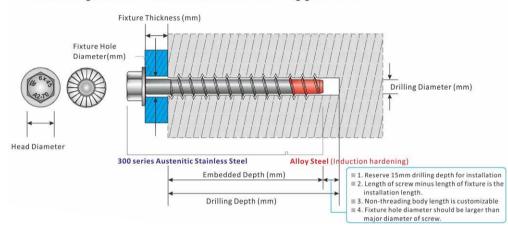


Product Specifications & Selection for Application



Sheh Kai Precision is one of the top professional manufacturers of bi-metal screws and anchors in Taiwan. Unlike conventional ones, bi-metal fasteners come with high technical requirements. "Heterogeneous metal bonding" and "local high frequency heat treatment" are two of the critical manufacturing technologies from this company, and years of R&D has earned them trust by the industry. Their Threaded Carbon Steel Anchors and Bi-metal Threaded Stainless Steel Anchors utilize those cutting-edge technologies. That was where they started from when tapping into construction threaded anchors development.

They invested NTD 21.8 million to develop the U.S. market. After two years of trials and evaluation, they got certified to ICC in November 2022. They design and manufacture critical automated equipment required in the production process in order to level up manufacturing technology and reduce production cost. ICC is the ticket into the high-end U.S. infrastructure market. Having this certificate means they are able to provide the market with highly safe products and increase their price competitiveness.

Strong R&D Clears Obstacles in ICC Certification

Building structures, large infrastructure projects, traffic engineering, tunnels and bridges need various threaded anchors used in concrete. To get a suited ICC certificate, it is required to test embedding depth in high strength and low strength concrete that will or will not crack. Another requirement is to pass 22 tests covering dimension measurement, installation torque, material tensile strength, hardness, hydrogen embrittlement, salt spray, tensile strength limit, shear resistance, sensitivity, margin load, dynamic load, and earthquake simulation. Their products that are ICC-certified include carbon steel hex washer head bolts and eye bolts. These products feature double heat treatment, additional harness at the tip, easy installation, increased resilience against hydrogen embrittlement.

Their threaded anchors are suited for applications ranging from shallow to deep embedding. These anchors can tap threads within pre-drilled holes on concrete of various strengths to provide direct fastening with high tensile strength, high fastening performance and stability. Installation is easy and 100% faster than conventional types. Other features include reusability that allows for adjusting fastening parts by backing out and driving in, as well as no pre-applied expansion force to suit concrete with cracks, and applying fastening closer to the brim of concrete blocks. Furthermore, the stainless steel bi-metal threaded anchors can resist corrosion outdoors for up to 50 years.

Compliant to Carbon Reduction Guidelines to Meet U.S. & European Requirements

Sheh Kai Precision is at the forefront of global environmental protection. They have set 2022 as the base year for greenhouse gas (GHG) inventory which will be completed in 2023, and will finish verification by 2024. They are lifting solar power generation, reducing energy consumption in the manufacturing process, and ask collaborators to perform GHG inventory and provide data. "Our products are mostly sold overseas. The carbon tax from CBAM 2.0 will be imposed in 2027, so we have listed energy conservation, carbon reduction, carbon neutrality and green power as our critical tasks. Also, we have acquired ISO 9001. We do routined check of our manufacturing process. We make sure our products pass dimension checks and tests and then move on to the next step to check quality. We have equipment to test torsion, shear and pull-out which the product will have to go through to head on to packaging and shipping," said Sheh Kai Precision.

Bi-metal Self-tapping Screw Sales Look Promising

Bi-metal fasteners have the advantage of conserving energy and reducing carbon emission and are in high demand still increasing. Plus, green power generation is being supported by many countries. Solar power generation in particular requires shorter construction time so it will become the leading industry in green power. Fasteners that are used for the setup are indispensable, and therefore, bi-metal self-tapping screw sales have grown obviously. Sheh Kai Precision is looking forward to seeing what this may lead to.

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/// by Dean Tseng, Fastener World