



FICEP
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FICEP Takes Automation of the Sawing of Structural Steel to a Higher Level



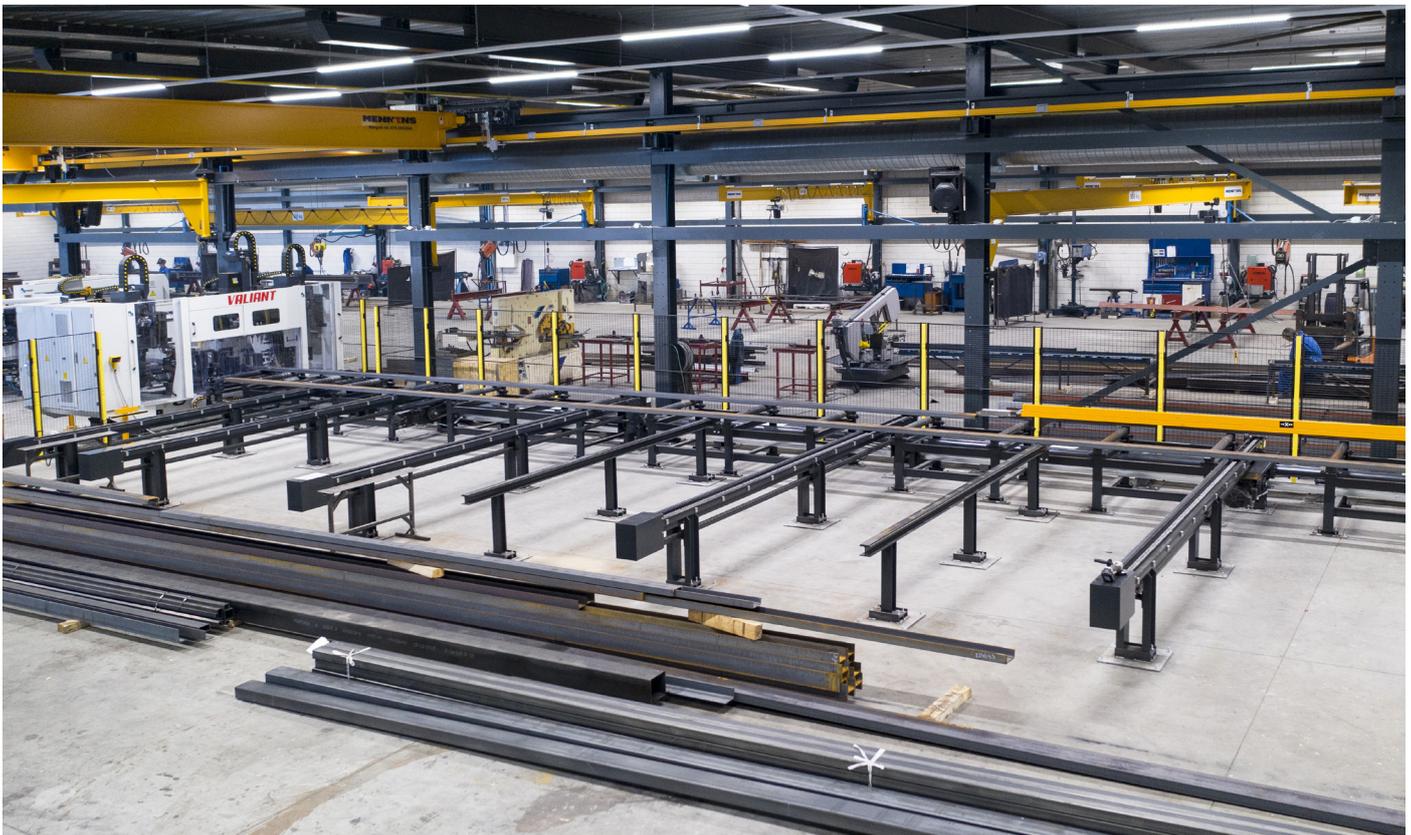
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FICEP, the historical innovator in the automation of structural steel and plate fabrication, has once again pushed the productivity of the sawing process to a new level. Traditionally the industry viewed the integration of material handling and measuring the required cut length as the ultimate in structural steel automation.



