



MM 33/1



MM 33A/L



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MM-33

Micromanipulator

Successfully used in conjunction with our other micromanipulators, the MM-33 is available separately for those in need of 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 vertical lock is ideal for locking the position of the vertical axis and increasing stability. 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 0.10 mm increments and the fine micrometer adjustment for the X-axis thrust is calibrated at 0.01 mm with estimates to 5 μ m.

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. These options should be ordered at the time of purchase since the modifications are factory installed.

FEATURES

- 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
- Vertical axis lock

OPTIONS

- Rotating base allows horizontal rotation and vertical tilting
- Tilting mount for fine X-axis
- Magnetic feet

Individual excursions are as follows:

- X-axis coarse movement: **37 mm**