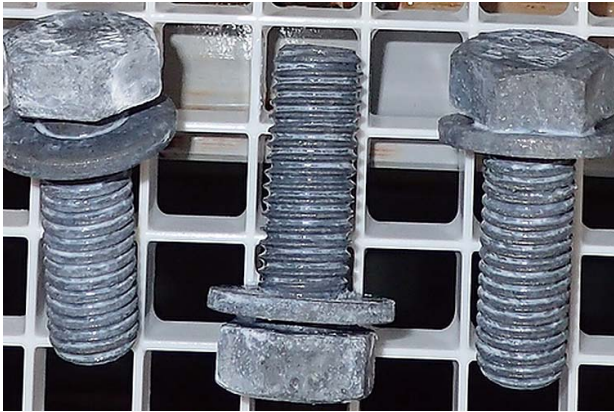


A

## Super Coat SST5000

Japanese TONEJI CO., Ltd has announced a new innovative coating technology. The all-new Super Coat SST5000 applied on TONEJI's D-LOCK bolts on top of their hot-dip zinc-tin alloy plating is now available. SST5000 passed a 5,000-hour salt spray test and a combined cyclic test (150 cycles), with minimized white rust and no red rust. This new coating is ideal for rust prevention measures in salt-damaged areas.



C

## Framing Nailers

U.S. Milwaukee Tool continues to expand its line of cordless nailing solutions from frame to finish with the introduction of their very first cordless framing nailers, the M18 FUEL™ 21° Framing Nailer and M18 FUEL™ 30° Framing Nailer. Delivering the power to sink nails in engineered lumber, these framing nailers can also fire up to 3 nails per second with no gas cartridges required. Milwaukee is committed to improving productivity by providing performance-driven and trade-focused solutions so users can perform an entire day's work on one battery system.



# Innovation Alley

compiled by Fastener World

B

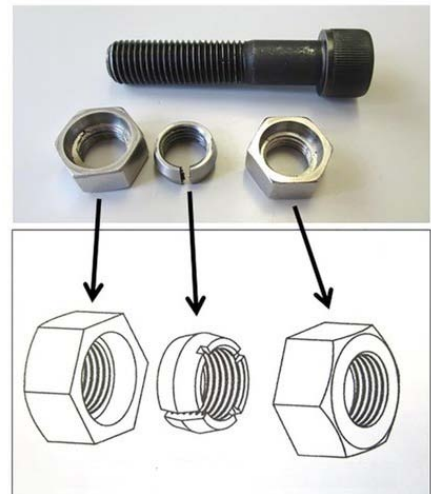
## Extra Large Wrenches for Extra Large Jobs

Companies in heavy machinery industries often face the dilemma: how do you increase productivity without sacrificing safety? U.S. Lowell's extra-large wrenches can help. Too often, workers will use the wrong tool for the job, and as a result, they can risk damaged equipment or personal injury. Lowell Corporation's 40 Series ratchet wrenches and 50 Series socket wrench sets provide workers with the right tools for extremely demanding applications.



The cast malleable iron 40 Series wrenches are available up to 48" long with square, hex, or round/keyed openings up to 4-1/2". They include reversing controls in the head and enclosed replaceable gears. Additionally, the tools' Bolt-Thru design makes it easy to tighten nuts on any threaded length. Above all, Lowell designs its extra-large wrenches to be safe, accessible, and customizable to your needs.

