Super Systems Inc. Provides Nitriding and Ferritic Nitrocarburizing (FNC) Automated Control Solution to Especialidades Termicas SA de CV (ETSA Group)

Super Systems Inc. (SSI) and Sistemas Superiores Integrales (SSI Mexico) recently implemented a nitriding/ferritic nitrocarburizing (FNC) automated control solution for Especialidades Termicas SA de CV (ETSA Group), an internationally recognized leader in the metal treating business serving customers in Mexico since 1979.

The nitriding/FNC 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, 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 added 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, SSI Mexico and ETSA Group are working on a number of controls projects and software upgrades to provide continuous process control in atmosphere, vacuum, nitriding & temper furnaces and allowing for complete traceability to process parameters using the SuperDATA data acquisition system.

For more information on ETSA Group’s capabilities, please visit:
- [https://www.facebook.com/EspecialidadesTermicas](https://www.facebook.com/EspecialidadesTermicas) on Facebook;
- [https://twitter.com/ETSA](https://twitter.com/ETSA) to follow them on Twitter; or
- [https://www.youtube.com/user/ETSAsadecv](https://www.youtube.com/user/ETSAsadecv) to view their YouTube videos.

Super Systems Inc., based in Cincinnati, Ohio, has been developing and manufacturing products for the thermal processing industry since 1995. SSI’s products include probes, analyzers, controllers, software solutions and engineered systems. With over 100 years of combined experience, SSI continues to satisfy industry demands with innovative technology, enabling customers to be more efficient and to produce higher quality products. For more information on SSI’s capabilities, visit [www.supersystems.com](http://www.supersystems.com) (USA) or [www.supersystems.com.mx](http://www.supersystems.com.mx) (Mexico).