# Industrial Laser Systems



zetalase™ XL

VEREO™

**600** GROUP

**TYKMA ELECTROX**
INDUSTRIAL LASER SYSTEMS

# A Rich History With Lasers

With more than 60 years experience, TYKMA Electrox celebrates a rich history in the development of industrial laser systems with a focus in laser marking, etching, and engraving systems.

We provide unrivaled industrial laser solutions to customers around the world with headquarters in the U.S.A. and a global network of distributors.
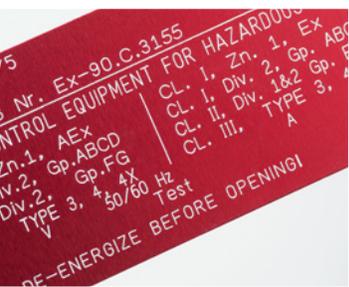
*"The TYKMA Electrox Minilase 20W fiber laser has been a great asset for us. We were able to quickly migrate our production from older laser technology to the Minilase. It produces a higher quality mark in less time. We run the machine two shifts per day and it is a key resource in our production process. I wish all of our equipment acquisitions were so productive in such a short time."*

**Tom Koenig, Manufacturing Manager, Spyderco**

## Solving Complex Challenges

Our experience in industrial laser systems enables us to be the industry expert. From the first contact, we work in a consultative style to fully understand our customer's unique requirements. Our application specialists and sales engineers ensure you receive the highest quality systems and performance.

Production is supported by experienced, product identification industry management, highly qualified engineers, software designers, and skilled factory-trained technical service professionals. Every system we build is fully warranted, designed with exacting international standards, and backed by exceptional 24/7 service, training, and technical support.

## Technology Advantage

We offer a variety of laser wavelengths, including MOPA pulsed fiber, ultrafast lasers, UV, and $CO_2$ systems. Our technology enables the processing of a wide variety of materials and substrates.

Decrease the energy consumption, extensive maintenance, and high cost repair bills of your older laser technology. Our systems are low maintenance and include comprehensive warranties.



*"PFL could not be happier with the system we selected, its performance, and your support for our needs. Our new system is 10-20X faster than the older YAG laser system we were using. The TYKMA Electrox system's flexibility has allowed us to offer a host of value added services that has delighted our customers, and generated additional revenue for us. Thank you for being one of our valued suppliers and please let us know how we can help you in future initiatives."*

