

Hoists & Winches



Lifting & Handling Equipment

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Electric Chain Hoists

Compact Electric Chain Hoists

Electric chain hoists are the perfect solution for load hoisting applications and can be supplied in a variety of capacities, designs and power supplies. They are normally used in conjunction with a swing jib crane or an overhead crane and are designed to increase productivity. The hoists have a hook suspension unit which can be mounted into a manual, geared chain or powered I beam trolley, with low headroom options available.

- Capacity 60 – 10,000 kg



Examples of electric hoists being used in everyday industrial applications

Technical Features

Linear, compact design with built in control cabinet and reduction gear.

- Two-speed hoisting
- Variable speed electric powered or manual travel
- Standard height of lift 3 m
- FEM group 1 Bm and 2 m
- 3 phase and single phase models
- Stainless steel range

Electric chain hoists are designed to ensure maximum safety to the operator.

- ON/OFF mushroom button on control pendant
- Top and bottom limit switches as standard
- Torque limiter
- Lifting movement disc brake
- ISO 9001 certified
- Low voltage control



Fixed hook



Manual Push Trolley



Powered Trolley



Push button Digichain Manipulator



Low Headroom Powered Trolley



Pendant Control

Additional Options

- ❑ Single phase models
- ❑ Radio remote control
- ❑ Stainless steel chain
- ❑ Stainless steel hook and hook block
- ❑ ATEX models
- ❑ Low headroom trolley
- ❑ Travel limit switches
- ❑ Rain protection covers
- ❑ Gear limit switch
- ❑ Temperature rise limiter on motor
- ❑ Self-lubricated chain
- ❑ Dual brakes
- ❑ Single speed models

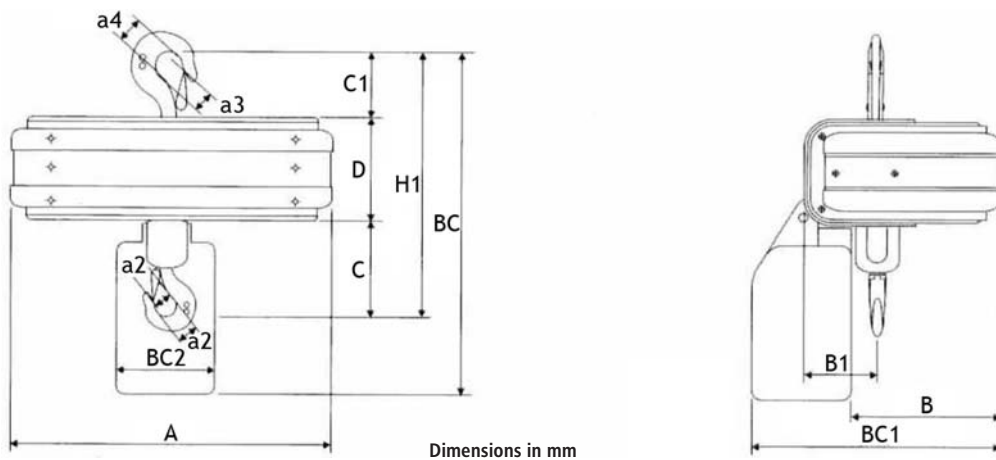


EUROMOTE Radio Remote Control



ATEX Certified Chain Hoist

Electric Chain Hoist Dimensions



Model	A	B	B1		BC	BC1	BC2	C		C1	D	H1		a1		a2		a3	a4	Weight kg	
Number of falls			1	2				1	2			1	2	1	2	1	2			1 fall	2 fall
VL1	308	215	68	83	272	308	120	127	151	73	110	370	394	24	24	30	30	24	30	14	15
VL5	428	251	91	112	455	300	170	137	183	89	140	366	416	30	38	18	22	26	38	27	30
VL10	510	316	116	145	575	405	160	163	448	110	175	448	509	36	45	22	35	29	43	55	60
VL 16/20	518	351	147	196	774	457	300	277	377	153	195	654	765	48	56	43	47	57	53	110	125

Standards and hoisting regulations

CE directive. Since 1st January 1995, the European Machinery Directive 93/37/EEC obliges that machine constructors ensure that their machinery complies with certain regulations, standards, national legislations and technical specifications.

Every VERLINDE product is CE labelled and is delivered with a CE compliance certificate (annex IIA) or with an incorporation certificate (annex IIB).

FEM: European lifting equipment association.

SWP: A Safe Working Period is calculated for each electrical hoist unit according to the average operating time of the hoisting equipment, load capacity and class of application. After this period, a general service carried out by the constructor is necessary.

