

### OFFICIALLY AVAILABLE THROUGH INVACARE



### BRAND NEW



Lifetime warranty is a brand new and unique Vicair service that applies to the new generation of Vicair SmartCells.

We stand for the quality of these cells and therefore will always replace them in case some of them unexpectedly do not last a lifetime. Vicair Lifetime Warranty is an off-the-shelf service, no registration necessary. You can recognize the new generation SmartCells by their new black Vicair logo-print.

## VICAIR®

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### VICAIR TECHNOLOGY



The best medium for pressure redistribution is air.
Unfortunately, there are a few drawbacks; air is unstable and it tends to leak. Vicair solved these issues when they created Vicair SmartCells.

The unique Vicair air-technology, which uses the small air-filled SmartCells, was developed in cooperation with the Amsterdam Rehabilitation Centre. It was awarded the Grand Prix at the 'Salon des Inventions' in Geneva, Switzerland. Vicair develops and produces its product line in the Netherlands for customers all over the world.





#### Unique combination of skin protection and positioning

Individual's who sit on a Vicair wheelchair cushion, are supported by hundreds of SmartCells. The layers of cells inside the cushion compartments move with so little friction that the effect resembles the behaviour of a viscous fluid, slowly adjusting to the shape of the body. Also, because SmartCells deform individually, they conform to the body's contours. The result is superior pressure redistribution. On top of this, the tetrahedron-shape of the cells and the design of the cushion compartments make the Vicair cushion ultra stable and prevent the person sitting on it from sliding forward. As a result the cushion reduces shear forces to a bare minimum and helps to create and maintain an optimal, functional posture.

#### Ease of use

Vicair SmartCell cushions are extremely user-friendly. The well balanced filling grade ensures that Vicair cushions are ready to use, but if you prefer, you can adjust the cushions to the individual's personal positioning needs by adding or removing SmartCells. The cushion requires hardly any maintenance; there is no need for a pump or any other accessories and once the cushion is set up, it doesn't require daily monitoring. Not only are the Vicair wheelchair cushions extremely comfortable, but they are incredibly lightweight: on average weighing less than 0,8 kg each. This makes them the lightest high performance wheelchair cushions available by far.

The Vicair cushion is always ready for use. Safe, durable and low on maintenance.





## AVAILABLE COVERS

## CUSHION SIZE

A cushion cover has influence on the overall performance of a wheelchair cushion. Therefore the Vicair covers are made of high quality materials that enhance the performance of the Vicair cushion. Ensuring that the individual will experience maximum protection and comfort.

O2 Top Cover

Especially designed for the Vicair O2 range. This cover – similar to a cap – has a breathable outer layer and covers only the top part of the cushion. Leaving the bottom part open, allowing the cushion to continue to breathe and offering optimal ventilation and comfort. The cover is ideal to help manage one of the main causes of pressure sores.

#### **Comfair Cover**

This breathable cover is made out of multi-dimensional stretch material, reducing pressure on bony prominences. It is also designed for air transmission and heat dissipation.

#### **Incontinence Cover**

There is a high quality incontinence cover available for all Vicair seat cushions. The cover is made out of elastic water and fluid resistant material, which makes it extremely usable in all situations (institutional and home use) where incontinence and hygiene is an issue.

#### Air Exchange Cover

Designed to use with the Vicair Liberty Profile. This cover is made of 3D mesh fabric, that makes it extra breathable and comfortable.

#### **Reversible Cover**

Fluid resistant material on one side and cool stretch fabric on the other side. Simply choose the outside of the cover that suits the situation. This cover fits the Vicair Adjuster, Vector and Centre Relief.

GENERAL TECHNICAL SPECIFICATIONS					
Used materials	Latex free				
Machine washable	60°C				

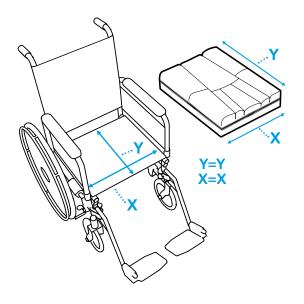
It's not only the unique technique of the Vicair cushions that provides an optimal seating position. Setting up the wheelchair properly is extremely important.

Think of the adjustment of the foot plate, correct seating angle, right backrest height, but also the seat to floor height.

To get the correct size of wheelchair cushion, Vicair recommends to measure as follows:

The width (X) of the cushion and the wheelchair seat should match. When the cushion rests against armrests or side-guards, the width of a Vicair seat cushion may be up to 2,5 cm (1") wider.\* The depth (Y) of the cushion and seat should always vmatch.

\* Exception: The width of the Vicair Active and Vicair Active O2 should match the width of the wheelchair seat





The Vicair O2 cushions tackle the hygiene issues caused by incontinence. The open structure of the O2 cushions allows the cushions to be easily washed in any washing machine. Without the need for a laundry bag, and without removing the SmartCells. These cushions are ideal for both institutional and home use, in situations where incontinence, temperature and humidity is an issue.



#### 100% MACHINE WASHABLE

In all washing machines washable at 60°C without using a laundry bag or removing the SmartCells™.



#### 100% BREATHABLE

Cushion is fully breathable due to open fabric structure yet resistant to incontinence.



#### **BOXING EFFECT**

More cushion volume creating better immersion and enhanced SmartCell support.
Easier to adjust when client is seated.



### **WIDE RANGE**

Available in two heights. With 145 standard sizes and many extra sizes available on request, the O2 series will cover all sizing requirements.

Fully machine washable for optimal hygiene

100% Breathable for regulating temperature and moisture

Unique Boxing Effect for better immersion

### VICAIR® ADJUSTER 02



### EQUAL PRESSURE DISTRIBUTION AND PERFECT SUPPORT FOR THE ASYMMETRIC BODY

**Total immersion** for equal pressure distribution | Support IT-coccyx area | Managing pelvic asymmetry



# An individual solution for asymmetry, even the extreme kinds

### Total immersion for equal pressure distribution

### Prevents sliding while minimizing shear

The Adjuster O2 is extremely suitable for use with asymmetric body contours and amputations. It automatically manages small obliquities and is individually adjustable to support more extreme asymmetry. The Adjuster O2 offers a high comfort level, optimal skin protection and stability. The design allows total immersion to equally redistribute pressure and prevents sliding forward. 100% machine washable and breathable, for optimal hygiene and perfect temperature and moisture regulation. As a result the Adjuster O2 offers the optimal protection against skin breakdown.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	***
Pressure redistribution	***
Shear reduction	***
Micro climate control	
Impact & vibration damping	***
Positioning	***
Lateral stability	
Frontal stability	4444

