




# ESA121 Duplex

## ELECTRIC PEDESTRIAN STACKER DUPLEX MAST 1.2T

 1200 kg
  2930 mm
  24 V Li-Ion/AGM



The ESA121 Duplex is designed for warehouses, retail, and distribution centers requiring medium stacking heights up to 4.1 m. Its compact chassis (826 mm width) and turning radius of 1480 mm make it suitable for use in narrow aisles. With creep speed mode and ergonomic tiller, operators can safely and precisely handle pallets in confined spaces. Its reinforced mast ensures strong residual capacity even at higher lift heights .

SPECIFICATION	REF	UNIT	VALUE
Battery type			Li-Ion/AGM
Battery nominal capacity		Ah	105
Battery voltage		V	24
Load capacity	Q	kg	1200
Load centre distance	c	mm	600
Service weight		kg	700
Retracted mast height	$h_1$	mm	1995
Lift height	$h_3$	mm	2930
Height, mast extended	$h_4$	mm	3460
Overall length		mm	1760
Overall width	$b_1/b_2$	mm	826
Length to face of forks	$I_2$	mm	610
Fork dimensions	s/e/l	mm	60/170/1150
Turning radius		Wa	1480
Operator type			Pedestrian
Load distance, centre of drive axle to fork		mm	808

# Features

---

## Robust and stable duplex mast

The H-beam duplex mast with two side cylinders provides excellent visibility and high rigidity. This reduces frame torsion when lifting heavy loads and ensures stability, with residual capacity of 800 kg at 3.6 m.



## Fast lifting and lowering performance

Equipped with a powerful 3.0 kW lift motor, the ESA121 Duplex offers faster lifting and lowering speeds compared to earlier models. This improves cycle times and increases overall warehouse productivity.

## Flexible battery solutions

Available with both AGM and Li-ion batteries, the ESA121 Duplex meets different operational needs. The integrated charger simplifies daily charging, while maintenance-free technology reduces downtime and cost.



