

Size + Weight

For light/medium loads

L1020-L1037

Ball roller versions



L1024 - L1038

Cross roller versions



L1020 - L1026

Stainless steel versions

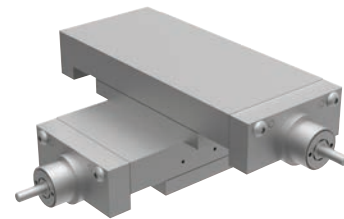


L1022 - L1023

For heavy duty loads and motorised

L3000-L3500

Needle roller & dovetail stage



L3170 - L3194

Motorised stages

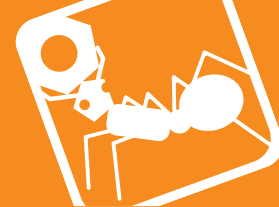


L3500 - L3510

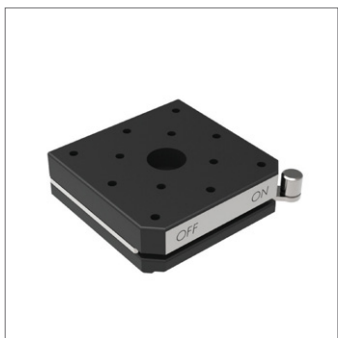
Micrometer driven stages



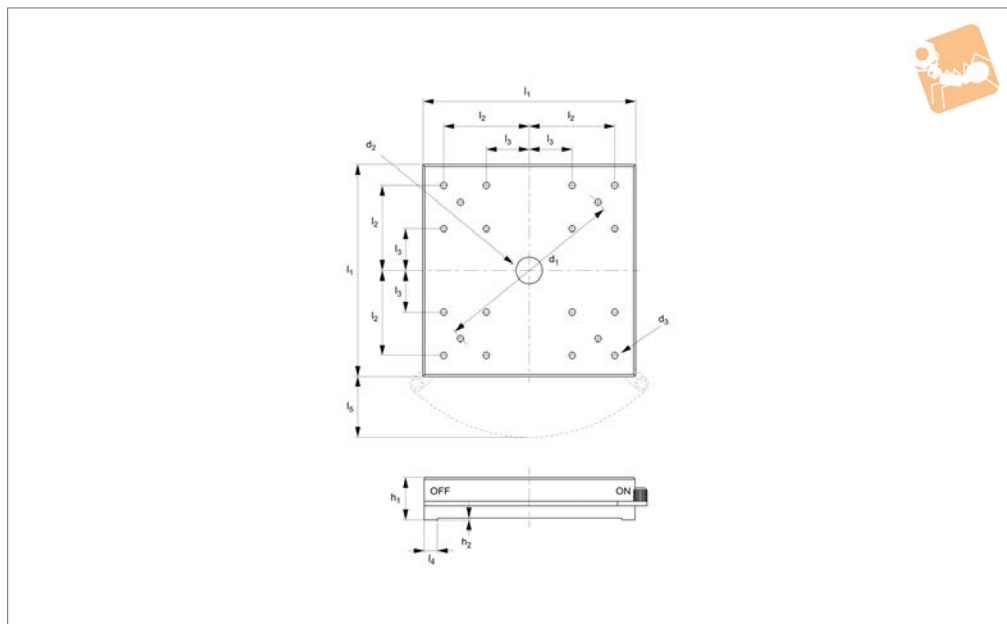
L3100 - L3123



LINEAR TABLES



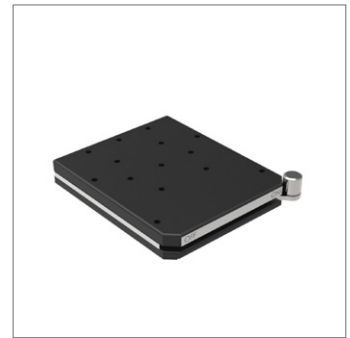
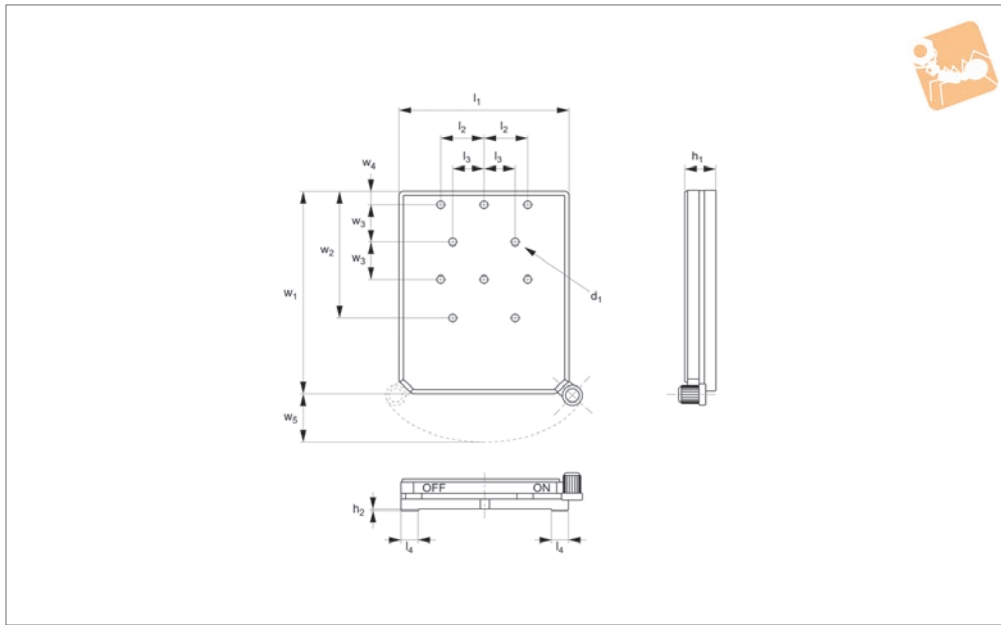
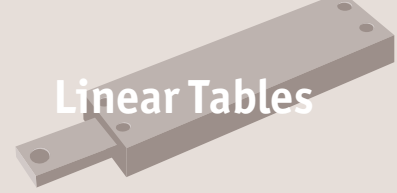
L3314



Material

Aluminium body blackened, steel knob.

Order No.	l_1	h_1	Holding force kgf	Parallelism	l_2	l_3	l_4	l_5	d_1	d_2	d_3	h_2
L3314.045	45	20	17.0	0.015	12	-	3	14.5	-	M 6x1	M2	1
L3314.065	65	20	20.0	0.020	25	-	4	18.5	-	M16x1	M4	1
L3314.090	90	20	25.0	0.020	25	-	6	28.0	114	M16x1	M4	1
