



Lofrans'® 
W I N D L A S S E S
T H E O R I G I N A L W I N D L A S S

2014



Quality, Safety & Reliability
since **1966**



Lofrans was founded in 1966 in Monza and since the beginning has focused its attention on a single product range: the anchor windlass.

During this period of more than forty-five years, all human and technical resources have focused on a specific target, to design and create a product of the highest quality and performance.



One of first anchor windlasses
built in 1966



Lofrans' Now

The intensive research of new anchoring solutions having the ability to operate in the marine environment, has lead us to build up a strong relationship with a group of carefully selected suppliers, whose long term co-operation has helped us in the construction of the components for our anchor windlasses.

This synergy gave us the ability to produce top level products in terms of quality and performance. We have been rewarded by the market which considers us the leader of this product.



With the latest CATIA CAD software, our engineers are constantly developing ideas and innovative solutions with regards to product evolution. The integration of these designs to our CAM system ensures that the switch from a conceptual idea to the actual produced component is achieved in a flawless manner.

Being one of the most weatherbeaten and mechanically challenged equipment on the deck, a windlass could not stand anything else than premium materials. Our products utilize only specific marine materials, able to withstand marine corrosion and treated in such way so as to increase their mechanical strength.

At Lofrans, we believe that durability and performance start with an extremely stringent selection of components: only AISI 316 L stainless steel, marine grade metals and electric motors designed to deliver high torque in all conditions.

Most of our components are produced by hot pressing, a technology which guarantees minimal porosity in the metal and superior mechanical features.

The most exposed components are then chemically treated in order to slow down and minimize the process of marine corrosion.

Today our anchor windlasses and capstans are able to cover the needs for vessels with a length from 6 up to 50 meters, from a range consisting of more than 25 different models.

The production is carried out in our 5000 sqm factory in Monza, where our team of designers, technicians and qualified employees are located together with our finished stock and spare parts warehouse.

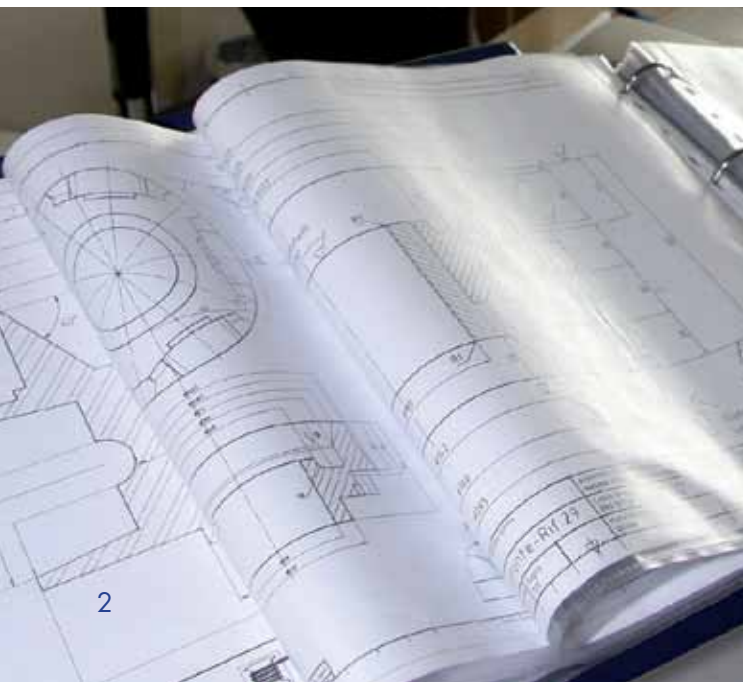
During the production process in our factory, we carry out several dimensional tests on components and final products by use of our 3D co-ordinate measuring machine, as well as marine corrosion tests in a special marine environment chamber, which simulates the harshest of marine environments.

Our products meet the requirements of the most important classification societies such as RINA, BV, DNV and several others.

An important part of the Lofrans' organization is the sales and the service, which are guaranteed through a worldwide network of more than forty official distributors in the most important marine markets.

The success of Lofrans products is testified by the fact that our products are installed as standard on vessels of the most important and well reputed OEMs globally.

Since the beginning of 2013, great amounts have been invested to ensure that longevity, evolution, quality and control are guaranteed for the further development of Lofrans'. Major investments included the installation of the SAP ERP, the installation of a WMS (Warehouse Management System) integrated with hand held scanner order picking, additional Product Quality Assurance systems and Distributor order automation via an in-house B2B ordering tool.



Why is it necessary to install an anchor windlass?

There are two main reasons: Safety and Utility. The anchor windlass on your vessel allows you to handle different anchoring situations, even the most critical, always under complete safety. Every anchoring operation will be extremely simple, fast and firm under your control. No more fear of failing to recover your anchor and every anchoring will be a pleasure. No more heavy and complicated operations. Installing an anchor windlass means making an investment on the safety of your crew and your vessel.

And what about a capstan?

Capstans are normally installed on the stern of the boat for mooring maneuvers. They are equally suitable for recreational boats, fishing and commercial vessels. One or two capstans -depending on boat size and displacement- are installed on the boat in conjunction with an anchor windlass. Capstans are monitored by a set of foot switches, leaving your hands free for rope handling. The range of Lofrans capstans is designed for boats from 6 to 45 m (18 to 150').

Why choose a Lofrans' anchor windlass?

The strong point of every successful manufacturer is the quality, the reliability and the support they provide for their products.

- Does the product work properly as was stated by the manufacturer?
- Is the product worth the price paid for it?
- Is the product still reliable after years of use?
- Is there a reliable after sales support organization, able to directly respond to end-user requests from anywhere around the world?

If the product is a Lofrans', the answer to these questions is definitely YES.

We do not say this by ourselves, but it is said by the thousands and thousands of our satisfied customers all over the world who chose our products, making Lofrans' today the most popular manufacturer of anchor windlasses.

This important result is more than anything a testimony of the quality of our product and the great reputation of the Lofrans' brand globally.





INNOVATION

WHY CHOOSE LOFRANS'

Designing and producing windlasses for more than 45 years has made us gain a lot of experience about our products. This knowledge and experience has been evolving constantly year after year. We fully understood that to give real quality to our product, we would need to take care of all the details as they would make the final difference in a product that is considered a market leader.

In Lofrans we look at the quality in two directions:

- The quality that comes from the perception of the product by the end user, which has pushed us to design and build an attractive product.
- The quality in terms of engineering reliability and performance, which lead us to conceive and create a product able to withstand the extreme marine conditions and yet would be simple to install, operate and maintain.

Always at the cutting edge of technique in electro-mechanics, Lofrans was often a pioneer and created solutions which have now become standard.

We were the first to introduce to the market products and solutions, such as the AUTOMATIC FREE FALL, the CONTROL BOX, and last but not least, the PROJECT versions of our X range, a last generation "PLUG&PLAY" anchor windlass, with a built-in solenoid motor and rich of other innovations, which have succeeded in merging technology and function to give the end user the maximum reliability and safety.

Using this configuration, the installation of the product was made faster, easier and the reliability of the chain-counter system greatly improved. This motor was initially installed on our Project 1000, which received the DAME award, and was then subsequently installed on models Project 1500 and Project 2000.

Our anchor windlass for vessels over 60 feet have a transmission made by planetary-worm screw gears, which is very compact in size but at the same time is able to reach high ratio, necessary for vessels of these dimensions.



All Lofrans' products are engineered, designed and built focusing on the marine environment. Our know-how, which comes from our huge 45 years experience, is placed at the customers' disposal.

We are able to propose and supply custom designed-and-built products which meet each customer's individual requirements. The quality of our products is also certified by their own long lasting reliable performance.



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GYPSIES



STANDARD EQUIPMENT:

Dual direction solenoid pack
Handle

Gypsy for chain
Instruction manual
Warranty

OPTIONAL EQUIPMENT:

Circuit breaker
Remote control panel UP/DOWN
Footswitch UP/DOWN
Chain counter wire or wireless
Hand held radio control
Extra deck clearance kit

X SERIES & PROJECT VERTICAL WINDLASSES

The X vertical windlass range series is designed to provide anchoring solutions for sail and motor boats from 18 to 100 feet. The X series is made up by the following models: X1, X2, X3, X3.5, X4 and X5 all available in standard version with drum and in low profile version. The Project versions have a built-in control box within the motor casing. All models are available in different motorization to meet any customers' requirements.

The X range, as standard, comes in mirror polished marine bronze produced by hot forging. For model X2 there is the INOX version in mirror polished AISI 316L stainless steel. Stainless steel is used to produce the top part of the windlass, being the most exposed on the vessel so that it can withstand marine corrosion.

INNOVATIVE SOLUTIONS

- Watertight stainless steel ball bearings in the base, in order to have maintenance-free top performance functionality.
- Clutch consisting of two conical discs, fitted on to the main shaft by two flat parallel planes on the shaft, thus avoiding the use of keys and spreading the load on a wider surface.
- The X series as standard is provided with a pre-fitted sensor in the base and a magnet in the Gypsy, in order to be connected to an optional chain counter system.
- Models X1, X2 and X3 have a Gypsy designed to manage both rope and chain
- Independent drum rotation from Gypsy, for warping operation.
- Manual override, enabling the windlass to recover the chain and anchor in the event of electrical failure. The manual override mechanism is within the gearbox, made up by a spring loaded ratchet, whose secondary function is to provide a safety mechanism so that chain jams do not damage the deck.

VERTICAL		20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150
X1	500W																											
	700W																											
X2	700W																											
	1000W																											
X3	1500W																											
	1700W																											
X3,5	1700W																											
	2300W																											
X4	2700W																											
	2300W																											
X5	2200W																											
	2700W																											
X5	3600W																											
	8CC																											
X5	3000W																											
	3000W																											
Project 1000																												
Project 1500																												
Project 2000																												



Heavy Light

X1 - Vertical Windlasses



3
YEARS OF
WARRANTY

Construction	Aluminium	Chromed bronze		
Motor size	500 W	500 W	700 W	1000 W
Power Supply (V)	12	12	12	12
Maximum Linea Load (kg)	630	630	700	900
Maximum Lift Load (kg)	345	345	380	425
Lift working load (kg)	95	95	100	125
Amps Work Load (A)	60	60	110	120
Line Speed (m/min)	23	23	25	20
Max Line Speed (m/min)	26	26	28	30
Net Weight Low Profile (kg)	10	11	13	16
Net Weight with Drum (kg)	11	12	14	17
Control Box	Included in package			

X1			Code	Code	Code	Code
Low profile	6 mm, ISO 4565 / DIN 766	10-12 mm, 3-strand	409557	472880	473217	*
	8 mm, ISO 4565 / DIN 766	12 mm, 3-strand	*	187269	473002	600093
With drum	6 mm, ISO 4565 / DIN 766	10-12 mm, 3-strand	409558	472881	473207	*
	8 mm, ISO 4565 / DIN 766	12 mm, 3-strand	*	187270	473003	600092

*Non-standard configuration optional gypsies are supply separately. Please refer to compatible gypsies table below.

Compatible Gypsies

Code	Gypsy Size
630970	6 mm, ISO 4565 / DIN 766
630980	7 mm, ISO 4565
630999	8 mm, ISO 4565 / DIN 766



Maintenance Kit for X1

Code....**72037**



KEEP YOUR LOFRANS' AS GOOD AS NEW!

Main features

- Luxury chrome bronze base and drum
- With drum or without drum
- Independent Gypsy and drum operation
- Rope and chain combination Gypsy
- Manual chain release
- Rope chain management by the spring load arm
- Chain counter pre-setting as standard
- Heavy duty rated IP67 electric motor
- Anodised marine aluminium gearbox

Please refer to accessories section for control and installation products (see pages 31-37)

X2 & PROJECT 1000 - Vertical Windlasses



X2									
Construction	316 L Stainless Steel		Aluminium				Chromed bronze		
Motor size	1000 W	700W	1000 W	1500 W	700W	1000 W	700W	1000 W	
Power Supply (V)	12	12	12	24	12	24	12	12	24
Maximum Linea Load (kg)	1000	850	1000	1060	1200	1270	850	1000	1060
Maximum Lift Load (kg)	500	460	500	530	600	635	460	500	530
Lift working load (kg)	150	115	150	160	165	175	115	150	160
Amps Work Load (A)	117	110	117	59	130	65	110	117	59
Line Speed (m/min)	25	19	17	25	16	16	30	25	25
Max Line Speed (m/min)	45	25	23	45	28	28	35	45	45
Net Weight Low Profile (kg)	23	18	19	23	24	24	21	23	23
Net Weight with Drum (kg)	24	19	20	24	25	25	23	24	24
Control Box	Included in package								

X2			Code	Code	Code	Code	Code	Code	Code	Code	Code
Low profile	6 mm, ISO 4565 / DIN 766	-	*	600045	600050	*	*	*	600047	600989	*
	8 mm, ISO 4565 / DIN 766	14 mm, 3-strand	187283	472558	472557	*	*	601065	472861	473213	600054
	10 mm, DIN 766	-	*	*	*	*	601055	601067	*	602097	473226
	10 mm, ISO 4565	-	*	*	57450	*	601054	601066	*	472864	478642
With drum	6 mm, ISO 4565 / DIN 766	-	*	600044	600049	*	*	*	600046	600997	*
	8 mm, ISO 4565 / DIN 766	14 mm, 3-strand	187284	472735	472751	472750	600057	600061	472862	473212	473255
	10 mm, DIN 766	-	*	*	*	*	*	601068	*	602096	473227
	10 mm, ISO 4565	-	*	*	600053	*	600056	600060	*	472863	*

*Non-standard configuration optional gypsies are supply separately. Please refer to compatible gypsies table in next page.

