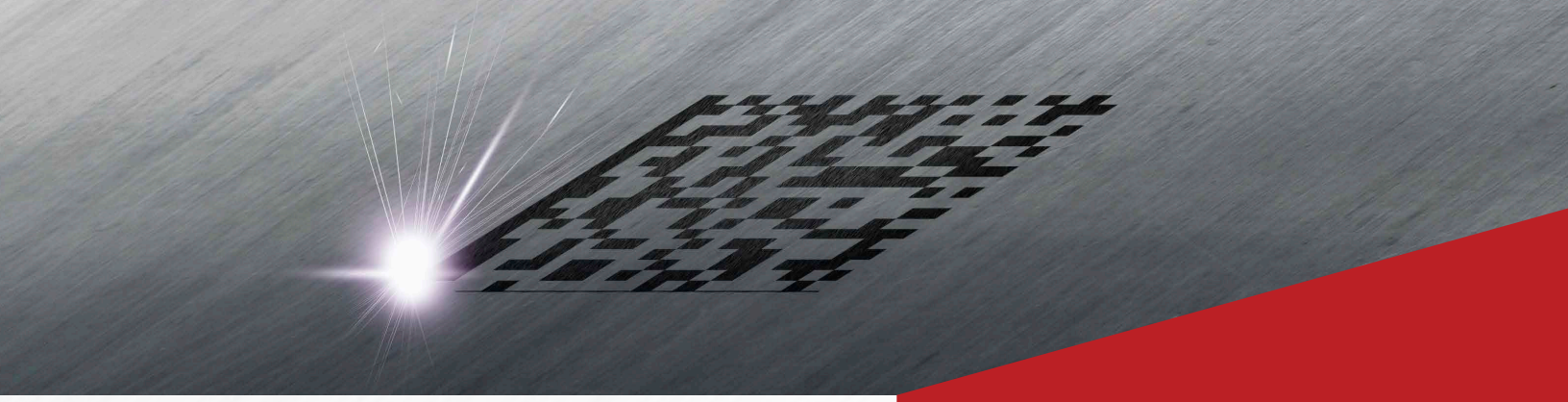
BEAMER®
Laser Marking Systems

STANDARD SOLUTIONS

HAVE YOU LEFT YOUR MARK?

BEAMERLASER.COM

A Division of ARCH®



BEAMER LASER HAS THE SOLUTION FOR YOUR OPERATION AND INDUSTRY.

Beamer Laser Marking Systems delivers American-made quality in a full range of fiber laser marking machines, providing an industry-leading 100,000+ working-hour lifespan. With simple point-and-click software, Beamer Laser has what your operation needs – whatever its focus. From tracking and traceability, serialization, 2D codes, and decorative laser marking; in industries from automotive to medical and many others. Save production time and boost productivity with these affordable solutions.

Beamer offers user-friendly Standalone Solutions, as well as custom Engineered Solutions and Inline Solutions – all provided with fast turnaround times to maintain productivity. Whatever your direct part marking needs, Beamer Laser has the solution that will enhance your product quality and assure your operation a competitive edge.

AMERICAN-MADE QUALITY

100,000+ WORKING-HOUR LIFESPAN

AFFORDABLE SOLUTIONS FOR ANY OPERATION

CONTACT / SUPPORT

P: 1 (810) 471-3044

info@beamerlaser.com

Corporate Headquarters

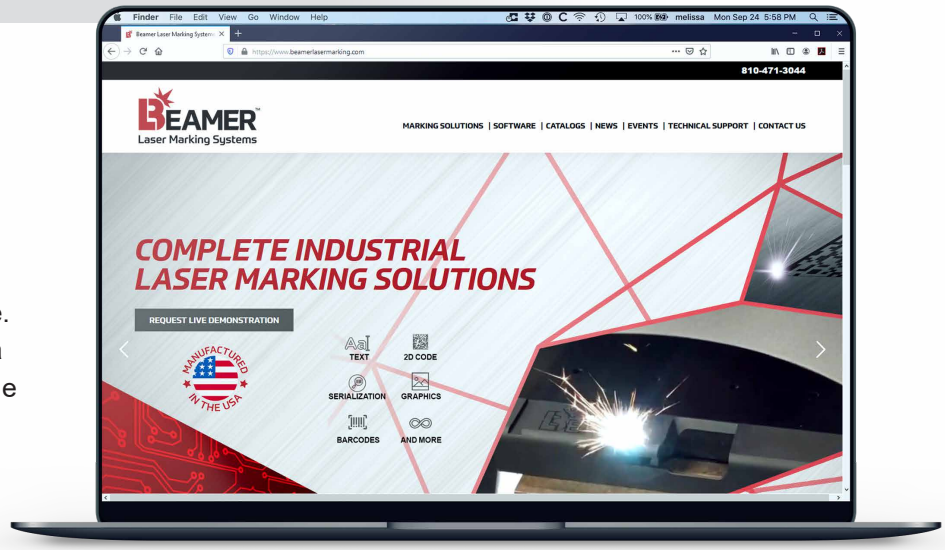
7136 Sheridan Rd.
Flushing, MI 48433
United States

Regional Sales Office

6318 Taz Ct. Ste 113,
Bowling Green, KY
United States

COMMITMENT TO OUR CUSTOMER

Setting ourselves apart from the rest is our continued commitment after the sale. Not only are you getting a Beamer, but a support team that will help you streamline your production needs.



TWO YEAR WARRANTY

Two year comprehensive warranty.

