

## Profile Rail Linear Guides

High-Precision Rails and Carriages Produced for Easy Retrofitting  
into Existing Linear Applications or Designing into New Ones

[www.thomsonlinear.com](http://www.thomsonlinear.com)

**THOMSON**<sup>®</sup>

*Linear Motion. Optimized.<sup>™</sup>*



*Linear Motion. Optimized.™*

## Thomson – the Choice for Optimized Motion Solutions

Often the ideal design solution is not about finding the fastest, sturdiest, most accurate or even the least expensive option. Rather, the ideal solution is the optimal balance of performance, life and cost.

### The Best Positioned Supplier of Mechanical Motion Technology

Thomson has several advantages that makes us the supplier of choice for motion control technology.

- Thomson own the broadest standard product offering of mechanical motion technologies in the industry.
- Modified versions of standard product or white sheet design solutions are routine for us.
- Choose Thomson and gain access to more than 70 years of global application experience in industries including packaging, factory automation, material handling, medical, clean energy, printing, automotive, machine tool, aerospace and defense.
- As part of Altra, we are financially strong and unique in our ability to bring together control, drive, motor, power transmission and precision linear motion technologies.

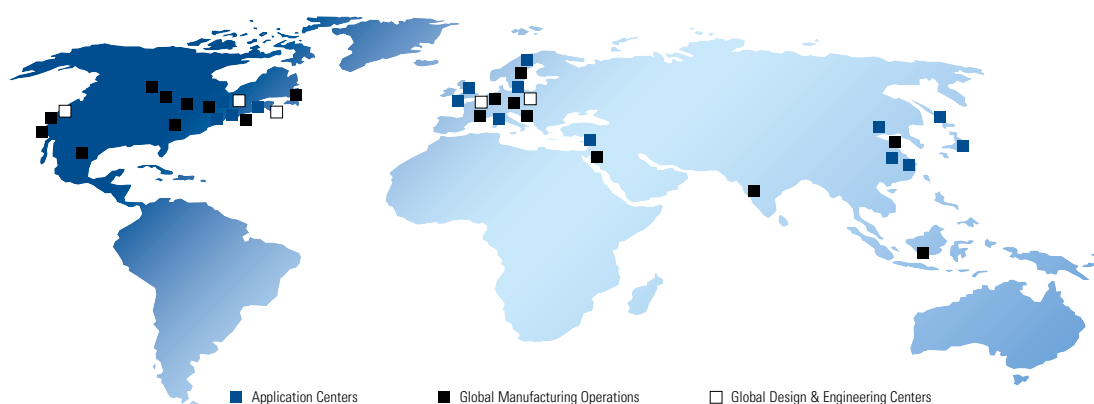
### A Name You Can Trust

A wealth of product and application information as well as 3D models, software tools, our distributor locator and global contact information is available at [www.thomsonlinear.com](http://www.thomsonlinear.com). For assistance, contact your local sales office (contact information listed on the back of catalog). Talk to us early in the design process to see how Thomson can help identify the optimal balance of performance, life and cost for your next application. And, call us or any of our 2000+ distribution partners around the world for fast delivery of replacement parts.

### The Altra Business System

The Altra Business System (ABS) was established to increase the value we bring to customers. It is a mature and successful set of tools we use daily to continually improve manufacturing operations and product development processes. ABS is based on the principles of Kaizen which continuously and aggressively eliminate waste in every aspect of our business. ABS focuses the entire organization on achieving breakthrough results that create competitive advantages in quality, delivery and performance – advantages that are passed on to you. Through these advantages Thomson is able to provide you faster times to market as well as unsurpassed product selection, service, reliability and productivity.

### Local Support Around the Globe





## Overview of Thomson Profile Rail Linear Guides

Since the invention of the linear anti-friction Ball Bushing bearing by Thomson over 50 years ago, the Thomson precision linear products have meant high quality, innovative products. Today, Thomson continues producing and developing these high quality, innovative products. The Thomson Profile Rail assortment consists of the Next Generation Profile Rail "500 Series" Ball and Roller Linear Guides, compact miniature "MicroGuide™," lightweight "T-Series," and AccuMini.



The Thomson Profile Rail – Linear Guide Assortment is a complete assortment of rails and carriages in a broad range of styles, sizes and unique features produced to industry standard dimensions for easy retrofitting into existing applications or designing into new applications.

### 500 Series Ball Profile Rail Linear Guide

#### Features & Benefits

Superior Design. Superior Quality.

