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Ultrasonic Pipe Testing Machines– Comparison of conventional UT with PAUT & PWI

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In recent years, Phased Array Ultrasonic Testing (PAUT) is widely employed for automated ultrasonic inspection of pipes. The test requirements for seamless, ERW, HSAW and LSAW pipes are presented. The specifications can normally be fulfilled with conventional and with PAUT testing machines. Although PAUT testing machines are more costly and PAUT probes are expensive spare parts, the PAUT technique offers several technical advantages which are illustrated in this paper.
New algorithms for the evaluation of PAUT signals such as PWI allow for a higher inspection speed. The principle of PWI is explained and its application for pipe testing is discussed.