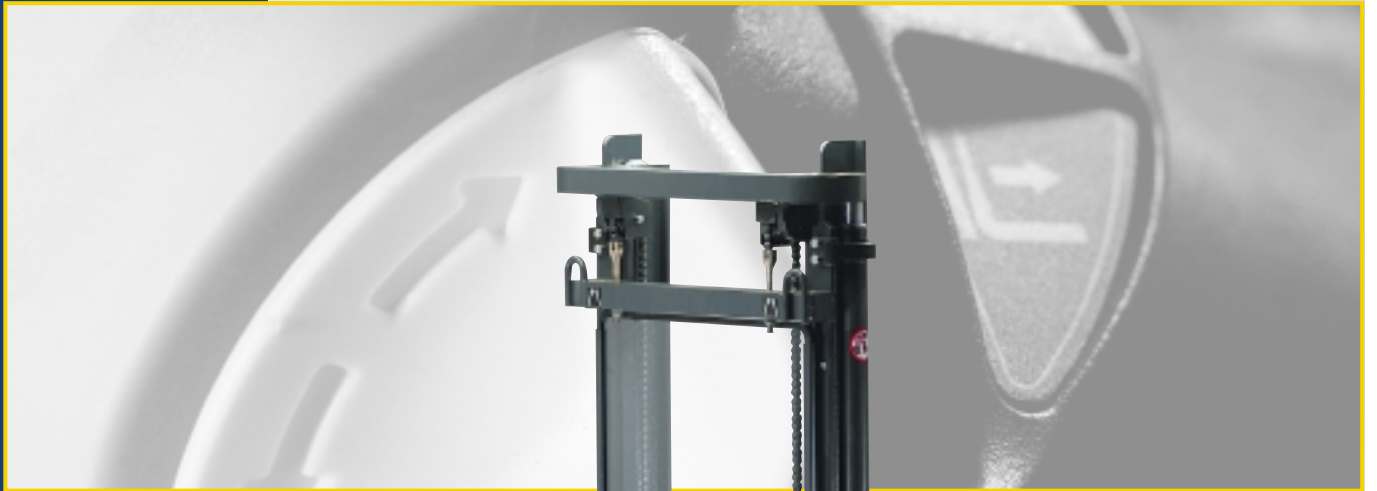


CL
Technical data



designed to work



CL - Technical Data

VDI 2198

		CL 10,5 SX	CL 12 SX	CL 10,5 DX PAL	CL12 DX PAL		
Characteristics	12 Model						
	13 Drive unit		Electric		Electric		
	14 Drive control type		Tiller		Tiller		
	15 Loading capacity	Q (t)	1,05	1,2	1,05	1,2	
	16 Load center	c (mm)		600		600	
	18 Distance between fork face to load wheel axle	x (mm)		776		756	
Weight	19 Distance between wheels centres	y (mm)		1298		1298	
	2.1 Truck weight (without battery)	Kg		623		743 ⁽³⁾	
	2.2 Axle loadings laden (front/rear)	Kg	718 / 1106 ⁽¹⁾	770 / 1244 ⁽²⁾	782 / 1163 ⁽⁴⁾	832 / 1302 ⁽⁵⁾	
Wheels and tyres	2.3 Axle loading unladen	Kg	577 / 198	608 / 205 ⁽²⁾	656 / 239 ⁽⁴⁾	688 / 246 ⁽⁵⁾	
	3.1 Tyre type			Polyurethane		Polyurethane	
	3.2 Front tyre dimensions	(mm)		230 / 120		230 / 120	
	3.3 Rear tyre dimensions	(mm)		85X90		85X90	
	3.5 Wheels quantity front/rear (x= traction)			1x-1 / 2		1x-1 / 2	
	3.6 Distance between traction and pivoting wheel's axles	b10 (mm)		505		505	
Dimensions	3.7 Distance between load wheels centres	b11 (mm)		397		397	
	4.2 Closed height	h1 (mm)		2300		2000 / 2350	
	4.3 Full free lift	h2 (mm)		1785		120	
	4.4 Lift height	h3 (mm)		1800		2900 / 3600	
	4.5 Extended height	h4 (mm)		2310 ⁽⁹⁾		3410 / 4110 ⁽⁹⁾	
	4.6 Partial free lift	h5 (mm)		/		/	
	4.9 Travel position tiller height (min/max)	h14 (mm)		762 / 1232		762/1232	
	4.15 Forks clearance from the ground	h13 (mm)		85		85	
	4.19 Total length	l1 (mm)		1850		1869	
	4.20 Length to fork face	l2 (mm)		700		719	
	4.21 Total width	b1 (mm)		790		790	
