

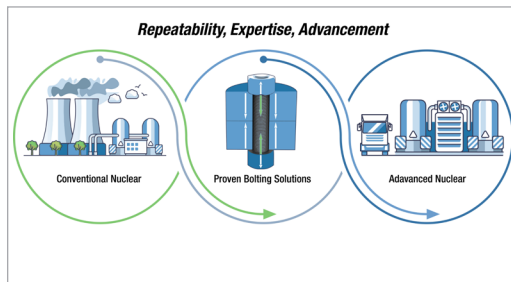
Power & Process Products and Services



About

Curtiss-Wright is a trusted provider of unique bolting solutions for operating reactors and new build projects. With over 30 years of experience supporting nuclear utilities, DOE, DOD, and industrial projects, Curtiss-Wright's bolting solutions line is a proven option for saving time and improving safety. Our offerings include both nuclear safety-related and commercial grade products that support operational efficiency.

With a team of industry experts, we continue to develop and deliver cutting-edge solutions that support safe operations, equipment reliability, and regulatory compliance. As the nuclear industry advances, Curtiss-Wright remains ready and equipped to meet the evolving demands of Advanced Reactors and Small Modular Reactor construction.



Bolting Solutions Product Line

Our bolting solutions product line combines proven performance with innovative designs for bolted flange joints and critical equipment assets. With over 30 years of technical experience, we work side-by-side with customers in the field to understand their challenges and operational needs. Whether you're looking to improve an existing set-up or need a completely new solution, our team has the design capabilities to provide off-the-shelf solutions and develop custom systems tailored to your specific requirements. You provide the application details, design parameters, and end-user requirements, and we'll deliver a reliable, engineered bolting solution that meets both application and operational demands.

The Advantages of Tensioning

Tensioning applies a direct axial force to stretch the bolt, achieving accurate and uniform preload across the fasteners. Unlike torquing, which can vary due to friction between threads and nut faces, uniform tension creates consistent clamping force and even loading of the gasket or seal, which minimizes leaks, joint failures, or gasket blowouts. Direct tension ensures a more accurate and uniform preload by eliminating the uncertainties introduced by torque, such as rotational forces and friction. Hydraulic tensioning systems require less manual effort and eliminate the need for heavy torque wrenches. This increases safety by reducing operator fatigue and injury risks. Multi-stud tensioners or the HydraNut tensioning system can tension all or most bolts simultaneously, drastically reducing assembly and maintenance time. These advantages make our tensioning systems effective and efficient solutions for critical bolting applications, balancing speed with safety and repeatability.

Bolting Solutions

For New Nuclear Construction

**CURTISS-
WRIGHT**

HydraNut

The HydraNut high-temperature hydraulic tensioning system combines a nut and tensioning system in one single unit. HydraNuts are connected together to provide 100% simultaneous tensioning of all studs, saving installation time and ensuring an even clamping load when sealing the flange. The HydraNut offers extremely accurate and repeatable preload, making it ideal for critical applications. Designs are flexible, and may be adjusted for each use-case whether it be overhead clearance concerns, environmental concerns, or the need to operate the equipment via robotics.

Applications

- Valves
- Reactor Vessels
- Steam Generators
- Reactor Coolant Pumps
- Pressure Vessels
- Heat Exchangers
- Any Flanged Application

Features

- Saves time, reduces dose exposure and shortens maintenance schedules
- Reduces heavy equipment and improves worker safety
- Improves joint integrity and expands equipment reliability

PlasmaBond

PlasmaBond is an engineered surface applied to the substrate by an electrical charge in a clean vacuum. Made of high-purity metals - nickel, palladium, and silver - it does not lose its integrity or migrate from the working surface during installation or removal. This enables PlasmaBond to greatly reduce the risk of galling. PlasmaBond is applied in a very thin layer and does not affect the dimensions of the substrate.

Applications

- Any threaded fastener material or design up to 7" in diameter and 8' in length

Features

- Reduces friction and galling
- Extends component life
- Reduces maintenance times
- Improves equipment reliability

PlasmaBolt

PlasmaBolts are threaded fasteners equipped with our proprietary PlasmaBond engineered surface. PlasmaBolts are reusable and available in any standard size, material, or custom design.

Tensor RVH & Multi Stud Tensioners

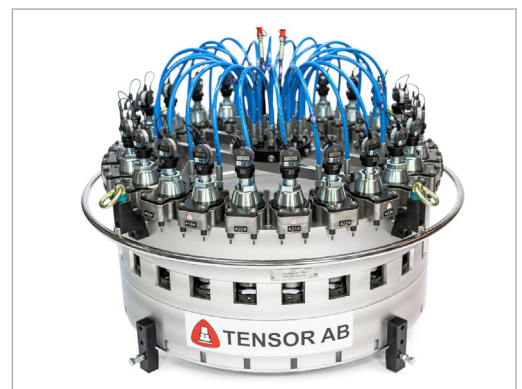
The Tensor Bolt Tensioning Systems are hydraulic tensioning systems for critical applications. They are designed with both the operator and longevity in mind. The designs are robust yet light weight, quick to operate with less complexity, and easy to maintain for long equipment life. Tensor Bolt Tensioners are used in various commercial and navy nuclear applications worldwide. The system is engineered for single or multi-stud applications from 2" up to over 7" in stud diameter. It can be configured and uniquely designed for specific applications and operation.

Applications

- Reactor pressure vessels
- Reactor coolant pumps
- Steam generators
- Pressure vessels
- Any flanged application

Features

- Compact design with reduced tensioner weight
- Easy handling method, promoting worker safety
- Robust design with minimal tooling
- Easy to maintain for quick maintenance
- Quick set-up/removal time at the application
- Fail-safe design with built in redundancies
- Flexible equipment set-up options



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LC - 1405 - 06.2025 - NV - AR