

Seating & Positioning

2023 Cushions brochure

permobil



Reliable seating solutions for every individual

At Permobil we have seating solutions for everyone. Solutions that are designed for all ages, lengths, functional abilities and needs. We know how important it is to find the right wheelchair cushion. That's why we offer the most advanced designs and materials that are best for you: flowing air, foam, non-flowing air and hybrid materials. And then we get you the optimum size. Most of our cushions are also designed to adapt to your needs on a daily basis and over time. Permobil seating solutions are tested and refined by doctors to give you optimum protection, positioning and stability and - more importantly - to give you the best possible support. and stability and - more importantly - peace of mind. Our products are designed for better clinical results so that you can live your life to the full.

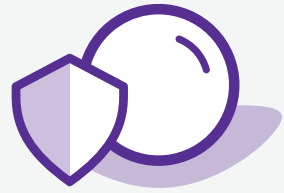
Permobil. Innovating for individuals.

Content:

- Features of a great seat
- Clinical evidence
- History of our products
- Our cushion technologies
- Our Cushions

Choose from a wide range of air, foam and hybrid cushions from Permobil, so you can find the seating solution to find the seating solution that best suits your specific needs. You can rely on our products offering optimal protection for the skin and soft tissues, based on years of clinical testing. In addition, the pre-shaped cushions ensure better stability and positioning.

Features of a great seat



Protection of skin and soft tissues

Protecting your skin is one of the most important things to do when you are in a wheelchair. People who use a wheelchair as their

primary means of mobility, often have a sitting time of more than 10 hours a day. These sitting times, combined with a limited ability to change position and reduced sensation, can put them at high risk of skin breakdown. EPUAP has therefore identified immobility as the most important risk factor for pressure ulcers.

As the pressure in the seat cannot be relieved, we have to focus on pressure distribution.

pressure. The 2019 EPUAP clinical practice guideline

(CPG) for pressure ulcer prevention states that pressure ulcers is the result of pressure or pressure combined with shear forces. When tissues become deformed, a number of unhealthy conditions can result, including direct cellular damage, inflammation, oedema, reduced blood flow and lymphatic obstruction, all of which can lead to cell and tissue death, and pressure ulcers.

The CPG recommends that wheelchair cushions can reduce the risk of pressure ulcers by distributing pressure (through immersion, containment or pressure relief), reducing frictional and shear forces and controlling the microclimate. The CPG also notes that cushions alone cannot prevent or cure pressure ulcers, but they are an important part of an overall care plan. Selection should be based on the specific needs of the individual.

Most Permobil cushions contain elements of immersion, support and/or pressure relief to help prevent damage to the skin and soft tissues.



Immersion

The cushion allows the body to sink into the pillow and supports the pelvis..



Envelopment

The cushion not only offers immersion, it also encloses the body, creating a larger contact surface and better distribution of pressure.



Pressure relief

The cushion takes the pressure from a small area and distributes it over a larger area that can withstand more pressure.

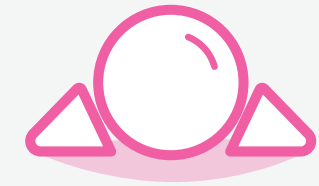


Positioning

Good posture reduces pain and minimises the risk of falling out of your wheelchair and injuring yourself. Correct positioning also protects the integrity of your bone structure. But did you know that correct positioning also allows you to see more of your surroundings, breathe and swallow better and has a better digestion?

With proper positioning, you will experience more comfort, be less tired and be able to interact with your surroundings better, too. Incorrect positioning can cause severe pain and even lead to long-term structural problems. That is why our pillows are made to promote good posture.

Most Permobil cushions are designed to improve the aim of improving postural stability and freedom of movement, to support people in their daily activities, with their daily activities.



Stability

A stable pelvis ensures the stability of the spine, because the two are connected.

A stable base makes it easy for you to move to and from the wheelchair and have control over your posture. It also

enables you to reach forward and lean move to the side and feel more secure and safe in your wheelchair. This makes a huge difference to your daily life and in your ability to take part in activities. We want all those things for you, and so much more!

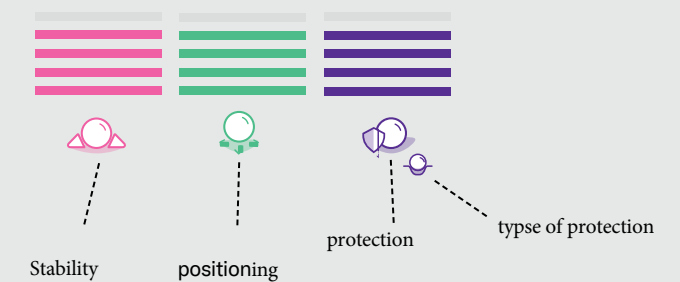
Our seating solutions give you the support, balance and reliability that you need.

