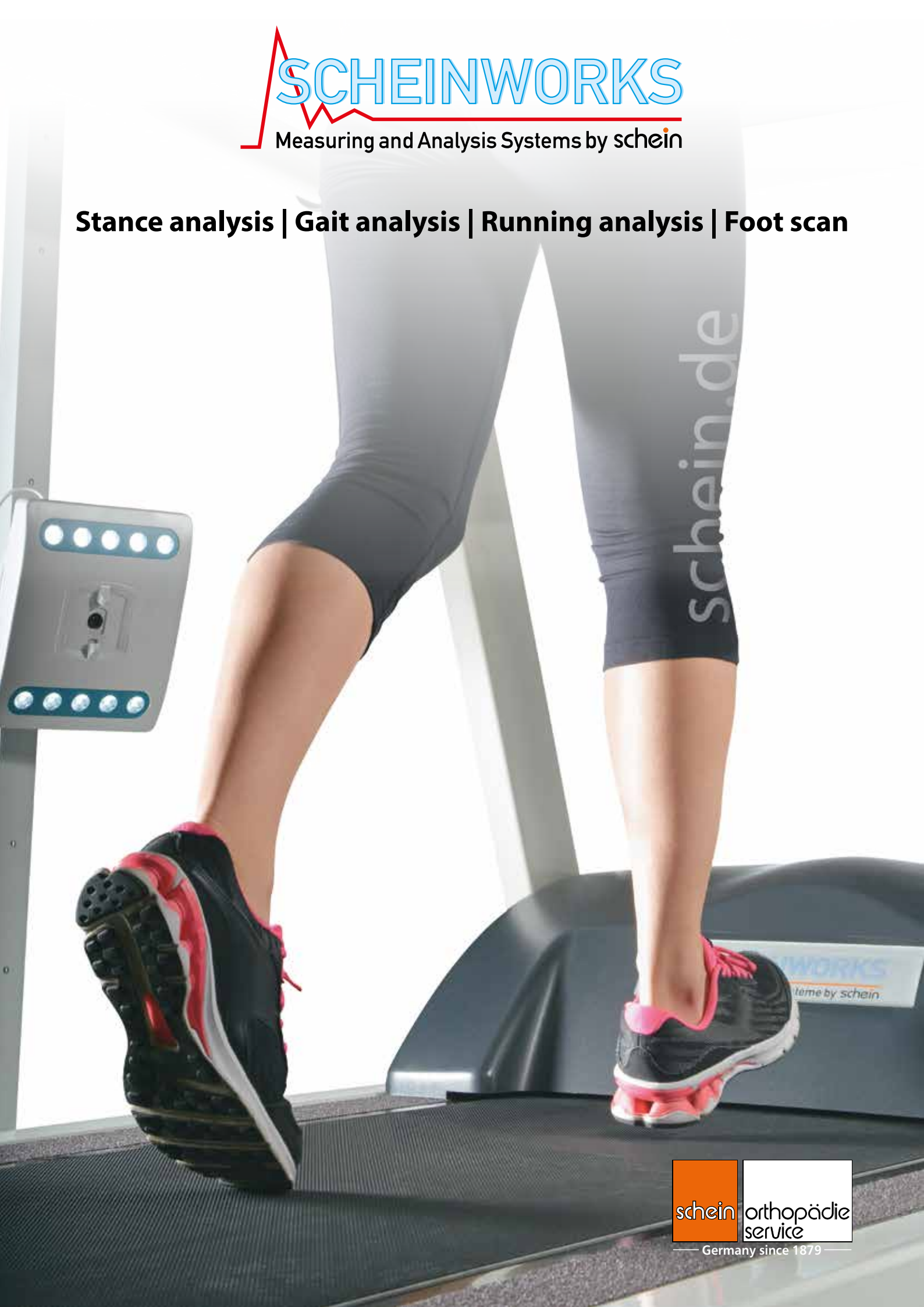


Stance analysis | Gait analysis | Running analysis | Foot scan



SCHEINWORKS

Measuring and Analysis Systems by **schein**



Foot scanner, pressure measurement plate, treadmill – three systems, one piece of software.

The SCHEINWORKS measurement and analysis systems comprise different hardware and software modules that can be combined and arranged to suit your requirements using just one piece of software.

