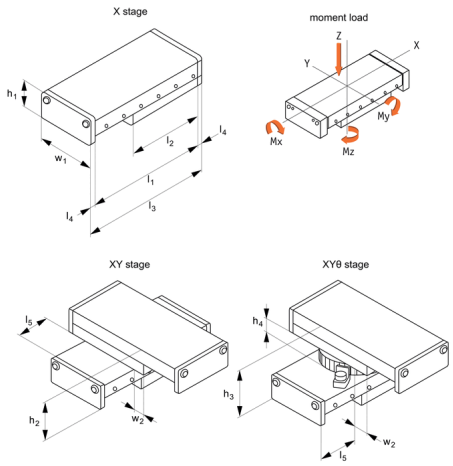
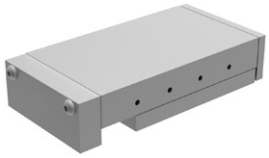




L3180

Material
Cast iron body (ENGJL-250), with dovetail slide system.
Can also be supplied with an aluminium body when lighter weight stages are required (approx. 50% of weight of standard slides and have 50% of the load capacity).

Technical Notes
Suitable for horizontal and vertical applications requiring smooth movement, long life and high load capacity.

Dovetail linear guideways are very stable for use when a degree of vibration damping is required. Other versions are also available - cross roller slides (L3470), and needle roller slides (L3490) for even higher load ratings. Load ratings are based on even surface loading with the slide in the centre position, and apply to a single slide.
Coefficient of friction 0,1.

Tips
With no lead screw drive.

Replace -* with
-X for X axis stage
- XY for X,Y axes stage
-XYT for X,Y,. stage

Important Notes
See technical pages for straightness and parallelism accuracy and standard carriage and base fixing holes - other fixing holes can be machined on request.
3D CAD models available.

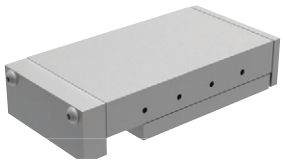
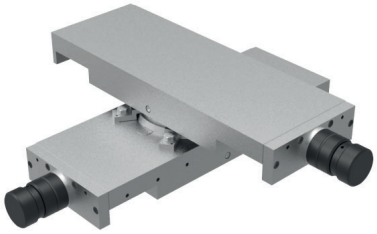
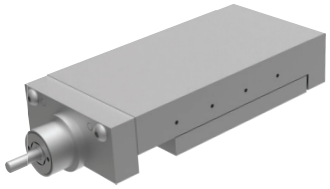
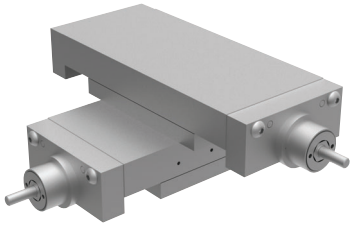
Order No.	Stroke	w_1	Load kN max.	h_1	l_1	l_2	l_3	l_4	l_5	Weight kg
L3180.050-022-*	22	50	0.470	25	76	50	88	6	13.0	0.6
L3180.050-025-*	25	50	0.715	25	102	76	114	6	26.0	0.8
L3180.050-050-*	50	50	0.950	25	152	101	164	6	51.0	1.1
L3180.075-025-*	25	75	1.055	32	102	76	114	6	13.5	1.8
L3180.075-026-*	25	75	1.400	32	127	101	139	6	26.0	2.0
L3180.075-050-*	50	75	1.400	32	152	101	164	6	38.5	2.5
L3180.100-025-*	25	100	1.950	37	152	126	164	6	26.0	4.0
L3180.100-050-*	50	100	2.360	37	203	152	215	6	51.5	4.7
L3180.100-051-*	50	100	3.150	37	254	203	266	6	77.0	6.1
L3180.100-075-*	75	100	3.540	37	305	228	317	6	102.5	7.0
L3180.150-050-*	50	150	3.075	50	203	152	219	8	26.5	10.0
L3180.150-100-*	100	150	4.100	50	305	203	321	8	77.5	13.2
L3180.150-101-*	100	150	6.150	50	406	304	422	8	128.0	18.0
L3180.150-150-*	150	150	5.120	50	406	253	422	8	128.0	16.5
L3180.200-150-*	150	200	8.680	58	457	304	473	8	128.5	30.0
L3180.200-200-*	200	200	11.595	58	610	406	626	8	205.0	40.0
L3180.300-100-*	100	300	11.350	75	410	308	430	10	55.0	59.0
L3180.300-200-*	200	300	15.040	75	610	408	630	10	155.0	80.0
L3180.300-300-*	300	300	15.040	75	710	408	730	10	205.0	92.0
L3180.300-400-*	400	300	18.725	75	910	508	930	10	305.0	110.0
L3180.300-500-*	500	300	18.725	75	1010	508	1030	10	355.0	125.0
L3180.300-600-*	600	300	22.410	75	1210	608	1230	10	455.0	145.0
L3180.400-200-*	200	400	23.275	102	610	408	650	20	105.0	169.0

