

Panasonic

LC 3000

WORKSTATION



LASER
MARKING SYSTEMS

LC 3000

Designed for small and individual series

The mobile and ergonomic workstation is a compact system to mark or process workpieces of individual series with a laser marking system. Besides the standard model, there are three further models and special solutions, offering the flexibility for customized integrations. Supplemented by a Panasonic fiber or CO₂ laser marking system, your applications will be marked with supreme precision. All model variations provide a laser safety cabin, protective features, jigs and mounting elements as well as an industry PD with pre-installed controller software for the workstation. The different Panasonic model variations ensure that the laser marking systems are suitable for large fields of application. Have a look at our model variations, the integrable laser marking systems and optional components and get an impression of the versatility of our workstation LC 3000.

- › Servo driven x-, y-, z-axis with the following traveling distances:
x-axis 500mm
y-axis 430mm
z-axis 350mm
- › Servo driven rotation axis
- › Servo driven rotary indexing table of ø 650mm
- › Various clamping units as required
- › Adaption to customer-specific systems

Model variations

Unique characteristics enable individual usage. Due to its many expansion capacities you can adjust this workstation to your requirements.



Standard with laser head in fixed position



X-y-z-axis shift



Rotary indexing table



**360° solution
Rotation axis**



Special solution

Model variant:

Standard with laser head in fixed position

The model variation with fixed laser head is made safe conforming to Laser class 1. Thanks to the laser safety door with optical window, staff can insert the workpieces for laser marking with accuracy, but without risk to themselves. The

T-bolts on the grooved plate fix the workpiece in the desired position. This way, exact markings of the workpieces at identical positions are reproducible without problems.

Properties

- › Semi-automatic laser safety cabin
- › Servo driven laser safety cabin with optical window
- › Equipment for internal extraction unit LFE-270
- › Grooved plates with T-bolts
- › Interior LED lights

Advantages

- › User-friendly software
- › Exact markings
- › Easy installation



Model variant:**X-y-z-axis shift**

The workstation LC 3000 with its controllable laser head in x- and z-direction and positioning of the workpiece in y-direction offers supreme flexibility during the marking of parts with different dimensions. The easy-to-use, customizable software can be used to control all axes and numerous

different functions. All settings can be saved, and multiple components in the working area can be marked in a single pass.

Properties

- › Shifting the laser head in x- and z-direction
- › Servo driven axis control
- › Mobile perforated plate on y-axis (standard)
- › Z-axis (spindle axis)
- › X-axis (linear axis)

Advantages

- › Flexible marking
- › Different part sizes and heights
- › Shift on all three axes or single axis
- › Step & repeat

Model variant:

Rotary indexing table



The rotary indexing table rotates 180 degrees in one direction to allow simultaneous mounting of new workpieces even as workpiece marking is proceeding on the other side. This saves time and ensures high productivity. To ensure operator

safety during workpiece setup, a laser safety glass separator and a safety light curtain are installed in the housing between the setup area and the marking range.

Properties

- › Servo driven rotary indexing table: \varnothing 650mm
- › Passage height: 170mm
- › Simultaneous mounting and marking
- › Safety light curtain for operator

Advantages

- › Saving of time
- › High productivity
- › High safety



Model variant:**360° rotation axis**

With the model variation with 360° rotation axis, the workpieces can be fixed with a three-jaw chuck. The workpiece can be rotated around its own axis and marked circumferentially. This way you can produce lines or grooves on the workpiece. The rotation axis and the workpiece are driven by a servo

motor performing an exact movement of the workpiece underneath the laser marking system and ensuring a precise all-round laser marking or processing.

Properties

- › High positioning accuracy
- › Three-jaw chuck
- › Workpiece can be rotated about its own axis and marked circumferentially

Advantages

- › Exactly fixed workpiece positioning
- › Easy workpiece insertion
- › 360° circumferential marking

Model variant:**Special solutions**

- › Integration in production line
- › Semi-automatic or full-automatic marking applications



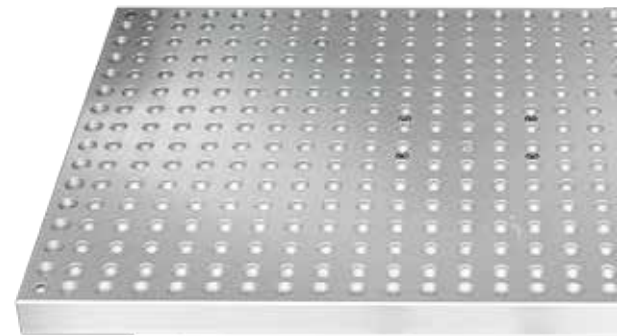
Equipment

For all model variations:

- › Laser class 1
- › Mobile laser safety cabin
- › Servo driven cabin safety door
- › Industrial computer with Windows 7 Professional and laser software: FontMaker, LaserMarkerNAVI plus, Logo Data Conversion and Logo Data Editing
- › Weight depends on model: max. 450kg
- › Grooved plate
- › Connector 400V/16A CEE male (5 pins)
- › Interior LED lights
- › Integrated PLC
- › Optical window with laser protective glass (280mm x 200mm)
- › No water / air supply
- › Electronic AC power connector required
- › Safety features

Optional accessory:

- › Servo driven axis:
X-axis 500mm, y-axis 430mm, z-axis 360mm
- › Perforated plate (on x-y-z standard model)
- › Interface
- › Remote maintenance
- › Internal or external extraction unit
- › 2D code reader



Perforated plate for different clamping units

Extraction unit

The LFE-270 fits perfectly into the Panasonic workstation so that hazardous materials can be removed directly at the source.

- › Volume flow rate: 190m³/h
- › Nominal volume flow rate: 80m³/h at 1,900Pa
- › Prefilter LFE-270-Z
- › Main filter LFE-270-ACD
- › Noise level: 64dB (A)



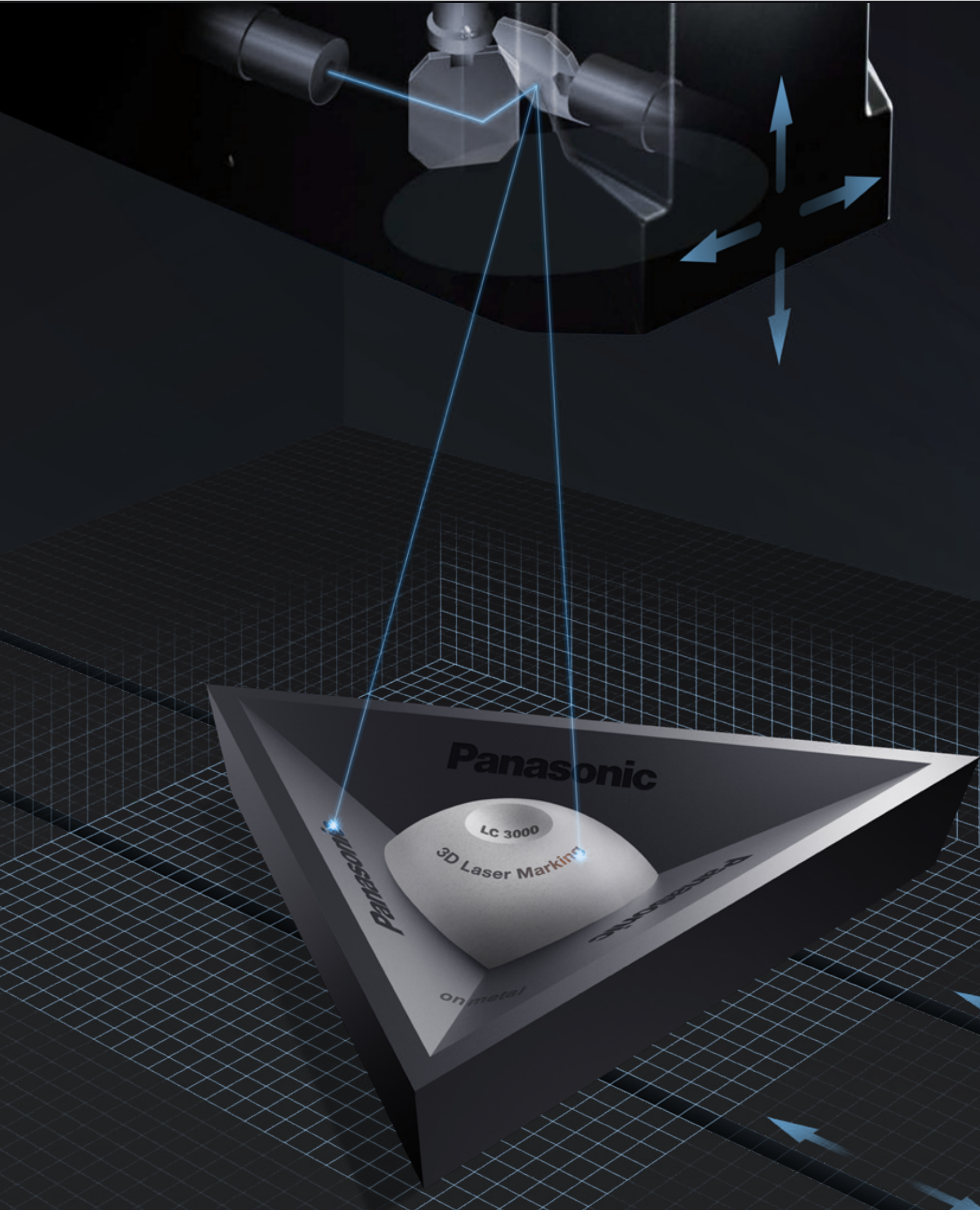
