



MEDICAL TUBE LASER PROCESSING

Lower Your Risk, Improve Your Throughput

To enhance their cardiovascular stent's precision, optimize throughput and elevate part quality, a renowned manufacturer of medical products embarked on a mission.

THEIR GOAL: Fabricate a stent with the utmost accuracy, reproducibility and throughput.



CHALLENGE

The manufacturer needed to fabricate a stent with high accuracy while meeting these requirements:

- ◆ Use with multiple laser technologies (e.g. fiber, femtosecond)
- ◆ Operate on Nitinol & stainless material with a tube outer diameter of 14 mm & 100 microns thickness
- ◆ Machine features down to single digit microns while meeting throughput requirements
- ◆ Minimize introduction of heat-affected zones to preserve the material's inherent ductility
- ◆ Improve throughput by a factor of two plus
- ◆ Accommodate limited factory floor space

SOLUTION

Aerotech's experts identified and resolved all obstacles to this success by:

- ◆ Providing control tools & features to optimize their manufacturing
- ◆ Identifying the real problem: the dynamic performance of the motion system used to position the tube
- ◆ Leveraging simulation studies & our extensive background in tubular laser processing
- ◆ Configuring & building a system that enabled the manufacturer to meet throughput goals without compromising on quality or part features



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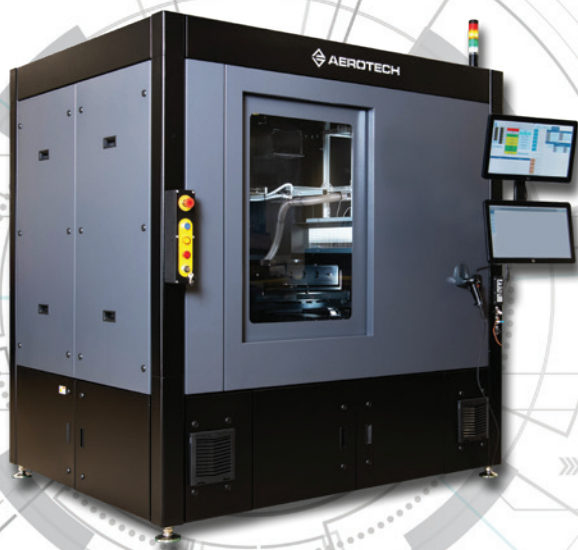


Aerotech's Automation1 drives and controls (right) with motion development kit (MDK), LaserTurn® and Vasculathe® machining systems (lower left).

30+ Years of Medical Tube Processing Experience

Some of the first stent cutting machines used Aerotech products —and we've been revolutionizing the market ever since. That means we have more than 30 years of experience solving challenges associated with tubular processing for stents, hypotubes and catheters.

Our products are optimized for machining tubular parts, and they're embedded with hardware and software features that make integration easy. You get everything you need from one trusted partner.



Tailored to Your Requirements

When you consult with Aerotech's sales and applications team, you unlock decades of experience. We know how to configure the right system for your precise needs. Whether that requires our standard products or a custom configuration, our goal is to identify the optimal solution for your application.

Worldwide Support

Wherever your system goes, Aerotech support is there and ready to help. Our offices, field sales engineers and technical support resources are located all over the world.

