

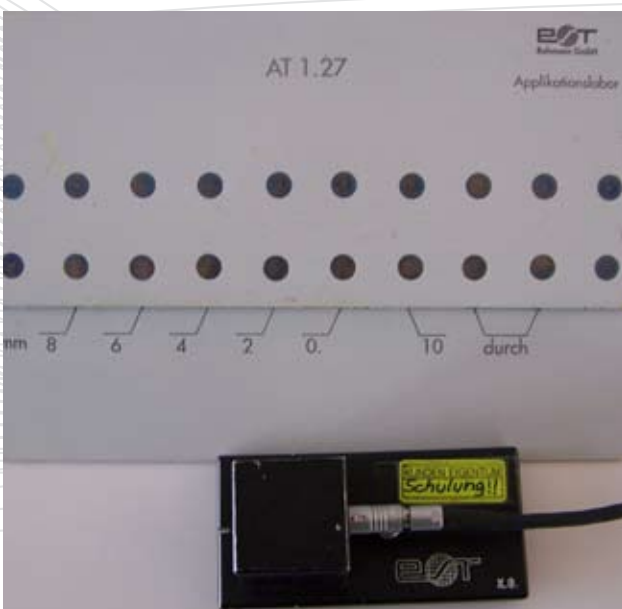
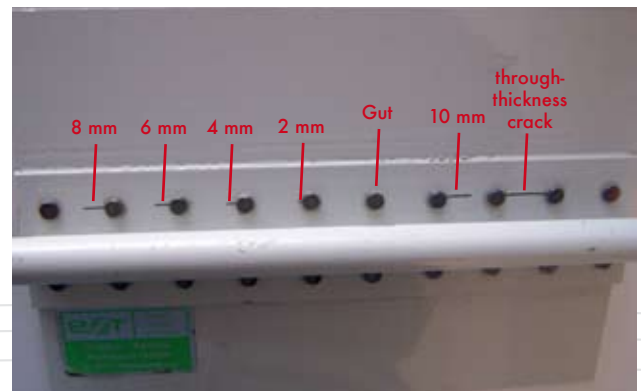
Construction of riveted metal plates

Testing task:

Crack testing on riveted aluminum plates.
There are cracks in the 2nd position, starting
from the hole for the rivet.
The plate is 2 mm thick.



MDK-1 probe for checking for cracks in the riveted plate



Reference component - plan view



Reference component/ cross section

Riveted metal plate testing

Test equipment:

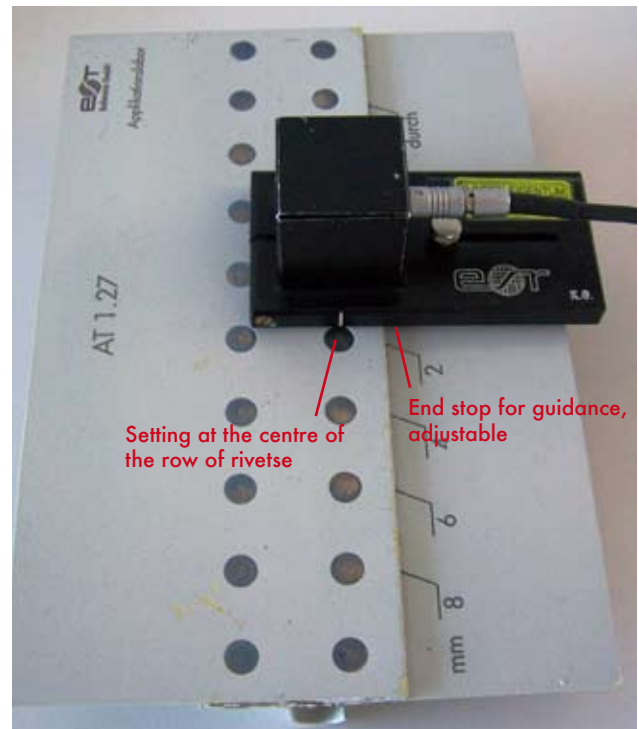
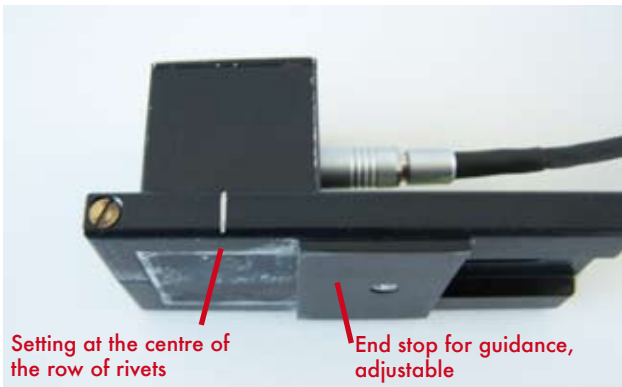
Equipment: ELOTEST B310/ M2 V3/ M3

Sensor: MDK 1-23

Adapter: B3-RS

Lead: EK-2-HF/1

The guidance slot is set with the end stop so that the "Sensor centre" marking is on the centre line of the row of rivets. The sensor is moved along the row of rivets.

