MEDICAL VACUUM TECHNOLOGY FOR HEALTHCARE PROFESSIONALS
Medela Healthcare is a global manufacturer of medical vacuum solutions which are respected and trusted by doctors and healthcare professionals around the world.

Medela Healthcare aims to improve the lives of patients, doctors, and hospital staff through constant innovation and our passion to understand the challenges that patients and clinicians face in their daily lives. Life is precious and it needs passionate people like the people at Medela to provide progressive care.

Medela Healthcare provides pioneering solutions for airway and surgical suction, vacuum assisted delivery, fluid collection, chest drainage management and Negative Pressure Wound Therapy (NPWT).

Michael Larsson
Chairman of the Board, Medela AG
We are bringing expertise and research to life

Our core competence in medical vacuum technology and our commitment to education, service and research aim to support your expertise in delivering high quality care to your patients. This is why clinicians and healthcare professionals all over the world use our products, services and solutions.
Research
Medela has a long history of supporting medical research through partnerships with leading clinicians, researchers, hospitals and research institutes. These collaborations empower us to gain state-of-the-art knowledge and, in doing so, to develop new and innovative lifesaving products.

Medela’s aim is to be experts in respective healthcare fields based on in-depth basic and clinical research. Medela Healthcare applies knowledge, brings research to life and tries to improve the future of patient care.

Service
Our customer and technical service teams strive to provide valuable support to meet your needs, for technical enquiries, routine maintenance, product support, or enquiries about orders and deliveries. Our service teams are there when you need them to support your clinical practice.

Education
Medela is committed to continuous education and believes that education and training are key to ensuring success and quality in patient care.
**Product range and areas of use**

On the following pages you will find all the products and systems that we provide to our customers across a broad range of specialist medical applications.
Clario

Easy to use and highly mobile

Home healthcare teams and patients in need of airway suctioning appreciate the Clario suction pump because of its clever engineering and smart design.

Clario’s modular design consists of 3 main parts for easy, uncomplicated assembly:

- Drive unit
- Canister
- SafetyChamber

Clario has 3 preset vacuum levels that makes handling easy. Clario’s threefold hygienic design ensures that there is no overflow into the mechanical parts. Routine cleaning is simple. Clario’s lightweight design means it can be taken everywhere. Clario is available in a battery-operated version for even more mobility.

Technical data

- Low flow
  - 15 l/min.
  - (+/- 10%)
- Min. Vacuum
  - -18 kPa – 135 mmHg (+/- 15%)
- Med. Vacuum
  - -36 kPa – 270 mmHg (+/- 15%)
- Max. Vacuum
  - -80 kPa – 600 mmHg (- 15%)
- AC
  - 1.7 kg
- AC/DC
  - 2.0 kg
- H x W x D
  - 223 x 255 x 95 mm

Fast facts

- Clario is appreciated in the homecare setting for ease of use.
- Due to threefold hygienic design, little time and effort is needed for cleaning.
- Clario is lightweight and offers freedom for the mobile user.
Clario Toni

Just the right paediatric care – easy to use, effective and highly mobile

Clario Toni offers 3 pre-set vacuum values for flexible, suitable suction and the right care for tracheostomy patients and therefore fulfils the highest international standards. Just the right care for children!

Clario Toni consists of only 3 components:
– Drive unit
– Canister
– SafetyChamber

Clario Toni’s 3 pre-set vacuum levels simplify handling:
– –60 mmHg for neonates
– –100 mmHg for children
– –600 mmHg for thick secretions

Clario Toni’s 3-fold hygienic design consisting of
– Floater in canister
– SafetyChamber
– Membrane system
is very hygienic as no secretions can enter the pump, making routine cleaning simple.

Technical data

<table>
<thead>
<tr>
<th></th>
<th>min. Vacuum</th>
<th>med. Vacuum</th>
<th>max. Vacuum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuum</td>
<td>–8 kPa</td>
<td>–13 kPa</td>
<td>–80 kPa</td>
</tr>
<tr>
<td>mmHg (± 15%)</td>
<td>–60 mmHg</td>
<td>–100 mmHg</td>
<td>–600 mmHg</td>
</tr>
<tr>
<td>low flow</td>
<td>15 l/min</td>
<td>(± 10%)</td>
<td></td>
</tr>
<tr>
<td>med. Vacuum</td>
<td>–8 kPa</td>
<td>–13 kPa</td>
<td>–80 kPa</td>
</tr>
<tr>
<td>mmHg (± 15%)</td>
<td>–60 mmHg</td>
<td>–100 mmHg</td>
<td>–600 mmHg</td>
</tr>
<tr>
<td>max. Vacuum</td>
<td>–80 kPa</td>
<td>–600 mmHg</td>
<td>(± 10%)</td>
</tr>
<tr>
<td>weight</td>
<td>2.0 kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H x W x D</td>
<td>223 x 255 x 95 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fast facts

