



MACHINEFABRIEK

EMCÉ

Manufacturer of winches
and hoisting equipment



WINCHES

CAPSTANS

WINDLASSES



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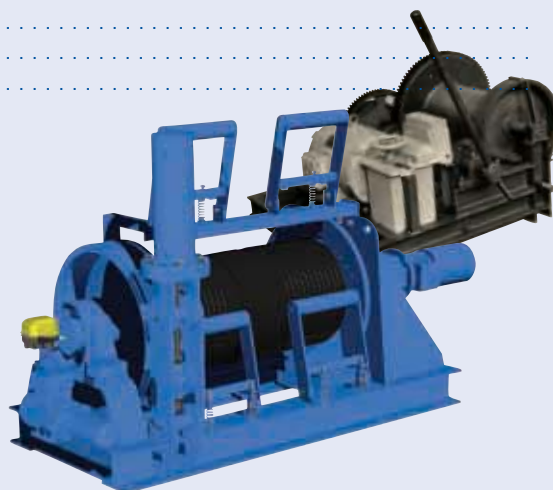
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MACHINEFABRIEK EMCÉ B.V.

The technical data pages contains information regarding dimensions, performance, weighs, etc. Since the products are for 85% custom-built, the data should be used for guidance only. Definite data can be obtained from our sales office.

EMCÉ are constantly striving to increase and further improve the product range. Whilst every effort has been made to ensure the accuracy of the dimensions and specifications included at the time of printing, we are unable to warrant the accuracy of the information. The inclusion of any product does not guarantee the availability of that product in the future. Customers should check both availability and conformance of the product to any critical parameters at the time of ordering.

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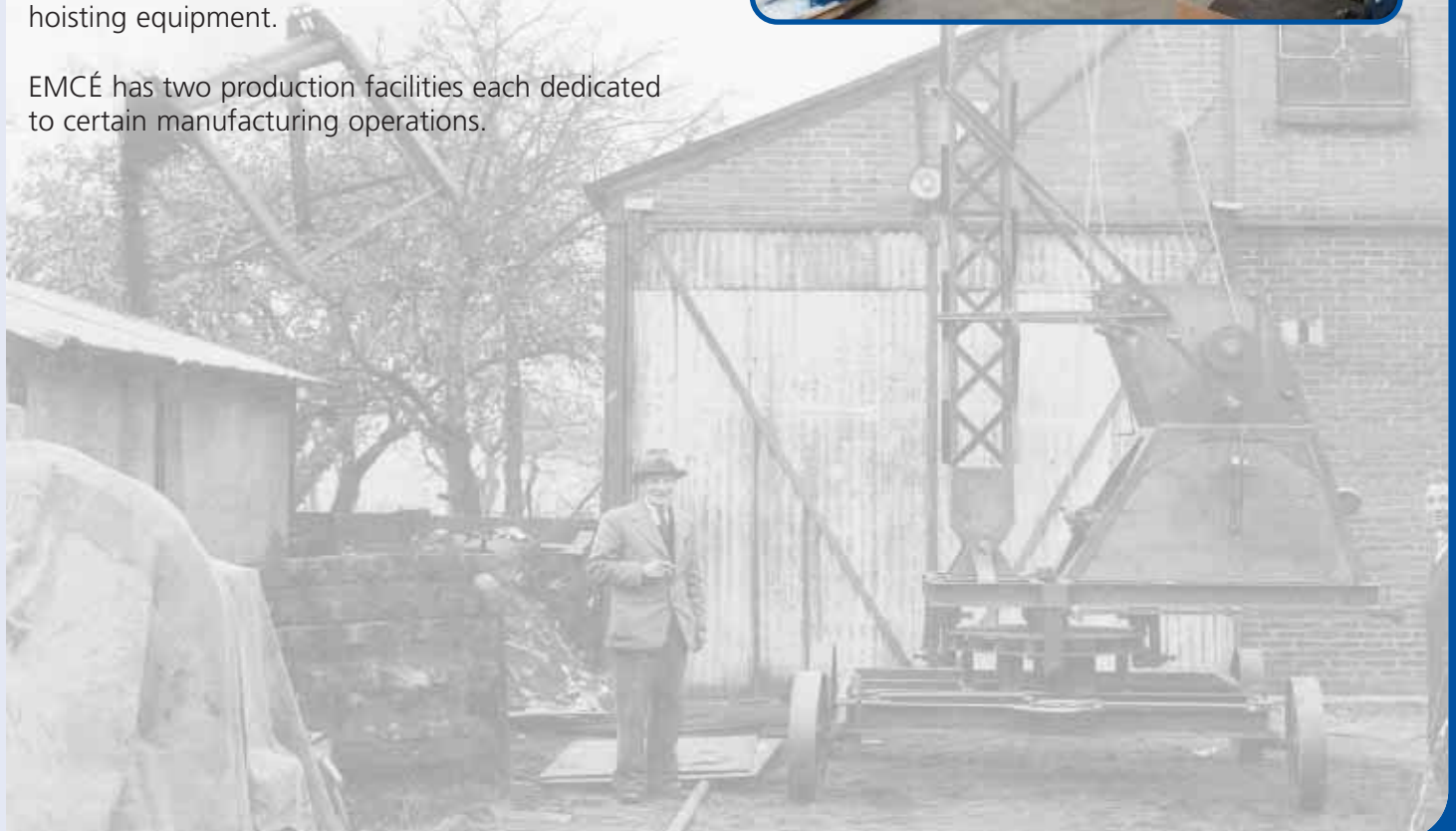
Company profile

HISTORY

Founded in 1933, EMCÉ initially manufactured concrete mills and material lifts for the construction industry. During the 60's, the company decided to specialise in the field of winches, which already were an important part of the material lifts produced. Since 1964 the company EMCÉ is concentrating only upon the design, manufacturing and international marketing of winches, capstans and windlasses. Thus in the field of winches, EMCÉ has built up an outstanding reputation during the past 68 years, especially in the shipbuilding, offshore, dredging, fishery, construction, mining, theatre and industry in general.

EMCÉ is part of the Stokvis Holding Group of companies, with the head office also located at Voorhout - Holland, only 15 minutes away from Amsterdam Schiphol Airport. The Stokvis Holding Group employs over 400 people divided over 12 different companies. The group of companies represents a solid unit of entities that complement each other, and who have established their range of activities in the following sectors: transmissions (electric/pneumatic/hydraulic motors, gearboxes, couplings, etc.) and controls, internal transport equipment, automotive equipment, winches and hoisting equipment.

EMCÉ has two production facilities each dedicated to certain manufacturing operations.





COMPANY MISSION

The primary mission of Machinefabriek EMCÉ b.v, is to design, manufacture and market winches & hoisting equipment based upon customer requirements (custom built), which have definite advantages in quality, performance, durability and safety for customers in the international market of shipbuilding, off-shore, dredging, fishery, construction, mining, theatre and industry in general.

ENGINEERING

Designing and building winches takes knowledge, innovation, a sense of quality and most important experience in the field. In her more than 40 years winch experience EMCÉ has made these qualities her own. A well considered design and robust construction make for a long-lived and trouble free product.

All winches are designed to have a lifetime of at least 10,000 (n,xh).

Our designs are aimed at optimal simplicity, efficiency and compact size, using where possible standard industrial components kept in stock within our holding group of companies. This simplifies maintenance, spares availability and worldwide servicing.

From the electronic drawing board using the latest 3-D design software through to the finished product, production and design is done in house, so we can respond quickly and effectively to your inquiries and orders. To build their winches EMCÉ uses high quality type industrial gearboxes. The planetary gearbox offers some interesting advantages and can be proposed as a good alternative to parallel shaft gearboxes in various winch

designs. The advantages of planetary gearboxes will match the specific requirements for winch designs, i.e. high reduction ratios, high transmissible torque and high radial loads on output shafts, further these gearboxes are highly reliable and durable and are maintenance free.

Due to the self-braking feature of worm gears, winches based upon this design are suitable for many pulling applications without the need for a brake motor.

The production process of all gearboxes used for EMCÉ winches meets the requirements of the UNI EN ISO 9001 standard.

In a lot of cases our standard designs will suffice, however, should a custom design or adaptation be necessary, we would be glad to discuss your needs and possibilities with you so we can arrive at an attractive solution.

All winches are in accordance with the machinery directive 89/392 EEC repealed by 98/37/EC, 91/368 EEC, 93/44/EEC and with the harmonised standards EN 292-1, EN 292-2 and EN 414.



Before the winches are shipped they are subject to a performance test one of our testbeds which has a maximum dynamic test capacity of 75 Ton.



75 Ton

10 Ton

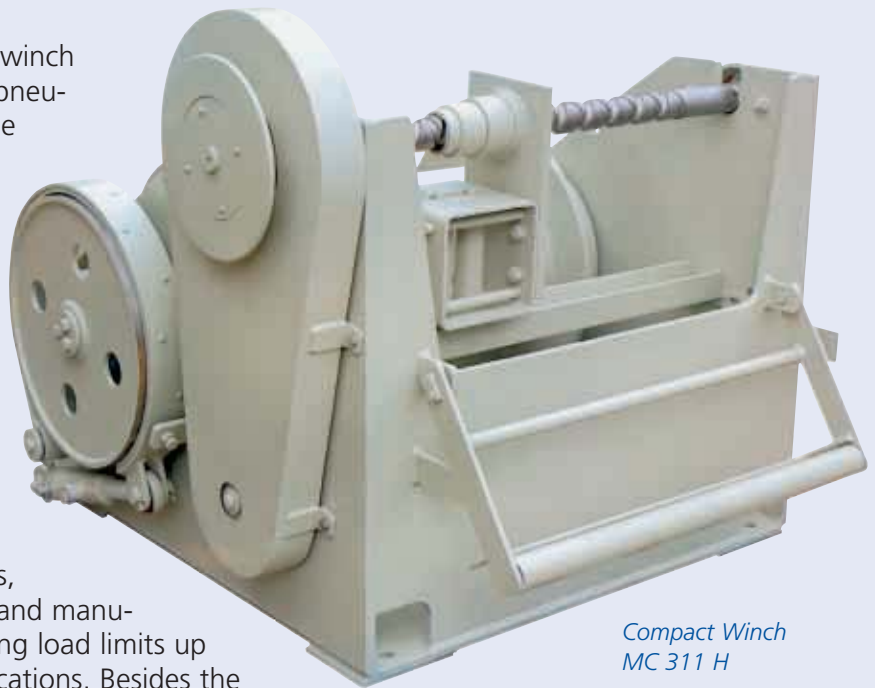
Product range

The control and drive of the winch can be electric, hydraulic or pneumatic or a combination of the before mentioned options.

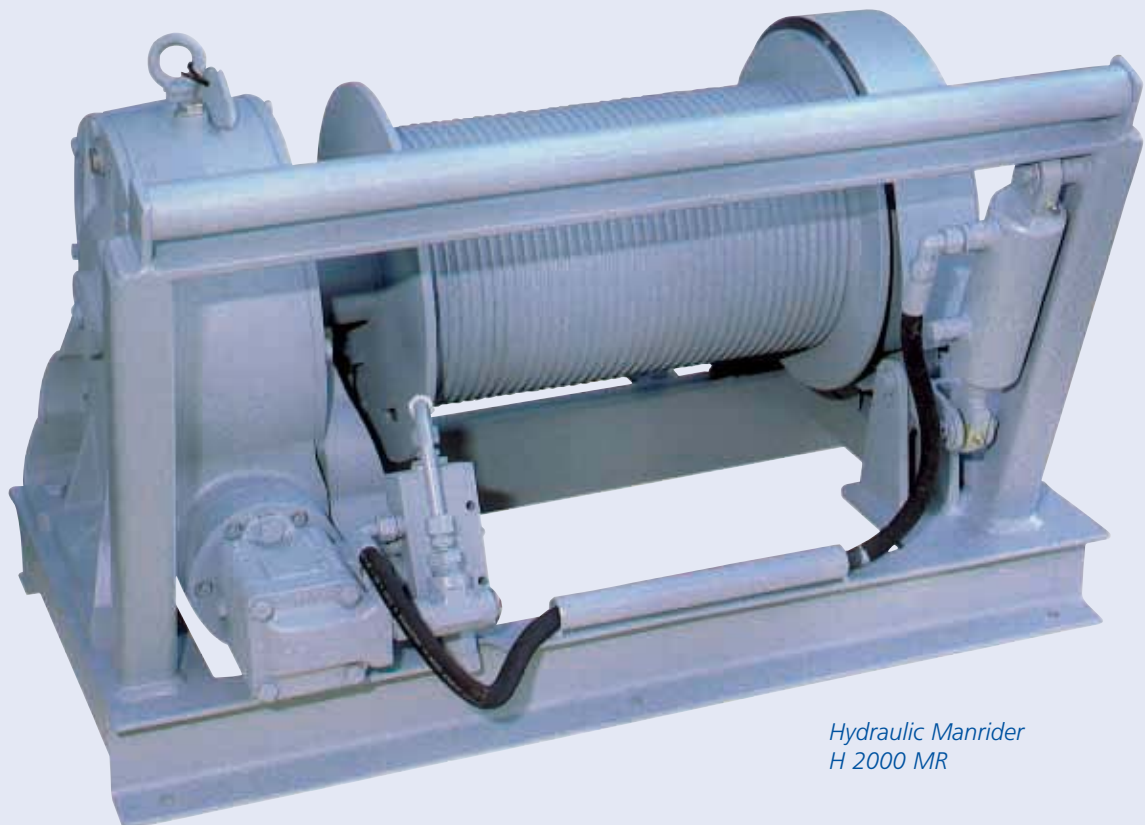
An important fact to remember is that all know how is available within the company; therefore we can offer our customers a rapid response on inquiries and short delivery times against a highly competitive price level. EMCÉ is active and highly specialised in the range of WLL up to 100 Tons,

although we have designed and manufactured winches with working load limits up to 120 Tons for several applications. Besides the comprehensive range of standard worm gear driven and planetary driven winches, EMCÉ is always able to offer a solution, which is individually tailored to meet the needs of the customer. Nowadays even more than 85% of the total production are winches designed and built to customer specifications.

EMCÉ has winches in use all over the world on land as well on sea, from high in the mountains to underwater, from the tropics to the Antarctic and from a local private owner to Downing Street 10.



*Compact Winch
MC 311 H*



*Hydraulic Manrider
H 2000 MR*

EMCÉ winches found their way already in the following applications markets:

Land based applications

- Theatres
- Construction
- Warehouses
- Overhead cranes
- Shipyards (slipways / shiplifts)
- Power / nuclear plants
- Mining industry
- Container cranes
- Research institutes
- Windmills
- High cranes / structures (man riding)
- Ferris wheels
- Factories
- General industry
- And 'Downing Street 10' for lifting the prime ministers chandelier

Marine & Offshore applications

- Anchor treatment vessels
- Ferries
- Dredgers
- Crane Vessels
- River vessels
- Passenger ships
- Buoy positioning barges
- Coastguard vessels
- Minesweepers (stainless steel winches)
- Stealth corvettes (stainless steel winches)
- Tugs
- Off shore platforms
- Split barges
- Coasters
- Tankers
- Fishing craft
- Multi purpose vessels
- Pipe laying vessels
- FSO's / FPSO's
- Off shore turrets / SBM's
- Inland vessels (car cranes)

Some Customers

- | | |
|------------------|---------------------|
| Agip | Keppel Fels |
| Airbus Ind. | Kobelco Japan |
| Allseas | Maersk Apm |
| APL | Mammoet |
| Arab Contractors | Mars |
| Bharat India | Mennens |
| Bluewater | Merwede |
| BNFL | Modec |
| Bofors | National Oilwell |
| BSR Group | Neg Micon |
| Certex | Noordhoek |
| Claxton Int. | Norsk Hydro |
| CNOOC | Pakistan Navy |
| ConocoPhillips | Pohang Steel Korea |
| CSO | Rexroth |
| Daewoo | Robbins USA |
| Damen | Sadra |
| DePret | Saipem |
| Dolphin | SAS |
| Dutch Diving | SBM |
| EDM | Shell |
| Exxon | Statkraft |
| Halliburton | Statoil |
| Heerema | Stena |
| Huisman Itrec | Stolt Offschor |
| Hyundai | Swedish Coast Guard |
| IHC Holland | Timsah |
| John Zink Flares | Total Elf Fina |
| Jurong | Unocal |
| KCA Deutag | Verolme |



EMCÉ winches are custom built made products

Many constructions are possible, and there are as many norms and selection criteria for choosing a winch. In this foreword we discuss several of these to help you in your selection.

W.L.L. (Working Load Limit)

The w.l.l. is usually given in the first layer, however it decreases for each higher cable layer. The line pull is expressed in kg or daN. Thus it is most important to determine the working length of the cable on the drum, to which should be added 3 safety windings which always remains on the drum.

Choice of cable

For lifting purposes a five-fold safety factor is normally applied to the cable breaking strength. Cables for pulling winches are normally chosen with a three-fold safety factor, though in some cases other safety factors may be required.

Speed

The required speed vary much depends on the purpose of the winch. Sometimes it may be useful to equip it with a variable speed. With pneumatic- or hydraulic winches this is achieved using a proportional control valve, however for electric winches you need a frequency inverter in the control panel for a full variable drive. Nowadays the electric frequency inverter is a cost-effective solution as it also offers some other standard technical features.

Power source

Should your power source be other than the one stated in this catalogue, this need not to be a problem. Our engineering department can recalculate the winch based upon your available power supply.

Winch environment

The winches can be used under a lot of different harsh conditions. Although we

always like to know these conditions so we can judge if will the standard will be suitable for the job or not. With regard to the temperature the following range is applicable.

- Temperature range, standard:
-10°C / + 45°C
- Temperature range, special: -50°C / + 50°C

Brakes

Every lifting winch must have a fail-safe braking system. The standard electric- and pneumatic EMCÉ worm gear winches are self-braking without using a separate brake in the driveline. For some general lifting purposes this suffices, however for accurate positioning of a load and safe lifting a brake, motor may be advised. The other EMCÉ winches are normally supplied with a fail-safe brake motor, but can, if required, be built without a brake.

Controls

Electric: alongside the normal options of pushbuttons, direct reversing switches or remote controls (pendant or radio controlled), there are several options which may be useful or even necessary. These are; limit switches (to stop the winch when the drum is full or empty), electronic line pull limiter, variable speed, slack rope detection, constant tensioning, Eexd executions, etc.

Hydraulic and pneumatic: Hydraulic and pneumatic winches may be directly controlled, for example by flow and/or pressure regulators, or by combination of electric control boxes with electric actuated valves. Full packages with hydraulic power packs also can be supplied together with the hydraulic winches either supplied onto the winch-frame or stand-alone.

Clutches

In general we use two types. Claw types: these can't be operated under load, so that the driveline must first be freed of the load, (for example using a band brake on the winch drum) before the clutch may be oper-

ated. Claw clutches are always manually operated, they are extremely robust, dependable and relatively inexpensive. Friction clutches: these can be operated under load and can compensate for differences in turning speeds between the drum and the driveline. Friction clutches can be operated manually as well as remotely by hydraulic or pneumatic power sources. They are normally more expensive and more complex than claw clutches. A notable exception to this rule is the friction clutch built onto the compact series MC 303 to MC 313. Note that for most lifting purposes, the use of a clutch in the driveline is not permitted!

Band brakes

Band brakes can be provide manually or fail-safe automatically by means of a hydraulic or pneumatic cylinder. Band brakes are used for applications where a second brake, a drum brake is required. By instance for man riding applications where the regulations ask for a second brake if the first brake is malfunctioning or for applications where the static load is a multiple of the dynamic Working Load Limit.

An application of the second could be a wire rope anchor winch.

Electric requirements

Normally we work with protection class IP 54 (splash water tight, dust proof), both for the motors and the control boxes. Pendant remote controls are IP 65 protected. Cast iron motors can also be fitted in IP 56 TENV (totally enclosed non-ventilated) for deck equipment in marine use. For explosion proof and spark free zones, we can equip the winches with the correct explosion proof or spark free motors and control boxes.

Cable guides

For normal cable (6x36) the maximum advisable fleet angle is 2° for smooth drums and 3° for helical grooved drums. The following aid to determine the distance between the drum and sheave can be used for smooth drums; 20 x drum length. Or for grooved drums; 15 x drum length. For larger fleet angles a cable spooling device may be necessary.

The grooving of a drum and a constant load both help a cable spool correctly on the winch drum. For pulling winches, when the cable may become slack, a pressure roll is advisable, so that the cable stays neatly spooled on the drum.

Note

Depending on local regulations options and requirements may be different.



MR 1000 H

Winch options



Pressure roller



Drum guard



Spindle limit switch



Grooved drum



Drum divider flange



Encoder + spindle limit switch



Claw clutch



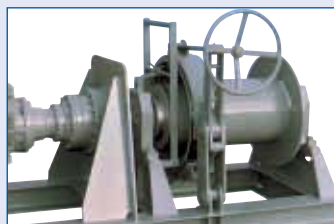
Friction clutch



Slack wire switch



Pneumatic spindle limit switch



Manual band brake



Hydraulic operated band brake



Pendant remote control



Pneumatic control valve



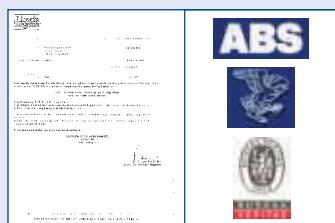
Spooling gear



Additional rope anchor



Slip ring



Classification certificates of LR, BV, ABS, GL, DNV, etc...



Manual emergency crank (on electric motor)



Control panel with frequency in inverter

A range of electric self braking worm gear winches, developed for heavy duty pulling and traversing duties up to 2800 kg. Due to the self braking worm gears the winches are suitable for pulling up an incline. A brake is available as an option for accurate positioning or repetitive lifting applications up to 2000 kg.

