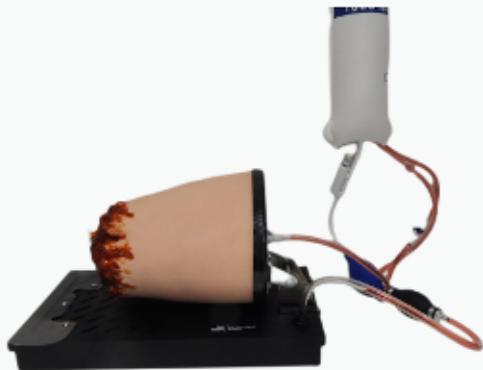




TruTourniquet

User Manual



A realistic solution for haemorrhage control training

TruTourniquet has been designed to practise massive haemorrhage control in lower extremity trauma.

The model is based on a right thigh and provides realistic bleeding control with visual feedback on user performance.

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Product specifications

Product Code: TTQ1000

TruTourniquet weight: Approx. 5kg

TruTourniquet dimensions: 43 x 22 x 25cm

Full shipment weight: Approx. 7kg

Full shipment dimensions: 46 x 26 x 33cm

Package contents

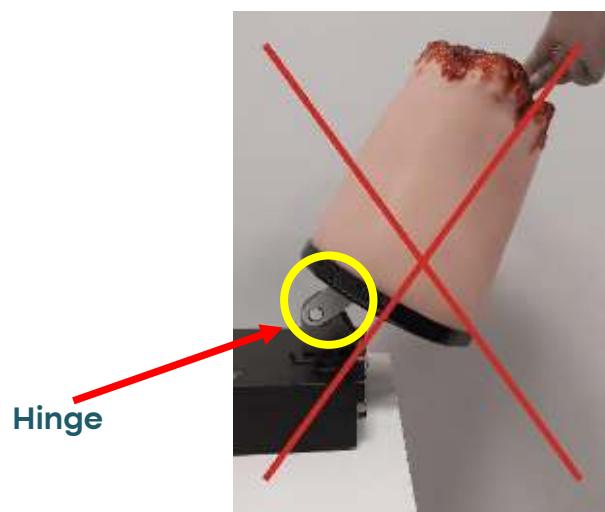
- 1 TruTourniquet unit with base clips, pre-assembled blood bag and pressure infusor (TTQ1000)
- 1 TruTourniquet carrier case
- 1 spare hinge pin with split ring
- 3 spare splash shield attachment pins
- Concentrated blood 250ml (CVB250)

Recommended equipment

- Combat Application Tourniquet (CAT)

Initial Set-Up

1. Gently remove the model from the carrier case and place on a suitable flat surface. Ensure to securely lift the model from under the base when removing from the carrier case – do not lift from the stump. Do not place the hinge of the product near the table/surface edge. Please also be careful not to lift the stump over the safe range (shown below). The stump weight may cause instability which can cause damage if the product falls.

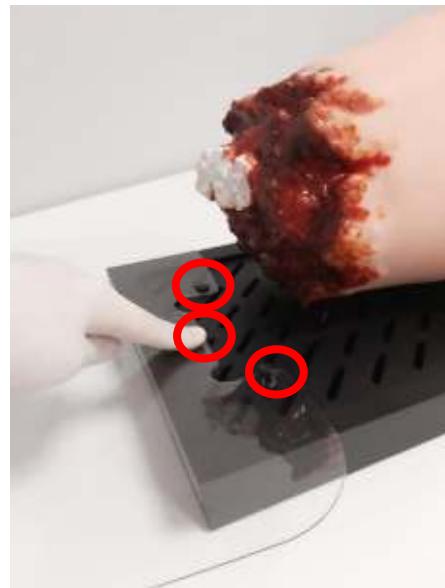


2. Mix the concentrated blood provided with approx. 2L of water as instructed on the label or at your own discretion to obtain desired blood colour. Distilled water can be used as a substitute for blood, if desired.
3. Fill the container with 2L of the prepared fluid. We recommend pouring the fluid through the holes of the lid for your convenience. The minimum capacity for the model to operate optimally is 1.75L. Maximum container capacity is 3L.