Plain Positioning Stages
dovetail

Order No.	Stroke	w_1	Load kN max.	h_1	l_1	l_2	l_3	l_4	l_5	Weight kg
L3180.400-300-*	300	400	23.275	102	710	408	750	20	155.0	182.0
L3180.400-400-*	400	400	23.275	102	810	408	850	20	205.0	195.0
L3180.400-401-*	400	400	28.980	102	910	508	950	20	255.0	225.0
L3180.400-500-*	500	400	28.980	102	1010	508	1050	20	305.0	238.0
L3180.400-600-*	600	400	28.980	102	1110	508	1150	20	355.0	251.0
L3180.400-601-*	600	400	34.680	102	1210	608	1250	20	405.0	270.0

Order No.	w_2	h_2	h_3	h_4	Moment M_x Nm max.	Moment M_y Nm max.	Moment M_z Nm max.
L3180.050-022-*	0.0	50	-	-	3.4	1.8	2.1
L3180.050-025-*	13.0	50	-	-	5.2	4.1	4.9
L3180.050-050-*	25.5	50	-	-	6.9	7.2	8.6
L3180.075-025-*	0.5	64	82	18	10.0	5.1	6.1
L3180.075-026-*	13.0	64	82	18	14.0	9.1	10.0
L3180.075-050-*	13.0	64	82	18	14.0	9.1	10.0
L3180.100-025-*	13.0	74	92	18	33.0	20.0	24.0
L3180.100-050-*	26.0	74	92	18	40.0	29.0	35.0
L3180.100-051-*	51.5	74	92	18	54.0	52.0	63.0
L3180.100-075-*	64.0	74	92	18	61.0	66.0	79.0
L3180.150-050-*	1.0	100	120	20	77.0	30.0	36.0
L3180.150-100-*	26.5	100	120	20	103	54.0	65.0
L3180.150-101-*	77.0	100	120	20	155	123	146
L3180.150-150-*	51.5	100	120	20	129	85.0	101
L3180.200-150-*	52.0	116	136	20	275	164	195
L3180.200-200-*	103.0	116	136	20	365	290	245
L3180.300-100-*	4.0	150	180	30	605	235	280
L3180.300-200-*	54.0	150	180	30	800	410	490
L3180.300-300-*	54.0	150	180	30	800	410	490
L3180.300-400-*	104.0	150	180	30	1000	640	760
L3180.300-500-*	104.0	150	180	30	1000	640	760
L3180.300-600-*	154.0	150	180	30	1195	915	1095
L3180.400-200-*	4.0	204	244	40	1360	470	560
L3180.400-300-*	4.0	204	244	40	1360	470	560
L3180.400-400-*	4.0	204	244	40	1360	470	560
L3180.400-401-*	54.0	204	244	40	1695	730	870
L3180.400-500-*	54.0	204	244	40	1685	730	870
L3180.400-600-*	54.0	204	244	40	1695	730	870
L3180.400-601-*	104.0	204	244	40	2025	1050	1250