Standard features:

- Self braking worm gear transmission
- IP 54 aluminium non braked motor
400 VAC / 3 phase / 50 Hz.
- Steel drum (not grooved) with cable fixing point at flange
- Single drum support (MC 250, MC 500)
- Two drum supports (all other models)
- Single layer 1 component conservation, colour BS 20 (Medium Blue)

Available options:

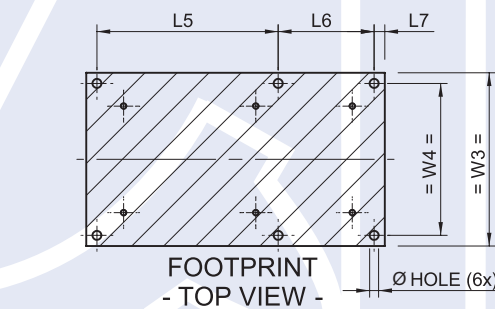
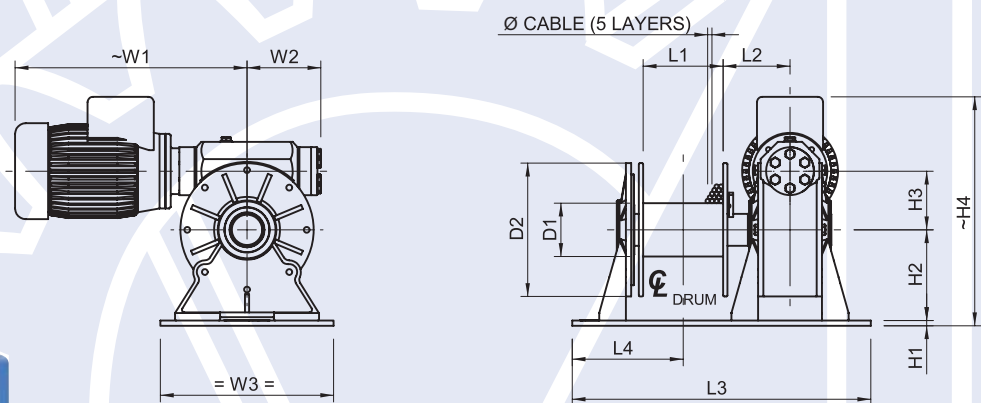
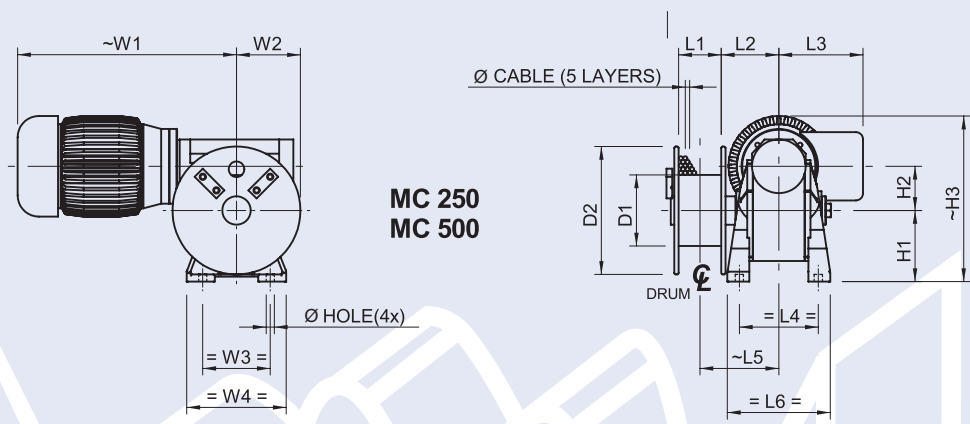
- 440 VAC / 3 phase / 60 Hz at no extra costs
- Braked motor (aluminium or cast iron)
- IP 56 TENV cast iron motor for marine applications
- 220 or 110 VAC single phase motors (up to MC 950)
- 24 VDC motors
- Explosion proof motors
- Protective steel motor cover
- Manual or remotely controlled disengaging clutch
- Band brakes
- Grooved drum
- Drum pressure roller
- Alternative speeds
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Motor position vertically up

- Drum guards
- Emergency cranking
- Marine / offshore coating systems

Available control options:

- Direct pendant remote control IP 65 with emergency stop (up to 1,5 kW 220 VAC / 1 phase or 2,2 kW 400 VAC / 3 phase)
- Control box IP 55 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 55 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiter
- Frequency inverter for variable speed control
- Limit switches
- Slack wire switches
- Radio remote control
- Infra red remote control

Winch type	W.L.L. Pulling 1st layer kg.	W.L.L. Pulling 3rd layer kg.	W.L.L. Lifting 1st layer kg.	W.L.L. Lifting 3rd layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Motor power 400 VAC kW.	Motor power 220 V 1 phase kW.
MC 250	250	200	200	160	6	6	3	20	0,55	
MC 500	500	400	400	330	6	6	3	20	1,1	
MC 950	950	730	760	580	8	5	6	40	1,5	
MC 1200	1200	930	960	740	8	5	6	40	2,2	
MC 1700	1700	1310	1300	1000	10	5,5	8	54	3	
MC 2200	2200	1690	1700	1300	12	7	10	65	4	
MC 2800	2800	2150	2000	1500	13	7	12	81	5,5	
MC 250 SPH	250	200	200	160	6	5	3	20		0,75
MC 500 SPH	500	400	400	330	6	5	3	20		1,5
MC 950 SPH	750	600	600	480	8	5	6	40		1,8



Type	Mass (kg)	D1	D2	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	H4	W1	W2	W3	W4	Hole Ø
MC 250	18,9	100	180	60	81	118,5	111	111	143	-	100	62,17	233	-	326	90	95	140	11,5
MC 500	35	100	200	60	91	118,5	146	121	186	-	142	86,9	319	-	374	110	140	218	11,5
MC 950	54	100	200	150	104	500	180	320	150	15	10	142	86,9	378,4	383	110	270	240	13
MC 1200	85	100	250	150	125,5	560	208	340	180	20	10	170	110	429,5	436	132	325	285	17
MC 1700	140	121	280	200	146,5	640	232,5	415	185	20	15	195	130	487	498	154,3	370	320	17
MC 2200	185	146	320	250	157	710	265	470	200	20	15	220	150	580	524	154	410	360	17
MC 2800	245	159	370	300	183	850	317,5	565	235	25	15	254	185,4	641,5	551	205	440	380	20

Two electric self braking worm gear winches, specially developed for car lifting purposes. The winches can be mounted onto a Davit or crane boom. Winches can be used to lift cars, zodiacs or any other non life saving craft.

Standard features:

- Self braking worm gear transmission
- IP 56 TENV cast iron non braked motor 400 VAC / 3 phase / 50 Hz. (440 / 3 / 60)
- Steel drum (not grooved) with cable fixing point at flange
- Two drum supports (all other models)
- Double layer 2 component conservation, colour BS 20 (Medium Blue)

Available options:

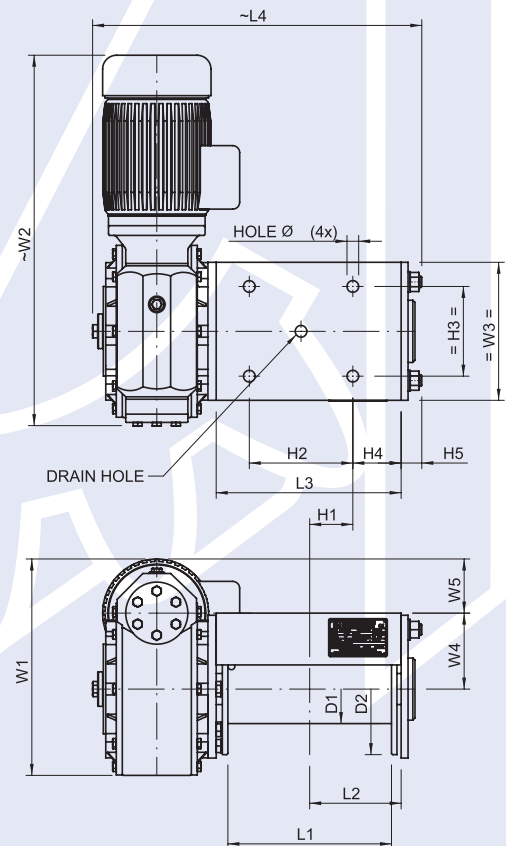
- Braked motor

- Alternative speeds
- Marine / offshore coating systems

Available control options:

- Control box IP 55 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 55 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiter
- Frequency inverter for variable speed control
- Limit switches

Winch type	W.L.L. 1st layer kg.	W.L.L. 3rd layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Drumcap. 1st layer m.	Drumcap. 4st layer m.	Motor power 400 VAC kW.
MC 1200 AK	960	740	8	5	6	45	2,2
MC 1700 AK	1250	1000	10	5,5	8	45	3



AK type	Mass (kg)	D1	D2	L1	L2	L3	L4	H1	H2	H3	H4	H5	W1	W2	W3	W4	W5	Hole Ø
1200	115	100	190	237	132.5	268	477	62,5	150	130	70	30	313,5	537	200	110	78,5	17
1700	150	121	240	240	134	291	540	59	170	160	75	30	400	638	240	150	105	17

A range of floor mounted manual driven worm gear winches, developed for heavy duty lifting and pulling duties up to 2800 kg. For applications where no other power source than human power is available, for example; windlasses on small barges, lifting of ramp doors on small ferries or any other industrial heavy duty job. The customer can choose for a hand wheel or crank drive system, for the two small models M 500 and M 1000 the H versions are executed with two hand wheel or cranks in order to obtain a higher line speed. A special safety crank with integrated centrifugal brake is available as an option for lifting duties. Maximum human force to be applied is ~max 60 Nm @ 60 rpm.

This range of standard winches can be easily adapted to the customers requirements, so if your specifications differ from the standard models as stated do not hesitate to send us your inquiry, we will offer you the required model accordingly.

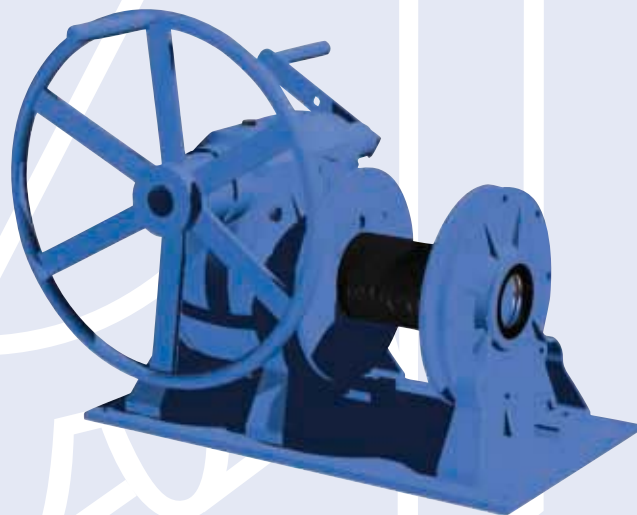
Drawings can be obtained upon request.

Standard features:

- Slight self braking worm gear transmission
- Heavy duty industrial construction of all parts
- Manual crank(s) or hand wheel(s), diameter 300 mm.
- Steel drum (not grooved) with cable fixing point at flange
- Two drum supports
- Single layer 1 component conservation, colour BS 20 (Medium Blue)
- Drum pressure roller
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Drum guards
- Marine / offshore coating systems

Available options:

- Manual safety crank(s) with centrifugal brake for lifting duties
- Manual disengaging clutch
- Manual band brakes
- Grooved drum



Winch type	W.L.L. 1st layer kg.	W.L.L. 5th layer kg.	Recomm. rope diam. mm.	Speed 5st layer m/min.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Torque 60 RPM reqd. in nm.	QTY. of cranks/handwheels	Weight without rope kg.
M 500 L	725	500	6	2	8	47	51	1	40
M 500 H	725	500	6	4	8	47	106	2	40
M 1000 L	1280	1000	8	1	13	72	52	1	120
M 1000 H	1280	1000	8	2	13	72	120	2	120
M 1500	2000	1500	10	0,5	14	79	116	1	150
M 2000	2800	2000	12	0,5	12	68	109	1	200

A range of electric self braking worm gear winches, developed conform to the European norms for lifting winches, specially to P-82-NEN 3508-K3 and DIN 15020-1AM/2AM with long life service. The self braking worm gearbox is combined with an automatic fail-safe motor brake for precise load control. On types EN 580 to EN 1700 a grooved drum is fitted as standard according to the CE norm. A grooved drum ensures long service life for the cable.

Standard features:

- Self braking worm gear transmission
- IP 54 aluminium braked motor 400 VAC / 3 phase / 50 Hz.
- Grooved steel drum (not grooved on EN 200, EN 450) with cable fixing point at flange
- Single drum support (EN 200, EN 450)
- Two drum supports (all other models)
- Single layer 1 component conservation, colour BS 20 (Medium Blue)

Available options:

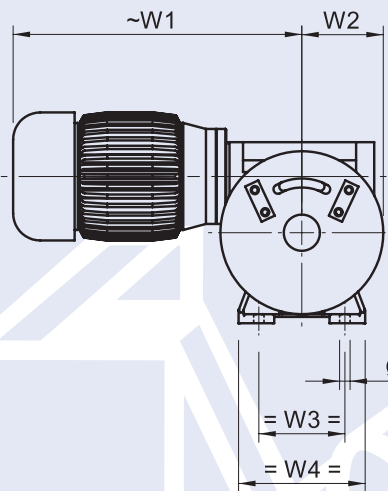
- 440 VAC / 3 phase / 60 Hz at no extra costs
- IP 56 TENV cast iron motor for marine applications
- 220 or 110 VAC single phase motors (up to MC 950)
- 24 VDC motors
- Explosion proof motors
- Protective steel motor cover
- Drum pressure roller
- Alternative speeds
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Drum guards
- Emergency cranking
- Marine / offshore coating systems
- Motor position vertically up

Available control options:

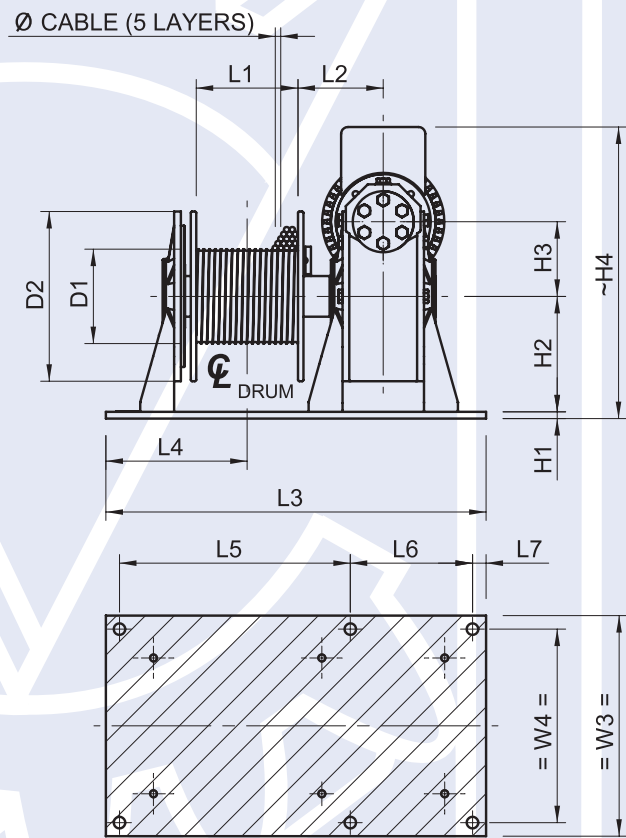
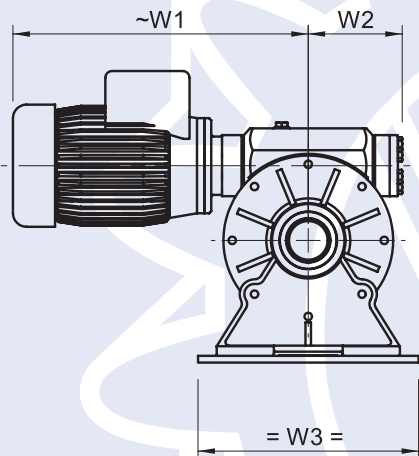
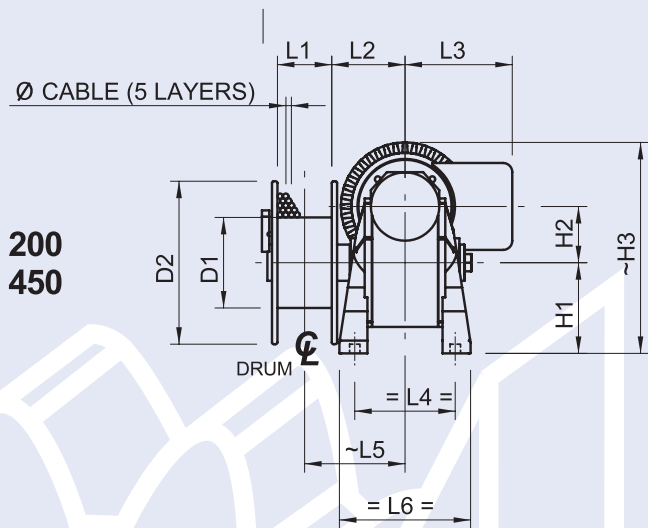
- Direct pendant remote control IP 65 with emergency stop (up to 1,5 kW 220 VAC / 1 phase or 2,2 kW 400 VAC / 3 phase)
- Control box IP 55 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 55 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiter (required by CE for applications exceeding 1000 kg W.L.L.)
- Frequency inverter for variable speed control
- Limit switches
- Slack wire switches
- Radio remote control
- Infra red remote control



Winch type	W.L.L. 1st layer kg.	W.L.L. 3rd layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Drumcap. 1st layer m.	Drumcap. 3rd layer m.	Motor power 400 VAC kW.
EN 200	200	160	5	6	3	11	0,37
EN 450	450	350	6	6,5	3	12	0,96
EN 580	580	450	7	5,5	8	25	1,1
EN 800	800	600	8	6,5	8	25	1,5
EN 1050	1050	800	10	7,5	10	33	3
EN 1325	1325	1050	11	9	13	45	4
EN 1700	1700	1350	12	9	15	50	5,5



EN 200
EN 450



FOOTPRINT
- TOP VIEW -

Ø HOLE (6x)

Type	Mass (kg)	D1	D2	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	H4	W1	W2	W3	W4	Hole Ø
EN 200	19	100	180	60	81	118,5	111	111	143	-	100	62,17	233	-	319	90	95	140	11,5
EN 450	35	121	200	60	91	118,5	146	121	186	-	142	86,9	319	-	374	110	140	218	11,5
EN 580	60	121	200	150	104	500	180	320	150	15	10	142	86,9	378,4	392	110	270	240	13
EN 800	90	139	250	150	125,5	560	208	340	180	20	10	170	110	429,5	444	132	325	285	17
EN 1050	150	168	280	200	146,5	640	232,5	415	185	20	15	195	130	487	496	154,3	370	320	17
EN 1325	195	195	320	250	157	710	265	470	200	20	15	220	150	580	525	154	410	360	17
EN 1700	260	195	370	300	183	850	317,5	565	235	25	15	254	185,4	641,5	633,5	205	440	380	20

A range of hydraulic selfbraking wormgear winches, developed for heavy duty lifting and pulling applications up to 3150 kg. Due to the modular concept and the flexibility of our production it is possible to build, within short deliverytimes, many variations of these winches such that they may be adapted to your specific needs. The types H 500 and H 700 are constructed without a brake and are designed to be totally self braking. The types H 1200 to H 3150 are designed with a failsafe brake and brake valve.

Standard features:

- Selfbraking wormgear transmission
- Orbitmotor
- Steel drum (not grooved) with cable fixing point at flange
- Single drum support (H 500)
- Two drum supports (all other models)
- Single layer 1 component conservation, color BS 20 (Medium Blue)
- Brake and double acting brake valve (not on H 500, H 700)

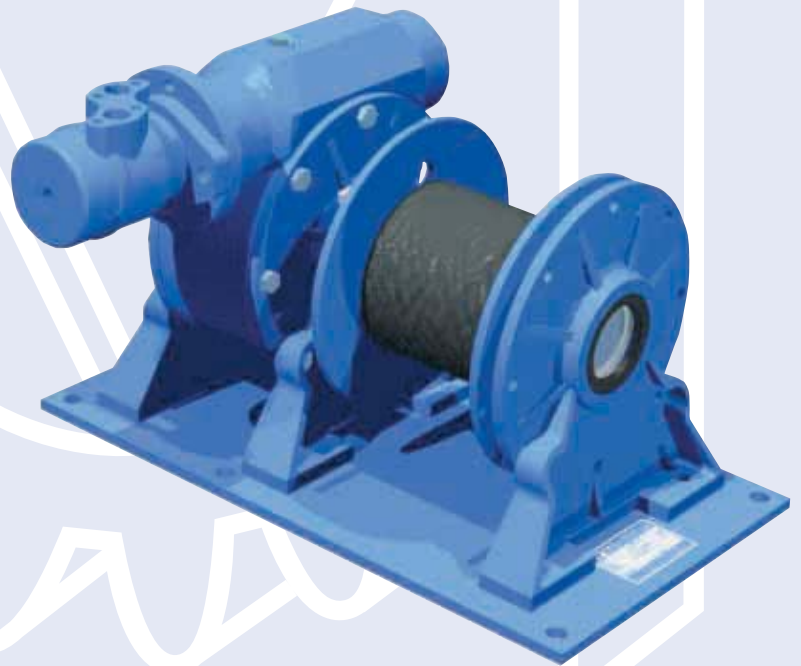
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Drum guards
- Emergency cranking
- Marine / offshore coating systems

Available control options:

- Proportional control valves
- Hydraulic power packs
- Hydraulic limit switches
- Hydraulic slack wire switches

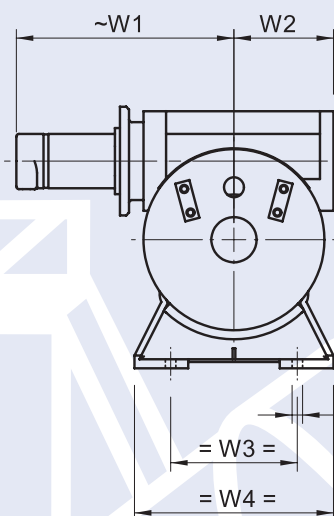
Available options:

- Manual disengaging clutch
- Bandbrakes, manual or automatic fail safe
- Grooved drum
- Drum pressure roller
- Alternative speeds
- Motor position vertically up

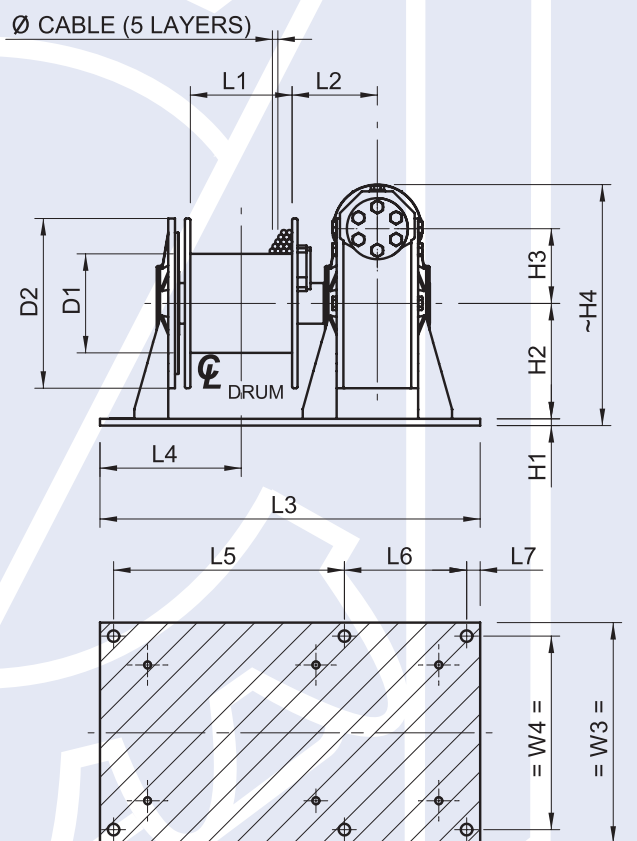
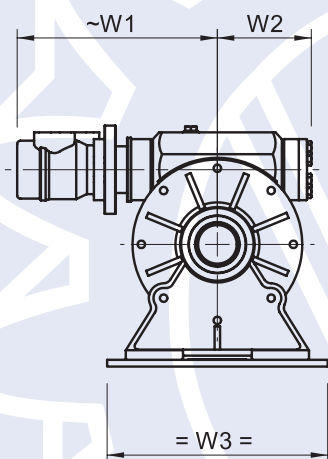
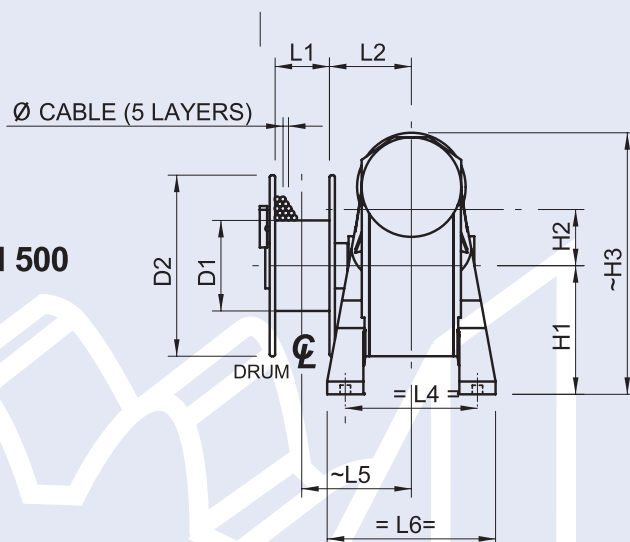


Winch type	W.L.L. 1st layer kg.	W.L.L. 3rd layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Drumcap. 1st layer m.	Drumcap. 3rd layer m.	Pressure drop in bar	Flow in l/min.
H 500 *	500	400	6	7	3	11	50	20
H 700 *	700	550	8	7	6	22	60	20
H 1200	1200	950	10	11	7	25	75	40
H 2000	2000	1550	13	10	8	30	80	60
H 2500	2500	2000	14	11	11	40	105	50
H 3150	3150	2500	16	9	13	48	85	70

* All winches with brake except H 500 and H 700



H 500



**FOOTPRINT
- TOP VIEW -**

$\text{Ø HOLE}(6x)$

Type	Mass (kg)	D1	D2	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	H4	W1	W2	W3	W4	Hole Ø
H 500	27	100	200	60	91	-	146	121	186	-	142	86,9	289	-	241	110	140	218	11,5
H 700	50	100	200	150	104	500	180	320	150	15	10	142	86,9	309	241	110	270	240	13
H 1200	82	146	250	150	125,5	560	208	340	180	20	10	170	110	354	295	132	325	285	17
H 2000	134	159	320	200	146,5	640	232,5	415	185	20	15	195	130	440	360	154,3	370	320	17
H 2500	170	195	370	250	157	710	265	470	200	20	15	220	150	510	365	154	410	360	17
H 3150	225	220	420	300	183	850	317,5	565	235	25	15	254	185,4	572	411	205	440	380	20

For pneumatic winch applications demanding lightweight construction, this range of explosion proof winches provides the solution. The use of vane type motors and inherently safe self braking worm gears ensures trouble free operation and low maintenance required. These winches find their use in general industry, oil and gas exploration, and in many places where compact, explosion proof hoisting gear is required.

