



Assembly Instructions DragonFoiler

Congratulations on your DragonFoiler kit purchase.

Attachment & Rigging

Relates to the attachment of the foiling kit to the DF hull and rigging instructions.

Kit Material Information - Part ID

The kit is 3D printed from PET G CF carbon fibre filament which is extremely tough and has a 75- 80-degree centigrade heat tolerance.

The beams are woven carbon fibre.

To assemble your kit you will need:

A good quality CA super glue adhesive such as ZAP



The Amas & Beams

The Amas and carbon fibre beams are preassembled.

Note that the 95 mm end of the beam fits into the DF hull deck beam support and the 75 mm end slides into the pre bonded tube on the Amas all 4 beams are the same length.

If you wish you can wet sand and either clear coat or prime, fair and paint the Amas using either single or twin pack acrylic lacquer.

Step 1 - Attach Beam Supports to DF Hull

If you have purchased a pre-installed DF 95 kit from us with beam supports pre fitted and rudder post pre drilled to 4.0 mm then please then please skip this step.

Position

Position the assembled foiling kit on top of the DF 95 hull with the centre of the for'd beam support positioned on the keel/mast step moulding as per picture 1. The beam support should be **402 mm** aft of the bow to the outboard edge of the deck on each corner (measure the plastic hull only, do not include the bow bumper).

Mark & Mask

Mark the for'd beam position and mask of the area to be glued. Carefully sand the area to be glued using coarse sand paper and be sure to go through the paint so that the plastic is showing for maximum bond strength.

Glue

Using a CA super glue, such as ZAP, apply a coat of glue as per the manufacturer's instructions to both the hull and the underside of the beam support. Carefully position the beam support in position. Remove the masking tape and apply pressure to the beam support.

Assure Fully Bonded

Once the adhesive is set, continue as below. You will note that the for'd beam support extends 10 mm down onto the chamfer of the topside. It is important that you ensure this is fully bonded, as this provides additional support and stiffens the deck.

Repeat for aft beam

The aft beam support position is determined after the for'd beam support is attached. Repeat as above.

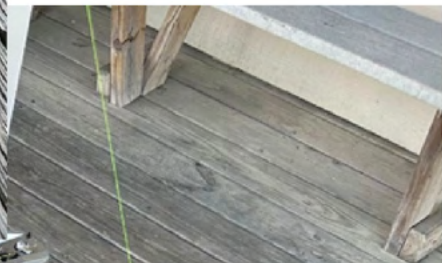
Assure perfectly square

Be sure to get the beam supports square of the centreline across the hull and ensure they are not angled.



Step 2 - Hull Assembly

Slide the carbon cross beams into the beam holders on the DF 95 hull. Note that when inserting the beams that the 95 mm insert attaches to the DF 95 hull and the 75 mm insert attaches to the ama. It is recommended to wind a thin layer of electrical tape over the beams where they join to stop the cross beams from sliding out of the beam tube inserts on the hulls when sailing. See Red & Green tape in the following images.

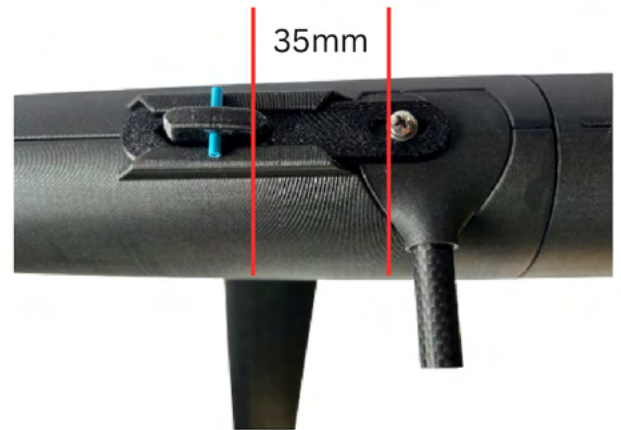


Step 3 - Foils - V5 Foil adjuster

1. Slide the foil up into the foil case and through the slide adjuster and insert the 3 mm plastic peg through the hole in the top of the foil to stop the foil from dropping out of the case.

2. To adjust the rake of the foil unscrew the top screw on the adjuster a couple of turns and slide the top of the foil forward or aft to get the best starting position. The position I recommend is 35 mm from the centre of the screw to the back of the foil. Once in position, tighten the screw and take the boat for a sail.

