



MS12-16IL

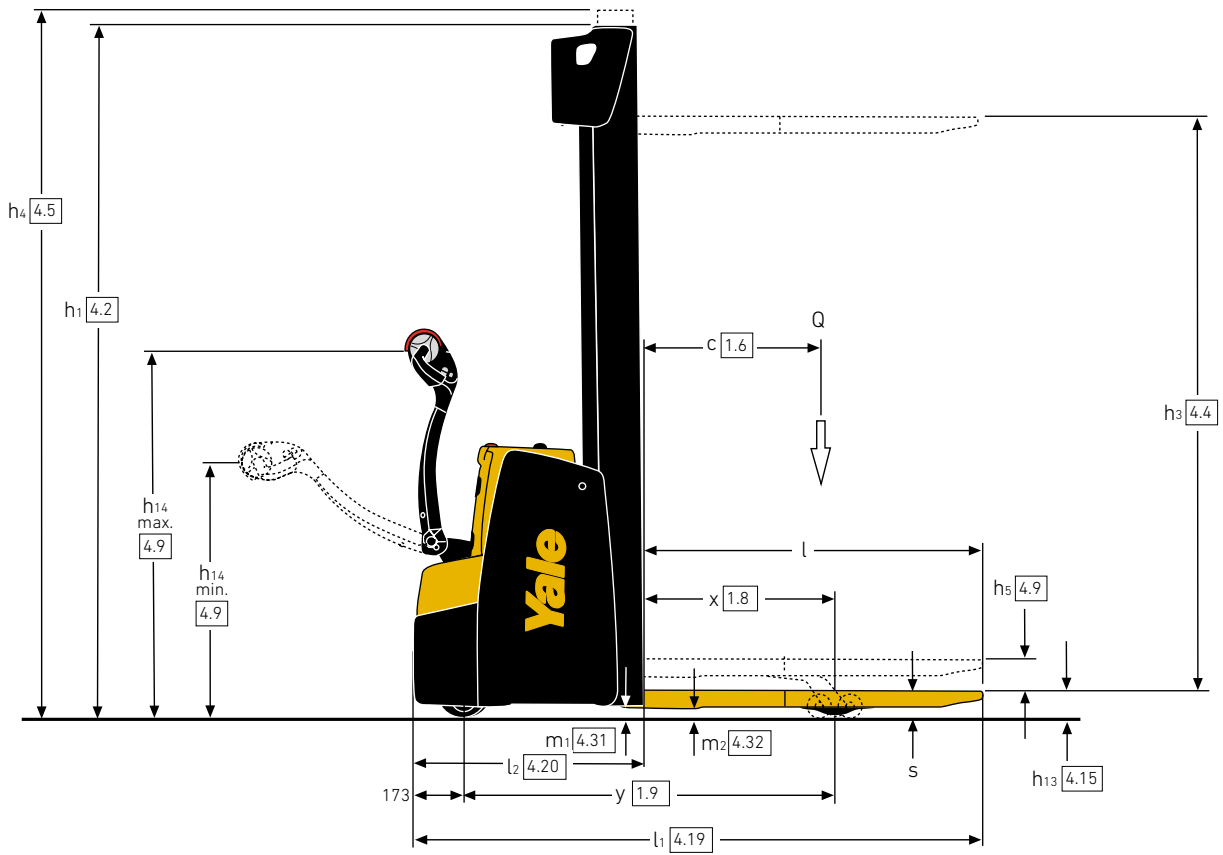
SPEC SHEET

1,200 - 1,600 kg

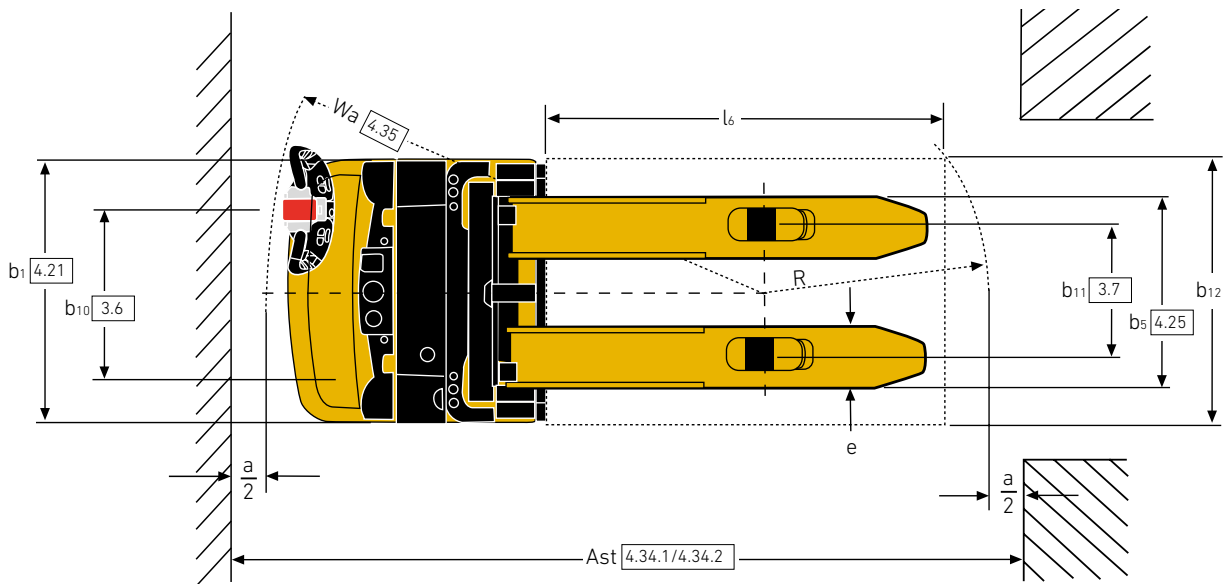
MSIL Series

Pedestrian High
Lift Stacker

TRUCK DIMENSIONS – MSIL SERIES



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VDI 2198 – GENERAL SPECIFICATIONS – MSIL SERIES

		Yale			
		MS12IL	MS14IL	MS16IL	
GENERAL	1.1	Manufacturer			
	1.2	Model designation			
	1.3	Drive	Electric (battery)		
	1.4	Operator type	Pedestrian		
	1.5	Rated capacity/Rated load	1.2	1.4	1.6
	1.6	Load centre distance	c (mm) 600		
	1.8	Load distance, centre of drive axle to fork ⁽¹⁾	x (mm) 644		
	1.9	Wheelbase	1350		1422
	WEIGHT	2.1	Service weight ⁽⁴⁾	1111	
2.2		Axle loading, laden front/rear	832 / 1479	760 / 1751	920 / 1867
2.3		Axle loading, unladen front/rear	735 / 376	715 / 396	790 / 397
TYRES	3.1	Tyres front/rear	Topthane / Polyurethane		
	3.2	Tyre size, front	ø mm x mm 230 x 70		
	3.3	Tyre size, rear	ø mm x mm 85 x 95		
	3.4	Additional wheels (dimensions)	ø mm x mm 150 x 54		
	3.5	Wheels, number front/rear (x = driven wheels)	1 x + 1/2	1 x +1/4	
	3.6	Tread, front	b ₁₀ (mm) 510		
	3.7	Tread, rear	b ₁₁ (mm) 385		
DIMENSIONS	4.2	Height, mast lowered	h ₁ (mm) 1900		
	4.3	Free lift	h ₂ (mm) 100		
	4.4	Lift	h ₃ (mm) 2800		
	4.5	Height, mast extended	h ₄ (mm) 3328		
	4.6	Initial lift	h ₅ (mm) 120		
	4.9	Height drawbar in driving position min./max.	h ₁₄ (mm) 867 / 1223		
	4.15	Height, lowered	h ₁₃ (mm) 90		
	4.19	Overall length ⁽²⁾	l ₁ (mm) 2028		2100