Frontal stability	***
Sliding prevention	<b>AAAA</b>
Allows manual adjustments	<b>AAAA</b>
Allows easy transfers	
Maintenance & Safety	***
D. 1.00	

Durability	***
Reliability	<b>AAAA</b>
Functionality when misused	
Low maintenance level	***
Level of hygiene	
Functionality & Application	

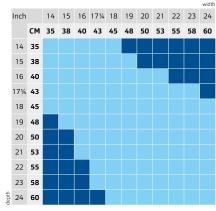
Functionality & Application	
Comfort	<b>AAAA</b>
Low cushion weight	<b>**</b>
Available size range	<b>**</b>
Maximum user weight	***
Low seat to floor height	***
Auto adjustments	

### **USED WITH**

Hemiplegia (CVA), amputations, foot propulsion, kyphosis, pelvic obliquity/ tilt/rotation, Spina Bifida, spasms, Fibrodysplasia Ossificans Progressiva (FOP)

TECHNICAL SPECIFICATIONS					
Height	6 and 10 cm				
Average weight	534-769 grams				
Max. user weight	250 kg				
Machine washable	60°C max.				

<b>CUSHION SIZES</b>	
Standard	(Sizes >53 cm height 10 only)
On request	



### VICAIR® VECTOR 02

### OFFLOADING THE IT-COCCYX AREA





### **NEW & IMPROVED**

Superior pressure redistribution due to the combination of immersion and offloading

# Nine adjustable compartments for maximum stability

### Extra positioning of the upper legs

Sometimes it is necessary to offload the vulnerable area around the IT's (sitting bones) and coccyx (tailbone). The Vector O2 does just that. It's unique compartment layout further provides comfort, optimal skin protection, excellent leg guidance and extra pelvic stability. 100% machine washable and breathable, for optimal hygiene and perfect temperature and moisture regulation. The Vector O2 offers support where needed, resulting in improved functionality of the upper body and expanding reach.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	***
Pressure redistribution	
Shear reduction	
Micro climate control	***
Impact & vibration damping	<b>**</b>

Positioning	***
Lateral stability	4444
Frontal stability	<b>AAAA</b>
Sliding prevention	<b>AAAA</b>
Allows manual adjustments	***
Allows easy transfers	

<b>A A A</b>
<b>A A A</b>

Functionality & Application	***
Comfort	
Low cushion weight	***
Available size range	<b>AAAA</b>
Maximum user weight	<b>AAAA</b>
Low seat to floor height	<b>AAAA</b>
Auto adjustments	

# READY FOR USE



PRESSURE ULCER TREATMENT

### **USED WITH**

Spinal cord injuries, neuromuscular diseases, hypermobility syndrome, Ehlers Danlos Syndrome (EDS)

TECHNICAL SPECIFICATIONS			
Height	6 and 10 cm		
Average weight	500-850 grams		
Max. user weight	250 kg		
Machine washable	60°C max.		

<b>CUSHION SIZES</b>	
Standard	(Sizes >53 cm height 10 only)
On request	

												width
Inch		14	15	16	171/4	18	19	20	21	22	23	24
	СМ	35	38	40	43	45	48	50	53	55	58	60
14	35											
15	38											
16	40											
17¼	43											
18	45											
19	48											
20	50											
21	53											
22	55											
23	58											
24	60											

### VICAIR® ACTIVE 02

### FOR THE ACTIVE WHEELCHAIR PERSON









PRESSURE ULCER TREATMENT

### Excellent lateral and frontal stability

### Perfect fit for those who transfer frequently

### Superior ischial offloading and protection

The Active O2 offers the unique combination of ergonomically shaped foam and Vicair SmartCells. The four rear SmartCell compartments provide a high level of comfort and skin protection, and offload the seat bones and tailbone area. The foam front makes transfers easy and feels steady and improves wheelchair handling. The foam inlay is protected by an easy-to-clean fluid-resitant liner. The rest of the cushion is 100% machine washable and breathable for optimal hygiene and perfect temperature & moisture regulation. Complete with an an easy accessible storage pouch for precious belongings (keys, phone, wallet), your client has everything they need to maintain an active lifestyle.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	***
Pressure redistribution	
Shear reduction	***
Micro climate control	
Impact & vibration damping	***

***
<b>AAAA</b>
<b>AAAA</b>
<b>AAAA</b>

Maintenance & Safety	***
Durability	<b>AAAA</b>
Reliability	<b>AAAA</b>
Functionality when misused	
Low maintenance level	
Level of hygiene	

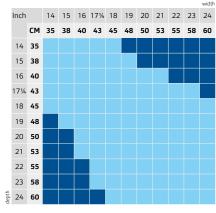
<b>**</b>
***
***

### **USED WITH**

Spinal cord injuries, active users with a high transfer frequency

TECHNICAL SPECIFICATIONS				
Height	6 and 9 cm			
Average weight	700 grams			
Max. user weight	200 kg			
Machine washable	60°C (without foam)			

<b>CUSHION SIZES</b>	
Standard	(Sizes >53 cm height 9 only)
On request	





### ALLROUNDER **0**2



### **GO ALL AROUND THE WORLD**



**Easily adjustable straps**To provide comfort and to follow the body





# Stays with your client during activities Skin protection Extremely light to support optimal mobility

Not all activities require or allow the use of a wheelchair. In these situations the Vicair AllRounder O2 keeps your client comfortable and helps to protect their skin. As it is easily buckled onto the body, it will follows your client around wherever they go.

Your client can feel protected and secure during sports and outdoor activities, when sitting in a normal chair or on any hard surface, or when playing on the ground. Afterwards put the entire AllRounder O2 can be put in the washing machine then hang it up to dry, ready for the next adventure. Allows your client to experience freedom!

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	
Pressure redistribution	
Shear reduction	
Micro climate control	***
Impact & vibration damping	
Positioning	
Lateral stability	
Frontal stability	
Sliding prevention	
Allows manual adjustments	
Allows easy transfers	
Maintenance & Safety	
Durability	
Reliability	***
Functionality when misused	
Low maintenance level	
Level of hygiene	
Functionality & Application	
Comfort	
Low cushion weight	
Available size range	
Maximum user weight	***
Low seat to floor height	
Auto adjustments	

### USED WITH

Activities outside of the wheelchair | When seated on hard surfaces for long periods in time.

TECHNICAL SPECIFICATIONS				
Height	n.a.			
Average weight	800 grams			
Max. user weight	100 kg			
Machine washable	60°C max.			

<b>CUSHION SIZE</b>	
Small	< 38 cm
Medium	38 – 42,5 cm
Large	43 – 48 cm

Measure the width of your client's hips to check which size matches the size of their body. When seated, hold a tape measure horizontally above the widest point of the upper legs, closely against the front of their hips. Do not follow the leg contours, keep the tape measure straight. Measure from A to B (or B to A).

