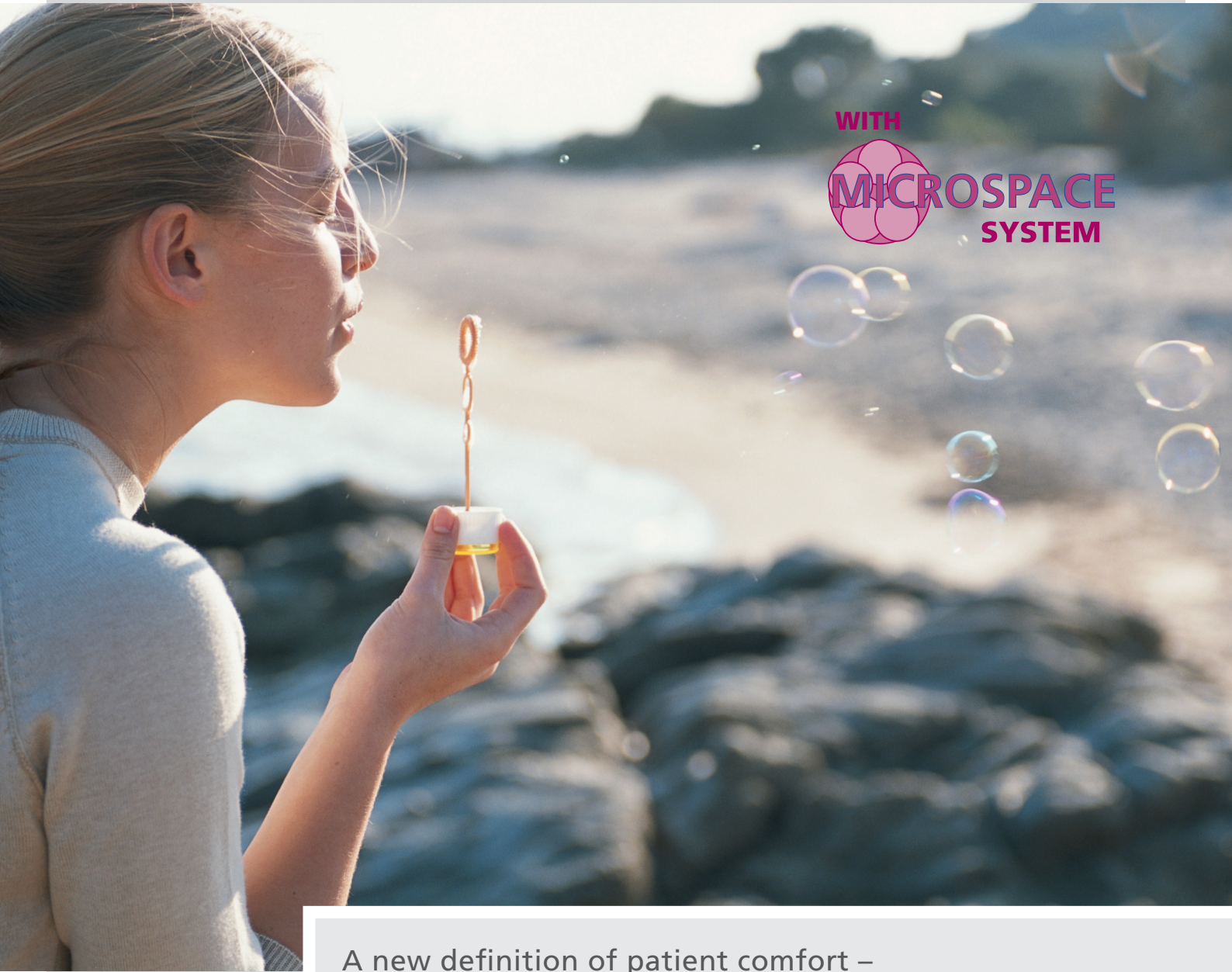


THE SURGICAL BEDDING CONCEPT – A NEW GENERATION



WITH
**MICROSPACE
SYSTEM**

A new definition of patient comfort –
the feeling of weightlessness in surgery



The product benefits of Vacuform® 2.0 surgical mattresses



- Optimized pressure relief (pressure test of ETH-HEMPA**)
- Free of latex, PVC and softening agents (biocompatible)
- 100% suitable for X-ray, MRI and CT use
- Image converter application possible during surgery
- In color-therapy, the color magenta next to green is described: "Having a general harmonizing effect on body and soul"

