

LASERSMART® 810XL

A WIDE-RANGING SOLUTION IN LASER MACHINING

Machining of ultra-hard materials

Designed for the production of cutting tools in ultra-hard materials and featuring 6 simultaneously interpolated axes, the LaserSmart®810XL is ideally suited for machining tools up to 300 mm (12") in diameter, 350 mm (14") in length and up to 15 kg (33 lbs.) in weight. An automatic robot with a capacity of 30 parts is included as standard. The LaserSmart®810XL is the perfect solution for machining ultra-hard tools used in the automotive, aerospace and woodworking industries.

Innovative kinematics

- Latest generation scanner offering high dynamics and precise positioning, resulting in a significant increase in productivity and unmatched process accuracy.
- Machine designed with innovative, very light and ultra-rigid materials in order to reduce moving masses and increase the rigidity of strategic elements.
- The laser and scanner are never set in motion, thus avoiding any transmission of vibrations.
- The Zp workpiece axis allows the tool to be positioned so that the part to be machined is close to the center of rotation of the B axis, thus reducing axis movements during interpolation to obtain very high precision and stability in production.

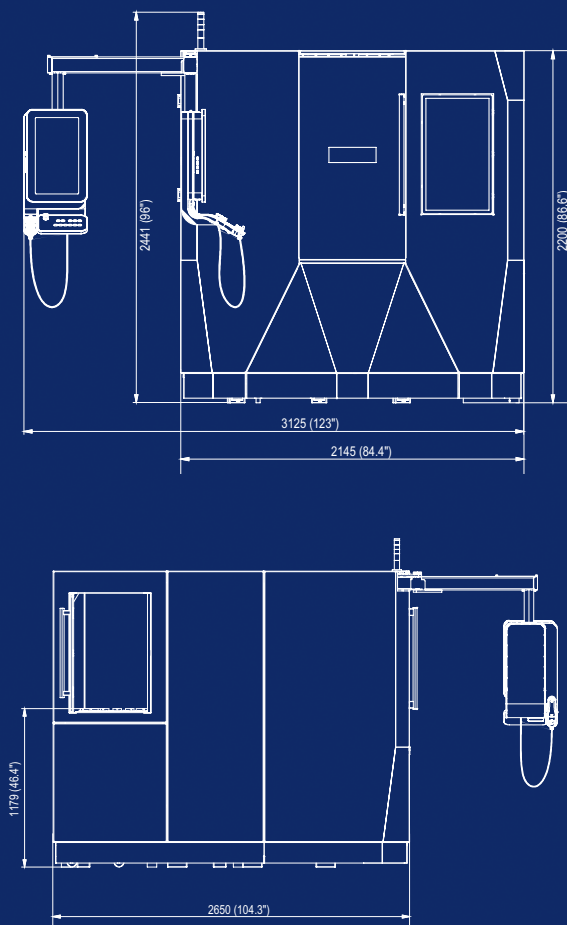
Simplicity of settings and programming

7 cameras, distributed in the machine and in the robot area, allow a perfect visualization on a large screen. The optimal visibility guarantees comfort and simplicity of adjustments.

With the SmartMachining software on the LaserSmart® 810XL, even the most complex geometries can be programmed intuitively and easily, regardless of the material being machined.



LASERSMART®810XL TECHNICAL DATA



MACHINING RANGE

Diameter range 2.0 - 300.0 mm (.08" - 11.8")

Overall tool length up to 350 mm (13.8")

CONTROL FANUC 30iMB

X axis Type Linear motor, water cooled

Stroke 138 mm (5.4")

Fast travel 20 m/min (787"/min)

Encoder Linear scale 0.00005 mm (.000002")

Y axis Type Linear motor, water cooled

Stroke 346 mm (13.6")

Fast travel 20 m/min (787"/min)

Encoder Linear scale 0.00005 mm (.000002")

Z axis Type Fanuc servo motor, water cooled

Stroke 246 mm (9.7")

Fast travel 20 m/min (787"/min)

Encoder Linear scale 0.00005 mm (.000002")

B axis Type Direct drive, water cooled

Stroke 240° (+/- 120°)

Fast rotation 10000°/min

Encoder Rotary scale 0.0001°

C axis Type Direct drive, water cooled

Stroke Continuous

Fast rotation 300 rpm

Encoder Rotary scale 0.0001°

Zp axis Type Servo motor and ball screw

Stroke 290 mm

Fast rotation 5 m/min

Encoder Linear scale

LASER HEAD

Laser Scanner with integrated digital position detector and digital servo control board

Water cooled

Laser scanning field 30 x 30 mm

TOOL CLAMPING

Clamping HSK63 (A, C, E, F)

ROBOT LOAD & UNLOAD (optional)

Shank diameter Up to 300 mm (11.8")

Max. overall length Up to 350 mm (13.8")

HSK Tool magazine HSK63, max. 30 tools

MACHINE

L x W x H 2145 x 2650 x 2200 mm
(84.4" x 104.3" x 86.6")

Weight 7500 kg (16534 lbs)

Total power Maximum 10 kW
3 x 400V/25A

Laser product Class 2M

Classified EN / IEC 60825-1 : 2014

* Specifications are subject to change without notice