

# LoadMate® Electric Chain Hoists

*Innovation . . . Performance . . . Reliability*

[www.meerholz.ca](http://www.meerholz.ca)



**1/8 - 5 Ton  
(125 - 5000 kg)**



# LoadMate® Electric Chain Hoists —

LoadMate® hoists are designed to maximize productivity with fast installation, easy operation and built-in durability. The compact design provides low headroom and allows close trolley approaches. R&M's advanced design and manufacturing techniques ensure safe operation, consistent quality and longer component life. It adds up to exceptional value - hoist equipment that saves on maintenance, repair and downtime costs over its lifetime.

## *Flexibility to meet your exact requirements*

R&M LoadMate® electric chain hoists offer a range of choices for a wide variety of applications.

- 1/8 to 5 ton capacities (125 - 5000 kg).
- Choice of 3 standard mounting configurations: fixed top hook, push trolley and motorized trolley (custom mounting configurations also available).
- 10, 15 and 20 ft. lifts standard; additional lifting heights available up to 150 ft. single fall, 75 ft. double fall.
- Lift speeds from 8 to 32 FPM single-speed, 12/3 to 64/16 FPM two-speed, 1 - 16 to 4 - 64 FPM variable speed inverter, 0.16 to 5.7 HP hoist motors.
- Variable speed, three phase models with hoist inverter control available for 1/2 - 2 ton capacity LM10 models and for 460/3/60 power supply only
- Hoists available for single phase and three phase.
- Two speed, three phase hoist motors and controls available for all models and for 208, 230, 460, 575/3/60 or 380/3/50 power supply.
- Single speed, three phase hoist motors and controls available for LM05 and LM10 models and reconnectable for 208, 230 or 460/3/60 power supply.
- 115 volt single phase hoists - single speed only.
- Hoist motors are class F insulated, 50% effective duty rated.
- Two-speed TMU trolley drive unit (trolley speed is 80/20 FPM). Trolley brake and bumpers are standard. Variable frequency drive option on TMU.
- Trolley control panel integrally mounted to the motor.



## *EASE OF OPERATION Innovative design enhances versatility and ease of use*

- Premium-grade, AGMA rated \* precision gearing contributes to the hoist's compact, low-headroom design, low noise level and smooth operation.
- Integral hoist control panel encloses all electrical components (hoist contactors, transformer, terminal strips, etc.) and is easily accessed for maintenance.
- Easy trolley mounting attachment meets various application requirements. Slot in top of hoist body allows easy changeover of top hook, push trolley or motorized trolley mountings.
- Crown tread wheels standard on push and motorized trolleys, for use on standard I-beams and wide flange beams.
- Plug-in push button pendant with E-stop for quick replacement is standard.

## *REDUCED MAINTENANCE Quality keeps your hoist on the job long past the pay-off point*

LoadMate® hoists are designed to run cool and maximize the life of gears, brakes and motors. Longer component life means less maintenance, less downtime and lower repair costs.

- Sealed brake keeps out lubricants.
- Brake adjusts independent of load limiter.

For the most current  
Technical Guides, drawings and other  
product information visit our website at  
**[www.rmhoist.com](http://www.rmhoist.com)**

\* Traveling gearboxes: AGMA 10,  
LM1: AGMA 10, LM05 & LM10: AGMA11 and  
LM16/25: AGMA 12

