

Crossed Roller Slides

Crossed roller slides, offer designers additional flexibility in their choice of ready-to-install components for precision linear transfer.

Our crossed roller slide, when compared to our ball slide products of equal size, offer higher load carrying capacity and when operating at higher cycling rates or with shock and over-hanging loads, improved performance. Most importantly, our crossed roller slides provide high accuracy 0.0025mm / 25mm of travel, and repeatability 0.0025mm, exceeding our precision ball slides. Although crossed roller slides cost more than equivalent sized ball slides their overall performance, especially in applications where heavy loads must be moved in compact assemblies, often justifies selection.

Operation

Crossed roller slides physically resemble ball slides except for the bearing design. Specifically, each slide is comprised of an aluminium carriage straddling an aluminium base. Using a bearing system containing cylindrical steel rollers, the carriage glides almost friction-free, over the base.

The rollers, alternately crisscrossed with each other, move between a set of 4, partially flat, parallel, smooth rods on each side of the base. The rollers share a larger contact surface with the rods as compared to the point of contact of steel balls. This bearing design allows crossed roller slides to carry larger loads and absorb greater load impacts than the equivalent size ball slides.

Crossed roller slides are not as naturally self-cleaning in operation as ball slides. In operating environments, with little or no protection against dust and when heavy loads are not a consideration, consider ball slides.

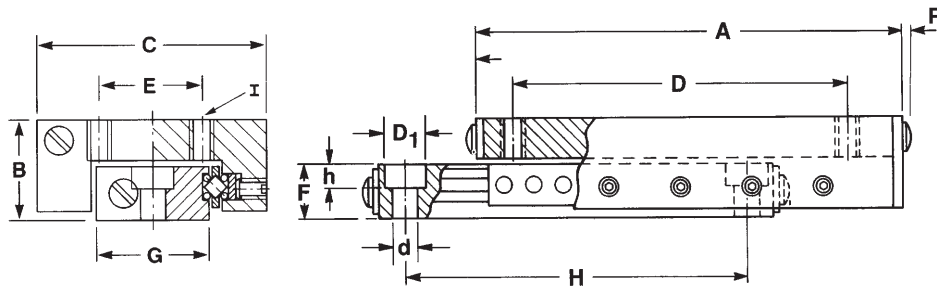
Wide Selection

Over 20 models of crossed roller slides are available. Load capacities range from 14 Kg to 317 Kg, with travel from 13mm to 150mm. Installation into your system is simple. Counterbored holes in the base permit quick attachment to your assembly. Components attach to the carriage in the existing threaded mounting holes.



7 Reasons to choose Automation Crossed Roller Slides

1. Positive stops prevent overtravel.
2. Rollers improve load capacity 8-10 times that of balls.
3. Precision ground shafts provide straight line accuracy of 0.0025mm / 25mm of travel.
4. Alternately crossed rollers handle force in any direction.
5. Lightweight aluminium carriage and base.
6. Interchangeable with many types of ball slides.
7. Positional Repeatability 0.0025 mm.



Finish: Anodised

Model	Total Travel	Load Capacity Kg	A	B	C	D	D ₁	d	E	F	G	H	h	/	p	Mounting Holes	
																Carriage	Base
RDA-1	13	14	27			15						19					
RDA-2	25	25	52	8	14.2	41	4	2.2	6	4.7	6.4	35	2.2	2.7	1	4xM2	2xM2
RDA-3	50	30	78			66						60					
REA-1	13	22	27			15						19					
REA-2	25	35	52	10.4	19	41	6.2	3.2	9	6.3	9.5	35	3.4	3.2	1	4xM3	2xM3
REA-3	50	42	78			66						60					
RNA-2	38	59	65			57						54					
RNA-3	50	99	90	13.4	26.9	82	7.14	4.2	10	7.9	12.7	79	4.6	4.8	1	4xM4	2xM4
RNA-4	75	119	116			102						82					
RSAI-1	25	59	51			35						37					
RSAI-2	50	79	76	15.8	38	60	7.14	4.2	16	8.58	19	60	4.6	6.35	1.3	4xM4	2xM4
RSAI-3	75	79	102			85						85					
RSAI-4	100	139	152			136						100					
RSA2-1	25	58	51			35						38					
RSA2-2	50	79	83	19	44	65	7.14	4.2	20	10.16	22.22	65	4.6	8.0	2.0	4xM4	2xM4
RSA2-3	75	79	102			85						85					
RSA2-4	100	139	152			140						100					
RSA3-1.5	38	119	67			42						42					
RSA3-2	50	158	102			75						75					
RSA3-3	75	198	127	25.4	66.5	109	10	5.3	35	15.87	38.10	100	5.3	8.2	2.0	4xM5	2xM5
RSA3-4	100	198	152			125						125					
RSA3-6	150	317	229			75x2						178				6xM5	