

PRODUCT OVERVIEW

LoPro® Linear Motion Systems

LoPro linear motion systems are available in four sizes and in belt, lead screw, ball screw and chain driven configurations, as well as un-driven. LoPro provides a tough, cost effective, low friction, low profile modular solution, built to withstand a wide range of operating environments. LoPro is the system of choice for wood, packaging and textile machinery, as well as the clean room or laboratory.

LoPro has the lowest profile in the industry, accomplished by mounting two lengths of our hardened steel track to a low profile milled aluminum track plate. The veeways are pre-aligned and parallel to within .002in (0.05mm). Track plate is available in single piece lengths up to 10 feet (3m), but are routinely butt-joined with a staggered track arrangement for long custom lengths.

Complete Integrated Package

- Belt, chain, ball screw, lead screw, or un-driven
- 4 wheel plate sizes to accommodate axial loads from 222 lbs to 3,526 lbs (988N to 15,684N)
- Corrosion resistant versions available



Belt Drive

AT style steel reinforced polyurethane belting



Lead Screw

Lead accuracies to .0006 in/in (mm/mm)



Chain Drive

Standard or corrosion resistant ANSI roller chain

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Need Help

Application + Design Assistance
925.439.8272

3D Modeling + CAD Drawing
BWC.com

PRODUCT OVERVIEW

Proven Technology

DualVee Motion Technology® has been successfully employed in industrial linear motion systems for 40 years.

High Speed

Speeds up to 5.5 m/s, and acceleration up to 5 g's.

Low Profile

Sleek, compact design.

Low Noise/Low Vibration

Reduces noise and vibration substantially over recirculating ball designs.

System Components

Linear Guide

The linear guide consists of a track plate assembly(ies) and wheel plate assembly(ies), each wheel plate assembly containing four DualVee wheels.



Wiper wheel plate assembly shown consisting of four DualVee wheels, bushings and a wheel plate



Track plate assembly consisting of two or more lengths of induction hardened steel track mounted to an anodized aluminum substrate

Support Beams

- Aluminum (standard)
- Steel (standard)
- Stainless Steel (custom)



Long Stroke Lengths

Tracks can be butt-joined to create systems of virtually any length (screw driven system lengths are limited by available screw lengths and critical speed).

Tolerant of Contamination and Debris

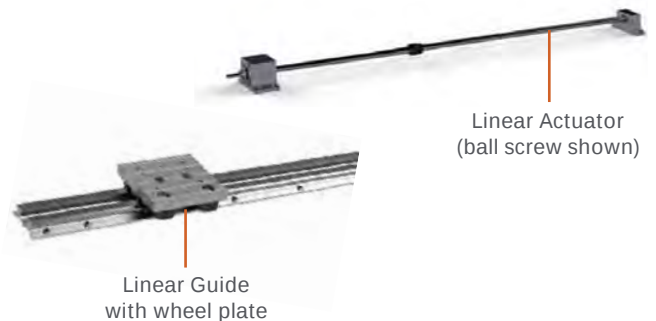
Matching 90-degree vee angle guide wheels and track generate a surface velocity gradient as the motion system runs, providing a constant sweeping action that clears debris out of the way.

Flexibility and Simplicity

Modular system permits optimized engineered solutions for specific application requirements. Wheel-to-track fit-up makes assembly and field maintenance easy to perform.

Linear Actuator

Belt, chain, lead screw, or ball screw driven



Drive and Idler Ends

Drive and idler ends contain support bearings for the drive mechanism.



Motor Mounts (Optional)

Install a wide range of drive motors, shaft couplings and gearboxes with simple and customized motor mounts.



TYPICAL CONFIGURATIONS & WHEEL PLATE OPTIONS



Single Axis Linear Motion



X-Y Gantry Arrangement



X-Y-Z Multi-Axis Arrangement

Wheel Plate Options



LoPro® Basic Wheel Plate



LoPro® Wiper Wheel Plate



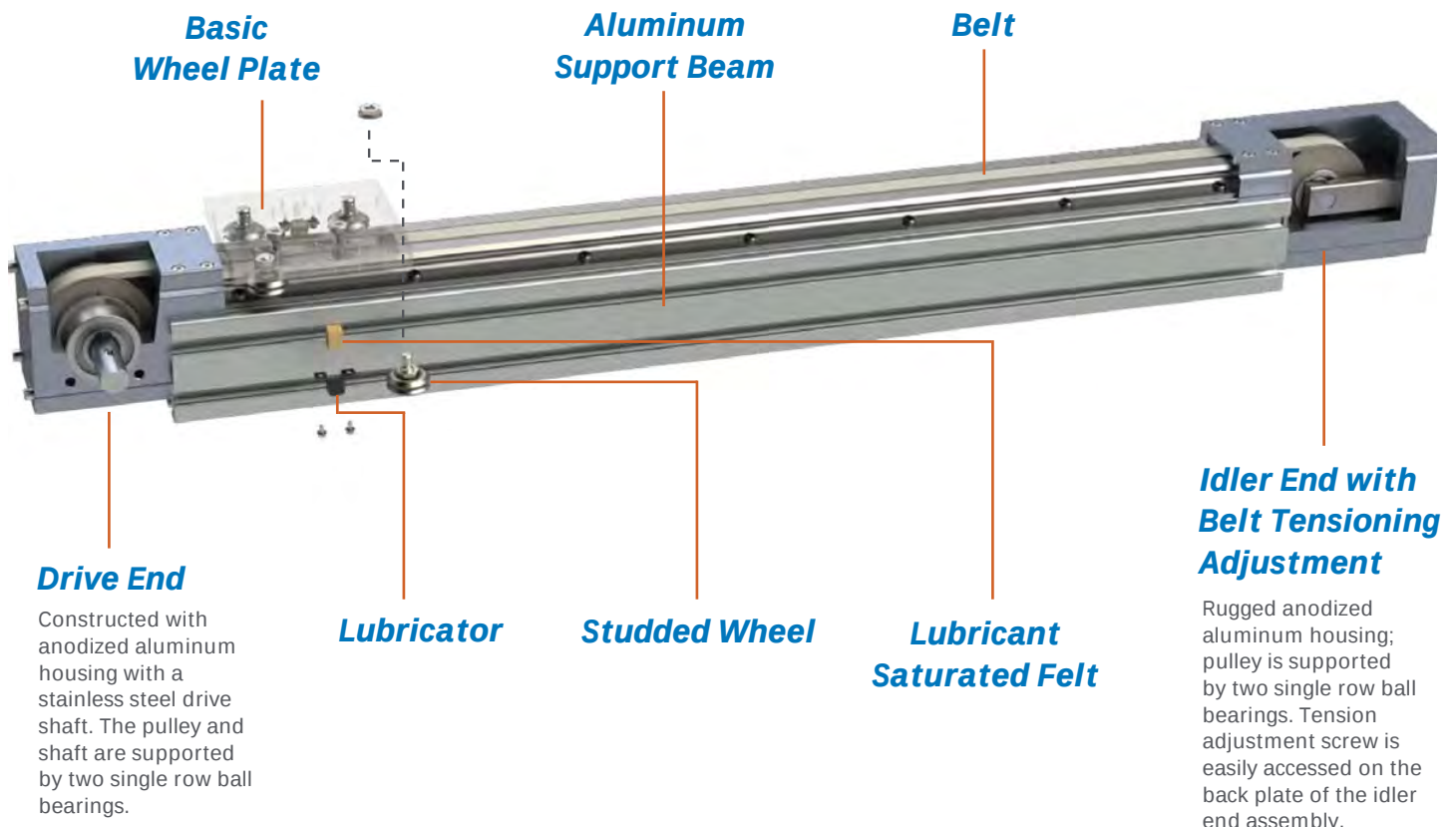
Wheel Cover Option



Track Lubricator Option

BELT DRIVEN SYSTEMS

- Complete belt actuated system, ready for installation
- Long stroke, high speed and acceleration capability
- AT style reinforced polyurethane belting
- Linear accuracy of .008 in/ft (0.2mm/300mm)
- Repeatable within .004 in. (0.1mm)
- Small and large drive options available on size 2
- Aluminum support beams, steel beams or un-mounted (without beams)
- Basic wheel plate or wiper wheel plate
- Standardized motor mount pattern can adapt to virtually any motor or gearbox manufacturer specifications.
- Standard and corrosion resistant versions available
- Aluminum alloy drive end pulleys with aluminum or plated steel flanges



BELT DRIVEN SYSTEMS

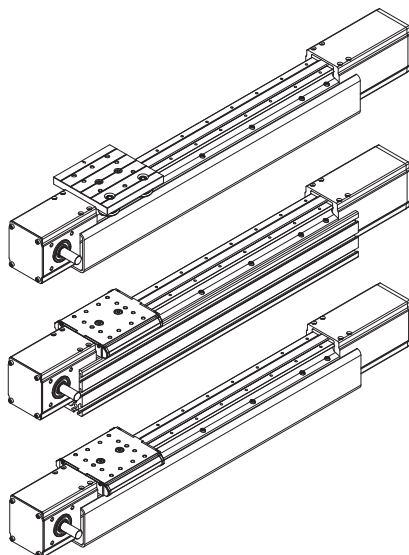
WHEEL PLATE ASSEMBLY LOAD CAPACITIES	SYSTEM SIZE	AXIAL L_A		RADIAL L_R		PITCH M_P		YAW M_Y		ROLL M_R	
		N	LBF	N	LBF	N-M	LBF-FT	N-M	LBF-FT	N-M	LBF-FT
	1	988	222	2391	538	26	18.9	62	45.7	27	19.8
	2S/2L	2450	551	5194	1168	95	70.3	202	148.9	100	73.8
	3	6668	1499	11564	2600	346	254.9	599	442.1	372	274.1
	4	15684	3526	19012	4274	1220	899.5	1478	1090.3	1174	865.6

LOPRO SYSTEM BELT LOAD CAPACITIES				DRIVE END PULLEYS PITCH DIAMETER		BELT TEETH SHEAR STRENGTH FORMULA (N)* (APPROX.)	BELT TEETH SHEAR STRENGTH AT V=0 M/S (N)*	BELT TEETH SHEAR STRENGTH AT V=5.5 M/S (N)*
SYSTEM SIZE	BELT SIZE	WORKING TENSILE LOAD						
		N	LBF	IN	MM			
1	10AT5	630	142	1.128	28.7	F= 315 - 1.17V³ + 15.3V² - 75.3V	315	169
2S	16AT5	1008	227	1.504	38.2	F= 672 - 1.06V³ + 18.4V² - 120V	672	392
2L	16AT10	2085	469	3.133	79.6	F= 1407 - 2.59V³ + 34.2V² - 208V	1407	867
3	20AT10	2606	586	3.759	95.5	F= 1761 - 2.98V³ + 37.3V² - 230V	1761	1128
4	32AT10	4170	937	3.759	95.5	F= 2818 - 4.80V³ + 60.0V² - 369V	2818	1805

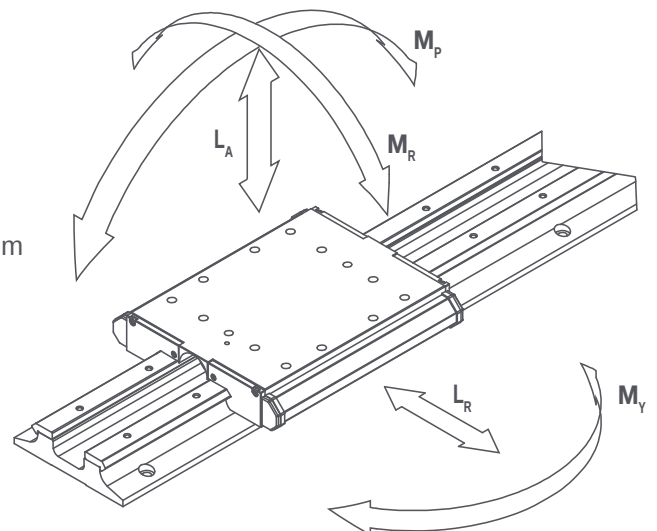
If the wheel plate will be subjected to shock loads, divide the permissible linear force by a safety factor of 1.4 (light shock) to 2 (high shock).

*The belt teeth shear strength is the permissible linear force which the drive pulley can apply to the wheel plate. The sum of the linear force applied to the wheel plate and the belt pretension load must not exceed the working tensile load. V = Linear Speed.

See the Technical Data catalog for more information on sizing, selection, loads, life, and mass.



