Linear Guides
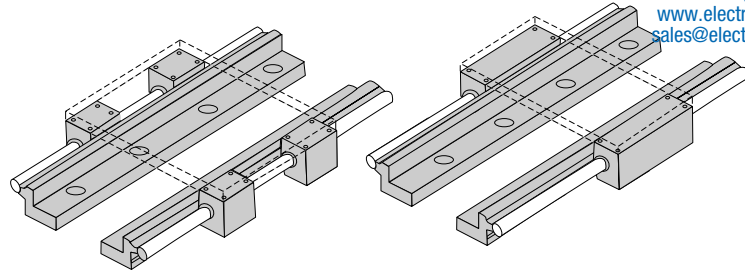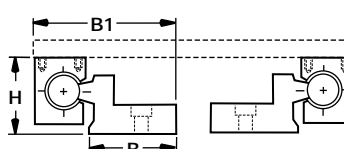
Side Mounted 1DB
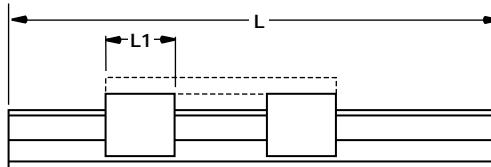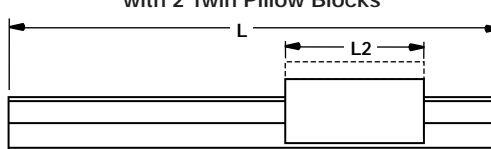## Linear Guide #7
Side Mounted for Low Profile

INCH

Double Side Mounted Linear Guide with 4 Pillow Blocks

Double Side Mounted Linear Guide with 2 Twin Pillow Blocks

Load Rating and Limit by Direction

F_c F_t

F_s

	Dynamic Load Rating	Load Limit
F_C	C	0.5C
F_t	0.5C	0.5C
F_S	C	C

Dynamic Load Rating
Load value used in life calculation.

Load Limit
Maximum allowable load applied to bearing.

Side Mounted Linear Guide 1DB Double Side Mounted with 4 Pillow Blocks							(Dimensions in inches)
Part Number	Nominal Diameter	H	B	B1	L1	Pillow Block	Shaft Support Rail Assembly
1DB-08-JOO	.50	1.562	1.44	2.61	1.50	SPB-8-OPN-MOD	SSRA-8
1DB-12-JOO	.75	2.062	1.94	3.55	1.88	SSUPBO-12-MOD	SSRA-12
1DB-16-JOO	1.00	2.562	2.44	4.49	2.63	SSUPBO-16-MOD	SSRA-16

Side Mounted Linear Guide 1DB Double Side Mounted with 2 Twin Pillow Blocks								(Dimensions in inches)
Part Number	Nominal Diameter	H	B	B1	L2	Maximum Stroke Length	Pillow Block	Shaft Support Rail Assembly
1DB-08-KOO	.50	1.562	1.44	2.61	3.5	L-(3.5)	TWN-8-OPN-MOD	SSRA-8
1DB-12-KOO	.75	2.062	1.94	3.55	4.5	L-(4.5)	SSUTWNO-12-MOD	SSRA-12
1DB-16-KOO	1.00	2.562	2.44	4.49	6.0	L-(6.0)	SSUTWNO-16-MOD	SSRA-16

Side Mounted Linear Guide 1DB Benefits:

- Requires only one part number to order the entire Linear Guide.
- Continuously supported design increases rigidity and provides for unlimited system travel lengths.
- Low profile, side mounted design allows for compact machines.
- Side mounted design provides an increase in pull off load capacity.
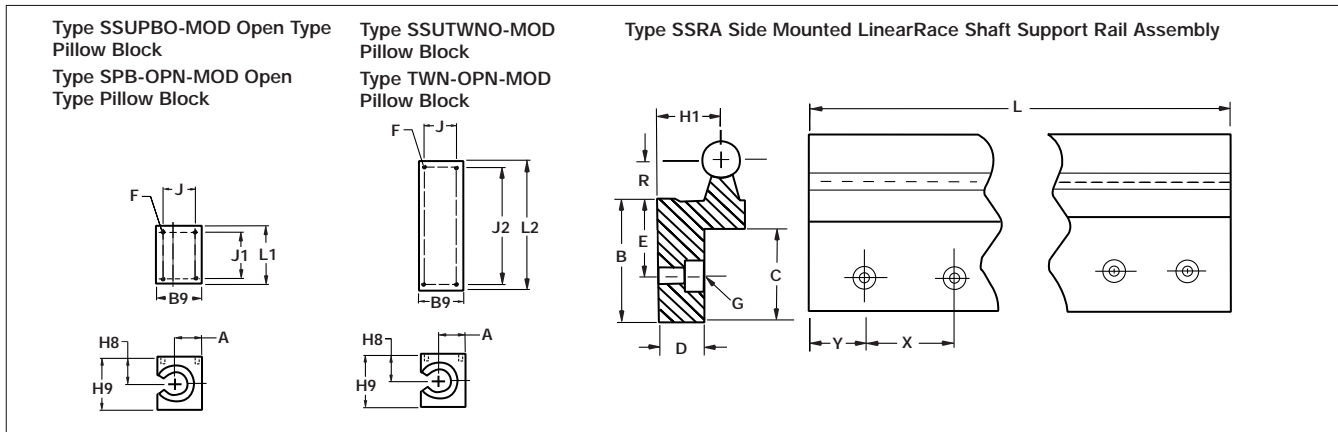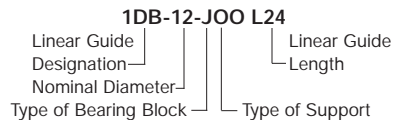- Allows for custom table mounting.