Heavy duty linear stages

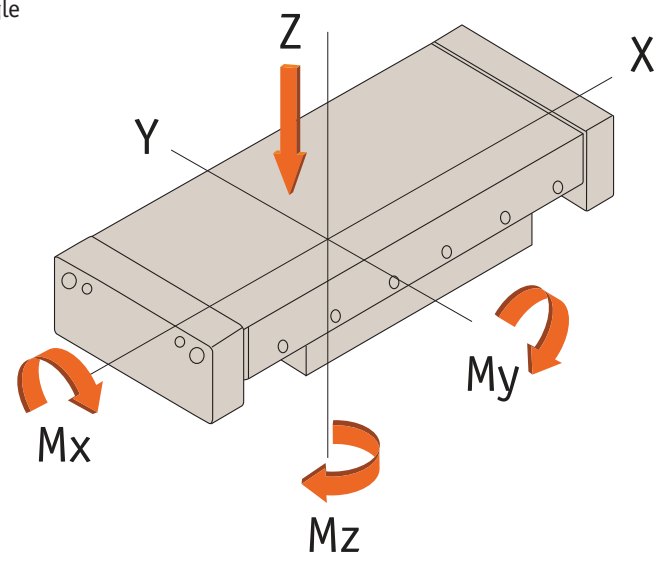
Plain stages	Lead screw & handle	Lead screw & knob
		
XYθ stage	**Motorised stage**	**XY stage**
		

Available with the following sliding elements:

Cross roller:	For medium loads, low friction.
Dovetail:	Less expensive, higher friction, higher loads.
Needle roller:	Highest loads, low friction, more expensive.

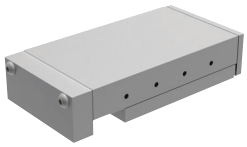
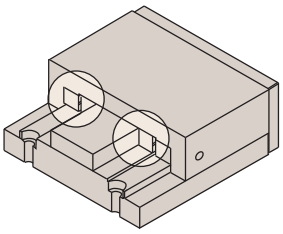
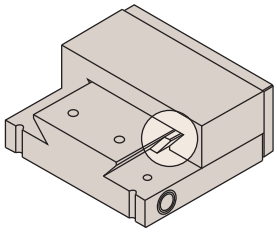
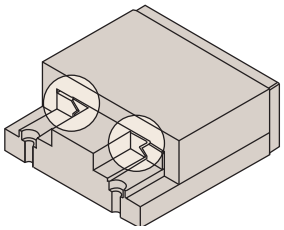
Moment loads

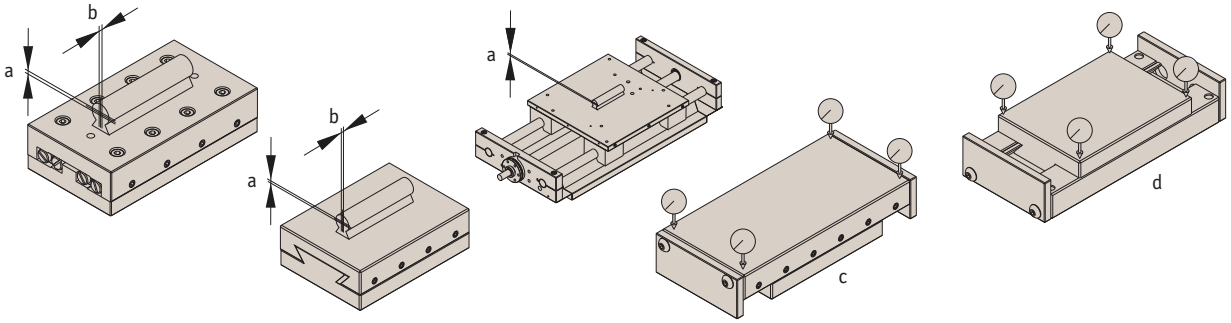
All loads shown in tables are based upon an evenly distributed load with slide in centre position. All loads apply to a single slide.



