Innovation Alley compiled by Fastener World

Green Product Awards 2018 for BECK LignoLoc® Wooden Nail Fastening System

LignoLoc® - Collated Wooden Nail System made it into the list of Green Product Award Winner 2018. Since 2013, the international award has presented innovative, sustainable design products for sustainable consumption in 14 categories.

The Green Product Award is an international prize for innovative, sustainable products & services awarded every year. Contestants for this award are established companies and start-ups worldwide. The focus of this institution is networking with designers, producers and experts, as well as presenting unusual ecological solutions for different environmental problems. The Green Network provides a platform to transfer knowledge between individual entrepreneurs and helps them to develop, introduce and market their products



and services. The award has been granted since 2013 and has already received applications from over 40 different countries around the world.

In 2018, a total of 400 manufacturers and designers from 25 countries participated. The members of the jury discussed the distinction of the LignoLoc® wood nail in the areas of design, innovation and sustainability for a long time. Finally, they decided that the BECK LignoLoc ® deserves the first prize in the Freestyle category: a category created to transcend the boundaries of application areas and create an area for disruptive innovation.

Böllhoff Releases HITSERT® Screwlock - an **Efficient Combination of** Two Fasteners (2-0716)

A new fastener for the aerospace industry.

The HITSERT® Screwlock combines the advantages of an aluminium HITSERT® 2 and a stainless steel HELICOIL® Screwlock thread insert for screwed connections with high requirements.

These two elements match perfectly to provide considerable benefits for screwed connections with high requirements. Locking of the screw is achieved with a polygonalshaped thread of the HELICOIL® Screwlock. These threads have a locking effect on the flanks of the screw or bolt to be screwed

in. The result is an elastically resilient frictional locking mechanism with the bolt or screw resisting self-loosening and unscrewing.



Milwaukee Rolls out **Best-in-class M18 FUEL™ Impact Wrench**

The M18 ONE FHIWF34 FUELTM impact wrench is the most powerful cordless impact wrench in its class, delivering up 1,627 Nm of fastening torque. Its compact size of 213 mm provides for even greater access in confined spaces.



The ONE-KEYTM app is a digital platform for tools and equipment that allows users to customise, track, and manage their power tools. The added benefit is that ONE KEYTM allows for the tool to be set up for specific applications.

The tool's POWERSTATETM brushless motor outperforms competitors due to its constant power output. The REDLITHIUM™ M18 B5 battery pack delivers more work per charge, and more work over pack life than any other battery. An onboard REDLINK PC board monitors each cell for load and temperature, meaning less downtime and a longer tool life.

Milwaukee's proprietary four-mode DRIVE CONTROLTM feature allows users to shift into four different speed and torque settings. These settings can also be customised using the ONE KEYTM app. REDLINK PLUS also ensures maximum performance and protection from overload, overheating, and over-discharge. The tool's Mode 4 bolt removal function, provides for a maximum nut-busting torque of 2,034 Nm and then shifts to 750 rpm, after the bolt is loosened, thereby ensuring unmatched control when removing fasteners.

Yuang Hsian's YFW-F Copper Wires Cut Dies 20% Faster

The copper alloy wires produced by Yuan Hsiang Metal Industrial Corporation, a major Taiwanese copper alloy wire and rod manufacturer, have excellent tensile strength, ductility, conductivity, and stable quality. The "YFW-F type" cooper wire developed by the company is a type of EDM wire used for cutting dies. "YFW-F type" cuts 20% faster than brass wires and brings a smoother die surface. It can also replace galvanized wires to effectively reduce costs.





PEM® SFN™ Spinning Flare Nuts Can Eliminate All Loose Fasteners In Thin Metal Sheet Attachment Applications

PEM® SFNTM spinning flare nuts from PennEngineering® become permanently captivated upon installation in thin metal sheets and, when paired with a self-clinching stud or other fixed externally threaded hardware, can eliminate all loose fasteners (including flange nuts) in attachment applications. These one-piece, flanged hex nuts additionally will spin freely in a sheet enabling quick attachment to mating hardware. Their use ultimately promotes savings in assembly time and costs.

