SCHEINWORKS

Measuring and Analysis Systems by schein

Stance analysis | Gait analysis | Running analysis | Foot scan



schein orthopädie service

Germany since 1879

We help

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.

Foot scanner		4–5
Pressure measuring panel		6–7
Treadmills		8–11
Gait training		12–13
Accessories	• Cameras • Tripod • Contrast panels • Card reader • Computer	14–15

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.

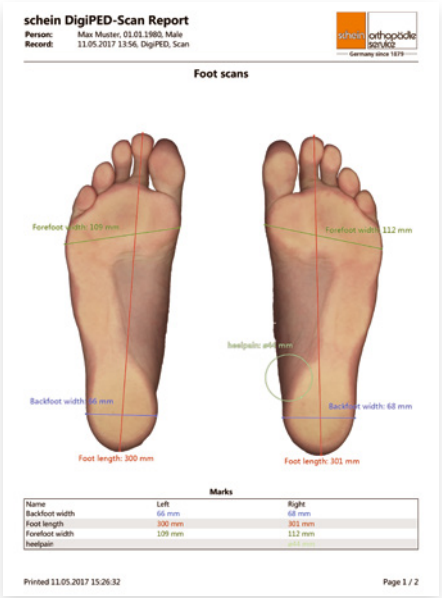
Using the software you can determine length and width dimensions or label and document distinctive locations, among other things. If the scanner is extended with a camera, the analysis and documentation of the foot positioning, especially of the heel, is also possible.

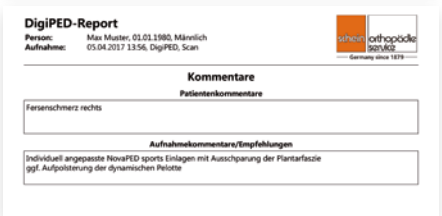
For your insole construction you can use the 1:1 depiction of the foot scan directly on your screen or print it out (DIN A3 printer required)

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.



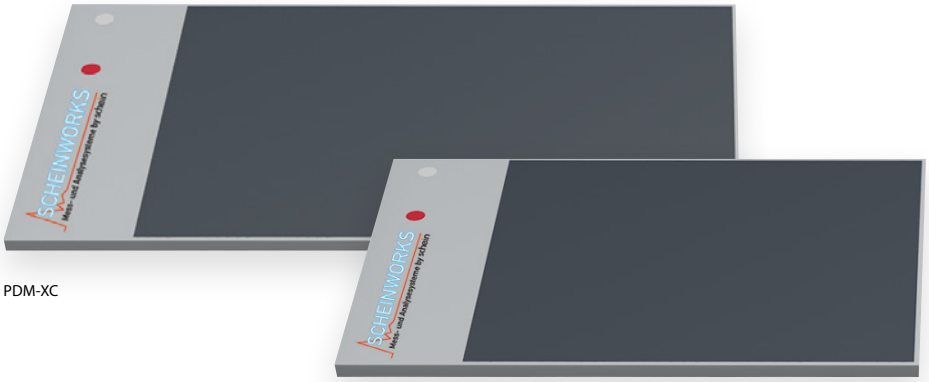
Item no. 032213000
Dimensions: 65 x 86 x 110 cm



Pressure measuring panel

With the SCHEINWORKS pressure measuring plates, gait, stance and roll-off analyses can be carried out quickly and easily. They capture the static and dynamic pressure distribution under the feet when standing or Walking, barefoot or with shoes.

The pressure measuring plates have a low height and are available in different sizes. Maximum flexibility can be achieved with the PDM-XC and -C version, as these include both the power supply and the data transmission with the help of only one USB connection.



