

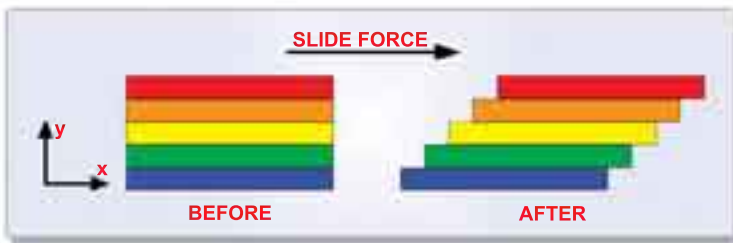
Application: Human Interface

For the first time ever it's now possible to measure shear forces directly at the interface point of two mating surfaces. Our shear sensor is an ideal research tool for human body interfaces of clothing, shoes, gloves, backpacks or any object that comes in contact with the human skin and creates shear forces. Tactilus® reveals the vector of the shearing action in real time.

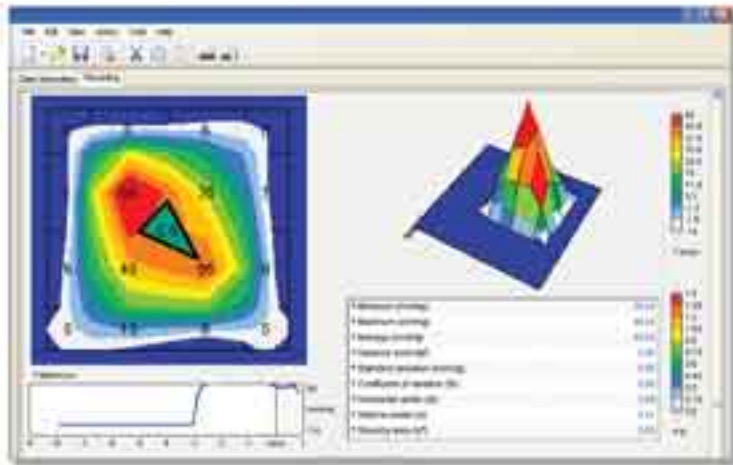
Tactilus® is a valuable aid in human factors engineering and ergonomics, in both research as well as a clinical assessment tool.



Shear sensor element



Shear sensor illustration



Screenshot of Tactilus® software

"Until now there has not existed a method to measure actual contact shear at the interface surface. Computer modeling with FEA software or other analysis tools yielded predictions. Now for the first time ever the engineer can place a sensor at the interface surface and collect shear data in real time!" ~ Jeffrey G. Stark, CEO

Tactilus Technology: Tactilus® is a matrix based tactile surface sensor that works by the principle of piezoresistance. Each Tactilus® sensor is carefully assembled to exacting tolerances and individually calibrated and serialized.

The architectural philosophy of Tactilus® is modular allowing for portability, and easy expansion. Tactilus® employs sophisticated mathematical algorithms that intelligently separate signal from noise, and advanced electronic shielding techniques to maximize environmental immunity to noise, temperature and humidity.

SENSOR SPECIFICATIONS	
Technology	Piezoresistive
Total Sensing Area	2" x 2" (5.1 x 5.1 cm)
Force Range	0 - 1.5 Newtons
Pressure Range	0 - 3.87 PSI (0 - 200 mmHg)
Grid Size	4 x 4
Discrete Sensing Points	16
Scan Speed	30 hertz
Thickness	58 mils (1.5 mm)
Accuracy	± 10%
Repeatability	± 2%
Non-linearity	± 1.5%

System includes: shear sensor element, electronic controller, software and cables