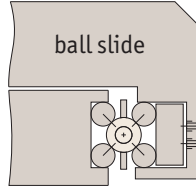


There are two different load ratings for these stages.

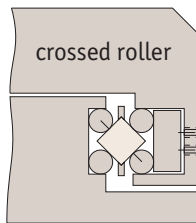
### Ball slides:

These have precision steel balls rolling in the tracks. They are the least expensive, loads up to 28Kg.



### Cross roller slides:

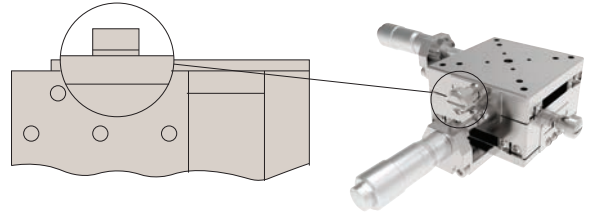
These have the same dimensions but have rollers allowing the slide to carry large loads and absorb greater moment loads up to 54Kg.



### Locking options

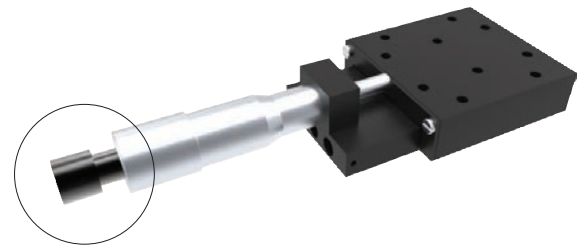
#### Posi-lock:

Allows locking of the carriage in place with a friction locking mechanism.



#### Locking micrometer:

Locking of the micrometer to fix the micrometer setting.



### Front drive micrometer positioning stages



X Stage

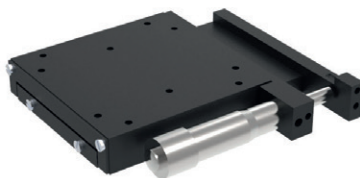


XY Stage

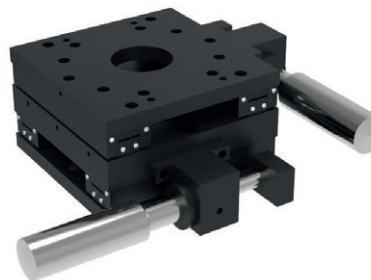


XYZ Stage

### Side drive micrometer positioning stages



X Stage

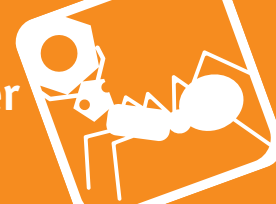


XY Stage

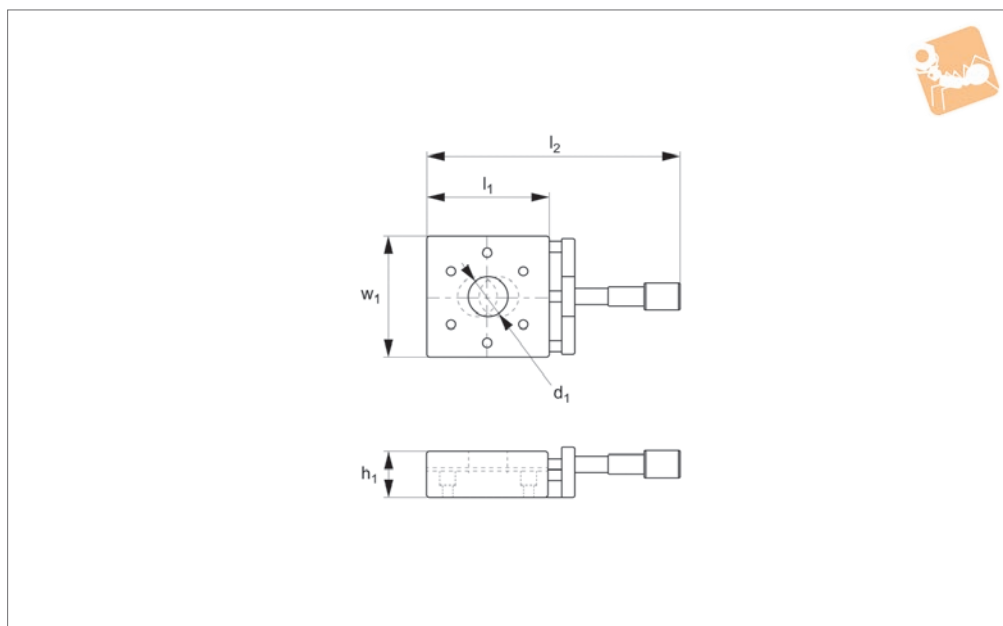


XYZ Stage

Also available in stainless steel.



### L3100



#### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements.

#### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.  
Straight line accuracy 12µ/25mm travel.  
Repeatability 3µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

#### Tips

Other options:  
- LM (locking micrometer). Not available

for .0101, .0201 and .0301 sizes.

- PL (posi-lock carriage lock)

For XY and XYZ axes see L3106-L3113.

#### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Type	Travel	$l_1$	$l_2$	$h_1$	Through hole $d_1$	$w_1$	Load X & XY kg max.	Load Z kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.	Weight kg
L3100.0099-B	Ball	6	19,1	57,9	13,5		19,1	2,3	0,7	0,11	0,11	0,11	2,3
L3100.0101-B	Ball	13	31,8	82,6	9,7		31,8	1,8	0,7	0,19	0,18	0,18	1,8
L3100.0201-B	Ball	13	44,5	95,3	9,7		44,5	1,8	0,7	0,28	0,27	0,27	1,8
L3100.0301-B	Ball	13	38,1	88,9	15,7	8	38,1	5,4	0,9	0,50	0,50	0,50	5,4
L3100.0450-B	Ball	13	44,5	111,3	19,1		44,5	9,1	0,9	0,96	0,96	0,96	9,1
L3100.0451-B	Ball	25	44,5	149,4	19,1		44,5	9,1	0,9	0,96	0,96	0,96	9,1
L3100.0453-B	Ball	13	44,5	111,3	19,1	13	44,5	9,1	0,9	0,96	0,96	0,96	9,1
L3100.0750-B	Ball	13	66,5	133,4	25,4		66,5	27,2	0,9	4,94	4,94	4,94	27,2
L3100.0751-B	Ball	25	66,5	171,5	25,4		66,5	27,2	0,9	4,94	4,94	4,94	27,2
L3100.0753-B	Ball	13	66,5	133,4	25,4	25	66,5	27,2	0,9	4,94	4,94	4,94	27,2
L3100.0401-B	Ball	13	50,8	117,3	19,1		44,5	9,1	9,0	0,96	0,96	0,96	9,1
L3100.0501-B	Ball	13	82,6	148,8	19,1		44,5	19,0	9,0	2,02	2,02	2,02	19,0
L3100.0502-B	Ball	25	82,6	188,2	19,1		44,5	19,0	9,0	2,02	2,02	2,02	19,0
L3100.0701-B	Ball	13	101,6	168,1	25,4		66,5	27,2	9,0	4,94	4,94	4,94	27,2
L3100.0702-B	Ball	25	101,6	209,6	25,4		66,5	27,2	9,0	4,94	4,94	4,94	27,2
L3100.1201-B	Ball	25	79,2	184,2	23,1		79,2	13,6	13,6	2,05	1,95	1,95	13,6
L3100.1203-B	Ball	25	79,2	184,2	23,1	25	79,2	13,6	13,6	2,05	1,95	1,95	13,6
L3100.2201-B	Ball	25	104,6	209,6	23,1		104,6	13,6	13,6	3,21	3,04	3,04	13,6
L3100.2202-B	Ball	50	104,6	260,4	23,1		104,6	13,6	13,6	3,21	3,04	3,04	13,6
L3100.2203-B	Ball	25	104,6	209,6	23,1	38	104,6	13,6	13,6	3,21	3,04	3,04	13,6
L3100.2204-B	Ball	50	104,6	260,4	23,1	38	104,6	13,6	13,6	3,21	3,04	3,04	13,6
L3100.3201-B	Ball	25	130,2	235,0	23,1		130,2	13,6	13,6	4,25	4,05	4,05	13,6
L3100.3202-B	Ball	50	130,2	285,8	23,1		130,2	13,6	13,6	4,25	4,05	4,05	13,6
L3100.3203-B	Ball	25	130,2	235,0	23,1	51	130,2	13,6	13,6	4,25	4,05	4,05	13,6
L3100.3204-B	Ball	50	130,2	285,8	23,1	51	130,2	13,6	13,6	4,25	4,05	4,05	13,6



# Positioning Stages - Front Micrometer

## X Stage, main dimensions

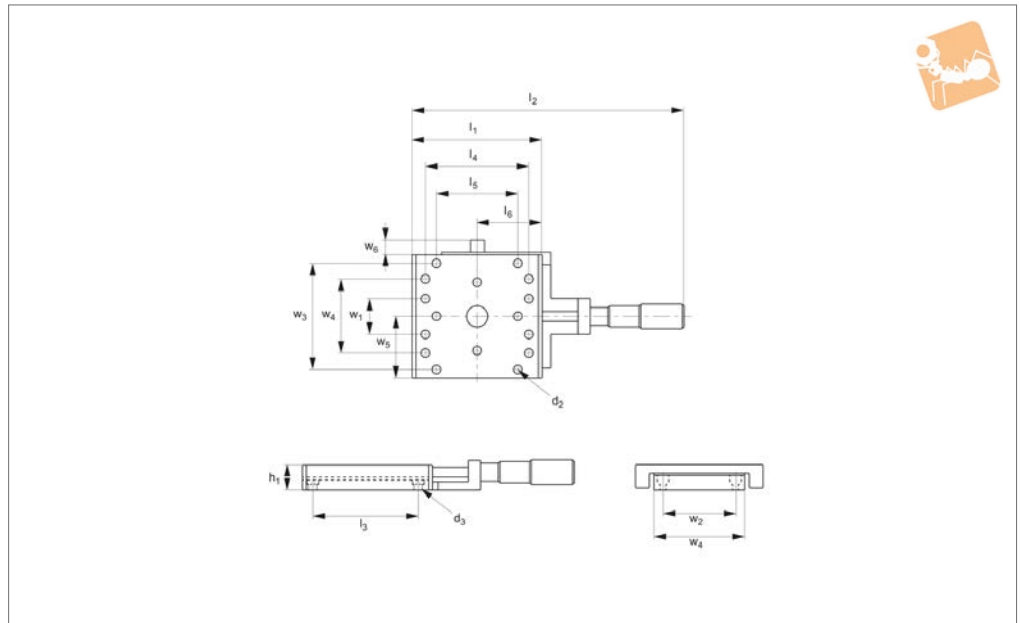
# Manual Positioning Stages

Order No.	Type	Travel	$l_1$	$l_2$	$h_1$	Through hole $d_1$	$w_1$	Load X & XY kg max.	Load Z kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.	Weight kg
L3100.0099-R	Roller	6	19,1	57,9	13,5		19,1	18,1	0,7				18,1
L3100.0101-R	Roller	13	31,8	82,6	9,7		31,8	10,4	0,7	1,09	1,04	1,04	10,4
L3100.0201-R	Roller	13	44,5	95,3	9,7		44,5	10,4	0,7	1,64	1,56	1,56	10,4
L3100.0301-R	Roller	13	38,1	88,9	15,7	8	38,1	18,1	0,9	2,88	2,88	2,88	18,1
L3100.0450-R	Roller	13	44,5	111,3	19,1		44,5	18,1	0,9	1,92	1,92	1,92	18,1
L3100.0451-R	Roller	25	44,5	149,4	19,1		44,5	18,1	0,9	1,92	1,92	1,92	18,1
L3100.0453-R	Roller	13	44,5	111,3	19,1	13	44,5	18,1	0,9	1,92	1,92	1,92	18,1
L3100.0750-R	Roller	13	66,5	133,4	25,4		66,5	54,4	0,9	9,88	9,88	9,88	54,4
L3100.0751-R	Roller	25	66,5	171,5	25,4		66,5	54,4	0,9	9,88	9,88	9,88	54,4
L3100.0753-R	Roller	13	66,5	133,4	25,4	25	66,5	54,4	0,9	9,88	9,88	9,88	54,4
L3100.0401-R	Roller	13	50,8	117,3	19,1		44,5	18,1	9,0	1,92	1,92	1,92	18,1
L3100.0501-R	Roller	13	82,6	148,8	19,1		44,5	36,3	9,0	3,84	3,84	3,84	36,3
L3100.0502-R	Roller	25	82,6	188,2	19,1		44,5	36,3	9,0	3,84	3,84	3,84	36,3
L3100.0701-R	Roller	13	101,6	168,1	25,4		66,5	72,5	9,0	13,18	13,18	13,18	72,5
L3100.0702-R	Roller	25	101,6	209,6	25,4		66,5	72,5	9,0	13,18	13,18	13,18	72,5
L3100.1201-R	Roller	25	79,2	184,2	23,1		79,2	38,5	13,6	5,81	5,53	5,53	38,5
L3100.1203-R	Roller	25	79,2	184,2	23,1	25	79,2	38,5	13,6	5,81	5,53	5,53	38,5
L3100.2201-R	Roller	25	104,6	209,6	23,1		104,6	38,5	13,6	9,10	8,60	8,60	38,5
L3100.2202-R	Roller	50	104,6	260,4	23,1		104,6	38,5	13,6	9,10	8,60	8,60	38,5
L3100.2203-R	Roller	25	104,6	209,6	23,1	38	104,6	38,5	13,6	9,10	8,60	8,60	38,5
L3100.2204-R	Roller	50	104,6	260,4	23,1	38	104,6	38,5	13,6	9,10	8,60	8,60	38,5
L3100.3201-R	Roller	25	130,2	235,0	23,1		130,2	38,5	13,6	12,05	11,47	11,47	38,5
L3100.3202-R	Roller	50	130,2	285,8	23,1		130,2	38,5	13,6	12,05	11,47	11,47	38,5
L3100.3203-R	Roller	25	130,2	235,0	23,1	51	130,2	38,5	13,6	12,05	11,47	11,47	38,5
L3100.3204-R	Roller	50	130,2	285,8	23,1	51	130,2	38,5	13,6	12,05	11,47	11,47	38,5

MANUAL POSITIONING STAGES



### L3100.FH



#### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements.

#### Technical Notes

For main dimensions and load ratings

please see product page then refer to this information for detailed hole fixing data. These tables simply show additional mounting and fixing hole information. Dimensions  $l_6$  and  $w_7$  relate to optional posilock device.

#### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way). **3D CAD available.**

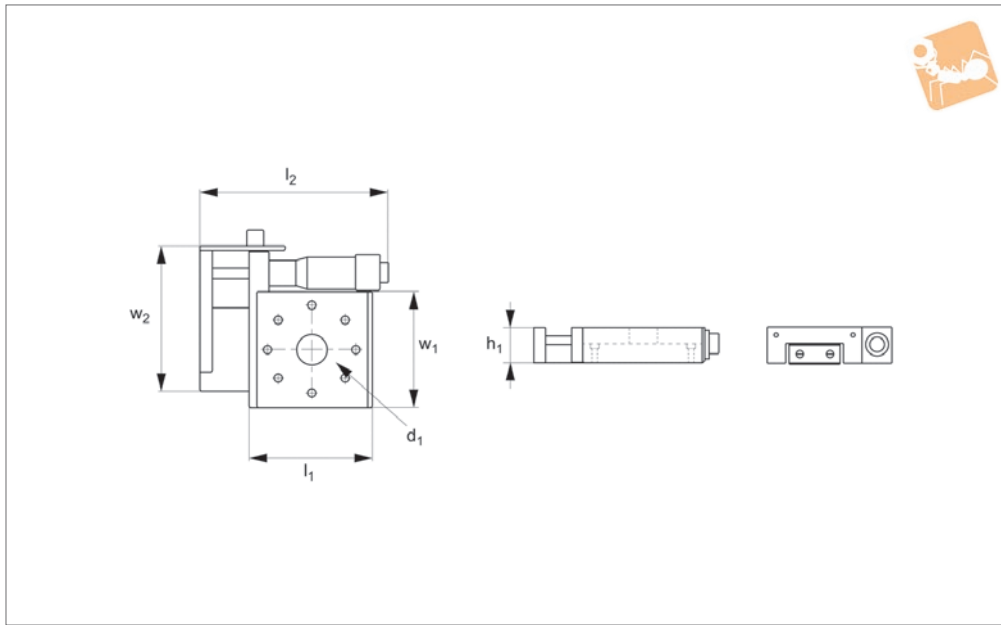
Order No.	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$d_2$	$d_3$ for	$w_1$	$w_2$	$w_3$	$w_4$	$w_5$	$w_6$
L3100.0099-X	19.1	57.9	13.5	14.3	7.9	-	M2	M2	13.5	7.9	-	-	14.3	-
L3100.0101-X	31.8	82.6	25.4	25.4	17.5	32.1	M2	M2	25.4	12.7	-	23.9	17.5	5.7
L3100.0201-X	44.5	95.3	38.1	38.1	30.2	38.5	M2	M2	38.1	25.4	-	36.6	30.2	5.7
L3100.0301-X	38.1	88.9	30.1	30.1	0.0	29.5	M3	M3	-	30.1	-	22.2	-	6.1
L3100.0450-X	44.5	111.3	33.3	25.4	-	45.0	M4	M4	25.4	-	-	22.2	-	6.1
L3100.0451-X	44.5	149.4	33.3	25.4	0.0	60.7	M4	M4	25.4	16.7	-	22.2	-	6.1
L3100.0453-X	44.5	111.3	33.3	25.4	-	45.0	M5	M5	25.4	16.7	-	38.1	-	6.1
L3100.0750-X	66.5	133.4	50.8	50.8	35.9	45.5	M5	M5	22.2	-	-	38.1	-	6.1
L3100.0751-X	66.5	171.5	50.8	50.8	35.9	60.7	M5	M5	22.2	-	-	38.1	-	6.1
L3100.0753-X	66.5	133.4	50.8	50.8	?	45.5	M5	M5	22.2	-	-	38.1	-	6.1
L3100.0401-X	50.8	117.3	41.1	25.4	-	45.0	M4	M4	22.2	-	-	22.2	-	6.4
L3100.0501-X	82.6	148.8	69.9	56.0	28.0	45.0	M4	M4	22.2	-	-	22.2	-	6.4
L3100.0502-X	82.6	188.2	69.9	56.0	28.0	60.7	M4	M4	22.2	-	-	22.2	-	6.4
L3100.0701-X	101.6	168.1	85.9	50.8	-	45.0	M5	M5	31.8	-	-	38.1	-	6.4
L3100.0702-X	101.6	209.6	85.9	50.8	-	60.7	M5	M5	31.8	-	-	38.1	-	6.4
L3100.1201-X	79.2	184.2	66.7	54.0	31.5	44.5	M5	M5	66.7	54.0	31.5	-	-	5.9
L3100.1203-X	79.2	184.2	66.7	54.0	31.5	44.5	M5	M5	66.7	54.0	31.5	-	-	5.9
L3100.2201-X	104.6	208.6	92.1	79.4	31.5	57.2	M5	M5	92.1	79.4	31.5	-	-	5.9
L3100.2202-X	104.6	260.4	92.1	79.4	31.5	57.2	M5	M5	92.1	79.4	31.5	-	-	5.9
L3100.2203-X	104.6	209.6	92.1	79.4	31.5	57.2	M5	M5	92.1	79.4	31.5	-	-	5.9
L3100.2204-X	104.6	206.4	92.1	79.4	31.5	57.2	M5	M5	92.1	79.4	31.5	-	-	5.9
L3100.3201-X	130.2	235.0	117.5	104.8	31.5	69.9	M5	M5	117.5	104.8	31.5	-	-	5.9
L3100.3202-X	130.2	285.8	117.5	104.8	31.5	69.9	M5	M5	117.5	104.8	31.5	-	-	5.9
L3100.3203-X	130.2	235.0	117.5	104.8	31.5	69.9	M5	M5	117.5	104.8	31.5	-	-	5.9
L3100.3204-X	130.2	285.8	117.5	104.8	31.5	69.9	M5	M5	117.5	104.8	31.5	-	-	5.9



# Positioning Stages - Side Micrometer

## X stage, main dimensions

# Manual Positioning Stages



## L3102

MANUAL POSITIONING STAGES

### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.

Straight line accuracy 12µ/25mm travel.

Repeatability 3µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

### Tips

Other options:

- LM (locking micrometer). Not available

for .0101, .0201 and .0301 sizes.

- PL (posi-lock carriage lock)

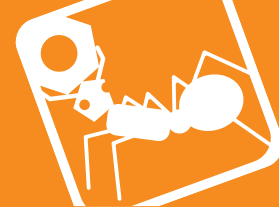
For XY and XYZ axes see L3106-L3113.

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Type	Travel	$l_1$	$l_2$	$h_1$	Through hole $d_1$	$w_1$	$w_2$	Load X & Y kg max.	Load Z kg max.	Moment load X N max.	Moment load Y N max.	Moment load Z N max.	Weight kg
L3102.0099-B	Ball	6	19,1	37,6	13,5		19,1	32,7	2,3	0,7	0,11	0,11	0,11	2,3
L3102.0101-B	Ball	13	31,8	54,9	9,7		31,8	44,5	1,8	0,7	0,19	0,18	0,18	1,8
L3102.0201-B	Ball	13	44,5	61,5	9,7		44,5	57,4	1,8	0,7	0,28	0,27	0,27	1,8
L3102.0301-B	Ball	13	38,1	55,4	15,7	8	38,1	51,1	5,4	0,9	0,50	0,50	0,50	5,4
L3102.0450-B	Ball	13	44,5	74,9	19,1		44,5	61,0	9,1	0,9	0,96	0,96	0,96	9,1
L3102.0451-B	Ball	25	44,5	114,5	19,1		44,5	64,8	9,1	0,9	0,96	0,96	0,96	9,1
L3102.0453-B	Ball	13	44,5	74,9	19,1	13	44,5	61,0	9,1	0,9	0,96	0,96	0,96	9,1
L3102.0750-B	Ball	13	66,5	89,4	25,4		66,5	83,1	27,2	0,9	4,94	4,94	4,94	27,2
L3102.0751-B	Ball	25	66,5	113,8	25,4		66,5	87,1	27,2	0,9	4,94	4,94	4,94	27,2
L3102.0753-B	Ball	13	66,5	89,4	25,4	25	66,5	83,1	27,2	0,9	4,94	4,94	4,94	27,2
L3102.0401-B	Ball	13	50,8	74,9	19,1		44,5	61,0	9,1	9,0	0,96	0,96	0,96	9,1
L3102.0501-B	Ball	13	82,6	105,4	19,1		44,5	61,0	19,0	9,0	2,02	2,02	2,02	19,0
L3102.0502-B	Ball	25	82,6	114,5	19,1		44,5	64,8	19,0	9,0	2,02	2,02	2,02	19,0
L3102.0701-B	Ball	13	101,6	124,5	25,4		66,5	84,1	27,2	9,0	4,94	4,94	4,94	27,2
L3102.0702-B	Ball	25	101,6	131,6	25,4		66,5	87,1	27,2	9,0	4,94	4,94	4,94	27,2
L3102.1201-B	Ball	25	79,2	120,7	23,1		79,2	102,6	13,6	13,6	2,05	1,95	1,95	13,6
L3102.1203-B	Ball	25	79,2	120,7	23,1	25	79,2	102,6	13,6	13,6	2,05	1,95	1,95	13,6
L3102.2201-B	Ball	25	104,6	120,7	23,1		104,6	128,0	13,6	13,6	3,21	3,04	3,04	13,6
L3102.2202-B	Ball	50	104,6	171,7	23,1		104,6	128,0	13,6	13,6	3,21	3,04	3,04	13,6
L3102.2203-B	Ball	25	104,6	120,7	23,1	38	104,6	128,0	13,6	13,6	3,21	3,04	3,04	13,6
L3102.2204-B	Ball	50	104,6	171,7	23,1	38	104,6	128,0	13,6	13,6	3,21	3,04	3,04	13,6
L3102.3201-B	Ball	25	130,0	130,0	23,1		130,0	153,4	13,6	13,6	4,25	4,05	4,05	13,6
L3102.3202-B	Ball	50	130,0	171,7	23,1		130,0	153,4	13,6	13,6	4,25	4,05	4,05	13,6
L3102.3203-B	Ball	25	130,0	130,0	23,1	51	130,0	153,4	13,6	13,6	4,25	4,05	4,05	13,6
L3102.3204-B	Ball	50	130,0	171,7	23,1	51	130,0	153,4	13,6	13,6	4,25	4,05	4,05	13,6



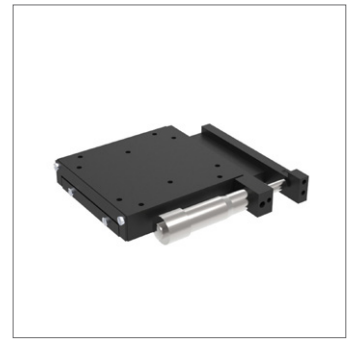
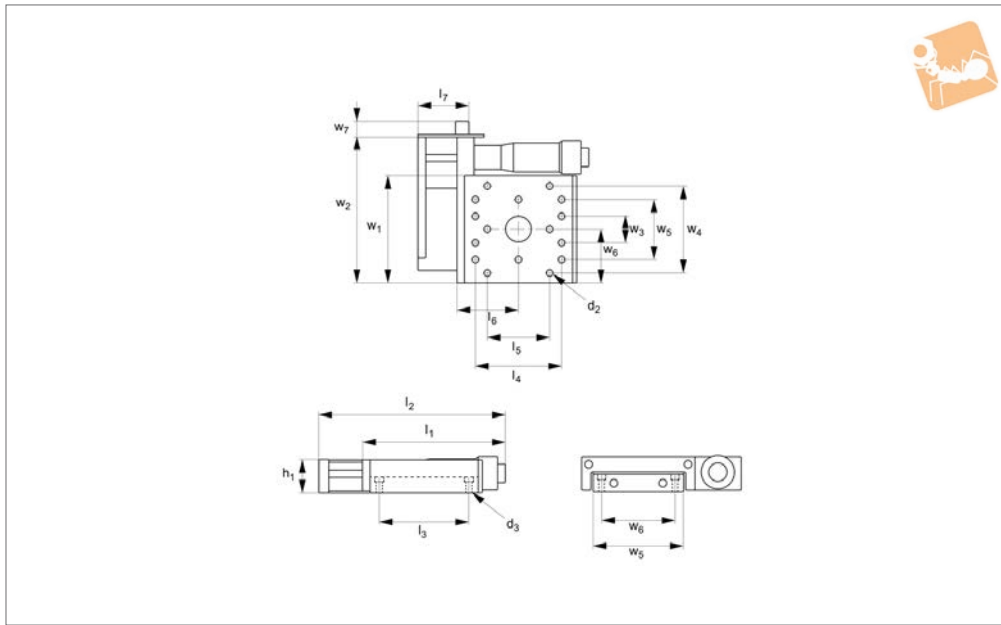
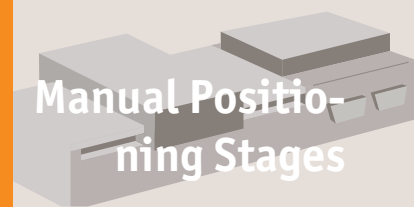
Order No.	Type	Travel	$l_1$	$l_2$	$h_1$	Through hole $d_1$	$w_1$	$w_2$	Load X & XY kg max.	Load Z kg max.	Moment load X N max.	Moment load Y N max.	Moment load Z N max.	Weight kg
L3102.0099-R	Roller	6	19,1	37,6	13,5		19,1	32,7	18,1	0,7				18,1
L3102.0101-R	Roller	13	31,8	54,9	9,7		31,8	44,5	10,4	0,7	1,09	1,04	1,04	10,4
L3102.0201-R	Roller	13	44,5	61,5	9,7		44,5	57,4	10,4	0,7	1,64	1,56	1,56	10,4
L3102.0301-R	Roller	13	38,1	55,4	15,7	8	38,1	51,1	18,1	0,9	2,88	2,88	2,88	18,1
L3102.0450-R	Roller	13	44,5	74,9	19,1		44,5	61,0	18,1	0,9	1,92	1,92	1,92	18,1
L3102.0451-R	Roller	25	44,5	114,5	19,1		44,5	64,8	18,1	0,9	1,92	1,92	1,92	18,1
L3102.0453-R	Roller	13	44,5	74,9	19,1	13	44,5	61,0	18,1	0,9	1,92	1,92	1,92	18,1
L3102.0750-R	Roller	13	66,5	89,4	25,4		66,5	83,1	54,4	0,9	9,88	9,88	9,88	54,4
L3102.0751-R	Roller	25	66,5	113,8	25,4		66,5	87,1	54,4	0,9	9,88	9,88	9,88	54,4
L3102.0753-R	Roller	13	66,5	89,4	25,4	25	66,5	83,1	54,4	0,9	9,88	9,88	9,88	54,4
L3102.0401-R	Roller	13	50,8	74,9	19,1		44,5	61,0	18,1	9,0	1,92	1,92	1,92	18,1
L3102.0501-R	Roller	13	82,6	105,4	19,1		44,5	61,0	36,3	9,0	3,84	3,84	3,84	36,3
L3102.0502-R	Roller	25	82,6	114,5	19,1		44,5	64,8	36,3	9,0	3,84	3,84	3,84	36,3
L3102.0701-R	Roller	13	101,6	124,5	25,4		66,5	84,1	72,5	9,0	13,18	13,18	13,18	72,5
L3102.0702-R	Roller	25	101,6	131,6	25,4		66,5	87,1	72,5	9,0	13,18	13,18	13,18	72,5
L3102.1201-R	Roller	25	79,2	120,7	23,1		79,2	102,6	38,5	13,6	5,81	5,53	5,53	38,5
L3102.1203-R	Roller	25	79,2	120,7	23,1	25	79,2	102,6	38,5	13,6	5,81	5,53	5,53	38,5
L3102.2201-R	Roller	25	104,6	120,7	23,1		104,6	128,0	38,5	13,6	9,10	8,60	8,60	38,5
L3102.2202-R	Roller	50	104,6	171,7	23,1		104,6	128,0	38,5	13,6	9,10	8,60	8,60	38,5
L3102.2203-R	Roller	25	104,6	120,7	23,1	38	104,6	128,0	38,5	13,6	9,10	8,60	8,60	38,5
L3102.2204-R	Roller	50	104,6	171,7	23,1	38	104,6	128,0	38,5	13,6	9,10	8,60	8,60	38,5
L3102.3201-R	Roller	25	130,0	130,0	23,1		130,0	153,4	38,5	13,6	12,05	11,47	11,47	38,5
L3102.3202-R	Roller	50	130,0	171,7	23,1		130,0	153,4	38,5	13,6	12,05	11,47	11,47	38,5
L3102.3203-R	Roller	25	130,0	130,0	23,1	51	130,0	153,4	38,5	13,6	12,05	11,47	11,47	38,5
L3102.3204-R	Roller	50	130,0	171,7	23,1	51	130,0	153,4	38,5	13,6	12,05	11,47	11,47	38,5



# Side Micrometer Stages

further fixing holes detail

# Manual Positioning Stages



**L3102.FH**

MANUAL POSITIONING STAGES

**Material**

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements

**Technical Notes**

For main dimensions and load ratings

please see product page then refer to this information for detailed hole fixing data. These tables simply show additional mounting and fixing hole information. Dimensions  $l_7$  and  $w_7$  relate to optional posilock device.

**Important Notes**

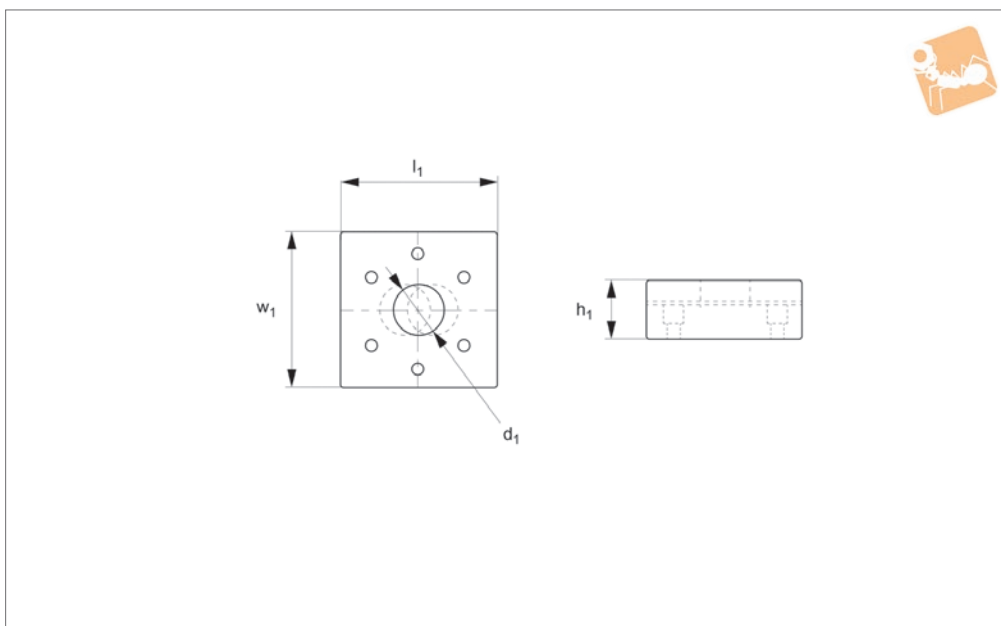
Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way). **3D CAD available.**

Order No.	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	$d_2$	$d_3$ for	$w_2$	$w_3$	$w_4$	$w_5$	$w_6$	$w_7$
L3102.0099-X	13.5	14.3	7.9	-	-	M2	M2	13.5	7.9	-	-	14.3	-
L3102.0101-X	25.4	25.4	17.5	15.5	15.5	M2	M2	25.4	12.7	-	23.9	17.5	5.7
L3102.0201-X	38.1	38.1	30.2	15.5	15.5	M2	M2	38.1	25.4	-	36.6	30.2	5.7
L3102.0301-X	30.1	30.1	0.0	16.0	16.0	M3	M3	0.0	30.1	-	22.2	-	6.1
L3102.0450-X	33.3	25.4	-	25.6	25.6	M4	M4	25.4	-	-	22.2	-	6.1
L3102.0451-X	33.3	25.4	0.0	25.6	25.6	M4	M4	25.4	16.7	-	22.2	-	6.1
L3102.0453-X	33.3	25.4	-	25.6	25.6	M5	M5	25.4	16.7	-	38.1	-	6.1
L3102.0750-X	50.8	?	?	26.1	26.1	M5	M5	50.8	35.9	-	38.1	-	6.1
L3102.0751-X	50.8	?	?	38.2	38.2	M5	M5	50.8	35.9	-	38.1	-	6.1
L3102.0753-X	50.8	?	?	38.2	38.2	M5	M5	50.8	35.9	-	38.1	-	6.1
L3102.0401-X	41.1	25.4	-	25.6	25.6	M4	M4	22.2	-	-	22.2	-	6.4
L3102.0501-X	69.9	56.0	28.0	25.6	25.6	M4	M4	22.2	-	-	22.2	-	6.4
L3102.0502-X	69.9	56.0	28.0	38.2	38.2	M4	M4	22.2	-	-	22.2	-	6.4
L3102.0701-X	85.9	50.8	-	26.1	26.1	M5	M5	31.8	-	-	38.1	-	6.4
L3102.0702-X	85.9	50.8	-	38.2	38.2	M5	M5	31.8	-	-	38.1	-	6.4
L3102.1201-X	66.7	54.0	31.5	44.5	44.5	M5	M5	66.7	54.0	31.5	-	-	5.9
L3102.1203-X	66.7	54.0	31.5	44.5	55.6	M5	M5	66.7	54.0	31.5	-	-	5.9
L3102.2201-X	92.1	79.4	31.5	55.6	69.9	M5	M5	92.1	79.4	31.5	-	-	5.9
L3102.2202-X	92.1	79.4	31.5	55.6	69.9	M5	M5	92.1	79.4	31.5	-	-	5.9
L3102.2203-X	92.1	79.4	31.5	55.6	69.9	M5	M5	92.1	79.4	31.5	-	-	5.9
L3102.2204-X	92.1	79.4	31.5	55.6	69.9	M5	M5	92.1	79.4	31.5	-	-	5.9
L3102.3201-X	117.5	104.8	31.5	69.9	69.9	M5	M5	117.5	104.8	31.5	-	-	5.9
L3102.3202-X	117.5	104.8	31.5	69.9	69.9	M5	M5	117.5	104.8	31.5	-	-	5.9
L3102.3203-X	117.5	104.8	31.5	69.9	69.9	M5	M5	117.5	104.8	31.5	-	-	5.9
L3102.3204-X	117.5	104.8	31.5	69.9	69.9	M5	M5	117.5	104.8	31.5	-	-	5.9





### L3103



#### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements

#### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.

Straight line accuracy  $12\mu/25\text{mm}$  travel.

Repeatability  $3\mu$ .

These plain units are supplied with no micrometers, no micrometer brackets and no springs.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

#### Tips

-PL after part shows option with posi-lock feature.

#### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

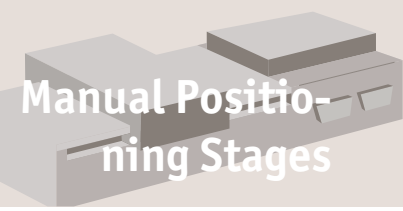
Order No.	Type	Travel	$l_1$	$h_1$	Through hole $d_1$	$w_1$	Load X & XY kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.	Weight kg
L3103.0101-B	Ball	13	31.8	9.7	-	31.8	1.8	-	-	-	1.8
L3103.0201-B	Ball	13	44.5	9.7	-	44.5	1.8	-	-	-	1.8
L3103.0301-B	Ball	13	38.1	15.7	8	38.1	5.4	0.50	0.68	0.71	5.4
L3103.0451-B	Ball	25	44.5	19.1	-	44.5	9.1	0.96	1.13	1.19	9.1
L3103.0452-B	Ball	25	44.5	19.1	13	44.5	9.1	0.96	1.13	1.19	9.1
L3103.0751-B	Ball	25	66.5	25.4	-	66.5	27.2	4.94	5.75	6.04	27.2
L3103.0752-B	Ball	25	66.5	25.4	25	66.5	27.2	4.94	5.75	6.04	27.2
L3103.1202-B	Ball	50	79.2	23.1	-	79.2	13.6	2.89	1.95	2.05	13.6
L3103.1204-B	Ball	50	79.2	23.1	25	79.2	13.6	2.89	1.95	2.05	13.6
L3103.2205-B	Ball	75	104.6	23.1	-	104.6	13.6	4.80	3.04	3.21	13.6
L3103.2206-B	Ball	75	104.6	23.1	38	104.6	13.6	4.80	3.04	3.21	13.6
L3103.3205-B	Ball	100	130.2	23.1	-	130.2	13.6	4.80	3.04	3.21	13.6
L3103.3206-B	Ball	100	130.2	23.1	51	130.2	13.6	7.11	4.05	4.25	13.6
L3103.1202-B-PL	Ball	50	79.2	23.1	-	79.2	13.6	2.89	1.95	2.05	13.6
L3103.1204-B-PL	Ball	50	79.2	23.1	25	79.2	13.6	2.89	1.95	2.05	13.6
L3103.2205-B-PL	Ball	75	104.6	23.1	-	104.6	13.6	4.80	3.04	3.21	13.6
L3103.2206-B-PL	Ball	75	104.6	23.1	38	104.6	13.6	4.80	3.04	3.21	13.6
L3103.3205-B-PL	Ball	100	130.2	23.1	-	130.2	13.6	4.80	3.04	3.21	13.6
L3103.3206-B-PL	Ball	100	130.2	23.1	51	130.2	13.6	7.11	4.05	4.25	13.6
L3103.0101-R	Roller	13	31.8	9.7	-	31.8	10.4	-	-	-	10.4
L3103.0201-R	Roller	13	44.5	9.7	-	44.5	10.4	-	-	-	10.4
L3103.0301-R	Roller	13	38.1	15.7	8	38.1	18.1	1.67	2.26	2.37	18.1
L3103.0451-R	Roller	25	44.5	19.1	-	44.5	18.1	1.92	2.26	2.37	18.1
L3103.0452-R	Roller	25	44.5	19.1	13	44.5	18.1	1.92	2.26	2.37	18.1
L3103.0751-R	Roller	25	66.5	25.4	-	66.5	54.4	9.88	11.50	12.07	54.4
L3103.0752-R	Roller	25	66.5	25.4	25	66.5	54.4	9.88	11.50	12.07	54.4
L3103.1202-R	Roller	50	79.2	23.1	-	79.2	38.5	8.19	5.53	5.81	38.5
L3103.1204-R	Roller	50	79.2	23.1	25	79.2	38.5	8.19	5.53	5.81	38.5





# Positioning Stages - Plain

## X Stage, main dimensions



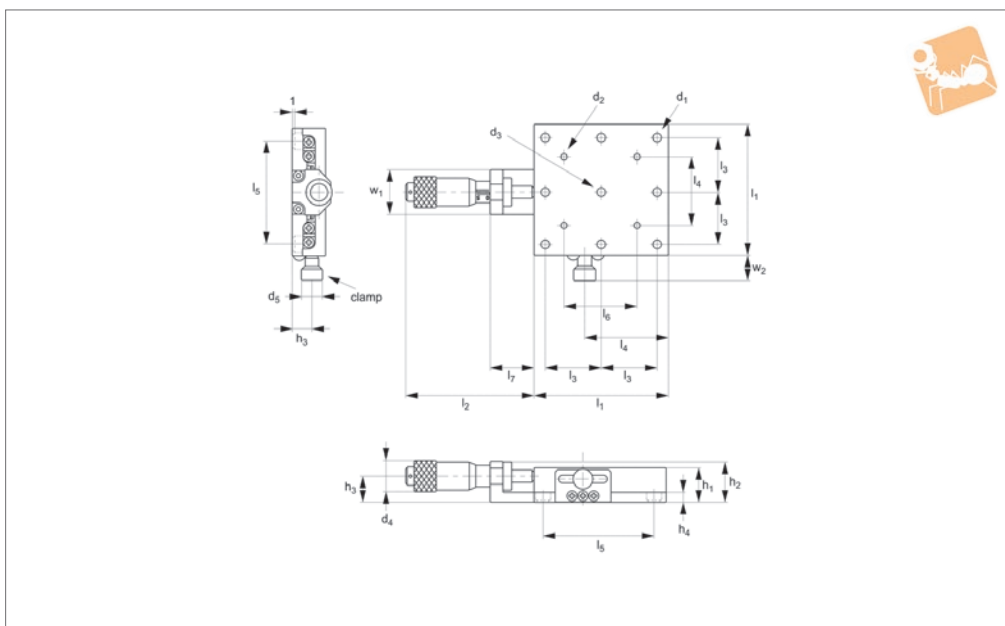
# Manual Positioning Stages

Order No.	Type	Travel	$l_1$	$h_1$	Through hole $d_1$	$w_1$	Load X & XY kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.	Weight kg
L3103.2205-R	Roller	75	104.6	23.1	-	104.6	38.5	13.60	8.60	9.10	38.5
L3103.2206-R	Roller	75	104.6	23.1	38	104.6	38.5	13.60	8.60	9.10	38.5
L3103.3205-R	Roller	100	130.2	23.1	-	130.2	38.5	13.60	8.60	9.10	38.5
L3103.3206-R	Roller	100	130.2	23.1	51	130.2	38.5	20.15	11.47	12.05	38.5
L3103.1202-R-PL	Roller	50	79.2	23.1	-	79.2	38.5	8.19	5.53	5.81	38.5
L3103.1204-R-PL	Roller	50	79.2	23.1	25	79.2	38.5	8.19	5.53	5.81	38.5
L3103.2205-R-PL	Roller	75	104.6	23.1	-	104.6	38.5	13.60	8.60	9.10	38.5
L3103.2206-R-PL	Roller	75	104.6	23.1	38	104.6	38.5	13.60	8.60	9.10	38.5
L3103.3205-R-PL	Roller	100	130.2	23.1	-	130.2	38.5	13.60	8.60	9.10	38.5
L3103.3206-R-PL	Roller	100	130.2	23.1	51	130.2	38.5	20.15	11.47	12.05	38.5

MANUAL POSITIONING STAGES



## L3120



### Material

Stainless steel (440C) with electroless nickel plating.

