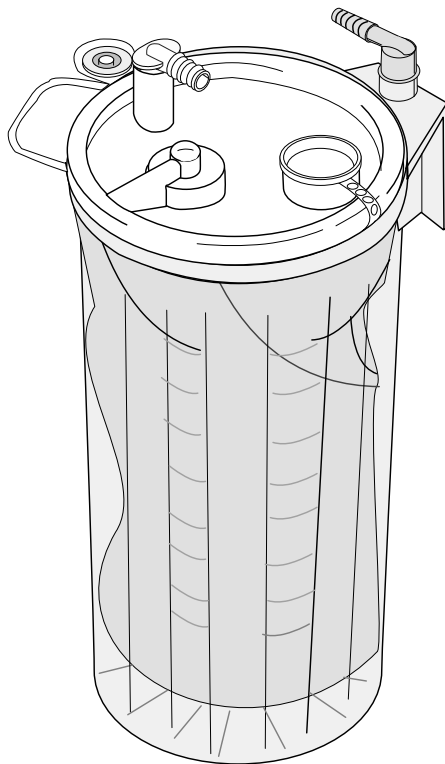


serres

EN

# SERRES SUCTION BAG SYSTEM MANUAL



# SERRES SUCTION BAG SYSTEM MANUAL

The Serres Suction Bag System is used during medical procedures to collect liquids and secretions for disposal from patients. **Please read this manual carefully before installing the product and beginning the procedure.** The Serres suction bag system may only be installed and used by persons familiar with the product and used for the purpose stated by the manufacturer. Usage contrary to instructions is forbidden. The manufacturer cannot be held liable if the product is used in a manner and/or for purposes other than those described in these instructions. The system is not approved for use in the procedures where suctioned liquid is injected back to the patient. The Suction Bag is not approved for sample or specimen collection purposes but only for collection and disposal. Before using the product, always ensure that all of the system's parts are intact. Use of faulty products is strictly forbidden.

## Parts of the system

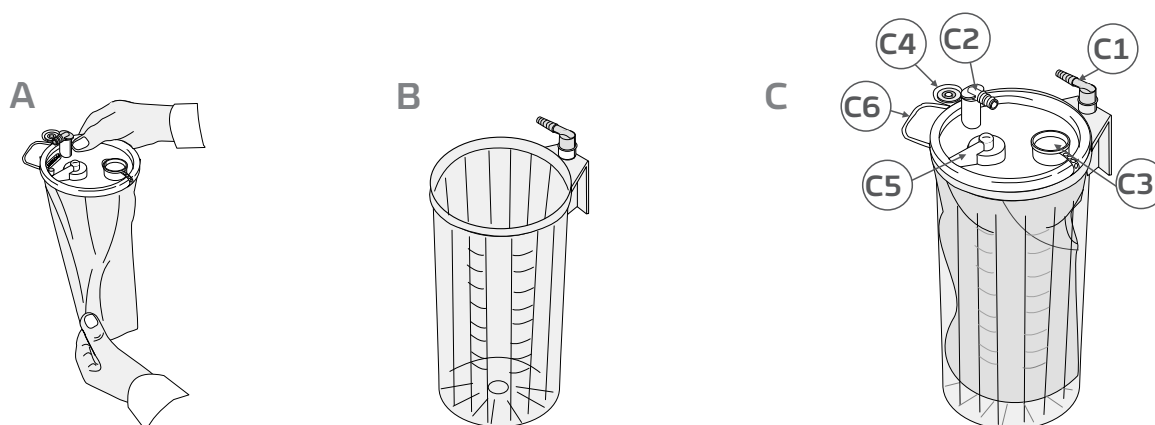
The basic parts of the system include the suction bag **Figure A** (disposable), the suction canister and the grey, right-angled connector of the canister **Figure B** (re-usable). The volume of the suction bags and canisters is either 1,000 ml, 2,000 ml or 3,000 ml, depending on the product model. Parts of the suction bag system have been introduced in more detail in **Figure C**.

- C1 Angled connector (grey, attached to the suction canister)
- C2 Patient connector (white, attached to the suction bag)
- C3 Serial port (used when bags are connected in series)
- C4 Patient connection plug
- C5 Overflow protection
- C6 Lifting handle

There are different versions of the suction bag and their installation can differ from each other. Ensure that you have read the instructions related to the correct version. Introduced in a separate manual entitled Accessories, there are a range of accessories available for the system.

**NOTE!** ONLY ORIGINAL SERRES PARTS AND ACCESSORIES MAY BE USED IN THE SUCTION BAG SYSTEM.

**NOTE!** ALL SUCTION BAGS AND PRODUCTS THAT HAVE BEEN MARKED WITH THE  SYMBOL ARE DISPOSABLE AND RE-USING THEM IS STRICTLY FORBIDDEN.



