

# 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.

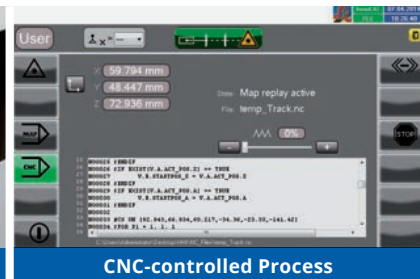


### Select SweetSpot™

- 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

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

### Joystick

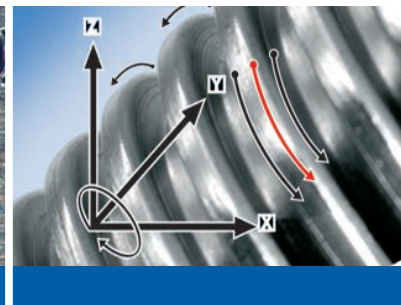
- Direct axes-control
- Easy semi-automatic laser welding
- Single pieces, small batch series and repair welding
- Process and prototype development

### 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 / *Cửa hoàn toàn ẩn bên trong máy khi mở*
- Large working chamber accessed by manual ports with leather cuffs / *Buồng làm việc lớn có thể tiếp cận bằng tay với găng tay bảo hộ bằng da*
- Flow-controlled exhaust system with HEPA filters / *Hệ thống hút khí thải kiểm soát dòng khí với bộ lọc HEPA*
- Closed-loop cooling circuit for 24/7 operation / *Làm mát vòng mạch kín hoạt động 24/7*
- Generously dimensioned linear axes and additional rotary axis / *Trục tuyến tính có kích thước lớn và trục quay bổ sung*
- 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

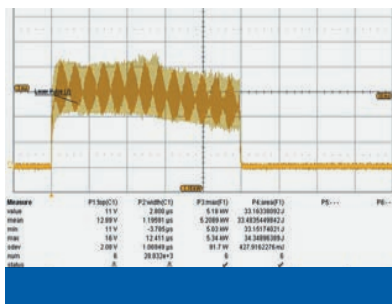
Extensive library of teaching functions optimized for laser processing

### 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

# Select Family The Most Flexible Laser Welding System

| LASER SOURCE                            | Select  | with SweetSpot Resonator®                       | Select Fiber           |
|---|---|---|------------------------|
|   | Type  | pulsed Nd:YAG                                   | pulsed Nd: YAG         |
| Nominal Power (W)<br>with SPEEDmode™    | 100<br>200                                      | 100<br>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)<br>with SPEEDmode™ | single pulse up to 50<br>single pulse up to 100 | single pulse up to 50<br>single pulse up to 100 | single pulse up to 500 |
| Focal Diameter (mm)<br>with MicroWeld™  | 0.3 to 2.5                                      | 0.2 to 2.0<br>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)<br>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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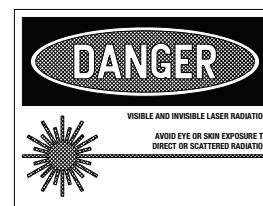
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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered 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](http://www.coherent.com) or contact your local Sales or Service Representative.  
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