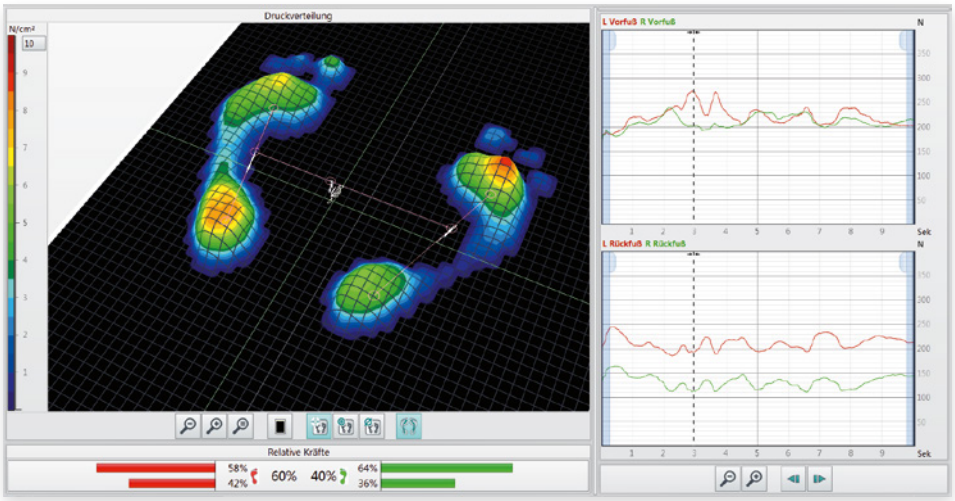
PDM-XC

PDM-C

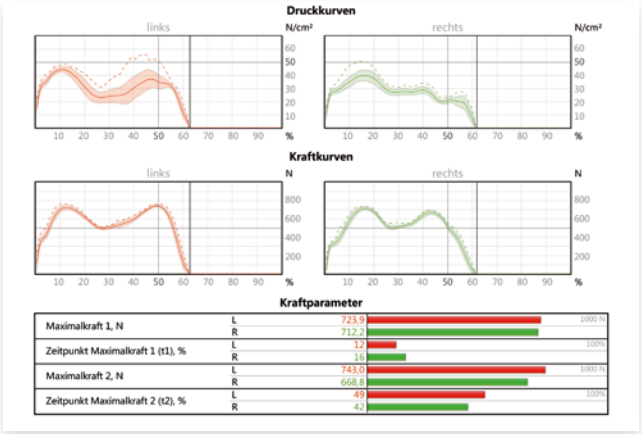
Technical data

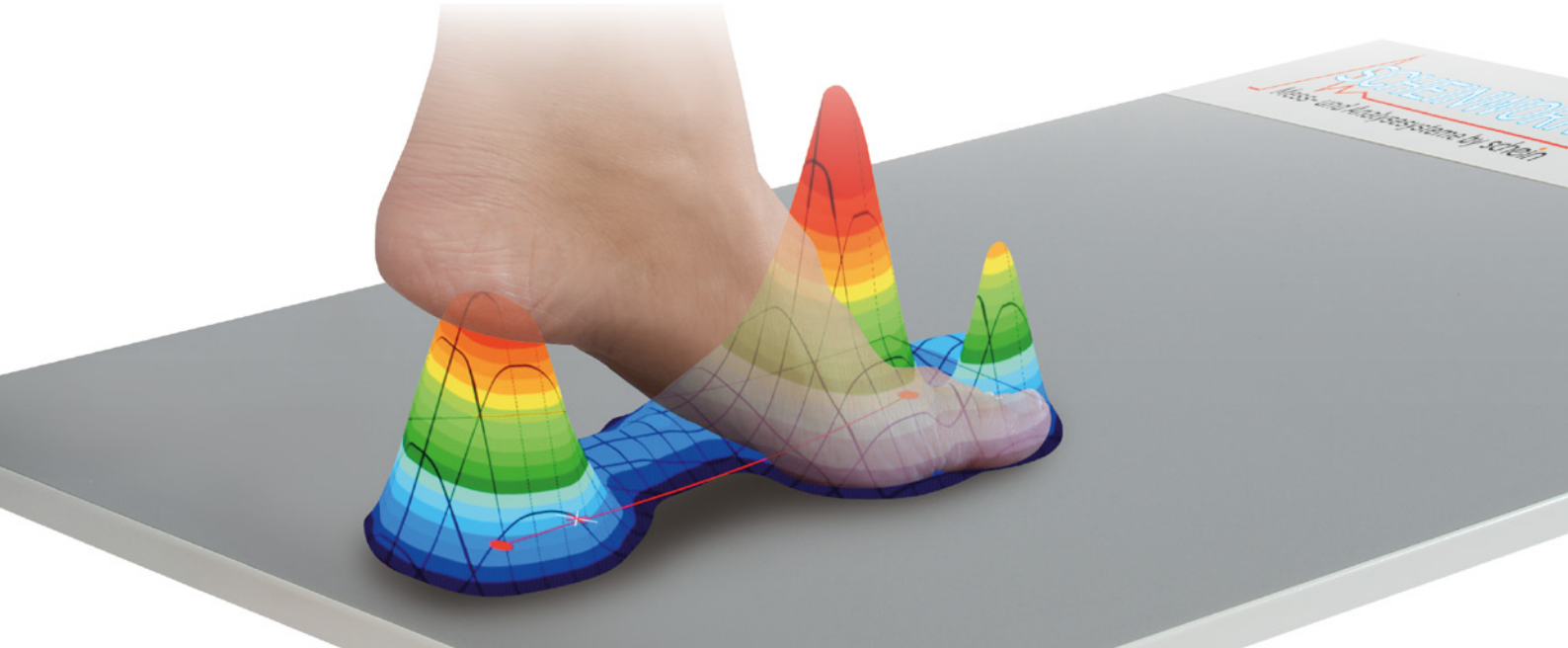
	Pressure measuring plate PDM-XC Item no. 032115200	**Pressure measuring plate PDM-C Item no. 032115210**
Dimensions (L x W x H):	54,0 x 40,0 x 1,5 cm	68,0 x 40,0 x 1,5 cm
Weight	4,9 kg	5,8 kg
Sensor area (L x W)	40,6 x 33,9 cm	54,2 x 33,9 cm
No. of sensors	1920	2560
Resolution	1,4 sensors/cm² (1/3")	1,4 sensors/cm² (1/3")
Measuring frequency	120 Hz	120 Hz
Measuring range	1–120 N/cm²	1–120 N/cm²
Precision	±5 % of final value	±5 % of final value
Sensor type	capacitive	capacitive
PC interface	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.

MOBILE

The MOBILE treadmill is a practical solution for limited spaces. Thanks to its lightweight construction, it is ideal for mobile use and can be assembled and disassembled in just a few steps.



Technical data

		MOBILE treadmill **FDM-TLR4** **Item no. 032110026**
Treadmill	Size (L x W x H)	160 x 80,4 x 136 cm
	Size, folded (L x W x H)	160 x 80,4 x 28 cm
	Step height	18 cm
	Weight	approx. 75 kg
	Running area (L x W)	120 x 41 cm
	Speed	1 - 13 km/h in 0.1 km/h Steps
	Motor	1,1 kW / 1,5 PS
	Gradient setting	manually, 2 Steps
	Max. user weight	120kg
	Colour	white / black
Sensor plate	Sensor area (L x W)	94.8 x 40.6 cm
	No. of sensors	5376
	Resolution	1.4 sensors/cm^2 (1/3")
	Measuring frequency	100 Hz
	Measuring range	1–80 N/cm^2
	Precision	±5 % of final value
	Sensor type	capacitive
	PC interface	USB



BASIC

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.

