VOGELSANG
ENGINEERED TO WORK

PRODUCTS DESIGNED FOR FOOD & FOOD WASTE HANDLING APPLICATIONS

# Poultry & Meat Processing

Energy-efficient with gentle pumping action.

Industry | Wastewater | Biogas | Agriculture | Meat

**ROBUST, RESILIENT, RELIABLE!**

# Robust products for tough applications

Vogelsang has been a leader in the design and manufacture of pumping and grinding products for over 80 years. During this time, we've been responsible for most of the major innovations in positive displacement rotary lobe pump design and the invention and development of the RotaCut® Inline Grinder. Additionally we offer the XRipper® twin shaft grinder for large wet or dry solids grinding. Vogelsang is proud to build its products in the US and also to service thousands of installations and satisfied customers all over the world.

**VX Series Rotary Lobe Pumps**

**RotaCut® Inline Grinders**

**XRipper® Inline Grinders**

## WORKING WITH VOGELSANG

### Cutting Edge Materials

Every application of our products requires ideal material choices to optimize performance 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 performance. Our wear parts come in several material options to get you the best possible life.

### Quality Custom Construction

Our production team will design your equipment to the most effective size and configuration for your application. We can build a compact unit to fit tight installation areas or a special flange design to allow a precise fit into and existing system. Our products are available in many sizes and capacities that will suit many application requirements. We offer the highest standard of construction and materials to ensure you get the highest quality product possible.

### Service & Warranty

Our relationship doesn't end with the sale. Expect quick and expert advice and troubleshooting about our products once they're installed. When you need service or maintenance, we'll be there on time to get your system back up and running fast.

We offer 1-year manufacturers defect warranty to our industrial customers.

**ROBUST, RESILIENT, RELIABLE!**

# High performance pumping, low engery consumption.

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 popular in the poultry and meat processing industry. Due to the nature of our pump and lobe design as well as the materials we choose, liquids such as emulsion, pin floc, FOG, DAF & Wastewater can be moved throughout your process with no damaging pulsaton or liquid shearing. Vogelsang users also reduce energy costs associated with pumping by up to 80% when compared to AOD pumps commonly found in poultry applications!

## The VX HiFlo Rotary Lobe Pump Product Line.

Vogelsang offers a full line of Rotary Lobe Pump models to suit various applications and operating conditions. The VX HiFlo Q series is our standard design and works well in most applications requiring a positive displacement pump. For increased flow and medium pressure, we offer the VX HiFlo QD series which features a much larger wet end and outboard bearing configuration to eliminate deflection. For high flow and high pressure applications, the Marathon QD M2 series handles pressures to over 200psi in a two stage outboard bearing configuration.

All Vogelsang pumps can run dry without damage, self prime and run in forward or reverse. Vogelsang pumps are great for suction lift applications up to 25' (7.6m). Due to our convoluted HiFlo Lobe design, the pump delivers pulsation free pumping action making it ideal for applications such as dewatering feed.

HiFlo VX Q Series VX136

HiFlo VX QD Series VX186

HiFlo VX QD M2 Series VX186

## How the Rotary Lobe Pump Works

Two intermeshed lobes are affixed each to gear driven shaft. The shafts rotate in opposite directions. The rotating motion of the lobes creates an expanding cavity on the suction side. This allows fluid to enter and fill the suction side of the pump. The rotors carry the fluid around the housing to the discharge side where it is expelled out of the pump by the closing cavity.

Hard solids are passed through the pump within the cavities between the lobe and outer housing. The Vogelsang pump can pass most any solid that can fit in the cavity. Maximum non-compressible solid size varies by pump model up to 2.5".