Side Mounted Linear Guide 1DB Components: †

- 4 Super Smart Ball Bushing* modified open type pillow blocks or 2 Super Smart Ball Bushing modified open type twin pillow blocks.
- 2 60 Case* LinearRace* shaft Side Mounted Support Rail Assemblies.

Specifying a Thomson Linear Guide:
1. Determine the proper system for your load and life requirements. **2.** Select the part number. **3.** Add the letter "L" followed by the overall length in inches, as a suffix to the part number.

Part Numbering System

1DB-12-JOO L24

Linear Guide Designation
Nominal Diameter
Type of Bearing Block
Type of Support
Type of Support
Linear Guide Length

Type SSUPBO-MOD Open Type Pillow Block
Type SPB-OPN-MOD Open Type Pillow Block

Type SSUTWNO-MOD Pillow Block
Type TWN-OPN-MOD Pillow Block

Type SSRA Side Mounted LinearRace Shaft Support Rail Assembly

Type SPB-OPN-MOD and SSUPBO-MOD Pillow Block (Dimensions in Inches)

Part Number	Nom. Dia.	H8	H9	A	B9	L1	J	J1	F	Wt. lb
SPB-8-OPN-MOD	.50	.687	1.44	.67	1.12	1.50	.812	1.250	#8-32	.18
SSUPBO-12-MOD	.75	.937	1.94	.92	1.56	1.88	1.187	1.562	#10-32	.45
SSUPBO-16-MOD	1.00	1.187	2.44	1.17	2.00	2.63	1.438	2.250	¼-20	.98

Housing Material: Aluminum Alloy Black Anodized

Type TWN-OPN-MOD and SSUTWNO-MOD Pillow Blocks

Part Number	Nom. Dia.	L2	J2	Wt. lb
TWN-8-OPN-MOD	.50	3.5	3.00	.39
SSUTWNO-12-MOD	.75	4.5	4.00	1.00
SSUTWNO-16-MOD	1.00	6.0	5.25	2.11

Housing Material: Aluminum Alloy Black Anodized

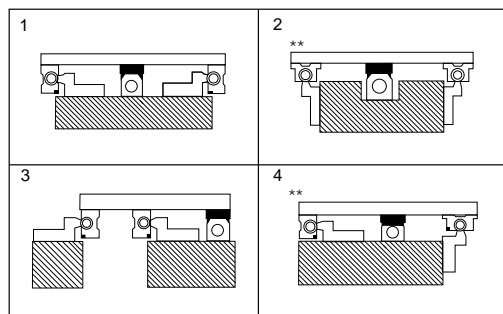### Type SSRA Side Mounted LinearRace Shaft Support Rail Assembly (Dimensions in Inches)

Part Number	Nom. Dia.	H1	B	R	E	D	C	X	Y[1]	G Bolt	G Hole	Wt. lb/ft
SSRA-08	.50	.875	1.44	.500	1.00	.49	1.06	4	2	¼	.28	2.05
SSRA-12	.75	1.125	1.94	.688	1.31	.75	1.44	6	3	5/16	.34	4.00
SSRA-16	1.00	1.375	2.44	.875	1.63	.88	1.81	6	3	3/8	.41	6.25

[1] For standard lengths
LinearRace Shaft Support Rail Material: Aluminum Black Anodized

Maximum length of LinearRace Shaft Support Rail is 72 inches. If longer continuous one-piece LinearRace Shaft Support Rails are required, contact the Thomson **Linear Guides** Application Engineering department.

Mounting Configurations

The following mounting configurations depict ideas for combining the Side Mounted Continuously Supported linear guides into your linear motion application. If you need further information, contact the Thomson Application Engineering Department.

Dynamic Load Rating (C) Matrix (4 million inches travel)

Linear Guide Assembly Part No.	Dynamic Load Rating, C (lbf) (Even Distribution)	Pillow Block Part No.	Pillow Block Dynamic Load Rating, C (lbf)
1DB-08-JOO	480	SPB-8-OPN-MOD	120
1DB-12-JOO	3200	SSUPBO-12-MOD	800
1DB-16-JOO	5400	SSUPBO-16-MOD	1350
1DB-08-KOO	480	TWN-8-OPN-MOD	240
1DB-12-KOO	3200	SSUTWNO-12-MOD	1600
1DB-16-KOO	5400	SSUTWNO-16-MOD	2700

† Super Ball Bushing* bearings are used in .500 inch size pillow blocks.

**Pillow blocks shown are the standard SSUPBO or SPB-OPN style. To order System 1DA with standard pillow blocks, order the Side Mounted Shaft Rail Assembly (SSRA) and the SSUPBO or SPB-OPN separately.