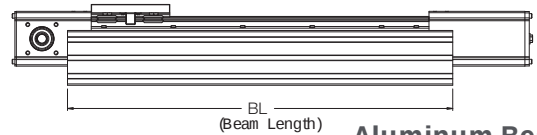
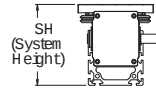
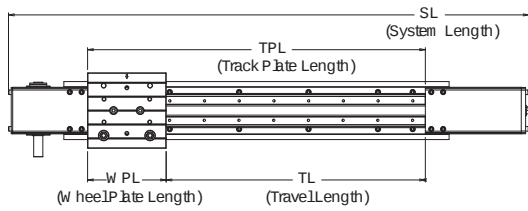
- Basic Wheel Plate
- Aluminum Support Beam
- Wiper Wheel Plate
- Steel Support Beam
- Wiper Wheel Plate
- Aluminum Support Beam



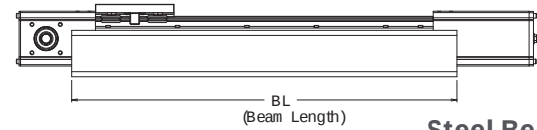
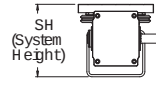
BELT DRIVEN SYSTEMS

Basic Wheel Plate

Beam Mounted

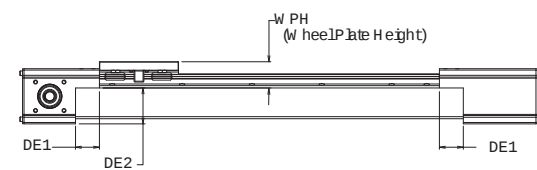
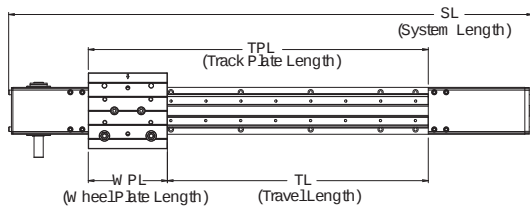


Aluminum Beam



Steel Beam

Un-mounted*



Dimensions

SIZE	TRACK PLATE LENGTH TPL = (TL+WPL)		SYSTEM LENGTH (SL)		SYSTEM HEIGHT (SH)						BEAM LENGTH (BL)		WHEEL PLATE HEIGHT (WPH)	
					ALUMINUM		STEEL		UN-MOUNTED		BEAM-MOUNTED		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1	TL+3.543	TL+90.0	TPL+6.833	TPL+173.6	2.840	72.1	2.765	70.2	1.895	48.1	TL+5.906	TL+150.0	1.265	32.1
2S	TL+5.000	TL+127.0	TPL+8.960	TPL+227.6	3.269	83.0	3.194	81.1	2.796	71.0	TL+8.150	TL+207.0	1.694	43.0
2L	TL+5.000	TL+127.0	TPL+12.522	TPL+318.1	4.844	123.0	4.694	119.2	4.371	110.0	TL+8.150	TL+207.0	1.694	43.0
3	TL+6.772	TL+172.0	TPL+15.751	TPL+400.1	6.969	177.0	6.245	158.6	5.320	135.1	TL+10.866	TL+276.0	2.244	57.0
4	TL+9.528	TL+242.0	TPL+17.358	TPL+440.9	N/A	N/A	6.718	170.6	5.671	144.0	TL+13.780	TL+350.0	2.718	69.0

Dimensions

SIZE	DRIVE END CUTOUT WIDTH (DE1)		DRIVE END CUTOUT HEIGHT (DE2)		SYSTEM INERTIA J = (A + B + C)					
					(A)		(B ¹)		(C ²)	
	IN	MM	IN	MM	IN ²	MM ²	IN	MM	IN ²	MM ²
1	1.181	30.0	.630	16.0	.315lb in ²	92.2kg mm ²	.00142lb in x TL	.0164kg mm x TL	.318in ² x M	205mm ² x M
2S	1.575	40.0	1.102	28.0	1.48lb in ²	433kg mm ²	.00380lb in x TL	.0438kg mm x TL	.566in ² x M	365mm ² x M
2L	1.575	40.0	2.677	68.0	8.35lb in ²	2440kg mm ²	.0275lb in x TL	.317kg mm x TL	2.45in ² x M	1580mm ² x M
3	2.047	52.0	3.075	78.1	27.1lb in ²	7930kg mm ²	.0515lb in x TL	.593kg mm x TL	3.53in ² x M	2280mm ² x M
4	2.126	54.0	2.953	75.0	57.8lb in ²	16900kg mm ²	.0792lb in x TL	.912kg mm x TL	3.53in ² x M	2280mm ² x M

* Un-mounted systems are designed for mounting to a customer-supplied mounting surface. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire track plate length is recommended.

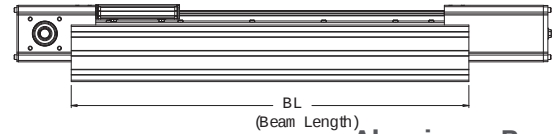
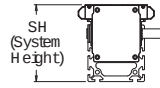
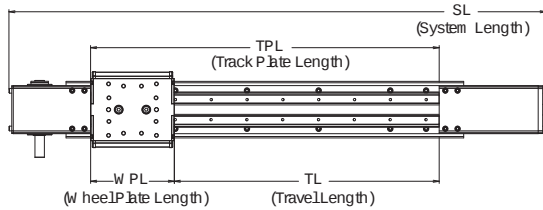
Notes:

1. TL (Travel Length) must be in mm for metric calculation, inches for Imperial calculation.
2. M (Mass of payload on the wheel plate) must be in kg for metric calculation, lbm for Imperial calculation.

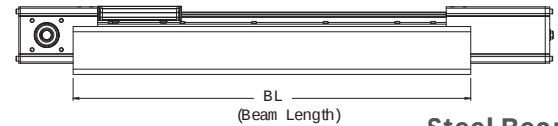
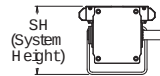
BELT DRIVEN SYSTEMS

Wiper Wheel Plate

Beam Mounted

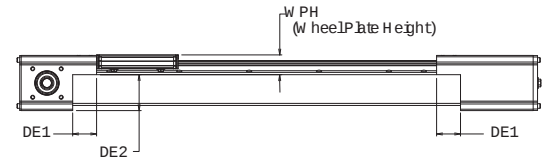
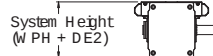
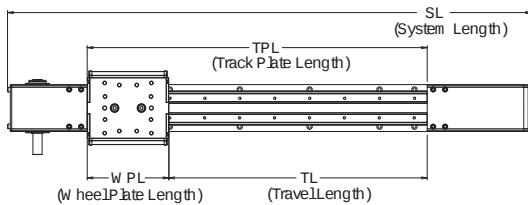


Aluminum Beam



Steel Beam

Un-mounted*



Dimensions

SIZE	TRACK PLATE LENGTH TPL = (TL+WPL)		SYSTEM LENGTH (SL)		SYSTEM HEIGHT (SH)						BEAM LENGTH (BL)		WHEEL PLATE HEIGHT (WPH)	
					ALUMINUM		STEEL		UN-MOUNTED		BEAM-MOUNTED		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1	TL+3.701	TL+94.0	TPL+6.833	TPL+173.6	2.482	63.0	2.407	61.1	1.537	39.0	TL+6.063	TL+154.0	.907	23.0
2S	TL+5.114	TL+129.9	TPL+8.960	TPL+227.6	2.874	73.0	2.799	71.1	2.401	61.0	TL+8.264	TL+209.9	1.299	33.0
2L	TL+5.114	TL+129.9	TPL+12.522	TPL+318.1	4.449	113.0	4.299	109.2	3.976	101.0	TL+8.264	TL+209.9	1.299	33.0
3	TL+6.990	TL+177.6	TPL+15.751	TPL+400.1	6.417	163.0	5.693	144.6	4.768	121.1	TL+11.084	TL+281.6	1.693	43.0
4	TL+9.600	TL+243.8	TPL+17.358	TPL+440.9	N/A	N/A	6.167	156.6	5.120	130.0	TL+13.852	TL+351.8	2.167	55.0

Dimensions

SIZE	DRIVE END CUTOUT WIDTH (DE1)		DRIVE END CUTOUT HEIGHT (DE2)		SYSTEM INERTIA J = (A + B + C)					
	UN-MOUNTED		UN-MOUNTED		(A)		(B ¹)		(C ²)	
	IN	MM	IN	MM	IN ²	MM ²	IN	MM	IN ²	MM ²
1	1.181	30.0	.630	16.0	.234lb in ²	68.4kg mm ²	.00142lb in x TL	.0164kg mm x TL	.318in ² x M	205mm ² x M
2S	1.575	40.0	1.102	28.0	1.21lb in ²	355kg mm ²	.00380lb in x TL	.0438kg mm x TL	.566in ² x M	365mm ² x M
2L	1.575	40.0	2.677	68.0	7.15lb in ²	2090kg mm ²	.0275lb in x TL	.317kg mm x TL	2.45in ² x M	1580mm ² x M
3	2.047	52.0	3.075	78.1	22.9lb in ²	6690kg mm ²	.0515lb in x TL	.593kg mm x TL	3.53in ² x M	2280mm ² x M
4	2.126	54.0	2.953	75.0	49.9lb in ²	14600kg mm ²	.0792lb in x TL	.912kg mm x TL	3.53in ² x M	2280mm ² x M

* Un-mounted systems are designed for mounting to a customer-supplied mounting surface. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire track plate length is recommended.

Notes:

1. TL (Travel Length) must be in mm for metric calculation, inches for Imperial calculation.
2. M (Mass of payload on the wheel plate) must be in kg for metric calculation, lbm for Imperial calculation.

BELT DRIVEN SYSTEMS

Stock Code Builder

LP B 1Z C C C Z R S B 400.0

System

LP: LoPro

Drive System

B: Belt

Size

1Z: Size 1
2S: Size 2S
2L: Size 2L
3Z: Size 3
4Z: Size 4

System Material

C: Carbon Steel (Standard)
S: Stainless Steel (Corrosion Resistant)

Wheel Plate Type²

W: Wiper Wheel Plate
L: Basic Wheel Plate w/ Track Lubricators
C: Basic Wheel Plate w/ Wheel Covers

Wheel Type

C: Carbon Steel
S: Stainless Steel
H: Stainless Steel 227 High Temp.
L: Stainless Steel 300 Low Temp.
W: Stainless Steel Washdown
V: Stainless Steel Vacuum

Travel Length

Enter Value in
0.1mm increments

Version

B: Version B

Support Beam

U: Un-mounted
A: Aluminum Beam¹
S: Steel Beam
D: Stainless Steel Beam²

Drive Configuration

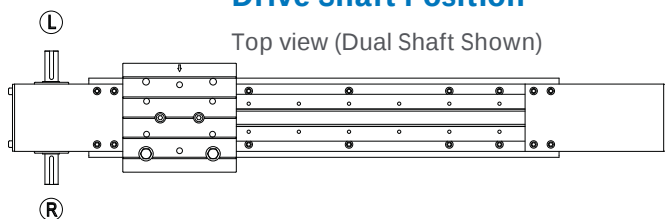
L: Left Hand Output Shaft
R: Right Hand Output Shaft
D: Dual L/R Output Shaft
E: Left Hand Output Shaft Open Bottom
F: Right Hand Output Shaft Open Bottom
G: Dual L/R Output Shaft Open Bottom

Additional Wheel Plate Options

R: Sensor Flag Right Side
L: Sensor Flag Left Side
Y: Sensor Flags Right & Left Sides
Z: No Sensor Flag

Drive Shaft Position

Top view (Dual Shaft Shown)



