

## SPECIALS

LIGHT CRADLE (LC)



HEAVY CRADLE (HC)



CORE SHAFT (CS)



TOOL / DIE LOADER (DL)



ROLLER PLATFORM (SPL)



## RS Reach Stacker

The Reach Stacker can be used wherever load arms stackers can not operate. With a compact turning radius and a good manoeuvrability, the truck can operate with ease in confined warehouse areas. The frame is made of high-strength steel components with extremely good torsional rigidity and provides easy access for servicing work. Easy to operate and economical to buy. It is the ideal solution for short-distance operation and medium lifting heights. Drive and lifting electrical motors are designed for high sustained output performance.



### Chassis & Mast

- Rounded contours, no sharp edges
- Highly resistant, robust steel construction
- Rigid clear view mast optimizes visibility
- Wide choice of masts

### Dependability

- Tough counterbalance performance.
- Comprehensive selection of mast configurations.

### Productivity

- Compact chassis design improves handling in confined spaces.
- Regenerative braking and anti-roll back as standard.
- Adjustable performance settings to suit specific operating conditions.

### Cost of ownership

- Powerful AC traction motor provides superior performance and increased load moves per hour.
- Increased load moves per hour reduces operating costs

### Serviceability

- Hour meter and battery discharge indicator with lift interrupt fitted as standard.
- Electrical system and wiring are protected to EU standards, ensuring greater reliability over time

### Braking System

- Automatic braking
- On releasing the traction butterfly, with no energy consumption
- By selecting opposite direction of travel
- Emergency brake
- Electro-Magnetic
- On pressing the emergency button

### Energy

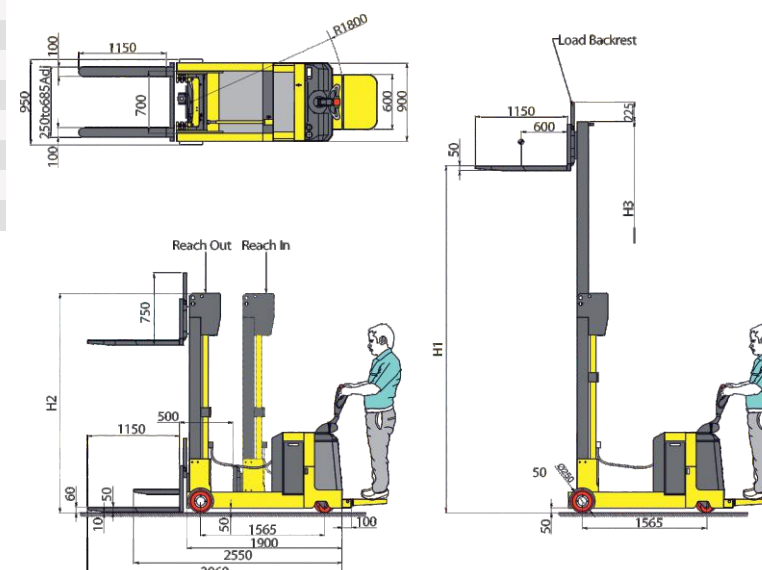
- Powerful battery of 24V, 195/ 345Ah
- Efficient battery locking system for side change option secures battery in compartment
- Battery rollers.
- Battery discharge indicator
- Lift lock when the battery is at low charge for longer life time

### SPECIFICATIONS

Parameters	Unit	Specification
Basic Capacity	Kg's	1000
Mast		Telescopic
Load Center	mm	600
Fork Size (L x W)	mm	1150 x (250 to 685) adjustable
Each Fork Width	mm	100
Overall Length	mm	2550 + 490
Overall Width	mm	950
Outer Turning Radius without P/F & Reach Length	mm	1800
Working Aisle in b/w Racks (W/F)	mm	3000 mm
Capacity at Full Height	Kg's	1000 Kg
Drive Motor-AC	V/Kw	24 x 1.6
Hydraulic Pump Motor	V/Kw	24 x 3
Battery	DC, V/Ah	24 x 195 / 345
Brake		Electromagnetic
Drive Control		Mosfet
Gradability Laden / Unladen	%	4 / 6
Travel Speed Laden / Unladen	Km/hr	3 / 4
Polyurethane Drive Wheel	mm	230
Polyurethane Support Wheels	mm	150
Polyurethane Load Wheels	mm	250