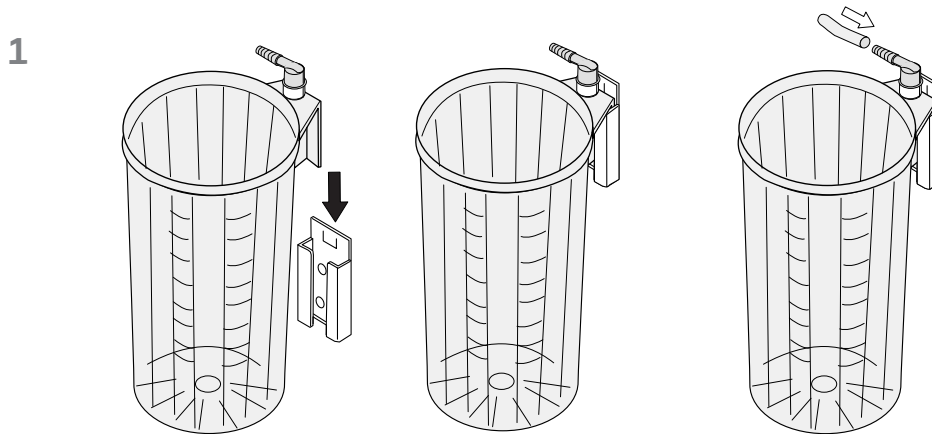
## Installation of the system

### 1. Installing the suction canister

Place the suction canister in a bracket in an upright position **Figure 1**.

There are a range of brackets available for installing the suction canister (rail, wall, table and bed models).

The suction canister can also be mounted to the canister holder in the movable Serres trolley. Connect the tubing from the vacuum source to the grey, angled connector at the rear of the canister.



### 2. Installing a single suction bag

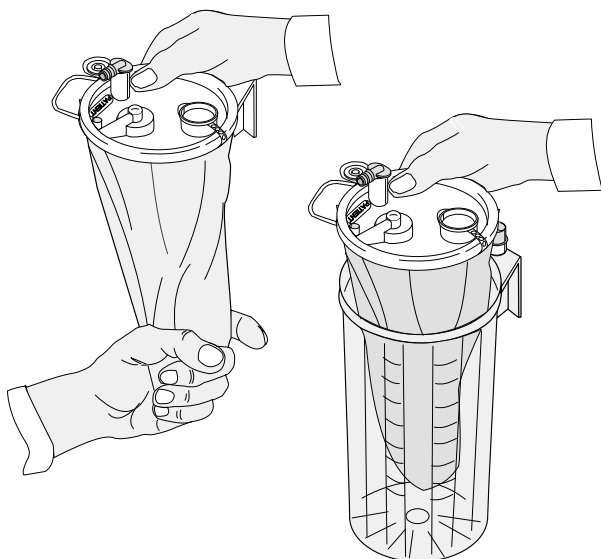
2.1 Versions which have not been wrapped and taped Unfold the suction bag and place it into the suction canister. **Figure 2.1**

2.2 Versions which have been wrapped and taped. Place the bag as it is in the suction canister **Figure 2.2** or follow the instructions in section 2.1.

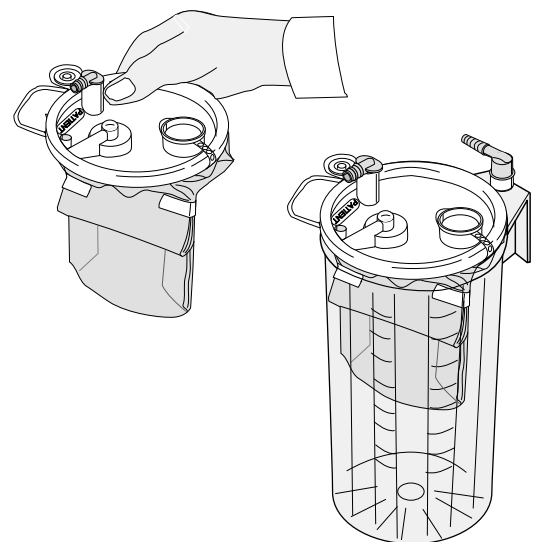
**NOTE!** THE SUCTION BAG HAS TO BE INSTALLED INTO A SUCTION CANISTER OF EQUAL SIZE.

**NOTE!** ENSURE THAT THE SUCTION BAG FILM DOES NOT BECOME LODGED BETWEEN THE CANISTER AND THE LID.

#### 2.1



#### 2.2

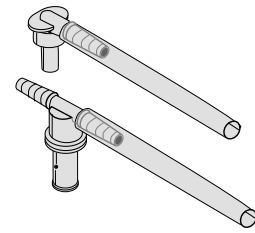


### 3. Installing several suction bags (connection in series)

When large volumes of liquid are suctioned, Serres suction bags can be connected in series with serial tubes, vacuum tubes and T-connectors.

**Figure 3.1.**

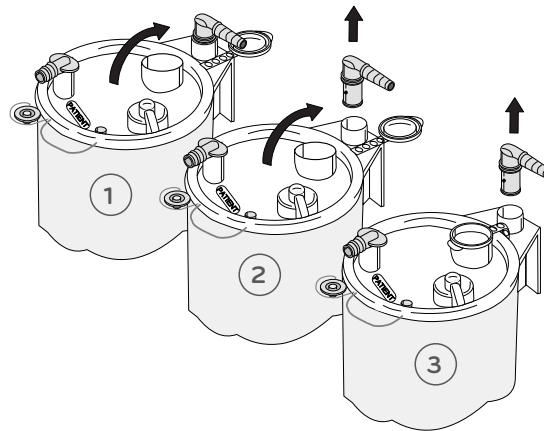
3.1



- Place the bags to suction canisters as in section 2 and attach the bags to the canisters by pressing the middle of the lid. If the Dual Filter Suction bag is used it must be placed to the last canister (3).

