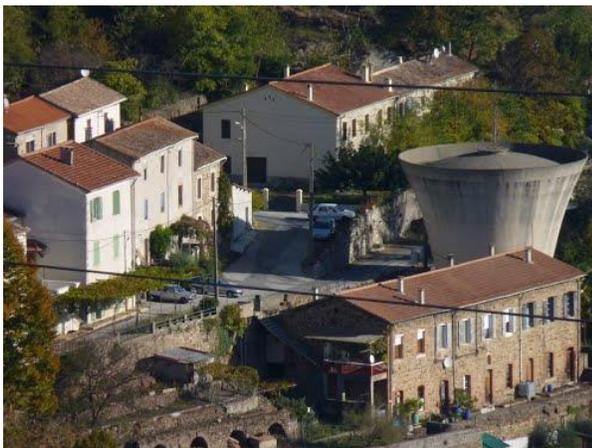


# Implementing aquasource\* Z-XS inside a small water tower

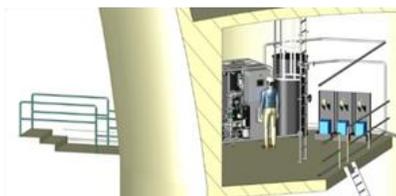
## A compact, fully automated, reliable solution



### challenge

a municipality in the south of France faced several challenges with their existing sand filtration system. During rainy periods, this city experienced turbidity peaks up to 20 NTU. In addition to dealing with seasonal turbidity fluctuations, the employees of the municipality had to frequently clean the sand filter, which generated additional operating costs. They needed a solution that would fit into the existing small water tower building while being able to guarantee solid-free high-quality water despite incoming turbidity peaks.

The aquasource\* engineering team was tasked with the challenge of finding a solution to integrate the ultrafiltration system in the confined space available without performing any civil work. The second challenge was to improve the quality and secure the production of drinking water.



### solution

This municipality selected SUEZ to provide a solution that would solve their challenges. SUEZ proposed installing the aquasource\*Z-XS system.

Aquasource\* Z-XS is a standard water treatment system that uses in-out ultrafiltration (UF) membranes. The advantage of using a UF membrane over a sand filter is increased water purity. SUEZ's UF membranes can produce water with a turbidity measuring no higher than 0.1 NTU regardless of fluctuations in influent turbidity. The system is also easy to integrate, autonomous, and can treat up to 350 m<sup>3</sup>/d. Compact and scalable, it has been designed for the municipal, private, and industrial sectors.

The SUEZ engineering team proposed a unique solution wherein the aquasource\* Z-XS system was split into two parts so that the system could pass through a standard door. This appeared to the favorable solution for the municipality since other solutions would have led to the construction of new buildings.

### results

In 2016, thanks to its turnkey & flexible design, aquasource\* Z-XS was installed in the cramped building without the need for civil engineering work. In less than 72 hours, the system was installed and producing 15 m<sup>3</sup>/h of high quality drinking water.

The new system is automated and guarantees stable, solid-free high-quality water despite incoming turbidity fluctuations.



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**Figure 1:** The versatile aquasource\* Z-XS system installed in the city's water tower.