



PUMPING SYSTEMS DESIGNED FOR WINE & BEVERAGE APPLICATIONS

Wine Industry

Pumps that Love Grapes!

Why do so many wineries around the world choose Vogelsang over Waukesha®?*



* Waukesha® is a registered trademark of Waukesha Cherry-Burrell®, Delavan, WI, USA.
Vogelsang is not affiliated with Waukesha® in any way.

PUMPS THAT LOVE GRAPES

PORTABLE, POWERFUL, PERFECT!

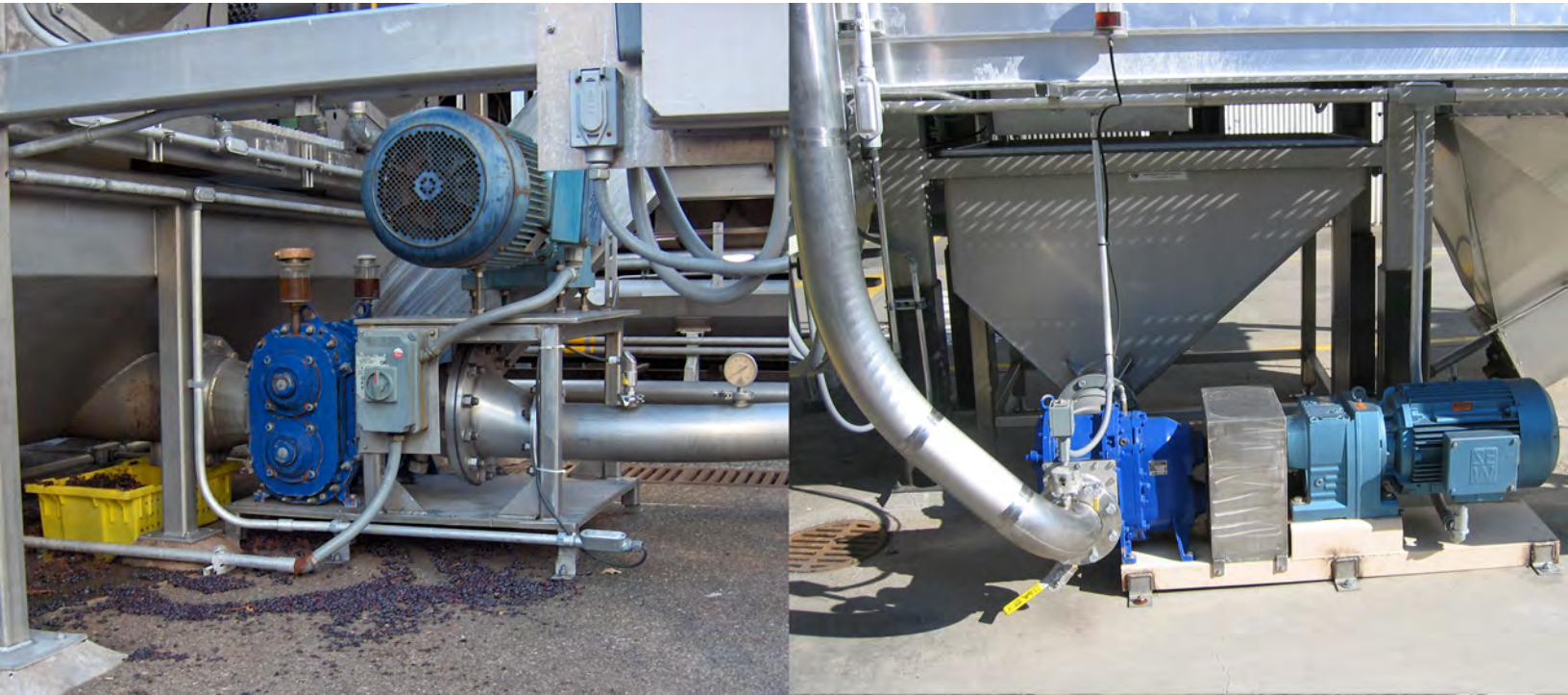
Gentle with Grapes, Minimal Shear, Whole Cluster Friendly

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.

