



SureMotion[®] XYZ Gantries

SureMotion[®] XYZ Gantry Features

The SureMotion[®] XYZ Gantry offers high-performance linear positioning at an economical price. This system uses recirculating ball linear guides which offer smooth motion and high load capacity. A ball screw version is available for higher speeds and duty cycles.

- Rigid linear bearings
- Lightweight precision aluminum base
- Stackable and easy to assemble
- High-Precision
- Customizable
- Lead or ball screw options
- Wide base available for maximum stiffness
- Up to 910mm stroke
- Anti-backlash leadscrew nut
- Proximity or photoelectric sensor kits available
- Motor mounts available for SureServo[®] servo motors and SureStep[®] stepper motors



LAHP-25 Series Linear Actuators

Part Number	Price	Stroke	Type	Efficiency	Pitch	Max Linear Speed	Linear Position Accuracy	Linear Position Repeatability	Drawing Links
LAHP-25TM52B3M	\$,004oq?:	52mm	ball screw	90%	3mm	0.150 m/s	±0.039 mm	±0.05 mm	PDF
LAHP-25TM52LP25	\$,004oqy:	52mm	lead screw	60%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-25TM102B3M	\$,;004oq,:	102mm	ball screw	90%	3mm	0.150 m/s	±0.0765 mm	±0.05 mm	PDF
LAHP-25TM102LP25	\$,004oqz:	102mm	lead screw	60%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-25TM152B3M	\$,004os0:	152mm	ball screw	90%	3mm	0.150 m/s	±0.114 mm	±0.05 mm	PDF
LAHP-25TM152LP25	\$,;004oqj:	152mm	lead screw	60%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-25TM220B3M	\$,004os1:	220mm	ball screw	90%	3mm	0.150 m/s	±0.165 mm	±0.05 mm	PDF
LAHP-25TM220LP25	\$,;004oq[:	220mm	lead screw	60%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-25TM304B3M	\$,004os2:	304mm	ball screw	90%	3mm	0.140 m/s	±0.228 mm	±0.05 mm	PDF
LAHP-25TM304LP25	\$,004oq_:	304mm	lead screw	60%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-25TM404B3M	\$,004os3:	404mm	ball screw	90%	3mm	0.085 m/s	±0.303 mm	±0.05 mm	PDF
LAHP-25TM404LP25	\$,004oq#:	404mm	lead screw	60%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-25TM504B3M	\$,004os4:	504mm	ball screw	90%	3mm	0.060 m/s	±0.378 mm	±0.05 mm	PDF
LAHP-25TM504LP25	\$,;004oq!:	504mm	lead screw	60%	0.25in	0.085 m/s		±0.013 mm	PDF

LAHP 25 Series Linear Slides

Part Number	Price	Stroke	Max Linear Speed	Drawing Links
LAHP-25TM52SF	\$04os5:	52mm	1.5 m/s	PDF
LAHP-25TM102SF	\$04os6:	102mm		PDF
LAHP-25TM152SF	\$04os7:	152mm		PDF
LAHP-25TM220SF	\$04os8:	220mm		PDF
LAHP-25TM304SF	\$04os9:	304mm		PDF
LAHP-25TM404SF	\$,004osa:	404mm		PDF
LAHP-25TM504SF	\$,004osb:	504mm		PDF

LAHP 25 Series Linear Actuators Specifications

Max Lateral Load, L_T	480N	108 lbf
Max Axial Load, L_A	350N	78.7 lbf
Roll Moment Rating, M_R	36N·m	26.6 lb·ft
Pitch Moment Rating, M_P	48N·m	35.4 lb·ft
Yaw Moment Rating, M_Y	20N·m	14.6 lb·ft
Static Radial Load Rating, C_0	5060N	1138 lbf
Reverse Static Radial Load Rating, $-C_0$	5060N	1138 lbf
Dynamic Load Rating, C	3420N	769 lbf

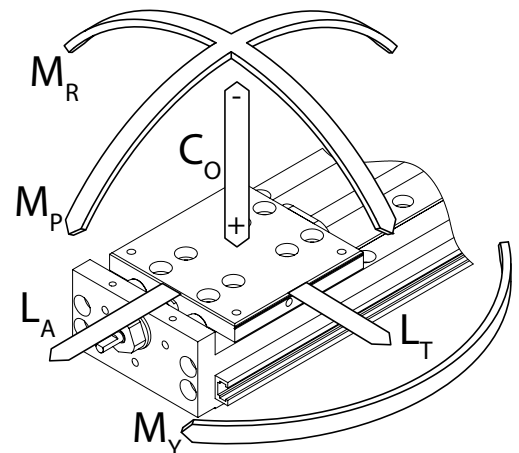


Linear Actuator
[LAHP-25TM52B3M](#)