### MONO & TELESCOPIC MAST

Lift Height (H1) mm	Type of mast	Shut Height (H2)	EX-Height (H3)
1600	M	2125	-
2000	T	1650	2525
2850	T	2100	3520
3200	T	2250	3845
3600	T	2450	4245
4000	T	2650	4645



# PUMA LIFT®



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Made in India

PUMA LIFT®

## SPECIFICATION CATALOGUE

# 25

YEARS OF EXPERIENCE

## PUMA LIFT TRUCKS

ES  
ELECTRIC STACKER SERIES



## Performance

- The innovative A C system offers quick response, accurate control, impact structure, excellent performance, longer battery service life.
- AC motor specially designed provided stronger power to keep high speed (6km/h) with full load and enhanced grade ability, make more efficient performance under high capacity situation.
- Word-class hydraulic power pack, with low noise, few vibration and excellent leak tightness, automatically adjusts the rate of decline whether loaded or unloaded, and ensures smooth lifting.
- High-strength frame design, suitable for tough workplace, ensures longer service life.
- Excellent performance of getting in and of empty pallet, greatly increases the operation efficiency.
- European connectors with top quality, prevents moisture and contaminants from interrupting truck operation in all environments, plus all the wires and cables reliably protected and fixed, greatly reduces the electrical error.

## Hydraulic System

- The Puma unique suspension Driving Floating Adjustable system design, ensures the truck less, vibration, stable, no tilt while turning in high speed, guarantees the operator's accurate operator to handle freely and easily with full load, and could adjust operating force of handle to ease.
- A compact 3kw pump and motor unit allows short lift times-even when fully laden, providing high handling capacity.
- On reaching the maximum lift the pump is automatically bypass reducing the energy consumption and servicing costs by 10-20%, depending on the application. The maximum pressure valve protects the truck from damage caused by overloads.

## Serviceability

- Open-piece lightweight service access top cover - conveniently bolt on and off for easy access to all major and key components, reducing service time inspection.
- Vertical motor ensures convenience inspection and maintenance of motor and brake much better maintainability than horizontal motor.
- Brushless AC Drive Motor, high reliability and performance and drastically reduces maintenance time and labour.
- Self - Diagnostics provided through the digital display allow easy troubleshooting with the use of an external hand-held analyser.
- Hour meter and BDI (Battery Discharge Indicator) enable the operator to timely recharge.
- Utilizing as many interchangeable parts as possible, much reduces maintenance cost.
- Battery side/ Top opened box will be easy for Battery Change.

## Instrumentation

- A quick disconnect power cut-out button is positioned on the dashboard as well as a combined hour-meter and battery discharge indicator.

## Rugged

- The ES Series is designed and built by PUMA LIFT to be the most rugged walkie stacker. Superior steel construction, highly engineered stability systems and exceptional fork design add up to toughness you can feel.

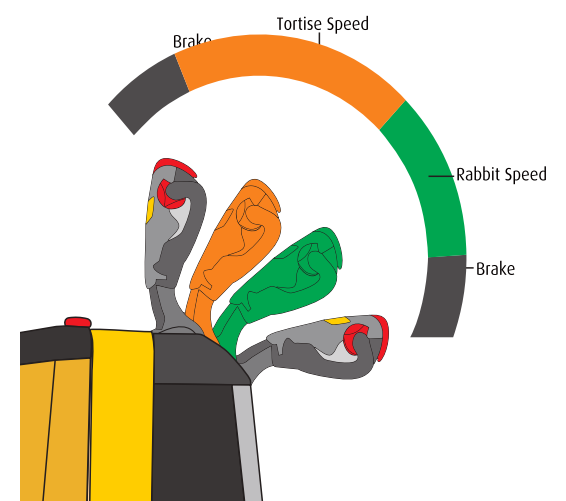


## Tiller

- The shape of the tiller together with its ergonomic grip and buttons facilitates easy operation.
- The tiller's shape is designed to ensure the best possible operating position in even the tightest spaces.
- The new tiller greatly reduces operator fatigue. When released the tiller will reposition itself to its vertical position.

