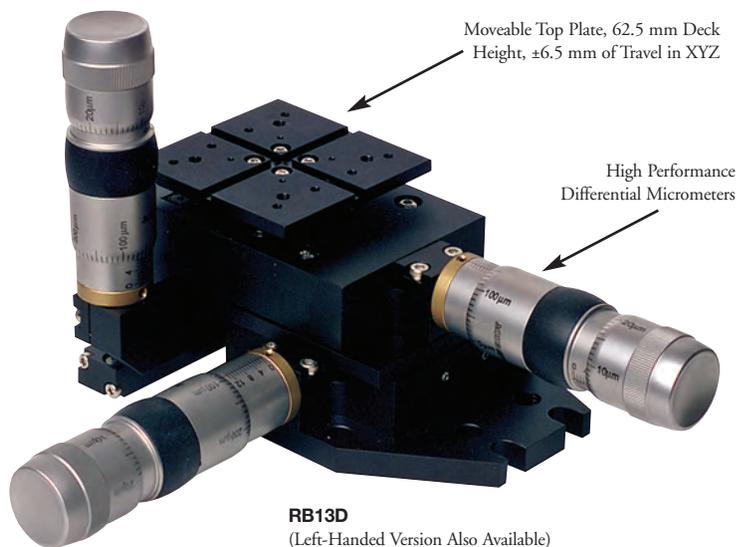


1/2" (13 mm) Travel Three-Axis RollerBlock™ Platforms (Page 1 of 2)

The combination steel and aluminum construction of the RollerBlock™ translator is ideally suited for a broad range of photonics applications. The cross-roller-bearing design provides a vertical load capacity of 9.7 lbs (4.4 kg) while maintaining the submicron resolution provided by the high-precision actuators. The integrated XYZ design, compared with other modular approaches, provides a more compact stage, which enables this three-axis translator to meet the performance demands of many positioning applications over the entire 0.5" (13 mm) translation range. Compared to translation stages constructed from stacking single axis stages, the unibody approach with steel construction provides improved product lifetime as well as enhanced thermal stability.

The moveable deck has a full 0.5" (13 mm) of travel in three orthogonal directions and includes mounting features that allow our full line of optical mounting accessories (see page 496) to be directly attached to its surface. The deck height of this compact stage matches the 2.46" (62.5 mm) deck height of our flexure-based translation stages featured on page 468. Utilizing this standard deck height allows this longer travel stage to be incorporated into complex optical systems built around our popular flexure based stages that comprise our PiezoBlock™, MicroBlock™, and NanoMax™ series. One simple example of this cross-series compatibility is shown in the photograph on the bottom of the next page.



RB13D
(Left-Handed Version Also Available)

Features

- Cross-Roller-Bearing Design
- High-Load Capacity
- Hardened Steel Construction on all Wear Surfaces for Excellent Long Term Stability
- Extensive Line of Accessories Available
- Compact, Modular Design
- Available in Left- or Right-Handed Versions
- Bearing Surfaces Protected to Reduce Wear

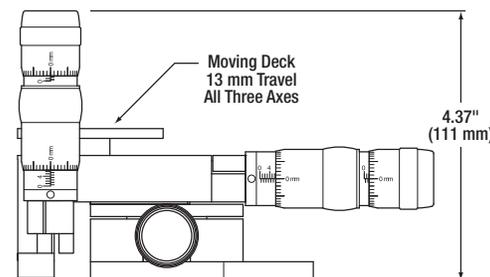
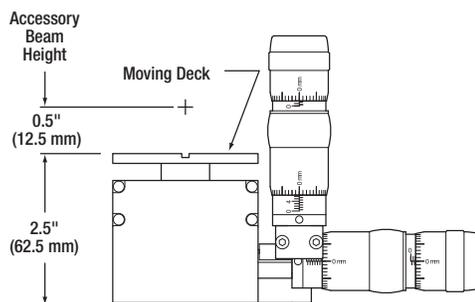
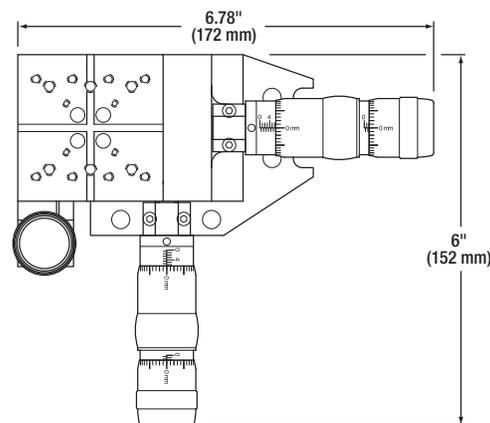


The RollerBlock™ XYZ translation stage features cross-roller-bearing assemblies that ensure low stiction for true submicron resolution. An adjustable preload virtually eliminates all unwanted side play.

