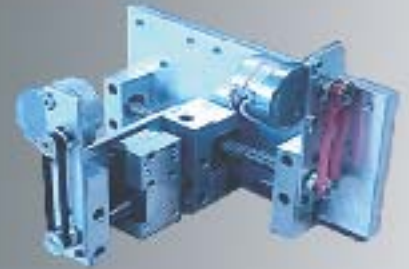
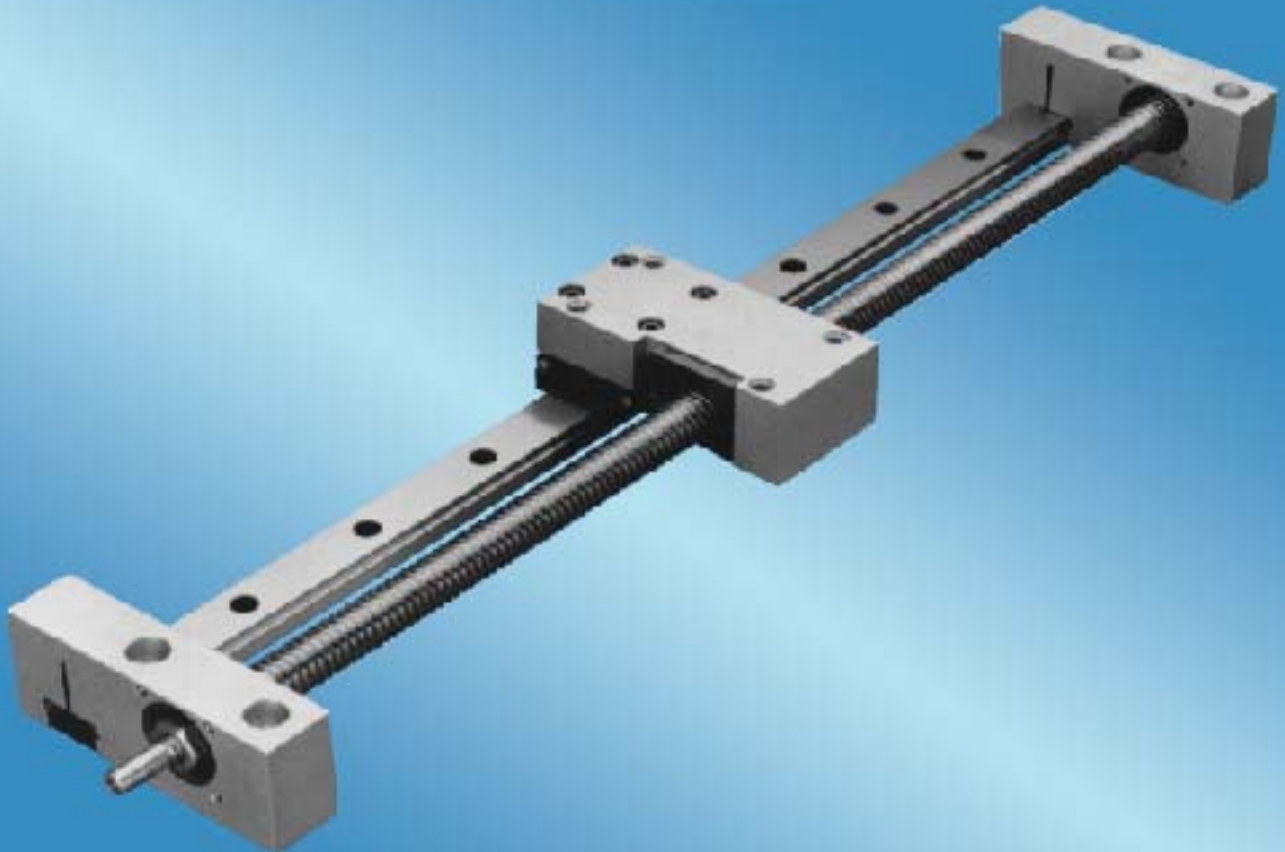


