



# EUROCHAIN VR<sup>®</sup>

Electric chain hoist for loads  
from 63 to 5000 kg

 **VERLINDE**  
L I F T I N G   E Q U I P M E N T

# EUROCHAIN VR<sup>®</sup>



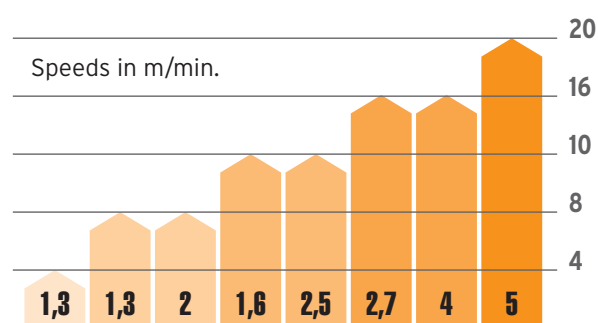
Electric chain hoist for loads from 63 to 5000 kg

Completely innovative, top of the range design, its fluid, contemporary and elegant lines confirm the power of this electric chain hoist. This new generation of EUROCHAIN VR hoists is the result of innovative technology ; new materials, new operating concepts, can adapt to each specific need.

## + speed

### Wide range of speeds.

25% quicker than the previous generation: 4/1,3; 8/1,3; 8/2; 10/1,6; 10/2,5; 16/2,7; 16/4; 20/5. The lifting speed ranges have been considerably expanded to enable them to better meet your production constraints and increase productivity, performance, safety and usage on a daily basis.



## + savings

Maintenance operations are now simpler, quicker and more economical:

- > Easy access to the brake setting.
- > Easy access to the clutch setting.
- > Easy access to the fuse.
- > Access (workspace) and easy removal of the electric boards by removable plug.



## + power

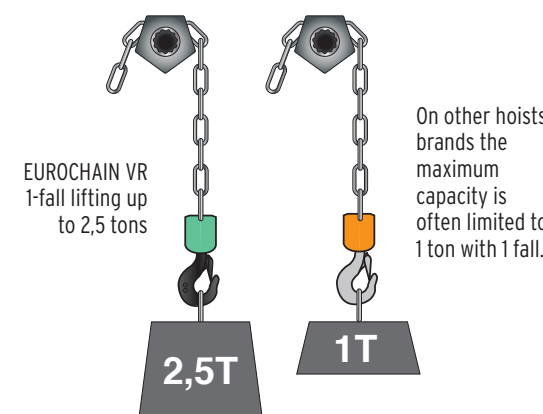
### Lifting capacities.

The load spectra for each hoist body have been revised upwards to optimise your lifting equipment investment.

### 1-fall lifting up to 2.5 tons in FEM 2m.

This product advantage offers you the possibility of working at greater lifting heights, with the following benefits :

- > Reduction in chain bag dimensions, with a more compact lifting unit.
- > Reduction in maintenance costs (fewer lifting chains to be replaced if necessary during maintenance operations).
- > Elimination of lifting hook tip-over risks.
- > High lifting speeds preserved.



## Technical characteristics

The EUROCHAIN VR electric chain hoist is designed to provide users with the maximum level of safety. It is delivered with the following equipment as standard :

- > New lifting nut concept with intermediate teeth for perfect chain drive.
- > Torque limiter.
- > Disk lifting brake.
- > 3m standard lifting height.
- > Dual-speed lifting.
- > Safety electric end of run for up and down position.
- > IP55 lifting and travelling motor.
- > Thermal protection on lifting motor.
- > Tropic-proof protection (lifting and steering - 90 to 95 %).
- > Galvanised lifting chain.
- > Disconnectable command cable.
- > 2-buttons unit on fixed hoist or push steering carriage.
- > 4-buttons unit on hoist coupled to electric steering carriage.
- > Emergency stop button.
- > 400V/3Ph/50Hz or 415V/3Ph/50 Hz or 460V/3 Ph/60 Hz power supply.
- > Low voltage 48 V command.
- > Chain bag.
- > 70 mm, RAL 7021 epoxy powder paint.
- > Speed variation on travelling - MS Mode (for hoists with an electric trolley).
- > Complies with the CE machine directive.

### FEM user group up to 3m.

For intensive use of your hoist, up to 300 start-ups per hour !

### Long lifetime.

Lifetime of hoist components is extremely high in order to optimize your return on investment.

## + safety

### Clutch concept.

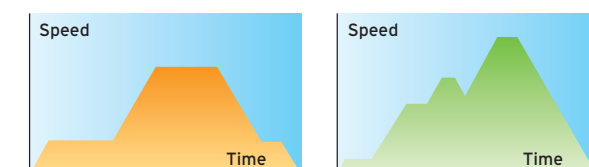
The clutch position in the reducer ensures the load is held by the brake regardless of the machine's daily operating conditions.