Choose the larger size if the measured size is in between two sizes.





### EQUAL PRESSURE DISTRIBUTION AND PERFECT SUPPORT FOR THE ASYMMETRIC BODY

Total immersion for equal pressure distribution | Support IT-coccyx area | Managing pelvic asymmetry shear into normal forces

Thigh support

Thigh support

Pre-ischial bar prevents | Managing pelvic asymmetry | Managing pelvi

An individual solution for asymmetry, even the extreme kinds

# Total immersion for equal pressure distribution Prevents sliding while minimizing shear

The Adjuster is extremely suitable for use with asymmetric body contours and amputations. It automatically manages small obliquities and is individually adjustable to support more extreme asymmetry. When you are looking for a high level of comfort, optimal skin protection and stability: the Vicair Adjuster is always a safe choice. The design of this wheelchair cushion allows total immersion, to redistribute pressure equally. At the same time it prevents your client from sliding forward. As a result the Adjuster offers optimal protection against skin breakdown.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	***
Pressure redistribution	***
Shear reduction	***
Micro climate control	
Impact & vibration damping	<b>AAAA</b>

***
<b>AAAA</b>

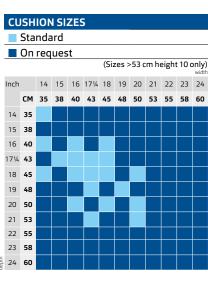
Maintenance & Safety	***
Durability	***
Reliability	***
Functionality when misused	
Low maintenance level	
Level of hygiene	

Functionality & Application	***
Comfort	***
Low cushion weight	
Available size range	
Maximum user weight	<b>AAAA</b>
Low seat to floor height	<b>AAAA</b>
Auto adjustments	

### **USED WITH**

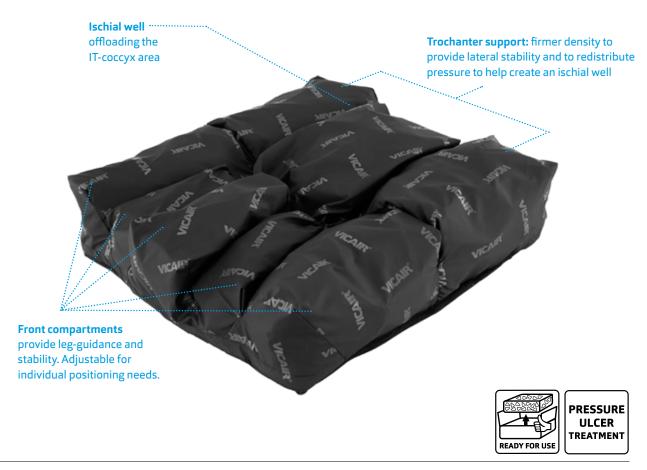
Hemiplegia (CVA), amputations, foot propulsion, kyphosis, pelvic obliquity/ tilt/rotation, Spina Bifida, spasms, Fibrodysplasia Ossificans Progressiva (FOP)

TECHNICAL SPECIFICATIONS	
Height	6 and 10 cm
Average weight	534-769 grams
Max. user weight	250 kg





### **OFFLOADING THE IT-COCCYX AREA**



High quality pressure redistribution due to the combination of immersion and offloading

Eight adjustable compartments for maximum stability

### Extra positioning of the upper legs

Sometimes it is necessary to offload the vulnerable area around the IT's (sitting bones) and coccyx (tailbone). The Vicair Vector does just that. It's unique compartment layout further provides comfort, optimal skin protection, excellent leg guidance and extra pelvic stability. The Vector offers support where needed, resulting in improved functionality of the upper body as well as expanding reach.

***
***

Positioning	***
Lateral stability	
Frontal stability	<b>AAAA</b>
Sliding prevention	<b>AAAA</b>
Allows manual adjustments	<b>**</b>
Allows easy transfers	

Maintenance & Safety	***
Durability	***
Reliability	<b>AAAA</b>
Functionality when misused	
Low maintenance level	
Level of hygiene	

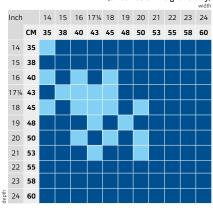
Functionality & Application	***
Comfort	<b>AAAA</b>
Low cushion weight	<b>AAAA</b>
Available size range	
Maximum user weight	<b>AAAA</b>
Low seat to floor height	<b>AAAA</b>
Auto adjustments	

### **USED WITH**

Spinal cord injuries, neuromuscular diseases, hypermobility syndrome, Ehlers Danlos Syndrome (EDS)

TECHNICAL SPECIFICATIONS	
Height	6 and 10 cm
Average weight	640-820 grams
Max. user weight	250 kg





### CLINICAL CASE Solving asymmetry and treatment of a category II Pressure ulcer wound on the buttock of a Spina Bifida patient

#### **Medical history**

At home Mr. de L (73) generally uses a working chair. Outside he generally uses a manual wheelchair. This is an active Quicky Argon wheelchair without arm posts with a Jay Easy Visco cushion in it. Mr. de L also uses a handbike. Mr. de L has a normal chair, but he scarcely uses the chair as it does not offer much comfort. Mr. de L. mainly walks therapeutically and to make transfers, using elbow crutches.



#### **Examination**

#### Physical assessment

Mr. de L.'s left leg has a different bony structure and size than his right leg. Because of the shorter left leg Mr. de L. has a corrective left shoe. The left leg also has reduced muscle mass. While seated and laying down the abdominal mass is positioned to the left side. A seat-angle of 110 degrees is perceived as comfortable. At 100 degrees Mr. de L. starts to experience pain, mainly left hip pain.

#### Pressure Ulcer

Disturbance of sensation in buttocks and lower extremities. At the start of the treatment in the Seating Clinic Mr. de L. suffers from a superficial pressure ulcer, stage 2, wound edge maceration. The ulcer does not show signs of shear force. Generally the pressure ulcer does not cause pain.

#### Urinary or faecal incontinence

Urine stoma, but once in a while faeces incontinent. This does not affect the pressure ulcer.

#### Pain

Mr.de L. experiences pain in the left side of his body. At the height of thoracic spinal cord segments 6-8 and in the left side of the torso. Treatment with pain medication has not been sufficient. The pain in his torso occurs after sitting for half an hour: VAS score varies strongly. Once a week Mr. de L. goes to bed, when the pain becomes unbearable and he wants to change his position.

