



# New Wheel Forging Process Line

Process Piping

**Contract Value:** \$1.2 million

**Project Description:** S. P. McCarl & Company, Inc. installed all the mechanical process piping for the enhanced wheel forge shop. This project included installation of a new production line to increase the throughput of the manufacturing line. All the work had to be completed during a 30 day plant shutdown.



Much of the piping installed was for very high pressure systems, including a 10,000 ton hydraulic press. Much of the pipe had a wall thickness of 2 inches. These high pressure systems required x-ray testing to ensure excellent weld quality. S. P. McCarl & Company, Inc.'s Quality Assurance/Quality Control (QA/QC) plan, that includes an externally audited program for ASME welding, was critical to handle construction of these complicated systems with top quality. S. P. McCarl & Company, Inc. is ASME certified and has carried the following stamps for more than a decade: U, S, R, and PP. This ASME code welding experience ensured top quality control of all the process piping system installations.

**Technical Challenge:** This project had a very intense schedule and required detailed planning and coordination, especially since the design information was not complete. S. P. McCarl & Company, Inc. teamed with customer personnel to determine the mechanical system requirements throughout the duration of the construction schedule. Based on the collective experience of the team members, the systems were successfully installed with only partial drawings and specifications.

There was a tremendous amount of mechanical installation to complete in a very short time frame; therefore, S. P. McCarl & Company, Inc. worked 7 days a week, 24 hours a day from the beginning of the shutdown to the end. This effort required a crew size of 25 field persons with full time project management and a full time on-site safety coordinator. The intensity of the schedule and complexity of the project required very proactive management and significant focus on safety.