Our rotary lobe pumps have quickly become more popular in the wine industry, due to the nature of our pump and lobe design, as well as the materials we choose. Your grapes & juice can be pumped throughout the winery with little damage as compared to progressing cavity, centrifugal, and metal lobe pumps. Our pumps aren't effected by foreign debris such as staples that typically cause damage and lock up like other types of pumps you may currently use.





IT'S ALL ABOUT THE LOBES

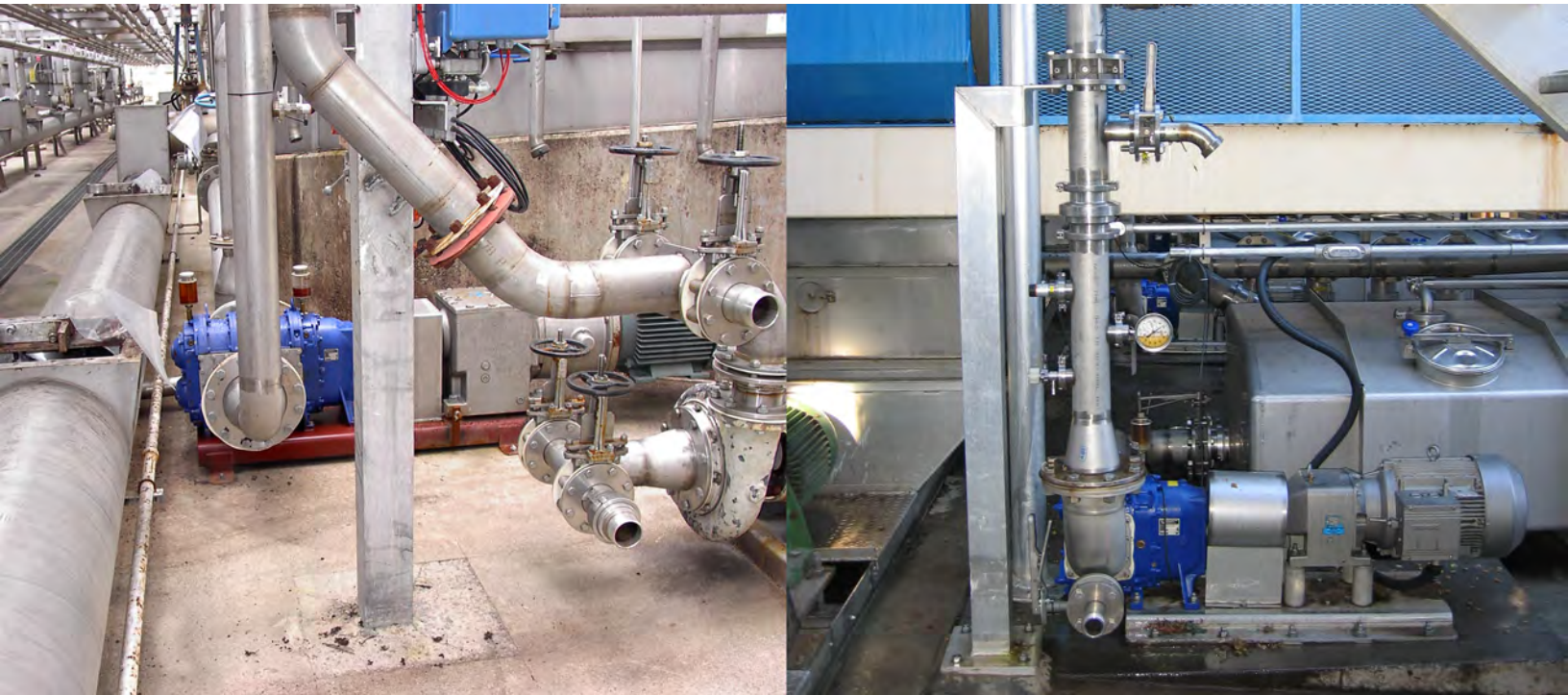
Pulsation Free, Gentle Pumping, and Variable Pressure

Experience the state of the art in positive displacement pumps. The Vogelsang HiFlo® Lobe design has an increased capacity compared to former lobe designs while eliminating pulsation. When you choose a Vogelsang Rotary Lobe Pump, you get a pump that is quieter, higher capacity, significantly smaller, and longer lasting than any traditional pump in the wine industry. The convoluted design of the HiFlo® Lobe provides a large cavity that's perfect for pumping grapes in clusters, must, lees or pomace. This design also makes it possible to achieve your desired pressure at a slower rpm which results in less damage to your grapes and minimal shear to your juice.

