

VG series

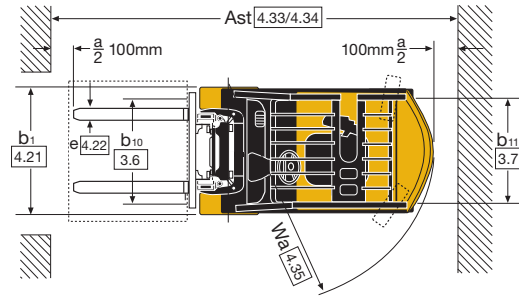
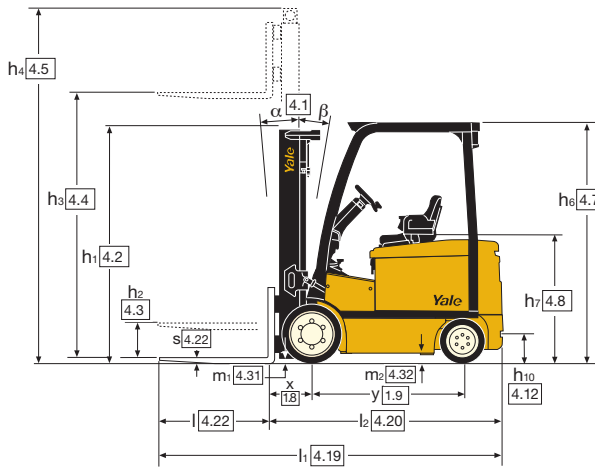
Compact Electric Forklift Trucks

2,200kg / 2,500kg / 3,000kg / 3,200kg / 3,500kg

- New high Visibility Masts and optional Side Shifting Fork Positioner
- YaleStop automatic park brake eliminates uncontrolled roll-back on ramps
- Password protected eLo and HiP performance settings
- CANbus technology
- High-performance AC motor technology
- Continuous Stability Enhancement



Truck Dimensions



ERC22 VG SWB/MWB mast details and capacity ratings (kg) - Cushion tyres

Model		ERC 22 VG SWB											ERC 22 VG MWB					
Tyre size, front		21x7x15											21x7x15					
Overall width, front		1070mm											1070mm					
Mast	h ₁ (mm)	h ₂ +s (mm)	h ₃ +s (mm)	h ₄ (mm)	Tilt		Forks			ISS & FP			Forks			ISS & FP		
					F	B	Load centre (kg)			Load centre (kg)			Load centre (kg)			Load centre (kg)		
2 Stage LFL	2235	140	3492	4049 ⁽¹⁾	5	5	2200	2030	1840	2160	1950	1770	2200	2030	1840	2160	1950	1770
	2635	140	4132	4689 ⁽¹⁾	5	5	2200	2020	1830	2150	1940	1760	2200	2020	1830	2150	1940	1760
	2985	140	4832	5389 ⁽¹⁾	5	5	2120	1940	1760	2070	1860	1700	2130	1950	1770	2070	1870	1700
2 Stage FFL	2235	1678 ⁽²⁾	3502	4059 ⁽¹⁾	5	5	2200	2030	1840	2160	1950	1770	2200	2030	1840	2160	1950	1770
3 Stage FFL	2235	1696 ⁽⁴⁾	5100	5639 ⁽³⁾	5	5	2080	1900	1720	2020	1820	1660	2080	1900	1730	2030	1830	1660
	2385	1846 ⁽⁴⁾	5550	6089 ⁽³⁾	5	5	2000	1820	1650	1940	1750	1590	2010	1830	1660	1950	1750	1600
	2585	2046 ⁽⁴⁾	6000	6539 ⁽³⁾	5	5	1920	1740	1580	1850	1670	1520	1930	1750	1580	1860	1680	1520