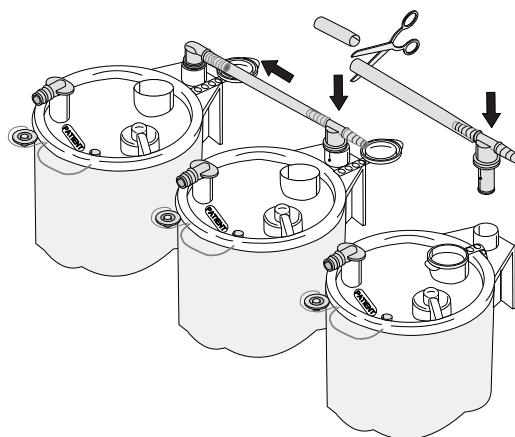
- Remove the grey, angled connector (canisters 2 and 3) and open the suction bags' serial ports (bags 1 and 2) as shown in **Figure 3.2.**

3.2



- Connect the suction canisters to each other with separate T-connectors and tubes in accordance with **Figure 3.3.** Use scissors to cut the tube to a suitable length.

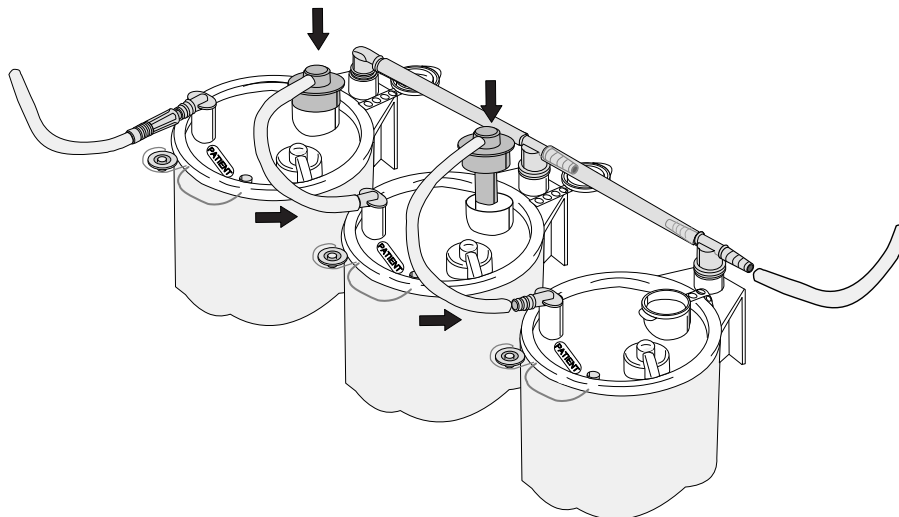
3.3



**NOTE!** THE T-CONNECTOR AND VACUUM TUBE ARE RE-USABLE AND DO NOT NEED TO BE REPLACED BETWEEN OPERATIONS.

- Connect the serial tubes carefully through the opened serial port opening in the suction bag to the next suction bag's patient connector. **Figure 3.4**  
For best performance, you are recommended to use a vacuum shift for the serial connections of the largest amounts of liquid.

### 3.4



### 4. Unfolding the suction bag

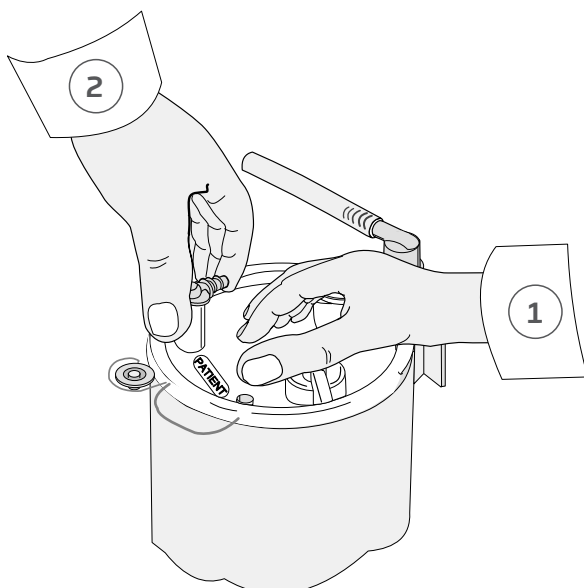
Suction bag is installed using vacuum **Figure 4**. Turn the vacuum source on and, at the same time, press the middle of the lid lightly (part 1). After the suction bag has straightened, close the patient connector using your finger (part 2) so that the lid tightens to the suction canister.

**NOTE!** BEFORE USE, ENSURE THAT THE VACUUM HAS BEEN CREATED AND THE SUCTION BAG IS FULLY INFLATED.

Connect the patient tube to the patient connector. The system is ready for use.

The vacuum source can be turned off if the procedure is not immediately started.

