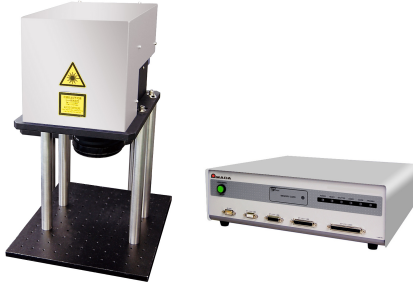


## Laser Scanning System for Welding (GWM)

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### GWM Series

Newly-developed digital scanner enables high precision multi spot / seam welding at high speed!

The laser scanning system for welding is equipment for realizing high-speed multi-spot / seam welding for work in a processing area by scanning a laser beam transmitted by optical fiber, providing complete control in the X-Y directions.

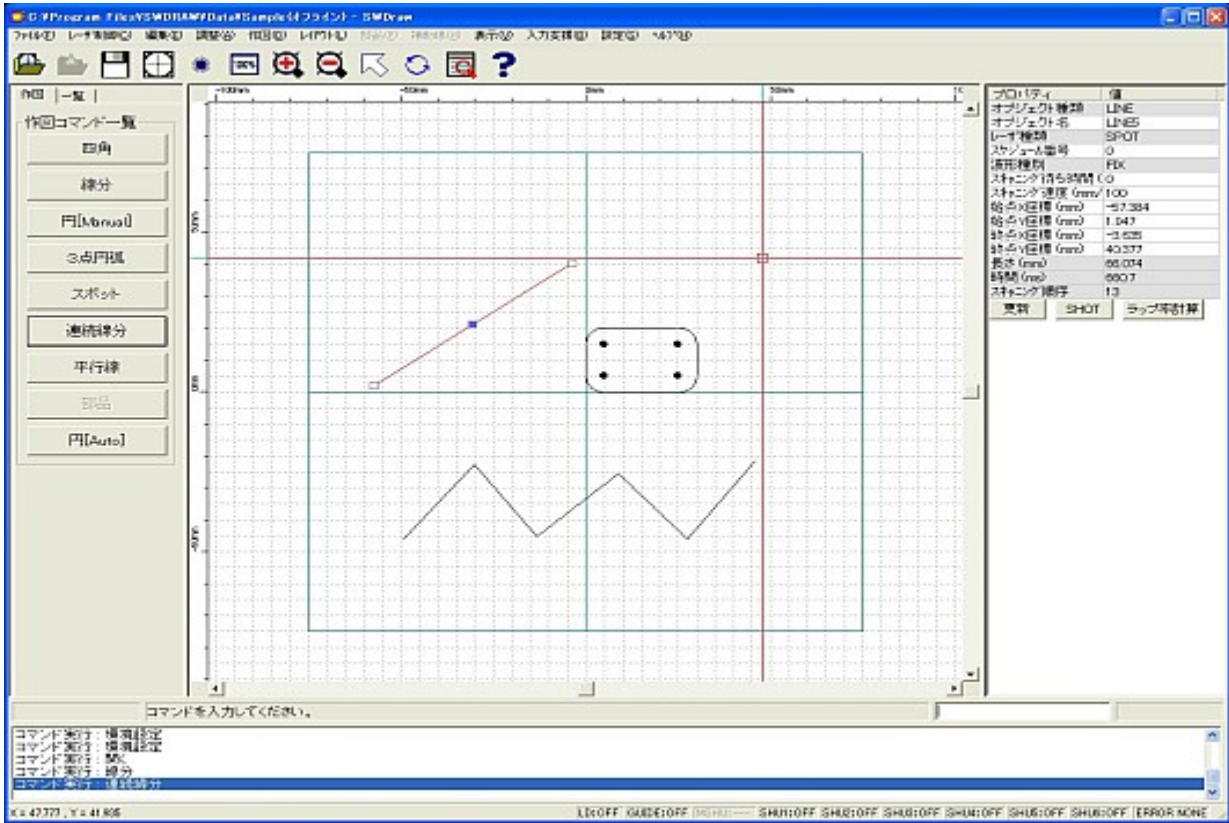
The head unit includes five models; STD (for a fundamental-mode laser), SHG (for SHG green laser), MHP (for high power fiber laser), PFL (for pulsed fiber laser), DDL (for directed diode laser) and is compatible with various laser welders in the ML series.

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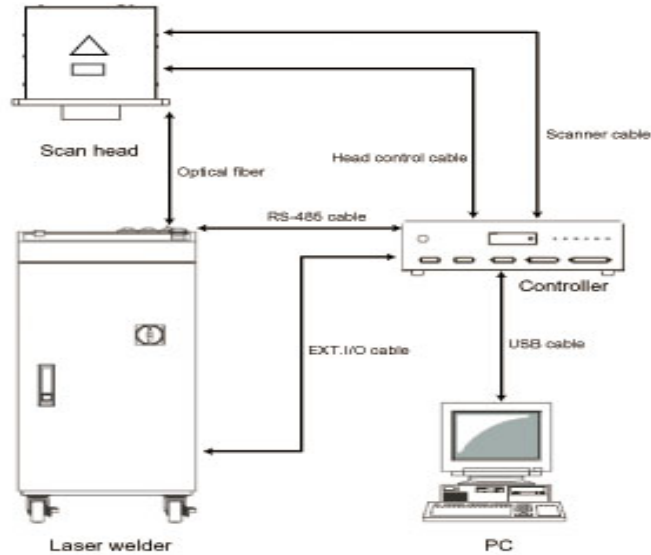
### FEATURES

- Newly-developed digital scanner is employed. Due to digitalization, repetitive positioning precision is much improved and thermal drift is reduced.
- High-speed multi-spot welding of up to 140 points/sec (pulse width: 2ms, travel distance: 1 mm) and up to 1000 spots in an area of 94 x94mm is possible.
- Multiple weld schedules can be set to handle different materials or thicknesses of material used in the same work.
- High-speed seam welding with a maximum repetitive speed of 5000pps or CW (continuous) oscillation is available.
- One controller can control up to three scanner heads.

