SD Sails Freeform Measuring Guide

1. **Measuring Form**
   Select the correct measuring form for the structure. All forms are available to download in the Trade Area of www.sdsails.co.uk
   Fill out the information required at the top of the form.

2. **Referencing the site**
   Align the drawing to the site and decide which post/fixing you want to use as point A. To ensure you remember this, either mark the drawing with a memorable feature (i.e. fence, building, North, etc.) or mark the actual post/fixing with the letter A. Working clockwise, reference or mark the subsequent posts/fixings B, C, D etc.

3. **Measuring perimeter and diagonals**
   Using appropriate working at height equipment and a long fibreglass tape measure, tie the zero point to the bearing face of point A and measure in millimetres directly to the bearing face of every other fixing point. If the fixing points are at different heights, measure directly with the tape on the slope. Record these measurements in the appropriate box on the measuring form to the nearest millimetre. Please do not round the dimension up or down. Move the zero point of the tape measure to point B and repeat the process until all the perimeter and diagonal measurements required on the form are filled out. Whether the structure is flat or hypar, we can now plot this shape in our software and build the canopy.

4. **Measuring heights**
   Although not strictly required to plot the shape, height measurements act as a secondary check to the perimeter and diagonal measurements and allow us to visualise rain run-off and arrange seams accordingly. To measure the fixing heights accurately, you must first set up a level datum line around the structure. This can be done with a laser level or a simple water level (www.wikihow.com/Use-a-Water-Level). It doesn't matter how high you make the datum line, but it must be on or below the lowest fixing point. From the level mark on each post/fixing, measure vertically to the bearing face of each fixing point, and record these measurements in the appropriate box on the measuring form to the nearest millimetre.

Leica 3D Disto

Steps 3 and 4 can be done single handed and without a ladder by using a Leica 3D Disto, available to hire or buy from SD Sails. After some basic training, this machine is quick and simple to use and plots the fixing points directly to a dxf file in 3D using a laser beam and zoom camera controlled on the handset. The dimensions displayed on the handset can be used to complete your online quote and the dxf file can then be submitted directly to us on email for production. Once you're used to this method, you'll find it a quick way to measure up to quote your client, and then if they go ahead, you have everything you need to place an order without returning to site.

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