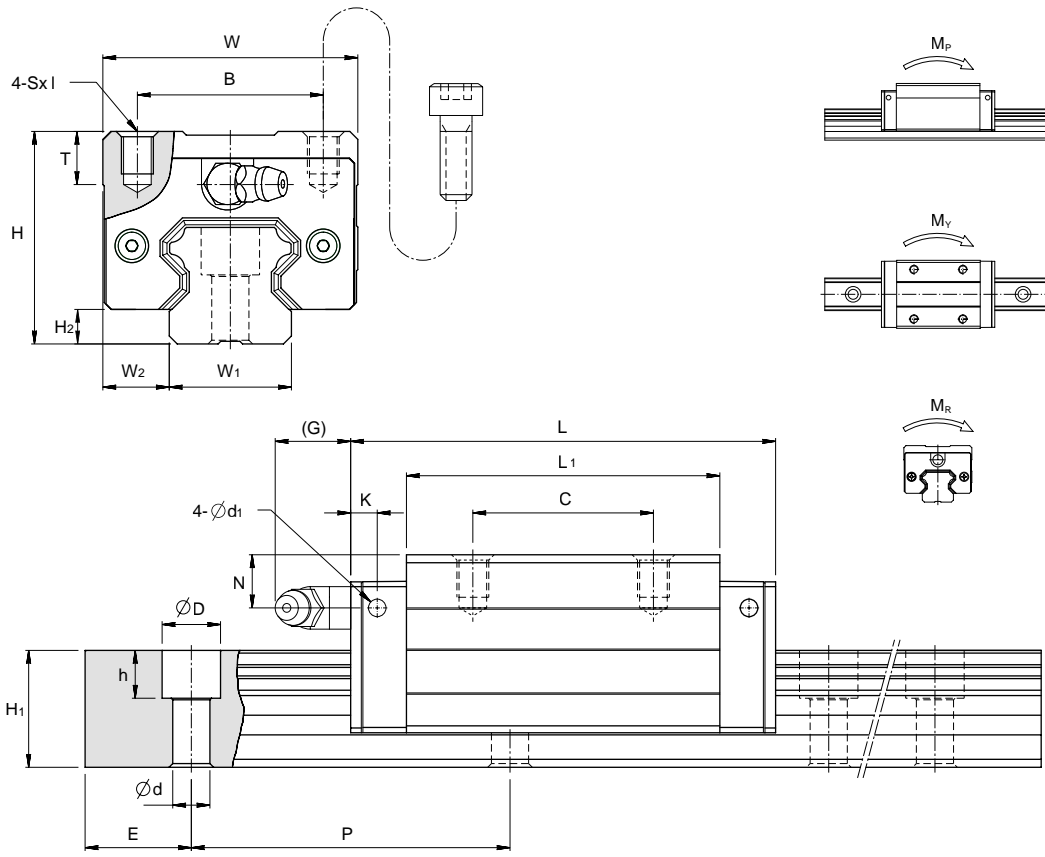


# MSA-S/MSA-LS

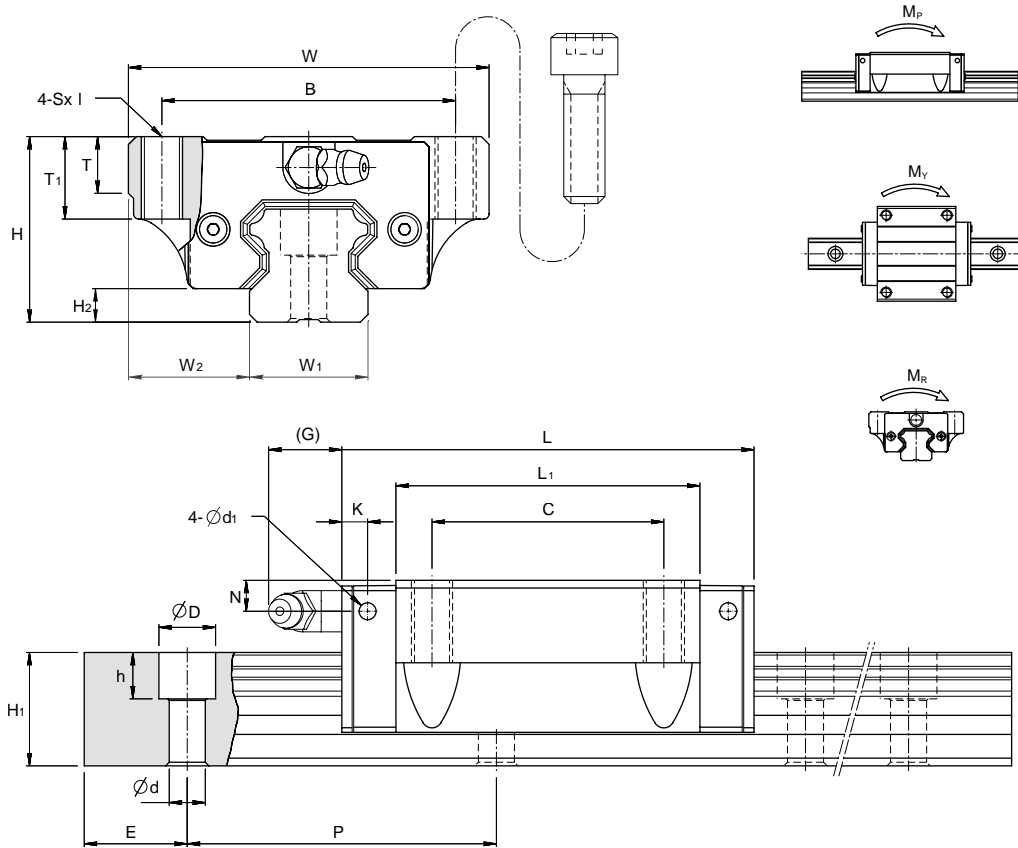


Unit: mm

Model No.	External dimension					Carriage dimension									
	Height H	Width W	Length L	W <sub>2</sub>	H <sub>2</sub>	B	C	SxI	L <sub>1</sub>	T	N	G	K	d <sub>1</sub>	Grease Nipple
<b>MSA 15 S</b>	28	34	56.3	9.5	4.2	26	26	M4x5	39.3	7.2	8.3	7	3.2	3.3	G-M4
<b>MSA 20 S</b> <b>MSA 20 LS</b>	30	44	72.9 88.8	12	5	32	36 50	M5x6	51.3 67.2	8	5	12	5.8	3.3	G-M6
<b>MSA 25 S</b> <b>MSA 25 LS</b>	40	48	81.6 100.6	12.5	6.5	35	35 50	M6x8	59 78	10	10	12	5.8	3.3	G-M6
<b>MSA 30 S</b> <b>MSA 30 LS</b>	45	60	97 119.2	16	8	40	40 60	M8x10	71.4 93.6	11.7	10	12	6.5	3.3	G-M6
<b>MSA 35 S</b> <b>MSA 35 LS</b>	55	70	111.2 136.6	18	9.5	50	50 72	M8x12	81 106.4	12.7	15	11.5	8.6	3.3	G-M6
<b>MSA 45 S</b> <b>MSA 45 LS</b>	70	86	137.7 169.5	20.5	10	60	60 80	M10x17	102.5 134.3	16	20	13.5	10.6	3.3	G-PT1/8

