GANG-NAIL GUIDELINES No.110

ANOTHER MITEK ADVANTAGE

FLEXIBILITY OF LINEAR FEED SAWS - PART 1

In GN Guidelines No. 85 I discussed the added freedom that single-blade linear feed saws provide in moving from batch production to flow production.

By utilizing the flexibility of such a saw, truss members can be produced 'truss-by-truss' in a continuous production environment.

In the context of that article 'flexibility' implied the ability to cut (almost) any truss member, even mitred members, in a sequence that reduced or eliminated labour-intensive sorting of members downstream of the saw, opening up the possibility of automated materials handling direct to the jigs.

Whilst this level of automation is a worthy goal, it is not presently employed in the majority of truss plants.

The good news is that there are many other advantages, apart from flexibility, provided by linear feed saws that make them appealing to small and large truss fabricators alike.

SAFETY

The cutting area is normally fully enclosed and interlocked, eliminating the possibility of a cutting injury.

In comparison with a pull saw operator, the automated saw operator is at reduced risk of repetition related back and shoulder injuries. Integrated in-feed and out-feed systems can further reduce the potential for materials handling injuries.

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FOOTPRINT

The factory space consumed by any equipment is of prime concern to factory managers.

In most cases there are several combinations of infeed and outfeed arrangements for a linear saw, making them easier than a multi-blade component cutter to integrate in to a new or existing plant layout.

AUTOMATION

The machine operator need only ensure that picked stock is ready at the infeed conveyor buffer to ensure that the machine is working at maximum pace for the job at hand.

In this respect tracking inefficiencies at the cutting station is made easier than at a manual workstation.

Stacked cutting - Stacking 2, 3 or 4 stock lengths together so that multiple identical pieces are cut at one time is a powerful feature of some linear saws. Stacked cutting is not unique to linear feed saws, but for pull saws and pop-up saws the saw geometry and safety issues often prevent regularly stacking timber to increase productivity.

Optimisation & shared cuts (negative waste cutting) - Again these are not unique to this saw type, but optimising multiple components to one stock board, and sharing cuts on sequenced members to reduce waste are one of the things that linear feed saws do best.

Inkjet marking - They provide large clear text for truss member identification.

Naturally some of these attributes are less measurable than others, but one that is measurable, and the most important requirement for any saw, is an acceptable return on investment in terms of cutting output, normally measured in 'parts per hour' or 'parts per shift'.

How does a saw owner, or potential owner, decide on what the acceptable part-rate is for a particular model linear saw in his/her unique circumstances, and how can the flexibility of linear saws be harnessed to maximise that output?

This will be subject of part 2 of *"Flexibility of Linear Feed Saws"*. TTN