

## Laser Marker Selection Guide

### FAYb LASER MARKER

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**NEW** LP-ZV SERIES



LP-RV SERIES



LP-RF SERIES

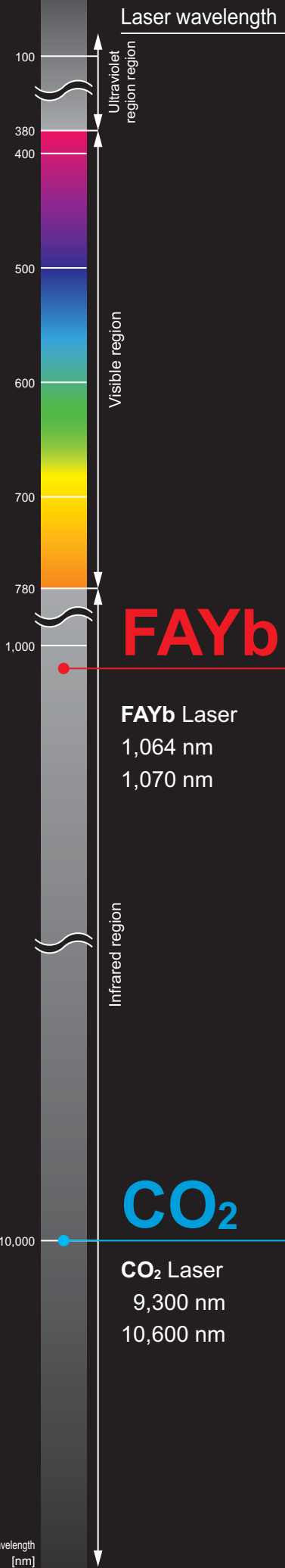
### CO<sub>2</sub> LASER MARKER

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**NEW** LP-RH SERIES

# FAYb LASER MARKER



**NEW**

3D FAYb Laser Marker

## LP-ZV SERIES

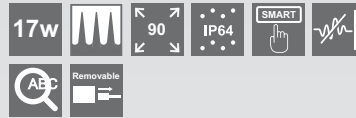


\* Average output for marking

The built-in camera helps achieve higher productivity. Thanks to the 1-ns short-pulse laser's superb marking expressivity combined with the 3D control, this series is suitable for high-output metal marking as well as for high contrast marking and extra small character marking on resins.

FAYb Laser Marker **Short Pulse**

## LP-RV SERIES



Equipped with a short-pulse laser, this series achieves excellent high contrast marking on resins and enables engraving of very small characters.

FAYb Laser Marker

## LP-RF SERIES



The head is durable with an IP64 ingress protection rating. This entry laser marker series features excellent basic functions.

# CO<sub>2</sub> LASER MARKER

**NEW**

CO<sub>2</sub> Laser Marker

## LP-RH SERIES



\*Average oscillator output

General-purpose CO<sub>2</sub> laser marker suitable for marking on resin. Vertical and horizontal head models available for flexible installation on various equipment.

Laser marker product information (our company's website)

• Detailed product information



# Laser Marking Applications

## FAYb Laser Marker



Engine block



Engine part



Cam shaft



Cast



Medical instruments



Battery housing



Laser diode



Bearing



Sensor



IC



Molded resin part



Molded resin part

## CO<sub>2</sub> Laser Marker



PET bottle



Outer box (GS1 DataMatrix)



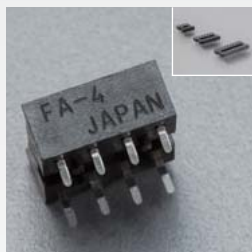
Aluminum packaging material



Retort pouch



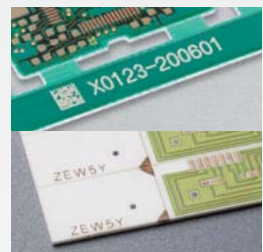
Molded resin parts



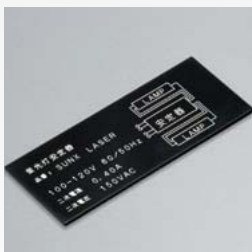
Connectors



Electronic parts



Circuit boards



Alumite nameplate



Laser labels (marking + half-cutting)



