

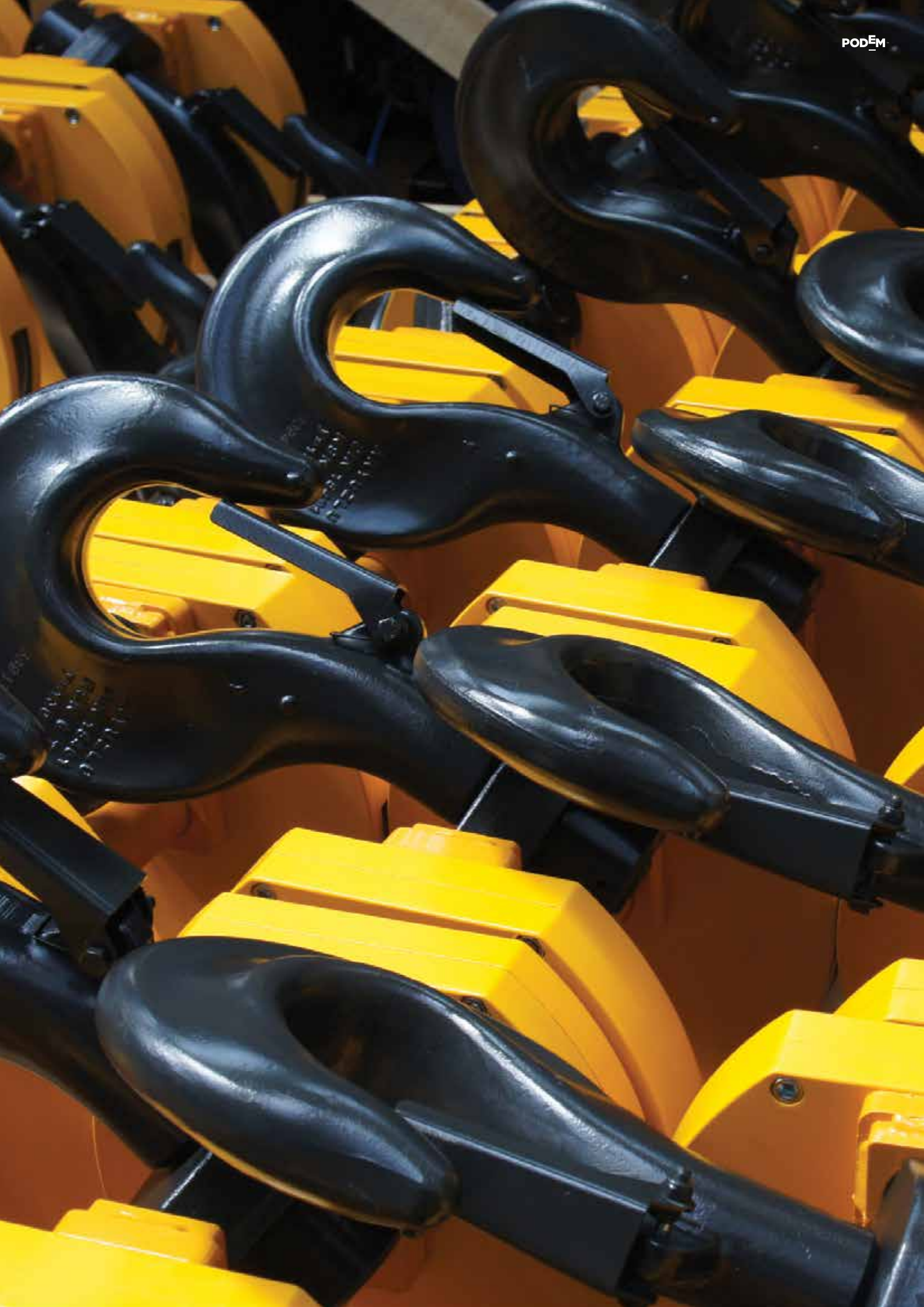
# Technical Catalogue

## Standard Wire Rope Hoists



**60**  
years of experience in development  
and production of wire rope hoists

60 *YEARS*  
**PODE<sub>M</sub>** <sup>TM</sup>  
*2021* —



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# Why Choose Podem?

## Podem company in few sentences:

- Arguably the most reliable rope hoist
- Reputable brand name
- 60 years' experience in the development and production of hoisting equipment
- A long-term partnership based on trust and friendship
- Reliable customer support
- Open-to-the-customer management
- An integrated quality management system
- The biggest integrated hoist manufacturing facility in Europe by number of hoists produced with modern technology and machines





Podemcrane is a trusted crane component supplier with developed worldwide distribution. We provide reliable hoisting and other crane components for most industries.



Our in-house design capabilities, internally regulated technology, production and open-to-the-customer management allow us to offer the best options for products to meet market demands and individual needs.

Podemcrane has 60 years of experience in development and production of wire rope hoists. It is the biggest manufacturer of electrical wire rope hoists in Central and Eastern Europe.





|   |             |                                                                                                                                                                                                                                                                                                                                   |
|---|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ○ | <b>1961</b> | April, 1961 – the official inauguration of electrical rope hoist manufacturing plant, later named Podem. In December 1961 the first hoist was produced. The state owned production company was created to supply the crane industries in all Eastern European countries and former Soviet Union with electrical wire rope hoists. |
| ○ | <b>1968</b> | First Gold medal prize awarding from the International Technical Fair in Plovdiv. In its history the Company has been awarded more than 10 Gold medal prizes.                                                                                                                                                                     |
| ○ | <b>1971</b> | Podem starts international sales in 40 countries around the world including Western Europe, Middle East, Asia, Africa and Latin America through Balkancar-Podem commercial structure.                                                                                                                                             |
| ○ | <b>1975</b> | Podem became the largest hoists manufacturer worldwide. Production capacity reached 100 000 wire rope hoists per year.                                                                                                                                                                                                            |
| ○ | <b>1977</b> | Podem started production of new product group – the explosion proof hoists.                                                                                                                                                                                                                                                       |
| ○ | <b>1981</b> | The total number of hoists exported to Russia and the former Soviet republics reached 1 000 000.                                                                                                                                                                                                                                  |
| ○ | <b>1991</b> | Production of hoists series T was replaced with the new series MT.                                                                                                                                                                                                                                                                |
| ○ | <b>1994</b> | The M type of hoist entered production lines covering the range up to 50 t.                                                                                                                                                                                                                                                       |
| ○ | <b>1995</b> | The Bulgarian Ministry of Economy initiated privatization of Podem AD. The state owned company was partially privatized.                                                                                                                                                                                                          |
| ○ | <b>1996</b> | Production of 34 years old hoists series T was stopped. New series MT replaced T.                                                                                                                                                                                                                                                 |
| ○ | <b>2000</b> | The former state owned company was privatized. The Company started it's own distribution and promotion of its own brand Podem. The foreign trade companies were no longer part of the structure.                                                                                                                                  |
| ○ | <b>2002</b> | The new company Podemcrane AD – the successor of Podem, started operation. The Company continued to promote the Podem brand along with the new one Podemcrane.                                                                                                                                                                    |
| ○ | <b>2008</b> | The MTM type was developed, replacing the MT series. The Company started engineering and manufacturing of industrial cranes for the local market (Bulgaria, Serbia, Macedonia) under the trade mark Podemcrane and becomes market leader in the region.                                                                           |
| ○ | <b>2010</b> | Podemcrane's office in Moscow (Russia) was opened.                                                                                                                                                                                                                                                                                |
| ○ | <b>2015</b> | Podemcrane starts a joint venture with the German electric motors manufacturer EMGR GmbH and established its own sales representatives in Serbia and Spain. Podem's product family is enriched with chain hoists, CLF serie.                                                                                                      |
| ○ | <b>2020</b> | As a consequence of a long term relationship Podemcrane–Vietnam has been registered in Hanoi.                                                                                                                                                                                                                                     |
| ○ | <b>2021</b> | The first open barrel winch is produced.                                                                                                                                                                                                                                                                                          |

**Podemcrane AD – the successor of Podem, runs the biggest European based production facility in Europe for electrical wire rope hoists.**

In its history the Company has sold more than 1 900 000 units of lifting equipment around the world. We have become a market leader in many markets around the globe.



Having produced hoists for the last 60 years, Podem brand stands as one of the most experienced in the world. We have implemented full expertise in hoist production as almost all parts and components are produced in-house.



## Production

Having produced hoists for the last 60 years, Podem brand stands out as one of the most experienced in the industry. We have implemented years of expertise in hoist production, as almost all parts and components are produced in house. Located in Bulgaria, Podemcrane operates the biggest integrated hoist manufacturing facility in Europe by number of hoists produced. We employ modern technology and machines that guarantee high quality of produced parts and components as per EU regulations. In-house design supported and integrated production allow for a swift reaction on customer demand.

Inspired by our corporate values, we constantly improve our efficiency and find solutions to achieve competitive cost, therefore competitive pricing. All our products bear the CE mark for compliance with the health and safety regulations and requirements of the European Union — the Machinery Directive and European directives.

## Quality

Our product is known as one of the most reliable in the lifting industry. The high requirements for materials and quality control with modern testing technology play an important role. Podem performs random or 100% tests of the machined details depending of the how important are they.

All products passing variety of internal tests, before packing and shipping to the customers.

## Our Suppliers

Thorough process of evaluation and selection of our partners of backs smooth operation and guarantees quality. In the common case our suppliers are companies with a history and relevant certificates. The close monitoring and contact with them keeps our relationship stable and assures better understanding of the technical demands. Reliability, up-to-date technology, very competitive pricing and growing with us is our main selection criteria.

Our reliable design is proven in millions of hoists around the world, many of which operating for decades and in different environmental conditions.



Our reliable design is proven in millions of hoists around the world, many of which operating for decades in different environmental conditions.



## Engineering

The experienced team of design engineers work to ensure our products correspond to the market standards and customer's reliability requirements. We work to ensure your business gets most reliable crane components at the best price. In addition, because of the robust construction, the customer gets additional safety, reliability and longer operational life-cycles.

Our reliable design is proven in millions of hoists around the world, many of which operating for decades and in different environmental conditions. We offer engineering to match the individual needs of all our customers and variety of products. Our integrated testing facilities is important part not only for new product development, but also for all products departing our facility.

## Customer Support

We do approach with care your needs for standard and individual solutions. A committed sales and engineering team stands behind supporting you.

We value and develop long-term partnerships with our partners and individual customers. Support is available on product and project level and based on our experience consult marketing strategies. Our multi-cultural market presence could help develop your strategy and positioning. In all established relationships we are always present for you, no matter if you need faster reaction, planning of your recourses and availabilities or specific product modifications. Easy access to our top management.



# Product Range

## Wire Rope Hoists & Trolleys

### Wire Rope Hoists & Trolleys

#### Standard technical features:

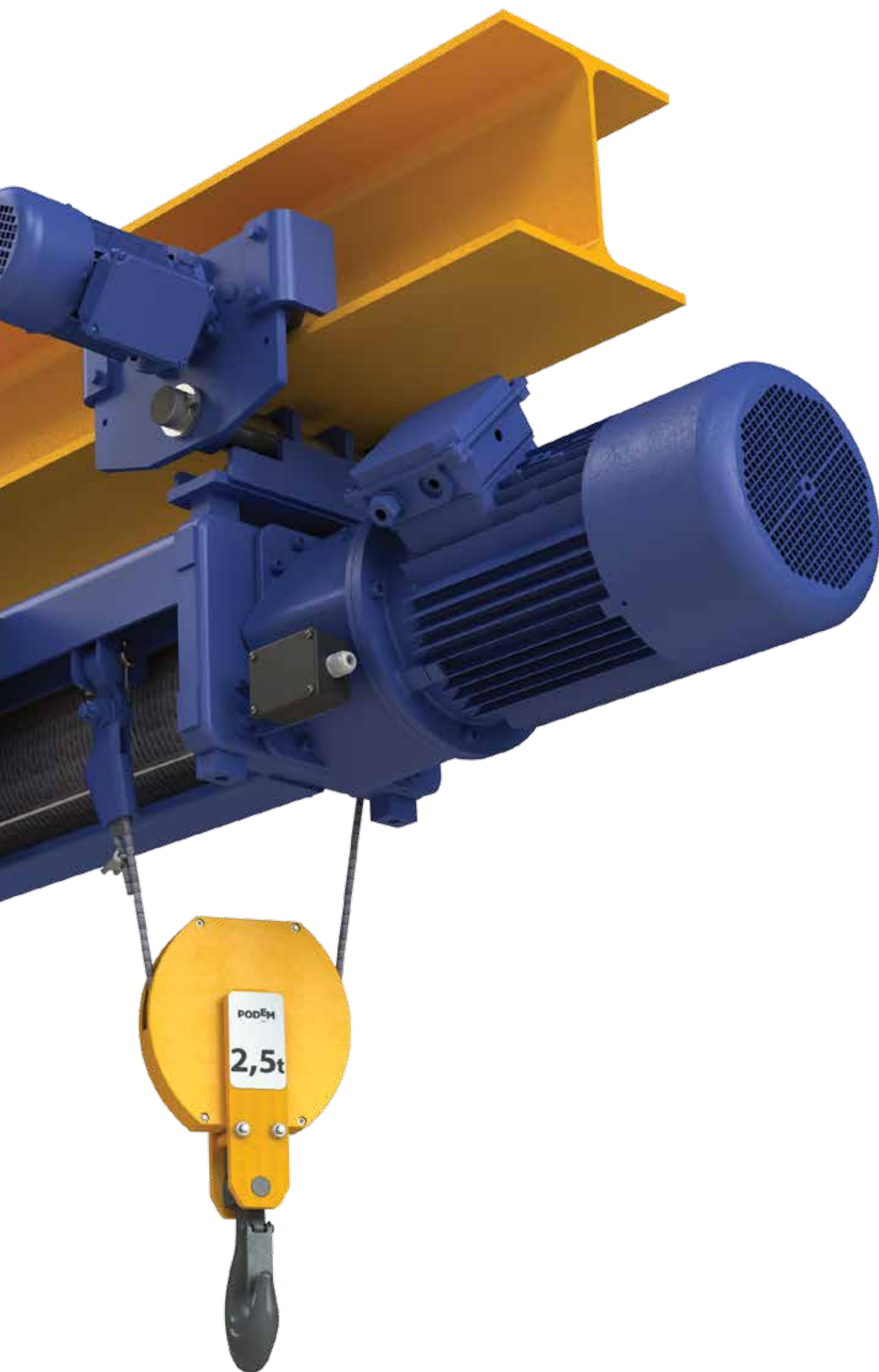
- Monorail or double-rail hoist
- Standard capacity: from 1 to 50 t
- FEM group: 1 Am – 3 m
- Optional up to 100 t

#### Advantages:

- Highest possible reliability levels offered in the industry
- Operational safety
- Long life
- Excellent price/performance ratio
- Easy maintenance
- Low service costs



The range provides solutions for new industrial cranes or replacement applications.



# Product Range

## End Carriages

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### End Carriages

Podemcrane manufactures end carriages for single or double girder cranes.

**Standard technical features:**

- Type: Overhead, Gantry or Underslung cranes
- Standard capacity: from 1 to 50 t
- Span: up to 32 m
- Wheel diameter: up to 500 mm



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We can support individual design for different crane manufacturers.



# Product Range

## Motor-reducers

### Motor-reducers

Developed for driving of travel mechanisms for material handling equipment (trolleys, cranes, etc.).

**Standard technical features:**

- From 0.37 to 3 kW
- Wheel diameter from 125 to 500 mm

Developed for driving of travel mechanisms for material handling equipment (trolleys, cranes, etc.).





# Product Range

## Crane Kits

### Crane Kits

Components can be individually engineered to suit different requirements. All our products and components are designed, engineered and manufactured in Europe, comply with the European standards and bear the CE mark. Podemcrane crane components follow latest innovations in the field of crane building using 60-years' experience and know-how of worldwide partners.

#### Single Girder Crane Kits

Compact construction allowing maximum utilization of room height:

- Overhead, Suspended or Gantry Crane kits
- Standard capacity: 1 – 16 t

#### Double Girder Crane Kits

Applied when greater capacity and heavier operation required. In equal conditions double girder cranes offer greater lifting heights:

- Overhead or Gantry Crane kits
- Standard capacity: 2-50 t
- Standard span: 5 – 32 m

Podemcrane offers wide range of components for new cranes as well as for modernization of existing crane systems: standard and custom-built cranes.





# Product Range

## Chain Hoists

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### Chain Hoists

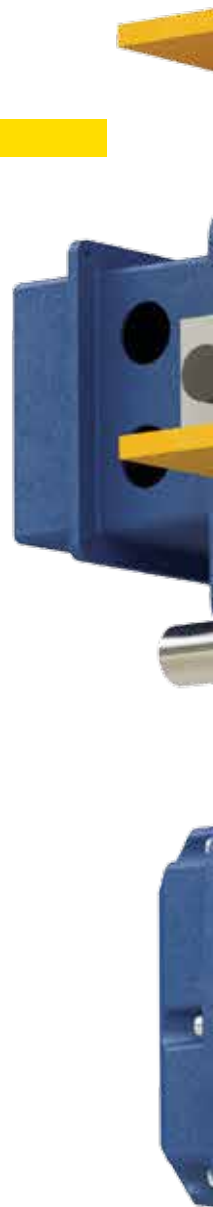
Comprehensive range with compact design, superior quality and high standard of safety. All components are made in European Union and confirmed by the CE marks.

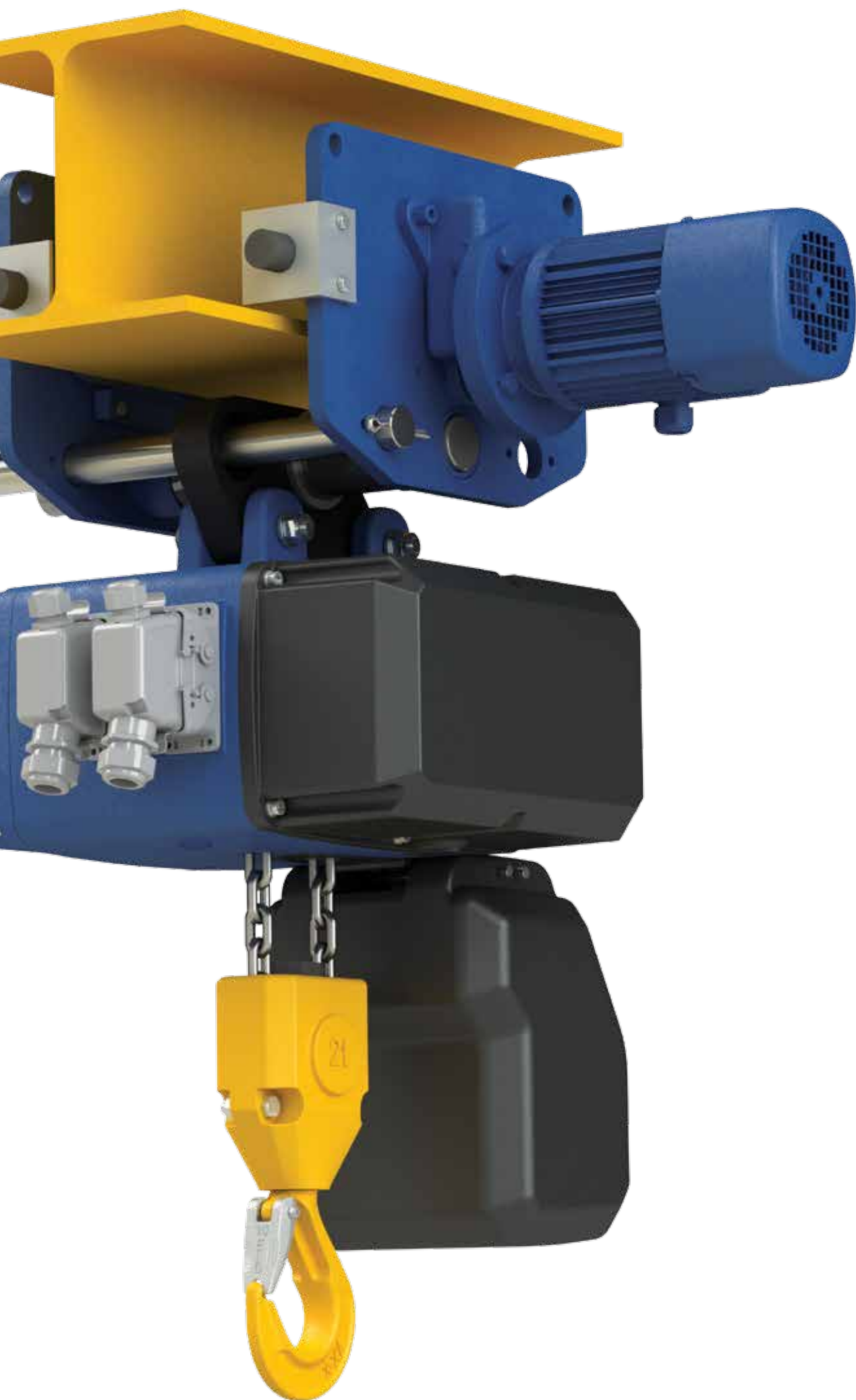
**Standard technical features:**

- Capacity: from 125 to 2 000 kg
- Available with: eye suspension, top hook or trolley
- Lifting heights: 3, 6, 9 and more.  
But also available "0=zero"  
(without chain).

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The range provides solution for jib cranes or light crane systems.





Podem standard wire rope hoist range covers over 90% of the market demands. The standard capacities are up to 50 t, but with using of solution "twin hoists" it could reach up to 100 t. Most popular reevings are 2/1 and 4/1. But Podem offers also 4/2 for true vertical lifting or 8/1 and 6/1 for heavy loads.



The lifting or cross traveling could be double speed or with inverter control. For some markets the single speed option is available too.

The standard hoists cover a wide range of lifting heights: from 7 m to 26 m. With special designed series MTL we offer ready solution up to 56 m. Our engineering team is able to redesign the hoists module according to project.

A range of traveling trolleys are also available in either double or monorail version, with the option of low or standard headroom. Normal headroom trolley could be designed for curve beam.

Special features are available upon request.



## Low-headroom Monorail Hoist

The Industrial buildings require reduction of height to save cost for building, heating or cooling. Low headroom hoist ensures maximum utilisation of the space. The hook reaches nearly under the beam and gives 30% reduction in headroom. This type of hoist could optimize the height of the building with 0.5-1 m comparing to normal headroom hoist.



## Normal Headroom Monorail Hoist

For a single girder cranes where space is not an issue. The hoist operates directly under runway beam. The load and hoist weight reaction are very well balanced. There is no need of counter weight which make this type of the hoist lighter than low headroom one. Depending of the lifting height the trolleys are one or two and consists of one or two electric trolley motors with planetary gearbox. The trolley is also available as articulated version to run on curves. Two travel motors are by default.



## Stationary / Foot-mounted Hoist

A full range of capacities from 1t to 50 t. Optional up to 100 t.

The application could be:

- Custom-made double-rail hoists
- Auxiliary hoist
- Goods-lift



## Double Rail Hoist

This type is applied when greater capacity is required and also for all heavy-duty applications. The standard capacities are from 3.2 t to 50 t. Double girder cranes are commissioned for heavier loads, normally 16 t and up. Double rail hoist has the benefit of the optimization of the hook lifting, allowing the hook to go between the girders.

# Hoist Module Features

## Mechanical Components

Podem hoists range is a result of 60 years' experience in hoisting design and manufacturing. All the modules are matched to each other optimally. They assure reliable performance, long service life and easy maintenance.



### Reducer

The planetary gear-boxes are developed specially for lifting mechanisms. All gears (2 or 3-stages) are made of heat-treated high-quality steel. Many transmission ratios are available for different lifting speeds. Very reliable, durable, wear-resistant and maintenance free.

Reducers for Hoist Series MT are outside the body. Gear-box series M are inside the drum – for more compact dimension. All the gear-boxes are lubricated for the hoist's life cycle for easy maintenance.



### Rope Guide

The function of the rope guide is to prevent the formation of loops in the wire rope while operating the hoist. The rope guide basically consists of two parts: a guide ring and a pressure spring that properly guides the rope on the drum grooves. The guide ring maintains the

rope in position during the uncoiling, preventing it to come-off the groove and, when the load swings, is guided by a fixed bar and runs on rolling bearing. The rope guide actuates an end limit switch for upper-end and bottom-end position of the hook.



## Hook

The hook design has been updated in 2020. The hook covers for MT series are made by aluminium. The series M is with steel plate covers with bolted connection. The hooks are according to DIN 15401, class S or T and latest European standards. Both hook block types are durable, shock resistant and with easy maintenance.



## Suspension/Trolleys

Monorail normal headroom trolleys are driven or idle. They are made by default for beam flange 130-300 mm, but with option for bigger flanges. The cross travel gear-box is with one ratio and provides the most popular nominal travel speed of 20 m/min. The low headroom suspension is always with 2 drive motors which assures a very smooth and reliable traveling of the hoists with or without load.



## Hoist Body

The supporting framework is a compact welded structure made of two steel flanges jointed by profiled plates. It provides very precise alignment of the main hoist components: planetary reducer, drum and lifting motor.

## Drum & Clutch

The drums are produced from a steel pipe and machined using the latest CNC technology. It is driven centrally by the output shaft of the gearbox.

# Hoist Module Features

## Electrical Components

### — Electrical Panel



#### Contactor-relay Type

Contactor-relay type is a simple solution for hoist control. The conventional electrical components are with stable performance in different weather conditions and ambient temperatures. They are not sensitive to electromagnetic impact. This type of panel is with very low-cost maintenance and easy service in every part of the world. There are no high requirements for the service team technicians.



#### VFD (Variable Frequency Drive)

An inverter controls the frequency of power supplied to an AC motor to control the rotation speed of the motor. The use of an inverter to adjust the speed and acceleration of an AC motor increases the range of applications of the motor compared with a motor with fixed speed. Podem uses standard components which make setting of the inverter very familiar for most of the users. Maintenance and technical support are well organized worldwide. VFD is more sensitive to ambient temperatures and weather conditions.



#### Overload Limiter Load Cell (Dynamometric Pin)

A load cell is used as an overload device. It is a transducer which converts force into a measurable electrical output which can be read and record. Made by stainless steel they are widely used because of the accuracy with which they can measure the load.

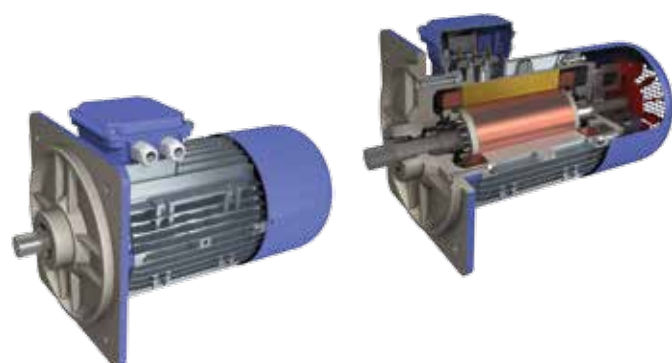


#### Upper/Lower Limit Switch

This safety device prevents a hoist from reaching the hook block and hoist body. The upper/lower limit switch on the Podem's hoists is rope-guide-activated. There are integrated 3 independent NC contact systems (up/down/ Emergency contact system for cutting the Main contractor).

## — Lifting Motor

The three-phase electric motors with built-in brake are designed for lifting application of wire rope hoists. Thermal protection is by default for lifting motors.



### Cylindrical Motor

**The main features are cylindrical rotor and a built-in electromagnetic DC brake.**

The direct current brakes are powered through a rectifier, usually connected to the motor terminal board. We use a high-speed rectifier.

These motors, on the nondrive end, are equipped with a electromagnetic spring-pressure brake with negative action. In absence of power supply, under the pressure of helical springs the brake anchor gets pressed to a friction disk and stops its motion. The shafts are made by a special steel. DC brakes assure precise load positioning.

- IEC frames 90, 100, 112, 132, 160 and 180
- Poles 4 or 12/4
- Braking torque higher than 1.5 x rated torque



### Conical Motor

**The main features are conical rotor and integrated mechanical conical brake.**

The brake uses the electromagnetic field of the motor and the opening of the brake sliding of the rotor after switching-on of the power supply. When the power is turned off, the brake automatically slides back and stops the motor. The brake itself has no independent supply and it minimizes the braking time in a very simple and economic way.

These motors are simple, robust and reliable. The brake is with integrated fan which ensures fast dissipation of the heat energy.

The start current values are much higher than the cylindrical motors, because of mechanical brake start-release moment. Rotor brakes are suitable when no high braking torque is needed. Podem doesn't recommend VFD with them.

## — Travel Motor

The motors are only cylindrical type with build-in DC brake. Poles are 2, 8/2, 4 or 12/4.

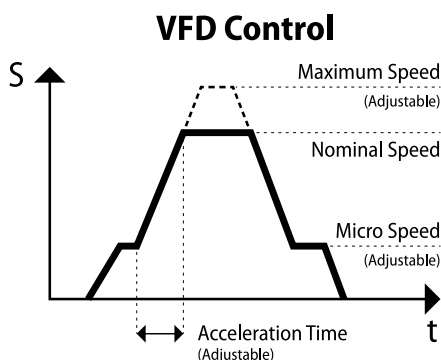
Many motor options are available: IP65/66, force cooling ventilation, insulation class H, tropicalization, encoder, hand-brake release, etc.



The lifting industry follows the technical developments. The first Podem hoists were only single speed. In last 15 years 2-speed models were preferable for many of the customers.

Nowadays when inverter technology is not expensive and affordable – many requests are for VFD. Podem company still offers all speed control options for the wire rope hoists for its wide number of markets.

## Inverter Control vs Speed Contactor Control



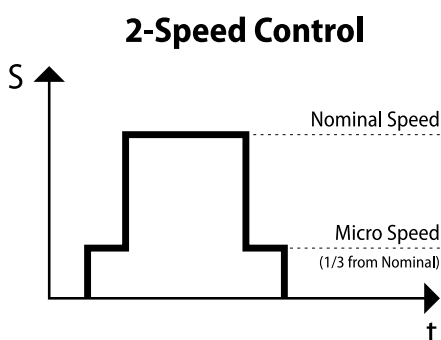
Inverter controls, called also Variable Frequency Drives (VFD), are an electrical device which controls the speed of the motor. VFD provides better performance and prolongs the equipment life. It controls the motor speed to nearly zero before the brake is released, significantly reducing brake wear. Controlled acceleration and deceleration provide smooth starts and stops and lowers starting currents, reducing gear and motor wear and structural stress on mechanical components, and reducing load swing- leading to longer equipment life and better safety.

Inverter controls give the operator the possibility to operate the crane travel smoothly. They increase crane productivity, due to precise and faster positioning.

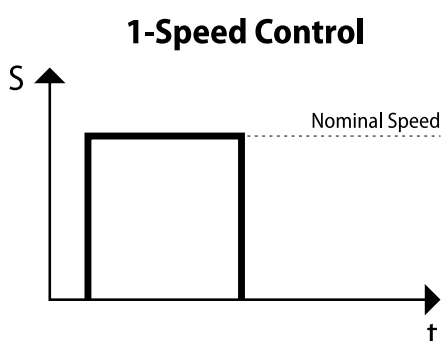
Low-sway movement of the load during the acceleration is more means a more safe crane operation. Cost saving for maintenance work and spare parts and an extended lifetime of the hoist or cranes and avoiding of inching. Improves the total performance of the systems – reducing the downtimes and operating cost. The inverter's high efficiency reduces the energy consumption.

There are many options for programming:

- Micro speed. Usually it is 30% or 10% from the Nominal speed.
- The acceleration or deceleration – for optimal performance of the hoist
- Maximum speed could be up to 25% higher than the Nominal



Two-speed contactor controls do not offer the operator the ability to smoothly accelerate or decelerate between the defined speeds. The Micro speed and Nominal speed are reached almost immediately. The result is short-term overloads of the whole structure (shafts, reducer, metal construction). The brake is used to slow the crane speed – and it generates heat and brake wear in comparison with a VFD control. The positioning is not difficult when it is done with Micro speed. There is a sway of the load.



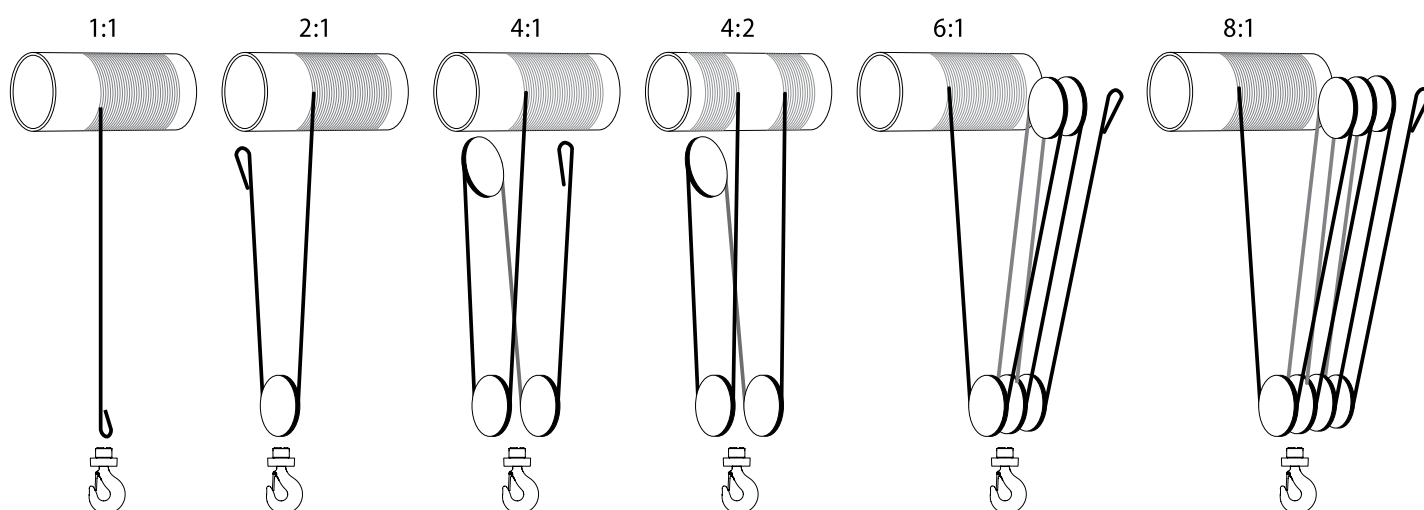
Single-speed contactor control is still available for limited Podem's markets. There is only one advantage comparing to other control types – the price. There is no smooth transition between the speeds. Run from zero to nominal speed has a big impact to all kinematics and structure. There is a big stress for rope, shafts, clutches, reducer, motor.

The brake wearing is very high. The brake adjustment or replacement is more often required. High-sway movement of the load during the acceleration make the system less safe. The positioning is not accurate and provokes a lot of inching – generating a lot of heat and increase the total consumption of the system.

It is the path a wire rope follows around the drums of sheaves. The reeving is a system consisting of rollers, ropes and a hook for hanging the load.

Different reeving 1/1, 2/1, 4/1, 4/2, etc. is done so the hoist can lift additional weight. It allows increasing the carrying capacity by 2, 4, 6 times or more, depending on the multiplicity of the reeving. But it is related to lifting speed and lifting heights too.

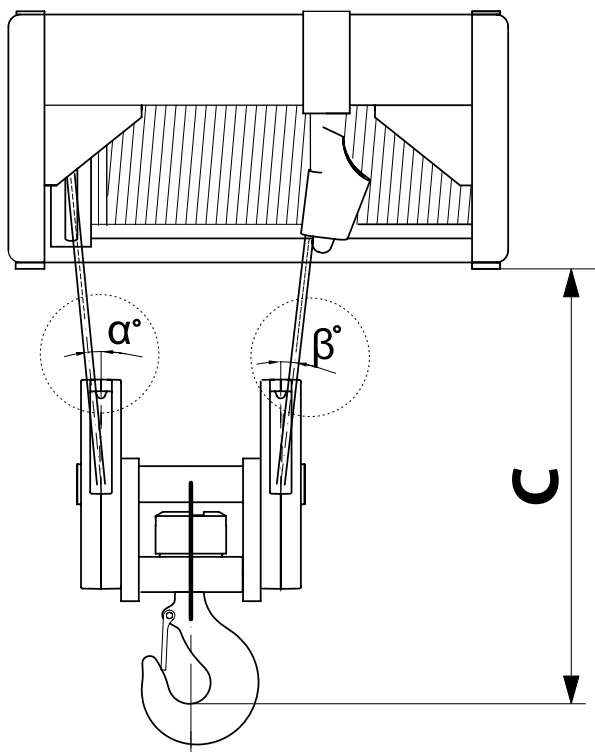
For example: If the reeving is double, the lifting speed and lifting height will be decreased 2 times. All relation between tension, power speed and lifting height should be considered during the choice of the suitable electric hoist.



| Hoist Reeving             |         |                     |                     |                     |                     |                     |
|---------------------------|---------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Reeving Type              | 1/1     | 2/1                 | 4/1                 | 4/2                 | 6/1                 | 8/1                 |
| Q = Tension in each fall  | $Q = W$ | $Q = W/2$           | $Q = W/4$           | $Q = W/4$           | $Q = W/6$           | $Q = W/8$           |
| P = Power required        | $P = W$ | $P = \frac{1}{2} W$ | $P = \frac{1}{4} W$ | $P = \frac{1}{2} W$ | $P = \frac{1}{6} W$ | $P = \frac{1}{8} W$ |
| V = Speed                 | $V = S$ | $V = S/2$           | $V = S/4$           | $V = S/2$           | $V = S/6$           | $V = S/8$           |
| H = Length of the rope    | $H = L$ | $H = 2xL$           | $H = 4xL$           | $H = 4xL$           | $H = 6xL$           | $H = 8xL$           |
| MA = Mechanical advantage | 1       | 2                   | 4                   | 2                   | 6                   | 8                   |

Reeving 4/2 is also called "true vertical lift" or "centre lift". It is a hoist ability to lift the hook straight up and down, to pick up or put down a load in an exact position with no any lateral movement. There are 2 ropes coming out of the wire rope drum – which has left and right-hand grooves. There is also an option with one rope and compensating pulley/lever.

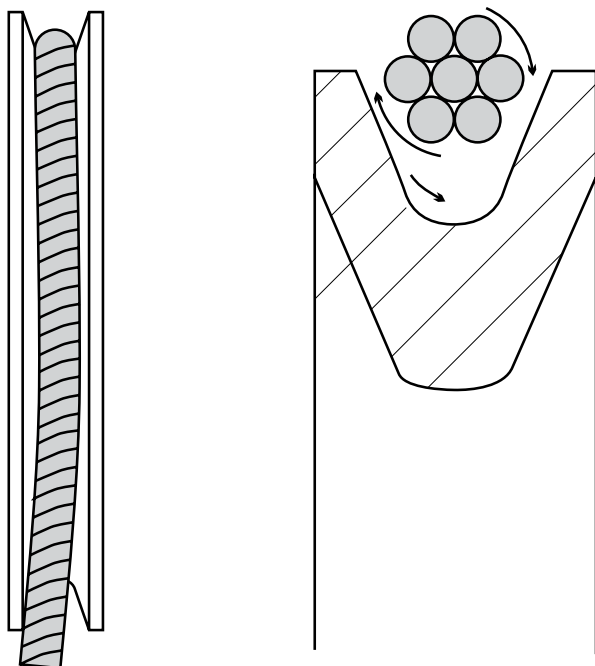
Each different reeving has a different C-dimension because the ropes must be at the proper angle at the top of the lift height



## Rope exit angle (Fleet angle)

This is an angle formed by axis of the rope with median axis of the pulley. When the rope moves away from the median axis of the pulley, because of its angle of entry, it pushes on side of the groove and is subjected of rotation torque. When the rope torque reaches the friction torque (rope/pulley), the rope will rotate in the opposite directions, causing oscillatory operation.

We recommend ensuring that the rope exit angle doesn't exceed the maximum angle for the rope type and matching the rope coiling direction with the layering direction on the drum to tighten the rope lay.



As a rope is coiled onto a drum with fleet angle, it rotates on its axis before reaching the bottom of the groove of the drum or sheave.

This action changes the lay length, reducing the rope fatigue strength and causing the bad coiling, which generates structural damages such as "bird cage" and distortion.

The fleet angle must be minimized. It should not be bigger than  $4^\circ$  for all ropes.

Podem installs only high-tension galvanized ropes with steel core and wire rope with tensile strength min 2160 N/mm<sup>2</sup>

## Wire Rope Type – Left



## Wire Rope Type – Right



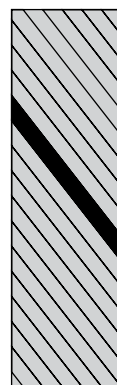
### Rope Formation

The rope formation indicates the composition of the wires in the strand and the strands in the rope:

- Number of strands. The number of wires that make up each strand. According to FEM 9.661 minimum 100 individual wires.
- The composition of the central core. For hoist lifting industry it is a Steel core (WC) – core made from steel wires twisted to form a strand (WSC – Wire Strand Core) or as an independent wire rope (IWRC).

Podem always recommends using ropes with galvanized wires for improved durability since galvanised wires reduce the risk of internal core damage caused by corrosion. They also slow down external corrosion, especially during period without use. Podem uses ropes with Class B galvanized wire according to EN 10244-2.

### Rope Types



Type S



Type Z

Regarding the direction of the wires and strands the ropes are 2 main types: Left (S or s) and Right (Z or z). The first letter (lowercase) indicates the direction of the strands and second letter (uppercase) indicates the direction of the strands in the rope.

If the lay direction of the stands and the outer wires that make up the stands is the same, the rope is a parallel type; if it is different the rope is a crossed type.

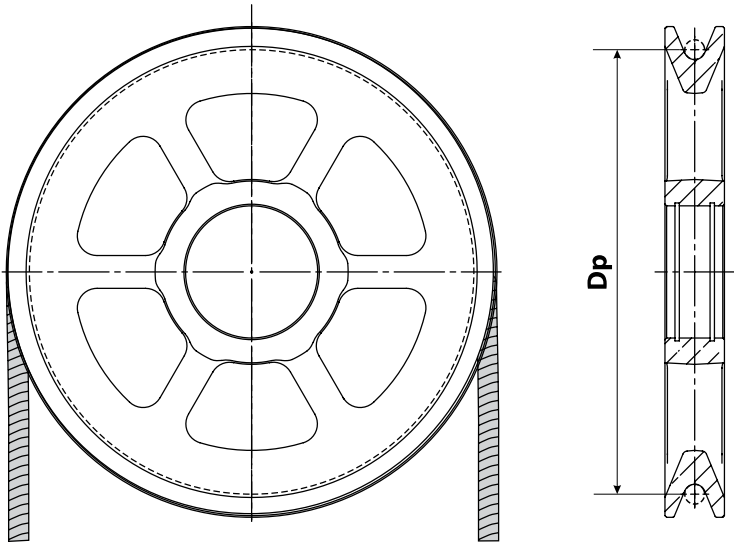
Podem installs rotation-resistant ropes for hoist lifting heights above 13 m. They consist of two or more layers of strands twisted in opposite direction in order to reduce the resultant torsional force.

Podem's ropes diameters for standard hoists are from 7 to 24 mm. The diameter must be measured on a straight position of the rope, without load and with a force no greater than 5% of the minimum breaking load in two positions at least one meter apart. The tolerance for rope with metal core strands with diameter 6-8 mm is +5% and for d>8mm = +4%.