**David Diamond, CEO, Precision Fabricators**
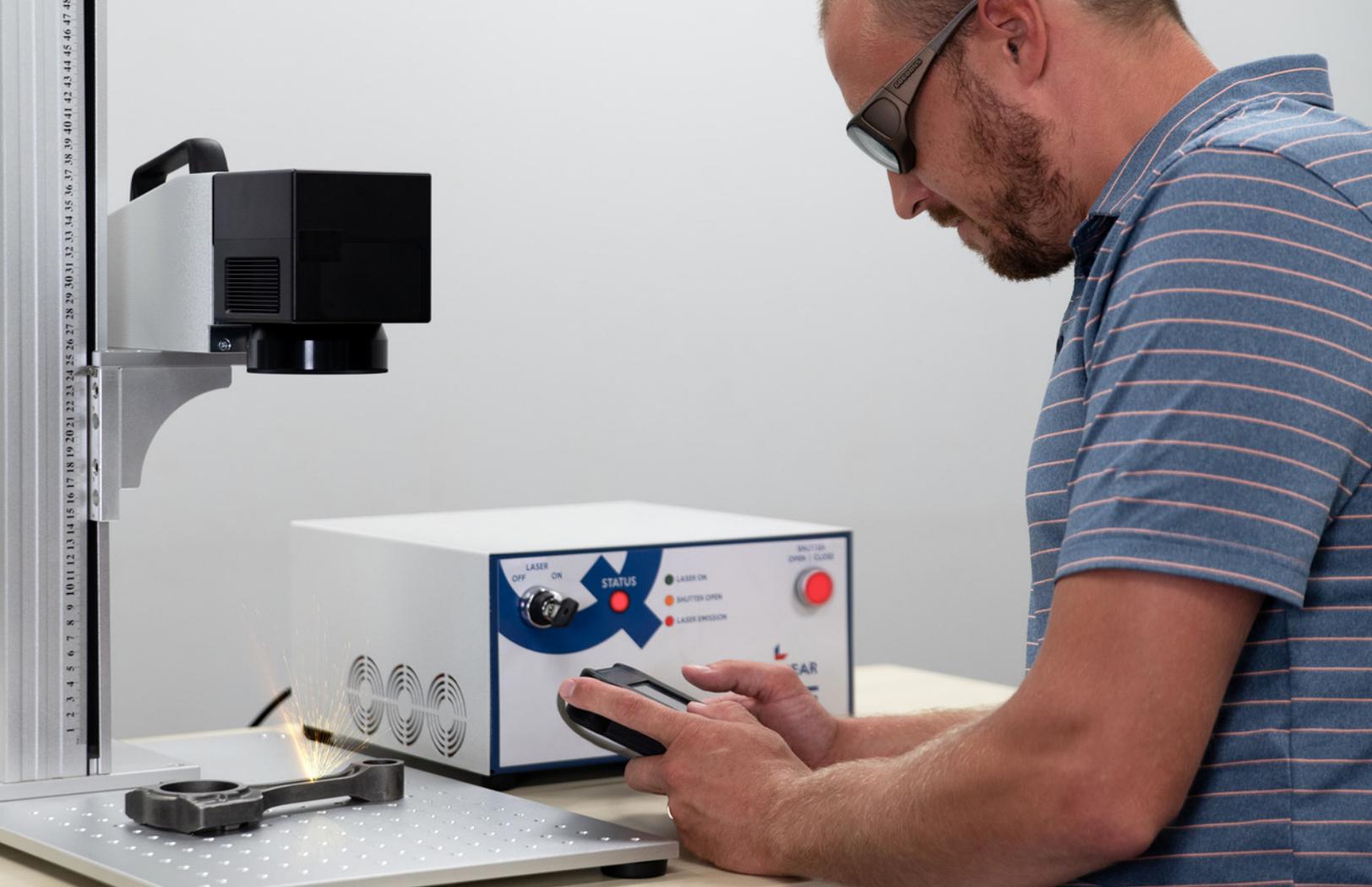
# LASERGEAR

## BY TYKMA ELECTROX

## Entry-Level Laser Marking Systems Manufactured in the USA

LaserGear™ is a full featured, entry-level line of laser marking products from TYKMA Electrox. LaserGear was created to serve clients who desire an entry-level laser marking system without compromising on quality. LaserGear products are manufactured in Chillicothe, OH USA, using high quality components and are backed by a 24-month warranty and industry leading service and support.

# LaserGear BOQX™

## A Powerful Benchtop Laser Marking System

**LaserGear BOQX** is a Class 1 desktop laser marking system that combines simplicity with power. Featuring a 20W MOPA fiber laser, BOQX delivers both strength and speed to accomplish a variety of applications. A front sliding vertical door and power focal height adjustment with a built-in focus finder tool allow for simple front loading and part setup.

# LaserGear QUBE™

## Class IV Operation or Integration Applications

**LaserGear QUBE** is a Class 4 laser marking system that is ideal for use in an open environment or integrated into production lines. Featuring a range of MOPA fiber lasers from from 20W to 60W, QUBE delivers both strength and speed to accomplish a variety of applications. Mount QUBE to a tool-post for marking applications which require open space and flexibility. Integrate QUBE into automated lines for unattended or turnkey applications.

