

# ROHO<sup>®</sup> Cushions

The optimal seating  
experience



permobil

## Our philosophy

Every person has the right to have his or her disability compensated as far as possible by aids with the same technical standard as those we all use in our everyday lives.

Dr. Per Uddén, Permobil Founder



## Proactive healthcare

The ROHO family of cushions is designed to provide proactive healthcare for wheelchair users and people with limited mobility that sit many hours of the day.

Cushions are quick and easy to set up and just as easy to maintain. A cushion can be individually adjusted to a first time user's needs in a matter of minutes.

## Proven protection

The unique Dry Floatation® technology in a ROHO Cushion mimics the beneficial properties of water to provide a safe and comfortable, enveloping environment that matches the shape of a person. As the body moves and changes over the course of a day, month or year, the cushion adapts to ensure a user is always optimally seated. ROHO cushions are designed to help users get more out of their day-to-day lives, every day of their lives.



### A history of caring for people

Back in 1957, while working as an electrical engineer at a hospital, Robert H. Graebe met a patient who was hospitalized due to pressure injuries. He was incensed that wheelchair users could become bed-ridden for months on end from the very thing they were forced to sit on. So he spent the next 14 years creating a solution.

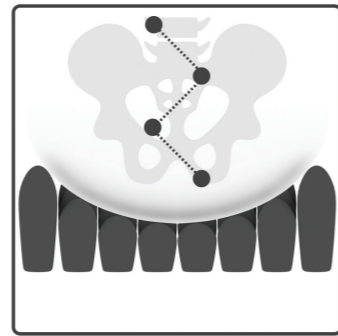
In 1971 the first cushion was launched and in 1973 the ROHO Corporation was established. Ever since those early days, people's seating needs have been the driving force behind ROHO. Today we have over 20 cushions, each designed to prove the optimal fit for users' needs.

With over one million ROHO cushions in use, on all corners of the world, our cushions continue to deliver on Robert H. Graebe's vision: to help people who are forced to sit most of the time to live better and more active lives.

# The four attributes of good seating

ROHO cushions have been designed to deliver the optimal seating experience for users. At the core of this is the need to provide a comfortable and stable position that protects skin and tissue over the short and long-term.

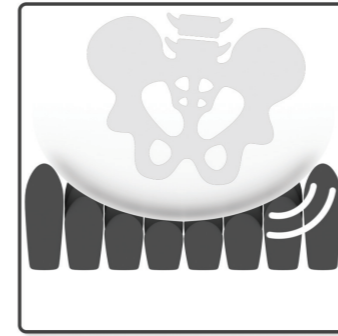
It's essential to know which seating attributes are most important for a user. The seating guide on page 7 provides an overview of the ROHO cushions and how they address the different attributes.



## Dynamic positioning

Everybody has an optimal seating position, but not every cushion can deliver this. Positioning is about providing pelvic and leg support in just the right places to deliver the best possible posture for a user's seating needs. However, good posture won't only impact the way a person sits, but also how effectively they carry out different activities.

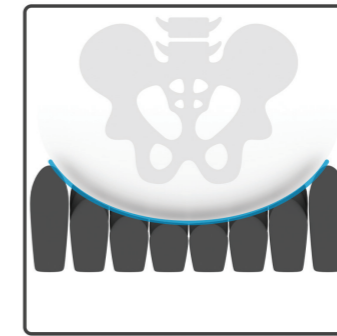
ROHO cushions employ dynamic positioning to orient and direct the pelvis and ensure a user sits in the optimal position. To cater to more specific needs, we offer everything from four-quadrant control, in the QUADTRO SELECT® cushion, to our foam and air cushion combinations.



## In-seat Stability

The key to achieving good stability is to hold the pelvis in a natural position, and to effortlessly keep it there. If a cushion provides poor stability, a user will expend a lot of energy during the course of a day—a real waste of energy when a good cushion can do most of the work.

Many ROHO cushions come with in-seat stability. Once stability is achieved, the pelvis and thighs are held in position to provide maximum support for the user. In-seat stability supports a user and keeps the person stable no matter if he or she is sitting still or moving.



