



# EUROCHAIN VR<sup>®</sup>

Electric chain hoist for loads  
from 63 to 5000 kg

 **VERLINDE**  
LIFTING EQUIPMENT

# EUROCHAIN VR<sup>®</sup>



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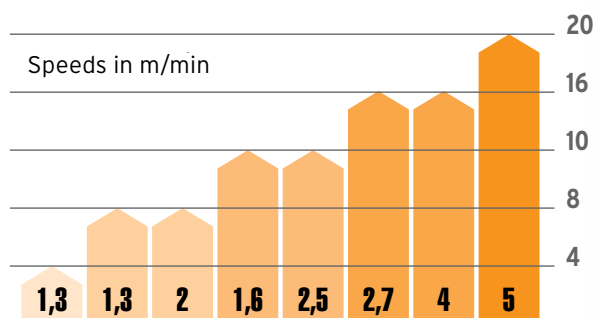
Completely innovative, top of the range design, its fluid, contemporary and elegant lines confirm the power of this electric chain hoist. This new generation of EUROCHAIN VR hoists is the result of innovative technology; new materials, new operating concepts, can adapt to each specific need.

## + 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

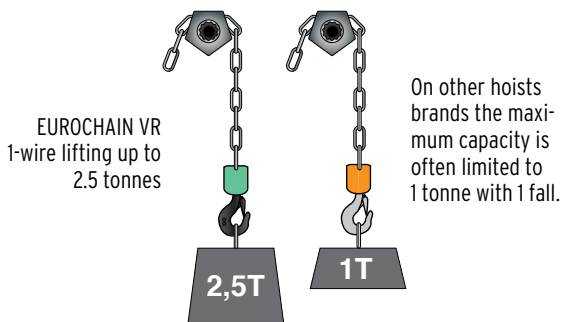
### Lifting capacities.

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

### 1-fall lifting up to 2.5 tonnes 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.
- > «Punch» 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 µm, 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 !

## + safety

### Clutch concept.

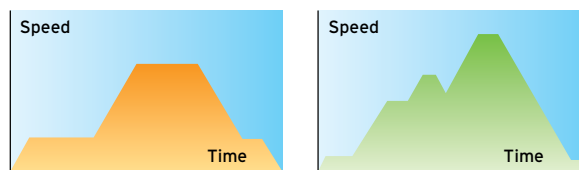
The clutch position in the reducer ensures the load is held by the brake regardless of the machine's daily operating conditions.