D



## 3-Point Anti-loosening Bolts

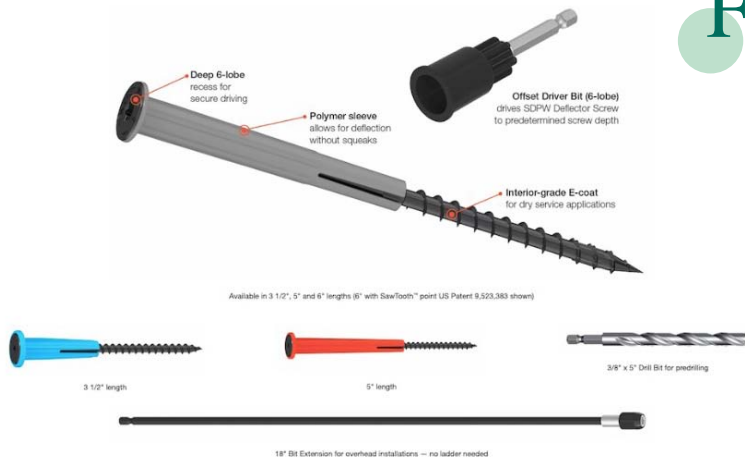
Japanese Takasho Gigen combines 3 nuts for a new 3-point anti-loosening bolt. The company puts a custom-shape nut between two nuts with their surface inclined inward to generate a strong fastening force. The new bolt can be used on steel towers and bridges and mass-produced at any time desired. The company is planning to provide manufacturing license.

The key to generating a strong fastening force is the custom-shape nut which has an 11-degree inward declined circular surface containing notches. First, the stainless steel nuts and threads have different starting positions, which generates pressure to the side of the threads during the fastening process. Second, the notches on the iron nut will bend the circular inclined surface inward by 0.4 mm in diameter. The company makes use of these two phenomena to generate a fastening force. Lastly, the fastening force generated from the surface width of the two stainless steel nuts, together with the first two phenomena, form a 3-point vibration resistance feature.



## E Resin-embedded Anti-vibration Bolt

Japanese Design Part Corporation develops a bolt with resin embedded within to achieve anti-vibration and noise absorption. In a vibration test where a variable frequency of 90-350 Hz per minute is applied, the bolt is able to restrain vibration by 50% on average and 86% at most. The hollow hole diameter of the bolt and the fillers can be changed. A trial test is currently run at a ship-related company and a transportation vehicle component company. The bolt is expected to bring JPN 100 million in revenues in a year.



## F SDPW Deflector Screws

German Simpson Strong-Tie, the leader in engineered structural connectors and building solutions, has introduced the Strong-Drive® SDPW Deflector screw line of fasteners designed to connect non-load-bearing, full-height partition wall top plates to trusses or joists while allowing for vertical movement without associated connector squeaks.

Featuring an innovative polymer sleeve, the SDPW creates a strong connection that provides both lateral resistance and the ability for walls to deflect with the truss or joist. Atmospheric and loading conditions can put a variety of forces on a structure, and the SDPW permits vertical movement on the wall while preventing squeaks that are commonly associated with alternative hardware solutions.

## G Torque Wrench Kit

U.S. Lowell Corporation has introduced a new torque wrench kit that gives plumbers and utility workers greater flexibility in working with US-style No-HUB couplings. This compact kit gives plumbers and utility workers all the tools they need to properly tighten all standard fastening screws on No-HUB couplings to either 60 or 80 lb-in.

Each kit comprises two Lowell T-Torker torque wrenches and three hex sockets (1/4", 5/16", and 3/8"). A durable carrying case is available. One of the wrenches in the torque wrench kit handles a max torque of 60 pounds while the other handles up to 80 pounds. When you reach maximum torque during the tightening process, each wrench will slip to prevent overrunning. The presets in this kit are static. Each wrench carries a label with its torque setting and a color-coded collar for easy identification, even in low-light conditions.

Based on Lowell's ratchet technology, the torque wrenches offer fast, one-handed tightening in the right-hand direction to values that are accurate to ±10%. The spanners prioritize maximum efficiency, ease of use, compact size, and lightweight hand comfort. For example, the T-shaped handle gives users optimal leverage. Its flanged collar easily disengages the ratchet mechanism and locks the tool for effective reversing action without torque limitation. Furthermore, all devices come with a sealed die-cast handle and lubrication for increased longevity.