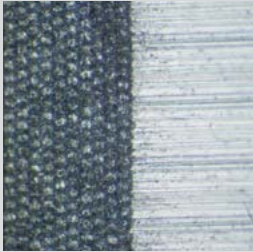
Silicone tube



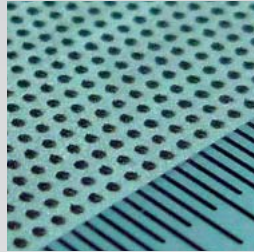
Lens

# Laser Processing Applications

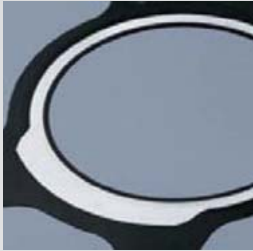
## FAYb Laser Marker



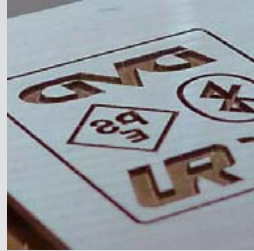
Processing of bearing surface



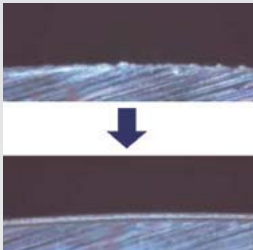
Depression processing on metal



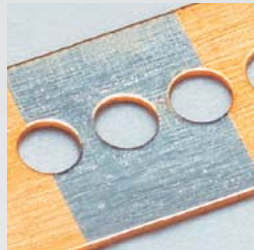
Removal of coating film from gasket



Engraving on die

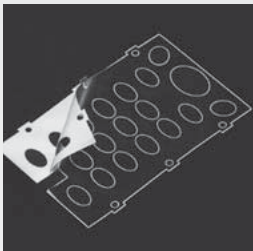


Deburring of metal parts



Removal of gold plating from electronic parts

## CO<sub>2</sub> Laser Marker



Film cutting



Resin gate cut



Removal of ribbon cable insulation



Rubber gaskets cutting



Film drilling



Insulation removal

New application suggestion

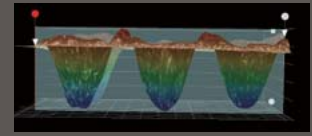
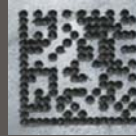
## Deep engraving using high-output laser marker

Traceability ensured even after shot blasting

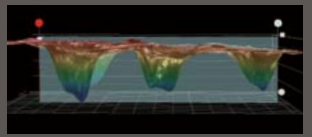
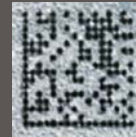
Aluminum casted part



Before shot blasting



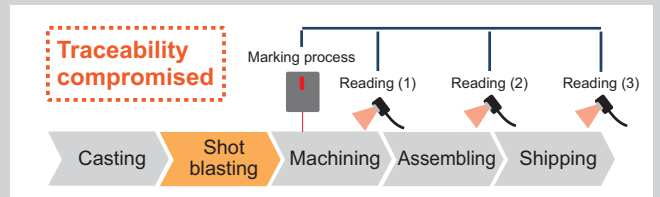
After shot blasting



Surface layer is removed by shot blasting.

## Previous issues

- Marking removed by shot blasting, so traceability is compromised.



### Shot blasting process



Before shot blasting



After shot blasting

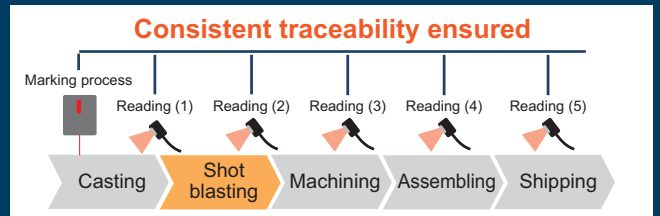


Marking removed!!

\* Above images are for illustrative purposes.

## After using the LP-ZV

- Deep-engraved marking remains even after shot blasting to ensure consistent traceability!!

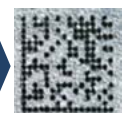


### With 42-W high-power laser...

Before shot blasting



After shot blasting



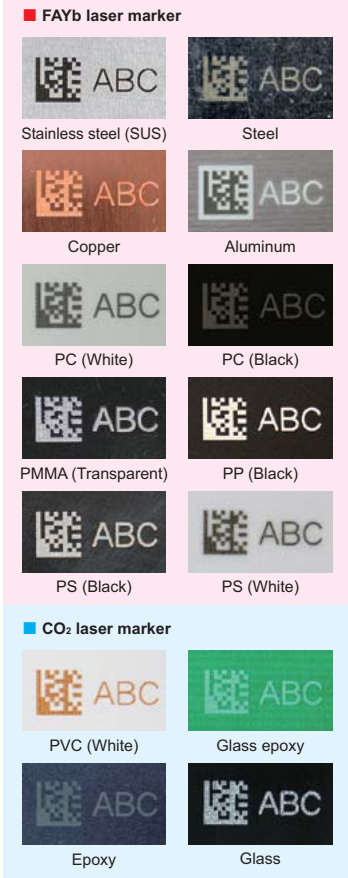
Readable even after shot blasting!!