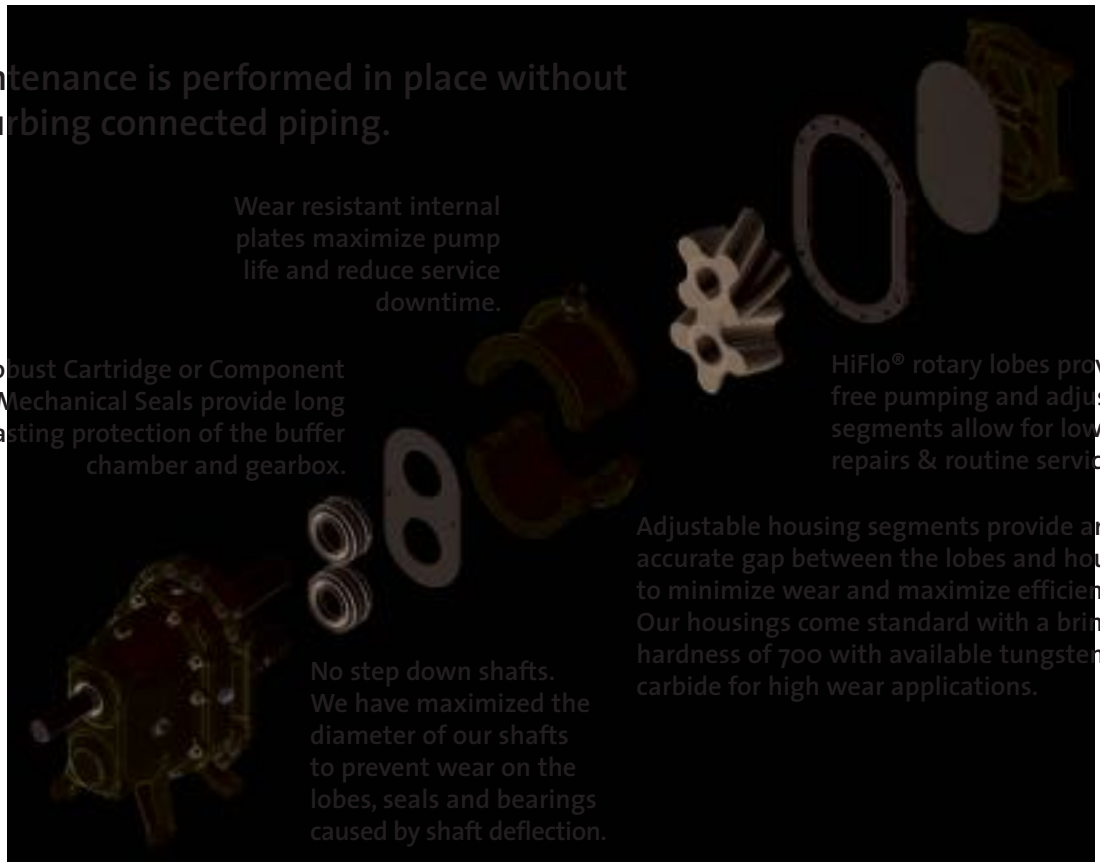
**IT'S ALL ABOUT THE LOBES**

## Pulsation Free, High Abrasives & Low Shear

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 and abrasive sludge. This design also makes it possible to achieve a required pressure at a slower rpm which results in less damage to lobes and minimal wear to the rest of the pump.

The gentle pumping action of the HiFlo® Lobe is also friendly to shear sensitive liquids. This also applies to applications where large amounts of entrained air is present in the liquid.

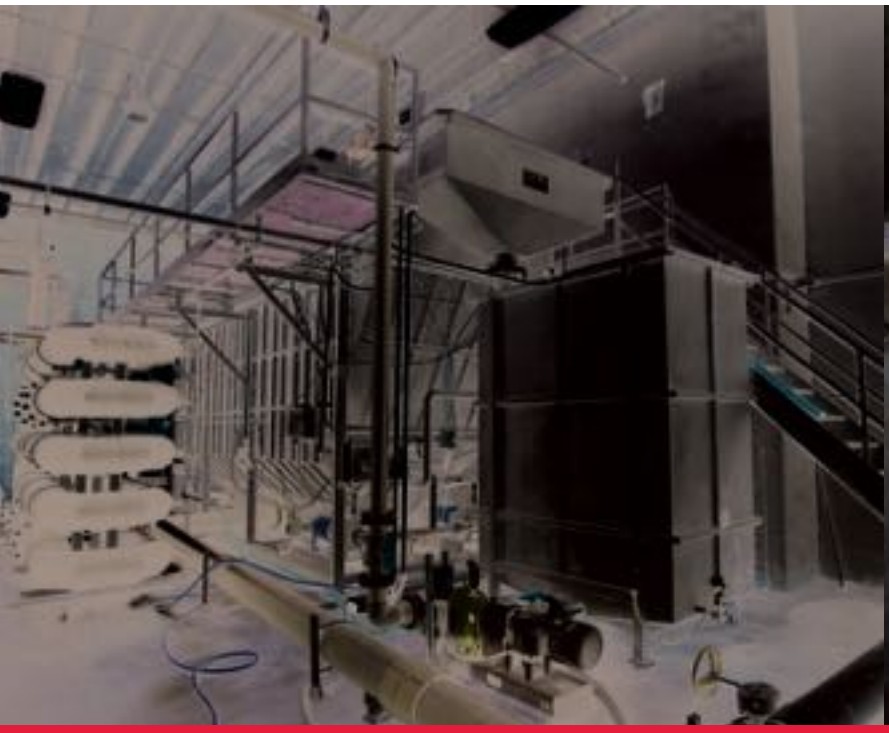
Vogelsang offers four and six wing lobe options in the VX100 series and four wing for the VX136 & VX186 series. There are several elastomer options for maximum chemical compatibility, abrasiveness and temperature requirements.




