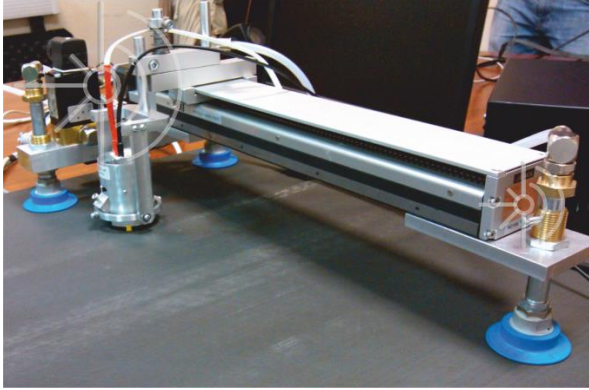


## Automated one-axis laser ultrasound system



Automated one-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 along a single line on large flat surfaces and surfaces of small curvature in the case when the scanning system directly install on the surface of the controlled object. Vacuum cups allow automated measurements of surfaces located at any angle.

### 1. Specifications:

Measuring mode: automated, permanent, contact

Scanning field: 800 mm

Productivity: 0.014 m<sup>2</sup>/h

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

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

Repetition rate of pulses: 1000 Hz

Overall dimensions: less than 1200 mm x 300 mm x 250 mm

Power supply:

- 220 V AC

- frequency 50 Hz



Power consumption: less than 200 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
- vacuum station
- one-coordinate positioning system to control flat objects (1 translational axes)
- 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