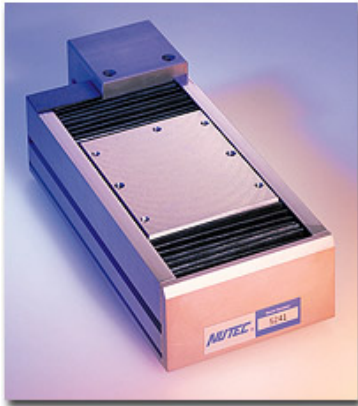


MTC-100 COMPACT STAGE



MTC-100

PRODUCT SUMMARY

MTC-100 Series offers the latest technological advances in drive and guide technology packaged in a compact envelope for maximum positioning performance and exceptional value.

- Low cost, high performance stage, 50 - 200mm (2-8 in.) travel
- Cross-roller guides with constant support geometry
- Precision roller leadscrew pre-loaded, low hysteresis
- Sub-micron repeatability
- X/Y/Z mountable/stackable

MTC-100 Features & Benefits

MTC-100 is built with precise and rigid cross-roller guides yet offering constant support geometry. The stage drive is equipped with a precision ground roller leadscrew pre-loaded for a play-free operation and featuring low hysteresis which improves bi-directional repeatability.

This stage, interfacing with stepper or servo motors of a NEMA frame size 23 or smaller, is a versatile and simple to use positioning component for OEM, laboratory and end users. The choice of leadscrew pitches further enhances the scope of application, ranging from a .02 micron resolution to high velocity moves up to 5in/sec.

Available with either servo drive system from the MICROMATIC Series or manual Joystick Pulse wheel Drive.

The integrated bellows way covers and the attractive packaging of the stage with internal LED Limit Switches round out the capabilities of this precision instrument.

Applications

The MTC-100 Series has a very wide range of application, because of adaptable and configurations and execution, offering many different motion platforms with different characteristics. Many applications are found in the metrology and fabrication fields, where a precise, compact single axis, X/Y or X/Z motion platforms are desirable. Other typical applications are found in semiconductor assembly, testing, metrology and instrumentation areas, video inspection, micro-machining, laser machining, high-speed fabrication, laser and inspection work.

	MTC-100-SP
Travel Length (mm)	25- 200
Drive System	Step motor Servo motor
Maximum Acceleration	Payload Dependent
Maximum Speed	Roller lead-screw Drive 40 mm/s
Maximum Peak Force	To match application
Maximum Continuous Force	To match application
Recommended Maximum Load	
L1 Parallel to base	25 kg
L2 Tension Perpendicular to base	25 kg
L3 Compression Perpendicular to base	25 kg
Feedback	Non-Contact Rotary Encoder System
TTL resolution	1μ per pulse,
Repeatability	5x Resolution
Construction	Aluminum Alloy Body Hard Coat Gray Anodize

MTC-100 Specifications

	<i>MTC1050</i>	<i>MTC1100</i>	<i>MTC1500</i>	<i>MTC2000</i>
Travel Length (mm)	50	100	150	200
Trajectory Control				
Accuracy				
<i>Standard Precision SP</i>	$\pm 5 \mu m$	$\pm 10 \mu m$	$\pm 10 \mu m$	$\pm 15 \mu m$
Straightness/Flatness				
<i>Standard SP</i>	$\pm 4 \mu m$	$\pm 8 \mu m$	$\pm 10 \mu m$	$\pm 10 \mu m$
Yaw/Pitch/Roll				
<i>Standard SP</i>	10 arc-sec	10 arc-sec	10 arc-sec	10 arc-sec
2 axis system				
<i>Orthogonality</i>				
<i>Standard SP</i>	10 arc-sec	10 arc-sec	10 arc-sec	10 arc-sec

NOTES:

- *All trajectory data based on axis uniformly supported over full length on precision mounting surface with vibration isolation.*
- *Payload capacities are recommended values to achieve maximum lifetime in the worst-case scenario featuring maximum dynamic operation and off-center loading.*
- *Force, acceleration and speed performance are based on operations with NUTEC ELECTRONIC controls.*