



HEMORRHAGE CONTROL ARM TRAINER P102

HEMORRHAGE CONTROL ARM TRAINER P102

> CONTENTS

- Product Introduction 3
- Delivery Content 3
- Prepare Simulated Blood 4
- Blood Pump System Setting 4
- Scenario N°1: Single Bleeding Wound 4
- Scenario N°2: Simultaneous 3 Wounds Scenario 4
- Scenario N°3: Simultaneous Two Bleeding Wounds 5
- Hand Blood Pump and Wound Cover 5
- How to Make the Arm Wearable 5
- Cleaning and Care 6
- Technical Data 6
- Order List 6
- Contact Information 6

HEMORRHAGE CONTROL ARM TRAINER P102

▶ PRODUCT INTRODUCTION

Trainer for hemorrhage control on upper extremity with realistic wound and bleeding simulation. Hemorrhage is the loss of blood components from the cardiovascular system. When the blood loss leads to inadequate tissue oxygenation in the whole body or parts of it, a hemorrhagic shock can occur. For upper extremity hemorrhage, retrospective studies have shown that extremity tourniquets reduce bleeding with a low rate of complications. To be better prepared to save lives in an emergency, hemorrhage control and applying tourniquets have to be trained very well. Improve pre-hospital patient care training with instructional and hands-on training of hemorrhage control with wound packing and tourniquet application. This simulator is especially suitable for Tactical Combat Casualty Care (TCCC) and Civilian Casualty Care training.

The affordable Hemorrhage Control Arm Trainer P102 by 3B Scientific is the perfect solution for realistic training of bleeding control and management of traumatic injuries on the arm. Trainees will gain confidence in managing difficult bleeding using tourniquets and wound packing.

The arm is equipped with three different wound patterns:

- Deep laceration or stab wound (5 cm)
- Large caliber gunshot wound through and through (GSW)
- Junctional wound in the shoulder area

The trainer functions as a stand-alone simulator but can also be worn by a volunteer for added realism and in field training using the carry strap of the bag. The bleeding can be simulated realistically including direct feedback (stop of bleeding) when the trainee successfully manages the hemorrhage.

Train the following hemorrhage control procedures:

- Tourniquet application
- Wound packing, including junctional wound
- XSTAT® (hemostatic device) application

▶ DELIVERY CONTENT



1. Hemorrhage Control Arm Trainer P102
2. 3 wound covers in 3B SKINlike™ silicone
3. 2 litre canister
4. Hand blood pump system

5. Canister blood pump system cap
6. Multiple bleeding connector
7. Blood powder (100 grams)
8. Carry bag with strap to transform the arm into a wearable trainer

Tip: High-quality 3B SKINlike™ silicone has been used for the realistic representation of skin and tissue. Be careful when using sharp objects and long fingernails during wound packing.

HEMORRHAGE CONTROL ARM TRAINER P102

> PREPARE SIMULATED BLOOD

1. Add two spoon (20 grams) of powder to 2L of water
2. Stir until there are no powder lumps/residues and the solution is complete
3. Fill the canister with the simulated blood
4. Close the canister. The blood is now ready for use with the hemorrhage simulator



Note:

By adjusting the mixing ratio of water and powder, you can fine-tune the color and viscosity to meet your specific needs.

> BLOOD PUMP SYSTEM SETTING

1. Replace the canister cap with the blood pump system cap
2. Secure the larger tube of the blood pump by simply pressing the tube through the blue valve
3. Insert the smaller tube in the remaining hole of the cap to enable blood return
4. Close the black valve of the hand blood pump system tube, if you are not starting the training right away

> N°1: SINGLE BLEEDING WOUND

1. Identify which wound you want to train on, and which bleeding port you need to connect to
2. Connect the hand blood pump system tube coupling to the selected wound bleeding port
3. Open the black valve to start the training



Note:

To avoid any confusion, the three wound bleeding ports are numbered from 1 to 3. The port N°1 will be the port for the most proximal wound which is the junctional wound.



> N°2: SIMULTANEOUS 3 WOUNDS SCENARIO

1. Connect the three bleeding ports to the multiple bleeding connector coupling
2. Connect the last extremity of the multiple bleeding connector to the hand blood pump system tube coupling
3. Open the black valve to start the training



HEMORRHAGE CONTROL ARM TRAINER P102

> N°3: SIMULTANEOUS TWO BLEEDING WOUNDS

1. Identify which two wounds you want to train on, and which Arm bleeding ports you need to connect to
2. Use the clip and block the bleeding from the wound which is not needed
3. Connect the hand blood pump system tube coupling to the selected wound bleeding ports
4. Open the black valve to start the training



> HAND BLOOD PUMP AND WOUND COVER



Important:

With the hand blood pump you can build up a simulated high pressure, which can be higher than the normal blood pressure. **Therefore the pump should not be operated with more than 3 fingers.** This ensures that the required blood pressure is displayed in the arm blood vessel and during tourniquet application training.

Tip: Wound Cover Handling

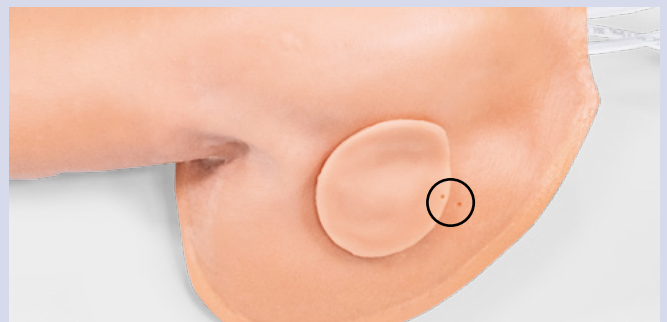
For more realism and to avoid any confusion during a training scenario with one single bleeding wound, do not forget to install the dedicated wound cover on the two other wounds. Those wound covers will enable flexibility in scenarios.

- The two wound cover sleeves are for the laceration wound on the forearm and the gun shoot wound on the upper arm
- The other wound cover is for the junctional wound in the shoulder area



To install the junctional wound cover more easily make sure the small dot mark on the cover and on the arm lined up as you can see on the picture.

After the utilization of the arm all the wound covers must be removed for cleaning and storage of the model.



HEMORRHAGE CONTROL ARM TRAINER P102

> HOW TO MAKE THE ARM WEARABLE

For more realism during a scenario the carry bag strap can be used to wear the arm on a simulated casualty.

1. Remove the strap from the carry bag
2. Attach the strap to the dedicated hook on the arm
3. Place the strap of simulator around the upper body of the simulated casualty
4. Tighten the strap to secure the arm



> CLEANING AND CARE

After the training the complete arm blood vessel system should be flushed with clean water.

1. The canister can be filled with water
2. The multiple bleeding connector coupling should be connected to the 3 arm blood ports
3. Clean water should be pumped into the system until no trace of simulated blood can be detected flowing out of the wound

To make sure there is no remaining water into the blood vessels, the tube of the blood pump system is pulled out of the canister and some air is pumped into the system until no more water flows out of the wounds.

> TECHNICAL DATA

Weight: 3 kg
Dimension trainer: 93 cm
Operating temperature: 0°C à +30°C (32°F à 86°F)
Storage temperature: -10°C à +40°C (14°F à 104°F)

> ORDER LIST

Consumables	Item No.
Blood powder (set of 10)	1024091
Blood powder	1023954