

# Instructions



## Boazul roll-on cuff

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### 1. Introduction

Boazul roll on cuff is a complete system for keeping and maintaining a bloodless field in arms and legs when performing operation in bloodless fields.

Before you use the roll on cuffs make sure that you have received every item that you have ordered and read through the operation instruction before using the equipment.

### 2. Content

The roll on cuff equipment consists of:

- 5 roll on cuffs in different sizes
- Hand pump
- Vacuum pump
- Hose with needle
- Wedge in rubber or stainless steel
- Measuring Tape

### 3. Safety instructions

The Boazul roll on cuffs are delivered non sterile and should be sterilized. How to sterilize and what to consider can be read under the chapter sterilization.

**Note!** Do not sterilize hand pump and vacuum pump

After sterilization the product must be cooled down properly before use. The material retains heat so even if the surface feels cold you should be sure that the product is properly cooled down. This is extremely important in bloodless field operations when the skin is not cooled down by the blood circulation. We recommend that you sterilize and let the equipment cool down for at least 4 hours at room temperature (200 C) before use in operations. Always do a control check on the equipment before use.

The roll on cuff should not be exposed to strong solvents, sharps objects or strong UV-light as this may affect the material characteristics and product function.

**Note!** If the patient is a diabetic and has been treated with cortisone be sure that the patient's skin is in good condition.

We recommend that the roll on cuff is exchanged every 2 years.

#### 4. Getting started

1. Measure the circumference with the measuring tape on the patient's extremity where the roll on cuff is planned to be placed.

Choose an adequate size of roll on cuff. We recommend that you choose the smaller one in borderline cases.

2. Connect together the hand pump and hose, please note that the hose should be sterile while the hand pump should not be sterilized.

3. Put the entire needle in the valve of the roll on cuff and pump it up to 120 mm HG.

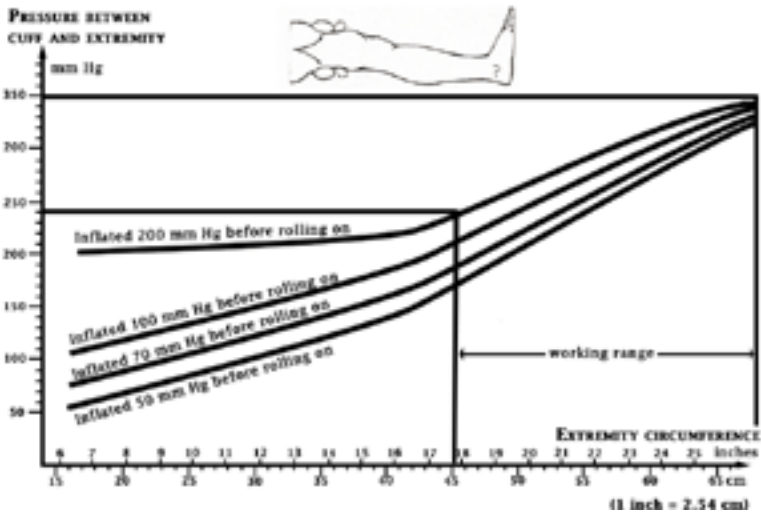
4. Take out the needle

5. Roll the cuff on the patient's extremity. When rolling the cuff on the blood flow is suppressed. The blood flow stops where the cuff is placed.

6. If the roll on cuff does not stay at desired position it can be fixed with a wedge.
7. The roll on cuff puts a pressure between 200 to 320 mm Hg against the extremity and does not exceed 350 mm Hg.

The roll on cuffs shape and design has an inbuilt security against high pressure see Figure 1.

Figure 1. Pressure diagram for larger cuff when rolling it on with different pressure and the pressure against the extremity at working area 45- 70 cm.



8. After the operation and bandaging is finished you can roll the cuff off the extremity.
9. Clean contaminated cuffs and wedges with disinfectant or wash them with proved and tested cleaning agents for rubber material. The product can be washed in a dishwasher with a highest temperature of 90°. Do not clean the roll on cuff with mineral based oil. Further information is contained in the following chapter on cleaning and disinfecting.

