

## ScienceDesk™ Frames: Passive Vibration Isolation



SDH90120

See Pages 33 - 34  
for Breadboards

Passive ScienceDesk Frames are designed for vibration-sensitive applications where the work surface needs to be isolated from vibrations found in a noisy environment. These frames are available in two versions with different load-bearing specifications: standard frames with a load capacity of 50 to 570 lbs (24 to 260 kg) and heavy-duty frames with a load capacity of 300 to 1545 lbs (135 to 700 kg).

It is important to note that the frame must bear the minimum specified weight to comply with the isolation specifications. These passive frames have a transmissibility ratio (i.e., the displacement of the isolated system divided by the input displacement) of 0.15 at 10 Hz; this ratio is commonly used to describe the responsiveness of a vibration isolation system.

Our passive isolation frames are frequently used for imaging applications with micron resolution. The pneumatic isolators on the passive frames do not require a constant air supply. A manual foot pump such as our PTA126 is recommended for pressurizing passive vibration isolation systems.

- Ergonomic Workplace Systems for Manufacturing and Scientific Research
- Modular Design Allows for Customization of Your Work Space
- New Model Sized to Fit Through Standard Door Openings (SDP6090)
- Range of Adaptable Accessories Available (See Pages 35 - 45)
- Steel Frame Design



The standard ScienceDesk frames featured on this page are stocked for immediate shipment. However, Thorlabs also has the tooling and supplies necessary to manufacture heavy-duty frames capable of supporting heavier loads quickly and efficiently with minimal lead time. Please visit [www.thorlabs.com](http://www.thorlabs.com) to view our heavy-duty frame options and to place an order.

### Specifications

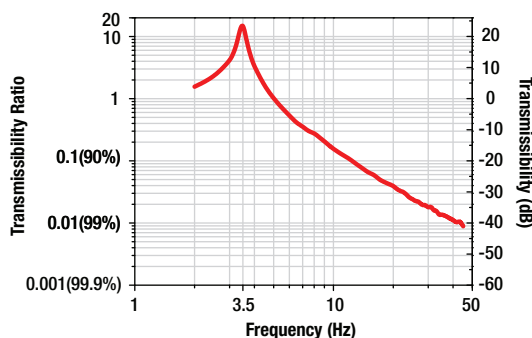
- **Load Capacity (Including Breadboard)**
  - Standard: 50-570 lbs (24-260 kg)
  - Heavy-Duty: 300-1545 lbs (135-700 kg)
- **Frame Size:** 195 mm Deeper and Wider than the Work Surface Size
- **Air Pressure (Max):** 72 psi (496 kPa)
- **Height Adjustment Range:** Leveling Feet:  $\pm 0.59$ " (15 mm)
- **Finish:** Dark Gray
- **Isolation Type:** Passive
- **Resonant Frequency:** Vertical: 3.5 Hz
- **Transmissibility (at Resonance):** Vertical: 24 dB
- **Transmissibility (at 10 Hz)**
  - Vertical: -16 dB (0.15 Transmissibility Ratio)
- **Ergonomics:** In Accordance with BS EN 527 and BS EN 1335

\*Frames Rated at Full Load Capacity

**NEW**  
version

(SDP6090 Sized to Fit Through  
Standard Door Opening)

Vertical Transmissibility of Thorlabs' Passive Vibration Isolators



Simple Air Pump for use with  
Our Passive Isolators



PTA126

ITEM #	\$	£	€	RMB
PTA126	\$ 39.90	£ 28.73	€ 34.71	¥ 318.00

### ScienceDesk Frames with Standard, Passive Vibration Isolation

ITEM #	\$	£	€	RMB	ACCEPTED BREADBOARD SIZE	FRAME WEIGHT**
SDP6090*	\$ 1,625.00	£ 1,170.00	€ 1,413.75	¥ 12,951.25	3' x 2' (900 mm x 600 mm)	141 lbs (64 kg)
SDP7590	\$ 1,650.00	£ 1,188.00	€ 1,435.50	¥ 13,150.50	3' x 2.5' (900 mm x 750 mm)	146 lbs (66.5 kg)
SDP75120	\$ 1,675.00	£ 1,206.00	€ 1,457.25	¥ 13,349.75	4' x 2.5' (1200 mm x 750 mm)	154 lbs (70 kg)
SDP90120	\$ 1,700.00	£ 1,224.00	€ 1,479.00	¥ 13,549.00	4' x 3' (1200 mm x 900 mm)	163 lbs (74 kg)

\*Sized to fit through standard 33" (84 cm) door opening.

\*\*The weights listed are only for the frame and do not include packaging. Please contact your local sales office for a quotation including shipping.