

# VETERINARY MEDICINE

CATALOG OF MANUFACTURED PRODUCTS



**SOLUTION**  
SCIENTIFIC AND TECHNICAL CENTER

**000 STC «SOLUTION»**

TIN: 1224006152, CHECKPOINT: 122401001, R/sch: 40702810329040003018

Bank: NIZHNY NOVGOROD BRANCH OF ALFA-BANK JSC

BIC: 042202824, Correspondent account: 30101810200000000824



Office 303, Absalyamova str., 36,  
Kazan, Republic of Tatarstan, 420124,  
Russian Federation



[ntcreshenie.ru](http://ntcreshenie.ru)



8 (843) 562 0004



[info@ntcreshenie.ru](mailto:info@ntcreshenie.ru)

## DEAR PARTNERS!

The scientific and technical center «Solution» develops and produces equipment in the direction of "Veterinary business" for specialized educational institutions.

The range of educational products includes unique developments that allow conducting practical classes in conditions close to real ones.

These training complexes and models are made with high anatomical accuracy using materials that simulate the natural tissue of an animal.

In addition we offer electrified and information stands for conducting classes.

All products for conducting classes are accompanied by passports and methodological recommendations by qualified specialists in the field of veterinary medicine.

Our company STC «Solution» offers its customers the development and manufacture of simulators of any complexity according to an individual project. If you didn't find the right equipment in the company's assortment, our specialists will develop a unique product for you directly for your goals and objectives.

We hope for fruitful cooperation and we ask you to inform us about your interest.

*With best regards,  
Director of STC «Solution»*

**P. A. KASHIN**



**STC «SOLUTION» offers cooperation in the production  
and supply of SPECIALIZED EDUCATIONAL EQUIPMENT**

## **SIMULATOR FOR PRACTICING CPR SKILLS IN DOGS**

It is an anatomically correct model of a life-size dog. The simulator is designed for cardiopulmonary resuscitation, including tracheal intubation, pleural puncture procedures for hydro - and pneumothorax, auscultation of the heart and lungs, and intravenous procedures. The model is made of a material that imitates the coat.



### **Anatomical landmarks needed during CPR:**

- edges;
- reliable oral cavity with all organs;
- mobile limbs and chest.

The simulator is controlled from a multi-function controller, in the corresponding sections of which the performance indicators are displayed:

- compression and decompression depth;
- auscultation of the heart;
- ventilator volume;
- auscultation of the lungs.

Correct ventilation of the lungs is accompanied by a tour of the chest, that makes it possible to evaluate actions when is performing basic cardiopulmonary resuscitation.

Highly sensitive sensors that are integrated into anatomically correct auscultation points allow you to reproduce a particular sound when you touch them correctly with a stethoscope.

### **Heart tones:**

- diastolic murmur;
- pendulum-like rhythm;
- the first heart tone is weakened;
- gallop rhythm;
- pericardial friction noise;
- atrial fibrillation.
- ventricular septal defect;
- normal heart tones;
- first heart tone split;
- physiological third heart tone;
- extrasystole;

### **Breathing sounds:**

- wet wheezing;
- rough breathing noises;
- small bubbly wet wheezes;
- normal vesicular respiration;
- shortness of breath;
- pleural friction noise.
- rough wet noises;
- crepitation;
- normal bronchial respiration;
- abnormal bronchial respiration;
- whistling wheezes;

The chest cavity is drained according to all the rules used in veterinary practice.



**Dimensions:** 1270x500x250 mm



**Weight:** 11 kg

### **Equipment:**

- dog model;
- replacement insert for intravenous injection;
- 20 ml medical disposable injection syringe with needle (2 pcs.)
- dry blood concentrate (5 g.);
- stand with artificial blood container;
- control unit;
- endotracheal tube;
- passport of product;
- user manual.

**B1030**

## SIMULATOR FOR PRACTICING CPR SKILLS IN CATS

It is a cat model and is designed for cardiopulmonary resuscitation, including tracheal intubation, intravenous procedures, splints and bandages. The model is made of a material that imitates the coat.

Correct ventilation of the lungs is accompanied by a touch of the chest, that makes it possible to evaluate actions when is performing basic cardiopulmonary resuscitation. The model has disposable removable and reusable washable parts. The simulator has sections that are designed for practicing the skills of intravenous procedures.



**Dimensions:** 560x250x125 mm



**Weight:** 2,5 kg

### Equipment:

- cat model;
- replaceable lungs;
- passport of product;
- user manual.

**B1001**

## CATTLE DELIVERY SIMULATOR

This simulator is designed for conducting practical classes on calving a cow with students of the veterinary medicine course.

