ProFurl®

FURLING SYSTEMS

2013 Catalogue

ENGLISH

GROUPE Wichard

profurl.com

EW • NEW • NEW

PRO AM:
NEW STRUCTURAL FURLER

Profurl is proud to present the Pro Am 1.0 and Pro Am 2.0 structural furlers for 5 and 6 mm stays. Designed for 5 to 9.5 metre boats, Pro Am is ideal for Day Boats and Sports Boats.
See page 19 for details.

New – Exclusive

NEX HYBRID

Ceramic Bearing Technology

Profurl is proud to present NEX Hybrid, a new generation of swivels for flying sail furlers. They are the only swivels to feature ceramic bearings, which reduce friction, weight and size considerably. Designed for boats over 80' long, sailed solo or short-handed.

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Introduction

THE BEST OF PROFURL FOR ALL OUR CUSTOMERS

In 1980 PROFURL developed its first furling system and then quickly became one of the pioneers of this technology, as well as the worldwide market leader.

Today, thanks to its over 40 years of experience in the reefing-furling market, PROFURL is still considered as one of the major market players.
Whatever is your sailing program (cruising, racing, off shore), the size of your boat or your budget you will always find the appropriate PROFURL product to equip your yacht.
Our motto: Deliver the best of PROFURL technology to all our customers.

NEX Furler with spool mechanism

Bénéteau First 50 fitted with Profurl

X-Plore expeditions - Profurl in the extreme South

PROFURL: a Wichard Group brand

The Wichard Group, a world famous French marine hardware manufacturer, took over PROFURL in 2002.

Wichard: specialized in marine hardware: blocks, stainless steel products, tiller extensions...

PROFURL: a comprehensive range of products

PROFURL systems are adapted to any kind of sailing program; off shore races, single handed races around the world, cruising…

> Manual headsail reefing-furling systems for cruising and racing.
> Motorised headsail systems for big boats.
> In-boom furlers.
> Flying sails furlers for racing and cruising
> Stayfurlers for racing and fast cruising

Process of manufacturing

R&D: A high involvement

> Our products are first developed by the R&D department based in Pornichet on the West coast of France. The systems are developed by a team of highly skilled engineers, assisted by the latest computer tools and softwares.
> PROFURL products are the result of a tight collaboration between the R&D team and the world's riggers, sail makers and sailors.
> Each part is submitted to a range of scientific tests in order to test their resistance, beyond what could actually be experienced on a yacht

A rigorous manufacturing process

> The raw materials are carefully selected and are part of high level specifications, which are planned for extensive use of the systems.
> The mechanical parts are machined using a controlled patented process, and using extrusions of the purest metallurgical quality. PROFURL systems are not manufactured from castings which can contain impurities which can cause inherent weaknesses.
> Each part is micro-balled for a perfect surface finish and then anodised in a special green-gold process in order to assure the best protection against harsh marine environment.

Tests at sea

> Each new product is submitted to the sea in the most extreme conditions.
> The systems are also tested by marine industry professionals including some of the world's greatest skippers, sailmakers…

The reasons to choose a PROFURL system

> A comprehensive range of products meeting your needs.
> Reliable and performant systems.
> No maintenance required.
> A warranty on each product (e.g: 10 year warranty for the manual furling systems).
> A complete traceability process for a better quality.
> A professional and efficient assistance.
> A global network of distributors.
> Over 30 years of experience in the field.

Traceability process: each Profurl product is identified by a serial number.

Satisfying our customers first

HIGH QUALITY OF PRODUCTS AND TRACEABILITY
Each system has a serial number engraved in order to trace our products throughout the unit life.

WARRANTY
Each PROFURL product benefits from a world wide warranty: e.g. 10 year warranty for the manual headsail furlers.

ASSISTANCE
Our hotline is available to answer all your questions: product choice, special fitting…

A GLOBAL NETWORK OF DISTRIBUTORS
PROFURL products are distributed in more than 50 countries all over the world through a network of professionals well qualified and regularly trained.

Introduction

PROFURL PRODUCT OVERVIEW

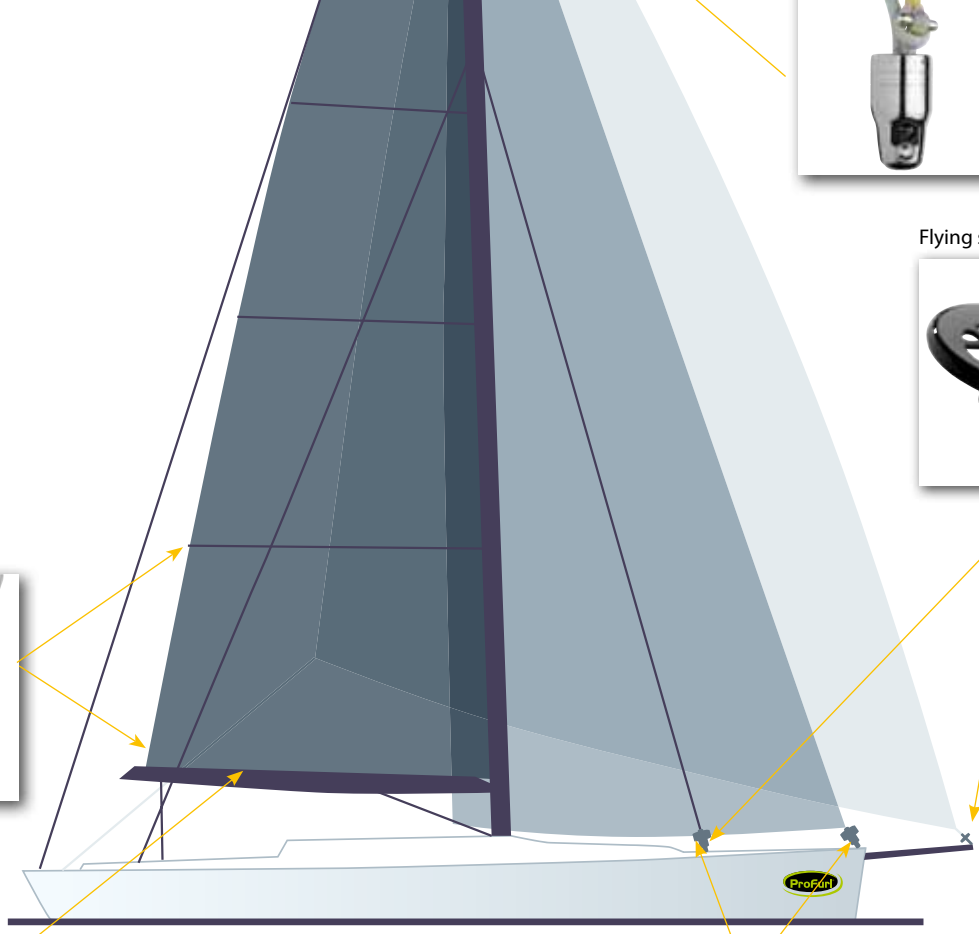
Find out where to use Profurl products on your boat.

Hooks: HK

Swivels:
NEX hybrid

Flying sail furlers : NEX

Reefing hooks: HKR:



In-boom mainsail furlers

Structural furlers:
Pro Am

Stayfurlers
NEX STR

Motorised systems
(Electric or hydraulic)

Manual reefing systems
(Cruising or Racing)

HEADSAIL MANAGEMENT: COMPARISON

	Structural system (acts as a forestay for the mast)	Sails which can be used with this system	Partial furling of the sail	Possibility to sail with a sail fully deployed	Possibility to drop the sails	Sailing programs
Manual reefing systems	No	• Genoa • Staysail • Solent jib	Yes	Yes	Yes	• Cruising • Ocean racing • Long distance cruising
Structural furlers PRO AM	Yes	• Genoa • Solent jib	No	Yes	Yes	• Regatta / one design • Day boat
Motorised reefing systems	No	• Genoa • Staysail • Solent jib	Yes	Yes	Yes	• Cruising • Long distance cruising
Flying sail furlers NEX	No	• Gennaker • Code zero • Staysail • Solent jib • etc...	No	Yes	Yes	• Ocean racing • Offshore racing • Regatta • Cruising • Long distance cruising
Stayfurlers NEX STR	Yes	• Genoa • Staysail • Solent jib	No	Yes	No	• Ocean racing • Offshore racing • Regatta / one design • Day boat

Class 40 Géodis - Armel Tripon - equipped by Profurl - credit: Laurent Vidal

Introduction

Stayfurler 30T fitted to 80' multihull IDEC
- Françis Joyon -

Custom : a laboratory on the ocean

> Custom activity is like what F1 is to the car industry: full size testing in the racing environment.

> It allows PROFURL to develop technical and innovative solutions on boats submitted to extreme conditions and intensive use.

> The developed solutions are then tested and adapted to high-volume product ranges (manual furling systems).

Profurl custom products

> A large range of flying sail furlers.

> A complete range of structural systems and hooks

> Some customized parts: pad eyes, fitting parts.

Wichard also supports the X-Plore arctic expedition as well as Sebastien Roubinet and Rodolphe André in their 1st attempt to cross the freezing Arctic Ocean sailing.

The Voie du Pôle boat fitted with a NEX0.9 Profurl flying sail system.

Our unequalled references

> 2005: World record of Francis Joyon on the multihull Idec(72 days).

> 2006: Transpacific record on Geronimo with Olivier de Kersauzon.

> 2006: 1st place Route du Rhum - Roland Jourdain on Sill & Véolia (Open 60')

> 2008: Round the world, non stop, singlehanded record - Françis Joyon on Idec

> 2010: Route du Rhum

1st place: Groupama 3 multihull

2st place: Idec multihull - F Joyon

> 2012: 24H solo record: F Joyon / Idec

MANUAL REEFING SYSTEMS

Reliability > Performance > Robustness

PROFURL offers a comprehensive range of manual headsail furlers. With its Cruising and Racing models, PROFURL is able to match the expectations of the sailor whatever the sailing program.

Manual reefing systems

CRUISING SYSTEMS

With 9 models, the Cruising range offers robustness and safety. They are dedicated to boats from 5 to 26 m. They integrate innovations like the double cage arms and the new feeder design. The Cruising models are equipped with silver anodised extrusions.

RACING SYSTEMS

The Racing systems bring performance and ease of use thanks to innovations like the opening pre-feeder delivered as standard. They are dedicated to boats from 6 to 20 m and have been especially designed for the racing-cruising sailors. They are equipped with black aerofoil extrusions.

High performance systems...

> The extrusions are made lighter and stronger thanks to a special alloy (6106).
> The ball bearings have an optimized weight / resistance ratio.
> The Wichard opening pre-feeder is delivered as standard on Racing models to hoist the sail faster.

...reliable and maintenance free

> The ball bearings are made of high strength 100 C6 carbon steel and are sealed in a grease bath to increase their working load and prevent corrosion.
> Watertightness is achieved by the use of two double lip seals preventing foreign bodies (salt, sand, dust, water) from entering the bearing mechanism.
> The not deformable plastic drums withstand impact (e.g: anchor bump, collision) and are resistant to UV.

Ease of use

PROFURL manual furling systems have been designed to ease operations:

> The standard feeder enables to easily hoist the sail by only one crew member.
> The optional opening pre-feeder, manufactured by Wichard, smoothly guides the sail's luff tape into the extrusions, whilst rapidly hoisting the sail. When re-hoisting it, the pre-feeder can be reattached to the luff tape without removing the headsail from the extrusion.

Safety of use

> Double cage arms (exclusive to PROFURL) prevent the furling line from jumping off the drum and allow the furling line to re-align onto the drum by simply pulling on the line.
> Stainless steel locking devices are dedicated to boats with a closed to deck fitting.
> On the C480, C520, C530 and R480 models, special locking devices have been designed to withstand the higher loads.

Reliability of materials

PROFURL rigorously selects the materials to be used for the manufacturing of the different components: these parts are submitted to bench-tests in order to assess their resistance.

> Ball bearings are made of high strength 100 C6 carbon steel.
> Drums are made of high impact plastic.
> Extrusions use a special alloy (6106) and offer one of the best weight / resistance ratios.
> The feeder and the opening pre-feeder are made of stainless steel (316L), except for C290.

The benefits of PROFURL systems

> A wide range of reefing systems for cruising and racing.
> Cruising systems for boats from 5 to 26 m with round silver anodized extrusions.
> Racing models for boats from 6 to 20 m with black aerofoil anodized extrusions.
> One forestay diameter for one furling system.
> The ability to use an existing forestay (in most cases).
> Several fitting possibilities: standard, long link plates, with turnbuckle cylinder, below deck, stainless steel lockers
> Light and robust extrusions.
> Maintenance free ball bearings.
> Insulation of the different materials.
> 10 year world wide limited warranty.

Manual reefing systems

Components of models (C290 to C430 - R250 to R430)

Swivel:

• Ball bearings sealed in a grease bath.

• Two watertight double lips seals to prevent foreign bodies from entering (water, salt, dust...).

Extrusions:

• Aluminium extrusions (Cruising: round silver anodised / Racing: aerofoil black anodised).

• Light weight specialised alloy.

• Optimum torque resistance.

Locking devices:

• Standard ones for Cruising and Racing models with short link plates

• Stainless steel locking devices with insulated bushes (recommended for boats with high/intensive use). Also mandatory in case of closed to deck fitting.

• The locking devices are available for standard, medium and long link plates attachment configurations.

Wrapstop:

Fixed at the top of the stay, it radically prevents the halyard from wrapping around the stay, and reduces potential halyard chafe.

Feeder (except C290):

• Stainless steel (316L).

• No fitting tool, attachment is made with a Velcro webbing.

• Option: opening pre-feeder from Wichard.

Drum mechanism:

• Withstands tremendous impact.

• Double cage arms prevent the furling line from jumping off the drum.

• Removable: the headsail can be hoisted and set as per a racing foil.

• The drum mechanism contains a maintenance free ball bearings system.

Components of C480, C520, C530 and R480 models

The C480, C520, C530 and R480 are designed for yachts from 14.5 m to 26 m. They integrate both the current PROFURL components and innovations developed to withstand the loads submitted on yachts of this length.

Feeder:

- Stainless steel (316L).
- No fitting tool, attachment is made with a Velcro webbing.
- Option: opening pre-feeder from Wichard.

Extrusion:

A new joiner system with an enhanced grip of the connector screws.

Locking devices:

New stream line drum mechanism design. Made from two counter plastic halves, and including retaining screws, to withstand lateral loads.

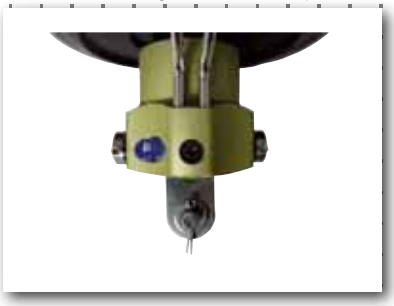
The drum:

As per other PROFURL manual headsail furling models, the rope drum and cage are removable. The furling line is attached to one half of the furling drum allowing for removal/rebuild. The double cage arms are engineered to withstand the yachts loads and maintain the alignment of the furling line onto the rope drum.

Manual reefing systems

DECK ATTACHMENT CONFIGURATIONS

Standard fitting with short link plates



Close to the deck fitting with stainless steel lockers

Long link plates fitting -

Fitting with turnbuckle cylinder

Below the deck fitting

What kind of fitting for my furling system?

PROFURL furling systems can be adapted to your boat's configuration, not vice versa. PROFURL offers a wide range of fittings, a description of each fitting configuration is listed below:

STANDARD FITTING WITH SHORT LINK PLATES

> Type of locking devices: standard and threaded pin for a stay eye fitting

> Raise the drum mechanism in order to clear the deck in case of obstacles (bow roller etc.).

> Fitting with adjustment plates is also possible

FITTING WITH LONG LINK PLATES

> Type of locking devices: standard

> The drum can be lifted to avoid interference with the anchor and to reduce the sail chafe on the lifelines.

> The forestay length is still adjustable.

FITTING CLOSE TO THE DECK

> Type of locking devices: stainless steel and smooth pin

> Increase the luff length

FITTING WITH A TURNBUCKLE CYLINDER

> The rigging screw is in the turnbuckle cylinder.

> The furling line can be fitted lower to the deck.

> It is also possible to use a combination of a turnbuckle cylinder and long link plates.

BELOW THE DECK FITTING

> An aesthetic solution chosen by some boatbuilders (Bénéteau, X-Yacht). Please contact us for more information.

> Adjustable tack fitting

C260: THE FURLING SYSTEMS FOR LIGHT BOATS

Especially designed for boats from 5 to 7 m, the C260 model is a self-contained halyard furling system. Cost-effective, easy to install on the existing forestay, the C260 does not require any maintenance.

> The self-contained halyard system

On light sail boats - especially fractionally rigged - it is usually difficult to obtain a tight forestay. The C260 with its self-contained halyard helps to minimise forestay sag by reducing mast compression created by a combination of loads from the halyard and sail.

> Ease of installation

The C260 does not require a specialised attachment to the forestay stem head, it is simply attached to the lower swage terminal of the forestay (eye and holes plates or turnbuckle).

For boats transported and stored on a trailer, the C260 can be separated in two sections reducing the risk of damage while in transit.

> Ease of use

The self-contained halyard passes over a sheave box fitted into the top of the extrusion and returns down to a sheave and cam cleat. Once the sail is hoisted and tensioned, the remaining length of the halyard is used as a furling line.

Manual reefing systems

CRUISING MODELS

> Large range of 10 models for boats from 5 to 26 m.
> Round and silver anodised profile.
> Several fittings possibilities: adjustment plates, long link plates, turnbuckle cylinder, below the deck fitting, stainless steel locking devices
> Additional option: opening pre-feeder, stainless steel locking devices
> 10 year world wide limited warranty.

Cruising range	C260	C290	C320	C350	C420	C430	C480	C520	C530	C700
	Self-contained halyard	Halyard swivel systems								On demand
Max forestay Ø (mm)	5	6,35	7	8	10	12,7	14,3	16	19	25,4
Equivalent in # rod	-	# 10	# 12	# 17	# 22	# 40	# 48	# 60	# 76	# 150
Clevis pin Ø (mm)	-	8-10-12-14-16		10-12-14-16-19-22-25			16-18-19-22-25-28			ND
Furling standard length (m)	8,50	10	12	14	16	18	18	20	22	ND
Extrusion length (m)	2									2.5
Weight / meter (Kg)	0,408	0,557	0,661	0,728	0,933	0,933	1,200	1,460	1,460	2,800
Removable drum	No	No	Yes							No
Feeder	No	No	Yes							
Double luff groove	Yes	No	Yes							
Luff line Ø (mm)	6	5					6			
Luff rope pre-feeder	No	Option								
Long link plates	No	Option								
Turnbuckle cylinder	No	Yes	Option							
Stainless steel locking devices	No	Option: all models - Specific locking devices: C480, C520, C530								
Warranty	10 year world wide warranty									

How to choose my furling system?

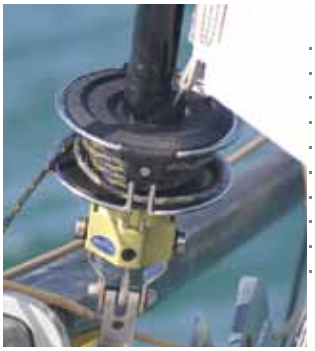
To correctly select your own furling system, refer to the following steps:

Step 1: Define your sailing program: cruising or racing-cruising.
Step 2: Measure accurately the diameter of the forestay (see table below).
Step 3: Choose one of the fitting systems described on page 14.

Boat length (meter)												
Model	maxi fore-stay Ø mm	5 - 7	7 - 9	9.50	10	11	12	13	14	16	18	26+
C260	5											
C290	6.35											
C320	7											
C350	8											
C420	10											
C430	12.7											
C480	14.3											
C520	16											
C530	19											
C700	25.4										On demand	

RACING MODELS

> Range of 5 models for boats from 6 to 20 m.
> Black anodised aerofoil profile.
> Several fittings: adjustment plates, long link plates, turnbuckle cylinder, below the deck fitting, stainless steel locking devices
> Options: stainless steel locking devices, turnbuckle cylinder
> 10 year world wide limited warranty.



Racing range	R250	R350	R420	R430	R480
	Halyard swivel systems				
Max. forestay Ø (mm)	6,35	8	10	11.1	12.7
Equivalent in # rod	# 10	# 17	# 22	# 30	# 40
Clevis pin Ø (mm)	8-10-12-14-16		10-12-14-16-19-22-25		16-18-19-22-25-28
Furling standard length (m)	8	12	14	16	18
Extrusion length (m)	2	2	2	2	2
Weight / meter Kg	0,383	0,638	0,835	0,835	1,200
Removable drum	Yes				
Feeder	Yes				
Opening pre-feeder	Yes				
Double luff groove	Yes				
Luff line Ø (mm)	5 mm				6 mm
Long link plates	Option				
Turnbuckle cylinder	Option				
Stainless steel locking devices	Option for all models - For R480 specific locking devices				
Warranty	10 year world wide warranty				

How to choose my furling system?

To correctly select your own furling system, refer to the following steps:

Step 1: Define your sailing program: cruising or racing-cruising.
Step 2: Measure accurately the diameter of the forestay (see table below).
Step 3: Choose one of the fitting systems described on page 14.

		Boat length (meter)										
Model	Max fore-stay Ø mm	6	7	8	9	10	11	12	13	14	16	19
R250	6.35	■	■	■	■							
R350	8				■	■	■	■				
R420	10						■	■	■	■		
R430	11.1 (rod-30)								■	■	■	
R480	12.7 (rod-40)									■	■	■

Manual reefing systems

BELOW THE DECK MODELS

> For Cruising models from C290 to C430 and Racing models from R250 toR430
> Adjustable tack point above the deck
> Aesthetic solution enabling easier operations with anchor
> Optimized luff and thus better boat performances
> 10 year world wide warranty

Below the deck fitting	C290	C320SP	C350SP	C420SP	C430SP	R250SP	R350SP	R420SP	R430SP
Max. forestay Ø (mm)	6,35	7	8	10	12,7	6,35	8	10	11,1
Equivalent in # rod	# 10	# 12	# 17	# 22	# 40	# 10	# 17	# 22	# 30
Clevis pin Ø (mm)	8/10/12/14/16		10/12/14/16/19/22/25			8/10/12/14/16		10/12/14/16/19/22/25	
Furling standard length (m)	10	12	14	16	18	8	12	14	16
Extrusion length (m)	2 m								
Weight / meter Kg	0,557	0,661	0,728	0,933	0,933	0,383	0,638	0,835	0,835
Removable drum	No								
Feeder	No	Yes							
Opening prefeeder	Option					Yes			
Double luff groove	No	Yes							
Luff line Ø (mm)	5								
Long link plates	Option								
Turnbuckle cylinder	Yes								
Stainless steel locking devices	Option for all models								
Warranty	10 year world wide warranty								

Frequently asked questions: manual furling systems

Does my furling system require maintenance?

No, as per all PROFURL products, the furling systems do not require any maintenance.

Do I benefit from a warranty on my manual furling system?

Yes, all the manual furling systems have a limited 10 year world wide warranty.

Can I install a furling system on my existing forestay?

Yes, as opposed to other competing products, the PROFURL furling systems can be installed on the existing forestay.

What are the differences between a Racing model and a Cruising one?

On a Racing model, the profiles are aerofoil and black anodised and includes the opening pre-feeder as standard. On a Cruising model, the extrusions are round and silver anodised.

Why having a removable drum on most of the Profurl systems?

