Ultra-Precision Linear Motion



ABTech, Inc. offers a full line of Ultra-Precision Air Bearing Linear Slides for applications requiring Ultra-Precision linear motion, such as linear straightness measurement, linear positioning, highvelocity, constant velocity and linear systems requiring no static friction.

ABTech's modular design approach and full engineering services can respond quickly to provide a solution to your O.E.M. needs for Ultra-Precision linear motion.

The LAB Slides are Ideal modular components for wafer scanning systems, computer-to-plate systems, linear measurements systems, and vision systems.

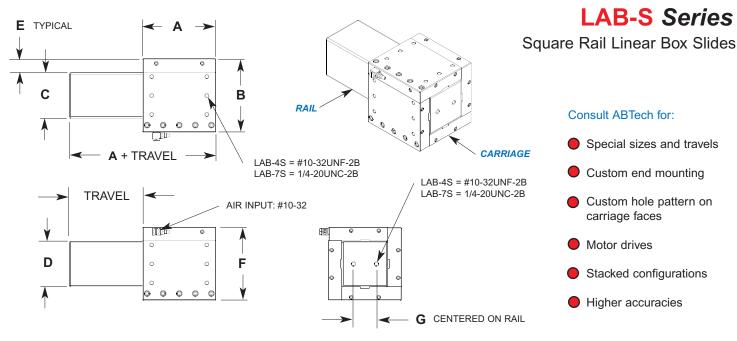
Features:

- Two accuracy grades available for cost effective design
- Ultra-smooth motion, no static friction
- High load capacity and stiffness
- Low air consumption
- Modular design custom systems can be provided for O.E.M.
- Magnetically preloaded, vacuum preloaded
- Motor drives, encoders, drive amplifiers and controls
- Custom tooling and fixturing design and manufacturing
- Rail configurations in dovetail, rectangular or square



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Specifications



	LAB-4S	LAB-7S	
TRAVEL	1.00" TO 24.00"	1.00" TO 42.00"	Accuracy
Α	4.00"	7.00"	Horizontal & Vertical Straightness of travel
В	4.00"	7.00"	Class A1 =
С	2.50"	5.00"	5.0µ"/ln. (0.125µm/25.4mm) & 30µ"/6.00" (0.75µm/152mm)
D	2.50"	5.00"	Class A2 =
E	.75"	1.00"	15.0µ"/ln. (0.375µm/25.4mm) & 90µ"/6.00" (2.25µm/152mm)
F	4.00"	7.00"	ουμ 70.00 (Σ.Σομπ/102ππη)
G	1.75"	3.50"	Ordering Information
Vertacal Load Capacity (**)	90LBS	200LBS	L.A.B 4S - 12 - A1
Horizontal Load Capacity (**)	90LBS	200LBS	Carriage Travel Accuracy Size (Inches) Class
Air Usage	0.8 scfm @ 60 psi	1.0 scfm @ 60 psi	

Slide performance can be effected by method of mounting the rail and loading. Consult ABTech's applications engineering. Specifications are at 4kgf/cm2 (60spi)

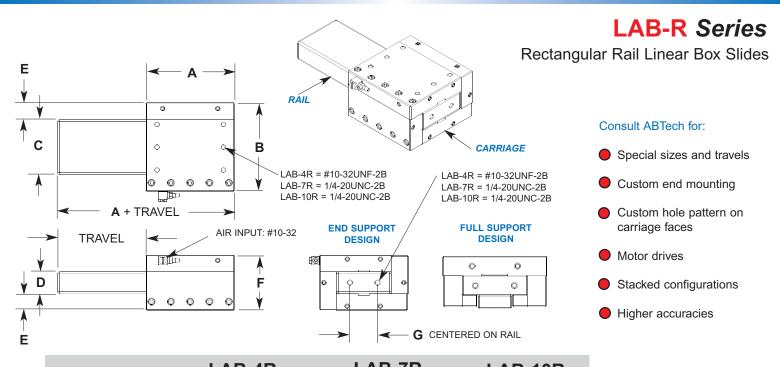
** - Load capacities are estimated at the center of the carriage in both directions. Consult ABTech's applications engineering for moment loading and stiffness considerations.

