

TRULASER CELL 7040

WORKING RANGE

X axis	4000 mm
Y axis	1500 mm
Z axis	750 mm
B axis	± 135 °
C axis	n x 360 °

MAX. SPEED

Simultaneous	173 m/min
X axis	100 m/min
Y axis	100 m/min
Z axis	100 m/min
B axis	90 1/min
C axis	90 1/min

ACCELERATION

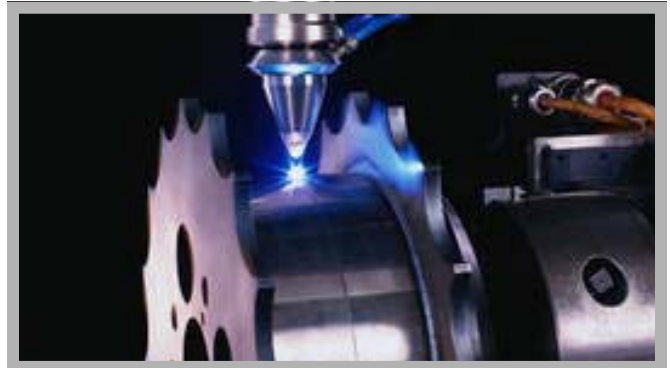
Simultaneous	1.6 g
X axis	0.8 g
Y axis	1.0 g
Z axis	1.0 g
B axis	200 rad/sec ²
C axis	100 rad/sec ²

Max. power CO2 laser 15000 W

Max. power YAG laser 6000 W

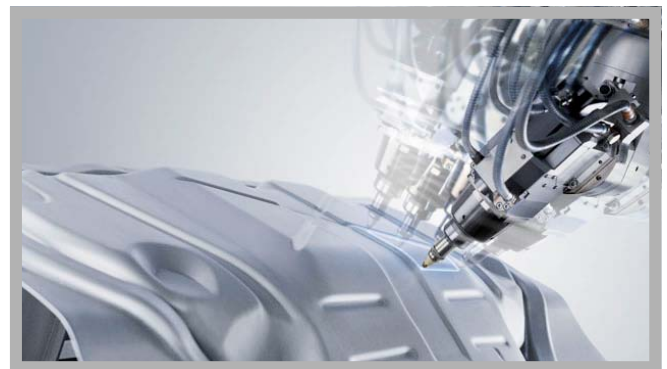
OVERVIEW

CATEGORY	3D laser processing center
PRODUCT	TruLaser Cell 7040
APPLICATION FIELDS	Laser cutting, laser welding



HIGH-END LASER PROCESSING MACHINE WITH MINIMAL PROCESSING COSTS; MAXIMAL FLEXIBILITY.

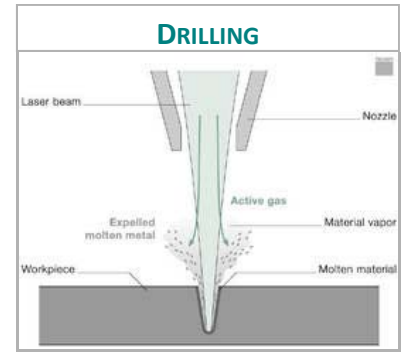
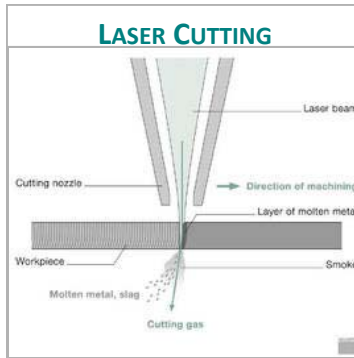
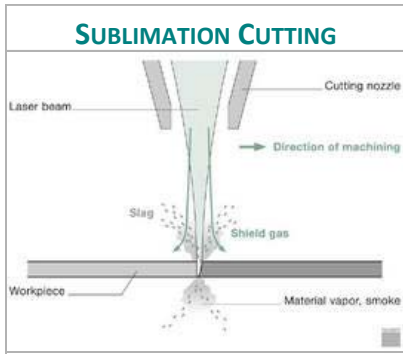
- ▶ Highly productive, thanks to high speed cutting
- ▶ Simple laser welding with WeldLine
- ▶ Focal diameter constant over entire working range
- ▶ Modular construction
- ▶ Many automation components
- ▶ Flexible application thanks to numerous options
- ▶ Maximum accessibility
- ▶ Convenient operation





APPLICATIONS

L A S E R	The laser beam provides a variety of ways to join metals: it can join work-pieces at the surface or produce deep welds. It can be combined with conventional welding methods and, additionally, be used for soldering.		J O I N I N G
	Spot / Seam Welding	Deposition Welding	
	Scanner Welding	Hybrid Welding	
	Heat Conduction Welding	Deep Penetration Welding	
	Soldering		



The variety of cutting tasks the laser can handle range from micrometer-precise cutting joints in paper-thin semiconductor chips to quality cuts in 30-millimeter-thick steel. In laser drilling, the laser beam generates very small to large holes in metals, plastics, paper and stone, without contact.

The focused laser beam strikes the work piece, it heats the material so extremely that it melts or even vaporizes. Once it has completely penetrated the work piece, the cutting process can start: the laser beam moves along the part contour, melting the material as it goes. Usually, a stream of gas blows the melted material downwards, out of the cut. The gap is barely wider than the focused laser beam itself.

In laser drilling, a short laser pulse melts and vaporizes the material with a high power density. The resulting high pressure drives the molten material out of the hole.



Flexible Solutions

DURAFLEX™ INC.

for Rigid Applications

CUTTING
WELDING
DRILLING

APPLICATIONS

SURFACE TREATMENT

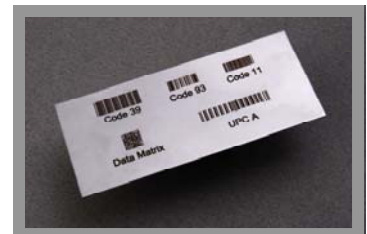
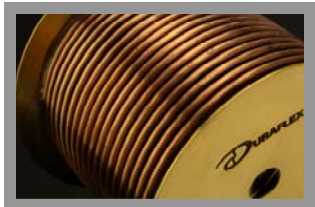
Laser Hardening	Deposition Welding
Micro Processing	Powder Deposition
Marking	



LASER MARKING

Laser marking is a catch-all term for several processes: engraving, ablation, tempering, coloring and foaming. Whatever method is the right one depends on the material and the quality requirements.

Color and Foaming	Engraving and Ablation	Tempering
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MICRO PROCESSING

Structuring and ablation are closely related processes. Short laser pulses of extremely high power produce an energy density so high that the material practically vaporizes without passing through a liquid phase (it sublimates). Very little molten material results from this process. Each laser pulse produces a small depression that is typically 10, 20, or more micrometers in diameter and only a few micrometers deep.

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