Most Permobil cushions are designed to help users to control their posture and control and prevent them from slipping.

They also help keep the pelvis in position and enable and enable users to reach and lean to reach out and lean while maintaining stability.

Get more insight into the characteristics

In this brochure, graphs like the one shown on the right are included with each cushion. These charts give an indication of the characteristics of each cushion and the type of skin protection it provides. These ratings are based on clinical, scientific and technical evidence.



The science behind our products

Evidence-based practice

To demonstrate how Permobil cushions perform, we rely on a variety of evidence and best practices, including clinical considerations and published clinical evidence, mechanical data from standardised stationary tests (ISO and RESNA), current clinical practice guidelines (CPG) for pressure ulcer prevention and regulatory requirements for medical devices, such as the European Medical Devices Regulation (MDR).

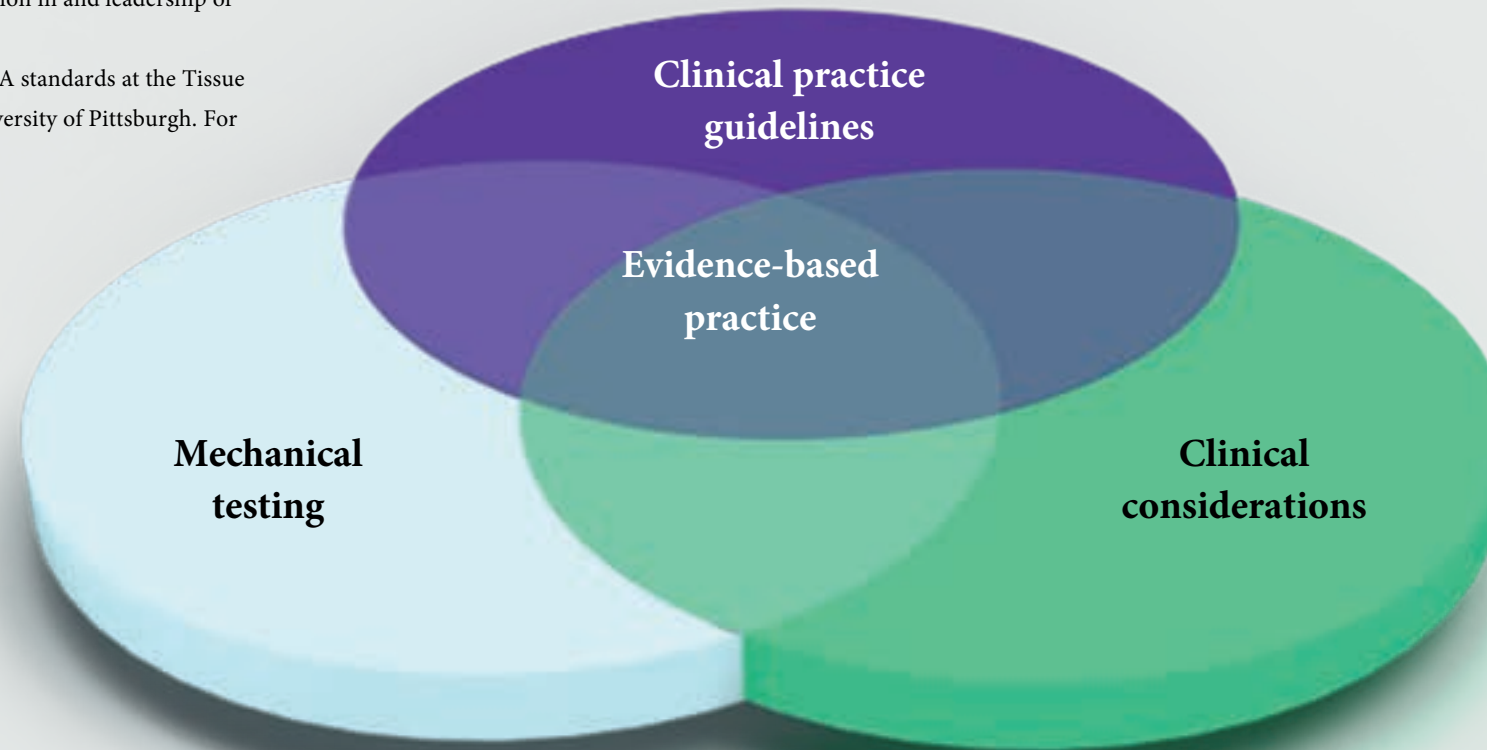
Mechanical testing

Permobil professionals are at the forefront of standardised stationary tests and clinical practices, through participation in and leadership of EPUAP, ANSI/RESNA, ISO and CEN.