The drum is easily removable, so that once the drum and rope guard have been removed the furling system can be used as a racing foil.

See comparison table on page 7

See technical documents page 52 - 60

PRO AM

STRUCTURAL FURLERS

PRO AM is the new generation furler for 5 to 9.5 metre boats designed to sail with sails fully unfurled..

PRO AM

STRUCTURAL FURLERS

PRO AM is a new generation of structural furlers for 5 to 9.5 metre boats designed for "all or nothing" sailing (with sails fully unfurled). The sail is hoisted and hauled thanks to a second swivel called a "halyard swivel". PRO AM also allows you to strike the sail for wintering, maintenance or just for storage after use.
2 sizes available: PRO AM 1.0 for 5 mm diameter stays / Pro Am 2.0 for 6 mm diameter stays.

Why choosing PRO AM?

> The ideal system for Day Boats and Sports Boats
> Light and easy to handle
> Sail can be hoisted and lowered
> Possibility to remove easily the halyard swivel only.
> Quick fitting and removal for trailer boats
> Profurl system: maintenance-free components mounted in a sealed grease bath.
> Three-year Profurl worldwide limited warranty.

What's the difference between PRO AM and a classic furler?

Structural

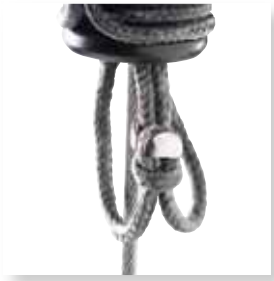
> The stay fastens directly on the spool and the swivel, so PRO AM supports the mast.

All or nothing sailing

> Because it is a structural element, PRO AM allows you to sail with the sail fully unfurled or fully furled. A classic furler with extrusions allows you to sail partially furled.

Efficient:

> The PRO AM halyard swivel is fitted with ball bearings to ensure excellent rotation even under heavy loads.
> PRO AM has light and compact components (spool and swivel) and textile fastening systems on the halyard swivel. With no extrusions to increase windage, the sail enjoys superior performance.



Wichard textile fastening system

PRO AM applications

> Day boats
> Sports boats
> One designs and class boats (J80, Surprise, Dragon...)

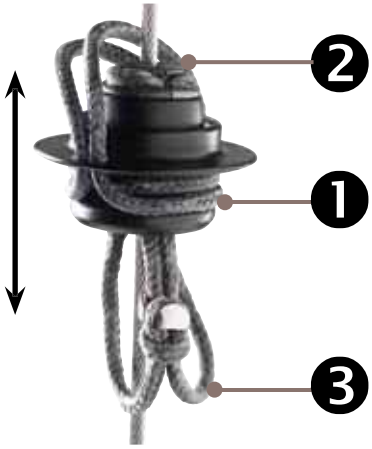
Sail types

> Jib, solent mounted on snap hook or sleeve

See technical documents page 61

PRO AM: how does it work?

1. Unlike a classic furler, the PRO AM has a halyard swivel (or tensioning swivel) which allows you to hoist and lower the sail.
2. Attachment of the halyard on the halyard swivel
3. The halyard clew of the sail is fastened to the Wichard soft shackle.
4. The head swivel allows the cable to rotate and thus furl the sail.
5. The tack of the sail is fastened to the Wichard shackle.
6. The stay (5 or 6 mm single strand) is fastened to the drum and the swivel at the head
7. The stainless steel toggles are fitted to the boat's deck and mast.



Performance

S-GRIP: Better line grip

The special groove design, allowing for deformation of the line, ensures:

- better line grip, even when wet!
- easier furling
- minimum line wear

OPTIMAL FURLING: Furl without effort

The optimal spool diameter provides ideal torque, which:

- makes furling easier
- reduces effort

XTRA-LIGHT SYSTEMS: Lightness first

The size and weight of each component (spool, swivel, and terminals) have been optimised to:

- improve sailing performance
- ensure easier handling of the systems

Safety

SAFE SYSTEM enables you to stop the running of the furling line during deployment of sail and thus:

- prevent accidents or damage caused by a free running line.
- manoeuvre more quickly and easily
- prevent excessive wear of the line

SMART LOCK: Wire lock (only on fork models)

- Wire locking system completely integrated into the drum mechanism
- No need to use a lanyard.
- No risk of jamming caused by adjacent lines.
- Keeps the pin free to turn (no strain).
- Locking indicator on the pin.

See technical documents page 61

PRO AM

STRUCTURAL FURLERS

CHOOSE YOUR PRO AM FOR BOATS FROM 5 TO 9.50M:

	PRO AM 1.0	PRO AM 2.0
Boat length	from 5 to 7 m	from 7 to 9,5 m
Forestay diameter	5 mm	6 mm
System working load*	1000 Kg	2000 Kg
Halyard swivel working load	600 Kg	600 Kg
Spool diameter	120 mm	150 mm
Pin toggle diameter	8 mm	10 mm
Pin eye diameter	8 mm	10 mm

*: The spool and swivel working loads take into consideration the stainless steel cable breaking loads used as a forestay.

Halyard swivel

Frequent questions: structural furlers

Is my PRO AM structural furler a forestay?

Yes the PRO AM furler is "structural" which means that, combined with the stainless steel cable, it acts as a forestay.

What types of sail can be used with PRO AM ?

Foresails (genoa, solent) bent on with snap hooks.

Can I lower a sail once it has been fitted?

Yes, thanks to the halyard swivel you can hoist and lower the sail whenever you need to (for storage, wintering, maintenance, etc.).

How do I use PRO AM?

PRO AM is to be used for sails that are fully unfurled. Partial furling of the sail is not possible with this type of system.

Can I remove PRO AM easily?

Yes PRO AM can be removed easily, for example, when you have to put your boat on a trailer

Is the stay fastened to the system securely?

Yes, PRO AM features Smart Lock which ensures that the cable is locked to the system and prevents any accidental removal.

Is my PRO AM guaranteed ?

Yes, all PRO AM structural furlers come with a 3 year international guarantee.

See comparison table on page 7

FLYING SAIL FURLERS

NEX : The new generation of flying sail furlers from Profurl

Fast, safe and easy flying sail hoisting, and improved boat performance: this is what Profurl offers you with its range of NEX flying sail furlers.

Flying sail furlers

NEX GENERATION:
THE FLYING-SAIL FURLER FOR EVERY SAILOR

Discover the NEX, Profurl's new generation of continuous-line, flying-sail furlers, developed through Profurl's know-how and R&D with input from some of today's greatest skippers to improve the performance of your yacht and ensure safe, optimum deployment of your flying sails.

The NEX flying-sail furler enables you to sail with the correct sail fully deployed, and since it is easy to change, you can have the best sail in any wind conditions. The NEX is made for every sailor, professional or amateur.

NEX: models

> 6 models available for boats from 6 to 25m: NEX0.9, NEX1.5, NEX2.5, NEX5.0, NEX 8.0 and NEX 12.0

> Optimal size and weight

> Wide range of terminals to fit your boat: Wichard snap shackle, MX (Wichard halyard shackle), standard shackles, 2:1 halyard blocks

> Proven Profurl Technology: maintenance free systems permanently sealed in grease (except the NEX0.9)

> Selective materials: for optimal strength/weight ratio

> 3 year world-wide limited warranty

NEX 0.9

NEX 1.5

NEX 2.5

NEX 5.0

NEX 8.0

NEX 12.0

+ Mechanisms in titanium

Benefits of NEX flying sail furlers

Improved performance

> Allows use of the best suited sail to sailing conditions

> Optimal size and weight (e.g., maximum sail luff)

Ease of use and safety

> Quick operations (rigged in seconds)

> Enhanced safety: sail furled from cockpit

> Reduced sails storage

> Quick sail attachment device (I-Connect)

> Quick line installation and removal (Quick Fit)

Types of sails

The flying-sail furler is designed to be used with light and heavy flying, asymmetrical sails, e.g., gennaker and code zero, between a beam reach and a broad reach.

Light sails

> Gennaker, code zero, screacher, light or mutlipurpose genoas, fisherman.

Heavy sails

> Solent, reacher, staysail, storm jib

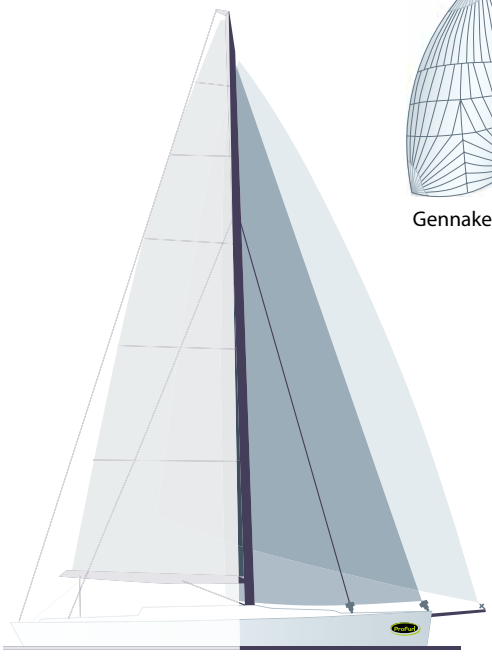
> Combined with a 2:1 purchase, NEX is an efficient alternative to a removable stainless steel forestay.

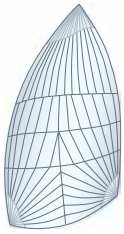
NEX: Sail range of use

NEX

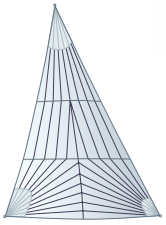
- Genoa / staysail
- Code 0
- Gennaker

Asymetric spinnaker*

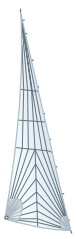




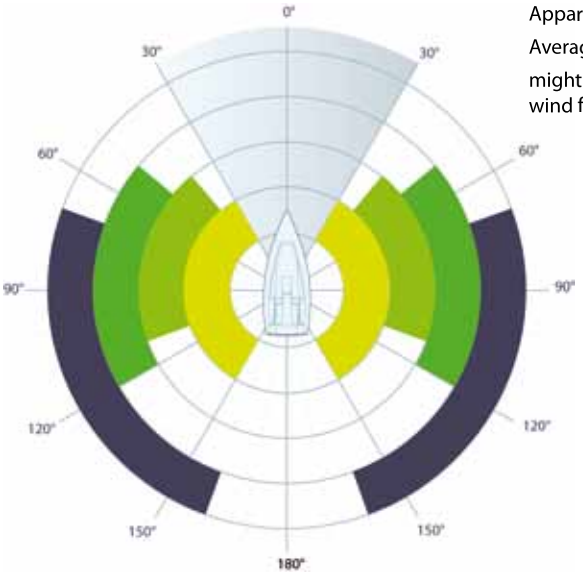
Gennaker



Code Zero



Staysail



Apparent wind - Average values – might change with wind force

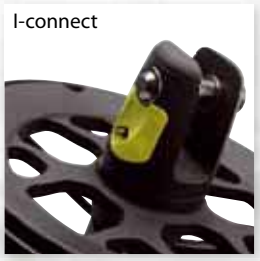
Tips:

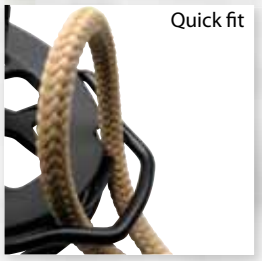
> To furl the sail effectively and without effort, it is recommended to tension the halyard before the operation.

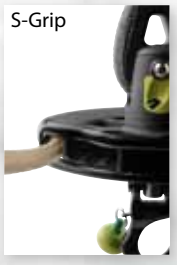
> The NEX flying sail furlers do not require any maintenance.

*The flyng sail furlers can not be used with asymmetric spinnakers.

Flying sail furlers


I-connect


Quick fit


S-Grip

Performance

S-GRIP: Better line grip

The special groove design, allowing for deformation of the line, ensures:

- better line grip, even when wet!
- easier furling
- minimum line wear

OPTIMAL FURLING: Furl without effort

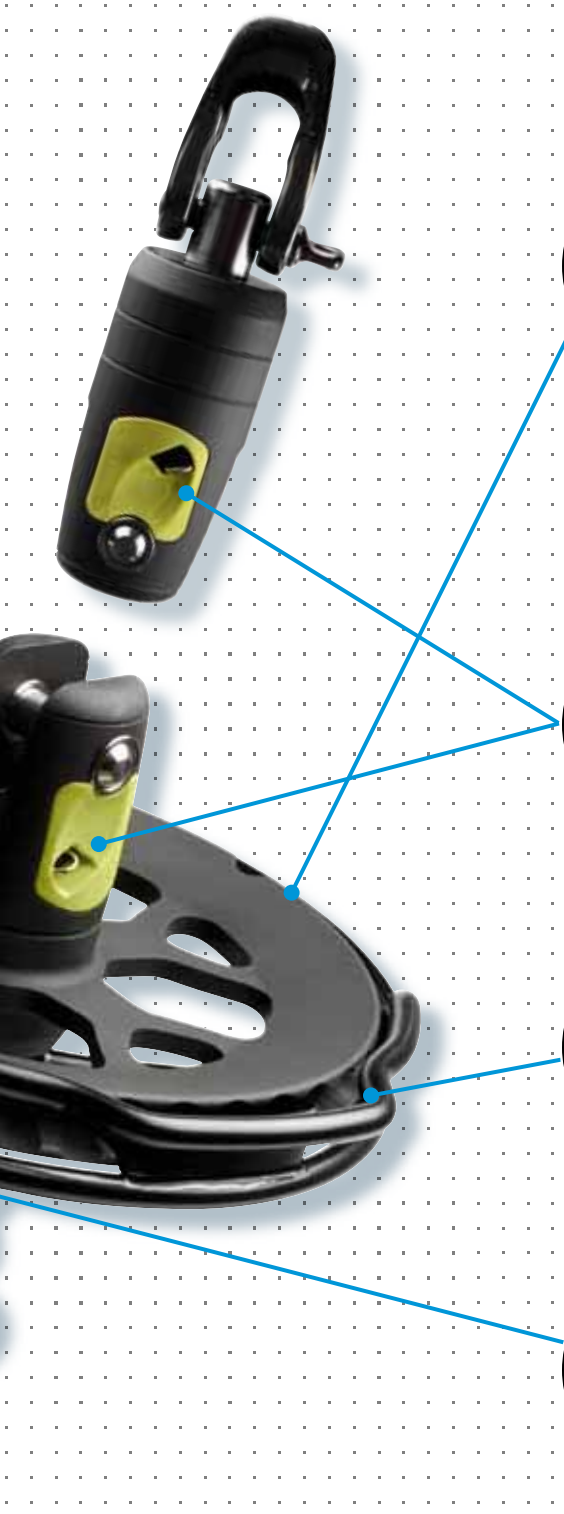
The optimal spool diameter provides ideal torque, which:

- makes furling easier
- reduces effort

XTRA-LIGHT SYSTEMS: Lightness first

The size and weight of each component (spool, swivel, and terminals) have been optimised to:

- improve sailing performance
- ensure easier handling of the systems



Safety

SAFE SYSTEM: Removable Line

The SAFE SYSTEM enables you to stop the furling line running during sail deployment and thus:

- prevent accidents or damage caused by a free running line.
- manoeuvre more quickly and easily
- prevent excessive wear of the line

Easy to use

I-CONNECT: The Quick Sail Attachment Device

Available on NEX spools and swivels, enables you to quickly attach or remove the sails because of:

- a quick, ergonomic system (for singled handed operation)
- a fully integrated captive pin
- no risk of fouling with adjacent lines

QUICK FIT: Line Fitting

Enables you to fit or unfit the continuous line rapidly.

- rapid fitting
- long splicing possible
- the furling line may be left in position on deck
- furlers can be changed without changing the line

TUNE & LOCK: Adjustment and installation

The system is fitted and adjusted with a single screw:

- adapts to the line outlet and deck layout
- reduction of excessive line friction
- quick installation with only one pre-fitted screw

Flying sail furlers

CHOOSE YOUR NEX AMONG 4 MODELS FOR BOATS FROM 6 TO 18M

	NEX 0.9	NEX 1.5	NEX 2.5	NEX 5.0	NEX 8.0	NEX 12.0
Max light sail area (i.e: gennaker)*	35 m^2	60 m^2	80 m^2	150 m^2	250 m^2	350 m^2
Max Working Load**	900 Kg	1500 Kg	2500 Kg	5000 Kg	8000 Kg	12.000 Kg
Spool Diameter	125 mm	140 mm	180 mm	195 mm	200 mm	230 mm
Displacement (cruising boat)*	2800 Kg	5000 Kg	8500 Kg	15000 Kg	-	-
Examples for a monohull*	Mini 6.50 - Cruising boat 27'	Cruising boat 32'	Cruising boat 42 '	Cruising boat 55'	Multihull 60'	+ 80 '

If used on a multihull or for a heavy sail (on monohull), please choose the larger model .

*: The values shown in the table are for information only and should be verified by a professional taking into account the characteristics of the boat.
** The working loads shown are the maximum working loads of the mechanisms only and are not the loads of the complete system when terminals are included (see technical data on page 62). The product should not be used above these working loads in any circumstances.

TERMINALS AND ACCESSORIES

	NEX 0.9	NEX 1.5	NEX 2.5	NEX 5.0
Lower terminals on drum mechanism				
Clevis pin snap shackle	included	included	included	included
MX: halyard shackle	option (MX6)	option (MX6)	option (MX8)	option (MX10)
Upper terminals on swivel				
MX: halyard shackle	option (MX6)	option (MX6)	included (MX8)	included (MX10)
Wichard shackle	included	included	option (part # 11204)	option (part # 11205)
Halyard block	option			
Accessories				
Thimbles	option: stainless steel thimbles with bar		option: aluminium thimbles	
Furling line	option			
Anti-twist torque rope	option			

NEX 8.0 and NEX 12.0 terminals: these two models are delivered on standard with a lashing eye and a halyard block.
Optional lower terminal for NEX 12.0: hardsheave 3:1 (on request)

See technical documents on page 62-63

Components of NEX flying sail furlers

The NEX flying-sail furlers are composed of 2 mechanisms, the spool and swivel, each with terminals allowing for fitting or use. An anti-twist torque rope which transmits the rotation up to the head of the sail is fitted inside the luff of the sail supplied by the sailmaker.

Spool and swivel

Fitting terminals

Clevis pin snap shackle: lower terminal

MX: halyard shackle lower and upper terminal

HR Wichard shackle

Profurl innovative terminal solutions by Wichard

Profurl supplies innovative terminals: easy to use and with optimal sizes and weight. Wichard's forging expertise ensures that these terminals, especially developed for NEX, provide one the best strength to weight ratios on the market.

> MX: Wichard halyard shackle

- Included on NEX 2.5 and NEX 5.0 models
- Reduces mast compression
- Optimal dimensions and weights
- Replaces standard halyard blocks
- Can be used as 2:1 purchase on drum mechanism
- Can be used as a simple shackle (with a single knot)
- Perfect for swivels and spools
- Outstanding working and breaking loads
- Fully forged in 17/4 stainless steel for High Resistance
- 3 sizes available: MX6, MX8 and MX10 – for lines from 8 to 14 mm

> Halyard block for NEX 8.0 & NEX 12.0

> Wichard Clevis Pin Snap Shackle

- Included on all models
- Ergonomic ball stoppers for easier handling
- Optimal sizes and weights (no intermediate fittings)
- Forged in 17/4 stainless steel for High Resistance, with a black surface coating
- Outstanding working and breaking loads

> Aluminium thimble / Stainless steel thimble

Flying sail furlers

EC 1500

EC MODELS: FLYING SAIL FURLERS WITH DRUM

> With a drum and a single furling line similar to manual headsail furler.
> Economical system.
> Wide choice of attachments (snap shackle, large eye…).
> New: black anodised mechanisms

	EC 1500	EC 2500	EC 4000	EC 6000	EC 12000
Max Working Load*	1500 Kg	2500 Kg	4000 Kg	6000 Kg	12000 Kg
Boat size if light sails*	36′	42′	55′	70′	120′
Boat size if heavy sails*	35′	38′	50′	60′	70′
Average sail area*	35 m^2	45-50 m^2	80 m^2	140 m^2	260 m^2

*: The values shown in the table are for information only and should be verified by a professional taking in to account the characteristics of the boat.

Fitting options for EC models

	EC 1500	EC 2500	EC 4000	EC 6000	EC 12000
Terminal on anti twist luff rope	Eye / standard thimble	Eye / standard thimble	Eye / standard thimble	Eye / standard thimble	Eye / standard thimble
Upper terminal on swivel	Large eye	Eye or block	Eye or block	Eye or block	Shackle
Lower drum attachment	Large eye	Large eye	Snap shackle	Large eye / block	Double jaw toggle

Frequently asked questions: flying sail furlers

Does my flying sail furler require maintenance?

No, the drum mechanism and swivel are sealed in a grease bath, no maintenance is required.

Is my flying sail furler structural?

No they are the opposite of a structural furler or manual headsail furler, flying sail furlers are not structural and are therefore removable

Can I sail with my sail partially furled?

No the flying sail furlers are made to sail with the sail fully unfurled.

Where can I buy an anti twist "Torque" rope?

Rope manufacturers, riggers, and sailmakers usually sell this kind of product. Profurl is also able to provide this product. Contact us.

Can I use my current sails?

Yes, however a sailmaker must integrate the anti twist cable into the luff of the sail.

Is the storage of sail optimized?

Yes, once the sail is furled and dropped, the storage is optimized. The sail can also be stored onto the deck or along the mast.

I am not a professional skipper; can I use this kind of furlers?

The flying sails furlers are dedicated to anybody willing to improve the performances of his boat (professional skippers but also sailor's keen on cruising).

Is my PROFURL flying sail furler under warranty?

Yes, the flying sail furlers benefit from a 3 year world wide warranty.

See comparison table on page 7

SWIVELS

NEX HYBRID

Exclusively with Proful, discover the HYBRID NEX swivels with ceramic ball bearings that reduce friction and weight of the mechanisms.

NEX HYBRID

Ceramic Bearing Technology

REVOLUTION IS NOW!

PROFURL is proud to present the Nex Hybrid range of furlers for boats up to 100' long, sailed solo or short-handed. Nex Hybrid features Ceramic Bearing Technology (CBT) which reduces friction and weight considerably. Using these extremely corrosion-resistant bearings enables Profurl to banish metal fastenings in favour of soft textile ones.

NEX Hybrid swivel

Groupama 3, the first sailing boat to use CBT and most recent solo winner of La Route du Rhum 2010 in the Maxi class.

Examples of boats using NEX Hybrid

> Trimaran 80' Prince de Bretagne (France)
> Trimaran Groupama 3
> AC 72 America's Cup
> Mega Yachts

Sail types

> Sails fitted to a furler
> Ideal for hooked-on sails

Why choosing Ceramic Bearing Technology?

CBT allows Profurl to add ceramic ball bearings to their furling systems. CBT has the following benefits:
> up to 30% less friction
> fewer components because metal fastenings are replaced by textile fastenings
> assemblies up to 30% lighter (no grease, seals, etc.)
> optimizes the size of the assemblies
> systems are highly resistant to corrosion, maintenance free, and easy to use and fit

Ceramic Bearing Technology

Benefits
> Weight: -30%
> Dimensions: -30%
> Friction: -30%

Advantages for the crew

> Improve the performance of your yacht
> Easy handling
> Makes furling easy
> Ideal for solo or short-handed sailing

Models	NEX Hybrid 8.0 swivel	NEX Hybrid 12.0 swivel
Max working load	8.000 Kg	12.000 Kg
Fork width	19 mm (FFS3 - Future Fibres)	22 mm (FFS4 - Future Fibres)
Fork pin Ø	14 mm	20 mm
Single strop Ø	27 mm	34 mm
Can be used in conjunction with a standard spool	NEX 8.0	NEX 12.0
Used in conjunction with a lower mechanism featuring CBT	Yes	

Why using ceramic bearings?

