

# WHY GANSHORN?

For more than 40 years GANSHORN has been manufacturing a complete state-of-the-art portfolio of pulmonary function testing systems for spirometry, body plethysmography, diffusion, bronchial provocation and cardiopulmonary stress testing. With its technological innovations, the company has been a leader in the diagnostics market since 1982. Many of these

are now perceived as gold standards. In order to meet our high quality standards, it is important to us that all key components are made in Germany. Our devices are created in modern processes in Bavaria, from the initial idea to distribution. In the meantime GANSHORN is represented worldwide, with strong markets in Europe, Asia, North and South America.



## PowerCube Body+

Body  
Plethysmography



## PowerCube Diffusion+

Diffusion measurement



## SpiroScout

Spirometry



## tremoflo®

Airwave oscillometry

GANSHORN Medizin Electronic GmbH  
Industriestr. 6-8 | 97618 Niederlauer, Germany

✉ sales@ganshorn.de

☎ +49 9771 6222 0

🌐 www.ganshorn.de

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The model shown may also include optional equipment which is not within the standard scope of supply. Design, equipment, and contents are subject to change without notice, as are misprints and errors.

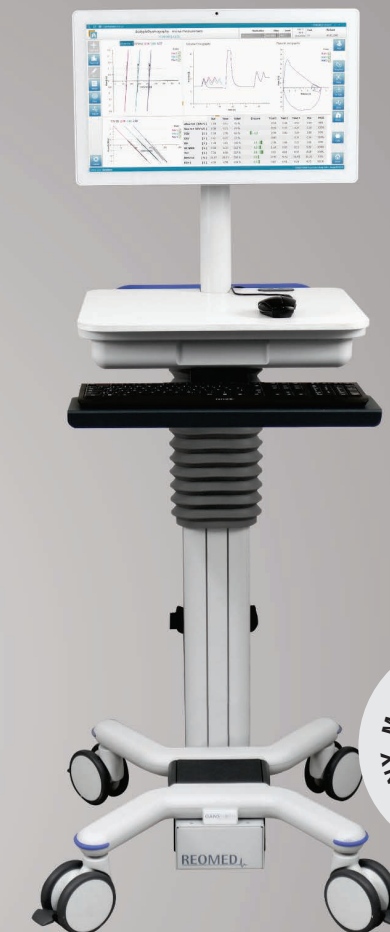
# GANSHORN

SCHILLER GROUP

# PowerCube Body+

Body plethysmograph

Extremely long life hardware meets individual software configurations



**Bemes, Inc.**  
800 Sun Park Drive  
Fenton, Missouri 63026 USA  
Phone: (636)349-3377 Fax: (636)349-3318

Sales Service  
  
Rental

# ROBUSTNESS AND QUALITY

Simple and puristic design that fits perfectly into the medical workflow. The most individual and robust body plethysmograph – for measuring most PFT parameters at one workstation. PowerCube Body+ hardware and LFX software can be easily configured to meet

specific requirements and preferences. With the enhanced long-term stability and analysis algorithms, users can instantly identify asthma, COPD, restrictions, or combinations of these conditions with just a quick look at the waveform.



**Long life, robust hardware**



**Versatile, fast and compatible LFX software platform**



**Lowest costs per measurement in industry**



**Spare part free**



**Maximum device configurability**



**Highly accurate and precise**

## Sustainability, performance, hygiene and design. Rethought.

The GANSHORN PowerCube Body+ sets a new focus on first-class quality and the highest precision down to the smallest detail. Thanks to the fully barrier-free wheelchair version, it offers improved patient comfort and increased safety, while hygiene measures are made significantly easier and faster thanks to the well-thought-out design. Equipped with an

innovative, calibration-free and waterproof SharpFlow ultrasound sensor, the device delivers fast, reliable and precise results. The clear design of the GANSHORN PowerCube Body+ combines elegance with functionality and is not only a visual highlight in your laboratory, but also makes everyday work easier thanks to optimized hygiene.



**LFX**

# Software platform

The LFX software is our user-friendly interface, developed with the physiologist in mind. The patient management interface provides all the tools necessary to perform every task done in the laboratory, while remaining easy to operate. Built on state-of-the-art Windows tools like

.net, C# and SQL database, the LFX software is the future of modern respiratory diagnostics. The LFX software has built-in quality control monitoring based on ATS/ERS guidelines, which are accessible during and after the measurements are performed.