Main features



- Luxury chrome bronze base and drum
- Luxury stainless steel base and drum (Plus version)
- Special watertight stainless steel ball bearing in the base
- With drum or without drum
- Independent Gypsy and drum operation
- Rope and chain combination Gypsy
- Manual chain release
- Manual override
- Rope chain management by the spring load arm
- Chain counter pre-setting as standard
- Heavy duty rated IP67 electric motor (X2)
- Heavy duty two speed built in solenoids rated IP67 electric motor (PROJECT 1000)
- Anodised marine aluminium gearbox



3
YEARS OF
WARRANTY

PROJECT 1000

Construction	Chromed bronze	
Motor size	1000 W	
Power Supply (V)	12	24
Maximum Linea Load (kg)	1000	1060
Maximum Lift Load (kg)	500	530
Lift working load (kg)	150	160
Amps Work Load (A)	130	65
Line Speed (m/min)	25	25
Max Line Speed (m/min)	50	50
Net Weight Low Profile (kg)	22	22
Net Weight with Drum (kg)	24	24
Control Box	Build in	

PROJECT 1000			Code	Code
Low profile	8 mm, ISO 4565 / DIN 766	14 mm, 3-strand	220153	*
	10 mm, DIN 766	-	602093	473280
	10 mm, ISO 4565	-	471022	*
With drum	8 mm, ISO 4565 / DIN 766	14 mm, 3-strand	220159	478645
	10 mm, DIN 766	-	602092	471023
	10 mm, ISO 4565	-	428419	*



Compatible Gypsies

Code	Gypsy Size
630953	6 mm, ISO 4565 / DIN 766
630949	8 mm, ISO 4565 / DIN 766
630951	10mm, ISO 4565
630955	10mm, / DIN 766

**KEEP YOUR LOFRANS'
AS GOOD AS NEW!**



Maintenance Kit
for X2 & Project 1000
Code....72038



Maintenance Kit
for X2 ALU
Code....72039



X3 & PROJECT 1500 - Vertical Windlasses



3
YEARS OF
WARRANTY



Construction			X3				PROJECT 1500	
			Aluminium	Chromed bronze			Chromed bronze	
Motor size			1700W	1500W	1700 W		1500 W	
Power Supply (V)			12	12	12	24	12	24
Maximum Linea Load (kg)			1600	1200	1600	1695	1600	1695
Maximum Lift Load (kg)			800	600	800	850	800	850
Lift working load (kg)			200	165	200	215	200	215
Amps Work Load (A)			135	130	135	68	135	68
Line Speed (m/min)			15	15	15	15	16	16
Max Line Speed (m/min)			32	35	32	32	32	32
Net Weight Low Profile (kg)				32	35	35	36	36
Net Weight with Drum (kg)				35	38	38	39	39
Control Box			Included in package				Build in	

			Code	Code	Code	Code	Code	Code
Low profile	8 mm, ISO 4565 / DIN 766	14 mm, 3-strand	601128	601070	600065	*	187311	600591
	10 mm, DIN 766	16 mm, 3-strand	*	*	602102	602104	602095	602090
	10 mm, ISO 4565	16 mm, 3-strand	601129	472866	473209	473256	472401	187313
	12 mm, ISO 4565 / 13mm, DIN 766	18 mm, 3-strand	*	601075	472842	473006	474003	187315
With drum	8 mm, ISO 4565 / DIN 766	14 mm, 3-strand	57451	601079	600064	600068	187312	600593
	10 mm, DIN 766	16 mm, 3-strand	57452	*	602101	602103	602094	602091
	10 mm, ISO 4565	16 mm, 3-strand	*	472865	473208	473252	472400	187314
	12 mm, ISO 4565 / 13mm, DIN 766	18 mm, 3-strand	57453	601084	473004	473005	600588	187316

*Non-standard configuration optional gypsies are supply separately. Please refer to compatible gypsies table below.

Main features

- Luxury chrome bronze base and drum
- Luxury stainless steel base and drum (Plus version)
- Special watertight stainless steel ball bearing in the base
- With drum or without drum
- Independent Gypsy and drum operation
- Rope and chain combination Gypsy
- Manual chain release
- Manual override
- Rope chain management by the spring load arm
- Chain counter pre-setting as standard
- Heavy duty rated IP66 electric motor (X3)
- Heavy duty two speed built in solenoids rated IP66 electric motor (PROJECT 1500)
- Anodised marine aluminium gearbox



Compatible Gypsies

Code	Gypsy Size
630957	8 mm, ISO 4565 / DIN 766
630966	10mm, / DIN 766
630959	10mm, ISO 4565
630961	12mm, ISO 4565



Maintenance Kit
for X3, X3ALU & Project 1500

Code....72040


Please refer to accessories section for control and installation products (see pages 31-37)



X3.5 - Vertical Windlasses

3
YEARS OF
WARRANTY

Construction	316 L Stainless Steel			
Motor size	1700 W		2300 W	2700W
Power Supply (V)	12	24	24	24
Maximum Line Load (kg)	1700	1750	2000	2400
Maximum Lift Load (kg)	850	815	1000	1200
Lift working load (kg)	215	220	265	320
Amps Work Load (A)	135	68	110	125
Line Speed (m/min)	15	15	18	18
Max Line Speed (m/min)	32	32	30	32
Net Weight with Drum (kg)	50	50	60	60
Control Box	Included in package			

X3,5		Code	Code	Code	Code
With drum	10 mm, ISO 4565	600084	600085	*	*
	12 mm, ISO 4565	600086	600087	600088	*
	14 mm	*	*	*	600090

*Non-standard configuration optional gypsies are supply separately. Please refer to compatible gypsies table below.

Main features

- Luxury stainless steel base and drum
- With drum or without drum
- Independent Gypsy and drum operation
- Manual chain release
- Manual override
- Chain counter pre-setting as standard
- Heavy duty rated IP44 electric motor
- Anodised marine aluminium gearbox



Compatible Gypsies



Code	Gypsy Size
630996	8 mm, ISO 4565 / DIN 766
631022	10mm, ISO 4565
631132	10mm, / DIN 766
631031	12mm, ISO 4565
631059	14mm
631033	1/2" BBB
631036	1/2" G40

Please refer to accessories section for control and installation products (see pages 31-37)

X4 & PROJECT2000 - Vertical Windlasses



Construction	X4			PROJECT 2000
	Chromed bronze			Chromed bronze
Motor size	2300 W	2700W	Hydraulic - 8cc	2000 W
Power Supply (V)	24	24	-	24
Maximum Linea Load (kg)	2000	2400	2500	2000
Maximum Lift Load (kg)	1000	1200	1250	1000
Lift working load (kg)	545	650	680	545
Amps Work Load (A)	190	200	-	190
Line Speed (m/min)	12	15	16	12
Max Line Speed (m/min)	27	29	16	27
Net Weight Low Profile (kg)	72	75	45	76
Net Weight with Drum (kg)	82	85	55	86
Hydraulic Pressure (bar)	-	-	200	-
Hydraulic Flow (lt/min)	-	-	32	-
Control Box	Included in package			Build in

X4		Type**	Code	Code	Code	PROJECT 2000		Code
Low profile	12 mm, ISO 4565	ccw	601142	601159	*	Low profile	10 mm, DIN 766	600599
With drum	10 mm, ISO 4565	cw	600073	*	*		10 mm, ISO 4565	600598
	12 mm, ISO 4565	cw	473007	600075	602361		12 mm, DIN 766	472748
	14 mm	cw	*	472849	602362			
	12 mm, ISO 4565	ccw	600074	*	602363	12 mm, DIN 766		
	14 mm	ccw	*	*	602364	With drum	14 mm	473010

*Non-standard configuration optional gypsies are supply separately. Please refer to compatible gypsies table below.

Main features

- Luxury chrome bronze base and drum
- Special watertight stainless steel ball bearing in the base
- With drum or without drum
- Indepent Gypsy and drum operation
- Manual chain release
- Manual override
- Chain counter pre-setting as standard
- Heavy duty rated IP44 electric motor (X4)
- Heavy duty two speed built in solenoids rated IP67 electric motor (PROJECT 2000)
- Anodised marine aluminium gearbox

** cw: the windlass pulls clockwise
ccw: the windlass pulls counter clockwise

Kits

Code	Description
474013	KIT A - Seals
474012	KIT B - Screws
474011	KIT C - Pins
474010	KIT D - Circlips

Compatible Gypsies

Code	Gypsy Size
630996	8 mm, ISO 4565 / DIN 766
631022	10mm, ISO 4565
631132	10mm, / DIN 766
631031	12mm, ISO 4565 / 13mm, DIN 766
631059	14mm
631033	1/2" BBB
631036	1/2" G40



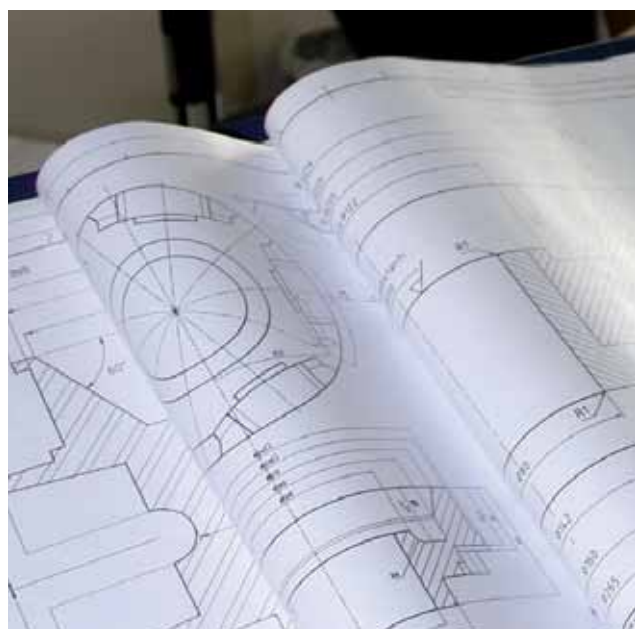
Please refer to accessories section for control and installation products (see pages 31-37)




X5 - Vertical Windlasses

3
YEARS OF
WARRANTY

Construction	316 L Stainless Steel	
Motor size	3000 W	Hydraulic
Power Supply (V)	24	-
Maximum Linea Load (kg)	2800	2500
Maximum Lift Load (kg)	1400	1250
Lift working load (kg)	760	680
Amps Work Load (A)	250	-
Line Speed (m/min)	12	16
Max Line Speed (m/min)	30	16
Net Weight with Drum (kg)	100	55
Hydraulic Pressure (bar)	-	200
Hydraulic Flow (lt/min)	-	32
Control Box	Included in package	



X5		Code	Code
With drum	12 mm, ISO 4565	600089	602389
	14 mm	600091	602390

Main features

- Luxury stainless steel base and drum (Plus version)
- With drum or without drum
- Independent Gypsy and drum operation
- Manual chain release
- Manual override
- Chain counter pre-setting as standard
- Heavy duty rated IP44 electric motor
- Anodised marine aluminium gearbox



Compatible Gypsies

Code	Gypsy Size
631039	12mm, ISO 4565 / 13mm, DIN 766
631065	14mm

Please refer to accessories section for control and installation products (see pages 31-37)



ERCOLE VERTICAL

VERTICAL WINDLASSES

This range of anchor windlasses has been designed to meet requirements of vessels with a length over 24 meters.

These boats require well-designed professional equipment, with a high mechanical performance and a high level of reliability.

The windlass is constructed using AISI 316L stainless steel, with a gearbox design giving it a performance, in terms of maximum pull and speed, that makes this model a reference point in its category.

Lofrans' has achieved an excellent reputation for these specific anchor windlasses, which are installed on the most prestigious maxi-yachts throughout the world.

Main features are:

- Under-deck compact dimensions.
- Construction in mirror polished AISI 316L stainless steel.
- High torque latest generation electric motor able to provide the power needed in all marine conditions.
- Band brake to assist in chain control, thanks to an easy-to-manage large hand-wheel.
- Special high-grip drum with independent rotation from the Gypsy, for warping function.
- Manual override to recover the chain and anchor in case of electrical failure.
- Internal ratchet to prevent chain jams into the chain cocker which could damage the deck.
- Chain counter support integrated by the sensor inserted in the base and the magnet in the Gypsy.
- Available also in counter clockwise rotation.
- High efficiency Lofrans planetary - worm screw gearbox made in anodized black aluminium with gears made in high mechanical strength material.
- Power: DC, AC and hydraulic
- Available in custom versions.

Please contact us for additional detailed documentation.



		20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150
Ercole Verticale	3500W															Heavy	Heavy	Heavy	Heavy	Heavy	Light							
	4000W															Heavy	Heavy	Heavy	Heavy	Heavy	Heavy	Light						
	5000W																Heavy	Heavy	Heavy	Heavy	Heavy	Heavy	Light					
	5500W																	Heavy	Heavy	Heavy	Heavy	Heavy	Heavy	Light				
	11CC																	Heavy	Heavy	Heavy	Heavy	Heavy	Heavy	Light				

Heavy

Light

ERCOLE VERTICAL

Vertical Windlasses


3
YEARS OF
WARRANTY



Main features

- Luxury stainless steel base and drum (Plus version)
- With drum or without drum
- Independent Gypsy and drum operation
- Manual chain release
- Manual override
- Chain counter pre-setting as standard
- Heavy duty rated IP44 electric motor
- Anodised marine aluminium gearbox

Construction	316 L Stainless Steel			
Motor size	3500 W	4000 W	5500 W	Hydraulic - 11cc
Power Supply (V)	24	400	400	-
Maximum Line Load (kg)	4500	2200	6500	6500
Maximum Lift Load (kg)	2250	1100	3250	3250
Lift working load (kg)	705	565	1550	1550
Amps Work Load (A)	120	-	-	-
Line Speed (m/min)	8	16	12	12
Max Line Speed (m/min)	15	16	12	12
Net Weight with Drum (kg)	180	80	198	160
Hydraulic Pressure (bar)	-	-	-	200
Hydraulic Flow (lt/min)	-	-	-	40
Control Box	Included in package			

ERCOLE VERTECALE		Type	Code	Code	Code	Code
With drum	14 mm	cw	600080	600082	*	602523
	16 mm	cw	*	*	600409	602525
	14 mm	ccw	600081	600083	*	602524
	16 mm	ccw	*	*	600408	602526

*Non-standard configuration optional gypsies are supply separately. Please refer to compatible gypsies table below.