We test our cushions to ISO and ANSI/RESNA standards at the Tissue Integrity Management Laboratory at the University of Pittsburgh. For more information: wheelchairstandards.com




Clinical practice guidelines

We have always based the design, development and evolution of our cushions on clinical recommendations in order to optimise the results for users. Permobil seating solutions are assessed and refined by doctors and also by globally



Clinical considerations

This kind of evidence and information can help you select the right cushion. Every cushion is unique, just like you. Find the cushion that suits you best.

Features of a great seat	Mechanical testing
 Skin protection	<p>The immersion test (ISO 16840-2) shows how deeply the body sinks into the cushion.</p> <p>The envelopment test (ISO 16840-12) shows how the cushion encloses the buttock surface to distribute the body weight and reduce pressure.</p> <p>The shear force test (shear force sensor) shows the potential for tissue degradation/distortion through interaction of the cushion with the body.</p> <p>The seat pressure mapping (seat pressure measurement) shows how much contact is made between the seat and the user.</p>
 Positioning	<p>The sliding resistance test (ISO 16840-2) shows how much force is required to slide forward when sitting.</p>
 Stability	<p>The lateral tilting test (ISO 16840-13) demonstrates the stability that the cushion can provide when leaning to the side.</p>

Clinical practice guidelines	Clinical considerations
<p>The CPG states that pressure ulcers are caused by pressure or pressure combined with shearing forces. The EPUAP gives guidelines for the use of bedding systems to distribute pressure in one of the following ways: by immersion/compression or pressure transfer/relief. The EPUAP recommends an immersion of more than 40 mm, so that bone protrusions are enclosed, thus reducing the risk of pressure sores.</p>	<p>Lower shear forces minimise tissue degradation/deformation and can reduce the risk of pressure ulcers. Provide as large a contact area as possible to promote better pressure distribution, which may reduce the risk of pressure ulcers. Immersion of the bone protrusions may reduce the risk of pressure ulcers.</p>
	<p>A higher shear resistance indicates more stability and can make the pelvis of persons with a weak trunk and/or a weak pelvis slide less forward in the cushion.</p>
	<p>For persons with a weak trunk and/or pelvis, a more stable cushion can make it easier to perform daily activities.</p>

History of our products

ROHO® cushions

For almost 50 years, ROHO has focused on the research, development and production of air cell based cushions, making ROHO cushions the industry leader in skin and soft tissue protection.

ROHO cushions have an air cell design that keeps you in position as you move and constantly adapts to your body. This technology is called DRY FLOATATION® (more on this in the technical section) and is a ROHO exclusive. These specially developed and adjustable air cells mimic the properties of water and allow your body to sink in and be encompassed for excellent pressure distribution.