Pour fluid
through the
holes of
the base lid



4. Push the 3 attachment pins through the holes of the splash shield and align with the base lid. Press the pins into the pre-defined holes on the base lid to secure. The shield should be bent slightly to allow efficient liquid drainage.



Fluid Insertion

1. Place the blood bag into the sleeve of the reusable pressure infusor and hang it on the hook marked in red on the picture below. Please ensure there is minimum air in the blood bag as possible.



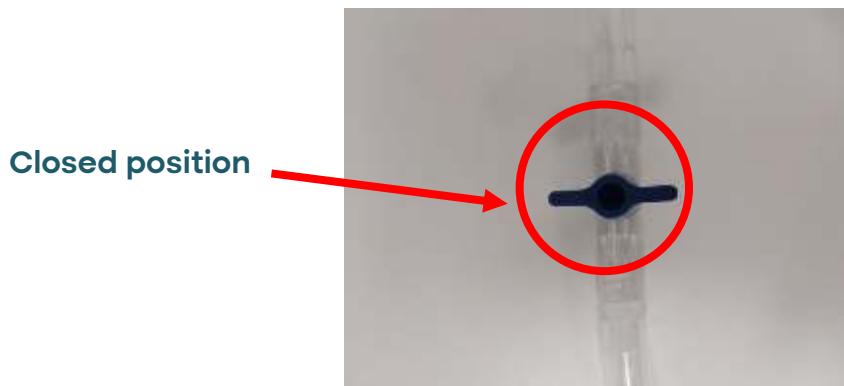
2. Insert the quick connector to the panel mount on the end of the stump. Make sure the panel mount (in red circle below) is pressed in securely to the product before inserting the quick connector, otherwise you will be not able to push the connector into the panel mount. You should hear an audible "click" sound when both elements are connected properly.



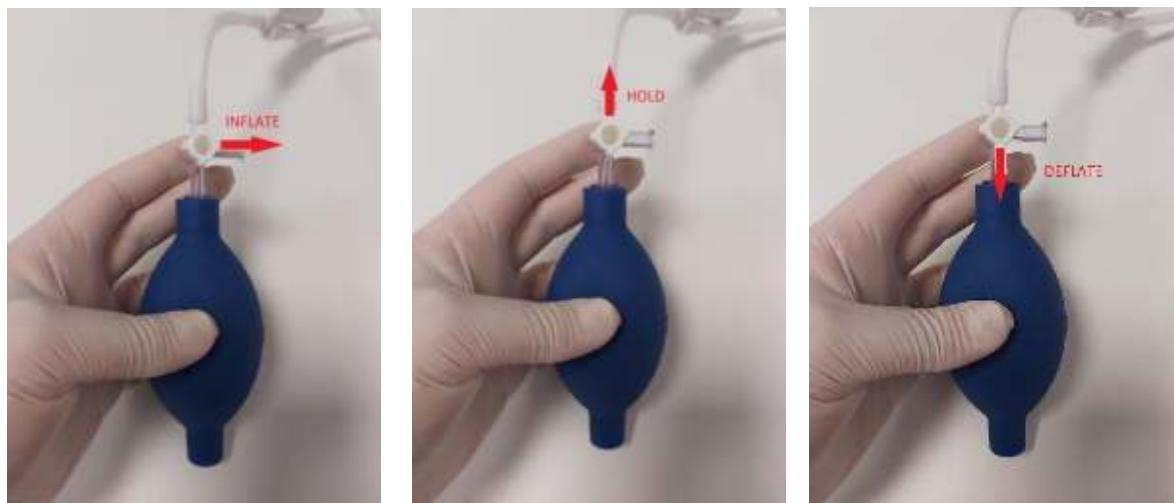
3. Insert the tube with the hand pump attached to the inlet in the base lid. Push the tube in as far as possible and then gently pull the tube to check if the connection is secure.



