# Introducing the end of chafed luff tapes...

WILL BE REA NOVEMBER

## Foilfeed<sup>®</sup> M1 for mainsails

The only feeding solution protecting luff tapes from chafe and deterioration, improving quality, durability and performance for sailors and sailmakers



INTRODUCTION

## No chafe on luff tape. No repairs. Advanced design saves installing time. Simply100% reliable...

The only feeding solution, protecting luff tapes from chafe and deterioration, improving both quality, durability and performance in one single patented innovation

#### The luff tape is the weakest part of your mainsail

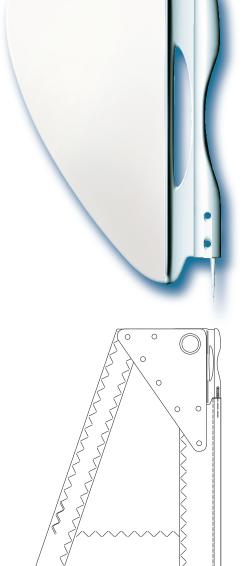
Mainsails fed into grooves – typically racing yachts (From 60 footers, One Design classes to small dinghys) – will eventually experience an unavoidable chafe to the luff tape that connect the mainsail with the mast, ultimately resulting in breakdown and hence the sail won't hoist.

#### 40 years of deterioration over

The Foilfeed<sup>®</sup> M1 puts an end to this problem once and for all, by both capping the end of the luff tape, shielding the mast from a chafing headboard and hence adding protection, strength and reliability to a fragile part of the mainsail. The unique and patended design represent a solution to what has been a continous weakness of sails being hoisted in grooves for almost four decades. Now, that problem is over...

#### Foilfeed<sup>®</sup> on your sail is a sign of quality

Displaying a Foilfeed<sup>®</sup> on your sail sends a message, that you apply state-of-the-art protection to your luff tape solutions, emphasizing quality, design and durability. It's smart, less cumbersome to keep the mainsails in perfect order and there's no way you will be going back to old solutions once you've had a foilfeed<sup>®</sup> on your luff tapes.





ADVANTAGES OF FOILFEED®

## 10 reasons why yesterdays headboard solutions are now less desirable

- Protect luff tapes when inserted and functioning in grooves Luff tapes are woven material that deteriorate due to twist, chafe and pulling when i use. With a foilfeed® the tape is replaced, covered and protected
- Built-in protection between headboard and masts surface when bend out A Foilfeed® cover the headboard edges from the mast, avoiding wear and tear of the aluminum or carbon
- 100% hoisting and feeding reliability

You won't experience chafe, fray or unstable luff edges. The foilfeed® make you feed properly despite cold fingers or rough weather, again and again...

- Quality improvement compared to all existing sailmaking standards With Foilfeed® you replace a lot of fragile solutions (i.e. hand stitched closing of edges) that has proven non-durable over time
- Lightest and most durable solution in the industry The three version of Foilfeed® M1 weighs 19, 23 and 29 grams and last the lifetime of your sail. Most solutions weigh at least 50 gram more. At the top of the mast!
- Mounting simple, cost-cutting and saves 3–5 production routines Since a lot of functional features are built-in, you save costly working routines in production. For som sails we are talking hours of man power...
- Save time and money mounting Foilfeed<sup>®</sup> to your mainsails Sailmakers putting Foilfeed<sup>®</sup> on their sails will make a profit on the item it self. Eventually they will also save the trouble of both collecting and repairing
- M1 come in 3 sizes: For 8 (and 6), 10 and 12 mm rope Models made for three rope diameters and variable reinforment widths. All headboard models are useable. Cutouts are the same dimensions though
- M1 works on all boats, from Europe dinghies to TP 66's Make it your standard. You'll cover most of you customers needs, improve your products and make even more profit at the same time
- Made in white Delrin POM, UV protected solution added Foilfeed® is made of Delrin® Pom, which is a hard – though flexable – non friction type of plastic. UV solution have been added to make it even more UV-resistant