LFE-270

2D code reader

- › Illumination
- › High resolution
- › Image processing

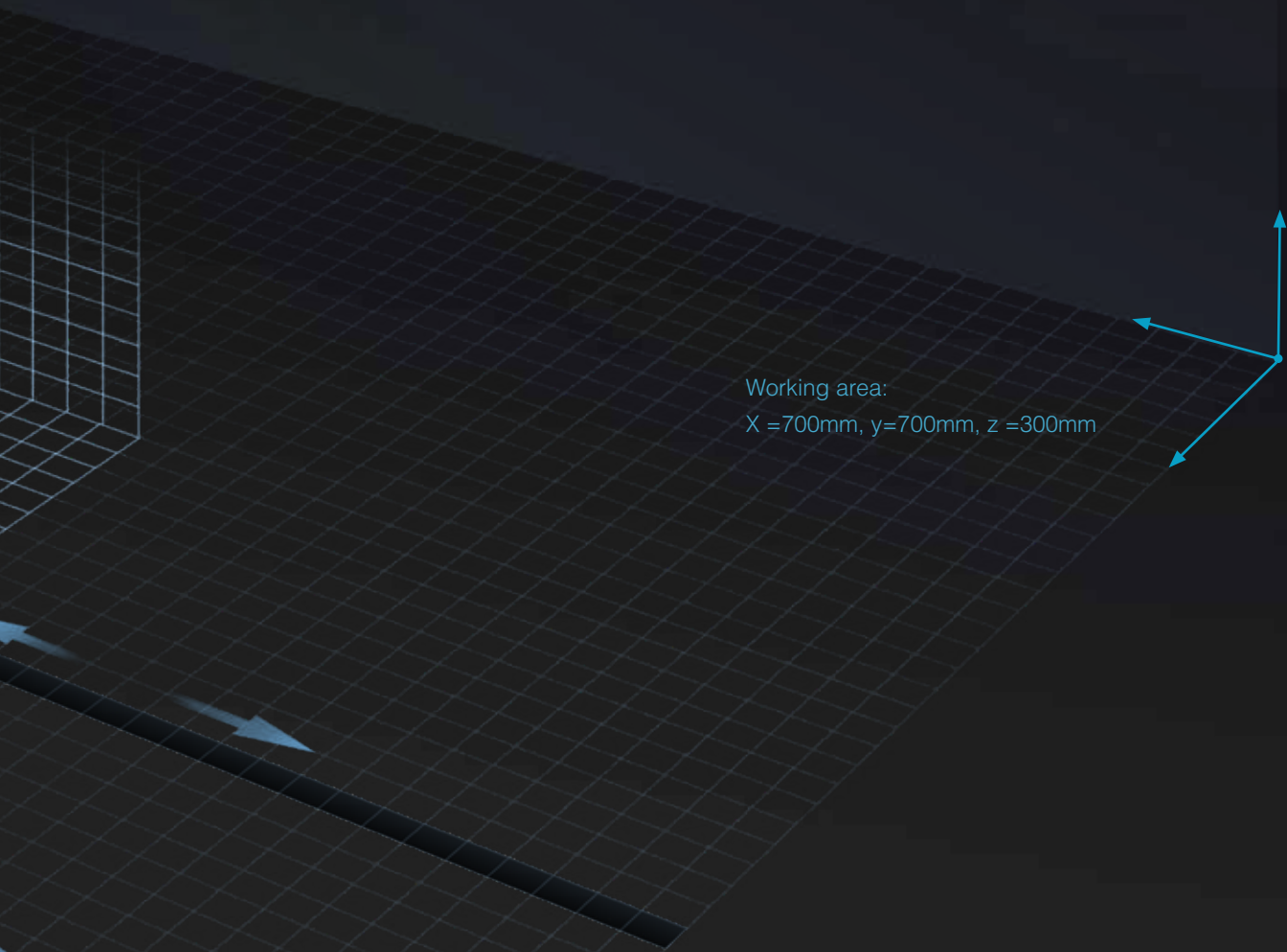


LP-ABR-10



Laser marking – Applications

The LC 3000 workstation offers maximum flexibility when marking components with different dimensions across a large marking field. The easy-to-use, customizable software can be used to control all axes and numerous different LC 3000 functions. All settings can be saved, and multiple workpieces can be marked in a single pass. The various models are suitable for every industry, and can solve the different marking tasks.





The integrable laser marking systems

The whole laser marking system is integrated into the protective enclosure. As usual with Panasonic products, laser systems are selected depending on the specific application. This is why we attach great importance to the integrability of every Panasonic fiber laser (FAYb) and CO₂ laser into the workstations. This way, it is possible to mark different materials and geometrical forms with the workstation LC 3000.

The combination of the laser protective enclosure (4-axis path control) and the Panasonic 3D laser marking system makes it possible to realize most complex marking tasks.

