Flat plate drag is defined as:

Torque:

The of a flat plate perpendicular to the flow is between 1.98 and 2.05, therefore the force from the drag of wind at 300kph blowing on half the panel at a 14⁰ angle is 463N, or 150Nm. This is the maximum torque we need to design for.

Load Perpendicular to the Panel:

This is equivalent to 407.7kgs, similar to six people standing on the panel.

Load from wind parallel to the panel:

Using 1.5 for