

DOUBLE ACTING FLUID PISTON PUMP

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WAVE POWER

Power of the ocean waves can be captured with a turbine system.

According to Ocean Energy Systems

- One meter 10 second wave striking a coast can deliver more than 7MegaWatts/Km of coast line



<http://www.moonipulations.com/moon-wave/>

WAVES ENERGY

Waves are created by two forces:

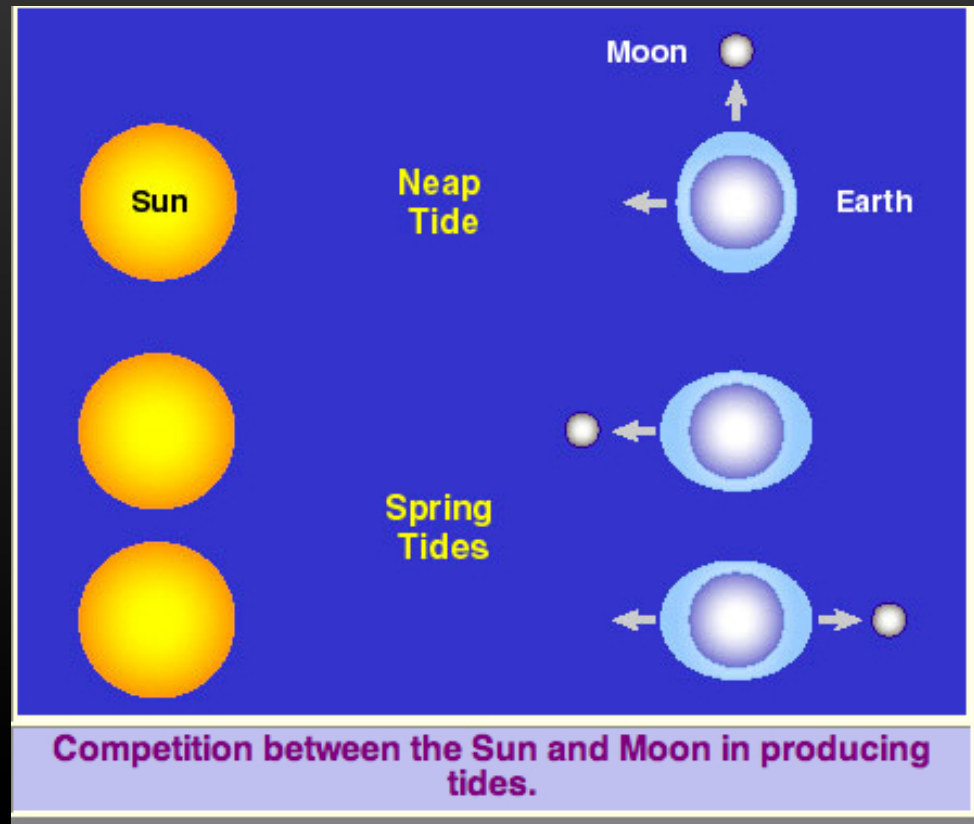
- Gravity
 - Earth
 - Moon
 - Sun
- Wind

GRAVITY

$$F = \frac{GM_1M_2}{r^2}$$

According to Ocean Energy Systems

"The Moon's gravitational pull can move billions of liters of water thousands of miles in a short amount of time"

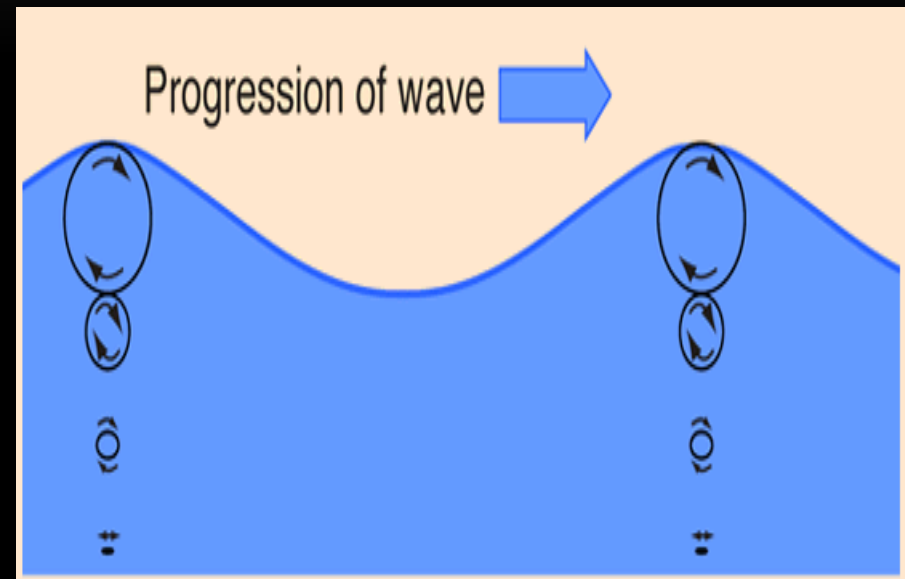


<http://physics.weber.edu/amiri/physics1010online/WSUonline12w/OnLineCourseMovies/CircularMotion&Gravity/reviewofgravity/ReviewofGravity.html>

