





Company profile

HISTORY

EMCÉ originated in 1933, producing material handling lifts from a small manufacturing facility in Capelle. In the 1960's and 70's, it expanded its operations to deliver winch design and fabrication in line with a growing demand from local industry.

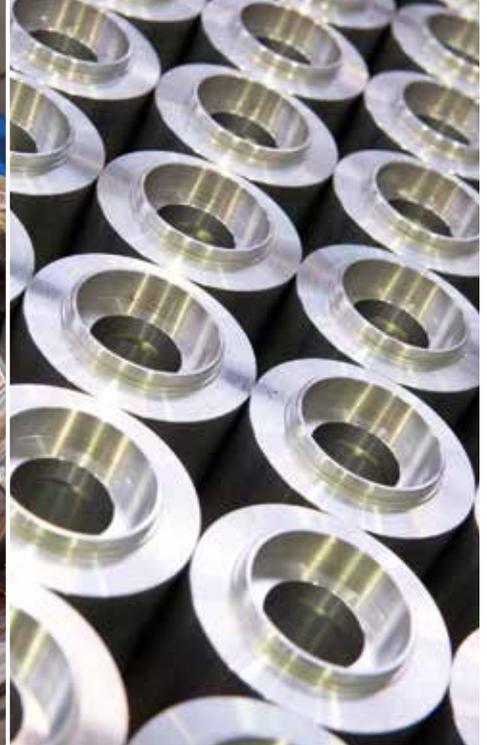
EMCÉ has traditionally provided winches and capstans of renowned quality and design to Dutch fishing, shipbuilding and civil engineering companies. However, as the offshore oil and gas industry expanded, EMCÉ's international dealership network expanded to service inquiries from across the world. Over time, EMCÉ has added

numerous hydraulic, pneumatic and bespoke solutions to its standard electric winch inventory, yet has never lost sight of its original vision to develop the simplest, most reliable equipment possible.

Today, about 75% of EMCÉ's orders are designed and built to suit the end-user's specific operating and performance parameters. Total in-house design, fabrication and testing insure that high quality products and services remain a hallmark of the company. Over 75 years of experience goes into the making of every EMCÉ winch – and we're proud of the fact.



EMCÉ is an ISO 9001:2008 Certified Company.



Company profile

EMCÉ provides high quality winches, capstans and hoisting equipment, together with services ranging from professional advice and design; through procurement, engineering and manufacture; to testing, delivery, installation and IRM.

Our mission is to exceed the quality, performance, durability and safety expectations of our customers, whether in shipbuilding, oil and gas, dredging, fishing, construction, mining, theatre or general industry.

We have identified ten key benefits to using EMCÉ:

1. **Quality**

We never compromise on quality, which underpins every element of our procurement and manufacturing process, workforce ethic, safety culture and customer service.

2. **Standards**

High standards govern the design and fabrication of every EMCÉ product, each which is certified and documented according to industry regulations, including Lloyds, DNV and ABS.

3. **Expertise**

Our 45 years of dedicated winch design and fabrication experience translates into genuine knowledge and understanding.

4. **Innovation**

We have pioneered winch design and construction based on simplicity, efficiency and reliability, creating low maintenance products that operate trouble-free for longer.

5. **Flexibility**

We create winches and capstans ranging from 100 kg to 100 tons with electric, hydraulic and pneumatic options and gear configurations to suit countless applications.

6. **Bespoke Solutions**

Our products are designed to meet your specific operating and performance conditions. Around three-quarters of our products are tailor-made.

7. **In-house Capability**

At EMCÉ, it's all under one roof - from the drawing office and administration, to the engineering and testing bays. This gives us

complete control of the quality and availability of resources, as well as the production process as a whole.

8. **Rapid Response**

EMCÉ responds quickly to new orders with rapid turnarounds even on complex projects. Naturally, our off-the-shelf catalogue offers even more immediate solutions on a daily basis.

9. **Location**

Headquartered close to Schiphol Airport and the port of Amsterdam, EMCÉ products are swiftly dispatched to all four corners of the world. Our international network of suppliers and service experts provides global support.

10. **Price**

Unit price is obviously important, but so too is reliability and the cost of maintenance. When it comes to product efficiency and the 'total cost of ownership', EMCÉ products leave others standing.



