LINEAR ROLLER GUIDE

ROLLCO

SPECIALIZED
ON LINEAR MOTION

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NORDIC ECOLABEL

CLIMATE COMPENSATED PAPER

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Product Overview

The Rollco Roller Guides are highly developed solutions for the high-tech industry. The optimized shape of the rails, the roller guides with logarithmic profiles and the integrated lubrication system multiplies the economical as well as the technical advantages.

Important characteristics

- Rails optimized on preload and load capacity.
- Rollers with logarithmical profiles guarantees long lifetime, high load capacity and stiffness.
- The integrated distribution in the front panel ensures the supply of the tracks with minimal oil or grease.
- Rollers placed in O-shape gives a uniform load on all sides - documented by FEM-analyses.
- Large contact surface on the entire load zone.
- High operational safety - the construction eliminates transitions between the plastic and steel parts.
- Integrated wipers protect the guides in dirty environments. Designed to reduce the leakage of lubricant significantly.
- Manufacturing by machinery at the forefront of technology and automated quality control lead to high quality.

FEM-analyse of LC block

Rollers in O-shape

Wide Block Type LC/LL

Dimensions: mm

Type	H	A	A1	A2	H1	B	L	L1	L2	L3	L4	L5	N	S	S1	G	G1	F1	F2	F3	M	Q	K
RMG25LC	36	70	23,5	23	24,5	29,5	90,2	62	45	40	30	14	57	M6	M8	9	6,5	7	11	11,5	7,5	5,5	14
RMG25LL	36	70	23,5	23	24,5	29,5	109,7	81,5	45	40	30	14	57	M6	M8	9	6,5	7	11	11,5	7,5	5,5	23,7
RMG35LC	48	100	33	34	32	41	119,3	80	62	52	40	19	82	M8	M10	12	10	9	15	17	8	7,9	15,5
RMG35LL	48	100	33	34	32	41	142,3	103	62	52	40	19	82	M8	M10	12	10	9	15	17	8	7,9	27
RMG45LC	60	120	37,5	45	40	50	147,3	101,3	80	60	52,5	25	100	M10	M12	15	12	14	20	19	10	8	17,6
RMG45LL	60	120	37,5	45	40	50	179,8	133,8	80	60	52,5	25	100	M10	M12	15	12	14	20	19	10	8	33,9
RMG55LC	70	140	43,5	53	48	57	173	120	95	70	60	29	116	M12	M14	18	13,5	16	24	22	12	9	21,5
RMG55LL	70	140	43,5	53	48	57	215	162	95	70	60	29	116	M12	M14	18	13,5	16	24	22	12	9	42
RMG65LC	90	170	53,5	63	55	78	221,8	159,8	110	82	75	36,5	142	M14	M16	22	19,5	18	26	26	15,5	15	29
RMG65LL	90	170	53,5	63	55	78	272,3	210,3	110	82	75	36,5	142	M14	M16	22	19,5	18	26	26	15,5	15	54,3

Narrow Block Type SC/SL

SC SL

Dimensions: mm

Type	H	A	A1	A2	H1	B	L	L1	L2	L4	L5	N	S1	G	F1	F2	F3	M	Q	K
RMG25SC	40	48	12,5	23	24,5	33,5	90,2	62	35	30	14	35	M6	9	7	11	11,5	7,5	9,5	19
RMG25SL	40	48	12,5	23	24,5	33,5	109,7	81,5	50	30	14	35	M6	9	7	11	11,5	7,5	9,5	21,2
RMG35SC	55	70	18	34	32	48	119,3	80	50	40	19	50	M8	12	9	15	17	8	14,9	21,5
RMG35SL	55	70	18	34	32	48	142,3	103	72	40	19	50	M8	12	9	15	17	8	14,9	22
RMG45SC	70	86	20,5	45	40	60	147,3	101,3	60	52,5	25	60	M10	18	14	20	19	10	18	27,6
RMG45SL	70	86	20,5	45	40	60	179,8	133,8	80	52,5	25	60	M10	18	14	20	19	10	18	33,9
RMG55SC	80	100	23,5	53	48	67	173	120	75	60	29	75	M12	19	16	24	22	12	19	31,5
RMG55SL	80	100	23,5	53	48	67	215	162	95	60	29	75	M12	19	16	24	22	12	19	42
RMG65SC	90	126	31,5	63	55	78	221,8	159,8	70	75	36,5	76	M16	22	18	26	26	15,5	15	49
RMG65SL	90	126	31,5	63	55	78	272,3	210,3	120	75	36,5	76	M16	22	18	26	26	15,5	15	49,2

Linear Roller Guide

RMG - 35 - SC - 2 - L598 - Q3 - P2 - B

Product type

Rail size
(25, 35, 45, 55, 65)

Block type
LC: wide-short
LL: wide-long
SC: narrow-short
SL: narrow-long

Number of carriages on the rail

Rail length (mm)
(Max. 4000 mm in one piece)

Accuracy classes
(Q0, Q1, Q2, Q3)

Preload classes
(P2, P3)

B: Bottom mounted rail

Technical Information

Load Capacity and Static Moment

LC/LL

SC/SL

Type	Load capacity (N)		Moment (Nm)			
	C Dynamic	Co Static	Mt Dynamic	Mto Static	ML Dynamic	MLo Static
RMG25 LC/SC	28700	57600	431	863	285	570
RMG25 LL/SL	38900	76800	583	1150	491	970
RMG35 LC/SC	53300	99000	1179	2192	674	1235
RMG35 LL/SL	72600	136000	1595	3014	1187	2243
RMG45 LC/SC	95000	184000	2617	5070	1538	2979
RMG45 LL/SL	119500	242200	3293	6672	2444	4951
RMG55 LC/SC	132600	256000	4503	8707	2576	4981
RMG55 LL/SL	176000	351000	5977	11915	4470	8910
RMG65 LC/SC	212000	414000	8100	15780	5210	10140
RMG65 LL/SL	276000	579000	10530	22100	8980	11840

Precision Class

	Grade levels			
	Q0	Q1	Q2	Q3
Measurement of H	± 5 µm	± 10 µm	± 20 µm	± 30 µm
Measurement of A1	± 5 µm	± 7 µm	± 20 µm	± 20 µm
Measurement of H when more blocks on one rail	3 µm	5 µm	7 µm	15 µm
Measurement of A1 when more blocks on one rail	3 µm	5 µm	7 µm	15 µm
Running accuracy ΔC to A-B	See diagram below			

Unit: µm

Running Accuracy - Block on Rail

Preload Class

Preload Class	Preload	Precision Class
P2	0,08 x C	Q0 / Q1 / Q2 / Q3
P3	0,13 x C	Q0 / Q1 / Q2 / Q3

Rollco Products

COMPACT RAIL

C-RAIL

U-RAIL

CURVI LINE

LINEAR RAIL SBI

LINEAR RAIL
BALL CHAIN

LINEAR MINIATURE
GUIDE

LINEAR RAIL
ALUMINIUM

TELESCOPIC RAIL
HEAVY

TELESCOPIC RAIL
LIGHT

EASYSLIDE

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BALL BEARINGS
& STEEL SHAFTS

LINEAR UNIT RHL

LINEAR UNIT QME

LINEAR UNIT E-SMART

LINEAR UNITS CT & MT

PNCE ELECTRO-
MECHANICAL CYLINDERS

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