

UIT-1005 SYSTEM

More Robust, More Portable Ultrasonic Technology

Progress Rail's UIT-1005 system delivers a portable, repeatable and proven ultrasonic peening and ultrasonic stress relief process. Operating at the industry's highest ultrasonic frequency, 27 kHz, our Ultrasonic Impact Technology (UIT) process has a proven return on investment (ROI) across a wide variety of industries, such as ship repair, infrastructure, oil and gas, aerospace and defense and mining equipment. Numerous publications and university laboratories around the world have proven UIT's effectiveness.

Features

- New robust hard case for enhanced portability and durability.
- New and improved electrical connections to reduce set-up time and increase reliability.
- Touch screen controller provides easy-to-use adjustments to variable settings.
- Capability to monitor, collect, store, and download operational parameters, while displaying graphically in real time on the HMI screen.



ULTRASONIC PEENING



Benefits

- Significant fatigue strength/life improvement through the imparting of deep residual compressive stresses.
- Residual compressive stresses achieved to a controlled depth of 0.040-0.240" based on material type/thickness.
- Improved Weld Geometry- minimizes the notch effect at fillet weld toes.
- Grain structure modification- mitigates crack propagation.
- Localized distortion control/ dimensional stability of critical weldments and high tolerance machined parts.
- Mitigates Stress Corrosion Cracking (SCC).
- Highly portable, non-thermal stress relief equipment, easily mobilized to remote job sites.

Contact Progress Rail today to discuss how the UIT-1005 system can benefit you and your team.

UIT-1005 SYSTEM

The UIT-1005 is a powerful peening system. Using magnetostrictive technology, the system can deliver strong ultrasonic energy to components and weldments, mitigating harmful tensile stresses while imparting beneficial residual compressive stresses, ultimately increasing the fatigue strength and life of assets. The portable hand tool can easily be positioned at the weld toe to eliminate harmful stress risers and on the weld face to relieve tensile stresses induced during weld solidification. The UIT-1005 can be used for non-thermal stress relief of weldments and distortion control as a result of welding. The UIT peening process can be applied as an in-process or post-process procedure.

Progress Rail's UIT peening process has been certified by numerous 3rd party organizations including the American Bureau of shipping, Det Norske Veritas, and Lloyd's of London. Many publications from acclaimed institutions and distinguished professionals from around the world have validated and endorsed the UIT peening process. But our real world success stories and the impact to the bottom line are the highpoints of the UIT technology. Industries served include Oil and Gas, Mining, Industrial, Aerospace, Rail, Defense, Infrastructure and many more.

UIT-1005 SYSTEM SPECIFICATIONS

GENERATOR	Nominal Frequency	27 kilohertz
	Rated Power Output	800 Watts
	Voltage Input	110 Volts
	Current Input	15 Amps
	Frequency Input	60 hertz (50Hz available)
	Amplitude	Programmable 10-30 microns
	Weight	52 pounds
	Dimensions	12.5" x 10" x 22.5" (HxWxL)
HAND TOOL	Nominal Frequency	27 kilohertz
	Weight	6 pounds
	Length	21 inches
WATER COOLER	Diameter	3 inches
	Weight (empty)	33 pounds
	Voltage Input	110 Volts
	Frequency Input	60 hertz
	Dimensions	25 x 9.25 x 9.25" (L x W x H)



Structures



Steel Production



Shipbuilding



Aerospace



Semi-submersible



Mining



Petro Chemical



Pipe Lines

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