



CROSSED ROLLER SLIDES

Crossed Roller Slides
 Precision Crossed Roller Slides
 High Precision Crossed Roller Slides

SERIES	LOAD CAPACITY, LB.	TRAVEL	LENGTH	ACCURACY
MINI RD	30-90	0.5-2.0	1.06-3.06	0.0001"/"
RE-RS3 (47 MODELS)	48-779	0.5-12.0	1.06-15.00	0.0001"/"

CROSSED ROLLER SLIDES

Del-Tron's new series of crossed roller slides, offer designers additional flexibility in their choice of ready to install components for precision linear transfer.

Our crossed roller slides, when compared to our ball slide products of equal size, offer higher load carrying capacity and, when operating at high cycling rates or with shock and overhanging loads, improved performance. Most importantly, our crossed roller slides provide high accuracy, 0.0001" per inch of travel, and repeatability, 0.0001" , exceeding our precision ball slides. Although crossed roller slides cost more than equivalent size 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 aluminum carriage straddling an aluminum 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 contact of steel balls. This bearing design allows crossed roller slides to carry larger loads and absorb greater load impacts than 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 Del-Tron's ball slides.

Wide Selection

Del-Tron offers over 47 models of crossed roller slides. Load capacities range from 30 lb to 779 lb, with travel from 0.5" to 12" . 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.

[continued on next page](#)

PRECISION CROSSED ROLLER SLIDES

SERIES	LOAD CAPACITY, LB.	TRAVEL	LENGTH	ACCURACY
RS2SS-RS5SS (12 MODELS)	80-260	.0-7.0	2.00-9.00	0.0001"/"

Del-Tron's Precision Series Crossed Roller Slides offer the designer an aluminum base and carriage with hardened stainless components for superior corrosion resistance and less chance of particulate contamination. Available in standard low profile mounting, the designer can choose a style of bearing and type of rolling element specifically to meet the needs of the most particular applications.

Preload can be adjusted to change the friction and axial play characteristics therefore customizing the slide to its intended use. A new 5-inch wide cross section allows the movement of bulky devices without the necessity of constructing tables with more than one unit.

HIGH PRECISION CROSSED ROLLER (LOW PROFILE & FLANGE BASE)

SERIES	LOAD CAPACITY, LB.	TRAVEL	LENGTH	ACCURACY
HPRS2-HPRS5 (34 MODELS)	90-450	1.0-10.0	2.00-15.00	0.000040"/"

Del-Tron's High Precision Crossed Roller Slides offer the designer highly accurate travel characteristics. 0.000040" per inch of travel with superior repeatability of 0.000020". The base and carriage inner surfaces are ground to submicron tolerances while the mounting surfaces are flat to within 0.0001" per inch.

The standard low profile style incorporates a base which is surrounded by the carriage leaving little surface to attract and hold contaminants. A flanged base style is offered to allow robust mounting at 4 points to assure stability in high impact or rough duty environments.

These slides utilize Del-Tron's straight line design which allows lower friction characteristics along with the option to manipulate the preload to adjust to the needs of the application.

New larger widths and lengths up to 5.75" wide and 15" long increase the versatility of this design.

For more information on Del-Tron's Crossed Roller Slides, [click here](#).



5 Trowbridge Drive, Bethel, CT 06801 • Phone: (203) 778-2727 • Fax: (203) 778-2721

Web: www.deltron.com • Email: deltron@deltron.com