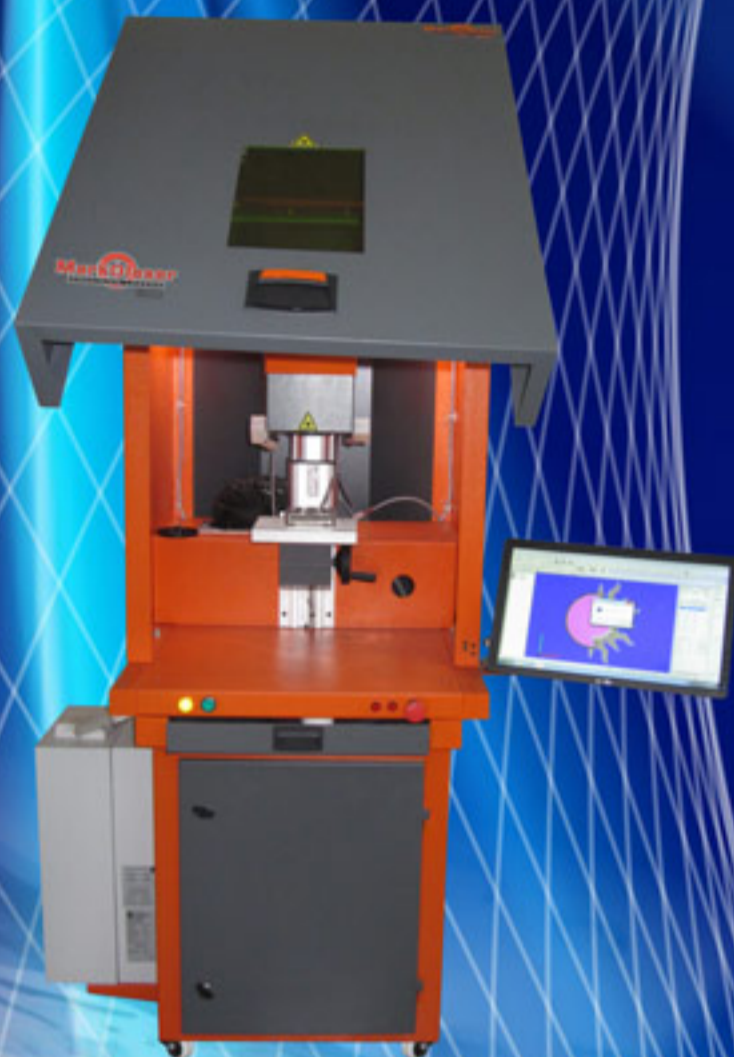


European Quality Indian Price

**MarkO**laser  
Precision Lasers

INDUSTRIAL LASER MACHINES

For Metals, Non-Metals & Glass



- » Marking / Cutting Lasers
- » Deep Engraving Lasers
- » 2D & 3D Engraving Lasers
- » Step Marking & Curve Engraving Lasers
- » Special Purpose Laser Machines
- » Green Lasers
- » UV Lasers
- » Co<sub>2</sub> Lasers

No Chinese Components used



# Introduction

This is the world of mass production. Hence, design, quality and service are of paramount importance. In the creation of machines and products which bear MARKOLASER name, the concept of sophisticated design, high quality and great service can be taken for granted.

We offer top quality products, designed to meet exacting standards of Europe yet keeping Indian conditions in mind. Customer satisfaction is the guiding principle for all our activities.



Vineet Jain

## Certifications

We manufacture machine in an ISO 9001:2008 certified plant. Many of our machines are CE certified.



## Products

All our products are designed in collaboration with European companies by our highly skilled engineers. We offer an array of Industrial laser machines used for marking, etching and deep engraving. The range of our laser machines include:-

- Diode Lasers -Marking
- Fiber Lasers-Marking & Cutting
- Galvo based CO2 Lasers
- Glass Marking Lasers
- Green Lasers
- U.V. Lasers
- Laser Automations
- Deep engraving Lasers - 2D/3D
- Step Marking & Engraving Lasers

We manufacture a wide range of automation equipments with special purpose feeding, printing and laser marking solutions for the medical, pharmaceutical, automotive and other manufacturing industries.

## Applications

Our machines are widely used in production of Telecommunication Equipments, Instruments & Meters, Tools, Automotive Equipments, Precision machinery, Surgical, Medical, Jewellery, Bearings and many other products.

## Service

Although we manufacture Lasers which require very less service and maintenance still we provide online service support for all software related issues by directly communicating with our machines. Some of the models also provide online diagnostic support. Other than this our service department is always ready for any issues. We can send our service personal to any part of the world for installation and training.

\* some model come with less warranty term. Please read warranty terms carefully.

# MARKOLASER Desktop & Justmark



A very small table top ready to use laser with Worktable for small space applications. Only a laptop and UPS is required.

## Micro Markolaser: Diode Laser Marker – 4W/10W

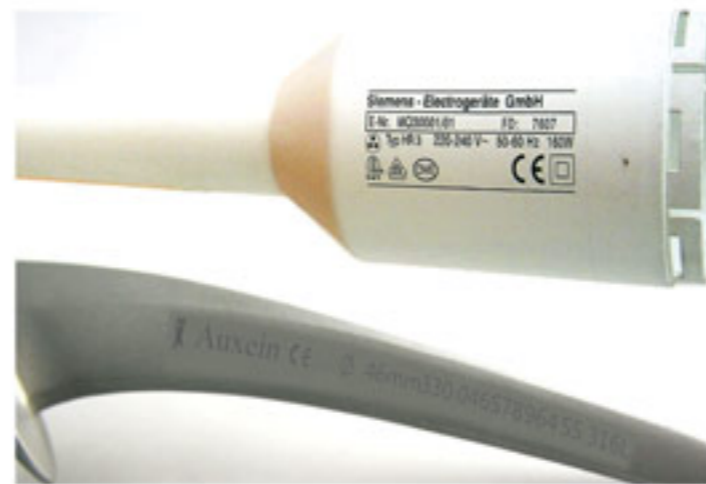
An entry-level smart laser technology with high peak power and high pulse width. This is a solid state diode pumped laser with 25,000 hours MTTF life. A novelty in the DIODE industry; economic yet powerful it boasts of uncompromising quality with unmatched European technology. The laser has great durability and is ideal for marking on plastic and metal. The most benefitted clients would be those in the implant industry and those with small production requirements.\* It takes up very less space. The machine is small enough to fit inside a suitcase and is good to go once hooked on to a Laptop. The key features of these machines are as under. (We also have a 15W Diode, a bigger machine for special application. Ask for details).

