# **RoundRail Linear Guides**

# **Continuous Support 1CA**

Fully Supported, Highest Performance, Industry Standard Dimension Inch



## Features

- Requires only one part number to specify the entire linear guide
- Used as a load support, transport, and guidance solution
- Used in continuously supported applications when rigidity is required

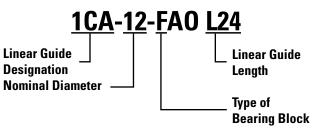
## Components

- 2 Super Smart Ball Bushing opentype pillow blocks or 1 Super Smart Ball Bushing open twin pillow blocks
- 1 60 Case LinearRace shaft support rail assembly

# **Specifying this Thomson Linear Guide**

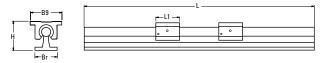
- 1. Determine the proper Linear Guide for your load and life requirements.
- 2. Select the part number.
- 3. Add the letter "L" followed by the overall length in inches, as a suffix to the part number.

## **Part Numbering System**

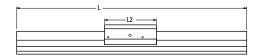


# **Dimensions (Inch)**

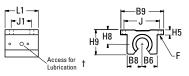
Single Continuously Supported Linear Guide with 2 Pillow Blocks



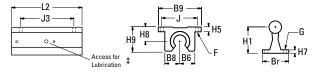
Single Continuously Supported Linear Guide with 1 Twin Pillow Block



Type SSUPBO Open Type Super Smart and SPB-OPN Open Type Ball Bushing Pillow Blocks



Type SSUTWN Open Type Super Smart and TWN-OPN Open Type Ball Bushing Twin Pillow Blocks

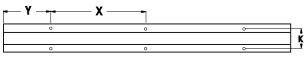


Load Rating and Limit by Direction



Dynamic Load Rating: Load value used in life calculation. Load Limit: Maximum allowable load applied to bearing.

# Type SRA LinearRace Shaft Support Rail Assembly





‡ Size .500 inch has oil lubricant fitting. Sizes .625 and above have 1/4-28 access for lubrication.

# **RoundRail Linear Guides**

#### Continuously Supported Linear Guide 1CA Single with 2 Pillow Blocks (Dimensions in inches)

Part Number	Nominal Diameter	LI	Н	Br	B9	Pillow Block	Shaft Support Rail Assembly
1CA-08-FH0	.500	1.50	1.812	1.50	2.00	SPB-8-0PN-XS	SRA-8-XS
1CA-12-FH0	.750	1.88	2.437	1.75	2.75	SSUPB0-12-XS	SRA-12-XS
1CA-16-FH0	1.000	2.63	2.937	2.13	3.25	SSUPBO-16-XS	SRA-16-XS
1CA-20-FH0	1.250	3.38	3.625	2.50	4.00	SSUPBO-20-XS	SRA-20-XS
1CA-24-FH0	1.500	3.75	4.250	3.00	4.75	SSUPB0-24-XS	SRA-24-XS

#### Continuously Supported Linear Guide 1CA Single with 1 Twin Pillow Block (Dimensions in inches)

Part Number	Nominal Diameter	12	Н	Br	B9	Maximum Stroke Length	Pillow Block	Shaft Support Rail Assembly
1CA-08-HAO	.50	3.5	1.812	1.50	2.00	L-(3.5)	TWN-8-0PN-XS	SRA-8-XS
1CA-12-HA0	.75	4.5	2.437	1.75	2.75	L-(4.5)	SSUTWN0-12-XS	SRA-12-XS
1CA-16-HA0	1.00	6.0	2.937	2.13	3.25	L-(6.0)	SSUTWNO-16-XS	SRA-16-XS
1CA-20-HA0	1.25	7.5	3.625	2.50	4.00	L-(7.5)	SSUTWN0-20-XS	SRA-20-XS
1CA-24-HA0	1.50	9.0	4.250	3.00	4.75	L-(9.0)	SSUTWN0-24-XS	SRA-24-XS