Practical safety coefficient for the rope Zp according to FEM/ISO standard.

| Hoist Reeving |     |      |                                         |                                            |
|---------------|-----|------|-----------------------------------------|--------------------------------------------|
| FEM           | ISO | Drum | Zp<br>Transportation Normal<br>Material | Zp<br>Transportation Dangerous<br>Material |
| 1 Bm          | M3  | 14   | 3.55                                    | –                                          |
| 1 Am          | M4  | 16   | 4                                       | –                                          |
| 2 m           | M5  | 18   | 4.5                                     | 5.6                                        |
| 3 m           | M6  | 20   | 5.6                                     | 7.1                                        |
| 4 m           | M7  | 22.4 | 7.1                                     | 9                                          |

The diameters of the pulleys and drums on which the rope is coiled have a great influence on its behaviour and durability. The ratio between the diameters is indicated by standards to the mechanical class by FEM or ISO:



| Class |     | K = Dp/dn (Dp>k*dn*t) |        |                        |
|-------|-----|-----------------------|--------|------------------------|
| FEM   | ISO | Drum                  | Sheave | Compensating<br>Sheave |
| 1 Bm  | M3  | 14                    | 16     | 12.5                   |
| 1 Am  | M4  | 16                    | 18     | 14                     |
| 2 m   | M5  | 18                    | 20     | 14                     |
| 3 m   | M6  | 20                    | 22.4   | 16                     |
| 4 m   | M7  | 22.4                  | 25     | 16                     |

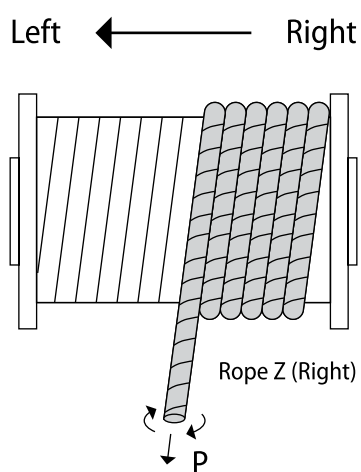
The contact pressure is the most important indicator for the life duration of a lifting rope. It effects the wear of the wires and pulley, the imprint between the wires, the internal friction.



For maximum durability the rope should be coiled onto the drum in a single layer. A grooved drum ensures better winding and the rope rubs less than with a smooth drum. The coiling direction on the drum depends on the rope lay direction and it is important to obtain a tight

winding. The traction "P" applied to the rope produce a gyratory torque that, when it exceeds the moment of resistance, tends to untwist the rope. This cause the coil to move on the drum, depending on whether the rope is right or left.

### Correct winding of right rope guide coiling

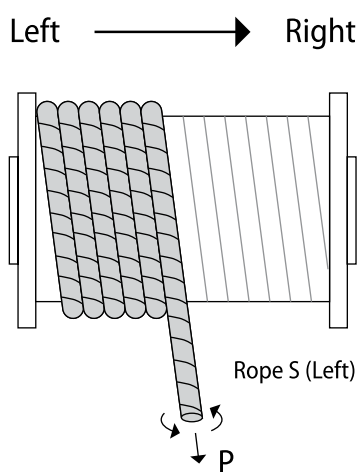


Coiling onto the drum from right to left use right rope (Z).

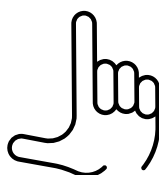


Rope starts from the right flange to the left.  
Right rope coiling. Grooved drums pitch left.

### Correct winding of left rope guide coiling

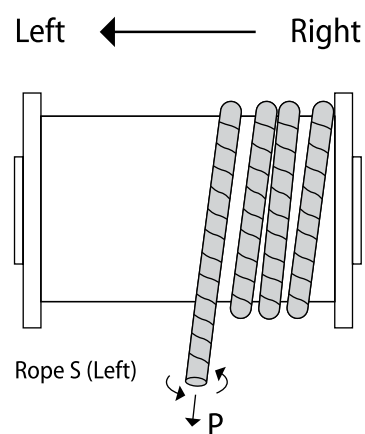


Coiling onto the drum from left to right use left rope (S).



Rope starts from the left flange to the right.  
Left rope coiling. Grooved drums pitch right.

### Wrong winding of left rope guide coiling



# Duty Mode Selection

## (FEM Selection — Not Active from 2020)

According to FEM/EN standard the use of hoists is divided to duty groups: 1 Bm (M3), 1 Am (M4), 2 m (M5), 3 m (M6), 4 m (M7). 1 Bm (M3) is for lightest use of hoists. 4 m (M7) the heaviest. Generally, when no other duty requirement is indicated, class FEM 2 m/ISO M5 is frequently quoted.

The crane and hoist duty groups are determined separately and can be different. Hoists duty group are determined by following factors:

- Load spectrum Q
- Average operating time per day (t)
- Other factors

## Selection criteria

When choosing the proper hoist take into account the following considerations:

1. The maximum load (capacity)
2. The maximum hook travel
3. The lifting speed needed (optional micro speed)
4. The trolley speed needed
5. The operating conditions

The general hoist model is defined in accordance with the load spectrum, the average daily operating time, the capacity and the reeving.

## Selection example

Capacity – 6300 kg  
Hook travel (H) – 7 m  
Lifting speed (V) – 6 m/min  
Reeving – 4/1  
Load spectrum – Medium  
Cycles per hour (N) – 10  
Daily working time (T) – 8 h

The average daily operating time is determined by the equation:

$$T_m = \frac{2 \cdot H \cdot N \cdot T}{60 \cdot V} = \frac{2 \cdot 7 \cdot 10 \cdot 8}{60 \cdot 6} = 3.1h$$

To the "medium" load spectrum and 3,1 average daily operating time the 2 m (M5) duty mode corresponds as shown in the Load Spectrum/Duty Mode Table. Basing on the given values of capacity – 6 300 kg and reeving – 4/1, the Type Selection Table exhibits the MT316 hoist models group.

| Selection criteria                |                                                                                                                     |  |                                                                                                                                 |                                                                                                         |                                                                                                                                |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Load Spectrum<br>(Operation Mode) |                                                                                                                     |  | Working TimeClass<br>(Average daily Operating Time) – Tm (h)                                                                    |                                                                                                         |                                                                                                                                |
| Light                             | Mechanisms,<br>usually subject<br>to very light<br>loads and in<br>exceptional<br>cases only<br>to maximum<br>loads |  | 2-4                                                                                                                             | 4-8                                                                                                     | 8-16                                                                                                                           |
|                                   |                                                                                                                     |  |                                                                                                                                 |                                                                                                         |                                                                                                                                |
| Medium                            | Mechanisms,<br>usually<br>subject to<br>light loads<br>but more<br>often to<br>maximum<br>loads                     |  | 1-2                                                                                                                             | 2-4                                                                                                     | 4-8                                                                                                                            |
|                                   |                                                                                                                     |  |                                                                                                                                 |                                                                                                         |                                                                                                                                |
| Heavy                             | Mechanisms,<br>usually<br>subject to<br>medium<br>loads but<br>rather often<br>to maximum<br>loads                  |  | 0,5-1                                                                                                                           | 1-2                                                                                                     | 2-4                                                                                                                            |
|                                   |                                                                                                                     |  |                                                                                                                                 |                                                                                                         |                                                                                                                                |
| Very Heavy                        | Mechanisms<br>usually<br>subject to<br>maximum<br>or almost<br>maximum<br>loads                                     |  | 0,25-0,5                                                                                                                        | 0,5-1                                                                                                   | 1-2                                                                                                                            |
|                                   |                                                                                                                     |  |                                                                                                                                 |                                                                                                         |                                                                                                                                |
| Duty<br>Mode                      | FEM 9.511 / DIN 15 020                                                                                              |  | 1 Am                                                                                                                            | 2 m                                                                                                     | 3 m                                                                                                                            |
|                                   | ISO 4301                                                                                                            |  | M4                                                                                                                              | M5                                                                                                      | M6                                                                                                                             |
|                                   |                                                                                                                     |  | Light/Medium duty<br>work shop crane,<br>single shift operation,<br>medium average loads.<br>Occasional lifting<br>of max load. | Medium/Heavy duty<br>work shop crane,<br>1 or 2 shift operation.<br>Regular, medium and<br>heavy loads. | Heavy duty crane,<br>2 shift operation.<br>Nominal load regularly<br>lifted Traverse or other<br>dead loads below<br>the hook. |
| Hoist Group                       |                                                                                                                     |  | 1 Am (M4)                                                                                                                       | 2 m (M5)                                                                                                | 3 m (M6)                                                                                                                       |
| Duty Factor                       |                                                                                                                     |  | 30% ED                                                                                                                          | 40% ED                                                                                                  | 50% ED                                                                                                                         |
| Max Starts/Hour                   |                                                                                                                     |  | <180/h                                                                                                                          | <240/h                                                                                                  | <300/h                                                                                                                         |

\*Average daily operational time means the time that the hoisting motor is running.

## Safe Working Period (SWP)

It is calculated according to actual use of the hoist in hours. The theoretical service life is based on 10 years expected SWP for new hoist. It depends on Hoist Duty Group too.

| SWP                   |                |                     |                                          |                     |                      |
|-----------------------|----------------|---------------------|------------------------------------------|---------------------|----------------------|
| Hoist Group           |                |                     | M3 (1B m), M4 (1 Am), M5 (2 m), M6 (3 m) |                     |                      |
| Load Spectrum         |                |                     | Theoretical service life (D) (hours)     |                     |                      |
| Q1-Light (kp = 0.125) | 3200<br>t ≤ 2  | 6300<br>2 < t ≤ 4   | 12500<br>4 < t ≤ 8                       | 25000<br>8 < t ≤ 16 | 50000<br>16 < t ≤ 24 |
| Q2-Medium (kp = 0.25) | 1600<br>t ≤ 1  | 3200<br>1 < t ≤ 2   | 6300<br>2 < t ≤ 4                        | 12500<br>4 < t ≤ 8  | 25000<br>8 < t ≤ 16  |
| Q3-Heavy (kp = 0.5)   | 800<br>T ≤ 0.5 | 1600<br>0.5 < t ≤ 1 | 3200<br>1 < t ≤ 2                        | 6300<br>2 < t ≤ 4   | 12500<br>4 < t ≤ 8   |

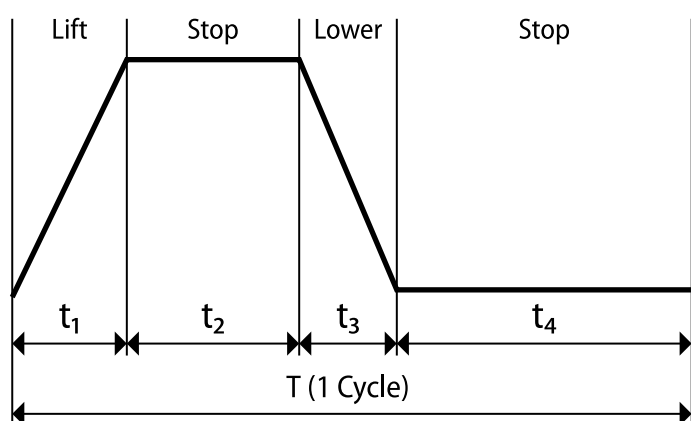
# Duty Rating (ED%)

## — Not Active from 2020

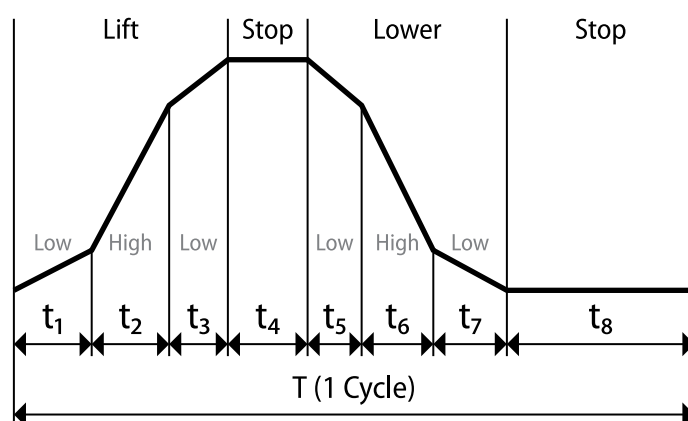
Hoist duty group also specifies the Intermittent Duty Rating (ED%)  
 — Maximum allowed starts/h of hoisting motors

This rating relates to the rise in motor temperature that occurs during operation. It determinates how many % of a certain time (max 10min) the motor can run (fast + micro speed): 33% slow speed, 67% with fast speed. The higher of the two speeds can endure longer operation because when the motor speed is higher, the hoist cools itself more effectively.

| Duty Rating (ED%)                                   |                  |                  |                  |                   |                   |
|-----------------------------------------------------|------------------|------------------|------------------|-------------------|-------------------|
|                                                     | 1 Bm (M3)        | 1 Am (M4)        | 2 m (M5)         | 3 m (M6)          | 4 m (M7)          |
| Duty Factor                                         | 25%              | 30%              | 40%              | 50%               | 60%               |
| Max Starts/h for Dual Speed (FastSpeed/Micro Speed) | <150/h<br>100/50 | <180/h<br>120/60 | <240/h<br>160/80 | <300/h<br>200/100 | <360/h<br>240/120 |
| Total in 10 min Period, min                         | 2.5 min          | 3                | 4                | 5                 | 6 min             |
| Fast/ Micro Speed, min                              | 1.7/0.8          | 2/1              | 2.7/1.3          | 3.3/1.7           | 4/2               |



The cycle consists of lifting/stop/lowing and another stop of duration  $t_4$  before the cycle is repeated. The cycle is no greater than 10 min. When the single speed hoist operates in this conditions the rise in motor temperature will not exceed the maximum allowable. One cycle includes 2 motor starts  $\%ED = (\text{Motor on time } (t_1+t_3)/T) \cdot 100$ .



The cycle consists of a low speed and high-speed periods and stops. In the case of Dual Speed ER hoists, the  $\%ED$  is 40 (high speed) / 20 (Low speed). Therefore, its total  $\%ED$  would be  $40\%+20\% = 60\%ED$ .



## Lifting Height

Lifting Height is the distance from the floor to the saddle of the hook, when the hook is in its upper position. It is an important project parameter because it assures there is enough room to lift or position the load.

## C-Value

The C-dimension is a parameter which should be considered when determining the lifting height. It is the distance between the running surface of the hoist trolley wheels to the hook saddle.

The monorail hoists are always underneath the runway beam. Low headroom type gives better C-Value than Normal Headroom one. Double girder cranes with bi-rail hoist have the benefit of the space in-between the two girders, allowing you to get some more lifting height. The reeving type has an impact to the C-Value too.



# Wire Rope & Chain Hoists

## Description

### New Description:

# 2.5 MT312 H10 V4 2/1 M LC 52 20/5 — 1111111182

Old (until 2014):  
52 MT 312 H10 V1 2/1 M E K 20/5  
— 11422312000000

# 2.5

### Capacity

Standard value (t)

# MT

### Hoist Series

MT – Up to 10 t  
MTL – Standard high lifting height  
M – Heavy series up to 50 t

# 312

### Hoist Size

MT/MTL Series – 2xx, 3xx, 5xx  
M Series – 6xx, 7xx, 8xx, 9xx, 1xxx

Drum hoisting force in kN  
(05, 12, 16, 25, 50, 63, 80, 110, 125, etc.)

# H10

### Lifting Height

Standard lifting height in meters

# V4

### Lifting Speed

The main lifting speed in real value, m/min

# 2/1

### Reeving

Standard reevings – 2/1, 4/1, 4/2 (True Vertical lift)

# M

### Lifting Speed Type

M – Double speed  
S – Single speed  
I – VFD control

# LC

### Suspension Type

F – Foot mounted  
LC – Low headroom  
N – Normal headroom

NR – Curve path trolley  
KD – Double-rail trolley (hoist – parallel to main girder)  
KH – Double-rail trolley (hoist – perpendicular to main girder) – optional

# 52

### Electrical Equipment Code

52 – Load limiter, emergency stop and thermal protection  
53 – Load limiter, emergency stop, thermal protection and latch key  
20 – Emergency stop and thermal protection  
21 – Emergency stop, thermal protection and latch key

# 20/5

### Cross-Travel Speed

Traversing Speed in real value (m/min)

— **Optional to Main Description:** C (Second Brake); M (Manual Brake Release); F (Special Temp. Execution –40 °C); H (Special Temp. Execution +50 °C).

— **Podemcrane's Internal Coding (1111111182):** 1. Power Supply; 2. Control Voltage; 3. Control Unit; 4. Lifting Motor Type; 5. CT Motor Type; 6. CT Rail/Girder; 7. Girder Profile; 8. Counterweight; 9. Suspension; 10. Overload Limiter.

# Standard Hoists Table

| Electric Wire Rope Hoists — Standard Products |       |     |              |            |                       |       |                 |      |      |      |
|-----------------------------------------------|-------|-----|--------------|------------|-----------------------|-------|-----------------|------|------|------|
| Capacity (t)                                  | Group |     | Hoist Series | Rope Falls | Lifting Speed (m/min) |       | Hook travel (m) |      |      |      |
|                                               | FEM   | ISO |              |            | V1                    | V2    | H0              | H1   | H2   | H3   |
| 1                                             | 2 m   | M5  | MT305        | 2/1        | 8/2.6                 | 12/4  | 10              | 14   | 20   | 26   |
| 1.6                                           | 2 m   | M5  | MT308        | 2/1        | 8/2.6                 | 12/4  | 10              | 14   | 20   | 26   |
| 2                                             | 2 m   | M5  | MT305        | 4/1        | 4/1.3                 | 6/2   | –               | 7    | 10   | 13   |
|                                               | 3 m   | M6  | MT310        | 2/1        | 8/2.6                 | 12/4  | 10              | 14   | 20   | 26   |
|                                               | 3 m   | M6  | MTL310       | 2/1        | –                     | 12/4  | 32              | 40   | 48   | 56   |
| 2.5                                           | 3 m   | M6  | MT306        | 4/1        | 4/1.3                 | 6/2   | –               | 7    | 10   | 13   |
|                                               | 2 m   | M5  | MT312        | 2/1        | 8/2.6                 | 12/4  | 10              | 14   | 20   | 26   |
|                                               | 2 m   | M5  | MTL312       | 2/1        | –                     | 12/4  | 32              | 40   | 48   | 56   |
| 3.2                                           | 2 m   | M5  | MT308        | 4/1        | 4/1.3                 | 6/2   | –               | 7    | 10   | 13   |
|                                               | 2 m   | M5  | MT316        | 2/1        | 8/2.6                 | 12/4  | 10              | 14   | 20   | 26   |
|                                               | 2 m   | M5  | MTL316       | 2/1        | –                     | 12/4  | 32              | 40   | 48   | 56   |
| 4                                             | 3 m   | M6  | MT310        | 4/1        | 4/1.3                 | 6/2   | –               | 7    | 10   | 13   |
|                                               | 3 m   | M6  | MT520        | 2/1        | 8/2.6                 | 12/4  | 10              | 14   | 20   | 26   |
| 5                                             | 2 m   | M5  | MT312        | 4/1        | 4/1.3                 | 6/2   | –               | 7    | 10   | 13   |
|                                               | 2 m   | M5  | MT525        | 2/1        | 8/2.6                 | 12/4  | 10              | 14   | 20   | 26   |
|                                               | 2 m   | M5  | MTL525       | 2/1        | –                     | 12/4  | 32              | 40   | 48   | 56   |
|                                               | 3 m   | M6  | MT313        | 4/1        | 4/1.3                 | 6/2   | –               | 7    | 10   | 13   |
| 6.3                                           | 2 m   | M5  | MT316        | 4/1        | 4/1.3                 | 6/2   | –               | 7    | 10   | 13   |
| 8                                             | 3 m   | M6  | MT520        | 4/1        | 4/1.3                 | 6/2   | –               | 7    | 10   | 13   |
|                                               | 2 m   | M5  | M640         | 2/1        | 8/2.6                 | –     | 12              | 17   | 24   | 31   |
| 10                                            | 2 m   | M5  | MT525        | 4/1        | 4/1.3                 | 6/2   | –               | 7    | 10   | 13   |
|                                               | 2 m   | M5  | M750         | 2/1        | 8/2.6                 | –     | 13              | 17   | 24   | 31   |
| 12.5                                          | 3 m   | M6  | M632         | 4/1        | 4/1                   | –     | 6               | 8.5  | 12   | 15.5 |
| 16                                            | 2 m   | M5  | M640         | 4/1        | 4/1                   | –     | 6               | 8.5  | 12   | 15.5 |
|                                               | 3 m   | M6  | M740         | 4/1        | 4/1                   | –     | 6               | 8.5  | 12   | 15.5 |
| 20                                            | 2 m   | M5  | M750         | 4/1        | 4/1                   | –     | 6               | 8.5  | 12   | 15.5 |
|                                               | 3 m   | M6  | M950         | 4/1        | 2.5/0.6               | 4/1.2 | –               | 9.5  | 15.5 | 23   |
|                                               | 2 m   | M5  | M1100        | 2/1        | 2.6/0.6               | 4/0.6 | 22              | 29   | 36   | 32   |
| 25                                            | 1 Am  | M4  | M863         | 4/1        | 4/1.2                 | –     | –               | 9.5  | 15.5 | 23   |
|                                               | 2 m   | M5  | M963         | 4/1        | 2.5/0.6               | 4/1.2 | –               | 9.5  | 15.5 | 23   |
|                                               | 1 Am  | M4  | M1125        | 2/1        | 2.6/0.6               | 4/0.6 | 22              | 29   | 36   | 52   |
| 32                                            | 1 Am  | M4  | M980         | 4/1        | 2.5/0.6               | 4/1.2 | –               | 9.5  | 15.5 | 23   |
|                                               | 3 m   | M6  | M1080        | 4/1        | 1.3/0.3               | 2/0.6 | 11              | 14.5 | 18   | 26   |
| 40                                            | 2 m   | M5  | M1100        | 4/1        | 1.3/0.3               | 2/0.6 | 11              | 14.5 | 18   | 26   |
| 50                                            | 1 Am  | M4  | M1125        | 4/1        | 1.3/0.3               | 2/0.6 | 11              | 14.5 | 18   | 26   |

| Cross Travel Speed for Standard Wire Rope Hoists, m/min |                       |                                    |                     |
|---------------------------------------------------------|-----------------------|------------------------------------|---------------------|
| Monorail hoist Low Headroom                             | 20/5 * (double speed) | Double-rail hoist up to 20 t       | 20/6 (double speed) |
| Monorail hoist Normal Headroom                          | 20/6 (double speed)   | Double-rail hoist - 25 t and above | 20-2 (VFD)          |

\* Real speed for hoist with Normal Headroom is 20/6,5 m/min. But for product and marketing reasons this speed is shown as 20/6 in all Podem documents: technical documentation, advertising material, web site etc.

# Hoist Modifications on Base of Standard Hoist

The group is determined mainly from the operating time and load spectrum. One hoist could be classified in different duty modes. Downsizing is the most popular way when one hoist is in higher duty mode, but with lower capacity.

Example: Hoist MT525 is for 10t, FEM=2 m. The same hoist, but already with another description MT520 is for 8t and FEM=3 m.

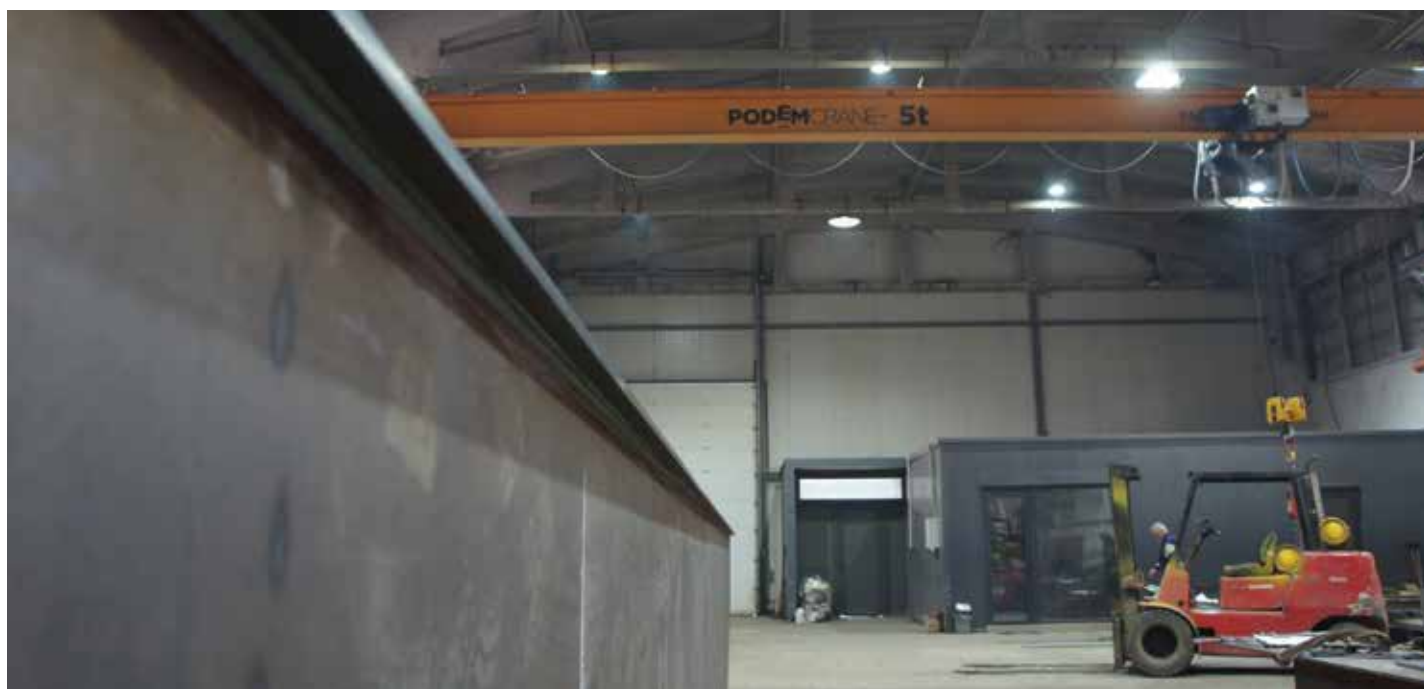
Table of Standard hoists:  
Base hoists and their downsizing modifications

| Hoist Modifications on Base of Standard Hoist |            |      |     |                                          |        |        |        |      |  |
|-----------------------------------------------|------------|------|-----|------------------------------------------|--------|--------|--------|------|--|
| Load Spectrum                                 |            |      |     | Average operating time per working day/h |        |        |        |      |  |
| 1                                             | Light      |      |     | 1–2                                      | 2–4    | 4–8    | 8–16   | >16  |  |
| 2                                             | Medium     |      |     | 0.5–1                                    | 1–2    | 2–4    | 4–8    | 8–16 |  |
| 3                                             | Heavy      |      |     | 0.25–0.5                                 | 0.5–1  | 1–2    | 2–4    | 4–8  |  |
| 4                                             | Very Heavy |      |     | 0.25–0.5                                 |        | 0.5–1  | 1–2    | 2–4  |  |
| Group of mechanisms                           |            |      |     | 1 Bm                                     | 1 Am   | 2 m    | 3 m    | 4 m  |  |
| Reeving arrangment                            |            |      |     |                                          |        |        |        |      |  |
| 2/1                                           | 4/1        | 6/1  | 8/1 |                                          |        |        |        |      |  |
| 4/2                                           | 8/2        | 12/2 |     |                                          |        |        |        |      |  |
| Load Capacity, t                              |            |      |     | Size                                     |        |        |        |      |  |
| 1.0                                           | 2.0        | –    | –   | –                                        | –      | MT 305 | MT 306 | –    |  |
| 1.6                                           | 3.2        | –    | –   | –                                        | –      | MT 308 | –      | –    |  |
| 2.0                                           | 4.0        | –    | –   | –                                        | –      | –      | MT 310 | –    |  |
| 2.5                                           | 5.0        | –    | –   | –                                        | –      | MT 312 | MT 313 | –    |  |
| 3.2                                           | 6.3        | –    | –   | –                                        | –      | MT 316 | –      | –    |  |
| 4.0                                           | 8.0        | –    | –   | –                                        | –      | –      | MT 520 | –    |  |
| 5.0                                           | 10.0       | –    | –   | –                                        | –      | MT 525 | –      | –    |  |
| 6.3                                           | 12.5       | –    | –   | –                                        | –      | –      | M 632  | –    |  |
| 8.0                                           | 16.0       | –    | –   | –                                        | –      | M 640  | M 740  | –    |  |
| 10.0                                          | 20.0       | –    | 40* | –                                        | –      | M 750  | M 950  | –    |  |
| 12.5                                          | 25.0       | –    | –   | –                                        | M 863  | M 963  | –      | –    |  |
| 16.0                                          | 32.0       | –    | –   | –                                        | M 980  | –      | M 1080 | –    |  |
| 20.0                                          | 40.0       | –    | –   | –                                        | –      | M 1110 | –      | –    |  |
| 25.0                                          | 50.0       | –    | –   | –                                        | M 1125 | –      | –      | –    |  |

40\* — Only for M 750

# Standard Wire Rope Hoist Features

Podem standard wire rope hoist range covers over 90% of the market demands. The standard capacities are up to 50 t, but with using of solution "twin hoists" it could reach up to 100 t. Most popular reevings are 2/1 and 4/1. But Podem offers also 4/2 for true vertical lifting or 8/1 and 6/1 for heavy loads.



## Standard Features for Podem Wire Rope Hoists:

- Two speed pole changing hoisting motor with build-in DC brake
- Travel motors with build-in DC brake. Two speed pole-changing motor up to 20 t, VFD above 20 t.
- Galvanized steel rope
- Rope-guide
- Standard power supply: 380-400 V / 50 Hz
- Control voltage: 48 V
- Motor protection IP55
- Low voltage electrical panel with transformer and On/Off contactor
- Push button pendant (6 buttons)
- Motor insulation class F
- Up/down hook limit switch
- Rotating hook with safety latch
- Standard packing

## Wire Rope Hoist Documentation:

- CE declaration of conformity
- Wire rope certificate
- Hook certificate
- Hoist user manual
- Set of electrical diagrams
- Rotated hook with safety latch
- Standard packing



## **Wire Rope Hoists, Standard Range**

Drawings & Dimensions

# Foot-mounted Hoist (Stationary)

PODEM

## MT 2/1 F

**Series:** MT (Standard Wire Rope Hoist)

**Type:** MT305 / MT308 / MT312 / MT316 / MT525

**Capacity:** 1-5 t

**Reeving:** 2/1 (2 Rope Falls)

**Suspension:** F (Foot-mounted, Stationary)

**1-5 t**

**2/1**



Fig. 1A

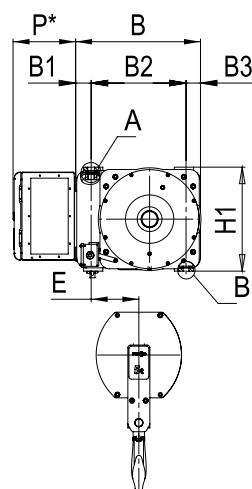
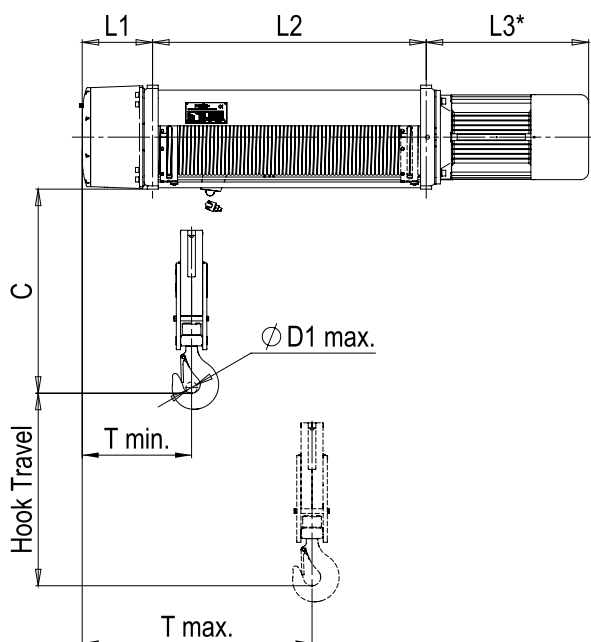
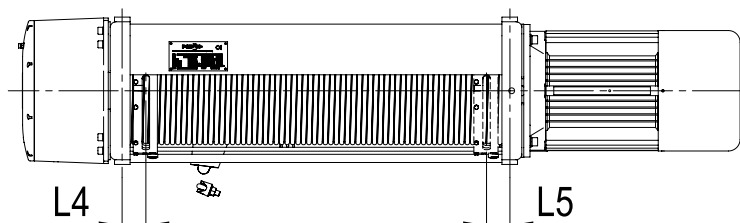
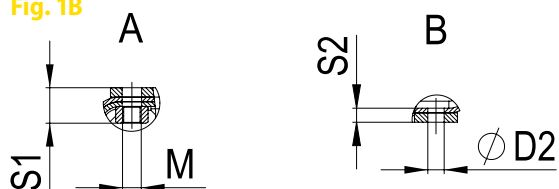


Fig. 1B



| Type       |              |                 | Dimensions |      |     |      |     |           |      |     |     |     |        |     |     |          |          |    |    |    |    |            | Weight     |         |
|------------|--------------|-----------------|------------|------|-----|------|-----|-----------|------|-----|-----|-----|--------|-----|-----|----------|----------|----|----|----|----|------------|------------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B          | B1   | B2  | B3   | C   | ø D1 max. | ø D2 | E   | H1  | M   | L (V1) | L1  | L2  | L3* (V1) | L3* (V2) | L4 | L5 | S1 | S2 | T min. UEP | T max. DEP | kg (V1) |
| MT305      | 1            | 10              | 398        | 53.5 | 295 | 49.5 | 558 | 34        | 15   | 138 | 321 | M14 | 976    | 196 | 395 | 385      | 385      | 46 | 45 | 26 | 13 | 308        | 460        | 158     |
|            | 1            | 14              | 398        | 53.5 | 295 | 49.5 | 558 | 34        | 15   | 138 | 321 | M14 | 1101   | 196 | 520 | 385      | 385      | 46 | 48 | 26 | 13 | 308        | 521        | 166     |
|            | 1            | 20              | 398        | 53.5 | 295 | 49.5 | 558 | 34        | 15   | 138 | 321 | M14 | 1281   | 196 | 700 | 385      | 385      | 46 | 45 | 26 | 13 | 308        | 613        | 178     |
|            | 1            | 26              | 398        | 53.5 | 295 | 49.5 | 558 | 34        | 15   | 138 | 321 | M14 | 1466   | 196 | 885 | 385      | 385      | 46 | 47 | 26 | 13 | 308        | 704        | 190     |
| MT308      | 1.6          | 10              | 398        | 53.5 | 295 | 49.5 | 558 | 34        | 15   | 138 | 321 | M14 | 976    | 196 | 395 | 385      | 483      | 46 | 45 | 26 | 13 | 308        | 460        | 158     |
|            | 1.6          | 14              | 398        | 53.5 | 295 | 49.5 | 558 | 34        | 15   | 138 | 321 | M14 | 1101   | 196 | 520 | 385      | 483      | 46 | 48 | 26 | 13 | 308        | 521        | 167     |
|            | 1.6          | 20              | 398        | 53.5 | 295 | 49.5 | 558 | 34        | 15   | 138 | 321 | M14 | 1281   | 196 | 700 | 385      | 483      | 46 | 45 | 26 | 13 | 308        | 613        | 178     |
|            | 1.6          | 26              | 398        | 53.5 | 295 | 49.5 | 558 | 34        | 15   | 138 | 321 | M14 | 1466   | 196 | 885 | 385      | 483      | 46 | 47 | 26 | 13 | 308        | 704        | 190     |
| MT312      | 2.5          | 10              | 398        | 53.5 | 295 | 49.5 | 654 | 40        | 18   | 151 | 321 | M20 | 1158   | 234 | 440 | 484      | 484      | 52 | 54 | 34 | 13 | 368        | 535        | 237     |
|            | 2.5          | 14              | 398        | 53.5 | 295 | 49.5 | 654 | 40        | 18   | 151 | 321 | M20 | 1288   | 234 | 570 | 484      | 484      | 52 | 50 | 34 | 13 | 368        | 602        | 250     |
|            | 2.5          | 20              | 398        | 53.5 | 295 | 49.5 | 654 | 40        | 18   | 151 | 321 | M20 | 1493   | 234 | 775 | 484      | 484      | 52 | 54 | 34 | 13 | 368        | 702        | 270     |
|            | 2.5          | 26              | 398        | 53.5 | 295 | 49.5 | 654 | 40        | 18   | 151 | 321 | M20 | 1693   | 234 | 975 | 484      | 484      | 52 | 54 | 34 | 13 | 368        | 803        | 290     |
| MT316      | 3.2          | 10              | 398        | 53.5 | 295 | 49.5 | 654 | 40        | 18   | 151 | 321 | M20 | 1158   | 234 | 440 | 484      | 566      | 52 | 54 | 34 | 13 | 368        | 535        | 237     |
|            | 3.2          | 14              | 398        | 53.5 | 295 | 49.5 | 654 | 40        | 18   | 151 | 321 | M20 | 1288   | 234 | 570 | 484      | 566      | 52 | 50 | 34 | 13 | 368        | 602        | 250     |
|            | 3.2          | 20              | 398        | 53.5 | 295 | 49.5 | 654 | 40        | 18   | 151 | 321 | M20 | 1493   | 234 | 775 | 484      | 566      | 52 | 54 | 34 | 13 | 368        | 702        | 270     |
|            | 3.2          | 26              | 398        | 53.5 | 295 | 49.5 | 654 | 40        | 18   | 151 | 321 | M20 | 1693   | 234 | 975 | 484      | 566      | 52 | 54 | 34 | 13 | 368        | 803        | 290     |
| MT525      | 5            | 10              | 454        | 56.5 | 345 | 52.5 | 743 | 41        | 21   | 173 | 378 | M24 | 1302   | 256 | 455 | 591      | 642      | 61 | 58 | 46 | 18 | 398        | 566        | 367     |
|            | 5            | 14              | 454        | 56.5 | 345 | 52.5 | 743 | 41        | 21   | 173 | 378 | M24 | 1437   | 256 | 590 | 591      | 642      | 61 | 58 | 46 | 18 | 398        | 633        | 386     |
|            | 5            | 20              | 454        | 56.5 | 345 | 52.5 | 743 | 41        | 21   | 173 | 378 | M24 | 1642   | 256 | 795 | 591      | 642      | 61 | 61 | 46 | 18 | 398        | 734        | 415     |
|            | 5            | 26              | 454        | 56.5 | 345 | 52.5 | 743 | 41        | 21   | 173 | 378 | M24 | 1842   | 256 | 995 | 591      | 642      | 61 | 60 | 46 | 18 | 398        | 835        | 444     |

# Foot-mounted Hoist (Stationary)

MT 4/1 F

**Series:** MT (Standard Wire Rope Hoist)  
**Type:** MT305 / MT308 / MT312 / MT316 / MT525  
**Capacity:** 2-10 t  
**Reeving:** 4/1 (4 Rope Falls)  
**Suspension:** F (Foot-mounted, Stationary)

2-10 t

4/1



Fig. 2A

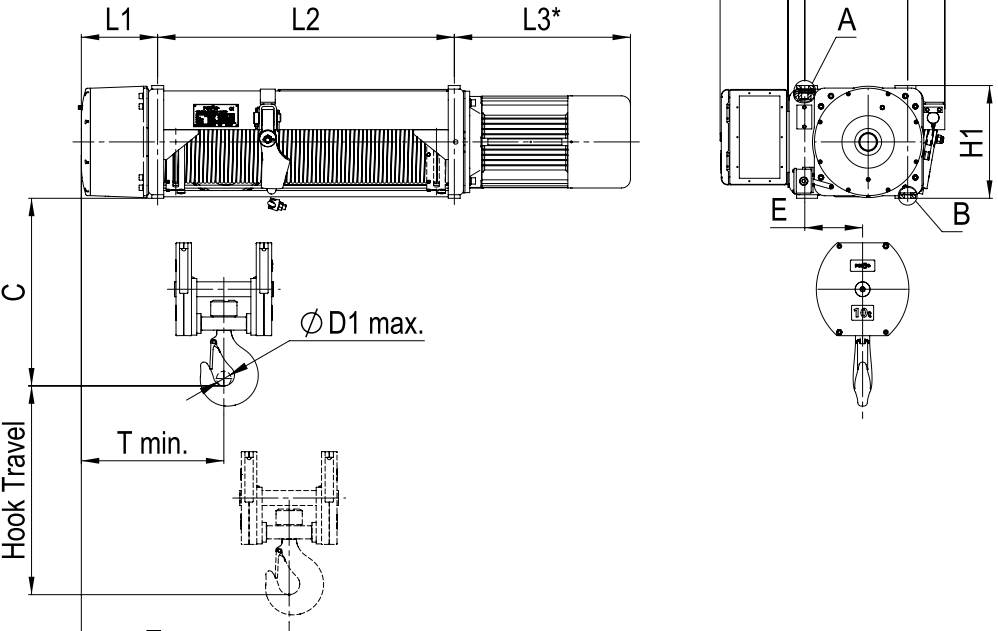
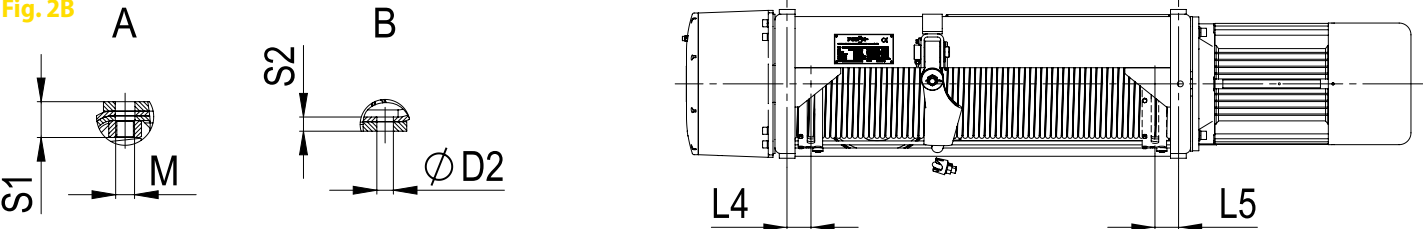