\*Jewellers can use this for marking logos etc. on jewellery.

### Special Applications

Our Diode Laser Markers are indispensable in industries like Surgical, Locks, Implants, Jewellery, Plastics, Metals, etc. Specially needed when marking requirements are small.

TECHNICAL SPECIFICATION		
Parameters	10 Watt Desktop-nm	15 Watt Regular - Micro
Laser type	DPSS	DPSS
Wavelength	1064nm	1064nm
Average power(Watt)	10 Watt	15 Watt
Repetition rate (Q switch)	0 KHz - 100 KHz	15 KHz - 100 KHz
Pulse width	7 to 50 ns	10 to 200 ns
Polarisation	Linear	Linear
Beam Quality (M <sup>2</sup> )	<1.3	<1.3
Aiming Diode @ 630 nm (Class 2M)/Integrated RED laser Diode		



## JustMark (JM 10/20) :

Most economical range of fiber laser from Markolaser for JUST MARKING applications. This is an excellent solution for the clients who want a low cost solution but want durable machine which is also supported by good after sales service. All major components are from reknowned suppliers and entire machine is supported by Markolaser's reknowned service system. No chinese component used.

### Applications

- Surface marking.
- Annealing.
- Hallmarking.
- Micro patterning.
- Marking on plastics (PC, PP, ABS).
- Rugged & air cooled.

Technical Specification		
	10Watt	20Watt
Type	Fiber	Fiber
Model Specs(w)	10	20
Wavelength(nm)	1064	1064
Modes of Operation	Pulsed/cw	Pulsed/cw
Full Range Power	20-80kHz	20-100kHz
Laser Spot Dia(µm)	32	32
Repeat Accuracy(mm)	±0.001	±0.001
Linear Marking Speed(mm/dec)	10000	10000
M2	≤1.8	≤1.8
Red Alignment Laser	Standard	Standard
Electrical(V/A)	24/7	24/10
Environment°C	10 to 35	10 to 35
Cooling Type	Air Cooled	Air Cooled
Marking Field(mm) <sup>2</sup>	100 x 100	100 x 100
Connected Load(w)	500	500
Humidity	5% to 95% (Non Condensing)	



N.B. Markolaser reserves the right to change the design to upgrade the technology from time to time.

Logos & Artworks Shown are Property of Respective Companies

# MARKOLASER Minnie Series

## Markolaser Minnie Laser Marker - 20W / 30W-DE / 50W-DE/ 70W-DE



**Minnie Marker With Motorized Z Movement**  
Also available options 30W / 40W



Class IV



CE certified Markolaser Minnie Series is a compact yet extremely rugged and powerful set of machines. Each machine type has some typical features. For example GP + Plus model has normal properties of marking and limited engraving functions. Micro are fine series of machines with extremely thin yet powerful beam for micro marking, micro engraving and micro drilling applications. (DE + HF) are one of the world's finest deep engraving machines. We are very proud of this machine being a workhorse in deep engraving business.

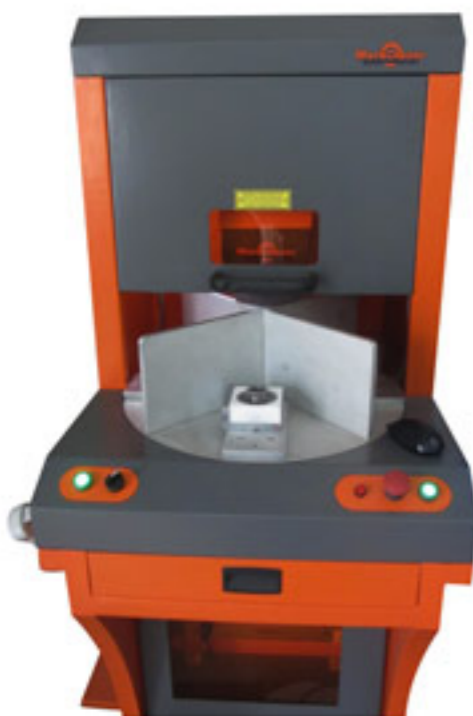
In combination with our advance features and extensive research each machine is further customised after carefully analysing our clients applications.

G + Plus 20W is General Purpose machine with additional features of color marking, limited deep engraving and is a workhorse in tough Industrial conditions.

Micro machines are lasers for special applications such as Medical Micro Engraving & Micro Drilling of stainless steel tubes etc. It can mark words even upto 0.2mm in height. It can mark on Titanium, Platinum etc. It is widely used by metal optical frames and implants industry. Power level 20/30W

DE-HF are deep engraving & cutting laser which can work continuously for 18-20 hrs for deep engraving. These machines are used by tool rooms & metal industries as well as all general purpose application. Power level 20/30/50/70 Watts

- + 100,000 Hours of expected laser lifetime.
- Automation integration options and x-y cross table offers infinite possibilities.
- CE marked.
- Low energy consumption does away with high energy costs incurred with traditional lasers.
- Compact rugged air cooled design.
- Red pointer for mark preview.
- Optional suction system for longer life and quality.
- High speed, versatile & user friendly.
- Excellent after sales service by a highly qualified & experienced technical support team.
- Zero consumables & negligible maintenance ensures low cost of ownership.
- Class 1 option available.



**Minnie Marker With Indexer 10W, 20W, 30W, 50W**  
Also available options 30W / 40W



Class I



Micro Marking / Micro Drilling



Cutting



2D / 2 1/2 D Deep Engraving



Zinc Die

OPTIONAL:  
1. German Rotary Indexing Table  
2. Motorized Z Motion

### Technical Specification

Model	20W (G+)	20W (Micro)	30W (Micro)	20W - DE(HF)	30W - DE(HF)	50W - DE(HF)	70W - DE(HF)
Power(w)	20	20	30	20	30	50	70
Wavelength(nm)	1064	1064	1064	1064	1064	1064	1064
Modes of Operation	pulsed	pulsed	pulsed	pulsed	pulsed	pulsed/cw	pulsed/cw
Frequency(kHz)	20-200	20-500	30-500	20-500	20-500	50-500	70-500
Laser Spot(μm)	22-28	20-28	20-28	28-32	28-34	32-38	35-40
Peak Power(Kw)	7	9	12	12	15	18	20
Speed(mm/sec)	12000	14000	14000	15000	15000	12000	12000
M2	≤1.8	≤1.3	≤1.3	≤1.5	≤1.5	≤1.8	≤1.8
Environment°C	35	35	35	40	40	40	40
Marking Field(mm) <sup>2</sup>	100 x 100	100 x 100	100 x 100	100 x 100	100 x 100	100 x 100	100 x 100
Deep Engraving	Limited	Micro Engraving	Micro Engraving	Yes	Yes	Yes	Yes
Panel AC	NA	NA	NA	Yes	Yes	Yes	Yes
Connected Load(w)	650	650	1000	650	1000	1000	1200
Humidity	5% to 95 % (Non Condensing)						

Optional Marking Field 150 mm x 150 mm / 200 mm x 200 mm / 300 mm x 300 mm

N.B. Markolaser reserves the right to change the design to upgrade the technology from time to time.