Ceramic bearings were first used in aerospace industry.

> Ceramic balls are held in casings. The silicon nitride balls are low density but extremely hard. They will not lose their shape even under the heaviest loads, resulting in less friction and a greater lifespan.

> These bearings also show remarkable resistance to corrosion.

Thanks to these revolutionary components Profurl can design "open" systems which contain no grease or seals. The textile fastening is now anchored to the inner mechanism of the assembly.

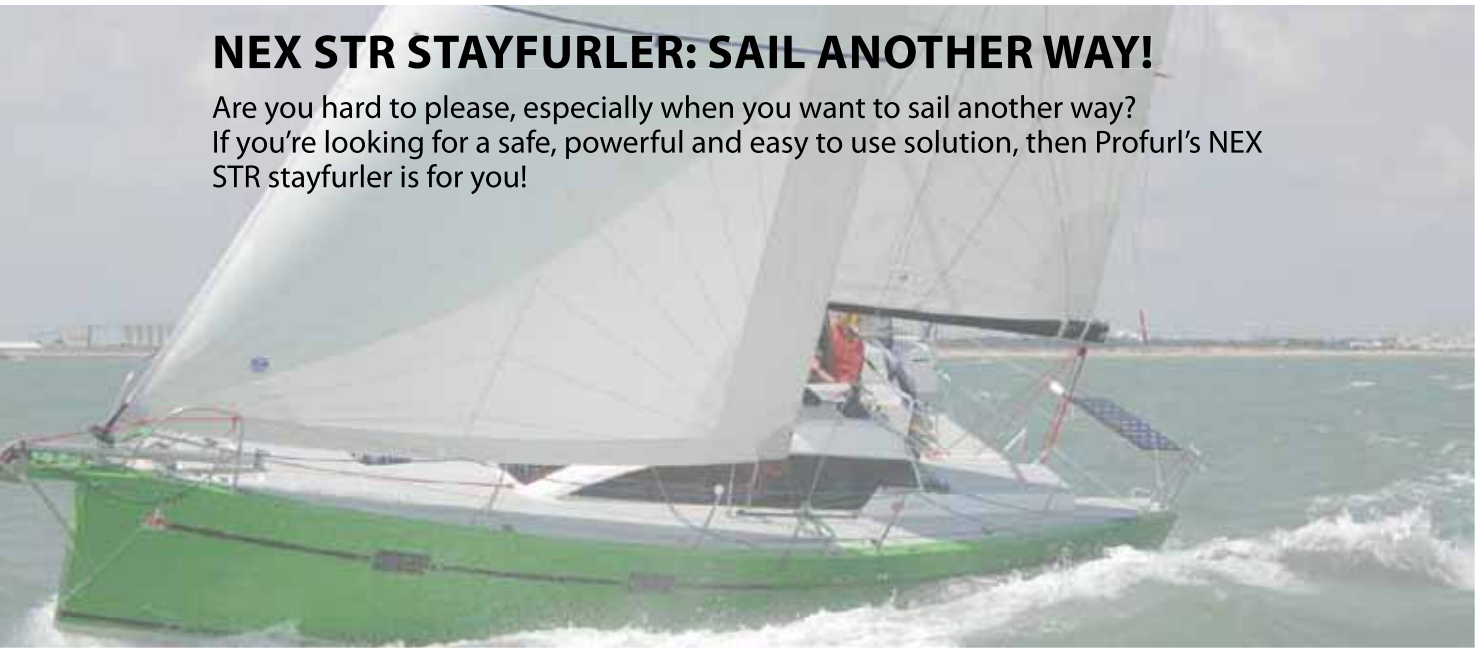
STAYFURLERS

NEX STRUCTURAL

Performance > Reliability > Simplicity

Developed for offshore racing, the stayfurler is a structural furling system that improves the yacht's overall performance. In the latest years, this system has become an essential piece of equipment for a variety of boats, such as cruisers, racers, day boats, one-designs and others.

Stayfurlers:
NEX STRUCTURAL



NEX STR STAYFURLER: SAIL ANOTHER WAY!

Are you hard to please, especially when you want to sail another way?
If you're looking for a safe, powerful and easy to use solution, then Profurl's NEX STR stayfurler is for you!

Stayfurlers for everyone

> Initially reserved for the sailing elite (60' open, ORMA multihulls), stayfurlers are becoming increasingly common on a variety of sailing boats:
- Cruisers
- Racers
- Regatta boats & one-designs
- Day boats

> Compatible sail types: genoa, staysail and solent jib.

Fora Marine boatyard has chosen the NEX STR 4.0 stayfurler for the new RM 1060 Performance.

NEX STR overview:

> 5 standard models available: NEX STR 4.0, 5.0, 8.0, 10.0 and 12.0
> Upper size models available on request: NEX STR 16.0, 20.0, 30.0 and 40.0
> Optimal size and weight for a great performance
> Various end fittings available for every kind of deck layout
> The greased-immersed systems are watertight and require no maintenance.
> 3 year Profurl worldwide warranty

Why using a NEX STR stayfurler?

IMPROVE THE PERFORMANCE OF YOUR SAILING BOAT

> Replacing aluminium extrusions with Kevlar or PBO fiber cables significantly reduces weight (see below).

> Optimizing the size and weight of the mechanisms maximizes luff and reduces weight considerably.

SAFE, EASY TO USE AND COMFORTABLE

> The SMART LOCK system enables locking the cable and prevents accidental dismantling without hindering the pin rotation. Entirely integrated into the stayfurler mechanism, the system also prevents adjacent lines from jamming. Available in fork versions.

> The SAFE SYSTEM on NEX STR stayfurlers allows you to immobilize the furling line when unfurling, thus avoiding accidents and injuries

> All furling and unfurling are done from the cockpit.

> The overall weight reduction improves both safety and comfort when sailing.

Example: installing a NEX STR 4.0 stayfurler on the RM 1060 Performance built by Fora Marine.

Total overall weight in Kg

0 to 10 Kg

STAYFURLER NEX STR 4.0
WITH FIBER CABLE
TOTAL WEIGHT: 7,5 KG

10 to 25 Kg

MANUAL FURLER
WITH ROD STAY:
TOTAL WEIGHT: 22,10 KG

25 to 40 Kg

MANUAL FURLER WITH 1X19 STAINLESS STEEL WIRE
TOTAL WEIGHT: 26,90 KG

Weight reduction between 66 and 74%

WEIGHT REDUCTION

=

INCREASED SAFETY AND PERFORMANCE

Stayfurlers:

NEX STRUCTURAL

Performance

S-GRIP: Better line grip

The special groove design, allowing for deformation of the line, ensures:

- better line grip, even when wet!
- easier furling
- minimum line wear

OPTIMAL FURLING: Furl without effort

The optimal spool diameter provides ideal torque, which:

- makes furling easier
- reduces effort

XTRA-LIGHT SYSTEMS: Lightness first

The size and weight of each component (spool, swivel, and terminals) have been optimised to:

- improve sailing performance
- ensure easier handling of the systems

Safety

SAFE SYSTEM: Removable Line

The SAFE SYSTEM enables you to stop the running of the furling line during deployment of sail and thus:

- prevent accidents or damage caused by a free running line.
- manoeuvre more quickly and easily
- prevent excessive wear of the line

SMART LOCK:

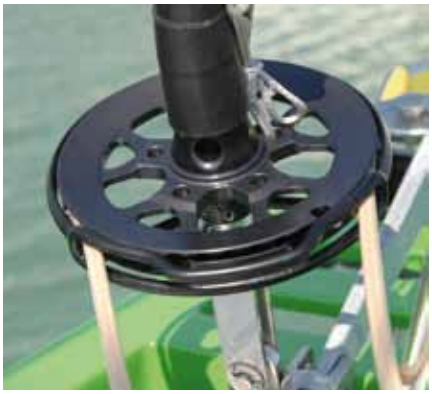
Wire lock (only on fork models)

- Wire locking system completely integrated into the drum mechanism
- No need to use a lanyard.
- No risk of jamming caused by adjacent lines.
- Keeps the pin free to turn (no strain).
- Locking indicator on the pin.

NEX STR MODELS AVAILABLE AS STANDARD

	NEX STR 4.0	NEX STR 5.0	NEX STR 8.0	NEX STR 10.0	NEX STR 12.0
Max working load	4T	5T	8T	10T	12T
Examples	RM 1060	Class 40	RM 1350	50'	Open 60'
Fiber cable terminals	Biconic end fittings (Navtec)		Biconic end fittings or thimbles		
Lower mechanism	Spool		Spool or drum		
Swivel terminals	Eye or lashing eye				
Lower mechanism terminals	Eye, lashing eye or purchase 4:1				

Find out page 66 how to select the right model adapted to your boat



NEX STR 5.0 stayfurler

NEX STR 20 stayfurler on 80' catamaran - Magic Cat Fitting Atelier Gréement

NEX STR CUSTOM RANGE AVAILABLE ON DEMAND

	NEX STR 16.0	NEX STR 20.0	NEX STR 30.0	NEX STR 40.0
Max working load	16T	20T	30T	40T
Examples	MOD 70	80'	IDEC multihull	Groupama 3' multihull

Multihull Groupama 3 - 2010 Route du Rhum
40T Stayfurler for staysail

See technical documents page 64-66

Stayfurlers:

NEX STRUCTURAL

Fiber cables

Stayfurlers are installed on anti-twist fiber cables, which replace traditional stainless steel wires, to reduce weight and stretching.

There are various types of fiber cables:

> Kevlar cables (aramid) are a good value for the money and readily available.

> PBO cables (zylon) are mostly used on racing boats; they are lighter and stronger than Kevlar ones but have a shorter lifespan.

Fiber cables can be installed either on biconic terminals (Navtec solution) or thimbles (Future Fibres, Smart Rigging, Mafioli, etc.)

Frequently asked questions : stayfurlers

Manual furler, flying sail furler and stayfurler: what's the difference? These three systems are very different.

> Maintain the stay

Among these three products, only the stayfurler contributes to maintain the mast through the use of a fiber cable. The full system replaces the extrusions used with other furling systems and thus significantly reduces weight.

> Partial or total furling of the sail?

With all three systems you can sail with the sail fully rolled out, but only the manual furler allows you to set the sail partially furled.

> Removable or not?

Because the stayfurler replaces the stay it is permanent, unlike a flying sail furler which may be removed after every use.

> Combining systems?

Our stayfurlers and flying-sail furlers are complementary and can be used together.

In conjunction with a stayfurler, a flying-sail furler allows the selection of the most adapted sail depending on sailing conditions to optimize the boat performance.

See comparison table on page 7

See technical documents page 64-66

MOTORISED FURLERS

Comfort > Power > Reliability

Hundreds of PROFURL electric and hydraulic genoa reefing systems have been supplied over the last 15 years. These systems are highly performant and have a great reliability; they also offer customers comfort and security.
PROFURL offers motorised headsail furlers for boats from 14 to 18,5 m: NDEC 480 model (electric version), NDHC 480 model (hydraulic version).

Motorised furlers

Efficient systems

> Thanks to the integration of high-performance materials, the special grade cast aluminium housing is protected against corrosion.
> All the stainless steel parts are insulated from the aluminium housing.
> The gear ratios have been configured to produce a high output and the ideal speed of rotation. The luff extrusions are engineered to withstand the high torque produced by the gear motor.

Comfort and ease of use

> The motorised systems enable you to sail comfortably and safely.
> The sail can be furled in either direction (depending on the side of the sail that the anti UV strip has been attached).
> The self-locking mechanism is non-reversible (no manual locking is required to immobilise the extrusions).
> The noise of the operation is minimal giving little inconvenience.
> The PROFURL systems do not require any maintenance.

Low power consumption

> Power consumption is a crucial feature on a motorised system; the PROFURL systems require a low power supply making special batteries unnecessary.
> Furling and unfurling operations do not exceed the power consumption of navigation lights during 20 minutes of illumination.

An easy installation

> The PROFURL motorised systems can be fitted on the existing forestay, with or without a rigging screw.
> The special bottom fitting allows customised installation : raised from the deck for easier anchoring, low to the deck for maximum luff length.
> Converting a manual headsail furler is also possible, by removing the bottom drum mechanism and replacing it with a motorised gear motor.

Safety

> In case of power supply failure, the PROFURL motorised system includes a handle socket (handle supplied) located at the rear of the housing, allowing for instant manual operation.

NDE: ELECTRIC MODELS

> 8 models available for boats from 13 to 26 m.
> Available in "Cruising" version (with round extrusions) and "Racing" version (with an aerodynamic oval extrusions).
> Delivery of the gear motor already pre-wired.
> Available in 12 or 24 V DC.
> Length of the extrusion : 2 m.

Cruising Electric Models (with round profiles)

	NDEC 420	NDEC 430*	NDEC 480	NDEC 520	NDEC 530**
Boat length	from 13 to 15 m	from 14 to 16 m	from 14,5 to 18,5 m	from 16,5 to 18,5 m	from 18,5 to 26 m
Forestay diameter	10 mm	12,7 mm	14,3 mm	16 mm	19 mm
Power of electric motor	700 W (12V) - 800 W (24V)	700 W (12V) - 800 W (24V)	700 W (12V) - 800 W (24V)	700 W (12V) - 800 W (24V)	700 W (12V) - 800 W (24V)
Power supply / amperage	12 V / 60 A	12 V / 60 A	12 V / 60 A	12 V / 60 A	12 V / 60 A
Power supply / amperage	24 V / 50 A	24 V / 50 A	24 V / 50 A	24 V / 50 A	24 V / 50 A

* NDEC 420 extrusion with C430 swivel. / ** NDEC 520 extrusion with C530 swivel.

Racing Electric Models (with black and oval profile)

	NDER 420	NDER 430	NDER 480
Boat length	from 13 to 15 m	from 14 to 16 m	from 14,5 to 18,5 m
Forestay diameter	10 mm	11,1 mm	12,7 mm
Power of electric motor	700 W (12V) - 800 W(24V)	700 W (12V) - 800 W (24V)	700 W (12V) - 800 W(24V)
Power supply / amperage	12 V / 60 A	12 V / 60 A	12 V / 60 A
Power supply / amperage	24 V / 50 A	24 V / 50 A	24 V / 50 A

Benefits of the motorised systems

> Large range of systems.
> Great comfort with minimum effort.
> Easy installation on the existing forestay.
> Minimal sound.
> Low power consumption.
> 3 year world wide limited warranty.

Alubat 58

Motorised furlers

NDH: HYDRAULIC MODELS

> 8 models available for boats from 13 to 26 m.
> Available in "Cruising" version (with round extrusions) and "Racing" version (with an aerodynamic oval extrusions).
> Connection of the gear motor to the hydraulic pack with 2 feeding hoses finished by a female 7/16" JIC.
> Available in 100 or 140 maximum operating pressure.
> Length of the extrusion: 2 m.

Cruising Hydraulic Models (with round profiles)

	NDHC 420	NDHC 430*	NDHC 480	NDHC 520	NDHC 530**
Boat length	from 13 to 15 m	from 14 to 16 m	from 14,5 to 18,5 m	from 16,5 to 18,5 m	from 18,5 to 26 m
Forestay diameter	10 mm	12,7 mm	14,3 mm	16 mm	19 mm
Maximum operating pressure	100 bars	100 bars	140 bars	140 bars	140 bars
Maximum speed of rotation	30 Rpm	30 Rpm	30 Rpm	30 Rpm	30 Rpm
Maximum flow	15 L / mn	15 L / mn	15 L / mn	15 L / mn	15 L / mn

Racing Hydraulic Models (with oval profiles)

	NDHR 420	NDHR 430*	NDHR 480
Boat length	from 13 to 15 m	from 14 to 16 m	from 14,5 to 18,5 m
Forestay diameter	10 mm	11,1 mm	12,7 mm
Maximum operating pressure	100 bars	100 bars	140 bars
Maximum speed of rotation	30 Rpm	30 Rpm	30 Rpm
Maximum flow	15 L / mn	15 L / mn	15 L / mn

* NDHC 420 extrusion with C430 swivel.
** NDHC 520 extrusion with C530 swivel.

Frequently asked questions: motorised systems

Can we transform a manual headsail furler in a motorised furler?

Yes PROFURL offers a motorisation kit enabling a retrofit to an existing manual furler. This kit incorporates a motor gear and fittings

Do I benefit from a warranty on my motorised system?

Yes, all the PROFURL products benefit an international warranty. The motorised systems have a 3 year worldwide warranty.

Does my motorised system require maintenance?

No as all the PROFURL systems, the motorised systems do not require any maintenance.

Is my motorised system noisy?

No, the PROFURL systems generate little noise.

Does my PROFURL motorised system consume power?

The power consumption of a PROFURL motorised system is low (equal to the consumption of a light bulb during 20 minutes of illumination).

See comparison table on page 7

See technical documents page 67-69

IN-BOOM FURLERS

Comfort > Safety > Performance

Developed on the request of discerning sailors world-wide, PROFURL in-boom furlers are dedicated to furling, raising and lowering mainsails.
It increases safety when hoisting or reefing the mainsail and ensures higher performances of the yachts systems.

In-boom furlers

COMPONENTS

> A furling drum: located at the forward end of the boom (on all models excluding the MK4), it requires only one block at the mast foot to lead the furling line towards the cockpit.

> A wide open boom: The wide open boom top, allows access to the mechanical parts, and avoids sail friction on the edges; it also makes the installation of the mainsail easier.

> The furling mandrel is the inner part of the in-boom furler, the sails is furled around it as it rotates.

> The feeder (patented): includes 2 large size stainless steel rollers to protect the luff tape. It allows the distance between the 2 rollers to be accurately adjusted for the ideal entry of the mainsail luff tape regardless of its stiffness and thickness.

> The luff profiles (all models except MK0R & MK1R): the luff profiles are articulated behind the mast. The bottom end of the luff profile is linked to the top of the boom enabling the luff profiles to turn with the boom. This maintains the alignment of boom and main sail luff tape; which decreases friction when hoisting or reefing the mainsail.

> On the MK0R and MK1R models: The luff profiles are replaced by a Dacron luff sail which integrates a double sided luff extrusion to guide the sail. This "luff sail" is secured by the old boom halyard and utilises the mast existing sail track, it is also able to be lowered, when and if required. See page 39.

> The top sheave box (patented): Fitted at the top of the luff profiles, the sheave box leads the halyard to the rear of the luff profiles. When the luff profiles turn, the sheave box enables the halyard to be aligned, hence reducing halyard friction and chafe (except MK0R and MK1R.

> Rigid boom strut (patented): Delivered as standard with all PROFURL in-boom furlers; developed especially to maintain boom height, as the mast-boom angle is an essential point to the smooth furling of the sail. As soon as the mainsheet is released, the boom strut automatically repositions the boom at the correct angle.

Safe and easy operations

Hoisting or reefing the mainsail is a simple and safe operation. The in-boom furler requires the use of only one halyard and one furling line, and allows full control of the mainsail from the cockpit.

An efficient system

The on-water performance of the PROFURL in-boom furler is the main goal. This system is designed to be used with full length battens. It allows for a fully battened mainsail with a normal roach, to maximize the yacht performance.

The system's parts have been optimized to get the best possible weight / performance / durability ratios.

Comparison between an in-boom furler and an in-mast system:

PROFURL in-boom furlers:

- Fully battened mainsail
- Maximum sail area
- Efficient mainsail shape
- Weight optimization

In-mast systems:

- No battened mainsail.
- Negative curved leach : smaller sail area
- Very flat mainsail ; poor performance
- Difficult to access for maintenance/repair/trouble shooting

Longevity and maintenance

> All the essential components are made of the highest quality materials: stainless steel and high grade light alloy with a surface treatment designed for intensive use in a marine environment.
> In the case of MK0R and MK1R models, the Dacron part is treated anti UV and can be easily unfitted during the winter time.
> None of the PROFURL in-boom furlers require maintenance.

An easy installation on most boats

> The PROFURL in-boom furlers can be installed on boats from 5 to 18 m.
> Installation is possible on the most common aluminium masts.
> Installation is made easy and quick thanks to specially designed mast track slide screws.
> The system is delivered over length and customizing can be achieved on board by cutting the extrusions to length.

MK0R and MK1R

For small boats (from 5 to 10 m), PROFURL has developed a specific solution implemented on the MK0R and MK1R in-boom furlers.

> The luff profile is replaced by a Dacron luff sail and profile integrating a feeder and a luff track.
> The Dacron Profile is hoisted on to the topping lift and retained by a webbing attached to the boom vang.
> The luff sail allows an easy furling and saves weight.
> Treated anti-UV, it can also be removed for storage in winter time.

Advantages of the PROFURL in-boom furlers

> Large range of products to be installed on boats from 5 to 18 m.
> Increased safety during mainsail raising and lowering operations.
> Ease of use: one halyard and one furling line.
> Can be fitted on most boats with aluminium masts.
> Full battened mainsail to improve the performance of the boat.
> No maintenance required.
> 3 year world wide limited warranty.

In-boom furlers

IN-BOOM FURLER RANGE

	Standard products				On demand
	MK0R	**MK1R**	**MK2R**	**MK3R**	**MK4**
Boat length (LOA)	from 5 to 8 m	from 8 to 10 m	from10 to 12 m	from 12 to 15 m	from 15 to 18 m
Max. displacement	2000 Kg	5500 Kg	8500 Kg	13000 Kg	24000 Kg
Max. luff length	9,0 m	12,6 m	14,6 m	17,6 m	21,0 m
Max. foot length	3,14 m	5,0 m	5,0 m	6,0 m	7,0 m
Colour	Silver anodisation	Epoxy powder coated anodisation	Epoxy powder coated anodisation	Epoxy powder coated anodisation	Epoxy powder coated anodisation

If one of the technical characteristics exceeds, select the larger product.

THE PROFURL HALYARD BRAKE (PATENTED)

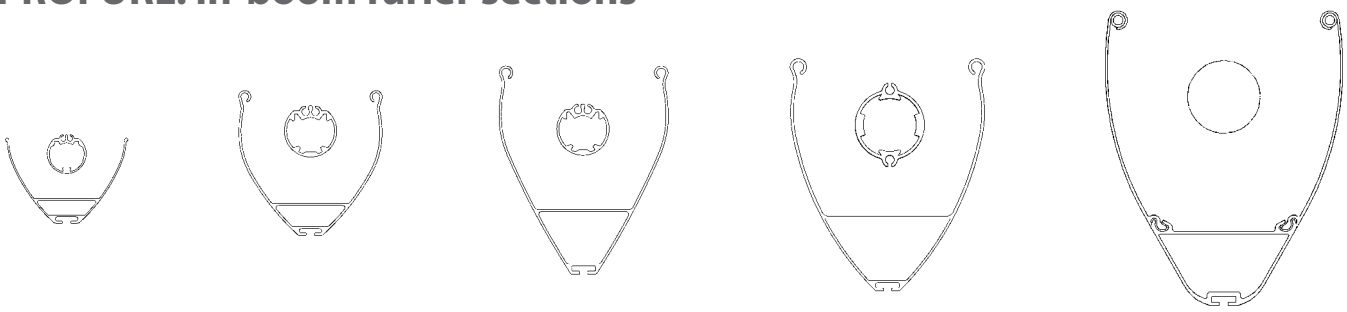
> It allows an even easier use of the PROFURL in-boom furler by avoiding a dead turn around a winch to brake the mainsail halyard during furling operations.
> Also recommended for conventional fully battened mainsails with ball bearing cars in order to avoid the mainsail to be dropped too fast and potentially damage the cars.

