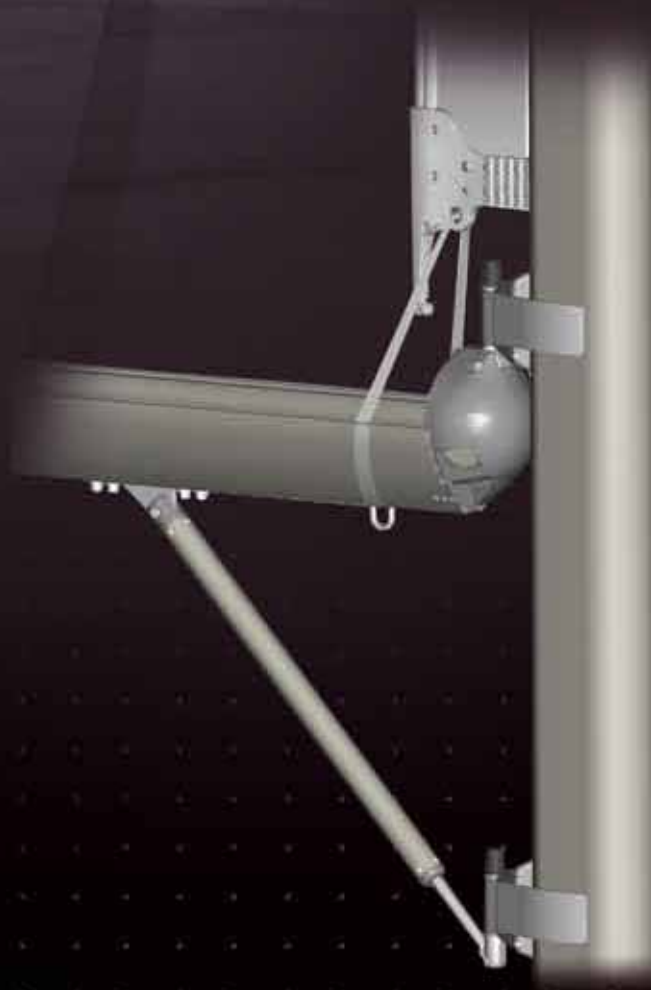




## IN-BOOM FURLERS

**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
<b>Boat length (LOA)</b>	from 5 to 8 m	from 8 to 10 m	from 10 to 12 m	from 12 to 15 m	from 15 to 18 m
<b>Max. displacement</b>	2000 Kg	5500 Kg	8500 Kg	13000 Kg	24000 Kg
<b>Max. luff length</b>	9,0 m	12,6 m	14,6 m	17,6 m	21,0 m
<b>Max. foot length</b>	3,14 m	5,0 m	5,0 m	6,0 m	7,0 m
<b>Colour</b>	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.

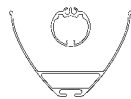


### Use of the in-boom furlers: some advices

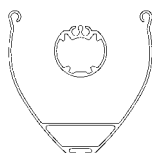
- > Make the boat's angle with the wind corresponding between 0° and 45°.
- > Before using the system, completely release the mainsheet so that the boomvang push effect brings back the angle between the boom and the mast to its « operating » position.
- > In order to furl the mainsail, release the halyard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



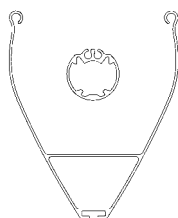
## PROFURL: in-boom furler sections



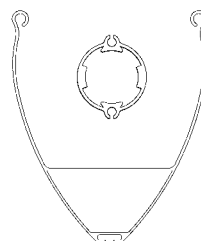
**MK0R**



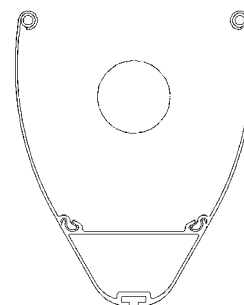
**MK1R**



**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 Profurl 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.