### Technical Notes

Straightness accuracy 5µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Travel	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	$h_1$	$h_2$	$h_3$
L3120.040	13	40	58.5	16	26	32	-	20.5	16.0	19.0	10.5
L3120.060	13	60	58.5	25	36	50	32	20.5	16.0	19.0	10.5
L3120.080	25	80	80.0	35	55	70	50	24.5	20.0	24.3	16.8
L3120.100	25	100	80.0	45	67.5	90	70	24.5	20.0	24.3	16.8

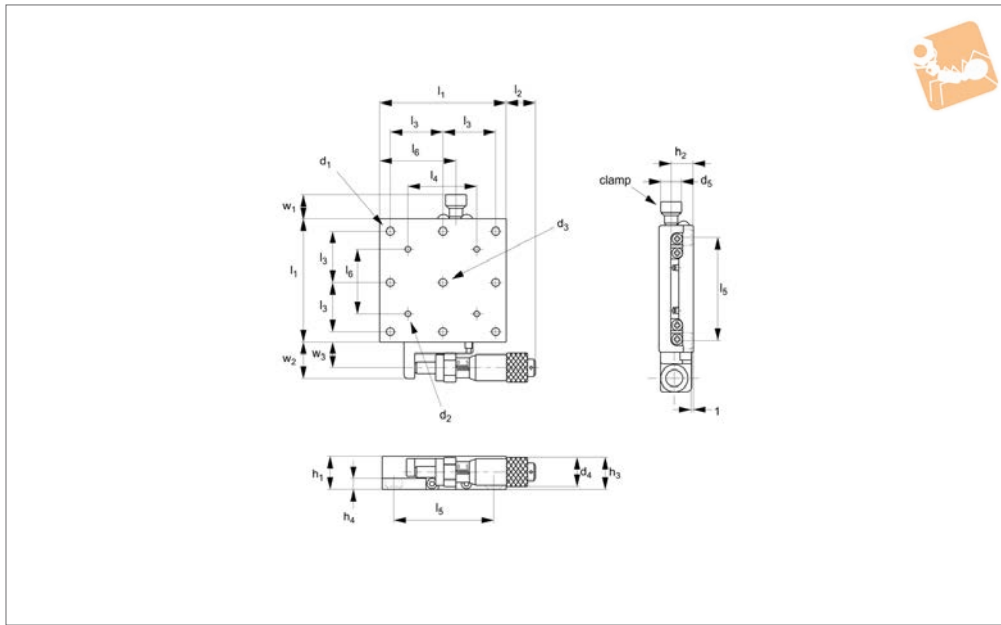
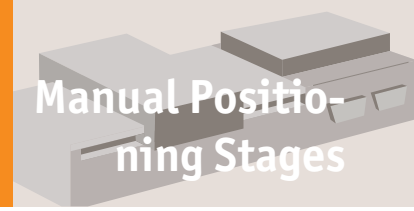
Order No.	$h_4$	$d_1$	$d_2$	$d_3$	$d_4$	$d_5$	$w_1$	$w_2$	Load kg max.
L3120.040	4.5	M3	-	4	13	10	20	11.5	10.0
L3120.060	5.0	M4	M3	4	13	10	20	11.5	20.0
L3120.080	6.5	M4	M4	4	13	10	24	11.2	27.0
L3120.100	6.5	M4	M4	4	13	10	24	11.2	35.0



# Stainless Micrometer X Stages

side drive

# Manual Positioning Stages



**L3122**

MANUAL POSITIONING STAGES

**Material**

Stainless steel (440C) with electroless nickel plating.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.  
Micrometer increments 0,01mm.

**Important Notes**

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).  
**3D CAD available.**

**Technical Notes**

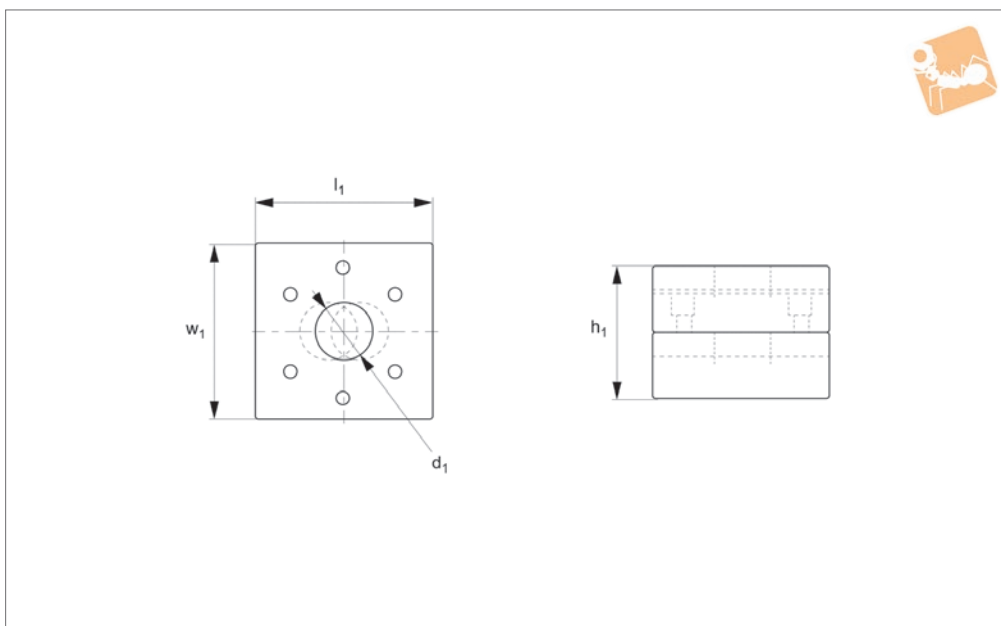
Straightness accuracy 5µ.

Order No.	Travel	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$h_1$	$h_2$	$h_3$	$h_4$
L3122.040	13	40	23.7	16	-	32	26	16.0	10.5	9	4.5
L3122.060	13	60	13.8	25	32	50	36	16.0	10.5	9	5.0
L3122.080	25	80	32.5	25	50	70	55	20.0	14.5	10.8	6.5
L3122.100	25	100	17.5	25	70	90	67.5	20.0	14.5	10.8	6.5

Order No.	$d_1$	$d_2$	$d_3$	$d_4$	$d_5$	$w_1$	$w_2$	Load kg max.
L3122.040	M3	-	4	13	10	18.5	12	10.0
L3122.060	M4	M3	4	13	10	18.5	12	20.0
L3122.080	M4	M4	4	13	10	23.5	17	27.0
L3122.100	M4	M4	4	13	10	23.5	17	35.0



## L3104



### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier

loads and moment loads.

Straight line accuracy 12µ/25mm travel.

Repeatability 3µ.

These plain units are supplied with no micrometers, no micrometer brackets and no springs.

**For further fixing and mounting hole**

**dimensions please see part number L3100.FH.**

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

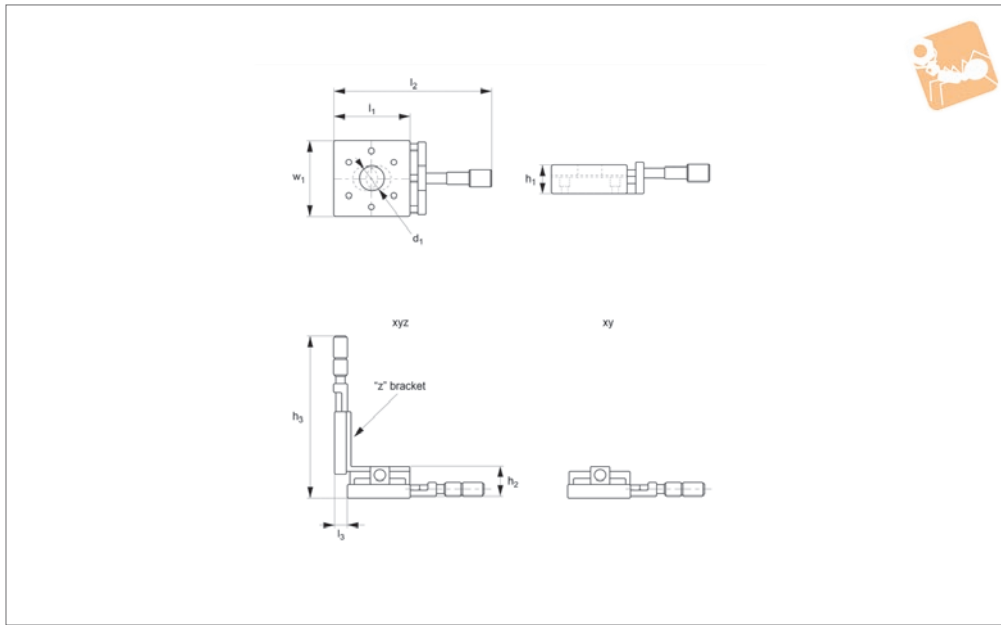
Order No.	Type	Travel	$h_1$	$l_1$	$w_1$	Through hole $d_1$	Load X & Y kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.	Weight kg
L3104.0101-B	XY Ball	13	19.0	31.8	31.8	-	1.8	-	-	-	1.8
L3104.0201-B	XY Ball	13	19.0	44.5	44.5	-	1.8	-	-	-	1.8
L3104.0301-B	XY Ball	13	31.8	38.1	38.1	8	5.4	0.50	0.68	0.71	5.4
L3104.0451-B	XY Ball	25	38.1	44.5	44.5	-	9.1	0.96	1.13	1.19	9.1
L3104.0452-B	XY Ball	25	38.1	44.5	44.5	13	9.1	0.96	1.13	1.19	9.1
L3104.0751-B	XY Ball	25	50.8	66.5	66.5	-	27.2	4.94	5.75	6.04	27.2
L3104.0752-B	XY Ball	25	50.8	66.5	66.5	25	27.2	4.94	5.75	6.04	27.2
L3104.1202-B	XY Ball	50	46.2	79.2	79.2	-	13.6	2.89	1.95	2.05	13.6
L3104.1204-B	XY Ball	50	46.2	79.2	79.2	25	13.6	2.89	1.95	2.05	13.6
L3104.2205-B	XY Ball	75	46.2	104.6	104.6	-	13.6	4.80	3.04	3.21	13.6
L3104.2206-B	XY Ball	75	46.2	104.6	104.6	38	13.6	4.80	3.04	3.21	13.6
L3104.3205-B	XY Ball	100	46.2	130.2	130.2	-	13.6	4.80	3.04	3.21	13.6
L3104.3206-B	XY Ball	100	46.2	130.2	130.2	51	13.6	7.11	4.05	4.25	13.6
L3104.0101-R	XY Roller	13	19.0	31.8	31.8	-	10.4	-	-	-	10.4
L3104.0201-R	XY Roller	13	19.0	44.5	44.5	-	10.4	-	-	-	10.4
L3104.0301-R	XY Roller	13	31.8	38.1	38.1	8	18.1	1.67	2.26	2.37	18.1
L3104.0451-R	XY Roller	25	38.1	44.5	44.5	-	18.1	1.92	2.26	2.37	18.1
L3104.0452-R	XY Roller	25	38.1	44.5	44.5	13	18.1	1.92	2.26	2.37	18.1
L3104.0751-R	XY Roller	25	50.8	66.5	66.5	-	54.4	9.88	11.50	12.07	54.4
L3104.0752-R	XY Roller	25	50.8	66.5	66.5	25	54.4	9.88	11.50	12.07	54.4
L3104.1202-R	XY Roller	50	46.2	79.2	79.2	-	38.5	8.19	5.53	5.81	38.5
L3104.1204-R	XY Roller	50	46.2	79.2	79.2	25	38.5	8.19	5.53	5.81	38.5
L3104.2205-R	XY Roller	75	46.2	104.6	104.6	-	38.5	13.60	8.60	9.10	38.5
L3104.2206-R	XY Roller	75	46.2	104.6	104.6	38	38.5	13.60	8.60	9.10	38.5
L3104.3205-R	XY Roller	100	46.2	130.2	130.2	-	38.5	13.60	8.60	9.10	38.5
L3104.3206-R	XY Roller	100	46.2	130.2	130.2	51	38.5	20.15	11.47	12.05	38.5



# Micrometer Positioning XY, XYZ

front drive, small sizes

# Manual Positioning Stages



## L3105

MANUAL POSITIONING STAGES

### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements.

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.

Straight line accuracy  $12\mu/25\text{mm}$  travel.  
 Repeatability  $3\mu$ .  
 Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.  
 Micrometer increments  $0,01\text{mm}$ .

### Tips

Other options:

- LM (locking micrometer).
- PL (posi-lock carriage lock).

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).  
**3D CAD available.**

Order No.	Type	Travel	$h_1$	$h_2$	$h_3$	$l_1$	$l_2$	$l_3$	$w_1$	Weight kg
L3105.0101-XYB	XY Ball	13	9.7	19.0	-	31.8	82.6	-	31.8	1.8
L3105.0201-XYB	XY Ball	13	9.7	19.0	-	44.5	95.3	-	44.5	1.8
L3105.0101-XYR	XY Roller	13	9.7	19.0	-	31.8	82.6	-	31.8	10.4
L3105.0201-XYR	XY Roller	13	9.7	19.0	-	44.5	95.3	-	44.5	10.4
L3105.0101-XYZB	XYZ Ball	13	9.7	19.0	98.3	31.8	82.6	9.7	31.8	1.8
L3105.0201-XYZB	XYZ Ball	13	9.7	19.0	111.0	44.5	95.3	11.3	44.5	1.8
L3105.0101-XYZR	XYZ Roller	13	9.7	19.0	98.3	31.8	82.6	9.7	31.8	10.4
L3105.0201-XYZR	XYZ Roller	13	9.7	19.0	111.0	44.5	95.3	11.3	44.5	10.4

Order No.	Load Z kg max.	Load X & XY kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.
L3105.0101-XYB	0.7	1.8	0.19	0.18	0.18
L3105.0201-XYB	0.7	1.8	0.28	0.27	0.27
L3105.0101-XYR	0.7	10.4	1.09	1.04	1.04
L3105.0201-XYR	0.7	10.4	1.64	1.56	1.56
L3105.0101-XYZB	0.7	1.8	0.19	0.18	0.18
L3105.0201-XYZB	0.7	1.8	0.28	0.27	0.27
L3105.0101-XYZR	0.7	10.4	1.09	1.04	1.04
L3105.0201-XYZR	0.7	10.4	1.64	1.56	1.56

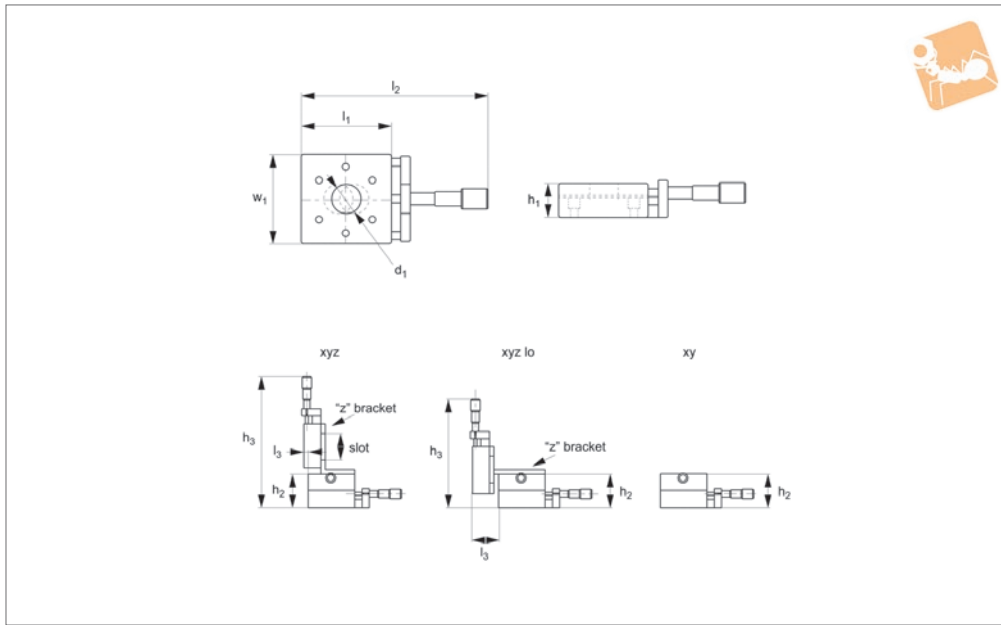
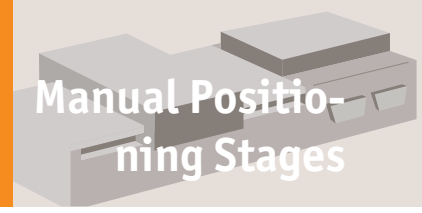




# Micrometer Positioning XY, XYZ

front drive, medium sizes

# Manual Positioning Stages



## L3106

MANUAL POSITIONING STAGES

### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements.

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.

Straight line accuracy 12µ/25mm travel.

Repeatability 3µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

### Tips

Other options:

- LM (locking micrometer).
- PL (posi-lock carriage lock).

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>1</sub>	Weight kg
L3106.0301-XYB	XY Ball	13	15.7	31.8	-	38.1	88.9	-	38.1	5.4
L3106.0450-XYB	XY Ball	13	19.1	38.1	-	44.5	111.3	-	44.5	9.1
L3106.0451-XYB	XY Ball	25	19.1	38.1	-	44.5	149.4	-	44.5	9.1
L3106.0453-XYB	XY Ball	13	19.1	38.1	-	44.5	111.3	-	44.5	9.1
L3106.0750-XYB	XY Ball	13	25.4	50.8	-	66.5	133.4	-	66.5	27.2
L3106.0751-XYB	XY Ball	25	25.4	50.8	-	66.5	171.5	-	66.5	27.2
L3106.0753-XYB	XY Ball	13	25.4	50.8	-	66.5	133.4	-	66.5	27.2
L3106.0301-XYR	XY Roller	13	15.7	31.8	-	38.1	88.9	-	38.1	18.1
L3106.0450-XYR	XY Roller	13	19.1	38.1	-	44.5	111.3	-	44.5	18.1
L3106.0451-XYR	XY Roller	25	19.1	38.1	-	44.5	149.4	-	44.5	18.1
L3106.0453-XYR	XY Roller	13	19.1	38.1	-	44.5	111.3	-	44.5	18.1
L3106.0750-XYR	XY Roller	13	25.4	50.8	-	66.5	133.4	-	66.5	54.4
L3106.0751-XYR	XY Roller	25	25.4	50.8	-	66.5	171.5	-	66.5	54.4
L3106.0753-XYR	XY Roller	13	25.4	50.8	-	66.5	133.4	-	66.5	54.4
L3106.0301-XYZB	XYZ Ball	13	15.7	31.8	130	38.1	88.9	8.1	38.1	5.4
L3106.0450-XYZB	XYZ Ball	13	19.1	38.1	162.1	44.5	111.3	0	44.5	9.1
L3106.0451-XYZB	XYZ Ball	25	19.1	38.1	200.2	44.5	149.4	0	44.5	9.1
L3106.0453-XYZB	XYZ Ball	13	19.1	38.1	162.1	44.5	111.3	0	44.5	9.1
L3106.0750-XYZB	XYZ Ball	13	25.4	50.8	199.9	66.5	133.4	1.5	66.5	27.2
L3106.0751-XYZB	XYZ Ball	25	25.4	50.8	238	66.5	171.5	1.5	66.5	27.2
L3106.0753-XYZB	XYZ Ball	13	25.4	50.8	199.9	66.5	133.4	1.5	66.5	27.2
L3106.0301-XYZR	XYZ Roller	13	15.7	31.8	130	38.1	88.9	8.1	38.1	18.1
L3106.0450-XYZR	XYZ Roller	13	19.1	38.1	162.1	44.5	111.3	0	44.5	18.1
L3106.0451-XYZR	XYZ Roller	25	19.1	38.1	200.2	44.5	149.4	0	44.5	18.1
L3106.0453-XYZR	XYZ Roller	13	19.1	38.1	162.1	44.5	111.3	0	44.5	18.1
L3106.0750-XYZR	XYZ Roller	13	25.4	50.8	199.9	66.5	133.4	1.5	66.5	54.4
L3106.0751-XYZR	XYZ Roller	25	25.4	50.8	238	66.5	171.5	1.5	66.5	54.4
L3106.0753-XYZR	XYZ Roller	13	25.4	50.8	199.9	66.5	133.4	1.5	66.5	54.4





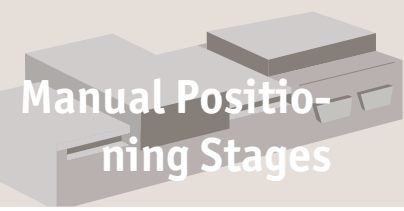
Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>1</sub>	Weight kg
L3106.0301-XYZLB	XYZ Ball Lo	13	15.7	31.8	100.1	38.1	88.9	25.4	38.1	5.4
L3106.0450-XYZLB	XYZ Ball Lo	13	19.1	38.1	128.8	44.5	111.3	28.4	44.5	9.1
L3106.0451-XYZLB	XYZ Ball Lo	25	19.1	38.1	166.9	44.5	149.4	28.4	44.5	9.1
L3106.0453-XYZLB	XYZ Ball Lo	13	19.1	38.1	128.8	44.5	111.3	28.4	44.5	9.1
L3106.0750-XYZLB	XYZ Ball Lo	13	25.4	50.8	150.9	66.5	133.4	38.1	66.5	27.2
L3106.0751-XYZLB	XYZ Ball Lo	25	25.4	50.8	189	66.5	171.5	38.1	66.5	27.2
L3106.0753-XYZLB	XYZ Ball Lo	13	25.4	50.8	150.9	66.5	133.4	38.1	66.5	27.2
L3106.0301-XYZLR	XYZ Roller Lo	13	15.7	31.8	106.4	38.1	88.9	25.4	38.1	18.1
L3106.0450-XYZLR	XYZ Roller Lo	13	19.1	38.1	128.8	44.5	111.3	28.4	44.5	18.1
L3106.0451-XYZLR	XYZ Roller Lo	25	19.1	38.1	166.9	44.5	149.4	28.4	44.5	18.1
L3106.0453-XYZLR	XYZ Roller Lo	13	19.1	38.1	128.8	44.5	111.3	28.4	44.5	18.1
L3106.0750-XYZLR	XYZ Roller Lo	13	25.4	50.8	150.9	66.5	133.4	38.1	66.5	54.4
L3106.0751-XYZLR	XYZ Roller Lo	25	25.4	50.8	189	66.5	171.5	38.1	66.5	54.4
L3106.0753-XYZLR	XYZ Roller Lo	13	25.4	50.8	150.9	66.5	133.4	38.1	66.5	54.4

Order No.	Through hole d <sub>1</sub>	Load Z kg max.	Load X & Y kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.	Slot size
L3106.0301-XYB	8	0.9	5.4	0.50	0.50	0.50	-
L3106.0450-XYB	-	0.9	9.1	0.96	0.96	0.96	-
L3106.0451-XYB	-	0.9	9.1	0.96	0.96	0.96	-
L3106.0453-XYB	13	0.9	9.1	0.96	0.96	0.96	-
L3106.0750-XYB	-	0.9	27.2	4.94	4.94	4.94	-
L3106.0751-XYB	-	0.9	27.2	4.94	4.94	4.94	-
L3106.0753-XYB	25	0.9	27.2	4.94	4.94	4.94	-
L3106.0301-XYR	8	0.9	18.1	2.88	2.88	2.88	-
L3106.0450-XYR	-	0.9	18.1	1.92	1.92	1.92	-
L3106.0451-XYR	-	0.9	18.1	1.92	1.92	1.92	-
L3106.0453-XYR	13	0.9	18.1	1.92	1.92	1.92	-
L3106.0750-XYR	-	0.9	54.4	9.88	9.88	9.88	-
L3106.0751-XYR	-	0.9	54.4	9.88	9.88	9.88	-
L3106.0753-XYR	25	0.9	54.4	9.88	9.88	9.88	-
L3106.0301-XYZB	8	0.9	5.4	0.50	0.50	0.50	10x22
L3106.0450-XYZB	-	0.9	9.1	0.96	0.96	0.96	13x25
L3106.0451-XYZB	-	0.9	9.1	0.96	0.96	0.96	13x25
L3106.0453-XYZB	13	0.9	9.1	0.96	0.96	0.96	13x25
L3106.0750-XYZB	-	0.9	27.2	4.94	4.94	4.94	25x38
L3106.0751-XYZB	-	0.9	27.2	4.94	4.94	4.94	25x38
L3106.0753-XYZB	25	0.9	27.2	4.94	4.94	4.94	25x38
L3106.0301-XYZR	8	0.9	18.1	2.88	2.88	2.88	10x22
L3106.0450-XYZR	-	0.9	18.1	1.92	1.92	1.92	13x25
L3106.0451-XYZR	-	0.9	18.1	1.92	1.92	1.92	13x25
L3106.0453-XYZR	13	0.9	18.1	1.92	1.92	1.92	13x25
L3106.0750-XYZR	-	0.9	54.4	9.88	9.88	9.88	25x38
L3106.0751-XYZR	-	0.9	54.4	9.88	9.88	9.88	25x38
L3106.0753-XYZR	25	0.9	54.4	9.88	9.88	9.88	25x38
L3106.0301-XYZLB	8	0.9	5.4	0.50	0.50	0.50	10x22
L3106.0450-XYZLB	-	0.9	9.1	0.96	0.96	0.96	13x25
L3106.0451-XYZLB	-	0.9	9.1	0.96	0.96	0.96	13x25
L3106.0453-XYZLB	13	0.9	9.1	0.96	0.96	0.96	13x25
L3106.0750-XYZLB	-	0.9	27.2	4.94	4.94	4.94	25x38
L3106.0751-XYZLB	-	0.9	27.2	4.94	4.94	4.94	25x38
L3106.0753-XYZLB	25	0.9	27.2	4.94	4.94	4.94	25x38
L3106.0301-XYZLR	8	0.9	18.1	2.88	2.88	2.88	10x22
L3106.0450-XYZLR	-	0.9	18.1	1.92	1.92	1.92	13x25
L3106.0451-XYZLR	-	0.9	18.1	1.92	1.92	1.92	13x25
L3106.0453-XYZLR	13	0.9	18.1	1.92	1.92	1.92	13x25
L3106.0750-XYZLR	-	0.9	54.4	9.88	9.88	9.88	25x38
L3106.0751-XYZLR	-	0.9	54.4	9.88	9.88	9.88	25x38
L3106.0753-XYZLR	25	0.9	54.4	9.88	9.88	9.88	25x38



## Micrometer Positioning XY, XYZ

front drive, medium sizes

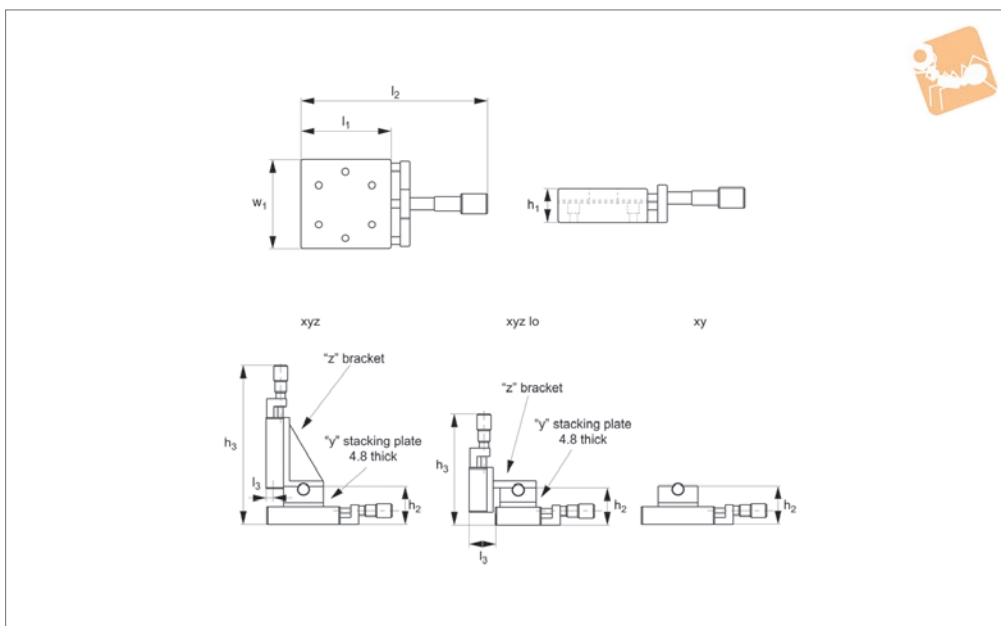


## Manual Positioning Stages





## L3107



### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements.

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.

Straight line accuracy 12µ/25mm travel. Repeatability 3µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

### Tips

Other options:  
- LM (locking micrometer).

- PL (posi-lock carriage lock).

Loads on the Z axis may extend springs if the loads are too heavy. These stages have the micrometer bracket reversed to prevent this and increase the Z load capacity.

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>1</sub>	Weight kg
L3107.0401-XYB	XY Ball	13	19.1	42.9	-	50.8	117.3	-	44.5	9.1
L3107.0501-XYB	XY Ball	13	19.1	42.9	-	82.6	148.8	-	44.5	19.0
L3107.0502-XYB	XY Ball	25	19.1	42.9	-	82.6	188.2	-	44.5	19.0
L3107.0701-XYB	XY Ball	13	25.4	55.6	-	101.6	168.1	-	66.5	27.2
L3107.0702-XYB	XY Ball	25	25.4	55.6	-	101.6	209.6	-	66.5	27.2
L3107.0401-XYR	XY Roller	13	19.1	42.9	-	50.8	117.3	-	44.5	18.1
L3107.0501-XYR	XY Roller	13	19.1	42.9	-	82.6	148.8	-	44.5	36.3
L3107.0502-XYR	XY Roller	25	19.1	42.9	-	82.6	188.2	-	44.5	36.3
L3107.0701-XYR	XY Roller	13	25.4	55.6	-	101.6	168.1	-	66.5	72.5
L3107.0702-XYR	XY Roller	25	25.4	55.6	-	101.6	209.6	-	66.5	72.5
L3107.0401-XYZLB	XYZ Ball Lo	13	19.1	42.9	130	50.8	117.3	28.4	44.5	9.1
L3107.0501-XYZB	XYZ Ball	13	19.1	42.9	188.4	82.6	148.8	0	44.5	19.0
L3107.0502-XYZB	XYZ Ball	25	19.1	42.9	227.8	82.6	188.2	0	44.5	19.0
L3107.0701-XYZB	XYZ Ball	13	25.4	55.6	220.4	101.6	168.1	8.1	66.5	27.2
L3107.0702-XYZB	XYZ Ball	25	25.4	55.6	261.9	101.6	209.6	8.1	66.5	27.2
L3107.0401-XYZLR	XYZ Roller Lo	13	19.1	42.9	130	50.8	117.3	28.4	44.5	18.1
L3107.0501-XYZR	XYZ Roller	13	19.1	42.9	188.4	82.6	148.8	0	44.5	36.3
L3107.0502-XYZR	XYZ Roller	25	19.1	42.9	227.8	82.6	188.2	0	44.5	36.3
L3107.0701-XYZR	XYZ Roller	13	25.4	55.6	220.4	101.6	168.1	8.1	66.5	72.5
L3107.0702-XYZR	XYZ Roller	25	25.4	55.6	261.9	101.6	209.6	8.1	66.5	72.5

Order No.	Load Z kg max.	Load X & XY kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.
L3107.0401-XYB	9.0	9.1	0.96	0.96	0.96
L3107.0501-XYB	9.0	19.0	2.02	2.02	2.02



# Micrometer Positioning XY, XYZ

front drive, medium sizes

# Manual Positioning Stages

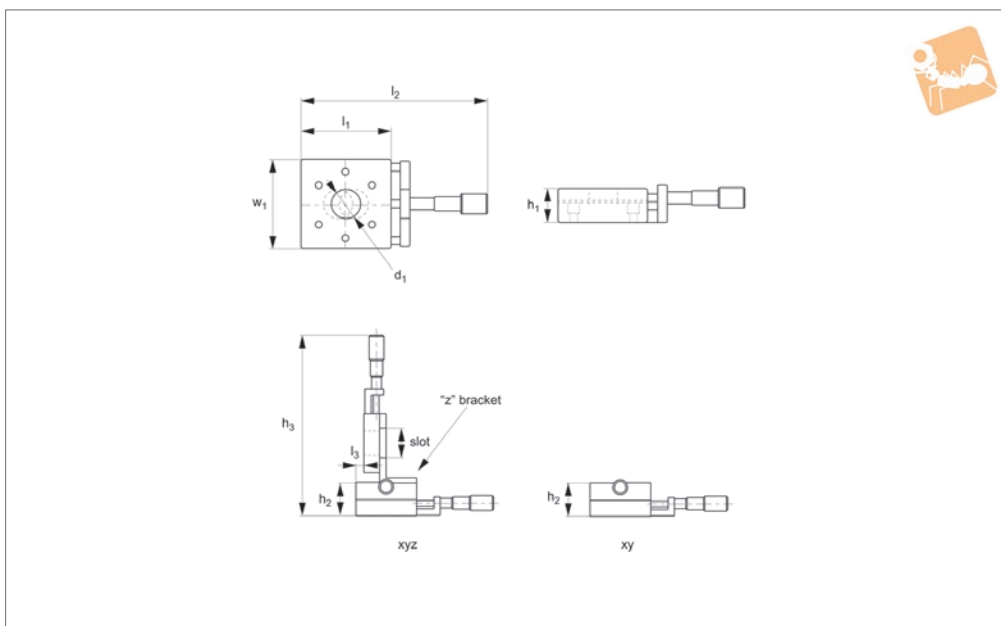
Order No.	Load Z kg max.	Load X & XY kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.
L3107.0502-XYB	9.0	19.0	2.02	2.02	2.02
L3107.0701-XYB	9.0	27.2	4.94	4.94	4.94
L3107.0702-XYB	9.0	27.2	4.94	4.94	4.94
L3107.0401-XYR	9.0	18.1	1.92	1.92	1.92
L3107.0501-XYR	9.0	36.3	3.84	3.84	3.84
L3107.0502-XYR	9.0	36.3	3.84	3.84	3.84
L3107.0701-XYR	9.0	72.5	13.18	13.18	13.18
L3107.0702-XYR	9.0	72.5	13.18	13.18	13.18
L3107.0401-XYZLB	9.0	9.1	0.96	0.96	0.96
L3107.0501-XYZB	9.0	19.0	2.02	2.02	2.02
L3107.0502-XYZB	9.0	19.0	2.02	2.02	2.02
L3107.0701-XYZB	9.0	27.2	4.94	4.94	4.94
L3107.0702-XYZB	9.0	27.2	4.94	4.94	4.94
L3107.0401-XYZLR	9.0	18.1	1.92	1.92	1.92
L3107.0501-XYZR	9.0	36.3	3.84	3.84	3.84
L3107.0502-XYZR	9.0	36.3	3.84	3.84	3.84
L3107.0701-XYZR	9.0	72.5	13.18	13.18	13.18
L3107.0702-XYZR	9.0	72.5	13.18	13.18	13.18

MANUAL POSITIONING STAGES





## L3108



### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements.

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.  
Straight line accuracy 12µ/25mm travel.  
Repeatability 3µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

### Tips

Other options:  
- LM (locking micrometer).

- PL (posi-lock carriage lock).

Loads on the Z axis may extend springs if the loads are too heavy. These stages have the micrometer bracket reversed to prevent this and increase the Z load capacity.

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>2</sub>	Weight kg
L3108.1201-XYB	XY Ball	25	23.1	46.2	-	79.2	184.2	-	79.2	13.6
L3108.1203-XYB	XY Ball	25	23.1	46.2	-	79.2	184.2	-	79.2	13.6
L3108.2201-XYB	XY Ball	25	23.1	46.2	-	104.6	209.6	-	104.6	13.6
L3108.2202-XYB	XY Ball	50	23.1	46.2	-	104.6	260.4	-	104.6	13.6
L3108.2203-XYB	XY Ball	25	23.1	46.2	-	104.6	209.6	-	104.6	13.6
L3108.2204-XYB	XY Ball	50	23.1	46.2	-	104.6	260.4	-	104.6	13.6
L3108.3201-XYB	XY Ball	25	23.1	46.2	-	130.2	235.0	-	130.2	13.6
L3108.3202-XYB	XY Ball	50	23.1	46.2	-	130.2	285.8	-	130.2	13.6
L3108.3203-XYB	XY Ball	25	23.1	46.2	-	130.2	235.0	-	130.2	13.6
L3108.3204-XYB	XY Ball	50	23.1	46.2	-	130.2	285.8	-	130.2	13.6
L3108.1201-XYR	XY Roller	25	23.1	46.2	-	79.2	184.2	-	79.2	38.5
L3008.1203-XYR	XY Roller	25	23.1	46.2	-	79.2	184.2	-	79.2	38.5
L3108.2201-XYR	XY Roller	25	23.1	46.2	-	104.6	209.6	-	104.6	38.5
L3108.2202-XYR	XY Roller	50	23.1	46.2	-	104.6	260.4	-	104.6	38.5
L3108.2203-XYR	XY Roller	25	23.1	46.2	-	104.6	209.6	-	104.6	38.5
L3108.2204-XYR	XY Roller	50	23.1	46.2	-	104.6	260.4	-	104.6	38.5
L3108.3201-XYR	XY Roller	25	23.1	46.2	-	130.2	235.0	-	130.2	38.5
L3108.3202-XYR	XY Roller	50	23.1	46.2	-	130.2	285.8	-	130.2	38.5
L3108.3203-XYR	XY Roller	25	23.1	46.2	-	130.2	235.0	-	130.2	38.5
L3108.3204-XYR	XY Roller	50	23.1	46.2	-	130.2	285.8	-	130.2	38.5
L3108.1201-XYZB	XYZ Ball	25	23.1	46.2	249.7	79.2	184.2	8.4	79.2	13.6
L3108.1203-XYZB	XYZ Ball	25	23.1	46.2	249.7	79.2	184.2	8.4	79.2	13.6
L3108.2201-XYZB	XYZ Ball	25	23.1	46.2	287.8	104.6	209.6	13.2	104.6	13.6
L3108.2202-XYZB	XYZ Ball	50	23.1	46.2	338.6	104.6	260.4	13.2	104.6	13.6
L3108.2203-XYZB	XYZ Ball	25	23.1	46.2	287.8	104.6	209.6	13.2	104.6	13.6
L3108.2204-XYZB	XYZ Ball	50	23.1	46.2	338.6	104.6	260.4	13.2	104.6	13.6



# Micrometer Positioning XY, XYZ

front drive, large sizes

# Manual Positioning Stages

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>2</sub>	Weight kg
L3108.3201-XYZB	XYZ Ball	25	23.1	46.2	313.2	130.2	235.0	27.7	130.2	13.6
L3108.3202-XYZB	XYZ Ball	50	23.1	46.2	364.0	130.2	285.8	27.7	130.2	13.6
L3108.3203-XYZB	XYZ Ball	25	23.1	46.2	313.2	130.2	235.0	27.7	130.2	13.6
L3108.3204-XYZB	XYZ Ball	50	23.1	46.2	364.0	130.2	285.8	27.7	130.2	13.6
L3108.1201-XYZR	XYZ Roller	25	23.1	46.2	249.7	79.2	184.2	8.4	79.2	38.5
L3008.1203-XYZR	XYZ Roller	25	23.1	46.2	249.7	79.2	184.2	8.4	79.2	38.5
L3108.2201-XYZR	XYZ Roller	25	23.1	46.2	287.8	104.6	209.6	13.2	104.6	38.5
L3108.2202-XYZR	XYZ Roller	50	23.1	46.2	338.6	104.6	260.4	13.2	104.6	38.5
L3108.2203-XYZR	XYZ Roller	25	23.1	46.2	287.8	104.6	209.6	13.2	104.6	38.5
L3108.2204-XYZR	XYZ Roller	50	23.1	46.2	338.6	104.6	260.4	13.2	104.6	38.5
L3108.3201-XYZR	XYZ Roller	25	23.1	46.2	313.2	130.2	235.0	27.7	130.2	38.5
L3108.3202-XYZR	XYZ Roller	50	23.1	46.2	364.0	130.2	285.8	27.7	130.2	38.5
L3108.3203-XYZR	XYZ Roller	25	23.1	46.2	313.2	130.2	235.0	27.7	130.2	38.5
L3108.3204-XYZR	XYZ Roller	50	23.1	46.2	364.0	130.2	285.8	27.7	130.2	38.5

Order No.	Through hole dia. d <sub>1</sub>	Load Z kg max.	Load X & Y kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.
L3108.1201-XYB	-	13.6	13.6	2.05	1.95	1.95
L3108.1203-XYB	25	13.6	13.6	2.05	1.95	1.95
L3108.2201-XYB	-	13.6	13.6	3.21	3.04	3.04
L3108.2202-XYB	-	13.6	13.6	3.21	3.04	3.04
L3108.2203-XYB	38	13.6	13.6	3.21	3.04	3.04
L3108.2204-XYB	38	13.6	13.6	3.21	3.04	3.04
L3108.3201-XYB	-	13.6	13.6	4.25	4.05	4.05
L3108.3202-XYB	-	13.6	13.6	4.25	4.05	4.05
L3108.3203-XYB	51	13.6	13.6	4.25	4.05	4.05
L3108.3204-XYB	51	13.6	13.6	4.25	4.05	4.05
L3108.1201-XYR	-	13.6	38.5	5.81	5.53	5.53
L3008.1203-XYR	25	13.6	38.5	5.81	5.53	5.53
L3108.2201-XYR	-	13.6	38.5	9.10	8.60	8.60
L3108.2202-XYR	-	13.6	38.5	9.10	8.60	8.60
L3108.2203-XYR	38	13.6	38.5	9.10	8.60	8.60
L3108.2204-XYR	38	13.6	38.5	9.10	8.60	8.60
L3108.3201-XYR	-	13.6	38.5	12.05	11.47	11.47
L3108.3202-XYR	-	13.6	38.5	12.05	11.47	11.47
L3108.3203-XYR	51	13.6	38.5	12.05	11.47	11.47
L3108.3204-XYR	51	13.6	38.5	12.05	11.47	11.47
L3108.1201-XYZB	-	13.6	13.6	2.05	1.95	1.95
L3108.1203-XYZB	25	13.6	13.6	2.05	1.95	1.95
L3108.2201-XYZB	-	13.6	13.6	3.21	3.04	3.04
L3108.2202-XYZB	-	13.6	13.6	3.21	3.04	3.04
L3108.2203-XYZB	38	13.6	13.6	3.21	3.04	3.04
L3108.2204-XYZB	38	13.6	13.6	3.21	3.04	3.04
L3108.3201-XYZB	-	13.6	13.6	4.25	4.05	4.05
L3108.3202-XYZB	-	13.6	13.6	4.25	4.05	4.05
L3108.3203-XYZB	51	13.6	13.6	4.25	4.05	4.05
L3108.3204-XYZB	51	13.6	13.6	4.25	4.05	4.05
L3108.1201-XYZR	-	13.6	38.5	5.81	5.53	5.53
L3008.1203-XYZR	25	13.6	38.5	5.81	5.53	5.53
L3108.2201-XYZR	-	13.6	38.5	9.10	8.60	8.60
L3108.2202-XYZR	-	13.6	38.5	9.10	8.60	8.60
L3108.2203-XYZR	38	13.6	38.5	9.10	8.60	8.60
L3108.2204-XYZR	38	13.6	38.5	9.10	8.60	8.60
L3108.3201-XYZR	-	13.6	38.5	12.05	11.47	11.47
L3108.3202-XYZR	-	13.6	38.5	12.05	11.47	11.47
L3108.3203-XYZR	51	13.6	38.5	12.05	11.47	11.47
L3108.3204-XYZR	51	13.6	38.5	12.05	11.47	11.47

MANUAL POSITIONING STAGES



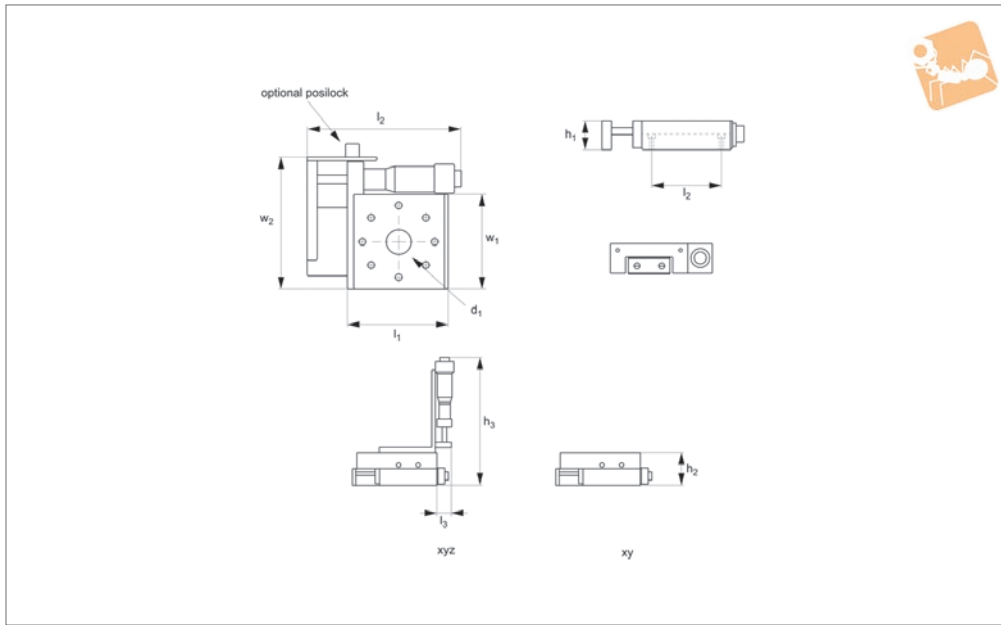




# Micrometer Positioning XY, XYZ

side drive, small sizes

# Manual Positioning Stages



## L3110

MANUAL POSITIONING STAGES

### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.

Straight line accuracy 12µ/25mm travel.