Use of the in-boom furlers: some advices

> Make the boat's angle with the wind corresponding between 0° and 45°.
> Before using the system, completely release the mainsheet so that the boomvang push effect brings back the angle between the boom and the mast to its « operating » position.
> In order to furl the mainsail, release the halyard and simultaneously take in the furling line.
> To hoist the mainsail, take in the halyard while smoothly releasing the furling line.




PROFURL: in-boom furler sections



MK0R MK1R MK2R MK3R MK4

Frequently asked questions: in-boom furlers

What are the advantages of an in-boom furler compared to a mast furler?

The in-boom furler offers many benefits compared to an in-mast or vertical reefing system: weight saving aloft to avoid the boat heeling or pitching, optimized performances thanks to a fully battened mainsail.

Does the PROFURL system allow to use a fully battened system?

Yes, the PROFURL in-boom furlers are used with a fully battened mainsail with specific features to enhance the use of the system. The mainsail is equipped with extra long battens which do not push on the luff to ease the hoisting and lowering operations. Each time a batten is rolled under the mandrel, it prevents the leech slipping forward thus giving extra tension to the foot of the sail.

Can I convert my existing mainsail to be used with the Proful system?

No, the mainsail has to be designed and built especially for the PROFURL in-boom furlers. Every aspect is quite different from a normal mainsail: the geometry, the broadseams, the luff curve, the luff and foot tapes etc.

Why is the in-boom profile wide open on the top?

The wide open offers many advantages:

- It reduces the friction of the sail, making the system user friendly.
- It makes the installation of the sail a lot easier than with a closed boom profile.
- It gives an easy access to the mandrel and mechanical components.

Is it possible to operate the system from the cockpit?

Yes, the in-boom furler is designed for this purpose. Both mainsail halyard and furling line just have to be guided through convenient ball bearing blocks to the cockpit.

Do I have to change my mast to fit a PROFURL in-boom furler?

No, the system is designed to be retrofitted on an aluminium mast with internal luff track. The system includes special «slides screws» to be inserted into the track.

Can I use my existing boom vang?

No. PROFURL has developed a special boom vang as standard vangs do not meet our specifications. PROFURL boom vangs keep the boom in all circumstances at the correct angle between the boom and the mast for system operations, which is absolutely essential for smooth reefing. The PROFURL boomvangs working with the mainsheet tension the leech as needed.

Does my Profurl in-boom furler require maintenance?

No, as all the PROFURL products, the in-boom furlers do not require any maintenance.

Does my in-boom furler benefit from a warranty?

Yes the PROFURL in-boom furler benefits from a 3 year worldwide warranty.

See technical documents on page 70-71

Products on demand

HOOKS: HK, HKR

Performance > Safety > Lightness

Developed in collaboration with the greatest skippers, the Profurl HK hook is used either with a flying sail furler or with a stayfurler. The HK hook reduces mast compression and, at the same time, reduces weight aloft. Tested during the 2008—2009 Vendée Globe, on the Open 60 Veolia Environnement, The Profurl HK hook provides performance, safety, lightness, and reliability. The Profurl HKR hook is based on the same concept and is designed to facilitate mainsail reefing.

PRODUCTS ON DEMAND

HKR: REEFING HOOK SYSTEM FOR MAINSAIL

Purpose of the Profurl HKR Hook

The HKR hook is used to reef the mainsail. Based on the same concept as HK, it has 3 components: one rocket, one receiver, and one line. The rocket is attached to the sail at the reefing point; the receiver to the end of the boom; and the line guides the rocket smoothly into the receiver. Once hooked in place, the tension is adjusted by a single hydraulic ram for all reefing lines.

Advantages of the Profurl HKR hook

> Clears traditional reefing leads by applying tension at the end of the boom

> Cleans and simplifies the deck organisation by removing jammers, etc.

> No loads on the hardware (winches etc.)

Sunreef 102 equipped with HKR

Sunreef 114 equipped with HKR

HK: HOOKS FOR HEADSAILS

Purpose of the Profurl HK Hook:

The easy to use Profurl HK hook is used to fit an asymmetrical sail to a flying sail furler, or a head or stay sail to a structural furler, such as the Profurl NEX STR. The control line is attached to the rocket and guides it into the receiver, which is fitted either inside or on the mast. Profurl HK hooks have been tested and proven during the 2008—2009 Vendée Globe on Roland Jourdain's Open 60, Véolia Environnement.

Components of Profurl HK Hooks

> One rocket, one receiver, one line attached to the rocket.

Benefits of the Profurl HK hooks:

> Reduces mast compression.

> Eliminates standard halyard and loads generated by tightening the halyard

> Maintains constant luff tension

> 2:1 or 3:1 purchase is fitted to the drum mechanism, eliminating the halyard block

> Smaller diameter halyard can be used.

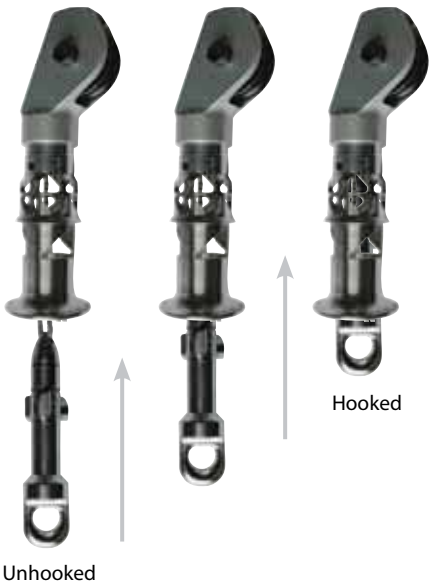
> Reduces weight aloft

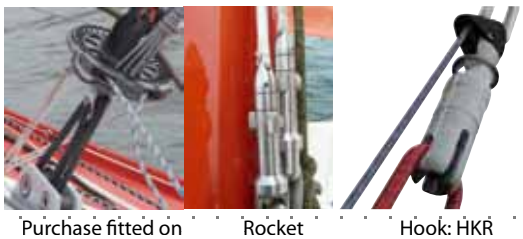
> No risk of losing the sail, if the halyard breaks

> Easy to install and easy to maintain.

> The receiver can be fitted internally or externally

> Terminal: eye splice (to rocket)





Purchase fitted on drum mechanism | Rocket | Hook: HKR

TECHNICAL DOCUMENTS

WEIGHT OF THE DIFFERENT COMPONENTS IN KG

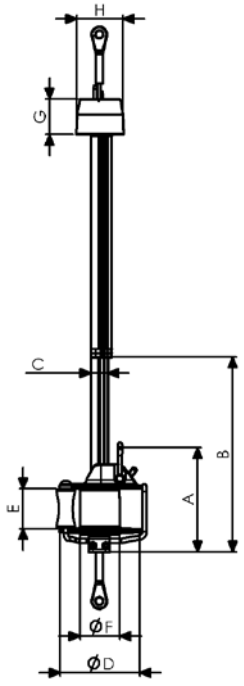
Models	Drum mechanism	Turnbuckle cylinder	Complete Swivel	Complet luff extrusion Kg / m	Head fitting + wrapstop
C290	2,09	included	0,54	0,557	0,16
C320	2,08	0,76	0,58	0,661	0,18
C350	3,12	0,82	0,84	0,728	0,32
C420	3,43	0,87	1,07	0,933	0,38
C430	3,51	0,87	1,73	0,933	0,38
C480	6,06	1,79	2,08	1,2	0,56
C520	6,06	2,22	2,08	1,46	0,57
C530	6,06	2,22	2,37	2,8	0,57
R250	1,6	0,45	0,51	0,383	0,06
R350	2,16	0,63	0,85	0,638	0,18
R420	3,75	0,94	0,98	0,835	0,36
R430	3,75	0,94	1,68	0,835	0,36
R480	6,09	1,79	2,08	1,2	0,44

WEIGHT OF COMPONENTS: MOTORISED SYSTEMS

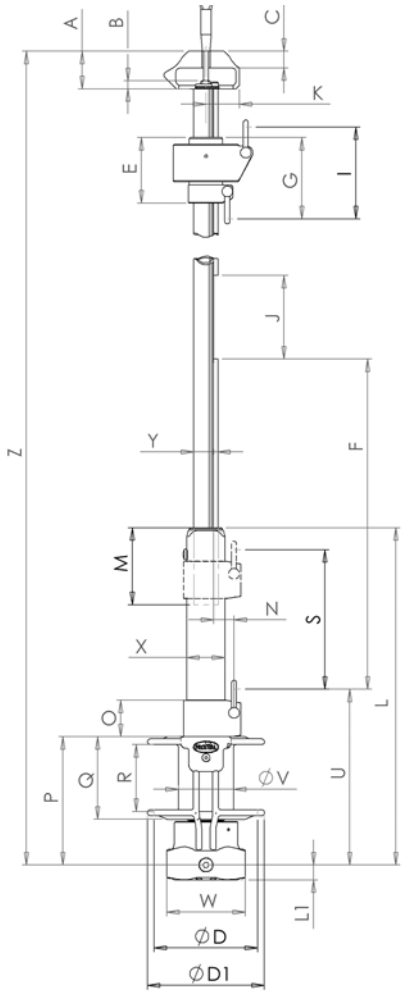
	NDEC / NDHC 420 430	NDEC / NDHC 480 520 530
Gear motor only	14 Kg	15 Kg
Lower SS tube & toggle	5,51 Kg	9,63 Kg
Standard swivel	1,1 Kg	2,58 Kg
Swivel	1,58 Kg	3,07 Kg
Extrusions incl connectors & bearings	1,09 Kg/m	1,62 Kg

DIMENSIONS OF C260 MODEL

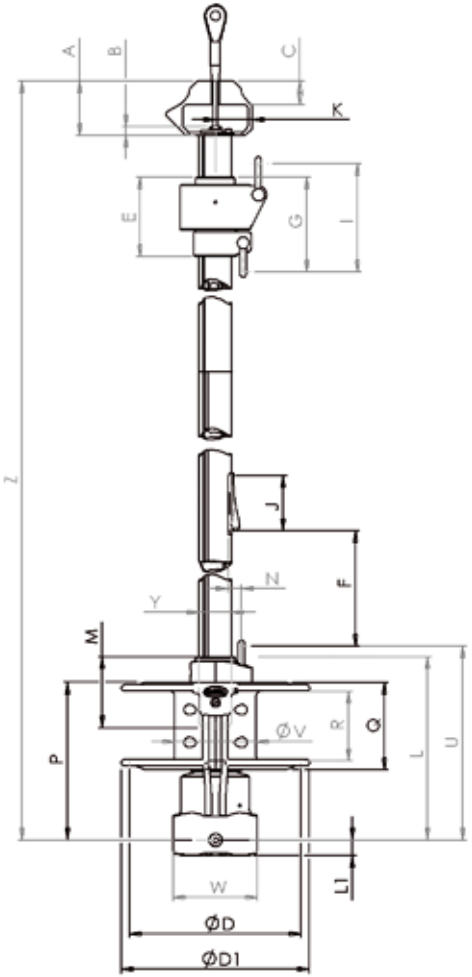
	mm	ins
A	150	5 29/32"
B	575	1'10 5/8"
C	26	1 1/32"
D	115	4 17/32"
E	56	2 13/64"
F	56	2 13/64"
G	67	2 41/64"
H	50	1 63/64"



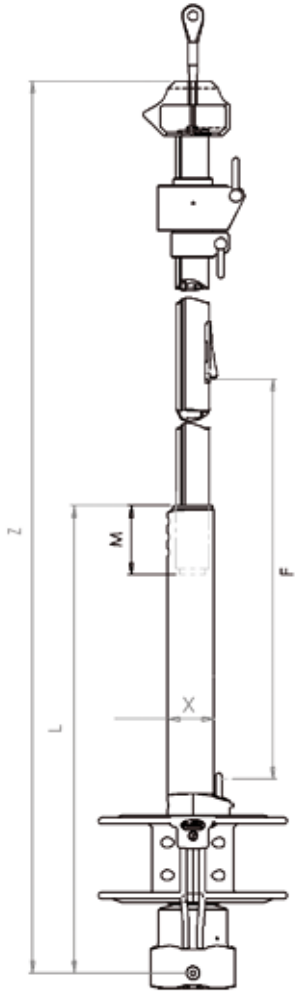
C290 MODEL & BELOW DECK FITTING



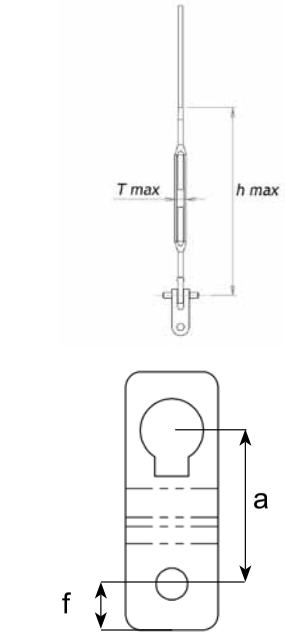
DIMENSIONS FOR MODELS FROM C320 TO C430 - R250 TO R430



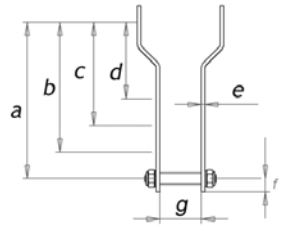
Standard fitting



with turnbuckle cylinder



Short linl plates



Long link plates

DIMENSIONS OF C290, C320, C350, C420, C430 MODELS

	C290		C320				C350				C420				C430			
	Standard		Standard		*Turnbuckle cylinder*		Standard		*Turnbuckle cylinder*		Standard		*Turnbuckle cylinder*		Standard		*Turnbuckle cylinder*	
	mm	*ins*	mm	*ins*	mm	*ins*	mm	*ins*	mm	*ins*	mm	*ins*	mm	*ins*	mm	*ins*	mm	*ins*
A	44	*1'47/64"*	44	*1 47/64"*	*See Standard*		68	*2 43/64"*	*See Standard*		68	*2 43/64"*	*See Standard*		68	*2 43/64"*	*See Standard*	
B	10	*13/32"*	10	*13/32"*	*See Standard*		10	*13/32"*	*See Standard*		10	*13/32"*	*See Standard*		10	*13/32"*	*See Standard*	
C	22	*55/64"*	22	*55/64"*	*See Standard*		28	*17/64"*	*See Standard*		28	*17/64"*	*See Standard*		28	*17/64"*	*See Standard*	
D	120	*4'3/4"*	180	*7 3/32"*	*See Standard*		200	*7 3/4"*	*See Standard*		220	*8 21/32"*	*See Standard*		220	*8 21/32"*	*See Standard*	
ØD1	140	*5 33/64"*	200	*7 7/8"*	*See Standard*		222	*8 3/4"*	*See Standard*		242	*9 17/32"*	*See Standard*		242	*9 17/32"*	*See Standard*	
E	79	*3'1/8"*	79	*3'1/8"*	*See Standard*		103	*4 1/16"*	*See Standard*		103	*4 1/16"*	*See Standard*		140	*5 33/64"*	*See Standard*	
F	293	*11 1/2"*	461	*1 6 1/4"*	575	*1' 10 3/4"*	442	*1 5 1/2"*	762	*2' 6*	442	*1' 5 1/2"*	808	*2' 7 3/4"*	442	*1' 5 1/2"*	808	*2' 7 3/4"*
G	96	*3 3/4"*	96	*3 3/4"*	*See Standard*		125	*4 7/8"*	*See Standard*		126	*4 61/64"*	*See Standard*		170	*6 11/16"*	*See Standard*	
Hmax	320	*1 5/8"*	110	*4' 21/64"*	424	*1' 4 3/4"*	137	*5 25/64"*	457	*1' 5 63/64"*	154	*6 1/16"*	520	*1' 8 1/2"*	154	*6 1/16"*	520	*1' 8 1/2"*
I	109	*4 1/2"*	109	*4 1/2"*	*See Standard*		142	*5 19/32"*	*See Standard*		144	*5 43/64"*	*See Standard*		196	*7 3/4"*	*See Standard*	
J	100	*3 7/8"*	72	*2'53/64"*	*See Standard*		72	*2 53/64"*	*See Standard*		72	*2 53/64"*	*See Standard*		72	*2 53/64"*	*See Standard*	
K	33	*1 1/4'*	33	*1'1/4"*	*See Standard*		47	*1 27/32"*	*See Standard*		47	*1 27/32"*	*See Standard*		47	*1 27/32"*	*See Standard*	
L	404	*1' 3 7/8"*	181	*7 1/4"*	495	*1' 7 1/2"*	220	*8 3/4"*	540	*1 9 1/4"*	236	*9 19/64"*	601	*1' 11 1/2"*	236	*9 19/64"*	601	*1' 11 1/2"*
L1	18	*45/64"*	18	*45/64"*	*See Standard*		20	*25/32"*	*See Standard*		20	*25/32"*	*See Standard*		20	*25/32"*	*See Standard*	
M	78	*35/64"*	64	*2'33/64"*	*See Standard*		75	*2 15/16"*	*See Standard*		75	*2 15/16"*	*See Standard*		75	*2 15/16"*	*See Standard*	
N	25	*63/64"*	17	*43/64"*	*See Standard*		21	*53/64"*	*See Standard*		18	*45/64"*	*See Standard*		18	*45/64"*	*See Standard*	
O	45	*1 49/64"*									"							
P	150	*5 29/32"*	157	*6 3/16"*	*See Standard*		184	*7 1/4"*	*See Standard*		203	*7' 1 63/64"*	*See Standard*		203	*7' 1 63/64"*	*See Standard*	
Q	98	*3 55/64"*	88	*3'15/32"*	*See Standard*		108	*4 1/4"*	*See Standard*		115	*4 17/32"*	*See Standard*		115	*4 17/32"*	*See Standard*	
R	80	*3 5/32"*	66	*2'19/32"*	*See Standard*		86	*3 25/64"*	*See Standard*		90	*3 9/16"*	*See Standard*		90	*3 9/16"*	*See Standard*	
S	170	*6 11/64"*																
Tmax	29	*1 9/64"*	32	*1 17/64"*	*See Standard*		42	*1 21/32"*	*See Standard*		42	*1 21/32"*	*See Standard*		42	*1 21/32"*	*See Standard*	
U	213	*8 25/64"*	199	*7 53/64"*	*See Standard*		245	*9 41/64"*	*See Standard*		262	*10 1/2"*	*See Standard*		262	*10 1/2"*	*See Standard*	
V	66	*2 19/32"*	92	*3 5/8"*	*See Standard*		105	*4 9/64"*	*See Standard*		105	*4 9/64"*	*See Standard*		105	*4 9/64"*	*See Standard*	
W	97	*3'13/16"*	97	*3 13/16"*	*See Standard*		115	*4 17/32"*	*See Standard*		115	*4 17/32"*	*See Standard*		115	*4 17/32"*	*See Standard*	
X	46	*1 13/16"*			52	*2 3/64"*			60	*2 23/64"*	"		60	*2 23/64"*			60	*2 23/64"*
Y	29	*1 9/64"*	32	*1 17/64"*	*See Standard*		35	*13/8"*	*See Standard*		42	*1 21/32"*	*See Standard*		42	*1 21/32"*	*See Standard*	
Z	10370	*34 1/4"*	12160	*39' 10 3/4"*	12475	*39' 10 3/4'*	14215	*46' 7 3/4"*	14535	*47' 8 1/4"*	16230	*53' 2*	16595	*54' 5 1/2"*	18230	*59' 9 1/2"*	18595	*61'*
Short link plates																		
a	50 (1 31/32")		50 (1 31/32")		50 (1 31/32")		55 (2 5/3")		55 (2 5/3")		55 (2 5/3")		55 (2 5/3")		55 (2 5/3")		55 (2 5/3")	
f	15 (19/32")		15 (19/32")		15 (19/32")		20 (25/32")		20 (25/32")		20 (25/32")		20 (25/32")		20 (25/32")		20 (25/32")	
Link plates	Medium		Long		Medium		Long		Medium		Long		Medium		Long		Medium	
a	180	*7'3/32"*	340	*1' 1 1/12"*	180	*7'3/32"*	500	*1 7 11/16"*	200	*7 7/8"*	500	*1' 7 3/4"*	200	*7 7/8"*	500	*1' 7 3/4"*	250	*9 27/32"*
b	145	*5'45/64"*	305	*1 1/64"*	145	*5'7/8"*	465	*1 6 5/16"*	165	*6 3/4"*	465	*1' 6 5/16"*	165	*6 3/4"*	465	*1' 6 5/16"*	215	*8 21/32"*
c	110	*4 21/64"*	270	*10 5/8"*	110	*4 21/64"*	430	*1'4 7/8"*	130	*5 1/2"*	430	*1' 4 7/8"*	130	*5 1/2"*	430	*1' 4 7/8"*	180	*7 31/64"*
d	75	*2 61/64"*	235	*9'1/4"*	75	*2 61/64"*	395	*1' 3 9/16"*	95	*4 5/16"*	395	*1' 3 9/16"*	95	*4 5/16"*	395	*1' 3 9/16"*	145	*6 19/64"*
e	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*
f	16	*19/32"*	16	*19/32"*	16	*19/32"*	16	*43/64"*	16	*19/32"*	16	*43/64"*	16	*19/32"*	16	*43/64"*	16	*19/32"*
g	41	*1'39/64"*	41	*1 39/64"*	41	*1 39/64"*	41	*1 39/64"*	41	*1 39/64"*	41	*1 39/64"*	41	*1 39/64"*	61	*2 9/16"*	61	*2 9/16"*

