

PRODUCT SPECIFICATION

Laser Sandblasting Machine with Loading Arm

Model CF1530 · 1500 × 3000 mm

Frosting · mirror back-paint removal · coating removal · drilling



CF1530 with pneumatic loading arm and open-grid worktable

Glass on rack



Arms tilt sheet



Lift pins raise



Slide to position



Laser processing

One machine for frosting, back-paint removal and drilling — with safe single-operator loading.

The CF1530 is a high-speed, high-precision laser sandblasting machine developed for the smart-mirror industry. Besides mirror frosting it handles paint stripping, coating removal and drilling on other glass, and surface marking on stainless steel, aluminium oxide and copper alloys. A pneumatic loading arm and cylinder lift pins let one operator load and position full-size sheets.


1500 × 3000

working size, mm

140 W

MOPA fibre laser

≤ 12,000

engraving speed, mm/s

50 mm

max. material thickness

APPLICATIONS

Smart mirrors

Frosting and back-paint removal for lit and smart mirrors.

Decorative glass

Art glass, sliding-door glass and deep-frosted patterns.

Coated glass

Coating removal on coated and home-appliance glass.

Drilling & marking

Round, tapered, stepped and special-shape holes; metal marking.

Loading arm and lift pins: one operator, full-size sheets.

The pneumatic loading arm tilts the glass from the rack onto the worktable. Cylinder lift pins then raise the sheet so that a single operator can slide it into position — no crane, less handling and less risk of breakage.



HOW IT WORKS



1 · Tilt onto the table

The pneumatic arms lower the sheet onto the worktable.



2 · Lift pins raise

Cylinder lift pins raise the glass off the table.



3 · Position and process

One operator slides the sheet into place; the laser starts.

Safer

Operators no longer lift large sheets by hand.

Faster

Loading and unloading take less time per sheet.

Fewer people

One operator can load and position the glass.

Built for continuous, precise work.

Ten design points that matter in daily production.

01 Syntec 730SA-PLUS laser software

Easy to operate. Sandblasting incl. special shapes, drilling (tapered, stepped and special-shape holes) and coating removal (mirror paint, coated glass, home-appliance glass).

03 12-spot galvo + telecentric lens

High-speed, high-precision 12-spot quartz galvo head with a telecentric quartz field lens.

05 Dual-temperature chiller

Two independent cooling circuits keep the laser at the right temperature for long shifts.

07 AirTAC guides, 1.5-module rack

Dust-proof AirTAC linear guides; custom 1400 mm high-precision 1.5-module rack.

09 Automatic Z-axis

Large-stroke automatic Z-axis for different thicknesses and materials.

02 Low edge chipping

Edge chipping on drilled holes below 400 µm; below 300 µm on small holes.

04 140 W MOPA fibre laser

MOKE-custom high-peak MOPA laser: good beam, stable power, low attenuation, long life.

06 Rigid, stress-relieved frame

Welded steel frame, annealed and finished on a 5-axis CNC mill; aluminium gantry beam.

08 Servo drive

High-precision servo motors: high torque, small transmission error, good dynamics.

10 Open-grid table with travelling dust extraction

Dust is extracted under the laser head as it moves, keeping the work area clean.



Scan head



Side-mounted guides



Dual-control chiller



Open-grid table

Processing capability: max. sandblasting width 160 mm per pass; max. drilling field 150 × 150 mm.

Technical specifications

MACHINE

Model	CF1530 + loading arm
Working mode	Fibre laser
Working size	1500 × 3000 × 50 mm
Floor space (L × W × H)	4900 × 3280 × 1700 mm
Weight	approx. 1400 kg
Total power	4.5 kW
Power supply	AC 190–240 V, 50–60 Hz
Working environment	+5 to 35 °C, RH 30–60 %

LASER & ACCURACY

Laser	MOPA high-peak fibre laser
Laser power	140 W (MOKE custom)
Wavelength	1055–1070 nm
Theoretical laser life	approx. 80,000 h
Marking range per pass	60 × 3000 mm
Engraving line speed	≤ 12,000 mm/s
Mechanical repeatability	≤ ± 0.25 mm
Laser repeatability	≤ ± 0.002 mm

SYSTEM

Control system	Syntec 730SA-PLUS (Taiwan)	Fume extraction	High-pressure fan, direct duct
Motion	Servo, dual drive, 4 motors	Worktable	Open grid, travelling extraction
Optics	12-spot galvo + telecentric lens	Loading	Pneumatic arm + lift pins
Cooling	Dual-temperature chiller	Edge chipping	< 400 µm (< 300 µm small holes)



Specifications may change with product improvements. Final values are confirmed in the quotation.

Main components

Proven brands for the parts that decide accuracy and uptime.

