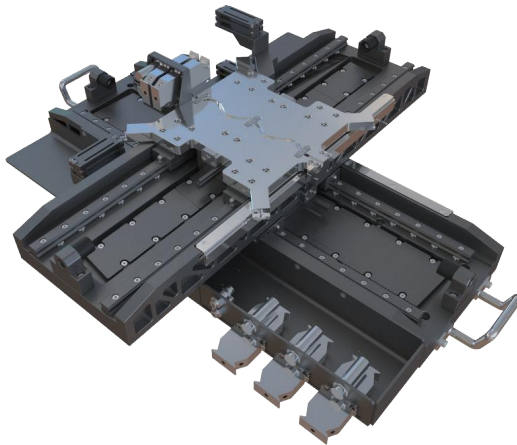


Stacked XY Stage



Features

- Non-contact direct-drive linear motor drive for high dynamic response
- Optical linear encoder for high precision
- High stiffness, high precision guide
- Excellent positioning accuracy and repeatability performance

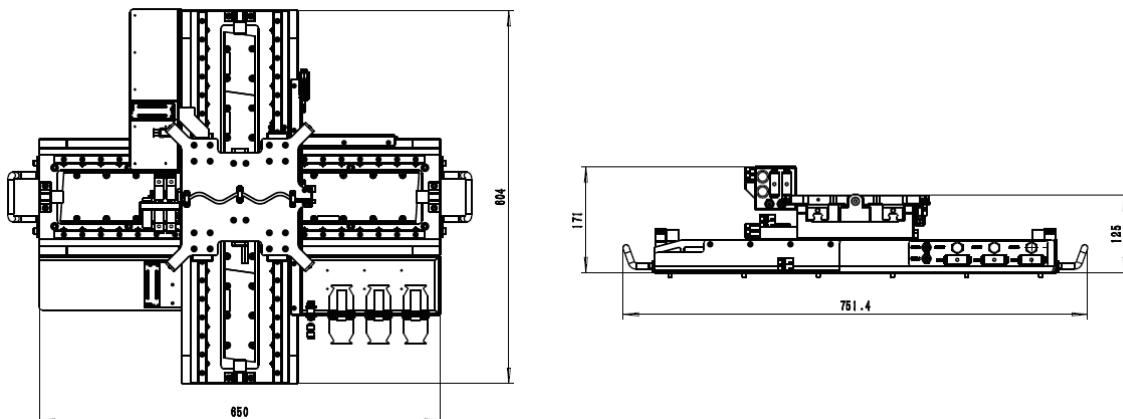
Description

The stage adopts integration, orthogonality design with a compact, low-profile. High-precision, high-stiffness linear motion in horizontal X/Y axis with 2 degrees of freedom.

Applications

- Semiconductor
- Flat panel display
- Optical fiber alignment
- Biomedicine

Interface Definition



*Interface dimensions from L2S125

Technical Specifications

L2S125-300			L2S125-400	
Axes name	X	Y	X	Y
Travel range	365 mm	365 mm	410 mm	475 mm
Max. velocity	1 m/s	1 m/s	1 m/s	1 m/s
Max. acceleration	10 m/s²	10 m/s²	10 m/s²	10 m/s²
Accuracy_indicative value	±20 μm			
Accuracy_calibration value	±1 μm			
Bidirectional repeatability	±0.4 μm			
Straightness	±3 μm	±3.5 μm	±3 μm	±3.5 μm
Flatness	±2.5 μm	±5 μm	±2.5 μm	±5 μm
Pitch	±5 μm	±10 μm	±5 μm	±10 μm
Roll	±5 μm	±10 μm	±5 μm	±10 μm
Yaw	±10 μm	±10 μm	±10 μm	±10 μm
Orthogonality	±15 μm			
Position stability(3σ) *	±2 nm	±2 nm	±2 nm	±2 nm
Move1:10 μm within ±100 nm*	50 ms	50 ms	50 ms	50 ms
Move2:25 mm within ±100 nm*	140 ms	140 ms	140 ms	140 ms
Move3:80 mm within ±100 nm*	170 ms	170 ms	170 ms	170 ms
Mechanical properties				
Moving mass (without payload)_Upper axis	3.6 Kg		4.5 Kg	
Moving mass (without payload)_Lower axis	17 Kg		18.5 Kg	
Max. load	2 Kg		6 Kg	
Stage mass	29.5 Kg		32 Kg	
Dimensions	650 mm×604 mm×125 mm		810 mm×700 mm×125 mm	
Material	Aviation aluminum,black anodized			

*Technical data specified with 8μm pitch encoder and under active vibration isolation environment.

Customization Information

The series is configured with options that can be selected based on the user's actual application. Options include travel, encoder, and more. X-axis base can be changed to marble base according to customer's requirement, which can provide higher positioning accuracy.

Table 1 Travel Options

-300	365mmX365mm travel displacement platform with linear motors and limit
-400	410mmX475mm travel displacement platform with linear motors and limit

Table 2 Encoder Options

-S1	Standard, Renishaw Encoder
-S2	High-end model, Heidenhain encoder

Table 3 Guide Options

-G1	High-stiffness roller guide
-G2	High-precision balls guide