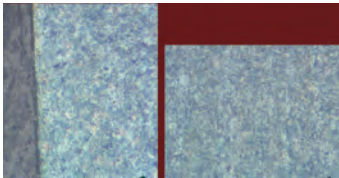


Sun Through Industrial Co., Ltd. was established in 1996 with its plant located in Changhua County of Taiwan. It is particularly good at producing bi-metal self-drilling screws that can penetrate 12mm to 25mm super thick iron plates. It mainly produces long screws with a monthly capacity of 1.5 million to 2 million pieces. Its manufacture is professional and all bi-metal self-drilling screws go through 17 to 18 processes just to deliver the highest quality and durable screws to the hands of clients. Bi-metal screws are the company's bestseller. Furthermore, the company has gone full throttle in developing a new product for the next phase - 14.9 grade hexagon socket bolts!

## Going Full Throttle in Developing New 14.9 Grade Fasteners Sun Through Industrial is an Eye-Catcher of Surprises

by Dean Tseng, Fastener World



Grade 14.9 Bolt Metallograph  
(Note: bainite structure)

Grade 14.9 Bolt: No crack at 90-degree bending;  
Surface hardness at 46.3HRC and core hardness at 46.4HRC after heat treatment

Item	Specification	Test Results
MATERIAL SHEET HEAD OF SCREW 1	14.9	14.9
MATERIAL SHEET HEAD OF SCREW 2	14.9	14.9
MATERIAL SHEET HEAD OF SCREW 3	14.9	14.9
MATERIAL SHEET HEAD OF SCREW 4	14.9	14.9



### 14.9 Grade Hexagon Socket Bolts to be Rolled out Next Year

Sun Through Industrial spent a total of 2 years for preparation and R&D. It is finally about to mass produce its 14.9 grade hexagon socket bolts. Why does the company want to roll out bolts of this grade level? General manager Andy Wang replied in an interview with Fastener World Magazine, "Few people make 14.9 grade fasteners. Although there are people from as far as Turkey developing fasteners of this grade, these fasteners on the whole are still rare in the domestic and overseas markets. As far as I could observe at Fastener Fair Stuttgart, most exhibiting companies were still producing and selling 12.9 grade fasteners. That is why I came to the decision to develop this 14.9 grade fasteners."

What advantages do the upcoming 14.9 grade hexagon socket bolts have over the 12.9 grade? "Take the 12.9 grade for example, assuming that the same area of iron plate requires 10 pieces of M12 bolts to attain the ideal fastening strength, with the 14.9 grade it would only require a fewer number of M10 bolts to achieve the same strength," explained general manager Wang. In other words, users just need fewer 14.9 grade bolts to safely fasten the same area of iron plates.

Therefore, the biggest advantage of 14.9 grade hexagon socket bolts is reducing the use of bolts and wires as well as the area that they take up. This can reduce the total cost and the weight of finished products, achieving lightweighting and reducing energy consumption. "A 14.9 grade hexagon socket bolt must be made in alloy. The key to producing this bolt lies in the stability of heat treatment, which is our strength. So far this product has passed test standards, and we can provide its SGS data analysis report. In the future, the machinery industry that values fastening strength will be arranged as our sale target in the first phase, followed by the automotive industry that demands lightweighting and high security in our 2nd phase," said Wang.

### Steady Development in Bi-metal Screws Market ; Targeting Western & Northern Europe

Sun Through Industrial's bi-metal screw never fails in drilling iron plates and the screw head does not get rusty. The bi-metal screw is mainly applied to sub-structure of buildings, and currently the hot seller is the item range that drills 18mm iron plates. Sun Through Industrial's bi-metal screw is mainly for export and sold through distributors. The bi-metal screw has been released for 13 years (including 2 years of R&D and 11 years of market rollout). It only requires as short as 8 seconds to drill through 12mm iron plates and 40 seconds to go through 25mm thick iron plates. "Our bi-metal screw market continues to grow steadily. Because the sideboard structure of European buildings under snow specifically requires high quality and rust-proof bi-metal screws, our bi-metal screws lock on regional markets, targeting Western Europe and Northern Europe including the UK, France, the Netherlands, Sweden and Russia. Besides we also receive orders from Canada and Japan. Our products have high quality and are inexpensive when compared with European and Japanese counterparts."

### New Products Showcased at NIFMSE !

As Wang stated, there is yet to be a clear DIN regulation on 14.9 grade hexagon socket bolts, so he will draw up the regulation with clients in the future. Additionally, he showcased bi-metal fasteners as well as the competitive 14.9 grade hexagon socket bolts at the National Industrial Fastener & Mill Supply Expo this October. He welcomes interested makers and distributors for collaborating on market development. Sun Through Industrial is never absent from the ongoing value upgrade of Taiwanese fastener industry. Its future continuous product innovation and further prosperity is a sure thing to wait for.

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