



PUMPING SYSTEMS DESIGNED FOR SUGAR PROCESSING APPLICATIONS

Sugar Processing Industry

Robust Pumps that Handle Heavy Abrasives





ROBUST, RESILIENT, RELIABLE!

High Solids, Heavy Grit & Abrasives

Vogelsang has been a leader in the pumping industry for over 80 years. During this time, we've been responsible for most of the major innovations in positive displacement rotary lobe pump design. Recently, our rotary lobe pumps have quickly become more popular in the sugar processing industry. Due to the nature of our pump and lobe design as well as the materials we choose, your molasses, magma and even tailings can be pumped throughout your system with ease as compared to other positive displacement pumps. Our products are built to pump viscous liquids, with no pulsation and low shearing.





Cutting Edge Materials

Every application of our products has the ideal materials to optimize capacity and minimize wear. Wherever there is contact or friction between moving parts, we have developed combinations of materials that optimize the components for your specific application.

For sugar industry applications, we offer steel, stainless steel and elastomer coated lobe options depending on the temperature and abrasiveness of the liquid. This benefits you both in equipment life and in product quality. Our lobe and casing materials come in many different materials to get you the best possible life from the pump.

Quality Custom Construction

Our engineering and production team will design your equipment to the appropriate size and configuration for your application. We offer belt driven pumps to fit tight installation areas, or fixed pumps for specific applications. Our pumps are available in many sizes and capacities that will suit most sugar application requirements. We offer the highest standard of construction and materials to ensure you get the most equipment life possible. The versatility of our products makes it possible to work them into your process without excessive retrofitting. Our pumps are smaller and lighter than traditional pumps of the same capacity. This makes it possible to get them into areas where other simply won't fit.

Customer Service

Our relationship doesn't end with the sale. Expect quick and expert advice about our products once they're in place. When you need service or maintenance, we'll be there on time to get the job done right.

Vogelsang is ISO 9001:2008 registered and our pumps are built and tested in our Ravenna, Ohio manufacturing facility. New pumps are built to order quickly and spare parts are typically shipped the same day.



IT'S ALL ABOUT THE LOBES

Pulsation Free, Wet-End Rebuilds In-line, Variable Pressure



The state of the art in positive displacement pumps. The HiFlo Lobe has increased capacity compared with former lobe designs while eliminating pulsation. The convoluted design of the HiFlo Lobe provides a large cavity that's perfect for harsh, heavy, thick and abrasive sugar applications. This design also makes it possible to achieve your desired pressure at a slower rpm which results in less damage to lobes and minimal wear to the rest of the pump.



HiFlo pumps can self prime to 8m, run dry, discharge to over 15 bar, pump forward or reverse and pass solids up to 61mm.

Our pumps are also very small compared to traditional pumps of the same capacity. This allows them to be placed into small areas with limited accessibility. They can be doubled and combined into powerful multi-stage systems that can easily move massive amounts of slurry. We offer pumps in many sizes and configurations to fit most any situation. There are also many options for internal parts. Harder less expensive elastomers are well suited for chemicals and slurries, allowing longer equipment life.



