

Stainless Steel Surface Examination

Eddy Current Technology for Stress Corrosion Cracking and Weld Inspection



The MagnaFORM™ scanner is a fast and easy way to inspect 304 and 316 stainless steel to detect stress corrosion cracking (SCC) or cracks in a weld, even if the parts are painted or rough.

Some conventional inspection methods, such as penetrant testing, require inspectors to remove paint from the component, thoroughly clean it, wait for the part to dry, begin the test, and wait for the test to develop. The MagnaFORM eddy current array (ECA) solution provides reliable, real-time images quickly on painted, uncleaned parts, saving you the time and cost associated with tedious inspection preparation. Even if the paint thickness is not uniform, the solution's high signal-to-noise ratio maximizes the probability of detection.

For inspecting rough welds and corroded areas, the solution's dynamic lift-off compensation helps ensure the probe remains sensitive to surface-breaking defects.

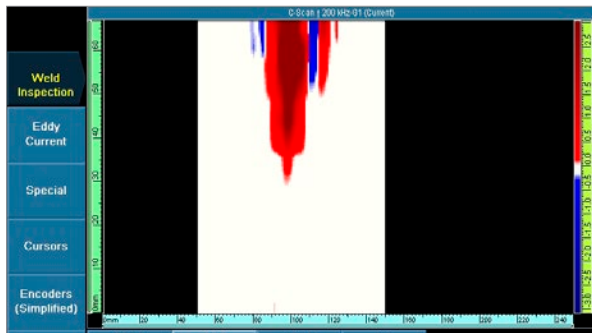
Faster Inspections Help Reduce Your Costs

- No more stripping and repainting
- Reliable data through uneven paint
- Significant time savings
- Easy to use thanks to the predefined setup
- Effective at detecting stress corrosion cracking
- High probability of detection
- Intuitive imaging and archiving

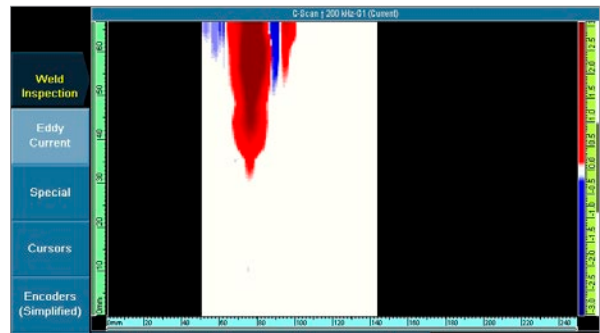
Features that Help You to inspect Stainless Steel

Lift-off compensation: Even if the thickness of paint changes, the results remain the same

Very low noise: Intuitive real time image, no more noise



C-scan image of 304 stainless steel with 0 mm of lift-off



C-scan image of 304 stainless steel with 3 mm of lift-off

The screen shots shown upper, is showing how the detectability is stable even if the lift off vary between 0 mm to 3mm, that means if the thickness of paint is not even or if the probe have not good contact with the part, the detection is always reliable.

High probability of detection: Even if the surface finish is polished or rough, the detection still the same

Stress corrosion cracking: With the MagnaFORM, inspectors can detect and characterize SCC

One set up to inspect Stainless steel 304 and 316

The same setup can be used to inspect both 304 and 316 stainless steel and detect defects as small as 1.6 mm (0.06 in.). This setup can be used on smooth, rough, welded, or cold worked surfaces.



Large coverage:

The MagnaFORM cover up to 65 mm (2,56 inches) with a wear protection tested on 22 KM.

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