L3314.125	125	25	100.0	0.020	50	25	8	35.5	114	M16x1	M4	1



L3315

LINEAR TABLES

Material

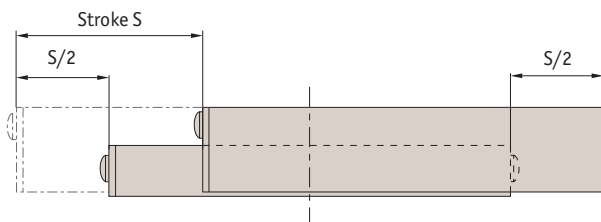
Aluminium body blackened, steel knob.

Order No.	l_1	h_1	w_1	Holding force kgf	Parallelism	l_2	l_3	l_4	d_1	w_2	w_3	w_4	h_2	w_5
L3315.038	38	12	51	1.0	0.015	12.5	8.5	12.5	M3	35	15	5	0.5	16
L3315.052	52	12	63	3.3	0.020	17.0	12.5	12.0	M3	50	15	5	0.5	18
L3315.066	66	12	80	3.8	0.020	17.0	12.5	10.0	M3	50	15	5	0.5	19



Factors affecting stage selections...

- Size and weight of load
- Moment loads
- Stroke required
- Accuracy required
- Usage conditions of water, chemicals, shock loads etc.



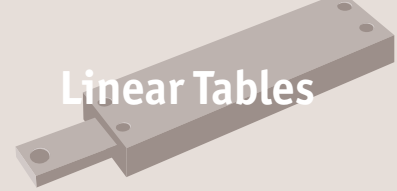
The stroke is centred on the mid point of the slides (i.e. 50% of the stroke each way).

Generally ball slides are less expensive but cross roller slides can carry 8 to 10 times the load of ball slides.

LINEAR TABLES

A selection...

