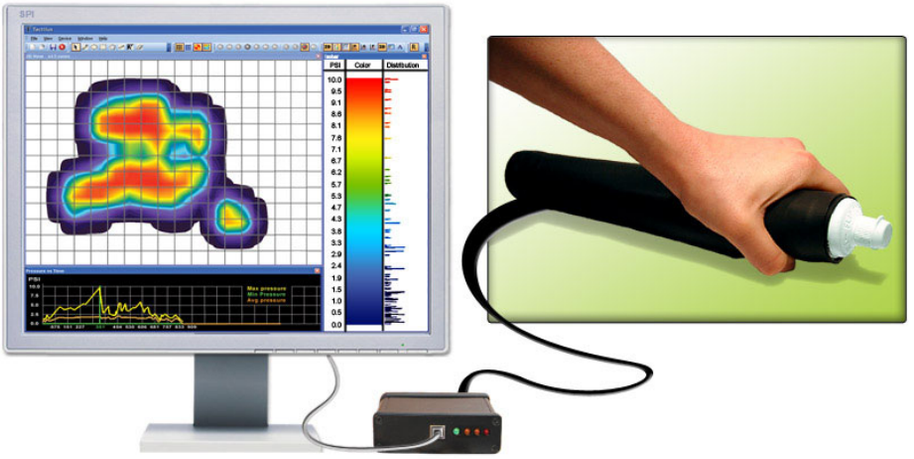
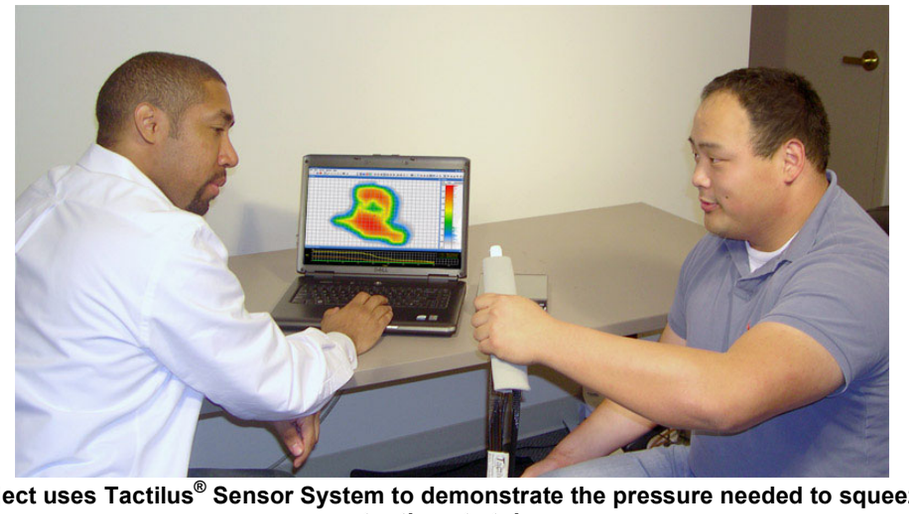
Body Mapping: Squeezable Tube



Tactilus® Squeezable Tube

The Tactilus® tube testing sensor is a valuable aid in R&D and QC for evaluation of where and how a tube fatigues as well as when labels or appliqués delaminate. The Tactilus® sensor is designed to encase your tube. When pressure is exerted upon the tube, you'll be able to see where and how much force is being applied. From a human factor and an ergonomics perspective, Tactilus® aids in revealing how much force is required to expel contents from a tube and gives insight into squeezing techniques used by different demographic segments. Tactilus® aids the engineer in validating and confirming what is predicated by FEA models.



Subject uses Tactilus® Sensor System to demonstrate the pressure needed to squeeze a toothpaste tube

Tactilus® Technology: Tactilus® is a matrix based tactile surface sensor. Essentially an “electronic skin” that records and interprets pressure distribution and magnitude between any two contacting or mating surfaces and assimilates that data collected into a powerful Windows® based tool kit. Each Tactilus® sensor is carefully assembled to exacting tolerances and individually calibrated and serialized. The architectural philosophy of Tactilus® is modular allowing for portability, easy expansion, and simultaneous data collection of up to 4 discrete sensor pads. Tactilus® employs sophisticated mathematical algorithms that intelligently separate signal from noise, and advanced electronic shielding techniques to maximize environmental immunity to electromagnetic noise, temperature and humidity. Our proprietary sensor design ensures the most robust sensor in the industry - an investment that will sustain thousands of uses.

Physical Specifications	
Technology	Piezoresistive
Pressure Range	0 - 100 PSI (0-7 kg/cm²)
Grid Size	32 x 32
Sensing Points	1024
Total Sensing Area	Customizable to application
Scan Speed	30 hertz
Spatial Resolution	Customizable from 0.5 in (9mm)
Thickness	27.5 mils (0.7 mm)
Accuracy	± 10%
Repeatability	± 2%
Hysteresis	± 5%
Non-linearity	± 1.5%