

Workstation



LC 3000
for Laser Markings
Systems

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, as well as an industry PC 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.

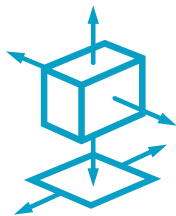
- › Servo driven x-, y-, z-axis with the following traveling distances:
 - X-axis 500mm
 - Y-axis 430mm
 - Z-axis 350mm
- › Servo driven rotation axis
- › Servo driven rotary indexing table of \varnothing 650mm
- › Various clamping units as required
- › Adaption to customer-specific systems

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 T-bolts on the grooved plate, the workpieces, with a suitable holder, can be fixed exactly at the desired marking 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 door with optical window
- › Equipment for internal extraction unit LFE-275 or external extraction unit
- › 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 offers supreme flexibility during the marking of parts with different dimensions. This is realized by a laser head movable in x- and z-direction and the positioning of the perforated plate in y-direction.

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 step.

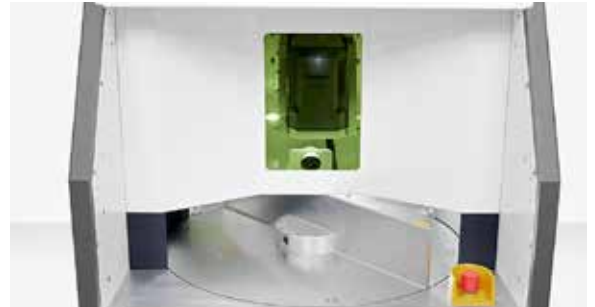
Properties

- › 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 workpiece sizes and heights
- › Shift on all three axes or single axis
- › Batch marking

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 secure 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. A circumferential marking of text or graphic elements is possible by splitting it into several marking steps.

Since the rotation axis and the clamped workpiece are driven by a servo motor performing an exact movement of the workpiece underneath the laser marking system, a precise all-round laser marking or processing is ensured.

Properties

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

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
- › Database connection



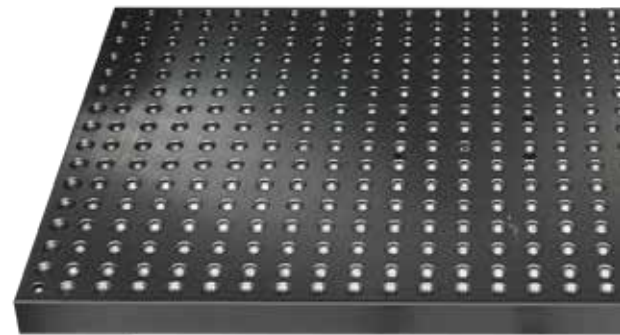
Equipment

For all model variations:

- › Laser class 1
- › Mobile laser safety cabin
- › Servo driven cabin safety door
- › Industrial computer with Windows 10 and laser software: Font Maker, Laser Marker NAVI plus, Logo Data Conversion and Logo Data Editing
- › Weight depends on model: max. 450kg
- › Grooved plate
- › Connector 400V/16A CEE male
- › Interior LED lights
- › Integrated PLC
- › Optical window with laser protective glass (280mm x 200mm)
- › No water / air supply necessary
- › Safety features

Optional accessory:

- › Servo driven axis:
Max. x-axis 500mm, y-axis 430mm, z-axis 350mm
– depending on the laser series
- › Perforated plate (on x-y-z- and x-y-model standard)
- › Interface
- › Remote maintenance
- › Internal or external extraction unit
- › 2D code reader



Perforated plate for different clamping units with indexing

Extraction unit

(for all model variations)

The LFE-275 fits perfectly into the Panasonic workstation so that hazardous materials can be removed directly at the source.

