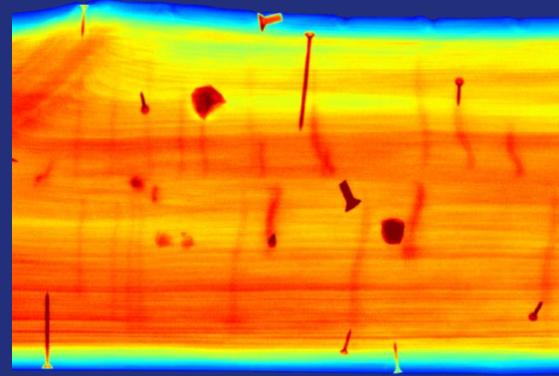


# JORO-X

X-ray scanner



Detection of internal wood qualities



# JORO-X

## X-ray scanner

A cooperation of FINNOS and Jörg Elektronik

Can be integrated into existing system



Compact container solution

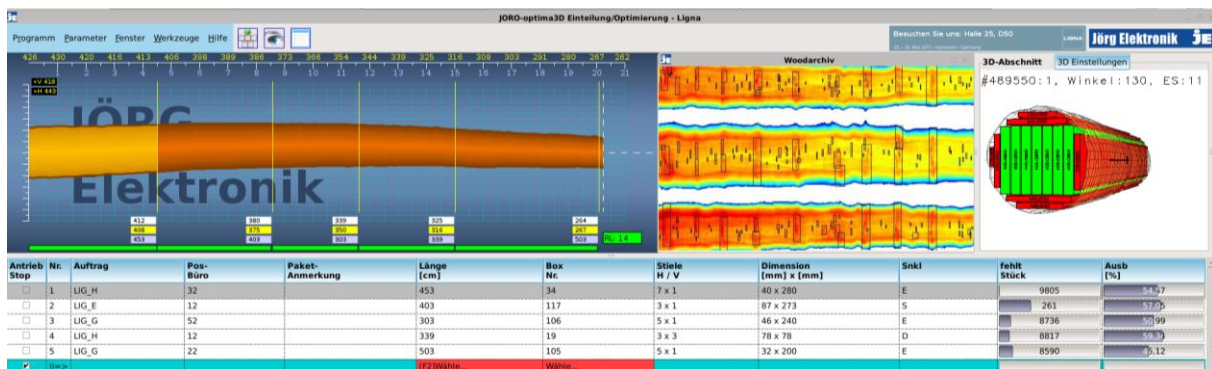
### JORO-X

is a further development in the field of X-ray technology for log yards and sawmills. The overall system has its source in the cooperation of the round-wood specialists Jörg Elektronik and FINNOS. Decades of experience in measuring wood are the foundation for this system, combining laser scanner technology and X-ray technology. The installation of the two systems is done in one container.

While the Jörg Elektronik units detect the outer shell of the log and its characteristics, X-ray beams go through the wood and provide data of inner qualities. Bundling the gained data with customer specific guidelines, optimization can be performed. After that, results are presented in the user interface on one screen.

**JORO-X** uses the physical effect of X-ray beams to penetrate matter. Differences in the density of wood lead to different absorption of radiation. The X-rays going through the material are received by detectors and processed to pictures by computers. The more sources and detectors are positioned around the log, the more information of the log is gained. The X-ray data is combined with laser data and processed in a program.

The system allows an optimization of wood yield at high throughput. Maximum accuracy and optimization in wood processing become increasingly decisive. Millimeter accuracy in recognizing and calculation lead to a maximum yield of wood.



Optimization software combining all measured data

## Advantages

### Laser measuring

- ✓ 3 laser camera scanner units
- ✓ Web based operating (independent from operating system)
- ✓ True shape scanning of the wood
- ✓ Calibrateable system

### X-ray measuring

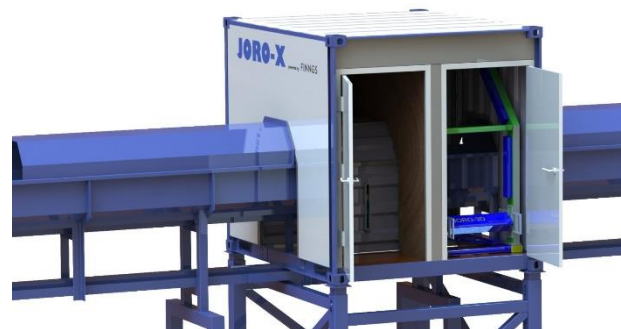
- ✓ Temperature stable due to climatization
- ✓ Lead shielding against radiation
- ✓ Standard equipment: 1D and 2D
- ✓ Extension to 3D and 4D possible

### Overall system

- ✓ No interruption of conveyor
- ✓ Largely independent from mechanics
- ✓ Can easily be integrated into existing system
- ✓ Simple adjustment
- ✓ Waterproof, dustproof
- ✓ Vibration suspended
- ✓ Real-time system
- ✓ Both systems in one container

## Technical data

- ✓ **Measuring range**  
80-600 mm (X-Ray scanner)  
80-1000 mm (laser scanner)
- ✓ **Accuracy**  
< 1 mm
- ✓ **Frequency**  
1500 Hz
- ✓ **Conveyor speed**  
max. 200 m/min
- ✓ **Operating temperature**  
-40°C to +40°C
- ✓ **Protection class**  
IP65



Opened container