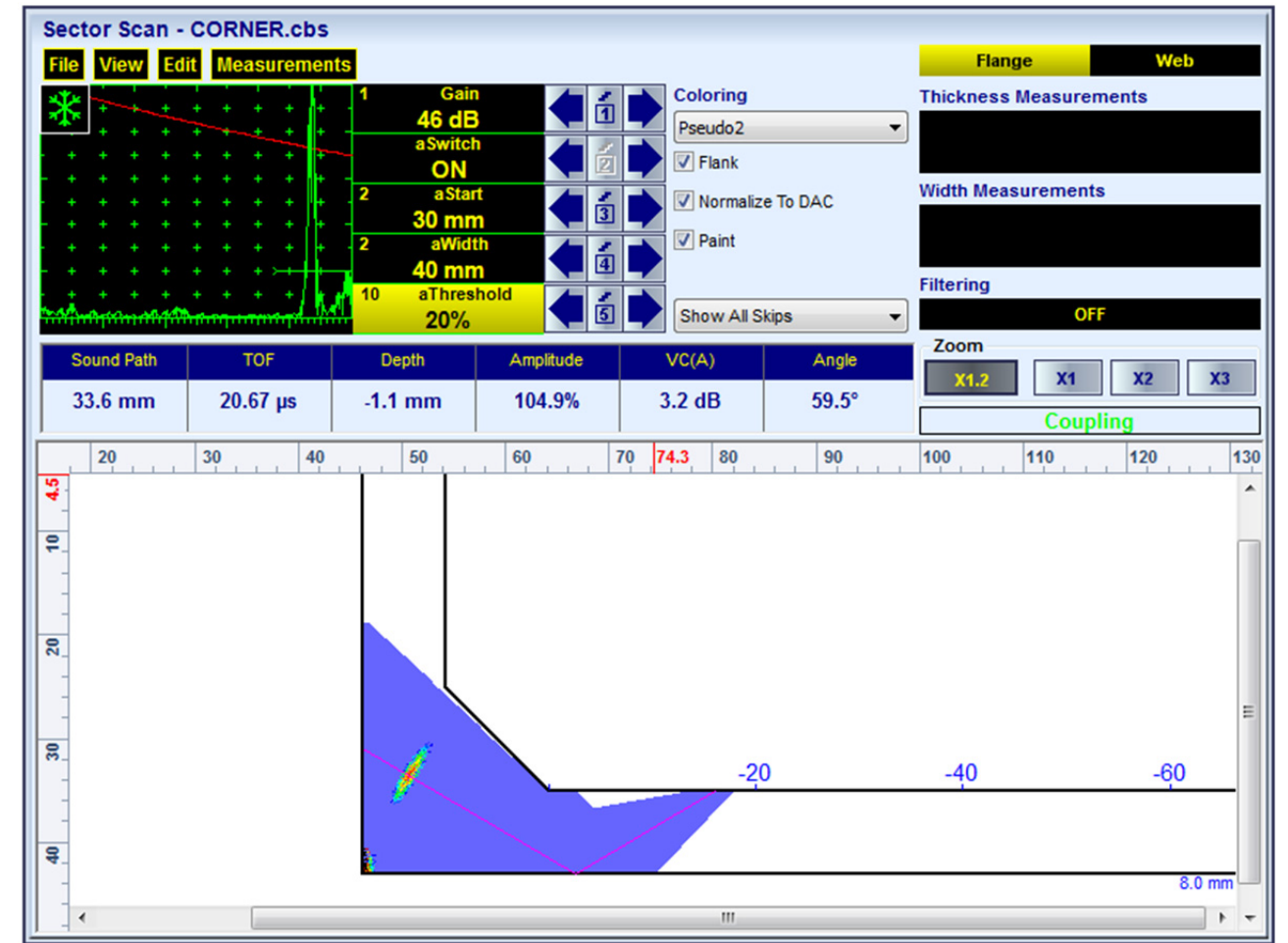| Item	Order Code (Part ##)
Inspection SW Application for ISONIC 3510T, ISONIC 3510 - Phased Array Modality: **Expert CORNER - Inspection of Corner, Nozzle, L-Shape welds with PA Probe - planar cross section of the base surface**	SWA 3510016
Inspection SW Application for ISONIC 2010 / ISONIC 2010 EL - Phased Array Modality: **Expert CORNER - Inspection of Corner, Nozzle, L-Shape welds with PA Probe - planar cross section of the base surface**	SWA 910816
Inspection SW Application for ISONIC 2009 UPA-Scope - Phased Array Modality: **Expert CORNER - Inspection of Corner, Nozzle, L-Shape welds with PA Probe - planar cross section of the base surface** ⇨ True-To-Geometry Weld Overlay Volume Corrected Imaging - Cross Sectional and Top (C-Scan)- / Side- / End- View and 3D ⇨ Sector-Scan Cross Sectional Coverage ⇨ Intuitive Image Guided PA Pulser Receiver with Beam Forming View ⇨ DAC / TCG Normalization ⇨ Built-In Weld Geometry Editor and Ray Tracer - Scanning Pattern Design ⇨ Independent on TCG Angle Gain Compensation / Gain Per Focal Law Correction ⇨ Automatic Coupling Monitor ⇨ Automatic Scanning Integrity Monitor ⇨ Detection of the defects in the parent material simultaneously with weld inspection ⇨ Encoded and Time based C-Scan ⇨ 100% Raw Data Capturing ⇨ FMC/TFM Protocol for the data acquisition and imaging ⇨ Automatic Defects Alarming Upon C-Scan Acquisition Completed ⇨ Automatic Creation of Editable Defects List ⇨ Automatic Creating of Scanning Integrity Report Upon C-Scan Acquisition Completed ⇨ Comprehensive Postrpocessing Toolkit Including: → 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-Scan data → 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 views, C-Scans, etc) → Off-Line DAC Normalization of the Recorded Images / DAC Evaluation → Off-Line editing of Angle Gain Compensation / 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 / etc) → 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	SWA 909816

File View Edit Measurements

Flange | Web

Thickness Measurements

Width Measurements

Filtering
OFF

1 Gain
46 dB
aSwitch
ON
2 aStart
30 mm
2 aWidth
40 mm
10 aThreshold
20%

Coloring
Pseudo2
☑ Flank
☑ Normalize To DAC
☑ Paint
Show All Skips

Sound Path	TOF	Depth	Amplitude	VC(A)	Angle
33.6 mm	20.67 µs	-1.1 mm	104.9%	3.2 dB	59.5°

Zoom
X1.2 | X1 | X2 | X3

Coupling

8.0 mm

Sonotron NDT

POWER ● LOW-BAT ● CHARGE ●

Sector Scan

Gain
45 dB
aSwitch
OFF
aStart
30 mm
aWidth
40 mm
aThreshold
20%

Coloring
Pseudo2
Flank
Normalize To DAC
Paint
Show All Skips

Back Freeze Scan
Save Open Print

Mark
ON
OFF
Flip Sides

Zoom
X1 X2 X3

Sound Path	TOF	Depth	Amplitude	VC(A)	Angle
< Threshold	< Threshold	< Threshold	> 130%	> 130%	58.0°

8.0 mm

ESC

dB

F

OK

I

ISONIC 3510

ESC
1
2
3
4
5

Sonotron NDT

Power ● Low-Bat ●

ISONIC 2009

UPA-Scope

W E

Sector Scan - CORNER.cbs

File View Edit Measurements

Flange Web

1 Gain **46 dB**
aSwitch **ON**
2 aStart **30 mm**
2 aWidth **40 mm**
10 aThreshold **20%**

Coloring
Pseudo2
☑ Flank
☑ Normalize To DAC
☑ Paint
Show All Skips

Thickness Measurements

Width Measurements

Filtering
OFF

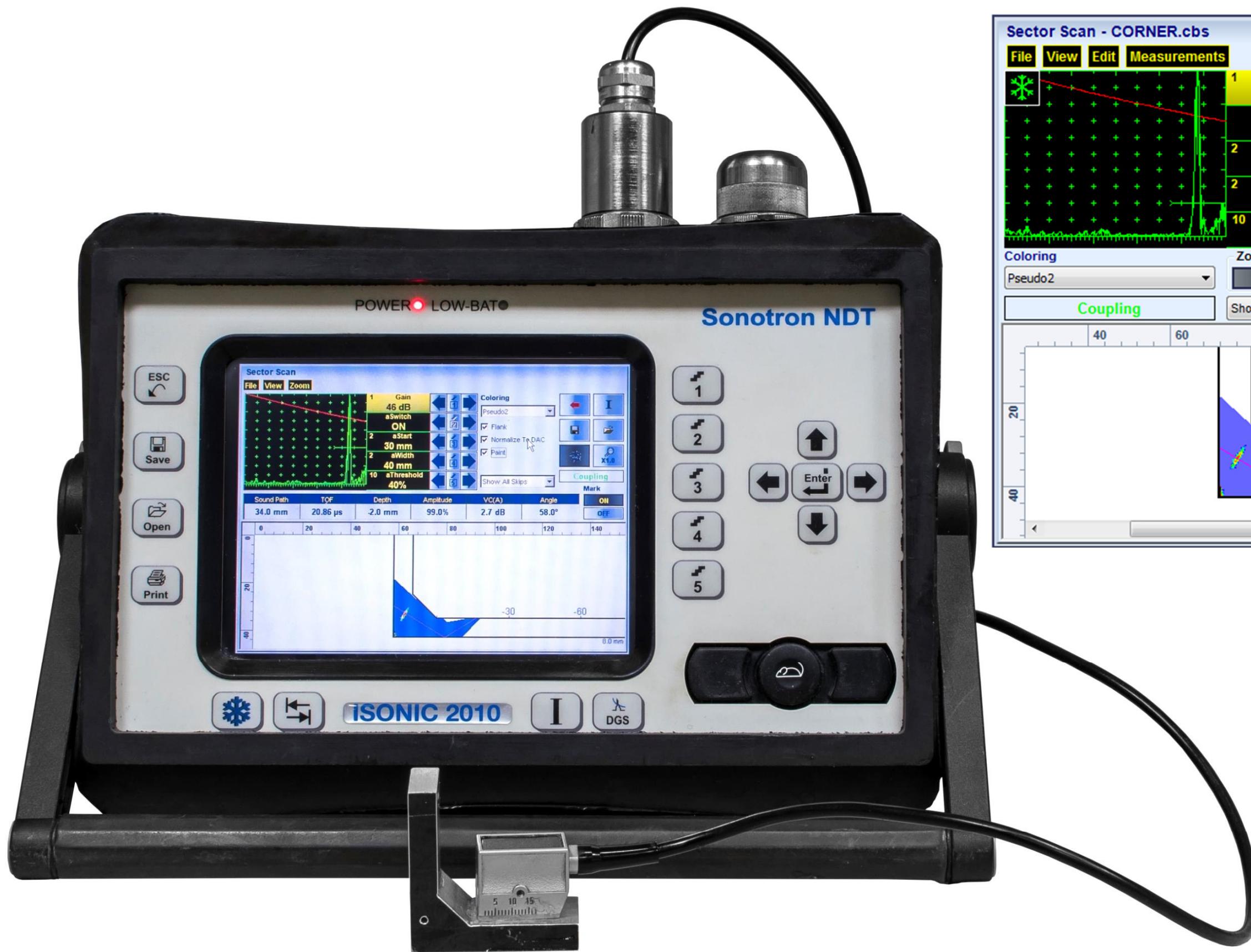| Sound Path	TOF	Depth	Amplitude	VC(A)	Angle
33.6 mm	20.67 µs	-1.1 mm	104.9%	3.2 dB	59.5°

