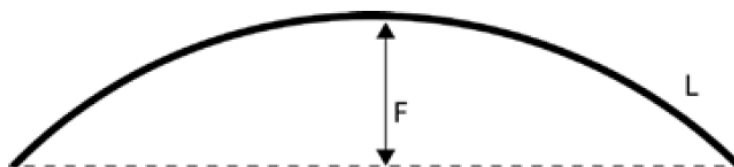


## TECHNICAL REPORT

# CANVAS INSTALLATION

Although Solbianflex solar panels are ideal for canvas installation, they must be fully supported for their entire area. The canvas Bimini or dodger surface must be firm and sturdy, some older structures may need to be updated or re-tensioned. It is necessary to prevent any “flogging” in the wind or any excessive movement. One should be able to pull firmly on any corner of the structure and not produce much movement.

Solbianflex panels are “semi-flexible”, not foldable or rollable. They can be mounted on curved surfaces as long as they do not exceed a continuous curve greater than 10” over 40” ( $F = 25\%$  of  $L$ ).



Nor may they be installed in such a manner that may cause local bending or kinks, as when placed over a middle support bar in a Bimini.

Example: In the picture below, the panels would be better installed athwartship, in between the support bars, not over the middle bar.



If a Solbian panel must be installed over a crossbar, and if there is any bending in the canvas surface over the bar, then a stiffening backing should be used under the panel. Typically a sheet of PVC foam (Forex) or fiberglass bars may be used and can be supplied by Solbian; however you should contact your distributor for information on backing material. Zippers or Velcro may be used to attach the panels, with the Velcro option recently becoming more popular.

Here is an example of a Velcro installation:



Note that Velcro is both sewn and glued to the panel. Also note that in this case a bit more space should have been left between Velcro and the cells to avoid shading the latter. Regarding the sewing, do NOT sew onto the cells, stay 8-10mm away from them. Stitching should be widely spaced, if holes are too close together they can weaken the edge of the panel.



In Velcro installations, the width of the Velcro “hinge” is important. In the diagram below, note that in figures “A” and “B”, the width of the Velcro itself is adequate, but the “hinge” between the two parallel strips of Velcro is too narrow. This prevents the upper flap from properly covering the edge of the panel/Velcro. If the width of the hinge was increased by a ½ or so, there would be no problem overlapping it correctly. A wider “hinge” would also be useful if the panel doesn’t match the fabric strip dimensions perfectly (figure C below).

