

SCORPION VISION SOFTWARE® LASER PROFILE MEASUREMENT SYSTEM

Scorpion Laser Profile Measurement System is a single camera 3D measurement system dedicated to the verification of object geometry and dimensions.

If the object is in motion, the system requires the object to travel at a fixed distance from the sensor during measurement.

A junction box containing the camera and laser is placed about 60 mm from the object. A 7 mW diode laser with line optics illuminates the object, thus tracing a line corresponding to the cross section of the object. The camera is mounted at an angle to the object in order to minimize sensitivity to lateral movement.



Junction box installed

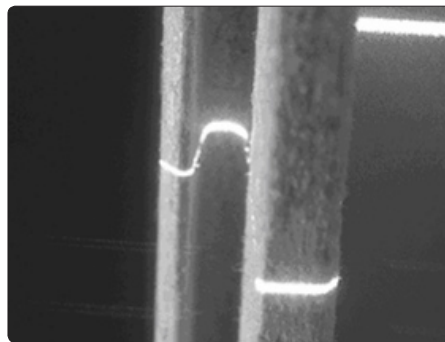
Using a combination of image processing tools available in Scorpion Vision Software, it is possible to verify the geometry with 0.1 mm precision.

System Description

The Scorpion Laser Profile Measurement system consists of the following parts:

- Junction box containing camera and laser.
- Firewire Interface card
- RealVNC for remote operation
- Scorpion Vision Software CD and a license key
- Scorpion Laser Profile Measurement Profile

The system is connected to a Personal Computer with a firewire cable. The system can communicate with external systems using RS232, OPC and TCP/IP by sending start and stop, status and measurement data.



The example above shows the laser profile generated by the edge of a Medium Density Particle board.

Scorpion Laser Profile Measurement profile

The Laser Profile Measurement profile is contained in a zip file for quick support through e-mail and internet.



Scorpion Laser Profile Measurement System installation

Scorpion Vision Software CD

Scorpion Vision Software is distributed on a CD with the following contents: Scorpion Vision Software, system requirements, Scorpion setup program, camera drivers, and documentation and support programs.



Scorpion Vision Software CD



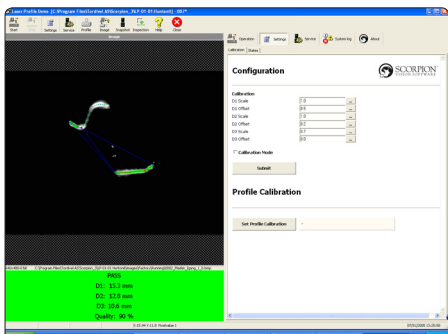
SCORPION
VISION SOFTWARE™

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User Interface

The following information is available in the user interface:

- Camera image
- Inspection result with indicator panels
- Description - Web page that contains a short description of the identification task
- History - displays the latest inspection results
- Curves - give a graphical view of measured values
- Results - show measured values of the latest inspection
- Statistics - give a periodical view of the inspection results

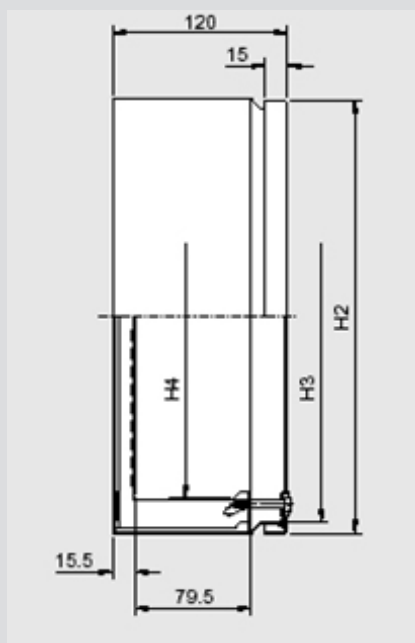


Scorpion Laser Profile Measurement System User Interface

TECHNICAL DATA

Junction Box System

- Rittal Junction Box with mounting plate
 - o Width 150 mm
 - o Height (H2) 150 mm
 - o Depth 120 mm



Camera System

- Monochrome Firewire Camera, VGA mounted at 30 degrees to the laser plane.
- 4,5 m FireWire cable
- Unibrain Fireboard Red IEEE-1394 Interface card

Software

- Scorpion Vision Software
- Scorpion Laser Profile Measurement system profile
- Scorpion Setup program
- Camera drivers
- Support programs

Laser System

- Laser, 7 mW, with 30 degree fan angle line optics
- Power Supply, 5Volt

Communication

- RS232 - PLC
- TCP/IP
- OPC including Siemens Profibus
- Advantech IO Modules
 - o RS485
 - o TCP/IP

Data Export

- Number
- TCP/IP
- RS-232

Remote Operation

- RealVNC over tcp/ip

Operating System

- Windows 2000 / Windows XP

Minimum Requirements

- Intel Pentium III 800 MHz
- 128 MB of RAM
- 10 MB free hard drive space

Language Support

- English

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Specifications might change without any notification.