

Avtron Drive Systems Improve Steel Mill Performance

Avtron Industrial Automation is a Cleveland, Ohio, based manufacturer of high-performance digital drive systems, heavy mill-duty encoders, and high-speed diagnostic systems optimized for heavy industry.

Avtron's solutions for the metals industry include: electric AC and DC drives systems, motor-generator set controllers, heavy mill-duty rated encoders/tachometers, resistors, and diagnostic monitors. Avtron's drive solutions and encoders have improved the productivity of skip hoists, rolling mills, and process lines throughout the world. Avtron's drives and encoders are the most durable in the industry. Avtron, true to its roots supplying the aerospace industry, which requires support cycles of up to 40 years, supports its equipment longer than any other drive vendor.

Founded in 1953, Avtron has more than 400 dedicated employees working to provide superior products and services to maximize mill performance with electrical control systems, feedback and monitoring systems. Avtron has built its business by providing the most reliable equipment in the business.

Capabilities and Support

Avtron's capabilities range from a single drive application to complete turnkey installation and system start-ups.

Avtron provides in-house design engineering, software development, manufacturing, and project management. You can trust the Avtron team, certified to ISO 9001, to work with you from concept to completion to meet your specific project objectives. Experienced project managers ensure the successful implementation of your project on time and on budget. In addition, Avtron project management will make sure integration testing is coordinated and installation and supervision personnel are familiar with the system in order to reduce the time needed for start-up. We incorporate state-of-the-art technology to provide a cost-effective system that delivers performance in every system.

Rolling Mills and Processing Lines

Providing reliable control systems for the steel industry is a core business of the Avtron metals team. Avtron supplies electrical drives, controls, and process automation equipment for greater productivity and improved quality of the finished product on single-stand reversing to multi-stand continuous tandem rolling mills. In close cooperation with mill builders, Avtron developed and supplied the largest DC revamp rolling mills in the industry. That is the advantage of our many decades of experience in rolling mills as the manufacturer and systems integrator of Westinghouse metals industry drives.

For the treating and conditioning of cold rolled aluminum and flat steel products, including pickling, annealing, skinpassing, galvanizing and color coating, Avtron has the technological process that is stable enough to guarantee best results.

Such demands on the finished product can be met only with high-performance drives and process control equipment. Avtron's advanced control and the latest technology enable operators to supervise the complex process control of a continuous inline operation. Avtron has helped to engineer and build this type of strip processing line for several years.

Drives Systems

Avtron is a pioneer in electrical control from the early days of the jet age to the present. Not only do we design and manufacture our own drives from fractional kW and MW sizes, we also understand the effects that motors and driven equipment have on each other. Avtron provides superior product quality and systems of unparalleled reliability with the engineering capacity to design the system best suited to any application.

With downtime a major concern, the cost in lost production can easily dwarf the cost of the control system upgrade. Avtron's Digital Front End (DFE) controller provides distributed control functionality, so you can upgrade all or part of your drive system as it fits your schedule — and your budget. By upgrading your mill in sections, Avtron can typically complete the upgrade in a few hours of regularly scheduled maintenance downtime.

In many cases, the lowest-cost upgrade strategy for a drive system is to avoid expensive machine downtime and reuse major components that are still viable, such as motors, SCRs and power transformers. These expensive "muscle" components are given new life as part of a new, high-performance digital drive system. The Avtron DFE and Advanced Motor-Generator Set Controller (AMG) provide both low-cost and enhanced performance, while delivering process performance improvements worthy of a complete new drive system!

Avtron has extensive experience upgrading M-G sets. We have provided digital solutions to motor and generator field power supplies up to 510 amps DC. The forcing algorithms in our regulator allow performance close to static drives. For series and parallel M-G set applications, we've supplied automatic load sharing and other advanced controls.

World-Class Service

Powerful diagnostic tools such as PV Performance View are standard in our process control systems. In situations that require the manufacturer's experts to intervene, the built-in remote log-in feature connects our engineering and service centers via modem or VPN to your installation, making our concentrated resources available to your staff. Our service teams can provide valuable assistance with commissioning, training, preventive maintenance and other key operations.

Count on Avtron for highly knowledgeable and responsive service personnel. We provide expert service on all your system's products and components 24-7 to keep your process running at maximum efficiency.

Efficient spare parts logistics and field support are vital concerns for many businesses today. To meet our customers' needs, we maintain an extensive parts warehouse strategically located near the Cleveland airport. Many products and components are also available at our extensive network of distributors.

If on-site service is required, our technical coordinators quickly dispatch field service engineers and parts as required from the nearest location.

In addition, Avtron maintains a 24-7 toll-free emergency hotline. Often, technical problems can be quickly resolved over the phone.

For more information about Avtron Industrial Automation Inc. and our metals capabilities, visit www.avtron.com/metals.htm, or contact Avtron at 7900 E. Pleasant Valley Road, Independence, OH 44131, (216) 642-1230, metals@avtron.com.