## Drive

- Excellent disability is adaptable to demand thanks to two drive programmers, ECO and BOOST (two positions on the Tiller head).
- In "ECO" mode (Tortoise speed), the motor runs at its normal characteristics i.e. it draws a lower current and accelerates smoothly up to 4km/hr. This gives a competitive operating period per battery charge.
- In "BOOST" mode (Rabbit Speed), the motor runs in a higher power range and offers very high torque and faster acceleration to a higher top speed of 6km/hr, even when fully laden and regardless of gradient.



- The truck automatically brakes when the drive switch is released. When this happens-or when the driver applies the brakes-the AC motor acts as a generator and the kinetic energy which would otherwise be lost is recovered and stored in the battery.
- When stationary on a ramp, or when the drive with is released, the controller monitors every rolling movement of the truck and prevents uncontrolled rolling back by applying the brake.

## Innovative AC Technology

- The AC motor provides increased efficiency with reduced operating costs over the entire lifespan of the truck and has the following advantages: High efficiency with excellent energy management.
- Powerful acceleration with a fully rated load.
- Step-less regulation of travel speed using the butterfly direction selector switch.
- Quick direction change with no "Waiting" time.
- Maintenance free drive motor (no carbon brushed).
- High travel comfort with easy and individually adjustable performance parameters (Set by service engineer) to provide the greatest productivity in particular applications.



## ES Electric Stacker - Standard Version

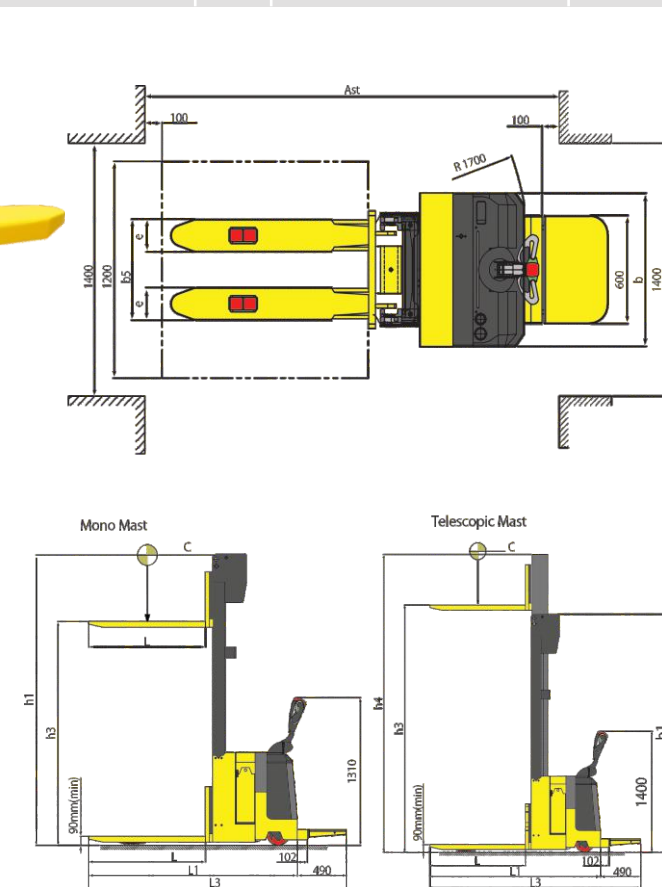
Model  
ES- 10/12/15/20

Lift Height (h3) mm	Type of Mast	Lowered mast Height (h1) mm	Extended mast height (h4) mm	Capacity at 600 mm L.C Kg			
				ES-10	ES-12	ES-15	ES-20
1600	M	2000	-	1000	1200	1500	2000
2850	T	2005	3375	-	1050	1150	-
3600	T	2390	4135	-	790	890	-
4200	T	2690	4725	-	700	800	-

