SCHEINWORKS

Measuring and Analysis Systems by schein

Stance analysis | Gait analysis | Running analysis | Foot scan

schein orthopädie service

Germany since 1879

SCHEINWORKS

Measuring and Analysis Systems by schein

Foot scanner, pressure measuring panel, treadmill
– three systems, one software –

SCHEINWORKS measurement and analysis systems consist of a range of hardware and software modules which can be combined and compiled to suit your requirements. Only one piece of software is used throughout:

- **Clearly laid out and intuitively usable**
- **Data management**
- **Simple, fast data backup and reinstatement via USB interface**
- **Report generator**
- **Data export**

You can analyse your patient's movement or posture using a pressure measuring panel or a treadmill with integrated pressure measuring panel in order to plan, document and optimise individual treatment. A range of camera modules is available for extended analysis.

All modules follow the objective of individual patient treatment through:

- **professional measurement of movement or posture**
- **precise analysis**

Use our 2D foot scanner with its diagram of the foot sole in original size as a case history tool and as a construction base for your individual insole provision.

Symbols

Foot scan

Stand analysis

Roll off analysis

Virtual Training Module (forestwalk)

Stand analysis (treadmill)

Gait analysis

Running analysis

Rehabilitation

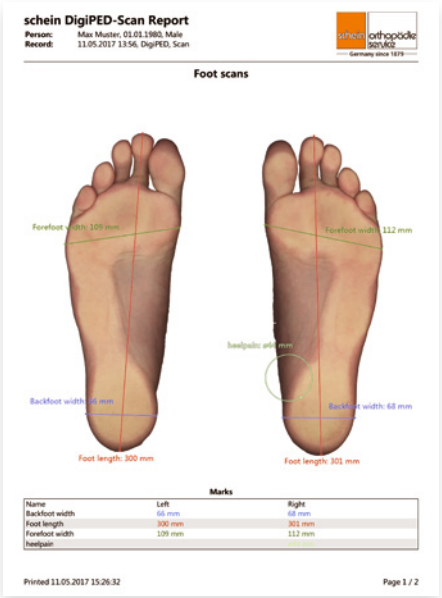
Foot scanner

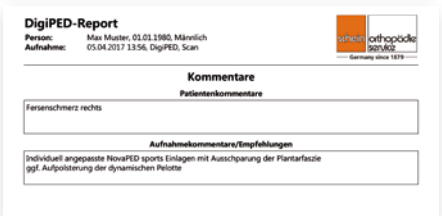
Use the SCHEINWORKS DigiPED to scan your customer's foot sole as a digital scan within a few seconds.

Using the software you can determine length and width dimensions or label and document distinctive locations, among other things. If the scanner is extended with a camera, the analysis and documentation of the foot positioning, especially of the heel, is also possible.

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

Furthermore, the scanned-in footprint can be used as a construction basis for our SCHEINWORKS construction program.
https://construction.scheinworks.de





Technical data

	DigiPED Foot Scanner Item no. 032211100
Dimensions (L x W x H)	65.4 x 44.4 x 11.3 cm
Weight	approx. 16.6 kg
Scanning range (L x W)	42.2 x 30.5 cm
Max. user weight	approx. 200 kg
Scanning time	approx. 8 secs.
PC interface	USB 2.0 high-speed
Power supply	24 V DC
Power consumption	standby 8W, max. < 36W
Bulb type	LED
Colour (outside/inside)	light grey/grey

Presentation

If you do not wish to integrate the scanner into the floor, we recommend a presentation plinth for the measuring room or salesroom.

The scanner is protected by the plinth and elegantly integrated at the same time. The connected plinth serves as a safe working area for a laptop or touch PC.

