

Linear Bushings and Shafts

R310EN 3100 (2007.03)

The Drive & Control Company

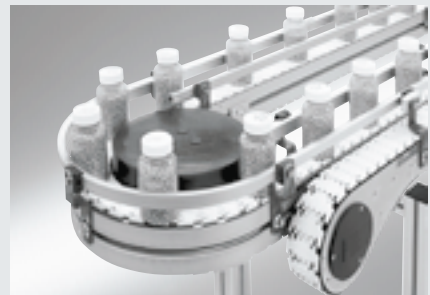
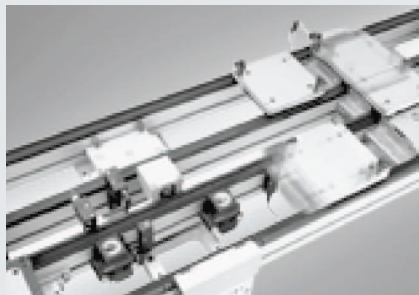
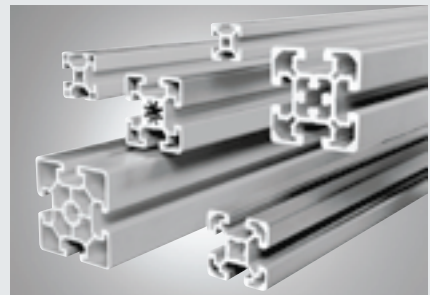
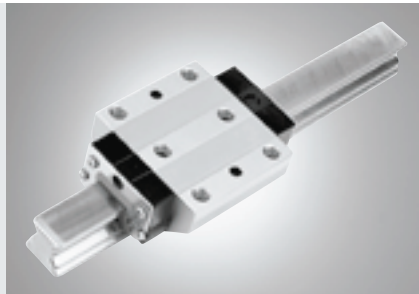
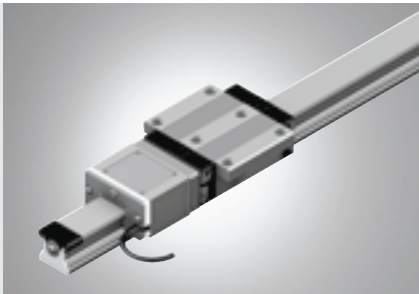


Linear Motion and Assembly Technologies


















Ball Rail Systems
Roller Rail Systems
Linear Bushings and Shafts

Ball Screw Drives
Linear Motion Systems

Basic Mechanical Elements
Manual Production Systems
Transfer Systems



Linear Bushings and Shafts

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eLINE, Compact Linear Bushings

Normal	R0658		24
Corrosion-resistant			

eLINE, Compact Linear Sets

Closed type, normal or corrosion-resistant	R1027		26
Adjustable, normal	R1028		26
Tandem	R1029		28
Closed type, normal or corrosion-resistant			

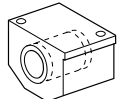
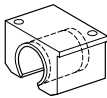

Super Linear Bushings **A**

Closed type	R0670		42
Open type	R0671		42

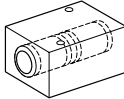
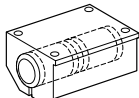
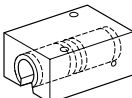
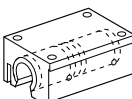
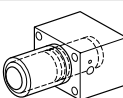
Super Linear Bushings **B**

Closed type	R0672		44
Open type	R0673		44

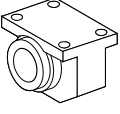
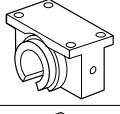
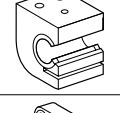
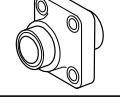
Linear Sets with Super Linear Bushings **A** or **B**, aluminum housing

Closed type	R1035		48
Adjustable	R1036		48
Open type	R1037		50
Open type, adjustable	R1038		50
With side opening	R1071		52
With side opening, adjustable	R1072		52

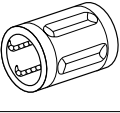
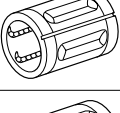
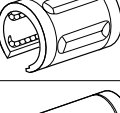
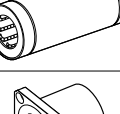
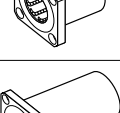
Linear Sets with Super Linear Bushings **A**, tandem

Closed type	R1085		54
Adjustable	R1032		54
Open type	R1087		56
Open type, adjustable	R1034		56
Flanged type	R1083		58