Logos & Artworks Shown are Property of Respective Companies

# MARKOLASER Express Series

## Markolaser: Fiber Laser Marker – 10W / 20W-DE / 20W-DE / 30W-DE / 70W-DE

Top of the line - mean and tough industrial lasers for small to heavy parts. Finest quality components procured from around Europe are integrated by our experts to perform even the most difficult industrial assignments. These mean machines can mark clean and crisp lines and produce finest quality deep engravings in 2D. Blackening and color marking on an array of materials is done with ease. Last but not the least, integration into industrial automations is also done by our separate automation division. The key features of these machines are as under:

- + 120,000 Hours of expected laser lifetime.
- Compact air cooled design with very smooth Motorized Z axis movement for plus 80 kgs.
- Enabled for future automation like Rotary/ Indexing Table without any change of cabinet.
- Operating temperature is 47°C.
- 3 way working area for higher production.
- Highest marking quality beam diameter < 32 Microns.
- Foot switch operated.
- 3 way Red pointer for mark preview.
- Markolaser - 20 watt.
- Optional Suction Unit.
- Very high speed.
- More user friendly design.
- Enhanced design for placing it in online production or online marking.
- No Chinese components used, mostly UK / German / French / Japanese.
- Onboard swiveling (faces operator on both sides of LED monitor and computer).
- Comes with a safety tower light.
- 2 years warranty complete laser.
- Excellent after sales service by a highly qualified & experienced technical support
- Team with low cost of ownership and maintenance.

### OPTIONALS:

- Rotary device : 50g to 50 Kg load options.
- Indexing tables : 2 stations to 36 stations.
- Conveyors : 0.5mts to 20mts/minute options.
- Mark on fly : Marking parts while moving.
- Jigs and fixtures : Teflon/Aluminium or other materials.
- Automations : Please discuss with our team for auto loading and unloading.
- Fume extractors : Special safety enclosures to comply with CE and class 1 laser regulation.
- DE-series is excellent for general purpose 2D deep engraving functions, comes in 20W/30W.
- High Speed.



Class IV  
Markolaser - 20watt  
Fiber Laser Machine  
Also available options  
10W / 20W / 30W / 40W



OPTIONAL:  
1. Class 1 Protection  
2. Motorized Z Motion

### TECHNICAL SPECIFICATION

	<i>X</i> Markolaser press	<i>X</i> Markolaser press 1	<i>P</i> Markolaser Lower New	<i>P</i> Markolaser New	<i>P</i> Markolaser New
	20W	20W - DE(HF)	30W - DE(HF)	50W - DE	70W - DE
Type	Fiber	Fiber	Fiber	Fiber	Fiber
Model Specs(w)	20	20	30	50	70
Wavelength(nm)	1064	1064	1064	1064	1064
Modes of Operation	Pulsed/cw	Pulsed/cw	Pulsed/cw	Pulsed/cw	Pulsed/cw
Full Range Power(kHz)	20-500	20-500 (HF)	20-500 (HF)	30-500(HF)	50-500(HF)
Laser Spot(μm)	32	32	32	34	34
Peak Power(Kw)	10	12	15	18	21
Repeat Accuracy(mm)	± 0.001	± 0.001	± 0.001	± 0.001	± 0.001
Linear Marking Speed(mm/sec)	12000-14000	12000-14000	12000-14000	14000	14000
M2	≤ 1.3	≤ 1.3	≤ 1.5	≤ 1.8	≤ 1.8
Red Alignment Laser	Standard	Standard	Standard	Standard	Standard
Electrical(V/A)	24/7	24/10	24/12	24/12	24/16
Environment°C	10 to 35	10 to 35	10 to 35	10 to 45	10 to 45
Cooling Type	Air Cooled	Air Cooled	Air Cooled	Air Cooled	Air Cooled
Marking Field(mm) <sup>2</sup>	100 x 100	100 x 100	100 x 100	100 x 100	100 x 100
Connected Load(w)	650	650	1000	1000	1200
Humidity	5% to 95 % (Non Condensing)				

Optional Marking Field 150 mm x 150 mm / 200 mm x 200 mm / 300 mm x 300 mm



N.B. Markolaser reserves the right to change the design to upgrade the technology from time to time.

Logos & Artworks Shown are Property of Respective Companies

# MARKOLASER 2D-3D Deep Engraving Series

## Markolaser: Fiber Laser Marker – 20W-DE/30 W-DE

### What is 3D Laser Engraving?

- The object to be engraved is placed under the focal point of the laser in the designated area. The design is a 3D or 2½ D file made by a special software (this is not a simple 2D file of 2 Planar axis). This 2% or 3D design is sliced vertically by special software into many slices. The laser beam evaporates or erodes each layer to form a 3D structure.
- The well suited materials for engraving: Brass, Copper, Steel, Hard tool steels, Carbides, Graphite, Certain ceramics.

### Why Markolaser ?

Markolaser is the only company outside USA and Europe with a very good experience in 3D laser engraving with additional features:

- Stable machinery center.
- Extremely good in 3D and 2½D micro laser engraving in less than 30 microns beam sharpness.
- Markolasers deliver beam perpendicular (tolerance of 1°) to the surface over the entire field of work, so even at the corners, the holes or channels are machined accurately.
- Rugged optical systems with very high damage threshold > 2J/cm<sup>2</sup> and excellent anti reflection coating from Europe.