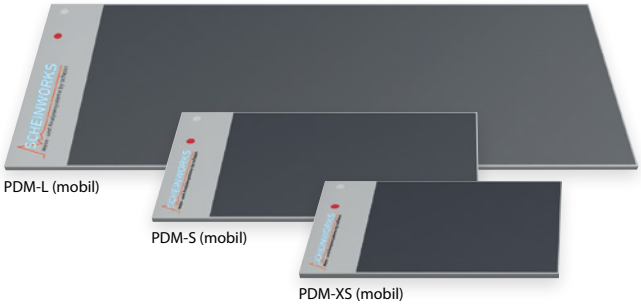
Item no. 032213000
Dimensions: 65 x 86 x 110 cm

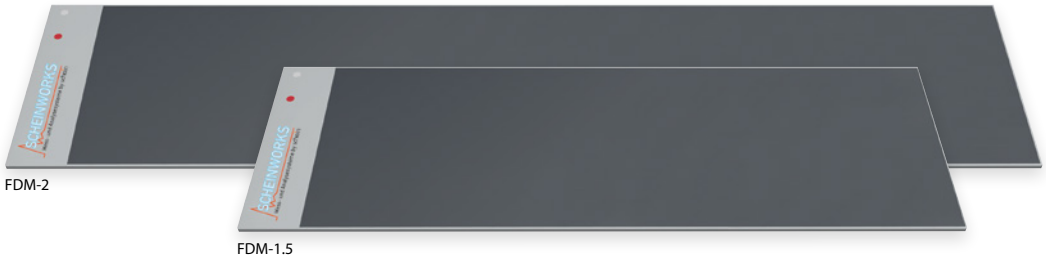
Pressure measuring panel

You can use SCHEINWORKS pressure measuring panels to carry out posture, gait and foot roll-off analyses quickly and easily. You can record the static and dynamic pressure distribution under the feet whilst standing or walking, barefoot or with shoes.

The pressure measuring panels have a low construction height and are available in a range of sizes, as well as in stationary or mobile versions. You can achieve maximum flexibility with the mobile version. This is operated by an integrated rechargeable battery and data transmission takes place via a Bluetooth interface.

To increase the sensor area and to use it as a walking route you can combine platforms of the same type in the case of pressure measuring panels PDM-L (mobile), FDM-1.5 and FDM-2.