ERC25 VG SWB/MWB mast details and capacity ratings (kg) - Cushion tyres

Model		ERC 25 VG SWB											ERC 22 VG MWB					
Tyre size, front		21x7x15											21x7x15					
Overall width, front		1070mm											1070mm					
Mast	h ₁ (mm)	h ₂ +s (mm)	h ₃ +s (mm)	h ₄ (mm)	Tilt		Forks			ISS & FP			Forks			ISS & FP		
					F	B	Load centre (kg)			Load centre (kg)			Load centre (kg)			Load centre (kg)		
2 Stage LFL	2235	140	3492	4049 ⁽¹⁾	5	5	2500	2300	2090	2450	2210	2010	500	2300	2090	2450	2210	2010
	2635	140	4132	4689 ⁽¹⁾	5	5	2500	2290	2080	2440	2200	2000	2500	2290	2080	2440	2200	2000
	2985	140	4832	5389 ⁽¹⁾	5	5	2420	2210	2000	2350	2120	1930	2420	2210	2000	2350	2120	1930
2 Stage FFL	2235	1678 ⁽²⁾	3502	4059 ⁽¹⁾	5	5	2500	2300	2090	2450	2210	2010	2500	2300	2090	2450	2210	2010
3 Stage FFL	2235	1696 ⁽⁴⁾	5100	5639 ⁽³⁾	5	5	2370	2160	1960	2300	2080	1890	2370	2160	1960	2300	2070	1890
	2385	1846 ⁽⁴⁾	5550	6089 ⁽³⁾	5	5	2290	2080	1890	2220	2000	1820	2280	2080	1880	2210	1990	1810
	2585	2046 ⁽⁴⁾	6000	6539 ⁽³⁾	5	5	2220*	1990*	1800*	2120*	1910*	1740*	2190	1980	1800	2110	1900	1730

ERC30 VG MWB, 32 VG LWB, 35 VG LWB mast details and capacity ratings (kg) - Cushion tyres

Model		ERC 30 VG MWB									ERC 32 VG LWB						ERC 35 VG LWB							
Tyre size, front		21x8x15									21x8x15						21x9x15							
Overall width, front		1108mm									1108mm						1158mm							
Mast	h ₁ (mm)	h ₂ +s (mm)	h ₃ +s (mm)	h ₄ (mm)	Tilt		Forks			ISS & FP			Forks			ISS & FP			Forks			ISS & FP		
					F	B	Load centre (kg)			Load centre (kg)			Load centre (kg)			Load centre (kg)			Load centre (kg)			Load centre (kg)		
2 Stage LFL	2235	150	3309	3954 ⁽⁵⁾	5	5	3000	2760	2510	2930	2640	2410	3200	2940	2670	3120	2810	2560	3500	3210	2920	3410	3070	2800
	2535	150	3709	4354 ⁽⁵⁾	5	5	3000	2760	2500	2920	2640	2400	3200	2940	2670	3110	2810	2560	3500	3210	2910	3400	3070	2800
	2785	150	4209	4854 ⁽⁵⁾	5	5	3000	2750	2490	2910	2630	2390	3200	2930	2660	3100	2800	2550	3500	3200	2900	3390	3060	2790
2 Stage FFL	2235	1590 ⁽⁶⁾	3310	3955 ⁽⁵⁾	5	5	3000	2760	2510	2630	2640	2410	3200	2940	2670	3120	2810	2560	3500	3210	2920	3410	3070	2800
3 Stage FFL	2235	1608 ⁽⁶⁾	4768	5395 ⁽⁷⁾	5	5	2890	2650	2410	2800	2530	2310	3090	2820	2570	2990	2700	2460	3390	3090	2810	3280	2960	2700
	2385	1758 ⁽⁶⁾	5218	5845 ⁽⁷⁾	5	5	2810	2560	2330	2710	2450	2230	3000	2740	2490	2900	2620	2390	3290	3000	2720	3180	2870	2620
	2735	2108 ⁽⁶⁾	5968	6595 ⁽⁷⁾	5	5	2650*	2400*	2180*	2540*	2300*	2090*	2840*	2570*	2340*	2720*	2460*	2240*	3120*	2830*	2570*	3000*	2710*	2470*

* Wide tread wheels/tyres must be specified.
⁽¹⁾ Add 666mm with load backrest extension.
⁽²⁾ Deduct 666mm with load backrest extension.

