

# AXIA <sup>ES</sup>

## PEDESTRIAN STACKER

*Ready to Perform  
To Your Applications*

**SBP10-16N2 Series**

1.0-1.6 TON



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PRESENTED BY :



Note: Performance specifications may vary depending on standard manufacturing tolerances, vehicle condition, types of tyres, floor or surface conditions, applications or operating environment. Trucks may be shown with non-standard options. Specific performance requirements and locally available configurations should be discussed with your Mitsubishi forklift truck dealers. Mitsubishi Forklift Trucks follows a policy of continual product improvement. For this reason, some materials, options and specifications could change without notice.

# Big Performance... even in the smallest spaces



## Drive

- **Powerful AC Drive motor** gives excellent traction and ramp performance, as well as smooth, quiet controlled operation, extended shift length and lower maintenance requirements.
- **Oil-filled, sealed transmission** is shock-resistant, quiet and requires little maintenance.



## Steering System

- **State-of-the-art tiller arm** offers the ultimate in ergonomic design, comfort and safety.
- **Small turning circle** together with compact chassis and excellent visibility means exceptional manoeuvrability.

## Brakes

- **Regenerative braking** gives effective control, without brake wear, and extends shift life.
- **Parking brake** is automatically activated, when necessary, for extra safety on ramps.



SMALL TURNING CIRCLE



POWERFUL AC DRIVE MOTOR



ON-BOARD DIAGNOSTICS

## Electrical and Control Systems

- **High-efficiency electronic system** features water-proof components for maximum reliability – even in moist conditions.
- **Programmable controller** adjusts acceleration, travel speed and braking to suit the application and operator – for greater versatility.
- **On-board diagnostics** and fault memory folder speed up servicing and help prevent damage.
- **Versatile battery compartment** accommodates DIN and BS size batteries with a variety of capacities for maximum compatibility with user's equipment and needs.

**Compact, easy to use and highly versatile, AXIA ES stackers have been developed to deliver exceptional productivity in every setting.**



## Frame and Body

- **Sealed chassis** offers protection against dirt, dust and other particles to reduce wear.
- **Water-resistant design** diverts splashed moisture away from key electrical components, for long truck life.
- **Low centre of gravity** aids stability, for safe operation.
- **High-visibility design** maximises view of fork tips and working area.



HIGH-VISIBILITY DESIGN

## Operator Environment and Controls

- **Spacious, suspended foldable platform** allows operator to ride in comfort – maximum speed 6 km/h – during occasional longer travel. (*R models only*).
- **Choice of two performance models** via key switch enhances safety, energy efficiency and productivity.
- **Creep speed function and tiller arm lock bypass** maximise safety and control in confined spaces.
- **Unique crossbar design** deflects obstacles away from tiller arm and operator's hand, protecting both truck and operator.
- **Easy-to-operate controls** reduce operator fatigue and minimise mistakes to enhance safety.
- **Ergonomic levers** allow operators to raise and lower loads with ease – even when wearing gloves.
- **Battery discharge indicator** is fitted as standard for battery protection and monitoring of truck use.
- **Ground clearance** is only 20 mm – which makes foot trapping very unlikely.



WIDE RANGE OF LIFT HEIGHTS

## Mast and Fork Assembly

- **Robust forks** with welded construction, and rounded tips for effortless pallet entry, give extra strength and durability.
- **Straddle leg version** allows adjustment of distance between support legs to suit pallet width (*SBP16N2S only*).
- **Wide range of lift heights and mast types** includes triplex masts on 1.2 to 1.6 tonne models and a choice between standard or free lift masts.



ROBUST FORKS

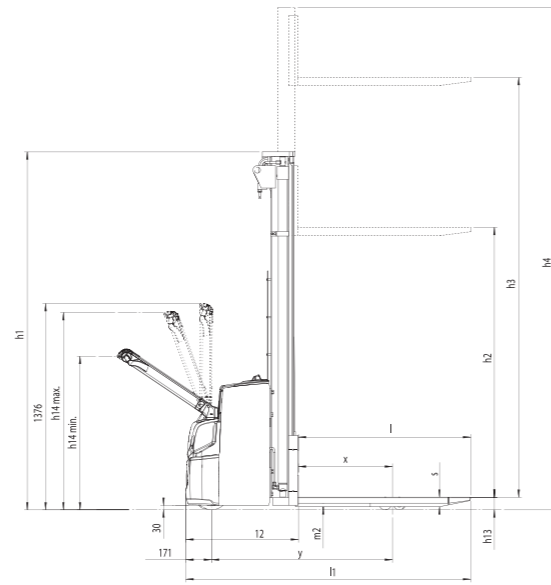
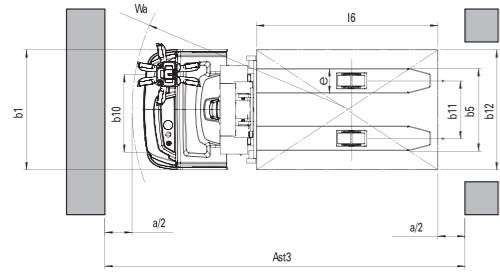