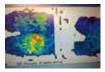
#### Pressure mapping

All pressure mappings show pressure on

the ischial tuberosities. But when using the Jay Easy Visco cushion there is very significant pressure on the left buttock and the centre of gravity of the body shifts to the left. When using a cushion that can be setup asymmetrically the pressure is redistributed more equally across the entire surface of the buttocks. The asymmetric setup is accomplished by relatively increasing the height of the cushion's left side, because there is less buttock/leg mass on this side. A cushion that is shaped to offer extra support to the trochanters creates too much pressure on the bony structure of the trochanters and does not sufficiently offer a symmetric seating position.



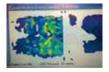
Working chair



Vicair Active without adjustments



Jay Easy Visco



Vicair Active asymmetrical setup

#### Trying out cushions

It was not possible to setup the working chair with the cushions. Because of this Mr. de L. has been using the manual wheelchair inside the house, to optimally try out the cushions.

#### The intended purpose of applying the vicair

#### **Active cushion**

After pressure mapping we chose to try out a cushion that could be adjusted to a asymmetric setup. This was a Vicair cushion. By setting up this cushion asymmetrically (more volume on the left side, less volume on the right) the smaller leg/ buttock mass is supported and Mr. de L. experiences improved pelvic stability while seated. Mr. de L. tried this cushion for two weeks. At that point the pressure ulcer had healed, but Mr. de L. slowly started to slide forward on the cushion.

We decided to try out a Vicair Active for the next two weeks. This cushion offered a good seating position and more stability. Mr. de L. experienced a good level of seating comfort.

What was the setup of the Vicair Active cushion:



We removed 7 SmartCells from the cushion's right rear compartment, added 3 SmartCells to the left rear compartment and kept the standard filling in the centre compartment. We also installed a seat board on top of the wheelchair's sling seat to prevent hammocking.

In addition: Mr. de L. has started to stand up and sit down more often. He tries to walk two times a day, but also walks in a functional manner for instance for toilet visits and transfers. Mr. de L. is more aware of the effect of alternating his position.

#### **Final analysis**

Mr. de L. needs a cushion that can be setup asymmetrically and that offers stability. A Vicair Active cushion, when setup in the right way, is able to provide good positioning. Mr. de L. now uses his manual wheelchair more frequently, as the working chair cannot be adjusted. Although a (electric) working chair is desirable to move around inside the house more easily and for instance to properly work in the kitchen. However, it should be possible to add an asymmetrically setup cushion (Vicair Active) to this chair.

Besides this the seating angle of the working chair has to be able to be 100 degrees, the same as the wheelchair with strap back is able to provide. Although a seating angle of 110 degrees offers more comfort to Mr. de L., his seating position is more functional (and therefore Mr. de L. more independent) when the angle is closer to 100 degrees.

Because of the large amount of time the client spends in his chair, the lateral lumbar support to the lower back should also be improved.

When the manual wheelchair is replaced and/or when Mr. de L. is going to use his manual wheelchair inside more frequently it is also important to improve the lateral support, for instance by positioning Mr. de L. more in between the back posts of the wheelchair.

Rehab Clinical - The Netherlands

### VICAIR® ACTIVE

### FOR ACTIVE INDIVIDUALS



# Excellent lateral and frontal stability Perfect fit for those who transfers frequently Ischial offloading and protection

The Vicair Active offers the unique combination of ergonomically shaped foam and Vicair SmartCells. The three rear SmartCell compartments provide a high level of comfort and skin protection, and offload the sitting bones and tailbone area. The foam front compartment makes transfers easy. It also gives a great sense of stability and better wheelchair handling. The cushion is made of comfortably breathable textile, that is washable at 60°C.

The Vicair Active has an easy accessible storage pouch for precious belongings (keys, phone, wallet). In short: everything your client needs to maintain their active lifestyle!

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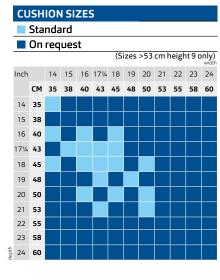
Maintenance & Safety	
Durability	***
Reliability	<b>AAAA</b>
Functionality when misused	
Low maintenance level	
Level of hygiene	

Functionality & Application	***
Comfort	<b>AAAA</b>
Low cushion weight	
Available size range	
Maximum user weight	<b>AAAA</b>
Low seat to floor height	<b>AAAA</b>
Auto adjustments	

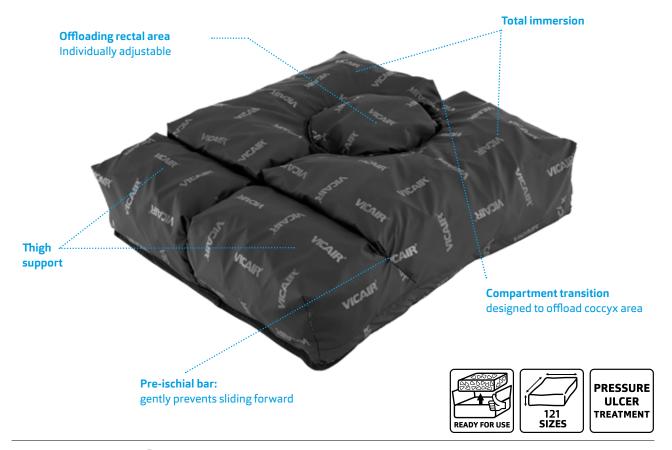
### **USED WITH**

Spinal cord injuries, active users with a high transfer frequency

TECHNICAL SPECIFICATIONS		
Height	6 and 9 cm	
Average weight	700 grams	
Max. user weight	200 kg	
Machine washable	60°C (when emptied)	



### OFFLOADING PRESSURE IN THE HIGH RISK AREA



# For completely offloading of the rectal area Adjustable non-contact area

### Stable positioning

The Vicair Centre Relief is the best choice for completely offload the rectum perineum and coccyx area. By simply removing SmartCells from the centre circle compartment you create a non-contact area. This important feature makes a great difference for persons with (for instance) localized deep pressure ulcers, rectum or tailbone problems. Or after perineal surgery.

