BEAMER®
Laser Marking Systems

Inline Solutions

Integrate *seamlessly* into your process

COMPACT MOUNTABLE LASER MARKER

RUGGED AND DURABLE

BUDGET FRIENDLY

HIGH QUALITY AMERICAN MADE

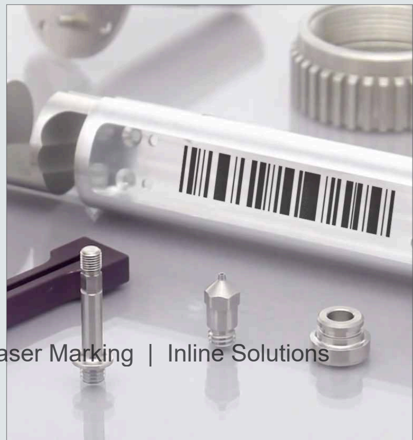
HAVE YOU LEFT YOUR MARK?

FIL-SERIES

HIGH-QUALITY COMPREHENSIVE BEAMER FIL-SERIES

FOR AN ARRAY OF FIBER LASER MARKS

The perfect solution for robust, compact laser integration into an existing manufacturing cell, assembly line, and more! The Inline systems offer compact a mountable laser head for easy placement, simplistic I/O, or Ethernet IP Communication for integration into any existing PLC, and a contained controller to keep electronics protected from the environment. Beamer's inline solutions offer the highest power, fastest marking all while being budget friendly.



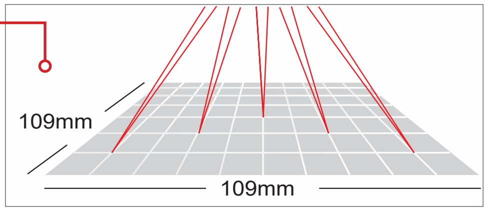
Equipped With The Finest American-Manufactured Laser

- Our American Manufactured FIL-Series systems come with all of the quality & functionality of our foreign counterparts
- Budget-friendly
- 100% USA designed, manufactured, serviced, and supported
- Excelled customer service experience
- Variations for all Inline marking needs
- Wattages for the most stringent of cycle times