### 4



## Using the suction bag system

When the suction is on, the liquid flows inside the suction bag. The suction bag can be used throughout the procedure or until the suction bag is full. When the suction bag is full, overflow protection cuts the suction and prevents the flow of liquid to the suction source. The scale on the suction canister displays the volume of the suctioned liquid.

The accuracy of the scale is +/- 100ml (only when the vacuum is on).

Persons using the Serres Suction Bag System should take appropriate safety precautions to protect themselves from coming into contact with patient liquids or secretions.

## Use of suction bags equipped with solidifying agent (Pre-gelled)

Some suction bag versions include a solidifying agent **Figure 5** that solidifies the suctioned liquid. Use pre-gelled suction bags similar to regular suction bags. When measuring the volume of the suctioned liquid, take note of the fact that the scale on the suction canister includes the amount of the solidifying agent contained in the suction bag.

1l pre-gelled suction bag: 25 ml

2l pre-gelled suction bag: 50 ml

3l pre-gelled suction bag: 85 ml

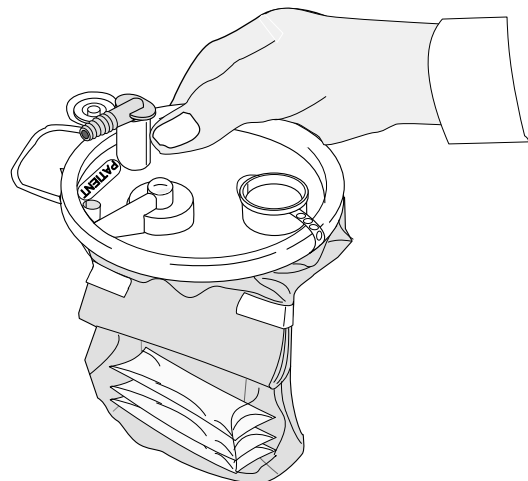
In addition, note the normal tolerance of the suction canister scale.

If you use separate sachets or a solidifying agent sold as separate powder, use 25 g / 35 ml of substance per one litre of liquid. Add solidifier into the suction bag through the serial port and then close the port.

Note the warnings in the solidifying agent packet.

Gently squeezing the bag will help to mix the solidifier and the liquids promoting solidification.

5



**NOTE!** IF THE PRE-GELLED SUCTION BAGS ARE USED IN SERIAL CONNECTIONS, THE VACUUM SOURCE MUST BE ON FOR THE DURATION OF THE WHOLE PROCEDURE.

**NOTE!** SUCTION BAGS CONTAINING SOLIDIFYING AGENT MUST NOT BE EMPTIED INTO A SEWER OR IN SERRES NEMO EMPTYING DEVICE.

**WARNING:** DO NOT EAT SOLIDIFIER. AVOID INHALATION AND EYE CONTACT. SOLIDIFYING AGENT IS SLIPPERY WHEN WET AND MIGHT CAUSE SLIP HAZARD IF ACCIDENTALLY SPILLED ON THE FLOOR.

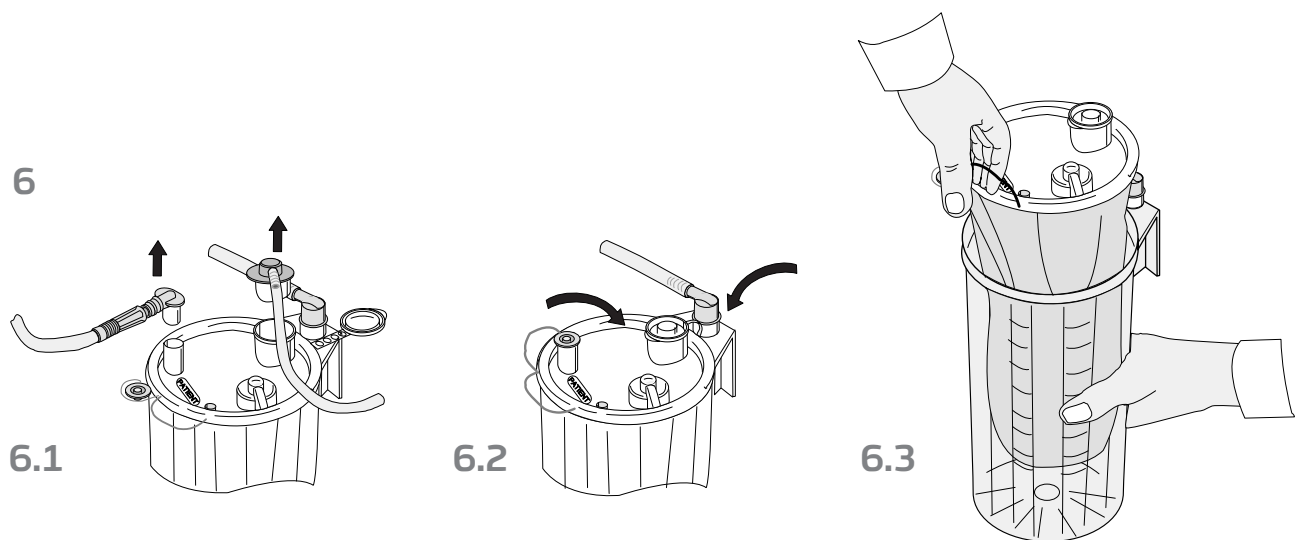
## After the procedure

After the suctioning procedure, disconnect the patient tube and the patient connector (or alternatively straight connector or twin connector) and serial tube, if used **Figure 6.1**. Close the connection with the patient connector plug provided on the lid of the suction bag. In serial connections, also plug the serial port **Figure 6.2**. Finally, turn off the vacuum source.