**QUICK & EASY INLINE MAINTENANCE**

## VX Pump Series Performance Specifications:

| Model | | Capacity | | Displacement | | Max. Solids | | Flange Size | | Max Pressure | | | | Max. Speed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | gpm | m3/h | gal/100rev | l/100rev | in | mm | in | mm | Q: psi | bar | QD: psi | bar | rpm 1/min |
| VX100 | 45 | 13-57 | 3-13 | 7.7 | 29 | .79 | 20 | 2.5 | 65 | 145 | 10 | | | 1000 |
| | 64 | 22-84 | 5-19 | 11.1 | 42 | .79 | 20 | 3.0 | 80 | 131 | 9 | | | 1000 |
| | 90 | 26-1114 | 6-26 | 15.6 | 59 | .79 | 20 | 4.0 | 100 | 102 | 7 | | | 1000 |
| | 128 | 40-167 | 9-38 | 22.2 | 84 | .79 | 20 | 4.0 | 100 | 58 | 4 | | | 1000 |
| VX136 | 70 | 44-198 | 10-45 | 33.5 | 127 | 1.57 | 40 | 4.0 | 100 | 145 | 10 | 174 | 12 | 800 |
| | 105 | 66-308 | 15-70 | 50.2 | 190 | 1.57 | 40 | 4.0 | 125 | 145 | 10 | 174 | 12 | 800 |
| | 140 | 88-396 | 20-90 | 66.8 | 253 | 1.57 | 40 | 6.0 | 125 | 116 | 8 | 174 | 12 | 800 |
| | 210 | 132-616 | 30-140 | 100.4 | 380 | 1.57 | 40 | 6.0 | 150 | 73 | 5 | 145 | 10 | 800 |
| | 280 | 176-793 | 40-180 | 133.7 | 506 | 1.57 | 40 | 6.0 | 150 | | | 116 | 8 | 800 |
| | 420 | 264-1233 | 60-280 | 200.5 | 759 | 1.57 | 40 | 6.0 | 150 | | | 87 | 6 | 800 |
| | 140M2 | 44-198 | 10-45 | 33.5 | 127 | 1.57 | 40 | 6.0 | 125 | | | 232 | 16 | 650 |
| | 210M2 | 66-308 | 15-70 | 50.2 | 190 | 1.57 | 40 | 6.0 | 150 | | | 232 | 16 | 650 |
| | 280M2 | 88-396 | 20-90 | 66.8 | 253 | 1.57 | 40 | 6.0 | 150 | | | 203 | 14 | 650 |
| | 420M2 | 132-616 | 30-140 | 100.4 | 380 | 1.57 | 40 | 6.0 | 150 | | | 174 | 12 | 650 |
| VX186 | 92 | 88-440 | 20-100 | 94.0 | 356 | 2.40 | 61 | 6.0 | 125 | 145 | 10 | 174 | 12 | 600 |
| | 130 | 132-638 | 30-145 | 132.9 | 503 | 2.40 | 61 | 6.0 | 150 | 145 | 10 | 174 | 12 | 600 |
| | 184 | 176-881 | 40-200 | 188.1 | 712 | 2.40 | 61 | 6.0 | 150 | 116 | 8 | 174 | 12 | 600 |
| | 260 | 264-1277 | 60-290 | 265.8 | 1006 | 2.40 | 61 | 8.0 | 200 | 73 | 5 | 145 | 10 | 600 |
| | 368 | 352-1761 | 80-400 | 376.2 | 1424 | 2.40 | 61 | 10.0 | 250 | 44 | 3 | 116 | 8 | 600 |
| | 390 | 396-1915 | 90-435 | 398.6 | 1509 | 2.40 | 61 | 10.0 | 250 | 44 | 3 | 102 | 7 | 600 |
| | 520 | 528-2554 | 120-580 | 531.0 | 2012 | 2.40 | 61 | 10.0 | 250 | | | 87 | 6 | 600 |
| | 736 | 704-3522 | 160-800 | 752.4 | 2848 | 2.40 | 61 | 14.0 | 350 | | | 44 | 3 | 600 |
| | 184M2 | 88-440 | 20-100 | 94.0 | 356 | 2.40 | 61 | 6.0 | 150 | | | 232 | 16 | 600 |
| | 260M2 | 132-638 | 30-145 | 132.9 | 503 | 2.40 | 61 | 8.0 | 250 | | | 232 | 16 | 600 |
| | 368M2 | 176-881 | 40-200 | 188.1 | 712 | 2.40 | 61 | 10.0 | 250 | | | 203 | 14 | 600 |
| | 520M2 | 264-1277 | 60-290 | 265.8 | 1006 | 2.40 | 61 | 10.0 | 250 | | | 174 | 12 | 600 |



## APPLICATIONS

Our pumps are an ideal choice in several positions throughout a poultry processing plant.

Choosing a Vogelsang Rotary Lobe pump not only reduces maintenance costs and downtime but reduces energy consumption costs associated with pumps and compressors.

### Emulsion

Emulsions are known to be extremely shear sensitive. Vogelsang pumps perform evenly and gently with the liquid and are virtually shear-free. Our convoluted HiFlo lobes are perfectly balanced to deliver an even flow of liquid without pulsation that can break an emulsion.

The rotary lobe pump design is ideal for pumping liquids such as emulsion that contain fats and other viscous elements common in poultry waste processing.

Due to the low pH associated with emulsions, our common elastomers such as NBR or EPDM are typically well suited for this type of application.

### Precipitation & Coagulation

This applications requires handling of heavier solids and debris such as bones and other objects commonly found in poultry waste. The pH level liquid is usually raised and can be around 8.5. It can contain caustics and coagulants such as Alum or PAC to break down emulsified liquid. The resulting pin floc requires a pump that can handle liquids with high levels of entrained air. Rotary lobe pumps are perfect for handling such liquids and can not only pump the liquid but not increase the entrained air in the pumping process.

## Flash Mix & Flocculation

Gentle pumping action and shear sensitivity becomes critical at this point in the process. As flocculents are introduced to the liquid a pump is required to move the coagulated floc to the clarifier for separation and dewatering.

As with the initial two applications, the rotary lobe pump is the ideal design to keep the floc intact to maximize the effects of the dewatering processes.

## Dissolved Air Flotation (DAF)

DAF Sludge & Skimming is another ideal application for the Vogelsang HiFlo Rotary Pump.