### Precision

Flow/Volume: Selection of best In/Ex curves from group of multiple trials  
 DLCO sample can be 0.05 l and still produce valid results  
 GLI, ECCS, NHANES, ATS and many more reference values available

### Efficiency

Automatic offset correction  
 Online BTPS correction  
 No volume calibration  
 Graphical visualisation tools for evaluation  
 Maneuver animations for children

### High quality

Intuitive and modern interface  
 Quality control via ATS/ERS criteria  
 Improved speed diagnosis  
 Customizable templates and reports  
 Comprehensive service and support

## Connect all GANSHORN devices to one software system

Large-format displays enable quick and correct evaluation of measurements and breathing maneuvers at first glance. The use of modern Windows tools such as .NET enables platform and language-independent communication. A modern database concept that uses both Microsoft SQL and MySQL offers the perfect approach – both for general practitioners and for large hospital networks.

- HIS integration
- DICOM
- GDT communication
- Full network compatibility
- SQL Database system
- Export of PDF and raw data files

# DIMENSIONS (MM) & SET-UPS

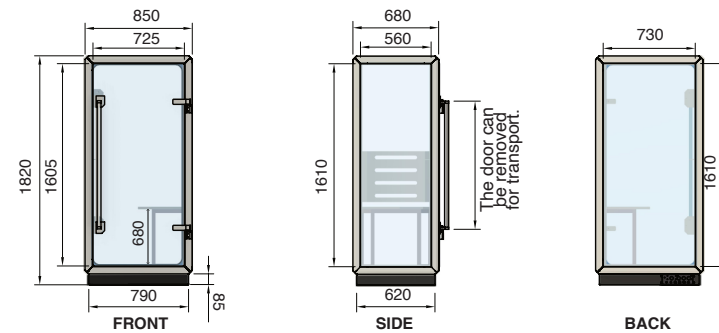


## SharpFlow

The GANSHORN ultrasound technology

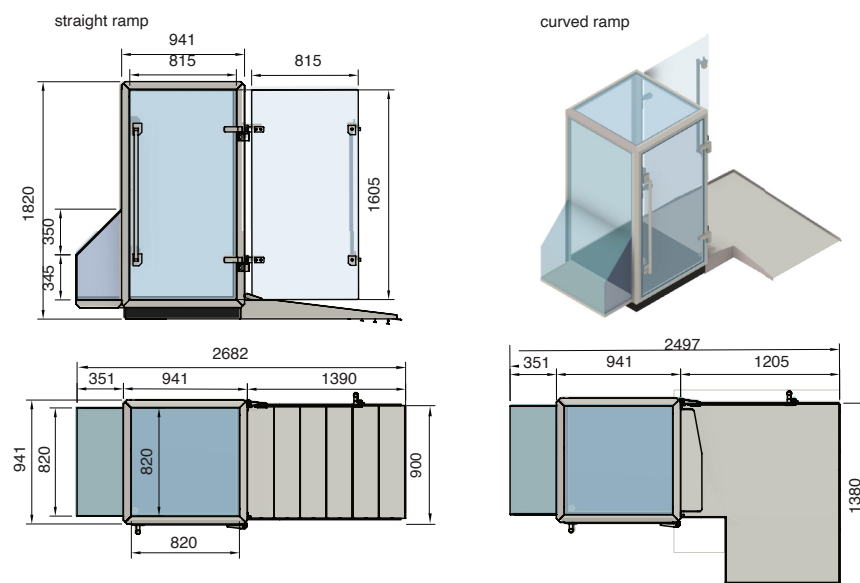
### Standard cabin

This setup is exclusively equipped with spirometry and body plethysmography measurement capabilities and is ideal for retrofitting existing infrastructure.