Model No.	Rail dimension					Basic load rating		Static moment rating			Weight	
	Width W <sub>1</sub>	Height H <sub>1</sub>	Pitch P	E std.	D x h x d	Dynamic C kN	Static C <sub>0</sub> kN	M <sub>p</sub> kN-m	M <sub>y</sub> kN-m	M <sub>r</sub> kN-m	Carriage kg	Rail kg/m
<b>MSA 15 S</b>	15	15	60	20	7.5 x 5.3 x 4.5	9.4	15.3	0.08	0.08	0.11	0.18	1.5
<b>MSA 20 S</b> <b>MSA 20 LS</b>	20	18	60	20	9.5 x 8.5 x 6	14.1 21.3	24.0 32.0	0.16 0.27	0.16 0.27	0.23 0.31	0.3 0.39	2.4
<b>MSA 25 S</b> <b>MSA 25 LS</b>	23	22	60	20	11 x 9 x 7	20.1 27.7	34.5 46.0	0.27 0.46	0.27 0.46	0.39 0.52	0.52 0.68	3.4
<b>MSA 30 S</b> <b>MSA 30 LS</b>	28	26	80	20	14 x 12 x 9	28.7 37.4	47.0 62.5	0.43 0.73	0.43 0.73	0.64 0.85	0.86 1.12	4.8
<b>MSA 35 S</b> <b>MSA 35 LS</b>	34	29	80	20	14 x 12 x 9	37.4 50.8	61.4 81.8	0.64 1.10	0.64 1.10	1.02 1.36	1.45 1.9	6.6
<b>MSA 45 S</b> <b>MSA 45 LS</b>	45	38	105	22.5	20 x 17 x 14	61.4 80.9	95.9 127.8	1.30 2.10	1.30 2.10	2.09 2.79	2.83 3.7	11.5