### Advantages of Markolaser 3D Machine

- A motorized Z axis for fine tuning and ease of use.
- A motorized Z axis can take loads upto + 100 Kgs.
- 3 Way Red Pointer for mark preview.
- Door laser safety alarms.
- Engraving depths can be adjusted.
- Suitable for 254 mm fØ lenses.
- Ideal for curved parts and step marking.
- 2D rotary marking and engraving possible with an optional attachment.
- Process indicator shows whether the machine is in a stand by, working or alarm mode.
- Easily diagnosed for Online trouble shooting without visiting the site.
- Training.

### Options:

- German Fume extraction unit.
- Cross X-Y table.
- 360° Rotary Attachment

\*Technical Specifications only on request.



Markolaser 3D-20watt-DE  
Fiber Laser Machine

Also available options  
20W / 30W / 40W



### HARDENED DIES



3D Engraving 1.5mm Deep



3D Engraving 2mm Deep



3D Engraving 0.5mm Deep



2D Engraving 2mm Deep



3D Engraving 2mm Deep



3D Engraving 3mm Deep

# Fiber Laser Machine For Curve & Step Marking/Engraving

## Markolaser: Fiber Laser Marker - 20W-DE / 30W-DE

- Curve Marking & engraving special purpose Fiber lasers.
- Step Engraving is a specialized process which enables the user to form precise 3 dimensional images inside many surfaces like brass, steel, tool steel, copper etc.
- Markolaser is one of the leading and possibly one of the few in India to manufacture Step Marking & Engraving CNC lasers.
- Markolaser Step Marker & engraver is small in size and easy to operate with a high speed, little heat exchange and no distortion of the substrate during deep laser engraving. The marking and engraving is done using the latest and tested European core components which ensures sharp and precise laser beams, are contact free, produce anti counterfeiting effect at very low operation cost. Our laser is recognized for the high quality effortlessly renders due to the CAD/CAM software support, fine and accurate deep laser beams even after many repeats.
- The laser beam of our Step engraving lasers is small spot size, giving more sharpness and accurate image.
- The laser can easily mark curved surface by designing artwork or files in autocad, cad/cam
- Ideal for curved path marking.



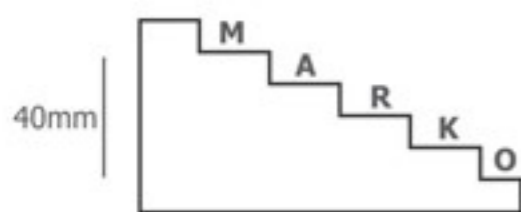
Safety Goggles



Always Wear Safety Glasses

Markolaser - 30 Watt - DE  
Fiber Laser Machine  
Also available options  
50W / 70W

Special lasers for marking on curved large parts like drums with an area upto 250 x 250mm without a rotary motor. This can also mark on curved parts like donga & dish lids and similar parts.



Step Laser Marking

e.g.

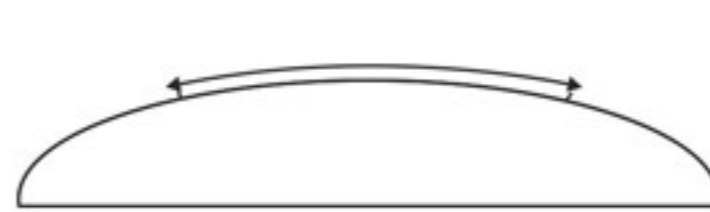
- MCB's.
- Electrical goods.
- Dies etc.



Cylindrical Laser Marking

e.g.

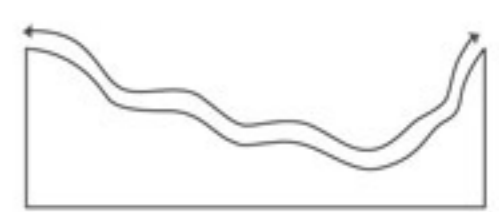
- Drums
- Ice pails
- Thermos
- Cadle stands etc.



Curve Marking

e.g.

- Donga Covers.



Marking & Deep Engraving on curved surfaces (complex)

e.g.

- Footwear dies.
- Mobile molds.



Step Marking on MCB



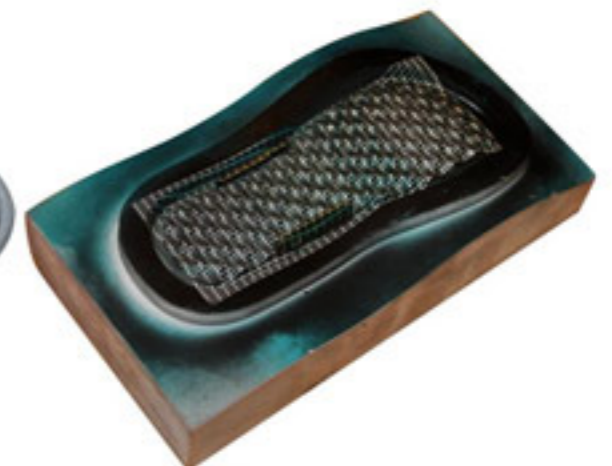
Mobile Backcover Die



Step Engraving on Die



Marking on Dongas



Engraving on Shoe Die

# Greeny MARKOLASER for Glass, Crystals & Nylon



Our green laser is a diode pumped, Q-switched, solid state laser. We use the finest micro resonator with electro-optic modulation technology which is perhaps one of its kind. Our laser diodes are of best quality. These pumping laser diodes and resonators are temperature controlled by a highly efficient solid state system based on PELTIER CELLS.

## Special Applications

The Greeny MARKOLASER is designed for micro machining of soft and hard materials, specially marking on glass and crystal engraving. High peak power with excellent beam quality makes this system indispensable for these applications. A beam spot size of 20 microns is used for deep, small micro-machining and special electronics and medical applications. Material processing, Scribing of water cells, marking on glass and transparent mediums and intra volume glass marking are its forte.