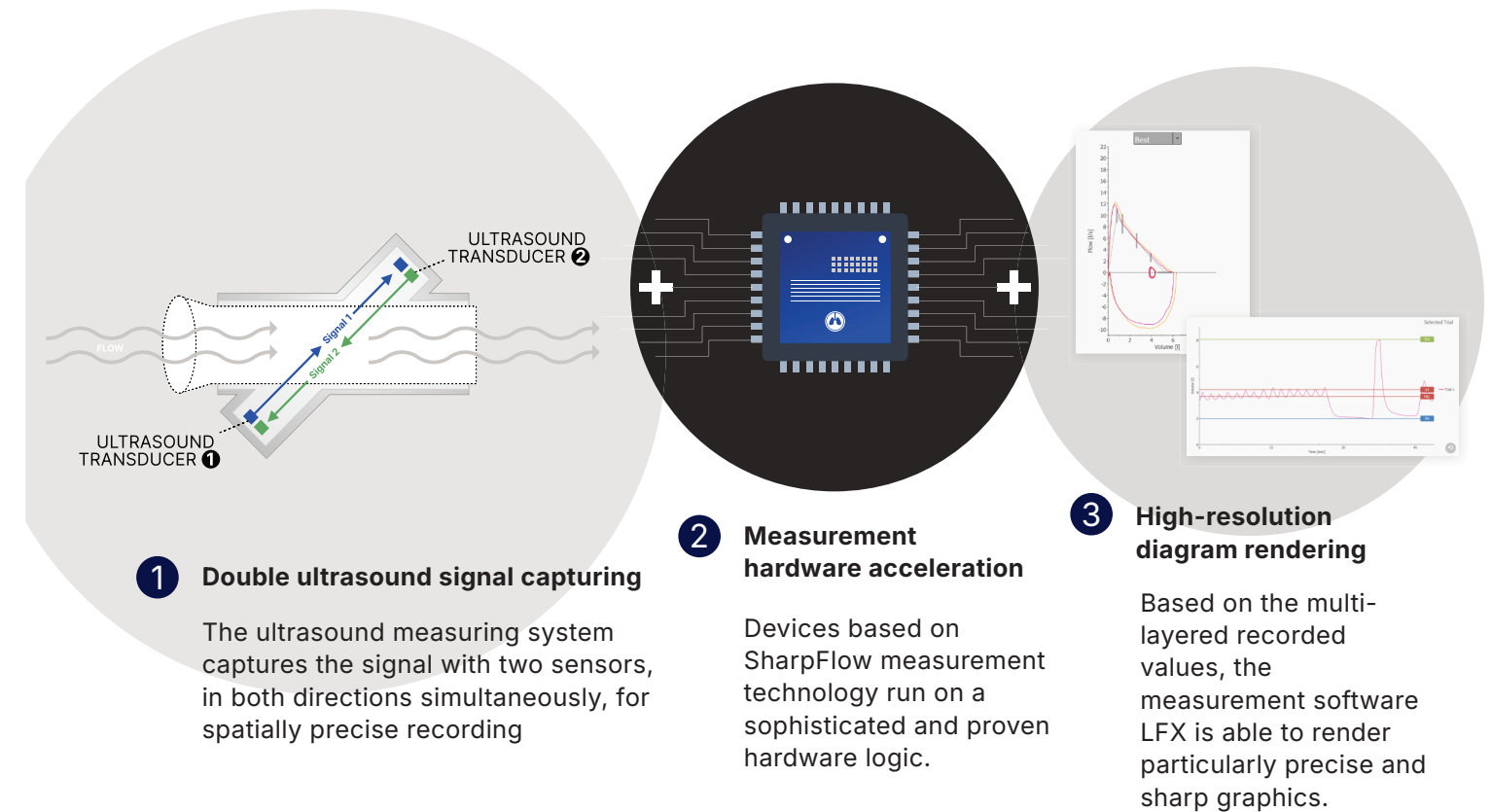
### Wheelchair cabin

In contrast to the competitor's devices, you can also order the PowerCube in a truly barrier-free version. With this, body plethysmography is also possible with a wheelchair. Available as PowerCube Body+ Cabin with curved or straight ramp, standard or XL dimension.



Two diagonally opposite ultrasound transducers alternately send and receive ultrasonic waves. Without any air flow inside the breathing insert, the transit time of the ultrasound waves is the same in both directions. Any air flow inside the insert will accelerate the waves in one direction and decelerate in the other. The difference between the transit times of the

ultrasound waves allows to calculate the flow. Flow and gas density are calculated from the measured transit times, allowing changes in the concentration of the exhaled gases to be determined directly and at the same time with the respiratory volume. All other factors like gas properties, humidity and temperature are the same for both directions and cancel each other out.



#### 1 Double ultrasound signal capturing

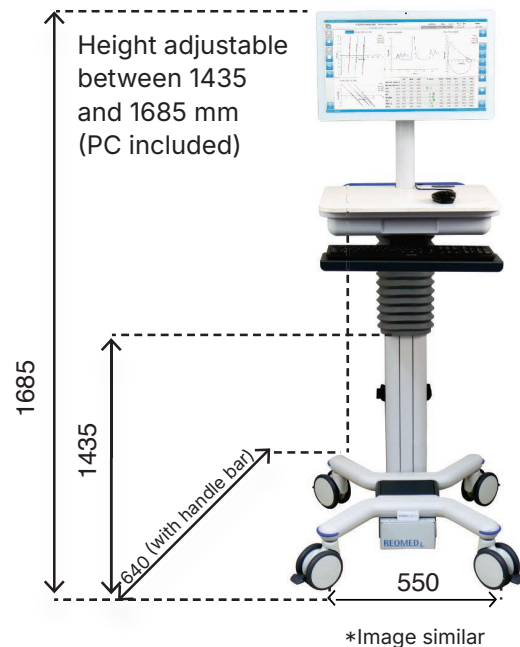
The ultrasound measuring system captures the signal with two sensors, in both directions simultaneously, for spatially precise recording