Specifications are subject to change without notification. Special accuracies can be supplied.

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Specifications



	LAB-4R	LAB-7R	LAB-10R	
TRAVEL	1.00" - 12.00" End Support 1.00"- 24.00" Full Support	1.00" - 12.00" End Support 1.00"- 42.00" Full Support	1.00" - 18.00" End Support	Accuracy
Α	4.00"	7.00"	1.00"- 48.00" Full Support 10.00"	Horizontal & Vertical Straightness of travel
В	4.00"	7.00"	10.00"	Class A1 =
С	2.50"	5.00"	7.00"	5.0μ"/ln. (0.125μm/25.4mm) & 30μ"/6.00" (0.75μm/152mm)
D	1.00"	2.00"	4.00"	Class A2 =
E	.75"	.875"	1.50"	15.0μ"/ln. (0.375μm/25.4mm) & 90μ"/6.00" (2.25μm/152mm)
F	2.50"	3.75"	7.00"	(2.20)
G	1.25"	3.50"	5.50"	Ordering Information
Vertacal Load Capacity (**)	90LBS	200LBS	350LBS	L.A.B 4R - 12 - A1
Horizontal Load Capacity (**)	35LBS	100LBS	200LBS	Carriage Travel Accuracy Size (Inches) Class 4R, 7R
Air Usage	0.8 scfm @ 60 psi	1.0 scfm @ 60 psi	1.5 scfm @ 60 psi	

Slide performance can be effected by method of mounting the rail and loading. Consult ABTech's applications engineering. Specifications are at 4kgf/cm2 (60spi)

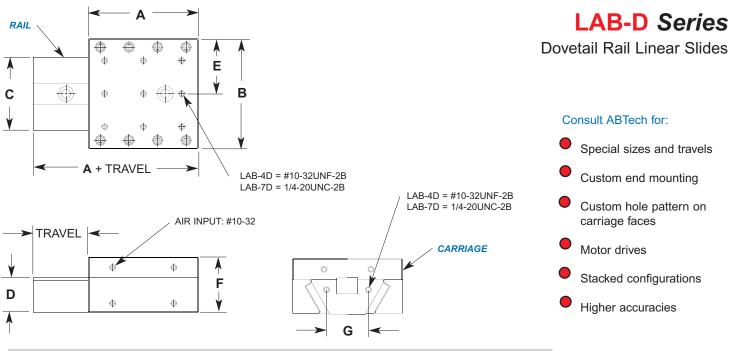
** - Load capacities are estimated at the center of the carriage in both directions. Consult ABTech's applications engineering for moment loading and stiffness considerations.

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Specifications



	LAB-4D	LAB-7D	
TRAVEL	1.00" TO 20.00"	1.00" TO 24.00"	Accuracy
Α	3.94"	7.00"	Horizontal & Vertical Straightness of travel
В	3.94"	7.00"	Class A1 =
С	2.60"	4.63"	5.0μ"/ln. (0.125μm/25.4mm) & 30μ"/6.00" (0.75μm/152mm)
D	1.23"	1.77"	Class A2 =
E	1.97"	3.50"	15.0μ"/ln. (0.375μm/25.4mm) & 90μ"/6.00" (2.25μm/152mm)
F	1.97"	2.95"	σομ 70.00 (2.20μπ/ 102ππη)
G	1.50"	2.75"	Ordering Information
Vertacal Load Capacity (**)	55LBS	130LBS	L.A.B 4D - 12 - A1
Horizontal Load Capacity (**)	22LBS	65LBS	Carriage Travel Accuracy Size (Inches) Class
Air Usage	0.5 scfm @ 60 psi	1.0 scfm @ 60 psi	

Slide performance can be effected by method of mounting the rail and loading. Consult ABTech's applications engineering. Specifications are at 4kgf/cm2 (60spi)

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