The Vicair Centre Relief helps your client to sit comfortably and safe, even in the most painful situations.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	
Pressure redistribution	***
Shear reduction	
Micro climate control	
Impact & vibration damping	***

<b>AAAA</b>

Maintenance & Safety	
Durability	***
Reliability	<b>AAAA</b>
Functionality when misused	
Low maintenance level	
Level of hygiene	

Functionality & Application	
Comfort	<b>AAAA</b>
Low cushion weight	***
Available size range	
Maximum user weight	<b>AAAA</b>
Low seat to floor height	
Auto adjustments	

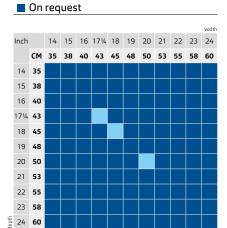
### **USED WITH**

**CUSHION SIZES** 

Standard

Rectum problems, tailbone problems, localized deep pressure ulcers, after perineal surgery or difficult childbirth

TECHNICAL SPECIFICATIONS		
Height	10 cm	
Average weight	750 grams	
Max. user weight	250 kg	



Longer compartments to fit into tilt-in-space

### COMFORT AND SKIN PROTECTION IN A TILT-IN-SPACE WHEELCHAIR



Ideal for use in tilt-in-space chair with adjustable seat depth

# Vicair Adjuster design with deeper rear end compartments

### Total immersion for equal pressure distribution

The Vicair Multifunctional seat cushion is developed to use in a tilt-in-space wheelchair with adjustable seat depth. The cushion provides a high level of comfort, optimal skin protection and stability. The design allows total immersion, to redistribute pressure equally. At the same time it keeps your client comfortably positioned and supported. A safe and reliable solution, offering optimal protection against skin breakdown. Especially when it's used in combination with the Vicair Multifunctional back cushion.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	
Pressure redistribution	
Shear reduction	
Micro climate control	
Impact & vibration damping	
impact o vibration damping	
Positioning	***
Lateral stability	
Frontal stability	<b>AAAA</b>
Sliding prevention	<b>AAAA</b>
Allows manual adjustments	<b>**</b>
Allows easy transfers	
Maintenance & Safety	***
Durability	
Reliability	***
Functionality when misused	
Low maintenance level	
Level of hygiene	
Functionality & Application	<b>AAAA</b>
Comfort	
Low cushion weight	
Available size range	
Maximum user weight	
Low seat to floor height	

Auto adjustments

### **USED WITH**

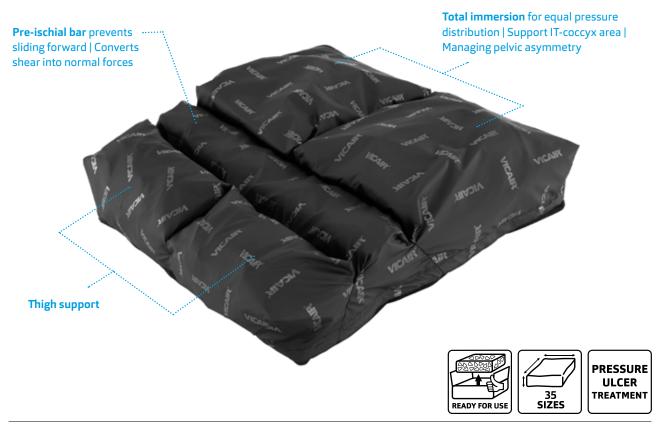
Neuromuscular diseases, Rheumatism, Quadriplegia, pain relief, in a geriatric environment

TECHNICAL SPECIFICATIONS		
Height	8 cm	
Average weight	850 grams	
Max. user weight	250 kg	

<b>CUSHION SIZES</b>	
cm	inches
37x52	15x21
40x52	16x21
45x52	18x21
50x52	20x21



### **CARE FOR ALL SIZES**



### Shaped like the Vicair Adjuster

### Max. user weight 500kg Wider size range than other Vicair products

The Vicair XXtra is a wheelchair cushion especially developed for bariatrics. The compartments are filled with bigger SmartCells, offering individuals with a weight of upto 500 kg optimal protection against skin breakdown. The design, based on the Vicair Adjuster, combines excellent stability and positioning possibilities with a very high level of comfort.

The cushion automatically manages small pelvic obliquities, but can be individually adjusted to support more extreme asymmetry.

Despite the large size, the cushion is extremely lightweight!

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	***
Pressure redistribution	
Shear reduction	***
Micro climate control	
Impact & vibration damping	<b>AAAA</b>

***
***

****
<b>AAAA</b>
4444

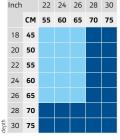
Functionality & Application	<b>**</b>
Comfort	
Low cushion weight	
Available size range	<b>AAAA</b>
Maximum user weight	<b>AAAA</b>
Low seat to floor height	4444
Auto adjustments	

### **USED WITH**

Obesity, Hemiplegia (CVA), amputations, foot propulsion, kyphosis, pelvic obliquity/tilt/rotation, Spina Bifida, spasms, Fibrodysplasia Ossificans Progressiva (FOP)

TECHNICAL SPECIFICATIONS							
Height	10 cm						
Average weight	900 grams						
Max. user weight	500 kg						





### **MAXIMUM STABILITY FOR THE LITTLE ONES**



### Especially designed for children

### Filled with small-sized SmartCells for optimal pressure redistribution

### Built to provide carefree mobility

The Vicair Junior Vector is designed for the child's physique. Based on the Vicair Vector and filled with small-sized junior SmartCells, it provides optimal pressure redistribution and comfort. There are excellent stability and positioning possibilities with this cushion. It offers a solution, for instance, for children with muscle disorders and spasms.

The Vicair Junior Vector keeps the child comfortable, safe and protected during its daily adventures.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	
Pressure redistribution	***
Shear reduction	
Micro climate control	
Impact & vibration damping	***
Positioning	***
Lateral stability	***
Frontal stability	***
Sliding prevention	
Allows manual adjustments	***

Allows easy transfers

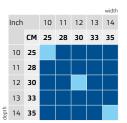
Functionality & Application	***			
Comfort	<b>AAAA</b>			
Low cushion weight	<b>**</b>			
Available size range	<b>**</b>			
Maximum user weight	<b>**</b>			
Low seat to floor height	<b>AAAA</b>			
Auto adjustments				

### **USED WITH**

Spasms, muscle disorders

TECHNICAL SPECIFICATIONS							
Height	9 cm						
Average weight	450 grams						
Max. user weight	100 kg						

### CUSHION SIZES Standard On request





### **EASY TO USE AND COMFORTABLE**



### Two compartment layout limits sliding

### Comfortable

### Can be used as a community chair cushion

The Vicair Twin is an easy to use and comfortable wheelchair cushion. It is designed for those who require comfort in combination with a medium level of support and pressure ulcer prevention.

The two compartments of the cushion provide an even pressure distribution and help to prevent sliding forward.

The Vicair Twin is lightweight and ready-for-use.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	
Pressure redistribution	
Shear reduction	
Micro climate control	
Impact & vibration damping	
Positioning	
Lateral stability	
Frontal stability	
Sliding prevention	
Allows manual adjustments	
Allows easy transfers	
Maintenance & Safety	***
Durability	
Reliability	***
Functionality when misused	
Low maintenance level	
Level of hygiene	
Functionality & Application	
Comfort	
Low cushion weight	
Available size range	
Maximum user weight	
Low seat to floor height	<b>**</b>

### **USED WITH**

Neuromuscular, rheumatism, pain relief, in a geriatric environment.