Class of operation. According to FEM classification, two fundamental criteria must be taken into account: the type of duty and the class of duty (according to average daily operation time average load).

ISO standard. Classes of operation can also be defined according to ISO grouping (1Am = M4, 2m = M5, 3m = M6, etc.)

Type of duty. Light service: equipment rarely subject to maximum load and frequently to very little load.

Medium service: equipment quite often subject to maximum load and frequently to very little load.

Heavy service: equipment frequently subject to maximum load and frequently to medium load.

Very heavy service: equipment subject to maximum or near maximum load.

Average daily operating time (hours)				0.5		1		2		4		8		16	
Class of duty				V0,25	T2	V0,5	T3	V1	T4	V2	T5	V3	T6	V4	T7
Type of service	1	L1	Light					1 Bm	M3	1 Am	M4	2 m	M5	V4	M6
	2	L2	Medium			1 Bm	M3	1 Am	M4	2 m	M5	3 m	M6		
	3	L3	Heavy	1 Bm	M3	1 Am	M4	2 m	M5	3 m	M6				
	4	L4	Very heavy	1 Am	M4	2 m	M5	3 m	M6						
Group								1 Bm	M3	1 Am	M4	2 m	M5	3 m	M6
Duty factor								25 %		30 %		40 %		50 %	
Number of starts per hour								150		180		240		300	

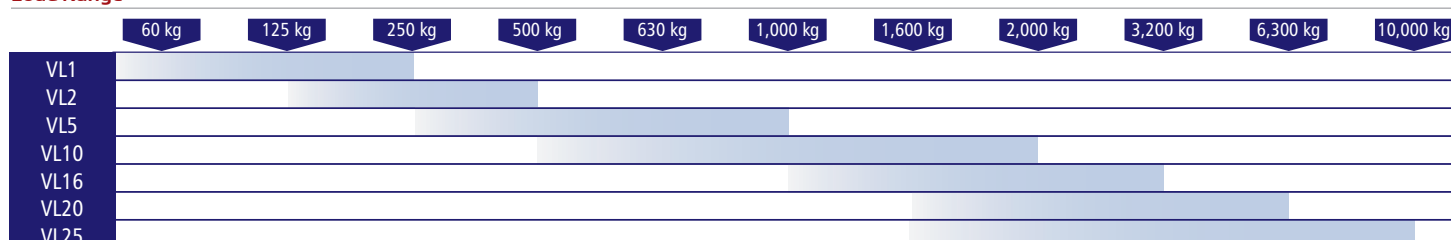
■ FEM 9511 standards classification ■ ISO standards classification

$$* \text{Duty factor in \%} = \frac{\text{Hoisting time} + \text{lowering time}}{\text{Hoisting time} + \text{idle time} + \text{lowering time} + \text{idle time}} \times 100$$