– Clario Toni integrates the vacuum levels recommended especially for paediatric tracheostomy suctioning as standard settings.
– Meets American Association for Respiratory Care (AARC) guidelines for neonatal, infant and child airway suctioning.
– Meets Clinical Guidelines for airway suctioning from Great Ormond Street Hospital, UK.
Vario 18

Versatile and convenient

Vario 18 is a medical suction pump all-rounder for hospitals, clinics and homecare. It offers low noise and mobility. Its innovative QuatroFlex drive unit allows for easy servicing.

Vario 18 can be used with either a disposable or a reusable collection system, according to each customer’s needs and demands.

Technical data

<table>
<thead>
<tr>
<th></th>
<th>High vacuum</th>
<th>Low flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full vacuum</td>
<td>–75 kPa</td>
<td>15 l/min.</td>
</tr>
<tr>
<td>Vacuum settings</td>
<td>–563 mmHg</td>
<td>(+/– 10%)</td>
</tr>
</tbody>
</table>

AC  3.5 kg
AC / DC  4.2 kg
H x W x D  380 x 170 x 285 mm

Fast Facts

- Can be used in environments in which quiet operation is necessary.
- Precise vacuum settings and fast vacuum build-up: ready when needed.
- One device for multiple needs that requires little instruction to operate.
- Wide range of accessories available for individual applications.

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- Wide range of accessories available for individual applications.
Vario 18 c/i

Reliable constant or intermittent suction

The Vario 18 c/i guarantees maximum suction performance for a range of constant and intermittent suctioning needs, such as gastric suctioning and surgical suctioning. Intermittent suction can provide a more delicate drainage, whereas the constant suction mode is used for smaller interventions or airway suctioning. The versatility of the device makes the Vario 18 c/i a great all-rounder for hospitals and clinics.

The Vario 18 c/i is powered by the well-proven QuatroFlex system, a patented piston/cylinder drive unit. This ensures that the device operates reliably and silently.

Vario 18 c/i allows the suction pressures recommended in guidelines for delicate operations to be precisely set and maintained. The use of one single device for constant and intermittent suctioning reduces training time.

Technical data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium vacuum</td>
<td>-55 kPa to -413 mmHg (Tolerance: +/- 10 %)</td>
</tr>
<tr>
<td>Low flow</td>
<td>18 l/min. (Tolerance: +/- 10 %)</td>
</tr>
<tr>
<td>AC</td>
<td>3.5 kg</td>
</tr>
<tr>
<td>AC/DC</td>
<td>4.2 kg</td>
</tr>
<tr>
<td>H x W x D</td>
<td>380 x 170 x 285 mm</td>
</tr>
<tr>
<td>Warranty</td>
<td>2 years</td>
</tr>
</tbody>
</table>

Fast facts

- Reduced training costs
- Whisper-quiet operation
- 30 minutes of mains-independent operation: ideal for patient transfers
- No need to purchase new collection systems: use it with the same jars/liners as for the Medela hospital pumps Dominant Flex and Basic.
The Vario 8 and Vario 8 c/i low-vacuum suction pumps are great all-rounders for hospitals and outpatient clinics. They offer versatility, reliability and mobility, and are suitable for a wide range of low-vacuum applications. The suction pumps are portable thanks to their compact design and battery-powered option.

Medela’s proven Swiss technology offers precise vacuum-level settings and ultra-reliable operation, making Vario 8 and Vario 8 c/i dependable devices for long-term use in hospital. The simple design allows for efficient routine cleaning.

Last but not least, the devices’ intuitive handling and safety features are easy to understand and use so that clinical staff can get familiar with it in a short time.