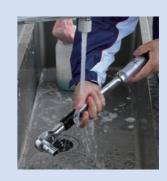
PEM SFN steel spinning flare nuts install in steel, stainless steel, or aluminum sheets of any hardness and as thin as 1mm. They are available in metric thread sizes M5, M6, and 8.

Permanent installation is accomplished by inserting the nut into a properly sized, pre-punched, and embossed mounting hole in a metal sheet and then applying sufficient squeezing force to flare the fastener's shank. When installed, the part will appear identical to a standard flanged hex nut above the sheet and will remain flush on the other side.

Japanese Tohnichi Rolls out Water-resistant Torque Wrench

Tohnichi Mfg. Co., Ltd successfully developed "CLWP series water-resistant torque wrench" which at a stained state can be cleaned with water. The head of the wrench is replaceable. The series includes 6 models with an adjustable torque range within 5-200Nm and fastenable screw sizes ranging from M6 to M18. The series was launched for sale starting from June 21.

- 1. Most suitable for construction and infrastructure applications where sands, dust and dirt water are expected.
- 2. IP55/IP57 grade water and dust resistance powered by high anti-corrosion heat treatment.
- 3. The wrench head is replaceable for multiple fastening applications.



Snap-on® Proudly Introduces New, Completely Reimagined Flank Drive® Xtra (FDX™) Socket System

In its continued tradition of providing technicians with reliable tools that improve productivity and mechanical prowess in the shop, Snap-on is introducing its new Flank Drive Xtra (FDX) socket system. The first redesigned Snapon socket since the patented Flank Drive system developed

in 1965, the FDX takes the brand's innovative socket and makes it even better, offering more turning power, a more secure fastener engagement and greater efficiency.

"Snap-on has taken its genius, often imitated Flank Drive design and completely reimagined a new, improved socket that delivers even better performance than before," said Brian Benes, a Snap-on Tools product manager. "We're proud to take everyday shop tools and turn them into revolutionary, timesaving solutions, and the FDX is just one example of Snap-on raising the bar."

Five standout benefits make the FDX unique from any other sets of six-point sockets:

- Small but mighty: in an improved design that grips fasteners further off the corners, the FDX offers up to 25 percent more strength than Flank Drive® sockets.
- 2. Rounded corner, no problem: with its angled contour, the socket wall grips damaged fasteners more closely for 50 percent more turning power.
- 3. Upgraded shape: an optimally chamfered lip on both the hex and drive ends of the socket allows for a better grip and more turning power, especially for shallow-headed fasteners and fasteners with limited top clearance.
- 4. Efficiently engineered: FDX sockets feature grooved, grippable outer walls, a unique design feature that makes them easier to remove.
- 5. Easily identified: easier identification and improved readability are both achieved through large, distinctive markings on the socket exterior.

Hyodong Machine Developed the Largest Bolt Forming Machine in the World

Hyodong Machine developed "HBP-6220UL", the world's largest forming machine with 2,200 tons of forging load. The machine weighs 420 tons which is 2 times heavier then the HBP-650 model (forging load 1,500 tons). It is entitled as the largest forming machine in the world.

Machine specs:

- Station : 6-Station - Cut-off Dia. : 55mm

- Cut-off Length : 100~450mm - Max RPM : 45 pcs/min

- Dies: #1~4, #6: Ø280 x 550mm / #5: Ø300 x 550mm

- Punch : Ø210 x 550 - KO : 600~400mm - PKO : 150mm - RAM Stroke : 780mm

- Crank Dia.: Ø6900mm - Machine Weight: 420 Tons - Forging Load: 2,200 Tons - Motor: 450Kw X 6P





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