# Vario 18 suction pump

### Technical Information



- a Overflow protection/virus filter
- b Vacuum gauge in kPa and mmHg
- c LED warning for battery status
- d Carrying handle
- e Tubing holder
- f Membrane vacuum regulator with safety knob
- g Plug for 12 VDC in car connection cable

The Vario 18 is a high-quality suction pump. It is powered by the well-proven QuatroFlex system and guarantees maximum suction performance for a wide range of clinical applications. It ideally combines easy handling and cleaning with high hygiene standards to ensure optimal operation. Medela provides a complete and compatible range of accessories and fluid collection system to configure the pump to many medical applications.

#### FOR EU AND REST OF THE WORLD: Intended use/purpose

The Vario suction pump is intended for aspiration and removal of surgical fluids, tissue (including bone), gases, bodily fluids (including vomit) or infectious materials, either during surgery or at the patient's bedside.

#### Indications for use

The Vario suction pump is indicated for a variety of suctioning procedures including nasopharyngeal and tracheal suctioning from a patient's airway or respiratory support system and surgical and gastrointestinal suctioning, either in "constant" or "intermittent" mode .

#### ONLY FOR USA: Intended use

The Medela Vario 18/ci suction pumps are indicated for aspiration and removal of surgical fluids, tissue (including bone), gases, bodily fluids (including vomit) or infectious materials from a patient's airway or respiratory support system, either during surgery or at the patient's bedside. Generally the Medela Vario 18/ci is intended to be used for a variety of suctioning procedures including nasopharyngeal, tracheal, surgical, gastrointestinal in either "constant" or "intermittent" mode.

#### **KEY DIFFERENTIATORS**

#### Minimising the risk from Infection with high quality protection system for both the Health Care Professional (HCP) and Patient

Its virus and bacteria filter system prevents from cross contamination with filtration efficiency greater than 99.9%, providing high quality protection and hygiene standards for both HCP and patient. The Vario 18 can be used with either the specially designed Medela Reusable (RCS) or Disposable Collection Systems (DCS). Moreover, the membrane vacuum regulator of Vario 18 allows precise vacuum settings without air leakage.

#### For High Performance and simplified HCP suctioning effort

While combining safety features, ease of use, and functional versatility, Vario 18 remains an indispensable portable suction pump for airway suction in hospital environment. It is compact, equipped with its carrying handle design that makes transport easy. At the same time, the battery powered option makes it ultraportable and versatile for more than 30 minutes. Vacuum build-up is achieved within the first 6 seconds (see chart 2 in page 3), while flow and vacuum rate can be easily adaptable. The process makes the effort for the HCP eased and simplified with high flexibility in place.

#### Quiet running low vibration

The QuatroFlex piston/cylinder technology offers superior longlasting power and durability. The Vario 18 operates quietly, making airway suctioning discreet with high efficiency.

## Reliable with long medical suction expertise

Known and trusted over 60 years\* for medical suction expertise, Medela offers high quality solutions for a wide range of clinical applications and warrants the device will be free from defects for a period of 2 years from the delivery date, while the technical service support is always on availability for any inconvenience occurred. For more information on warranty please read the Instructions for Use of the device.

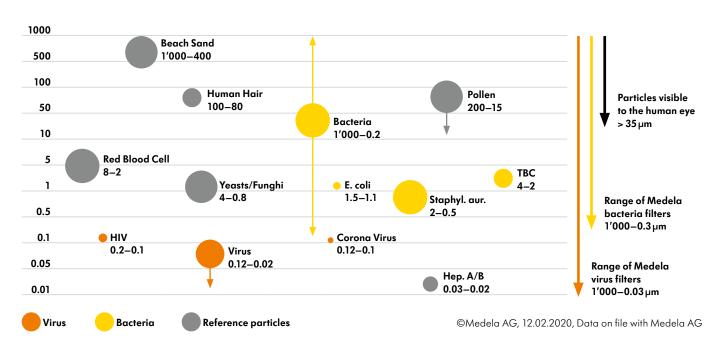


| Product codes  |                              |             |  |
|----------------|------------------------------|-------------|--|
|                | AC version                   |             |  |
|                | 026.2110 230–240 V/50Hz      | Euro plug   |  |
| Item numbers   | 026.2120 100–120 V/60Hz      | US plug     |  |
|                | 026.2150 230–240 V/50Hz      | AUS/NZ plug |  |
|                | 026.2160 230–240 V/50Hz      | Euro plug   |  |
|                | AC/DC version                |             |  |
|                | 026.5110 100–240 V/50–60 Hz  | Euro plug   |  |
|                | 026.5120 100–240 V/50–60 Hz  | US plug     |  |
|                | 026.5140 100–240 V/50–60 Hz  | UK plug     |  |
|                | 101046668 100–240 V/50–60 Hz | Brazil plug |  |
|                | 101046669 100–240 V/50–60 Hz | China plug  |  |
|                | AC/DC c/i version            |             |  |
|                | 026.8122 100–240 V/50–60 Hz  | US plug     |  |
|                | 026.8152 230–240 V/50Hz      | AUS/NZ plug |  |
| Service manual | 177.2610 (EN, DE)            |             |  |