In addition, Vogelsang HiFlo® Rotary Lobe Pumps can self prime up to 25' (7.6m), run dry, discharge to over 232psi (16 bar), pump forward or in reverse, and pass solids up to 2.4" (61mm). Flows up to 4,400 gpm provide you with the fastest transfer rates in the industry.

Our pumps are also more compact 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 grapes. We offer pumps in many sizes and configurations to fit most any situation. There are also many options for internal parts. Softer less expensive elastomers are well suited for pumping grapes and juice, allowing longer equipment life.





DESIGNED TO HANDLE GRAPE CLUSTERS, STEMS & DEBRIS

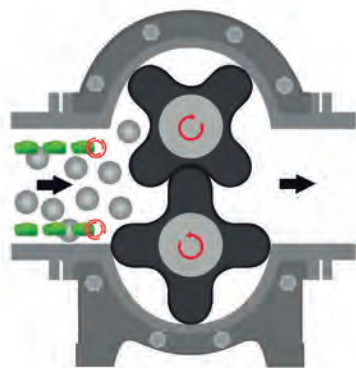
Won't Jam on Staples, Passes Grapes Gently

The combination of rubber lobes and our Injection Housing design options, we have the perfect pumping solution for passing grapes through the pump gently without jamming on staples or debris.

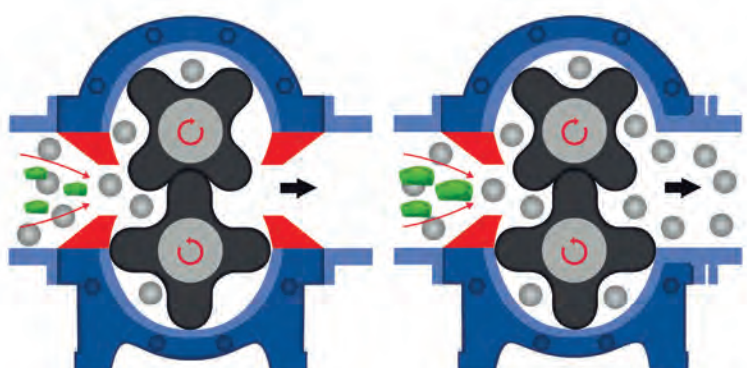
InjectionSystem Housing

Standard pump housing designs create a small vortex-effect on the suction side of the pump, allowing grapes and debris to become temporarily trapped. This will increase collisions between grapes and wear on the lobe tips.

The *Vogelsang InjectionSystem Housing* design eliminates the vortex-effect and efficiently channels grapes or juice medium through the pump while reducing wear on the lobe tips (see below).



Standard or "straight" pump housing



Vogelsang InjectionSystem Housing Options (detailed in red)