Zoom
X1.2 X1 X2 X3

Coupling

8.0 mm

Shear wave inspection of the corner weld (calibration / performance demonstration block)

Shear wave inspection of the corner weld (calibration / performance demonstration block)

*Structural straight corner weld between
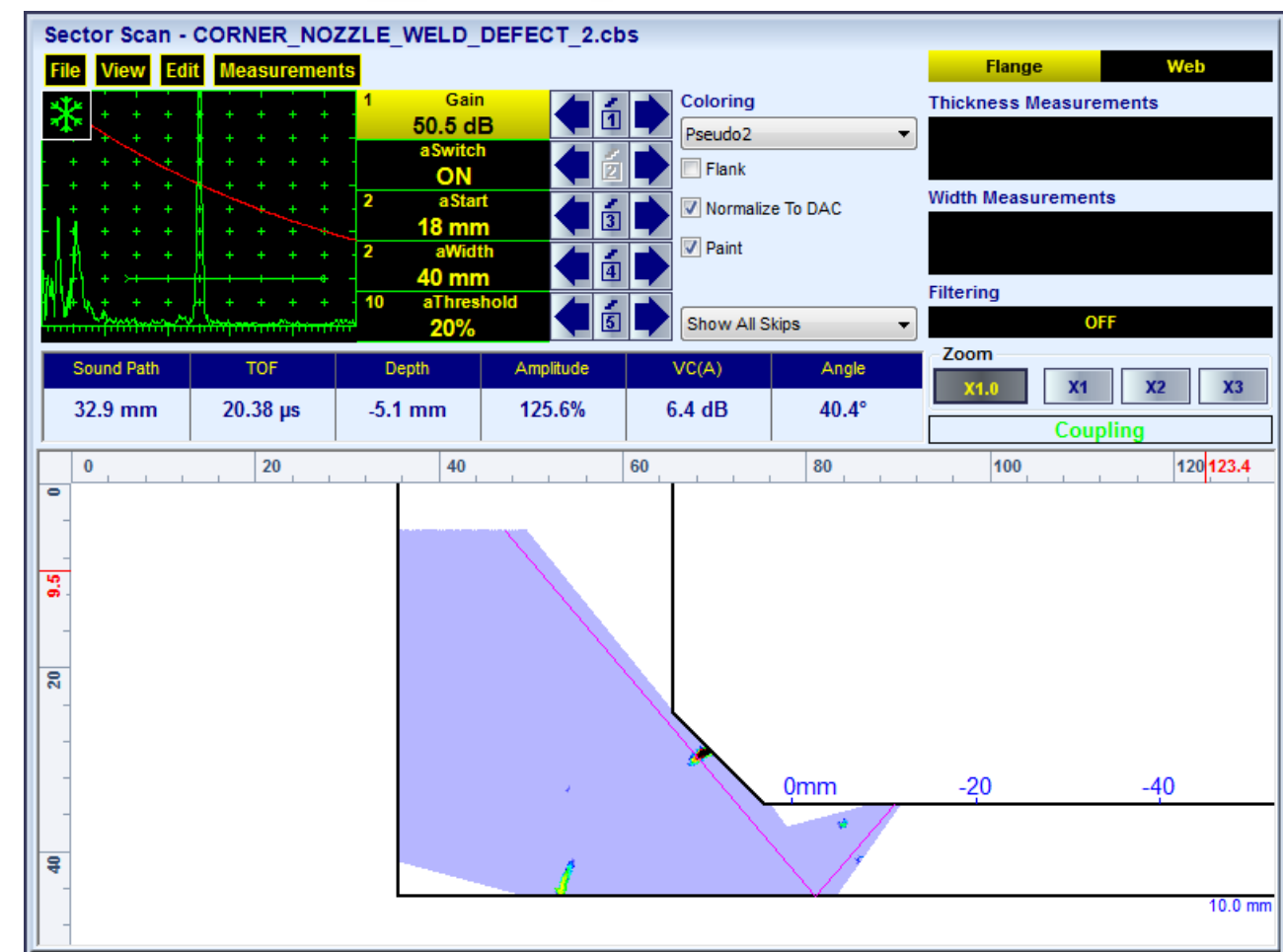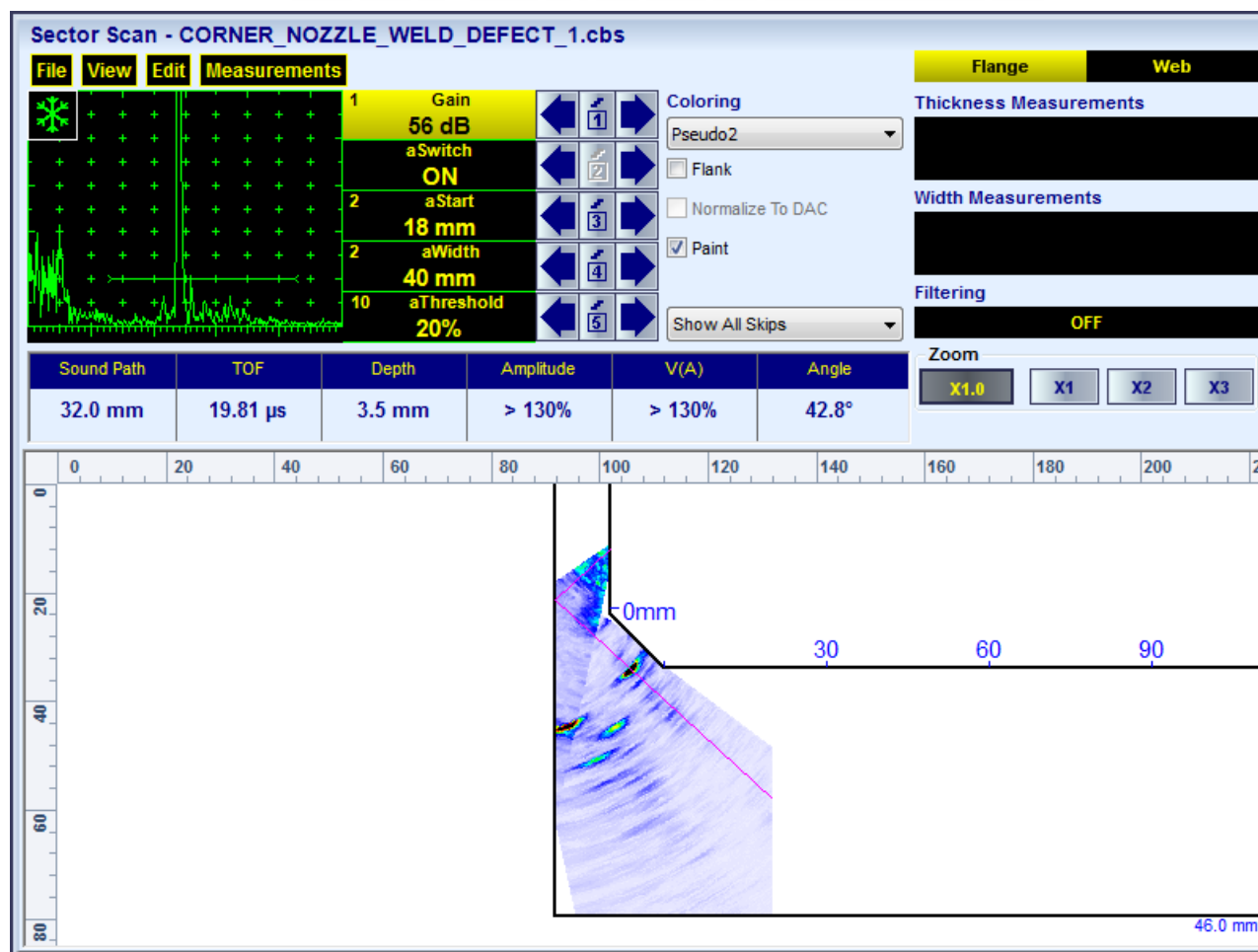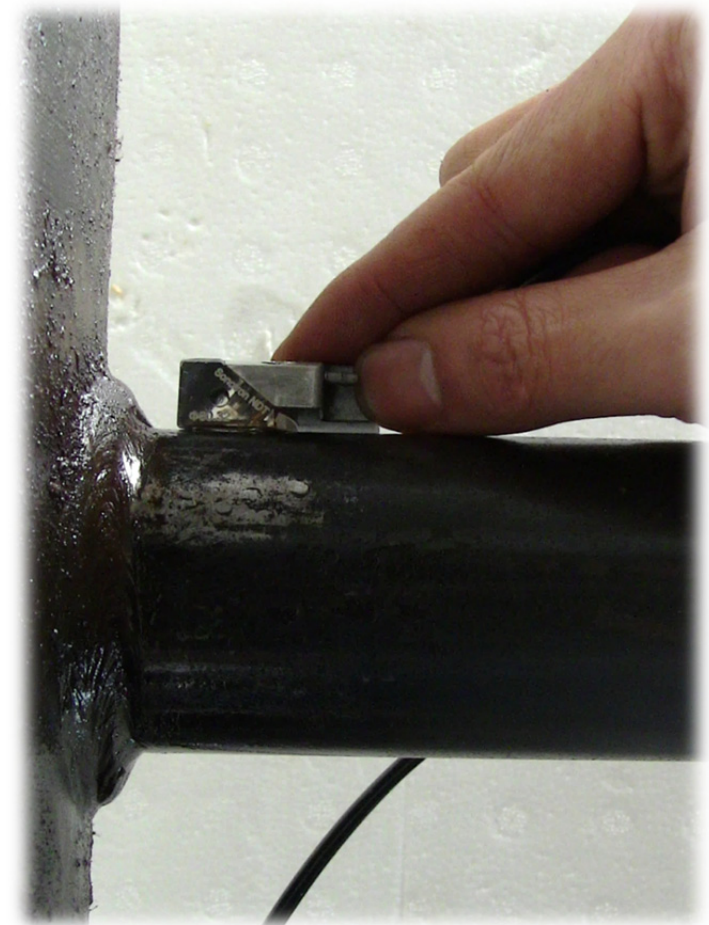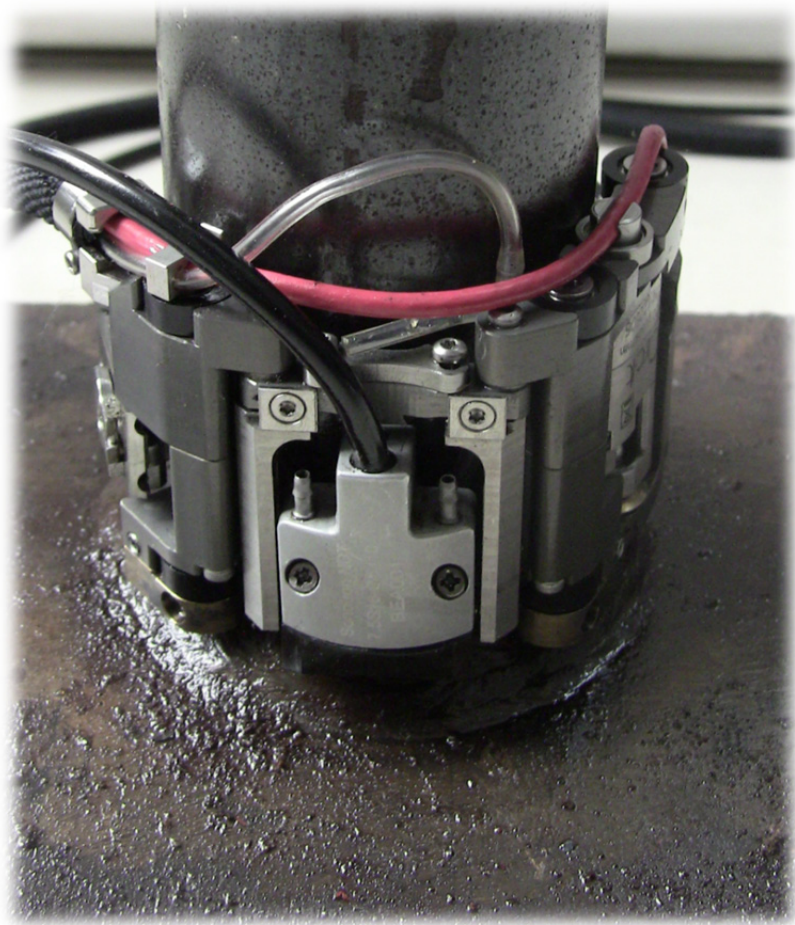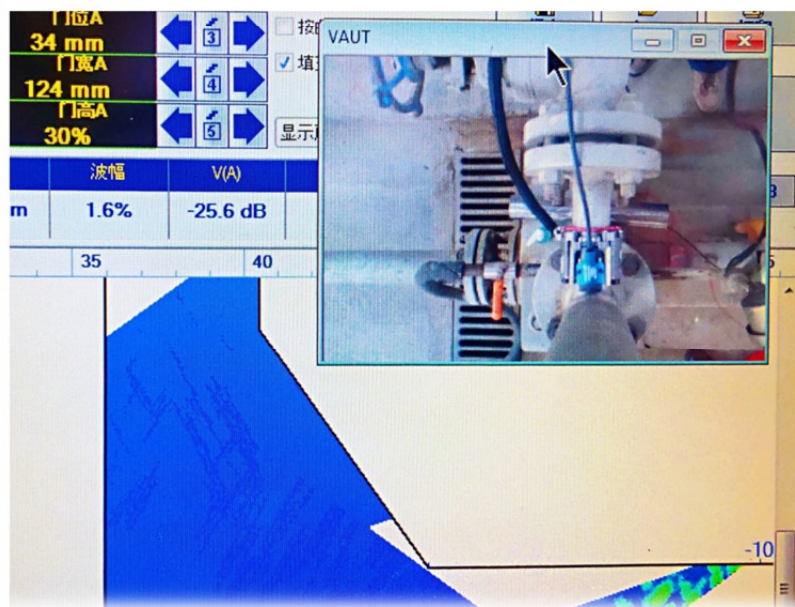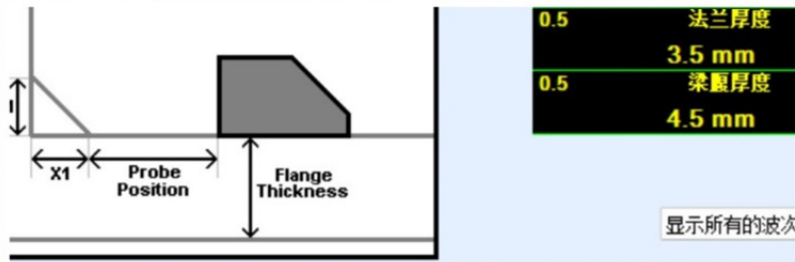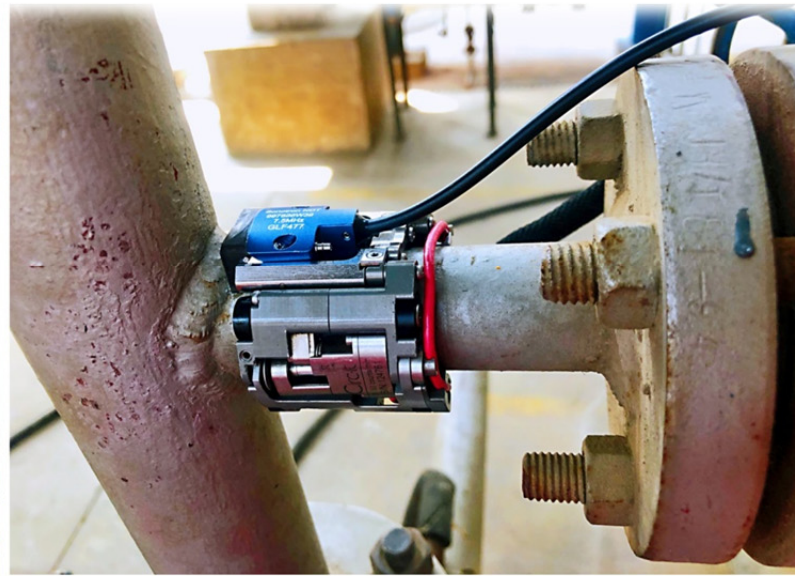thin wall rectangle cross-section profiles*

*Structural straight corner weld between
thin wall rectangle cross-section profiles*

Shear wave inspection of the straight nozzle weld

Sector Scan - CORNER_NOZZLE_WELD_DEFECT_1.cbs

| File | View | Edit | Measurements |

Flange | Web

1	Gain	56 dB
	aSwitch	ON
2	aStart	18 mm
2	aWidth	40 mm
10	aThreshold	20%

Coloring: Pseudo2
☐ Flank
☐ Normalize To DAC
☑ Paint
Show All Skips

Thickness Measurements

Width Measurements

Filtering: OFF

Zoom: X1.0 | X1 | X2 | X3

Sound Path	TOF	Depth	Amplitude	V(A)	Angle
32.0 mm	19.81 µs	3.5 mm	> 130%	> 130%	42.8°

46.0 mm

Sector Scan - CORNER_NOZZLE_WELD_DEFECT_2.cbs

| File | View | Edit | Measurements |

Flange | Web

1	Gain	50.5 dB
	aSwitch	ON
2	aStart	18 mm
2	aWidth	40 mm
10	aThreshold	20%

Coloring: Pseudo2
☐ Flank
☑ Normalize To DAC
☑ Paint
Show All Skips

Thickness Measurements

Width Measurements

Filtering: OFF

Zoom: X1.0 | X1 | X2 | X3

Coupling

Sound Path	TOF	Depth	Amplitude	VC(A)	Angle
32.9 mm	20.38 µs	-5.1 mm	125.6%	6.4 dB	40.4°

