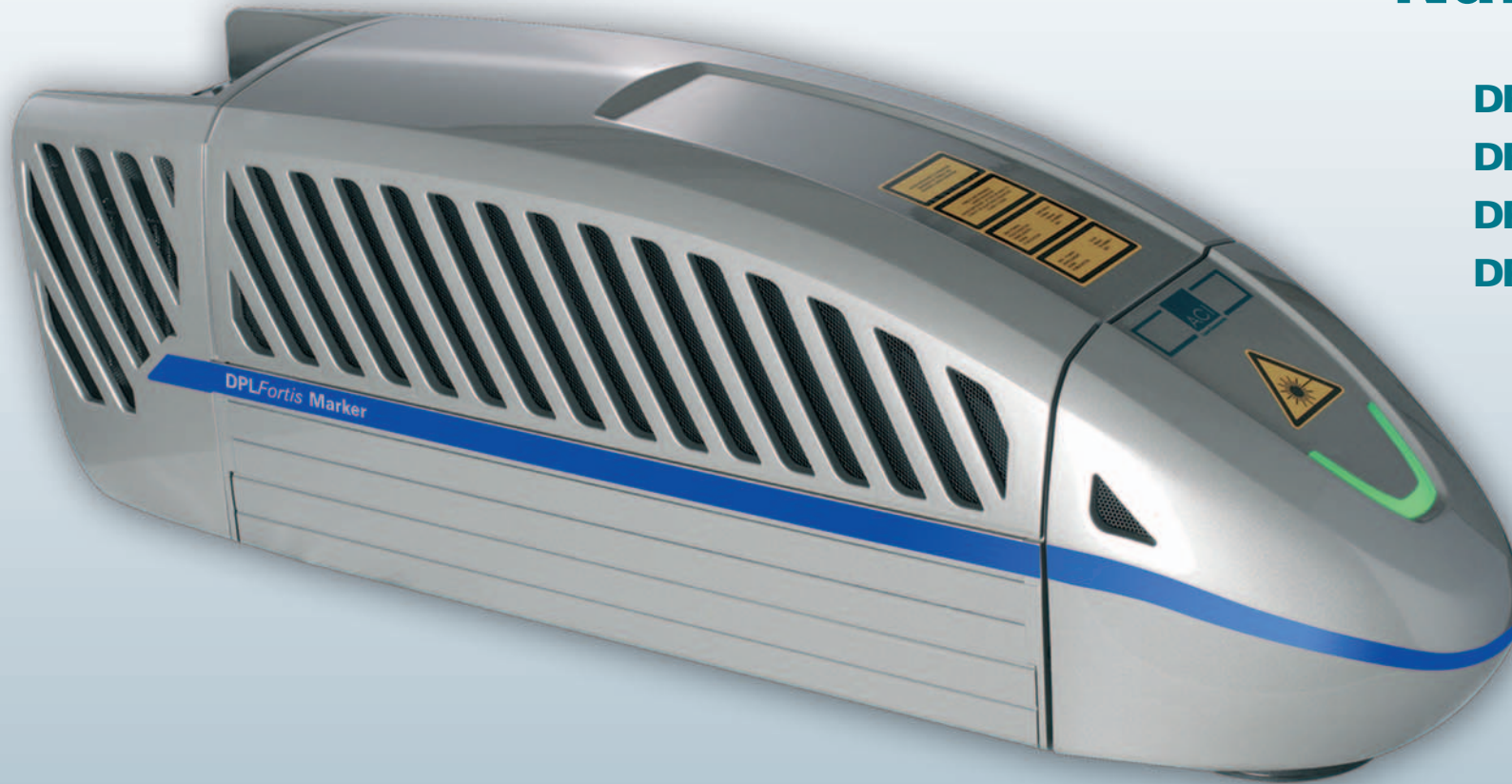


Nd:YAG Laser



DPL*Magic* Marker 5W

DPL*Genesis* Marker 8W

DPL*Nexus* Marker 12W

DPL*Fortis* Marker 18W

ACI Laser GmbH has created and developed the laser systems to comply with important market demands. Now, the integration of all optical, electronic and mechanical components in one encasement is the result. Alternative solutions for water cooling, fibre optical connections and

