

# PS12N ♦ PS16 / 20N DA



**Electric stand-up rider stacker  
1200, 1600 and 2000 kg maximum load capacity**

## DESCRIPTION

The new PSNDA short-tiller pallet trucks series results from many years of experience in material handling.

Its design has considered various details and priorities such as service life extension, performance, easy maintenance, and components interchangeability.

The use of high-end components from well-known suppliers improves reliability, builds customers' trust, and puts the product at a new top level.

Almost all core components come from top-leading brands with solid experience in the material handling industry.

These stackers set-up provide high power and productivity.





### German AC traction motor

The powerful AC motor unit, designed and manufactured by Schabmüller, is paired with a high-end ZF drive unit and Intorq electromagnetic brakes. The motor unit allows up to 8km/h traction speed.

Rader Vogel or Wicke high-end steering wheels guarantee an extended service life of the wheels.



### Standard power steering system on PS16N et PS20N

The electric power steering (EPS) allows precise and fast control of the steering wheel and ensures high efficiency and optimal safety.



### Efficient electronic controllers

The driving and steering controllers are manufactured by Zapi (Italy). The leading European brand with a long history in the industry offers highly reliable and flexible solutions and a high level of control system performance.



### Flip-down platform

The integrated flip-down platform, the lateral protection arms, and the brand new internal structure provide the smallest overall length and tightest turning radius. Moreover, the suspension system of the platform offers excellent comfort to operators.



### Robust and reliable design

The robust chassis and its 8mm thick mainframe protect the stacker and the components against impact collisions. In addition, the stainless steel battery cover provides enhanced protection.



### Side battery extraction

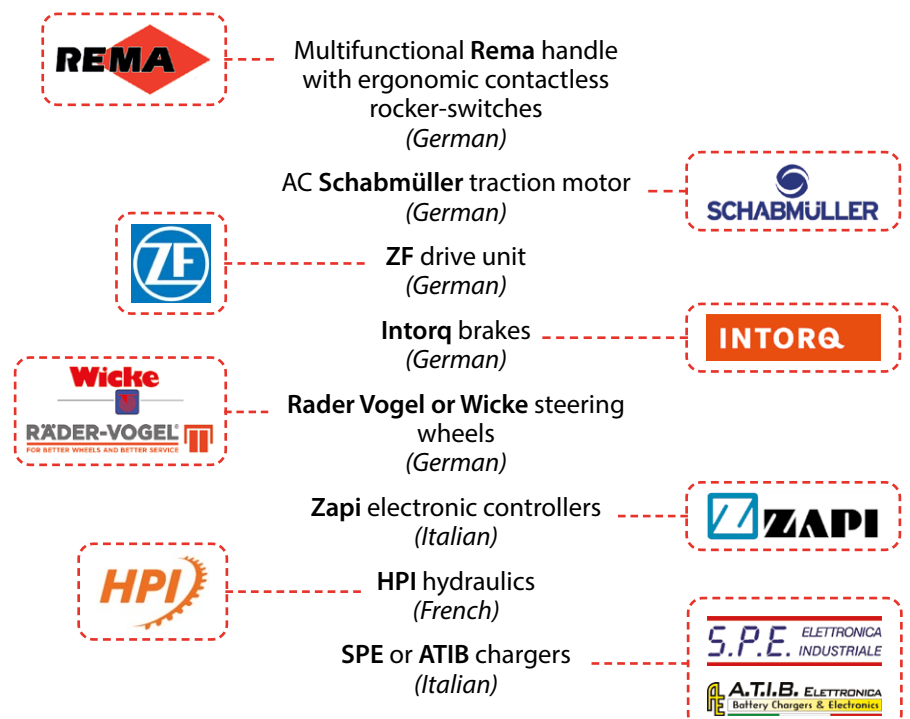
The battery side access is convenient for multi-shift operations. Besides, side battery extraction ensures a time-saving, quick, and easy battery replacement with an appropriate trolley.