# MSA-A/MSA-LA

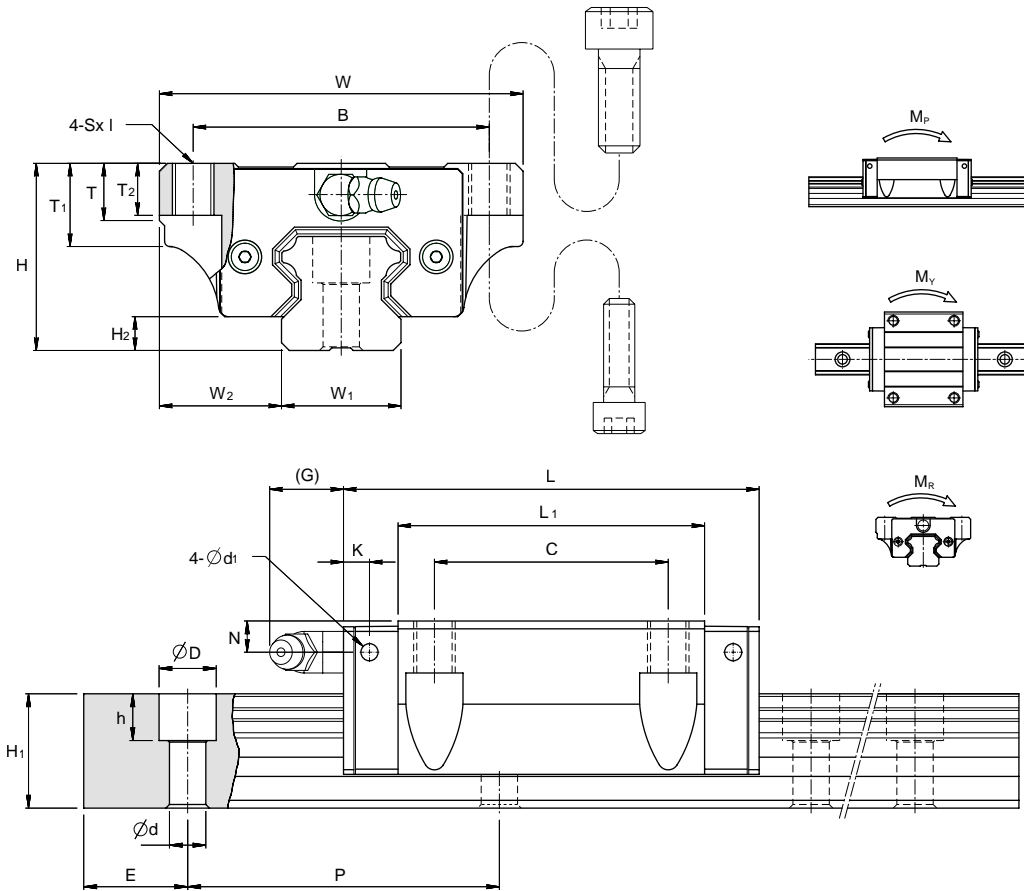


Unit: mm

Model No.	External dimension					Carriage dimension											Grease Nipple
	Height H	Width W	Length L	W <sub>2</sub>	H <sub>2</sub>	B	C	Sxl	L <sub>1</sub>	T	T <sub>1</sub>	N	G	K	d <sub>1</sub>		
MSA 15 A	24	47	56.3	16	4.2	38	30	M5x11	39.3	7	11	4.3	7	3.2	3.3	G-M4	
MSA 20 A MSA 20 LA	30	63	72.9 88.8	21.5	5	53	40	M6x10	51.3 67.2	7	10	5	12	5.8	3.3	G-M6	
MSA 25 A MSA 25 LA	36	70	81.6 100.6	23.5	6.5	57	45	M8x16	59 78	11	16	6	12	5.8	3.3	G-M6	
MSA 30 A MSA 30 LA	42	90	97 119.2	31	8	72	52	M10x18	71.4 93.6	11	18	7	12	6.5	3.3	G-M6	
MSA 35 A MSA 35 LA	48	100	111.2 136.6	33	9.5	82	62	M10x21	81 106.4	13	21	8	11.5	8.6	3.3	G-M6	
MSA 45 A MSA 45 LA	60	120	137.7 169.5	37.5	10	100	80	M12x25	102.5 134.3	13	25	10	13.5	10.6	3.3	G-PT1/8	

Model No.	Rail dimension					Basic load rating		Static moment rating			Weight	
	Width W <sub>1</sub>	Height H <sub>1</sub>	Pitch P	E std.	D x h x d	Dynamic C kN	Static C <sub>0</sub> kN	M <sub>P</sub> kN-m	M <sub>Y</sub> kN-m	M <sub>R</sub> kN-m	Carriage kg	Rail kg/m
MSA 15 A	15	15	60	20	7.5 x 5.3 x 4.5	9.4	15.3	0.08	0.08	0.11	0.18	1.5
MSA 20 A MSA 20 LA	20	18	60	20	9.5 x 8.5 x 6	14.1 21.3	24.0 32.0	0.16 0.27	0.16 0.27	0.23 0.31	0.4 0.52	2.4
MSA 25 A MSA 25 LA	23	22	60	20	11 x 9 x 7	20.1 27.7	34.5 46.0	0.27 0.46	0.27 0.46	0.39 0.52	0.62 0.82	3.4
MSA 30 A MSA 30 LA	28	26	80	20	14 x 12 x 9	28.7 37.4	47.0 62.5	0.43 0.73	0.43 0.73	0.64 0.85	1.09 1.43	4.8
MSA 35 A MSA 35 LA	34	29	80	20	14 x 12 x 9	37.4 50.8	61.4 81.8	0.64 1.10	0.64 1.10	1.02 1.36	1.61 2.11	6.6
MSA 45 A MSA 45 LA	45	38	105	22.5	20 x 17 x 14	61.4 80.9	95.9 127.8	1.30 2.10	1.30 2.10	2.09 2.79	2.98 3.9	11.5

# MSA-E/MSA-LE

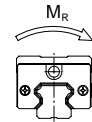
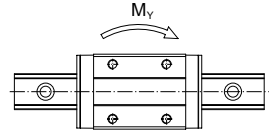
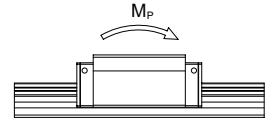
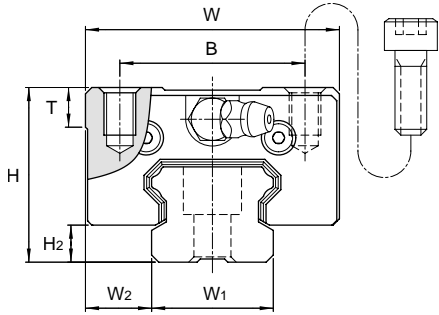


Unit: mm

Model No.	External dimension					Carriage dimension											Grease Nipple
	Height H	Width W	Length L	W <sub>2</sub>	H <sub>2</sub>	B	C	Sxl	L <sub>1</sub>	T	T <sub>1</sub>	T <sub>2</sub>	N	G	K	d <sub>1</sub>	
MSA 15 E	24	47	56.3	16	4.2	38	30	M5x7	39.3	7	11	7	4.3	7	3.2	3.3	G-M4
MSA 20 E	30	63	72.9	21.5	5	53	40	M6x10	51.3	7	10	10	5	12	5.8	3.3	G-M6
MSA 20 LE			88.8						67.2								
MSA 25 E	36	70	81.6	23.5	6.5	57	45	M8x10	59	11	16	10	6	12	5.8	3.3	G-M6
MSA 25 LE			100.6						78								
MSA 30 E	42	90	97	31	8	72	52	M10x10	71.4	11	18	10	7	12	6.5	3.3	G-M6
MSA 30 LE			119.2						93.6								
MSA 35 E	48	100	111.2	33	9.5	82	62	M10x13	81	13	21	13	8	11.5	8.6	3.3	G-M6
MSA 35 LE			136.6						106.4								
MSA 45 E	60	120	137.7	37.5	10	100	80	M12x15	102.5	13	25	15	10	13.5	10.6	3.3	G-PT1/8
MSA 45 LE			169.5						134.3								