Linear Sets with Super Linear Bushings **A or **B**, cast-iron housing**

Closed type	R1065		60
Adjustable	R1066		60
Open type	R1067		62
Open type, adjustable	R1068		62
With side opening	R1073		64
With side opening, adjustable	R1074		64
Flanged type	R1081		66

Standard Linear Bushings

Closed type, without wiper seals	R0600		76
Closed type, with wiper seals	R0602		76
Closed type, without wiper seals, corrosion-resistant	R0600		78
Closed type, with wiper seals, corrosion-resistant	R0602		78
Adjustable, without wiper seals	R0610		80
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Open type, without wiper seals	R0630		82
Open type, with wiper seals	R0632		82
Tandem with wiper seals, normal or corrosion-resistant	R0650		84
Flanged with wiper seals, normal or corrosion-resistant	R0740		86
Flanged, tandem with wiper seals, normal or corrosion-resistant	R0741		88
With central flange with wiper seals, normal or corrosion-resistant	R0742		90

Contents

Linear Sets with Standard Linear Bushings

Closed type	R1065		94
Adjustable	R1066		94
Open type	R1067		96
Open type, adjustable	R1068		96
With side opening	R1073		98
With side opening, adjustable	R1074		98
Flanged	R1081		100

Segmental Linear Bushings

Normal or corrosion-resistant	R0668		106
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Linear Sets with Segmental Linear Bushings

Adjustable, normal or corrosion-resistant	R1060		108
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Torque-Resistant Linear Bushings

Type 1: one ball guide groove	R0696 0		116
Type 2: two ball guide grooves	R0696 3		116

Torque-Resistant Compact Linear Bushings

R0720		118
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Linear Sets with Torque-Resistant Linear Bushings, aluminum housing

Type 1: one ball guide groove	R1098 2		122
Type 2: two ball guide grooves	R1098 5		122
Tandem			
Type 1: one ball guide groove	R1099 2		124
Type 2: two ball guide grooves	R1099 5		124

Linear Sets with Torque-Resistant Linear Bushings, steel housing

Type 1: one ball guide groove	R1096 2		126
Type 2: two ball guide grooves	R1096 5		126
Tandem			
Type 1: one ball guide groove	R1097 2		128
Type 2: two ball guide grooves	R1097 5		128

Linear Sets with Torque-Resistant Compact Linear Bushings

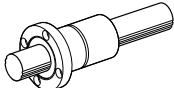
R0721		132
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Tandem	R0722		134
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Flanged	R0723		136
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Torque-Resistant Linear Bushings with four ball guide grooves

	R0724		138
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Flanged	R0725		140
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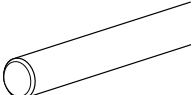
Miniature flanged	R0726		140
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Rotational flanged	R0727		142
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Linear Bushings for Combined Linear and Rotary Motion

With deep-groove ball bearing, series 618	R0663		146
With deep-groove ball bearing, series 60	R0664		146
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Precision Steel Shafts

Solid shaft – Heat-treated steel or corrosion-resistant or hard chrome plated	R1000		166
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Tubular Shaft – Heat-treated steel or hard chrome plated	R1001		167
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Steel Shafts with ready-mounted Shaft Support Rails, Shaft Support Rails

For open-type Standard and Super Linear Bushings			
Flanged	R1010		172
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Flanged, very accurate height tolerance	R1014		176
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Aluminum, compact	R1058		186
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Phase-out parts

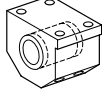
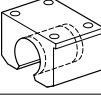

Super Linear Bushings

Closed type	R0732		198
Open type	R0733		198

Super Linear Bushings

Closed type	R0730		200
Open type	R0731		200

Linear Sets with Super Linear Bushings or

Closed type	R1701		202
Adjustable	R1702		202
Open type	R1703		204
Open type, adjustable	R1704		204
With side opening, adjustable	R1706		206

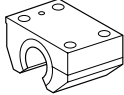
Radial Linear Bushings

Without wiper seals or fully sealed	R0678		208
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Linear Sets with Radial Linear Bushings

Open type, adjustable	R1076		210
With side opening, adjustable	R1078		211

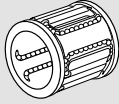
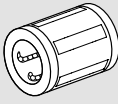
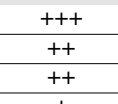
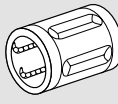
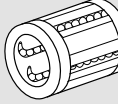
Radial Compact Sets