The range includes two fast speed types, the LV 256 and LV 508 which also have optional carrying handles, and slower speed types up to 2000 kg. lifting capacity.

The self braking characteristics of the worm gear drive combined with closed ports is sufficient for almost all hoisting purposes. For accurate positioning of a load an extra brake may be necessary. Please consult our sales department in this case.

Standard features:

- Self braking worm gear transmission
- Rotary vane motor
- Steel drum (not grooved) with cable fixing point at flange
- Two drum supports
- Single layer 1 component conservation, color BS 20 (Medium Blue)
- Drum guard
- Emergency cranking
- Marine / offshore coating systems

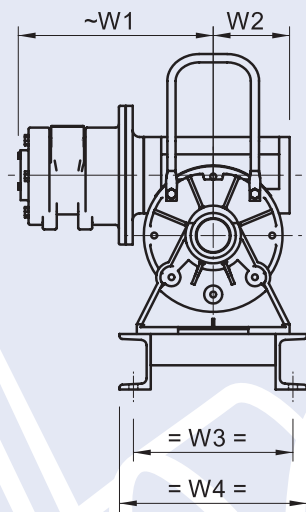
Available control options:

- Proportional control valve, local or remote
- Pneumatic limit switch
- Pneumatic slack wire switch

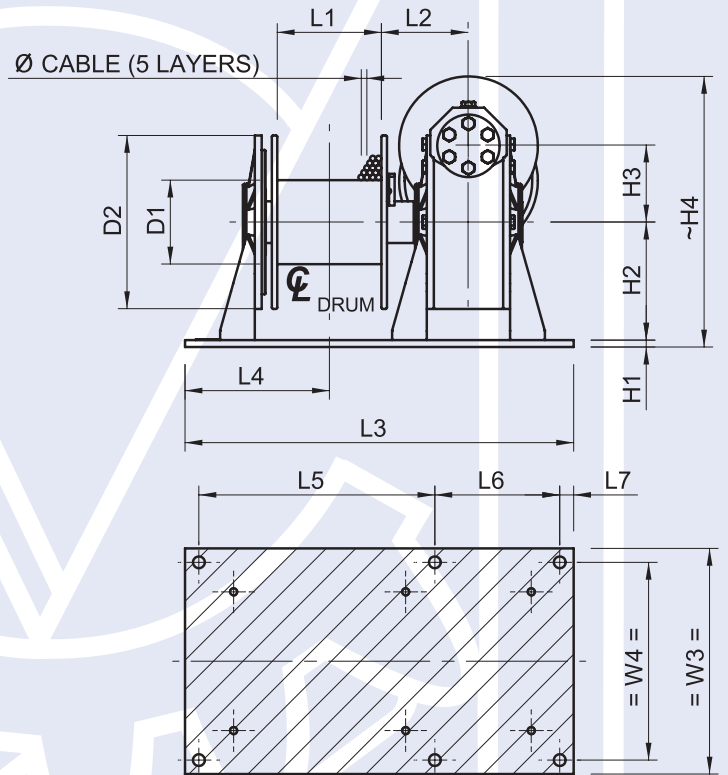
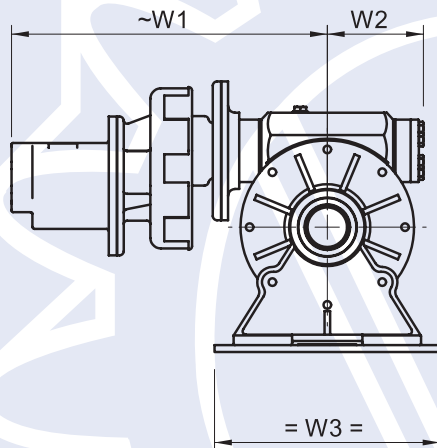
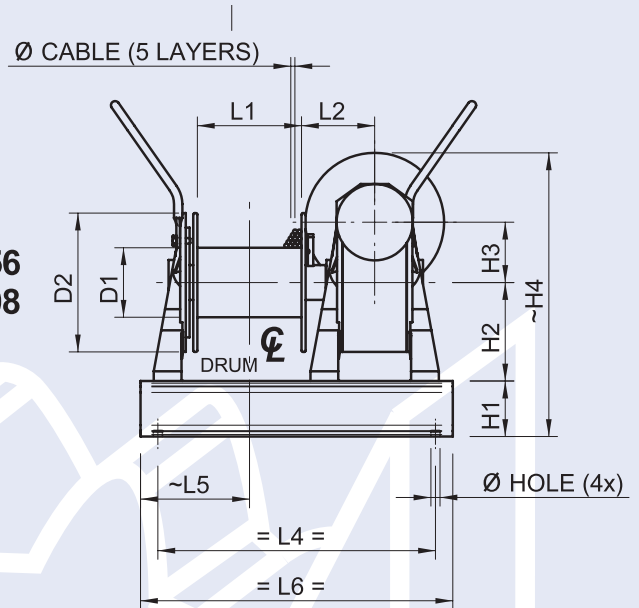
Available options:

- Manual disengaging clutch
- Band brake, manual or automatic fail safe
- Grooved drum
- Drum pressure roller
- Alternative speeds
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Motor position vertically up

Winch type	W.L.L. 1st layer kg.	W.L.L. 3rd layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Drumcap. 1st layer m.	Drumcap. 3rd layer m.	Pressure drop in bar	Flow in l/sec.
LV 256	250	200	5	12	10	32	6	45
LV 508	500	400	7	12	6	22	6	80
LV 425	425	350	6	5	10	32	6	35
LV 750	750	600	8	5,5	7	25	6	65
LV 1250	1250	1000	10	6	11	36	6	95
LV 2000	2000	1550	13	6	11	38	6	125

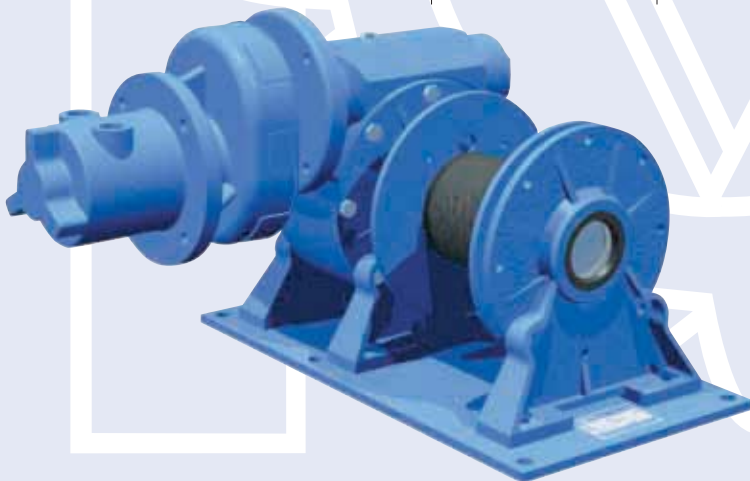


LV 256
LV 508



FOOTPRINT
- TOP VIEW -

Ø HOLE (6x)



Type	Mass (kg)	D1	D2	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	H4	W1	W2	W3	W4	Hole Ø
LV 256	58	100	200	150	105,5	450	157	400	-	-	80	142	86,9	408,9	278	110	270	230	13
LV 425	59	100	200	150	105,5	500	186	320	150	15	10	142	86,9	408,9	374	110	270	240	13
LV 508	65	100	200	150	105,5	450	157	400	-	-	80	142	86,9	408,9	281	110	270	230	13
LV 750	93	121	250	150	125,5	560	208	340	180	20	10	170	110	390	455	132	325	285	17
LV 1250	149	159	280	200	146,5	640	232,5	415	185	20	15	195	130	440	490	154,3	370	320	17
LV 2000	192	178	320	250	155	710	265	470	200	20	15	220	150	510	609	154	410	360	17

Designed to the standards issued by the classification societies and meets UK HSE regulations for personnel lifting operations on offshore installations. The winches are dedicated personnel lifting winches offered with Lloyds Register of Shipping (LRS) Design Appraisal Certificate and full material trace-ability. They have passed the EC testing for these applications, i.e., both the winches and their technical files are in compliance with the requirements of the EC Machinery Directives.

Please refer to page 38 for specific manriding winches for offshore applications.

Standard features:

- Self braking worm gear transmission
- UK HSE compliance
- Automatic band brake
- Rotary vane or radial piston air motor
- Orbit or vane hydraulic motor
- IP 56 TENV or Eexd electric motor (50 / 60 Hz)
- Grooved steel drum
- Full material trace-ability (3.1b - EN 10204) on load bearing parts
- Two drum supports
- Emergency hand crank
- Offshore coating
- Mufflers
- Operating conditions -15°C through 50°C

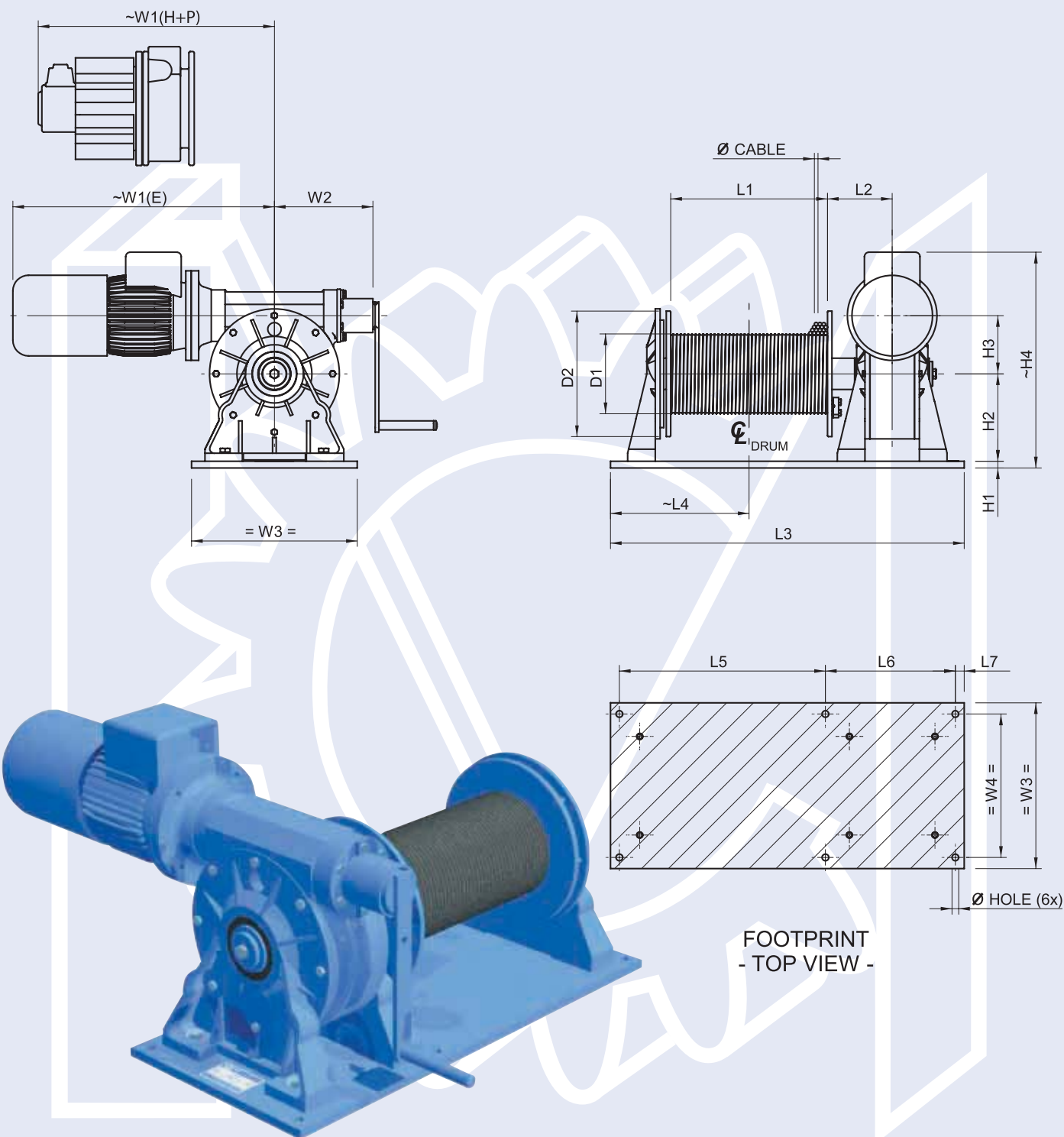
Available options:

- Drum pressure roller
- Alternative speeds
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Drum guard
- Certifying authority witness test (ABS / DNV / etc.)
- Operating conditions -45°C through 50°C
- Air service unit

Available control options:

- Electric / hydraulic or pneumatic control systems
- Limit switch
- Slack wire switch
- Overload protection device (load limiter)
- Emergency hand crank interlock switch.

Winch type	W.L.L. all layers kg.	Recomm. rope diam. mm.	Speed 4th layer m/min.	Drumcap. 4th layer m.	Motor power 400 VAC kW.	Pressure drop in bar	Hydr. flow min l/min.	Air flow l/sec.
MR 500 E	500	8	10	100	1,8			
MR 1000 E	1000	10	13	80	4			
MR 1450 E	1450	12	13	90	5,5			
MR 500 EXD	500	8	10	100	1,8			
MR 1000 EXD	1000	10	13	80	4			
MR 1450 EXD	1450	12	13	90	5,5			
MR 150 H	150	8	15	110		50	20	
MR 500 H	500	8	14	100		100	20	
MR 1000 H	1000	10	17	80		150	25	
MR 1450 H	1450	12	20	90		160	40	
MR 150 P	150	8	15	110		5		50
MR 500 P	500	8	17	100		5		120
MR 1000 P	900	10	14	80		8		160
MR 1450 P	1450	12	14	90		7		230



Type	Mass (kg)	D1	D2	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	H4	W1(E)	W1 (H+P)	W2	W3	W4	Hole \emptyset
MR 150	200	195	320	380	144,5	800	340	550	210	20	15	195	110	420	384	279	134	410	370	13
MR 500	180	178	280	350	144,5	790	310	460	290	20	15	195	130	481,5	584	533	154,3	370	320	15
MR 1000	215	212	320	300	154,5	760	290	520	200	20	15	220	150	534	665	616	250	410	360	17
MR 1450	280	240	370	370	180	920	352,5	635	235	25	15	254	117,5	641,5	721	734	284,5	440	380	20

A range of compact lifting and pulling winches utilising electric, hydraulic or pneumatic motors. The heavy duty planetary gearbox is located within the drum core, which both saves space and protects the gearbox from any external damage.

These winches can be fitted with a clutch which can be operated whilst under load.

Standard features:

- Heavy duty planetary gearbox
- MC E; IP 54 aluminium braked motor 400 VAC / 3 phase / 50 Hz. (440 VAC / 3 phase / 60 Hz)
- MC H; orbit or radial piston type hydraulic motor complete with brake valve
- MC LPR; radial piston type air motor complete with hand control valve and mufflers
- Steel drum with cable fixing point at flange
- Two drum supports
- Single layer 1 component conservation, colour BS 20 (Medium Blue)

Available options:

- IP 56 TENV cast iron motor for marine applications
- Explosion proof motors
- Protective steel motor cover
- Drum pressure roller
- Band brakes (manual or failsafe automatic)
- Manual or automatic disengaging clutch

(also under load)

- Alternative speeds
- Alternative supply voltages
- Drum guards
- Spooling gears
- Grooved drums
- Marine / offshore coating systems

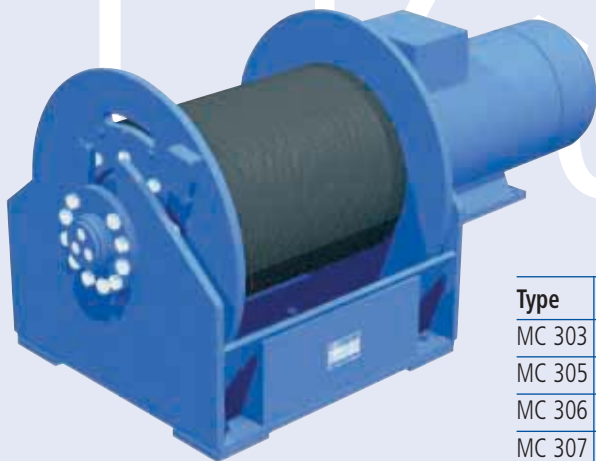
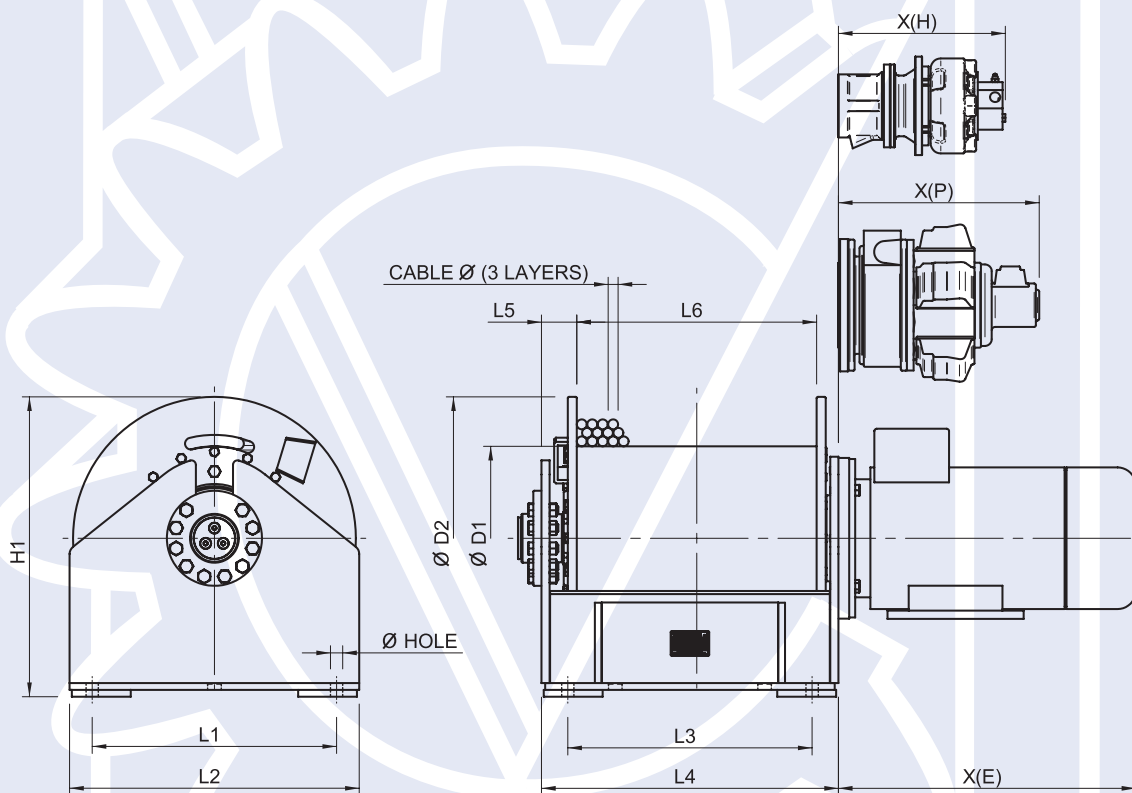
Available control options:

- Control box IP 55 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 55 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiter (required by CE for applications exceeding 1000 kg W.L.L.)
- Frequency inverter for variable speed control
- Limit switches (only electric, build in motor)
- Flange encoder
- Slack wire switches (electric, pneumatic or hydraulic)
- Proportional local or remote control valve (pneumatic or hydraulic)

Winch type	W.L.L. 1st layer kg.	W.L.L. 5th layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed 5th layer m/min.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Motor Power in kW
MC 303 E	2000	1560	12	11	14	40	227	4
MC 305 E	4000	2900	16	9	12	29	173	5,5
MC 306 E	5500	3970	18	12	17	30	179	11
MC 307 E	7000	4960	22	12	17	30	184	15
MC 309 E	9000	6425	24	13	19	35	211	22
MC 311 E	14000	9700	30	13	19	45	276	30
MC 313 E	20000	14000	34	8	12	46	214	30

Winch type	W.L.L. 1st layer kg.	W.L.L. 5th layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed 5th layer m/min.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Pressure drop in bar	Flow in l/min.
MC 303 H	2000	1560	12	15	19	40	227	85	45
MC 305 H	4000	2900	16	9	12	29	173	130	38
MC 306 H	5500	3970	18	12	17	30	179	170	50
MC 307 H	7000	4960	22	12	17	30	184	155	80
MC 309 H	9000	6425	24	13	19	35	211	225	70
MC 311 H	14000	9700	30	13	19	45	276	210	115
MC 313 H	20000	14000	34	8	12	46	214	190	115

Winch type	W.L.L. 1st layer kg.	W.L.L. 5th layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed 5th layer m/min.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Pressure drop in bar	Flow in l/sec.
MC 303 LPR2	2000	1560	12	7	9	40	227	6	80
MC 303 LPR3	2000	1560	12	19	25	40	227	7	140
MC 305 LPR3	3700	2700	16	11	15	29	173	7	150
MC 305 LPR4	4000	2900	16	16	22	29	173	7	225
MC 306 LPR4	5500	3970	18	13	18	30	179	7,5	225
MC 307 LPR4	7000	4960	22	11	15	30	184	7,5	230
MC 309 LPR5	9000	6425	24	12	17	35	211	7,5	350
MC 311 LPR5	14000	9700	30	8	11	45	276	7,5	350
MC 313 LPR6	20000	14000	34	6	8	46	214	6	440



Type	Mass (kg)	D1	D2	L1	L2	L3	L4	L5	L6	H1	X(H)	X(P)	X(E)	Hole Ø
MC 303	325	326	480	440	500	440	546	58	450	510	261	600	450	20
MC 305	400	326	480	440	500	440	546	58	450	510	276	600	560	20
MC 306	560	355	540	490	560	505	615	74	500	575	324	600	650	22
MC 307	710	405	625	560	640	520	656	78	530	660	364	600	650	25
MC 309	850	457	700	640	720	585	721	80	590	738	370	600	700	27
MC 311	1100	508	800	720	820	825	985	100	830	840	370	600	740	33
MC 313	1500	610	950	878	980	880	1055	110	890	995	370	600	740	34

The standard build SB type winch provides the basis of the solution to many pulling and lifting winch applications. The winch is constructed in the conventional manner with motor and gearbox and drum in line. With this range capacities can go up to 70 tonnes lifting capacity. Although the name of this winch indicates different, these winches are very suitable to fit to your specific winch application. Many options can be offered on these highly versatile winches.