#### foilfeed-

#### KEY FEATURES OF FOILFEED®H1

### Sophisticated details and built-in features make it a great improvement for sailmakers

#### 8. Fixture surfaces inside headboard s

The surfaces are mounted on the outside of the reinforcement, fixing the Foilfeed® M1. Headboards will be mounted on the outside. The two surfaces phase out in thickness to 0,2 mm on the edges, making the load transition from reinforcement, through the Foilfeed® M1 to the headboard perfectly smooth

#### 1. The feeding 'Fin'

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This part is the part replaces the weakest part of the luff tape – the edge. Thanks to the durability of the material, this part can be fed on and on and on...

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#### 2. The 'Projectile'

The connector part inside the groove, shaped in order to keep insertion and feeding as easy and quick as possible. Even with cold fingers!

#### 7. Headboard cover rail

Build-in rails that protects the mast from being chafed by the headboards edges when bend out. Since the Foilfeed<sup>®</sup> M1 is made of Delrin<sup>®</sup> it will keep friction at a minimum

#### 6. Front slit

Dividing the Foilfeed<sup>®</sup> M1 so the luff tape can be placed inside for protection

#### 3. Cutouts to lighten Foilfeed® M1

Weight reduction is a key feature, since the Foilfeed<sup>®</sup> M1 solution is by far the lightest solution in the industry. And nobody wants to put weight aloft unless absolutely necessary. A gram aloft can mean a kilo on deck... The Foilfeed<sup>®</sup> M1-10 weighs 23 gram; A typical industry solution around 70 gram!

#### 4. Groove for stitch and rope fixture

Stitches are lowered into a groove avoiding tear and wear compromising the fixture. The stitching into the rope stabilizes both the Foilfeed<sup>®</sup> M1 and fixes the rope to keep the desired tension

#### 5. The Spike

This part is to be lowered into the rope in order to align perfectly



INSTALLING FOILFEED<sup>®</sup> M1

## Mounting the Foilfeed<sup>®</sup> M1

Follow these instructions carefully in order to make the Foilfeed<sup>®</sup> H1 do it's job properly

1. Determine the final headboard position Mark the top of your mainsail where you will mount the headboard. This top will also be the top of Foilfeed® M1. 2. Make cutout. Same dimensions whether 8, 10 or 12 mm Measure - from the back of the rope (sail side of rope) - 10 mm in and 100 mm down. Cut this area out. You may want to burn both the edges and the rope. 3. Slide Foilfeed<sup>®</sup> M1 firmly down from top Press the Foilfeed® M1 firmly with it's back onto to the sail side, so that it is fully supported top to down on the inside of Foilfeed<sup>®</sup> M1's back. Align the outer rope and the 'projectile with the 'spike' pointing down the center of the rope. You may want to pre-poke the crusted surface of the rope with an awl in case you have burnt it. The 'Projectile' and luff tape shall close the edges completely. 4. Lower spike into rope and hand stitch Stitch - with a sailmakers needle and waxed thread - in order to fix the rope position firmly to the sail. Make sure your stitching is tight in order to both stabilize the fixture and to make it solid for pulling the cunningham and maintaining the desired rope tension. 5. Place headboard correctly and mark up holes Press the Foilfeed® M1 back to back with the cutout and place the headboard plate correctly and start mark-

ing up for the final hole punching. Line up the top of both Foilfeed® M1 and the headboard vertically. Push the headboard all the way to the built-in mast cover rails (no chafe between headboard and surface of mast).

#### 6. Punch holes and assemble headboard

Punch all the holes needed, fix headboard on both sides with rivets or bolts (whatever standard) and press the liner for the halyard. With a foilfeed<sup>®</sup> M1 your feeding will never be the same...