# Mini Compact Slides

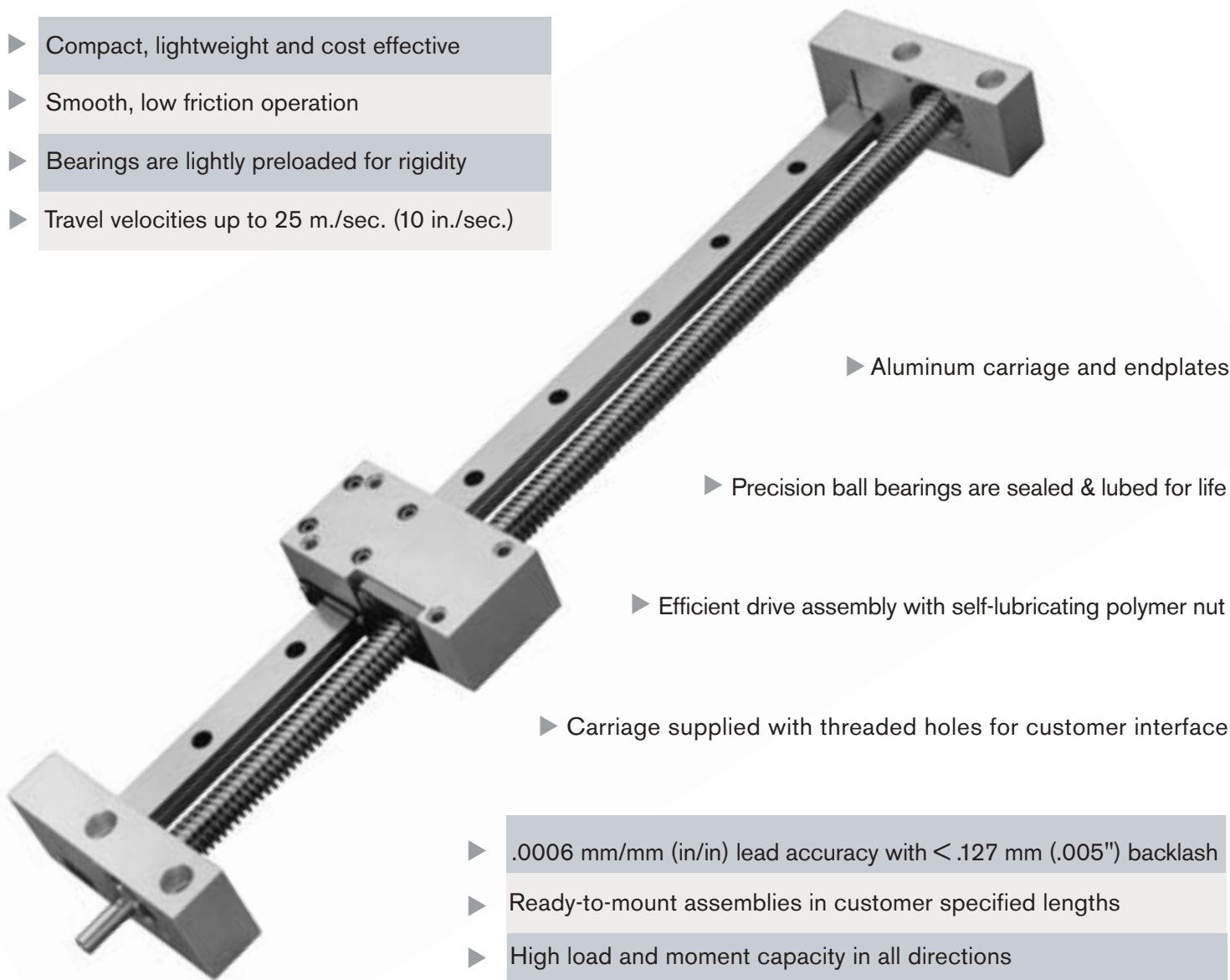


The Economical Miniature Solution



# Product Overview

- ▶ Compact, lightweight and cost effective
- ▶ Smooth, low friction operation
- ▶ Bearings are lightly preloaded for rigidity
- ▶ Travel velocities up to 25 m./sec. (10 in./sec.)