⁽³⁾ Add 684mm with load backrest extension.
⁽⁴⁾ Deduct 684mm with load backrest extension.
⁽⁵⁾ Add 583mm with load backrest extension.

⁽⁶⁾ Deduct 583mm with load backrest extension.
⁽⁷⁾ Add 601mm with load backrest extension.
⁽⁸⁾ Deduct 601mm with load backrest extension.

VDI 2198 – General Specifications

Distinguishing mark	Yale								
		ERC2VG2 SWB	ERC22VG MWB	ERC25VG SWB	ERC25VG MWB	ERC30VG MWB	ERC32VG LWB	ERC35VG LWB	
1.1	Manufacturer (abbreviation)		Yale	Yale	Yale	Yale	Yale	Yale	Yale
1.2	Manufacturer's type designation		ERC2VG2 SWB	ERC22VG MWB	ERC25VG SWB	ERC25VG MWB	ERC30VG MWB	ERC32VG LWB	ERC35VG LWB
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas		Electric (battery)	Electric (battery)	Electric (battery)	Electric (battery)	Electric (battery)	Electric (battery)	Electric (battery)
1.4	Operator type: hand, pedestrian, standing, seated, order-picker		Seated	Seated	Seated	Seated	Seated	Seated	Seated
1.5	Rated capacity/rated load	Q (t)	2.2	2.2	2.5	2.5	3.0	3.2	3.5
1.6	Load centre distance	c (mm)	500	500	500	500	500	500	500
1.8	Load distance, centre of drive axle to fork	x (mm)	390	390	390	390	402	402	402
1.9	Wheelbase	y (mm)	1230	1377	1230	1377	1377	1545	1545
Weights									
2.1	Service weight *	kg	4530	4650	4710	4650	5090	5180	5390
2.2	Axle loading, laden front/rear *	kg	5574 / 1150	5601 / 1234	6041 / 1168	6098 / 1043	6963 / 1126	7271 / 1108	7722 / 1166
2.3	Axle loading, unladen front/rear *	kg	1809 / 2715	2009 / 2632	1762 / 2947	2009 / 2632	2031 / 3059	2233 / 2946	2212 / 3176
Tyres/chassis									
3.1	Tyres: P=pneumatic, V=cushion, SE=superelastic		V	V	V	V	V	V	V
3.2	Tyre size, front		21 x 8 x 15	21 x 8 x 15	21 x 8 x 15	21 x 8 x 15	21 x 8 x 15	21 x 8 x 15	21 x 9 x 15
3.3	Tyre size, rear		16 x 6 x 10.5	16 x 6 x 10.5	16 x 6 x 10.5	16 x 6 x 10.5	16 x 6 x 10.5	16 x 6 x 10.5	16 x 7 x 10.5
3.5	Wheels, number front/rear (x = driven wheels)		2X / 2	2X / 2	2X / 2	2X / 2	2X / 2	2X / 2	2X / 2
3.6	Tread, front	b ₁₀ (mm)	905 / 1039	905 / 1039	905 / 1039	905 / 1039	905 / 1039	905 / 1039	929 / 1013
3.7	Tread, rear	b ₁₁ (mm)	940	940	940	940	940	915	915
Dimensions									
4.1	Tilt of mast/fork carriage forward/backward	α / β (°)	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5	5 / 5
4.2	Height, mast lowered	h ₁ (mm)	2235	2235	2235	2235	2235	2235	2235
4.3	Free lift ▼	h ₂ (mm)	100	100	100	100	100	100	100
4.4	Lift ▼	h ₃ (mm)	3452	3452	3452	3452	3259	3259	3259
4.5	Height, mast extended +	h ₄ (mm)	4049	4049	4049	4049	3954	3954	3954
4.7	Height of overhead guard (cabin) ○	h ₆ (mm)	2248	2248	2248	2248	2248	2248	2248
4.7.1	Cab height (open cab)		2286	2286	2286	2286	2286	2286	2286
4.8	Seat height relating to SIP/stand height ✕	h ₇ (mm)	1217	1217	1217	1217	1217	1217	1217
4.12	Coupling height	h ₁₀ (mm)	280	280	280	280	280	280	280
4.19	Overall length	l ₁ (mm)	3016	3040	3040	3143	3199	3343	3367
4.20	Length to face of forks □	l ₂ (mm)	2016	2040	2040	2143	2199	2343	2367
4.21	Overall width	b ₁ /b ₂ (mm)	1070 / 1242	1070 / 1242	1070 / 1242	1070 / 1242	1108 / 1242	1108 / 1242	1158 / 1242
4.22	Fork dimensions DIN ISO 2331	s/e/l (mm)	100 / 40 / 1000	100 / 40 / 1000	100 / 40 / 1000	100 / 40 / 1000	125 / 50 / 1000	125 / 50 / 1000	125 / 50 / 1000
