

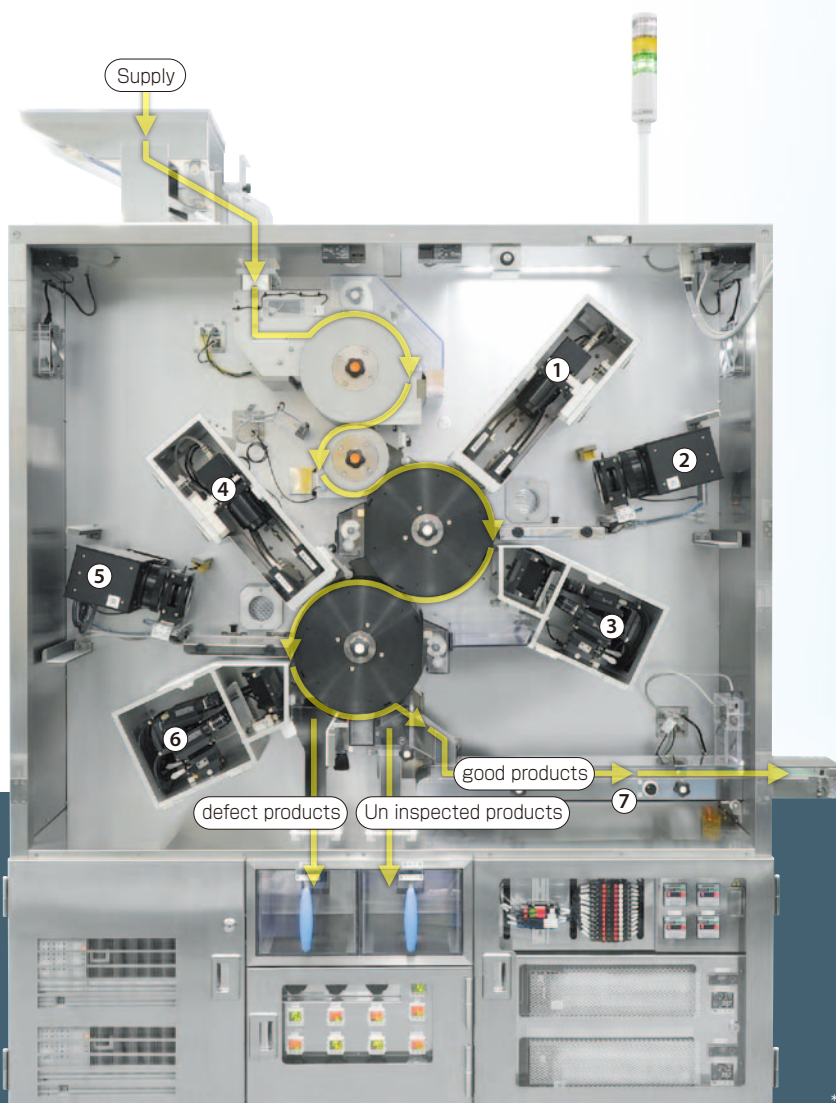
UV Laser Imprinting System **LIS-250D**

U V L A S E R



Why?

Reason to choose UV Laser



UV Laser Marking System **LIS-250D**

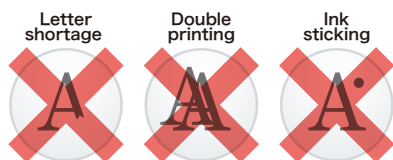
Names of parts

- ① Appearance inspection camera (Front face)
- ② Laser scanner(Front face)
- ③ Marking letter inspection camera(Front face)
- ④ Appearance inspection camera(Back face)
- ⑤ Laser scanner (Back face)
- ⑥ Marking letter inspection camera(Back face)
- ⑦ Good product discharge conveyor

Marking with UV laser irradiation on solid preparation (tablets, soft capsules) surface is conducted to change the color of the contained titanium dioxide to grey. Non-thermal effects of UV laser allow identification marking without resulting in thermal denaturation on the solid preparation.