costly electrical supply units developed by ACI make laser marking more efficient and affordable. The integrated thermoelectrical cooling system allows the solid-state laser a steady operation and reduces costs, space and maintenance. This consequent development results in an

enormous reduction of operation costs. The family of ACI solid-state laser systems is available in the power range of 5W to 18W and is suitable for the most applications of marking of plastic up to deep engraving of metals.

Technical Data Nd:YAG Laser

Laser unit	Diode-pumped, active quality-switched solid-state laser (Nd:YAG) Integrated pilot laser: 650 nm/1 mW			System requirements	IBM-compatible PC, Pentium 4, > 2 GHz, Main memory: 512 MB Operating system: WINDOWS 2000/XP Drives: hard disk drive, CD-Rom PC-interfaces: USB 2.0
Wave length	1064 nm			Interfaces laser system	PC-interface: · USB 2.0 Laser control interface for: · Ready for operation or fault signals · External Shutter-Interlock · External Shutter warning light · 8 digital input interfaces · 8 digital output interfaces · Differential input for „marking on the fly“ ⁽²⁾ Power supply: · standard appliance outlet with microfuse
Pumping principle	longitudinal				
Laser power	5 W DPL <i>Magic</i> Marker 8 W DPL <i>Genesis</i> Marker 12 W DPL <i>Nexus</i> Marker 18 W DPL <i>Fortis</i> Marker				
Pulse length	15 – 30 nsec (dependent on system and frequency)				
Peak pulse power (max.)	140 kW (dependent on system and frequency)			Power supply and consumption	Connection parameter: 100-240 VAC / 16 A / 50-60 Hz Power consumption (typ.): DPL <i>Magic</i> Marker 150 W DPL <i>Genesis</i> Marker 200 W DPL <i>Nexus</i> Marker 250 W DPL <i>Fortis</i> Marker 300 W Cooling: Only air-cooled, no water supply required
Beam quality	TEM ₀₀ , M ² < 1,4 (DPL <i>Magic</i> Marker, DPL <i>Genesis</i> Marker) TEM ₀₀ , M ² < 1,8 (DPL <i>Nexus</i> Marker, DPL <i>Fortis</i> Marker)				
Puls frequency	1 – 100 kHz			Operation temperature	15 °C – 35 °C [59 °F – 95 °F]
Laser protective class	4, optional laser protective class 1			Humidity (relative)	30 % - 85 %, non-condensing
Control unit	<ul style="list-style-type: none"> · Integrated control unit in the laser source · Power supply module · Multi-processor system for system control and data processing · Integrated laser diode driver and TE-controller · Integrated scanner control · Integrated HF-driver · Connection of all components via a bus system 			Weight	20 kg
Scan unit	Galvanometric scanner: FireScan® Scanning speed < 20 m/sec Focal lens: optional			Dimensions	Laser source incl. scanner (L x W x H): 740 mm x 201 mm x 233 mm
Spot diameter ⁽¹⁾	F-Theta 100 25	F-Theta 163 35	F-Theta 254 50 [µm]	Options	Hardware: · div. laser protective encasement, rotary indexing table, x-y-z axes, foillabelsystem, exhaust, laser protective accessories, Further options and special solutions on request. Software: · „Marking on the fly“ DMC and EAN decoding software module
Size of marking field	60 x 60	110 x 110	180 x 180 [mm x mm]		
Supply unit	Laser source with integrated control unit, An external supply unit is not required				
Cooling	Laser source with integrated thermoelectric air cooling External cooling supply is not required				

(1) Spot diameter at the work piece. Deviations because different materials are possible. (2) Optional