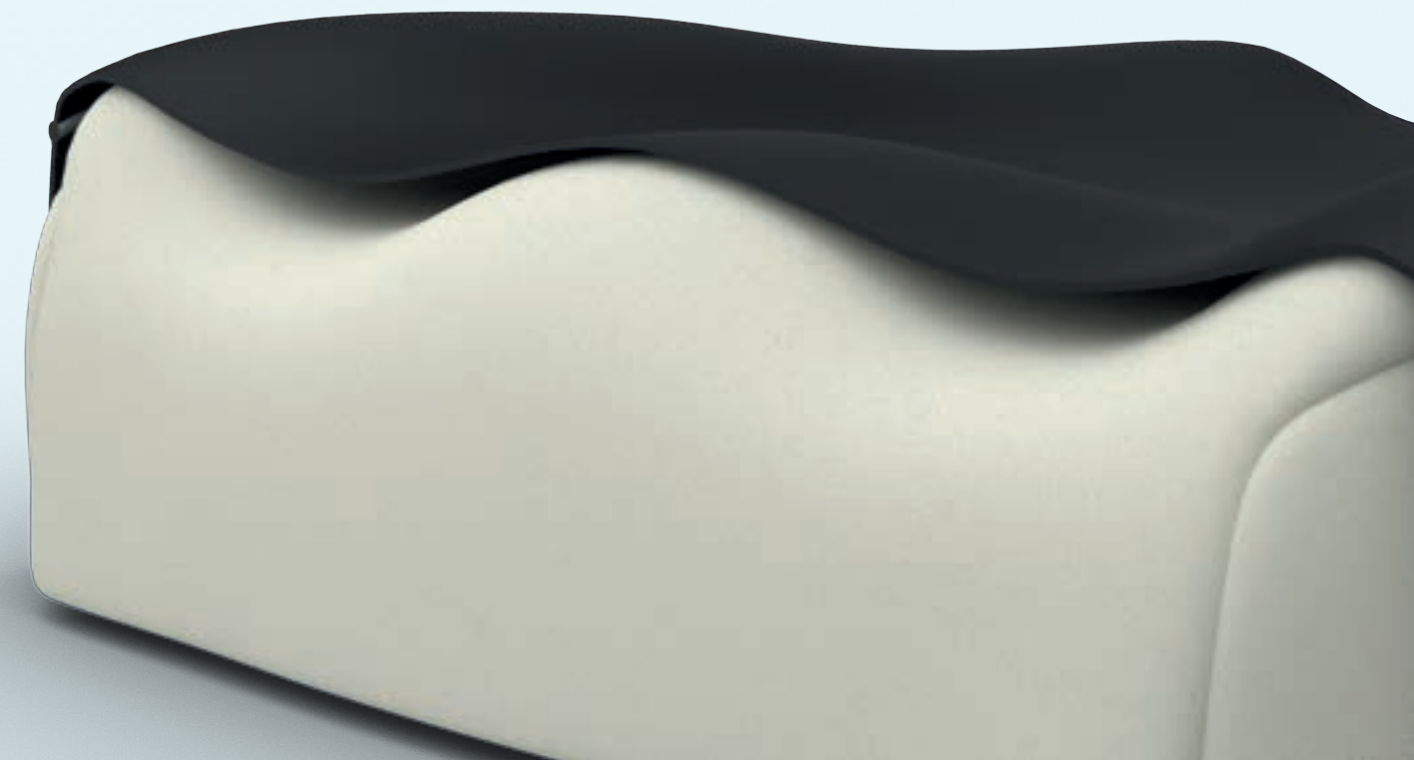
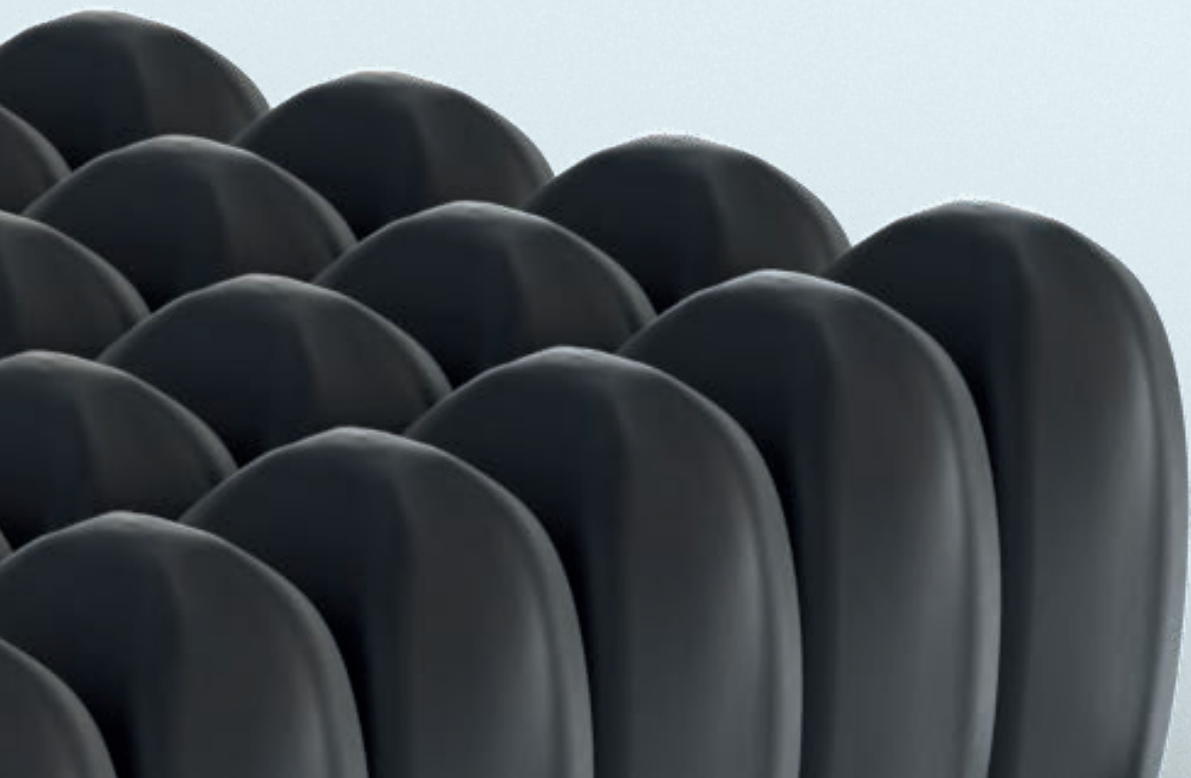
Each cushion has multiple air cells made of a soft, smooth and pliable material that reduces sliding and friction forces. Some cushions even have anatomical contours or a hybrid foam base to provide users with additional support and stability. Some cushions allow you to individually adjust the inflation levels in the different compartments according to your needs. What sets a ROHO pillow apart is the airflow between the cells, which allows the pillow to move with the body. This creates a comfortable seat that constantly adapts to the changes in body position that occur during the day and over time. Its performance has been clearly demonstrated in many scientific and clinical studies confirming that a ROHO DRY FLOATATION cushion helps to prevent pressure sores, including deep tissue damage. ROHO pillows are the world leader in skin protection and positioning products and there are currently more than a million cushions in use in more than 70 countries. That's pretty amazing when you think about it. This is quite amazing when you consider that ROHO cushions originated in 1973, when an electrical engineer made just a few cushions each day to support rehabilitation patients. The factory now produces more than 1000 cushions per day!

