EUROPE TECHNOLOGIES
SONATS

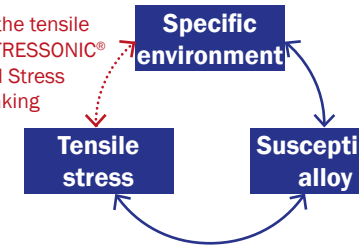
ULTRASONIC IMPACT TREATMENT (UIT-HFMI) ON PRESSURE VESSELS

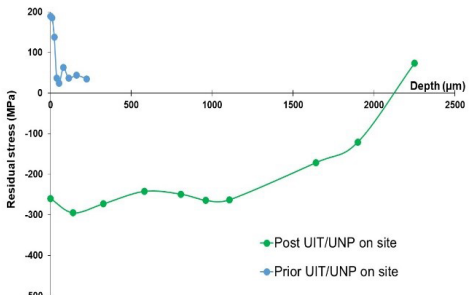
SONATS is specialized in the increase of the fatigue life and the Stress Corrosion Cracking (SCC) resistance on welded Pressure Vessels or Shells & Tube Heat Exchanger thanks to our patented STRESSONIC® process.

International Institute of Welding recommandations

Stress Corrosion Cracking

By acting on the tensile stress, the STRESSONIC® process avoid Stress Corrosion Craking

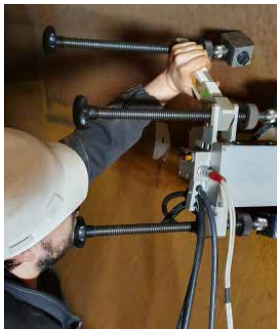




XRD Profiles – Introduction of compressive residual stresses after UIT

The welded storage tank containing chemical products like ammonia may be subject to **Stress Corrosion Cracking**. This kind of damage is due to the combination of three parameters: the material, an aggressive environment and tensile stress (from the **welding operation**, for example).

Treatment in an ammonia storage tank



Residual Stress Measurements in situ (NF EN 15305)

SONATS is in position to provide a wide range of portable shot peening or needle peening **capability worldwide** that can be applied in the field to introduce **beneficial compressive stresses** to the weld toes and affected zone. Thus the risk of Stress Corrosion Cracking is **minimized and the fatigue live is increased.**

SONATS is also able to **measure the residual stress** on location with our **portable equipment**. If tensile stresses are measured, our team can peen the surface on a wide variety of sizes and geometries of complex parts to restore the beneficial residual compressive stresses.

SONATS - Innovative impact surface treatment solutions
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