# Minilase™

Air Cooled, Maintenance-Free Fiber Laser Source

Vertical Three-Side Pneumatic Door with Patented Safety System

Power Focal Height Adjustment with Easy Focus Finder

T-Slot Tool Plate

Simple USB to PC

Operator Control Panel with System Status LEDs

Easy Mode with Automated Door Close, Marking and Door Open Sequence

LASER START

SHUTTER

ENABLE

Laser Ready
Laser Busy
Cycle Complete
System Alert

MODE
EASY
MANUAL

CYCLE
START
STOP

FOCUS

DOOR
OPEN
CLOSE

TYKMA ELECTROX
INDUSTRIAL LASER SYSTEMS

SYSTEM STOP
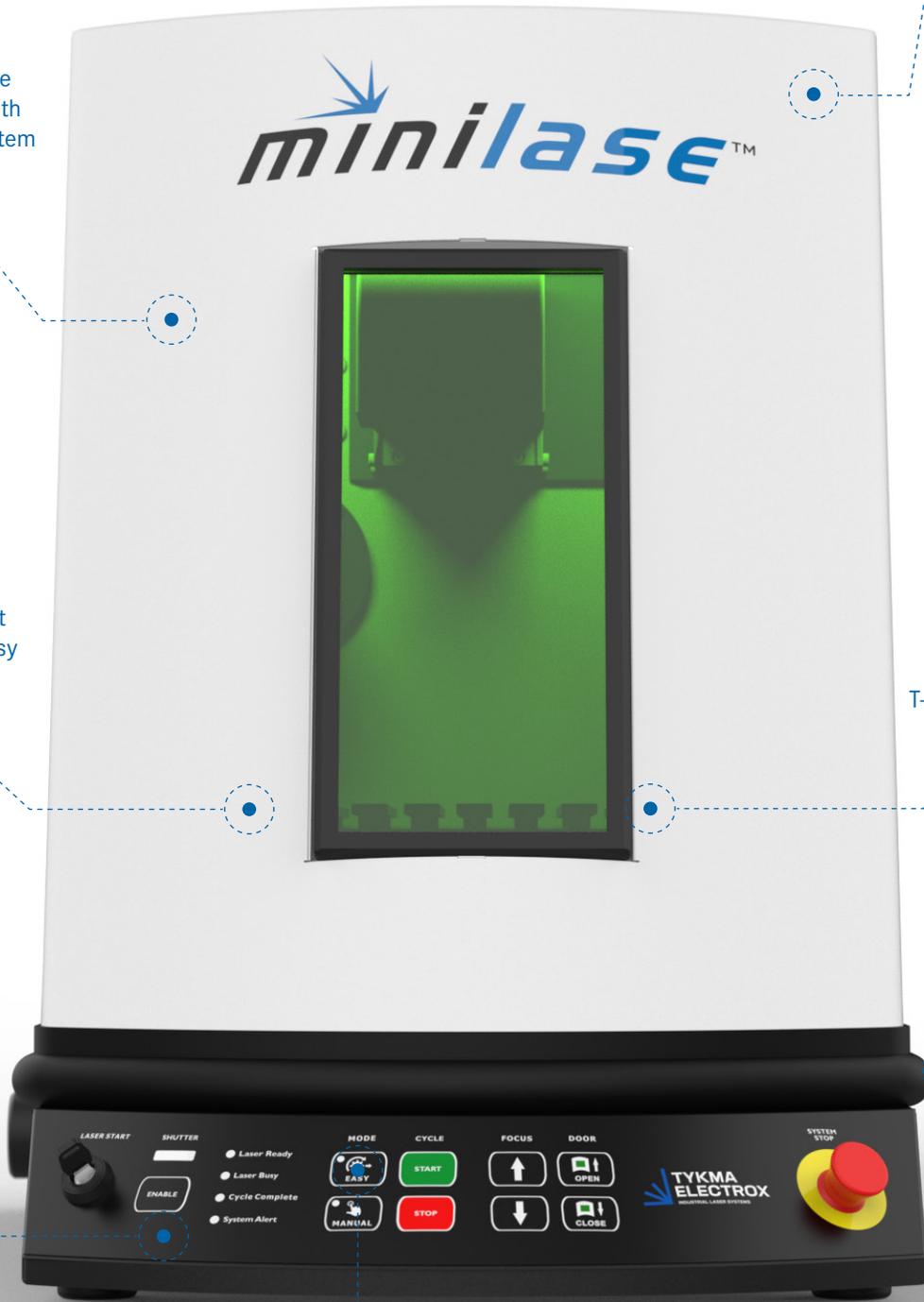
minilase™

# Efficient & Ergonomic

**Minilase** has smart features that drive efficiency and improve ergonomics with high volume production. A three-sided automatic vertical door provides an ergonomic method for part loading. Machine management is simple with the front mounted operator control panel. An optional rotary device can be utilized for 360° radial part marking.

## Easy Focus Finder

Power focus adjustment and our built-in easy focus finder system allow for quick and easy change over when processing a variety of parts.

## Easy Operation Mode

Minilase is ideal for high volume applications. Easy mode allows for the automated sequence of door close, marking and door open, maximizing operator ergonomics.

# Minilase™ XL

Vertical Three-Side Pneumatic Door with Patented Safety System

Available with a Variety of Laser Types

Power Focal Height Adjustment with Easy Focus Finder

T-Slot Tool Plate w/Open Interior for Large Parts

Service Key for Class 4 Operation

Simple USB to PC

Operator Control Panel with System Status LEDs

Easy Mode with Automated Door Close, Marking and Door Open Sequence

minilase™ XL

TYKMA ELECTROX

# Flexible & Large Workspace

**Minilase XL** offers a larger workspace and an open interior for maximum flexibility in a desktop solution. In addition, Minilase XL is equipped with our ergonomic features such as the three side pneumatic vertical door, power focal height adjustment and auto-mode for high volume applications. A service override key and safety warning lights allow for open door Class 4 marking capability for larger components. Minilase XL is also available with a single front sliding manual door.

## Open Interior with Class 4 Operation

Minilase XL features an open interior and the most expansive part loading area of our Minilase line. Class 4 capability for open door marking is possible with our service override key and safety warning light.

## Automatic Mode

Minilase XL is ideal for high volume applications. Auto mode allows for the automated sequence of door close, marking and door open, maximizing operator ergonomics. Upgrade to programmable focal height adjustment for automatic focal change between parts.

# Zetalase™ XL



Programmable Focal Height Adjustment

Vertical Pneumatic Door with Patented Safety System

Integrated Controller with Flat Screen Monitor on Gas Assisted Swing Arm

Removable Side Panels for Large Part Loading

Operator Control Panel with System Status LEDs

Available with a Variety of Laser Types

Full Sized Floor Standing Workstation with Expansive Work Area and Recessed Seating Area

# Flexible Full-Size Workstation

**Zetalase XL** offers an expansive work area and is highly configurable for a variety of applications. Zetalase XL is ideal for the processing of tall and/or large components as well as large fixtures of parts. A front vertical patented pneumatic safety door maximizes operator ergonomics. A choice of laser power and a variety of accessories and customizations provide the ability to solve any application.

## 3D Contour Marking

A 3D upgrade delivers a large continuous marking field, 3D laser contour marking and 3D laser engraving. With the use of a high speed dynamic focusing optic, the marking field is expanded to 250mm x 250mm. With an industry leading 100mm of Z-Axis dynamic focus, the need for mechanical focal height adjustment when marking variable height components is eliminated.

## Process Large Graphics

Upgrade to a 381mm x 381mm marking field for the ability to process large graphics or trayed components. Removable side panels allow for the loading of large or extended parts.

