Smart Crane Control Solutions for the Steel Industry

Make the most of your energy™

Schneider Electric™
Making all of this possible are the automation systems that combine engineering, operational and process experience to control the high-tech iron and steel making process that produces high quality products at effective production costs. The use of automation enables the consistency and quality required by industries, such as automotive and construction that consume the majority of steel output.

Tracking and storing each individual coil of steel throughout its lifecycle is a critical step in ensuring the quality of the product, as well as avoiding potential liability for its misuse. Schneider Electric offers a sophisticated Crane Control Solution that, when used in concert with warehouse management and positioning software, tracks the position and location of each unit of steel, without a bar code or RFID tag.

This solution has been proven to improve performance and decrease cost by:

- Delivering complete material traceability and inventory visibility
- Eliminating the inefficiencies and errors of RFID and barcodes systems with wireless positioning technologies
- Decreasing waste due to damage done during handling
- Minimizing risk by controlling sway and skew issues associated with fast operation
- Reducing equipment stress
- Improving safety for employees and sub-contractors
- Decreasing operation, maintenance and repair requirements

Steel is one of the most vital materials in the world. It is an essential building block of our modern society and forms the foundation for roads, buildings, ships, cars and countless other everyday items.
Distinguishing our Crane Control Solution apart from conventional technologies is the combination of features available only from Schneider Electric. This starts with our best-in-class power, control and automation system and integrated data collection and analysis tools. Bringing all of this together in a seamless solution is our global project management and services organization.

At the heart of the Schneider Electric Crane Control Solution is a Schneider Electric Magelis® industrial PC (iPC). The Magelis iPC incorporates the latest PC technologies and runs the warehouse management system and positioning software. Running both programs, the Magelis iPC brings the application to life with a crystal clear 3-D display of the working area, similar to a GPS screen. It then allows operators to switch between viewing warehouse management software data, maintenance information and operating performance of the crane quickly and easily.

Managing the communications between the operator, cranes, other equipment and the other software systems is the Modicon® M340™ programmable automation controller (PAC) which offers exceptional performance, high availability and optimal response times. It monitors, tracks and controls the movement of every piece of steel to ensure proper handling throughout the entire lifecycle. Additionally the Modicon M340 PAC has built-in our specialty anti-sway/skew algorithms for maximum crane performance.

Adding to the capabilities of the solution is Schneider Electric’s sophisticated Vijeo® Citect® supervisory system that collects data directly through the system. Vijeo Citect provides monitoring, proactive alerts and key performance indicators (KPIs) for the entire system.
All connectivity is performed by secure wireless Ethernet. Ethernet allows all of the components of the solution to communicate freely with one another. In addition, maintenance personnel can remotely access the system in real time via a Web browser to view maintenance and fault data and to perform troubleshooting.

Designed, tested and proven to work together seamlessly, the Schneider Electric Crane Control System directs crane operators, which piece of steel to pick up, when to pick it up and where to place it. It also control security and compliance by managing user access and requiring users to complete an OSHA safety check before they’re able to operate the crane.

Look What Schneider Electric Can Do for You

In addition to the crane control solution, Schneider Electric provides solutions for power management, building automation, safety and security, and energy management. This includes the broadest portfolio of products and solutions to help you:

- Minimize your energy consumption
- Improve the quality of your energy
- Maximize plant and production efficiency
- Support production and business decisions
- Improve production quality
- Protect people, plant assets and the environment
- Reduce engineering, operations and maintenance costs

To get started and learn more about what Schneider Electric can do for you, request more information about any or all of the following services from your sales representative or distributor:

- **Energy Action Plan** – The main project deliverable of our energy services is an Energy Action Plan report that takes a practical look at energy use, efficiency, environmental impact and the potential savings at your facility.

- **Automation and Control Life Plan** – This tool is designed to provide a structure and framework for making decisions about your installed automation equipment that meets your short- and long-term business priorities.

- **Maintenance and Modernization Consultancy** – A complete audit and analysis of your existing automation equipment, processes and support by a Schneider Electric trained professional can give you the actionable roadmap you need to reduce risk, improve system performance and improve your competitiveness.