S.W.L. (kg)	Hoist Model	F.E.M.	Lifting speeds (m/min)	Number of falls	Hoisting motor power (kW)	Fixed hook	Monorail trolley unit					Chain
							Manual travelling		Motorised travelling			800 N/mm ²
							push trolley unit	chain trolley unit	one speed	two speed	variable speed	
60	VLI 0616 b1	1Bm	16/4	1	0.2/0.05	•	•	•	•	•	—	3.1 x 9.3
	VLI 068 b2	2m	8/2	1	0.2/0.05	•	•	•	•	•	—	3.1 x 9.3
80	VLI 088 b2	2m	8/2	1	0.2/0.05	•	•	•	•	•	—	3.1 x 9.3
125	VLI 128 b1	1Bm	8/2	1	0.2/0.05	•	•	•	•	•	—	3.1 x 9.3
	VLI 124 b2	2m	4/1	2	0.2/0.05	•	•	•	•	•	—	3.1 x 9.3
	VL2 128 b2	2m	8/2	1	0.4/0.1	•	•	•	•	•	•	4.8 x 12.7
	VL2 1216 b2	2m	16/4	1	0.8/0.2	•	•	•	•	•	•	4.8 x 12.7
	VL1 254 b1	1Bm	4/1	2	0.2/0.05	•	•	•	•	•	•	3 x 9
250	VL2 258 b1	1Bm	8/2	1	0.4/0.1	•	•	•	•	•	•	4.8 x 12.7
	VL5 2516 b1	1Bm	16/4	1	0.8/0.2	•	•	•	•	•	•	4.8 x 12.7
	VL5 254 b2	2m	4/1	2	0.4/0.1	•	•	•	•	•	•	4.8 x 12.7
	VL5 258 b2	2m	8/2	1	0.8/0.2	•	•	•	•	•	•	4.8 x 12.7
500	VL2 504 b1	1Bm	4/1	2	0.4/0.1	•	•	•	•	•	•	4.8 x 12.7
	VL5 508 b1	1Bm	8/2	1	0.8/0.2	•	•	•	•	•	•	4.8 x 12.7
	VL10 5016 b1	1Bm	16/4	1	1.7/0.4	•	•	•	•	•	•	6 x 17.8
	VL5 504 b2	2m	4/1	2	0.8/0.2	•	•	•	•	•	•	4.8 x 12.7
	VL10 508 b2	2m	8/2	1	1.7/0.4	•	•	•	•	•	•	6.8 x 17.8
1,000	VL5 1004 b1	1Bm	4/1	2	0.8/0.2	•	•	•	•	•	•	4.8 x 12.7
	VL10 1008 b1	1Bm	8/2	1	1.7/0.4	•	•	•	•	•	•	6.8 x 17.8
	VL10 1004 b2	2m	4/1	2	1.7/0.4	•	•	•	•	•	•	6.8 x 17.8
	VL16 1008 b2	2m	8/2	1	3.5/0.9	•	•	•	—	—	•	9 x 27
1,600	VL10 1604 b1	1Bm	4/1	2	1.7/0.4	•	•	•	•	•	•	11.3 x 31
	VL16 1608 b1	1Bm	8/2	1	3.5/0.9	•	•	•	—	—	•	11.3 x 31
	VL25 1606 b2	2m	6.3/1.6	1	3.5/0.9	•	•	•	—	—	•	11.3 x 31
2,000	VL10 2004 b1	1Bm	4/1	2	1.7/0.4	•	•	•	•	•	•	6.8 x 17.8
	VL16 2004 b2	2m	4/1	2	3.5/0.9	•	•	•	—	—	•	9 x 27
	VL20 2008 b1	1Bm	8/2	1	3.5/0.9	•	•	•	—	—	•	11.3 x 31
2,500	VL16 2504 b1	1Bm	4/1	2	3.5/0.9	•	•	•	—	—	•	9 x 27
	VL20 2504 b2	2m	4/1	2	3.5/0.9	•	•	•	—	—	•	11.3 x 31
	VL25 2506 b1	1Bm	6.3/1.6	1	3.5/0.9	•	•	•	—	—	•	11.3 x 31
3,200	VL16 3204 b1	1Bm	4/1	2	2.5/0.64	•	•	•	—	—	•	9 x 27
	VL25 3203 b2	2m	3.2/0.75	2	3.5/0.9	•	•	•	—	—	•	11.3 x 31
4,000	VL20 4004 b1	1Bm	4/1	2	3.5/0.9	•	•	•	—	—	•	11.3 x 31
	VL20 4002 b1	2m	2.7/0.7	3	3.5/0.9	•	•	•	—	•	—	11.3 x 31
5,000	VL25 5003 b1	1Bm	3.2/0.75	2	3.5/0.9	•	•	•	—	—	•	11.3 x 31
	VL25 5002 b2	2m	2.1/0.5	3	3.5/0.9	•	•	•	—	•	—	11.3 x 31
6,000	VL20 6302 b1	1Bm	2.7/0.7	3	3.5/0.9	•	•	•	—	•	—	11.3 x 31
7,500	VL25 7502 b1	1Bm	2.1/0.5	3	3.5/0.9	•	•	•	—	•	—	11.3 x 31
10,000	VL25 10003 b1	1Bm	3.2/0.75	2 x 2	2 x 3.5/0.86	NC	—	—	•	•	•	11.3 x 31

Load Range

• Available in this version – Not available in this version



Chain Hoist

- Capacity 250 – 10,000 kg
- Compact design and capable of high performance.
- All hoists are tested to current standards

Technical Features

- Machined chain sprocket and gears provide a smoother, more efficient operation
- Overload limiting device prevents lifting loads beyond the rated capacity
- 3m standard height of lift
- Hand chain is 0.5 m less than lift height
- Extra height of lift available if required
- High strength grade 80 alloy steel load chain with galvanised finish for corrosion resistance
- Rugged construction featuring steel gearcase and handwheel cover
- Hooks are alloy steel, heat treated and equipped with hook latches and inspection points