Variable Marking Field Size

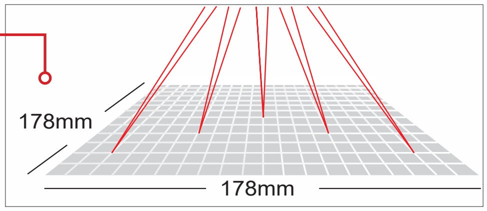
Standard Area Model

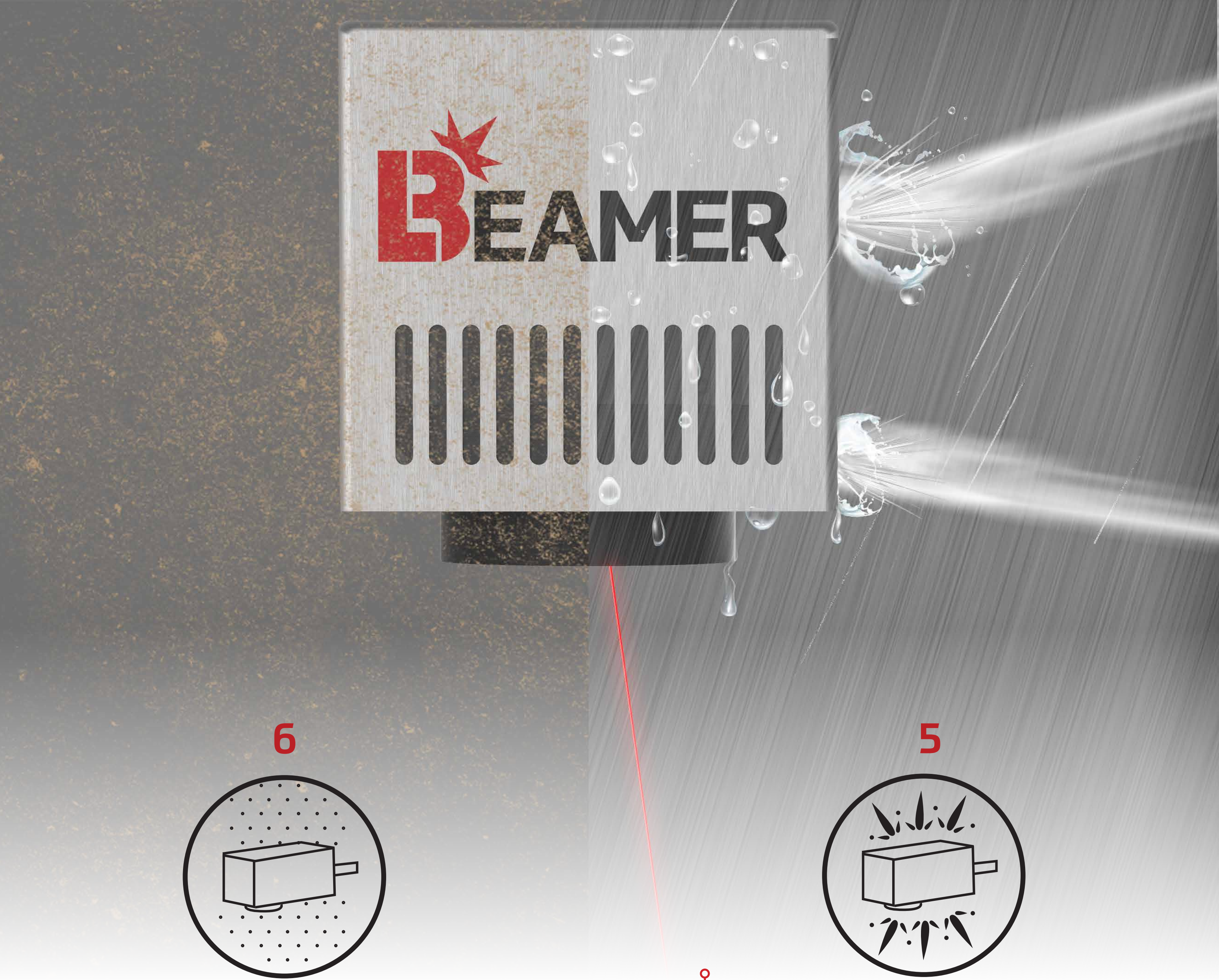
- 4.3” X 4.3” / 109mm X 109mm (163mm focal distance)
- 32 micron beamspot with the most precise inline specs in the industry



Wide Area Model

- 7” X 7”/ 178mm X 178mm (254mm focal distance)
- 40 Micron beamspot with the most precise inline marking specs in the industry
- Applications in array marking or palletized parts indexing under laser





DUST TIGHT

SAFE FROM JETS OF WATER
FROM ALL DIRECTIONS

IP 65 RATED HEAD UNIT

A TOUGH LASER FOR TOUGH APPLICATIONS

Beamer’s unprecedented IP65 rating allows for your marking solution to be integrated into the toughest of environments, oil mist, dust, moisture you name it. A tough Exterior for tough applications. The IP65 Rating signifies that our inline system is protected from intrusion, dust, accidental contact and water. Our inline marking head is higher rated than the top competitors for your convenience.

