Liposuction

Liposat® power
Liposat® basic
Vibrasat® power
Vacusat® power
Vibration liposuction is a tried-and-tested method for fat removal. With this method, the suction cannula is vibrated axially which, in combination with the suction vacuum, cuts and removes the fatty tissue microscopically and gently. The vibrations enable the surgeon to work with greater precision and the separated fat cells are then easier to suction off. This technique offers advantages for both the surgeon and the patient.

- Gentle and homogenous fat removal
- Time savings
- Less force is required to move the cannula, the surgeon is thus able to work with greater precision.

**Vibrasat® power** is the technologically leading vibration hand grip for liposuction.

- 3,000 to 5,000 strokes/min with a stroke of 2.8 mm
- Exceptionally smooth operation
- Extremely powerful
- Can be fully autoclaved due to special materials in the drive motor and gear unit
- Anatomically shaped hand grip with just the right balance point and low weight for comfortable working, yet with still enough weight to cushion the vibrations towards the hand.

Liposuction with the tumescent local anaesthesia (TLA) procedure is the most frequently performed procedure around the world. In this procedure, the anaesthetic is strongly diluted within a saline solution and pumped directly into the patient’s tissue. This method has principal advantages for any treatment that requires local anaesthesia, such as liposuction (fat removal) or many applications of vascular surgery.

- Unwanted side-effects, such as thromboses, risks of embolisms, or nausea, occur much less frequently
- The patient stays awake
- Simple application without the need for an anaesthesiologist
- Little post-surgical pain
- Small cuts, very minimal blood loss
- With correct application, no or only small haematomas
- "Three-dimensional" liposuction possible by repositioning the patient during the procedure
Device configurations

**Liposat® power configuration**

The combination of the surgical suction device **Vacusat® power** with the infiltration pump **Liposat® power** and the vibration drive **Vibrasat® power** offers an ideal complete solution for liposuction.

Maximum pumping capacity for tumescence solution
- **Liposat® basic**: 200 ml/min
- **Liposat® power**: 300 ml/min

The **Liposat® basic** has fewer comfort features, e.g., total volume meter and cannot be operated in conjunction with heating dishes.

The precisely adjustable pump rate of the saline solution into the tissue is atraumatic for the patient and saves time for the surgeon. He can take care of other things during infiltration.

On the one hand, thanks to the use of heating dishes, the set-up is more ordered and clearly arranged and, on the other hand, patient safety is enhanced as the temperature remains consistent.

The vibration drive for the liposuction cannulae rounds off this system.

Consisting of:

- 1 **Vacusat® power** with accessories
- 1 **Liposat® power** infiltration pump with accessories
- 1 **Vibrasat® power** with accessories
- 2 heating dishes
- 1 attachment kit

230 VAC version: REF 00002253
110 VAC version: REF 00002321
Device configurations

**Liposat® basic** configuration

The combination of the surgical suction device **Vacusat® power** with the infiltration pump **Liposat® basic** and the vibration drive **Vibrasat® power** is a cost-effective alternative to the **Liposat® power** configuration. The precisely adjustable pump rate of the saline solution into the tissue is atraumatic for the patient and saves time for the surgeon as he can take care of other things during infiltration. The vibration drive for the liposuction cannulae rounds off this complete system.

Consisting of:
- 1 **Liposat® basic** infiltration pump with accessories
- 1 **Vacusat® power** with accessories
- 1 **Vibrasat® power** with accessories
- 1 attachment kit

230 VAC version: REF 00002410
110 VAC version: REF 00002838

The cost-effective alternative to the **Liposat® power** configuration

**Vacusat® power**

Overflow protection REF 00002299
Hydrophobic filter REF 00002297

**Vibrasat® power** control device

Holder for **Vibrasat® power** control device REF 00002283

**Liposat® basic**

Tube set for tumescence pump REF 00002492
Vacuum connecting tube 8 x 14 x 1,000 mm REF 00002255
Suction tube REF 00002264
Container REF 00002257
Serial tube 285 mm with elbow, blue REF 00002260
Vacuum serial tube with T-piece REF 00002259
Bacteria filter REF 00002296
Design your configuration to match your requirements!

**Liposat® power**

The infiltration pump **Liposat® power** has been specially developed for tumescent local anaesthesia. The pump rate can be adjusted to the specific application. Once the set volume has been reached, the pump stops automatically.

Accessories included:
- Footswitch, 1 pedal REF 93003545
- Optional: Heating dish

**Liposat® basic**

The infiltration pump **Liposat® basic** is a small infiltration pump which has been developed for local anaesthesia. The pumping rate can be adjusted in increments of 20 ml according to the specific application. Once the set volume has been reached, the pump stops automatically.