Fig. 2B



| Type       |              |                 | Dimensions |       |     |           |      |     |     |     |        |     |     |          |          |    |    |    |    |            |            | Weight  |
|------------|--------------|-----------------|------------|-------|-----|-----------|------|-----|-----|-----|--------|-----|-----|----------|----------|----|----|----|----|------------|------------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B2         | B3    | C   | Ø D1 max. | Ø D2 | E   | H1  | M   | L (V1) | L1  | L2  | L3* (V1) | L3* (V2) | L4 | L5 | S1 | S2 | T min. UEP | T max. DEP | kg (V1) |
| MT305      | 2            | 7               | 295        | 122.5 | 489 | 40        | 15   | 164 | 321 | M14 | 1 101  | 196 | 520 | 385      | 385      | 46 | 48 | 26 | 13 | 361        | 468        | 180     |
|            | 2            | 10              | 295        | 122.5 | 489 | 40        | 15   | 164 | 321 | M14 | 1 281  | 196 | 700 | 385      | 385      | 46 | 45 | 26 | 13 | 361        | 513        | 188     |
|            | 2            | 13              | 295        | 122.5 | 489 | 40        | 15   | 164 | 321 | M14 | 1 466  | 196 | 885 | 385      | 385      | 46 | 47 | 26 | 13 | 361        | 559        | 205     |
| MT308      | 3.2          | 7               | 295        | 122.5 | 489 | 40        | 15   | 164 | 321 | M14 | 1 101  | 196 | 520 | 385      | 483      | 46 | 48 | 26 | 13 | 372        | 479        | 185     |
|            | 3.2          | 10              | 295        | 122.5 | 489 | 40        | 15   | 164 | 321 | M14 | 1 281  | 196 | 700 | 385      | 483      | 46 | 45 | 26 | 13 | 372        | 524        | 193     |
|            | 3.2          | 13              | 295        | 122.5 | 489 | 40        | 15   | 164 | 321 | M14 | 1 466  | 196 | 885 | 385      | 483      | 46 | 47 | 26 | 13 | 372        | 570        | 209     |
| MT312      | 5            | 7               | 295        | 122.5 | 569 | 41        | 18   | 169 | 321 | M20 | 1 288  | 234 | 570 | 484      | 484      | 52 | 50 | 34 | 13 | 447        | 564        | 282     |
|            | 5            | 10              | 295        | 122.5 | 569 | 41        | 18   | 169 | 321 | M20 | 1 493  | 234 | 775 | 484      | 484      | 52 | 54 | 34 | 13 | 447        | 614        | 303     |
|            | 5            | 13              | 295        | 122.5 | 569 | 41        | 18   | 169 | 321 | M20 | 1 693  | 234 | 975 | 484      | 484      | 52 | 54 | 34 | 13 | 447        | 664        | 330     |
| MT316      | 6.3          | 7               | 295        | 122.5 | 602 | 49        | 18   | 169 | 321 | M20 | 1 288  | 234 | 570 | 484      | 566      | 52 | 50 | 34 | 13 | 447        | 564        | 284     |
|            | 6.3          | 10              | 295        | 122.5 | 602 | 49        | 18   | 169 | 321 | M20 | 1 493  | 234 | 775 | 484      | 566      | 52 | 54 | 34 | 13 | 447        | 614        | 305     |
|            | 6.3          | 13              | 295        | 122.5 | 602 | 49        | 18   | 169 | 321 | M20 | 1 693  | 234 | 975 | 484      | 566      | 52 | 54 | 34 | 13 | 447        | 664        | 332     |
| MT525      | 10           | 7               | 345        | 124.5 | 630 | 49        | 21   | 194 | 378 | M24 | 1 437  | 256 | 590 | 591      | 642      | 61 | 58 | 46 | 18 | 478        | 596        | 436     |
|            | 10           | 10              | 345        | 124.5 | 630 | 49        | 21   | 194 | 378 | M24 | 1 642  | 256 | 795 | 591      | 642      | 61 | 61 | 46 | 18 | 478        | 646        | 467     |
|            | 10           | 13              | 345        | 124.5 | 630 | 49        | 21   | 194 | 378 | M24 | 1 842  | 256 | 995 | 591      | 642      | 61 | 60 | 46 | 18 | 478        | 697        | 498     |

# Foot-mounted Hoist (Stationary)

## M 2/1 F

**Series:** M (Standard Wire Rope Hoist)  
**Type:** M640 / M750 / M863 / M980 / M1100 / M1125  
**Capacity:** 8-25 t  
**Reeving:** 2/1 (2 Rope Falls)  
**Suspension:** F (Foot-mounted, Stationary)

8–25 t

2/1



Fig. 3A

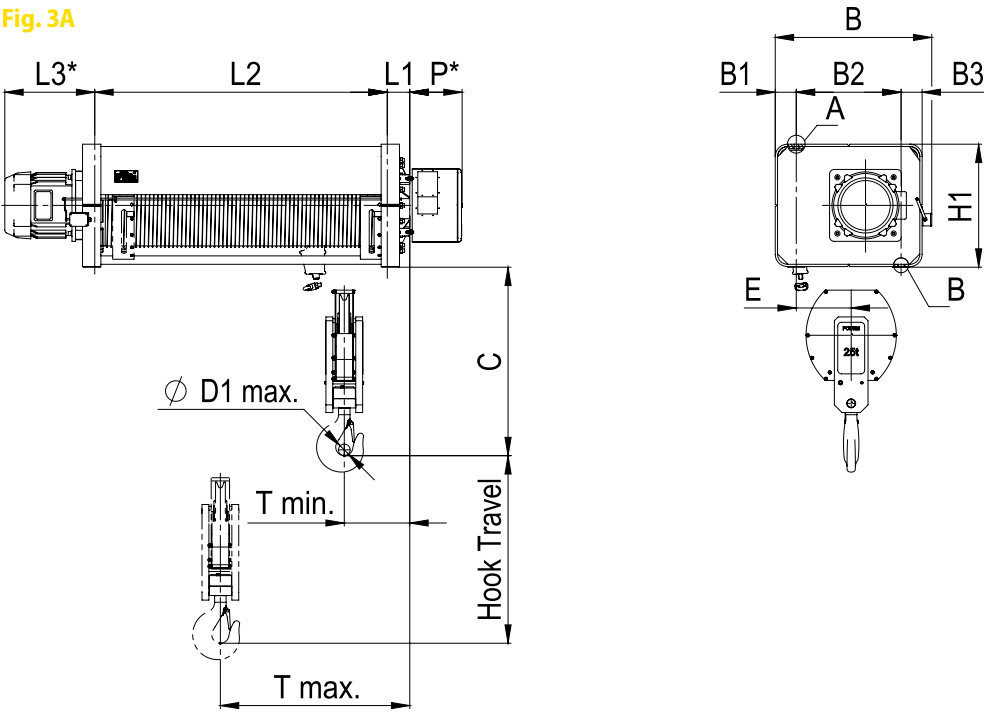
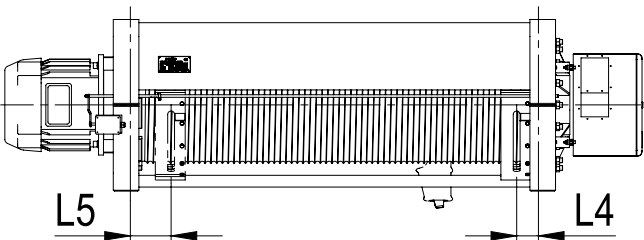
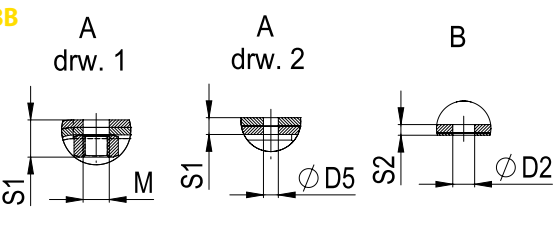


Fig. 3B



| Type       |              |                 | Dimensions |     |       |       |           |      |      |          |     |     |    |        |      |       |          |     |     |    |    |            |            |         | Weight |
|------------|--------------|-----------------|------------|-----|-------|-------|-----------|------|------|----------|-----|-----|----|--------|------|-------|----------|-----|-----|----|----|------------|------------|---------|--------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B1         | B2  | B3    | C     | ø D1 max. | ø D2 | ø D5 | Detail A | E   | H1  | M  | L (V1) | L1   | L2    | L3* (V1) | L4  | L5  | S1 | S2 | T min. UEP | T max. DEP | kg (V1) |        |
| M640       | 8            | 12              | 84.5       | 475 | 80.5  | 890   | 49        | 27   | –    | Drw. 1   | 246 | 526 | 27 | 1 262  | 44.5 | 563   | 655      | 74  | 117 | 40 | 12 | 189        | 375        | 605     |        |
|            | 8            | 17              | 84.5       | 475 | 80.5  | 890   | 49        | 27   | –    | Drw. 1   | 246 | 526 | 27 | 1 412  | 44.5 | 713   | 655      | 74  | 117 | 40 | 12 | 189        | 450        | 642     |        |
|            | 8            | 24              | 84.5       | 475 | 80.5  | 890   | 49        | 27   | –    | Drw. 1   | 246 | 526 | 27 | 1 627  | 44.5 | 928   | 655      | 74  | 117 | 40 | 12 | 189        | 557        | 703     |        |
|            | 8            | 31              | 84.5       | 475 | 80.5  | 890   | 49        | 27   | –    | Drw. 1   | 246 | 526 | 27 | 1 842  | 44.5 | 1 143 | 655      | 74  | 117 | 40 | 12 | 189        | 665        | 764     |        |
| M750       | 10           | 12              | 84.5       | 475 | 86.5  | 890   | 49        | 27   | –    | Drw. 1   | 246 | 526 | 27 | 1 266  | 44.5 | 563   | 659      | 74  | 117 | 42 | 12 | 189        | 375        | 727     |        |
|            | 10           | 17              | 84.5       | 475 | 86.5  | 890   | 49        | 27   | –    | Drw. 1   | 246 | 526 | 27 | 1 416  | 44.5 | 713   | 659      | 74  | 117 | 42 | 12 | 189        | 450        | 775     |        |
|            | 10           | 24              | 84.5       | 475 | 86.5  | 890   | 49        | 27   | –    | Drw. 1   | 246 | 526 | 27 | 1 631  | 44.5 | 928   | 659      | 74  | 117 | 42 | 12 | 189        | 557        | 845     |        |
|            | 10           | 31              | 84.5       | 475 | 86.5  | 890   | 49        | 27   | –    | Drw. 1   | 246 | 526 | 27 | 1 846  | 44.5 | 1 143 | 659      | 74  | 117 | 42 | 12 | 189        | 665        | 915     |        |
| M1110      | 20           | 22              | 137.5      | 685 | 137.5 | 1 232 | 76        | 39   | 27   | Drw. 2   | 361 | 804 | –  | 1 943  | 147  | 977   | 819      | 102 | 190 | 30 | 19 | 442        | 785        | 2 423   |        |
|            | 20           | 29              | 137.5      | 685 | 137.5 | 1 232 | 76        | 39   | 27   | Drw. 2   | 361 | 804 | –  | 2 128  | 147  | 1 162 | 819      | 102 | 157 | 30 | 19 | 442        | 894        | 2 534   |        |
|            | 20           | 36              | 137.5      | 685 | 137.5 | 1 232 | 76        | 39   | 27   | Drw. 2   | 361 | 804 | –  | 2 368  | 147  | 1 402 | 819      | 102 | 179 | 30 | 19 | 442        | 1 003      | 2 678   |        |
|            | 20           | 52              | 137.5      | 685 | 137.5 | 1 232 | 76        | 39   | 27   | Drw. 2   | 361 | 804 | –  | 2 878  | 147  | 1 912 | 819      | 102 | 191 | 30 | 19 | 442        | 1 252      | 2 983   |        |
| M1125      | 25           | 22              | 137.5      | 685 | 137.5 | 1 232 | 76        | 39   | 27   | Drw. 2   | 361 | 804 | –  | 1 943  | 147  | 977   | 819      | 102 | 190 | 30 | 19 | 442        | 785        | 2 423   |        |
|            | 25           | 29              | 137.5      | 685 | 137.5 | 1 232 | 76        | 39   | 27   | Drw. 2   | 361 | 804 | –  | 2 128  | 147  | 1 162 | 819      | 102 | 157 | 30 | 19 | 442        | 894        | 2 534   |        |
|            | 25           | 36              | 137.5      | 685 | 137.5 | 1 232 | 76        | 39   | 27   | Drw. 2   | 361 | 804 | –  | 2 368  | 147  | 1 402 | 819      | 102 | 179 | 30 | 19 | 442        | 1 003      | 2 678   |        |
|            | 25           | 52              | 137.5      | 685 | 137.5 | 1 232 | 76        | 39   | 27   | Drw. 2   | 361 | 804 | –  | 2 878  | 147  | 1 912 | 819      | 102 | 191 | 30 | 19 | 442        | 1 252      | 2 983   |        |

# Foot-mounted Hoist (Stationary)

PODEM

M 4/1 F

**Series:** M (Standard Wire Rope Hoist)

**Type:** M640 / M750 / M863 / M980 / M1100 / M1125

**Capacity:** 16-50 t

**Reeving:** 4/1 (4 Rope Falls)

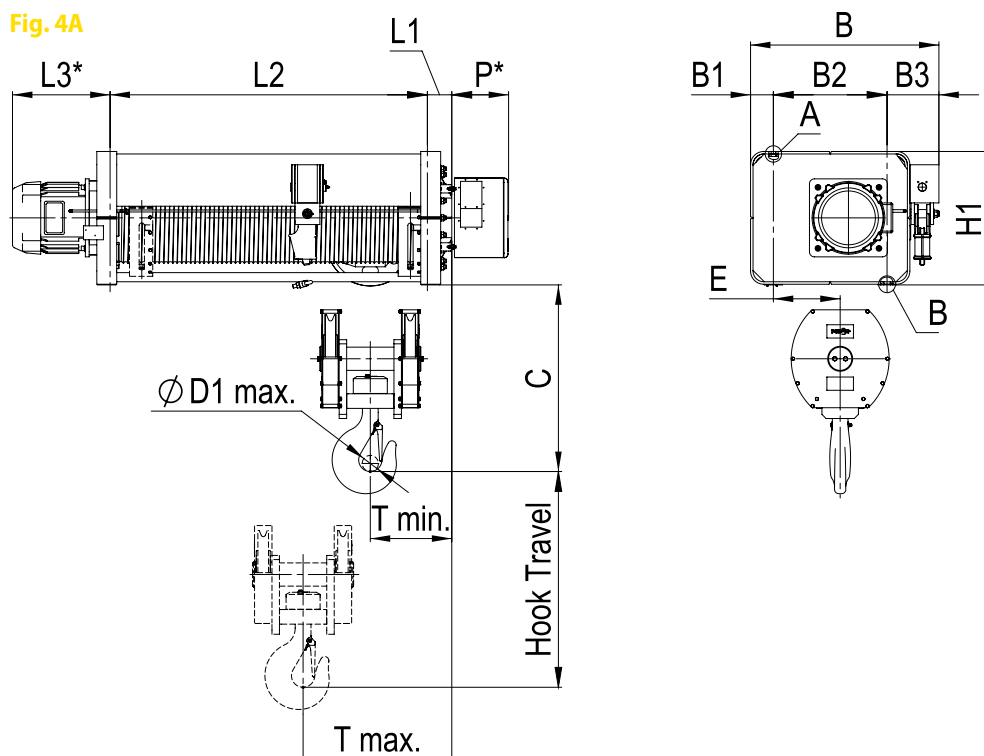
**Suspension:** F (Foot-mounted, Stationary)



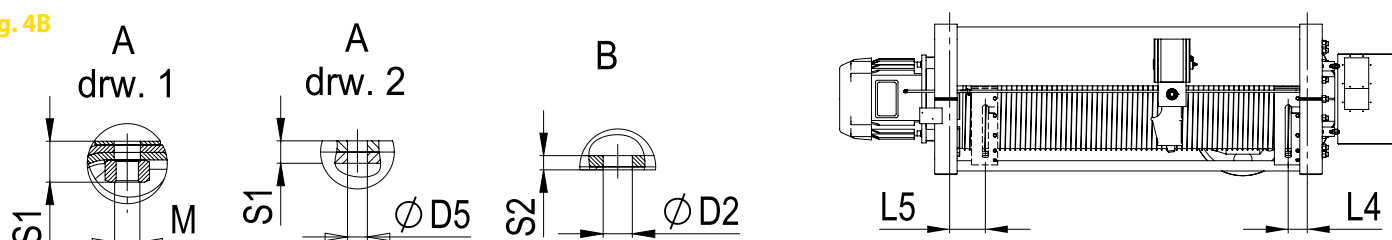
**16-50 t**

**4/1**

**Fig. 4A**



**Fig. 4B**



| Type       |              |                 | Dimensions |       |     |       |       |           |      |      |          |     |     |    |        |       |       |          |     |     |    |    |            |            |         | Weight |
|------------|--------------|-----------------|------------|-------|-----|-------|-------|-----------|------|------|----------|-----|-----|----|--------|-------|-------|----------|-----|-----|----|----|------------|------------|---------|--------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B          | B1    | B2  | B3    | C     | ø D1 max. | ø D2 | ø D5 | Detail A | E   | H1  | M  | L (V1) | L1    | L2    | L3* (V1) | L4  | L5  | S1 | S2 | T min. UEP | T max. DEP | kg (V1) |        |
| M640       | 16           | 6               | 640        | 84.5  | 475 | 80.5  | 825   | 59        | 27   | –    | drw. 1   | 278 | 526 | 27 | 656    | 1 262 | 563   | 655      | 74  | 88  | 40 | 12 | 297        | 390        | 738     |        |
|            | 16           | 8.5             | 640        | 84.5  | 475 | 80.5  | 825   | 59        | 27   | –    | drw. 1   | 278 | 526 | 27 | 806    | 1 412 | 713   | 655      | 74  | 84  | 40 | 12 | 297        | 427        | 775     |        |
|            | 16           | 12              | 640        | 84.5  | 475 | 80.5  | 825   | 59        | 27   | –    | drw. 1   | 278 | 526 | 27 | 1 021  | 1 627 | 928   | 655      | 74  | 83  | 40 | 12 | 297        | 481        | 837     |        |
|            | 16           | 15.5            | 640        | 84.5  | 475 | 80.5  | 825   | 59        | 27   | –    | drw. 1   | 278 | 526 | 27 | 1 236  | 1 842 | 1 143 | 655      | 74  | 82  | 40 | 12 | 297        | 535        | 896     |        |
| M750       | 20           | 6               | 646        | 84.5  | 475 | 86.5  | 880   | 76        | 27   | –    | drw. 1   | 278 | 526 | 27 | 656    | 1 266 | 563   | 659      | 74  | 88  | 42 | 12 | 297        | 390        | 850     |        |
|            | 20           | 8.5             | 646        | 84.5  | 475 | 86.5  | 880   | 76        | 27   | –    | drw. 1   | 278 | 526 | 27 | 806    | 1 416 | 713   | 659      | 74  | 84  | 42 | 12 | 297        | 427        | 899     |        |
|            | 20           | 12              | 646        | 84.5  | 475 | 86.5  | 880   | 76        | 27   | –    | drw. 1   | 278 | 526 | 27 | 1 021  | 1 631 | 928   | 659      | 74  | 83  | 42 | 12 | 297        | 481        | 969     |        |
|            | 20           | 15.5            | 646        | 84.5  | 475 | 86.5  | 880   | 76        | 27   | –    | drw. 1   | 278 | 526 | 27 | 1 236  | 1 846 | 1 143 | 659      | 74  | 82  | 42 | 12 | 297        | 535        | 1 039   |        |
| M863       | 25           | 9.5             | 724        | 92    | 540 | 92    | 940   | 76        | 39   | –    | drw. 2   | 309 | 612 | 36 | 975    | 1 668 | 840   | 757      | 64  | 109 | 55 | 24 | 382        | 541        | 1 274   |        |
|            | 25           | 16              | 724        | 92    | 540 | 92    | 940   | 76        | 39   | –    | drw. 2   | 309 | 612 | 36 | 1 390  | 2 083 | 1 255 | 757      | 64  | 124 | 55 | 24 | 382        | 644        | 1 467   |        |
|            | 25           | 23              | 724        | 92    | 540 | 92    | 940   | 76        | 39   | –    | drw. 2   | 309 | 612 | 36 | 1 890  | 2 583 | 1 755 | 757      | 64  | 90  | 55 | 24 | 382        | 769        | 1 697   |        |
| M980       | 32           | 9.5             | 732        | 92    | 540 | 100   | 1 099 | 97        | 39   | –    | drw. 2   | 309 | 612 | 36 | 975    | 1 437 | 840   | 526      | 64  | 109 | 58 | 24 | 382        | 541        | 1 292   |        |
|            | 32           | 16              | 732        | 92    | 540 | 100   | 1 099 | 97        | 39   | –    | drw. 2   | 309 | 612 | 36 | 1 390  | 1 852 | 1 255 | 526      | 64  | 124 | 58 | 24 | 382        | 644        | 1 506   |        |
|            | 32           | 23              | 732        | 92    | 540 | 100   | 1 099 | 97        | 39   | –    | drw. 2   | 309 | 612 | 36 | 1 890  | 2 352 | 1 755 | 526      | 64  | 90  | 58 | 24 | 382        | 769        | 1 759   |        |
| M1110      | 40           | 11              | 1 135      | 137.5 | 685 | 312.5 | 1 125 | 97        | 39   | 27   | drw. 2   | 399 | 804 | –  | 1 250  | 1 943 | 977   | 819      | 102 | 190 | 30 | 19 | 522        | 693        | 2 713   |        |
|            | 40           | 14.5            | 1 135      | 137.5 | 685 | 312.5 | 1 125 | 97        | 39   | 27   | drw. 2   | 399 | 804 | –  | 1 435  | 2 128 | 1 162 | 819      | 102 | 157 | 30 | 19 | 522        | 748        | 2 823   |        |
|            | 40           | 18              | 1 135      | 137.5 | 685 | 312.5 | 1 125 | 97        | 39   | 27   | drw. 2   | 399 | 804 | –  | 1 675  | 2 368 | 1 402 | 819      | 102 | 179 | 30 | 19 | 522        | 802        | 2 991   |        |
|            | 40           | 26              | 1 135      | 137.5 | 685 | 312.5 | 1 125 | 97        | 39   | 27   | drw. 2   | 399 | 804 | –  | 2 185  | 2 878 | 1 912 | 819      | 102 | 191 | 30 | 19 | 522        | 927        | 3 308   |        |
| M1125      | 50           | 11              | 1 135      | 137.5 | 685 | 312.5 | 1 125 | 97        | 39   | 27   | drw. 2   | 399 | 804 | –  | 1 250  | 1 943 | 977   | 819      | 102 | 190 | 30 | 19 | 522        | 693        | 2 713   |        |
|            | 50           | 14.5            | 1 135      | 137.5 | 685 | 312.5 | 1 125 | 97        | 39   | 27   | drw. 2   | 399 | 804 | –  | 1 435  | 2 128 | 1 162 | 819      | 102 | 157 | 30 | 19 | 522        | 748        | 2 823   |        |
|            | 50           | 18              | 1 135      | 137.5 | 685 | 312.5 | 1 125 | 97        | 39   | 27   | drw. 2   | 399 | 804 | –  | 1 675  | 2 368 | 1 402 | 819      | 102 | 179 | 30 | 19 | 522        | 802        | 2 991   |        |
|            | 50           | 26              | 1 135      | 137.5 | 685 | 312.5 | 1 125 | 97        | 39   | 27   | drw. 2   | 399 | 804 | –  | 2 185  | 2 878 | 1 912 | 819      | 102 | 191 | 30 | 19 | 522        | 927        | 3 308   |        |

# Monorail Low Headroom Hoist

## MT 2/1 LC

**Series:** MT (Standard Wire Rope Hoist)  
**Type:** MT305 / MT308 / MT312 / MT316 / MT525  
**Capacity:** 1-5 t  
**Reeving:** 2/1 (2 Rope Falls)  
**Suspension:** LC (Low Headroom, Counterweight)

1-5 t

2/1

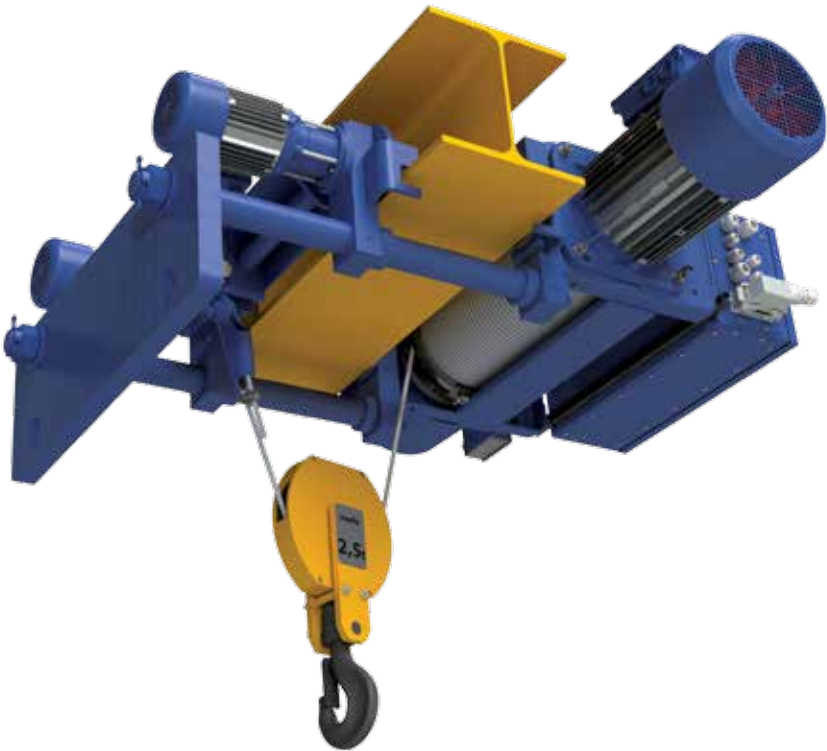
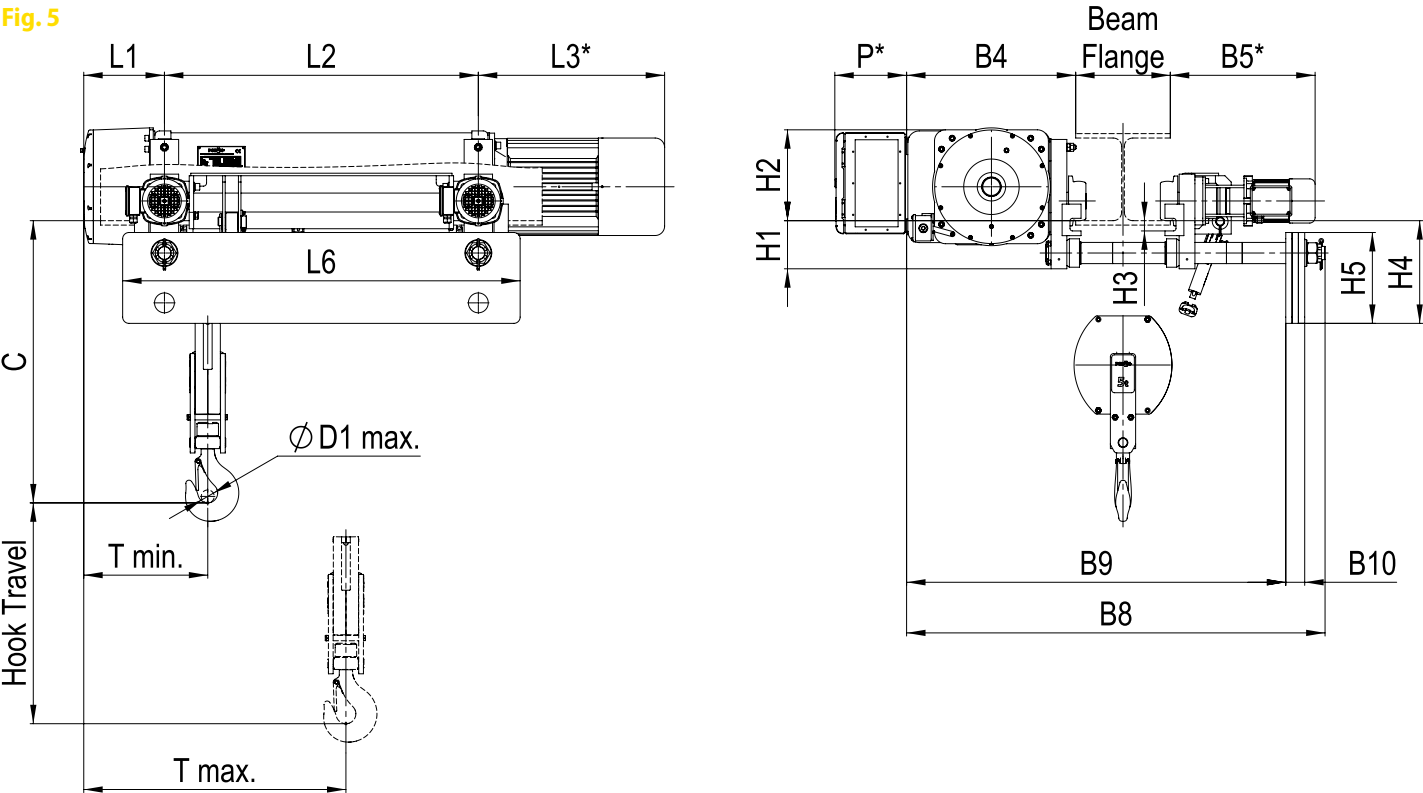


Fig. 5



| Type       |              |                 | Dimensions |        |       |       |     |     |           |                     |     |     |      |     |     |        |     |     |          |          |    |    |       |            | Weight     |         |
|------------|--------------|-----------------|------------|--------|-------|-------|-----|-----|-----------|---------------------|-----|-----|------|-----|-----|--------|-----|-----|----------|----------|----|----|-------|------------|------------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B4         | B5* DS | B8    | B9    | B10 | C   | ø D1 max. | Trolley Wheel Diam. | H1  | H2  | H3   | H4  | H5  | L (V1) | L1  | L2  | L3* (V1) | L3* (V2) | L4 | L5 | L6    | T min. UEP | T max. DEP | kg (V1) |
| MT305      | 1            | 10              | 474        | 402    | 1 150 | 1 235 | 24  | 706 | 34        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 976    | 196 | 395 | 385      | 385      | 46 | 45 | 600   | 309        | 461        | 305     |
|            | 1            | 14              | 474        | 402    | 1 150 | 1 235 | 24  | 706 | 34        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 101  | 196 | 520 | 385      | 385      | 46 | 48 | 730   | 309        | 522        | 321     |
|            | 1            | 20              | 474        | 402    | 1 150 | 1 235 | 24  | 706 | 34        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 281  | 196 | 700 | 385      | 385      | 46 | 45 | 920   | 309        | 614        | 345     |
|            | 1            | 26              | 474        | 402    | 1 150 | 1 235 | 24  | 706 | 34        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 466  | 196 | 885 | 385      | 385      | 46 | 47 | 1 100 | 309        | 705        | 369     |
| MT308      | 1.6          | 10              | 474        | 402    | 1 150 | 1 235 | 24  | 706 | 34        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 976    | 196 | 395 | 385      | 483      | 46 | 45 | 600   | 309        | 461        | 305     |
|            | 1.6          | 14              | 474        | 402    | 1 150 | 1 235 | 24  | 706 | 34        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 101  | 196 | 520 | 385      | 483      | 46 | 48 | 730   | 309        | 522        | 321     |
|            | 1.6          | 20              | 474        | 402    | 1 150 | 1 235 | 24  | 706 | 34        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 281  | 196 | 700 | 385      | 483      | 46 | 45 | 920   | 309        | 614        | 345     |
|            | 1.6          | 26              | 474        | 402    | 1 150 | 1 235 | 24  | 706 | 34        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 466  | 196 | 885 | 385      | 483      | 46 | 47 | 1 100 | 309        | 705        | 369     |
| MT312      | 2.5          | 10              | 474        | 402    | 1 138 | 1 235 | 40  | 802 | 40        | 125                 | 148 | 242 | 32.5 | 336 | 288 | 1 158  | 234 | 440 | 484      | 484      | 52 | 54 | 670   | 354        | 521        | 413     |
|            | 2.5          | 14              | 474        | 402    | 1 138 | 1 235 | 40  | 802 | 40        | 125                 | 148 | 242 | 32.5 | 336 | 288 | 1 288  | 234 | 570 | 484      | 484      | 52 | 50 | 800   | 354        | 588        | 439     |
|            | 2.5          | 20              | 474        | 402    | 1 138 | 1 235 | 40  | 802 | 40        | 125                 | 148 | 242 | 32.5 | 336 | 288 | 1 493  | 234 | 775 | 484      | 484      | 52 | 54 | 1 020 | 354        | 688        | 482     |
|            | 2.5          | 26              | 474        | 402    | 1 138 | 1 235 | 40  | 802 | 40        | 125                 | 148 | 242 | 32.5 | 336 | 288 | 1 693  | 234 | 975 | 484      | 484      | 52 | 54 | 1 230 | 354        | 789        | 527     |
| MT316      | 3.2          | 10              | 474        | 402    | 1 138 | 1 235 | 40  | 802 | 40        | 125                 | 148 | 242 | 32.5 | 336 | 288 | 1 158  | 234 | 440 | 484      | 566      | 52 | 54 | 670   | 354        | 521        | 413     |
|            | 3.2          | 14              | 474        | 402    | 1 138 | 1 235 | 40  | 802 | 40        | 125                 | 148 | 242 | 32.5 | 336 | 288 | 1 288  | 234 | 570 | 484      | 566      | 52 | 50 | 800   | 354        | 588        | 439     |
|            | 3.2          | 20              | 474        | 402    | 1 138 | 1 235 | 40  | 802 | 40        | 125                 | 148 | 242 | 32.5 | 336 | 288 | 1 493  | 234 | 775 | 484      | 566      | 52 | 54 | 1 020 | 354        | 688        | 482     |
|            | 3.2          | 26              | 474        | 402    | 1 138 | 1 235 | 40  | 802 | 40        | 125                 | 148 | 242 | 32.5 | 336 | 288 | 1 693  | 234 | 975 | 484      | 566      | 52 | 54 | 1 230 | 354        | 789        | 527     |
| MT525      | 5            | 10              | 536        | 460    | 1 327 | 1 202 | 60  | 896 | 41        | 125                 | 153 | 288 | 32.5 | 326 | 288 | 1 302  | 256 | 455 | 591      | 642      | 61 | 58 | 730   | 398        | 566        | 641     |
|            | 5            | 14              | 536        | 460    | 1 327 | 1 202 | 60  | 896 | 41        | 125                 | 153 | 288 | 32.5 | 326 | 288 | 1 437  | 256 | 590 | 591      | 642      | 61 | 58 | 810   | 398        | 633        | 678     |
|            | 5            | 20              | 536        | 460    | 1 327 | 1 202 | 60  | 896 | 41        | 125                 | 153 | 288 | 32.5 | 326 | 288 | 1 642  | 256 | 795 | 591      | 642      | 61 | 61 | 1 040 | 398        | 734        | 710     |
|            | 5            | 26              | 536        | 460    | 1 327 | 1 202 | 60  | 896 | 41        | 125                 | 153 | 288 | 32.5 | 326 | 288 | 1 842  | 256 | 995 | 591      | 642      | 61 | 60 | 1 260 | 398        | 835        | 774     |

\* Standard Podem hoists are adjustable for beam flange 130...300 mm

# Monorail Low Headroom Hoist

## MT 4/1 LC

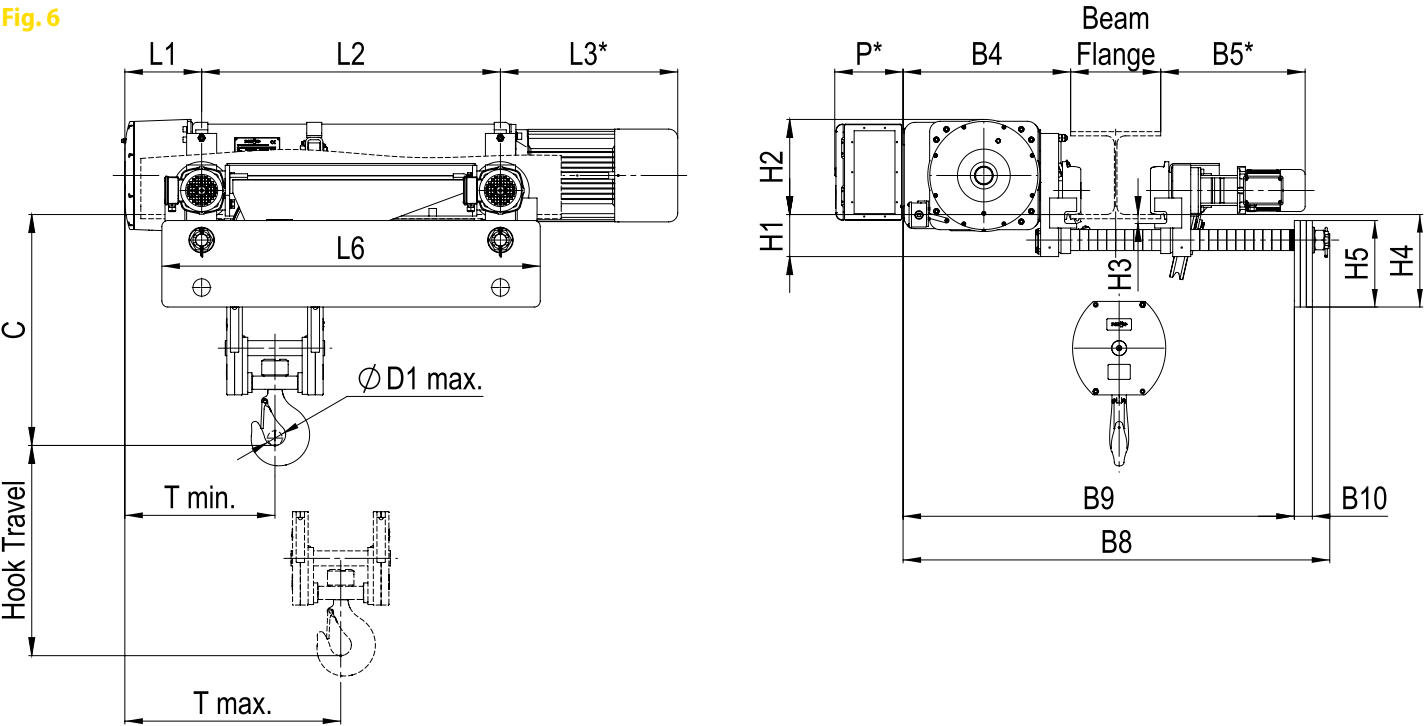
**Series:** MT (Standard Wire Rope Hoist)  
**Type:** MT305 / MT308 / MT312 / MT316 / MT525  
**Capacity:** 2-10 t  
**Reeving:** 4/1 (4 Rope Falls)  
**Suspension:** LC (Low Headroom, Counterweight)

2-10 t

4/1



Fig. 6



| Type       |              |                 | Dimensions |        |        |       |       |     |     |           |                     |     |     |      |     |     |        |     |     |          |          |    |    |       |            |            |         | Weight |
|------------|--------------|-----------------|------------|--------|--------|-------|-------|-----|-----|-----------|---------------------|-----|-----|------|-----|-----|--------|-----|-----|----------|----------|----|----|-------|------------|------------|---------|--------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B4         | B5* DS | B5* SS | B8    | B9    | B10 | C   | ø D1 max. | Trolley Wheel Diam. | H1  | H2  | H3   | H4  | H5  | L (V1) | L1  | L2  | L3* (V1) | L3* (V2) | L4 | L5 | L6    | T min. UEP | T max. DEP | kg (V1) |        |
| MT305      | 2            | 7               | 474        | 402    | 162    | 1 150 | 1 235 | 24  | 637 | 40        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 101  | 196 | 520 | 385      | 385      | 46 | 48 | 730   | 391        | 498        | 339     |        |
|            | 2            | 10              | 474        | 402    | 162    | 1 150 | 1 235 | 24  | 637 | 40        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 281  | 196 | 700 | 385      | 385      | 46 | 45 | 920   | 391        | 543        | 360     |        |
|            | 2            | 13              | 474        | 402    | 162    | 1 150 | 1 235 | 24  | 637 | 40        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 466  | 196 | 885 | 385      | 385      | 46 | 47 | 1 100 | 391        | 589        | 390     |        |
| MT308      | 3.2          | 7               | 474        | 402    | 162    | 1 150 | 1 235 | 24  | 637 | 40        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 101  | 196 | 520 | 385      | 483      | 46 | 48 | 730   | 391        | 498        | 330     |        |
|            | 3.2          | 10              | 474        | 402    | 162    | 1 150 | 1 235 | 24  | 637 | 40        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 281  | 196 | 700 | 385      | 483      | 46 | 45 | 920   | 391        | 543        | 361     |        |
|            | 3.2          | 13              | 474        | 402    | 162    | 1 150 | 1 235 | 24  | 637 | 40        | 125                 | 148 | 242 | 32.5 | 346 | 288 | 1 466  | 196 | 885 | 385      | 483      | 46 | 47 | 1 100 | 391        | 589        | 391     |        |
| MT312      | 5            | 7               | 474        | 460    | 193    | 1 179 | 1 270 | 40  | 722 | 41        | 125                 | 153 | 247 | 32.5 | 336 | 288 | 1 288  | 234 | 570 | 484      | 484      | 52 | 50 | 800   | 463        | 580        | 495     |        |
|            | 5            | 10              | 474        | 460    | 193    | 1 179 | 1 270 | 40  | 722 | 41        | 125                 | 153 | 247 | 32.5 | 336 | 288 | 1 493  | 234 | 775 | 484      | 484      | 52 | 54 | 1 020 | 463        | 630        | 541     |        |
|            | 5            | 13              | 474        | 460    | 193    | 1 179 | 1 270 | 40  | 722 | 41        | 125                 | 153 | 247 | 32.5 | 336 | 288 | 1 693  | 234 | 975 | 484      | 484      | 52 | 54 | 1 230 | 463        | 680        | 585     |        |
| MT316      | 6.3          | 7               | 474        | 460    | 193    | 1 179 | 1 270 | 40  | 755 | 49        | 125                 | 153 | 247 | 32.5 | 336 | 288 | 1 288  | 234 | 570 | 484      | 566      | 52 | 50 | 800   | 463        | 580        | 497     |        |
|            | 6.3          | 10              | 474        | 460    | 193    | 1 179 | 1 270 | 40  | 755 | 49        | 125                 | 153 | 247 | 32.5 | 336 | 288 | 1 493  | 234 | 775 | 484      | 566      | 52 | 54 | 1 020 | 463        | 630        | 543     |        |
|            | 6.3          | 13              | 474        | 460    | 193    | 1 179 | 1 270 | 40  | 755 | 49        | 125                 | 153 | 247 | 32.5 | 336 | 288 | 1 693  | 234 | 975 | 484      | 566      | 52 | 54 | 1 230 | 463        | 680        | 587     |        |
| MT525      | 10           | 7               | 589        | 481    | 214    | 1 421 | 1 303 | 60  | 770 | 49        | 160                 | 140 | 288 | 30   | 308 | 288 | 1 437  | 256 | 590 | 591      | 642      | 61 | 58 | 810   | 500        | 618        | 784     |        |
|            | 10           | 10              | 589        | 481    | 214    | 1 421 | 1 303 | 60  | 770 | 49        | 160                 | 140 | 288 | 30   | 308 | 288 | 1 642  | 256 | 795 | 591      | 642      | 61 | 61 | 1 040 | 500        | 668        | 818     |        |
|            | 10           | 13              | 589        | 481    | 214    | 1 421 | 1 303 | 60  | 770 | 49        | 160                 | 140 | 288 | 30   | 308 | 288 | 1 842  | 256 | 995 | 591      | 642      | 61 | 60 | 1 260 | 500        | 719        | 884     |        |

