LK 2010
LK 2512
LK 3020
LK 4520
LK 6020

Cnc Cutting Laser
LK Series

www.intelligentlabs.ro

LK Series
Structure

Highest performance and productivity

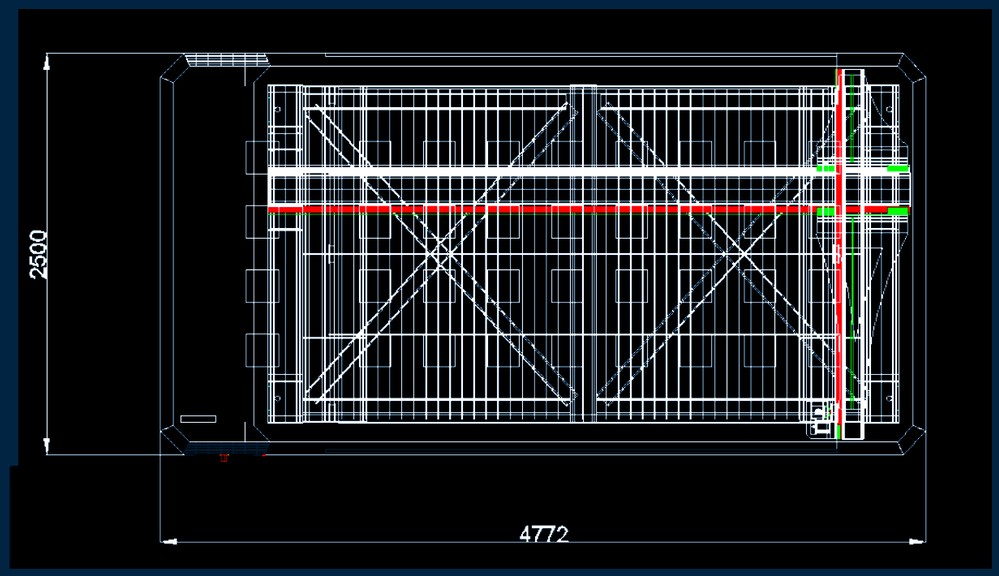
The laminated profiles welded in argon gas offer benchmark for highest rigidity

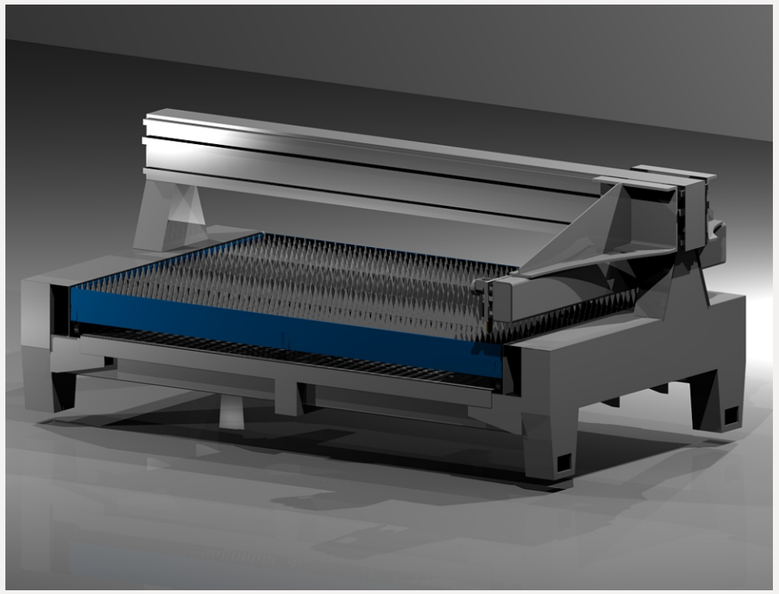
Improved structure concept for X axis offer large clearance of work table.

Rigid Y-axis concept in whole range of travel

FEM-optimized design & construction

Precision in every component and detail





Highlights

Maximum stiffness with welded laminated profiles

Precision and stability

Powerful laser system by Fanuc Japan

Accuracy of positioning in all axes of 20 µm without linear scales.