Repeatability 3µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

### Tips

Other options:

- LM (locking micrometer).
- PL (posi-lock carriage lock).

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

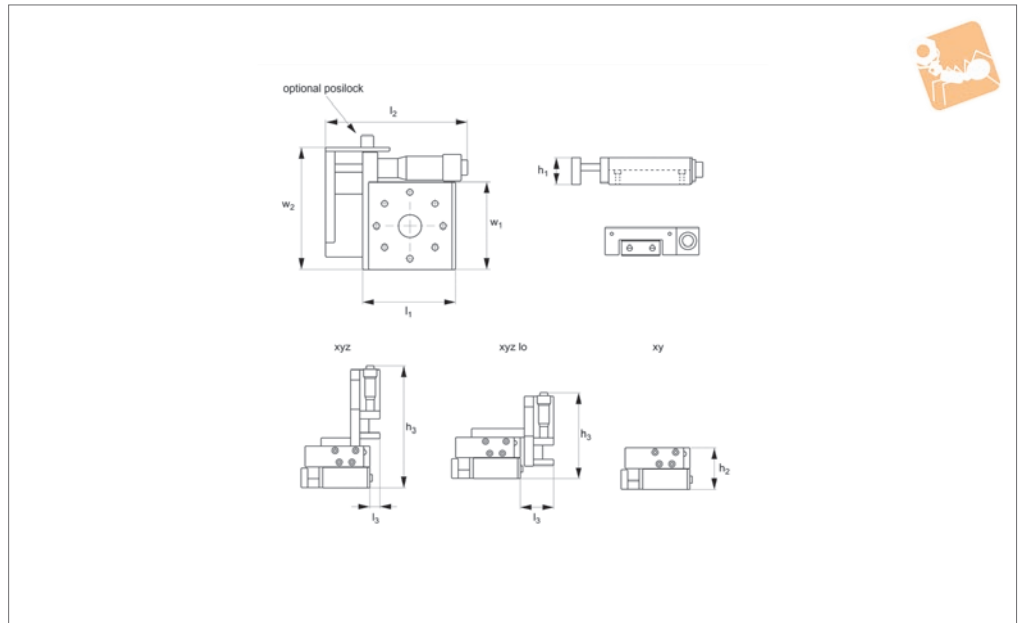
**3D CAD available.**

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>1</sub>	Weight kg
L3110.0101-XYB	XY Ball	13	9.7	19.0	-	31.8	54.9	-	31.8	1.8
L3110.0201-XYB	XY Ball	13	9.7	19.0	-	44.5	61.5	-	44.5	1.8
L3110.0101-XYR	XY Roller	13	9.7	19.0	-	31.8	54.9	-	31.8	10.4
L3110.0201-XYR	XY Roller	13	9.7	19.0	-	44.5	61.5	-	44.5	10.4
L3110.0101-XYZB	XYZ Ball	13	9.7	19.0	77.1	31.8	54.9	9.7	31.8	1.8
L3110.0201-XYZB	XYZ Ball	13	9.7	19.0	83.7	44.5	61.5	11.2	44.5	1.8
L3110.0101-XYZR	XYZ Roller	13	9.7	19.0	77.1	31.8	54.9	9.7	31.8	10.4
L3110.0201-XYZR	XYZ Roller	13	9.7	19.0	83.7	44.5	61.5	11.2	44.5	10.4

Order No.	w <sub>2</sub>	Load Z kg max.	Load X & Y kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.
L3110.0101-XYB	44.5	0.7	1.8	0.19	0.18	0.18
L3110.0201-XYB	57.4	0.7	1.8	0.28	0.27	0.27
L3110.0101-XYR	44.5	0.7	10.4	1.09	1.04	1.04
L3110.0201-XYR	57.4	0.7	10.4	1.64	1.56	1.56
L3110.0101-XYZB	44.5	0.7	1.8	0.19	0.18	0.18
L3110.0201-XYZB	57.4	0.7	1.8	0.28	0.27	0.27
L3110.0101-XYZR	44.5	0.7	10.4	1.09	1.04	1.04
L3110.0201-XYZR	57.4	0.7	10.4	1.64	1.56	1.56



## L3111



### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.

Straight line accuracy 12µ/25mm travel.

Repeatability 3µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

### Tips

Other options:

- LM (locking micrometer).
- PL (posi-lock carriage lock).

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>1</sub>	Weight kg
L3111.0301-XYB	XY Ball	13	15.7	31.8	-	38.1	55.4	-	38.1	5.4
L3111.0450-XYB	XY Ball	13	19.1	38.1	-	44.5	74.9	-	44.5	9.1
L3111.0451-XYB	XY Ball	25	19.1	38.1	-	44.5	114.5	-	44.5	9.1
L3111.0453-XYB	XY Ball	13	19.1	38.1	-	44.5	74.9	-	44.5	9.1
L3111.0750-XYB	XY Ball	13	25.4	50.8	-	66.5	89.4	-	66.5	27.2
L3111.0751-XYB	XY Ball	25	25.4	50.8	-	66.5	113.8	-	66.5	27.2
L3111.0753-XYB	XY Ball	13	25.4	50.8	-	66.5	89.4	-	66.5	27.2
L3111.0301-XYR	XY Roller	13	15.7	31.8	-	38.1	55.4	-	38.1	18.1
L3111.0450-XYR	XY Roller	13	19.1	38.1	-	44.5	74.9	-	44.5	18.1
L3111.0451-XYR	XY Roller	25	19.1	38.1	-	44.5	114.5	-	44.5	18.1
L3111.0453-XYR	XY Roller	13	19.1	38.1	-	44.5	74.9	-	44.5	18.1
L3111.0750-XYR	XY Roller	13	25.4	50.8	-	66.5	89.4	-	66.5	54.4
L3111.0751-XYR	XY Roller	25	25.4	50.8	-	66.5	113.8	-	66.5	54.4
L3111.0753-XYR	XY Roller	13	25.4	50.8	-	66.5	89.4	-	66.5	54.4
L3111.0301-XYZB	XYZ Ball	13	15.7	31.8	93.5	38.1	55.4	8.0	38.1	5.4
L3111.0450-XYZB	XYZ Ball	13	19.1	38.1	93.5	44.5	74.9	0	44.5	9.1
L3111.0451-XYZB	XYZ Ball	25	19.1	38.1	93.5	44.5	114.5	0	44.5	9.1
L3111.0453-XYZB	XYZ Ball	13	19.1	38.1	93.5	44.5	74.9	0	44.5	9.1
L3111.0750-XYZB	XYZ Ball	13	25.4	50.8	113.3	66.5	89.4	7.6	66.5	27.2
L3111.0751-XYZB	XYZ Ball	25	25.4	50.8	137.7	66.5	113.8	7.6	66.5	27.2
L3111.0753-XYZB	XYZ Ball	13	25.4	50.8	113.3	66.5	89.4	7.6	66.5	27.2
L3111.0301-XYZR	XYZ Roller	13	15.7	31.8	66.6	38.1	55.4	8.0	38.1	18.1
L3111.0450-XYZR	XYZ Roller	13	19.1	38.1	92.4	44.5	74.9	0	44.5	18.1
L3111.0451-XYZR	XYZ Roller	25	19.1	38.1	132.0	44.5	114.5	0	44.5	18.1
L3111.0453-XYZR	XYZ Roller	13	19.1	38.1	92.4	44.5	74.9	0	44.5	18.1
L3111.0750-XYZR	XYZ Roller	13	25.4	50.8	113.3	66.5	89.4	7.6	66.5	54.4
L3111.0751-XYZR	XYZ Roller	25	25.4	50.8	137.7	66.5	113.8	7.6	66.5	54.4
L3111.0753-XYZR	XYZ Roller	13	25.4	50.8	113.3	66.5	89.4	7.6	66.5	54.4



# Micrometer Positioning XY, XYZ

side drive, medium sizes

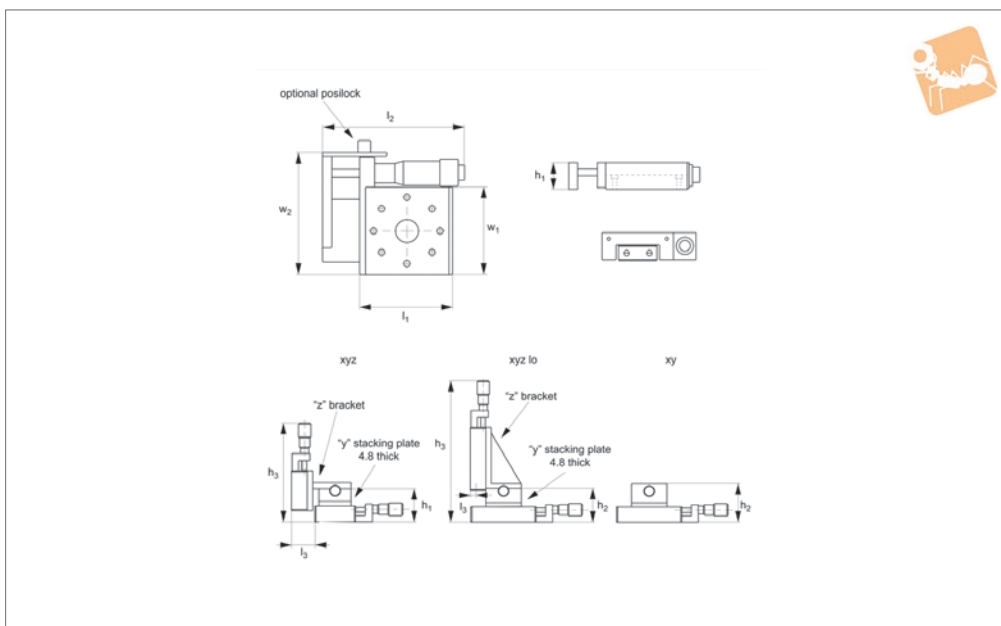
# Manual Positioning Stages

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>1</sub>	Weight kg
L3111.0301-XYZLB	XYZ Ball Lo	13	15.7	31.8	66.6	38.1	55.4	25.4	38.1	5.4
L3111.0450-XYZLB	XYZ Ball Lo	13	19.1	38.1	92.4	44.5	74.9	28.5	44.5	9.1
L3111.0451-XYZLB	XYZ Ball Lo	25	19.1	38.1	132.0	44.5	114.5	28.5	44.5	9.1
L3111.0453-XYZLB	XYZ Ball Lo	13	19.1	38.1	92.4	44.5	74.9	28.5	44.5	9.1
L3111.0750-XYZLB	XYZ Ball Lo	13	25.4	50.8	113.3	66.5	89.4	38.1	66.5	27.2
L3111.0751-XYZLB	XYZ Ball Lo	25	25.4	50.8	137.7	66.5	113.8	38.1	66.5	27.2
L3111.0753-XYZLB	XYZ Ball Lo	13	25.4	50.8	113.3	66.5	89.4	38.1	66.5	27.2
L3111.0301-XYZLR	XYZ Roller Lo	13	15.7	31.8	66.6	38.1	55.4	25.4	38.1	18.1
L3111.0450-XYZLR	XYZ Roller Lo	13	19.1	38.1	92.4	44.5	74.9	28.5	44.5	18.1
L3111.0451-XYZLR	XYZ Roller Lo	25	19.1	38.1	132.0	44.5	114.5	28.5	44.5	18.1
L3111.0453-XYZLR	XYZ Roller Lo	13	19.1	38.1	92.4	44.5	74.9	28.5	44.5	18.1
L3111.0750-XYZLR	XYZ Roller Lo	13	25.4	50.8	113.3	66.5	89.4	38.1	66.5	54.4
L3111.0751-XYZLR	XYZ Roller Lo	25	25.4	50.8	137.7	66.5	113.8	38.1	66.5	54.4
L3111.0753-XYZLR	XYZ Roller Lo	13	25.4	50.8	113.3	66.5	89.4	38.1	66.5	54.4

Order No.	w <sub>2</sub>	Through hole dia. d <sub>1</sub>	Load Z kg max.	Load X & XY kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.
L3111.0301-XYB	51.1	8	0.9	5.4	0.50	0.50	0.50
L3111.0450-XYB	61.0	-	0.9	9.1	0.96	0.96	0.96
L3111.0451-XYB	64.8	-	0.9	9.1	0.96	0.96	0.96
L3111.0453-XYB	61.0	13	0.9	9.1	0.96	0.96	0.96
L3111.0750-XYB	83.1	-	0.9	27.2	4.94	4.94	4.94
L3111.0751-XYB	87.1	-	0.9	27.2	4.94	4.94	4.94
L3111.0753-XYB	83.1	25	0.9	27.2	4.94	4.94	4.94
L3111.0301-XYR	51.1	8	0.9	18.1	2.88	2.88	2.88
L3111.0450-XYR	61.0	-	0.9	18.1	1.92	1.92	1.92
L3111.0451-XYR	64.8	-	0.9	18.1	1.92	1.92	1.92
L3111.0453-XYR	61.0	13	0.9	18.1	1.92	1.92	1.92
L3111.0750-XYR	83.1	-	0.9	54.4	9.88	9.88	9.88
L3111.0751-XYR	87.1	-	0.9	54.4	9.88	9.88	9.88
L3111.0753-XYR	83.1	25	0.9	54.4	9.88	9.88	9.88
L3111.0301-XYZB	51.1	8	0.9	5.4	0.50	0.50	0.50
L3111.0450-XYZB	61.0	-	0.9	9.1	0.96	0.96	0.96
L3111.0451-XYZB	64.8	-	0.9	9.1	0.96	0.96	0.96
L3111.0453-XYZB	61.0	13	0.9	9.1	0.96	0.96	0.96
L3111.0750-XYZB	83.1	-	0.9	27.2	4.94	4.94	4.94
L3111.0751-XYZB	87.1	-	0.9	27.2	4.94	4.94	4.94
L3111.0753-XYZB	83.1	25	0.9	27.2	4.94	4.94	4.94
L3111.0301-XYZR	51.1	8	0.9	18.1	2.88	2.88	2.88
L3111.0450-XYZR	61.0	-	0.9	18.1	1.92	1.92	1.92
L3111.0451-XYZR	64.8	-	0.9	18.1	1.92	1.92	1.92
L3111.0453-XYZR	61.0	13	0.9	18.1	1.92	1.92	1.92
L3111.0750-XYZR	83.1	-	0.9	54.4	9.88	9.88	9.88
L3111.0751-XYZR	87.1	-	0.9	54.4	9.88	9.88	9.88
L3111.0753-XYZR	83.1	25	0.9	54.4	9.88	9.88	9.88
L3111.0301-XYZLB	51.1	8	0.9	5.4	0.50	0.50	0.50
L3111.0450-XYZLB	61.0	-	0.9	9.1	0.96	0.96	0.96
L3111.0451-XYZLB	64.8	-	0.9	9.1	0.96	0.96	0.96
L3111.0453-XYZLB	61.0	13	0.9	9.1	0.96	0.96	0.96
L3111.0750-XYZLB	83.1	-	0.9	27.2	4.94	4.94	4.94
L3111.0751-XYZLB	87.1	-	0.9	27.2	4.94	4.94	4.94
L3111.0753-XYZLB	83.1	25	0.9	27.2	4.94	4.94	4.94
L3111.0301-XYZLR	51.1	8	0.9	18.1	2.88	2.88	2.88
L3111.0450-XYZLR	61.0	-	0.9	18.1	1.92	1.92	1.92
L3111.0451-XYZLR	64.8	-	0.9	18.1	1.92	1.92	1.92
L3111.0453-XYZLR	61.0	13	0.9	18.1	1.92	1.92	1.92
L3111.0750-XYZLR	83.1	-	0.9	54.4	9.88	9.88	9.88
L3111.0751-XYZLR	87.1	-	0.9	54.4	9.88	9.88	9.88
L3111.0753-XYZLR	83.1	25	0.9	54.4	9.88	9.88	9.88



## L3112



### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.  
Straight line accuracy 12µ/25mm travel.  
Repeatability 3µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

### Tips

Other options:  
- LM (locking micrometer).

- PL (posi-lock carriage lock).

Loads on the Z axis may extend springs if the loads are too heavy. These stages have the micrometer bracket reversed to prevent this and increase the Z load capacity.

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>1</sub>	Weight kg
L3112.0401-XYB	XY Ball	13	19.1	42.9	-	50.8	74.9	-	44.5	9.1
L3112.0501-XYB	XY Ball	13	19.1	42.9	-	82.6	105.4	-	44.5	19.0
L3112.0502-XYB	XY Ball	25	19.1	42.9	-	82.6	114.5	-	44.5	19.0
L3112.0701-XYB	XY Ball	13	25.4	55.6	-	101.6	124.5	-	66.5	27.2
L3112.0702-XYB	XY Ball	25	25.4	55.6	-	101.6	131.6	-	66.5	27.2
L3112.0401-XYR	XY Roller	13	19.1	42.9	-	50.8	74.9	-	44.5	18.1
L3112.0501-XYR	XY Roller	13	19.1	42.9	-	82.6	105.4	-	44.5	36.3
L3112.0502-XYR	XY Roller	25	19.1	42.9	-	82.6	114.5	-	44.5	36.3
L3112.0701-XYR	XY Roller	13	25.4	55.6	-	101.6	124.5	-	66.5	72.5
L3112.0702-XYR	XY Roller	25	25.4	55.6	-	101.6	131.6	-	66.5	72.5
L3112.0401-XYZB	XYZ Ball	13	19.1	42.9	124.2	50.8	74.9	14.6	44.5	9.1
L3112.0501-XYZB	XYZ Ball	13	19.1	42.9	154.7	82.6	105.4	0	44.5	19.0
L3112.0502-XYZB	XYZ Ball	25	19.1	42.9	163.8	82.6	114.5	0	44.5	19.0
L3112.0701-XYZB	XYZ Ball	13	25.4	55.6	189.5	101.6	124.5	9.3	66.5	27.2
L3112.0702-XYZB	XYZ Ball	25	25.4	55.6	196.6	101.6	131.6	9.3	66.5	27.2
L3112.0401-XYZR	XYZ Roller	13	19.1	42.9	124.2	50.8	74.9	14.6	44.5	18.1
L3112.0501-XYZR	XYZ Roller	13	19.1	42.9	154.7	82.6	105.4	0	44.5	36.3
L3112.0502-XYZR	XYZ Roller	25	19.1	42.9	163.8	82.6	114.5	0	44.5	36.3
L3112.0701-XYZR	XYZ Roller	13	25.4	55.6	189.5	101.6	124.5	9.3	66.5	72.5
L3112.0702-XYZR	XYZ Roller	25	25.4	55.6	196.6	101.6	131.6	9.3	66.5	72.5

Order No.	w <sub>2</sub>	Load Z kg max.	Load X & Y kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.
L3112.0401-XYB	61.0	9.0	9.1	0.96	0.96	0.96
L3112.0501-XYB	61.0	9.0	19.0	2.02	2.02	2.02



# Micrometer Positioning XY, XYZ

side drive, medium sizes

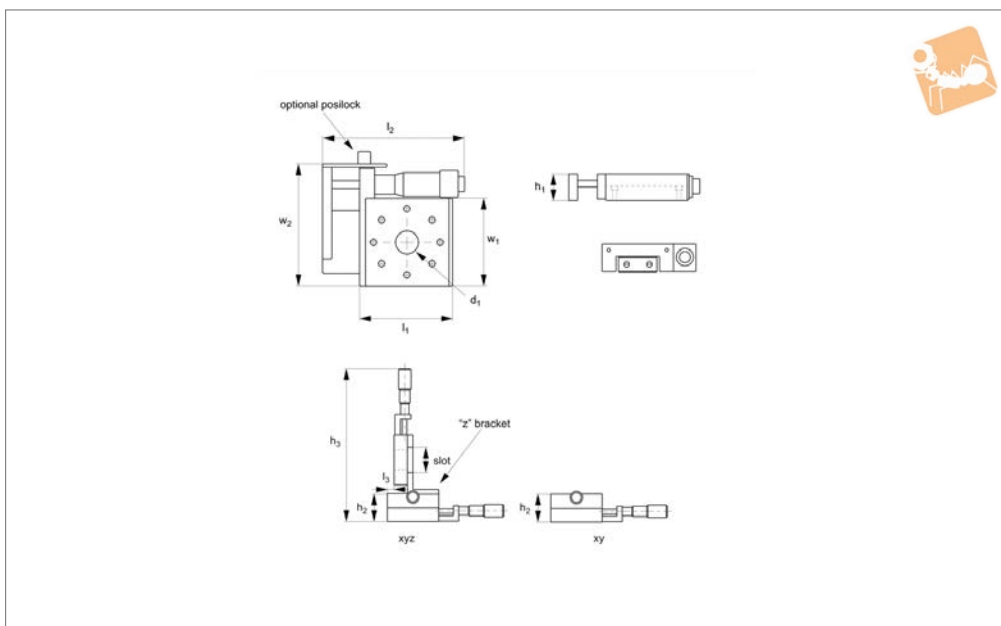
# Manual Positioning Stages

Order No.	w <sub>2</sub>	Load Z kg max.	Load X & Y kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.
L3112.0502-XYB	64.8	9.0	19.0	2.02	2.02	2.02
L3112.0701-XYB	84.1	9.0	27.2	4.94	4.94	4.94
L3112.0702-XYB	87.1	9.0	27.2	4.94	4.94	4.94
L3112.0401-XYR	61.0	9.0	18.1	1.92	1.92	1.92
L3112.0501-XYR	61.0	9.0	36.3	3.84	3.84	3.84
L3112.0502-XYR	64.8	9.0	36.3	3.84	3.84	3.84
L3112.0701-XYR	84.1	9.0	72.5	13.18	13.18	13.18
L3112.0702-XYR	87.1	9.0	72.5	13.18	13.18	13.18
L3112.0401-XYZB	61.0	9.0	9.1	0.96	0.96	0.96
L3112.0501-XYZB	61.0	9.0	19.0	2.02	2.02	2.02
L3112.0502-XYZB	64.8	9.0	19.0	2.02	2.02	2.02
L3112.0701-XYZB	84.1	9.0	27.2	4.94	4.94	4.94
L3112.0702-XYZB	87.1	9.0	27.2	4.94	4.94	4.94
L3112.0401-XYZR	61.0	9.0	18.1	1.92	1.92	1.92
L3112.0501-XYZR	61.0	9.0	36.3	3.84	3.84	3.84
L3112.0502-XYZR	64.8	9.0	36.3	3.84	3.84	3.84
L3112.0701-XYZR	84.1	9.0	72.5	13.18	13.18	13.18
L3112.0702-XYZR	87.1	9.0	72.5	13.18	13.18	13.18

MANUAL POSITIONING STAGES



## L3113



### Material

Aluminium carriage and base, black anodised steel fixing, hardened steel shafts and balls and roller elements

### Technical Notes

Ball roller versions recommended for light loads. Cross roller versions for heavier loads and moment loads.  
Straight line accuracy 12µ/25mm travel.  
Repeatability 3µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

**For further fixing and mounting hole dimensions please see part number L3100.FH.**

### Tips

Other options:  
- LM (locking micrometer).

- PL (posi-lock carriage lock).

Loads on the Z axis may extend springs if the loads are too heavy. These stages have the micrometer bracket reversed to prevent this and increase the Z load capacity.

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>1</sub>	Weight kg
L3113.1201-XYB	XY Ball	25	23.1	46.2	-	79.2	120.7	-	79.2	13.6
L3113.1203-XYB	XY Ball	25	23.1	46.2	-	79.2	120.7	-	79.2	13.6
L3113.2201-XYB	XY Ball	25	23.1	46.2	-	104.6	120.7	-	104.6	13.6
L3113.2202-XYB	XY Ball	50	23.1	46.2	-	104.6	171.7	-	104.6	13.6
L3113.2203-XYB	XY Ball	25	23.1	46.2	-	104.6	120.7	-	104.6	13.6
L3113.2204-XYB	XY Ball	50	23.1	46.2	-	104.6	171.7	-	104.6	13.6
L3113.3201-XYB	XY Ball	25	23.1	46.2	-	130.0	130.0	-	130.0	13.6
L3113.3202-XYB	XY Ball	50	23.1	46.2	-	130.0	171.7	-	130.0	13.6
L3113.3203-XYB	XY Ball	25	23.1	46.2	-	130.0	130.0	-	130.0	13.6
L3113.3204-XYB	XY Ball	50	23.1	46.2	-	130.0	171.7	-	130.0	13.6
L3113.1201-XYR	XY Roller	25	23.1	46.2	-	79.2	120.7	-	79.2	38.5
L3113.1203-XYR	XY Roller	25	23.1	46.2	-	79.2	120.7	-	79.2	38.5
L3113.2201-XYR	XY Roller	25	23.1	46.2	-	104.6	120.7	-	104.6	38.5
L3113.2202-XYR	XY Roller	50	23.1	46.2	-	104.6	171.7	-	104.6	38.5
L3113.2203-XYR	XY Roller	25	23.1	46.2	-	104.6	120.7	-	104.6	38.5
L3113.2204-XYR	XY Roller	50	23.1	46.2	-	104.6	171.7	-	104.6	38.5
L3113.3201-XYR	XY Roller	25	23.1	46.2	-	130.0	130.0	-	130.0	38.5
L3113.3202-XYR	XY Roller	50	23.1	46.2	-	130.0	171.7	-	130.0	38.5
L3113.3203-XYR	XY Roller	25	23.1	46.2	-	130.0	130.0	-	130.0	38.5
L3113.3204-XYR	XY Roller	50	23.1	46.2	-	130.0	171.7	-	130.0	38.5
L3113.1201-XYZB	XYZ Ball	25	23.1	46.2	186.2	79.2	120.7	8.4	79.2	13.6
L3113.1203-XYZB	XYZ Ball	25	23.1	46.2	186.2	79.2	120.7	8.4	79.2	13.6
L3113.2201-XYZB	XYZ Ball	25	23.1	46.2	198.9	104.6	120.7	13.2	104.6	13.6
L3113.2202-XYZB	XYZ Ball	50	23.1	46.2	249.9	104.6	171.7	13.2	104.6	13.6
L3113.2203-XYZB	XYZ Ball	25	23.1	46.2	198.9	104.6	120.7	13.2	104.6	13.6
L3113.2204-XYZB	XYZ Ball	50	23.1	46.2	249.9	104.6	171.7	13.2	104.6	13.6





# Micrometer Positioning XY, XYZ

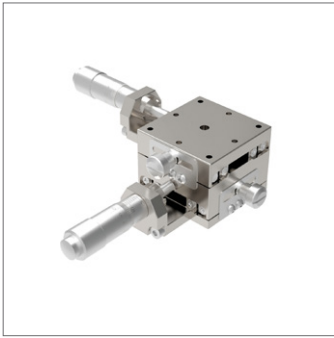
side drive, large sizes

# Manual Positioning Stages

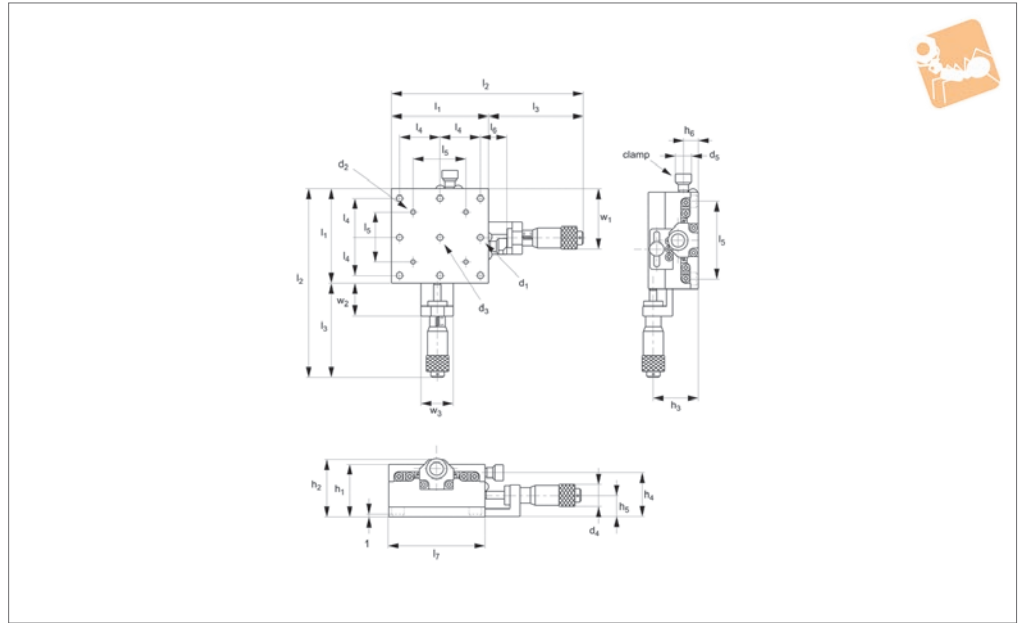
Order No.	Type	Travel	$h_1$	$h_2$	$h_3$	$l_1$	$l_2$	$l_3$	$w_1$	Weight kg
L3113.3201-XYZB	XYZ Ball	25	23.1	46.2	208.2	130.0	130.0	27.7	130.0	13.6
L3113.3202-XYZB	XYZ Ball	50	23.1	46.2	249.9	130.0	171.7	27.7	130.0	13.6
L3113.3203-XYZB	XYZ Ball	25	23.1	46.2	208.2	130.0	130.0	27.7	130.0	13.6
L3113.3204-XYZB	XYZ Ball	50	23.1	46.2	249.9	130.0	171.7	27.7	130.0	13.6
L3113.1201-XYZR	XYZ Roller	25	23.1	46.2	186.2	79.2	120.7	8.4	79.2	38.5
L3113.1203-XYZR	XYZ Roller	25	23.1	46.2	186.2	79.2	120.7	8.4	79.2	38.5
L3113.2201-XYZR	XYZ Roller	25	23.1	46.2	198.9	104.6	120.7	13.2	104.6	38.5
L3113.2202-XYZR	XYZ Roller	50	23.1	46.2	249.9	104.6	171.7	13.2	104.6	38.5
L3113.2203-XYZR	XYZ Roller	25	23.1	46.2	198.9	104.6	120.7	13.2	104.6	38.5
L3113.2204-XYZR	XYZ Roller	50	23.1	46.2	249.9	104.6	171.7	13.2	104.6	38.5
L3113.3201-XYZR	XYZ Roller	25	23.1	46.2	208.2	130.0	130.0	27.7	130.0	38.5
L3113.3202-XYZR	XYZ Roller	50	23.1	46.2	249.9	130.0	171.7	27.7	130.0	38.5
L3113.3203-XYZR	XYZ Roller	25	23.1	46.2	208.2	130.0	130.0	27.7	130.0	38.5
L3113.3204-XYZR	XYZ Roller	50	23.1	46.2	249.9	130.0	171.7	27.7	130.0	38.5

Order No.	$w_2$	Through hole $d_1$	Load Z kg max.	Load X & Y kg max.	X moment load Nm max.	Y moment load Nm max.	Z moment load Nm max.
L3113.1201-XYB	102.6	-	13.6	13.6	2.05	1.95	1.95
L3113.1203-XYB	102.6	25	13.6	13.6	2.05	1.95	1.95
L3113.2201-XYB	128.0	-	13.6	13.6	3.21	3.04	3.04
L3113.2202-XYB	128.0	-	13.6	13.6	3.21	3.04	3.04
L3113.2203-XYB	128.0	38	13.6	13.6	3.21	3.04	3.04
L3113.2204-XYB	128.0	38	13.6	13.6	3.21	3.04	3.04
L3113.3201-XYB	153.4	-	13.6	13.6	4.25	4.05	4.05
L3113.3202-XYB	153.4	-	13.6	13.6	4.25	4.05	4.05
L3113.3203-XYB	153.4	51	13.6	13.6	4.25	4.05	4.05
L3113.3204-XYB	153.4	51	13.6	13.6	4.25	4.05	4.05
L3113.1201-XYR	102.6	-	13.6	38.5	5.81	5.53	5.53
L3113.1203-XYR	102.6	25	13.6	38.5	5.81	5.53	5.53
L3113.2201-XYR	128.0	-	13.6	38.5	9.10	8.60	8.60
L3113.2202-XYR	128.0	-	13.6	38.5	9.10	8.60	8.60
L3113.2203-XYR	128.0	38	13.6	38.5	9.10	8.60	8.60
L3113.2204-XYR	128.0	38	13.6	38.5	9.10	8.60	8.60
L3113.3201-XYR	153.4	-	13.6	38.5	12.05	11.47	11.47
L3113.3202-XYR	153.4	-	13.6	38.5	12.05	11.47	11.47
L3113.3203-XYR	153.4	51	13.6	38.5	12.05	11.47	11.47
L3113.3204-XYR	153.4	51	13.6	38.5	12.05	11.47	11.47
L3113.1201-XYZB	102.6	-	13.6	13.6	2.05	1.95	1.95
L3113.1203-XYZB	102.6	25	13.6	13.6	2.05	1.95	1.95
L3113.2201-XYZB	128.0	-	13.6	13.6	3.21	3.04	3.04
L3113.2202-XYZB	128.0	-	13.6	13.6	3.21	3.04	3.04
L3113.2203-XYZB	128.0	38	13.6	13.6	3.21	3.04	3.04
L3113.2204-XYZB	128.0	38	13.6	13.6	3.21	3.04	3.04
L3113.3201-XYZB	153.4	-	13.6	13.6	4.25	4.05	4.05
L3113.3202-XYZB	153.4	-	13.6	13.6	4.25	4.05	4.05
L3113.3203-XYZB	153.4	51	13.6	13.6	4.25	4.05	4.05
L3113.3204-XYZB	153.4	51	13.6	13.6	4.25	4.05	4.05
L3113.1201-XYZR	102.6	-	13.6	38.5	5.81	5.53	5.53
L3113.1203-XYZR	102.6	25	13.6	38.5	5.81	5.53	5.53
L3113.2201-XYZR	128.0	-	13.6	38.5	9.10	8.60	8.60
L3113.2202-XYZR	128.0	-	13.6	38.5	9.10	8.60	8.60
L3113.2203-XYZR	128.0	38	13.6	38.5	9.10	8.60	8.60
L3113.2204-XYZR	128.0	38	13.6	38.5	9.10	8.60	8.60
L3113.3201-XYZR	153.4	-	13.6	38.5	12.05	11.47	11.47
L3113.3202-XYZR	153.4	-	13.6	38.5	12.05	11.47	11.47
L3113.3203-XYZR	153.4	51	13.6	38.5	12.05	11.47	11.47
L3113.3204-XYZR	153.4	51	13.6	38.5	12.05	11.47	11.47





## L3121



### Material

Stainless steel (440C) with electroless nickel plating.

### Technical Notes

Straightness accuracy 5µ.

Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.

Micrometer increments 0,01mm.

### Important Notes

Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).

**3D CAD available.**

Order No.	Travel	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub> tol. H7	d <sub>4</sub>	d <sub>5</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>
L3121.040	13	M3	-	4	13	10	32.0	35.0	29.0	26.5	13.0
L3121.060	13	M4	M3	4	13	10	32.0	35.0	29.0	26.5	13.0
L3121.080	25	M4	M3	4	13	10	40.0	44.3	36.8	34.5	16.8
L3121.100	25	M4	M4	4	13	10	40.0	44.3	36.8	34.5	16.8

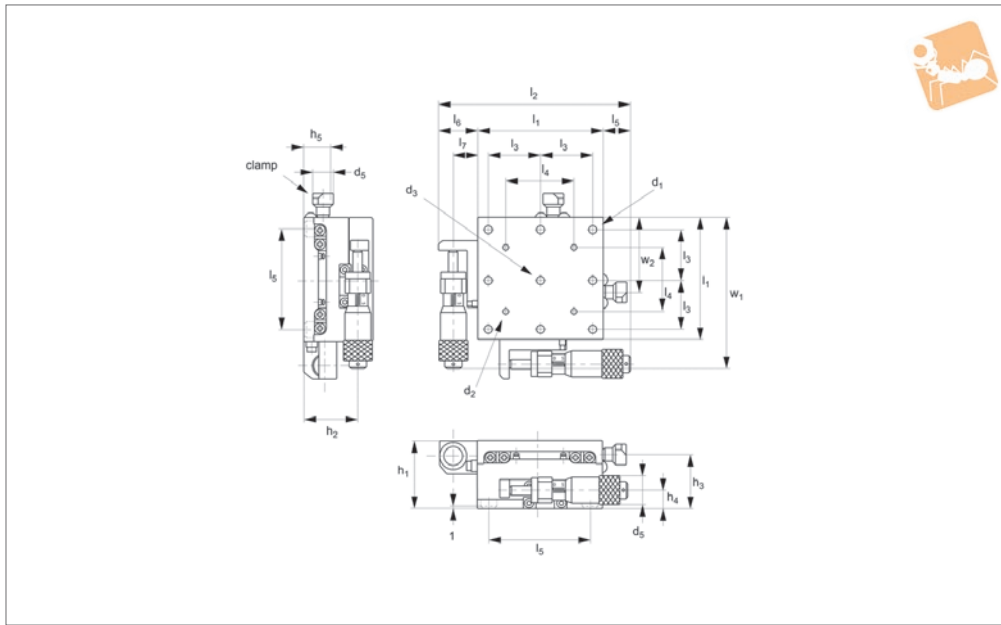
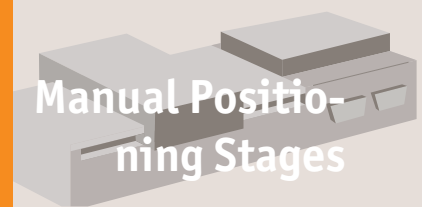
Order No.	h <sub>6</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	w <sub>1</sub>	w <sub>2</sub>	w <sub>3</sub>	Load kg max.
L3121.040	10.5	40	98.5	58.5	16	32	15.5	32	26	20.5	21	9.7
L3121.060	10.5	60	118.5	58.5	25	50	16.5	50	36	20.5	20	19.6
L3121.080	14.5	80	160	80.0	25	70	24.5	70	55	24.5	24	26.1
L3121.100	14.5	100	180	80.0	25	90	24.5	90	67.5	24.5	24	33.6



# Stainless Micrometer XY Stages

side drive

# Manual Positioning Stages



**L3123**

MANUAL POSITIONING STAGES

**Material**

Stainless steel (440C) with electroless nickel plating.

**Technical Notes**

Straightness accuracy 5µ.

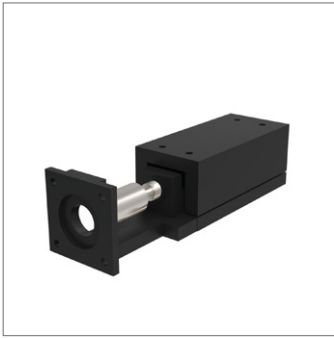
Spring loaded micrometer allows precise repeatable adjustments with low friction and zero backlash.  
Micrometer increments 0,01mm.

**Important Notes**

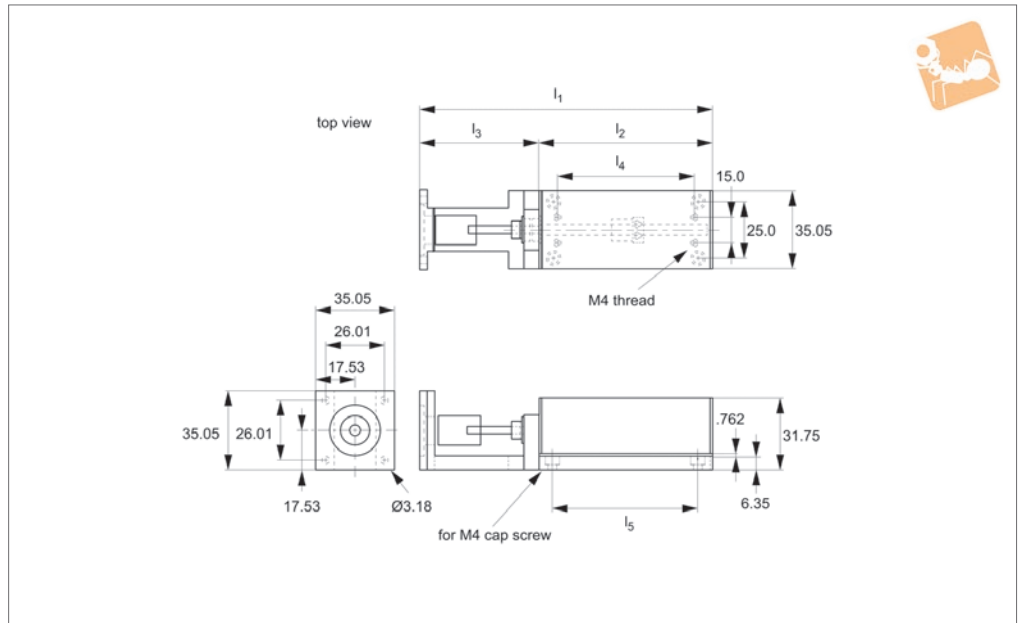
Stroke is centred on the mid-point of the slides (ie 50% of total stroke each way).  
**3D CAD available.**

Order No.	Travel	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>
L3123.040	13	M3	-	4	13	10	32.0	25.0	26.5	9	10.5
L3123.060	13	M4	M3	4	13	10	32.0	25.0	26.5	9	10.5
L3123.080	25	M4	M4	4	13	10	40.0	30.8	34.5	10.8	14.5
L3123.100	25	M4	M4	4	13	10	40.0	30.8	34.5	10.8	14.5

Order No.	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	w <sub>1</sub>	Load kg max.
L3123.040	40	82.3	16	-	23.8	18.5	12	75	9.7
L3123.060	60	92.3	25	32	13.8	18.5	12	73.75	19.6
L3123.080	80	136	25	70	32.5	23.5	17	123.7	26.1
L3123.100	100	141	25	90	17.5	23.5	17	128.7	33.6



## L3141



### Material

Black anodised aluminium. Hardened cross roller or ball slides, lead screw with anti-backlash nut.

### Technical Notes

Driven by lead screw 4.3mm diameter 0.5mm pitch lead with anti-backlash nut and zero backlash flexible coupling for 5mm motor shaft.

Cross roller versions are heavier duty.

Ready to accept Nema 14 motor. Max. 1200 rpm.

Accuracy 3µ/25mm, repeatability 3µ.

### Tips

Supplied without motor. We can quote to supply motors or can also supply with a handwheel for manual operation.

Available in XY and XYZ combinations.

### Important Notes

We can also offer end or travel and/or home position switches, normally open or normally closed, with 3 metre cables.

-EHP = end-of-travel and home switches, PNP.

-EHN = end-of-travel and home switches, NPN.

Order No.	Type	Travel	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.	Lead screw pitch	Load kg max.
L3141.025B-X	Ball	25	103.4	50.8	52.6	35	37	0.6	0.6	0.7	0.5	3.6
L3141.050B-X	Ball	50	128.8	76.2	52.6	60	60	0.8	1.3	1.4	0.5	4.5
L3141.075B-X	Ball	75	154.2	101.6	52.6	85	85	1.0	2.2	2.3	0.5	6.8
L3141.100B-X	Ball	100	211.3	152.4	58.9	135	100	1.4	5.5	5.8	0.5	9.1
L3141.025R-X	Roller	25	103.4	50.8	52.6	35	37	5.5	6.6	7.0	0.5	6.8
L3141.050R-X	Roller	50	128.8	76.2	52.6	60	60	6.3	9.5	10.0	0.5	9.1
L3141.075R-X	Roller	75	154.2	101.6	52.6	85	85	7.3	15.6	16.3	0.5	13.6
L3141.100R-X	Roller	100	211.3	152.4	58.9	135	100	12.8	46.7	49.1	0.5	18.1



# Lead Screw Driven XY & XYZ Stages

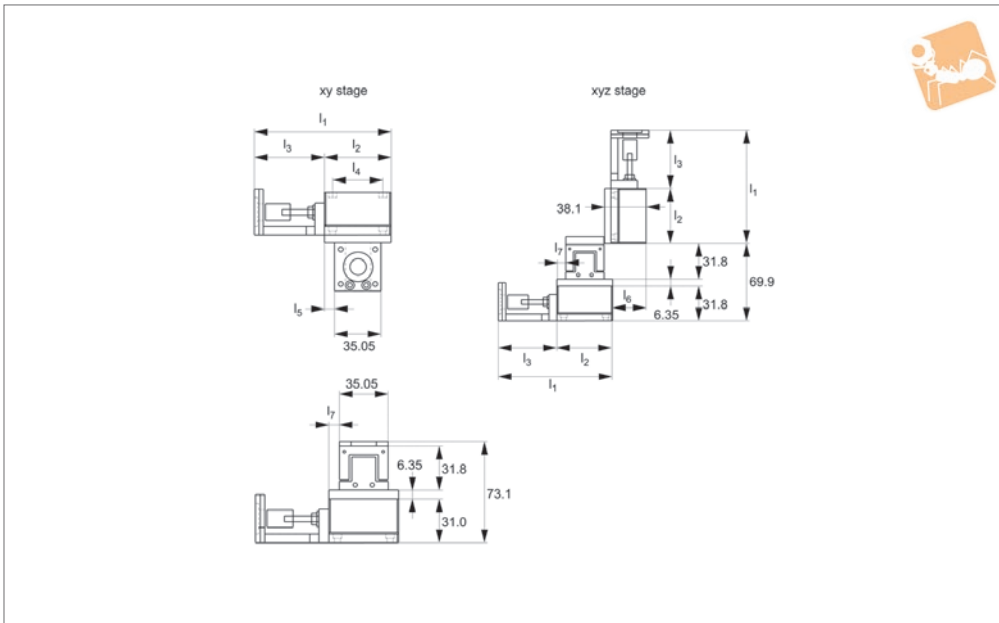
size 1 light duty, prepared for motor

## Manual Positioning Stages



**L3141.XY**

MANUAL POSITIONING STAGES



**Material**

Black anodised aluminium. Hardened cross roller or ball slides, lead screw with anti-backlash nut.

