

ISONIC EXPERT RADIUS

PAUT – Ultrasonic Phased Array Inspection
composites, metals, etc using Linear Array Probes
with delay lines contoured to match
with the inner corner / radius surface

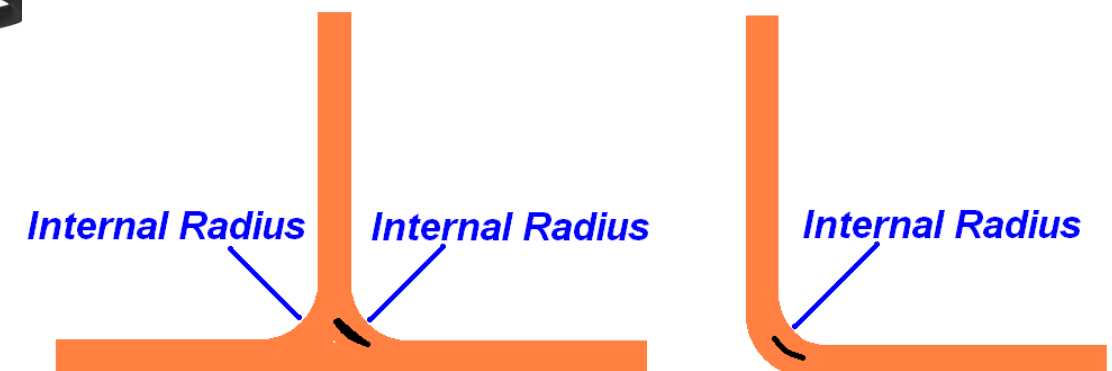


4, Pekeris st., Rabin Science Park, Rehovot, 7670204, Israel
Phone: +972-(0)8-9311000, Fax: +972-(0)8-9477712
www.sonotronndt.com

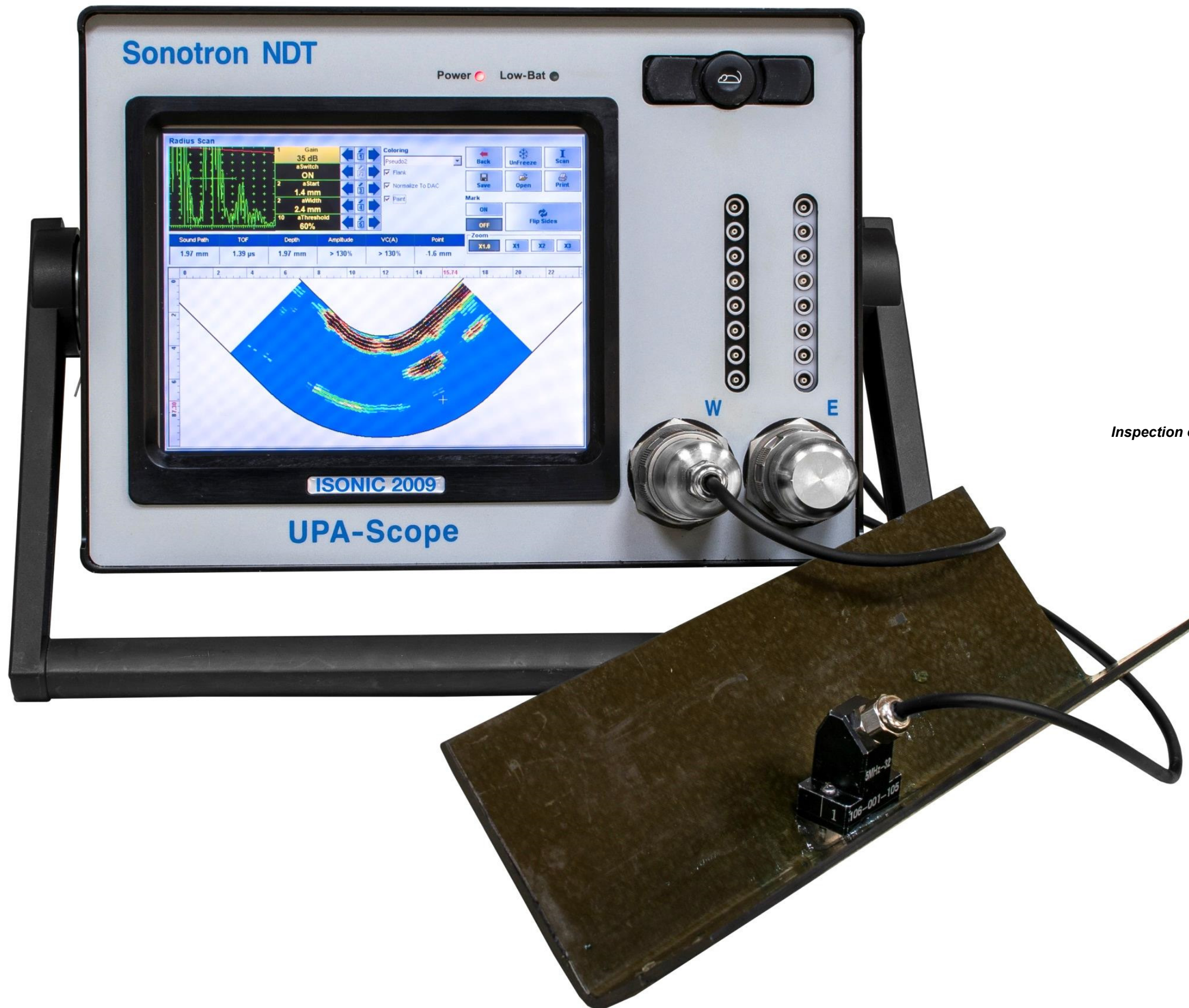


Item	Order Code (Part #)
Inspection SW Application for ISONIC 3510T, ISONIC 3510 - Phased Array Modality: RADIUS-Scan - Inspection of corner areas of various parts made of composites, metals, etc using Linear Array Probes equipped with specially designed wedges contoured according to the inner corner / radius surface	SWA 3510012
Inspection SW Application for ISONIC 2010 - Phased Array Modality: RADIUS-Scan - Inspection of corner areas of various parts made of composites, metals, etc using Linear Array Probes equipped with specially designed wedges contoured according to the inner corner / radius surface	SWA 910812
Inspection SW Application for ISONIC 2009 UPA-Scope - Phased Array Modality: RADIUS-Scan - Inspection of corner areas of various parts made of composites, metals, etc using Linear Array Probes equipped with specially designed wedges contoured according to corner / radius corner surface	SWA 909812
<ul style="list-style-type: none"> → True-To-Geometry Weld Overlay Volume Corrected Imaging - Cross Sectional and Top (C-Scan) - / Side- / End- View and 3D → 0-Deg-Corner-Scan Cross Sectional Coverage → Intuitive Image Guided PA Pulsar Receiver with Beam Forming View → DAC / TCG Normalization → Built-In Corner Shape Geometry Editor and Ray Tracer - Scanning Pattern Design → Independent on TCG Gain Per Focal Law Correction → Encoded and Time based C-Scan → 100% Raw Data Capturing → Automatic Defects Alarming Upon C-Scan Acquisition Completed → Automatic Creation of Editable Defects List → Comprehensive Postprocessing Including: <ul style="list-style-type: none"> → Recovery and Evaluation of Captured A-Scans from the Recorded Cross Sectional Views (Sector Scan) and C-Scans → Recovery of Cross Sectional Views from the Recorded C-Scans → Converting Recorded C-Scans or their Segments into 3D Images → Off-Line Gain Manipulation → Off-Line DAC to TCG / TCG to DAC toggling for all types of stored files (A-Scans, cross-sectional veives, C-Scans, etc) → Off-Line DAC Normalization of the Recorded Images / DAC Evaluation → Off-Line editing of Gain per Shot Correction applied to the stored the Cross-sectional Views / C-Scan data → Numerous Filtering / Reject Options (by Geometry / Position / By Amplitude / dB-to-DAC / et → Defects Sizing → Automatic Creation of Defect List and Storing it Into a Separate File → Automatic Creating of Scanning Integrity Report → Automatic creating of inspection reports - hard copy / PDF File 	