All the modules are intended to provide individualised patient care through:

- **Professional measurement of movement or stance**
- **Precise analysis**

Use our 2D foot scanner with depiction of the sole of the foot in original size as a medical history tool and a construction basis for your individual insole provision.



Analyse the movement or stance of your patient with a pressure measurement plate or treadmill with integrated pressure measurement plate to

plan, document and optimise individual care. Various camera modules are available for extended analysis.

Expand your customer base and use the high-speed cameras for running/gait analyses.



Foot scanners 4–5

Pressure measurement plates 6–7

Treadmills 8–11

Gait training 12–13

Accessories 14–15

- Cameras
- Stands
- Contrast plates
- PC systems

Foot scanners



Record the sole of your customer's foot as a digital scan within a few seconds with the SCHEINWORKS DigiPED.

Among other things, the software allows the length and breadth measurements to be ascertained or significant points to be marked and documented. If a camera is added to the scanner, analysis and documentation of the positioning of the foot, in particular the heel, are also possible.

For your insole construction you can use a 1:1 depiction of the foot scan directly on the screen or print it out (A3 printer required).

The scanned-in footprints can also be used as the construction basis for our insole construction programme SCHEINWORKS construction.

<http://construction.scheinworks.de>



Technical data

DigiPED foot scanner Art. no. 032211-100

| | |
|----------------------------|------------------------|
| Measurements (L x B x H) | 65,4 x 44,4 x 11,3 cm |
| Weight | Approx. 16,6 kg |
| Scan area (L x B) | 42,2 x 30,5 cm |
| Max. user weight | Approx. 200 kg |
| Scan time | Approx. 8 sec. |
| PC interface | High-speed USB 2.0 |
| Power supply | 24 V DC |
| Power consumption | Standby 8W, max. < 36W |
| Lamp type | Cold cathode lamp |
| Colour (exterior/interior) | Light grey/Grey |



Presentation pillar

If you do not want to integrate the scanner into the floor, we recommend a presentation pillar for the measurement or sales room.

With the stand, the scanner is protected and simultaneously elegantly integrated. The mains-connected pillar serves as a secure work surface for a laptop or touch-screen PC.



schein DigiPED-Scan Report
Person: Max Musten, 01.01.1980, Male
Record: 11.05.2017 13:56, DigiPED-Scan

Foot scans

Measures

| | Left | Right |
|----------------|--------|--------|
| Foot length | 237 mm | 237 mm |
| Forefoot width | 93 mm | 93 mm |
| Foot width | 95 mm | 95 mm |

Printed: 11.05.2017 13:26:32 Page 1 / 2

schein DigiPED-Scan Report
Person: Max Musten, 01.01.1980, Male
Record: 11.05.2017 13:56, DigiPED-Scan

Comments

Patient comments

Recall comments/Recommendations

Individual adjusted DigiPED sports insole with cut out for plantar fascia



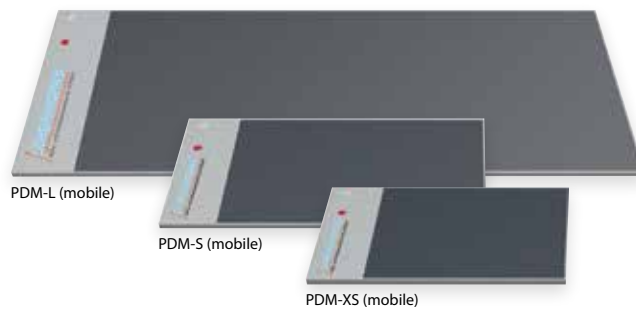
Pressure measurement plates



Stance, gait and roll analyses can be quickly and easily carried out with the SCHEINWORKS pressure measurement plates. They record the static and dynamic pressure distribution below the feet when standing or walking, barefoot or with shoes.

The pressure measurement plates have low construction height and are available in four sizes, in a stationary and mobile version. You achieve maximum flexibility with the mobile version: this is powered by an integrated battery, while the data transfer takes place via a Bluetooth interface.

To increase the size of the sensor area and use it as a gait route, two platforms of the same type can be combined with the pressure measurement plates PDM-L (mobile), FDM-1.5 and FDM-2.

