

# Hardware Innovation Alley

## 五金新品大道

compiled by Fastener World



### Sealed Head Ratchets

#### 密封頭棘輪扳手

DEWALT announced two new sealed head ratchets: the 20V MAX\* XR® 3/8 in. and 1/2 in. (DCF510) as well as the XTREME™ 12V MAX\* 1/4 in. & 3/8 in. (DCF500). The ratchets are ideal for automotive, electrical and mechanical as well as maintenance, repair and operations (MRO) professionals.

The new Sealed Head Ratchets are designed with features in mind for our user's most demanding jobs. The innovative sealed head design and glass-filled nylon tool housing helps provide protection against oils and automotive solvents meeting the needs of pros across industries on any jobsite.

The new interchangeable anvil design allows users to quickly switch between square drives in both models in addition to a 1/4 in. quick change hex with the XTREME™ 12V MAX\* model to complete a variety of applications. The low-profile head offers accessibility in tight workspaces, while the variable speed trigger and forward/reverse switch allow users to quickly change speed and direction to maximize productivity. The ratchets also feature a trigger lock that helps prevent accidental activation and an onboard LED work light to help illuminate dark areas.



### Pneumatic Torque Wrench Series

#### SPX FLOW氣動扭矩扳手系列

SPX FLOW's Bolting Systems has released a new line of NRP Series Pneumatic Torque Wrenches designed to provide customers with high-duty performance, quality materials and a lower cost of ownership. The points to note include:

- The NRP Series of Pneumatic Torque Wrenches offer five models, which generate torques up to nearly 4,500 lb-ft (6,000 Nm).
- The new additions complement the brand's existing range of hydraulic torque wrenches, including the TWHC, TWLC and TWSL series.
- The NRP series offer fast, continuous nut rotation, ideally suited to wind energy, automotive assembly and maintenance/repair operations.
- Designed with ease of use and operator safety in mind.
- A pistol grip design for easy handling and a fully rotatable drive unit.
- Robust, non-impact transmission that ensures quiet operation with low vibration, which provides greater operator comfort.
- An automatic switch-off function at the desired torque, establishing reliable and repeatable operation.



### Micro Torque Wrench with Macro Features

#### 功能廣泛的微型扭矩扳手

The new 1/4" Drive Flex-Head TechAngle® Micro Torque Wrench from Snap-on features a 25 percent increase in torque range compared to the previous model.

Designed for precision, the ATECH1FS300 now provides a torque range of 15-300 in-lb with an accuracy of ±2% clockwise and ±3% counterclockwise. This compact (11.6" L x 0.90" dia.) tool offers six measurement modes and four alert modes, including LCD, LED, vibratory, and audible alerts for complete torque control. It also features dual progressive LEDs for visualizing active torque and a patented flex-yoke design for better access to fasteners, perfect for tight recesses and close-clearance applications.

With a unique torque-then-angle mode, this wrench allows users to torque fasteners and switch to angle without removing the tool, offering unparalleled convenience. The textured grip ensures a comfortable, non-slip hold, and a flared end that prevents slipping during high-leverage applications. Weighing in at only 0.93 lb, the ATECH1FS300 operates with a single AA battery and includes a two-year warranty.

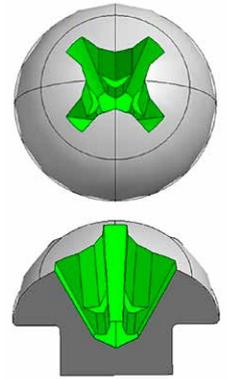
## Share Cross Drive Recess for Bits of Similar Sizes

### 可共用起子頭的十字溝「Share Cross」

In manual fastening and loosening of screws at construction sites and other workplaces, it is time-consuming to change bits for each screw drive recess, which causes users to disassemble and assemble with a bit that does not fit the recess, thus resulting in a collapsed recess.

To solve this problem, Nitto Seiko (Japan) has developed a “Share Cross” that can be used with bits of similar sizes. “Share Cross” is suited for various types of fastening and improves work efficiency in manufacturing operations.

“Share Cross” is a small cross-recess with another large cross-recess superimposed on it, so that bits of similar sizes (e.g., #2 or #3) can be used on the same screw head recess. The structure is such that the drive surfaces for transmitting torque can be shared, which achieves optimum fit of the bit and maximizes performance.



## Yellow Trivalent Chromate Plating

### 黃色三價鉻酸鹽電鍍

At present, trivalent chromates include chromates, unichromates and black variant (chromates are silver white), but they have never appeared yellow like hexavalent chromates. In the past, hexavalent chromium plating was mostly used for yellow colored products. However, in light of the global environmental issues, Heiwa Kaken (Japan) has developed a surface treatment technology that can give a yellow or red color like hexavalent chromate does, even on trivalent products.

Characteristics of Trivalent Yellow:

- \* Giving a yellow or red interference color as does hexavalent chromate!
- \* Corrosion resistance is equivalent to trivalent chromate: 72 hours without white rust, 120 hours without red rust!
- \* No hexavalent dissolution will be detected!
- \* Used together with trivalent chromate to distinguish minor differences in size and threads.

## FAZ II Plus Bolt Anchors

### FAZ II Plus 錨栓

Fischer has launched the FAZ II Plus bolt anchor for construction projects. The new product has a higher assessed tensile load-bearing capacity and material strength than the previous generation. The setting process (M8-M24) does not require cleaning the drill hole. This anchor is approved for different types of construction materials, including concrete, sand-lime brick and steel fiber-reinforced concrete. A service life of 120 years allows the anchor to be used for various applications.

FAZ II Plus was made for transferring high static and medium dynamic loads in cracked and non-cracked concrete. The anchors are designed for use in sand-lime brick (except for dynamic applications). A European Technical Assessment (ETA) provides added safety. The new ETA confirms the application of diameter versions M16-M24 in galvanized and stainless steel materials for dynamic loads. This requires fewer fastening points and anchors per application and project.



## JOISTUD -WP

### JOISTUD Clinching Stud Bolt JOISTUD 壓鉚螺柱

Nitto Seiko (Japan) conducted research using manufacturing and dies making technologies to develop JOISTUD-HT with high anti-rotation capability, JOISTUD-SS with space saving function, JOISTUD-WP with water resistant function and JOISTUD-S with high strength. JOISTUD-WP is a product with water resistant function. Like JOISTUD-S, JOISTUD-HT can be simply pressed onto fastening elements to achieve higher product quality than ever before, providing strong support for customers' production.

While conventional clinching stud bolts has an evenly thick leaf-shaped protruding anti-rotation part, the JOISTUD series has an anti-rotation protruding part with a ring design only on the edge of the leaf.

The anti-rotation part is also designed to prevent buckling of the fastener. In addition, the groove inside the anti-rotation protrusion can accommodate the fastener that is deformed during pressing, preventing the deformed part from protruding toward the screw and forming burrs, and increasing the anti-rotation capability in the rotation direction. ■