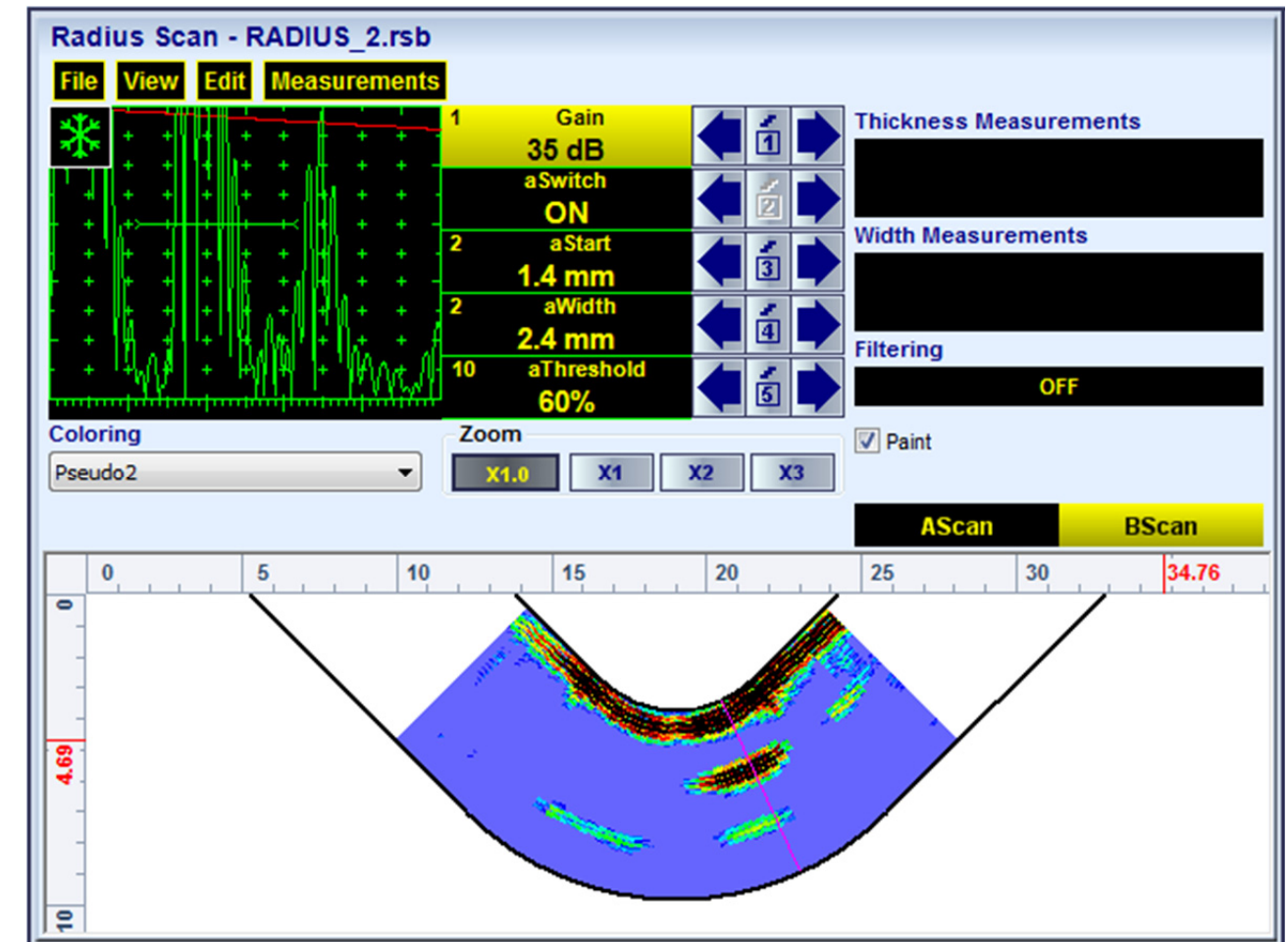
Inspection of the radius area in the CRFP stringers