## TECHNICAL SPECIFICATION

Parameter	Green @532nm (Single Shot)	Green @532nm (3 Watt)	Green @532nm (6 Watt)
Laser type	DPSS	DPSS	DPSS
Wavelength	532	532	532
Average power(w)	1.5	3	6
Repetition rate(Q switch)(kHz)	Single Shot 1	10 to 100	10 to 100
Pulsewidth(ns)	<1 (few nano second)	4 ns to 30 ns	4 ns to 30 ns
Beam Quality(M <sup>2</sup> )	<1.4	<1.5	<1.7
Cooling system	Air cooled with thermostatic fans	Air cooled with thermostatic fans	Air cooled with thermostatic fans
Laser Source Class	Class IV	Class IV	Class IV
Power (VAC/Hz)	240 / 60	240 / 60	240 / 60

## UV LASER MARKING SYSTEM

UV LASER SPECIFICATION	
Field sizes inches(mm)	3(75) - 8.8(224)Diameter
Wave Length(nm)	355
Power(w)	1,2 & 3
Q-Switch Frequency(kHz)	5-200(Max Power at 30kHz)
Minimum Character Height inches (mm)	0.002(0.05)

MARKOLASER UV Laser Marking System. It is the first marking system specifically designed for UV lasers at 355 nm. It takes advantage of the short UV wavelength to provide a small spot size and a large depth of focus. UV lasers also take advantage of the cold marking process, not requiring high average powers and allowing damage free marking on many materials. The MARKOLASER marking system is also capable of UV ablation and engraving on many materials. Such materials include: wires, metals, sapphire, glass, diamond, polyamides, PCBs, coatings, ITO removal, silicon wafers, ceramics, plastics, fiber, paper, polyimides, etc.

This product series has been developed to satisfy to requirements of the following reference applications:

- Special material processing such as glass marking for traceability purposes in automotive.
- Heat sensitive applications in the electronics, aerospace and solar industries.

UV laser markers feature enhanced absorption in plastics, enabling excellent marks on many plastics including polyolefins. Markolaser offers both standard and custom system configurations with fully integrated motion options and the ability to mark 'on the fly'

The UV combines unique features such as air cooling, standard compact design, continuous and precise power control and low power consumption with the advantages of the short UV wavelength. Performing the 'so called' cold marking the UV Lase allows no-damage marking and micro-processing on demanding materials such as glass, non -doped plastics, coatings, among the others.



Marking Breaker

Glass



Medical Tubes

Electronic Components

# SPECIAL LASER MARKING MACHINES

## Software + Electronics + Hardware + Automations

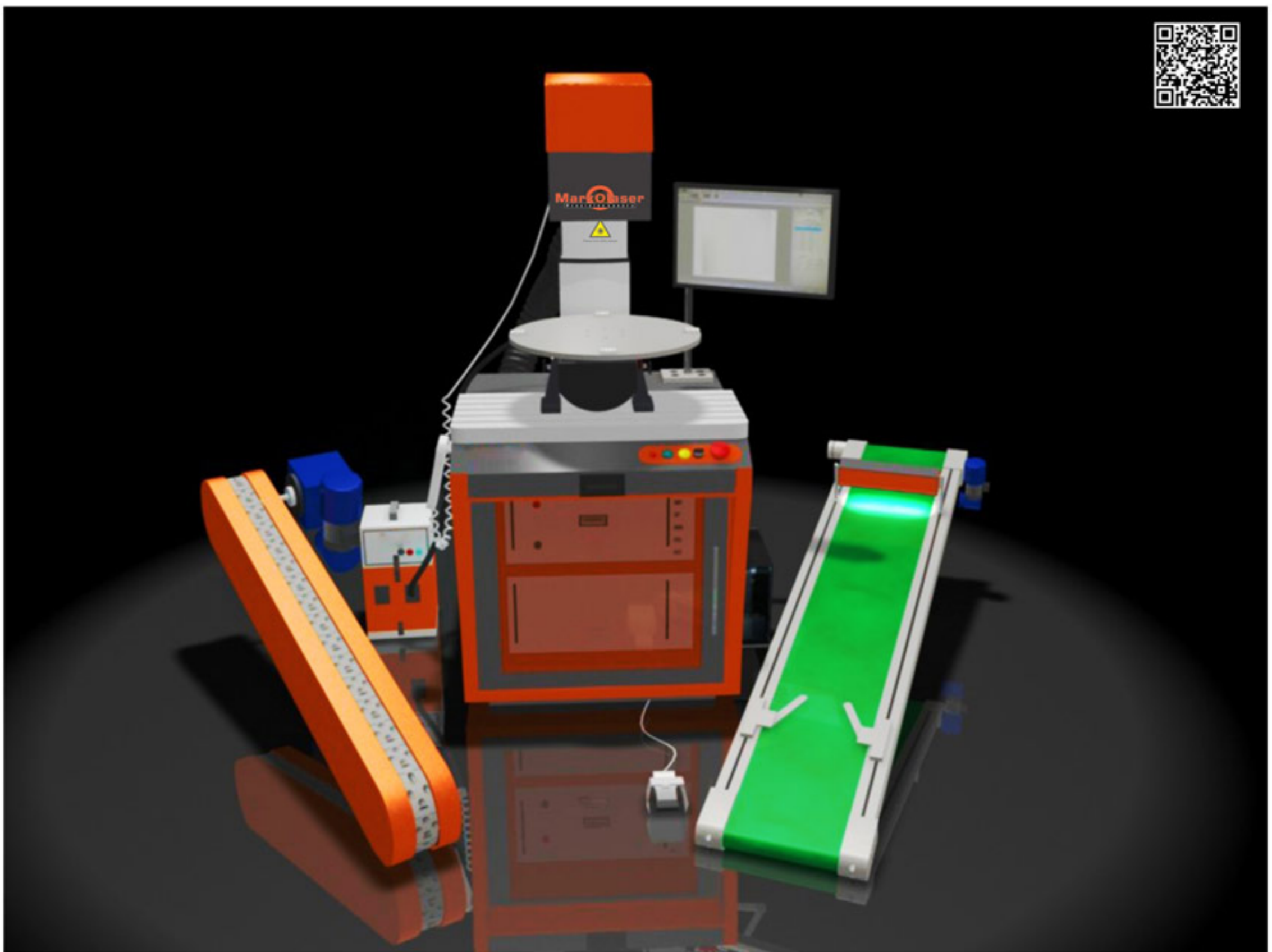
We can highly customize the automations as per the requirements by implementing the ideas, modifying the softwares, adding client control features, sensors, robots, servo motors, indexed motors etc.

We have in house capability for complex automation developments like

- Designing a cabinet assembly
- Electrical and electronic designs
- Laser design with many features and powers.
- Software programming eg. Drawing of data from client software like SAP, BIS etc.
- Reading (automated) bar codes, data logic codes.

Our Principle of doing automations is very simple. We do not 'reinvent the wheel'. We use superior components or sub assemblies made by well known global manufacturers like Siemens, ABB, Amaron, Sick, Phoenix etc. Hence we are trusted by industry giants for our automations which easily comparable with the best ones, worldwide.