### Low voltage or direct voltage command.

Enables perfect operation for your usage context (operation in industrial environment, stage lifting, etc.).

### Variable speed electric travelling.

The variable speed travelling combined with the high lifting speeds enables flexible and quick working in complete safety for the operator.

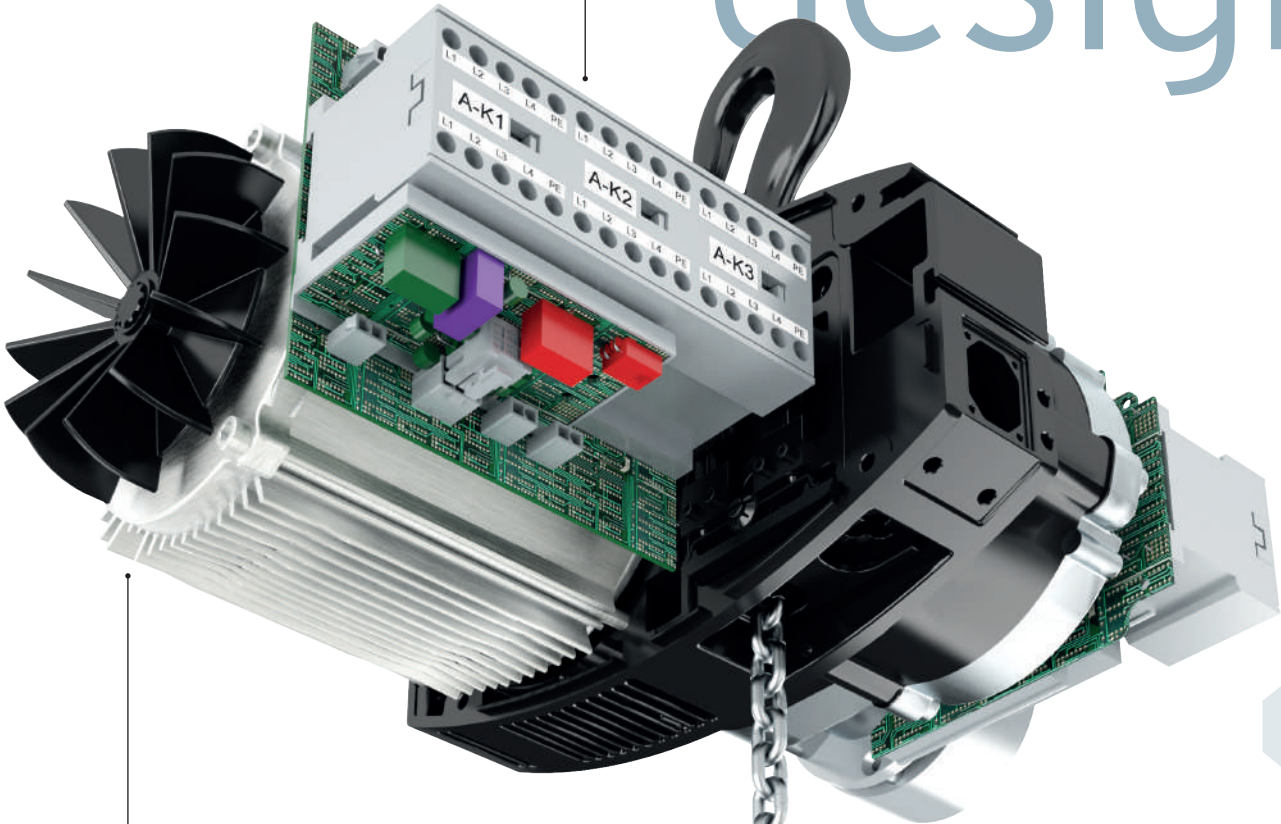






### Electric unit

The printed circuit boards have removable plugs to facilitate maintenance operations. The side flanges can also be removed easily for all interventions (the flanges are fitted with anti-drop type steel safety cables). Low voltage command (48V) for more safety.



### Lifting motor

Dual-speed as standard for smoother operation and higher productivity. The motor's forced ventilation is provided by a fan at the end of the shaft and a developed air evacuation circuit (side and front vents). These technical choices provide optimum cooling to the hoist body and an increased lifetime for the lifting motor. The motor device, which can also be dismantled for all replacement or maintenance operations, is fitted as standard with a thermal protection.

flexibility

new  
design

modularity

### Lifting hook

Lifting hook with ergonomic gripping zone, better protection for the lifting block by rubber coating. The lifting hook is larger for easier connection with the under hook lifting accessories. The upper cone has a dual function, activation of the electric limit switch and collection of the surplus oil used to lubricate the chain.