4.23	Fork carriage ISO 2328, class/type A, B		2A	2A	2A	2A	3A	3A	3A
4.24	Fork carriage width ●	b ₃ (mm)	977	977	977	977	977	977	977
4.31	Ground clearance, laden, below mast	m ₁ (mm)	85	85	85	85	85	85	85
4.32	Ground clearance, centre of wheelbase	m ₂ (mm)	92	92	92	92	92	92	92
4.33	Load dimension b ₁₂ × l ₆ crossways	b ₁₂ × l ₆ (mm)	1200 x 1000	1200 x 1000	1200 x 1000	1200 x 1000	1200 x 1000	1200 x 1000	1200 x 1000
4.34	Aisle width predetermined load dimensions	A _{st} (mm)	3329	3475	3351	3475	3518	3676	3696
4.34.1	Aisle width with pallets 1 000 x 1 200 wide	A _{st} (mm)	3329	3475	3351	3475	3518	3676	3696
4.34.2	Aisle width with pallets 800 x 1 200 long	A _{st} (mm)	3525	3674	3547	3674	3717	3876	3896
4.35	Turning radius	W _a (mm)	1735	1884	1757	1884	1915	2074	2094
4.36	Internal turning radius	b ₁₃ (mm)	501	501	501	561	561	630	630
4.41	90° intersecting aisle (With pallet W = 1200mm, L = 1000mm)	(mm)	1774	1824	1781	1824	1853	1931	1941
4.42	Step Height (from ground to running board)	(mm)	772	772	772	772	772	772	772
4.43	Step Height	(mm)	475	475	475	475	475	475	475
Performance data									
5.1	Travel speed, laden/unladen ▶	km/h	19.8 / 19.7	19.8 / 19.7	19.8 / 19.7	19.9 / 19.7	19.4 / 19.7	19.0 / 19.7	19.1 / 19.7
5.2	Lift speed, laden/unladen	m/s	0.52 / 0.72	0.52 / 0.72	0.52 / 0.72	0.49 / 0.72	0.42 / 0.63	0.40 / 0.63	0.37 / 0.63
5.3	Lowering speed, laden/unladen	m/s	0.57 / 0.51	0.57 / 0.51	0.57 / 0.51	0.57 / 0.51	0.56 / 0.46	0.57 / 0.46	0.58 / 0.46
5.5	Drawbar pull, laden/unladen **	N	13460 / 14271	13460 / 14271	13315 / 14271	13315 / 14271	12953 / 14150	12837 / 14129	12643 / 14078
5.6	Max. drawbar pull, laden/unladen ***	N	22100 / 16785	22100 / 16785	21914 / 16785	21914 / 16785	21485 / 17272	21342 / 18165	21108 / 18651
5.7	Gradeability, laden/unladen ****	%	20 / 32	20 / 32	19 / 32	19 / 32	16 / 29	16 / 28	14 / 27
5.8	Max. gradeability, laden/unladen ***	%	34 / 39	34 / 39	33 / 39	33 / 39	28 / 36	26 / 37	25 / 37
5.9	Acceleration time, laden/unladen ▶	s	4.9 / 4.9	4.9 / 4.9	4.9 / 4.9	4.9 / 4.9	4.9 / 4.9	4.9 / 4.9	4.9 / 4.9
5.10	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Electric-engine									
6.1	Drive motor rating S2 60 min	kW	23.6	23.6	23.6	23.6	23.6	23.6	23.6
6.2	Lift motor rating at S3 15%	kW	24.0	24.0	24.0	24.0	24.0	24.0	24.0
6.3	Battery according to DIN 43531/35/36 A, B, C, no		No	No	No	No	No	No	No
6.4	Battery voltage/nominal capacity K5	(V)/(Ah)	80 / 375	80 / 450	80 / 375	80 / 450	80 / 450	80 / 600	80 / 600
6.5	Battery weight (min./max)	kg	1050 / 1500	1320 / 1770	1050 / 1500	1320 / 1770	1320 / 1770	1550 / 2000	1550 / 2000
6.6	Energy consumption according to VDI cycle	kWh/h @Nr of Cycles	6.31	6.31	6.31	6.31	6.70	7.89	8.58
6.1	Drive control		AC Electronic	AC Electronic	AC Electronic	AC Electronic	AC Electronic	AC Electronic	AC Electronic
Addition data									
10.1	Operating pressure for attachments	bar	155	155	155	155	155	155	155
10.2	Oil volume for attachments ❖	l/min	20-40	20-40	20-40	20-40	20-40	20-40	20-40
10.3	Hydraulic oil tank, capacity	l	29.7	29.7	29.7	29.7	29.7	29.7	29.7
10.7	Sound pressure level at the driver's seat ★	dB(A)	67	67	67	67	67	67	67
10.8	Towing coupling, type DIN		Pin	Pin	Pin	Pin	Pin	Pin	Pin