Model	ES-10	ES-12	ES-15	ES-20
Capacity / Load (kg)	1000	1200	1500	2000
Load Center C (mm)	600	600	600	600
Mast Type	M/T	M/T	M/T	M
Support Wheel	150X50	150X50	150X50	150X50
Drive Wheel	(mm) 230X70	230X70	230X70	230X70
Load Wheel	(mm) 70X80	70X80	70X80	70X80
Overall Length (L3)	(mm) 2055+490	2055+490	2055+490	2055+490
Overall width (b)	(mm) 850	850	850	850
Fork Length (L)	(mm) 1150	1150	1150	1150
Each Fork width (e)	(mm) 182	182	182	182
Overall fork width (b5)	(mm) 560/685	560/685	560/685	560/685
Ground Clearance	(mm) 30	30	30	30
Outer turning radius (R)	(mm) 1700	1700	1700	1700
Working aisle in between racks	(mm) 2650	2650	2650	2650
Max Travel Speed unladen/laden	km/h 06 / 05	06 / 05	06 / 05	06 / 05
Lifting Speed unladen/laden	m/sec 0.14/0.08	0.14/0.08	0.14/0.08	0.12/0.07
Lowering Speed unladen/laden	m/sec 0.17/0.24	0.17/0.24	0.17/0.24	0.16/0.25
Gradeability unladen/laden	% 08% / 06%	08% / 06%	08% / 06%	08% / 06%
Brakes	24V Electro Magnetic			
Drive motor	KW 1.2 1.2 1.6 1.6			
Type of controller	24V Mosfet			



