

Tips for Uses and Installation of Rivnuts.

With some projects, finding a fastener that works with thin or brittle materials can seem impossible. This is where rivnuts, which are also known as nutserts, blind nuts, blind rivet nuts, or threaded inserts, come in. A variation on the standard rivet, the rivnut has a tubular round, splined, square, or hexagonal body that is internally threaded and counterbored. As a blind fastener, the rivnut is installed in instances where only one side of the workpiece is accessible, making it incredibly versatile. Here are some tips for the use and installation of rivnuts:

1. PICK THE RIGHT RIVET NUTS.

There are two types of rivet nuts: The first is designed to form a bulge on the application's blind side as the screw, pin, or bolt is tightened. The second is pulled into a sleeve and thus doesn't bulge like the other type. So how do you know which to use? It depends on your application. Here are some features and styles to consider:

Large flange: This rivnut feature offers a large load-bearing surface to both reinforce the hole and keep the rivnut from being pushed through.

Flush flange/low-profile head: With this feature, you ensure an installation that is nearly or completely flush.

Shape: Rivnuts come in splined, square, hexagonal, and the standard smooth, round cylindrical style. Each style is meant to keep the fastener from turning at high torque levels, especially in softer materials.

Open or closed: Rivnuts come in open-end and closed-end styles, with the latter preventing water and dust getting into the assembly.

2. USE IN COUNTLESS MATERIALS.

Rivnuts are easy to install, reliable fasteners that can provide strong load-bearing threads into weak or thin gauge materials such as castings, housings, panels, tubes, and extrusions. Additionally, because of their wide grip range tolerance, rivnuts can be installed into a variety of material thicknesses.

3. MORE PRACTICAL THAN OTHER FASTENERS.

Made from aluminium, stainless steel, steel, brass, and Monel, rivnuts offer a variety of benefits over bolts, self-tapping screws, and pressed inserts. In fact, rivnuts are not impaired by heat, unlike other fasteners such as weld nuts. Many times, installing rivnuts is just more practical in comparison to other available fasteners.

4. PERFECT FOR YOUR INDUSTRY AND APPLICATION.

These fasteners are designed to be automated and are used widely throughout the automotive industry to attach items to dashboards, as well as in the chassis and bodywork to connect roof racks, spoilers, plastic fenders, radiators, and more. Rivnuts are also perfect for every stage of production with no reworking needed after insertion - even when the workpiece has already been coated or painted. Some other industries and applications are - refrigerators, playground equipment, office furniture, solar panel installation, medical technology, plastics engineering, electronics, bicycles and the aerospace industry.

5. USE THE RIGHT TOOL.

Among the primary benefits of rivnuts are that they offer a faster assembly and lower installation costs compared to other fasteners, and are set using easy to operate, hand, battery or air setting tools. Here are the most popular options:

"Spin-spin" tool: The rivnut is threaded onto the mandrel on the pneumatic tool and then inserted into a hole on the workpiece. When the tool's trigger is pulled, the mandrel spins quickly to pull the threaded portion of the shank toward the blind side of the workpiece, forming a bulge around the unthreaded portion. When the bulge pushes against the back of the panel, it creates a clamping force to grip the sheet. Once the rivnut is securely set in place, the mandrel spins in the opposite direction to unthread itself from the rivnut, leaving the rivnut's internal threading intact.

"Spin-pull" tool: Similar to the "spin-spin" tool, an air motor is used to thread the rivnut onto the mandrel. When the rivnut is inserted into the workpiece, pneumatic pressure is used to pull the mandrel back a set distance in order to set the rivnut. Then, the air motor is re-engaged to pull the mandrel out of the rivnut. These tools are great for plastic workpieces.

Contact the team at Dafra for advice on the best rivnut or tool to suit your application.