\* Standard Podem hoists are adjustable for beam flange 130...300 mm

# Monorail Low Headroom Hoist

## M 2/1 LC & M 4/1 LC

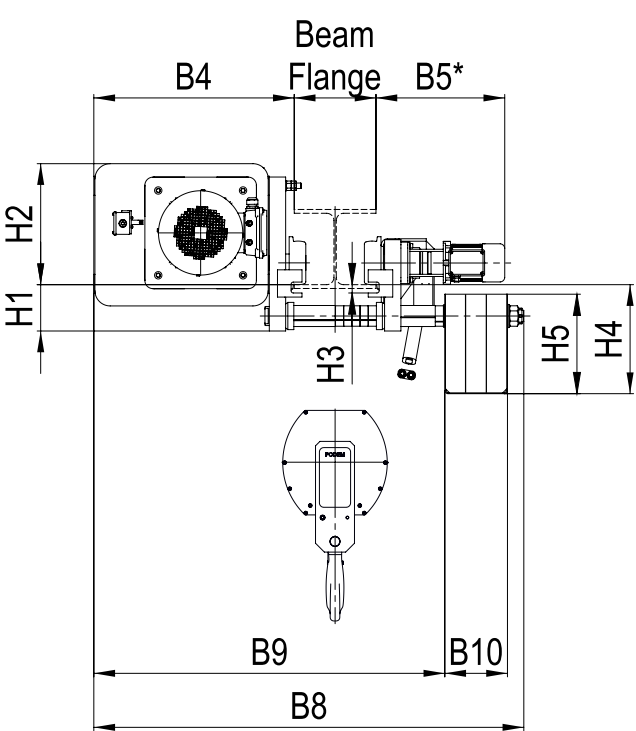
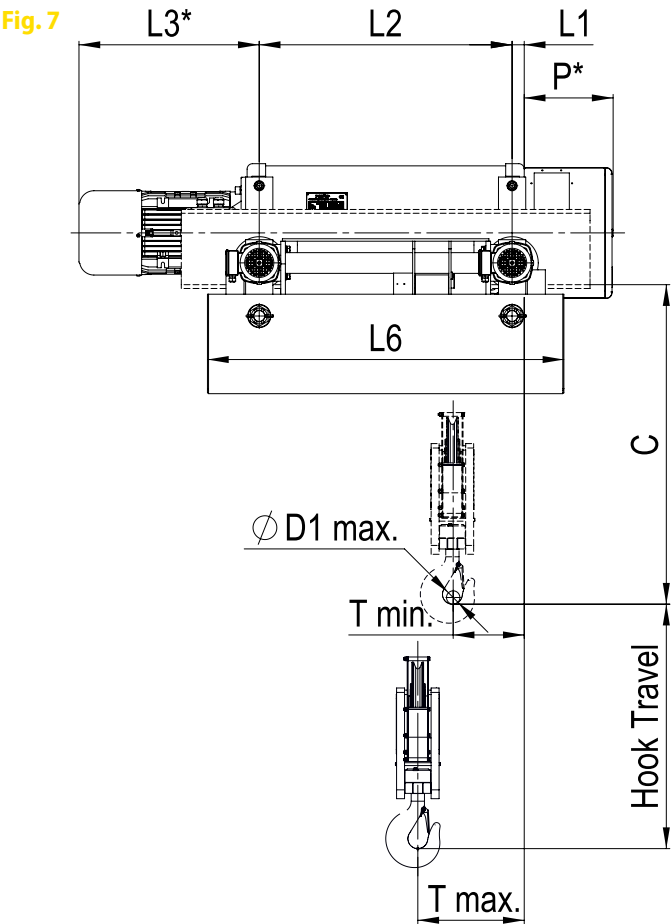
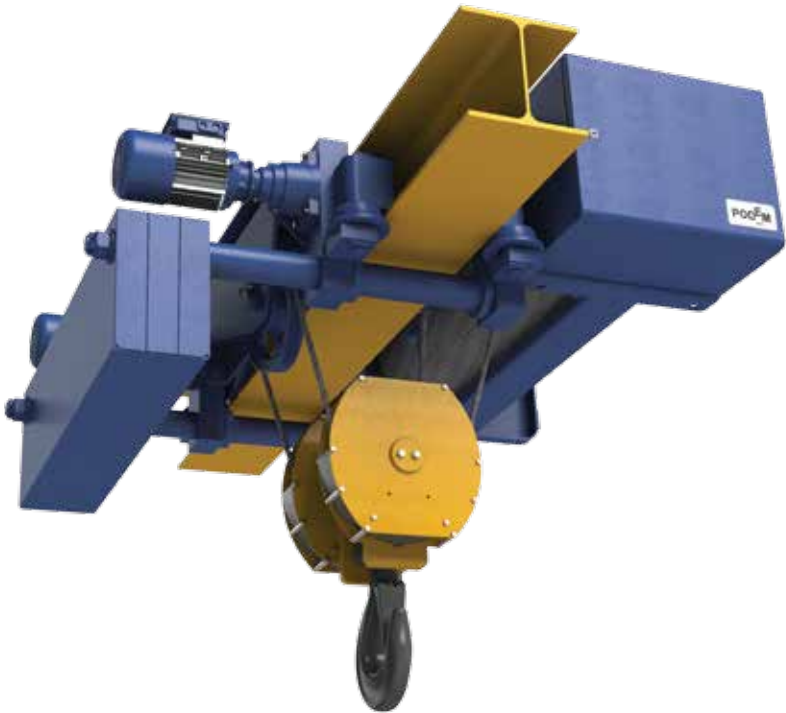
**Series:** M (Standard Wire Rope Hoist)  
**Type:** M640  
**Capacity:** 8-16 t  
**Reeving:** 2/1 (2 Rope Falls)  
**Suspension:** LC (Low Headroom, Counterweight)

8 t

16 t

2/1

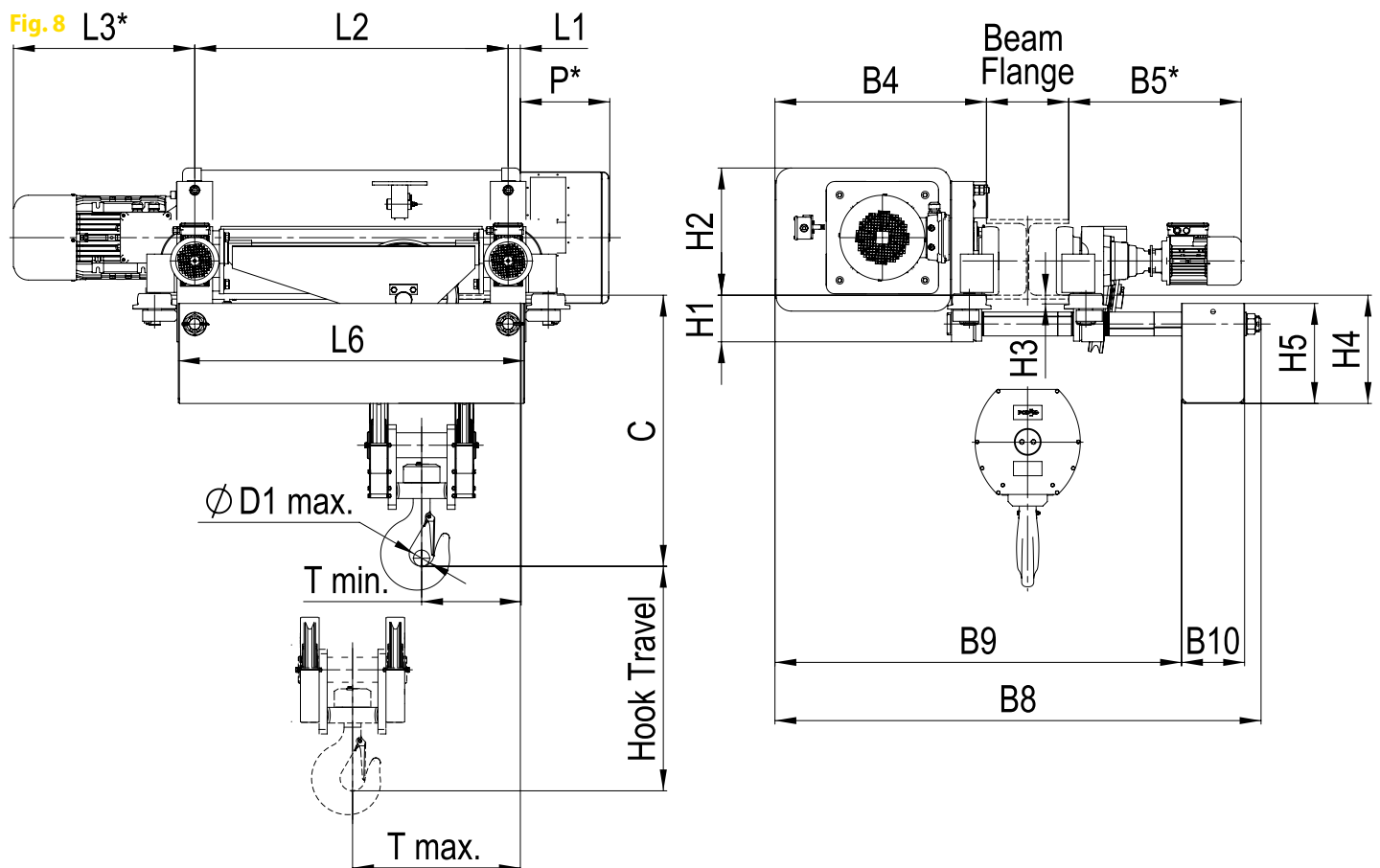
4/1



| Type       |              |                 | Dimensions — M 2/1 LC |        |       |       |     |       |          |                     |     |     |      |     |     |        |      |       |          |            |            | Weight  |
|------------|--------------|-----------------|-----------------------|--------|-------|-------|-----|-------|----------|---------------------|-----|-----|------|-----|-----|--------|------|-------|----------|------------|------------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B4                    | B5* DS | B8    | B9    | B10 | C     | ØD1 max. | Trolley Wheel Diam. | H1  | H2  | H3   | H4  | H5  | L (V1) | L1   | L2    | L3* (V1) | T min. UEP | T max. DEP | kg (V1) |
| M640       | 8            | 12              | 736                   | 460    | 1 578 | 1 288 | 230 | 1 060 | 49       | 160                 | 170 | 444 | 30.5 | 400 | 365 | 1 262  | 44.5 | 563   | 655      | 238        | 424        | 1 237   |
|            | 8            | 17              | 736                   | 460    | 1 578 | 1 288 | 230 | 1 060 | 49       | 160                 | 170 | 444 | 30.5 | 400 | 365 | 1 412  | 44.5 | 713   | 655      | 238        | 499        | 1 309   |
|            | 8            | 24              | 736                   | 460    | 1 578 | 1 288 | 230 | 1 060 | 49       | 160                 | 170 | 444 | 30.5 | 400 | 365 | 1 627  | 44.5 | 928   | 655      | 238        | 606        | 1 429   |
|            | 8            | 31              | 736                   | 460    | 1 578 | 1 288 | 230 | 1 060 | 49       | 160                 | 170 | 444 | 30.5 | 400 | 365 | 1 842  | 44.5 | 1 143 | 655      | 238        | 714        | 1 558   |

| Type       |              |                 | Dimensions — M 4/1 LC |        |      |      |     |     |          |                     |     |     |      |     |     |        |      |      |          |            |            | Weight |
|------------|--------------|-----------------|-----------------------|--------|------|------|-----|-----|----------|---------------------|-----|-----|------|-----|-----|--------|------|------|----------|------------|------------|--------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B4                    | B5* DS | B8   | B9   | B10 | C   | ØD1 max. | Trolley Wheel Diam. | H1  | H2  | H3   | H4  | H5  | L (V1) | L1   | L2   | L3* (V1) | T min. UEP | T max. DEP | kg     |
| M640       | 16           | 8.5             | 736                   | 630    | 1773 | 1483 | 230 | 995 | 59       | 160                 | 170 | 444 | 30.5 | 395 | 365 | 1 412  | 44.5 | 713  | 655      | 353        | 483        | 1 544  |
|            | 16           | 12              | 736                   | 630    | 1773 | 1483 | 230 | 995 | 59       | 160                 | 170 | 444 | 30.5 | 395 | 365 | 1 627  | 44.5 | 928  | 655      | 353        | 537        | 1 659  |
|            | 16           | 15.5            | 736                   | 630    | 1773 | 1483 | 230 | 995 | 59       | 160                 | 170 | 444 | 30.5 | 395 | 365 | 1 842  | 44.5 | 1143 | 655      | 353        | 591        | 1 775  |

\* Standard Podem hoists are adjustable for beam flange 130...300 mm



# Monorail Normal Headroom Hoist

PODEM

## MT 2/1 N

**Series:** MT (Standard Wire Rope Hoist)

**Type:** MT305 / MT308 / MT312 / MT316 / MT525

**Capacity:** 1-5 t

**Reeving:** 2/1 (2 Rope Falls)

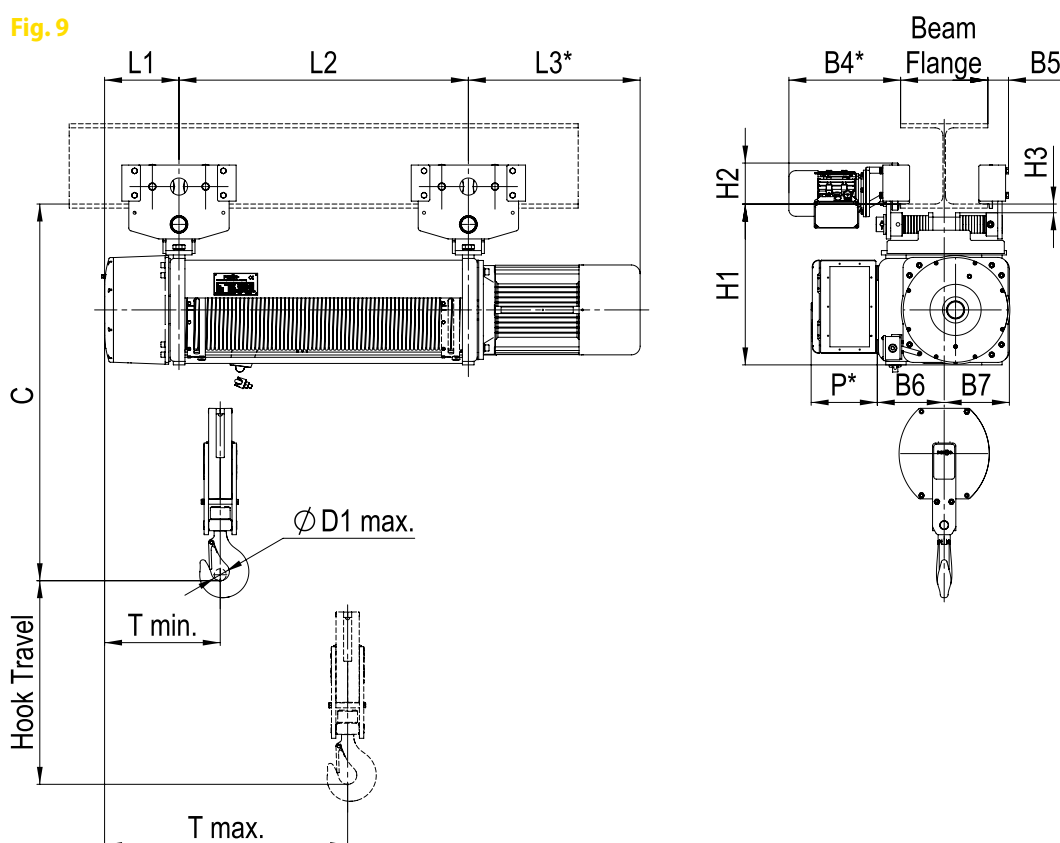
**Suspension:** N (Normal Headroom)

1-5 t

2/1



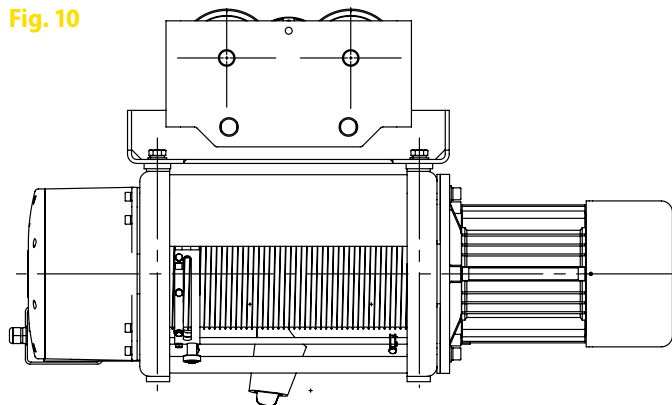
Fig. 9



| Type       |              |                 | Dimensions |    |     |     |       |          |                     |                    |     |     |    |        |     |     |          |          |    |    |           | Weight    |         |
|------------|--------------|-----------------|------------|----|-----|-----|-------|----------|---------------------|--------------------|-----|-----|----|--------|-----|-----|----------|----------|----|----|-----------|-----------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B4* DS     | B5 | B6  | B7  | C     | ø D1 max | Trolley Wheel Diam. | Number of Trolleys | H1  | H2  | H3 | L (V1) | L1  | L2  | L3* (V1) | L3* (V2) | L4 | L5 | T min UEP | T max DEP | kg (V1) |
| MT305      | 1            | 10              | 304        | 52 | 192 | 207 | 996   | 34       | 100                 | 1                  | 438 | 124 | 29 | 976    | 196 | 395 | 385      | 385      | 46 | 45 | 308       | 460       | 210     |
|            | 1            | 14              | 304        | 52 | 192 | 207 | 1 038 | 34       | 100                 | 1+1                | 480 | 124 | 29 | 1 101  | 196 | 520 | 385      | 385      | 46 | 48 | 308       | 521       | 243     |
|            | 1            | 20              | 304        | 52 | 192 | 207 | 1 038 | 34       | 100                 | 1+1                | 480 | 124 | 29 | 1 281  | 196 | 700 | 385      | 385      | 46 | 45 | 308       | 613       | 250     |
|            | 1            | 26              | 304        | 52 | 192 | 207 | 1 038 | 34       | 100                 | 1+1                | 480 | 124 | 29 | 1 466  | 196 | 885 | 385      | 385      | 46 | 47 | 308       | 704       | 267     |
| MT308      | 1.6          | 10              | 304        | 52 | 192 | 207 | 1 038 | 34       | 100                 | 1+1                | 480 | 124 | 29 | 976    | 196 | 395 | 385      | 483      | 46 | 45 | 308       | 460       | 235     |
|            | 1.6          | 14              | 304        | 52 | 192 | 207 | 1 038 | 34       | 100                 | 1+1                | 480 | 124 | 29 | 1 101  | 196 | 520 | 385      | 483      | 46 | 48 | 308       | 521       | 243     |
|            | 1.6          | 20              | 304        | 52 | 192 | 207 | 1 038 | 34       | 100                 | 1+1                | 480 | 124 | 29 | 1 281  | 196 | 700 | 385      | 483      | 46 | 45 | 308       | 613       | 250     |
|            | 1.6          | 26              | 304        | 52 | 192 | 207 | 1 038 | 34       | 100                 | 1+1                | 480 | 124 | 29 | 1 466  | 196 | 885 | 385      | 483      | 46 | 47 | 308       | 704       | 267     |
| MT312      | 2.5          | 10              | 384        | 71 | 205 | 194 | 1 150 | 40       | 120                 | 1+1                | 496 | 141 | 30 | 1 158  | 234 | 440 | 484      | 484      | 52 | 54 | 368       | 535       | 367     |
|            | 2.5          | 14              | 384        | 71 | 205 | 194 | 1 150 | 40       | 120                 | 1+1                | 496 | 141 | 30 | 1 288  | 234 | 570 | 484      | 484      | 52 | 50 | 368       | 602       | 380     |
|            | 2.5          | 20              | 384        | 71 | 205 | 194 | 1 150 | 40       | 120                 | 1+1                | 496 | 141 | 30 | 1 493  | 234 | 775 | 484      | 484      | 52 | 54 | 368       | 702       | 400     |
|            | 2.5          | 26              | 384        | 71 | 205 | 194 | 1 150 | 40       | 120                 | 1+1                | 496 | 141 | 30 | 1 693  | 234 | 975 | 484      | 484      | 52 | 54 | 368       | 803       | 420     |
| MT316      | 3.2          | 10              | 384        | 71 | 205 | 194 | 1 150 | 40       | 120                 | 1+1                | 496 | 141 | 30 | 1 158  | 234 | 440 | 484      | 566      | 52 | 54 | 368       | 535       | 367     |
|            | 3.2          | 14              | 384        | 71 | 205 | 194 | 1 150 | 40       | 120                 | 1+1                | 496 | 141 | 30 | 1 288  | 234 | 570 | 484      | 566      | 52 | 50 | 368       | 602       | 380     |
|            | 3.2          | 20              | 384        | 71 | 205 | 194 | 1 150 | 40       | 120                 | 1+1                | 496 | 141 | 30 | 1 493  | 234 | 775 | 484      | 566      | 52 | 54 | 368       | 702       | 400     |
|            | 3.2          | 26              | 384        | 71 | 205 | 194 | 1 150 | 40       | 120                 | 1+1                | 496 | 141 | 30 | 1 693  | 234 | 975 | 484      | 566      | 52 | 54 | 368       | 803       | 420     |
| MT525      | 5            | 10              | 384        | 71 | 230 | 225 | 1 296 | 41       | 120                 | 1+1                | 553 | 141 | 30 | 1 302  | 256 | 455 | 591      | 642      | 61 | 58 | 398       | 566       | 505     |
|            | 5            | 14              | 384        | 71 | 230 | 225 | 1 296 | 41       | 120                 | 1+1                | 553 | 141 | 30 | 1 437  | 256 | 590 | 591      | 642      | 61 | 58 | 398       | 633       | 524     |
|            | 5            | 20              | 384        | 71 | 230 | 225 | 1 296 | 41       | 120                 | 1+1                | 553 | 141 | 30 | 1 642  | 256 | 795 | 591      | 642      | 61 | 61 | 398       | 734       | 553     |
|            | 5            | 26              | 384        | 71 | 230 | 225 | 1 296 | 41       | 120                 | 1+1                | 553 | 141 | 30 | 1 842  | 256 | 995 | 591      | 642      | 61 | 60 | 398       | 835       | 582     |

\* Standard Podem hoists are adjustable for beam flange 130...300 mm

Fig. 10



# Monorail Normal Headroom Hoist

PODEM

MT 4/1 N

**Series:** MT (Standard Wire Rope Hoist)

**Type:** MT305 / MT308 / MT312 / MT316 / MT525

**Capacity:** 2-10 t

**Reeving:** 4/1 (4 Rope Falls)

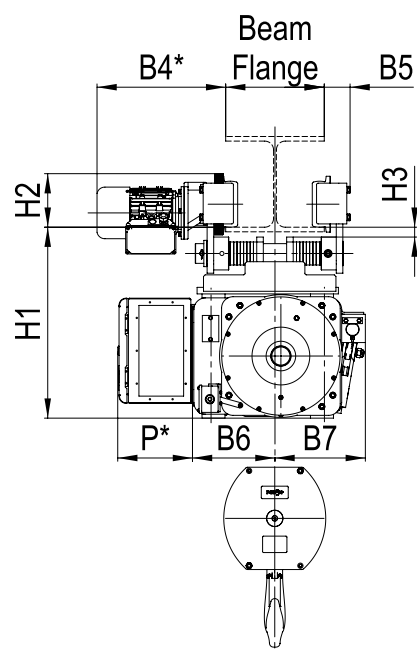
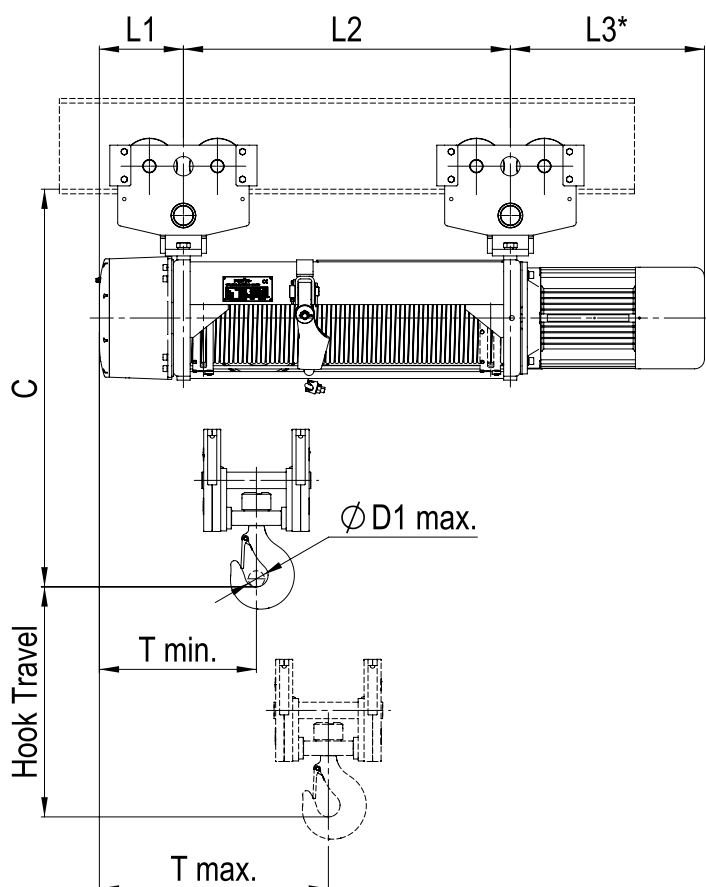
**Suspension:** N (Normal Headroom)

**2-10 t**

**4/1**



Fig. 11



| Type       |              |                 | Dimensions |        |    |     |     |       |           |                     |                    |     |     |    |        |     |     |          |          |    |    |           | Weight    |         |
|------------|--------------|-----------------|------------|--------|----|-----|-----|-------|-----------|---------------------|--------------------|-----|-----|----|--------|-----|-----|----------|----------|----|----|-----------|-----------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B4* DS     | B4* SS | B5 | B6  | B7  | C     | ø D1 max. | Trolley Wheel Diam. | Number of Trolleys | H1  | H2  | H3 | L (V1) | L1  | L2  | L3* (V1) | L3* (V2) | L4 | L5 | T min UEP | T max DEP | kg (V1) |
| MT305      | 2            | 7               | 384        | 348    | 52 | 218 | 254 | 985   | 40        | 120                 | 1+1                | 496 | 141 | 30 | 1 101  | 196 | 520 | 385      | 385      | 46 | 48 | 361       | 468       | 316     |
|            | 2            | 10              | 384        | 348    | 52 | 218 | 254 | 985   | 40        | 120                 | 1+1                | 496 | 141 | 30 | 1 281  | 196 | 700 | 385      | 385      | 46 | 45 | 361       | 513       | 324     |
|            | 2            | 13              | 384        | 348    | 52 | 218 | 254 | 985   | 40        | 120                 | 1+1                | 496 | 141 | 30 | 1 466  | 196 | 885 | 385      | 385      | 46 | 47 | 361       | 559       | 341     |
| MT308      | 3.2          | 7               | 384        | 348    | 52 | 218 | 254 | 985   | 40        | 120                 | 1+1                | 496 | 141 | 30 | 1 101  | 196 | 520 | 385      | 483      | 46 | 48 | 372       | 479       | 321     |
|            | 3.2          | 10              | 384        | 348    | 52 | 218 | 254 | 985   | 40        | 120                 | 1+1                | 496 | 141 | 30 | 1 281  | 196 | 700 | 385      | 483      | 46 | 45 | 372       | 524       | 329     |
|            | 3.2          | 13              | 384        | 348    | 52 | 218 | 254 | 985   | 40        | 120                 | 1+1                | 496 | 141 | 30 | 1 466  | 196 | 885 | 385      | 483      | 46 | 47 | 372       | 570       | 345     |
| MT312      | 5            | 7               | 384        | 348    | 71 | 223 | 249 | 1 065 | 41        | 120                 | 1+1                | 496 | 141 | 30 | 1 288  | 234 | 570 | 484      | 484      | 52 | 50 | 447       | 564       | 418     |
|            | 5            | 10              | 384        | 348    | 71 | 223 | 249 | 1 065 | 41        | 120                 | 1+1                | 496 | 141 | 30 | 1 493  | 234 | 775 | 484      | 484      | 52 | 54 | 447       | 614       | 439     |
|            | 5            | 13              | 384        | 348    | 71 | 223 | 249 | 1 065 | 41        | 120                 | 1+1                | 496 | 141 | 30 | 1 693  | 234 | 975 | 484      | 484      | 52 | 54 | 447       | 664       | 466     |
| MT316      | 6.3          | 7               | 384        | 348    | 71 | 223 | 249 | 1 098 | 49        | 120                 | 1+1                | 496 | 141 | 30 | 1 288  | 234 | 570 | 484      | 566      | 52 | 50 | 447       | 564       | 433     |
|            | 6.3          | 10              | 384        | 348    | 71 | 223 | 249 | 1 098 | 49        | 120                 | 1+1                | 496 | 141 | 30 | 1 493  | 234 | 775 | 484      | 566      | 52 | 54 | 447       | 614       | 454     |
|            | 6.3          | 13              | 384        | 348    | 71 | 223 | 249 | 1 098 | 49        | 120                 | 1+1                | 496 | 141 | 30 | 1 693  | 234 | 975 | 484      | 566      | 52 | 54 | 447       | 664       | 481     |
| MT525      | 10           | 7               | 392        | 356    | 71 | 251 | 276 | 1 211 | 49        | 140                 | 2                  | 581 | 163 | 30 | 1 437  | 256 | 590 | 591      | 642      | 61 | 58 | 478       | 596       | 660     |
|            | 10           | 10              | 392        | 356    | 71 | 251 | 276 | 1 211 | 49        | 140                 | 2                  | 581 | 163 | 30 | 1 642  | 256 | 795 | 591      | 642      | 61 | 61 | 478       | 646       | 691     |
|            | 10           | 13              | 392        | 356    | 71 | 251 | 276 | 1 211 | 49        | 140                 | 2                  | 581 | 163 | 30 | 1 842  | 256 | 995 | 591      | 642      | 61 | 60 | 478       | 697       | 722     |

\* Standard Podem hoists are adjustable for beam flange 130...300 mm

# Monorail Normal Headroom Hoist

## M 2/1 N & M 4/1 N

**Series:** M (Standard Wire Rope Hoist)  
**Type:** M640 / M750  
**Capacity:** 8-16 t  
**Reeving:** 2/1 (2 Rope Falls), 4/1 (4 Rope Falls)  
**Suspension:** N (Normal Headroom)

8-10 t

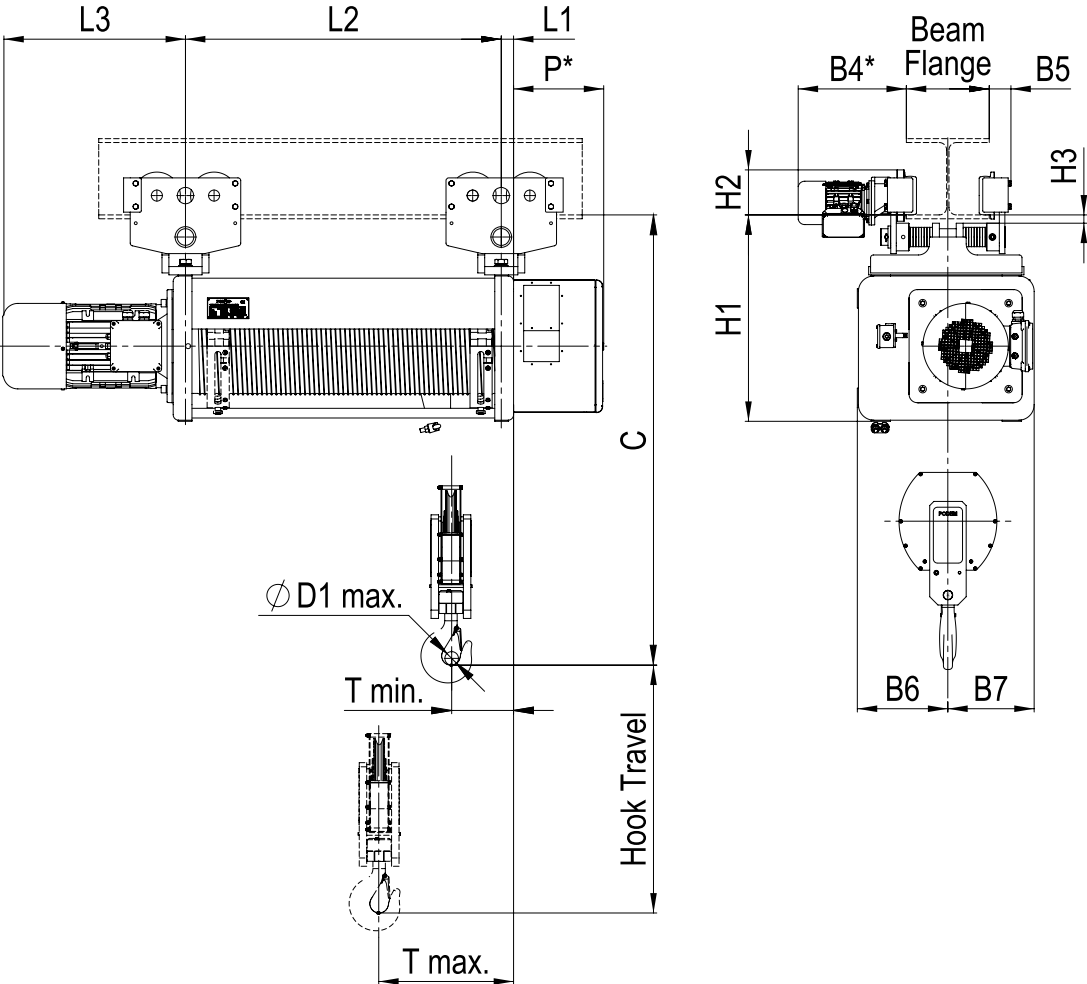
16 t

2/1

4/1



Fig. 12



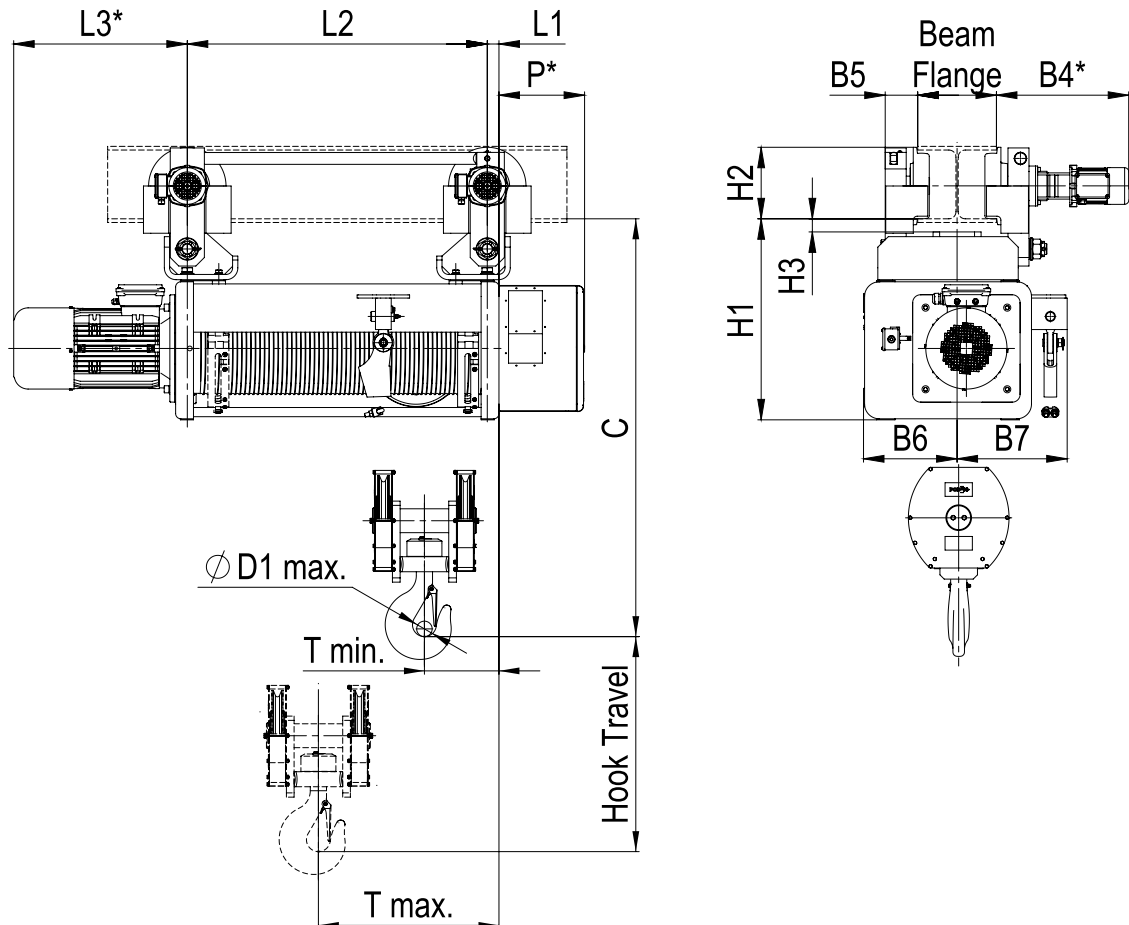
| Type       |              |                 | Dimensions — M 2/1 N |    |       |       |       |           |                     |                    |     |     |    |        |      |       |          |            |            | Weight  |
|------------|--------------|-----------------|----------------------|----|-------|-------|-------|-----------|---------------------|--------------------|-----|-----|----|--------|------|-------|----------|------------|------------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B4* DS               | B5 | B6    | B7    | C     | ø D1 max. | Trolley Wheel Diam. | Number of Trolleys | H1  | H2  | H3 | L (V1) | L1   | L2    | L3* (V1) | T min. UEP | T max. DEP | kg (V1) |
| M640       | 8            | 12              | 392                  | 71 | 327.5 | 312.5 | 1 637 | 49        | 140                 | 2                  | 747 | 163 | 30 | 656    | 44.5 | 563   | 49       | 189        | 389        | 858     |
|            | 8            | 17              | 392                  | 71 | 327.5 | 312.5 | 1 637 | 49        | 140                 | 2                  | 747 | 163 | 30 | 806    | 44.5 | 713   | 49       | 189        | 466        | 895     |
|            | 8            | 24              | 392                  | 71 | 327.5 | 312.5 | 1 637 | 49        | 140                 | 2                  | 747 | 163 | 30 | 1 021  | 44.5 | 928   | 49       | 189        | 574        | 956     |
|            | 8            | 31              | 392                  | 71 | 327.5 | 312.5 | 1 637 | 49        | 140                 | 2                  | 747 | 163 | 30 | 1 236  | 44.5 | 1 143 | 49       | 189        | 682        | 1 017   |
| M750       | 10           | 12              | 392                  | 71 | 327.5 | 318.5 | 1 637 | 49        | 140                 | 2                  | 747 | 163 | 30 | 656    | 44.5 | 563   | 49       | 189        | 389        | 980     |
|            | 10           | 17              | 392                  | 71 | 327.5 | 318.5 | 1 637 | 49        | 140                 | 2                  | 747 | 163 | 30 | 806    | 44.5 | 713   | 49       | 189        | 466        | 1 028   |
|            | 10           | 24              | 392                  | 71 | 327.5 | 318.5 | 1 637 | 49        | 140                 | 2                  | 747 | 163 | 30 | 1 021  | 44.5 | 928   | 49       | 189        | 574        | 1 098   |
|            | 10           | 31              | 392                  | 71 | 327.5 | 318.5 | 1 637 | 49        | 140                 | 2                  | 747 | 163 | 30 | 1 236  | 44.5 | 1 143 | 49       | 189        | 682        | 1 168   |

\* Standard Podem hoists are adjustable for beam flange 130...300 mm

| Type       |              |                 | Dimensions — M 4/1 N |    |     |     |       |           |                     |                    |     |     |    |        |    |       |          |            |            | Weight  |
|------------|--------------|-----------------|----------------------|----|-----|-----|-------|-----------|---------------------|--------------------|-----|-----|----|--------|----|-------|----------|------------|------------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B4* DS               | B5 | B6  | B7  | C     | ø D1 max. | Trolley Wheel Diam. | Number of Trolleys | H1  | H2  | H3 | L (V1) | L1 | L2    | L3* (V1) | T min. UEP | T max. DEP | kg (V1) |
| M640       | 16           | 6               | 506                  | 71 | 363 | 413 | 1 572 | 59        | 250                 | 2                  | 747 | 273 | 50 | 1 262  | 45 | 563   | 655      | 297        | 390        | 1 182   |
|            | 16           | 8.5             | 506                  | 71 | 363 | 413 | 1 572 | 59        | 250                 | 2                  | 747 | 273 | 50 | 1 412  | 45 | 713   | 655      | 297        | 427        | 1 219   |
|            | 16           | 12              | 506                  | 71 | 363 | 413 | 1 572 | 59        | 250                 | 2                  | 747 | 273 | 50 | 1 627  | 45 | 928   | 655      | 297        | 481        | 1 281   |
|            | 16           | 15.5            | 506                  | 71 | 363 | 413 | 1 572 | 59        | 250                 | 2                  | 747 | 273 | 50 | 1 842  | 45 | 1 143 | 655      | 297        | 535        | 1 340   |

\* Standard Podem hoists are adjustable for beam flange 150...300 mm

Fig. 13



# Double-rail Hoist

## MT 2/1 KD

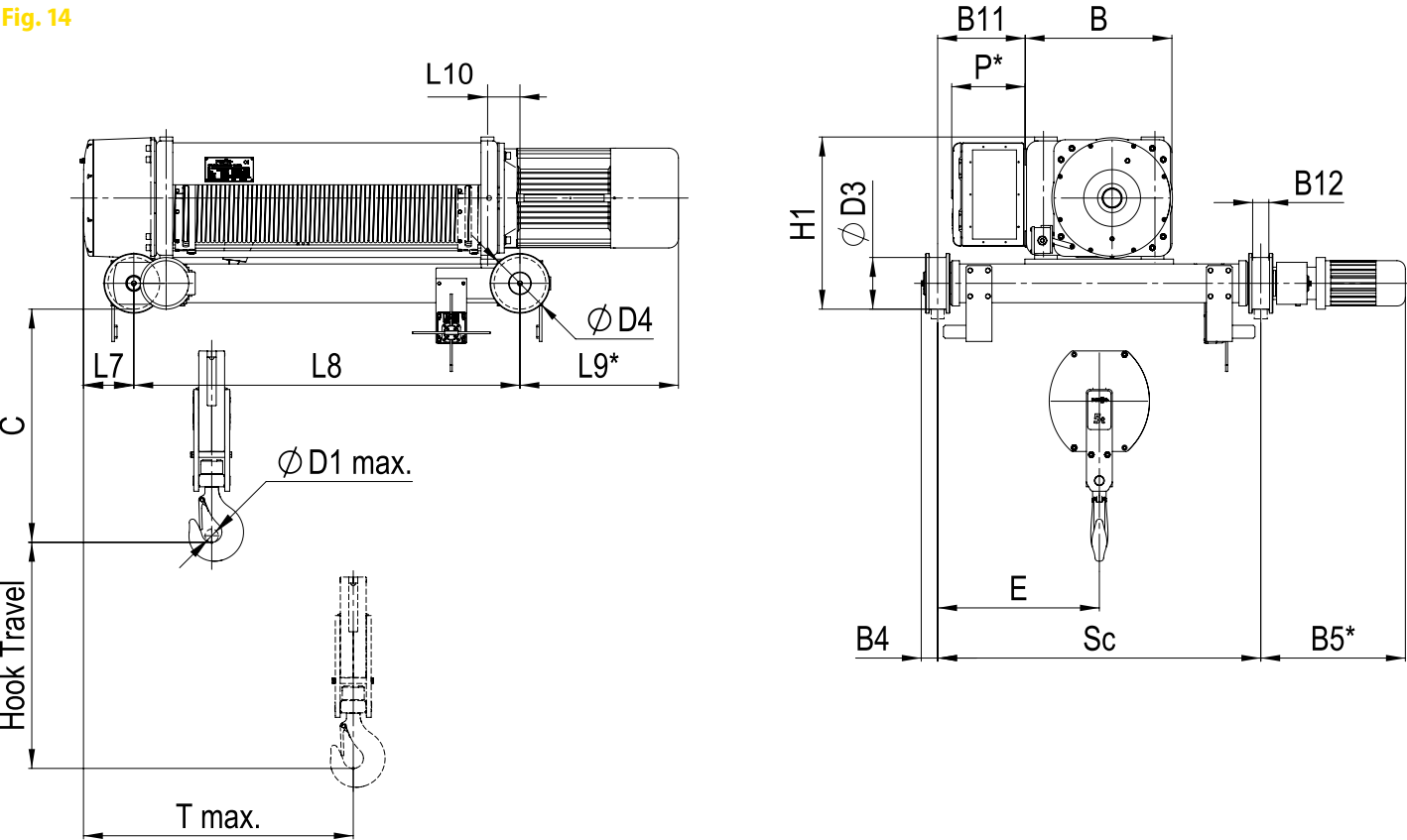
**Series:** MT (Standard Wire Rope Hoist)  
**Type:** MT316 / MT525  
**Capacity:** 3.2-5 t  
**Reeving:** 2/1 (2 Rope Falls)  
**Suspension:** KD (Double Rail Trolley)