Precision CNC Milling, Grinding, turn milling machines made by international enterprises of the industry like Deckel Maho (DMG, Germany), Charmilles (Switzerland), enable us in doing the highest precision marking with no tolerance.



Mark on the fly, Step indexing, rotary indexing, bowl feeding.



# MARKOLASER Automations: Basic Concepts

Software + Electronics + Hardware + Automations



## Mark On the Fly

**Concept:** Continuous marking on the moving parts. The Parts are loaded on to the conveyor belt and are automatically marked on a moving belt.

**Applications:** 2D datalogic coding, Batch Coding, Date coding, 1D Barcoding on Packaging of soaps, Bottles, cosmetic jars etc. Security number plates is a special application developed on this concept.



## Linear Indexer with laser marking

**Concept:** The Linear Indexer works at upto 40 indexes per minute. It works in "move-stop-mark-move" method. The beauty of this system is that only one person is required to load parts from one end and marked parts automatically fall on the other side. Part sensors control the turning on or off of the indexer

**Applications:** Any part which is of a standard size and does not require frequent changes in jigs, is the most ideal case for this kind of automation. These are generally used in very high production lines like electrical/automotive parts. .

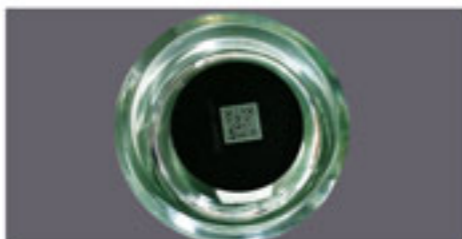


## Rotary indexer

**Concept:-**The rotary indexers are used to mark precisely on small or big parts at a very high speed, thus economizing the whole process and giving a faster cycle time. Loading and unloading of parts can be done simultaneously and continuously.

**Laser For LED / CFL Industry :-** Class 1 Laser Machine with 8/10/12 station indexer specially designed to mark on both side of the LED / CFL simultaneously where one side can have the branding and other side specifications.

Request for advance automation solutions at : [info@markolaser.com](mailto:info@markolaser.com)



# SPECIAL LASER MARKING MACHINES

## Minnie Marker 30/50/70 Watt

Brass / Copper / Gold / SILVER sheet & strip of 10 - 80mm width of any length  
(Trials needed as each alloy responds differently)

laser cutting machine.

Cuts upto 1.2mm thick sheets.

Portable & optional cutting attachment.

Length of the strip is automatically adjusted.

Cutting mechanism to forward the strip.

Attachment can be washed in water or alcohol for the recovery of gold dust.

Rotary cutting device (option).

### Applications:

- Jewellery. (Special extraction for Gold & Platinum dust collection)
- Electronic Circuits.
- Electrode making



Minnie Marker 30/50/70W

### Technical Specification

	<i>Markolaser New</i> Lower	<i>Markolaser New</i> Lower	<i>Markolaser New</i> Lower	
	30 Watt - DE(HF)	50 Watt - DE	70 Watt - DE	
Type	Fiber	Fiber	Fiber	
Model Specs(w)	30	50	70	
Wavelength(nm)	1064	1064	1064	
Modes of Operation	Pulsed/cw	Pulsed/cw	Pulsed/cw	
Full Range Power(kHz)	30-500(HF)	30-500(HF)	30-500(HF)	
Average Output Power(w)	≈ 30	≈ 50	≈ 70	
Pulse Width(Kw)	40	40ns	40ns	
Maximum Pulse Energy(ms)	>1.0	>1.2	>1.5	
Laser Spot(μm)	32	34	34	
Peak Power(Kw)	15	18	21	
Repeat Accuracy(mm)	± 0.001	± 0.001	± 0.001	
Linear Marking Speed(mm/sec)	12000	14000	14000	
M2	1.0-1.6	1.0-1.6	1.0-1.8	
Red Alignment Laser	Standard	Standard	Standard	
Electrical(V/A)	24/12	24/12	24/16	
Environment°C	10 to 35	10 to 45	10 to 45	
Cooling Type	Air Cooled	Air Cooled	Air Cooled	
Marking Field(mm) <sup>2</sup>	100 x 100	100 x 100	100 x 100	
Connected Load(w)	1000	1000	1200	
Cutting (mm)	Copper/Brass/Gold	0.5	0.7	1.2
	Silver	0.6	1.0	1.5
Humidity	5% to 95 % (Non Condensing)			

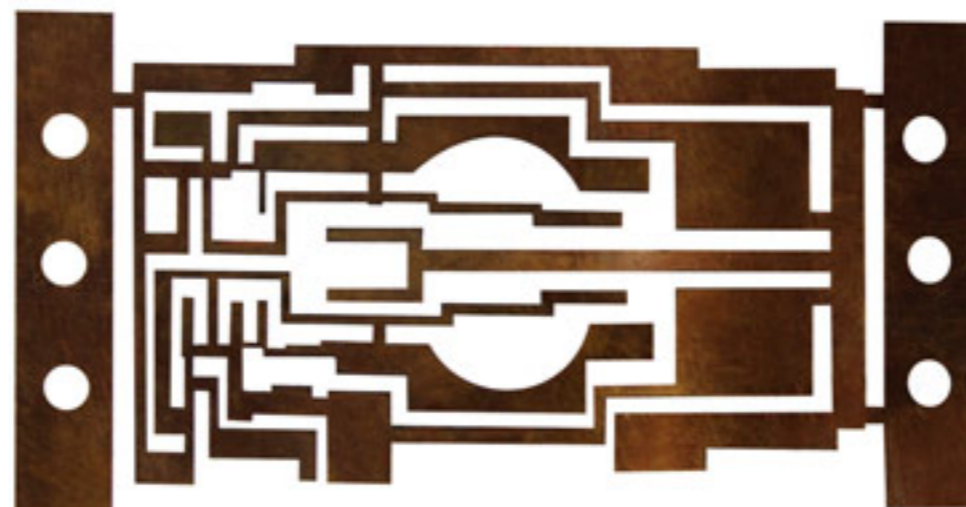
Optional Marking Field 150 mm x 150 mm / 200 mm x 200 mm / 300 mm x 300 mm



Strip Cutting



Filigree



Cutting of electronic parts



Electrode

# MARKOLASER Co2 Machines For Packaging, Label & Holography

We proudly present an all European Laser at an affordable price. Components from France, Germany, Japan, USA and UK ensure ultimate quality and long trouble-free life of the system.