LP-V

- › 2D marking
- › Resin, metal
- › 12W fiber laser



LP-Z

- › 3D marking
- › Resin, metal
- › 13W, 15W, 30W fiber laser



LP-S

- › 2D marking
- › Metal
- › 20W, 50W fiber laser



LP-M

- › 3D marking
- › Metal
- › 20W, 50W fiber laser



LP-400

- › High-speed marking
- › Resin, organic materials
- › 10W, 20W, 30W CO₂ laser

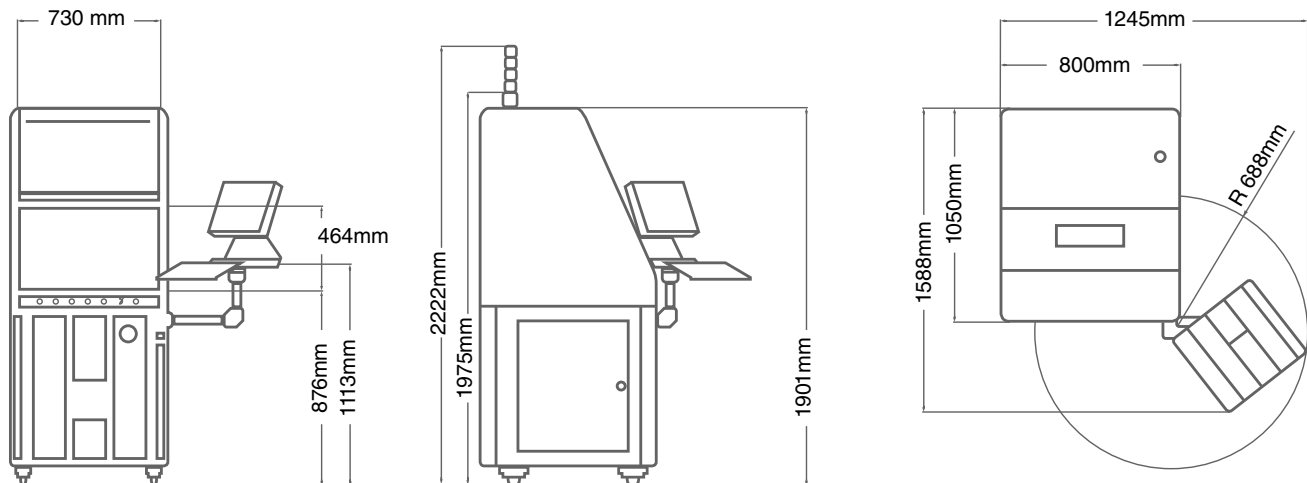


LP-GS

- › Height adjustment of z-axis
- › Plastic
- › 6W CO₂ laser



Dimensions



Thanks to its intelligent design, the enclosure is highly flexible. With its width of 800mm and height of 1901mm, as well as its swivel arm, it fits perfectly through standard commercial doors. The cabin's safety door is powered by electricity

- no compressed air is required. The large safety door is easy to use and facilitates the operator's access for loading workpieces into the LC 3000.

Highlights

- › Servo motor for exact control
- › No edges in the loading area
- › Safety light curtain & safety features
- › Immediate operation possible





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