



# Rotary lobe pumps: Easy and efficient MBR filtration

Case Study - Gongchan in Gumdan Industrial Complex in Incheon



## Problem

High effort to flush membranes

## Solution

Rotary lobe pumps with bi-directional, pulsation free and easy to control capacity

### The problem

#### High effort to flush membranes

Membrane filtration is the latest modern solution for wastewater treatment and based on the presence of semi permeable membranes, which act as a filter that will let water flow through, while it catches suspended solids and other substances. Over time it is necessary to clean the membranes, for example by back flush with increased flow rate at higher pressure.

Typically impeller pumps are used for membrane filtration, which means that an additional pump, pipework and valves are needed to flush the membranes.



## The solution

### Improve by using rotary lobe pump

Vogelsang rotary lobe pumps make the process easier and more economical. The bi-directional supply requires only one pump for suction during filtration and flushing to clean the membranes. Stable proportionality of pressure and capacity make it easy to control the flow and adjust the suction pressure in the membranes. For cleaning the membranes simply the speed and direction of the drive needs to be increased and changed. No additional pumps, pipes and valves are required. Due to the pulsation free and low vibration pumping of the HiFlo lobes, the performance of the membranes is very good. At least, the required place is reduced, like you can see at the images, made at MBR Installation at Gongchan in Gumdan Industrial Complex in Incheon, Korea.



**MBR filtration with rotary lobe pump:  
less pumps, less pipework and valves**

### Advantages of the Vogelsang rotary lobe pumps

- Only one pump for suction and backflushing required
- High quality filtration through uniform and smooth flow
- No air removal equipment required
- Simplify devices, pipes and control
- Significant reduction in installation space

### Mentioned Vogelsang product

[The rotary lobe pump is a true all-rounder](#)



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