**Technical Notes**

Driven by lead screw 4.3mm diameter 0.5mm pitch lead with anti-backlash nut and zero backlash flexible coupling for 5mm motor shaft. Cross roller versions are heavier duty.

Ready to accept Nema 14 motor. Max. 1200 rpm.

Accuracy 3µ/25mm, repeatability 3µ.

**Tips**

For other fixing and mounting hole dimensions refer to the X stage layout. Supplied without motor. We can quote to supply motors or can also supply with a hand-wheel for manual operation.

Available in XY and XYZ combinations.

**Important Notes**

We can also offer end or travel and/or home position switches, normally open or normally closed, with 3 metre cables.

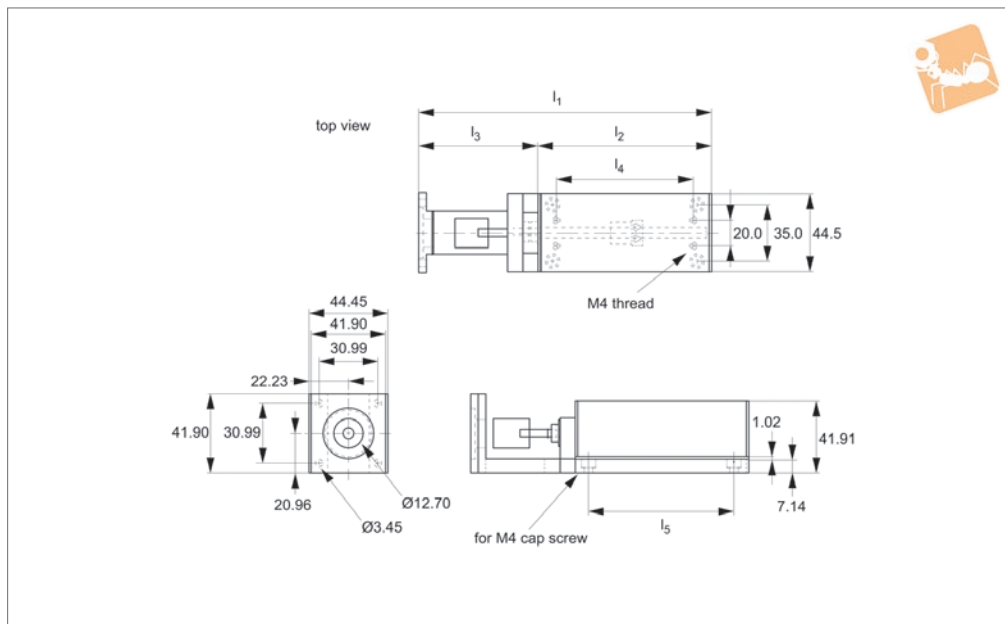
-EHP = end-of-travel and home switches, PNP.

-EHN = end-of-travel and home switches, NPN.

Order No.	Type	Travel	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.	Lead screw pitch	Load kg max.
L3141.025B-XY	XY Ball	25	103,4	50,8	52,6	35	37	30,20	7,87	0,63	0,68	0,71	0,5	3,6
L3141.050B-XY	XY Ball	50	128,8	76,2	52,6	60	60	17,52	20,57	0,83	1,36	1,42	0,5	4,5
L3141.075B-XY	XY Ball	75	154,2	101,6	52,6	85	85	25,15	34,04	1,04	2,26	2,37	0,5	6,8
L3141.100B-XY	XY Ball	100	211,3	152,4	58,9	135	100	25,15	58,67	1,46	5,54	5,81	0,5	9,1
L3141.025R-XY	XY Roller	25	103,4	50,8	52,6	35	37	30,20	7,87	5,50	6,68	7,02	0,5	6,8
L3141.050R-XY	XY Roller	50	128,8	76,2	52,6	60	60	17,52	20,57	6,29	9,55	10,03	0,5	9,1
L3141.075R-XY	XY Roller	75	154,2	101,6	52,6	85	85	25,15	34,04	7,34	15,59	16,37	0,5	13,6
L3141.100R-XY	XY Roller	100	211,3	152,4	58,9	135	100	25,15	58,67	12,84	46,77	49,11	0,5	18,1
L3141.025B-XYZ	XYZ Ball	25	103,4	50,8	52,6	35	37	30,20	7,87	0,63	0,68	0,71	0,5	3,6
L3141.050B-XYZ	XYZ Ball	50	128,8	76,2	52,6	60	60	17,52	20,57	0,83	1,36	1,42	0,5	4,5
L3141.075B-XYZ	XYZ Ball	75	154,2	101,6	52,6	85	85	25,15	34,04	1,04	2,26	2,37	0,5	6,8
L3141.100B-XYZ	XYZ Ball	100	211,3	152,4	58,9	135	100	25,15	58,67	1,46	5,54	5,81	0,5	9,1
L3141.025R-XYZ	XYZ Roller	25	103,4	50,8	52,6	35	37	30,20	7,87	5,50	6,68	7,02	0,5	6,8
L3141.050R-XYZ	XYZ Roller	50	128,8	76,2	52,6	60	60	17,52	20,57	6,29	9,55	10,03	0,5	9,1
L3141.075R-XYZ	XYZ Roller	75	154,2	101,6	52,6	85	85	25,15	34,04	7,34	15,59	16,37	0,5	13,6
L3141.100R-XYZ	XYZ Roller	100	211,3	152,4	58,9	135	100	25,15	58,67	12,84	46,77	49,11	0,5	18,1



## L3142



### Material

Black anodised aluminium. Hardened cross roller or ball slides, lead screw with anti-backlash nut.

### Technical Notes

Driven by lead screw 6.3mm diameter 2mm pitch lead with anti-backlash nut and zero backlash flexible coupling for 5mm motor shaft. Cross roller versions are heavier duty.

For other lead screw pitches replace -02X with -01X (for 1mm) and -03X (for 3mm). Ready to accept Nema 17 motor. Max. 1200 rpm. Accuracy 3µ/25mm, repeatability 3µ.

### Tips

Supplied without motor. We can quote to supply motors or can also supply with a handwheel for manual operation. Available in XY and XYZ combinations.

### Important Notes

We can also offer end or travel and/or home position switches, normally open or normally closed, with 3 metre cables.  
 -EHP = end-of-travel and home switches, PNP.  
 -EHN = end-of-travel and home switches, NPN.

Order No.	Type	Travel	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.	Lead screw pitch	Load kg max.
L3142.025B-02X	Ball	25	124.0	57.2	66.8	35	38	0.9	0.9	0.9	2	4.5
L3142.038B-02X	Ball	38	143.0	76.2	66.8	55	55	1.4	2.0	2.1	2	6.8
L3142.050B-02X	Ball	50	155.7	88.9	66.8	65	65	2.0	3.3	3.5	2	9.1
L3142.075B-02X	Ball	75	174.8	108.0	66.8	85	85	2.5	4.7	4.9	2	11.0
L3142.100B-02X	Ball	100	219.2	152.4	66.8	140	100	2.8	9.5	9.9	2	14.0
L3142.025R-02X	Roller	25	124.0	57.2	66.8	35	38	6.3	6.6	7.0	2	9.1
L3142.038R-02X	Roller	38	143.0	76.2	66.8	55	55	7.0	10.4	11.1	2	14.0
L3142.050R-02X	Roller	50	155.7	88.9	66.8	65	65	8.4	13.3	14.0	2	18.0
L3142.075R-02X	Roller	75	174.8	108.0	66.8	85	85	9.9	15.6	16.3	2	23.0
L3142.100R-02X	Roller	100	219.2	152.4	66.8	140	100	14.8	46.7	49.1	2	27.0



# Lead Screw Driven XY & XYZ Stages

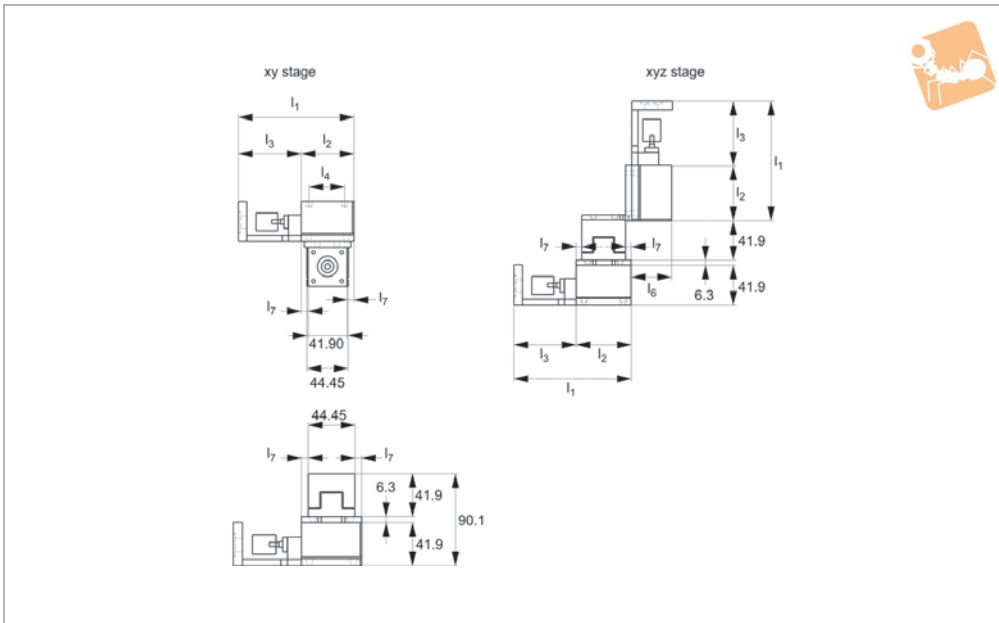
size 2 medium duty, prepared for motor

## Manual Positioning Stages



### L3142.XY

MANUAL POSITIONING STAGES



#### Material

Black anodised aluminium. Hardened cross roller or ball slides, lead screw with anti-backlash nut.

#### Technical Notes

Driven by lead screw 6.3mm diameter 2mm pitch lead with anti-backlash nut and zero backlash flexible coupling for 5mm motor shaft. Cross roller versions are heavier duty.

For other lead screw pitches replace -02X with -01X (for 1mm) and -03X (for 3mm). Ready to accept Nema 17 motor. Max. 1200 rpm. Accuracy  $3\mu/25\text{mm}$ , repeatability  $3\mu$ .

#### Tips

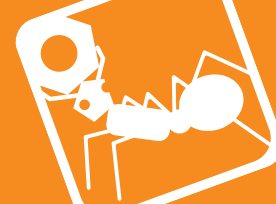
For other fixing and mounting hole dimensions refer to the X stage layout. Supplied without motor. We can quote to supply motors or can also supply with a hand-

wheel for manual operation. Available in XY and XYZ combinations.

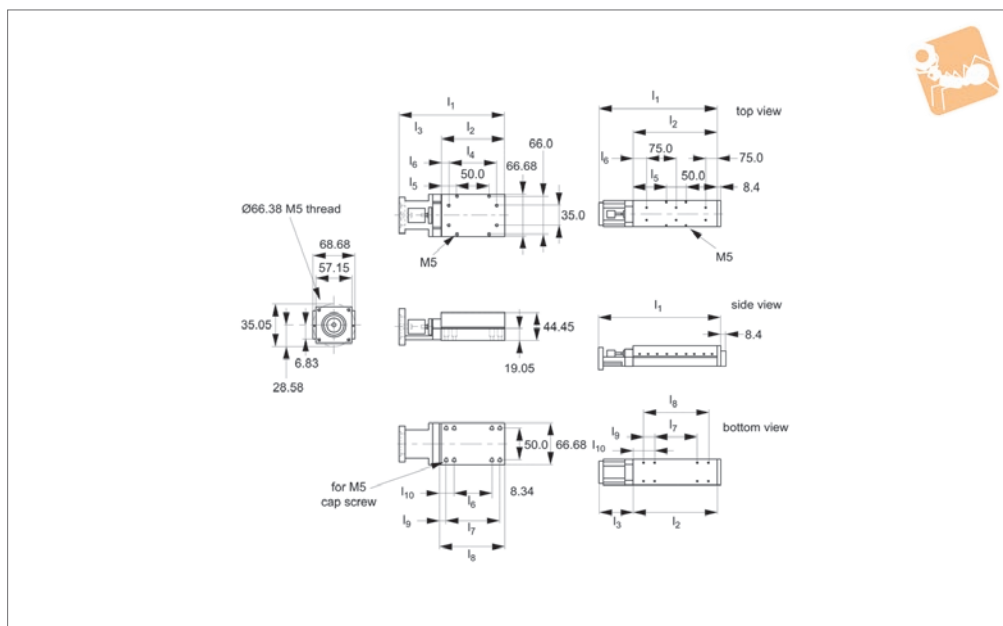
#### Important Notes

We can also offer end or travel and/or home position switches, normally open or normally closed, with 3 metre cables. -EHP = end-of-travel and home switches, PNP. -EHN = end-of-travel and home switches, NPN.

Order No.	Type	Travel	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.	Lead screw pitch	Load kg max.
L3142.025B-02XY	XY Ball	25	124,0	57,2	66,8	35	38	41,91	6,35	0,93	0,90	0,95	2	4,5
L3142.038B-02XY	XY Ball	38	143,0	76,2	66,8	55	55	32,39	15,88	1,44	2,03	2,14	2	6,8
L3142.050B-02XY	XY Ball	50	155,7	88,9	66,8	65	65	26,04	22,23	2,02	3,32	3,49	2	9,1
L3142.075B-02XY	XY Ball	75	174,8	108,0	66,8	85	85	16,51	31,75	2,50	4,70	4,94	2	11,0
L3142.100B-02XY	XY Ball	100	219,2	152,4	66,8	140	100	45,09	53,98	2,88	9,49	9,97	2	14,0
L3142.025R-02XY	XY Roller	25	124,0	57,2	66,8	35	38	41,91	6,35	6,34	6,68	7,02	2	9,1
L3142.038R-02XY	XY Roller	38	143,0	76,2	66,8	55	55	32,39	15,88	7,06	10,42	11,12	2	14,0
L3142.050R-02XY	XY Roller	50	155,7	88,9	66,8	65	65	26,04	22,23	8,46	13,36	14,03	2	18,0
L3142.075R-02XY	XY Roller	75	174,8	108,0	66,8	85	85	16,51	31,75	9,86	15,59	16,29	2	23,0
L3142.100R-02XY	XY Roller	100	219,2	152,4	66,8	140	100	45,09	53,98	14,80	46,77	49,11	2	27,0
L3142.025B-02XYZ	XYZ Ball	25	124,0	57,2	66,8	35	38	41,91	6,35	0,93	0,90	0,95	2	4,5
L3142.038B-02XYZ	XYZ Ball	38	143,0	76,2	66,8	55	55	32,39	15,88	1,44	2,03	2,14	2	6,8
L3142.050B-02XYZ	XYZ Ball	50	155,7	88,9	66,8	65	65	26,04	22,23	2,02	3,32	3,49	2	9,1
L3142.075B-02XYZ	XYZ Ball	75	174,8	108,0	66,8	85	85	16,51	31,75	2,50	4,70	4,94	2	11,0
L3142.100B-02XYZ	XYZ Ball	100	219,2	152,4	66,8	140	100	45,09	53,98	2,88	9,49	9,97	2	14,0
L3142.025R-02XYZ	XYZ Roller	25	124,0	57,2	66,8	35	38	41,91	6,35	6,34	6,68	7,02	2	9,1
L3142.038R-02XYZ	XYZ Roller	38	143,0	76,2	66,8	55	55	32,385	15,88	7,06	10,42	11,12	2	14,0
L3142.050R-02XYZ	XYZ Roller	50	155,7	88,9	66,8	65	65	26,035	22,23	8,46	13,36	14,03	2	18,0
L3142.075R-02XYZ	XYZ Roller	75	174,8	108,0	66,8	85	85	16,51	31,75	9,86	15,59	16,29	2	23,0
L3142.100R-02XYZ	XYZ Roller	100	219,2	152,4	66,8	140	100	45,085	53,98	14,80	46,77	49,11	2	27,0



## L3143



### Material

Black anodised aluminium. Hardened cross roller or ball slides, lead screw with anti-backlash nut.

### Technical Notes

Driven by lead screw 10mm diameter 2mm pitch lead with anti-backlash nut and zero backlash flexible coupling for 8mm motor shaft. Cross roller versions are heavier duty.

For other lead screw pitches replace -02X with -03X (for 3mm) and -20X (for 20mm). Ready to accept Nema 23 motor. Max. 1200 rpm (for 2mm pitch) and 600 rpm for 3mm and 20mm lead screw pitch options. Accuracy 3µ/25mm, repeatability 3µ.

### Tips

Supplied without motor. We can quote to supply motors or can also supply with a

handwheel for manual operation. Available in XY and XYZ combinations.

### Important Notes

We can also offer end or travel and/or home position switches, normally open or normally closed, with 3 metre cables.  
 -EHP = end-of-travel and home switches, PNP.  
 -EHN = end-of-travel and home switches, NPN.

Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>10</sub>	l <sub>11</sub>	l <sub>12</sub>
L3143.025B-02X	Ball	25	95	-	8	143	8.0	5	52
L3143.050B-02X	Ball	50	95	-	8	168	21.0	17	40
L3143.075B-02X	Ball	75	95	-	8	194	33.5	30	27
L3143.100B-02X	Ball	100	95	-	19	219	46.0	43	14
L3143.150B-02X	Ball	150	104	10	44	321	64.5	81	-24
L3143.200B-02X	Ball	200	104	10	70	397	64.5	106	-49
L3143.250B-02X	Ball	250	104	10	95	473	65.0	132	-75
L3143.300B-02X	Ball	300	104	10	121	549	65.5	157	-100
L3143.025R-02X	Roller	25	95	-	8	143	8.0	5	52
L3143.050R-02X	Roller	50	95	-	8	168	21.0	17	40
L3143.075R-02X	Roller	75	95	-	8	194	33.5	30	27
L3143.100R-02X	Roller	100	95	-	19	219	46.0	43	14
L3143.150R-02X	Roller	150	104	10	44	321	64.5	81	-24
L3143.200R-02X	Roller	200	104	10	70	397	64.5	106	-49
L3143.250R-02X	Roller	250	104	10	95	473	65.0	132	-75
L3143.300R-02X	Roller	300	104	10	121	549	65.5	157	-100

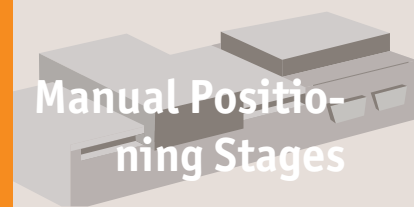
Order No.	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	l <sub>8</sub>	l <sub>9</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Lead screw pitch	Load kg max.
L3143.025B-02X	76	67	55	13.0	10.5	60	-	-	2.47	1.9	2.0	2	14
L3143.050B-02X	102	67	75	26.0	13.5	60	85	8.5	5.11	6.8	7.2	2	16
L3143.075B-02X	127	67	100	38.5	13.5	60	110	8.5	7.25	12.5	13.1	2	18
L3143.100B-02X	152	67	125	51.0	13.5	60	135	8.5	9.72	10.5	21.5	2	20
L3143.150B-02X	229	92	-	89.5	39.5	100	175	27.0	12.35	40.3	42.3	2	25
L3143.200B-02X	279	118	-	114.5	27.0	150	225	27.0	13.84	49.9	53.9	2	27
L3143.250B-02X	330	143	-	140.0	15.0	200	275	27.5	16.03	71.1	75.1	2	34





# Lead Screw Driven Stages

size 3 medium duty, prepared for motor



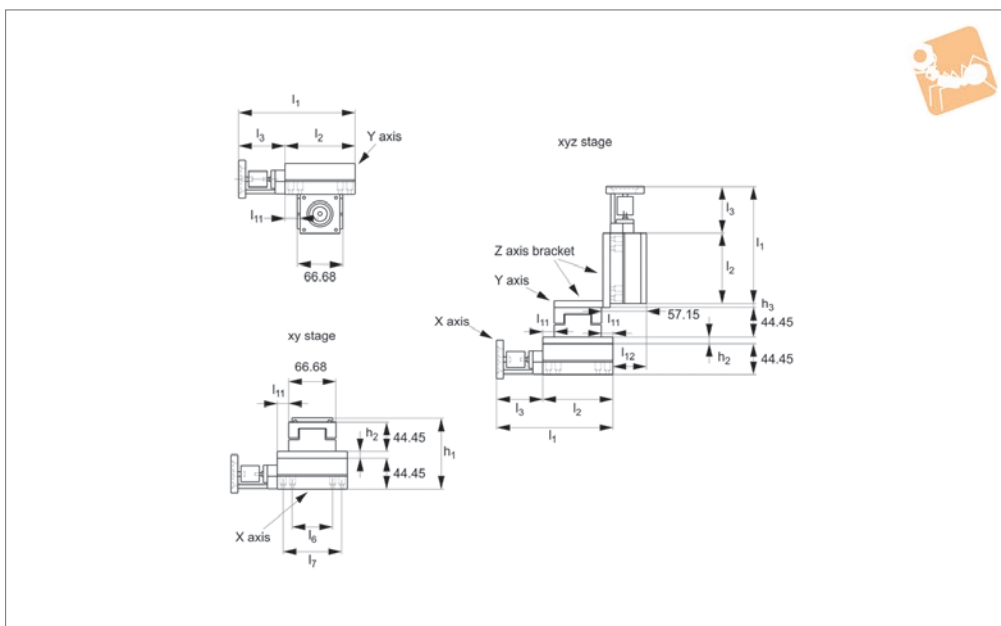
# Manual Positioning Stages

Order No.	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	l <sub>8</sub>	l <sub>9</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Lead screw pitch	Load kg max.
L3143.300B-02X	381	168	-	165.5	40.5	250	325	28.0	16.89	81.0	85.1	2	41
L3143.025R-02X	76	67	55	13.0	10.5	60	-	-	21.54	17.9	18.8	2	27
L3143.050R-02X	102	67	75	26.0	13.5	60	85	8.5	28.72	35.8	37.5	2	32
L3143.075R-02X	127	67	100	38.5	13.5	60	110	8.5	35.91	59.6	62.6	2	36
L3143.100R-02X	152	67	125	51.0	13.5	60	135	8.5	42.75	74.5	78.3	2	41
L3143.150R-02X	229	92	-	89.5	39.5	100	175	27.0	57.45	167.0	175.4	2	50
L3143.200R-02X	279	118	-	114.5	27.0	150	225	27.0	64.35	206.8	223.3	2	54
L3143.250R-02X	330	143	-	140.0	15.0	200	275	27.5	74.54	294.6	311.2	2	68
L3143.300R-02X	381	168	-	165.5	40.5	250	325	28.0	78.78	324.4	352.7	2	82

MANUAL POSITIONING STAGES



## L3143.XY



### Material

Black anodised aluminium. Hardened cross roller or ball slides, lead screw with anti-backlash nut.

### Technical Notes

Driven by lead screw 10mm diameter 2mm pitch lead with anti-backlash nut and zero backlash flexible coupling for 8mm motor shaft. Cross roller versions are heavier duty.

For other lead screw pitches replace -02X

with -03X (for 3mm) and -20X (for 20mm). Ready to accept Nema 23 motor. Max. 1200 rpm (for 2mm pitch) and 600 rpm for 3mm and 20mm lead screw pitch options. Accuracy  $3\mu/25\text{mm}$ , repeatability  $3\mu$ .

### Tips

For other fixing and mounting hole dimensions refer to the X stage layout. Supplied without motor. We can quote to supply motors or can also supply with a hand-wheel for manual operation.

Available in XY and XYZ combinations.

### Important Notes

We can also offer end or travel and/or home position switches, normally open or normally closed, with 3 metre cables.

-EHP = end-of-travel and home switches, PNP.

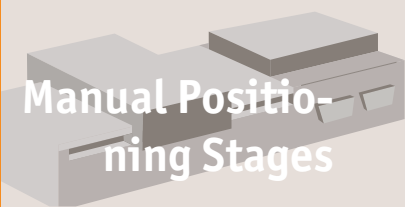
-EHN = end-of-travel and home switches, NPN.

Order No.	Type	Travel	$h_1$	$h_2$	$h_3$	$l_1$	$l_{10}$	$l_{11}$	$l_{12}$
L3143.025B-02XY	XY Ball	25	95	-	8	143	8.0	5	52
L3143.050B-02XY	XY Ball	50	95	-	8	168	21.0	17	40
L3143.075B-02XY	XY Ball	75	95	-	8	194	33.5	30	27
L3143.100B-02XY	XY Ball	100	95	-	19	219	46.0	43	14
L3143.150B-02XY	XY Ball	150	104	10	44	321	64.5	81	-24
L3143.200B-02XY	XY Ball	200	104	10	70	397	64.5	106	-49
L3143.250B-02XY	XY Ball	250	104	10	95	473	65.0	132	-75
L3143.300B-02XY	XY Ball	300	104	10	121	549	65.5	157	-100
L3143.025R-02XY	XY Roller	25	95	-	8	143	8.0	5	52
L3143.050R-02XY	XY Roller	50	95	-	8	168	21.0	17	40
L3143.075R-02XY	XY Roller	75	95	-	8	194	33.5	30	27
L3143.100R-02XY	XY Roller	100	95	-	19	219	46.0	43	14
L3143.150R-02XY	XY Roller	150	104	10	44	321	64.5	81	-24
L3143.200R-02XY	XY Roller	200	104	10	70	397	64.5	106	-49
L3143.250R-02XY	XY Roller	250	104	10	95	473	65.0	132	-75
L3143.300R-02XY	XY Roller	300	104	10	121	549	65.5	157	-100
L3143.025B-02XYZ	XYZ Ball	25	95	-	8	143	8.0	5	52
L3143.050B-02XYZ	XYZ Ball	50	95	-	8	168	21.0	17	40
L3143.075B-02XYZ	XYZ Ball	75	95	-	8	194	33.5	30	27
L3143.100B-02XYZ	XYZ Ball	100	95	-	19	219	46.0	43	14
L3143.150B-02XYZ	XYZ Ball	150	104	10	44	321	64.5	81	-24
L3143.200B-02XYZ	XYZ Ball	200	104	10	70	397	64.5	106	-49
L3143.250B-02XYZ	XYZ Ball	250	104	10	95	473	65.0	132	-75
L3143.300B-02XYZ	XYZ Ball	300	104	10	121	549	65.5	157	-100
L3143.025R-02XYZ	XYZ Roller	25	95	-	8	143	8.0	5	52
L3143.050R-02XYZ	XYZ Roller	50	95	-	8	168	21.0	17	40



# Lead Screw Driven XY & XYZ Stages

size 3 medium duty, prepared for motor



## Manual Positioning Stages




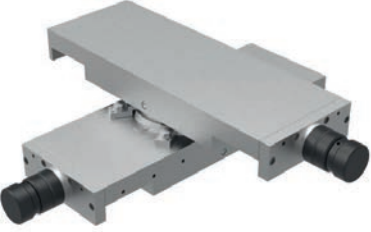
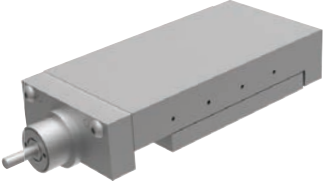
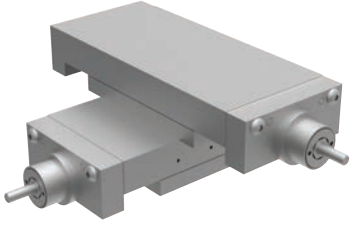
Order No.	Type	Travel	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>1</sub>	l <sub>10</sub>	l <sub>11</sub>	l <sub>12</sub>
L3143.075R-02XYZ	XYZ Roller	75	95	-	8	194	33.5	30	27
L3143.100R-02XYZ	XYZ Roller	100	95	-	19	219	46.0	43	14
L3143.150R-02XYZ	XYZ Roller	150	104	10	44	321	64.5	81	-24
L3143.200R-02XYZ	XYZ Roller	200	104	10	70	397	64.5	106	-49
L3143.250R-02XYZ	XYZ Roller	250	104	10	95	473	65.0	132	-75
L3143.300R-02XYZ	XYZ Roller	300	104	10	121	549	65.5	157	-100

Order No.	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	l <sub>8</sub>	l <sub>9</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Lead screw pitch	Load kg max.
L3143.025B-02XY	76	67	55	13.0	10.5	60	-	-	2.47	1.90	1.99	2	14
L3143.050B-02XY	102	67	75	26.0	13.5	60	85	8.5	5.11	6.86	7.21	2	16
L3143.075B-02XY	127	67	100	38.5	13.5	60	110	8.5	7.25	12.53	13.15	2	18
L3143.100B-02XY	152	67	125	51.0	13.5	60	135	8.5	9.72	10.53	21.56	2	20
L3143.150B-02XY	229	92	-	89.5	39.5	100	175	27.0	12.35	40.34	42.35	2	25
L3143.200B-02XY	279	118	-	114.5	27.0	150	225	27.0	13.84	49.94	53.92	2	27
L3143.250B-02XY	330	143	-	140.0	15.0	200	275	27.5	16.03	71.14	75.16	2	34
L3143.300B-02XY	381	168	-	165.5	40.5	250	325	28.0	16.89	81.07	85.12	2	41
L3143.025R-02XY	76	67	55	13.0	10.5	60	-	-	21.54	17.90	18.79	2	27
L3143.050R-02XY	102	67	75	26.0	13.5	60	85	8.5	28.72	35.79	37.58	2	32
L3143.075R-02XY	127	67	100	38.5	13.5	60	110	8.5	35.91	59.66	62.64	2	36
L3143.100R-02XY	152	67	125	51.0	13.5	60	135	8.5	42.75	74.57	78.30	2	41
L3143.150R-02XY	229	92	-	89.5	39.5	100	175	27.0	57.45	167.04	175.39	2	50
L3143.200R-02XY	279	118	-	114.5	27.0	150	225	27.0	64.35	206.81	223.29	2	54
L3143.250R-02XY	330	143	-	140.0	15.0	200	275	27.5	74.54	294.61	311.25	2	68
L3143.300R-02XY	381	168	-	165.5	40.5	250	325	28.0	78.78	324.41	352.70	2	82
L3143.025B-02XYZ	76	67	55	13.0	10.5	60	-	-	2.47	1.90	1.99	2	14
L3143.050B-02XYZ	102	67	75	26.0	13.5	60	85	8.5	5.11	6.86	7.21	2	16
L3143.075B-02XYZ	127	67	100	38.5	13.5	60	110	8.5	7.25	12.53	13.15	2	18
L3143.100B-02XYZ	152	67	125	51.0	13.5	60	135	8.5	9.72	10.53	21.56	2	20
L3143.150B-02XYZ	229	92	-	89.5	39.5	100	175	27.0	12.35	40.34	42.35	2	25
L3143.200B-02XYZ	279	118	-	114.5	27.0	150	225	27.0	13.84	49.94	53.92	2	27
L3143.250B-02XYZ	330	143	-	140.0	15.0	200	275	27.5	16.03	71.14	75.16	2	34
L3143.300B-02XYZ	381	168	-	165.5	40.5	250	325	28.0	16.89	81.07	85.12	2	41
L3143.025R-02XYZ	76	67	55	13.0	10.5	60	-	-	21.54	17.90	18.79	2	27
L3143.050R-02XYZ	102	67	75	26.0	13.5	60	85	8.5	28.72	35.79	37.58	2	32
L3143.075R-02XYZ	127	67	100	38.5	13.5	60	110	8.5	35.91	59.66	62.64	2	36
L3143.100R-02XYZ	152	67	125	51.0	13.5	60	135	8.5	42.75	74.57	78.30	2	41
L3143.150R-02XYZ	229	92	-	89.5	39.5	100	175	27.0	57.45	167.04	175.39	2	50
L3143.200R-02XYZ	279	118	-	114.5	27.0	150	225	27.0	64.35	206.81	223.29	2	54
L3143.250R-02XYZ	330	143	-	140.0	15.0	200	275	27.5	74.54	294.61	311.25	2	68
L3143.300R-02XYZ	381	168	-	165.5	40.5	250	325	28.0	78.78	324.41	352.70	2	82

MANUAL POSITIONING STAGES



### Heavy duty linear stages

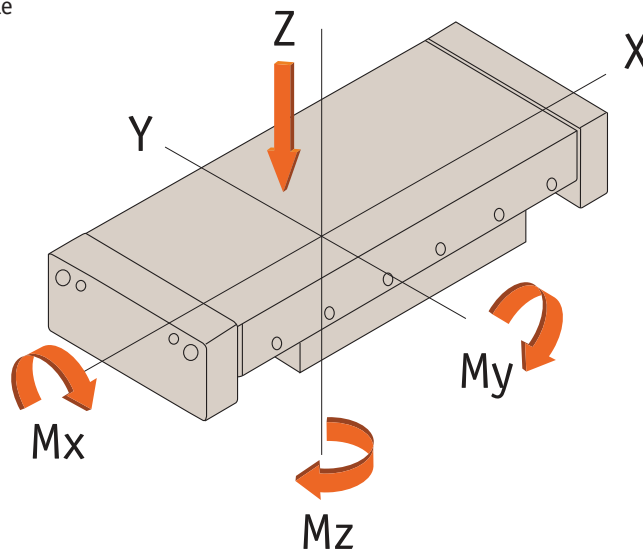
<p><b>Plain stages</b></p> 	<p><b>Lead screw &amp; handle</b></p> 	<p><b>Lead screw &amp; knob</b></p> 
<p><b>XYθ stage</b></p> 	<p><b>Motorised stage</b></p> 	<p><b>XY stage</b></p> 

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.

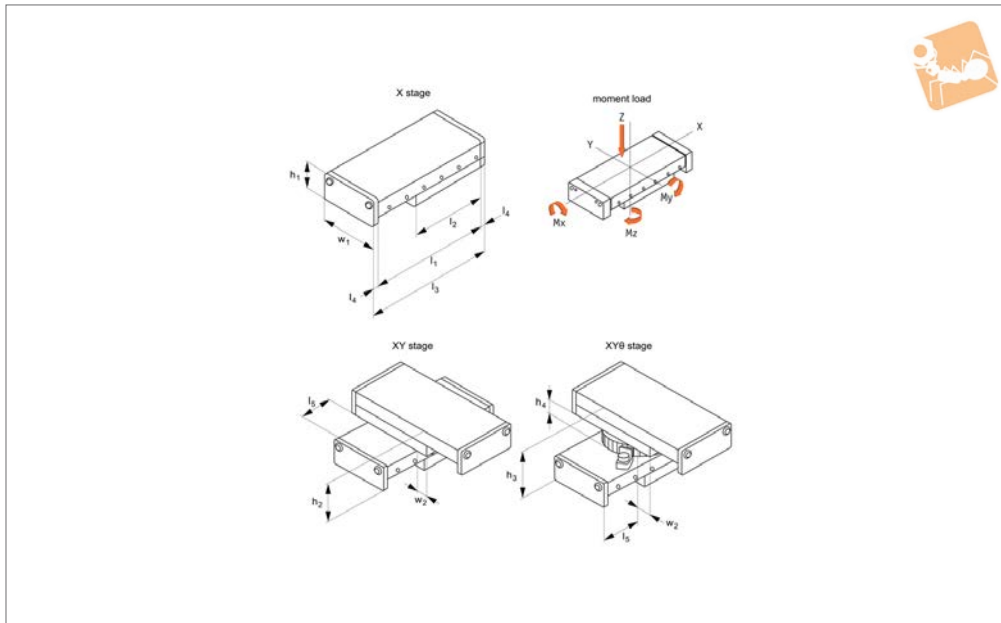




# Plain Positioning Stages

cross roller

# Manual Positioning Stages



## L3170

MANUAL POSITIONING STAGES

### Material

Cast iron body (ENGJL-250), with hardened cross roller linear rail set.

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. Other versions

are also available - dovetail slides (L3480) for vibration damping, 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 0,003.

### Tips

With no lead screw drive.

### Replace -\* with

-X for X axis stage

-XY for X,Y axes stage

### -XYT for X,Y,θ stage

Centre mounting of compound slides is standard. Please advise dimensions  $w_2$  and  $l_5$  when off-centre mounting is required.

### 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.	$w_1$	Stroke	$l_1$	$h_1$	$h_2$	$h_3$	$h_4$	$l_2$	$l_3$	Weight kg
L3170.050-022-*	50	22	76	25	50	-	-	50	88	0.6
L3170.050-025-*	50	25	102	25	50	-	-	76	114	0.8
L3170.050-050-*	50	50	152	25	50	-	-	101	164	1.1
L3170.075-025-*	75	25	102	32	64	82	18	76	114	1.8
L3170.075-026-*	75	25	127	32	64	82	18	101	139	2.0
L3170.075-050-*	75	50	152	32	64	82	18	101	164	2.5
L3170.100-025-*	100	25	152	37	74	92	18	126	164	4.0
L3170.100-050-*	100	50	203	37	74	92	18	152	215	4.7
L3170.100-051-*	100	50	254	37	74	92	18	203	266	6.1
L3170.100-075-*	100	75	305	37	74	92	18	228	317	7.0
L3170.150-050-*	150	50	203	50	100	120	20	152	219	10.0
L3170.150-100-*	150	100	305	50	100	120	20	203	321	13.2
L3170.150-101-*	150	100	406	50	100	120	20	304	422	18.0
L3170.150-150-*	150	150	406	50	100	120	20	253	422	16.5
L3170.200-150-*	200	150	457	58	116	136	20	304	473	30.0
L3170.200-200-*	200	200	610	58	116	136	20	406	626	40.0
L3170.300-100-*	300	100	410	75	150	180	30	308	430	59.0
L3170.300-200-*	300	200	610	75	150	180	30	408	630	80.0
L3170.300-300-*	300	300	710	75	150	180	30	408	730	91.5
L3170.300-400-*	300	400	910	75	150	180	30	508	930	110
L3170.300-500-*	300	500	1010	75	150	180	30	508	1030	125
L3170.300-600-*	300	600	1210	75	150	180	30	608	1230	145



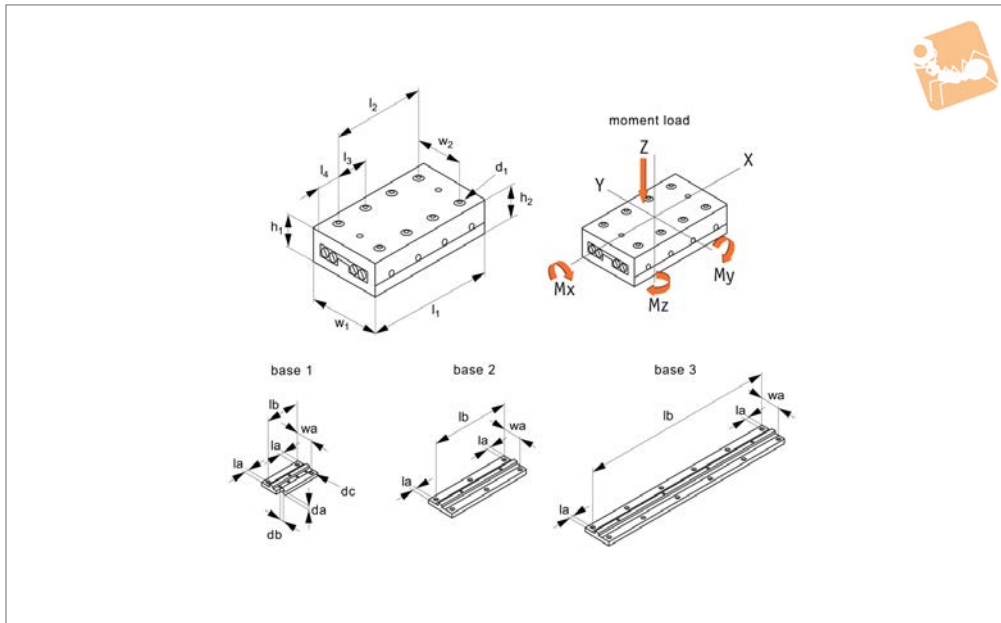
Order No.	$l_4$	$l_5$	$w_2$	Load kN max.	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.
L3170.050-022.*	6	13.0	0.0	0.34	12	5.7	6.4
L3170.050-025.*	6	26.0	13.0	0.59	20	17	19
L3170.050-050.*	6	51.0	25.5	0.74	25	26	29
L3170.075-025.*	6	13.5	0.5	0.59	32	18	19
L3170.075-026.*	6	26.0	13.0	0.84	45	37	39
L3170.075-050.*	6	38.5	13.0	0.74	40	27	29
L3170.100-025.*	6	26.0	13.0	1.08	67	41	48
L3170.100-050.*	6	51.5	26.0	1.23	76	52	62
L3170.100-051.*	6	77.0	51.5	1.72	106	104	124
L3170.100-075.*	6	102.5	64.0	1.82	112	118	141
L3170.150-050.*	8	26.5	1.0	2.60	220	104	123
L3170.150-100.*	8	77.5	26.5	3.20	270	157	186
L3170.150-101.*	8	128.0	77.0	5.43	460	460	545
L3170.150-150.*	8	128.0	51.5	3.82	324	220	260
L3170.200-150.*	8	128.5	52.0	5.03	705	445	455
L3170.200-200.*	8	205.0	103.0	6.64	935	798	815
L3170.300-100.*	10	55.0	4.0	8.38	3190	800	825
L3170.300-200.*	10	155.0	54.0	10.4	3950	1205	1245
L3170.300-300.*	10	205.0	54.0	8.38	3190	800	825
L3170.300-400.*	10	305.0	104.0	10.4	3950	1205	1245
L3170.300-500.*	10	355.0	104.0	8.38	3190	800	825
L3170.300-600.*	10	455.0	154.0	10.4	3950	1205	1245



# Plain Compact Positioning Stages

cross roller

# Manual Positioning Stages



## L3171

MANUAL POSITIONING STAGES

### Material

Cast iron body (ENGJL-250), with hardened cross roller linear rail set.

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

Other versions are also available - dovetail slides (L3480) for vibration damping, 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.  
Coefficient of friction 0,003.

