**Archimedes screw**

**Abstract:**

The Archimedes screw pump is one of the oldest hydraulic machines. Today it is employed in pumping as well as operating reverse in an energy conversion role. The geometry of an Archimedes screw is governed by certain external parameters (outer radius, length and slope) and certain internal parameters(inner radius, number of blades and pitch of the blades) the external parameters are usually determined by the location of the screw and how much water is to be lifted. The internal parameters, however is to be chosen to optimize the performance of the screw here we design and perform the analysis in solid works premium.