#### Dynamic Load Capacity Matrix (4 million inches travel)

Linear Guide Assembly Part Number	Dynamic Load Capacity (Ib <sub>f</sub> ) (Even Distribution)	Pillow Block Part Number	Pillow Block Dynamic Load Capacity (lb <sub>r</sub> )	Linear Guide Assembly Part Number	Dynamic Load Capacity (Ib <sub>i</sub> ) (Even Distribution)	Pillow Block Part Number	Pillow Block Dynamic Load Capacity (lb <sub>r</sub> )
1CA-08-FH0	290	SPB-8-OPN-XS	400	1CA-08-HAO	290	TWN-8-0PN-XS	800
1CA-12-FH0	1800	SSUPB0-12-XS	900	1CA-12-HA0	1800	SSUTWN0-12-XS	1800
1CA-16-FH0	3000	SSUPBO-16-XS	1500	1CA-16-HA0	3000	SSUTWNO-16-XS	3000
1CA-20-FH0	3730	SSUPBO-20-XS	1865	1CA-20-HA0	3730	SSUTWNO-20-XS	3730
1CA-24-FH0	6160	SSUPBO-24-XS	3080	1CA-24-HA0	6160	SSUTWN0-24-XS	6160

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

# **Replacement Component Dimensions**

Type SPB-OPN and SSUPBO Pillow Blocks (Dimensions in inches)

Part Number	Nom.	14	H9	H8	H5	B9	B8	B6			J1	F		Wt.
Part Number	Dia.		пэ	по	пэ	Da	DÖ	DO	J	JI	Bolt #6 #8 #10 #10	Hole	(lb)	
SPB-8-0PN-XS	.500	1.69	1.25	.687	.25	2.00	.75	.69	1.69	1.00	#6	.16	.20	
SSUPBO-12-XS	.750	2.06	1.75	.937	.31	2.75	1.00	.94	2.38	1.25	#8	.19	.62	
SSUPBO-16-XS	1.000	2.81	2.19	1.187	.38	3.25	1.25	1.19	2.88	1.75	#10	.22	1.24	
SSUPBO-20-XS	1.250	3.63	2.81	1.500	.43	4.00	1.63	1.50	3.50	2.00	#10	.22	2.57	
SSUPBO-24-XS	1.500	4.00	3.25	1.750	.50	4.75	1.88	1.75	4.12	2.50	1/4	.28	3.94	
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Top plates are sold separately. Please refer to page 243 under Accessories for P/N and dimensions.

# Type TWN-OPN and SSUTWNO

**Pillow Blocks** (Dimensions in inches)

Dynamic Load Capacity Matrix (4 million inches travel)

Part Number	Nom. Dia.	L2	J3	Wt. (Ib)
TWN-8-0PN-XS	.500	3.50	2.50	.40
SSUTWN0-12-XS	.750	4.50	3.50	1.24
SSUTWNO-16-XS	1.000	6.00	4.50	2.48
SSUTWN0-20-XS	1.250	7.50	5.50	5.14
SSUTWN0-24-XS	1.500	9.00	6.50	8.08

Housing Material: Aluminum Alloy Black Anodized

#### Type SRA LinearRace Shaft Support Rail Assembly (Dimensions in inches)

Davé Number	Nem Die	114	117	D.,	V	v v		G		Wt.
Part Number	Nom. Dia.	H1	H7	Br	ĸ	^	T	Bolt	Hole	(lb/ft)
SRA-8-XS	.500	1.125	.19	1.50	1.00	4	2	#8	.17	1.26
SRA-12-XS	.750	1.500	.25	1.75	1.25	6	3	#10	.22	2.50
SRA-16-XS	1.000	1.750	.25	2.13	1.50	6	3	1/4	.28	4.06
SRA-20-XS	1.250	2.125	.31	2.50	1.88	6	3	5/16	.34	6.30
SRA-24-XS	1.500	2.500	.38	3.00	2.25	8	4	5/16	.34	8.60

LinearRace Shaft Support Rail Material: Aluminum Alloy Black Anodized

Support rails are supplied in 24 inch lengths unless quoted otherwise. 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.