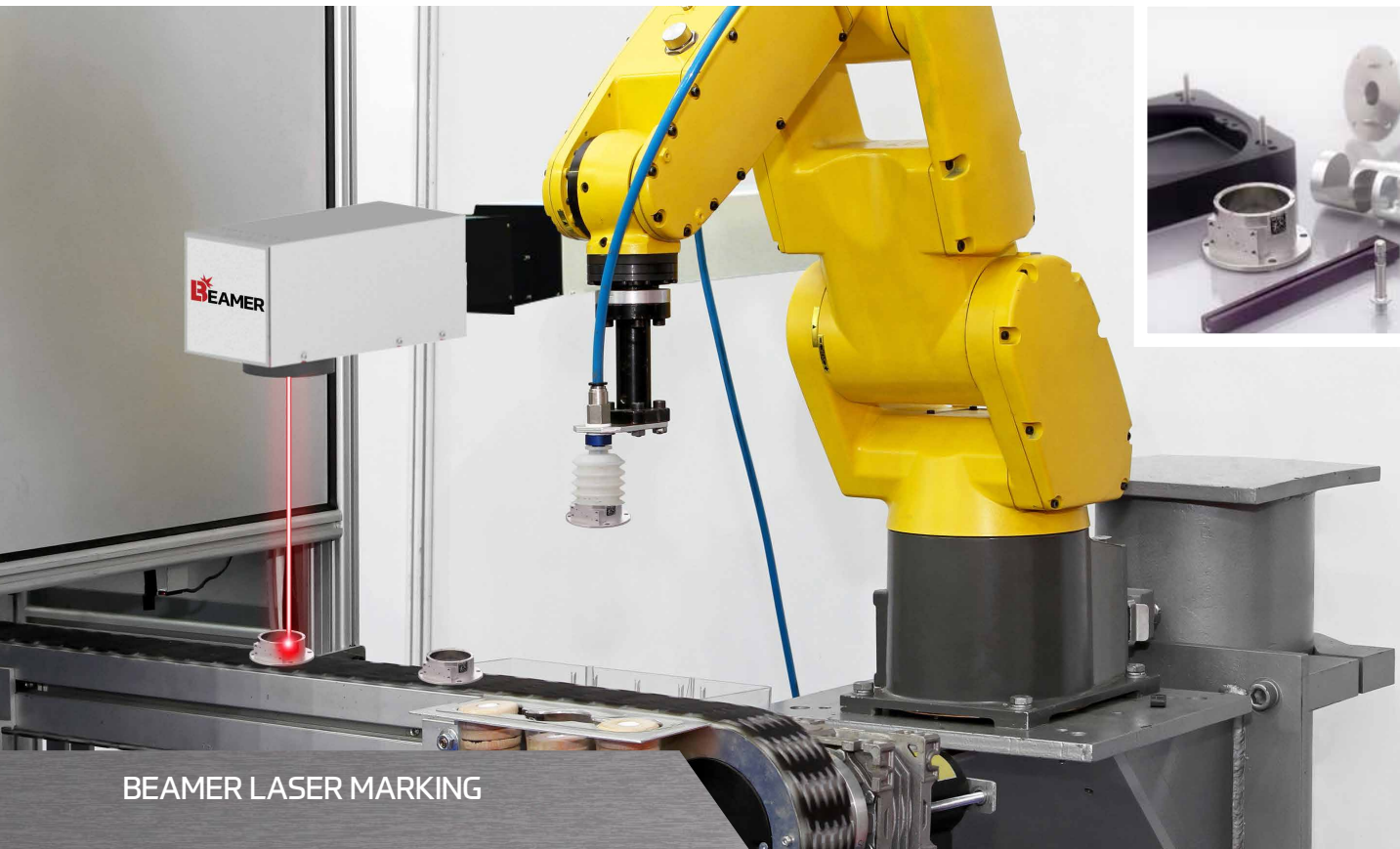
DIRECT CONNECT

A Beamer technician can remotely walk through your machine to assist in any programming questions you may have.

BEAMER®
Laser Marking Systems

YOUR MARKING SOLUTIONS

Compatible with virtually all materials such as ferrous and non-ferrous metals, most plastics, ceramics and marks well on treated metals including coated surfaces.