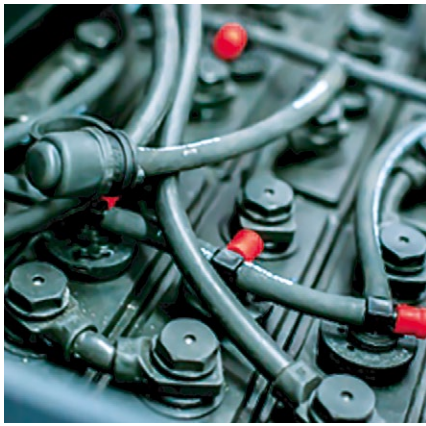
### Ergonomic handle

Rema's ergonomic handle ensures superior ergonomics and a reliable control system. It is coupled to an electric power steering system.

## HIGH-END COMPONENTS



High-end components reduce maintenance costs and guarantee high performance and reliability when performing the most intense operations.



### Automatic filling system

The stacker can be equipped with a centralized battery filling system in option.



### Secure access control

Standard PIN-code or RFID card access control system, available in option, considerably simplifies the access control process if more than one user uses the equipment.

In addition, the built-in charger option eases battery charging for light industrial use (except in the case of multi-shift operations where battery replacement is needed).



### Electric proportional lift / lower

The proportional lift and lower system have been designed from solutions suggested by HPI, the leader in hydraulic systems manufacturing. It guarantees precision when raising or lowering the forks, plus a smooth acceleration or deceleration when handling fragile loads.

Stockman Reference	Mast	Mast lowered height $h1$ (mm)	Free lift $h2$ (mm)	Standard lift $h3$ (mm)	Mast raised height $h4$ (mm)	Weight (kg)
<b>PS12N</b>						
PS12N29FFLCP	Duplex FFL	1958	1410	2830	3380	1010
PS12N32FFLCP		2108	1560	3130	3680	1040
PS12N36FFLCP		2308	1760	3530	4080	1080
<b>PS16N DA</b>						
PS16N29FFLDACP	Duplex FFL	1958	1410	2830	3380	1160
PS16N32FFLDACP		2108	1560	3130	3680	1190
PS16N36FFLDACP		2308	1760	3530	4080	1220
PS16N40FFLDACP	Triplex FFL	1908	1320	3920	4480	1270
PS16N43FFLDACP		2008	1420	4230	4780	1300
PS16N46FFLDACP		2108	1520	4530	5080	1330
PS16N53FFLDACP		2343	1756	5230	5780	1370
PS16N55FFLDACP		2410	1800	5430	6110	1380
<b>PS20N DA</b>						
PS20N27FFLDACP	Duplex FFL	1978	1310	2630	3300	1360
PS20N29FFLDACP		2078	1410	2830	3500	1390
PS20N32FFLDACP		2228	1560	3130	3800	1420
PS20N36FFLDACP		2428	1760	3530	4200	1450
PS20N40FFLDACP	Triplex FFL	1978	1310	3930	4600	1580
PS20N43FFLDACP		2128	1420	4230	4900	1610
PS20N46FFLDACP		2228	1520	4530	5200	1620

