MBV 15 - COUNTERBALANCE AGV FORKLIFT



The MBV15 is a fully automated counterbalanced AGV forklift, designed for flexible, unmanned material handlingacross a wide range of warehouse and production environments. With a 1.5-tonne load capacity and lift heights up to 5.0 metres, it offers exceptional stability and versatility — capable of handling standard pallets without the need for straddle legs or additional clearance. Guided by SLAM or QR-code navigation, the MBV15 supports intelligent path planning, automated charging, and seamless integration into warehouse management systems. Its compact footprint and precise control make it ideal for mixed-load operations and variable workflows.

Ideal for:
Automated pallet transport and stacking Mixed-use warehouses and production lines Operations requiring flexible AGV deployment without infrastructure changes

Technical Parameters

feature	1.1	Manufacturer		MIMA	MIMA
	1.2	Model		MBV	MBV
		Model code		1MBV15	1MBV15R
	1.3	Drive type		electric	electric
	1.4	Operation type		walk	walk
	1.5	Rated load	Q(t)	1.5	1.5
	1.6	Load center	C(mm)	500	500
	1.7	Front overhang	x(mm)	116	170
	1.8	Wheelbase	y(mm)	1000	1055
weight	2.1	Weight (including battery)	kg	2560	2770
	2.2	Axle load, fully loaded, front/rear	kg	490/3570	530/3740
	2.3	Axle load, unloaded, front/rear	kg	1480/1090	1540/1230
tire	3.1	Tire type, front/rear		Polyurethane PU	Solid rubber
	3.2	Front wheel size		φ254×102	φ310×120
	3.3	Rear wheel size		φ203×55	φ305×140
	3.4	Number of wheels front/rear (X = drive wheels)		1X/2	1X/2
	3.5	Track width, rear	b11(mm)	893	918.5
size	4.1	Mast inclination, forward/backward	α/β(°)	-	-
	4.2	Mast closed height	h1(mm)	See the mast parameter table	See the mast parameter table
	4.3	Lifting height	h3(mm)	See the mast parameter table	See the mast parameter table
	4.4	Mast extended height	h4(mm)	See the mast parameter table	See the mast parameter table
	4.5	Overall length(Safety edge not included)	l1(mm)	2380【1】	2490【1】
	4.6	Overall width(Safety edge not included)	l2(mm)	1310	1420
	4.7	Vehicle width (excluding safety edge)	b1/b2(mm)	960/978【2】	960/1060【2】
	4.8	Fork size	s/e/l(mm)	40/100/1070	40/100/1070
	4.9	Fork carriage width	b3(mm)	750	750
	4.1	Fork outside width	b5(mm)	680/560/460【3】	680/560/460【3】
	4.11	Ground clearance, fully loaded, under mast	m1(mm)	84	78
	4.12	Ground clearance, center of wheelbase	m2(mm)	77	70

	4.13	Aisle width, pallet 1000×1200 across forks	Ast(mm)	2745	2840
	4.14	Aisle width, pallet 800×1200 along fork	Ast(mm)	2855	2955
	4.15	Minimum turning radius	Wa(mm)	1275【4】	1325【4】
performance	5.1	Travel speed	km/h	3.6【5】	3.6【5】
	5.2	Lifting speed, fully loaded/unloaded	m/s	0.1/0.15【6】	0.1/0.15【6】
	5.3	Lowering speed, fully loaded/unloaded	m/s	0.15-0.25/>0.1【6】	0.15-0.25/>0.1【6】
	5.4	Maximum climbing grade, fully loaded/unloaded	%	5/5	5/5
	5.5	Service brake		Regenerative braking	Regenerative braking
Motor	6.1	Driving motor power, S2=60min	kW	AC 2.5	AC 3.5
	6.2	Lifting motor power, S3=15%	kW	DC 3	DC 3
	6.3	Battery voltage/rated capacity K5	(V)/(Ah)	24/200	24/200
	6.4	Battery weight	kg	80	80
Other	7.1	Noise level at the driver's ear	dB(A)	＜80	＜80
Note:		【1】With the safety edge, the vehicle length is approximately +50mm;			
		【2】Add safety edge b1 about +100mm;			
		【3】If the distance between the outer sides of the forks is greater than 680mm, the load needs to be reduced and an assessment is required;			
		【4】Add safety edge turning radius of about +50mm;			
		【5】Manual mode, maximum speed in automatic mode is 1.5m/s;			
		【6】Manual mode.			