BUILT STRONG

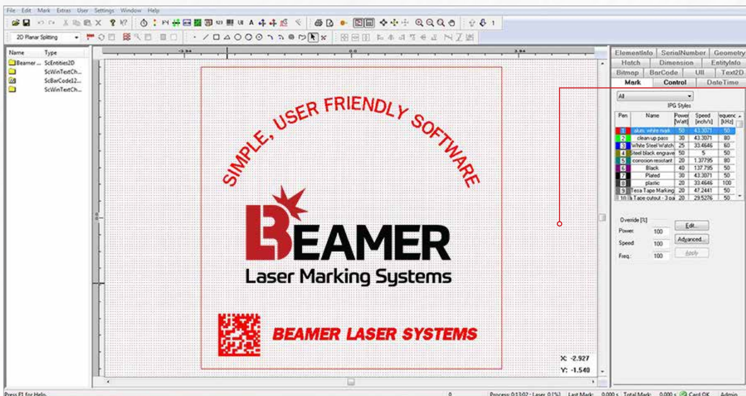
HIGH STRENGTH POWDER
COATED STEEL

ELIMINATE OPERATOR HANDLING

INTEGRATE
INTO MACHINE
TOOL EQUIPMENT

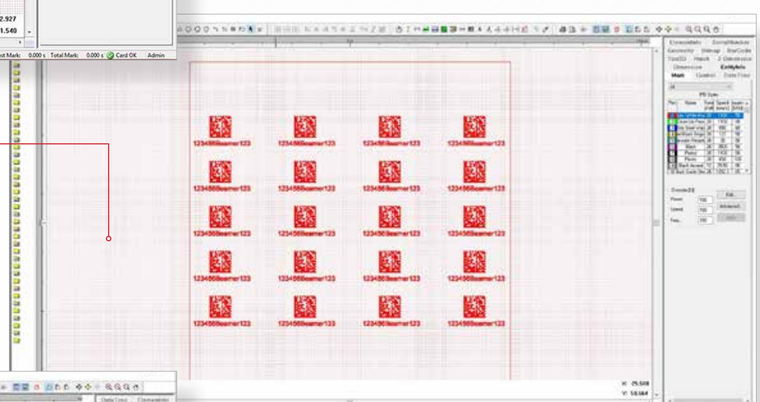
MARKING CREATOR 3.0

USER FRIENDLY SOFTWARE AND CONTROLS



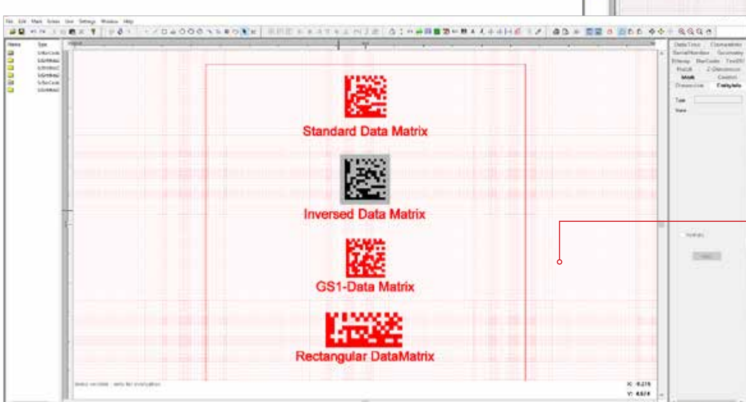
EASY TO EDIT

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



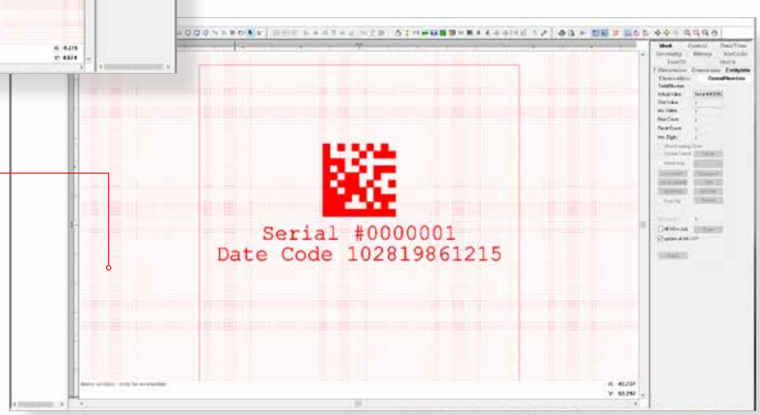
ARRAY MARKING

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

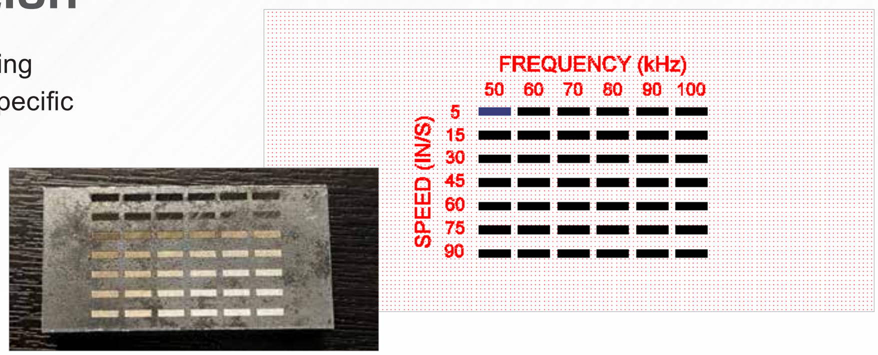
255 fully customizable pens for specific applications and materials, eliminating the hassle of adjusting between programs. 18 preset pens to get you started.

