

Serving many applications with proven solutions.

Founded in 1987, Tekscan is the world's leading provider of advanced high-resolution, thin-film tactile pressure measurement systems. Our solutions are at work in various industries including automotive, packaging, ergonomics, semiconductor, and many more. Tekscan's leadership is proven by the number of systems sold, research projects conducted, papers published, satisfied customers, and the diversity of applications addressed.

In addition to delivering the most advanced solutions, we provide the highest level of customer service. Our Sales Engineers will assist you in system selection as well as provide you with training and support. Tekscan's commitment is to provide you with the tools necessary to reap the greatest rewards from your system.

For tactile pressure and force sensors, thin is in.

At the heart of each Tekscan system is our patented high-resolution, thin-film tactile pressure/force sensor array. Developed by scientists from MIT, our extremely thin (~0.1 mm) and flexible grid-based device is the standard by which all other sensors are measured. Thinness has numerous advantages; most importantly allowing for minimally intrusive measurements, resulting in the least disturbance to the true pressure pattern.

Each sensor consists of a matrix of rows and columns of a semi-conductive material that changes its electrical resistance when force is applied to it. These rows and columns intersect to form sensing elements. By electronically scanning and measuring the change in resistance at each individual sensing element, the timing, force, and location of contacts on the sensor surface can be determined. Our sensors are available in a wide range of shapes, sizes, and spatial resolutions, capable of measuring pressures ranging from 5 mmHg (0.1 psi) to 175 MPa (30,000 psi). Presently, we have over 200 standard sensors available and can customize sensors to provide you with the right solution for your specific requirements.

If a picture is worth a thousand words...

...then a pressure image created by a Tekscan system is worth a thousand data points. Our solutions enable you to optimize design choices by providing high-resolution displays of tactile pressure data. The visual impact, simplicity, and clarity of our real-time 3-D and 2-D color images present graphically informative displays and intuitive operation.

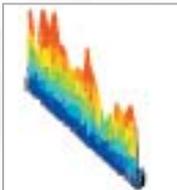
...and a Tekscan movie file tells the whole story of dynamic changes over time. Contact pressure movies can be viewed in their entirety or played back frame by frame. Force, area, and pressure information can be plotted over time or distance. You can also process and analyze Tekscan data with Excel or any other program that can import comma-delimited files. The end result is a powerful tool that supports visual and diagnostic analysis.

Tekscan is at work throughout industry.

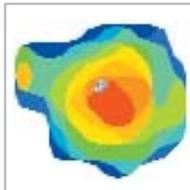
Advanced thin-film pressure measurement systems from Tekscan are used in a wide range of industrial and research applications. One way automotive manufacturers use our technology is to assess pressure distribution and comfort between the human body and vehicle seats. Gasket manufacturers employ our solutions for analysis of bolted joints. Whenever accurate, cost effective pressure distribution measurement is required, Tekscan is helping save companies millions of dollars in design, design verification, and reengineering costs.



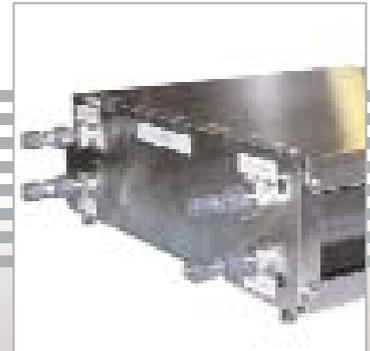
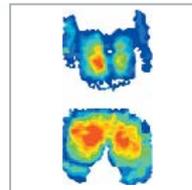
DOOR SEALS



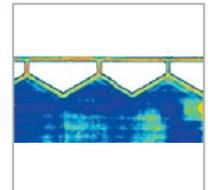
IMPACT & CRASH DUMMIES



SEATING & COMFORT



FUEL CELL STACKS



The only pressure we place is on ourselves.

Tekscan delivers the most advanced high-resolution, thin-film tactile pressure measurement systems in the world. Our systems are accurate, simple to use, and cost effective. Through superior service, we identify the needs of our customers and provide solutions of the highest quality and value.



Tekscan

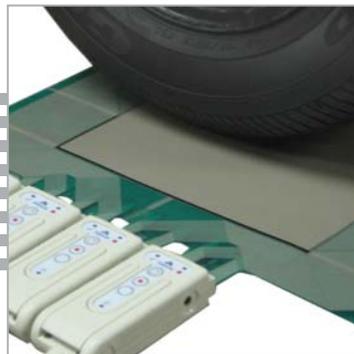
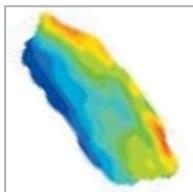
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Applications:

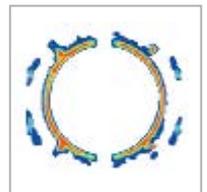
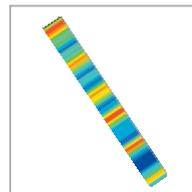
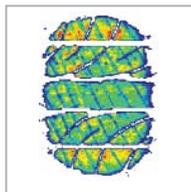
- Test & measurement
- Research & development
- Design validation
- Machine set-up
- Quality control
- Automotive
- Tire footprints and beads
- Brakes and friction plates
- Catalytic converters
- Wiper blades
- Airbags
- Gaskets and bolted joints
- Soft seals
- Seating and bedding design/comfort
- Impact studies
- Hose clamps and crimps
- Grip and ergonomics
- Fuel cell stack assembly
- Fasteners
- Nip and pinch rollers
- Wafer and lens polishing
- Lamination
- Liquid crystal display processing
- Mold filing
- Pressure garments
- Robotics
- Nozzle spray patterns
- Packaging and sealing
- Squeegee balancing
- Semiconductor manufacturing
- Heat sinks
- Printed circuit boards



**BRAKE
PADS**



**TIRE
FOOT
PRINTS**



With Tekscan solutions, seeing is believing.

