Böllhoff HELICOIL® Smart

The new HELICOIL® Smart is a further quantum leap in the HELICOIL® thread technology. A coil thread insert with tang which does not have to be broken off.

The innovation:
The installation
mandrel bends it
backward during
spinning off and
then compresses it.
This smart thread
insert merges the
advantages of
the HELICOIL®
Plus and the
HELICOIL®
Tangfree.

Makita 40V Rechargeable Impact Screwdriver

The Li-ion 40V Max Series tools developed by Makita optimizes battery power supply to enable high output of battery power and achieve long service life of the battery. The company launched 40V Rechargeable



Impact Screwdriver to kick off the sales of the series. It's planning to launch overseas sales in the future.

This product adopts the newly-developed high-voltage Li-ion battery and the intelligent power supply system to minimize voltage load of the tool during high-voltage operations. This extends the operable time by 2.2 times, the service life by 50%, and improves impact resistance by 40%. The battery's vibration and water resistance grade: IP56. Highest grade in the industry: 220N m. Maximum output: 1150W. Fastening speed up 15%. 4-stage powerful impact levels and 6 presets available. Less wobbling of the driver bit. Fastest recharge speed.

Innovation Alley

compiled by Fastener World

The HELICOIL®

Smart thread insert, which is made from a wire with rhombic profile, is also formed into an elastic spiral. As to the Free Running version, thread by thread it is a completely free running coarse thread. The result is a true to gauge internal thread including the last thread which is in every case threadable. It produces high strength threads transferring forces from flank to flank into the holding thread.

To screw in the thread insert, all you need is the Smart installation mandrel of similar size as a tap. Very special is the blade position control. Upon screwing in, the blade has a pull in function, whereas upon screwing out, it turns into a bending and compression tool.

NejiLaw Smart Screws

NejiLaw is working with Casio on developing IoT-enabled smart screws named "Smart Neji". NejiLaw is going to embed multiple sensors in its anti-loosening screws and combine them with impact resistance and low power consumption technologies that Casio created with G-SHOCK watches.



The smart screws will be able to check fastening states, wirelessly collect data of stress at the fastening portions, extract vital signs at the connecting portions, analyze the data and get updated on the stress state of the whole structure. Settings can be done in the fastening process without wiring. Users can easily view the structure's variations with time via visualized presentation.

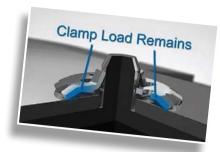
In recent years Japan has faced problems of deteriorating buildings and

frequent occurrence of earthquakes. These problems cannot be neglected otherwise there could be a loss of JPY 1,410 trillion in the occurrence of South Sea earthquakes and JPY 778 trillion if an earthquake takes place in Tokyo. To enhance the country's infrastructure, NejiLaw will utilize the smart screws to develop an AI system named "God Eyes" that can visualize structural health of the following facilities: factories, power plants, power supply lines, water lines, gas lines, railways and roads, cars, large vehicles, ships, airplanes, rockets, robots, industry machines, construction equipment, buildings, houses.

New microPEM® ClampDisk™ Fastener

Global industry leader PennEngineering has announced the launch of the new microPEM® ClampDiskTM Press-on Fastener.

Designed as a unique alternative in assemblies for the automotive electronics and consumer electronics markets, the ClampDiskTM micro fastener delivers a fast, simple way to achieve sheet-to-sheet clamped attachment while replacing the use of standard screws, nuts, and adhesives.



This innovative technology reduces the risk of installation issues that are often experienced during the assembly process when traditional fasteners are used. The most common challenges that can be eliminated or reduced by using ClampDiskTM include over installation, cross-threading, stripped screw heads, broken screws, and damaged products.



Boron Weld Nuts

Ramco has developed an innovative line of weld nuts designed to assist stamping companies and OEMs with thin, ultra-high strength steel applications. Initially developed for boron steels, the new nut has enhanced weld projection geometry designed for extra stability during high-current welding.

Many stampers have issues with adhesion of their standard weld nuts to ultra-high strength steel. Ramco's RamTek design addresses these assembly issues allowing its customers to reduce weight in their applications.

Manufacturers and stampers who seek to create lighter weight components and increase tensile strength should know Ramco has weld nuts for ultra-high strength metals. These new nuts are perfect for floor pans, inner door brackets, pillars, cross members, or any structural stamping applications.