	4.22 Fork dimensions	s/e/l (mm)		56 / 175 / 1150		56 / 175 / 1150	
	4.24 Mast width	b3 (mm)		660		660	
	4.25 Maximum forks width	b5 (mm)		560		570	
	Performance	4.32 Clearance off ground	m2 (mm)		29		29
4.33 Aisle width for 1000x1200 pallet 1200 forking side		Ast3 (mm)		2430 ⁽¹⁰⁾		2438 ⁽¹⁰⁾	
4.34 Aisle width for 800x1200 pallet 800 forking side		Ast3 (mm)		2373 ⁽¹⁰⁾		2388 ⁽¹⁰⁾	
4.35 Turning radius		Wa (mm)		1590 ⁽¹⁰⁾		1590 ⁽¹⁰⁾	
5.1 Traction speed (laden /unladen)		km/h		5,6/6		5,6/6	
5.2 Lifting speed (laden/unladen)		m/s	0,13 / 0,18	0,12 / 0,18	0,13 / 0,21 ⁽³⁾	0,17 / 0,3 ⁽²⁾	
5.3 Lowering speed (laden/unladen)		m/s	0,28 / 0,22	0,29 / 0,22	0,31 / 0,31 ⁽³⁾	0,32 / 0,31 ⁽²⁾	
5.7 Gradeability KB30' (laden/unladen)		%	1,7 / 8,0	1,2 / 7,5	1,3 / 6,5	1,0 / 6,1	
5.8 Maximum gradeability KB5' (laden/unladen)		%	6,7 / 9,0 ⁽¹¹⁾	5,8 / 9,0 ⁽¹¹⁾	6,1 / 9,0 ⁽¹¹⁾	5,3 / 9,0 ⁽¹¹⁾	
5.10 Service brake				Electric at butterfly release		Electric at butterfly release	
Motors		6.1 Traction motor, performance KB 60'	kW		1		1
		6.2 Lift Motor, performance 15% ED	kW		2,2		2,2
		6.3 Battery to British Standard / DIN 43531/35/36 A, B, C			British Standard		British Standard
Other		6.4 Volts/ampere	V / Ah	24/140 (200-300)	24/200 (300)	24/140 (200-300)	24/200 (300)
		6.5 Battery weight (+-5%)	Kg	152 (191-250)	191 (250)	152 (191-250)	191 (250)
	8.1 Control unit type			Electronic		Electronic	
	8.4 Noise level at operator position	dB (A)		<70		<70	

1) with 24V/140 Ah battery
2) with 24V/200 Ah battery
3) with h3 = 3600 mm mast

4) with 24V/140 Ah battery and h3 = 3600 mm mast
5) with 24V/200 Ah battery and h3 = 3600 mm mast
6) with h3=4305 mast

