

Strong Structural Steel, Ltd.

Solving Extreme Manufacturing Challenges with Ruggedized Ethernet Extenders

Key Benefits

- Major reduction in workplace danger/accidents
- Smart LAN gear leveraging Extended Ethernet for live production control
- Tripling of production and plant growth as a result

Meeting Evolving Production Demand and Growing Business Needs

Steel foundry operations are one of the most challenging environments for any piece of equipment. Challenges such as extreme heat, micro pollutants and distances to reach monitoring and control equipment are spread out across a huge production line with lots of very dangerous hazards everywhere.

Strong Structural Steel Ltd tested and then leveraged the technology of Enable-IT Ethernet Extenders to meet and beat these challenges head-on. Extender kits were ruggedized and encased in NEMA/IP rated enclosures in the key production control areas and on the production floor where flexible category rated cabling was able reach the necessary LAN based monitoring and control interfaces. Prior to using the Enable-IT Ethernet Extension equipment, this was not possible and required brave individuals to regularly venture out to each location to manually operate and collect information. Now it is enabled and automated to keep workers safe, better monitor the live production line and grow the operations to meet business demand without a major increase in labor costs.

Improving Performance on the Factory Floor

With the use of LAN based digital control equipment, more precise handling of live production operations can be monitored, controlled and augmented more quickly. Previously this level of production control was not available without manual operators at each of the controls requiring longer time to make adjustments not to mention the dangerous environment of a foundry floor. The Enable-IT Ethernet Extension equipment has allowed this to be automated in such a fashion so that workers safety is not compromised and the LAN equipment making the adjustments never grows tired of the repetition or makes mistakes. Overall production has been able to triple and plant growth is able to more easily flex to meet changing output demands.

Strong Structural Steel, Ltd. (Continued)

Reducing Production Downtime

Equipment maintenance on a foundry production floor is critical to overall uptime of production operations. Foundry production has thousands of moving parts, cranes and other heavy-duty mechanical equipment that requires constant monitoring and maintenance. The monitoring chores were performed by visual inspection and manual re-tooling adjustments. Downtime for unforeseen repairs costs the business dearly, so the implementation of new LAN based smart monitoring sensors and re-tooling adjustments is able to more rapidly alert control staff as to potential issues, fix minor problems before they grow into larger more costly breakdowns.

Creating New Value with a High-Performance Extended LAN Solution

The Ethernet Extension equipment has provided the company with a new perspective on how to leverage digital technology to control, manage and profit from this age old foundry business.

Solutions Used

- Enable-IT 860 LRE Kit - 100Mbps Full Duplex Ethernet Extender Kit up to 6,000 feet
- Enable-IT 820 LRE & PoE Kit - Unpowered Ethernet and PoE up to 900 feet – used for unpowered remote controls