\* Removal of 120 μm of surface layer by laser blasting

# Material compatibility chart

●=Good ○=Usable △=Incompatible ×=Non-usable

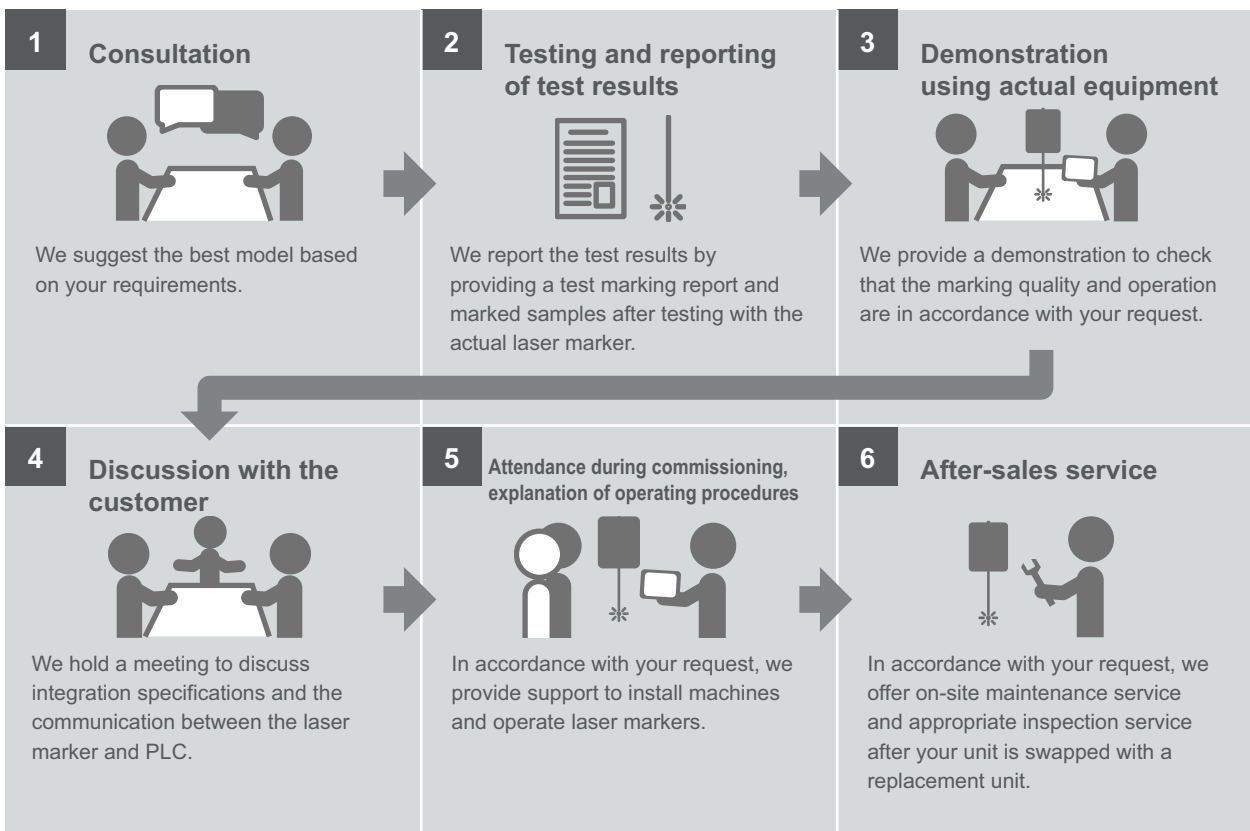
Material		FAYb laser marker	CO <sub>2</sub> laser marker	
		LP-ZV series LP-RV series LP-RF series	LP-RH series	
Metal	Iron	●	×	
	Carbon steel	●	×	
	Alloy steel	●	×	
	Copper, brass	●	×	
	Aluminum alloys	●	×	
	Magnesium alloys	●	×	
	Titanium alloys	●	×	
	Nickel alloys	●	×	
	Gold, silver	○	×	
	Resin	ABS (Acrylonitrile butadiene styrene)	●	●
EP (Epoxy)		●	●	
PA (Polyamide / nylon)		●	○	
PBT (Polybutylene terephthalate)		●	○	
PC (Polycarbonate)		●	○	
PE (Polyethylene)		○	○	
PET (Polyethylene terephthalate)		○	●	
PF (Phenol)		●	●	
PMMA (Acrylic)		●	○	
POM (Polyacetal)		●	○	
PP (Polypropylene)		●	○	
PS (Polystyrene)		●	○	
PU (Polyurethane)		●	○	
PVC (Polyvinyl chloride)		○	●	
UF (Urea)		●	●	
Others		Silicone resin	○	○
		Ceramics	○	○
	Wood	△	●	
	Paper	△	●	
	Glass	×	●	
	Rubber	●	●	



\* The above shows typical judgment results. Judgment results may differ when used on customers' workpieces.

\* We can check marking results using actual workpieces provided by your company. For details, please contact our sales office nearest you.

## Laser marker installation process flow



## Disclaimer

The applications described in the catalog are all intended for examples only. The purchase of our products described in the catalog shall not be regarded as granting of a license to use our products in the described applications. We do NOT warrant that we have obtained some intellectual properties, such as patent rights, with respect to such applications, or that the described applications may not infringe any intellectual property rights, such as patent rights, of a third party.

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