## Skin & Tissue protection

Sitting in a chair all day everyday puts enormous pressures on the body, particularly the pelvis and the bony prominence. Redistributing pressure equally throughout the whole seated area is essential to minimize skin and tissue deformation and ultimately prevent skin and tissue breakdown. Breakdown that can result in a deterioration in functional ability and months of treatment and anguish.

ROHO cushions provide proactive protection against skin and tissue damage, and offer an environment to facilitate wound healing.

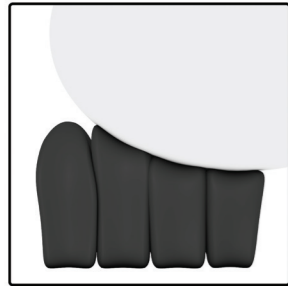


## Comfort

Comfort means different things to different people. For some it's the ability to sit without the fear of skin and tissue damage, for others it's being able to do things without the fear of falling, and yet for others it's simply being able to sit in something supportive that, for want of a better word, is comfortable.

The air cells in the cushion shape to a user's body and evenly distribute weight and pressure across the whole seated contact area, no matter how long somebody spends sitting.

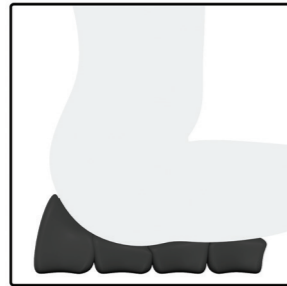
# The fundamentals of a ROHO cushion



**ROHO cushions LET YOU IN**

Whenever two things come together their forces push against one another. When a user sits, it's the force of the body against the force of the cushion. When somebody spends the entire day seated, that's a lot of force to deal with.

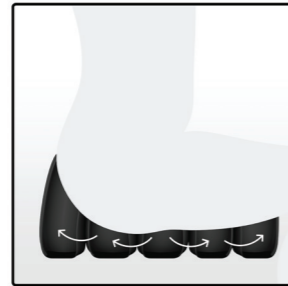
A ROHO cushion allows the body to immerse without resistance into the air cells as it's cradled in a safe environment that delivers comfort and distributes pressure.



**ROHO cushions MATCH YOUR SHAPE**

Water shapes perfectly to the body. Mimicking it means the ability of the cushion to match to the user's shape. This is only possible with flexible cells that can provide constant and even forces across all contact areas with the body.

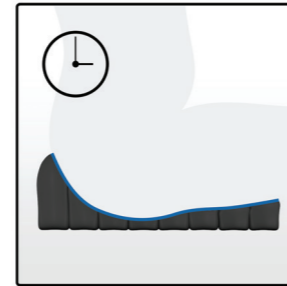
In a ROHO cushion the cells constantly conform to adapt to the body's shape, while ensuring a user remains safe and in the right position.



**ROHO cushions MOVE WITH YOU**

Our bodies are constantly moving. We shift, lean, and our bodies change during the course of a day, a week or a year. This has an impact on the forces created from being on a seating surface. When it is the same surface many hours every day, the surface has to constantly adapt.

ROHO cushions are designed to move with the body and constantly adapt to the changes that happen over time.



**ROHO cushions WORK WITH YOU, ALWAYS**

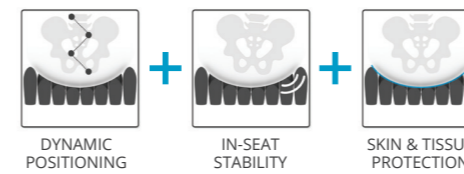
Friction occurs every time a person moves. Friction that can be minimized if a cushion works with a person's actions. But achieving this requires a truly adaptive surface. That's why the cells in a ROHO cushion are designed to transport air between one another and thus adapt as the body moves.

In a ROHO cushion a user does not have to worry about friction and shear. They just move and the cushion works with them, always.