#### Hoist body

The design with its completely fluid and stripped-down lines emphasises the visible signs of robustness and embedded technology and strengthens the feelings of safety given. The hoist body, which is protected by 70µm epoxy powder paint, is able to operate in aggressive thermal environments (-20C° to +50 C°). This hoist complies with ecology regulations (RoHS compatible).



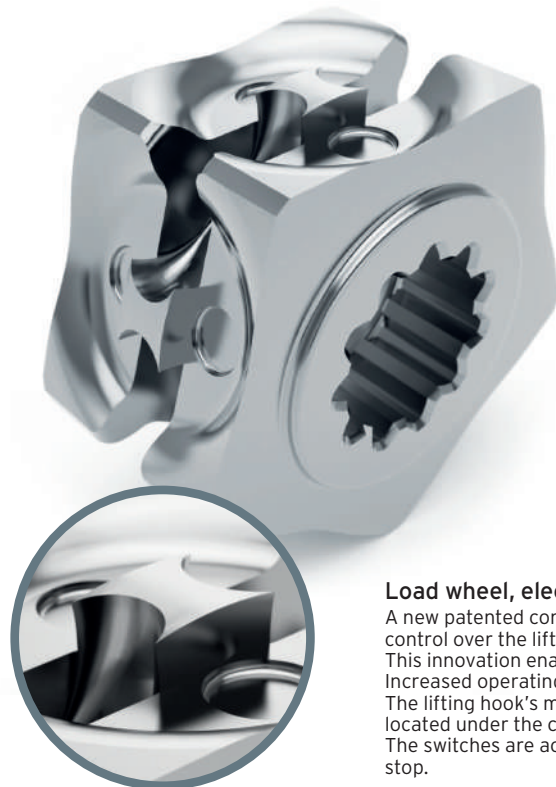
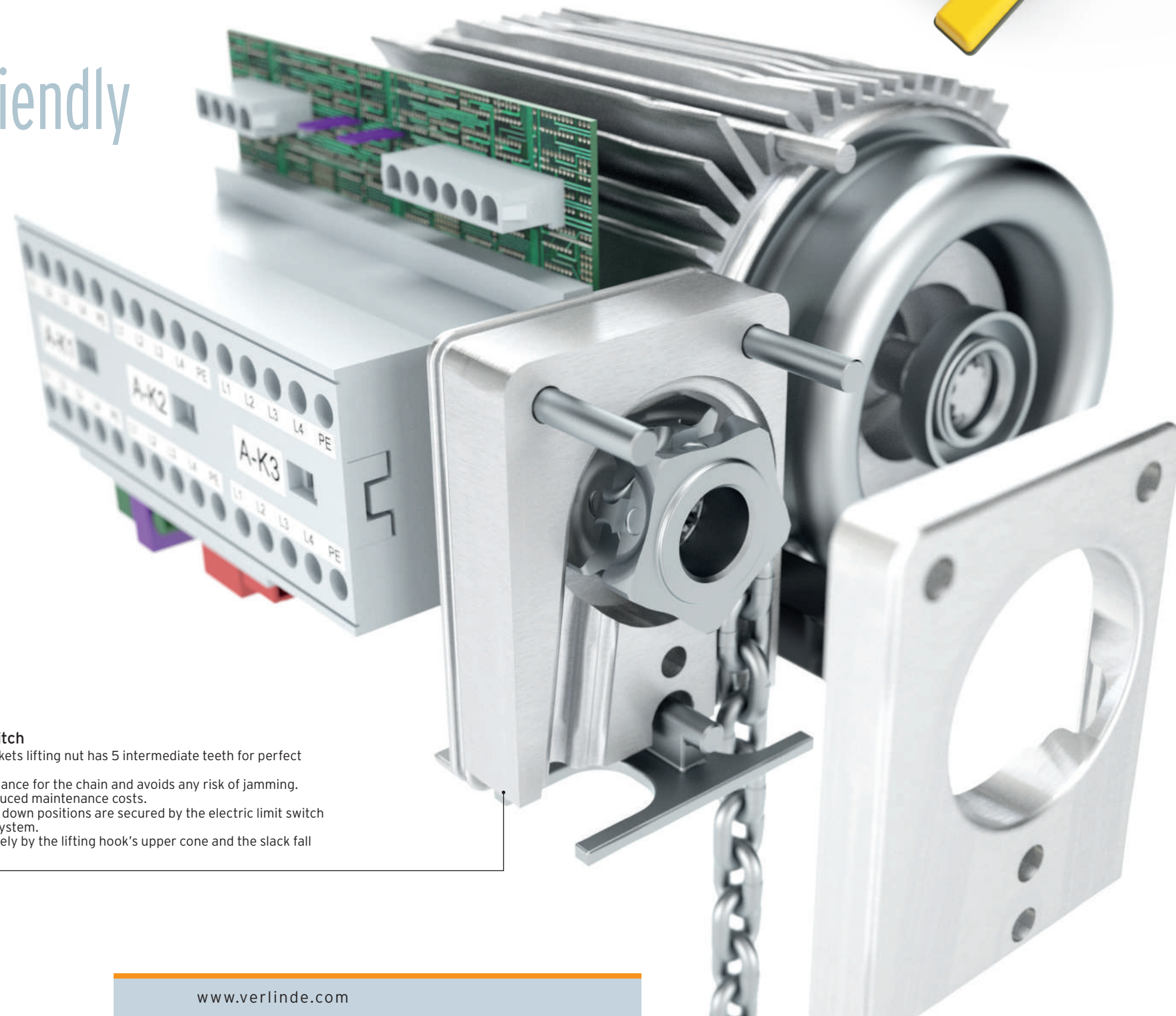
#### Pendant unit

