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# forest

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# CASE

CONSTRUCTION

# Handling difficult butts

*Glennon Brothers in Ireland contacted Holtec needing a powerful bar sorting system within four months*



*Part of the successful Holtec installation*

*Large, flared butts are being successfully negotiated at the Fermoy plant*

The logs that Holtec's engineers inspected at Glennon's Fermoy site were fairly unique. The damp, mild climate was well suited to the trees and as such the trunks had grown very quickly, which doesn't just lead to a larger amount of growth, but also to over-average butt length. Around the butt area, which is shaped like the horn of a trumpet, the ends of the logs can reach diameters of over 90 cm.

Such logs make the design and manufacture of a sorting system difficult. An additional feature of the task was that the existing plant – which for the most part had to be replaced – had to continue working for as long as possible, while the new components were installed simultaneously. At the same time, the new feeding system and the new debarker had to be integrated into the design. The reason being, all efficient components of Glennon's plant were to be maintained. "The challenge was to find a way of installing a maximum portion of the new plant around the existing mechanics, without in any way disturbing the continued work of the old system. We understand that every day of machine down time costs our customers money", said Holtec General Manager, Alexander Gebele.

Holtec selected a design where the plant components could be installed in units where the

modules were as large as possible. This meant that the sorting conveyor could already be pre-assembled at Holtec's factory and could then be set up and cabled in just a few days, next to the existing plant. Building activities on Glennon's site were

and top end. Individual sorting and allocating is done by means of a dual-function step feeder. Afterwards, the bars in the first longitudinal conveyor are fed through a 2D measurer and are pre-measured. Based on the results of this measurement, the

separated on the shortest possible line. The log length spectrum is between 3 m and 6.7 m. The sorting performance of the plant is approximately 1,200 m<sup>3</sup> of logs in eight hours.

An "economical and elegant solution" was even found for the peculiar trumpet-shaped ends, according to Gebele. "The entire plant technology had to be adapted to these logs, and in doing so, the reduction of the butt had to be given particular attention. For this purpose, two pre-existing butt reducers were modified and adapted to the large butt growths.

"However, the really special thing about Glennon's new log yard is the newly-developed custom-made butt reducer, which was especially designed to cope with extremely thick butt. The new machine, developed by Baljer & Zembrod is the first of its kind to be able to reduce logs with diameters of up to 80 cm along their entire lengths, the maximum possible size for the saw kerf."

Glennon said that the new option of processing such big logs was "more than worthwhile". They are able to process logs that in the past would not have been possible to saw or to market, and cut them into bars to create greater value – a technical concept that due to its profitability, could well establish itself at other sawmills in the future. **F**



**We understand that every day of machine down time costs our customers money – Alexander Gebele**



thereby reduced considerably. Also, the complete bar pre-measurement and butt reducing system was installed as a pre-assembled unit, while the old plant's sorting operations continued to run.

Finally, the redundant components from the old plant were de-installed during a production-stop of just 10 days, and the missing components were installed into the 'space' left behind. At the same time, the existing feeding system was modified so that it fitted in to the new overall concept.

The logs are now fed into Glennon's saw line in a completely different way. All bars are fed into the plant unsorted by small end

logs are either fed via an additional step feeder directly to the debarker, or, depending on log position and butt, transported to one of the two butt reducers by means of accumulating steps. Each reducer has four storage areas with integrated aligning rollerway positioned ahead, so that a flowing process is ensured.

Both the reduced and unreduced bars are then reciprocally fed by a newly-designed allocator to the debarking line. A V-roller conveyor transports the bars to the debarker, optimised both in terms of speed and gap size.

The bars are graded on a 145 m sorting conveyor with inner and outer boxes. This enables 70 different grading classes to be