



## Detection, Imaging, and Evaluation of the Flange Face Corrosion

Item	Order Code (Part ##)
<p>Inspection SW Application for ISONIC 3510 - Phased Array Modality: <b>Expert FFC - Detection, Imaging, and Evaluation of Flange Face Corrosion</b></p> <ul style="list-style-type: none"> <li>▪ Probing from the flange and taper surface for the flange face for the detection and sizing of the flange face / ID surface corrosion - shear wave true-to-geometry (flange overlay volume corrected) cross-sectional S-Scan coverage and imaging</li> <li>▪ Line scanning around the taper surface for the for the detection, mapping, and sizing of the flange face / ID surface corrosion with shear wave true-to-geometry (flange overlay volume corrected) cross-sectional S-Scan coverage and imaging and data recording either encoded or time based: <ul style="list-style-type: none"> <li>○ Flange face corrosion map / amplitude map - Side view</li> <li>○ Flange face corrosion profile - distance / amplitude map - Top view</li> <li>○ ID surface corrosion map / amplitude map - C-Scan - Top View</li> <li>○ Amplitude overlap cross-sectional view - Amplitude Map End View</li> </ul> </li> <li>▪ Intuitive Image Guided PA Pulsar Receiver with Beam Forming View</li> <li>▪ DAC / TCG Normalization</li> <li>▪ Built-In Flange Geometry Editor and Ray Tracer - Scanning Pattern Design</li> <li>▪ Independent on TCG Angle Gain Compensation / Gain Per Focal Law Correction</li> <li>▪ Encoded and Time based C-Scan</li> <li>▪ 100% Raw Data Capturing</li> <li>▪ FMC/TFM Protocol for the data acquisition and imaging</li> <li>▪ Automatic Defects Alarming Upon C-Scan Acquisition Completed</li> <li>▪ Automatic Creation of Editable Defects List</li> <li>▪ Comprehensive Postprocessing Including: <ul style="list-style-type: none"> <li>○ Automatic / semiautomatic express-evaluation of the recorded data - overall flange face corrosion and depth and dimensions of the corrosion spots in several clicks</li> <li>○ Forming real shape (rounded) flange face corrosion map out of the unfolded view</li> <li>○ Recovery and Evaluation of Captured A-Scans from the Recorded Cross Sectional Views (Sector Scan) and C-Scans</li> <li>○ Recovery of Cross Sectional Views from the Recorded C-Scans</li> <li>○ Converting Recorded C-Scans or their Segments into 3D Images</li> <li>○ Off-Line Gain Manipulation</li> <li>○ Off-Line DAC Normalization of the Recorded Images / DAC Evaluation</li> <li>○ Numerous Filtering / Reject Options ( by Geometry / Position / By Amplitude / dB-to-DAC / etc )</li> <li>○ Defects Sizing</li> <li>○ Automatic Creation of Defect List and Storing it Into a Separate File</li> <li>○ Automatic creating of inspection reports - hard copy / PDF File</li> </ul> </li> </ul>	SWA 3510019



**Detection and evaluation of the flange face corrosion with use of PA probe placed onto the flange**

Detection and evaluation of the flange face corrosion with use of PA probe placed onto the taper