	4.20	Length to face of forks ⁽²⁾	l ₂ (mm) 878		950
	4.21	Overall width	b ₁ /b ₂ (mm) 790		
	4.22	Fork dimensions ⁽¹⁰⁾	s/e/l (mm) 55 / 185 / 1150		
	4.25	Distance between fork-arms ⁽⁷⁾	b ₅ (mm) 570		
	4.31	Ground clearance, laden, below mast	m ₁ (mm) 44		
	4.32	Ground clearance, center of wheelbase	m ₂ (mm) 20		
	4.33	Load dimension b ₁₂ x l ₆ crossways	b ₁₂ x l ₆ (mm) 1000 x 1200		
	4.34.1	Aisle width for pallets 1200mm x 1000mm crossways	A _{st} (mm) 2449		2518
	4.34.2	Aisle width for pallets 800mm x 1200mm lengthwise	A _{st} (mm) 2436		2505
4.35	Turning radius	W _a (mm) 1551		1620	
PERFORMANCE	5.1	Travel speed, laden/unladen	km/h 6 / 6		
	5.1.1	Travel speed, laden/unladen, backwards	km/h 6 / 6		
	5.2	Lift speed, laden/unladen	m/s 0.16 / 0.27		0.15 / 0.27
	5.3	Lowering speed, laden/unladen	m/s 0.40 / 0.25		
	5.7	Gradeability, laden/unladen	4.1 / 10.6	3.6 / 10.6	3.0 / 9.8
	5.8	Max. gradeability, laden/unladen	11.0 / 22.5	9.9 / 22.5	8.8 / 23.3
	5.10	Service brake	Electromagnetic		
ELECTRIC	6.1	Drive motor S2 60 minute rating	kW 1.2		
	6.2	Lift motor S3 15% rating	kW 3 (9)		
	6.3	Battery according to DIN 43531/35/36 A,B,C, no	B		
	6.4	Battery voltage/nominal capacity K5	(V)/(Ah) 24V / 250Ah ⁽⁵⁾	24V / 250Ah ⁽⁸⁾	24V / 375Ah ⁽⁴⁾
	6.5	Battery weight ⁽³⁾	kg 288		
	6.6	Energy consumption according to VDI cycle	kWh/h @ no. of cycles 0.78 / 1.0	0.89 / 1.13	0.99 / 1.13
8.1	Type of drive unit	AC-Controller			
10.7	Sound pressure level at the driver's position	dB(A) 67.6 / 64			

