

PROCESSING GREEN WOOD FOR BIOFUELS

Schutte Hammermill, Quality Since 1928



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Fact: Green wood can have a moisture content of over 50%

Challenges

This fact poses two specific challenges when the goal is to process green wood for biofuel feedstock:

1. Size Reduction

Most biofuels require a consistent finished particle size of 1/8" (3mm) or smaller. However, a moisture content of less than 15% is necessary for a hammer mill to grind wood to that required size. Model 15300 Hammer Mill Pre-grinding Green Wood

2. Moisture Content

Furthermore, a moisture content of less than 10% required for producing end products such as pellets and briquettes.

Solution

The solution is a three-pronged approach:

Step One: Pre-Grind

The wood is ground in a hammer mill that is outfitted with larger 1" (25mm) hammers and a larger 1" (25mm), or 3/4" (19mm) screen. The result is a nominal 1/2" (12mm) finished particle size, a size which is found to promote greater drier efficiency.

Step Two: Drier

The wood is fed into drier that reduces the moisture content from greater than 50% to less than or equal to 10%.

Step Three: Finish Grind

The dried wood is ground into a second hammer mill, outfitted with thinner hammers and a finer screen. The result is a consistent finished particle size of 1/8" (3mm) or finer.



Model 15300 Hammer Mill Pre-grinding Green Wood