Reverse Engineering - Mechanical

Obsolescence and Sourcing Solutions



Nuclear Products and Services







About

Since 1984, Curtiss-Wright has reduced operating costs and lead times, and improved safety to commercial nuclear and fossil power plants, the Department of Energy, the Department of Defense and the industrial market by supplying ASME Code, safety-related, NQA-1 and commercial grade fasteners, precisionmachined components, Commercial Grade Dedication, HydraNut® bolting systems, tensioning solutions, PlasmaBond® antigalling surface coating, and safety-related construction products.

Reverse Engineering Services

Addressing the growing population of aging plant systems and obsolescent components, Curtiss-Wright's Nova brand of products and services provides lead time reduction by providing reverse engineering services for mechanical items. Curtiss-Wright has reverse engineered over 1,000 mechanical components, including valve stems, check valve hinge pins, plungers, pump shafts, and many others, leading to increased plant up time and cost reductions for commercial nuclear and fossil power plants, the Department of Energy, the Department of Defense and the industrial market. Our team of experts are qualified and have experience working with plant maintenance, operations, engineering, procurement engineering, and purchasing.

Solutions

- **Delivery:** Our optimized supply chain and manufacturing processes reduce lead times and ensure timely delivery.
- **Obsolescence Solutions:** We eliminate obsolescence by ensuring continued availability for replacement parts.
- Inventory Reduction: Our ability to replace and recreate needed parts at an accelerated delivery time line creates a contingency plan for approved mechanical components, allowing for reduced stocking levels.

All reverse engineering services are performed in accordance with Nova's QA Manual, 10CFR50 Appendix B Program, and applicable work instructions. Inspections are conducted at our state of the art certified testing lab. Reverse Engineering Analysis includes:

- Detailed "as-found" state defined through testing and inspection including material analysis and dimensions. All features and identified critical attributes are documented in the report.
- A detailed manufacturing print of the item.
- Comprehensive detail of how Curtiss-Wright determined the appropriate specifications and requirements for the project, including justifications of the replacement item's material, dimensions, and associated tolerances and limits.

18001 Sheldon Road, Middleburg Heights, OH 44130 nova@curtisswright.com | +1.216.267.3200

