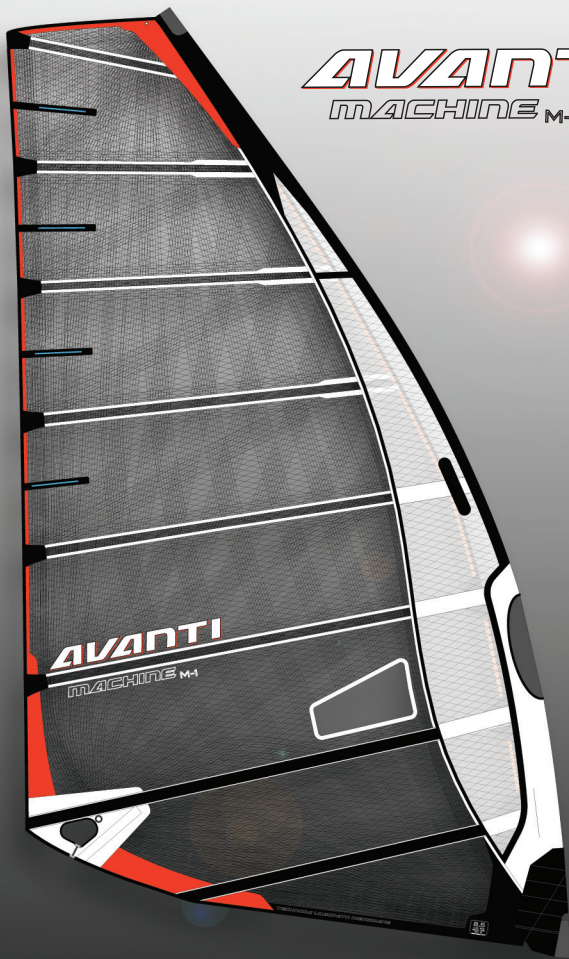


# AVANTI

MACHINE M-1



## RIGGING GUIDE

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## RIGGING

*Avanti sails ship without the cams installed. It is necessary to fit your cams before your first time sailing. Cams are designed in several sizes to match the diameter flow of our Avanti masts. The cam with the widest diameter goes on the foot batten, with each cam flowing slightly narrower as one moves up the luff.*



For best results, use the recommended Avanti mast and set your extension to the measurements printed on the tack of the sail.

1. With the sail on starboard tack, open all cam zippers and insert mast into sleeve, passing it above the cambers.
2. Check that the Avanti R.1 HeadCap is properly seated into the top of your mast. The R.1 HeadCap was designed for maximum cross-compatibility with other brands.
3. Insert your extension, thread your downhaul rope to minimize friction, and apply moderate tension. The goal is to prebend your mast 3/4 of the way into the mast sleeve.
4. Reach through the neoprene boom opening, and attach your boom. Rig up your outhaul and apply positive tension.
5. Release some downhaul to bring softness back to the luff area. This will make seating the cams effortless.
6. Start by popping the cams above and below the boom into place by reaching through the neoprene boom opening.
7. Follow with the remaining cams by reaching through the zipper ports and pushing down on the cam inside the sock with one hand, while gently popping the cams up and onto the mast with your other.
8. Close zipper ports, finalize your downhaul and outhaul settings, and hit the water.

## TUNING HINTS

### **Cams:**

Avanti sails are a snap to rig. If the cams keep jumping off the mast during rigging, you don't have enough pre-downhaul applied. If the cams are pinched hard between the bottom of the mast and the sock making it difficult to pop them up onto the mast, you have too much pre-downhaul tension.



### **Extensions:**

Avanti Sails are setup for in-line extensions. With a traditional extension, where the sail and extension pulleys are perpendicular, the lower sock may show some looseness not correctable by shimming the foot cam. When using a traditional extension, let the tack pulley sit higher, with 3-4cm of rope showing between the pulleys.

### **Batten Tension:**

Use enough batten tension to remove wrinkles from sail body. Top battens take a bit less, bottom battens a bit more. Avoid over-tightening. For long term storage, ease batten tension to let the membrane relax.

### **Shims:**

For ultra-fine tuning, or to match a non-Avanti mast, we provide a handful of cam shims in the sailbag pocket. To use them, remove the loose cam, and slide the shim over the male cam tab. No more than four shims can be used at any one cam position.



