



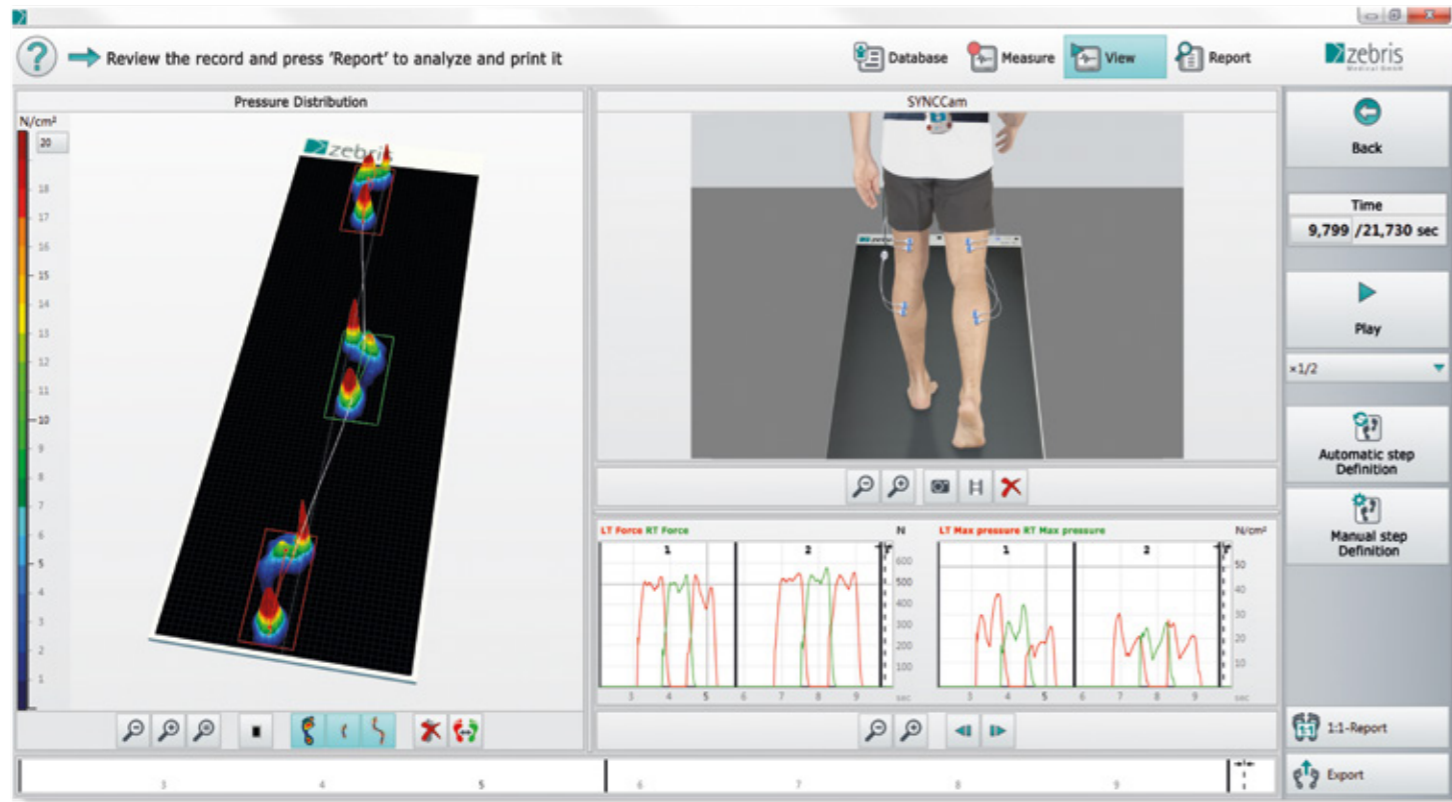
FDM-

Measuring System for Static and Dynamic Foot Pressure Measurement



 zebris

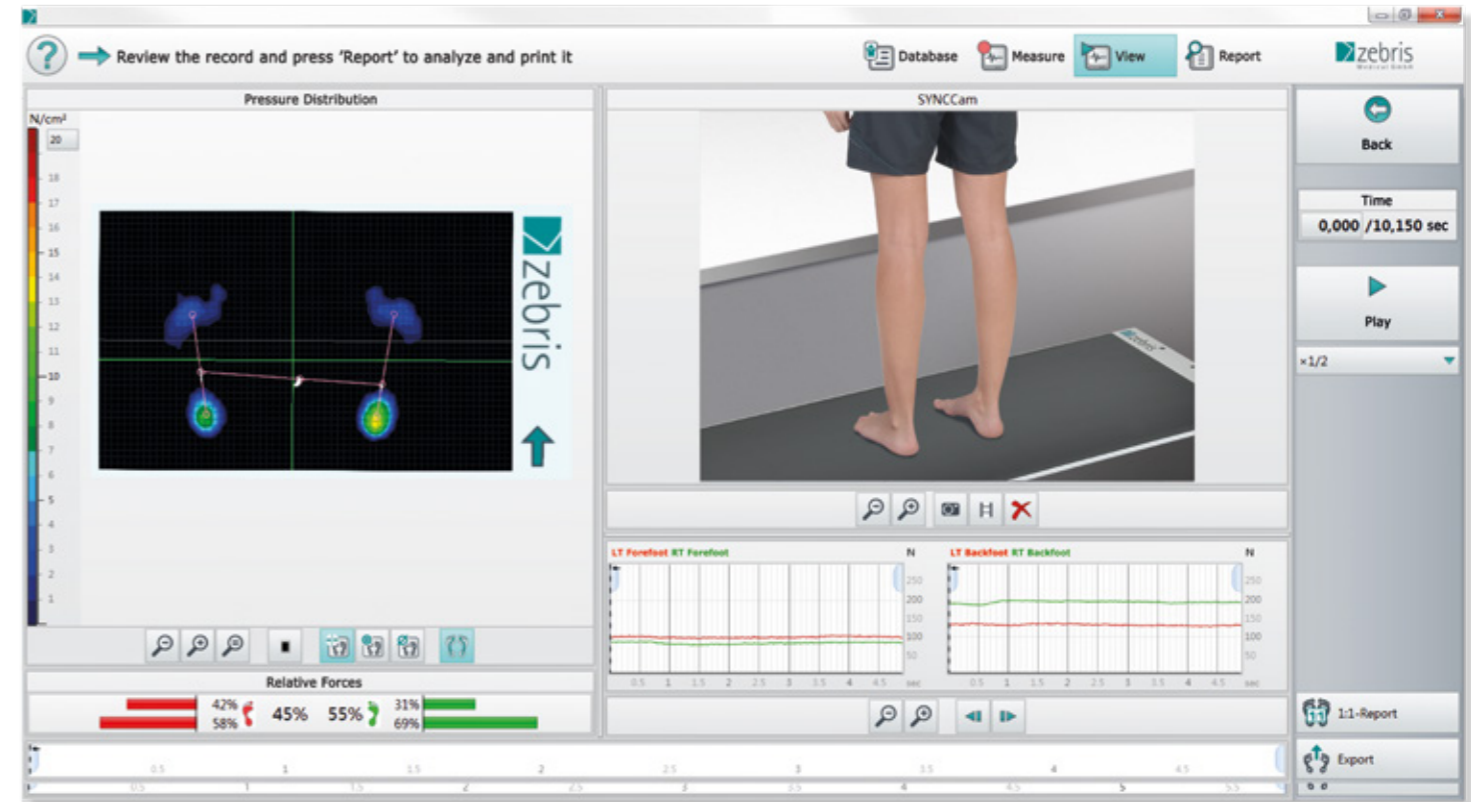
The zebris FDM System – Meaningful for Practice



In the measurement screen and viewer, the FDM pressure distribution measurement with the two- or three-dimensional pressure measurement data can be rotated in all directions and reduced or enlarged. In addition, the corresponding force and pressure curves as well as the time-synchronized video images are displayed.

In physical therapy, orthopedics, sports medicine, and rehabilitation, zebris FDM pressure distribution measurement plates provide valuable information for assessing gait disorders and the standing and rolling behavior of the feet. Thanks to the combination of intuitive