# ATLAS™

Vertical Pneumatic Door with
Patented Safety System

Programmable Gantry
Z Axis

**ATLAS**

Slide out Monitor,
Keyboard, and Mouse Drawer

TYKMA
ELECTROX

Full Sized Floor Standing Workstation
with a 24" x 48" (610mm x 1,219mm)
XY Marking Field

Available with a Variety
of Laser Types

# Large Format XYZ System

**ATLAS** is equipped with a combination gantry/stage XY system with a marking field of 24" x 48". In addition, the system features a programmable Z axis and ability to add a rotary accessory for marking the outside diameter of round parts. The interior includes a large breadboard tooling plate and a lowered base for easy access to load and unload fixtures and components. A pneumatic front door with built in safety improves operator ergonomics. ATLAS comes equipped with system control PC and a front slide out monitor, keyboard, and mouse drawer.

## Variety of Laser Sources

Atlas is available with a variety of laser sources including MOPA fiber from 20 to 100 watts, a 10 watt UV laser, and a 30 to 100 watt CO2 laser. With these options, ATLAS can tackle any marking application.

## Expansive Marking Field and Custom Options

A 24" x 48" (610mm x 1,219mm) XY processing field provides the ability to mark large graphics, trays of parts, and apply markings in multiple locations. ATLAS can also be equipped with rotary devices, custom part fixturing, 3-axis scan heads for 3D and large field marking, and more.

# Zetalase™ XLT



## Expanded Marking Field

**Zetalase XLT** features a continuous marking field up to 24" x 24" (610mm x 610mm) while maintaining a small beam diameter with high energy output. This technology excels over traditional XY stage systems that require complex programming and high cycle times, due to indexing movements of the XY stage. Expansive graphics can be processed in one cycle without any tiling or stitching, and large trays or fixtures of parts can be marked in minimal cycle time.

## Fiber Laser Source

A 20 to 100 watt MOPA fiber laser source provides both power and pulse duration control for a variety of industries and applications, including deep engraving of firearms, annealing of medical components, color change marking on plastics and more.

## Continuous Marking Field

A 24" x 24" (610mm x 610mm) continuous marking field provides the ability to mark large graphics, trays of parts and apply markings in multiple locations without any indexing or axis movements. Programmable focal height is standard. Add an optional full size rotary device for 360° radial part marking.

# Zetalase™ Duo



# High Volume Processing

Ideal for high volume marking, the **Zetalase Duo** dial index system allows the operator to load/unload parts while others are being marked. The addition of safety light curtains ensures operator safety. Our Zetalase Duo workstation utilizes a robust, high duty-cycle rotary indexer for years of trouble free operation. Custom holding fixtures can be engineered for a variety of applications.

## Programmable Focus

Programmable focus adjustment allows for quick and easy changeover when processing a variety of parts. Dual rotaries in dial index oscillating mode allow for the quick processing of 360° radial part marking.

## Wavelength & Power Level

Dial index is available in a variety of laser output wattages and wavelengths to solve a variety of applications.

# Vereo™ Smart
## Integration Laser

Air Cooled, Maintenance-Free
Fiber Laser Source

- Discreet I/O
- Network Connectivity
- Plug-and-Play Interface for
  Common PLC Brands
- Proprietary TCP/IP Interface for
  Data Exchange
- Monitor and Control the Laser
  from Any Device

Integrated Controller for
Standalone Operation (No PC)

Touch Screen Interface with
Complete System Control Including
Job and Data Editing

Ultra Compact Head with Robust
Machined Aluminum Construction

# Revolutionary Integration Experience

The **Vereo Smart Integration Laser** is a revolutionary product in a stagnant field of integration laser systems. Control and monitor your laser system from any device, including PCs, Tablets, Smart Phones, PLCs and more without installing any software. Vereo Smart allows for virtually plug-and-play interfacing with many common industry leading PLC brands. In addition, users have a powerful amount of control at their fingertips with the front mounted touch screen interface.

## Multi-Device Control Interface

Control and monitor your laser system from any device! Our proprietary interface allows users to upload and select programs, change data, view status, data logs and more from any device on the same network, with no need to install software.

## Standalone Operation with On-Board Storage

On-board storage of marking programs allows for standalone operation (no PC). Easily interface with common PLC brands without any complex programming. Communicate to marking programs from networked databases using our proprietary TCP/IP commands.

# Vereo™ CO$_2$



## CO$_2$ Integration Laser

**Vereo CO2** resonator features a ceramic core, providing high efficiency and power stability, with a superior lifecycle. Vereo CO2 is air-cooled and low maintenance. Programming and connectivity are controlled through a simple USB interface to a laptop or desktop PC. In addition, this system includes external axis control, dedicated I/O, and marking on the fly.

## Made for Integration

Integration into automated work cells or custom enclosures is simple with an engineered scan head/resonator assembly and rack mount controls enclosure. Discreet I/O allows for automated laser control. Dynamic laser program and data string selection are available with our Icon Interface software

## CO$_2$ Laser Capabilities

Available from 30 to 100 watts, our CO2 laser is ideal for the marking of wood, glass, cardboard, paper, stone, leather, and the engraving of plastics and rubber. Vaporization and ablation of paint, anodized, and other coatings is possible without affecting the underlying metals. Cutting and drilling foil, cardboard, paper, leather and other materials is possible as well.