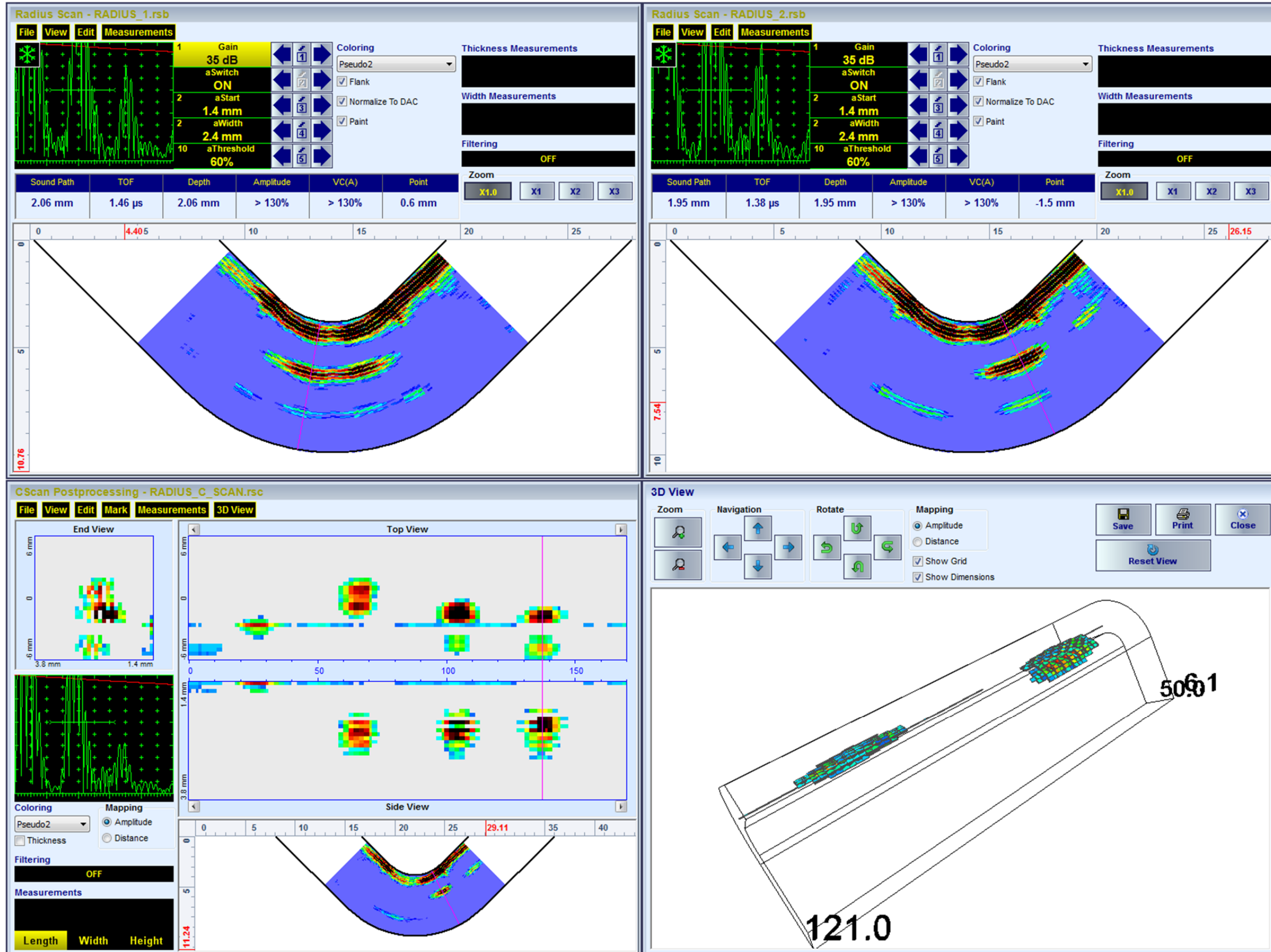




Inspection of the radius area in the CRFP stringers



Typical Postprocessing Screenshots



Inspection of the radius area in the heavy composite stringers



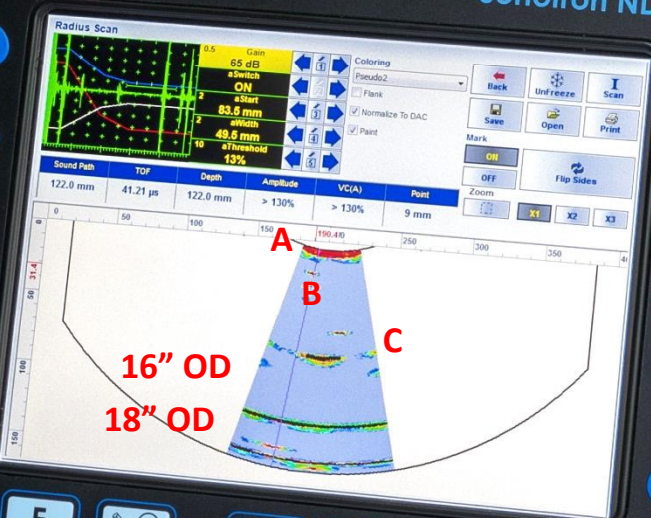
Initially developed for the inspection of the bended areas of the composite profiles the RADIUS-Scan inspection SW application is also suitable for the inspection of various metallic parts, for example, rotor shafts, castings, etc from the bored surface





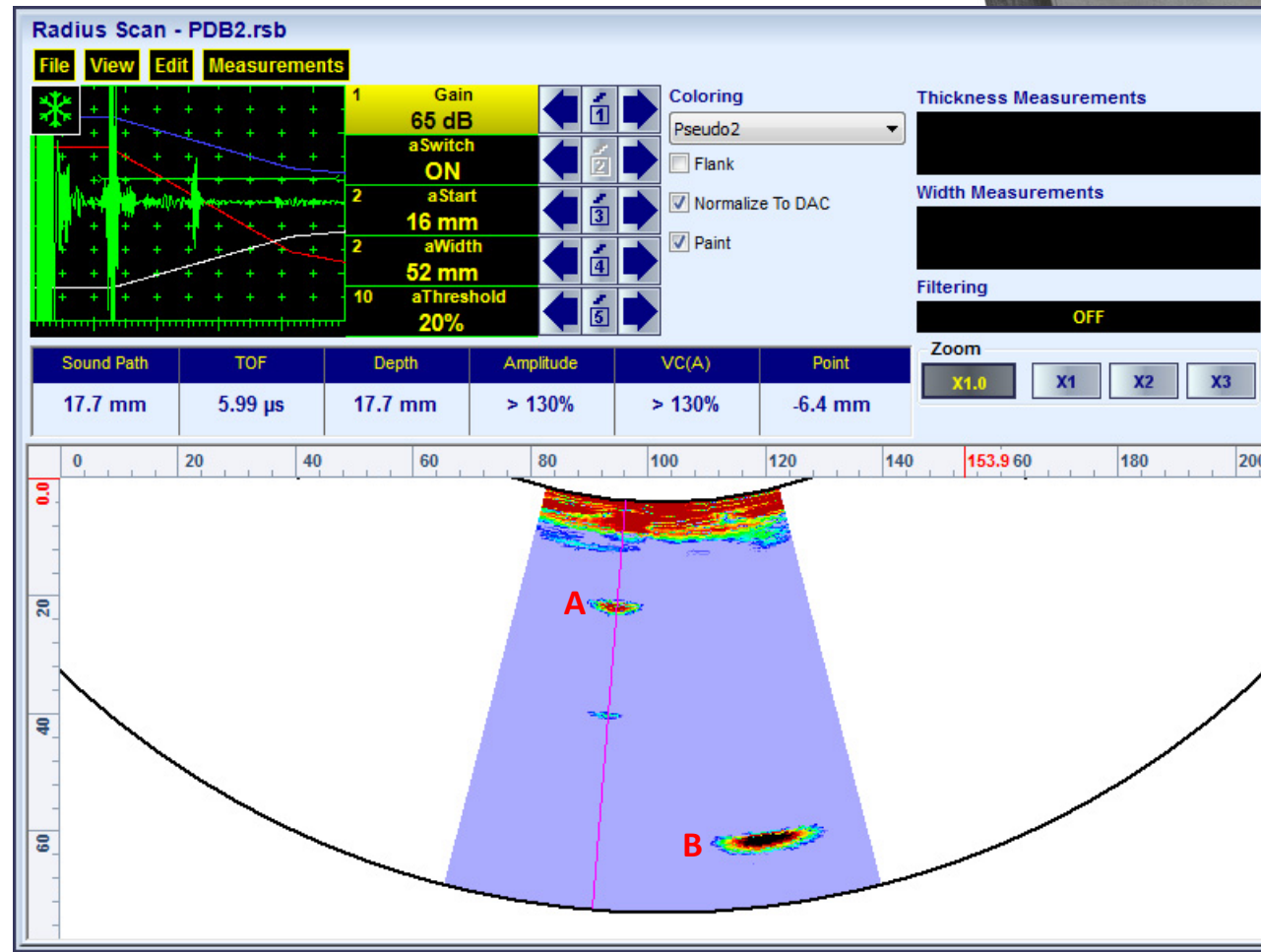
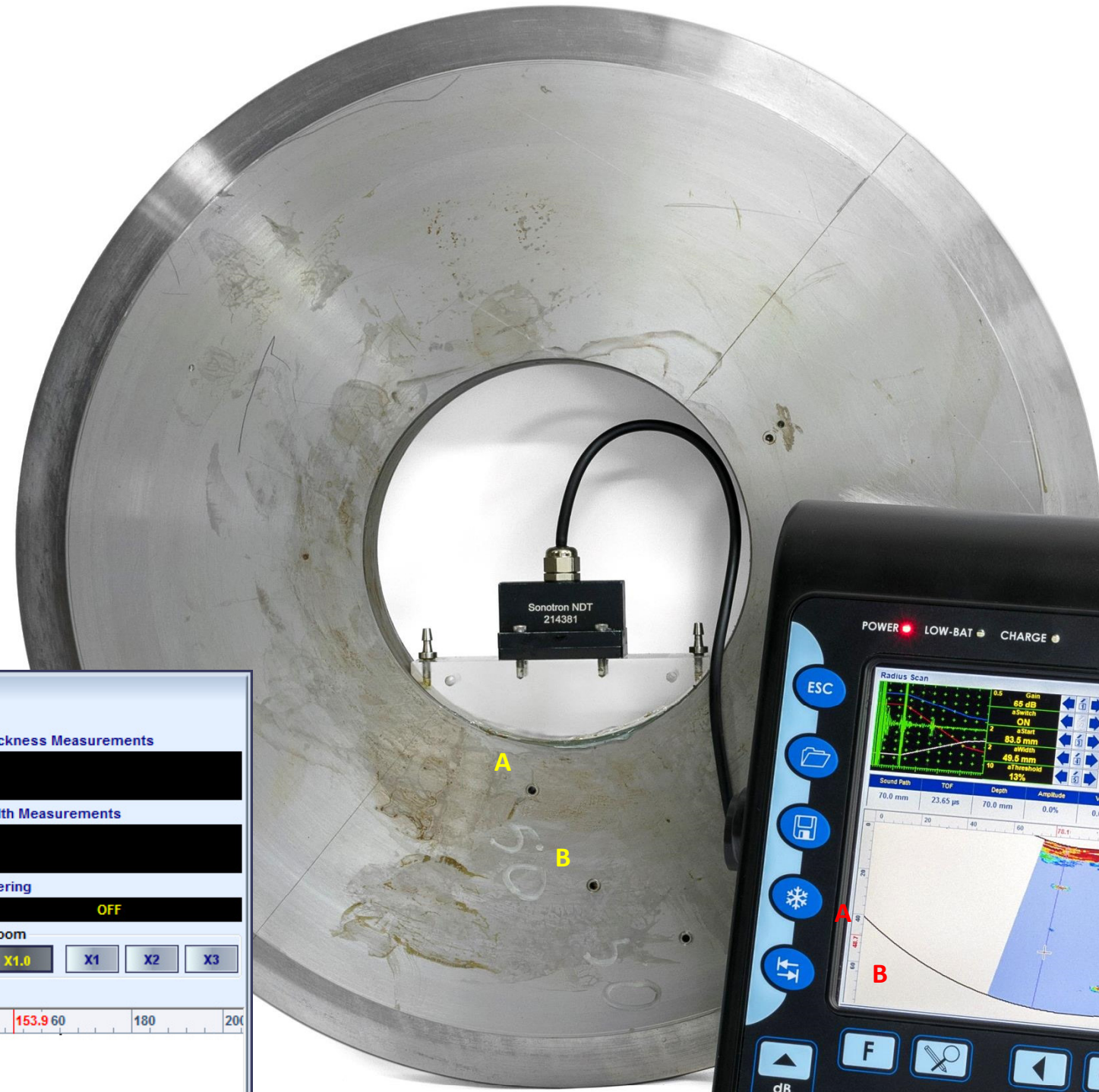
Calibration Block / PDB for the shaft inspection