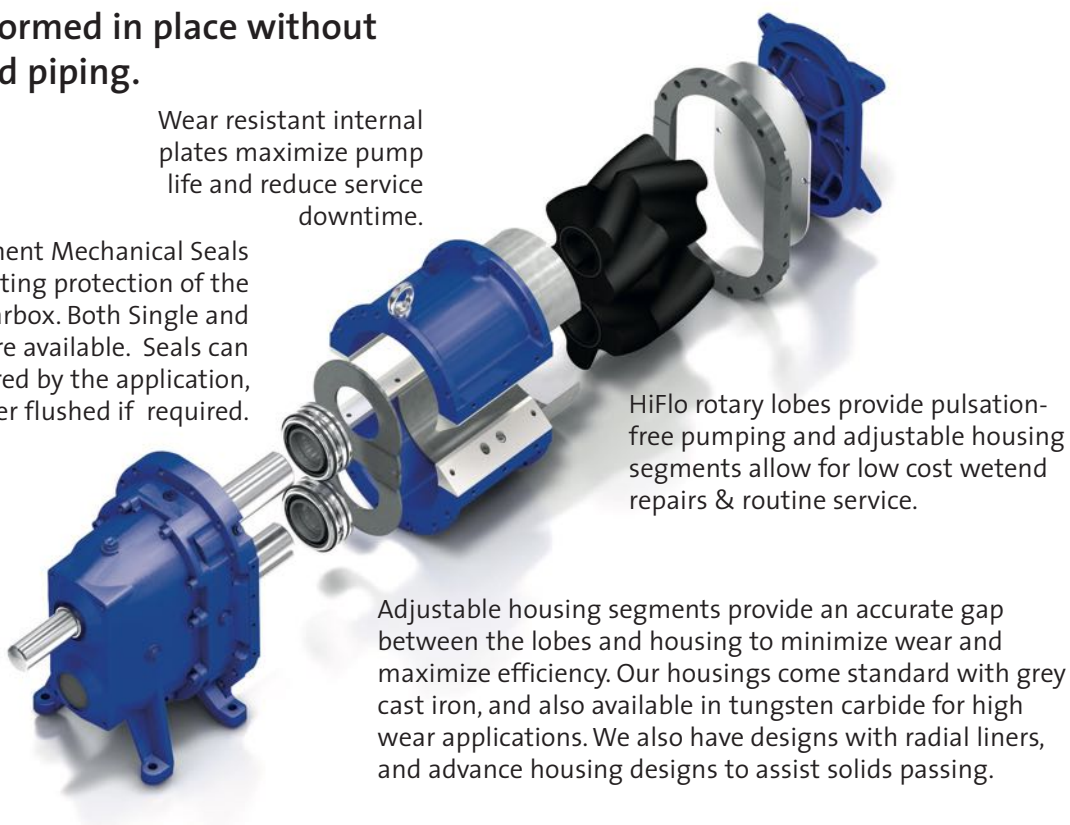
Maintenance is performed in place without disturbing connected piping.

Wear resistant internal plates maximize pump life and reduce service downtime.

Robust Cartridge or Component Mechanical Seals provide long lasting protection of the buffer chamber and gearbox. Both Single and double mechanical seals are available. Seals can also have an air gap if required by the application, and also be water flushed if required.

No step down shafts. We have maximized the diameter of our shafts to prevent wear lobes, seals and bearings caused by shaft deflection.

The lowest shaft deflection in the industry!



HiFlo rotary lobes provide pulsation-free pumping and adjustable housing segments allow for low cost wetend repairs & routine service.

Adjustable housing segments provide an accurate gap between the lobes and housing to minimize wear and maximize efficiency. Our housings come standard with grey cast iron, and also available in tungsten carbide for high wear applications. We also have designs with radial liners, and advance housing designs to assist solids passing.



APPLICATIONS

Why choose Vogelsang?

Our pumps have been widely chosen for their ability to pump thick viscous fluids containing solids and debris. People like our pumps because they are easy to install, operate and maintain.

The Sugar Industry requires a robust pump that can handle thick liquids often containing harsh abrasives running at high temperatures. Vogelsang is able to meet these challenge with a wide array of material, component and design options and the knowledge to apply them in the most effective way.

Molasses

Although gear pumps are commonly chosen for many molasses applications, they are limited in solids handling, create increased shear and are limited in maximum liquid temperature. Gear Pumps using packing are prone to leaking valuable product and require constant maintenance. Gear Pumps using mechanical seals are known to experience seal face failure due to sugar crystallization between faces. In addition, the gear bushing is a source of constant maintenance.

