# Why SKF?

# SKF profile rail guide LLT



The productivity and economic success of a given application depends, to a large extent, on the quality of the selected linear components. Often these components determine market acceptance and thus help to secure the manufacturer a competitive edge. For this purpose, the linear components have to be as adaptable as possible to precisely meet the application's requirements, ideally with standard components.

The new SKF profile rail guide series LLT satisfies these market demands: available in a wide range of sizes, carriages and accessories as well as in various preload and accuracy classes, LLT profile rail guides facilitate the adaptation to individual application demands. In combination with their ability to operate at virtually unlimited stroke, this opens up almost any design option.



### **Common applications**

- Handling
- Plastic injection moulding
- Wood-working
- Printing
- Packaging
- Medical
- Machine tool

### **Customer benefits**

- Improved service life and reliability
- Ready-to-mount due to factory pre-lubrication
- Enhanced productivity
- Reduced maintenance efforts
- High flexibility in application design
- Interchangeability
- Simplified stock management
- Customized solutions



## Features and benefits



# Improved repeatability and smooth running performance

The new LLT profile rail guide has four rows of balls with a 45° contact angle between the rolling elements and raceways. This X-arrangement improves the system's selfaligning capability. Mounting deviations can be absorbed even under preload, resulting in smooth running performance. Friction is kept to a minimum due to two-point ball contact. This enables reliable, stick-slip-free operation for the life of the rail guide.



### Modular concept for customized solutions

Different applications have different speed, precision and environmental requirements. As a result, SKF LLT rail guides use modular components so that cost-effective solutions can be built based on the needs of the application. Various accuracy and preload classes are available to meet different precision and stiffness requirements. Furthermore, a wide range of accessories supports the adaptation to different environmental needs.



# Longer service life and reduced maintenance

SKF profile rail guide carriages are factory pre-lubricated. The integrated lubricant reservoirs, located in the end plates, constantly relubricate the circulating balls. Both ends of the carriage have metal threaded lubrication ports to accommodate an automatic re-lubrication system. As standard, one grease nipple is provided with each carriage. These fully sealed carriages have double lip seals on both ends as well as side and inner seals. The seal design results in both low friction and high protection of the internal components.



## Stiffness, strength and accuracy for improved production processes

The four-row arrangement of balls at a 45° angle optimizes load sharing in all four main load directions and is in accordance with ISO 14728. This feature provides a high degree of design flexibility. The ability to accommodate high loads and moment loads makes these rail guides ideal even for single carriage systems.



#### Interchangeability and global availability

The main dimensions of SKF profile rail guides are in accordance with DIN 645-1. This enables full interchangeability with all DIN-compliant brands. SKF's global sales and distribution network enables the availability of replacement parts and serviceability for all systems worldwide.



#### **Quick facts**

- Range from size 15 to 45
- Six different carriage types
- Temperature resistance up to 100 °C
- Speed up to 3 m/s
- Load carrying capacity 8 400 N to 128 500 N
- Wide range of accessories, preload and precision classes

### The SKF offer doesn't stop here

- Availability of a miniature profile rail guide series
- Series of pre-assembled and driven profile rail guide slides available
- Special system solutions possible



An SKF Documented Solution specialist can show you the approximate return on investment (ROI) you can expect to receive by using this product in your application. Ask your SKF Authorized Distributor or SKF representative for more details.

® SKF is a registered trademark of the SKF Group.

© SKF Group 2009

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

#### PUB MT/P9 10102 EN · July 2009

Printed in Sweden on environmentally friendly paper.

