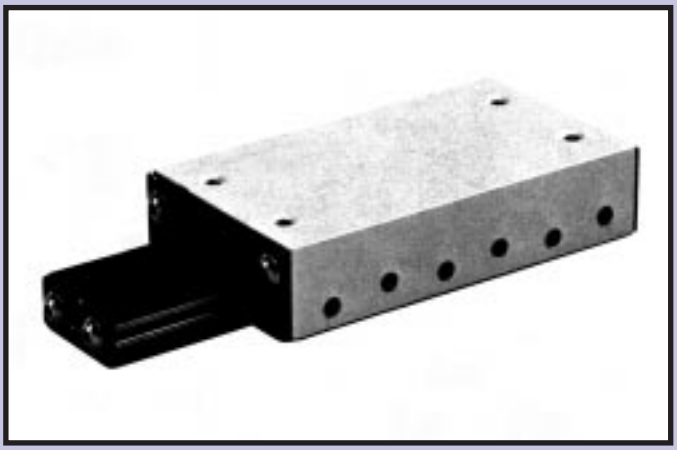


7 Reasons to choose Automotion Ball Slides

1. **Factory preload adjustment prevents sideplay and backlash.**
2. **Lightweight aluminum carriage and base with high load capacity.**
3. **Built-in holes simplify installation and component mounting.**
4. **Steel shafts, ground over the entire length, reduce coefficient of friction to 0.003.**
5. **Long life, self-cleaning ball bearing needs no lubrication.**
6. **Mounting surfaces, parallel to the line of motion, provide straight line accuracy to 0.01 mm/25 mm of travel.**
7. **Positional repeatability 0.005 mm**

Load Ratings and Life Estimates

The rated load capacity of ball slides may be a mass load on a horizontal slide, or a force load normal to the mounting surface in any position. The rated load must be centered and distributed over the slide, and the base must be fully supported on a flat mounting surface so that the ball slide does not act as a beam subject to concentrated or distributed bending forces. Loads supported by protruding arms reduce accuracy and load capacity by acting as levers or ratio arms, and should be avoided even when load forces are small.

When used at the rated load capacity and moderate speeds, a life of 2.5×10^5 m of travel can be expected. The expected life at one half the rated load is 2.5×10^{10} m.

Friction and Lubrication

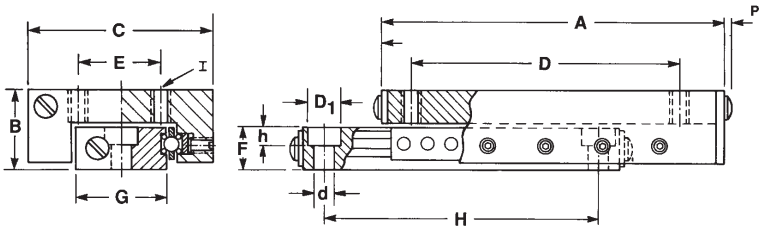
The coefficient of friction is lower for linear ball bearings than for rotary bearings, where the peripheral track is shorter on the inner race than on the outer race, causing the ball to skid on one or the other. The balls run exactly equal distances on the pair of tracks in linear bearings, permitting the balls to run without friction, wear, or skidding at any preload. The typical coefficient of friction for ball slides is .003.

Ball slides are lightly lubricated during assembly, and are self-cleaning in normal service. Additional lubrication is required for speeds above 4.5 m/min, and is advisable at lower speeds where high loads are applied in continuous duty applications.

Mounting and Accuracy

The mounting surfaces of the ball slide are machined flat and smooth, and parallel to each other and the line of motion. They must be mounted on smooth, flat supports that will not deflect under load. Especially with long slides of small cross section, binding may be caused by distortion of the bottom member when mounted on irregular surfaces. If so, round shims or spacers may be placed over the mounting screws to raise the slide above the surface asperities. Bedding in epoxy resin is also recommended.

The specified accuracy for all standard ball slides is 0.01 mm/25 mm of travel. This is measured by comparison of the line of travel to a master straight edge, using a gauge or indicator mounted on the slide.



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
CA-1	13	.68	19			13						10				
CA-2	25	.68	32	5.8	9.5	26	—	1.8	4	3.4	4	20	—	1.3	4 x M2	2 x M2
CA-3	38	.68	44			37						30				
DA-1	13	2	27			15						19				
DA-2	25	4	52			41						35				
DA-3	50	5	78	8	14.2	66	4	2.2	6	4.7	6.4	60	2.2	1	4 x M2	2 x M2
DA-4	75	6	103			92						86				
DA-5	100	8	128			117						89				
DA-6	127	8	154			142						114				
EA-1	13	4	27			15						19				
EA-2	25	5	52			41						35				
EA-3	50	5	78	10.4	19	66	6.2	3.2	9	6.3	9.5	60	3.4	1	4 x M3	2 x M3
EA-4	75	6	103			92						86				
EA-5	100	7	128			117						89				
EA-6	127	8	154			142						114				
MA-1	13	5	40			32						32				
MA-2	25	5	65	12.7	25.4	57	7.14	4.2	10	6.3	12.7	57	3.4	1	4 x M4	2 x M3
MA-3	50	7	90			82						82				
NA-1	19	7	40			32						28				
NA-2	38	8	65			57						54				
NA-3	50	9	90			82						79				
NA-4	75	11	116	13.4	26.9	102	7.14	4.2	10	7.9	12.7	82	4.6	1	4 x M4	2 x M4
NA-6	100	14	152			140						102				
NA-8	150	16	203			190						127				
NA-10	200	18	254			240						178				
SAI -1	25	7	51			35						37				
SAI -2	50	9	76			60						60				
SAI -3	75	11	102			85						85				
SAI -3.5	88	14	127	15.8	38	110	7.14	4.2	16	8.58	19	85	4.6	1.3	4 x M4	2 x M4
SAI -4	100	16	152			136						100				
SAI -6	150	20	203			186						128				
SAI -8	200	25	254			238						128				
SA2-1	25	9	51			35						38				
SA2-2	50	19	83			65						65				
SA2-3	75	24	102	19	44	85	7.14	4.2	20	10.16	22.22	85	4.6	2.0	4 x M4	2 x M4
SA2-4	100	27	152			140						100				
SA2-6	150	34	203			190						126				
SA2-8	200	41	254			240						178				
SA3-1.5	38	16	67			42						42				
SA3-2	50	28	102			75						75			4 x M5	
SA3-3	75	40	127			100						100				
SA3-4	100	54	152	25.4	66.55	125	10	5.3	35	15.87	38.10	125	5.3	2.0		2 x M5
SA3-6	150	68	229			75x2						178			6 x M5	
SA3-9	228	84	305			75x3						254			8 x M5	
SA3-12	304	93	381			75x4						330			10 x M5	