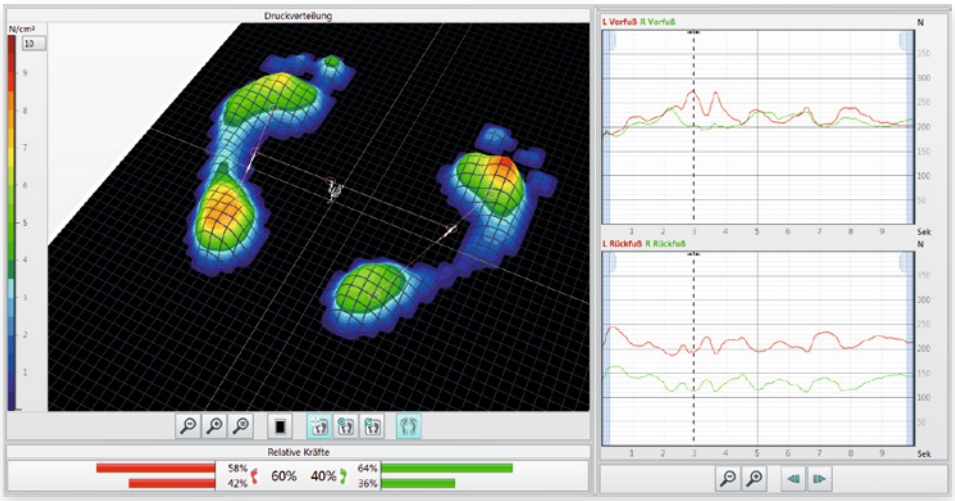


Technical data

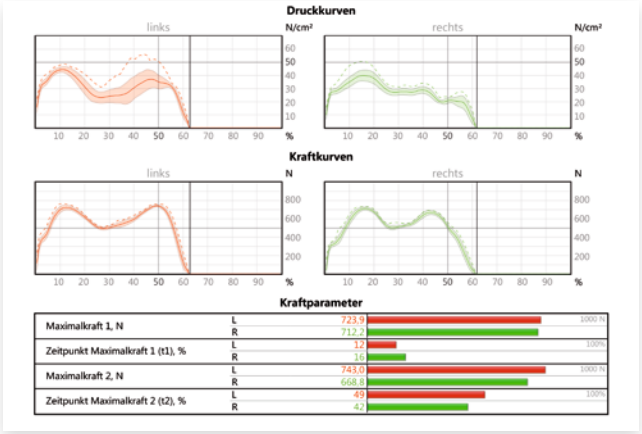
	Pressure measuring panel PDM-XS Item no. 032115192	**Pressure measuring panel PDM-S Item no. 032115256**	**Pressure measuring panel PDM-L Item no. 032115143**	**Pressure measuring panel PDM-XS mobile Item no. 032115319**
Dimensions (L x W x H):	57.0 x 40.0 x 1.5 cm	71.0 x 40.0 x 1.5 cm	137.0 x 53.5 x 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 W)	40.6 x 33.9 cm	54.2 x 33.9 cm	122.0 x 47.4 cm	40.6 x 33.9 cm
No. of sensors	1920	2560	8064	1920
Resolution	1.4 sensors/cm² (1/3")	1.4 sensors/cm² (1/3")	1.4 sensors/cm² (1/3")	1.4 sensors/cm² (1/3")
Measuring frequency	200 Hz	200 Hz	120 Hz	200 Hz
Measuring range	1–120 N/cm²	1–120 N/cm²	1–120 N/cm²	1–120 N/cm²
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

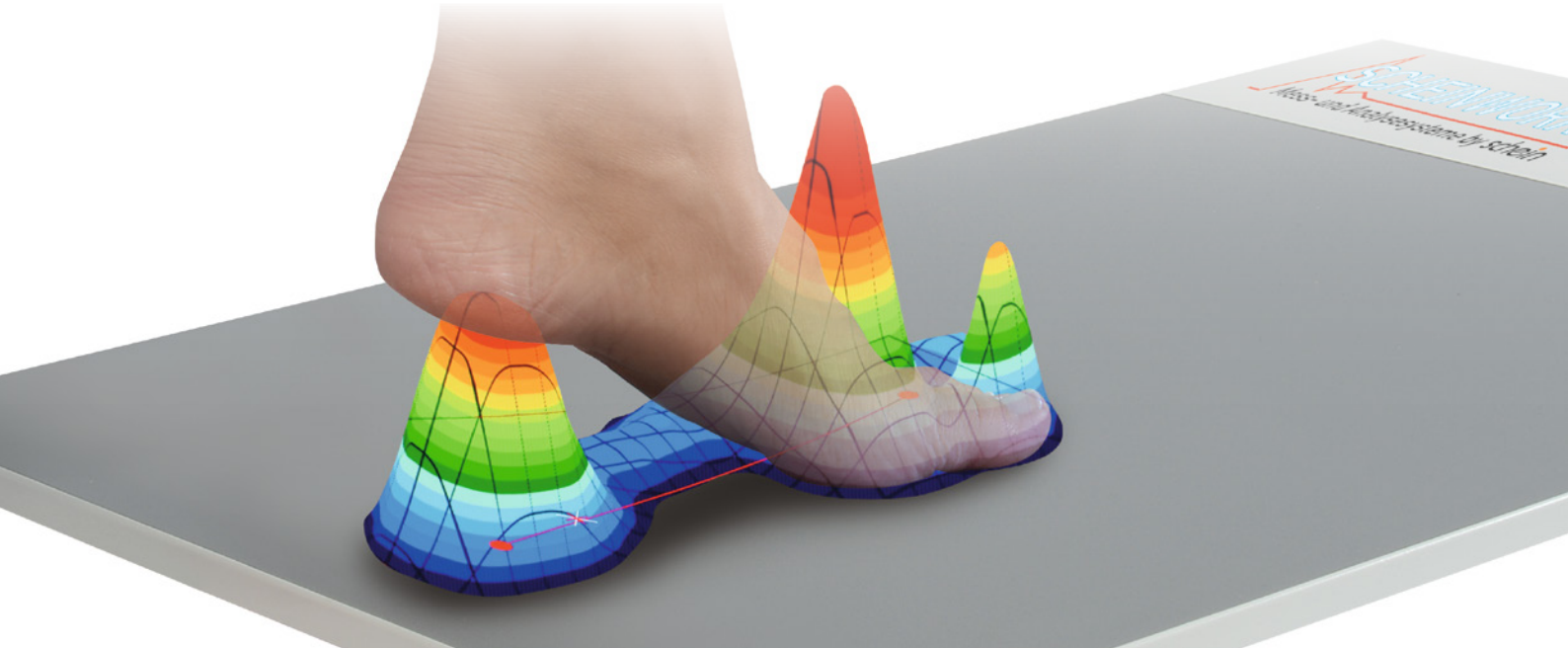
	Pressure measuring panel PDM-S mobile Item no. 032115325	**Pressure measuring panel PDM-L mobile Item no. 032115380**	**Pressure measuring plate FDM-1.5 Item no. 032115144**	**Pressure measuring plate FDM-2 Item no. 032115150**
Dimensions (L x W x H):	71.0 x 40.0 x 1.5 cm	137.0 x 53.5 x 1.5 cm	158.0 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 W)	54.2 x 33.9 cm	122.0 x 47.4 cm	144.0 x 56.0 cm	203.0 x 56.0 cm
No. of sensors	2560	8064	11264	15360
Resolution	1.4 sensors/cm² (1/3")	1.4 sensors/cm² (1/3")	1.4 sensors/cm² (1/3")	1.4 sensors/cm² (1/3")
Measuring frequency	200 Hz	120 Hz	100 Hz, optional 200 Hz or 300 Hz	100 Hz, optional 200 Hz or 300 Hz
Measuring range	1–120 N/cm²	1–120 N/cm²	1–120 N/cm²	1–120 N/cm²
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 representation