Vacuform® 2.0 is provided with a new technology of a special coated PUR foil on the bottom side and makes them slip-proof. The coating of the upper side is

particularly soft, flexible and absolutely stable in form. Vacuform® 2.0 contains no latex, PVC and zero softening agents such as e. g. DEHP and **biocompatible**. The optimized pressure relief ensures the microcirculation needed by skin.

Vacuform® 2.0 is 100% permeable to **X-rays** as well as suitable for **MRI and CT use**, and they are equipped with a **plastic valve for one-handed operation**. Thanks to the new materials and technologies, Vacuform® 2.0 provides highest possible comfort for the patient while ensuring optimal working conditional for the surgical staff and surgeon.

The innovative Vacuform® 2.0 MicroSpace System



MicroSpace filling in the evacuated state



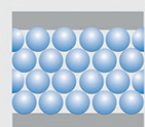
Conventional filling in the evacuated state



Arrangement of the Vacuform® 2.0 MicroSpace balls without vacuum



Arrangement of the Vacuform® 2.0 MicroSpace balls under vacuum



Arrangement of conventional styrofoam balls without vacuum

- Further optimized pressure relief
- "Weightless" feeling (like a water-bed) despite stable immobilization
- Surface nearly untextured
- No slippage on the surgery table
- Safe immobilization
- Extreme surgery table inclination possible
- Fast, simple handling

The secret of perfected adaptation to the body by Vacuform® 2.0 surgical mattresses is microballs of styrofoam, which are stabilized by vacuum to give a lasting, completely supportive form. Only Vacuform® 2.0 contains since many years about the well proven and unique MicroSpace System an increases the feeling of physical comfort for the patient significantly compared to conventional fillings.

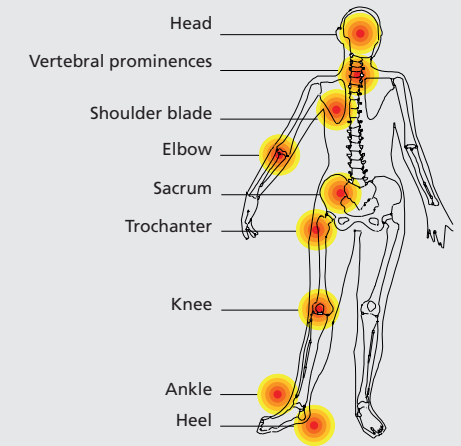
Reducing the diameter of the filler balls by a fifth enables significantly more precise adaptation of the surgical mattresses to the body.

Decubitus prophylaxis in the operating theatre

Particularly during **time-consuming** operations or with patients who are older and in poor condition, there is a risk of pressure points leading to acute decubital ulcers* and paresis (paralysis from nerve damage). The individual, **ergonomic body adaptation** of Vacuform® 2.0 surgical mattresses effectively prevents such

damage. The **support pressure** of the patient is optimally distributed over the whole body and thus reduced to a minimum. The **microcirculation** needed by the skin is unaffected. The patient has a noticeable feeling of **comfort**, a feeling of lightness and warmth.