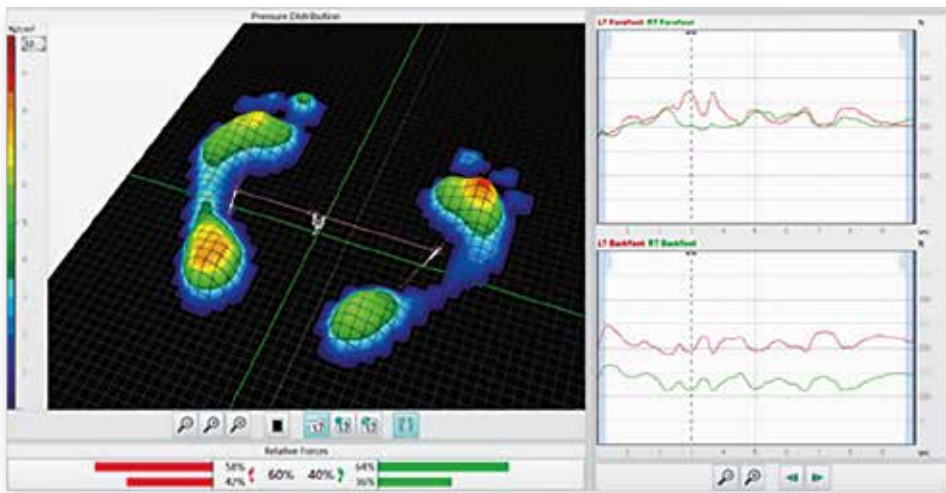


Technical data

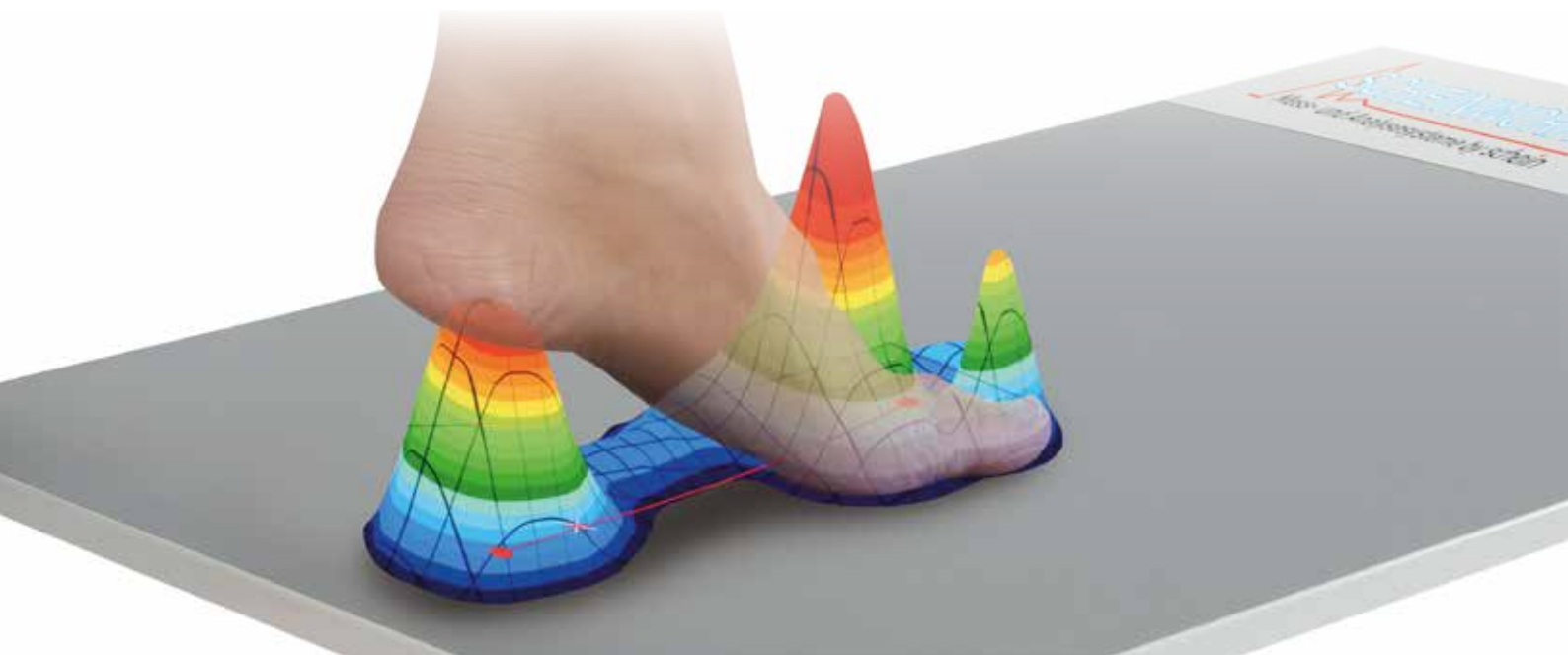
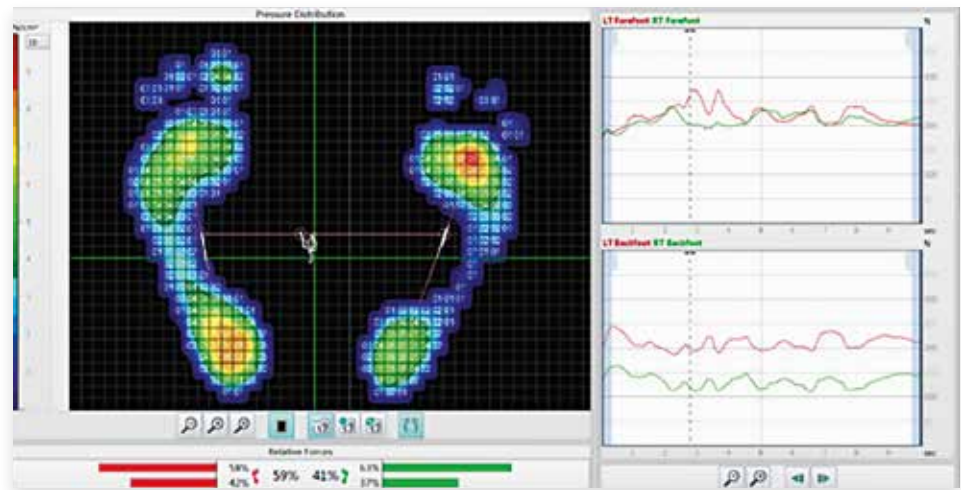
| | Pressure measurement plate PDM-XS Art. no. 032115-192 | Pressure measurement plate PDM-S Art. no. 032115-256 | Pressure measurement plate PDM-L Art. no. 032115-143 | Pressure measurement plate PDM-XS mobile Art. no. 032115-319 |
|--------------------------|--|---|---|---|
| Measurements (L x B x H) | 57.0 x 40.0 x 1.5 cm | 71.0 x 40.0 x 1.5 cm | 137.0 x 53.5 x 1.5 cm | 57.0 x 40.0 x 1.5 cm |
| Weight | 3.51 kg | 4.37 kg | 11.4 kg | 3.56 kg |
| Sensor area (L x B) | 40.6 x 33.9 cm | 54.2 x 33.9 cm | 122.0 x 47.4 cm | 40.6 x 33.9 cm |
| Number of sensors | 1920 | 2560 | 8064 | 1920 |
| Resolution | 1.4 sensors/cm ² (1/3") | 1.4 sensors/cm ² (1/3") | 1.4 sensors/cm ² (1/3") | 1.4 sensors/cm ² (1/3") |
| Measurement frequency | 200 Hz | 200 Hz | 120 Hz | 200 Hz |
| Measurement area | 1–120 N/cm ² | 1–120 N/cm ² | 1–120 N/cm ² | 1–120 N/cm ² |
| Precision | ±5 % of final value | ±5 % of final value | ±5 % of final value | ±5 % of final value |
| Sensor type | Capacitive | Capacitive | Capacitive | Capacitive |
| PC interface | USB 2.0 | USB 2.0 | USB 2.0 | USB 2.0/Bluetooth |