Accessories included:
- Footswitch, 1 pedal REF 93003711

**Vibrasat® power**

The vibration drive **Vibrasat® power** makes it easier to suction away fat thanks to very fast and short longitudinal movements. The process is therefore less traumatic for patients and less tiring for the doctor. The ergonomic form of the hand grip makes working extremely pleasant.

Accessories included:
- Footswitch, 3 pedals REF 93003517

**Vibrasat® power hand grip**

A second hand grip is recommended in order to be able to continue operating whilst the other grip is being sterilised / cooling down.

**Vacusat® power**

The surgical suction device **Vacusat® power** is an extremely powerful and uniring piece of equipment which is both quick and simple to operate. Thanks to its innovative insulation technology, it is audibly quieter when operated.

Accessories included:
- 1 footswitch, 1 pedal REF 00002656
- 1 vacuum connecting tube REF 00002255
- 1 serial tube REF 00002259
- 2 holders for containers REF 00002258
- 2 disposable inner containers, non-sterile, 3 litres REF 00002256
- Protection against oversuction with the additional overflow protection REF 00002299.
- Enhanced safety from use of the filter REF 00002297.

**Technical data**

- **Dimensions (W x H x D)**: 270 x 220 x 180 mm
- **Weight**: 10 kg
- **Pumping rate**: 40-300 ml/min (variable adjustment)
- **Medical device class**: IIa
- **Accuracy of pumping rate**: ±1.5%
- **Power supply**: 100-240 VAC, 50/60 Hz
- **Stromaufnahme**: 1.5 to 0.7 A

**Technical data**

- **Dimensions (W x H x D)**: 170 x 200 x 140 mm
- **Weight**: 2.5 kg
- **Pumping rate**: 20 ml/min to 200 ml/min (can be adjusted in increments of 20)
- **Medical device class**: IIa
- **Accuracy of pumping rate**: ±1.5%
- **Power supply**: 230 VAC, 50 Hz
- **Current consumption**: 0.1 A

**Technical data**

- **Dimensions (W x H x D)**: 190 x 100 x 200 mm
- **Weight**: 2.80 kg
- **Handpiece**: 0.75 kg
- **Medical device class**: IIa
- **Stroke length**: 2.8 mm
- **Stoke frequency**: 3,000-5,000/min
- **Power supply**: 230 VAC, 50/60 Hz
- **Current consumption**: 1.6 to 0.6 A

**Technical data**

- **Dimensions (W x H x D)**: 500 x 1,000 x 560 mm
- **Weight**: 26 kg
- **Medical device class**: I
- **Dimensions (W x H x D)**: 500 x 1,000 x 560 mm
- **Suction power**: 58 l/min ± 6 l/min at 50 Hz
- **65 l/min ± 6 l/min at 60 Hz
- **Vacuum**: -90 kPa on NN (normal null; 100 kPa = 1 bar = 1,000 mbar)
- **Power supply**: 230 VAC, 50/60 Hz
- **110 VAC, 50/60 Hz
- **Current consumption**: 1.1 A
- **Fuses**: T 1.6 AH

230 VAC voltage supply
- REF 00002252
- 110 VAC voltage supply
- REF 00002318
Accessories

The heating dish keeps the temperature of the saline solution at a constant 37°C. At a temperature higher than 42°C the pump stops automatically to protect the patient from injuries.

REF 00002542

Technical data
Dimensions with packaging (W x H x D): 300 x 300 x 540 mm
Weight: 4.8 kg

To hold the container 00002257 on the Vacusat® power suction tower 00002252

REF 00002258

Ergonomic manual hand grip for Vibrasat® suction cannulae, anodised aluminium, natural

REF 00002254

Foot switch for Liposat® basic with three pedals (pump on/off, pump quicker/slower). This is more comfortable and convenient to use than the standard foot switch

REF 00002612

Filter against moisture in the exhaust gas flow and microorganisms

Consumables

REF 00002297

Use with overflow protection
REF 00002299

Container for non-sterile disposable bag, mint (00002256)
Capacity 3 litres

REF 00002257

Holder for the Vibrasat® power control device for attachment on the Vacusat® power

REF 00002283

Overflow protection with chamber for hydrophobic filter

REF 00002299

Use with Vacusat® power
REF 00002252 or REF 00002318

Foot clamp

Holder for the attachment kit

Overflow protection

Container

Hydrophobic filter
**Liposat® power tumescence tube set**
- Tube set 1: 1,500 mm long
- Tube set 2: 2,500 mm long
- Single-use item
  - REF 00002251

**Suction tube, PVC, sterile**
- With one red funnel: 3,000 mm long, outer diameter of funnel 16 mm, inside diameter of funnel 10 mm
- Suitable for using the suction tube together with the Vibrasat® power hand grip (00002246) or the hand grip (00002254).
- Single-use item
  - REF 00002264