PA probe on the taper inside 3D-printed scanning frame

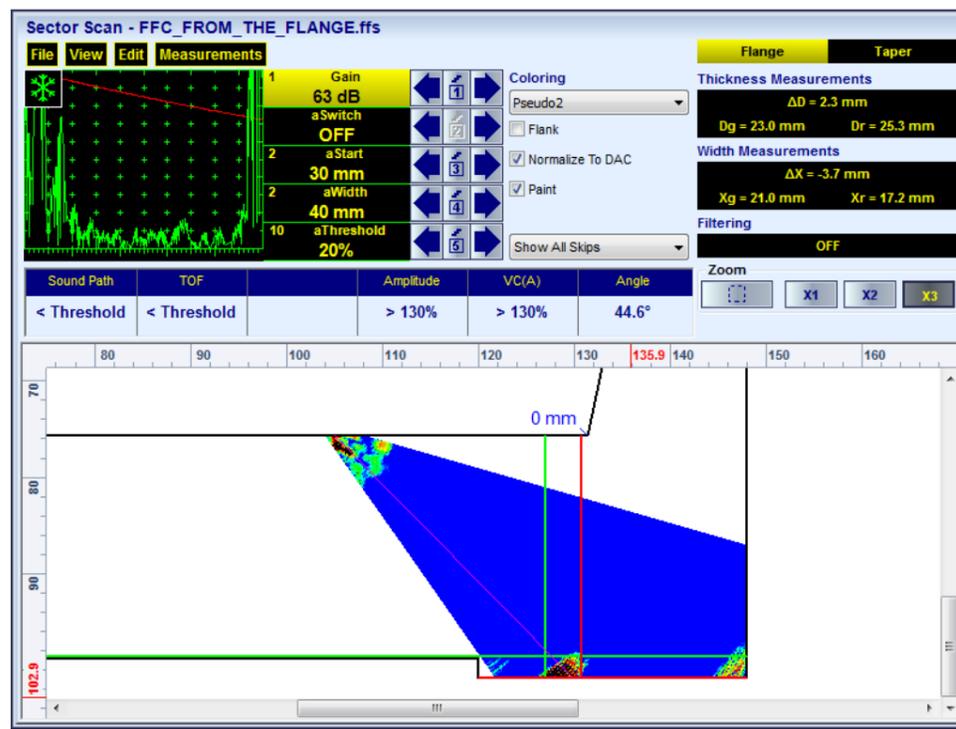


Unfolded map of the material loss on the FFC obtained through the scanning around the taper