Available in a 2, 4 or 6-buttons version depending on whether the hoist operates in fixed hooked position, travel trolley on monorail or crossing crane with sideways movement or electric rotation job. P65 protection as standard, 48 V low voltage command and removable plug.



practical  
ergonomical

environmentally-friendly  
robustness



#### Load wheel, electric limit switch

A new patented concept, the 5-pockets lifting nut has 5 intermediate teeth for perfect control over the lifting chain. This innovation enables better guidance for the chain and avoids any risk of jamming. Increased operating safety and reduced maintenance costs. The lifting hook's maximum up and down positions are secured by the electric limit switch located under the chain guidance system. The switches are activated alternately by the lifting hook's upper cone and the slack fall stop.



# innovation

## Gear box, clutch and brake

The reducer, which is lubricated lifetime (to reduce maintenance operations) has been designed for extremely long operating periods (up to 3200 hours). The high precision machining on the gear trains also guarantee operation with a very low level of noise annoyance.

The clutch is very easy to access for the occasional maintenance operations.

Its position in the reducer ensures the load is held by the brake regardless of the machine's operating conditions. The lifting disk brake has been tested for the hoist's lifetime to reduce maintenance operations and provide an increased level of safety.



# quality safety



# DIGICHAIN<sup>®</sup>

Electric chain hoist with hand positionner on hooks for loads of up to 500 kg

## + ergonomics

A workstation meeting fully the demanding requirements of today's users. With DIGICHAIN and positionner on hook your loads ranging from 63 to 500 kg can be effortlessly positioned with spot-on accuracy. The orientation of the hoisting hook and handling grip can be suitably adapted by means of the adjustment screw. 100% safety The DIGICHAIN handling system enables you to lift your loads up to a height of 5 meters.



## + safety

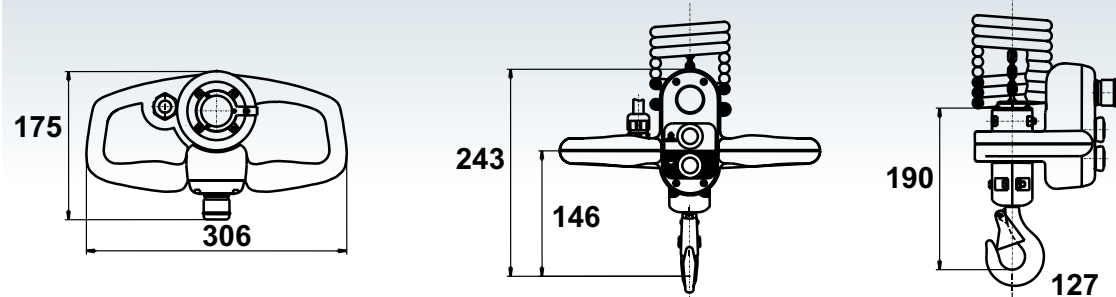
The DIGICHAIN handling system enables you to lift your loads up to a maximum height of 5 meters.

- > Coil-formed control cable eliminates all risk of snarling up.
- > Upper and lower limits switches, for greater operating safety.
- > Hoisting hook can be dismantled and replaced with other hoisting or gripping tools.
- > Low Voltage 48 volt control system ensuring maximum operator safety.



## Technical characteristics

- > Load capacity : 63 to 500 kg.
- > Maximum hoisting height : 5 meters.
- > Upper and Lower limit switches.
- > Dismountable hoisting hook.
- > 48 volts Low voltage control system.
- > Weight : 3.2 kg.
- > Storage temperature : -40°C to +60°C.
- > Service temperature : -20°C to +40°C.
- > Relative humidity : 90%.
- > Maximum side pull operability : 3 degrees.