Technical data according to VDI 2198 regulation						
Specifications	1.2	Product Reference ♦ Model		PS12N FFL CP	PS16N FFL DA CP	PS20N FFL DA CP
	1.3	Power supply		battery	battery	battery
	1.4	Operator type		pedestrian		
	1.5	Load capacity	Q(t)	1,2	1,6	2
	1.6	Load center distance	c(mm)	600	600	600
	1.8	Distance from carriage to caster axle	x(mm)	647	647	647
	1.9	Wheelbase	y(mm)	1167	1215	1327
Weight	2.1	Weight (batteries included)	kg	see table opposite		
	2.2	Axle load laden front/rear	kg	860/1420	1040/1940	1210/2410
	2.3	Axle load unladen front/rear	kg	780/320	940/440	1090/540
Wheels	3.1	Wheels		polyurethane (PU)		
	3.2	Steering wheel dimensions	Øxw(mm)	Ø230x70	Ø230x70	Ø230x70
	3.3	Load rollers dimensions	Øxw(mm)	Ø85x75	Ø85x75	Ø85x75
	3.4	Stabilizing rollers dimensions	Øxw(mm)	Ø150x54	Ø150x54	Ø150x54
	3.5	Number of front/rear wheels (x=driving wheel)		1x+1/4	1x+1/4	1x+1/4
	3.6	Front axle wheelbase	b10(mm)	510	510	510
	3.7	Load roller wheelbase	b11(mm)	390/505	390/505	390/505
Dimensions	4.2	Mast lowered height	h1(mm)	see table opposite		
	4.3	Free lift	h2(mm)	see table opposite		
	4.4	Standard lift	h3(mm)	see table opposite		
	4.5	Mast raised height	h4(mm)	see table opposite		
	4.9	Tiller height in drive position min/max	h14(mm)	950/1350	950/1350	950/1350
	4.15	Fork lowered height	h13(mm)	90	90	90
	4.19	Overall length	l1(mm)	1855	1896	2025
	4.20	Front axle to fork face length	l2(mm)	705	746	875
	4.21	Overall width	b1(mm)	790	790	790
	4.22	Fork dimensions	s/e/l(mm)	60/180/1150	60/180/1150	60/180/1150
	4.25	Width across forks	b5(mm)	570/685	570/685	570/685
	4.32	Ground clearance	m2(mm)	28	28	23
	4.33	Aisle width for 1000x1200 mm pallets crossways	Ast(mm)	2285	2325	2455
	4.34	Aisle width for 800x1200 mm pallets lengthways	Ast(mm)	2250	2290	2420
4.35	Turning radius	Wa(mm)	1380	1420	1550	
Performances	5.1	Travel speed, laden/unladen	km/h	7/8	6/7	6/7
	5.2	Lift speed, laden/unladen	m/s	90/140	130/200	130/200
	5.3	Lowering speed, laden/unladen	m/s	200/250	230/280	230/280
	5.8	Gradeability laden/unladen	%	6/12	6/12	6/10
	5.10	Service brake		electromagnetic		
Electrical system	6.1	Drive motor rating S2 60 min	kW	1,4	1,4	1,4
	6.2	Lift motor rating at S3 15%	kW	1,5	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	24/180	24/270	24/350
	6.5	Battery weight	kg	170 to 175	230 to 235	290
	6.6	Energy consumption acc. to VDI cycle	kWh/h	0,95	1,59	1,7
Additional data	8.1	Type of drive control		AC - speed control		
	8.4	Noise level at driver's ear acc. to EN12053	dB(A)	<70	<70	<70

# RESIDUAL CAPACITY

SX ♦ Single

DX ♦ Duplex

TX ♦ Triplex

SL ♦ Straddle legs

FFL ♦ Full free lift

LI ♦ Initial lift

LP ♦ Proportional lift

DA ♦ Electrical power steering

SC ♦ Built-in weighing scale

CP ♦ Pin code

## PS20N DA ♦ pp. 128 TO 131

PS20N27FFLDACP DX  
 PS20N29FFLDACP DX  
 PS20N32FFLDACP DX  
 PS20N36FFLDACP DX  
 PS20N40FFLDACP TX  
 PS20N43FFLDACP TX  
 PS20N46FFLDACP TX



**PS20N27FFLDACP DX**

h3 (mm)	Q (kg)	
2700	1800	1500
2500	2000	1600

cdg (mm)	600	700	
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**PS20N29FFLDACP DX**

h3 (mm)	Q (kg)	
2900	1600	1300
2500	2000	1600

cdg (mm)	600	700	
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**PS20N32FFLDACP DX**

h3 (mm)	Q (kg)	
3200	1300	1000
2900	1600	1300
2500	2000	1600

cdg (mm)	600	700	
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**PS20N36FFLDACP DX**

h3 (mm)	Q (kg)	
3600	1200	900
3200	1300	1000
2900	1600	1300
2500	2000	1600

cdg (mm)	600	700	
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**PS20N40FFLDACP TX**

h3 (mm)	Q (kg)	
4000	1150	850
3600	1200	900
3200	1300	1000
2900	1600	1300
2500	2000	1600

cdg (mm)	600	700	
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**PS20N43FFLDACP TX**

h3 (mm)	Q (kg)	
4300	1100	800
3600	1200	900
3200	1300	1000
2900	1600	1300
2500	2000	1600

cdg (mm)	600	700	
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**PS20N46FFLDACP TX**

h3 (mm)	Q (kg)	
4600	1000	700
4300	1100	800
3600	1200	900
3200	1300	1000
2900	1600	1300
2500	2000	1600

cdg (mm)	600	700	
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