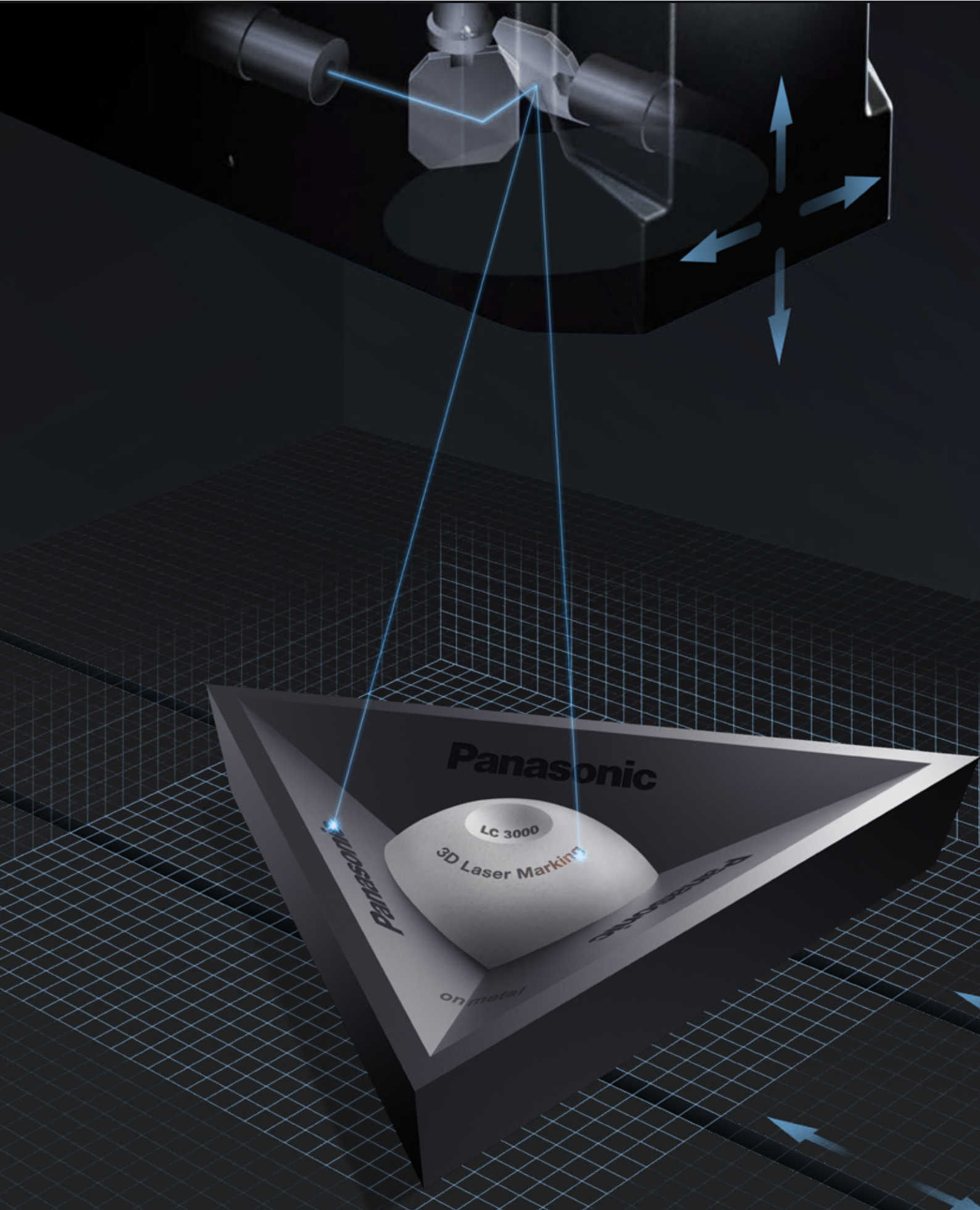
- › Volume flow rate: 190m³/h
- › Nominal volume flow rate: 80m³/h at 1,900Pa
- › Including activated carbon filter
- › Noise level: 64dB (A)