# Reliable Long-term Performance

## A Sample of the LoadMate® Offering

Frame	Cap. (Short) Tons	Lift* in Feet	Lift Speed (FPM)	SS or TS	No. of Falls	ASME Duty Class	Hoist Motor H.P.	Top Hook (TH) or Lug Mount (LM)		Push Trolley (PT)		Motorized Trolley** (MT)	
								H.R. (In.)	Wt. (Lbs.)	H.R. (In.)	Wt. (Lbs.)	H.R. (In.)	Wt. (Lbs.)
<b>Single Speed, Single Phase Models 115 V - 1 Ph - 60 Hz</b>													
LM1	1/8	10	16	S	1	H3	0.16	12 3/16	30	13 7/8	36	N.A.	N.A.
LM05	1/4	10	16	S	1	H3	0.64	16 1/2	60	15 5/8	74	N.A.	N.A.
LM05	1/2	10	16	S	1	H3	0.64	16 1/2	60	15 5/8	74	N.A.	N.A.
LM05	1	10	8	S	2	H3	0.64	18 1/2	67	18 7/8	89	N.A.	N.A.
<b>Single Speed, Three Phase Models 208, 230, 460 V - 3 Ph - 60 Hz</b>													
LM05	1/4	10	16	S	1	H4	0.64	16 1/2	60	19 1/4	74	17 3/4	177
LM05	1/4	10	32	S	1	H4	1.3	16 1/2	60	19 1/4	74	17 3/4	177
LM05	1/2	10	16	S	1	H4	0.64	16 1/2	60	19 1/4	74	17 3/4	177
LM05	1/2	10	32	S	1	H4	1.3	16 1/2	60	19 1/4	74	17 3/4	177
LM10	1	10	16	S	1	H4	1.5	20 1/4	122	22	144	21	239
LM10	1	10	32	S	1	H4	2.8	20 1/4	122	22	144	21	239
LM10	2	10	8	S	2	H4	1.5	22 1/2	133	25	218	23 1/2	250
LM10	2	10	16	S	2	H4	2.8	22 1/2	133	25	218	23 1/2	250
<b>Two Speed, Three Phase Models 208, 230, 460 or 575 V - 3 Ph - 60 Hz</b>													
LM1	1/8	10	32/8	T	1	H4	0.33 / 0.08	12 3/16	30	14 3/4	36	N.A.	N.A.
LM1	1/8	10	16/4	T	2	H4	0.33 / 0.08	13 1/16	33	14 3/4	39	N.A.	N.A.
LM1	1/4	10	16/4	T	2	H3	0.33 / 0.08	13 1/16	33	14 3/4	39	N.A.	N.A.
LM05	1/4	10	32/8	T	1	H4	1.3 / 0.3	16 1/2	60	19 1/4	74	17 3/4	177
LM05	1/2	10	16/4	T	2	H4	1.3 / 0.3	18 1/2	67	20 1/4	81	19 3/4	183
LM05	1/2	10	32/8	T	1	H4	1.3 / 0.3	16 1/2	60	19	74	18	177
LM05	1	10	16/4	T	2	H4	1.3 / 0.3	18 1/2	67	20 1/4	89	19 3/4	183
LM10	1/2	10	64/16	T	1	H4	2.8 / 0.75	20 1/4	121	22	143	21	240
LM10	1	10	32/8	T	1	H4	2.8 / 0.75	20 1/4	122	22	144	21	239
LM10	2	10	16/4	T	2	H4	2.8 / 0.75	22 1/2	133	25	218	23 1/2	250
LM16	1	10	64/16	T	1	H4	5.7 / 1.4	22	243	21 1/4	287	21 1/4	353
LM16	1 1/2	10	32/8	T	1	H4	5.7 / 1.4	22	243	21 1/4	287	21 1/4	353
LM16	3	10	16/4	T	2	H4	5.7 / 1.4	26	243	25 1/4	287	25 1/4	353
LM20	2	10	32/8	T	1	H4	5.7 / 1.4	27	243	27	321	27	365
LM20	4	10	16/4	T	2	H4	5.7 / 1.4	31	243	31	331	31	375
LM25	3	10	24/6	T	1	H4	5.7 / 1.4	26	243	27 1/2	331	27 1/2	375
LM25	5	10	12/3	T	2	H4	5.7 / 1.4	31	243	31	331	31	375
<b>Variable Speed, Three Phase Models 460 V - 3 Ph - 60 Hz</b>													
LM10	1/2	10	4 - 64	I	1	H4	2.8	20 1/4	137	22	159	21	254
LM10	1	10	2 - 32	I	1	H4	2.8	20 1/4	137	22	159	21	254
LM10	2	10	1 - 16	I	2	H4	2.8	22 1/2	148	25	233	23 1/2	265

\* Other lifts available

\*\* Motorized Trolley Speed: 80/20 FPM; Trolley bumpers and motor brake are included.

# and Cutting-edge Technology

## Mounting Configurations



*Fixed Top Hook*



*Push Trolley*



*Motorized Trolley*

## SAFETY

### Meets and exceeds industry safety standards

All R&M hoists are statically and dynamically tested with a minimum of 125% rated load prior to shipping.

- All models are equipped with a torque-limiting device for hoist overload protection. The electro magnetic disc brake-clutch combination is designed for efficiency, safety, easy access and adjustment. The friction-type torque limiter is integrated with the brake (LM1, LM05, LM10) to ensure that the load is always stopped when the control button is released.
- Upper / lower limit switches stop the hoisting motion when the hook reaches the top or bottom limit of travel, providing safer operation and longer equipment life.
- Low-voltage controls enhance operator safety. 115-volt control voltage is standard; 48-volt control is an option (standard with 380 volt).
- Control panel and pushbutton enclosures both meet NEMA type 3R (IP-55) protection classification.
- Load hook is forged alloy steel for strength and durability and is provided with a spring return safety latch.
- Emergency stop button and built-in mainline contactor are standard. (Except LM1.)
- CSA certification on all models. CSA certification is pending on models with hoist inverter control.



## LONG LIFE

### Built for tough duty, lasting performance

Every feature of the LoadMate® hoist assembly includes rugged, high-performance materials and quality engineering for longer service life and less downtime.