#### 2 Measurement hardware acceleration

Devices based on SharpFlow measurement technology run on a sophisticated and proven hardware logic.

#### 3 High-resolution diagram rendering

Based on the multi-layered recorded values, the measurement software LFX is able to render particularly precise and sharp graphics.



\*Image similar

#### Precision + Resolution

The high sampling resolution is a prerequisite for reliable determination of flow  
No noticeable resistance during breathing

#### No detours

No substitute parameters for flow necessary (e.g. Differential pressure)  
Direct flow measurement based on digital measurement technology

#### Room climate-independent

Not affected by changing ambient conditions like temperature or humidity of breathing air

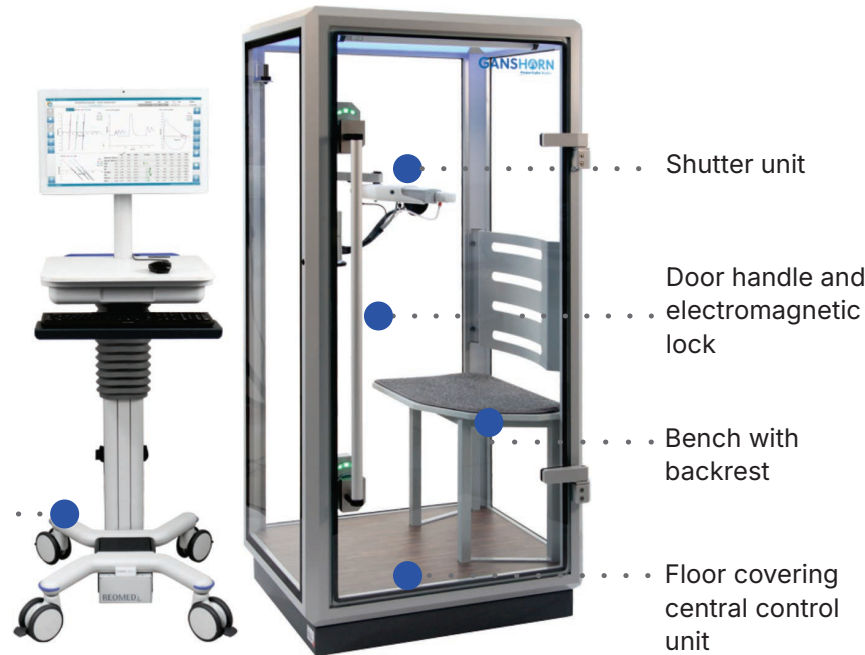
# COMPLETE PACKAGE

The PowerCube Body+ station includes a medical All-in-One touchscreen PC and comes optionally with an ergonomic height adjustable trolley.

System accessoires like an external printer and isolating transformer are elective.

## Work station

- Optional medical grade ergonomic trolley
- height adjustable
- medical all-in-one PC with touch function
- optional with isolating transformer



# CONFIGURATIONS

Programs	Standard	Option	Functions	Standard	Option
■ Microsoft SQL / MySQL	☑		■ Bodyplethysmography	☑	
■ XML reports	☑		■ Slow spirometry	☑	
■ Multiuser license		☑	■ Forced spirometry	☑	
■ Worklist		☑	■ Single breath diffusion		☑
■ DICOM/GDT/HL7		☑	■ MIP/MEP		☑
<b>Variations</b>			■ SNIP		☑
■ Floor color selectable			■ Rocc		☑
■ Bench or chair			■ MVV		☑
■ Comfortable entry due to handle and elevated seating position					
■ Wheelchair, XL and standard cabin					

# FEATURES

+

**Electromagnetic door lock**

with LED locking indicator

+

**„Safety unlock“ button**

gives patients sense of control

+

**Patient speaker and microphone**

for a maximum of cooperations

+

**3D swivel arm**

Felixible, height-adjustable interface

+

**Maximum comfort**

Panorama view and LED lights

+

**Multiple options**

Easy integrations of diffusion, Rocc or MIP/MEP