The simulator is made in the form of the back of the body of a cow on a scale of 1:1, inside which a mock-up of the fetus is placed. A removable section is provided in the simulator to monitor the process of carrying out measures for maternity care and placing the fetus in the simulator. The design of the layout of the fetus allows you to work out the adoption of calving with various options for the presentation of the fetus. The simulator is made with high anatomical accuracy using materials that simulates the living tissue of an animal. For convenient placement in the audience, the complex is installed on a mobile platform.



**Dimensions:** 1400x900x1700 mm



**Weight:** 50 kg

### Equipment:

- cattle delivery simulator;
- calf simulator;
- lubricant;
- gloves (1 pair);
- passport of product.

**B1002**

## SIMULATOR «RECTAL EXAMINATION AND ARTIFICIAL INSEMINATION OF CATTLE»

This simulator is designed to practice the skills of rectal examination and artificial insemination of cattle by students of veterinary educational institutions. The simulator is a full-scale model of the rear part of the body of a cow with imitation of internal organs: the rectum and reproductive tract, as well as pelvic bones. Various stages of fetal development are determined when is conducting a palpatory examination. For a more realistic procedure, the model reproduces the uterine artery, that pulsates during the examination. There is an observation window in the side of the simulator to control the correctness of the event. For convenient placement in the audience, the complex is installed on a mobile platform.

**Dimensions:** 1400x900x1700 mm**Weight:** 50 kg

### Equipment:

- simulator «Rectal examination and artificial insemination of cattle»;
- uterus simulator;
- gloves (1 pair);
- sexual organ simulator;
- lubricant;
- passport of product .

**B1003**

## TRAINING MODULE «PRACTICING SURGICAL SKILLS IN VETERINARY MEDICINE»

This training complex is made in the form of a base platform with modules that are located on it, with materials that are imitating live animal tissues for practicing surgical operations that are fixed, and a cell for tools. The set of tools includes: scalpel, clamp, surgical scissors, needle, tweezers.

With the help of the training complex, it is possible to practice the following medical operations: making incisions, sewing fabrics of different densities, tying knots, suturing.

Also, you can purchase a set of consumables for the training module «Practicing surgical skills in veterinary medicine» (art: B1010)

**Dimensions:** 720x510x125 mm**Weight:** 3 kg

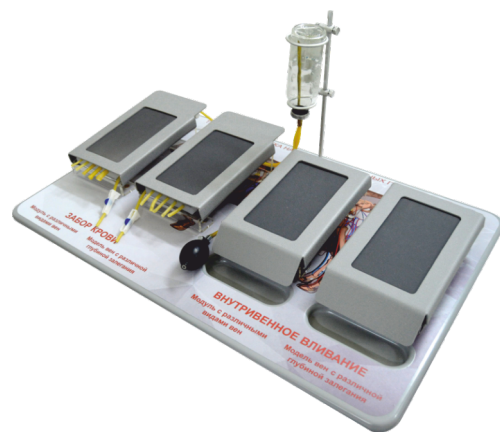
### Equipment:

- training module «Practicing surgical skills in veterinary medicine»;
- clip;
- surgical needle (1 set);
- surgical scissors;
- passport of product.
- scalpel;
- tweezers;

# B1004

## SIMULATOR «WORKING OUT THE SKILLS OF INTRAVENOUS PROCEDURES»

This simulator is made in the form of a platform with mock-ups of the skin and subcutaneous layer of the animal that are placed on it. It is made of materials that imitate living tissue. The simulator allows you to practice the skills of intravenous injections and blood collection from various types of vessels that are in different degrees of availability. A liquid is used to simulate blood to control the procedures.



Dimensions: 800x500x350 mm



Weight: 3 kg

### Equipment:

- simulator «Training skills of intravenous procedures»;
- 20 ml syringe;
- 10 ml syringe;
- passport of product.

# B1005

## INTERACTIVE VETERINARIAN

This training complex is made in the form of a workplace with a computer, training modules for injections and blood sampling, a set of simulators of medical preparations. In the training mode, various scenarios describe the symptoms of the animal's disease. They are presented on the computer display. The user's task is intended to diagnose and inject the drugs selected from the kit. The user registers the choice of drugs by scanning the barcode corresponding to the drug using the scanner built into the simulator. The simulator software gives a result about the correctness of the medical procedure on the base of the information.