Some of the key features of this laser are as under:

- Great laser power.
- Power controlled by PWM (Pulse width Modulation)
- The cost of the process is low with no consuming materials.
- Large marking scope, the mark is clear and not easily destroyed.
- Good cutting Efficiency.
- marking depth can be controlled at will.
- Suitable for a wide range of materials.
- Outstanding beam quality for a Co2 laser.

## Special Applications

Well suited for engraving on non-metal and some metals. Widely used in industries like food and Drinks Packaging, Medicine Packaging, Clothing Accessories, Leather, Textile Cutting, Craft and Gifts, Electronics Component, Nameplate Making etc. German source with mark on fly optional.

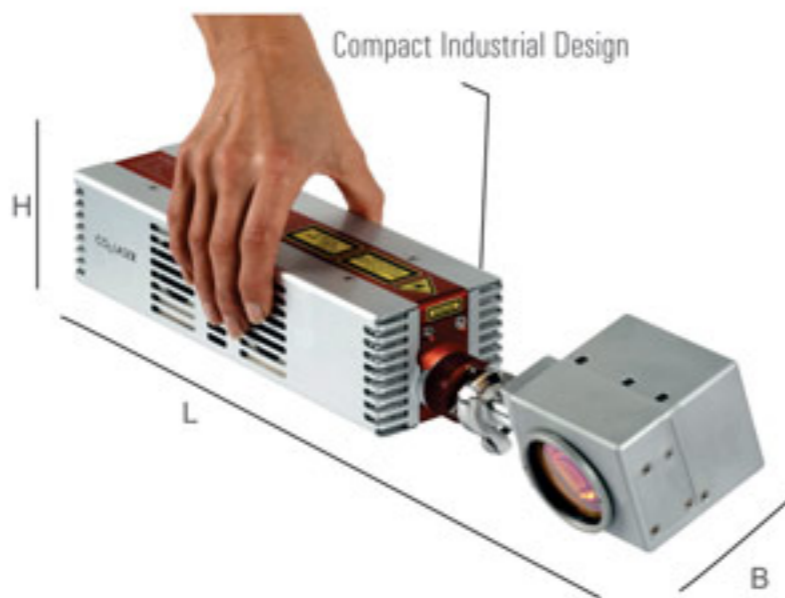
High speed production in automotive, electronics, Label, Holography, medical, cosmetics.

'MARK ON THE FLY' upto 20mts/min

Marking logos, linear texts, DataMatrix™ with serial numbers, counters, date, shift codes, variables, asian characters (Chinese)

## Application Industry

- Soft-Drinks Packaging Industry.
- Food Packaging Industry.
- Alcohol Packaging Industry.
- Machine Packaging Industry.
- Tobacco Packaging Industry.



Compact Industrial Design



## Technical Specification

Power Levels(w)	10/20/30/50/70/100/150/250 Watt
Marking Area(mm)	150 x 150
Wavelength(μm)	10.6
Max. Laser Average Power(w)	10, 30, 55, 100
Linear Speed(mm/sec)	16000
Min. Line Width(microns)	180
Min. Character Size(mm)	1
Power Consumption(w)	≤850
Supply Voltage(V/A)	220/6
Dimension(mm) <sup>3</sup>	650 x 130 x 195 (LxBxH)
Cooling Type	Air Cooled



Holograms



Garments



Cosmetics



Packaging & Labeling



Cigarette Cases

N.B. Markolaser reserves the right to change the design to upgrade the technology from time to time.

Logos & Artworks Shown are Property of Respective Companies

## Optional Units

Optional Units : Prices are extra to be charged for these units

### Imported Made in Germany/Japan/Italy Indexing Unit - (2- 36 Stations)



One of the most reliable and robust rotary indexing tables available worldwide. Favorite partner in the field of automation technology. Extremely long service life combined with impressively fast switching. Robust rotary table with smooth, jerk and impact-free running and extremely long service life. "This includes- Top plate and protective Screen as per the industrial Safety norms".

We provide options of foot switch operation or automatic operation. Since parts are kept loosely on fixtures the takeoff and landing is very smooth.

Electro mechanical Rotary Indexing Tables are compact series that automate the transfer of work piece between successive station.

### Fume Extraction Unit (Made in EU)

Fume Extractor with DC-turbine, 1.2Kw, 230V Mobile suction units with maintenance-free, changeable high-particulate filter for the mechanical separation of dust. The unit is made for laser machines in connection with suction elements. The filter consists of a pre-filter, a high-particulate filter and an activated carbon filter, which is separately built in a changeable housing. Each filter element is taken off by the clean side and can be taken out individually.

Mobile suction and filtering device. A large pre-filter of the filtering category F5 separates the rough particles. Subsequently the air is lead through the high efficiency submicron particle air-filter H13 (separating degree of 99.95%) where the last fine particles are separated.



Fume Suction Unit	Technical Data
Suction Performance	320 m3/hr.
Pre - Filter	F5
Main-Filter Hepa 13	H 13
Active-Carbon- Filter	Approx. 3.5 kg
Dust Separation Capacity	99.95%
Drive System (Turbine)	Continuous running motor
Running Performance (Motor)	1.2 Kw

Fume Suction Unit	Technical Data
Main Voltage	230V/50/60 Hz
Noise Level	65 db(A)
Dimension (LxWxH)	365 x 501 x 740 mm
Weight	45 kg
Rear Hose Connection	2 x NW 50mm
Colour	RAL 9010
Steering	Air Filter Control

N.B. : We have special extraction units for precious metal industry and solvents extraction.

## Precision and Accurate Positioning Work Table

Heavy Duty Table (Manual) and foot switch



Cross X-Y German Table



Technical Data	Details
Clamping surface	197x197 mm
Centre - to - centre T- slots spacing	60 mm
z-Axis (Hermetic 6-11 economy, 6-12/9-11 universal, sealed Ink Cup 90/130)	+ 25 mm
x-Axis	+ 70 mm
y-Axis	+ 70 mm
1 turn of the adjusting wheel - direction of displacement	2 mm

Heavy Duty Table (Motorized)



Technical Data	Details
1 Graduation mark	0.05 mm
Depth	320 mm
Width	320 mm
Height	75 mm
Weight	3 kg

Protective Eye Wear



### Optics

Laser Type (Additional Optics)	20 Watt
Marking area f - 100 mm	80 mm
Marking area f - 160 mm	100 mm
Marking area f - 254 mm	180 mm
Marking area f - 330 mm	242 mm
Marking area f - 420 mm	308 mm

Rotary Device



The laser beams are invisible harmful radiation. If left unprotected the human eye can be damaged permanently from direct or reflected laser beams and radiations laser protective eyewear must be worn always while the laser is in operation to protect ocular injury. Our laser protective eyewear is in the form of laser safety goggles, which not only fit well on the face but also protect from sideways entry of laser beams. Laser eye wear that we provide is specific to the type of laser wavelength involved-i.e 1064 infrared.