Lift the suction bag from the handle **Figure 6.3**.

**NOTE!** DO NOT TURN OFF THE VACUUM SOURCE BEFORE YOU HAVE CLOSED THE SUCTION BAG.

**NOTE!** DO NOT DISCARD OR UNNECESSARILY REMOVE THE REUSABLE SUCTION CANISTER, GRAY ANGLED CONNECTOR OR SILICONE VACUUM TUBING.



# Accessories

(availability must be checked from the reseller)

## Serres Collection Cup

Installed in a suction bag, a collection cup is used to collect particles from the suctioned liquid.

Disconnect the white angle connector of the suction bag and attach the collection cup to the patient connector. Connect the patient tube to the angle connector of the cup lid. During the procedure, the particles are collected into the basket of the cup.

After the particle collection, detach the patient tube and angle connector and close the connection (smaller plug on the cup lid).

Detach the collection cup from the suction bag and turn the cup upside down.

Specimen jars are recommended to use to retain or transport specimens.

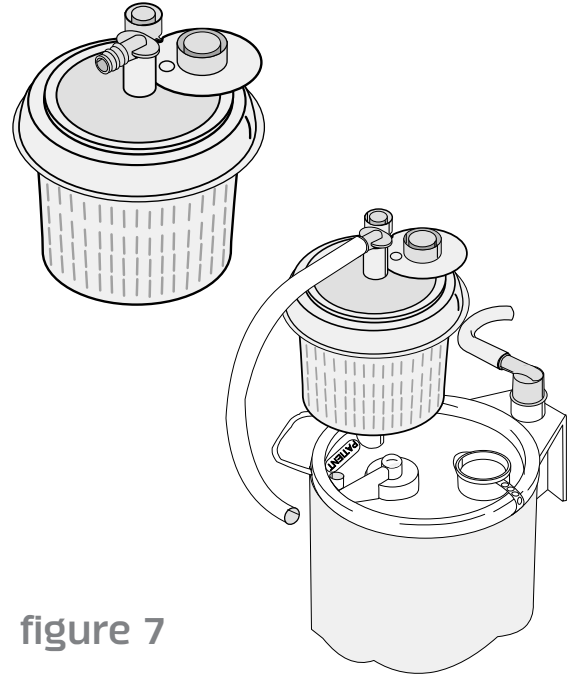


figure 7

## Serres measuring cup

CE 2460

A measuring cup is used with suction bags when the precise volume of the suctioned liquid is needed. The accuracy of the measuring cup is  $\pm 5$  ml up to 50 ml and then  $\pm 10$  ml. Hang the measuring cup in an upright position on the lid of a suction bag and connect the tubes according to Figure 8.

Connect the patient tube to the angle connector in the middle of the measuring cup.

During the procedure, the cup can be emptied into the suction bag without disconnecting the vacuum. To do this, the cup is lifted from the bracket and tilted.

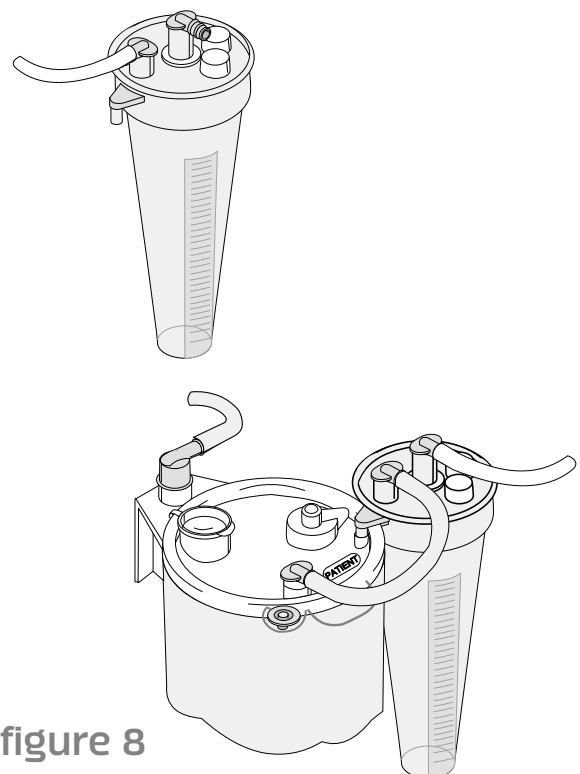


figure 8



### Serres Splash-Vac

The Serres Splash-Vac can be used to suction liquids from the floor. Connect the tubing to the patient connector of the suction bag.

**NOTE!** THE TUBING OF SPLASH-VAC IS MADE OF PVC PLASTIC.

The product is not a medical device and thus does not have a CE marking.