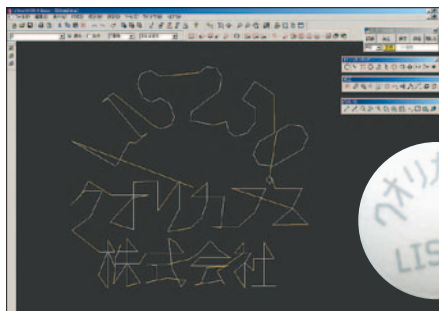
* Transfer mechanism of soft capsule is different from others.

No defect caused by ink



No letter shortage, double printing, ink sticking (stain), etc. will occur due to color change of titanium oxide with non-contact UV laser.

Flexible design



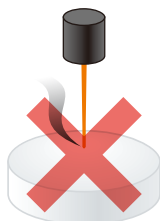
Marking letters, mark or logo can be made by CAD which allows flexible design. Test printing and printing result check are not needed before production.

Reduction of running cost



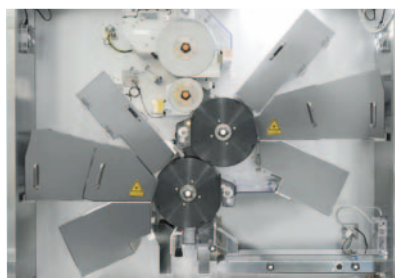
No cost for design roll reproduction and ink, and no need of storage location.

No thermal denaturation



Non-thermal effects of UV laser allow marking without resulting in thermal denaturation on the tablets by using UV laser.

Unmanned operation available



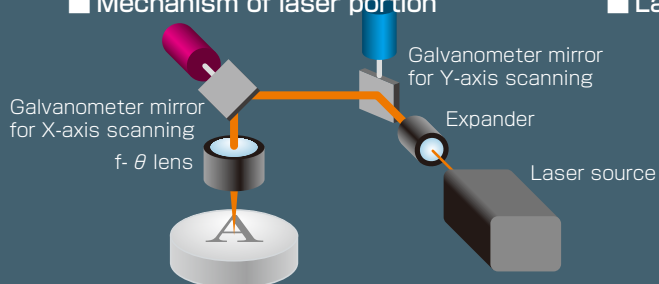
Unmanned operation is available by using the marking letter inspection system, auto loading system and auto-collecting system as an option.

Halal compliance

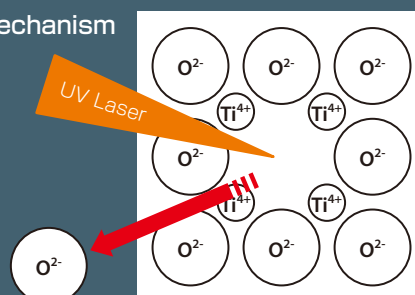
No usage of ink is applied to Halal compliance.

*Halal is Islamic philosophy and means what Islamic people can eat.

■ Mechanism of laser portion



■ Laser marking mechanism



① The ratio of titanium (Ti) to oxygen (O) in titanium dioxide is 1:2. UV laser is irradiated on the titanium dioxide then oxygen atom is removed.

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Improvement of operating rate



No need of cleaning due to no use of ink

Larger printable area



Not only alphanumeric characters but also katakana and kanji (Chinese characters) are available for printing, and resulting in excellent repeatability of details.

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Contribution to ISO14000



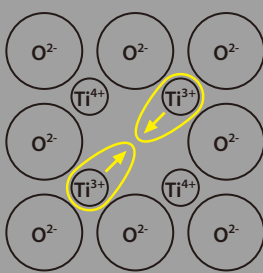
(Environmental Management System)
Non-organic solvent usage
contributes to ecology.

Prevention against counterfeit product



Laser marking on the side with
large curvature could prevent the
counterfeit product.

* To be applied with other system.



②The removal of oxygen atom causes change of ratio of titanium atom to oxygen atom. This change of ratio induces the color change of titanium dioxide from white to grey.

