

Gate Valve Repair Services

Solving critical energy industry issues



An Avail Infrastructure Solutions Company

Contingent, planned or emergent valve work worldwide

Decades of operating experience in nuclear and fossil power plants around the globe has shown degradation inevitably occurs in large primary system gate valves. Resulting from flow and vibration, degraded gate valves may require repairs to maintain proper functionality. Damage may occur to valve seats as well as in valve body and valve gates or wedges and guide ribs for flexible wedge designs.

WSI is prepared to perform contingent, planned or emergent valve work worldwide. Our repair solutions include seat removal and replacement, hard-facing repairs (both base metal and stellite), body and flange area repairs, guide rib or gate preparation and repairs.

For gate valve seat replacement, a remotely operated Seat Repair Tool (SRT) delivers the severing tool to remove the existing seal weld and bevel the valve body, followed by the automated remote video GTAW weld tool to perform the seal weld after seat installation.

The Guide Rib Milling Tool is used to repair large diameter flexible wedge gate valve guide ribs. The tool is remotely operated and designed to maintain center in the valve body while machining the ribs into the correct tolerance. Hard-facing repairs can be made as needed using the Guide Rib remote video weld head.

WSI is an industrial and nuclear services company with more than 35 years of experience solving critical energy industry issues – including maintenance, repair, replacement, and overlay solutions/services for the power generation industry. WSI takes pride in being the industry leader in responsiveness for projects that are critical to safety, schedule and quality.

WSI Nuclear QA Program meets the requirements of 10CFR50, Appendix B, and NQA-1, and is a NUPIC-audited nuclear supplier.

SRT Technical Data:

- End-of-arm tools for sever and welding
- 4-axis coordinated motion
- 3-point circular interpolation
- Constant velocity tool path control
- Functional on >6" diameter valves

Guide Rib Milling Tool Technical Data:

- Full or partial rib repair
- Laser center finder
- Quick-change tool holder
- Adjustable end-of-travel stops
- Variable speed spindle and feed drives



WSI SRT Highlights:

- Completed in 4.5 day critical path work window
- Project completed 75% below ALARA goal
- Tool set up 4 hours
- Tool operated in low dose area

WSI Valve Repair Benefits:

European BWR Seat Removal Data

- Consistent quality results
- Reduced schedule and costs
- Reduced dose and improved ALARA results

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