Compatible Gypsies

Code	Gypsy Size
631019	10mm, ISO 4565
631039	12mm, ISO 4565 / 13mm, DIN 766
631065	14mm
631085	13mm. / DIN 764

Code	Gypsy Size
631082	16mm
631088	16mm, / DIN 766
631101	18mm
631095	18mm, / DIN 766
631113	20mm
630989	14,5mm, UNI4417
631068	14 STUD LINK
631092	16 STUD LINK
631098	17,5 STUD LINK
631053	1/2" STUD LINK
631056	13 ITALMET

Kits

Code	Description
418428	KIT A - Seals
418475	KIT B - Screws
418499	KIT C - Pins
418556	KIT D - Circlips

** cw: the windlass pulls clockwise
ccw: the windlass pulls counter clockwise

Please refer to accessories section for control and installation products (see pages 31-37)



STANDARD EQUIPMENT:

Dual direction solenoid pack
Handle

Gypsy for chain
Instruction manual
Warranty

OPTIONAL EQUIPMENT

Circuit breaker
Remote control panel UP/DOWN
Footswitch UP/DOWN
Chain counter wire or wireless
Automatic Free Fall for Kobra and Cayman 88 models only

HORIZONTAL WINDLASSES

The range of horizontal windlasses is suitable for boats from 18 up to 150 feet offering the best in performance and functionality, when there is adequate deck space or if the chain locker has limited size or accessibility. They are simple, reliable, with their classic and timeless style making them perfect for many vessels, especially for the charter business.

Material and finish, marine grade aluminium alloy: Our horizontal anchor windlasses are produced using marine grade aluminium alloy. The body is polished and anodised. Most of the components are made by hot forging. The horizontal models are available as standard in anodized aluminium. Some models are available with a painted white polyester coating.

High performance motors: The horizontal windlasses' electric motors have been designed to supply high torque in all working conditions. They are available in 12 or 24 Volt DC current and 230-440 V three phase AC current. Most of the motors have an IP66 rating with a galvanized body painted with a polyester coating. Our electric motors are specified to provide the necessary power for long run time. They are also designed to operate at an increased speed and so reducing operating time. Titan, Ercole and Super Ercole are also available in hydraulic motor versions.

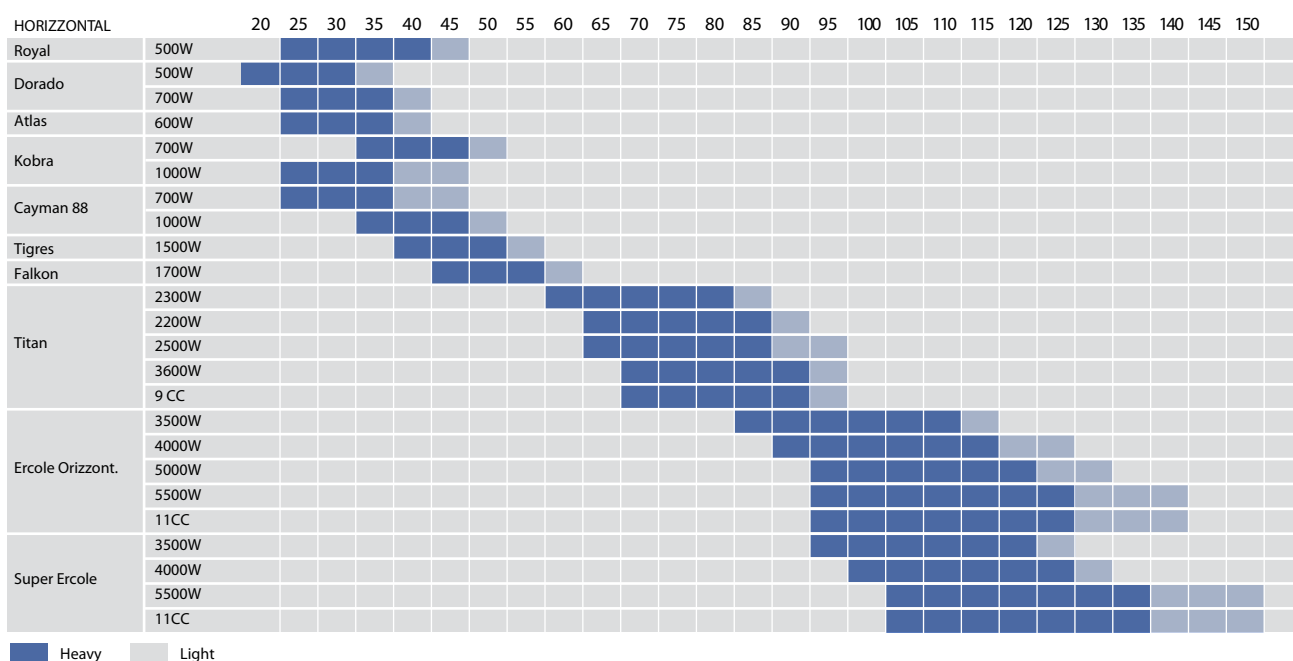
Lofrans gearboxes: Most of our horizontal windlasses use a Lofrans-made high efficiency worm screw gearbox. It is non-reversible with the gears produced with specific material able to withstand high-load strain. All gearboxes are oil lubricated in order to minimize working noise. The models for superior boats use a special Lofrans planetary - worm screw gearbox which allows them to have a high efficiency to dimension ratio.

Manual override: Most of the Lofrans horizontal windlasses are supplied with manual override which makes the windlass capable of chain recovery in the event of electrical failure. The manual override has the secondary function to provide a safety mechanism so that chain jams do not damage the deck. Independent drum from the Gypsy: Horizontal models give the choice of utilizing the drum for warping operations independently from the Gypsy.

Automatic free fall: Models KOBRA and CAYMAN 88 can optionally have a device installed named AUTOMATIC FREE FALL. This device allows disengaging the clutch automatically by pushing the "Down" button of the remote control unit. Disengaging the clutch, the Gypsy rotates freely and the weight of the anchor releases the chain into the water.

Rope and chain management: Models DORADO and ATLAS are able to manage rope and chain by use of a special spring loaded tension arm called a finger, which pushes the rope deeply inside the Gypsy teeth.

CUSTOM PRODUCT: Models TITAN, ERCOLE and SUPER ERCOLE are available in six versions in order to meet all customer requirements.





ROYAL

Horizontal Windlasses

3
YEARS OF
WARRANTY

Construction	Anodised Aluminium
Motor size	MANUAL
Power Supply (V)	-
Maximum Linea Load (kg)	400
Maximum Lift Load (kg)	200
Lift working load (kg)	50
Amps Work Load (A)	-
Line Speed (m/min)	-
Max Line Speed (m/min)	-
Net Weight with Drum (kg)	10

Main features

- Marine alluminium anodised body
- Available in white polyester coating
- Indepent Gypsy and drum operation
- Manual chain release
- Manual override

ROYAL		Code
With drum	6 mm, ISO 4565 / DIN 766	187323
	7 mm, ISO 4565	600625
	8 mm, ISO 4565 / DIN 766	404725
	10 mm, DIN 766	600079
	10 mm, ISO 4565	220002

Compatible Gypsies



Code	Gypsy Size
630968	6 mm, ISO 4565 / DIN 766
630978	7mm, ISO 4565
630994	8 mm, ISO 4565 / DIN 766
631118	10mm, DIN 766
631011	10mm, ISO 4565
631077	5/16 HT
631120	3/8 BBB
631122	3/8 PC

KEEP YOUR LOFRANS' AS GOOD AS NEW!



Maintenance Kit
for ROYAL

Code....**72046**

Please refer to accessories section for control and installation products (see pages 31-37)



DORADO

Horizontal Windlasses



3
YEARS OF
WARRANTY



Main features

- Marine alluminium anodised body
- Manual chain release
- Rope chain management by the spring load arm
- Heavy duty rated IP66 electric motor

Construction	Anodised Aluminium	
Motor size	500 W	700 W
Power Supply (V)	12	12
Maximum Linea Load (kg)	630	900
Maximum Lift Load (kg)	345	490
Lift working load (kg)	95	125
Amps Work Load (A)	60	110
Line Speed (m/min)	23	25
Max Line Speed (m/min)	25	27
Net Weight Low Profile (kg)	10	11
Control Box	Included in package	

DORADO			Type	Code	Code
Low profile	6 mm, ISO 4565	10-12 mm, 3-strand	Port	409568	600048
	8 mm, ISO 4565 / DIN 766	12 mm, 3-strand	Port	*	409569

*Non-standard configuration optional gypsies are supply separately. Please refer to compatible gypsies table below.

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Maintenance Kit
for DORADO

Code....72047



Compatible Gypsies

Code	Gypsy Size
630974	6 mm, ISO 4565 / DIN 766
630984	7mm, ISO 4565
631003	8 mm, ISO 4565 / DIN 766





ATLAS

Horizontal Windlasses

3
YEARS OF
WARRANTY

Construction	Anodised Aluminium
Motor size	600 W
Power Supply (V)	12
Maximum Linea Load (kg)	700
Maximum Lift Load (kg)	380
Lift working load (kg)	100
Amps Work Load (A)	60
Line Speed (m/min)	23
Max Line Speed (m/min)	26
Net Weight Low Profile (kg)	11
Control Box	Included in package

ATLAS			Code
Low profile	6 mm, ISO 4565	10-12 mm, 3-strand	600023
	7 mm, ISO 4565	12 mm, 3-strand	600024
	8 mm, ISO 4565 / DIN 766	12 mm, 3-strand	600025

Main features

- Marine alluminium anodised body
- Available in white polyester coating
- Manual chain release
- Rope chain management by the spring load arm
- Chain counter pre-setting as standard
- Heavy duty rated IP66 electric moto



Compatible Gypsies

Code	Gypsy Size
631005	6 mm, ISO 4565 / DIN 766
631007	7mm, ISO 4565
631009	8 mm, ISO 4565 / DIN 766

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Maintenance Kit
for ATLAS

Code....72045



KOBRA

Horizontal Windlasses




3
YEARS OF
WARRANTY

Main features

- Marine alluminium anodised body
- Available in white polyester coating
- Independent Gypsy and drum operation
- Manual chain release
- Manual override
- Heavy duty rated IP66 electric motor

Construction	Anodised Aluminium	
Motor size	1000 W	
Power Supply (V)	12	24
Maximum Line Load (kg)	1250	1325
Maximum Lift Load (kg)	625	665
Lift working load (kg)	160	170
Amps Work Load (A)	117	59
Line Speed (m/min)	25	25
Max Line Speed (m/min)	35	35
Net Weight with Drum (kg)	21	21
Control Box	Included in package	

KOBRA		Code	Code
With drum	6 mm, ISO 4565 / DIN 766	600051	600513
	8 mm, ISO 4565 / DIN 766	220260	600514
	10 mm, DIN 766	600052	471734
	10 mm, ISO 4565	428747	220420

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Maintenance Kit
for KOBRA

Code....72048



Compatible Gypsies

Code	Gypsy Size
630968	6 mm, ISO 4565 / DIN 766
630978	7mm, ISO 4565
630994	8 mm, ISO 4565 / DIN 766
631118	10 mm, / DIN 766
631011	10 mm, ISO 4565
631120	3/8 BBB
631122	3/8 PC
631077	5/16 HT

Please refer to accessories section for control and installation products (see pages 31-37)



CAYMAN


Horizontal Windlasses

3
YEARS OF
WARRANTY

Construction	Anodised Aluminium		
Motor size	700 W	1000 W	
Power Supply (V)	12	12	24
Maximum Linea Load (kg)	1050	1300	1375
Maximum Lift Load (kg)	525	650	690
Lift working load (kg)	135	165	175
Amps Work Load (A)	110	117	59
Line Speed (m/min)	25	25	25
Max Line Speed (m/min)	30	35	35
Net Weight with Drum (kg)	24	25	25
Control Box	Included in package		

Main features

- Marine alluminium anodised body
- Available in white polyester coating
- Indepent Gypsy and drum operation
- Manual chain release
- Manual override
- Heavy duty rated IP66 electric motor

CAYMAN		Code	Code	Code
With drum	6 mm, ISO 4565 / DIN 766	600043	*	*
	8 mm, ISO 4565 / DIN 766	220273	220279	*
	10 mm, ISO 4565	*	419732	*
	10 mm, DIN 766	*	600165	600180

*Non-standard configuration optional gypsies are supply separately. Please refer to compatible gypsies table below.