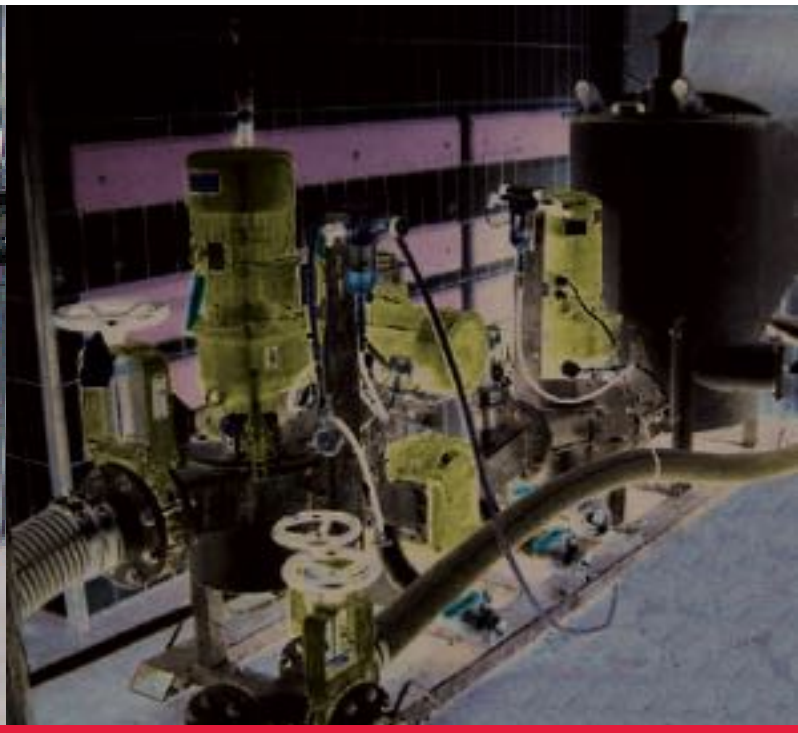
Vogelsang pumps are designed to pump highly viscous sludges containing particles, debris and other organic solids commonly found in poultry waste. The most difficult part of DAF is the sludge is air entrained nature of the process. Vogelsang's exclusive HiFlo® lobe design allows the pump to pass up to 80% air without damage to the pump. Our pumps can pump forward or reverse on the fly, pull a suction lift to 25' (8m) and operate in a flooded suction environment.

This allows Vogelsang users to specify one brand of pump for use throughout the process which can cut costs on spare parts and downtime.

## Sludge Dewatering

Vogelsang pumps are perfect for feeding a Filter Press, Centrifuge, Filter Box or other types of dewatering equipment.

The pulsation-free pumping action provides and even feed of sludge to the belt which maximizes the effectiveness of the dewatering process.



**MAXIMUM SOLIDS HANDLING**

# High Performance Maceration, Grinding & Solids Separation.

Vogelsang offers two styles of grinding products for all kinds of solids handling applications. Adding a Vogelsang grinder to your system ensure that all solids present in the stream are suitable for downstream pumps, process componenets and dewatering equipment to accept without damage or clogging. Our RotaCut® inline grinder offers true pump protection from harmful heavy solids and debris. The RotaCut® not only reduces solids but removes hard objects from the liquid stream through its inegrated solids separator.

The XRipper® twin shaft inline and dry-feed grinder reduces large and fibrous solids to a size suitable for downsteam equipment to accept.

**RotaCut® RCX**
**Inline Grinder**

**XRipper® XRS**
**Inline Twin Shaft Grinder**

## Cutting Edge Materials

As with our pumps, Vogelsang grinders are available in several high wear materials that can stand up to varying pH levels and abrasives commonly encountered in poultry process applications. All cutting and housing elements are available in stainless steel. Cutting elements are also available in tungsten carbide for high wear applicatons.

## Quality Custom Construction

Both the RotaCut® and the XRipper® are available in numerous configurations and model types. Our engineering staff can adapt either product in a variety of ways to fit into most any existing process arrangement.

Either product offers the unique ability to alter the direction and configuration of flanges. Either are also available in an upright or horizontal mounting orientation.

## System Efficiency

Adding a Vogelsang RotaCut® or XRipper® maximizes the efficiency of the overall process. Proper solids reduction and separation is vital to the performance of many of the compenents that make up the process. Solids handling also prevents clogging and keeps the piping flowing freely.

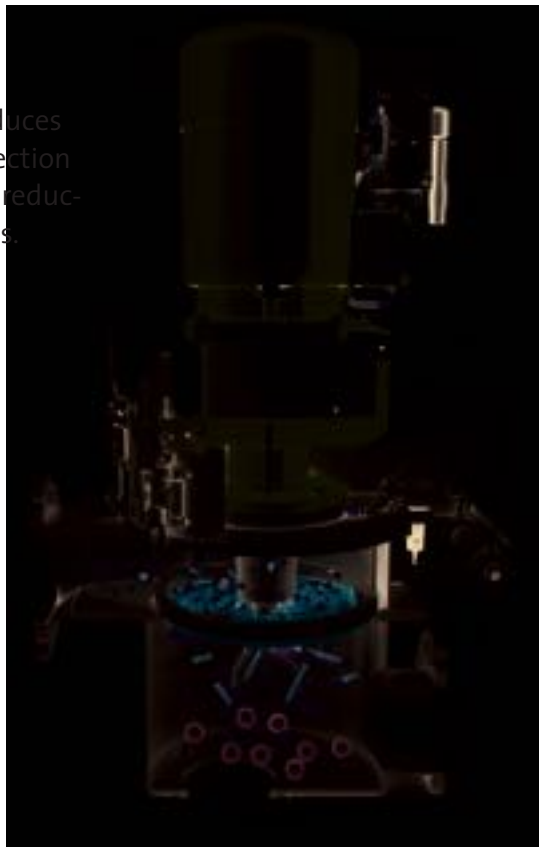
Both the RotaCut® and XRipper® are able to be paired up with our pump to create a pumping & grinding station in one compact package.

