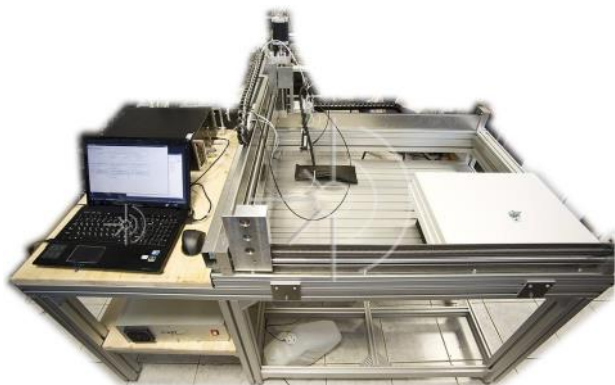




Automated three-axis laser ultrasound system



Automated three-axis laser ultrasound monitoring system is designed to determine the quality of products from various materials (metals, alloys, ceramics, plastics, composite materials etc.), detecting defects of various types in them. The system allows automated measurements on both flat and cylindrical/conic small sizes samples.

1. Specifications:

Measuring mode: automated, permanent, contact

Dimensions of objects (cylindrical/conic):

- diameter less than 120 mm

- height less than 350 mm

Dimensions of objects (plain): 600 x 800 mm

Productivity: 0.014 m²/h

ADC: 12 bit, 100 MHz, frame length - 4096, USB interface

Laser: Nd:YAG with diode pumping and Q-switching, 1.06 μ m, 100 μ J

Repetition rate of pulses: 1000 Hz

Overall dimensions: less than 1070 mm x 1370 mm x 920 mm

Power supply:

- 220 V AC

- frequency 50 Hz



Power consumption: less than 250 W

Terms of Use:

- ambient temperature + 15 °C - + 35 °C

- relative humidity at + 25 °C: 50 - 80%

2. Configuration:

- laser unit
- ADC unit
- motion control unit
- 3 channel AC power conditioner 220V
- three-coordinate positioning system to control flat objects (3 translational axes), one translation axis can be replaced by one rotary axis to control small size cylindrical and conical objects
- broad-band optoacoustic transducers PLU-6P-02 (main)
- fiber optic cable
- a set of commutation cables
- data acquisition and processing system (PC working station)
- specialized software