	R250				R350				R420				R430			
	Standard		Turnbuckle cylinder		Standard		Turnbuckle cylinder		Standard		Turnbuckle cylinder		Standard		Turnbuckle cylinder	
	mm	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	ins
A	32	*1 75/64'*	See Standard		44	*1 47/64"*	See Standard		68	*2 43/64"*	See Standard		68	*2 43/64"*	See Standard	
B	10	*13/32"*	See Standard		10	*13/32"*	See Standard		10	*13/32"*	See Standard		10	*13/32"*	See Standard	
C	16	*5/8"*	See Standard		22	*55/64"*	See Standard		28	*17/64"*	See Standard		28	*17/64"*	See Standard	
D	130	*5 1/8'*	See Standard		180	*7 3/32"*	See Standard		220	*8 21/32"*	See Standard		220	*8 21/32"*	See Standard	
ØD1	150	*5 29/32"*	See Standard		200	*7 7/8"*	See Standard		242	*9 17/32"*	See Standard		242	*9 17/32"*	See Standard	
E	79	*3 1/8'*	See Standard		103	*4 1/16"*	See Standard		103	*4 1/16"*	See Standard		140	*5 33/64"*	See Standard	
F	460	*1' 6 7/64"*	731	*2' 4 3/4"*	461	*1' 6 1/4"*	775	*2' 6 1/2"*	442	*1' 5 1/2"*	808	*2' 7 3/4"*	442	*1' 5 1/2"*	808	*2' 7 3/4"*
G	96	*3 25/32"*	See Standard		125	*4 7/8"*	See Standard		126	*4 61/64"*	See Standard		170	*6 11/16"*	See Standard	
H max	88	*3 15/32"*	359	*1' 2 1/4"*	110	*4 21/64"*	424	*1' 4 3/4"*	154	*6 1/16"*	520	*1' 8 1/2"*	154	*6 1/16"*	520	*1' 8 1/2"*
I	109	*4 19/64"*	See Standard		142	*5 19/32"*	See Standard		144	*5 43/64"*	See Standard		196	*7 3/4"*	See Standard	
J	72	*2 53/64"*	See Standard		72	*2 53/64"*	See Standard		72	*2 53/64"*	See Standard		72	*2 53/64"*	See Standard	
K	25	*63/64"*	See Standard		33	*1 1/4"*	See Standard		47	*1 27/32"*	See Standard		47	*1 27/32"*	See Standard	
L	163	*6 27/64"*	434	*1' 5 3/32"*	181	*7 1/4"*	495	*1' 7 1/2"*	236	*9 19/64"*	601	*1' 11 1/2"*	236	*9 19/64"*	601	*1' 11 1/2"*
L1	18	*45/64"*	See Standard		18	*45/64"*	See Standard		20	*25/32"*	See Standard		20	*25/32"*	See Standard	
M	68	*2 43/64"*	See Standard		64	*2 33/64"*	See Standard		75	*2 15/16"*	See Standard		75	*2 15/16"*	See Standard	
N	15	*19/32"*	See Standard		15	*19/32"*	See Standard		17	*43/64"*	See Standard		17	*43/64"*	See Standard	
O																
P	133	*5 15/44"*	See Standard		157	*6 3/16"*	See Standard		203	*7*	See Standard		203	*7 63/64"*	See Standard	
Q	74	*2 29/32"*	See Standard		88	*3 15/32"*	See Standard		115	*4 17/32"*	See Standard		115	*4 17/32"*	See Standard	
R	60	*2 23/64"*	See Standard		66	*2 19/32"*	See Standard		90	*3 9/16"*	See Standard		90	*3 9/16"*	See Standard	
S																
T max	26	*1 1/32"*	See Standard		32	*1 17/64"*	See Standard		42	*1 21/32"*	See Standard		42	*1 21/32"*	See Standard	
U	165	*6 1/2"*	See Standard		199	*7 53/64"*	See Standard		262	*10 1/2"*	See Standard		262	*10 1/2"*	See Standard	
V	76	*2 63/64"*	See Standard		92	*3 5/8"*	See Standard		105	*4 9/64"*	See Standard		105	*4 9/64"*	See Standard	
W	97	*3 13/16"*	See Standard		97	*3 13/16"*	See Standard		115	*4 17/32"*	See Standard		115	*4 17/32"*	See Standard	
X			40	*1 37/64"*			52	*2 1/16"*			60	*2 23/64"*			60	*2 23/64"*
Y	25	*63/64"*	See Standard		35	*13/8"*	See Standard		42	*1 21/32"*	See Standard		42	*1 21/32"*	See Standard	
Z	8127	*26' 7 63/64"*	8398	*27' 6 1/2"*	12160	*39' 10 3/4"*	12475	*40' 11 1/4"*	14230	*46' 8 1/4"*	14595	*47' 10 5/8"*	16230	*53' 2*	16595	*54' 5*
Short link plates																
a	50 (1 32/32")		50 (1 32/32")		50 (1 32/32")		50 (1 32/32")		55 (2 5/32")		55 (2 5/32")		55 (2 5/32")		55 (2 5/32")	
f	15 (19/32")		15 (19/32")		15 (19/32")		15 (19/32")		20 (25/32")		20 (25/32")		20 (25/32")		20 (25/32")	
Link plates	Long		Medium		Long		Medium		Long		Medium		Long		Medium	
a	340	*1' 1 25/64"*	180	*7 3/32"*	340	*1' 1 25/64"*	180	*7 3/32"*	500	*1' 7 3/4"*	200	*7 7/8"*	500	*1' 7 3/4"*	250	*9 27/32"*
b	305	*1' 1/64"*	145	*5 7/8"*	305	*1' 1/64"*	145	*5 7/8"*	465	*1' 6 5/16"*	165	*6 3/4"*	465	*1' 6 5/16"*	215	*8 1/4"*
c	270	*10 5/8"*	110	*4 23/32"*	270	*10 5/8"*	110	*4 23/32"*	430	*1' 4 7/8"*	130	*5 1/2"*	430	*1' 4 7/8"*	180	*6 3/4"*
d	235	*9 1/4"*	75	*3 9/16"*	235	*9 1/4"*	75	*3 9/16"*	395	*1' 3 9/16"*	95	*4 5/16"*	395	*1' 3 9/16"*	145	*5 1/8"*
e	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*	4	*5/32"*
f	16	*19/32"*	16	*19/32"*	16	*19/32"*	16	*19/32"*	16	*19/32"*	16	*43/64"*	16	*19/32"*	16	*43/64"*
g	41	*1 39/64"*	41	*1 39/64"*	41	*1 39/64"*	41	*1 39/64"*	41	*1 39/64"*	41	*1 39/64"*	61	*2 9/16"*	61	*2 9/16"*

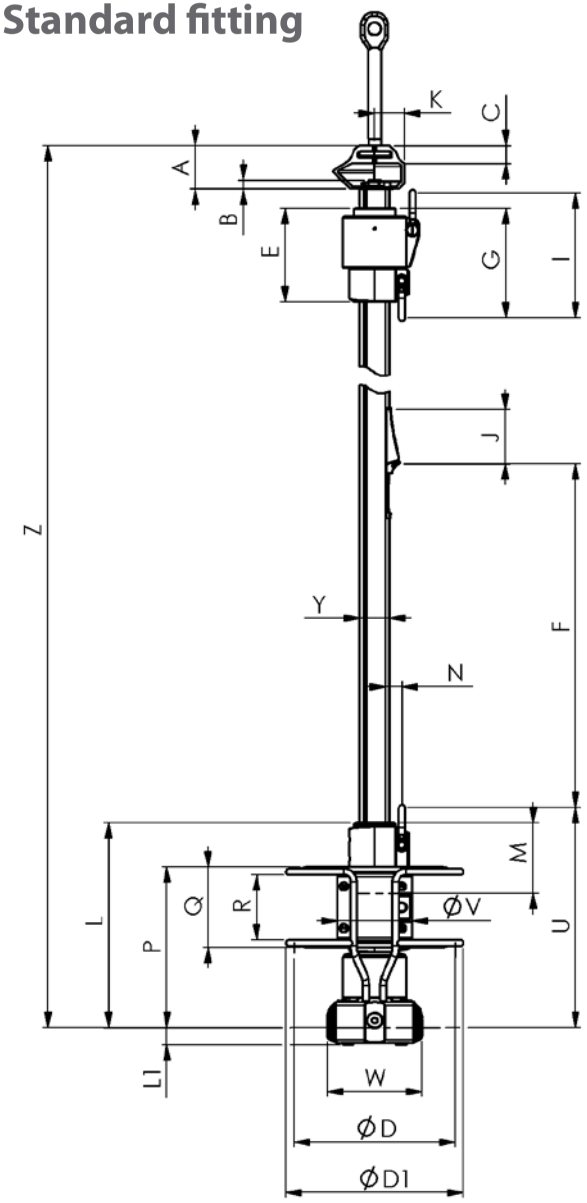
DIMENSIONS OF BELOW THE DECK MODELS (SEE PAGE 44)
C290, C320SP, C350SP, C420SP, C430SP, R250SP, R350SP, R420SP, R430SP

	C290	C320SP	C350SP	C420SP	C430SP	R250SP	R350SP	R420SP	R430SP
Dimensions	mm	mm	mm	mm	mm	mm	mm	mm	mm
A	44	44	68	68	68	32	44	68	68
B	10	10	10	10	10	10	10	10	10
C	22	22	28	28	28	16	22	28	28
D	120	170	200	220	220	120	170	220	220
ØD1	140	192	222	242	242	140	192	242	242
E	79	79	103	103	140	79	103	103	140
F	293	760	820	820	820	670	760	820	820
G	96	96	125	126	170	96	125	126	170
Hmax	320	460	520	520	520	320	460	520	520
I	109	109	142	144	196	109	142	144	196
J	100	72	72	72	72	72	72	72	72
K	33	33	47	47	47	25	33	47	47
L	404	533	604	604	604	404	533	604	604
L1	18	20	20	20	20	18	20	20	20
M	78	64	75	75	75	73	64	75	75
N	25	29	27	24	24	26	27	23	23
O	45	50	50	50	50	45	50	50	50
P	150	190	190	190	190	150	190	190	190
Q	98	115	115	115	115	100	115	115	115
R	80	95	95	95	95	80	95	95	95
S	170	250	300	300	300	170	250	300	300
Tmax	29	42	43	43	43	29	42	43	43
U	213	265	265	265	265	210	265	265	265
Ø V	66	115	115	115	115	66	115	115	115
W	97	115	115	115	115	97	115	115	115
X	46	56	56	56	56	46	56	56	56
Y	29	32	35	42	42	25	35	42	42
Z	10370	12513	14597	16597	18597	8363	12513	14597	16597
Link plates									
a	180	200	200	200	200	180	200	200	200
b	145	165	165	165	165	145	165	165	165
c	110	130	130	130	130	110	130	130	130
d	75	95	95	95	95	75	95	95	95
e	4	4	4	4	4	4	4	4	4
f	16	16	16	16	16	16	16	16	16
g	41	41	41	41	41	41	41	41	41

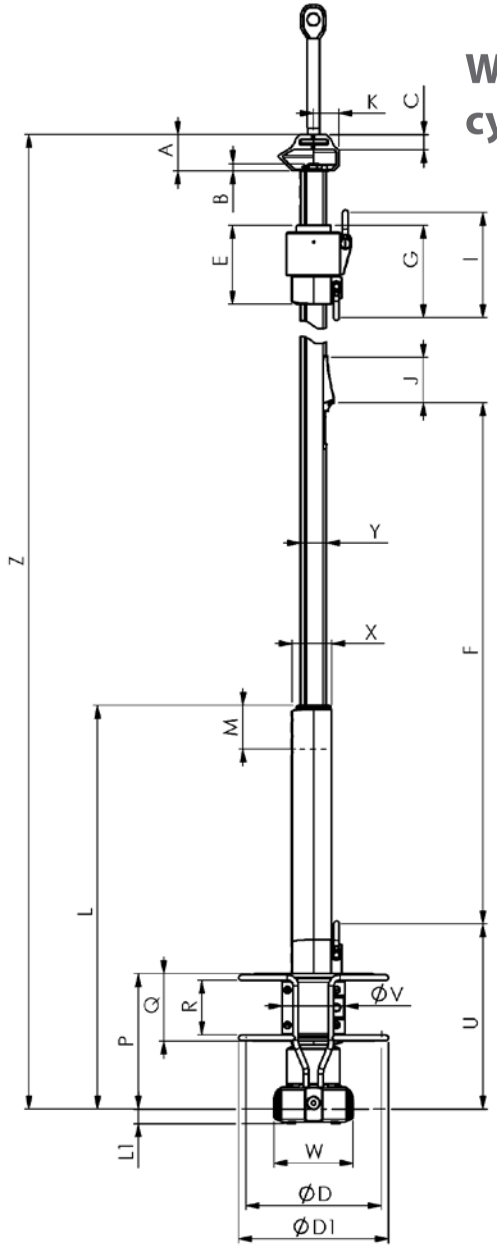
	C480				R480				C520				C530			
	Standard		Turnbuckle cylinder		Standard		Turnbuckle cylinder		Standard		Turnbuckle cylinder		Standard		Turnbuckle cylinder	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
A	68	2 43/64"	See standard	See standard	68	2 43/64"	See standard	See standard	68	2 43/64"	See standard	See standard	68	2 43/64"	See standard	See standard
B	14	35/64"	See standard	See standard	14	35/64"	See standard	See standard	14	35/64"	See standard	See standard	14	35/64"	See standard	See standard
C	28	1 7/64"	See standard	See standard	28	1 7/64"	See standard	See standard	28	1 7/64"	See standard	See standard	28	1 7/64"	See standard	See standard
ØD	250	9 27/32"	See standard	See standard	250	9 27/32"	See standard	See standard	250	9 27/32"	See standard	See standard	250	9 27/32"	See standard	See standard
ØD1	276	10 1 55/64"	See standard	See standard	276	10 1 55/64"	See standard	See standard	276	10 1 55/64"	See standard	See standard	276	10 1 55/64"	See standard	See standard
E	146	5 3/4"	See standard	See standard	146	5 3/4"	See standard	See standard	146	5 3/4"	See standard	See standard	168	5 3/4"	See standard	See standard
F	535	1 9 1/8"	962	3 1 7/8"	535	1 9 1/8"	962	3 1 7/8"	535	1 9 1/8"	1062	3 5 13/16"	535	1 9 1/8"	1062	3 5 13/16"
G	170,5	6 11/16"	See standard	See standard	170	6 11/16"	See standard	See standard	170	6 11/16"	See standard	See standard	192,5	6 11/16"	See standard	See standard
H max	205	8 5/64"	630	2 0 51/64"	205	8 5/64"	630	2 0 51/64"	205	8 5/64"	730	2 4 47/64"	223	8 5/64"	748	2 4 47/64"
I	194	7 41/64"	See standard	See standard	194	7 41/64"	See standard	See standard	194	7 41/64"	See standard	See standard	218	7 41/64"	See standard	See standard
J	84	3 5/16"	See standard	See standard	84	3 5/16"	See standard	See standard	84	3 5/16"	See standard	See standard	84	3 5/16"	See standard	See standard
K	47	1 27/32"	See standard	See standard	47	1 27/32"	See standard	See standard	47	1 27/32"	See standard	See standard	47	1 27/32"	See standard	See standard
L	319	1 0 9/16"	745	2 5 21/64"	319	1 0 9/16"	745	2 5 21/64"	319	1 0 9/16"	845	2 9 17/64"	337	1 0 9/16"	863	2 9 17/64"
L1	27	1 1/8"	See standard	See standard	27	1 1/8"	See standard	See standard	27	1 1/8"	See standard	See standard	27	1 1/8"	See standard	See standard
M	100	3 15/16"	See standard	See standard	100	3 15/16"	See standard	See standard	100	3 15/16"	See standard	See standard	100	3 15/16"	See standard	See standard
N	23,5	29/32"	See standard	See standard	23,5	29/32"	See standard	See standard	21,5	27/32"	See standard	See standard	21,5	27/32"	See standard	See standard
P	250	9 27/32"	See standard	See standard	250	9 27/32"	See standard	See standard	250	9 27/32"	See standard	See standard	268	9 27/32"	See standard	See standard
Q	125	4 59/64"	See standard	See standard	125	4 59/64"	See standard	See standard	125	4 59/64"	See standard	See standard	125	4 59/64"	See standard	See standard
R	101	3 31/32"	See standard	See standard	101	3 31/32"	See standard	See standard	101	3 31/32"	See standard	See standard	101	3 31/32"	See standard	See standard
T max	52	2 3/64"	See standard	See standard	52	2 3/64"	See standard	See standard	52	2 3/64"	See standard	See standard	52	2 3/64"	See standard	See standard
U	342	1 1 15/32"	See standard	See standard	342	1 1 15/32"	See standard	See standard	342	1 1 15/32"	See standard	See standard	360	1 1 15/32"	See standard	See standard
ØV	116	4 9/16"	See standard	See standard	116	4 9/16"	See standard	See standard	116	4 9/16"	See standard	See standard	116	4 9/16"	See standard	See standard
W	146	5 3/4"	See standard	See standard	146	5 3/4"	See standard	See standard	146	5 3/4"	See standard	See standard	146	5 3/4"	See standard	See standard
X	-		73	2 7/8"	-		73	2 7/8"	-		73	2 7/8"	-		73	2 7/8"
Y	48	1 57/64"	See standard	See standard	48	1 57/64"	See standard	See standard	52	2 3/64"	See standard	See standard	52	2 3/64"	See standard	See standard
Z	18287	59 11 15/16"	18712	61 4 11/16"	18287	59 11 15/16"	18712	61 4 11/16"	20287	66 6 11/16"	20812	68 3 3/8"	22305	73 2 5/32"	22830	74 10 13/16"
Link plates	Medium		Long		Medium		Long		Medium		Long		Medium		Long	
a1	325	1 0 51/64"	675	2 2 37/64"	325	1 0 51/64"	675	2 2 37/64"	325	1 0 51/64"	675	2 2 37/64"	325	1 0 51/64"	675	2 2 37/64"
a2	275	10 53/64"	625	2 0 39/64"	275	10 53/64"	625	2 0 39/64"	275	10 53/64"	625	2 0 39/64"	275	10 53/64"	625	2 0 39/64"
a3	225	8 55/64"	575	1 10 41/64"	225	8 55/64"	575	1 10 41/64"	225	8 55/64"	575	1 10 41/64"	225	8 55/64"	575	1 10 41/64"
a4	175	6 57/64"	525	1 8 43/64"	175	6 57/64"	525	1 8 43/64"	175	6 57/64"	525	1 8 43/64"	175	6 57/64"	525	1 8 43/64"
a5	125	4 59/64"	475	1 6 45/64"	125	4 59/64"	475	1 6 45/64"	125	4 59/64"	475	1 6 45/64"	125	4 59/64"	475	1 6 45/64"
a6			425	1 4 47/64"			425	1 4 47/64"			425	1 4 47/64"			425	1 4 47/64"
e	6	15/64"	6	15/64"	6	15/64"	6	15/64"	6	15/64"	6	15/64"	6	15/64"	6	15/64"
f	25	63/64"	25	63/64"	25	63/64"	25	63/64"	25	63/64"	25	63/64"	25	63/64"	25	63/64"
g	64 or 81	2 33/64" or 3 3/16"	64 or 81	2 33/64" or 3 3/16"	64 or 81	2 33/64" or 3 3/16"	64 or 81	2 33/64" or 3 3/16"	64 or 81	2 33/64" or 3 3/16"	64 or 81	2 33/64" or 3 3/16"	64 or 81	2 33/64" or 3 3/16"	64 or 81	2 33/64" or 3 3/16"