# ROHO Seating Guide

The Seating Guide is designed to help you identify the optimal ROHO cushion for a user. The guide shows which attributes each cushion in the range delivers. Once you have selected a cushion, you can read more about it on the following pages.

## User needs



## ROHO solution



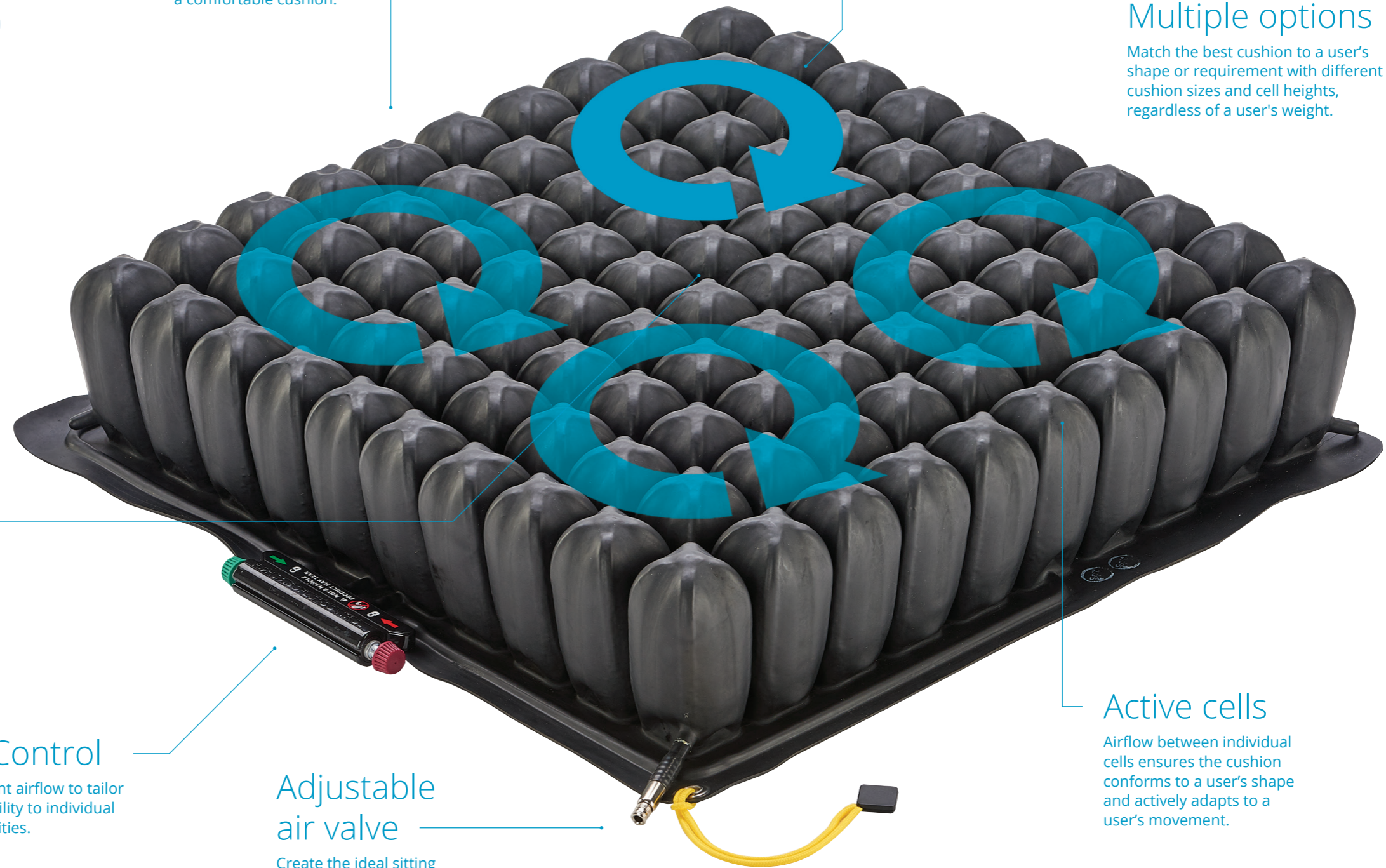
All ROHO cushions are designed to provide a **comfortable seating environment** for users and provide them with physical and psychological well-being. As individuals experience comfort in different ways a user may want to test several cushions.