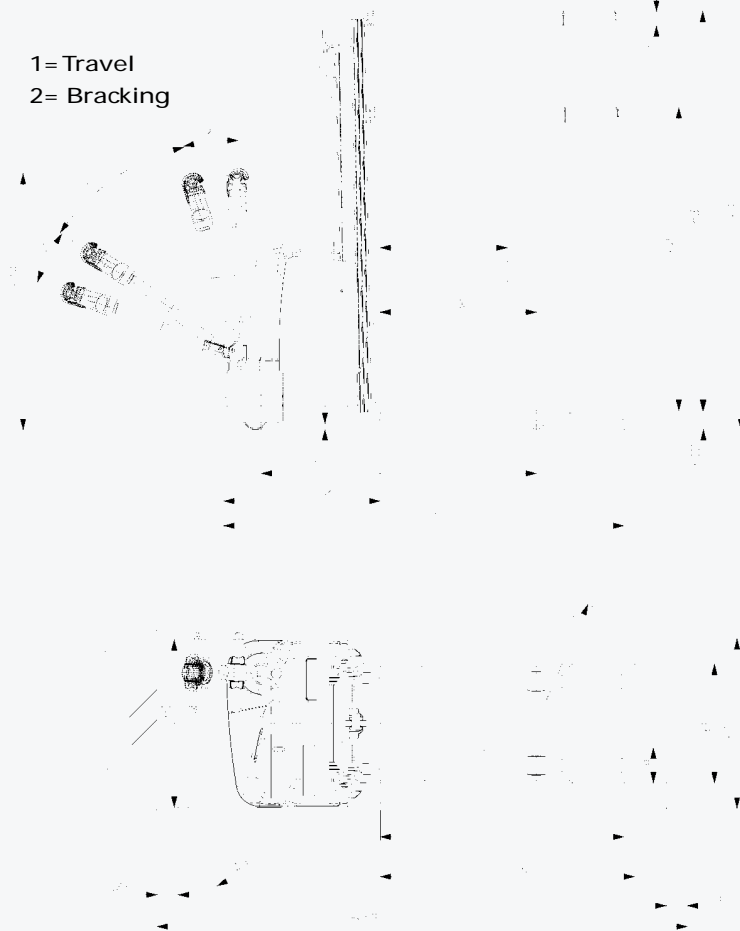
7) with 24V/140 Ah battery and h3 = 4305 mm mast
8) with 24V/200 Ah battery and h3 = 4305 mm mast
9) with load back rest +512 mm

CL 10,5	Lifting height	Lifting height from floor	Lowered height	Extended height	Standard free lift	Residual capacity at maximum height with 140 Ah battery (minimum weight 154 Kg)
Mast type	h3 (mm)	h3+h13 (mm)	h1 (mm)	h4 (mm)	h2 (mm)	Q (kg)
Simplex	1800	1885	2300	2310	1785	1050
Duplex PAL	2900	2985	2000	3410	120	1050
Duplex GAL	2900	2985	1950	3410	1450	1050
Duplex PAL	3600	3695	2350	4110	120	950
Duplex GAL	3600	3685	2300	4110	1800	950
Triplex GAL	4100	4185	1866	4610	1367	850
Triplex GAL	4305	4390	1935	4815	1435	800

CL 10,5 DX GAL	CL 12 DX GAL	CL 10,5TX GAL	CL 12TX GAL
Electric		Electric	
Tiller		Tiller	
1,05	1,2	1,05	1,2
600		600	
756		737	
1298		1298	
755 ⁽³⁾		809 ⁽⁴⁾	
790 / 1167 ⁽⁴⁾	840 / 1306 ⁽⁵⁾	807 / 1204 ⁽⁷⁾	854 / 1346 ⁽⁸⁾
664 / 243 ⁽⁴⁾	696 / 250 ⁽⁵⁾	697 / 264 ⁽⁷⁾	728 / 272 ⁽⁸⁾
Polyurethane		Polyurethane	
230 / 120		230 / 120	
85X90		85X90	
1x1 / 2		1x1 / 2	
505		505	
397		397	
1950 / 2300		1866 / 1935	
1450 / 1800		1367 / 1435	
2900 / 3600		4100 / 4305	
3410 / 4110 ⁽⁹⁾		4610 / 4815 ⁽⁹⁾	
/		/	
762/1232		762/1232	
85		85	
1869		1889	
719		738	
790		790	
56 / 175 / 1150		56 / 175 / 1150	
660		660	
570		570	
29		29	
2438 ⁽¹⁰⁾		2445 ⁽¹⁰⁾	
2388 ⁽¹⁰⁾		2402 ⁽¹⁰⁾	
1590 ⁽¹⁰⁾		1590 ⁽¹⁰⁾	
5,6/6	5,5/6	5,6 / 6	5,5 / 6
0,15 / 0,27 ⁽³⁾	0,13 / 0,27 ⁽³⁾	0,18 / 0,28 ⁽⁴⁾	0,16 / 0,28 ⁽⁴⁾
0,30 / 0,24 ⁽³⁾	0,31 / 0,24 ⁽³⁾	0,30 / 0,24 ⁽⁴⁾	0,31 / 0,24 ⁽⁴⁾
1,3 / 6,2	1,0 / 6,1	1,2 / 5,8	0,9 / 5,4
6,1 / 9,0 ⁽¹¹⁾	5,3 / 9,0 ⁽¹¹⁾	5,8 / 8,9 ⁽¹¹⁾	5,0 / 9,0 ⁽¹¹⁾
Electric at butterfly release		Electric at butterfly release	
1		1	
3		3	
British Standard		British Standard	
24/140 (200-300)	24/200 (300)	24/140 (200-300)	24/200 (300)
152 (191-250)	191 (250)	152 (191-250)	191 (250)
Electronic		Electronic	
<70		<70	

