

CROSSED ROLLER SLIDE ASSEMBLIES

Crossed roller bearing slide assemblies are designed for precise, low friction, highly accurate, linear movement under heavy loads. They are characterized by smooth, noiseless motion, the absence of "slip-stick" and long operational life. Their preloaded anti-friction rail sets make them absolutely playfree.

CONSTRUCTION

All slide assemblies consist of at a minimum, (1) precision crossed roller rail set, (1) adjustable rail mounting plate and (1) fixed rail mounting plate. All internal rail mounting surfaces are precision ground/milled to provide accuracy, parallelism, coplanarity, squareness and flatness. Aluminum assemblies are stress-relieved and precision milled from 6061 T6 alloy extrusion with clear anodize finish. Cast iron assemblies are heat treated and precision ground G2 close grain iron. **The external mounting surfaces are free of any factory supplied mounting holes and can be supplied with specific mounting provisions upon request.** Endplates are made from aluminum or steel and finished in black anodize or black oxide. Standard drive screws are made from heat treated, precision ground 416 stainless steel. All fasteners used are high quality and highly resistant to "stripping" and "snapping".

ACCURACY

All bearing mounting surfaces are ground/milled flat and parallel to the line of motion. Accuracy of movement is measured as a flatness and parallelism deflection over the center line of the adjustable plate. Accuracies, measured without load, depend primarily on overall length. Due to the exacting tolerances of the rail set components, positioning accuracies of .0001" per inch of travel or better with total accumulation of .0002" per foot are easily attained with proper rail mounting surfaces preparation.

LUBRICATION/MAINTENANCE

All crossed roller slide assemblies are designed to provide long, trouble free working life and require minimal maintenance. They usually do not require additional lubrication since rolling motion rather than sliding motion is involved. In applications where travel is rapid and continuous (> 50 inches per minute) lubrication with lithium, non-paraffin base bearing grease is recommended. Always apply grease in a thin coat to the "V" surface. To achieve the lowest friction resistance, mineral base oil in the viscosity range of 15-30, is recommended. Standard lubrication intervals cannot be specified due to the wide range of applications. Please consult the factory for guidelines.

Part Numbering
Slides are designated by model (material) width; length; travel