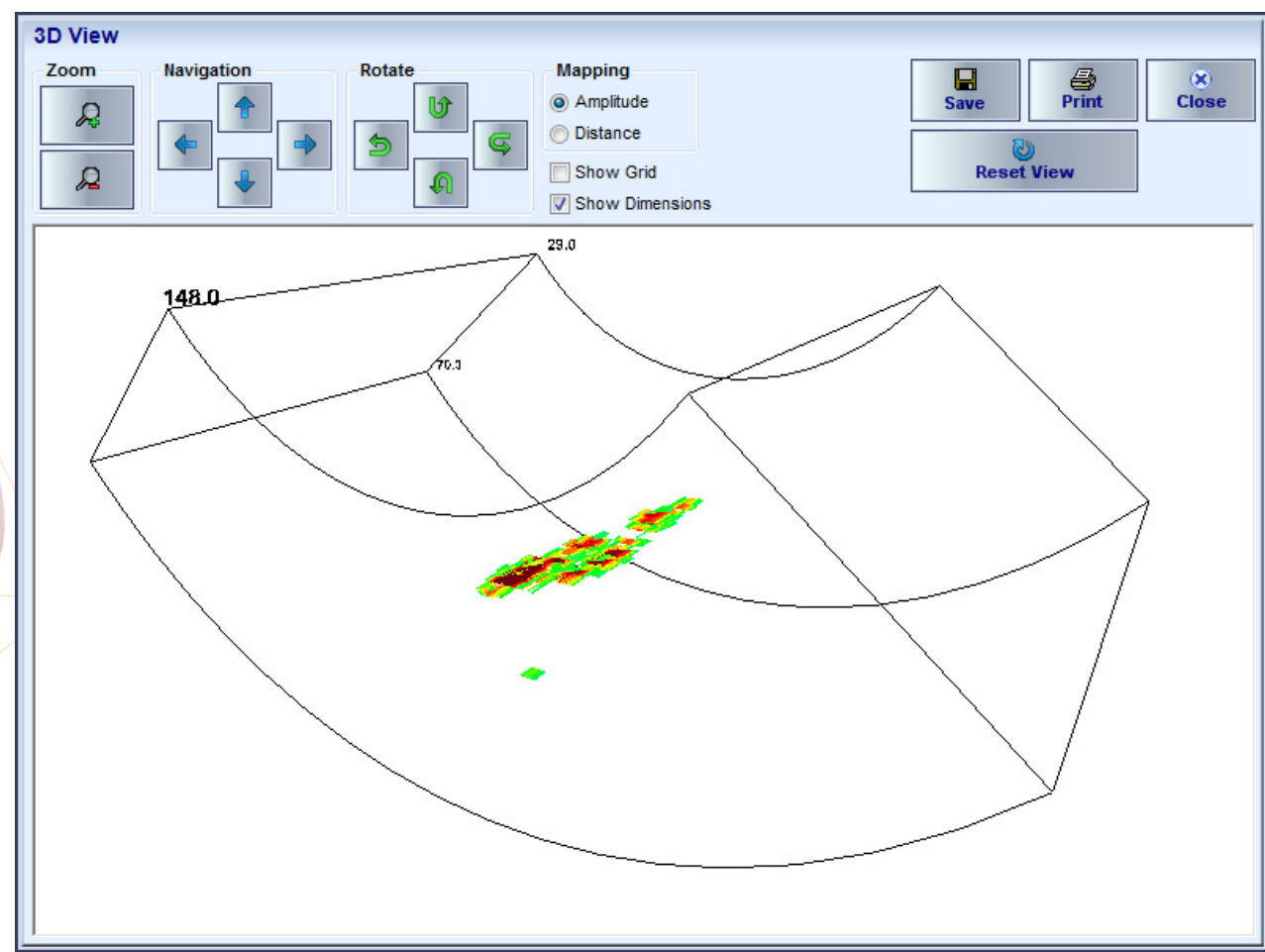
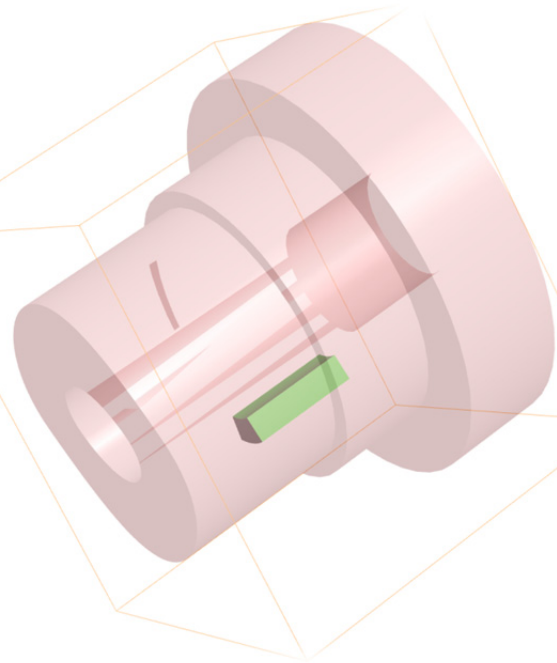
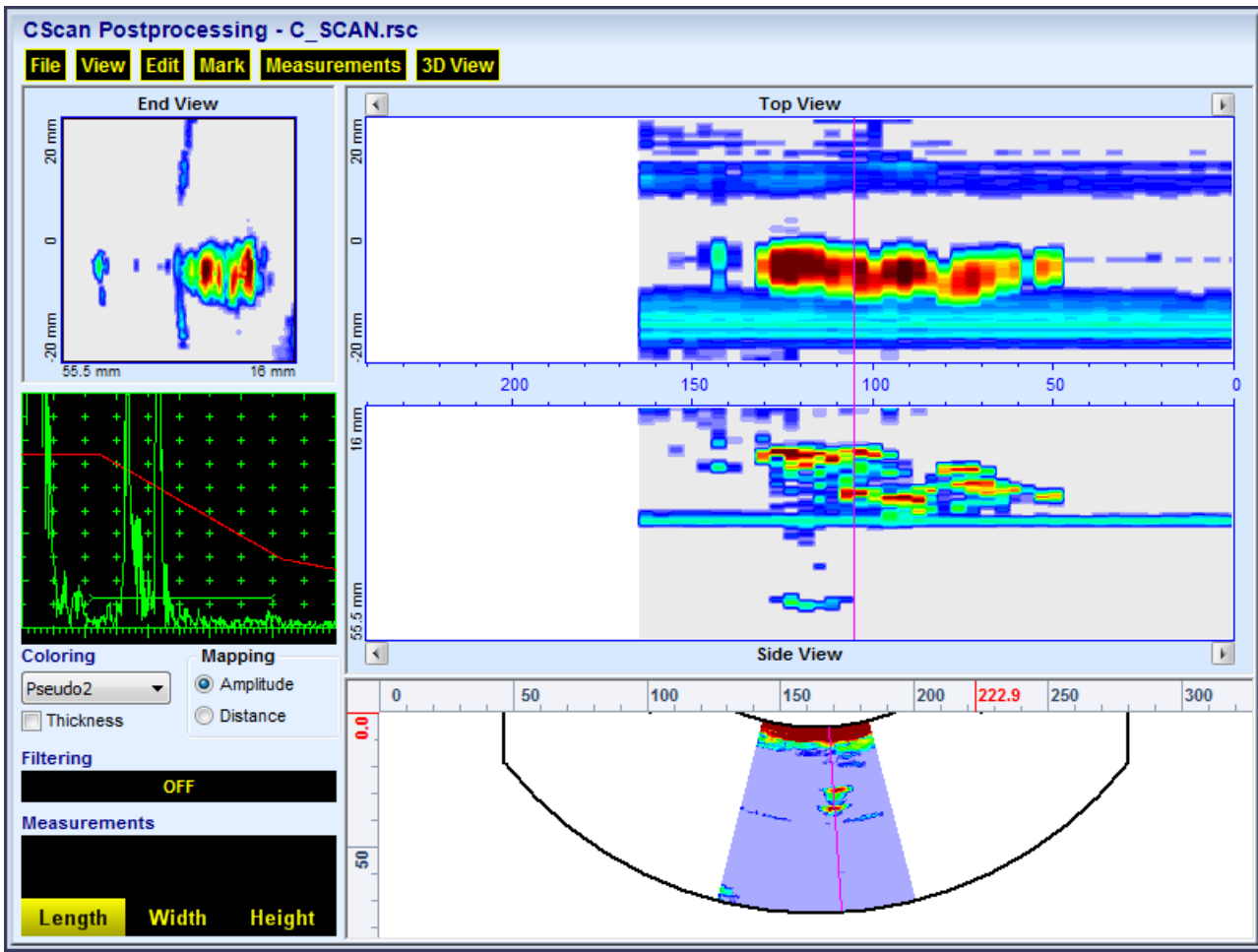
16" OD
18" OD