STRADDLE LEG VERSION

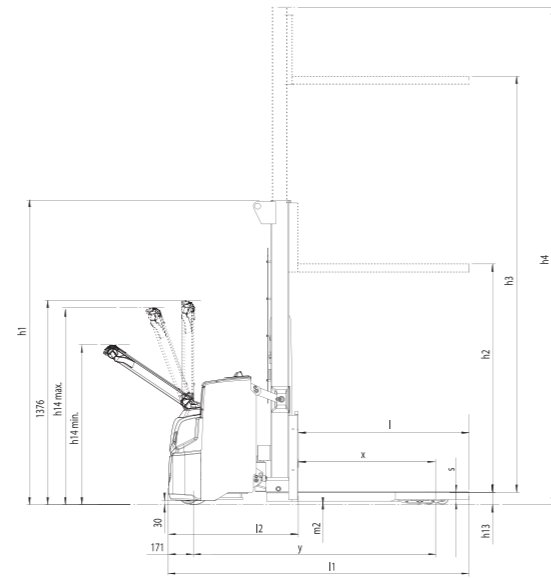
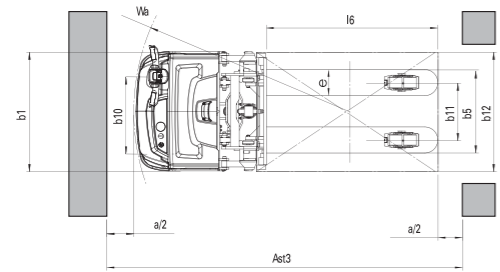
## Options include:

- Choice of drive and load wheels for different applications.
- Load backrest
- Wide variety of fork dimensions
- Battery changing device
- Sealed inbuild charger
- PIN code pad
- Cold store modification (class III, -35°)
- Multifunctional display with hour meter
- Equipment bar for mounting accessories (on most models)
- Space for 375 Ah battery

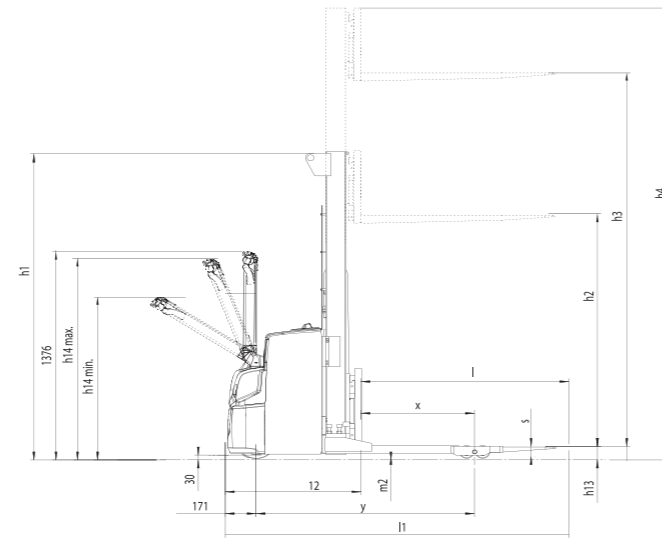
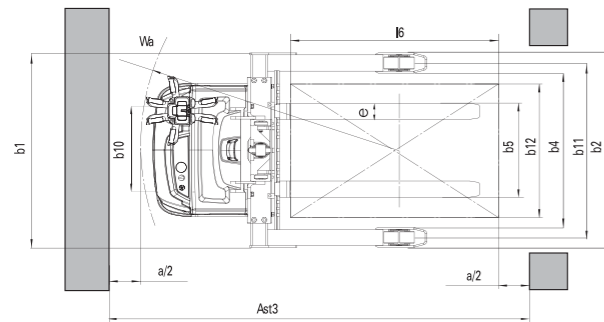
### SBP10/12/14/16N2



