

Select Family



The Most Flexible Laser Welding System



Select, Select Fiber – Tailored to Your Needs

Flexible Configuration for All Welding Tasks

The Select is a fully integrated system: ergonomically optimized manual welding laser, joystick controlled deposit welding system or high-precision CNC system – a unique welding concept with four high-precision axes, short setup times and easy CNC programming.

As much automation as you want, with the minimal complexity you need. All parameters can easily be adjusted without any special know-how via a multi-functional joystick and large color touch-screen.



Select SweetSpot™

- Lamp-pumped Nd:YAG with patented SweetSpot laser resonator
- High pulse-to-pulse stability
- Very wide power range for very small, strong welds and for highly-reflective material

Select Fiber

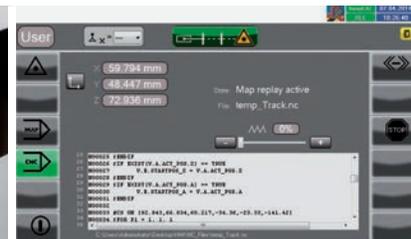
- Fiber laser for high process stability
- No maintenance
- Fine welds with extremely high quality requirements



Manual Welding



Welding with Joystick Control



CNC-controlled Process

Manual

- No set-up time
- Flexible also for complex situations
- Single pieces, repair and process development

Joystick

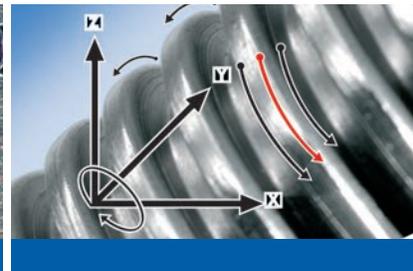
- Direct axes-control
- Easy semi-automatic laser welding
- Single pieces, small batch series and repair welding
- Process and prototype development

CNC

- Programming via touch screen, teach-in or data import
- Semi or full automation
- Joystick programming of CNC process

Robust All-in-One Solution

- Doors completely hidden inside the machine when open
- Large working chamber accessed by manual ports with leather cuffs
- Flow-controlled exhaust system with HEPA filters
- Closed-loop cooling circuit for 24/7 operation
- Generously dimensioned linear axes and additional rotary axis
- Ready to use after delivery



MicroWeld™ and SweetSpot Resonator®

Smallest weld spot diameters of < 0.1 mm for very fine applications showing a constantly high weld quality

Teach-Functions

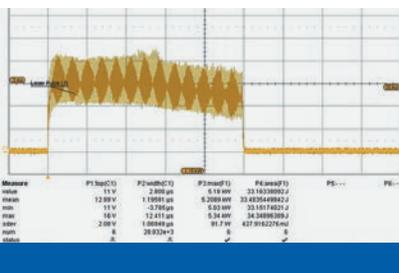
Extensive library of teaching functions optimized for laser processing

SynchroWeld™ and Look ahead

Consistent pulse overlap on seam welds independent of path contour and welding speed

V-Track

Various optimized teach modes for semi-automatic laser welding of single workpieces or small batch series



Intelligent Pulse Management™

High pulse-to-pulse-stability for fine micro welds

Axes System

Servo motor-driven linear axes with positioning control for high dynamics and high precision

Multi-Touch Display

Easy and intuitive parameter setting, ideal even for beginners

Joystick Box

Can be configured individually with 4 axes and parameter display

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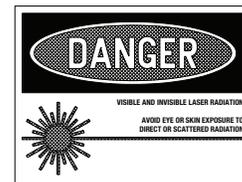
LASER SOURCE	Select	with SweetSpot Resonator®	Select Fiber
	Type	pulsed Nd:YAG	pulsed Nd: YAG
Nominal Power (W) with SPEEDmode™	100 200	100 200	pulsed 150/cw 250
Pulse Peak Power (kW)	12	10	1.5
Pulse Energy (J)	120	100	15
Pulse Duration (ms)	0.3 to 50	0.3 to 50	0.2 to 50
Pulse Frequency (Hz) with SPEEDmode™	single pulse up to 50 single pulse up to 100	single pulse up to 50 single pulse up to 100	single pulse up to 500
Focal Diameter (mm) with MicroWeld™	0.3 to 2.5	0.2 to 2.0 0.1 to 0.5	0.1 to 0.5
POSITIONING AXES			
Travel (x-y-z mm)	210-170-200		
Loading	50 kg (110.2 lbs)		
Resolution (µm)	1.0		
Repeatability Per Axis (µm)	±30		
Speed (mm/sec)	60		
UTILITIES			
Electrical	230 V (50/60 Hz), 16A (single phase)		
Power Consumption (kW) Nominal Power	3.5	2.0	
Cooling	integrated water-air heat exchanger	air cooling	
Shielding Gas	quick coupling		
Compressed Air (cooling of workpiece)	quick coupling		
MEASUREMENTS			
Weight	250 kg (551.2 lbs)		
Dimensions (W x H x D)	790 x 1262 x 1258 mm (31.1 x 49.7 x 49.5 in.)		
Ambient Temperature (Max.)	35°C (95°F)		

Outside the system corresponds to Class 1 laser product (DIN EN 60825-1).



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Select Systems. For full details of this warranty coverage, please refer to the Service section at www.coherent.com or contact your local Sales or Service Representative.
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