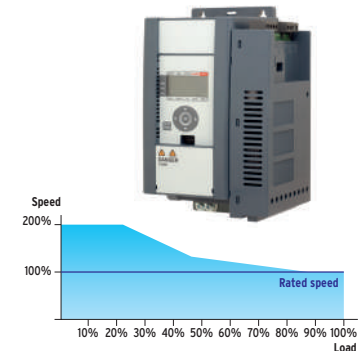


# VARIO<sup>®</sup>

Electric chain hoist  
Stepless lifting speed

## + productivity

Continuous speed control offers starting without jerking, rapid accelerations and gentler stopping, to optimize load-handling operations. ESR system allow adaptation of deceleration ramp and offer faster lifting speed with lighter load (up to 200%).



## + lifetime

Continuous speed control reduces mechanical impacts thanks to gradual starting and gentler stopping. The lower numbers and extents of impacts on the components of the bridge or structure considerably lengthen the service life of the frame.

## + savings

Continuous speed control enables electric braking to be used as priority when decelerating before applying the mechanical brake. Electric braking reduces brake wear since the mechanical brake is used only as holding brake (parking brake).

## Technical characteristics

- > Stepless hoisting speed through inverter control.
- > Adjustable acceleration/deceleration ramp time.
- > EP, MS or analog control modes with load adaptive ESR functionality.
- > Brake control with supervision.
- > Over speed supervision.
- > Clutch slippage supervision.
- > Electronic overload prevention through load sensor.
- > Programmable hoisting limits set by pendant (available at a later phase).
- > Shock load control.
- > Hour counter, start counter, SWP calculation.
- > Active polygon damping, 50% reduction (only for Europe).
- > Power supply 380 to 480V/3Ph/50Hz 60 Hz.
- > Low voltage control 48 V (115 or 230 as option).
- > Variable travelling speed on electric trolley.

Capacity (kg)	Hoist type	Group		Lifting speeds (m/min)	ESR speeds (m/min)	ESR loads (kg)	Number of falls	Gear box lifetime (hours)	Chain dimensions
		FEM	ISO						
125	VR5 1224 V2	2m	M5	0,64 → 24	32	80	1	1600	4 x 11
250	VR 5 2516 V2	2m	M5	0,64 → 16	32	80	1	1600	4 x 11
320	VR 5 3212 V1	1Am	M4	0,64 → 12,5	32	80	1	800	4 x 11
500	VR 5 508 V2	2m	M5	0,32 → 8	16	160	1	1600	5 x 14
500	VR 12 5016 V2	2m	M5	0,63 → 16	32	160	1	1600	7 x 20
630	VR 5 636 V1	1Am	M4	0,32 → 6,5	16	160	1	800	5 x 14
630	VR 12 6312 V1	1Am	M4	0,63 → 12,5	32	160	1	800	7 x 20
800	VR 12 809 V2	2m	M5	0,31 → 9	16	320	1	1600	7 x 20
1000	VR 12 1008 V2	2m	M5	0,31 → 8	16	320	1	1600	7 x 20
1250	VR 12 1256 V1	1Am	M4	0,31 → 6,5	16	320	1	800	7 x 20
1600	VR 12 1604 V2	2m	M5	0,16 → 4,5	8	630	2	1600	7 x 20
2000	VR 12 2004 V2	2m	M5	0,16 → 8	8	630	2	1600	7 x 20
2500	VR 12 2503 V1	1Am	M4	0,16 → 16	8	630	2	800	7 x 20



## > Taylor-made declination

- > Fixed suspended by hook.



- > Hooked to a manual or electric trolley in a Eurosystem ST profile.



- > Hooked to a manual or electric trolley in a Eurosystem ALU profile.



- > Coupled to a pushed or chain driven travelling trolley.



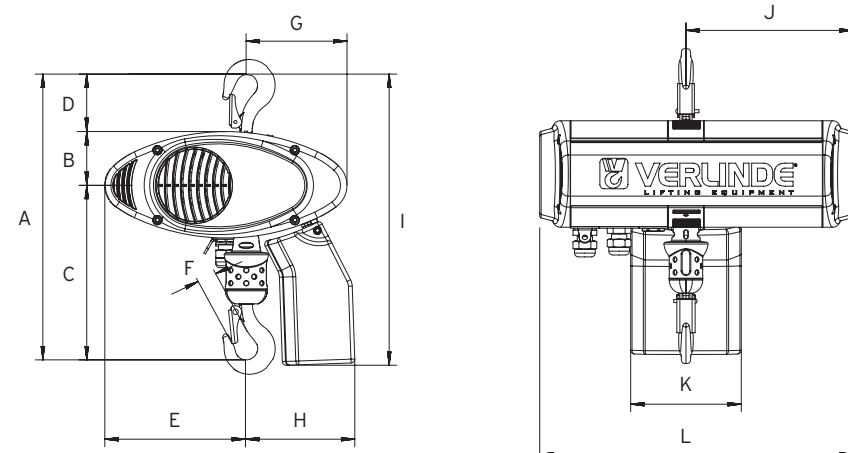
- > Coupled to a motorised variable speed travelling trolley.