Linear Slide
[LAHP-25TM52SF](#)

*Same mechanical design as
Linear Actuator, not driven



LAHP 33 Series Linear Actuators

Part Number	Price	Stroke	Type	Efficiency	Pitch	Max Linear Speed	Linear Position Accuracy	Linear Position Repeatability	Drawing Links
LAHP-33TM210B10M	\$,-004osj:	210mm	ball screw	90%	10mm	0.500 m/s	±0.158 mm	±0.05 mm	PDF
LAHP-33TM210LP25	\$,004osc:	210mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33TM310B10M	\$,004osk:	310mm	ball screw	90%	10mm	0.500 m/s	±0.233 mm	±0.05 mm	PDF
LAHP-33TM310LP25	\$,004osd:	310mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33TM410B10M	\$,-004osl:	410mm	ball screw	90%	10mm	0.467 m/s	±0.308 mm	±0.05 mm	PDF
LAHP-33TM410LP25	\$,004ose:	410mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33TM510B10M	\$,004osn:	510mm	ball screw	90%	10mm	0.333 m/s	±0.383 mm	±0.05 mm	PDF
LAHP-33TM510LP25	\$,004osf:	510mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33TM610B10M	\$,004oso:	610mm	ball screw	90%	10mm	0.250 m/s	±0.458 mm	±0.05 mm	PDF
LAHP-33TM610LP25	\$,004osg:	610mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33TM810B10M	\$,004osp:	810mm	ball screw	90%	10mm	0.133 m/s	±0.608 mm	±0.05 mm	PDF
LAHP-33TM810LP25	\$,004osh:	810mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33TM910B10M	\$,004osq:	910mm	ball screw	90%	10mm	0.122 m/s	±0.683 mm	±0.05 mm	PDF
LAHP-33TM910LP25	\$,-004osi:	910mm	lead screw	58%	0.25in	0.077 m/s		±0.013 mm	PDF

LAHP 33 Series Linear Slides

Part Number	Price	Stroke	Max Linear Speed	Drawing Links
LAHP-33TM210SF	\$04oss:	210mm	1.5 m/s	PDF
LAHP-33TM310SF	\$,004ost:	310mm		PDF
LAHP-33TM410SF	\$,004osu:	410mm		PDF
LAHP-33TM510SF	\$,004osv:	510mm		PDF
LAHP-33TM610SF	\$,004osx:	610mm		PDF
LAHP-33TM810SF	\$,004osy:	810mm		PDF
LAHP-33TM910SF	\$,004osz:	910mm		PDF

LAHP 33 Series Linear Actuators Specifications

Max Lateral Load, L_T	480N	108 lbf
Max Axial Load, L_A	890N	200 lbf
Roll Moment Rating, M_R	109N-m	80.4 lb-ft
Pitch Moment Rating, M_P	133N-m	98.1 lb-ft
Yaw Moment Rating, M_Y	25N-m	18.4 lb-ft
Static Radial Load Rating, C_0	6760N	1520 lbf
Reverse Static Radial Load Rating, $-C_0$	6760N	1520 lbf
Dynamic Load Rating, C	5120N	1151 lbf

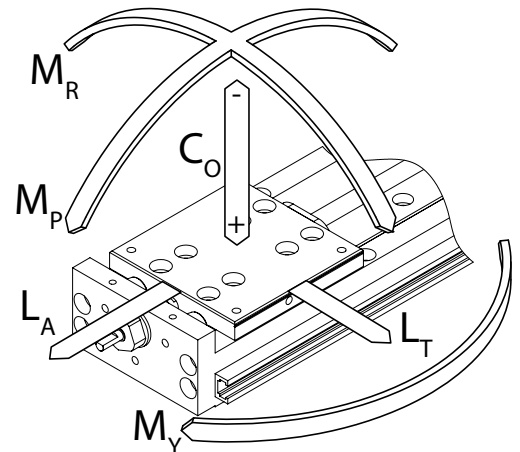


Linear Actuator
[LAHP-33TM210B10M](#)



Linear Slide*
[LAHP-33TM210SF](#)