Compatible Gypsies



Code	Gypsy Size
630968	6 mm, ISO 4565 / DIN 766
630978	7 mm, ISO 4565
630994	8 mm, ISO 4565 / DIN 766
631118	10 mm, / DIN 766
631011	10 mm, ISO 4565
631120	3/8 BBB
631122	3/8 PC
631077	5/16 HT

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AS GOOD AS NEW!**



Maintenance Kit
for CAYMAN

Code....72048

Please refer to accessories section for control and installation products (see pages 31-37)



TIGRES

Horizontal Windlasses


3
YEARS OF
WARRANTY



Main features

- Marine alluminium anodised body
- Available in white polyester coating
- Independent Gypsy and drum operation
- Manual chain release
- Manual override
- Heavy duty rated IP66 electric motor

Construction	Anodised Aluminium	
Motor size	1500 W	
Power Supply (V)	12	24
Maximum Line Load (kg)	1500	1590
Maximum Lift Load (kg)	750	795
Lift working load (kg)	190	200
Amps Work Load (A)	130	65
Line Speed (m/min)	20	20
Max Line Speed (m/min)	35	32
Net Weight with Drum (kg)	28	28
Control Box	Included in package	

TIGRES		Code	Code
With drum	8 mm, ISO 4565 / DIN 766	418407	418409
	10 mm, DIN 766	600055	600059
	10 mm, ISO 4565	470060	220290

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Maintenance Kit
for TIGRES

Code....72050



Compatible Gypsies

Code	Gypsy Size
630968	6 mm, ISO 4565 / DIN 766
630978	7mm, ISO 4565
630994	8 mm, ISO 4565 / DIN 766
631118	10 mm, / DIN 766
631011	10 mm, ISO 4565
631028	12mm, ISO 4565 / 13mm, DIN 766
631120	3/8 BBB
631122	3/8 PC
631077	5/16 HT

Please refer to accessories section for control and installation products (see pages 31-37)



FALKON


Horizontal Windlasses

3
YEARS OF
WARRANTY

Construction	Anodised Aluminium	
Motor size	1700 W	
Power Supply (V)	12	24
Maximum Linea Load (kg)	1700	1800
Maximum Lift Load (kg)	850	900
Lift working load (kg)	215	225
Amps Work Load (A)	135	68
Line Speed (m/min)	16	16
Max Line Speed (m/min)	32	32
Net Weight with Drum (kg)	55	55
Control Box	Included in package	

Main features

- Marine alluminium anodised body
- Available in white polyester coating
- Independent Gypsy and drum operation
- Manual chain release
- Manual override
- Heavy duty rated IP66 electric motor

FALKON		Code	Code
With drum	10 mm, DIN 766	600063	600067
	10 mm, ISO 4565	220293	418511
	12mm ISO 4565 / 13mm DIN 766	404732	404733

Compatible Gypsies

Code	Gypsy Size
630996	8 mm, ISO 4565 / DIN 766
631132	10 mm, / DIN 766
631022	10 mm, ISO 4565
631031	12mm, ISO 4565 / 13mm, DIN 766
631050	13mm, / DIN 764
631059	14mm
631033	1/2" BBB
631036	1/2" G40
631124	3/8" G40
631129	5/16" HT
630992	7/16" HT



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Maintenance Kit
for FALKON

Code....**72051**



TITAN

Horizontal Windlasses



3
YEARS OF
WARRANTY

Main features

- Marine alluminium anodised body
- Available in white polyester coating
- Independent Gypsy and drum operation
- Manual chain release
- Manual override
- Heavy duty rated IP66 electric motor

Construction	Anodised Aluminium		White Aluminium	Anodised Aluminium
Motor size	2300 W	3600 W	3600 W	Hydraulic - 9cc
Power Supply (V)	24	230	230	-
Maximum Linea Load (kg)	2700	3400	3400	3400
Maximum Lift Load (kg)	1500	1890	1890	1890
Lift working load (kg)	430	540	540	540
Amps Work Load (A)	140	-	-	-
Line Speed (m/min)	10	11	11	11
Max Line Speed (m/min)	16	11	11	11
Net Weight with Drum (kg)	115	115	115	95
Hydraulic Pressure (bar)	-	-	-	200
Hydraulic Flow (lt/min)	-	-	-	32
Control Box	Included in package			

Kits

Code	Description
418403	KIT A - Seals
418457	KIT B - Screws
418493	KIT C - Pins
418553	KIT D - Circlips

TITAN		Model	Code	Code	Code	Code
With drum	12 mm, ISO 4565 / 13mm, DIN 766	Type A	404724	*	600846	602423
	14 mm, DIN 766		600072	600847	*	602424
	12 mm, ISO 4565 / 13mm, DIN 766	Type B	428938	*	*	602468
	14 mm, DIN 766		426415	*	*	602469

*Non-standard configuration optional gypsies are supply separately. Please refer to compatible gypsies table below.

Compatible Gypsies

Code	Gypsy Size
630996	8 mm, ISO 4565 / DIN 766
631132	10 mm, / DIN 766
631013	10 mm, ISO 4565
631031	12mm, ISO 4565 / 13mm, DIN 766
631059	14mm

Code	Gypsy Size
631033	1/2" BBB
631036	1/2" G40
631124	3/8" G40



Please refer to accessories section for control and installation products (see pages 31-37)

ERCOLE


Horizontal Windlasses

3
YEARS OF
WARRANTY

Construction	White Aluminium	
Motor size	3500 W	Hydraulic - 11cc
Power Supply (V)	24	-
Maximum Linea Load (kg)	4500	6500
Maximum Lift Load (kg)	2500	3250
Lift working load (kg)	810	1550
Amps Work Load (A)	120	-
Line Speed (m/min)	8	12
Max Line Speed (m/min)	15	12
Net Weight with Drum (kg)	200	180
Hydraulic Pressure (bar)	-	200
Hydraulic Flow (lt/min)	-	40
Control Box	Included in package	

Main features

- Available in white polyester coating
- Independent Gypsy and drum operation
- Manual chain release
- Manual override
- Heavy duty rated IP44 electric motor

ERCOLE		Model	Code	Code
With drum	14 mm	Type A	403615	602509
		Type B	220317	602512
		Type C	403614	602515

Kits

Code	Description
418423	KIT A - Seals
418472	KIT B - Screws
418494	KIT C - Pins
418555	KIT D - Circlips

Compatible Gypsies



Code	Gypsy Size
631019	10mm, ISO 4565
631039	12mm, ISO 4565 / 13mm, DIN 766
631065	14mm
631085	13mm. / DIN 764
631082	16mm
631088	16mm, / DIN 766
631101	18mm
631095	18mm, / DIN 766
631113	20mm

Code	Gypsy Size
631068	14 STUD LINK
631092	16 STUD LINK
631098	17,5 STUD LINK
631104	19 STUD LINK
631110	20 STUD LINK
631053	1/2" STUD LINK
631056	13 ITALMET

Please refer to accessories section for control and installation products (see pages 31-37)

SUPER ERCOLE

Horizontal Windlasses

3
YEARS OF
WARRANTY



Main features

- Available in white polyester coating
- Independent Gypsy and drum operation
- Manual chain release
- Manual override
- Heavy duty rated IP44 electric motor

Construction	White Aluminium		
Motor size	3500 W	5500 W	Hydraulic - 11cc
Power Supply (V)	24	400	-
Maximum Linea Load (kg)	5000	7000	7000
Maximum Lift Load (kg)	2780	3500	3500
Lift working load (kg)	870	1670	1670
Amps Work Load (A)	190	-	-
Line Speed (m/min)	8	12	12
Max Line Speed (m/min)	15	12	12
Net Weight with Drum (kg)	235	235	215
Hydraulic Pressure (bar)	-	-	200
Hydraulic Flow (lt/min)	-	-	40
Control Box	Included in package		

Kits

Code	Description
427806	KIT A - Seals
418476	KIT B - Screws
418500	KIT C - Pins
418575	KIT D - Circlips

SUPER ERCOLE	Model	Code	Code	Code
With drum	Type A	404957	602501	602488
	Type B	426414	602504	602491

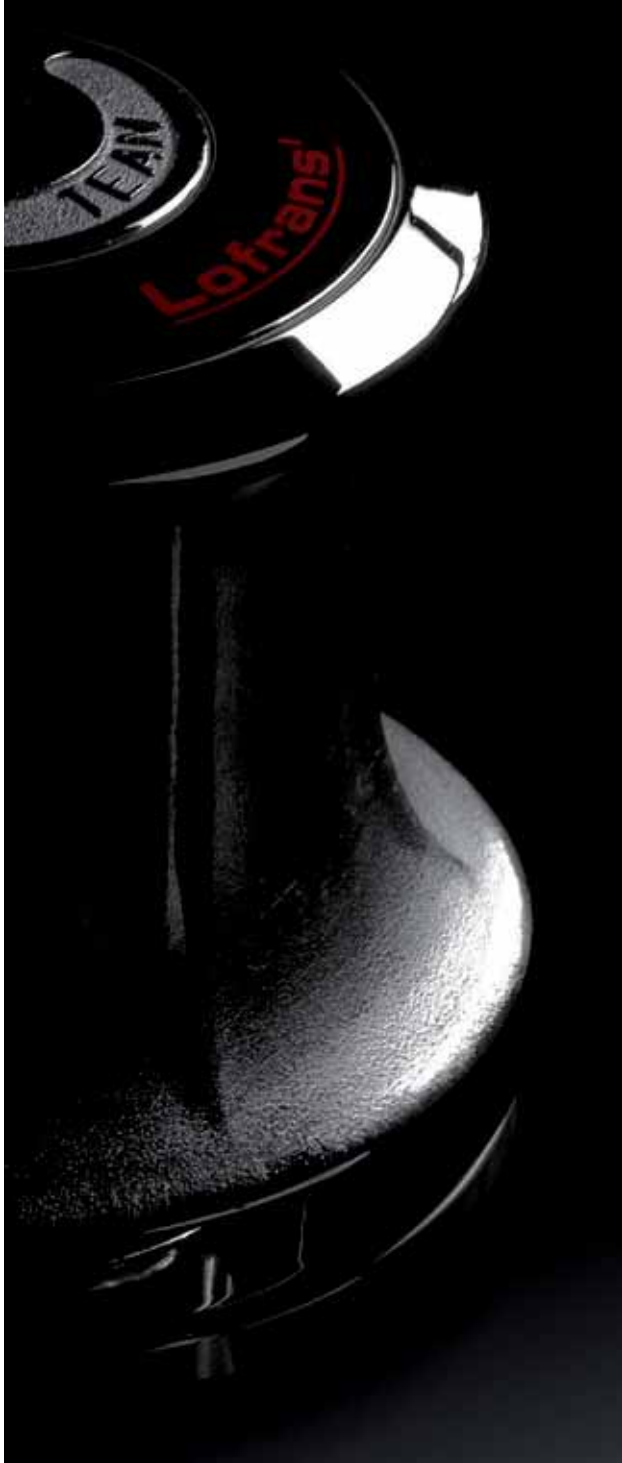
Compatible Gypsies



Code	Gypsy Size
631019	10mm, ISO 4565
631039	12mm, ISO 4565 / 13mm, DIN 766
631065	14mm
631085	13mm. / DIN 764
631082	16mm
631088	16mm, DIN 766
631101	18mm
631095	18mm, DIN 766
631113	20mm

Code	Gypsy Size
631068	14 STUD LINK
631092	16 STUD LINK
631098	18 STUD LINK
631104	19 STUD LINK
631110	20 STUD LINK
631053	1/2" STUD LINK
631056	13 ITALMET

Please refer to accessories section for control and installation products (see pages 31-37)



CAPSTANS

The range of Lofrans capstans is designed for boats from 18 up to 150 feet. Capstans are normally installed on the stern of the boat for mooring operations and are used in recreational, fishing and commercial vessels.

They are normally installed on the vessel in addition to the anchor windlass, with the number of capstan units depending on the length and displacement of the vessel. They are controlled by a pair of the foot switches close to the capstan, so that the operator can have his/her hands free for rope handling.

The construction is very similar to our vertical windlass range using the same mechanical components, giving strength and high performance by relying on Lofrans'-made worm screw gearbox.

The base is manufactured using chromed bronze, strong and long lasting, as are the drums, which have the proper surface to hold the rope and minimize wear.

Models T3000 and T3500 have base and drum in mirror polished AISI 316L stainless steel and the main structure of the gearbox is of a strong single-block construction, same as our big vertical anchor windlasses for vessels of superior dimension.

Available to operate with 12V DC, 24V DC as well as AC or hydraulic motors for the larger size/higher power models, they are designed to meet a wide range of user requirements.



CAPSTAN		20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150
T500	500W																											
T700	700W																											
T1000	1000W																											
T1500	1500W																											
T1700	1700W																											
T2000	2200W																											
	2300W																											
	3600W																											
	9 CC																											
T2500	2200W																											
	2500W																											
	3000W																											
	3600W																											
	9 CC																											
T3000	2200W																											
	3600W																											
	11 CC																											
T4000	3500W																											
	4000W																											
	5500W																											
	11 CC																											

Heavy Light

T500-T700-T1000-T1500-T1700

CAPSTANS

Main features

- Luxury chrome bronze base and drum
- Heavy duty rated IP66 electric motor
- Anodised marine aluminium gearbox



Construction	Chromed bronze									
Model	T500		T700		T1000		T1500		T1700	
Motor size	500 W		700 W		1000 W		1500 W		1700 W	
Power Supply (V)	12	12	24	24	12	24	12	24	12	24
Maximum Linea Load (kg)	670	850	900	1000	1060	1200	1270	1600	1695	
Maximum Lift Load (kg)	335	460	490	500	530	600	635	800	850	
Lift working load (kg)	85	115	125	150	160	165	165	200	215	
Amps Work Load (A)	60	110	55	117	59	130	65	135	68	
Line Speed (m/min)	20	25	25	25	25	20	20	16	16	
Max Line Speed (m/min)	25	30	30	35	35	35	35	32	32	
Net Weight with Drum (kg)	11	15	15	21	21	27	27	30	30	
Control Box	Included in package									

Code	409130	220006	418159	417946	187324	220014	418161	472407	187326
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Construction	Aluminium									
Model	T500		T700		T1000		T1500		T1700	
Motor size	500 W		700 W		1000 W		1500 W		1700 W	
Power Supply (V)	12	12	24	24	12	24	12	24	12	24
Maximum Linea Load (kg)	670	850	900	1000	1060	1200	1270	1600	1695	
Maximum Lift Load (kg)	335	460	490	500	530	600	635	800	850	
Lift working load (kg)	85	115	125	150	160	165	165	200	215	
Amps Work Load (A)	60	88	55	108	54	115	58	140	70	
Line Speed (m/min)	23	19	25	17	17	16	16	15	15	
Max Line Speed (m/min)	26	25	30	23	23	28	28	30	30	
Net Weight with Drum (kg)	9	15	15	16	16	18	18	25	25	

Code	409563	411129	600779	409564	409567	600058	600062	600066	600069
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KIT A - SEALS

Code	For CAPSTANS
418410	T500
418411	T700 - T1000
418422	T1500 - T1700

KIT B - SCREWS

Code	For CAPSTANS
418446	T500
418448	T700 - T1000
418450	T1500 - T1700

KIT C - PINS

Code	For CAPSTANS
418483	T500
418486	T700 - T1000
418487	T1500 - T1700

KIT D - CIRCLIPS

Code	For CAPSTANS
418512	T500
418513	T700 - T1000
418514	T1500 - T1700

Please refer to accessories section for control and installation products (see pages 31-37)

T2000-T2500

CAPSTANS

Main features

- Luxury chrome bronze base and drum
- Heavy duty rated IP44 electric motor
- Anodised marine aluminium gearbox

3
YEARS OF
WARRANTY

Construction	Chromed bronze			
Model	T2000			
Motor size	2200 W	2300 W		Hydraulic - 9cc
Type**	CW	CW	CCW	CW
Power Supply (V)	400	24	24	-
Maximum Linea Load (kg)	2200	2000	2000	2500
Maximum Lift Load (kg)	1100	1000	1000	1250
Lift working load (kg)	595	545	545	680
Amps Work Load (A)	-	70	70	-
Line Speed (m/min)	16	12	12	16
Max Line Speed (m/min)	16	27	27	16
Net Weight with Drum (kg)	52	52	52	40
Hydraulic Pressure (bar)	-	-	-	200
Hydraulic Flow (lt/min)	-	-	-	32
Control Box	Included in package			

