Integrated vision system (mark verification)

Fume extraction system

Laser tunnel protection

Bar-code and DataMatrix reader

Motorized Z axis option

APPLICATIONS

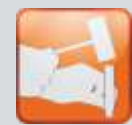Four marks simultaneously on connecting rod by 4 galvano-heads

Drawer for part loading and reading camera

MARKING SAMPLES

kuk A1105041
1137 – 1143

SIC Marking® ACTIVITIES

PERMANENT MARKING

CONVENTIONAL MARKING

DOT PEEN

SCRIBLING

LASER

INDUSTRIAL VISION

INDUSTRIAL VISION

TURNKEY SOLUTIONS

TURNKEY SOLUTIONS

PURSHOTAM

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Website :www. purshotam.com

LASER MARKING SYSTEMS

Laser RANGE

▶ **Workstation**
L - Box
XL - Box

▶ **Integrated**
i103 - L-G PC
i103 - L-G FU Advanced

PURSHOTAM

▶ Workstation
▶ Integrated
20W & 50W

Exclusive Distributors For India :
Purshotam Company Private Limited

Workstations - Using SIC Laser PC

L-Box

- Manual door
- Manual Z-Axis (motorized in option, up/down button)
- 100*100mm marking field (bigger as option)
- Rotary axis as option

XL-Box

- Automatic door (pneumatic)
- Motorized Z-Axis by up/down button)
- 170*170mm marking field
- Rotary axis as option

Integrated

I103-LG-PC

Software SIC LASER PC

- Requires PC for working
- No communication (RS 232 or ethetnet)
- Local variables available (increment, datecode, data from excel file on the computer)
- Cycle start controlled by operator on PC or Start pulse
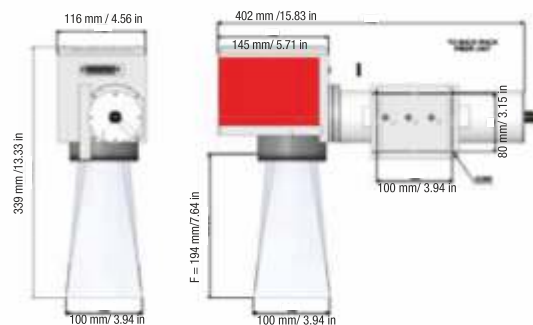- Rotary axis available (ec9 type)
- Using fiber unit controller

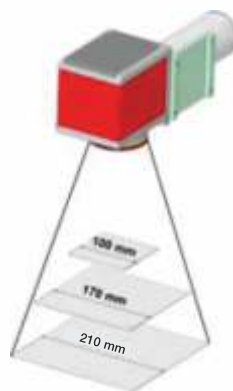## I103LG

Software SIC LASER ADVANCED

- PC used only to create marking files
- Communication RS232 or Ethernet (Telnet protocol)
- Cycle controlled by I/O (start pulse) or by protocol
- Using fiber unit controller

i103 L-G integration drawings Marking head

116 mm / 4.56 in   402 mm /15.83 in
145 mm/ 5.71 in
339 mm /13.33 in
F = 194 mm/7.64 in
80 mm/ 3.15 in
100 mm/ 3.94 in
100 mm/ 3.94 in   100 mm/ 3.94 in

Marking window

100 mm
170 mm
210 mm

Pyramid of marking fields

TECHNICAL FEATURES

	i103 L-G
Marking field	100 x 100 mm / 3.9 x 3.9 inches (up to 210 x 210 mm / 8.3 x 8.3 inches in option)
Weight	Fiber Unit : 19 kg / 42 lbs - Head : 5kg / 11 lbs
Power	750 Watt
Security	Class 4 laser (EN60825-1 standard) to secure

483 mm / 19 in
466 mm / 18.3 in
296 mm / 10.5 in
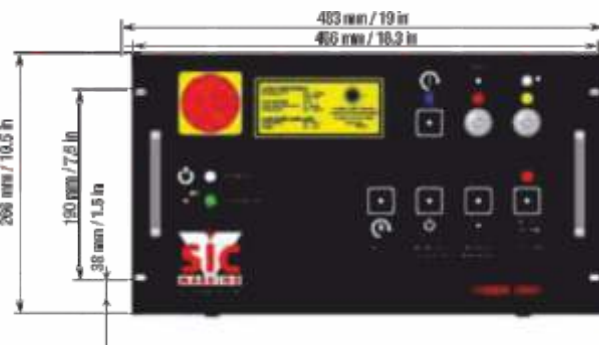190 mm/7.6 in
38 mm /1.5 in

Characteristics

Operation mode: Pulsed (20 to 500 KHz)
Wavelength: 1 064 nm
Average power: 10 W, 20 W or 50 W
Peak power: 10 kW
Laser tuning: Edge viewing of marking
Cooling: By air only
Warranty: 24 months (except for optics). Warranty extension up to 5 years available.

ADVANTAGES OF FIBER UNIT

Reliability and performances

Doped Ytterbium fiber laser source, diode pumped
3 axis control

Workstation

- Workstation L-Box and XL-Box are using Sic Laser PC software
- Based on I103LG-PC
- A housing is added for security

I103-LG-PC

+

Housing

L-Box

Communication

RS 232 / Ethernet interface: INIT function, file selection, variable assignment, Start/Stop function
Input / Output cycle management
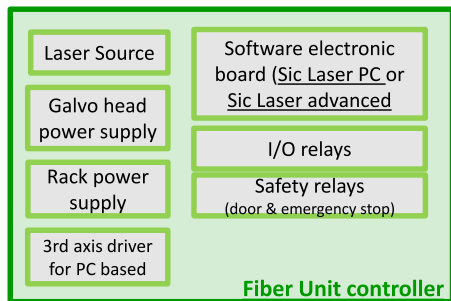Test COMMUNICATION software

Security

Integrated safety loop, for class 1 integration

Fiber unit controller

- Standard controller for both I103LG and I103LG-PC
- Includes safety relays (door and emergency stop)
- Key switch for safety
- 6U dimension for rack mounting

Laser Source	Software electronic board (Sic Laser PC or Sic Laser advanced)
Galvo head power supply	
Rack power supply	I/O relays
	Safety relays (door & emergency stop)
3rd axis driver for PC based	**Fiber Unit controller**

FILE CREATION MODE / SOFT TECHNICAL FEATURES

CONTROL WITH SIC LASER ADVANCED SOFTWARE

Functions	Creation and editing of marking files (drawing, text, bar code, Datamatrix, ...)
Laser tuning	Several pen settings (speed, power, frequency, ...)
Fonts	TrueType, 1D bar code and 2D code (Datamatrix)
Import fonction	Pictures (.bmp, .jpg), and vector files (.plt, .dxf, .ai)
Data Base	Link with external files (.txt, .xls)
Cylindrical parts	Rotary axis (optional)
In/Out	Integrated

File creation on PC

Entity or marking field creation : characters, logos, shapes, 1D or 2D coding
Font selection
Hatch configuration
Pen settings

Integrated - i103LG-PC

Computer

Fiber unit

PC based control

Integrated - i103LG

Computer

USB for setup no needed for production

Fiber unit

PLC

I/O and RS232 for production control

Internal memory