Versatile, mobile and safe by design

Vario 8 and Vario 8 c/i

Fast facts

- One pump for all low-vacuum suction needs
- Suitable for a wide range of applications
- Portable and lightweight
- Battery-powered option
- Reliable QuatroFlex™ technology
- Easy to use and easy to connect
- Simplicity of design permits efficient routine cleaning
- Safety knob eliminates risk of accidental adjustment

Technical data

<table>
<thead>
<tr>
<th>Vario 8 and Vario 8 c/i</th>
<th>low vacuum</th>
<th>–9 kPa / –68 mmHg</th>
</tr>
</thead>
<tbody>
<tr>
<td>low flow</td>
<td>8 l/min. (+/- 10%)</td>
<td></td>
</tr>
</tbody>
</table>

Vario 8 c/i

(constant/intermittent low-vacuum pump)

- On-times 8s / 16s / 32s
- Off times 4s / 8s / 16s

Technical data

<table>
<thead>
<tr>
<th>AC</th>
<th>3.5 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC/DC</td>
<td>4.2 kg</td>
</tr>
<tr>
<td>without jar</td>
<td></td>
</tr>
</tbody>
</table>

H x W x D
380 x 170 x 285 mm

ISO 9001
ISO 13485
CE (93/42/EEC), IIa
2 years warranty

Surgical Suction

Overflow protection/bacteria filter
Vacuum gauge in kPa and mmHg
LED warning
Carrying handle
Membrane vacuum regulator with safety knob
Tubing holder
Plug for 12 VDC IN car connection cable

IP21
Basic

Simply Swiss

The Basic provides reliable and simple suction, hygienically. This pump is suitable for all suctioning needs in the hospital, clinic or doctor’s practice. The Basic keeps it simple with an intuitive handling that delivers a high suction capacity at all times due to the reliable piston/cylinder technology. The Basic's simplified inner construction minimises the effort required for routine checks, saving costs. The low running speed of the drive unit provides a whisper quiet operation. The Basic addresses hygienic concerns with its easy to clean one-piece housing design, Clean-Touch on/off button and compatibility with the Medela fluid collection systems.

Technical data

- -90kPa -675mmHg
- high flow
  30 l/min.
  (+/- 5 l/min.)
- 9.3 kg
  (rack version)
- HxWxD
  210x305x375 mm
  (rack version)

- Safety-set with mechanical overflow protection prevents fluids from entering the pump
- The powerful drive unit packaged into a simple housing makes the pump so easy to use
- A patented membrane regulator accelerates vacuum built up
- Clean Touch elements facilitate easy cleaning
- The stable trolley with its large rail can hold up to four jars
- An integrated foot on/off switch enables a hands free operation

Fast facts

- Designed to last a lifetime thanks to its durable and powerful piston/cylinder technology.
- Convinces through its sophisticated simplicity.
- Optimized for easy handling and cleaning.
- Powerful but silent. Delivers high vacuum power and a quick vacuum built up.
Dominant Flex

The power of choice

The Dominant Flex offers adjustment of flow: 501/l/min (standard operation), 401/l/min (whisper mode) or 601/min (turbo mode). The Dominant Flex can be used as a reliable and hygienic solution for general suction or as a backup to wall suction in the hospital, ambulatory surgery center, clinic and doctors’ practice. The Dominant Flex's housing design, CleanTouch buttons, and the location of its operating elements all help reduce the time necessary for cleaning. For further protection you can choose from a wide range of filters. The Dominant Flex is developed and manufactured by Medela. This means you receive a reliable, long-lasting suction pump and a fully compatible fluid collection system.

Technical data

-95 kPa –713 mmHg
(+/- 15%)

40, 50, 60 l/min.
(+/- 5 l/min.)

9.3 kg
(rack version)

210 x 305 x 375 mm
(rack version)

Safety-set with mechanical overflow protection prevents fluids from entering the pump
The powerful drive unit packaged into a simple housing makes the pump so easy to use
Flow change buttons allow increasing the flow-rate or reducing the sound level
A patented membrane regulator accelerates vacuum built up
Clean Touch elements facilitate easy cleaning
The stable trolley with its large rail can hold up to four jars
An integrated foot on/off switch enables a hands free operation

Fast facts

- Designed to last a lifetime thanks to its durable and powerful piston/cylinder technology.
- Convinces through its sophisticated simplicity.
- Optimized for easy handling and cleaning.
- Powerful but silent. Delivers high vacuum power and a quick vacuum built up.
- Choose Dominant Flex to additionally increase the flow-rate or reduce the sound level.
Medela’s chest drainage therapy significantly reduces the cost of care