* Decubitus (bedsore, pressure sore) is damage to the skin and underlying tissue caused by pressure sustained for a longer period of time. It results in pain, isolation and reduced quality of life for the patient. Problems with decubitus can arise with as little as 10 to 20 minutes of increased pressure. Follow-up therapy for this results in Germany costs between 0.7 and 2 billion euros. (Pelka 1997)



Parts of the body at risk from decubitus

Safety on the operating table

The patient can be immobilized quickly and securely in any desired position. This gives the surgeon optimal access to the operation area and allows **safe handling** of the patient. Even the most extreme tilting of the surgery table does not change the defined position of the patient. The surgical positioning can be corrected at any time by relieving the vacuum, forming the surgical mattress to the new position of the patient and then evacuating the air again. Moreover, Vacuform® 2.0 surgical mattresses enable **transport between hospitals** in a **defined surgical position**.

- Examples of Vacuform® 2.0 indications:**
- Side position
 - Semi-lateral position
 - Supine position
 - Seated / half-seated position
 - Screw position
 - Lithotomy position
 - Laparoscopic positions
 - Inter-clinical transport



Cost reduction with Vacuform® 2.0

- Prevention of sequelae
- Saves additional materials
- Long reusability
- Covers a wide range of surgeries
- Intra-operative illumination possible

Vacuform® 2.0 contributes to efficiency and leads to **considerable cost reduction** through fast, simple handling, prevention of sequelae such as decubitus and paresis,

saving of additional materials, fast cleaning and long reusability even with constant use.

The University Hospital Inselspital in Berne regarding the experience with Vacuform® surgical mattresses:

"The many years of work with the vacuum mattress have given us many advantages with respect to patient safety, quality of the individual positions, simplified handling, time savings and cost reduction by saving of additional bedding material. Once could maintain that the number of sequelae such as decubitus and paresis have decreased to insignificance with the use of Vacuform® surgical mattresses."

Pressure measurement:

The main reason for the occurrence of decubitus is the coaction of pressure, respectively shearing and time. How much pressure how long acting on the body, without causing damage is very different. To provide generally binding pressure and time specifications is not possible, as the

underlying disease, state of health, age, etc. have an influence. But fact is: less support pressure allows a longer pressure impact! The support pressure measuring between the actual green Vacuform® and the new pink Vacuform® 2.0 pointed out optimized

support pressuring values under equal conditions and same period. The specialized vacuum system **Siliplus**, developed for mayor surgery's, shows the best value.

