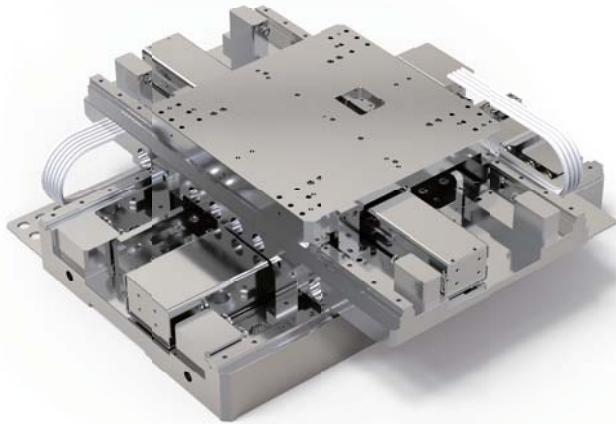


## UHV XY Stage



### Features

- Suitable for ultra-high vacuum environment up to  $10^{-5}$ Pa
- Vacuum linear motor drive for low outgassing rate, low heat generation
- Unique linear motor magnetic shielding design
- Optional non-magnetic materials, with overall magnetic leakage up to nT level
- Excellent velocity and position stability

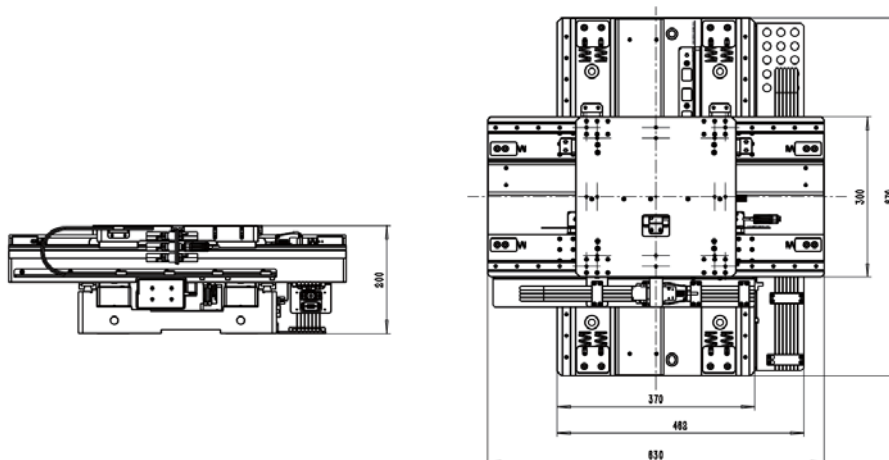
### Description

The stage is manufactured with materials that meet ultra-high vacuum standards and special processes in ISO6 cleanrooms, ensuring that it can be used in ultra-high vacuum environments of  $10^{-5}$ Pa and below. While realizing high-precision and high-stiffness XY motion, it also ensures the thermal management and magnetic shielding needs in the vacuum environment.

### Applications

- Electron beam inspection
- Electron beam lithography
- Scanning electron microscopy
- CD-SEM
- Review-SEM

### Interface Definition



\*Interface dimensions from VLS200

## Technical Specifications

	VLS200-08		VLS200-12	
Axes name	X	Y	X	Y
Travel range	300 mm	220 mm	400 mm	320mm
Max. velocity	0.35 m/s			
Max. acceleration	0.4 g			
Accuracy	±0.15 μm	±0.15 μm	±0.35 μm	±0.85 μm
Bidirectional repeatability	±0.1 μm	±0.1 μm	±0.2 μm	±0.2 μm
Position stability (3σ) *	±5 nm	±5 nm	±2 nm	±2 nm
Velocity stability*	<0.1%	<0.1%	<0.1%	<0.1%
Straightness	7.5 μm	7.5 μm	7.5 μm	7.5 μm
Pitch	<15 arcsec	<15 arcsec	<20 arcsec	<20 arcsec
Yaw	<10 arcsec	<10 arcsec	<10 arcsec	<10 arcsec
<b>Mechanical properties</b>				
Moving mass (without payload)	52 Kg	7 Kg	53.5 Kg	9 Kg
Max. load	13.5 Kg		13.5 Kg	
Stage mass	100 kg		145 kg	
Dimensions	670 mm × 630 mm × 200 mm		810 mm × 714 mm × 200 mm	
Material	Aluminum alloy			

\*Technical data specified under non-active vibration damping environment.

## Customization Information

The series is configured with options that can be selected based on the user's actual application. Options include encoders, control system, and more.

Table 1 Guide Options

-G1	Normal linear guide for UHV
-G2	Non-magnetic linear guide for UHV