PROFESSIONAL

The PROFESSIONAL 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

		BASIC treadmill FDM-TR40 Art.-Nr. 032110023	PROFESSIONAL treadmill FDM-TR70 Art.-Nr. 032110025	PROFESSIONAL treadmill FDM-TR70L Art.-Nr. 032110024
Treadmill	Dimensions (L x W x H)	177 x 69 x115 cm	189 x 84 x 137 cm	
	Step height	16 cm	16 cm	
	Weight	approx. 88 kg	approx. 100 kg	
	Running area (L x W)	140 x 46 cm	150 x 51 cm	
	Speed	1 - 18 km/h in 0.1 km/h steps	0,8–20 km/h in 0.1 km/h steps	
	Motor	1,65 kW	2,94 kW	
	Gradient setting	0 - 15 % in 1 % steps	0 - 15 % in 1% steps	
	Max. user weight	120 kg	150 kg	
	Colour	black / green	black / green	
Sensor plate	Sensor area (L x W)	94,8 x 40,6 cm	108,4 x 47,4 cm	94,8 x 40,6 cm
	No. of sensors	5376	7168	5376
	Resolution	1,4 sensors/cm² (1/3")	1,4 sensors/cm² (1/3")	
	Measurement frequency	100 Hz	120 Hz optional 240 Hz	100 Hz
	Measurement range	1–80 N/cm²	1–120 N/cm²	
	Precision	±5 % final value	±5 % (FS)	
	Sensor type	capacitive	capacitive	
	PC interface	USB	USB	

EXPERT

The EXPERT 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 EXPERT treadmills additionally fulfil all normative requirements for use in the medical sector due to their technical design.



Technische Daten

		EXPERT treadmill FDM-THPL-S-3i Item no. 032110042	**EXPERT 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	0.1-18 km/h in 0.1 km/h steps	
	Motor	2.2 kW	
	Gradient setting	0-20 % in 0.1% steps	
	Max. user weight	250 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	6272	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



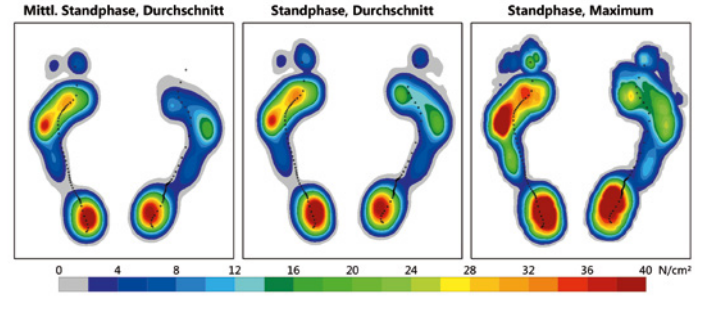
Safety handle with fall stop incl. best harness
Item no. 032149000

The **EXPERT** treadmills are also available with medical approval.

