

Steel rope for manual and electric winches

All electric winches are supplied without load bearing mechanisms as standard. To ensure safe operation an optimum rope design, optimum length and associated fastening elements (hooks, shackles) are selected.

We recommend to choose wire ropes on the basis of design, type of construction and strength to suit the intended use and frequency of use. The features of the different types of rope design are as follows:

Breaking load

→ Load bearing capacity, strength of the rope

Bending fatigue + flexibility

→ Service life

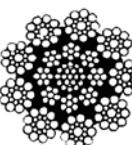
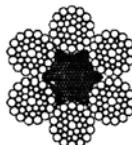
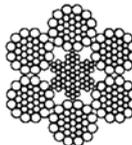
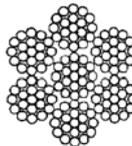
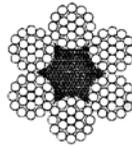
External wear

→ Stability of the outer strands

Torsion characteristics

→ Lifting of guided or unguided loads

Handling



Our product range includes winches for lifting, pulling and moving of loads. In combination to our winches the following rope types apply:

Standard design

6 x 19 + FE 1770 N/mm²

Manual winch rope with fiber inlay 3 - 12 mm Ø

Galvanized or stainless steel in mat. 1.4401

Nominal strength 1570 N/mm² (low breaking load)

- not non-twisting
- crosslay type of construction
- low-tension
- lifting rope for infrequent actuation
- rugged and widely resistant

Warrington-Seale

6 x 36 WS + SES (FE) 1770 N/mm²

Manual and electric winch rope in parallel type of construction 10 - 28 mm Ø

Galvanized, with fiber or steel inlays as options

- highly flexible
- high breaking load
- average number of reversed bending stresses

Non-rotating special rope

SE-znk - 1960 N/mm²

Standard rope for electric winches, non-rotating spiral strand rope 3 - 13 mm Ø

Galvanized

- balanced characteristics
- lifting rope for unguided single rope suspension elements
- lifting rope for large lifting heights with multiple rope suspension elements
- not to be used with a swivel
- high strength
- high bending fatigue characteristics

Heavy duty winch rope

Electric winch rope with plastic-coated steel core in double-parallel type of construction 6 - 30 mm Ø

Bright and greased, not non-twisting

- special rope for frequent bending stress reversals and long use
- to be used only with matching rope sheaves and drums
- optimized break loads due to higher fill factor

INFO

The use of plastic-coated steel wire ropes with lifting equipment is not permitted.

To meet individual requirements we can provide assistance for the selection of length, diameter and type of the rope, as well as a fastening equipment (thimbles, hooks, rope clips, etc.).

Rope fasteners/rope connections

The safe functioning of the rope drive depends to a large extent on the rope fastenings on the winch and on the load. Rope connections and ropes themselves have to be checked at regular intervals by competent persons. The following rope connections are permissible for use with lifting equipment:

Non-releasable rope connections

Aluminium press-on connection
with thimbles

in combination with safety eye hooks or screw shackles provide a simple and safe means of suspending loads.

Splice connections (uncoated)

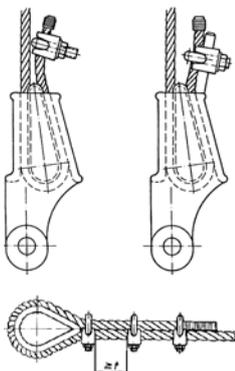
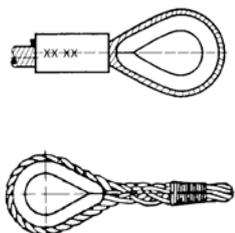
in combination with thimbles, hooks, etc.

In the most unfavourable situation, splice connections can lead to a reduction in the breaking load of the rope line of up to 40%.

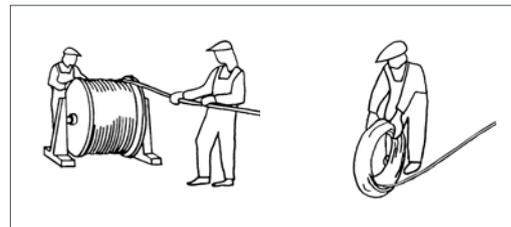
Releasable rope connections

Rope clips

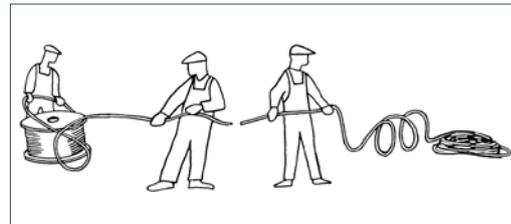
- The end which is not under load must never be fastened to the load-bearing line.
- The length of the unloaded rope end should be at least 20 times the diameter of the rope and not less than 150 mm.
- Clips may no longer be used once the rope has worn by more than 10%.
- Wire rope clamps may not be used for rope connections for lifting equipment, with the exception of fastening equipment which is manufactured for non-recurring, special purposes!