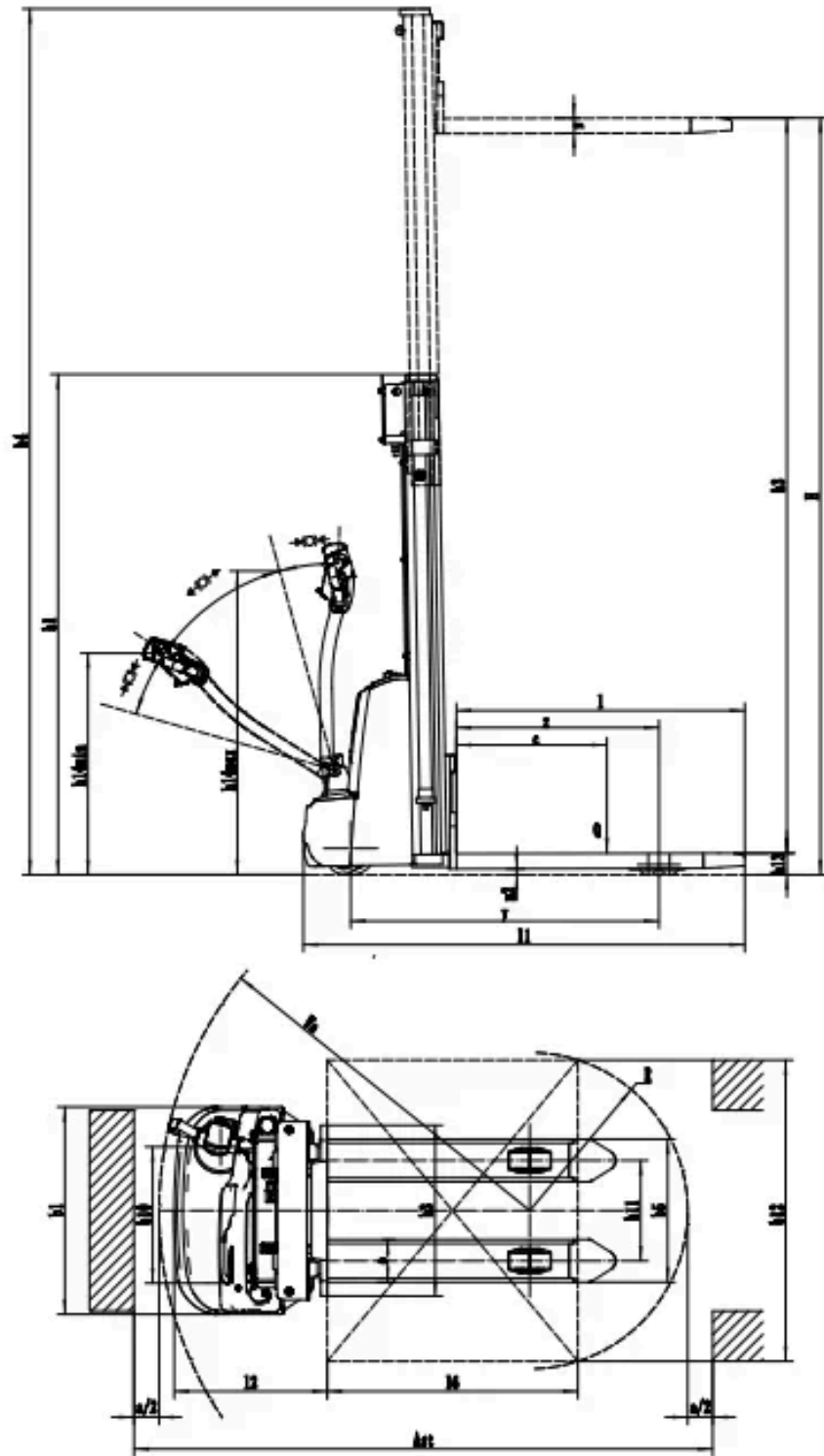
## User-centered design

Featuring a redesigned cover with storage pockets for documents, objects, and even cups, plus an optional USB port, the ESA121 Duplex is built with operator convenience in mind. Ergonomic tiller and turtle speed mode ensure safe and comfortable operation.

