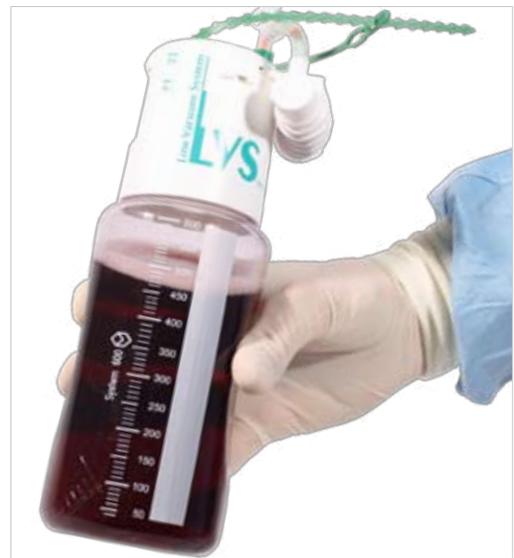


# Medinorm® LVS™ - Low Vacuum Wound Drainage System

your partner in wound drainage

## Specifications



Low Vacuum Wound Drainage System

Instructions for Use

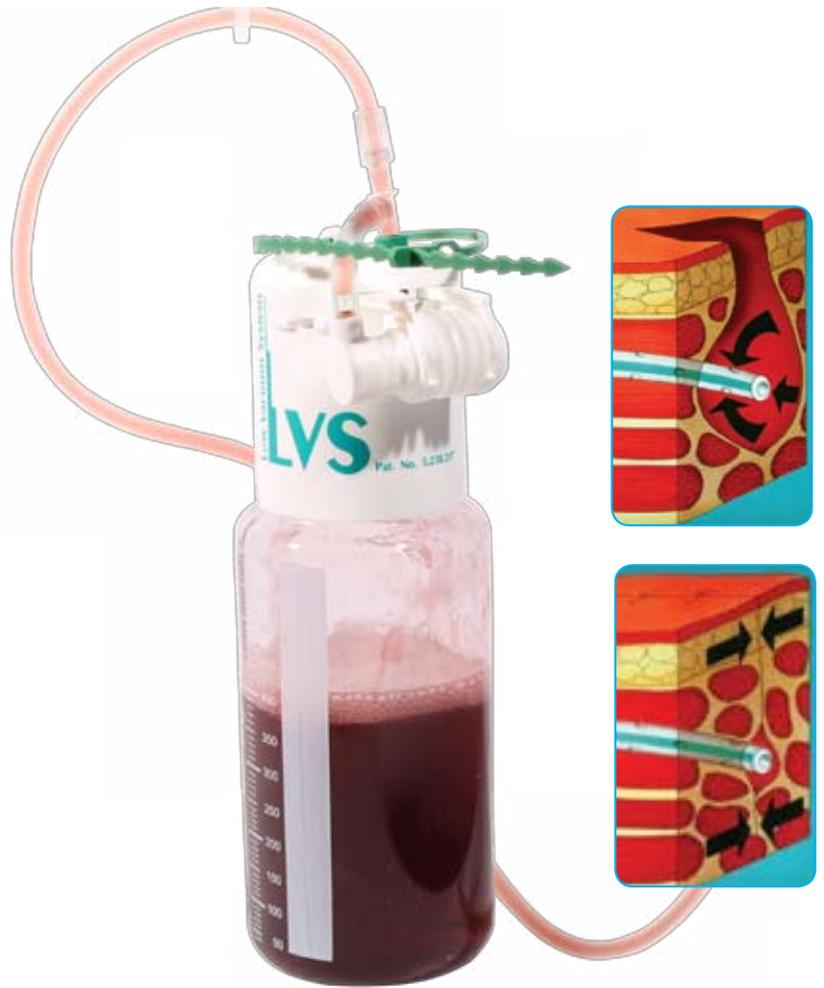
# Introduction

Postoperative constant suction drainage in combination with a low suction force is the ideal drainage method <sup>(1,2)</sup> and allows for:

- better wound hemostasis,
- better flap apposition,
- less post-operative bleeding,
- reduced tissue damage,
- improved wound healing.



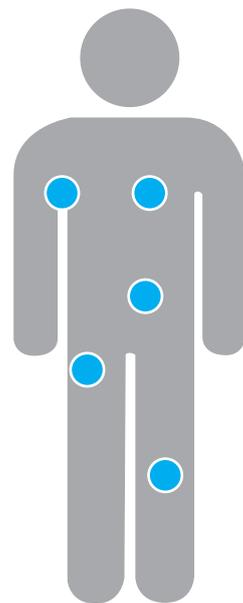
— Constant Low Vacuum (Medinorm® wound drainage)  
 — Bellow type (Intermittent suction)



## State of the Art Technology in Wound Drainage System

Medinorm® LVS™ is a postoperative wound drainage system and its unique feature is the use of a constant low suction force. The constant suction in combination with a low suction force promotes the wound healing, removes heavier exudates and reduces large areas of dead space.