## > The EUROCHAIN VR hoist range

Capacity (kg)	Hoist type	Group		Lifting speeds (m/min)	Number of falls	HS lifting motor power (kW)	Gear box lifetime (hours)	Chain dimensions
		F.E.M.	ISO					
63	VR2 0608 b3	3m	M6	8 / 2	1	0,45	3200	4 x 11
	VR2 0610 b3	3m	M6	10 / 2,5	1	0,45	3200	4 x 11
	VR2 0616 b3	3m	M6	16 / 4	1	0,45	3200	4 x 11
	VR2 0620 b3	3m	M6	20 / 5	1	0,45	3200	4 x 11
125	VR2 128 b3	3m	M6	8 / 2	1	0,45	3200	4 x 11
	VR2 1210 b3	3m	M6	10 / 2,5	1	0,45	3200	4 x 11
	VR2 1216 b2	2m	M5	16 / 4	1	0,45	1600	4 x 11
	VR2 1220 b1	1Am	M4	20 / 5	1	0,45	800	4 x 11
160	VR2 168 b3	3m	M6	8 / 2	1	0,45	3200	4 x 11
	VR2 1610 b3	3m	M6	10 / 2,5	1	0,45	3200	4 x 11
	VR2 1616 b1	1Am	M4	16 / 4	1	0,45	800	4 x 11
	VR2 258 b2	2m	M5	8 / 2	1	0,45	1600	4 x 11
250	VR2 2510 b1	1Am	M4	10 / 2,5	1	0,45	800	4 x 11
	VR5 254 b3	3m	M6	4 / 1,3	1	0,9	1600	4 x 11
	VR5 258 b3	3m	M6	8 / 1,3	1	0,9	800	4 x 11
	VR5 2516 b2	2m	M5	16 / 2,6	1	0,9	1600	4 x 11
	VR5 2520 b1	1Am	M4	20 / 3,2	1	0,9	800	4 x 11
320	VR2 328 b1	1Am	M4	8 / 2	1	0,45	800	4 x 11
	VR5 3216 b1	1Am	M4	16 / 2,7	1	0,9	800	4 x 11
500	VR5 504 b2	2m	M5	4 / 1,3	1	0,45	1600	5 x 14
	VR5 508 b2	2m	M5	8 / 1,3	1	0,9	1600	5 x 14
	VR12 504 b3	3m	M6	4 / 1,3	1	0,9	800	5 x 14
	VR5 5010 b1	1Am	M4	10 / 1,6	1	0,9	1600	5 x 14
	VR12 508 b3	3m	M6	8 / 1,3	1	1,8	1600	5 x 14
	VR12 516 b2	2m	M5	16 / 2,6	1	1,8	1600	5 x 14
	VR12 520 b1	1Am	M4	20 / 3,2	1	1,8	800	5 x 14
	VR5 634 b1	1Am	M4	4 / 1,3	1	0,45	800	5 x 14
630	VR5 638 b1	1Am	M4	8 / 1,3	1	0,9	800	5 x 14
	VR12 6316 b1	1Am	M4	16 / 2,6	1	1,8	800	5 x 14
800	VR16 816 b3	3m	M6	16 / 2,6	1	2,3	3200	7 x 20
	VR25 820 b3	3m	M6	20 / 3,3	1	3,6	3200	9 x 27
1000	VR12 1004 b2	2m	M5	4 / 1,3	1	0,9	1600	7 x 20
	VR12 1008 b2	2m	M5	8 / 1,3	1	1,8	1600	7 x 20
	VR12 1010 b1	1Am	M4	10 / 1,6	1	1,8	800	7 x 20
	VR16 1012 b3	3m	M6	12,5 / 2	1	2,3	3200	7 x 20
	VR25 1016 b3	3m	M6	16 / 2,6	1	3,6	3200	9 x 27
	VR25 1020 b3	3m	M6	20 / 3,3	1	3,6	3200	9 x 27
	VR12 1004 b3	3m	M6	4 / 0,7	2	1,8	3200	7 x 20
	VR12 1204 b1	1Am	M4	4 / 1,3	1	0,9	800	7 x 20
1250	VR12 1208 b1	1Am	M4	8 / 1,3	1	1,8	800	7 x 20
	VR16 1232 b3	3m	M6	32 / 5	1	2,3	1600	9 x 27
	VR12 1604 b2	2m	M5	4 / 0,7	2	1,8	1600	7 x 20
1600	VR12 1605 b2	2m	M5	5 / 0,8	2	1,8	1600	7 x 20
	VR16 1608 b2	2m	M5	8 / 1,3	1	2,3	3200	9 x 27
	VR25 1612 b3	3m	M6	12,5 / 2	1	3,6	3200	11,3x31
2000	VR12 2004 b2	2m	M5	4 / 0,7	2	1,8	1600	7 x 20
	VR12 2005 b1	1Am	M4	5 / 0,8	2	1,8	800	7 x 20
	VR16 2006 b3	3m	M6	6,3 / 1	2	2,3	3200	9 x 27
2500	VR25 2008 b3	3m	M6	8 / 1,3	1	3,6	3200	11,3 x 31
	VR12 2504 b1	1Am	M4	4 / 0,7	2	3,6	800	7 x 20
	VR16 2504 b3	3m	M6	4 / 0,7	2	2,3	3200	9 x 27
3200	VR25 2508 b3	3m	M6	8 / 1,3	1	3,6	1600	11,3 x 31
	VR16 3204 b2	2m	M5	4 / 0,7	2	2,3	1600	9 x 27
4000	VR25 3206 b3	3m	M6	6,3 / 1	2	3,6	3200	11,3 x 31
	VR25 4004 b3	3m	M6	4 / 0,7	2	3,6	3200	11,3 x 31
5000	VR25 5004 b2	2m	M5	4 / 0,7	2	3,6	1600	11,3 x 31