BEAMER LASER MARKING

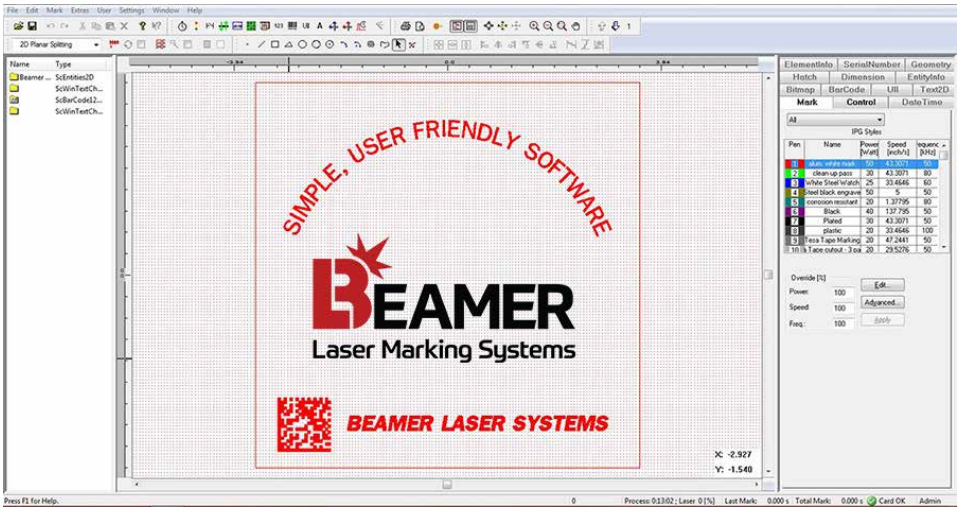
ULTIMATE CONTROLS

PROGRAMMING IS INTUITIVE

Every Beamer comes complete with preloaded user-friendly Marking Creator 3.0 software. The software's main screen allows users to interact easily with the graphical interface by using familiar Windows based commands. With a simple point and click, you can graphically edit marking objects, precisely control laser parameters, and build automation scripts within a single interface.

You can define and run jobs within seconds and the screen shows exactly what you can expect while executing jobs. Several entities can be laid out, plus an unlimited number of pens can be saved for specific applications and materials eliminating the hassle of adjusting between programs.

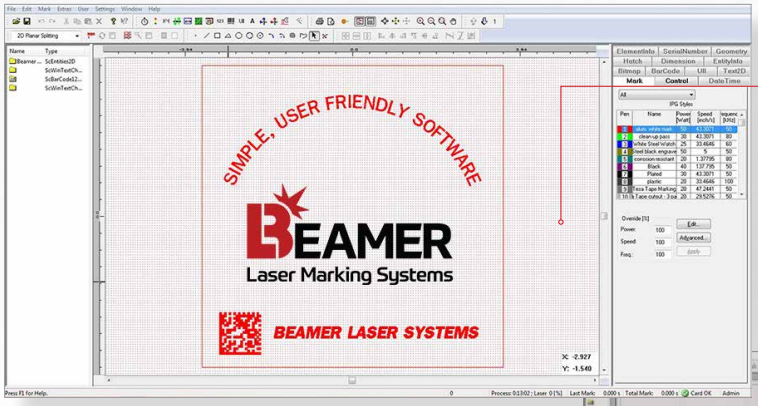
- TEXT
- 2D CODE
- SERIALIZATION
- GRAPHICS
- BARCODES
- AND MORE



USER-FRIENDLY SOFTWARE AND CONTROLS

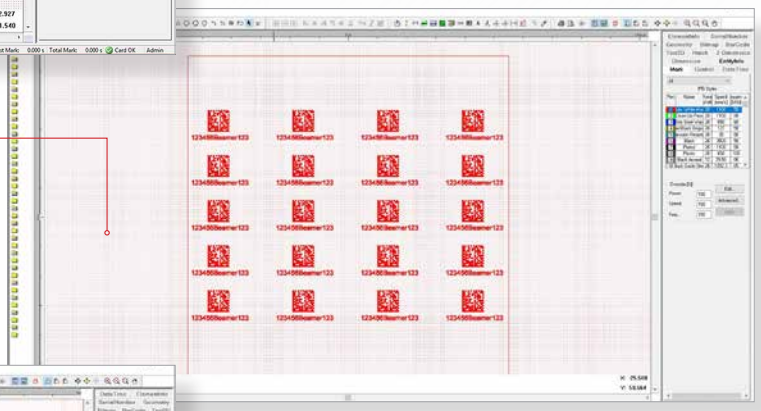
MARKING CREATOR 3.0

USER FRIENDLY SOFTWARE AND CONTROLS



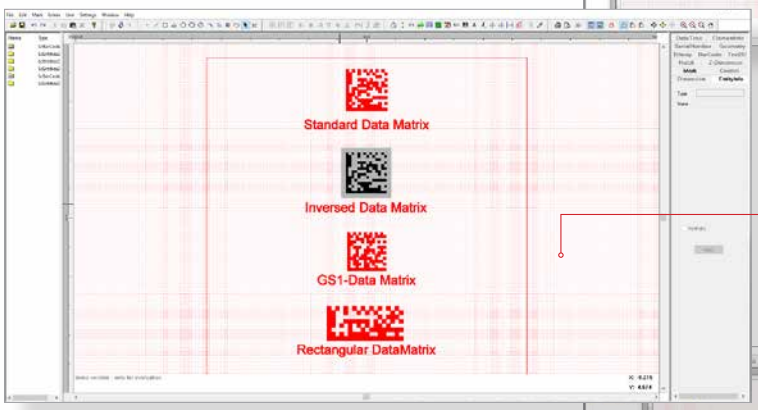
EASY TO EDIT

Simple point and click software to graphically edit marking objects and control laser parameters.



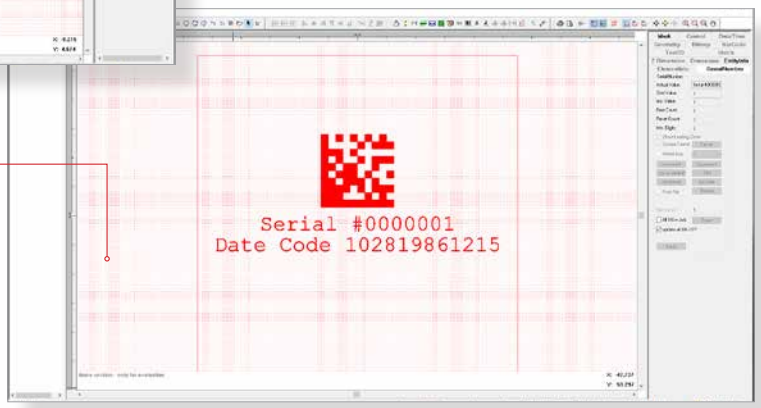
ARRAY MARKING

Simply mark pallets of parts by using the array function.