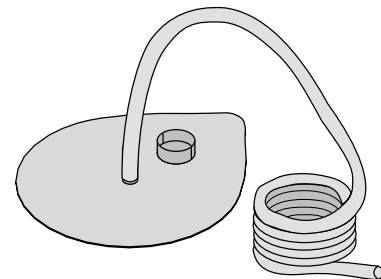


figure 9

### Straight connector

A straight connector is used when there is a need to use wider-bore patient tubing. The patient connector in the suction bag can be replaced by the straight connector.

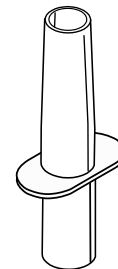


figure 10

### Twin connector

A twin connector can be used to connect two patient tubes to the suction bag simultaneously. During suction, one patient tube is kept closed. The patient connector on the suction bag is replaced with the twin connector.

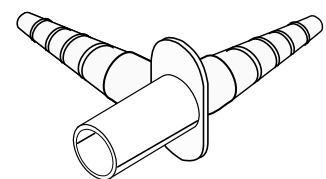


figure 11

### Bacterial filter

Bacterial filter is installed between the suction canister and the vacuum source so that the marking "IN" faces the suction bag system. It filters 99.9999% of bacteria and viruses. The filter is replaced every 30 days or if the suction power reduces. Filter manufacturer: Air Safety Ltd.

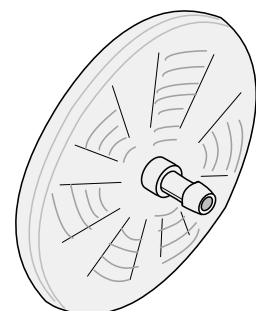


figure 12

## Smoke filter

The smoke filter can be used to prevent the premature blockage of the suction bag overflow protection in surgical operations during which there is very heavy smoke production.

**NOTE!** THE SMOKE FILTER IS NOT INTENDED FOR SUCTIONING SMOKE AND IT DOES NOT PREVENT SMOKE FROM RE-ENTERING THE ROOM AIR.

Replace the suction canister grey, angled connector with a T-connector or Serres valve **Figure 16** and open the suction bag serial port. Press the smoke filter into the serial port so that the filter locks in place.

Connect the smoke filter tubing to the T-connector or valve now on the rear of the canister. Different positions of the Serres valve:

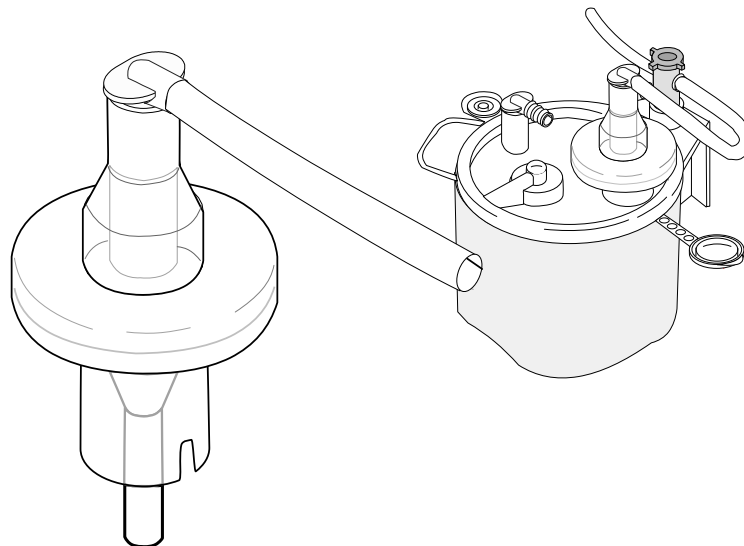
**13 A** Suction is closed

**13 B** Suction only through the bag filter  
(used when no smoke is created)

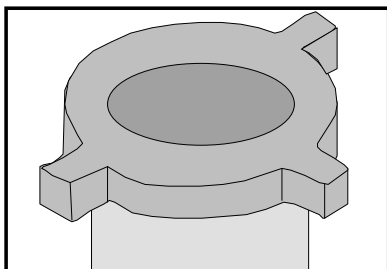
**13 C** Suction through bag filter and smoke filter  
(used when smoke is created)

The smoke filter can also be used in serial connection. In such a case, install the smoke filter in the last suction bag of the serial connection.

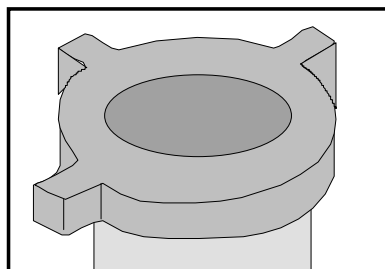
figure 13



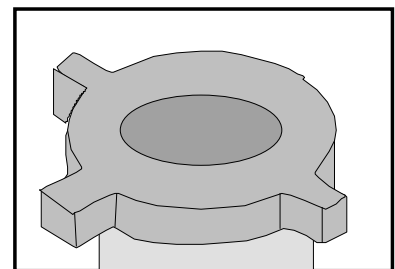
13 A



13 B



13 C



## Serres Vacuum Shift

The Serres Vacuum Shift is mounted to the device bracket between two suction canisters. The Vacuum Shift is designed for shifting the vacuum between two suction lines or for the simultaneous use of two suction bag systems. The suction canisters may also be easily connected on each side in a serial chain.