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

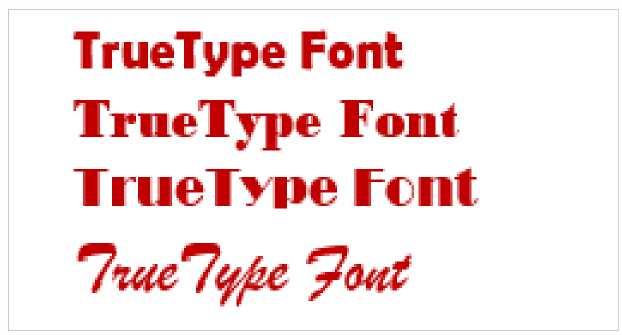
Sample Marking Function

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



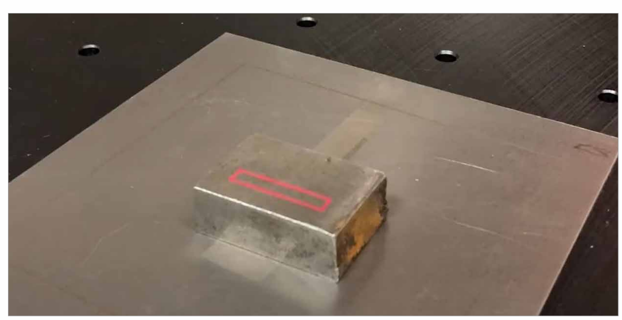
TrueType Font

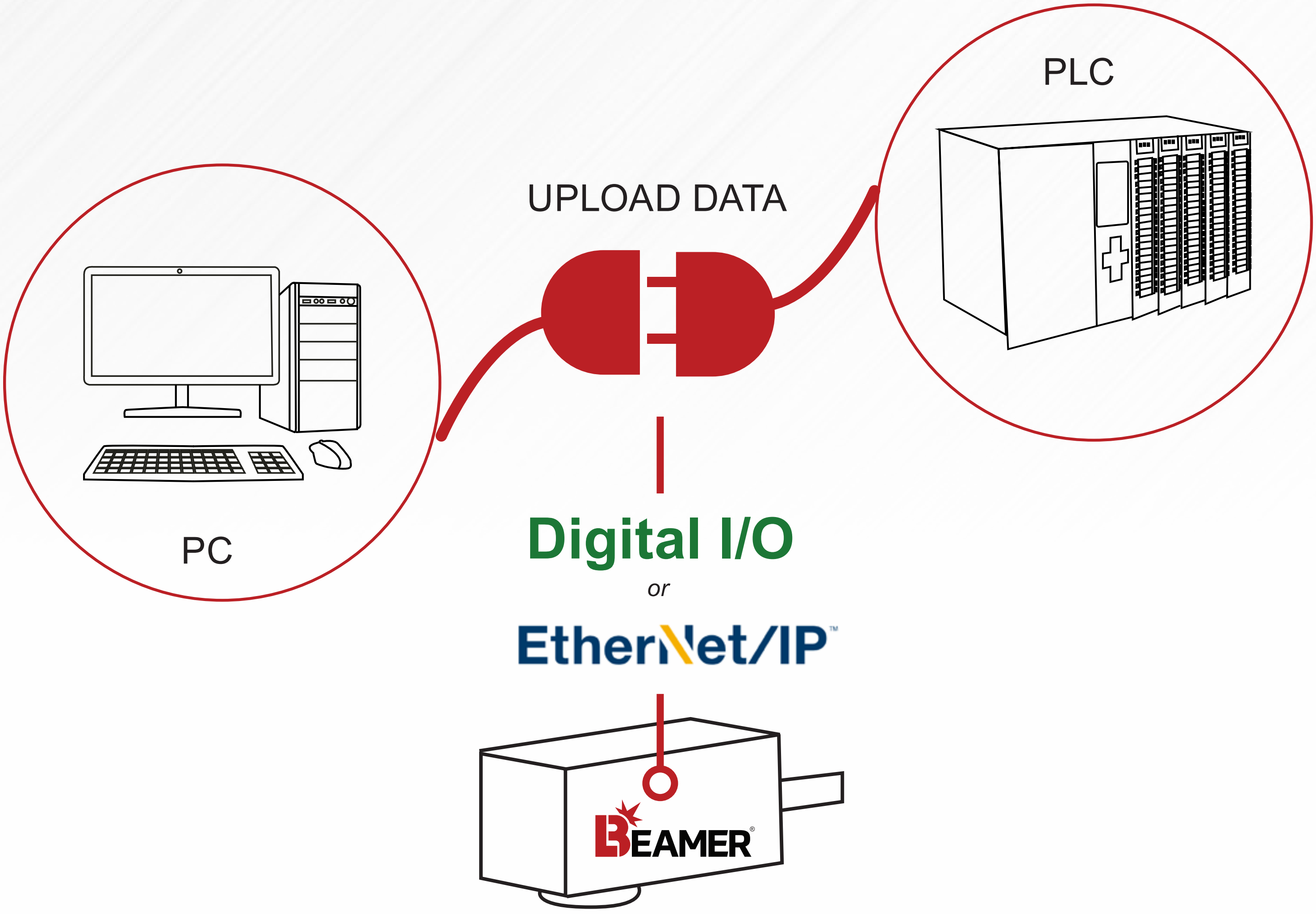
The fonts that are loaded on your computer are automatically integrated into Marking Creator 3.0. TrueType Fonts allow you precise control over how your laser marks appear.



