

STAR  
QUICK  
GO FAST  
ADVICES



▲▲▲ Vorn dabei ...  
statt mittendrin!



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# First step

## Rig down:

Tuning a star starts with the rig down before you put the mast in the boat.

- **Intermediate check:**

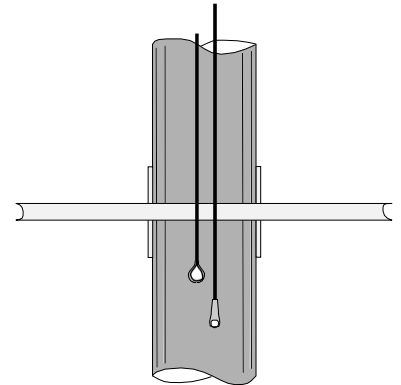
To measure the intermediates, you first need to disconnect the upper shrouds and intermediates at the spreaders.

Pull the uppers down the front side of the mast and mark the length in the center of the pin. Now do the same with the intermediates. Always pull with the same tension. For our measurements we use a hand scale and pull with 100 N (10 kg). Once the marks are done on the front side of the mast you measure the distance between the two marks. The distance in between uppers and intermediates should be between 73 mm - 75 mm.

We recommend to start from 74mm and slowly adapt to your needs.

Tight intermediates (73mm) are good for heavy air or lighter crews.

75mm is a good number for heavy teams.



- **Spreader angle check:**

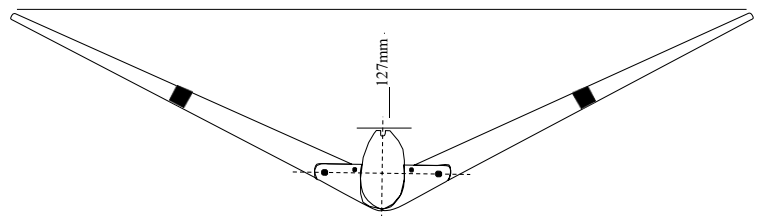
Put the mast, groove up, on 2 posts.

Move the spreaders into upwind position and pull a tight cord from one spreader tip to the other. Fix the cord where the screw adjusts the shrouds at the spreaders. Make sure the spreaders are in an upwind position and max. back. Measure now from the back of the mast to the cord (not from inside the groove).

The measurement should be between 127mm – 135mm.

We recommend for lighter crews a value of 135mm.

In case you need more power go for 127mm.



- **Spreader symmetric check:**

Leave the cord fixed at the spreaders max. back as mentioned above. Fix a straight batten on the upper side of the foot of the mast and get it fixed. Now step back and look over the batten as reference and check if the cord is in line with the batten chord (parallel). In case of a deviation, you have to adjust your spreaders with an Allen Key. Keep in mind if you open one side, you have to close the other side the same amount of turns to keep the distance between the backside of the mast and the chord you have measured before.

- **Forestay mark check:**

Finally, before you put the rig up, pull the headstay along the front of the mast by using 100 N (10kg) on the scale. Make a mark where the forestay intersects the top of the black band near the gooseneck. This is important to find the right rake later when the mast is set.

# Second step

## Rig up:

Now is time to put your mast in the boat and attach all shrouds and forestay.

- **Mast foot position:**

The mast foot position refers to the type of boat you use. We recommend to start with 4520mm – 4550mm measured from the stern of the boat towards the backside of the mast groove at its lower end.

However, please ask your boat builder about his recommendations as well.

- **Shroud position:**

The upper shrouds have to be fixed in line with the front side of the mast.

The lowers fix right behind the uppers.

- **Preparation to measure the rake and the shroud tension:**

For all measurements use the **Loose Gauge PT-2**.

Be aware there might be some deviation in between this measurement tools. Compare different tools and try to find an average value to compensate this aberration.

Now put 10LE (Loose Gauge Units) on each upper backstay.

Make sure the check stay and puller have no tension and the spreaders are locked max. aft before you start.

- **Mast rake measurement:**

Measure the distance from the point where the headstay exits the deck to the point you have put the mark on your forestay when the rig was down before.

Draw marks for 93cm, 94cm, 95cm, 96cm on the rake line inside the cockpit of the boat.

- **Upper shrouds:**

We recommend a basic rake of 93cm for measuring the shroud tension.

Check your upper shrouds with your Loose Gauge. For a base setting we recommend 23 LE measured 1500mm above shearline.

- **Lower shrouds:**

- Put a mark 91.5cm above the top of the black band on the mast.
- Pull an elastic around your lowers at that point and put tension on it.
- Now measure horizontally from lower shroud to lower shroud at this height.  
For a base setting we recommend 70cm and check for symmetry between each shroud and mast
- Ease the runners and pull the mast forward till the lowers get tight.
- Get a look up the mast and carefully adjust the lowers to obtain a straight mast.
- Fine tuning needs to be done when sailing upwind.

- **Jib car upwind position:**

Measure 220cm from the head stay - deck intersection at the bow to the center of your block on the jib car. Then measure from the center line of the boat 35.5cm to the center of the block for upwind position.

- **Sail maintenance:**

With a little caution, the life of your sails can be considerably prolonged.

The sails nowadays are made of tempered Dacron cloth. This is a heavy resinous cloth, which prevents the threads of the sail from moving and consequently diminishes stretching and prolongs the sail's life. Continued folding and storing of the sail will eventually cause the finish to break down, which will ultimately change the form of the sail. You should always roll the main and jib. You can't avoid the sail from fluttering before the start or during the race, but a little caution on the shore before and after the race will save the sail from wearing out too early. If, for any reason you had to fold your sails i.e. transport in the plane, before sailing rinse the sail with fresh water and sails it dry under pressure.

All measurements/adjustments you made are good base settings.

Go sailing now.

Adjust the values slightly to your style of sailing.

Attached you find a chart recommending our set up for different conditions.

For further questions please do not hesitate to contact us.

Your Fritz-Sails Team

Wind	Uppers	Lowers	Rake	Outhaul
0 - 5 kts.	22	70	95	4 – 3 cm open
6 - 10 kts.	23	70	93 - 94	3 – 2 cm open
11 - 15 kts.	24 - 25	72	94 - 95	max out
16 - 20 kts.	25 - 26	73 - 74	95	max out
20 + kts.	26	73 - 74	95 - 96	max out