Code	600071	404967	600729	602140
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Kits

Code	Description
418399	KIT A - Seals
418451	KIT B - Screws
418488	KIT C - Pins
418515	KIT D - Circlips

Construction	Chromed bronze		
Model	T2500		
Motor size	2200 W	2700 W	Hydraulic - 9cc
Type	CW	CW	CW
Power Supply (V)	400	24	-
Maximum Linea Load (kg)	2200	2400	2500
Maximum Lift Load (kg)	1100	1200	1250
Lift working load (kg)	595	650	680
Amps Work Load (A)	-	190	-
Line Speed (m/min)	16	12	16
Max Line Speed (m/min)	16	27	16
Net Weight with Drum (kg)	52	53	40
Hydraulic Pressure (bar)	-	-	200
Hydraulic Flow (lt/min)	-	-	32
Control Box	Included in package		

Code	600070	476239	602168
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** cw: the capstan pulls clockwise
ccw: the capstan pulls counter clockwise

Please refer to accessories section for control and installation products (see pages 31-37)

www.lofrans.com

T3000 - T4000

CAPSTANS

3
YEARS OF
WARRANTY

Main features

- Luxury stainless steel base and drum
- Heavy duty rated IP44 electric motor
- Anodised marine aluminium gearbox



Construction	316 L Stainless Steel		
Model	T3000		
Motor size	2200 W	3600 W	Hydraulic - 9cc
Power Supply (V)	400	400	-
Maximum Linea Load (kg)	3000	3500	2500
Maximum Lift Load (kg)	1500	175	1250
Lift working load (kg)	815	950	680
Amps Work Load (A)	-	-	-
Line Speed (m/min)	18	18	16
Max Line Speed (m/min)	18	18	16
Net Weight with Drum (kg)	75	75	40
Hydraulic Pressure (bar)	-	-	200
Hydraulic Flow (lt/min)	-	-	32
Control Box	Included in package		

Code	600767	602196	602189
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Construction	316 L Stainless Steel	
Model	T4000	
Motor size	3500 W	5000 W
Power Supply (V)	24	400
Maximum Linea Load (kg)	5500	6500
Maximum Lift Load (kg)	2750	3250
Lift working load (kg)	690	1550
Amps Work Load (A)	200	-
Line Speed (m/min)	8	12
Max Line Speed (m/min)	15	12
Net Weight with Drum (kg)	120	140
Control Box	Included in package	

Code	600077	423284
------	--------	--------

ELECTRIC ACCESSORIES

		Circuit Breaker	
		12V	24V
X1	500 W	187331	-
	700 W	187332	187331
X2	700 W	187332	187331
	1000 W	187333	187332
	1500 W	187333	187332
X3	1500 W	187333	187332
	1700 W	187334	187332
X3.5	1700 W	187334	187332
	2300 W	-	187333
	2700 W	-	-
X4	2300 W	-	187333
	2700 W	-	-
X5	3000 W	-	-
PROJECT 1000	1000 W	187333	187332
PROJECT 1500	1500 W	187333	187332
PROJECT 2000	2000 W	-	187333
ERCOLE VERTICAL	3500 W	-	-
DORADO	500 W	187331	-
	700 W	187332	187331
ATLAS	600 W	600029	-
KOBRA	700 W	187332	187331
	1000 W	187333	187332
CAYMAN	700 W	187332	187331
	1000 W	187333	187332
TIGRES	1500 W	187333	187332
FALKON	1700 W	187334	187332
TITAN	2300 W	-	187333
	2700 W	-	-
ERCOLE	3500 W	-	-
SUPER ERCOLE	3500 W	-	-
CAPSTAN T500	500 W	187331	-
CAPSTAN T700	700 W	187332	187331
CAPSTAN T1000	1000 W	187333	187332
CAPSTAN T1500	1500 W	187333	187332
CAPSTAN T2000	2000 W	-	187333
CAPSTAN T2500	2500 W	-	-
CAPSTAN T3000	3600W	-	-
CAPSTAN T4000	4000W	-	-

The range of accessories consists of a large selection of products to control windlass operations. All products are designed and built to guarantee perfect and reliable operation in the marine environment. Lofrans' Accessories are manufactured to the highest quality for reliability and safety, conforming to EC regulations covering electromagnetic compatibility (89/336/CEE). They are tested by official organizations for compliance to regulations and CE marked.

For a windlass to function properly you will need to install:

- The control box unit which is supplied as standard, is made up of two solenoids included in a watertight box with an IP56 rating. Connecting the remote control to the control box is easily done by simply plugging the wiring onto the control box
- The circuit breaker, which has three functions:
 - Protection from short circuit
 - Protection of the electric motor from current overload
 - Voltage interruption when the anchor windlass needs to be switched off. The circuit breaker is installed on a panel and has an LED indicator.
- One or more electric controls which can be connected in parallel.

IRIS

CHAIN COUNTER



2
YEARS OF
WARRANTY

GALAXY 703

CHAIN COUNTER



Panel Chaincounter IRIS

This fly bridge chain counter IRIS is technologically advanced instrument with an elegant and ergonomic design makes it suitable for all type of boat cockpits. As GALAXY 503, IRIS is supplied with an evolved microprocessor, with different operations allowing an optimum anchoring.

- High vision LCD display
- Five languages menu
- Inversion polarity protection
- Switch On button
- Automatic release function
- Up allarm
- Speed
- Ampere drawing
- Released chain
- Voltage display
- Backled on eight level
- Eight level of contrast
- Sensor detection function
- Parallel connection

Radio Control Chaincounter GALAXY 703

Without cable ties, plug or panels and with load always perfect by rechargeable battery, the radio chain counter GALAXY 703 gives finally all the freedom of manoeuvres and the comfort of reading in the anchoring operations.

- High vision LCD display
- Five languages menu
- Inversion polarity protection
- Switch On button
- Automatic release function
- Up allarm
- Speed
- Ampere drawing
- Released chain
- Voltage display
- Backled on eight level
- Eight level of contrast
- Sensor detection function
- Parallel connection

Code	600017
Command transmission	Wire
Number of button	3
Voltage	10-30Vdc
Operative temperature	-10 : +60
IP protection rated	67
Max contacts amperage (A)	5
Weight (gr)	250
Dimension (mm)	110x105x15 (5 flat version)

Code	600016
Command transmission	Remote
Number of button	3
Voltage	10-30Vdc
Operative temperature	-10 : +60
IP protection rated	67
Max contacts amperage (A)	5
Weight (gr)	120
Dimension (mm)	155x65x45

GALAXY 503

CHAIN COUNTER

GALAXY 102

HAND HELD CONTROL



2
YEARS OF
WARRANTY



Hand Held Remote Control Chaincounter GALAXY 503

This new remote chain counter model GALAXY 503 has been specifically designed to give the full control in anchoring. It's a reliable and practical instrument, technologically advanced, specifically design for use in marine environments. The external casing, completely waterproof, gives the maximum freedom on board during anchoring manoeuvring, by to a soft rubber cover. Provided with an evolved microprocessor that offers a series of advantages for full control of the anchoring.

- High vision LCD display
- Five languages menu
- Inversion polarity protection
- Switch On button
- Automatic release function
- Up allarm
- Speed
- Ampere drawing
- Released chain
- Voltage display
- Backled on eight level
- Eight level of contrast
- Sensor detection function
- Parallel connection

Hand Held Control GALAXY 102

This new hand held remote control model GALAXY 102 has an elegant and functional design. The soft rubber case, which covers sideways the remote control, allows a safe and handy taking under any condition.

This hand held remote control is completely waterproof and supplied with waterproof plug and socket rated IP68. The extending flexible cable (approximately 4 metres) gives the maximum freedom on board during anchoring manoeuvring. In addition to the standard version with two buttons (up and down), there is available another version with three buttons, the third being useful to operate a wash down pump for the chain.

- Inversion polarity protection
- Parallel connection

Code	600015
Command transmission	Wire
Number of button	3
Voltage	10-30Vdc
Operative temperature	-10 : +60
IP protection rated	67
Max contacts amperage (A)	5
Weight (gr)	450
Dimension (mm)	155x65x45

Code	600013
Command transmission	Wire
Number of button	3
Voltage	10-30Vdc
Operative temperature	-10 : +60
IP protection rated	67
Max contacts amperage (A)	5
Weight (gr)	380
Dimension (mm)	155x65x45

GALAXY 303

RADIO CONTROL



2
YEARS OF
WARRANTY

Radio Remote Control



Radio Control GALAXY 303

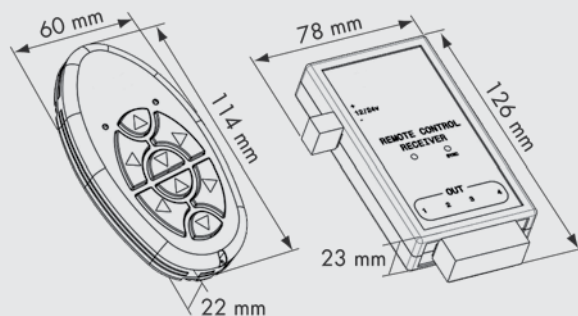
This radio control has been researched specifically for use in sea environments. This allows the widest freedom of movement when operating the anchor windlass on board the vessel. The electronic reception card is suitably protected by a special tin container (receiver). To prevent it being accidentally set in motion, it has a power key which must be pressed for 3 seconds before operating. Every Radio-control has its own reading code, different from any other unit, so that interferences with other radio controls are impossible. Capacity is 20-30 mt. Codified transmission and modulation of amplitude, on European frequency of 433,9 Mhz.

- Inversion polarity protection
- Switch On button
- Automatic release function
- Parallel connection

Lofrans' radio remote control is designed to work with our range of windlasses.

The remote control can also be used to operate other onboard equipment such as thrusters, passerelles, cranes, etc.

- Supports up to 8 independently controlled channels
- Each receiver can switch 4 channels (12/24 V - 5 A)
- Each transmitter can handle 2 receivers (8 channels)
- Digital recognition avoids accidental activation of other system
- Zero power consumption when in standby mode (transmitter)
- Easy to install and set up, simple to use



Code	600014
Command transmission	Remote
Number of button	3
Voltage	10-30Vdc
Operative temperature	-10 : +60
IP protection rated	67
Max contacts amperage (A)	5
Weight (gr)	150
Dimension (mm)	155x65x45

Code	312976	312977
Description	Transmitter & Receiver (EU)	Transmitter & Receiver (USA)
Frequency	868 MHz	915 MHz

Foot switch

Easy to install this device is a switch which works simply pushing the foot on the button. The base is in stainless steel while the cover to prevent accidental engagement is in composite. The button is in special marine rubber able to withstand UV ray and the marine environment. Available in UP and DOWN version



Code	600012	600011	602121
Description	Red / Grey UP	Black / Grey DOWN	Blue / WASH DOWN
Voltage	10-30Vdc		
Operative temperature	-10 : +60		
IP protection rated	67		
Max contacts amperage (A)	5		
Weight (gr)	100		
Dimension (mm)	80x95x20		

2
YEARS OF
WARRANTY

Control Switch

TYPE "L"

This switch, usually installed on the cockpit, is made by a fixing plaque and by a three position switch (Up-Off-Down).

Code	404728
------	--------



2
YEARS OF
WARRANTY



TYPE "C"

This rocker switch has a modern and practical design. It is reliable and watertight and it is supplied with the apposite case to make simple and sure the installation.

Code	187338
------	--------

Circuit Breaker

The thermal circuit breaker is an essential component of the electric plant. It has three functions:

- protects from very dangerous short circuits
- protects the electric motor of the windlass
- interrupts tension to windlass when desired

In case of short circuit the intervention is immediate. Concerning the electric motor a specific intervention curve has been studied in cooperation with E-T-A Germany. It is possible to re-activate the circuit breaker at the end of the intervention. The thermal circuit breaker is supplied with an elegant plaque for fixing and a led light. This unit is in compliance with EEC regulations and homologated by Bureau, Veritas.



2
YEARS OF
WARRANTY



	35 A	40 A	70 A	80 A	100 A	125 A
Thermal	187331	-	187332	-	187333	187334
Hydraulic	-	600029	-	630616	600028	-

Control Box

The Control Box is an electric unit made up of two remote control switches enclosed inside a special container which protects it from marine corrosion. The entire unit has been designed with a view to simplifying and speeding up the various electrical connections. For this purpose there is no need to open and/or pierce the container, as all the terminals and the panel for the electrical connections are perfectly accessible from the outside. Outer construction in self-extinguishing polyester resin, resistant to shock and marine corrosion. Degree of protection IP 56 - protection against deckwater.