Medinorm® LVS™ has an approximate pressure of -150 mmHg and is indicated for surgical procedures where postoperative drainage of blood from wounds and body cavities is required.



The system is used (though not limited) to the following procedures<sup>(3)</sup>.

- Orthopaedics
- Breast surgery
- Plastic surgery
- Gynecology
- Abdominal
- ENT surgery
- Urology

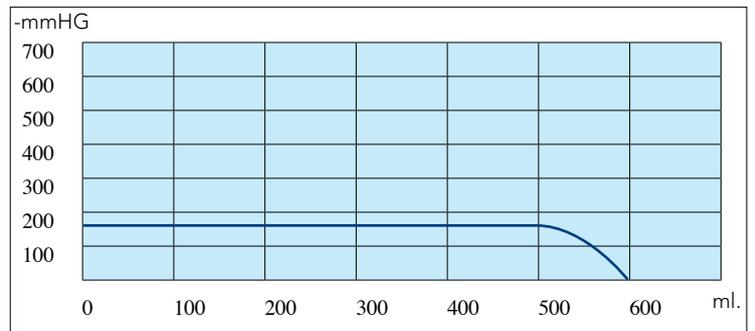
### Data on file:

1. Berman AT, et al., "Comparison between intermittent (spring-loaded) and continuous closed suction drainage of orthopedic wounds: a controlled clinical trial," *Orthopedics*, vol. 13, pp. 309-314, 1990.
2. Van Heurn LW and Brink PR, "Prospective randomized trial of high versus low vacuum drainage after axillary lymphadenectomy [abstract]." *Br J Surg*, vol. 82, pp. 931-932, 1995.
3. Scientific Review: Surgical Recommendations for the Use of Postoperative Wound Drainage Systems, B. Pater, Msc (University of Twente, The Netherlands; Biomechanical Engineering).



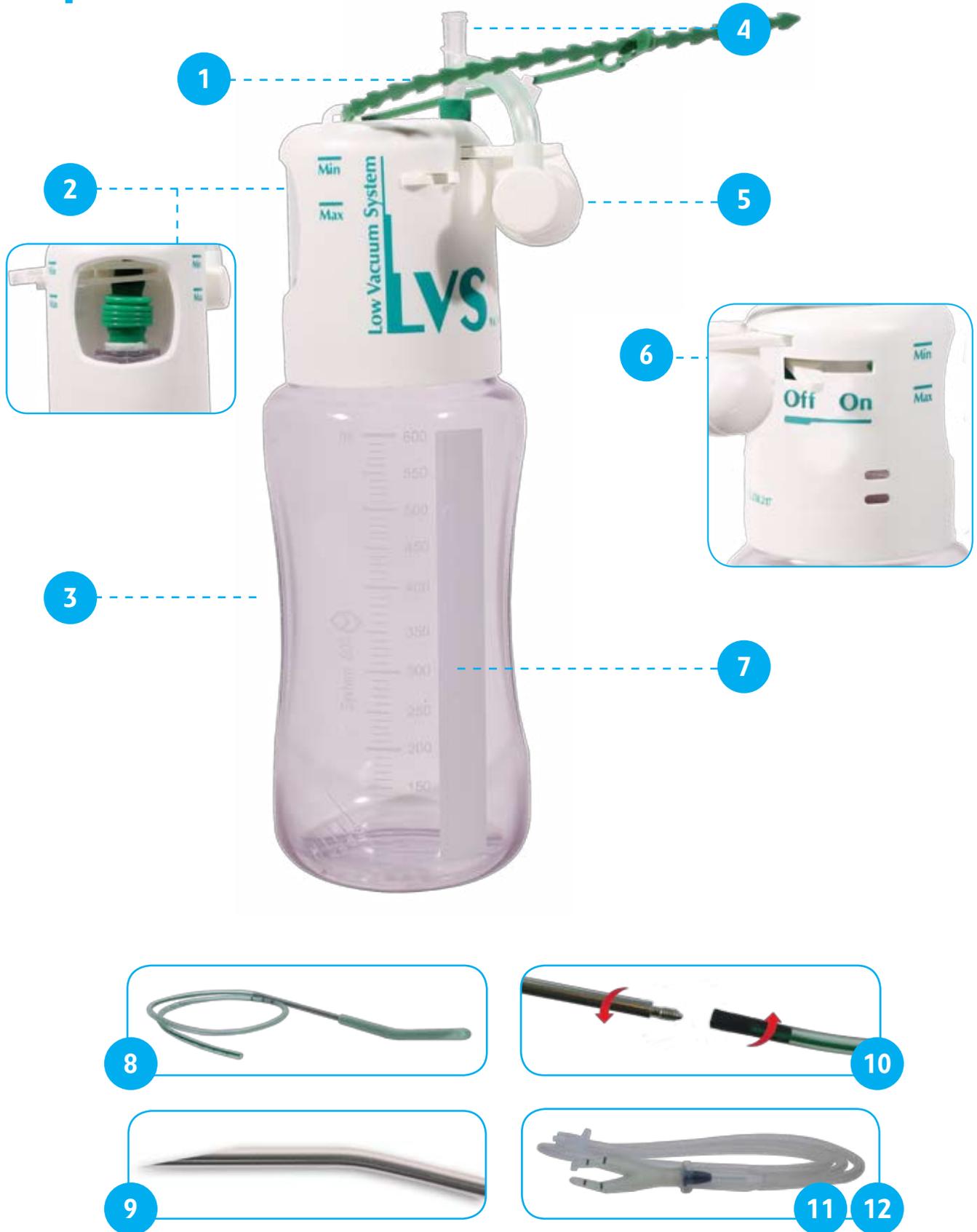
Medinorm® LVS™:

- completely sterile, single use, all-in-one system,
- 600 ml bottle,
- single or Y-drain connecting tube,
- anti-reflux valve,
- PUR wound drain - lengths of 500 or 1100 mm and Ø 10, 14 or 16 CH/FG,
- Medifix screw connection (drain/trocar),
- trocar,
- replacement bottle 600 ml.



The pre-evacuated system provides constant suction.

# Specifications



### 1. Hanging strap



To connect bottle to bed rail.

### 2. Vacuum indicator



To easily visualise the vacuum level inside the system.

### 3. 600 ml bottle



The system is pre-evacuated for constant suction.

### 4. Luer Lock connection



Enabling safe connection of the system to patient's connecting tube.

### 5. Low suction regulator



Unique pressure regulator creates a low suction force.

### 6. On/ Off switch



The system is ready to use. Open system and collection starts automatically.

### 7. Writing strip



The writing strip allows for consistent recording.

### 8. Polyurethane (PUR) drain



PUR exceeds PVC in material characteristics. PUR drains are more flexible and lead to smoother insertion and easier removal.

### 9. Single cut trocar



Requires 1,3 kg less force to penetrate skin compared to a standard bayonet type trocar.

### 10. Medifix connection



A screw mechanism for easy (dis)connection and smooth transition of drain and trocar, minimizing perforation of the skin.

### 11. Y or single drain connector



For insertion of either 1 or 2 drains. Available for different diameters drain sizes.

### 12. Anti-reflux valve

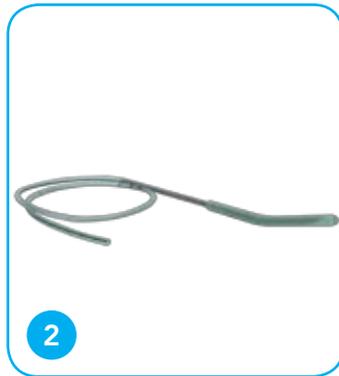


Located closely to the drain connector to prevent backflow from bottle and connecting tube.

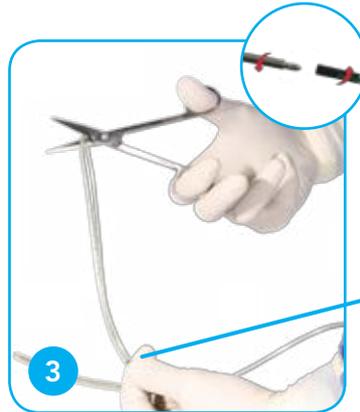
# Instructions for Use



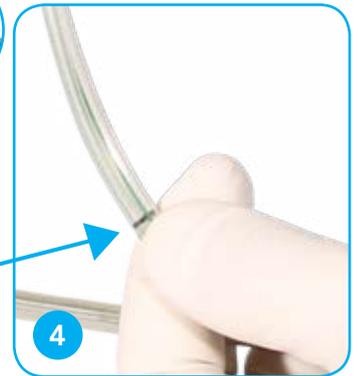
1 Ensure that package is undamaged and vacuum indicator is in "max" position. Remove system from peel-pouch using aseptic techniques.