*Same mechanical design as
Linear Actuator, not driven

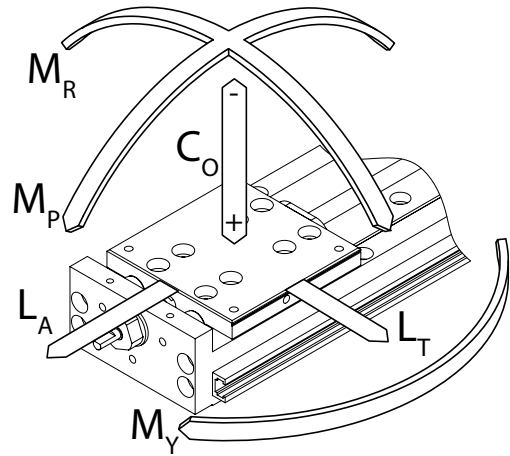


LAHP 33W (Wide) Series Linear Actuators

Part Number	Price	Stroke	Type	Efficiency	Pitch	Max Linear Speed	Linear Position Accuracy	Linear Position Repeatability	Drawing Links
LAHP-33WTM210B10M	\$,;004ot0:	210mm	ball screw	90%	10mm	0.500 m/s	±0.158 mm	±0.05 mm	PDF
LAHP-33WTM210LP25	\$,;004os]:	210mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33WTM310B10M	\$,;004ot1:	310mm	ball screw	90%	10mm	0.500 m/s	±0.233 mm	±0.05 mm	PDF
LAHP-33WTM310LP25	\$,;004os[:	310mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33WTM410B10M	\$,;004ot2:	410mm	ball screw	90%	10mm	0.467 m/s	±0.308 mm	±0.05 mm	PDF
LAHP-33WTM410LP25	\$,;004os_:	410mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33WTM510B10M	\$,;004ot3:	510mm	ball screw	90%	10mm	0.333 m/s	±0.383 mm	±0.05 mm	PDF
LAHP-33WTM510LP25	\$,;004os#:	510mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33WTM610B10M	\$,;004ot4:	610mm	ball screw	90%	10mm	0.250 m/s	±0.458 mm	±0.05 mm	PDF
LAHP-33WTM610LP25	\$,;004os!:	610mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33WTM810B10M	\$,;004ot5:	810mm	ball screw	90%	10mm	0.133 m/s	±0.608 mm	±0.05 mm	PDF
LAHP-33WTM810LP25	\$,;004os?:	810mm	lead screw	58%	0.25in	0.085 m/s		±0.013 mm	PDF
LAHP-33WTM910B10M	\$,;004ota:	910mm	ball screw	90%	10mm	0.122 m/s	±0.683 mm	±0.05 mm	PDF
LAHP-33WTM910LP25	\$,;004os,::	910mm	lead screw	58%	0.25in	0.077 m/s		±0.013 mm	PDF

LAHP 33W Series Linear Actuators Specifications

Max Lateral Load, L_T	480N	108 lbf
Max Axial Load, L_A	890N	200 lbf
Roll Moment Rating, M_R	218N·m	160.8 lb·ft
Pitch Moment Rating, M_P	133N·m	98.1 lb·ft
Yaw Moment Rating, M_Y	25N·m	18.4 lb·ft
Static Radial Load Rating, C_0	6760N	1520 lbf
Reverse Static Radial Load Rating, $-C_0$	6760N	1520 lbf
Dynamic Load Rating, C	5120N	1151 lbf



Linear Actuator (Wide)
[LAHP-33WTM210B10M](#)



Lead Screw Actuator (Wide)
[LAHP-33WTM210LP25](#)

LAHP Series Motor Brackets

Part Number	Price	Bracket Type	Actuator Compatibility	Motor Compatibility	Drawing Links
LAHP-201-25MTRBKT	\$,;04otf:	axial	LAHP-25	SureServo [®] SV2L-201B and SV2L-201N	PDF
LAHP-201-33MTRBKT	\$,04otg:	axial	LAHP-33/33W	SureServo [®] SV2L-201B and SV2L-201N	PDF
LAHP-202-33MTRBKT	\$,04oth:	axial	LAHP-33/33W	SureServo [®] SV2L-202B , SV2L-202N , SV2L-204B , and SV2L-204N	PDF
LAHP-N14-25MTRBKT	\$,04ot6:	axial	LAHP-25	SureStep [®] NEMA 14 stepper motors	PDF
LAHP-N14-25WRPBKT	\$,04ot7:	parallel	LAHP-25	SureStep [®] NEMA 14 stepper motors	PDF
LAHP-N17-25MTRBKT	\$,04ot8:	axial	LAHP-25	SureStep [®] NEMA 17 stepper motors	PDF
LAHP-N17-25WRPBKT	\$,04ot9:	parallel	LAHP-25	SureStep [®] NEMA 17 stepper motors	PDF
LAHP-N17-33MTRBKT	\$,04otb:	axial	LAHP-33/33W	SureStep [®] NEMA 17 stepper motors	PDF
LAHP-N17-33WRPBKT	\$,04otc:	parallel	LAHP-33/33W	SureStep [®] NEMA 17 stepper motors	PDF
LAHP-N23-33MTRBKT	\$,04otd:	axial	LAHP-33/33W	SureStep [®] NEMA 23 stepper motors	PDF
LAHP-N23-33WRPBKT	\$,04ote:	parallel	LAHP-33/33W	SureStep [®] NEMA 23 stepper motors	PDF