1D / 2D BARCODING

Marking Creator 3.0 software has a vast range of generating all necessary barcoding for all industries. Simply select your format.



SERIAL CODE GENERATION

Create serial numbers, date codes, and automatically update variable data all within the software.

Pre-Loaded Marking Pen

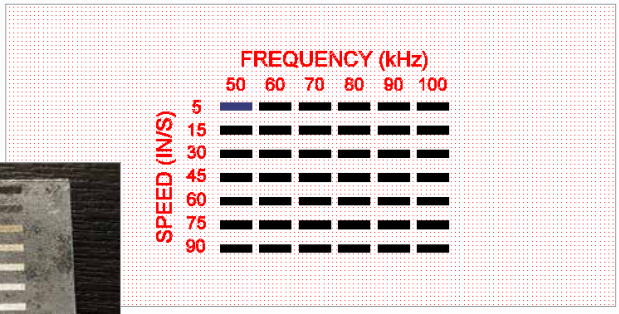
255 fully customizable pens for specific applications and materials, eliminating the hassle of adjusting between programs. 18 preset pens to get you started.

IPG Styles

Pen	Name	Power [Watt]	Speed [mm/s]	Frequency [kHz]
1	Alum. White Mark	50	1100	50
2	Clean Up Pass	30	1100	80
3	White Steel Watch	25	850	60
4	Steel Black Engrave	50	127	50
5	Corrosion Resistant	20	35	80
6	Black	40	3500	50
7	Plated	30	1100	50
8	Plastic	20	850	100
9	Black Anneal	12	35.56	80
10	Black Oxide Steel	20	1092.2	65

Sample Marking Function

Easily test any material with 35 different marking settings to find the best parameters for your specific material.

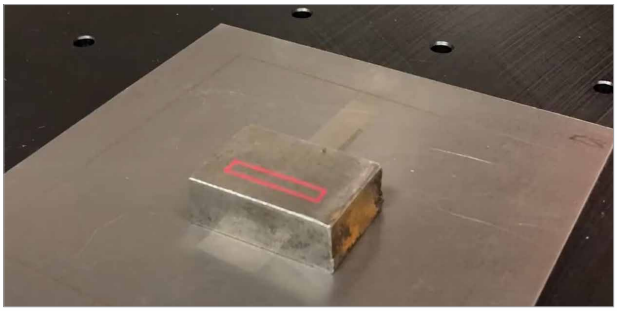


TrueType Font

The fonts that are loaded on your computer are automatically integrated into Marking Creator 3.0. TrueType Fonts allow you precise control over how your laser marks appear.

Guide Laser & Distance Pointer

Easily set your focal distance and position your mark precisely every time.



S-SERIES (BENCH TOP)

H: 25” X W: 25” X D: 25” OPENING: 16” X 17”

The S-Series bench-top is the most simple and cost-effective answer for the highest standard in parts marking. The compact design makes it the perfect size for setting up in a designated area like your shipping room. It is built for quick and precise part loading and marking. A laptop completes the setup, resting outside of the system.

HIGHLIGHTS

User-friendly built-in control panel in convenient location

Compact size fits atop a bench, counter, etc.

Removable side panels for larger parts to fit inside and be marked

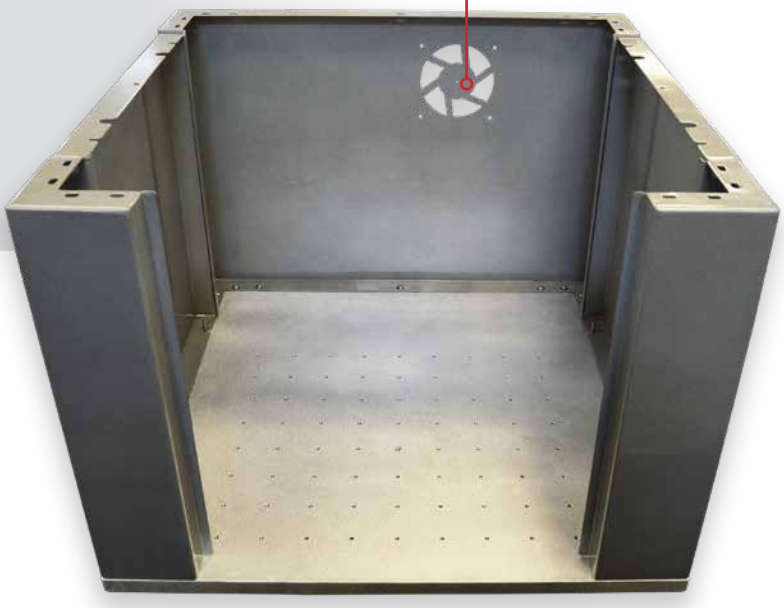
Runs off standard 110 volt

Distance Pointer for easy focusing of laser

Guide laser for easy part alignment

Test Sample marking for quick and easy material sampling

Includes dowel pin holes and threaded holes for mounting fixtures of varying sizes. With a stable laser position, simply mount a scissor table to the base to raise and lower part to focus the laser.



