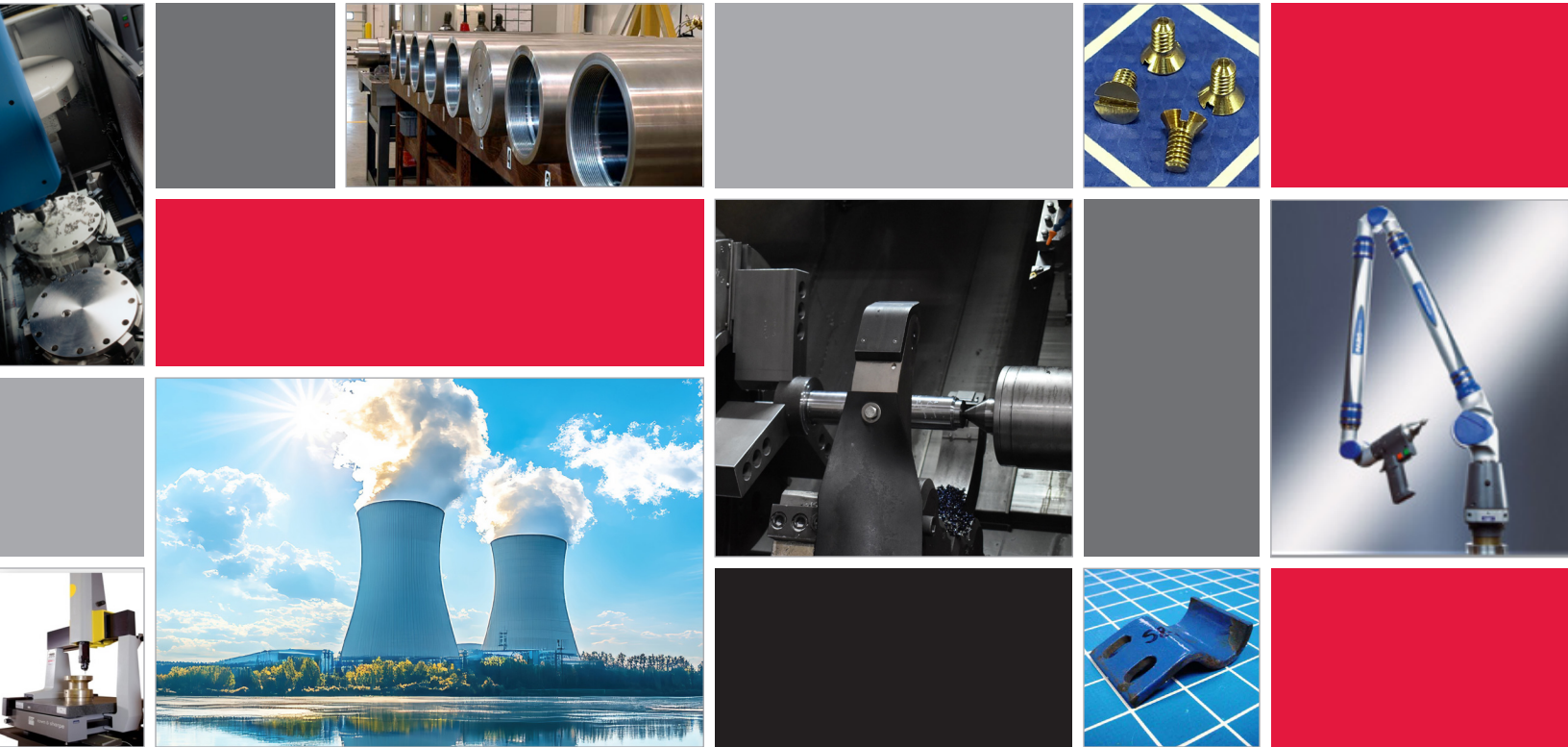
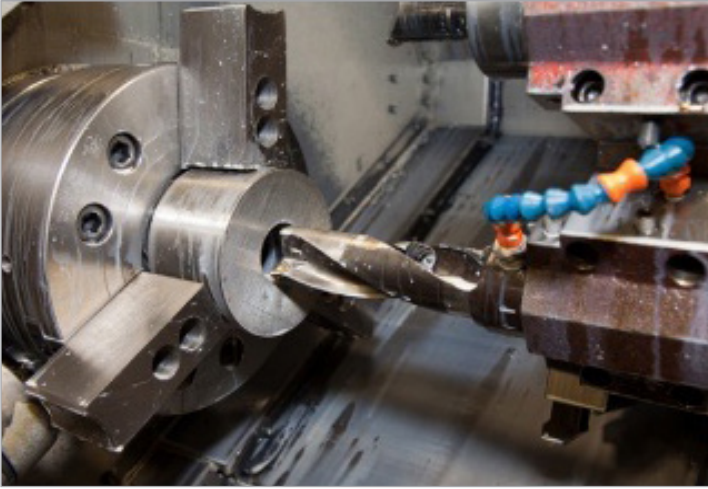


Reverse Engineering Solutions



Increasing Plant Up Time and Reducing Costs

Since 1984, Curtiss-Wright has reduced operating costs and lead times, and improved safety for commercial nuclear and fossil power plants, the Department of Energy, the Department of Defense, Original Equipment Manufacturers, and the industrial market. Curtiss-Wright supplies ASME code, safety-related, NQA-1 and commercial grade fasteners, precision machined components, Commercial Grade Dedication, HydraNut® bolting systems, tensioning solutions PlasmaBond® anti-galling surface coating, and safety-related construction products.



Reverse Engineering Services

Addressing the growing population of aging plant systems and obsolescent components, Curtiss-Wright can help reduce lead time by providing reverse engineering services for mechanical items. Curtiss-Wright has reverse engineered over 1,400 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.

Reverse Engineering Focus Areas

- Outage Related - Unplanned/Planned
- Critical Spares
- Obsolescence
- Usage/Demand

Solutions

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

Typical Applications

- Specialty Fasteners
 - Nuts, Bolts, Screws, Studs, and Washers
- Valve Applications
 - Stems, Bushings, Discs, Guides, Retainers, Spindles, Glands, Pins, Cages, and Spacers
- Pump Applications
 - Shafts, Sleeves, and Ring Couplings

Reverse Engineering Deliverables

- Detailed “as found” state defined through testing and inspection including material analysis and dimensions. All features are regarded as critical and 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.

Quality

All reverse engineering activities are performed in accordance with our QA Manual, 10CFR50 Appendix B Program, and Reverse Engineering Procedure. Inspections are conducted in our certified testing lab.

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