Standard winch features:

- Heavy duty planetary gearbox
- SB E; IP 54 aluminium braked motor 400 VAC / 3 phase / 50 Hz. (440 VAC / 3 phase / 60 Hz)
- SB H; orbit or radial piston type hydraulic motor complete with brake valve
- SB LPR; radial piston type air motor complete with hand control valve and mufflers
- Steel drum with cable fixing point at flange
- Two drum supports
- Single layer 1 component conservation, colour BS 20 (Medium Blue)

- Manual emergency crank
- Slip ring mounting
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Warping head
- Marine / offshore coating systems

applications exceeding 1000 kg W.L.L.)

- Radio / Infra red remote control
- Frequency inverter for variable speed control
- Limit switches (electric, pneumatic or hydraulic)
- Slack wire switches (electric, pneumatic or hydraulic)
- Proportional local or remote control valve (pneumatic or hydraulic)

Available control options:

- Control box IP 55 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 55 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiter (required by CE for

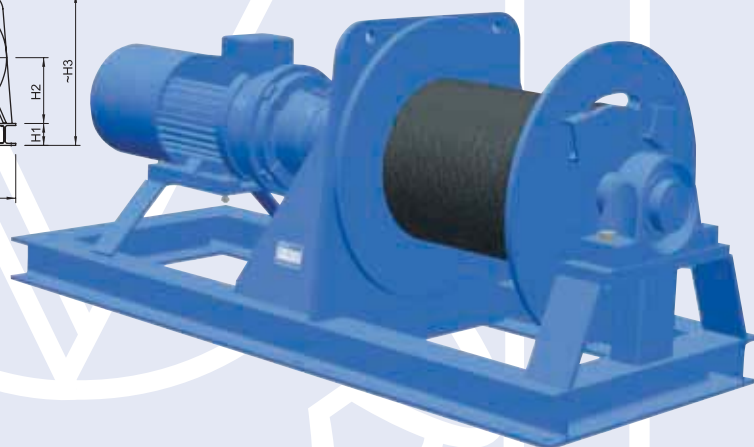
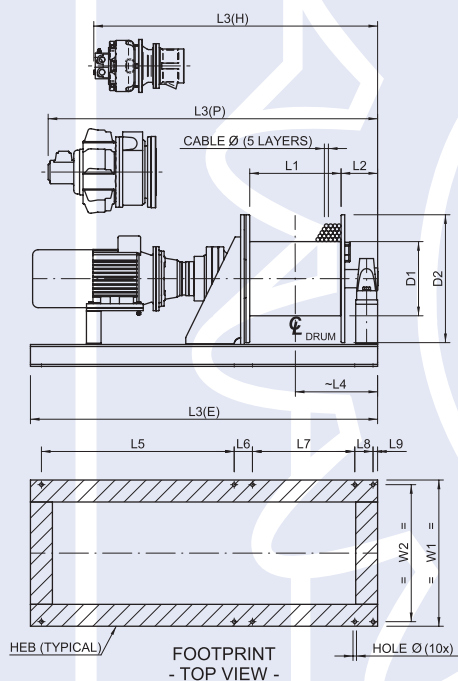
Available winch options:

- IP 56 TENV cast iron motor for marine applications
- Explosion proof motors
- Protective steel motor cover
- Drum pressure roller
- Band brakes (manual or failsafe automatic)
- Manual disengaging clutch
- Alternative speeds
- Alternative supply voltages
- Drum guards
- Spooling gears
- Grooved drums

Winch type	W.L.L. 1st layer kg.	W.L.L. 5th layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed 5th layer m/min.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Motor power kW
SB 300 E	1200	860	10	7	9	32	190	1,5
SB 301 E	2100	1400	12	7	10	27	167	3
SB 303 E	2500	1700	15	8	12	27	167	4
SB 305 E	4000	2850	16	8	11	31	186	5,5
SB 306 E	5500	3970	18	12	17	32	194	11
SB 307 E	7000	4950	22	12	17	31	184	15
SB 309 E	9000	6300	26	14	19	29	176	22
SB 310 E	13000	8950	28	9	13	28	171	22
SB 311 E	16000	10660	34	10	15	25	157	30
SB 313 E	20000	13600	38	6	8	27	160	22
SB 315 E	32000	21700	48	7	11	26	156	45

Winch type	W.L.L. 1st layer kg.	W.L.L. 5th layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed 5th layer m/min.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Motor power kW	Pressure drop in bar	Flow in l/min.
SB 303 H	2500	1700	15	20	29	27	167	9	130	50
SB 305 H	4000	2850	16	26	37	31	186	19	215	55
SB 306 H	5500	3970	18	27	37	32	194	27	215	80
SB 307 H	7000	4950	22	30	42	29	184	39	185	130
SB 309 H	9500	6630	26	26	37	29	176	45	225	125
SB 310 H	13000	8950	28	12	18	28	171	30	200	55
SB 311 H	14000	9700	32	10	15	25	157	30	210	115
SB 313 H	20000	13600	38	10	15	27	160	38	170	120
SB 315 H	32000	21700	48	8	12	26	156	50	190	160

Winch type	W.L.L. 1st layer kg.	W.L.L. 5th layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed 5th layer m/min.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Pressure drop in bar	Flow in l/sec.
SB 300 LPR2	1000	680	10	12	18	27	166	7	75
SB 303 LPR2	2300	1575	13	7	10	27	167	7	85
SB 303 LPR3	2300	1575	13	14	19	31	186	7	130
SB 305 LPR3	4000	2850	16	9	13	31	186	7	150
SB 305 LPR4	4000	2850	16	15	21	31	186	7	220
SB 306 LPR4	5000	3600	18	11	15	31	180	7	230
SB 307 LPR4	7000	4960	22	9	13	30	184	7	220
SB 307 LPR5	7000	4960	22	14	20	30	184	7	400
SB 309 LPR4	9000	6280	26	7	10	29	177	7	200
SB 309 LPR5	9000	6280	26	10	14	29	177	7	350
SB 310 LPR4	13000	9000	28	6	8	29	171	7	225
SB 310 LPR5	13000	9000	28	8	10	29	171	7	350
SB 311 LPR5	13000	9000	30	8	12	28	173	7	350
SB 313 LPR6	20000	16500	34	7	9	30	180	7	450



Type	Mass (kg)	D1	D2	L1	L2	L3(E)	L3(H)	L3(P)	L4	L5	L6	L7	L8	L9	H1	H2	H3	W1	W2	Heb	Hole Ø
300	245	195	410	500	155	1400	-	1450	405	630	80	540	80	20	100	215	520	500	460	100	14
301	260	195	410	500	155	1500	-	-	405	730	80	540	80	20	100	215	520	500	460	100	14
303	340	244	500	500	155	1500	1300	1600	405	720	80	550	80	20	100	260	610	600	560	100	14
305	400	298	500	500	155	1600	1300	1600	405	820	80	550	80	20	100	260	610	600	560	100	14
306	620	355	600	500	165	1900	1500	1800	415	1110	80	560	80	20	100	310	710	700	660	100	17
307	790	406	700	500	200	1900	1550	1900	450	1055	100	560	100	25	120	360	830	800	750	120	19
309	1065	455	750	500	215	1950	1550	1950	465	1070	110	560	110	30	140	385	900	900	840	140	22
310	1360	470	850	500	259	2000	1600	1950	509	1050	120	590	120	40	160	435	1020	1000	940	160	26
311	1575	508	950	500	259	2050	1650	1950	509	1100	120	590	120	40	160	495	1130	1100	1040	160	26
313	2220	610	1100	500	260	2100	1800	2150	510	1140	120	590	120	40	180	570	1300	1300	1230	180	32
315	2450	660	1200	500	299	2500	2100	-	549	1490	140	590	140	40	200	620	1420	1500	1420	200	36

Specially designed for applications where space is at a premium, these compact and lightweight lifting winches are ideally suited for installation on cranes, davits and derricks. The single drum support enables the rope to leave the drum at any angle. The heavy duty planetary drive is partly located within and protected by the drum core. The large drum diameters ensure a healthy drum to cable diameter ratio and a sufficient working length despite the short drums.

Working loads up to 8 Tons could be possible for these winches, please ask for our offer.

Standard features:

- Heavy duty planetary gearbox
- FD E; IP 54 aluminium braked motor
400 VAC / 3 phase / 50 Hz. (440 / 3 / 60)
- FD H; orbit or radial piston type hydraulic motor complete with brake valve
- FD LPR; radial piston type air motor complete with hand control valve and mufflers
- Steel drum with cable fixing point at flange
- Single drum support
- Single layer 1 component conservation, colour BS 20 (Medium Blue)

Available options:

- IP 56 TENV cast iron motor for marine applications
- Explosion proof motors
- Protective steel motor cover
- Drum pressure roller
- Alternative speeds

- Alternative supply voltages
- Drum guards
- Marine / offshore coating systems

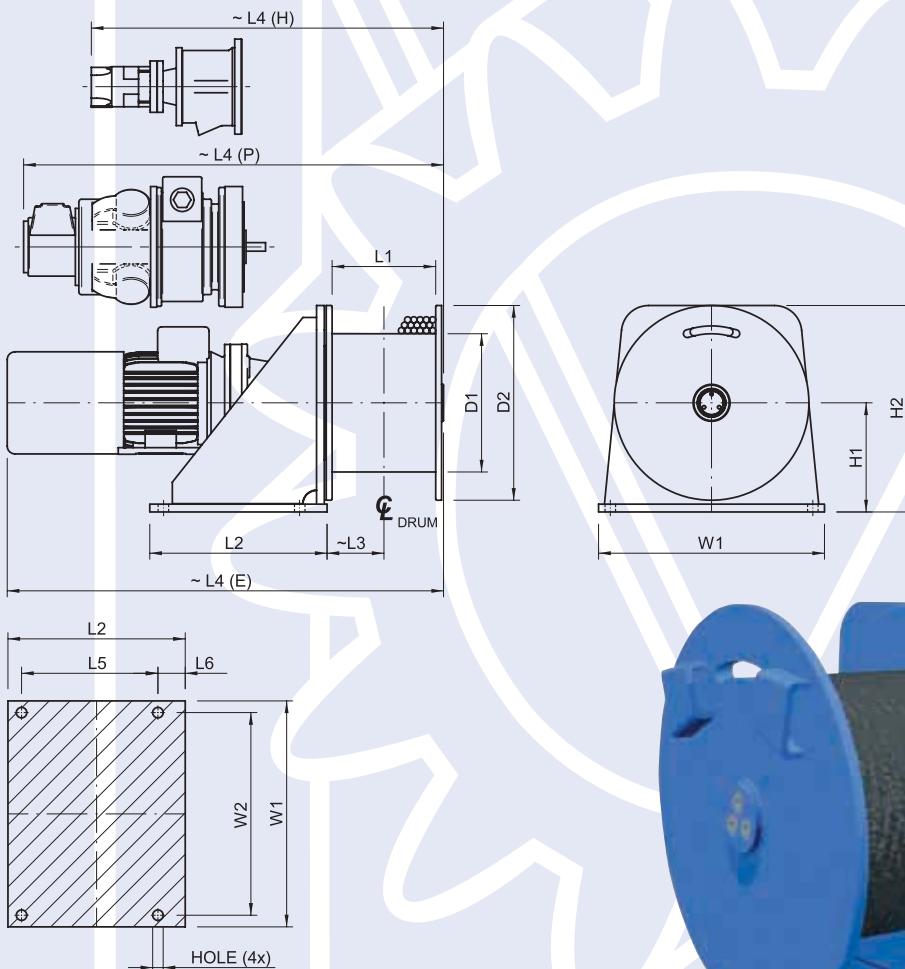
Available control options:

- Control box IP 55 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 55 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiter (required by CE for applications exceeding 1000 kg W.L.L.)
- Frequency inverter for variable speed control
- Limit switches
- Slack wire switches
- Radio / Infra red remote control

Winch type	W.L.L. 1st layer kg.	W.L.L. top layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed top layer m/min.	Drumcap. 1st layer m.	Drumcap. all layers m.	Motor power 400 VAC kW
FD 300 E	950	800/4	8	15	18	17	70/4	2,2
FD 301 E	1850	1500/4	11	15	19	12	53/4	5,5
FD 303 E	2300	2000/3	12	12	14	14	43/3	5,5
FD 305 E	3350	2800/3	14	14	17	13	42/3	7,5
FD 306 E	4100	3500/3	16	11	13	18	59/3	7,5
FD 307 E	5250	4500/3	18	15	18	19	60/3	11

Winch type	W.L.L. 1st layer kg.	W.L.L. top layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed top layer m/min.	Drumcap. 1st layer m.	Drumcap. all layers m.	Pressure drop in bar	Flow in l/min.
FD 300 H	950	800/4	8	20	24	17	70/4	130	65
FD 301 H	1850	1500/4	11	15	19	12	53/4	120	70
FD 303 H	2300	2000/3	12	12	14	14	43/3	135	52
FD 305 H	3350	2800/3	14	14	17	13	42/3	140	50
FD 306 H	4100	3500/3	16	11	13	18	59/3	130	70
FD 307 H	5250	4500/3	18	15	18	19	60/3	140	70

Winch type	W.L.L. 1st layer kg.	W.L.L. top layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed 3rd layer m/min.	Drumcap. 1st layer m.	Drumcap. all layers kW	Pressure drop bar	Flow in l/sec.
FD 300 LPR1	800	675/4	8	8	10	17	70/4	7	30
FD 300 LPR2	950	800/4	8	18	20	17	70/4	7	85
FD 301 LPR2	1850	1500/4	11	9	11	12	53/4	7	85
FD 303 LPR2	2300	2000/3	12	7	8	14	43/3	7	90
FD 303 LPR3	2300	2000/3	12	15	18	14	43/3	7	140
FD 305 LPR3	3350	2800/3	14	12	14	13	42/3	7	150
FD 306 LPR4	4100	3500/3	16	15	18	18	59/3	7	225
FD 307 LPR4	5250	4500/3	18	13	15	19	60/3	7	240



FOOTPRINT
- TOP VIEW -



Type	Mass (kg)	D1	D2	L1	L2	L3	L4(E)	L4(H)	L4(P)	L5	L6	H1	H2	W1	W2	Hole Ø
300	120	244	380	176	310	93	774	548,5	742	240	44	215	405	440	400	18
301	140	244	380	176	310	93	832	557,5	765	240	44	215	405	440	400	18
303	200	272	410	191	350	107,5	894	623	928	275	50	235	440	500	450	22
305	240	272	410	210	350	116	1064	669	1054	275	50	235	440	500	450	22
306	370	355	500	266	455	146	1120	831	1110	350	70	280	530	580	520	27
307	590	406	625	270	510	150	1332	922	1258	400	75	355	668	750	680	27

A range of standard hydraulic planetary winches, developed for heavy duty lifting and pulling applications up to 10000 kg where compactness is required. Due to the standard design it is possible to supply within short delivery times. All winches are standard fitted with a brake which makes them suitable for lifting applications.

Standard features:

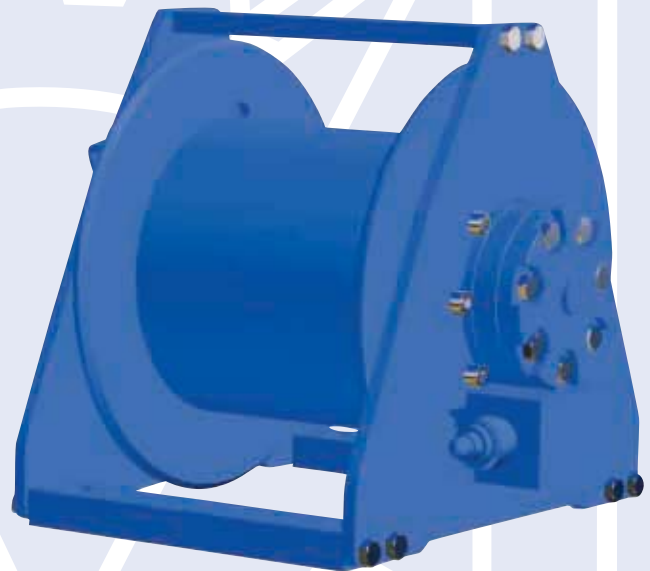
- Planetary transmission
- Orbit motor
- Steel drum (not grooved) with cable fixing point at flange
- Two drum supports
- Single layer of primer only, colour black
- Brake and double acting brake valve

Available options:

- Grooved drum
- Drum pressure roller
- Drum guards
- Marine / offshore coating systems

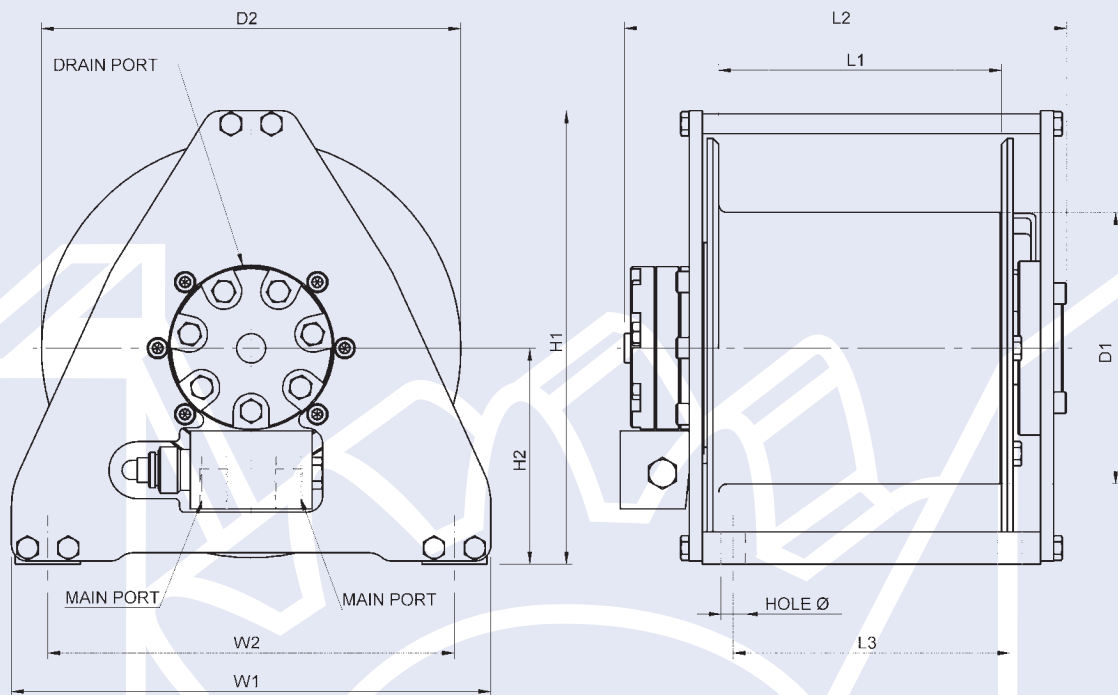
Available control options:

- Proportional control valves
- Hydraulic power packs
- Hydraulic lower limit switch
- Load limiter



Winch type	W.L.L. 1st layer kg.	W.L.L. top layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Drumcap. 1st layer m.	Drumcap. all layers m.	Pressure drop in bar	Flow in l/min.	Main ports BSP	Drain ports BSP
SH 05	500	400	6	42	8	36/4	175	25	3/8"	-
SH 08	800	610	7	38	13	74/5	165	30	3/8"	-
SH 10	1000	790	8	38	11	50/4	175	40	3/8"	-
SH 15	1500	1190	9	43	13	59/4	190	50	1/2"	1/4"
SH 20	2000	1560	10	34	11	53/4	200	50	1/2"	1/4"
SH 25	2500	1950	12	29	12	54/4	205	50	1/2"	1/4"
SH 34	3400	2680	14	47	15	72/4	205	100	3/4"	1/4"
SH 47	4700	3410	16	36	20	120/5	220	100	3/4"	1/4"
SH 57	5700	4410	18	27	22	101/4	205	100	3/4"	1/4"
SH 60	6000	4680	18	29	22	99/4	200	120	3/4"	1/4"
SH 70	7000	5460	20	25	23	108/4	200	120	3/4"	1/4"
SH 85	8500	6670	20	19	28	128/5	195	120	1"	1/4"
SH 100	10000	7690	24	17	26	121/4	205	120	1"	1/4"

Standard Hydraulic Compact Planetary Winches SH SERIES



Winch type	Mass (kg)	D1	D2	L1	L2	L3	W1	H1	H2	Hole Ø
SH 05	25	146	220	110	239	140	180	240	117	11
SH 08	40	167	258	174	275	170	250	279	133	15
SH 10	41	167	258	174	275	170	250	279	133	15
SH 15	71	202	312	187	319	170	250	348	175	15
SH 20	71	202	312	187	325	170	250	348	175	15
SH 25	95	243	376	191	352	190	350	403	195	17
SH 34	167	296	454	242	432	250	350	498	245	17
SH 47	258	322	530	321	510	330	530	566	271	25
SH 57	296	353	570	360	570	375	550	612	292	23
SH 60	350	366	580	360	751	360	530	630	295	23
SH 70	415	404	610	378	780	380	550	640	315	23
SH 85	430	418	640	430	851	435	590	694	345	23
SH 100	700	455	720	444	1008	470	670	788	385	23

A new comprehensive range of standard winches with high efficiency gearbox, developed for heavy duty pulling and lifting duties up to 2700 kg. This broad range comprises a variation of very compact winches, each type is standard available with a choice of 3 different speeds. Drum lengths can easily be adapted to the customers request.