(1) With 3 stage mast -43mm

(2) With 3 stage mast +43mm, with 3 stage mast with load backrest +43mm, with 2 stage mast with load backrest +27mm

(3) These values may vary of +/-5%

(4) Available battery 24V / 315Ah (288kg)

(5) Available battery 24V / 210Ah (212kg); 24V / 200Ah BS (185kg) the battery is not Din B; with BS200Ah the wheelbase is decreased y = +62mm

(6) With forks 1400/1600 mm +14kg

(7) Available b₅ 680mm: with b₅ 680mm, x -43mm, l₁ and l₂ +43mm

(8) Available battery 24V / 210Ah (212kg); 24V / 315Ah (288kg); 24V / 375Ah (288kg); with 315/375Ah the wheelbase is increased y = +72mm

(9) Value referred to S3 12%

(10) With 2 stage mast and b₅ = 570mm the s dimension increases 5mm for first 250mm at toe

MAST DIMENSIONS – MSIL SERIES

Model		h ₃ (mm)	h ₂ (mm)	h ₁ ⁽¹⁾ (mm)	h ₄ ⁽²⁾ (mm)	Weight ⁽²⁾⁽³⁾ (kg)		
2-Stage No Free-Lift (NFL) Mast								
MS12IL, MS14IL, MS16IL		2800	100	1900 ⁽⁴⁾	3328	329		
		3000	100	2000 ⁽⁴⁾	3528	343		
		3200	100	2100	3728	356		
		3400	100	2200	3928	369		
		3600	100	2300	4128	382		
		3800	100	2400	4328	395		
		4000	100	2500	4528	409		
		4200	100	2600	4728	422		
2-Stage Full Free-Lift (FFL) Mast								
MS12IL, MS14IL, MS16IL		2740	1418	1850 ⁽³⁾	3268	341		
		2940	1518	1950 ⁽³⁾	3468	354		
		3140	1618	2050	3668	367		
		3340	1718	2150	3868	380		
		3540	1818	2250	4068	393		
		3740	1918	2350	4268	406		
		3940	2018	2450	4468	419		
		4140	2118	2550	4668	432		
3-Stage Full Free-Lift (FFL) Mast								
MS16IL	MS14IL	MS12IL	4040	1318	1850 ⁽³⁾	4606	462	
			4340	1418	1950 ⁽³⁾	4906	481	
			4620	1518	2050	5186	499	
			4900	1618	2150	5466	518	
				5180	1718	2250	5746	537
				5460	1818	2350	6026	556
				5740	1918	2450	6306	575
				6020	2018	2550	6586	594

(1) With free lift of 100 mm for NFL mast

(2) With load backrest (h=1000) for carriage h₄ + 562mm (2 stage mast), + 524mm (3 stage mast), + 518mm (2 ton. mast)

(3) All weights are: mast structures (weldment, cylinders, chain, pulley) + oil. EXCLUDED: forks, accessories

(4) Not available with vertical extraction of battery BS200Ah

All values are nominal values and they are subject to tolerances.







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Yale Lift Truck Technologies


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Publication part no. 220991708 Rev.00 (0323DMS) EN