## Control screen



## Configuration Diagram



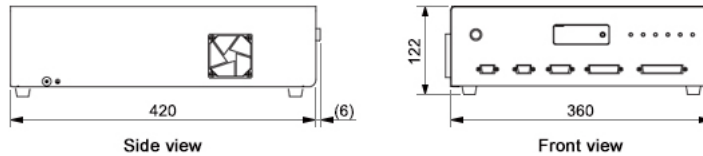
## SPECIFICATIONS

Scanning system for laser welding					
Model	GWM-STD	GWM-SHG	GWM-MHP	GWM-PFL	GWM-DDL
Supported laser welders	ML-2050A/2051A/ 2150A	ML-8150A	ML-6920B/6920BS	ML-3060AS	ML-5120A
	ML-2350A/2350AF/ 2351A/2351AF		ML-6930B/6930BS	ML-3030AS	
	ML-2450A/2451A		ML-6940B/6940BS	ML-3015AS	
	ML-2550A/2551A/ 2552A		ML-6950B		
	ML-2650B/2651B				
ML-6040A/6500C/ 6700A/6700B/6810B					
Maximum marking area	35mm, 60mm, 94mm, 100mm+0.5%	35mm +0.5%	200*120+0.1%	94, 150, 220 +0.5%	90, 170, 209 250, +0.5%
f lens	(YAG) f80, f150, f165 (Fiber laser) f163	f80	f306	f163, f306, f420	f163, f295, f402, f420
Collimate lens	(YAG) f50, f80, f100 (Fiber laser) f50, f80	f80	f50, f80, f100	(ML-3060AS) f40, f60, f75 (ML-3030AS) f40, f60 (ML-3015AS) f40, f60, f75, f90	f25, f35, f45
Ambient temperature / Ambient humidity	5 to 35 c(with no condensation or freeze) / 80% RH or lower (with no condensation or freeze)				
Power requirements	Single-phase, 100 to 240V AC-20% / +15% (50/60Hz)				
Power consumption	Average: Approx. 45 W, Peak: Approx. 140 W		Average: Approx. 60 W, Peak: Approx. 220 W		Average: Approx. 45 W, Peak: Approx. 140 W
Supported OS	Windows XP(SP2 or later) / Windows Vista Business(32-bit) / Windows 7(32-bit)				
Software			SWDraw		SWDraw2
Interface	USB, RS232C				
International standard	CE Marking, RoHS				

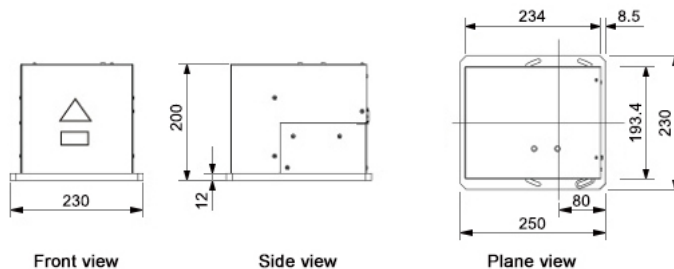
## EXTERNAL VIEW

- Dimensions in mm

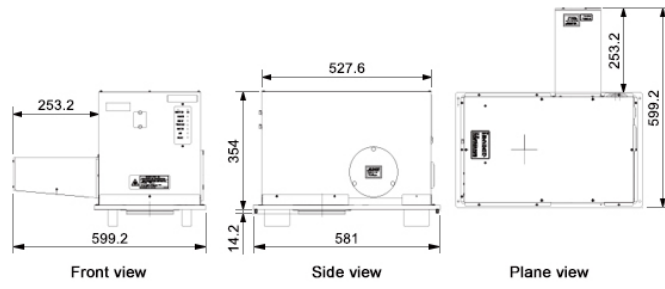
[Scanner controller] approx. 6.9kg Common



[Scan head] approx. 6.6kg (Collimator lenses and f-theta lenses are not included.) GWM-STD/GWM-SHG/GWM-PFL/GWM-DDL Common

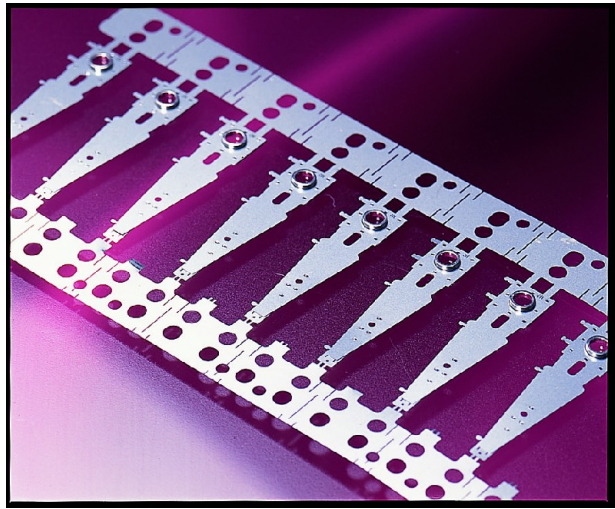


[Scan head] approx. 44kg (Collimator lenses and f-theta lenses are included.) GWM-MHP



## SAMPLES

- High-speed multi-spot welding



- High-speed seam welding