Whether you need the form-filling, pressure-relieving power of DRY FLOATATION technology or aggressive positioning and transfers that are smoother and safer: there is a ROHO pillow designed just for you.

Key benefits:

- protection of the skin and soft tissues
- improved positioning and stability
- can be adjusted while the user is seated

Most ROHO pillows are manufactured in Belleville, IL, USA. The high quality of our proprietary neoprene and the ISO 13485 certified quality management system give you the assurance that your pillow will perform year after year.





Continuously improving technology

We follow technological developments closely. We strive for continuous improvement so that we can provide the stability, protection and comfort you need to live your life to the fullest. protection and comfort you need to live your life to the full.

Our cushion technologies

DRY FLOATATION® technology

ROHO's DRY FLOATATION technology is based on hydrostatics, which means that the cushion mimics the pressure-distributing properties of water. The technology is based on four basic principles for optimal skin protection, stability and positioning.

Allow yourself to sink

Our unique design allows you to sink into the cushion easily, reducing both pressure and discomfort on your skin and soft tissues. When someone spends the whole day sitting, it can cause a lot of pressure. A ROHO pillow allows your body to sink into the air cells without resistance, while enclosing it in a protective environment that provides comfort and distributes pressure.



Moves with you

Whatever you are doing, your ROHO pillow adapts to any position. The air cells follow your movements and provide support and freedom of movement. ROHO pillows are designed to move with the body and constantly adapt to the changes in posture that occur throughout the day and over time.



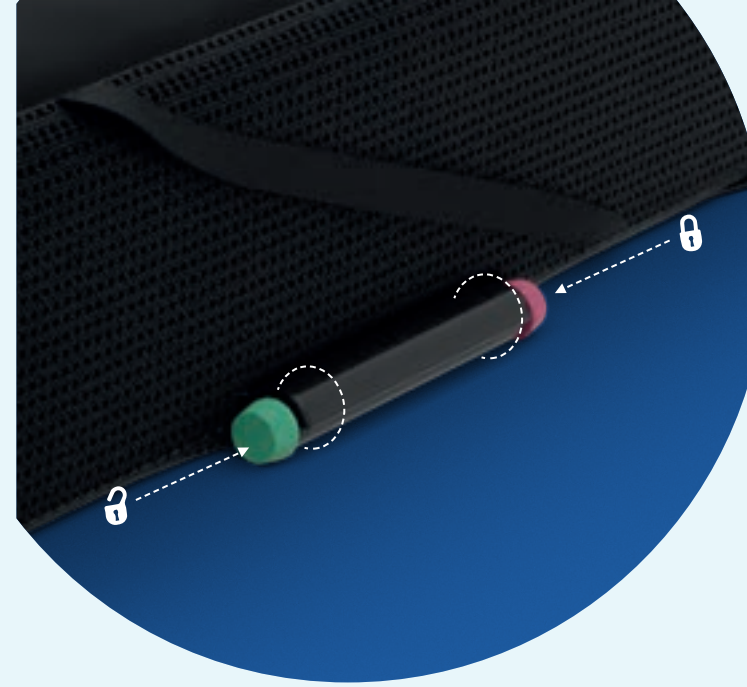
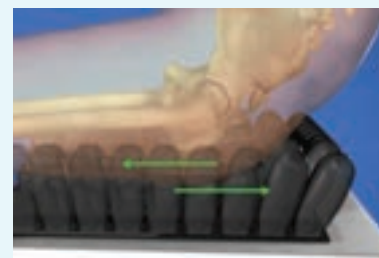
Adapts to your shape