Ordering Example

LPB1ZCCCZRSB 400.0

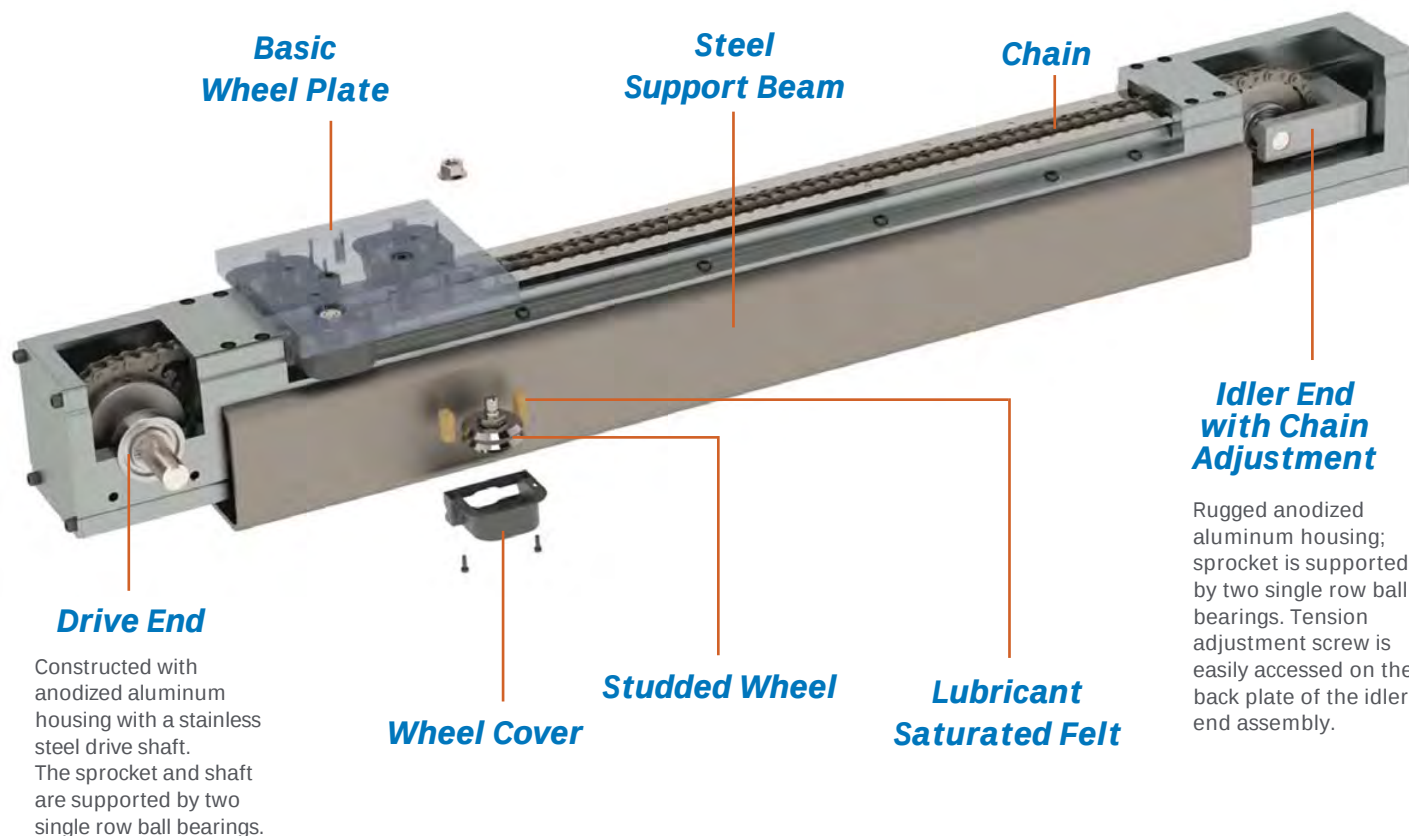
LoPro, Belt, Size 1, Carbon Steel, Basic Wheel Plate with Wheel Covers, Carbon Steel Wheels, No Sensor Flags, Right Hand Output Shaft Configuration, Steel Beam Mounted, Version B, 400.0mm Travel.

Notes:

1. Aluminum beam is not available in size 4.
2. Corrosion resistant systems are available with basic wheel plate or wiper wheel plate. Corrosion resistant systems on stainless steel beams are custom. Contact Bishop-Wisecarver for details.

CHAIN DRIVEN SYSTEMS

- Complete chain actuated system, ready for installation
- Ideal for vertical hoisting and large load actuation over long lengths
- Standard or corrosion resistant ANSI roller chain
- Accurate to .015 in/ft (0.4mm/300mm)
Repeatable within .008 in (0.2mm)
- Small and large drive options available on size 2
- Aluminum support beams, steel beams or un-mounted (without beams)
- Basic wheel plate or wiper wheel plate
- Standardized motor mount pattern can adapt to virtually any motor or gearbox manufacturer specifications.
- Steel or stainless steel drive end sprockets



Drive End
Constructed with anodized aluminum housing with a stainless steel drive shaft. The sprocket and shaft are supported by two single row ball bearings.

Wheel Cover

Studded Wheel

Lubricant Saturated Felt

Idler End with Chain Adjustment

Rugged anodized aluminum housing; sprocket is supported by two single row ball bearings. Tension adjustment screw is easily accessed on the back plate of the idler end assembly.

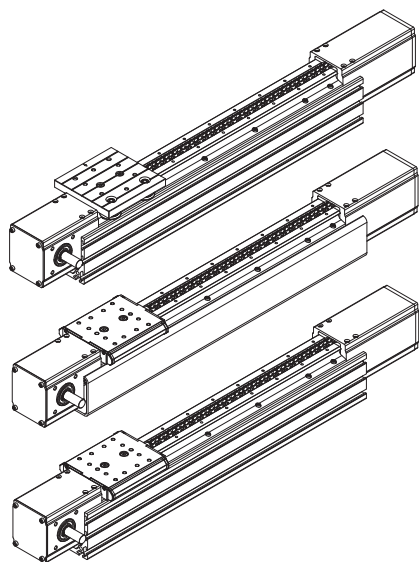
CHAIN DRIVEN SYSTEMS

WHEEL PLATE ASSEMBLY LOAD CAPACITIES	SYSTEM SIZE	AXIAL L_A		RADIAL L_R		PITCH M_P		YAW M_Y		ROLL M_R	
		N	LBF	N	LBF	N-M	LBF-FT	N-M	LBF-FT	N-M	LBF-FT
	1	988	222	2391	538	26	18.9	62	45.7	27	19.8
	2S/2L	2450	551	5194	1168	95	70.3	202	148.9	100	73.8
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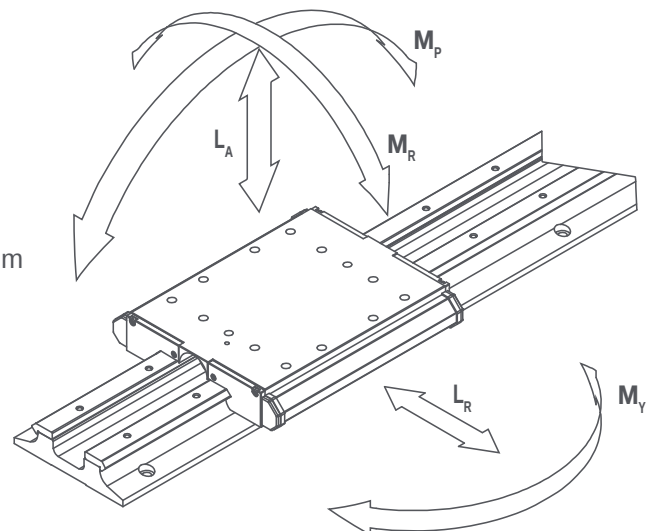
LOPRO SYSTEM CHAIN LOAD CAPACITIES										DRIVE END SPROCKETS		
SYSTEM SIZE	CHAIN SIZE SINGLE STRAND	STATIC/SLOW SPEED WORKING LOAD*				WORKING LOAD AT 0.5 M/S*				PITCH DIAMETER		NUMBER OF TEETH
		STEEL		STAINLESS STEEL		STEEL		STAINLESS STEEL				
		N	LBF	N	LBF	N	LBF	N	LBF	IN	MM	
1	25	431	97	347	78	267	60	214	48	.966	24.5	12
2S	35	1036	233	841	189	618	139	494	111	1.449	36.8	12
2L	35	1036	233	841	189	645	145	516	116	3.111	79.0	26
3	40	1975	444	1481	333	1152	259	863	194	3.672	93.3	23
4	50	3261	733	2322	522	1788	402	1272	286	3.599	91.4	18

*Working load varies with speed. Contact Bishop-Wisecarver for specific application information.

See the Technical Data catalog for more information on sizing, selection, loads, life, and mass.



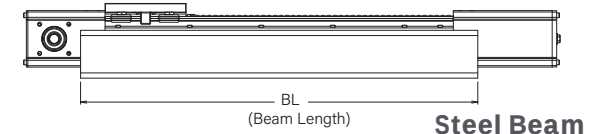
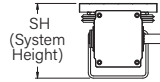
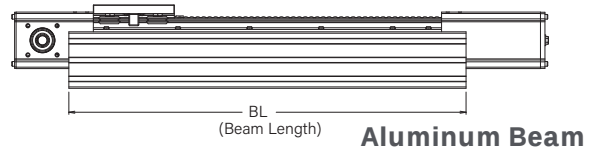
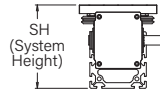
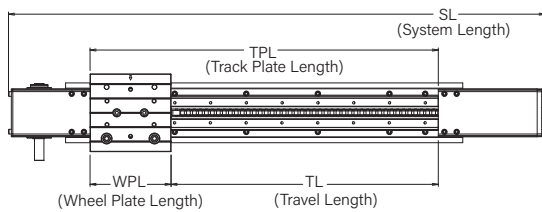
- Basic Wheel Plate
- Aluminum Support Beam
- Wiper Wheel Plate
- Steel Support Beam
- Wiper Wheel Plate
- Aluminum Support Beam



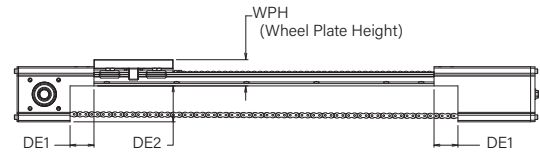
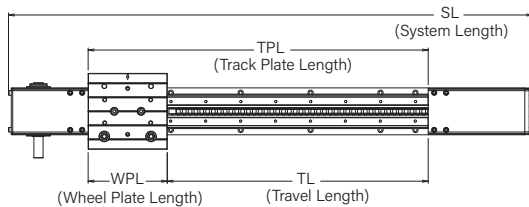
CHAIN DRIVEN SYSTEMS

Basic Wheel Plate

Beam Mounted



Un-mounted*



Dimensions

SIZE	TRACK PLATE LENGTH TPL = (TL+WPL)		SYSTEM LENGTH (SL)		SYSTEM HEIGHT (SH)						BEAM LENGTH (BL)		WHEEL PLATE HEIGHT (WPH)	
					ALUMINUM		STEEL		UN-MOUNTED		BEAM-MOUNTED		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1	TL+3.543	TL+90.0	TPL+6.833	TPL+173.6	2.840	72.1	2.765	70.2	1.895	48.1	TL+5.906	TL+150.0	1.265	32.1
2S	TL+5.000	TL+127.0	TPL+8.960	TPL+227.6	3.269	83.0	3.194	81.1	2.796	71.0	TL+8.150	TL+207.0	1.694	43.0
2L	TL+5.000	TL+127.0	TPL+12.522	TPL+318.1	4.844	123.0	4.694	119.2	4.371	110.0	TL+8.150	TL+207.0	1.694	43.0
3	TL+6.772	TL+172.0	TPL+15.751	TPL+400.1	6.969	177.0	6.245	158.6	5.320	135.1	TL+10.866	TL+276.0	2.244	57.0
4	TL+9.528	TL+242.0	TPL+17.358	TPL+440.9	N/A	N/A	6.718	170.6	5.671	144.0	TL+13.780	TL+350.0	2.718	69.0

Dimensions

SIZE	DRIVE END CUTOUT WIDTH (DE1)		DRIVE END CUTOUT HEIGHT (DE2)		SYSTEM INERTIA J = (A + B + C)					
					(A)		(B ¹)		(C ²)	
	IN	MM	IN	MM	IN ²	MM ²	IN	MM	IN ²	MM ²
1	1.181	30.0	.630	16.0	.256lb in ²	74.8kg mm ²	.0037lb in x TL	.0421kg mm x TL	.234in ² x M	151mm ² x M
2S	1.575	40.0	1.102	28.0	1.62lb in ²	474kg mm ²	.020lb in x TL	.230kg mm x TL	.525in ² x M	339mm ² x M
2L	1.575	40.0	2.677	68.0	9.78lb in ²	2860kg mm ²	.092lb in x TL	1.06kg mm x TL	2.42in ² x M	1560mm ² x M
3	2.047	52.0	3.075	78.1	31.7lb in ²	9260kg mm ²	.241lb in x TL	2.78kg mm x TL	3.36in ² x M	2170mm ² x M
4	2.126	54.0	2.953	75.0	60.2lb in ²	17600kg mm ²	.388lb in x TL	4.47kg mm x TL	3.24in ² x M	2090mm ² x M

* Un-mounted systems are designed for mounting to a customer-supplied mounting surface. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire track plate length is recommended.

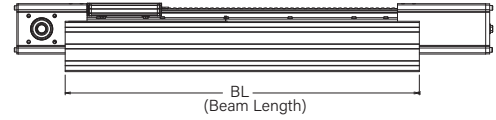
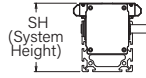
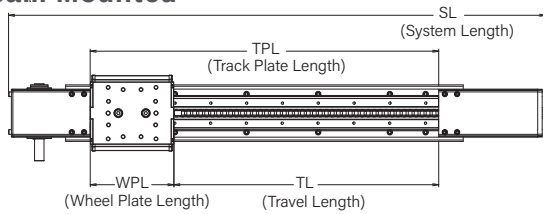
Notes:

1. TL (Travel Length) must be in mm for metric calculation, inches for Imperial calculation.
2. M (Mass of payload on the wheel plate) must be in kg for metric calculation, lbf for Imperial calculation.