Medela’s Thopaz™ takes chest drainage therapy to a new level of care. Unlike analogue systems, it reliably regulates the applied pressure at the patient’s chest and digitally (and quietly) monitors critical therapy indicators. Clinical data has demonstrated that Medela’s chest drainage therapy improves outcomes and streamlines the delivery of care. The system allows the optimal pressure to be applied for post-operative chest drainage management*, and permits objective and reliable monitoring of patient status. As a result, the length of hospital stay can be shortened by at least 1 day 1, 2, 6, 7 with the corresponding reduction in hospital costs 1–5. Patient experience is improved by the mobility offered by Thopaz™. Medical staff convenience is enhanced by offering direct data download from Thopaz+ to electronic patient files.

Technical data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low vacuum</td>
<td>-10 kPa</td>
</tr>
<tr>
<td></td>
<td>-75 mmHg</td>
</tr>
<tr>
<td></td>
<td>-100 mm Hg/cmH2O (+/- 15%)</td>
</tr>
<tr>
<td>Low flow</td>
<td>5 l/min (+/- 10%)</td>
</tr>
<tr>
<td>Weight</td>
<td>1 kg (without canister)</td>
</tr>
<tr>
<td></td>
<td>2.2 lbs</td>
</tr>
</tbody>
</table>

Fast facts

- Compact, portable vacuum source.
- Regulated pressure at the patient’s chest thanks to double lumen technology.
- Digital display of air leak, fluid and pressure.
- Notifications on system status and Catheter patency indicator.
- Data recording and transfer to PC.

* thanks to double lumen technology
3 Cir Esp 2010, 87(5):385-9
5 Asian Cardiovasc Thorac Ann. 2015 Sep;23(7):832-8
Invia Liberty*

Therapy confidence made simple

Invia Liberty delivers therapy confidence by actively controlling set pressure at the wound site. The pump quickly adapts the air flow cycle to the amount of fluid in the tubing for optimal system performance. Click-in canister attachment and one-touch canister release button allow for easy canister exchange. Secure tubing attachment is guaranteed with the new Invia Quick-connector feature.

Intuitive and quiet pump operation promotes full integration in the patient’s daily life, while patient comfort and mobility are facilitated by Invia Liberty’s compact design and convenient carrying case.

Technical data

- 40 mmHg to -200 mmHg
- Low flow: 5 l/min.
- > 10 Hours
- 1 kg / 2.2 lbs
- H x W x D: 95 x 170 x 150 mm
- 2 years warranty

Fast facts

- Reliable negative pressure delivery and control at the wound site
- Intelligent blockage detection from pump to dressing
- Secure canister and tubing connection with an audible click
- Intuitive pump operation and troubleshooting instructions
- Compact design for patient comfort and mobility
- Clinical flexibility with comprehensive dressings portfolio

* Medela NPWT solutions are currently not available in all markets

1 Performance data on file at Medela AG
2 Usability Validation data on file at Medela AG
Invia Motion*

Single-patient-use-convenience with reusable pump performance

The Invia Motion delivers the convenience of a personal, single-patient-use, pump while offering clinical flexibility with a choice of pressure settings, therapy modes and compatibility with both foam and gauze dressings. The Invia Motion is appropriate for use in all patient care settings and eliminates the need to retrieve, clean, and maintain equipment from one patient to the next.

The compact design and quiet operation helps patients to comfortably go about daily activities for the duration of therapy. Invia Motion delivers therapy confidence. With a double lumen tubing design from the pump to the wound, the pump actively controls the set pressure at the wound site. In addition, small blockages in the tubing are resolved by the pump with assurance that clinicians and patients will see and hear notifications for any unresolved blockages. The Quick-connector interface provides easy and secure attachment between the dressing tubing and the canister tubing.

Technical data

- Medium vacuum: – 40 mmHg to – 175 mmHg
- Low flow: 1 l/min.
- Constant and Intermittent modes
- Double Lumen Tubing
- 150 ml Canister/Tubing set
- 350 g without canister
- > 10 Hours
- 2 years warranty

Fast facts

- No need to clean and sterilize a used device
- No risk of cross contamination associated with reusable devices
- Compact design for comfort and mobility
- Reliable negative pressure delivery and control at the wound site
- Intelligent blockage detection from pump to dressing
- Canister based system for efficient exudate management

* Medela NPWT solutions are currently not available in all markets

1 Performance data on file at Medela AG
2 Usability Validation data on file at Medela AG
Invia Dressings*

Therapy confidence with ease

Invia NPWT systems actively control set pressure at the wound site and adapt the flushing cycle to the amount of fluid in the tubing for optimal system performance.