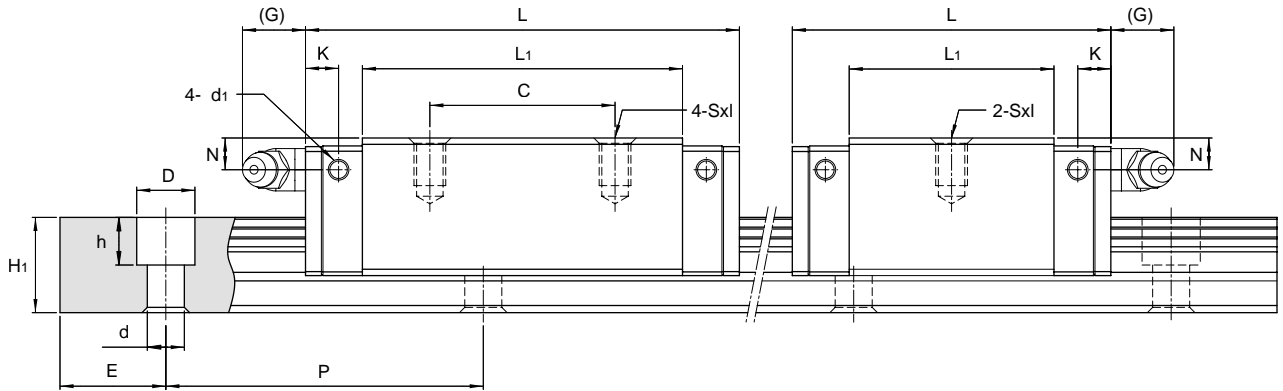
Model No.	Rail dimension					Basic load rating		Static moment rating			Weight	
	Width W <sub>1</sub>	Height H <sub>1</sub>	Pitch P	E std.	D x h x d	Dynamic C kN	Static C <sub>0</sub> kN	M <sub>P</sub> kN-m	M <sub>Y</sub> kN-m	M <sub>R</sub> kN-m	Carriage kg	Rail kg/m
MSA 15 E	15	15	60	20	7.5 x 5.3 x 4.5	9.4	15.3	0.08	0.08	0.11	0.18	1.5
MSA 20 E	20	18	60	20	9.5 x 8.5 x 6	14.1	24.0	0.16	0.16	0.23	0.4	2.4
MSA 20 LE						21.3	32.0	0.27	0.27	0.31	0.52	
MSA 25 E	23	22	60	20	11 x 9 x 7	20.1	34.5	0.27	0.27	0.39	0.62	3.4
MSA 25 LE						27.7	46.0	0.46	0.46	0.52	0.82	
MSA 30 E	28	26	80	20	14 x 12 x 9	28.7	47.0	0.43	0.43	0.64	1.09	4.8
MSA 30 LE						37.4	62.5	0.73	0.73	0.85	1.43	
MSA 35 E	34	29	80	20	14 x 12 x 9	37.4	61.4	0.64	0.64	1.02	1.61	6.6
MSA 35 LE						50.8	81.8	1.10	1.10	1.36	2.11	
MSA 45 E	45	38	105	22.5	20 x 17 x 14	61.4	95.9	1.30	1.30	2.09	2.98	11.5
MSA 45 LE						80.9	127.8	2.10	2.10	2.79	3.9	

