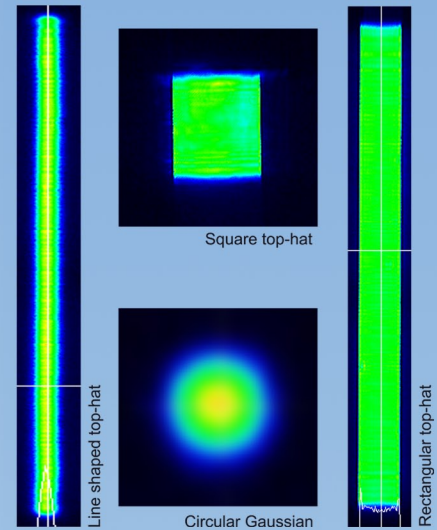
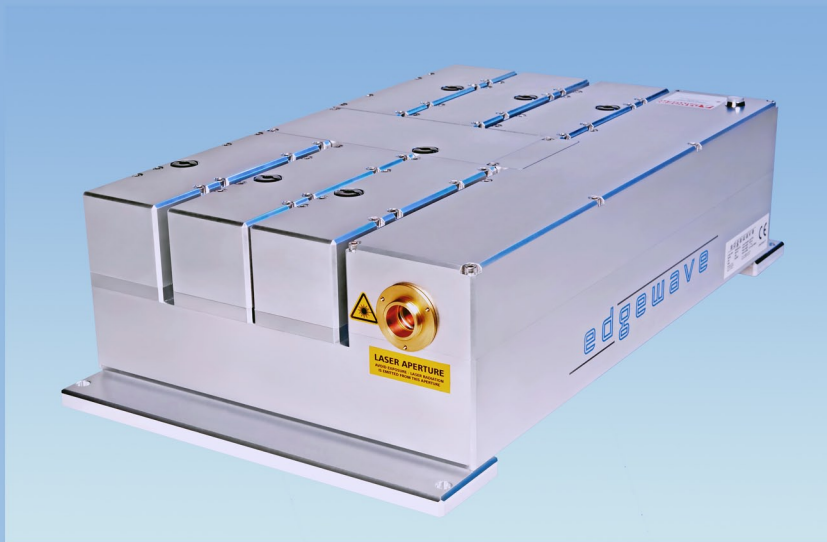


High Power and high Pulse Energy InnoSlab Lasers with Profiles HD-Series

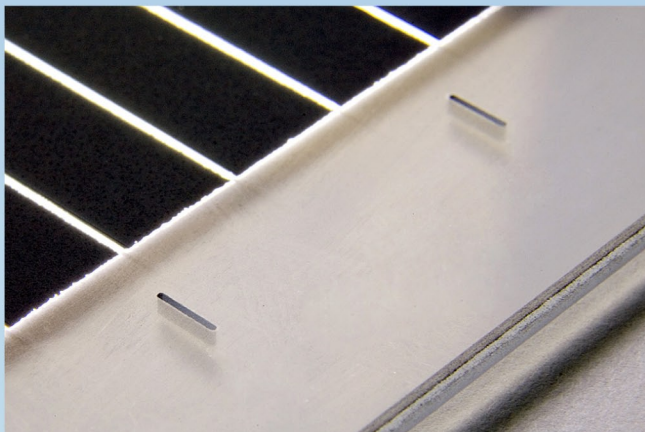


Favourable applications

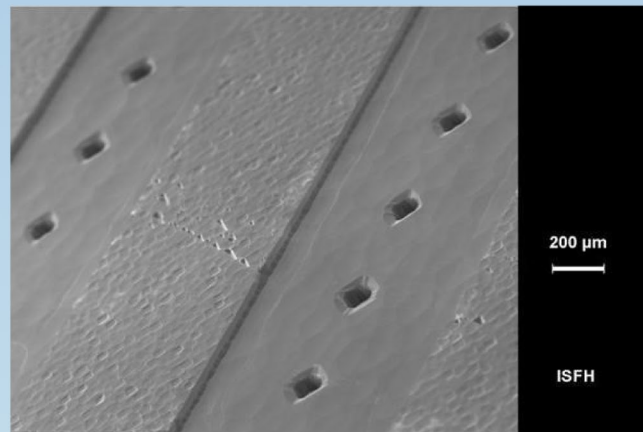
- edge deletion in thin film solar
- ablation and structuring of thin metallic and dielectric layers
- annealing and sequential lateral crystallization of Si
- drilling and cutting of Si-wafer
- pumping of dye laser, pumping of OPO and Ti:Sapphire laser
- laser induced fluorescence (LIF)

Advantages

- high beam quality: large working distance, high flexibility in system configuration
- short pulse length and high peak power: high controllability and low thermal influence
- tailored beam profile: enhanced overlapping and processing efficiency
- high repetition rate and high average power: high productivity and lower cost of ownership
- high pulse energy and high peak power: efficient frequency conversion



Scribing and edge deletion with top-hat beam and glass milling with Gaussian beam



Structuring dielectric coating in Si-solar wafer with square Top-Hat

Overview of HD-Series

Model	HDxxx-1	HDxxx-2	HDxxx-3	HDxxx-4
Wavelength [nm]	IR	Green	UV	DUV
Highest beam quality M ²	1.5	1.5	1.7	2
Max. average power [W]	600	200	60	20
Max. repetition rate [kHz]	150	150	15	15
Max. pulse energy [mJ]	60	30	12	7
Min. Pulse width [ns]	6	5	6	5
Energy stability [%] rms	1	2	3	4
Timing stability [ns]	5	5	5	5
Polarisation	> 100:1	> 100:1	> 100:1	> 100:1
Beam ellipticity (far field) [%]	< 10	< 10	< 10	< 10
Diameter at window [mm]	3	3	3	3
Full divergence angle [μrad]	500	250	250	225
Point stability [μrad]	< 60	< 60	< 60	< 60
Warm-up time, from cold start [min]	15	20	30	30
from standby [min]	8	15	30	30
Utility & Ambient Requirements				
Power supply	180 – 264V, 50/60Hz			
Power, maximum	4kW			
Chiller	230V, 50Hz; 460/208V, 60Hz			
Power, maximum	3kW			
Operating ambient Temperature	15°C to 35°C			
Relative Humidity, non-condensing	10% to 80%			
Dimensions & Weights				
Laser head	670mm x 370mm x 171mm			
Supply incl. Chiller	19" x 16HU x 700mm			
Laser head	52kg			
Supply incl. Chiller	94kg			

EdgeWave follows a policy of continuous product improvement. Specifications are subject to change without notice.