TECHNICAL SPECIFICATIONS						
Height	6 and 10 cm					
Average weight	650 - 935 grams					
Max. user weight	250 kg					

	CUSHION SIZES*												
	Standard												
	■ On request												
	width												
	Inch		14	15	16	17¼	18	19	20	21	22	23	24
		СМ	35	38	40	43	45	48	50	53	55	58	60
	14	35											
	15	38											
	16	40											
	17¼	43											
	18	45											
	19	48											
	20	50											
	21	53											
	22	55											
	23	58											
IIIdan	24	60											
	Displayed sizes are for the 10cm high model												

Displayed sizes are for the 10cm high model. For 6cm high model contact dealer.

VICAIR CATALOGUE relief by air

Auto adjustments

### VICAIR® POSITIONER

### **COMFORT AND POSITIONING**



# Two side compartments for lateral stability Comfortable

The Vicair Positioner is an easy to use and comfortable wheelchair cushion. It is designed for users who require lateral stability in combination with a medium level of pressure ulcer prevention.

The two compartments in the middle section of the cushion help prevent sliding forward. The two firmer side compartments support the positioning of pelvis and upper legs.

The Vicair Positioner is lightweight and ready-for-use.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	
Pressure redistribution	
Shear reduction	
Micro climate control	
Impact & vibration damping	
Positioning	
Lateral stability	
Frontal stability	
Sliding prevention	
Allows manual adjustments	
Allows easy transfers	
Maintenance & Safety	<b>**</b>
Durability	
Reliability	***
Functionality when misused	
Low maintenance level	
Level of hygiene	
Functionality & Application	<b>**</b>
Comfort	
Low cushion weight	***
Available size range	
Maximum user weight	****
Low seat to floor height	****
Auto adjustments	

### **USED WITH**

Spinal cord injuries, Osteoartitis/arthritis, rheumatism, spondylitis, pain relief.

TECHNICAL SPECIFICATIONS				
Height	6 and 10 cm			
Average weight	650 - 935 grams			
Max. user weight 250 kg				

	CUSHION SIZES*												
	Standard												
	■ On request												
													width
	Inch		14	15	16	17¼	18	19	20	21	22	23	24
		СМ	35	38	40	43	45	48	50	53	55	58	60
	14	35											
	15	38											
	16	40											
	171/4	43											
	18	45											
	19	48											
	20	50											
	21	53											
	22	55											
	23	58											
depth	24	60											
-													

Displayed sizes are for the 10cm high model. For 6cm high model contact dealer.

### LOW-MEDIUM SUPPORT AND PRESSURE ULCER PREVENTION



### Air valve automatically adapts the cushion to your client's body shape and weight

### Two compartment layout limits sliding

### Easy to clean and disinfect

The Vicair Liberty is an easy to use and comfortable (wheelchair) cushion. It is designed for those who require comfort in combination with a low to medium level of support and pressure ulcer prevention. The cushion is ready-foruse, rain proof and with two compartments it provides an even pressure distribution. This makes it an ideal cushion for occasional use in a large variety of situations.

This light

Skin protection / Anti decubitus	
Pressure redistribution	
Shear reduction	
Micro climate control	
Impact & vibration damping	
Positioning	
Lateral stability	
Frontal stability	
Sliding prevention	
Allows manual adjustments	$\triangle$
Allows easy transfers	
Maintenance & Safety	
Durability	
Reliability	
Functionality when misused	***
Low maintenance level	
Level of hygiene	***

PRODUCT PERFORMANCE

Osteoarthritis/arthritis, rheumatism,
spondylitis, pain relief, mobility
problems, in a geriatric environment.

**USED WITH** 

TECHNICAL SPECIFICATIONS					
5 cm					
350 grams					
150 kg					
	5 cm 350 grams				

CUSHION SIZES											
■ Standard											
■ Not available											
width											
	14	15	16	17¼	18	19	20	21	22	23	24
СМ	35	38	40	43	45	48	50	53	55	58	60
35											
38											
40											
43											
45											
48											
50											
53											
55											
	CM 35 38 40 43 45 48 50	Standa Not av.  14  CM 35  38  40  43  45  48  50  53	Standard Not availa  14 15 CM 35 38 35 38 40 43 45 48 50 53	Standard  Not available  14 15 16  CM 35 38 40  35 38 40  40 43 45 48 50 50 53	Standard  Not available  14 15 16 17¼  CM 35 38 40 43  35 38 40 43  44 43 45 48 50 50 53 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Standard  Not available  14	Standard  Not available  14	Standard  Not available    14	Standard  Not available  14	Standard  Not available    14	Standard  Not available  14

	Comfort	
s Vicair cushion is extremely	Low cushion weight	A A A A
itweight.	Available size range	A A A A
	Maximum user weight	<b>AAA</b>
	Low seat to floor height	A A A 4

VICAIR CATALOGUE relief by air

Functionality & Application

Auto adjustments



**Extremely lightweight** 

**Easy to apply** 

Easy to set up

Highly adjustable, so better positioning options and comfort

Little to no maintenance

### VICAIR® FLEX BACK

### SPECIFICALLY DESIGNED FOR REA AZALEA









PRESSURE ULCER TREATMENT

# Superior pressure distribution and optimal positioning

### 13 adjustable compartments

### **Built in lateral support**

The Vicair Flex Back is a wheelchair back cushion designed exclusively for use with the Invacare Rea Azalea Flex backrest system. The 13 easily adjustable compartments make it an ideal choice for positioning and pressure redistribution. The central compartment allows you to offload around the spinal cord. The Vicair Flex Back has built in lateral supports and can be used in combination with side supports. This Vicair back cushion uses 3D mesh spacer fabric for extra comfort and microclimate control.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	
Pressure redistribution	
Shear reduction	
Micro climate control	
Impact & vibration damping	***
Positioning	***
Lateral stability	***
Frontal stability	
Sliding prevention	
Allows manual adjustments	
Allows easy transfers	

Maintenance & Safety	***
Durability	<b>AAAA</b>
Reliability	<b>AAAA</b>
Functionality when misused	
Low maintenance level	
Level of hygiene	

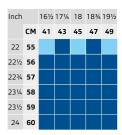
<b>AAAA</b>
<b>AAAA</b>
<b>AAAA</b>
<b>AAAA</b>

### **USED WITH**

Scoliosis, Kyphosis, Neuromuscular diseases, Spinal cord injuries, pressure sore on back/spine/shoulder, pain relief

TECHNICAL SPECIFICATIONS					
Height	32-56 cm				
Average weight	900 grams				
Max. user weight	150 kg				

## CUSHION SIZES Standard On request



### VICAIR® STRAP BACK

### TENSION ADJUSTABLE FOR THORACIC STABILITY SUPPORT AND POSITIONING

Velcro® to attach cushion



**Easy and secure** full length Velcro attachment to wheelchair canes, with screw fixation for additional security.



**Double zip** to allow fixation of stabilisation bar

# Very lightweight Easy to apply Perfect positioning and comfort qualities

Adjustable straps to adjust to back contours. Number of straps depends on Strap back height

The Vicair tension-adjustable (Strap) back is a perfect base for Vicair wheel-chair back cushions. Quickly installed and combined with your choice of Vicair back cushion it is a high quality alternative to your standard wheelchair back system. The adjustable straps enhance the function of the Vicair back cushions, by offering thoracic stability and backrest positioning.