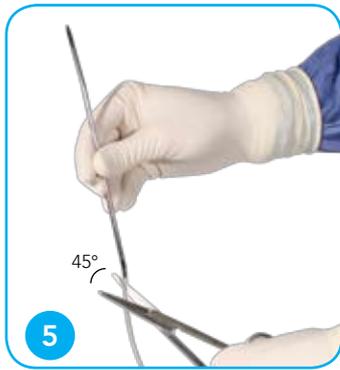
2 Use end perforated drain (500 mm length) to place 1 drain in wound site.



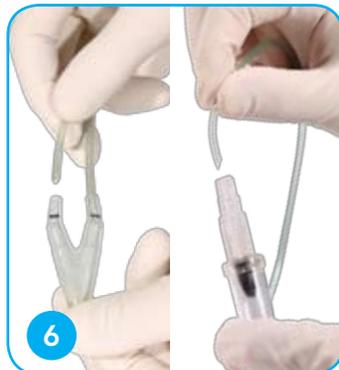
3 Use middle perforated drain (1100 mm length) to place 2 drains in wound site. Cut drain in 2 equal lengths to facilitate 2 separate drains. The Medifix connector facilitates easy (dis)connection of drain and trocar.



4 Insert and pass trocar/ wound drain into desired location until black line indicator appears just outside skin surface. Ensure air tight sealing of the perforated area of the drain.



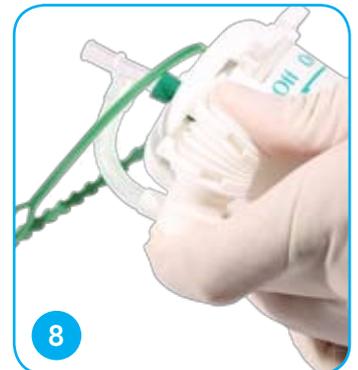
5 With sterile scissors, cut wound drain at 45-degree angle for easier insertion into single or Y-drain connector.



6 Cut Y- or single drain connector to appropriate size for wound tubing and insert wound tubing firmly into drain connector.



7 Close sliding clamp on patient connecting tube.



8 Remove the Luer-Lock closing cap and compress the white bellow with your thumb and index finger.



9 Connect the connecting tube via Luer-Lock while holding the white bellow compressed.



10 After connecting tube has been connected locate the "Off" - "On" switch.



11 Remove the safety clip.



12 Turn system to "On" by releasing the sliding clamp.



13 Open sliding clamp in order to start the wound drainage.



14 During wound drainage process, monitor the volume of drained wound fluid and check if the vacuum indicator is in "max" position.



15 When drainage has stopped and/or if vacuum indicator is in "min" position, close the sliding clamp on patient connecting tube.



16 Place the on/off lever to the off position to discontinue suction.



17 Disconnect patient connecting tube from the bottle using the Luer-Lock.



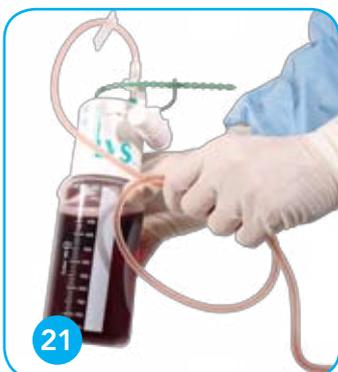
18 Place closing cap on the bottle's Luer Lock.



19 In case a replacement system is required to continue the wound drainage, then repeat from step 8 and onwards.



20 Dispose the bottle according to local hospital guidelines.



21 If wound drainage is no longer required, close sliding clamp and place on/off lever to the "off" position to discontinue suction. Remove bottle, drain and tubing from patient according to your protocol\* and dispose in line with local hospital guidelines.

\* In consultation with the specialist surgeon, you may ensure that the pressure difference inside and outside the patient will be eliminated by letting the wound relax for 10 to 20 minutes before removing the drain from the patient's side.

# Medinorm® LVS™ – Low Vacuum Wound Drainage System

## Includes:

- Bottle in size 600 ml
- Single or Y drain connector and anti-reflux valve
- PUR drain in lengths of 500 or 1100 mm and in Ø 10, 14 or 16 CH/FG
- Trocar
- Replacement bottle in size 600 ml

Product descriptions and article codes are available in our catalogue or online on [www.vanstratenmedical.com](http://www.vanstratenmedical.com)



## Company information

Van Straten Medical is a family owned company, founded in 1975, and active in the development, sales, repair, modification and fixation of medical devices. Van Straten Medical has several divisions, including Export, and is founder & shareholder of the production facility Medinorm Medizintechnik GmbH in Germany.

Our export division offers surgical products and services to the international market through distributors and medical industry. Van Straten Medical is an ISO 9001 and ISO 13485 certified company.

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