# QUADTRO SELECT®

**Neoprene**  
The caring properties of neoprene help to provide a comfortable cushion.

Once airflow is controlled with the ISOFLO®, it can only travel between the cells in the quadrant.

**Multiple options**  
Match the best cushion to a user's shape or requirement with different cushion sizes and cell heights, regardless of a user's weight.



**Dry Floatation®**  
Dry Floatation® technology helps mimic the properties of water to provide the optimal seating experience.

**ISOFLO®  
Memory Control**  
Control four-quadrant airflow to tailor positioning and stability to individual users and their activities.

**Adjustable  
air valve**  
Create the ideal sitting environment for protection against skin and tissue damage by adjusting the cushion according to a user's requirements.

**Active cells**  
Airflow between individual cells ensures the cushion conforms to a user's shape and actively adapts to a user's movement.

# A ROHO cushion for every need

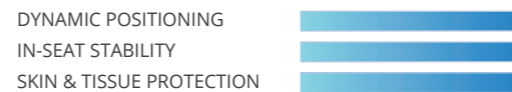


## QUADTRO SELECT®

QUADTRO SELECT® is the most clinically advanced cushion in the ROHO family, constantly adapting to the needs or activities of the user. Thanks to the unique ISOFLO Memory Control® and independent four-quadrant design, the cushion delivers the highest degree of stability and positioning control, and at the same time delivers optimal skin and tissue protection by letting the user in and matching their shape.

### Key Benefits

- positions the user left and right, and front and back
- stabilizes and hold the position of the pelvis and thighs
- delivers skin and tissue protection
- shapes to the body and moves with it
- easy to set up
- available in 3 different cell heights



## CONTOUR SELECT®

The CONTOUR SELECT® comes with the same clinically advanced features and technology as the QUADTRO SELECT® but it comes with multiple cell heights. These help direct the pelvis into the back well of the cushion and guide the thighs into the leg channeling paths.

### Key Benefits

- positions the user left and right, and front and back
- stabilizes and hold the position of the pelvis and thighs
- shapes to the body and moves with it
- delivers skin and tissue protection
- easy to set up



## HYBRID ELITE® DUAL VALVE

The HYBRID ELITE® DUAL VALVE combines the unique properties of ROHO cells with the support features of foam, in one cushion. The cushion provides lateral positioning, and anterior to posterior as well as lateral stability. It's ideal for users that want the full protection with air for the pelvis and the support of foam under the thighs.

### Key Benefits

- positions the user left and right
- stabilizes and hold the position of the pelvis and thighs
- delivers skin and tissue protection
- shapes to the pelvis and moves with it
- easy to set up
- facilitates independent transfers



## HYBRID ELITE® SINGLE VALVE SR®

The HYBRID ELITE® SINGLE VALVE SR also combines air and foam in one cushion. However, it is designed for users whose primary need is stability, especially anterior and posterior. When sitting on the cushion, the pelvis is held and protected with air, and the thighs are aligned with contoured foam. The cushion comes standard with a quick disconnect port to attach the optional Smart Check.

### Key Benefits

- stabilizes the pelvis and thighs
- delivers skin and tissue protection
- shapes to the pelvis and moves with it
- easy to set up and can be used with the optional Smart Check (for set up and monitoring)
- facilitates independent transfers





### ENHANCER® CUSHION

The Enhancer® is an anatomically pre-shaped cushion that helps direct the pelvis into the back well and guide the thighs into the leg channeling. The cushion's cell design offers unique pelvic and thigh holding properties and adjustable lateral stability.