3.2-5 t

2/1



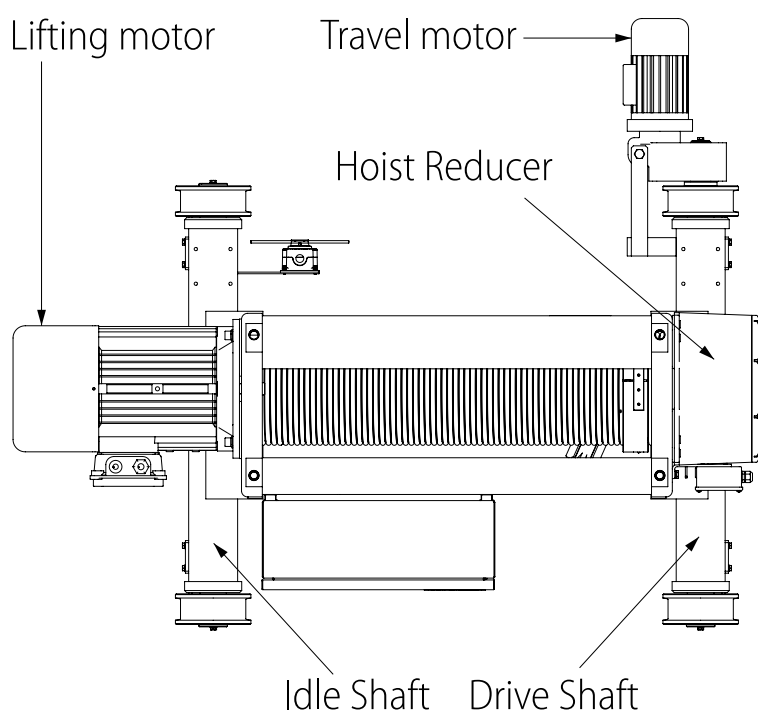
Fig. 14



| Type       |              |                 | Dimensions |    |        |     |     |     |           |      |      |     |     |     |      |          |          |     |      |            |            | Weight  |
|------------|--------------|-----------------|------------|----|--------|-----|-----|-----|-----------|------|------|-----|-----|-----|------|----------|----------|-----|------|------------|------------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B          | B4 | B5* DS | B11 | B12 | C   | Ø D1 max. | Ø D3 | Ø D4 | E   | H1  | L7  | L8   | L9* (V1) | L9* (V2) | L10 | Sc   | T min. UEP | T max. DEP | kg (V1) |
| MT316      | 3.2          | 10              | 398        | 31 | 490    | 299 | 50  | 634 | 40        | 160  | 185  | 504 | 476 | 134 | 640  | 384      | 466      | 100 | 1000 | 368        | 535        | 459     |
|            | 3.2          | 14              | 398        | 31 | 490    | 299 | 50  | 634 | 40        | 160  | 185  | 504 | 476 | 134 | 770  | 384      | 466      | 100 | 1000 | 368        | 602        | 476     |
|            | 3.2          | 20              | 398        | 31 | 490    | 299 | 50  | 634 | 40        | 160  | 185  | 504 | 476 | 134 | 975  | 384      | 466      | 100 | 1000 | 368        | 702        | 498     |
|            | 3.2          | 26              | 398        | 31 | 490    | 299 | 50  | 634 | 40        | 160  | 185  | 504 | 476 | 134 | 1175 | 384      | 466      | 100 | 1000 | 368        | 803        | 523     |
| MT525      | 5            | 10              | 454        | 31 | 490    | 271 | 50  | 723 | 41        | 160  | 185  | 501 | 533 | 156 | 655  | 491      | 542      | 100 | 1000 | 398        | 566        | 594     |
|            | 5            | 14              | 454        | 31 | 490    | 271 | 50  | 723 | 41        | 160  | 185  | 501 | 533 | 156 | 790  | 491      | 542      | 100 | 1000 | 398        | 633        | 615     |
|            | 5            | 20              | 454        | 31 | 490    | 271 | 50  | 723 | 41        | 160  | 185  | 501 | 533 | 156 | 995  | 491      | 542      | 100 | 1000 | 398        | 734        | 648     |
|            | 5            | 26              | 454        | 31 | 490    | 271 | 50  | 723 | 41        | 160  | 185  | 501 | 533 | 156 | 1195 | 491      | 542      | 100 | 1000 | 398        | 835        | 682     |

## Position of Cross Travel Motor-reducer for MT Series

Fig. 15



# Double-rail Hoist

## MT 4/1 KD

**Series:** MT (Standard Wire Rope Hoist)

**Type:** MT308 / MT312 / MT316 / MT525

**Capacity:** 3.2-10 t

**Reeving:** 4/1 (4 Rope Falls)

**Suspension:** KD (Double Rail Trolley)

**3.2-10 t**

**4/1**

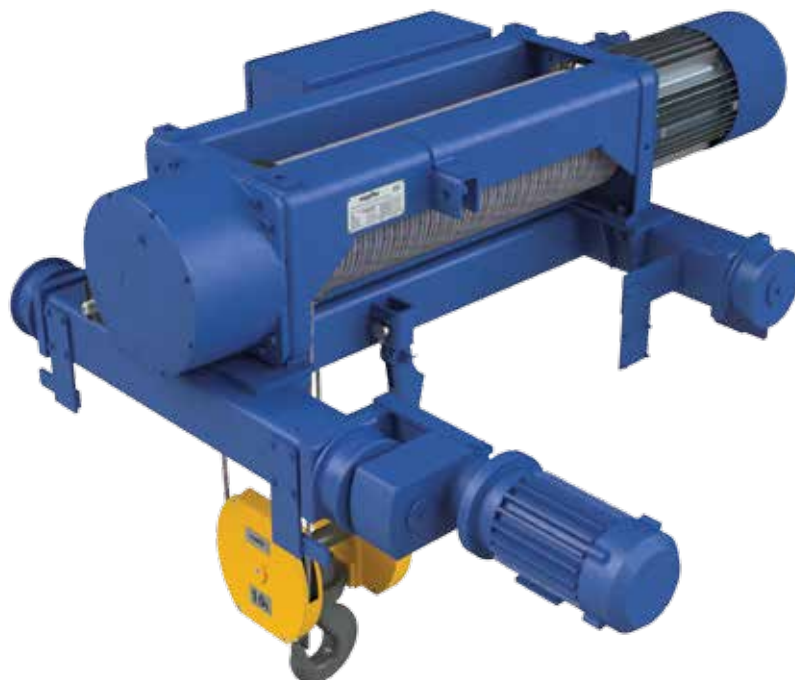
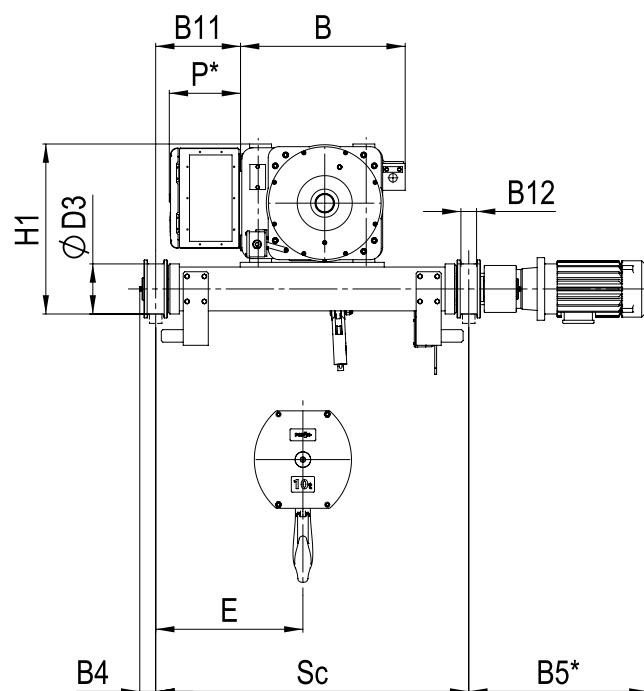
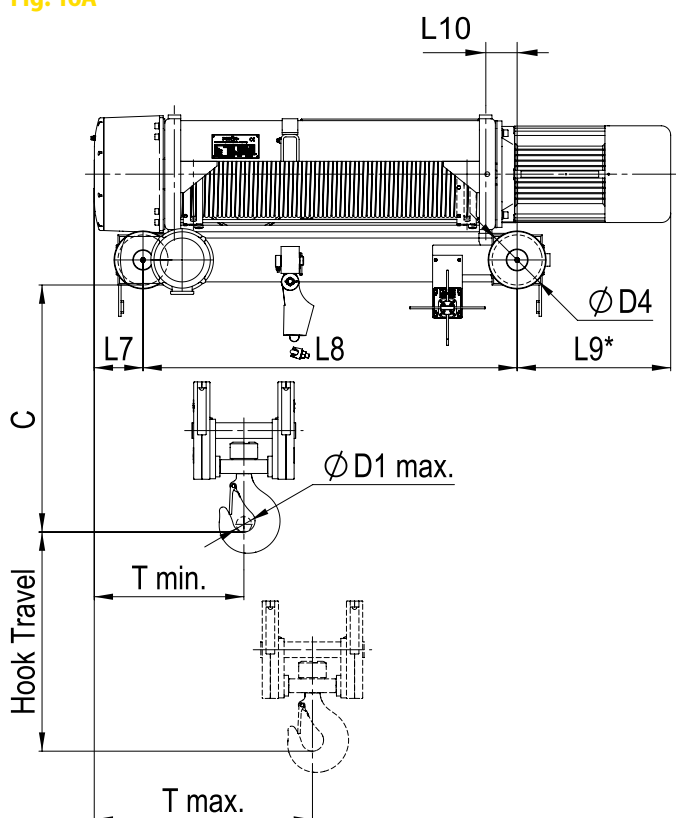


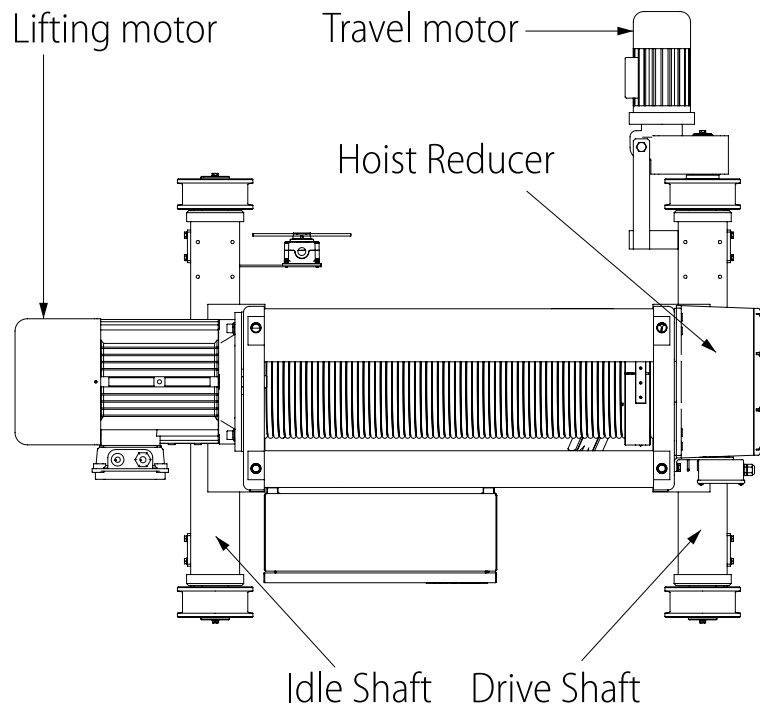
Fig. 16A



| Type       |              |                 | Dimensions |    |        |        |     |     |     |           |      |      |     |     |     |      |          |          |     |      |            |            | Weight  |
|------------|--------------|-----------------|------------|----|--------|--------|-----|-----|-----|-----------|------|------|-----|-----|-----|------|----------|----------|-----|------|------------|------------|---------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B          | B4 | B5* DS | B5* SS | B11 | B12 | C   | Ø D1 max. | Ø D3 | Ø D4 | E   | H1  | L7  | L8   | L9* (V1) | L9* (V2) | L10 | Sc   | T min. UEP | T max. DEP | kg (V1) |
| MT308      | 3.2          | 7               | 398        | 31 | 490    | 416    | 299 | 50  | 469 | 40        | 160  | 185  | 481 | 476 | 96  | 720  | 285      | 383      | 100 | 1000 | 372        | 479        | 421     |
|            | 3.2          | 10              | 398        | 31 | 490    | 416    | 299 | 50  | 469 | 40        | 160  | 185  | 481 | 476 | 96  | 900  | 285      | 383      | 100 | 1000 | 372        | 524        | 433     |
|            | 3.2          | 13              | 398        | 31 | 490    | 416    | 299 | 50  | 469 | 40        | 160  | 185  | 481 | 476 | 96  | 1085 | 383      | 383      | 100 | 1000 | 372        | 570        | 453     |
| MT312      | 5            | 7               | 398        | 31 | 490    | 416    | 299 | 50  | 549 | 41        | 160  | 185  | 479 | 476 | 134 | 770  | 384      | 384      | 100 | 1000 | 447        | 564        | 556     |
|            | 5            | 10              | 398        | 31 | 490    | 416    | 299 | 50  | 549 | 41        | 160  | 185  | 479 | 476 | 134 | 975  | 384      | 384      | 100 | 1000 | 447        | 614        | 573     |
|            | 5            | 13              | 398        | 31 | 490    | 416    | 299 | 50  | 549 | 41        | 160  | 185  | 479 | 476 | 134 | 1175 | 384      | 384      | 100 | 1000 | 447        | 664        | 576     |
| MT316      | 6.3          | 7               | 398        | 31 | 490    | 416    | 299 | 50  | 582 | 49        | 160  | 185  | 479 | 476 | 134 | 770  | 384      | 466      | 100 | 1000 | 447        | 564        | 543     |
|            | 6.3          | 10              | 398        | 31 | 490    | 416    | 299 | 50  | 582 | 49        | 160  | 185  | 479 | 476 | 134 | 975  | 384      | 466      | 100 | 1000 | 447        | 614        | 560     |
|            | 6.3          | 13              | 398        | 31 | 490    | 416    | 299 | 50  | 582 | 49        | 160  | 185  | 479 | 476 | 134 | 1175 | 384      | 466      | 100 | 1000 | 447        | 664        | 563     |
| MT525      | 10           | 7               | 454        | 31 | 522    | 463    | 271 | 50  | 620 | 49        | 160  | 185  | 470 | 543 | 156 | 790  | 491      | 542      | 100 | 1000 | 478        | 596        | 709     |
|            | 10           | 10              | 454        | 31 | 522    | 463    | 271 | 50  | 620 | 49        | 160  | 185  | 470 | 543 | 156 | 995  | 491      | 542      | 100 | 1000 | 478        | 646        | 745     |
|            | 10           | 13              | 454        | 31 | 522    | 463    | 271 | 50  | 620 | 49        | 160  | 185  | 470 | 543 | 156 | 1195 | 491      | 542      | 100 | 1000 | 478        | 697        | 782     |

#### Position of Cross Travel Motor-reducer for MT Series

Fig. 16B



# Double-rail Hoist

## M 2/1 KD

**Series:** M (Standard Wire Rope Hoist)

**Type:** M640 / M750

**Capacity:** 8-10 t

**Reeving:** 2/1 (2 Rope Falls)

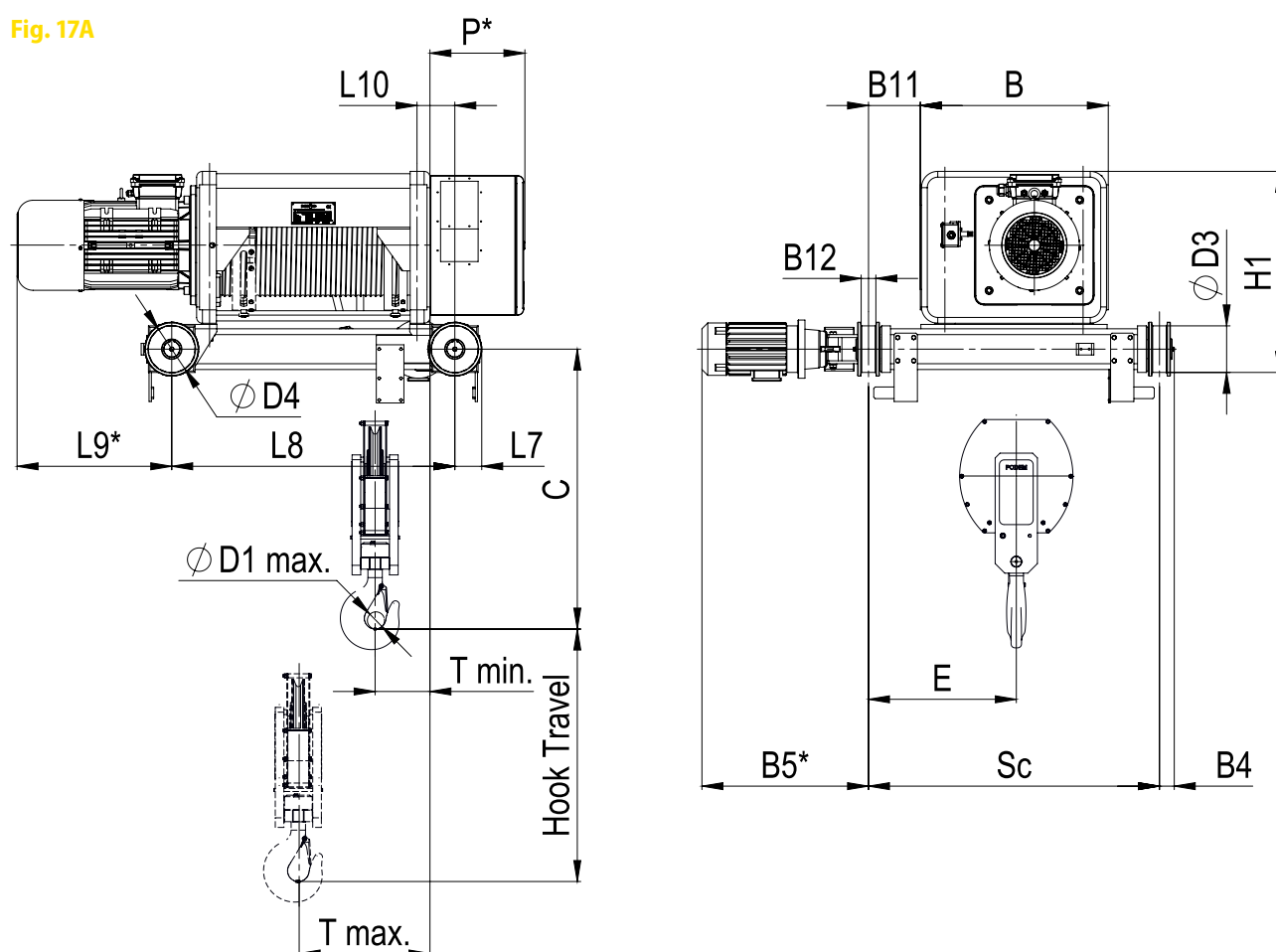
**Suspension:** KD (Double Rail Trolley)

**8-10 t**

**2/1**



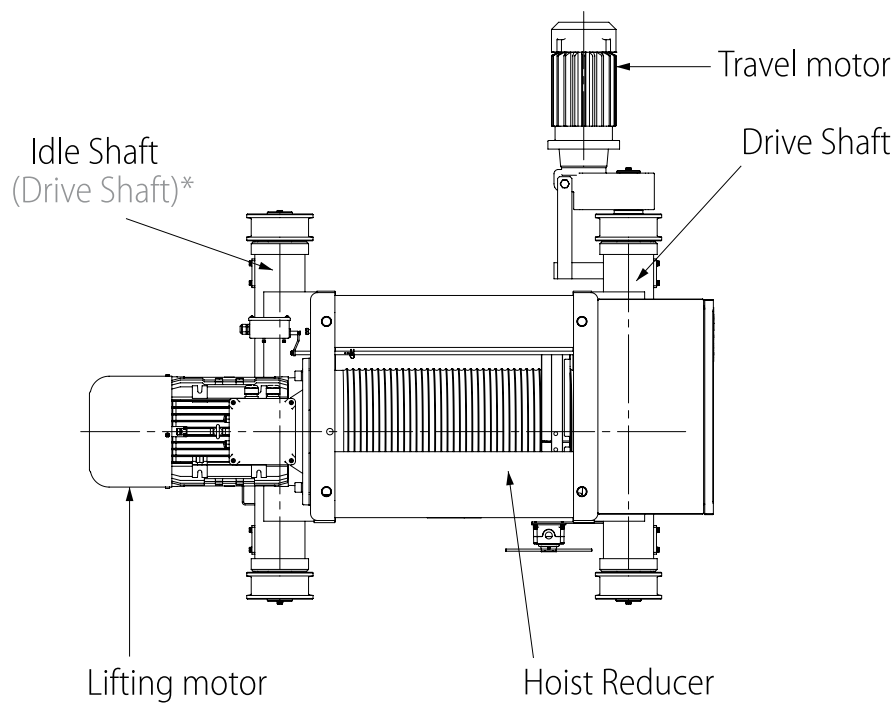
Fig. 17A



| Type       |              |                 | Dimensions |    |        |     |     |     |           |      |      |     |     |    |      |          |     |      |            |            | Weight |
|------------|--------------|-----------------|------------|----|--------|-----|-----|-----|-----------|------|------|-----|-----|----|------|----------|-----|------|------------|------------|--------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B          | B4 | B5* DS | B11 | B12 | C   | Ø D1 max. | Ø D3 | Ø D4 | E   | H1  | L7 | L8   | L9* (V1) | L10 | Sc   | T min. UEP | T max. DEP | kg     |
| M640       | 8            | 12              | 640        | 31 | 504    | 178 | 50  | 870 | 49        | 160  | 185  | 509 | 691 | 93 | 823  | 525      | 130 | 1000 | 367        | 553        | 822    |
|            | 8            | 17              | 640        | 31 | 504    | 178 | 50  | 870 | 49        | 160  | 185  | 509 | 691 | 93 | 973  | 525      | 130 | 1000 | 367        | 628        | 865    |
|            | 8            | 24              | 640        | 31 | 504    | 178 | 50  | 870 | 49        | 160  | 185  | 509 | 691 | 93 | 1188 | 525      | 130 | 1000 | 367        | 735        | 932    |
|            | 8            | 31              | 640        | 31 | 504    | 178 | 50  | 870 | 49        | 160  | 185  | 509 | 691 | 93 | 1403 | 525      | 130 | 1000 | 367        | 843        | 998    |
| M750       | 10           | 12              | 646        | 31 | 504    | 178 | 50  | 870 | 49        | 160  | 185  | 509 | 691 | 93 | 823  | 529      | 130 | 1000 | 367        | 553        | 944    |
|            | 10           | 17              | 646        | 31 | 504    | 178 | 50  | 870 | 49        | 160  | 185  | 509 | 691 | 93 | 973  | 529      | 130 | 1000 | 367        | 628        | 998    |
|            | 10           | 24              | 646        | 31 | 504    | 178 | 50  | 870 | 49        | 160  | 185  | 509 | 691 | 93 | 1188 | 529      | 130 | 1000 | 367        | 735        | 1074   |
|            | 10           | 31              | 646        | 31 | 504    | 178 | 50  | 870 | 49        | 160  | 185  | 509 | 691 | 93 | 1403 | 529      | 130 | 1000 | 367        | 843        | 1149   |

## Position of Cross Travel Motor-reducer for M Series

Fig. 17B



# Double-rail Hoist

## M 4/1 KD

**Series:** M (Standard Wire Rope Hoist)

**Type:** M640 / M750 / M863 / M980 / M1100 / M1125

**Capacity:** 16-50 t

**Reeving:** 4/1 (4 Rope Falls)

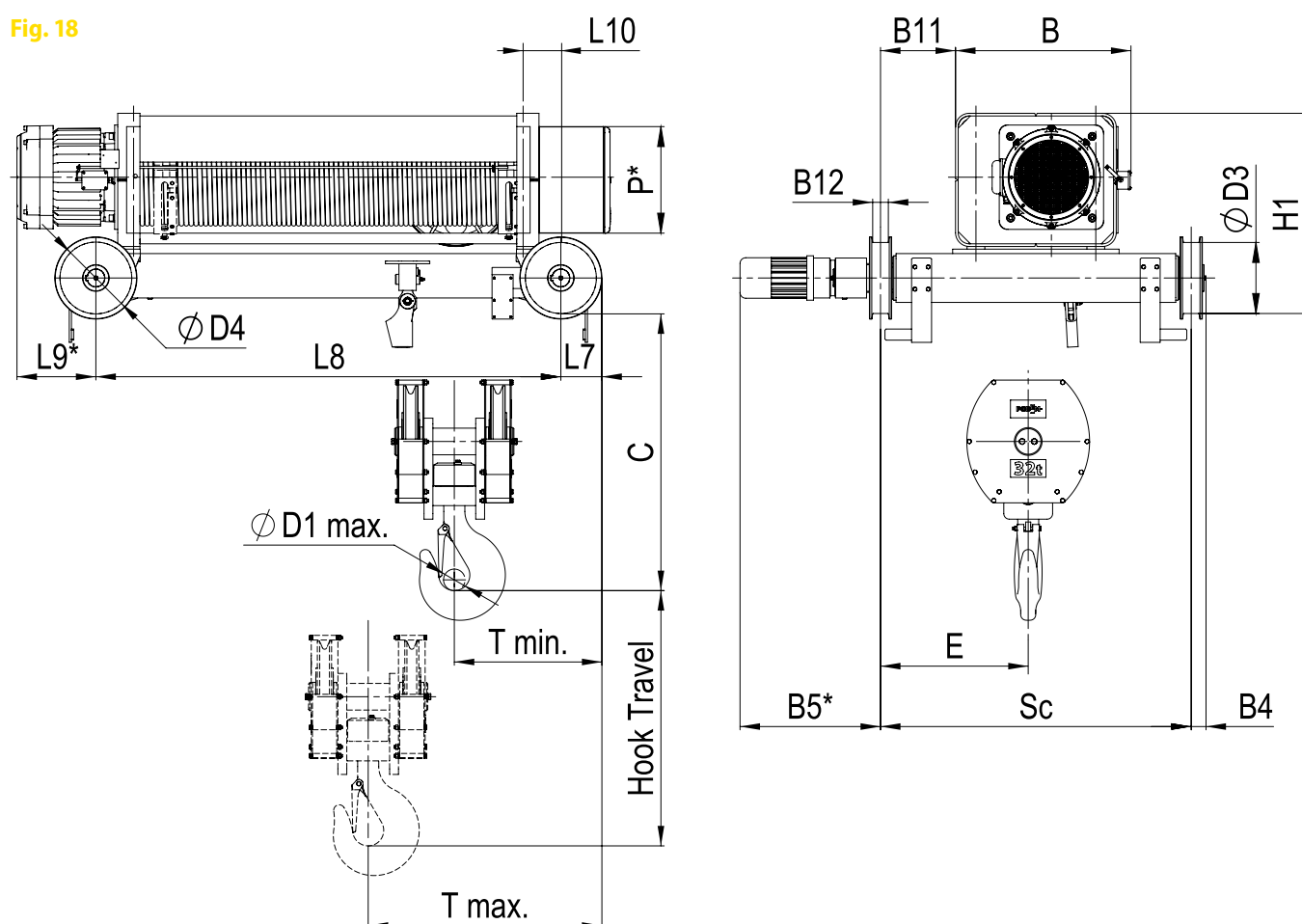
**Suspension:** KD (Double Rail Trolley)

**16-50 t**

**4/1**



**Fig. 18**



| Type       |              |                 | Dimensions |    |     |     |     |      |           |      |      |     |      |        |     |      |          |     |      |            | Weight     |       |
|------------|--------------|-----------------|------------|----|-----|-----|-----|------|-----------|------|------|-----|------|--------|-----|------|----------|-----|------|------------|------------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | B          | B4 | B5* | B11 | B12 | C    | Ø D1 max. | Ø D3 | Ø D4 | E   | H1   | L (V1) | L7  | L8   | L9* (V1) | L10 | Sc   | T min. UEP | T max. DEP | kg    |
| 640        | 16           | 6               | 640        | 60 | 651 | 278 | 60  | 800  | 59        | 200  | 240  | 641 | 731  | 1 122  | 120 | 843  | 515      | 140 | 1200 | 512        | 605        | 1 136 |
|            | 16           | 8,5             | 640        | 60 | 651 | 278 | 60  | 1045 | 59        | 200  | 240  | 571 | 731  | 1 272  | 120 | 993  | 515      | 140 | 1200 | 512        | 643        | 1 207 |
|            | 16           | 12              | 640        | 60 | 651 | 278 | 60  | 1045 | 59        | 200  | 240  | 571 | 731  | 1 487  | 120 | 1208 | 515      | 140 | 1200 | 512        | 696        | 1 257 |
|            | 16           | 15,5            | 640        | 60 | 651 | 278 | 60  | 1045 | 59        | 200  | 240  | 571 | 731  | 1 702  | 120 | 1423 | 515      | 140 | 1200 | 512        | 750        | 1 328 |
| 750        | 20           | 6               | 646        | 60 | 674 | 376 | 60  | 855  | 76        | 250  | 290  | 739 | 766  | 1 116  | 145 | 863  | 509      | 150 | 1400 | 547        | 640        | 1 376 |
|            | 20           | 8,5             | 646        | 60 | 674 | 376 | 60  | 1075 | 76        | 250  | 290  | 669 | 766  | 1 266  | 145 | 1013 | 509      | 150 | 1400 | 547        | 678        | 1 439 |
|            | 20           | 12              | 646        | 60 | 674 | 376 | 60  | 1075 | 76        | 250  | 290  | 669 | 766  | 1 481  | 145 | 1228 | 509      | 150 | 1400 | 547        | 731        | 1 520 |
|            | 20           | 15,5            | 646        | 60 | 674 | 376 | 60  | 1075 | 76        | 250  | 290  | 669 | 766  | 1 696  | 145 | 1443 | 509      | 150 | 1400 | 547        | 785        | 1 600 |
| 863        | 25           | 9,5             | 1 027      | 60 | 596 | 338 | 60  | 1135 | 76        | 250  | 290  | 665 | 852  | 1 508  | 145 | 1160 | 597      | 160 | 1400 | 615        | 774        | 1 849 |
|            | 25           | 16              | 1 027      | 60 | 596 | 338 | 60  | 1135 | 76        | 250  | 290  | 665 | 852  | 1 923  | 145 | 1575 | 597      | 160 | 1400 | 615        | 878        | 2 079 |
|            | 25           | 23              | 1 027      | 60 | 596 | 338 | 60  | 1135 | 76        | 250  | 290  | 665 | 852  | 2 423  | 145 | 2075 | 597      | 160 | 1400 | 615        | 1003       | 2 340 |
| 980        | 32           | 9,5             | 1 027      | 67 | 604 | 338 | 70  | 1259 | 97        | 320  | 370  | 665 | 902  | 1 267  | 185 | 1180 | 356      | 170 | 1400 | 665        | 824        | 2 290 |
|            | 32           | 16              | 1 027      | 67 | 604 | 338 | 70  | 1259 | 97        | 320  | 370  | 665 | 902  | 1 682  | 185 | 1595 | 356      | 170 | 1400 | 665        | 928        | 2 535 |
|            | 32           | 23              | 1 027      | 67 | 604 | 338 | 70  | 1259 | 97        | 320  | 370  | 665 | 902  | 2 182  | 185 | 2095 | 356      | 170 | 1400 | 665        | 1053       | 2 822 |
| 1100       | 40           | 11              | 1 027      | 77 | 619 | 470 | 90  | 1285 | 97        | 320  | 370  | 925 | 1130 | 1 711  | 185 | 1437 | 589      | 230 | 1900 | 759        | 930        | 4 308 |
|            | 40           | 14,5            | 1 027      | 77 | 619 | 470 | 90  | 1285 | 97        | 320  | 370  | 925 | 1134 | 1 896  | 185 | 1622 | 589      | 230 | 1900 | 759        | 985        | 4 432 |
|            | 40           | 18              | 0          | 77 | 619 | 470 | 90  | 1285 | 97        | 320  | 370  | 925 | 1134 | 2 136  | 185 | 1862 | 589      | 230 | 1900 | 759        | 1039       | 4 618 |
|            | 40           | 26              | 0          | 77 | 619 | 470 | 90  | 1285 | 97        | 320  | 370  | 925 | 1134 | 2 646  | 185 | 2372 | 589      | 230 | 1900 | 759        | 1164       | 4 972 |
| 1125       | 50           | 11              | 0          | 77 | 619 | 470 | 90  | 1285 | 97        | 320  | 370  | 925 | 1134 | 1 711  | 185 | 1437 | 589      | 230 | 1900 | 759        | 930        | 4 308 |
|            | 50           | 14,5            | 0          | 77 | 619 | 470 | 90  | 1285 | 97        | 320  | 370  | 925 | 1134 | 1 896  | 185 | 1622 | 589      | 230 | 1900 | 759        | 985        | 4 432 |
|            | 50           | 18              | 0          | 77 | 619 | 470 | 90  | 1285 | 97        | 320  | 370  | 925 | 1134 | 2 136  | 185 | 1862 | 589      | 230 | 1900 | 759        | 1039       | 4 618 |
|            | 50           | 26              | 0          | 77 | 619 | 470 | 90  | 1285 | 97        | 320  | 370  | 925 | 1134 | 2 646  | 185 | 2372 | 589      | 230 | 1900 | 759        | 1164       | 4 972 |

## Position of Cross Travel Motor-reducer for M Series

Fig. 19A

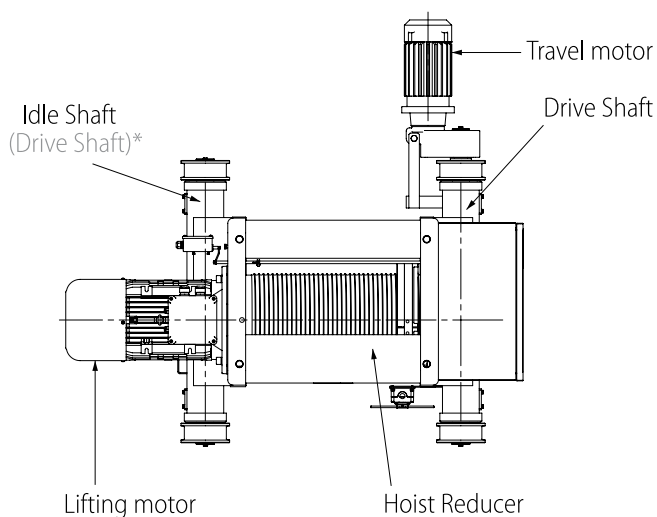
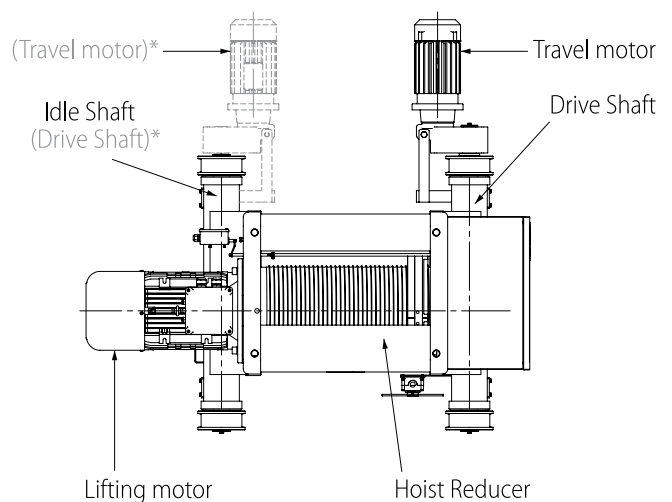


Fig. 19B

32 t hoists and above



# Foot-mounted Hoist (Stationary)

MTL 2/1 F

**Series:** MTL (Standard Wire Rope Hoist)  
**Type:** MTL312 / MTL316 / MTL525  
**Capacity:** 2.5-5 t  
**Reeving:** 2/1 (2 Rope Falls)  
**Suspension:** F (Foot-mounted, Stationary)

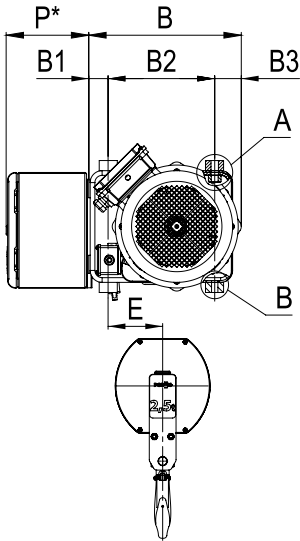
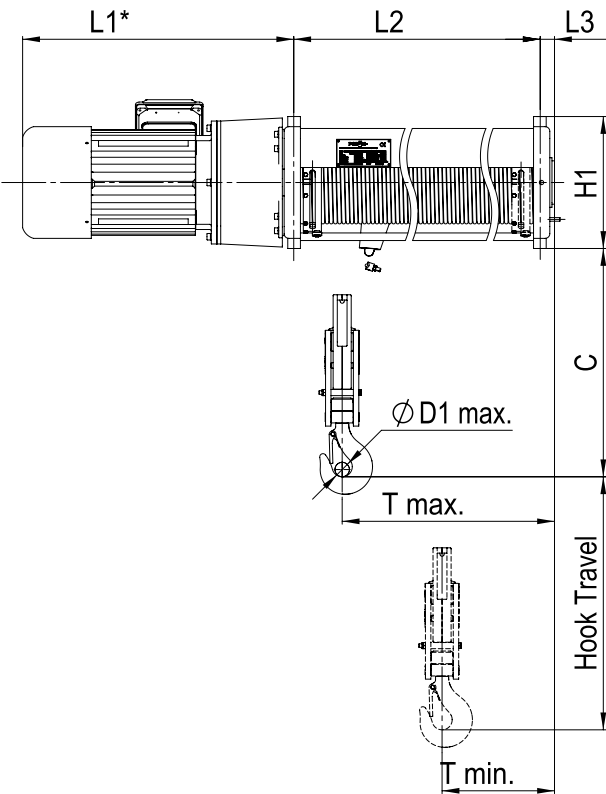
2.5–5 t

2/1

Hight Lifting Heights  
Hoist Series

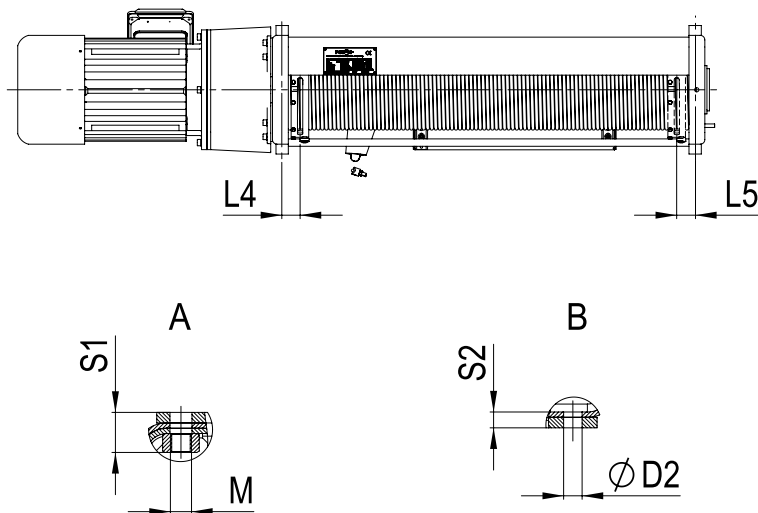


Fig. 20A



| Type       |              |                 | Dimensions |      |     |      |     |           |      |     |     |     |        |          |          |       |    |    |    |    |    |           | Weight    |     |
|------------|--------------|-----------------|------------|------|-----|------|-----|-----------|------|-----|-----|-----|--------|----------|----------|-------|----|----|----|----|----|-----------|-----------|-----|
| Hoist Type | Capacity (t) | Hook Travel (m) | B          | B1   | B2  | B3   | C   | Ø D1 max. | Ø D2 | E   | H1  | M   | L (V2) | L1* (V1) | L1* (V2) | L2    | L3 | L4 | L5 | S1 | S2 | T min UEP | T max DEP | kg  |
| MTL312     | 2.5          | 32              | 422        | 53.5 | 295 | 73.5 | 630 | 40        | 18   | 151 | 365 | M20 | 1 698  | 484      | 484      | 1 175 | 40 | 52 | 53 | 60 | 33 | 1081      | 546       | 389 |
|            | 2.5          | 40              | 422        | 53.5 | 295 | 73.5 | 630 | 40        | 18   | 151 | 365 | M20 | 1 968  | 484      | 484      | 1 445 | 40 | 52 | 56 | 60 | 33 | 1351      | 682       | 432 |
|            | 2.5          | 48              | 422        | 53.5 | 295 | 73.5 | 630 | 40        | 18   | 151 | 365 | M20 | 2 233  | 484      | 484      | 1 710 | 40 | 52 | 53 | 60 | 33 | 1616      | 813       | 476 |
|            | 2.5          | 56              | 422        | 53.5 | 295 | 73.5 | 630 | 40        | 18   | 151 | 365 | M20 | 2 503  | 484      | 484      | 1 980 | 40 | 52 | 56 | 60 | 33 | 1886      | 949       | 518 |
| MTL316     | 3.2          | 32              | 422        | 53.5 | 295 | 73.5 | 630 | 40        | 18   | 151 | 365 | M20 | 1 780  | 484      | 566      | 1 175 | 40 | 52 | 53 | 60 | 33 | 1081      | 546       | 389 |
|            | 3.2          | 40              | 422        | 53.5 | 295 | 73.5 | 630 | 40        | 18   | 151 | 365 | M20 | 2 050  | 484      | 566      | 1 445 | 40 | 52 | 56 | 60 | 33 | 1351      | 682       | 432 |
|            | 3.2          | 48              | 422        | 53.5 | 295 | 73.5 | 630 | 40        | 18   | 151 | 365 | M20 | 2 315  | 484      | 566      | 1 710 | 40 | 52 | 53 | 60 | 33 | 1616      | 813       | 476 |
|            | 3.2          | 56              | 422        | 53.5 | 295 | 73.5 | 630 | 40        | 18   | 151 | 365 | M20 | 2 585  | 484      | 566      | 1 980 | 40 | 52 | 56 | 60 | 33 | 1886      | 949       | 518 |
| MTL525     | 5            | 32              | 476        | 56.5 | 345 | 74.5 | 718 | 41        | 21   | 173 | 428 | M24 | 1 885  | 591      | 642      | 1 200 | 44 | 61 | 63 | 71 | 43 | 1102      | 563       | 620 |
|            | 5            | 40              | 476        | 56.5 | 345 | 74.5 | 718 | 41        | 21   | 173 | 428 | M24 | 2 155  | 591      | 642      | 1 470 | 44 | 61 | 64 | 71 | 43 | 1372      | 699       | 668 |
|            | 5            | 48              | 476        | 56.5 | 345 | 74.5 | 718 | 41        | 21   | 173 | 428 | M24 | 2 425  | 591      | 642      | 1 740 | 44 | 61 | 65 | 71 | 43 | 1642      | 834       | 716 |
|            | 5            | 56              | 476        | 56.5 | 345 | 74.5 | 718 | 41        | 21   | 173 | 428 | M24 | 2 695  | 591      | 642      | 2 010 | 44 | 61 | 66 | 71 | 43 | 1912      | 970       | 763 |