* Max. battery condition, add 40mm for nominal position
 ▼ Bottom of forks
 + Without load backrest
 ○ h6 subject to +/- 5mm tolerance
 ✕ Full suspension in compressed condition, add 40mm for nominal position
 ● Add 43mm with load backrest
 ❖ Maximum flow set through dash display
 ★ LPAZ, measured according to the test cycles and based on the weighting values contained in EN12053
 ▶ eLo performance setting
 □ With sideshift carriage add 38mm for 22VG SWB, 37mm for 22VG MWB-25VG, 31mm for 30VG-32VG, 30mm for 35VG
Specification sheet truck based on: Standard seat and overhead guard with standard carriage and 1000mm forks with extended shift on. 2 stage LFL mast
 :- ERC22-25VG 3490mm, ERC30-35VG 3305mm.

VG series

Models: 22VG SWB, 25VG MWB, 30VG MWB,
32VG LWB, 35VG LWB



Compact Electric Forklift trucks with smaller footprint and greater manoeuvrability to give more capacity and greater storage density than conventional Electric Forklift trucks.

ACTechnology

Yale 23.6kW AC technology Class H traction motors with transistor controller are suitable for the most arduous applications. Smooth forward and reverse directional changes provide seamless driving action. In the high-performance or 'HiP' setting, AC technology provides increased speed and acceleration and increased speed on gradients, even when fully laden.

Brakes

The truck is equipped with an automatic park brake that is set by the control system, which means the brake is always applied whenever the truck is not moving and traction has not been requested. The electro magnetically controlled release of the park brake occurs when the accelerator pedal is activated. This provides increased controllability in ramp applications.

Steering

The 24kW AC motor drives a pump which provides oil pressure for all the hydraulic functions and steering, eliminating the need for a separate steering motor and pump. The gas spring assisted steering column is mounted on the truck's cowl providing unrestricted floor space. It is infinitely adjustable in a range of 26° and is contoured for easy on/off access.

Telescopic adjustment of 75mm, memory tilt and synchronized steering are available as an option.

The continuous Stability Enhancement System is a passive mechanical system that optimizes steer axle geometry to reduce truck lean by limiting articulation.

Transmission of surface shocks and vibrations to the operator and load when travelling over uneven ground conditions are also reduced. The system is 100% maintenance free.