Thermal compensation ensures stable, precise and highest quality production process

Gudel made in Swiss transmission - 4 um class of precision with hardened surface

Sophisticated design and large working area - combined in the LK series

Improved ergonomics for easy handling and loading of heavy workpieces

Huge table with 3100 x 2100 mm for cutting of parts up to 1,200 kg

Small foot print 11.9 m2 for LK3020

LK Series

Technical Area

Work Area

Max. X travels	**3,100 mm**
Max. Y travels	**2050 mm**
Max. Z travels	**150 mm**

Lift dimensions

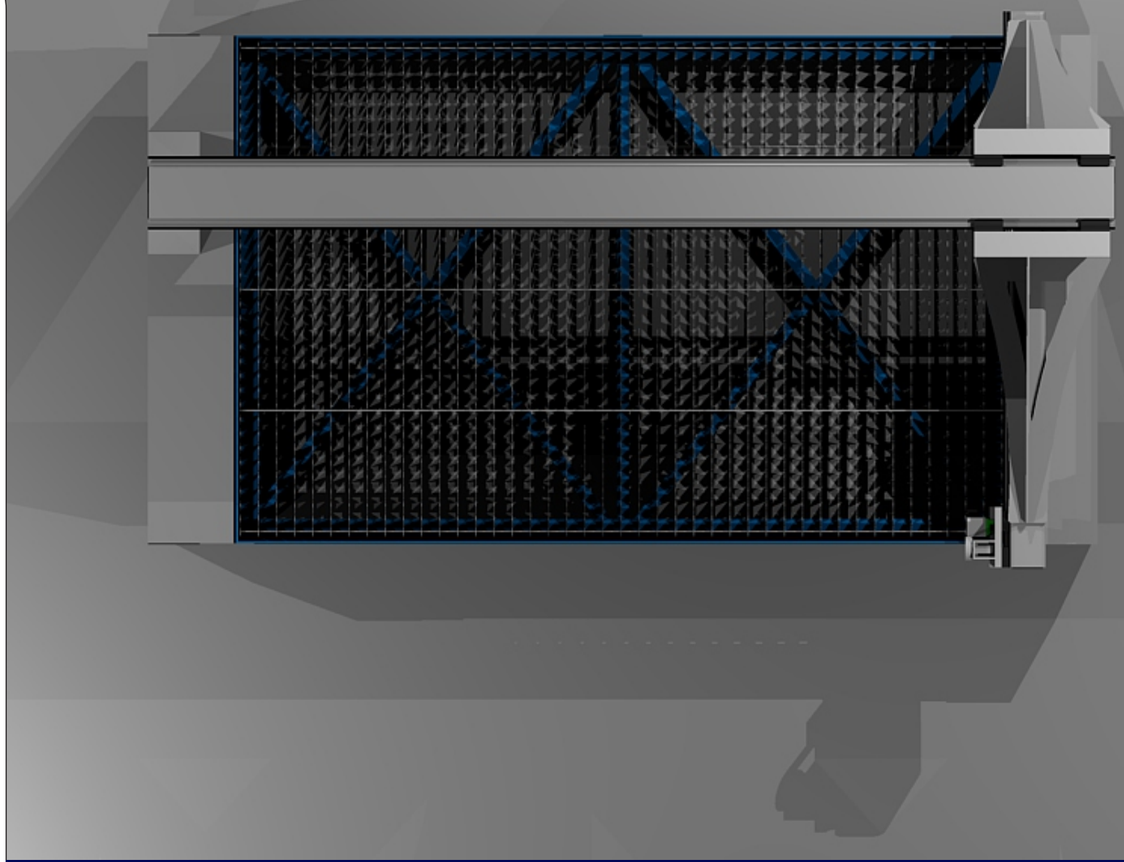
Max. table load	**1,200 kg**
Lift length	**3,200 mm**
Table width	**2,100 mm**