Note: Please change the filter regularly

Optional extraction unit

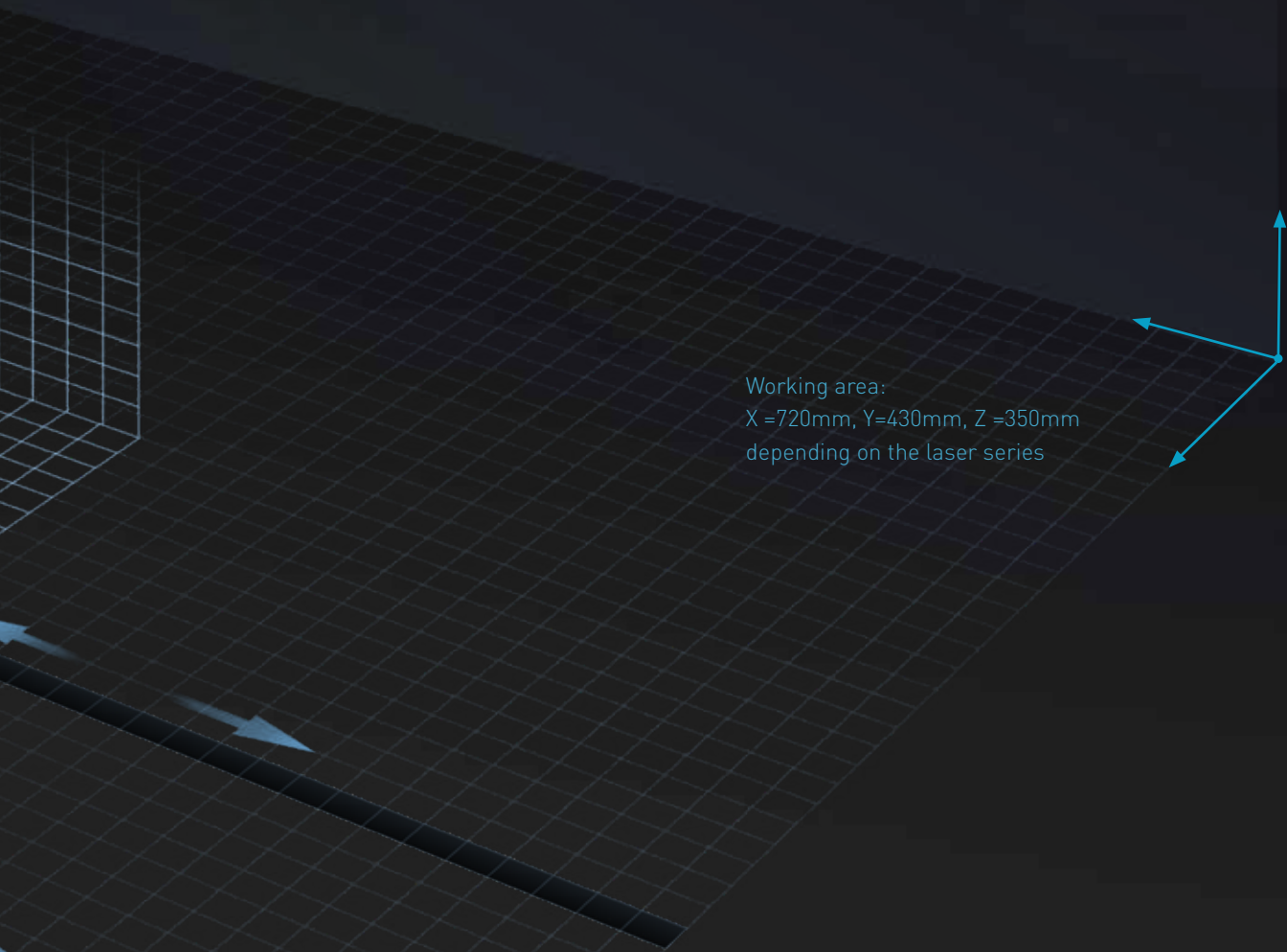
External Extraction Unit

- › LFE-300
- › LFE-280



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 integratability 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-RV

- › 2D marking of extra small characters
- › Resin
- › 20W short pulse fiber laser



LP-RF

- › 2D marking
- › Resin, metal
- › 20W fiber laser



LP-Z

- › 3D marking
- › Resin, metal
- › 13W, 25W 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

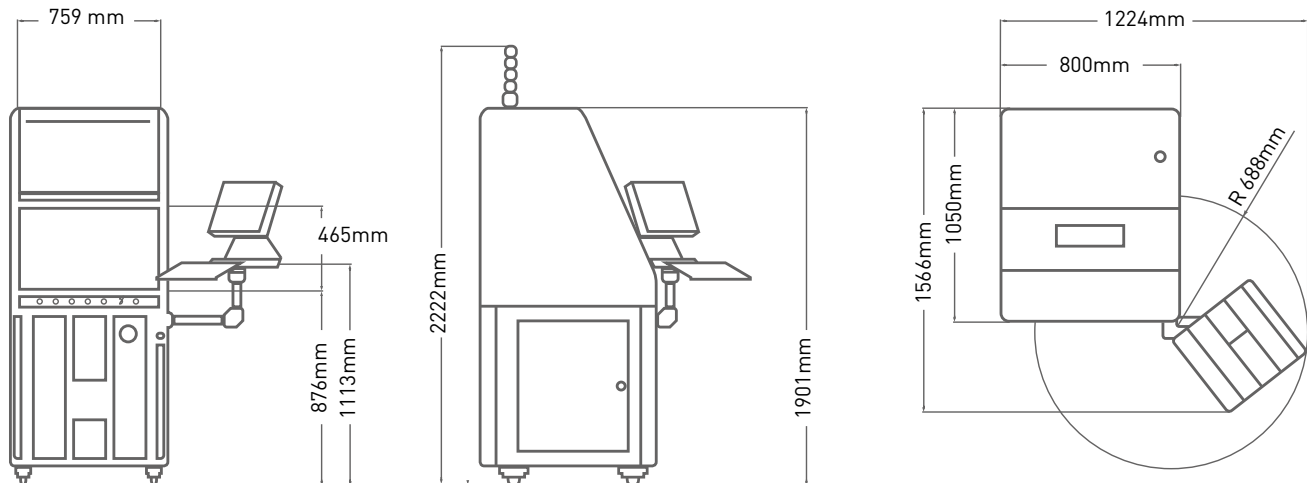


LP-GS

- › 2D marking of small characters
- › 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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