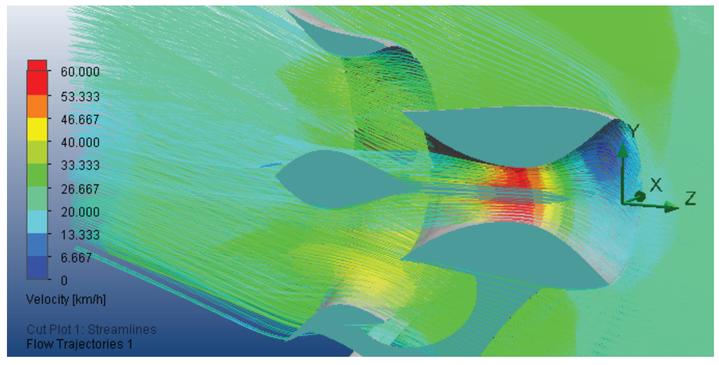
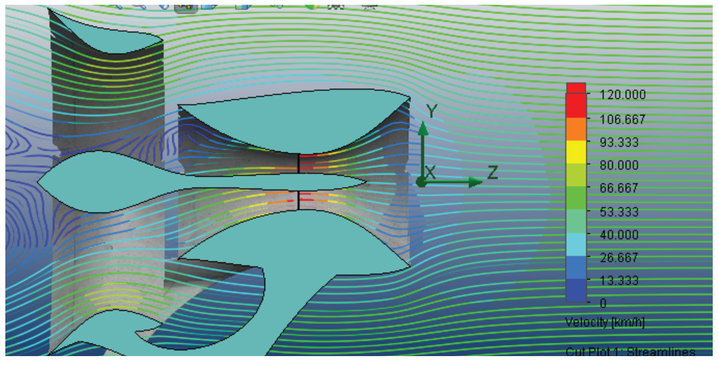
WIND:

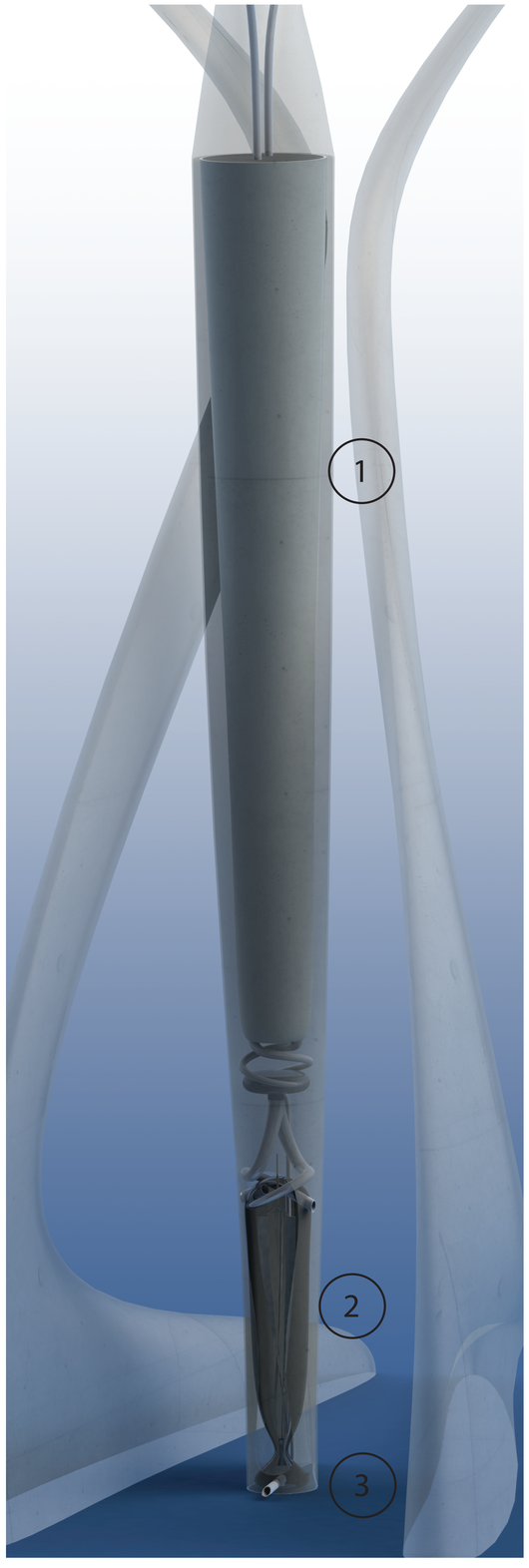
The profile of the jet creates greater speed at the wind tips of the two turbines. The depression created at the back draws the air out of the jet and the surfaces inside the jet ensure that maximum velocity and pressure is reached in the sections where the turbines are placed.

This increase in speed and the double turbines allow to generate electricity more evenly. The two different turbines blades turn at different speeds and their combination ensures that their individual disadvantages are mutually negated (inertia, maximum and minimum wind speed supported).

The jet body allows the device to operate at low wind speeds and when the wind does not travel along the axis of the turbines. The efficiency is reduced in those cases but HORN will be installed to face the more frequent wind directions.







WATER:

Rain water is collected by the grooves along the jet body and is channeled through tubing inside the body towards the main reservoir in the central pillar. The water can accumulate there until it reaches the maximum level. Then, holes at the bottom of the tank let the water go through tubes that pressurize the flow and guide it to the first turbine. The water exits through the turbine, by its center.

The water then goes to the bottom reservoir of which the exit spout will be opened when water reaches maximum level too. In this tank, a whirl is created by the exit through a small opening. When the tank empties, air is drawn in from the water exit spout, through a central tube, the air draft upward creates a pressure that helps maintain the vortex. The circular current of water sets the turbine in motion. The water exiting this tank leaves the HORN after passing through a last reservoir. This third smaller tank is used when the first reservoir is empty and is not filling the second one. The water coming from the second reservoir is pumped back to the top of the second reservoir. The water is used in a closed loop until the next rainfall and is still producing energy from the whirl inside the second tank.

According to researches made by Victor Shauberger and more recent designs like Franz Zotlöterer's , the power harvested from the vortex is greater than the energy necessary to pump it back to the top of the vortex. This renewable source of power is harvested by HORN in the vortex reservoir.

Horn