

FAST, FLEXIBLE, ECONOMICAL

Awarded with



- Fast & easy to use
- Suitable for all types of molds
- Uses no abrasives or chemicals
- No mold damage – extends mold life
- Works handheld, robotically, or both
- 24/7 Reliability & virtually maintenance-free
- Cost-effective method, very low operating costs
- Clean & green technology – no secondary waste



cleanLASER tire mold cleaning systems use a modular design to deliver a cost-saving alternative to conventional methods. Our laser technology has a very low operating cost as the expense of consumable media related to ice pellet and abrasive blast cleaning processes is eliminated. With cleanLASER, there's no cleaning media or chemicals to purchase, handle, clean-up and dispose. Our laser systems provide an environmentally friendly way to safely clean precision tire molds without abrasive damage.

Each system is designed for continuous duty with high reliability using technology that's virtually maintenance-free. Powerful yet gentle laser energy removes stubborn mold-release, product residue, oxides and grease without the high noise levels of blast cleaning methods. Our compact laser systems require only about 1 m<sup>2</sup> of floor space and use a flexible 10 m, or longer, fiber optic for versatile beam delivery.



These laser systems are easy to use with "plug and play" operation for fast set-up. Tire molds can be laser cleaned using either a handheld or robotic mounted optic, or with systems featuring both options. Our laser optics are designed with an integral suction channel to immediately capture vaporized residues while cleaning complex mold shapes and geometries. In this way, mold cleaning can be completed, without polluting the environment, in as little as 30 minutes (depending on laser power, mold size and condition).

*Challenging tire mold surfaces can be precisely laser cleaned with flexible and ergonomic cleanLASER optics.*

*Result: optimal cleaning quality for extended production cycles*

cleanLASER tire mold cleaning systems to reduce cleaning costs, extend mold-life and help protect the planet.



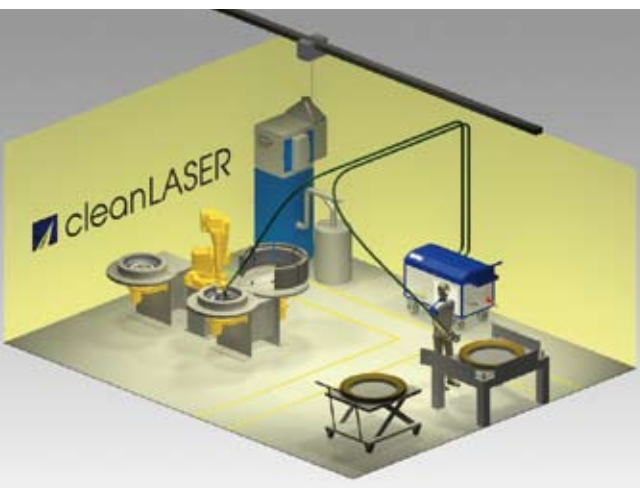
## TIRE MOLD CLEANING IN PRACTICE



*Robot guided laser system*



*Handheld manually operated laser cleaning*



*Combination of manual and automated laser cleaning in the mold shop*

cleanLASER technology provides unique hand-held or robot delivered laser cleaning technology that maintains industrial tire molds with excellent results. Assembled molds can easily be cleaned by manually operated laser optics. Disassembled molds, two-piece clamshell as well as segmented, can be laser cleaned quickly and effectively by automated cleanLASER technology. Our laser process cleans without harmful abrasion or kinetic forces that can harm or deform sensitive inserts and mold surface details. Laser cleaning does not force debris into mold vent holes and it safely cleans micro-spring vents without damage.

cleanLASER offers unique laser systems, features and optics, specially designed for cleaning tire molds including 300 Watt, 500 Watt and 1000 Watt units.

A new development is the sideWALL optic for semi-automated cleaning of sidewall molds and engravings – a very gentle, efficient and fast method.

**Cleaning with laser light – environmentally friendly, precise and profitable**



*One laser – two operating modes for versatile laser cleaning: cleanLASER offers a beam switch system that enables one laser to use either a handheld or automated laser cleaning optic. It's the ultimate multifunctional cleaning solution for the tire mold maintenance shop!*