

CHAPTERS

Manual Stages

Motorized Stages

Multi-Axis Platforms

Actuators

Controllers

SECTIONS

Linear Translation

Rotation

Goniometers

# 1/2" (13 mm) Travel Translation Stage, Modular Design (Page 1 of 2)



**MT3**  
Right-Handed Configuration

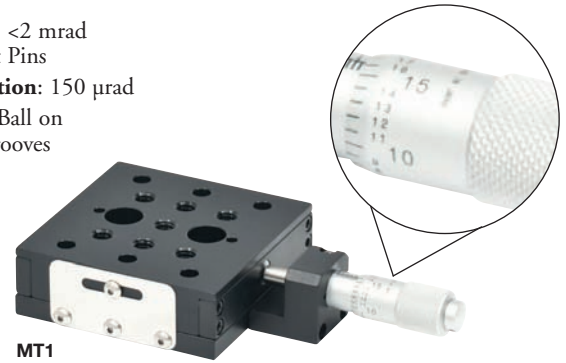
Micrometer Drive:  
0.025" per rev  
(0.001" per Graduation)

### Specifications

- **Travel Range:** 1/2" (13 mm)
- **Vertical Load (Max):** 20 lbs (9 kg)
- **Horizontal Load (Max):** 90 lbs (41 kg)
- **Orthogonality:** <2 mrad with Alignment Pins
- **Angular Deviation:** 150 µrad
- **Bearing Type:** Ball on Hardened V-Grooves

### Features

- Hardened Steel, Linear Bearings
- Modular Design for XYZ Configuration



**MT1**

The MT Series of Translation Stages, which offers a 1/2" (13 mm) translation range, features hardened steel linear bearings for precise motion and long life. They are available as single-axis or preconfigured XYZ stages. Each stage includes 1/4"-20 (M6) and 8-32 (M4) mounting holes. The two counterbores in the middle of the MT1 stage accept 1/4"-20 (M6) screws and can be used for direct mounting to a breadboard.

### MT1 (MT1/M) 1/2" (13 mm) Micrometers

STAGE	TRAVEL	GRADUATION SPACING	BARREL
MT1	0.025"/rev	0.001"	Ø3/8"
MT1/M	500 µm/rev	10 µm	Ø3/8"

### Alternative Actuators

- DRV304 (Page 601): Differential Micrometer
- DM10 (Page 602): Differential Micrometer
- ZST13 with ZST13B (Page 609): Stepper Motor
- Z812B (Page 608): DC Motor

See Our Motorized Stages Chapter for Details on these Specialized Products

See Page 510

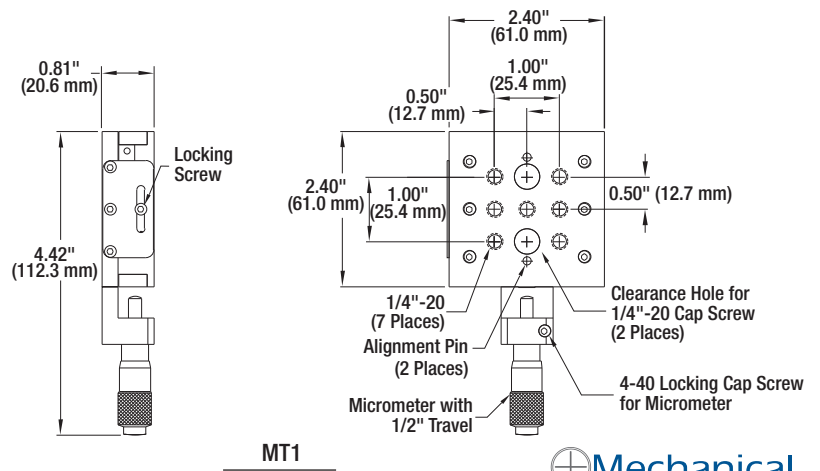
Manual Stages

Motorized Stages

## Motorized Stages



The motorized version of the MT-Series stage can be found in our Motorized Stages chapter.



**MT1**

Mechanical  
Drawings Available on the  
**WEB**

## 1/2" (13 mm) Travel Translation Stage, Modular Design (Page 2 of 2)



MT401

1. **MT401- MT Series Base Plate:** This base plate provides mounting flanges with 1" (25 mm) centers that can be used to fasten the MT series stages to an optical breadboard. This is ideal for XY or XYZ configurations where the standard mounting counterbores in the middle of the stages are obstructed.



MT402

2. **MT402- MT Series Right-Angle Bracket:** This bracket allows two stages to be mounted perpendicular to each other and is required when constructing a custom XYZ configured stage. Alignment pins that ensure that the stages are orthogonal are included.



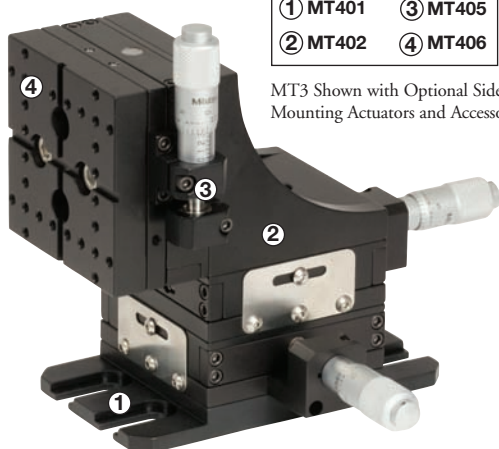
MT405

3. **MT405- Side-Mounted Actuator Bracket:** The MT405 repositions the actuator from the rear of the stage to the side, as shown for one of the actuators in the XYZ configuration below. This kit is necessary when space constraints do not allow for the actuator to protrude from the rear of the stage. The actuator conveniently mounts to the side of the stage with four cap screws.



MT406

4. **MT406(/M)- Flexure Stage Accessories Adapter Plate:** The MT406(/M) fastens directly to the top of the MT series stage with two 1/4"-20 (M6) cap screws. It is compatible with our current full range of 3 mm wide alignment key MBT and MAX series flexure stage accessories (see pages 572 - 588). This adapter plate is ideal for creating basic fiber coupling solutions as shown in the application image below.



- ① MT401      ③ MT405
- ② MT402      ④ MT406

MT3 Shown with Optional Side Mounting Actuators and Accessory Plate



MT3 Stages Shown with the MT406 Adapter Plates and Fiber Coupling Flexure Accessories (See Pages 572 - 588)

### 1/2" Travel Translation Stages

ITEM #	METRIC ITEM #	\$	£	€	RMB	DESCRIPTION
MT1	MT1/M	\$ 278.00	£ 200.16	€ 241,86	¥ 2,215.66	1/2" (13 mm) Single-Axis Translation Stage with Micrometers
MT3	MT3/M	\$ 879.00	£ 632.88	€ 764,73	¥ 7,005.63	1/2" (13 mm) XYZ Translation Stage with Micrometers

### 1/2" Travel Translation Stage Accessories

ITEM #	METRIC ITEM #	\$	£	€	RMB	DESCRIPTION
MT401*	MT401*	\$ 22.00	£ 15.84	€ 19,14	¥ 175.34	Base Plate
MT402*	MT402*	\$ 48.00	£ 34.56	€ 41,76	¥ 382.56	Right-Angle Bracket
MT405*	MT405*	\$ 54.00	£ 38.88	€ 46,98	¥ 430.38	Side-Mounted Actuator Kit
MT406	MT406/M	\$ 38.00	£ 27.36	€ 33,06	¥ 302.86	Adapter Plate

\*Both Imperial and Metric parts are equivalent.