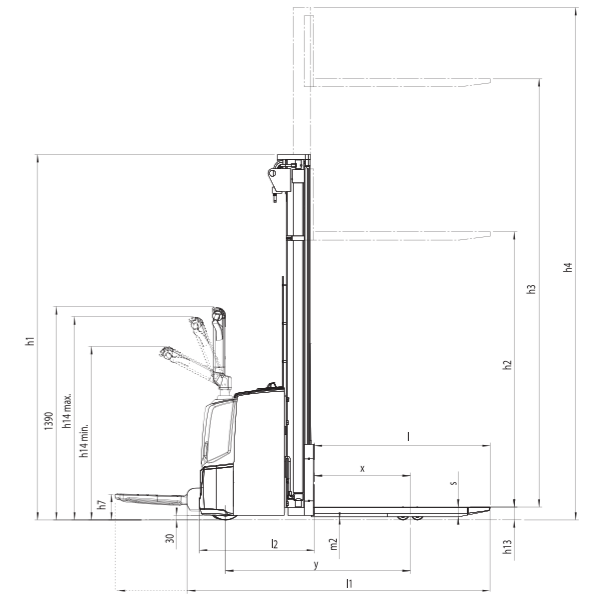
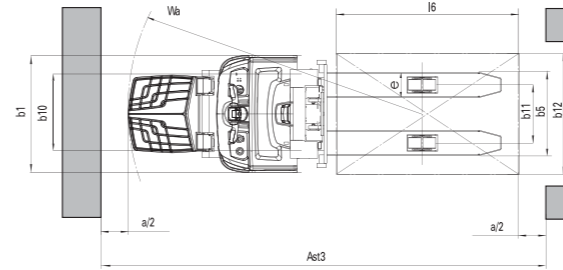
### SBP12i/14i/16iN2



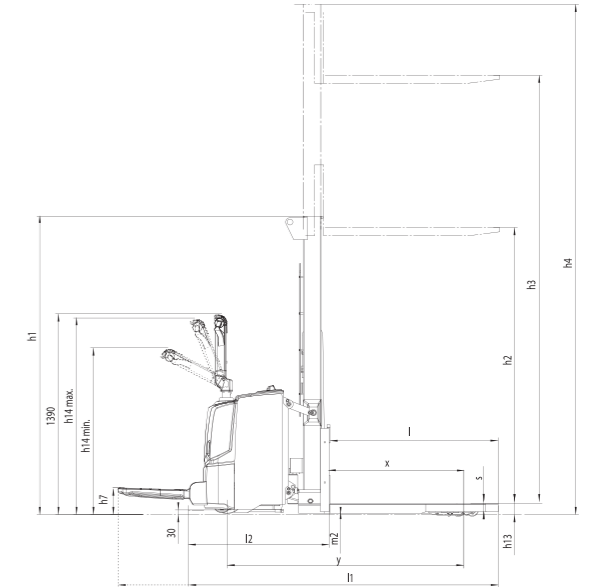
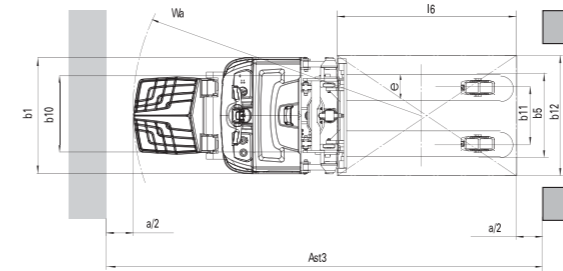
### SBP16N2S



