

Thermo Mechanical Pulping Refiner



The Thermo Mechanical Pulping (TMP) Refiner has been traditionally used for making mechanical pulp for newsprint and magazine paper grades. It can also be used for size reduction of any biomass. Similar equipment is used for generating nanocellulose.

Size reduction of biomass is frequently required for extraction. Smaller sized particles allow for faster and more complete extraction of targeted components. Smaller biomass particles also generate more surface area per unit of mass, and the greater specific surface area can be very important. Nanocellulose is an example of this. The greater specific surface area of nanocellulose gives greater bonding strength to formed mats, and can be used to improve the strength of paper, coatings and plastics.

The TMP refiner was donated to the Process Development Center by an industrial collaborator. It has been moved from the Jenness Hall Pilot Plant to TRC to allow for biomass size reduction for projects, and to make room for the new nanocellulose processing equipment.



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