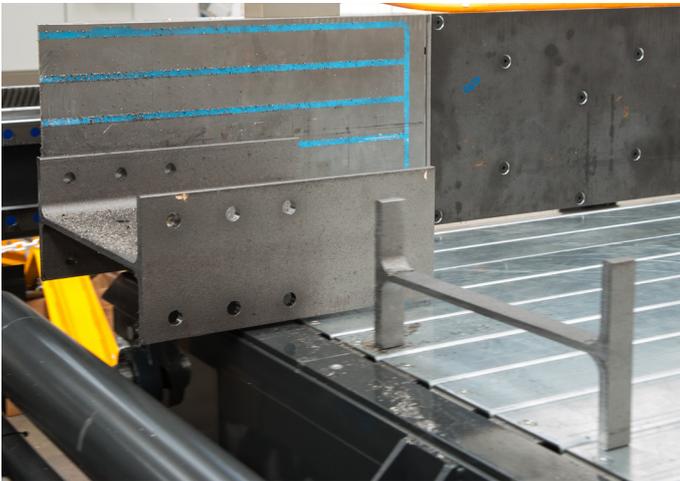
The typical required cut length of structural steel sections has been viewed ranging from 3-18 meters in commercial and industrial projects.

In view of this range of final cut to length requirements, the material handling systems were designed to address this specific range of cut lengths.



Even with today's powerful software and programs to nest the required lengths into existing or standard stock lengths, there are four different scenarios that traditionally were not addressed with material handling systems as described above:

1. Removal of the trim cut that is generated as the first cut in the nest;

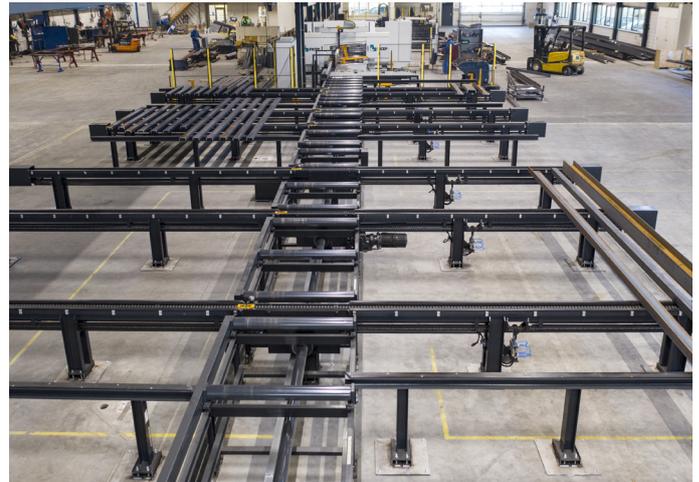


2. Removal of the drop or scrap from the saw system;

3. Automating the removal of short parts ranging general up to one meter in length;



4. Automate the handling of material that is to be returned to stock for future use that is less than the minimum length that can be processed with the typical material handling system.



Time study data has confirmed that the manual manipulation and removal of the trim cut and drops can take longer than the actual sawing process.



FICEP is the First to Automate the Above Four Scenarios

Integrated into the automatic sawing cycle with the related material handling operation, FICEP developed an innovative solution to address these four situations, most of which are required when processing each stock length.

Integrated into the FICEP saws, which are specifically designed to process structural steel, is a magnetic back fence or datum.

This magnetic back fence can remove these short cuts as the magnet is positioned along the length axis as a CNC controlled axis and driven into position with a rack and pinion drive.

This magnetic system can position these short parts without ramification of the exit conveyor roller center-to-center distance.

Once the short length (trim cut, scrap, short parts or remnant) is removed from the saw cutting area it is placed on a traverse conveyor that runs perpendicular to the saw exit conveyor in a completely automated fashion without operator intervention.

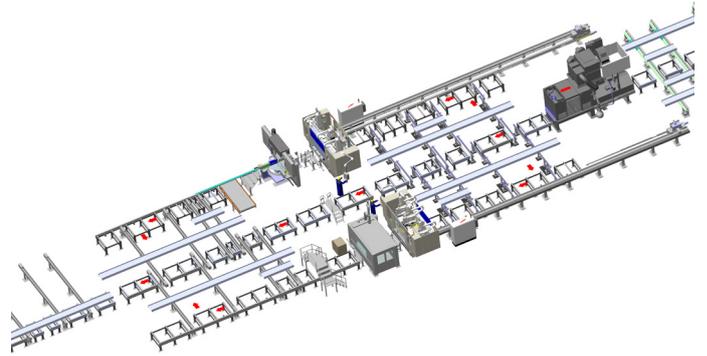
Without the automatic removal of such short lengths such as the trim cut and drop, the automatic process stops until the operator manually addresses the removal of these elements by crane.



This innovative level of automation to the sawing of structural steel was first introduced to the market by FICEP in 2010.

It was awarded a design patent as it represented another industry first and to protect the uniqueness of the design.

FICEP....Always the First to Drive Innovation for the Fabricator!



Automatic system layout: shotblasting machine and VALIANT CNC drilling line combined with KATANA band sawing line with integrated magnet and short pieces unloading device