### 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.	w <sub>1</sub>	Stroke	d <sub>1</sub>	d <sub>a</sub>	d <sub>b</sub>	d <sub>c</sub>	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	Hole pattern	l <sub>2</sub>	Weight kg
L3171.030-012	30	12	4.3	2.3	2.4	4.3	25	17	9.0	1	1xl <sub>3</sub>	0.1
L3171.030-018	30	18	4.3	2.3	2.4	4.3	35	17	9.0	1	2xl <sub>3</sub>	0.1
L3171.030-025	30	25	4.3	2.3	2.4	4.3	45	17	9.0	1	3xl <sub>3</sub>	0.1
L3171.030-032	30	32	4.3	2.3	2.4	4.3	55	17	9.0	2	4xl <sub>3</sub>	0.2
L3171.030-040	30	40	4.3	2.3	2.4	4.3	65	17	9.0	2	5xl <sub>3</sub>	0.2
L3171.030-045	30	45	4.3	2.3	2.4	4.3	75	17	9.0	2	6xl <sub>3</sub>	0.2
L3171.030-050	30	50	4.3	2.3	2.4	4.3	85	17	9.0	2	7xl <sub>3</sub>	0.3
L3171.040-018	40	18	6.0	3.5	3.4	6.0	35	21	11.0	1	1xl <sub>3</sub>	0.2
L3171.040-030	40	30	6.0	3.5	3.4	6.0	50	21	11.0	1	2xl <sub>3</sub>	0.3
L3171.040-040	40	40	6.0	3.5	3.4	6.0	65	21	11.0	1	3xl <sub>3</sub>	0.3
L3171.040-050	40	50	6.0	3.5	3.4	6.0	80	21	11.0	2	4xl <sub>3</sub>	0.4
L3171.040-060	40	60	6.0	3.5	3.4	6.0	95	21	11.0	2	5xl <sub>3</sub>	0.5
L3171.040-070	40	70	6.0	3.5	3.4	6.0	110	21	11.0	2	6xl <sub>3</sub>	0.6
L3171.040-080	40	80	6.0	3.5	3.4	6.0	125	21	11.0	2	7xl <sub>3</sub>	0.7
L3171.060-030	60	30	8.0	4.5	4.5	8.0	55	28	14.5	1	1xl <sub>3</sub>	0.6
L3171.060-045	60	45	8.0	4.5	4.5	8.0	80	28	14.5	1	2xl <sub>3</sub>	0.8
L3171.060-060	60	60	8.0	4.5	4.5	8.0	105	28	14.5	1	3xl <sub>3</sub>	1.0
L3171.060-075	60	75	8.0	4.5	4.5	8.0	130	28	14.5	1	4xl <sub>3</sub>	1.3
L3171.060-090	60	90	8.0	4.5	4.5	8.0	155	28	14.5	2	5xl <sub>3</sub>	1.5
L3171.060-105	60	105	8.0	4.5	4.5	8.0	180	28	14.5	2	6xl <sub>3</sub>	1.7
L3171.060-130	60	130	8.0	4.5	4.5	8.0	205	28	14.5	3	7xl <sub>3</sub>	2.0
L3171.100-060	100	60	11.0	6.5	6.6	11.0	110	45	23.5	1	1xl <sub>3</sub>	3.1
L3171.100-095	100	95	11.0	6.5	6.6	11.0	160	45	23.5	1	2xl <sub>3</sub>	4.5
L3171.100-130	100	130	11.0	6.5	6.6	11.0	210	45	23.5	2	3xl <sub>3</sub>	5.9
L3171.100-165	100	165	11.0	6.5	6.6	11.0	260	45	23.5	2	4xl <sub>3</sub>	7.2
L3171.100-200	100	200	11.0	6.5	6.6	11.0	310	45	23.5	2	5xl <sub>3</sub>	8.6
L3171.100-235	100	235	11.0	6.5	6.6	11.0	360	45	23.5	3	6xl <sub>3</sub>	10.0
L3171.100-265	100	265	11.0	6.5	6.6	11.0	410	45	23.5	3	7xl <sub>3</sub>	11.4
L3171.145-130	145	130	15.0	8.5	9.0	15.0	210	60	32.0	1	1xl <sub>3</sub>	11.8





Order No.	w <sub>1</sub>	Stroke	d <sub>1</sub>	d <sub>a</sub>	d <sub>b</sub>	d <sub>c</sub>	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	Hole pattern	l <sub>2</sub>	Weight kg
L3171.145-180	145	180	15.0	8.5	9.0	15.0	310	60	32.0	1	2x <sub>l<sub>3</sub></sub>	17.3
L3171.145-350	145	350	15.0	8.5	9.0	15.0	410	60	32.0	2	3x <sub>l<sub>3</sub></sub>	22.8
L3171.145-450	145	450	15.0	8.5	9.0	15.0	510	60	32.0	2	4x <sub>l<sub>3</sub></sub>	28.3
L3171.145-550	145	550	15.0	8.5	9.0	15.0	610	60	32.0	2	5x <sub>l<sub>3</sub></sub>	33.8
L3171.145-650	145	650	15.0	8.5	9.0	15.0	710	60	32.0	3	6x <sub>l<sub>3</sub></sub>	39.3
L3171.145-750	145	750	15.0	8.5	9.0	15.0	810	60	32.0	2	7x <sub>l<sub>3</sub></sub>	44.8
L3171.145-850	145	850	15.0	8.5	9.0	15.0	910	60	32.0	3	8x <sub>l<sub>3</sub></sub>	50.3
L3171.145-950	145	950	15.0	8.5	9.0	15.0	1010	60	32.0	2	9x <sub>l<sub>3</sub></sub>	55.8

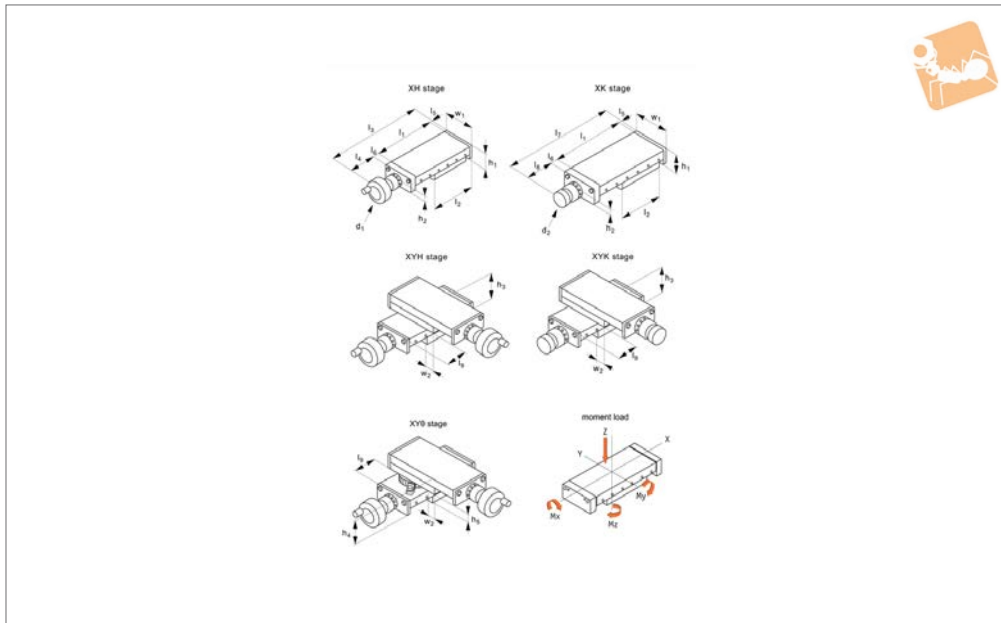
Order No.	l <sub>3</sub>	l <sub>4</sub>	l <sub>a</sub>	l <sub>b</sub>	w <sub>2</sub>	w <sub>a</sub>	Load kN max.	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.
L3171.030-012	10	7.5	3.5	1x18	18.4	22	0.16	1.4	0.4	0.4
L3171.030-018	10	7.5	3.5	1x18	18.4	22	0.28	2.4	1.2	1.3
L3171.030-025	10	7.5	3.5	1x38	18.5	22	0.36	3.0	2.1	2.4
L3171.030-032	10	7.5	3.5	1x10 / 1x28 / 1x10	18.6	22	0.44	3.7	3.3	3.7
L3171.030-040	10	7.5	3.5	1x10 / 1x38 / 1x10	18.7	22	0.52	4.4	4.7	5.2
L3171.030-045	10	7.5	3.5	1x10 / 1x48 / 1x10	18.8	22	0.60	5.1	6.6	7.3
L3171.030-050	10	7.5	3.5	1x10 / 1x58 / 1x10	18.9	22	0.72	6.1	9.3	10
L3171.040-018	15	10	5.0	1x25	25.0	30	0.29	3.8	1.3	1.5
L3171.040-030	15	10	5.0	1x40	25.0	30	0.41	5.4	2.9	3.2
L3171.040-040	15	10	5.0	1x55	25.0	30	0.59	7.7	5.9	6.6
L3171.040-050	15	10	5.0	1x15 / 1x40 / 1x15	25.0	30	0.71	9.2	9.1	10
L3171.040-060	15	10	5.0	1x15 / 1x55 / 1x15	25.0	30	0.89	11	14	15
L3171.040-070	15	10	5.0	1x15 / 1x70 / 1x15	25.0	30	1.01	13	18	21
L3171.040-080	15	10	5.0	1x15 / 1x85 / 1x15	25.0	30	1.19	15	25	28
L3171.060-030	25	15	10.0	1x35	39.0	40	0.70	12	5.1	5.6
L3171.060-045	25	15	10.0	1x60	39.0	40	1.0	18	11	13
L3171.060-060	25	15	10.0	1x85	39.0	40	1.40	25	23	25
L3171.060-075	25	15	10.0	1x110	39.0	40	1.70	30	36	40
L3171.060-090	25	15	10.0	1x25 / 1x85 / 1x25	39.0	40	2.10	38	54	60
L3171.060-105	25	15	10.0	1x25 / 1x110 / 1x25	39.0	40	2.40	43	73	81
L3171.060-130	25	15	10.0	2x25 / 1x85 / 2x22	39.0	40	27.0	49	91	101
L3171.100-060	50	30	10.0	1x90	64.0	60	2.05	59	28	33
L3171.100-095	50	30	10.0	1x140	64.0	60	3.20	93	70	83
L3171.100-130	50	30	10.0	1x50 / 1x85 / 1x50	64.0	60	4.37	127	131	156
L3171.100-165	50	30	10.0	1x50 / 1x140 / 1x50	64.0	60	5.20	152	200	235
L3171.100-200	50	30	10.0	1x50 / 1x190 / 1x50	64.0	60	6.40	186	295	350
L3171.100-235	50	30	10.0	2x50 / 1x140 / 1x50	64.0	60	7.28	210	395	470
L3171.100-265	50	30	10.0	2x50 / 1x190 / 1x50	64.0	60	8.45	245	530	635
L3171.145-130	100	55	55.0	1x100	98.0	90	6.90	270	180	210
L3171.145-180	100	55	55.0	1x200	98.0	90	11.5	455	500	590
L3171.145-350	100	55	55.0	3x100	98.0	90	12.2	485	575	680
L3171.145-450	100	55	55.0	1x100/1x200/1x100	98.0	90	14.5	575	855	1010
L3171.145-550	100	55	55.0	5x100	98.0	90	17.6	695	1240	1465
L3171.145-650	100	55	55.0	2x10/1x200/2x100	98.0	90	19.9	790	1635	1930
L3171.145-750	100	55	55.0	7x100	98.0	90	23.0	910	2155	2545
L3171.145-850	100	55	55.0	3x100/1x200/3x100	98.0	90	25.3	1000	2665	3150
L3171.145-950	100	55	55.0	9x100	98.0	90	28.3	1125	3320	3920



# Manual Lead Screw Stages

cross roller

# Manual Positioning Stages



## L3172

MANUAL POSITIONING STAGES

### Material

Cast iron body (ENGJL-250), with hardened cross roller linear rail set. Hardened and ground lead screw, pitch accuracy  $\pm 0.02\text{mm}/300\text{mm}$ . 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. Other versions are also available - dovetail slides (L3480) for vibration damping, 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 0,003.

### Tips

Replace -\* with  
-XH for X axis stage with handle

- XK for X axis stage with knob
- XYH for X,Y axes stage with handle
- XYK for X,Y axes stage with knob
- XYTH for X,Y,. stage with handle
- XYTK for X,Y,. stage with knob

### 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.	$w_1$	Stroke	$d_1$	$d_2$	$l_1$	$h_1$	$h_2$	$h_3$	$h_4$	$h_5$	$l_2$	$l_3$	Weight kg
L3172.050-022-*	50	22	50	23.9	76	25	12.5	50	-	-	50	156	0.6
L3172.050-025-*	50	25	50	23.9	102	25	12.5	50	-	-	76	182	0.8
L3172.050-050-*	50	50	50	23.9	152	25	12.5	50	-	-	101	232	1.1
L3172.075-025-*	75	25	56	31	102	32	16.0	64	82	18	76	193	1.8
L3172.075-026-*	75	25	56	31	127	32	16.0	64	82	18	101	218	2.0
L3172.075-050-*	75	50	56	31	152	32	16.0	64	82	18	101	243	2.5
L3172.100-025-*	100	25	56	35	152	37	18.0	74	92	18	126	243	4.0
L3172.100-050-*	100	50	56	35	203	37	18.0	74	92	18	152	294	4.7
L3172.100-051-*	100	50	56	35	254	37	18.0	74	92	18	203	345	6.1
L3172.100-075-*	100	75	56	35	305	37	18.0	74	92	18	228	396	7.0
L3172.150-050-*	150	50	106	48	203	50	24.3	100	120	20	152	334	10.0
L3172.150-100-*	150	100	106	48	305	50	24.3	100	120	20	203	436	13.2
L3172.150-101-*	150	100	106	48	406	50	24.3	100	120	20	304	537	18.0
L3172.150-150-*	150	150	106	48	406	50	24.3	100	120	20	253	537	16.5
L3172.200-150-*	200	150	106	48	457	58	28.3	116	136	20	304	588	30.0
L3172.200-200-*	200	200	106	48	610	58	28.3	116	136	20	406	741	40.0
L3172.300-100-*	300	100	125	68	410	75	35.0	150	180	30	308	607	59.0
L3172.300-200-*	300	200	125	68	610	75	35.0	150	180	30	408	807	80.0
L3172.300-300-*	300	300	125	68	408	75	35.0	150	180	30	408	907	91.5
L3172.300-400-*	300	400	125	68	910	75	35.0	150	180	30	508	1107	110.0
L3172.300-500-*	300	500	125	68	1010	75	35.0	150	180	30	508	1207	125.0
L3172.300-600-*	300	600	125	68	1210	75	35.0	150	180	30	608	1407	145.0



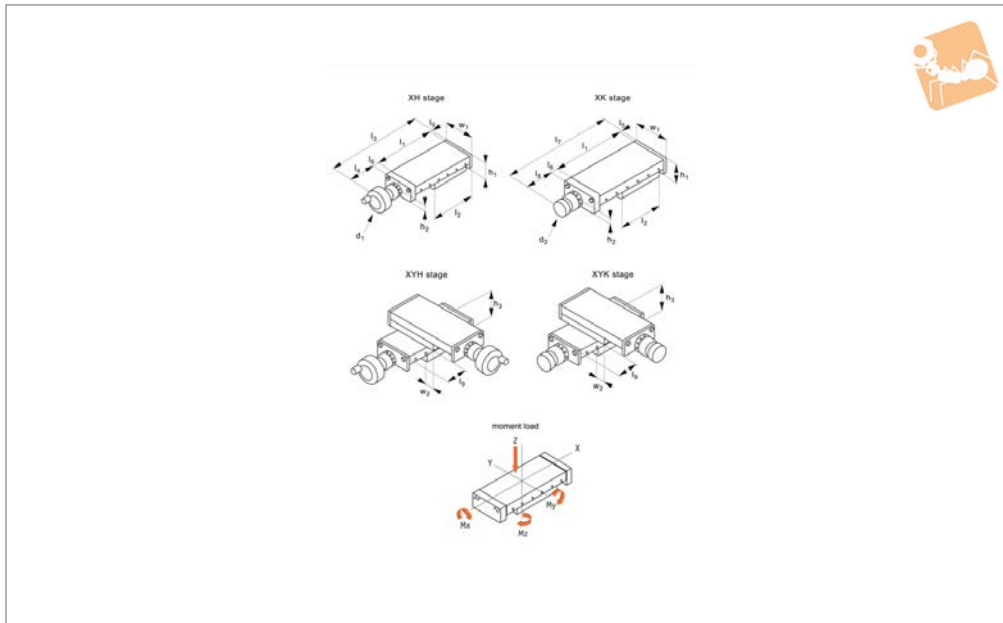
Order No.	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	l <sub>8</sub>	l <sub>9</sub>	w <sub>2</sub>	Lead screw	Load kN max.	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.
L3172.050-022.*	60	6	14	138	42	13.0	0.0	M 6x1	0.3	12	5.7	6.4
L3172.050-025.*	60	6	14	164	42	26.0	13.0	M 6x1	0.6	20	17	19
L3172.050-050.*	60	6	14	214	42	51.0	25.5	M 6x1	0.7	25	26	29
L3172.075-025.*	70	6	15	170	47	13.5	0.5	M 6x1	0.6	32	18	19
L3172.075-026.*	70	6	15	195	47	26.0	13.0	M 8x1	0.8	45	37	39
L3172.075-050.*	70	6	15	220	47	38.5	13.0	M 8x1	0.7	40	27	29
L3172.100-025.*	70	6	15	222	49	26.0	13.0	M 8x1	1.1	67	41	48
L3172.100-050.*	70	6	15	273	49	51.5	26.0	M12x1	1.2	76	52	62
L3172.100-051.*	70	6	15	324	49	77.0	51.5	M12x1	1.7	106	104	124
L3172.100-075.*	70	6	15	375	49	102.5	64.0	M12x1	1.8	112	118	141
L3172.150-050.*	107	8	16	297	70	26.5	1.0	M12x1	2.6	220	104	123
L3172.150-100.*	107	8	16	399	70	77.5	26.5	M20x1	3.2	270	157	186
L3172.150-101.*	107	8	16	500	70	128.0	77.0	M20x1	5.4	460	460	545
L3172.150-150.*	107	8	16	500	70	128.0	51.5	M20x1	3.8	324	220	260
L3172.200-150.*	107	8	16	551	70	128.5	52.0	M20x1	5.0	705	445	455
L3172.200-200.*	107	8	16	704	70	205.0	103.0	M20x1	6.6	935	795	815
L3172.300-100.*	166.5	8	20	538	97.5	55.0	4.0	Tr26x4	8.4	3190	800	825
L3172.300-200.*	166.5	10	20	738	97.5	155.0	54.0	Tr26x4	10.4	3950	1205	1245
L3172.300-300.*	166.5	10	20	838	97.5	54.0	54.0	Tr26x4	8.4	3190	800	825
L3172.300-400.*	166.5	10	20	1038	97.5	305.0	104.0	Tr26x4	10.4	3950	1205	1245
L3172.300-500.*	166.5	10	20	1138	97.5	355.0	104.0	Tr26x4	8.4	3190	800	825
L3172.300-600.*	166.5	10	20	1338	97.5	455.0	154.0	Tr26x4	10.4	3950	1205	1245



# Manual Lead Screw Stages

compact, cross roller

# Manual Positioning Stages



**L3173**

MANUAL POSITIONING STAGES

**Material**

Cast iron body (ENGJL-250), with hardened cross roller linear rail set. Hardened and ground lead screw, pitch accuracy  $\pm 0.02\text{mm}/300\text{mm}$ . 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 appli-

cations requiring smooth movement, long life and high load capacity. Other versions are also available - dovetail slides (L3480) for vibration damping, 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 0,003.

**Tips**

Replace -\* with  
-XH for X axis stage with handle

- XK for X axis stage with knob
- XYH for X,Y axes stage with handle
- XYK for X,Y axes stage with knob

**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.	w <sub>1</sub>	Stroke	d <sub>1</sub>	d <sub>2</sub>	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>2</sub>	l <sub>3</sub>	Weight kg
L3173.060-025-*	60	25	50	23.9	80	28	14	56	55	160	0.8
L3173.060-050-*	60	50	50	23.9	130	28	14	56	80	210	1.2
L3173.060-075-*	60	75	50	23.9	205	28	14	56	130	285	1.9
L3173.060-100-*	60	100	50	23.9	255	28	14	56	155	335	2.3
L3173.100-025-*	100	25	50	35.0	135	45	21	90	110	226	3.3
L3173.100-050-*	100	50	56	35.0	210	45	21	90	160	301	5.9
L3173.100-075-*	100	75	56	35.0	285	45	21	90	210	376	7.5
L3173.100-100-*	100	100	56	35.0	360	45	21	90	260	451	9.5
L3173.100-150-*	100	150	56	35.0	460	45	21	90	310	551	11.4
L3173.100-175-*	100	175	56	35.0	535	45	21	90	360	626	13.8
L3173.100-200-*	100	200	56	35.0	610	45	21	90	410	701	14.5
L3173.145-050-*	145	50	106	48.0	260	60	26	120	210	391	13.0
L3173.145-100-*	145	100	106	48.0	310	60	26	120	210	441	14.2
L3173.145-150-*	145	150	106	48.0	460	60	26	120	310	591	19.3
L3173.145-200-*	145	200	106	48.0	510	60	26	120	310	641	23.0
L3173.145-250-*	145	250	106	48.0	660	60	26	120	410	791	26.8
L3173.145-300-*	145	300	106	48.0	710	60	26	120	410	841	30.0

Order No.	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	l <sub>8</sub>	l <sub>9</sub>	w <sub>2</sub>	Lead screw	Load kN max.	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.
L3173.060-025-*	142	6	14	142	42	10.0	0.0	M 6x1	0.4	12	5.5	6.1
L3173.060-050-*	192	6	14	192	42	35.0	10.0	M 6x1	0.6	18	11	12
L3173.060-075-*	267	6	14	267	42	72.5	35.0	M 6x1	1.0	30	36	40



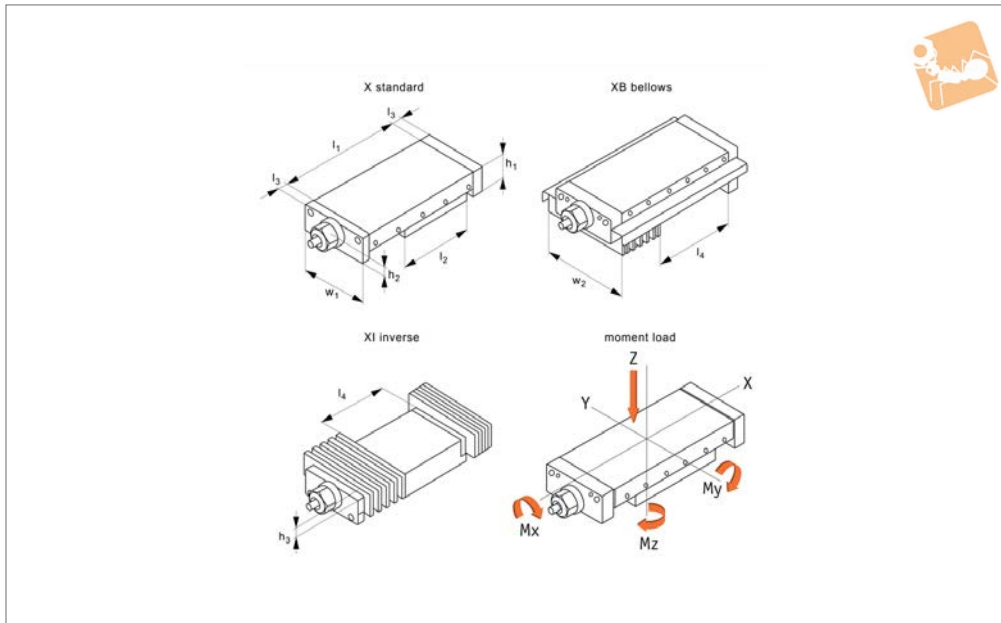
Order No.	$l_4$	$l_5$	$l_6$	$l_7$	$l_8$	$l_9$	$w_2$	Lead screw	Load kN max.	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.
<b>L3173.060-100.*</b>	317	6	14	317	42	97.5	47.5	M 8x1	1.2	36	49	54
<b>L3173.100-025.*</b>	205	6	15	205	49	17.5	5.0	M 8x1	1.6	76	47	56
<b>L3173.100-050.*</b>	280	6	15	280	49	55.0	30.0	M 8x1	2.3	110	104	124
<b>L3173.100-075.*</b>	355	6	15	355	49	92.5	55.0	M12x1	3.1	152	193	230
<b>L3173.100-100.*</b>	430	6	15	430	49	130.0	80.0	M12x1	3.8	186	295	350
<b>L3173.100-150.*</b>	530	6	15	530	49	180.0	105.0	M12x1	4.3	210	380	455
<b>L3173.100-175.*</b>	605	6	15	605	49	217.5	130.0	M12x1	5.1	245	520	620
<b>L3173.100-200.*</b>	680	6	15	680	49	255.0	155.0	M20x1	5.8	275	685	815
<b>L3173.145-050.*</b>	354	8	16	354	70	57.5	32.5	M20x1	6.4	365	325	385
<b>L3173.145-100.*</b>	404	8	16	404	70	82.5	32.5	M20x1	5.3	300	225	265
<b>L3173.145-150.*</b>	554	8	16	554	70	157.5	82.5	M20x1	8.5	485	575	680
<b>L3173.145-200.*</b>	604	8	16	604	70	182.5	82.5	TR26x4	7.5	425	440	520
<b>L3173.145-250.*</b>	754	8	16	754	70	257.5	132.5	TR26x4	10.1	575	855	1010
<b>L3173.145-300.*</b>	804	8	16	804	70	282.5	132.5	TR26x4	9.1	515	685	815



# Motor Lead Screw X Stages

cross roller

# Manual Positioning Stages



## L3174

MANUAL POSITIONING STAGES

### Material

Cast iron body (ENGJL-250), with hardened cross roller linear rail set. Hardened and ground lead screw, pitch accuracy  $\pm 0.02\text{mm}/300\text{mm}$ . 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. Other versions are also available - dovetail slides (L3480) for vibration damping, 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 0,003. Speeds up to 3000 rpm, max. 20 m/min. Positioning accuracy max. 0.001mm.

### Tips

Replace -\* with -X for X axis stage

### -XB for X axis stage with bellows

### -XI for inverse X axis stage with bellows.

Optionally with ball screw not lead screw. When limit switches are installed the stroke is reduced by approx. 20mm.

### 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.	w <sub>1</sub>	Stroke	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	l <sub>2</sub>	l <sub>3</sub>	Weight kg
L3174.075-025-*	75	25	102	32	11.5	14	76	15	1.8
L3174.075-026-*	75	25	127	32	11.5	14	101	15	2.0
L3174.075-050-*	75	50	152	32	11.5	14	101	15	2.5
L3174.100-025-*	100	25	152	37	13.5	14	126	15	4.0
L3174.100-050-*	100	50	203	37	13.5	14	152	15	4.7
L3174.100-051-*	100	50	254	37	13.5	14	203	15	6.1
L3174.100-075-*	100	75	305	37	13.5	14	228	15	7.0
L3174.150-050-*	150	50	203	50	19.0	24	152	16	10.0
L3174.150-100-*	150	100	305	50	19.0	24	203	16	13.2
L3174.150-101-*	150	100	406	50	19.0	24	406	16	18.0
L3174.150-150-*	150	150	406	50	19.0	24	253	16	16.5
L3174.200-150-*	200	150	457	58	21.5	24	304	16	30.0
L3174.200-200-*	200	200	610	58	21.5	24	406	16	40.0
L3174.300-100-*	300	100	410	75	26.0	32	308	20	59.0
L3174.300-200-*	300	200	610	75	26.0	32	408	20	80.0
L3174.300-300-*	300	300	710	75	26.0	32	408	20	92.0
L3174.300-400-*	300	400	910	75	26.0	32	508	20	110.0
L3174.300-500-*	300	500	1010	75	26.0	32	508	20	125.0
L3174.300-600-*	300	600	1210	75	26.0	32	608	20	145.0



Order No.	$l_4$	$l_5$	$w_2$	Lead screw	Load kN max.	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.
L3174.075-025-*	50	13.5	0.5	8x1	0.6	32	18	19
L3174.075-026-*	65	26.0	13.0	8x1	0.8	45	37	40
L3174.075-050-*	55	38.5	13.0	8x1	0.7	40	27	29
L3174.100-025-*	100	26.0	13.0	8x1	1.2	67	41	48
L3174.100-050-*	115	51.5	26.0	8x1	1.2	76	52	62
L3174.100-051-*	160	77.0	51.5	8x1	1.7	106	104	124
L3174.100-075-*	180	102.5	64.0	8x1	1.8	112	118	141
L3174.150-050-*	120	26.5	1.0	15x2	2.6	220	104	123
L3174.150-100-*	150	77.5	26.5	15x2	3.2	270	157	186
L3174.150-101-*	250	128.0	128.0	15x2	5.4	460	460	545
L3174.150-150-*	190	128.0	51.5	15x2	3.8	320	220	260
L3174.200-150-*	250	128.5	52.0	15x2	5.0	705	445	455
L3174.200-200-*	340	205.0	103.0	15x2	6.6	935	795	815
L3174.300-100-*	280	55.0	4.0	23x4	8.4	3190	800	825
L3174.300-200-*	380	155.0	54.0	23x4	10.4	3950	1205	1245
L3174.300-300-*	380	205.0	54.0	23x4	8.4	3190	800	825
L3174.300-400-*	480	305.0	104.0	23x4	10.4	3950	1205	1245
L3174.300-500-*	480	355.0	104.0	23x4	8.4	3190	800	825
L3174.300-600-*	580	455.0	154.0	23x4	10.4	3950	1205	1245

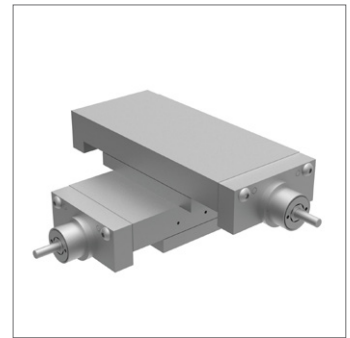




# Motor Lead Screw XY Stages

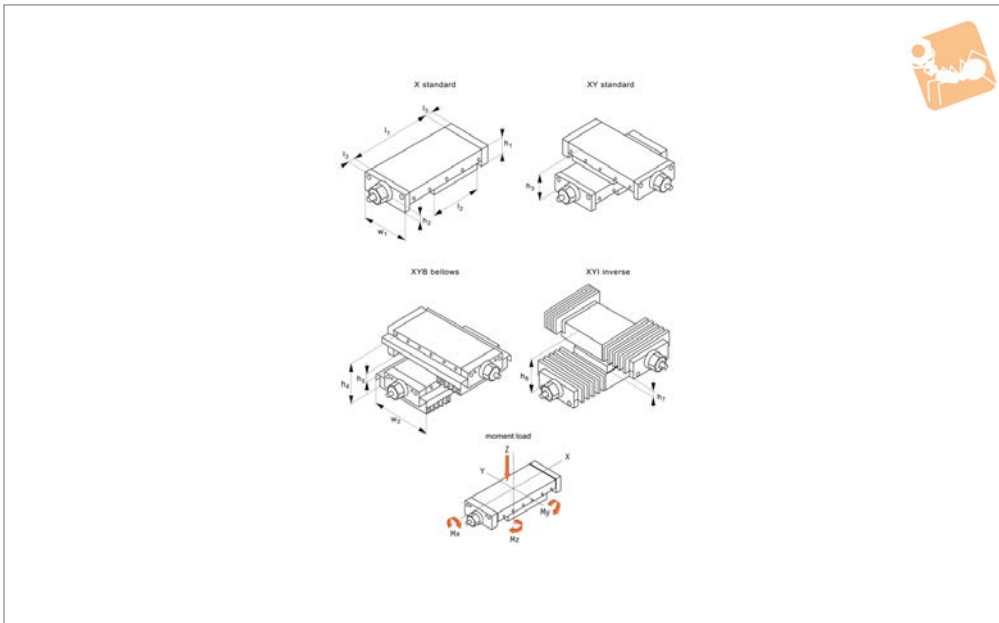
cross roller

# Manual Positioning Stages



**L3175**

MANUAL POSITIONING STAGES



### Material

Cast iron body (ENGJL-250), with hardened cross roller linear rail set. Hardened and ground lead screw, pitch accuracy  $\pm 0.02\text{mm}/300\text{mm}$ . 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. Other versions are also available - dovetail slides (L3480) for vibration damping, 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 0,003. Speeds up to 3000 rpm, max. 20 m/min. Positioning accuracy up to  $\pm 0.015\text{mm}$ .

### Tips

**Replace -\* with -XY for XY axis stage**

**-XYB for XY axis stage with bellows**  
**-XYI for inverse X axis stage with bellows.**

Optionally with ball screw not lead screw. When limit switches are installed the stroke is reduced by approx. 20mm.

### 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.	w <sub>1</sub>	Stroke	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>	h <sub>6</sub>	h <sub>7</sub>	Weight kg
L3175.075-025-*	75	25	102	32	11.5	64	79	15	79	15	1.8
L3175.075-026-*	75	25	127	32	11.5	64	79	15	79	15	2.0
L3175.075-050-*	75	50	152	32	11.5	64	79	15	79	15	2.5
L3175.100-025-*	100	25	152	37	13.5	74	89	15	89	15	4.0
L3175.100-050-*	100	50	203	37	13.5	74	89	15	89	15	4.7
L3175.100-051-*	100	50	254	37	13.5	74	89	15	89	15	6.1
L3175.100-075-*	100	75	305	37	13.5	74	89	15	89	15	7.0
L3175.150-050-*	150	50	203	50	19.0	100	125	25	125	25	10.0
L3175.150-100-*	150	100	305	50	19.0	100	125	25	125	25	13.2
L3175.150-101-*	150	100	406	50	19.0	100	125	25	125	25	18.0
L3175.150-150-*	150	150	406	50	19.0	100	125	25	125	25	16.5
L3175.200-150-*	200	150	457	58	21.5	116	141	25	141	25	30.0
L3175.200-200-*	200	200	610	58	21.5	116	141	25	141	25	40.0
L3175.300-100-*	300	100	410	75	26.0	150	185	35	185	35	59.0
L3175.300-200-*	300	200	610	75	26.0	150	150	-	185	-	80.0
L3175.300-300-*	300	300	710	75	26.0	150	150	-	150	-	92.0
L3175.300-400-*	300	400	910	75	26.0	150	150	-	150	-	110.0
L3175.300-500-*	300	500	1010	75	26.0	150	150	-	150	-	125.0
L3175.300-600-*	300	600	1210	75	26.0	150	150	-	150	-	145.0



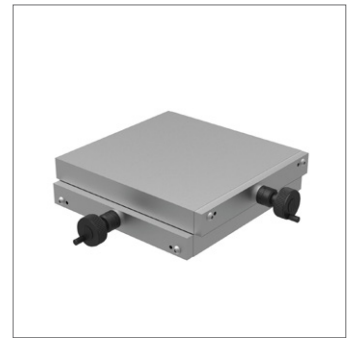
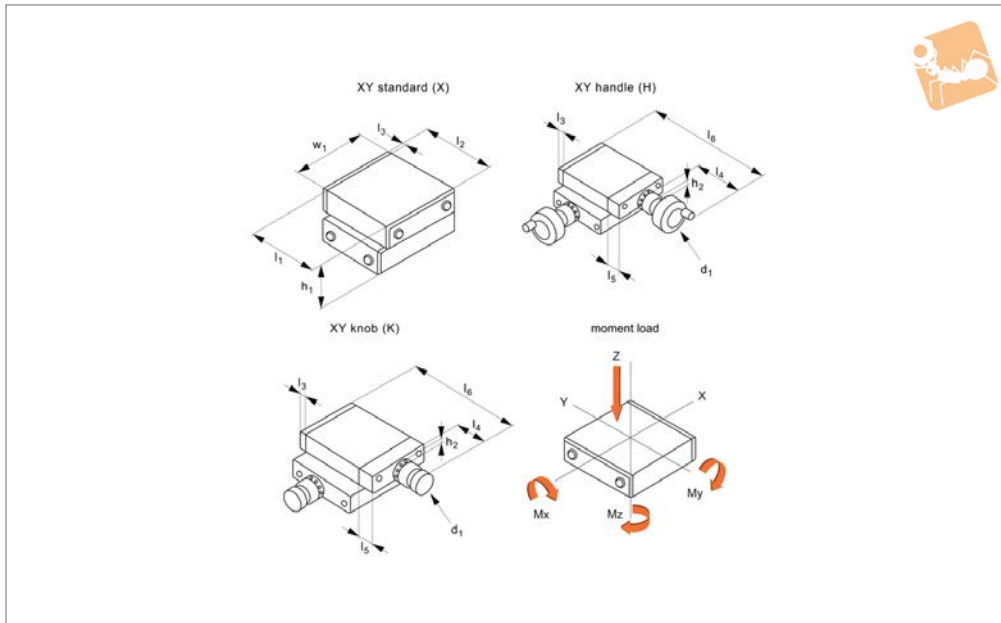
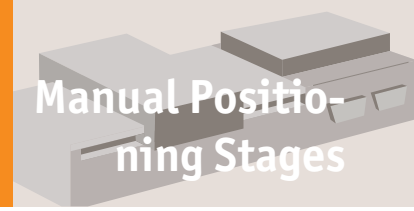
Order No.	$l_2$	$l_3$	$w_2$	Lead screw	Load kN max.	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.
L3175.075-025-*	76	15	110	8x1	0.6	32	18	19
L3175.075-026-*	101	15	110	8x1	0.8	45	37	40
L3175.075-050-*	101	15	110	8x1	0.7	40	27	29
L3175.100-025-*	126	15	135	8x1	1.1	67	41	48
L3175.100-050-*	152	15	135	8x1	1.2	76	52	62
L3175.100-051-*	203	15	135	8x1	1.7	106	104	124
L3175.100-075-*	228	15	135	8x1	1.8	112	118	141
L3175.150-050-*	152	16	205	15x2	2.6	220	104	123
L3175.150-100-*	203	16	205	15x2	3.2	270	157	186
L3175.150-101-*	406	16	205	15x2	5.4	460	460	545
L3175.150-150-*	253	16	205	15x2	3.8	320	220	260
L3175.200-150-*	304	16	255	15x2	5.0	705	445	455
L3175.200-200-*	406	16	255	15x2	6.6	935	795	815
L3175.300-100-*	308	20	375	23x4	8.4	3190	800	825
L3175.300-200-*	408	20	375	23x4	10.4	3950	1205	1245
L3175.300-300-*	408	20	375	23x4	8.4	3190	800	825
L3175.300-400-*	508	20	375	23x4	10.4	3950	1205	1245
L3175.300-500-*	508	20	375	23x4	8.4	3190	800	825
L3175.300-600-*	608	20	375	23x4	10.4	3950	1205	1245



# Miniature XY stages

cross roller

# Manual Positioning Stages



**L3177**

MANUAL POSITIONING STAGES

**Material**

Cast iron body (ENGJL-250), with hardened cross roller linear rail set. Hardened and ground lead screw M6x1, pitch accuracy  $\pm 0,02\text{mm}/300\text{mm}$ .

ring smooth movement, long life and high load capacity. 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 0,003.

**Tips**

Lead screw pitch M6x1, apart from size 300 = M8x1.

**Technical Notes**

Suitable for horizontal applications requi-

Order No.	w <sub>1</sub>	Stroke	d <sub>1</sub>	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	Weight kg
L3177.075-025-X	75	25	-	75	50	-	87	6	-	1.6
L3177.100-025-X	100	25	-	100	50	-	112	6	-	2.5
L3177.150-050-X	150	50	-	150	58	-	166	8	-	7.0
L3177.200-050-X	200	50	-	200	58	-	216	8	-	14.0
L3177.300-100-X	300	100	-	300	80	-	316	8	-	34.0
L3177.075-025-H	75	25	50.0	75	50	12.5	-	6	60	1.6
L3177.100-025-H	100	25	50.0	100	50	12.5	-	6	60	2.5
L3177.150-050-H	150	50	50.0	150	58	16.0	-	8	60	7.0
L3177.200-050-H	200	50	50.0	200	58	16.0	-	8	60	14.0
L3177.075-025-K	75	25	23.9	75	50	12.5	-	6	42	1.6
L3177.100-025-K	100	25	23.9	100	50	12.5	-	6	42	2.5
L3177.150-050-K	150	50	23.9	150	58	16.0	-	8	42	7.0
L3177.200-050-K	200	50	23.9	200	58	16.0	-	8	42	14.0
L3177.300-100-K	300	100	31.0	300	80	23.0	-	8	47	34.0

Order No.	l <sub>5</sub>	l <sub>6</sub>	Lead screw	Load kN max.	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.
L3177.075-025-X	14	-	M6x1	0.3	18	5.7	6.1
L3177.100-025-X	14	-	M6x1	0.6	36	11	14
L3177.150-050-X	14	-	M6x1	0.7	64	18	21
L3177.200-050-X	14	-	M6x1	1.2	190	60	62
L3177.300-100-X	15	-	M8x1	3.2	1140	183	188
L3177.075-025-H	14	155	M6x1	0.3	18	5.7	6.1
L3177.100-025-H	14	180	M6x1	0.6	36	11	14
L3177.150-050-H	14	232	M6x1	0.7	64	18	21
L3177.200-050-H	14	282	M6x1	1.2	190	60	62
L3177.075-025-K	14	137	M6x1	0.3	18	5.7	6.1
L3177.100-025-K	14	162	M6x1	0.6	36	11	14
L3177.150-050-K	14	214	M6x1	0.7	64	18	21

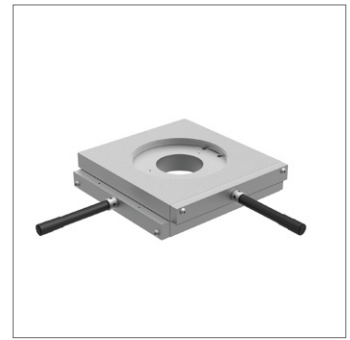
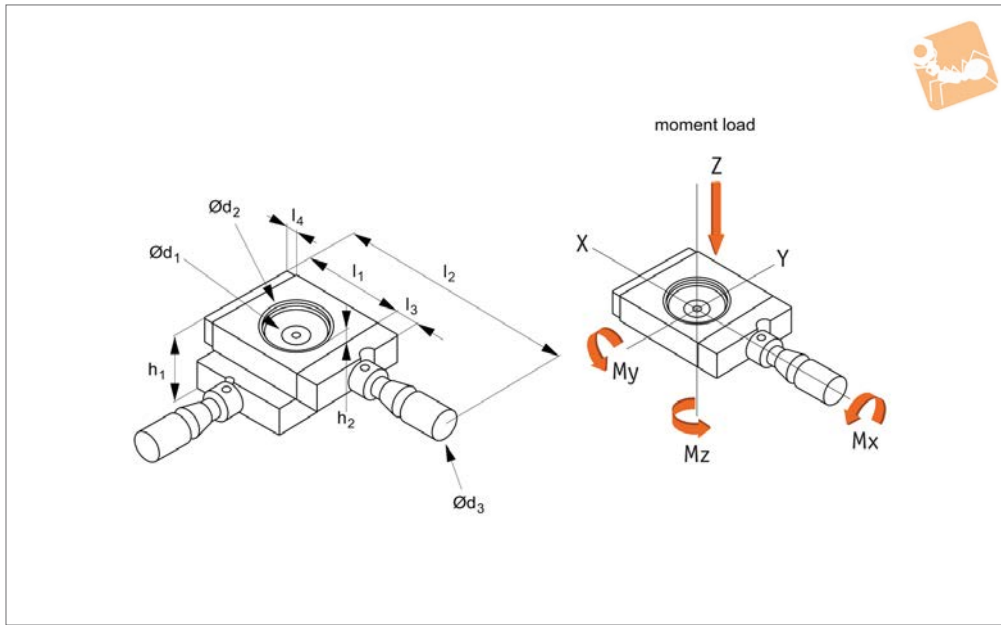


Order No.	$l_5$	$l_6$	Lead screw	Load kN max.	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.
L3177.200-050-K	14	264	M6x1	1.2	190	60	62
L3177.300-100-K	15	370	M8x1	3.2	1140	183	188



# XY stages with through hole cross roller

## Manual Positioning Stages



**L3179**

MANUAL POSITIONING STAGES

**Material**

Cast iron body (ENGJL-250), with hardened cross roller linear rail set.

**Technical Notes**

Suitable for horizontal applications requiring smooth movement, long life and high load capacity. Low height profile. The

stage has a through hole.

No backlash due to pull back spring, each micrometer has a locking device.

Coefficient of friction 0,003.

Micrometer pitch =1,0 apart from 20mm stroke = 0,5.

**Tips**

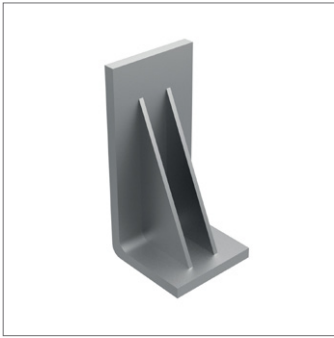
Micrometer pitch 1,0mm except first two sizes = 0,5mm.

For scientific and medical applications.

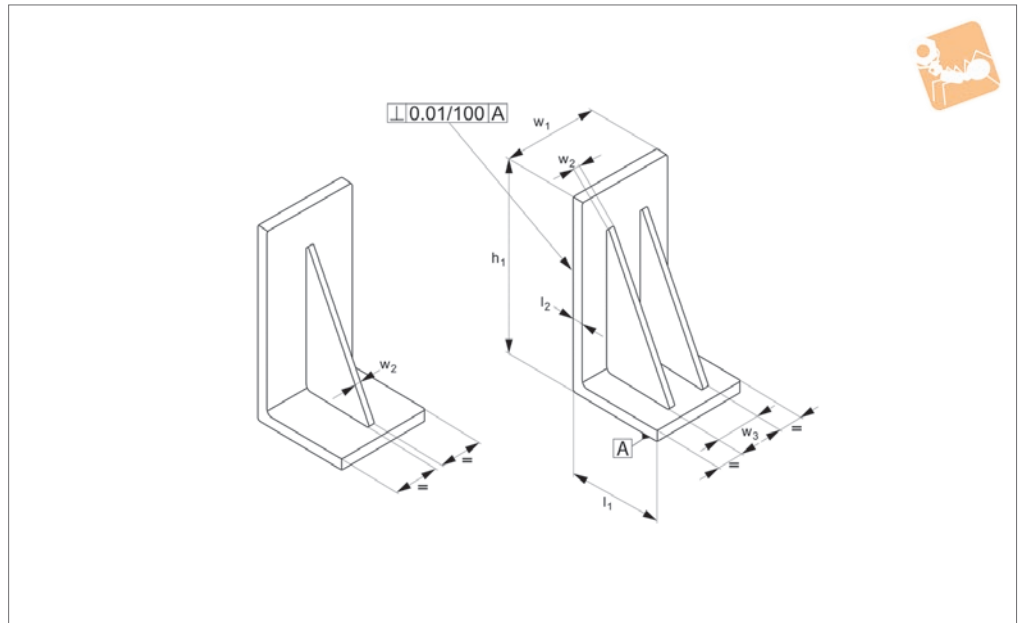
**Important Notes**

3D CAD models available.

Order No.	Stroke	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	h <sub>1</sub>	h <sub>2</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	Load kN max.	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Weight kg
L3179.075-020	20	20	55	20	75	40	3	186	14	6	0.37	26	7.1	7.5	1.3
L3179.100-020	20	50	80	20	100	40	3	211	14	6	0.64	44	13	15	2.0
L3179.150-045	45	50	105	20	150	50	3	303	16	8	0.74	64	18	22	6.3
L3179.200-045	45	75	130	20	200	50	3	355	16	8	1.23	190	62	63	13.0
L3179.300-095	95	100	205	24	300	70	3	543	20	10	3.22	1140	186	192	32.0



### L3199



#### Material

Cast iron, ground. Aluminium alternative on request.