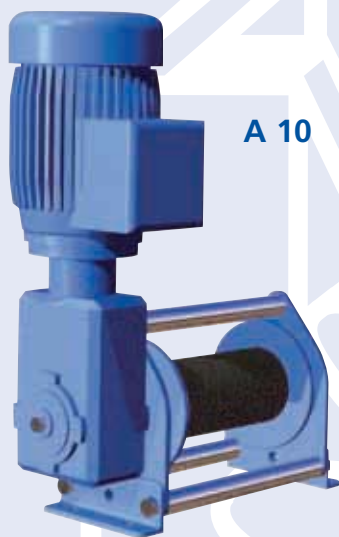
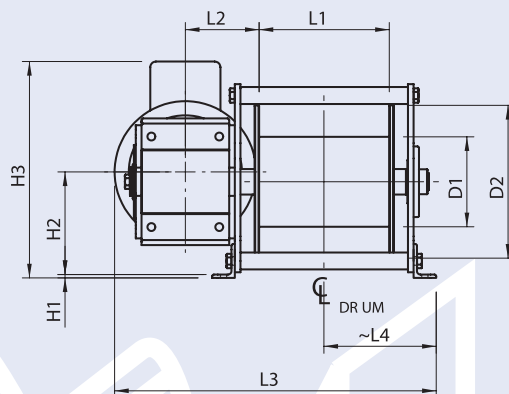
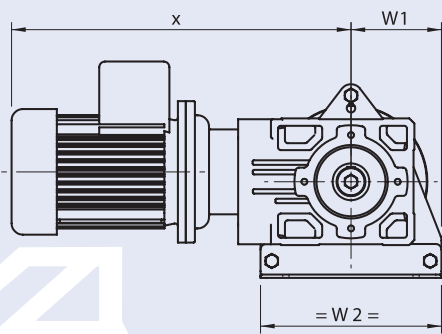
Standard features:

- High efficiency transmission
- IP 54 aluminium braked motor 400 VAC / 3 phase / 50 Hz. (440 / 3 / 60)
- Steel drum (not grooved) with cable fixing point at flange
- Two drum supports
- Single layer 1 component conservation, colour BS 20 (Medium Blue)
- Motor position vertically up
- Drum pressure roller
- Alternative speeds
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Drum guards
- Marine / offshore coating systems

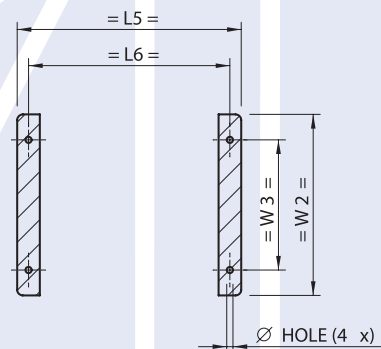
Available options:

- IP 56 TENV cast iron motor for marine applications
- 220 or 110 VAC single phase motors (up to 1,8 kW) (220 / 1 / 50) or (110 / 1 / 60)
- 24 VDC motors
- Manual or remotely controlled disengaging clutch
- Hydraulic or pneumatic motors
- Explosion proof motors
- Protective steel motor cover
- Band brakes
- Grooved drum
- Direct pendant remote control IP 65 with emergency stop (up to 1,5 kW 220 VAC / 1 phase or 2,2 kW 400 VAC / 3 phase)
- Control box IP 55 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 55 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiter
- Frequency inverter for variable speed control
- Limit switches
- Slack wire switches
- Hydraulic or pneumatic control valves
- Radio / Infra red remote control

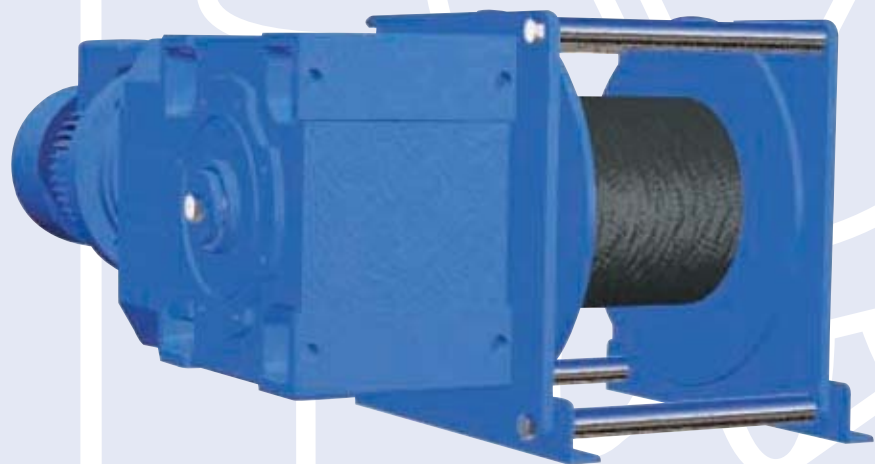
Winch type	W.L.L. 1st layer kg.	W.L.L. 3rd layer kg.	Speed 1st layer m/min.	Speed 3rd layer m/min.	Recomm. rope diam. mm.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Motor power 400 VAC kW.
A10M	300	245	6	8	6	8	48	0,37
A10H	300	245	13	17	6	8	48	0,75
A20L	500	400	3	4	6	8	48	0,37
A20M	500	400	6	8	6	8	48	0,55
A20H	500	400	14	17	6	8	48	1,10
A20 SP110	500	400	6	7	6	8	48	0,75
A20 SP220	500	400	6	7	6	8	48	0,75
A30L	600	450	3	4	8	8	45	0,37
A30M	600	450	6	8	8	8	45	0,75
A30H	700	550	14	18	8	8	45	1,80
A41L	1200	950	4	5	9	11	66	1,10
A41M	1200	950	7	8	9	11	66	1,50
A41H	1200	950	14	17	9	11	66	3,00
A41 SP110	1000	825	6	8	9	11	66	1,50
A41 SP220	1000	825	6	8	9	11	66	1,50
A50L	1800	1460	4	6	11	13	77	1,50
A50M	1800	1460	7	8	11	13	77	2,20
A50H	1800	1460	13	17	11	13	77	4,00
A60L	2700	2200	5	6	14	20	120	2,20
A60M	2700	2200	8	10	14	20	120	4,00
A60H	2700	2200	15	19	14	20	120	7,50



A 20-40



FOOTPRINT
- TOP VIEW -



Type	Mass (kg)	D1	D2	L1	L2	L3	L4	L5	L6	H1	H2	H3	W1	W2	W3	Hole \varnothing	"x" max
A 10	42	100	175	150	96.5	417.5	156	312	272	6	129	260	87.5	175	95	11 (4x)	505
A 20	51	100	175	150	108	442	158	316	276	6	164	343	160	320	230	11 (4x)	562
A 20 H	56	100	225	150	108	442	158	316	276	6	164	343	160	320	230	11 (4x)	575
A 30	65	127	225	150	118	442	158	316	276	6	164	343	160	320	230	11 (4x)	600
A 41	117	159	270	200	130	539	183	366	326	6	164	343	160	320	230	11 (4x)	600
A 50	178	178	310	250	157	625	217	382	342	6	224	420	220	440	400	11 (8x)	600
A 60	236	220	390	400	181	839	312	552	512	6	224	420	235	470	430	11 (8x)	593

The standard build SR type winch provides the basis of the solution to many pulling and lifting winch applications. The winch is constructed with a slew ring in a combination with 3 or more planetary drives and motors. With this range capacities can go up to 120 tonnes lifting capacity.

Although the name of this winch indicates different, these winches are very suitable to fit to your specific winch application. Several options can be offered on these highly versatile winches. Prices and drawings can be obtained upon request.

Standard winch features:

- Heavy duty slew ring
- Heavy duty planetary gearboxes fitted with pinions
- SR E; IP 54 seawater resistant braked motors 400 VAC / 3 phase / 50 Hz.
- SR H; orbit or radial piston type hydraulic motor complete with brake valve
- SR P; radial piston type air motor complete with hand control valve and mufflers
- Radial piston type air motor complete with hand control valve
- Steel drum with cable fixing point at flange
- Single layer 1 component conservation

- Marine / offshore coating systems
- Tubular offshore frame with lifting eyes

Available control options:

- Control box IP 55 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 55 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiter (required by CE for applications exceeding 1000 kg W.L.L.)
- Frequency inverter for speed control
- Wireless radio remote control systems
- Limit switches
- Slack wire switches
- Proportional local or remote control valve

Available winch options:

- IP 56 TENV cast iron motors
- Explosion proof motors
- Protective steel motor cover
- Band brakes (manual or failsafe automatic)
- Alternative speeds
- Alternative supply voltages
- Drum guards
- Spooling gears
- Grooved drums
- Slip ring or swivel mounting
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Warping head



Winch type	W.L.L. 1st layer kg.	W.L.L. 5th layer kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Speed 5th layer m/min.	Drumcap. 1st layer m.	Drumcap. 5th layer m.	Motor power kW.
SR 30 E3	41000	30000	44	8	12	60	350	66
SR 40 E3	57000	40000	52	6	8	50	300	66
SR 50 E4	73000	50000	56	6	8	48	285	74
SR 55 E4	83000	55000	64	5	7	42	257	74
SR 30 H3	41000	30000	44	8	12	60	350	66
SR 40 H3	57000	40000	52	6	8	50	300	66
SR 50 H4	73000	50000	56	6	8	48	285	74
SR 55 H4	83000	55000	64	5	7	42	257	74
SR 30 P3	41000	30000	44	8	12	60	350	66
SR 40 P3	57000	40000	52	6	8	50	300	66

Traction winches are mainly built for the purpose. Winches are built to order and can be executed with a self braking worm gear or planetary gear, depending on the load required. The drive can be either electric, hydraulic or pneumatic. The winches are mainly used for traversing applications where a compact but heavy duty system is required. EMCÉ has supplied systems up to and including 10,000 kg.

Some applications we have supplied for are; opening and closing of hangar doors, moving railcars along a track, deep sea research and moving trolleys on a cable or at ground. Systems can be supplied with so called endless cable or with separate wire spooling unit.

Prices and drawings are available upon request, please let us have your specifications.

Standard features:

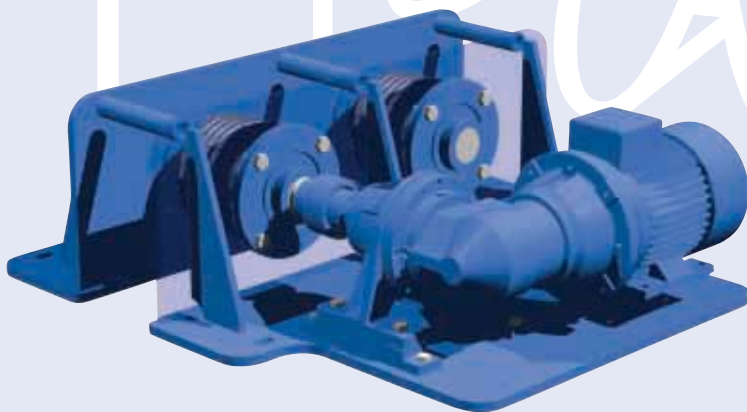
- Self braking worm gear or planetary gear transmissions
- IP 54 aluminium non braked motor 400 VAC / 3 phase / 50 Hz. (440 / 3 / 60)
- Steel sheaves
- Single layer 1 component conservation, colour BS 20 (Medium Blue)

Available options:

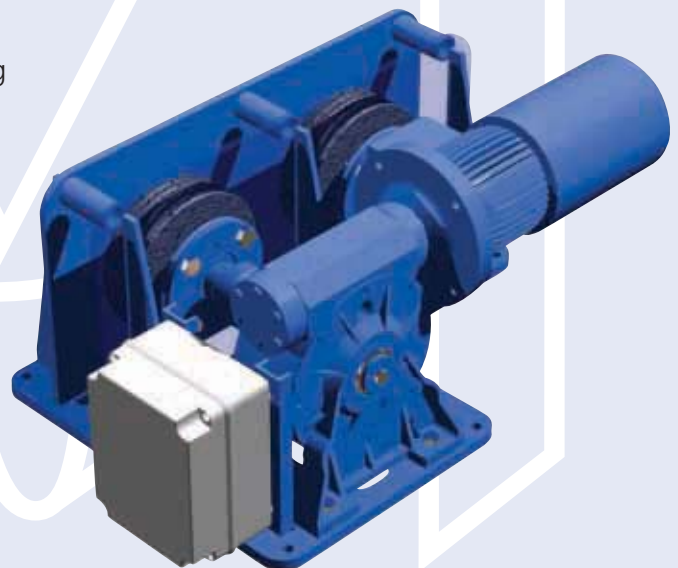
- Braked motor (aluminium or cast iron)
- IP 56 TENV cast iron motor for marine applications
- 220 or 110 VAC single phase motors (up to MC 950)
- Explosion proof motors
- Protective steel motor cover
- Manual or remotely controlled disengaging clutch
- Alternative speeds
- Protective guards
- Marine / offshore coating systems

Available control options:

- Direct pendant remote control IP 65 with emergency stop (up to 1,5 kW 220 VAC / 1 phase or 2,2 kW 400 VAC / 3 phase)
- Control box IP 55 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 55 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiter
- Frequency inverter for variable speed control
- Wireless radio remote control systems
- Limit switches



PLANETARY TRACTION WINCH



WORMGEAR TRACTION WINCH

A range of compact lifting and pulling air winches specially designed for offshore applications or in any other hazardous environment where space is limited. The heavy duty planetary gearbox and brake are mounted within the drum core, which both saves space and protects from any external damage. Winches designed to meet independent third party requirements like; Lloyds, ABS, DNV, etc. These standard winches can be fitted with several options and accessories. Further two of the winches are man riding prepared, adding some options and reducing the W.L.L. means that the winch can be used for man riding applications too. For Pod Line and Guide Line operations two standard winches are available with tall flanges and longer drums to accommodate cables up to 2000 meters.

Standard features:

- Heavy duty planetary gearbox integrated in gearbox
- Cast steel five cylinder radial piston motor
- Proportional biased throttle valve
- Exhaust silencing mufflers
- Steel drum, length 610 mm with cable fixing point at flange
- Two drum supports
- Standard temperature range -10° through 50°C.
- Oil bath disc brake
- Lifting lugs
- Offshore multi layer 2 component conservation, colour RAL 1023 (Yellow)
- Drum locking pins / Drum dividers
- Band brakes (manual or automatic failsafe)
- Spooling gears
- Grooved drums
- Tubular offshore frame construction
- Special temperature range -40°C/+50°C
- Natural gas driven

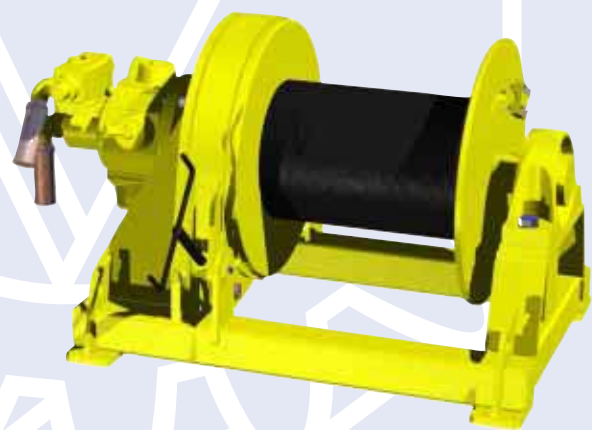
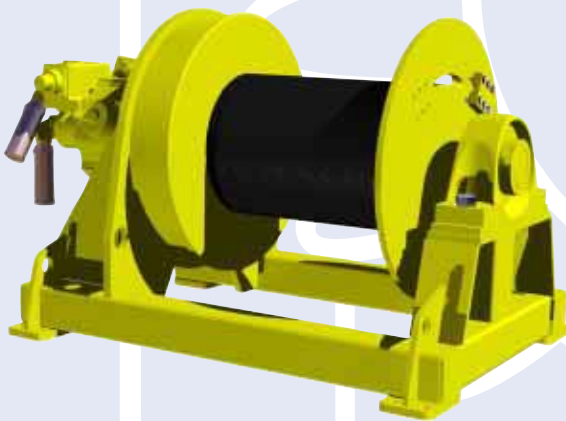
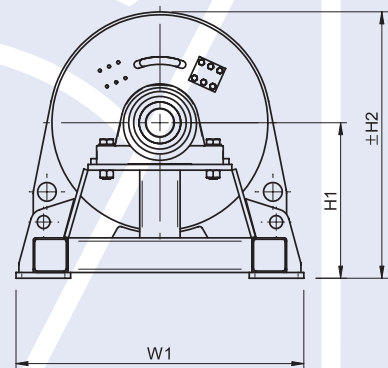
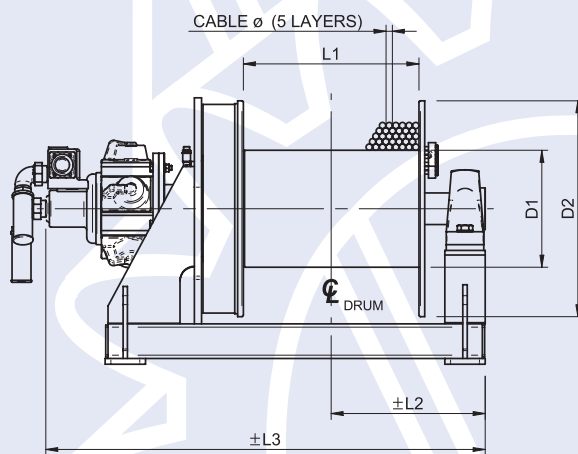
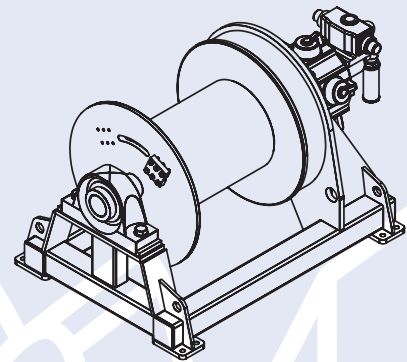
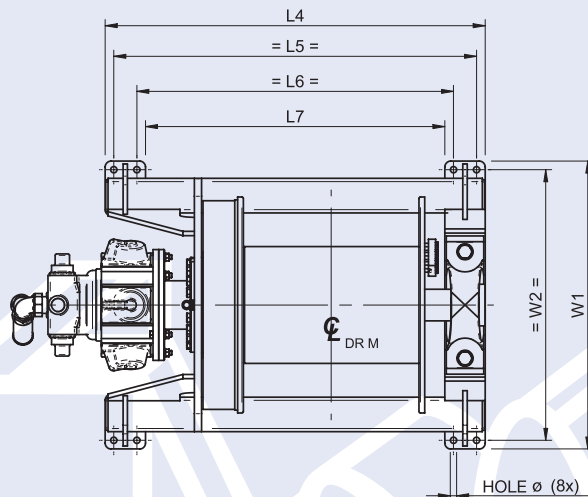
Available options:

- Alternative drum lengths
- Drum pressure rollers / Drum guards

Available control options:

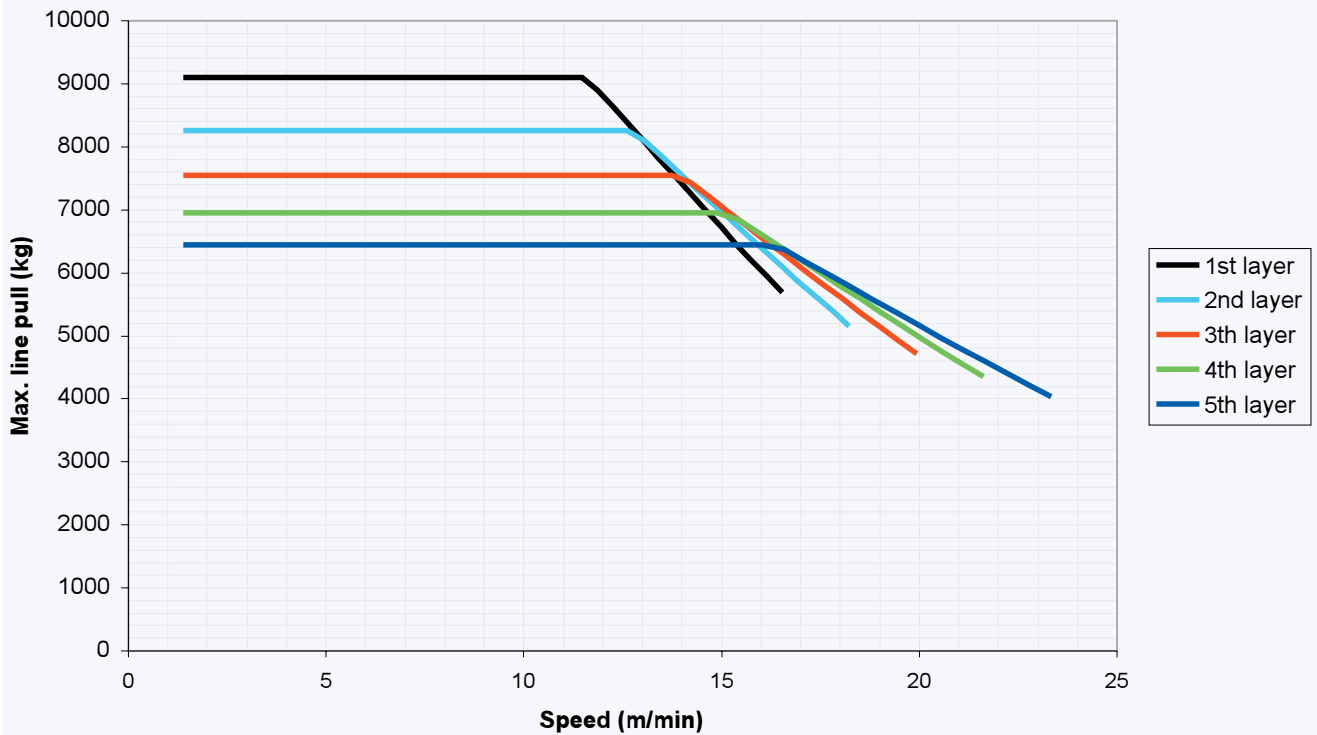
- Emergency main shut off valves
- Load limiters
- Limit switches (pneumatic)
- Slack wire switches (pneumatic)
- Proportional remote control valve
- Air service units
- Matching frame with IR, Atlas, Beebe, Chicago or Gardner

Winch type	IR Equivalent	W.L.L. 1st layer kg.	W.L.L. 1st layer Lbs.	W.L.L. 5th layer kg.	W.L.L. 5th layer Lbs.	Recomm. rope diam. mm.	Recomm. rope diam. Inch.	Speed 5th layer m/min.	Speed 5th layer ft/min.	Drumcap. 5th layer m.	Drumcap. 5th layer ft.	Pressure drop in bar	Flow in l/sec.
OAW2.0		2810	6180	2000	4400	13	1/2"	20	66	250	830	7	160
	FA2-24XK1	2730	6000	2000	4400	13	1/2"	14	47	234	775	6,3	160
OAW2.5 LS	N.A.	3300	7250	2500	5500	16	5/8"	11	36	211	700	6	130
OAW2.5		3300	7250	2500	5500	16	5/8"	44	146	211	700	7	330
OMR1.5		2000	4400	1500	3300	13	1/2"	41	136	250	830	5	250
	FA2.5AMR24MK1G	1940	4270	1420	3125	13	1/2"	61	200	234	780	6,3	265
OAW4.5		6300	13800	4500	9900	19	3/4"	23	76	210	700	7	330
	FA5-24XK1	6900	15100	5000	11000	19	3/4"	16	54	224	747	6,3	330
OMR3.0		4400	9700	3150	6900	19	3/4"	23	76	210	700	5,5	280
	FA5MR24MK1G	3921	8644	2841	6250	19	3/4"	36	119	224	746	6,3	285
OAW6.5		9100	20000	6500	14300	22	7/8"	17	56	208	700	7	350
	FA5-24XK1	6900	15100	5000	11000	19	3/4"	16	54	224	747	6,3	330
	FA7-24XK1	9880	21715	7000	15400	22	7/8"	12	40	208	700	6,3	355
OAW6.5GL		3760	8270	1545 (17)	3400 (17)	19	3/4"	36 (17)	120 (17)	2000 (17)	6865 (17)	6	180
	FA7TGL42	3545	7800	1545 (17)	3400 (17)	19	3/4"	32 (17)	102 (17)	2000 (17)	6865 (17)	6,3	355
OAW6.5PL		11280	24800	4636 (17)	10200 (17)	19	3/4"	25 (17)	80 (17)	2000 (17)	6865 (17)	7	350
	FA7TPL42	10364	22800	4636 (17)	10200 (17)	19	3/4"	20 (17)	65 (17)	2000 (17)	6865 (17)	6,3	355
OAW7.0		9880	21715	7000	15400	22	7/8"	14	45	208	700	7	350
	FA5-24XK1	9880	21715	7000	15400	22	7/8"	12	40	208	700	6,3	355
OAW8.5		11800	26000	8500	18500	25	1"	12	43	226	750	7	350
	FA7-24XK1	9880	21715	7000	15400	25	1"	12	40	189	627	6,3	355
OAW10.5		14000	30700	10500	23000	29	1 1/8"	10	33	231	770	7	330
	FA-10XK1	14320	31400	10000	21910	29	1 1/8"	7	23	200	666	6,3	380

