Super Systems Inc. Provides Nitriding and Ferritic Nitrocarburizing (FNC) Automated Control Solution to Cincinnati Steel Treating

Super Systems Inc. (SSi) recently designed a Nitriding/ Ferritic Nitrocarburizing (FNC) automated control solution for Cincinnati Steel Treating (CST), a nationally recognized leader in the metal treating business serving customers in diverse industries for more than 70 years. The process changes the properties of the work pieces, increasing the metals’ surface hardness while improving its resistance to corrosion.

SSi’s control system design will provide precise control of temperature and process gases including ammonia, oxygen, nitrogen, and CO₂. With this setup, the instrumentation and sensors will be used to accurately control the process and provide the required nitriding potential (Kn). The parts will be run in accordance with AMS2759/12A Group 3, Class 2 process parameters and will meet CQI-9 requirements. The furnace used in the FNC process will continuously control compound layer with proper phase composition by using process gases and automatically controlling the nitriding and carburizing potentials.

Along with the controls, SSi’s SuperDATA system will be used for historical tracking of loads as well as real-time and historical process parameters. All data variables will be available in a format that allows operations, quality, and maintenance personnel to use the provided data to minimize downtime, eliminate product variability, and provide complete traceability to production runs.

SSi and CST are working on a number of controls projects and software upgrades to provide continuous process control in atmosphere furnaces and complete traceability to process parameters using the SuperDATA data acquisition system.

For more information on SSi’s capabilities, please visit our website at www.supersystems.com.

For more information on CST’s capabilities, please visit www.steeltreating.com.