TECHNICAL

## Geometry and design of the Foilfeed<sup>®</sup> M1

A fragile part, a tough environment and even out of reach, it takes a complicated fitting to gain the trust of sailors and sailmakers

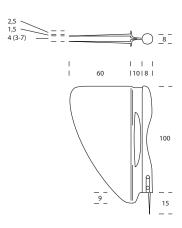
The Foilfeed<sup>®</sup> M1 is designed to solve the old problem with chafing luff tape, improving functionality and at the same time building in some features not found in the existing solutions, saving the sailmakers 3–5 handwork routines at the same time.

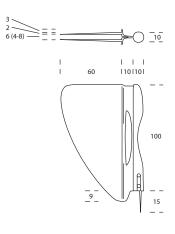
The 3 variants – made for rope thicknesses 8 mm, 10 mm and 12 mm – is also expandable at the surfaces underneath the headboard plates, enabling various dimensions of reinforcements to fit inside as desired. Whatever M1 variant you may choose, the cutout dimension is the same (10 by 100 mm), so that sailmakers easily can remember dimensions.

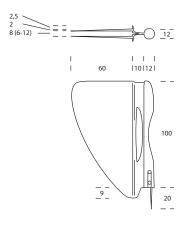
The 10 mm version (shown below) weighs just about 23 grams making it the lightest solution possible.

The height of the mastcovers keeps headboards of 3 mm thickness clear of masts and due to the material Delrin® POM, friction is kept at the lowest level.









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TECHNICAL

## The material Delrin<sup>®</sup> POM

The Foilfeed<sup>®</sup> H1 is made of Delrin<sup>®</sup> POM due to its strength, durability and its non-friction properties. The homopolymer grades (Technical name for Delrin<sup>®</sup>) have a higher mechanical strength, stiffness, hardness and creep resistance as well as a lower thermal expansion rate and often it also presents a better wear resistance. Delrin<sup>®</sup> is designed for applications requiring low wear and/or low friction against steel, itself nd other plastics.

Delrin<sup>®</sup> POM is used in many static and dynamic industrial applications replacing materials like steel brass, bronze, copper & aluminum. Polyacetal have improved part life because of better wear, more chemical, corrosion and UV-resistance. These materials reduce noise and will reduce or eliminate the need for lubricants. Delrin<sup>®</sup> POM can be used in applications such as Gears, Bushings, Bearings, Rollers, Timing Screws, Manifolds, Valves & Valve bodies, Washers, Wear pads and many industrial machine parts.

Main Characteristics of Delrin® POM:

- High mechanical strength, stiffness, hardness and toughness
- Excellent resilience
- Good creep resistance
- High impact strength, even at low temperatures
- Very good dimensional stability
- Good sliding properties and wear resistance
- UV-resistant

#### **Color and UV-resistance**

The Foilfeed<sup>®</sup> H1 is made of bright white Delrin POM for two main reasons:

#### 1. Aethstaetics:

Since all standard fittings, tapes and other nylon additions to a sail is white, the Foilfeed<sup>®</sup> M1 will fit in the general looks and design from all major sailmakers worldwide.

#### 2. UV-resistance:

The color white is best to reflect the UV from the sun and furthermore, the Delrin<sup>®</sup> POM has been mixed with 2% UV-block in the moulding process making it more resistant to UV radiation, hence less degradable than most plastic products over time.

#### More about the materials

Technical datasheets about the material (Rockwell numbers etc.) and the UV-solution kan be downloaded from the website under the sections 'Headsails' and 'Mainsails'.