Guide Laser & Distance Pointer

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





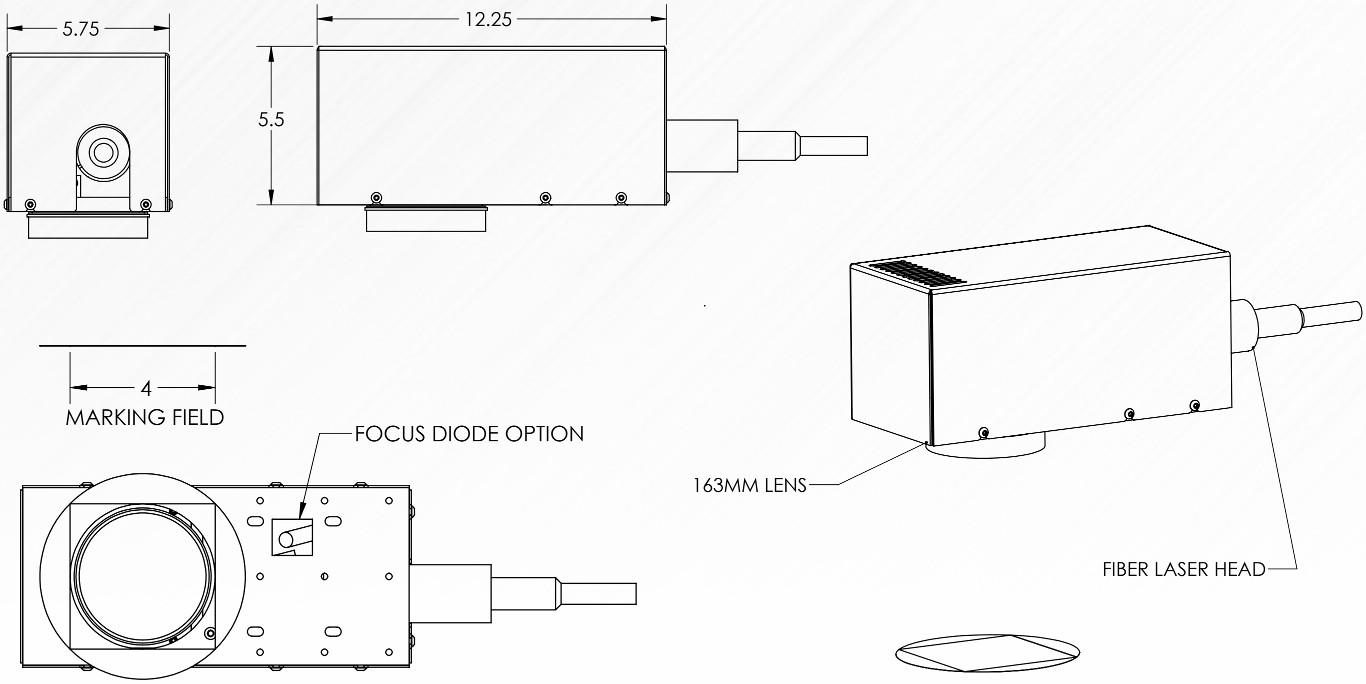
CONNECT EASILY TO EXTERNAL SYSTEMS

TCP/IP / ETHERNET/IP / I/O COMMUNICATION OPTIONS