# Vereo™ UV



## UV Integration Laser

**Vereo UV** utilizes a highly efficient diode pumped solid state resonator design and low-maintenance closed loop water cooling for years of trouble free operation in high temperature or harsh environments. All components are rack mounted in a custom fabricated enclosure including the water chiller, Windows 10 PC, and a pull-out drawer with a pop-up monitor, keyboard, and mouse tray. In addition, this system includes external axis control, dedicated I/O, and marking on the fly.

## Made for Integration

Integration into automated work cells or custom enclosures is simple with an engineered scan head/resonator assembly and rack mount controls enclosure. Discreet I/O allows for automated laser control. Dynamic laser program and data string selection are available with our Icon Interface software

## UV Laser Capabilities

Available in a 10 watt design, UV laser "cold" material processing is ideal for marking where reduction and control of heat applied to the material is necessary to obtain quality marking results. Applications include the marking of polyethylene, silicon, black annealing on medical devices, electronic chip marking, glass scribing and a variety of other challenging applications.

# Vereo™ 3D / LFSS Laser
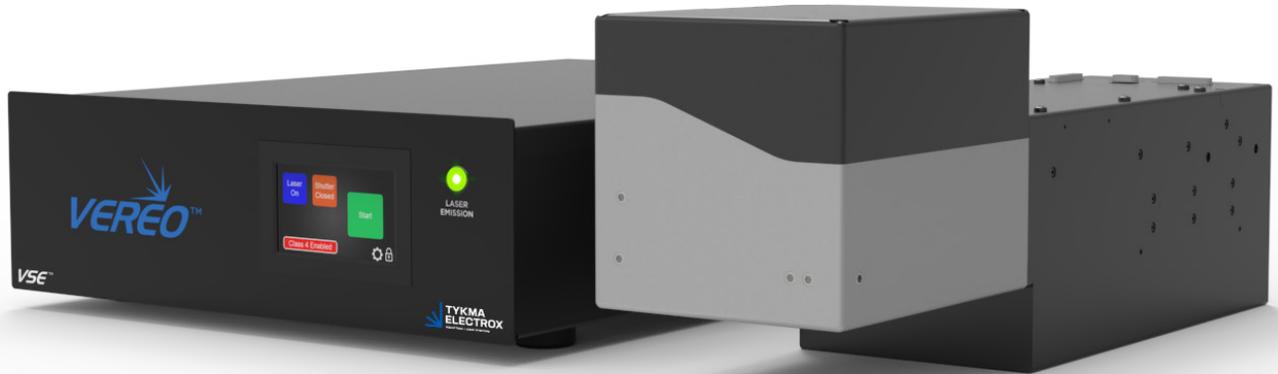


# 3D Laser Marking Field

**Vereo 3D / LFSS** is a versatile 3 axis laser marking system designed to deliver a large continuous marking field, 3D laser contour marking and 3D laser engraving. With an industry leading 100mm of 3D Z-Axis dynamic focus, the need for mechanical focal height adjustment when marking variable height components is eliminated. In addition, loss of focus and marking distortion are eliminated when marking uneven surfaces.

## 3D Mode

In 3D mode, a large marking field of 9.8" x 9.8" (250mm x 250mm) is combined with and industry leading 3.9" (100mm) of 3D Z-Axis dynamic focus. Applications include mold marking, 3D cylindrical marking, decoration of complex shapes, concave, convex and uneven surfaces, 3D deep engraving, and more.

## LFSS Mode

In LFSS mode, the marking field can be expanded up to 24" x 24" (610mm x 610mm), ideal for marking expansive graphics, large components, and trays of parts.

For full product specifications, please see pages 22-23.

# Scorpion™ Integration Laser



## Ready for Integration

Standalone capability allows for on-board storage of the laser marking programs without the need for a PC on the shop floor or production line. Operators and programmers can easily control and select marking programs using the included hand-held pendant. Scorpion can be networked, allowing engineers and programmers to update the on-board marking programs from anywhere on the factory floor. Our proprietary beam steering technology provides high precision and repeatability for demanding, high-volume applications.

## Standalone Operation

On-board storage of marking programs allows for standalone operation (no PC). Easily select data and marking information via external devices and networks.

## Network Capable

Scorpion is equipped with Ethernet, allowing users to network their laser systems. Engineers can easily utilize our Scriba laser software to connect, edit and upload new programs remotely over the network.