2
YEARS OF
WARRANTY

Code	600018	600019	600020	602590	600021	600022	602587
Number of terminals	3	3	3	4	4	4	4
Power	12 V	24 V	24 V	12 V	12 V	24 V	24 V
Motor Size	500-1700 W	500-1700 W	1700-2300 W	500-700 W	1000-1700 W	500-1700 W	3500 W

Kit for big Models & Capstans

KIT A - SEALS

Code	For WINDLASS
474013	X4 & PROJECT 2000
418428	ERCOLE VERTICAL
418403	TITAN
418423	ERCOLE
427806	SUPER ERCOLE
418410	T500
418411	T700 - T1000
418422	T1500 - T1700
418399	T2000 - T2500

KIT B - SCREWS

Code	For WINDLASS
474012	X4 & PROJECT 2000
418475	ERCOLE VERTICAL
418457	TITAN
418472	ERCOLE
418476	SUPER ERCOLE
418446	T500
418448	T700 - T1000
418450	T1500 - T1700
418451	T2000 - T2500

KIT C - PINS

Code	For WINDLASS
474011	X4 & PROJECT 2000
418499	ERCOLE VERTICAL
418493	TITAN
418494	ERCOLE
418500	SUPER ERCOLE
418483	T500
418486	T700 - T1000
418487	T1500 - T1700
418488	T2000 - T2500

KIT D - CIRCLIPS

Code	For WINDLASS
474010	X4 & PROJECT 2000
418556	ERCOLE VERTICAL
418553	TITAN
418555	ERCOLE
418575	SUPER ERCOLE
418512	T500
418513	T700 - T1000
418514	T1500 - T1700
418515	T2000 - T2500

KIT F - FINGERS

Code	For WINDLASS
474023	X1, X2 & PROJECT 1000
474017	X3 & PROJECT 1500
632119	DORADO
632116	ATLAS

KIT S - MAGNETIC SENSORS

Code	For WINDLASS
474053	X1, X2 & X3
600033	X4
474048	for all horizontal windlasses

Maintenance Kit

Code	For WINDLASS
72036	X0
72037	X1
72038	X2 & PROJECT 1000
72039	X2 ALU
72040	X3, X3 ALU & PROJECT 1500
72046	ROYAL

Code	For WINDLASS
72047	DORADO
72048	KOBRA & CAYMAN
72050	TIGRES
72051	FALKON
72045	ATLAS



**KEEP YOUR LOFRANS®
AS GOOD AS NEW!**

Please refer to our website for Kit Contents



GYPSIES

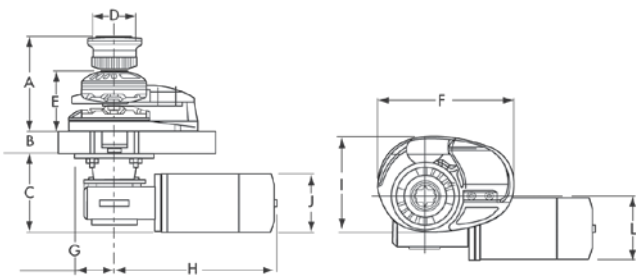


Code	Chain Size	For windlass
630953	6 mm ISO 4565 / DIN 766	X2 / PROJECT 1000
630968		KOBRA / CAYMAN / TIGRES / ROYAL
630970		X0 / X1 / X1 ALU
630974		DORADO
631005		ATLAS
630978	7 mm ISO 4565	KOBRA / CAYMAN / TIGRES / ROYAL
630980		X1 / X1ALU
630984		DORADO
631007		ATLAS
630949		X2 / PROJECT 1000
630957	8 mm ISO 4565 / DIN 766	X3 / PROJECT 1500
630994		KOBRA / CAYMAN / TIGRES / ROYAL
630996		FALKON / TITAN / PROJECT 2000 / X4 / X3.5
630999		X1
631003		DORADO
631009	10 mm ISO 4565	ATLAS
630951		X2 / PROJECT 1000
630959		X3 / PROJECT 1500
631011		KOBRA / CAYMAN / TIGRES / ROYAL
631013		FALKON / TITAN
631019	10 mm DIN766	ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631022		FALKON / TITAN / PROJECT 2000 / X4 / X3.5
630955		X2 / PROJECT 1000
630966		X3 / PROJECT 1500
631132		FALKON / TITAN / PROJECT 2000 / X4 / X3.5
631118	12 mm ISO 4565	KOBRA / CAYMAN / TIGRES / ROYAL
630961		X3 / PROJECT 1500
631028		TIGRES
631039		ERCOLE (Horizontal & Vertical) / X5
631031		FALKON / TITAN / PROJECT 2000 / X4 / X3.5
631050	13 mm DIN 764	FALKON
631085		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE / X5
631065		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE / X5
631059		FALKON / TITAN / PROJECT 2000 / X4 / X3.5
631088		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631082	16 mm DIN766	ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631095		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631101		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631113		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631033		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631120	18 mm DIN766	FALKON / TITAN / PROJECT 2000 / X4 / X3.5
631036		KOBRA/CAYMAN/TIGRES/ROYAL
631036		FALKON / TITAN / PROJECT 2000 / X4 / X3.5
631124		FALKON / TITAN
631077		KOBRA/CAYMAN/TIGRES/ROYAL
631129	5/16" HT	FALKON
630992		FALKON
631122		KOBRA/CAYMAN/TIGRES/ROYAL
631056		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631062		TITAN
630989	14,5 UNI4417	ERCOLE VERTICAL
631053		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631068		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631092		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631098		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631104	17,5 STUDLINK	ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631110		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631110		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631110		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE
631110		ERCOLE (Horizontal & Vertical) / SUPER ERCOLE

Dimensions

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X1 - Vertical Windlasses

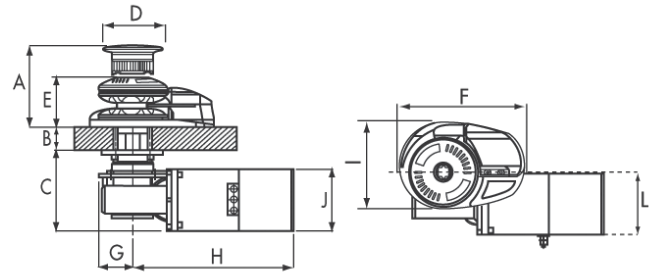


Dimensions in mm

Model	A	B	C	D	E	F	G	H	I	J	L
500W	130	10-30	111	Ø 60	84	183	55	225	127	Ø 82	85
700W	130	10-30	111	Ø 60	84	183	55	229	127	Ø 95	92
1000W	130	10-30	150	Ø 60	84	183	62	250	127	Ø 114	138

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X2 & PROJECT 1000 - Vertical Windlasses

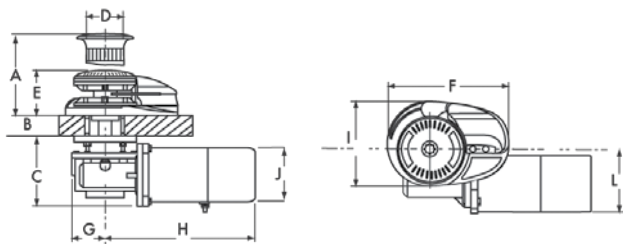


Dimensions in mm

Model	A	B	C	D	E	F	G	H	I	J	L
X2 700W	153	25-40	150	Ø 76	94	232	62	244	162	Ø 94	120
X2 1000W	153	25-40	150	Ø 76	94	232	62	250	162	Ø 114	138
X2 1500W	153	25-40	150	Ø 76	94	232	62	260	162	Ø 114	138
PROJECT 1000W	153	25-40	150	Ø 76	94	232	62	244	162	Ø 94	120

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X3 & PROJECT 1500 - Vertical Windlasses

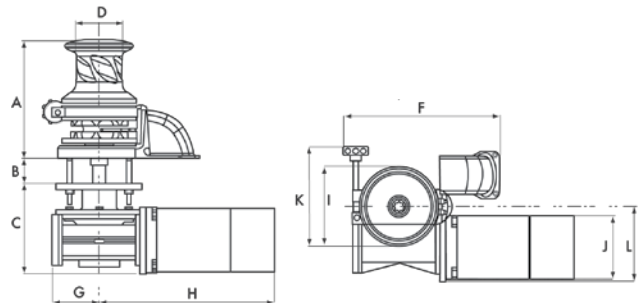


Dimensions in mm

Model	A	B	C	D	E	F	G	H	I	J	L
X3 1500W	195	50-70	165	Ø 92	110	270	80	270	192	Ø 114	135
X3 1700W	195	50-70	165	Ø 92	110	270	80	300	192	Ø 126	135
PROJECT 1500W	195	25-50	165	Ø 92	110	270	80	365	192	Ø 126	140

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X3.5 - Vertical Windlasses

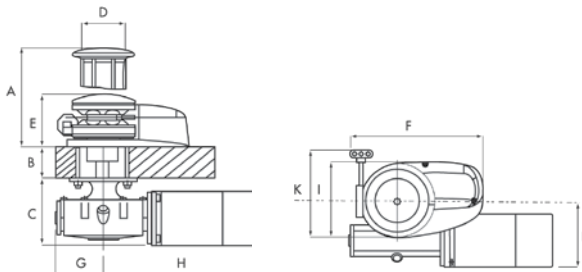


Dimensions in mm

Model	A	B	C	D	F	G	H	I	J	K	L
1700W	281	40-110	165	Ø 110	374	79	294	Ø 190	Ø 127	236	138
2300W	281	40-60	165	Ø 110	374	111	416	Ø 190	Ø 150	236	176
2700W	281	40-60	165	Ø 110	374	111	416	Ø 190	Ø 150	236	176

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X4 & PROJECT 2000 - Vertical Windlasses

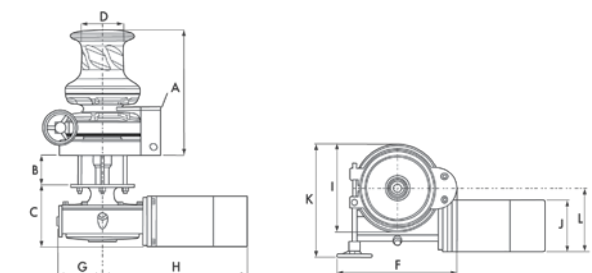


Dimensions in mm

Model	A	B	C	D	E	F	G	H	I	J	K	L
X4 2300W	285	60-130	200	Ø 125	150	380	140	445	220	Ø 127	240	190
X4 2700W	285	60-130	200	Ø 125	150	380	140	445	220	Ø 127	240	190
PROJECT 2000W	285	60-130	200	Ø 125	150	380	140	480	220	Ø 152	240	190

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X5 - Vertical Windlasses



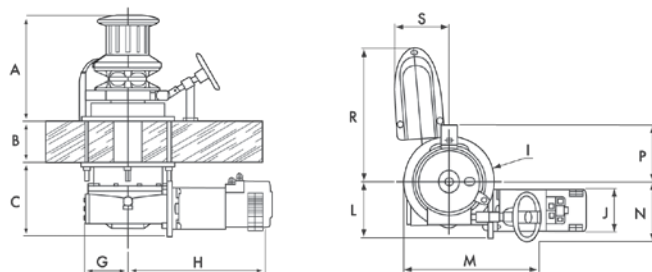
Dimensions in mm

Model	A	B	C	D	F	G	H	I	J	K	L
3000W	385	60-90	200	Ø 132	332	140	445	264	Ø 152	339	190

Dimensions

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ERCOLE VERTICAL - Vertical Windlasses

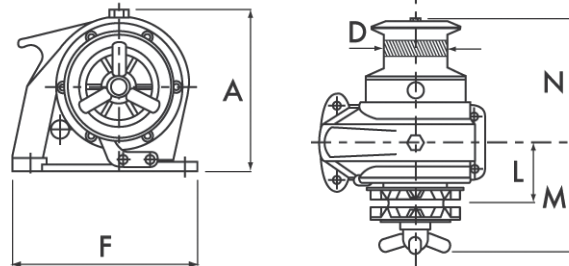


Dimensions in mm

Model	A	B	C	D	G	H	I	J	L	M	N	P	R	S
3500W														
4000W	392	150	270	150	160	502	330	Ø 158	205	495	220	205	min 490 - max 600	min 200 - max 230
5500W														

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ROYAL - Horizontal Windlasses

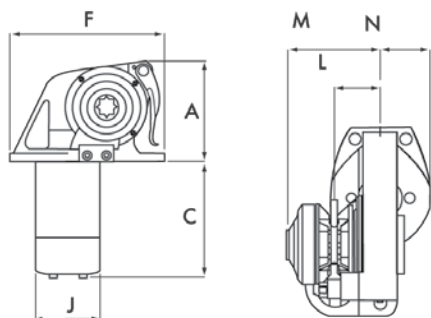


Dimensions in mm

Model	A	D	F	L	M	N
Manual	192	Ø 85	222	80	145	167

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DORADO - Horizontal Windlasses

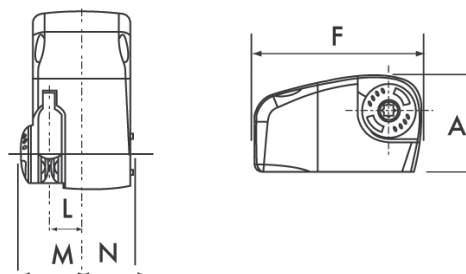


Dimensions in mm

Model	A	C	F	J	L	M	N
500W	130	150	200	Ø 82	48	98	53
700W	130	150	200	Ø 94	48	98	53

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ATLAS - Horizontal Windlasses

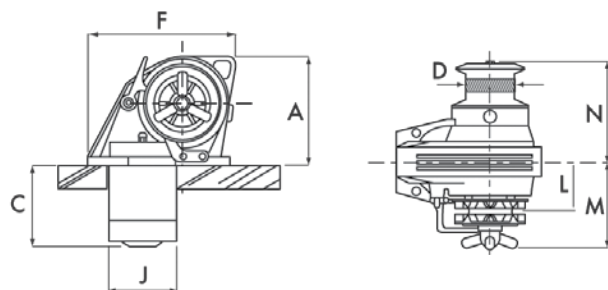


Dimensions in mm

Model	A	D	F	L	M	N
600 W	192	Ø 85	222	80	145	167

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KOBRA - Horizontal Windlasses

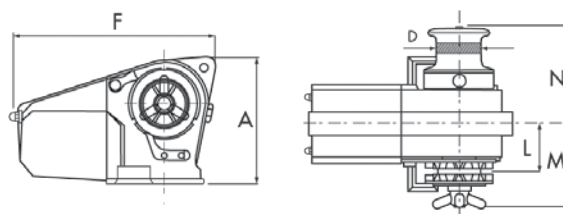


Dimensions in mm

Model	A	C	F	D	J	L	M	N
1000W	184	136	222	Ø 85	Ø 114	83	147	172

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CAYMAN - Horizontal Windlasses



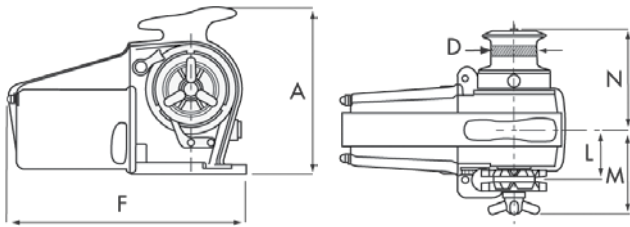
Dimensions in mm

Model	A	D	F	L	M	N
7000 W	230	Ø 85	370	85	150	175
1000 W	230	Ø 85	370	85	150	175

Dimensions

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TIGRES - Horizontal Windlasses