## WATER TUNING HINTS

*Avanti Sails have a superior wind range accessible with a few simple adjustments.*

- In underpowered conditions, loosen the outhaul (2-3cm less than neutral) and downhaul (5mm-10mm) to increase sail draft and maximize power.
- In overpowered conditions, tension the outhaul (2-3cm more than neutral) and use maximum downhaul (+1cm from normal setting) to twist the head open, flattening the upper third of the sail.
- Avoid over flattening the outhaul, as this can make your sail feel twitchy in the hands.
- Downhaul tension and outhaul tension work together to give you a stable, yet elastic sail. It is important to adjust both in order to find the best balance.
- Test different rig settings to discover your own ideal setup. A heavier rider may prefer a looser outhaul/downhaul setting than a smaller one does in the same conditions.

## WARRANTY POLICY

Avanti Sails are guaranteed against defects in materials and workmanship for 360 days from the original purchase date. Damages resulting from normal wear and tear, UV radiation, neglect or impact are not covered. The failure of any graphic due to fading, flaking or scratching is not grounds for warranty. This warranty is voided if this product has been altered, retrofitted, repaired or used for any kind of commercial renting or teaching.

Avanti Membranes are particularly high-tech. Sail stretch resistance and structure comes from the custom fiber matrix. With time, slight bubbles and separations less than a 20mm circle are considered normal, and will not be classified as failure or delamination under this warranty policy.

All warranty claims shall be subject to investigation by Avanti. This investigation may entail detailed descriptions, photographs, and/or a visual inspection of the allegedly faulty equipment by Avanti. All warranty requests must be accompanied by the original sales receipt. If a product is found to be faulty by Avanti, this warranty covers only the repair or replacement of the faulty equipment. Avanti Sails shall not be responsible for any other cost, loss, or damage incurred by use of this product.

# SAIL CARE

*Avanti Sails are extremely durable if treated with respect. The rip-stop capabilities of our proprietary membrane are many times more durable than film or basic xply sails. To get the most out of your new sails, follow these basic guidelines.*

## GENERAL GUIDELINES

- Our ultra-modern, high-tech membrane sail materials, like other sail materials, are very sensitive to UV radiation. Leaving your sail rigged on the beach for extended periods in the sun will damage your sail and void your warranty.
- Rinse your sail with fresh water after using it in salt water. To avoid mildew and degradation, store your sail clean and dry. Do not use powerful soap or detergent to clean your sail.
- If you damage your sail, have it repaired immediately by a qualified sailmaker. For very small rips, Avanti includes a rectangle of sticky-back monofilm material in the sailbag pocket. Make sure to rinse area to be repaired with fresh water and thoroughly dry before applying a sticky-back patch.
- Avoid over-tightening your battens. Loosen batten tension for long-term storage. This is especially beneficial for Avanti overlap pockets.

## MEMBRANE SPECIFIC

- We advise removing the cams if you plan on storing the sail with other equipment on top of a car, or in a quiver bag for travel. With cams uninstalled, your Avanti sail will roll into a tight, stable cylinder, minimizing distortion and creasing.
- Rig on grass whenever possible. Avanti light-weight overlap pockets are not designed to withstand abrasion. Take care when rigging to keep battens from rubbing on asphalt, or concrete surfaces.
- Apply the provided sticky monofilm patch to the membrane itself for preemptive chaff protection. These patches are particularly useful to protect against areas that come into contact with boom arms and outhaul cleats.
- Avoid carrying sail on your head when possible. Avanti membranes are not designed to withstand point loading in the center of the window area.
- Store in the original shipping tubes with the cams out and batten tension released for long-term storage.

## WARNING

Windsurfing can cause serious injury or death.

Be careful of power lines when rigging. Make no mistake, windsurf masts conduct electricity. Never sail in a storm, especially when lightening is a possibility.

Know the limitations of your skill level, and be aware of the wind and water conditions before getting out on the water. Be mindful of other sailors and beachgoers when using Avanti Sails.

## NOTES:



NYLATRON  
PULLEY



R1. HEADCAP



MICROLIGHT  
TENSIONERS



C. CLIP  
(PATENT PENDING)



CARBON  
BATTENS



ARC CAMS



1100  
D-TEX  
TECHNORA  
MEMBRANE



MULTI  
KEY

**AVANTISAILS.COM**