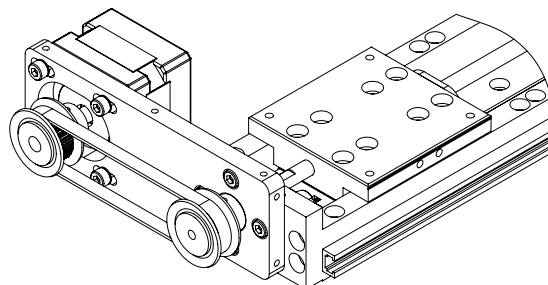
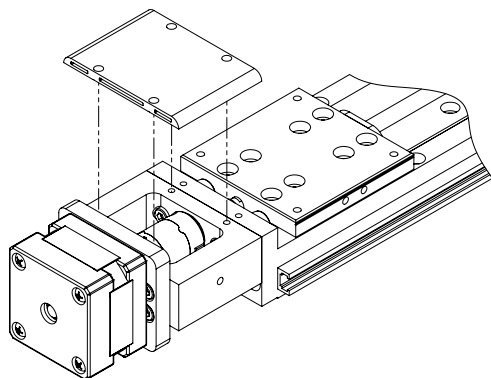


NEMA 14 Axial Motor Bracket*
[LAHP-N14-25MTRBKT](#)

*Coupling Sold Separately



NEMA 14 Parallel Motor Bracket
[LAHP-N14-25WRPBKT](#)



LAHP Series Drive Couplings

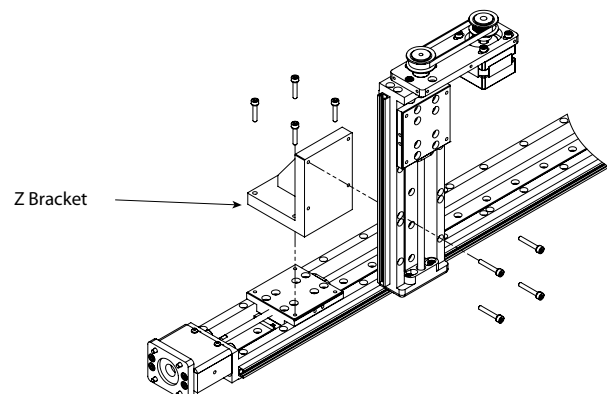
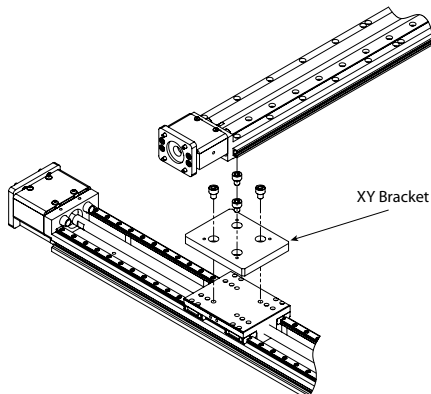
Part Number	Price	Actuator Side Bore	Motor Side Bore	Actuator Compatibility	Motor Compatibility	Drawing Links
LAHP-25-CPL-201	\$,4oto:	3mm	8mm	LAHP-25	SureServo® SV2L-201B and SV2L-201N	PDF
LAHP-25-CPL-N1417	\$,-4oti:	3mm	5mm	LAHP-25	SureStep® NEMA 14/17	PDF
LAHP-33-CPL-201	\$,4otp:	5mm	8mm	LAHP-33/33W	SureServo® SV2L-201B and SV2L-201N	PDF
LAHP-33-CPL-202	\$,4otq:	5mm	14mm	LAHP-33/33W	SureServo® SV2L-202B, SV2L-202N, SV2L-204B, and SV2L-204N	PDF
LAHP-33-CPL-N17	\$,-4otj:	5mm	5mm	LAHP-33/33W	SureStep® NEMA 17	PDF
LAHP-33CPL-N23	\$,4otk:	5mm	1/4in	LAHP-33/33W	SureStep® NEMA 23	PDF



Stepper Motor Coupling (NEMA 14 & 17)
[LAHP-25-CPL-N1417](#)

