

FASTENING SYSTEMS ENGINEERED FOR PERFORMANCE™

Benefits of Full Hex Rivet Nuts vs. Welded Hex Fasteners



The challenge:

A manufacturer of agricultural equipment was experiencing insufficient throughput rates in its baler product lines.

- The issue was determined to be a result of the welding process used in the numerous attachment points.
- The manufacturer wanted to improve the work environment by reducing the amount of emissions and vapors caused by the welding process.

The solution:

Working directly with the manufacturer, the Sherex engineering team designed a new line of full hex rivet nuts to meet the application performance requirements.

- The new full hex rivet nuts significantly increased the application spin out resistance during installation.
- Sherex provided a complete installation solution to the customer: full hex rivet nuts and the FLEX-5 tool.
- This new process replaced the previous welding process, increasing throughput by 50%.
- Additionally, the new solution eliminated all emissions and vapors associated with the welding process, which led to a safer working environment for the assemblers.

The savings:

Annual usage of the rivet nuts: 1,000,000

**Cost savings: \$0.12 per weld =
\$120,000 annual savings!**

Sherex is a global manufacturer with a unique market approach in engineered fastening solutions that combines fasteners, tooling, and automation to deliver the best solution at the **lowest total installed cost**.



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Benefits of Eliminating Welding from Steel Attachments

The challenge:

A manufacturer of construction and agricultural equipment was using weld nuts as attachment points in frame assemblies. The manufacturer wanted to replace the welding process with a more efficient process while maintaining the required class 10 thread strength.

- During the powder coating process, each weld nut needed to be masked to prevent the coat from sticking to the threads.
- After the powder coat process, the threads needed to be unmasked so the mating bolt could be installed.

The solution:

Working closely with the customer, the Sherex engineering team designed a line of M10 full hex structural rivet nuts.

- To meet the class 10 thread strength application requirements, the rivet nuts were cold formed with alloy steel.
- The two-step process of masking then unmasking the threads was completely eliminated because Sherex's Rivet nuts can be installed post paint or powder coat without any damage to the base material.
- The rivet nut design combined with the accurate, effective, and fast installation using the Sherex FLEX-18 installation tool, eliminated the welding process and the need to mask and unmask the threads, thereby reducing the production time by 20 minutes per frame assembly.

The savings:

Annual usage of the rivet nuts: 2,250,000

**Cost savings: \$0.06 per weld =
\$135,000 annual savings!**

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