

Nondestructive Testing Services

Kadant Johnson’s nondestructive testing (NDT) of steam and condensate pressure vessels identifies issues before they become failures. The NDT team provides a detailed report prioritizing opportunities and sharing best practices. After the inspection, Kadant Johnson partners with customers to implement solutions to improve safety and reliability.

The NDT team inspects thousands of pressure vessels across paper and other industrial applications and are an NDT leader in North America. In paper machine dryer sections, the team follows TAPPI TIP 0402-16 to open, clean, and close dryer can manways. Team members are confined space certified and are proficient in all makes and models of dryer cans.

Kadant Johnson’s NDT experts have the specialized knowledge, experience, and skill for safe, reliable, and expert testing of pressure vessels and associated equipment throughout industrial applications.



Features



- VT – Visual Testing (internal and external)
- MT – Magnetic Particle Testing
- UT – Ultrasonic Testing
 - Shell thickness
 - Head bolts
- Inspections of dryer drainage equipment
- Professional and detailed inspection report
- Highly skilled and experienced team of professionals

Benefits



- Identifies issues before they become production problems
- Finds flaws that could affect safe operation of the pressure vessel
- Determines if fasteners need to be scheduled for replacement
- Determines if vessel is within its designed operating perimeter
- Reduced down time

Internal and External Visual Inspections

Part of the nondestructive testing process involves visual inspection. Our experienced team knows where to look and what to look for in pressure vessels. Leveraging their years of experience, the NDT team reliably inspects and documents your equipment.



Magnetic Particle Testing

The nondestructive testing team uses proven technology to perform magnetic tests on your pressure vessels. These tests reveal indications in rotating pressure vessel shells, heads, and journals that can lead to critical failures.



Ultrasonic Testing

Using state-of-the-art technology, Kadant Johnson's nondestructive testing team will measure and evaluate shell thickness according to the original Code of Construction. Shell thickness deteriorates over sustained use or from impingement with internal equipment, leading to weak points, component damage, and possible catastrophic failures. Using an ultrasonic robotic crawler, our skilled nondestructive testing team will perform ¼" scans on the vessel shell, verifying the shell meets the required shell thickness. This information will be used to evaluate the pressure vessel for safe continued operation and the recommended appropriate course of action.

Ultrasonic testing is also performed on the hex head bolts (or socketed head cap screws) that join the dryer can head to the shell (and/or journal to head). Our team inspects 100% of the accessible bolts, 100% of the time.



Nondestructive testing is part of a large portfolio of professional services offered by Kadant Johnson. Other services include installation, maintenance and repair, audits, and inspections. Each service is performed by an experienced team with years of experience, ensuring the service is performed safely, reliably, and correctly the first time. Kadant Johnson will work with you to prioritize opportunities and implement solutions.