Filtering Device with Oscillating Pressure

**Description**

Filtration is a process of separating solids from a liquid containing them. This process can be performed by a membrane, which constitutes the physical barrier that retains the impurities having a size higher than the pore diameter, allowing the passage of the liquid. In conventional membrane separation systems, pressure increases as the particles accumulate in the vicinity of the surface of the membrane.

While systems have been developed aimed at solving the fouling of membranes, most of the known solutions must stop the filtration process or use cleaning solutions. The filtering device with oscillating pressure does not need to stop the filtration process for keeping the membrane clean, while maintaining the minimum power requirements.

**Application**

Among the applications of this device is the purification of sea water or wastewater treatment, obtaining water with a high level of quality.

**Stage of Development**

Experimental prototype

**IP Status**

Patent application No. MX/a/2012/001599

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**Market potential**

It is expected that sales of membranes-based equipment operating counter-flow and related consumables reach $12 trillion in 2017.

**Transferring conditions**

- Technological development agreement (optional)
- Licensing (includes front payment and royalties)