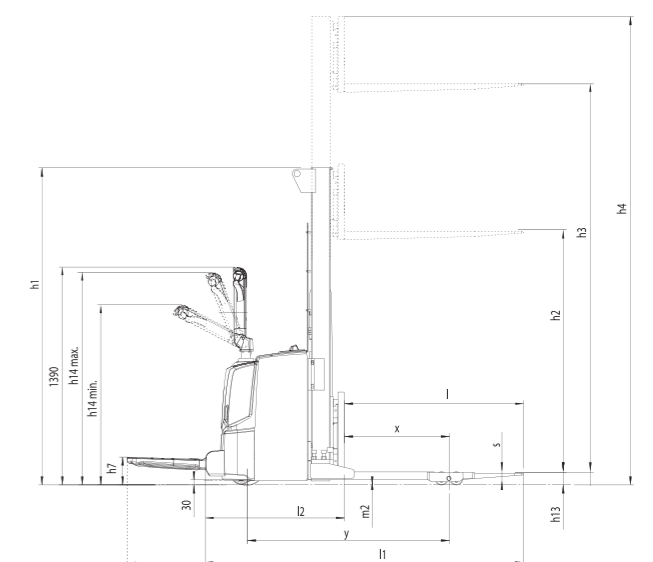
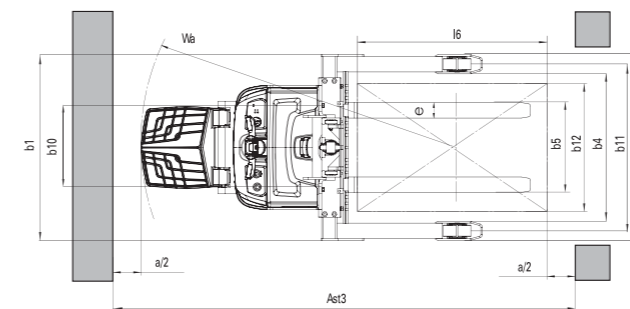
### SBP12/14/16N2R: with folding platform



### SBP12i/14i/16iN2R: with folding platform



### SBP16N2SR: with folding platform



Ast = Working aisle width  
 Ast3 = Working aisle width (b12<1000 mm)  
 $Ast = Wa + \sqrt{(l6 - x)^2 + (b12 / 2)^2} + a$

Ast3 =  $Wa + l6 - x + a$   
 Wa = Turning radius  
 l6 = Pallet length

x = Load wheel axle to fork face  
 b12 = Pallet width  
 a = Safety clearance = 2 x 100 mm