10.0 mm

法兰厚度
3.5 mm
余厚厚度
4.5 mm

显示所有的波次

Probe Position
Flange Thickness
X1

门位A
34 mm
门宽A
124 mm
门高A
30%

显示

VAUT

波幅   V(A)
1.6%   -25.6 dB

35   40

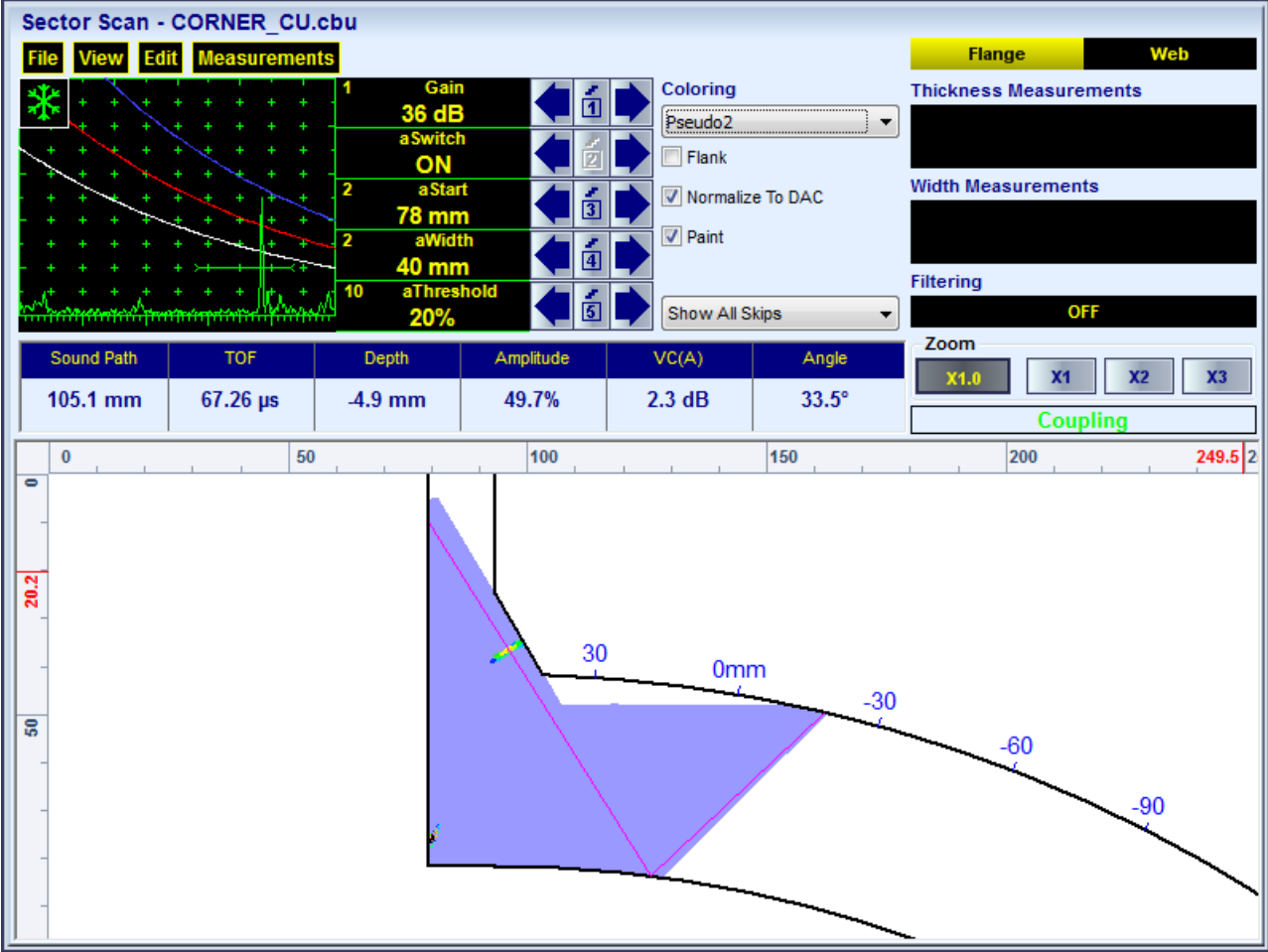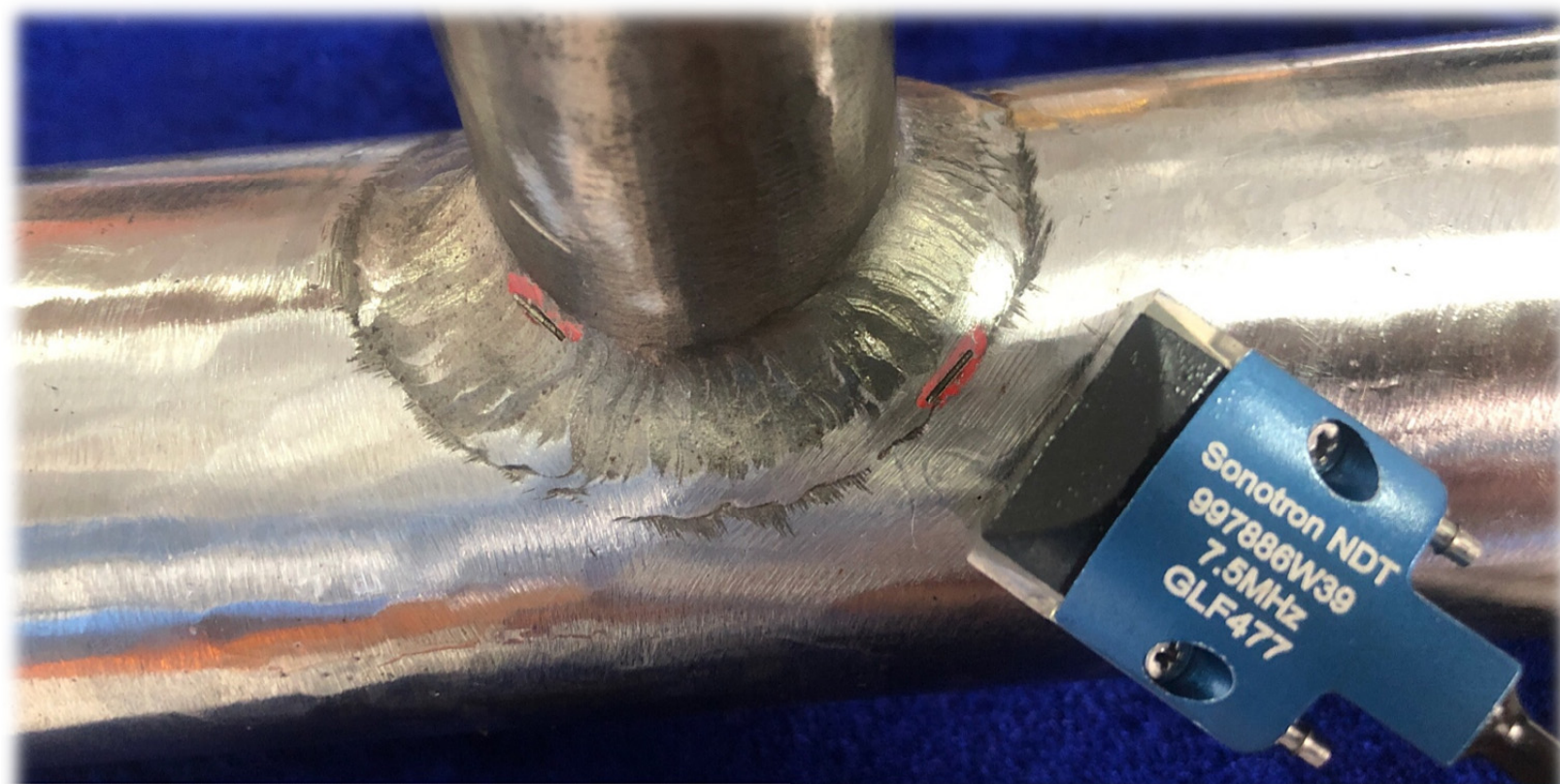| Item	Order Code (Part ##)
Inspection SW Application for ISONIC 3510T, ISONIC 3510 - Phased Array Modality: **Expert CORNER CU - Inspection of Corner, Nozzle, L-Shape welds with PA Probe - curved cross section of the base surface**	SWA 3510017
Inspection SW Application for ISONIC 2010 / ISONIC 2010 EL - Phased Array Modality: **Expert CORNER CU - Inspection of Corner, Nozzle, L-Shape welds with PA Probe - curved cross section of the base surface**	SWA 910817
Inspection SW Application for ISONIC 2009 UPA-Scope - Phased Array Modality: **Expert CORNER CU - Inspection of Corner, Nozzle, L-Shape welds with PA Probe - curved cross section of the base surface** ⇨ True-To-Geometry Weld Overlay Volume Corrected Imaging - Cross Sectional and Top (C-Scan)- / Side- / End- View and 3D ⇨ Sector-Scan Cross Sectional Coverage ⇨ Intuitive Image Guided PA Pulser Receiver with Beam Forming View ⇨ DAC / TCG Normalization ⇨ Built-In Weld Geometry Editor and Ray Tracer - Scanning Pattern Design ⇨ Automatic Curvature Correction for the wedges with contoured contact face ⇨ Independent on TCG Angle Gain Compensation / Gain Per Focal Law Correction ⇨ Automatic Coupling Monitor ⇨ Automatic Scanning Integrity Monitor ⇨ Detection of the defects in the parent material simultaneously with weld inspection ⇨ Encoded and Time based C-Scan ⇨ 100% Raw Data Capturing ⇨ FMC/TFM Protocol for the data acquisition and imaging ⇨ Automatic Defects Alarming Upon C-Scan Acquisition Completed ⇨ Automatic Creation of Editable Defects List ⇨ Automatic Creating of Scanning Integrity Report Upon C-Scan Acquisition Completed ⇨ Comprehensive Postrpocessing Including: → 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 veiwes, C-Scans, etc) → Off-Line DAC Normalization of the Recorded Images / DAC Evaluation → Off-Line editing of Angle Gain Compensation / 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 / etc) → 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	SWA 909817