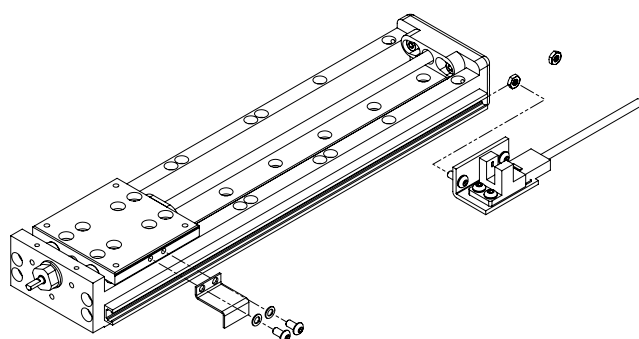
LAHP Series XY and Z Brackets

Part Number	Price	Bracket Type	Description	Drawing Links
LAHP-XYB-25-33	\$,04otx:	XY bracket	SureMotion® mounting bracket, anodized aluminum, XY bracket. For use with LAHP-25 to LAHP-33 series actuators.	PDF
LAHP-XYB-25-33W	\$,04otv:	XY bracket	SureMotion® mounting bracket, anodized aluminum, XY bracket. For use with LAHP-25 to LAHP-33W series actuators.	PDF
LAHP-XYB-33-33W	\$,04otu:	XY bracket	SureMotion® mounting bracket, anodized aluminum, XY bracket. For use with LAHP-33 to LAHP-33W series actuators.	PDF
LAHP-ZB-25-25	\$,04ot_:	Z bracket	SureMotion® mounting bracket, anodized aluminum, Z bracket. For use with LAHP-25 to LAHP-25 series actuators.	PDF
LAHP-ZB-25-33	\$,;04ot[:	Z bracket	SureMotion® mounting bracket, anodized aluminum, Z bracket. For use with LAHP-25 to LAHP-33 series actuators.	PDF
LAHP-ZB-25-33W	\$,04otz:	Z bracket	SureMotion® mounting bracket, anodized aluminum, Z bracket. For use with LAHP-25 to LAHP-33W series actuators.	PDF
LAHP-ZB-33-33	\$,;04otj:	Z bracket	SureMotion® mounting bracket, anodized aluminum, Z bracket. For use with LAHP-33 to LAHP-33 series actuators.	PDF
LAHP-ZB-33-33W	\$,04oty:	Z bracket	SureMotion® mounting bracket, anodized aluminum, Z bracket. For use with LAHP-33 to LAHP-33W series actuators.	PDF

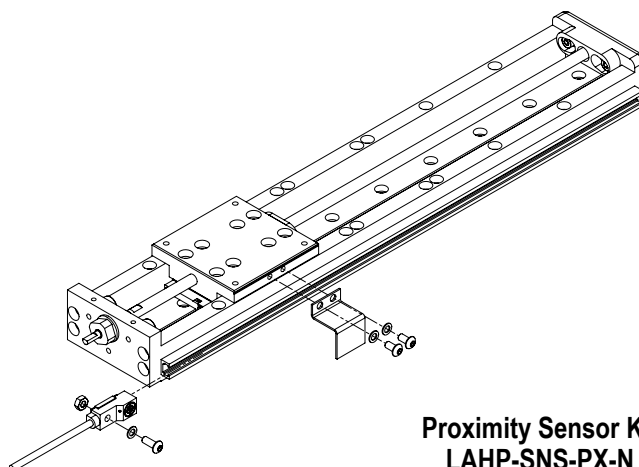


LAHP Series Sensors				
Part Number	Price	Sensor Type	Output	Drawing Links
<u>LAHP-SNS-PH-N</u>	\$;-04ott:	photoelectric sensor	NPN	<u>PDF</u>
<u>LAHP-SNS-PH-P</u>	\$;04otn:	photoelectric sensor	PNP	<u>PDF</u>
<u>LAHP-SNS-PX-N</u>	\$;04ots:	proximity sensor	NPN	<u>PDF</u>
<u>LAHP-SNS-PX-P</u>	\$;:04ott:	proximity sensor	PNP	<u>PDF</u>

NOTE: 3 Sensors included in each kit



Photoelectric Sensor Kit
[LAHP-SNS-PH-N](#)



Proximity Sensor Kit
[LAHP-SNS-PX-N](#)

LAHP Lead Nut Replacement Kit		
Part Number	Price	Description
<u>LAHP-25-NUT-LP25</u>	\$04ou2:	SureMotion [®] lead nut, replacement, 0.25in pitch. For use with LAHP-25 series actuators.
<u>LAHP-33-NUT-LP25</u>	\$04ou3:	SureMotion [®] lead nut, replacement, 0.25in pitch. For use with LAHP-33 series actuators.