A GENERAL GROWING NEED ON THE GLOBAL MARKET FOR THE COMPACT, LARGE VOLUME AUTOMATED PLANTS TO BE COMPETITIVE AND DUE TO GOVERNMENTAL REGULATIONS AS WELL AS LABOUR COSTS

Several IWT-Moldrup treatment plants have been installed in Europe for 100,000 m3 scots pine/200,000 m3 radiata pine annual production, e.g. Sweden, France, Portugal, where the cycle time is 2 hours for scots pine and 1 hour for radiata pine

No fully automated, large volume plants have been supplied in New Zealand/Australia so far.

FIRST STEP - IWT-MOLDRUP COMPACT SEMI-AUTOMATIC PLANTS

IWT-Moldrup has in the past recent years supplied a number of semi-automatic plants in Australia for 30,000 m3/year, where some of the plants are delivered ready to be expanded for fully automatic material handling at a later time, as the treaters have wanted not to go the fully automated material handling way from the beginning.

Instead they chose to start with one step going from traditional simple fork-lift operated material handling to semi-automatic operation where a fork-lift is needed only for a part of the material handling before moving the fully automated way, where no fork-lift handling is needed at all in the material handling at the treatment plant.

In Europe the high volume plants are part of a consolidation of the treating industry. In the forest rich country, Sweden, as an example, the number of treating plants has gone from 150 small/medium-size plant to 60 medium-size/big-size plants in a few years. Wood treating is also moving from being more a niche product from specialized treating companies to being an integrated part of standard production at larger sawmills everywhere in Europe.

Shortage of available labour resources/cost of labour in Europe also pushes towards fully automated plants with limited human intervention. Earlier on smaller medium-size plants, 12 - 15 operators were needed on plant in Europe to reach the equivalent of 200,000 m3 year. Now with the fully automated plants just one person is needed for a 200,000 m3 annual production.

Over the past 10 years, the automation of treating plants has developed in Europe from semi-automatic solutions to fully automated solutions where wood is being fed into the one end of the system, and finish treated ready-to-ship product is taken out at the other end.

IWT-MOLDRUP COMPACT HAS THE SMALLEST FOOT-PRINT ON THE MARKET AND SOLVED THE CHALLENGE WITH THE REGULATIONS OF THE WORKERS SAFETY

The fully automated plants can have a much reduced foot-print compred to smaller manual or semi-automatic plants. This is important in countries where the building cost is an important factor in the total investment in a new treating plant.

In Scandinavia the snow-load on the roof of a building makes it rather expensive per m2 and it is important to reduce the surface to lower the total investment costs. The plant on the photo has a capacity of 166 m3 per m2 of building compared to a semi-automatic plant where the capacity is often as low as 40 m3/year per m2 of building.

In Europe increasing work-safety regulation makes it attractive for the treating companies to reduce contact between workers and preservative chemicals. Both by reducing the number of workers necessary to produce 1 m3 of wood and by having the automated material handling where only the equipment and no humans have contact with the preservative, preservative concentrate and the freshly treated wood, new regulation is being met in a cost-efficient way.