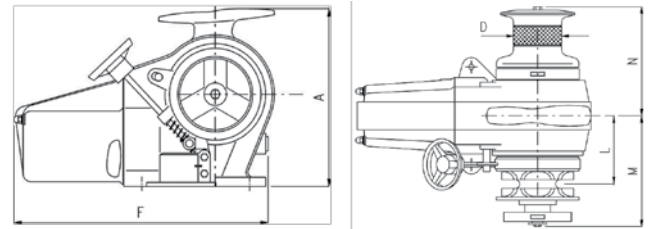


Dimensions in mm

Model	A	D	F	L	M	N
1500W	290	Ø 85	415	90	155	185

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FALKON - Horizontal Windlasses

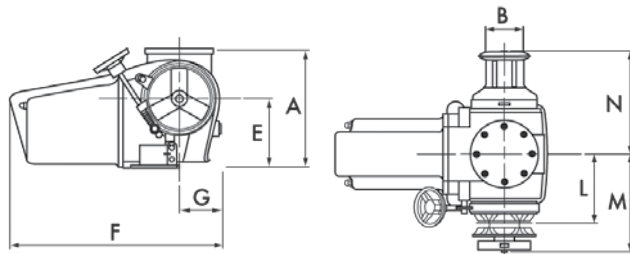


Dimensions in mm

Model	A	D	F	L	M	N
17000 W	345	Ø 104	510	147	240	235

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TITAN & ERCOLE - Horizontal Windlasses



TYPE A

Dimensions in mm

TITAN	A	B	E	F	G	L	M	N
2300W	330	104	193	590	120	185	270	290
3600W								
Hydraulic								

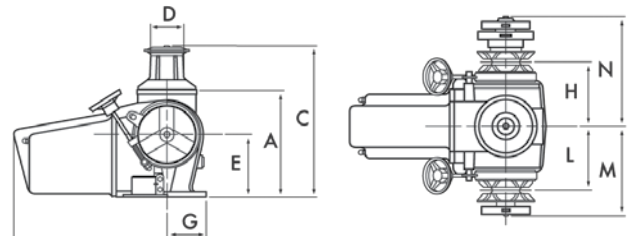
ERCOLE	A	D	E	F	G	L	M	N
3500W	385	Ø150	230	690	158	230-250	390	340
Hydraulic								

SUPER ERCOLE	A	D	E	F	G	L	M	N
3500W	450	Ø150	260	870	200	255-280	450	375
5500W								
Hydraulic								

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TITAN, ERCOLE & SUPER ERCOLE

- Horizontal Windlasses



TYPE B

Dimensions in mm

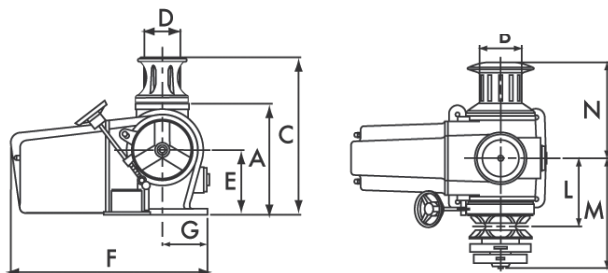
Model	A	C	D	E	F	G	H	L	M	N
2300W	330	465	Ø104	193	590	120	185	185	270	330
3600W										
Hydraulic										

ERCOLE	A	C	D	E	F	G	H	L	M	N
3500W	390	555	Ø125	230	690	158	230-250	230-250	370	410
Hydraulic										

SUPER ERCOLE	A	C	D	E	F	G	H	L	M	N
3500W	450	610	Ø150	260	870	200	255-270	255-280	450	375
5500W										
Hydraulic										

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ERCOLE - Horizontal Windlasses



TYPE C

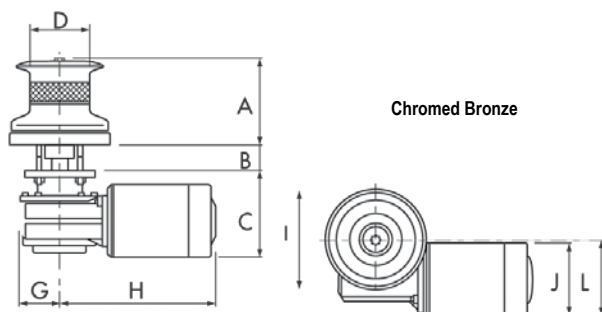
Dimensions in mm

Model	A	B	C	D	E	F	G	H	L	M	N
3500W	390	Ø150	555	Ø125	230	690	158	230-250	230-250	390	340
Hydraulic											

Dimensions

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T500-T700-T1000 - Capstans

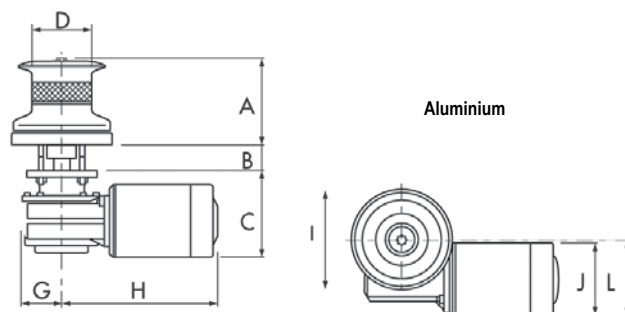


Dimensions in mm

Model	A	B	C	D	G	H	I	J	L
T500	95	18-30	110	Ø 60	45	225	Ø 115	Ø 82	85
T700	140	20-40	140	Ø 92	65	240	Ø 155	Ø 94	120
T1000	140	20-40	140	Ø 92	65	242	Ø 155	Ø 114	120

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T500-T700-T1000 - Capstans

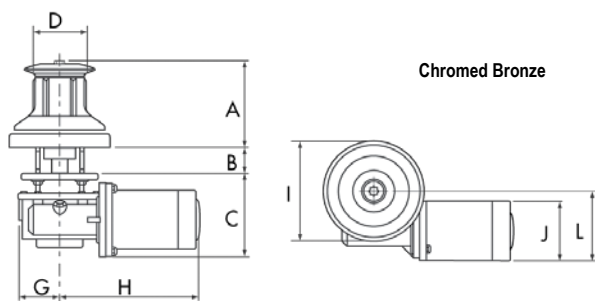


Dimensions in mm

Model	A	B	C	D	G	H	I	J	L
T500	90	18-30	110	Ø 60	64	211	Ø 115	Ø 82	82
T700	131	25-40	149	Ø 92	68	238	Ø 155	Ø 94	112
T1000	131	25-40	149	Ø 92	68	235	Ø 155	Ø 114	117

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T1500-T1700 - Capstans

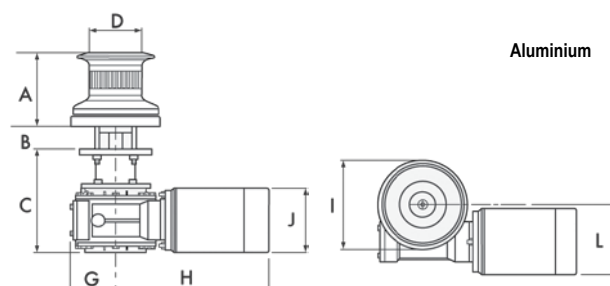


Dimensions in mm

Model	A	B	C	D	G	H	I	J	L
T1500	168	50-70	165	Ø 104	80	270	Ø 195	Ø 114	134
T1700	168	50-70	165	Ø 104	80	300	Ø 195	Ø 126	134

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T1500-T1700 - Capstans

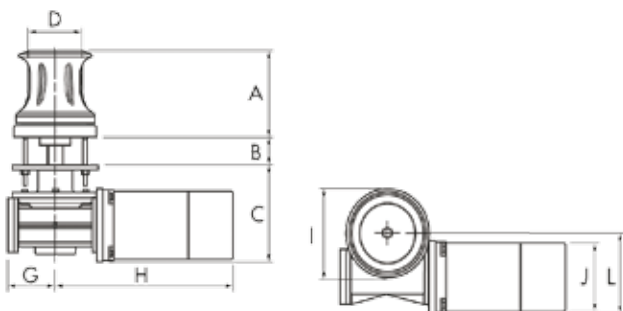


Dimensions in mm

Model	A	B	C	D	G	H	I	J	L
T1500	131	25-40	183	92	79	267	Ø 155	Ø 114	121
T1700	156	50-70	180	Ø 114	95	310	Ø 194	Ø 126	161

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T2000-T2500 - Capstans

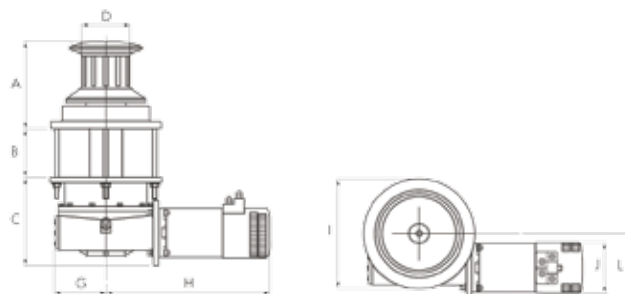


Dimensions in mm

Model	A	B	C	D	G	H	I	J	L
T2000	190	60-90	212	Ø 125	111	420	Ø 194	Ø 152	176
T2500	190	90-130	212	Ø 125	111	420	Ø 230	Ø 152	176

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T3000-T4000 - Capstans



Dimensions in mm

Model	A	B	C	D	G	H	I	J	L
T3000	250	60-90	132	Ø 132	140	430	Ø 264	Ø 175	215
T4000	267	150	270	Ø 150	159	502	Ø 338	Ø 158	205

INTEGRATED HYDRAULIC SYSTEMS

MAX
POWER

As of 2013, a strong partnership has been built among Lofrans' and Max Power thrusters creating a synergy in yacht control and maneuvering solutions.

As a natural evolution from simple stand-alone independent units, Max Power is able to offer fully integrated hydraulic systems for sailing yachts. Whether running winches, windlasses, bow thrusters, stern thrusters, hydraulic davits or complex keel lifting mechanisms, our complete hydraulic solutions are used by many of the world's large sailing yacht manufacturers. Unique in their flexibility, Our systems are built using a common central line principle.

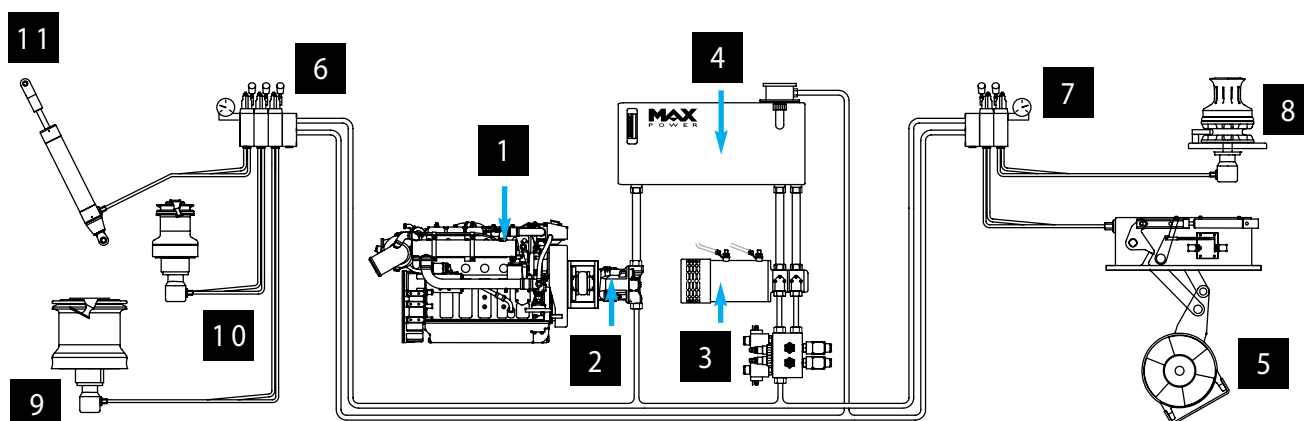


This means any function can be run from any power source thereby allowing a high level of user control. The use of load sensing pumps and valves ensures efficient and silent operation over a wide range of hydraulic flows and pressures. Our experience in designing and supplying complete solutions ensures that a Max Power-Lofrans' integrated system will be efficient, flexible and reliable.

Sailing yacht power systems typically include one or several generator mounted hydraulic pumps and in addition will require a DC power pack for silent sailing and light maneuvering. The PowerValve™ power pack range used in our systems, offers exceptional flexibility and power efficiency over a wide range of hydraulic flows.

Available as single or twin motor units, each motor pump can deliver 3 flow ratings at two predetermined system pressures, thereby accommodating a wide variety of hydraulic functions.

From high pressure, low flow keel, to a powerful high flow windlass, each function only draws the amperage needed for that specific application.



- | | |
|--------------------------------------|------------------|
| 1 Generator with PTO | 7 Control Valve |
| 2 Variable displacement pump | 8 Windlass |
| 3 DC power pack | 9 Winch |
| 4 Oil tank with filtration and gages | 10 Winch |
| 5 Thruster | 11 Hydraulic ram |
| 6 Control Valve | |

CUSTOMIZED SOLUTIONS



As part of the Lofrans' ability and capacity to deliver products for a wide range of vessels, the high end Mega Yacht demand for anchoring solutions could not be left unsupported.

Each yacht is considered as unique, as is the choice of anchoring equipment made by boat builders and naval architects around the world.

These products are almost always tailored to suit the individual requirements of yacht owners and operators, they are given special attention in all stages of their definition, design, manufacture, installation and commissioning.

A specific team of people, led by our Technical Manager, Mr. Luca Rivolta, focus on specific projects such as these, to be able propose products to yacht builders products that exceed their needs in reliability, safety, look and engineering excellence.

In Lofrans', this has been our goal since 1966.