Load chart 1MBV15

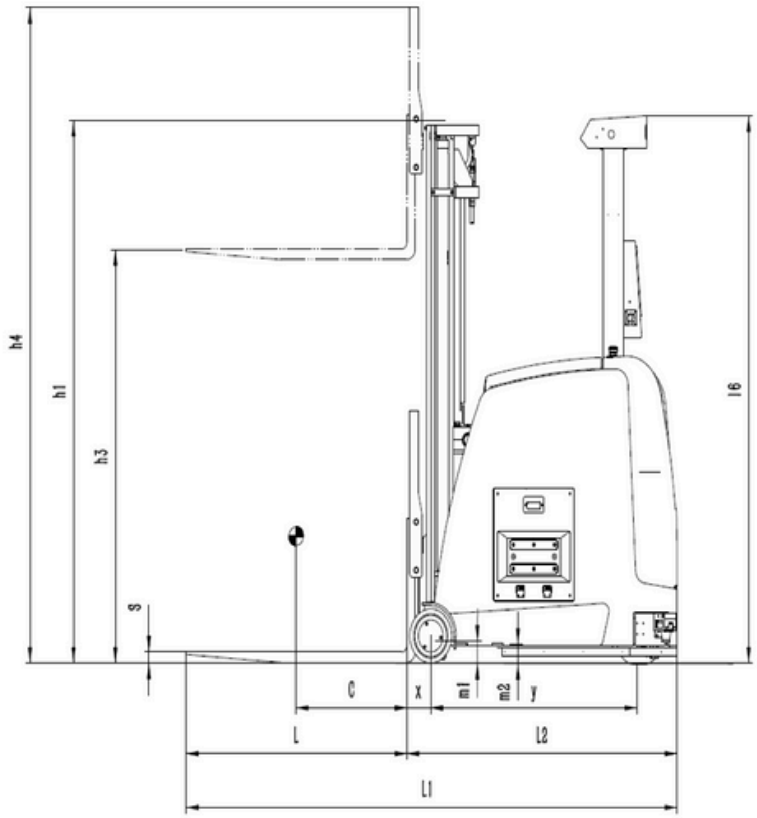
Mast Type	Mast Model	Lifting height	Load Capacity				
		mm	kg				
	C(mm)➤@		500	600	700	800	900
	45L	4500	600	450	300		
	40L	4000	800	600	450	300	
	35L	3500	1100	850	650	500	300
	30L	3000	1500	1200	900	650	450
	25L	2500	1500	1200	900	650	450
	20L	2000	1500	1200	900	650	450

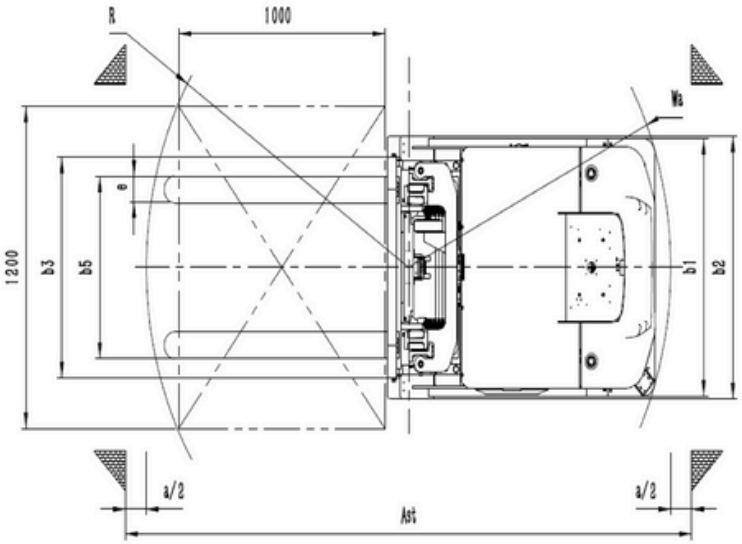
Load chart 1MBV15R

Mast Type	Mast Model	Lifting height	Load Capacity				
		mm	kg				
	C(mm)➤@		500	600	700	800	900
	45L	4500	600	450	300		
	40L	4000	800	600	450	300	
	35L	3500	1100	850	650	500	300
	30L	3000	1500	1200	900	650	450
	25L	2500	1500	1200	900	650	450
	20L	2000	1500	1200	900	650	450

Mast parameter 1MBV15～1MBV15R

Mast Type	Mast Model	Lifting height	Mast closed height	Mast extended height	Free lifting height		Mast inclination angle (optional)
		mm					(°)
	model➤1MBV				15	15R	All series
Duplex	45L	4500	2820	5485	/	/	0/3
	40L	4000	2575	4985	/	/	0/3
	35L	3500	2270	4435	/	/	0/3
	30L	3000	2020	3935	/	/	0/3
	25L	2500	1770	3435	/	/	0/3
	20L	2000	1520	2935	/	/	0/3
Triplex	45S	4500	2084	5573	/	/	0/3
	40S	4000	1916	5072	/	/	0/3
Note:	1.1MBV15R mast parameters are the same as 1MBV15; 2.If you need special customized specifications, please contact us.						





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