Standard Chain Hoist



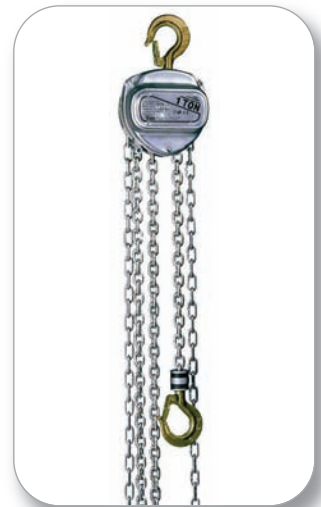
Lever Hoist



Ex Block & Tackle with Beam Trolley



Chrome Plated Block & Tackle



Non Sparking Bronzed Hooks

Capacity kg	Lift height mm	Load chain number of falls	Load chain diameter X pitch	Effort on actuating chain (kg)	Weight kg	Model
250	3000	1	4 x 12	23	6.2	VHR1
500	3000	1	5 x 15	24	11	VHR2
1000	3000	1	6 x 18	25	12.5	VHR3
1500	3000	1	7.1 x 2.1	26	17.8	VHR4
2000	3000	1	8 x 24	33	19.5	VHR5
3000	3000	1	10 x 28	37	35	VHR6
5000	3000	2	9 x 27	36	41.3	VHR7
7500	3000	4	9 x 27	38	78.5	VHR8
10000	3000	4	9 x 27	38	78.5	VHR9

Options

- Stainless steel
- ATEX certified
- Built into beam trolley

Pneumatic Hoists

Pneumatic Hoists

Pneumatic hoists are particularly suited to environments where there is a risk of explosion due to inflammable gases or where the duty is onerous.

Unlike electric hoists, the compressed air power driving medium does not produce any ignition risk thus making the hoists extremely suitable for hazardous areas.



500 kg Hook Suspended Pneumatic Hoist



ATEX Pneumatic Hoist with Chain Driven Trolley

Standard Features

- ⌘ Capacity 140 – 10,000 kg
- ⌘ Rotary vane motor
- ⌘ Robust epicyclic gearbox (grease filled and sealed)
- ⌘ Choice of pendant control or pull cord
- ⌘ Mechanical, paddle action upper and lower limit switches
- ⌘ Cast steel housing
- ⌘ Variable speed
- ⌘ Internal silencing
- ⌘ Carbon steel swivel hooks with safety catches
- ⌘ Load chain options
- ⌘ High speed
- ⌘ Compact design

Options available

- ⌘ Spark resistant
- ⌘ Marine specification
- ⌘ Corrosion resistant
- ⌘ Chain collectors
- ⌘ ATEX certified
- ⌘ Beam trolleys
- ⌘ Filter regulator kits
- ⌘ Festoon kits
- ⌘ Suzie coil supply hoses



Manual Winches

Manual Winches - ME & MV

- :: Capacity 150 – 3,000 kg
- :: Worm geared or gearing type – hand operated
- :: High degree of protection – heavy duty chlorinated rubber paint
- :: Four anchor points for stability
- :: Ratchet brake with stainless steel spring
- :: Declutchable drum on all models over 250 kg
- :: Adjustable / removable / lockable crank handle
- :: Flexible rope fastener
- :: Suitable for lifting and traction



Type ME & MV

Manual Winches - MA & MB

- :: Capacity 300 – 1,350 kg
- :: Wall mountable – hand operated
- :: Galvanised steel frame or stainless steel option
- :: Spur gears – low force, low noise
- :: Vertical or horizontal mounting options
- :: Three or four anchor points spread for stability
- :: Automatic brake
- :: Dis-engageable drum
- :: Long crank handle for maximum force
- :: Flexible rope fastener
- :: Suitable for lifting and traction



Type MA & MB

Hand Lever Winch - TLV

- :: Capacity 800 – 3,200 kg
- :: Manufactured from high resistance aluminium which makes it light and easy to handle
- :: Heavy duty tool suitable for tough working conditions
- :: Easy maintenance, suitable for all outdoor purposes.
- :: 3 sizes available: 800 kg, 1,600 kg and 3,200 kg
- :: Complies with the current European safety regulations
- :: Delivered with a 20 m rope, with a hook fitted to one end
- :: Suitable for lifting and pulling loads over long distances