In terms of energy conservation, Vogelsang users can run both the pump and a grinder while still using less power than one AOD pump!

**XRipper® XRL**
**Dry Feed Twin Shaft Grinder**

## How the RotaCut® Works

When placed on the suction side of a pump, the RotaCut® effectively reduces floating solids in the liquid stream. Heavy solids are captured in the collection basin and eliminated entirely from the liquid. The combination of solids reduction and separation provide true protection for downstream components.



AutoReverse is how the RotaCut® handles large objects by reversing the rotation of the blades until the object is cleared, reduced and passed through the screen. AutoReverse engages at preset intervals which keeps the blades wearing evenly. The trailing edge of the blade is sharpened as a natural effect of the cutting process. When the rotation is reversed a fresh edge enhances the cutting quality.

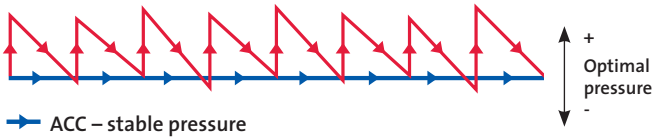
**INCREDIBLE SOLIDS HANDLING & MAXIMUM LIFE CYCLE**

## Quality Performance & Control

The RotaCut® requires direct contact between the blades and the cutting screen. This is how it achieves the scissor-like cut. The blades are designed to wear over time but must wear evenly to achieve maximum lifecycle between routine replacement. To ensure that the blades last as long as possible, the RotaCut® includes a standard feature know as Auto Cut Control or ACC.

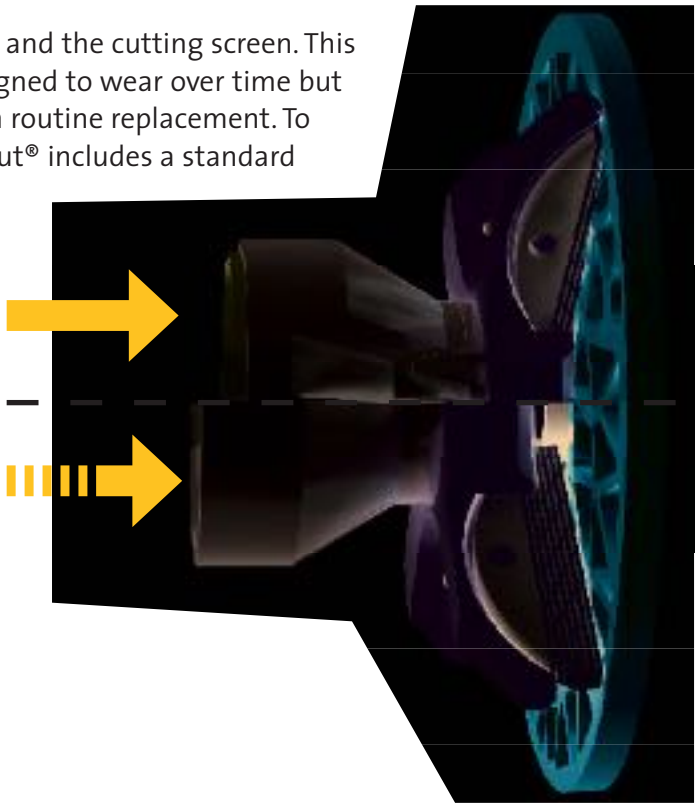
ACC ensures high cutting performance at all times by automatically adjusting the blades as normal wear progresses. ACC completely eliminates manual maintenance of the cutting head tension. The entire process is controlled externally which minimizes the need to open the unit.

The diagram below demonstrates the difference between manual adjustment versus real time automatic pressure optimization.




ACC – stable pressure

Manual preloading system: fluctuating pressure; excessive pressure causes unnecessary wear



## Easy Inline Maintenance

One of the best features of the RotaCut® is how easy it is to maintain. Everything can be done inline in minutes without removing any connected piping. The RC series are all designed with a hinged cutting head that can be accessed by disengaging one or more hand latches. The head is disassembled by removing the allen bolt that holds the entire assembly together. At this point routine service such as blade or screen changes can be performed quickly.

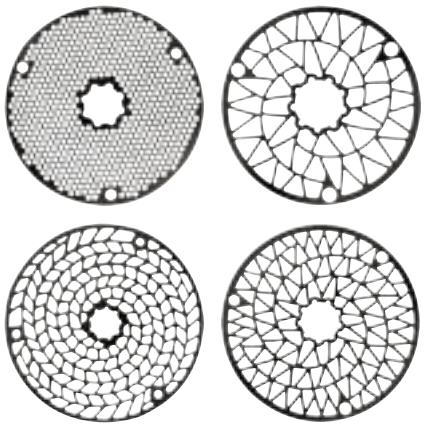
The RCX model features a quick release door allowing access to the cutting head.

Typical routine service such as changing blades or flipping the reversible cutting screen takes only a fraction of the time required to service a typical twin shaft grinder. In addition there are no cartridge style parts that require factory refurbishment.