Force and pressure





Treadmills

All SCHEINWORKS treadmills are fitted with a pressure measuring plate integrated under the conveyor belt. These have capacitive sensors which can measure pressure distribution whilst standing and also whilst walking and running. The software calculates pressure, time, step and symmetry parameters for the analysis. These are shown clearly and manageably in the software and in the report.

All treadmills are supplied with the gait analysis module as standard and can be optionally extended with the standard analysis module. SCHEINWORKS treadmills are available for a range of deployment areas in different versions.

BASIC treadmill

The BASIC treadmill enables dynamic standing and gait analysis thanks to integrated pressure measurement technology. The treadmill is especially suitable for small rooms due to its size and weight.
It can be folded up in a few simple steps.

Technical data

		BASIC treadmill **FDM-TS30** **Item no. 032110014**
Treadmill	Size (L x W x H)	189 x 84 x 136 cm
	Size, folded (L x W x H)	99 x 84 x 160 cm
	Step height	16 cm
	Weight	approx. 92 kg
	Running area (L x W)	125 x 50 cm
	Speed	1 - 18 km/h; recommended 1 - 12 km/h
	Motor	1.8 kW
	Gradient setting	0 - 15 %
	Max. user weight	136 kg
	Colour	black
Sensor plate	Sensor area (L x W)	94.8 x 40.6 cm
	No. of sensors	5376
	Resolution	1.4 sensors/cm² (1/3")
	Measuring frequency	100 Hz
	Measuring range	1–120 N/cm²
	Precision	±5 % of final value
	Sensor type	capacitive
	PC interface	USB 2.0

PROFESSIONAL treadmill

The PROFESSIONAL treadmill systems enable dynamic standing and gait analysis using pressure distribution sensors under the belt.

The treadmill stands out due to its extreme quietness of movement, its low weight and compact dimensions. It is suitable for gait and running analysis in the orthopaedic (shoe) technology sector as well as in the sports retail sector.