Type TLV

Tirlift Pulling & Lifting Models

Standard Features

- ❑ Capacity 125 – 990 kg
- ❑ 1 or 2 speeds
- ❑ Motor and electrics IP55
- ❑ Power supply 380 – 400 V/3 ph/50 Hz
- ❑ Low voltage control 48 V
- ❑ Short or long drum length
- ❑ Rope diameter 5 – 7 mm
- ❑ Rope length up to 60 m
- ❑ Many directions for wire rope outlets from the drum

Options

- ❑ Pendant, wall-mounted and radio controls
- ❑ Limit switches via cams mounted on the drum outlet
- ❑ Speed controls
- ❑ Grooved drum
- ❑ Travel limit switches.
- ❑ Electronic load limiter
- ❑ Single phase models
- ❑ Thermal protection
- ❑ Roll for tightening the wire rope
- ❑ Rope pressure roller
- ❑ Manual brake release
- ❑ Fixed point plate with load limiter and tensioner
- ❑ Centred lifting
- ❑ Return pulley assembly
- ❑ Fall hook block 1/2/4 fall options
- ❑ Special length drums available upon request



Type TC & TL

TEC Electric Winches for Pulling & Lifting

Standard Features

- ❑ Capacity 300 – 7500 kg
- ❑ 230/400 V – 50 Hz 3-phase motor
- ❑ Low voltage electromagnetic brake with automatic take-up of wear
- ❑ IP 54 protection for the switchgear (cabinet and motor)
- ❑ Emergency stop pushbutton box on a 3 metre long spiral cable
- ❑ ON/OFF contactor.
- ❑ 24 V low voltage transformer
- ❑ Thermal cutout circuit-breaker
- ❑ Primary down gearing by an oil bath reduction box
- ❑ Secondary down gearing by gear under a cover (except for the T.E.C 1)
- ❑ Modular design chassis amenable for changes (for instance a multiple choice of exits to lead out the cable from the drum)

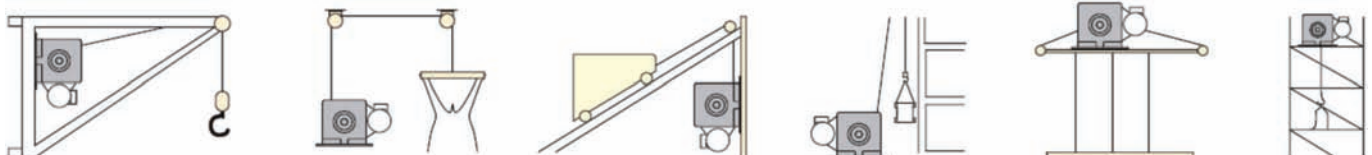
Options

- ❑ 2 speed or variable speed motor
- ❑ Special drum length
- ❑ Pendant, wall-mounted and radio controls
- ❑ Upper and lower travel limit switches
- ❑ Cable press roller / slack cable detection
- ❑ Electronic load limiter
- ❑ Mechanical de-clutching of the drum [Except TEC1]
- ❑ Thermal protection
- ❑ Return pulley assembly
- ❑ Fall hook block 1/2/4 fall options
- ❑ Grooved drum



Type TEC

Examples of use



I Beam Trolleys

Manual I Beam Trolley - CHD

- ❑ Capacity 250 – 10,000 kg
- ❑ Can be used with any type of lifting equipment fitted with a hook
- ❑ Adjustable side plates to suit different I-beam sizes/widths
- ❑ Standard range suits I Beams 50 – 310 mm wide
- ❑ Travel is achieved by push/pull movement
- ❑ Manufactured in high resistance steel
- ❑ Rollers are shaped to run on all types of steel monorails



CHD

Hand Chain Drive Model - CHDD

- ❑ Capacity 1,000 – 10,000 kg
- ❑ Standard range suits I Beams 65 – 310 mm
- ❑ Hand chain 0.5 m above ground level
- ❑ Drive chain and drive wheels
- ❑ To suit radius of curvature from 0.65 to 2.0 m
- ❑ CHRD model also available for capacities 12,500 – 20,000 kg



CHDD

Electric Travel Model - CHV

- ❑ Variable travel speed 5 – 20 m/min
- ❑ 4 rubber stops
- ❑ IP55, class F motor protection standard
- ❑ Low voltage control

3 Standard Models

- ❑ CHV 10: 250 – 1,000 kg
- ❑ CHV 20: 1000 – 2,000 kg
- ❑ CHV 30: 2000 – 3,200 kg



CHV

Options

- ❑ Full stainless steel construction
- ❑ ATEX certified
- ❑ Spark resistant
- ❑ Installation, testing, certification
- ❑ Hoists built in or hook suspended



Manual Trolley

SS 304