



# LASER MARKING AND DEEP ENGRAVING

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Bapuji Industries, today is a trusted name in the field of industrial Laser Marking

A laser marking machine can be thought of as three main parts : a laser, controller, and a surface. The laser is like a pencil the beam emitted from air allows, the controller to trace patterns onto the surface. The controller (Usually a computer) controls the direction, intensity, speed of movement, and spread of the laser beam aimed at the surface. The surface is picked to match what the laser can act on.

A laser can remove material very efficiently because the laser beam can be designed to deliver energy to the surface in a manner which converts a high percentage of the light energy into heat. Different patterns can be marked by programming the controller to traverse a particular path for the laser beam over time.

The trace of the laser beam is carefully regulated to achieve a consistent removal depth of material. For example, criss-crossed paths are avoided to ensure that each etched surface is exposed to the laser only once, so the same amount of material is removed.

The speed at which beam moves across the materials is also considered in creating engraving patterns. Changing the intensity and spared of the beam allows more flexibility in the design.

The aim of our organization is customer satisfaction which is achieved through following objectives: Commitment to quality.

- Prompt response
- Technological solutions
- In time delivery

Our challenge is to meet the widely ranging delivery demands of an equally diverse customer's base coupled with constant upgradation of production equipment and techniques to keep pace with new market trends and applications.





#### INTRODUCING LASER MARKING

"Bapuji Industries" has opened a state of the art job shop for laser marking, engraving and micro machining delivering high quality laser marking and processing on virtually any material.

Using the latest Diode-pump & Fiber Laser Technology from the companies Quantronix Corporation, USA & Excel Laser Technology South-Asia we state to maintain high quality standards providing quick turn around time. We welcome samples well as low volumes for marking and urge you verify for yourself how laser marking significantly improves the marketability as well as products.

### ADVANTAGE OF LASER MARKING

- Direct Part Marking
- Prevents Duplication
- Allows Serialization, Bar-Codes, 2D-Codes & Tracebility
- Graphics / Logos
- Controlled depth, Permanence & Speed

- Mark Directly on Finished Products
- High Quality End Products
- No Direct Contact / No Part Deformation
- High Resolution Micro-marking
- All metals & Non-metals

The Qmark FIBER20 provides superior marking performance on a wide range of materials. It offers compact size for ease in integration into an existing workflow, or to occupy less floor space as a standalone marketing unit.

- ✓ Superior Marking Quality
- ✓ High Speed and Accuracy
- ✓ Compact Footprint for Ease of Integration
- Lowest Operating Cost
- ✓ Available in class | Workstation or as OEM Equipment
- Industry-proven







Effective Feed

## MARKING FIELDS

Field Size	Focused Spot Size	Total Power Loss	Depth of Focus	Effective Focal Length
4"x4"	0.0021"	<10%	0.040"	6.42"
(101mm X 101mm)	(54 micron)		(1.02mm)	(163mm)
6"x6"	0.0025"	<10%	0.040"	7.52"
(152mm X 152mm)	(63 micron)		(1.02mm)	(191mm)
12"x12"	0.0046"	<10%	0.060"	13.78"
(304mm X 304mm)	(116 micron)		(1.54mm)	(350mm)

"The ability of today's manufacturer to track a component throughout its manufacturing, sales, and services cycles is of the ulmost importance."





## **OFFICE & WORKS ADDRESS**

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