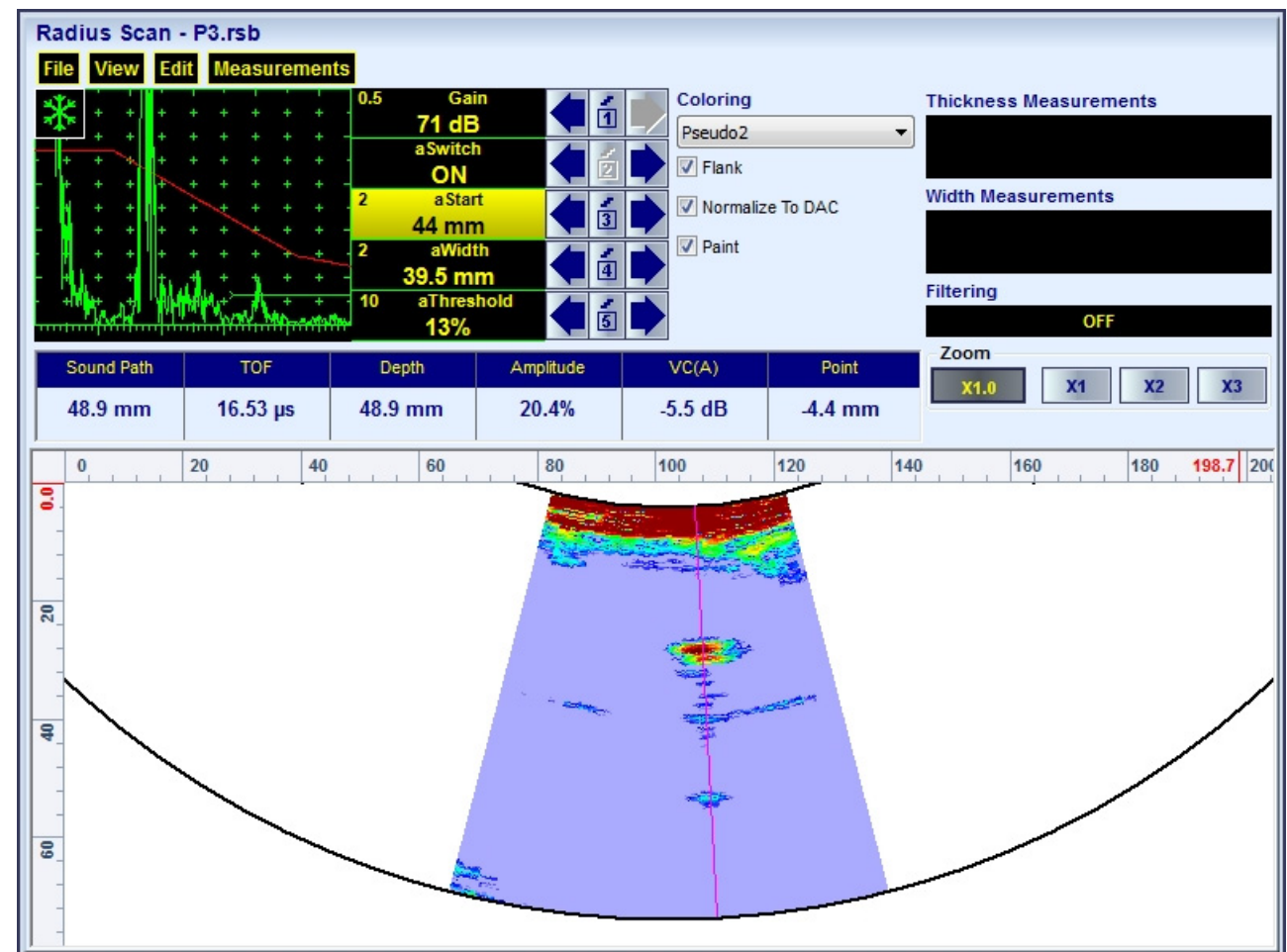
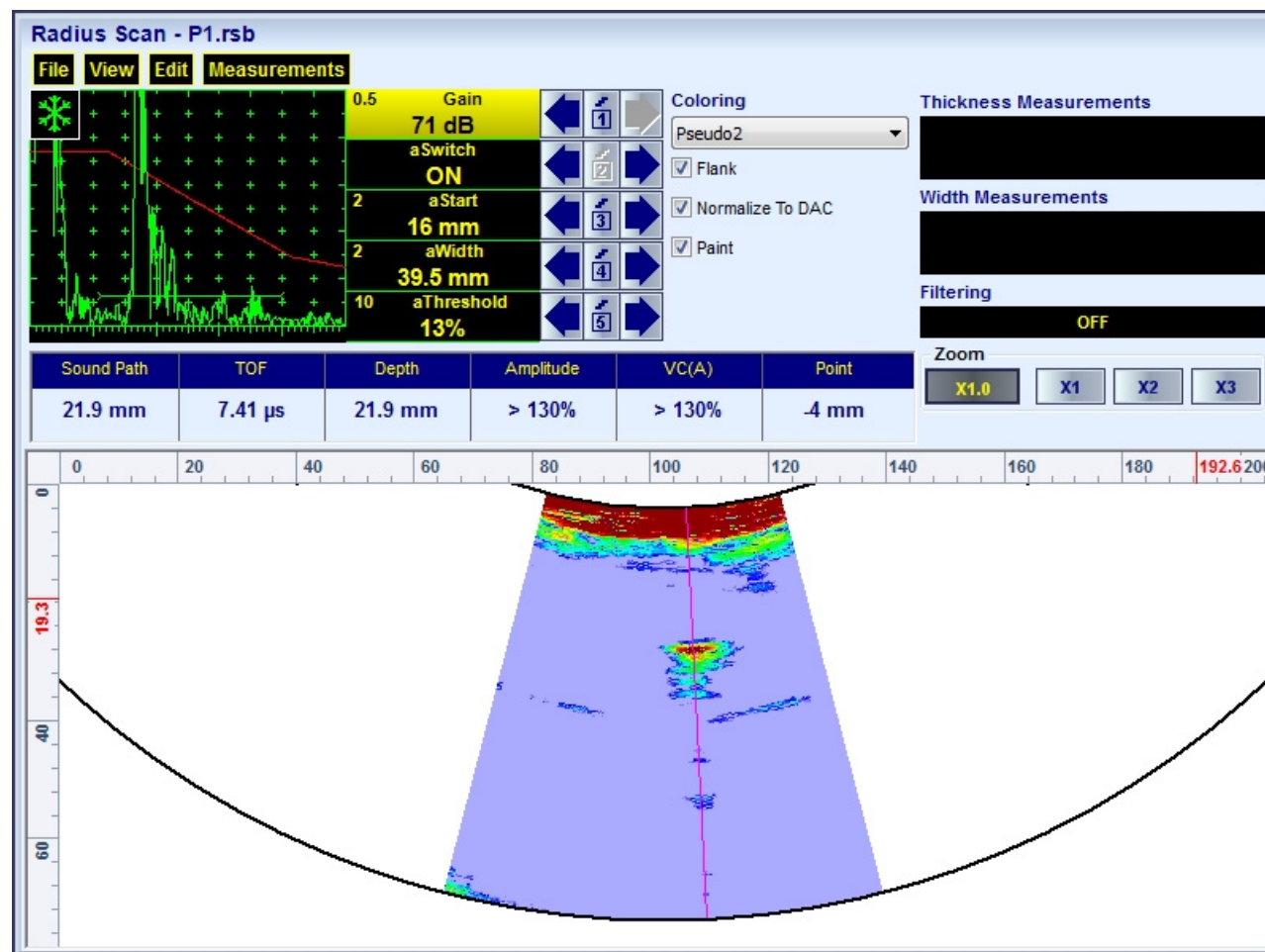
