

INDUSTRIAL Laser Solutions FOR MANUFACTURING

Cladding

High-power diode
laser advances

Rapid Prototyping

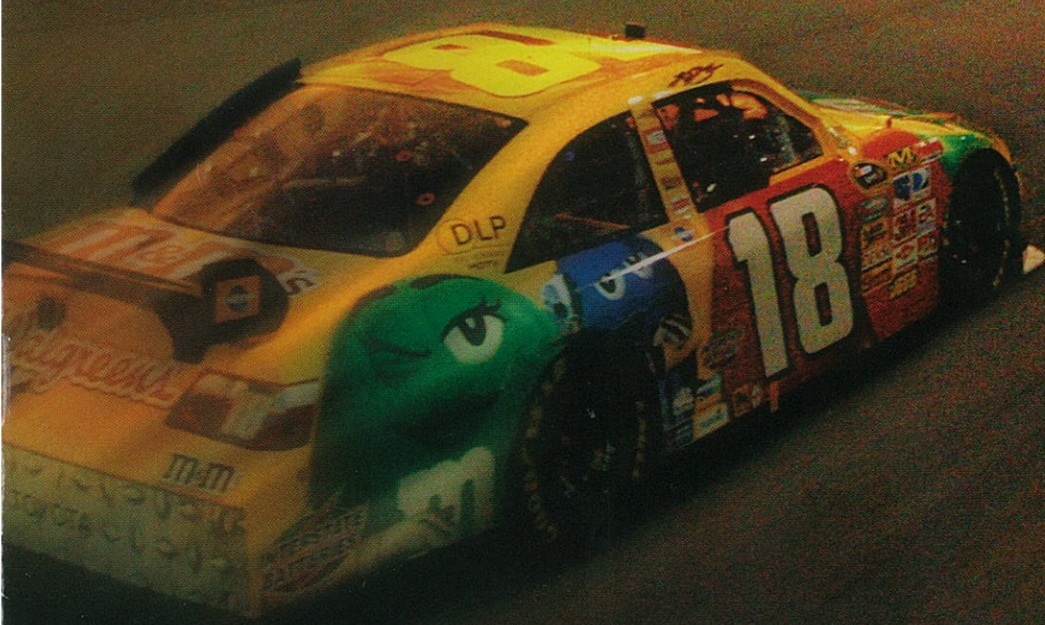
Next-gen
model making

Software

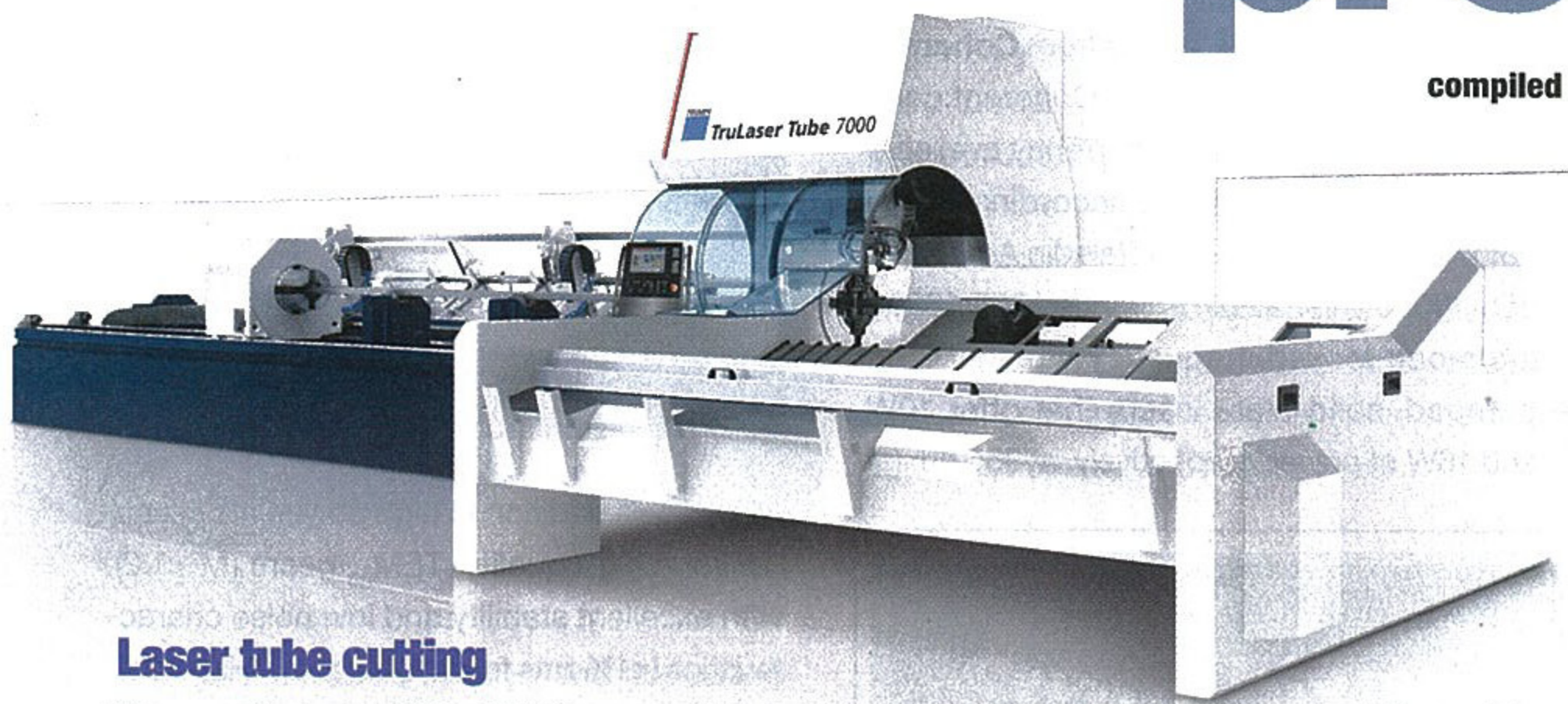
Nesting and
CAM pay off

MARKING NASCAR

champions



compiled by Lauren J. Belleville, laureenb@pennwell.com



Laser tube cutting

The new TruLaser Tube 7000 laser cutting system processes tubes inside a tunnel-like safety enclosure and then, depending on size, moves them forward to the brush table or ejects them to a parts container behind the machine. With this high-end modern designed machine, **TRUMPF** (Farmington, CT; www.us.trumpf.com) offers a laser cutting system featuring heavy-duty drives engineered for heavy tubes, a broad chucking range, and a high degree of flexibility. This new machine can cut tubes and profiles with large diameters and wall thicknesses without sacrificing productivity. It is able to process tubes up to 30 feet long and can handle a maximum weight of 496 pounds. Available with up to 3.6 kW of laser power, the system's 0.6 to 10 in clamping range enables new applications.

Linear motor stage

Aerotech's (Pittsburgh, PA; www.aerotech.com) NanoTranslation (ANT95-XY, ANT95-XY-H) cross-roller-bearing, linear motor, dual-axis stages continue the evolution of

ANT series stages. The ANT95-XY and ANT95-XY-H are three-piece designs that allow travel in two dimensions (X and Y). The sleek design provides a low profile of 60 mm and a compact footprint. The stage comes with proprietary direct-drive motor technology, noncontact linear encoders, limits, an integrated cable management system, and two grades of accuracy.



Ultra-low absorption lens

Ophir Optronics Ltd. (Jerusalem, Israel; www.ophiropt.com) CO₂ Optics Group has developed an ultra-low absorption lens called Clear Magic, as a complement to its Black Magic lens. Clear Magic features the same unique characteristics of its Black Magic counterpart while providing the benefits of a coating transparent to visible light. The new lens uses the same top layer as Black Magic, which offers superior cleaning properties and scratch resistance. Its transparent coating allows HeNe beams to be seen on the workpiece, while polarizing filters help to detect thermally induced stress. Clear Magic is available in 1.5 in and 2 in diameters for most popular OEM systems.



