Newly appeared **Micro stereo-lithography system**

ACCULAS

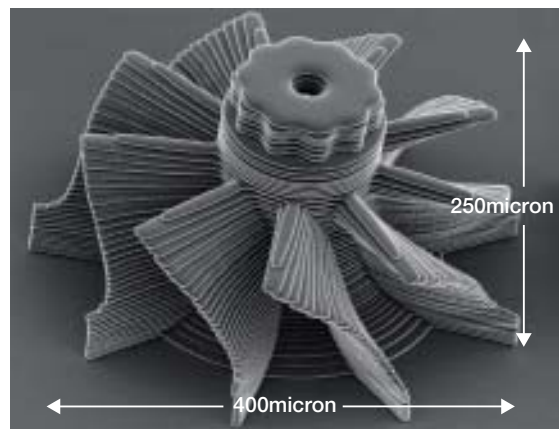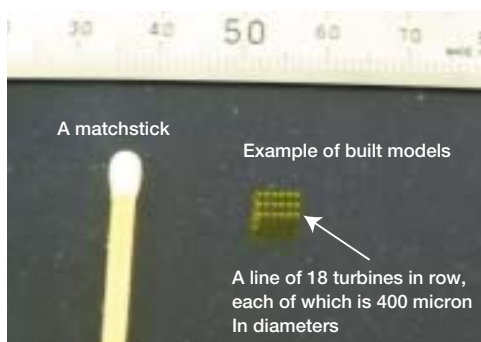*Completely new micro processing system has just completed.*

ACCULAS is simple to operate and can made structure automatically in short time.
3D micro structures can be built with the resolution level of 1 micron.
It is useful for trial production, development and manufacture of micro devices.

●**Example of molding**

A matchstick

Example of built models

A line of 18 turbines in row, each of which is 400 micron In diameters

250micron

400micron

Here is an SEM image of one turbine.
The total time required to build 18 turbines is one hour.

Manufacturer: **Laser Solutions Co.,Ltd.**

Keihan Bus Jujo Bldg., 5 Minami-Ishida-cho, Higashi-Kujo,
Minami-ku, Kyoto 601-8033
TEL（075）693-4666　FAX（075）693-4677
URL　http://www.laser-solutions.co.jp

Sales sole agency: **D-MEC**

Hamarikyu Park Side Place, Tsukiji 5-6-10, Chuou-ku, Tokyo 104-0045
TEL（03）5565-6661　FAX（03）5565-6642
URL　http://www.d-mec.co.jp　E-mail　acculas@d-mec.co.jp

ACCULAS superiority
compared with other micro processing technologies

- With three-dimensional CAD data, any three-dimensional microstructure can be produced in a singular attempt (there is no need for multi-stage processing)
- It does not require the massive monetary investment in equipment that LIGA and semiconductor processes
- Simple to operate and automated production
- Processing completed in short time (several minutes to a few hours)
- Production of high-aspect-ratio and thick-film microstructures possible
- Large reduction in development time
- Reduction of MEMS production costs made possible

Examples of using ACCULAS

- For MEMS research, to test applications during test stage
- For applying sacrificial layer for semiconductor process
- For making master production device for electroform coating, etc.
- As a device for injection molding, emboss processing
- As a device for producing the final product

●System specifications

Light source	LD (405 nm)
Image modulation	Digital mirror device
Exposure resolution	1μm [※1]
Molding range	150 × 150 × 50 mm
Maximum model size	50 mm square [※2]
Lamination layer pitch	5μm ∼ 10μm (Machine accuracy: 2μm)
Resin	Special high-resolution resin
Data interface	Dedicated I/F software "Viola" (plugged in Magics) [※3]
Power supply	100VAC, 2KVA
Outside dimensions (body)	1,000(W)×1,000(D)×1,700(H)mm (excluding Control PC)
Weight (body)	Approx. 600kg

※1 It is the optical resolution, which may not correspond to the resolution of the molded object depending on shapes of models.
※2 Sizes of models depend on capacity of physical memory of the PC.
※3 New direct interface has been developed.
   Magics is Matelialise's editing software.