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.

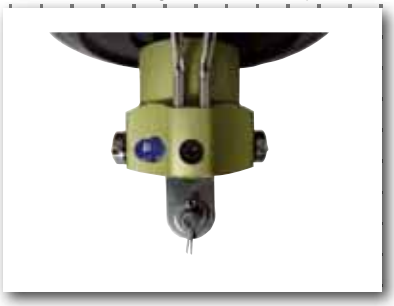
The drum:

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?

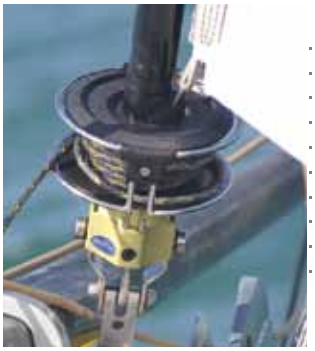
To correctly select your own furling system, refer to the following steps:

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?

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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