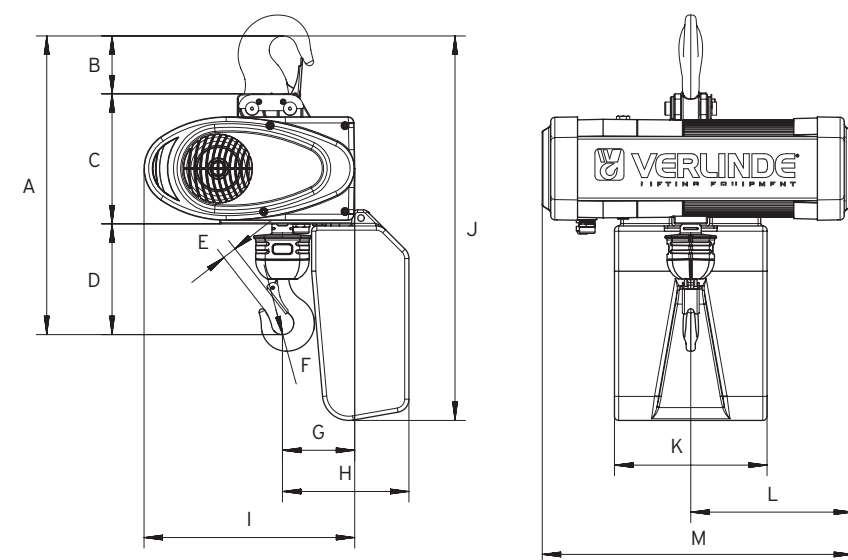
## Hoists dimensions



**EUROCHAIN**  
**VR2**  
**VR5**  
**VR12**

Hoist type	Chain dimensions	Chain bag capacity (m)	Max. loading (kg)	Dimensions (mm)												
				A	B	C	D	E	F	G	H	I	J	K	L	
VR2	4 x 11	8	320	376	140	160	76	186	18	131	136	380	219	145	411	-
	4 x 11	12	320	396	176	152	73	226	19	156	169	443	238	160	463	531
VR5	5 x 14	8	630	420	171	176	73	224	21	154	167	443	238	160	463	531
	7 x 20	6	1250	502	210	171	121	295	21	202	205	660	321	200	581	615
VR12	7 x 20	30	1250	554	210	223	121	295	28	202	205	877	321	200	581	615

Standard version VARIO version



**EUROCHAIN**  
**VR16**  
**VR25**

Hoist type	Chain dimensions	Number of falls	Chain bag capacity (m)	Max. loading (kg)	Dimensions (mm)												
					A	B	C	D	E	F	G	H	I	J	K	L	M
VR16	7 x 20	1	12	1250	614	110	247	257	28	21	137	240	400	730	290	308	590 704
	7 x 20	1	30	1250	614	110	247	257	28	21	137	315	400	905	300	308	
	9 x 27	1	12	1600	567	110	247	210	26	22	138	240	400	730	290	308	
	9 x 27	1	30	1600	567	110	247	210	26	22	138	315	400	905	300	308	
	9 x 27	2	12	3200	693	110	247	336	35	25	179	282	400	730	290	308	
	9 x 27	2	30	3200	693	110	247	336	35	25	179	357	400	905	300	308	
VR25	9 x 27	1	12	1600	584	110	263	211	26	22	159	286	439	809	300	306	623 745
	9 x 27	1	30	1600	584	110	263	211	26	22	159	397	439	986	350	306	
	11,3 x 31	1	12	2500	611	110	263	238	33	24	159	286	439	809	300	306	
	11,3 x 31	1	30	2500	611	110	263	238	33	24	159	397	439	986	350	306	
	11,3 x 31	2	12	5000	761	110	263	388	41	28	207	334	439	809	300	306	
	11,3 x 31	2	30	5000	761	110	263	388	41	28	207	447	439	986	350	306	