Handling of ropes – Unwinding



RIGHT



WRONG

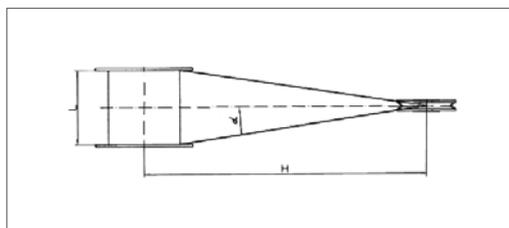
Care of ropes

“Running ropes” in particular will only offer optimum service lives if they are well lubricated. The use of steel ropes without grease will cause them to wear quickly and the load bearing mechanism will have to be replaced early.

INFO

Pressed and splice connections may only be produced by specialist firms or rope manufacturers.

Notes on the installation of winches



The distance between rope drum and sheave must be selected in a way that the maximum deflection angle for the type of rope used is not exceeded:

Standard rope – Deflection angle <math>< 3^\circ</math>
(Minimum distance = Drum width x 10)

Special rope - Deflection angle <math>< 1.5^\circ</math>
(Minimum distance = Drum width x 20)

- To prevent the wire rope from becoming slack when unloaded it should always have an additional rope weight when used with lifting equipment
- Guided loads must be monitored with a slack rope cut-out.
- To prevent the rope from becoming damaged, steel wire ropes must never be guided
 - over edges
 - over deflection radii which are too small or
 - over rope sheaves with grooves which are too small.
- High dynamic forces can lead to sudden breaks or crashes of the load. It is therefore imperative that loads are never brought to a dead stop (“on block”) and that loads are never allowed to drop into the rope.



The image shows the winch RPE up to 1,0t

Yale *RPE*

Electric winch

Capacity 250 - 2000 kg

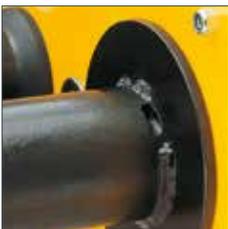
Winches series RPE are designed for performance, efficiency and safety and offer many advantages and options. RPE's compact, practical cube design and universal rope lead-offs allow individual applications in almost any position for lifting and pulling loads.

The winches are designed to DIN 15020, classification 1 Bm/M3 and the EC machinery directives.

Every winch is factory tested with overload. The units are supplied with a test certificate showing the unit's serial-no. and an operating instructions manual which contains a manufacturer's declaration.

Features

- Compact dimensions due to internal brake motor.
- Standard operating voltages of 400V/230V, 3-ph, 50Hz or 230V, 1-ph, 50Hz
- Protected to IP 54
- Insulation class F
- Adjustable slip clutch to protect the winch from overloading standard for RPE 10-6 and RPE 20-6.
- Spur gear transmission with helical first gear ensures smooth motion. Lubricated by grease and can, therefore, be used in any position.
- Spring pressure disc brake incorporated in the motor holds the load secure even in the event of a power failure.
- Plain rope drum standard. The rope is secured to the drum in a recess so that the rope can be wound onto the drum in several layers without damage.
- 42V low voltage control (incl. push-button with emergency-stop and 2m control cable) or without controls.



Rope attachment



Spring pressure disc brake



Brake motor

INFO

When selecting the length of the rope please bear in mind that a minimum of 2-3 windings have to remain on the drum.

The wire rope, if ordered, comes dismantled, and is to be mounted onto the drum by the user.

Please note, the single-phase winches generate a higher noise level than those with three-phase motors.

Options

- Different drum designs (XL) extended to accommodate longer rope.
- Machined grooved drums for better rope reeling.
- Drums with separation web and extra rope outlets for working with two or more ropes.
- Geared limit switches to limit rope motion in both directions (in combination with 42 V low voltage control).
- Slack rope switch to automatically stop the winch when rope tension eases e.g. when the load touches down (in combination with 42 V low voltage control)
- Frequency converter for stepless speed control.
- Special design according to DGUV Vorschrift 17 (BGVC1) for theater stage applications on request.
- Radio remote control only in combination with low voltage control
- Other operating voltages
- Motor brakes with manual release.
- Special coatings or zinc plated finish.

The image shows the winch RPE 20-6 with the grooved drum (optional).