DIMENSIONS FOR C480, C520, C530 AND R480 MODELS

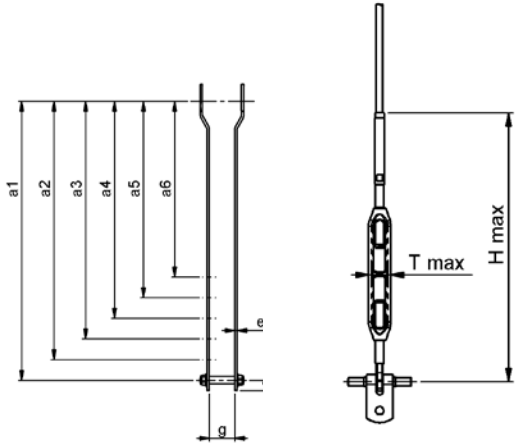
Standard fitting



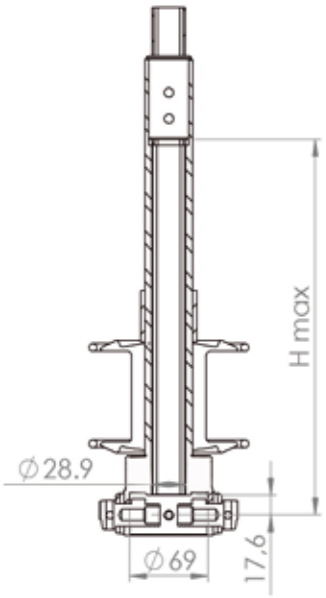
With turnbuckle cylinder



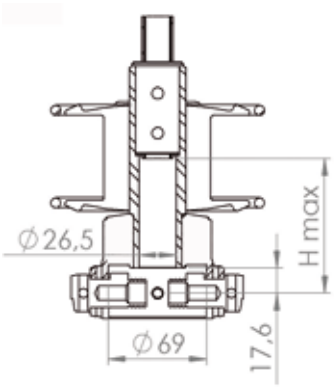
Long and medium link plates



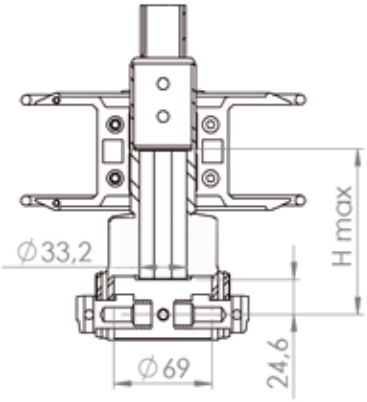
INNER DIMENSIONS OF DRUM MECHANISM



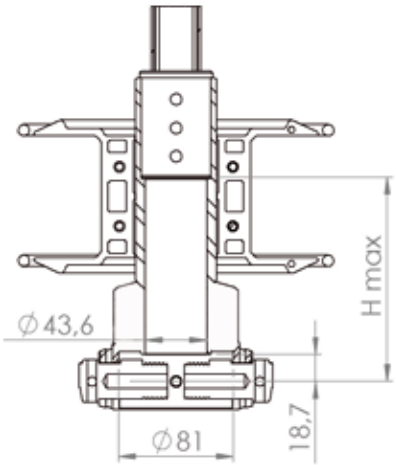
C290 - R250SP



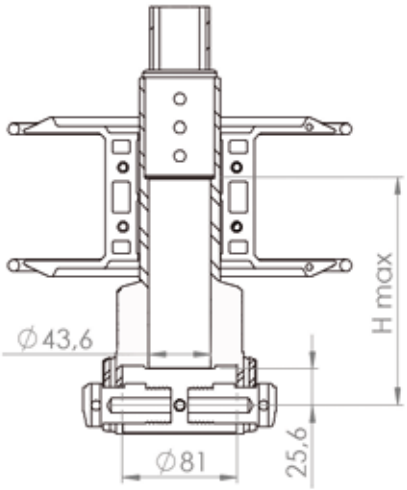
R250



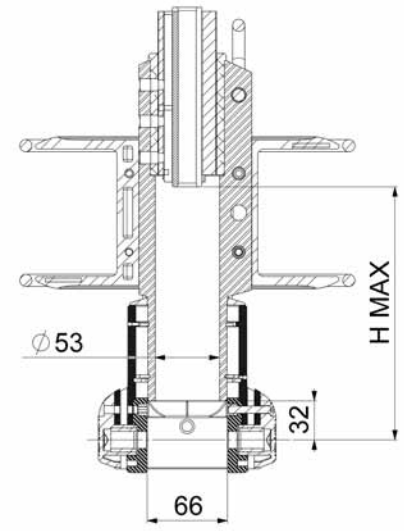
C320 - R350



C320SP - C350
C350SP - C420SP
C430SP - R350SP
R420SP - R430SP



C420 - C430
R420 - R430

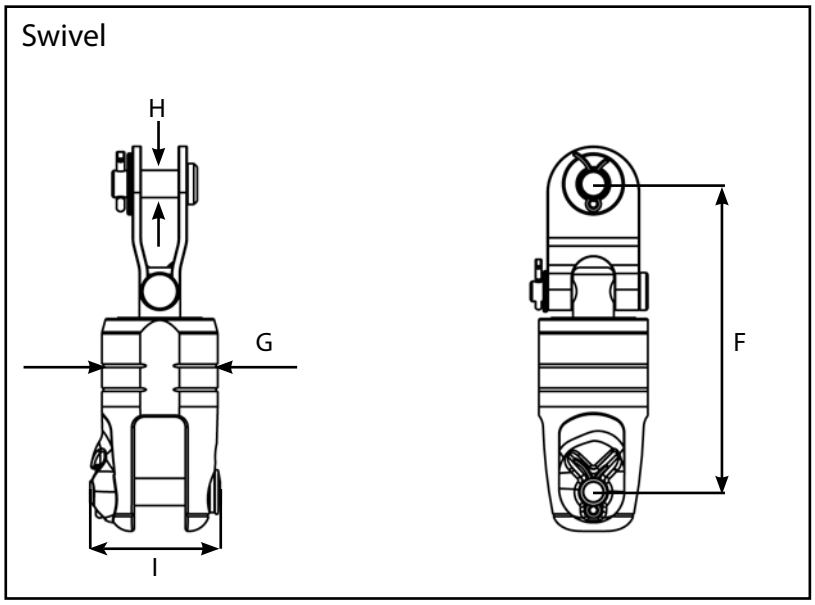


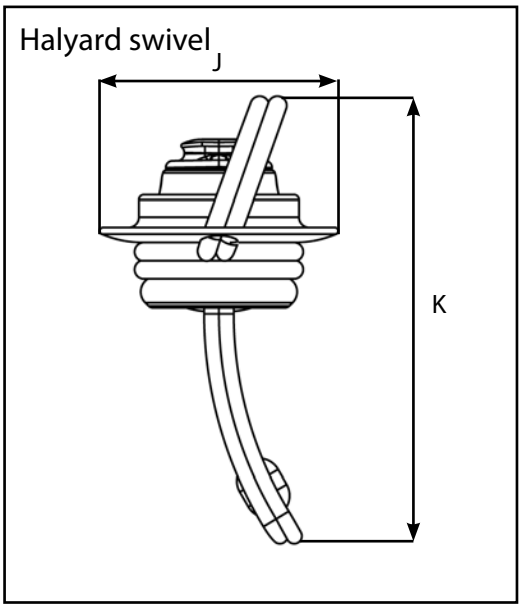
C480 - C520
C530 - R480

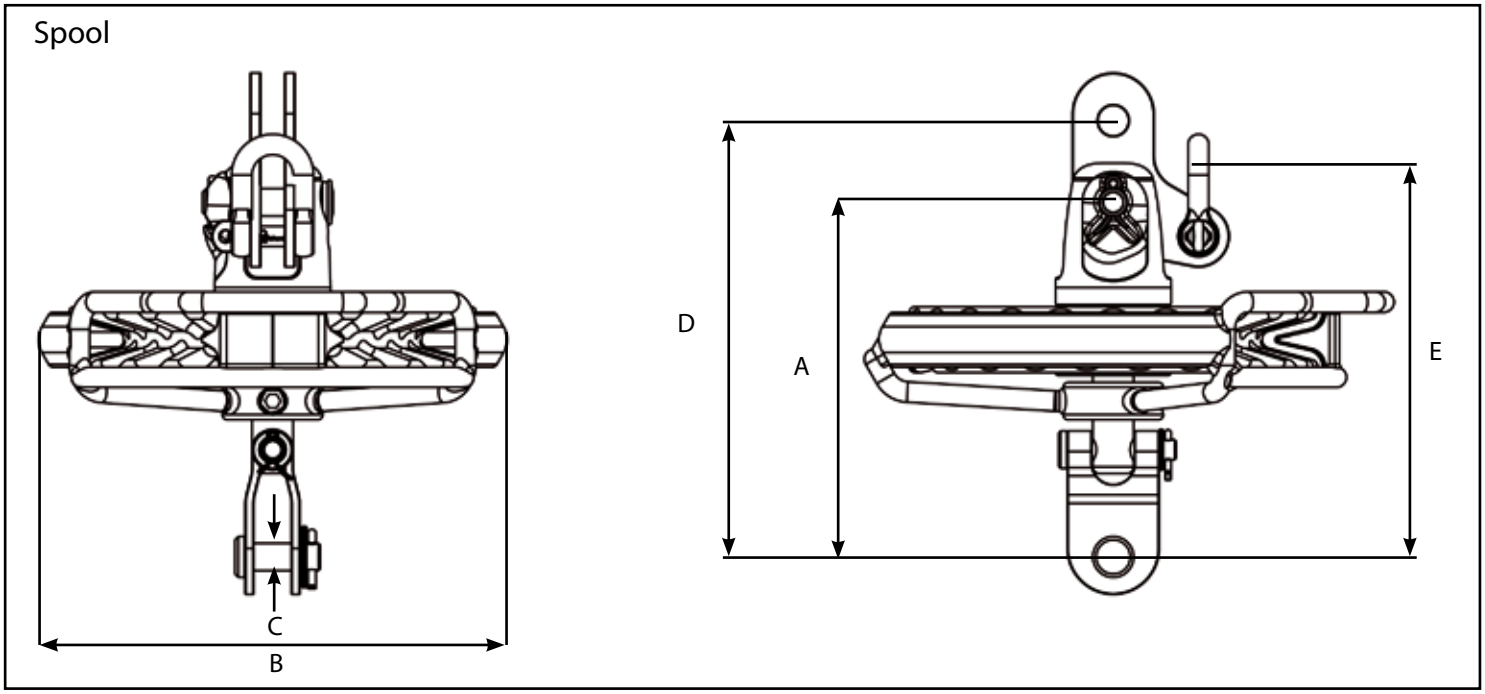
DRUM CAPACITY FOR HEADSAIL SYSTEMS AND SUGGESTED FURLING LINE DIAMETERS

Model	Ø Forestay mm (“)	Boat length m (ft)	Forestay length	Max. genoa area	Ø luff mm (inch)	Ø furling line mm (inch)	Drum capacity m (ft)	Maximum LP
C260	5 (13/64”)	5 to 8 m (16’-22’)	6.5 à 8,5 m	15 m²	6 (15/64”)	6 (15/64”)	7,6 m (25’)	4 m (13’)
C290	6,35 (1/4”)	7 to 10 m (22’-31’)	10 à 14 m	30 m²	5 (13/64”)	6 (15/64”) 8 (5/16”)	13 m (42’) 7,5 m (25’)	8 m (26’) 3 m (10’)
C320	7 (9/32”)	9,5 to 12 m (32’-39’)	12 à 16 m	40 m²	5 (13/64”)	6 (15/64”) 8 (5/16”)	26,2 m (85’) 14,7 m (46’)	17 m (56’) 7 m (23’)
C350	8 (5/16”)	11,5 to 13,5 m (37’-42’)	14 à 18 m	55 m²	5 (13/64”)	8 (5/16”) 10 (3/8”)	23,2 m (75’) 14,9 m (49’)	19 m (62’) 7 m (23’)
C420	10 (3/8”)	13 to 15 m (42’-45’)	16 à 20 m	80 m²	5 (13/64”)	8 (5/16”) 10 (3/8”)	31,4 m (101’) 20,1 m (65’)	26 m (86’) 12,5 m (41’)
C430	12,7 (1/2”)	14 to 16 m (45’-60’)	18 à 22 m	100 m²	5 (13/64”)	8 (5/16”) 10 (3/8”)	31,4 m (101’) 20,1 m (65’)	26 m (86’) 12,5 m (41’)
C480	14,3 (9/16”)	14,5 to 18,5 m (52’-65’)	18 à 22 m	120 m²	6 (15/64”)	10 (3/8”) 12 (1/2”)	30 m (98’) 22 m (72’)	26,5 m (81’) 14,5 m (45’)
C520	16 (5/8”)	16,5 to 18,5 m (56’-65’)	20 à 24 m	140 m²	6 (15/64”)	10 (3/8”) 12 (1/2”)	30 m (98’) 22 m (72’)	26,5 m (81’) 14,5 m (45’)
C530	19 (3/4”)	18,5 to 26 m (65’-85’)	22 à 26 m	220 m²	6 (15/64”)	10 (3/8”) 12 (1/2”)	30 m (98’) 22 m (72’)	26,5 m (81’) 14,5 m (45’)
C700	25,4 (63/64”)	20 to 30 m	25 - 32,5 m	300 m²	8 (5/16”)	12 (3/8”) 14 (1/2”)	-	-
R250	6,35 (1/4”)	6 à 9 m (19’-30’)	8 à 12 m	30 m²	5 (13/64”)	6 (15/64”) 8 (5/16”)	11,1 m 6,2 m	4,5 m (13’) 2,5 m (8’)
R350	8 (5/16”)	9,5 to 12,5 m (31’-41’)	12 - 16 m	45 m²	5 (13/64”)	6 (15/64”) 8 (5/16”)	26,2 m 14,7 m	17 m (56’) 7 m (23’)
R420	10 (3/8”)	11,5 to 14,5 m (37’-47’)	14 - 18 m	70 m²	5 (13/64”)	8 (5/16”) 10 (3/8”)	31,4 m 20,1 m	26 m (86’) 12,5 m (41’)
R430	11,1 (7/16”)	13 to 16,5 m (43’-54’)	16 - 20 m	90 m²	5 (13/64”)	8 (5/16”) 10 (3/8”)	31,4 m 20,1 m	26 m (86’) 12,5 m (41’)
R480	12,7 (1/2”)	15,5 to 20 m (52’-65’)	18 - 22 m	100 m²	6 (15/64”)	10 (3/8”) 12 (1/2”)	30 m (98’) 22 m (72’)	26,5 m (86’) 14,5 m (45’)

TECHNICAL DATA: STRUCTURAL FURLERS - PRO AM





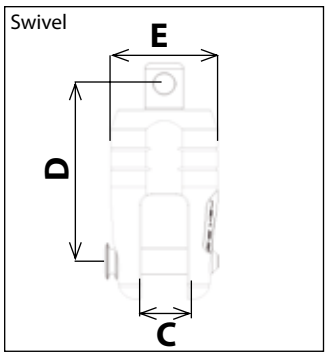


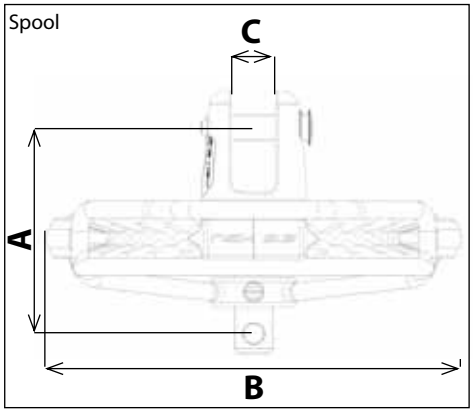
Technical data: spool	PRO AM 1.0	PRO AM 2.0
A mm	104	122
B mm	140	180
C mm	8	10
D mm	128	152
E mm	118	142
Ø spool : mm	120	150
Ø furling line mm	10	10
Weight: spool (only) Kg	0.660	1.080

Technical data: swivel	PRO AM 1.0	PRO AM 2.0
F mm	90	109
G mm	34	42
H mm	8	10
I mm	38	47
Weight: swivel (only) Kg	0.210	0.340
Technical data: halyard swivel		
J mm	70	70
K mm	129	129
Weight: halyard swivel (only) Kg	0,150	0,150

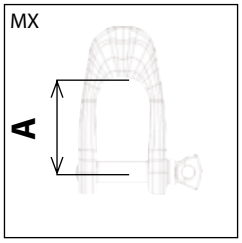
TECHNICAL DATA: FLYING SAIL FURLERS NEX

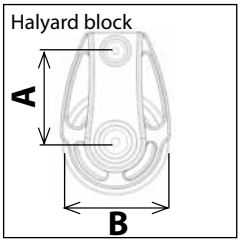
Technical data for mechanisms	Technical data: spool	NEX 0.9	NEX 1.5	NEX 2.5	NEX 5.0
	Height pin to pin: A mm	62,4 (2 29/64")	73,6 (2 57/64")	82,9 (3 17/64")	109,5 (4 5/16")
	Width drum mechanism: B mm	125 (4 59/64")	140 (5 33/64")	180 (7 3/32")	230 (9 1/16")
	Width fork: C mm	12 (15/32")	15 (19/32")	18 (23/32")	19 (3/4")
	Ø spool: mm	100 (3 15/16")	120 (4 23/32")	150 (5 7/8")	195 (7 11/16")
	Ø continuous line mm	8 (5/6")	10 (3/8")	10 (3/8")	10 (3/8")
	Weight: spool (only) Kg	0,330	0,530	0,820	1,440
	Technical data: swivel				
	Height pin to pin: D mm	47,3 (1 55/64")	58,8 (2 5/16")	69,6 (3 17/64")	94 (3 45/64")
	Width swivel: E mm	31 (1 7/32")	34 (1 5/16")	42 (1 5/8")	50 (1 31/32")
	Width fork: C mm	12 (15/32")	15 (19/32")	18 (23/32"	19 (3/4")
	Weight: swivel (only) Kg	0,100	0,140	0,240	0,470
	Max ø luff line mm	8 (5/6")	10 (3/8")	12 (1/2")	16 (5/8")

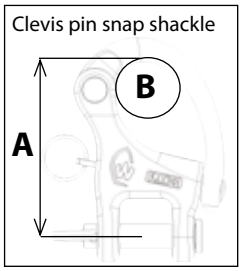


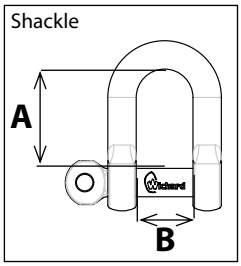


Technical data for terminals	Technical data: MX halyard shackle	MX6 (11503)	MX8 (11504)	MX10 (11505)
	A mm	29 (1 9/64")	32 (1 17/64")	39 (1 17/32")
	Ø halyard mm	8 (5/16")	10 (3/8")	14 (9/16")
	Weight Kg	0,044	0,096	0,186
	Technical data: halyard block	**2,5T**		**5T**
	Height pin to pin: A mm	45 (1 49/64")		60 (2 23/64")
	Ø sheave : B mm	55 (2 11/64")		70 (2 3/4")
	Ø halyard mm	12 (1/2")		16 (5/8")
	Weight Kg	0,160		0,370
	Technical data: clevis pin snap shackle	**Part # 54100**	**Part # 54101**	**Part # 54102**
	For NEX:	NEX 0.9 and 1.5	NEX 2.5	NEX 5.0
	Height: pin to arm: A mm	39,5 (1 9/16")	54 (2 1/8")	65,5 (2 9/16")
	Passage diameter: B mm	16 (5/8")	21 (53/64")	26 (1 1/32")
	Weight Kg	0,054	0,130	0,257
	Technical data: Wichard HR shackle	**Part # 11203 (NEX 0.9 & 1.5)**	**Part # 11204 (NEX 2.5)**	**Part # 11205 (NEX 5.0)**
	Ø pin mm	Ø 6	Ø 8	Ø 10
	A / B : mm	20 / 12	26 / 16	33 / 20
	Weight Kg	0,024	0,052	0,102

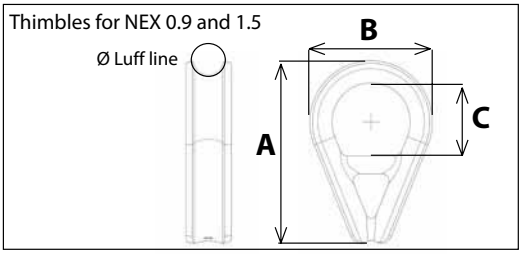


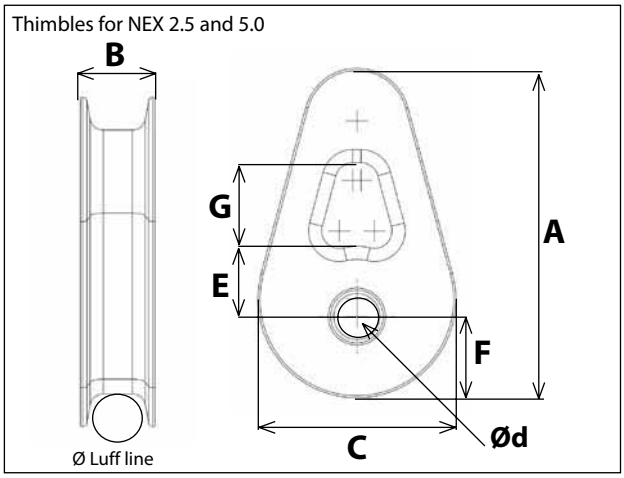






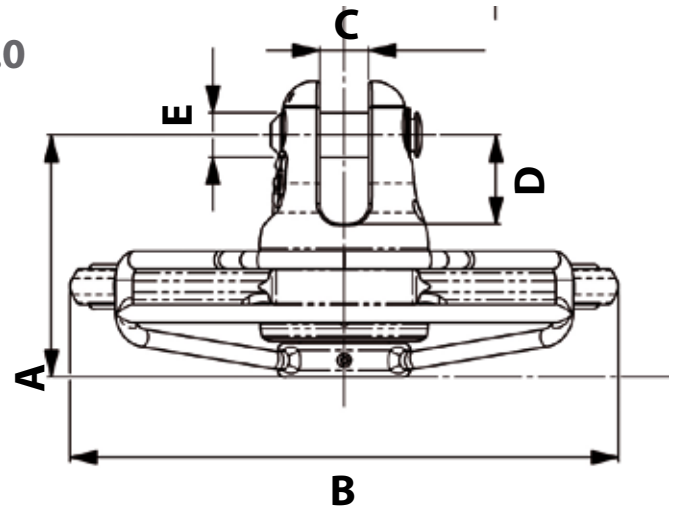
Technical data for thimbles		Part # : 119907 (NEX 0.9)	Part # : 119908 (NEX 1.5)	Part # : P542538 (NEX 2.5)	Part # : P545038 (NEX 5.0)
	A mm	45	50	75	92
	B mm	28	33	17	18
	C mm	17	20	45	52
	Ø d mm	-	-	10,5	12,5
	E mm	-	-	16	19
	F mm	-	-	18,5	21,5
	G mm	-	-	19	21
	Ø luff line max mm	8	10	12	16
	Weight Kg	0,015	0,017	0,055	0,068
	Material	stainless steel		aluminium	

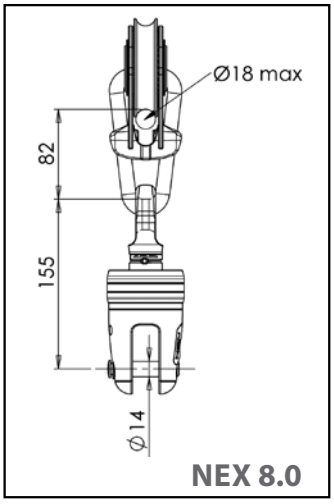


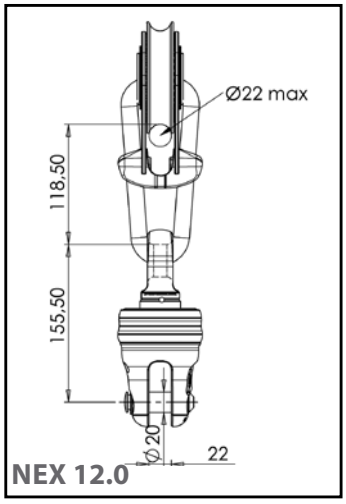


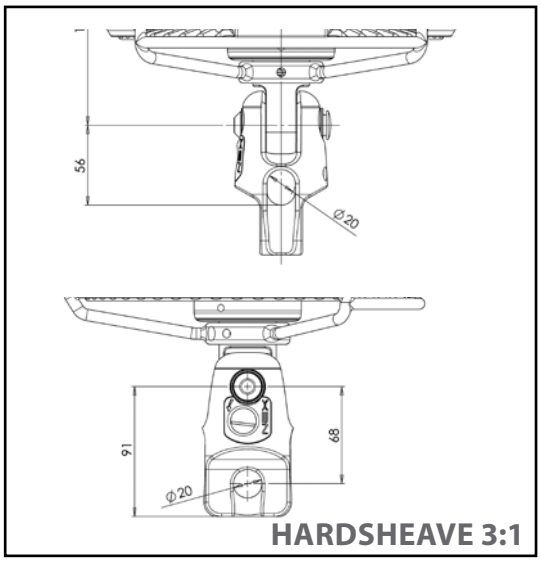
TECHNICAL DATA:
FLYING SAIL FURLERS NEX 8.0 - NEX 12.0

Technical data for mechanisms	Technical data: spool	NEX 8.0	NEX 12.0
	Height pin to pin: A mm	105	108,5
	Width drum mechanism: B mm	210	245
	Width fork: C mm	14 (FF#3)	20 (FF#4)
	Depth fork: D mm	40	40
	Ø pin: E mm	14	20
	Ø spool: mm	200	230
	Ø continuous line mm	10	10
	Weight: spool (only) Kg	1,800	2,700
	Technical data: swivel		
	Dia sheave: mm	90	110
	Depth fork: D mm	40	40
	Ø pin: mm	14 (FF#3)	20 (FF#4)
	Weight: swivel (only) Kg	1.200	1,600
	Weight: halyard block (only) Kg	0.150	0.440

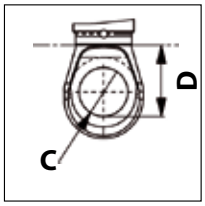






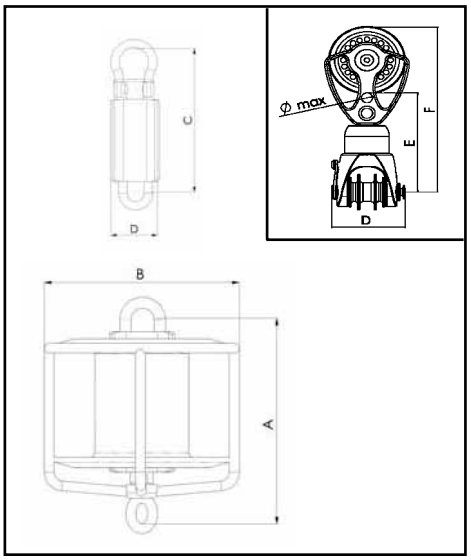


	Lashing eye	NEX 8.0	NEX 12.0
	Ø lashing hole: C mm	28	32
	Height: D mm	50	47
	Weight: Kg	0,180	0,290