Shear wave inspection of the header weld

SONOTRON NDT

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Inspection of nozzle weld through scanning above the nozzle tube
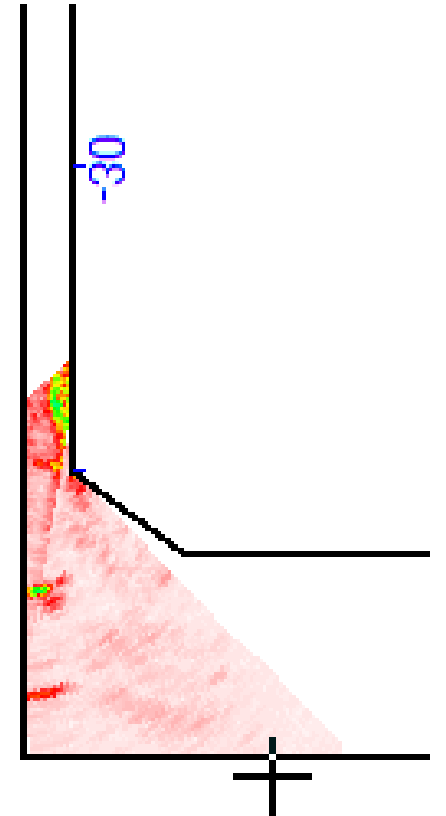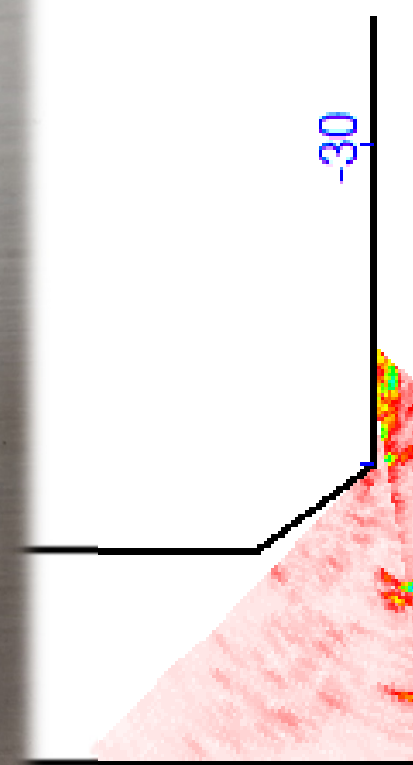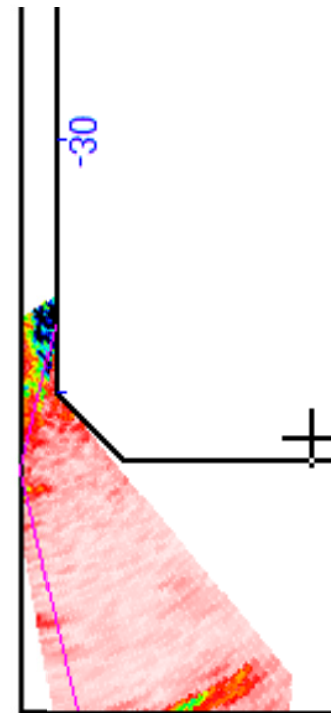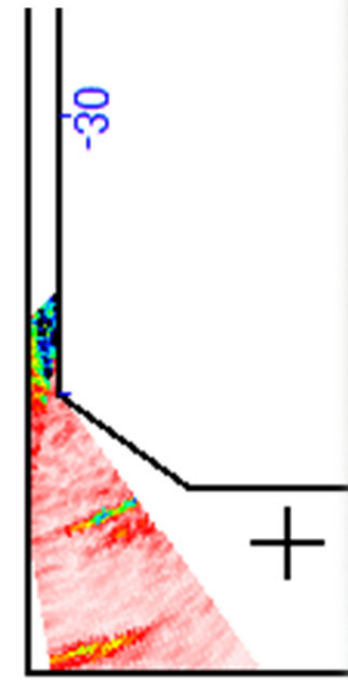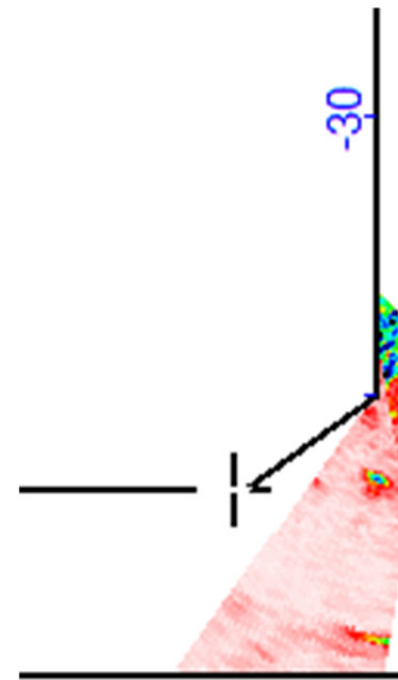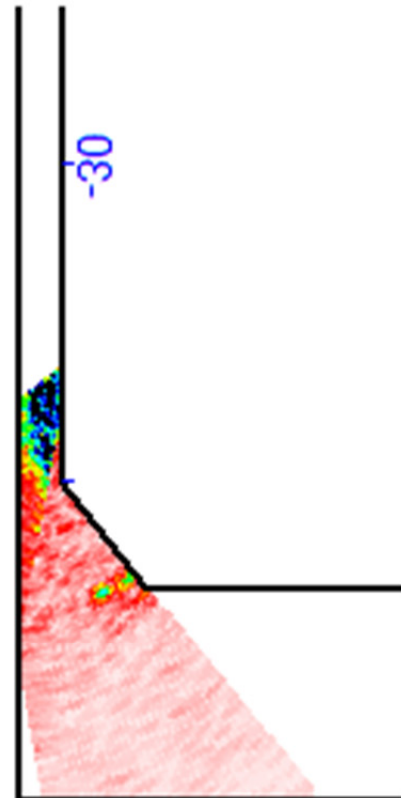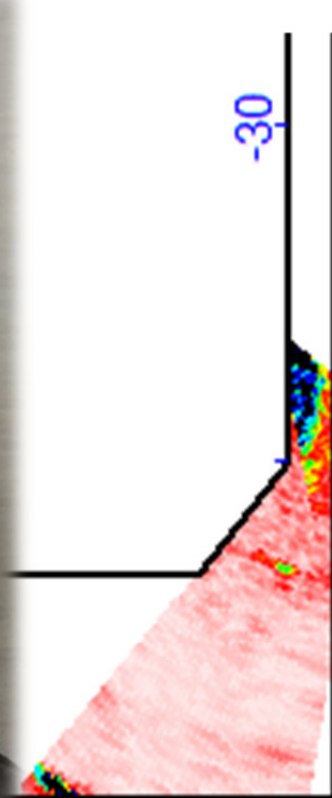
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Shear wave inspection of the corner weld: automotive industry

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Shear wave inspection of the corner weld: automotive industry