Single-phase A.C. motor



Geared limit switches



Gearbox with slip clutch



Different drum designs



INFO

Also available as zinc-plated version on request!

Technical data RPE

| Model | Capacity kg | Lifting speed m/min | | Rope layers max. | Rope diameter mm | Motor kW | ED | Weight without rope kg | |
|-------------------------|----------------|------------------------|-----------|------------------------|------------------------|-------------|-----|---------------------------|-----|
| | | 1 st layer | top layer | | | | | L | XL |
| RPE 2-13 L | 250 | 10.2 | 13.2 | 4 | 4 | 0.55 | 40% | 40 | 48 |
| RPE 5-6 L | 500 | 4.6 | 6.6 | 4 | 6 | 0.55 | 40% | 41 | 49 |
| RPE 5-12 L | 500 | 8.7 | 12.6 | 4 | 6 | 1.1 | 40% | 47 | 54 |
| RPE 10-6 L ¹ | 1000 | 5.1 | 6.5 | 3 | 8 | 1.1 | 40% | 89 | 105 |
| RPE 20-6 ¹ | 2000 | 5.2 | 7.6 | 3 | 12 | 2.2 | 40% | 213 | 235 |

¹Adjustable slip clutch as standard



INFO

When selecting the length of the rope please bear in mind that a minimum of 2-3 windings have to remain on the drum.

Yale hoists and trolleys are not designed for passenger elevation applications and must not be used for this purpose.

Plain drum rope capacity

| Model | Capacity top layer kg | Drum size | Useable rope length max. m | | | |
|-----------------------|-----------------------------|----------------|-------------------------------|-----------------------|-----------------------|-----------------------|
| | | | 1 st layer | 2 nd layer | 3 rd layer | 4 th layer |
| RPE 2-13 ¹ | 250 | 1 ¹ | 11.1 | 24.5 | 39 | 54 |
| RPE 5-6 ¹ | 500 | 1 ¹ | 7.4 | 16.9 | 27 | 38 |
| RPE 10-6 ¹ | 1000 | 1 ¹ | 10.1 | 23.0 | 37 | - |
| RPE 20-6 | 2000 | 1 | 13.2 | 30.3 | 49 | - |
| RPE 2-13 L | 250 | 2 | 16.8 | 36.4 | 57 | 80 |
| RPE 5-6 L | 500 | 2 | 11.3 | 25.2 | 40 | 57 |
| RPE 5-12 L | 500 | 2 | 11.3 | 25.2 | 40 | 57 |
| RPE 10-6 L | 1000 | 2 | 15.8 | 35.2 | 56 | - |
| RPE 20-6 L | 2000 | 2 | 20.6 | 46.1 | 74 | - |
| RPE 2-13 XL | 250 | 3 | 44.3 | 94.1 | 148 | 200 |
| RPE 5-6 XL | 500 | 3 | 30.0 | 65.5 | 105 | 149 |
| RPE 5-12 XL | 500 | 3 | 65.0 | 65.5 | 105 | 149 |
| RPE 10-6 XL | 1000 | 3 | 30.7 | 67.0 | 107 | - |
| RPE 20-6 XL | 2000 | 3 | 34.1 | 74.9 | 120 | - |

¹available on request only!

Grooved drum rope capacity (recommended for single layer operation)

| Model | Capacity top layer kg | Drum size | Useable rope length m | |
|-------------------------|-----------------------------|----------------|--------------------------|------|
| | | | 1 st layer | max. |
| RPE 2-13 R ¹ | 250 | 1 ¹ | 8.8 | 43 |
| RPE 5-6 R ¹ | 500 | 1 ¹ | 6.2 | 33 |
| RPE 10-6 R ¹ | 1000 | 1 ¹ | 8.2 | 30 |
| RPE 20-6 R | 2000 | 1 | 12.0 | 44 |
| RPE 2-13 LR | 250 | 2 | 13.3 | 64 |
| RPE 5-6 LR | 500 | 2 | 9.5 | 49 |
| RPE 5-12 LR | 500 | 2 | 9.5 | 49 |
| RPE 10-6 LR | 1000 | 2 | 12.9 | 47 |
| RPE 20-6 LR | 2000 | 2 | 16.8 | 61 |
| RPE 2-13 XLR | 250 | 3 | 35.3 | 165 |
| RPE 5-6 XLR | 500 | 3 | 25.7 | 128 |
| RPE 5-12 XLR | 500 | 3 | 25.7 | 128 |
| RPE 10-6 XLR | 1000 | 3 | 25.2 | 89 |
| RPE 20-6 XLR | 2000 | 3 | 27.9 | 99 |

