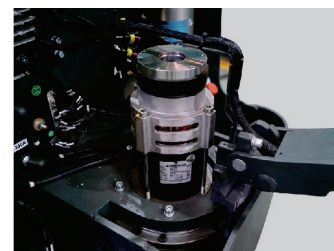


# PS12/16/20N

The range of stacker includes the wide list of models with capacity from 1200kg to 2000kg and lifting height up to 5500mm.

## INTRODUCTION

The truck designed to be used with high efficiency even during their multi-shift operation. The configuration of the truck allows you to get more powerful and productive units thanks to its increased speed and different options of batteries, including Lithium solutions.



Powerful AC-drive unit from the global industry leaders: the AC driving motor designed and produced by Schabmuller comes together with the top quality ZF gearbox and it is equipped with Intorq electromagnetic brake. The drive unit can provide the drive speed up to 8 km/h. The use of top level quality drive wheels from German manufacturers Rader Vogel or Wicke helps to ensure the long life time of PU tires.



The integrated design of operator's platform and protective arms as well as totally new internal structure allows to ensure the smallest body length of the stackers and provide extremely low turning radius among competitors. Together with this, the suspension system for the platform helps to provide the high level of comfort to operators.



The use of apron with 8 mm thickness allows to ensure the robustness of chassis and its strength even in case of collision against objects. The strong battery cover made out of steel helps to provide a high level of strength for this part.



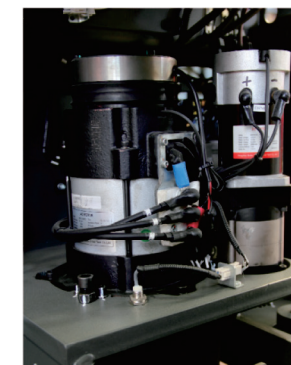
The driving controllers and steering controllers are manufactured by Zapi (Italy) - the leading European brand with long history in the industry, which provides extremely reliable and flexible solutions with high performance level of the control system.



The option of PIN-code panel access, which works not only with PIN-code but also with access cards (RFID), can significantly simplify the procedure of access limitation for the fleet which may be used by more than one operator.



Rema tiller delivers high level of ergonomics as well as reliability of control system. In addition, the tiller ensures a long life-time thanks to the contactless rocker switches designed for lifting/lowering function.



The model range can be equipped with the option of Electric Power Steering (EPS) which delivers precise and fast control for the position of steering wheel and has a high level of reliability as well as safety according to official standards.

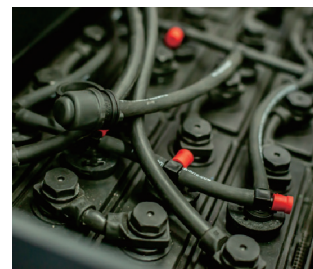
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## Mast table PS12N/16N/20N

Designation	Lowered mast height h <sub>1</sub> (mm)	Free lift height h <sub>2</sub> (mm)	Lift height h <sub>3</sub> (mm)	Extended mast height h <sub>4</sub> (mm)
<b>PS12N</b>				
Two-stage mast	1958	/	2830	3380
	2108	/	3130	3680
	2308	/	3530	4080
Two-stage mast FFL (Full-Free-Lift)	1958	1410	2830	3380
	2108	1560	3130	3680
	2308	1760	3530	4080
Three stage mast FFL (Full-Free-Lift)	1998	1320	3930	4480
	2008	1420	4230	4780
	2108	1520	4530	5080
<b>PS16N</b>				
Two stage mast	1958	/	2830	3380
	2108	/	3130	3680
	2308	/	3530	4080
Two stage mast FFL (Full-Free-Lift)	1958	1410	2830	3380
	2108	1560	3130	3680
	2308	1760	3530	4080
Three stage mast	2008	/	4230	4780
	2108	/	4530	5080
Three stage mast FFL (Full-Free-Lift)	1908	1320	3930	4480
	2008	1420	4230	4780
	2108	1520	4530	5080
	2343	1756	5230	5780
<b>PS20N</b>				
Two stage mast	2078	/	2830	3500
	2228	/	3130	3800
	2428	/	3530	4200
Two stage mast FFL (Full-Free-Lift)	1978	1310	2630	3300
	2078	1410	2830	3500
	2228	1560	3130	3800
	2428	1760	3530	4200
Three stage mast	2128	/	4230	4900
	2228	/	4530	5200
Three stage mast FFL (Full-Free-Lift)	1978	1310	3930	4600
	2128	1420	4230	4900
	2228	1520	4530	5200



The option of side battery replacement allows customers to use the truck with multi-shift operation and not to waste time on complicated procedure of battery replacement through the top. With help of specially designed trolley, the batteries can be replaced fast and effortlessly.



The trucks can be equipped with the option of Aquamatic- the system of fast refilling of distilled water in lead-acid batteries. The 2-ton pallet truck can be optionally equipped with the battery under 3VBS standard, which helps to reduce the length of the original truck and make it more compact (the standard battery is 2Pz5).