Note : Platform is always optional

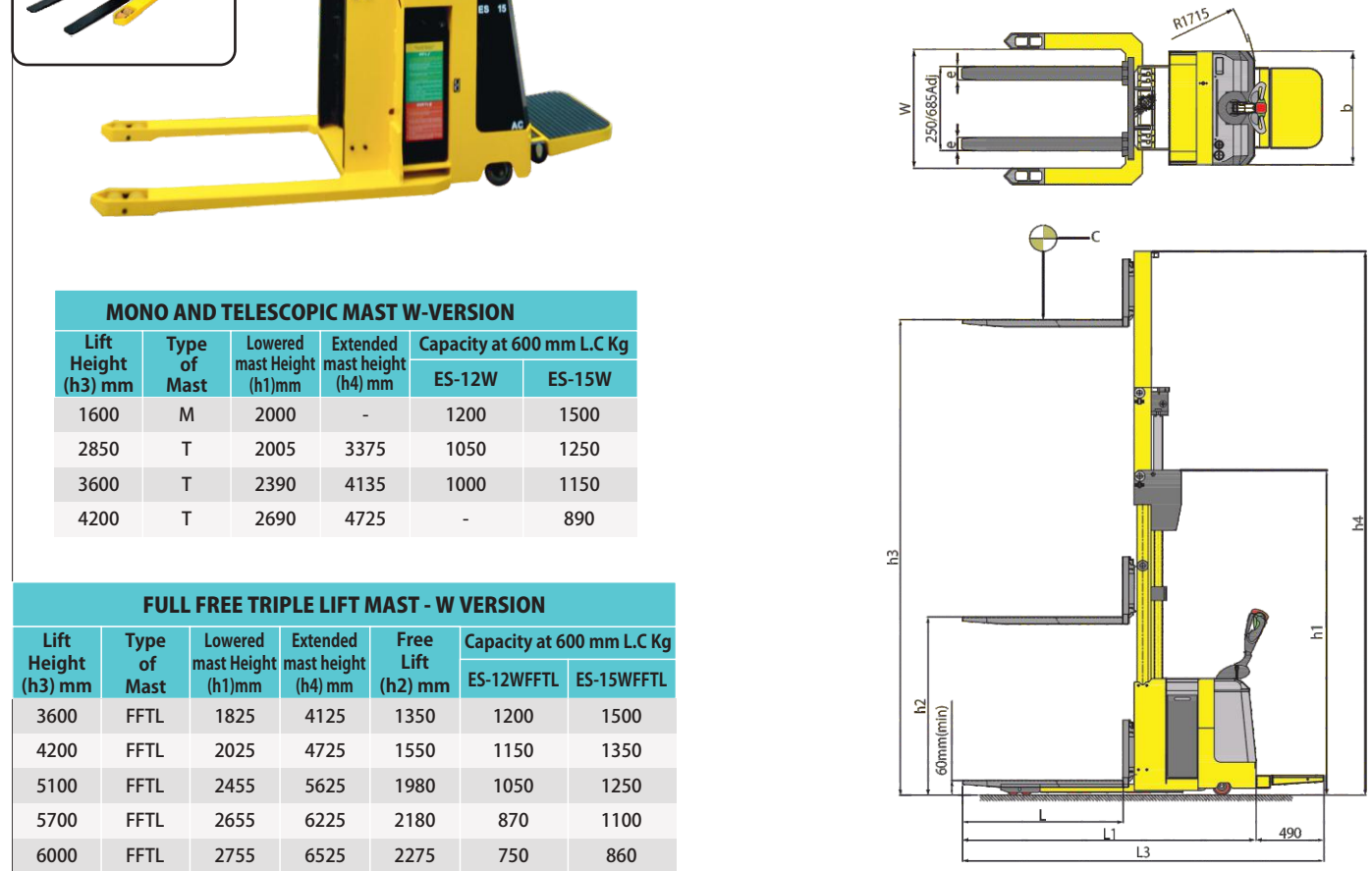


## ES Electric Stacker - 'W' Version

Model  
ES-12W FFTL / 15W FFTL

Model	ES-10 W	ES-12 W	ES-12 W FFTL	ES-15 W FFTL
Capacity / Load (kg)	1000	1200	1200	1500
Load Center C (mm)	600	600	600	600
Mast Type	M/T	M/T	FFTL	FFTL
Support Wheel	150X50	150X50	150X50	150X50
Drive Wheel	(mm) 230X70	230X70	230X70	230X70
Load Wheel	(mm) 70X80	70X80	70X80	70X80
Overall Length (L3)	(mm) 2055+490	2055+490	2090+490	2090+490
Overall width (b)	(mm) 900 to 1500	900 to 1500	900 to 1500	900 to 1500
Fork Length (L)	(mm) 1150	1150	1150	1150
Each Fork width (e)	(mm) 100x40	100x40	100x40	100x40
Overall fork width (b5)	(mm) 350 to 685	350 to 685	350 to 685	350 to 685
Ground Clearance	(mm) 30	30	30	30
Outer turning radius (R)	(mm) 1700	1700	1715	1715
Working aisle in between racks	(mm) 2800	2800	2800	2800
Max Travel Speed unladen/laden	km/h 06/05	06/05	06/05	06/05
Lifting Speed unladen/laden	m/sec 0.14/0.08	0.14/0.08	0.14/0.08	0.14/0.08
Lowering Speed unladen/laden	m/sec 0.17/0.24	0.17/0.24	0.17/0.24	0.17/0.24
Gradeability unladen/laden	% 08% / 06%	08% / 06%	08% / 06%	08% / 06%
Brakes	24V Electro Magnetic			
Drive motor	KW 1.2 1.2 1.6 1.6			
Type of controller	24V Mosfet			

Model	ES-10 W	ES-12 W	ES-12 W FFTL	ES-15 W FFTL
Capacity / Load (kg)	1000	1200	1200	1500
Load Center C (mm)	600	600	600	600
Mast Type	M/T	M/T	FFTL	FFTL
Support Wheel	150X50	150X50	150X50	150X50
Drive Wheel	(mm) 230X70	230X70	230X70	230X70
Load Wheel	(mm) 70X80	70X80	70X80	70X80
Overall Length (L3)	(mm) 2055+490	2055+490	2090+490	2090+490
Overall width (b)	(mm) 900 to 1500	900 to 1500	900 to 1500	900 to 1500
Fork Length (L)	(mm) 1150	1150	1150	1150
Each Fork width (e)	(mm) 100x40	100x40	100x40	100x40
Overall fork width (b5)	(mm) 350 to 685	350 to 685	350 to 685	350 to 685
Ground Clearance	(mm) 30	30	30	30
Outer turning radius (R)	(mm) 1700	1700	1715	1715
Working aisle in between racks	(mm) 2800	2800	2800	2800
Max Travel Speed unladen/laden	km/h 06/05	06/05	06/05	06/05
Lifting Speed unladen/laden	m/sec 0.14/0.08	0.14/0.08	0.14/0.08	0.14/0.08
Lowering Speed unladen/laden	m/sec 0.17/0.24	0.17/0.24	0.17/0.24	0.17/0.24
Gradeability unladen/laden	% 08% / 06%	08% / 06%	08% / 06%	08% / 06%
Brakes	24V Electro Magnetic			
Drive motor	KW 1.2 1.2 1.6 1.6			
Type of controller	24V Mosfet			