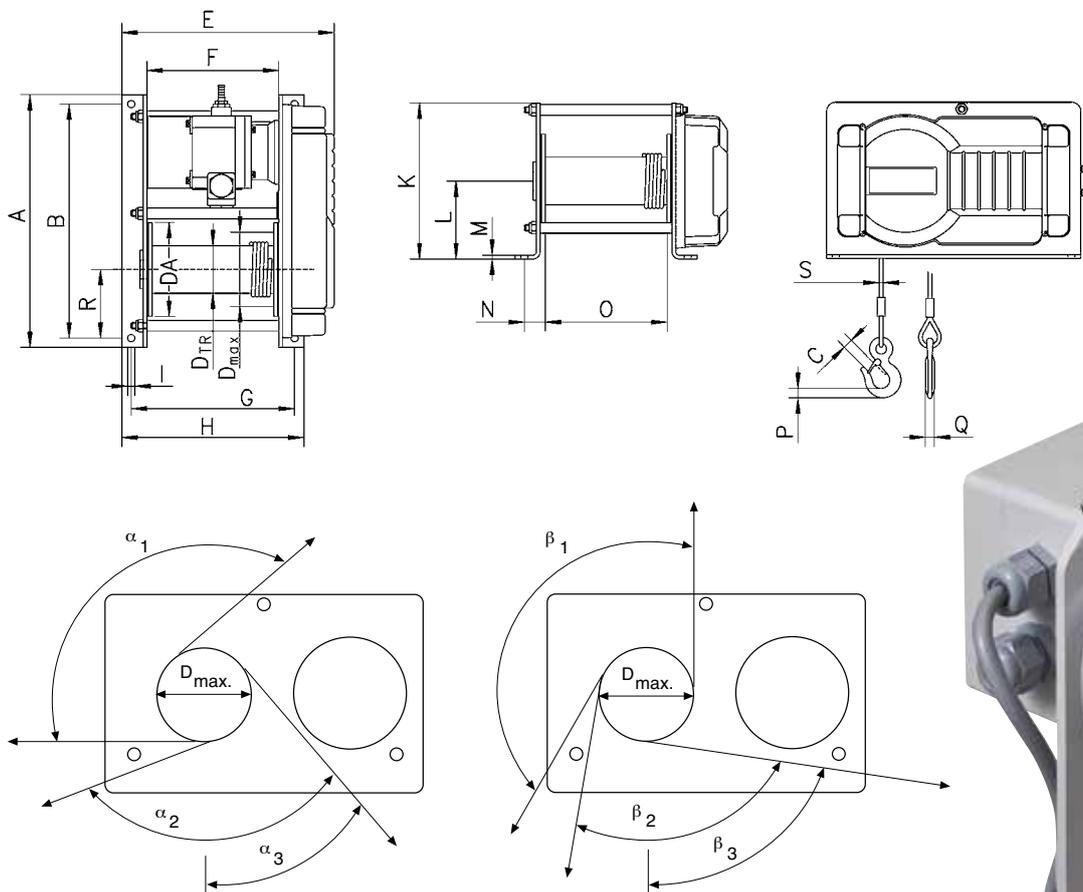
¹available on request only!

Dimensions RPE (400 V direct control, standard drum)