Open type, adjustable	R1613		212
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Steel Shafts with ready-mounted Shaft Support Rails, Shaft Support Rails

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Product Selection Guide for Linear Bushings

	eLINE, Compact 	Super  / 	Standard 	Segmental 
Frequency of use	+++	+++	++	++
Low costs	+++	++	++	+++
Especially easy installation	+++	++	++	++
Very compact design	+++	+	+	+++
Corrosion-resistant version available	+++	o	+++	+++
Normal loads	+++	+++	+++	+++
High loads	++	+++	++	++
With self-alignment	o	+++ ¹⁾	o	o
Especially smooth running	++	+++	++	++
Also in open-type design	o	+++	+++	o
High temperature	o	o	+++	o
Heavy contamination	o	o	+++	o
Suitability for vacuum	o	o	+++	o

1) Super  only


- +++ Very good
- ++ Good
- + Satisfactory
- o Not recommended

Product Overview


Our wide product selection of Linear Bushings in this catalog ensures that you will find the right solution for every application.

The eLINE Linear Bushing is distinguished by its compact dimensions and reduced radial clearance. In this type of linear bushing, the use of integrated metal retaining rings avoids the otherwise usual requirement for additional axial retention in the receiving bore. The eLINE Linear Bushing has two integrated wiper seals and is available in normal or corrosion-resistant versions, both pre-lubricated in-factory prior to shipment.

The Compact Linear Bushing is essentially identical in design to the eLINE Linear Bushing. It is supplied with standard radial clearance and is available with and without integrated wiper seals, in normal and corrosion resistant versions.

The Super Linear Bushing  has a built-in self-alignment feature that compensates for angular misalignment between the housing and shaft up to 0.5 degrees tilt without any reduction in load capacity due to angular pressure. Possible causes of misalignment include shaft flex due to heavy loads or inaccuracies in the adjoining structure. Angular self-adjustment ensures that the balls enter the load-bearing zone smoothly and that the load is distributed evenly across the whole row of balls. As a result, this type of linear bushing offers unparalleled smooth motion, a very high load-carrying capacity and extremely long service life.

For high loads or very long guides, the Super Linear Bushing is also available in an open version for use on supported shafts.

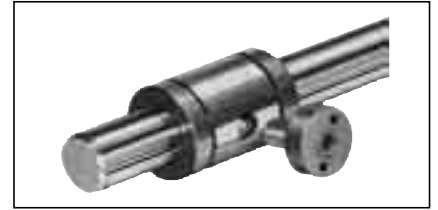
The Super Linear Bushing  without self-alignment is the solution for applications where only one linear bushing is used per shaft and the linear bushing may not rock on the shaft.

The Standard Linear Bushing is especially durable due to its steel ball retainer and is suitable for applications with high contamination, for example in the woodworking industry. It is available in three designs: closed-type, adjustable, and open-type. For use at very high temperatures, there is also an unsealed version. Closed-type Standard Linear Bushings are also available in versions made entirely of corrosion-resistant steel, which are particularly suitable for applications under vacuum and in the food industry.

The Segmental Linear Bushing with its durable plastic housing, is a cost-effective, ready-to-install Linear Bushing. For applications in corrosive conditions or where there are heavy requirements on cleanliness, such as in the food, semiconductor or medical equipment industries, these linear bushings are also available in corrosion-resistant versions.



Torque-Resistant Linear Bushings allow full linear guidance with only one shaft. The torque is transferred through extra-deep ball races. Depending on the level of torque to be transmitted, the shafts for these torque-resistant linear bushings can be supplied with one or more ball guide grooves.



Linear Bushings for Combined Linear and Rotary Motion are available with deep-groove ball bearings or needle bearings. They are suitable for swiveling movements as well as for medium rotary speeds.



Linear Sets are complete bearing units consisting of a housing with one or two Rexroth Linear Bushings. They are available in many different configurations. Because of their rationalized construction and fabrication, Linear Sets offer users significant cost advantages over customer-built designs. The housings can be easily aligned during mounting, thereby avoiding distortive stresses on the Linear Bushings.



Precision Steel Shafts are available in various tolerances, as solid shafts and tubular shafts, made from heat-treated steel, corrosion-resistant steel or hard chrome plated steel. Rexroth supplies Precision Steel Shafts square-cut to the desired length, with chamfering at both ends, or machined to your drawings or specifications.



Steel Shafts with ready-mounted shaft support rails, shaft support rails and shaft support blocks in various versions complete the Linear Bushings range.