▶ Aluminum carriage and endplates

▶ Precision ball bearings are sealed & lubed for life

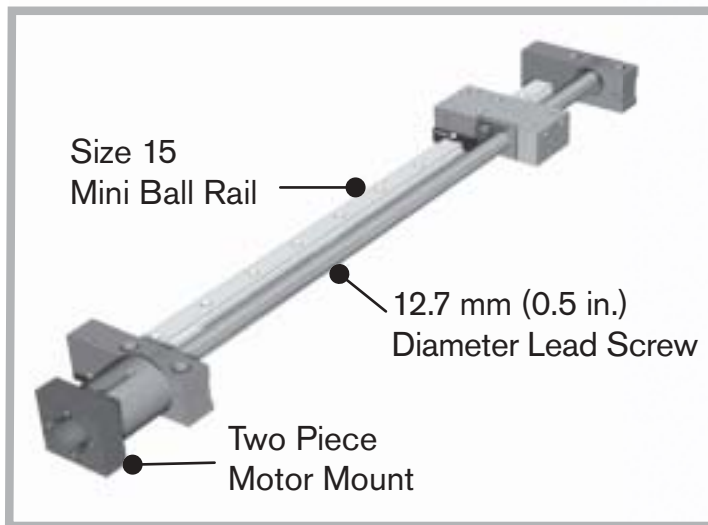
▶ Efficient drive assembly with self-lubricating polymer nut

▶ Carriage supplied with threaded holes for customer interface

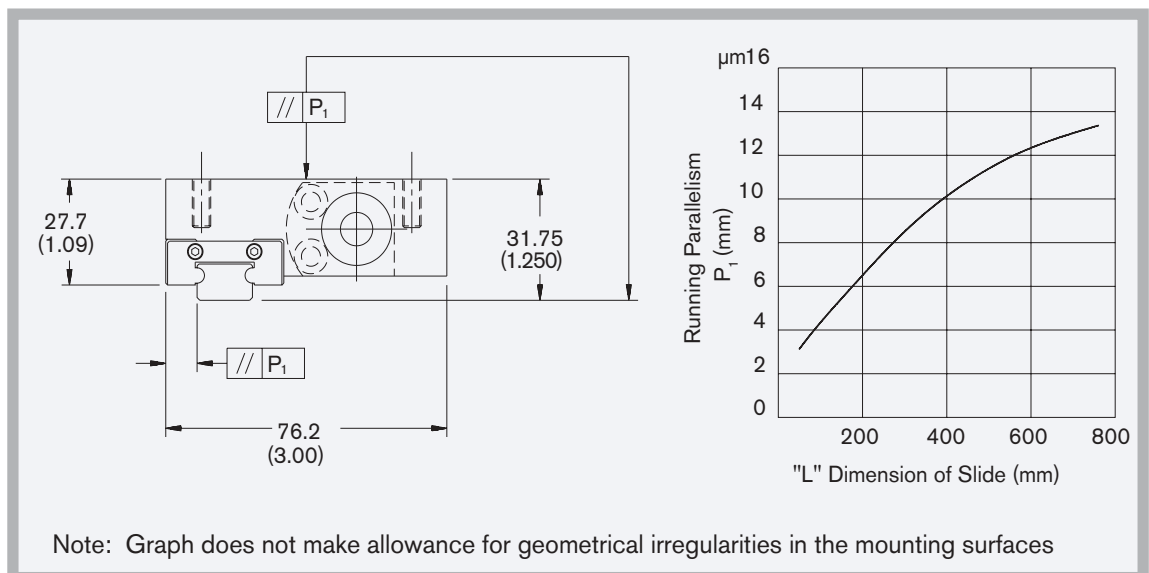
- ▶ .0006 mm/mm (in/in) lead accuracy with < .127 mm (.005") backlash
- ▶ Ready-to-mount assemblies in customer specified lengths
- ▶ High load and moment capacity in all directions
- ▶ Strokes up to 715 mm (28.14 inches)

# Typical Application Arrangement

## Straight Drive



## Travel Accuracy



# Life & Load Ratings

## Life Definition

The failure of a linear bearing system occurs when the operating stresses from the rolling elements cause material fatigue. Rolling surface material inconsistencies will cause variation in fatigue life for linear bearing systems of the same configuration and operating conditions. Due to this inherent variation, linear bearing systems have adopted a life rating similar to other bearing products.

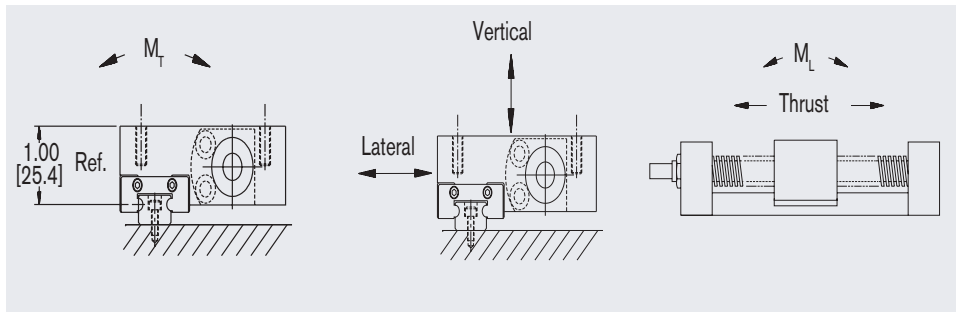
The rated life "L" of a linear slide is the length of travel endured by the slide under a specified condition. Since in reality, life varies from one slide to another, industry normally uses the **L10** life rating which is defined as the length of travel that 90% of apparently identical slides will complete before the first evidence of fatigue.

## Basic Dynamic Load Rating

For comparison purposes, the basic dynamic load rating for the mini compact module is defined as the load (C), which allows the **L10** life to equal a traveling distance of approx. 100 km.

## Basic Static Load Rating

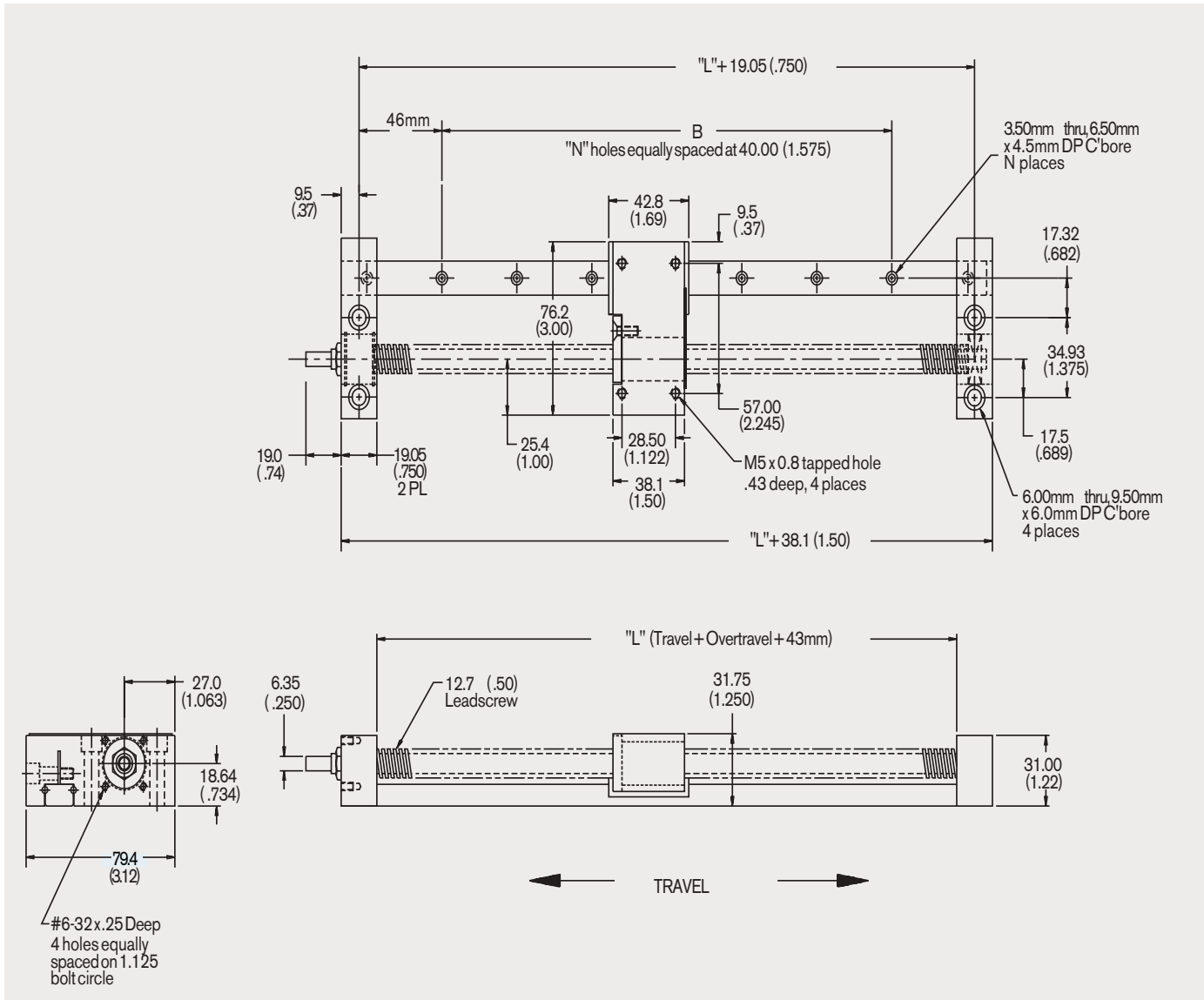
The basic static load rating ( $C_0$ ) is defined as a static load of constant magnitude and direction which results in a permanent deformation of the ball rail raceway of 0.0001 times the diameter of the ball. This amount of permanent deformation will prevent smooth movement of the linear bearing and therefore should never be exceeded.



Load Direction	Dynamic Load Rating		Static Load Rating	
	N	lbs	N	lbs
Vertical	4200 N	944 lbs	6260 N	1407 lbs
Lateral	4200 N	944 lbs	6260 N	1407 lbs
Thrust	44 N	10 lbs	222 N	50 lbs
Moment ML	18.3 N-m	162 in-lb	27.0 N-m	239 in-lb
Moment MT	31.2 N-m	276 in-lb	46.3 N-m	410 in-lb



# Product Drawing



Maximum Travel	715 mm (28.14 inches)
"L" (mm)	Travel + Overtravel + 43mm
Weight (oz.)	$[0.066 \times L \text{ (mm)}] + 15.2$
Weight (grams)	$[1.85 \times L \text{ (mm)}] + 425$
Lead Accuracy	.001mm/mm (in./in.)
Backlash	$\leq 0.12$ mm (.005 in.)
No load Torque	$< .07$ N-m (10 oz.-in.)
Maximum Velocity	.25 m/sec. (10 in./sec.)
Maximum Side Load on Drive Journal	44.5 N (10 lbs.)
Recommended Overtravel	2 x screw lead at each end of stroke

# Request for Quotation / Order Form

<b>Model</b>	<b>Part</b>	<b>no.</b>				
<b>MCS</b>		<b>0300-100-00</b>	,	<b>XXX</b>	,	<b>20</b>
		<b>A</b>		<b>B</b>		<b>C</b>
						<b>D</b>

## Order example

Mini compact slide with L = 412 mm, .200 in/rev lead, and stainless steel ball rail;  
**0300-100-00, 412, 20, 22**

### MODEL NUMBER CONFIGURATION:

<b>A</b>	<b>Part code</b> 0300-100-00 MCS with 15 mini ball rail and lead screw
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### Options

<b>B</b>	<b>Length</b> XXX (mm) Length = TRAVEL + OVERTRAVEL + 43mm (MAX. TRAVEL = 715mm)	L = _____
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<b>C</b>	<b>Lead screw code</b>	Check one
	10 2.54 mm (.100 inch lead)	<input type="checkbox"/>
	20 5.08 mm (.200 inch lead)	<input type="checkbox"/>
	50 12.7 mm (.500 inch lead)	<input type="checkbox"/>

<b>D</b>	<b>Guideway</b>	Check one
	11 Carbon Steel	<input type="checkbox"/>
	22 Stainless Steel	<input type="checkbox"/>

**Comments/Special Instructions:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Sketch:**

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