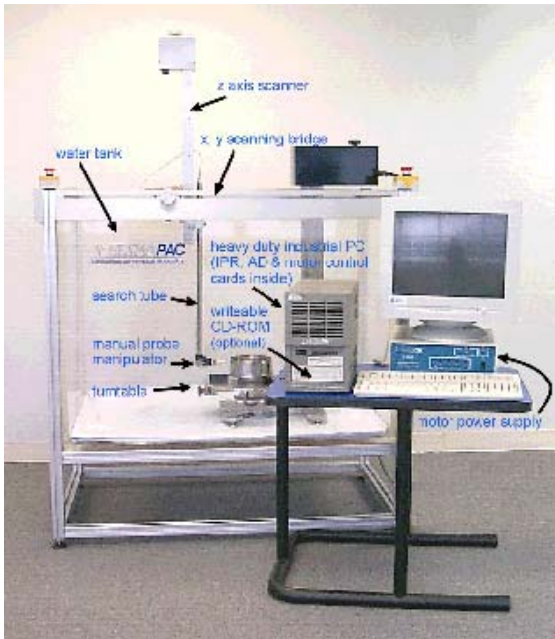


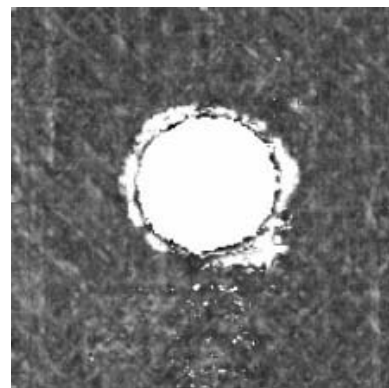


The specimen is placed in a tank of water, and an ultrasonic probe scanned across the surface. Ultrasonic waves travel through the material, and those reflected - by internal features such as defects and voids - are detected by the probe. The signals are processed to produce images of internal structure or to locate defects. The technique is particularly suited to investigating imperfections in fibre-reinforced polymer composites.

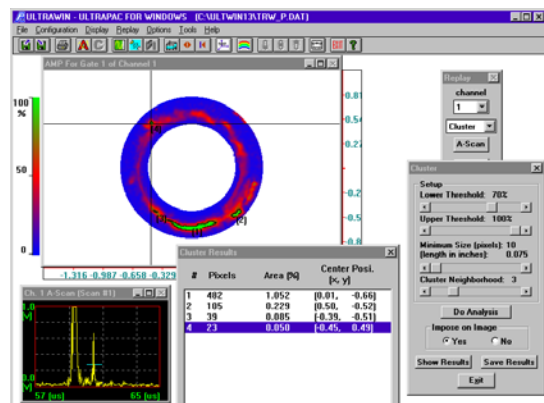


The Physical Acoustics UltraPAC C-scan.

## CASE STUDY 1 – DRILLING DAMAGE IN A CARBON FIBRE REINFORCED EPOXY MATRIX COMPOSITE.



## CASE STUDY (2) – DETAILED ANALYSIS OF POINT DEFECTS WITHIN SELECTED PORTION OF C-SCAN OF A CYLINDRICAL OBJECT.



In addition to providing conventional C-scans, the system is also capable of the 3-D imaging of defects. The tank has a scanning area of approximately 450 x 300 mm, but can accommodate significantly larger specimens. Metals, ceramics and polymers can be examined.