Fiber laser cutting machine

PUMA

TOTAL LASER CUTTING SOLUTION

LVDGROUP.COM

LVD

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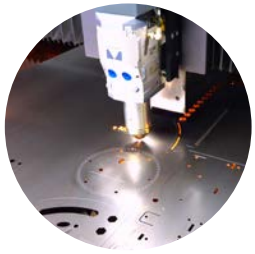
The Puma fiber laser combines cost efficiency, dynamic laser cutting, advanced automation solutions and LVD's intuitive Touch-L control. This all-around system offers fast processing of a wide variety of material types and thicknesses.



OPTIMAL CUT QUALITY

Puma expertly cuts steels and non-ferrous materials such as copper and brass in a range of thicknesses, maintaining high quality.

RIGID FRAME DESIGN

The welded steel frame construction minimizes deformation caused by high acceleration, ensuring overall machine accuracy.

Why Puma?

- Lower total cost of ownership
- All-around performance
- Integrated shuttle tables
- Automation-ready

LASER POWER RANGE

High beam quality and stability is assured in 3, 6, 12 and 20 kW laser sources.

INTEGRATED CONTROL AND DRIVE SYSTEM

The system guarantees the highest reproduction of programmed contours, even at high speeds.

INTUITIVE CONTROL

The 19" Touch-L control is user-friendly: operators of all skill levels can interact easily with Puma. Setups are fast and uncomplicated.

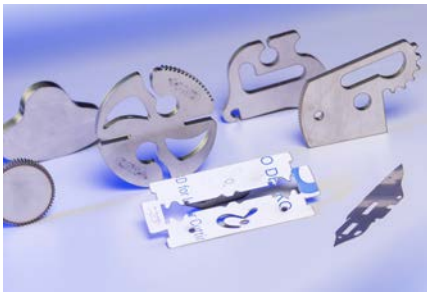
QUICK SCRAP REMOVAL

Scrap bins underneath the exhaust unit can easily be removed.

HIGHLIGHTS

LOWER TOTAL COST OF OWNERSHIP

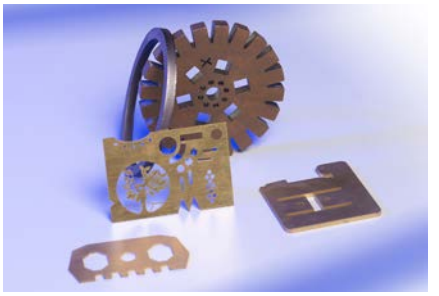
Puma uses field-proven production methodologies in a lower-cost design. The machine features cost-effective components selected for their quality and reliability.



Stainless steel

Steel

Aluminum



Copper

ALL-AROUND PERFORMANCE

The cutting head features a 7.8" (200 mm) or 9.8" (250 mm) focusing lens that automatically adjusts the focus based on material and thickness. Features like crash protection, capacitive height sensing, and a quick-change protective window enhance its durability.

HIGH DYNAMICS

Puma's robust frame and powerful motor ensure high stability during acceleration, delivering consistent accuracy across various materials and thicknesses.

INTEGRATED SHUTTLE TABLES

The machine maximizes uptime with an integrated shuttle table system for sheets up to 252" x 98" (6400 x 2500 mm).

AUTOMATION-READY

Puma is designed to easily integrate with tower storage and warehouse solutions for lights-out production.

FEATURES & OPTIONS

FOR INCREASED CAPACITY

STANDARD

Automatic cutting gas selection

Choose oxygen or nitrogen to optimize cutting performance across various materials and thicknesses.
A servo valve regulates the gas pressure for different cutting tasks to ensure optimal cutting conditions.

OPTIONS

Nozzle changer

An automatic nozzle changer adjusts the nozzle based on the job list, monitors nozzle quality, cleans nozzles, checks nozzle alignment, and calibrates capacitive height sensing, enhancing autonomy and throughput while reducing setup time.

Compressed air or mixed gas cutting

In addition to nitrogen and oxygen, compressed air or mixed gas can be used as cutting gas options. Compressed air can significantly reduce part costs and is ideal for high-volume jobs. Mixed gas provides high cut quality for projects that require high precision.

Bevel head

Bevel cutting offers a fast and cost-effective way to prepare material for subsequent welding operations or to create geometrical shapes. The option is available on Puma 6525.