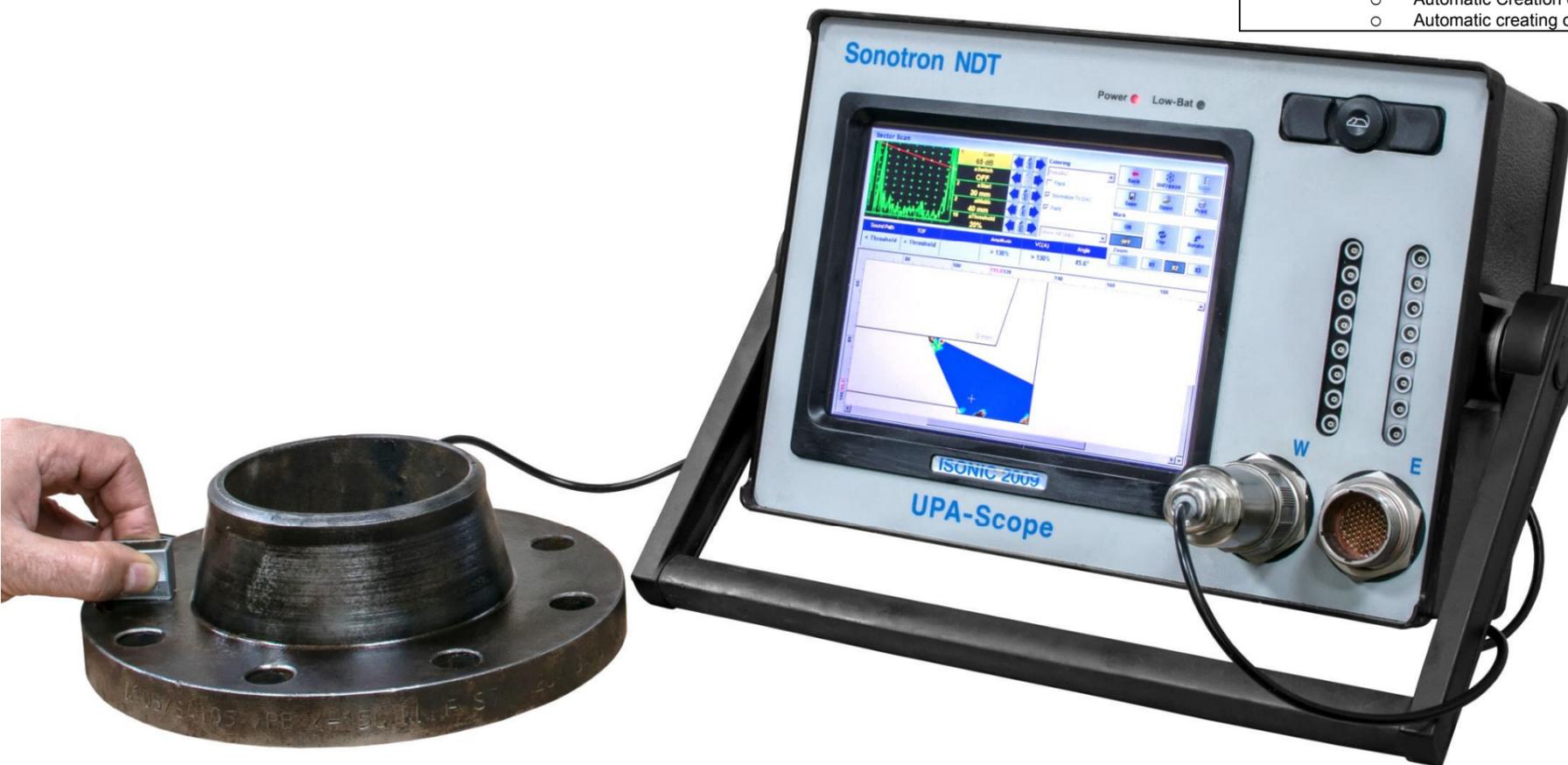


Round view map of the material loss on the FFC obtained through the scanning around the taper



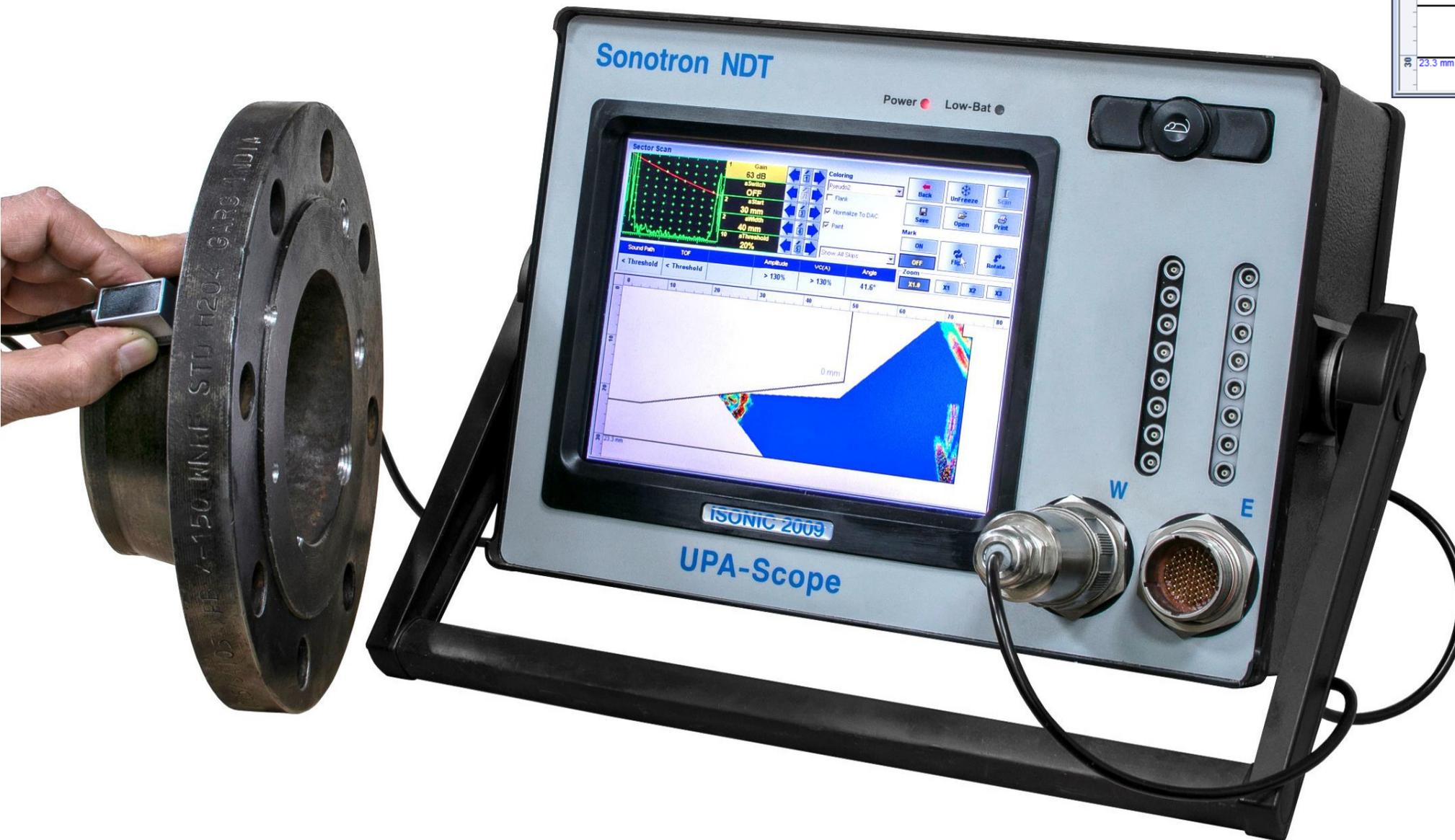
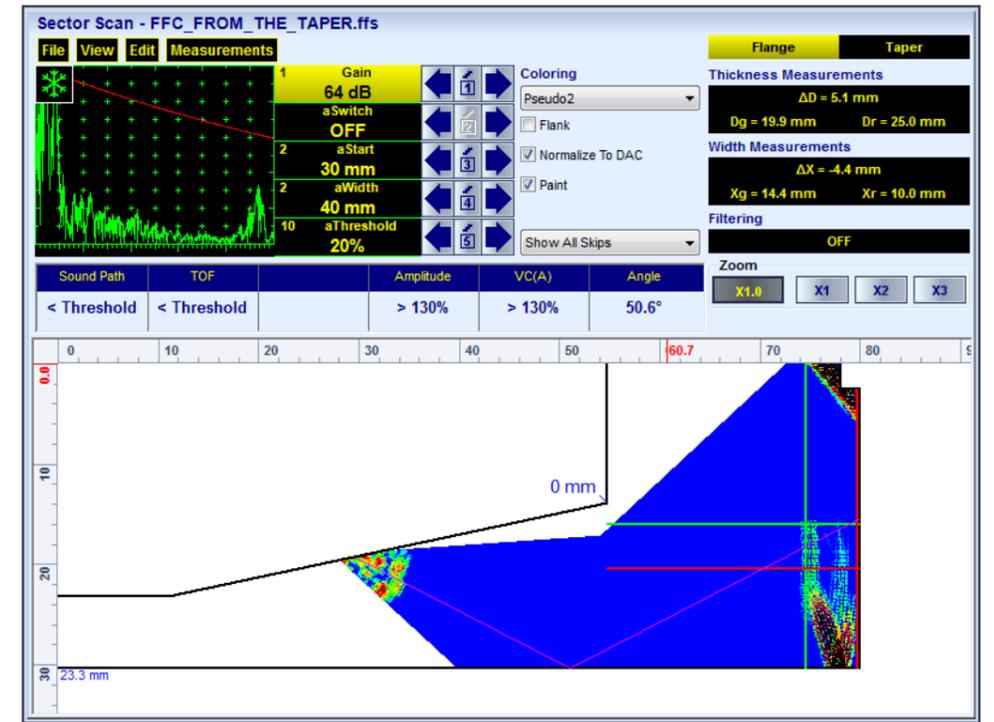


