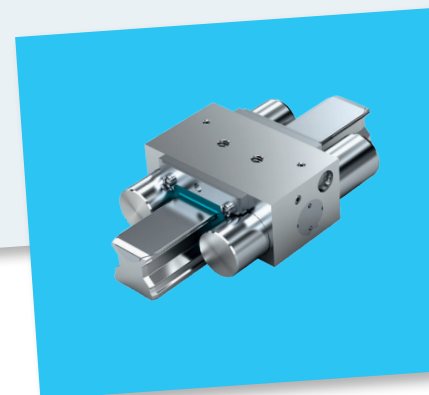
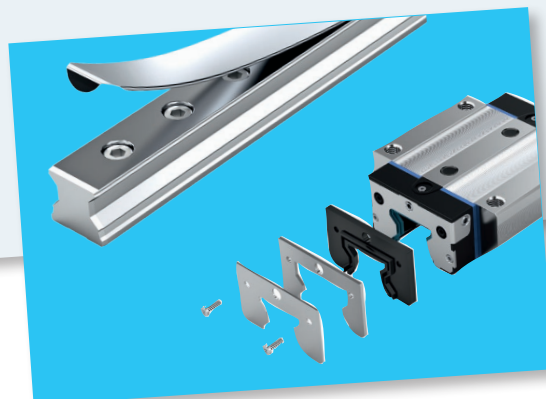
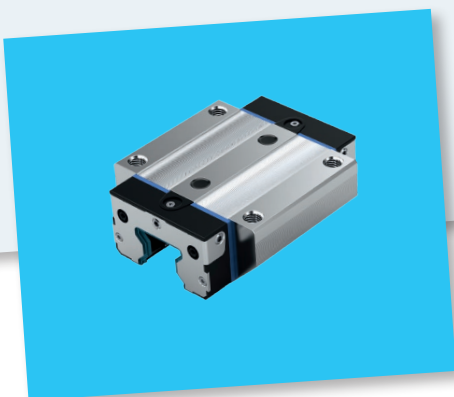
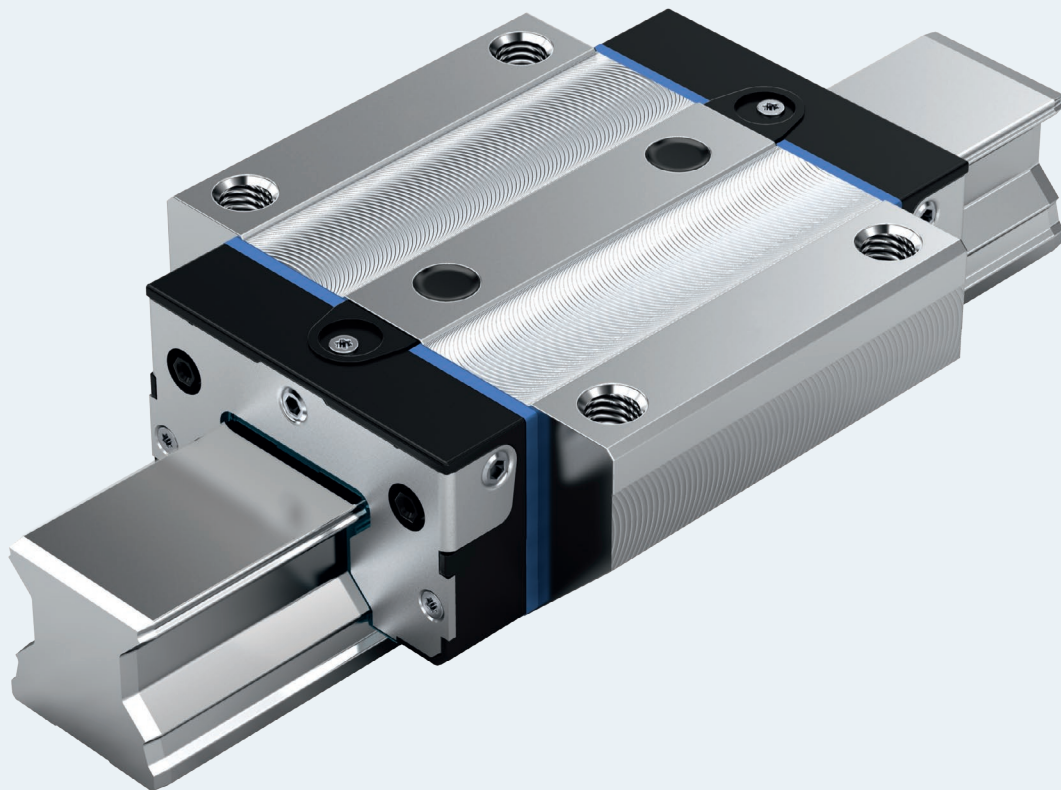


