



eSmart Series


EAGLE
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.

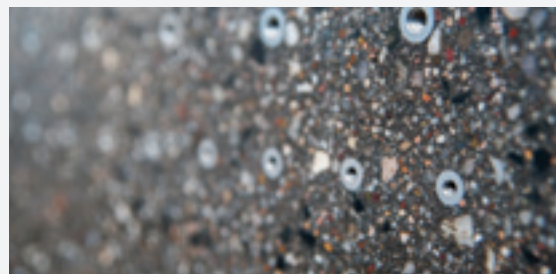


A machine this quick requires an even faster feedback system. Renishaw's industry leading **Resolute™ optical encoders** are non-contact for long life, high resolution for motion accuracy, and deliver extreme communication speeds.

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** – though still giving complete beam control

Only **5 consumable parts** on the entire head

Only **2 protective lenses** – serviceable on machine

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

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

MATERIAL LOADING



eLoader



Loading Unit



COMPREHENSIVE SERVICE & SUPPORT

- **\$1000 On-Time Service Tech Guarantee**
If you have a critical need, we guarantee a tech next working day or we pay you \$1000 each day late.
- **Lowest Price Consumables Guarantee**
Find a lower price and we will beat it by 5%.
- **Sustained Performance**
Upon machine commissioning a test part, program, and material are saved at your facility. When machine performance is in question, we will recut the part to illuminate any degradation.
- **Quarterly Operation & Maintenance Visits**
A qualified technician makes quarterly visits to review all aspects of the machine and production to ensure you run at Peak Performance.



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 6 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 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

- Fixturing block system on each pallet
- Stainless or copper support combs
- eLoader - jib crane with vacuum cups
- Loading Unit - automatic swing arm material loading with material thickness sensor

Eagles full line of machines: iNspire, eVision, eSmart



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iT can only be **EAGLE**