

## Purpose

Log scanner VECTOR.3D is meant for automated measuring of log dimensions as a part of automated log sorting lines, saw cut optimization and log account systems.

## Advantages

- Realistic 3D results of measuring
- Assembling to all types of conveyors
- Conveyor rip is not needed
- Reliable in operation
- Climate changes resistant

## Main functions

Measuring of log dimensions and on-line data transmission:

- Top-end diameter
- Middle part diameter
- Butt-end diameter
- Length
- Top-end tapering
- Butt-end tapering
- Volume
- Distance from the butt-end to the center of gravity
- Curve
- Ovality
- Inscribed ellipses for each profile
- Complete information about the log surface

## Structure

- Industrial GigE Vision Cameras
- Ethernet switch
- Laser markers
- Power supply units
- Incremental Encoder
- Photosensor
- Industrial Computer
- Windows 7
- Special Software

## Technical data

MAX log diameter, mm	700
Measuring accuracy, mm	<2,0
Frequency measurements	100 Hz
Supply voltage,	220 VAC
Temperature range, °C	-40 ... +45

## Components & Principle of Operation

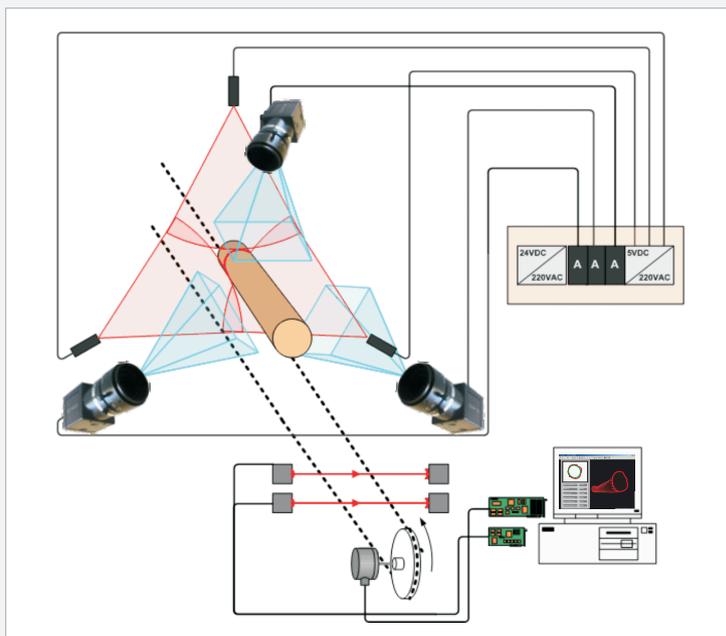
VECTOR 3D consists of the system-set of cameras and laser markers angularly related to each other.

By means of lasers on a log surface a line is created, which forms up a complete log profile.

A signal from cameras is transferred to the computer video-capture board, turned into the digital format and processed by the special software. As a result of log profile analysis both dimension and shape of the log are defined, including any salience (knots, knogs) and hollows.

Log length is measured by means of encoder. While the photosensor optic zone is overlapped by the passing log, the unit analyses impulses from the encoder.

Other log characteristics (volume, curve, tapering, etc.) are calculated on the basis of the results of diameter and length measurements.



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