

MODELLING & INSPECTION DESIGN FOR NDT

Defining what you are trying to inspect has never been easier from simple plate style inspection to curved subjects for axial or circumferential inspections, or something entirely custom. The Weld Editor comes with a huge list of predefined common weld types that can be customized to meet your specification, or you can build a custom weld with an easy building block approach.

BeamTool's advanced focal law generator makes it easy to define advanced inspection techniques that normally would be impossible using a portable instrument. From advanced beamset types like linear spread to optimized high temperature laws, BeamTool is the perfect companion for your instrument. BeamTool 7 marks the new standard for validating and implementing your inspection plan.

Phased Array technique development requires effective tools to help define the inspection approach. BeamTool's innovative approach to phased array enables linear, sectorial, single and informative reference beams to be represented, helping to clearly convey and validate inspection coverage, probe position, and critical dimensions.

BeamTool integrates a powerful set of CAD tools to draw custom pieces and easily develop a scan plan for your inspection, no matter how complex the object. A full suite of different geometric types are available. Images can also be imported to trace over to help reproduce complex parts, and advanced CAD features ensure drawings are accurate to the millimeter. CAD drawings in DXF and DWG can be converted to native BeamTool geometries allowing plans to be developed using existing drawings.

Once you have completed your inspection plan, BeamTool's simple yet powerful reporting will output important information like instrument configuration, probe setup, placement and beamset parameters to allow field operators to accurately configure their instruments to perform the inspection. BeamTool's reports include all the important parameters and helpful color illustrations to ensure an operator's success.

BeamTool's defect plotting feature lets you take information captured during an inspection and present it visually on top of your inspection plan. Clearly visualize position size and amplitude of indications along with the probes and beamset used to locate the indications.

BEAMTOOL HAS A NUMBER OF OPTIONAL MODULES TO HELP YOU DO EVEN MORE

- *Simulation*: a great teaching tool that allows users to visualize a simulated A-Scan signal from BeamTool probes and workspaces. Sound Field Animation shows how elements firing in a phased array probe constructively form a wave front and how that wave front propagates into the piece.
- *HighTemp*: allows users to visualize and correct for the lensing effect that is caused by temperature gradation within the wedge.
- *Zonal*: provides the industry's most advanced zonal inspection solver engine for designing complex zonal inspections.
- *Zonal-CalBlock*: used with the zonal module to automatically generate machine shop ready calibration designs and drawings.