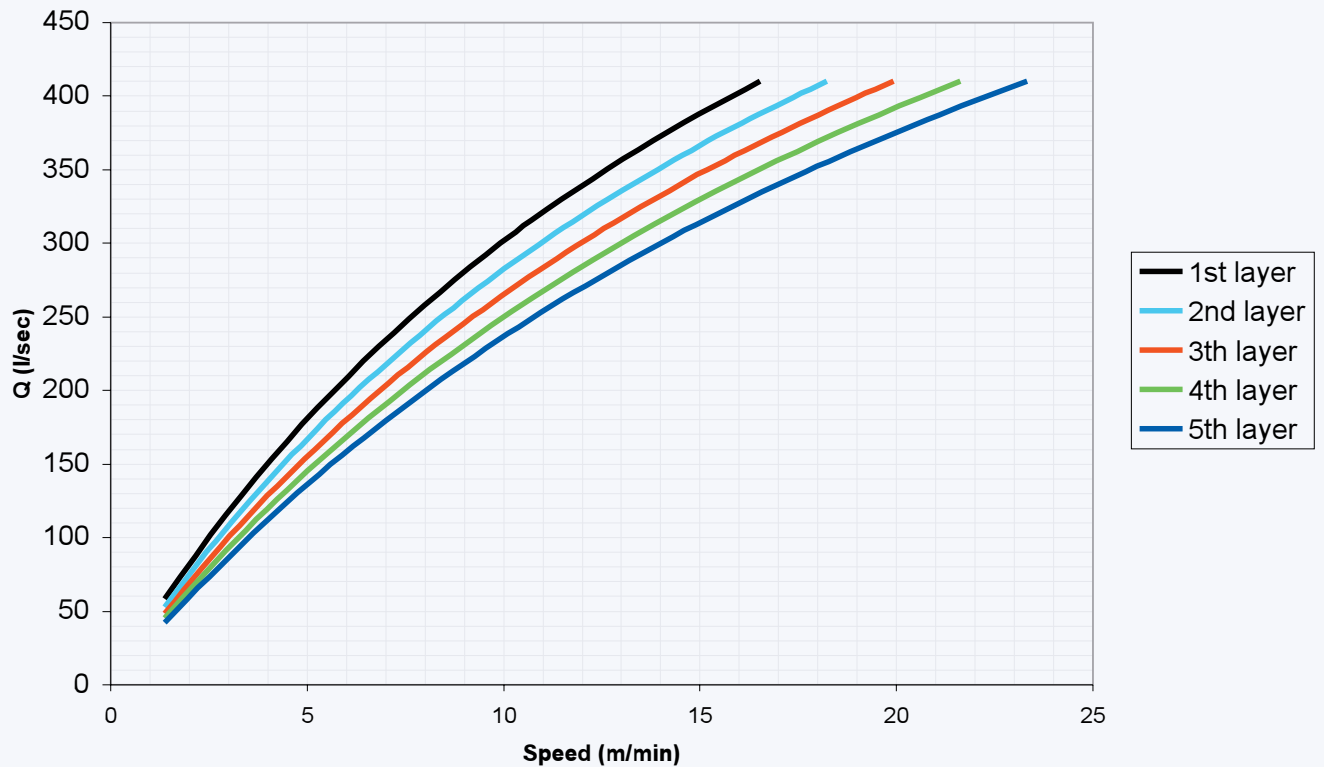


TYPE	MASS (kg)	D1	D2	L1	L2	L3	L4	L5	L6	L7	H1	H2	W1	W2	HOLE Ø
OAW 2.0	520	298	550	610	470	1468	1120	1060	940	880	395	675	700	660	14
OAW 2.5 LS	520	298	550	610	470	1468	1120	1060	940	880	395	675	700	660	14
OAW 2.5	550	298	550	610	470	1468	1120	1060	940	880	395	675	700	660	14
OMR 1.5	550	298	550	610	470	1468	1120	1060	940	880	395	675	700	660	14
OAW 4.5	800	355	700	610	500	1556	1220	1180	1020	980	475	835	840	790	19
OMR 3.0	800	355	700	610	500	1556	1220	1180	1020	980	475	835	840	790	19
OAW 6.5	1125	406	750	610	535	1576	1320	1260	1100	1040	540	925	1000	940	22
OAW 6.5 GL	1410	406	1070	1067	764	2039	1780	1720	1560	1500	590	1125	1200	1140	22
OAW 6.5 PL	1535	406	1070	1067	764	2039	1780	1720	1560	1500	590	1125	1200	1140	22
OAW 7.0	1125	406	750	610	535	1576	1320	1260	1100	1040	540	925	1000	940	22
OAW 8.5	1615	508	900	610	524	1789	1370	1300	1100	1030	625	1090	1120	1050	26
OAW 10.5	1880	609	1010	610	529	1789	1370	1300	1100	1030	680	1205	1220	1150	26

Load chart OAW 6,5 at 7 bar



Air consumption OAW 6,5 at 7 bar



These graphs are applicable to the OAW 6.5, All other graphs are available upon request.

To obtain an offer or order a winch specify complete model code as shown below.

Example: **OAW6.5-24XK1GV**

Series	Capacity	Drum length.	Drum brake	Disc brake	Control	Options
OAW	6.5 1.5= 1500 kg 2.5= 2500 kg 3.0= 3150 kg 6.5= 6500 kg 7.0= 7000 kg 8.5= 8500 kg 10.5= 10500 kg	24 24= 24" (610 mm) drum length. Alternative sizes from 8" upto 80" (203 - 2000 mm) can be selected Specify length in inch. (25,4 mm= 1 inch)	X A= Auto drum brake S= Manual drum brake, screw down spindle X= No drum brake	K	1	GV A= Drum grooving (specify rope diameter) B= With matching intermediate mounting base; Atlas, Beebe, Chigago, Gardner or IR (specify brand/type to replace i.e. IR/KU6L) C= Low temperature (specify range) D= Drum divider flange and additional cable anchor E= in compliance with EMD, includes emergency stop and overload protection F= Drum divider flange including extra rope anchor G= Drum guard (standard on Man Rider) H= Natural gas driven supply (max. 4% sulphur) I= Including service kit for motor and gearbox K= Cable kicker L= Drum locking pin M1= Standard documentation M2= 3.1b cert. on load bearing parts M3= 3.1c cert. on load bearing parts N= Design appraisal; please specify authority P= Offshore paint finish, please specify Q= Special paint R= Slack rope detector S= Rotary pneumatic limit switch (upper and lower) T= Low temperature (specify range) U= Air service unit integrated on the winch V= Pressure roller W= Witness testing; please specify authority Z= Sandblast and Zinc Phosphate primer only
			K= Auto disc brake X= No auto disc brake			
	6.5GL= 1545 kg 6.5PL= 4535 kg	Guide Line winch Pod Line winch	42=42" (1070 mm) 42=42" (1070 mm)			
			1 = Standard winch mounted throttle 2XX = Remote pilot pendant with emergency stop (Std. = 3 m/ 10 ft.) 3XX = Remote panel mount pilot lever throttle (Std. = 3 m./ 10 ft.) XX= specify hose length in feet			
						OAW= Offshore Utility Air Winch OMR= Offshore Man Rider (only 1.5 and 3.0 type)



A range of ultra compact lifting and pulling hydraulically driven winches specially designed for offshore applications or in any other hazardous environment where space is limited. The heavy duty planetary gearbox and brake are mounted within the drum core, which both saves space and protects from any external damage. Winches designed to meet independent third party requirements like; Lloyds, ABS, DNV, etc.

These standard winches can be fitted with several options and accessories. Further the winches are man riding prepared, adding some options and reducing the W.L.L. means that the winch can be used for man riding applications too. Winches are standard supplied without any valves.

Standard features:

- Heavy duty planetary gearbox integrated in gearbox
- Fixed displacement axial tapered piston motor (Rexroth A2FE series)
- Steel drum, length 610 mm with cable fixing point at flange
- Two drum supports
- Standard temperature range -10° through 50°C.
- Oil bath disc brake
- Lifting lugs

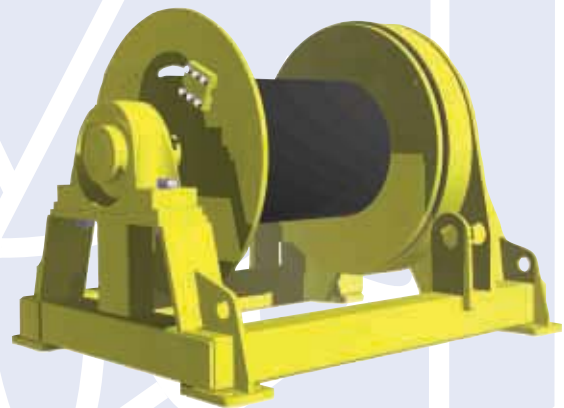
Available options:

- Higher W.L.L. upon request
- Alternative drum lengths
- Drum pressure rollers
- Drum locking pins
- Band brakes (manual or automatic failsafe)
- Manual disengaging clutches
- Other motor brands like Volvo or Danfoss
- Variable displacement motors
- Drum guards

- Drum dividers
- Spooling gears
- Grooved drums
- Tubular offshore frame construction
- Man riding package

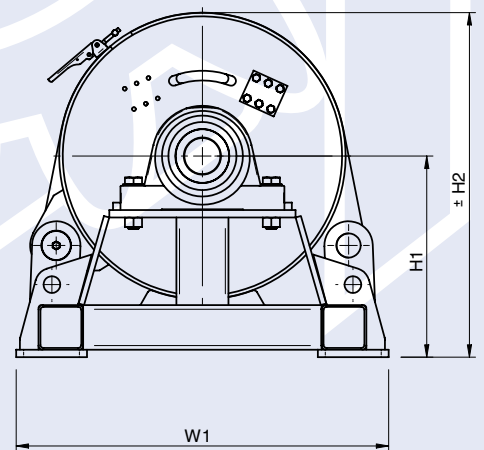
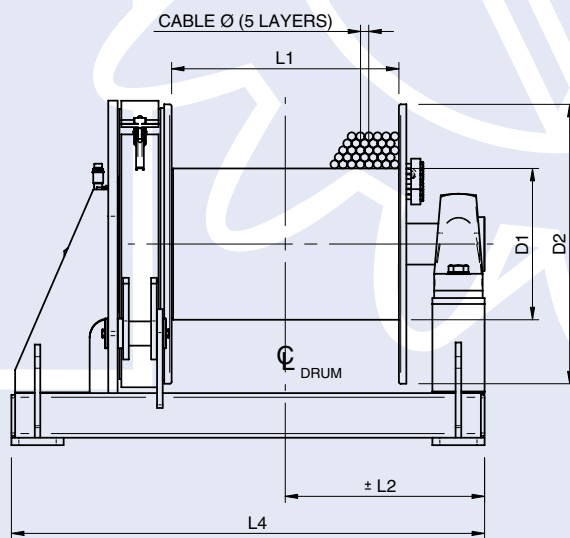
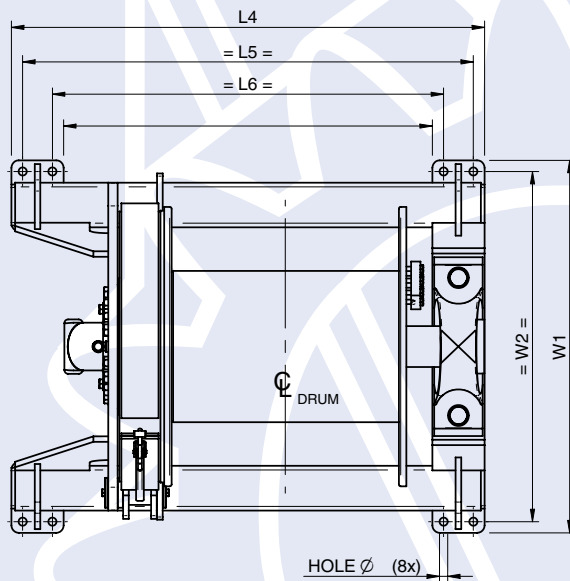
Available control options:

- Brake shuttle valve
- Proportional control valves
- Pressure reduction valve for brake control
- Load limiters
- Limit switches (hydraulic)
- Slack wire switches (hydraulic)
- Proportional remote control valve
- Air filter units
- HPU's



WINCH TYPE	W.L.L. 1ST LAYER KG.	W.L.L. 1ST LAYER LBS.	W.L.L. 5TH LAYER KG.	W.L.L. 5TH LAYER LBS.	RECOMM. ROPE DIAM. MM.	RECOMM. ROPE DIAM. INCH.	SPEED 5TH LAYER M/MIN.	SPEED 5TH LAYER FT/MIN.	DRUMCAP. 5TH LAYER M.	DRUMCAP. 5TH LAYER FT.	PRESSURE DROP IN BAR	FLOW IN L/MIN.	BRAKE OPENING PR. IN BAR
OHW2.5	3300	7250	2500	5500	16	5/8"	44	146	211	700	180	70	10-20
OHR1.5	2000	4400	1500	3300	13	1/2"	41	136	250	830	210	35	10-20
OHW4.5	6300	13800	4500	9900	19	3/4"	40	132	210	700	180	120	10-20
OHR3.0	4400	9700	3150	6900	19	3/4"	40	132	210	700	160	88	10-20
OHW6.5	9100	20000	6500	14300	22	7/8"	40	132	208	700	180	165	10-20
OHW8.5	11800	26000	8500	18500	25	1"	30	99	226	750	210	145	10-20
OHW10.5	14000	30700	10500	23000	29	1 1/8"	30	99	231	770	220	160	10-20
OHW15	21000	46200	15000	33000	32	1 1/4"	20	66	214	710	220	156	10-20
OHW20	28000	61600	20000	44000	38	1 1/2"	20	66	212	715	220	205	10-20

TYPE	MASS (kg)	D1	D2	L1	L2	L4	L5	L6	L7	H1	H2	W1	W2	HOLE Ø
OHW 2.5	550	298	550	610	470	1120	1060	940	880	395	675	700	660	14
OHR 1.5	550	298	550	610	470	1120	1060	940	880	395	675	700	660	14
OHW 4.5	800	355	700	610	500	1220	1180	1020	980	475	835	840	790	19
OHR 3.0	800	355	700	610	500	1220	1180	1020	980	475	835	840	790	19
OHW 6.5	1125	406	750	610	535	1320	1260	1100	1040	540	925	1000	940	22
OHW 8.5	1615	508	900	610	524	1370	1300	1100	1030	625	1090	1120	1050	26
OHW 10.5	1880	609	1010	610	529	1370	1300	1100	1030	680	1205	1220	1150	26
OHW 15	2120	609	1070	610	529	1370	1300	1100	1030	720	1300	1300	1230	32
OHW 20	2480	711	1250	610	550	1400	1330	1130	1060	800	1400	1400	1320	32



Designed to the standards issued by the classification societies and meets UK HSE regulations for personnel lifting operations on offshore installations. The winches are dedicated personnel lifting winches offered with Lloyds Register of Shipping (LRS) Design Appraisal Certificate and full material traceability. They have passed the EC testing for these applications, i.e., both the winches and their technical files are in compliance with the requirements of the EC Machinery Directives.

The MR 30 FL (P: Piston air motor, V: Vane air motor or H: Hydraulic motor) have been specially designed for personnel lifting applications in which a safety harness or a boatswain's chair is used on fixed installations with a total W.L.L. of 150 kgs.

Standard features:

- Helical shaft mounted gearbox, life lubricated with synthetic oil
- UK HSE compliance
- Caliper primary brake 180% of W.L.L.
- Automatic band brake as secondary drum acting brake 180% of W.L.L.
- Rotary vane or radial piston air motor
- Orbit or vane hydraulic motor
- Helical grooved steel drum
- Full material trace-ability (3.1b - EN 10204) on load bearing parts
- Two drum supports
- Limit switch
- Slack wire switch
- Overload protection device
- Pendant proportional remote control with biased control valve (MR 30 FLP/FLV only)
- Drum guard
- Nylon drum pressure roller
- Offshore coating
- Skidded frame
- Mufflers (on MR 30 FLP/FLV only)
- Prepared for emergency lowering system

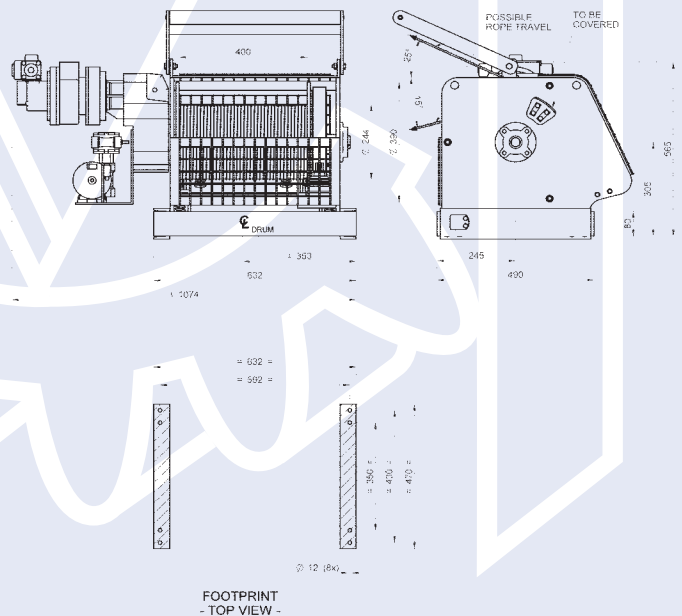
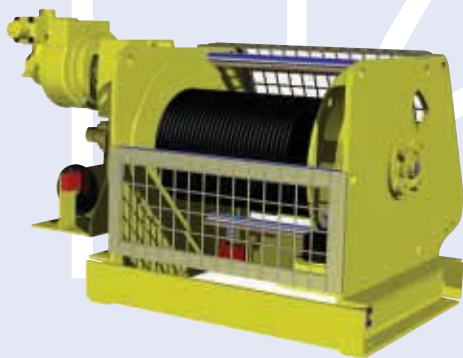
- Main air emergency stop valve
- Operating conditions -20°C through 50°C

Available options:

- Electric versions
- Alternative speeds
- Alternative drum dimensions
- Certifying authority witness test
- Operating conditions -45°C through 50°C
- Air service unit
- Pre equipped emergency lowering device including nitrogen air receiver (MR 30 FLP/FLV only)

Available control options:

- Electric/hydraulic or pneumatic control systems



Winch Type	IR equivalent	W.L.L. 1st layer kg.	W.L.L. 1st layer lbs.	W.L.L. 5th layer kg.	W.L.L. 5th layer lbs.	Recomm. rope diam. mm.	Recomm. rope diam. inch.	Speed 5th layer m/min.	Speed 5th layer ft/min.	Drumcap. 5th layer m.	Drumcap. 5th layer ft.	Pressure drop in bar	Flow in l/sec.	Flow in l/min.
MR30FLV		200	440	150	330	10	3/8"	37	122	150	500	4	45	
MR30FLP		200	440	150	330	10	3/8"	43	141	150	500	6	26	
MR30FLH	LS150RLPPHSRY	200	440	150	330	10	3/8"	35	115	130	433	6,3	36	
	N.A.	200	440	150	330	10	3/8"	43	141	150	500	6		26

Hose reel, Umbilical or Transponder winches are mainly built for the purpose. Winches are built to order and can be executed with a self braking worm gear or planetary gear, depending on the load required. The drive can be either electric, hydraulic or pneumatic.

The Hose reels are mainly used to spool hoses for Fresh Water supply, MDO Fuel supply and Hydraulic Oil or to spool Electrical Power Supply Cables.

The Umbilical winches in general are used to spool a combination of hoses, signal cables, coax or even Fibre Optic cables. Most of them come with slip rings and/or rotating swivels.

Transponder winches used for powered transponders are mainly used with electrical signal cables and have in most cases an electrical slip ring mounted. Winches can be supplied complete with A frame if required.

EMCE has supplied systems for all applications including reels with SS swivels of 6" or slip rings for High Voltage.

Applications we have supplied for can be found on the following type of constructions; Offshore Heavy lift vessels, Offshore Semi Subs, Diving Support vessels, Research vessels, Cable and Pipe laying vessels and Offshore Pile Driving barges.

Prices and drawings are available upon request, please let us have your specifications.

Standard features:

- Self braking worm gear, helical bevel, planetary or slew gear transmissions
- IP 56 TENV braked motors 400 VAC / 3 phase / 50 Hz (or 440/3/60)
- Radial piston air or hydraulic motors
- Heavy duty construction
- Offshore multi layer 2 component conservation, colour BS 20 (Medium Blue)

Available options:

- Explosion proof electric motors
- Protective steel motor covers
- Alternative speeds
- Protective guards

- Stainless steel slip rings (fibre optic or elec.)
- Stainless steel swivels
- Spooling devices
- Etc.....

Available control options:

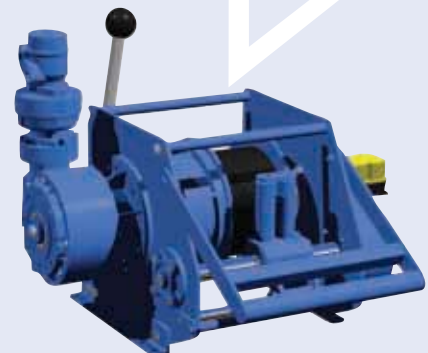
- Control box IP 65 with pushbuttons and emergency stop built acc. to NEN 1010
- Control box IP 66 with low voltage IP 65 remote control built acc. to NEN 1010
- Load limiters
- Frequency inverters for variable speed control
- Wireless radio remote control systems
- Limit switches
- Pneumatic and hydraulic control systems



UMBILICAL WINCH



HOSEREEL



TRANSPONDER WINCH

AW winches are designed to position and hold accommodation ladders, ship to shore or between vessels and offshore installations.

Constructed in accordance with SOLAS requirements for international shipping, the range features a dynamically and statically self braking worm gearbox and emergency hand crank. Each type may be configured for single or twin rope operation and powered by means of an electric or pneumatic motor.

PW winches are used to lower and lift the pilot ladder on board of seagoing vessels, EMCE has one standard design PW 550 which has been supplied for several dredging vessel fleet owners. Custom built designs are possible and have been made also.

