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MM-33 / MM-33A Micromanipulator



Shown: MM-33A

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US PRICES

Used in complex experiments in conjunction with our other micromanipulators, or as a stand alone unit in a teaching environment, the **MM-33** is available separately for those wishing a small, practical instrument in applications not requiring submicron accuracy.

The **MM-33** is the right choice for tight environments which require maximum versatility within a small space. The optional rotating base and tiltable X-axis provide even further flexibility.

Stainless steel cross-loaded roller bearings are designed to offer low friction and smooth linear motion with a minimum of side play. The pre-loaded rollers are set at 90 degrees to the hardened steel guides ensuring constant contact and accuracy. This precise rack and pinion drive gives stable, drift free movement with minimal backlash. The controls are placed one above the other which makes for less hand movement and easier positioning. The scales for all axes are calibrated in 0.10mm increments and the fine micrometer adjustment for the X-axis thrust is calibrated at 0.01mm with estimates to 5µm.

FEATURES > MM - 33

Compact design allows use in tight environments.

Cross-loaded roller bearings for smooth, low friction movement.

Rack and pinion drive gives stable movement with minimal backlash.

OPTIONS > MM - 33 / A

Rotating base allows horizontal rotation and vertical tilting.

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Vertical axis lock.

The optional rotating base extends the utility of the **MM-33** by providing two additional rotating planes. The rotation in the horizontal plane (approximately 120 degrees) has a positive stop, quick release mechanism for fast insertion and removal of pipettes. The second rotating axis allows the **MM-33** to be tilted in a vertical plane from 0 to 70 degrees.

The optional tiltable X-axis allows the fine axis to be tilted up to 45 degrees. An optional vertical lock is also available for locking the position of the vertical axis. These options should be ordered at the time of purchase since the modifications are factory installed.

Individual excursions are as follows:

X-axis coarse movement:
37mm

X-axis fine movement:
10mm

Y-axis horizontal movement:
20mm

Z-axis vertical movement:
20mm



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