Technical data

		PROFESSIONAL treadmill FDM-TS70 Art.-Nr. 032110022		PROFESSIONAL treadmill FDM-TS70L Art.-Nr. 032110018
Treadmill	Dimensions (L x W x H)		189 x 84 x 137 cm	
	Step height		18 cm	
	Weight		approx. 135 kg	
	Running area (L x W)		145 x 50 cm	
	Speed		0.8-20 km/h in 0.1 km/h steps	
	Motor		2.2 kW	
	Gradient setting		0 - 15 % in 1% steps	
	Max. user weight		159 kg	
	Colour		light grey/black	
Sensor plate	Sensor area (L x W)	108.4 x 47.4 cm		94.8 x 40.6 cm
	No. of sensors	7168		5376
	Resolution		1.4 sensors/cm² (1/3")	
	Measurement frequency	120 Hz optional 240 Hz		100 Hz
	Measurement range		1–120 N/cm²	
	Precision		±5 % (FS)	
	Sensor type		capacitive	
	PC interface		USB 2.0	

REHABILITATION treadmill

The REHABILITATION treadmill is also suitable for gait training as well as gait analyses. To offer your customers a high level of safety it can be fitted with long handrails, a safety handle and armrests if required. You have a choice between two different sizes and resolutions of measuring areas for the integrated pressure measuring panel. The REHABILITATION treadmills additionally fulfil all normative requirements for use in the medical sector due to their technical design.

Technische Daten

		REHABILITATION treadmill FDM-THPL-S-3i Item no. 032110042	REHABILITATION treadmill FDM-THPL-S-2i Item no. 032110041
Treadmill	Dimensions (L x W x H)	210 x 85 x 130 cm	
	Step height	23 cm	
	Weight	approx. 211 kg	
	Running area (L x W)	150 x 50 cm	
	Speed	0.5-18 km/h in 0.1 km/h steps	
	Motor	2.2 kW	
	Gradient setting	0-20 % in 0.1% steps	
	Max. user weight	200 kg	
	Colour	pure white RAL 9010	
Sensor plate	Sensor area (L x W)	94.8 x 47.4 cm	91.4 x 49.5 cm
	No. of sensors	6772	2808
	Resolution	1.4 sensors/cm² (1/3")	0.6 sensors/cm² (1/2")
	Measuring frequency	120 Hz, optional 240 Hz	120 Hz
	Measuring range	1–120 N/cm²	
	Precision	±5 % of final value	
	Sensor type	capacitive	
	PC interface	USB 2.0	

Optional

Long handrail
Item no. 032154000

Armrests
Item no. 032155000

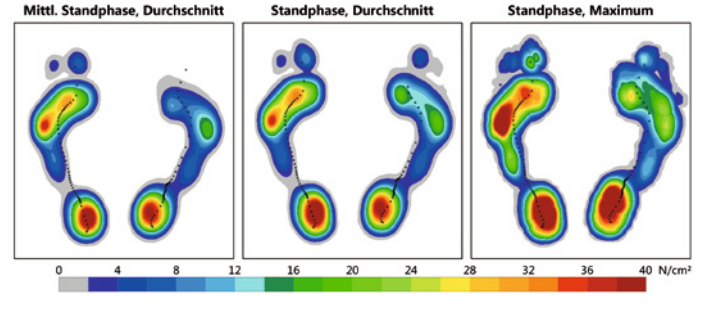
Safety handle with fall stop
incl. best harness
Item no. 032149000

The REHABILITATION treadmills are also available with medical approval.