Lofrans' 
W I N D L A S S E S
T H E O R I G I N A L W I N D L A S S

SELECTING THE WINDLASS

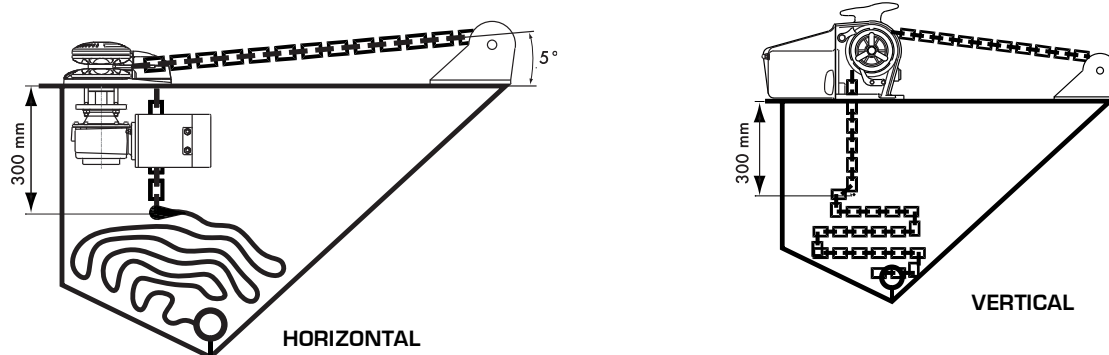
VERTICAL OR HORIZONTAL?

The space available over and under the deck is the main aspect to be considered when to select the vertical or horizontal windlass.

Vertical windlasses have the rotation vertical than the deck and they allow to have a reduced space on deck while the electric motor and the gearbox stands in the chain locker.

Horizontal windlasses are installed on deck and they have the rotation horizontal than the deck. They are suggested for boat where the chain locker is at the minimum. The electric motor and the gearbox are protected by a cover and they are easily accessible for maintenance.

To help the drop of the chain in the chain locker and get a better performance of your windlass the distance between the top of the heaped chain and the underdeck must be at least 300 mm.



DC, AC OR HYDRAULIC?

We are able to supply the windlass in three different motorization: direct current, alternate current and hydraulic.

- D.C. motorization is the most popular for reliability. The maintenance is very limited and this kind of electric motors are used for boats up to 90 feet length
- A.C. motorization is the choice for boats from 90 up to 120 feet length which have generators on board. A.C. motors offer a good torque, they need a simple installation and limited maintenance.
- Hydraulic motorisation gives the advantage of supply a constant torque while the load changes. They are very popular on boats of over 120 feet length. They need a specific installation.

MAX PULL AND WORKING LOAD

Max pull is the maximum pull that the windlass is able to supply for few seconds.

Max Working Load is the maximum lift that the windlass is able to supply. It comes from the max pull which is decreased in considering the lost of efficiency due to the whole system.

Working Load is a load which simulate an average condition of the applied load. This load is the reference for ampere drawing and the speed data indicated in the catalogue.

PROPER WINDLASS SELECTION

The steps to select a vertical or horizontal windlass are :

- Select the proper model checking the chart - windlass model length of the boat.
- Calculate the ground tackle which is made by anchor weight, total chain and rope weight on board.
- Compare the ground tackle to the Max Working Load decreased of the 25% for safety reason. The Max Working Load decreased of 25% must be superior to the ground tackle.

Eg sample on a boat of 42 feet

1. Calculation of the round tackle (anchor + rope + total chain)				
eg	Anchor	Chain 10 - 75mt - weight 2,2 kg/mt	Rope 25m/75ft	Ground tackle
	66lbs	+363lbs	+ 11lbs	+440lbs

2. Comparison of the Max Working Load decreased of 25% eg Project X2 1000W 12V model = Max WL 400 Kg				
eg	Anchor	Chain 10 - 75mt - weight 2,2 kg/mt	Rope 25m/75ft	Ground tackle
	66lbs	+363lbs	+ 11lbs	+440lbs

CIRCUIT BREAKER

The circuit breaker protects the electric motor and the cables of the windlass from overload of current. It is installed on the power line and it trips automatically when the current is over the rated following a specific time/ current curve. It is essential install this device for safety reason.

Our circuit breaker once tripped can be engaged again.

Choosing the proper circuit breaker is very important. You have to select the delayed time/current curve as the anchor windlass change the ampere drawing following the variable load.

Lofrans do not recognise the warranty in case of non installation of the proper circuit breaker.

SAFETY

The windlass is designed to lift the ground tackle but it is not designed to take the load of the whole boat. For this reason we strongly recommend to use a chain stopper in order to spread the load and avoid to damage for overload the structural components of the windlass.

MANUAL OVERRIDE

Most of the Lofrans windlasses is supplied with the manual override which makes the windlass able to recovery the chain in case of failure of the electrics.

The manual override is inserted inside the gearbox and it is made by spring load ratchet which has the secondary function to make a sort of mechanical fuse in order to prevent that chain jams in the chain locker could damage the deck.

CLUTCH

In the Lofrans anchor windlasses the main shaft and the gipsy are connected by a couple of conical disc called clutch. They are normally engaged by screwing the top star shaped nut. To engage or disengage the clutch you have to insert the supplied handle in this nut.

Disengaging the clutch, the gipsy is free and the weight of the anchor release the chain into the water.

AUTOMATIC FREE FALL

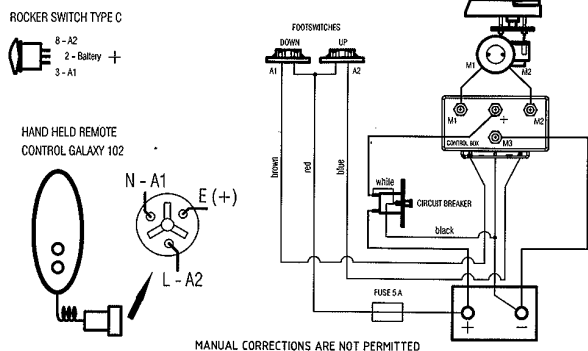
Some horizontal anchor windlasses install as option a device named AUTOMATIC FREE FALL. This device allows to disengage the clutch automatically simply by pushing the button DOWN of the remotes.

ROPE AND CHAIN MANAGEMENT

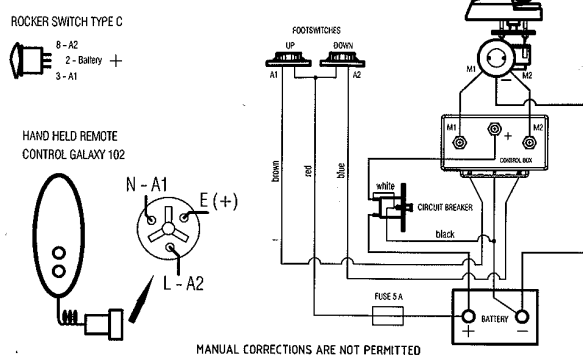
Most of the Lofrans anchor windlass are able to manage rope and chain by a special spring load tension arm called finger which pushes the rope deeply inside the gipsy teeth.

Wiring diagrams dependings on configuration and number of terminals

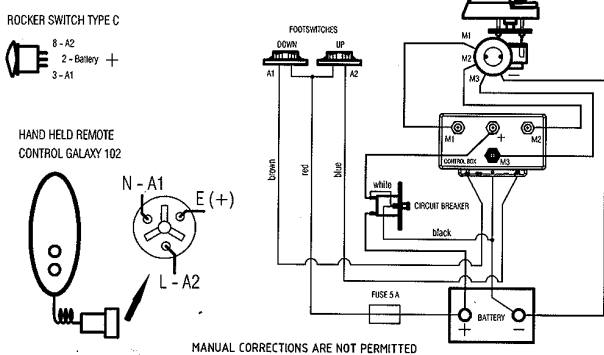
WIRING DIAGRAM - 2 TERMINALS ELECTRIC MOTOR
CONTROL BOX CODE: 600021 - 600022



WIRING DIAGRAM - 3 TERMINALS ELECTRIC MOTOR
CONTROL BOX CODE: 600018 - 600019 - 600020

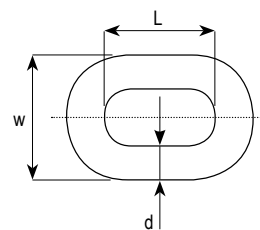


WIRING DIAGRAM - 4 TERMINALS ELECTRIC MOTOR
CONTROL BOX CODE: 600021 - 600022



CHAINS SECTION

CHAIN d	Inside Length L (mm)	Outside Width w (mm)
6 ISO	18	20
7 ISO	21	24
8 ISO	24	27
10 ISO	30	34
12 ISO	36	40
14 ISO	42	47
16 DIN 766	18.5	20
7 1/4" DIN 766	22	23
8 - 5/16" DIN 766	24	26
10 - 3/8" DIN 766	28	34
13 - 1/2" DIN 766	36	44



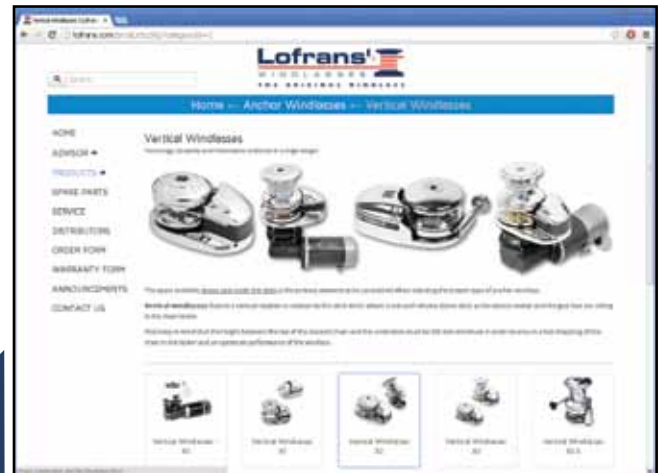


ADVISOR

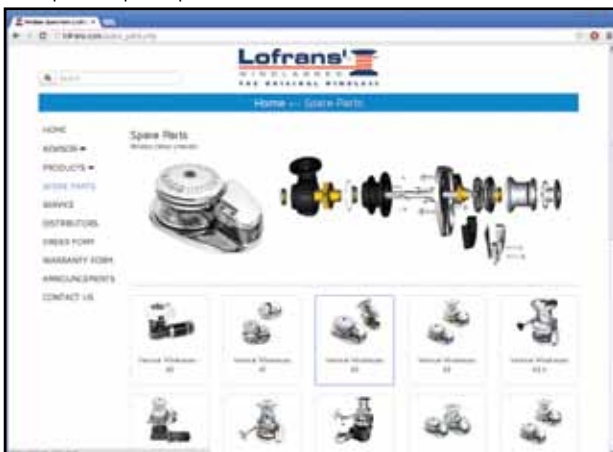
Up-to-date technical information

PRODUCTS

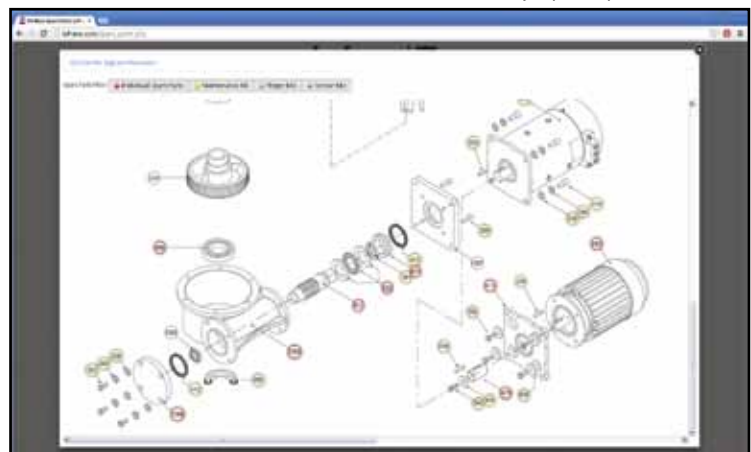
Comprehensive product selection



Complete spare parts information

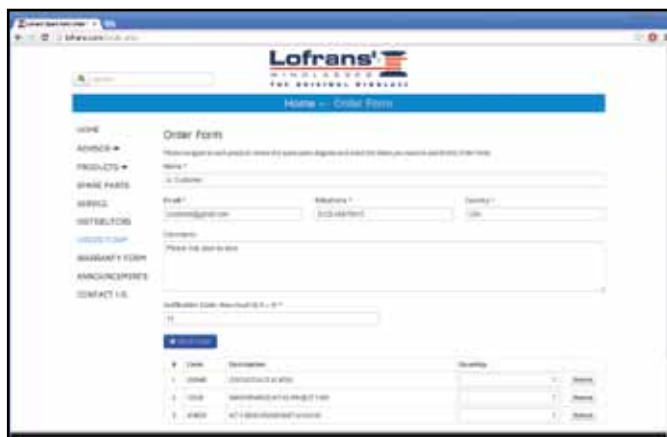


Easy spare part selection



SPARE PART ORDERING

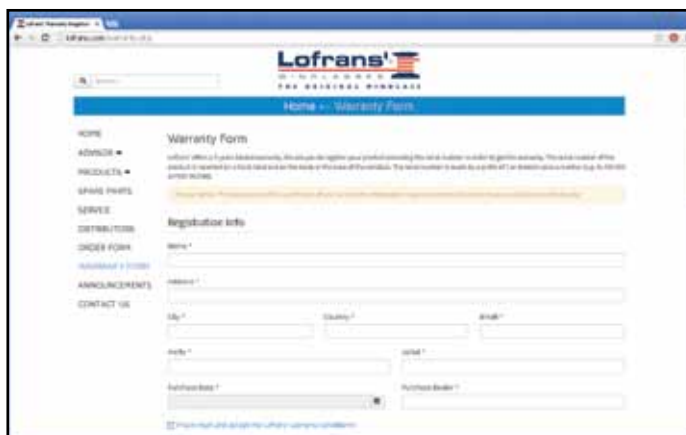
IN 2 STEPS



To order spare parts, all that is needed is an internet connection

WARRANTY

Take advantage of the 3 year warranty period



DISTRIBUTORS

Lofrans' international representation



www.lofrans.com

[illegible]





A: Via Philips 5, 20900 Monza (MI), Italy

T: +39 039 200 1973 - 936

F: +39 039 2004299

E: contact@lofrans.com

W: www.lofrans.com