

ULTRASONIC TESTING SYSTEM

# SONOAIR

FOR NONDESTRUCTIVE TESTING

MADE IN GERMANY

SONOTEC 

# AIR-COUPLED ULTRASONIC TESTING

Developed for contactless non-destructive testing the system is suitable especially for composite materials such as CRP (carbon fiber-reinforced plastic), GRP (glass-reinforced plastic), metals e.g. aluminum, steel, etc. as well as sandwich materials. The combination of low frequency air probes, a low-noise amplifier and a powerful ultrasonic transmitter is the basis for an air-coupled inspection of high attenuating materials such as plastics or composites. The ultrasonic signals are transmitted couplant-free without any contact, through the air into the respective test object. The SONOAIR test system enables the

end-user to easily find delaminations and other discontinuities such as inclusions, cracks or impact damages inside the material. The use of a 3-axis scanning table allows a flexible inspection of test objects. The control and evaluation software can be installed on a standard computer and provides a real-time, color-coded illustration of the tested area on the monitor. The SONOAIR system is completely modular and can be adjusted to the individual needs of the customer. Special evaluation algorithms are supposed to classify test objects automatically in the near future.

## ADVANTAGES AT A GLANCE

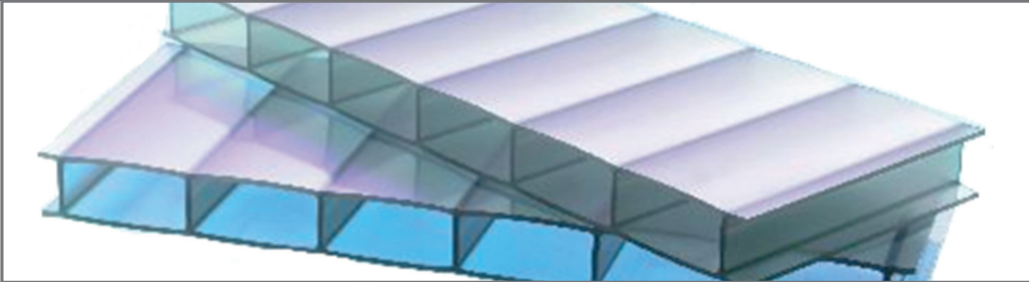
- ✔ Contactless — no coupling medium required
- ✔ Non-destructive testing of various composite materials (plastics, metals, honeycomb structures, etc.)
- ✔ Inspection of high attenuating materials possible
- ✔ Flexible inspection of test objects, thanks to the use of a 3-axis scanning table
- ✔ Color-coded illustration of the tested area for comfortable evaluation
- ✔ Open and modular system construction, customizable and scalable

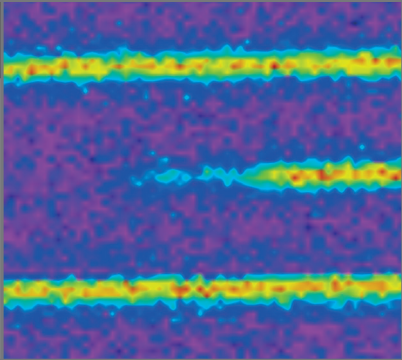
## TECHNICAL DATA

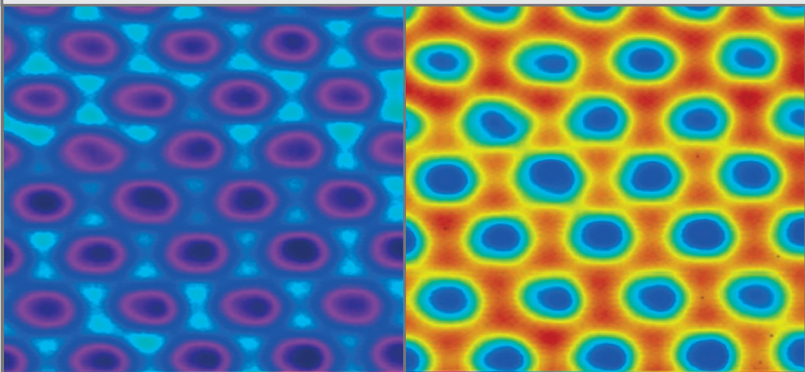
<b>Electrical connection</b>	230 V, 35 W power supply
<b>Power consumption</b>	15 W (in 2 channel operating mode, 20 impulses/burst, 200 bursts per second)
<b>Operating temperature</b>	+10 °C to +60 °C
<b>Network</b>	10/100/1000 Ethernet
Transmitter:	
<b>Output voltage</b>	400 V (peak to peak)
<b>Transmitting frequency</b>	100 KHz to 12.2 MHz
Receiver:	
<b>Bandwidth</b>	500 kHz to 20 MHz
<b>Adjustable low-noise gain</b>	110 dB totally
<b>Connection</b>	LEMO 00

SONOTEC preserves the right to change technical specifications without further notice. (Rev. 1 / 2014-10-06)

Inspection of polycarbonate multiskin sheets:  
Defects occurring during gluing process can be easily localized in the scan








C-Scan of a bubble foil: The focus was on the homogeneous filling of the bubbles

Images: University of Applied Sciences Merseburg ©

# SONOTEC



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