4. To ensure effective fluid flow, we recommend the pressure infusor is elevated/hooked to a drip stand (please note this is not provided with the product). If the product is used without a drip stand or similar, please ensure the blood bag outlets are always covered with fluid after filling the bag to avoid air in the blood supply system.
5. Turn the flow control switch to the "closed" position.



6. Pump the blood from the base to the blood bag using the hand pump. The blood bag capacity is 1L. Press the hand pump approx. 20 times for optimal pressure (wait for the pump to fully re-fill with fluid in between pumps). Do not press the hand pump more than 20 times to avoid over-pressurizing the system as this may cause damage which may void the warranty.
7. Turn the switch of the pressure infusor to the "inflate" position. Switch positions are shown below:



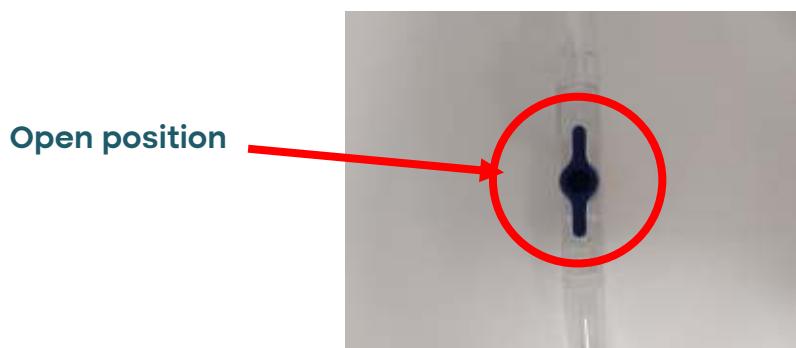
8. Pressurize the infusor using the hand pump until the pressure reaches the "green" range on the indicator: 250mmHg (33kPa) – 300mmHg (40kPa). Please allow some time between pumps for the indicator to level. Do not pressurize the infusor over the safe range as it may cause the damage to the bag.



9. Turn the switch of the pressure infusor to the "hold" position. The product is now ready to use.
10. *Please note:* During product use when bleeding is simulated, it is recommended to continually pump the artificial blood from the base back to the blood bag to maintain the appropriate pressure and constant blood flow.

Tourniquet application

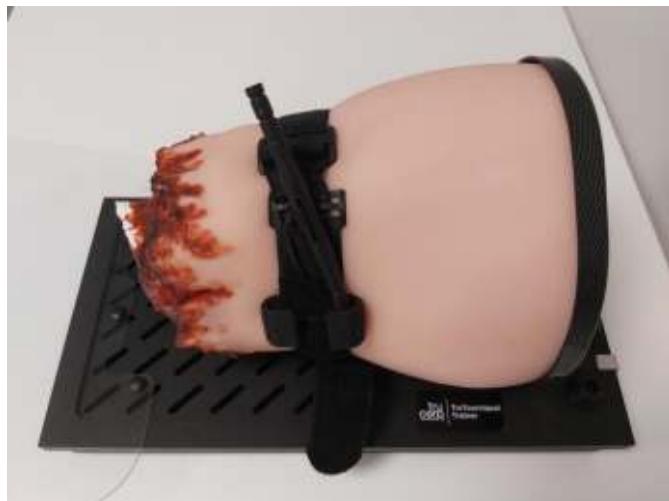
1. Turn the flow control switch to the "open" position. Make sure it is fully open for maximum blood flow.



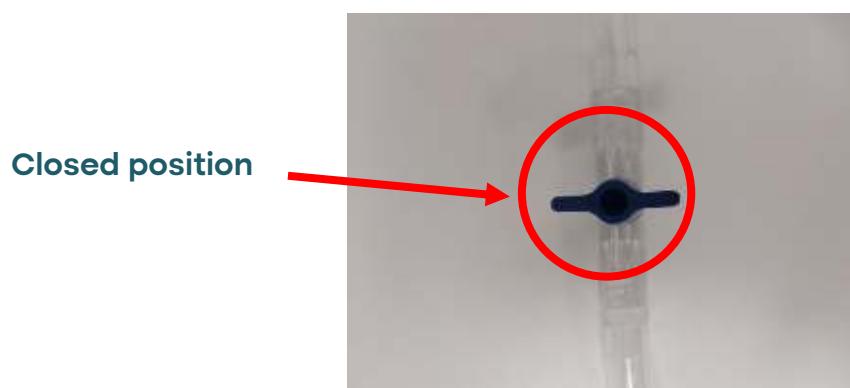
2. Lift the stump up and place the tourniquet around it, at least 2 inches above the wound.
3. Pull the tourniquet band tightly and fasten it (please use tourniquet as per supplier instructions).