Item	Order Code (Part #)
<p>Inspection SW Application for ISONIC 2009 UPA-Scope - Phased Array Modality: <b>Expert FFC - Detection, Imaging, and Evaluation of Flange Face Corrosion</b></p> <ul style="list-style-type: none"> <li>▪ Probing from the flange and taper surface for the flange face for the detection and sizing of the flange face / ID surface corrosion - shear wave true-to-geometry (flange overlay volume corrected) cross-sectional S-Scan coverage and imaging</li> <li>▪ Line scanning around the taper surface for the for the detection, mapping, and sizing of the flange face / ID surface corrosion with shear wave true-to-geometry (flange overlay volume corrected) cross-sectional S-Scan coverage and imaging and data recording either encoded or time based: <ul style="list-style-type: none"> <li>○ Flange face corrosion map / amplitude map - Side view</li> <li>○ Flange face corrosion profile - distance / amplitude map - Top view</li> <li>○ ID surface corrosion map / amplitude map - C-Scan - Top View</li> <li>○ Amplitude overlap cross-sectional view - Amplitude Map End View</li> </ul> </li> <li>▪ Intuitive Image Guided PA Pulser Receiver with Beam Forming View</li> <li>▪ DAC / TCG Normalization</li> <li>▪ Built-In Flange Geometry Editor and Ray Tracer - Scanning Pattern Design</li> <li>▪ Independent on TCG Angle Gain Compensation / Gain Per Focal Law Correction</li> <li>▪ Encoded and Time based C-Scan</li> <li>▪ 100% Raw Data Capturing</li> <li>▪ FMC/TFM Protocol for the data acquisition and imaging</li> <li>▪ Automatic Defects Alarming Upon C-Scan Acquisition Completed</li> <li>▪ Automatic Creation of Editable Defects List</li> <li>▪ Comprehensive Postprocessing Including: <ul style="list-style-type: none"> <li>○ Automatic / semiautomatic express-evaluation of the recorded data - overall flange face corrosion and depth and dimensions of the corrosion spots in several clicks</li> <li>○ Forming real shape (rounded) flange face corrosion map out of the unfolded view</li> <li>○ Recovery and Evaluation of Captured A-Scans from the Recorded Cross Sectional Views (Sector Scan) and C-Scans</li> <li>○ Recovery of Cross Sectional Views from the Recorded C-Scans</li> <li>○ Converting Recorded C-Scans or their Segments into 3D Images</li> <li>○ Off-Line Gain Manipulation</li> <li>○ Off-Line DAC Normalization of the Recorded Images / DAC Evaluation</li> <li>○ Numerous Filtering / Reject Options ( by Geometry / Position / By Amplitude / dB-to-DAC / etc )</li> <li>○ Defects Sizing</li> <li>○ Automatic Creation of Defect List and Storing it Into a Separate File</li> <li>○ Automatic creating of inspection reports - hard copy / PDF File</li> </ul> </li> </ul>	SWA 909819