Laser cutting

Standard FANUC fiber 1000 W	**max. 8 mm**
Max. thikness (Option)	**max. 25 mm**
Drive power rating (100% DC)	**12 kW (AC)**

Rapid traverse

Max. X axis	**120 m/min**
Max. Y axis	**120 m/min**
Max. Z axis	**120 m/min**



www.intelligentlabs.ro

LK Series
Function

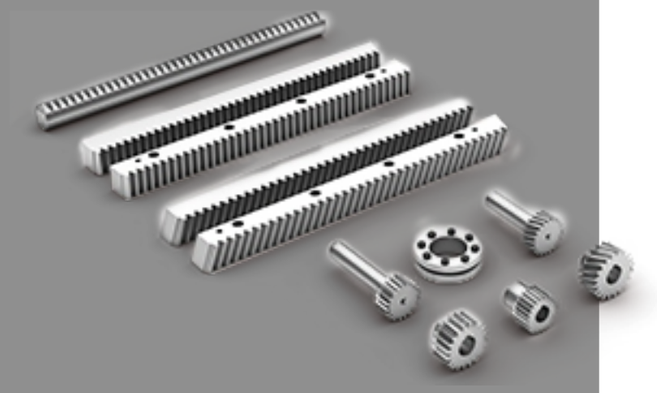
Transmission

Precision in all shapes and sizes

Perfect for high-performance drive units

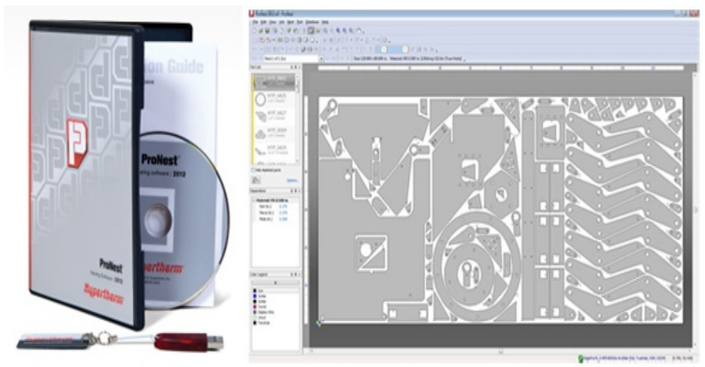
Quality offered by

SWISS MADE



GÜDEL

Software ProNest



User friendly

Nesting functions

Simplified solution for LASER application

Direct import DXF files

Linear

Precise, Reliable, Future-proof

20 um precision class

Quality offered by

Rexroth
Bosch Group

Quality

assured by hi-class brands ...

FANUC

Servomotors

Fanuc alpha - made in Japan

High-precision encoder, 28 bits/revolution;
67 million ppr

Max. rotational speed: 5000rpm

Low cogging torque

LK Series
Laser Sources

Highest cut quality vs productivity

FANUC Laser C1000i-C

Mild steel up to	**8 mm**
Stainless steel	**4 mm**
Aluminum	**3 mm**

FANUC Laser C2000i-C

Mild steel up to	**14 mm**
Stainless steel	**8 mm**
Aluminum	**6 mm**

FANUC Laser C3000i-C

Mild steel up to	**20 mm**
Stainless steel	**12 mm**
Aluminum	**8 mm**

FANUC Laser C6000i-C

Mild steel up to	**32 mm**
Stainless steel	**20 mm**
Aluminum	**20 mm**

Co2 lasers

Co2 laser sources for powerful metal cutting

With five specifically designed CO2 laser sources ranging from 1 to 6 kW, FANUC covers a wide range of laser applications for the most diverse range of industries. Models are also ideally suited to projects requiring complex high-precision cutting, changing sheet thicknesses and/or combined laser cutting and laser/punching. Results are excellent on thin to thick sheet metal thanks to its superior beam quality and stabilised beam mode. Some models include reliable fast axial gas flow type CO2 laser with RF discharge excitation. Control via the laser-dedicated FANUC series 30i/31i-LB CNC provides users with maximum freedom and efficiency.

