

PRODUCTION CLASS SHEET-TO-PART LASER CUTTING SOLUTIONS

Sheet-fed laser finishing with automated robotic part handling.

Transform your workflow. Eliminate the added cost and time delays of traditional, off-line die cutting with the LaserSharp STP (STP) high-performance laser finishing system. The STP combines the versatility and precision of laser cutting, scoring and perforating with the convenience and time savings of robotic handling that removes scrap and stacks, sorts, rotates and/or shingles finished parts. The STP can be easily added to new or existing digital printing systems to optimize your printing investment with an all-digital workflow.

The STP features a servo-driven conveyor capable of processing sheets up to 20" wide and unlimited length at speeds up to 200ft/min (60m/min). Precise laser cutting of complex, personalized, variable and nested shapes is achieved for both high volume orders and shorter, more cost-effective production runs. Job parameters for both the laser and robot are contained in a single working file and can be changed "on the fly," triggered by optional barcode readers or by software programming.



Features

- Continuous "on-the-fly" sheet processing with instant order change via job queuing or 2-D barcode.
- Integrated material handling robot automatically sorts and stacks finished parts.
- Intuitive LightGuide® v5.0 software processes design files in .pdf, .dxf, .dwg, .jpg, .gif, .bmp, .png and .tif format.
- Precise cut-to-print registration with single- and dual-camera vision systems.
- Through-cut, kiss-cut, score, perforate and etch materials in a single system.
- LasX "RIP" engine automates file manipulation from art room to production.
- Patent-pending processing belt cleans parts and precisely secures sheets through processing area.
- Patented, 3rd-generation Proton laser control software processes large, complex die lines with ease.
- Process sheets up to 20" (508mm) wide and infinite length.
- Scalable to second laser module immediately or in the future.
- Easy-clean, low-maintenance design.
- Laser power levels from 250 to 1,000W for high-speed processing.
- Production class laser modules engineered for 24/7 operation; laser is rated at 20,000 minimum operating hours before refurbishing.

Laser Processing Benefits

- On-demand processing for cost effective short runs or "Order-of-One" prototypes and samples.
- Complete digital workflow streamlines operations.
- Eliminate costly mechanical dies and set-up times.
- Reduce time to market.
- Eliminate make-ready waste.
- Instant job change capabilities.
- Ultra-complex processing of papers, paperboard, plastics and acrylics at remarkable production speeds.
- Create new revenue streams with eye-catching, intricate, or 3D designs that add visual interest.
- Product personalization – ideal for custom orders.

SPECIFICATIONS & OPTIONS

Laser Technology

Laser Module Type:	Sealed CO ₂
Output Power:	400W
Power Range:	5W to 400W
Processing Area:	13.75" (350mm) and 19.7" (500mm) widths
Laser Life:	Rated output for minimum 20,000 operating hours before refurbishing
Number of Modules:	1-2 (option to add 1 laser now or in the future)

Material

Material Handling:	Patent-pending LasX vacuum conveyor; high-speed robot
Material Type:	Paper, paperboard, PET, acrylics, polypropylene
Maximum Width/Length:	20" (508mm)/unlimited

Physical Specifications (400W)

Size (L x W x H):	101" x 82" x 80" (2600mm x 2070mm x 2037mm)
Weight:	2700lbs (1220kg)

Typical System Requirements

400W:	208 to 240VAC, 3-phase, 50/60Hz, 55 FLA
1000W:	480VAC, 3-phase, 50/60Hz, 90 FLA
Chiller:	460VAC, 3-phase, 60Hz, 15 FLA; chiller provided by LasX
Compressed Air Flow:	3.0 ft ³ /min (85L/min) at 550kPa
Exhaust Airflow:	1400 ft ³ /min (40m ³ /min) at 5" H ₂ O (12 millibars); 8" (200mm) diameter connection

Safety

Class I Safety Enclosure:	Per 21 CFR 1040.10; meets federal safety requirements
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Options

- Roll-fed integration for roll-to-part processing
- Sheet feeder and roll unwind
- Custom conveyor output configurations per customer request
- Additional laser for greater functionality and/or faster throughput
- Secondary camera for automated skew correction
- In-line configuration for direct digital printing
- "Vision Trax" registration for cut-to-print accuracy and easy setup
- Barcode reader relays job parameters and triggers job changeover
- Sheet chute or conveyor to remove material
- Reverse-side sheet registration for processing opposite side of sheet
- LRE (LaserSharp Ripping Engine) prepares artwork for automated workflow