B-SERIES (STANDALONE)

H: 70” X W: 32” X D: 28” OPENING: 24” X 28”

Engineered specifically to fulfill all laser marking applications, the B-Series System provides everything needed to easily mark your product quickly and safely. Dual doors offer quick and precise part loading, while removable side panels allow larger parts to be marked as well. It has built-in compartments for the computer tower, easy access to components and storage areas. The computer monitor and the control panel rest on a convenient double-jointed swinging arm.

HIGHLIGHTS

User-friendly control panel on convenient double-jointed swinging arm

Smooth fast gliding dual doors increase production and precision with a safe work view window

Easy to remove side panels allow for larger parts to be marked

Runs off standard 110 volt

Industrial casters for max mobility in the work area

Programmable PLC

Fully programmable Z-Axis

Distance Pointer for easy focusing of laser

Guide laser for easy part alignment

Test Sample marking for quick and easy material sampling

Fully programmable Z-axis

100% STEEL TUBULAR FRAMING

L-SERIES (XL STANDALONE)

H: 70” X W: 48” X D: 40” OPENING: 24” X 38”

The L-Series system provides everything you need to easily mark larger products quickly and safely. It accommodates up to a 3.5’ part with the side panels attached. The easy-to-remove side panels allow for even larger parts. Dual doors offer quick and precise part loading. Benefits to this system include built-in compartments for the computer tower and easy access to components and storage areas. The computer monitor and control panel rest on a convenient double-jointed swing arm.

HIGHLIGHTS

12.5” X 26.5” total marking field when using 254 mm lens

Can fit up to a 45” W x 25” D x 13.5” H part

Totally programmable along X, Y and Z-axes

Large workspace to easily accommodate rotary options, fully enclosed large parts, or fixturing for batch marking

Distance Pointer for easy focusing of laser

Guide laser for easy part alignment

T-SERIES (TURNTABLE)

H: 70” X W: 32” X D: 32”

The T-Series system is the new benchmark for high volume marking. Simply place the parts on the rotating table, set up the laser, press the button and watch the table turn. As the parts are being marked, you can unload finished parts and reload the machine for the next cycle, resulting in decreased throughput cycle time.

HIGHLIGHTS

Smooth, fast-rotating table increases production throughput

Safe work view window

User-friendly built-in control panel for convenience

Easy access side door for manually loading larger parts

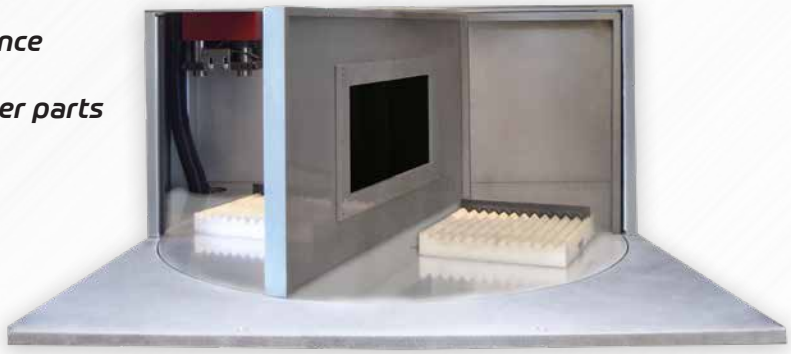
Tray package option available

Fully programmable Z-axis

Distance Pointer for easy focusing of laser

Guide laser for easy part alignment

Test Sample marking for quick and easy material sampling



M-SERIES (MULTI-AXIS)

H: 71” X W: 58” X D: 36” MAIN OPENING: H: 36.5” X W: 25” SIDE OPENING: H: 27” X W: 19”

The M-Series system provides everything needed to easily mark your larger product quickly and safely. With a 360° turntable and a 180° rotating head, parts can be marked in hard to reach spaces. This system comes with a 28” programmable travel X-axis and an 18.5” programmable travel Z-axis, all within one solution.

HIGHLIGHTS

360° turntable (16" Diameter)

180° rotating head

28" programmable travel X-axis

18.5" programmable travel Z-axis

Easy open side panel allows for larger parts to be crane loaded

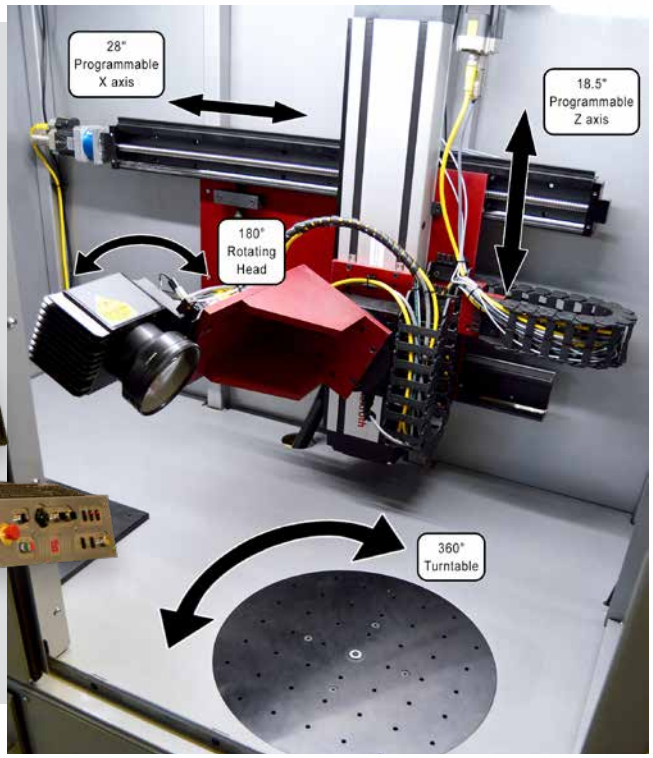
User-friendly control panel on convenient double-jointed swinging arm

