The project uses the invention of the ancient Greek mathematician and mechanic Heron of Alexandria. Heron's fountain pushes a lot of water under compressed air pressure.

The project consists of a ground part - the art symbol itself and a three-tiered underground part, where there are technical rooms with turbine generators and two levels of a hermetic tank. Water is fed up by vertical metal risers ending with annular pipes. The highest level-annular pipes (d 1.30 m). Of the seven annular pipes, the jet of ejected water falls downward into the pool bowls (mark -0.30 - + 1.50) with distributed hydro turbines.

Below (mark -4.50) are the machine rooms of turbine generators and other technical rooms. Under it are accumulative (mark -16.00), using groundwater.

Accumulative pool (mark -24.50) communicates with the air chamber through the drain pipe. turbines technical ground water pipe drain pipe air chamber hermetic tank accumulative pool

air ←

water -

The waste water flows back into the accumulative pool through drain pipes with a check valve in the bowls of each fountain. Thus the water circulates and the fountain continues to operate.

EMPTY HERMETIC TANK

To start the fountain you need to load a certain amount of groundwater in the cumulative pool. Reaching the top of the drain pipe, the water flows into the air chamber, squeezing the air into the storage pool. In turn, the pool water is squeezed out into vertical risers and rushes upwards into the annular fountain pipes.

HERMETIC TANK WITH WATER

In the annular tubes there are slots through which most of the water rushes down onto the turbine blades in the fountain bowls.

Due to the kinetic energy of the falling water from a height of 23.7 to 34.3m, electricity is generated. A small part of the water with less pressure from the upper slots in the annular tubes completes the silhouettes of fountains with water domes.

WORKING FOUNTAINS

Building materials - polished reinforced concrete, steel pipes of different diameters, glass. Equipment - electric turbines and generators. The estimated cost of investment will be 12.6 million dollars, including 8.7 million dollars.

Total energy output: 685 kWh.