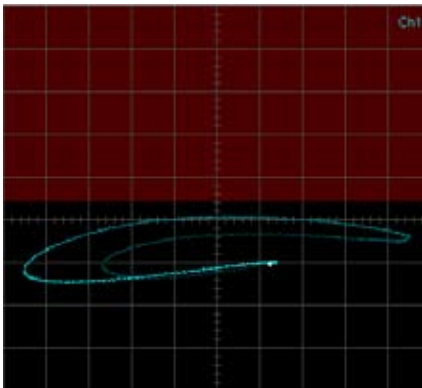


MDK 1-23 probe for testing for cracks in riveted plates

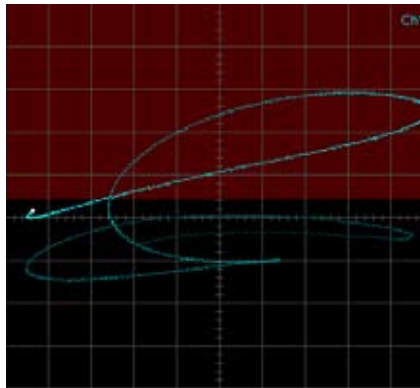


ELOTEST B300

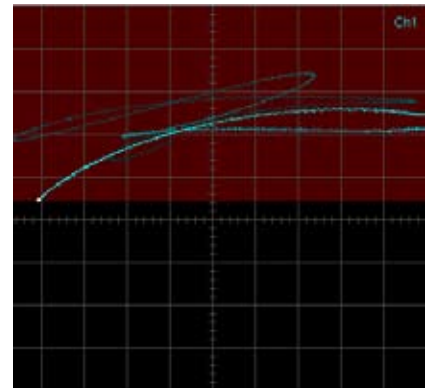
Analysis



Signal figure Good



Signal figure 10 mm crack



Signal figure Cracked through

Parameter Setup **Ch1** 1:A 2 3 4 M1 M2 M3

Frequency : 2.3 kHz
Amplitude : 100 % A

dB Preamplifier : 25.0 dB
Mainamplifier : 5.0 dB
Spread Y : 4.0 dB
Total gain Y/X : 34.0/30.0

A Phase : 83.0 °

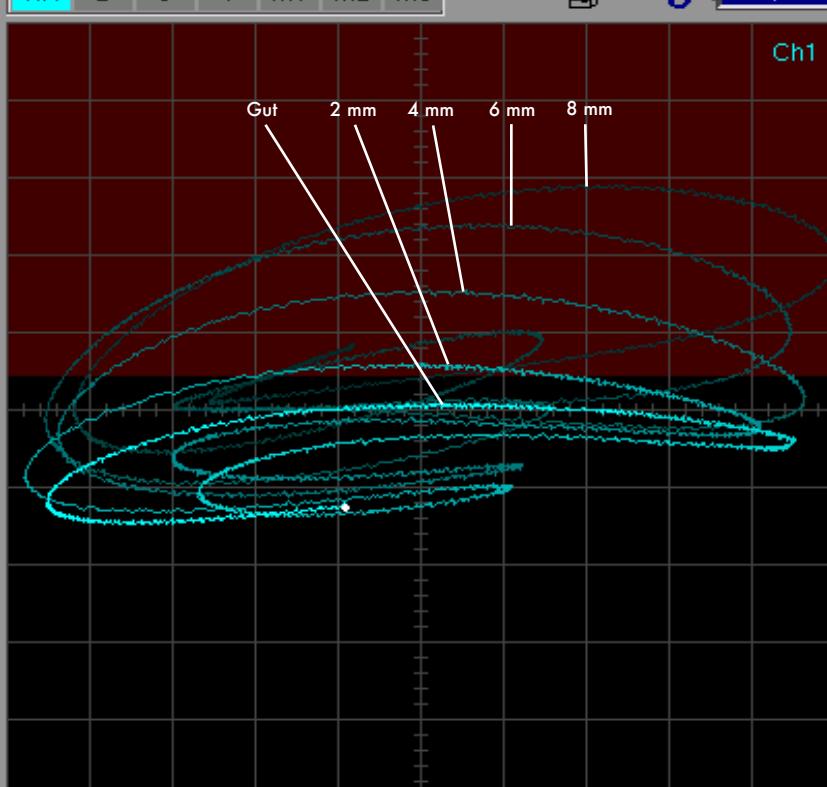
Lowpass : 130 Hz
Highpass : static

DotPosition Y : 0.0 %
DotPosition X : 0.0 %

Selection : 11 s

File: AT1.27_MDK1-23 20 s / 8:46 min

F1 Quick Save Save File Load File Record



Signal figures for cracks from 2 mm to 8 mm relative to the quality signal

Analysis of the results:

The length of the crack can be determined from the amplitude of the signal.