| | Pressure measurement plate PDM-S mobile Art. no. 032115-325 | Pressure measurement plate PDM-L mobile Art. no. 032115-380 | Pressure measurement plate FDM-1.5 Art. no. 032115-144 | Pressure measurement plate FDM-2 Art. no. 032115-150 |
|--------------------------|--|--|---|---|
| Measurements (L x B x H) | 71.0 x 40.0 x 1.5 cm | 137.0 x 53.5 x 1.5 cm | 158.0 x 60.5 x 2.1 cm | 212.2 x 60.5 x 2.1 cm |
| Weight | 4.42 kg | 11.5 kg | Approx. 16.5 kg | Approx. 25 kg |
| Sensor area (L x B) | 54.2 x 33.9 cm | 122.0 x 47.4 cm | 144.0 x 56.0 cm | 203.0 x 56.0 cm |
| Number of sensors | 2560 | 8064 | 11264 | 15360 |
| Resolution | 1.4 sensors/cm ² (1/3") | 1.4 sensors/cm ² (1/3") | 1.4 sensors/cm ² (1/3") | 1.4 sensors/cm ² (1/3") |
| Measurement frequency | 200 Hz | 120 Hz | 100 Hz, optionally 200 Hz or 300 Hz | 100 Hz, optionally 200 Hz or 300 Hz |
| Measurement area | 1–120 N/cm ² | 1–120 N/cm ² | 1–120 N/cm ² | 1–120 N/cm ² |
| Precision | ±5 % of final value | ±5 % of final value | ±5 % of final value | ±5 % of final value |
| Sensor type | Capacitive | Capacitive | Capacitive | Capacitive |
| PC interface | USB 2.0/Bluetooth | USB 2.0/Bluetooth | USB 2.0 | USB 2.0 |

3D depiction



2D depiction



Treadmills

All SCHEINWORKS treadmills include integrated pressure measurement plates that allow pressure distribution when walking and running to be measured and analysed. The software calculates various gait parameters, which are depicted clearly in the software and report.

The SCHEINWORKS treadmills are available in different versions for various areas of application:

- **MOBILE**
- **SPORT**
- **OT-REHA**

MOBILE treadmill



The MOBILE treadmill is particularly suited to small spaces and mobile use due to its size and weight. It can be assembled and disassembled in just a few movements. It is delivered fully assembled and can be put into operation immediately.



Technical data

| | | Treadmill FDM-TLR3-3i mobile Art. no. 032110-012 |
|--------------|--------------------------------|---|
| Treadmill | Dimensions (L x B x H) | 160 x 80 x 127 cm |
| | Dimensions, folded (L x B x H) | 160 x 80 x 35 cm |
| | Step height | 19 cm |
| | Weight | Approx. 75 kg |
| | Running surface (L x B) | 123 x 44 cm |
| | Speed | 0.8–14 km/h in 0.1 km/h steps |
| | Motor | 1.47 kW |
| | Gradient | 0%, not adjustable |
| | Max. user weight | 110 kg |
| | Colour | White/Grey |
| Sensor plate | Sensor area (L x B) | 94.8 x 40.6 cm |
| | Number of sensors | 5376 |
| | Resolution | 1.4 sensors/cm ² (1/3") |
| | Measurement frequency | 100 Hz |
| | Measurement area | 1–120 N/cm ² |
| | Precision | ±5% of final value |
| | Sensor type | Capacitive |
| | PC interface | USB 2.0 |

SPORT treadmill



The SPORT treadmill is ideal for sport purposes due to its high stability and potential speed of up to 24 km/h. The integrated pressure measurement plate is available in two different sizes.



Technical data

| | | Treadmill FDM-TDSL-3i sport Art. no. 032110-116 | Treadmill sport FDM-TDS-3i sport Art. no. 032110-120 |
|--------------|-------------------------|--|---|
| Treadmill | Dimensions (L x B x H) | 200 x 92 x 150 cm | |
| | Step height | 18 cm | |
| | Weight | Approx. 200 kg | |
| | Running surface (L x B) | 150 x 50 cm | |
| | Speed | 0.2–24 km/h in 0.1 km/h steps | |
| | Motor | 2.2 kW | |
| | Gradient | –2–15% in 0.5% steps | |
| | Max. user weight | 150 kg | |
| | Colour | Silver | |
| Sensor plate | Sensor area (L x B) | 94.8 x 40.6 cm | 108.4 x 47.4 cm |
| | Number of sensors | 5376 | 7168 |
| | Resolution | 1.4 sensors/cm ² (1/3") | 1.4 sensors/cm ² (1/3") |
| | Measurement frequency | 100 Hz | 120 Hz, optionally 240 Hz |
| | Measurement area | 1–120 N/cm ² | 1–120 N/cm ² |
| | Precision | ±5% of final value | ±5% of final value |
| | Sensor type | Capacitive | Capacitive |
| | PC interface | USB 2.0 | USB 2.0 |



OT-REHA treadmill



The OT-REHA treadmill is suitable for gait analysis as well as gait training. To offer your customers improved safety, it can also be fitted with long hand rails, a safety stirrup with fall protection, and arm supports as required. You have the choice between two sizes of measurement area and resolutions for the integrated pressure measurement plate. The OT-REHA medical treadmills also fulfil all standard requirements for use in clinical environments due to their technical design.