**QUICK & EASY INLINE MAINTENANCE**

## RotaCut® Grinder Performance Specifications:

| Model | Capacity | | Motor Power | | Cut Solids | | Flange Size | | Max Pressure | | Motor | | Speed Options |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | gpm | m3/h | hp | kW | in | mm | in | mm | psi | bar | Gear | Hyd | rpm 1/min |
| RCQ 20 Inline | 396 | 90 | 1.5-3.0 | 1.1-2.2 | .39-0.78 | 9-20 | 4 | 100 | 30 | 2 | Yes | No | 87-320 |
| RC 3000 Inline | 792 | 180 | 2.0-5.0 | 1.5-4.0 | .31-1.10 | 8-28 | 6 | 150 | 30 | 2 | Yes | Yes | 76-326 |
| RC 3000 Cyclone | 792 | 180 | 2.0-5.0 | 1.5-4.0 | .31-1.10 | 8-28 | 6 | 150 | 30 | 2 | Yes | Yes | 76-326 |
| RC 5000 Inline | 1320 | 300 | 2.0-10.0 | 1.5-7.5 | .15-1.18 | 4-30 | 6 | 150 | 30 | 2 | Yes | Yes | 73-330 |
| RC 5000 Cyclone | 1320 | 300 | 2.0-10.0 | 1.5-7.5 | .15-1.18 | 4-30 | 6 | 150 | 30 | 2 | Yes | Yes | 73-330 |
| RC 5000 Compact | 1320 | 300 | 2.0-10.0 | 1.5-7.5 | .15-1.18 | 4-30 | 6 | 150 | 44 | 3 | Yes | Yes | 73-330 |
| RC 10000 Inline | 2640 | 600 | 3.0-10.0 | 2.2-7.5 | .15-1.50 | 4-38 | 8 | 200 | 30 | 2 | Yes | Yes | 66-319 |
| RC 10000 Cyclone | 2640 | 600 | 3.0-10.0 | 2.2-7.5 | .15-1.50 | 4-38 | 8 | 200 | 30 | 2 | Yes | Yes | 66-319 |
| RC 10000 Compact | 2640 | 600 | 3.0-10.0 | 2.2-7.5 | .15-1.50 | 4-38 | 8 | 200 | 44 | 3 | Yes | Yes | 66-319 |
| RC 10000 Compact XL | 2640 | 600 | 3.0-10.0 | 2.2-7.5 | .15-1.50 | 4-38 | 8 | 200 | 44 | 3 | Yes | Yes | 66-319 |
| RCX 48 Inline | 2640 | 600 | 7.5-15.0 | 5.5-11.0 | .15-1.50 | 4-38 | 8 | 200 | 87 | 6 | Yes | No | 114-311 |
| RCX 58 Inline | 3300 | 750 | 10.0-20.0 | 7.5-15.0 | .31-1.33 | 8-34 | 10 | 254 | 87 | 6 | Yes | Yes | 94-276 |



Specify a required cut size using one of several pattern cutting screens.

Screens come several patterns that will produce a designated size solid. The rotational speed of the cutting head also influences the solid size. The examples shown will produce a different solid size and are easily interchangeable should operating conditions change. Screens are available in several material options for high wear applications. All RotaCut® screens are reversible to allow for a fresh cutting surface without buying a new spare part.

**HEAVY WET & DRY SOLIDS REDUCTION**

# Heavy Solids Grinding

The XRipper® twin shaft grinder effectively reduces large solids to manageable size for further solids reduction or for downstream pumps and equipment to process without clogging or damage.

What sets the XRipper® apart from other twin shaft grinders is its unique cutting elements. Traditional twin shaft grinder cutters are stacked up along the shaft using smaller individual blades and components. The main disadvantages of the traditional design is the complexity of maintenance and high cost of repair. Periodic factory service is required to keep a traditional twin shaft grinder operating
efficiently which affects maintenance costs and increases downtime.

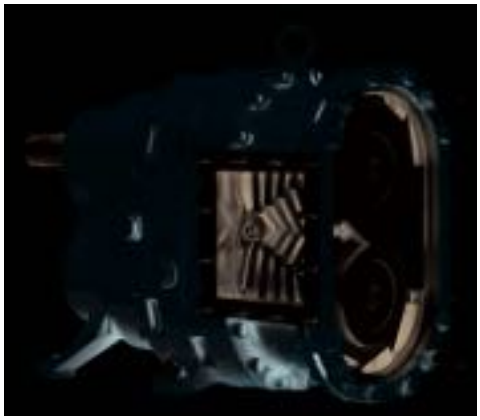
The XRipper® features two one-piece cutting
elements that are precision machined out of high quality hardened alloy. Our cutters provide long lasting grinding performance and are easy to replace without removing any connected piping or sending parts back to the factory.

**XRipper® XRL QD configured with integrated hopper & adjustable frame.**

**WET OR DRY GRINDING CONFIGURATIONS**

## The XRipper® Product Line.

Vogelsang offers two main configurations, the XRS Q and QD, designed to operate in an inline fluid stream condition. There is also one configuration, the XRL QD, designed to operate in a wet or dry feed condition. The XRS comes in several housing sizes and wet-end options to suit numerous flow rates and solids handling conditions. The XRL is designed to work with a hopper feed and an adjustable frame. This allows it to be worked into an existing system with minimal retrofitting.