1. Mount the Vacuum Shift on the device bracket, using the connector on the Vacuum Shift
2. Connect the tube of the suction source to the tube connector of the Vacuum Shift, **(figure 14, connector A)**
3. Connect the tubing from the suction canisters to the tube connectors on the right side **(figure 14, connector B)** and left side **(figure 14, connector C)** of the Vacuum Shift
4. The Vacuum Shift has four different positions.

**NOTE!** ENSURE THAT THE TIP OF THE LATCH POINTS DIRECTLY TO THE SIDE OR UPWARDS OR DOWNWARDS, AS INDICATED IN THE IMAGES. AN INCORRECT ALIGNMENT MAY WEAKEN THE SUCTION EFFECT.

- a. **figure 14.1**, suction closed
- b. **figure 14.2**, suction from the right
- c. **figure 14.3**, suction from the left
- d. **figure 14.4**, suction from the right and left

Serres recommends the use of silicone tubing between the suction canister/source and the Vacuum Shift.

The four different functions (section 4) of the Vacuum Shift must be tested with 60 kPa vacuum before each use and always after disinfection.

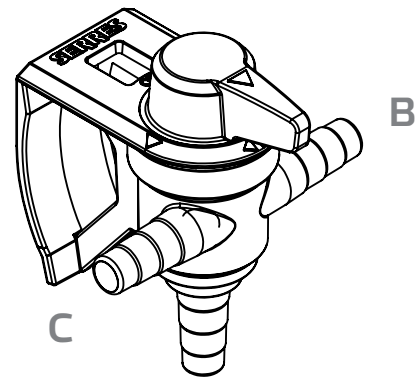
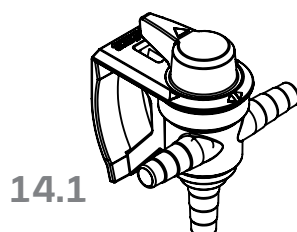
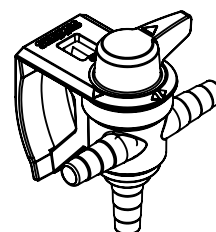


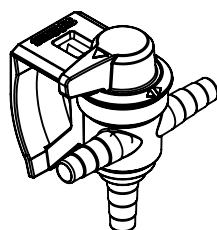
figure 14



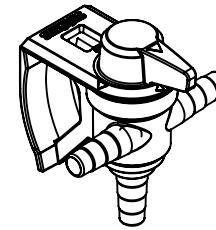
14.1



14.2



14.3



14.4

### Serres Vacuum source protector

The vacuum source protector prevents liquid entering the vacuum source in case of an installation error of a suction bag. Connect the vacuum source protector between the suction canister and the vacuum source. Ensure the arrow is pointing to the vacuum source. The protector is replaced every 30 days or if the suction power reduces or if contaminated.

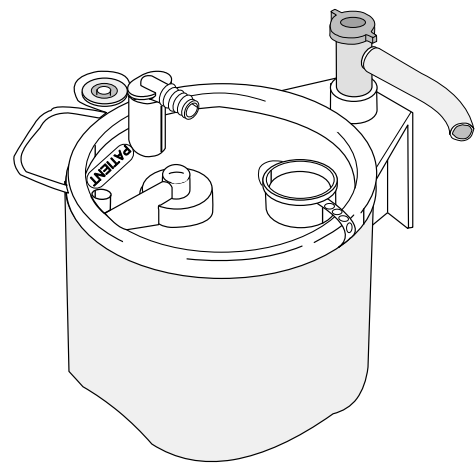
figure 15



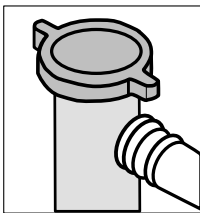
### Serres on-off valve

The on-off valve is used to open and shut off suction. Install the on-off valve in the suction canister connection to replace the grey, angled connector. Connect the tubing from the suction source to the on-off valve connector. To open (figure 16 A) or shut off (figure 16 B) the suction, turn the on-off valve lever.

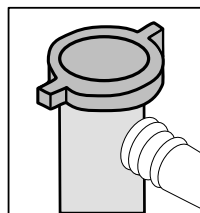
figure 16



open  
16 A



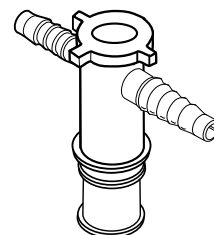
shut off  
16 B



### Serres valve

The Serres valve is used to open and shut off suction in connection to using a smoke filter. For further instructions, please refer to the smoke filter section.

figure 17



## Serres control valve

Serres control valve facilitates the speedy individual use of a Serres suction bag. The Serres control valve is installed inside the canister holder of a Serres trolley (ref: 57940, 57941).

### Installation:

- Detach the canister holder from the trolley.

