

# SECUENFIL

The most effective and capable filtration on the market. High-performance sequential filter and filter rings.



## Contact information

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## Technological Offers type

Technological solutions

## Research and innovation areas

- Agriculture, Forestry, Natural Resources, Land Use and Blue Growth

## ODS



Keywords: | [filter](#) | [filter rings](#) | [Water](#)

### **Brief description of the solution and the added value it delivers**

Secuenfil combines three types of filtration in the same system: ring, mesh and cyclonic. This combination increases the efficacy of the filtration and reduces the need for washing-backwashing, which translates into lower costs and a better use of resources.

Secuenfil's filter and rings offer a better use of resources and the corresponding cost saving in any treatment of liquids. By containing three filtering systems in one filter, a better quality of treated liquid is produced and there is better separation of particles, which increases the performance of the installation like no other on the market. It is particularly applicable to irrigation systems, water treatment plants and the food industry. Field tests have been carried out using the prototypes and tools produced and supervised by the inventor.

### **Description of the technological basis**

The sequential filter is one-of-a-kind and has patents worldwide. The structure houses three filters in one, increasing its efficacy compared to its competitors, and its manual or automatic gravitational cleaning with brushes increases savings in terms of water and cost.

Our products are made with the best materials on the market, making them as durable as any you can find. The casing of the filter is made of stainless steel and the internal rings are made of high-density polyethylene, the main qualities of which are excellent thermal and chemical resistance and resistance to impacts and severe stress.

Our products are now ready for a phase of experimentation in extreme situations in order to obtain quality certificates.

*'Our sequential filters and ring packs ensure a better use of resources, with their efficacy translating into lower costs'*

### **Business needs / application**

#### **Agri-food**

- Application to the cooking oil industry (predominantly olive oil, with 359,366.10 hectares of olive groves in Jaén, Córdoba and Granada; 448,494,929 kl of oil in a total of 801 olive-oil mills in Andalusia), wine production (2,836.96 hectares), juice production, etc.
- Irrigation consultancy firms.

### **Environment and energy efficiency**

- Application to desalination plants and drinking water treatment plants (in 2010, the total volume of water discharged along the Andalusian coast was 18046974009), and also to water recycling.
- Irrigated agriculture (792,632.74 hectares distributed between 102,924 farms in Andalusia).
- Greenhouses (in 2009 there were 44,500 hectares in Andalusia alone; 66,000 in Spain).
- Public authorities responsible for water management.

## Competitive advantages

- Saves energy and water; lowers costs.
- Easy implementation and greater efficacy.
- Complete adaptation of the installation to the filtering requirements.
- Three filters in one (cyclone, mesh and ring system): simplifies the installation required.
- Fast and simple, automatic or manual cleaning (the special closure allows it to be opened and taken apart in a few seconds).
- Constant gravitational cleaning assisted by floating brushes, providing cleaner and longer-lasting operation.

*'It is not necessary to reverse the flow of water for backwashing, making it possible to save resources'*

## References

- Technology developed by Dr Alfonso Cobos de la Fuente (lecturer-researcher in fluid mechanics and on master's programmes at UPM).
- Runner-up prize for the best business idea in the 9th Actúa\_UPM Business Creation Competition (*IX Competición de Creación de Empresas Actúa\_UPM*).

## Industrial protection

- Patent granted in Spain: ES2277792.
- Patent granted in Spain: ES2346842.

## Stage of development

- Concept
- Research
- **Lab prototype**
- Industrial prototype
- Production

## Contact

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