

Features of the pliance® horse saddle system

- Can measure English and Western saddles
- Adapts perfectly to horseback and saddle shape
- Measures in static and dynamic mode
- Stores data on a 2 GB SD card, parallel or without computer
- Collects accurate, calibrated values
- Scans 60 frames per second
- Records video synchronously
- Includes telemetry
- Operating system Windows



pliance® sensor mat



Application of pliance® sensor mat



Fixation of pliance® sensor mat



Completion of pliance® sensor mat



pliance® data acquisition unit

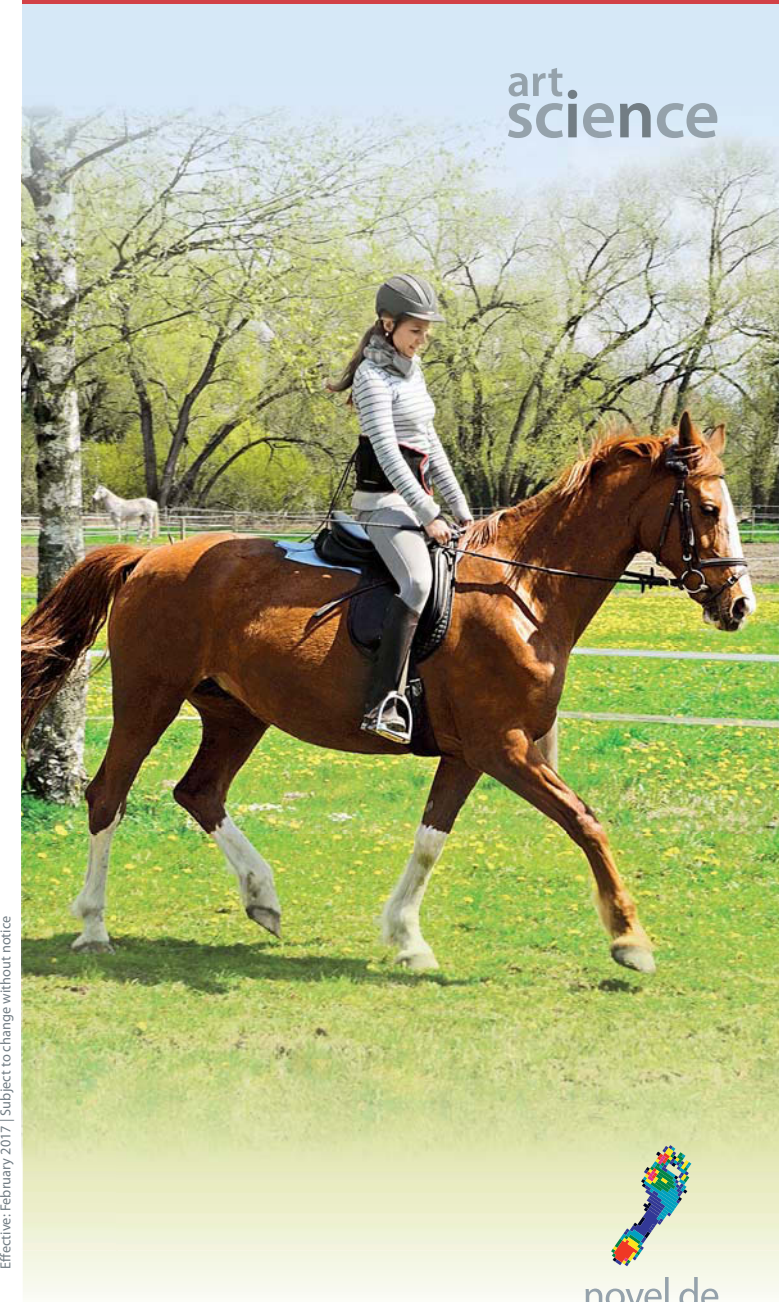
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All systems from novel operate with high quality, calibrated sensors and provide reliable and reproducible long term measurements. pliance® and the novel logo (coloured foot) are registered trademarks of novel gmbh © 1992-2017

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pliance® horse saddle system



The pliance® horse saddle system marks the beginning of a new era in the assessment of the dynamic interaction between the horse, the saddle, and the rider.

How does the rider sit?

How does the saddle fit?

What does the horse feel?

pliance® measures the dynamic load distribution between the saddle and the horse using a thin elastic sensor mat. Using pliance® recorder software, the distribution of load under dynamic conditions can be assessed while taking the movement of horse and rider into account, recorded synchronously on video.

Harmful pressure points that arise from poor saddle fit can be recognized and corrected. During dynamic movement, such as trotting and galloping, substantially higher loads occur on the back and the shoulders of the horse as compared to standing. The pressure distribution under the saddle during dynamic movement of the horse can be measured in order to assess the fit.

The pliance® sensor mat contains 2 x 128 sensors which are scanned with a rate of 20,000 sensors per second.

Dynamic measurements can be recorded for all paces, from the walk to the gallop. Gait asymmetry of the horse, possibly associated with physiological back problems or poor saddle fit, can be assessed quantitatively.

The pliance® system is accurate and reliable. The sensor mat is calibrated in a simple, computer-assisted procedure which calculates the calibration curves for each individual sensor. The calibration remains stable in time.

The pliance® software operates as a Windows application and gives a dynamic view of the load distribution in 2D or 3D pictures. The pressure distribution pictures can be printed in original size to allow the user to relate the pressure points precisely to the horse's anatomical landmarks or to the saddle.

All data are fully compatible with novel scientific software packages and can also be exported in ASCII format.

With the help of the pliance® horse saddle system and its powerful software one can analyse the quality of the saddle and obtain a better understanding of the interaction between the rider, the saddle, and the horse.

Technical data of the pliance® sensor mat

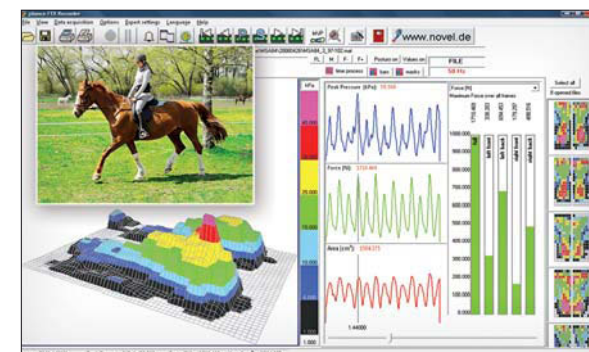
dimensions (mm)	2x (200 x 600)
number of sensors	2x 128
measurement frequency (Hz)	60
pressure range (kPa)	2 - 60 (standard)
thickness (mm)	4.8

Technical data of the pliance® system

dimensions (mm)	150 x 100 x 40
weight (g)	400
number of sensors (max)	256 (1,024)
sampling rate (sensors/sec.)	20,000
storage type	2 GB SD card
computer interface	fiber optic/USB and Bluetooth®
operating system	current Windows OS
sync option	fiber optic/TTL, in and out
power supply	NiMH battery, 4.5 hours



pliance® system in use



PC display