

VX series with FPM lobes: Disposal and recycling of used oils

Case Study - KS-Recycling GmbH



Problem

High levels of wear pumping brake oils

Solution

VX series with FPM lobes

The customer

KS-Recycling GmbH

KS-Recycling GmbH from Sonsbeck in North-Rhine Westphalia specializes in disposal and recycling of special waste. The company uses around 50 special vehicles to collect residual materials, such as used oils, gasoline, brake fluids, solvents and several other products from industrial companies, mechanic workshops or car repair shops. The residual materials are then recycled in modern plants using innovative methods. In this process, products are created that can be reused in industry, such as base oils, lubricating oils, flux oils, heating oils and solvents.

The customer

Tankers with three pumps

Over one hundred pumps are needed in the company. Sometimes three pumps as well as piping are installed on a single tanker. This is because the tank is divided up into three sections that each take in different media. In order to ensure optimum recycling, brake oils, glycols and water/oilwater mixtures must be collected in pure form. However, for this configuration KS-Recycling required small pumps.



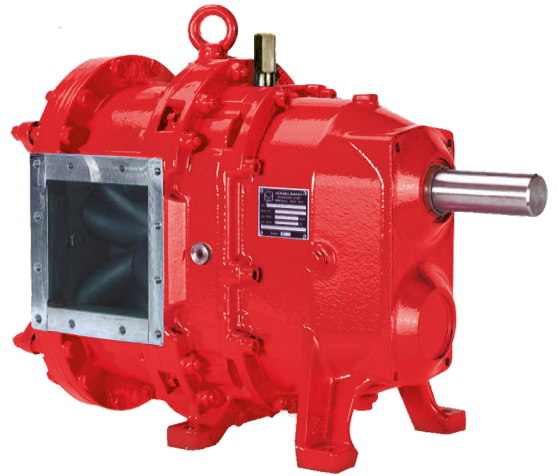
Vogelsang rotary lobe pumps VX series

The solution

Increased service life

The rotary lobe pumps from the VX136 series were just the right solution in this case. They are small and still produce the high level of pumping force required: pumping outputs of up to 364 m³/h and pressures of up to 12 bar.

At first KS-Recycling had problems pumping difficult materials such as brake oils with the pumps used as they ran dry quickly. For this reason, lobes made of different materials were tested when they switched to Vogelsang rotary lobe pumps from the VX136 model series. During testing it was discovered that FPM lobes are very robust and guarantee a high pump service life.



Vogelsang VX series

Pumps run non-stop for the distillation process

The company not only needs robust Vogelsang rotary lobe pumps on the 22 tankers, but also for loading its seven distillation lines formed of tanks of up to 100 to 500 m³. An upstream desedimentation system removes any sediments from the input materials. KS-Recycling also uses Vogelsang rotary lobe pumps here thanks to their ability to pump media with foreign matter as metals, stones and sand.

The distillation line runs non-stop. This means the pumps are also in operation all day every day and need to be able to withstand a long service life. In order to ensure an even feed rate, this is controlled automatically by a variable frequency drive that controls the number of cubic meters pumped by the system. The volume flow varies between 1 and 150 m³/h. Vogelsang pumps can also load up to a temperature of 80°C. The HiFlo lobes with curved wings minimize pressure surges and ensure uniform and pulsation-free pumping.

Maintaining many pumps

It isn't easy for the KS-Recycling employees to maintain over one hundred pumps of different models. This is why the company appreciates the cost-effectiveness of Vogelsang rotary lobe pumps.

They require fewer spare parts and have a longer service life. Moreover, they can be repaired onsite without being disassembled, which saves time. Due to their QuickService design, only a few steps are needed to exchange lobes and seals. After its positive experience with the VX136 series, KS-Recycling is now also testing the IQ series, which only needs half as many spare parts as pumps with conventional designs. This considerably reduces the costs for components that need to be replaced and makes handling easier. The pump chamber is made from a single complete part. Once the cover has been removed, the inside of the pump can be freely accessed straight away.

The Vogelsang rotary lobe pumps are planned to be used in the new factory.

„We mainly use Vogelsang rotary lobe pumps in tanks and vehicles because they are compact and efficient. However, one of the most important things for us is that they are very easy to maintain,“ Guido Schmidt, Managing Director of KS-Recycling.

Advantages of the VX series

- Robust and efficient
- Uniform pumping
- Compact design
- Quick and easy maintenance
- Long service life

Mentioned Vogelsang products

[VX series: Rotary lobe pump
for every application](#)



Mentioned Vogelsang products

[VX series: Rotary lobe pump
for industrial applications](#)



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