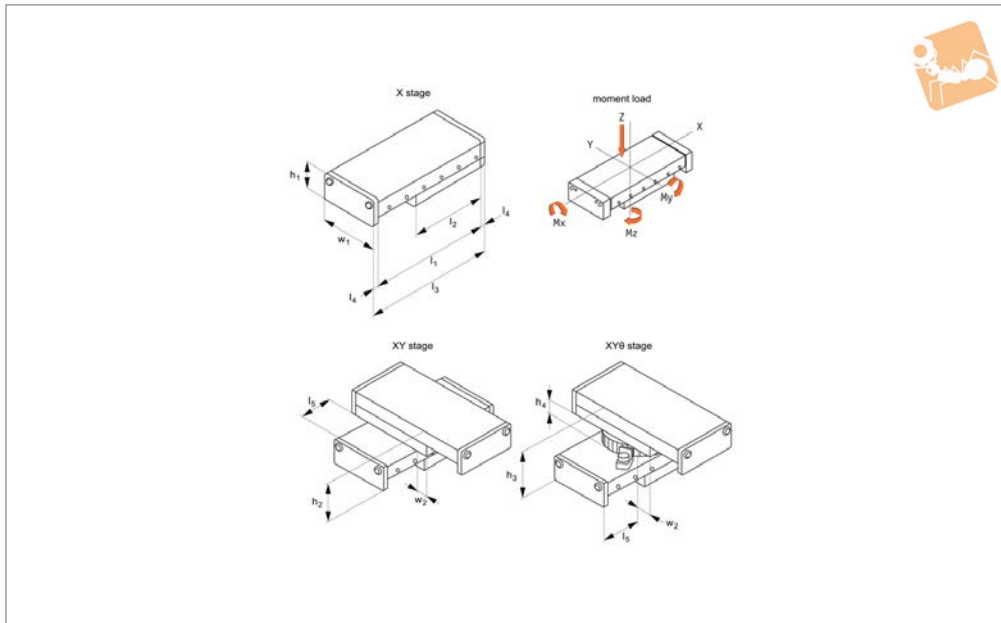
Order No.	w <sub>1</sub>	l <sub>1</sub>	h <sub>1</sub>	l <sub>2</sub>	w <sub>2</sub>	w <sub>3</sub>	No. of ribs
L3199.050-050	50	50	50	8	8	-	1
L3199.050-100	50	50	100	8	8	-	1
L3199.075-075	75	75	75	10	8	-	1
L3199.075-150	75	75	150	10	8	-	1
L3199.100-100	100	100	100	15	12	-	1
L3199.100-200	100	100	200	15	12	-	1
L3199.150-150	150	150	150	18	10	50	2
L3199.150-300	150	150	300	18	10	45	2
L3199.200-200	200	200	200	22	10	75	2
L3199.200-350	200	200	350	22	10	70	2
L3199.300-400	300	300	400	30	15	145	2
L3199.400-500	400	400	500	35	20	210	2



# Plain Positioning Stages

dovetail

# Manual Positioning Stages



**L3180**

MANUAL POSITIONING STAGES

**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**

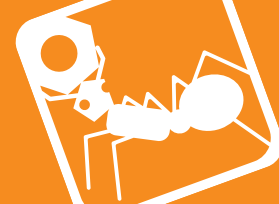
- X for X axis stage
- XY for X,Y axes stage
- XYT for X,Y,-. stage

**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 <sub>1</sub>	Load kN max.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	Weight kg
L3180.050-022-*	22	50	0.5	25	76	50	88	6	13.0	0.6
L3180.050-025-*	25	50	0.7	25	102	76	114	6	26.0	0.8
L3180.050-050-*	50	50	1.0	25	152	101	164	6	51.0	1.1
L3180.075-025-*	25	75	10.5	32	102	76	114	6	13.5	1.8
L3180.075-026-*	25	75	14.0	32	127	101	139	6	26.0	2.0
L3180.075-050-*	50	75	14.0	32	152	101	164	6	38.5	2.5
L3180.100-025-*	25	100	19.5	37	152	126	164	6	26.0	4.0
L3180.100-050-*	50	100	23.6	37	203	152	215	6	51.5	4.7
L3180.100-051-*	50	100	31.5	37	254	203	266	6	77.0	6.1
L3180.100-075-*	75	100	35.4	37	305	228	317	6	102.5	7.0
L3180.150-050-*	50	150	30.7	50	203	152	219	8	26.5	10.0
L3180.150-100-*	100	150	41.0	50	305	203	321	8	77.5	13.2
L3180.150-101-*	100	150	61.5	50	406	304	422	8	128.0	18.0
L3180.150-150-*	150	150	51.2	50	406	253	422	8	128.0	16.5
L3180.200-150-*	150	200	86.8	58	457	304	473	8	128.5	30.0
L3180.200-200-*	200	200	116	58	610	406	626	8	205.0	40.0
L3180.300-100-*	100	300	114	75	410	308	430	10	55.0	59.0
L3180.300-200-*	200	300	150	75	610	408	630	10	155.0	80.0
L3180.300-300-*	300	300	150	75	710	408	730	10	205.0	92.0
L3180.300-400-*	400	300	187	75	910	508	930	10	305.0	110.0
L3180.300-500-*	500	300	187	75	1010	508	1030	10	355.0	125.0
L3180.300-600-*	600	300	224	75	1210	608	1230	10	455.0	145.0
L3180.400-200-*	200	400	233	102	610	408	650	20	105.0	169.0





Order No.	Stroke	w <sub>1</sub>	Load kN max.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	Weight kg
L3180.400-300-*	300	400	233	102	710	408	750	20	155.0	182.0
L3180.400-400-*	400	400	233	102	810	408	850	20	205.0	195.0
L3180.400-401-*	400	400	290	102	910	508	950	20	255.0	225.0
L3180.400-500-*	500	400	290	102	1010	508	1050	20	305.0	238.0
L3180.400-600-*	600	400	290	102	1110	508	1150	20	355.0	251.0
L3180.400-601-*	600	400	347	102	1210	608	1250	20	405.0	270.0

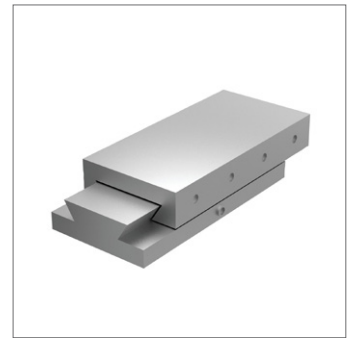
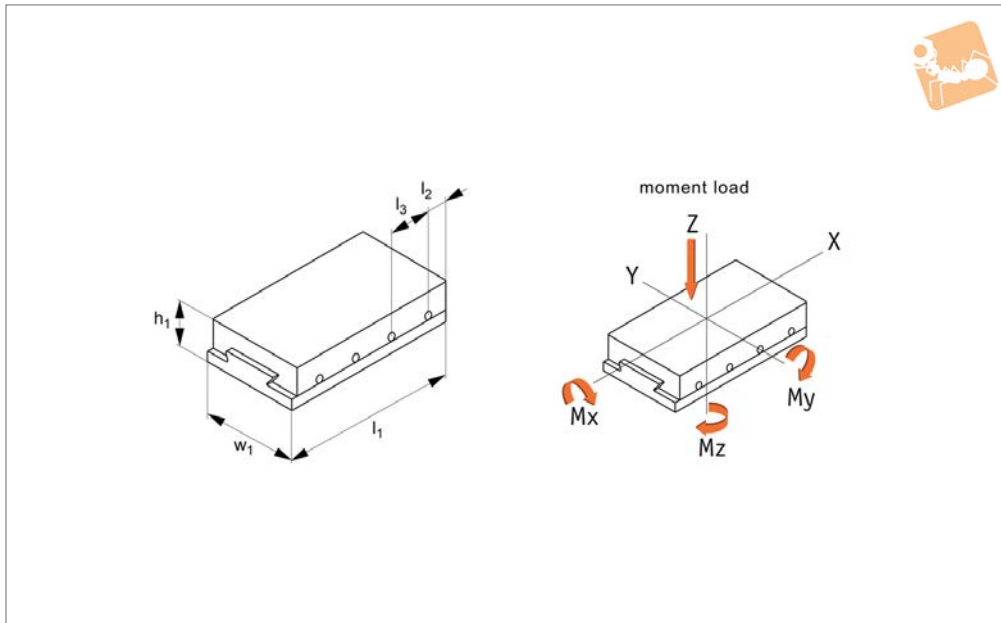
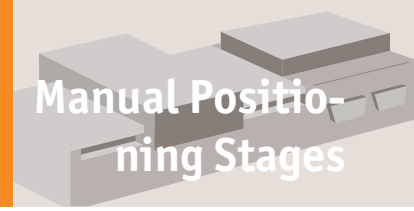
Order No.	w <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.
L3180.050-022-*	0.0	50	-	-	3.4	1.8	2.1
L3180.050-025-*	13.0	50	-	-	5.2	4.1	4.9
L3180.050-050-*	25.5	50	-	-	6.9	7.2	8.6
L3180.075-025-*	0.5	64	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



# Plain Compact Stages

dovetail

# Manual Positioning Stages



**L3181**

MANUAL POSITIONING STAGES

**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.

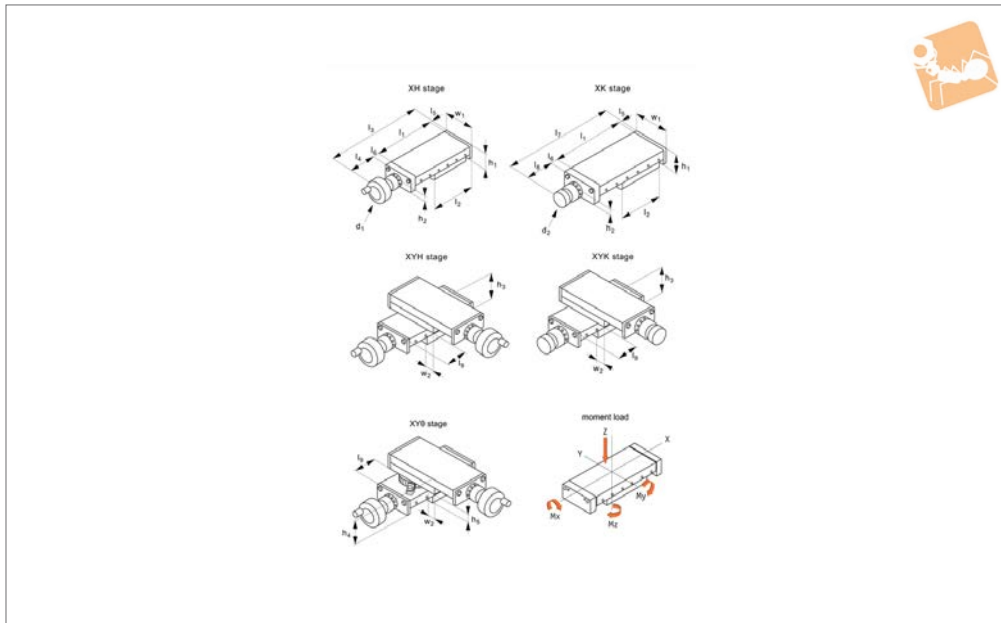
**Important Notes**

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 <sub>1</sub>	Load kN max.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Weight kg
L3181.050-025	25	50	0.5	25	50	12.5	1 x25	3.4	1.8	2.1	0.5
L3181.050-050	50	50	1.0	25	101	13.0	3 x25	6.9	7.2	8.6	0.7
L3181.050-075	75	50	1.4	25	152	13.5	5 x25	10	16	19	1.4
L3181.050-100	100	50	1.9	25	202	13.5	7 x25	13	29	34	1.8
L3181.075-050	50	75	1.4	32	102	13.0	3 x25	14	9.2	11	1.8
L3181.075-075	75	75	2.1	32	152	13.5	5 x25	21	20	24	2.9
L3181.075-100	100	75	2.8	32	202	13.5	7 x25	28	36	43	3.9
L3181.075-125	125	75	3.5	32	252	13.5	9 x25	35	56	67	4.8
L3181.075-150	150	75	4.2	32	302	13.5	11x25	42	81	96	6.0
L3181.100-050	50	100	1.6	37	102	13.5	3 x25	27	13	15	8.4
L3181.100-075	75	100	2.3	37	152	13.5	5 x25	40	29	35	4.2
L3181.100-100	100	100	3.2	37	203	14.5	7 x25	54	52	63	5.9
L3181.100-125	125	100	3.9	37	254	14.5	9 x25	67	82	98	6.8
L3181.100-150	150	100	4.7	37	305	15.0	11x25	81	119	142	8.8
L3181.100-175	175	100	5.5	37	355	15.0	13x25	94	161	192	10.5
L3181.100-200	200	100	6.3	37	405	15.0	15x25	108	210	250	11.8
L3181.100-225	225	100	7.1	37	445	15.0	17x25	121	265	315	12.9
L3181.100-250	250	100	7.8	37	505	15.0	19x25	135	325	385	14.0
L3181.150-050	50	150	3.1	50	152	26.0	2 x50	77	30	36	11.0
L3181.150-075	75	150	3.1	50	152	26.0	2 x50	77	30	36	11.0
L3181.150-100	100	150	4.1	50	203	26.5	3 x50	103	54	65	13.8
L3181.150-125	125	150	5.1	50	253	26.5	4 x50	129	85	101	15.0
L3181.150-150	150	150	6.2	50	305	27.5	5 x50	155	123	147	16.0
L3181.150-200	200	150	8.2	50	406	28.0	7 x50	205	219	260	22.0
L3181.150-250	250	150	10.2	50	506	28.0	9 x50	255	340	405	27.5



Order No.	Stroke	w <sub>1</sub>	Load kN max.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Weight kg
<b>L3181.150-300</b>	300	150	12.3	50	606	28.0	11x50	305	485	580	32.5
<b>L3181.200-050</b>	50	200	5.8	58	203	26.5	3 x50	184	73	87	23.0
<b>L3181.200-100</b>	100	200	5.8	58	203	26.5	3 x50	184	73	87	23.0
<b>L3181.200-150</b>	150	200	8.7	58	304	27.0	5 x50	275	164	195	26.1
<b>L3181.200-200</b>	200	200	11.6	58	406	28.0	7 x50	365	290	345	34.4
<b>L3181.200-250</b>	250	200	14.6	58	510	30.0	9 x50	460	460	550	43.0
<b>L3181.200-300</b>	300	200	17.4	58	610	30.0	11x50	550	660	785	51.5
<b>L3181.200-350</b>	350	200	20.3	58	710	30.0	13x50	645	895	1065	60.0
<b>L3181.200-400</b>	400	200	23.1	58	810	30.0	15x50	735	1165	1385	67.0
<b>L3181.200-500</b>	500	200	23.1	58	810	30.0	15x50	735	1165	1385	67.0
<b>L3181.200-600</b>	600	200	23.1	58	810	30.	15x50	735	1165	1385	67.0



## L3182

MANUAL POSITIONING STAGES

### Material

Cast iron body (ENGJL-250), with dovetail slide system. Hardened and ground lead screw, pitch accuracy  $\pm 0.02\text{mm}/300\text{mm}$ . 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

Replace -\* with  
-XH for X axis stage with handle

- XK for X axis stage with knob
- XYH for X,Y axes stage with handle
- XYK for X,Y axes stage with knob
- XYTH for X,Y,. stage with handle
- XYTK for X,Y,. stage with knob

### 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.	$h_1$	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	$l_8$	Weight kg
L3182.050-022-*	22	50	0.5	25	76	50	156	60.0	14	14	138	42.0	0.8
L3182.050-025-*	25	50	0.7	25	102	76	182	60.0	14	14	164	42.0	0.8
L3182.050-050-*	50	50	1.0	20	152	101	232	60.0	14	14	214	42.0	1.1
L3182.075-025-*	25	75	1.1	32	102	76	193	70.0	15	15	170	47.0	1.8
L3182.075-026-*	25	75	1.4	32	127	101	218	70.0	15	15	195	47.0	2.0
L3182.075-050-*	50	75	1.4	32	152	101	243	70.0	15	15	220	47.0	2.5
L3182.100-025-*	25	100	2.0	37	152	126	243	70.0	15	15	222	49.0	4.0
L3182.100-050-*	50	100	2.4	37	203	152	294	70.0	15	15	273	49.0	4.7
L3182.100-051-*	50	100	3.2	37	254	203	345	70.0	15	15	324	49.0	6.1
L3182.100-075-*	75	100	3.5	37	305	228	396	70.0	15	15	375	49.0	7.0
L3182.150-050-*	50	150	3.1	50	203	152	334	107.0	16	16	297	70.0	10.0
L3182.150-100-*	100	150	4.1	50	305	203	436	107.0	16	16	399	70.0	13.2
L3182.150-101-*	100	150	6.2	50	406	304	357	107.0	16	16	500	70.0	18.0
L3182.150-150-*	150	150	5.1	50	406	253	537	107.0	16	16	500	70.0	16.5
L3182.200-150-*	150	200	8.7	58	457	304	588	107.0	16	16	551	70.0	30.0
L3182.200-200-*	200	200	11.6	58	610	406	741	107.0	16	16	704	70.0	40.0
L3182.300-100-*	100	300	11.4	75	410	308	607	166.5	20	20	538	97.5	59.0
L3182.300-200-*	200	300	15.0	75	610	408	87	166.5	20	20	738	97.5	80.0
L3182.300-300-*	300	300	15.0	75	710	408	907	166.5	20	20	838	97.5	92.0
L3182.300-400-*	400	300	18.7	75	910	508	1107	166.5	20	20	1038	97.5	110.0
L3182.300-500-*	500	300	18.7	75	1010	508	1207	166.5	20	20	1138	97.5	125.0
L3182.300-600-*	600	300	22.4	75	1210	608	1407	166.5	20	20	1338	97.5	145.0



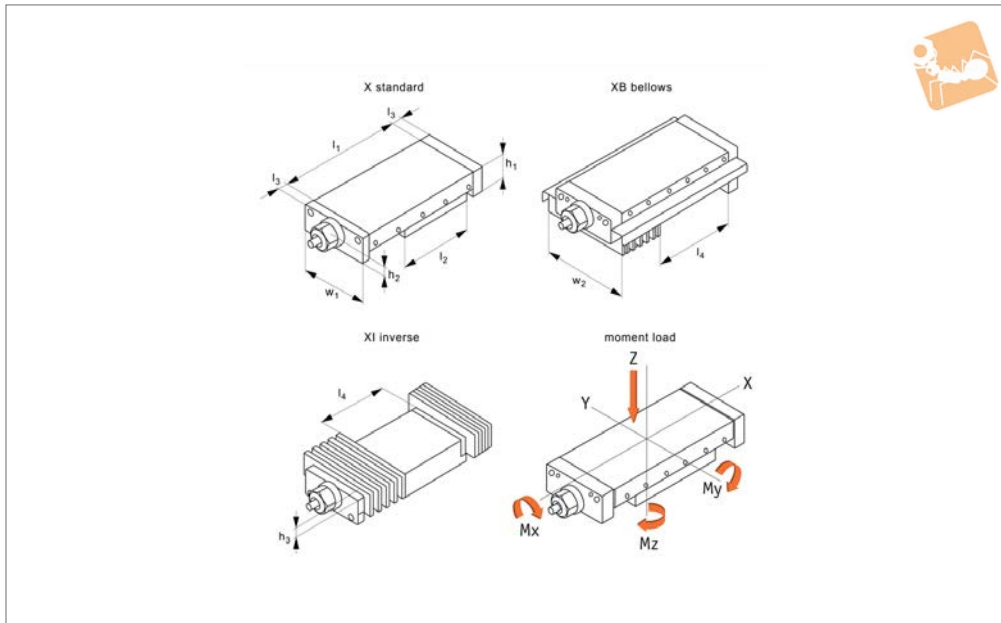
Order No.	Stroke	w <sub>1</sub>	Load kN max.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	l <sub>8</sub>	Weight kg
L3182.400-200-*	200	400	23.3	102	610	408	868	208.0	30	30	783	123.0	169.0
L3182.400-300-*	300	400	23.3	102	710	408	968	208.0	30	30	883	123.0	182.0
L3182.400-400-*	400	400	23.3	102	810	408	1068	208.0	30	30	983	123.0	195.0
L3182.400-401-*	400	400	29.0	102	910	508	1168	208.0	30	30	1083	123.0	225.0
L3182.400-500-*	500	400	29.0	102	1010	508	1268	208.0	30	30	1183	123.0	238.0
L3182.400-600-*	600	400	29.0	102	1110	508	1368	208.0	30	30	1283	123.0	251.0
L3182.400-601-*	600	400	34.7	102	1210	608	1468	208.0	30	30	1383	123.0	270.0

Order No.	l <sub>9</sub>	w <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>	d <sub>1</sub>	d <sub>2</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Lead screw
L3182.050-022-*	13.0	0.0	12.5	50	-	-	50	23.9	3.4	1.8	2.1	M 6x1
L3182.050-025-*	26.0	13.0	12.5	50	-	-	50	23.9	5.2	4.1	4.9	M 6x1
L3182.050-050-*	51.0	25.5	12.5	50	-	-	50	23.9	9.9	7.2	8.6	M 6x1
L3182.075-025-*	13.5	0.5	16.0	64	82	18	56	31.0	10	5.1	6.1	M 8x1
L3182.075-026-*	26.0	13.0	16.0	64	82	18	56	31.0	14	9.1	10	M 8x1
L3182.075-050-*	38.5	13.0	16.0	64	82	18	56	31.0	14	9.1	10	M 8x1
L3182.100-025-*	26.0	13.0	18.0	74	92	18	56	35.0	33	20	24	M12x1
L3182.100-050-*	51.5	26.0	18.0	74	92	18	56	35.0	40	29	35	M12x1
L3182.100-051-*	77.0	51.5	18.0	74	92	18	56	35.0	54	52	63	M12x1
L3182.100-075-*	102.5	64.0	18.0	74	92	18	56	35.0	61	66	79	M12x1
L3182.150-050-*	26.5	1.0	24.3	100	120	20	106	48.0	77	30	36	M20x1
L3182.150-100-*	77.5	26.5	24.3	100	120	20	106	48.0	103	54	65	M20x1
L3182.150-101-*	128.0	77.0	24.3	100	120	20	106	48.0	155	123	146	M20x1
L3182.150-150-*	128.0	51.5	24.3	100	120	20	106	48.0	129	85	101	M20x1
L3182.200-150-*	128.5	52.0	28.3	116	136	20	106	48.0	275	164	195	M20x1
L3182.200-200-*	205.0	103.0	28.3	116	136	20	106	48.0	365	290	245	M20x1
L3182.300-100-*	55.0	4.0	35.0	150	180	30	125	68.0	605	235	280	TR26x4
L3182.300-200-*	155.0	54.0	35.0	150	180	30	125	68.0	800	410	490	TR26x4
L3182.300-300-*	205.0	54.0	35.0	150	180	30	125	68.0	800	410	490	TR26x4
L3182.300-400-*	305.0	104.0	35.0	150	180	30	125	68.0	1000	640	760	TR26x4
L3182.300-500-*	355.0	104.0	35.0	150	180	30	125	68.0	1000	640	760	TR26x4
L3182.300-600-*	455.0	154.0	35.0	150	180	30	125	68.0	1195	915	1095	TR26x4
L3182.400-200-*	105.0	4.0	43.5	204	244	40	200	84.0	1360	470	560	TR32x4
L3182.400-300-*	155.0	4.0	43.5	204	244	40	200	84.0	1360	470	560	TR32x4
L3182.400-400-*	205.0	4.0	43.5	204	244	40	200	84.0	1360	470	560	TR32x4
L3182.400-401-*	255.0	54.0	43.5	204	244	40	200	84.0	1695	730	870	TR32x4
L3182.400-500-*	305.0	54.0	43.5	204	244	40	200	84.0	1685	730	870	TR32x4
L3182.400-600-*	355.0	54.0	43.5	204	244	40	200	84.0	1695	730	870	TR32x4
L3182.400-601-*	405.0	104.0	43.5	204	244	40	200	84.0	2025	1050	1250	TR32x4



# Motor Lead Screw X Stages dovetail

# Manual Positioning Stages



**L3184**

MANUAL POSITIONING STAGES

**Material**

Cast iron body (ENGJL-250), with dovetail slide system. Hardened and ground lead screw, pitch accuracy  $\pm 0.015\text{mm}/300\text{mm}$ . 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. Speeds up to 3000 rpm, max. 20 m/min. Positioning accuracy max. 0.001mm.

**Tips**

**Replace -\* with -X for X axis stage**

**-XB for X axis stage with bellows**

**-XI for inverse X axis stage with bellows**

When limit switches are installed the stroke is reduced by approx. 20mm.

**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 <sub>1</sub>	Load kN max.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	Weight kg
L3184.075-025-*	25	75	1.0	32	102	76	15	50	1.8
L3184.075-026-*	25	75	1.4	32	127	101	15	65	2.0
L3184.075-050-*	50	75	1.4	32	152	101	15	55	2.5
L3184.100-025-*	25	100	2.0	37	152	126	15	100	4.0
L3184.100-050-*	50	100	2.4	37	203	152	15	115	4.7
L3184.100-051-*	50	100	3.2	37	254	203	15	160	6.1
L3184.100-075-*	75	100	3.5	37	305	228	15	180	7.0
L3184.150-050-*	50	150	3.1	50	203	152	16	120	10.0
L3184.150-100-*	100	150	4.1	50	305	203	16	150	13.2
L3184.150-101-*	100	150	6.2	50	406	304	16	250	18.0
L3184.150-150-*	150	150	5.1	50	406	253	16	190	16.5
L3184.200-150-*	150	200	8.7	58	457	304	16	250	30.0
L3184.200-200-*	200	200	11.6	58	610	406	16	340	40.0
L3184.300-100-*	100	300	11.4	75	410	308	20	280	59.0
L3184.300-200-*	200	300	15.0	75	610	408	20	380	80.0
L3184.300-300-*	300	300	15.0	75	710	408	20	380	92.0
L3184.300-400-*	400	300	18.7	75	910	508	20	480	110.0
L3184.300-500-*	500	300	18.7	75	1010	508	20	480	125.0
L3184.300-600-*	600	300	22.4	75	1210	608	20	580	145.0
L3184.400-200-*	200	400	23.3	102	610	408	70	380	169.0
L3184.400-300-*	300	400	23.3	102	710	408	70	380	182.0



Order No.	Stroke	w <sub>1</sub>	Load kN max.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	Weight kg
L3184.400-400-*	400	400	23.3	102	810	408	90	380	195.0
L3184.400-401-*	400	400	29.0	102	910	508	90	480	225.0
L3184.400-500-*	500	400	29.0	102	1010	508	100	480	238.0
L3184.400-600-*	600	400	29.0	102	1110	508	100	480	251.0
L3184.400-601-*	600	400	34.7	102	1210	508	100	580	270.0

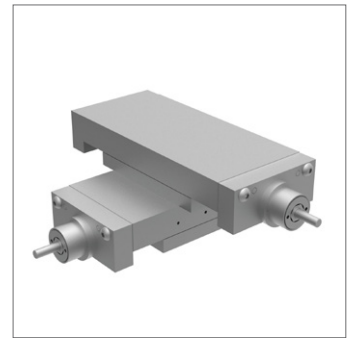
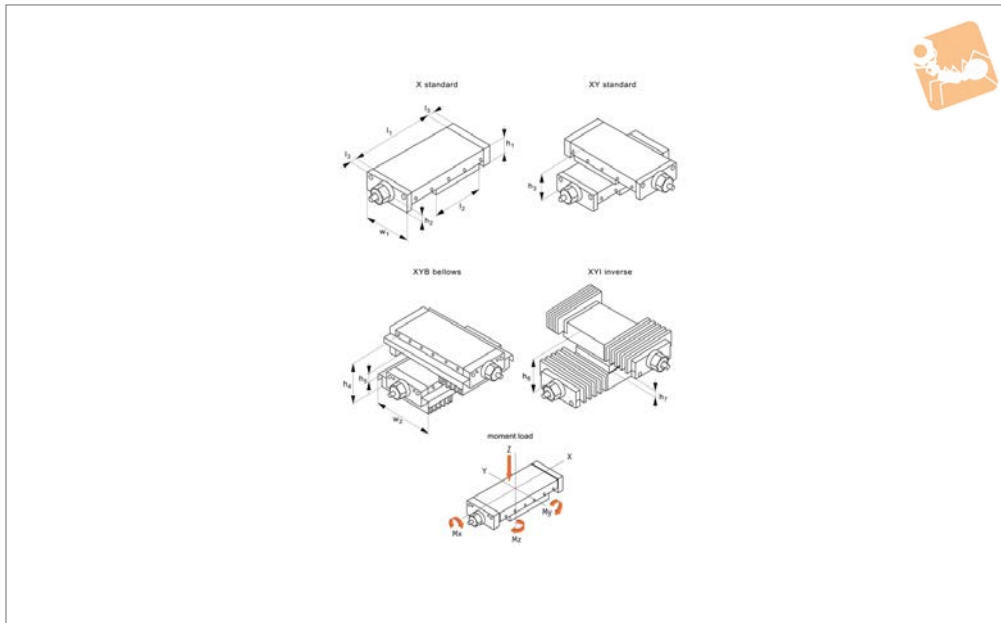
Order No.	w <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Lead screw
L3184.075-025-*	110	11.5	14	10	5.1	6.1	8 x1
L3184.075-026-*	110	11.5	14	14	9.1	10	8 x1
L3184.075-050-*	110	11.5	14	14	9.1	10	8 x1
L3184.100-025-*	135	13.5	14	33	20	24	8 x1
L3184.100-050-*	135	13.5	14	40	29	35	8 x1
L3184.100-051-*	135	13.5	14	54	52	63	8 x1
L3184.100-075-*	135	13.5	14	61	66	79	8 x1
L3184.150-050-*	205	19.0	24	77	30	36	15x2
L3184.150-100-*	205	19.0	24	103	54	65	15x2
L3184.150-101-*	205	19.0	24	155	123	146	15x2
L3184.150-150-*	205	19.0	24	129	85	101	15x2
L3184.200-150-*	255	21.5	24	275	164	195	15x2
L3184.200-200-*	255	21.5	24	365	290	345	15x2
L3184.300-100-*	375	26.0	32	605	235	280	23x4
L3184.300-200-*	375	26.0	32	800	410	490	23x4
L3184.300-300-*	375	26.0	32	800	410	490	23x4
L3184.300-400-*	375	26.0	32	1000	640	760	23x4
L3184.300-500-*	375	26.0	32	1000	640	760	23x4
L3184.300-600-*	375	26.0	32	1195	915	1095	23x4
L3184.400-200-*	480	34.0	37	1360	470	560	23x4
L3184.400-300-*	480	34.0	37	1360	470	560	23x4
L3184.400-400-*	480	34.0	37	1360	470	560	23x4
L3184.400-401-*	480	34.0	37	1695	730	870	23x4
L3184.400-500-*	480	34.0	37	1685	730	870	23x4
L3184.400-600-*	480	34.0	37	1695	730	870	23x4
L3184.400-601-*	480	34.0	37	2025	1050	1250	23x4





# Motor Lead Screw XY Stages dovetail

# Manual Positioning Stages



## L3185

MANUAL POSITIONING STAGES

### Material

Cast iron body (ENGJL-250), with dovetail slide system. Hardened and ground lead screw, pitch accuracy  $\pm 0.015\text{mm}/300\text{mm}$ . 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. Speeds up to 3000 rpm, max. 20 m/min. Positioning accuracy max. 0.001mm.

### Tips

Replace -\* with -XY for XY axis stage

**-XYB for XY axis stage with bellows**  
**-XYI for inverse X axis stage with bellows**  
When limit switches are installed the stroke is reduced by approx. 20mm.

### 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 <sub>1</sub>	Load kN max.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	Weight kg
L3185.075-025-*	25	75	1.0	32	102	76	15	110	11.5	64	1.8
L3185.075-026-*	25	75	1.4	32	127	101	15	110	11.5	64	2.0
L3185.075-050-*	50	75	1.4	32	152	101	15	110	11.5	64	2.5
L3185.100-025-*	25	100	2.0	37	152	126	15	135	13.5	74	4.0
L3185.100-050-*	50	100	2.4	37	203	152	15	135	13.5	74	4.7
L3185.100-051-*	50	100	3.2	37	254	203	15	135	13.5	74	6.1
L3185.100-075-*	75	100	3.5	37	305	228	15	135	13.5	74	7.0
L3185.150-050-*	50	150	3.1	50	203	152	16	205	19.0	100	10.0
L3185.150-100-*	100	150	4.1	50	305	203	16	205	19.0	100	13.2
L3185.150-101-*	100	150	6.2	50	406	304	16	205	19.0	100	18.0
L3185.150-150-*	150	150	5.1	50	406	253	16	205	19.0	100	16.5
L3185.200-150-*	150	200	8.7	58	457	304	16	255	21.5	116	30.0
L3185.200-200-*	200	200	11.6	58	610	406	16	255	21.5	116	40.0
L3185.300-100-*	100	300	11.4	75	410	308	20	375	26.0	150	59.0
L3185.300-200-*	200	300	15.0	75	610	408	20	375	26.0	150	80.0
L3185.300-300-*	300	300	15.0	75	710	408	20	375	26.0	150	92.0
L3185.300-400-*	400	300	18.7	75	910	508	20	375	26.0	150	110.0
L3185.300-500-*	500	300	18.7	75	1010	508	20	375	26.0	150	125.0
L3185.300-600-*	600	300	22.4	75	1210	608	20	375	26.0	150	145.0
L3185.400-200-*	200	400	23.3	102	610	408	70	480	34.0	204	169.0
L3185.400-300-*	300	400	23.3	102	710	408	0	480	34.0	204	182.0



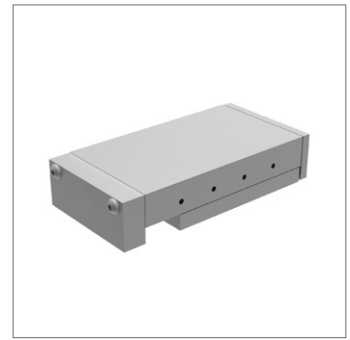
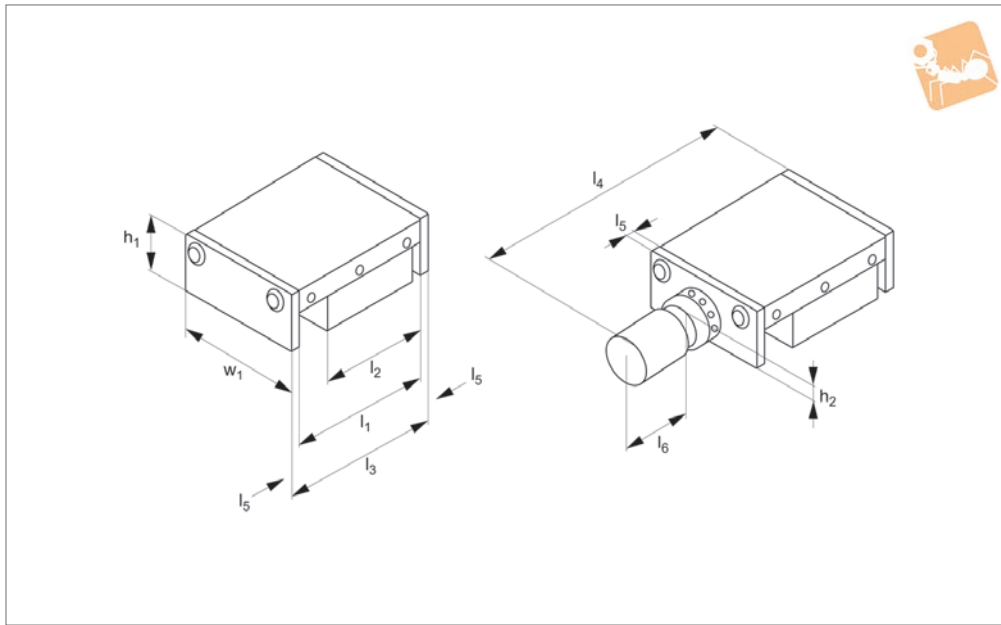
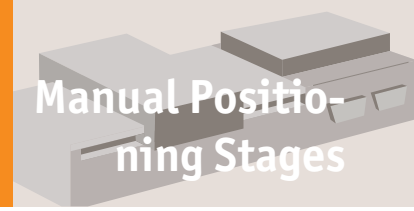
Order No.	Stroke	w <sub>1</sub>	Load kN max.	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	w <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	Weight kg
L3185.400-400-*	400	400	23.3	102	810	408	90	480	34.0	204	195.0
L3185.400-401-*	400	400	29.0	102	910	508	90	480	34.0	204	225.0
L3185.400-500-*	500	400	29.0	102	1010	508	100	480	34.0	204	238.0
L3185.400-600-*	600	400	29.0	102	1110	508	100	480	34.0	204	251.0
L3185.400-601-*	600	400	34.7	102	1210	508	100	480	34.0	204	270.0

Order No.	h <sub>4</sub>	h <sub>5</sub>	h <sub>6</sub>	h <sub>7</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Lead screw
L3185.075-025-*	79	15	79	15	10	5.1	6.1	8 x1
L3185.075-026-*	79	15	79	15	14	9.1	10	8 x1
L3185.075-050-*	79	15	79	15	14	9.1	10	8 x1
L3185.100-025-*	89	15	89	15	33	20	24	8 x1
L3185.100-050-*	89	15	89	15	40	29	35	8 x1
L3185.100-051-*	89	15	89	15	54	52	63	8 x1
L3185.100-075-*	89	15	89	15	61	66	79	8 x1
L3185.150-050-*	125	25	125	25	77	30	36	15x2
L3185.150-100-*	125	25	125	25	103	54	65	15x2
L3185.150-101-*	125	25	125	25	155	123	146	15x2
L3185.150-150-*	125	25	125	25	129	85	101	15x2
L3185.200-150-*	141	25	141	25	275	164	195	15x2
L3185.200-200-*	141	25	141	25	365	290	345	15x2
L3185.300-100-*	185	35	185	35	605	235	280	23x4
L3185.300-200-*	185	-	185	-	800	410	490	23x4
L3185.300-300-*	185	-	185	-	800	410	490	23x4
L3185.300-400-*	185	-	185	-	1000	640	760	23x4
L3185.300-500-*	185	-	185	-	1000	640	760	23x4
L3185.300-600-*	185	-	185	-	1195	915	1095	23x4
L3185.400-200-*	229	25	229	25	1360	470	560	30x4
L3185.400-300-*	229	25	229	25	1360	470	560	30x4
L3185.400-400-*	229	25	229	25	1360	470	560	30x4
L3185.400-401-*	229	25	229	25	1695	730	870	30x4
L3185.400-500-*	204	-	204	-	1685	730	870	30x4
L3185.400-600-*	204	-	204	-	1695	730	870	30x4
L3185.400-601-*	204	-	204	-	2025	1050	1250	30x4



# Miniature XY Stages dovetail

# Manual Positioning Stages



**L3188**

MANUAL POSITIONING STAGES

**Material**

Cast iron body (ENGJL-250), with dovetail slide system. Hardened and ground lead screw, pitch accuracy  $\pm 0.02\text{mm}/300\text{mm}$ .

**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**

Lead screw pitch M6 x 0,5.

Centre mounting of compound slides is standard. Please advise dimensions  $w_2$  and  $l_7$  when off-centre mounting is required.

**Important Notes**

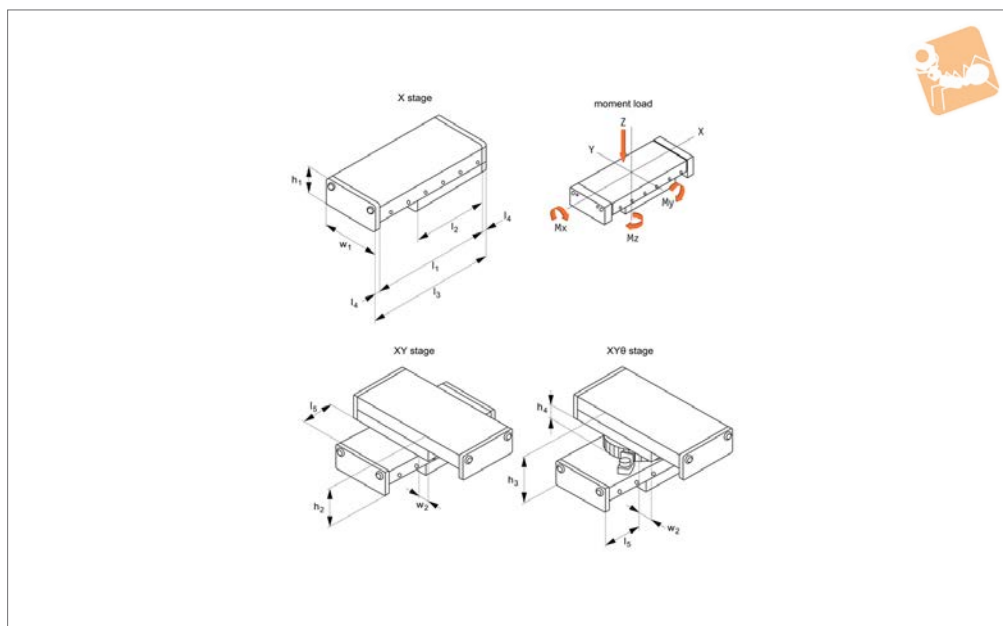
See technical pages for straightness and parallelism accuracy and standard carriage and base fixing holes - other fixing holes can be machined on request.

3D CAD models available.

Order No.	Stroke	$w_1$	Load kN max.	$h_1$	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$h_2$	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.	Lead screw	Weight kg
L3188.030-010	10	30	0.15	17	35	25	41	-	3	8.5	0.5	0.2	0.3	M6x0,5	0.2
L3188.030-020	20	30	0.22	17	55	35	61	-	3	8.5	0.7	0.4	0.5	M6x0,5	0.3
L3188.030-030	30	30	0.22	17	65	35	71	-	3	8.5	0.7	0.4	0.5	M6x0,5	0.4
L3188.030-040	40	30	0.28	17	85	45	91	-	3	8.5	1.0	0.7	0.8	M6x0,5	0.5
L3188.030-050	50	30	0.34	17	105	55	111	-	3	8.5	1.2	1.0	1.2	M6x0,5	0.6
L3188.030-010-K	10	30	0.15	17	35	25	41	65	3	8.5	0.5	0.2	0.3	M6x0,5	0.2
L3188.030-020-K	20	30	0.22	17	55	35	61	85	3	8.5	0.7	0.4	0.5	M6x0,5	0.3
L3188.030-030-K	30	30	0.22	17	65	35	71	95	3	8.5	0.7	0.4	0.5	M6x0,5	0.4
L3188.030-040-K	40	30	0.28	17	85	45	91	115	3	8.5	1.0	0.7	0.8	M6x0,5	0.5
L3188.030-050-K	50	30	0.34	17	105	55	111	135	3	8.5	1.2	1.0	1.2	M6x0,5	0.6



## L3190



### Material

Cast iron body (ENGJL-250), with hardened needle roller linear rail set.

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.

Needle roller stages are the highest load

rating stages. Other versions are also available - cross roller slides (L3470), and dovetail slides (L3480) for use when vibration damping is required. Load ratings are based on even surface loading with the slide in the centre position, and apply to a single slide.  
Coefficient of friction 0,003.

### Tips

With no lead screw drive.

**Replace -\* with**

**-X for X axis stage**

**- XY for X,Y axes stage**

### -XYT for X,Y,. stage

Centre mounting of compound slides is standard. Please advise dimensions  $w_2$  and  $l_5$  when off-centre mounting is required.