Shear wave inspection of the corner weld: automotive industry

Shear wave inspection of the corner weld: automotive industry
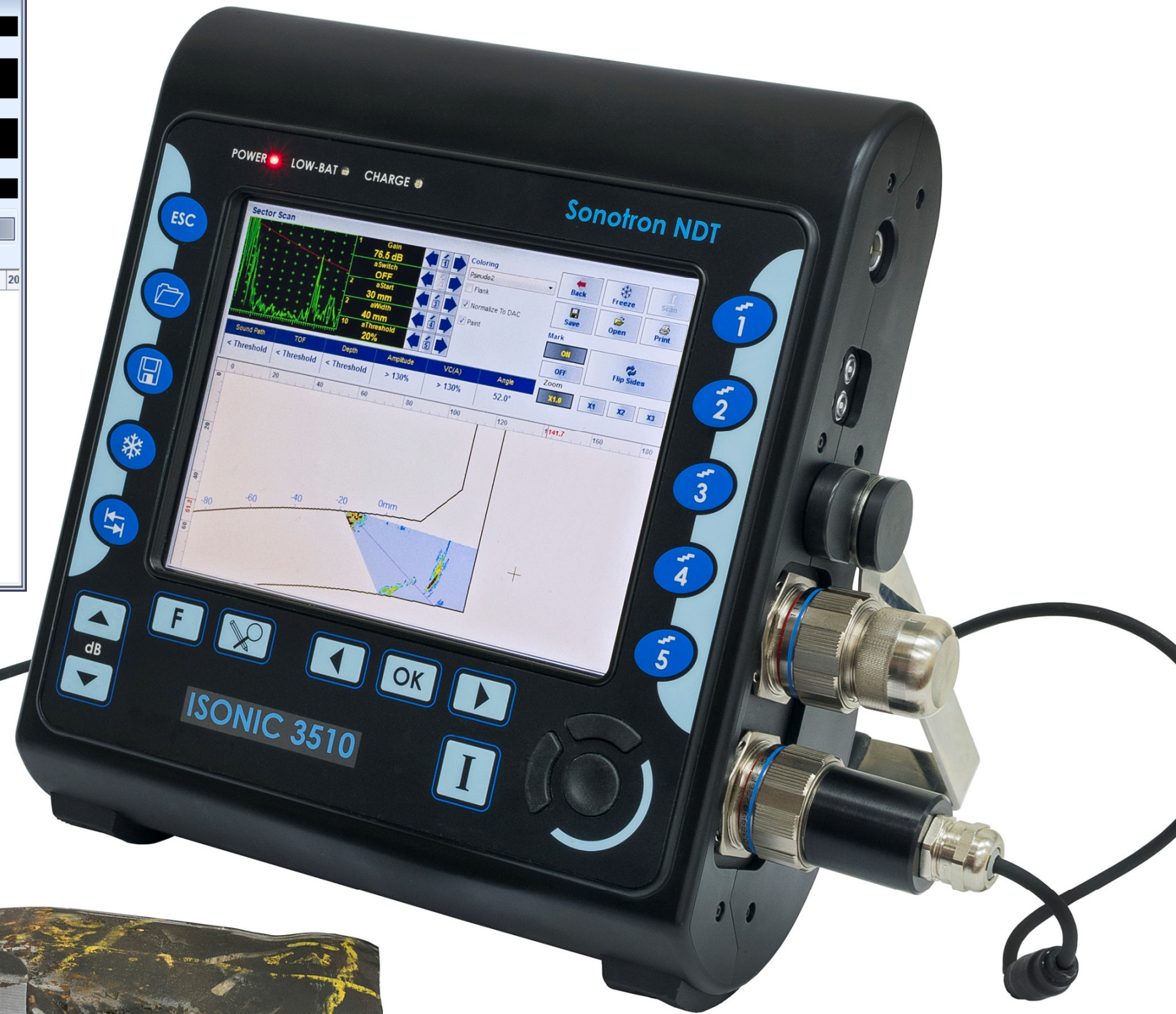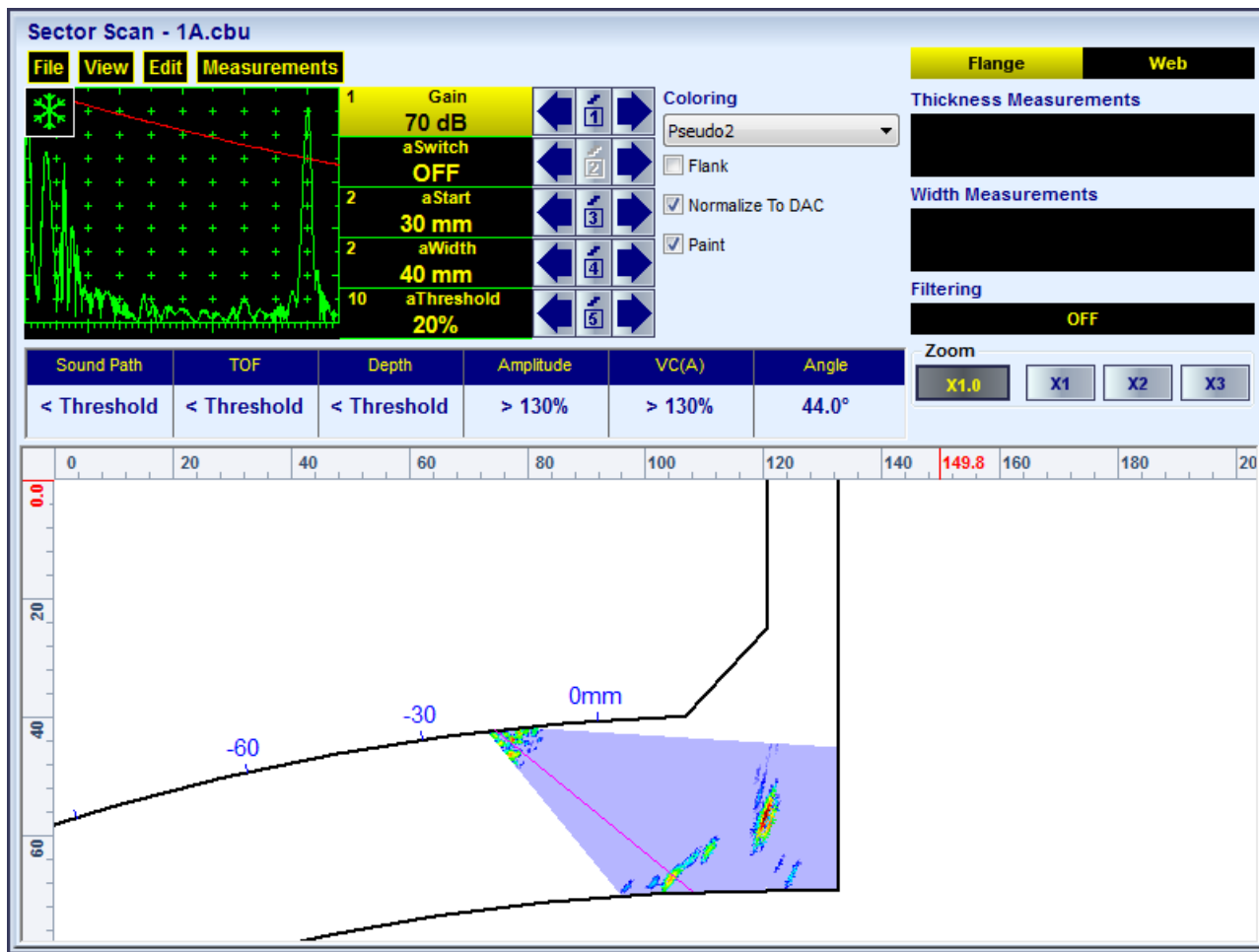
Shear wave inspection: detection and sizing of the erosion / Flow Accelerated Corrosion (FAC) on the inner surface of vessels, tubes, etc – access holes sealed with radiographic plug welded from outside

*Shear wave inspection: detection and sizing of the erosion / Flow
Accelerated Corrosion (FAC) on the inner surface of vessels, tubes, etc
– access holes sealed with radiographic plug welded from outside*

Sector Scan - 1A.cbu

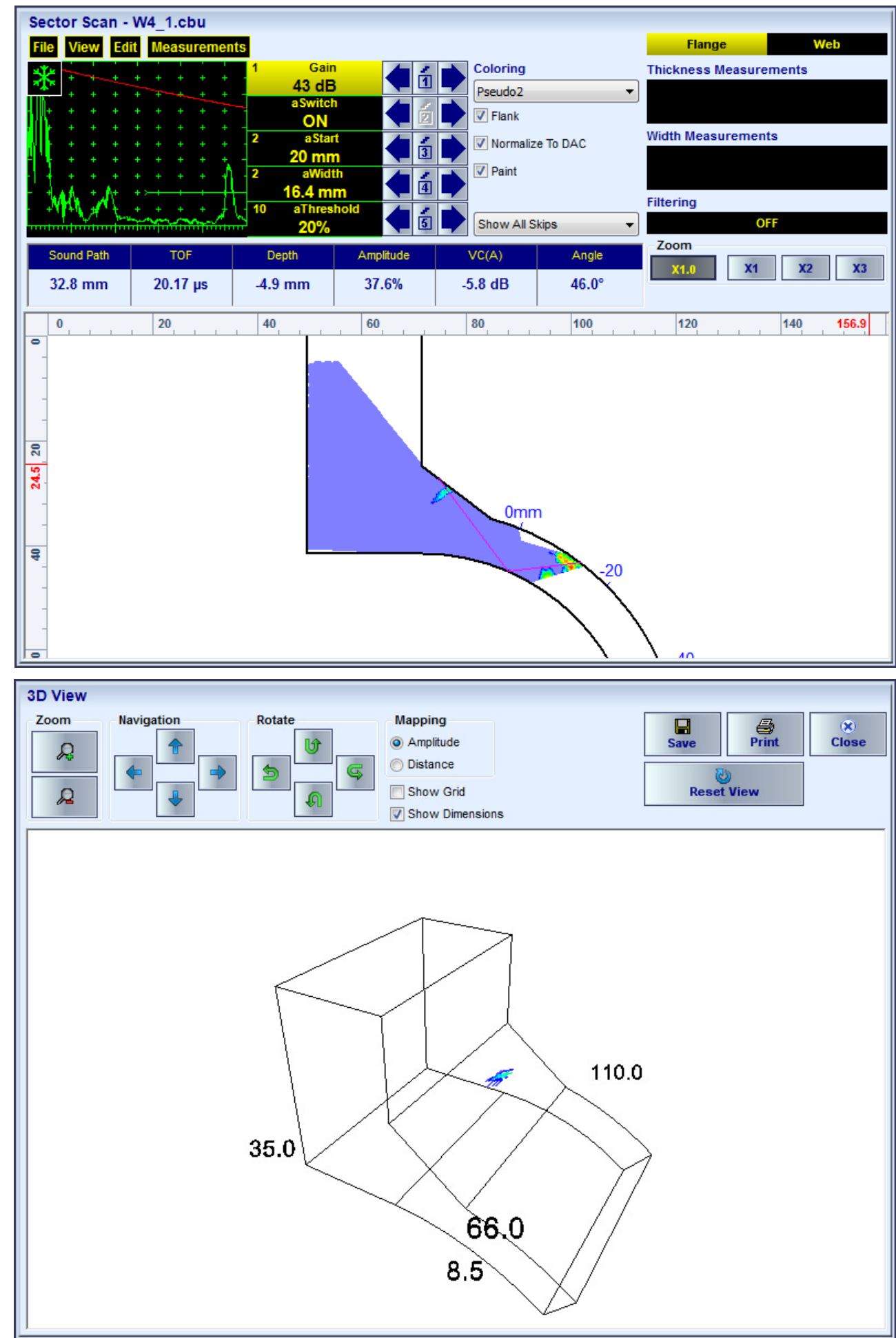| File | View | Edit | Measurements |

Flange | Web

	Gain
	70 dB
	aSwitch
	OFF
	aStart
	30 mm
	aWidth
	40 mm
	aThreshold
	20%

Coloring: Pseudo2
☐ Flank
☑ Normalize To DAC
☑ Paint

Thickness Measurements
ΔD = 9.3 mm
Dg = 20.1 mm   Dr = 29.3 mm

Width Measurements
ΔX = 19.7 mm
Xg = 6.2 mm   Xr = 25.9 mm

Filtering
OFF

Zoom
X1.0 | X1 | X2 | X3

| Sound Path | TOF | Depth | Amplitude | VC(A) | Angle |
| < Threshold | < Threshold | < Threshold | > 130% | > 130% | 44.0° |

