



FD 50C Series Enclosed Type Fiber Laser Marking Cutting Machine

| Laser System | FD-20 | FD-30 | FD-50 |
|---------------------------------|---|------------|------------|
| Laser Source | 1064nm Q-switched Fiber Laser | | |
| Nominal Laser Power | 20W | 30W | 50W |
| Beam Quality M ² | <1.8 | <1.8 | <2.0 |
| Beam Diameter | 6-9mm | 6-9mm | 6-9mm |
| Pulse Width | 90~110ns | 90~110ns | 80~110ns |
| Frequency | 30-60KHz | 30-60KHz | 50-80KHz |
| Pulse per Eenergy | 0.67mj | 1mj | 1mj |
| Peak Power | 7.4KW | 11KW | 12.5KW |
| Long-term Power Instability | 5% | 5% | 5% |
| Cooling System | Air Cooled | Air Cooled | Air Cooled |
| Aiming Diode | Intergrated Visible Red Laser Diode, λ=635nm, 10-50mW | | |
| Laser Protection Class | I | I | I |
| General Information | | | |
| Resonator Weight | 8KG | | |
| Rack Weight | 50KG | | |
| Rack Dimensions | L768mm*W430mm*H744.9mm | | |
| Machine Weight | N.W.:74KG; G.W.: 98KG | | |
| Packing Dimention (Wooden Case) | 88*55*96CM | | |
| Electrical Connection Values | 115V-230VAC 50-60Hz | | |

| | | | |
|--------------------------------|--|-----------|-----------|
| Operating Temperature | +10 to +35 °C (46 to 95°F) | | |
| Humidity | < 90% non-condensing | | |
| Scan Head | | | |
| F-Theta Lens | FL 100 (Standard) | FL 160 | FL 210 |
| Marking Area | 70*70mm | 100*100mm | 150*150mm |
| Spot Size in Focus | 0.15mm | | |
| Min. Line Width | 0.01mm | | |
| Min. Character | 0.15mm | | |
| Working Distance (to Lens) | 112±1mm | 180±2mm | 232±2mm |
| Scan Speed | Up to 5000 mm/s (Optional: 8000mm/s) | | |
| Communication Interface | | | |
| PC Interface | USB 2.0 | | |
| Digital Output | Ready, Busy, Marking Finish, Alarm + User Definition | | |
| Digital Input | System Start, Start-/Stop Marking, Shutter (Optional) + User Defined | | |
| Marking Software | EZCAD | | |
| Marking Software | | | |
| Min. Hardware Requirements | 1GHz or equal, USB 2.0 | | |
| Operating System | Windows XP, Win 7, Win 8, Win 10 | | |
| Min. Memory | RAM as recommended by OS, 100MB on HDD for Marking Software | | |
| Display | SVGA Color | | |
| Text | | | |
| Fonts | True-Type (filled/unfilled), Single-Line Fonts | | |
| Orientation | User Defined | | |
| Letter Spacing | User Defined | | |
| Arc Text | Scalable and adjustable | | |
| Graphic | | | |
| Elements | Line, Rectangle, Circle, Ellipse (filled/ unfilled) | | |
| Formats | Vector: *.plt, *.dxf, *.ai, *.svg; BMP: *.bmp, *.jpg, *.jpeg, *.gif, *.png; | | |

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|----------------|--|
| Options | |
| | Wide Range of Laser Workstations / Work Area Enclosures |
| | Rotary-Axis (up to 3 with standard controller) |
| | Externally-Mounted Focus-finder Diode |
| | Vacuum System |
| | Remote Operation Via Optional External Command Box (e.g. Start, Stop, etc) |

Cutting Sample