### 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.





# new design

## 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.

## 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.

## flexibility





#### 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).



# 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.

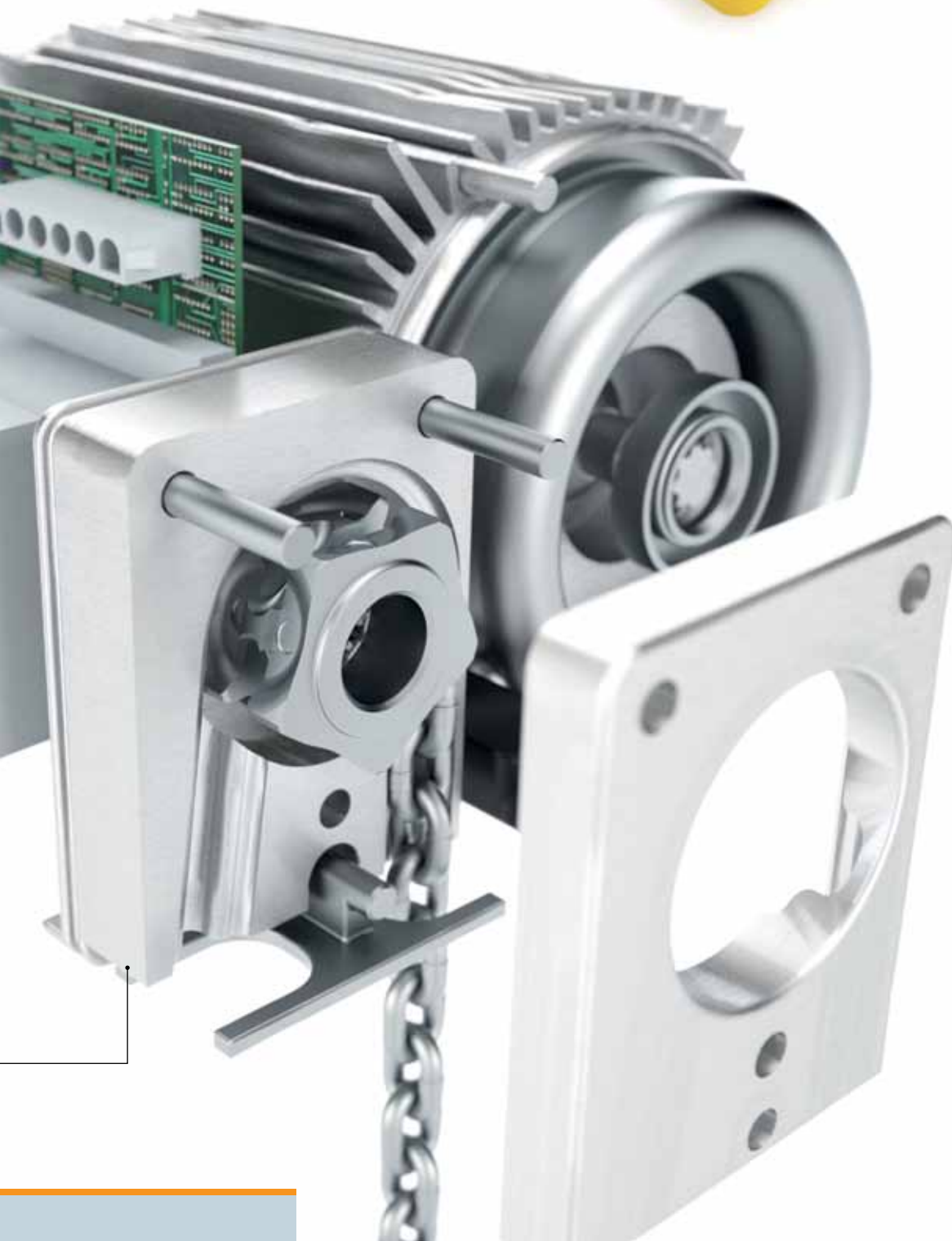
The lifting hook's maximum up and down positions are secured by the electric limit switch located under the chain guidance system.

The switches are activated alternately by the lifting hook's upper cone and the slack fall stop.

### 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 jib. P65 protection as standard, 48 V low voltage command and removable plug.

practical  
ergonomical





# 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



## ➤ Tailor-made locations

- Fixed suspended by hook.



- Coupled to a pushed or chain driven travelling trolley.



- Coupled to a motorised variable speed travelling trolley.



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



## ➤ 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.
- Dual-speed travelling trolley carriage (20 & 5 m/min).
- Slow speed travelling trolley (3 to 10 m/min).
- High speed travelling trolley.

- Additional button on pendant unit.
- Wall-mounted command.
- Direct voltage hoist control to replace the low voltage.
- Manual brake release.
- 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.

## > The EUROCHAIN VR hoist range

Capacity (kg)	Hoist type	F.E.M.	ISO	Lifting speeds (m/min)	Number of falls	HS lifting motor power (kW)	Gear box lifetime (hours)	Chain dimensions
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
250	VR2 258 b2	2m	M5	8 / 2	1	0,45	1600	4 x 11
	VR2 2510 b1	1Am	M4	10 / 2,5	1	0,45	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
	VR5 5010 b1	1Am	M4	10 / 1,6	1	0,9	800	5 x 14
630	VR5 634 b1	1Am	M4	4 / 1,3	1	0,45	800	5 x 14
	VR5 638 b1	1Am	M4	8 / 1,3	1	0,9	800	5 x 14

Load capacity up to 5000 kg, available later.

## > 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			V0,25	T2	V0,5	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		

■ F.E.M. 9511 standard classification ■ ISO standard classification.

\* 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.



## Our references

**Metallurgical, Mechanical, Nuclear industries** ➤ Sollac - Unimetal - Stein - NFM - Framatome - Neyrpic

**Chemical and Petrochemical industries** ➤ Rhône-Poulenc - Du Pont De Nemours - Elf - Total - Pechiney

**Aeronautics industry** ➤ Aérospatiale - Airbus - Eurocopter - Air France - Aéroport de Paris - Snecma - Marcel Dassault

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

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## Abroad :

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

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

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