

# POWERFUL YET GENTLE GRAPE PROCESSING

Vogelsang rotary lobe pumps for winemaking



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# YOU CAN Rely on it

Quality, experience and expertise guarantee future-proof technology

As the inventor of the elastomer-coated rotary lobe pump, Vogelsang has numbered among the world's leading mechanical engineering companies in the area of pumping for decades. Among others, producers of sophisticated foods have learned to trust the outstanding quality and workings of our machines – especially because the constructional design of our rotary lobe pumps, transferring the media very gently.

Based on our extensive and varied experience, as well as our ongoing research, we develop highly functional and innovative industry-tailored components and systems that ensure long-term disruption-free operations. Both the production process and the material quality of our machines bear testament to how seriously we take our commitment to our customers. The adaptability and versatility of our machines facilitate the daily work of winemakers all over the world, while being easy to handle and maintain.

## THE MOST DILIGENT OF ALL-ROUNDERS

### Powerful and adaptable pumps for all winemaking processes

#### Flexibility as a matter of principle

Vogelsang offers multiple pump solutions for grapes, must and wine to meet the specific needs of wine production. Options include portable units, stationary units or units with hoppers, which are available in a variety of sizes. They can be configured in accordance with customer needs. Thanks to the nature of our rotary lobe pumps, their design and the materials used to make the lobes, grapes and must can be transported with little impact compared to other types of pumps. Outside substances that often cause damage to traditional pumps are transported without issue.

#### Pumping whole grapes

Vogelsang pumps gently transport grapes without breaking them, to conserve their integrity before the winemaking process and to ensure the highest quality of the wine. They handle clusters very gently, are small in size and require less energy compared to cavity pumps with equal flow rates. Furthermore, they transport solid material up to 90 mm in size.

#### Must pumps

Our rotary lobe pumps process must and wines with the utmost care, thereby preserving quality. Centrifuge pumps damage grapes; because of the high number of rotations required to reach suitable pressure, they can cause the sugar content of must to separate. Vogelsang's rotary lobe pumps, in comparison, reach the pressure necessary to move grapes with a fewer number of rotations. They also maintain constant temperature without variations in pressure to ensure a higher quality must. Thanks to the lobes' HiFlo® design, which prevents pulsing, skins and seeds are handled without damage. As a result, no seed oil is released, guaranteeing a higher quality product.

#### Pump-over

Vogelsang pumps are ideal for the application of pumping must over. Centrifuge pumps separate the liquid component every time the must is recirculated. The longer the must is pumped over, the more aerated it will be. Rotary lobe pumps reduce sugar separation to a minimum, thereby allowing must to be pumped over longer and to extract more flavor from it. For wineries that choose a portable version for must, it can be fitted with a separate set of tubes to use the same unit for pump-over.

#### Wine transfer, storage and bottling

Vogelsang pumps for winemaking applications are successfully used in all processes: from transferring wine from tanks, to transfer for storage, cooling, blending, and bottling, they maintain the qualities of the wine by preventing shaking throughout. By regulating the flow, a single pump can be used for different processes and be adapted to the winery's needs for the various phases of wine production. Constant flow rate, lack of vibration and low noise make it perfect for the more sensitive phases.

#### Lees

Vogelsang pumps are also perfect for pumping lees. They are designed to pump highly viscous liquids without manual intervention, preventing blockages.

#### Marc and sediment

Pumping marc after the lees have been drained is another application that can be easily performed by Vogelsang wine pumps, whether stationary or portable. Both sediment as well as pomace are very dense substances that require suction for the emptying process. Vogelsang pumps can process sediment and pomace thanks to their ability to work under dry conditions, as well as their strong suction function.



### THE ORIGINAL: Popular & Proven

Vogelsang rotary lobe pumps – tested and established in the widest variety of pumping tasks **Break-proof shafts** Maximum shaft diameters for very smooth running

**Quality Cartridge mechanical seal** Professional sealing technology for maximum reliability

#### QuickService design

Quick-and-easy access to all the medium-affected parts without dismounting the pump

#### Axial and radial wear plates

Lined pump housing made from highly wear-resistant special steel to extend maintenance intervals and make servicing easier

#### HiFlo<sup>®</sup> lobes

Pulsation-free pumping for very smooth running

#### Adjustable pump housing segments

Optimum utilization of materials for prolonged service life



The VX series

### CRAFTED TO TAKE CARE OF THINGS

### Rugged, yet sensitive pumps for minimal technical impact on the grape

#### In respect of the grape

Thanks to the design and materials used in these pumps, grapes and must can be conveyed more gently through the system than by progressive cavity pumps, centrifugal pumps or metal rotary lobe pumps. Foreign matter, which often causes damage to conventional pumps, is conveyed without difficulty.

#### High quality materials

When it comes to selecting materials for Vogelsang products, our focus is always on optimizing performance and minimizing wear. All sizes are available in stainless steel versions. At points where there is contact or friction between moving parts, we offer material combinations that are highly resistant to wear. This has a positive impact on the pump's lifetime and the quality of the product. Grapes and seeds are often damaged in other pumps, which compromises the flavor of the wine. By contrast, the soft elastomer lobes in our pumps ensure exceptionally gentle handling.