Optional



Long hand rail
Art. no. 032154-000



Arm supports
Art. no. 032155-000



Safety stirrup with fall protection incl. chest harness
Art. no. 032149-000

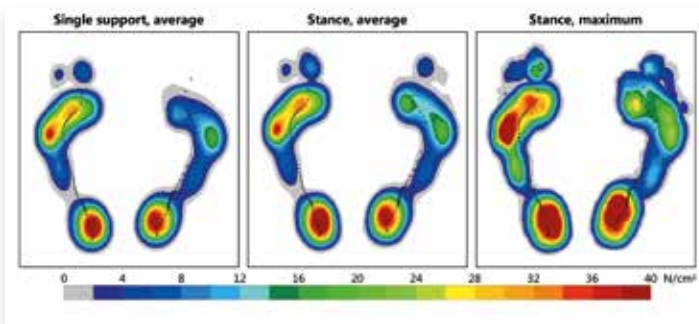
Technical data

| | | Treadmill FDM-THPL-S-2i OT-Reha Art. no. 032110-041 | Treadmill FDM-THPL-S-3i OT-Reha Art. no. 032110-042 | Treadmill FDM-THPL-M-2i OT-Reha medical Art. no. 032110-043 | Treadmill FDM-THPL-M-3i OT-Reha medical Art. no. 032110-044 |
|--------------|-------------------------|--|--|--|--|
| Treadmill | Dimensions (L x B x H) | 210 x 85 x 130 cm | | | |
| | Step height | 23 cm | | | |
| | Weight | Approx. 211 kg | | | |
| | Running surface (L x B) | 150 x 50 cm | | | |
| | Speed | 0.5–18 km/h in 0.1 km/h steps | | | |
| | Motor | 2.2 kW | | | |
| | Gradient | 0–20 % in 0.1 % steps | | | |
| | Max. user weight | 200 kg | | | |
| | Colour | RAL 9010 pure white | | | |
| Sensor plate | Sensor area (L x B) | 91.4 x 49.5 cm | 94.8 x 47.4 cm | 91.4 x 49.5 cm | 94.8 x 47.4 cm |
| | Number of sensors | 2808 | 6772 | 2808 | 6772 |
| | Resolution | 0.6 sensors/cm ² (1/2") | 1.4 sensors/cm ² (1/3") | 0.6 sensors/cm ² (1/2") | 1.4 sensors/cm ² (1/3") |
| | Measurement frequency | 120 Hz | 120 Hz, optionally 240 Hz | 120 Hz | 120 Hz, optionally 240 Hz |
| | Measurement area | 1–120 N/cm ² | 1–120 N/cm ² | 1–120 N/cm ² | 1–120 N/cm ² |
| | Precision | ±5 % of final value | ±5 % of final value | ±5 % of final value | ±5 % of final value |
| | Sensor type | Capacitive | Capacitive | Capacitive | Capacitive |
| | PC interface | USB 2.0 | USB 2.0 | USB 2.0 | USB 2.0 |

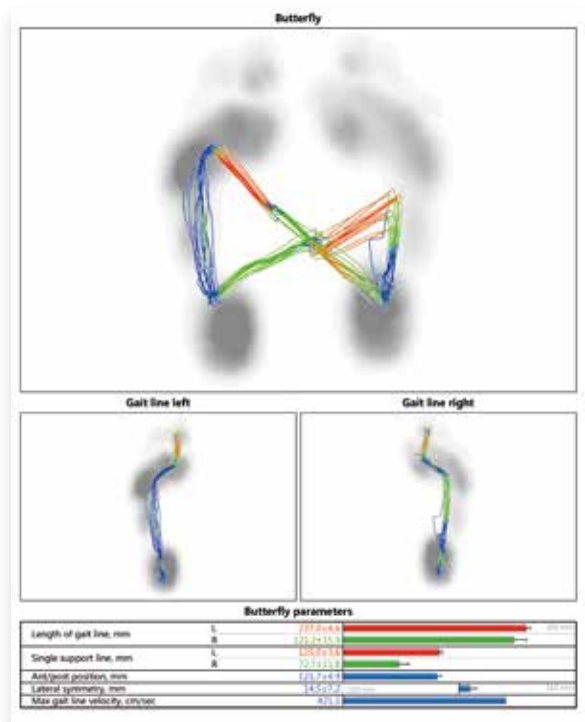
Treadmill standard report

The sensor plate integrated into all treadmills offers analysis of the pressure, power, time and step parameters and evaluation of gait symmetry as standard. With a click of the mouse, the measurement results are depicted on the computer and can be printed in colour.