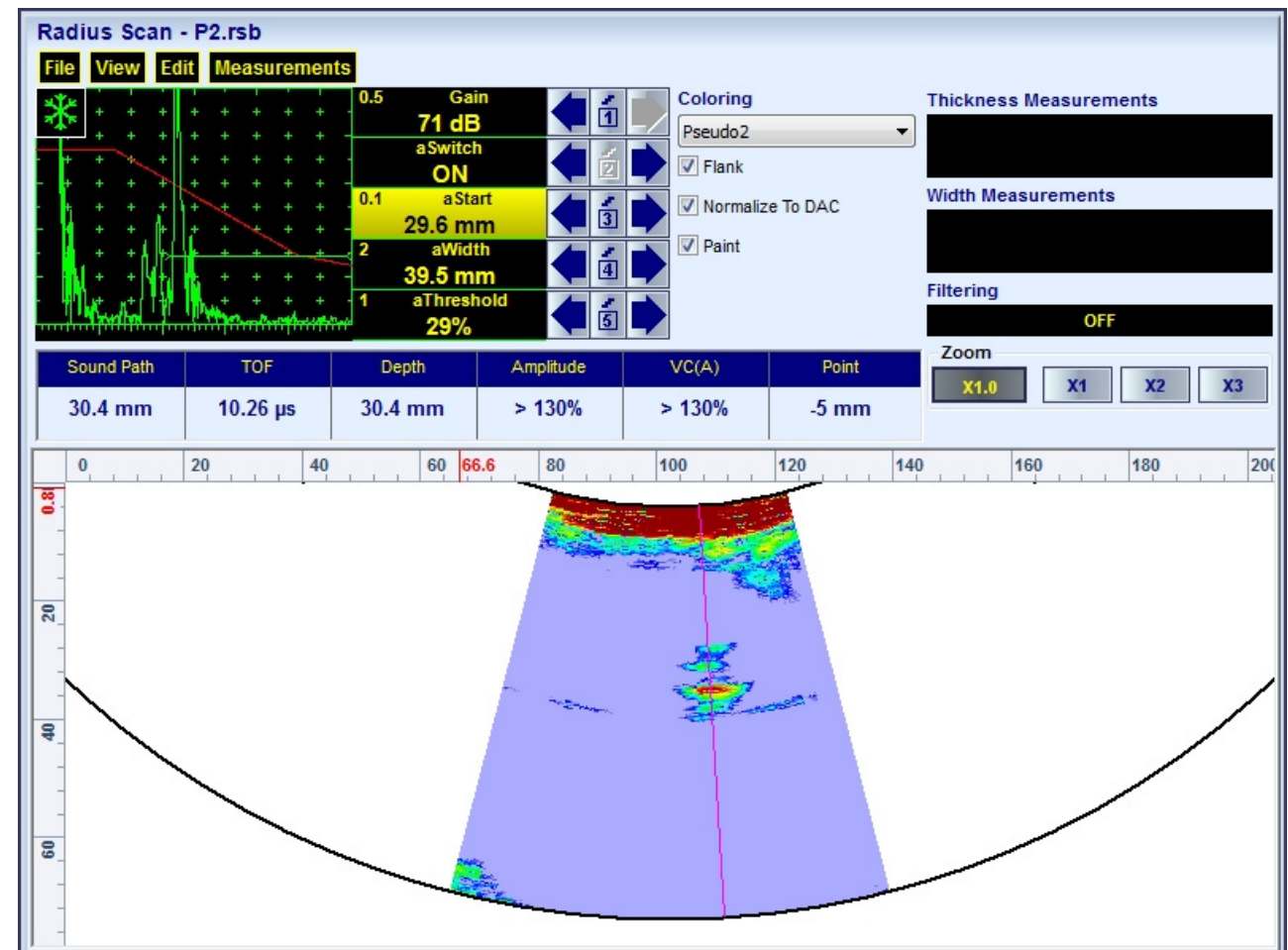
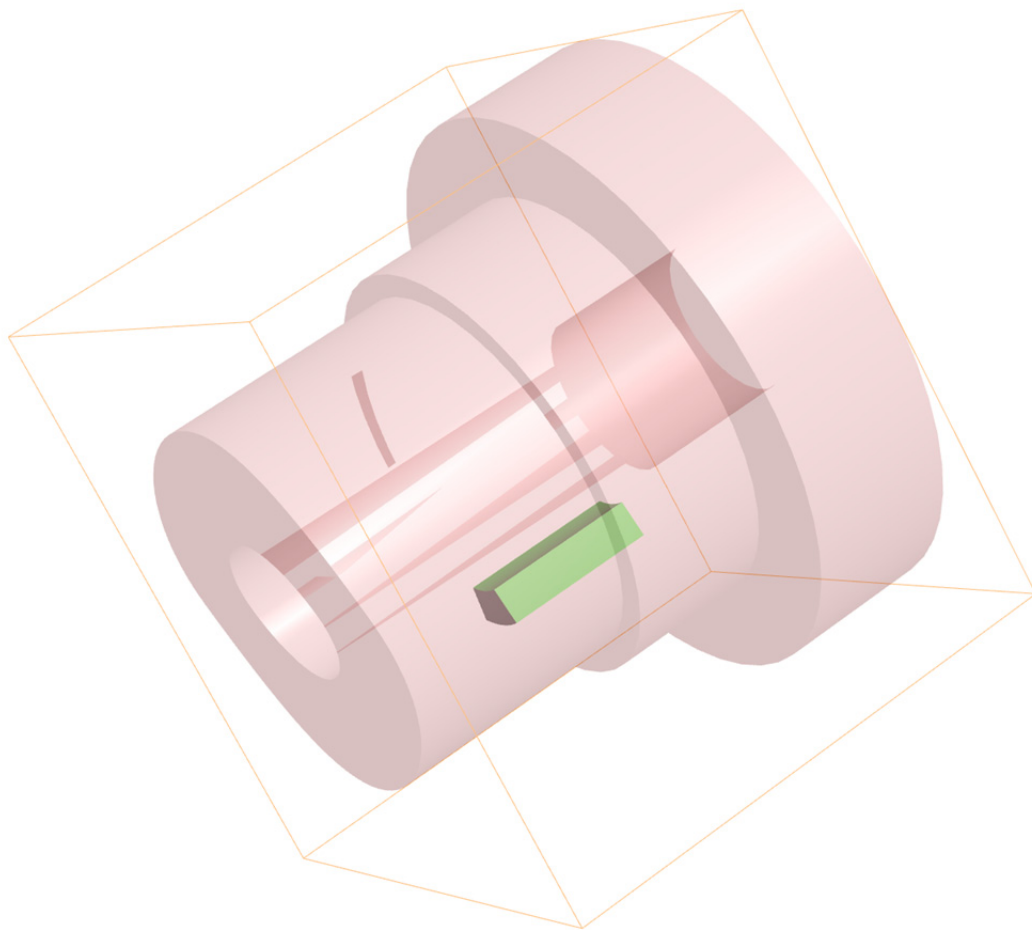