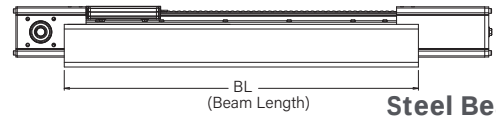
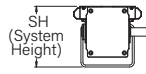
CHAIN DRIVEN SYSTEMS

Wiper Wheel Plate

Beam Mounted

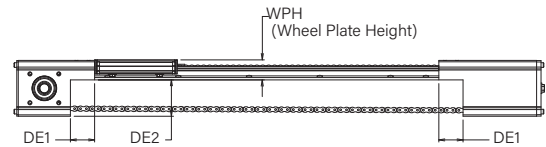
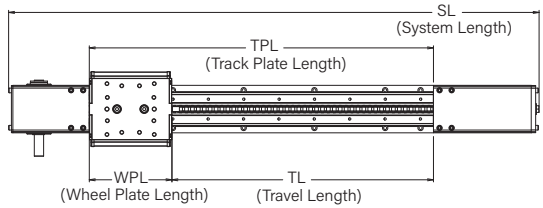


Aluminum Beam



Steel Beam

Un-mounted*



Dimensions

SIZE	TRACK PLATE LENGTH TPL = (TL+WPL)		SYSTEM LENGTH (SL)		SYSTEM HEIGHT (SH)						BEAM LENGTH (BL)		WHEEL PLATE HEIGHT (WPH)	
					ALUMINUM		STEEL		UN-MOUNTED		BEAM-MOUNTED		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1	TL+3.701	TL+94.0	TPL+6.833	TPL+173.6	2.482	63.0	2.407	61.1	1.537	39.0	TL+6.063	TL+154.0	.907	23.0
2S	TL+5.114	TL+129.9	TPL+8.960	TPL+227.6	2,874	73.0	2.799	71.1	2.401	61.0	TL+8.264	TL+209.9	1.299	33.0
2L	TL+5.114	TL+129.9	TPL+12.522	TPL+318.1	4.449	113.0	4.299	109.2	3.976	101.0	TL+8.264	TL+209.9	1.299	33.0
3	TL+6.990	TL+177.6	TPL+15.751	TPL+400.1	6.417	163.0	5.693	144.6	4.768	121.1	TL+11.084	TL+281.6	1.693	43.0
4	TL+9.600	TL+243.8	TPL+17.358	TPL+440.9	N/A	N/A	6.167	156.6	5.120	130.0	TL+13.852	TL+351.8	2.167	55.0

Dimensions

SIZE	DRIVE END CUTOUT WIDTH DE1		DRIVE END CUTOUT HEIGHT DE2		SYSTEM INERTIA J = (A + B + C)					
	UN-MOUNTED		UN-MOUNTED		(A)		(B ¹)		(C ²)	
	IN	MM	IN	MM	IN ²	MM ²	IN	MM	IN ²	MM ²
1	1.181	30.0	.630	16.0	.197lb in ²	57.6kg mm ²	.00366lb in x TL	.0421kg mm x TL	.234in ² x M	151mm ² x M
2S	1.575	40.0	1.102	28.0	1.37lb in ²	402kg mm ²	.020lb in x TL	.23kg mm x TL	.525in ² x M	339mm ² x M
2L	1.575	40.0	2.677	68.0	8.65lb in ²	2530kg mm ²	.092lb in x TL	1.06kg mm x TL	2.42in ² x M	1560mm ² x M
3	2.047	52.0	3.075	78.1	27.7lb in ²	8090kg mm ²	.241lb in x TL	2.78kg mm x TL	3.36in ² x M	2170mm ² x M
4	2.126	54.0	2.953	75.0	53.4lb in ²	15600kg mm ²	.388lb in x TL	4.47kg mm x TL	3.24in ² x M	2090mm ² x M

* Un-mounted systems are designed for mounting to a customer-supplied mounting surface. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire track plate length is recommended.

Notes:

1. TL (Travel Length) must be in mm for metric calculation, inches for Imperial calculation.
2. M (Mass of payload on the wheel plate) must be in kg for metric calculation, lbm for Imperial calculation.

CHAIN DRIVEN SYSTEMS

Stock Code Builder

System

LP: LoPro

Drive System

C: Chain

Size

1Z: Size 1
2S: Size 2S
2L: Size 2L
3Z: Size 3
4Z: Size 4

System Material

C: Carbon Steel (Standard)
S: Stainless Steel (Corrosion Resistant)

Wheel Plate Type²

W: Wiper Wheel Plate
L: Basic Wheel Plate w/ Track Lubricators
C: Basic Wheel Plate w/ Wheel Covers

Wheel Type

C: Carbon Steel
S: Stainless Steel
H: Stainless Steel 227 High Temp.
L: Stainless Steel 300 Low Temp.
W: Stainless Steel Washdown
V: Stainless Steel Vacuum

Travel Length

Enter Value in 0.1mm increments

Version

B: Version B

Support Beam

U: Un-mounted
A: Aluminum Beam¹
S: Steel Beam
D: Stainless Steel Beam²

Drive Configuration

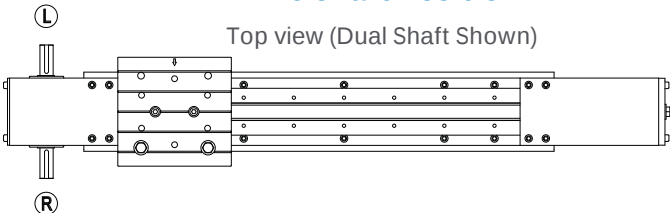
L: Left Hand Output Shaft
R: Right Hand Output Shaft
D: Dual L/R Output Shaft
E: Left Hand Output Shaft Open Bottom
F: Right Hand Output Shaft Open Bottom
G: Dual L/R Output Shaft Open Bottom

Additional Wheel Plate Options

R: Sensor Flag Right Side
L: Sensor Flag Left Side
Y: Sensor Flags Right & Left Sides
Z: No Sensor Flag

Drive Shaft Position

Top view (Dual Shaft Shown)



LP

C

1Z

C

W

C

Z

R

A

B

1475.5

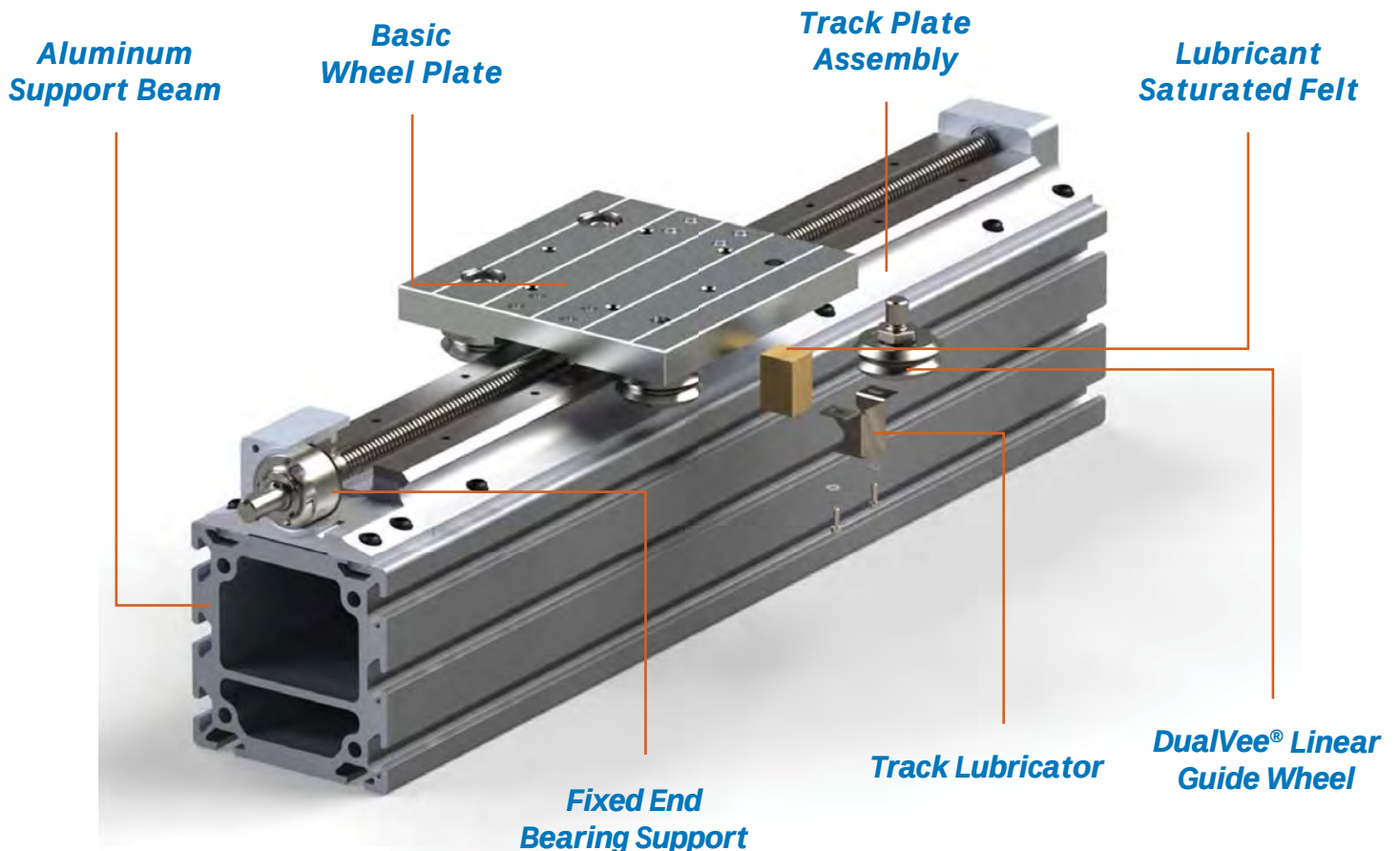
Ordering Example

LPC1ZCWCZRAB 1475.5
LoPro, Chain, Size 1, Carbon Steel, Wiper Wheel Plate, Carbon Steel Wheels, No Sensor Flags, Right Hand Output Shaft Configuration, Aluminum Beam Mounted, Version B, 1475.5mm Travel.

- Notes:
- 1. Aluminum beam is not available in size 4.
 - 2. Corrosion resistant systems are available with basic wheel plate or wiper wheel plate. Corrosion resistant systems on stainless steel beams are custom. Contact Bishop-Wisecarver for details.

LEAD SCREW DRIVEN SYSTEMS

- Complete lead screw actuated system, ready for installation
- Standard (BY) or anti-backlash (NTBY & VHDY) nuts
- Lead accuracies to .0006 in/in (mm/mm)
- Repeatable within .0005 in (0.01mm)
- Aluminum support beams, steel beams or un-mounted (without beams)
- Basic wheel plate or wiper wheel plate
- Standardized motor mount pattern can adapt to virtually any motor or gearbox manufacturer specifications.
- Standard and corrosion resistant versions available

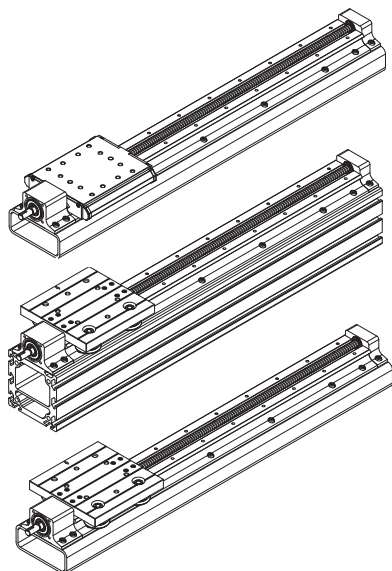


LEAD SCREW DRIVEN SYSTEMS

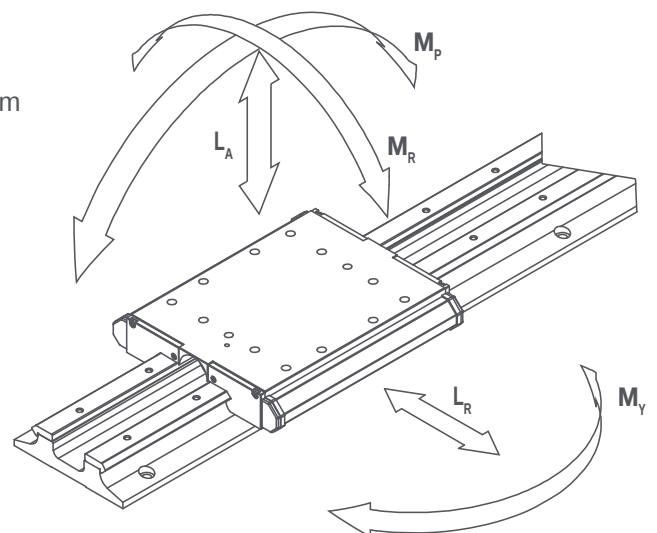
WHEEL PLATE ASSEMBLY LOAD CAPACITIES	SYSTEM SIZE	AXIAL L_A		RADIAL L_R		PITCH M_P		YAW M_Y		ROLL M_R	
		N	LBF	N	LBF	N-M	LBF-FT	N-M	LBF-FT	N-M	LBF-FT
	1	988	222	2391	538	26	18.9	62	45.7	27	19.8
	2S/2L	2450	551	5194	1168	95	70.3	202	148.9	100	73.8
	3	6668	1499	11564	2600	346	254.9	599	442.1	372	274.1
	4	15684	3526	19012	4274	1220	899.5	1478	1090.3	1174	865.6

LEAD SCREW THRUST CAPACITIES	SYSTEM SIZE	SCREW DIAMETER	NUT TYPE	DYNAMIC THRUST LOAD CAPACITY	
		IN		N	LBS
	1	1/4	BY	222	50.0
			NTBY	44	9.9
	2	3/8	BY	334	75.0
			NTBY	89	20.0
	3	1/2	NTBY	444	100.0
		5/8	BY	1000	225.0
	4	3/4	BY	1556	350.0
			VHDY	1556	350.0

See the Technical Data catalog for more information on sizing, selection, loads, life, and mass / inertia.