Precision Linear Stages

Overview

	• Crossed roller	• Dovetail	• Needle roller
			
Width	30-300mm	30-400mm	100-400mm
Stroke	12-950mm	10-600mm	50-800mm
Load capacity	29 kN	33 kN	59 kN
Max speed	20 m/min	15 m/min	20 m/min
Coefficient of fiction	0,003	0,1	0,003

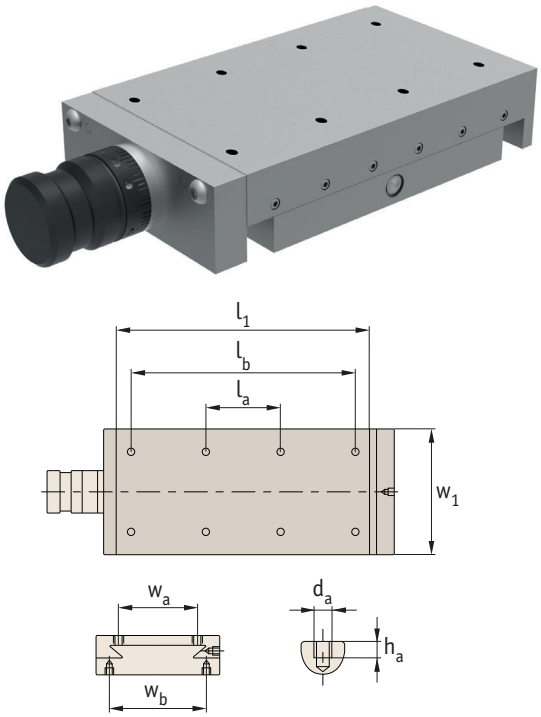


Straightness of travel (µ)		Stroke up to	Slide type	Slide length up to	Parallelism (µ)	
a	b				c	d
2	3	50	Cross roller & Needle roller	100	12	10
3	4	100	Cross roller & Needle roller	200	18	15
5	6	200	Cross roller & Needle roller	300	21	18
6	8	300	Cross roller & Needle roller	400	25	22
8	10	400	Cross roller & Needle roller	600	32	30
10	14	500	Cross roller & Needle roller	800	45	40
12	17	600	Cross roller & Needle roller	1000	60	50
15	20	700	Cross roller & Needle roller	1210	80	60
18	25	800	Cross roller & Needle roller			
3	5	50	Dovetail	100	15	12
5	8	100	Dovetail	200	22	18
8	12	200	Dovetail	300	28	25
10	15	300	Dovetail	400	35	30
14	20	400	Dovetail	600	50	40
18	25	500	Dovetail	800	60	50
20	30	600	Dovetail	1000	80	65
20	30	600	Dovetail	1210	100	80

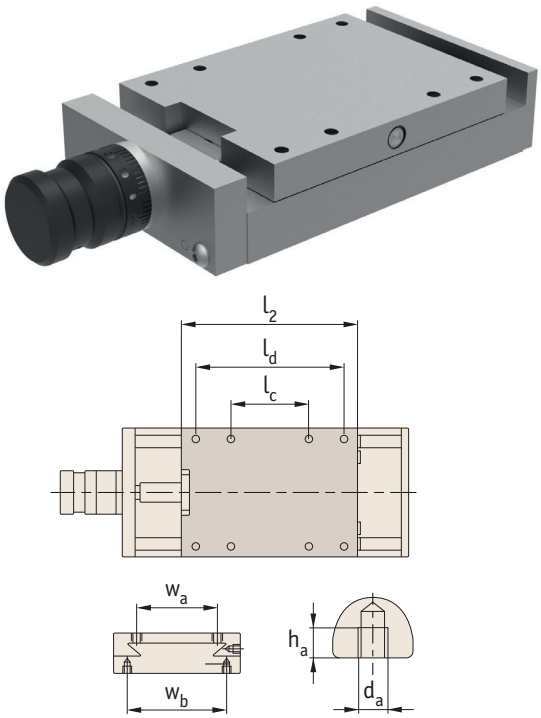
Height tolerance for roller and dovetail slides
± 0,01mm. DIN 7168 medium is the dimensional variations of the sliders. Closer tolerances upon request.