QUICK & EASY INLINE MAINTENANCE

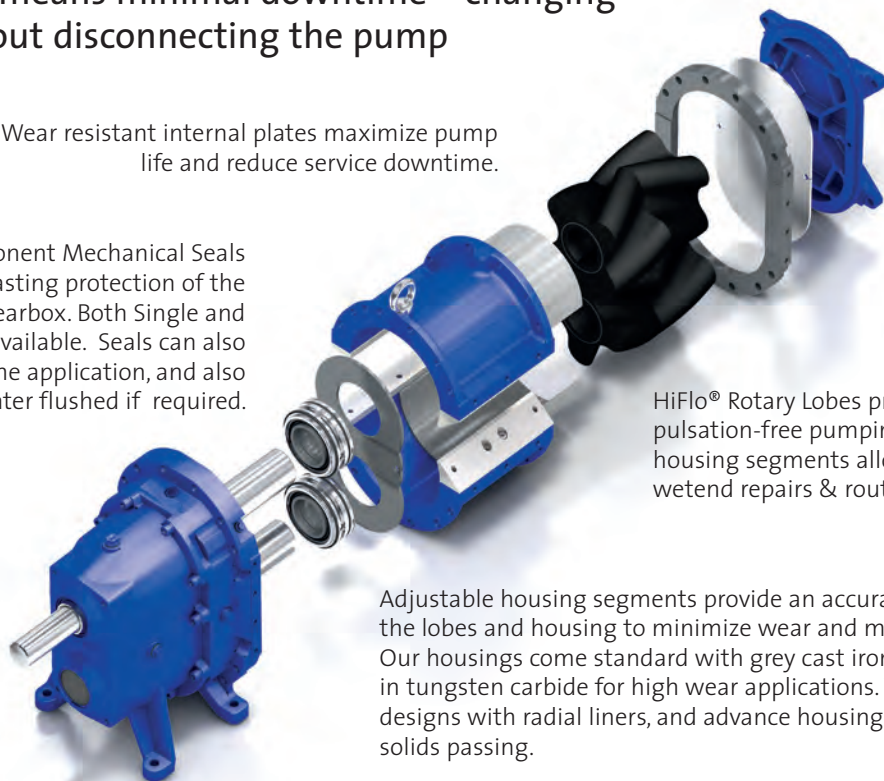
Quick & Easy Access to Internal Parts

Inline maintenance means minimal downtime—changing wet-end parts without disconnecting the pump

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 lobe wear, seal and bearing failure caused by shaft deflection. We have 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

Vogelsang Stainless Steel Wine Pump Applications

Our pumps can be configured in a multi-purpose portable cart configuration or as a stationary unit. Our cart mounted pumps can easily be moved to various stations throughout your winery for pumping grapes and juice. For larger volume wineries, we offer several larger stationary or cart mounted single application pumps that may be customized in several configurations to suit many of your applications.

Must

The best pump to move your grapes from a hopper or crusher into a holding tank is the one that delivers them most in tact. Centrifugal pumps, used by many wineries, do tremendous damage to grapes by applying excessive force as a result of the high rpm needed to achieve adequate pressure. High rpm centrifugal pumps also shear the juice. Vogelsang rotary lobe pumps do not need to revolve as fast to achieve the appropriate pressure required to move grapes into your holding tank resulting in better grape and juice quality with minimal shear.

Progressing cavity pumps tend to smash grapes and seeds releasing oil into the juice which will affect the taste of your wine. They are also known to severely damage grape skins.

These also pumps require higher horsepower motors and are very sensitive to foreign objects and debris, such as staples that commonly get into the must. Our smaller rotary lobe pumps require less power for the same capacity as a progressing cavity pump, and are able to pass solids up to 2.5" (61mm).

Other lobe pumps use straight, not convoluted, two or three tipped lobes made from stainless steel that don't feature the large internal cavity that our pumps have. This style of lobe crushes grapes, seeds stems and skins. Because their steel construction will not give like our elastomeric lobes, these pumps will frequently lock up from staples and other debris. The straight three lobe design made from any material has the highest pulsation rate of all lobe designs.



Lees

Vogelsang pumps are also ideal for pumping lees into your next holding tank. In this application, centrifugal pumps can airlock when the lees becomes thicker as the tank is emptied, often requiring manually pushing thicker lees into the pump intake opening. This is also an opportunity for your lees to become sheared. Our pump design will not airlock as it is designed to pump highly viscous liquids containing solids and needs no manual assistance. This is another application where smaller volume wineries can use their portable configured must pump.