| Model | RPE 2-13 ¹ RPE 5-6 ¹ | RPE 2-13 L RPE 5-6 L RPE 5-12 L | RPE 2-13 XL RPE 5-6 XL RPE 5-12 XL | RPE 10-6 ¹ | RPE 10-6 L | RPE 10-6 XL | RPE 20-6 | RPE 20-6 L | RPE 20-6 XL |
|-----------------------|---|---------------------------------------|--|-----------------------|------------|-------------|----------|------------|-------------|
| A, mm | 405 | 405 | 405 | 525 | 525 | 525 | 670 | 670 | 670 |
| B, mm | 375 | 375 | 375 | 485 | 485 | 485 | 550 | 550 | 550 |
| C, mm | 18 | 18 | 18 | 25 | 25 | 25 | 36 | 36 | 36 |
| D _{TR} , mm | 76 | 76 | 76 | 108 | 108 | 108 | 146 | 146 | 146 |
| D _{max} , mm | 104 | 118 | 118 | 148 | 148 | 148 | 224.4 | 224.4 | 224.4 |
| DA, mm | 150 | 150 | 150 | 180 | 180 | 180 | 245 | 245 | 245 |
| E, mm | 338 | 428 | 865 | 450 | 575 | 902 | 619 | 784 | 1084 |
| F, mm | 210 | 300 | 737 | 270 | 395 | 722 | 360 | 525 | 825 |
| G, mm | 260 | 350 | 787 | 345 | 470 | 797 | 480 | 645 | 945 |
| H, mm | 290 | 380 | 817 | 380 | 505 | 832 | 540 | 705 | 1005 |
| I, mm | 11 | 11 | 11 | 13 | 13 | 13 | 23 | 23 | 23 |
| K, mm | 250 | 250 | 250 | 340 | 340 | 340 | 401 | 401 | 401 |
| L, mm | 125 | 125 | 125 | 170 | 170 | 170 | 215 | 215 | 215 |
| M, mm | 6 | 6 | 6 | 10 | 10 | 10 | 15 | 15 | 15 |
| N, mm | 33 | 33 | 33 | 47.5 | 47.5 | 47.5 | 72.5 | 72.5 | 72.5 |
| O, mm | 194 | 284 | 721 | 250 | 375 | 702 | 335 | 500 | 800 |
| P, mm | 19 | 19 | 19 | 24 | 24 | 24 | 34 | 34 | 34 |
| Q, mm | 13 | 13 | 13 | 19 | 19 | 19 | 26 | 26 | 26 |
| R, mm | 125 | 125 | 125 | 170 | 170 | 170 | 135 | 135 | 135 |
| S, mm | 4 | 6 | 6 | 8 | 8 | 8 | 12 | 12 | 12 |
| α 1, ° | 130 | 130 | 130 | 145 | 145 | 145 | 153 | 153 | 153 |
| α 2, ° | 110 | 110 | 110 | 125 | 125 | 125 | 136 | 136 | 136 |
| α 3, ° | 40 | 40 | 40 | 50 | 50 | 50 | 64 | 64 | 64 |
| β 1, ° | 150 | 150 | 150 | 155 | 155 | 155 | 147 | 147 | 147 |
| β 2, ° | 90 | 90 | 90 | 100 | 100 | 100 | 107 | 107 | 107 |
| β 3, ° | 80 | 80 | 80 | 83 | 83 | 83 | 83 | 83 | 83 |

¹available on request only!

Dimensions for models with optional features are available on request!



Rope lead-offs for electric winch RPE

*Endless winch
up to 500 kg!*



STANDARD
This image shows the
Yale Mtrac winch with
standard equipment.

PATENTED*
BI-DIRECTIONAL ACTUATOR
FOR BI-DIRECTIONAL
LIFTING

*German Patent DE 10 2012 100 099

Yale Mtrac®

Endless winch

Capacity 66 - 500 kg

(two-fall design up to 1000 kg, optional)

The Yale Mtrac® endless winch combines state-of-the-art industrial design with technical innovation to solve a specific customer need – the need for a safe and simple handling solution for mobile applications.

We did just that. Because the rope of the endless winch is not collected during operation, there is no limit to the lifting height and traction length when using this product. And, with a full offering of wire ropes and accessories, this winch can be used in virtually any application requiring a hoist., e.g. on construction sites, in maintenance and assembly, in wind mills and power supply, water and utility sector, overhead line maintenance, etc.

Features

- Control pendant (IP 65-type of enclosure) is connected via a control cable.
- Standard power cable has a length of 1.0 m and is fitted with a CE connector plug (or a Schuko-plug).
- 42 V low-voltage control
- Ergonomic, fitted carrying handle features a comfortable plastic grip.
- Mounting feet fixed on the housing for easy set up.
- Standard operating voltages of 400 V, 3-ph, 50 Hz or 230 V, 1-ph, 50 Hz.
- Galvanized, high-density steel rope is 10 m long (dia. 6.5 mm) and features a safety hook on one end as well as a rounded, plastic-coated tip at the loose end.
- Two spring buffers with adjusting rings can be attached to the wire rope to set the limit switches for both upward and downward movement.
- Drive sheave is made of especially hardened steel designed to ensure long service life.
- The patented (German Patent DE 10 2012 100 099) bi-directional actuator ensures the rope is safely guided and securely held in place.
- Slip clutch is located outside of the load path for added safety.
- Limit switches ensure safe cut-out for the upper and lower hook positions.
- Electromagnetic brake holds the load safely, even in the event of a power failure.
- Winch is classified up to 1 Bm/M3 acc. to FEM/ISO.
- Winch is protected up to IP 55.

FEATURES

PATENTED* BI-DIRECTIONAL ACTUATOR

The Yale *Mtrac* endless winch features a unique bi-directional actuator that allows the winch to move the rated load on both ends of the rope. A hook can be fitted on the unloaded rope end (as an option) thus eliminating no-load motions. How does it work? Once the load has reached the top position, the unloaded rope end with the other hook is automatically in the bottom position and a new load can be picked up immediately. The lifting frequency is doubled as the two falls can be evenly loaded alternately with the rated load.