Roller rail systems

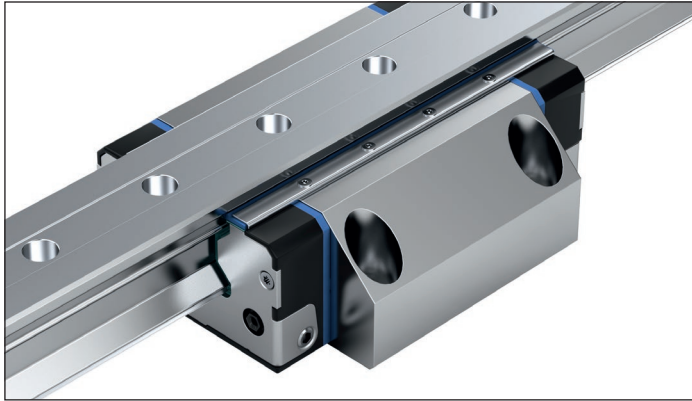
Roller runner blocks, roller guide rails, accessories



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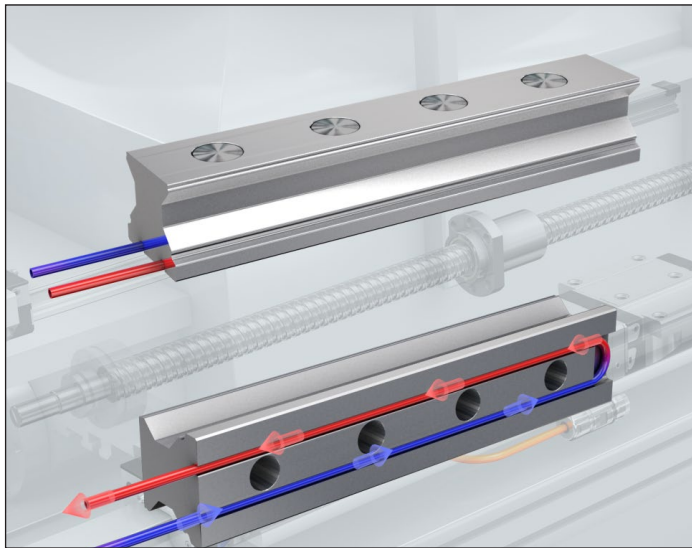
New features at a glance



Longitudinal seal AS



Size 25 RSHP available



Roller guide rail with temperature control

Product description

Rexroth roller rail systems have been developed in particular for machine tools, industrial robots, general machine building etc., which require the compact, roller-mounted longitudinal guides in various accuracy classes with a very high load capacity and high rigidity.

Characteristic features

Standard roller rail systems are suitable for all typical applications. The extremely compact assembly units in many common sizes have the same high load capacity in all four main directions of loading.

Standard roller runner blocks are also available for special installation, usage and environmental conditions of use. Suitable heavy-duty roller rail systems are available for heavy machine construction.

Complete guide units can also be designed by combining interchangeable elements from stock

Roller guide rails and roller runner blocks are manufactured by Rexroth with such high precision that each element is fully interchangeable. As a result they can be combined as required.

Each element can be individually planned and separately stocked. Both sides of the roller guide rail can be used as reference edges.

Accessories can be screwed down to the end-face of the roller runner block.