### 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.

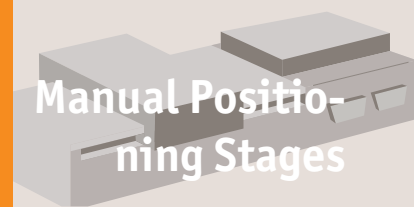
Order No.	$w_1$	Stroke	Load kN max.	$l_1$	$h_1$	$l_2$	$h_2$	$h_3$	$h_4$	Weight kg
L3190.150-050-*	150	50	21.1	203	50	152	100	120	20	10.0
L3190.150-100-*	150	100	28.6	305	50	203	100	120	20	13.2
L3190.150-101-*	150	100	42.9	406	50	304	100	120	20	18.0
L3190.150-150-*	150	150	21.1	305	50	152	100	120	20	12.5
L3190.150-151-*	150	150	35.4	406	50	253	100	120	20	16.5
L3190.150-200-*	150	200	28.6	406	50	203	100	120	20	15.0
L3190.150-250-*	150	250	21.1	406	50	152	100	120	20	13.5
L3190.200-100-*	200	100	22.0	305	58	203	116	136	20	21.0
L3190.200-150-*	200	150	35.4	406	58	253	116	136	20	26.0
L3190.200-151-*	200	150	42.9	457	58	304	116	136	20	30.0
L3190.200-200-*	200	200	42.9	510	58	304	116	136	20	31.5
L3190.200-201-*	200	200	57.2	610	58	405	116	136	20	40.0
L3190.200-250-*	200	250	35.4	510	58	253	116	136	20	29.0
L3190.200-300-*	200	300	42.9	610	58	304	116	136	20	34.5
L3190.300-100-*	300	100	21.0	410	75	308	150	190	30	65.0
L3190.300-200-*	300	200	21.0	510	75	308	150	190	30	70.0
L3190.300-300-*	300	300	21.0	610	75	308	150	190	30	78.0
L3190.300-400-*	300	400	21.0	710	75	308	150	190	30	85.0
L3190.300-201-*	300	200	39.2	610	75	408	150	190	30	88.0
L3190.300-301-*	300	300	39.2	710	75	408	150	190	30	94.0
L3190.300-401-*	300	400	39.2	810	75	408	150	190	30	100.0
L3190.300-500-*	300	500	39.2	910	75	408	150	190	30	108.0



# Plain Positioning Stages

needle roller

# Manual Positioning Stages



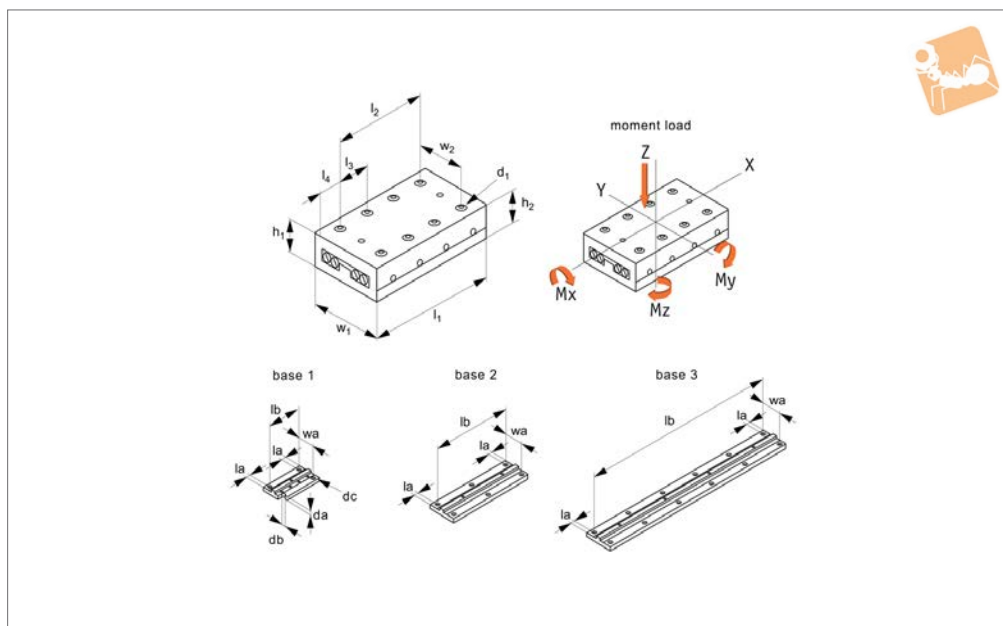
MANUAL POSITIONING STAGES

Order No.	w <sub>1</sub>	Stroke	Load kN max.	l <sub>1</sub>	h <sub>1</sub>	l <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	Weight kg
L3190.300-600-*	300	600	39.2	1010	75	408	150	190	30	115.0
L3190.300-700-*	300	700	39.2	1110	75	408	150	190	30	122.0
L3190.300-800-*	300	800	39.2	1210	75	408	150	190	30	128.0
L3190.300-302-*	300	300	39.2	810	75	508	150	190	30	111.0
L3190.300-402-*	300	400	39.2	910	75	508	150	190	30	118.0
L3190.300-501-*	300	500	39.2	1010	75	508	150	190	30	125.0
L3190.300-601-*	300	600	39.2	1110	75	508	150	190	30	132.0
L3190.300-701-*	300	700	39.2	1210	75	508	150	190	30	137.0
L3190.400-200-*	400	200	44.3	610	102	408	204	244	40	169.0
L3190.400-300-*	400	300	44.3	710	102	408	204	244	40	182.0
L3190.400-400-*	400	400	44.3	810	102	408	204	244	40	195.0
L3190.400-500-*	400	500	44.3	910	102	408	204	244	40	208.0
L3190.400-600-*	400	600	44.3	1010	102	408	204	244	40	222.0
L3190.400-700-*	400	700	44.3	1110	102	408	204	244	40	235.0
L3190.400-800-*	400	800	44.3	1210	102	408	204	244	40	249.0
L3190.400-301-*	400	300	58.5	810	102	508	204	244	40	210.0
L3190.400-401-*	400	400	58.5	910	102	508	204	244	40	225.0
L3190.400-501-*	400	500	58.5	1010	102	508	204	244	40	238.0
L3190.400-601-*	400	600	58.5	1110	102	508	204	244	40	251.0
L3190.400-701-*	400	700	58.5	1210	102	508	204	244	40	265.0

Order No.	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	w <sub>2</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.
L3190.150-050-*	219	8	26.5	1.0	940	435	435
L3190.150-100-*	321	8	77.5	26.5	1270	800	800
L3190.150-101-*	422	8	128.0	77.0	1910	1830	1830
L3190.150-150-*	321	8	77.5	1.0	940	435	435
L3190.150-151-*	422	8	128.0	51.5	1570	1250	1250
L3190.150-200-*	422	8	128.0	26.5	1270	800	800
L3190.150-250-*	422	8	128.0	1.0	940	435	435
L3190.200-100-*	321	8	52.5	1.5	1150	720	720
L3190.200-150-*	422	8	103.0	26.5	2215	1250	1250
L3190.200-151-*	473	8	128.5	52.0	2680	1830	1830
L3190.200-200-*	526	8	155.0	52.0	2680	1830	1830
L3190.200-201-*	626	8	205.0	102.5	3575	3275	3275
L3190.200-250-*	526	8	155.0	26.5	2215	1250	1250
L3190.200-300-*	626	8	205.0	52.0	2680	1830	1830
L3190.300-100-*	430	10	55.0	4.0	5520	2100	2100
L3190.300-200-*	530	10	105.0	4.0	5520	2100	2100
L3190.300-300-*	630	10	155.0	4.0	5520	2100	2100
L3190.300-400-*	730	10	205.0	4.0	5520	2100	2100
L3190.300-201-*	630	10	155.0	54.0	7440	4060	4060
L3190.300-301-*	730	10	205.0	54.0	7440	4060	4060
L3190.300-401-*	830	10	255.0	54.0	7440	4060	4060
L3190.300-500-*	930	10	305.0	54.0	7440	4060	4060
L3190.300-600-*	1030	10	355.0	54.0	7440	4060	4060
L3190.300-700-*	1130	10	405.0	54.0	7440	4060	4060
L3190.300-800-*	1230	10	455.0	54.0	7440	4060	4060
L3190.300-302-*	830	10	255.0	104.0	9290	6600	6600
L3190.300-402-*	930	10	305.0	104.0	9290	6600	6600
L3190.300-501-*	1030	10	355.0	104.0	9290	6600	6600
L3190.300-601-*	1130	10	405.0	104.0	9290	6600	6600
L3190.300-701-*	1230	10	455.0	104.0	9290	6600	6600
L3190.400-200-*	650	10	105.0	4.0	13000	5920	5920
L3190.400-300-*	750	20	155.0	4.0	13000	5920	5920
L3190.400-400-*	850	20	205.0	4.0	13000	5920	5920
L3190.400-500-*	950	20	255.0	4.0	13000	5920	5920
L3190.400-600-*	1050	20	305.0	4.0	13000	5920	5920
L3190.400-700-*	1150	20	355.0	4.0	13000	5920	5920
L3190.400-800-*	1250	20	405.0	4.0	13000	5920	5920
L3190.400-301-*	850	20	205.0	54.0	16430	9750	9750
L3190.400-401-*	950	20	255.0	54.0	16430	9750	9750
L3190.400-501-*	1050	20	305.0	54.0	16430	9750	9750
L3190.400-601-*	1150	20	355.0	54.0	16430	9750	9750
L3190.400-701-*	1250	20	405.0	54.0	16430	9750	9750



## L3191



### Material

Cast iron body (ENGJL-250), with hardened needle roller linear rail set.

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.

Needle roller stages are the highest load rating stages. Other versions are also available - cross roller slides (L3470), and dovetail slides (L3480) for use when vibration damping is required. Load ratings are based on even surface loading with the slide in the centre position, and apply to a single slide.

Coefficient of friction 0,003.

### 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.

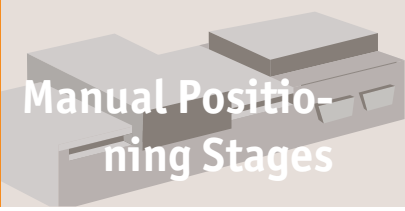
Order No.	w <sub>1</sub>	Stroke	Load kN max.	l <sub>1</sub>	h <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>a</sub>	d <sub>b</sub>	d <sub>c</sub>	h <sub>2</sub>	Weight kg
L3191.100-060	100	60	9.70	110	45	1x <sub>l</sub> <sub>3</sub>	11	6.5	6.6	11	23.5	3.1
L3191.100-095	100	95	14.3	160	45	2x <sub>l</sub> <sub>3</sub>	11	6.5	6.6	11	23.5	4.5
L3191.100-130	100	130	18.8	210	45	3x <sub>l</sub> <sub>3</sub>	11	6.5	6.6	11	23.5	5.9
L3191.100-165	100	165	23.4	260	45	4x <sub>l</sub> <sub>3</sub>	11	6.5	6.6	11	23.5	7.2
L3191.100-200	100	200	28.6	310	45	5x <sub>l</sub> <sub>3</sub>	11	6.5	6.6	11	23.5	8.6
L3191.100-235	100	235	33.1	360	45	6x <sub>l</sub> <sub>3</sub>	11	6.5	6.6	11	23.5	10.0
L3191.100-265	100	265	37.7	410	45	7x <sub>l</sub> <sub>3</sub>	11	6.5	6.6	11	23.5	11.4
L3191.145-130	145	130	18.8	210	60	1x <sub>l</sub> <sub>3</sub>	15	8.5	9.0	15	32.0	11.8
L3191.145-180	145	180	29.7	310	60	2x <sub>l</sub> <sub>3</sub>	15	8.5	9.0	15	32.0	17.3
L3191.145-350	145	350	32.0	410	60	3x <sub>l</sub> <sub>3</sub>	15	8.5	9.0	15	32.0	22.8
L3191.145-450	145	450	38.8	510	60	4x <sub>l</sub> <sub>3</sub>	15	8.5	9.0	15	32.0	28.3
L3191.145-550	145	550	46.3	610	60	5x <sub>l</sub> <sub>3</sub>	15	8.5	9.0	15	32.0	22.8
L3191.145-650	145	650	53.1	710	60	6x <sub>l</sub> <sub>3</sub>	15	8.5	9.0	15	32.0	39.3
L3191.145-750	145	750	60.6	810	60	7x <sub>l</sub> <sub>3</sub>	15	8.5	9.0	15	32.0	44.8
L3191.145-850	145	850	67.4	910	60	8x <sub>l</sub> <sub>3</sub>	15	8.5	9.0	15	32.0	50.3
L3191.145-950	145	950	74.9	1010	60	9x <sub>l</sub> <sub>3</sub>	15	8.5	9.0	15	32.0	55.8

Order No.	l <sub>3</sub>	l <sub>4</sub>	l <sub>a</sub>	l <sub>b</sub>	w <sub>2</sub>	w <sub>a</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Hole pattern
L3191.100-060	50	30	10	1x90	64	60	215	104	104	1
L3191.100-095	50	30	10	1x140	64	60	320	230	230	1
L3191.100-130	50	30	10	1x50 / 1x90 / 1x50	64	60	420	410	410	2
L3191.100-165	50	30	10	1x50 / 1x140 / 1x50	64	60	525	645	645	2
L3191.100-200	50	30	10	1x50 / 1x190 / 1x50	64	60	640	950	950	2



# Plain Compact Positioning Stages

needle roller

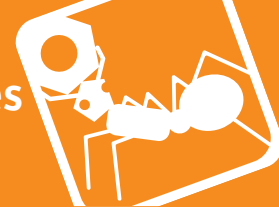


## Manual Positioning Stages

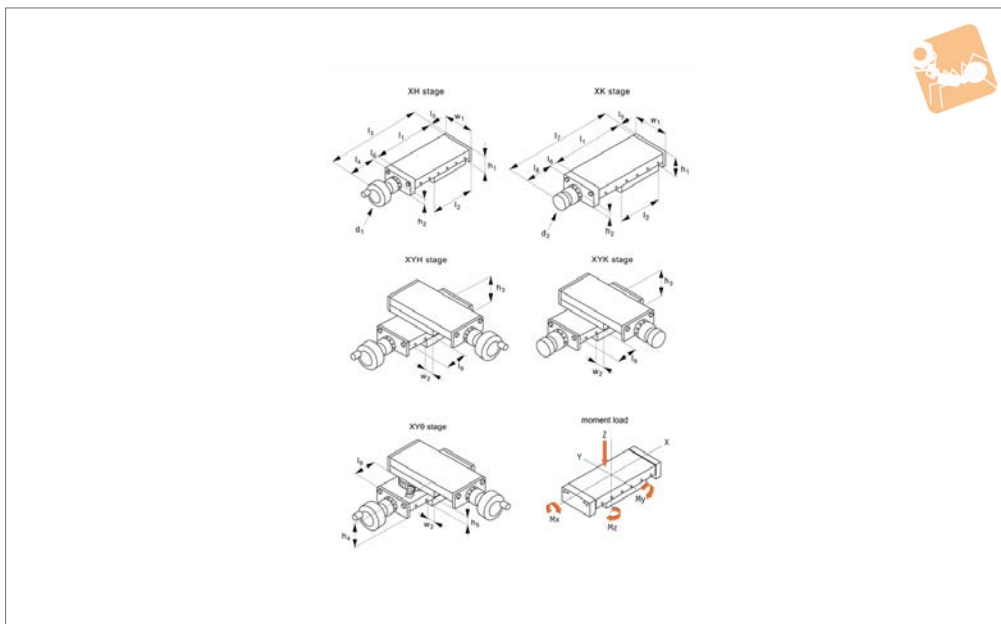
Order No.	l <sub>3</sub>	l <sub>4</sub>	l <sub>a</sub>	l <sub>b</sub>	w <sub>2</sub>	w <sub>a</sub>	Moment M <sub>x</sub>	Moment M <sub>y</sub>	Moment M <sub>z</sub>	Hole pattern
							Nm max.	Nm max.	Nm max.	
<b>L3191.100-235</b>	50	30	10	2x50 / 1x140 / 2x50	64	60	745	1285	1285	3
<b>L3191.100-265</b>	50	30	10	2x50 / 1x190 / 2x50	64	60	845	1695	1695	3
<b>L3191.145-130</b>	100	55	55	1x100	98	90	675	410	410	1
<b>L3191.145-180</b>	100	55	55	1x200	98	90	1070	1035	1035	1
<b>L3191.145-350</b>	100	55	55	3x100	98	90	1150	1200	1200	2
<b>L3191.145-450</b>	100	55	55	1x100 / 1x200 / 1x100	98	90	1400	1795	1795	2
<b>L3191.145-550</b>	100	55	55	5x100	98	90	1665	2540	2540	2
<b>L3191.145-650</b>	100	55	55	2x100 / 1x200 / 2x100	98	90	1915	3375	3375	3
<b>L3191.145-750</b>	100	55	55	7x100	98	90	2180	4375	4375	2
<b>L3191.145-850</b>	100	55	55	3x100 / 1x200 / 3x100	98	90	2425	5455	5455	3
<b>L3191.145-950</b>	100	55	55	9x100	98	90	2695	6705	6705	2

MANUAL POSITIONING STAGES





## L3192



### Material

Cast iron body (ENGJL-250), with hardened needle roller linear rail set. Hardened and ground lead screw, pitch accuracy  $\pm 0.02\text{mm}/300\text{mm}$ .

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.

Needle roller stages are the highest load rating stages. Other versions are also available - cross roller slides (L3470), and dovetail slides (L3480) for use when vibration damping is required. Load ratings are based on even surface loading with the slide in the centre position, and apply to a single slide.

Coefficient of friction 0,003.

### Tips

Replace -\* with

-XH for X axis stage with handle

-XK for X axis stage with knob

-XYH for X,Y axes stage with handle

-XYK for X,Y axes stage with knob

-XYTH for X,Y,. stage with handle

-XYTK for X,Y,. stage with knob

Centre mounting of compound slides is standard. Please advise dimensions  $w_2$  and  $l_9$  when off-centre mounting is required.

### 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.	$w_1$	Stroke	Load kN max.	$l_1$	$h_1$	$l_2$	$d_1$	$d_2$	$h_2$	$h_3$	$h_4$	$h_5$	Weight kg
L3192.150-050-*	150	50	21.1	203	50	152	106	48	24.3	100	120	20	10.0
L3192.150-100-*	150	100	28.6	305	50	203	106	48	24.3	100	120	20	13.2
L3192.150-101-*	150	100	42.9	406	50	304	106	48	24.3	100	120	20	18.0
L3192.150-150-*	150	150	21.1	305	50	152	106	48	24.3	100	120	20	12.5
L3192.150-151-*	150	150	35.4	406	50	253	106	48	24.3	100	120	20	16.5
L3192.150-200-*	150	200	28.6	406	50	203	106	48	24.3	100	120	20	15.0
L3192.150-250-*	150	250	21.1	406	50	152	106	48	24.3	100	120	20	13.5
L3192.200-100-*	200	100	22.0	305	58	203	106	48	28.3	116	136	20	21.0
L3192.200-150-*	200	150	35.4	406	58	253	106	48	28.3	116	136	20	26.0
L3192.200-151-*	200	150	42.9	457	58	304	106	48	28.3	116	136	20	30.0
L3192.200-200-*	200	200	42.9	510	58	304	106	48	28.3	116	136	20	31.5
L3192.200-201-*	200	200	57.2	610	58	406	106	48	28.3	116	136	20	40.0
L3192.200-250-*	200	250	35.4	510	58	253	106	48	28.3	116	136	20	29.0
L3192.200-300-*	200	300	42.9	610	58	304	106	48	28.3	116	136	20	34.5
L3192.300-100-*	300	100	21.0	410	75	308	125	68	35.0	150	190	30	65
L3192.300-200-*	300	200	21.0	510	75	308	125	68	35.0	150	190	30	70
L3192.300-300-*	300	300	21.0	610	75	308	125	68	35.0	150	190	30	78
L3192.300-400-*	300	400	21.0	710	75	308	125	68	35.0	150	190	30	85
L3192.300-201-*	300	200	30.2	610	75	408	125	68	35.0	150	190	30	88
L3192.300-301-*	300	300	30.2	710	75	408	125	68	35.0	150	190	30	94
L3192.300-401-*	300	400	30.2	810	75	408	125	68	35.0	150	190	30	100



# Manual Lead Screw Positioning Stages

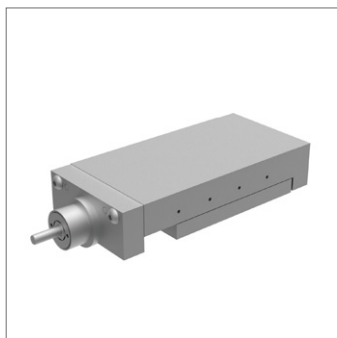
needle roller

# Manual Positioning Stages

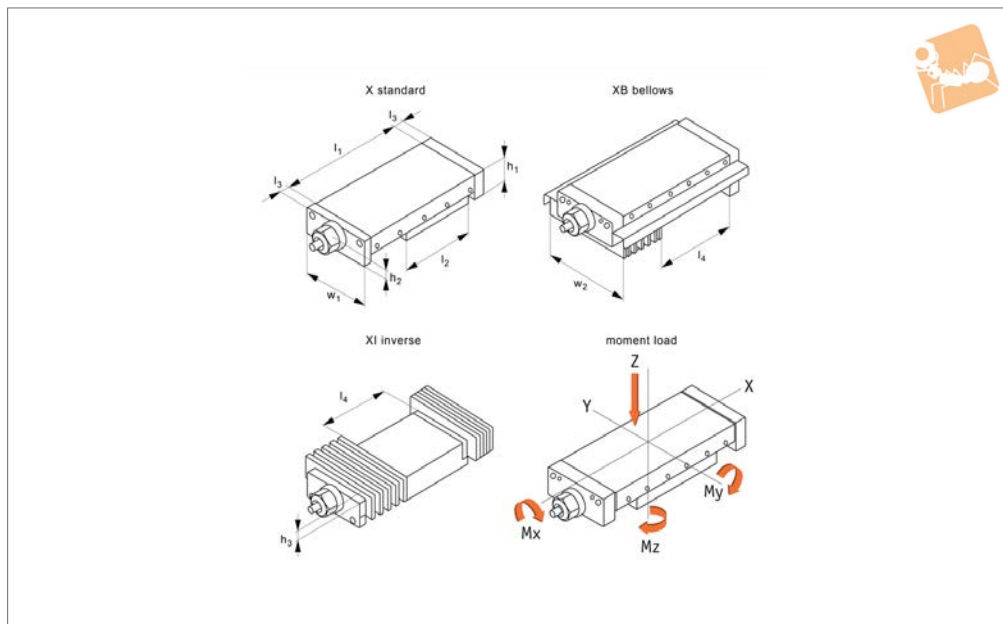
Order No.	w <sub>1</sub>	Stroke	Load kN max.	l <sub>1</sub>	h <sub>1</sub>	l <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>	Weight kg
L3192.300-500-*	300	500	30.2	910	75	408	125	68	35.0	150	190	30	108
L3192.300-600-*	300	600	30.2	1010	75	408	125	68	35.0	150	190	30	115
L3192.300-700-*	300	700	30.2	1110	75	408	125	68	35.0	150	190	30	122
L3192.300-800-*	300	800	39.2	1210	75	408	125	68	35.0	150	190	30	128
L3192.300-302-*	300	300	39.2	810	75	508	125	68	35.0	150	190	30	111
L3192.300-402-*	300	400	39.2	910	75	508	125	68	35.0	150	190	30	118
L3192.300-502-*	300	500	39.2	1010	75	508	125	68	35.0	150	190	30	125
L3192.300-602-*	300	600	39.2	1110	75	508	125	68	35.0	150	190	30	132
L3192.300-702-*	300	700	39.2	1210	75	508	125	68	35.0	150	190	30	137
L3192.400-203-*	400	200	44.3	610	102	408	200	84	43.5	204	244	40	169
L3192.400-303-*	400	300	44.3	710	102	408	200	84	43.5	204	244	40	182
L3192.400-403-*	400	400	44.3	810	102	408	200	84	43.5	204	244	40	195
L3192.400-503-*	400	500	44.3	910	102	408	200	84	43.5	204	244	40	208
L3192.400-603-*	400	600	44.3	1010	102	408	200	84	43.5	204	244	40	222
L3192.400-703-*	400	700	44.3	1110	102	408	200	84	43.5	204	244	40	235
L3192.400-803-*	400	800	44.3	1210	102	408	200	84	43.5	204	244	40	249
L3192.400-304-*	400	300	58.2	810	102	508	200	84	43.5	204	244	40	210
L3192.400-404-*	400	400	58.2	910	102	508	200	84	43.5	204	244	40	225
L3192.400-504-*	400	500	58.2	1010	102	508	200	84	43.5	204	244	40	238
L3192.400-604-*	400	600	58.2	1110	102	508	200	84	43.5	204	244	40	251
L3192.400-704-*	400	700	58.2	1210	102	508	200	84	43.5	204	244	40	265

Order No.	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	l <sub>8</sub>	l <sub>9</sub>	w <sub>2</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Lead screw
L3192.150-050-*	334	107	8	16	297	70.0	26.5	1.0	940	435	435	M20x1
L3192.150-100-*	436	107	8	16	399	70.0	77.5	26.5	1270	800	800	M20x1
L3192.150-101-*	537	107	8	16	500	70.0	128.0	77.0	1910	1830	1830	M20x1
L3192.150-150-*	436	107	8	16	399	70.0	77.5	1.0	940	435	435	M20x1
L3192.150-151-*	537	107	8	16	500	70.0	128.0	51.5	1570	1250	1250	M20x1
L3192.150-200-*	537	107	8	16	500	70.0	128.0	26.5	1270	800	800	M20x1
L3192.150-250-*	537	107	8	16	600	70.0	128.0	1.0	940	435	435	M20x1
L3192.200-100-*	436	107	8	16	399	70.0	52.5	1.5	1150	720	720	M20x1
L3192.200-150-*	537	107	8	16	500	70.0	103.0	26.5	2215	1250	1250	M20x1
L3192.200-151-*	588	107	8	16	551	70.0	128.5	52.0	2680	1830	1830	M20x1
L3192.200-200-*	641	107	8	16	604	70.0	155.0	52.0	2680	1830	1830	M20x1
L3192.200-201-*	741	107	8	16	704	70.0	205.0	103.0	3575	3275	3275	M20x1
L3192.200-250-*	841	107	8	16	604	70.0	155.0	26.5	2215	1250	1250	M20x1
L3192.200-300-*	741	107	8	16	704	70.0	205.0	52.0	2680	1830	1830	M20x1
L3192.300-100-*	607	166.5	10	20	538	97.5	55.0	4.0	5520	2100	2100	TR26x4
L3192.300-200-*	707	166.5	10	20	638	97.5	105.0	4.0	5520	2100	2100	TR26x4
L3192.300-300-*	807	166.5	10	20	738	97.5	155.0	4.0	5520	2100	2100	TR26x4
L3192.300-400-*	907	166.5	10	20	838	97.5	205.0	4.0	5520	2100	2100	TR26x4
L3192.300-201-*	807	166.5	10	20	738	97.5	155.0	54.0	7440	4060	4060	TR26x4
L3192.300-301-*	907	166.5	10	20	838	97.5	205.0	54.0	7440	4060	4060	TR26x4
L3192.300-401-*	1007	166.5	10	20	938	97.5	255.0	54.0	7440	4060	4060	TR26x4
L3192.300-500-*	1107	166.5	10	20	1038	97.5	305.0	54.0	7440	4060	4060	TR26x4
L3192.300-600-*	1207	166.5	10	20	1138	97.5	355.0	54.0	7440	4060	4060	TR26x4
L3192.300-700-*	1307	166.5	10	20	1238	97.5	405.0	54.0	7440	4060	4060	TR26x4
L3192.300-800-*	1407	166.5	10	20	1338	97.5	455.0	54.0	7440	4060	4060	TR26x4
L3192.300-302-*	1007	166.5	10	20	938	97.5	255.0	104.0	9290	6600	6600	TR26x4
L3192.300-402-*	1107	166.5	10	20	1038	97.5	305.0	104.0	9290	6600	6600	TR26x4
L3192.300-502-*	1207	166.5	10	20	1138	97.5	355.0	104.0	9290	6600	6600	TR26x4
L3192.300-602-*	1307	166.5	10	20	1238	97.5	405.0	104.0	9290	6600	6600	TR26x4
L3192.300-702-*	1407	166.5	10	20	1338	97.5	455.0	104.0	9290	6600	6600	TR26x4
L3192.400-203-*	868	208.0	20	30	783	123.0	105.0	4.0	13000	5920	5920	TR32x4
L3192.400-303-*	968	208.0	20	30	883	123.0	155.0	4.0	13000	5920	5920	TR32x4
L3192.400-403-*	1068	208.0	20	30	983	123.0	205.0	4.0	13000	5920	5920	TR32x4
L3192.400-503-*	1168	208.0	20	30	1083	123.0	255.0	4.0	13000	5920	5920	TR32x4
L3192.400-603-*	1268	208.0	20	30	1183	123.0	305.0	4.0	13000	5920	5920	TR32x4
L3192.400-703-*	1368	208.0	20	30	1283	123.0	355.0	4.0	13000	5920	5920	TR32x4
L3192.400-803-*	1468	208.0	20	30	1383	123.0	405.0	4.0	13000	5920	5920	TR32x4
L3192.400-304-*	1068	208.0	20	30	983	123.0	205.0	54.0	16430	9750	9750	TR32x4
L3192.400-404-*	1168	208.0	20	30	1083	123.0	255.0	54.0	16430	9750	9750	TR32x4
L3192.400-504-*	1268	208.0	20	30	1183	123.0	305.0	54.0	16430	9750	9750	TR32x4
L3192.400-604-*	1368	208.0	20	30	1283	123.0	355.0	54.0	16430	9750	9750	TR32x4
L3192.400-704-*	1468	208.0	20	30	1383	123.0	405.0	54.0	16430	9750	9750	TR32x4

MANUAL POSITIONING STAGES



## L3194



### Material

Cast iron body (ENGJL-250), with hardened needle roller linear rail set. Hardened and ground lead screw, pitch accuracy  $\pm 0.015\text{mm}/300\text{mm}$ .

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.

Needle roller stages are the highest load rating stages. Other versions are also available - cross roller slides (L3470), and dovetail slides (L3480) for use when vibration damping is required. Load ratings are based on even surface loading with the slide in the centre position, and apply to a single slide.  
Coefficient of friction 0,003.  
Speeds up to 2000 rpm, max. 20 m/min.  
Positioning accuracy max. 0.001mm.

### Tips

**Replace -\* with -X for X axis stage**

**-XB for X axis stage with bellows**

**-XI for inverse X axis stage with bellows**

When limit switches are installed the stroke is reduced by approx. 20mm.

### Important Notes

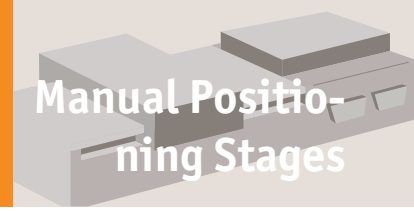
See technical pages for straightness and parallelism accuracy and standard carriage and base fixing holes - other fixing holes can be machined on request.  
3D CAD models available.

Order No.	w <sub>1</sub>	Stroke	Load kN max.	l <sub>1</sub>	h <sub>1</sub>	l <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	Weight kg
L3194.150-050-*	150	50	21.1	203	50	152	19.0	24	10.0
L3194.150-100-*	150	100	21.1	285	50	152	19.0	24	12.0
L3194.150-101-*	150	100	28.6	305	50	203	19.0	24	13.2
L3194.150-102-*	150	100	42.9	406	50	304	19.0	24	18.0
L3194.150-150-*	150	150	21.1	305	50	152	19.0	24	12.5
L3194.150-151-*	150	150	35.4	406	50	253	19.0	24	16.5
L3194.150-200-*	150	200	28.6	406	50	203	19.0	24	15.0
L3194.150-250-*	150	250	21.1	406	50	152	19.0	24	13.5
L3194.150-300-*	150	300	28.6	530	50	203	19.0	24	19.0
L3194.150-400-*	150	400	28.6	650	50	203	19.0	24	19.5
L3194.150-500-*	150	500	28.6	770	50	203	19.0	24	21.0
L3194.150-600-*	150	600	28.6	880	50	203	19.0	24	22.5
L3194.200-100-*	200	100	28.6	335	58	220	21.5	24	22.5
L3194.200-150-*	200	150	35.4	406	58	253	21.5	24	26.0
L3194.200-151-*	200	150	42.9	457	58	304	21.5	24	30.0
L3194.200-200-*	200	200	28.6	460	58	220	21.5	24	25.5
L3194.200-201-*	200	200	42.9	510	58	304	21.5	24	31.5
L3194.200-202-*	200	200	57.2	610	58	406	21.5	24	40.0
L3194.200-250-*	200	250	35.4	520	58	253	21.5	24	29.0
L3194.200-300-*	200	300	28.6	580	58	220	21.5	24	29.0
L3194.200-301-*	200	300	42.9	610	58	304	21.5	24	34.5



# Motor Lead Screw X Stages needle roller

## Manual Positioning Stages



MANUAL POSITIONING STAGES

Order No.	w <sub>1</sub>	Stroke	Load kN max.	l <sub>1</sub>	h <sub>1</sub>	l <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	Weight kg
L3194.200-400-*	200	400	28.6	700	58	220	21.5	24	32.0
L3194.200-500-*	200	500	28.6	820	58	220	21.5	24	35.5
L3194.200-600-*	200	600	28.6	940	58	220	21.5	24	38.5
L3194.200-700-*	200	700	28.6	1070	58	220	21.5	24	42.0
L3194.200-800-*	200	800	28.6	1185	58	220	21.5	24	45.0
L3194.300-100-*	300	100	21.0	410	75	280	26	32	70.0
L3194.300-200-*	300	200	21.0	510	75	280	26	32	75.0
L3194.300-300-*	300	300	21.0	610	75	280	26	32	83.0
L3194.300-400-*	300	400	21.0	710	75	280	26	32	90.0
L3194.300-201-*	300	200	30.2	610	75	380	26	32	93.0
L3194.300-301-*	300	300	30.2	710	75	380	26	32	98.0
L3194.300-401-*	300	400	30.2	810	75	380	26	32	105.0
L3194.300-500-*	300	500	30.2	910	75	380	26	32	113.0
L3194.300-600-*	300	600	30.2	1010	75	380	26	32	120.0
L3194.300-700-*	300	700	30.2	1110	75	380	26	32	127.0
L3194.300-800-*	300	800	30.2	1210	75	380	26	32	133.0
L3194.300-302-*	300	300	39.2	810	75	480	26	32	115.0
L3194.300-402-*	300	400	39.2	910	75	480	26	32	123.0
L3194.300-502-*	300	500	39.2	1010	75	480	26	32	130.0
L3194.300-602-*	300	600	39.2	1110	75	480	26	32	137.0
L3194.300-702-*	300	700	39.2	1210	75	480	26	32	142.0
L3194.400-200-*	400	200	44.3	610	102	380	34	37	174.0
L3194.400-300-*	400	300	44.3	710	102	380	34	37	186.0
L3194.400-400-*	400	400	44.3	810	102	380	34	37	200.0
L3194.400-500-*	400	500	44.3	910	102	380	34	37	213.0
L3194.400-600-*	400	600	44.3	1010	102	380	34	37	227.0
L3194.400-700-*	400	700	44.3	1110	102	380	34	37	240.0
L3194.400-800-*	400	800	44.3	1210	102	380	34	37	254.0
L3194.400-301-*	400	300	58.2	810	102	480	34	37	215.0
L3194.400-401-*	400	400	58.2	910	102	480	34	37	230.0
L3194.400-501-*	400	500	58.2	1010	102	480	34	37	243.0
L3194.400-601-*	400	600	58.2	1110	102	480	34	37	256.0
L3194.400-701-*	400	700	58.2	1210	102	480	34	37	270.0

Order No.	l <sub>3</sub>	l <sub>4</sub>	w <sub>2</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Lead screw
L3194.150-050-*	16	120	200	940	435	435	15x2
L3194.150-100-*	16	120	200	940	435	435	15x2
L3194.150-101-*	16	150	200	1270	800	800	15x2
L3194.150-102-*	16	250	200	1910	1830	1830	15x2
L3194.150-150-*	30	130	200	940	435	435	15x2
L3194.150-151-*	16	190	200	1570	1250	1250	15x2
L3194.150-200-*	16	150	200	1270	800	800	15x2
L3194.150-250-*	35	130	200	940	435	435	15x2
L3194.150-300-*	16	150	200	1270	800	800	15x2
L3194.150-400-*	16	150	200	1270	800	800	15x2
L3194.150-500-*	16	150	200	1270	800	800	15x2
L3194.150-600-*	16	150	200	1270	800	800	15x2
L3194.200-100-*	16	200	250	1270	800	800	15x2
L3194.200-150-*	16	200	250	2215	1250	1250	15x2
L3194.200-151-*	16	200	250	2680	1830	1830	15x2
L3194.200-200-*	16	200	250	1785	800	800	15x2
L3194.200-201-*	16	200	250	2680	1830	1830	15x2
L3194.200-202-*	16	200	250	3575	3275	3275	15x2
L3194.200-250-*	16	200	250	2215	1250	1250	15x2
L3194.200-300-*	16	200	250	1785	800	800	15x2
L3194.200-301-*	16	200	250	2680	1830	1830	15x2
L3194.200-400-*	16	200	250	1785	800	800	15x2
L3194.200-500-*	16	200	250	1785	800	800	15x2
L3194.200-600-*	16	200	250	1785	800	800	15x2
L3194.200-700-*	16	200	250	1785	800	800	15x2
L3194.200-800-*	16	200	250	1785	800	800	15x2
L3194.300-100-*	70	280	375	5520	2100	2100	23x4
L3194.300-200-*	70	280	375	5520	2100	2100	23x4
L3194.300-300-*	70	280	375	5520	2100	2100	23x4
L3194.300-400-*	70	280	375	5520	2100	2100	23x4



Order No.	$l_3$	$l_4$	$w_2$	Moment $M_x$ Nm max.	Moment $M_y$ Nm max.	Moment $M_z$ Nm max.	Lead screw
L3194.300-201.*	70	380	375	7440	4060	4060	23x4
L3194.300-301.*	70	380	375	7440	4060	4060	23x4
L3194.300-401.*	70	380	375	7440	4060	4060	23x4
L3194.300-500.*	90	380	375	7440	4060	4060	23x4
L3194.300-600.*	100	380	375	7440	4060	4060	23x4
L3194.300-700.*	100	380	375	7440	4060	4060	23x4
L3194.300-800.*	110	380	375	7440	4060	4060	23x4
L3194.300-302.*	70	480	375	9290	6600	6600	23x4
L3194.300-402.*	70	480	375	9290	6600	6600	23x4
L3194.300-502.*	90	480	375	9290	6600	6600	23x4
L3194.300-602.*	100	480	375	9290	6600	6600	23x4
L3194.300-702.*	100	480	375	9290	6600	6600	23x4
L3194.400-200.*	70	380	480	13000	5920	5920	30x4
L3194.400-300.*	70	380	480	13000	5920	5920	30x4
L3194.400-400.*	90	380	480	13000	5920	5920	30x4
L3194.400-500.*	90	380	480	13000	5920	5920	30x4
L3194.400-600.*	100	380	480	13000	5920	5920	30x4
L3194.400-700.*	100	380	480	13000	5920	5920	30x4
L3194.400-800.*	110	380	480	13000	5920	5920	30x4
L3194.400-301.*	90	480	480	16430	9750	9750	30x4
L3194.400-401.*	90	480	480	16430	9750	9750	30x4
L3194.400-501.*	100	480	480	16430	9750	9750	30x4
L3194.400-601.*	100	480	480	16430	9750	9750	30x4
L3194.400-701.*	110	480	480	16430	9750	9750	30x4

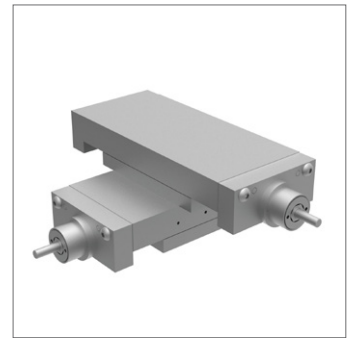
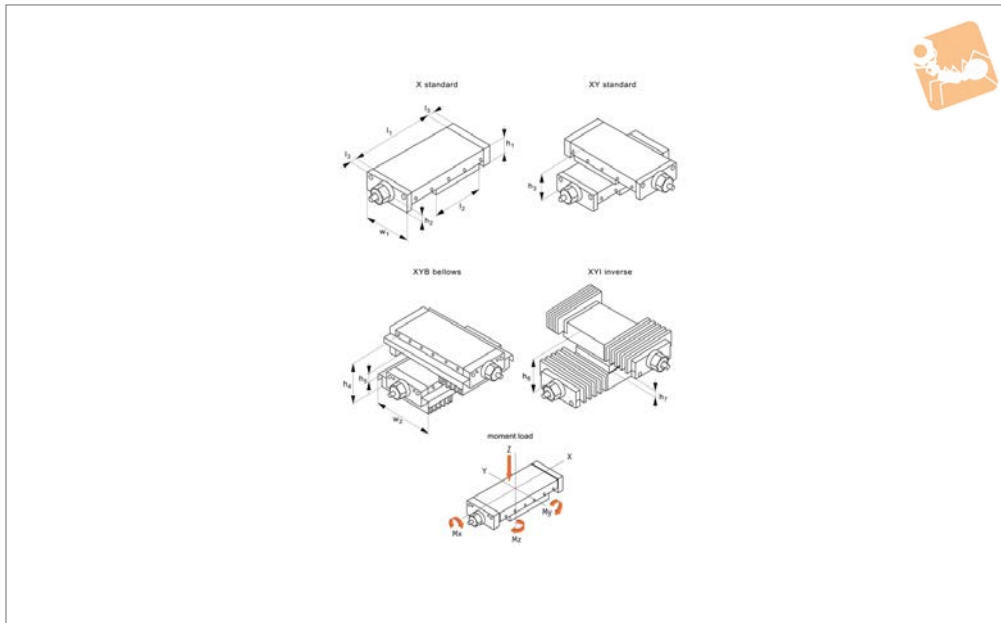




# Motor Lead Screw XY Stages

needle roller

# Manual Positioning Stages



**L3195**

MANUAL POSITIONING STAGES

### Material

Cast iron body (ENGJL-250), with hardened needle roller linear rail set. Hardened and ground lead screw, pitch accuracy  $\pm 0.015\text{mm}/300\text{mm}$ . 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.

Needle roller stages are the highest load rating stages. Other versions are also available - cross roller slides (L3470), and dovetail slides (L3480) for use when vibration damping is required. Load ratings are based on even surface loading with the slide in the centre position, and apply to a single slide. Coefficient of friction 0,003. Speeds up to 2000 rpm, max. 20 m/min. Positioning accuracy max. 0.001mm.

### Tips

**Replace -\* with -XY for XY axis stage**

### -XYB for XY axis stage with bellows

**-XYI for inverse X axis stage with bellows**  
Centre mounting of compound slides is standard. Please advise dimensions  $w_2$  and  $l_3$  when off-centre mounting is required. When limit switches are installed the stroke is reduced by approx. 20mm.