# MSB-TS/MSB-S



MSB-S

MSB-TS



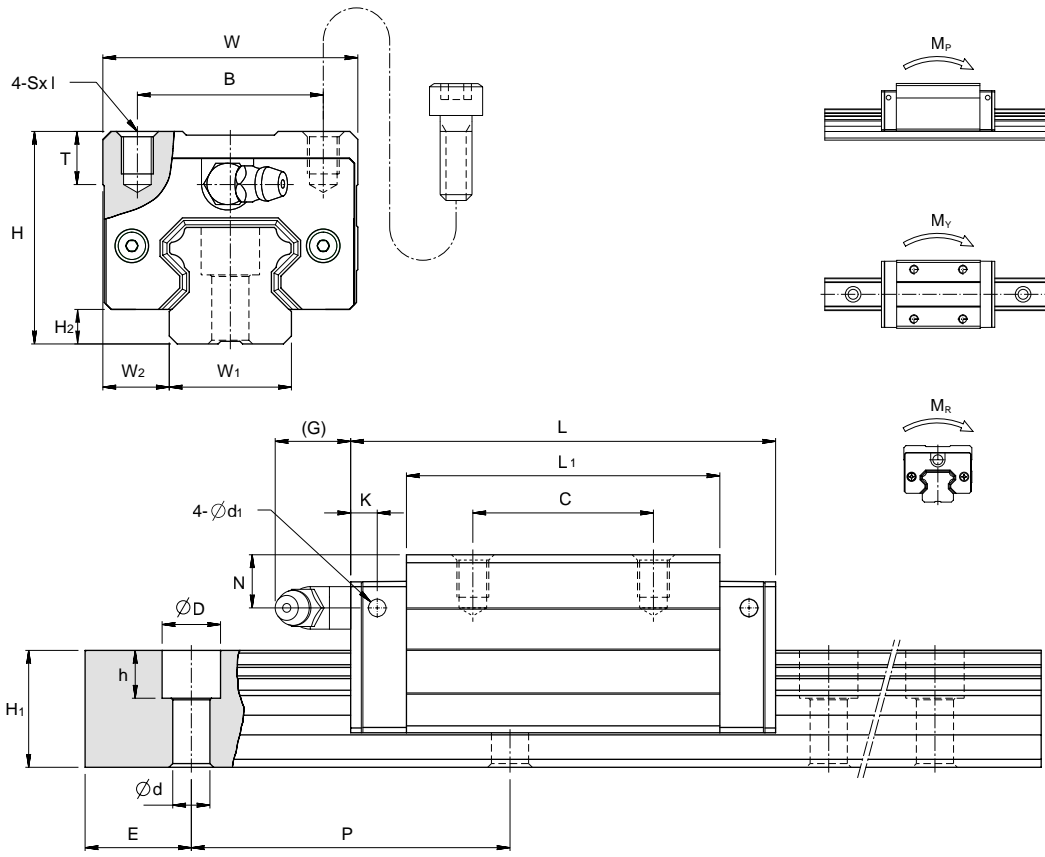
Unit: mm

Model No.	External dimension						Carriage dimension									Grease Nipple
	Height H	Width W	Length L	W <sub>2</sub>	H <sub>2</sub>	B	C	Sxl	L <sub>1</sub>	T	N	G	K	d <sub>1</sub>		
<b>MSB 15 TS</b> <b>MSB 15 S</b>	24	34	40 57	9.5	4.5	26	- 26	M4x6	23.5 40.5	6	5.5	5.5	5.1	3.3	G-M4	
<b>MSB 20 TS</b> <b>MSB 20 S</b>	28	42	48 67	11	6	32	- 32	M5x7	29 48	6	5.5	12	5.9	3.3	G-M6	
<b>MSB 25 TS</b> <b>MSB 25 S</b>	33	48	60.2 82	12.5	7	35	- 35	M6x9	38.7 60.5	8	6	12	6.3	3.3	G-M6	
<b>MSB 30 TS</b> <b>MSB 30 S</b>	42	60	68 96.7	16	9.5	40	- 40	M8x12	43.3 72	8	8	12	6.3	3.3	G-M6	

Model No.	Rail dimension					Basic load rating		Static moment rating			Weight	
	Width W <sub>1</sub>	Height H <sub>1</sub>	Pitch P	E std.	D x h x d	Dynamic C kN	Static C <sub>0</sub> kN	M <sub>P</sub> kN-m	M <sub>Y</sub> kN-m	M <sub>R</sub> kN-m	Carriage kg	Rail kg/m
<b>MSB 15 TS</b> <b>MSB 15 S</b>	15	12.5	60	20	*6 x 4.5 x 3.5 (7.5 x 5.3 x 4.5)	4.8 7.2	7.8 13.7	0.03 0.08	0.03 0.08	0.06 0.10	0.09 0.16	1.2
<b>MSB 20 TS</b> <b>MSB 20 S</b>	20	15	60	20	9.5 x 8.5 x 6	7.0 10.0	11.5 19.2	0.06 0.14	0.06 0.14	0.12 0.19	0.16 0.26	2
<b>MSB 25 TS</b> <b>MSB 25 S</b>	23	18	60	20	11 x 9 x 7	11.2 16.0	18.0 30.0	0.11 0.28	0.11 0.28	0.21 0.35	0.29 0.45	3
<b>MSB 30 TS</b> <b>MSB 30 S</b>	28	23	80	20	11 x 9 x 7	16.4 23.4	25.9 43.1	0.19 0.49	0.19 0.49	0.36 0.60	0.52 0.86	4.4

\* Rail mounting holes for M3 (6x4.5x3.5) and M4 (7.5x5.3x4.5) are available for MSB15 rail. The codes of rail type are MSB15R for M3 mounting holes, and MSB15U for M4 mounting holes.