Component	Brand / type	Advantage
Laser	140 W MOPA, MOKE custom	Theoretical life approx. 80,000 h; even frosting, no edge burst
Galvo head	12-spot custom galvo	About twice the durability of standard domestic heads
Field lens & beam expander	Telecentric field lens	Even spot over the whole field
Linear guides	AirTAC (Taiwan)	High hardness, high precision, dust-proof
Rack	1.5-module, 1400 mm custom	High hardness, high precision
Laser control system	Syntec 730SA-PLUS (Taiwan)	Adapts to round and rectangular jobs
Servo motors	Syntec (Taiwan)	Dual drive, 4 motors: 3 × 750 W + 1 × 400 W
Crossbeam	Industrial aluminium profile	Machined in a machining centre
Machine body	One-piece welded steel	Thermally aged, stays dimensionally stable
Electrical parts	Delixi / YUNSANDA	Switches, filters etc.
Cables	Special flexible cable	For continuous drag-chain movement
Computer	Industrial PC for laser machines	Pre-installed and tested
Lubrication	Manual oil injection	Avoids freezing in winter; longer service life



140 W MOPA laser



Servo motor



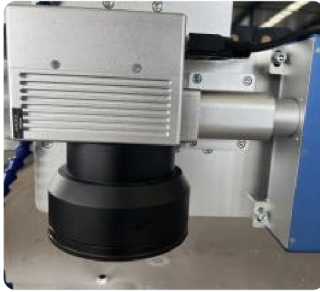
12-spot galvo



Aluminium beam

What makes the difference

Left: common solution. Right: what MOKE uses.



Standard 2D head



Industrial scan head

Industrial-grade scan head

Rugged design for long shifts in a dusty workshop.



Flat-mounted rail



Side-mounted rails

Side-mounted double guides

Smoother travel and higher engraving accuracy.



Single-circuit chiller



Dual-control chiller

Dual-temperature chiller

Two independent circuits for continuous daily operation.



Standard gear motor



Servo with reducer

Servo motors with reducer

Higher angular accuracy than standard gear motors.



Standard laser



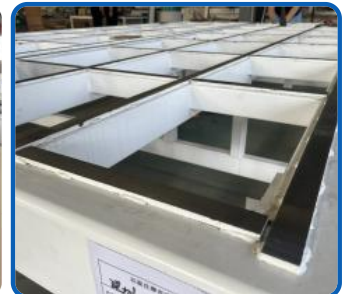
140 W MOPA laser

High-power 140 W laser

Less power attenuation and longer service life.



Aluminium gantry beam



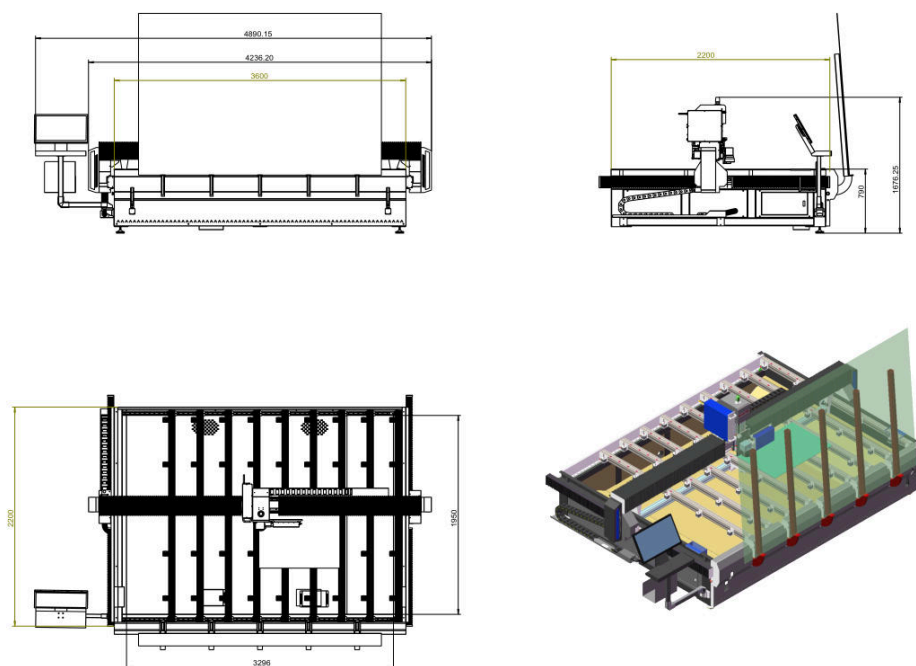
5-axis machined frame

Aluminium beam, 5-axis frame

Rigid, low-deformation structure; flat, precise reference surfaces.

Dimensions and shipping

Overall dimensions 4900 × 3280 × 1700 mm. Plan the installation area with clearance for loading from the rack side.



Front, side and plan views and 3D view. For reference only; confirm against the general arrangement drawing supplied with the order.

PACKING

Packing size	4250 × 2250 × 1700 mm
Volume	approx. 16.3 m ³
Packages	1
Net / gross weight	1500 / 1600 kg

CUSTOMS

HS code	8456 1100 90
Description	Laser marking machine
Function	Marking on glass, mirrors and metal
Processing	Laser

Shipped fully assembled and tested; the loading arms are secured for transport. MOKE engineers support installation, commissioning and training.



GLASS & MIRROR LASER PROCESSING MACHINES

Let's discuss your project.

For service, spare parts or your next project, contact us.

Tina Zhou

+31 6 39 225 132

tinazhou2018@gmail.com

Cherry Zhou

+86 157 1748 8956

Phone · WhatsApp · WeChat

cherryzhoumm@gmail.com

WEBSITE

www.mokemachine.com

E-MAIL

sales@mokemachine.com



www.mokemachine.com

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