Dimensions: 700x1600x1200 mm



Weight: 40 kg

### Equipment:

- desktop;
- barcode scanner;
- training module for intravenous injections (1 set);
- training module for subcutaneous and intramuscular injections (1 set);
- passport of product.
- stand (2 pcs.);
- 10 ml syringe;
- monoblock;
- 20 ml syringe;

# B1006

## GYM COMPLEX «INJURIES AND INJURIES»

This simulator is a 1:1 scale model of the cow's thigh, that simulates various injuries, lesions and diseases of the animal's skin. For a more visual and anatomically realistic representation of injuries, the simulator provides a simulated blood supply system under pressure due to the built-in compressor. The simulator set includes special inserts-simulators that allow you to practice performing simple surgical operations and postoperative procedures.



Dimensions: 450x1400x300 mm



Weight: 15 kg

### Equipment:

- training complex «Injuries and injuries»;
- 220V power adapter;
- wounds (1 set);
- passport of product.

# B1007

## CATTLE UDDER PATHOLOGY SIMULATOR

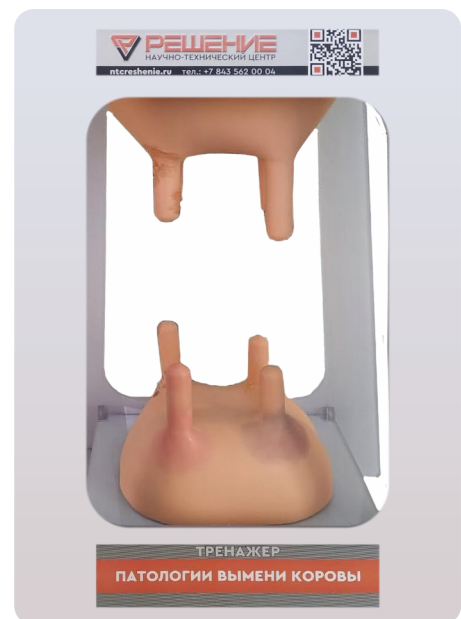
This simulator is made in the form of a rack with models of a cow's udder that is placed on it with various pathological changes. In the manufacture of the simulator, materials that imitate the living tissues of the animal are used. When conducting practical classes with students, the layouts can be quickly replaced depending on the topic of the lesson. The simulator comes with a module for storing models of udders with various types of damage.



Dimensions: 370x710x560 mm



Weight: 20 kg



### Equipment:

- cattle udder pathology simulator;
- information panel;
- replacement inserts (1 set);
- passport of product.

**B1008**

## LAYOUT «EQUIPMENT AND METHODS OF FIXING CATTLE»

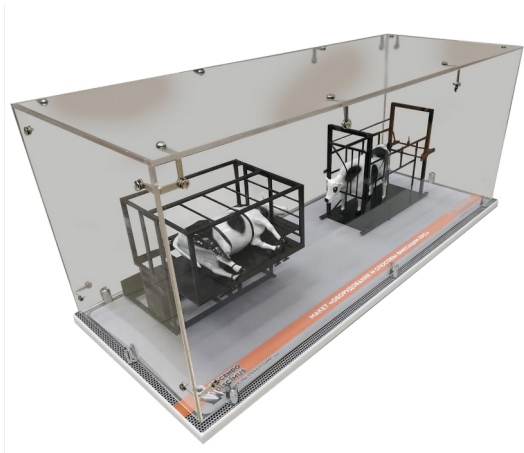
This layout «Equipment and methods of fixing cattle» is a large-scale visualization of real equipment, devices and methods that are used for fixing cattle for the purpose of zootechnical procedures (hoof care, blood collection, insemination, branding). On the layout, animals (cattle) fixed in machines for carrying out zootechnical procedures in a standing and recumbent position that are displayed at the appropriate scale in compliance with all proportions.

The layout is mounted on a base with an information field and a protective transparent hood (dome) that is designed to protect against dust and mechanical damage.

The information field contains the basic rules for fixing cattle.

The layout is made with a high degree of realism and detail in compliance with all proportions and scales, the color scheme of all elements of the layout is as close as possible to the original.

The model is a visual training tool for studying equipment, devices and methods of fixing cattle during zootechnical procedures, and can also be used as an exhibition element of a presentation complex.



**Dimensions:** 1000x400x400 mm



**Weight:** 20 kg

### Equipment:

- layout;
- base with information field;
- protective cap (dome);
- passport of product.

**B1009**

## TRAINING MODULE FOR PRACTICING SKILLS OF SUBCUTANEOUS AND INTRAMUSCULAR INJECTIONS

This training module is a platform that is made of a strong polymer material with a fixation system and a fragment that is installed on it that simulates parts of the animal's body. It is intended for practicing the skills of drug administration (subcutaneously and intramuscularly). It is intended for training students in the direction of «Veterinary business».

Replaceable unit, with the possibility of replacing individual elements.