**Liposat® basic tumescence tube set**
- 4,050 mm long
- Single-use item
  - REF 00002492

**Suction tube, blue**
- With two blue funnels: 3,000 mm long, outer diameter of funnel 16 mm, inside diameter of funnel 10 mm
- Suitable for connecting the suction tube directly to a liposuction cannula.
- Single-use item
  - REF 00002430

**Suction tube, red**
- With one red funnel: 3,000 mm long, outer diameter of funnel 16 mm, inside diameter of funnel 10 mm
- Suitable for using the suction tube together with the Vibrasat® power hand grip (00002246) or the hand grip (00002254).
- Single-use item
  - REF 00002254

**Inner bag, non-sterile for container (00002257)**
- Single-use item
  - REF 00002256 mint
  - REF 00002331 blue*

**Sterican injection cannulae**
- For puncturing the skin and infiltration of the tumescence solution. To be used together with the tap (00002278 or 00002279)
- Pack of 100
- Technical data:
  - 0.9 x 70 mm
  - 20G x 2 2/3” (yellow)
- Single-use item
  - REF 00002535

**Exhaust air filter for Vacusat® power**

**Disposable inner bag**

**Tap with infiltration tubes, sterile**
- 80 cm long
- For connection to Liposat® power tumescence tube set (00002251) or Liposat® basic tumescence tube set (00002492)
- Single-use item
  - REF 00002278

**3-way tap**
- Tap with infiltration tubes, sterile
- 80 cm long
- For connection to the Liposat® power tumescence tube set (00002251) or Liposat® basic tumescence tube set (00002492)
- Single-use item
  - REF 00002279

**Inner bag, non-sterile for container (00002257)**

**5-way tap**
- Tap with infiltration tubes, sterile
- 80 cm long
- For connection to the Liposat® power tumescence tube set (00002251) or Liposat® basic tumescence tube set (00002492)
- Single-use item
  - REF 00002279

* Can only be used if there is a matching container.
### Single-use cannulae

- **Single-use cannulae with plastic socket**
  - Vibrasat liposuction cannulae
    - 3-hole cannulae
      - Dia. in mm | Length in mm | REF
      - 4.00       | 250          | 00002855
      - 4.00       | 350          | 00002856
      - 3.00       | 250          | 00002857
      - 3.00       | 350          | 00002858
      - 2.50       | 150          | 00002859

- **Single-use cannulae with steel socket**
  - Vibrasat liposuction cannulae
    - 3-hole cannulae
      - Dia. in mm | Length in mm | REF
      - 4.00       | 250          | 00001534
      - 4.00       | 350          | 00001535
      - 3.00       | 250          | 00001536
      - 3.00       | 350          | 00001537
      - 2.50       | 150          | 00001538

- Rapid extraction cannulae
  - 9-hole cannulae
    - Dia. in mm | Length in mm | REF
    - 4.00       | 250          | 00002893
    - 4.00       | 350          | 00002892
    - 3.00       | 250          | 00002891
    - 3.00       | 350          | 00002890

- Perspiratory gland cannula
  - Dia. in mm | REF
  - 3.00       | 00002889

### Single-use lipotransfer cannulae

- Removal cannula
  - Cannula for manual fat removal (sterile)
  - REF 10001180

- Scar cannula
  - Cannula with V-shaped blade (sterile)
  - REF 10001181

- Injection cannula 1
  - Straight cannula for injecting in fat (sterile)
  - REF 10001182

- Injection cannula 2
  - Curved concave cannula for injecting in fat (sterile)
  - REF 10001183

- Injection cannula 3
  - Curved convex cannula for injecting in fat (sterile)
  - REF 10001184

### Accessories

- Single-use syringes, in sterile packaging, 3 versions
  - 1 ml injection
    - REF 00002417
  - 10 ml injection (B. Braun Omnifix)
    - REF 00002418
  - 20 ml injection (B. Braun Omnifix)
    - REF 00002419

- Syringe stopper
  - for fixing the syringe plunger for B. Braun Omnifix syringes, in 2 versions:
    - for 10 ml syringe
      - REF 00002452
    - for 20 ml syringe
      - REF 00002453

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* as per Dr. Afschin Fatemi
** Single-use cannulae with steel sockets are not available in all markets.
Möller Medical was founded in 1949 and sells products, including the ones in this brochure, under its own brand around the world. Möller Medical is also active within the demanding OEM business; the company develops components, systems and finished devices for human medicine, in vitro diagnostics (IVD) and precision engineering.

Customers include many renowned medical devices/IVD companies. Our products are manufactured in-house, take for example the **Vibrasat® power** which we developed, programmed and produced on site.

Möller Medical is certified to EN ISO 13485 and EN ISO 9001. The medical products shown here are CE-compliant in accordance with the EU Directive 93/42/EEC and, in part, FDA 510 (k) listed.