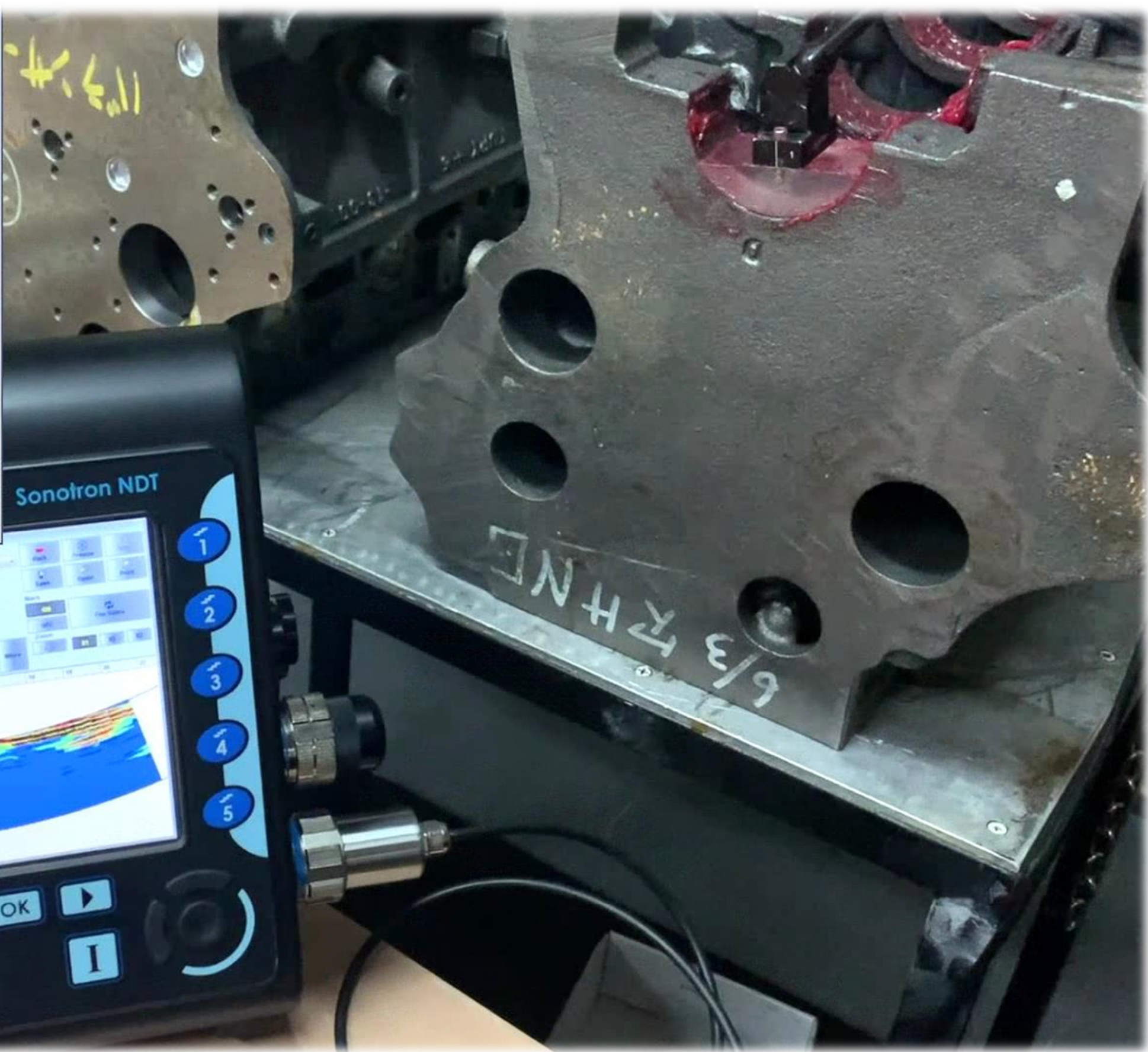
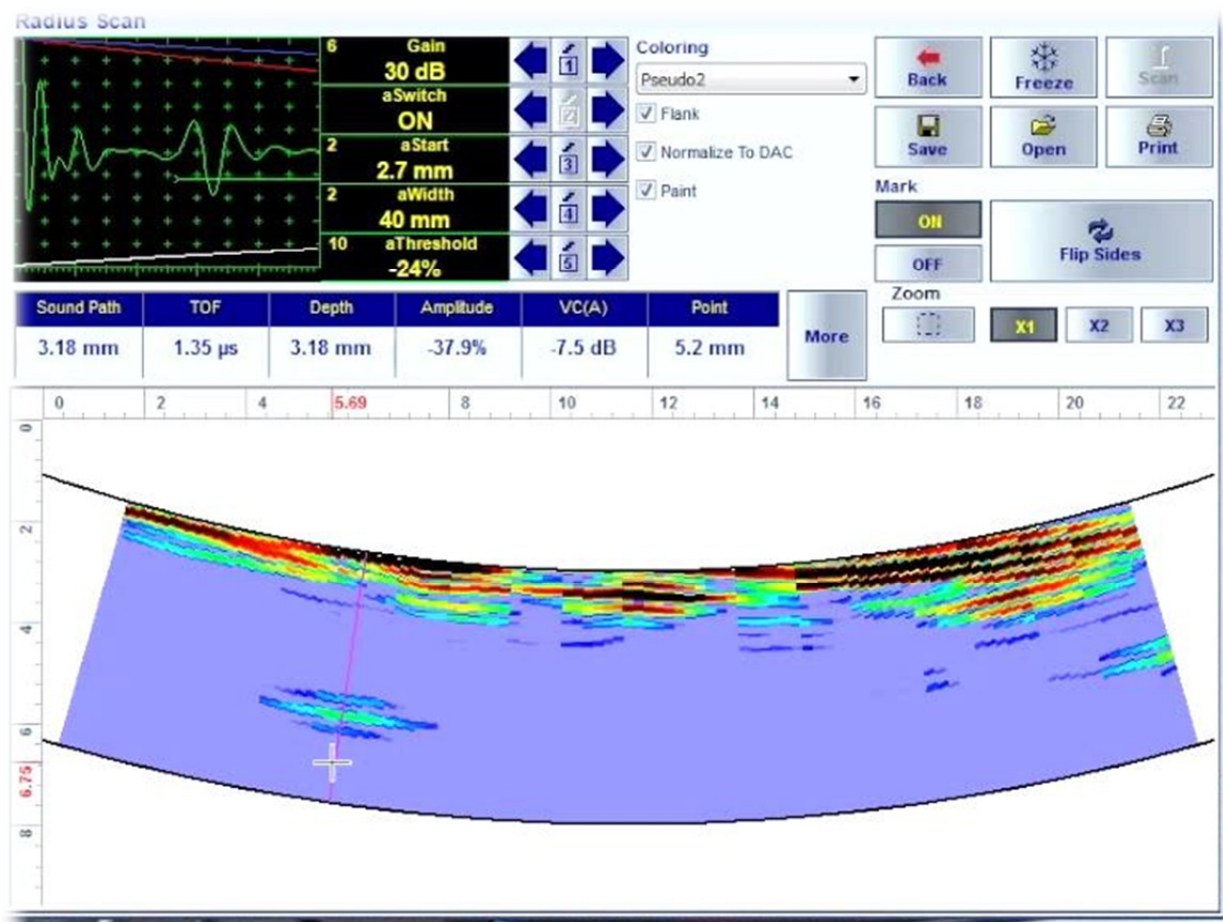
ISONIC 3510