10) with tiller active in vertical position -45 mm
11) linked to truck configuration

1= Travel
2= Bracking



CL 12	Lifting height	Lifting height from floor	Lowered height	Extended height	Standard free lift	Residual capacity at max height with 200 Ah battery (minimum weight 192 Kg)
Mast type	h3 (mm)	h3+h13 (mm)	h1 (mm)	h4 (mm)	h2 (mm)	Q (kg)
Simplex	1800	1885	2300	2310	1785	1200
Duplex PAL	2900	2985	2000	3410	120	1200
Duplex GAL	2900	2985	1950	3410	1450	1200
Duplex PAL	3600	3695	2350	4110	120	1050
Duplex GAL	3600	3685	2300	4110	1800	1050
Triplex GAL	4100	4185	1866	4610	1367	900
Triplex GAL	4305	4390	1935	4815	1435	850





High lift stacker CL

The new stacker CL is introduced as an essential work tool for handling of pallets, cases and container cages in small to medium duty logistic applications. The diversity of applications within warehouses logistics expands the application range of the stacker: It can be found in small stores as well as specific applications for handling in production areas, stocking, goods in and out bays.

The design

The totally new design keeps the existing, well tested, four point configuration and side mounted tiller. The motor compartment and battery covers are made of high impact resistant polyethylene, well integrated in the design with smooth contours.

Chassis

The four point design and sidemounted tiller previously mentioned ensure a high degree of stability and perfect visibility during loading and unloading operations. The traction group and pivoting wheel are completely enclosed within the chassis dimensions ensuring operator foot protection. A standard chassis, made of steel welded onto the main structure is adopted throughout the range. Various mast configurations may be combined with the chassis. Nominal capacities of 1050 kg and 1200 kg are available.

Traction group

Electronic control of traction allows energy recuperation when releasing the butterfly. The 1 kw traction motor is of the separate field - excitation type. The pivoting wheel is easily adjusted maintaining perfect contact with floor and maximum stability.

Lift group

Simplex, duplex and triplex high visibility masts with partial or full free lift are fitted on both capacity trucks. Two dedicated lift motors are available, 2.2 kw & 3 kw, according to capacity and lift height.

Tiller

The new tiller head allows control of all the lift functions through ergonomically placed buttons to give maximum comfort levels to the operator. Mechanical operation microswitches have been replaced by push type buttons.

Electronic control

The stacker is equipped with a unique electronic control for both traction and lift. The use of digital transmission of electrical signals has reduced considerably the volume of cables. The adoption of automotive type connectors and proximity switches instead of mechanical micro switches and the reduction of contactors have consistently increased reliability.

Optional equipment

- < Cold store spec.
- < Down to -30 degrees C°
- < Tandem load wheels.
- < Rubber traction wheel.
- < Proportional electrovalve control for hydraulic functions.
- < DC-DC converter
- < Tempered glass mast shield
- < Load backrest
- < Incline option
- < Braking cylinders
- < Battery trolley.