Fig. 20B



# Monorail Hoist (Normal Headroom)

MTL 2/1 N

**Series:** MTL (Standard Wire Rope Hoist)  
**Type:** MTL312 / MTL316 / MTL525  
**Capacity:** 2.5-5 t  
**Reeving:** 2/1 (2 Rope Falls)  
**Suspension:** N (Normal Headroom, Monorail)

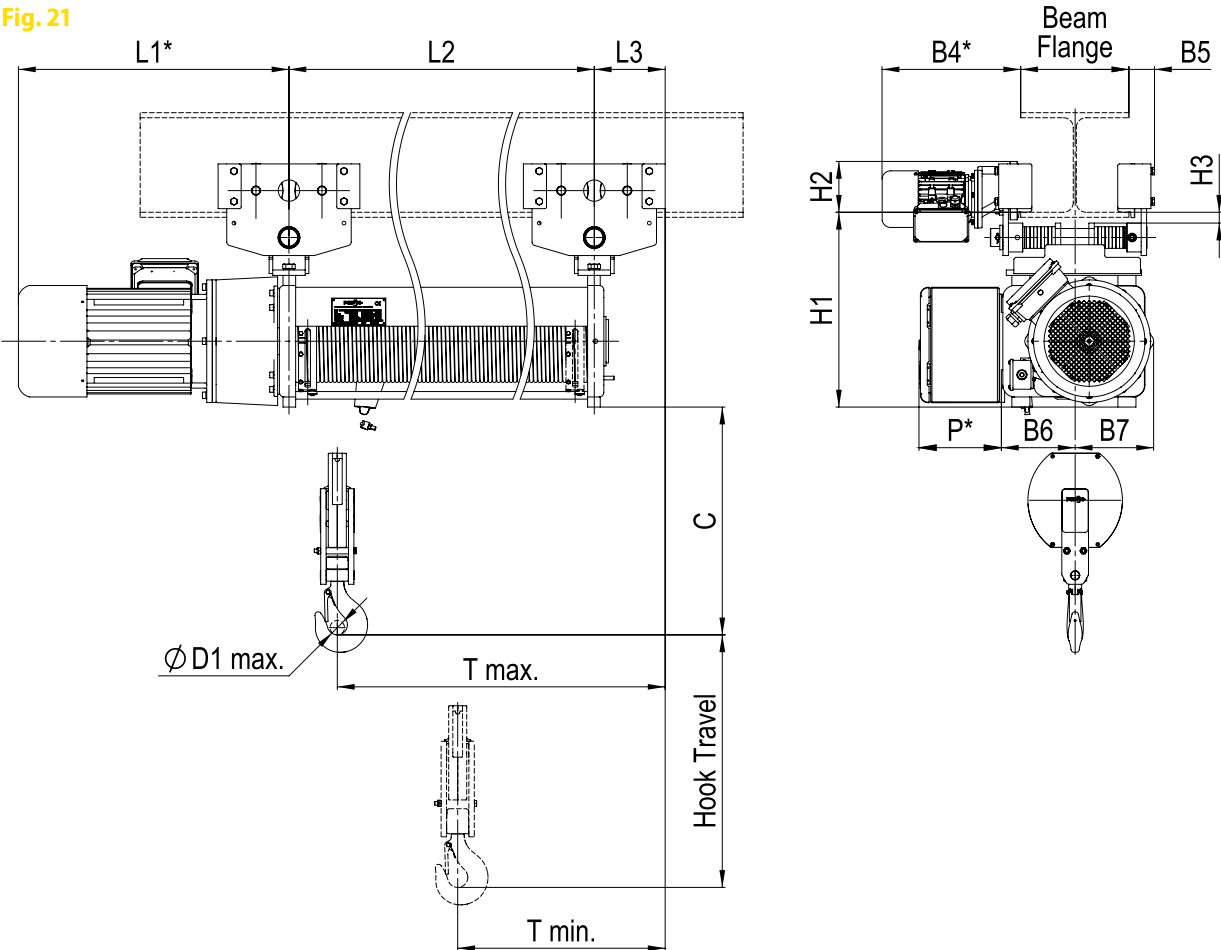
2.5–5 t

2/1

Hight Lifting Heights  
Hoist Series



Fig. 21



| Type       |              |                 | Dimensions |    |     |     |     |           |      |     |     |     |    |     |        |          |          |       |     |    |    |           | Weight    |     |
|------------|--------------|-----------------|------------|----|-----|-----|-----|-----------|------|-----|-----|-----|----|-----|--------|----------|----------|-------|-----|----|----|-----------|-----------|-----|
| Hoist Type | Capacity (t) | Hook Travel (m) | B4* DS     | B5 | B6  | B7  | C   | Ø D1 max. | Ø D2 | E   | H1  | H2  | H3 | M   | L (V2) | L1* (V1) | L1* (V2) | L2    | L3  | L4 | L5 | T min UEP | T max DEP | kg  |
| MTL312     | 2.5          | 32              | 384        | 71 | 205 | 218 | 630 | 40        | 18   | 151 | 540 | 141 | 30 | M20 | 1 856  | 484      | 484      | 1 175 | 197 | 52 | 53 | 1238      | 703       | 536 |
|            | 2.5          | 40              | 384        | 71 | 205 | 218 | 630 | 40        | 18   | 151 | 540 | 141 | 30 | M20 | 2 126  | 484      | 484      | 1 445 | 197 | 52 | 56 | 1508      | 839       | 579 |
|            | 2.5          | 48              | 384        | 71 | 205 | 218 | 630 | 40        | 18   | 151 | 540 | 141 | 30 | M20 | 2 391  | 484      | 484      | 1 710 | 197 | 52 | 53 | 1773      | 971       | 623 |
|            | 2.5          | 56              | 384        | 71 | 205 | 218 | 630 | 40        | 18   | 151 | 540 | 141 | 30 | M20 | 2 661  | 484      | 484      | 1 980 | 197 | 52 | 56 | 2043      | 1107      | 665 |
| MTL316     | 3.2          | 32              | 384        | 71 | 205 | 218 | 630 | 40        | 18   | 151 | 540 | 141 | 30 | M20 | 1 938  | 484      | 566      | 1 175 | 197 | 52 | 53 | 1238      | 703       | 536 |
|            | 3.2          | 40              | 384        | 71 | 205 | 218 | 630 | 40        | 18   | 151 | 540 | 141 | 30 | M20 | 2 208  | 484      | 566      | 1 445 | 197 | 52 | 56 | 1508      | 839       | 579 |
|            | 3.2          | 48              | 384        | 71 | 205 | 218 | 630 | 40        | 18   | 151 | 540 | 141 | 30 | M20 | 2 473  | 484      | 566      | 1 710 | 197 | 52 | 53 | 1773      | 971       | 623 |
|            | 3.2          | 56              | 384        | 71 | 205 | 218 | 630 | 40        | 18   | 151 | 540 | 141 | 30 | M20 | 2 743  | 484      | 566      | 1 980 | 197 | 52 | 56 | 2043      | 1107      | 665 |
| MTL525     | 5            | 32              | 384        | 71 | 230 | 247 | 719 | 41        | 21   | 173 | 603 | 141 | 30 | M24 | 2 042  | 591      | 645      | 1 200 | 197 | 61 | 63 | 1255      | 717       | 789 |
|            | 5            | 40              | 384        | 71 | 230 | 247 | 719 | 41        | 21   | 173 | 603 | 141 | 30 | M24 | 2 312  | 591      | 645      | 1 470 | 197 | 61 | 64 | 1525      | 852       | 837 |
|            | 5            | 48              | 384        | 71 | 230 | 247 | 719 | 41        | 21   | 173 | 603 | 141 | 30 | M24 | 2 582  | 591      | 645      | 1 740 | 197 | 61 | 65 | 1795      | 988       | 885 |
|            | 5            | 56              | 384        | 71 | 230 | 247 | 719 | 41        | 21   | 173 | 603 | 141 | 30 | M24 | 2 852  | 591      | 645      | 2 010 | 197 | 61 | 66 | 2065      | 1123      | 932 |

\* Standard Podem hoists are adjustable for beam flange 130...300 mm

# Foot-mounted Hoist (True Vertical Lift)

MT 4/2 F

**Series:** MT  
**Type:** MT305 / MT308 / MT312 / MT316 / MT525  
**Capacity:** 1-5 t  
**Reeving:** 4/2 (True Vertical Lift)  
**Suspension:** F (Foot-mounted, Stationary)

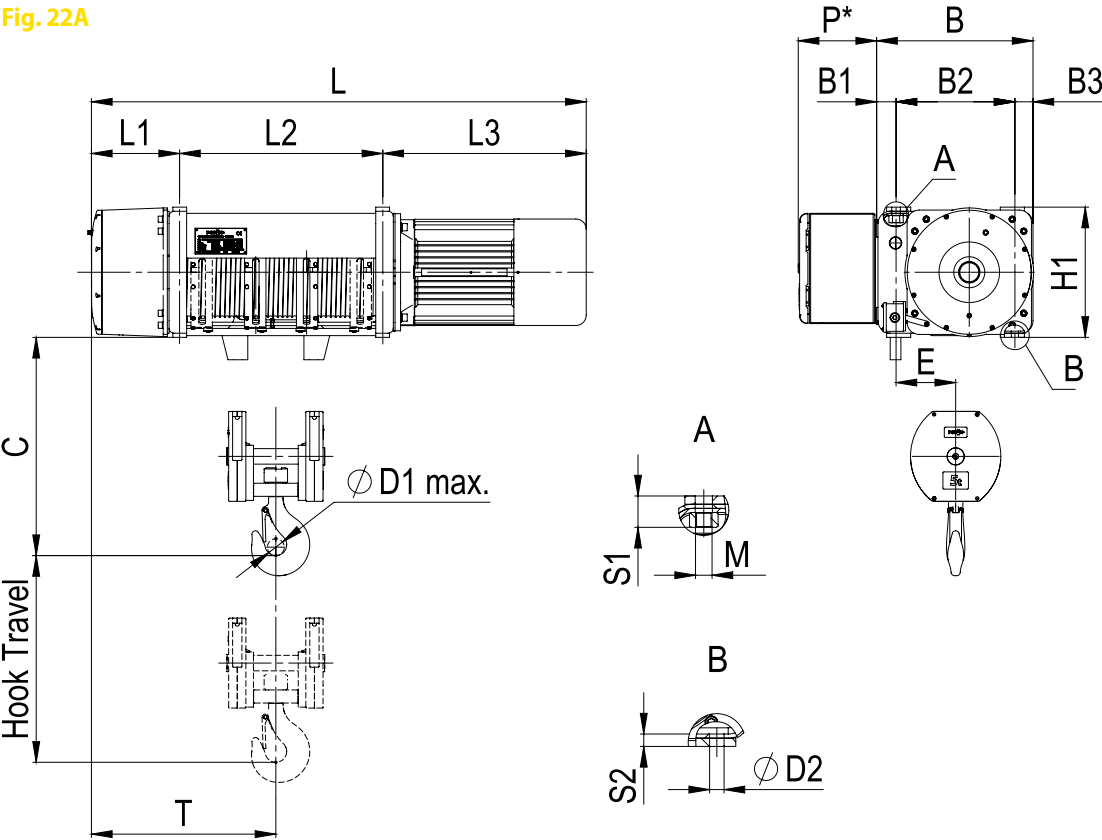
1-5 t

4/2

True Vertical Lifting  
Hoist Series

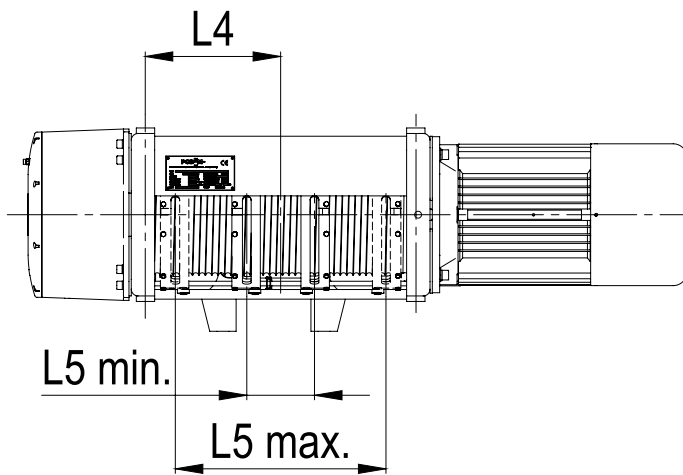


Fig. 22A



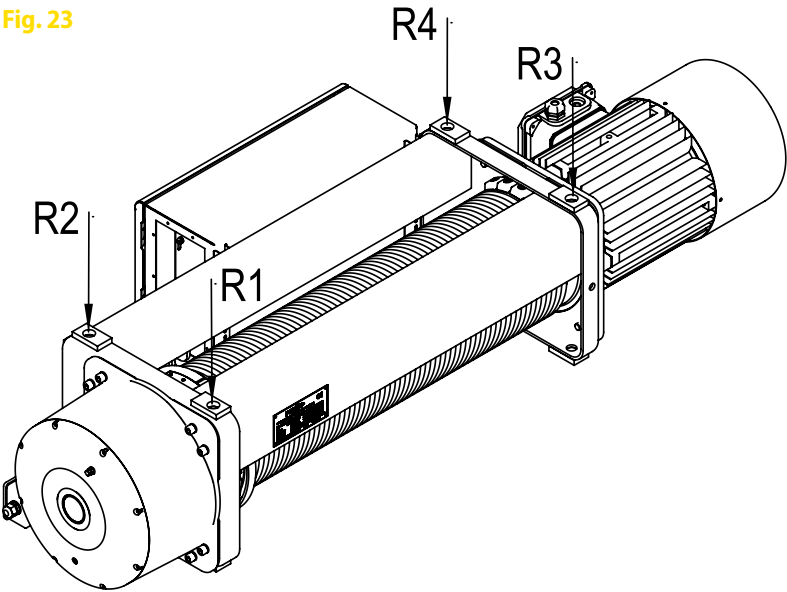
| Type       |              |                 | Dimensions |      |     |      |     |           |      |     |     |     |        |     |     |          |           |     |             |             |    |    | Weight |     |
|------------|--------------|-----------------|------------|------|-----|------|-----|-----------|------|-----|-----|-----|--------|-----|-----|----------|-----------|-----|-------------|-------------|----|----|--------|-----|
| Hoist Type | Capacity (t) | Hook Travel (m) | B          | B1   | B2  | B3   | C   | Ø D1 max. | Ø D2 | E   | H1  | M   | L (V8) | L1* | L2  | L3* (V8) | L3* (V12) | L4  | L5 min. UEP | L5 max. UEP | S1 | S2 | T      | kg  |
| MT305      | 1            | 6               | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 15   | 138 | 321 | M14 | 1 101  | 196 | 520 | 385      | 385       | 260 | 98          | 418         | 26 | 13 | 456    | 165 |
|            | 1            | 10              | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 15   | 138 | 321 | M14 | 1 281  | 196 | 700 | 385      | 385       | 350 | 98          | 632         | 26 | 13 | 546    | 173 |
|            | 1            | 13              | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 15   | 138 | 321 | M14 | 1 466  | 196 | 885 | 385      | 385       | 443 | 98          | 792         | 26 | 13 | 639    | 190 |
| MT308      | 1.6          | 6               | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 15   | 138 | 321 | M14 | 1 101  | 196 | 520 | 385      | 483       | 260 | 98          | 418         | 26 | 13 | 456    | 170 |
|            | 1.6          | 10              | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 15   | 138 | 321 | M14 | 1 281  | 196 | 700 | 385      | 483       | 350 | 98          | 632         | 26 | 13 | 546    | 178 |
|            | 1.6          | 13              | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 15   | 138 | 321 | M14 | 1 466  | 196 | 885 | 385      | 483       | 443 | 98          | 792         | 26 | 13 | 639    | 194 |
| MT312      | 2.5          | 7               | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 18   | 151 | 321 | M20 | 1 288  | 234 | 570 | 484      | 484       | 285 | 116         | 442         | 34 | 13 | 519    | 267 |
|            | 2.5          | 12              | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 18   | 151 | 321 | M20 | 1 493  | 234 | 775 | 484      | 484       | 388 | 116         | 674         | 34 | 13 | 622    | 288 |
|            | 2.5          | 16              | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 18   | 151 | 321 | M20 | 1 693  | 234 | 975 | 484      | 484       | 488 | 116         | 860         | 34 | 13 | 722    | 315 |
| MT316      | 3.2          | 7               | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 18   | 151 | 321 | M20 | 1 288  | 234 | 570 | 484      | 566       | 285 | 116         | 442         | 34 | 13 | 519    | 269 |
|            | 3.2          | 12              | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 18   | 151 | 321 | M20 | 1 493  | 234 | 775 | 484      | 566       | 388 | 116         | 674         | 34 | 13 | 622    | 290 |
|            | 3.2          | 16              | 398        | 53.5 | 295 | 49.5 | 489 | 40        | 18   | 151 | 321 | M20 | 1 693  | 234 | 975 | 484      | 566       | 488 | 116         | 860         | 34 | 13 | 722    | 317 |
| MT525      | 5            | 6               | 454        | 56.5 | 345 | 52.5 | 569 | 41        | 21   | 173 | 378 | M24 | 1 437  | 256 | 590 | 591      | 642       | 295 | 148         | 480         | 46 | 18 | 551    | 421 |
|            | 5            | 10              | 454        | 56.5 | 345 | 52.5 | 569 | 41        | 21   | 173 | 378 | M24 | 1 642  | 256 | 795 | 591      | 642       | 398 | 148         | 701         | 46 | 18 | 654    | 452 |
|            | 5            | 14              | 454        | 56.5 | 345 | 52.5 | 569 | 41        | 21   | 173 | 378 | M24 | 1 842  | 256 | 995 | 591      | 642       | 498 | 148         | 922         | 46 | 18 | 754    | 483 |

Fig. 22B



# Static Reactions Stationary Hoists

## MT 2/1 F

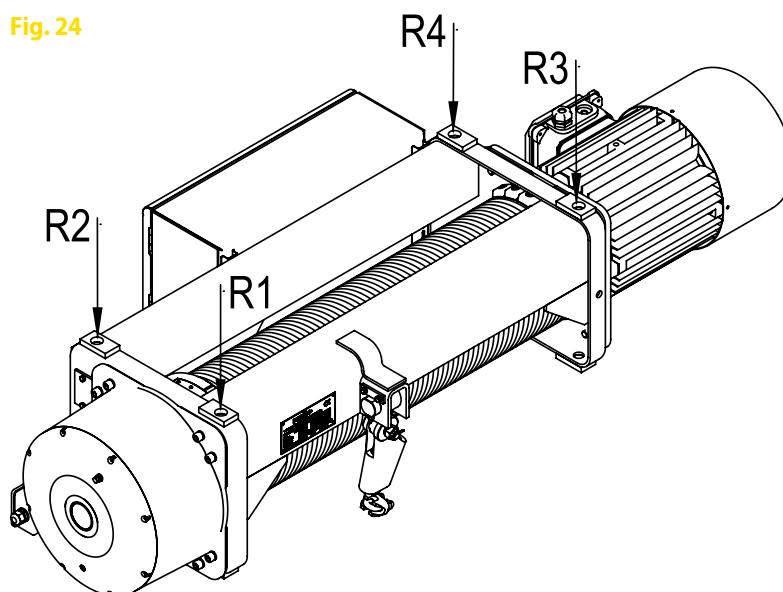


| Type       |              |                 |                   | Reactions – UEP |       |     |     | Reactions – DEP |       |       |       |
|------------|--------------|-----------------|-------------------|-----------------|-------|-----|-----|-----------------|-------|-------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2    | R3  | R4  | R1              | R2    | R3    | R4    |
| MT305      | 1            | 10              | 158               | 375             | 421   | 172 | 191 | 194             | 215   | 353   | 396   |
|            | 1            | 14              | 166               | 409             | 459   | 142 | 156 | 217             | 241   | 334   | 375   |
|            | 1            | 20              | 178               | 438             | 492   | 119 | 130 | 234             | 260   | 323   | 362   |
|            | 1            | 26              | 190               | 456             | 512   | 107 | 115 | 247             | 274   | 316   | 353   |
| MT308      | 1.6          | 10              | 158               | 576             | 650   | 252 | 281 | 287             | 321   | 541   | 610   |
|            | 1.6          | 14              | 167               | 629             | 710   | 203 | 225 | 322             | 360   | 510   | 575   |
|            | 1.6          | 20              | 178               | 673             | 760   | 164 | 181 | 347             | 389   | 490   | 552   |
|            | 1.6          | 26              | 190               | 701             | 791   | 142 | 155 | 366             | 410   | 478   | 537   |
| MT312      | 2.5          | 10              | 237               | 949             | 908   | 449 | 431 | 463             | 444   | 935   | 894   |
|            | 2.5          | 14              | 250               | 1 041           | 996   | 363 | 349 | 516             | 495   | 889   | 850   |
|            | 2.5          | 20              | 270               | 1 126           | 1 077 | 289 | 278 | 574             | 550   | 841   | 805   |
|            | 2.5          | 26              | 290               | 1 176           | 1 125 | 248 | 240 | 606             | 581   | 819   | 784   |
| MT316      | 3.2          | 10              | 237               | 1 198           | 1 145 | 558 | 535 | 576             | 552   | 1 180 | 1 128 |
|            | 3.2          | 14              | 250               | 1 315           | 1 257 | 447 | 430 | 643             | 616   | 1 120 | 1 071 |
|            | 3.2          | 20              | 270               | 1 422           | 1 359 | 351 | 337 | 716             | 686   | 1 057 | 1 011 |
|            | 3.2          | 26              | 290               | 1 485           | 1 420 | 297 | 287 | 755             | 723   | 1 028 | 983   |
| MT525      | 5            | 10              | 367               | 1 816           | 1 806 | 874 | 870 | 890             | 885   | 1 801 | 1 791 |
|            | 5            | 14              | 386               | 2 000           | 1 989 | 700 | 696 | 1 000           | 995   | 1 700 | 1 691 |
|            | 5            | 20              | 415               | 2 163           | 2 151 | 552 | 549 | 1 102           | 1 097 | 1 612 | 1 603 |
|            | 5            | 26              | 444               | 2 260           | 2 248 | 469 | 467 | 1 159           | 1 153 | 1 570 | 1 562 |

# Static Reactions Stationary Hoists

MT 4/1 F

Fig. 24

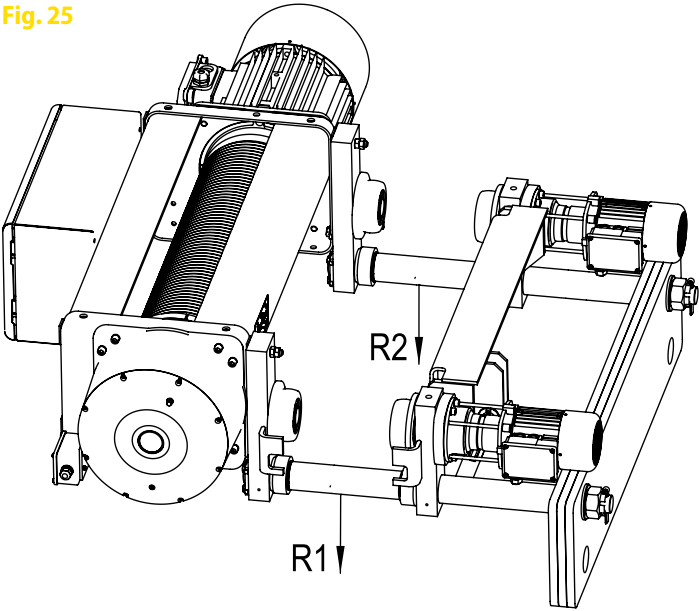


| Type       |              |                 |                   | Reactions – UEP |       |       |       | Reactions – DEP |       |       |       |
|------------|--------------|-----------------|-------------------|-----------------|-------|-------|-------|-----------------|-------|-------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2    | R3    | R4    | R1              | R2    | R3    | R4    |
| MT305      | 2            | 7               | 180               | 804             | 651   | 398   | 327   | 576             | 469   | 626   | 509   |
|            | 2            | 10              | 188               | 897             | 726   | 309   | 256   | 655             | 532   | 551   | 450   |
|            | 2            | 13              | 205               | 956             | 774   | 258   | 217   | 707             | 575   | 508   | 416   |
| MT308      | 3.2          | 7               | 185               | 1 223           | 986   | 648   | 527   | 858             | 695   | 1 014 | 819   |
|            | 3.2          | 10              | 193               | 1 380           | 1 112 | 496   | 406   | 992             | 802   | 883   | 715   |
|            | 3.2          | 13              | 209               | 1 477           | 1 191 | 406   | 335   | 1 079           | 872   | 805   | 653   |
| MT312      | 5            | 7               | 282               | 1 864           | 1 408 | 1 141 | 869   | 1 277           | 970   | 1 729 | 1 307 |
|            | 5            | 10              | 303               | 2 153           | 1 624 | 863   | 663   | 1 535           | 1 164 | 1 481 | 1 123 |
|            | 5            | 13              | 330               | 2 321           | 1 752 | 708   | 549   | 1 683           | 1 276 | 1 347 | 1 025 |
| MT316      | 6.3          | 7               | 284               | 2 331           | 1 756 | 1 420 | 1 077 | 1 591           | 1 204 | 2 161 | 1 629 |
|            | 6.3          | 10              | 305               | 2 693           | 2 028 | 1 068 | 816   | 1 915           | 1 447 | 1 847 | 1 396 |
|            | 6.3          | 13              | 332               | 2 904           | 2 186 | 871   | 671   | 2 099           | 1 586 | 1 676 | 1 271 |
| MT525      | 10           | 7               | 436               | 3 616           | 2 839 | 2 225 | 1 756 | 2 494           | 1 966 | 3 347 | 2 629 |
|            | 10           | 10              | 467               | 4 170           | 3 271 | 1 687 | 1 339 | 2 980           | 2 346 | 2 876 | 2 265 |
|            | 10           | 13              | 498               | 4 493           | 3 525 | 1 379 | 1 101 | 3 258           | 2 563 | 2 615 | 2 063 |

# Static Reactions Low Headroom Hoists

## MT 2/1 LC

Fig. 25

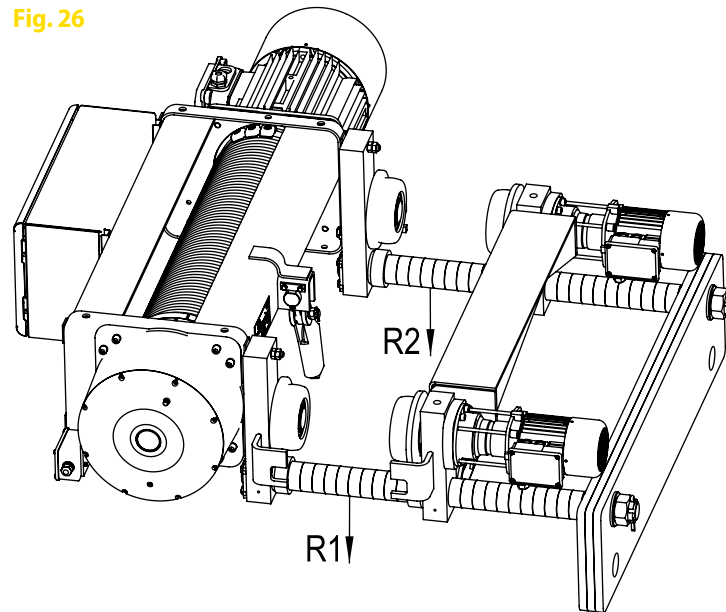


| Type       |              |                 |                   | Reactions – UEP          |                          | Reactions – DEP          |                          |
|------------|--------------|-----------------|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1 (max. Wheel Load x 2) | R2 (max. Wheel Load x 2) | R1 (max. Wheel Load x 2) | R2 (max. Wheel Load x 2) |
| MT305      | 1            | 10              | 305               | 433                      | 219                      | 240                      | 412                      |
|            | 1            | 14              | 321               | 472                      | 189                      | 266                      | 394                      |
|            | 1            | 20              | 345               | 506                      | 167                      | 288                      | 385                      |
|            | 1            | 26              | 369               | 529                      | 156                      | 305                      | 380                      |
| MT308      | 1.6          | 10              | 305               | 647                      | 305                      | 339                      | 614                      |
|            | 1.6          | 14              | 321               | 706                      | 254                      | 378                      | 583                      |
|            | 1.6          | 20              | 345               | 757                      | 215                      | 409                      | 564                      |
|            | 1.6          | 26              | 369               | 790                      | 194                      | 432                      | 553                      |
| MT312      | 2.5          | 10              | 413               | 1 012                    | 444                      | 537                      | 919                      |
|            | 2.5          | 14              | 439               | 1 096                    | 373                      | 583                      | 886                      |
|            | 2.5          | 20              | 482               | 1 177                    | 314                      | 638                      | 853                      |
|            | 2.5          | 26              | 527               | 1 228                    | 285                      | 671                      | 843                      |
| MT316      | 3.2          | 10              | 413               | 1 267                    | 539                      | 659                      | 1 147                    |
|            | 3.2          | 14              | 439               | 1 373                    | 446                      | 716                      | 1 103                    |
|            | 3.2          | 20              | 482               | 1 473                    | 368                      | 782                      | 1 058                    |
|            | 3.2          | 26              | 527               | 1 535                    | 329                      | 822                      | 1 042                    |
| MT525      | 5            | 10              | 641               | 1 880                    | 940                      | 956                      | 1 864                    |
|            | 5            | 14              | 678               | 2 068                    | 771                      | 1 070                    | 1 769                    |
|            | 5            | 20              | 710               | 2 231                    | 624                      | 1 173                    | 1 682                    |
|            | 5            | 26              | 774               | 2 337                    | 550                      | 1 238                    | 1 649                    |

# Static Reactions Low Headroom Hoists

## MT 4/1 LC

Fig. 26

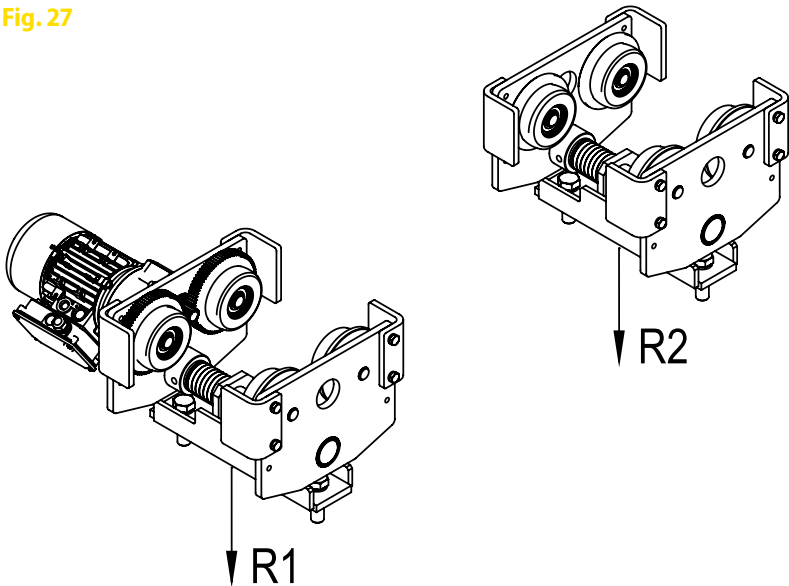


| Type       |              |                 |                   | Reactions – UEP          |                          | Reactions – DEP          |                          |
|------------|--------------|-----------------|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1 (max. Wheel Load x 2) | R2 (max. Wheel Load x 2) | R1 (max. Wheel Load x 2) | R2 (max. Wheel Load x 2) |
| MT305      | 2            | 7               | 339               | 710                      | 460                      | 504                      | 665                      |
|            | 2            | 10              | 360               | 811                      | 369                      | 594                      | 586                      |
|            | 2            | 13              | 390               | 877                      | 318                      | 653                      | 542                      |
| MT308      | 3.2          | 7               | 330               | 1 083                    | 683                      | 754                      | 1 011                    |
|            | 3.2          | 10              | 361               | 1 245                    | 536                      | 896                      | 884                      |
|            | 3.2          | 13              | 391               | 1 345                    | 450                      | 987                      | 809                      |
| MT312      | 5            | 7               | 495               | 1 619                    | 1 128                    | 1 106                    | 1 641                    |
|            | 5            | 10              | 541               | 1 897                    | 874                      | 1 357                    | 1 413                    |
|            | 5            | 13              | 585               | 2 059                    | 733                      | 1 502                    | 1 291                    |
| MT316      | 6.3          | 7               | 497               | 2 009                    | 1 390                    | 1 362                    | 2 036                    |
|            | 6.3          | 10              | 543               | 2 355                    | 1 066                    | 1 676                    | 1 746                    |
|            | 6.3          | 13              | 587               | 2 557                    | 887                      | 1 855                    | 1 589                    |
| MT525      | 10           | 7               | 784               | 3 128                    | 2 264                    | 2 131                    | 3 261                    |
|            | 10           | 10              | 818               | 3 670                    | 1 739                    | 2 612                    | 2 797                    |
|            | 10           | 13              | 884               | 3 995                    | 1 447                    | 2 896                    | 2 546                    |

# Static Reactions Normal Headroom Hoists

## MT 2/1 N

Fig. 27

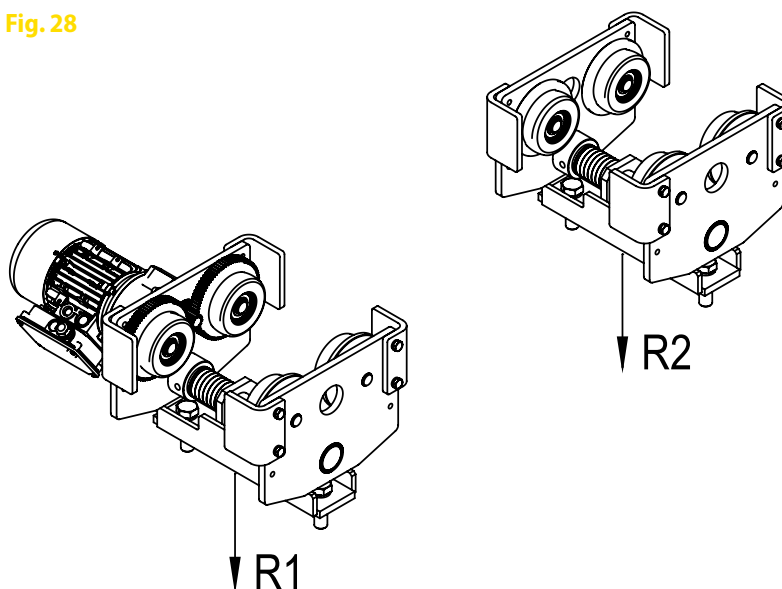


| Type       |              |                 |                   | Reactions – UEP           |                           | Reactions – DEP           |                           |
|------------|--------------|-----------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1* (max. Wheel Load x 4) | R2* (max. Wheel Load x 4) | R1* (max. Wheel Load x 4) | R2* (max. Wheel Load x 4) |
| MT305      | 1            | 10              | 210               | 1 210                     | –                         | 1 210                     | –                         |
|            | 1            | 14              | 243               | 906                       | 337                       | 496                       | 748                       |
|            | 1            | 20              | 250               | 965                       | 285                       | 530                       | 721                       |
|            | 1            | 26              | 267               | 1 007                     | 260                       | 559                       | 708                       |
| MT308      | 1.6          | 10              | 235               | 1 264                     | 571                       | 646                       | 1 189                     |
|            | 1.6          | 14              | 243               | 1 377                     | 466                       | 720                       | 1 123                     |
|            | 1.6          | 20              | 250               | 1 469                     | 381                       | 772                       | 1 078                     |
|            | 1.6          | 26              | 267               | 1 531                     | 336                       | 814                       | 1 053                     |
| MT312      | 2.5          | 10              | 367               | 1 922                     | 945                       | 972                       | 1 894                     |
|            | 2.5          | 14              | 380               | 2 102                     | 777                       | 1 076                     | 1 804                     |
|            | 2.5          | 20              | 400               | 2 267                     | 632                       | 1 189                     | 1 710                     |
|            | 2.5          | 26              | 420               | 2 366                     | 553                       | 1 252                     | 1 668                     |
| MT316      | 3.2          | 10              | 367               | 2 409                     | 1 158                     | 1 193                     | 2 373                     |
|            | 3.2          | 14              | 380               | 2 637                     | 942                       | 1 324                     | 2 256                     |
|            | 3.2          | 20              | 400               | 2 846                     | 753                       | 1 466                     | 2 133                     |
|            | 3.2          | 26              | 420               | 2 970                     | 650                       | 1 544                     | 2 076                     |
| MT525      | 5            | 10              | 505               | 3 692                     | 1 813                     | 1 844                     | 3 661                     |
|            | 5            | 14              | 524               | 4 058                     | 1 465                     | 2 063                     | 3 460                     |
|            | 5            | 20              | 553               | 4 383                     | 1 169                     | 2 268                     | 3 285                     |
|            | 5            | 26              | 582               | 4 577                     | 1 004                     | 2 380                     | 3 202                     |

# Static Reactions Normal Headroom Hoists

## MT 4/1 N

Fig. 28

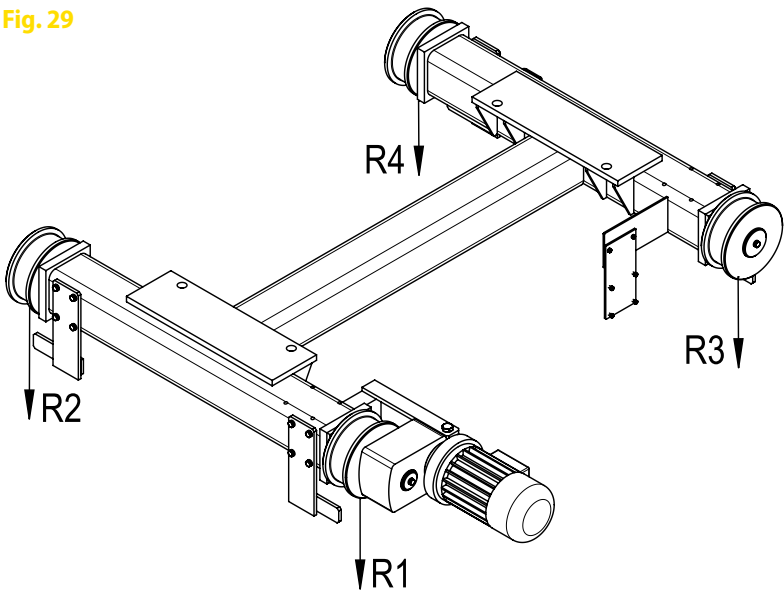


| Type       |              |                 |                   | Reactions – UEP           |                           | Reactions – DEP           |                           |
|------------|--------------|-----------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1* (max. Wheel Load x 4) | R2* (max. Wheel Load x 4) | R1* (max. Wheel Load x 4) | R2* (max. Wheel Load x 4) |
| MT305      | 2            | 7               | 316               | 1 523                     | 793                       | 1 113                     | 1 203                     |
|            | 2            | 10              | 324               | 1 690                     | 633                       | 1 255                     | 1 069                     |
|            | 2            | 13              | 341               | 1 798                     | 543                       | 1 350                     | 991                       |
| MT308      | 3.2          | 7               | 321               | 2 277                     | 1 244                     | 1 621                     | 1 900                     |
|            | 3.2          | 10              | 329               | 2 560                     | 969                       | 1 863                     | 1 666                     |
|            | 3.2          | 13              | 345               | 2 736                     | 809                       | 2 019                     | 1 526                     |
| MT312      | 5            | 7               | 418               | 3 341                     | 2 077                     | 2 314                     | 3 104                     |
|            | 5            | 10              | 439               | 3 845                     | 1 594                     | 2 767                     | 2 672                     |
|            | 5            | 13              | 466               | 4 141                     | 1 325                     | 3 026                     | 2 440                     |
| MT316      | 6.3          | 7               | 433               | 4 162                     | 2 571                     | 2 869                     | 3 864                     |
|            | 6.3          | 10              | 454               | 4 795                     | 1 958                     | 3 437                     | 3 317                     |
|            | 6.3          | 13              | 481               | 5 164                     | 1 617                     | 3 760                     | 3 021                     |
| MT525      | 10           | 7               | 660               | 6 567                     | 4 093                     | 4 572                     | 6 088                     |
|            | 10           | 10              | 691               | 7 553                     | 3 138                     | 5 438                     | 5 253                     |
|            | 10           | 13              | 722               | 8 130                     | 2 592                     | 5 933                     | 4 789                     |