# Specifications

Identification											
1	Manufacturer (abbreviation)		Mitsubish	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi
2	Manufacturer's model designation		SBP10N2	SBP12N2(i)	SBP14N2(i)	SBP16N2(i)	SBP12N2(i)R	SBP14N2(i)R	SBP16N2(i)R	SBP16N2S	SBP16N2SR
3	Power source (battery, diesel, LP gas, petrol)		Battery	Battery	Battery	Battery	Battery	Battery	Battery	Battery	Battery
4	Operator type: pedestrian, (operator)-standing, -seated		Pedestrian	Pedestrian	Pedestrian	Pedestrian	Pedestrian/Stand-on	Pedestrian/Stand-on	Pedestrian/Stand-on	Pedestrian	Pedestrian/Stand-on
5	Load capacity	Q (kg)	1000	1200	1400	1600	1200	1400	1600	1600	1600
6	Load centre distance	c (mm)	600	600	600	600	600	600	600	600	600
7	Load wheel axle to fork face (forks lowered)	x (mm)	625	625 (925)	625 (925)	625 (925)	625 (925)	625 (925)	625 (925)	650	650
8	Wheelbase	y (mm)	1141	1205 (1615)	1205 (1615)	1205 (1615)	1205 (1615)	1205 (1615)	1205 (1615)	1295	1295
Weights											
9	Truck weight with maximum battery weight	(kg)	820	1205 (1350)	1220 (1395)	1225 (1400)	1245 (1390)	1260 (1435)	1265 (1440)	1397	1437
10	Axle loadings with nominal load & maximum battery weight, drive/load side	(kg)	740 / 1080	830 (1180) / 1575 (1370)	835 (1240) / 1785 (1555)	835 (1275) / 1990 (1725)	870 (1220) / 1575 (1370)	875 (1280) / 1785 (1555)	875 (1315) / 1990 (1725)	1941 / 1056	1981 / 1056
11	Axle loadings without load & with maximum battery weight, drive/load side	(kg)	605 / 215	820 (955) / 385 (395)	825 (970) / 395 (425)	825 (970) / 400 (430)	860 (995) / 385 (395)	865 (1010) / 395 (425)	865 (1010) / 400 (430)	945 / 452	985 / 452
Wheels & Tyres											
12	Tyres: PT=Power Thane, Vul=Vulkollan, drive/load side		Vul / Vul	Vul / Vul	Vul / Vul	Vul / Vul	Vul / Vul	Vul / Vul	Vul / Vul	Vul / Vul	Vul / Vul
13	Tyre dimensions, drive side	(mm)	230 x 70	230 x 70	230 x 70	230 x 70	230 x 70	230 x 70	230 x 70	230 x 70	230 x 70
14	Tyre dimensions, load side	(mm)	85 x 90	85 x 90	85 x 75	85 x 75	85 x 90	85 x 75	85 x 75	85 x 75	85 x 75
15	Castor wheel dimensions (diameter x width)	(mm)	125 x 60	125 x 60	125 x 60	125 x 60	125 x 60	125 x 60	125 x 60	125 x 60	125 x 60
16	Number of the wheels, drive/load side (x = driven)	(mm)	1 + 1x / 2	1 + 1x / 2	1 + 1x / 4	1 + 1x / 4	1 + 1x / 2	1 + 1x / 4	1 + 1x / 4	1 + 1x / 4	1 + 1x / 4
17	Track width (centre of tyres), drive side	b10 (mm)	517	517	517	517	517	517	517	517	517
18	Track width (centre of tyres), load side	b11 (mm)	385	385	385	385	385	385	385	1025-1425	1025-1425
Dimensions											
19	Height with mast lowered	h1 (mm)	see tables	see tables	see tables	see tables	see tables	see tables	see tables	see tables	see tables
20	Free lift	h2 (mm)	see tables	see tables	see tables	see tables	see tables	see tables	see tables	see tables	see tables
21	Lift height	h3+h13 (mm)	see tables	see tables	see tables	see tables	see tables	see tables	see tables	see tables	see tables
22	Overall height with mast raised	h4 (mm)	see tables	see tables	see tables	see tables	see tables	see tables	see tables	see tables	see tables
23	Initial lift	h5 (mm)	-	-(115)	-(115)	-(115)	-(115)	-(115)	-(115)	-	-
24	Height of tiller arm/steering console (min./max.)	h14 (mm)	1050 / 1372	1050 / 1372	1050 / 1372	1050 / 1372	1150 / 1350	1150 / 1350	1150 / 1350	1150 / 1350	1150 / 1350
25	Fork height, fully lowered	h13 (mm)	90	90	90	90	90	90	90	85	85
26	Overall length, platform up/down	/1 (mm)	1836	1900 (2007)	1900 (2007)	1900 (2007)	2020 (2127) / 2500 (2607)	2020 (2127) / 2500 (2607)	2020 (2127) / 2500 (2607)	1967	2087 / 2567
27	Length to fork face, platform up/down	/2 (mm)	686	750 (857)	750 (857)	750 (857)	870 (977) / 1350 (1457)	870 (977) / 1350 (1457)	870 (977) / 1350 (1457)	817	937 / 1417
28	Overall width	b1/b2 (mm)	800	800	800	800	800	800	800	800 / 1150-1550	800 / 1150-1550
29	Fork dimensions (thickness, width, length)	s/e/l (mm)	56 / 186 / 1150	56 / 186 / 1150	56 / 186 / 1150	56 / 186 / 1150	56 / 186 / 1150	56 / 186 / 1150	56 / 186 / 1150	40 / 100 / 1150	40 / 100 / 1150
30	Fork carriage width	b3 (mm)	752	752	752	752	752	752	752	980	980
31	Outside width over forks	b5 (mm)	570	570	570	570	570	570	570	260-900	260-900
32	Innerwidth of load legs	b4 (mm)	-	-	-	-	-	-	-	1015-1450	1015-1450
33	Ground clearance at center of wheelbase, (forks lowered)	m2 (mm)	20	20	20	20	20	20	20	20	20
34a	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down	Ast (mm)	2291	2355 (2653)	2355 (2653)	2355 (2653)	2475 (2773) / 2955 (3253)	2475 (2773) / 2955 (3253)	2475 (2773) / 2955 (3253)	2430	2550 / 3030
34b	Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise, platform up/down	Ast3 (mm)	1958	2022 (2123)	2022 (2123)	2022 (2123)	2142 (2243) / 2622 (2723)	2142 (2243) / 2622 (2723)	2142 (2243) / 2622 (2723)	2085	2205 / 2685
35a	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down	Ast (mm)	2283	2347 (2533)	2347 (2533)	2347 (2533)	2467 (2653) / 2947 (3133)	2467 (2653) / 2947 (3133)	2467 (2653) / 2947 (3133)	2415	2535 / 3015
35b	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise, platform up/down	Ast3 (mm)	2158	2222 (2323)	2222 (2323)	2222 (2323)	2342 (2443) / 2822 (2923)	2342 (2443) / 2822 (2923)	2342 (2443) / 2822 (2923)	2285	2405 / 2885
36	Turning circle radius	Wa (mm)	1383	1447 (1848)	1447 (1848)	1447 (1848)	1567 (1968) / 2047 (2448)	1567 (1968) / 2047 (2448)	1567 (1968) / 2047 (2448)	1535	1655 / 2135
Performance											
37	Travel speed with/without load	(km/h)	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0
38	Lifting speed with/without load	(m/s)	0.12 / 0.26	0.12 / 0.26	0.12 / 0.26	0.14 / 0.27	0.12 / 0.26	0.12 / 0.26	0.12 / 0.26	0.14 / 0.27	0.14 / 0.27
39	Lowering speed with/without load	(m/s)	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40	0.35 / 0.40
40	Maximum gradeability, with/without load	(%)	8 / 15	8 / 15	8 / 15	8 / 15	8 / 15	8 / 15	8 / 15	8 / 15	8 / 15
41	Service brakes (mechanical/hydraulic/electric/pneumatic)	(s)	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
Motors											
42	Drive motor capacity (60 min. short duty)	(kW)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
43	Lift motor output at 15% duty factor	(kW/%)	2.2	2.2	2.2	3.2	2.2	2.2	2.2	3.2	3.2
44	Battery voltage / capacity at 5-hour discharge	(V/Ah)	24 / 150	24 / 150-250	24 / 250	24 / 250-375	24 / 150-250	24 / 250	24 / 250-375	24 / 250-375	24 / 250-375
45	Battery weight	(kg)	151	151-212	212	212-294	151-212	212	212-294	212-294	212-294
Miscellaneous											
46	Type of drive control		Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless
47	Noise level (EN 12 053)	(dB(A))	60 / 60 / 41	60 / 60 / 41	60 / 60 / 41	70 / 72 / 41	60 / 60 / 41	60 / 60 / 41	70 / 72 / 41	70 / 72 / 41	70 / 72 / 41
	Body vibration (EN 13 059)	m/s <sup>2</sup>					0.8	0.8	0.8		0.8
	Hand-arm vibration (EN 13 059)	m/s <sup>2</sup>	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5

