इलेक्ट्रॉनिकी एवं
सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF
ELECTRONICS AND
INFORMATION TECHNOLOGY

SAMEER

Tec-Verse 2026
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Microwave Bamboo Processing System -VRIKSHA



A microwave bamboo processing system generally refers to the use of microwave technology for various applications in treating or processing bamboo

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Microwave Bamboo Processing System -VRIKSHA

in collaboration with IWST

FEATURES

- Bending/ Straightening / Drying of green Bamboos
- Uniform heating:-No Hotspot
- PLC based control system with HMI Display
- Precise Temperature and power control



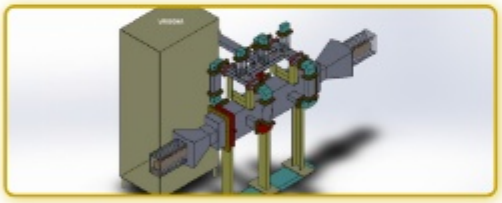


SPECIFICATIONS

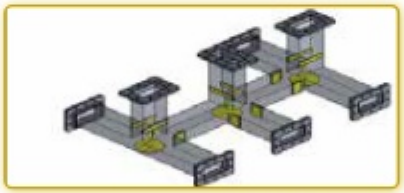
Frequency	2.450MHz	Applicator	Multi mode Rectangular Cavity
Out Power	5kW	Dimensions of applicator	292.1mm*170mm*1150mm
Mode	CW	Microwave Leakage	<1mW at 1meter.

INDIGENOUSLY DEVELOPED SYSTEM

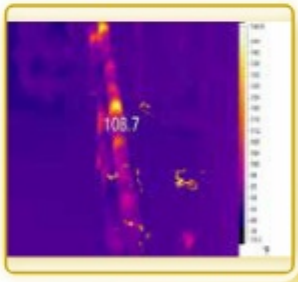


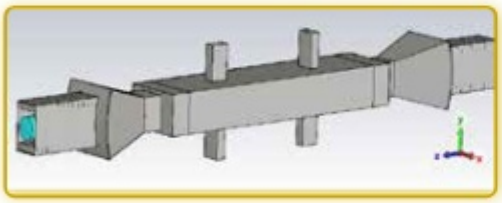


3D View of Full System

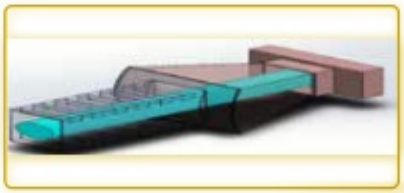


Waveguide 1:4 power divider

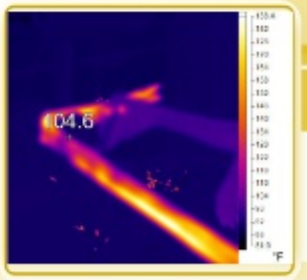




4 dord Waveguide Applicator



Hybrid Absorber



Temperature profile of proccessed bamboo

Applications

- Forest Industries
- Agriculture industries
- Food Processing
- Parma Industries

System USP

- First in system for bamboo processing
- Inline processing of bamboo
- Uniform distribution of heat

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