# Technical Information

| | LaserGear BOQX™ | LaserGear QUBE™ 20/60 | Minilase™ | Minilase™ XL |
|---|---|---|---|---|
| System Dimensions / Weight (approx.) | 16.15"W x 34.5"L x 24"H / 130lbs (mm) 410W x 876.3L x 584H / 59kg | (Head) 4"W x 14"L x 4.5"H / 10lbs (Rack) 13.5"W x 13.5"L x 8"H / 35lbs (mm) (Head) 102W x 356L x 114H / 4.5kg (Rack) 343W x 343L x 203H / 16kg | 17"W x 34"L x 24"H / 150lbs (mm) 427W x 878L x 625H / 68kg | 24"W x 42.5"L x 33.5"H / 200lbs (mm) 610W x 1,079L x 851H / 91kg |
| Standard Max Part Size | 12"W x 9"L x 5.75"H (mm) 254W x 228L x 146H | N/A Unrestricted | 9"W x 12"L x 3.5"H (mm) 254W x 228L x 90H | 20"W x 12.5"L x 9.9"H (mm) 508W x 317L x 252H |
| Laser Type(s) | MOPA Fiber | MOPA Fiber | MOPA Fiber | MOPA Fiber |
| Wavelength | 1062nm +/- 3nm | 1062nm +/- 3nm | 1062nm +/- 3nm | 1062nm +/- 3nm |
| Wattage | 20W | 20W / 60W | 20W / 50W | 20W / 50W 60W / 70W / 100W |
| Cooling | Air Cooled | Air Cooled | Air Cooled | Air Cooled |
| Standard Lens / Marking Field | 163L | 163L | 163L | 163L |
| Available Marking Lenses | 254L | 254L 330L 420L | N/A | 254L 330L |
| Input Power | Power Sensing 110-240 VAC 50/60Hz | Power Sensing 110-240 VAC 50/60Hz | Power Sensing 110-240 VAC 50/60Hz | Power Sensing 110-240 VAC 50/60Hz |
| Fiber Cable Length | N/A | 2M | N/A | N/A |
| Aiming Beam | (2) Class II Red Diode | (2) Class II Red Diode | (2) Class II Red Diode | (2) Class II Red Diode |
| PC | Laptop/Desktop PC Required | Laptop/Desktop PC Required | Laptop/Desktop PC Required | Laptop/Desktop PC Required |
| PC Connection | USB | USB | USB | USB |
| Air Required | N/A | N/A | 60 - 80 psi | 60 - 80 psi |
| Available Ports | Diagnostic / HH Pendant | Diagnostic / HH Pendant | Diagnostic | Diagnostic |
| Warranty | 18 Month Comprehensive Unlimited Hours | 18 Month Comprehensive Unlimited Hours | 36 Month Comprehensive Unlimited Hours | 36 Month Comprehensive Unlimited Hours |

TYKMA Electrox follows a policy of continuous product improvement. Specifications are subject to change without notice.

## Master Technical Specifications

Some system configurations are not listed, please contact TYKMA Electrox for full specifications or scan QR code to the left. All systems utilizing vertical doors require additional height clearance, full drawings available upon request.

| | Zetalase™ XL | | | Zetalase™ XLT | ATLAS™ | | | Zetalase™ Duo | | | Vereo™ Smart |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 32"W x 52"L x 74"H / 500lbs (mm) 813W x 1,321L x 1,880H / 227kg | | | 59"W x 66"L x 88"H / 1,650lbs (mm) 1,504W x 1,672L x 2,235H / 748kg | 57"W x 77.8"L x 92"H / 2,500lbs (mm) 1,449W x 1,975L x 2,334H / 1,134kg | | | 34.6"W x 49.6"L x 69"H / 800lbs (mm) 880W x 1,260L x 1,751H / 362kg | | | (Head) 3.5"W x 16.25"L x 3.5"H / 11lbs (Rack) 17"W x 15.75"L x 5.2"H / 50lbs (mm) (Head) 89W x 413L x 89H/ 4.9kg (Rack) 432W x 400L x 132H/ 22.7kg |
| | 30"W x 24"L x 19.5"H or (mm) 762W x 609L x 495H (mm) 382W x 1,066L (Using Center Wall Opening) | | | 52"W x 36"L x 9.4"H or (mm) 1,321W x 914L x 238H | 24"W x 48"L (mm) 610W x 1,219L | | | 9.45"W x 9.45"L x 9"H or (mm) 240W x 240L x 227.3H (divider dictates max height) | | | N/A Unrestricted |
| | MOPA Fiber | CO₂ | UV | MOPA Fiber | MOPA Fiber | CO₂ | UV | MOPA Fiber | CO₂ | UV | MOPA Fiber |
| | 1062nm +/- 3nm | 10,600nm | 355nm | 1062nm +/- 3nm | 1062nm +/- 3nm | 10,600nm | 355nm | 1062nm +/- 3nm | 10,600nm | 355nm | 1062nm +/- 3nm |
| | 20W / 50W 60W / 70W 100W | 60W 100W | 10W | 20W / 50W 60W / 70W / 100W | 20W / 50W 60W / 70W 100W | 60W 100W | 10W | 20W / 50W 60W / 70W 100W | 60W 100W | 10W | 20W / 50W 70W / 100W |
| | Air Cooled | | Water Cooled | Air Cooled | Air Cooled | | Water Cooled | Air Cooled | | Water Cooled | Air Cooled |
| | 163L | N/A | 163L | N/A | 163L | N/A | 163L | 163L | N/A | 163L | 163L |
| | 254L 330L 420L | F150 F250 F300 | 254L 330L 420L | N/A | 254L 330L 420L | F150 F250 F300 | 254L 330L 420L | 254L 330L 420L | F150 F250 F300 | 254L 330L 420L | 254L 330L 240L |
| | Power Sensing 110-240 VAC 50/60Hz | 220 VAC 50 or 60Hz | | Power Sensing 110-240 VAC 50/60Hz | Power Sensing 110-240 VAC 50/60Hz | 220 VAC 50 or 60Hz | | Power Sensing 110-240 VAC 50/60Hz | 220 VAC 50 or 60Hz | | Power Sensing 110-240 VAC 50/60Hz |
| | N/A | | | N/A | N/A | | | N/A | | | 3M |
| | (2) Class II Red Diode | | | (2) Class II Red Diode | (2) Class II Red Diode | | | (2) Class II Red Diode | | | (2) Class II Red Diode |
| | Integrated Windows PC | | | Integrated Windows PC | Integrated Windows PC | | | Integrated Windows PC | | | Laptop/Desktop PC Required for initial programming only. Laser can operate in standalone mode (without PC) |
| | N/A, PC Integrated | | | N/A, PC Integrated | N/A, PC Integrated | | | N/A, PC Integrated | | | Ethernet |
| | 60 - 80 psi | | | 60 - 80 psi | 60 - 80 psi | | | N/A | | | N/A |
| | Diagnostic/USB/VGA/Ethernet | | | Diagnostic/USB/VGA/Ethernet | Diagnostic/USB/VGA/Ethernet | | | Diagnostic/USB/VGA/Ethernet | | | USB/Diagnostic/Discrete I/O External Axes |
| | 36 Month Comprehensive Unlimited Hours | | | 36 Month Comprehensive Unlimited Hours | 36 Month Comprehensive Unlimited Hours | | | 36 Month Comprehensive Unlimited Hours | | | 36 Month Comprehensive Unlimited Hours |