Operated completely on one software

Distance Pointer for easy focusing of laser

Guide laser for easy part alignment

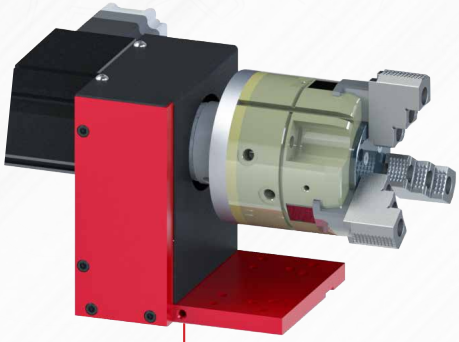
Test Sample marking for quick and easy material sampling



ROTARY MARKING SOLUTIONS

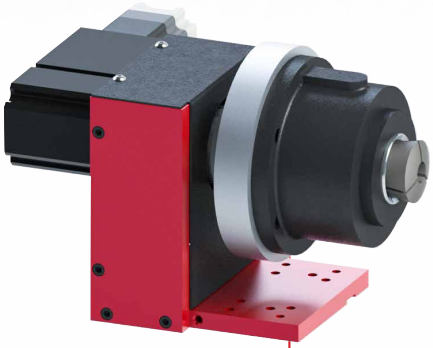
Standard 3 Jaw Rotary (PR4)

- 360 degree + rotation
- Max part OD/ ID - 2.75”
- Max weight capacity - 25lbs
- Moment capacity - 65in-lbs
- Manual gripper



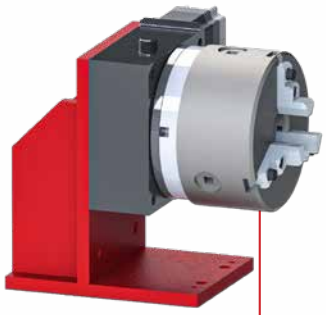
Air Powered 3 Jaw Rotary (AR3J)

- 360 degree + rotation
- Max part OD/ ID - 3” with “Standard Jaws”
- Max weight capacity - 25lbs
- Moment capacity - 20in-lbs
- Air powered gripper
- Custom jaws could be made for bigger parts.



5C Collet Style Rotary (AR5C)

- 360 degree + rotation
- Max weight capacity - 35lbs
- Moment capacity - 20in-lbs
- Air powered gripper
- Standard 5C collet interchangeability



HD Rotary (HD8)

- 360 degree + rotation
- Max part OD/ ID - 6.0”
- Max weight capacity - 80lbs
- Moment capacity - 240in-lbs
- Through hole max OD - 1.57”

- Wide range of solutions based on marking requirements
- Designed to meet your application specific throughput demands
- Solutions for all part size rotary marking

FUME EXTRACTION SOLUTIONS

Vent out any particulate or fumes from the product composition during the marking process by adding this option to any of our marking solutions.

Simple filter replacement

Powerful control electronics

Industrial safety and health protection

EXTRACTION UNITS

Air from the marking process is collected by the fume extraction and transported into the filter unit directly, or through a pipe or flexible hose. In the filter unit, contaminants particles are filtered into different levels according to their size. The purified air can either be circulated back into the work area or diverted outside via an exhaust duct. Recirculating the purified air in the work area provides a healthy work environment and reduces energy costs.

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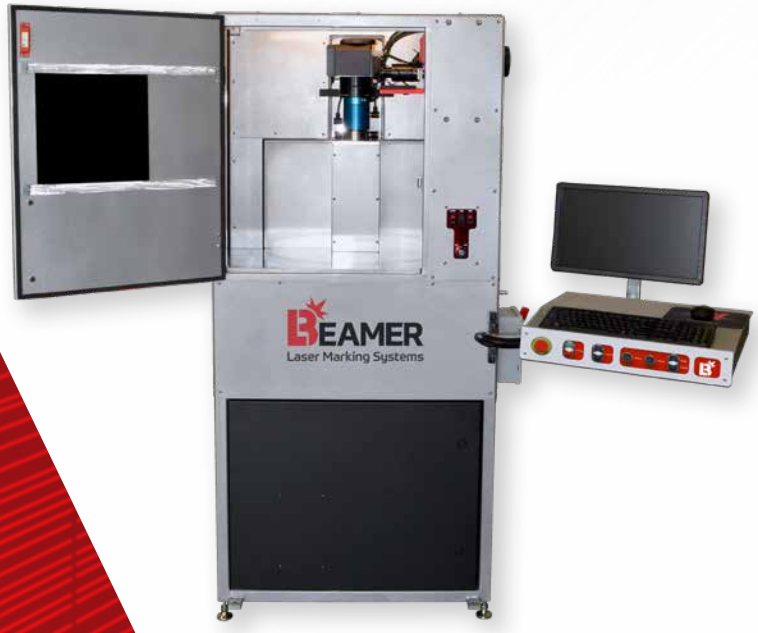


CREATE AN ENGINEERED SOLUTION FOR YOUR APPLICATION

THIS IS WHAT SETS US APART

Beamer will work closely with you to design an engineered solution that will fit your needs. Possibilities are endless with Beamer Laser Marking Systems. Significantly improve production time with the incorporation of automated options in your system.