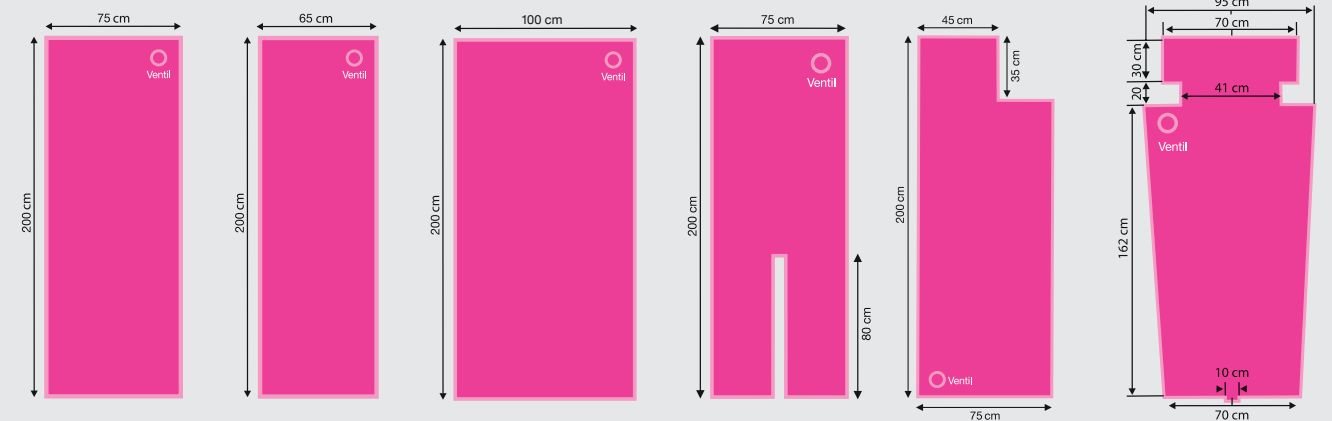


The expanded Vacuform® 2.0 selection of surgical mattresses

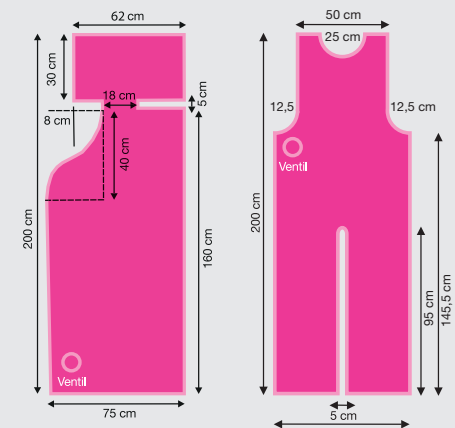
- Expanded standard selection
- Models for obese patients
- Custom product production

For all interventions requiring special positioning for surgery, the Vacuform® 2.0 product line offers surgical mattresses to satisfy all the relevant requirements for the indication. The **new, expanded Vacuform® 2.0 product line** includes

surgical mattresses for obese patients as well as a vacuum mattress as a contemporary alternative to a plaster bed. Furthermore, we are able to make nearly any **special size** you require.



Vacuform® 2.0 universal surgical mattress 75 x 200 cm # 34 66 105
 Vacuform® 2.0 universal surgical mattress 65 x 200 cm # 34 66 205
 Vacuform® 2.0 universal surgical mattress 100 x 200 cm # 34 66 104
 Vacuform® 2.0 lower leg and foot surgical mattress 75 x 200 cm # 34 66 505
 Vacuform® 2.0 shoulder surgical mattress 75 x 200 cm # 34 66 605 including additional pillow 35 x 30 cm # 34 66 605-k
 Vacuform® 2.0 Murpf surgical mattress for side positioning 95/70 x 212 cm # 34 66 305

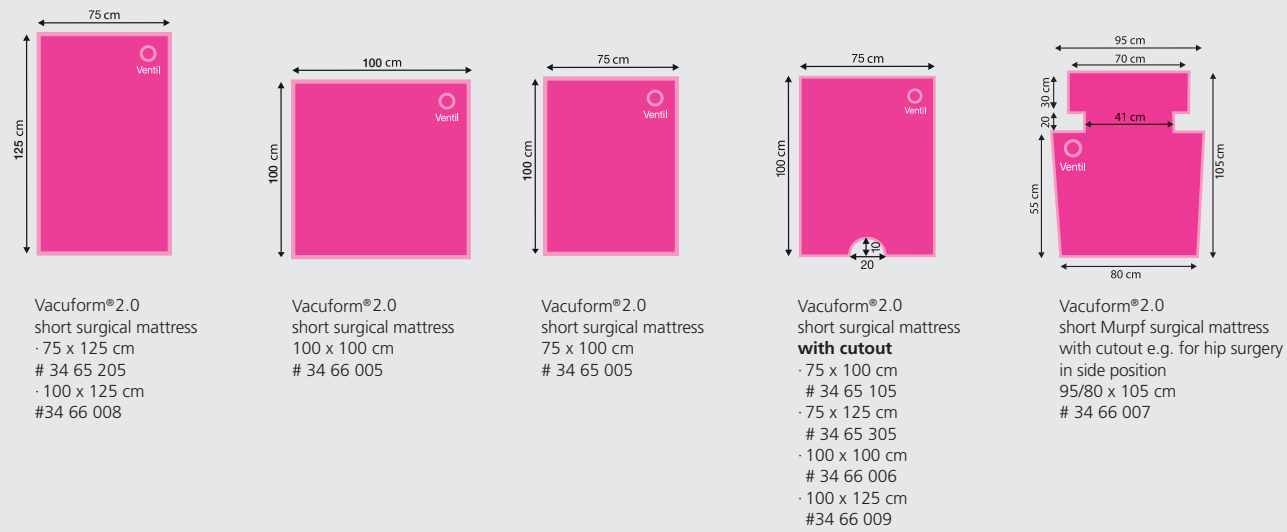


Vacuform® 2.0 shoulder surgical mattress 75 x 200 cm # 34 66 405
 »plaster bed« with vacuum technology, reusable, e.g. for inoperable spondylitis 75 x 200 cm # 34 66 610