XRipper® XRS Q

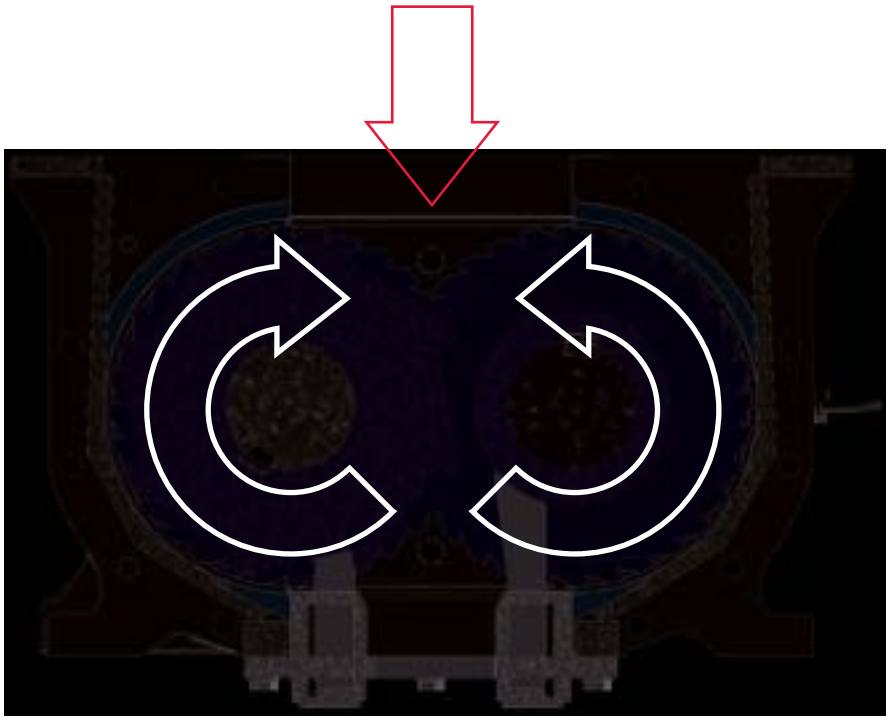
XRipper® XRP QD

XRipper® XRL QD

## How the XRipper® Works

The XRipper® grinds and reduces solids by means of two rotating grinding elements. Each element rotates in the opposite direction towards the center of the device. This draws solids between the cutting elements which effectively grinds the solids as they pass through.

To enhance the grinding effect, one of the cutting elements is rotating faster than the other. The difference in rotational speed enhances the overall ripping effect of the device.



**INCREDIBLE SOLIDS HANDLING & MAXIMUM LIFE CYCLE**

## Quality Performance & Control

The XRipper®'s cutting performance can be controlled in two ways. The first method is by the width of the blades. The XRS 100, 136 & XRS 186 allow for optional blade widths which generate different cuts. Finer blade width results in a more reduced solid.

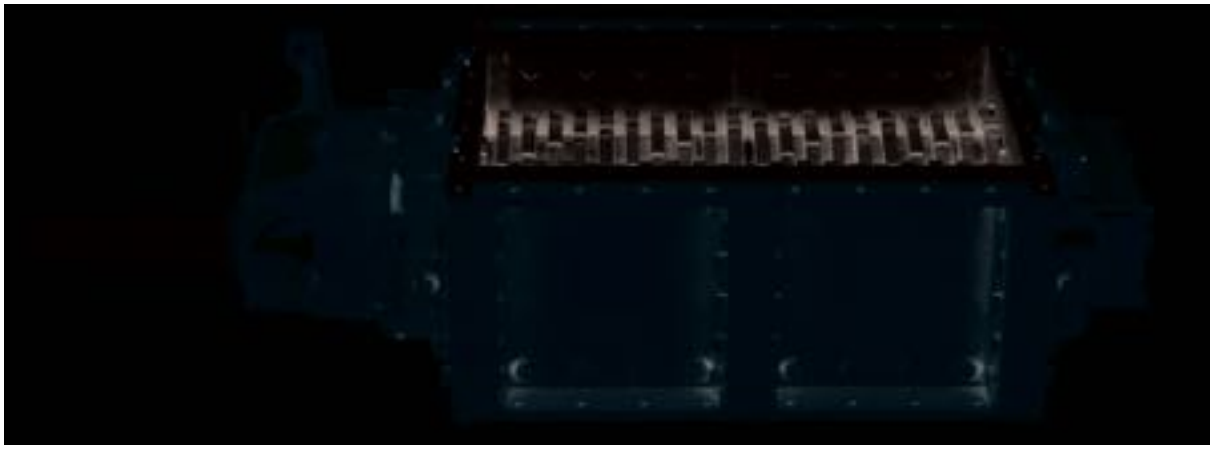
The other way to influence cut size is by rotation. Higher RPM also produces a finer cut.

The cutters are precision machined from as a single piece. They are made from specially tempered steel that is formulated to be ductile inside with an incredibly hard surface. This creates a cutting element that is highly resistant to impact while retaining sharp edges.

## Easy Inline Maintenance

By comparison to a traditional twin shaft grinder, the XRipper® is easy to maintain. Everything can be done inline in without removing any connected piping. The XRipper® series is maintained much like our VX Pump series. The front cover is removed for easy access to the cutting elements. The XRipper®'s cutting elements are both removed at the same time and come off in one piece.

Typical routine service such as changing cutting elements takes only a fraction of the time required to service a typical twin shaft grinder. In addition there are no cartridge style parts that require factory refurbishment.