## MONO AND TELESCOPIC MAST W-VERSION

Lift Height (h3) mm	Type of Mast	Lowered mast Height (h1) mm	Extended mast height (h4) mm	Capacity at 600 mm L.C Kg
1600	M	2000	-	1200 1500
2850	T	2005	3375	1050 1250
3600	T	2390	4135	1000 1150
4200	T	2690	4725	- 890

## FULL FREE TRIPLE LIFT MAST - W VERSION

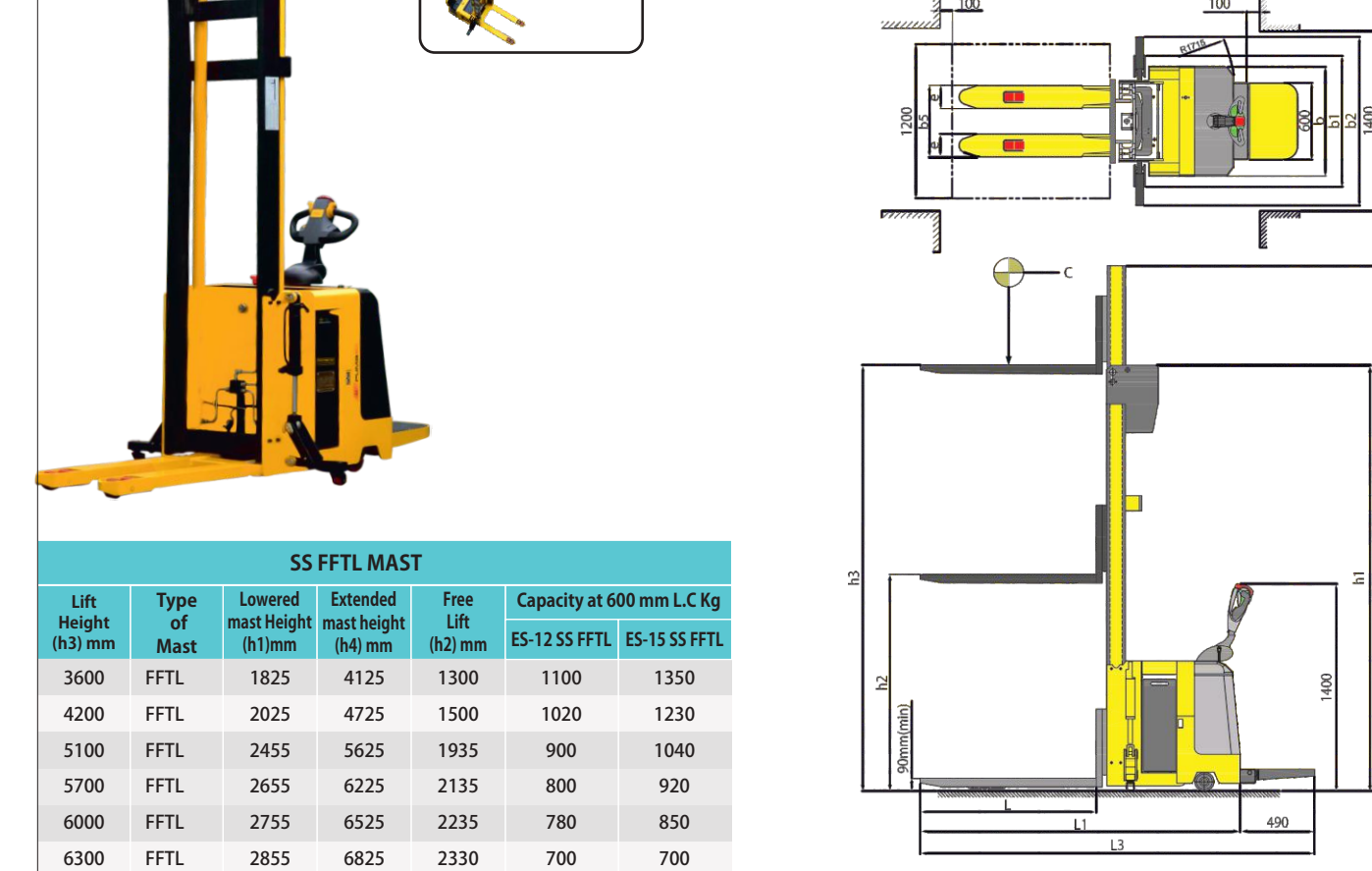
Lift Height (h3) mm	Type of Mast	Lowered mast Height (h1) mm	Extended mast height (h4) mm	Free Lift (h2) mm	Capacity at 600 mm L.C Kg	
					ES-12WFFTL	ES-15WFFTL
3600	FFTL	1825	4125	1350	1200	1500
4200	FFTL	2025	4725	1500	1150	1350
5100	FFTL	2455	5625	1980	1050	1250
5700	FFTL	2655	6225	2180	870	1100
6000	FFTL	2755	6525	2275	750	860

