

Anti-corrosive & Durable



Sheh Kai ETA Certified Bi-metal Concrete Screw Anchors

抗蝕耐用 世鎧ETA認證複合螺紋錨栓

by Gang Hao Chang, Vice Editor-in-Chief of Fastener World

Corrosion-incurred screw anchor failure or poor fastening results due to insufficient drilling point hardness have been sometimes heard, and the potential risk of unexpected fall of not-securely fastened objects may also lead to property loss or severe casualties. In such an era when regulations and users worldwide become more concerned about fastening security, how to develop products featuring both security and durability has undoubtedly become the priority consideration in the R&D of new-generation screw anchors. Sheh Kai Precision Co., Ltd. knows what challenge users may face in fastening applications, as a result, with years of leading bimetal welding and heat treatment technology, it has developed several amazing products for users. Drill bits with tungsten carbide tips and ETA Option 1 certified bimetal screw anchors approved by German DIBt are its most recent representative products.

Made of Stainless and Carbon Steel Excellent Corrosion Resistance & Quick Fastening

Sheh Kai bimetal screw anchors are made of 300 series austenitic steel (body) and carbon steel (tip) and processed with precision welding and heat treatment to ensure high corrosion resistance of the stainless steel body and more effective fastening than other general screw anchors. However, manufacturing such products requires the welding strength to exceed the installation torque, otherwise, they are prone to breakage at the welding point, resulting in a more complicated situation. In addition, carbon steel tips must be also processed with localized hardening treatment, which will require sufficient experience and strong R&D capabilities and shows quite high technical entry barriers. Technically, the entry barrier is very high.

“300 series austenitic steel features exceptional anti-corrosion. While used outdoors, they reveal greatly increased service life and avoid security issues related to corrosion-incurred screw anchor failure, especially in highly corrosive environments. Tips made of harden-able carbon steel are used as lead threads during fastening to avoid unsuccessful fastening of stainless steel bodies due to material properties,” says Sheh Kai Manager Barry Tsai.

Available head types and sizes Sheh Kai currently offers are: hex washer head (M6 x 75 ~ 150 / M8 x 90 ~ 150 / M10 x 105 ~ 150 / M12 x 125 ~ 150 / M6 x 75 ~ 150 / M8 x 90 ~ 150 / M10 x 105 ~ 150 / M12 x 125 ~ 150), pan head (M6 x 75 ~ 150 / M8 x 90 ~ 150 / M10 x 105 ~ 150) and countersunk head (M6 x 80 ~ 150 / M8 x 95 ~ 150 / M10 x 110 ~ 150). Besides ETA, the application for U.S. ICC-ES is already underway.

High Security to Become Future Market Concern

Strict regulations of screw anchors for construction have been adopted in many markets. Australia, for example, adopts strict restrictions against the entry of non-certified products. Sheh Kai with OEM ability and int'l approval can help clients develop markets and supply latest regulations-compliant products. In Taiwan, its screw anchors have been also installed on fire protection pipes in many high-rise buildings and Ubike facilities.

Tsai added, “Screw anchors share only a minimal part of the total construction cost, and the security, convenience, and durability resulted from the correct use of products are more significant than future maintenance & repair cost. That air-con outdoor units fell down onto somebodies has been common, we've all heard stories of outdoor installation failures, such as air-con units, that caused horrible injuries, if installers can use specialty stainless steel products, such things can be avoided. Contractors can also require the project builders to use parts that are suited for the project to avoid future disputes. For more info please link to <https://www.facebook.com/shehkai/> □

Sheh Kai contact: Barry Tsai (Manager) Email: printf@shehkai.com.tw