**QUICK & EASY INLINE MAINTENANCE**

## XRipper® Grinder Performance Specifications:

| Model | Capacity gpm | Capacity m3/h | Operating Torque in. lbs. | Operating Torque Nm | Cut Solids in | Cut Solids mm | Flange Size in | Flange Size mm | Max Pressure psi | Max Pressure bar | Solids Wet | Solids Dry | Speed rpm 1/min |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XRS100-64Q | 176 | 40 | 2655 | 300 | .32 | 8 | 3 | 80 | 131 | 9 | Yes | No | 800 |
| XRS100-90Q | 242 | 55 | 2655 | 300 | .32 | 8 | 4 | 100 | 131 | 9 | Yes | No | 800 |
| XRS136-140Q | 484 | 110 | 10620 | 1200 | .47 | 12 | 6 | 150 | 174 | 12 | Yes | No | 650 |
| XRS136-140QD | 484 | 110 | 10620 | 1200 | .47 | 12 | 6 | 150 | 174 | 12 | Yes | No | 650 |
| XRS186-130Q | 748 | 170 | 21240 | 2400 | .59 | 15 | 6 | 150 | 174 | 12 | Yes | No | 500 |
| XRS186-130QD | 748 | 170 | 21240 | 2400 | .59 | 15 | 6 | 150 | 174 | 12 | Yes | No | 500 |
| XRS186-260QD | 1584 | 360 | 21240 | 2400 | .59 | 15 | 8 | 200 | 145 | 10 | Yes | No | 500 |
| XRS186-520QD | 2994 | 680 | 21240 | 2400 | .59 | 15 | 10 | 250 | 87 | 6 | Yes | No | 500 |
| XRL186-260QD | 88 | 20 | 21240 | 2400 | .59 | 15 | n/a | n/a | 29 | 2 | Yes | Yes | 500 |
| XRL186-520QD | 176 | 40 | 21240 | 2400 | .59 | 15 | n/a | n/a | 29 | 2 | Yes | Yes | 500 |

Specify a required cut size using one of several cutting elements.

XRipper® models 100, 136 & 186 have optional blade widths. The XRS 136 features optional cutting elements in .38" or .54" widths. The XRS 186 or XRL 186 features optional cutting elements in .31", .41" or .63". A width is selected based on the application, solid type and operating conditions.

## APPLICATIONS

The Vogelsang line of inline and dry feed grinders are a great fit for several applications in poultry processing.

The RotaCut® offers high performance maceration, reliable solids maceration and easy inline maintenance without removing any connected piping.

The XRipper® offers large solids reduction in either an inline or dry feed format. The XRipper® uses precision machined, one-piece, rippers that are not stacked individual pieces like most other grinder models. Maintenance is done in place without removing the unit from service.

Our engineering staff will recommend either the RotaCut®, the XRipper® or both depending on your specific application.

### Carcass Disposal

Reducing carcasses to be delivered to the rendering facility is a perfect job for the XRipper® XRL. The XRL version of the XRipper® is a dry running twin shaft grinder that is mounted horizontally and can include a feed hopper and collection bin. I can also be positioned above a conveyor for fast disposal of the material.

Each rotor of the XRipper® is precision machined to reduce solids to the desired size quickly.

### Evisceration Waste

Proper Solids handling in the organic waste stream during the eviseration process increases the efficiency of the overall process. Depending on the nature of the specific plant, a RotaCut® or an XRipper® XRS may be utilized.

Adding a RotaCut® will reduce all of the incoming solids to a size suitable for the pumps and other downstream equipment to pass without clogging or damage. It will also remove any hard foreign objects from the stream before they cause damage downstream.

The XRipper® XRS is an inline twin-shaft grinder that will reduce large solids such as bones carcasses or most anything else that happens to fall into the waste stream.

## High Risk Disposal

Disposing of whole dead birds that may be carrying disease is a job for a high performance, reliable grinder. The XRipper® XRL can be configured to accept whole birds and feed directly into a tot for easy and safe disposal.

An XRipper® will also maximize the amount of material that will fit in each container which reduces shipping and container costs.

The XRL can be customized and configured to fit into most any existing system. This allows you to upgrade your grinding system with minimal impact to surrounding equipment and processes.

## Waste Sludge Transfer

As with our pumps, DAF Sludge & Skimming handling is another ideal application for the RotaCut®.

The RotaCut® inline grinder can be adjusted in a variety of ways to produce the right size particles for your piping and downstream equipment to pass without clogging, buildup or damage. If there are hard foreign objects present in the liquid stream, the RotaCut® will catch them in the collection basin for removal via a side port which can be piped in permanently or used on an as-needed basis.

## Sludge Dewatering

Placing a RotaCut® in before the dewatering feed pump ensures that no damaging debris or hard objects will come in contact or enter the equipment.

The RotaCut® is ideal if you are using a belt press and will prevent hard objects from damaging belts. It is also ideal for centrifuge protection as well as most any other type of dewatering device.

With thousands of installations worldwide, dewatering is one of the most prominent applications for the RotaCut® inline grinder.

VOGELSANG
ENGINEERED TO WORK

**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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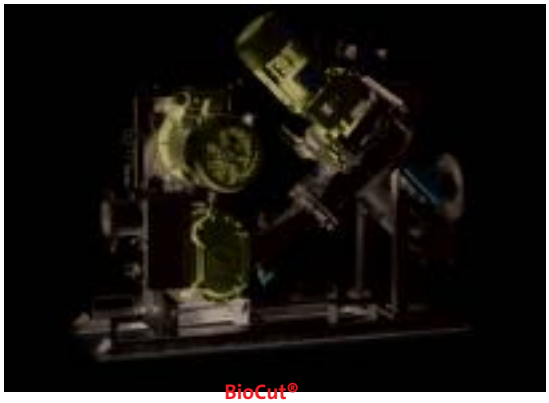
Part #USL.0006 Rev. G20P

**vogelsangusa.com**

**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**
Efficient shredding of coarse matter in wastewater channel applications.