Orientation of Aerodynamic Air Bearing Motor Polygon Assembly (MPA)

Lincoln MPA's can be run in both vertical and specific horizontal orientations. There is an asymmetric attribute (speed bump) in the air bearing that will only allow the unit to be run in certain attitudes. The speed bump facilitates a localized pressure increase in the bearing. This is useful, being that it is a-symmetric, as it helps to 'float' the bearing against gravity when operating in a horizontal position. However, if the speed bump is not oriented correctly, it will actually work with gravity and force an early 'touch down' condition. This will quickly lead to bearing failure.

The Lincoln air bearing can typically handle a tilt of 5° from vertical without consideration of the speed bump orientation. Any greater than this amount, the orientation of the unit must be noted so that during assembly, the speed bump is oriented correctly.

The best orientation of the speed bump is determined by Cambridge Technology after the orientation of the whole unit is determined. Because of the symmetry and possibility of multiple mounting positions of Lincoln MPA units, a distinctive feature such as a window or cable exit is chosen to gage the orientation of the speed bump. A sticker will be added to the MPA to show the correct orientation of the unit. The rotating axis of the unit can be tilted from the horizontal, as long as sticker points up (sticker placed on the axis, top or bottom of unit w/ a printed arrow) or faces up. Acceptable orientations: