

PBC Linear takes solutions in linear motion to new heights in the aerospace industry. Our smooth, quiet, and effortless linear motion guidance systems offer aircraft passengers an enjoyable experience, allowing them to travel in comfort and ease.

Our double-row linear bearing guide products are precision-ground for long life and efficiency, requiring minimal force by the user.

Tray-tables, arm chairs, pantry drawers and storage compartments all glide swiftly and smoothly using technology from PBC Linear. Our linear motion systems are easily installed, require low maintenance, and are designed for exceptional customer satisfaction. The result is a fully ergonomic aircraft that benefits both travelers and airline personnel.



**PBC Linear®**

[pbclinear.com](http://pbclinear.com)



## COMMERCIAL AIRCRAFT & AEROSPACE COMPONENTS

LINEAR MOTION SOLUTIONS



LOW PROFILE MINI-RAIL® • LOW PROFILE REDI-RAIL® • REDI-RAIL® LINEAR GUIDES

## COMMERCIAL AIRCRAFT & AEROSPACE COMPONENTS

### FEATURES & BENEFITS



LOW PROFILE MINI-RAIL

- Compact profile - up to 12 mm
- Four (4) sizes available with lengths up to 3600 mm
- Precise running clearances tolerate misalignments
- Self-lubricating design – no sealing, no particulates, and tolerates high temperatures
- Corrosion-resistant
- Interchangeable



LOW PROFILE REDI-RAIL

- Compact profile - overall height only 19 mm
- High accuracy guidance precision machined rail with hardened steel shafting
- High load capacity - (4) four double row sealed rollers support up to 510 N
- Carriages feature patented and adjustable preload for application versatility
- Gothic arch rollers – provides smooth guidance in contaminated environments



REDI-RAIL

- Low cost precision
- Factory adjusted
- Up to 19.7 ft. or 6000 mm
- Gothic arch rollers
- Bearings sealed against contamination
- Butt-joinable for longer lengths
- Patented pre-load adjustment
- Cut-to-length or custom solutions designed and engineered to your application

LPM SERIES

LPRR SERIES

REDI-RAIL (Max)

LOAD CAPACITY	Fy	515 N	120 lbs	510 N	110 lbs	5950 N	1,337 lbs
	Fz	250 N	55 lbs	1220 N	270 lbs	1,678 N	377 lbs
	Mx	7 N-m	60 lbs - in	14 N-m	120 lbs - in	19.0 N-m	165 lbs - in
	My	14 N-m	124 lbs - in	31 N-m	110 lbs - in	58.2 N-m	510 lbs - in
	Mz	7 N-m	60 lbs - in	13 N-m	110 lbs - in	154.7 N-m	1,360 lbs - in
MAX. SPEED	10 m/s			2.54 m/s	8.3 ft/s	8 m/s	26.2 ft/s
MAX. LENGTH	3600 mm	11.81 ft		3048 mm	10 ft	6000 mm	19.7 ft
OPERATING TEMPERATURE	-35°C to 65°C (30°F to 150°F)			-20°C to 80°C (-4°F to 176°F)		-20°C to 80°C (-4°F to 176°F)	
MATERIAL	Anodize aluminum body. Polymer slider			Anodize aluminum body. Hardened steel or stainless steel shafting.		Anodize aluminum body. Hardened steel or stainless steel shafting.	

The data and specifications in this publication have been carefully compiled and are believed to be accurate and correct. However, it is the responsibility of the user to determine and ensure the suitability of PBC Linear™ products for a specific application. PBC Linear's only obligation will be to repair or replace without charge, any defective components if returned promptly. No liability is assumed beyond such replacement. Specifications are subject to change without notice. 8/18



- TRAY-TABLES
- ARM CHAIRS
- PANTRY DRAWERS
- STORAGE COMPARTMENTS
- DOORS & HATCHES
- CUSTOM SOLUTIONS

## APPLICATION FOCUS



DOUBLE ROW BEARING

### Problem:

Customer had limited space in their aircrafts for stowaway tray-tables. They required a compact, precise guiding system that sustained smooth, quiet and effortless linear motion. Passenger comfort and ease needed to be held to the highest regard. The small space necessitated a low-profile rail that could withstand the test of shaky flight conditions.

### Solution:

PBC Linear implemented their small-footprint, low profile Redi-Rail® product. Attached to a custom carriage, the low profile system easily fit into the tight spaces required for the task. Using sealed, double row bearings and a precision machined guide rail, the low profile Redi-Rail® product glides through spills, turbulence and harsh conditions—adding ease and comfort to the passenger's flight.



**PBC Linear®**

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