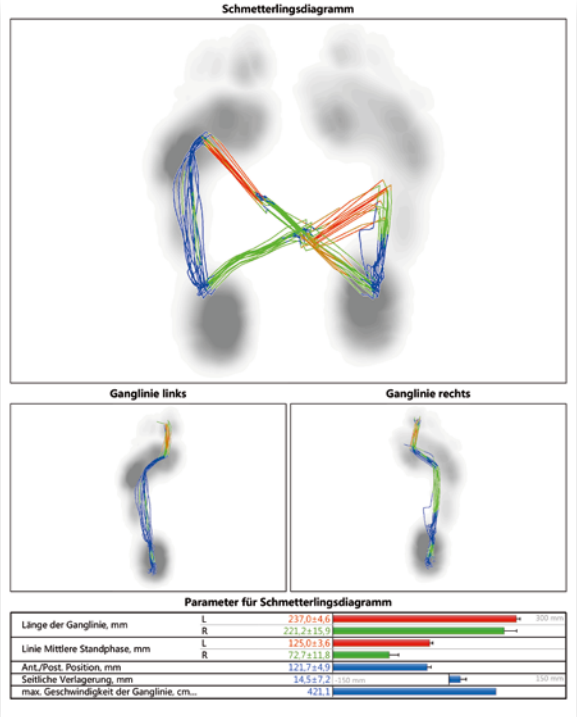
Standard report treadmill

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

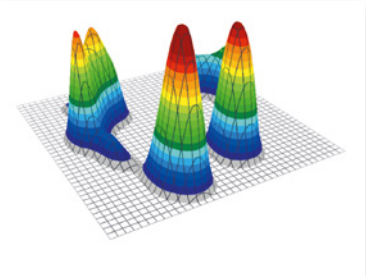


COP analysis

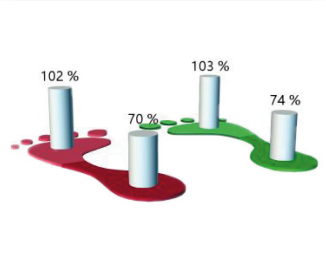


3D pressure image

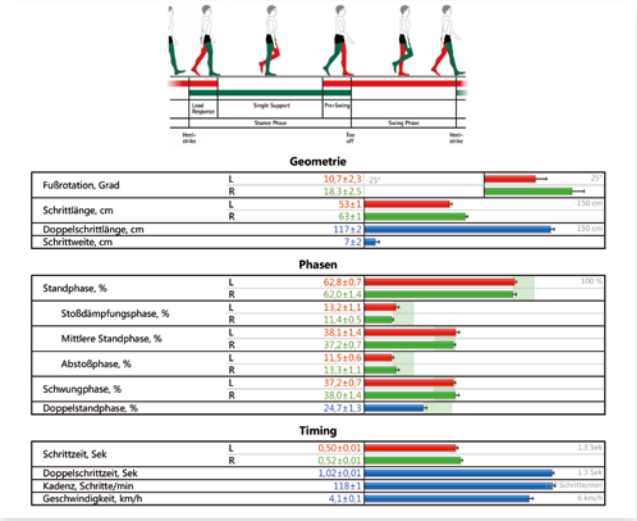
Standing phase, average



Force front foot/rear foot



Gait parameters



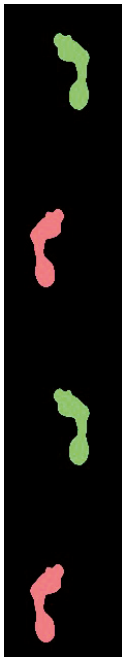
Gait training

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

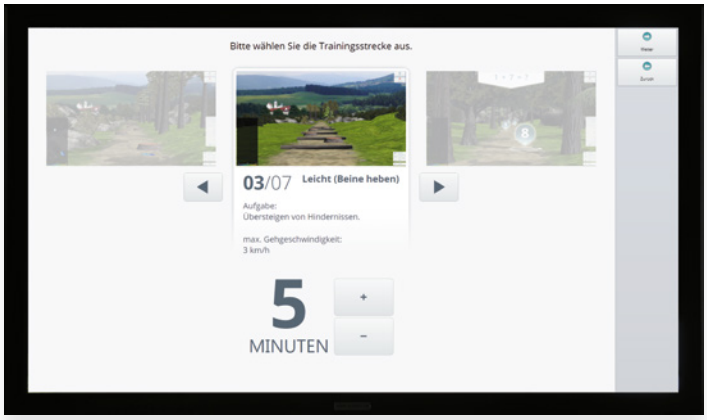
The "Virtual training" module provides training for concentration and automation of the gait whilst walking. This takes place using a virtual running environment in which various tasks have to be fulfilled and which also requires continuous variation of the steps. Training can be individually adapted 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 MOBILE and 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 EXPERT treadmills	**Item no. 032136040**
Virtual training module (Forest walk)	**Item no. 032135000**
Virtual training editor (Forest walk)	**Item no. 032135001**





Accessories

Camera 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 cameras with integrated lighting units consisting of power LEDs are available. Multi-functional tripods are available to mount camera modules.



HD camera
(SYNCCam)



HD WebCam with integrated lighting unit (SYNCLightCam)

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

Similar to fig.



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**
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
Weight	190 g	800 g	800 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
Light intensity		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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