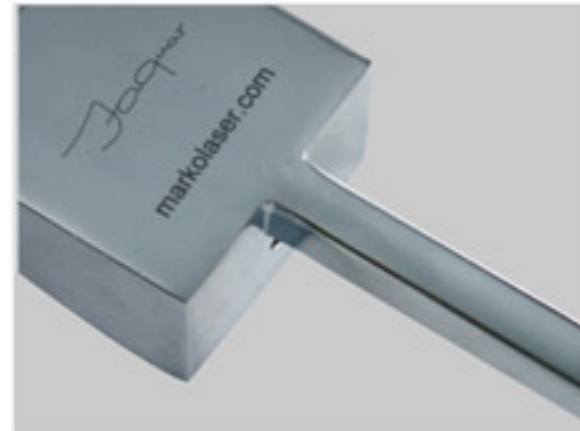
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# Industrial Application

## Automotive & Plastics



## Bathroom Fittings



## Molds Deep Engraving / 2D & 3D



## Gifts & Novelties



## Hand Tools



## Handicrafts & Kitchenware

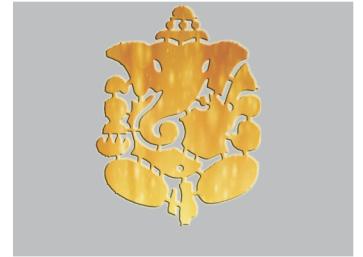
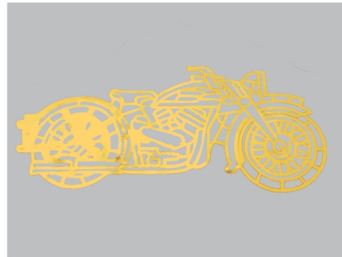
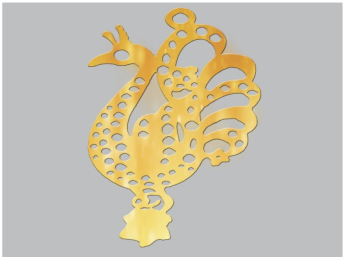


# Industrial Application

## Household Utensils



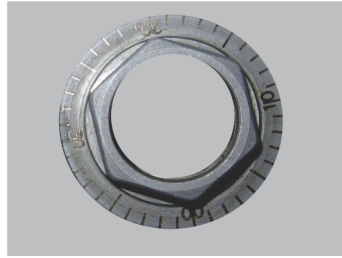
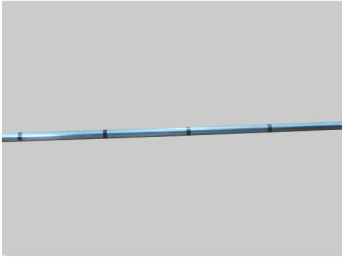
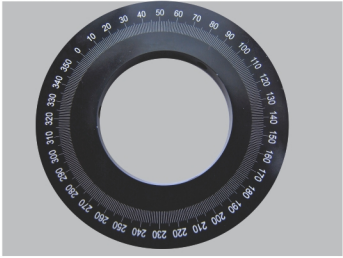
## Cutting of Metals



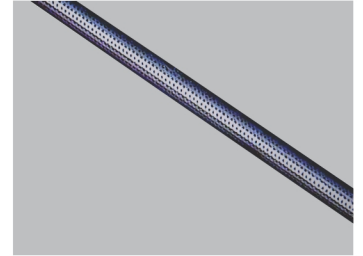
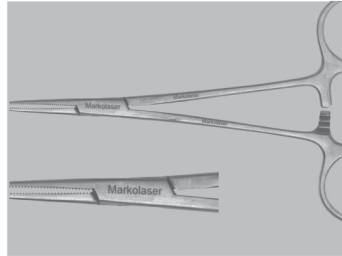
## Jewellery / Hallmarking



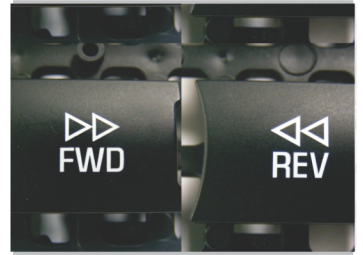
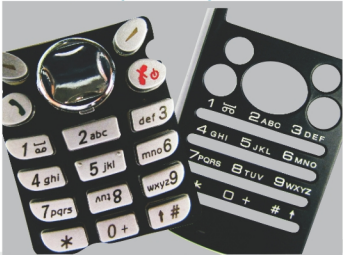
## Marking / Micro Marking



## Medical Instruments



## Mobile / Computer Peripheral



# Industrial Application

## Molds & Inserts - 2D, 2½D, 3D



## Name Plates



## Plastics & Nylon



## QR Codes & Barcoding



## Precision Rotary Engraving



## Energy Meter



## Rubber

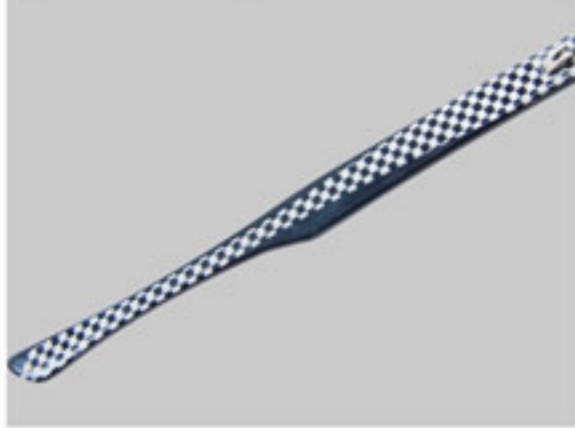


# Industrial Application

## Seals & Tag



## Optical Industry



## Solar Cells



## Surgical Implants



## Switches



## Tooling Dies / Embossing



## Watch Backcase



# MarkoLaser

Precision Lasers



We will be happy to provide you with detailed information at:  
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By e - mail  
info@markolaser.com, 3d@markolaser.com



Or online at:  
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