

How MDF is made



Forests: The Nelson region of New Zealand has 175,000 hectares of plantation forests, primarily radiata pine. 100% of our raw material comes from these plantation forests. We own 3,500 hectares of forests ourselves, and buy the remainder of our needs from other forest owners. New Zealand's exotic Radiata pine forests provide a quality of fibre uniquely suited to the production of Medium Density Fibreboard. Logs arrive on site from the forests and leave as a range of MDF products tailored to market needs worldwide.



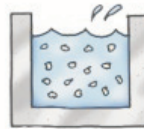
Log Yard: Pulp and veneer logs are delivered to our log yard for both the MDF and LVL processes. We receive close to one million m3 of logs per year, which is an average of 170 log trucks per day. Equipment supplier: Fulghum.



Debarking & chipping: Logs are unloaded from trucks to be processed at the chipmill. Two rotary cranes and a 27 metre drum debarker handle more than 300 tonnes of logs per hour. Equipment supplier: Fulgham



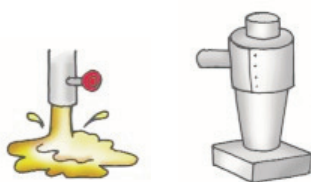
Pre heating and Refiner: Woodchips are heated with steam and separated into individual cellulose fibres using a disc refiner. Equipment supplier: Sands/Metso



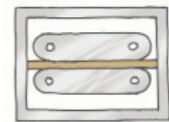
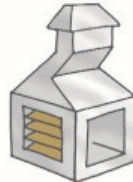
Chip Wash: Woodchips are washing to remove stones and sand.



Chip pile: The wood chips are stockpiled before being washed.



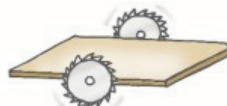
Wax and Resin Added: After refining, resin and wax are mixed with the fibres in a steam blow line that conveys the fibre to the cyclone drier. Equipment supplier: Sands/Metso



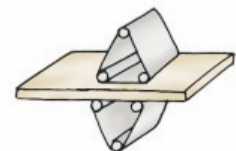
Mat Forming, Pre-Press and Pressing: The dried fibres are formed into mats and processed through presses. The use of continuous press technology, pioneered by Nelson Pine Industries in the Southern Hemisphere has been a key factor in securing the high reputation and dominant market position of the GoldenEdge product. Equipment supplier: Sands, Metso, Dieffenbacher, Kusters



Packed: GoldenEdge MDF is packed in sizes of packs approximately 900mm high. Packs are transported to the Port of Nelson for shipment to international customers or by truck to New Zealand customers. Equipment supplier: Anthon.



Sawing: From the sander the board moves to the Anthon cut to size saw, then two large robots transfer the made up packs to the strapping line. The new finishing line puts NPIL a step ahead in the growing market demand for harder surfaced, high quality MDF. Equipment supplier: Anthon.



Sanding: Staying at the forefront of technology continues to be part of the company ethos, and in 2008 there was a significant investment to upgrade the finishing line, where the board is sanded and packed. The new Steinemann sander has 14 heads, comprising six calibrating heads, six finishing heads and two super finishing brushes, with sanding at rates up to 150 metres per minute. Because the extra heads allow a gradual reduction in grit coarseness the finish of the sanded MDF sets a new standard internationally. Equipment supplier: Steinemann.