# MSA-S/MSA-LS

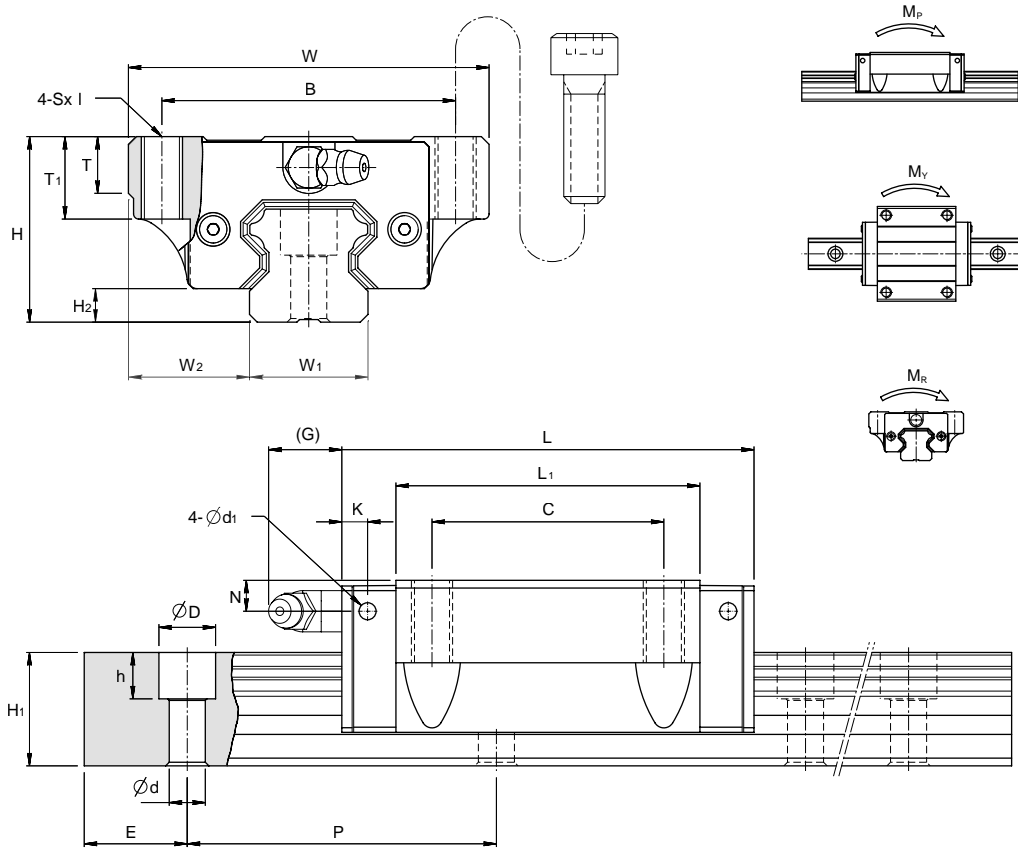


Unit: mm

Model No.	External dimension					Carriage dimension									
	Height H	Width W	Length L	W <sub>2</sub>	H <sub>2</sub>	B	C	SxI	L <sub>1</sub>	T	N	G	K	d <sub>1</sub>	Grease Nipple
<b>MSA 15 S</b>	28	34	56.3	9.5	4.2	26	26	M4x5	39.3	7.2	8.3	7	3.2	3.3	G-M4
<b>MSA 20 S</b> <b>MSA 20 LS</b>	30	44	72.9 88.8	12	5	32	36 50	M5x6	51.3 67.2	8	5	12	5.8	3.3	G-M6
<b>MSA 25 S</b> <b>MSA 25 LS</b>	40	48	81.6 100.6	12.5	6.5	35	35 50	M6x8	59 78	10	10	12	5.8	3.3	G-M6
<b>MSA 30 S</b> <b>MSA 30 LS</b>	45	60	97 119.2	16	8	40	40 60	M8x10	71.4 93.6	11.7	10	12	6.5	3.3	G-M6
<b>MSA 35 S</b> <b>MSA 35 LS</b>	55	70	111.2 136.6	18	9.5	50	50 72	M8x12	81 106.4	12.7	15	11.5	8.6	3.3	G-M6
<b>MSA 45 S</b> <b>MSA 45 LS</b>	70	86	137.7 169.5	20.5	10	60	60 80	M10x17	102.5 134.3	16	20	13.5	10.6	3.3	G-PT1/8

Model No.	Rail dimension					Basic load rating		Static moment rating			Weight	
	Width W <sub>1</sub>	Height H <sub>1</sub>	Pitch P	E std.	D x h x d	Dynamic C kN	Static C <sub>0</sub> kN	M <sub>p</sub> kN-m	M <sub>y</sub> kN-m	M <sub>r</sub> kN-m	Carriage kg	Rail kg/m
<b>MSA 15 S</b>	15	15	60	20	7.5 x 5.3 x 4.5	9.4	15.3	0.08	0.08	0.11	0.18	1.5
<b>MSA 20 S</b> <b>MSA 20 LS</b>	20	18	60	20	9.5 x 8.5 x 6	14.1 21.3	24.0 32.0	0.16 0.27	0.16 0.27	0.23 0.31	0.3 0.39	2.4
<b>MSA 25 S</b> <b>MSA 25 LS</b>	23	22	60	20	11 x 9 x 7	20.1 27.7	34.5 46.0	0.27 0.46	0.27 0.46	0.39 0.52	0.52 0.68	3.4
<b>MSA 30 S</b> <b>MSA 30 LS</b>	28	26	80	20	14 x 12 x 9	28.7 37.4	47.0 62.5	0.43 0.73	0.43 0.73	0.64 0.85	0.86 1.12	4.8
<b>MSA 35 S</b> <b>MSA 35 LS</b>	34	29	80	20	14 x 12 x 9	37.4 50.8	61.4 81.8	0.64 1.10	0.64 1.10	1.02 1.36	1.45 1.9	6.6
<b>MSA 45 S</b> <b>MSA 45 LS</b>	45	38	105	22.5	20 x 17 x 14	61.4 80.9	95.9 127.8	1.30 2.10	1.30 2.10	2.09 2.79	2.83 3.7	11.5