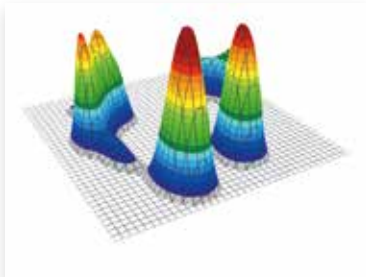
Maximum pressure images



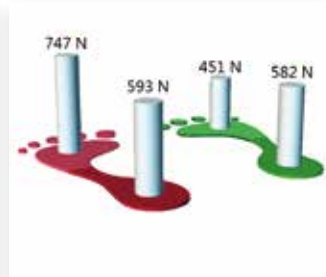
COP analysis



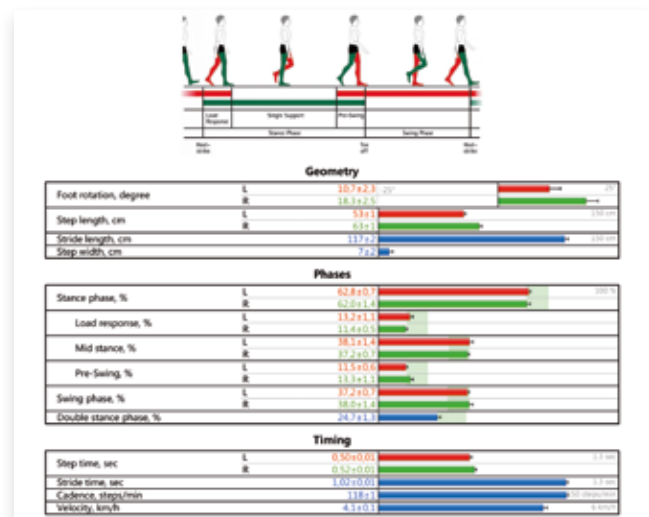
3D pressure image



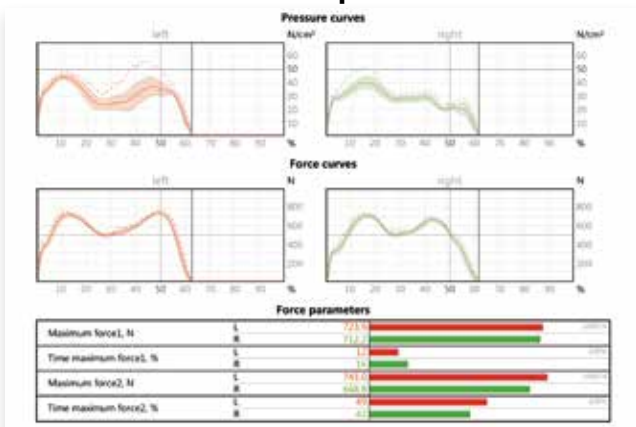
Front foot / hind foot power



Gait parameters



Power and pressure



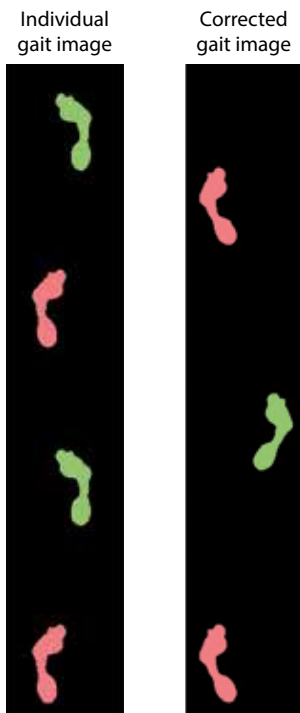
Gait training



SCHEINWORKS 'Gait Training' is a system based on the SCHEINWORKS Gait Analysis and has been conceived for training in case of neurological or orthopaedic gait abnormalities. A repeated comparative gait analysis serves as a performance review.