### 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.	$w_1$	Stroke	Load kN max.	$l_1$	$h_1$	$l_2$	$h_2$	$h_3$	$h_4$	$h_5$	Weight kg
L3195.300-100-*	300	100	21.0	410	75	308	26	220	185	35	70
L3195.300-200-*	300	200	21.0	510	75	308	26	220	185	35	75
L3195.300-300-*	300	300	21.0	610	75	308	26	220	185	35	83
L3195.300-400-*	300	400	21.0	710	75	308	26	220	185	35	90
L3195.300-201-*	300	200	30.2	610	75	408	26	185	150	-	93
L3195.300-301-*	300	300	30.2	710	75	408	26	185	150	-	98
L3195.300-401-*	300	400	30.2	810	75	408	26	185	150	-	105
L3195.300-500-*	300	500	30.2	910	75	408	26	185	150	-	113
L3195.300-600-*	300	600	30.2	1010	75	408	26	185	150	-	120
L3195.300-700-*	300	700	30.2	1110	75	408	26	185	150	-	127
L3195.300-800-*	300	800	30.2	1210	75	408	26	185	150	-	133
L3195.300-302-*	300	300	39.2	810	75	508	26	150	150	-	115
L3195.300-402-*	300	400	39.2	910	75	508	26	150	150	-	123
L3195.300-502-*	300	500	39.2	1010	75	508	26	150	150	-	130
L3195.300-602-*	300	600	39.2	1110	75	508	26	150	150	-	137
L3195.300-702-*	300	700	39.2	1210	75	508	26	150	150	-	142
L3195.300-202-*	400	200	44.3	610	102	408	34	284	244	40	174
L3195.300-303-*	400	300	44.3	710	102	408	34	284	244	40	186
L3195.300-403-*	400	400	44.3	810	102	408	34	284	244	40	200
L3195.300-503-*	400	500	44.3	910	102	408	34	284	244	40	213
L3195.300-603-*	400	600	44.3	1010	102	408	34	284	244	40	227



Order No.	w <sub>1</sub>	Stroke	Load kN max.	l <sub>1</sub>	h <sub>1</sub>	l <sub>2</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>	Weight kg
L3195.300-703-*	400	700	44.3	1110	102	408	34	284	244	40	240
L3195.300-803-*	400	800	44.3	1210	102	408	34	284	244	40	254
L3195.300-304-*	400	300	58.2	810	102	508	34	244	204	-	215
L3195.300-404-*	400	400	58.2	910	102	508	34	244	204	-	230
L3195.300-504-*	400	500	58.2	1010	102	508	34	244	204	-	243
L3195.300-604-*	400	600	58.2	1110	102	508	34	244	204	-	256
L3195.300-704-*	400	700	58.2	1210	102	508	34	244	204	-	270

Order No.	h <sub>6</sub>	h <sub>7</sub>	l <sub>3</sub>	w <sub>2</sub>	Moment M <sub>x</sub> Nm max.	Moment M <sub>y</sub> Nm max.	Moment M <sub>z</sub> Nm max.	Lead screw
L3195.300-100-*	185	35	20	375	5520	2100	2100	23x4
L3195.300-200-*	185	35	20	375	5520	2100	2100	23x4
L3195.300-300-*	185	35	20	375	5520	2100	2100	23x4
L3195.300-400-*	185	35	20	375	5520	2100	2100	23x4
L3195.300-201-*	150	-	20	375	7440	4060	4060	23x4
L3195.300-301-*	150	-	20	375	7440	4060	4060	23x4
L3195.300-401-*	150	-	20	375	7440	4060	4060	23x4
L3195.300-500-*	150	-	20	375	7440	4060	4060	23x4
L3195.300-600-*	150	-	20	375	7440	4060	4060	23x4
L3195.300-700-*	150	-	20	375	7440	4060	4060	23x4
L3195.300-800-*	150	-	20	375	7440	4060	4060	23x4
L3195.300-302-*	150	-	20	375	9290	6600	6600	23x4
L3195.300-402-*	150	-	20	375	9290	6600	6600	23x4
L3195.300-502-*	150	-	20	375	9290	6600	6600	23x4
L3195.300-602-*	150	-	20	375	9290	6600	6600	23x4
L3195.300-702-*	150	-	20	375	9290	6600	6600	23x4
L3195.300-202-*	229	25	30	480	13000	5920	5920	30x4
L3195.300-303-*	229	25	30	480	13000	5920	5920	30x4
L3195.300-403-*	229	25	30	480	13000	5920	5920	30x4
L3195.300-503-*	229	25	30	480	13000	5920	5920	30x4
L3195.300-603-*	229	25	30	480	13000	5920	5920	30x4
L3195.300-703-*	229	25	30	480	13000	5920	5920	30x4
L3195.300-803-*	229	25	30	480	13000	5920	5920	30x4
L3195.300-304-*	204	-	30	480	16430	9750	9750	30x4
L3195.300-404-*	204	-	30	480	16430	9750	9750	30x4
L3195.300-504-*	204	-	30	480	16430	9750	9750	30x4
L3195.300-604-*	204	-	30	480	16430	9750	9750	30x4
L3195.300-704-*	204	-	30	480	16430	9750	9750	30x4

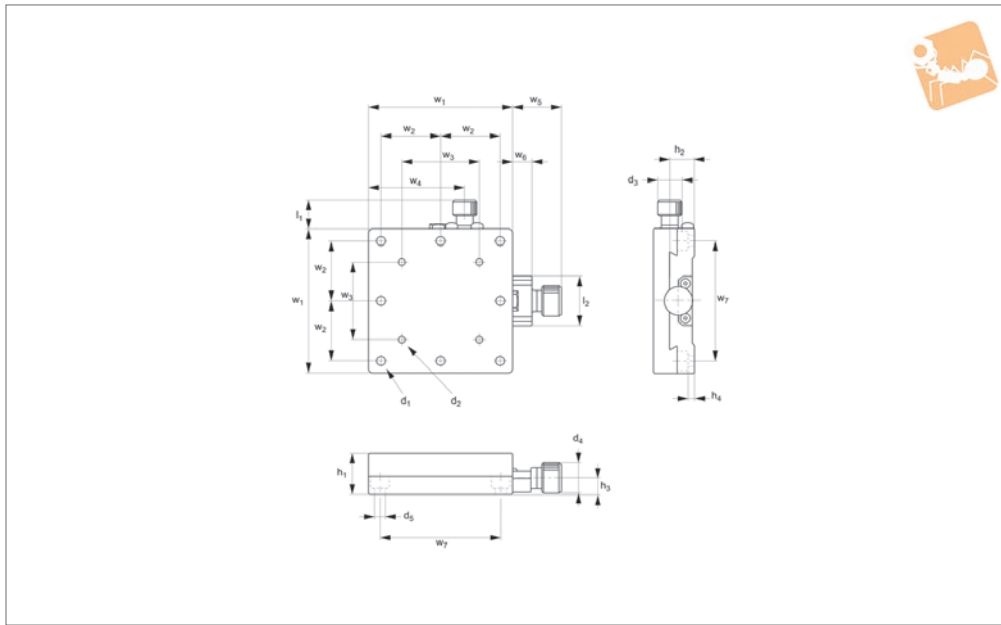




# Miniature Dovetail Stages

X axis

# Manual Positioning Stages



**L3300.X**

MANUAL POSITIONING STAGES

**Material**  
Brass, blackened body, aluminium knob.

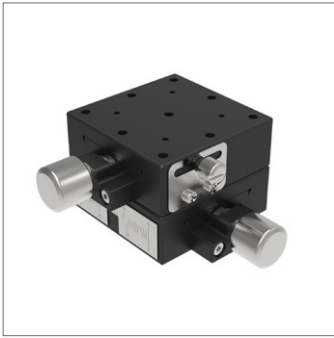
Minimum vernier reading 0,1mm.  
Straightness accuracy 30μ.

**Technical Notes**  
Travel 0,5mm for one revolution.

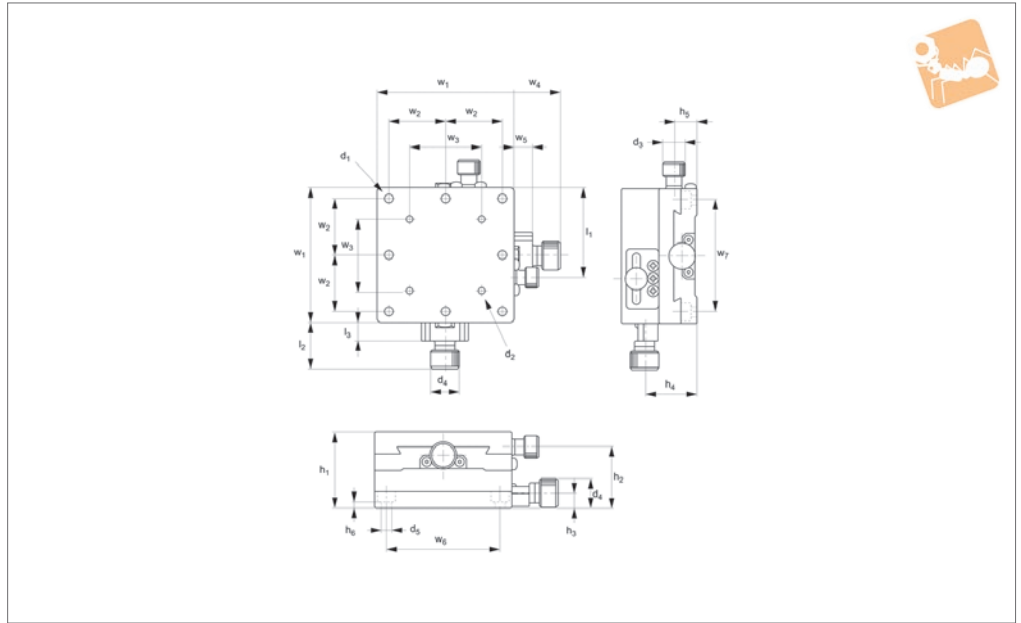
Order No.	$h_1$	Travel	Load kg max.	$w_1$	$d_1$	$d_2$	$d_3$	$d_4$
L3300.025-X	15	±3	3.0	25	M2	-	6	12
L3300.040-X	15	±7	3.0	40	M3	M2	6	12
L3300.060-X	17	±9	4.0	60	M4	M3	10	12

Order No.	$d_5$	$h_2$	$h_3$	$l_1$	$l_2$	$w_2$	$w_3$	$w_4$	$w_5$	$w_6$	$w_7$
L3300.025-X	2.5	11.5	7.0	6.7	23	10	-	15	20	8	20
L3300.040-X	3.5	11.5	7.0	6.7	23	20	20	28	20	8	32
L3300.060-X	4.5	10.5	6.5	11.5	20	25	32	40	20	8	50



## L3300.XY



**Material**  
Brass, blackened body, aluminium knob.

Minimum vernier reading 0,1mm.  
Straightness accuracy 30μ.

**Technical Notes**  
Travel 0,5mm for one revolution.

Order No.	$h_1$	Travel	Load kg max.	$w_1$	$d_1$	$d_2$	$d_3$	$d_4$
L3300.025-XY	30	±3	2.9	25	M2	-	6	12
L3300.040-XY	30	±7	2.8	40	M3	M2	6	12
L3300.060-XY	34	±9	3.4	60	M4	M3	10	12

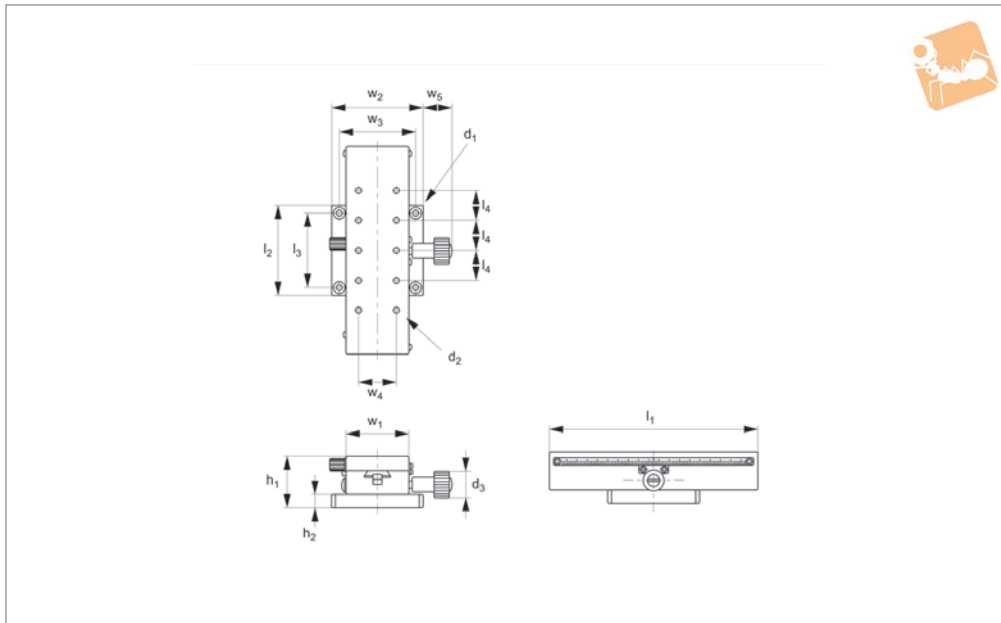
Order No.	$d_5$	$h_2$	$h_3$	$h_4$	$h_5$	$h_6$	$l_1$	$l_2$	$l_3$	$w_2$	$w_3$	$w_4$	$w_5$	$w_6$	$w_7$
L3300.025-XY	2.5	26.5	7.0	22.0	11.5	4.5	15	20	8	10	-	20	8.0	8	20
L3300.040-XY	3.5	26.5	7.0	22.0	11.5	3.5	28	20	8	20	20	20	8.0	8	32
L3300.060-XY	4.5	27.5	6.5	23.5	10.5	2.5	40	20	8	25	32	20	11.5	8	50



# Dovetail Stages - Rack & Pinion

X axis

# Manual Positioning Stages



**L3303.X**

MANUAL POSITIONING STAGES

**Material**

Aluminium body blackened, steel knob.

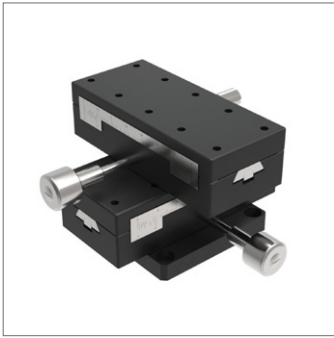
Minimum vernier reading 0,1mm.

Straightness accuracy 30µ.

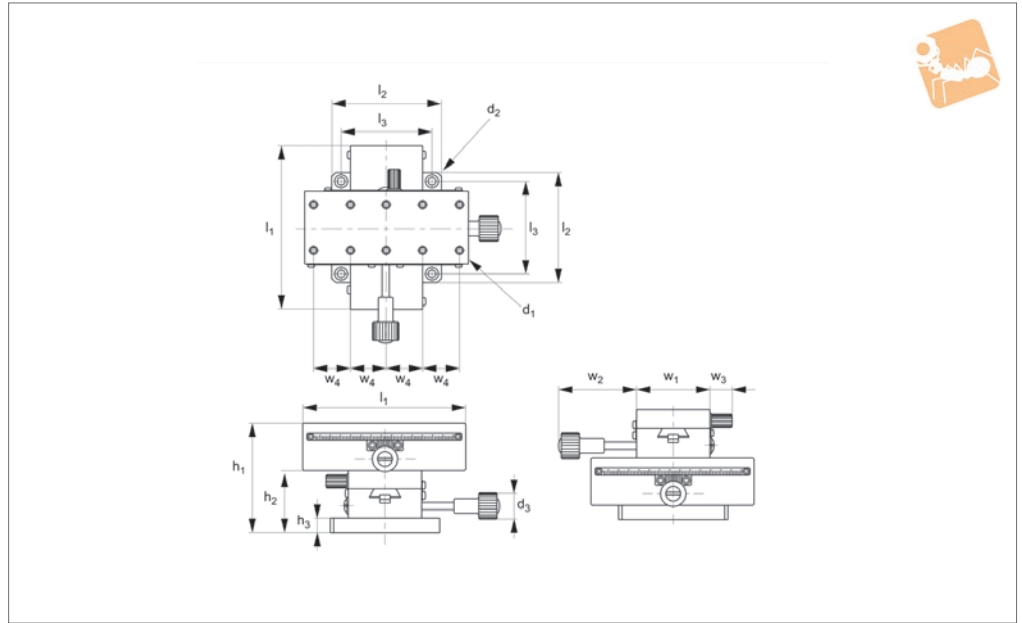
**Technical Notes**

Travel 18mm for one revolution.

Order No.	$h_1$	Travel	Load kg max.	$w_1$	$d_1$	$d_2$	$d_3$	$h_2$	$l_1$	$l_2$	$l_3$	$l_4$	$w_2$	$w_3$	$w_4$	$w_5$
L3303.042-X	34	±12	3.0	24.8	4.5	M4	15	8	42	50	40	20	50	40	15	17.8
L3303.060-X	34	±21	4.0	40.0	4.5	M4	15	8	60	60	50	20	60	50	25	17.8
L3303.090-X	34	±35	4.0	40.0	4.5	M4	15	8	90	60	50	20	60	50	25	17.8
L3303.140-X	34	±60	4.0	40.0	4.5	M4	15	8	140	60	50	20	60	50	25	17.8



## L3303.XY



### Material

Aluminium body blackened, steel knob.

Minimum vernier reading 0,1mm.

Straightness accuracy 30µ.

### Technical Notes

Travel 18mm for one revolution.

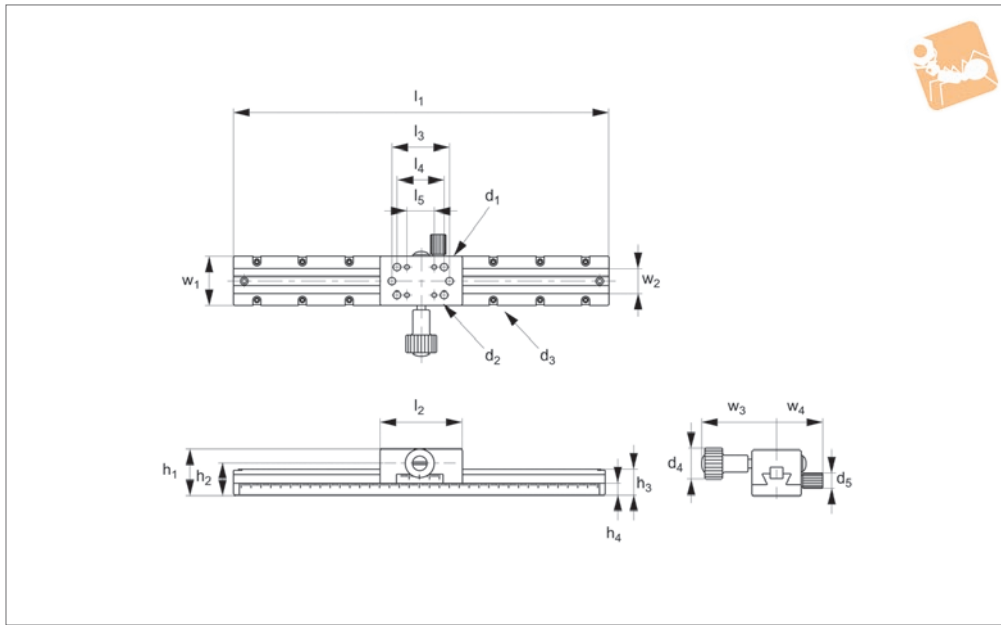
Order No.	$h_1$	Travel	Load kg max.	$w_1$	$d_1$	$d_2$	$d_3$	$h_2$	$h_3$	$l_1$	$l_2$	$l_3$	$w_2$	$w_3$	$w_4$
L3303.042-XY	60	±12	2.5	24.8	M4	4.5	15	8	34	42	50	40	28	12	12.5
L3303.060-XY	60	±21	3.5	40.0	M4	4.5	15	8	34	60	60	50	28	12	20
L3303.090-XY	60	±35	3.5	40.0	M4	4.5	15	8	34	90	60	50	43	13	20



# Dovetail Stages - Rack & Pinion

long stroke, X axis

# Manual Positioning Stages



## L3305

MANUAL POSITIONING STAGES

### Material

Aluminium body blackened, steel knob.

Minimum vernier reading 0,1mm.

Straightness accuracy 30 $\mu$ .

### Technical Notes

Travel 18mm for one revolution.

Use screwdriver to adjust knob to allow coarse or fine adjustment.

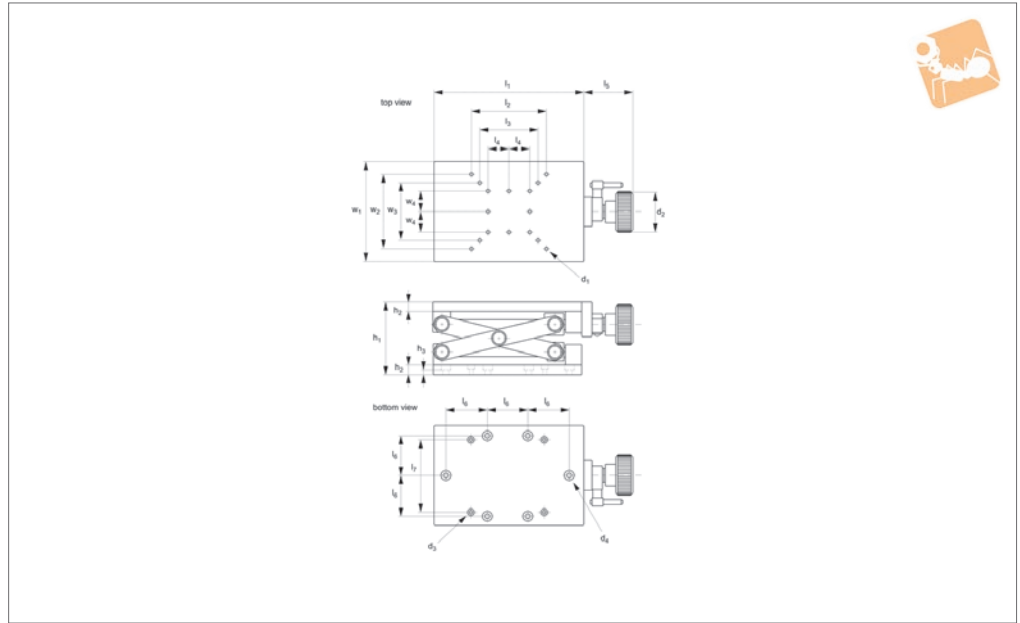
Order No.	$h_1$	Travel	Load kg max.	$w_1$	Accuracy	$d_1$	$d_2$	$d_3$ for
L3305.100	25	$\pm 40$	3.0	25	30 $\mu$	M2	M2	M3
L3305.150	25	$\pm 60$	3.0	25	40 $\mu$	M4	M2	M3
L3305.200	25	$\pm 95$	3.0	25	50 $\mu$	M4	M2	M3

Order No.	$d_4$	$d_5$	$h_2$	$h_3$	$h_4$	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$w_2$	$w_3$	$w_4$
L3305.100	15	8	17.1	14.8	6	100	42	30	25	15	15	40.2	24.5
L3305.150	15	8	17.1	14.8	6	150	42	30	25	15	15	40.2	24.5
L3305.200	15	8	17.1	14.8	6	200	42	30	25	15	15	40.2	24.5



## L3320



### Material

Aluminium body blackened, steel knob.

Order No.	$h_1$	$w_1$	Holding force kgf	Parallelism	$d_1$	$d_2$	$d_3$	$d_4$
L3320.080	60-100	80	7	0.2	M4	35	4.5	7.0
L3320.120	90-160	120	10	0.2	M4	50	4.5	8.0

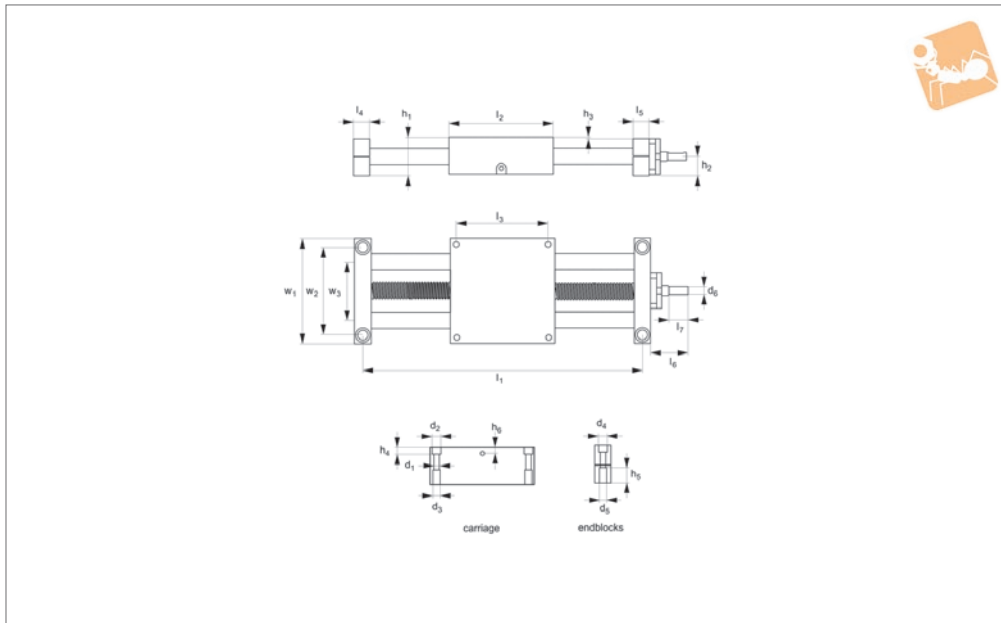
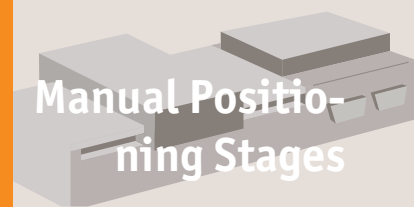
Order No.	$h_2$	$h_3$	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	$w_2$	$w_3$	$w_4$
L3320.080	8	3.5	120	70	-	25	43	35	-	70	-	25
L3320.120	12	5.5	180	90	70	25	61	50	90	90	70	25



# Ball Screw Linear Tables

12mm shafts

## Manual Positioning Stages



**L3149.12**

MANUAL POSITIONING STAGES

### Material

Hardened steel shafts.  
Aluminium alloy bearing block and end supports.  
Self-aligning linear ball bearings, hardened and ground steel body with resin retainers.  
Steel ball screw and nut.

as standard to ensure that the balls are permanently in contact with the shaft, even if the shafts bend slightly due to the load put on the table.  
Different stroke lengths available on request.

Bellows protection of the lead screw and shaft is available, add -B suffix to the part number.  
We strongly recommend you add 50mm to your required stroke.

### Technical Notes

Self-aligning linear ball bearings are used

### Tips

Handwheels to suit are available (see part number L1455)

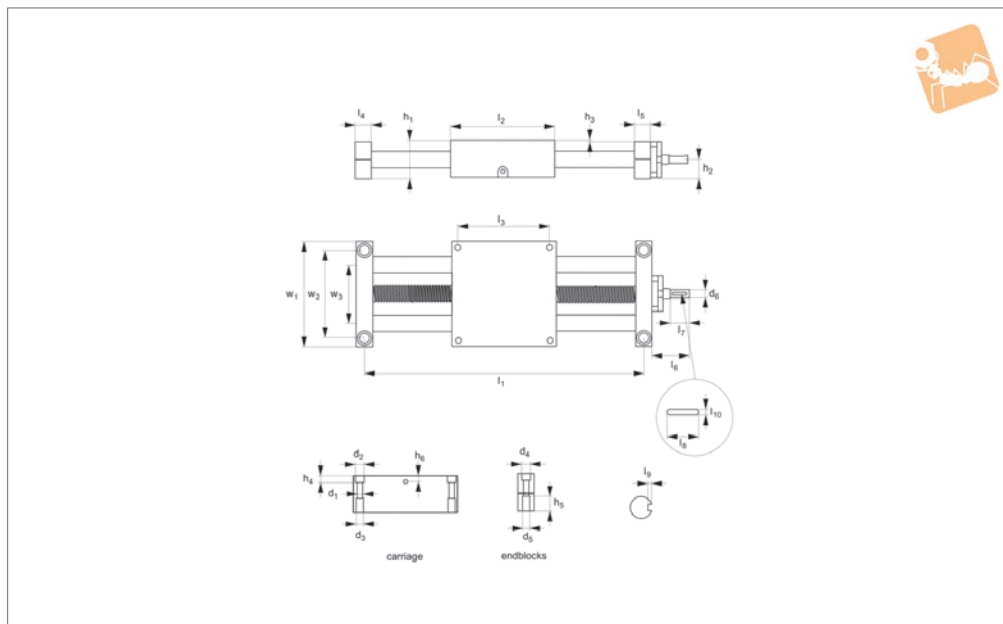
Order No.	Stroke	$l_1$	$h_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	$w_1$	$w_2$	$w_3$	Weight kg
L3149.12-0100	100	198	31.5	85	73	12	14	23	8	85	73	45	2.2
L3149.12-0150	150	248	31.5	85	73	12	14	23	8	85	73	45	3.3
L3149.12-0200	200	298	31.5	85	73	12	14	23	8	85	73	45	4.4
L3149.12-0250	250	348	31.5	85	73	12	14	23	8	85	73	45	5.5
L3149.12-0300	300	398	31.5	85	73	12	14	23	8	85	73	45	6.6
L3149.12-0350	350	448	31.5	85	73	12	14	23	8	85	73	45	7.7
L3149.12-0400	400	498	31.5	85	73	12	14	23	8	85	73	45	8.8
L3149.12-0450	450	548	31.5	85	73	12	14	23	8	85	73	45	9.9
L3149.12-0500	500	598	31.5	85	73	12	14	23	8	85	73	45	10.10

Order No.	$d_1$	$d_2$	$d_3$	$d_4$	$d_5$	$d_6$	$h_2$	$h_3$	$h_4$	$h_5$	$h_6$	Ball screw dia. x lead	Static load N max.
L3149.12-0100	5.2	10	M6x12	5.5	10.7	4	15	1.5	5.5	5.7	7.5	8x2,5	3900
L3149.12-0150	5.2	10	M6x12	5.5	10.7	4	15	1.5	5.5	5.7	7.5	8x2,5	3100
L3149.12-0200	5.2	10	M6x12	5.5	10.7	4	15	1.5	5.5	5.7	7.5	8x2,5	2500
L3149.12-0250	5.2	10	M6x12	5.5	10.7	4	15	1.5	5.5	5.7	7.5	8x2,5	1500
L3149.12-0300	5.2	10	M6x12	5.5	10.7	4	15	1.5	5.5	5.7	7.5	8x2,5	1200
L3149.12-0350	5.2	10	M6x12	5.5	10.7	4	15	1.5	5.5	5.7	7.5	8x2,5	1000
L3149.12-0400	5.2	10	M6x12	5.5	10.7	4	15	1.5	5.5	5.7	7.5	8x2,5	900
L3149.12-0450	5.2	10	M6x12	5.5	10.7	4	15	1.5	5.5	5.7	7.5	8x2,2	750
L3149.12-0500	5.2	10	M6x12	5.5	10.7	4	15	1.5	5.5	5.7	7.5	8x2,5	500





## L3149.20



### Material

Hardened steel shafts.  
Aluminium alloy bearing block and end supports.  
Self-aligning linear ball bearings, hardened and ground steel body with resin retainers.  
Steel ball screw and nut.

### Technical Notes

Self-aligning linear ball bearings are used

as standard to ensure that the balls are permanently in contact with the shaft, even if the shafts bend slightly due to the load put on the table.  
Different stroke lengths available on request.

### Tips

Handwheels to suit are available (see part number L1455)

Bellows protection of the lead screw and shaft is available, add -B suffix to the part number.  
We strongly recommend you add 50mm to your required.

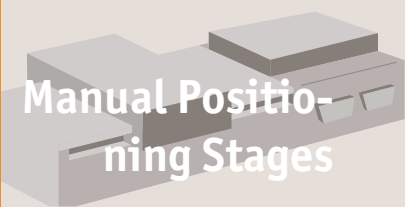
Order No.	Stroke	$l_1$	$h_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	$l_8$	$l_9$	$l_{10}$	$w_1$	$w_2$	Weight kg
L3149.20-0100	100	250	48	130	115	20	20	49	25	18	3	1.8	130	108	6.4
L3149.20-0150	150	300	48	130	115	20	20	49	25	18	3	1.8	130	108	9.6
L3149.20-0200	200	350	48	130	115	20	20	49	25	18	3	1.8	130	108	12.8
L3149.20-0250	250	400	48	130	115	20	20	49	25	18	3	1.8	130	108	16.0
L3149.20-0300	300	450	48	130	115	20	20	49	25	18	3	1.8	130	108	19.2
L3149.20-0350	350	500	48	130	115	20	20	49	25	18	3	1.8	130	108	22.4
L3149.20-0400	400	550	48	130	115	20	20	49	25	18	3	1.8	130	108	25.6
L3149.20-0450	450	600	48	130	115	20	20	49	25	18	3	1.8	130	108	28.8
L3149.20-0500	500	650	48	130	115	20	20	49	25	18	3	1.8	130	108	32.0
L3149.20-0550	550	700	48	130	115	20	20	49	25	18	3	1.8	130	108	35.2
L3149.20-0600	600	750	48	130	115	20	20	49	25	18	3	1.8	130	108	38.4
L3149.20-0650	650	800	48	130	115	20	20	49	25	18	3	1.8	130	108	41.6
L3149.20-0700	700	850	48	130	115	20	20	49	25	18	3	1.8	130	108	44.8
L3149.20-0750	750	900	48	130	115	20	20	49	25	18	3	1.8	130	108	48.0
L3149.20-0800	800	950	48	130	115	20	20	49	25	18	3	1.8	130	108	51.2
L3149.20-0850	850	1000	48	130	115	20	20	49	25	18	3	1.8	130	108	54.4
L3149.20-0900	900	1050	48	130	115	20	20	49	25	18	3	1.8	130	108	57.6
L3149.20-0950	950	1100	48	130	115	20	20	49	25	18	3	1.8	130	108	60.8
L3149.20-1000	1000	1150	48	130	115	20	20	49	25	18	3	1.8	130	108	64.0

Order No.	$w_3$	$d_1$	$d_2$	$d_3$	$d_4$	$d_5$	$d_6$	$h_2$	$h_3$	$h_4$	$h_5$	$h_6$	Ball screw dia. x lead	Static load N max.
L3149.20-0100	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	6750
L3149.20-0150	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	6750
L3149.20-0200	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	6750



# Ball Screw Linear Tables

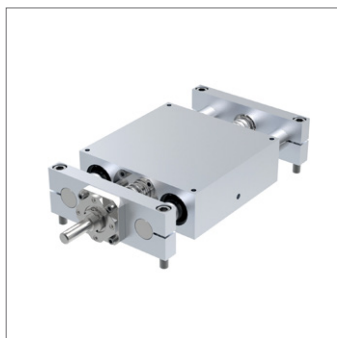
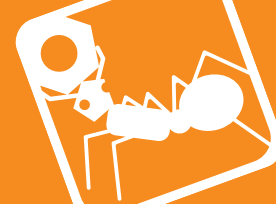
20mm shafts



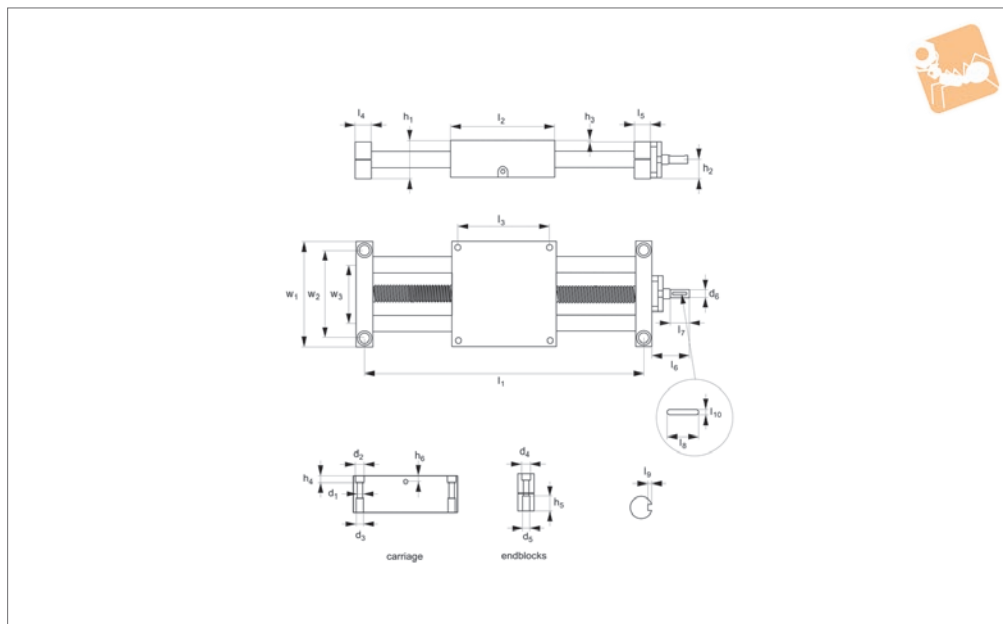
## Manual Positioning Stages

Order No.	w <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	d <sub>6</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>	h <sub>6</sub>	Ball screw dia. x lead	Static load N max.
L3149.20-0250	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	6750
L3149.20-0300	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	6750
L3149.20-0350	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	6000
L3149.20-0400	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	4750
L3149.20-0450	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	3500
L3149.20-0500	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	2500
L3149.20-0550	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	1750
L3149.20-0600	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	1500
L3149.20-0650	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	1250
L3149.20-0700	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	1000
L3149.20-0750	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	750
L3149.20-0800	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	750
L3149.20-0850	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	600
L3149.20-0900	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	500
L3149.20-0950	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	400
L3149.20-1000	72	6.8	11	M8x18	11	18	10	24	2	8.5	13.5	7.5	16x05	300

MANUAL POSITIONING STAGES



## L3149.30



### Material

Hardened steel shafts.  
Aluminium alloy bearing block and end supports.  
Self-aligning linear ball bearings, hardened and ground steel body with resin retainers.  
Steel ball screw and nut.

### Technical Notes

Self-aligning linear ball bearings are used

as standard to ensure that the balls are permanently in contact with the shaft, even if the shafts bend slightly due to the load put on the table.  
Different stroke lengths available on request.

### Tips

Handwheels to suit are available (see part number L1455)

Bellows protection of the lead screw and shaft is available, add -B suffix to the part number.

We strongly recommend you add 50mm to your required.

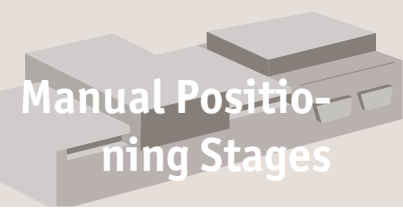
Order No.	Stroke	$l_1$	$h_1$	$l_2$	$l_3$	$l_4$	$l_5$	$l_6$	$l_7$	$l_8$	$l_9$	$l_{10}$	$w_1$	$w_2$	Weight g
L3149.30-0100	100	322	70	200	184	22	22	80	45	36	5	3	200	178	17.1
L3149.30-0150	150	372	70	200	184	22	22	80	45	36	5	3	200	178	25.6
L3149.30-0200	200	422	70	200	184	22	22	80	45	36	5	3	200	178	34.2
L3149.30-0250	250	472	70	200	184	22	22	80	45	36	5	3	200	178	42.7
L3149.30-0300	300	522	70	200	184	22	22	80	45	36	5	3	200	178	51.3
L3149.30-0350	350	572	70	200	184	22	22	80	45	36	5	3	200	178	59.8
L3149.30-0400	400	622	70	200	184	22	22	80	45	36	5	3	200	178	68.4
L3149.30-0450	450	672	70	200	184	22	22	80	45	36	5	3	200	178	76.9
L3149.30-0500	500	722	70	200	184	22	22	80	45	36	5	3	200	178	85.5
L3149.30-0550	550	772	70	200	184	22	22	80	45	36	5	3	200	178	94.0
L3149.30-0600	600	822	70	200	184	22	22	80	45	36	5	3	200	178	102.6
L3149.30-0650	650	872	70	200	184	22	22	80	45	36	5	3	200	178	111.1
L3149.30-0700	700	922	70	200	184	22	22	80	45	36	5	3	200	178	119.7
L3149.30-0750	750	972	70	200	184	22	22	80	45	36	5	3	200	178	128.2
L3149.30-0800	800	1022	70	200	184	22	22	80	45	36	5	3	200	178	136.8
L3149.30-0850	850	1072	70	200	184	22	22	80	45	36	5	3	200	178	145.3
L3149.30-0900	900	1122	70	200	184	22	22	80	45	36	5	3	200	178	153.9
L3149.30-0950	950	1172	70	200	184	22	22	80	45	36	5	3	200	178	162.4
L3149.30-1000	1000	1222	70	200	184	22	22	80	45	36	5	3	200	178	171.0

Order No.	$w_3$	$d_1$	$d_2$	$d_3$	$d_4$	$d_5$	$d_6$	$h_2$	$h_3$	$h_4$	$h_5$	$h_6$	Ball screw dia. x lead	Static load N max.
L3149.30-0100	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	11500
L3149.30-0150	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	11500
L3149.30-0200	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	11500



# Ball Screw Linear Tables

30mm shafts



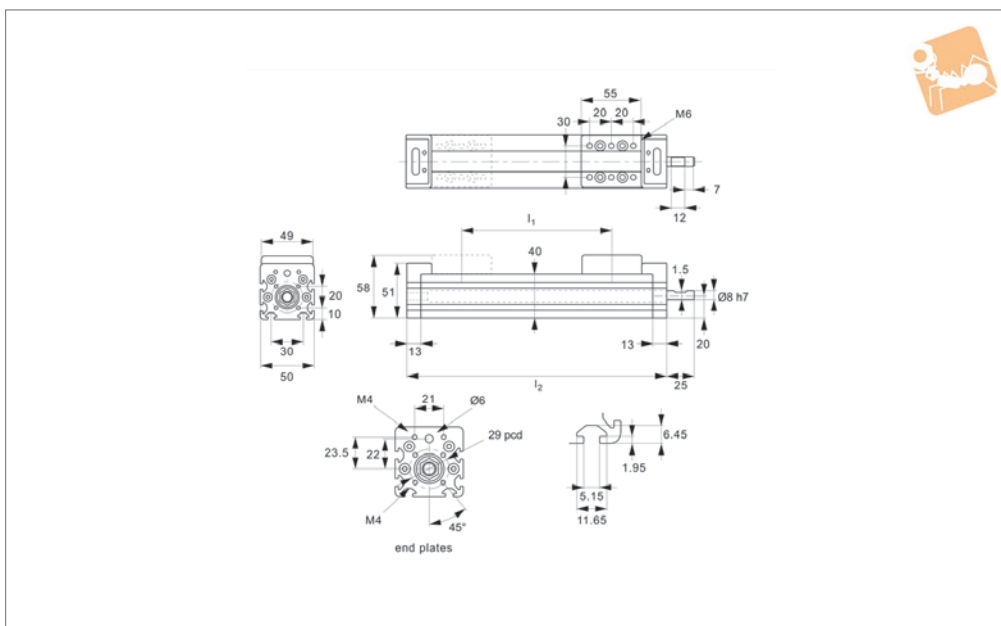
## Manual Positioning Stages

Order No.	w <sub>3</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	d <sub>6</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>	h <sub>6</sub>	Ball screw dia. x lead	Static load N max.
L3149.30-0250	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	11500
L3149.30-0300	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	11500
L3149.30-0350	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	11500
L3149.30-0400	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	11500
L3149.30-0450	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	11500
L3149.30-0500	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	10800
L3149.30-0550	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	9000
L3149.30-0600	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	7000
L3149.30-0650	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	5750
L3149.30-0700	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	4800
L3149.30-0750	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	4000
L3149.30-0800	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	3500
L3149.30-0850	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	3000
L3149.30-0900	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	2500
L3149.30-0950	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	2250
L3149.30-1000	130	6.8	11	M8x18	13	20	16	36	2	8.5	14	15	32x05	2000

MANUAL POSITIONING STAGES



## L3147.S



### Material

Aluminium body (anodised), with die cast zinc end plates. Steel lead screw with bronze nut. Stainless steel dust cover (AISI 304).

### Technical Notes

Uses a 14 trapezoidal lead screw with 3mm

pitch.

Rigid, economical and light-weight. Can be used as a single in series, or a single or double unit in parallel, (connected via pulleys and belt drive). Ideal for slide adjustment on conveyors, fixtures, packing machines etc.

### Tips

Often used in conjunction with one touch lock spindles, position indicators, hand-wheels etc.

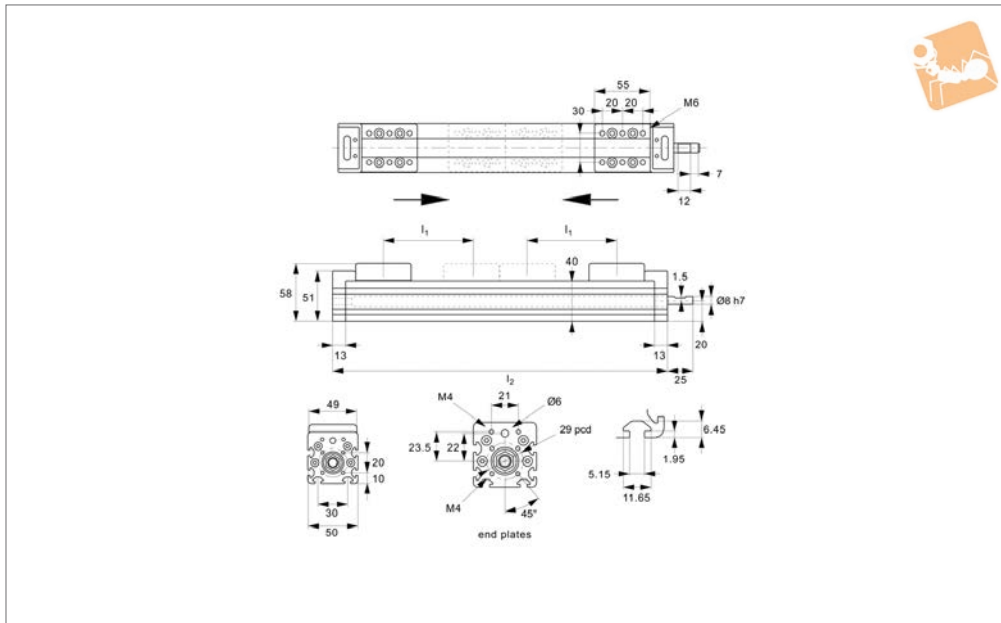
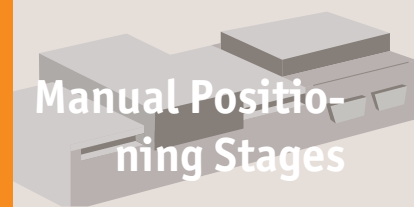
Order No.	Travel l <sub>1</sub>	Rotation direction	l <sub>2</sub>	Weight kg
L3147.S150-L	150	Counter-clockwise	250	1.7
L3147.S200-R	200	Clockwise	300	1.9
L3147.S200-L	200	Counter-clockwise	300	1.9
L3147.S300-R	300	Clockwise	400	2.0
L3147.S300-L	300	Counter-clockwise	400	2.0
L3147.S150-R	150	Clockwise	250	1.7
L3147.S250-R	250	Clockwise	350	2.0
L3147.S250-L	250	Counter-clockwise	350	2.0



# Lead Screw Linear Stages

double carriage

# Manual Positioning Stages



**L3147.D**

MANUAL POSITIONING STAGES

### Material

Aluminium body (anodised), with die cast zinc end plates. Steel lead screw with bronze nut. Stainless steel dust cover (AISI 304).

### Technical Notes

Uses a 14 trapezoidal lead screw with 3mm

pitch.

Rigid, economical and light-weight. Can be used as a single in series, or a single or double unit in parallel, (connected via pulleys and belt drive). Ideal for slide adjustment on conveyors, fixtures, packing machines etc.

### Tips

Often used in conjunction with one touch lock spindles, position indicators, hand-wheels etc.

Order No.	Travel $l_1$	$l_2$	Weight kg
L3147.D150	150	455	2.4
L3147.D100	100	355	2.4