LK Series
Laser Sources

FANUC Fiber laser

FANUC FF500i-A 0.5 kW rated laser output	
Mild steel up to	**5 mm**
Stainless steel	**2.5 mm**
Aluminum	**1.5 mm**

FANUC FF1000i-A 1 kW rated laser output	
Mild steel up to	**8 mm**
Stainless steel	**6 mm**
Aluminum	**4 mm**

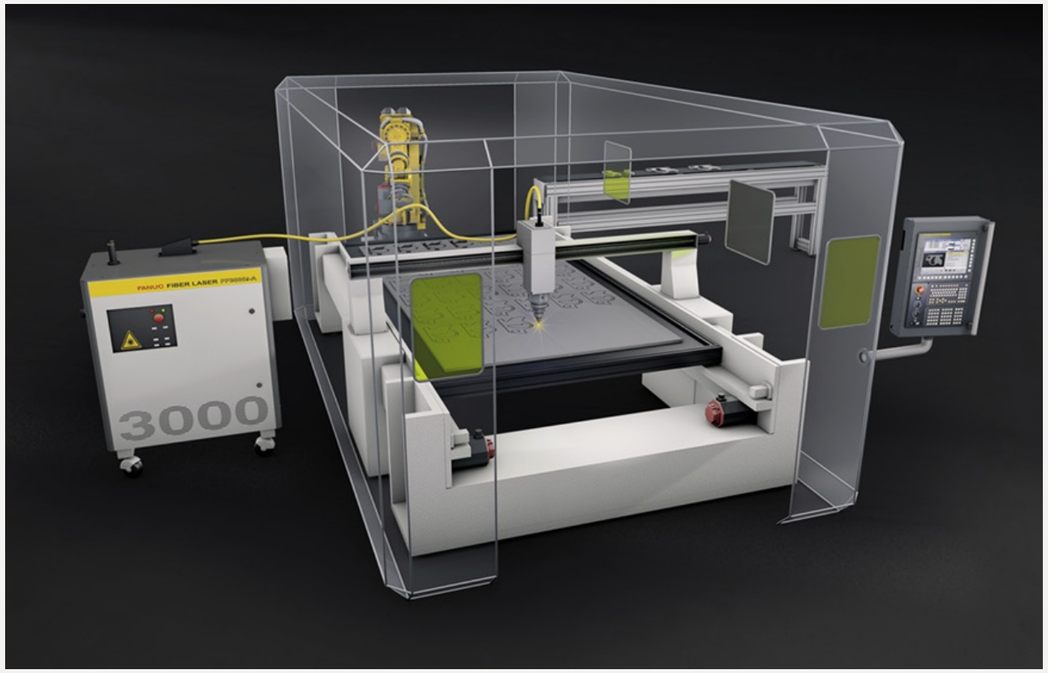
FANUC FF2000i-A 2 kW rated laser output	
Mild steel up to	**14 mm**
Stainless steel	**8 mm**
Aluminum	**6 mm**

FANUC FF3000i-A 3 kW rated laser output	
Mild steel up to	**20 mm**
Stainless steel	**12 mm**
Aluminum	**8 mm**

FANUC FF6000i-A 6 kW rated laser output	
Mild steel up to	**32 mm**
Stainless steel	**20 mm**
Aluminum	**20 mm**

Fiber laser for high speed metal cutting

Now there is a fiber laser source that meets FANUC's exacting quality standards. With a wavelength of 1.070 µm, the new fiber laser is in its element on applications involving thin sheet metal. Delivering maximum cutting performance and 99.9% reliability, the FANUC Fiber Laser provides effective real-time cutting even on applications involving contours.
Just like the CO2 laser sources, the fiber laser source has been specifically designed for easy compatibility with FANUC's advanced CNC and a high-performance servo drive system.



