

LignoStation™

High frequency wood density scanning of stem disks and other wooden samples

Fields of Application:

- Dendrochronology
- Density measurements
- Dendroecology
- Dendroclimatology
- Forestry
- Geography

Technical Features: (can be subject to alteration)

- Density measurement using a high-resolution high-frequency probe
- Optical scans using a high resolution camera
- Sample material either cores or stem disks
- Sample weight up to 50 kg
- Maximum area of measurement: 500mm x 500mm
- High frequency scan resolution: 100µm
- Image resolution optical scan: 10µm



LignoStation is the all in one solution for wood density assessment from increment cores, stem disks and other wooden samples. Equipped with a high quality milling tool for preparing the wood surface and a non x-ray high frequency probe it is the optimal device for quick wood density measurement. In cooperation with the Institute of Forest Growth of the University of Freiburg (grantor of license for the high-frequency probe).

Benefits

- Direct high-frequency scanning system
- Semi-automated procedure
- No development of film required
- No X-ray emission
- Moderately priced



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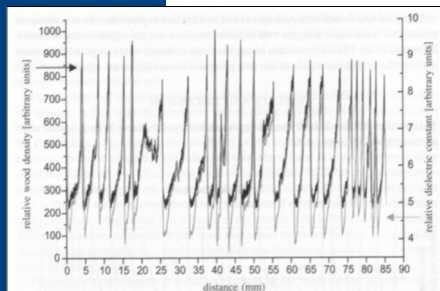
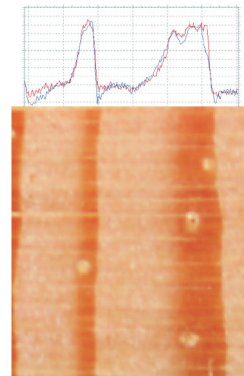
High frequency wood density scanning

System components

- System base: One-piece housing with motorized xyz-table, overview camera, movement and control software; Personal Computer with completely installed measurement-software with additional table
- LignoTrim: high precision wood surface cutter
- LignoScan HF: high resolution density probe for surface scanning
- LignoScop: high resolution camera scanner for visual sample assessment
- TSAP-Win Scientific: Software for time series analysis and presentation
- LignoVision for image analysis.

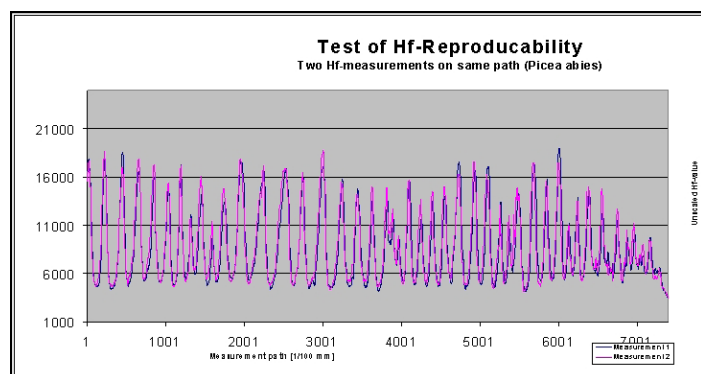
Dimensions

- Housing: 125 x 155 x 200 cm
- Table: 160 x 80 x 750 cm
- Total weight: 400 kg



Example:

Comparison of HF density and x-ray density curve of the same sample. (From: SCHINKER et al. (2003): High frequency densitometry— A new method for the rapid evaluation of wood density variations. IAWA Journal 24 (3), 231-239.)



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