Water moulds itself perfectly to the body, so mimicking it means that the pillow can adapt to your specific shape. ROHO pillows make this possible with flexible cells that can exert constant and even forces on all areas of contact with the body, while also ensuring that you remain safe, stable and in the correct position.



Works with you, not against you

Nothing feels like a ROHO pillow. The smooth surface reduces sliding and friction forces without compromising your safety and comfort. The cells in a ROHO pillow are designed to move air between them and adapt to your movements. So you can continue with your daily activities while the cushion works with you, always.



ISO FLO® Memory Control

You can easily find and adjust the right position for optimal immersion and skin protection by using the exclusive ISO FLO Memory Control on your ROHO Select cushion. It gives you ultimate control of the inflation levels within the compartments of your ROHO pillow, so you can be sure that you sit in the correct position

The switch on the front of all Select Series cushions is always within easy reach. With a simple push of a button, you can adjust the fit as needed while seated. The ISO FLO switch is colour coded for ease of use (green is open, red is closed).

- - When the ISO FLO Memory Control is open, air can flow freely through the whole cushion, similar to a ROHO Single Compartment cushion.
- - When the ISO FLO Memory Control is closed, the air is locked in the individual compartments, for optimal positioning and stability.

Key benefits:

- - quick and easy adjustment
- - solution for positioning and stability
- - colour-coded for visual support
- - can be adjusted while sitting

Available in: ROHO Quadro Select, ROHO Contour Select and ROHO Hybrid Select



ROHO Standard & Select Covers

The ROHO Standard and Select Series cushion covers are designed to protect you and your cushion. The top cover is bi-directionally stretchy to reduce shear and friction forces, while promoting immersion and enclosure. The zippered cover can be easily removed for cleaning and is machine washable.

Note: Cushion covers in the Select series have an opening for the ISOFLO Memory Control.

ROHO heavy duty cushion covers

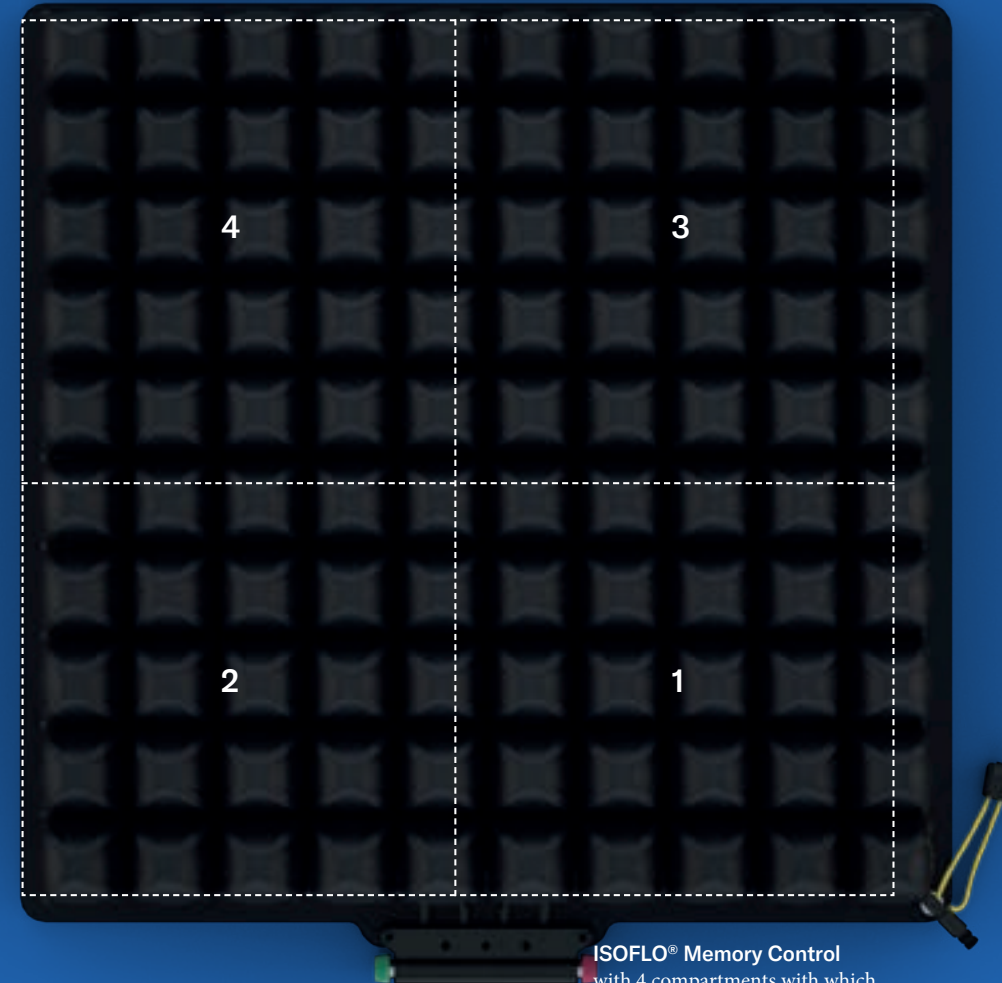
For people who need a cushion with incontinence protection or a more durable cover, ROHO's heavy-duty cushion cover is the perfect choice. It has all the features of the standard cover, but is designed for robust and intensive daily use. The fluid-resistant top and sides protect the cushion underneath and form a barrier that prevents moisture from penetrating into the cushion material.