Gait training with visual gait specifications

Gait parameters such as step length, step width and foot angle are recorded by the gait analysis and individually corrected to suit the therapy targets. The corrected steps (or successively corrected steps) are projected onto the walking/running surface via a projector, and should then be copied by the patient's own steps.



Virtual Training

With the 'Virtual Training' module, the concentration and automation of the gait are trained while walking. This takes place via a virtual walking environment in which various tasks that require continuous gait variation must be completed. The training can be individually adjusted to suit the patient through the possibility of selecting different levels.

With the help of the optional editor, you can design your own training levels.

The treadmill FDM-TLR3-3i mobile is not suitable for this module.

Using this module with a monitor of at least 40 inches is recommended. The use of a projector is also possible.

Gait Training module (step projection) for sport treadmills **Art. no. 032136-000**

Gait Training module (step projection) for OT-Reha treadmills **Art. no. 032136-040**

Virtual Training module (Forest walk) **Art. no. 032135-000**

Virtual Training module (Forest walk) **Art. no. 032135-001**



Accessories

Camera and light modules



For additional analysis, camera modules can be added to the treadmills and pressure measurement plates. So that the camera images can be assigned to the corresponding pressure measurement images, the camera and pressure measurement plate are synchronised.

The cameras are available in HD or as a high-speed version. To achieve ideal illumination for good image quality, additional lighting units or cameras with an integrated lighting unit from power LEDs are available. The multifunctional stands can additionally help with the assembly of camera and light modules.



HD camera (SYNCCam)



HD webcam with integrated lighting unit (SYNCLightCam)
HD webcam with integrated lighting unit (HS-SYNCLightCam)
Similar to image



LED lighting unit (SYNCLight)



Portable multifunctional stand
Art. no. 032133-000



Multifunctional stand with base plate
Art. no. 032133-001

Technical data

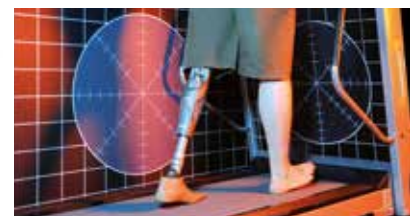
| | SYNCCam Art. no. 032145-001 | SYNCLightCam Art. no. 032146-001 | HS-SYNCLightCam Art. no. 032148-001 | SYNCLight Art. no. 032132-000 |
|-------------------------------|--|---|--|--|
| Approx. dimension (B x H x T) | 11 x 12.5 x 5 cm | 22 x 18.3 x 8 cm | 22 x 18.3 x 8 cm | 15.5 x 21 x 3.8 cm |
| Weight | 190 g | 800 g | 800 g | 640 g |
| Measurement frequency | 30 Hz | 30 Hz | 30/60/100/120 Hz | |
| Camera | HD | HD | High-speed | |
| PC interface | USB 2.0 | USB 2.0 | USB 3.0 | |
| Light colour | | LED-6200 K | LED-6200 K | LED-6200 K |
| Light intensity | | 1550 lm, step-free adjustment | 1550 lm, step-free adjustment | 1550 lm, step-free adjustment |

Contrast plates



Use the contrast plates to give your gait laboratory a professional and technical appearance. They make precise horizontal and vertical orientation of the cameras possible and provide good contrast with the skin.

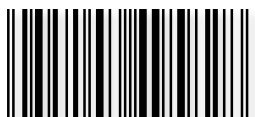
The contrast plates can be affixed to the wall laterally or frontally to the treadmill as a direct extension. An additional contrast plate, which is installed into the front of the treadmill frame, is available for the **sport** treadmills. Alternatively, we offer a contrast roll-up, which can be positioned in front of or behind the treadmill.



| | Large wall contrast plate Art. no. 032131-000 | Small wall contrast plate Art. no. 032130-000 | sport treadmill contrast plate Art. no. 032130-001 | Contrast roll-up Art. no. 099989-097 |
|--------------------|---|---|--|--|
| Dimensions (B x H) | 200 x 140 cm | 75 x 75 cm | 75 x 75 cm | 85 x 205 cm |
| Weight | 2.0 kg | 1.0 kg | 1.0 kg | 3.5 kg |

To guarantee problem-free functionality, all SCHEINWORKS pressure measurement systems are delivered with PC systems as standard. These are specially coordinated to the requirements of the SCHEINWORKS FDM software, and represent state-of-the-art technology. You can choose between a notebook, tower PC or touch-screen PC.

099993-405



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