

MICRO-Series Laser heads

Description

MICRO-Series OEM laser heads are ultra-compact pulsed flashlamp-pumped solid-state laser cavities, especially designed for applications where compact laser packing is the strongest requirement. For example they may be used in hand-held aesthetic lasers (see below).

To make this laser simultaneously compact and well-working several know-how technologies were applied.

Despite of little dimensions and small weight any MICRO-Series OEM laser head is IV-class laser. Max. output energies are 1.5J/pulse for Er:YAG, 15J/pulse for Nd:YAG, 10J/train pulse for Nd:YAP Q-Sw etc.

Features

- Ultra-compact design, small weight
- Highest power and stability in the smallest volume
- Wide range of wavelengths
- Q-Switched modifications
- Economic solution

Specification

Laser rod	
Min. / max. diameter	3 / 6.35 mm
Length	120 mm
Flashlamps	
Medium / Pressure / Type / Glass type	Xe / 1 bar / pulsed / Ce-doped quartz
Inner diameter / Outer diameter	5 mm / 6 mm
Arc length / Full length / Connectors	~76 mm (3 inch) / 198 mm / dia. 4.75 x 13 mm
Max. input power	1500 W
Reflector	
Material / Reflectance	BaSO4 + flowtube/Al ₂ O ₃ ceramics/diffused
Length / Cross-section / Wall thickness	90 mm / 188 mm ² / more than 3 mm
Cooling	
Medium	water
Min. flow / Recommended	4.0 / 6.0 lpm
Max. pressure	2 bar
Dimensions	See drawings
Weight	490 g

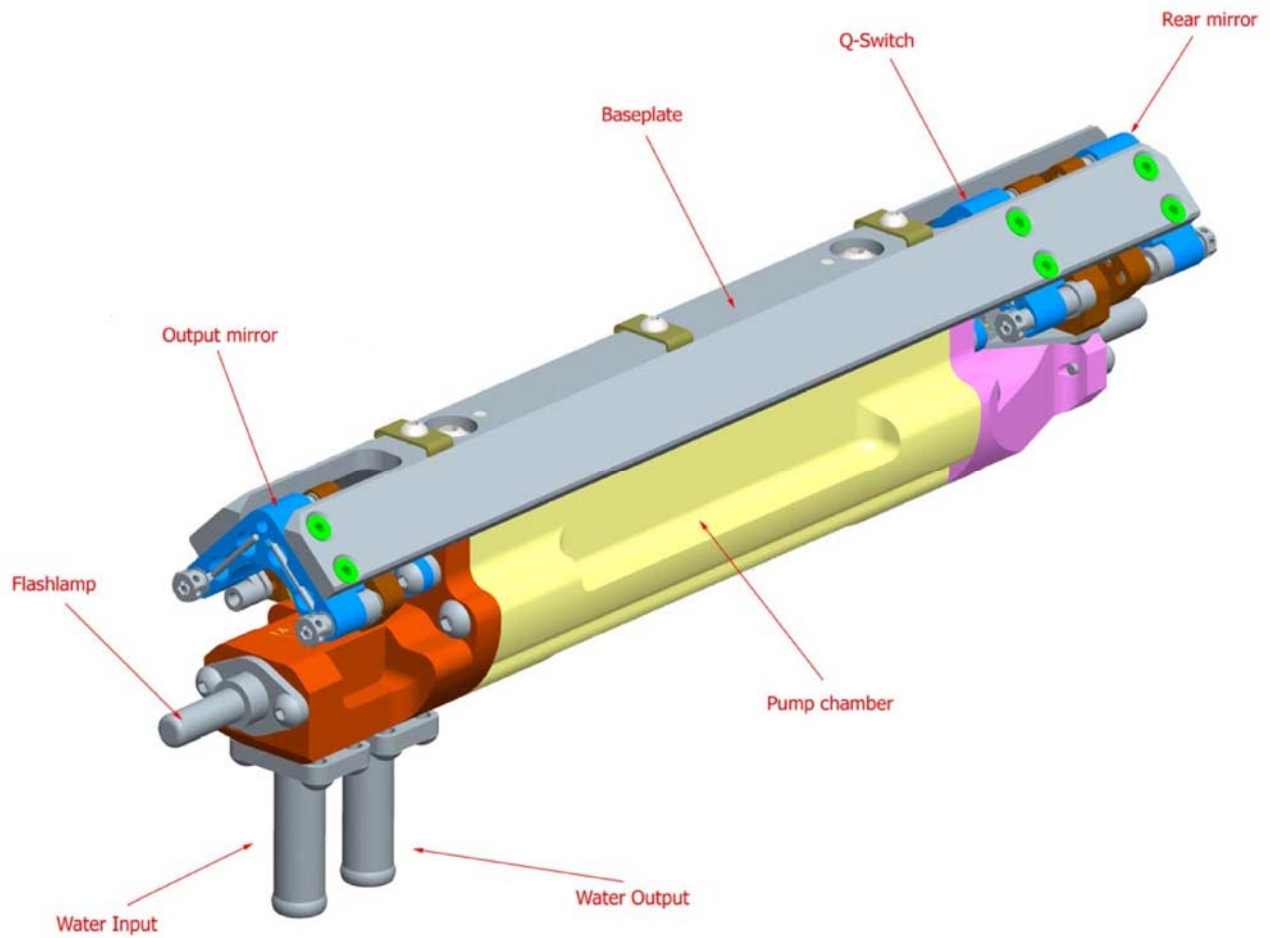
Wavelengths available*

Name	MICRO-1064	MICRO-1079-QSW	MICRO-1320	MICRO-2940
Laser rods	Nd:YAG	Nd:YAP	Nd:YAG	Er:YAG
Wavelength	1064 nm	1079 nm	1320 nm	2940 nm
Pulsing mode	Long pulse	Q-Switching	Long pulse	Long pulse
Pulse duration	0.1-5 ms	0.1-5 ms (train of pulses)	0.1-5 ms	0.1-1 ms
Max. pulse energy	15 J	10 J (train of pulses)	10 J	1.5 J
Max. rep. rate (at max. energy**)	2	2	2	5

* Alexandrite lasers MICRO-755 and MICRO-755-QSW are available on request

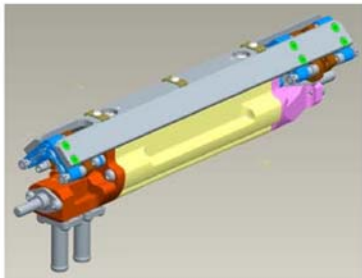
** Max. repetition rate increases with pulse energy decreasing

Schematics



Mounting notes: Pump chamber is supporting frame, baseplate should be stressless

Possible application – aesthetic laser device



Drawings