Product range

WINCHES

Our winches provide solutions for lifting, pulling, man-riding, mooring and anchoring. They range from 100 kg to 100 tons and are electrically, hydraulically or pneumatically driven - or equipped with a combination of these options. Alongside a comprehensive range of standard worm gear- and planetary-driven winches, we offer tailored solutions to suit any performance criteria and application. We also provide a complete design appraisal service and F.A.T.s for third parties, using our unique dynamic in-house test bed which is rated to 85 tons.

CAPSTANS

We provide rugged, self-contained worm gear or planetary capstan systems with electric, hydraulic or pneumatic transmission. The standard range runs to 15 tons and/or working head diameters up to 600mm and all capstans can be ATEX-rated, where required. The on-deck drive of worm gear capstans is equipped with a waterproof motor for intermittent

use, whilst the below-deck drive has a drip-waterproof motor, and a self-aligning mounting plate suitable for high static loads, such as those applied to mooring ropes.

Our planetary capstans feature a cast-iron capstan-head mounted onto a heavy-duty planetary gearbox. The whole drive is housed in a watertight tubular frame to provide optimal protection from the elements.

HOSE REELS

EMCÉ's hose reels - which range from 1 to 8 inches in diameter and up to 4 metres flange size - have applications both on and offshore, but are principally installed on heavy lift vessels, semi-sub, DSVs, research vessels, cable and pipe laying vessels and offshore pile-driving barges. They are usually built to order and spool hoses for fresh water, MDO fuel and hydraulic fluids, pneumatic hoses and electrical power supply cables. Our reels can be electrically, hydraulically or pneumatically driven and ATEX rated, where applicable.

PROJECTS

Over the last 30 years, EMCÉ has delivered more than 30,000 winches worldwide. But EMCÉ has also developed some of its products beyond the winch stage, for example in the creation of its proprietary Diving Launch and Recovery System - the DLR 1250 - which is used for offshore diving applications to 90 meters. Fully compliant with the requirements of EC Machinery Directives, IMCA regulations and with an ATEX certificate, the DLR-1250 is available for sale or lease.

SERVICE & REPAIR

Although we design and supply the highest quality products, regular maintenance can be critical to ensuring optimal performance, safety and regulatory compliance. Since nobody knows EMCÉ's winches better than EMCÉ itself, our specialist teams of trained experts are the best people to conduct in-house and on-site inspection, repair and maintenance work. Our supplier network also stocks the full complement of replacement parts for rapid repair, when required.



Applications/Markets/Customers

INSHORE APPLICATIONS

Theatres
 Construction
 Warehouses
 Overhead cranes
 Shipyards (slipways / shiplifts)
 Power / nuclear plants
 Mining industry
 Container cranes
 Research institutions
 Windmills
 High cranes / structures (manriding)
 Ferris wheels
 Factories
 Land rigs
 Steel industry
 Railways
 Hydro/electric plants
 Tunneling systems
 General industry

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 vessels
 Inland vessels (car cranes)

A FEW OF OUR CUSTOMERS*

Aceryg, Agip, Aramco, Awilco, Airbus Ind., Allseas, ALE Heavylift, APL, Arab Contractors, Bauer Maschinen, Bharat India, Bulwater, Bentec, BNFL BHEL, Bofors, Bosch-Rexroth, BSR Group, Certex, Claxton Int., CNOOC Conoco Phillips, CSO, Daewoo Heavy Ind., Damen, DePret, Dolphin Doppelmayer, Dubai Drydocks, Fugro Flexifrance, Grandweld, IHC-Dredgers Heerema, Huisman-Itrac, Herrnknecht Itag, Jurong Shipyard, Kobelco Japan, Keppel Fels, Keppel-Verolme, KCA Deutag, Lamprell, Maersk Apm, Mammoet, McDermott, M.I.S., Modec, National Oilwell, Noordhoek, Norsk Hydro, N.D.C., O.N.G.C., Pakistan Navy, Pohang Steel Korea, PPL Shipyard, Pride Int., Rolls-Royce, Saipem, Samsung, SBM Offshore, Seadrill, Shell, Statkraft, Statoil, Stena, Stolt Offshore, SeaTrucks, Subsea7, Smedvig, Swedish Coast Guard, Timsah, Technip, Transocean, Total Elf Fina, Unocal, Vantage, Vopak

* An updated reference list >
www.emce.nl/customers



Mooring winch SR25E

Remote control pedestal



About winches I

INTRODUCTION

With numerous possible configurations of winch, we thought a brief overview of their parameters, standards and selection criteria would prove useful.