Standard version VARIO version

## Options available

- > Gear limit switch.
- > Second brake on lifting motor.
- > Attachment by eyelet (perpendicular) to replace the upper hook.
- > Automatic closure lifting hook.
- > Travelling limit switch.
- > Short headroom trolley.
- > Trolley for curved track.
- > Leading bracket for power feeding line.
- > Dual-speed travelling trolley carriage (20 & 5 m/min).
- > Slow speed travelling trolley (3 to 10 m/min).
- > High speed travelling trolley.
- > Wall-mounted command.
- > Manual brake release.
- > Additional button on pendant unit.
- > Direct voltage hoist control to replace the low voltage.
- > Rain protection.
- > Reinforced protection.
- > Total protection for operation in Zone 22.
- > Reinforced tropic-proof protection.
- > Hoist available in a version that complies with CSA standards.
- > Hoist with protection according ATEX EX regulation.
- > Hoist dedicated to entertainment industry (Stagemaker SR).



## Lifting standards and rules

**CE directive.** Since 29th December 2009 a new Machine Directive (2006/42/CE) has been in application for the assembly and trade in new machines marketed from 2010. This new text completes the former Directive, which was a compilation of 600 standards from 1995. This directive requires manufacturers to harmonise their production according to certain provisions, standards, national rules and technical specifications.

**F.E.M.** European Federation of Handling Industries.

**S.W.P.** Safe Working Period. The unit's safe working period is determined according to the average usage time for the lifting mechanism, the load spectrum and the user group. After this period, a general overhaul recommended by the manufacturer is necessary.

**User group.** Depending on the FEM classification, two fundamental

criteria must be taken into account: the use made of the hoist and the operating classes (related to the average daily usage time and the machine's lifting movement).

**ISO standard.** The usage groups may also be defined as ISO groups (1Am = M4, 2m = M5, 3m = M6, etc).

**Usage conditions.**

> **Light service.** Machine subject exceptionally to maximum use and frequently to very low use.

> **Medium service.** Machine subject quite often to maximum use and frequently to low use.

> **Heavy service.** Machine subject frequently to maximum use and frequently to medium use.

> **Very heavy service.** Machine subject regularly to use close to maximum use.

Average daily operating time in hours				≤ 0,5		≤ 1		≤ 2		≤ 4		≤ 8		≤ 16	
Operating class				VO,25	T2	VO,5	T3	V1	T4	V2	T5	V3	T6	V4	T7
Usage conditions	1	L1	Light					1Bm	M3	1Am	M4	2m	M5	V4	M6
	2	L2	Medium			1Bm	M3	1Am	M4	2m	M5	3m	M6		
	3	L3	Heavy	1Bm	M3	1Am	M4	2m	M5	3m	M6				
	4	L4	Very heavy	1Am	M4	2m	M5	3m	M6						
Group								1Bm	M3	1Am	M4	2m	M5	3m	M6
Operating factor*								25 %		30 %		40 %		50 %	
Number of start-ups per hour								150		180		240		300	

Standard version VARIO version

\* Operating factor in % =  $\frac{\text{Rise time} + \text{Lower time}}{\text{Rise time} + \text{Stop time} + \text{Lower time} + \text{Stop time}} \times 100$



## VERLINDE is:

- The leading French manufacturer and exporter of lifting and handling equipment.
- A comprehensive range of 30 groups of lifting equipment from 60 to 250,000 kg.
- ISO 9001 Quality control certified and ISO 14001 Environmental Management Systems.



## Our references

**Metallurgy, Mechanics, Nuclear** ➤ ArcelorMittal - Unimetal - Stein - NFM - Framatome - Alstom

**Chemicals, Petrochemicals industry** ➤ Sanofi Aventis - Du Pont De Nemours - Total

**Aeronautical industry** ➤ Aérospatiale - Airbus - Eurocopter - Air France - Aéroport de Paris - Snecma - Dassault Aviation

**Agri-food industry** ➤ Nestlé - Danone - Bel

**Automobile industry** ➤ Renault - Peugeot - Citroën - Scania - Ford - RVI - Volkswagen - Michelin - Massey Fergusson - Manitou - Toyota Industrial Equipment

**Other sectors** ➤ EDF - SNCF - RATP - Spie - Degremont - Eiffage - Polysius - Baudin Chateaufort



## In France:

A sales network and after sales service points, EUROPONT travelling crane construction plants and a distributor network.

## Abroad:

A customer service in more than 55 countries.



2, boulevard de l'Industrie - B.P. 20059 - 28509 Vernouillet cedex - France

Telephone : (33) 02 37 38 95 95 - Fax : (33) 02 37 38 95 99

Internet : [www.verlinde.com](http://www.verlinde.com)