

# Zelid – Zero emission long-lasting irrigation water dispenser



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## Invention



The water autonomy of flower boxes not equipped with an irrigation system is very low in periods of high climatic demand. The installations of small or large, temporary or permanent planters, in public or private spaces, require frequent manual interventions. The patented system, called ZELID, allows it to be self-sufficient for prolonged periods and without energy consumption, safely and with minimal operating costs.

ZELID is a punctual, multilevel and very low flow water delivery system for autonomous and prolonged irrigation of planters of all sizes and for any use. It is connected to a modular tank in anti-corrosion plastic material, normally buried inside the same planter. It does not require energy, the flow rate is supplied continuously and varies with the number of dispensers and with the tension of the water in the soil, therefore with the needs of the plant. The autonomy depends on the volume of the tank buried in the same planter and grows with the mulch.

ZELID does not require particular maintenance and avoids water losses due to deep percolation. Is frost and solar radiation resistant. Unlike the current self-irrigating planters available on the market, characterized by small dimensions, ZELID does not suffer from the same application limits, does not require mechanical elements or connection to the electrical network for pumping and controlling the water supply, and therefore no need of mechanisms subject to malfunction or vandalism.

Drawings  
& pictures



## Industrial applications



The technology allows the production of irrigation systems, planters and private greenery, green furnishings for open public spaces, gardens, urban parks and anti-terrorism barriers, as well as for temporary installations. Zelid does not require an electricity supply, based on an underground system that eliminates water waste and ensures water autonomy up to weeks, in the absence of mechanical parts. The system is therefore also resistant to all weather conditions.

It is a useful technology for manufacturers of planters and pots, as well as green furniture and gardening companies.



## Possible developments



The patent is available under an exclusive/non-exclusive license. The license is available for the entire remaining term of the patent titles.

The research group is available for new research activities in collaboration and on behalf of third parties, technical insights, scientific advice, also aimed at raising the TRL of technology.

The TRL of the invention is 7.

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