BWXT FMC ultrasonic inspections provide many advantages over phased array inspections:

- More effective inspection of components with arbitrary curved, rough or wavy surface geometries
- Precise surface mapping
- Raw ultrasonic data collected during scanning can be reprocessed at any time with different beam characteristics for enhanced indication characterization
- FMC can provide ultrasonic inspections that are continuously focused throughout the inspection zone in real time

![3-D focusing on wavy surface]

**Dynamic Full Matrix Capture**

BWXT Technologies, Inc. (BWXT) is at the forefront of the development of high-speed industrial Full Matrix Capture (FMC) inspections and holds five related patents. FMC allows inspections to be performed that dynamically adapt the focusing of the ultrasound to correct for a variety of surface conditions.

![Single focal depth phased array](Image1)

![BWXT FMC continuous focusing](Image2)
Full Matrix Capture Dynamic Surface Corrected Inspections for Arbitrarily Wavy and Curved Surfaces

Simulated weld surface test piece with side drilled holes (bottom)

0° beam angle scan over the axially flat region

0° beam angle scan over the simulated weld crown using surface correcting FMC

0° beam angle scan over the simulated weld profile without correcting for the surface geometry

Headquartered in Lynchburg, Va., BWX Technologies, Inc. (NYSE:BWXT) is a leading supplier of nuclear components and fuel to the U.S. government; provides technical and management services to support the U.S. government in the operation of complex facilities and environmental remediation activities; and supplies precision manufactured components, services and fuel for the commercial nuclear power industry. With approximately 6,350 employees, BWXT has 11 major operating sites in the U.S. and Canada. In addition, BWXT joint ventures provide management and operations at more than a dozen U.S. Department of Energy and NASA facilities. Follow us on Twitter at @BWXTech and learn more at www.bwxt.com.

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