software and robust, calibrated capacitive sensor technology, these proven systems make it quick and easy to obtain reliable measurement results.

zebris FDM pressure distribution measurement plates are available in various sizes and connect to a notebook or desktop PC via a USB interface. The FDM pressure distribution measurement include an interface for image-precise synchronization with one or more cameras, as well as optional interfaces for synchronization with other biomechanical measuring devices.

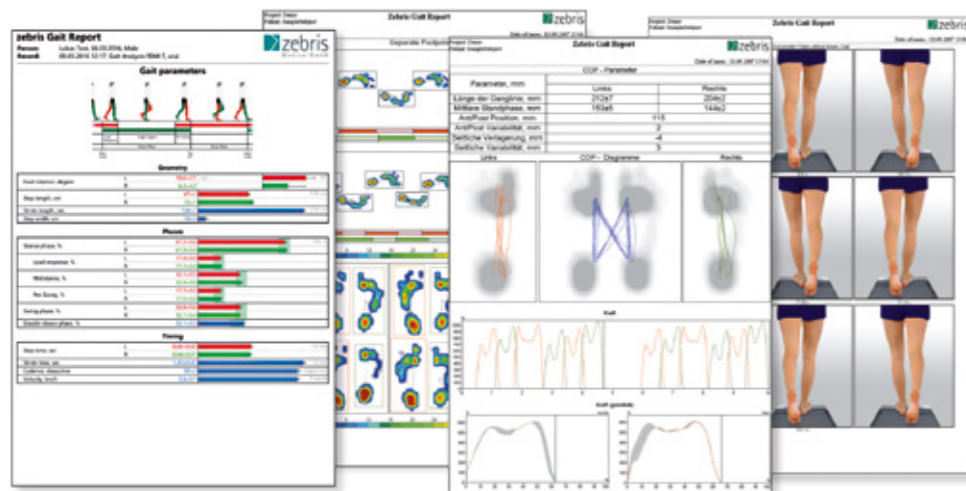


During the stance analysis, the load on the left/right as well as the forefoot and rearfoot is displayed as a numerical value and in a bar chart in real time. The measurement data is recorded over a defined period of time, during which the results are averaged.

