Grip™ System

Tactile Grip Force & Pressure Measurement

The Grip™ system measures and evaluates static and dynamic pressures from grasping objects. Grip measures interface pressure for human hand and finger gripping applications to assess comfort, design, and ergonomics. The system is used to improve design for a more ergonomically sound product, study carpal tunnel and repetitive motion syndrome, or analyze the human hold on various tools and sports equipment. It is an ideal tool for collecting vital information and insight to enhance product design, manufacturing, quality, and research.

KEY FEATURES & BENEFITS

SYSTEM

- Simultaneous measurement of left and right hands
- Numerous independent sensing elements for localized detection of pressure points
- One subject can grip several objects, in many ways once the hand is instrumented
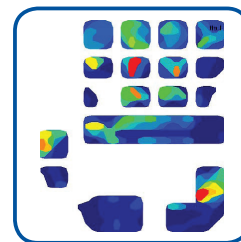- High scanning rates of up to 750Hz (tethered version)

SENSOR

- Sensor form factor allows for full range of hand motion
- Paper-thin sensor does not affect the grip "feel"
- One size fits all
- Durable and reusable

1. Connect

2. Collect

3. Analyze

Tekscan™

KEY SOFTWARE FEATURES

- Access real time or recorded data in 2D & 3D

- Key metrics; total force, peak pressures, and center of force

- Multiple graph options to plot data

- View and compare multiple test results simultaneously

- Ability to attach a digital image to each frame of a Tekscan movie

- Export data to ASCII or AVI files
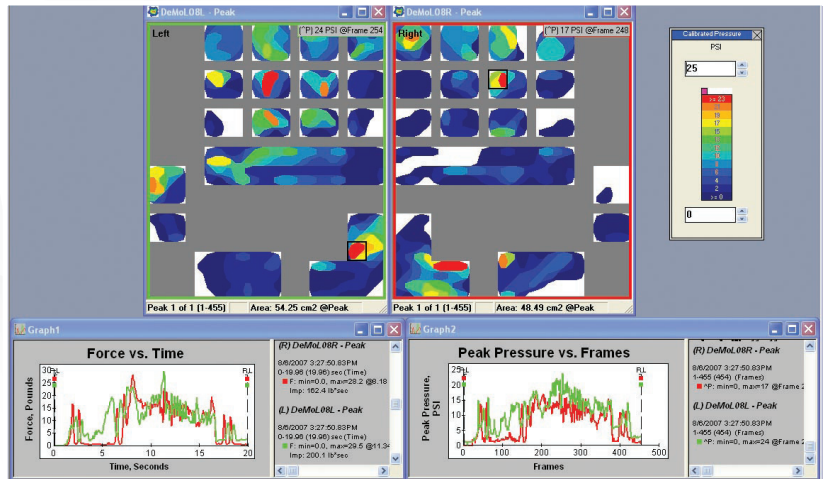
Example of grip pressure data while subject operated an industrial floor polisher

APPLICATIONS

- Ergonomics
  - Vibration Studies
  - Carpal tunnel syndrome
  - Heavy lifting
- Improve product design
  - Consumer goods
  - For the elderly and physically disabled
- Analyze grip in sports applications
  - Baseball bat
  - Golf club
  - Tennis racquet
- Robotics

Grip Sensor Specifications

Sensor Technology	Resistive
Pressure Range	0-50 psi
Sensor Thickness	0.15 mm (0.007 in.)
Sensel Density	6.2 sensels per square centimeter (40.0 sensels per square inch)
Sensing Area	5 independent fingers, each containing multiple sensing regions (18 regions total)
No. of Sensing Elements	349

CONNECTION TYPES

The Grip system is available tethered or untethered for increased mobility and range of measurement. Your specific application will determine the best-suited connection type.

System Specifications

Connection Type	Tethered	Wireless	Datalogger
Scan Speed	Up to 750 Hz	Up to 200 Hz	Up to 750 Hz
Maximum Distance	Up to 100 ft (30.5 m)	Up to 328 ft (100 m)	Unlimited

CONTACT US | FREE DEMONSTRATION

+1.617.464.4282 | 1.800.248.3669 | info@tekscan.com | www.tekscan.com/pm