



R TUNDUM

Swiss made 

**Dear reader,**

The re-positioning chair Rotundum R1 is designed for research and therapeutic treatment of patients with Benign Paroxysmal Positional Vertigo (BPPV).

It is used to perform the re-positioning manoeuvres to relocate the dislodged calcium crystals (otoconia or otoliths) in the inner ear of the patient. The re-positioning chair can be used in combination with suitable systems for the diagnostic and therapeutic treatment.

Rotundum R1 is the result of a close collaboration between the University Hospital of Zürich, the Swiss Concussion Center, and the Swiss Engineering Company prolim engineering.

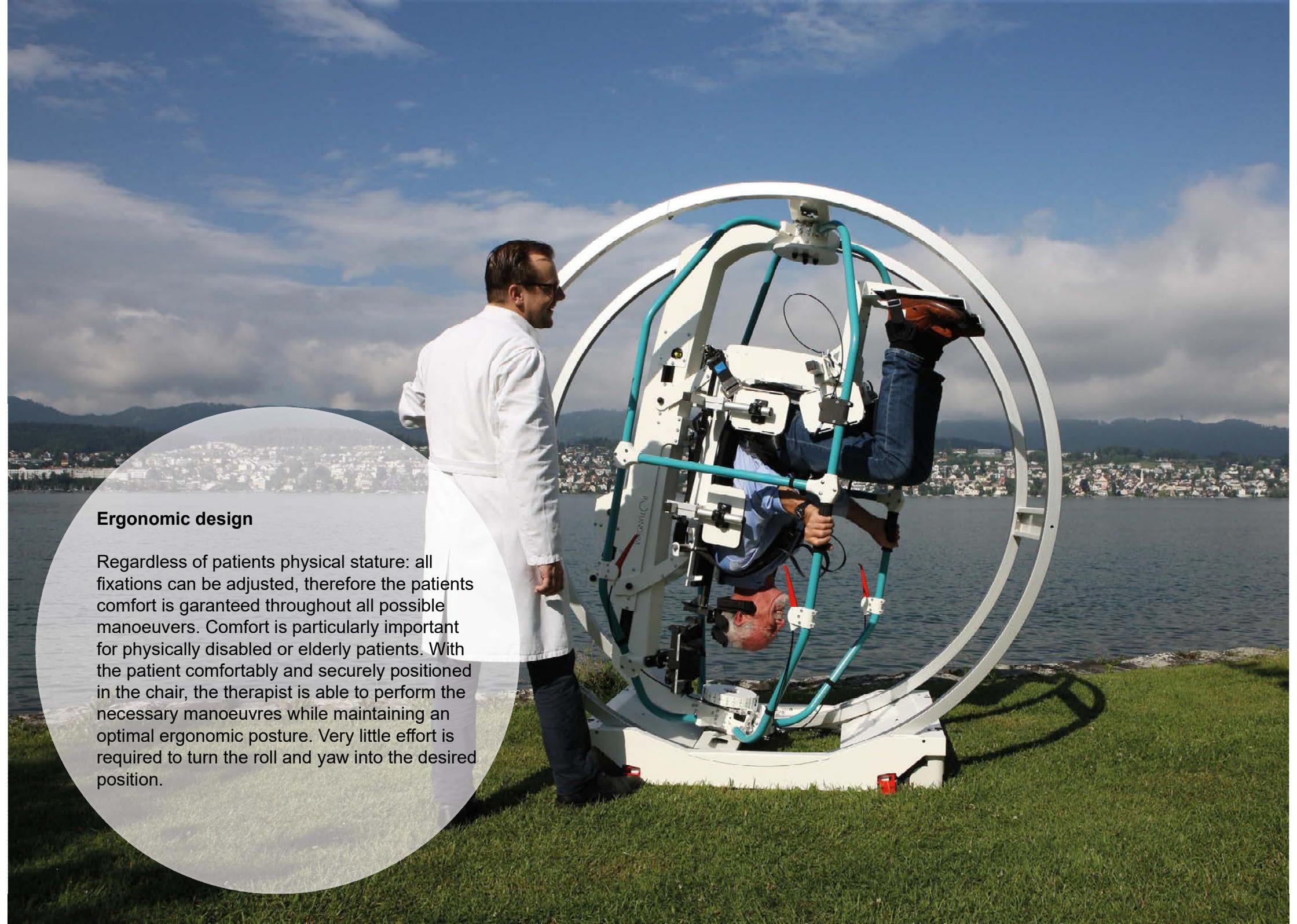


A close-up photograph of the Rotundum R1 gait belt. The device is white with teal-colored straps. A person's black leather shoe is visible on the red strap. The white frame has degree markings: 165, 180, and 195. A circular callout box is overlaid on the bottom left.

