

Success Story Reliable Roll Form Controls is the Secret to Success

United Steel Technology (Steeltech) International Corporation was dealing with low efficiency when it came to the running of their roll forming lines. Scrap was high, and there were too many instances of wrong coil usage. Quality was also an issue and their current controllers made it difficult to maintain any kind of length control. In addition, Steeltech was experiencing what appeared to be a suspicious number of illegal productions.



Following the installation of AMS Controls' XL200 series controller and Eclipse Production Management Software, Steeltech began to experience the benefits of integrated manufacturing: higher efficiencies and more accurate length controls, centralized order entry and scheduling, ERP integration, coil validation and much more. According to Steeltech, AMS Controls has helped Steeltech to step out of the stone age to embrace the automatic manufacturing environment of Industry 4.0.



Uses 166 controllers in 13 plants throughout the Philippines



Increased capacity by at least 30%



Reduced wrong coil errors



Eliminated illegal productions and cut waste of raw materials What we faced in the past: a lot of wasted raw materials, illegal productions happening undetected, inefficient running of the machines. If we could have done it earlier ... suffice to say I am happy now that we are able to get where we are today because of AMS Controls. Going with AMS Controls is one of our best business decisions to date.

> Chris Ong President United Steel Technology



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Who is Steeltech

United Steel Technology (Steeltech) International Corporation was established in 2009 to provide quality steel building materials to the Philippines. This privately owned roll forming company with 13 plants throughout the Philippines produces pre-painted galvanized steel roofing and has its own continuous coating line. Steeltech provides quality products designed to suit the ever-changing weather conditions in the Philippines for their residential, commercial and industrial customers.

Situation

Steeltech was looking for a more reliable replacement for their existing controls. They wanted controls that could help them increase production, improve efficiency, reduce errors and also prevent illegal production of materials. With their existing controls, Steeltech could not specify and produce sheet length with any level of accuracy, leading to a lot of wasted time and material. In addition Steeltech was experiencing a lot of wrong coil usage, and had concerns of illegal productions, all which resulted in higher cost and lower margins.

Steeltech stumbled upon AMS Controls on the web and learned about the XL200 series controller, which is known for being able to handle length control for roll formed products, from overall part length to punching operations. Steeltech was also intrigued by Eclipse Production Management Software and its ability to eliminate manual entry at the controller, improve efficiency and integrate with Steeltech's ERP system.

AMS Controls Solution Improves Steeltech Efficiency

AMS Controls installed XL200 series controllers and replaced the necessary encoders to ensure accurate measurement of Steeltech's production activities. Steeltech also installed Eclipse to centralize all order entry functions to their main office and away from the plant floor. After the installation, Steeltech experienced significant improvement in the following areas:

Production Accuracy & Automation

Going from having to measure each piece produced and manually manipulating parameters on the controller multiple times while running one job, Steeltech now depends on the controller to produce the correct length requested every time, without the worry of incorrect length. By integrating SAP with Eclipse, Steeltech further improved operator efficiency and eliminated the need for any manual entry at the plant level.

Coil Validation and Material Accuracy

Steeltech took full advantage of the XL200 coil validation feature to ensure the right coils are used for every order.

Steeltech President Chris Ong said, "Wrong coils are now being detected much earlier. The AMS Controls system and our in-house system work together to minimize the potential damages which is typically caused by simple human error. Our material handlers are now aware that the right coils must be used because the system simply will not accept the wrong coil, and the operator has to do the extra work of returning the wrong coil and getting the correct one. He has every incentive to execute his work right every time."

Production Control and Oversight

With the centralization of order entry to the main office, Steeltech has added a strong layer of security to prevent any illegal production. Steeltech has customized the system to limit the ability to manual jog and perform a shear on the machine. Ong said, "AMS Controls has covered a lot of things. Suffice it to say, I believe it has deterred individuals who may want to conduct in illegal activities. We have limited what they can do."

Outcome

According to Ong, AMS Controls has brought Steeltech out of the stone age and helped them take the first steps towards the automated manufacturing environment of Industry 4.0.

Ong said, "Due to the superior AMS Controls system that accurately measures the length of each sheet, we may have increased productivity by at least 50%. The time we spend completing an order has significantly gone down. We do a lot more each day. Our operators can jump back and forth from one machine to another machine, and still finish what has to be done. Each machine has increased capacity by at least 30%. We can even increase it further; we just don't want to run the machine any faster."

Steeltech currently uses 166 controllers from AMS Controls to automate their operations. Steeltech has also integrated their roll forming operations with their ERP using Eclipse Production Management Software. This seamless integration gives Steeltech more control over their day-to-day roll forming operations with centralized order entry and scheduling.



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