

LASER SURFACE PREPARATION FOR NON DESTRUCTIVE TESTING

Application Fields

Power Plants



Aerospace



Chemical & Petro-chem plants



Oil and Gas Industries



CleanLASER technology enables fast, effective, highly sensitive and cost saving preparation of metallic surfaces for NDT. In the initial production and especially during maintenance, the de-coating of highly stressed surfaces when done by conventional methods, can lead to the hiding of micro-cracking and failure to detect faults. Laser cleaning has no media waste, is quick to set up and delivers fast results every time, delivering a perfect surface for reliable NDT testing results.

Transportation



Bridges



Defence



NDTs methods such as testing by fluid penetration (PT), magnetic powder (MPT) or eddy current (ECT) as well as ultrasonic (UT), require a well prepared, clean, dry, contamination free metallic surface. Most conventional methods of de-coating have risk either to mask the cracks or to leave contamination on the surface, leading to a negative effect on the results. The preparation, set up and then clean up of the blasting media after de-coating, is a very time consuming process, along with complying with the needed H&S requirements. Sometimes chemical etching is required after mechanical de-coating which is subsequently washed and dried. Chemical methods always need subsequent washing and can lead to quicker development of corrosion. All in all the whole NDT process can be very time consuming. The effect of how the surface is prepared, can have a big effect on the final result of the NDT.

PARTIAL OR LARGE-SCALE PAINT STRIPPING AND DECOATING

cleanDECOAT by cleanLASER, is an excellent level of surface preparation. The laser removes the coatings from the surface sensitively and does not create any blasting media waste. It can remove paint, rust, hydrocarbons, oil and grease in one step and can significantly reduce contamination on the base material.



It is globally proven in the field at our customers, from chemical, petro-chem, power plants and defence, that laser provides a dry surface to ISO standards. Laser de-painted surfaces provide coating adhesion values equal to or better than those de-painted by grit blasting. It is faster and better than any other option. Asbestos or lead can be removed effectively while mitigating environmental, health and safety risks. Either our CL500 or CL1000 laser with up to 100 m fibre cable length, can enable fast cleaning of large area applications or our most compact lightCASE FFC series can allow you to work in small and difficult to access areas at height or inside machines and vehicles. The weld inspector can immediately follow along with the inspection equipment. Finally, laser can clean the surface prior to re-coating.

COST SAVINGS OF LASER PREPARATION

- Low operating costs
- Waste reduction
 - No blasting media, dry, media free
 - Clean process, reduction of workload for the operator and better work environment
 - Multiple units can work simultaneously
- Improvement of inspection quality
 - Removal of paint, oil, grease, dirt and rust in one step
 - Sensitivity for cracks < 10 µm
 - Efficient removal of ink after PT
 - No mechanical effect by the process - no hidden micro-cracks
 - No residues after cleaning
 - < 80 dB noise
- Speed up the total process of inspection
 - Quick set up and clean up
 - Removal rates up to 30metres of weld seam per hour for epoxy based triplex coatings up to 300 µm.
 - Access is often better than with other methods

6.2021. Subject to technical changes

PLEASE CONTACT US - WE ARE HAPPY TO ADVISE!

 **cleanLASER**
cleaning with light