# MSA-A/MSA-LA

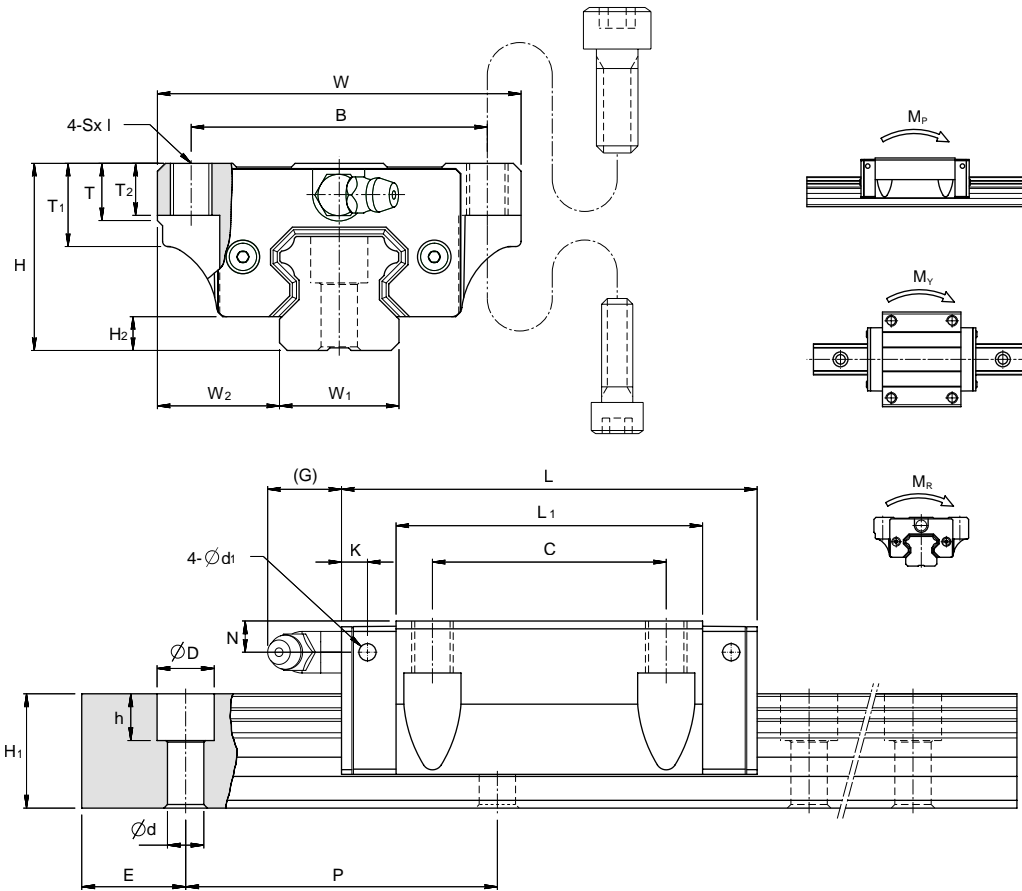


Unit: mm

Model No.	External dimension					Carriage dimension											Grease Nipple
	Height H	Width W	Length L	W <sub>2</sub>	H <sub>2</sub>	B	C	Sxl	L <sub>1</sub>	T	T <sub>1</sub>	N	G	K	d <sub>1</sub>		
MSA 15 A	24	47	56.3	16	4.2	38	30	M5x11	39.3	7	11	4.3	7	3.2	3.3	G-M4	
MSA 20 A MSA 20 LA	30	63	72.9 88.8	21.5	5	53	40	M6x10	51.3 67.2	7	10	5	12	5.8	3.3	G-M6	
MSA 25 A MSA 25 LA	36	70	81.6 100.6	23.5	6.5	57	45	M8x16	59 78	11	16	6	12	5.8	3.3	G-M6	
MSA 30 A MSA 30 LA	42	90	97 119.2	31	8	72	52	M10x18	71.4 93.6	11	18	7	12	6.5	3.3	G-M6	
MSA 35 A MSA 35 LA	48	100	111.2 136.6	33	9.5	82	62	M10x21	81 106.4	13	21	8	11.5	8.6	3.3	G-M6	
MSA 45 A MSA 45 LA	60	120	137.7 169.5	37.5	10	100	80	M12x25	102.5 134.3	13	25	10	13.5	10.6	3.3	G-PT1/8	

Model No.	Rail dimension					Basic load rating		Static moment rating			Weight	
	Width W <sub>1</sub>	Height H <sub>1</sub>	Pitch P	E std.	D x h x d	Dynamic C kN	Static C <sub>0</sub> kN	M <sub>P</sub> kN-m	M <sub>Y</sub> kN-m	M <sub>R</sub> kN-m	Carriage kg	Rail kg/m
MSA 15 A	15	15	60	20	7.5 x 5.3 x 4.5	9.4	15.3	0.08	0.08	0.11	0.18	1.5
MSA 20 A MSA 20 LA	20	18	60	20	9.5 x 8.5 x 6	14.1 21.3	24.0 32.0	0.16 0.27	0.16 0.27	0.23 0.31	0.4 0.52	2.4
MSA 25 A MSA 25 LA	23	22	60	20	11 x 9 x 7	20.1 27.7	34.5 46.0	0.27 0.46	0.27 0.46	0.39 0.52	0.62 0.82	3.4
MSA 30 A MSA 30 LA	28	26	80	20	14 x 12 x 9	28.7 37.4	47.0 62.5	0.43 0.73	0.43 0.73	0.64 0.85	1.09 1.43	4.8
MSA 35 A MSA 35 LA	34	29	80	20	14 x 12 x 9	37.4 50.8	61.4 81.8	0.64 1.10	0.64 1.10	1.02 1.36	1.61 2.11	6.6
MSA 45 A MSA 45 LA	45	38	105	22.5	20 x 17 x 14	61.4 80.9	95.9 127.8	1.30 2.10	1.30 2.10	2.09 2.79	2.98 3.9	11.5

# MSA-E/MSA-LE

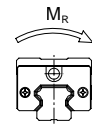
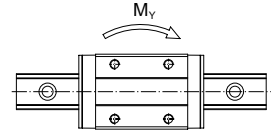
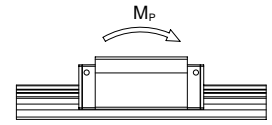
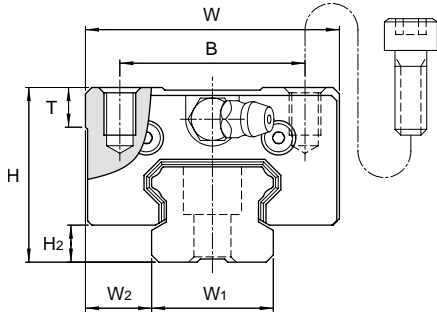


Unit: mm

Model No.	External dimension					Carriage dimension											Grease Nipple
	Height H	Width W	Length L	W <sub>2</sub>	H <sub>2</sub>	B	C	Sxl	L <sub>1</sub>	T	T <sub>1</sub>	T <sub>2</sub>	N	G	K	d <sub>1</sub>	
MSA 15 E	24	47	56.3	16	4.2	38	30	M5x7	39.3	7	11	7	4.3	7	3.2	3.3	G-M4
MSA 20 E	30	63	72.9	21.5	5	53	40	M6x10	51.3	7	10	10	5	12	5.8	3.3	G-M6
MSA 20 LE			88.8						67.2								
MSA 25 E	36	70	81.6	23.5	6.5	57	45	M8x10	59	11	16	10	6	12	5.8	3.3	G-M6
MSA 25 LE			100.6						78								
MSA 30 E	42	90	97	31	8	72	52	M10x10	71.4	11	18	10	7	12	6.5	3.3	G-M6
MSA 30 LE			119.2						93.6								
MSA 35 E	48	100	111.2	33	9.5	82	62	M10x13	81	13	21	13	8	11.5	8.6	3.3	G-M6
MSA 35 LE			136.6						106.4								
MSA 45 E	60	120	137.7	37.5	10	100	80	M12x15	102.5	13	25	15	10	13.5	10.6	3.3	G-PT1/8
MSA 45 LE			169.5						134.3								