Standard features:

- Self braking worm gear transmission for AW series
- Planetary gear for PW 550
- SOLAS compliance
- IP 56 TENV motor protection for AW ES series
- IP 68 TENV with standstill heating for PW 550
- Rotary vane or radial piston motor for AW LS series
- Steel drum (not grooved) with one or two cable fixing point(s) at flange
- Two drum supports
- Emergency hand crank for AW series only
- Double layer 2 component conservation, colour BS 20 (Medium Blue)
- 13 meter pilot ladder with 32 flat steps, 4 spreaders and 4 rubber steps for PW 550
- Pneumatic versions with hand control valve
- IP 66 spindle limit switch for PW 550

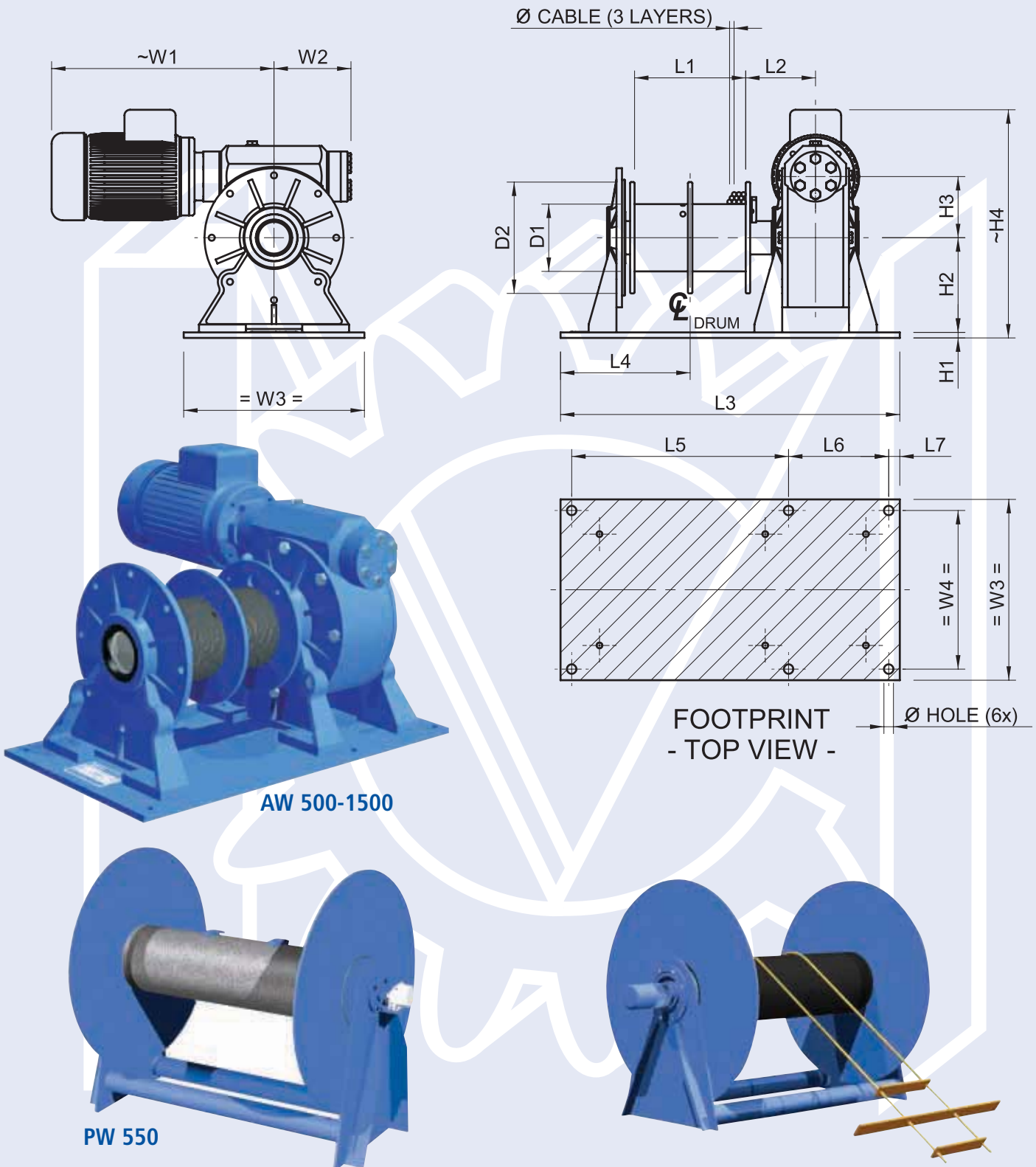
Available options:

- Band brake, manual or automatic fail safe for AW series
- Increased motor protection IP 68 TENV for AW series
- Alternative supply voltages
- Grooved drum for AW series only
- Drum pressure roller for AW series only
- Alternative speeds
- Alternative drum dimensions / split drums / additional rope anchors / etc.
- Drum guard for AW series only
- Marine / offshore coating systems
- Class witness certificates

Available control options:

- Electric or pneumatic control systems
- Limit switches
- Load limiters

Winch type	W.L.L. kg.	Holding force kg.	Recomm. rope diam. mm.	Speed 1st layer m/min.	Drumcap. 3rd layer m.	Motor power 400 VAC kW	Pressure drop in bar	Flow in l/sec.
AW 500 ES	500 2 X 250	1500 1500	8 6	6 6	30 2 X 25	1,5 1,5		
AW 1000 ES	1000 2 X 500	3000 3000	10 8	7,5 7,5	35 2 X 20	3 3		
AW 1500 ES	1500 2 X 750	4000 4000	12 10	9,5 9,5	50 2 X 30	4 4		
AW 500 LS	500 2 X 250	1500 1500	8 6	6 6	30 2 X 25		6 6	40 40
AW 1000 LS	1000 2 X 500	3000 3000	10 8	7,5 7,5	35 2 X 20		6 6	80 80
AW 1500 LS	1500 2 X 750	4000 4000	12 10	9,5 9,5	50 2 X 30		6 6	120 120
PW 550 E	550	2000		12	13 m ladder	1,1		



Type	Mass (kg)	D1	D2	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	H4	W1	W2	W3	W4	Hole Ø
AW 500	85	121	200	200	125,5	610	233	390	180	20	10	170	110	410	400	132	325	285	17
AW 1000	195	159	320	250	154,5	710	260	470	200	20	15	220	150	522	487	154	410	360	17
AW 1500	275	195	370	300	180	850	317,5	565	235	25	15	254	177,5	570,5	548	205	440	380	20
PW 550	1600	508	1700	1900	218	2440	1193	2552	-	-	-	1080	-	1930	650	250	-	-	-

Wormgear capstans

Selfbraking worm gear drives with electric, hydraulic or even pneumatic motor, available in on-deck or below-deck build types. The on-deck drive is equipped with a waterproof motor for intermittent use. The below-deck drive is equipped with a dripwater proof motor and a mounting plate with extra self aligning bearing suitable for high static loads such as with mooring ropes. Pneumatic drives are available upon request.

Planetary capstans

Featuring a cast iron capstan head mounted on a heavy duty planetary gearbox. The entire drive is mounted in a watertight tube frame providing optimal protection from the elements. Pneumatic drives are available upon request. Capstans up to 15 ton can be offered upon request.

Standard features:

- Heavy duty worm gearbox or planetary gearbox
- IP 54 aluminium braked motor 400 VAC / 3 phase / 50 Hz for planetary capstans
- IP 56 TENV cast iron un braked motor 400 VAC / 3 phase / 50 Hz for on-deck worm gear capstans
- IP 54 cast iron un braked motor 400 VAC / 3 phase / 50 Hz for under-deck worm gear capstans
- Single speed and one direction only (for electric capstans only)
- Orbit or radial piston type hydraulic motor
- Vertical cast iron warping head
- Double layer 2 component conservation, colour BS 20 (Medium Blue)

Available options:

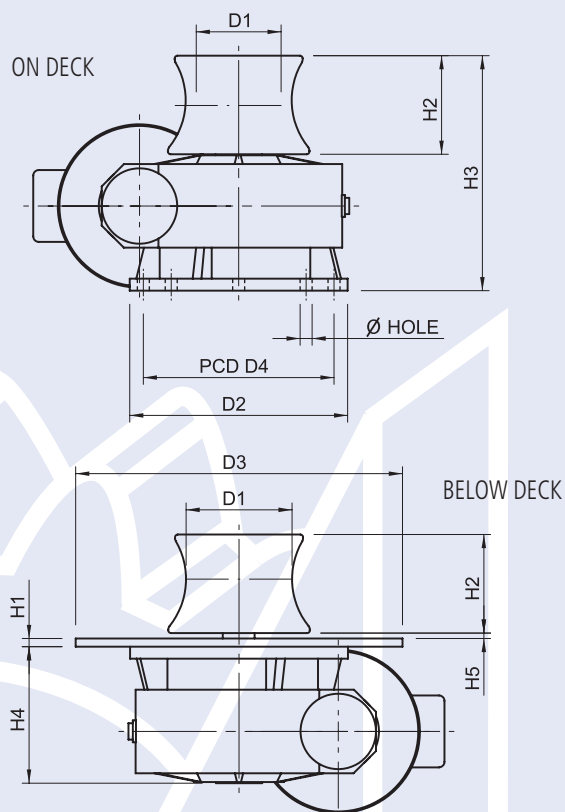
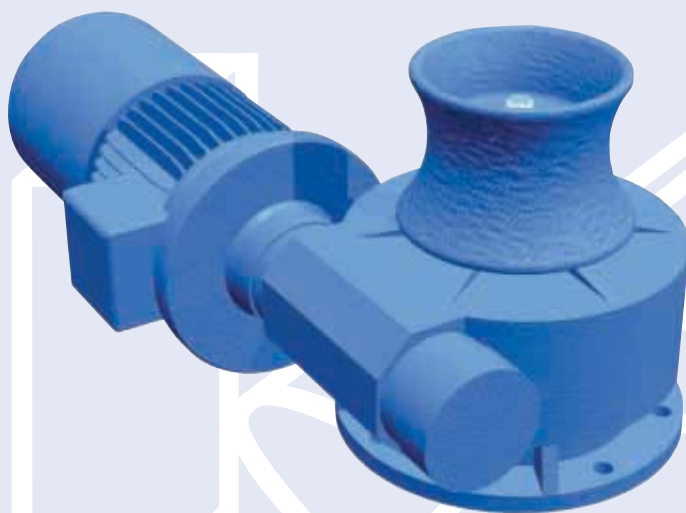
- 440 VAC / 3 phase / 60 Hz motors at no extra costs
- Cast iron motor for planetary capstans
- Explosion proof motors
- Back stop bearing build in planetary gearbox for one direction (replaces brake)
- Alternative speeds
- Alternative supply voltages
- Horizontal warping head configuration
- Marine / offshore coating systems

Available control options:

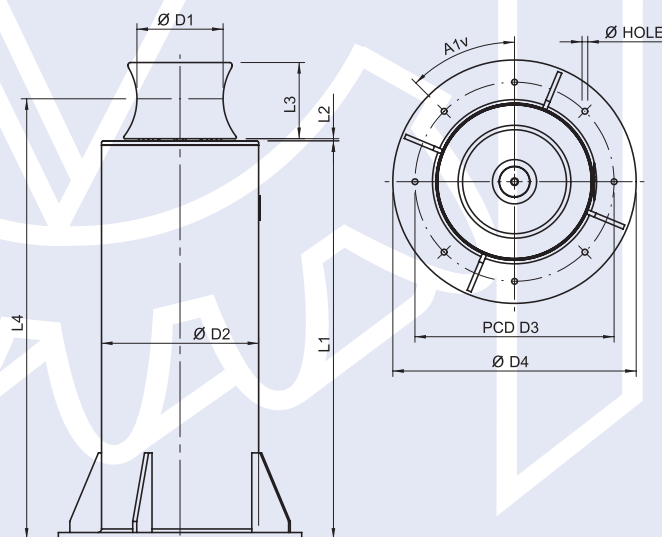
- Control box IP 55 with IP 65 foot pedal (single speed, one direction) control built acc. to NEN 1010
- Control box IP 55 with IP 65 foot pedal (two speed, two directions) control built acc. to NEN 1010
- Frequency inverter and proportional foot pedal for variable speed control
- Proportional local or remote control valve (pneumatic or hydraulic)

Capstan type	W.L.L. kg.	Speed m/min.	Neck diameter mm.	Recomm. rope diam. mm.	Motor power 400 VAC kW	Pressure drop in bar	Flow in l/min.
E 100	600	8	100	18	0,75		
E 140	1300	9	140	25	2,2		
E 200	1800	11	200	36	4		
H 100	600	8	100	18		50	20
H 140	1300	8	140	25		60	30
H 200	1800	11	195	36		100	50

Capstan type	W.L.L. continuous kg.	W.L.L. 30% interm. kg.	Speed m/min.	Neck diameter mm.	Recomm. rope diam. mm.	Motor power 400 V kW	Pressure drop in bar	Flow in l/min.
C 300 E	1000	1300	12	195	35	2,2		
C 303 E	2000	3000	11	195	35	4		
C 305 E	3200	4000	12	275	45	7,5		
C 307 E	5000	6500	13	405	75	11		
C 309 E	7500	10000	12	405	75	15		
C 310 E	1000	1500	10	450	90	18,5		
C 300 H	1300	1300	20	195	35		100	32
C 303 H	3000	3000	23	195	35		170	48
C 305 H	4000	4000	25	275	45		215	53
C 307 H	6000	6000	30	405	75		205	100
C 309 H	10000	10000	20	405	75		200	115
C 310 H	10000	10000	12	450	90		200	115



Type	Mass (kg)	D1	D2	D3	D4	H1	H2	H3	H4	H1	Hole Ø
E 100 / H 100	50	100	210	300	176	10	130	320	190	10	8x 12,5
E 140 / H 140	90	140	320	420	255	15	130	360	230	10	8x 16
E 200 / H 200	130	195	350	450	290	15	180	415	245	10	8x 18



Type	Mass (kg)	D1	D2	D3	D4	L1	L2	L3	L4	A1	Hole Ø
C 300	175	195	355	450	550	900	5	181	995	8x 45	13
C 303	220	195	406	500	600	1000	5	181	1095	12x 30	18
C 305	320	275	455	570	650	1100	5	210	1205	12x 30	18
C 307	800	405	610	700	800	1300	5	315	1455	12x 30	18
C 309	900	405	610	720	825	1300	5	315	1455	12x 30	22
C 309	1020	450	711	840	950	1300	10	500	1630	10x 36	27



This series of windlasses is specially designed for intensive use and therefore has a robust construction. All windlasses are designed with a self braking gearbox which will save the costs of an expensive brake motor.

The W 1500, W 3400 and W 5600 are our most compact windlasses standard executed as double sided windlasses complete with two bandbrakes, free fall clutches and warping heads. These windlasses also can be supplied with stainless steel polished warping heads and a yacht finishing.

The band brakes are lined with a ferrodo (non asbestos) friction material.

Standard features:

- Heavy duty worm gearbox or planetary/worm gear combination
- IP 56 TENV cast iron un braked motor 400 VAC / 3 phase / 50 Hz / with torque knob
- Orbit type hydraulic motor
- Suitable for 10 – 28 mm DIN / Studlink chain sizes (other chain-size upon request)
- Free fall clutch
- Band brake
- Horizontal cast iron warping head
- Double layer 2 component conservation, colour BS 20 (Medium Blue)

Available options:

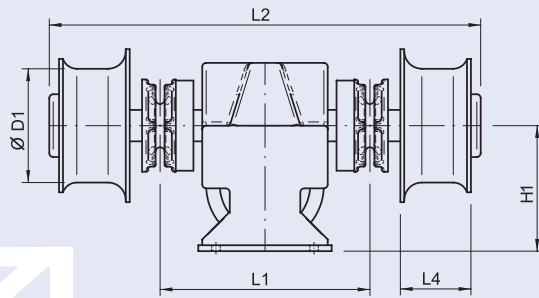
- 440 VAC / 3 phase / 60 Hz motors at no additional costs
- Double executions possible for W 120 up to W 600 (see drawings)
- Alternative supply voltages
- Full manual control by means of hand wheel
- Horizontal warping head configuration

- Remotely controlled band brakes
- Classification certificate from any recognized marine classification society
- Special marine / offshore coating systems

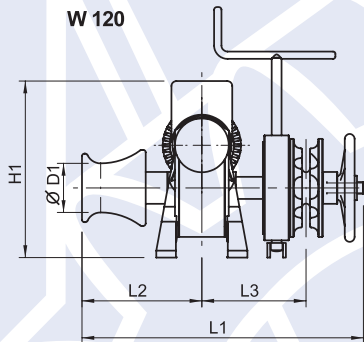
Available control options:

- Control box IP 55 with IP 65 pendant remote control or push-buttons built acc. to NEN 1010
- Proportional local or remote control valve

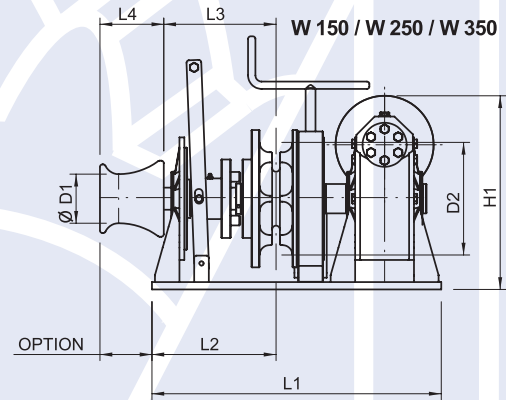
Winch type	Chain pull kg.	Chain size din	Chain size stud	Speed m/min.	Bandbrake holding force kg.	Motor power 400 VAC kW	Pressure drop in bar	Flow in l/min.
W 120 E	400	10		10	1200	1,1		
W 150 E	600	10-13	12,5	10	1500	1,8		
W 250 E	750	13-16	12,5	10	2500	2,2		
W 350 E	1200	16	12,5	10	3500	4		
W 400 E	1200	13-16	12,5	10	4000	4		
W 600 E	2400	16-18	16	10	6000	7,5		
PW 1000 E	4000	18-20	17,5-19	10	10000	11		
PW 1600 E	6000	20-22	19-24	10	16000	18,5		
W 120 H	400	10		10	1200		120	20
W 150 H	600	10-13	12,5	10	1500		140	20
W 250 H	750	13-16	12,5	10	2500		100	30
W 350 H	1200	16	12,5	10	3500		120	40
W 400 H	1200	13-16	12,5	10	4000		140	50
W 600 H	2400	16-18	16	10	6000		140	75
P 1000 H	4000	18-20	17,5-19	10	10000		175	50
P 1600 H	6000	20-22	19-24	10	16000		140	75
W 1500 E	1500	16	16	10	4500	5,5		
W 3400 E	3400	18-22	18-22	10	10000	11		
W 5600 E	5600	26-28	26-28	10	16000	18,5		
W 1500 H	1500	16	16	10	4500		70	55
W 3400 H	3400	18-22	18-22	10	10000		105	65
W 5600 H	5600	26-28	26-28	10	16000		135	65



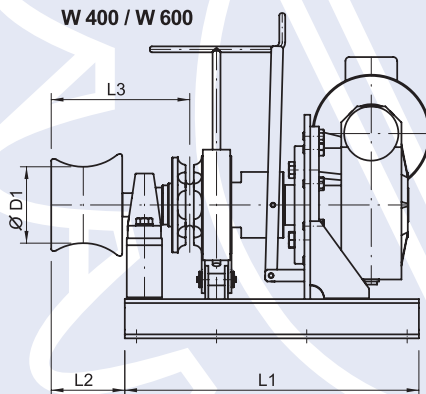
W 1500 / W 3400 / W 5600



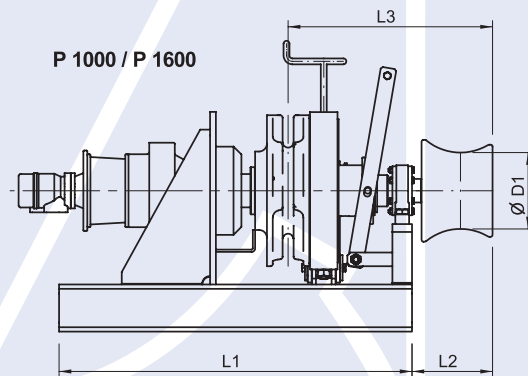
W 120



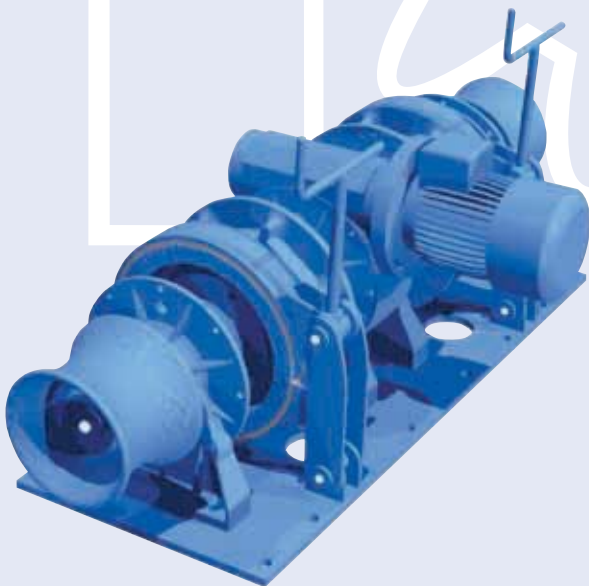
W 150 / W 250 / W 350



W 400 / W 600



P 1000 / P 1600



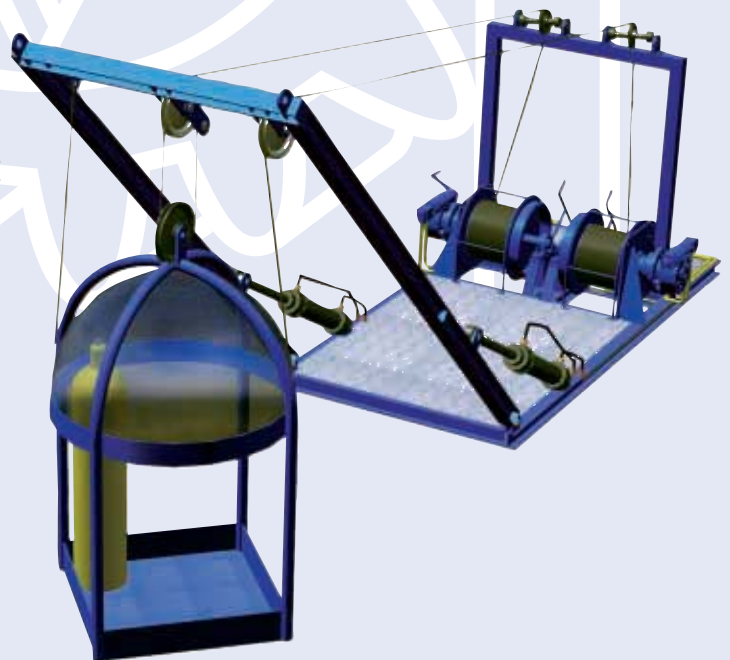
Type	Mass (kg)	D1	D2	L1	L2	L3	L4	H1
W 120	63	100	180	590	255	245	130	295
W 150	140	100	180	590	250	245	130	295
W 250	170	140	190	650	290	280	130	340
W 350	260	195	255	700	305	295	181	385
W 400	240	195	-	700	180	440	-	-
W 600	500	195	-	750	180	460	-	-
P 1000	360	280	-	1300	210	560	-	-
P 1600	500	280	-	1500	210	600	-	-
W 1500	400	200	-	450	850	-	130	250
W 3400	650	290	-	535	1100	-	180	320
W 5600	1100	290	-	660	1270	-	180	395

This system is used for diving with a wet bell to a maximum depth of 70 meters. It consists of an A-frame and 3 winches built in a 20" container which can be placed and secured on the deck near the side of a ship or near the moonpool. One winch is used to lift and lower the dive bell, the other for the clump weight, a third winch is used as an utility winch. The function of the clump weight is to keep the dive bell straight and steady under water. In case of an emergency or breakdown of one of the winches both (bell winch as well as the clump weight winch) are able to lift the dive bell and clump weight together. Designed to fulfil with the requirements of Lloyds and meets UK HSE regulations for personnel lifting operations on offshore installations. The winches and A-frame are dedicated for personnel lifting suitable for diving operations and offered with Lloyds Register of Shipping (LRS) Design Appraisal Certificate and full material trace ability. They have passed the EC testing for these applications, i.e., both the winches and their technical files are in compliance with the requirements of the EC Machinery Directives.