Values in brackets () are for initial lift versions. All values are measured with standard configuration. Values can vary with different masts.

Continuing improvement may lead to changes in these specifications.

# Mast Performance

# and Capacity

SBP10N2				
Mast Type	h3 + h13 mm	h1 mm	h4 mm	h2 + h13 mm
Simplex	1500	1980	1980	1500
	2500	1775	3000	195
Duplex	2900	1975	3400	195
	3300	2175	3800	195

SBP12 / 14 / 16N2 / SBP12 / 14 / 16N2R / SBP16N2S / SBP16N2SR				
Mast Type	h3 + h13 mm	h1 mm	h4 mm	h2 + h13 mm
Simplex	1500	1950	1950	1500
	2500	1835	3000	200
Duplex	2900	2035	3400	200
	3300	2235	3800	200
	3600	2385	4100	200
	4300	2735	4800	200
	2500	1775	2940	1355
Duplex Free-lift	2900	1975	3340	1555
	3300	2235	3800	1755
	3600	2385	4100	1905
	4300	2735	4800	2255
	4100	1955	4640	
Triplex	4300	2020	4840	
	4700	2153	5240	
	5400*	2385	5940	
	4100	1955	4640	1475
Triplex Free-lift	4300	2020	4840	1540
	4700	2153	5240	1673
	5400*	2385	5940	1905

SBP12 / 14 / 16N2i / SBP12 / 14 / 16N2iR				
Mast Type	h3 + h13 mm	h1 mm	h4 mm	h2 + h13 mm
Simplex	1500	2055	2055	1505
	2500	1940	3105	200
	2900	2140	3505	200
Duplex	3300	2340	3905	200
	3600	2490	4205	200
	4300	2840	4905	200
	2500	1940	3105	1360
	2900	2140	3505	1560
Duplex Free-lift	3300	2340	3905	1760
	3600	2490	4205	1910
	4300	2840	4905	2260
	4100	2060	4745	
Triplex	4300	2125	4945	
	4700	2260	5345	
	5400*	2490	6045	
	4100	2060	4745	1480
Triplex Free-lift	4300	2125	4945	1545
	4700	2260	5345	1673
	5400*	2490	6045	1910

- \* = Only SBP14N2-16N2 & SBP14N2i-16N2i
- S = Simplex
- DS = Duplex with clear-view mast
- DEV = Duplex with full free lift
- TR = Triplex with clear-view mast
- TREV = Triplex with full free lift
- h3 + h13 = Lifting height
- h1 = Lowered mast height
- h4 = Raised mast height
- h2 + h13 = Free lift