The dressing kits share the same transparent film and suction interface components; healthcare professionals only have to select the type of wound filler (foam or gauze) and the appropriate size.

The low profile design and flexible wings of the suction interface (Invia FitPad) allow appropriate placement in difficult anatomic locations.

The Quick-connecting interface between the dressing tubing and canister tubing provides an easy and secure attachment.

**Fast facts**

- Invia Foam Dressing Kit with FitPad
- Reliable negative pressure delivery across the wound site
- Intelligent blockage detection from pump to dressing
- Secure tubing attachment with an audible click
- Convenient Quick-connecting tubing interface
- Intuitive transparent film handling
- Easy dressing application in difficult patient anatomy locations

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1 Performance data on file at Medela AG
2 Usability Validation data on file at Medela AG

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**Technical data**

<table>
<thead>
<tr>
<th>Foam</th>
<th>Reticulated polyether and polyurethane, hydrophobic material</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pore size: 600–800 microns</td>
</tr>
<tr>
<td></td>
<td>Tensile strength: 20 PSI/138 kPa</td>
</tr>
<tr>
<td></td>
<td>PSI: Pounds per Square Inch</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transparent Film</th>
<th>Polyurethane film with acrylic adhesive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Size: 26 cm x 32 cm</td>
</tr>
<tr>
<td></td>
<td>MVTR: 385 g/m2/day</td>
</tr>
<tr>
<td></td>
<td>MVTR: Moisture Vapor Transmission Rate</td>
</tr>
</tbody>
</table>
Medela DCS

Safety made easy

Medela’s Disposable Fluid Collection System supports the safe collection and disposal of suctioned fluids. All liners are equipped with multiple safety features such as an overflow and bacteria filter, a smoke pre-filter and a non-return valve to prevent back-flow. The hard-top lid seals precisely and immediately enable operation at low noise levels. Because the vacuum is automatically attached to the liner through the jar, no extra vacuum tubing needs to be connected with every liner exchange. Setups with switch-over valve or serial connection enable handling of large volumes. The liners are made of non-toxic materials and can be disposed in an environmentally friendly way (according to local guidelines).

Fast facts
- Safe, hygienic fluid collection and disposal
- Silent operation < 50 dB (A)
- Easy handling, single-handed operation
- Embedded high-flow bacteria and overflow filter
- Highly burst-resistant, double-layered liners
- Automatic vacuum connection – no extra tubing to the lid

Medela Reusable Collection System

The Medela reusable collection system is made out of durable, high quality components. It facilitates the collection of suctioned fluids. There are four different jar sizes, 1, 2, 3 and 5 litres, sharing one lid size to make handling easy and reduce logistical effort.

Fast facts
- Easy to read graduated markings to indicate fluid volume.
- Jars made of high-grade, shock-resistant and autoclavable polysulphone.
- Uniform lids fit to all jar sizes, made from reinforced polyamide with santoprene seal.
Medela VAD

Safe, individualized assistance

The Medela Vacuum Assisted Delivery System is an individual and efficient system for safe interventions. Together with the Medela Basic suction pump and the choice of rigid or soft, reusable or disposable suction cups and a wide range of accessories, it delivers safe, individualised assistance.

The Basic’s consistent active vacuum keeps the suction cup in place, which may reduce the risk of cup pop-offs.

Technical data (Basic)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>High vacuum</td>
<td>-90 kPa, -675 mmHg (±15%)</td>
</tr>
<tr>
<td>High flow</td>
<td>30 l/min. (± 5 l/min.)</td>
</tr>
<tr>
<td>Weight (Basic)</td>
<td>9.3 kg (rack version)</td>
</tr>
<tr>
<td>Dimensions (rack version)</td>
<td>H x W x D: 210 x 305 x 375 mm</td>
</tr>
</tbody>
</table>

Fast facts

- Active vacuum for firm attachment of the suction cup on the fetal head, potentially avoiding inadvertent pop-offs.
- Large choice of suction cups and sizes to provide gentle and individual attachment.
- Quick setup since the compatible components fit together securely.
Medical Vacuum Technology for Healthcare Professionals

Please contact us or your local Medela representative for details.