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The TYKMA Electrox Systems described in this brochure complies with the requirements of 21 CFR 1040.10 and 1040.11, except for deviations pursuant to laser notice No. 50 dated June 24, 2007. These systems are certified by TYKMA Electrox as a Class I laser product or Class IV Compliance with 21 CFR may be verified by contacting:

Office of Compliance | Center of Devices and Radiological Health
10903 New Hampshire Ave. W066-3423 Silver Springs, MD 20993-0002 | (301) 796-5500

REV 8-25
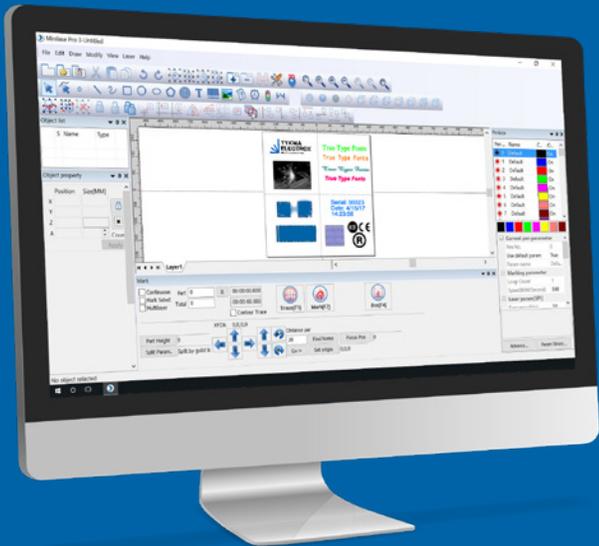
# Software

With our user-friendly software, operators and engineers can quickly create marking files with text, barcodes, 2D codes, and a variety of graphic formats such as DXF, AI, PLT, BMP and JPEG. CAD tools allow users to draw their own graphics and manipulate complex vector files. Automated date coding and serialization capabilities are also included. A pre-configured materials library takes the guess work out of setting up laser marking parameters. Control external axes such as XY stages, focal height adjustment and rotary devices for 360° marking.

Icon Interface, our off-the-shelf operator interface enables the following: advanced network data retrieval, TCP/IP communication protocols, SQL server connectivity, PLC interfacing, detailed photographic part fixture instructions and displays, operator restrictions and password protections, data entry via barcode scan, and more.

When our standard package isn't enough, let TYKMA Electrox create a custom software interface, completely designed to your specifications.

# Custom Solutions

If our standard products are not a fit for your application, or you need a custom solution to get the job done, we can help. TYKMA Electrox can engineer a perfect-fit solution for your application.

- Custom enclosures
- Automated part handling and feeding
- Reading and grading 2D codes
- Machine vision

For detailed information on these systems, contact your TYKMA Electrox sales engineer.