# Static Reactions Double Rail Hoists

## MT 2/1 KD N

Fig. 29

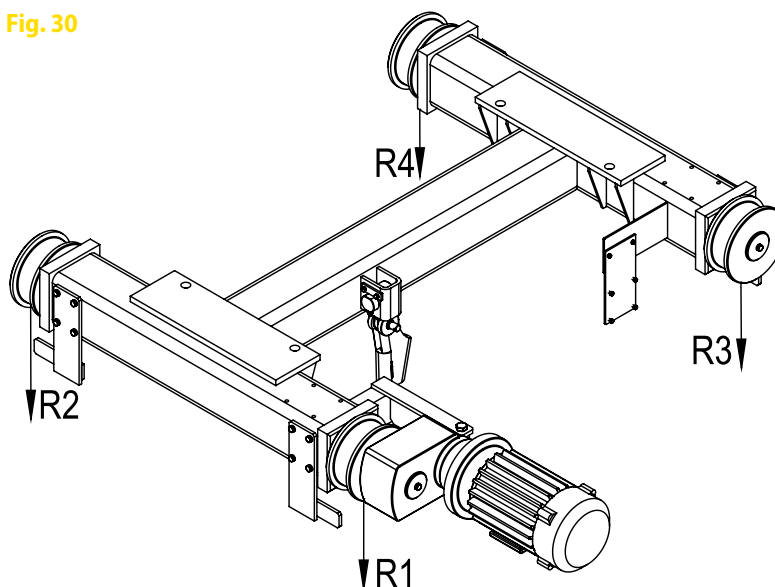


| Type       |              |                 |                   | Reactions – UEP |       |       |       | Reactions – DEP |       |       |       |
|------------|--------------|-----------------|-------------------|-----------------|-------|-------|-------|-----------------|-------|-------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2    | R3    | R4    | R1              | R2    | R3    | R4    |
| MT316      | 3.2          | 10              | 459               | 1 137           | 1 123 | 704   | 696   | 716             | 708   | 1 125 | 1 111 |
|            | 3.2          | 14              | 476               | 1 241           | 1 225 | 609   | 602   | 751             | 742   | 1 098 | 1 085 |
|            | 3.2          | 20              | 498               | 1 349           | 1 332 | 511   | 506   | 797             | 787   | 1 064 | 1 051 |
|            | 3.2          | 26              | 523               | 1 421           | 1 403 | 452   | 447   | 825             | 815   | 1 047 | 1 035 |
| MT525      | 5            | 10              | 594               | 1 726           | 1 723 | 1 073 | 1 071 | 1 084           | 1 082 | 1 716 | 1 712 |
|            | 5            | 14              | 615               | 1 890           | 1 886 | 920   | 919   | 1 144           | 1 142 | 1 666 | 1 663 |
|            | 5            | 20              | 648               | 2 056           | 2 052 | 771   | 769   | 1 210           | 1 208 | 1 617 | 1 614 |
|            | 5            | 26              | 682               | 2 166           | 2 162 | 677   | 676   | 1 251           | 1 248 | 1 593 | 1 590 |

# Static Reactions Double Rail Hoists

## MT 4/1 KD N

Fig. 30

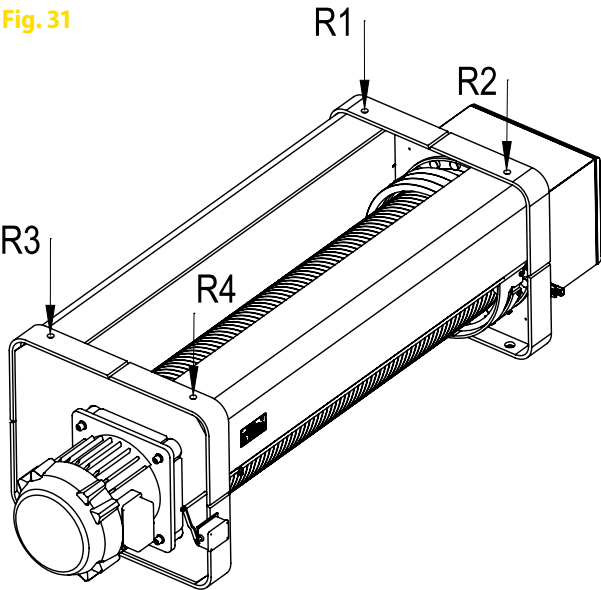


| Type       |              |                 |                   | Reactions – UEP |       |       |       | Reactions – DEP |       |       |       |
|------------|--------------|-----------------|-------------------|-----------------|-------|-------|-------|-----------------|-------|-------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2    | R3    | R4    | R1              | R2    | R3    | R4    |
| MT308      | 3.2          | 7               | 421               | 1 054           | 1 129 | 695   | 742   | 826             | 883   | 923   | 988   |
|            | 3.2          | 10              | 433               | 1 175           | 1 260 | 580   | 618   | 915             | 978   | 841   | 899   |
|            | 3.2          | 13              | 453               | 1 261           | 1 352 | 505   | 536   | 980             | 1 048 | 786   | 839   |
| MT312      | 5            | 7               | 556               | 1 560           | 1 685 | 1 113 | 1 198 | 1 196           | 1 289 | 1 476 | 1 594 |
|            | 5            | 10              | 573               | 1 769           | 1 912 | 912   | 979   | 1 359           | 1 465 | 1 323 | 1 426 |
|            | 5            | 13              | 576               | 1 901           | 2 055 | 782   | 838   | 1 458           | 1 573 | 1 225 | 1 320 |
| MT316      | 6.3          | 7               | 543               | 1 927           | 2 084 | 1 362 | 1 470 | 1 468           | 1 585 | 1 821 | 1 969 |
|            | 6.3          | 10              | 560               | 2 189           | 2 369 | 1 109 | 1 194 | 1 672           | 1 806 | 1 626 | 1 756 |
|            | 6.3          | 13              | 563               | 2 355           | 2 549 | 945   | 1 015 | 1 796           | 1 942 | 1 503 | 1 622 |
| MT525      | 10           | 7               | 709               | 2 962           | 3 317 | 2 093 | 2 338 | 2 261           | 2 527 | 2 793 | 3 127 |
|            | 10           | 10              | 745               | 3 365           | 3 771 | 1 707 | 1 901 | 2 571           | 2 875 | 2 502 | 2 797 |
|            | 10           | 13              | 782               | 3 629           | 4 067 | 1 462 | 1 624 | 2 769           | 3 098 | 2 322 | 2 593 |

# Static Reactions Stationary Hoists

## M 2/1 F

Fig. 31

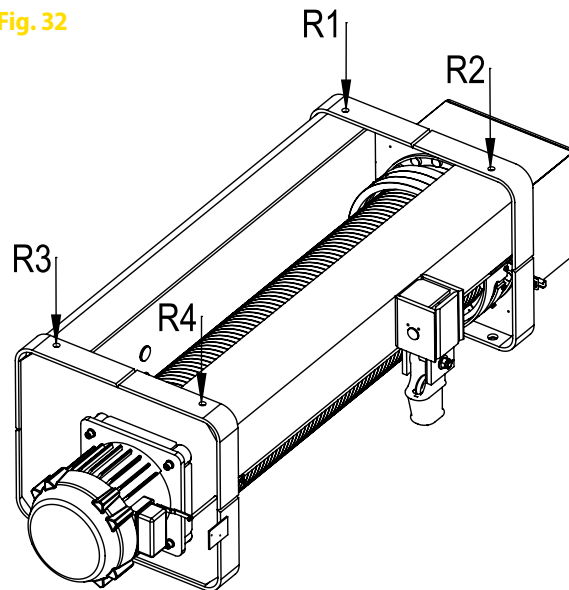


| Type       |              |                 |                   | Reactions – UEP |        |       |       | Reactions – DEP |       |       |       |
|------------|--------------|-----------------|-------------------|-----------------|--------|-------|-------|-----------------|-------|-------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2     | R3    | R4    | R1              | R2    | R3    | R4    |
| M640       | 8            | 12              | 605               | 3 235           | 3 022  | 1 211 | 1 138 | 1 872           | 1 753 | 2 573 | 2 406 |
|            | 8            | 17              | 642               | 3 467           | 3 238  | 997   | 939   | 1 943           | 1 820 | 2 521 | 2 358 |
|            | 8            | 24              | 703               | 3 676           | 3 434  | 819   | 774   | 2 023           | 1 895 | 2 471 | 2 313 |
|            | 8            | 31              | 764               | 3 812           | 3 562  | 713   | 677   | 2 079           | 1 948 | 2 446 | 2 290 |
| M750       | 10           | 12              | 727               | 4 036           | 3 770  | 1 506 | 1 415 | 2 333           | 2 185 | 3 209 | 3 000 |
|            | 10           | 17              | 775               | 4 327           | 4 041  | 1 240 | 1 167 | 2 422           | 2 268 | 3 144 | 2 940 |
|            | 10           | 24              | 845               | 4 586           | 4 284  | 1 015 | 959   | 2 520           | 2 361 | 3 081 | 2 882 |
|            | 10           | 31              | 915               | 4 755           | 4 442  | 881   | 836   | 2 588           | 2 425 | 3 048 | 2 853 |
| M1110      | 20           | 22              | 2 423             | 7 963           | 7 209  | 3 788 | 3 462 | 4 268           | 3 893 | 7 483 | 6 779 |
|            | 20           | 29              | 2 534             | 8 498           | 7 692  | 3 309 | 3 035 | 4 402           | 4 016 | 7 405 | 6 711 |
|            | 20           | 36              | 2 678             | 8 992           | 8 139  | 2 887 | 2 660 | 4 778           | 4 357 | 7 101 | 6 442 |
|            | 20           | 52              | 2 983             | 9 660           | 8 746  | 2 372 | 2 205 | 5 196           | 4 740 | 6 835 | 6 211 |
| M1125      | 25           | 22              | 2 423             | 9 803           | 8 860  | 4 584 | 4 176 | 5 184           | 4 714 | 9 203 | 8 322 |
|            | 25           | 29              | 2 534             | 10 464          | 9 456  | 3 978 | 3 635 | 5 344           | 4 861 | 9 098 | 8 230 |
|            | 25           | 36              | 2 678             | 11 072          | 10 006 | 3 442 | 3 157 | 5 805           | 5 279 | 8 709 | 7 885 |
|            | 25           | 52              | 2 983             | 11 888          | 10 746 | 2 778 | 2 570 | 6 309           | 5 739 | 8 357 | 7 577 |

# Static Reactions Stationary Hoists

M 4/1 F

Fig. 32

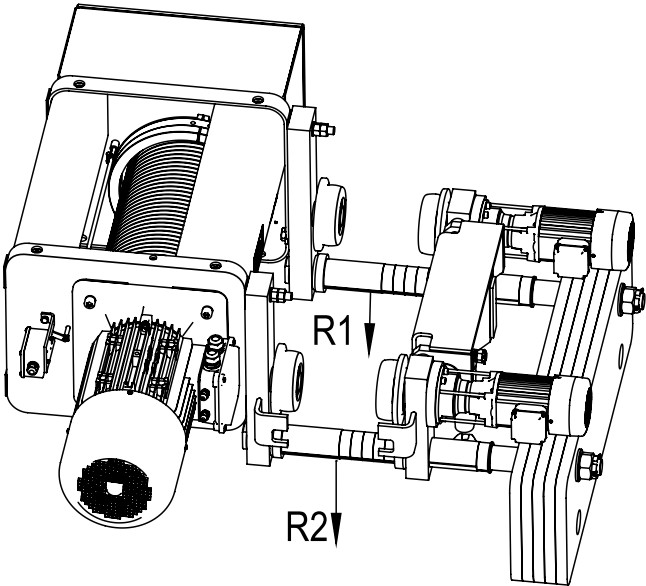


| Type       |              |                 |                   | Reactions – UEP |        |        |       | Reactions – DEP |        |        |        |
|------------|--------------|-----------------|-------------------|-----------------|--------|--------|-------|-----------------|--------|--------|--------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2     | R3     | R4    | R1              | R2     | R3     | R4     |
| M640       | 16           | 6               | 738               | 5 357           | 3 850  | 4 376  | 3 155 | 3 818           | 2 759  | 5 915  | 4 245  |
|            | 16           | 8.5             | 775               | 6 248           | 4 484  | 3 503  | 2 539 | 4 526           | 3 264  | 5 225  | 3 759  |
|            | 16           | 12              | 837               | 7 030           | 5 043  | 2 752  | 2 011 | 5 163           | 3 719  | 4 620  | 3 335  |
|            | 16           | 15.5            | 896               | 7 524           | 5 397  | 2 288  | 1 687 | 5 565           | 4 009  | 4 247  | 3 075  |
| M750       | 20           | 6               | 850               | 6 678           | 4 794  | 5 452  | 3 925 | 4 754           | 3 431  | 7 376  | 5 289  |
|            | 20           | 8.5             | 899               | 7 793           | 5 588  | 4 362  | 3 156 | 5 640           | 4 062  | 6 514  | 4 682  |
|            | 20           | 12              | 969               | 8 769           | 6 284  | 3 421  | 2 495 | 6 434           | 4 630  | 5 755  | 4 149  |
|            | 20           | 15.5            | 1 039             | 9 384           | 6 726  | 2 840  | 2 088 | 6 936           | 4 991  | 5 289  | 3 823  |
| M863       | 25           | 9.5             | 1 307             | 9 353           | 7 074  | 5 606  | 4 273 | 6 651           | 5 054  | 8 300  | 6 286  |
|            | 25           | 16              | 1 485             | 11 143          | 8 424  | 3 905  | 3 013 | 8 102           | 6 150  | 6 946  | 5 286  |
|            | 25           | 23              | 1 710             | 12 206          | 9 233  | 2 954  | 2 316 | 9 081           | 6 897  | 6 081  | 4 654  |
| M980       | 32           | 9.5             | 1 292             | 11 876          | 8 960  | 7 081  | 5 375 | 8 480           | 6 436  | 10 590 | 8 013  |
|            | 32           | 16              | 1 506             | 14 164          | 10 684 | 4 899  | 3 758 | 10 329          | 7 831  | 8 849  | 6 725  |
|            | 32           | 23              | 1 759             | 15 516          | 11 711 | 3 674  | 2 858 | 11 572          | 8 776  | 7 732  | 5 906  |
| M1110      | 40           | 11              | 2 713             | 15 034          | 10 969 | 9 621  | 7 088 | 10 950          | 8 041  | 13 705 | 10 016 |
|            | 40           | 14.5            | 2 823             | 16 486          | 12 017 | 8 225  | 6 095 | 11 959          | 8 772  | 12 751 | 9 340  |
|            | 40           | 18              | 2 991             | 17 815          | 12 981 | 6 980  | 5 215 | 13 158          | 9 643  | 11 637 | 8 553  |
|            | 40           | 26              | 3 308             | 19 556          | 14 252 | 5 397  | 4 102 | 14 624          | 10 716 | 10 329 | 7 638  |
| M1125      | 50           | 11              | 2 713             | 18 624          | 13 541 | 11 857 | 8 691 | 13 518          | 9 882  | 16 962 | 12 350 |
|            | 50           | 14.5            | 2 823             | 20 431          | 14 844 | 10 105 | 7 443 | 14 772          | 10 789 | 15 763 | 11 499 |
|            | 50           | 18              | 2 991             | 22 082          | 16 040 | 8 538  | 6 331 | 16 260          | 11 867 | 14 359 | 10 504 |
|            | 50           | 26              | 3 308             | 24 239          | 17 608 | 6 539  | 4 921 | 18 073          | 13 189 | 12 705 | 9 341  |

# Static Reactions Low Headroom Hoists

## M 2/1 LC

Fig. 33



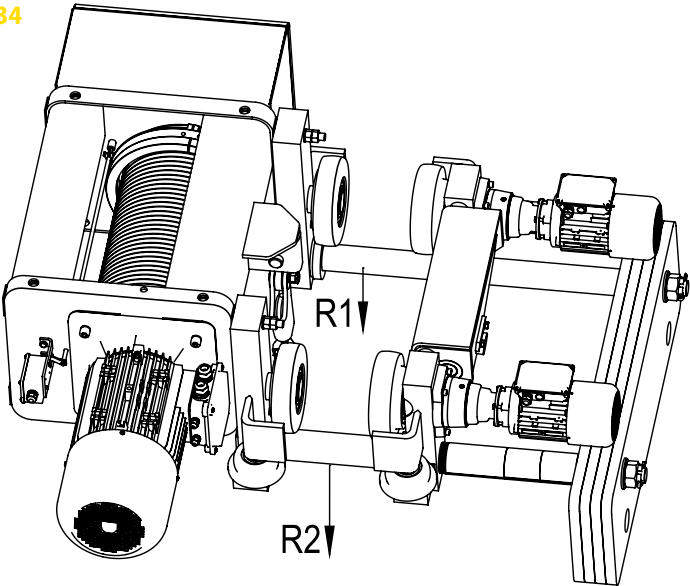
| Type       |              |                 |                   | Reactions – UEP |       | Reactions – DEP |       |
|------------|--------------|-----------------|-------------------|-----------------|-------|-----------------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1*             | R2*   | R1*             | R2*   |
| M640       | 8            | 12              | 1 237             | 5 876           | 3 361 | 3 246           | 5 991 |
|            | 8            | 17              | 1 309             | 6 489           | 2 820 | 3 547           | 5 762 |
|            | 8            | 24              | 1 429             | 7 051           | 2 378 | 3 859           | 5 570 |
|            | 8            | 31              | 1 558             | 7 428           | 2 130 | 4 081           | 5 477 |

\* Max. wheel load x 2

# Static Reactions Low Headroom Hoists

## M 4/1 LC

Fig. 34



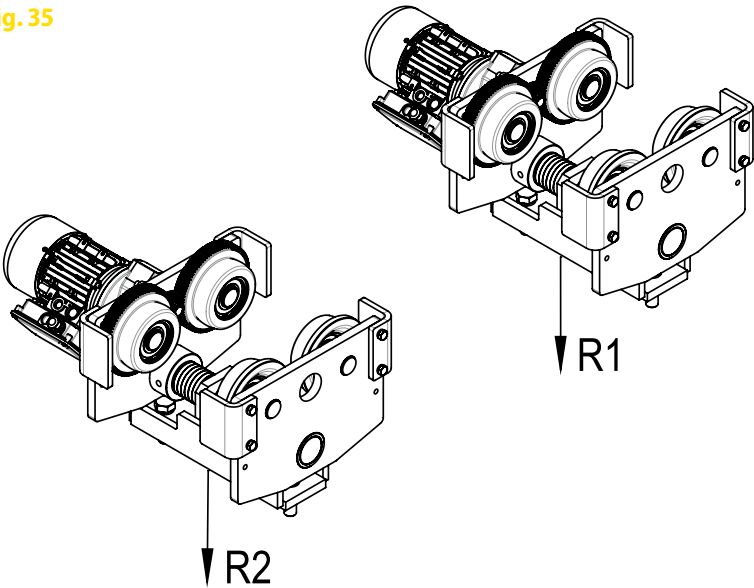
| Type       |              |                 |                   | Reactions – UEP |       | Reactions – DEP |       |
|------------|--------------|-----------------|-------------------|-----------------|-------|-----------------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1*             | R2*   | R1*             | R2*   |
| M640       | 16           | 8.5             | 1544              | 4 930           | 3 842 | 3 459           | 5 313 |
|            | 16           | 12              | 1659              | 5 760           | 3 070 | 4 164           | 4 666 |
|            | 16           | 15.5            | 1775              | 6 288           | 2 599 | 4 615           | 4 273 |

\* Max. wheel load x 2

# Static Reactions Normal Headroom Hoists

## M 2/1 N

Fig. 35



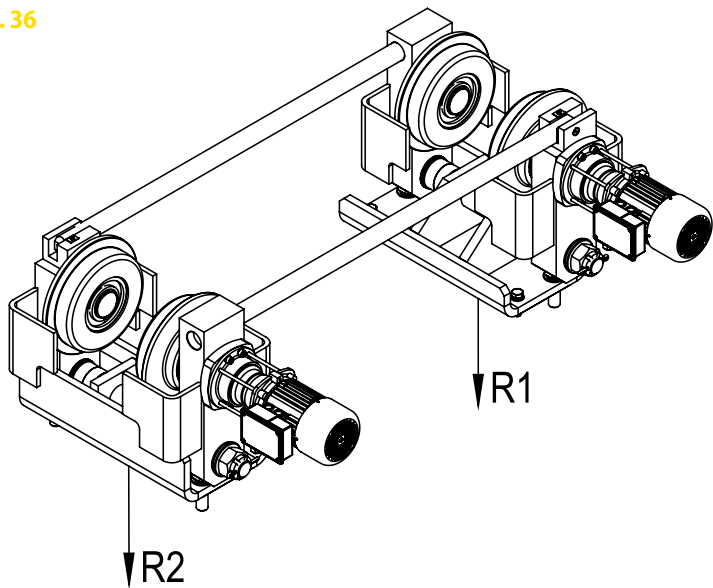
| Type       |              |                 |                   | Reactions – UEP |       | Reactions – DEP |       |
|------------|--------------|-----------------|-------------------|-----------------|-------|-----------------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1*             | R2*   | R1*             | R2*   |
| M640       | 8            | 12              | 858               | 6 383           | 2 475 | 3 740           | 5 118 |
|            | 8            | 17              | 895               | 6 832           | 2 063 | 3 903           | 4 991 |
|            | 8            | 24              | 956               | 7 236           | 1 719 | 4 060           | 4 896 |
|            | 8            | 31              | 1 017             | 7 500           | 1 516 | 4 169           | 4 848 |
| M750       | 10           | 12              | 980               | 7 932           | 3 047 | 4 628           | 6 351 |
|            | 10           | 17              | 1 028             | 8 494           | 2 533 | 4 834           | 6 194 |
|            | 10           | 24              | 1 098             | 8 997           | 2 100 | 5 026           | 6 071 |
|            | 10           | 31              | 1 168             | 9 324           | 1 844 | 5 159           | 6 008 |

\* Max. wheel load x 2

# Static Reactions Normal Headroom Hoists

M 4/1 N

Fig. 36



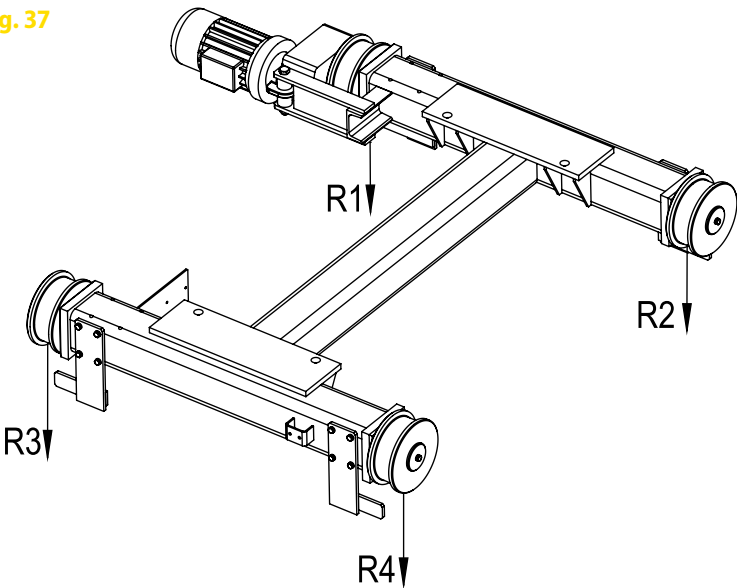
| Type       |              |                 |                   | Reactions – UEP |       | Reactions – DEP |        |
|------------|--------------|-----------------|-------------------|-----------------|-------|-----------------|--------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1*             | R2*   | R1*             | R2*    |
| M640       | 16           | 6               | 1 182             | 9 429           | 7 753 | 6 786           | 10 396 |
|            | 16           | 8.5             | 1 219             | 10 955          | 6 264 | 8 026           | 9 193  |
|            | 16           | 12              | 1 281             | 12 296          | 4 985 | 9 119           | 8 162  |
|            | 16           | 15.5            | 1 340             | 13 142          | 4 198 | 9 811           | 7 529  |

\* Max. wheel load x 2

# Static Reactions Double Rail Hoists

## M 2/1 KD

Fig. 37

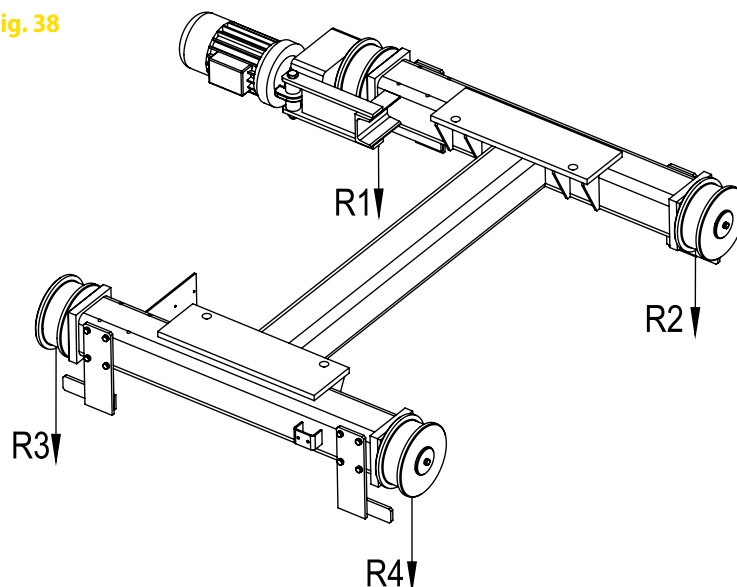


| Type       |              |                 |                   | Reactions – UEP |       |       |       | Reactions – DEP |       |       |       |
|------------|--------------|-----------------|-------------------|-----------------|-------|-------|-------|-----------------|-------|-------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2    | R3    | R4    | R1              | R2    | R3    | R4    |
| M640       | 8            | 12              | 822               | 2 467           | 3 281 | 1 334 | 1 740 | 1 641           | 2 157 | 2 160 | 2 864 |
|            | 8            | 17              | 865               | 2 652           | 3 528 | 1 171 | 1 514 | 1 684           | 2 213 | 2 138 | 2 830 |
|            | 8            | 24              | 932               | 2 841           | 3 780 | 1 015 | 1 296 | 1 741           | 2 283 | 2 115 | 2 793 |
|            | 8            | 31              | 998               | 2 977           | 3 959 | 912   | 1 150 | 1 785           | 2 337 | 2 104 | 2 772 |
| M750       | 10           | 12              | 944               | 3 063           | 4 080 | 1 647 | 2 154 | 2 030           | 2 676 | 2 679 | 3 559 |
|            | 10           | 17              | 998               | 3 294           | 4 389 | 1 443 | 1 872 | 2 085           | 2 745 | 2 652 | 3 517 |
|            | 10           | 24              | 1074              | 3 529           | 4 702 | 1 246 | 1 598 | 2 153           | 2 831 | 2 621 | 3 468 |
|            | 10           | 31              | 1149              | 3 697           | 4 924 | 1 115 | 1 413 | 2 206           | 2 897 | 2 606 | 3 440 |

# Static Reactions Double Rail Hoists

M 4/1 KD

Fig. 38

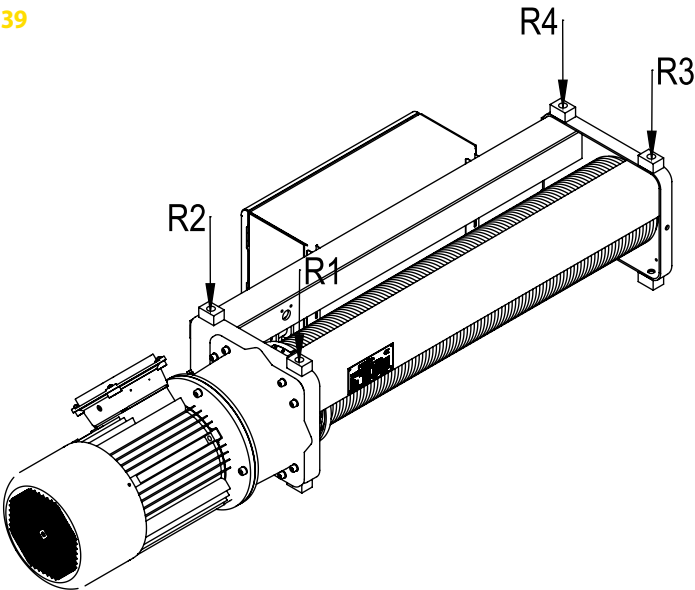


| Type       |              |                 |                   | Reactions – UEP |        |        |        | Reactions – DEP |        |        |        |
|------------|--------------|-----------------|-------------------|-----------------|--------|--------|--------|-----------------|--------|--------|--------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2     | R3     | R4     | R1              | R2     | R3     | R4     |
| M640       | 16           | 6               | 1 136             | 4 853           | 4 275  | 4 255  | 3 753  | 3 915           | 3 456  | 5 193  | 4 572  |
|            | 16           | 8.5             | 1 207             | 4 905           | 5 382  | 3 304  | 3 615  | 3 901           | 4 273  | 4 309  | 4 723  |
|            | 16           | 12              | 1 257             | 5 452           | 5 984  | 2 783  | 3 038  | 4 287           | 4 698  | 3 948  | 4 324  |
|            | 16           | 15.5            | 1 328             | 5 843           | 6 413  | 2 427  | 2 644  | 4 565           | 5 003  | 3 705  | 4 054  |
| M750       | 20           | 6               | 1 376             | 5 980           | 5 392  | 5 258  | 4 746  | 4 848           | 4 378  | 6 390  | 5 759  |
|            | 20           | 8.5             | 1 439             | 6 120           | 6 663  | 4 149  | 4 507  | 4 884           | 5 310  | 5 386  | 5 859  |
|            | 20           | 12              | 1 520             | 6 804           | 7 409  | 3 506  | 3 801  | 5 364           | 5 834  | 4 946  | 5 376  |
|            | 20           | 15.5            | 1 600             | 7 289           | 7 939  | 3 060  | 3 311  | 5 707           | 6 207  | 4 643  | 5 043  |
| M863       | 25           | 9.5             | 1 849             | 7 526           | 8 269  | 5 274  | 5 780  | 5 904           | 6 477  | 6 895  | 7 572  |
|            | 25           | 16              | 2 079             | 8 851           | 9 728  | 4 063  | 4 436  | 6 840           | 7 505  | 6 075  | 6 660  |
|            | 25           | 23              | 2 340             | 9 770           | 10 737 | 3 275  | 3 558  | 7 576           | 8 311  | 5 469  | 5 984  |
| M980       | 32           | 9.5             | 2 290             | 9 590           | 10 539 | 6 756  | 7 406  | 7 549           | 8 284  | 8 796  | 9 662  |
|            | 32           | 16              | 2 535             | 11 259          | 12 378 | 5 208  | 5 689  | 8 717           | 9 568  | 7 750  | 8 499  |
|            | 32           | 23              | 2 822             | 12 423          | 13 656 | 4 188  | 4 555  | 9 641           | 10 581 | 6 970  | 7 630  |
| M1100      | 40           | 11              | 4 308             | 12 766          | 13 410 | 8 851  | 9 280  | 10 446          | 10 963 | 11 171 | 11 728 |
|            | 40           | 14.5            | 4 432             | 13 683          | 14 377 | 7 996  | 8 376  | 10 974          | 11 519 | 10 705 | 11 234 |
|            | 40           | 18              | 4 618             | 14 618          | 15 360 | 7 154  | 7 485  | 11 688          | 12 269 | 10 084 | 10 576 |
|            | 40           | 26              | 4 972             | 15 996          | 16 810 | 5 953  | 6 213  | 12 675          | 13 305 | 9 274  | 9 717  |
| M1125      | 50           | 11              | 4 308             | 15 688          | 16 494 | 10 795 | 11 331 | 12 788          | 13 434 | 13 694 | 14 391 |
|            | 50           | 14.5            | 4 432             | 16 827          | 17 694 | 9 718  | 10 192 | 13 441          | 14 121 | 13 104 | 13 765 |
|            | 50           | 18              | 4 618             | 17 983          | 18 912 | 8 654  | 9 068  | 14 322          | 15 048 | 12 316 | 12 932 |
|            | 50           | 26              | 4 972             | 19 684          | 20 702 | 7 130  | 7 455  | 15 532          | 16 321 | 11 282 | 11 836 |

# Static Reactions Stationary Hoists

## MTL 2/1 F

Fig. 39

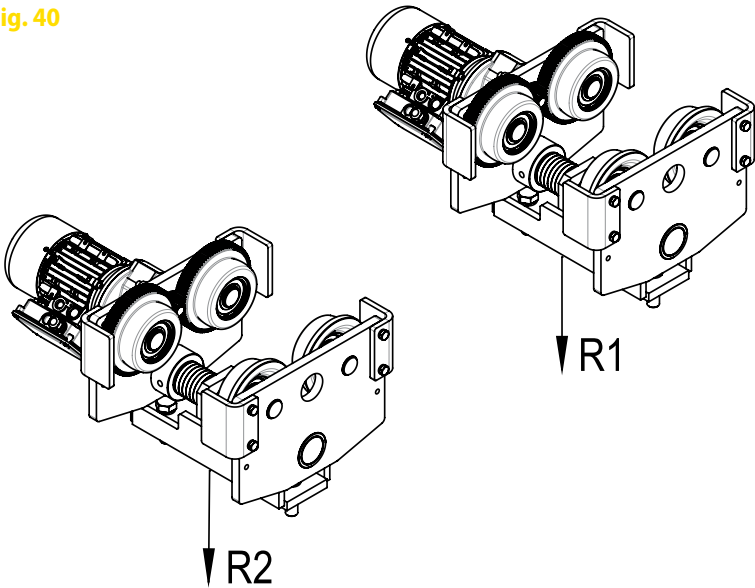


| Type       |              |                 |                   | Reactions – UEP |       |     |     | Reactions – DEP |       |       |       |
|------------|--------------|-----------------|-------------------|-----------------|-------|-----|-----|-----------------|-------|-------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2    | R3  | R4  | R1              | R2    | R3    | R4    |
| MT312      | 2,5          | 32              | 389               | 1 274           | 1 222 | 200 | 193 | 648             | 623   | 826   | 792   |
|            | 2,5          | 40              | 432               | 1 312           | 1 258 | 183 | 178 | 677             | 651   | 819   | 786   |
|            | 2,5          | 48              | 476               | 1 342           | 1 287 | 176 | 171 | 698             | 671   | 820   | 787   |
|            | 2,5          | 56              | 518               | 1 366           | 1 310 | 173 | 169 | 718             | 690   | 821   | 789   |
| MT316      | 3,2          | 32              | 389               | 1 592           | 1 524 | 241 | 232 | 803             | 770   | 1 030 | 986   |
|            | 3,2          | 40              | 432               | 1 637           | 1 568 | 217 | 210 | 836             | 802   | 1 018 | 976   |
|            | 3,2          | 48              | 476               | 1 672           | 1 602 | 204 | 198 | 860             | 826   | 1 016 | 974   |
|            | 3,2          | 56              | 518               | 1 700           | 1 629 | 197 | 192 | 882             | 847   | 1 015 | 974   |
| MT525      | 5            | 32              | 620               | 2 427           | 2 414 | 390 | 389 | 1 241           | 1 235 | 1 576 | 1 568 |
|            | 5            | 40              | 668               | 2 493           | 2 480 | 348 | 346 | 1 285           | 1 278 | 1 556 | 1 548 |
|            | 5            | 48              | 716               | 2 543           | 2 530 | 322 | 321 | 1 319           | 1 312 | 1 547 | 1 539 |
|            | 5            | 56              | 763               | 2 582           | 2 569 | 307 | 306 | 1 346           | 1 340 | 1 543 | 1 535 |

# Static Reactions Monorail Hoists

## MTL 2/1 N

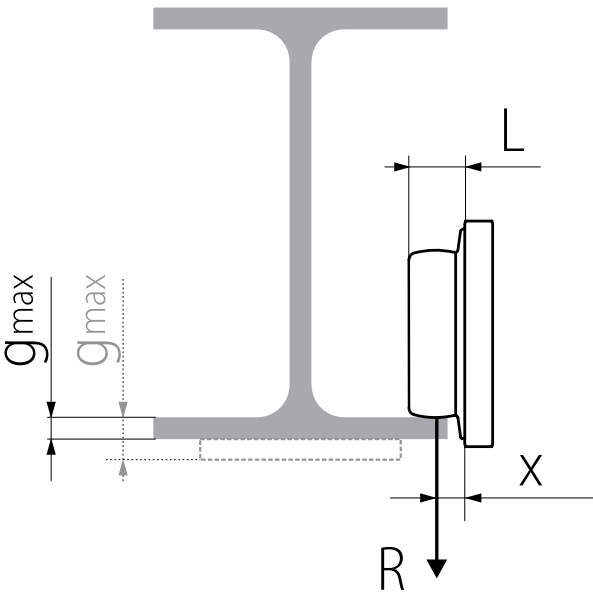
Fig. 40



| Type       |              |                 |                   | Reactions – UEP |     | Reactions – DEP |       |
|------------|--------------|-----------------|-------------------|-----------------|-----|-----------------|-------|
| Hoist Type | Capacity (t) | Hook Travel (m) | Hoist Weight (kg) | R1              | R2  | R1              | R2    |
| MT312      | 2,5          | 32              | 536               | 2 569           | 466 | 1 431           | 1 604 |
|            | 2,5          | 40              | 579               | 2 644           | 435 | 1 487           | 1 592 |
|            | 2,5          | 48              | 623               | 2 702           | 421 | 1 529           | 1 594 |
|            | 2,5          | 56              | 665               | 2 750           | 415 | 1 568           | 1 597 |
| MT316      | 3,2          | 32              | 536               | 3 189           | 546 | 1 733           | 2 003 |
|            | 3,2          | 40              | 579               | 3 279           | 500 | 1 799           | 1 980 |
|            | 3,2          | 48              | 623               | 3 347           | 476 | 1 846           | 1 977 |
|            | 3,2          | 56              | 665               | 3 402           | 462 | 1 890           | 1 975 |
| MT525      | 5            | 32              | 789               | 4 925           | 864 | 2 683           | 3 106 |
|            | 5            | 40              | 837               | 5 058           | 779 | 2 770           | 3 067 |
|            | 5            | 48              | 885               | 5 157           | 728 | 2 837           | 3 048 |
|            | 5            | 56              | 932               | 5 235           | 697 | 2 893           | 3 039 |

# Monorail Cross Travel Wheels & Beam / Beam Flange

Fig. 41



| Normal Headroom Trolley |        |        |            |
|-------------------------|--------|--------|------------|
| Wheel diameter (mm)     | x (mm) | L (mm) | g max (mm) |
| 60                      | 20     | 40     | 25         |
| 80                      | 20     | 40     | 25         |
| 100                     | 20     | 40     | 25         |
| 120                     | 20     | 40     | 25         |
| 140                     | 20     | 40     | 25         |

| Low Headroom Trolley |        |        |            |
|----------------------|--------|--------|------------|
| Wheel diameter (mm)  | x (mm) | L (mm) | g max (mm) |
| 125                  | 20     | 40     | 28         |
| 155                  | 22     | 45     | 28         |
| 180                  | 20     | 40     | 28         |

## MT Series

| Type           |         |              | Dimensions & Weights |                    |                      |                                   |                          |                             |
|----------------|---------|--------------|----------------------|--------------------|----------------------|-----------------------------------|--------------------------|-----------------------------|
| Hoist Type     | Reeving | Capacity (t) | Rope Diameter (mm)   | Drum Diameter (mm) | Pulley Diameter (mm) | Bottom Block Pulley Diameter (mm) | Bottom Block Weight (kg) | Hook Number DIN 15401 – RSN |
| Reeving 2/1    |         |              |                      |                    |                      |                                   |                          |                             |
| MT305          | 2/1     | 1            | 7                    | 167                | –                    | 157                               | 16                       | 1 – S                       |
| MT308          | 2/1     | 1.6          | 7                    | 167                | –                    | 157                               | 16                       | 1 – S                       |
| MT312 / MTL312 | 2/1     | 2.5          | 10                   | 219                | –                    | 224                               | 30                       | 1.6 – S                     |
| MT316 / MTL316 | 2/1     | 3.2          | 10                   | 219                | –                    | 224                               | 35                       | 1.6 – S                     |
| MT525 / MTL525 | 2/1     | 5            | 12                   | 265                | –                    | 269                               | 50                       | 2.5 – S                     |
| Reeving 4/1    |         |              |                      |                    |                      |                                   |                          |                             |
| MT305          | 4/1     | 2            | 7                    | 167                | 140                  | 157                               | 16                       | 1.6 – S                     |
| MT308          | 4/1     | 3.2          | 7                    | 167                | 202                  | 157                               | 16                       | 1.6 – S                     |
| MT312          | 4/1     | 5            | 10                   | 219                | 243                  | 224                               | 30                       | 2.5 – S                     |
| MT316          | 4/1     | 6.3          | 10                   | 219                | 243                  | 224                               | 35                       | 4 – S                       |
| MT525          | 4/1     | 10           | 12                   | 265                | 288                  | 269                               | 50                       | 4 – T                       |

## M Series

| Type        |         |              | Dimensions & Weights |                    |                      |                                   |                          |                             |
|-------------|---------|--------------|----------------------|--------------------|----------------------|-----------------------------------|--------------------------|-----------------------------|
| Hoist Type  | Reeving | Capacity (t) | Rope Diameter (mm)   | Drum Diameter (mm) | Pulley Diameter (mm) | Bottom Block Pulley Diameter (mm) | Bottom Block Weight (kg) | Hook Number DIN 15401 – RSN |
| Reeving 2/1 |         |              |                      |                    |                      |                                   |                          |                             |
| M640        | 2/1     | 8            | 15                   | 357                | –                    | 365                               | 55                       | 4 – S                       |
| M750        | 2/1     | 10           | 15                   | 357                | –                    | 365                               | 90                       | 4 – T                       |
| M1110       | 2/1     | 20           | 24                   | 552                | –                    | 480                               | 254                      | 10 – S                      |
| M1125       | 2/1     | 25           | 24                   | 552                | –                    | 480                               | 254                      | 10 – S                      |
| Reeving 4/1 |         |              |                      |                    |                      |                                   |                          |                             |
| M640        | 4/1     | 16           | 15                   | 357                | 330                  | 365                               | 130                      | 6 – T                       |
| M750        | 4/1     | 20           | 15                   | 357                | 330                  | 365                               | 150                      | 10 – S                      |
| M863        | 4/1     | 25           | 20                   | 420                | 450                  | 448                               | 194                      | 10 – S                      |
| M980        | 4/1     | 32           | 20                   | 420                | 450                  | 448                               | 332                      | 16 – S                      |
| M1110       | 4/1     | 40           | 24                   | 552                | 480                  | 480                               | 434                      | 16 – T                      |
| M1125       | 4/1     | 50           | 24                   | 552                | 480                  | 480                               | 434                      | 16 – T                      |