Differential Drive RollerBlock™

- **Manual Travel:** 0.5" (13 mm) in XYZ Directions
- **Coarse Adjustment Range:** 0.5" (13 mm)
- **Coarse Adjustment Pitch:** 0.5 mm (0.02")
- **Fine Adjustment Range:** 300 μm
- **Fine Adjustment Pitch:** 0.05 μm
- **Deck Height:** 2.46" (62.5 mm)
- **Load Capacity:** 9.7 lbs (4.4 kg)

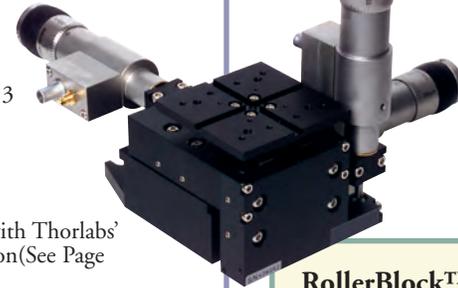
Please refer to our website for complete models and drawings.



1/2" (13 mm) Travel Three-Axis RollerBlock™ Platforms (Page 2 of 2)



RB13M
RollerBlock™ with Simple Micrometer Drives



RollerBlock™ with Piezo Assisted Micrometers

30 μm Piezoelectric Assisted RollerBlock™

- **Manual Micrometer Drive:** 0.5" (13 mm) Travel, 5 μm/graduation
- **Piezoelectric Range:** 30 μm @ 75 V
- **Piezoelectric Resolution:** 10 nm with Thorlabs' Controller in Closed-Loop Operation (See Page 568)

For applications requiring very precise positional control, the manual drives can be replaced with piezo-adjusted differential micrometers (DRV517, see page 529). With these drives, the stage provides submicron manual resolution that is supplemented with 10 nm piezoelectric resolution. Our high-performance piezoelectric controllers are an ideal companion product for this stage (see pages 568 for details).

Micrometer Drive RollerBlock™

- **Manual Travel:** 0.5" (13 mm) in XYZ Directions
- **Resolution:** 10 μm/graduation
- **Deck Height:** 2.46" (62.5 mm)
- **Load Capacity:** 9.7 lbs (4.4 kg)

RollerBlock™ Adapter Plate, 1/4"-20 (M6 x 1.0) and #8-32 (M4 x 0.7)



RB13P1

- Convert the RollerBlock into a General Purpose Optical Table Translator
- Easily Replaces Slotted Top Plate via Four Mounting Screws.

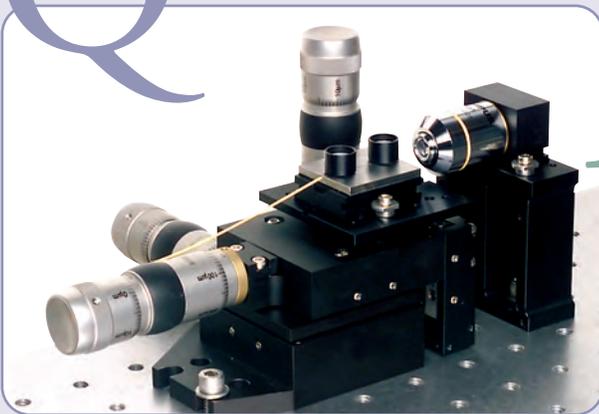
This optional mounting plate has a generous array of mounting holes to adapt the RollerBlock to general purpose optical table applications.

13 mm Travel RollerBlock™ Stages Available with Micrometers, Differential Adjusters and 30 μm Piezos

ITEM#	METRIC ITEM#	\$	£	€	RMB	DESCRIPTION
RB13D	RB13D/M	\$ 2,610.00	£ 1,809.50	€ 2,317.00	¥ 22,039.00	3-Axis RollerBlock™ with Differential Micrometers
RB13M	RB13M/M	\$ 1,325.00	£ 918.60	€ 1,176.40	¥ 11,189.00	3-Axis RollerBlock™ with Micrometers
RB13P1	RB13P1/M	\$ 48.40	£ 33.60	€ 43.00	¥ 408.70	1/4"-20 (M6 x 1.0) and #8-32 (M4 x 0.7) Adapter Plate

Question

Can I build a complete fiber launch system using the RollerBlock™ translator?



Answer

Yes! As shown in the picture to the left, you can build a complete fiber launch system using the RollerBlock™ translator. You will need the parts from the list below.

Parts List

Item#	Description/Function	Page #
RB13D	13 mm Translation Stage	467
HFV001	Optical Fiber Clamp	501
HCS013	Microscope Objective Holder	499
AMA025	Fixed Height Platform	498
RMS10X	Microscope Objective	804