivery time**

6 weeks