FiberCut processing head

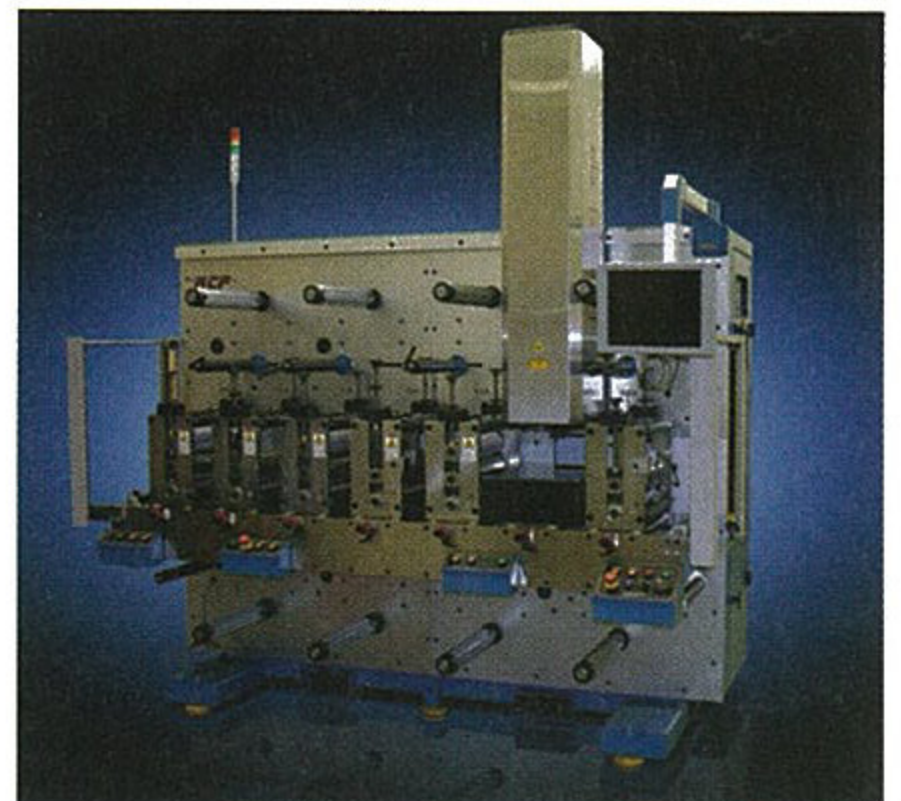
Laser Mechanisms Inc.'s (Novi, MI; www.lasermech.com) FiberCut processing head is engineered for 3-dimensional robotic cutting of metals, 0.5 mm to 6 mm thick, using fiber-coupled lasers in harsh production environments. FiberCut is a compact, low moving mass head that minimizes inertia transfer to the robot support arm. All connections leading to the head enter at a right angle, including the fiber, providing tight access to parts, easy cable routing, and stress reduction on



the input fiber. At the head itself, all wiring and assist gas lines are internally located. The system consists of the cutting head, fiber collimator, linear drive with position measuring, and an internal, low-noise height sense system that is insensitive to cutting plasma or piercing debris. The head works with all leading fiber-delivered laser systems up to 4 kW with wavelengths of 1064/1080 nm.

Rotary converting platform

Web converters and manufacturers who produce multi-layer construction packaging, parts, and components for the medical,



pharmaceutical, electronic, label, automotive, electronic display, and RFID markets may want to consider **Preco's** (Somerset, WI; [\[www.industrial-lasers.com\]\(http://www.industrial-lasers.com\)](http://www.pre-</p></div><div data-bbox=)