34 66 305

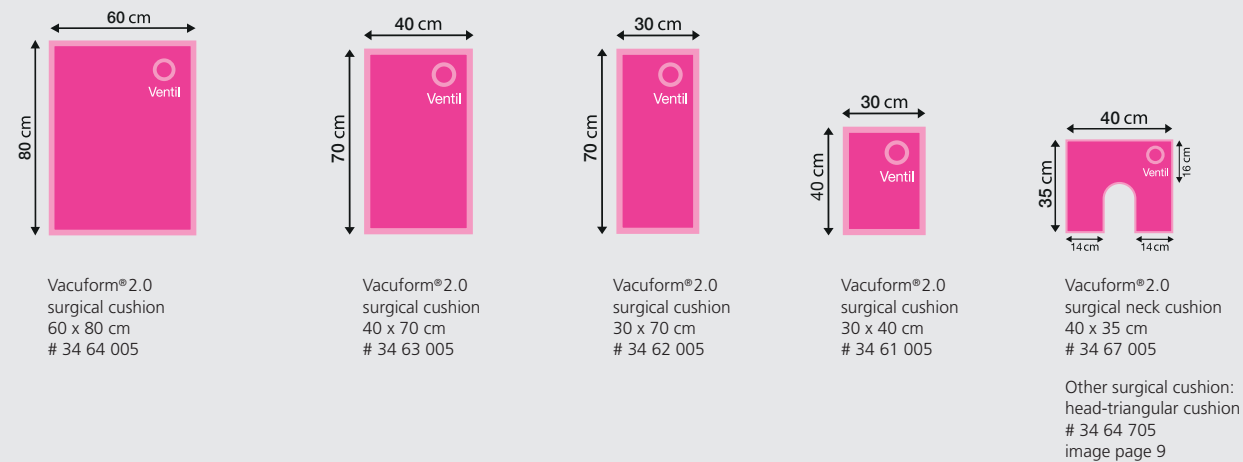
Vacuform® 2.0 short surgical mattresses



The comprehensive offering of VACUFORM products helps you achieve almost any position and positioning for patients. The cushions can be used universally for the partial positioning of arms and legs, positioning the head or positioning of small children and babies.

The use as a simple pad or for general decubitus prophylaxis is also possible. The partial or whole fixed positioning during a CT, MRI or X-ray extends the field of application many times over.

Vacuform® 2.0 surgical cushions



Vacuum mattress for laparoscopic sigma resection

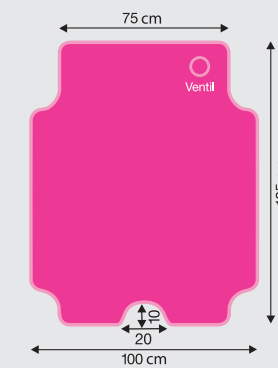
- A special positioning of the patient is needed for a laparoscopic sigma resection.
- Available in two sizes:
Size: 75/100 x 125 cm with section
and
Size: 75/118 x 125 cm with section

The shape of this newly developed mattress in the VACUFORM 2.0 product series enables the positioning of the patient in a lithotomy position with elongated arms and an **extremely low position of the head**. For this purpose, the mattress has a widening from the height of the shoulders to the hands. They can be shaped at the shoulders so that the patient can be held in this position without shoulder support. The individual adjustment in the area of the shoulders

here prevents **paresis (paralysis) and nerve damage**. The underside of the mattress is equipped with a slip-proof special coating. In this extreme Trendelenburg position during a laparoscopic sigma resection, a non-slip film should additionally be positioned between the vacuum mattress and the operating table. This widening is not necessary for a perfect positioning of the head and pelvis. The mattress is also equipped with a section in the lower area.