**High accuracy and reliability in the diagnosis and treatment of BPPV**

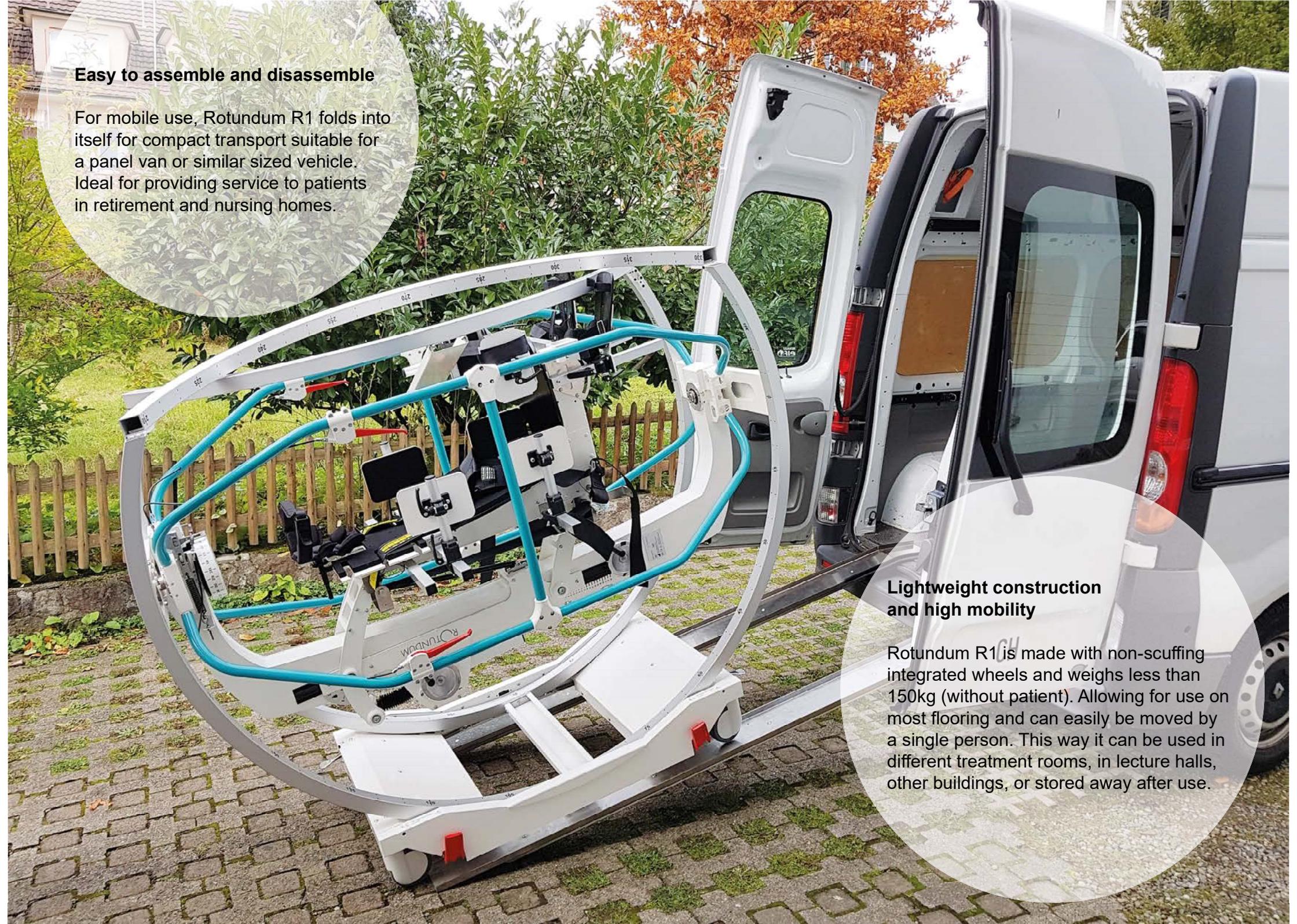
Rotundum R1 provides roll and yaw, to be able to position the patient anywhere within 360°.