Rectangularity of XY-tables
± 0,005mm per 100mm slide length

Carriage - Standard holes



Base - Standard holes

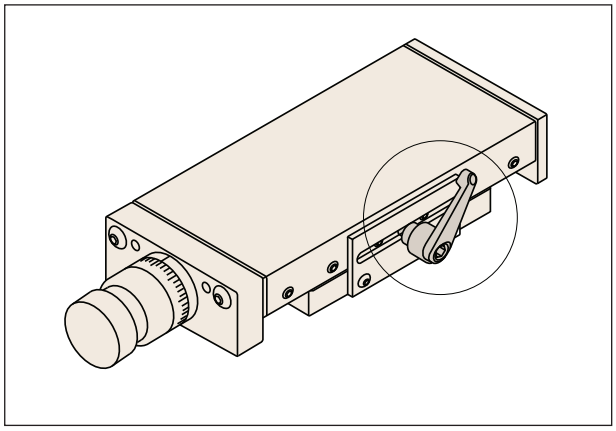


Carriage							Base					
w_1	l_1	l_a	l_b	h_a	d_a	w_a	l_2	l_c	l_d	w_b	d_a	h_a
50	76	36	-	4	4xM4	24	50	20	-	37	4xM4	4
50	102	62	-	4	4xM4	24	76	36	-	37	4xM4	4
50	152	112	-	4	4xM4	24	101	61	-	37	4xM4	4
75	102	62	-	5	4xM5	34	76	36	-	56	4xM5	5
75	127	87	-	5	4xM5	34	101	61	-	56	4xM5	5
75	152	112	-	5	4xM5	34	101	61	-	56	4xM5	5
100	152	112	-	6	4xM6	52	126	86	-	74	4xM6	8
100	203	163	-	6	4xM6	52	152	112	-	74	4xM6	8
100	254	214	-	6	4xM6	52	203	163	-	74	4xM6	8
100	305	90	265	6	8xM6	52	228	188	-	74	8xM6	8
150	203	163	-	6	4xM8	95	152	112	-	120	4xM8	12
150	305	90	265	6	8xM8	95	203	163	-	120	8xM8	12
150	406	240	366	6	8xM8	95	304	90	264	120	8xM8	12
150	406	240	366	6	8xM8	95	253	213	-	120	8xM8	12
200	457	240	417	8	8xM10	120	304	90	264	155	8xM10	8
200	610	190	570	8	8xM10	120	406	190	366	155	8xM10	8
300	410	190	370	15	8xM10	200	308	90	268	255	8xM10	15
300	610	190	570	15	8xM12	200	408	190	368	255	8xM12	15
300	710	290	670	15	8xM12	200	408	190	368	255	8xM12	15
300	910	290	870	15	8xM12	200	508	290	468	255	8xM12	15
300	1010	490	970	15	8xM12	200	508	290	468	255	8xM12	15
300	1210	490	1170	15	8xM12	200	608	190	568	255	8xM12	15