Trendelenburg/SigmaLap Position



Vacuform® 2.0 kurze OP-Matratze mit Ausschnitt
75/100 x 125 cm
34 65 315
breitere Ausführung
75/118 x 125 cm mit Ausschnitt
34 65 316



Vacuform® 2.0 Siliplus – the optimised OR-Vacuummattress

- Further improved pressure release
- Accurately fitting and efficient
- Especially for long term operations

Vacuform® 2.0 **Siliplus** is a new, further optimised vacuum mattress from the Vacuform® 2.0 series. A system that is essential in the Operation Theatre for many years.

Vacuform® 2.0 **Siliplus** is a compound system with which a silicone gel mat is firmly connected with a vacuum cushion.

Because of the combination and the permanent compound of both components, which are already used as independent products in the OP, the pressure release becomes improved extensive. Especially while operations, e. g. in the oncological surgery, which can last sometimes longer than 20 hours, is this important to guaranty an optimum pressure release.

With Vacuform® 2.0 **Siliplus** a vacuum mattress which owns this determining

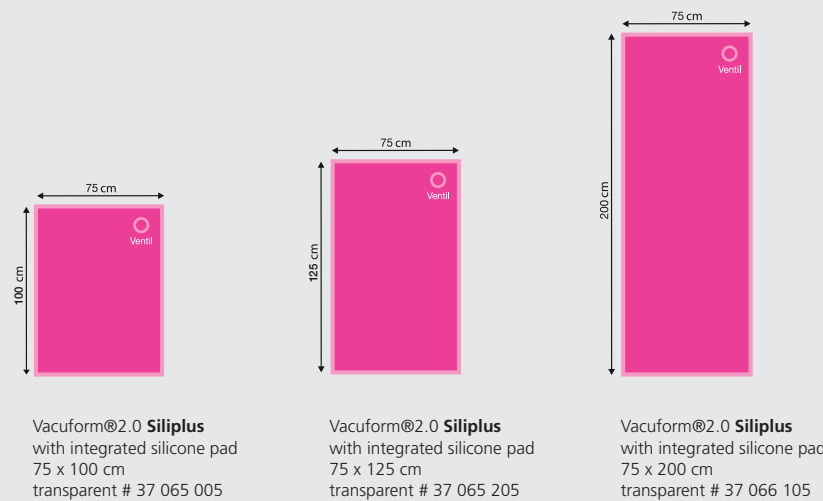
quality is now available. At the same time all the other advantages are preserved with a patient positioning with Vacuform® 2.0 mattresses or Vacuform® 2.0 cushions. This are mainly the security of the patient on the OP table also with extreme table inclinations, cost reduction by saving of time with positioning and cleaning, X-ray porosity, MRI- and CT suitability and many more.



New production techniques enable us to manufacture our entire standard range with an integrated silicone pad, such as our Sigma-Lap mattress.

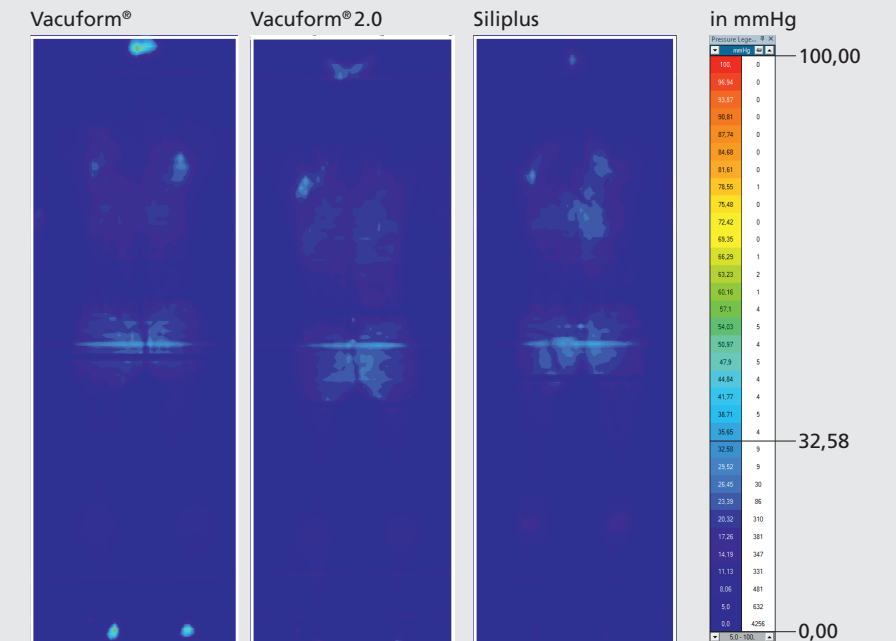
Vacuform® 2.0 Siliplus – with integrated silicone pad

