trotec®
laser. marking cutting engraving

Laser Systems for

→ Acrylic Fabrication

www.troteclaser.com

- Displays
- Sign industry
- POP materials
- Shop fitting
- Design

Advantages of

Laser technology

The use of lasers in acrylic processing offers unbeatable advantages in comparison with other technologies:

No material finishing is necessary

Manual quality flame polishing of milled edges is cost and time intensive. And it conceals the risk of the work piece being damaged or even destroyed during incorrect handling. The laser cut produces glass-clear cut edges and interior contours without additional material finishing. Besides, cast PMMA cuts burr free. Costly deburring is omitted.

One tool for all geometries and materials

During milling, a distinct tool is needed for different materials, geometries and material thicknesses. The laser beam is the universal "tool" for all geometries and material thicknesses. Tool or grind costs are omitted.

Non-contact material processing

When milling acrylic, the sheet material has to be clamped securely and often retained with vacuum. During laser processing, no pressure is exerted on the material (no clamps or other fasteners). Just insert and lase away. That saves time and money in material preparation.

More sales volume through new applications

Even the finest geometries are possible with lasers. Besides, you can also use the laser for high-quality photoengravings. Combined with flame polished interior edges, doors to new applications and sales volume open for you.

Less waste

No swarf, needing expensive disposal, accumulates during laser processing. Vapors are exhausted and filtered directly in the working cabinet. In addition, you save time for system cleaning.

Best fitting and repeat accuracy

The fine laser beam allows wear-free work with the highest precision. All parts are thereby reliably precise. You avoid costs from rejects and repeated production.

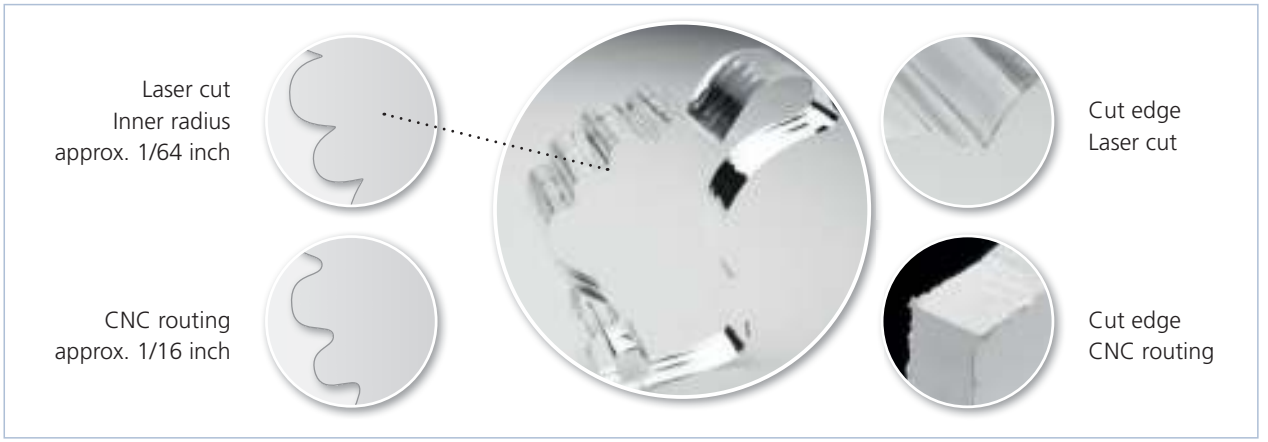
Printed displays with unusual geometries

Contour cut illuminated acrylic signs

Even with small radii: flame polished cut edges without polishing

Laser cut and back-lit dimensional letters

Cutting edges by comparison



Why Trotec?

Perfect cutting results
The Trotec laser's precise axis drives and intelligent air guide provide constant, optimal cutting results. Reduced-reflection aluminum support lamellas always guarantee perfect work pieces.

Maintenance-free components
Trotec lasers only contain the highest quality components of leading manufacturers. The precision guides or maintenance-free servomotors, for example, provide you with the best cutting results. Or there is our InPack-Technology™, which protects the optics, motors and electronics. Trotec lasers are therefore highly reliable and require minimum downtime.

AATroCAM CAD/CAM software
TroCAM is a fully equipped, integrated CAD/CAM software solution for controlling your Trotec laser. It is has been developed to give you perfect quality, improved productivity, the highest reliability, and additional flexibility.

In safe hands
Trotec develops, manufactures and maintains its own systems. Members of the service team receive constant training and use the most up-to-date IT systems in order to ensure your success. The many years of experience of our employees in the applied technology laboratory guarantee you the best level of support and advice.

Safe production environment
Special protection (laser safety specialist, shields, safety glasses) is required when operating open laser systems (Class 4). However, Trotec lasers are Class 2. The enclosed design of the Trotec laser systems enables the quick and efficient extraction of dust and gas.

Laser technology in acrylic processing – always an advantage!

Our customers confirm: Acrylic processing with laser technology is up to 88% more economical than CNC routing! (This is due to considerably lower processing costs like work time for material clamping and finishing, and tools.)

Illuminated lettering and logos

Displays and POP materials

Unusual displays: engraved and cut

Lasered lettering and logos

Acrylic processing
material preparation processes by comparison

Mill	Construction/ design	Clamping/ vacuum setup	Cutting	Cleaning/ polishing	End product
Saw	Construction/ design	Clamping/ vacuum setup	Cutting	Cleaning/ polishing	End product
Laser	Construction/ design	Cutting	End product		

Important facts and figures

Typical Trotec systems:	SP1500, SP500, Speedy 300
Working area:	Up to 1500 x 1250 mm
Laser power:	Up to 400 watts
Material thickness:	Up to 40 mm at 400 watts laser power
Feed:	6000 mm/min. for 3 mm acrylic and 400 watts laser power Max. 60.000 mm/min.
Laser class:	standard: laser safety class 2 with pass-through: laser safety class
Software:	Control via TroCAM, CAD/CAM (HPGL) and JobControl® Vision
File formats:	All popular file formats like .DXF, .DWG, .AI, .EPS, .CDR, .JPG, .PSD
Additional materials:	Textiles, wood, veneer, cardboard, paper, foams, foils and many more. oils and many more.

Trotec Laser – developed and built in Austria

Send us your materials and samples: Our application technicians will support you in looking for the optimal laser system for you.

POP materials

Flame polished cut edges

Unusual acrylic products

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