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9.5 mm
19.8 mm

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Shear wave inspection: detection and sizing of the erosion / Flow Accelerated Corrosion (FAC) on the inner surface of vessels, tubes, etc – access holes sealed with radiographic plug welded from outside

Sector Scan - 2A.cbu

File | View | Edit | Measurements

	Gain			Coloring
1	70 dB			Pseudo2
	aSwitch			☐ Flank
2	OFF			☑ Normalize To DAC
2	aStart			☑ Paint
	30 mm			
2	aWidth			
	40 mm			
10	aThreshold			
	20%			

Flange | Web

Thickness Measurements
ΔD = 13.3 mm
Dg = 16.2 mm   Dr = 29.5 mm

Width Measurements
ΔX = 18.1 mm
Xg = 7.8 mm   Xr = 26.0 mm

Filtering
OFF

Zoom
X1.0 | X1 | X2 | X3

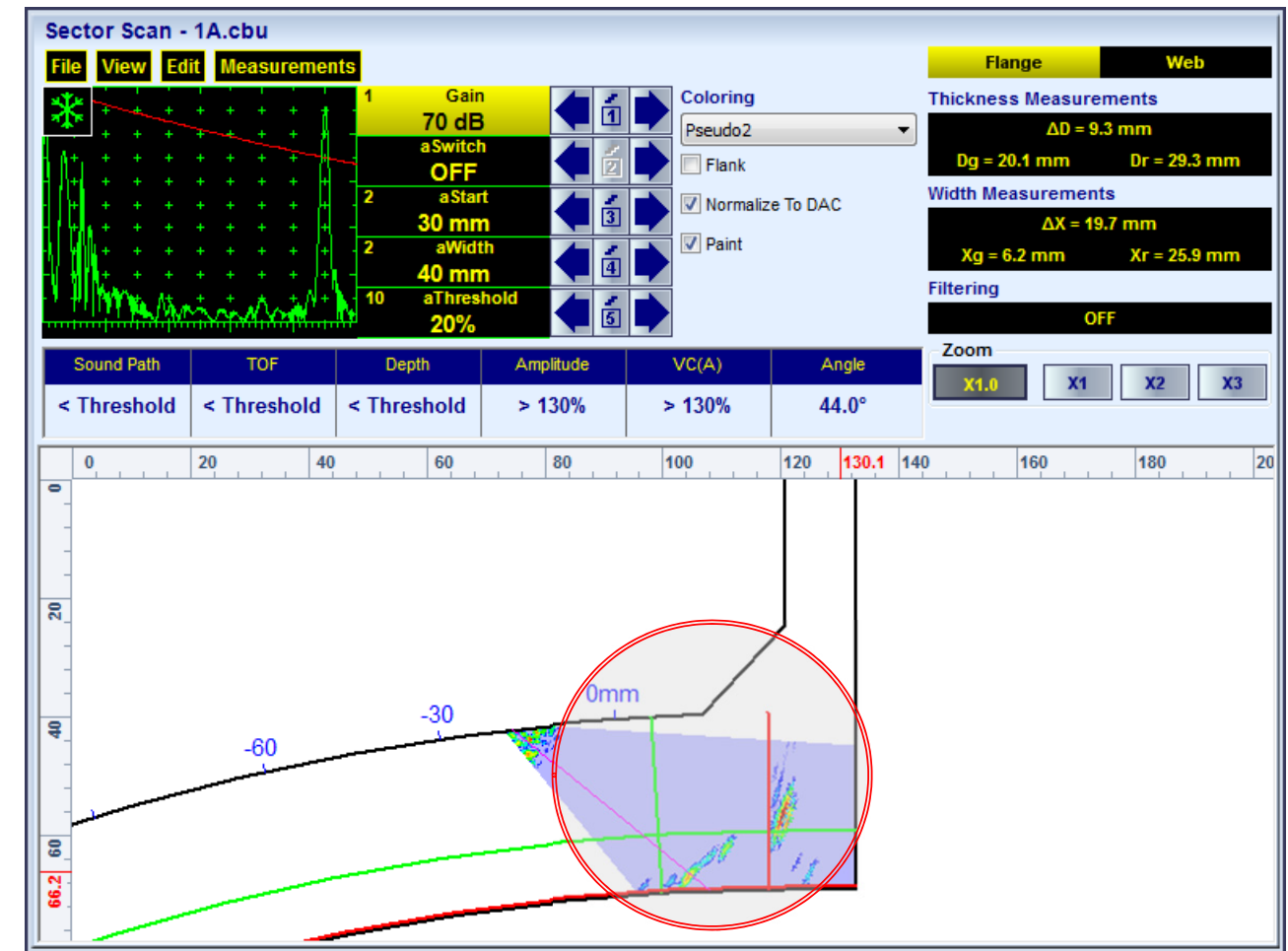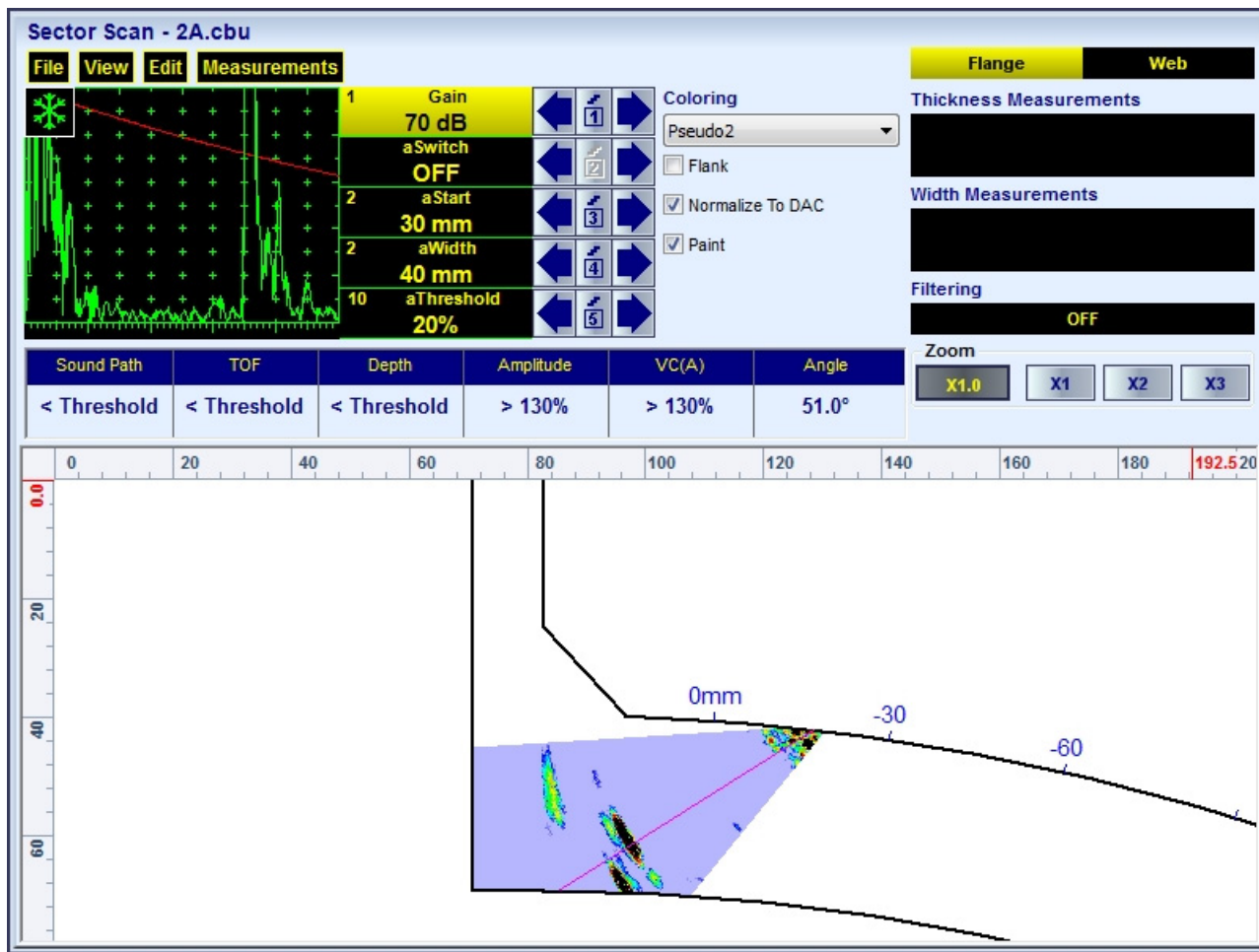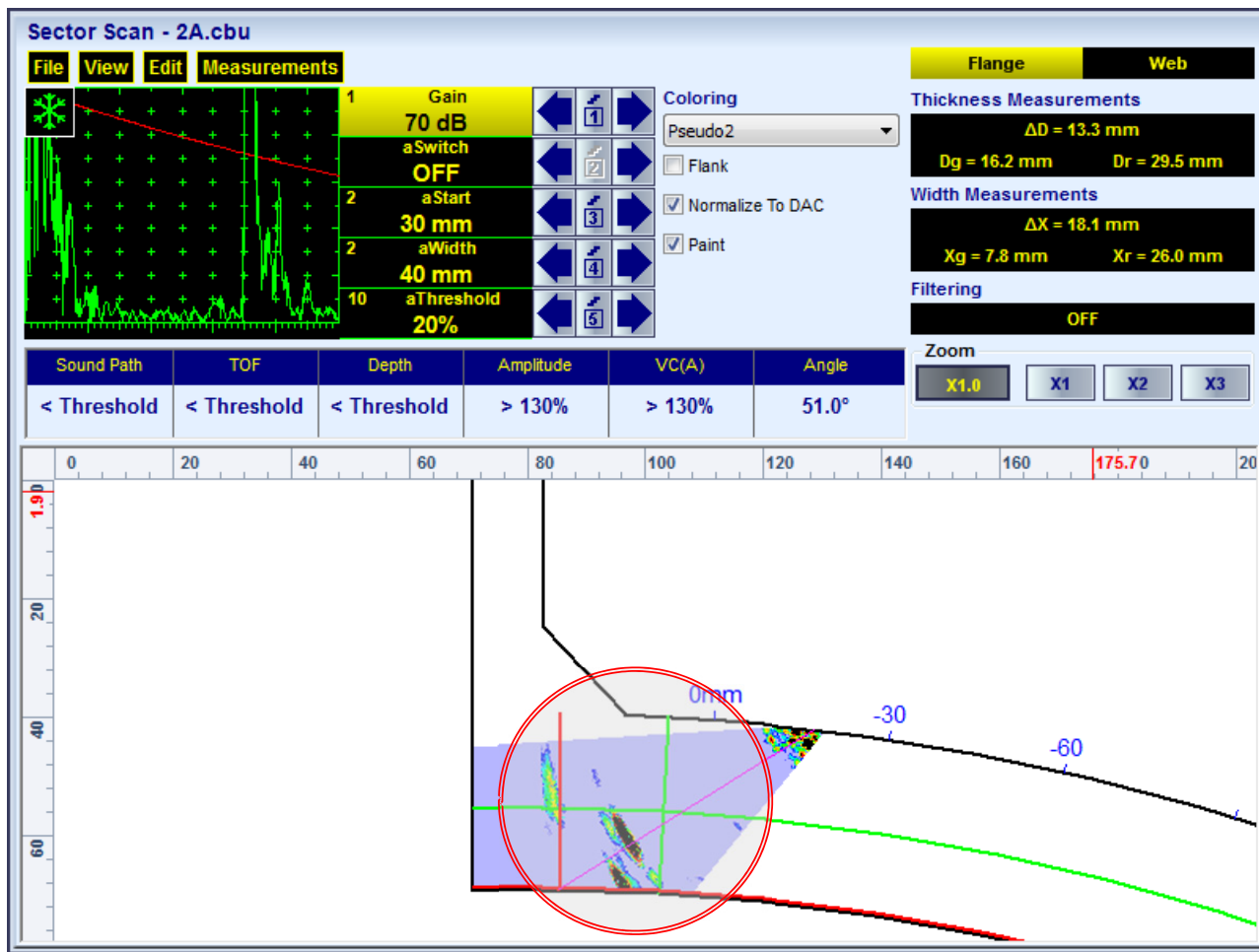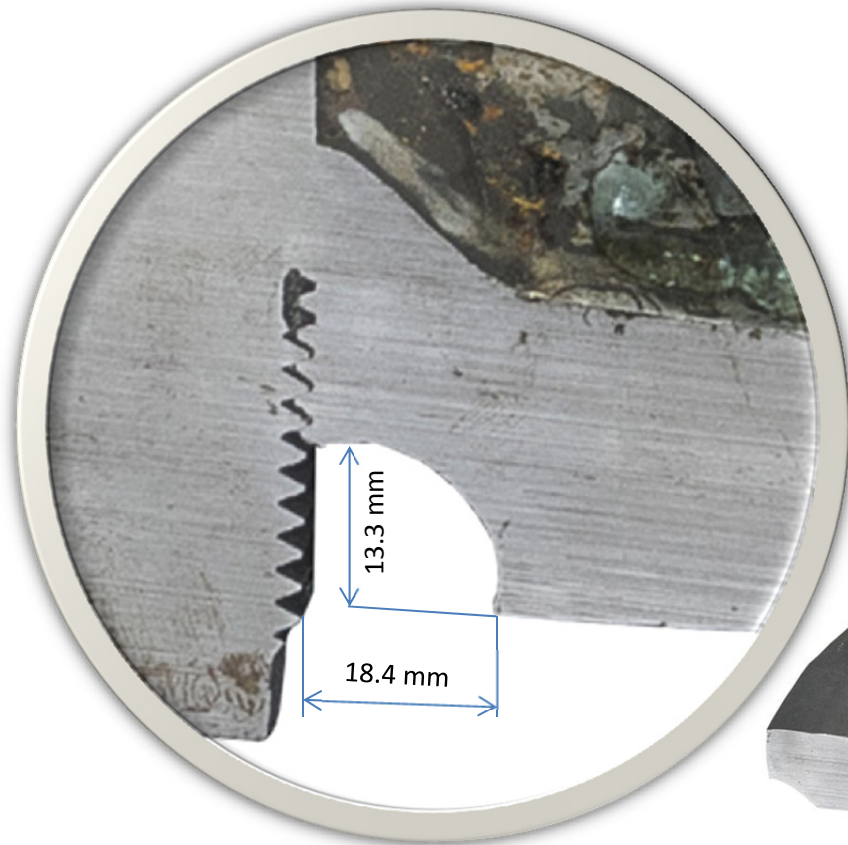| Sound Path	TOF	Depth	Amplitude	VC(A)	Angle
< Threshold	< Threshold	< Threshold	> 130%	> 130%	51.0°