Our cushions

A well-fitting system gives you the support you need. Our seating and positioning products are designed to adapt to your needs on a daily basis and over time.



Afgebeeld zonder hoes.



ISOFLO® Memory Control
with 4 compartments with which

It is always easy to find and take
up the right position.



ROHO QUADTRO SELECT®

The QUADTRO SELECT is the most clinically advanced pillow in the ROHO family and adapts to your needs or activities. With the exclusive ISOFLO Memory Control and independent four-compartment design, you have ultimate control over the inflation levels in your pillow. levels in your pillow to ensure that you are in the right position. ensure that you are in the correct position. The interconnected air cells encase your body and provide maximum immersion and positioning, while protecting you from skin and tissue breakdown.

Key benefits:

- positions the user left and right
- and forwards and backwards
- stabilises and maintains the position of the pelvis and upper legs
- it ensures skin and tissue protection
- easy to adjust
- available in three different cell heights: HIGH PROFILE® (10 cm), MID PROFILE™ (7.5 cm) and LOW PROFILE® (5 cm)

Sizes*. Widths: 28 cm to 67 cm
Depths 30 cm to 60 cm

*See our pricelist for a full list of sizes



ROHO

Hybrid Select

The Hybrid Select is our most advanced hybrid cushion that gives you exceptional positioning and stability, plus the ability to pressure simply by removing the IT insert. You can easily find the right position for optimal immersion and skin protection using the exclusive ISOFLO Memory Control. This technology allows

allows you to adjust the amount of air in the three separate ROHO compartments: the removable IT insert and the dual-zone overlay. The Hybrid Select also takes advantage of the positioning capabilities of the moulded base made from highly resilient foam with deep leg contours, for optimal support, lateral stability and relief of the tailbone. find optimal immersion and skin protection using the exclusive ISOFLO Memory Control. This technology allows

Key benefits:

- - stabilises and maintains the position of the pelvis and upper legs
- - Unique ROHO air cell design specially
- designed to work with the deeper contours of the preformed foam base

Sizes* Widths: 35.5 cm to 51 cm
 Depths 35.5 cm to 52.5 cm

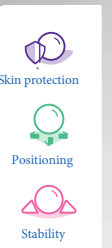
**See our pricelist for a full list of sizes*



Removable IT insert for optional pressure relief, **drukontlasting.**



Cushion pictured without cover





ISOFLO Memory Control with 4 compartments

Cushion pictured without cover.

Dual Zytel® valves for two-compartment control

ROHO CONTOUR SELECT®

The CONTOUR SELECT is designed with for good positioning and posture and keeps you centred in the middle of the cushion, with your pelvis in the rear part of the wheelchair seat. The cushion has the same clinically advanced features and technology as the QUADTRO SELECT®, but has multiple cell heights. Due to these different heights, the upper legs are guided into the leg contours and allows you to sit more upright. The exclusive ISOFLO Memory Control lets you lock the air into the four separate compartments, giving you the stability and positioning you need and positioning that you need, and minimises left and right, forward and backward movements, forward and backward.