#### Key Benefits

- stabilizes and holds the pelvis centrally
- provides control of greater trochanter and femur alignment
- delivers skin and tissue protection
- shapes to the body and moves with it
- easy to set up



### SINGLE COMPARTMENT SENSOR READY®

The ROHO HIGH PROFILE® SR single compartment cushions deliver the unique properties of ROHO cells. The cushion lets the user in, enveloping the body to deliver optimal skin and tissue protection. The cushion comes as standard with a quick disconnect port to connect to Smart Check.

#### Key Benefits

- delivers skin and tissue protection
- shapes to the body and moves with it
- easy to set up and can be used with Smart Check for set up and monitoring
- available in 3 different cell heights



### NEXUS SPIRIT® CUSHION

The NEXUS SPIRIT® CUSHION combines the benefits of ROHO cells with a foam cushion. This enables you to immerse and hold the pelvis with air, while supporting the thighs with contoured foam.

#### Key Benefits

- provides front-to-back stability
- delivers skin and tissue protection for pelvis
- shapes to the pelvis and moves with it
- easy to set up and lightweight
- facilitates independent transfers



### MOSAIC® CUSHION

The MOSAIC® CUSHION provides the benefits of interconnected air cells that allow the user to sink into the cushion. The large cells make it a comfortable and lightweight cushion.

#### Key Benefits

- provides preventative skin and tissue protection
- shapes to the body
- easy to set up



### AirLITE® CUSHION

The AirLITE® CUSHION is a non adjustable foam cushion with a built in air cell pad in the well of the cushion to provide better bottoming out protection underneath the ischials.

#### Key Benefits

- provides stability thanks to pre-shaped anatomic form
- provides preventative skin and tissue protection
- facilitates independent transfers



# Getting started with a ROHO cushion

## ISTART

The first time anybody sits in a Roho cushion they will need to carry out a quick ISTART to adjust the cushion to the user's body.

### 1 INFLATE

Inflate the cushion fully by pumping air into it with the provided Roho pump, before closing the valve.

### 2 SIT

Seat the user on the center of the cushion in their normal position.

### TAILOR

Tailor the cushion to the user by removing air through the valve until the user is properly immersed.

### ASSESS

Assess the amount of air in the cushion by sliding your hand under the user until you can feel their lowest bony prominence. There should be 1.5-2.5cm between the lowest bony prominence and the bottom of the cushion.

### 3 REPEAT

Repeat the steps TAILOR and ASSESS if there is too much air in the cushion, or add a little more air if you have removed too much.

### 4 TRANSFORM

You have now transformed the cushion into a seating experience that gives the user optimal skin and tissue protection and reassuring comfort.

## ICHECK

An ICHECK should be performed on a regular basis.

### 1 INSERT

Insert your hand between the cushion and the user until you reach their lowest bony prominence.

### CHECK

Check the amount of air in the cushion by moving your fingers. There should be 1.5-2.5 cm between the lowest bony prominence and the bottom of the cushion.

### 3 HELP

Help ensure optimal immersion and envelopment again by adding or removing air with the provided pump if necessary.

### ENSURE

Ensure that the space between the user's lowest bony prominence and the bottom of the cushion is again between 1.5-2.5cm.

### 3 CHECK

Check the amount of air in the cushion on a regular basis.

### 4 KEEP

Keep using the Roho cushion to ensure the ultimate seating experience.



## Smart Check

Smart Check is an electronic cushion safety device for setting-up and monitoring the proper cushion inflation level. During set-up it establishes the optimal immersion for a user and stores the setting in its memory. The user can then monitor the proper cushion inflation level at the touch of a button.



## ISO FLO Memory Control®

ISO FLO Memory Control® controls the four individual quadrants of a cushion by locking air within them or releasing it to be dispersed to all cells. This simple push button operation allows a user or assistant to control the seating experience and ensure a user's pelvis and thighs are where they should be, at all times.

Once you have carried out an ISTART you can now position and stabilize with the ISO FLO

- 1 Make sure the ISO FLO is unlocked by pushing the green button.
- 2 Position the user in the ideal posture and have them maintain this position while air transfers through the ISO FLO.
- 3 Push in the red button to keep the air in the four quadrants.



# The optimal seating experience