Vogelsang offers the best choice to pump all types of Molasses. Our pumps can handle viscosities anywhere from first molasses up to thick blackstrap molasses. Crystallization is not an issue as our pumps are designed to pass non-compressible solids without locking up. Vogelsang pumps avoid seal face failure due to our pressurized seal buffer chamber. Adding higher pressure inside the buffer chamber maintains a clean food grade lubricant between seal faces.

Temperature is an issue with many types of pumps however, Vogelsang is well suited for pumping Molasses. Our elastomer coated lobes can be used to pump liquids to around 83°C, and with metallic lobes we can pump liquids at a temperature as high as 148°C.

When it comes to maintenance, our pumps have a huge advantage because they can be rebuilt inline without the need to remove connected piping. It's easy to perform maintenance in tight areas quickly with minimal hassle. Gear pumps use parts that are often integrated in the casing. They are difficult to work on and often have to be completely replaced when excessive wear diminishes performance.



Mud Clarifier/Thickener Underflow

It is common to find single acting diaphragm pumps on the Mud Clarifier/Thickener Underflow. It is typical to see six diaphragms working on one clarifier tank. One crank arm is often running three diaphragms a piece. This set up requires a great deal of electric power. In addition, Torn diaphragms and worn crank bearings are a constant source of maintenance.

With available capacities to $908\text{m}^3/\text{hr}$, the same application can be done with a single Vogelsang pump. Our pumps have more than enough power to move the mud from the bottom of the clarifier at low or high pressure. An added benefit is that the mud is constantly being mixed as it recirculates. Switching to Vogelsang offers a significant operation and maintenance advantage.

In terms of operation, a Vogelsang Pump is well suited to handle the sand and other abrasives found in the waste tailings. Since many Mud applications are in excess of 93°C , steel lobes can be specified. If the temperature is lower, a soft elastomeric lobe option is available. For instances when the Mud has a very high silica-sand content, we offer a flame-spray coating of tungsten carbide on the lobes, housing segments and wear plates.

Magma/Massequite

The metal lobe flapper valve pumps that are almost always found in this application are purpose built for this application. Although these pumps have been in this application for decades, they are prone to an array of operation and maintenance issues such as frequent breakdowns and leakage of product. Excessive flow pulsation and pipe hammering are also a big issues for the single lobe version of this style pump.

The Vogelsang pump offers a much smoother and efficient pumping action than a single lobe design. Our exclusive HiFlo rotary lobe eliminates pulsation. We offer pumps capable of higher flows and higher pressures and our advanced mechanical sealing system prevents external leakage of product.

Our company

Innovation and progress have been hallmarks of Vogelsang for over 80 years and have made us a leading designer and manufacturer of pumping, solids handling and process products. Time and time again we have achieved significant milestones of innovation and product development.

Today, we manufacture some of the most innovative and reliable products for municipalities, industry and agriculture.

Our products are proudly made and assembled in Ravenna, Ohio, USA.

Our product range

We offer solutions for the following areas:

- Industry & Processing
- Wastewater treatment
- Biogas
- Railway waste water disposal
- Agriculture

We offer a broad range of products:

- Rotary lobe pumps
- Grinding technology
- Distributors
- Spreading technology
- Supply and disposal systems
- Complete solutions

We also offer customized solutions for your specialized applications.

How to reach us

Vogelsang is present worldwide. Visit us online for more information about our company and wide range of services:

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RotaCut®

Inline macerator cuts and separates damaging solids suspended in liquid process stream.



BioCut®

Pump & RotaCut® combines the power of both products into one compact unit.



XRipper® XRP QG

Low-maintenance, drop-in alternative to other inline twin shaft grinders.



HiFlo® Rotary Lobe Pump

Designed to handle viscous liquids and tough solids.



RotaCut® RCX48 & RCX58

Inline macerator offers higher pressure, lower headloss and maximum solids reduction.



XRipper® XRC with SIK

Dry Solids & Slurry Mixing System creates optimum slurry mixtures for maximum gas output.