# Options and Accessories

- Multi-Waveform laser upgrades

- 3D laser marking

- Rotary devices for 360° radial part marking

- Focal lenses

- Fume and dust extraction

- Class 4 tool posts

- Component fixtures

- Laser safety products

- Linear axes and motion devices

- And more...
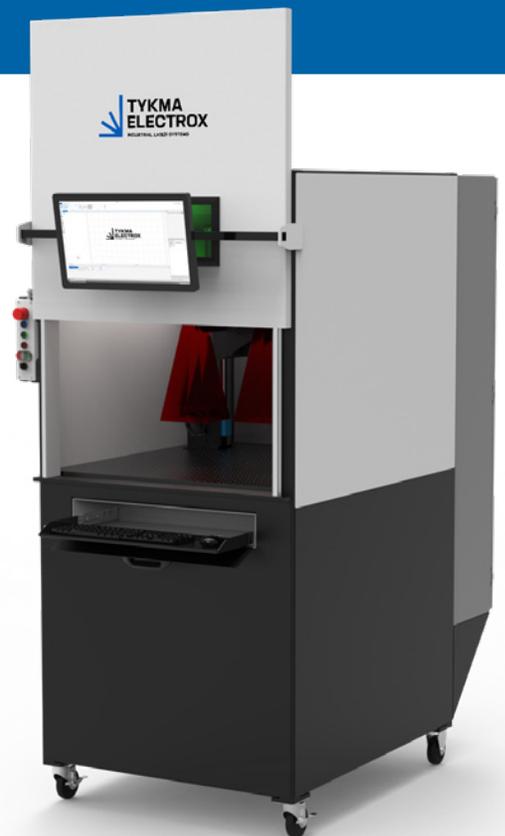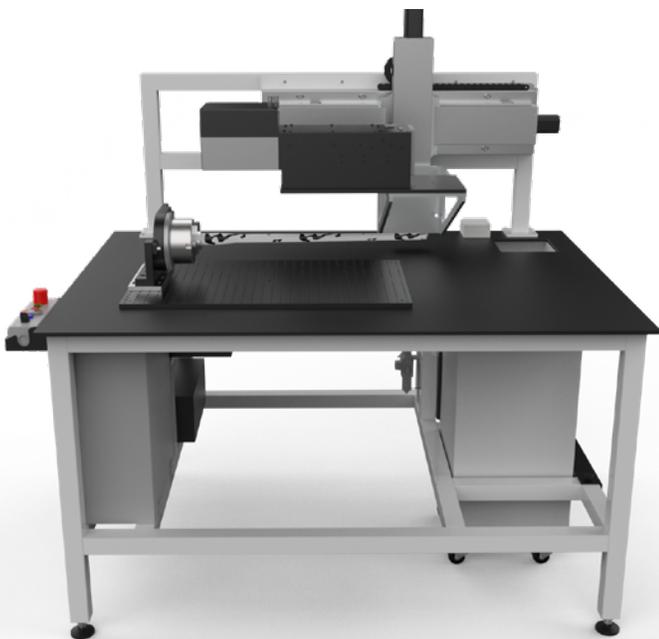
# Service and Support

TYKMA Electrox pledges to provide every customer with laser systems of the highest quality and reliability. We offer application specialists available from the start. Our 24/7, 365 days a year emergency service line is staffed with factory-trained technicians for all your service needs. We're dedicated to providing long-term customer problem resolution and training to ensure your system operates effectively for years to come. Contact us today to learn more. Join the growing number of manufacturers who've chosen TYKMA Electrox as their partner in industrial laser systems.

- 24/7, 365 days a year emergency support phone line
- Online remote programming and troubleshooting assistance via Citrix™ secured software
- Application and programming assistance
- Preventive maintenance and critical response agreements
- Loaner and rental laser systems

# What our Customers are Saying

*"We purchased a Zetalase for part identification. TYKMA Electrox personnel demonstrated outstanding knowledge of our industry and their products. Recently, a part (under warranty) needed to be replaced. The technician from TYKMA Electrox drove from Ohio to North Carolina to replace the part. Rarely do we see this level of commitment from our vendors. We are completely satisfied with TYKMA Electrox's performance and we will use them to meet our laser needs in the future. They are fully committed to the interests of their customers and their team is enthusiastic and positive. It was a real pleasure to work with them."*

**Troy Crosby, Fixture Manager, James Tool Machine and Engineering, Inc.**

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*"We've run two Minilase systems 8-12 hours per day, 5 days per week over the past 2.5 years and have only experienced a few technical problems, which alone makes me a satisfied customer, but why I would recommend working with TYKMA Electrox is because when we have had problems, they are quick to react and are willing to approach a solution with consideration given to my circumstances. Thank you Aaron and the TYKMA Electrox crew for enabling us to produce quality marks all year round!"*

**Chris Morgan, COO, Sticky Jewelry**

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*"The lasers we have purchased from TYKMA Electrox are very well engineered and nicely finished products. They require little maintenance and are very easy to use. The sales and service support are excellent. The few issues we have had were resolved online in minutes with a TYKMA Electrox technician. They make it easy."*

**Arthur Jones, Director of Manufacturing, Royal Products**

# Global Presence

With facilities and distributors in more than 25 countries, TYKMA Electrox is dedicated to providing exceptional service and support to our clients around the world. To learn more about our products and services, visit us online at www.permanentmarking.com.

Follow us on your favorite social media sites!

## 600 GROUP | TYKMA ELECTROX
### INDUSTRIAL LASER SYSTEMS

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