**Dimensions:** 185x155x75 mm



**Weight:** 0,5 kg

### Equipment:

- training module;
- injection syringe;
- passport of product.



**B1010**

## A SET OF CONSUMABLES FOR THE TRAINING MODULE «WORKING OUT SURGICAL SKILLS IN VETERINARY MEDICINE»

This tissue set is designed to practice basic surgical skills.



**Dimensions:** 310x235x100 mm



**Weight:** 2,4 kg



### Equipment:

- fabric for suturing with the texture of the skin (4 pcs.);
- double-layer model of the intestine (2 pcs.);
- manikin fabric for sewing and tying knots;
- manikin tissue for laparotomy access and suturing;
- model of a parenchymal organ
- passport of product.

**B1032**

## TRAINING COMPLEX FOR PRACTICING THE SKILLS OF CASTRATION OF BULLS

The gym complex is an information stand with a model of the bull's scrotum that is placed on it. The stand displays background information about castration methods, indications and contraindications to it. The scrotum model allows you to practice the skills of surgical and percutaneous castration methods. The material of the model is close to the real values in its physical properties.

The simulator is designed for training students of educational institutions of veterinary profile.



**Dimensions:** 1000x1400x150 mm



**Weight:** 3 kg

### Equipment:

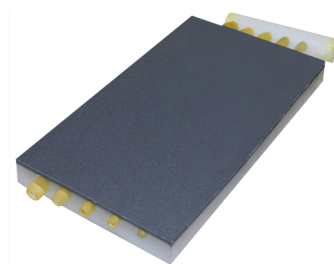
- information stand;
- scrotum model;
- testicles (2 pcs.);
- spermatic cords (2 pcs.);
- passport of product;
- user manual;
- methodological recommendations.

**B1031**

## REPLACEABLE MODULE FOR THE SIMULATOR OF INTRAVENOUS PROCEDURES

It is a set of inserts that includes realistic replaceable veins, areas of the skin and subcutaneous fat. It's designed to be installed in the simulator to practice the skills of intravenous procedures. The simulator allows you to practice the skills of intravenous injections and blood collection from various types of vessels that are in various degrees of accessibility.

The simulator is designed for training students of educational institutions of veterinary profile.



**Weight: 0,5 kg**

### Equipment:

- removable insert;
- passport of product.

**B1034**

## SIMULATOR OF THE LEFT THORACIC LIMB OF THE DOG FOR PRACTICING THE SKILLS OF INTRAVENOUS AND INTRAMUSCULAR INJECTIONS

This simulator is designed as a model of the left forelimb of the dog with an imitation of the wool cover. It is intended for practicing the technique of intravenous injections, setting peripheral venous catheters. The realistic feeling of «failure» is very realistic when the needle is inserted. It reproduces the manipulation of intravenous intervention. It is equipped with a container for artificial blood.

The simulator is designed for training students of educational institutions of veterinary profile.



**Dimensions: 500x150x310 mm**



**Weight: 1,2 kg**

### Equipment:

- model of the dog's left limb;
- artificial blood container;
- passport of product;
- functional basis;
- dry blood concentrate (5 g);
- user manual.

**B1035**

## TRAINING COMPLEX FOR PRACTICING THE SKILLS OF MILKING CATTLE

This training complex is designed as a model of a cow's udder with a capacity for cyclic operation of the simulator, mounted on a specialized rack. This equipment is designed for working out the technique of milking cattle with the help of an automatic device. The elastic materials of the udder and teat models are made with the characteristics that are met the requirements of machine milking. The valves are designed for a certain pressure generated by the milking machine.

The simulator is designed for training students of educational institutions of veterinary profile.



**Dimensions:** 500x500x1200 mm



**Weight:** 50 kg

### Equipment:

- training complex for practicing the skills of milking cattle;
- passport of product;
- user manual.

**B1036**

## SIMULATOR FOR PRACTICING THE SKILLS OF FIXING DOGS

It is an anatomically correct model of a life-size dog. The simulator is designed to practice the skills of fixing dogs before performing various manipulations. The materials that are used in the production of the model are close to the natural values in their physical properties.

Depending on the tasks set, the simulator can be fixed in various positions:

- spinal cord;
- abdominal;
- side view.

The simulator is designed for training students of educational institutions of veterinary profile.



**Dimensions:** 1270x500x250 mm



**Weight:** 11 kg

### Equipment:

- dog model;
- passport of product;
- user manual.

**B1037**

## TRAINING COMPLEX FOR PRACTICING THE SKILLS OF CLEANING THE HOOVES OF CATTLE

This equipment is a complex that consists of a special fixing machine with a full-scale model of the rear part of the cow's body placed in it. The materials of the replaceable hoof model are close to the natural values in their physical properties.