#### Benefits of wine pumps

- Gently moves grapes and wine without shaking and creating foam
- Reduced oxygenation of wine to maintain flavors intact
- Self-priming and able to operate under dry conditions
- Portable and stationary options
- Pulsation-free during operation
- Space-saving, flexible use
- Quick access to pump compartment by removing cover
- On-site assistance and maintenance

#### Individual design and a high level of quality

Our team of engineers adapts the system precisely to the available space and your specific wine application. This applies to mobile multi-purpose pumps and permanently installed specialized pumps. Our pumps are available in many different sizes and output categories that are suited to most tasks in winemaking. We set the highest standards when designing our pumps and selecting materials to ensure the maximum lifetime for our products.

#### **Customer service**

To guarantee smooth operation from the start, comprehensive service is always readily available – whether you require commissioning, training, a maintenance agreement or service package for wear parts.

#### LifeGuard: the concept for maximum lifetime

A pump's service life is determined by specific factors. We know about these factors and with LifeGuard, we have developed a concept for maximizing the lifetime of pumps. The concept includes factors that make Vogelsang pumps exceptionally productive and cost-effective. Find out more on the next page. For further details, visit our website, vogelsang.info.

#### HiFlo<sup>®</sup> Lobes

For efficient pumping with no pulsing, rotary lobe pumps for application in winemaking are equipped with HiFlo® lobes. This gives Vogelsang rotary lobe pumps even more advantages:

- Greater flow rates due to higher maximum speeds
- Better suction capabilities thanks to decreased cavitation
- Self-priming up to 9 m
- Greater pressures, as pressure jumps caused by pulsing are prevented
- Gently moves must and wine

#### Final advantages of using Vogelsang pumps

All the wear parts in the pump chamber can be changed on site without removing the unit from the pipe. After the lobes, wear plates or radial wear plates have been replaced, the pump returns to its full capacity.









"The wine doesn't get shaken when bottling sparkling wines, and it keeps its natural perlage."

Davide Terlizzi, oenologist at cooperative winery Vinicola Decordi, Italy



The Vogelsang wine pump can be used both in small size wineries as a central pump station, or in big wineries as mobile or stationary pump for several processes.

## CUSTOMIZED For optimal USE

### Individually assembled, needs-based pumping technology

#### Cutting edge displacement pumps

Vogelsang's rotary lobe pumps have a number of advantages over the traditional pumps used in the winemaking sector: they are silent when operating, high powered, space-saving, have flexible installation and are long-lasting.

Our pumps are self-priming up to a depth of approximately 9 m, and can operate under dry conditions and up to 16 bar. They can flow in both directions, and solid material up to 90 mm in size can be easily moved. As our pumps are smaller and more lightweight than traditional pumps of comparable power, they can also be used in hard-to-reach, tight spaces.

Our range of products offers pumps of different sizes and configurations. Vogelsang's rotary lobe pumps can, therefore, be adapted to suit the needs of most applications. The softest, most suitable elastomers are suited to grapes as well as must, prolonging the life of the system.

Furthermore, a wide range of optional equipment is also available. This includes carts with non-marking wheels, different types of connectors, remote controls, pressure and flow sensors, automatic valves, liter-counters, etc.





"The pump is very quiet and stable. When it's on, you can see that it's perfectly still. Perfect for all types of transfers that go on in a winery."

Daniele Ress, oenologist at Schenk Italian Wineries (BZ), Italy

### WITH WI-FI CONNECTION FOR INDUSTRY 4.0



### Always connected: with touch screen control panel and a dedicated app for smartphones and tablets

Vogelsang presents its 2018 offering for the wine industry: the brand new control panel with intuitive touch screen. It is mounted on a stainless steel panel and provides a wide range of features and settings for the pump either automatically or remotely via the remote control or the dedicated app.

It displays all the real time capacity, pressure and flow values via the connection with various accessories available for the pump:

- Pressure gages
- Inverter
- Nonreturn valve
- Counters
- Flow meter
- Temperature sensor

Via the Wi-Fi connection you can now connect wirelessly to the company network, or take control using a dedicated application for smartphones and tablets (compatible with iOS and Android) developed exclusively for Vogelsang to allow reading of all pump values and related settings remotely or on the main display.

The available functions include automatic start and stop according to the meter measurements, reverse, speed and flow rate control, scheduled pumping times, pressure control and also a special function for filling casks.

Moreover, connecting the pump to the company Wi-Fi network allows it to be integrated into Industry 4.0 plans, thus allowing an initial analysis and assistance remotely by our operators in the event of a malfunction.



"The high performance of the pump makes it easier to fill the fermenters and, at the same time, the gentle pumping protects our high-quality wine from oxygenation."

Luigi Salgari, owner of Cantina Salgari (VR), Italy

#### What we offer

We provide solutions in the following sectors: AGRICULTURE, BIOGAS, INDUSTRY, TRANSPORTATION, WASTEWATER



#### Our broad range of products and services

- Consulting and service
- Data management and control technology
- Disintegration technology
- Individually tailored solutions for special applications
- Pumps and pump systems
- Solid matter feeders
- Solids reduction, separators and mixers
- Spreading technology
- Supply, disposal and cleaning

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