*German Patent DE 10 2012 100 099

READY TO USE

Each winch leaves our factory as a complete plug and play unit.

The control cable with control pendant is connected, as is the power supply cable with the plug. The standard design also features a wire rope complete with fitted safety hook. The carrying handle is included as standard and load-bearing feet are provided on the lower part of the housing.

STATE-OF-THE-ART INDUSTRIAL DESIGN

A compact and state-of-the-art design was at the focus of the Yale *Mtrac*. The housing is made of low-pressure, die-cast aluminum and the high-strength, glass-fiber reinforced plastic covers ensure low weight and outstanding rigidity. A carrying frame, available as an option, allows for easy, two-person transport and provides additional protection against damage when moving the unit or operating it in rough conditions.

VERSATILE APPLICATION

Mtrac winches can be used vertically, at an angle or horizontally for versatility depending on your application. Optionally, the load capacity can be doubled with two-fall reeving. Bolting points on the housing allow the customer to attach the winch in a way that best suits their application.

PROVEN TECHNOLOGY

Mtrac winches include reliable and proven Yale technology. The oil-bath lubricated and case-hardened gearbox has a helical gearing for smooth operation and a long service life. IP 55-rated motor enclosure ensures reliable operation of the winch for both indoor and outdoor applications.

BEST-IN-CLASS SAFETY

Standard winch models feature 42 V low-voltage control with built-in limit switches designed to stop the hoist when the hook has reached the upper or lower position. The operator can define the limit switch positions by simply relocating the spring buffers on the rope. The winch is also protected against overload by means of a slip clutch that is designed to guarantee a permanent connection between the load and the brake.

SIMPLE MAINTENANCE

Yale *Mtrac* winches are easy to service. Units are designed with a modular structure with all critical parts easily accessible. Re-adjusting the slip clutch and inspecting the brake is quick and easy as well. In addition, the handle, or carrying frame, can be quickly and easily assembled and removed.

ERGONOMIC DESIGN

Standard units have a comfortable plastic grip that allows for convenient one-person transport. The optional carrying frame features a grip on each handle, making two-person transport easy. And, because of the rounded housing, operator injury is minimized.



STANDARD
This image shows the Yale *Mtrac* winch with standard equipment.



Capacity up to 1000 kg

TWO-FALL DESIGN
with optional components such as suspension hook and bottom block.

OPTIONAL FEATURES

BI-DIRECTIONAL LIFTING

To realize the full potential of this winch, operators can utilize the bi-directional actuator. Simply fit an additional hook at the loose rope end to take advantage of this unique feature. Once the hook is in place, the unit can be used in bi-directional lifting mode (two-hook mode). The actuator is mounted in the interior of the winch and ensures the rope smoothly runs in the drive sheave. It also extends the pressure surface of the rope on the drive sheave for safe friction contact. The two load falls are designed to alternately carry the rated load.

CARRYING FRAME

The carrying frame on the Yale *Mtrac* can be installed either at the top or at the bottom on the unit. It is ergonomically designed with plastic grips that ensure hand-friendly handling and carrying of the winch by two people. The carrying frame cannot be used as a load-bearing component; it is exclusively intended to protect the housing, e.g. while working, during storage or while transporting or carrying the winch. Two carrying frames can also be used (one at the top and one at the bottom).

CONNECTION TO TROLLEYS

If low headroom is required, the Yale *Mtrac* winch can be easily converted from the standard hook connection to a trolley mount using a Yale trolley. Manual and power-driven trolleys available on request.

Yale *Mtrac* winches with two carrying frames (optional) are extremely well protected and can be safely operated in any position.



The accessories for the two-part reeved option double the load capacity.



OPTIONAL

- The transport and carrying frames are designed to protect the housing.
They must not be used as load-bearing components!
- Two-part reeving configuration doubles the load capacity.
- Additional hook kit for bi-directional lifting.
- Special voltages on request.
- Steel wire ropes of various lengths.
- Manual and electric trolleys.
- Frequency converter for variable speed control or smooth starting.
- Operating hours counter to determine the remaining service life and number of switching operations.
- Radio remote control with extended operation range.
- Varying lengths for power and control cables.
- Stainless steel wire ropes (with shorter service life than standard).

