

Measuring the blade angle for the STELR wind turbine

There are two methods for measuring blade angle. One is using the marks on the rim of the blade sockets on the turbine hub. The second method involves using a small, printed STELR protractor.

Step 1

Start by placing the chosen blades into the hub.

When adding blades, push them all the way in. You might hear a click when they are fully in.

Use the blue knob to tighten and clamp the blades **before** adjusting the blade angle.

Do not over-tighten the knob as it can strip the thread.



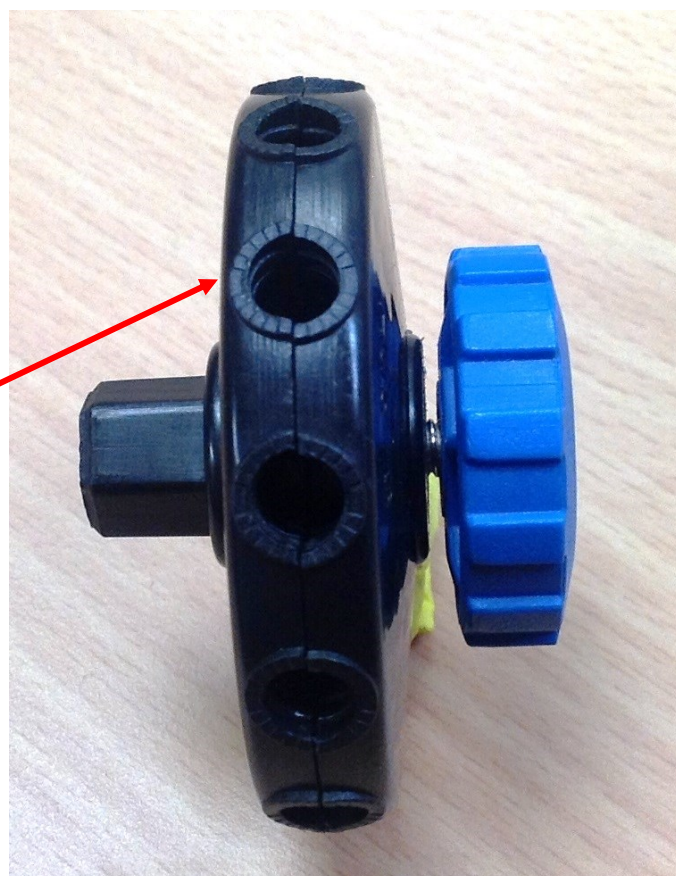
Check that the blades are orientated with the front facing towards the wind source.

Step 2

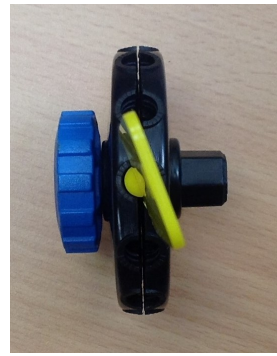
The marks on the rim of the blade socket can be used to measure blade angle.

Each line represents 15 degrees.

Using the line where the two halves of the hub join as 0 degrees.



Look down the end of the blade to help to judge the angle. Both of these blades are measured at 30 degrees using the marks. They will spin in opposite directions but should generate the same amount of energy (all other variables being unchanged).



Using the protractor to measure blade angle.

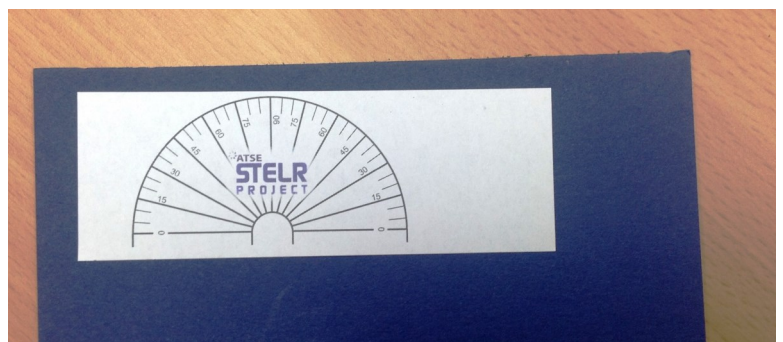
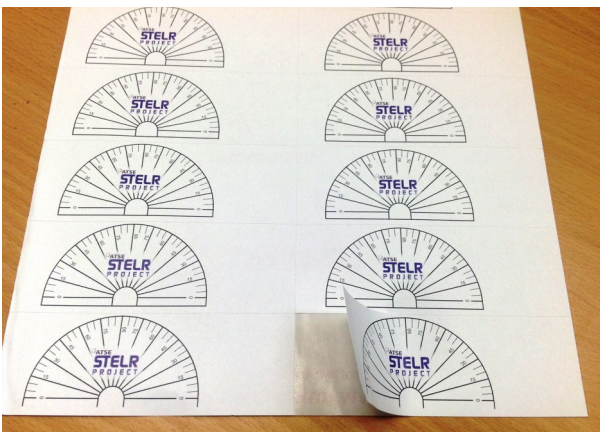
The small STELR protractor can be used to more accurately measure blade angle when using 2, 3, or 4 blades in the hub. The file can be found at:

<https://stelr-atse.squarespace.com/config#/pages|/how-to-use-stelr-equip>

The file is also supplied on the STELR USB.

Step 1

Download the STELR protractor file. Print it onto sticky labels and then stick them on card.



Peel off and stick onto light card (old manila folders work well).

STELR protractors printed on sticky labels .
(2 x 8 = 16 per page)



Cut out the protractor.

Step 1 (alternative)

Instead of printing the protractors onto sticky labels, print onto A4 paper and then laminate, before cutting out the protractor



Step 2

Place the protractor around the base of the turbine blade.

Align the two zeros on the protractor with the line where the two halves of the turbine hub meet.

Align the blade with the desired angle.



Tip: Check that all blades have been angled in the same direction before attaching to the turbine.