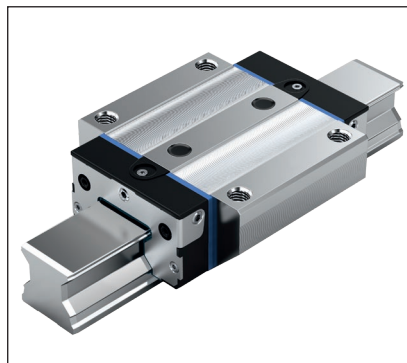
Further highlights

- ▶ Uniform roller guide rails with and without cover strips allow limitless interchangeability across all roller runner block variants
- ▶ Lube nipples possible on all sides for easy maintenance
- ▶ Low lubrication quantities thanks to innovative channel design
- ▶ Quiet running thanks to optimally designed roller return and guideway
- ▶ Attachments on the roller runner block can be mounted from above and below
- ▶ Maximum rigidity in all load directions due to additional screw connections on two bore holes in the center of the roller runner block

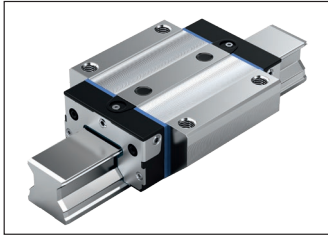
- ▶ High torque load capacity
- ▶ Lowest elastic deflection and greatest precision in the process due to the further optimized entry-zone geometry and high number of rollers (formulated in an enhanced manner)
- ▶ The roller runner block is simply slid onto the rail with the transport lock.
- ▶ Integrated all-round sealing as standard

Optional

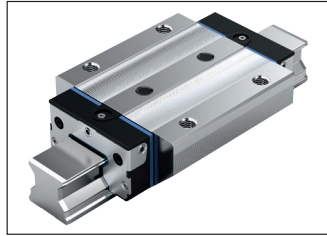
- ▶ Corrosion-resistant roller runner blocks and roller guide rails in Resist CR, hard chrome plated, available in accuracy class H and in accuracy classes P and SP on request.



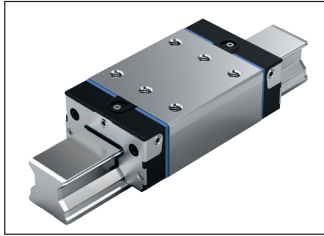
Formats



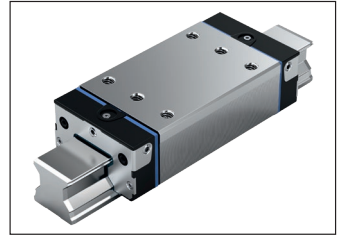
FNS – Flanged, normal, standard height



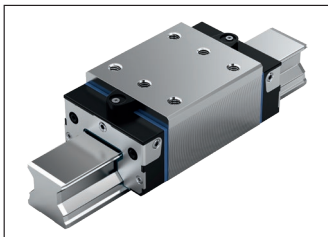
FLS – Flanged, long, standard height



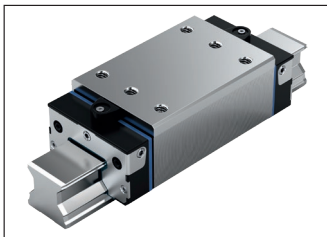
SNS – Slimline, normal, standard height



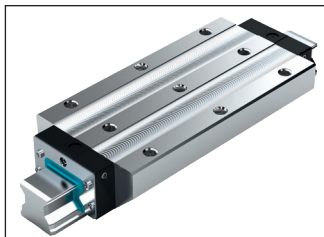
SLS – Slimline, long, standard height



SNH – Slimline, normal, high



SLH – Slimline, long, high



FXS – Flanged, extra long, standard height

Definition of the format of roller runner blocks

Criterion	Designation	Code (example)		
		F	N	S
Width	Flange	F		
	Slimline	S		
Length	Normal		N	
	Long		L	
	Extra long		X	
Height	Standard height			S
	High			H

