

Nelson Steel

a division of  SAMUEL MANN-TECH INC.
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Nelson Steel News Update February 2008

What's New

Nelson Steel's Consulting & Technology Group is currently working as a free agent marketing and selling its technology worldwide. We welcome inquiries from entry and exit equipment suppliers who may wish to partner with us on pickling line projects outside of North America.

Latest Projects

AHMSA, Monclova, Mexico – Pickling Line #2 Conversion

We're pleased to announce that Nelson Steel's Consulting & Technology Group has recently been awarded a contract to convert AHMSA's #2 continuous pickling line into a push-pull pickling line. Engineering will commence shortly.

We would like to take this opportunity to thank AHMSA engineers for their help and cooperation on this exciting new project.

AHMSA, Monclova, Mexico – Continuous Pickling Line #3 Process Section Revamp

Nelson Steel's Consulting & Technology Group is currently working on a process section revamp on AHMSA's #3 continuous pickling line in Monclova, Mexico. Engineering is now 95% complete and the shipping of equipment is underway.

The scope of the project involves the installation of 4 pickling tanks at 25m each, a 5-stage rinse system, a new fume system, and a double-edge blow-off system.

Nelson Steel's patented "Turbo Tunnel" and "Stain-Free" rinse system designs are being incorporated to reduce acid, gas, and HCl emissions.

We would like to take this opportunity to thank AHMSA engineers for their help and cooperation on the project.

Nelson Steel, Nanticoke, Ontario - Pickling Line #3 Rinse Revamp

The demand for a stain-free strip resulted in the installation of a new 4-stage rinse system for our Line #3 in Nanticoke. Shutdown was reduced to a 12-day period due to pre-installation practices employed to minimize down time.

The project was successfully completed in December of 2007.

Samuel Steel Pickling Co., Cleveland, Ohio - Rinse Revamp

In July of 2007, Nelson Steel successfully completed the installation of a 4-stage "Stain-Free" rinse system into Samuel's existing pickling line. Again our pre-installation practices were used to ensure that a 12-day shutdown period was achieved.

Roll Form Group - Expansion into Iuka, Mississippi

A new 120,000ft² manufacturing facility, which includes 10,000 ft² offices and employee facilities, equipment foundations, and 4 35-ton overhead cranes, was completed June of 2007. Nelson Steel's Consulting & Technology Group provided project management and engineering resources to the design-build construction which included precise planning, project definition, cost estimates, design, and construction expertise.

Villacero, Apodaca, Mexico - Scrubber System Revamp

In September 2006, Villacero awarded Nelson Steel's Consulting & Technology Group a contract to upgrade their scrubber system using Nelson Steel's proven scrubber, fan, and ducting designs. Both companies worked together very efficiently to install and commission the new equipment such that the plant shutdown was minimized to less than 1 week.

Latest Research and Development Projects

Automatic Acid Injection System

The automatic acid injection system is a proactive system developed to maintain stable acid concentrations without instrumentation. The system has been designed to remove operator input to adjust the acid settings, ensuring tighter acid concentration control, thereby reducing acid consumption. During its first full year in service, the automatic acid injection system saved 0.3 gallons of acid per ton of steel as compared to the previous year. Based on a 400,000 ton/year capacity line, this relates to a yearly acid consumption savings of 120,000 gallons.

Rinse Effluent Recovery System

Nelson Steel has partnered with Kontek Ecology Systems Inc. and has been conducting extensive research and development testing of a prototype ion exchange effluent water recovery system. Although online trials are yet ongoing, trial results to date have been considered a success. The economics of a full scale system are currently being evaluated and it is expected the new system will be able to recycle effluent rinse water in excess of 30 gallons per minute.