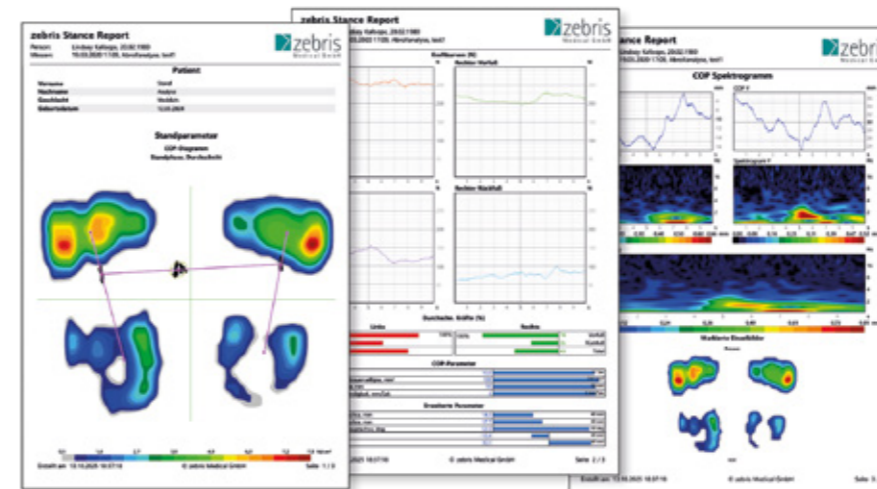
Measurement and evaluation are carried out conveniently on the computer using clearly structured software. Here, the measurement data of the spatially resolved soil reaction forces are evaluated synchronously with the optionally connected cameras. In a "viewer," the measurement sequence can be repeated and viewed in slow motion in various display formats. Individual time segments can be selected for further analysis in the results report. This is generated automatically and displays the measurement results clearly and concisely. Two measurements can be compared directly with each other for evaluation and progress monitoring.

Various export data formats are available for scientific evaluation.

In addition, video export and APD data export for CAD/CAM systems are available for the creation of insoles.



The results report on gait and movement analysis can be configured as desired and contains, in addition to the maximum pressure images with the hydrographs, all important parameters such as stride length, stride width, foot strike angle, and the stance, swing, and double stance phases. In addition, gait symmetry, the load on individual foot areas, and their force curves are displayed.



The results report for the standing analysis shows the pressure distribution of both feet and the corresponding force points of application. The load on the forefoot and heel is displayed for both sides as an average value and over time. In addition to the analysis of the body's centers of gravity, a frequency analysis with color-coded spectrograms is integrated.

System Components



The system can be supplied with either a notebook or a stand with an integrated computer and touch monitor.



The SYNCCam and SYNCCam HS cameras are synchronized with the pressure sensors of the measuring platform with image accuracy.

Technical Data

Measuring principle: Capacitive
Interface: USB, video
Measuring range: 1-120 N/cm²

Accuracy: ± 5% (FS)
Hysteresis: < 3% (FS)
Synchronization: Sync. in / Sync. out



Type: FDM SX

Dimensions (L x W x H): 55 x 40 x 2.1 cm
Sensor area (L x W): 40 x 33 cm (L x W), Sensors: 1,920
Sampling rate: 120 Hz



Type: FDM S

Dimensions (L x W x H): 69 x 40 x 2.1 cm
Sensor area (L x W): 54 x 33 cm, Sensors: 2,560
Sampling rate: 120 Hz, optional 240 Hz



Type: FDM 1.5

Dimensions (L x W x H): 158 x 60.5 x 2.1 cm
Sensor area (L x W): 149 x 54.2 cm, Sensors: 11,264
Sampling rate: 100 Hz, optional 200 Hz / 300 Hz



Type: FDM 2

Dimensions (L x W x H): 212 x 60.5 x 2.1 cm
Sensor area (L x W): 203 x 54.2 cm, Sensors: 15,360
Sampling rate: 100 Hz, optional 200 Hz



Type: FDM 3

Dimensions (L x W x H): 307 x 60.5 x 2.1 cm, Sensor area (L x W): 298 x 54.2 cm, Sensors: 22,528,
Sampling rate: 100 Hz

Starting with the FDM 1.5 platform, the measuring area can be doubled by using two measuring plates of the same type.