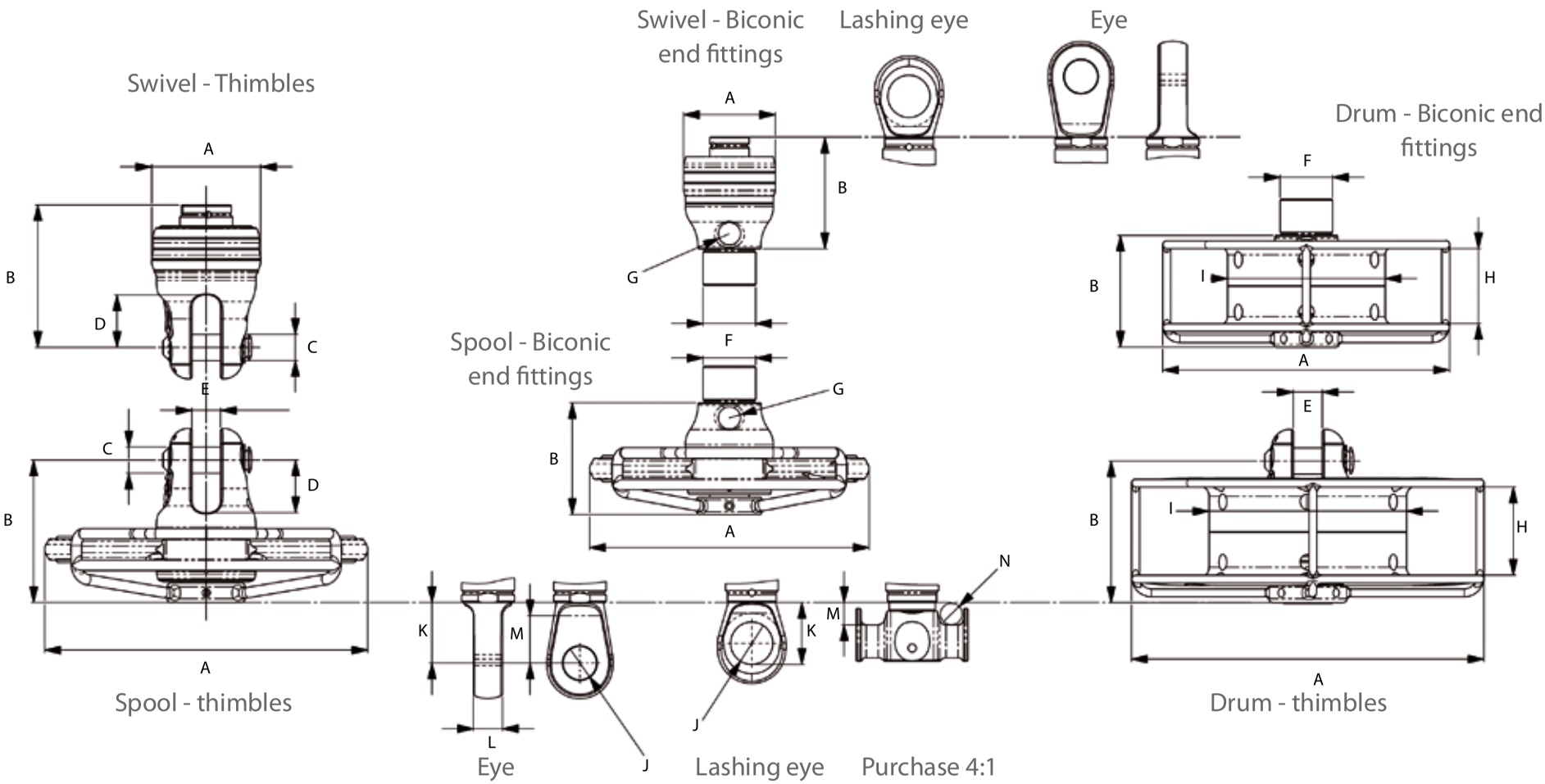


TECHNICAL DATA: FLYING SAIL FURLERS WITH DRUM

EC models with drum	EC 1500	EC 2500	EC 4000	EC 6000	EC 12000
A mm	155 (6 7/64")	155 (6 7/64")	234 (9 7/32")	240 (9 15/32")	420 (16 17/32")
B mm	140 (5 33/64")	140 (5 33/64")	202 (7 61/64")	240 (9 15/32")	280 (11 1/32")
C mm	140 (5 33/64")	140 (5 33/64")	195 (7 43/64")	240 (9 15/32")	345 (13 5/8")
D mm	45 (1 49/64")	57 (2 1/4")	50 (1 15/16")	63 (2 31/64")	155 (6 7/64")
E mm		97			
F mm		145			
Ø Furling line mm	6 or 8 (1/4" or 5/16")	6 or 8 (1/4" or 5/16")	8 or 10 (5/16" or 3/8")	10 (3/8")	12 (1/2")
Ø luff line mm	6 (1/4")	-	6 or 8 1/4" or 5/16"	8 or 10 5/16" or 3/8"	10 or 12 3/8" or 1/2"
Ø maxi halyard 2:1 block	6 (1/4")	-	12 (1/2")	14 (9/16")	-
Weight drum Kg	0,98		2,2	3,5	10,8
Weight swivel Kg	0,47		0,9	2,2	6,0



TECHNICAL DATA STAYFURLERS: NEX STR



TECHNICAL DATA STAYFURLERS: NEX STR

LOWER MECHANISM: DIMENSIONS & WEIGHT					
	NEXSTR4.0	NEXSTR5.0	NEXSTR8.0	NEXSTR10.0	NEXSTR12.0
	SPOOL FOR THIMBLES				
Width: A mm	-	-	210	245	245
Height B mm	-	-	105	108,5	108,5
Pin Ø : C mm			14	20	20
Depth fork: D mm	-	-	40	40	40
Width fork: E mm	-	-	24	22	22
Weight Kg			1,800	2,700	2,700
	SPOOL FOR BICONIC END FITTING (NAVTEC)				
Width: A mm	210	210	210	245	245
Height: B mm	76,5	76,5	85	92,5	92,5
Thread: F	M38x200-L26	M38x200-L26	M40x200-L28	M44x200-L32	M48x200-L36
Ø lashing hole: G mm	15	15	17	20	20
Weight Kg	1,400	1,400	1,700	2,540	2,570
	DRUM FOR THIMBLES				
Width: A mm	-	-	218	268	268
Height: B mm	-	-	105	108,5	108,5
Pin Ø: C mm			14	20	20
Depth forke: D mm	-	-	40	40	40
Width fork: E mm	-	-	24	22	22
H mm	-	-	60	70	70
Ø drum: I mm	-	-	120	150	150
Weight Kg			1,870	3,120	3,120
	DRUM FOR BICONIC END FITTINGS (NAVTEC)				
Width: A mm	-	-	218	268	268
Height: B mm	-	-	105	92,5	92,5
Thread: F	-	-	M40x200-L28	M44x200-L32	M48x200-L36
Ø lashing: hole G mm	-	-	15	20	20
H mm	-	-	60	70	70
Ø drum: I mm	-	-	120	150	150
Weight: Kg			1,770	2,880	2,920

SWIVELS: DIMENSIONS & WEIGHT					
	NEXSTR4.0	NEXSTR5.0	NEXSTR8.0	NEXSTR10.0	NEXSTR12.0
	SWIVELS FOR THIMBLES				
Width A mm	-	-	70	83	83
Height: B mm	-	-	105	108,5	108,5
Pin Ø : C mm			14	20	20
Depth fork: D mm	-	-	40	40	40
Width fork: E mm	-	-	24	22	22
Weight: Kg			0,900	1,400	1,400
	SWIVELS FOR BICONIC END FITTINGS (NAVTEC)				
Width: A mm	52	52	70	83	83
Height: B mm	61,5	61,5	85	92,5	92,5
Thread: F	M38x200-L26	M38x200-L26	M40x200-L28	M44x200-L32	M48x200-L36
Ø lashing hole	15	Ø15	17	20	20
Weight: Kg	0,410	0,410	0,800	1,200	1,200

TERMINALS: DIMENSIONS & WEIGHT					
	NEXSTR4.0	NEXSTR5.0	NEXSTR8.0	NEXSTR10.0	NEXSTR12.0
	LASHING EYE				
Ø hole J mm	25	25	28	32	32
Height: K mm	37,5	37,5	50	47	47
Weight: Kg	0,140	0,140	0,180	0,290	0,290
	EYE				
Ø hole: J mm	12,5	16,5	19,5	22,2	25,4
Height: K mm	22	28	37,5	23,2	46
Thickness: L mm	12	15	18,5	21,8	22
Length: M mm	16	21	21	19	36
Weight: Kg	0,080	0,130	0,300	0,300	0,600
	FRICTION PURCHASE 4:1				
Ø max: N	12	12	14	16	16
Length: M mm	12	12	14	17	17

Choose your standard stayfurler model	Coding	Advice
1 **What is your cable made of and what is its diameter?**		• To get the right stayfurler, we need to know what stainless steel wire is recommended by the boatyard or the architect. • Example: for a 10 mm diameter 1x19 wire, the equivalent fiber cable must have a breaking load of 14 tonnes. Thus, the appropriate model is the NEX STR 5.0.
2 **What is the chosen type of cable? Mark F or N**		• Cables with thimbles are installed on fork mechanisms. • Biconic end fittings (e.g. Navtec) are installed on threaded mechanisms.
3 **What type of drum do you want? - Mark S or D**		• The spool version provides optimal sail luff and is used in conjunction with a continuous furling line. • The drum version can be simply fitted to the deck and uses a classic furling line (1 strand).
4 **What are the mast terminals? - Mark E or L**		• Eye end fitting: a simple and reliable solution for fitting the swivel to the mast. Fitted with a toggle for classic metal fittings. • Lashing eye end fitting: a light and performance-enhancing solution. Fitted with a loop to make a light anchoring point
5 **What are the deck terminals? - Mark E, L or P**		• Eye end fitting: a simple and reliable solution for fitting the swivel to the mast. Fitted with a toggle for classic metal fittings. • Lashing eye end fitting: a light and performance-enhancing solution. Fitted with a loop to make a light anchoring point • The friction purchase allows the stay to be adjusted from below. 4:1 Adjustments. Loop may be fastened.
Part number of the complete stayfurler	**NEX STR 5.0 - NSEE**	

Stainless steel wire		Fiber cable	Model size that corresponds to the cable
1 x 19 mm	Rod	Size	
8	# 10	9T - 14T	NEX STR 4.0
10	# 17	14T	NEX STR 5.0
12	# 22	19T	NEX STR 8.0
14	# 30	24T	NEX STR 10.0
16)	# 40	30T	NEX STR 12.0

NEX STR 5.0

Thimble: F

Biconic (Navtec): N

NEX STR 5.0 - N

Spool: S

Drum: D

NEX STR 5.0 - NS

Eye: E

Lashing eye: L

NEX STR 5.0 - NSE

Eye: E

Lashing eye: L

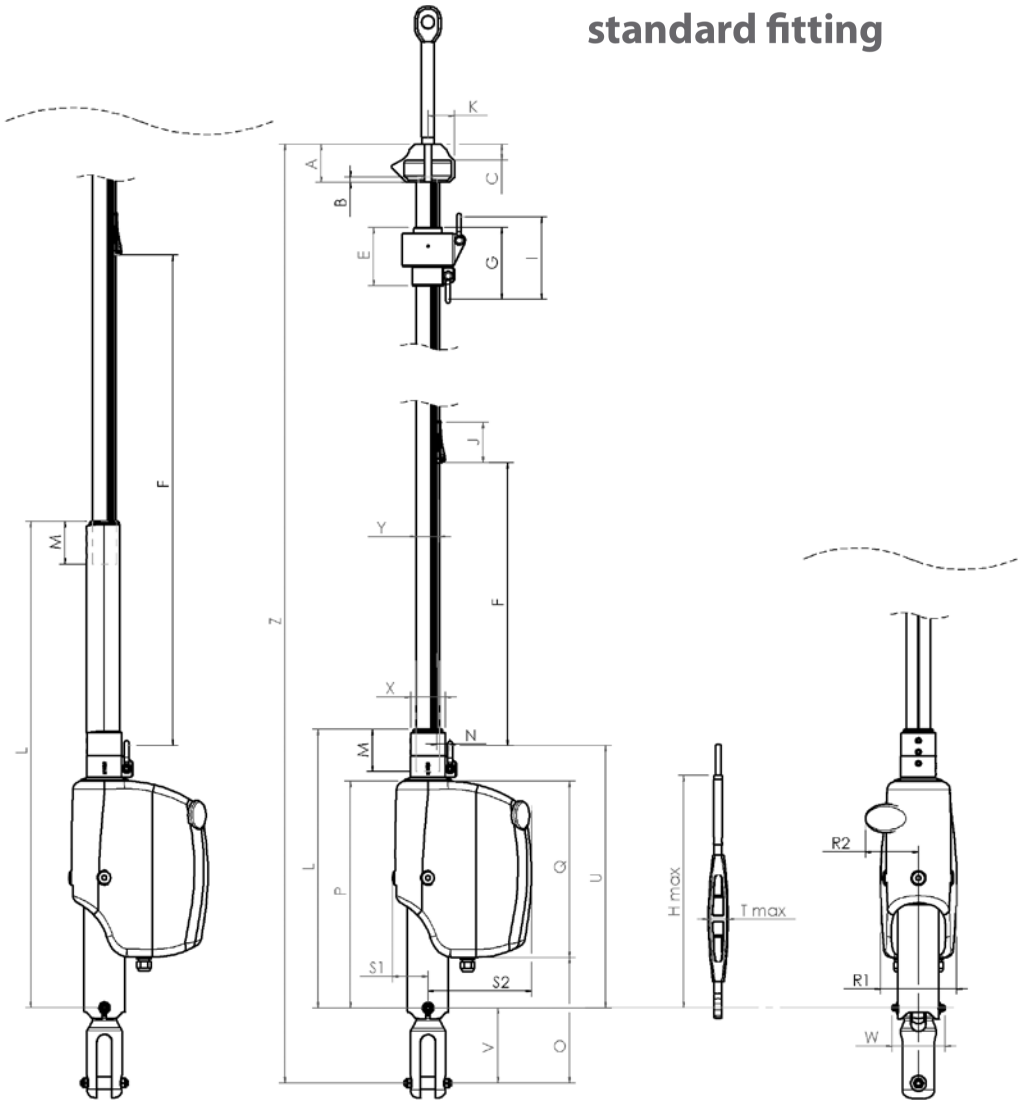
Purchase: P

NEX STR 5.0 - NSEE

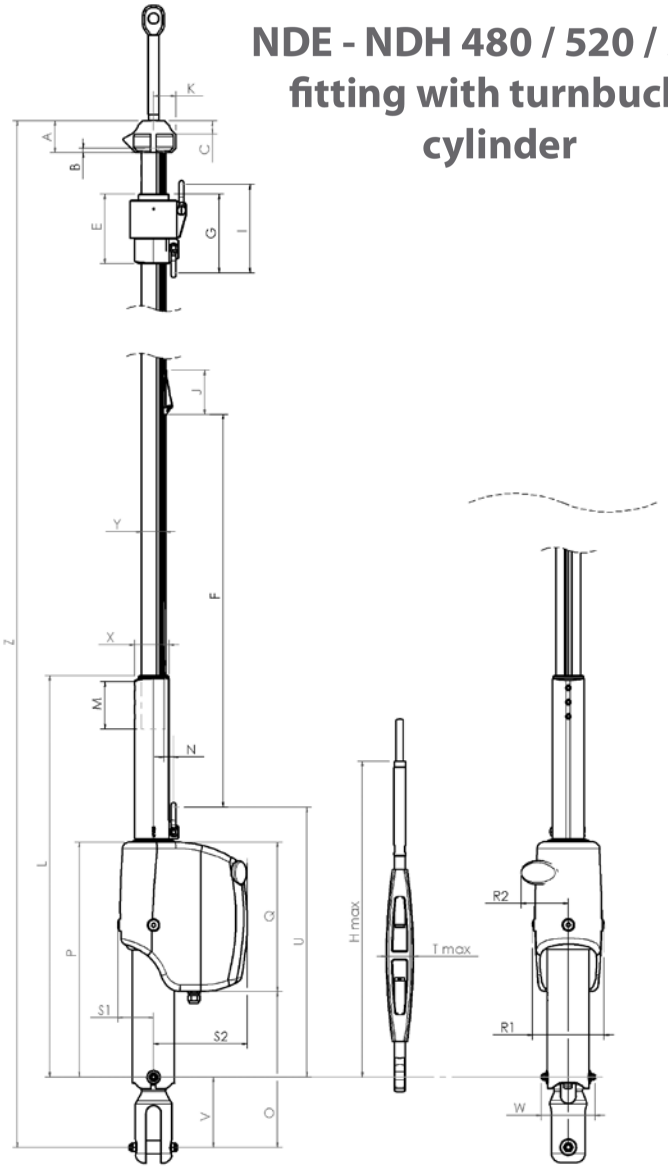
	NDE / NDH C420				NDE / NDH R420				NDE / NDH C430				NDE / NDH R430				NDE / H C480		NDE/NDH C520		NDE/NDH C530	
	Standard		with turnbuckle cylinnder		Standard		with tumbuckle cylinnder		Standard		with tumbuckle cylinnder		Standard		with turnbuckle cylinnder		Standard		Standard		Standard	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
A	68	2′43/64″	See standard		68	2′43/64″	See standard		68	2′43/64″	See standard		68	2′43/64″	See standard		68	2′43/64''	68	2′43/64''	68	2′43/64''
B	10	13/32″	See standard		10	13/32″	See standard		10	13/32″	See standard		10	13/32″	See standard		14	35/64''	14	35/64''	14	35/64''
C	28	17/64″	See standard		28	17/64″	See standard		28	17/64″	See standard		28	17/64″	See standard		28	1′7/64''	28	1′7/64''	28	1′7/64''
E	103	4′1/16″	See standard		103	4′1/16″	See standard		140	5′33/64″	See standard		140	5′33/64″	See standard		146	5′3/4''	146	5′3/4''	168	5′3/4''
F	498	1 7′39/64″	863	2 9′31/32″	498	1 7′39/64″	863	2 9′31/32″	498	1 7′39/64″	863	2 9′31/32″	498	1 7′39/64″	863	2 9′31/32″	827	2 8′9/16''	827	2 8′9/16''	827	2 8′9/16''
G	126	4′61/62″	See standard		126	4′61/62	See standard		170	6′11/16″	See standard		170	6′11/16″	See standard		170,5	6′11/16''	170	6′11/16''	192,5	6′11/16''
H max	400	1 3′3/4″	765	2 6′1/8″	400	1 3′3/4″	765	2 6′1/8″	400	1 3′3/4″	765	2 6′1/8″	400	1 3′3/4″	765	2 6′1/8″	730	2 4′47/64''	730	2 4′47/64''	730	2 4′47/64''
I	144	5′43/64″	See standard		144	5′43/64″	See standard		196	7′3/4″	See standard		196	7′3/4″	See standard		194	7′41/64''	194	7′41/64''	218	7′41/64''
J	72	2′53/64″	See standard		72	2′53/64″	See standard		72	2′53/64″	See standard		72	2′53/64″	See standard		84	3′5/16''	84	3′5/16''	84	3′5/16''
K	47	1′27/32″	See standard		47	1′27/32″	See standard		47	1′27/32″	See standard		47	1′27/32″	See standard		47	1′27/32''	47	1′27/32''	47	1′27/32''
L standard	491	1 7′21/64″	856	2 9′45/64″	491	1 7′21/64″	856	2 9′45/64″	491	1 7′21/64″	856	2 9′45/64″	491	1 7′21/64″	856	2 9′45/64″	845	2 9′17/64''	845	2 9′17/64''	845	2 9′17/64''
L mini	419	1 4′1/2″	784	2 6′55/64″	419	1 4′1/2″	784	2 6′55/64″	419	1 4′1/2″	784	2 6′55/64″	419	1 4′1/2″	784	2 6′55/64″	690	2 3′11/64''	690	2 3′11/64'	690	2 3′11/64'
M	75	2′15/16″	See standard		75	2′15/16″	See standard		75	2′15/16″	See standard		75	2′15/16″	See standard		100	3′15/16''	100	3′15/16''	100	3′15/16''
N	23	29/32″	See standard		23	29/32″	See standard		23	29/32″	See standard		23	29/32″	See standard		23	29/32''	21	53/64''	21	53/64''
O standard	221	8′45/64″	See standard		221	8′45/64″	See standard		221	8′45/64″	See standard		221	8′45/64″	See standard		328	1 0′29/32″	328	1 0′29/32″	328	1 0′29/32″
O mini	149	5 55/64″	See standard		149	5 55/64″	See standard		149	5 55/64″	See standard		149	5 55/64″	See standard		173	6′13/16″	173	6′13/16″	173	6′13/16″
P standard	400	1 3′3/4″	See standard		400	1 3′3/4″	See standard		400	1 3′3/4″	See standard		400	1 3′3/4″	See standard		495	1 7′31/64″	495	1 7′31/64″	495	1 7′31/64″
P mini	328	1 0′29/32″	See standard		328	1 0′29/32″	See standard		328	1 0′29/32″	See standard		328	1 0′29/32″	See standard		340	1 1′25/64″	340	1 1′25/64″	340	1 1′25/64″
Q	310	1 0′13/64″	See standard		310	1 0′13/64″	See standard		310	1 0′13/64″	See standard		310	1 0′13/64″	See standard		315	1 0′13/32″	315	1 0′13/32″	315	1 0′13/32″
R1	134	5′9/32″	See standard		134	5′9/32″	See standard		134	5′9/32″	See standard		134	5′9/32″	See standard		150	5′29/32″	150	5′29/32″	150	5′29/32″
R2	94	3′45/64″	See standard		94	3′45/64″	See standard		94	3′45/64″	See standard		94	3′45/64″	See standard		100	3′15/16″	100	3′15/16″	100	3′15/16″
S1	62	2′7/16″	See standard		62	2′7/16″	See standard		62	2′7/16″	See standard		62	2′7/16″	See standard		75	2′61/64′	75	2′61/64′	75	2′61/64′
S2	182	7′11/64″	See standard		182	7′11/64″	See standard		182	7′11/64″	See standard		182	7′11/64″	See standard		197	7′3/4″	197	7′3/4″	197	7′3/4″
T max	40	1′37/64″	See standard		40	1′37/64″	See standard		40	1′37/64″	See standard		40	1′37/64″	See standard		50	1' 31/32″	50	1' 31/32″	50	1' 31/32″
U standard	462	1 6′3/16″	See standard		462	1 6′3/16″	See standard		462	1 6′3/16″	See standard		462	1 6′3/16″	See standard		568	1 0′23/64″	568	1 0′23/64″	568	1 0′23/64″
U mini	390	1 3′23/64″	See standard		390	1 3′23/64″	See standard		390	1 3′23/64″	See standard		390	1 3′23/64″	See standard		413	1 4′17/64″	413	1 4′17/64″	413	1 4′17/64″
V	133	5′15/64″	See standard		133	5′15/64″	See standard		133	5′15/64″	See standard		133	5′15/64″	See standard		148	5′53/64''	148	5′53/64''	148	5′53/64''
W	94	3′45/64″	See standard		94	3′45/64′	See standard		94	3′45/64′	See standard		94	3′45/64′	See standard		114	4′31/64''	114	4′31/64''	114	4′31/64''
X	61	2′13/32″	See standard		61	2′13/32″	See standard		61	2′13/32″	See standard		61	2′13/32″	See standard		73	2′7/8″	73	2′7/8″	73	2′7/8″
Y	42	1′21/32″	See standard		42	1′21/32″	See standard		42	1′21/32″	See standard		42	1′21/32″	See standard		48	1 57/64''	52	2 3/64''	52	2 3/64''
Z standard	16485	54 1′1/32″	16850	55 3′25/64″	14485	47 6′9/32″	14850	48 8′41/64″	18485	60 7′3/4″	18850	61 10′1/8″	16485	54 1′1/64′	16850	55 3′25/64″	18813	61 8′43/64''	20813	68 3′13/32″	22813	74 10′5/32''
Z mini	16413	53 10′3/16″	16778	55 0′35/64″	14413	47 3′7/16″	14778	48 5′13/16″	18413	60 4′59/64″	18778	61 7′19/64″	16413	53 10′3/16″	16778	55 0′35/64″	18658	61 2′9/16''	20658	67 9′5/16''	22658	74 4′3/64″

