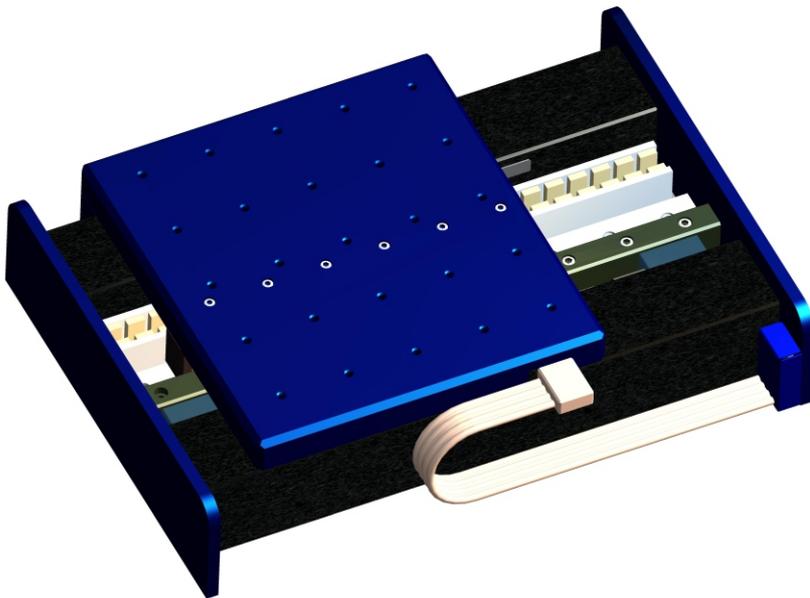


# Linear Slides

## LS-series



### Applications

high-performance scanning  
inspection systems  
ultraprecision grinding and milling  
laser processing  
semiconductor industry  
wafer handling  
photovoltaic systems  
medical systems  
X-ray

For an ever growing range of applications, the increasing demand on position tolerances is going beyond the capabilities of conventional ball-screw drives and classical ball bearings. For this reason, LAB has integrated its developed technology into a range of linear stages that sets the standard for positioning accuracy and motion straightness to a new level:

### High performance air bearings

The linear stages from LAB are equipped with special designed air bearings optimized for stiffness and load capacity. By using granite running surfaces, a very accurate motion is reached, which leads to an unprecedented pitch, roll, yaw, straightness and flatness specification.

### Cogging free direct drive

LAB has integrated an ironless direct drive in its linear stages. Due the absence of any cogging force or attractive forces a very smooth motion and precision is possible. The direct drives can be optimized for power and force according to the application.

### No maintenance, no lubrication

Since all motion is contactless, the performance level of the stages remain constant and no maintenance is needed. Since only dry and clean gas is needed for the motion, the linear stages are ideal for cleanrooms and medical environments.

### Custom design and engineering support

LAB offers a range of standard stages, but other dimensions or other applications are possible. LAB can flexibly design XY-stages, gantries, Z-stages or a combination thereof. Feel free to contact us for customized solutions!



Masters in Motion

# Linear Slides

## Mechanical

	LAB-LS100	LAB-LS200	LAB-LS300	LAB-LS400	LAB-LS500
Travel*	100mm	200mm	300mm	400mm	500mm
Load capacity	>65 kg				
Moving Mass	10 kg				
Stage Mass	25 kg	30 kg	38 kg	45 kg	50 kg

## Running accuracy

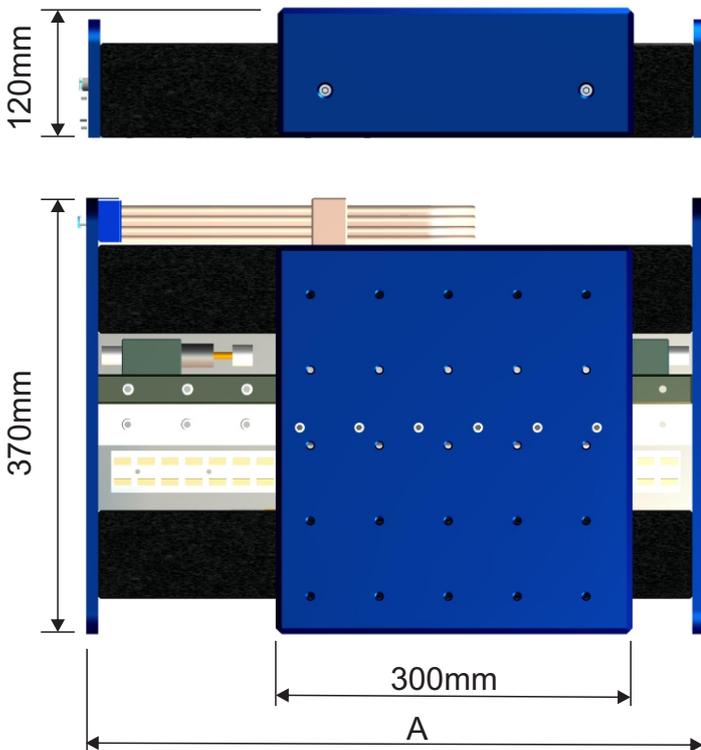
	LAB-LS100	LAB-LS200	LAB-LS300	LAB-LS400	LAB-LS500
Accuracy**	+/- 0.3 $\mu$ m	+/- 0.5 $\mu$ m	+/- 0.5 $\mu$ m	+/- 0.6 $\mu$ m	+/- 0.6 $\mu$ m
Repeatability**	+/- 0.1 $\mu$ m	+/- 0.15 $\mu$ m	+/- 0.15 $\mu$ m	+/- 0.2 $\mu$ m	+/- 0.2 $\mu$ m
Flatness	+/- 0.2 $\mu$ m	+/- 0.3 $\mu$ m	+/- 0.4 $\mu$ m	+/- 0.5 $\mu$ m	+/- 0.75 $\mu$ m
Pitch	+/- 0.2 arc sec	+/- 0.4 arc sec	+/- 0.8 arc sec	+/- 1.5 arc sec	+/- 3 arc sec
Roll	+/- 0.2 arc sec	+/- 0.4 arc sec	+/- 0.8 arc sec	+/- 1.5 arc sec	+/- 3 arc sec
Yaw	+/- 0.2 arc sec	+/- 0.4 arc sec	+/- 0.8 arc sec	+/- 1.5 arc sec	+/- 3 arc sec

## Drive

Maximum Speed	2 m/s
Maximum acceleration	20 m/s <sup>2</sup>
Maximum force	425 N
Continuous force	95 N

### notes

- \* Other dimensions are possible on demand
- \*\* Other accuracies and repeatabilities are available on demand



type	stage length A
	Travel +300 mm

XY-stages can be constructed by adding two linear stages. Contact us for mounting instructions

LAB delivers dedicated drivers + software to the stages