- Available in transparent



Pressure measurement:

Ask us for detailed measuring values to the edition pressure measurement. The measurements became in cooperation with the EMPA (Swiss) and Compliant Concept.



The Vacuform® 2.0 triangle head pillow

This specially developed head pillow can be ideally adjusted to the head using the Vacuform 2.0 principle. The valve for suction is located on the upper side of the head pillow.

The pillow is particularly suitable for all surgical positions in the supine position and makes this position noticeably more comfortable. The pillow can be placed and adjusted individually or in an existing position under the head.

It is also recommended to use it as a head pillow during operations in the dentist's chair, as the patient feels more comfortable in a comfortable position with optimally supported head and is therefore calmer.

The head triangle pillow is X-ray permeable and suitable for CT and MRI.

Vacuform® 2.0 head-triangular cushion
leg length ca. 40 x 40 x 50 cm
34 64 705



Vacuform® 2.0 QuickForm – with 6 chamber system



34 366 105

It has been proven time and again that there must be the possibility to be able to reposition the vacuum mattress so that it creates the optimal individual position for every patient.

Due to this, a fixed position of the filling through a multiple chamber system in the vacuum mattress is not always recommended. There are however surgeries that do not last long and during these, the patient for example will be positioned in a simple supine position. Here it will often suffice due to the short duration of the surgery to forego the use of the vacuum mattress, although this will be more comfortable for the patient in any case. Even brief surgeries can cause a bad physical condition in patients (cachectic) in Decubitus.

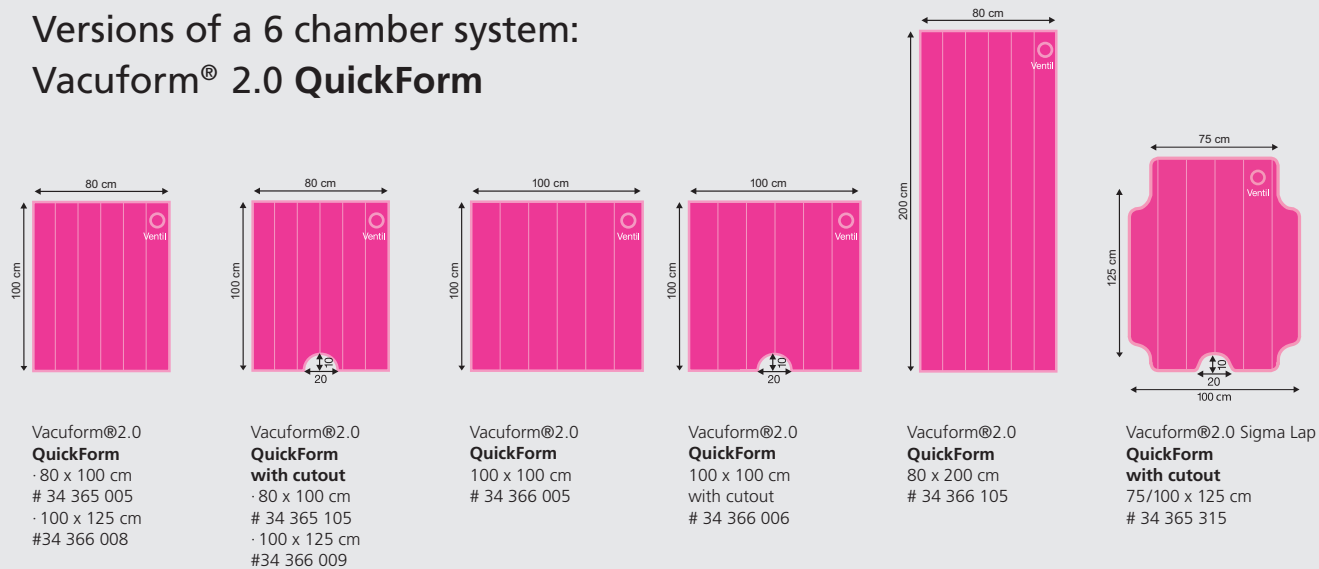
Advantages of the 6 chamber mattress:

- Immediate readiness. The filling is optimally spaced.
- Preparation that saves time and money.
- Unrestricted use of all advantages of VACUFORM 2.0: optimal adjustment, decubitus prophylaxis, safety, heat storage, prevents nerve damage, optimal access to the operation area etc.



343 66 005

Versions of a 6 chamber system: Vacuform® 2.0 QuickForm



Vacuform® 2.0 surgical equipment



5370
5355

34 90 122

34 90 123

34 66 900/901

34 66 906

Vacuum hand pumps

In case there is no vacuum system in the operating room, we offer a selection of easy-to-use vacuum hand pumps for all Vacuform® 2.0 products:

Plastic vacuum pump

Length 45 cm # 5370

Plastic vacuum pump with non-magnetic brass rod

Length 45 cm # 5355

Carrying bag

silver, 80 x 100 cm, suitable for all sizes # 34 66 800

Repair kit

For damages up to max. 5 cm we recommend this repair kit with the enclosed pieces of foil and glue.
34 90 122

For the reparation of needle holes and short cuts with max. 2 cm this repair kit with the self-adhesive foil is a fast and simple solution.
34 90 123

Non-slip-sheeting and -mat

prevents slippage of the surgical mattress in extreme positions, such as during laparoscopic sigma resections. The sheeting is easy to clean and reusable.

prevents slippage of the surgical mattress in extreme positions, such as during laparoscopic sigma resections. The sheeting is easy to clean and reusable.

Non-slip-sheet
40 x 100 cm # 34 66 900
Roll of non-slip for to take a short cut
Roll 40 x 900 cm # 34 66 901

Non-slip-mat
25 x 35 cm # 34 66 906



34 66 800

The Vacuform® 2.0 surgical sheet

The Vacuform® 2.0 surgical sheet is equipped with 8 handles for turning and repositioning the patient. Its outstanding features include high durability, silky comfort and a long service life. The material consists of three layers:

1. A soft velour surface.
2. A extremely absorbent Triton™ layer able to handle up to 1.25 liters of liquid per m².

3. A layer impermeable to liquid to protect the surgical mattress and operating table. The composition of the fibers used effectively prevents rewetting, so the Vacuform® 2.0 surgical sheet essentially always feels dry.

Vacuform® 2.0 surgical sheet

80 x 220 cm # 34 70 000





Plastic products for health
and emergency services

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Since 1961, B. u. W. Schmidt GmbH in Garbsen near Hanover has produced precision products made of high-frequency welded flat sheets for the health and emergency services sector. Faultless quality and workmanship, easy handling and rugged materials are the basis for the uncompromising safety of our products.

Our service ensures short delivery times and fast repairs in our factory. The quality management system of B.u.W. Schmidt GmbH is EN ISO certified. All equipment complies with the German Medical Device Act (MPG) and bears the CE mark.

If you cannot find the desired items or dimensions in this brochure, please contact us regarding custom production. Our computer-aided production system enables us to make equipment to meet your individual requirements in all sizes up to 150 x 250 cm.