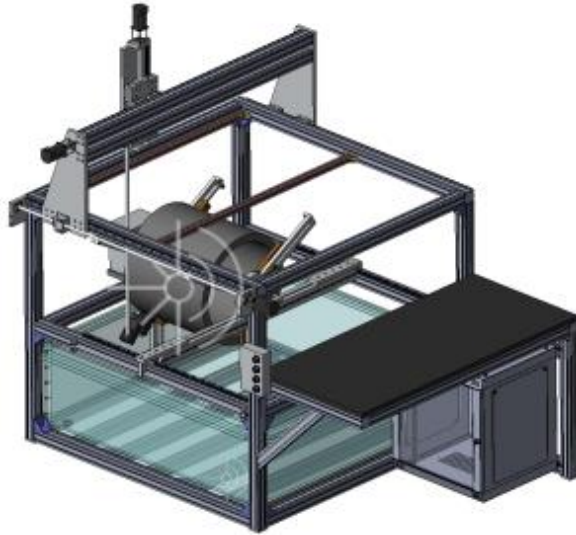




Automated four-axis laser ultrasound system



Automated four-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 samples.

1. Specifications:

Measuring mode: automated, permanent, contact

Dimensions of objects (cylindrical/conic):

- diameter 550 – 1200 mm

- height 200 – 1100 mm

Dimensions of objects (plain): 1000 x 1000 mm

Productivity: 0.2 m²/h

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

Laser: Nd:YAG with diode pumping and Q-switching, 1.06 μm, 500 μJ

Repetition rate of pulses: ~ 100 - 200 Hz

Overall dimensions: less than 2300 mm x 2100 mm x 1800 mm



Power supply:

- 220 V AC

- frequency 50 Hz

Power consumption: less than 500 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
- four-coordinate positioning system to control complex surfaces (1 rotary axes, 3 translational axes)
- immersion tank
- 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