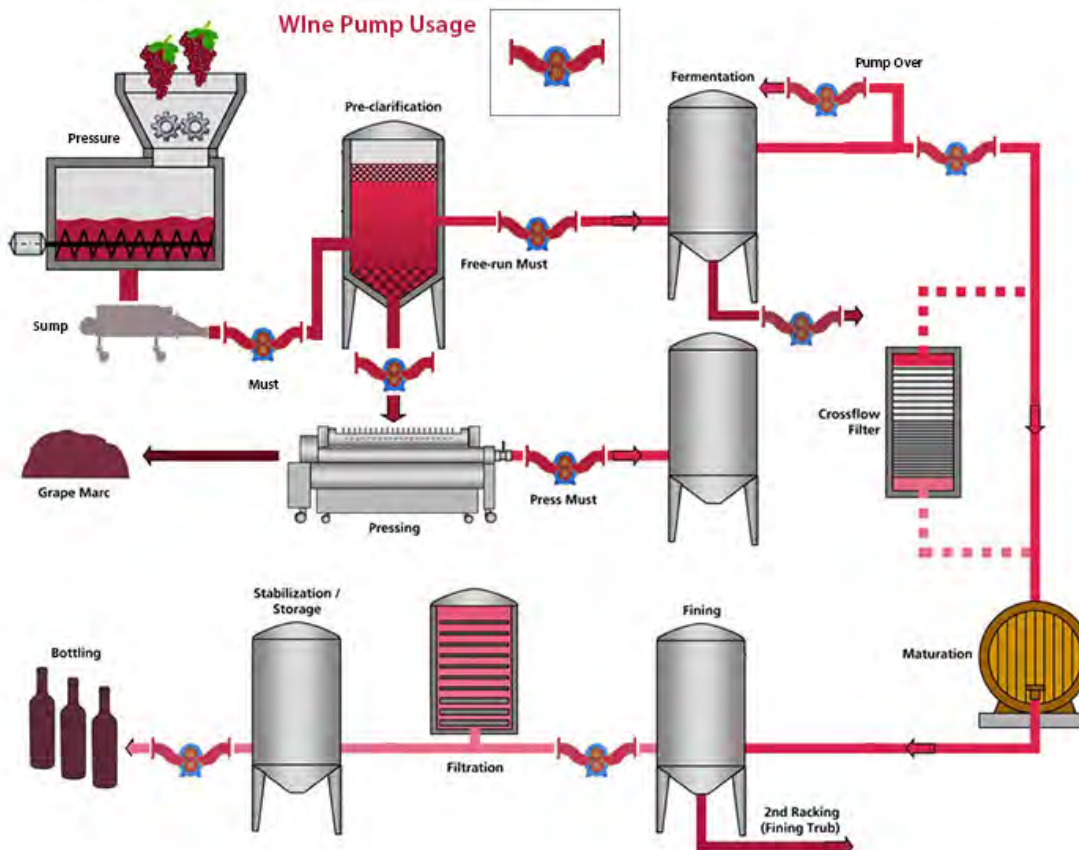
Pump Over

Vogelang pumps are great for pump over applications. As with the must pump applications, centrifugal pumps shear the liquid each time the juice is cycled through the pump. The longer you pump over the juice, the more aerated it gets. With a Vogelsang pump, you get minimal liquid shear so you can pump over the juice longer, which enables you to extract more of the flavor from the must. For smaller wineries that choose a smaller portable rotary lobe pump for must applications, a separate set of hoses can be configured so you can use the same unit for your pump over application.

Pressed Juice & Barrel Racking

The intermeshed convoluted rotors of the HiFlo® pump move in unison to create a constant flow rate, drawing juice into an expanding cavity, then pumping it out on the discharge end with less pulsation. This low pulsation makes it ideal for transfer of pressed juice and for barrel racking

APPLICATIONS





WINE-GRAPE SCREW SUMPS

Screw Sump Details

Screw sumps to go perfectly along with your systems. Designed with the cart pump in mind, or designed for stationary pumps, we package all of the controls to work together for a common running system.

Shown to the right is our standard screw sump configuration. This is our turn-key pump offering to the wine industry.

