Typical Compressed Air Applications in a WWTP

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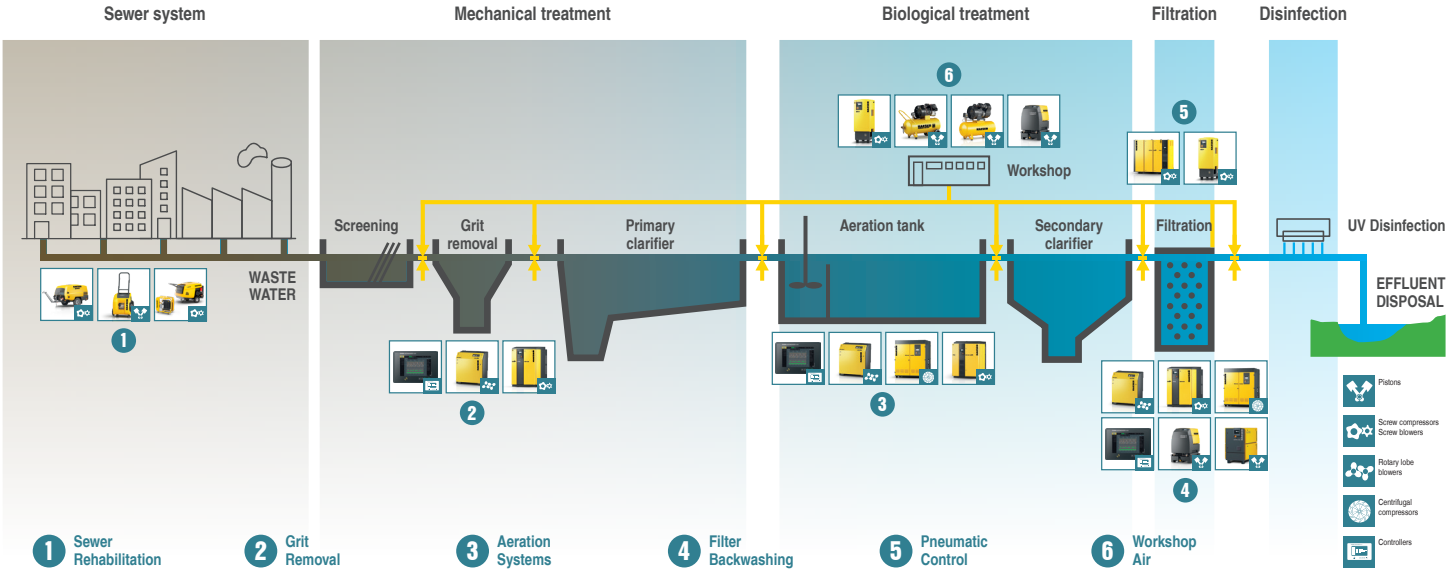

1 Sewer Rehabilitation

Compressed air is used extensively in trenchless sewer rehabilitation, from inflating sewer sealing cushions and powering pneumatic milling machines used to remove tree roots, to feeding and pressing inliner into position in the pipes, as well as cooling the UV lamps used to harden lining material.

2 Grit Removal

Reliable and efficient blowers are required when an aerated grit removal system is being employed. Influent passes through the chamber at a reduced flow so rough waste, such as sand and stones, can be separated out by sedimentation.

3 Aeration Systems

Low pressure air plays a vital role in aeration systems used for biological treatment, where blowers typically generate streams of fine air bubbles which are injected through the influent, in order to oxygenate the wastewater required for bacteria to breakdown the organic matter present.

4 Filter Backwashing

Where the effluent has to meet specific quality standards or environmental regulations for reuse or discharge, it's common for the water to pass through filtration. To maintain the quality of the filtered water, continuous or semi-continuous filter backwashing is often utilised as part of the filtration process. Depending on the technology, high or low air pressure may be required.

5 Pneumatic Control

The entire flow of a wastewater treatment plant, such as setting of valves, slides and flaps, is often driven by pneumatic actuators which offer precise control and operate reliably even in challenging conditions (such as corrosive environments or in low ambient temperatures). In some cases, the compressed air network also feeds air-driven pumps and is used for sludge drying.

6 Workshop Air

A dependable supply of quality compressed air is often required in a wastewater treatment plant's workshop for miscellaneous tasks, such as operating air tools or cleaning of machined parts.