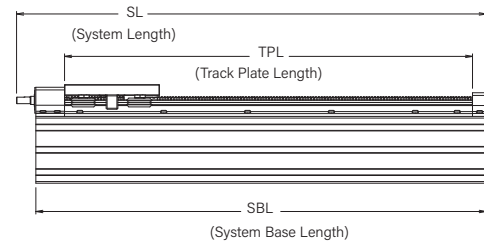
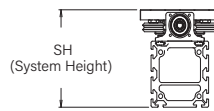
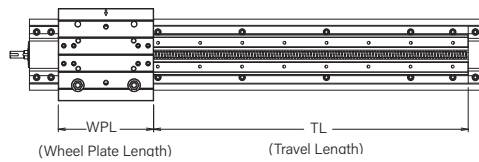
- Wiper Wheel Plate
- Steel Support Beam
- Basic Wheel Plate
- Aluminum Support Beam
- Basic Wheel Plate
- Steel Support Beam



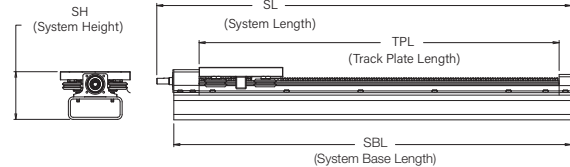
LEAD SCREW DRIVEN SYSTEMS

Basic Wheel Plate

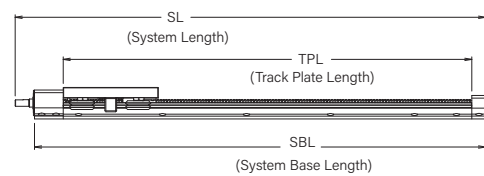
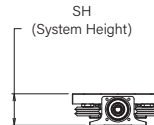
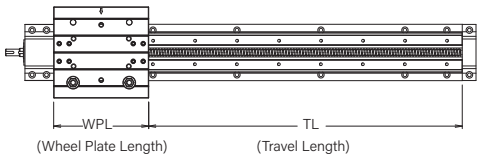
Beam Mounted



Aluminum Beam



Un-mounted*



Steel Beam

Dimensions

SIZE	SCREW DIAMETER	TRACK PLATE LENGTH TPL = (TL+WPL)						SYSTEM LENGTH (SL)		SYSTEM BASE LENGTH (SBL)	
		BY		NTBY		VHDY					
		IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1	1/4	TL+3.543	TL+90.0	TL+3.543	TL+90.0	N/A	N/A	TPL+2.588	TPL+65.7	TPL+1.691	TPL+43.0
2	3/8	TL+5.391	TL+136.9	TL+6.061	TL+154.0	N/A	N/A	TPL+3.617	TPL+91.9	TPL+2.325	TPL+59.1
3	1/2	N/A	N/A	TL+6.772	TL+172.0	N/A	N/A	TPL+4.434	TPL+112.6	TPL+3.027	TPL+76.9
	5/8	TL+6.772	TL+172.0	N/A	N/A	N/A	N/A	TPL+4.434	TPL+112.6	TPL+3.027	TPL+76.9
4	3/4	TL+10.558	TL+268.2	N/A	N/A	TL+11.678	TL+296.6	TPL+4.792	TPL+121.7	TPL+3.385	TPL+86.0

Dimensions

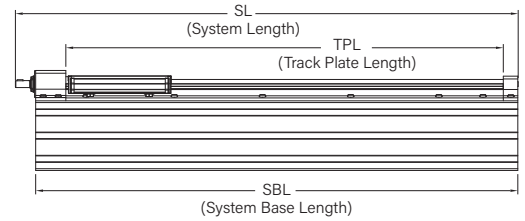
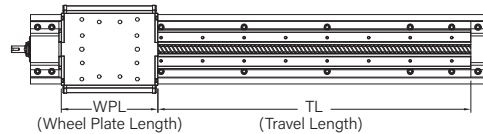
SIZE	SYSTEM HEIGHT (SH)					
	ALUMINUM		STEEL		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM
1	2.840	72.1	2.765	70.2	1.265	32.1
2	3.269	83.0	3.194	81.1	1.694	43.0
3	6.969	177.0	4.245	107.8	2.244	57.0
4	N/A	N/A	4.718	119.8	2.718	69.0

*Un-mounted systems are designed for mounting to a customer-supplied mounting surface and are shipped with temporary mounting plates affixing the fixed and simple ends to the track plate. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire system base length is required.

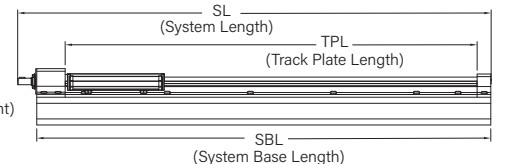
LEAD SCREW DRIVEN SYSTEMS

Wiper Wheel Plate

Beam Mounted

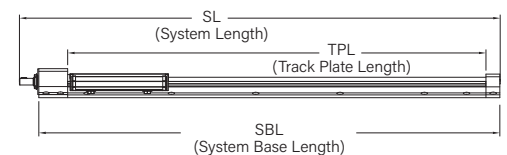
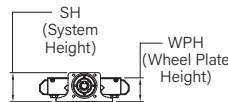
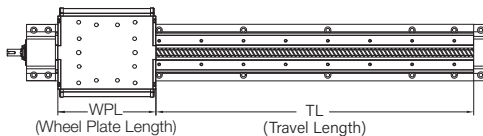


Aluminum Beam



Steel Beam

Un-mounted*



Dimensions

SIZE	SCREW DIAMETER	TRACK PLATE LENGTH TPL = (TL+WPL)						SYSTEM LENGTH (SL)		SYSTEM BASE LENGTH (SBL)	
		BY		NTBY		VHDY					
		IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1	1/4	TL+3.770	TL+95.8	TL+3.807	TL+96.7	N/A	N/A	TPL+2.588	TPL+65.7	TPL+1.691	TPL+43.0
2	3/8	TL+5.114	TL+129.9	TL+5.783	TL+146.9	N/A	N/A	TPL+3.617	TPL+91.9	TPL+2.325	TPL+59.1
3	1/2	N/A	N/A	TL+7.694	TL+195.4	N/A	N/A	TPL+4.434	TPL+112.6	TPL+3.027	TPL+76.9
	5/8	TL+7.099	TL+180.3	N/A	N/A	N/A	N/A	TPL+4.434	TPL+112.6	TPL+3.027	TPL+76.9
4	3/4	TL+10.630	TL+270.0	N/A	N/A	TL+11.750	TL+298.5	TPL+4.792	TPL+121.7	TPL+3.385	TPL+86.0

Dimensions

SIZE	WHEEL PLATE HEIGHT (CH)						SYSTEM HEIGHT (SH)					
	ALUMINUM		STEEL		UN-MOUNTED		ALUMINUM		STEEL		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1	2.481	63.0	2.406	61.1	.906	23.0	2.775	70.5	2.700	68.6	1.200	30.5
2	2.874	73.0	2.799	71.1	1.299	33.0	3.275	83.2	3.200	81.3	1.700	43.2
3	6.417	163.0	3.693	93.8	1.693	43.0	6.784	172.3	4.060	103.1	2.060	52.3
4	N/A	N/A	4.167	105.8	2.167	55.0	N/A	N/A	4.700	119.4	2.700	68.6

*Un-mounted systems are designed for mounting to a customer-supplied mounting surface and are shipped with temporary mounting plates affixing the fixed and simple ends to the track plate. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire system base length is required.

LEAD SCREW DRIVEN SYSTEMS

Stock Code Builder

LP L 3Z C L C Y D S A 500.0

System

LP: LoPro

Drive System

L: Lead Screw

Size

1Z: Size 1 3Z: Size 3
2Z: Size 2 4Z: Size 4

System Material

C: Carbon Steel (Standard)
S: Stainless Steel (Corrosion Resistant)

Wheel Plate Type²

W: Wiper Wheel Plate
L: Basic Wheel Plate w/ Track Lubricators
C: Basic Wheel Plate w/ Wheel Covers

Wheel Type

C: Carbon Steel
S: Stainless Steel
H: Stainless Steel 227 High Temp.
L: Stainless Steel 300 Low Temp.
W: Stainless Steel Washdown
V: Stainless Steel Vacuum

Additional Wheel Plate Options

R: Sensor Flag Right Side
L: Sensor Flag Left Side
Y: Sensor Flags Right & Left Sides
Z: No Sensor Flag

Travel Length

Enter Value in
0.1mm increments

Version

A: Version A

Support Beam

U: Un-mounted
A: Aluminum Beam¹
S: Steel Beam
D: Stainless Steel Beam²

Drive Configuration

Size 1 Systems

A: 1/4" x 2mm, BY Nut
B: 1/4" x 2mm, NTBY Nut
C: 1/4" x 10mm, BY Nut
D: 1/4" x 10mm, NTBY Nut

Size 2 Systems

A: 3/8" x 5mm, BY Nut
B: 3/8" x 5mm, NTBY Nut
C: 3/8" x 12mm, BY Nut
D: 3/8" x 12mm, NTBY Nut
E: 3/8" x 25mm, BY Nut
F: 3/8" x 25mm, NTBY Nut

Size 3 Systems

A: 1/2" x 5mm, NTBY Nut
B: 1/2" x 10mm, NTBY Nut
C: 1/2" x 25mm, NTBY Nut
D: 5/8" x 8mm, BY Nut
E: 5/8" x 16mm, BY Nut

Size 4 Systems

A: 3/4" x 5mm, BY Nut
B: 3/4" x 5mm, VHDY Nut
C: 3/4" x 10mm, BY Nut
D: 3/4" x 10mm, VHDY Nut
E: 3/4" x 24mm, BY Nut
F: 3/4" x 24mm, VHDY Nut
G: 3/4" x 50mm, BY Nut
H: 3/4" x 50mm, VHDY Nut

Ordering Example

LPL3ZCLCDSA 500.0

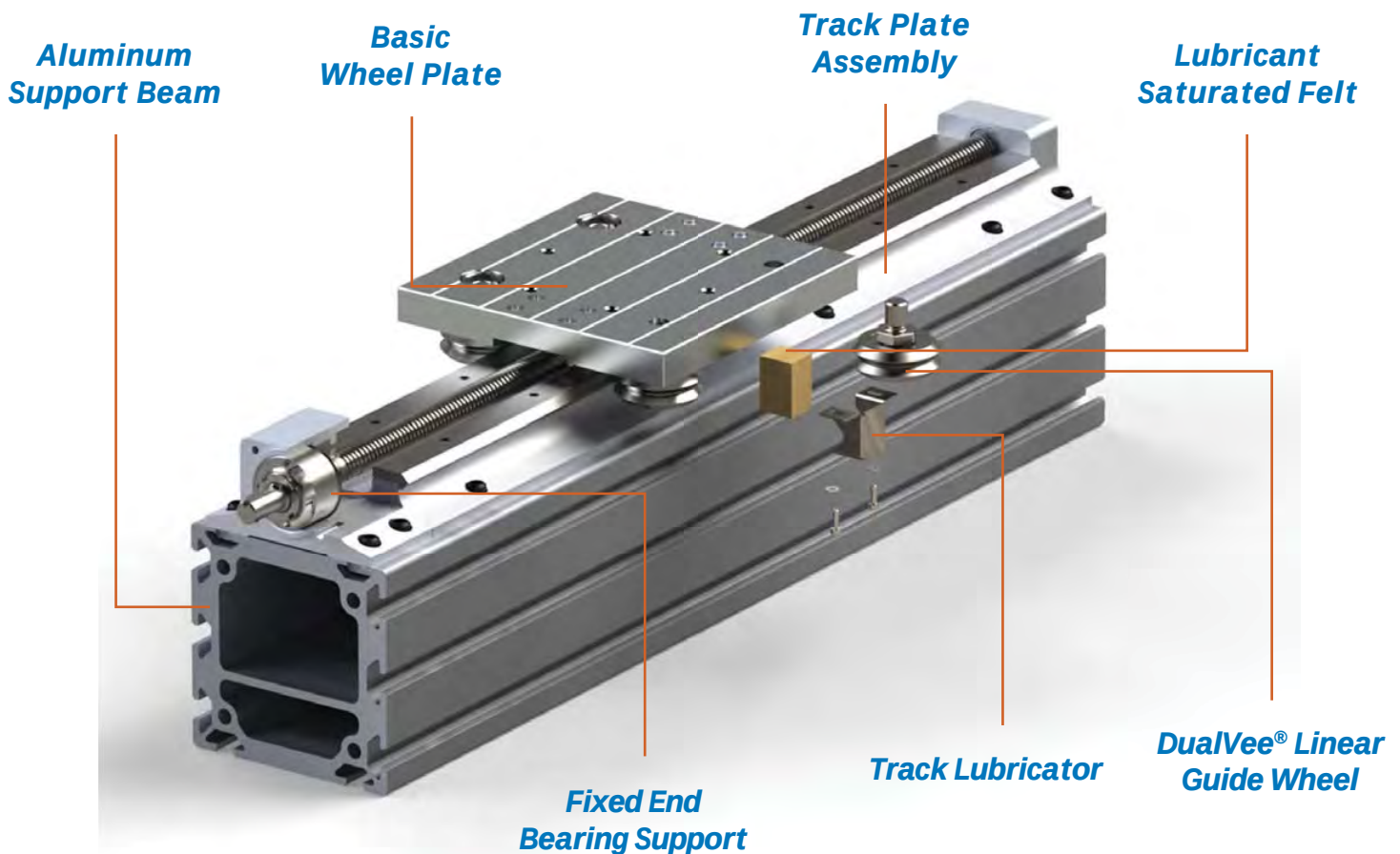
LoPro, Lead Screw, Size 3, Carbon Steel, Basic Wheel Plate, Carbon Steel Wheels, Sensor Flags Right & Left, 5/8" x 8mm BY Nut, Steel Beam Mounted, Version A, 500.0mm Travel.