4. Twist the windlass rod until the blood flow has fully stopped. Secure the rod inside the clip. Additionally, secure with a strap.
5. If the bleeding does not stop fully, you can place another tourniquet above the first one or apply another twist.



6. Turn the flow control switch to the "closed" position and remove the tourniquet.



7. If blood was not continually pumped from the base to the blood bag during use, the pressure value shown by the pressure indicator may be lower than previous. To ensure consistency of training, pump the blood back until the pressure reaches the "green" range again.

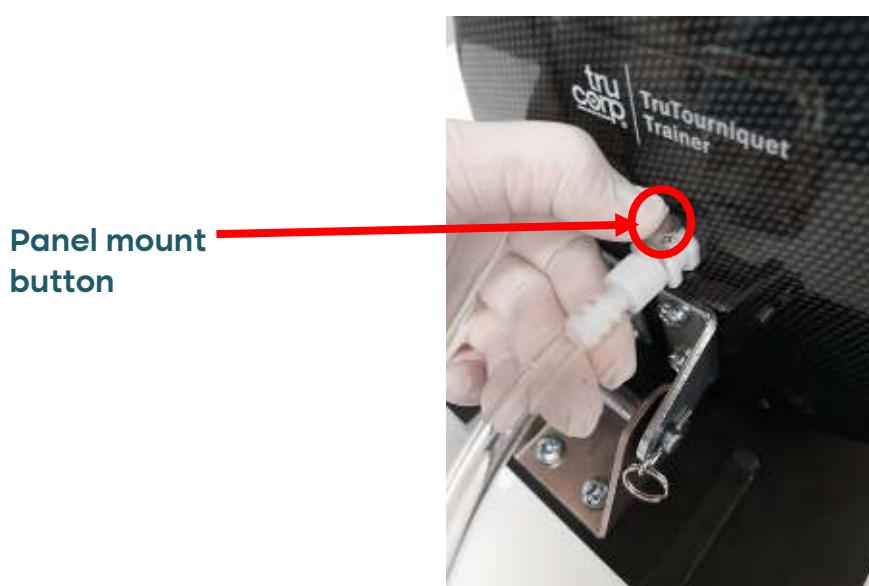
Fluid removal

Please note: It is important to remove all fluid before storage or transportation.

1. Deflate the pressure infusion bag by turning the switch to the "deflate" position.



2. Remove the blood bag from the pressure infusion bag, turn it upside down and detach the bag outlets holder and the barbed connectors. Pour the liquid out of the bag and allow it to dry.
3. Disconnect the quick connector by pushing the panel mount button.



4. Disconnect the tube from the base lid inlet, firstly by pressing inwards on the connector and then pulling the tube outwards.



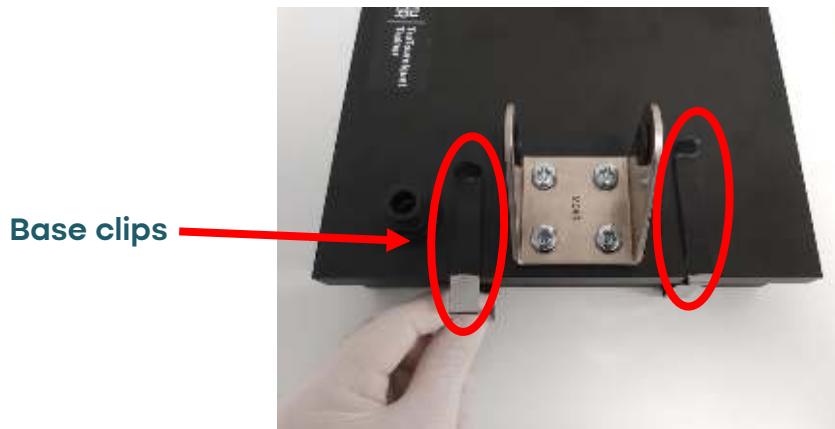
5. Dry off excess fluid on the splash shield and then remove the pins which secure it to the lid of the base. Please ensure to stabilise the base lid.
6. Remove the split ring that secures the hinge pin in place.