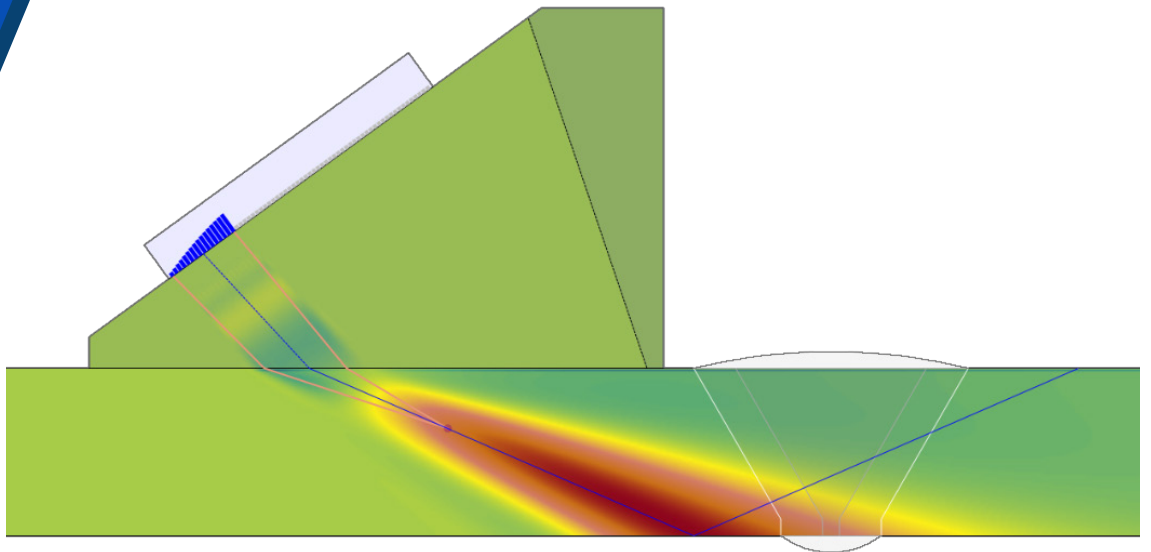


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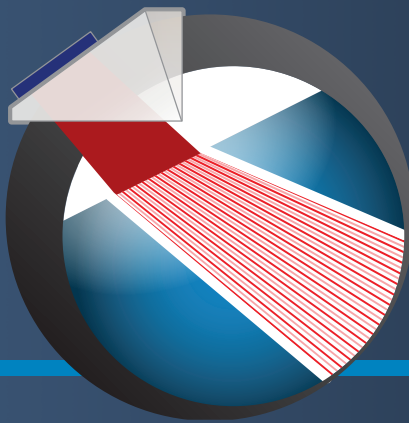
ES BEAMTOOL 7



BeamTool is the world's most popular application for designing ultrasonic inspection plans. Successful inspections start with a plan and BeamTool makes it easy to model, validate and document your Phased Array, TOFD and Conventional Ultrasonic inspection plans with confidence.

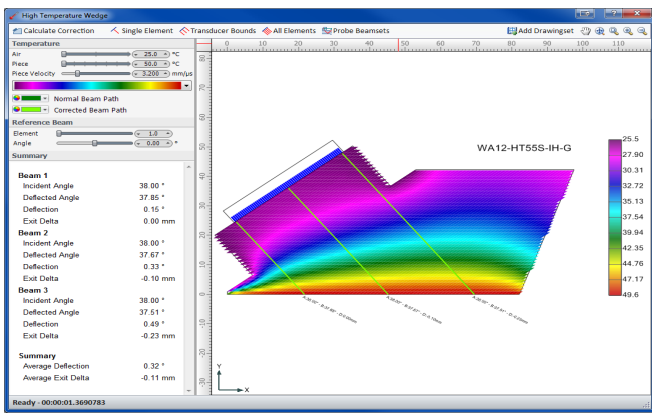
Easy to use and powerful, BeamTool has continued to evolve and provide tools to improve proficiency and accuracy of ultrasonic inspections. From technicians in the field, to researchers and authors, BeamTool provides the indispensable toolset for the NDT industry.

BeamTool 7 now offers sound pressure visualization, a powerful educational tool for rendering sound pressure at any point in the field represented by a geometric or bitmap wavefront. The wavefront can be focused using real field physics, and even steered by adding a time delay to change the refracted angle.

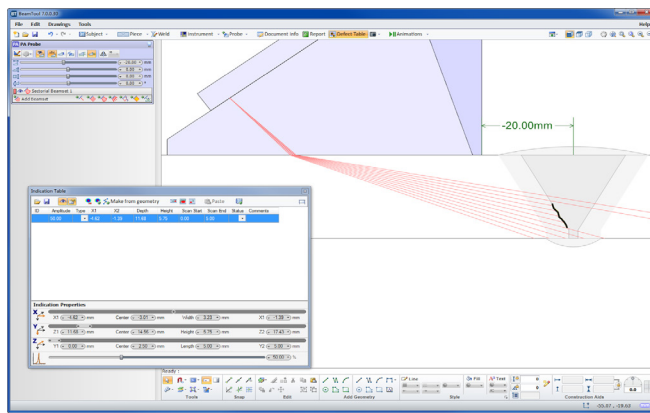


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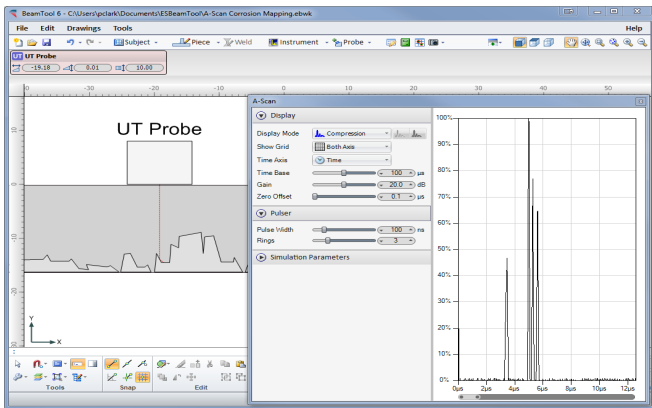
BEAMTOOL 7