- Straight rails through advanced grinding technologies
- Simple installation and greater accuracy with joint-free rails up to 6 meters
- Smooth, quiet movement through patented insert molded recirculation paths and optimized geometries
- Extended lubrication life as a result of grease pockets built into the recirculation path
- Multiple carriage styles and sizes available
- On site field modifiable modular seals
- Rail and carriage options from stock or short delivery
- Customization with expanded accessory offering
- Replaces Thomson AccuGlide

#### Typical Applications

- Industrial Automation
- Machine Tool Equipment
- Precision Measuring Equipment
- Industrial Robots

### 500 Series Roller Profile Rail Linear Guide

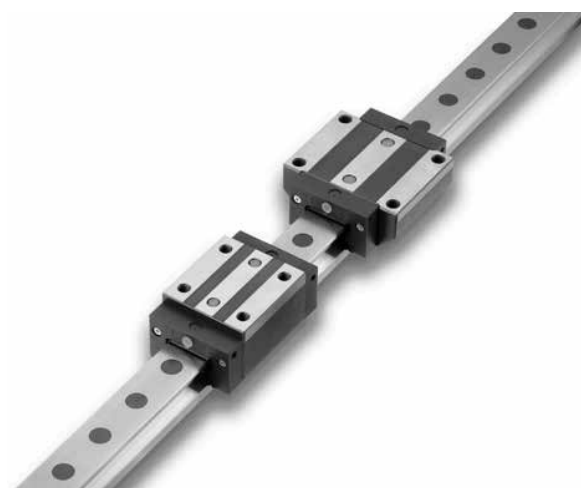
#### Features & Benefits

Superior Design. Superior Quality.

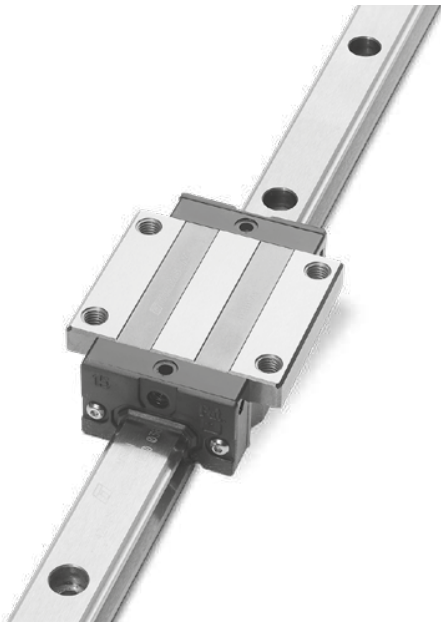
- Industry leading load capacities
- High rigidity from back to back four roller track arrangement
- Straight rails through advanced grinding technologies
- Simple installation and greater accuracy with joint-free rails up to 6 meters
- Smooth, quiet movement through patented insert molded recirculation paths and optimized geometries
- Multiple carriage styles and sizes available
- On site field modifiable modular seals
- Rail and carriage options from stock or short delivery
- Customization with expanded accessory offering
- Replaces Thomson Accumax

#### Typical Applications

- Industrial Automation
- Industrial Robots
- Machine Tool Equipment
- Precision Measuring Equipment



## Profile Rail Linear Guides

**400 Series Ball Profile Rail Linear Guide****Features & Benefits**

- Polymer ball-return tube reduces noise and vibration while retaining lubrication
- Standard double lip end and longitudinal seals retain lubrication while protecting the bearing from contamination
- Lubrication channels that direct lubricant to individual ball tracks, maximizing lubricating effectiveness
- Double-faced ball tracks utilize a 45° face-to-face bearing arrangement, resulting in equal load-carrying capacity in all directions
- 413 ball cage option provides increased travel smoothness, lower noise at high speeds, and individual lubricant reservoirs
- See Thomson 400 Series Profile Rail Linear Guide catalog for more details

**Typical Applications**

- Industrial Automation
- Packaging Equipment
- Food Processing Equipment

**AccuMini****Features & Benefits**

- Ball control design for smooth, quiet, low friction at high speeds
- Full length integral wiper which protects important bearing from contaminants... effective system life is maximized
- Gothic design, which provides high roll moment capacity...a requirement for stand-alone applications
- Wear-resistant, engineered polymer retainer which reduces system inertia and noise

**Typical Applications**

- Wafer Handling Equipment
- Assembly Equipment
- Inspection and Measurement Equipment





### MicroGuide

#### Features & Benefits

- Industry standard drop-in replacement
- 440 stainless steel construction (corrosion resistance, little or no lubrication)
- High precision accuracy (up to  $\pm 0.010\text{mm}$ )
- Extremely smooth, quiet operation
- Low Profile
- High Moment Load Capacity for single rail / carriage applications
- Whisper quiet movement
- Gothic arch ball groove geometry provides enables single rail application
- One-piece length up to 1 meter (in sizes 7mm - 15mm)
- Contact Thomson for custom lengths and configurations

#### Typical Applications

- Front end semiconductor processing equipment
- Backend semiconductor packaging and handling equipment
- Medical diagnostic and imaging equipment
- Laboratory automation equipment
- Testing and inspection equipment



### T-Series

#### Features & Benefits

- Lightweight, flexible and forgiving alternative to all-steel profile rail.
- High quality product made from aircraft aluminum alloy with hardened steel load bearing plates and ball paths.
- Ideal choice for applications requiring reduced weight or inertia.
- High flexibility translates into N class radial run out only.
- Proprietary "U" channel construction allows the rail to "flex" to accommodate poor machine bases or misalignment errors.
- Lower cost installation and reduced installation time by eliminating the need for a costly machined base and special tools.
- Drop-in replacement for conventional all-steel profile linear guides.

#### Typical Applications

- Airplanes
- Automobiles
- Ships
- Packaging