Positioning Stages

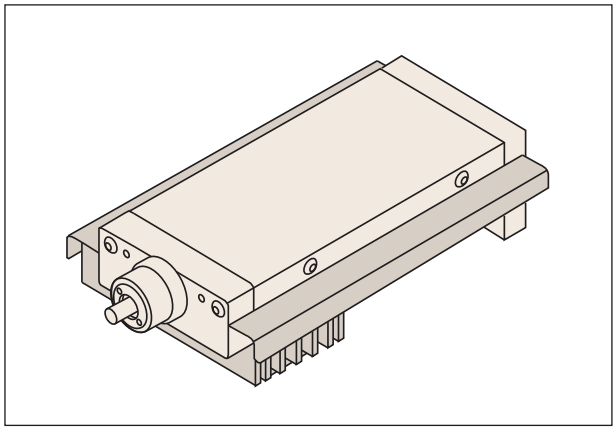
Medium - heavy duty accessories

Locking device



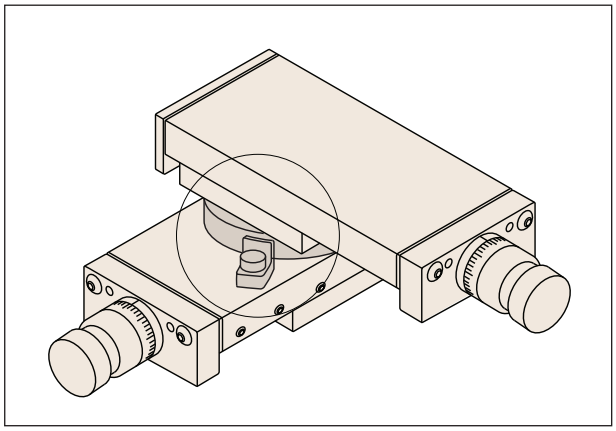
Either mounted on a side plate, a swivel rod or direct to slideway - dependent on stage type.

Bellows



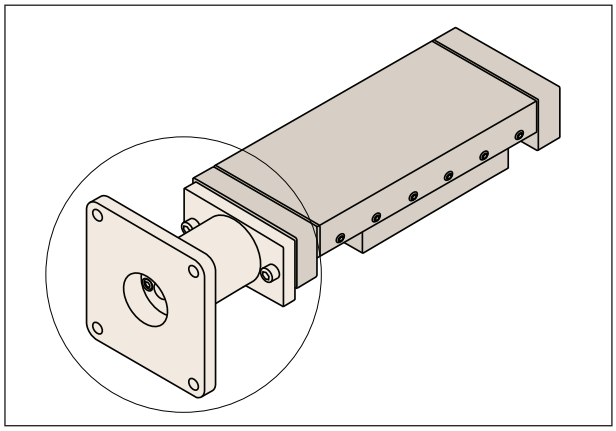
Recommended for general industrial applications. The installation of bellows affects the stroke, height and width of the slide. The bellows are made of PVC and can be used at temperatures up to 80° consult us for dimensions.

Swivelling plates



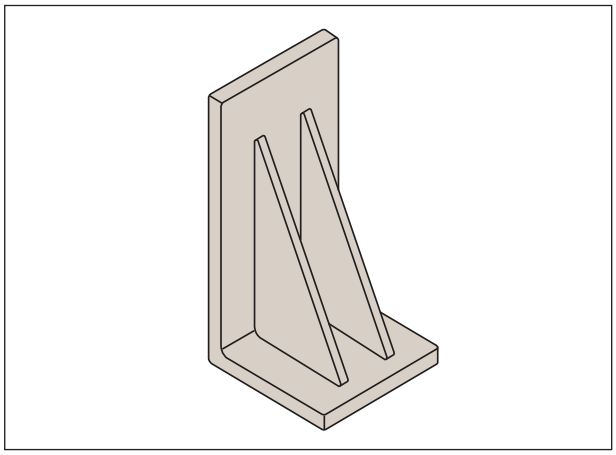
These can be rotated 360° in graduations of 10°. Graduations of 10° up to 90° clockwise and counter-clockwise.

Motor adaptors



For slides with a width greater than 75mm, a flanged motor adaptor with coupling can be provided. Please advise motor size.

Mounting brackets



From cast iron or on request aluminium.