PATENTED*
BI-DIRECTIONAL ACTUATOR
FOR BI-DIRECTIONAL LIFTING

*German Patent DE 102012 100099



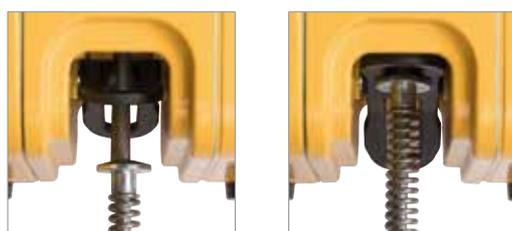
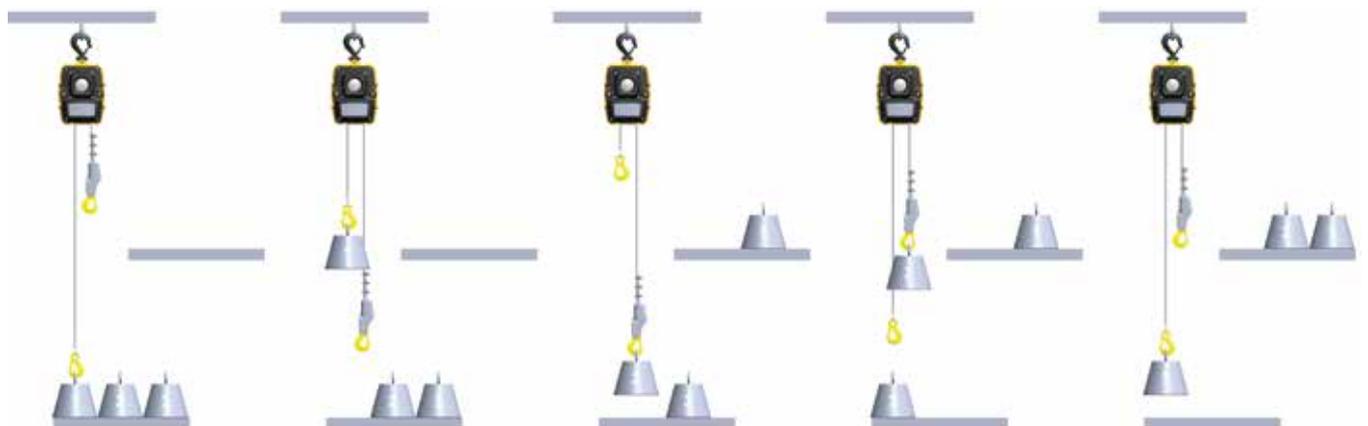
Optional:
Radio remote control

BI-DIRECTIONAL LIFTING

This image shows the Yale Mtrac's optional second hook that allows for bi-directional lifting operation.

The hooks of the two rope falls can be alternately loaded with 100% rated load.

BI-DIRECTIONAL LIFTING



LIMIT SWITCHES AND LIMIT SWITCH ACTUATOR

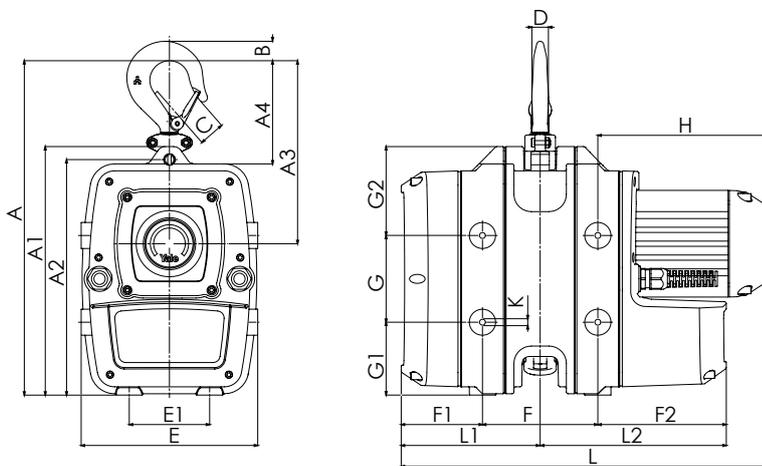
The spring buffers attached to the rope trip the limit switch actuator when they contact the paddle, which in turn actuates the micro-switches that stop the hoisting motion (via the low voltage control).