3. In the lighter airs, to promote faster lift, slide the top of the foil aft. As the breeze increases, slide the top of the foil forward to decrease the lift. This measurement is usually 37-40 mm depending on the wind strength.



Step 4 - Rudder

If DF95 Hull is supplied please ignore this step. If you are using your own Hull please complete as follows.

Use a 4.0 mm sharp drill bit carefully drill the rudder post in the DF hull out as the standard rudder has a small 2.7 mm shaft which is not strong enough to take the foiling rudder and wing.

Attach the tiller head fitting to the steering. Slide the rudder shaft through the hull inserts and up into the tiller head and tighten both the top screw and the aft screw, turn on the radio and check and adjust the rudder so that it is centred on the hull.

The wing will need to be screwed to the bottom of the rudder. This has been pre-drilled, tapped and is supplied with the screws and alum key.

The rudder has been pre-set at the correct angle of positive downward trim and needs no adjustment.





Step 5 - Assembling the Rig

If you have purchased the DF 95 RTR package I recommend that you follow the instructions in the enclosed Dragon Flyte instruction book and build the standard A rig before attempting to build the A + tall rig.

The side stay kit (components supplied) needs to be used on both the standard A and A + tall rig. When using the standard rig, the stays clip onto the forestay ring and onto the for'd stay position on the hulls (see picture).

You should always use side stay kit in trimaran mode. Failure to do so could result in the mast sump breaking. When using the A+ tall rig attach the side stays to the aftermost chain plate ring on the deck of the ama. When using the standard A rig, attach the side stays to the forward chain plate ring position on the ama.

The standard A rig supplied with the DF 95 RTR kit should be rigged and set up the same as the standard monohull kit including the back stay detail.

Step 6 - A + Tall Rig Assembly

This is the same as the standard A above with the following exception that you will need to glue the jib and main boom components and assemble the boom vang etc.

Be sure to follow the same process as the standard A rig and remember to attach the main sheet lead and retaining rubber ring etc before gluing the boom together.

The mast extension for the tall rig has been supplied at 285 mm with the joiner tube pre attached to the top section and the forestay attachment ring as pictured above.

NOTE do not glue the top mast extension into the standard A mast.



Assemble the mast head fitting and attach the backstay as per the standard A rig. Do not glue the mast head fitting into the mast extension. Make sure that this is a snug fit into the mast but is free to swivel as the sail is sheeted in and out when sailing.

Slide the long A mast and extension up inside the luff pocket and make sure that the forestay ring exits through pocket cut out.

Insert the mast head fitting after the mast has been fitted inside the luff pocket. Tie the top of the sail to the mast head fitting as per the above picture. Note that the head of the mainsail attaches to the forward position on the mast head fitting only.

Attach the clew out haul and wind on some boom vang so the sail takes shape. To fit the luff pocket foam insert we recommend adding some soapy water to the kitchen sink and wetting the foam with water and soap to make it slide easily up inside the luff pocket.

When assembling the head of the jib you can use the additional clip supplied to make the jib easily removed from the rig (see picture) which can make the rig easier to transport or can rig the jib in the same way as the standard A above.

As per the standard A rig you must use the side stays and these attach to the aft chain plate ring on top of the ama.

The back stay should be set up as per the standard DF 95 A rig. Leach tension and mast bend is adjusted via the boom vang and the back stay.

Step 7 - A Few Tips Setting Up For Sailing

Remember to put the bungs supplied into the transom drain holes in the Amas and DF hull.

The multihull is by nature light and fast and in general performs better and is easier to sail with wider sheeting angles and more open mainsail leach than a monohull. Sail the boat at wider angles, avoid trying to pinch the boat to high when going upwind keep it a bit free and sailing fast it will foil faster get there quicker.

The standard foil position is 35 mm from the center of the screw to the back of the foil. Once in position tighten the screw and take the boat for a sail. This position will give the boat higher lift in lighter breezes of 6 - 8 knots as you get the hang of sailing the boat it will go faster and be more responsive if you flatten the lift by allowing the top of the foil to move forward this position is usually 37-40 mm from the center of the adjustment screw to the back of the foil. As you push the top of the foil forward this swings the bottom of the foil aft, you will need to experiment and get the feel for the best position to set the foils then mark the deck so you can repeat the position.

The boat will easily gybe on the foils and will tack very fast in a breeze, in the light airs it is often easier to gybe than tack.

Happy sailing,

Regards

Paul Goddard

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