10. Sterilize the cuffs in autoclaving with steam at a maximum temperature of 134° C. Further information is contained in chapter on sterilization.

## 5. Cleaning

Cleaning of the roll on cuff can be made by cleaning solvents approved for rubber material. Hard brushes and other cleanings method which can cause damage to the surface should never be used. Any cleaning agent residue should be flushed off carefully with running water. The cuff can be washed in a dishwasher at a maximum highest temperature of 90° C.



**Do not clean the cuffs** with mineral based oil cleaning agents. Avoid using cleaning agents that contain ozone, because the ozone breaks down the material much faster than the products normal lifetime.

**We recommend dishwashing rather than hand washing.**

## 6. Disinfecting

Disinfection can be done with commercially available disinfecting agents that are approved and tested for rubber material. The concentration and method laid down by the manufacturer must be strictly followed. Do not use any disinfectant that contains phenol or a composition similar to phenol.

## 7. Sterilisation

### 7.1 Sterilisation



1. Empty all the air from the cuff by deflating the cuff with the vacuum pump. It is essential to empty all the air from the cuff.



**The cuff might burst in the autoclave during the vacuum phase if there is air left in it. If the cuff should burst it contains 1ml of silicon oil.**

2. Autoclave the cuff in temperature steam at highest 134° C.  
We recommend sterilizing the cuff with steam.  
Other recommended sterilization methods: Sterrad® and NU-CIDEX® (Johnson & Johnson)

**Warning!** Do not sterilize the roll on cuff with Ethylene Oxide.  
Do not sterilize the roll on cuff in dry heat sterilizers.

3. The hose and needle are sterilized in the same way as the cuffs whilst the measuring tapes must be sterilized with the surfaces kept apart (i.e. with gauze bandage) to avoid loss of the color.

Please note that frequent autoclaving does accelerate the natural ageing process and reduce the life time of the product.



**Very Important:** The roll on cuffs and wedges must be properly cooled off before they are used on patient.

The material used in the roll on cuff system retains heat so even if the surface feels safe to touch it is necessary to ensure that all heat has been transmitted away before use. This is especially important in the bloodless field because in this situation the skin is not cooled by blood circulation. Therefore, it is recommended that sterilization is carried out at least 4 hours before use and the equipment allowed to cool at room temperature (200 C). Do not attempt to reduce the cooling off time by e.g. dipping the wedge in sterile water. A final check must always be made immediately prior to use to be absolutely certain that the wedges and cuffs have been completely cooled.

## 8. Packing and stock keeping

### 8.1 Packing

We recommend that the product is packed in an air tight plastic bag. The products must not be exposed to UV-light and temperatures outside the interval 10-25 degrees Celsius.

## 8.2 Stock keeping

Boazul roll on cuffs are delivered in a black plastic bag in order to prevent exposure to UV-light. The roll on cuff will have a longer lifetime if stored in a sealed black plastic bag. Sterilization in autoclave with steam does not deteriorate the rubber as much as UV-light and ozone.

We recommend that the product is stored in a dark environment.

## 9. Liability

In order to secure the products function the product must be used in accordance with these operations instructions.

**Note!** We recommend that the roll on cuff is exchanged every 2 years.

The information in this instruction is not cogent and does not deprive the user from responsibility to check the equipment before use.

Fabrications warranty does not cover product fair wear and tear and damage that has been caused by misuse. We reserve the right to make technical changes after product development.

Artikelnummer	Benämning
2632	Rullmanschett 26-32 cm
3040	Rullmanschett 30-40 cm
3650	Rullmanschett 36-50 cm
4570	Rullmanschett 45-70 cm
6090	Rullmanschett 60-90 cm
9001	Specialkil
9003	Slang med nippel
9004	Måttband
9005	Handpump med manometer
9006	Kil
9007	Vakumpump

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