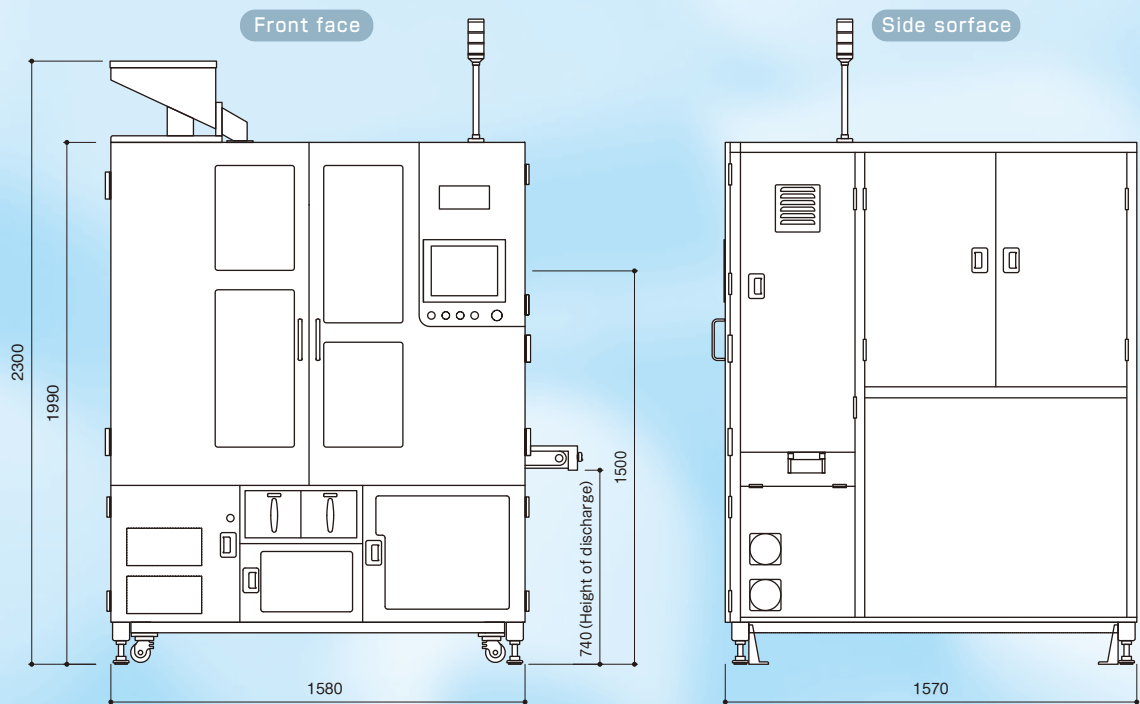
Other features

- Titanium dioxide is required on the surface film.
- Laser marking color is grey.
- Auto CAD software is attached to this equipment. Operation training may be conducted as option.

Specification

Name	UV Laser Imprinting Machine		
Model Number	LIS-250D		
Production capacity	250,000 tablets/hour		
Electricity	3phase 200V, 75A		
Compressed air	0.6 MPa 800 L/min (ANR)		
Vacuum	25.0 kPa 15.0 m³/min		
Installation environment	Temperature 20 ~ 27 °C		
	Humidity 30 ~ 55 %		
Overall dimension	Main Unit Width 1,580 × Depth 1,570 × Height 1,990 (excluding hopper) mm		
	Appearance inspection control unit	Width 1,500 × Depth 700 × Height 2,150 mm	
	Marking letter inspection control unit	Width 800 × Depth 700 × Height 2,150 mm	
Height of discharge	740 mm		
Weight	Main Unit 2,000 kg		
	Appearance inspection control unit	About 500 kg	
	Marking letter inspection control unit	About 250 kg	
	Chiller&UPS	About 320 kg	
Noise during operation	up to 80 db (A weighted sound pressure level)		

Overall size (LIS-250D) (mm)





GLOBAL NETWORK

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Use this equipment correctly.

Safety

Before use, be sure to confirm the contents described in the Instruction Manual attached to this equipment. Disassembly, repair, or deformation of this equipment is strictly prohibited.

Classification of laser products

This equipment falls under 'Class 1 laser product' of JIS and IEC standard.
(JIS C6802:2011, IEC 60825-1:2007)