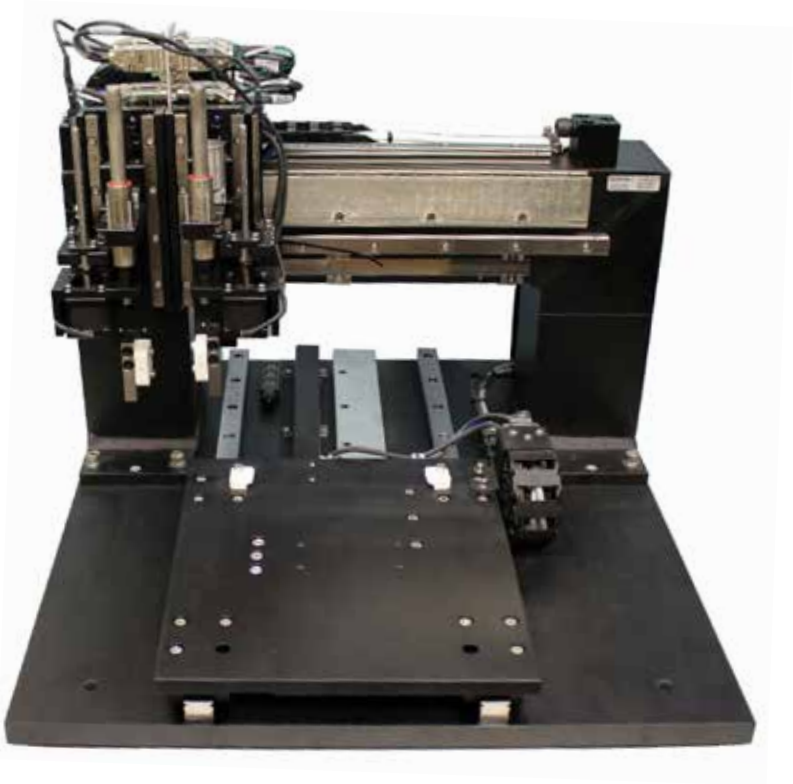
SAX Gantry System

The non-contact, cog free linear motors of the SAX gantry system are ideally suited for imaging, 3-D printing, automated testing, and laser machining whether step and settle or constant scanning motion is required. They produce quiet motion with low velocity ripple. Non-contact absolute encoders are standard for the SAX. They combine precision position feedback with instant position on power-up, so there is no need for homing routines.

Encoders are positioned close to the customer's point of interest to reduce Abbe errors, and accuracy can be further increased by the use of XY compensation tables. Passive isolators are included to minimize environmental disturbances. More traditional incremental feedback is an option as well.

Utilizing lightweight aluminum construction, the SAX combines high-accuracy and sub-micron repeatability, with angular errors less than 50 arc-seconds. Standard mounting hole configurations allow for mounting other Dover stages such as the RTR rotary table on the lower carriage and KV and MMX miniature linear stages on the upper carriage. Hole patterns, travels, encoder type, and resolution can be configured to meet any customer needs.



DOVER MOTION
A division of Invetech

Overview

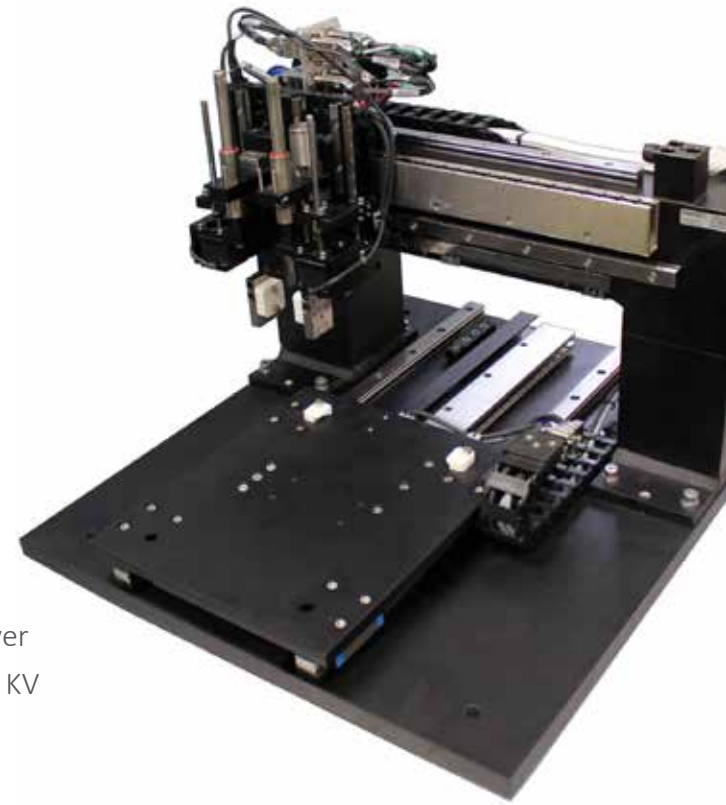
Applications

The SAX split-axis gantry is ideal for high-accuracy and high-duty cycle applications. A few ideal applications are:

- Imaging
- Automated part inspections
- 3-D printing
- Material dispensing
- Metrology

Design Features

- High accuracy and repeatability with optimized encoder locations
- High speed and acceleration with ironless, cog-free motors
- Low audible noise
- Configurable and customizable
- High flex cable



Options

- Custom XY travel lengths
- Incremental or absolute linear encoders
- Mounting hole configurations allow for mounting other Dover Motion stages such as RTR rotary on the lower carriage and KV and MMX stages on the upper carriages

DOVER MOTION
A division of Invetech

Dover Motion
159 Swanson Road
Boxborough, MA 01719

508-475-3400
sales@dovermotion.com
www.dovermotion.com

Specifications

	Y axis (upper)		X axis (lower)	
Travel	290	mm	270	mm
Accuracy	10	µm	10	µm
Bi-directional repeatability	1	± µm	1	± µm
Flatness	10	µm TIR	10	µm TIR
Straightness	10	µm TIR	5	µm TIR
Pitch	50	arc-seconds	50	arc-seconds
Yaw	50	arc-seconds	10	arc-seconds
Orthogonality	20	arc-seconds	20	arc-seconds

*Specifications with E24 encoder

Dover Motion has implemented a Quality Management System in accordance with ISO 9001:2008 for the Design and Manufacture of Precision Positioning Products and Motion Systems

DOVER MOTION
A division of Invetech

Dover Motion
159 Swanson Road
Boxborough, MA 01719

508-475-3400
sales@dovermotion.com
www.dovermotion.com