| Pump specifications  |   |  |
|--|---|--|
| Max. vacuum [kPa/mmHg]                                     | -75/-563 (±10% tolerance)   |  |
| Flow [l/min]   | 18 l/min. (±10% tolerance)  |  |
| Dimensions [mm]  | 380 x 170 x 285<br>height including filter and 90° coupling piece: 440      |  |
| Weight [kg]  | AC 3.5<br>AC/DC 4.2   |  |
| Drive unit   | QuatroFlex piston/cylinder technology                                       |  |
| Power supply   | AC 230–240V, 50 Hz/230–240V, 60 Hz/120 V, 60 Hz<br>AC/DC 100–240V, 50–60 Hz |  |
| Power consumption [W]                                      | AC 90 (70 for 100–120V version AC)<br>AC/DC 80                              |  |
| Noise level [dB(A)]  | <56   |  |
| Vacuum regulator   | Membrane  |  |
| Protection against electric shock                          | Type CF (cardiac floating: max. earth leaking current 10 $\mu$ A)           |  |
| Medical Device Classification – According to 93/42/EEC     | Class IIa   |  |
| Protection against electric shock                          | Class II Equipment  |  |
| Ingress Protection   | IP22  |  |
| Battery  | NiMH  |  |
| Operation from battery (at full charge)                    | 30 minutes  |  |
| Charging time of battery                                   | 5 hours   |  |
| Low battery indication                                     | LED and acoustic  |  |
| Overflow protection  | Disposable overflow protection/bacterial filter (5 pcs included)            |  |
| Warranty [years]   | 2; QuatroFlex and battery 6 months  |  |
| Operating temperature, relative humidity, pressure         | +5 to +40°C / 15 to 93% / 70 to 106 kPa                                     |  |
| Transport/storage temperature, relative humidity, pressure | –20 to +55°C / 15 to 93% / 70 to 106 kPa                                    |  |
| Made in  | Switzerland   |  |
|  |   |  |

Chart 1

Filtration Efficiency µm (Micrometer)



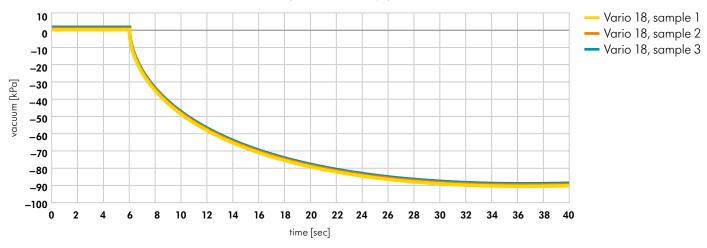
**Benefits at a glance** 

igvee Laboratory tested high **virus retention grades of 99.99 %** for particles larger than 0.03  $\mu$ m

🗸 Captures all kinds of Coronaviruses: 2019-nCoV, SARS-CoV, HCoV NL 63 and HKUI

V Filters all kinds of viruses and bacteria

#### Chart 2



Vacuum build-up, Vario 18 AC, calculated at sea level (with filter and 1 L jar)

#### Conclusion

Vario 18 build-up regulator lasts maximum 6 seconds, while vacuum performance starts stabilising vacuum to -90 kPa at 30 seconds.

| Main compatible accessories           |             |
|---------------------------------------|-------------|
| Reusable Collection System            | Item number |
| Reusable 1   set with PSU suction jar | 077.0715    |
| Reusable 21 set with PSU suction jar  | 077.0716    |

| Disposable Collection System                  | Item number |
|---|-------------|
| Suction jar PC, 1.51                          | 077.0082    |
| Disposable suction liner 1.51                 | 077.0083    |
| Disposable suction liner 1.51 with solidifier | 077.0084    |
| Adapter for Vario                             | 077.0105    |

| Filters (selection of range)  | Item number |
|---|-------------|
| Vario disposable filter set   | 077.0834    |
| Disposable overflow protection/bacteria filter with Medela connection     | 077.0571    |
| Disposable bacteria filter with Medela connection                         | 077.0573    |
| Disposable bacteria/odour filter with Medela connection                   | 077.0575    |
| Disposable virus filter with overflow protection with Medela connection   | 101035263   |
| Disposable virus filter with overflow protection with conical connections | 101035264   |
| Disposable virus filter with Medela connection                            | 101035265   |

| Tubing, silicone (selection of range)  | Item number |
|--|-------------|
| Silicone tubing Ø $7x12$ mm, without coupling pieces, 1 m                        | 077.0901    |
| Silicone tubing Ø 7x12 mm, without coupling pieces, 2 m                          | 077.0902    |
| Silicone tubing Ø 7x12 mm with 1 coupling piece, 60 cm                           | 077.0912    |
| Silicone tubing Ø 7x12 mm with 1 coupling piece, 100 cm                          | 077.0913    |
| Silicone tubing Ø 7x12 mm with 2 coupling pieces, 30 cm                          | 077.0921    |
| Silicone tubing Ø 7x12 mm with 2 coupling pieces, 60 cm                          | 077.0922    |
| Silicone tubing Ø 7x12 mm, 25 cm, with 1 coupling piece and 1 coupling piece 90° | 077.0931    |

| Tubing, disposable                                       | Item number |
|--|-------------|
| Disposable (PVC) tubing, 180 cm, with fingertip, sterile | 077.0951    |
| Disposable tubing,180cm, with fingertip, non sterile     | 077.0952    |

| Optional  | Item number |
|---|-------------|
| Clampholder, plastic  | 077.0521    |
| Wall bracket, single  | 077.0523    |
| Vario carrying bag  | 077.0831    |
| Car connection cable for Vario 12V DC                               | 077.0832    |
| Disposable specimen cup, Ø 6–10 mm (for reusable collection system) | 077.0562    |
| Disposable specimen cup for disposable collection system            | 077.0094    |

## **CE** 0123

CAUTION: Federal law restricts this device to sale by or on the order of a health professional.

Medical Vacuum Technology for Healthcare Professionals Please contact us or your local Medela representative for details.

Local contact