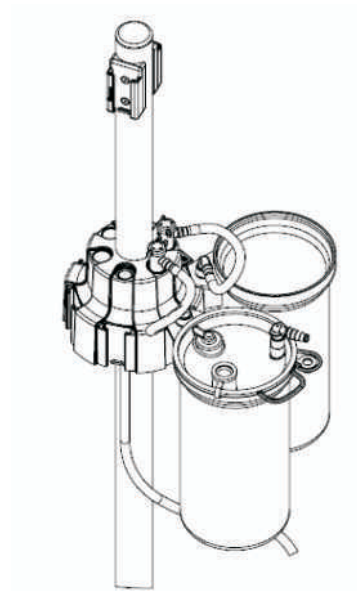


figure 18

- Open the holes (6 pcs) of on-off valves on the canister holder's top surface by driving the cover plates in. **Figure 18 A.**
- Install the control valve inside the canister holder and rotate the control valve until it reaches the bottom.
- Use three screws to attach the control valve to the canister holder.
- Re-install the canister holder to the trolley, adjust the height of the holder and tighten the canister holder,

### figure 18 B

- Install as many on-off valves to the holes opened on top of the canister holder as there are suction canisters. If you commission less than 6 suction canisters the extra holes must be closed with a control valve plug (ref. 57943). In order for the suction to be created correctly, all six holes must either be fitted with an on-off valve or a control valve plug.

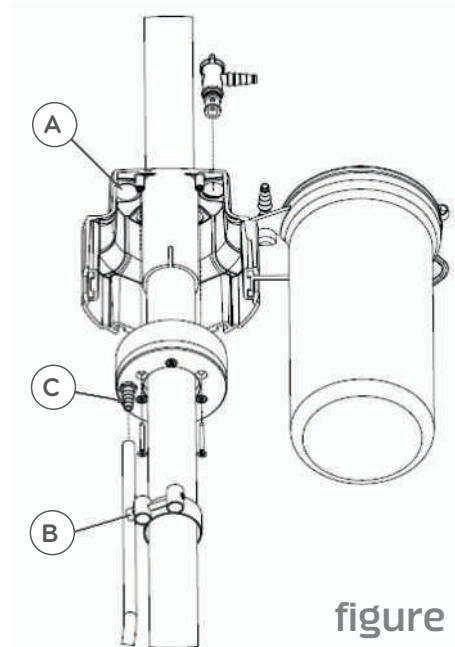


figure 18

- Install the silicone tubing from the on-off valve to the angle connector of the suction canister below. Install the tubing so that it is not bent and does not prevent air from flowing.
- Install the tube of the suction device to the tube connector on the bottom surface of the control valve. **Figure 17 C**
- Test the functionality of the product by ensuring one by one that each on-off valve is tight.

**Use:**

- Start the suction source
- Install the required number of suction canisters and suction bags.
- Open one on-off valve to position I
- Connect the patient tube to the suction bag below the on-off valve
- When the suction bag is full, remove the patient tube, plug the full suction bag and turn the on-off valve to position O.
- Turn the next on-off valve to position I and connect the patient tube to the suction bag below it.

In order to achieve sufficient suction power, it is recommended that only one suction canister at a time should be used, one on-off valve is in the I position and the other on-off valves are in position O.

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**NOTE! REUSE OF DISPOSABLE PRODUCTS IS STRICTLY FORBIDDEN.  
REUSE REDUCES THE PERFORMANCE OF THE PRODUCT AND CAN CAUSE AN INFECTION RISK. WHEN HANDLING A USED SUCTION BAG, ATTENTION SHOULD BE PAID TO THE FACT THAT IT MAY CONTAIN INFECTIOUS WASTE.**

## Disposal of used products

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Serres suction bags, collection cups, measuring cups and serial tubes are disposable and must be replaced patient-specifically. If the same patient undergoes long-term treatment, it is recommended that the suction bag be replaced at least every 24 hours. Reusable products must be decommissioned if they have become damaged or do not function as planned. Used or decommissioned products must be disposed of in accordance with recycling labelling and hospital-specific instructions. Suction bags containing solidifying agent must not be emptied into a sewer.

**NOTE!** REUSE OF DISPOSABLE PRODUCTS IS STRICTLY FORBIDDEN. REUSE REDUCES THE PERFORMANCE OF THE PRODUCT AND CAN CAUSE AN INFECTION RISK. WHEN HANDLING A USED SUCTION BAG, ATTENTION SHOULD BE PAID TO THE FACT THAT IT MAY CONTAIN INFECTIOUS WASTE.

## Cleaning of re-usable products

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The suction canister and angle connector can be washed (95°C) and autoclaved (121 °C). Remove the grey, angled connector before washing or autoclaving. Before autoclaving, make sure that the product does not contain any detergent remnants. Other reusable products can be wiped with disinfectant.








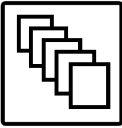




## Storage

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Protect the packages from humidity, dirt and dust. Disposable products can be used for 5 years after the date on the label, excluding pre-gelled suction bags and solidifying agents that can be used for 2 years after the date on the label.

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## Symbols used

	Batch code		CE-mark
	Catalogue number		DEHP-Free symbol
	Do not re-use		Latexfree
	Keep away from rain		Quantity
	Keep away from sunlight		Refer to instruction manual booklet
	Operating instructions		Use by date

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**serres**

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**Serres Oy**  
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FI-61850 Kauhajoki as  
Finland

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CE 2460