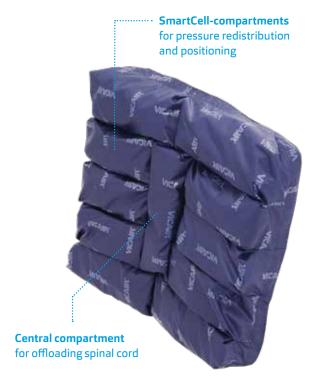
### **USED WITH**

Vicair Liberty back, Vicair Anatomic back

#### **TECHNICAL SPECIFICATIONS**

Max. user weight 150 kg

### **OPTIMAL POSITIONING AND SUPPORT**







PRESSURE ULCER TREATMENT

# Optimal positioning through a combination of SmartCells and Strap back

### Offloading the spinal column

### Dynamically moulds to a person's back contours

The Vicair Anatomic back is a highly comfortable universal back system, that enables optimal positioning and high quality pressure redistribution. Ready for use, as it dynamically molds to the contours of the client's back, but also allowing a large variety of individual adjustments. Adjustments can be made with the client still leaning against the cushion. The lightweight cushion is used in combination with the easy-install Vicair Strap back and can be used in wheelchairs without a back support plate. It is extremely suitable to use with (extreme) Scoliosis. The Anatomic back follows asymmetric body contours and keeps your client safe and stable.

PRODUCT PERFORMANCE	
Skin protection / Anti decubitus	
Pressure redistribution	
Shear reduction	
Micro climate control	
Impact & vibration damping	
Positioning	<b>**</b>

Positioning	
Lateral stability	
Frontal stability	
Sliding prevention	
Allows manual adjustments	
Allows easy transfers	

Maintenance & Safety	***
Durability	***
Reliability	***
Functionality when misused	
Low maintenance level	
Level of hygiene	

Functionality & Application	
Comfort	<b>AAAA</b>
Low cushion weight	<b>AAAA</b>
Available size range	<b>AAAA</b>
Maximum user weight	<b>AAAA</b>
Low seat to floor height	
Auto adjustments	

### **USED WITH**

Scoliosis, Kyphosis, Neuromuscular diseases, Spinal cord injuries, pressure sore on back/spine/shoulder, pain relief

TECHNICAL SPECIFICATIONS		
Height	32-56 cm	
Average weight	900 grams	
Max. user weight	150 kg	





### CLINICAL CASE Treatment of a category IV pressure ulcer on the spine of a CVA client and solving lateral trunk instability

#### **Medical history**

Mr. W. is an active 80-year-old male, who is still living life to the fullest. In 2010 Mr. W. suffered a CVA (aneurism in the cerebri media), resulting in a coma and hemiplegia. After one day Mr. W. awoke from his coma. Surgery was performed immediately, including a coiling procedure, at the Academic Medical Centre in Alkmaar (The Netherlands).

After a 6-month rehabilitation period at the Military Rehabilitation Centre Aardenburg, Mr. W. had recovered from the paralysis of his left leg caused by the CVA.

In 2011 a manual wheelchair was purchased, as the fatigued Mr. W. still wanted to fully participate in society. Because of his poor posture in this chair, a category II pressure injury on his spine developed. In an attempt to solve the poor posture and the pressure injury, the Rehabilitation Centre's occupational therapist prescribed a power tilt-in-space wheelchair, with the intention that this chair would help to improve the body posture. The chair's tilt-function should also redistribute the pressure.

However, in the period 2011-2014 the pressure injury problem was never fully resolved. In this period the kyphotic posture got worse because of osteoporosis. To treat fibromyalgia a low dose of prednisone was added to the list of daily medication. The patient also increasingly suffered from polyneuropathy, resulting in intense sharp pains.

In 2015 I became Mr. Th. W.'s outpatient occupational therapist. I asked the local council health department to provide him with a Vicair back cushion.

#### Definition of the problem

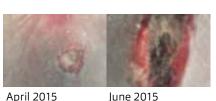
The tilt-in-space chair was provided with a Deep Contour foam back cushion. This back cushion provided insufficient pressure redistribution. Also it did not provide optimal body posture as it was not able to fully follow the kyphotic body contours. The small wound on his spine had progressed into a category IV pressure injury (see pictures).



May 2012 February 2012



March 2015 January 2015



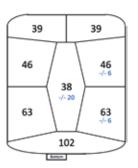
The intended purpose of the application of the vicair back cushion



Vicair Multifunctional back with Vicair Custom Made lateral support. Through the use of the Vicair Multifunctional back we were able to offload the pressure on the pressure injury area. We removed SmartCells from the centre compartment to achieve this.

Because of the depth of the Vicair back support we were better able to follow the contour of his kyphosis, resulting in improved pressure distribution.

When Mr. W. became tired, he tended to lean to the right. By fixing a lateral support with a Vicair custom made insert on it to the wheelchair back, Mr. W. was sufficiently supported and able to maintain his upright position. The Vicair custom made insert should also help to optimally redistribute pressure to prevent pressure sores in that area.



Fillingrade overview + adjusted compartments

Mr. W. feels that he is finally in control of his own seating position. Reduction of the pain relief medication: from 8 to 2 daily morphine pills. After 3 months of using the Multifunctional back

The pressure redistribution and high level of comfort provided by the Vicair Multifunctional back, enable the patient to rest in the tilt position of his chair without experiencing any pain.

Mr. W. experiences less pain when driving in his power wheelchair. This increases his independence.

The category IV pressure injury on his spine has healed (see picture). Final analysis shows by using the Vicair Multifunctional back and lateral support, Mr. W.'s comfort, pressure redistribution and stability have improved significantly. With the pressure injury healed Mr. W. has more independence, as the amount of wound care and pain medication could be reduced. Because of this Mr. W. has a clearer mind and is able to stay active for longer periods during the

Altogether these improvements enable Mr. W. to do what he wants to do most: to live life to the fullest.