You have to see our patented technology for yourself to truly grasp its significance. Here is what some of our customers had to say about their first experiences with Tekscan:

"TMMK has been using the I-Scan system for the last two years, resulting in over 3,000 push/pull tests. The I-Scan provides our Safety and Engineering team with an accurate measuring device to record push/pull forces on a majority of our parts. The Tekscan system is easy to use and very dependable and has helped improve our ergonomic initiative."

John Whitaker
Assembly Safety Specialist
Toyota Motor Manufacturing
Kentucky

"Tekscan came in for a demonstration, and within five minutes we were watching a live output from our system and our jaws hit the floor.

It literally made the pressure sensitive film we had been using look like bear skins and knives. It was that much of a quantum leap improvement. The Tekscan system paid for itself in the first five minutes. We got almost priceless information from it."

Dave Otto
Former Senior
Research Engineer
DuPont

"I encountered Tekscan and had the feeling of an engineer's dream come true. Working with granular materials and soil-structure interaction, one encounters problems with large stress variations. My observations in a journal paper published by ASTM in 1997 continue to hold: "The ability of the grid-based tactile pressure sensor's system to provide real-time normal stress distribution over an area is unmatched by any other known technique. This ability provides us with an insight into the behavior and mechanisms of geomaterials that could not have been imagined previously."

Samuel G. Paikowsky,
ScD, Professor
Geotechnical Engineering
Research Lab
University of Massachusetts



Pressure distribution of a baseball hitting a wall shown with High Speed *I-Scan* with Video Synch

Superior solutions you can start with. And grow with.

Tekscan offers a wide selection of powerful yet user-friendly solutions. Our complete pressure measurement systems are simple to set up and include sensors, data acquisition electronics, and software that runs right from your laptop or desktop PC. The flexibility of our systems allow for use in a multitude of applications. Equally important, our solutions are designed to let you add on various sensor models, software modules, and upgrade options as your needs evolve.

Systems & Sensors

I-Scan® System

I-Scan is a general purpose and versatile system tailor-made, by choosing from over 200 available sensors, to meet your specific application.

I-Scan® Handheld

I-Scan Handheld is an affordable, extremely portable, pressure mapping system. With *I-Scan* Handheld, you can capture and view pressure data using a Pocket PC (PDA).

High Speed I-Scan®

High Speed *I-Scan* is an enhanced version of *I-Scan* that allows faster sampling speeds up to 20 kHz.

I-Scan® Lite

I-Scan Lite is a simple-to-operate force and pressure measurement system that utilizes Tekscan's patented, thin film sensors.

BPMS™ System

Body Pressure Measurement System (*BPMS*) uses large mat sensors to measure pressure distribution on support surfaces such as mattresses, seats, and cushions.

CONFORMat® System

CONFORMat is a new, patented sensor technology that conforms to complex, contoured and deformable support surfaces. The sensor design eliminates sensor hammocking while conforming to a curved surface.

TireScan™ System

TireScan electronically measures static and dynamic footprint pressure for passenger, truck, off-road, agricultural, and aircraft tires. It enables you to analyze data to assess tire footprint, tread design, and contact pattern.

Wiper™ System

Wiper measures wiper blade to windshield interface profiles under various testing conditions.

Grip™ System

Grip provides static and dynamic sensing capabilities to address hand and finger gripping applications.

Sensors

In addition to offering over two hundred different standard sensors, Tekscan is renowned for its ability to produce custom sensors for specific applications. Sensing cells can be arrayed in virtually any pattern covering a wide range of areas.

In fact, we can create sensing areas as large as 88 ft² (8 m²) and with sensing cell densities as high as 1,600 per in² (248 per cm²). Tekscan is also capable of producing high-temperature sensors, with operating temperatures as high as 400° F (204° C).

Optional Add-Ons

Wireless

Enables a wireless connection between your sensor/handle and your PC allowing for ultimate flexibility in data acquisition.

MatLab® Interface

Allows you to export our standard file format into the Matlab environment for greater flexibility in analysis.

Video Synch™

Video sequences can be recorded and synchronized with your pressure data and visualized in Tekscan software, enhancing the utility of collected data.

API (Application Program Interface)

Tekscan's *API* software enable a user, with programming knowledge, to write programs that directly access Tekscan sensors and electronics or our sensor data buffers.

Equilibration Bladders

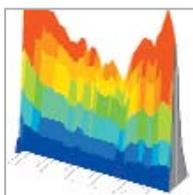
Bladders apply a uniform pressure to the active area of the sensor to normalize output of each sensing element. The system electronically compensates for variation in individual sensing elements.

Datalogging

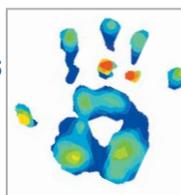
Remote recording and storage of dynamic pressure movies.



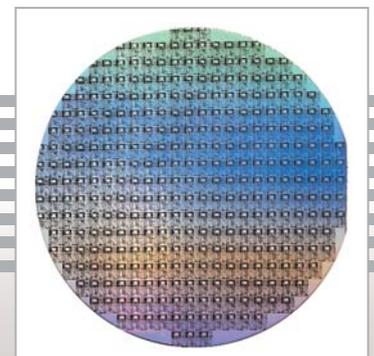
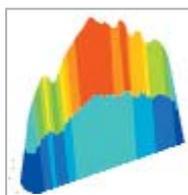
ROLLER NIP PROFILE



HAND GRIP & ERGONOMICS



PACKAGING & SEALING JAWS



WAFER POLISHING

