



Model No.	Bolt Size	
	S_1	S_2
MSA 15	M5	M4
MSA 20	M6	M5
MSA 25	M8	M6
MSA 30	M10	M8
MSA 35	M10	M8
MSA 45	M12	M10
MSA 55	M14	M12
MSA 65	M16	M14

Model No.	External dimension					Carriage dimension												Grease Nipple
	Height H	Width W	Length L	W ₂	H ₂	B	C	S×ℓ	L ₁	T	T ₁	T ₂	N	G	K	d ₁		
MSA 15 E	24	47	56.3	16	4.2	38	30	M5×7	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	M6×10	51.3	7	10	10	5	12	5.8	3.3	G-M6	
MSA 20 LE			88.8						67.2									
MSA 20 TE			51.1						29.5									
MSA 25 E	36	70	81.6	23.5	6.5	57	45	M8×10	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	M10×10	71.4	11	18	10	7	12	6.8	3.3	G-M6	
MSA 30 LE			119.2						93.6									
MSA 35 E	48	100	111.2	33	9.5	82	62	M10×13	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	M12×15	102.5	13	25	15	10	13.5	10.6	3.3	G-PT 1/8	
MSA 45 LE			169.5						134.3									
MSA 55 E	70	140	162.1	43.5	13	116	95	M14×17	119.5	19	32	17	11	13.5	8.9	3.3	G-PT 1/8	
MSA 55 LE			200.1						157.5									
MSA 65 E	90	170	199	53.5	15	142	110	M16×23	149	21.5	37.5	23	19	13.5	8.9	3.3	G-PT 1/8	
MSA 65 LE			253						203									

Note: The basic dynamic load rating C of ball type is based on the 50 km for nominal life. The conversion between C for 50 km and C₁₀₀ for 100 km is $C=1.26 \times C_{100}$.

Note*: Single: Single carriage/ Double: Double carriages closely contacting with each other.

Unit: mm

Model No.	Rail dimension					Basic load rating		Static moment rating				Weight		
	Width W ₁	Height H ₁	Pitch P	E std.	D × h × d	Dynamic C kN	Static C ₀ kN	M _p kN-m		M _y kN-m		M _R kN-m	Carriage kg	Rail kg/m
								Single*	Double*	Single*	Double*			
MSA 15 E	15	15	60	20	7.5×5.3×4.5	11.8	18.9	0.12	0.68	0.12	0.68	0.14	0.18	1.5
MSA 20 E	20	18	60	20	9.5×8.5×6	19.2	29.5	0.23	1.42	0.23	1.42	0.29	0.4	2.4
MSA 20 LE					9.5×8.5×6	23.3	39.3	0.39	2.23	0.39	2.23	0.38	0.52	
MSA 20 TE					11×9×7	13.1	17.2	0.16	0.54	0.16	0.54	0.16	0.23	
MSA 25 E	23	22	60	20	11×9×7	28.1	42.4	0.39	2.20	0.39	2.20	0.48	0.62	3.4
MSA 25 LE						34.4	56.6	0.67	3.52	0.67	3.52	0.63	0.82	
MSA 30 E	28	26	80	20	14×12×9	39.2	57.8	0.62	3.67	0.62	3.67	0.79	1.09	4.8
MSA 30 LE						47.9	77.0	1.07	5.81	1.07	5.81	1.05	1.43	
MSA 35 E	34	29	80	20	14×12×9	52.0	75.5	0.93	5.47	0.93	5.47	1.25	1.61	6.6
MSA 35 LE						63.6	100.6	1.60	8.67	1.60	8.67	1.67	2.11	
MSA 45 E	45	38	105	22.5	20×17×14	83.8	117.9	1.81	10.67	1.81	10.67	2.57	2.98	11.5
MSA 45 LE						102.4	157.3	3.13	16.95	3.13	16.95	3.43	3.9	
MSA 55 E	53	44	120	30	23×20×16	123.6	169.8	3.13	17.57	3.13	17.57	4.50	4.17	15.5
MSA 55 LE						151.1	226.4	5.40	28.11	5.40	28.11	6.00	5.49	
MSA 65 E	63	53	150	35	26×22×18	198.8	265.3	6.11	33.71	6.11	33.71	8.36	8.73	21.9
MSA 65 LE						253.5	375.9	11.84	57.32	11.84	57.32	11.84	11.89	