BUY FOILFEED®

## Just clicks away from putting an end to chafed luff tapes

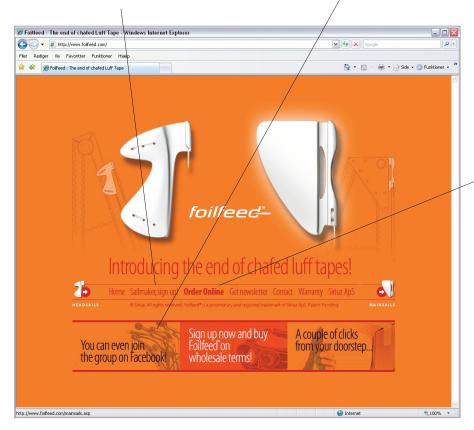
The website is governed by two principles: 'Simple and to the point' and 'The more you buy, the cheaper it gets!'

#### Sailmakers, sign up for wholesale terms!

As a sailmaker you need to get a profile in order to qualify for wholesale prices and terms. This also brings advantages of being able to buy the product M1 and keep track of your previous purchases.

#### **Comment or join us at Facebook**

Read what others have said about Foilfeed<sup>®</sup> or drop a line, share thoughts and get short info from being a group member. Of course, You can also e-mail us at comments@foilfeed,com.



#### Read about the products H1 and M1

Everything you need to know about the Foilfeed<sup>®</sup> products, specifications, materials and mounting. Drop the link to anybody you know who can get rid of their future chafed luff tapes...

#### Order at the online shop

Retail and wholesale shopping done in minutes. Shipping worldwide by mail and courier out from Denmark. The shipping costs are added to the invoice varying on quantity and the delivery adress.

<u>Retailers</u> can buy only the H1 (up to 12 items per order) starting at the retail price  $\in$  37.95 (Euro) per item (when ordering only 1/ 32.15 when 12). <u>Sailmakers</u> can buy all products at quantities from 10, 25, 50, 75, 100, 200, 300, 400, 500, 750, 1000 and 2000 of each 4 models. Item prices per unit are adjusted to the quantity of each order. We accept Master, VISA and American Express.

All transactions are secured (SSL-crypted) and the final phase ends with an invoice in PDF format (also submitted to your delivery). Customers with a login profile have a history list with all previous invoices.

#### www.foilfeed.com



WARRANTY, TERMS AND LIABILITY

## Post scriptum...

#### Warranty

The Foilfeed<sup>®</sup> is warranted against breakage due to defects in material or workmanship for two (2) years from the date of purchase. This warranty is only valid with a proof of purchase from an authorized Foilfeed<sup>®</sup> dealer. In filing a warranty claim, customers must substantiate and prove the defect in material or workmanship in order to rightfully claim the warranty. Alteration, abuse or misuse of Foilfeed<sup>®</sup> will void its warranty. Legal rights under applicaple national law governing the sale of consumer goods are not affected by this warranty.

#### **Warranty Claim**

Customers worldwide shall e-mail the warranty claim and proof of purchase to warranty@foilfeed.com. The warranty covers only substitution of damaged Foilfeed® items and standard shipping costs afflicted hereby.

#### Website

We ask that you review the following basic terms that govern the use of the site and the purchasing of products from our site. By using Foilfeed® website you agree to follow and be bound by these terms. These terms may be changed from time to time and your use of the site following any such changes shall confirm your agreement to follow and be bound by the terms as modified.

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#### Liability

Foilfeed® H1 and M1 are made only for use on sails installed with luff tapes to be hoisted into grooves on sailing yachts. Any other use of Foilfeed® H1 will void both the warranty, reponsibility and liability. Foilfeed® cannot be held accountable for any actions from its customers or the consequences from these, while using the Foilfeed®.

#### Keep Foilfeed® away from infants and kids below 8 years of age.



# Now, put an end to your chafed luff tapes...

#### **Support**

If you need support on using the web, questions about invoices or other business related matters, please mail to support@foilfeed.com

#### **Warranty Claim**

If you have a warranty claim you need to file your claim via this e-mail warrantyclaim@foilfeed.com

#### **Comments**

Spread the word, tell us what you think or share your ideas and experiences. Mail it to comments@foilfeed.com

Any other enquiry, that does not fall into the above listed, mail to mail@foilfeed.com

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