- 304 Stainless Steel Construction
- 304 Stainless
- 12 Gauge Stainless Steel Body
- Stainless Steel Rubber Casters with Brake
- Seal-welded Screw
- UHMW Flight Edging
- NEMA 4x VFD
- 50 ft Power Cable
- 10 ft of connection cord to the must pump control for stop/start



| Model | Designed for | Screw Size | Capacity | HP / RPM | Controls | VFD* | Flange Size** |
|--------------|--------------------------|------------|------------|----------|----------|-------|--------------------------------------|
| 130 Sump | VX100-128Q | 9" | 40 Tons/hr | 2 / 60 | NEMA 4X | Lenze | 4" Male Camlock |
| 220/320 Sump | VX136-105Q VX136-140Q | 12" | 60 Tons/hr | 2 / 60 | NEMA 4X | Lenze | 4" Male Camlock 6" ANSI RF Flange |

*Other VFD manufactures and control options are also available on request. **Other sizes and designs are available on request.



STANDARD WINE CARTS - (ADDITIONAL OPTIONS AVAILABLE)

Pump Pricing & Features

The Vogelsang Stainless Steel Wine Cart includes the follow features:

- Vogelsang 316 Stainless Steel Wine Pump, equipped with Elastomeric HiFlo® Rotary Lobes
- 4-Wheel 304 Stainless Steel Cart with solid rubber wheels
- Nord Geared Inverter Duty Motor
- 230, 460, or 575 volt VFD Drive
- Variable Speed Potentiometer with 50 ft of control cable
- 50 ft, Power Cord
- 304 Stainless Steel, Flanges



| Model | Compare To* | Flow Range | HP | Controls | VFD** | Flange Size*** |
|------------|---------------|---------------|-----|----------|-------|----------------|
| VX100-64Q | Waukesha® 60 | Up to 65 GPM | 5 | NEMA 4X | Lenze | 2.5" Tri-Clamp |
| VX100-128Q | Waukesha® 130 | Up to 150 GPM | 7.5 | NEMA 4X | Lenze | 3" Tri-Clamp |
| VX136-105Q | Waukesha® 220 | Up to 250 GPM | 15 | NEMA 4X | Lenze | 4" Tri-Clamp |
| VX136-140Q | Waukesha® 320 | Up to 350 GPM | 20 | NEMA 4X | Lenze | 6" ANSI |

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** Other VFD manufactures and controls also available on request. *** Other flange styles and sizes are available on request.



CUTTING EDGE MATERIALS, QUALITY CONSTRUCTION, AND SUPERIOR CUSTOMER SERVICE

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 will optimize the equipment for your specific needs.

This benefits you both in equipment life and in product quality. Our softer elastomeric lobes won't crush the grapes or seeds the way other pumps often do, which ultimately influences the taste of your wine.

Quality Custom Construction

Our production team will configure your equipment to the appropriate size and application for your winery, whether it be a portable pump to handle multiple tasks or a fixed pump for specific applications. Our pumps are available in many sizes and capacities that will suit any size winery's requirements.

We offer the highest standard of construction and materials to ensure you get the most equipment life possible. The versatility of our products make it possible to configure them for tight areas with limited accessibility. Our pumps are smaller and lighter than traditional pumps of the same capacity. This makes it possible to get them into areas where others 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 dealers are located throughout the country, making sure you can find a local distributor in your area. Whether it be service, parts, or general questions we are hear to support your needs.