- Thermal protection of hoisting motor prevents damage due to over heating. A 2-speed hoist motor is available, offering more precise load handling and longer motor life due to less wear on the brake and contactor.
- Hoist body is constructed of pressure-cast aluminum for light-weight and easy handling, epoxy-painted for corrosion resistance, and ribbed for better heat dissipation.
- 5-pocket chain sprocket (6-pocket on LM16) is heat-treated and machined to a high tolerance, providing exceptionally smooth lifting and reduced chain wear.
- Load chain is electro-zinc plated, heat-treated, and has a high tensile strength. Chain is also specially designed for chain hoist use.
- Chain guide ensures precise alignment of chain with load sprocket, reducing wear and prolonging chain life.
- Chain container is provided as standard.

# Versatility

## LoadMate® Options

### Patented Track Trolley Option

Trolleys feature hardened steel flat tread wheels designed for maximum bearing surface contact with your patented track section running surface. Wheel tread surface hardness is 425 BHN. Will fit: 2", 3.25", 3.33", 4" and 4.5" patented track section flange widths.

### Swiveling Motor Driven Trolley Option

Allows for shorter curve radius tolerances on custom monorail applications. LM05, LM10 and LM16 hoist swiveling trolleys can negotiate a radius as small as 2'-8". LM20 and LM25 hoist swiveling trolleys can negotiate a radius as small as 4'. Gear motors can also be removed for outfitting of R&M swivel trolley with user provided rubber tire tractor drive units.

### Special Low Headroom Trolley Configuration

Using special trolley frame with upper sheave and offset hoist machinery, lifting heights can be optimized. Allows for maximum hook height in tight clearance applications.

### Outdoor Weather Protection Options

Available with a range of outdoor protection options including: stainless steel chain, hoist and trolley weather proof covers, NEMA 4 type enclosures, low voltage 48 VAC control system, and panel heaters.

### Special Hoist Control Options

Several special control options for the LoadMate® include:

- Variable frequency drive hoist control option provides precision hook positioning.
- Tandem control option for simultaneous control of two hoists.
- Hour counter for scheduled preventive maintenance as well as hoist SWP (Safe Working Period) calculations.

### Food Grade Hoist Options

Stainless steel load chain, stainless steel lower hooks, stainless steel bottom block, and food grade lubricant can be provided for food handling and pharmaceutical applications.

## ADDED VERSATILITY

### Variable Frequency Drive option enhances motorized trolley operation

TMU's Variable Frequency Drive offers:

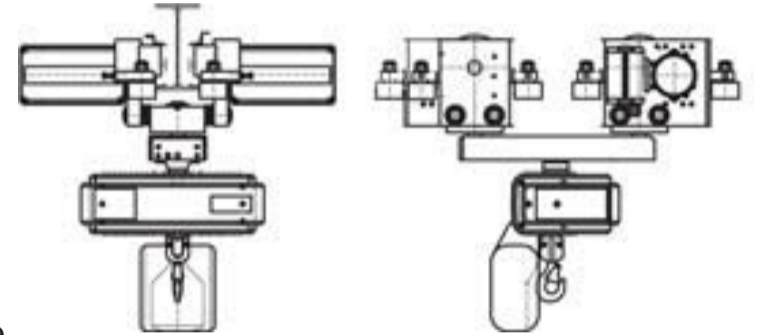
- 2-step multi-speed or stepless control method
- Flexibility in speed settings
- Dynamic braking



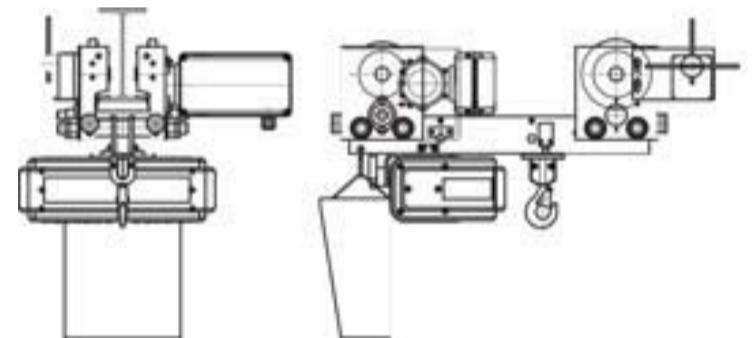
Minimum and maximum speed settings can be defined to provide easy and precise load placement, reduced load swings and less wear on equipment.

The sealed brake is incorporated into the motor design. The dynamic braking provided by the variable frequency drive allows for smooth stops and extended brake life.

Swivel Trolley



Low Headroom Trolley



Stainless Steel Chain, Block & Hook Options





# LoadMate® Electric Chain Hoists

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## Digichain® Ergonomic Controls

An ergonomically designed handle control allowing the hoist to be used as an extension of the operator's arm.

- Available on LM1 and LM05 models.
- 1/8 to 1/2 ton capacities
- Single fall models only
- Standard E-stop button
- NEMA type 3R (IP-55) protection rating



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