Key benefits:

- positions the user left and right, and forwards and backwards
- stabilises and maintains the position of the pelvis and thighs
- offers protection to the skin and soft tissue and provides additional relief under the ischium (IT - ischial tuberosity)
- easy to adjust

Sizes*. Widths: 36.5 cm to 62.2 cm
Depths 38.5 cm to 56 cm

*See our pricelist for a full list of sizes

ROHO ENHANCER®

The ENHANCER is an anatomically pre-shaped ROHO air cushion that helps to position your pelvis in the rear part of the cushion and your thighs in the leg contour. This gives you more sitting stability, especially if you have less control over your legs or thighs. The different cell heights are located in two independent air compartments (one for the ischium and leg contours, the other for the back legs) and leg contours, the other for the lateral and medial thigh supports). This helps to keep your pelvis and legs in position, while providing optimal protection for the skin and soft tissues. The ENHANCER also includes the option of reducing the pressure on your ischium.

Key benefits:

- stabilises and maintains the central position of the pelvis
- provides control over the alignment of the outer part of the hip
- it ensures protection of skin and tissue
- easy to adjust

Sizes*. Widths: 37.5 cm to 50.5 cm
Depths 37.5 cm to 50.5 cm

*See our pricelist for a full list of sizes

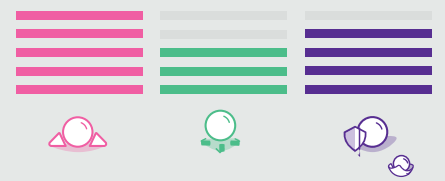




Cushion pictured without cover.

ROHO HYBRID ELITE® Single Compartment

The HYBRID ELITE Single Compartment also combines air and foam in one. It is designed for people whose primary need is stability. When sitting on the cushion, the air insert holds your pelvis in position and protects it.



Key benefits:

- - stabilises pelvis and thighs for optimal positioning
- - easy to adjust

Sizes*. Widths: 35 cm to 60 cm
Depths 37.5 cm to 58 cm

*See our pricelist for a full list of sizes

ROHO HYBRID ELITE® Dual Compartment

The HYBRID ELITE Dual Compartment cushion combines the unique properties of ROHO air cells with the supportive properties of foam in one cushion. The air insert ensures pressure distribution around the pelvis, thanks to the two independent, adjustable air compartments that allow you to adjust the inflation levels to your shape and ideal position. At the same time, the contoured leg contour keeps your legs in position and provides a firm base for a stable sitting posture.

Key benefits:

- - ideal for lateral positioning and lateral stability
- - it stabilises and holds the pelvis and thighs in position

Sizes*. Widths: 35 cm to 60 cm
Depths 37.5 cm to 58 cm

*See our pricelist for a full list of sizes



Cushion pictured without cover.



ROHO AirLITE®

The AirLITE cushion is a non-adjustable, maintenance-free foam cushion with a ROHO air insert that moulds to your body and prevents you from sinking completely into your cushion. The soft leg contours help you to maintain the correct position and posture and make you feel more secure.

Sizes* Widths: 33 cm to 51 cm
 Depths 33 cm to 51 cm



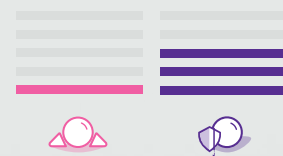
ROHO MOSAIC®

The MOSAIC cushion offers the advantages of interconnected large air cells with which

You can sink comfortably into the cushion. It is a simple inflatable, lightweight cushion that protects your skin and soft tissues.

Sizes* Widths: 41.5 cm to 51.5 cm
 Depths 41.5 cm to 46.5 cm

*See our pricelist for a full list of sizes



Cushion pictured without cover.



ROHO Single Compartment

The interconnected air cells in the Single Compartment cushions allow you to sink into the pillow into the cushion so that the pressure is distributed and reduces shearing and friction forces reduced. These cushions are available in three different cell heights, depending on your needs, and are easy to adjust.



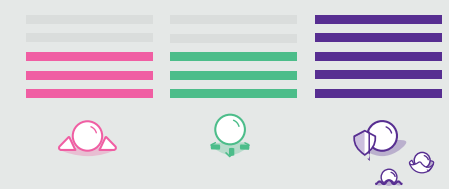
Cushion pictured without cover.

Key benefits:

- - easy to adjust
- - available in three different cell heights: HIGH PROFILE® (10 cm), MID PROFILE™ (7.5 cm) and LOW PROFILE® (5 cm)

Sizes* Widths: 29 cm to 68 cm
 Depths: 29 cm to 55 cm

*See our pricelist for a full list of sizes



“ The Hybrid Select gives me the positioning I need and makes it easier for me to move around than my current cushion.

— Eric Reyes, Permobil-user