7. Remove the hinge pin and carefully remove the stump.



8. Remove the 2 black base clips securing the base and the lid together.



9. Lift the base lid and pour the liquid out of the container and clean afterwards.
10. Place the lid back on the container and secure again with the same 2 black base clips. Make sure the curved part of the clip is placed on the lid and facing up.
11. Put the stump back on the lid and align the lid hinge with the inner sides of stump hinge.
12. Insert the hinge pin through the aligned holes to secure into place. Please be careful of the rubber washers on either side. The clip should be inserted with the straight part to ensure smooth entry.



13. There may be a small volume of fluid remaining in the tubes and stump. To remove it, both tube lines need to be disconnected from the blood bag first by detaching barbed connectors.
14. To remove fluid from the tube that re-pumps the fluid back to the bag, disconnect the tube from the lid inlet and use the black hand-pump to pump the remaining fluid through the tubing.
15. To remove fluid from the stump and the tube connected to it, insert the quick connector at the end of tube to the stump endplate panel mount. Turn the flow control switch to the "open" position. Use a 60ml syringe with a luer lock end to pump the remaining fluid through the stump and tubing.
16. Place the product and all parts in the carrier case for secure storage.

Stump removal

If desired, tourniquet training can be carried out without the stump being attached to the base. This may be beneficial for training outdoors or to enhance realism of a scenario, but please note the fluid will not be re-cycled during use without the base. The fluid will need to be re-filled after each use to maintain the desired fluid volumes.

Please carefully follow the steps given in the previous section (Fluid Removal) for guidance on this.

Care and maintenance

Store the product in clean, dry conditions away from heat and direct sunlight; avoid contact with metals, solvents, oils or greases and strong detergents. When the product is not in use please store in the black carrier case provided.

Clean the product with alcohol wipes or other alcohol based cleaner and gently wipe with a cloth. Do not scrub as it may cause the paint to wear. Make sure to completely dry the product before storing to prevent mold and fungal built-up.

Mild detergents or enzymatic cleaning agents may be used on the product in accordance with the manufacturer's instructions and at the proper dilution. The detergent must not contain skin or mucous membrane irritants. We recommend using Milton sterilising fluid to remove any bacteria within the tubes.

Please do not use any of the following when cleaning the product:

- Germicides, disinfectants, or chemical agents such as glutaraldehyde (e.g. Cidex®),
- Ethylene oxide, phenol-based cleaners or iodine-containing cleaners

In response to the recent COVID-19 pandemic, we recommend this additional step to ensure the product is fully sanitised:

Use alcohol spray (minimum 75%) and wipe off. Repeat this for 3-4 times to ensure to kill the virus completely.

Warranty

TruCorp warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of 1-year from the date of delivery. This ensures that our customers receive maximum coverage on each product. If the unit should malfunction it must be returned to the factory for evaluation. Upon examination by TruCorp, if the unit is found to be defective it will be repaired or replaced at no charge.

TruCorp will pay for the freight/delivery and the actual parts needed free of charge if any part of the product fails within the 1-year period.

However, these warranties are VOID, if; the unit shows evidence of having been tampered with or shows evidence of having been damaged by excessive heat, the use of sharp instruments, misapplication, misuse or other operating conditions outside of TruCorp's control. Components which wear or are damaged by misuse are not warranted and will be charged for if repair has been approved. Warranty is void if third party products are seen to have damaged or caused failure of the TruCorp models.

Please direct all warranty and repair inquiries to:



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