## ES Electric Stacker - Full Free Triple Mast / Side Stabilizers Version

Model  
ES-12/15/ SS FFTL

Model	ES-12 SS FFTL	ES-15 SS FFTL
Capacity / Load (kg)	1200	1500
Load Center C (mm)	600	600
Mast Type	FFTL	FFTL
Support Wheel	150X50	150X50
Drive Wheel	(mm) 230X70	230X70
Load Wheel	(mm) 70X80	70X80
Overall Length (L3)	(mm) 2090+490	2090+490
Overall width (b)	(mm) 850	850
Overall width (SS Closed) b	(mm) 1000	1000
Overall width (SS Open) b	(mm) 1310	1310
Fork Length (L)	(mm) 1150	1150
Each Fork width (e)	(mm) 182	182
Overall fork width (b5)	(mm) 560/685	560/685
Ground Clearance	(mm) 30	30
Outer turning radius (R)	(mm) 1715	1715
Working aisle in between racks	(mm) 2800	2800
Max Travel Speed unladen/laden	km/h 06 / 05	06 / 05
Lifting Speed unladen/laden	m/sec 0.14/0.08	0.14/0.08
Lowering Speed unladen/laden	m/sec 0.17/0.24	0.17/0.24
Gradeability unladen/laden	% 08% / 06%	08% / 06%
Brakes	24V Electro Magnetic	
Drive motor	KW 1.6 1.6	
Type of controller	24V Mosfet	

Model	ES-12 SS FFTL	ES-15 SS FFTL
Capacity / Load (kg)	1200	1500
Load Center C (mm)	600	600
Mast Type	FFTL	FFTL
Support Wheel	150X50	150X50
Drive Wheel	(mm) 230X70	230X70
Load Wheel	(mm) 70X80	70X80
Overall Length (L3)	(mm) 2090+490	2090+490
Overall width (b)	(mm) 850	850
Overall width (SS Closed) b	(mm) 1000	1000
Overall width (SS Open) b	(mm) 1310	1310
Fork Length (L)	(mm) 1150	1150
Each Fork width (e)	(mm) 182	182
Overall fork width (b5)	(mm) 560/685	560/685
Ground Clearance	(mm) 30	30
Outer turning radius (R)	(mm) 1715	1715
Working aisle in between racks	(mm) 2800	2800
Max Travel Speed unladen/laden	km/h 06 / 05	06 / 05
Lifting Speed unladen/laden	m/sec 0.14/0.08	0.14/0.08
Lowering Speed unladen/laden	m/sec 0.17/0.24	0.17/0.24
Gradeability unladen/laden	% 08% / 06%	08% / 06%
Brakes	24V Electro Magnetic	
Drive motor	KW 1.6 1.6	
Type of controller	24V Mosfet	



## SS FFTL MAST

Lift Height (h3) mm	Type of Mast	Lowered mast Height (h1) mm	Extended mast height (h4) mm	Free Lift (h2) mm	Capacity at 600 mm L.C Kg	
					ES-12 SS FFTL	ES-15 SS FFTL
3600	FFTL	1825	4125	1300	1100	1350
4200	FFTL	2025	4725	1500	1020	1230
5100	FFTL	2455	5625	1935	900	1040
5700	FFTL	2655	6225	2135	800	920
6000	FFTL	2755	6525	2235	780	850
6300	FFTL	2855	6825	2330	700	700