Notes:

1. Aluminum beam is not available in size 4.
2. Corrosion resistant systems are available with basic wheel plate or wiper wheel plate. Corrosion resistant systems on stainless steel beams are custom. Contact Bishop-Wisecarver for details.

BALL SCREW DRIVEN SYSTEMS

- Complete ball screw actuated system, ready for installation
- Accurate to .004 in/ft (100µm/300mm)
- Repeatable within .003 in (0.07mm) or better, depending on size of lead
- Aluminum support beams, steel beams or un-mounted (without beams)
- Basic wheel plate or wiper wheel plate
- Standardized motor mount pattern can adapt to virtually any motor or gearbox manufacturer specifications.



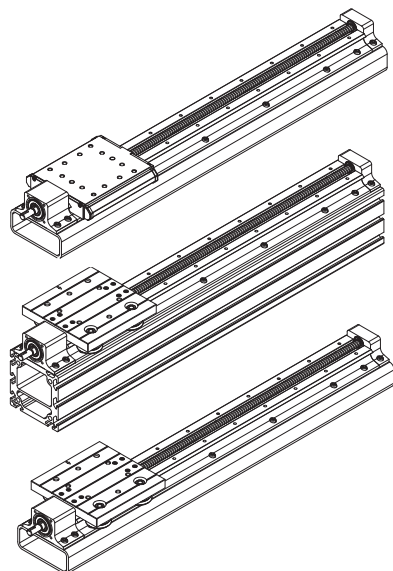
BALL SCREW DRIVEN SYSTEMS

WHEEL PLATE ASSEMBLY LOAD CAPACITIES	SYSTEM SIZE	AXIAL L_A		RADIAL L_R		PITCH M_P		YAW M_Y		ROLL M_R	
		N	LBF	N	LBF	N-M	LBF-FT	N-M	LBF-FT	N-M	LBF-FT
	2	2450	551	5194	1168	95	70.3	202	148.9	100	73.8
	3	6668	1499	11564	2600	346	254.9	599	442.1	372	274.1
	4	15684	3526	19012	4274	1220	899.5	1478	1090.3	1174	865.6

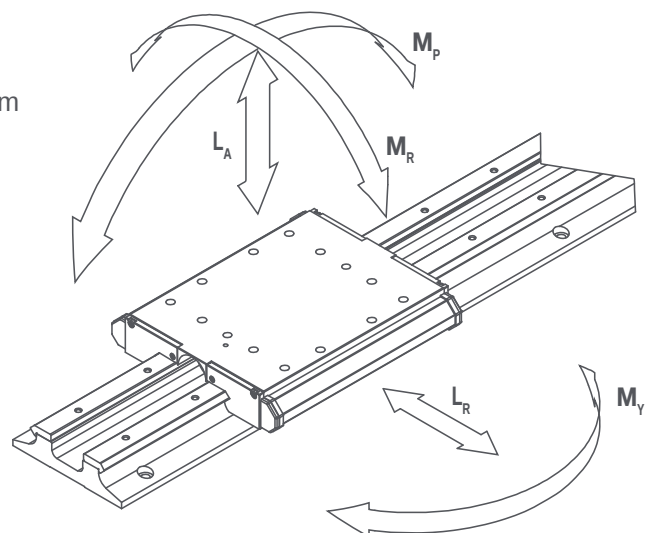
BALL SCREW THRUST CAPACITIES	SYSTEM SIZE	SCREW DIAMETER	LEAD	BASIC WHEEL PLATE MAX SYSTEM TRAVEL LENGTH*	WIPER WHEEL PLATE MAX SYSTEM TRAVEL LENGTH*	DYNAMIC THRUST LOAD CAPACITY	
		MM	MM	MM	MM	N	LBS
	2	10	2	912	914	1250	281.0
			3	892	914	2800	629.4
	3	12	5	1458	1449	2300	517.0
			10	1512	1499	1500	337.2
	4	16	5	1363	1361	5600	1258.9
			10	1349	1347	5800	1303.8
		20	5	2023	2016	8600	1933.3

* System configured with ball screw drive nut toward Fix End

See the Technical Data catalog for more information on sizing, selection, loads, life, and mass / inertia.



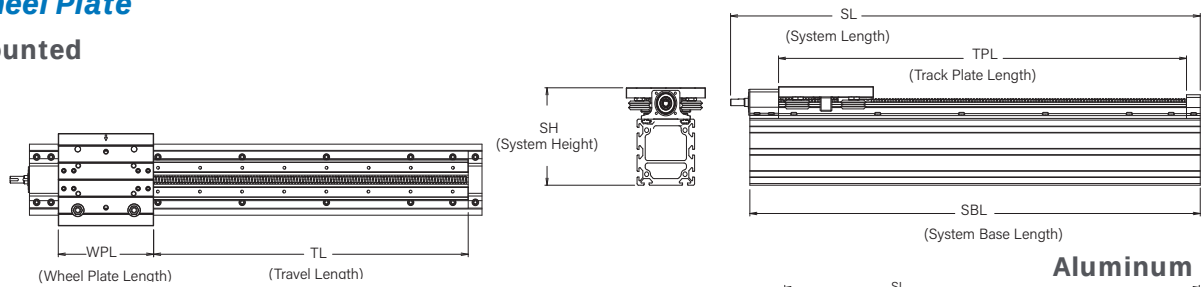
- Wiper Wheel Plate
- Steel Support Beam
- Basic Wheel Plate
- Aluminum Support Beam
- Basic Wheel Plate
- Steel Support Beam



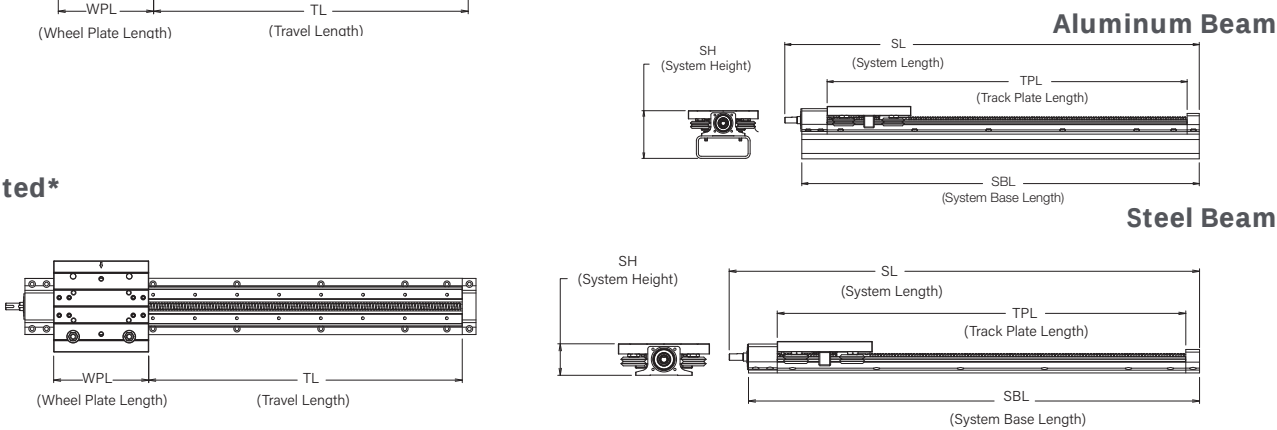
BALL SCREW DRIVEN SYSTEMS

Basic Wheel Plate

Beam Mounted



Un-mounted*



Dimensions													
SIZE	SCREW DIAMETER	TRACK PLATE LENGTH TPL = (TL+WPL)								SYSTEM LENGTH (SL)		SYSTEM BASE LENGTH (SBL)	
		2MM LEAD		3MM LEAD		5MM LEAD		10MM LEAD					
	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
2	10	TL+5.192	TL+131.9	TL+5.984	TL+152.0	N/A	N/A	N/A	N/A	TPL+3.617	TPL+91.9	TPL+2.325	TPL+59.1
3	12	N/A	N/A	N/A	N/A	TL+6.772	TL+172.0	TL+6.772	TL+172.0	TPL+4.434	TPL+112.6	TPL+3.027	TPL+76.9
4	16	N/A	N/A	N/A	N/A	TL+10.161	TL+258.1	TL+10.712	TL+272.1	TPL+4.792	TPL+121.7	TPL+3.385	TPL+86.0
	20	N/A	N/A	N/A	N/A	TL+10.264	TL+260.7	N/A	N/A	TPL+4.792	TPL+121.7	TPL+3.385	TPL+86.0

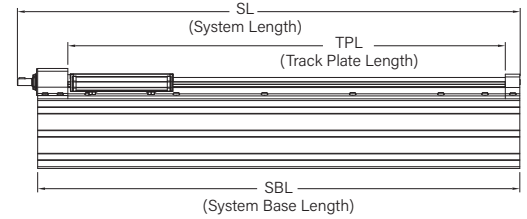
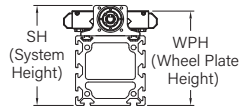
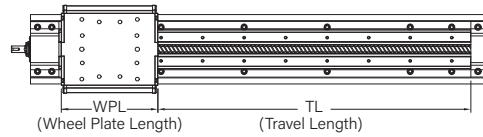
Dimensions						
SIZE	SYSTEM HEIGHT (SH)					
	ALUMINUM		STEEL		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM
2	3.269	83.0	3.194	81.1	1.694	43.0
3	6.969	177.0	4.245	107.8	2.244	57.0
4	N/A	N/A	4.718	119.8	2.718	69.0

*Un-mounted systems are designed for mounting to a customer-supplied mounting surface and are shipped with temporary mounting plates affixing the fixed and simple ends to the track plate. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire system base length is required.

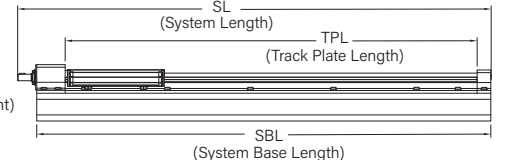
BALL SCREW DRIVEN SYSTEMS

Wiper Wheel Plate

Beam Mounted

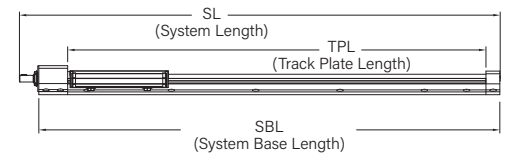
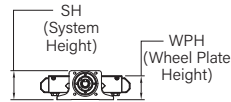
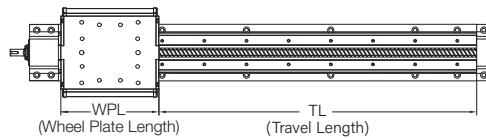


Aluminum Beam



Steel Beam

Un-mounted*



Dimensions

SIZE	SCREW DIAMETER	TRACK PLATE LENGTH TPL = (TL+WPL)								SYSTEM LENGTH (SL)		SYSTEM BASE LENGTH (SBL)	
		2MM LEAD		3MM LEAD		5MM LEAD		10MM LEAD					
	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
2	10	TL+5.114	TL+129.9	TL+5.114	TL+129.9	N/A	N/A	N/A	N/A	TPL+3.617	TPL+91.9	TPL+2.325	TPL+59.1
3	12	N/A	N/A	N/A	N/A	TL+7.098	TL+180.3	TL+7.256	TL+184.3	TPL+4.434	TPL+112.6	TPL+3.027	TPL+76.9
4	16	N/A	N/A	N/A	N/A	TL+10.233	TL+259.9	TL+10.784	TL+273.9	TPL+4.792	TPL+121.7	TPL+3.385	TPL+86.0
	20	N/A	N/A	N/A	N/A	TL+10.547	TL+267.9	N/A	N/A	TPL+4.792	TPL+121.7	TPL+3.385	TPL+86.0

Dimensions

SIZE	WHEEL PLATE HEIGHT (CH)						SYSTEM HEIGHT (SH)					
	ALUMINUM		STEEL		UN-MOUNTED		ALUMINUM		STEEL		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
2	2.874	73.0	2.799	71.1	1.299	33.0	3.275	83.2	3.200	81.3	1.700	43.2
3	6.417	163.0	3.693	93.8	1.693	43.0	6.784	172.3	4.060	103.1	2.060	52.3
4	N/A	N/A	4.167	105.8	2.167	55.0	N/A	N/A	4.700	119.4	2.700	68.6

*Un-mounted systems are designed for mounting to a customer-supplied mounting surface and are shipped with temporary mounting plates affixing the fixed and simple ends to the track plate. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire system base length is required.

