

## Product Sheet: SL-Series

Slim Line Breadboards of SL-Series offer high stiffness at minimum thickness. These breadboards are made from Carbon-Fiber Reinforced Polymer (CFRP) and consist of a top and bottom plate. The plates are optionally structurally decoupled by a laminated damping foil in-between. Typically, breadboards of SL-series are used as additional platforms on top of a larger breadboard or optical tables.

### Light Weight

- high stiffness by reduced weight

### Thermal Stability

- only 1÷2/10 of thermal expansion of steel in surface direction

### Precision

- raised or flushed mounting surfaces
- flatness possible up to 0.05 mm on entire working surface

### Vacuum

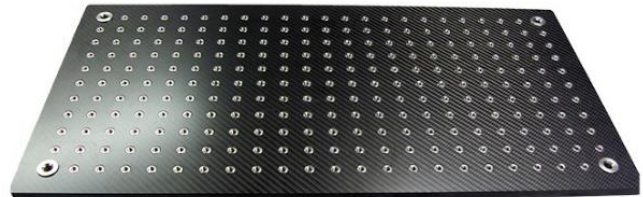
- low evaporation rates by space approved materials

### Damping

- option with damping material sandwiched between top and bottom plates

### Non-Magnetic

- Carbon-Fiber Reinforced Polymer (CFRP) materials are inherently non-magnetic and permeable to X-rays
- non-magnetic materials for inserts available



Dimensions	Typical breadboard sizes, maximum size 2000 x 2500 mm
Thickness	Typical thickness ranges from 5 to 25 mm
Flatness	Flatness of entire mounting surface SL- Version $\leq 0.05$ mm, SLI- Version $\leq 0.2$ mm
Mounting Grid	Typical mounting grid: 25x25, 50x50 mm or customized
Mounting Holes	Metric and imperial threads, inserts made from stainless steel, Aluminum, Titanium or INVAR
Damping	Optimized damping
Thermal Expansion	Lateral directions $CTE_{x,y} = 2.5 \times 10^{-6} [K^{-1}] @ 273 K$ for plane plate
Stiffness	Nominal stiffness
Weight	Area weight approximately 22 kg/m <sup>2</sup> (25 mm grid)
Design	<ul style="list-style-type: none"> <li>- Plates are designed typically to meet quasi-isotropic behavior or according to structural/thermal requirements</li> <li>- Plate structure with optional damping foil in-between</li> </ul>
Top Side	Single inserts according to mounting grid, with first inserts 25 mm from edges
Bottom Side	Single inserts with through hole at corners, 25 mm from edges or customized
Side Walls	None
Vacuum	Suitable
Cleanroom	Suitable

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