Precision Components Manufacturing

Background

For more than 40 years, we have supplied highintegrity and custom-made equipment to the energy sector from our facilities in North American, Europe and Asia. These factories routinely deliver the highest quality structural, mechanical, and electro-mechanical products. All operations follow well-established production and quality assurance programs capable of exceeding commonly applied industry standards.

Our North American staff comprises of a highly skilled workforce of engineers, project managers, machinists, welders, fabricators, and quality inspectors. With 200-ton crane capacity and over 60 foot clearance – along with state-of-the-art equipment and technology deployed throughout our facilities – our precision component manufacturing can operate 24/7 to meet the needs of domestic and international customers.



Tube machining on a large horizontal boring mill



Precision machined plate

Capabilities

- Thick-wall reactors and internal components
- Pump casings
- Shafts, bearings, and seals
- Tanks (American Society of Mechanical Engineers [ASME] Section III, Division 3 and Section VIII, Division 3)
- Heat exchangers
- Separators
- Pressure vessels
- Skid-mounted or containerized systems
- High-pressure piping systems
- Down-hole drilling equipment
- Chemical processing systems
- Large diameter valve bodies
- Lift rigs
- Original equipment manufacturer parts
- Thick-walled steel storage containers
- Cable trays
- Large breathing air storage systems
- Steam supply system components
- Custom build-to-print and prototypes
- High-alloy machining and fabricating
- Thick-wall carbon steel machining and fabrication.



Preparing a large generator vessel for delivery



Services

Heavy and Light Machining

- Vertical and horizontal computer numerical control (CNC) machining centers with 2.5- to 40-foot capacity
- Horizontal boring mills with capacity up to widths of 24 feet and heights of 18 feet
- Vertical boring mills with 21-foot reach
- Lathing capacity up to 200-inches length
- Up to 9-axis CNC mill turns
- Grinders that can hold tolerances of 0.0001 inch
- Water jet cutting machine capable of cutting carbon steel up to 8-inches thick. Device can rapidly produce parts, with significantly reduced setup times, while holding tolerances within 0.005 inch



Water jet machining center



Automatic welding of hard facing overlay

Manufacturing, Welding and Fabrication

We specialize in precision and complex welding, with top ASME and American Welding Society qualifications and experience in structural and bi-metallic welding along with wear and corrosion resistance overlay. These are complemented with robotic CNC tungsten inert gas, gas-tungsten arc welding, plasma and laser beam welding.

Our production facilities offer welding capabilities that span manual, semi-automatic, and automatic mode: gas metal arc, submerged arc, metal arc, flux core arc and shielded metal arc welding.

Testing and Non-Destructive Examination

Customer-specified factory acceptance and testing such as hydrostatic, magnetic particle, penetrant, visual ultrasonic, and radiographic testing are routinely performed on-site. An on-site, built-in radiographic testing unit is available for larger components.

Quality inspectors are certified to SNT-TC-1A, Level II and Level III. Our facility conforms to ASME B&PVC Certificates of Authorization N, NPT, NA, NS, NF, N3, U1, U2, U3 and R.

Benefits

Our manufacturing heritage has been rooted in the nuclear power industry since the 1980s. We are skilled in producing components to the highest quality, reliability and safety standards with benefits including:

- Clearly defined execution of work, traceable first-time quality and compliance to all customer requirements, resulting in unmatched reliability in the supply of your precision manufactured components.
- Project budget predictability with an experienced manufacturing operations team that provides accurate, up-front and total cost estimates
- Consultation on manufacturability improvements and product design to help ensure lowest possible cost for every project



Component inspection prior to installation

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