The patient is comfortably secured in the seat and integrated scales and brakes ensure precise and repeatable positioning of the patient.



## Ergonomic design

Regardless of patients physical stature: all fixations can be adjusted, therefore the patients comfort is guaranteed throughout all possible manoeuvres. Comfort is particularly important for physically disabled or elderly patients. With the patient comfortably and securely positioned in the chair, the therapist is able to perform the necessary manoeuvres while maintaining an optimal ergonomic posture. Very little effort is required to turn the roll and yaw into the desired position.



### Easy to assemble and disassemble

For mobile use, Rotundum R1 folds into itself for compact transport suitable for a panel van or similar sized vehicle. Ideal for providing service to patients in retirement and nursing homes.

### Lightweight construction and high mobility

Rotundum R1 is made with non-scuffing integrated wheels and weighs less than 150kg (without patient). Allowing for use on most flooring and can easily be moved by a single person. This way it can be used in different treatment rooms, in lecture halls, other buildings, or stored away after use.

## Safe

No electrical or pneumatic drives are used in the rotary chair.  
The bearings used are precision ball bearings with a life time lubrication.  
The Rotundum R1 is CE compliant and has been developed according to current medical device guidelines.



A scenic mountain landscape featuring a prominent snow-capped mountain peak in the background under a blue sky with scattered white clouds. In the foreground, a red Swiss flag with a white cross is flying on a black pole. The middle ground shows a green, grassy slope with a small wooden building and a few people. The overall scene is bright and clear, suggesting a high-altitude alpine environment.

### High-quality

Due to the lightweight construction and choice of materials, the Rotundum R1 is a high quality re-positioning chair that is developed and manufactured in Switzerland.

## **Specification**

### **Patient body height**

1.4-2m

### **Patient body weight**

40-150kg

### **Degree of rotation freedom**

2-axis (roll and yaw) by 360° in any position

### **Transport wheels**

Four freely rotatable wheels at the bottom of the chair. The wheels are lockable/un-lockable by pedals.

### **Operation**

The roll and yaw axes can be positioned and braked in any position. The roll and yaw are labelled with degree marks. The position of the patient can be adjusted to superimpose his center of mass with the one of the positioning chair. This way the operator needs little force to operate the positioning chair.

### **Compliance and safety**

The chair is a medical device and meets the following directives and standards:

- Directives 93/42/EEC concerning medical devices
- EN ISO 15223-1:2016
- EN 1041:2008

### **Weight of the device**

The weight is less than 150 kg

### **Mobility**

For transport, the ring can be folded.

### **Installation**

The device can be moved on the rollers to the desired work-place. No fixed installation necessary.

### **Equipment**

Holder for standard tablet PC with a maximum screen size of 13 ,‘ and a maximum weight of 0.8kg (eg Windows Surface).