Anneke Vogelenzang OT & Owner "Ergotherapie West Friesland" Occupational Therapy centre

### **VICAIR**®

### MULTIFUNCTIONAL BACK

### POSITIONING, COMFORT, SUPPORT AND SKIN PROTECTION IN SOLID BACK (TILT-IN-SPACE) WHEELCHAIRS



## Optimal immersion when using a solid back wheelchair

## Easy to adjust while the client leans against the cushion

### Optimal pressure redistribution

Excellent pressure redistribution, comfort and support make this back cushion perfect for use in a large variety of situations. It can be used in several types of back systems and in tilt-in-space chairs with adjustable seat depth. The cushion is easily fixed onto the solid backrest by use of Velcro \*. Although it automatically adapts to the body's contours, the cushion can also be adjusted for optimal positioning, while the client is still leaning against the cushion.

Optionally available is a head support cushion, for ultimate comfort and pressure redistribution.

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# PRODUCT PERFORMANCE Skin protection / Anti decubitus Pressure redistribution Shear reduction Micro climate control Impact & vibration damping

Positioning	
Lateral stability	
Frontal stability	
Sliding prevention	
Allows manual adjustments	
Allows easy transfers	

Maintenance & Safety	***
Durability	***
Reliability	
Functionality when misused	
Low maintenance level	
Level of hygiene	
Functionality & Application	
Comfort	

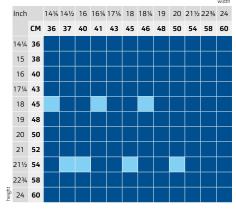
Functionality & Application	
Comfort	
Low cushion weight	
Available size range	
Maximum user weight	<b>AAAA</b>
Low seat to floor height	
Auto adjustments	

### **USED WITH**

Neuromuscular diseases, Scoliosis, Kyphosis, Lordosis, Gibbus, Quadriplegia, pain relief, in a geriatric environment

TECHNICAL SPECIFICATIONS	
Height	36-60 cm
Average weight	1.300 grams
Max. user weight	150 kg





vicair catalogue relief by air

#### IMMEDIATE RELIEF



### Optimal pressure redistribution

### Pain relief

### Extremely suitable for immobile individuals

Pain relief, unrest reduction, pressure ulcer prevention. These are just some examples of the immediate relief provided by the Vicair Mattress 415.

The design offers optimal pressure redistribution, reduction of shear forces, optimal immersion and stable – yet comfortable – positioning. Even with existing decubitus stage I-IV (clinically proven. Visit www.thinkpressurecare. co.uk for more information).

If a situation requests an individual solution: custom sizes and shapes are available on request.

The Vicair Mattress 415 is low maintenance and comes with a fluid proof cover.

It can be used on any type of bedframe and bedframe position (e.g. fowler's position).

CPR can be performed on a patient without the use of a board.

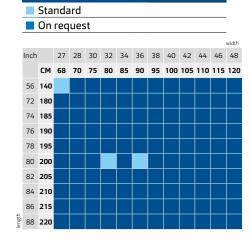
The Vicair SmartCell air-filling makes the Vicair Mattress 415 an extremely lightweight and non-powered alternative to other air-technique replacement mattresses.

### **USED WITH**

**MATTRESS SIZES** 

Pressure ulcers (stage I-IV), rheumatism, burn victims, terminal illness, spasms, kyphosis, pain management.

TECHNICAL SPECIF	ICATIONS	
Height	15 cm	
Average weight	10 kg	
Max. user weight	250 kg	



# CUSTOM MADE ENDLESS POSSIBILITIES

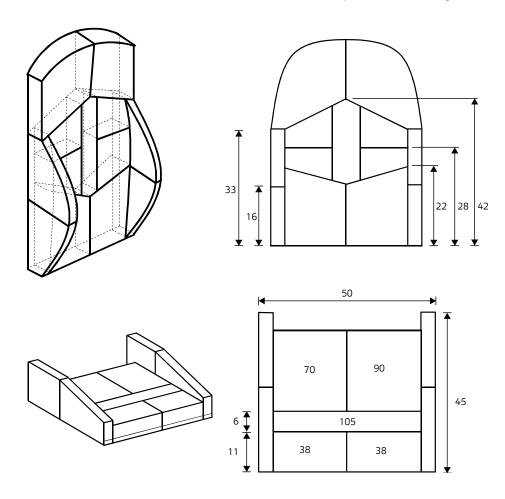
Medical practitioners often work with complex cases in the field of seating and positioning. Generally our Vicair Adjuster O2 and Vector O2 cushions are able to offer a solution, but sometimes it is necessary to provide a solution that is custom made for the client. For those situations it is possible to create a Vicair Custom Made seat- or back cushion.

For 25 years Vicair has been creating products specifically designed for clients with complex disabilities or with specific body contours. The flexibility of the Vicair technique, based on SmartCells, makes this relatively easy to do. Our R&D team department consists of a medical doctor, a product manager and a product designer.

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The request for a Vicair Custom Made product is usually made by one of the product specialists of our distributors. They work closely together with the medical practitioner in the process of ordering the Vicair Custom Made product.

First the specific case is discussed in a Vicair R&D team meeting. Based on the description of the client's medical background and needs, the R&D department is able to start designing the product and a creates a 3D drawing. The drawing will be discussed with the product specialist and the medical practitioner. After the design has been approved, the production of the cushion commences. Vicair has its own Product Design Studio, so within a few weeks the Vicair Custom Made product is ready to be shipped. The medical practitioner further guides the installation of the product.



### QUALITY WARRANTY ISO



#### Quality

Vicair is devoted to the development and production of products that will positively influence the daily comfort of the wheelchair user, to offer him or her as much freedom as possible.

We expect our products to be of very high quality, to ensure a reliable and safe result. During production all procedures and processes are performed as documented in our quality management system, in which we have implemented the applicable ISO standards and CE regulations.

#### Warranty

Vicair offers a limited warranty against defects in workmanship and materials for a period of 24 months (for mattresses this is 5 years) after the original date of purchase, provided the product has been used normally. Any damage arising from abnormal use, or caused by improper handling, cleaning, or negligence, is excluded from this warranty. Should a defect in materials or workmanship occur within 24 months (for mattresses this is within 5 years) from the original date of purchase, Vicair will, at its own choice, repair or replace the product free of charge. The cushion cover is excluded from this warranty. The new generation Vicair SmartCells (grey with black logo print) have a lifelong warranty period.

Remedies for breach of express warranties herein are limited to repair or replacement of the product. In no event shall damages for breach of any warranty include any consequential damages or exceed the cost of non-conforming goods sold.

#### ISO certified

Vicair is ISO 13485 certified. This means it has a comprehensive quality management system for the design and manufacture of medical devices.







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