L1020 Crossed roller tables	L1022/23 Cross roller table	L1024 Ball slide tables
 <p>Steel and aluminium, accuracy typically 5µ.</p>	 <p>Stainless Steel, accuracy typically 3µ.</p>	 <p>Aluminium, accuracy typically 12µ.</p>
L1026 Crossed roller slide tables	L1028 Precision ball slide tables	L1029 Precision crossed roller tables
 <p>Aluminium, accuracy typically 5µ.</p>	 <p>Aluminium, accuracy typically 3µ.</p>	 <p>Aluminium, accuracy typically 3µ.</p>
L1034 Flanged ball slide tables - precision	L1038 Anti-creep ball slide tables	L1039 Non-magnetic ball slide
 <p>With flange accuracy to 1µ.</p>	 <p>Special anti-creep function prevents cage misalignment.</p>	 <p>Non-magnetic accuracy typically 3µ.</p>



Steel - L1020

- Standard steel / cast iron



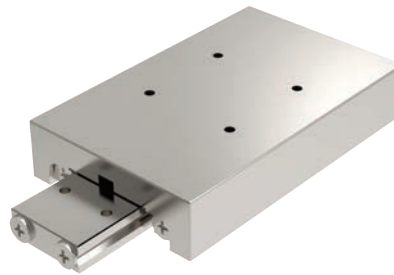
Aluminium - L1021

- Lower weight, lower profile
- Good for high accelerations



Stainless steel - L1022 + L1023

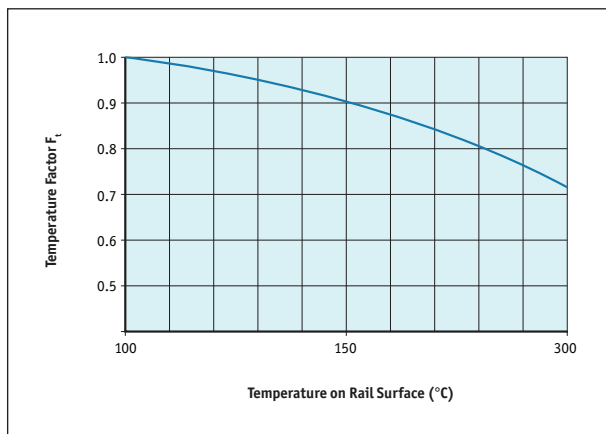
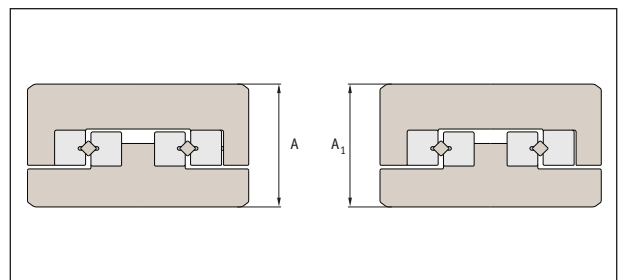
- Stainless steel (440C+Ni) corrosion resistant



Rated life

$$L \text{ (Km)} = \left(\frac{F_t \cdot C}{F_w \cdot P_c} \right)^{3.33} \times 100$$

- F_t = temperature factor
- F_w = load factor
- C = basic dynamic load (kN) see tables
- P_c = radial load (kN)



Height tolerance:

- Height $\pm 100\mu$
- Motorised parts $\pm 10\mu$
- Strokes from 10 to 950mm
- Loads to 48kN

Load factor F_w

Shock	Speed	F_w
None	Very slow	1.0 - 1.2
Small	Slow	1.2 - 1.5



Technical accuracy measurements

- High accuracy.
- Low friction: virtually frictionless. Providing stable performance at lower high speeds.
- Rigid: incorporating cross roller linear rails to provide high load capacity as well as high moment load capacity.
- Installation: easy to install with pre-drilled holes in carriage and base. Ensure mounting surface faces are accurately machined.

LINEAR TABLES

Table accuracy (μ)			Rail accuracy (μ)		
Table length	Carriage top parallelism	Carriage side parallelism	N tolerance	M tolerance	Straightness
0-50	2	4	-15 -35	-30 -70	2
50-100	2	5			2
100-150	3	6			3
150-200	3	7			3
200-250	3	7			3
250-300	3	7			3
300-350	4	8			4
350-400	4	8			4
400-450	4	8			4
450-500	4	8			4
500-550	4	9			4
550-600	4	9			4