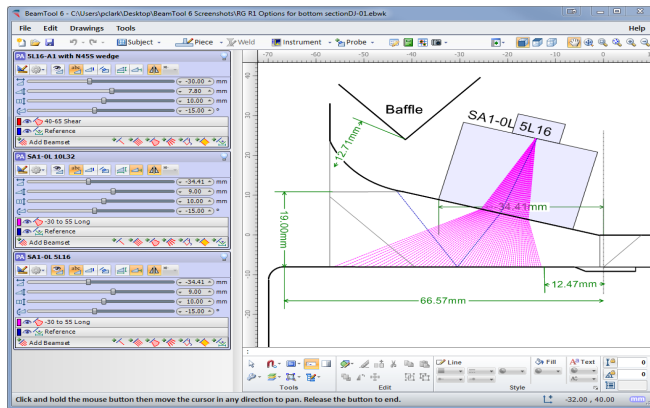
High Temperature



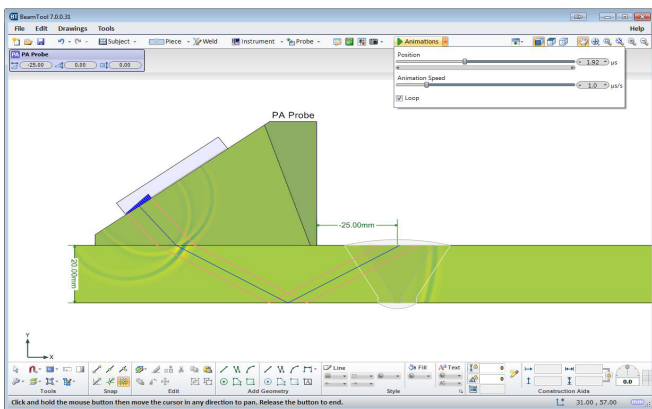
Visual Defect Plotting



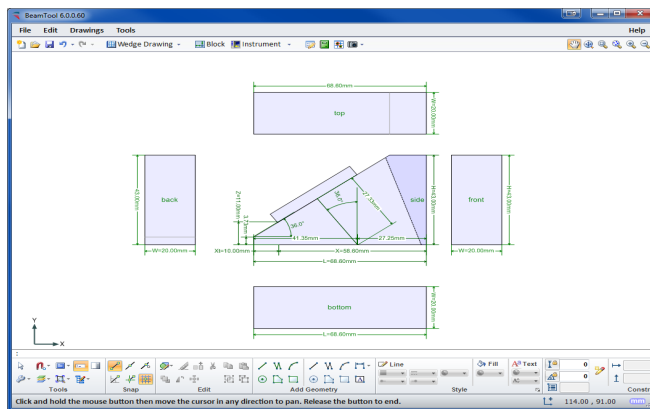
A Scan



Complex Piece Geometry

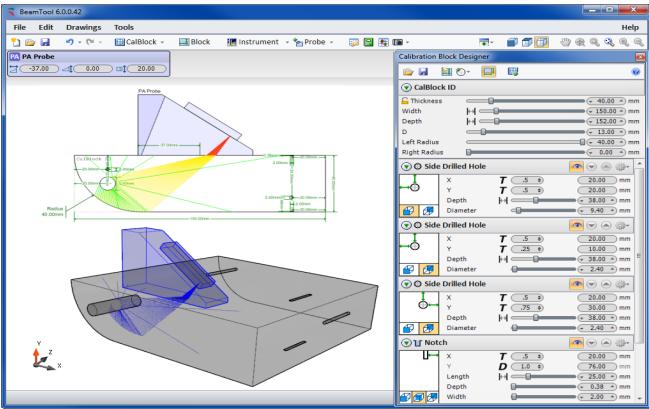


Sound Field Animation

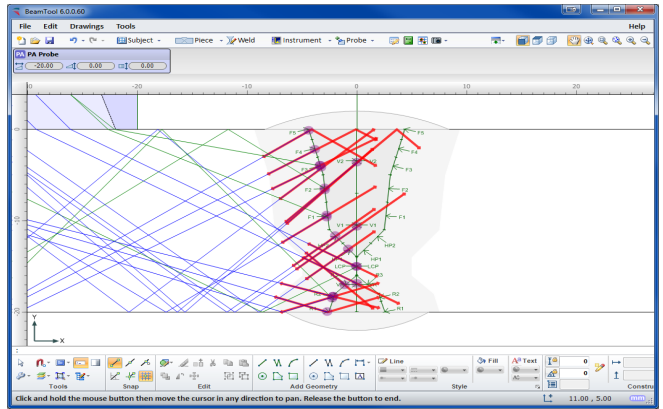


Wedge Drawings