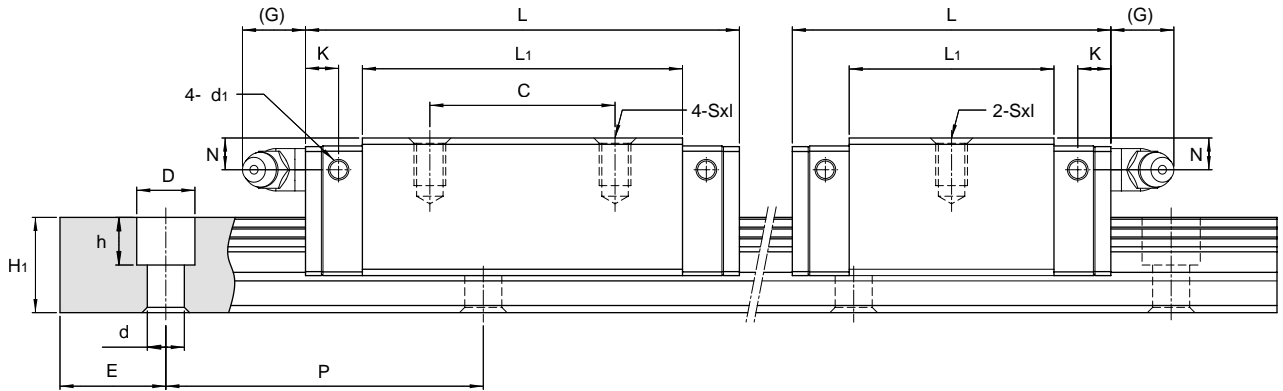
Model No.	Rail dimension					Basic load rating		Static moment rating			Weight	
	Width W <sub>1</sub>	Height H <sub>1</sub>	Pitch P	E std.	D x h x d	Dynamic C kN	Static C <sub>0</sub> kN	M <sub>P</sub> kN-m	M <sub>Y</sub> kN-m	M <sub>R</sub> kN-m	Carriage kg	Rail kg/m
MSA 15 E	15	15	60	20	7.5 x 5.3 x 4.5	9.4	15.3	0.08	0.08	0.11	0.18	1.5
MSA 20 E	20	18	60	20	9.5 x 8.5 x 6	14.1	24.0	0.16	0.16	0.23	0.4	2.4
MSA 20 LE						21.3	32.0	0.27	0.27	0.31	0.52	
MSA 25 E	23	22	60	20	11 x 9 x 7	20.1	34.5	0.27	0.27	0.39	0.62	3.4
MSA 25 LE						27.7	46.0	0.46	0.46	0.52	0.82	
MSA 30 E	28	26	80	20	14 x 12 x 9	28.7	47.0	0.43	0.43	0.64	1.09	4.8
MSA 30 LE						37.4	62.5	0.73	0.73	0.85	1.43	
MSA 35 E	34	29	80	20	14 x 12 x 9	37.4	61.4	0.64	0.64	1.02	1.61	6.6
MSA 35 LE						50.8	81.8	1.10	1.10	1.36	2.11	
MSA 45 E	45	38	105	22.5	20 x 17 x 14	61.4	95.9	1.30	1.30	2.09	2.98	11.5
MSA 45 LE						80.9	127.8	2.10	2.10	2.79	3.9	

# MSB-TS/MSB-S



MSB-S

MSB-TS



Unit: mm

Model No.	External dimension						Carriage dimension									Grease Nipple
	Height H	Width W	Length L	W <sub>2</sub>	H <sub>2</sub>	B	C	Sxl	L <sub>1</sub>	T	N	G	K	d <sub>1</sub>		
<b>MSB 15 TS</b> <b>MSB 15 S</b>	24	34	40 57	9.5	4.5	26	- 26	M4x6	23.5 40.5	6	5.5	5.5	5.1	3.3	G-M4	
<b>MSB 20 TS</b> <b>MSB 20 S</b>	28	42	48 67	11	6	32	- 32	M5x7	29 48	6	5.5	12	5.9	3.3	G-M6	
<b>MSB 25 TS</b> <b>MSB 25 S</b>	33	48	60.2 82	12.5	7	35	- 35	M6x9	38.7 60.5	8	6	12	6.3	3.3	G-M6	
<b>MSB 30 TS</b> <b>MSB 30 S</b>	42	60	68 96.7	16	9.5	40	- 40	M8x12	43.3 72	8	8	12	6.3	3.3	G-M6	

Model No.	Rail dimension					Basic load rating		Static moment rating			Weight	
	Width W <sub>1</sub>	Height H <sub>1</sub>	Pitch P	E std.	D x h x d	Dynamic C kN	Static C <sub>0</sub> kN	M <sub>P</sub> kN-m	M <sub>Y</sub> kN-m	M <sub>R</sub> kN-m	Carriage kg	Rail kg/m
<b>MSB 15 TS</b> <b>MSB 15 S</b>	15	12.5	60	20	*6 x 4.5 x 3.5 (7.5 x 5.3 x 4.5)	4.8 7.2	7.8 13.7	0.03 0.08	0.03 0.08	0.06 0.10	0.09 0.16	1.2
<b>MSB 20 TS</b> <b>MSB 20 S</b>	20	15	60	20	9.5 x 8.5 x 6	7.0 10.0	11.5 19.2	0.06 0.14	0.06 0.14	0.12 0.19	0.16 0.26	2
<b>MSB 25 TS</b> <b>MSB 25 S</b>	23	18	60	20	11 x 9 x 7	11.2 16.0	18.0 30.0	0.11 0.28	0.11 0.28	0.21 0.35	0.29 0.45	3
<b>MSB 30 TS</b> <b>MSB 30 S</b>	28	23	80	20	11 x 9 x 7	16.4 23.4	25.9 43.1	0.19 0.49	0.19 0.49	0.36 0.60	0.52 0.86	4.4

\* Rail mounting holes for M3 (6x4.5x3.5) and M4 (7.5x5.3x4.5) are available for MSB15 rail. The codes of rail type are MSB15R for M3 mounting holes, and MSB15U for M4 mounting holes.