MOVit automation systems

Connect Puma to a MOVit automation system for lights-out manufacturing, fully automatic loading and unloading during cutting, efficient handling of workpieces and highly reliable production.

Advanced CADMAN® software

The CADMAN-software ensures perfect cooperation between hardware and software:

- CADMAN-Flow coordinates the production process,
- CADMAN-B unfolds the parts,
- CADMAN-L imports the parts, optimises nesting and generates cutting programs, integrated into Touch-L.

SPECIFICATIONS

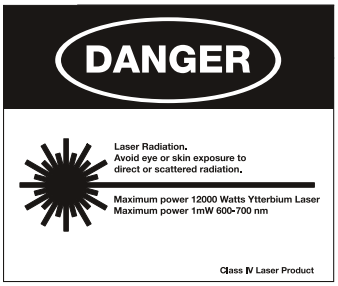
	Puma 3015	Puma 4020	Puma 6020	Puma 6525
Machine specifications				
Maximum sheet size	120" x 60" (3050 x 1525 mm)	160" x 80" (4065 x 2035 mm)	242" x 80" (6160 x 2035 mm)	252" x 98" (6400 x 2500 mm)*
X-axis travel	125" (3185 mm)	165" (4200 mm)	247" (6280 mm)	256" (6510 mm)
Y-axis travel	61" (1560 mm)	81" (2070 mm)	81" (2070 mm)	102" (2600 mm)
Z-axis travel	5" (130 mm)	5" (130 mm)	5" (130 mm)	5" (130 mm)
Maximum sheet weight on table	2314 lbs (1050 kg)	3527 lbs (1600 kg)	5511 lbs (2500 kg)	7936 lbs (3600 kg)
Table changeover time	35 sec.	39 sec.	48 sec.	50 sec.
Maximum positioning speed X-Y	5,511"/min. (140 m/min)	5,511"/min. (140 m/min)	5,511"/min. (140 m/min)	5,511"/min. (140 m/min)
Maximum positioning speed Z	1,181"/min (30 m/min)	1,181"/min (30 m/min)	1,181"/min (30 m/min)	1,181"/min (30 m/min)
Repetitive accuracy	± 0.001" (0.025 mm)	± 0.001" (0.025 mm)	± 0.001" (0.025 mm)	± 0.001" (0.025 mm)
Positioning accuracy**	± 0.002" (0.050 mm)	± 0.002" (0.050 mm)	± 0.002" (0.050 mm)	± 0.002" (0.050 mm)
Bevel cutting head	-	-	-	optional on 12 kW
Nozzle changer	optional	optional	optional	optional
Machine dimensions (excluding light guards, filter and chiller)				
Length	28 ft (8825 mm)	42 ft (13000 mm)	56 ft (17200 mm)	56 ft (17200 mm)
Width	8 ft (2560 mm)	20 ft (6300 mm)	20 ft (6300 mm)	21 ft (6700 mm)
Height (access door opened)	11 ft (3400 mm)	11 ft (3360 mm)	11 ft (3360 mm)	12 ft (3900 mm)
Approximate weight	28,600 lbs (13000 kg)	36,376 lbs (16500 kg)	47,399 lbs (21500 kg)	61,729 lbs (28000 kg)

Laser power	**3 kW**	**6 kW**	**12 kW**	**20 kW**
Maximum cutting performance				
Mild steel	5/8" (15 mm)	1.0" (25 mm)	1.25" (30 mm)	1.75" (45 mm)
Stainless steel	1/2" (12 mm)	1.0" (25 mm)	1.25" (30 mm)	1.25" (30 mm)
Aluminum	1/2" (12 mm)	1.0" (25 mm)	1.25" (30 mm)	1.25" (30 mm)
Copper	1/4" (6 mm)	5/16" (8 mm)	5/8" (15 mm)	5/8" (15 mm)
Brass	5 mm	5/16" (8 mm)	5/8" (15 mm)	5/8" (15 mm)

Specifications subject to change without prior notice.
** Bevel cutting: 240" x 78" (6100 x 2000 mm)*
*** Achievable workpiece accuracy depends on the type of workpiece, pre-treatment and sheet size, as well as other variables. According to VDI/DGQ 3441.*

Puma 4020

Puma 6020



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