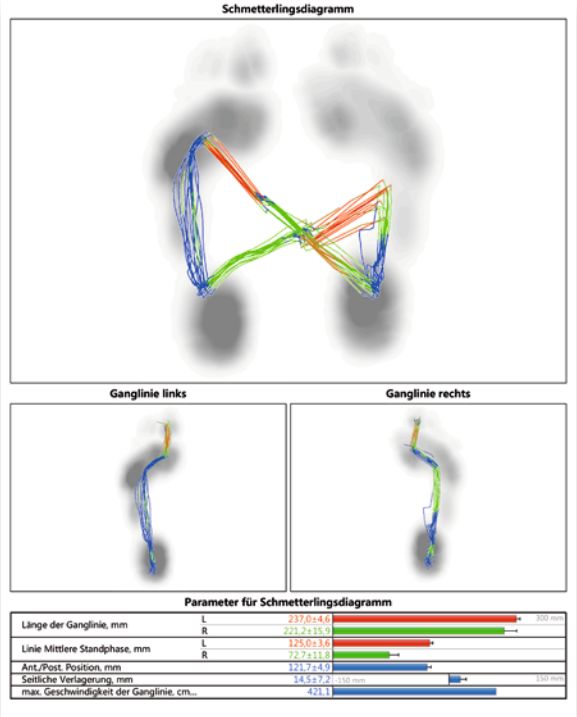
Standard report treadmill

The sensor panel integrated into all treadmills provides an analysis of the pressure, force, time and step parameters as standard in addition to an evaluation of the gait symmetry. The measured results are displayed on-screen with the click of a mouse and can be printed out in colour. The measured results are compiled in a clearly-laid out report which can be individually configured.

Maximum pressure diagrams

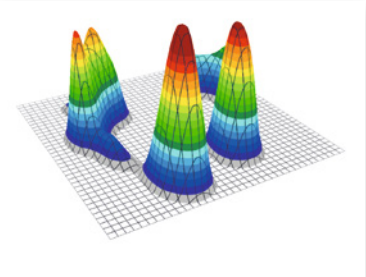


COP analysis

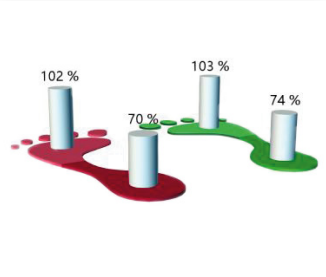


3D pressure image

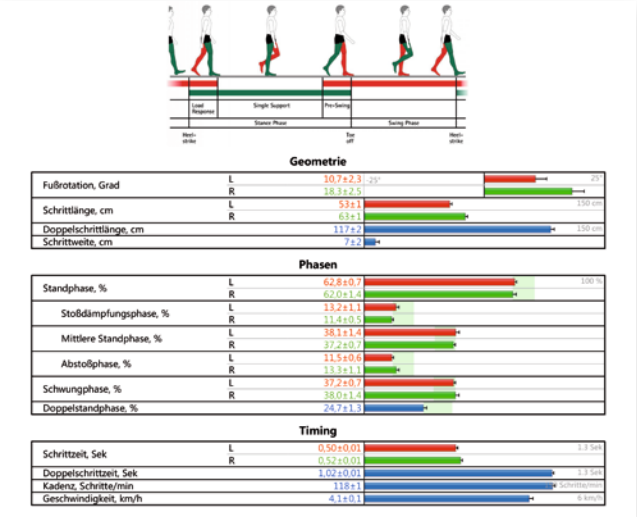
Standing phase, average



Force front foot/rear foot



Gait parameters



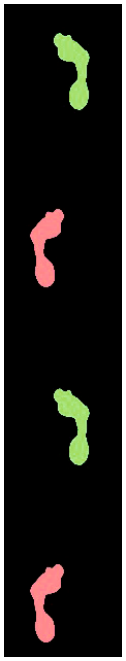
Gait training

SCHEINWORKS gait training is a system which is based on the SCHEINWORKS gait analysis and is designed for training neurological or orthopaedic gait defects. The repeated comparative gait analysis serves as a measurement of results.

Gait training module

Gait parameters such as step length, step width and foot angle can be taken from the gait analysis and corrected individually depending on the therapy objective. The corrected steps (or the successive corrected steps) are projected onto the running surface with the aid of a projector so that patients can attempt to match them with their own steps.