*Detection and evaluation of the flange face corrosion with use of PA probe placed onto the flange*

Detection and evaluation of the flange face corrosion  
with use of PA probe placed onto the taper



Item	Order Code (Part #)
<p>Inspection SW Application for ISONIC 2010 / ISONIC 2010 EL - Phased Array Modality: <b>Expert FFC - Detection, Imaging, and Evaluation of Flange Face Corrosion</b></p> <ul style="list-style-type: none"> <li>▪ Probing from the flange and taper surface for the flange face for the detection and sizing of the flange face / ID surface corrosion - shear wave true-to-geometry (flange overlay volume corrected) cross-sectional S-Scan coverage and imaging</li> <li>▪ Line scanning around the taper surface for the for the detection, mapping, and sizing of the flange face / ID surface corrosion with shear wave true-to-geometry (flange overlay volume corrected) cross-sectional S-Scan coverage and imaging and data recording either encoded or time based: <ul style="list-style-type: none"> <li>○ Flange face corrosion map / amplitude map - Side view</li> <li>○ Flange face corrosion profile - distance / amplitude map - Top view</li> <li>○ ID surface corrosion map / amplitude map - C-Scan - Top View</li> <li>○ Amplitude overlap cross-sectional view - Amplitude Map End View</li> </ul> </li> <li>▪ Intuitive Image Guided PA Pulsar Receiver with Beam Forming View</li> <li>▪ DAC / TCG Normalization</li> <li>▪ Built-In Flange Geometry Editor and Ray Tracer - Scanning Pattern Design</li> <li>▪ Independent on TCG Angle Gain Compensation / Gain Per Focal Law Correction</li> <li>▪ Encoded and Time based C-Scan</li> <li>▪ 100% Raw Data Capturing</li> <li>▪ FMC/TFM Protocol for the data acquisition and imaging</li> <li>▪ Automatic Defects Alarming Upon C-Scan Acquisition Completed</li> <li>▪ Automatic Creation of Editable Defects List</li> <li>▪ Comprehensive Postprocessing Including: <ul style="list-style-type: none"> <li>○ Automatic / semiautomatic express-evaluation of the recorded data - overall flange face corrosion and depth and dimensions of the corrosion spots in several clicks</li> <li>○ Forming real shape (rounded) flange face corrosion map out of the unfolded view</li> <li>○ Recovery and Evaluation of Captured A-Scans from the Recorded Cross Sectional Views (Sector Scan) and C-Scans</li> <li>○ Recovery of Cross Sectional Views from the Recorded C-Scans</li> <li>○ Converting Recorded C-Scans or their Segments into 3D Images</li> <li>○ Off-Line Gain Manipulation</li> <li>○ Off-Line DAC Normalization of the Recorded Images / DAC Evaluation</li> <li>○ Numerous Filtering / Reject Options ( by Geometry / Position / By Amplitude / dB-to-DAC / etc )</li> <li>○ Defects Sizing</li> <li>○ Automatic Creation of Defect List and Storing it into a Separate File</li> <li>○ Automatic creating of inspection reports - hard copy / PDF File</li> </ul> </li> </ul>	SWA 910819

*Detection and evaluation of the flange face corrosion with use of PA probe placed onto the flange*



Detection and evaluation of the flange face corrosion  
with use of PA probe placed onto the taper