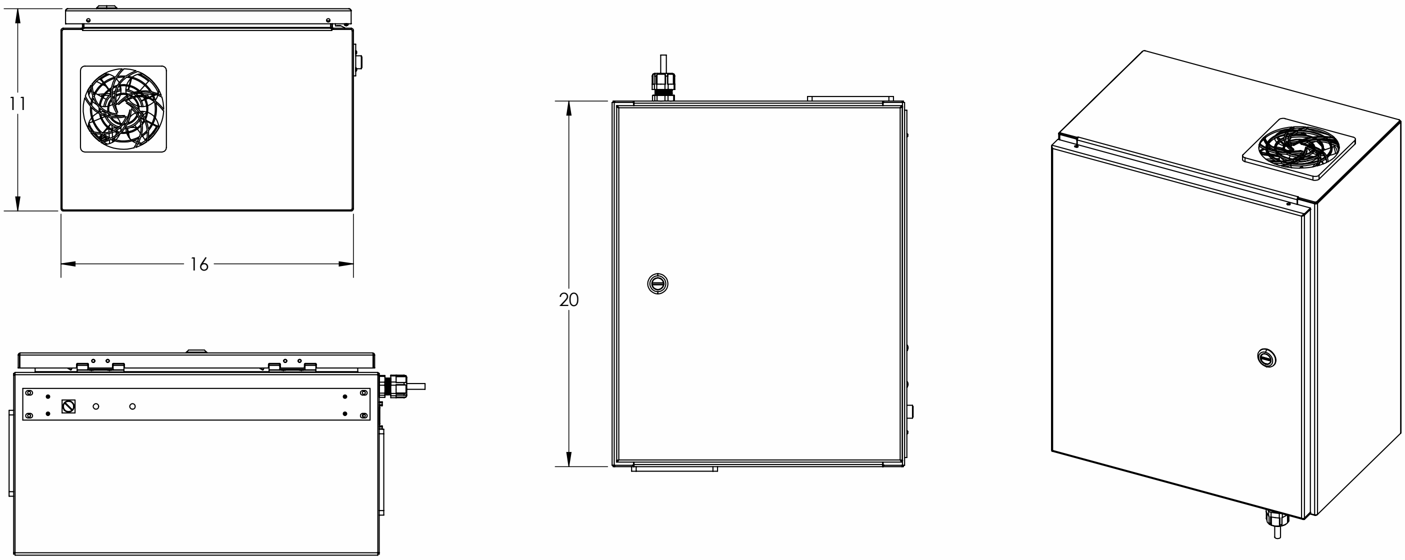
The Beamer Inline unit integrates seamlessly into your existing PLC regardless of what kind of communication you have standardized or spec'd into your process. You've designed it, Beamer connects to it!