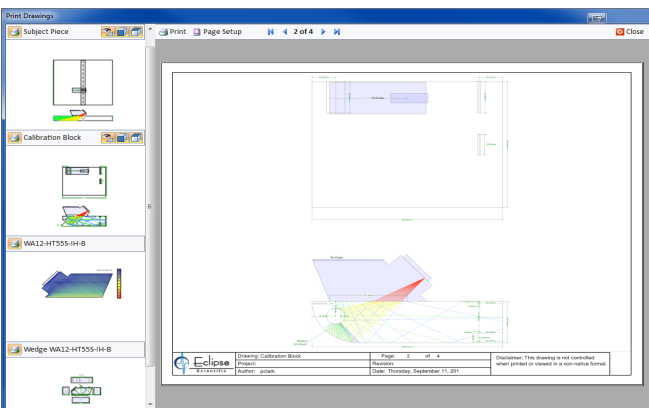
For the full list of new features visit:
www.eclipsescientific.com/beamtool.html



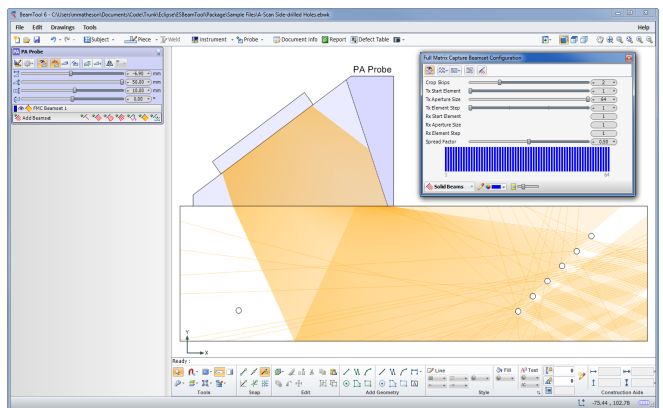
Calibration Block



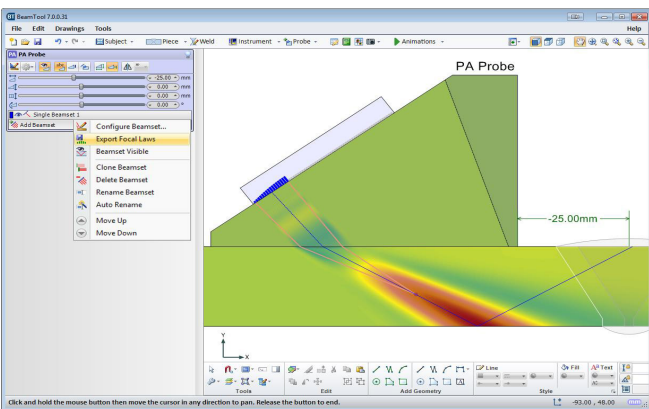
Zonal



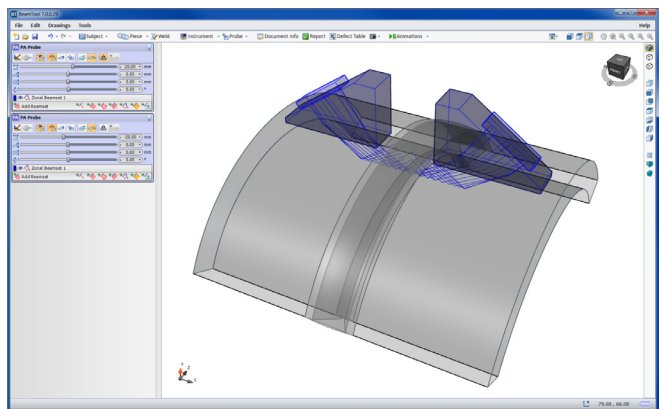
Advanced Printing



Full Matrix Capture Beamset



Export Focal Laws



3D Visualization