# Lifting Electrical Motors

## for Standard Wire Rope Hoist Range

| Hoist Parameter |           |              |              | Double Speed |                       |                       |                           | Single Speed |                       |                       |                           | VFD 2-speed (1:10)*   |                       |                           | VFD 2-speed (1:3)     |                       |                           |
|-----------------|-----------|--------------|--------------|--------------|-----------------------|-----------------------|---------------------------|--------------|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|---------------------------|-----------------------|-----------------------|---------------------------|
| Capacity (t)    | Group FEM | Hoist Series | Rope Reeving | Motor Type   | Lifting Speed (m/min) | Motor Power (max KW*) | Nominal Current (Amps, A) | Motor Type   | Lifting Speed (m/min) | Motor Power (max KW*) | Nominal Current (Amps, A) | Lifting Speed (m/min) | Motor Power (max KW*) | Nominal Current (Amps, A) | Lifting Speed (m/min) | Motor Power (max KW*) | Nominal Current (Amps, A) |
| 1               | 2 m       | MT305        | 2/1          | CT112M       | 8/2.6                 | 2.5/0.83              | 6/6.5                     | CT100LA      | 8                     | 2.5                   | 5.4                       | 8–0.8                 | 2.5                   | 5.4                       | 8–2.6                 | 2.5                   | 5.4                       |
|                 | 2 m       | MT305        | 2/1          | CT112M       | 12/4                  | 2.5/0.83              | 6/6.5                     | CT100LA      | 12                    | 2.5                   | 5.4                       | 12–1.2                | 2.5                   | 5.4                       | 12–4                  | 2.5                   | 5.4                       |
| 1.6             | 2 m       | MT308        | 2/1          | CT112M       | 8/2.6                 | 2.5/0.83              | 6/6.5                     | CT100LA      | 8                     | 2.5                   | 5.4                       | 8–0.8                 | 2.5                   | 5.4                       | 8–2.6                 | 2.5                   | 5.4                       |
|                 | 2 m       | MT308        | 2/1          | CT132MA      | 12/4                  | 4.0/1.33              | 8.9/7.7                   | CT112M       | 12                    | 4.0                   | 9.1                       | 12–1.2                | 4.0                   | 9.1                       | 12–4                  | 4.0                   | 9.1                       |
| 2               | 2 m       | MT305        | 4/1          | CT112M       | 4/1.3                 | 2.5/0.83              | 6/6.5                     | CT100LA      | 4                     | 2.5                   | 5.4                       | 4–0.4                 | 2.5                   | 5.4                       | 4–1.3                 | 2.5                   | 5.4                       |
|                 | 2 m       | MT305        | 4/1          | CT112M       | 6/2                   | 2.5/0.83              | 6/6.5                     | CT100LA      | 6                     | 2.5                   | 5.4                       | 6–0.6                 | 2.5                   | 5.4                       | 6–2                   | 2.5                   | 5.4                       |
|                 | 3 m       | MT310        | 2/1          | CT132MA      | 8/2.6                 | 4.0/1.33              | 8.9/7.7                   | CT112M       | 8                     | 4.0                   | 9.1                       | 8–0.8                 | 4.0                   | 9.1                       | 8–2.6                 | 4.0                   | 9.1                       |
|                 | 3 m       | MT310        | 2/1          | CT132MB      | 12/4                  | 6.0/2.0               | 13/10                     | CT132S       | 12                    | 6.0                   | 13.8                      | 12–1.2                | 6.0                   | 13.8                      | 12–4                  | 6.0                   | 13.8                      |
|                 | 2 m       | MTL312       | 2/1          | CT132MB      | 12/4                  | 6.0/2.0               | 13/10                     | CT132S       | 12                    | 6.0                   | 13.8                      | 12–1.2                | 6.0                   | 13.8                      | 12–4                  | 6.0                   | 13.8                      |
| 2.5             | 2 m       | MT306        | 4/1          | CT112M       | 4/1.3                 | 2.5/0.83              | 6/6.5                     | CT100LA      | 4                     | 2.5                   | 5.4                       | 4–0.4                 | 2.5                   | 5.4                       | 4–1.3                 | 2.5                   | 5.4                       |
|                 | 2 m       | MT306        | 4/1          | CT132MA      | 6/2                   | 4.0/1.33              | 8.9/7.7                   | CT112M       | 6                     | 4.0                   | 9.1                       | 6–0.6                 | 4.0                   | 9.1                       | 6–2                   | 4.0                   | 9.1                       |
|                 | 2 m       | MT312        | 2/1          | CT132MA      | 8/2.6                 | 4.0/1.33              | 8.9/7.7                   | CT112M       | 8                     | 4.0                   | 9.1                       | 8–0.8                 | 4.0                   | 9.1                       | 8–2.6                 | 4.0                   | 9.1                       |
|                 | 2 m       | MT312        | 2/1          | CT132MB      | 12/4                  | 6.0/2.0               | 13/10                     | CT132S       | 12                    | 6.0                   | 13.8                      | 12–1.2                | 6.0                   | 13.8                      | 12–4                  | 6.0                   | 13.8                      |
|                 | 2 m       | MTL312       | 2/1          | CT132MB      | 12/4                  | 6.0/2.0               | 13/10                     | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 2 m       | MT308        | 4/1          | CT112M       | 4/1.3                 | 2.5/0.83              | 6/6.5                     | CT100LA      | 4                     | 2.5                   | 5.4                       | 4–0.4                 | 2.5                   | 5.4                       | 4–1.3                 | 2.5                   | 5.4                       |
| 3.2             | 2 m       | MT308        | 4/1          | CT132MA      | 6/2                   | 4.0/1.33              | 8.9/7.7                   | CT112M       | 6                     | 4.0                   | 9.1                       | 6–0.6                 | 4.0                   | 5.4                       | 6–2                   | 4.0                   | 5.4                       |
|                 | 2 m       | MT316        | 2/1          | CT132MB      | 8/2.6                 | 5.0/1.66              | 11/9.1                    | CT132S       | 8                     | 5.0                   | –                         | 8–0.8                 | 5.0                   | –                         | 8–2.6                 | 5.0                   | –                         |
|                 | 2 m       | MT316        | 2/1          | MB132M       | 12/4                  | 7.0/2.3               | 17.5/14.7                 | MT132M       | 12                    | 7                     | –                         | 12–1.2                | 7                     | –                         | 12–4                  | 7                     | –                         |
|                 | 2 m       | MTL316       | 2/1          | CT160M       | 12/4                  | 8.5/2.7               | 18/14                     | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 2 m       | MT310        | 4/1          | CT132MA      | 4/1.3                 | 4.0/1.33              | 8.9/7.7                   | CT112M       | 4                     | 4.0                   | 9.1                       | 4–0.4                 | 4.0                   | 9.1                       | 4–1.3                 | 4.0                   | 9.1                       |
| 4               | 2 m       | MT310        | 4/1          | CT132MB      | 6/2                   | 6.0/2.0               | 11/9.1                    | CT132S       | 6                     | 6.0                   | –                         | 6–0.6                 | 6.0                   | –                         | 6–2                   | 6.0                   | –                         |
|                 | 3 m       | MT520        | 2/1          | MB160M       | 8/2.6                 | 8.0/2.6               | 17.4/18.7                 | MT132M       | 8                     | 8.0                   | 15.8                      | 8–0.8                 | 8.0                   | 15.8                      | 8–2.6                 | 8.0                   | 15.8                      |
|                 | 3 m       | MT520        | 2/1          | MB160L       | 12/4                  | 11.8/3.9              | 25.2/18.6                 | MT160M       | 12                    | 12                    | 24                        | 12–1.2                | 12                    | 24                        | 12–4                  | 12                    | 24                        |
|                 | 2 m       | MT312        | 4/1          | CT132MA      | 4/1.3                 | 4.0/1.33              | 8.9/7.7                   | CT112M       | 4                     | 4.0                   | 9.1                       | 4–0.4                 | 4.0                   | 9.1                       | 4–1.3                 | 4.0                   | 9.1                       |
| 5               | 2 m       | MT312        | 4/1          | CT132MB      | 6/2                   | 6.0/2.0               | 11/9.1                    | CT132S       | 6                     | 6.0                   | 13.8                      | 6–0.6                 | 6.0                   | 13.8                      | 6–2                   | 6.0                   | 13.8                      |
|                 | 2 m       | MT525        | 2/1          | MB160M       | 8/2.6                 | 8.0/2.6               | 17.4/18.7                 | MT132M       | 8                     | 8.0                   | 15.8                      | 8–0.8                 | 8.0                   | 15.8                      | 8–2.6                 | 8.0                   | 15.8                      |
|                 | 2 m       | MT525        | 2/1          | MB160L       | 12/4                  | 11.8/3.9              | 25.2/18.6                 | MT160M       | 12                    | 12                    | –                         | 12–1.2                | 12                    | –                         | 12–4                  | –                     | –                         |
|                 | 2 m       | MTL525       | 2/1          | CT160L       | 12/4                  | 12/4                  | 29/18                     | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 3 m       | MT313        | 4/1          | CT132MB      | 4/1.3                 | 5.0/1.66              | 8.9/7.7                   | CT132S       | 4                     | 5.0                   | –                         | 4–0.4                 | 5.0                   | –                         | 4–1.3                 | –                     | –                         |
|                 | 3 m       | MT313        | 4/1          | MB132M       | 6/2                   | 7.0/2.3               | 17.5/14.7                 | MT132M       | 6                     | 7                     | –                         | 6–0.6                 | 7                     | –                         | 6–2                   | –                     | –                         |
|                 | 2 m       | MT316        | 4/1          | CT132MB      | 4/1.3                 | 5.0/1.66              | 8.9/7.7                   | CT132S       | 4                     | 5.0                   | –                         | 4–0.4                 | 5.0                   | –                         | 4–1.3                 | –                     | –                         |
| 6.3             | 2 m       | MT316        | 4/1          | MB132M       | 6/2                   | 7.0/2.3               | 17.5/14.7                 | MT132M       | 6                     | 7                     | –                         | 6–0.6                 | 7                     | –                         | 6–2                   | –                     | –                         |
|                 | 3 m       | MT520        | 4/1          | MB160M       | 4/1.3                 | 8.0/2.6               | 17.4/18.7                 | MT132M       | 4                     | 8.0                   | 15.8                      | 4–0.4                 | 8.0                   | 15.8                      | 4–1.3                 | 8.0                   | 15.8                      |
| 8               | 3 m       | MT520        | 4/1          | MB160L       | 6/2                   | 11.8/3.9              | 25.2/18.6                 | MT160M       | 6                     | 12                    | –                         | 6–0.6                 | 12                    | –                         | 6–2                   | –                     | –                         |
|                 | 2 m       | M640         | 2/1          | MB160L       | 8/2.6                 | 11.8/3.9              | 25.2/18.6                 | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 2 m       | MT525        | 4/1          | MB160M       | 4/1.3                 | 8.0/2.6               | 17.4/18.7                 | MT132M       | 4                     | 8.0                   | 15.8                      | 4–0.4                 | 8.0                   | 15.8                      | 4–1.3                 | 8.0                   | 15.8                      |
| 10              | 2 m       | MT525        | 4/1          | MB160L       | 6/2                   | 11.8/3.9              | 25.2/18.6                 | MT160M       | 6                     | 12                    | –                         | 6–0.6                 | 12                    | –                         | 6–2                   | –                     | –                         |
|                 | 2 m       | M750         | 2/1          | MB160L       | 8/2                   | 15/5                  | 30.3/24.1                 | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 1.2       | 3 m          | M632         | 4/1          | MB160L                | 4/1                   | 11.8/3.9                  | 25.2/18.6    | MT160L                | 4                     | 12                        | 24                    | 4–0.4                 | 12                        | 24                    | 4–1                   | 12                        |
| 16              | 2 m       | M640         | 4/1          | MB160L       | 4/1                   | 11.8/3.9              | 25.2/18.6                 | MT160L       | 4                     | 12                    | 24                        | 4–0.4                 | 12                    | 24                        | 4–1                   | 12                    | 24                        |
| 20              | 2 m       | M750         | 4/1          | MB160L       | 4.1/1.3               | 15/5                  | 30.3/24.1                 | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 2 m       | M1100        | 2/1          | MB180        | 4/1.2                 | 36.1/30.7             | 36.1/30.7                 | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
| 25              | 1 Am      | M863         | 4/1          | MB180        | 4/1.22                | 20/6.5                | 40.3/32.6                 | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 2 m       | M963         | 4/1          | K3517        | 2.5/0.6               | 13/3                  | 30/40                     | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 1 Am      | M1125        | 2/1          | MB180        | 4/1.2                 | 20/6.5                | 40.3/32.6                 | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
| 32              | 1 Am      | M980         | 4/1          | K3518*       | 2.5/0.6               | 16/4                  | 36/70                     | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 1 Am      | M980         | 4/1          | K3518*       | 4/1.2                 | 24/4                  | 48/71                     | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
| 40              | 2 m       | M1100        | 4/1          | K3517        | 1.3/0.3               | 13/3                  | 30/40                     | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 2 m       | M1100        | 4/1          | MB180        | 2/0.6                 | 16/5.3                | 36.1/30.7                 | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
| 50              | 1 Am      | M1125        | 4/1          | K3517        | 1.3/0.3               | 13/3                  | 30/40                     | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |
|                 | 1 Am      | M1125        | 4/1          | MB180        | 2/0.6                 | 20/6.5                | 40.3/32.6                 | –            | –                     | –                     | –                         | –                     | –                     | –                         | –                     | –                     |                           |

\* Force cooling fan recommended

# Travel Electrical Motors

## for Standard Wire Rope Hoist Range

| Hoist Parameter |           |              |              | Monorail Hoist — Low Headroom |               |                       | Monorail Hoist — Normal Headroom |               |                       | Double Rail Hoist |               |                       |
|-----------------|-----------|--------------|--------------|-------------------------------|---------------|-----------------------|----------------------------------|---------------|-----------------------|-------------------|---------------|-----------------------|
| Capacity (t)    | Group FEM | Hoist Series | Rope Reeving | Motor Type                    | Quantity (pc) | Motor Power (max KW*) | Motor Type                       | Quantity (pc) | Motor Power (max KW*) | Motor Type        | Quantity (pc) | Motor Power (max KW*) |
| 1               | 2 m       | MT305        | 2/1          | DAS71K                        | 2             | 0.24/0.06             | KT71A                            | 1             | 0.15/0.03             | n.a.              | n.a.          | n.a.                  |
| 1.6             | 2 m       | MT308        | 2/1          | DAS71K                        | 2             | 0.24/0.06             | KT71A                            | 1             | 0.15/0.03             | n.a.              | n.a.          | n.a.                  |
| 2               | 2 m       | MT305        | 4/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | n.a.              | n.a.          | n.a.                  |
|                 | 3 m       | MT310        | 2/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | n.a.              | n.a.          | n.a.                  |
|                 | 2 m       | MTL310       | 2/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 2             | 0.37/0.12             | n.a.              | n.a.          | n.a.                  |
| 2.5             | 2 m       | MT306        | 4/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | n.a.              | n.a.          | n.a.                  |
|                 | 2 m       | MT312        | 2/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | n.a.              | n.a.          | n.a.                  |
|                 | 2 m       | MTL312       | 2/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 2             | 0.37/0.12             | n.a.              | n.a.          | n.a.                  |
| 3.2             | 2 m       | MT308        | 4/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
|                 | 2 m       | MT316        | 2/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
|                 | 2 m       | MTL316       | 2/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
| 4               | 2 m       | MT310        | 4/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
|                 | 3 m       | MT520        | 2/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
| 5               | 2 m       | MT312        | 4/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
|                 | 2 m       | MT525        | 2/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 1             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
|                 | 2 m       | MTL525       | 2/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 2             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
|                 | 3 m       | MT313        | 4/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 2             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
| 6.3             | 2 m       | MT316        | 4/1          | DAS71K                        | 2             | 0.24/0.06             | DAS80SX                          | 2             | 0.37/0.12             | T80B              | 1             | 0.37/0.12             |
| 8               | 3 m       | MT520        | 4/1          | DAS71G                        | 2             | 0.30/0.075            | DAS80SX                          | 2             | 0.37/0.12             | T90S              | 1             | 0.55/0.18             |
|                 | 2 m       | M640         | 2/1          | DAS71G                        | 2             | 0.30/0.075            | DAS80SX                          | 2             | 0.37/0.12             | T90S              | 1             | 0.55/0.18             |
| 10              | 2 m       | MT525        | 4/1          | DAS71G                        | 2             | 0.30/0.075            | DAS80SX                          | 2             | 0.37/0.12             | T90S              | 1             | 0.55/0.18             |
|                 | 2 m       | M750         | 2/1          | n.a.                          | n.a.          | n.a.                  | DAS80SX                          | 2             | 0.37/0.12             | T90S              | 1             | 0.55/0.18             |
| 12.5            | 3 m       | M632         | 4/1          | KT80B                         | 2             | 0.55/0.13             | KT80B                            | 2             | 0.55/0.12             | T100LA            | 1             | 1.1/0.37              |
| 16              | 2 m       | M640         | 4/1          | KT80B                         | 2             | 0.55/0.13             | KT80B                            | 2             | 0.55/0.12             | T100LA            | 1             | 1.1/0.37              |
| 20              | 2 m       | M750         | 4/1          | n.a.                          | n.a.          | n.a.                  | n.a.                             | n.a.          | n.a.                  | T100LA            | 1             | 1.1/0.37              |
| 25              | 1 Am      | M863         | 4/1          | n.a.                          | n.a.          | n.a.                  | n.a.                             | n.a.          | n.a.                  | DAS80K            | 1             | 1.5                   |
|                 | 2 m       | M963         | 4/1          | n.a.                          | n.a.          | n.a.                  | n.a.                             | n.a.          | n.a.                  | DAS80K            | 1             | 1.5                   |
| 32              | 1 Am      | M980         | 4/1          | n.a.                          | n.a.          | n.a.                  | n.a.                             | n.a.          | n.a.                  | DAS80SX           | 2             | 1.1                   |
| 40              | 2 m       | M1100        | 4/1          | n.a.                          | n.a.          | n.a.                  | n.a.                             | n.a.          | n.a.                  | T100LA            | 2             | 2.2                   |
| 50              | 1 Am      | M1125        | 4/1          | n.a.                          | n.a.          | n.a.                  | n.a.                             | n.a.          | n.a.                  | T100LA            | 2             | 2.2                   |

\* More data about the motors is available in brochure "Podem Electrical Motors"

# Electrical Panels for Standard Hoists

Podem low voltage panels are specially designed with optimized design to be flexible and universal for a wide range of applications. The modular technology allows for easy implementation of any customer request.



The panels are made of steel with colour of the hoist.

Board plate for easy components assembly.

7 type of side plates giving a flexibility for different type of connections: cable glands, fast connection, etc.

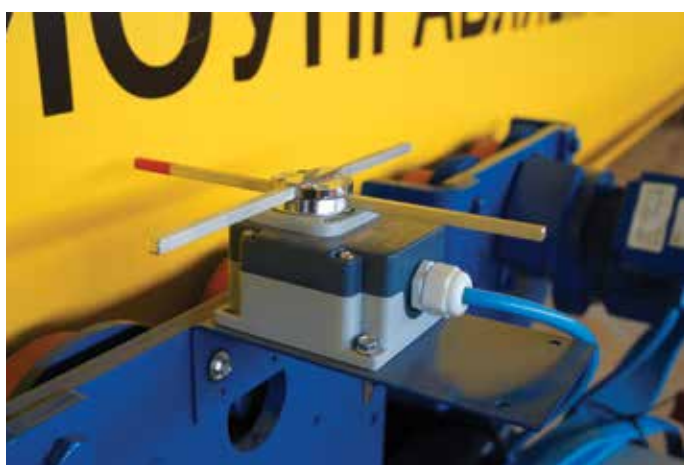
Contactors, Relays, Motor protection MCB, Main switch, Transformers, Terminals, Invertor (VFD), Phase failure relay, Panel preheat, Cooling Fans, Radio Remote Control, Monitoring system.



| Electrical panel for Standard Hoists |                   |                      |
|--------------------------------------|-------------------|----------------------|
| Hoist type                           | Low-voltage panel | Fuse box/ Wiring box |
| Stationary                           | Option            | By default           |
| Monorail                             | By default        | Option               |
| Double-rail                          | By default        | Option               |

## Cross Limit Switch

Cross travel limit switches designed for controlling the movement of overhead travelling cranes, hoists and complex machine tools. It prevents collisions between the trolley and the fixed end stopper.



Designed to guarantee excellent performance in the most challenging operating conditions.

- NC contacts for safety functions
- IP65 protection degree
- Long mechanical life of switches: 1 million operations

Industrial connectors marked according to the electrical diagram.

## ALP-200

The electronic load limiter ALP-200 is designed to control overload and to provide monitoring information to the service team.



### Data Logging:

- Safe Working Period (FEM 9.755)
- Number of manoeuvres
- Number of overloads
- Number of motor overheating
- Record of the 1000 overloads last date and time

## ALM-100N

The electronic load limiter ALM-100N is designed to control overload, the slack cable and other desired points, and to register the spectrum of loads of elevation devices.



The electronic load limiter Model ALM-100N manufactured according to the Norm EN 62061 and EN 14492-2 2010, designed to control overload, the slack cable and other desired points, as well as to register the spectrum of loads of elevation devices (Hoist) according to the Norm UNE 58919. It can control up to two devices realizing the sum of both. It can be connected on any kind of weight sensor placed in: Fixed spur, retrieving pulley, trolley, rope, etc.

Besides the control of the Safe Working Period (SWP) established by the Norm, it has several registers for the control of:

- Number of maneuvers of elevation
- Number of maneuvers to impulses
- Time of maneuvers of elevation
- Number of overloads
- Number of bypassed overloads
- Registration from the last 500 overloads, with date, hour, value from the overload and duration of the overload
- Activation of the revision by number of hour or date

Device designed for compliance of Category 2 and PLC according to ISO 13849-1.

## Pendant

Podem's pendant controls cover wide field of light and medium duty control applications. They are very reliable, with ergonomic compact design and easy for handling and operation.



### Application:

Cranes, hoists, power lifts of truck, electric lift and other moving equipments.

### Advantages:

- Excellent price-quality level
- Various push buttons pendant models (from 2 to 6 buttons plus optional accessories)
- Made of the ABS copolymer with an excellent mechanical intensity and electrical features
- Light weight

Standard Emergency switch for cut OFF the operation power. Durable contact units, which provides to select frequently and reliably the controlling load. Two position contact unit has mechanical lock-up feature for additional safety.

## Radio-remote Control

Podem offers RRC from well-known European RRC producers.

The models are compact-size, ergonomic handsets for the control of lifting, automation and material handling applications. The main advantages of this series include safety functions, and easy installation.



### Application:

The lifting market for radio remote control is a big and diverse market:

- EOT and Gantry cranes
- Electric hoists
- Mobile cranes
- Tower cranes

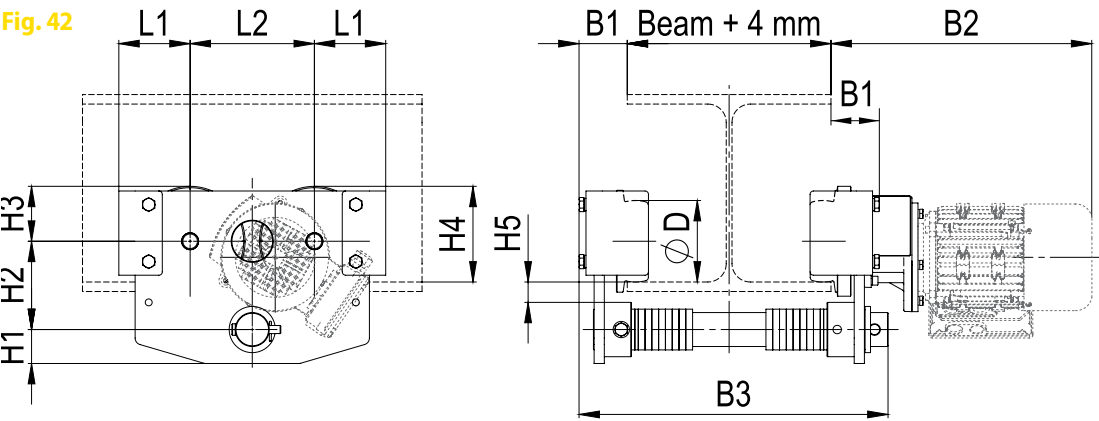
### Advantages:

Using radio equipment, you can control several crane motors independently or at the same time in tandem. Remote controlled use is safer for the operator who can position his or herself away from moving loads.

Monorail trolleys have different applications. The main one is suspension of hoists. Furthermore, they can be used as modules of underslung end-carriages, top-sliding gates, conveyors.



Fig. 42

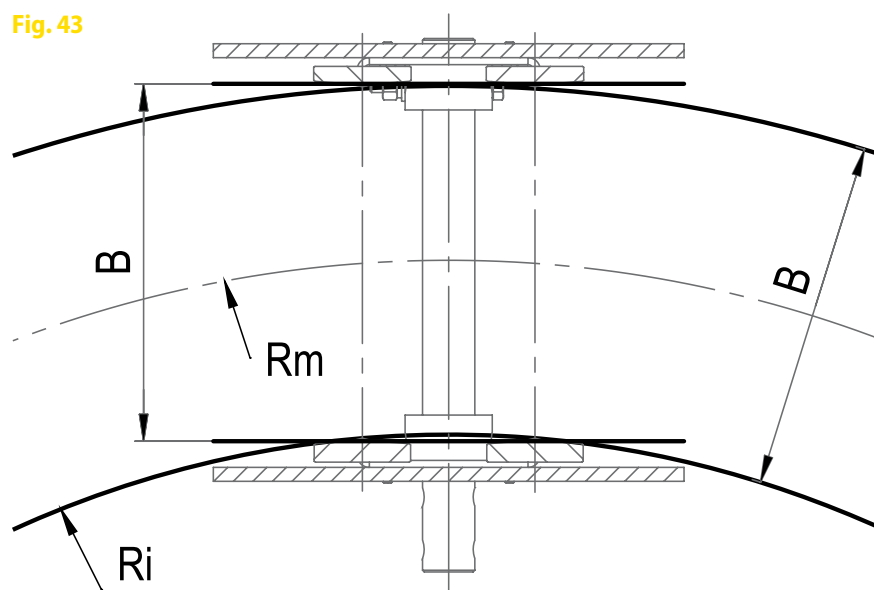


| Trolley            |               | Parameters    |                      |               |              | Dimensions            |         |         |            |         |         |         |         |         |         |         |         | Weight |
|--------------------|---------------|---------------|----------------------|---------------|--------------|-----------------------|---------|---------|------------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| Max. Capacity (kg) | Designation   | Wheel Profile | Travel Speed (m/min) | Power (kW)    | Travel Motor | Beam (mm)             | B1 (mm) | B2 (mm) | B3 (mm)    | øD (mm) | H1 (mm) | H2 (mm) | H3 (mm) | H4 (mm) | H5 (mm) | L1 (mm) | L2 (mm) | kg     |
| 1 000              | KC 0601       | 8° + 0°       | –                    | –             | –            | 60...200<br>60...300* | 29      | –       | 331* 431** | 60      | 30.0    | 105.0   | 60.0    | 90.0    | 47.0    | 128.5   | 99.0    | 13.2   |
| 1 000              | KM 0601 V20/5 | 8° + 0°       | 20/5                 | 0.1/0.03 kW   | DAS 63G      | 60...200<br>60...300* | 29      | 298     | 331* 431** | 60      | 30.0    | 105.0   | 60.0    | 90.0    | 47.0    | 128.5   | 99.0    | 24.2   |
| 1 700              | KC 1001       | Universal     | –                    | –             | –            | 130...300             | 35      | –       | 415        | 100     | 30.0    | 104.0   | 64.0    | 114.0   | 19.0    | 91.5    | 187.0   | 27.8   |
| 1 700              | KM 1001       | Universal     | 20/6                 | 0.15/0.03 kW  | KT71A        | 130...300             | 35      | 301     | 415        | 100     | 30.0    | 104.0   | 74.0    | 124.0   | 19.0    | 91.5    | 187.0   | 38.0   |
| 1 700              | KM 1001-01    | Universal     | 20                   | 0.12 kW       | KT63A        | 130...300             | 35      | 300     | 415        | 100     | 30.0    | 104.0   | 74.0    | 124.0   | 19.0    | 91.5    | 187.0   | 38.3   |
| 2 000              | KC 0801       | 8° + 0°       | –                    | –             | –            | 65...200<br>65...300* | 40      | –       | 348* 448** | 80      | 34.0    | 107.5   | 83.5    | 123.5   | 34.5    | 121.0   | 124.5   | 25.6   |
| 2 000              | KM 0801 V20/5 | 8° + 0°       | 20/5                 | 0.18/0.045 kW | DAS 63L      | 65...200<br>65...300* | 40      | 303     | 348* 448** | 80      | 34.0    | 107.5   | 83.5    | 123.5   | 34.5    | 121.0   | 124.5   | 35.0   |
| 5 400              | KC 1201-02    | Universal     | –                    | –             | –            | 130...300             | 69      | –       | 455        | 120     | 50.0    | 130.0   | 75.0    | 135.0   | 30.0    | 105.0   | 183.0   | 50.0   |
| 5 400              | KM 1201-03    | Universal     | 20                   | 0.37 kW       | T71B         | 130...300             | 69      | 348     | 455        | 120     | 50.0    | 130.0   | 81.0    | 141.0   | 30.0    | 105.0   | 183.0   | 62.0   |
| 5 400              | KM 1201-03    | Universal     | 20                   | 0.37 kW       | DAS71SX      | 130...300             | 69      | 351     | 455        | 120     | 50.0    | 130.0   | 81.0    | 141.0   | 30.0    | 105.0   | 183.0   | 61.0   |
| 5 400              | KM 1201-04    | Universal     | 20/6                 | 0.37/0.12 kW  | T80B         | 130...300             | 69      | 384     | 455        | 120     | 50.0    | 130.0   | 81.0    | 141.0   | 30.0    | 105.0   | 183.0   | 68.0   |
| 5 400              | KM 1201-04    | Universal     | 20/6                 | 0.37/0.12 kW  | DAS80SX      | 130...300             | 69      | 404     | 455        | 120     | 50.0    | 130.0   | 81.0    | 141.0   | 30.0    | 105.0   | 183.0   | 65.5   |
| 10 000             | KC 1401-02    | Universal     | –                    | –             | –            | 130...300             | 77      | –       | 471        | 140     | 60.0    | 150.0   | 75.0    | 155.0   | 30.0    | 120.5   | 207.0   | 76.0   |
| 10 000             | KM 1401-03    | Universal     | 20                   | 0.37 kW       | T71B         | 130...300             | 77      | 355     | 471        | 140     | 60.0    | 150.0   | 93.0    | 173.0   | 30.0    | 120.5   | 207.0   | 90.0   |
| 10 000             | KM 1401-04    | Universal     | 20/6                 | 0.37/0.12 kW  | T80B         | 130...300             | 77      | 391     | 471        | 140     | 60.0    | 150.0   | 93.0    | 173.0   | 30.0    | 120.5   | 207.0   | 95.0   |

Articulated standard headroom monorail hoist units:

- Lifting capacity up to 4 t (minimum radius 1500 mm).
- Lifting capacity up to 10 t (minimum radius 2500 mm).

Fig. 43



| Curve Radius |                 |
|--------------|-----------------|
|              | Ri min,<br>(mm) |
| Kx 060x      | 600             |
| Kx 080x      | 800             |
| Kx 100x      | 1 000           |
| Kx 120x      | 1 500           |
| Kx 140x      | 2 500           |

\* Beam flange dimension is important.

# Double-rail Trolleys

Podem offers double-rail hoists. It is an option to be provided only a double-rail trolley. Tube frame body design. One motor-reducer (up to 25 t) and an intermediate shaft for 2 drive wheels.

## Advantages:

- Cost-effective simple design
- Good traction with the rail
- Easy maintenance
- The trolley gauge could be modified according to the project request
- It is possible to order different trolley gauges on request

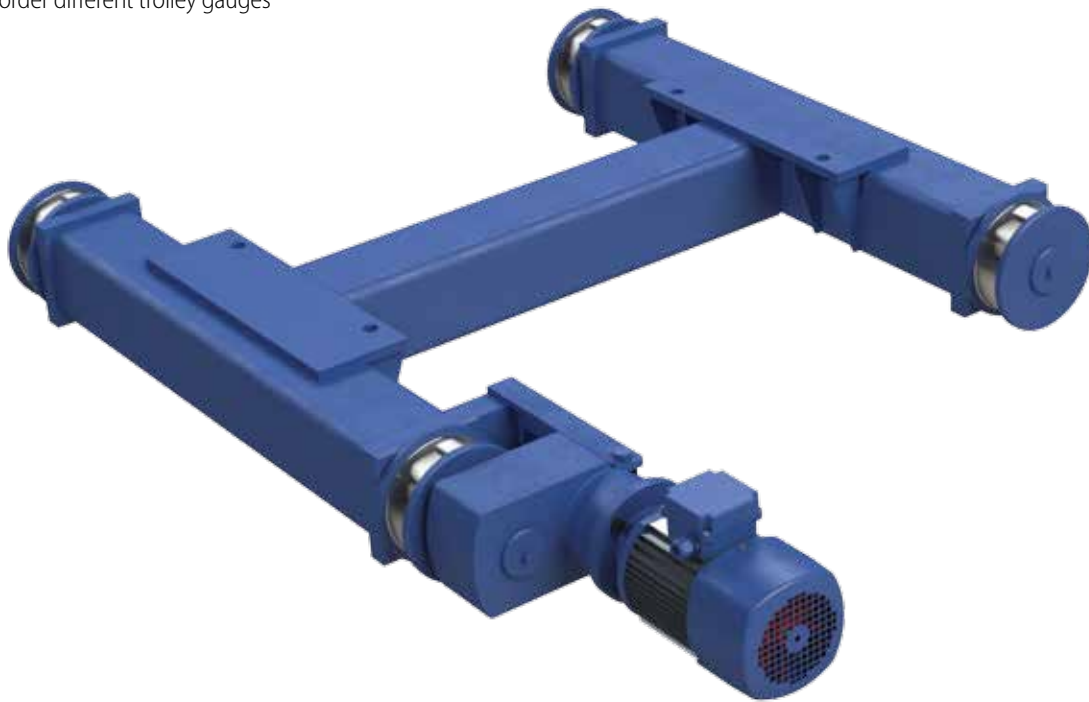


Fig. 44A

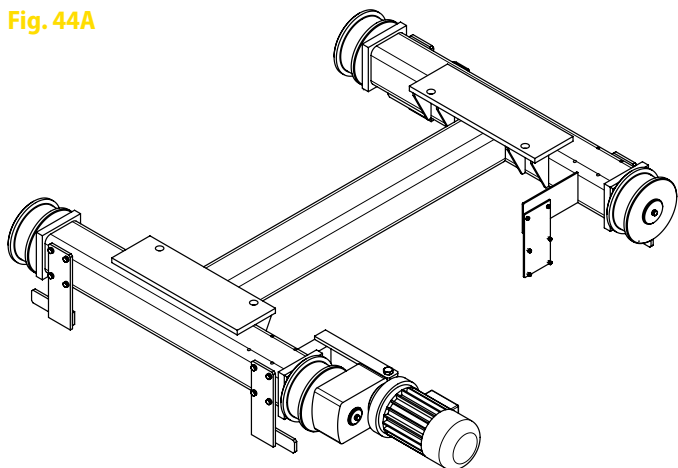
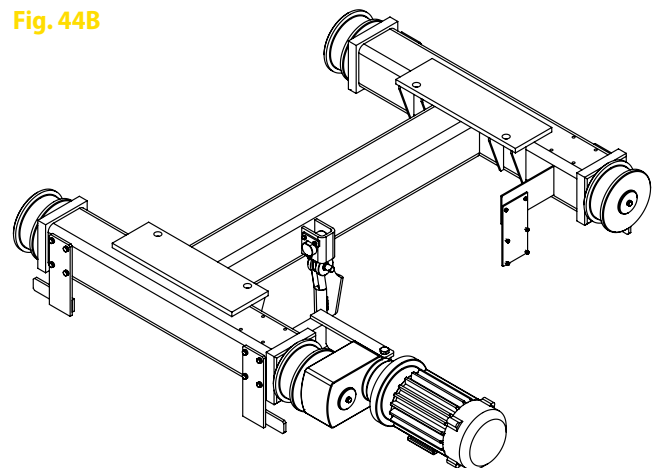
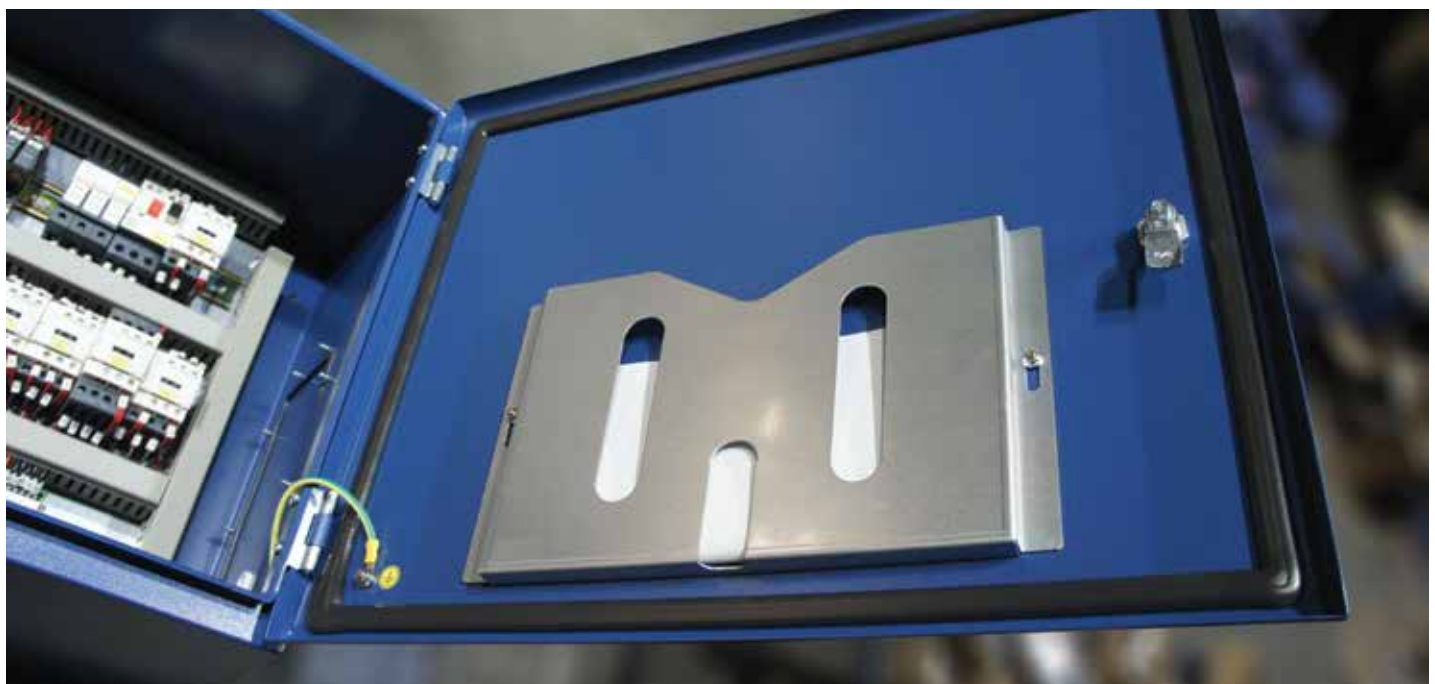


Fig. 44B



**With respect to the International norms and end-users Podem provides:**

- Wire Rope Hoist passport
- Hook certificate
- Rope certificate
- User manual for Wire Rope hoists
- Electrical diagrams
- Spare parts catalogue (available for downloading from the web site)



Special holder for documentation in the electrical cabinet.

Standard packing is a wooden case or Euro-pallet.

The options could be packing for:

- Airfreight – completely closed packing
- Sea transport – special anti-rust protection



## Standard packing of hoist (monorail or stationery)

- Wooden Case
- Hoist
- Hook
- Documentation (hard copy or USB flash card)

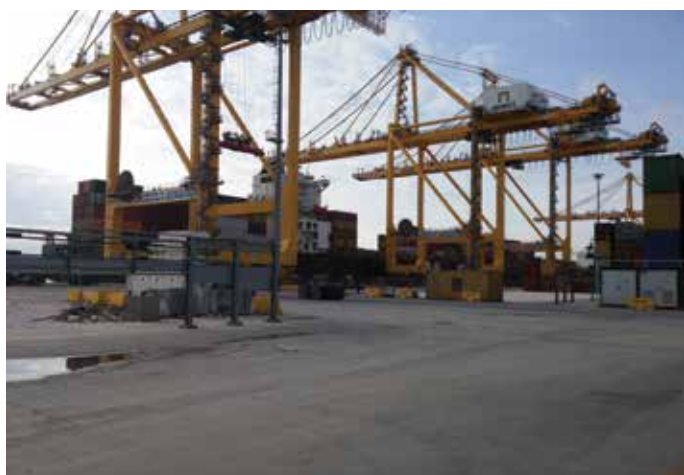


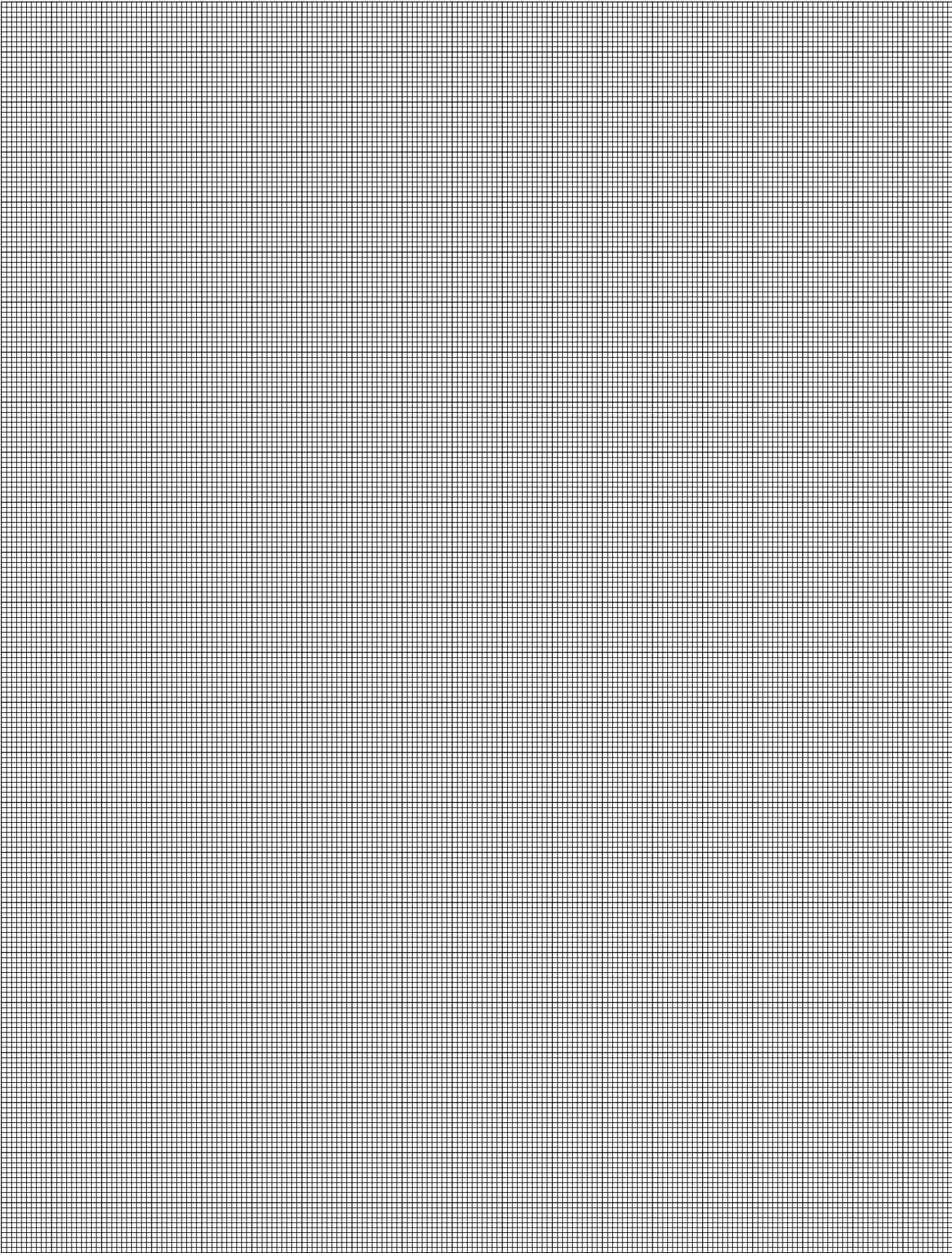
## Standard packing of double-rail hoist

- Wooden Platform
- Hoist
- Hook
- Documentation (hard copy or USB flash card)











## Technical Catalogue

Standard Wire Rope Hoists

September 2021



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Bulgaria

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