BEAMER ENGINEERED SOLUTIONS

User-friendly Software and Controls

Barcode Scanners

Robotics Integration

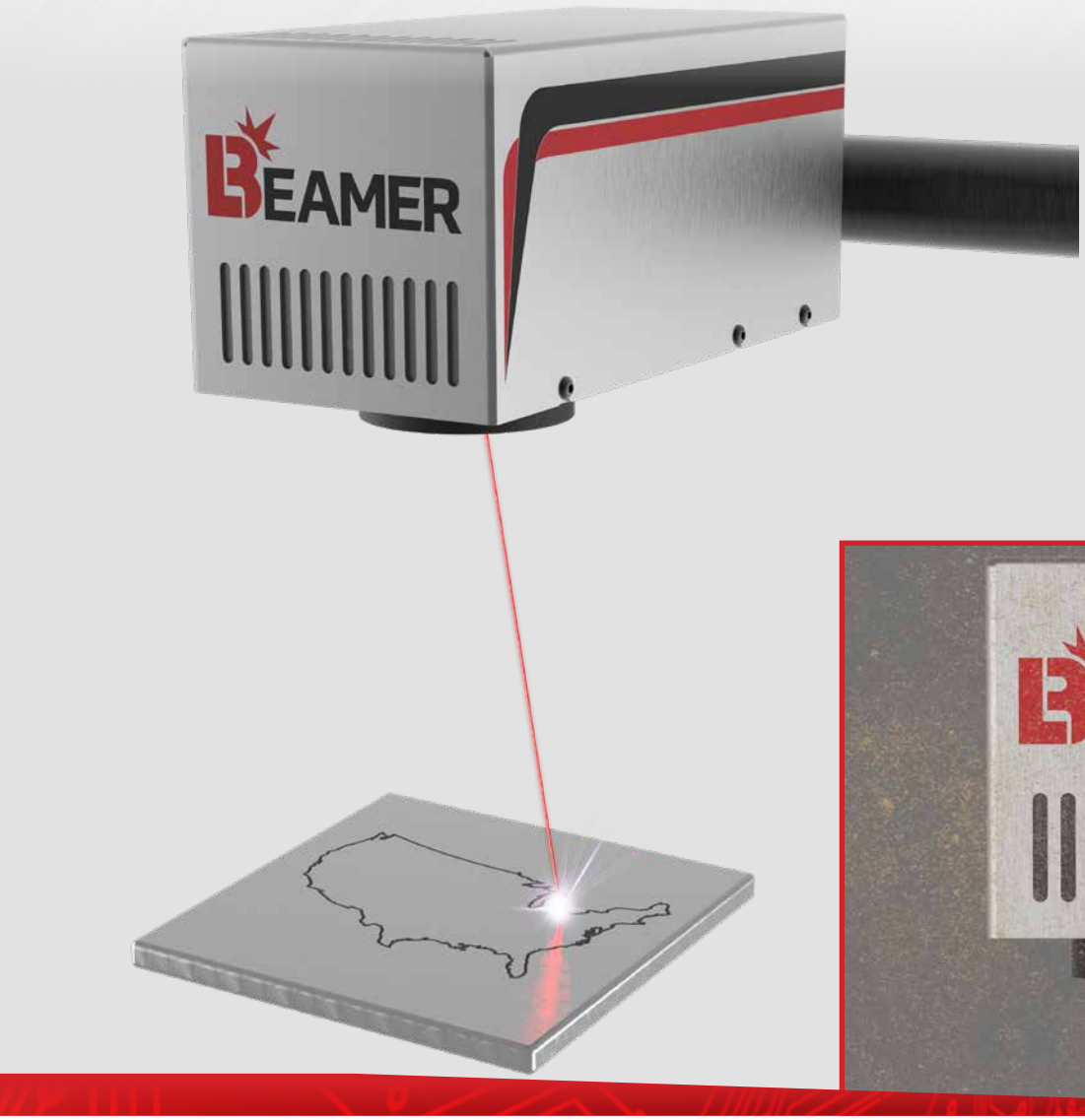
Partially and Fully Automated Solutions

Hopper Loaders

Machine Vision Systems

Conveyors and Belts

INLINE SOLUTIONS



FIL-SERIES

The perfect solution for robust, compact laser integration into an existing manufacturing cell, assembly line, and more! The Inline unit offers a mountable laser head for easy placement, simplistic I/O for integration into any existing PLC, and a contained controller to keep electronics protected from the environment.

- *Built with high strength powder coated steel*
- *Standard 110 volt air cooled*
- *Contained electronics within controller*
- *Digital I/O for PLC controls*
- *TCP/IP / Ethernet/IP / I/O Communication options*
- *USB port for setting up jobs*
- *IP-65 Rated head unit for tough environments*

LASER SPECIFICATIONS

Optical Characteristics

Characteristic	Test Condition	Symbol	Min	Typ	Max	Unit
Mode of Operation				10 / 20 / 30 / 50		
Polarization				Random		
Central Emission Wavelength	$P_{OUT} = P_{NOM}$	λ	1055	1062	1070	nm
Nominal Average Output Power		P_{NOM}		10 / 20 / 30 / 50		W
Output Power adjustment range			10		100	%
Emission Bandwidth	FWHM $P_{OUT} = P_{NOM}$	$\Delta\lambda$		5	10	nm
Pulse Duration	FWHM Nominal Energy	$\Delta\tau$		100-120		ns
Laser Switching ON Time	$P_{OUT} = P_{NOM}$ 0->90%			180	250	µs
Laser Switching OFF Time	$P_{OUT} = P_{NOM}$ 100->10%			180	250	µs
Pulse Repetition Rate		RR	20		80	kHz
Pulse Energy				0.5 / 1		mJ
Peak Power Instability*	$P_{OUT} = P_{NOM}$				5	%
Red Guide Laser Power (optional)	λ=660nm		0.3	0.5	1	mW