The model range can be equipped with Lithium batteries. The use of lithium solution from Noblelift will allow you to enjoy benefits of Lithium technology such as Fast charging, Opportunity charging, Maintenance free, Environmental-friendly, Smart Diagnosis of battery status, Lower cost of Total Ownership with long service life.

## Type sheet for industrial truck acc. to VDI 2198 1KG=2.2LB 1INCH=25.4MM

Distinguishing mark	1.2	Manufacturer's type designation	PS12N(3600) PS16N(5500) PS20N(4600)			
			1.3	Power (battery ,diesel, petrol, gas, manual)	Battery	
Distinguishing mark	1.4	Operator type	Pedestrian			
	1.5	Load Capacity / rated load	Q (t)	1.2	1.6	2.0
	1.6	Load centre distance	c (mm)	600		
	1.8	Load distance ,centre of drive axle to fork	x (mm)	647		
	1.9	Wheelbase	y (mm)	1167	1215	1327
	Weight	2.1	Service weight	kg	1080	1380
2.2		Axle loading, laden front/rear	kg	830/1420	990/1940	1160/2410
2.3		Axle loading, unladen front/rear	kg	750/300	890/440	1040/540
Tires, chassis	3.1	Tires	Polyurethane(PU)			
	3.2	Tire size,front	Φxw (mm)	Φ230×70		
	3.3	Tire size,rear	Φxw (mm)	Φ84×70		
	3.4	Additional wheels(dimensions)	Φxw (mm)	Φ150×54		
	3.5	Wheels,number front/rear(x=driven wheels)		1x + 1 / 4		
	3.6	Tread, front	b <sub>10</sub> (mm)	510		
	3.7	Tread, rear	b <sub>11</sub> (mm)	390/505		
Dimensions	4.2	Lowered mast height	h <sub>1</sub> (mm)	2308	2410	2228
	4.3	Free Lift height	h <sub>2</sub> (mm)	1760	1820	1520
	4.4	Lift height	h <sub>3</sub> (mm)	3530	5430	4530
	4.5	Extended mast height	h <sub>4</sub> (mm)	4088	6110	5208
	4.9	Height of tiller in drive position min./ max.	h <sub>14</sub> (mm)	950/1350		
	4.15	Height, lowered	h <sub>13</sub> (mm)	90		
	4.19	Overall length	l <sub>1</sub> (mm)	1855 <sup>1)</sup>	1896 <sup>1)</sup>	2025 <sup>1)</sup>
	4.20	Length to face of forks	l <sub>2</sub> (mm)	705 <sup>1)</sup>	746 <sup>1)</sup>	875 <sup>1)</sup>
	4.21	Overall width	b <sub>1</sub> (mm)	790		
	4.22	Fork dimensions	s/e/l (mm)	60 / 180 / 1150		
	4.25	Distance between fork-arms	b <sub>5</sub> (mm)	570 /685		
	4.32	Ground clearance, centre of wheelbase	m <sub>2</sub> (mm)	28	28	23
	4.33	Aisle width for pallets 1000X1200 crossways	Ast (mm)	2285 <sup>1)</sup>	2325 <sup>1)</sup>	2455 <sup>1)</sup>
	4.34	Aisle width for pallets 800X1200 lengthways	Ast (mm)	2250 <sup>1)</sup>	2290 <sup>1)</sup>	2420 <sup>1)</sup>
	4.35	Turning radius	Wa (mm)	1380 <sup>1)</sup>	1420 <sup>1)</sup>	1550 <sup>1)</sup>
Performance data	5.1	Travel speed, laden/ unladen	km/h	7.0/8.0	6.0/7.0	6.0/7.0
	5.2	Lift speed, laden/ unladen	m/s	0.09/0.14	0.13/0.20	0.13/0.20
	5.3	Lowering speed, laden/ unladen	m/s	0.25/0.20	0.28/0.23	0.28/0.23
	5.8	Max. gradeability, laden/ unladen	%	6/12	6/12	6/10
	5.10	Service brake		Electromagnetic		
	Electric- engine	6.1	Drive motor rating S2 60min	kW	1.4	
6.2		Lift motor rating at S3 4.5%	kW	1.5/3.2	3.2	3.2
6.3		Battery acc. to DIN 43531/35/36 A, B, C, no		2VBS	3VBS	3PZS
6.4		Battery voltage, nominal capacity K5	V / Ah	24/160-180	240/210-270	24/270-350
6.5		Battery weight +/-5%	kg	155-175	185-235	235-285
6.6		Energy consumption acc: to VDI cycle	kWh/h	0.95	1.34	1.70
Additional data	8.1	Type of drive control		AC- speed control		
	8.4	Sound level at driver's ear acc. to EN 12053	dB(A)	<69		

1) with compact platform:+440mm

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