# Dimensions

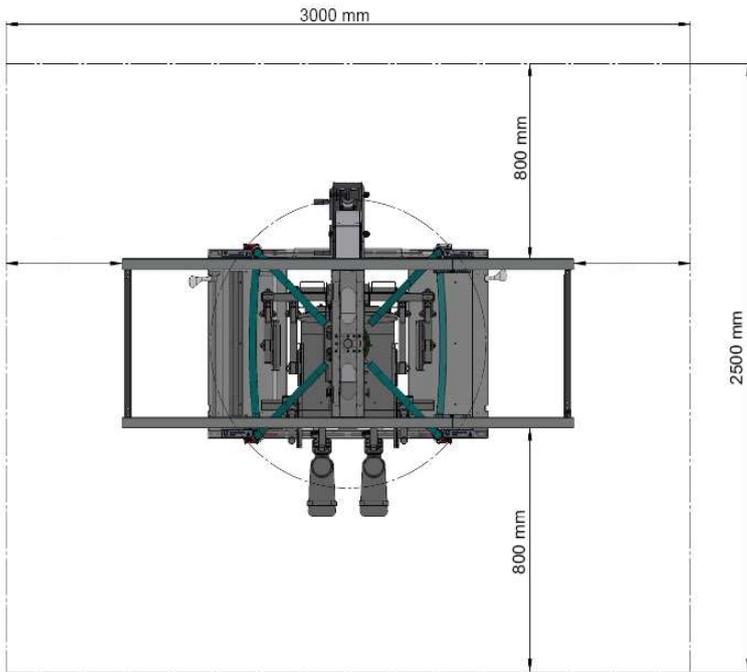


Figure 1: Work space

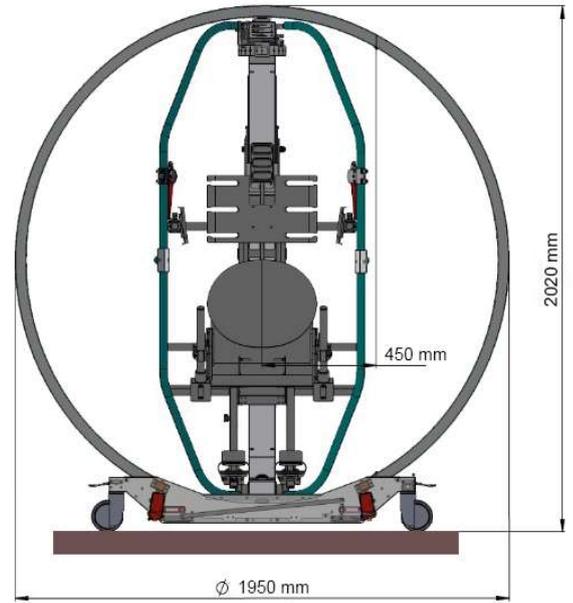


Figure 2: Width and height



Figure 3: Height in folded configuration

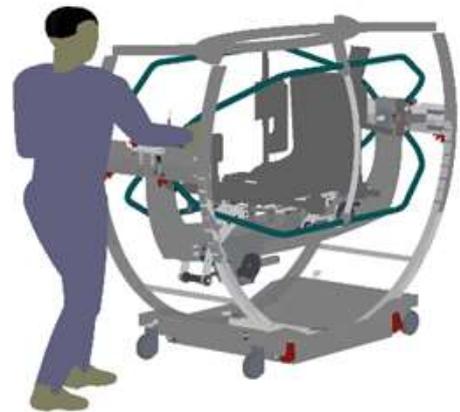


Figure 4: Simply move by hand

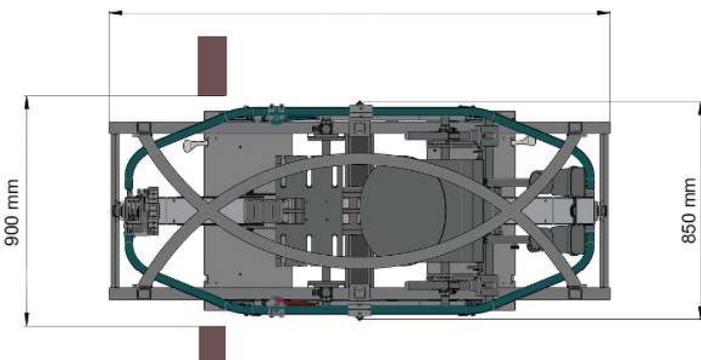


Figure 5: Passage width

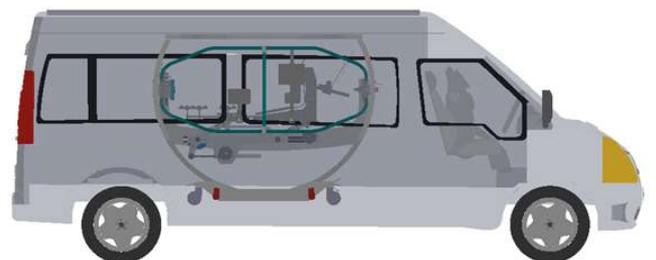


Figure 6: Transport in a panel van

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