

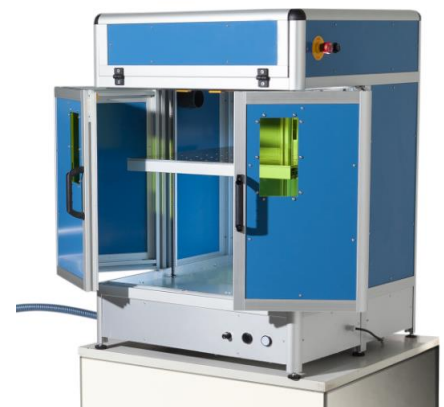
**Technical data and additional information to the  
mobil-mark® Laser-Marking-System QUASAR 20/30/60 Watt**



The mobil-mark® QUASAR is a MOPA Fiber Laser with approved and patented safety system with **laser class 1**. This QUASAR is available with output power of 20, 30 and 60 Watt. Due to its adjustable frequency range of 1kHz to 400kHz it is suitable for many different applications and materials. Whether metal, plastics or ceramics, whether annealing marking or deep engraving - the QUASAR always is the right laser marking system. The QUASAR is fully equipped. The laser marking software can directly be used with screen and USB keyboard. Dust and gases are removed to an activated carbon and fine filter.

**Accessories:**

For labeling small parts, the head of the laser can be placed on a **laser safety enclosure**. The laser safety enclosure with security equipment for laser class 1 is offered with positioning laser, focus pointer and connection option for external extraction.



As an alternative to manual positioning, our electric **vertical stand** can be used with mechanical quick adjustment. This then serves as a guide for the laser handpiece for positionally accurate exposure or for locking the laser in difficult labeling tasks.

In addition, we offer an **Exhausting- and Filter-System** for additional extraction of toxic dusts and gases, especially when processing chromium-nickel stainless steels.

To improve the corrosion resistance of laser engraving, especially in alloyed steels, the laser can be supplied with a protective gas (for example nitrogen) via a **protective gas equipment with process control**. The label was tested and released in the salt spray test for 144 hours.

## Technical Data

### 1. Complete System

Operating temperature:	15 °C to 35 °C
Humidity :	10 % to 80 % none condensing
Protection class:	IP 40
Laser class:	1 (at specified normal operation)
Voltage supply:	230 V AC 50/60 Hz
Power requirement:	250 W



### 1.1 Supply Unit

Power supply:	230 V AC 50/60 Hz for main operation
Controller PC:	with laser marking software
Program-memory:	for up to 254 program files (using job selection on device)
Safety control:	to control safety features
Cooling device	
Interfaces:	1x USB 1xVGA LAN (e.g. for Remote Desktop Control) External operation and safety control

### Dimensions and weight:

Required space:	520 mm x 430 mm
Height:	950 mm
Weight:	40 kg

Noise level:	65 dB
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### 1.2 Connecting Tube

Length:	2,7 m (optional 4,7 m)
Oute diameter:	50 mm
Bending radius, minimal:	250 mm

### 1.3. Manual Laser Head

Weight:	2,5 kg
Space needed:	approx. 320 mm x 160 mm
Height:	approx. 170 mm



### MOPA Fiber Laser

Output:	20 / 30 / 60 Watt
Laser wavelength:	1064 nm
Pulse rate range:	1 – 400kHz
Full power frequency range:	30 – 400kHz
Maximum pulse energy:	0,6mJ / 0,8mJ / 1,2mJ
Pulse width:	200 ns (fix)
Laser power pulse peaks:	ca. 30 kW / 40kW / 60kW
Laser focus diameter:	ca. 20 µm (Optik f=80mm)
Marking speed:	maximum 5000 mm/s

### mobil-mark® Standard Lenses

Focal length 63 mm	Marking safety enclosure:	70x35 mm
Focal length 80 mm	Marking safety enclosure:	80x40 mm
Focal length 100 mm:	Marking safety enclosure:	100x80mm
Focal length 160 mm:	Marking safety enclosure:	120x100mm
Focal length 254 mm:		150x130mm **
Focal length 580 mm:		400x380mm **

\*\* only in conjunction with the laser safety enclosure