The subject is asked to mechanically fix the hoof in a comfortable position and carry out all the stages of its cleaning:

- clearing the inner hoof of the pelvic limb;
- clearing the outer hoof of the pelvic limb;
- clearing the inter-hoof gap and forming the shape.

The pads and pads that are part of the complex allow you to work out the skills of hoof care and form the persistent skills necessary for a veterinarian.

Models of hooves that are equipped with equipment include various pathologies:

- phlegmon of the hoof corolla;
- dermatitis;
- laminitis;
- erosion;
- ulcers;
- necrosis and caries of the hooves.



**Dimensions:** 1400x900x1700 mm



**Weight:** 320 kg

### Equipment:

- cow model;
- fixing machine;
- passport of product;
- user manual.

**B1038**

## SUTURE FABRIC WITH SKIN TEXTURE

Fabric for suture exercises with the texture of the skin is a module that is made of two-component silicone for suturing. The material from which the fabric is made, according to its physical properties, is close to the natural values.



**Dimensions:** 140x95x3 mm



**Weight:** 0,15 kg

### Equipment:

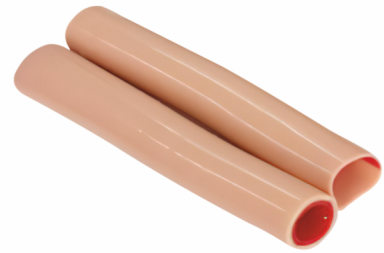
- suture cloth – (5 pcs.);
- passport of product.

**B1039**

## TWO-LAYER MODEL OF THE GUT

This two-layer model of the intestine is a silicone module that is designed for practicing the skills of endoscopic and open suture, applying manual and hardware anastomosis end-to-end, end-to-side.

The simulator is designed for training students of educational institutions of veterinary profile.



**Dimensions:** 180x25x25 mm



**Weight:** 0,3 kg

### Equipment:

- two-layer model of the gut;
- passport of product.

**B1040**

## TISSUE FOR APPLYING AND REMOVING SURGICAL NODES

Fabric for applying and removing surgical stitches with imitation of cuts, lacerations is a relief silicone plate and it allows you to practice the skills of applying various types of stitches to realistic tissue structures of different shapes and sizes.

The simulator is designed for training students of educational institutions of veterinary profile.



**Dimensions:** 190x160x20 mm



**Weight:** 0,25 kg

### Equipment:

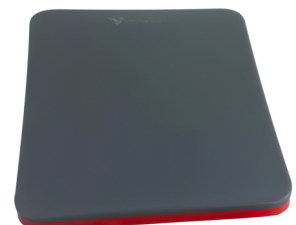
- dummy fabric for applying and removing surgical nodes;
- passport of product.

**B1041**

## MODEL OF THE ANTERIOR ABDOMINAL WALL

This multi-layer fabric is a module that is made of two-component silicone for suturing and it simulates the anterior abdominal wall. The material from which the fabric is made, according to its physical properties, is close to the natural values

The simulator is designed for training students of educational institutions of veterinary profile.



**Dimensions:** 350x250x25 mm



**Weight:** 1,5 kg

### Equipment:

- model of the anterior abdominal wall;
- passport of product.

**B1042**

## SIMULATOR FOR PRACTICING DENTAL SKILLS IN DOGS

This dental simulator is a model of the dog's head, that is mounted on a universal articulated support. The model can be fixed in all positions corresponding to the educational process and to the system of attachment to the table. The cover of the model is made of a material that resembles a woolen cover. The detailed anatomy of the oral cavity allows you to practice your dental skills for removing tartar and removing teeth as realistically as possible.

The simulator is designed for training students of educational institutions of veterinary profile.



**Dimensions:** 320x250x250 mm



**Weight:** 3,5 kg

### Equipment:

- dog head model;
- passport of product;
- user manual.

**B1033**

## MODEL OF THE HIND LEG OF A DOG WITH A BROKEN FEMUR

This simulator is designed as a model of the pelvic limb of a dog with a reproduced femoral fracture. It is intended for working out the technique of surgical reposition of bone fragments. The simulator reproduces the detailed anatomy of the dog's hind leg, including the coat, skin and muscles, which allows you to go through all the stages of surgery in the correct sequence.

The simulator is designed for training students of educational institutions of veterinary profile.



**Dimensions:** 500x260x110 mm



**Weight:** 2 kg

### Equipment:

- model of the hind leg of a dog with a broken femur;
- imitation of the femur (5 pcs.);
- passport of product;
- user manual.



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8 800 201 32 31