Shear wave inspection: detection and sizing of the erosion / Flow Accelerated Corrosion (FAC) on the inner surface of vessels, tubes, etc – access holes sealed with radiographic plug welded from outside

13.3 mm
18.4 mm

Item	Order Code (Part ##)
Inspection SW Application for ISONIC 3510T, ISONIC 3510 - Phased Array Modality: **Expert Edge - Inspection of Edge / Open Corner Joints**	SWA 3510038
Inspection SW Application for ISONIC 3510 - Phased Array Modality: **Expert Edge - Inspection of Edge / Open Corner Joints**	SWA 910838
Inspection SW Application for ISONIC 2009 UPA-Scope - Phased Array Modality: **Expert Edge - Inspection of Edge / Open Corner Joints**	SWA 909838

⇨ True-To-Geometry Weld Overlay Volume Corrected Imaging - Cross Sectional and Top (C-Scan)- / Side- / End- View and 3D
⇨ Sector-Scan Cross Sectional Coverage
⇨ Intuitive Image Guided PA Pulser Receiver with Beam Forming View
⇨ DAC / TCG Normalization
⇨ Built-In Weld Geometry Editor and Ray Tracer - Scanning Pattern Design
⇨ Independent on TCG Angle Gain Compensation / Gain Per Focal Law Correction
⇨ Automatic Coupling Monitor
⇨ Automatic Scanning Integrity Monitor
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⇨ Automatic Creation of Editable Defects List
⇨ Automatic Creating of Scanning Integrity Report Upon C-Scan Acquisition Completed

⇨ Comprehensive Postprocessing Toolkit Including:
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 → 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

Shear wave inspection of the open corner weld (performance demonstration block)

Panel 1 — Sector Scan - PP-MSB0001.msb
File View Edit Measurements
Gain 38 dB | aSwitch ON | aStart 46 mm | aWidth 22 mm | aThreshold 20%
Coloring: Pseudo2 | Flank | Normalize To DAC | Paint | Show All Skips
Thickness Measurements | Width Measurements | Filtering OFF | Zoom X1.0 X1 X2 X3
Sound Path | RSD | Depth | Amplitude | VC(A) | Angle
0 20 40 60 80 100 120 140 154.3
West Plate — 0mm — 36mm — East Plate
No A-Scan Mark

Panel 2 — Sector Scan - PP-MSB0001.msb
Gain 38 dB | aSwitch ON | aStart 46 mm | aWidth 22 mm | aThreshold 20%
Coloring: Pseudo2 | 0.5
0 20 40 60 80 100 120 138.9
West Plate — 0mm — 36mm — East Plate
No A-Scan Mark

Panel 3 — Sector Scan - PP-MSB0001.msb
Gain 38 dB | aSwitch ON | aStart 46 mm | aWidth 22 mm | aThreshold 20%
Coloring: Pseudo2 | 1.0
0 20 40 60 80 100 120 140 155.5
West Plate — 0mm — 36mm — East Plate
No A-Scan Mark

Panel 4 — Sector Scan - PP-MSB0001.msb
Gain 38 dB | aSwitch ON | aStart 30 mm | aWidth 22 mm | aThreshold 20%
Coloring: Pseudo2 | Show All Skips
Filtering OFF
Sound Path 44.3 mm | RSD 29.5 mm | Depth 14.4 mm | Amplitude 62.6% | VC(A) -0.5 dB | Angle 71.0°
0 20 40 60 80 100 120 140 151.8
West Plate — 0mm — 36mm — East Plate

Panel 5 — Sector Scan - PP-MSB0001.msb
Gain 38 dB | aSwitch ON | aStart 46 mm | aWidth 22 mm | aThreshold 20%
Coloring: Pseudo2 | Show All Skips
Filtering OFF
Sound Path 64.4 mm | RSD 35.4 mm | Depth 0.8 mm | Amplitude 84.5% | VC(A) 3.7 dB | Angle 52.5°
0 20 40 60 80 100 120 140 147.5
West Plate — 0mm — 36mm — East Plate

Panel 6 — Sector Scan - PP-MSB0001.msb - TFM
Gain 38 dB | Grid 0.05 mm | Meshing 2 | Relief Threshold 50% | Spot Threshold 50%
Coloring: Pseudo2 | Show All Skips
Filtering OFF
Sound Path | RSD | Depth | Amplitude | VC(A) | Angle
0 20 40 60 80 100 120 140 144.8
West Plate — 0mm — 36mm — East Plate
No A-Scan Mark