Highest cut productivity and flexible solutions

LK Series
Order List

Model range

LK2010

Max. X travels	**2,050 mm**
Max. Y travels	**1,050 mm**

LK 2512

Max. X travels	**2,550 mm**
Max. Y travels	**1,250 mm**

LK 3020

Max. X travels	**3,100 mm**
Max. Y travels	**2,050 mm**

LK 4520

Max. X travels	**4,600 mm**
Max. Y travels	**2,050 mm**

LK 6020

Max. X travels	**6,100 mm**
Max. Y travels	**2,050 mm**

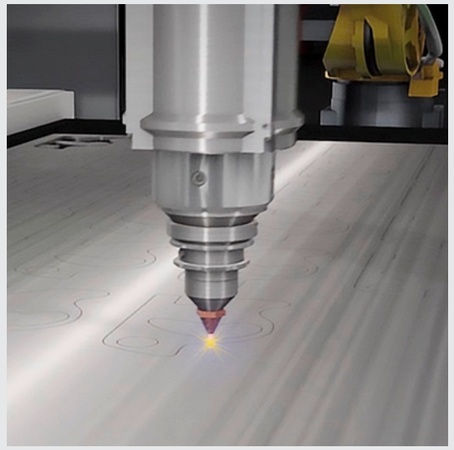
IL

www.intelligentlabs.ro

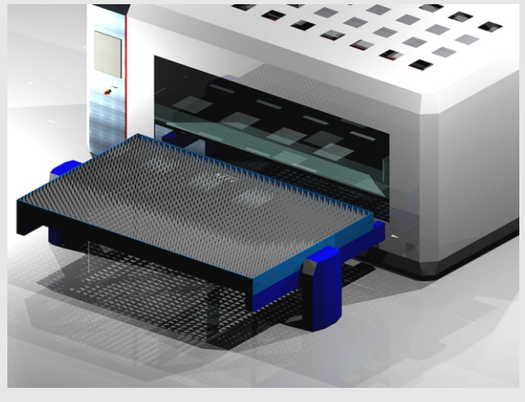
LK Series
Options

Ultra-precise fiber laser fly cutting

Very fast signal speeds provided by the FANUC FSSB mean laser output can be cranked up instantaneously to achieve extremely high-precision fly cuts.



Quality
assured by hi-class brands ...



Automatic change lift

* external lift for more efficient production time

* height control for change lift

* PLC independent with externals control

* safety barrier systems

GAP Sensor

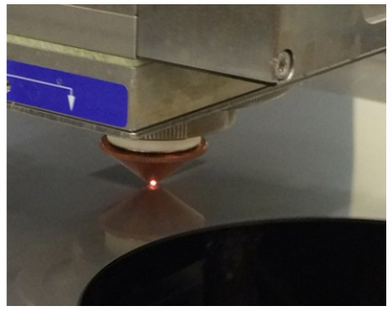
- automatic GAP sensor
direct drive by servomotor Fanuc

- Z axis transmission with
synchronous-belt at speed of 10 m/s

- Collusion function with high speed
retraction

- Accuracy 0.01 mm / time 10 ms

https://www.fanuc.eu/ua/en/cnc/laser-systems



Exhaust System

The SCS is a self-cleaning central filter optimized for welding fume extraction systems that require up to 7000 m3/h for extraction arms and 9000 m3/h for general filtration such as push-pull systems.

LK Series

Controller option

CNC Fanuc 31i-FB

Designed to be extremely user-friendly, FANUC's new iHMI makes operating CNC machines easy and efficient.
The new panel is flat, features ergonomically positioned keys, completely redesigned hardware and a brand new user interface.

Conversational automatic programming function with process menu

Manual Guide and interactive programming

File display and note function for accessing operating instructions, drawings and texts

User – friendly operator guidance screen with clear machine status display

* increase transfer speed up to 120 m/min

* increase accuracy with nano metric technologies

Quality

made in Japan

FANUC

Notes

www.intelligentlabs.ro