Dimensions

Marking Head



Controller



LASER SPECIFICATIONS

Optical Characteristics

Characteristic	Test Condition	Symbol	Min	Typ	Max	Unit
Mode of Operation			Pulsed			
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			

LASER SPECIFICATIONS

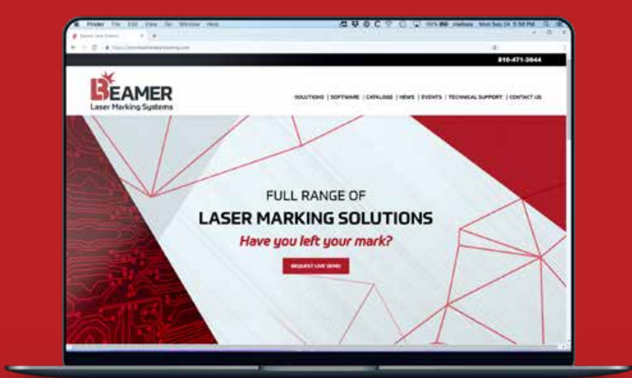
Electrical Characteristics

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 17 A	

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 +42/36	°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

CONTACT US TODAY!



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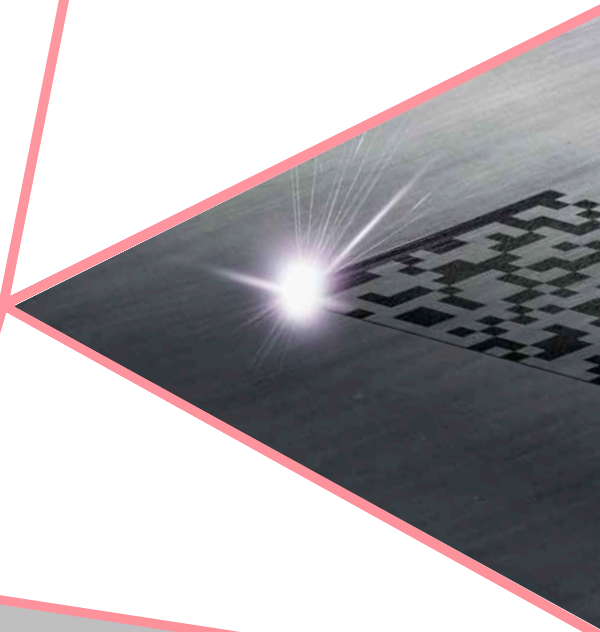

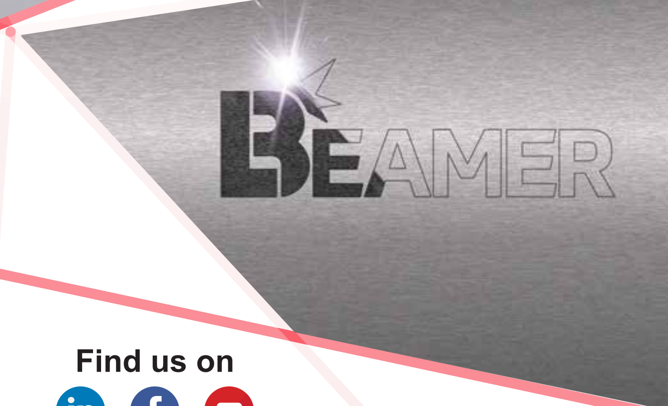

Find us on

V. 1.0