BALL SCREW DRIVEN SYSTEMS

Stock Code Builder

LP S 4Z S W S R B S A 1250.5

System

LP: LoPro

Drive System

S: Ball Screw

Size

2Z: Size 2
3Z: Size 3
4Z: Size 4

System Material

C: Carbon Steel (Standard)
S: Stainless Steel (Corrosion Resistant)

Wheel Plate Type²

W: Wiper Wheel Plate
L: Basic Wheel Plate w/ Track Lubricators
C: Basic Wheel Plate w/ Wheel Covers

Wheel Type

C: Carbon Steel
S: Stainless Steel
H: Stainless Steel 227 High Temp.
L: Stainless Steel 300 Low Temp.
W: Stainless Steel Washdown
V: Stainless Steel Vacuum

Travel Length

Enter Value in
0.1mm increments

Version

A: Version A

Support Beam

U: Un-mounted
A: Aluminum Beam¹
S: Steel Beam
D: Stainless Steel Beam²

Drive Configuration

Size 2 Systems

A: 10mm x 2mm, Non-Preloaded

B: 10mm x 3mm, Non-Preloaded

Size 3 Systems

A: 12mm x 5mm, Non-Preloaded*

B: 12mm x 10mm, Non-Preloaded*

Size 4 Systems

A: 16mm x 5mm, Non-Preloaded*

B: 16mm x 10mm, Non-Preloaded*

C: 20mm x 5mm, Non-Preloaded*

*FEM-E-B Modified Flange

Additional Wheel Plate Options

R: Sensor Flag Right Side

L: Sensor Flag Left Side

Y: Sensor Flags Right & Left Sides

Z: No Sensor Flag

Ordering Example

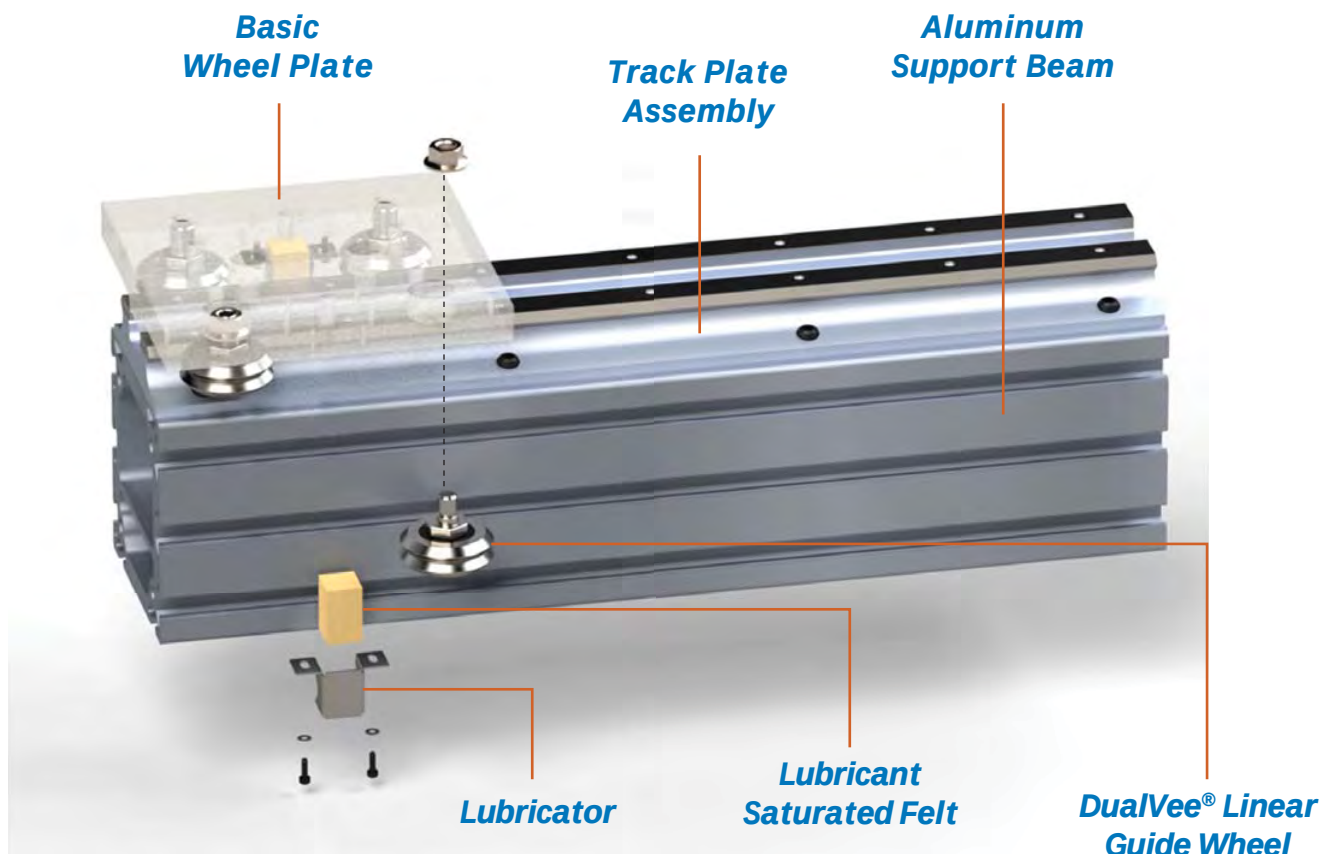
LPS4ZSWSRBSA 1250.5

LoPro, Ball Screw, Size 4, Stainless Steel, Wiper Wheel Plate, Stainless Steel Wheels, Sensor Flag Right, 16mm x 10 mm Ball Screw, Steel Beam Mounted, Version A, 1250.5mm Travel.

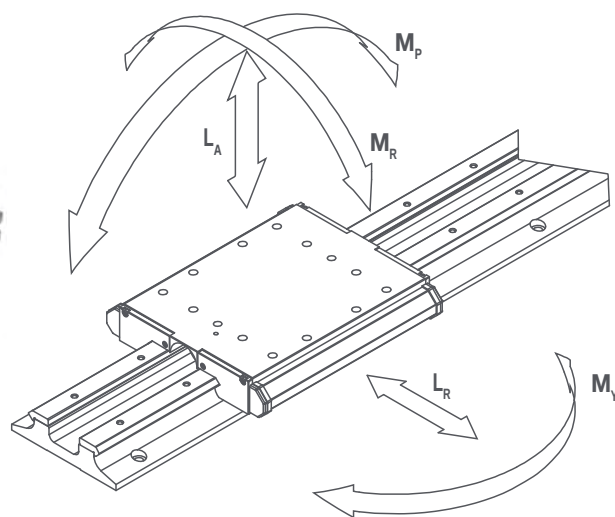
Notes:

1. Aluminum beam is not available in size 4.
2. Corrosion resistant systems are available with basic wheel plate or wiper wheel plate. Corrosion resistant systems on stainless steel beams are custom. Contact Bishop-Wisecarver for details.
3. Ball screws are carbon steel. Stainless steel ball screws are custom.

UN-DRIVEN SYSTEMS



- Complete non-actuated system, ready for installation
- Standard aluminum and steel support beam options available
- Two standard available wheel plate options
- Available in standard and corrosion resistant versions
- High speed and acceleration capacity
- Long stroke length capability (virtually unlimited)



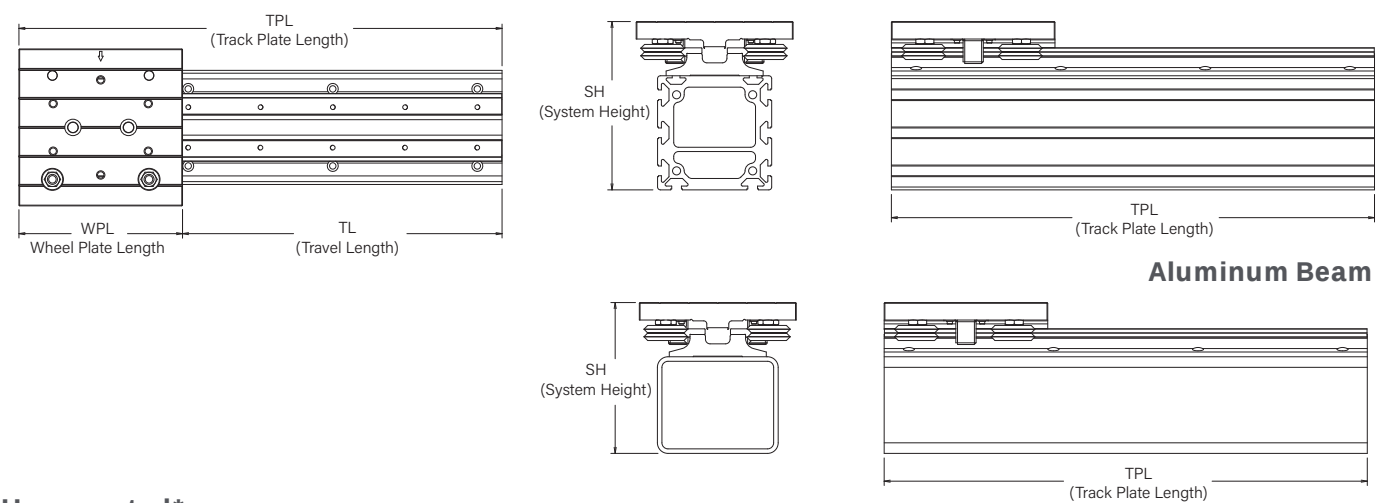
WHEEL PLATE ASSEMBLY LOAD CAPACITIES	SYSTEM SIZE	AXIAL L_A		RADIAL L_R		PITCH M_P		YAW M_Y		ROLL M_R	
		N	LBF	N	LBF	N-M	LBF-FT	N-M	LBF-FT	N-M	LBF-FT
	1	988	222	2391	538	26	18.9	62	45.7	27	19.8
	2S/2L	2450	551	5194	1168	95	70.3	202	148.9	100	73.8
	3	6668	1499	11564	2600	346	254.9	599	442.1	372	274.1
	4	15684	3526	19012	4274	1220	899.5	1478	1090.3	1174	865.6

See the Technical Data catalog for more information on sizing, selection, loads, life, and mass.

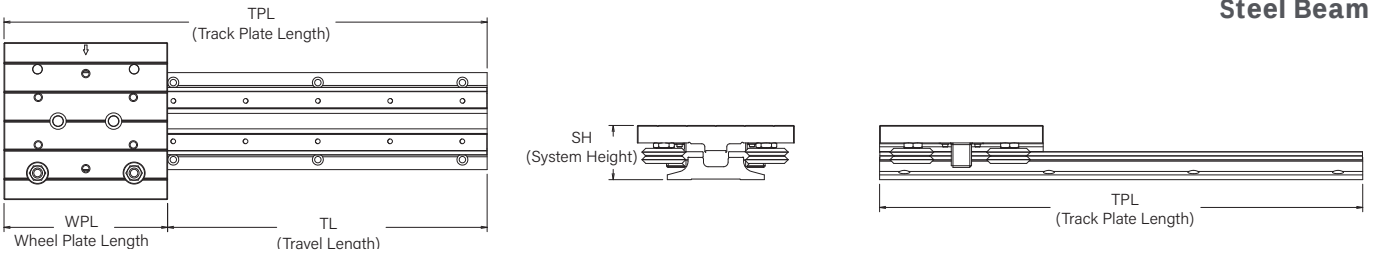
UN-DRIVEN SYSTEMS

Basic Wheel Plate

Beam Mounted



Un-mounted*



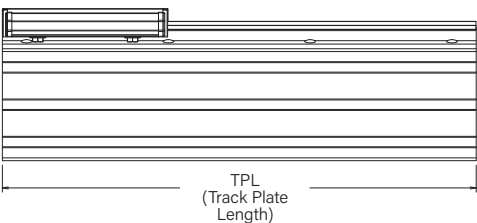
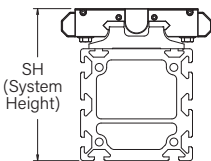
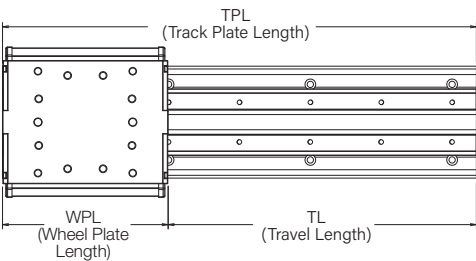
Dimensions								
SIZE	TRACK PLATE LENGTH TPL = (TL+WPL)		SYSTEM HEIGHT (SH)					
			ALUMINUM		STEEL		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM	IN	MM
1	TL+3.543	TL+90.0	2.840	72.1	2.765	70.2	1.265	32.1
2S	TL+5.000	TL+127.0	3.269	83.0	3.194	81.1	1.694	43.0
2L	TL+5.000	TL+127.0	4.844	123.0	4.694	119.2	1.694	43.0
3	TL+6.772	TL+172.0	6.969	177.0	4.245	107.8	2.244	57.0
4	TL+9.528	TL+242.0	N/A	N/A	4.718	119.8	2.718	69.0

* Un-mounted systems are designed for mounting to a customer-supplied mounting surface. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire track plate length is recommended.

