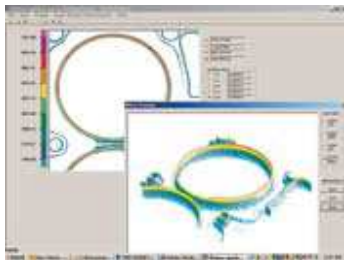


## What's New from the exhibitors

the automotive industry, shape-memory alloy (SMA) technology uses a simple wire to develop linear or angular actuators that feature size and weight reduction, quiet operation, natural movement, direct motion without gears or mechanisms, and thermal- or electrical-activated action. SAES also produces the SmartFlex line of trained SMA materials, including wires and components, to deliver performance to solid-state actuators. The company's production route uses a vertically integrated manufacturing process that permits process control and a flexible product mix with varied wire diameter and transition temperatures. The SmartFlex line can deliver more than 1,000,000 m of trained wire annually.

For more information, visit booth 1120



### Digital analysis

Tekscan's Fuji digital analysis system produces measurement data to provide Prescale film users with quantifiable engineering units to support peak pressure measurements, including on-screen pressure distribution, image enlargement, cross-sectional distribution, and 3-D images.

The system, suitable for automotive applications, will determine contact pressures, wear patterns, and evenness in brakes, clutches, and gaskets. Fuji digital analysis was designed for users whose data needs extend beyond visual assessment of color variation and pressure patterns on the film and who need static pressure measurement data. The digital system consists of pressure-analysis software, scanner, a scanner

cover to improve data-read precision, and a calibration sheet.

For more information, visit booth 714



### Heavy-duty oil

With its Rubia line, Total Lubricants provides a range of heavy-duty motor oils with applications in a variety of industrial fields. Designed to meet the requirements of 2008 engines equipped with aftertreatment systems, the motor oils are adapted to heavy-duty vehicles including trucks, off-highway and agricultural equipment, and light trucks with turbo- or non-turbocharged diesel engines. Rubia oils offer improved wear protection, piston deposit control, and oil consumption compared to other oils and boast enhanced anti-wear and anti-corrosion properties as well as soot-handling and oxidation controls, making them suitable for use in fleets using low-sulfur, low-emissions diesel engines. Other benefits include long drain intervals and improved efficiency in post particulate filters for emissions control.

For more information, visit booth 2645



### Sensor mounting

USA Tolerance Rings offers rings to simplify the process

by which sensing devices are assembled into advanced vehicle systems. Many systems rely on sensors to communicate position and timing, while others require detection of rotational movement of a magnet, such as steering, powertrain, and climate control. Tolerance rings are fitted between the outer and inner components to hold the magnet in a bore or on a shaft. The compression of the ring's waves generates a radial spring or retention force that fixes the components together, avoiding tight tolerances or high press forces that can damage the magnets and allowing for infinite rotational indexing or axial positioning of parts. Tolerance rings perform over an automotive temperature range of -40 to +350°F (-40 to +177°C). Unlike glue, the stainless-steel ring has no curing time and does not react with magnets.

For more information, visit booth 2301

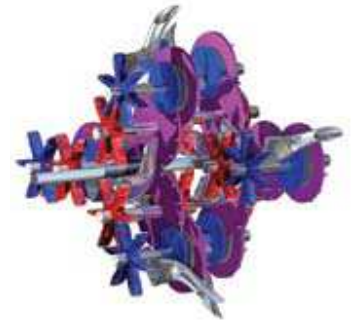


### Calibration interface

Vector CANtech's VX300 hardware interfaces between an MPC55xx processor-based electronic control unit (ECU) equipped with a vertical interface and a calibration tool based on extended copy protection (XCP). Designed to provide a higher data throughput rate than a traditional CAN-based calibration interface, the VX300 requires no host central processing unit bandwidth to operate, and it offers an XCP on the ethernet high-speed interface to CANape. Use of the VertiCal interface allows data to be read and modi-

fied directly in the MPC55xx address space, which requires no processing transfer time by the ECU. The tool's design permits developers to use a 1-MB external static random access memory with no wait states, resulting in improved time savings.

For more information, visit booth 1319



### Modular engine

IDR Technology's engine features a modular approach designed to make it robust and durable. If any one of six modules fails, the rest will remain operational. The engine boasts combustion every five degrees of output axle movement (as with a 72-cylinder, two-stroke engine). This version—a new configuration of the company's signature intermeshing differential rotor technology engine (featured in the March issue of *AEI*)—fits in a space of about 1164 x 950 x 1220 mm (about 3 ft<sup>3</sup>) and will displace 43 L (2624 in<sup>3</sup>) per axle revolution.

For more information, visit booth 2560

### Engine sensor

The piezoelectric pressure sensor type 6045A for engine research from Kistler offers simplified, exacting measurement performance. Designed around a PiezoStar crystal element with output that remains linear at elevated temperatures by resisting thermal influences, the sensor is intended to eliminate the need for water cooling. The high level signal