Format with flange –

Design for mounting from above and below

Narrow format –

Design for mounting from above



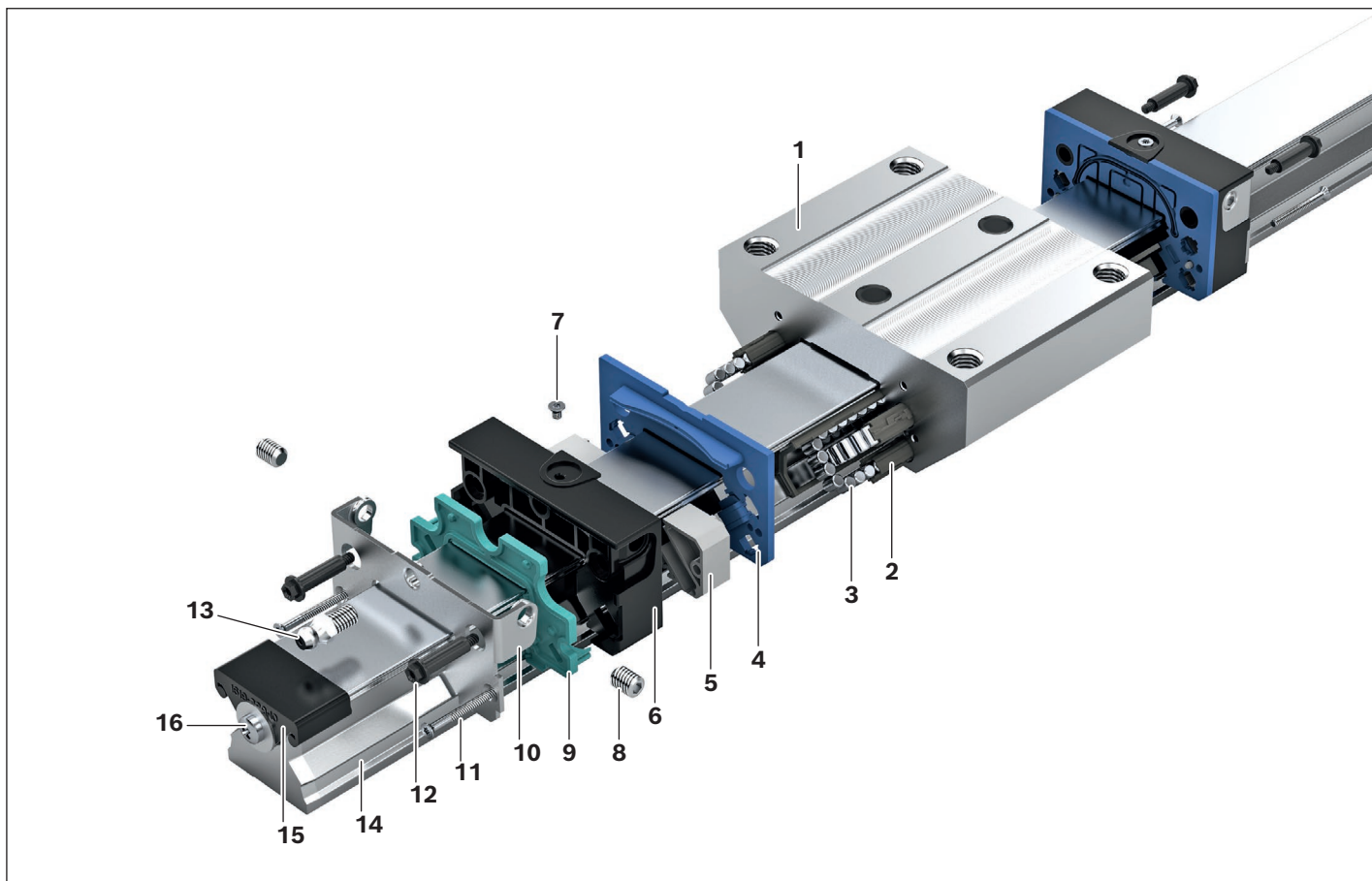
Roller guide rail with the proven cover strip for covering mounting holes

- ▶ One cover for all bore holes saves time and costs
- ▶ Made of stainless spring steel as per DIN EN 10088
- ▶ Easy and safe during mounting
- ▶ Clip on and secure

Definition of the format of roller guide rails

Criterion	Designation	Code (example)		
		S	N	S
Width	Slimline	S		
Length	Normal		N	
Height	Standard height			S
	O Without groove			O

Structure and attachments



Components and their materials

Position	Component	Roller runner block		Roller guide rails	
		Steel	Resist CR	Steel	Resist CR / CR II
1	Roller runner block	Heat-treated steel	Hard chrome-plated heat-treated steel		
2	Return channel	Plastic	Plastic		
3	Cylinder rollers	Anti-friction bearing steel	Anti-friction bearing steel		
4	Diversion plate	Plastic	Plastic		
5	Diversion component	Plastic	Plastic		
6	Roller guide	Plastic	Plastic		
7	Screw plug	Carbon steel	Carbon steel		
8	Set screw	Corrosion resistant steel	Corrosion resistant steel		
9	Sealing plate	Plastic	Plastic		
10	Threaded plate	Corrosion resistant steel	Corrosion resistant steel		
11	Oval-head screws	Corrosion resistant steel	Corrosion resistant steel		
12	hexagonal screws	Carbon steel	Carbon steel		
13	Lube nipple	Carbon steel	Carbon steel		
14	Roller guide rail			Heat-treated steel	Hard chrome-plated heat-treated steel
15	Protective cap			Plastic	Plastic
16	Screw/disc			Corrosion resistant steel	Corrosion resistant steel

General notes

- ▶ Combinations of different accuracy classes

When combining roller guide rails and roller runner blocks of varying accuracy classes, the tolerances for the dimensions H and A3 change. See "Accuracy classes and their tolerances."

