BM&M
SCREENING SOLUTIONS

Higher Capacities Shouldn't Result in Good Wood Fiber Loss

Innovating wood fiber screening to keep up with capacity increases without sacrificing performance and efficiency

Problem:

The development of new and revamped sawmilling lines using advanced saw blade and profiling technologies allows higher log feeding speeds that create larger volumes of wood chips with greater percentages of fines in the bi-product handling system.

Good pulp material in a fines bunker in a Scandinavian sawmill.

Current Situation:

Current industry-wide screening technology did not innovate to address the higher volumes of fines. Instead of designing larger and more efficient screening machines, manufacturers of screening equipment forced sawmills to enlarge their screen apertures to keep a good, sellable pulp chip independent of and regardless to the losses being created in their screening machines' fines fraction.

To get the wood chips in spec, producers would open up the bottom fines deck from 8mm up to 10 or even 13mm to achieve less fines in the accepts but resulted in more acceptable material slipping into the fines bunker.

A modern BM&M Counterflow Chip Screen used in a wood chip screening application.

Solution:

The BM&M brand offers technology with higher speeds and larger machine sizes to accommodate today's modern saws and profiling lines. First, higher speeds in a true gyratory motion induce more energy into the screen, thus keeping the necessary smaller hole

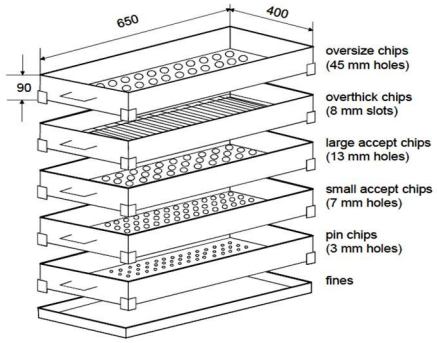
sizes from plugging. Secondarily, due to the balanced design of BM&M machines, brand engineers are able to design larger screening decks capable of handling the larger volumes generated by modern saw lines. The combination of larger single machines capable of maintaining pulp chip quality without sacrificing screening efficiency provides the right tool to satisfy the current industry's needs.

Tools:

For an efficient screening solution, the screen sizes must be selected based on the fines content of the infeed material. Utilizing BM&M's Chip Classifier, which mimics the same gyratory motion of production machines, engineers are able to lab test customers' material to determine the optimal stroke length, speed, screen area, and screen sizes to maximize good wood fiber recovery.

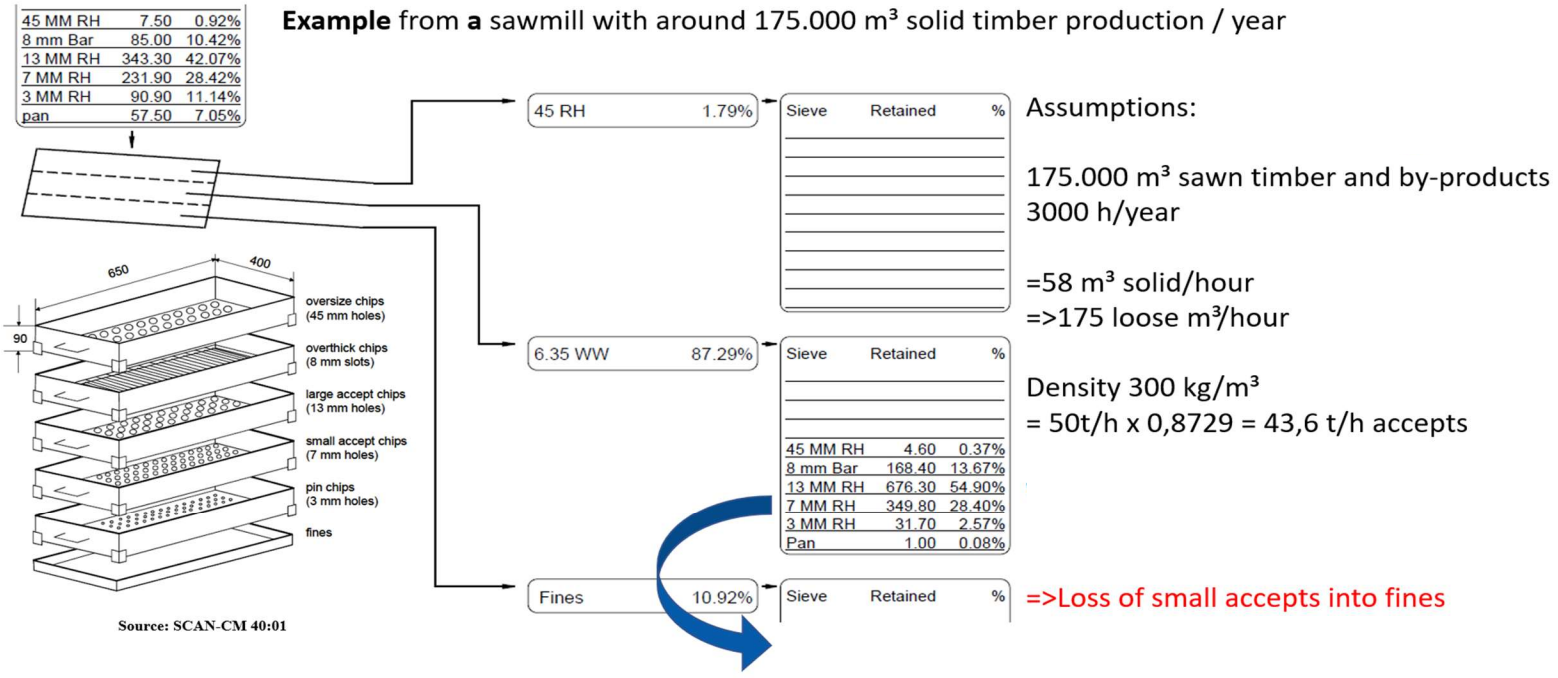
Typically, 6.35mm woven wire mesh is used to achieve the best results according to material loss. According to the SCAN Norm, larger holes mean users are wasting a fraction of small accepts, like shown in the figure below.

BM&M Chip Classifier using SCAN standard trays.



Classification of accepts according to SCAN (Source, Scandinavian Pulp, Paper and Board Testing Committee).

Summary:



Conclusion:

By tailoring screen sizes in accordance with customers' specific wood fiber composition, followed by determining the right stroke length, speed, screen area and degree of incline, brand engineers are able to provide the optimal screening solution to meet today's customers' residual wood fiber composition, resulting maximum recovery of saleable product.

BM&M CS Model, a high-speed gyratory screener designed for maximum efficiency and recovery of clean and acceptable product for the most demanding high-volume applications.

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