DIMENSIONS – MOTORISED FURLING SYSTEMS

NDE - NDH 420 / 430: standard fitting

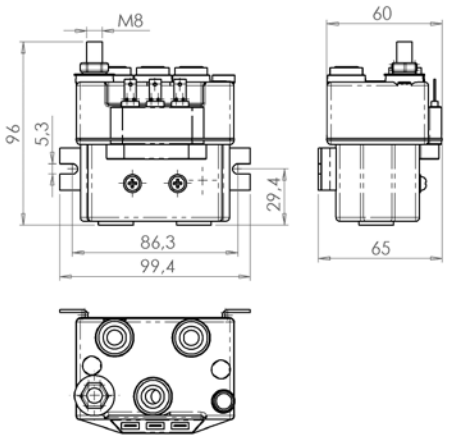


NDE - NDH 480 / 520 / 530: fitting with turnbuckle cylinder

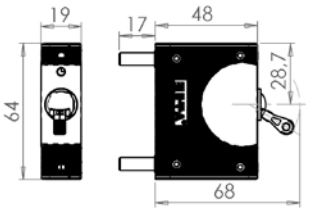


TECHNICAL DATA: MOTORISED FURLING SYSTEMS

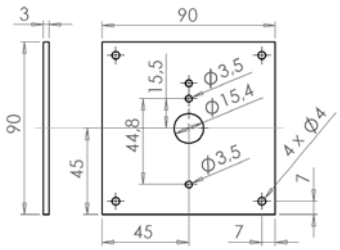
Contactor unit



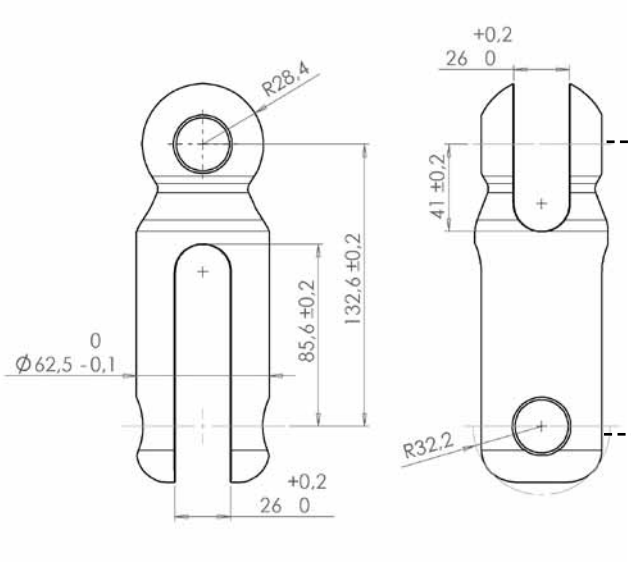
Circuit breaker



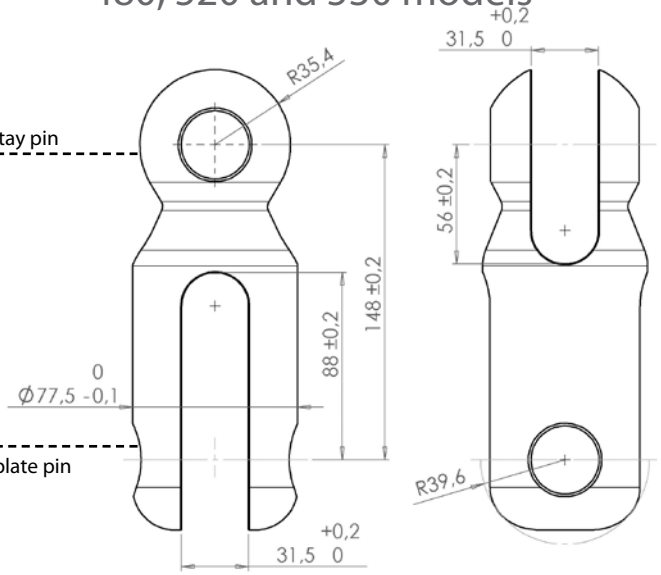
Circuit breaker plate



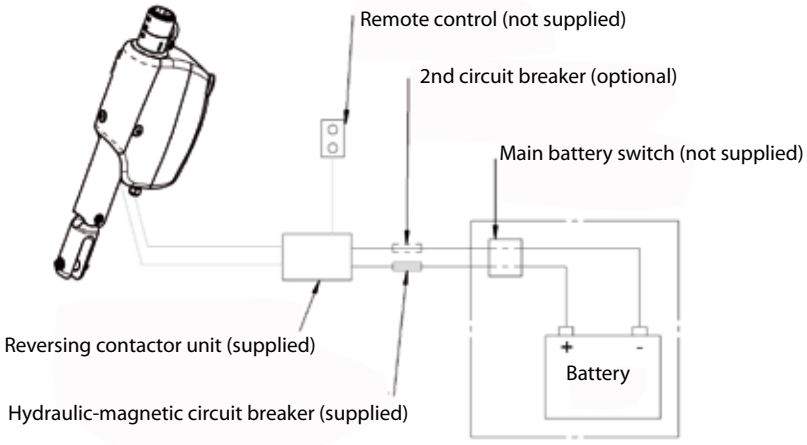
Dimensions of the toggle for 420 and 430 models



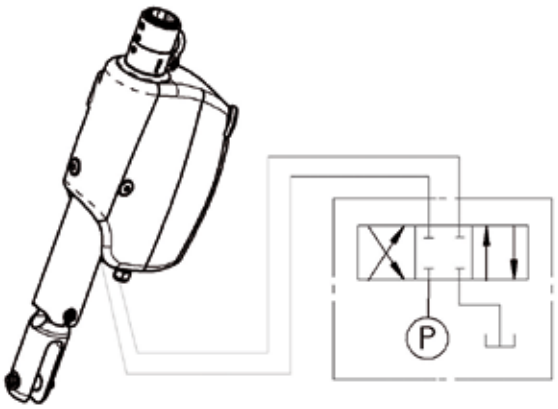
Dimensions of the toggle for 480, 520 and 530 models



Wiring diagram for electric systems



Wiring diagram for hydraulic systems



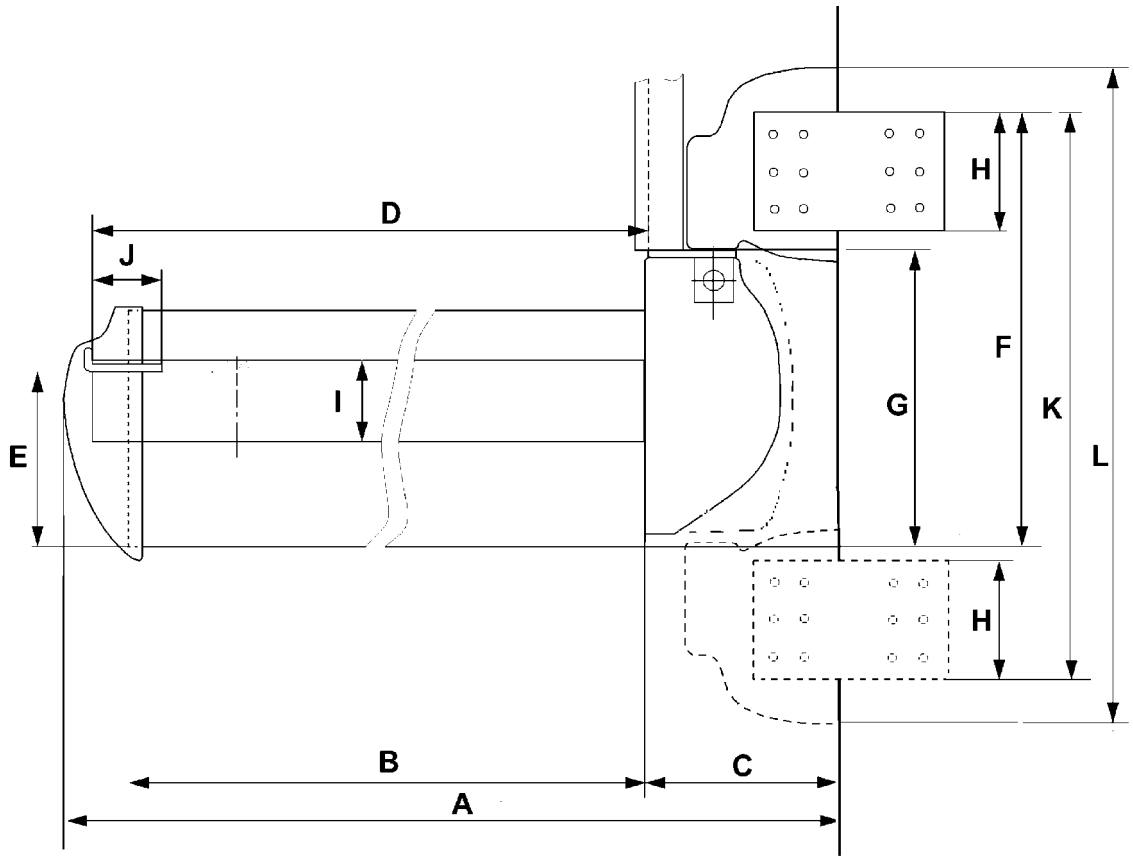
SPECIFICATIONS OF THE IN-BOOM FURLERS

Dimensions in mm (ft)	Dimensions of boom sections in mm (ft)	Boom inside diameter in mm (ft)	Mandrel diameter in mm (ft)	Weight Kg/m (Lb / ft)		Standard boom vang pin to pin in mm (ft) open / closed
				Boom section	Mandrel	
MK0R	113 x 64 (4 29/64″ x 2 33/64″)	155 (6 7/64″)	52 (2 3/64″)	2,68 (1,80)	1,42 (0,95)	1100 / 1005 (3′ 7 5/16″ / 3′ 3 9/16″)
MK1R	194 x 191 (7 41/64″ x 7 33/64″))	180 (7 3/32″)	70 (2 3/4″)	5,34 (3,58)	2,8 (1,88)	1400 / 1305 (4′ 7 1/8″ / 4′ 3 3/8″)
MK2R	249 x 226 (9 51/64″ x 8′ 57/64″)	220 (8 21/32″)	70 (2 3/4″)	7,20 (4,83)	2,8 (1,88)	1550 / 1405 (5′ 1 1/32″ x 4′ 7 5/16″)
MK3R	311 x 261 (1′ 1/4″ x 10 9/32″)	250 (9 27/32″)	95 (3 47/64″)	9,40 (6,39)	5,4 (3,62)	1750 / 1605 (5′ 8 57/62″ x 5′ 3 3/16″)
MK4	400 x 305 (1′ 3 3/4″ x 1′ 1/64″)	300 (11 13/16″)	101 (3 31/32″)	13,43 (9,01)	2,63 (1,75)	2100 / 1970 (6′ 10 43/64″ x 6′ 5 1/2″)

Sailmakers information	Finished luff tape diameter in mm (ft)	Finished foot tape diameter in mm	Available boom profiles lengths in m (ft)	Corresponding max foot length in m (ft)	Max full length in m (ft)	Boom perimeter in mm (inch) for mainsail cover
MK0R	6 (15/64″)	6 (15/64″)	3,2 (10′ 6″)	3,1 (10′ 3 5/8″)	9,0 (29 6 21/64″)	550 (1′ 9 5/8″)
MK1R	5 (13/64″)	8 (5/16″)	4 or5 (13′ 1 31/64″ or 16′ 4 27/32″)	3,95 or 4,95 (12′ 11 33/64″ or 16′ 2 7/8″)	12,6 (41′ 4 1/16″)	635 (2′)
MK2R	5 (13/64″)	8 (5/16″)	4 or 5 (13′ 1 31/64″ or 16′ 4 27/32″)	3,95 or 4,95 (12′ 11 33/64″ or 16′ 2 7/8″)	14,6 (47′ 10 51/64″)	815 (2′ 8 3/32″)
MK3R	5 (13/64″)	10 (25/64″)	5 or 6 (23′ 11 3/8″)	4,95 or 5,95 (16′ 2 7/8″ or 19′ 6/4″)	17,6 (57′ 8 15/16″)	965 (3′ 2″)
MK4	7 (9/32″)	8 (5/16″)	7,3	7 (22′ 11 19/32″)	21 (68′ 10 3/4″)	1170 (3′ 10 1/16″)

Model in mm (ins)	A	B	C	D	E	F	G	H	I	J	K	L
MK0R	3350 max (10′ 11 57/64″)	3200 max (10′ 6″ max)	104 (4 3/32″)	3202 max (10′ 6 1/16″)	128 (5 3/64″)	267 (1 0 33/64″)	198 (7 51/64″)	60 (2 23/64″)	52 (2 3/64″)	32 (1 17/62″)	-	-
MK1R	4202 or 5202 (13′ 9 7/16″ or 17′ 51/64)	4000 or 5000 (13′ 1 31/64″ or 16′ 4 27/32″)	143 (5 5/8″)	4016 or 5016 (13′ 2 7/64″ or 16′ 5 31/64″)	150 (5 7/8″)	364 (1 2 21/64″)	250 (9 27/32″)	100 (3 15/16″)	70 (2 3/4″)	32 (1 17/62″)	-	-
MK2R	4215 or 5215 (13′ 9 7/16″ or 17′ 51/64)	4000 or 5000 (13′ 1 31/64″ or 16′ 4 27/32″)	148 (5 5/8″)	4024 or 5024 (13′ 2 27/64″ or 16′ 5 51/64″)	196 (7 31/64″)	386 (1′ 4 3/8″)	300 (11 57/64″)	80 (3 5/32″)	70 (2 3/4″)	40 (2 7/16″)	438 (1′ 5 1/4″)	468 (1′ 6 1/2″)
MK3R	5266 or 6266 (17′ 2 54/64″ or 20′ 6 7/32″	5000 or 6000 (16′ 4 27/32″ or 19′ 8 7/32″)	196 (7 1/4″)	5023 or 6023 (16′ 5 3/4″ or 19′ 9 1/8″)	270 (10 5/8″)	476 (1′ 8 13/64″)	370 (1′ 2 11/16″)	100 (3 15/16″)	95 (3 47/64″)	70 (2 3/4″)	541 (1′ 9 3/8″)	566 (1′ 10 1/44″)
MK4	7632 max (25′ 30/64″ max)	7300 max (23′ 11 3/8″)	232 (9 1/8″)	7348 max (24′ 1 19/64″ max)	322 (12 5/8″)	535 (1′ 9 1/16″)	401 (1′ 3 25/32″)	103 (4 1/16″)	101 (3 31/32″)	175 (6 57/64″)	645 (2′ 1 3/8″)	668 (2′ 2″)

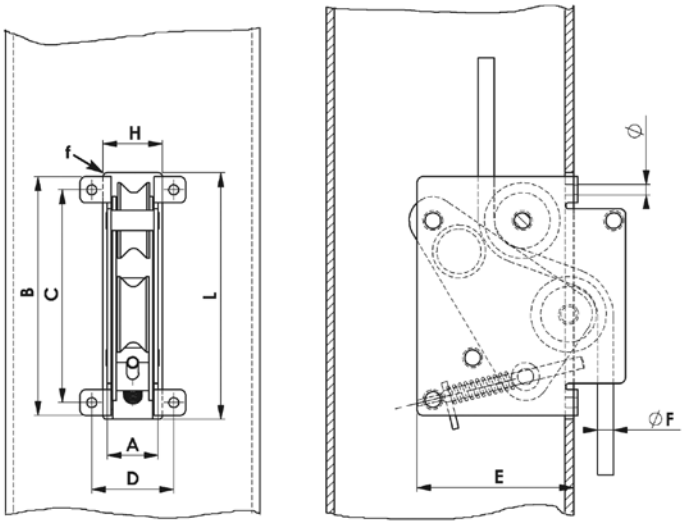
SPECIFICATIONS OF THE IN-BOOM FURLERS



Dimensions of halyard brakes

Model	H800	H1012	H1416
A	22	26	34
B	120	120	180
C	106,5	106,5	124 & 164
D	38	42	65
E	75	75	120
F	8	10 & 12	14 & 16
Weight	0,6 Kg	0,7 Kg	2,8 Kg

Dimensions of mast cutting-off		
Model	**H800**	**H1012**
H	26	30
L	124	124
Ø	5	5



Country	Name	Zip code	Town	Country code	Phone	Fax	E-mail
Argentina	North Sails Argentina	1646	Buenos Aires	(54)	11 4725 0200	11 4746 7561	luis@ar.northsails.com
Australia	Wichard Pacific Pty Ltd	NSW 2044	St Peters	(61)	2 9516 0677	2 9516 0688	info@wichard.com.au
Austria	Celox Sailing GmbH	4020	Linz	(43)	732 945 111		office@celox-sailing.eu
Azores	Mid Atlantic Yacht Services	9900-114	Horta	(351)	292 391616	292 391656	mays@mail.telepac.pt
Belgium	Wichard-Profurl Benelux	3280 AA	Numansdorp	(31)	(0)6 53 668862	(0)186 651055	sbarzilay@wichard.com
Brazil	Bruschetta Supply			(55)	21 9400 3660		contato@bruschetta-supply.com.br
Canada	WPG Canada	J0B 3G0	Stoke (Québec)	(1)	819 878 30 18	819 878 35 00	wpg@abacom.com
Canary islands	Nordest	38370	La Matanza Tenerife	(34)	922 577 322	922 577 031	nordest@nordest-canarias.com
Caribbean	Caraibe Greement Guadeloupe	97110	Pointe À Pitre	(0590)	90 82 01	90 97 50	caraibegreement@hotmail.com
	Caraibe Greement Martinique	97290	Le Marin	(0596)	74 80 33	74 66 98	cgmar@wanadoo.fr
	Yacht Rigging St Martin		Route De Sandy Ground	(0590)	29 52 52	77 16 16	mustyachtrigging@domaccess.com
	Budget Marine St Martin		Philipsburg	(1)	599 544 3134	599 544 4409	stmaarten@budgetmarine.com
	Budget Marine Trinidad Ltd		Chaguaramas	(1)	868-634-2006	868-634-1710	trinidad@budgetmarine.com
	FKG Marine St Martin		Philipsburg	(599)	544 47 33	544 21 71	info@fkg-marine-rigging.com
	Turbulence Ltd Grenada		Prickly bay	(473)	439 44 95	439 44 95	turbsail@spiceisle.com
Chile	Oceanic Chile		Santiago	(562)	244 20 20	244 1516	contacto@oceanic.cl
Croatia	Ramina Pomorstvo	21000	Split	(385)	2139 82 33	2139 82 33	ramina-pomorstvo@st.t-com.hr
	Aspar Rigging	51211	Matulji	(385)	51 343 230	51 674 031	aspar-rigging@ri.t-com.hr
Denmark	Hansen & Hamacher	6580	Vamdrup	(45)	75 58 10 64	75 58 33 63	hh@hansenoghamacher.dk
	John Mast A/S	2670	Greve Strand	(45)	43 90 56 00	43 90 00 60	mail@johnmast.dk
Finland	Oy Maritim AB	02211	Helsinki	(358)	20 76 51 80	20 76 52 945	maritim@maritim.fi
France	Wichard S.A.S	63300	Thiers	(33)	(0)2 51 76 00 30	(0)2 40 01 40 43	marine@wichard.com
French Polynesia	Tahiti Sport / Nauti Sport	98713	Papeete	689	50 59 59	42 12 75	tahiti.sport@tahiti-sport.pf
Germany	Pfeiffer Marine Gmbh	78315	Radolfzell	(49)	07732-9950-0	07732-995050	info@pfeiffer-marine.de
Gibraltar	H. Sheppard & Co. Ltd.		Gibraltar	(350)	77 183	42 535	info@sheppard.gi
Great Britain	IMP	SG8 5HW	Royston	(44)	1763 241 300	1763 241 770	sales@improducts.co.uk
Greece	Nautilus	17455	Alimos / Athens	(30)	210 98 54 238	210 98 49 444	info@nautilus.gr
	A.Andreou & Co	Tk 18346	Athens	(30)	210 48 28 452	210 48 10 925	info@aandreou.gr
Hong Kong	Storm Force Marine Ltd		Wanchai	(852)	2866 0114	2866-9260	sales@stormforcemarine.com
Hungaria	Fuke Yachts (Hullam 04)	8220	Balatonalmadi	(36)	884 328 97	884 328 97	info@fukeyacht.hu
Ireland	IMP	SG8 5HW	Royston	(44)	1763 241 300	1763 241 770	sales@improducts.co.uk
Israel	Atlantis Marine	63453	Tel Aviv	(972)	(03) 522 7978	(03) 523 5150	atlantis@inter.net.il
Italy	C-Marine S.r.l	19030	Bocca Di Magra - Sp	(39)	0187 67 08 28	0187 60 96 21	info@cmarine.it
Japan	Cosmos Marine Ltd	556-0023	Osaka	(81)	6 65672397	6 65672398	cosmarin@pure.ne.jp
Malta	Nautica	GZR 03	Gzira	(356)	213 451 39	213 438 21	info@nautica.com.mt
Netherlands (the)	Wichard-Profurl Benelux	3280 AA	Numansdorp	(31)	(0)6 53 668862	(0)186 651055	sbarzilay@wichard.com
	TV Enterprise	NI 8245 BI	Lelystad	(31)	320 219 990	320 219 540	tvnprise@planet.nl
New Caledonia	Marine Corail	98800	Nouméa	(687)	27 58 48	27 68 43	info@marine-corail.nc
	Pacific Accastillage	98845	Nouméa	(687)	78 78 46		pacificaccastillage@gmail.com
New Zealand	Kiwi Yachting	90114	Auckland	(64)	9 36 00 30 0	9 36 00 30 2	sales@kiwiyachting.co.nz
Norway	Hovdan-Poly	0614	Oslo	(47)	23 14 12 60	23 14 12 61	post@hovdan.no
Poland	Majer	01 - 541	Varsovie	(48)	(0)22 869 93 60	(0)22 839 90 21	sails@majer.com.pl
Portugal	Lisnautica Lda	1300-340	Lisbon	(351)	21 36 39 084	21 36 39 084	lisnautica@iol.pt
	Just Boats Lda	8100-263	Loule	(351)	281 971 179	289 994 485	info@just-boats.net
	Blaus 3 Sailing Services	8100-068	Boliquime	(351)	916 267 103	289 324 517	info@blaus.pt
Réunion Island	La voilerie du port	97420	Le Port	(33)	(0)6 92 21 76 69	(0)2 62 59 82 33	voilerieduport@hotmail.com
Russia	Fordewind-Regatta	197110	Saint Petersburg	(7)	812 320 1853	812 323 9563	info@fordewind.spb.ru
Singapore	Intermarine Supply	639078	Jurong	(65)	686 33 966	686 33 277	ropes@intermarine.com.sg
Slovenia	Skipper Portoroz	6320	Portoroz	(386)	5 67 770 11	5 67 770 13	skipper@siol.net
South Africa	Profurl South Africa	7435	Cape Town	(27)	21 555 3470	21 555 3471	profurl@mweb.co.za
Spain	Pertrechos Nauticos	08022	Barcelona	(34)	9 341 86 632	9 341 85 648	profurl@pertrechosnauticos.com
Sweden	Gransegel	131 36	Nacka	(46)	8718 30 60	8718 49 05	stockholm@gransegel.se
	Liros Skandinavia AB	427 23	Billdall	(46)	3191 52 00	3191 52 40	info@lirosropes.se
Switzerland	Megroz Voiles	1070	Puidoux	(41)	21 946 49 49	21 946 49 50	pm@fragniere-megroz.ch
	MW Matelotage	1252	Meinier	(41)	79 203 41 11	22 752 26 03	denis.menetrey@mwmatelotage.ch
Taiwan	Storm Force Marine Ltd		Wanchai	(852)	2866 0114	2866-9260	sales@stormforcemarine.com
Thailand	Sail in Siam Co Ltd	20250	Chonburi	(66)	818 375 507		info@sailinsiam.com
Tunisia	Yachting service Tunisia	2078	Marsa	(216)	98 456 549	71 777 567	ystunisie@wanadoo.fr
Turkey	Prima Deniz	34728	Istambul	(90)	216 355 22 40	216 355 22 40	kayayelken@superonline.com
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