Intended use

- ▶ The roller rail systems are linear guideways capable of absorbing forces from all transverse directions and moments about all axes. The roller rail system is intended exclusively for guiding and positioning tasks when installed in a machine.
- ▶ The product is intended exclusively for professional use and not for private use.
- ▶ Use for the intended purpose also includes the requirement that users must have read and understood the related documentation completely, in particular the "Safety Instructions".

Misuse

Use of the product in any other way than as described under "Intended use" is considered to be misuse and is therefore not permitted. If unsuitable products are installed or used in safety-critical applications, this may lead to uncontrolled operating statuses in the application which can cause personal injury and/or damage to property.

The product may only be used in safety-critical applications if this use has been expressly specified and permitted in the product documentation.

Bosch Rexroth AG will not accept any liability for injury or damage caused by misuse of the product. The risks associated with any misuse of the product shall be borne by the user alone.

Misuse of the product includes:

- ▶ The transport of persons

General safety instructions

- ▶ The safety rules and regulations of the country in which the product is used must be observed.
- ▶ All current and applicable accident prevention and environmental regulations must be adhered to.
- ▶ The product may only be used when it is in technically perfect condition.
- ▶ The technical data and environmental conditions stated in the product documentation must be complied with.
- ▶ The product must not be put into service until it has been verified that the final product (for example a machine or system) into which the product has been installed complies with the country-specific requirements, safety regulations and standards for the application.
- ▶ Rexroth roller rail systems may not be used in zones with potentially explosive atmospheres as defined in the ATEX directive 94/9/EC.
- ▶ Rexroth roller rail systems must never be altered or modified. The user may only perform the work described in the "Quick User Guide" or the "Mounting instructions for roller rail system".
- ▶ The product is never allowed to be disassembled.
- ▶ At high travel speeds a certain amount of noise is caused by the product. If necessary, appropriate measures should be taken to protect hearing.
- ▶ The special safety requirements for specific sectors (e.g. crane construction, theaters, food technology) set forth in laws, directives and standards must be complied with.
- ▶ In all cases, the provisions of the following standard should be noted and followed. DIN 637, Safety regulations for dimensioning and operation of profiled rail systems with recirculating rolling elements.

Directives and standards

Rexroth roller rail systems RSHP guides are designed for reliability and high precision in dynamic, linear applications. The machine tool industry and other sectors must observe a series of standards and directives. These requirements can vary significantly worldwide. It is therefore essential to understand the legislation and standards that apply in each particular region.

DIN EN ISO 12100

This standard describes the safety of machinery – general principles for design, risk assessment and risk reduction. It gives a general overview and contains a guide to the major developments governing machines and their intended use.

Directive 2006/42/EC

The European Machinery Directive describes the basic safety and health requirements for the design and manufacture of machinery. The manufacturer of a machine or his authorized representative has a duty to ensure that a risk assessment has been performed in order to determine the health and safety requirements which have to be fulfilled for that machine. The machine must be designed and built taking into consideration the results of the risk assessment.

Directive 2001/95/EC

This directive covers general safety requirements for any product placed on the market and intended for consumers, or likely to be used by consumers under reasonably foreseeable conditions, including products that are made available to consumers in the context of service provision for use by them

Directive 1999/34/EC

This directive concerns the liability for defective products and applies to industrially manufactured movable objects, irrespective of whether or not they have been incorporated into another movable or immovable object.

REGULATION (EC) No. 1907/2006 (REACH)

This regulation relates to restrictions on the marketing and use of certain dangerous substances and preparations. "Substances" means chemical elements and their compounds as they occur in the natural state or as produced by industry. "Preparations" means mixtures or solutions composed of two or more substances.

Selection of a linear guide according to DIN 637

