



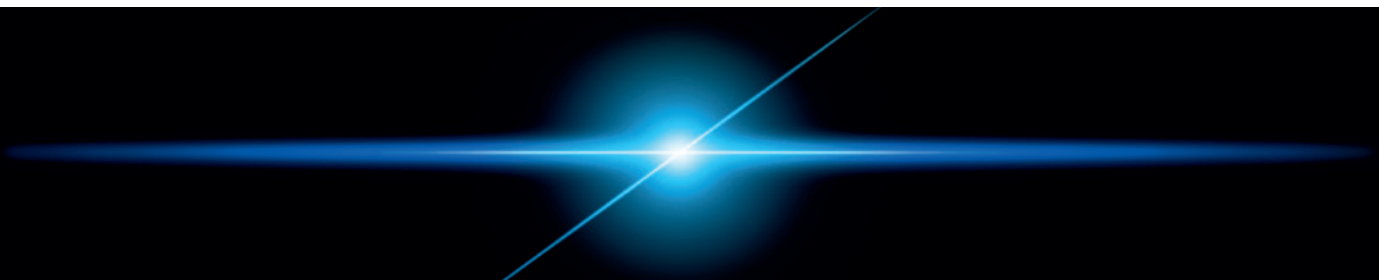
eSmart Series



FIBER LASER



PURE TECHNOLOGY.



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eSmart series of machines pack a lot of technology into a small footprint, with the machine electrical cabinet and IPG laser source built into the end of the machine. Eagle is a true pioneer of fiber laser. Eagle's founder, Marcin Ejma, purchased one of the first IPG Photonics units for testing on sheet metal cutting, and has remained steadfast in pursuit of the ideal fiber laser.

1

LINEAR MOTORS

All axes | Superior motion dynamics compared to ball screw or rack and pinion approaches. This advanced drive technology is on all 3 axes.

2

POLYMER GRANITE

Base frame | Polymer granite delivers significantly better rigidity, temperature stability, and vibration dampening than steel.

3

PALLET EXCHANGE

Servo driven | An elegant and simple servo driven design eliminates slow and troublesome hydraulics.



eSmart™ model 1530

1 LINEAR MOTORS



Linear motors provide the highest possible acceleration over the full range of speeds. Non contact with no wear. Zero backlash. Highly efficient with no rotary to linear power conversion found in other methods.



A machine this quick requires an even faster feedback system. Renishaw's industry leading **Resolute™ optical encoders** are non-contact for long life, high resolution for motion accuracy, and deliver extreme communication speeds.

2 POLYMER GRANITE



Polymer granite base such as those used on high-precision CMMs and EDMs is highly rigid and temperature stable. In addition, the extreme weight provides vibration dampening, enabling high acceleration.

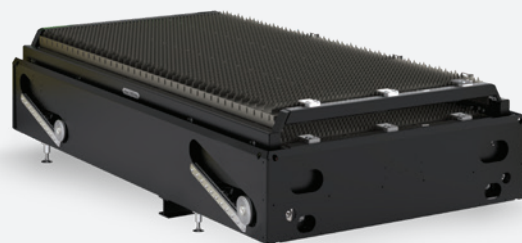


Precision ground surface of the polymer granite provides the perfect base for linear motor platens, linear ways, and optical encoder scale.

3 PALLET EXCHANGE



Front loading Pallet Exchange with 1 ton standard capacity. Fixturing options are available.



Pallet exchange is accomplished with **servo motors rather than hydraulics** delivering simplicity and reliability.

eVa® CUTTING HEAD *Patented*

Longest meantime between maintenance. Breakaway head.



RELIABILITY BY DESIGN

4x Less Susceptible to Contamination:

Only **2 focal lenses** – while still giving complete beam control

Only **3 consumable parts** on the entire head: nozzle, protective glass, glass seal

The first protective glass is an amazing **14 inches (355 mm)** from spark point

No mechanical motion devices inside optics area of the cutting head – greatly reduces risk of contamination

MATERIAL LOADING



eLoader



Loading Unit



Proactive and comprehensive support, with a personal touch, geared for your success.



Remote Diagnosis

We solve most issues remotely and within two working hours. Eagle lasers are equipped with a comprehensive array of Industry 4.0 sensors and data logs that enable our service team to find and fix issues fast. In addition, EagleEye Laser Diagnostic DVR® records 7 days of video data off multiple high-definition cameras as well as informs you via text/email of all shutdowns. You can log onto the system to investigate issues quickly (and so can we with your permission).



Highly-Trained Field Service Engineers

Fairmont's service engineers are skilled in all aspects of servicing your laser. Our phone and Industry 4.0 remote support will solve the vast majority of issues, and when necessary you will experience the fastest on-site response time in the industry. Ask our customers about their experience and you'll see Fairmont's industry-leading customer commitment.



Vast Parts Inventory

Fairmont holds a vast inventory of spare parts in the US for immediate shipment. We can ship consumables or replacement parts out same day if we receive your request by 2pm during working days, eastern time zone.



Original Manufacturer Part Numbers

Eagle and Fairmont leave the OEM part numbers on components throughout the machine. This transparency shows our commitment to provide fair pricing.

ESMART SPECIFICATIONS

Simultaneous positioning speed: 6,692 ipm (170 m/min)

Cutting speed: 3,937 ipm max (100 m/min)

Cutting precision: +/- 0.004 inches

Repeatability: 0.002 inches

Work Envelope

Base Axis: 10 feet

Bridge Axis: 5 feet

Z Axis: 3.9 inches



Standard Equipment

- IPG Photonics ytterbium fiber laser power source, 1 to 10 kW, built into back of machine
- eSoft Software with drawing, processing, cycle time estimating, and powerful geometric nesting
- Beckhoff digital control with custom Eagle algorithms and software, electrical cabinet built into back of machine
- Event log and diagnostic function
- Linear motors on all three axes with absolute optical encoders
- Polymer granite base
- eVa® cutting head (patented) with height regulation system, continuous sensing of nozzle-to-beam concentricity, and breakaway head
- Hydraulic free pallet changer
- Multi-chamber bed design to maximize dust and fume extraction
- Installation, training, warranty
- 4-Point Laser Success Program for the first year

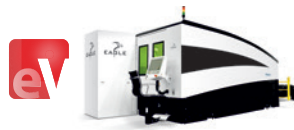
Software Options

- eRs Eagle reporting system to track laser productivity
- Drop & Cut – visual part location tool
- eSoft Compact – handles 3D models, program non-laser machines, job quoting, and more
- eSoft Professional – additional capability of full production planning, work orders, and shipments
- eSoft HVAC – 3D and flat pattern sheet metal programming

More Ancillary Products

- Stainless or copper support combs
- eLoader – jib crane with vacuum cups
- Loading Unit – automatic swing arm material loading with material thickness sensor

Eagle's full line of machines: iNspire, eVision, eSmart



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(833) 667-7889

info@fairmontmachinery.com

www.fairmontmachinery.com

it can only be **EAGLE**