Calibration Block / PDB for the shaft inspection

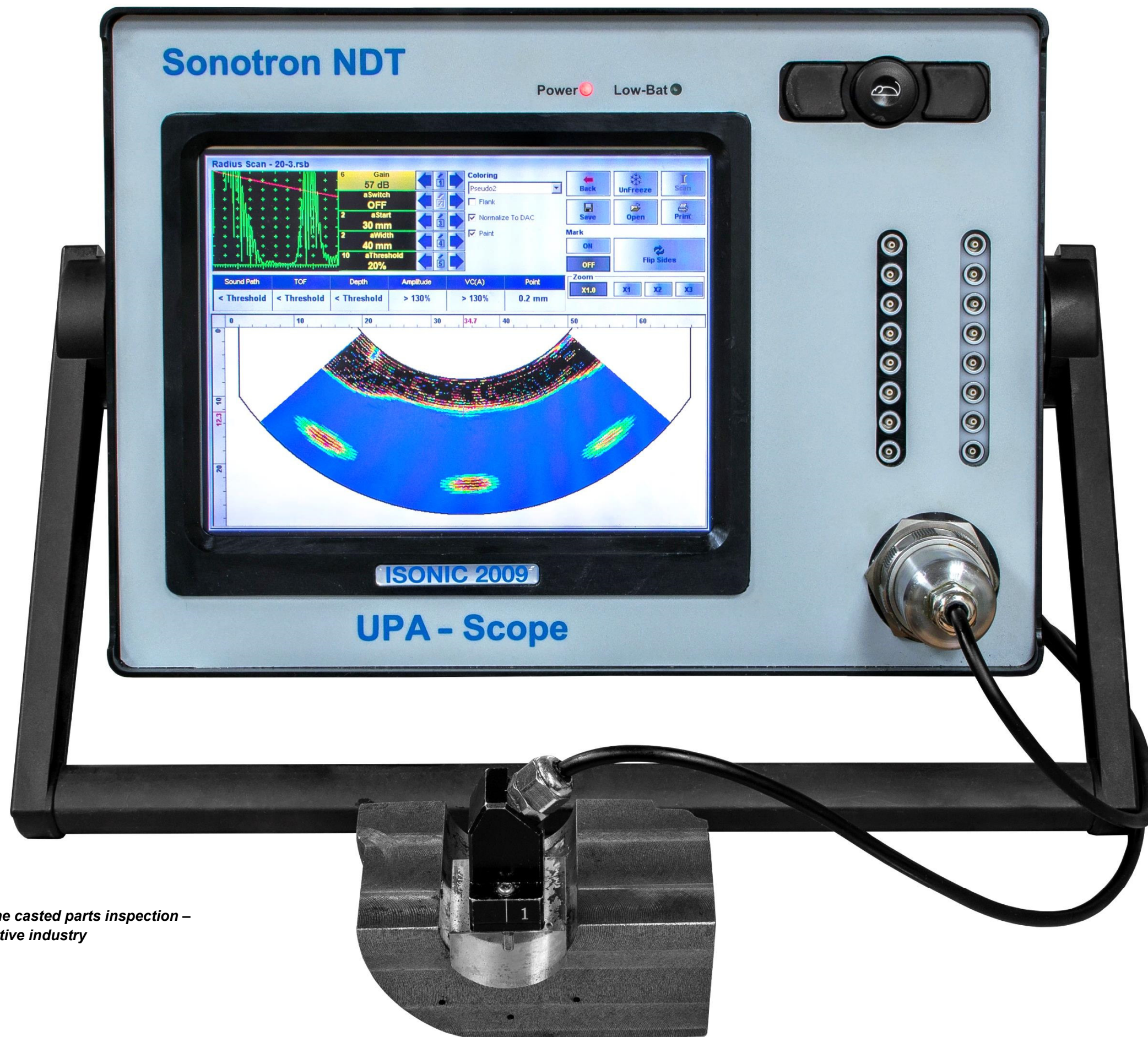








Detection of the subsurface voids in the casted case of automotive engine



Calibration Block / PDB for the casted parts inspection – heavy automotive industry



Calibration Block / PDB for the casted parts inspection – heavy automotive industry



Inspection of heat exchanger tubes from inside – detection of longitudinal cracks using internal crawler carrying wedged linear array probe with CU_IN contoured contact face – detection of the reference reflector on the ID side of the calibration / performance demonstration block