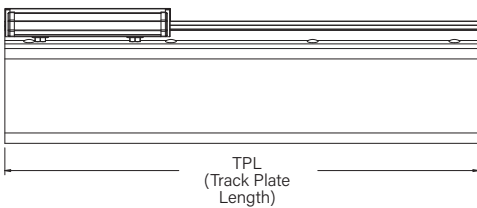
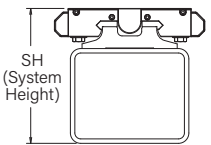
UN-DRIVEN SYSTEMS

Wiper Wheel Plate

Beam Mounted

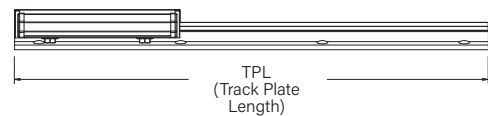
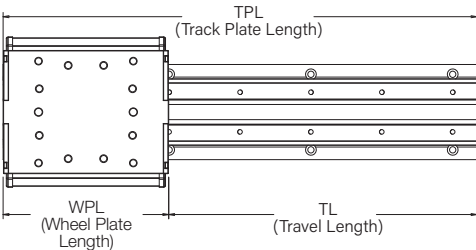


Aluminum Beam



Steel Beam

Un-mounted*



Dimensions								
SIZE	TRACK PLATE LENGTH TPL = (TL+WPL)		SYSTEM HEIGHT (SH)					
			ALUMINUM		STEEL		UN-MOUNTED	
	IN	MM	IN	MM	IN	MM	IN	MM
1	TL+3.700	TL+94.0	2.482	63.0	2.407	61.1	.907	23.0
2S	TL+5.114	TL+129.9	2.874	73.0	2.799	71.1	1.299	33.0
2L	TL+5.114	TL+129.9	4.449	113.0	4.299	109.2	1.299	33.0
3	TL+6.990	TL+177.5	6.417	163.0	3.693	93.8	1.693	43.0
4	TL+9.600	TL+243.8	N/A	N/A	4.167	105.8	2.167	55.0

* Un-mounted systems are designed for mounting to a customer-supplied mounting surface. System straightness and flatness are determined by mounting surface accuracy. Continuous support along the entire track plate length is recommended.

UN-DRIVEN SYSTEMS

Basic Wheel Plate Options

Dimensions

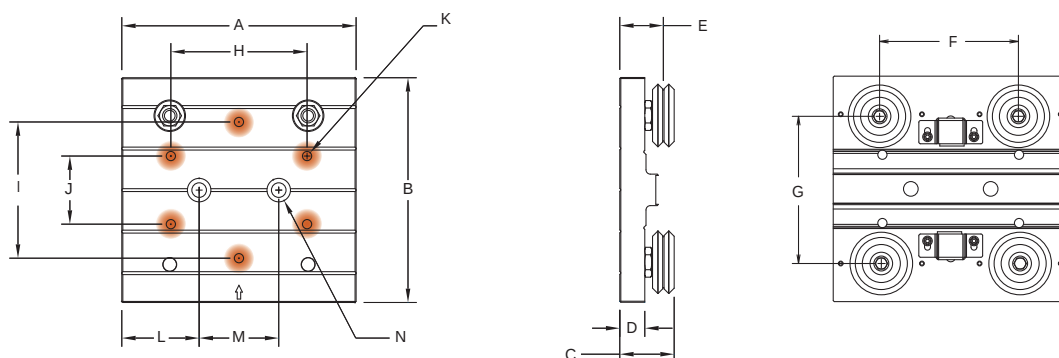
SIZE	STOCK CODE		OVERALL LENGTH (A)		OVERALL WIDTH (B)		ASSEMBLY HEIGHT (C)		WHEEL PLATE HEIGHT (D)		WHEEL VEE HEIGHT (E)		WHEEL SPACING LENGTH (F)		WHEEL SPACING WIDTH (G)	
	LUBRICATOR	WHEEL COVER	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
1	BWP1XSWTLBC	BWP1XSWWCBC	3.543	90.0	3.150	80.0	.909	23.1	.446	11.3	.733	18.6	2.000	50.8	2.098	53.3
2	BWP2XSWTLBC	BWP2XSWWCBC	5.000	127.0	4.567	116.0	1.165	25.6	.567	14.4	.946	24.0	3.000	76.2	3.150	80.0
3	BWP3XSWTLBC	BWP3XSWWCBC	6.772	172.0	6.496	165.0	1.572	39.9	.723	18.4	1.260	32.0	4.000	101.6	4.300	109.2
4	BWP4XSWTLBC	BWP4XSWWCBC	9.528	242.0	8.740	222.0	1.871	47.5	.852	21.6	1.496	38.0	6.000	152.4	5.774	146.6

Part numbers above are for wheel plate assemblies with carbon steel linear guide wheels with SWS swaged studs. Other swaged guide wheel materials and versions are available including: stainless steel (SSX), stainless steel high temperature (SS227), stainless steel low temperature (SS300).

Dimensions

SIZE	WEIGHT IN GRAMS ¹	MOUNTING HOLE LENGTH (H)		MOUNTING HOLE WIDTH 1 (I)		MOUNTING HOLE WIDTH 2 (J)		MOUNTING HOLE THREAD (K)	COUPLER MOUNTING HOLE TO EDGE (L)		COUPLER MOUNTING HOLE LENGTH (M)		COUPLER FASTENER (N)
		IN	MM	IN	MM	IN	MM		IN	MM	IN	MM	
1	307	1.969	50.0	1.969	50.0	.984	25.0	M4x0.7	1.247	31.7	1.05	26.7	M5
2	835	2.992	76.0	2.992	76.0	1.496	38.0	M6x1.0	1.600	40.6	1.80	45.7	M8
3	2135	3.937	100.0	3.937	100.0	1.969	50.0	M8x1.25	2.236	56.8	2.30	58.4	M10
4	4765	5.984	152.0	5.984	152.0	2.598	66.0	M10x1.5	2.764	70.2	4.00	101.6	M12

Highlighted holes indicate customer mounting holes



Above wheel plate assembly shown with track lubricators. Wheel plate assemblies are included with complete systems. See system ordering information, page 52.

Notes:

- Weights shown are for wheel plates with wheel covers and without couplings. Basic wheel plates with track lubricators weigh slightly less.

UN-DRIVEN SYSTEMS

Stock Code Builder

	LP	U	2L	C	C	C	Z	N	S	A	400.0
System LP: LoPro											
Drive System U: Un-driven											
Size 1Z: Size 1 2S: Size 2S 2L: Size 2L 3Z: Size 3 4Z: Size 4											
System Material C: Carbon Steel (Standard) S: Stainless Steel (Corrosion Resistant)											
Wheel Plate Type² W: Wiper Wheel Plate L: Basic Wheel Plate w/ Track Lubricators C: Basic Wheel Plate w/ Wheel Covers											
Wheel Type C: Carbon Steel S: Stainless Steel H: Stainless Steel 227 High Temp. L: Stainless Steel 300 Low Temp. W: Stainless Steel Washdown V: Stainless Steel Vacuum											
Travel Length Enter Value in 0.1mm Increments											
Version A: Version A											
Support Beam U: Un-mounted A: Aluminum Beam ¹ S: Steel Beam D: Stainless Steel Beam ²											
Drive Configuration N: None, Un-driven											
Additional Wheel Plate Options R: Sensor Flag Right Side L: Sensor Flag Left Side Y: Sensor Flags Right & Left Sides Z: No Sensor Flag											

Ordering Example

LPU2LCCCZNSA 400.0

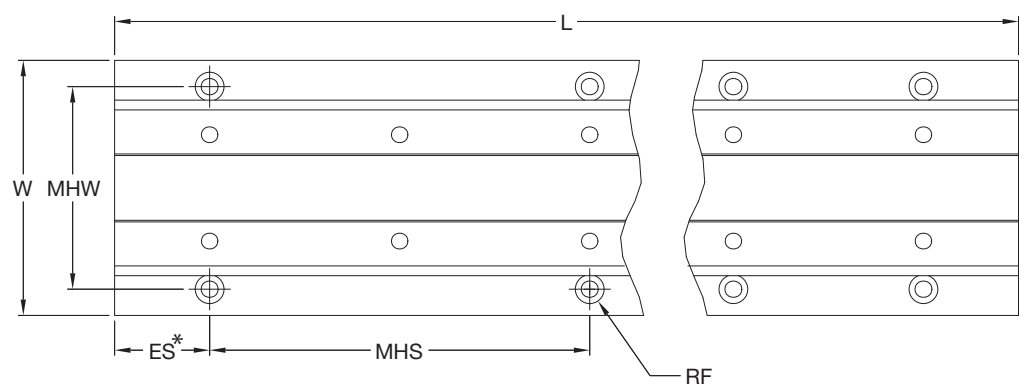
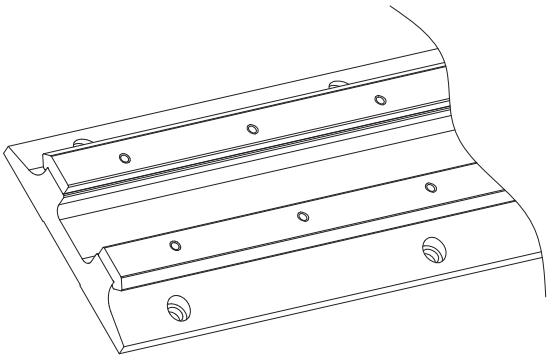
LoPro, Un-driven, Size 2 Large, Carbon Steel, Basic Wheel Plate with Wheel Covers, Carbon Steel Wheels, No Sensor Flags, Un-driven, Steel Beam Mounted, Version A, 400.0mm Travel.

Notes:

1. Aluminum beam is not available in size 4.
2. Corrosion resistant systems are available with basic wheel plate or wiper wheel plate. Corrosion resistant systems on stainless steel beams are custom. Contact Bishop-Wisecarver for details.

TRACK PLATE ASSEMBLIES

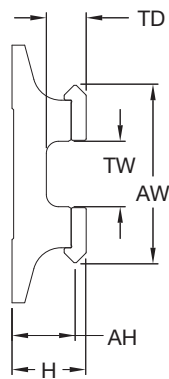
- Provides the lowest profile linear guidance
- Induction hardened, single edge track is available in either carbon steel or stainless steel
- Track plate assemblies are butt-joinable for long stroke requirements
- Lightweight anodized aluminum substrate



Dimensions																		
SIZE	STOCK CODE	WIDTH (W)		OVERALL HEIGHT (H)		VEE HEIGHT (AH)		VEE WIDTH (AW)		INNER WIDTH (TW)		INNER DEPTH (TD)		MOUNTING HOLE WIDTH (MHW)		MOUNTING HOLE LENGTH SPACE (MHS)		MOUNTING HARDWARE (RF)
		IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	
1	M1ATP	1.969	50.0	.625	15.9	.532	13.5	1.473	37.4	.500	12.7	.365	9.3	1.575	40.0	2.992	76.0	M3
2	M2ATP	2.835	72.0	.873	22.2	.748	19.0	2.150	54.6	.840	21.3	.593	15.1	2.323	59.0	4.961	126.0	M5
3	M3ATP	4.016	102.0	1.156	29.4	.985	25.0	2.799	71.1	1.020	25.9	.622	15.8	3.189	81.0	5.984	152.0	M6
4	M4ATP	5.512	140.0	1.440	36.6	1.222	31.0	3.773	95.8	1.550	39.4	.900	22.9	4.370	111.0	7.008	178.0	M8

*ES = End spacing dimension is contingent upon Track Plate Length.
Add SS to the end of the part number for stainless steel track and hardware.

Track Size 1, 3 and 4



Track Size 2

