

A Custom Hardware Solution for Adjustable Beach Stairs

Nickel Systems developed and stocked a custom 316 stainless steel square nut with FLUOROKOTE #1 coating to provide the required strength, improve adjustability, and help prevent galling for EZ Beach Steps.



EZ Beach Steps adjustable aluminum stair system installed on a Lake Michigan bluff, providing adaptable access across changing shoreline and dune conditions. Photo courtesy of EZ Beach Steps.

CUSTOMER	INDUSTRY	APPLICATION	SOLUTION
EZ Beach Steps	Marine / building products	Adjustable aluminum beach stairs	316 SS square nuts + FLUOROKOTE #1

THE CHALLENGE

EZ Beach Steps is a Michigan-based, 100% women-owned business that manufactures adjustable aluminum stair systems designed for changing shoreline and dune conditions. The company needed hardware that could provide the necessary strength while allowing the stair system to be repeatedly adjusted in harsh marine conditions. Previous hardware configurations presented performance challenges, including galling between stainless steel components and cracking with brass nuts. EZ Beach Steps needed a stronger, corrosion-resistant solution that would help prevent galling and provide dependable, long-term performance.

The Nickel Systems Solution

Because EZ Beach Steps was already using 316 stainless steel bolts, Nickel Systems focused on developing a compatible square nut and addressing the galling that can occur between stainless steel components. Nickel Systems supplied custom 316 stainless steel square nuts with FLUOROKOTE #1 coating.

The coating helps reduce friction during assembly and adjustment while adding corrosion protection for marine conditions. Nickel Systems continues to stock and supply the coated square nuts, which have become the standard part used in the EZ Beach Steps stair system.

DURABLE HARDWARE

316 stainless steel square nuts improved strength and durability for repeated adjustment.

CORROSION + GALLING SUPPORT

FLUOROKOTE #1 improves corrosion resistance and ease of assembly.

APPLICATION-READY SOLUTION

A practical, repeatable hardware solution for the adjustable stair system.

THE RESULT

The custom hardware solution provided the strength and durability needed for repeated use. Pairing the 316 stainless steel square nuts with FLUOROKOTE #1 coating helped prevent galling, supported smoother adjustment, and added corrosion protection in marine conditions. The coated square nuts are now the standard component used across EZ Beach Steps' stair systems.

PROJECT HARDWARE



Coated 316 SS Square-Nut Assemblies



316 SS Square Nuts Installed in Stair Hardware



EZ Beach Steps Stair Sections with Custom Hardware

Custom FLUOROKOTE #1-coated 316 stainless steel square nuts shown installed in EZ Beach Steps hardware and prepared for assembly.
courtesy of EZ Beach Steps.

Photos

Looking for reliable fasteners for a demanding application?

Nickel Systems provides corrosion-resistant fasteners, specialty alloys, and application-specific solutions designed to deliver strength, durability, and dependable performance.

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