



STATE OF THE ART PRODUCTS AND SERVICES
FOR NON-DESTRUCTIVE TESTING

FROM THE FIELD

Problem:

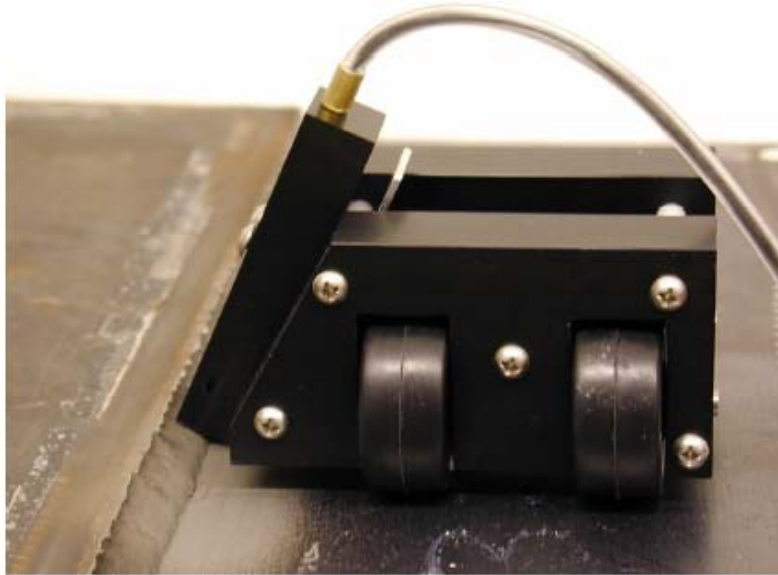
A major Pulp and Paper Mill in the Southern Michigan area needed a Deaerator Tank inspected during their summer outage per insurance company requirements. Because of manpower and budget constraints, the mill sought to avoid the grit blast surface preparation that was necessary for Magnetic Particle and Dye Penetrant Inspections.

The customer's goal was to have the seam and attachment welds in the tank inspected in one shift with minimal cleaning. Plant personnel wanted the inspection crew to stay on-site while identified defects were repaired, and then retest these repaired areas during the same shift.

The tank specifications were 7.5' Diameter x 18' in Length, 0.375" thick Carbon Steel.

The Solution:

TesTex, Inc. has developed the HAWK-EYE 2000 weld scanning system for crack detection. The system is based on the principles of electromagnetics and can replace the old laborious techniques such as vacuum box, dye penetrant or magnetic particle inspection. Unlike UT, MT, or DP, the system does not require a bare metal surface and is forgiving to scale, corrosion products, etc. With scanning speeds up to 1 ft./second, the system is fast, accurate and cost effective for the evaluation of cracks in welds.



A lapweld being scanned using the Hawk-Eye 2000

After the tank had been drained and dried, only some light wire brushing in a couple of areas was required. The test consisted of approximately 400 linear feet of seam and attachment welds. All accessible welds were tested with the Hawkeye and UT readings for shell thickness were taken to round out the inspection and satisfy the insurance requirements.

During the test, 6 areas of cracking were identified. The areas were repaired and then re-inspected. The Hawkeye 2000 Inspection was completed in one shift. This allowed the plant to focus on other pressing issues during the outage.

For more information on the TesTex, Inc. HAWK-EYE system or other TesTex products and services, please contact us at testex-ndt@verizon.net or call at (412) 798-8990.