Technical data YaleMtrac

| Model | Art.-No. | Single fall Standard | | Double fall Optional | | Motor kW | Operating voltage |
|-------------|-----------|-------------------------|---------------------------|-------------------------|---------------------------|-----------------|-------------------|
| | | Capacity kg | Lifting speed m/min | Capacity kg | Lifting speed m/min | | |
| YMT 1-15 | 192025166 | 100 | 15 | 200 | 7.5 | 0.37 | 230V/1 Ph/50 Hz |
| YMT 3-5 | 192025170 | 300 | 5 | 600 | 2.5 | 0.37 | 230V/1 Ph/50 Hz |
| YMTF 0,6-30 | 192025175 | 66 | 30/7.5 | 130 | 15/3.7 | 0.37/0.09 | 400V/3 Ph/50 Hz |
| YMT 1-30 | 192025171 | 100 | 30 | 200 | 15 | 0.55 | 400V/3 Ph/50 Hz |
| YMTF 2-10 | 192025176 | 200 | 10/2.5 | 400 | 5/1.3 | 0.37/0.09 | 400V/3 Ph/50 Hz |
| YMT 3-10 | 192025174 | 300 | 10 | 600 | 5 | 0.55 | 400V/3 Ph/50 Hz |
| YMT 5-5 | 192053140 | 500 | 5 | 1000 | 2.5 | 0.55 | 400V/3 Ph/50 Hz |

Weight from 24 to 26 kg (without rope) depending on options.

Rope \varnothing 6.5 mm



| Dimensions | |
|------------|-----|
| A, mm | 385 |
| A1, mm | 287 |
| A2, mm | 272 |
| A3, mm | 221 |
| A4, mm | 119 |
| B, mm | 22 |
| C, mm | 29 |
| D, mm | 19 |
| E, mm | 202 |
| E1, mm | 92 |
| F, mm | 132 |
| F1, mm | 93 |
| F2, mm | 147 |
| G, mm | 100 |
| G1, mm | 84 |
| G2, mm | 103 |
| H, mm | 201 |
| K, mm | M8 |
| L, mm | 426 |
| L1, mm | 159 |
| L2, mm | 213 |



INFO

Yale hoists and trolleys are not designed for passenger elevation applications and must not be used for this purpose.

DSRB S
Sheave block for rope guidance,
equipped with ball bearings

Technical data DSRB S

| Model | Art.-No. | Classification FEM/ISO | Pulling force | Pulling force | Rope diameter mm |
|---------------|----------|---------------------------|-------------------------------|--------------------------------|---------------------|
| | | | in kg at deflection 90° | in kg at deflection 180° | |
| DSRB S 90/4 | 33447103 | 2m/M5 | 700 | 500 | 4 |
| DSRB S 90/6 | 33447413 | 1Dm/M1 | 700 | 500 | 4 |
| DSRB S 145/5 | 33447104 | 4m/M6 | 1100 | 800 | 5 |
| DSRB S 145/6 | 33447105 | 2m/M5 | 1100 | 800 | 6 |
| DSRB S 145/7 | 33447106 | 1 Am/M4 | 1100 | 800 | 6 |
| DSRB S 185/8 | 33447107 | 2m/M5 | 2300 | 1630 | 8 |
| DSRB S 185/9 | 33447108 | 1 Am/M4 | 2300 | 1630 | 9 |
| DSRB S 270/12 | 33447111 | 2m/M5 | 2500 | 1800 | 12 |

All sheaves are available as an individual component on request.



Dimensions DSRB S

| Model | DSRB S 90/4 | DSRB S 90/6 | DSRB S 145/5 | DSRB S 145/6 | DSRB S 145/7 | DSRB S 185/8 | DSRB S 185/9 | DSRB S 270/12 |
|------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Art.-No. | 33447103 | 33447413 | 33447104 | 33447105 | 33447106 | 33447107 | 33447108 | 33447111 |
| B, mm | 85 | 85 | 125 | 125 | 125 | 138 | 138 | 191 |
| C, mm | 90 | 90 | 160 | 160 | 160 | 195 | 195 | 290 |
| Ø D, mm | 90 | 90 | 145 | 145 | 145 | 185 | 185 | 270 |
| Ø D1, mm | 20 | 20 | 25 | 25 | 25 | 30 | 30 | 40 |
| Ø Dm, mm | 80 | 78 | 125 | 125 | 126 | 160 | 162 | 246 |
| E, mm | 62 | 62 | 88 | 88 | 88 | 106 | 106 | 138 |
| H, mm | 134 | 134 | 224 | 224 | 224 | 273 | 273 | 407 |
| K, mm | 65 | 65 | 110 | 110 | 110 | 135 | 135 | 202 |
| L, mm | 120 | 120 | 200 | 200 | 200 | 245 | 245 | 360 |
| Ø M/M1, mm | 9/9 | 9/9 | 11.5/13 | 11.5/13 | 11.5/13 | 13.5/15 | 13.5/15 | 18/20 |
| S, mm | 4 | 4 | 6 | 6 | 6 | 8 | 8 | 10 |