Individual gait image



Corrected gait image

Virtual training module

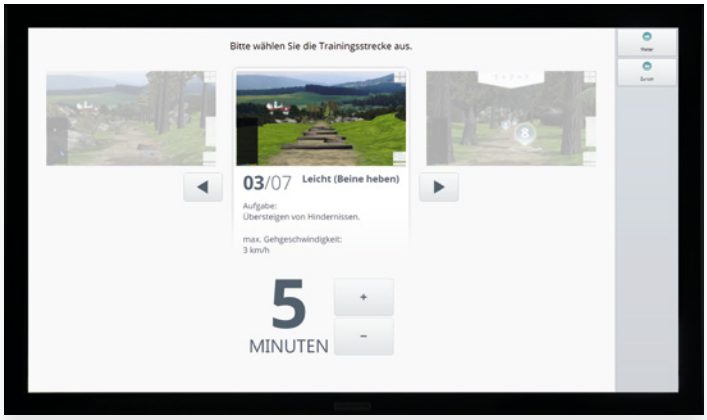
The "Virtual training" module provides training for concentration and automation of the gait whilst walking. This takes place using a virtual running environment in which various tasks have to be fulfilled and which also requires continuous variation of the steps. Training can be individually adapted to the patient thanks to an option for selecting various levels.

You can design your own training levels with the aid of the optional editor.

The BASIC treadmill is not suitable for the "Virtual training" module.

We recommend a monitor with a screen size of at least 40" when using this module. It is also possible to use an LED projector.

Gait training module (step projection) for REHABILITATION treadmills	**Item no. 032136040**
Virtual training module (Forest walk)	**Item no. 032135000**
Virtual training editor (Forest walk)	**Item no. 032135001**



Accessories

Camera and light modules

The treadmills and pressure measuring panels can be supplemented with camera modules for extended analysis. The camera and the pressure measuring panels are synchronised with each other so that the camera images can be allocated to the appropriate pressure measurement images.

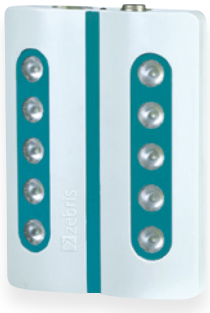
Cameras are available as HD or as high-speed versions. In order to obtain optimum illumination for good image quality, a range of additional lighting units or cameras with integrated lighting units consisting of power LEDs are available. Multi-functional tripods are available to mount camera and lighting modules.

HD camera
(SYNCCam)

HD WebCam with integrated lighting unit (SYNCLightCam)

High-speed camera with integrated lighting unit (HS-SYNCLightCam)

Similar to fig.



LED lighting unit
(SYNCLight)

Multifunctional tripod mobile
Item no. 032133000

Multifunctional tripod with baseplate
Item no. 032133001

Technical data

	SYNCCam Item no. 032145001	**SYNCLightCam Item no. 032146001**	**HS-SYNCLightCam Item no. 032148001**	**SYNCLight Item no. 032132000**
Dimensions approx. (W x H x D)	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
Measuring 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, infinitely adjustable	1550 lm, infinitely adjustable	1550 lm, infinitely adjustable

Contrast

Use the contrast panels to lend your running laboratory both a professional and technical appearance at the same time. They enable precise horizontal and vertical alignment of the camera and offer excellent contrast to skin.

Contrast panels can be attached as a direct extension to the wall to the side or in front of the treadmill. As an alternative we can offer you a contrast roll-up which can be positioned in front or behind the treadmill.

	Wall contrast panel large Item no. 032131000	**Wall contrast panel small Item no. 032130000**	**Contrast roll-up Item no. 099989097**
Dimensions (W x H)	200 x 140 cm	75 x 75 cm	85 x 205 cm
Weight	2.0 kg	1.0 kg	3.5 kg

All SCHEINWORKS pressure measurement systems are delivered with PC systems in order to guarantee proper functioning. These have been specially configured to match the requirements of the SCHEINWORKS FDM software and are completely up-to-date in terms of technology. You can select between notebook, tower PC or touch PC.

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