The DAW-1500 is available for sale or lease.

Standard features:

- Compact units with minimal deck space usage
- Easily rigged and set up
- Main diving bell winch WLL 1800 kg @ 23 m/min with fleet angle compensator
- Clump weight winch WLL 1800 kg @ 23 m/min with ton
- Lifting height (lowering depth) 100 meter max. on 2 parts
- Utility winch 1000 kg @ 25 m/min
- Exd electric driven hydraulic power unit with under ATEX classification
- Power supply 380-460 VAC, 50/60 Hz
- Hydraulic cylinders for deploying the A-frame
- Readout unit of paid out wire rope
- 4 hydraulic proportional valves for winch and A-frame operation
- Operating conditions -20°C through 50°C
- Full material trace-ability (3.1b - EN 10204) on load bearing parts
- Diving winches with emergency recovery facility to fit a crank or air driven tool
- Easy transportation because of standard 20" container size
- Fitted with twist free wire ropes with high safety factors
- IMCA and Lloyds compliant
- Suitable for acrylic or standard open basket wet bells (not standard included)



Winch inquiry checklist

In order providing you with the most suitable and competitive offer for our products we need to know the following basic information, the bold printed information is minimal required to provide an offer.

Company name : _____
Personal name : _____
Fax/tel/e-mail : _____
 Latest bid date for offer : _____
 Required delivery time : week _____ 200 _____

Short description of application : _____
 Sketch of application available : no / yes find enclosed
 No. of winches : _____
 Type (if known) : _____

Application : **lifting / pulling / traversing / traction /
 pile driving / anchoring / mooring**

Working Load Limit (W.L.L. /S.W.L.) : _____ kg or daN _____ in 1st layer,
 _____ in top layer

Speed : _____ m/min in _____ layer, fixed /
variable / 2-speed; _____ / _____ m/min.

Rope diameter : _____ mm

Rope length : _____ m in max. _____ layers

Drum dimensions (if known) : core diameter _____ mm, length _____ mm,
 flange diameter _____ mm

Drum finishing : smooth / helical grooved / grooved according to
 DIN / Lebus

Special drum features : 1 or _____ cable anchors / drum divider flange /
 cable kicker

Environmental conditions : Ambient temp. - _____ °C. / + _____ °C,
 Hazardous zone, _____
 Hostile, details; _____

Duty : continuous / intermittent; _____ times per day /
 week / month

Supply : **electric** ; _____ VAC / _____ phase /
 _____ Hz.
electric ; _____ VDC
hydraulic ; _____ l/min @ _____ bar
pneumatic ; _____ l/sec. @ _____ bar

Brakemotor required : yes / no

Required electric motor

IP classification : IP 54 / 55 / 56 TENV / IP 56 TEFC / 68 TENV

Special electric motor features : PTC / tropicalization / brakelifter / handcrank /
 encoder / heater

Winch options : clutch ; yes / no, remotely operated yes / no
 band brake ; yes / no, automatic yes / no,
 holding force _____ kg
 pressure roller ; no / yes, steel / stainless steel / nylon
 drum guard ; yes / no
 spooling gear ; yes / no
 emergency cranking ; yes / no

Controls electric : Local panel with pushbuttons yes / no
 Local panel with pushbuttons and line pull limiter yes / no
 Pendant remote control yes / no
 Pendant remote control and line pull limiter yes / no
 Foot pedal control for capstan (1 direction -
 1 speed) yes / no
 Foot pedal control (2 directions – 2 speed/variable) yes / no
 Panel mounted onto winch frame yes / no
 Protection class panel IP 55 / IP 65 / IP _____
 Spindle limit switch 2 / 4 / more _____ contacts yes / no
 Space heater (_____ VAC / _____ Hz) yes / no
 Frequency inverter for variable speed control yes / no
 Constant tensioning yes / no

Controls pneumatic : On winch (joystick type valve); fixed/proportionally yes / no
 Pilot valve on winch only yes / no
 Remote pendant with pilot emerg. stop,
 length _____ m yes / no
 Rem. pendant with main emergency. stop,
 length _____ m yes / no
 Remote panel mount joystick yes / no

Controls hydraulic : On winch; fixed speed / proportionally yes / no
 Remote pilot / solenoid yes / no
 Other _____

Finishing, system : Makers std. (1 comp.) / Marine paint syst. / Special _____
 Finishing, colour : Makers std. BS 20 (Medium Blue) / RAL _____ / _____

Overall dimensions limited to : _____ x _____ x _____ mm. (L x W x H)

Classification : LRS / BV / GL / ABS / ABS + CDS / DNV / TUV / _____
 Special documenta-
 tion requirements : no / yes; _____

Other requirements : _____

Portable air winches MLV 500 and MLV 1000

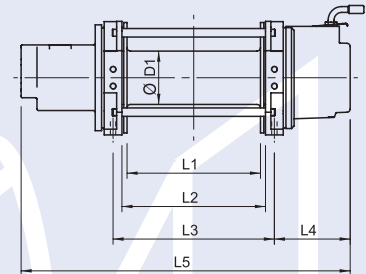
The MLV Series is developed for rigging and temporary installation purposes where minimum size and easy mounting is essential. These compact lightweight winches are suitable for both lifting and pulling applications according to DIN-15020 1C-M.

Features:

- Lightweight
- Rotary vane motor
- Automatic friction brake with detent and locking plate
- Disengaging clutch
- Fail safe lever control

Options:

- Pendant remote control
- Marine / offshore coating systems



MLV 500 / MLV 1000

Winch type	W.L.L. pulling kg.	W.L.L. lifting kg.	Rope diam. mm.	Speed full load m/min.	Drum cap. m.	Air pressure bar.	Air flow l/sec.	Mass kg.
MLV 500	600	325	5	6	60	6	43	28
MLV 1000	1000	1000	8	7	50	6	70	54

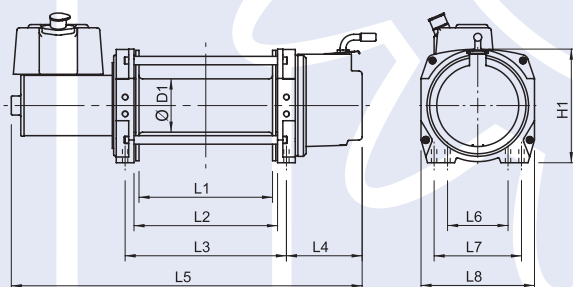
Industrial electric vehicle winches ME/MDC Series

The ME Series is developed to use for single phase 220 VAC application where a very light and compact winch is required. The mechanical drive consists of a

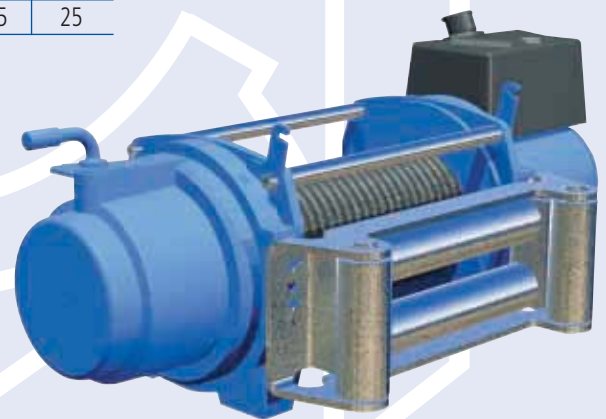
robust automatic brake and a 3 stage epicyclic gearbox with high efficiency. For 12/24 VDC applications the MDC series must be selected.

The mechanical drive consists of a permanent magnet motor. The control and relay unit are included within the winch. Both types are consistent with DIN 15020 2-M norms for hoists. This range consists of a wide variety of models which are not mentioned in this catalogue for more information please consult our sales department.

Winch type	W.L.L. kg.	Rope diam. mm.	Speed m/min.	Drumcap. m.	Power VOLT	Current A.	Mass kg.
ME 375	375	5	7	24	220 VAC	5,3	30
ME 500	500	6	8	30	220 VAC	8,2	34
MDC 200	200	4	8	25	12/24 VDC	88/44	12
MDC 375	375	5	5	24	12/24 VDC	110/55	18
MDC 500	500	6	4	30	12/24 VDC	110/55	25

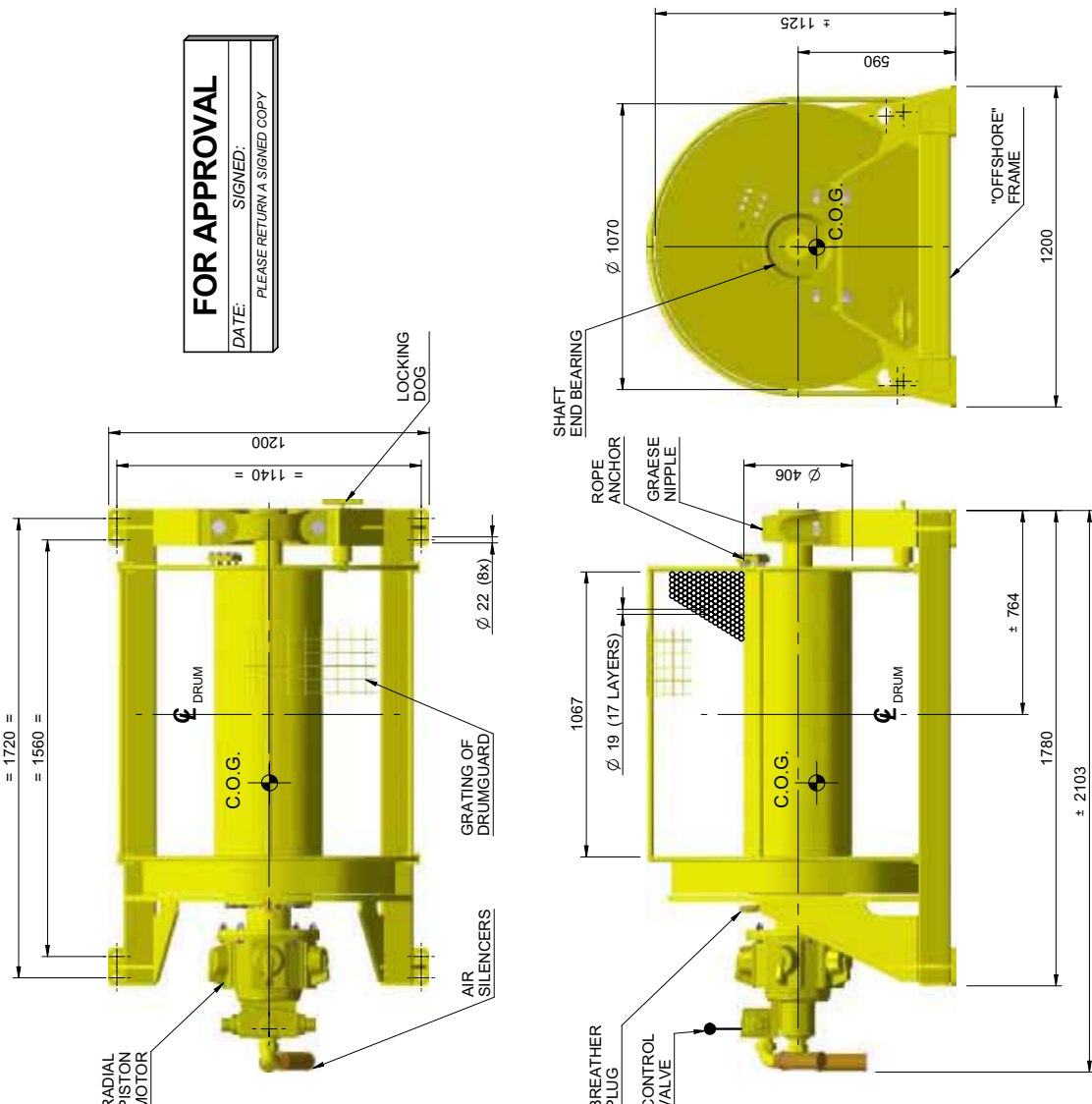
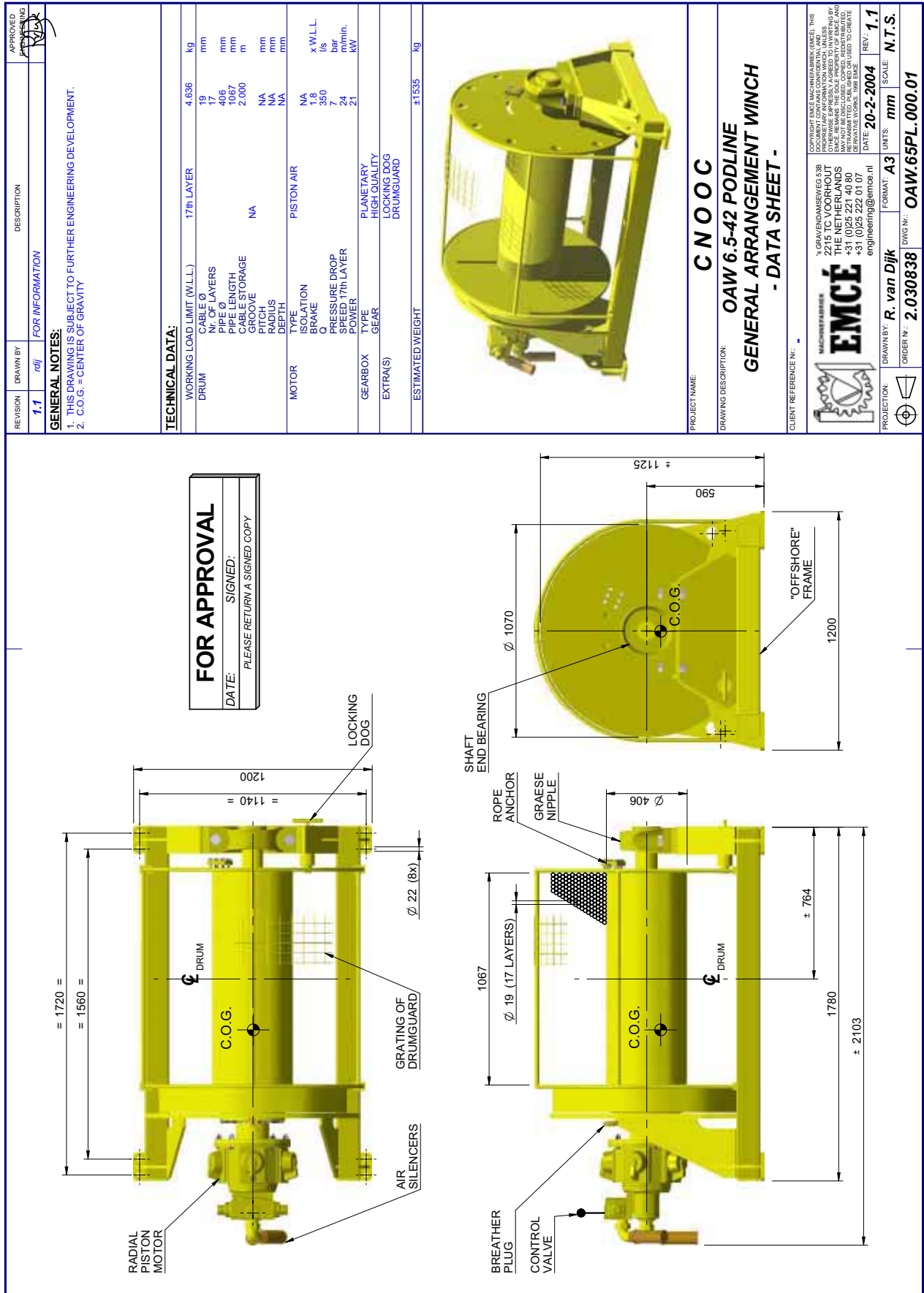


ME 375 / ME 500
MDC 200 / MDC 375 / MDC 500



TYPE	D1	L1	L2	L3	L4	L5	L6	L7	L8	H1
ME 375	102	115	124	152,4	117	520	114,3	-	160	163
ME 500	102	96	122	152,4	127	563	114,3	165,1	215	215
MDC 200	89	69	74	101,6	98	352	114,3	-	160	163
MDC 375	102	115	124	152,4	117	427	114,3	-	160	163
MDC 500	108	96	122	152,4	127	442	114,3	165,1	215	215
MLV 500	64	227	-	280	75	437	114,3	-	-	193
MLV 1000	102	253	-	304	142	650	114,3	-	-	245

Reference drawing



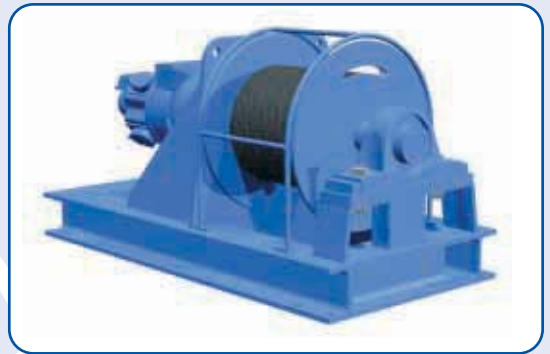
This is an example for the approval drawing of an OAW 6.5 PL - Podline winch designed and manufactured by EMCE for CNOOC.

References

Winches has been supplied to a variety of customers worldwide, some of them are highlighted as follows.



SB 317 EBG5
45 T ELECTRIC WINCH FOR
NUCLEAR PLANT WITH SPOOLING
GEAR - WALES UK



SB 301 LPR1
1 T AIR WINCH FOR JORDAN
PETROLEUM REFINERY CO.



SB 307/185 EVS
650 KG EEXD ELECTRIC MANRIDING
WINCH FOR POSCO STEELWORKS
GASHOLDER - POHANG KOREA



SB 315 HS
32 T HYDRAULIC WINCH WITH
SPOOLING GEAR FOR NATIONAL
IRANIAN OIL TANKER CO. - SAS



C 310 E
10 T ELECTRIC CAPSTAN FOR
ALLSEAS - TOG MOR (BARGE)



SB 315 HS
20 T HYDRAULIC WINCH COMPLEET
WITH POWERPACK FOR CSO
'DEEP BLUE' - HUISMAN ITREC

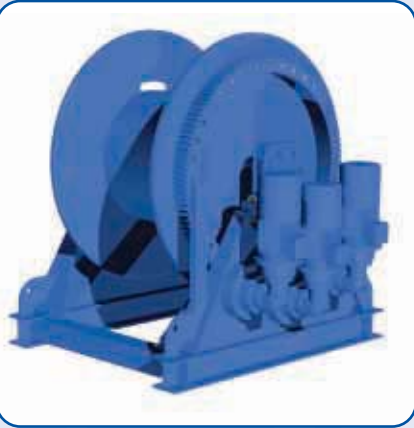


SB 310 ECT
12.5 TON CONSTAN TEN-
SION WINCH FOR CONOCO
PHILLIPS MAGNOLIA TLP
PROJECT



SB 311 EBC
15 T ELECTRIC WINCH
FOR PAKISTAN NAVY -
K. DAMEN SHIPYARDS

References



SR 60 E
60 TON SLIPWAY WINCH FOR BLRT
GROUP ESTONIA



MC 313 HBCS
20 T HYDRAULIC TOWING WINCH
FOR SWEDISH COASTGUARD



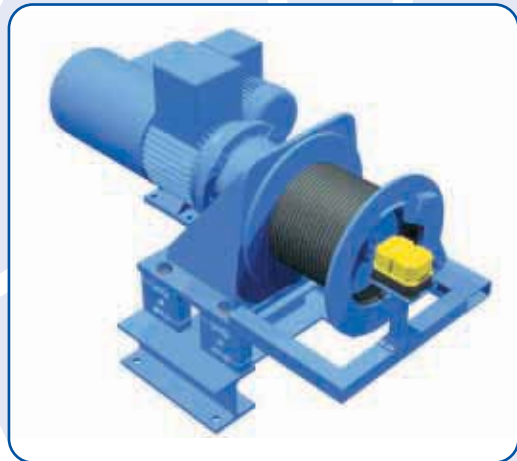
SB 309 LPR5
7 T AIR WINCH WITH BANDBRAKE
AND LOAD LIMITER FOR FRENCH
NUCLEAR PLANT



P 1000 H
1 T HYDRAULIC STAINLESS
STEEL WINDLASS FOR
STEALTH SHIP



SB 311 LPR6
13 T AIR WINCH WITH
HAULING DRUM AND
CLAW CLUTCH -
HYUNDAI KOREA



FD 305 EEXD
1500 KG EEXD ELECTRIC
WINCH FOR PHILLIPS
EKOFISK PLATFORM



SB310 HDG
10 T HYDRAULIC WINCH
FOR CASPIAN SEA
DRILLING RIG - OKIOC
DEUTAG



SB 309 HBGPS
6 T HYDRAULIC WINCH
WITH SPOOLING GEAR
FOR AP MÖLLER

Note: This is only a comprehensive summary of winches delivered out of the more than 30,000 supplied over the past 30 years. EMCE produces approximately 1300 custom built and 400 standard winches every year. A more detailed list can be obtained from our sales department.

Sales and service network

Eighty percent of EMCÉ's production is destined for the export market sold through a subsidiary company in Belgium and her world wide dealer network. Because of this network EMCÉ is in the position to offer her customers a professional and reliable service around the globe. EMCÉ is justly proud of the fact that many of its customers have been part of its international customer base for years and that increasing numbers of new

customers are also finding their way to the company. A solid base on which to build the future.

Please refer to backside cover for our world wide coverage.

To obtain the contact details of the local dealer please contact our export sales department.

General terms and conditions

All tenders and contracts for the performance of deliveries by us inside and outside the Netherlands are governed by the FME General Conditions for the sales and supply for mechanical and electrical industry of October 19th 1998 filed under reference nr. 119/1998 at the district court in The Hague.

Guarantee

EMCÉ warrants to the original user its winches to be free of defects in material and workmanship for a period of one year from the date of purchase. EMCÉ will repair, without cost, any product found to be defective, including parts and labour charges, or at its option, will replace such products or refund the purchase price less a reasonable allowance for depreciation, in exchange for the product.

If any product proves defective within its original one year warranty period, it should be returned to any authorized EMCÉ dealer,

transportation prepaid with proof of purchase or winch data sheet / test certificate.

This warranty does not apply to products which EMCÉ has determined to have been misused or abused, improperly maintained by the purchaser; or where the malfunction or defect can be attributed to the use of non-genuine EMCÉ parts.

EMCÉ makes no other warranty, and all implied warranties including any warranty of merchantability or fitness for a particular purpose are limited to the duration of the expressed warranty period as set forth above. EMCÉ's maximum liability is limited to the purchase price of the product and in no event shall EMCÉ be liable for any consequential, indirect, incidental, or special damages of any nature arising from the sale or use of the product, whether based on contract, tort, or otherwise.



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