Optical Output, Isolated and Non-isolated Heads

Characteristic	Test Condition	Symbol	Min	Typ	Max	Unit
Output fiber cable				6-7 mm metal shielded Protection tubing		
Beam Quality		M^2		1.5	2.0	
Output fiber cable length • 0.5 mJ model • 1 mJ model				 5 3		m
Output beam diameter • non-isolated head • isolated head	$1/e^2$ level		 6.5 6	 8.5 7.5	 10.5 9	mm
Output beam ellipticity				10	20	%
Output beam offset				1	10.	mm
Output beam misalignment				8	12	mrad
Output beam divergence adjustment				Minimum divergence		

Electrical Characteristics

Characteristic	Test Condition	Min	Typ	Max	Unit
Control interface type			B1		
Laser module supply voltage		23	24	25	VDC
Maximum current consumption • 20W model • 50W model • 100W model	Usupply=24VDC			 7 14 14	

General Characteristics

Characteristic	Min	Typ	Max	Unit
Operating temperature range • 20W models, 50/100% emission time • 50W models, 50/100% emission time • 100W models, 50/100% emission time	0		 +42/36 +40/35 +40/35	°C
Storage temperature	-10		+60	°C
Cooling method		3 fans		
Warm-up Time: • To start of operation • To full stabilization		 0.5 10		min
Humidity	10		95	%
Laser module dimensions		215x95x286		mm
Weight			9	kg

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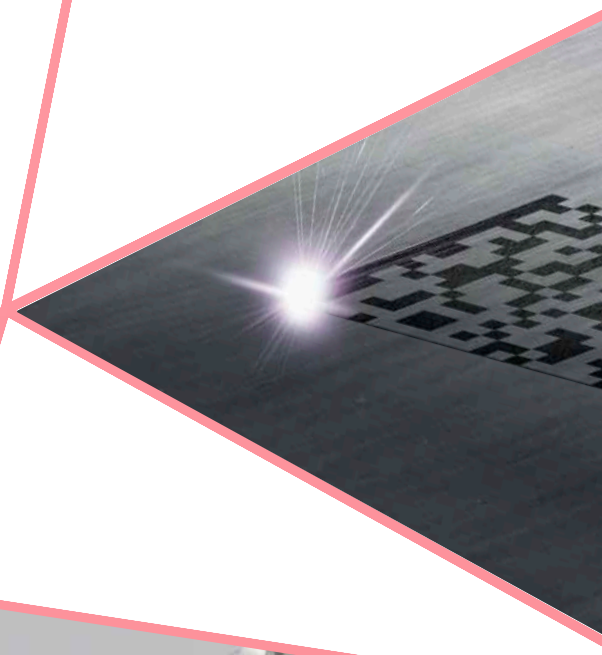

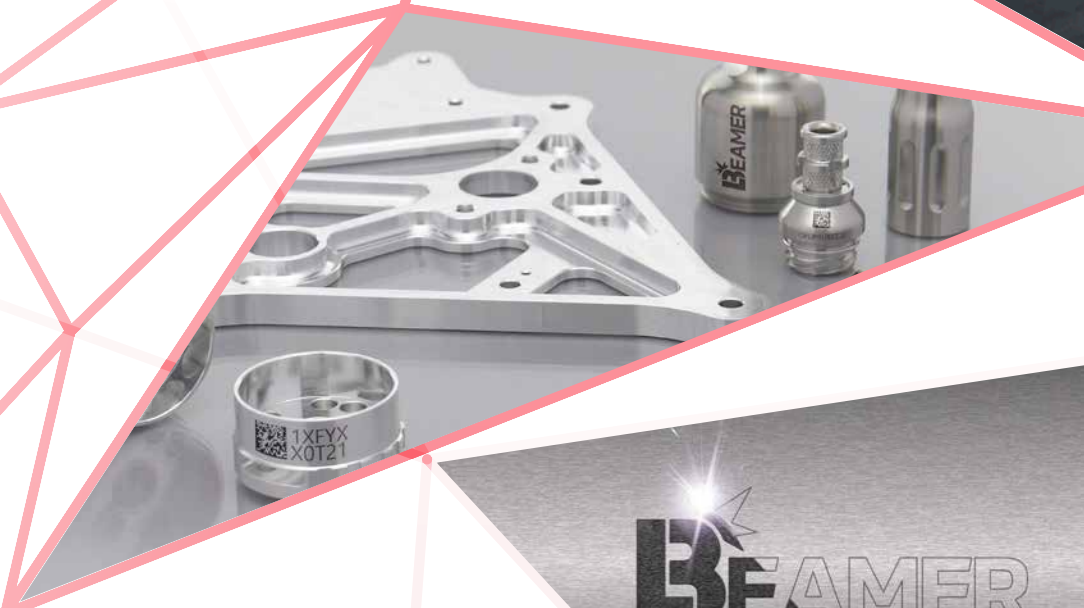

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