VX & IQ Pump Series Performance Specifications

| Model | | Capacity (Max) gpm m ³ /h | | Displacement gal/100rev l/100rev | | Max. Solids in mm | | Flange Size in mm | | Max Pressure Q: psi bar QD: psi bar | | | | Max. Speed rpm 1/min |
|-------|-------|--|------|---------------------------------------|------|---------------------------|----|---------------------------|-----|---|----|-----|----|---------------------------|
| VX100 | 45 | 79 | 18 | 7.7 | 29 | .75 | 20 | 2.5 | 65 | 145 | 10 | | | 1000 |
| | 64 | 110 | 25 | 11.1 | 42 | .75 | 20 | 3.0 | 80 | 131 | 9 | | | 1000 |
| | 90 | 154 | 35 | 15.6 | 59 | .75 | 20 | 4.0 | 100 | 102 | 7 | | | 1000 |
| | 128 | 220 | 50 | 22.2 | 84 | .75 | 20 | 4.0 | 100 | 58 | 4 | | | 1000 |
| VX136 | 70 | 264 | 60 | 33.5 | 127 | 1.50 | 40 | 4.0 | 100 | 145 | 10 | 174 | 12 | 800 |
| | 105 | 396 | 90 | 50.0 | 190 | 1.50 | 40 | 4.0 | 125 | 145 | 10 | 174 | 12 | 800 |
| | 140 | 528 | 120 | 67.0 | 253 | 1.50 | 40 | 6.0 | 125 | 116 | 8 | 174 | 12 | 800 |
| | 210 | 793 | 180 | 100.0 | 380 | 1.50 | 40 | 6.0 | 150 | 73 | 5 | 145 | 10 | 800 |
| | 280 | 881 | 200 | 134.0 | 506 | 1.50 | 40 | 6.0 | 150 | | | 116 | 8 | 800 |
| | 420 | 1,321 | 300 | 200.0 | 759 | 1.50 | 40 | 6.0 | 150 | | | 87 | 6 | 800 |
| | 140M2 | 264 | 60 | 33.5 | 127 | 1.50 | 40 | 6.0 | 125 | | | 232 | 16 | 650 |
| | 210M2 | 396 | 90 | 50.0 | 190 | 1.50 | 40 | 6.0 | 150 | | | 232 | 16 | 650 |
| | 280M2 | 528 | 120 | 67.0 | 253 | 1.50 | 40 | 6.0 | 150 | | | 203 | 14 | 650 |
| | 420M2 | 793 | 180 | 100.0 | 380 | 1.50 | 40 | 6.0 | 150 | | | 174 | 12 | 650 |
| VX186 | 92 | 550 | 125 | 94.0 | 356 | 2.50 | 61 | 6.0 | 125 | 145 | 10 | | | 600 |
| | 130 | 793 | 180 | 133.0 | 503 | 2.50 | 61 | 6.0 | 150 | 145 | 10 | 174 | 12 | 600 |
| | 184 | 1,101 | 250 | 188.0 | 712 | 2.50 | 61 | 6.0 | 150 | 116 | 8 | 174 | 12 | 600 |
| | 260 | 1,585 | 360 | 266.0 | 1006 | 2.50 | 61 | 8.0 | 200 | 73 | 5 | 145 | 10 | 600 |
| | 368 | 2,245 | 510 | 376.0 | 1424 | 2.50 | 61 | 10.0 | 250 | 44 | 3 | 116 | 8 | 600 |
| | 390 | 2,378 | 540 | 399.0 | 1509 | 2.50 | 61 | 10.0 | 250 | 44 | 3 | 102 | 7 | 600 |
| | 520 | 3,170 | 720 | 532.0 | 2012 | 2.50 | 61 | 10.0 | 250 | | | 87 | 6 | 600 |
| | 736 | 4,403 | 1000 | 752.0 | 2848 | 2.50 | 61 | 14.0 | 350 | | | 44 | 3 | 600 |
| | 184M2 | 550 | 125 | 94.0 | 356 | 2.50 | 61 | 6.0 | 150 | | | 232 | 16 | 600 |
| | 260M2 | 793 | 180 | 133.0 | 503 | 2.50 | 61 | 8.0 | 250 | | | 232 | 16 | 600 |
| | 368M2 | 1,101 | 250 | 188.0 | 712 | 2.50 | 61 | 10.0 | 250 | | | 203 | 14 | 600 |
| | 520M2 | 1,585 | 360 | 266.0 | 1006 | 2.50 | 61 | 10.0 | 250 | | | 174 | 12 | 600 |
| IQ112 | 81Q | 242 | 55 | 27.0 | 1.02 | 1.30 | 33 | 4.0 | 100 | 116 | 8 | | | 900 |
| | 114Q | 343 | 78 | 38.0 | 1.44 | 1.30 | 33 | 4.0 | 100 | 72 | 5 | | | 900 |

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 wastewater 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:

Vogelsang

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