WORKING LOAD LIMIT (WLL)

WLL usually applies to the first layer of cable and decreases with each additional cable layer. The line pull is expressed in kg or daN. It is important that the working length of the cable on the drum is determined, with three additional 'safety windings' remaining on the drum at all times.

CABLE SAFETY FACTOR

Depending on the classification group of the mechanism, the exact rope safety factor (breaking strength) for lifting winches can be chosen according to ISO 4308-1. A five-fold factor is normally applied to lifting applications; three-fold for pulling winches and an eight to ten-fold factor for personnel lifting.

SPEED

The required speed of winches varies according to their purpose. In some cases, a variable speed option is required, delivered via a proportional control valve for pneumatic or hydraulic winches. For electric winches, frequency inverters are a cost-effective solution with additional technical benefits.

POWER SOURCE

EMCÉ products accommodate a range of power supply options, including electric, hydraulic and pneumatic. Should your power source be other than the one stated in this catalogue, please consult EMCÉ and our Engineering Department will recalculate the winch based on your available supply.

OPERATING ENVIRONMENT

Our winches are built to withstand a variety of challenging environmental conditions, including standard operating temperatures of 0° - 40° C. However, where more exacting conditions apply, we can build mechanisms that extend these operating parameters to suit.

BRAKES

Every lifting winch requires a fail-safe braking system. Our standard electric and pneumatic worm gear winches are self-braking, which is fine for general lifting purposes. Brake motors can also be incorporated where necessary, or we can provide mechanisms without brakes.

CONTROLS

All available winch-related controls can be incorporated into EMCÉ's products. On electric motors, a range of additional controls are available alongside the normal push buttons, direct reversing switches and remote controls (pendant or radio-controlled). These include limit switches (to stop the winch when the drum is full or empty), an electronic line pull limiter, variable speed, slack and rope detection and constant tensioning, Eexd executions etc.



Hosereel SB307RE



Capstan C310E

About winches II

CLUTCHES

We generally use either friction or claw-type clutches, dependent on the requirement. Friction clutches can be operated under load, can compensate for differences in turning speeds between the drum and driveline and can be operated either manually or remotely. As such, they tend to be more complex and expensive than claw-type clutches which, by contrast, are simpler, more robust, dependable and inexpensive.

BAND BRAKES

Bank brakes are typically used for applications where a second brake is required, such as manriding or where the static load is a multiple of the dynamic WLL. They can be provided manually or fail-safe automatically by means of a hydraulic or pneumatic cylinder.

ELECTRIC REQUIREMENTS

Ordinarily, we work with protection class IP 54 (splash watertight and dust-proof) for motors and control boxes. Pendant remote controls are IP 65 protected. Motors can also be supplied with IP 56 TENV (totally enclosed and non-ventilated), for deck equipment in marine use. We provide explosion-proof winches and spark-free motors and control boxes for use in designated zones.

CABLE GUIDES

The distance between the drum and the sheave can be 20 times the length of a smooth drum and 15 times the length of a grooved drum. For large fleet angles, a cable spooling gear may be required. A grooved winch drum helps the cable spool correctly onto the drum, but so too does the application of a constant load, so pressure rollers are recommended to avoid slack in the cable.



PRESSURE ROLLER



DRUM GUARD



SPINDLE LIMIT SWITCH



GROOVED DRUM



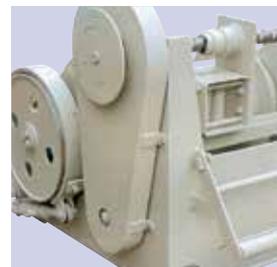
DRUM DIVIDER FLANGE



ENCODER + SPINDLE LIMIT SWITCH



CLAW CLUTCH



FRICTION CLUTCH

Winch options



SLACK WIRE SWITCH



PNEUMATIC SPINDLE LIMIT SWITCH



MANUAL BAND BRAKE



HYDRAULIC OPERATED BAND BRAKE



PENDANT REMOTE CONTROL



PNEUMATIC CONTROL VALVE



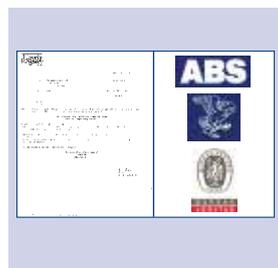
SPOOLING GEAR



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