Performance modes

The Yale VG series of lift trucks feature an 'eLo' energy saving setting (accessible via the dash display with a service password), which provides exceptional energy efficient performance for continuous operation over longer periods, increasing the time between battery charges. The 'HiP' high performance setting delivers higher top speeds and acceleration for the most demanding productivity applications.

The performance of the VG series can be further tailored via the enhanced 'heads up' display. The requirements of the application or the operator's preferences can be set by selecting one of the 4 performance modes. Selecting

'Mode 4' provides maximum speed and acceleration whilst 'Mode 1' is ideal for more precise manoeuvring. Yale trained service technicians can easily adjust the top speed and acceleration.

Ergonomics

The VG series is designed for optimum operator comfort. The operator is positioned ergonomically for maximum safety, comfort, visibility and ease of operation. Whole body vibration (WBV) transmitted to the operator is reduced by the full suspension seat that is easily adjusted for weight and stature and has 80mm of suspension travel. This provides the operator with the most comfortable working environment reducing fatigue and increasing productivity. A swivel seat option provides a superior reverse driving position.

A low intermediate step with anti-slip mesh, clear foot-well and generous floorspace with nonslip rubber floor mat provide easy 'on' and 'off' access from both sides of the truck.

Front and rear (with horn) operator grab handles aid entry and driving in the reverse direction.

Seat side contoured manual levers are standard. A 'Forward/Reverse' direction switch is integrated into the hoist lever and an emergency stop button positioned into the manual lever console for easy application.

AccuTouch™ mini-lever module (MLM)

The MLM provides the best in intuitive and relaxed operation of all control functions. A cushioned arm and palm rest and splayed mini levers for fingertip control help reduce RSI and increase productivity. A 'Forward/Reverse' direction switch with detent, emergency stop button and horn are all positioned on the MLM within easy reach of the operator. Travel direction is displayed on the 'heads up' display. 'Return to set tilt' and '4th function with clamp' button options are integrated into the MLM to alleviate operator fatigue when aligning forks for load drop and retrieval.

The 'heads up display' is located on the overhead guard to the top right hand side of the operator. This frees up the operators field of vision for more productive load handling and allows the trucks status and critical functions to be easily checked. These include:

- Battery charge condition
- Hours worked
- Direction of travel
- Steer wheels position
- Performance setting
- Motor temperature
- Low brake fluid
- Seat belt reminder
- Time

Load weight indication is an option as are Operator Pin Code Access and Key switch.

The dashboard of the VG series provides 2 litres of space including a clipboard holder and storage space for pens, mobile phone, mp3/4 player and drinks as well as light switches and an optional 12V socket.

Masts

A full range of Yale Hi-Vis™ 2 stage LFL and 2 and 3 stage FFL masts are available. The redesigned Yale Hi-Vis™ mast incorporates new chain placement and hose routings that maximise fork visibility for the driver. As well as enlarging the window through the mast, the 180 degree panoramic field of vision is improved.

Wheelbase

Depending on capacity there is a model to suit the application requirements:

Short Wheelbase

- ERC 22VG/25VG - 375 Ah

Medium Wheelbase

- ERC 22VG/25VG/30VG - 450 Ah

Long Wheelbase

- ERC 32VG/35VG - 600Ah

Each wheelbase allows the VG series to be tailored to the application needs and provide the appropriate battery capacity.

Low lifetime costs

Lower maintenance costs are delivered through reduced maintenance. This reduction is primarily achieved through the use of Hall Effect sensors, 'O' Ring face seals, an electric park brake, CANbus and AC technology. Autogenerative braking also reduces service brake usage contributing to an increase in the life of parts. 1000 hours service intervals are standard on most components.

Options

- AccuTouch™ mini-levers
- Return to Set Tilt
- Foot directional control
- Lighting kits, including LED lights
- Reverse alarm
- Integrated side-shifting fork positioner carriage
- Custom batteries
- Audible back up alarm
- Visible alarm strobe
- Load weight indicator
- Impact sensor
- Swivel full suspension seats (cloth/ vinyl)

Option Bundles

- Operator comfort
- Productivity

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Safety. This truck conforms to the current EU requirements. Specification is subject to change without notice.

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