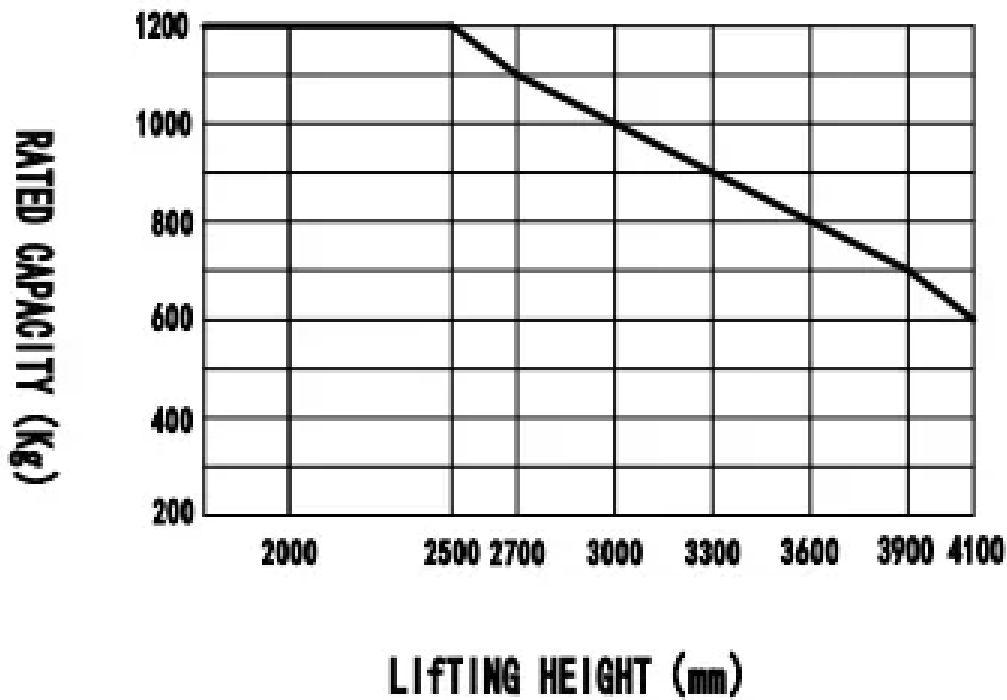
## VDI Chart

SPECIFICATION	REF	UNIT	VALUE	
1.4	Operator type		Pedestrian	
1.5	Load capacity	Q	kg	1200
1.6	Load centre distance	c	mm	600
1.8	Load distance, centre of drive axle to fork		mm	808
1.9	Wheelbase		mm	1230
2.1	Service weight		kg	700
2.2	Axle loading, laden front/rear		kg	720/1180
2.3	Axle loading, unladen front/rear		kg	520/180
3.1	Tyre type			Polyurethane
3.2	Tyre size, front			Ø214×70
3.3	Tyre size, rear			Ø80×61
3.5	Additional wheels (castor wheels)			Ø130×55
3.5	Wheels, number front/rear (x=drive wheels)			1x , 1/4
3.6	Tread width, front	b <sub>10</sub>	mm	543
3.7	Tread width, rear	b <sub>11</sub>	mm	400
4.1	Tilt of mast/fork carriage forward/backward		°	unknown
4.10	Height of wheel arms		mm	-
4.12	Tow coupling height		mm	unknown
4.15	Lowered height			90
4.19	Overall length		mm	1760
4.2	Retracted mast height	h <sub>1</sub>	mm	1995
4.20	Length to face of forks	I <sub>2</sub>	mm	610
4.21	Overall width	b <sub>1</sub> /b <sub>2</sub>	mm	826
4.22	Fork dimensions	s/e/l	mm	60/170/1150
4.24	Fork carriage width		mm	680

	SPECIFICATION	REF	UNIT	VALUE
4.26	Distance between wheel arms/loading surfaces			-
4.3	Free lift		mm	-
4.31	Ground clearance, laden, below mast		mm	-
4.32	Ground clearance, centre of wheelbase		mm	23
4.34.1	Aisle width for pallets 1000×1200 crossways		Ast	2310
4.34.2	Aisle width for pallets 800×1200 lengthways		Ast	2240
4.35	Turning radius		Wa	1480
4.4	Lift height	h <sub>3</sub>	mm	2930
4.4.1	Max lift height			4413
4.5	Height, mast extended	h <sub>4</sub>	mm	3460
4.8	Seat height/standing height		mm	unknown
4.9	Height of tiller handle in drive position min./max.			760/1140
5.1	Travel speed, laden/unladen		km/h	4.0/4.5
5.10	Service brake			Electromagnetic
5.11	Parking brake			Electromagnetic
5.2	Lifting speed, laden/unladen		m/s	0.15/0.24
5.3	Lowering speed, laden/unladen		m/s	0.21/0.20
5.8	Max. gradeability, laden/unladen		%	3/10
6.1	Drive motor rating S2 60 min		kW	0.65
6.2	Lift motor rating at S3 15%		kW	3.0
6.4	Battery nominal capacity		Ah	105
6.4	Battery voltage		V	24
6.4.1	Battery type			Li-Ion/AGM
6.5	Battery weight		kg	61
6.5	Charger output current			15
6.6	Energy consumption according to DIN EN 16796		kWh/h	- <sup>1)</sup>
6.7	Turnover output according to VDI 2198			-
6.8	Turnover efficiency according to VDI 2198			-
8.1	Type of drive control			DC
10.5	Steering design			Mechanical
10.7	Sound pressure level at the drivers ear		dB(A)	74



# RATED CAPACITIES GRAPH



## Mast Options

MAST TYPE	LIFT HEIGHT (H3, MM)	MAST LOWERED HEIGHT (H1, MM)	MAST EXTENDED HEIGHT, NO BACKREST (H4, MM)
2-Standard Mast	2513	1745	2960
2-Standard Mast	2713	1854	3160
2-Standard Mast	3013	1995	3460
2-Standard Mast	3313	2145	3760
2-Standard Mast	3613	2295	4060
2-Standard Mast	3813	2395	4260
2-Standard Mast	3913	2445	4360
2-Standard Mast	4113	2545	4560

# Options

ITEM	OPTIONS (optional items marked in yellow)
Fork dimension	570*1150   685*1150   570*1000   685*1000   570*1220   685*1220
Fork lowered height	90
Fork carriage width option	680mm   770mm
Load wheel type	Double
Handle head type	Hands big handle head
Load wheel material	PU
Drive wheel material	PU
Battery capacity	105Ah(AGM)   125Ah(AGM)   100Ah(Li-ion)
Charger	24V-15A integrated (AGM)   24V-30A integrated(Li-ion)
Battery display indicator (BDI)	With time
Turtle speed	Yes and not customized
USB outlet	Yes and not customized   No
Castor wheels	Yes and not customized