PHYSICS BEHIND WAVES

Largest Amplitude is on the surface of the water.

Wind will help the wave grow.
Therefore the wind creates a snow ball effect with the wave as the wave grows



<http://hyperphysics.phy-astr.gsu.edu/hbase/waves/watwav2.html>

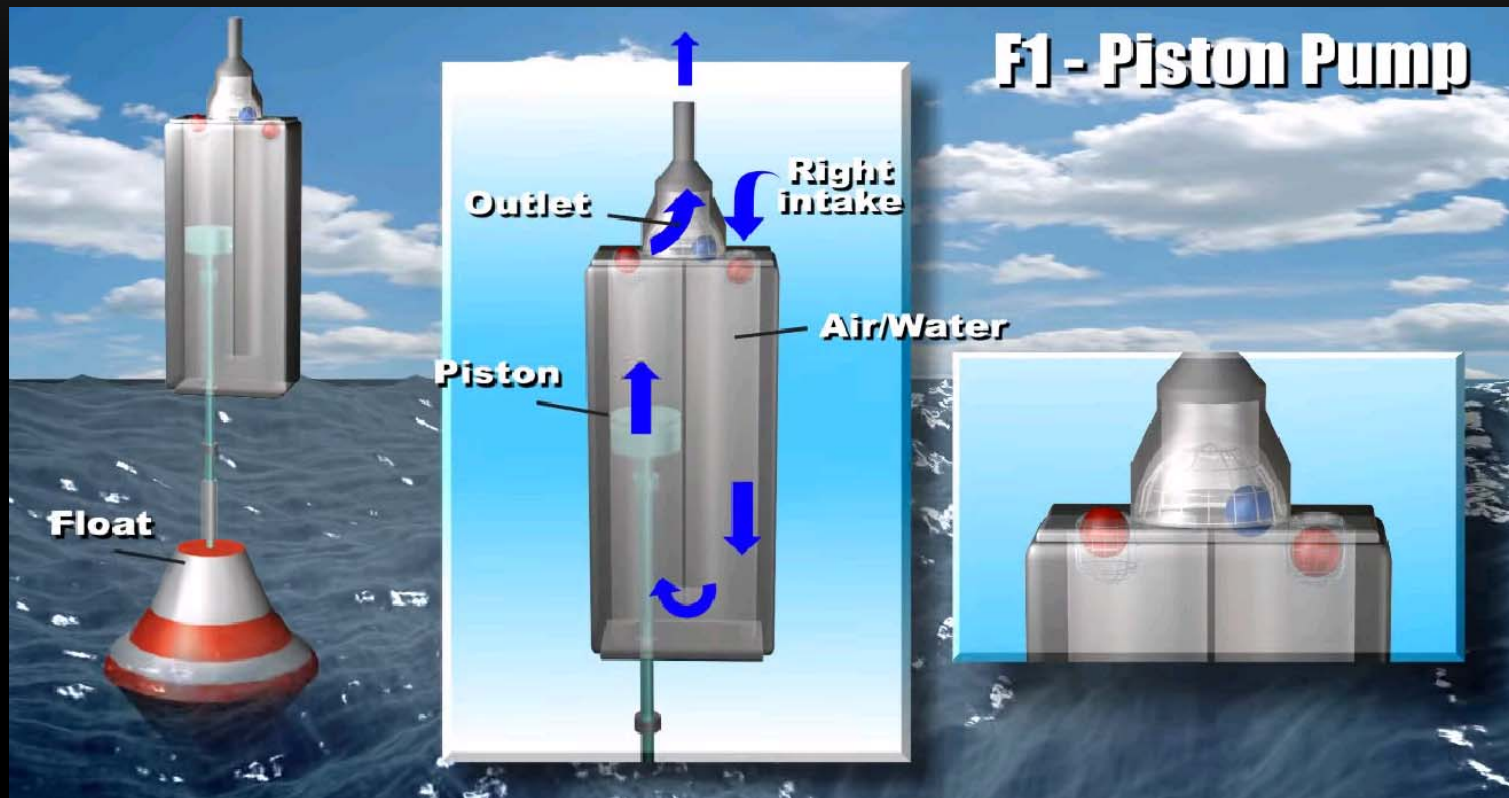
OSCILLATING OCEAN BUOY

A buoy on the ocean's surface will capture the largest amplitude



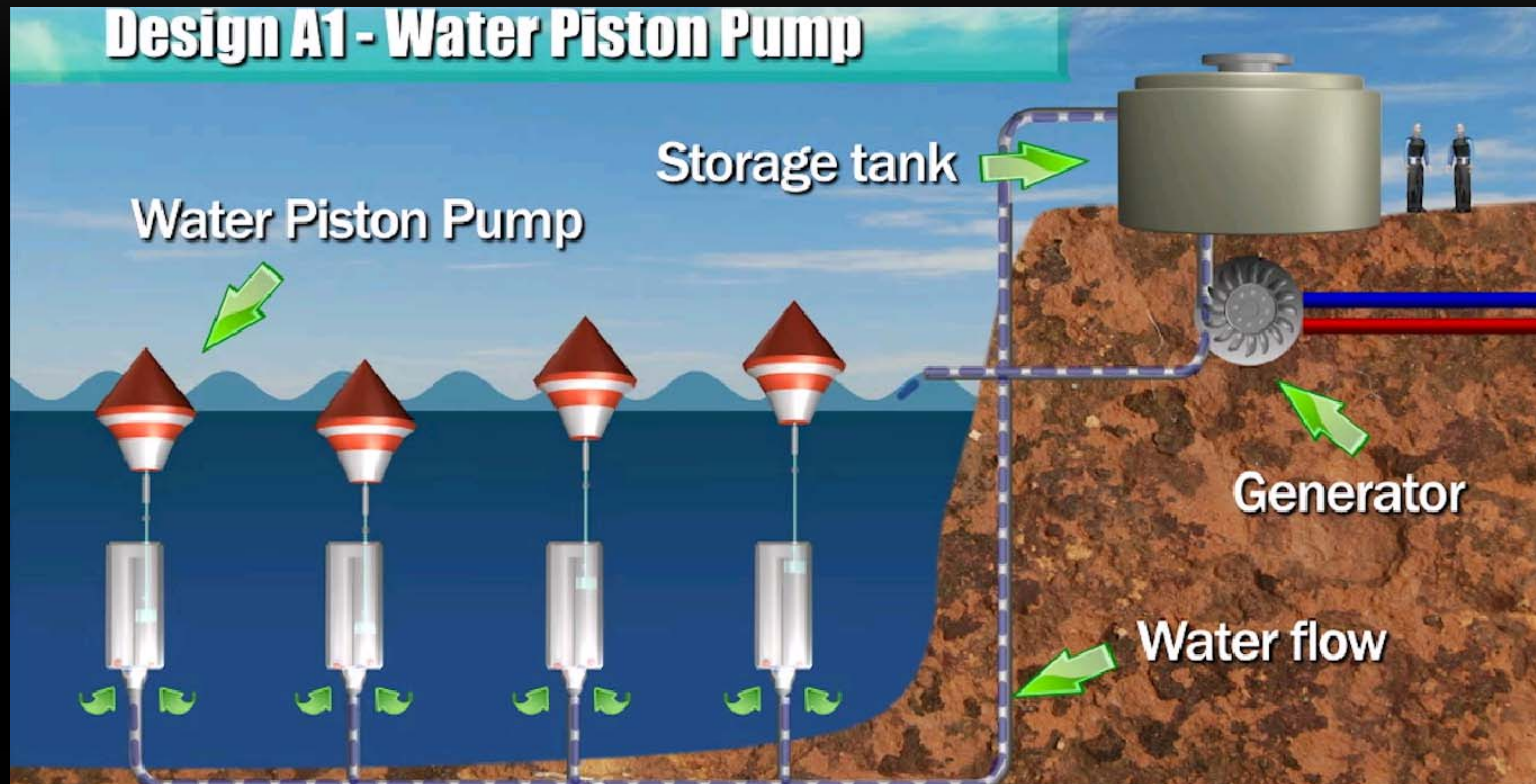
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?d2=p20&pb=1&u3=tab:1:display:buoys](http://cdip.ucsd.edu/themes/cdip?d2=p20&pb=1&u3=tab:1:display:buoys)

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<https://www.youtube.com/watch?v=fYfs-qYGzvs>

EACH PUMP WILL HELP RUN A GENARATOR



<https://www.youtube.com/watch?v=fYfs-qYGzvs>

CITATIONS

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