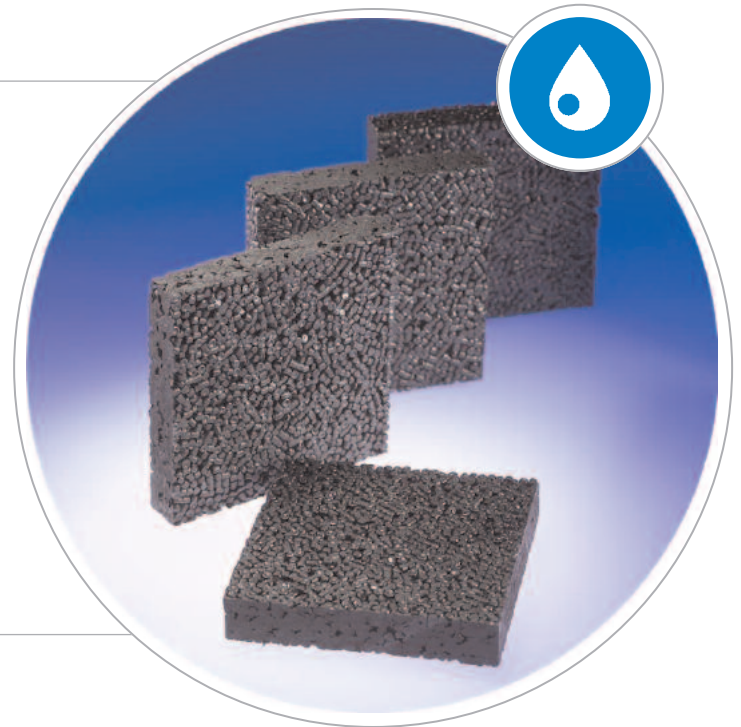


## Industrial Applications

### Municipal Water Filter

Using Porex's filter-bed support media, a filter manufacturer designs a filtration system for municipal water treatment facilities that can be automatically backwashed.

The media is used extensively today in both new and refurbished construction projects, with installations spanning the globe.



### Design Challenge

A manufacturer was interested in the design and construction of a filtration system capable of being automatically backwashed. The concept required a new approach to the filter's design - including the construction of the underlying filter bed. The manufacturer envisioned an underlying filter bed composed of porous plastic plates. In this design, the plates needed to be large in size and strong. They needed to be easy to install and offer years of continuous service. The plates also needed to minimize water flow resistance and prohibit the loss of the carbon and/or sand media through the filter plate.

### Solution

The porous plate envisioned by the filter manufacturer functioned like a "false floor" whereby carbon, sand, and other filtration media were supported above the porous plate. The region beneath the porous plate allowed for the flow of filtered water. Porex's engineering and research departments coordinated the procurement and use of a special polyethylene material for use in this project. This material required careful conditioning prior to use in Porex's manufacturing process to ensure that the plates pore size and pore volumes were carefully controlled and preserved. Also, the size and thickness of the part required custom tooling and manufacturing processing requirements.

### Results

Partitioned into various sections by the porous plate's vertical supports, the filter manufacturer accomplished the goal of creating an automatic backwash filter system for use in municipal water treatment applications. With installations spanning the globe, Porex's filter bed support media is still used extensively today in both new and refurbish construction projects.

*By combining ideas, know-how and proven results with the highest standard of innovation and excellence, POREX Porous Media provides unique solutions for various applications.*



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