



PUMPING & GRINDING PRODUCTS DESIGNED FOR WASTEWATER APPLICATIONS

Municipal Wastewater Treatment

Robust Products Designed for Various Sludge Applications





ROBUST, RESILIENT, RELIABLE!

Robust products for tough wastewater applications

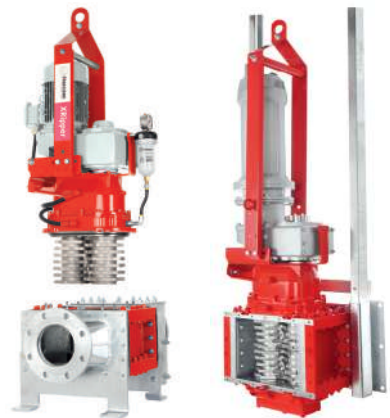
Vogelsang has been a leader in the design and manufacture of wastewater pumping and processing products for over 80 years. During this time, we've been responsible for most of the major innovations in positive displacement rotary lobe pump design and the invention and development of the RotaCut Inline Grinder. Additionally we offer the X-Ripper 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.



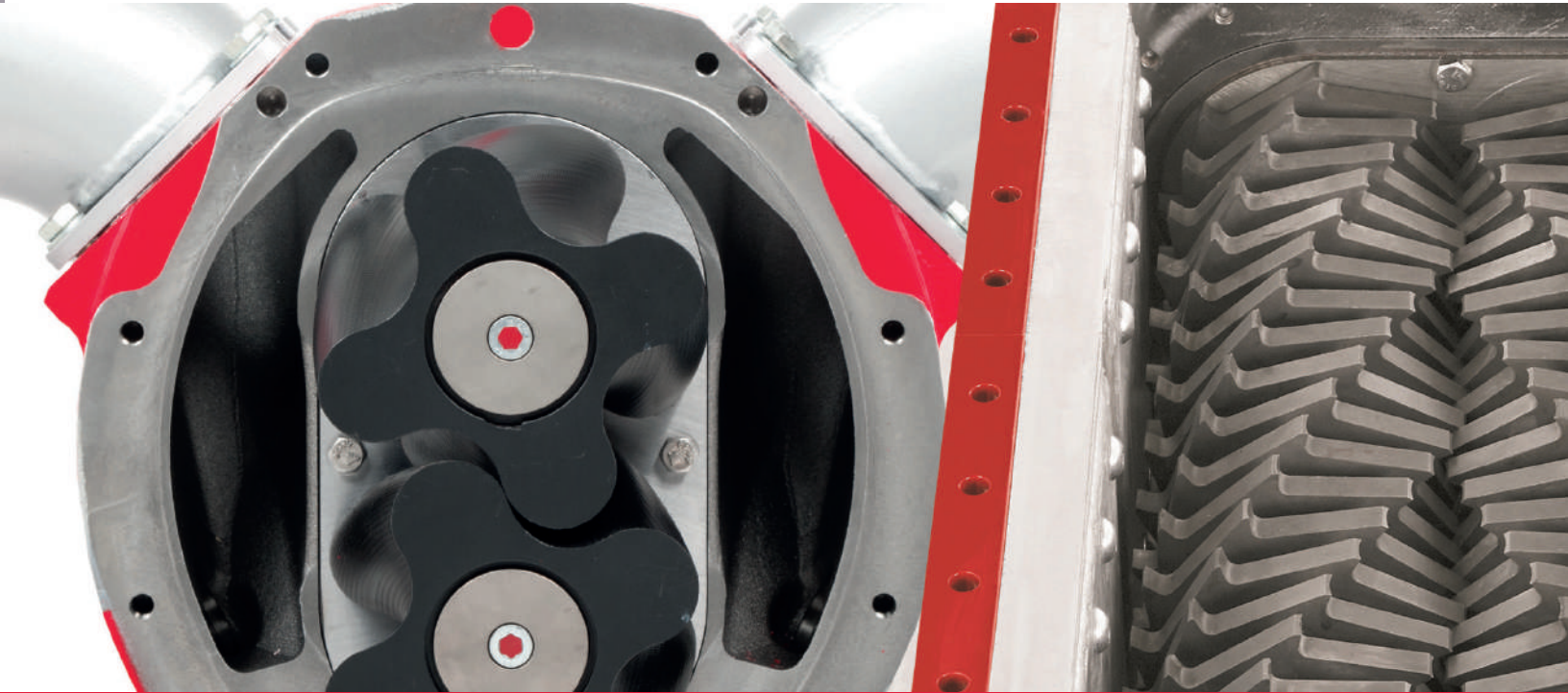
VX Series Rotary Lobe Pumps



RotaCut® Inline Grinders



XRipper™ Twin-Shaft 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 an existing system. Our products are available in many sizes and capacities that will suit many wastewater 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 our industry-leading 2-year warranty to our municipal customers. Vogelsang products are covered by a 2-year 100% warranty that include parts and labor.

VX Series Rotary Lobe Pumps

Robust Rotary Lobe Pumps Designed for Viscous Liquids, Heavy Solids & Abrasives



ROBUST, RESILIENT, RELIABLE!

VX Series Rotary Lobe Pumps

Vogelsang offers the premier positive displacement pump in the wastewater market. Due to the nature of our rotary lobe pump, our exclusive lobe design, most types of wastewater sludge can be pumped throughout your system with ease as compared to progressing cavity, centrifugal and other rotary lobe pumps. Our pumps are built to pump both thin and thick, abrasive sludge with ease and with no pulsation.

Vogelsang pumps offer quick and easy access to the wet end for inline repair without disturbing connected piping.



VXQ Series VX100, VX136 & VX186



ROBUST, RESILIENT, RELIABLE!

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 Q Series is our low pressure design and works well in most wastewater applications requiring a positive displacement pump. For medium pressure, we offer the VX QD Series which features an outboard bearing configuration to eliminate shaft deflection to maximize life on the lobes, wear plates, mechanical seals and bearings. For high pressure applications, the VX QDM2 Series handles pressures to over 200psi in a two-stage outboard bearing configuration to get the maximum life at high pressure by splitting the pressure into two individual stages.

All Vogelsang pumps can run dry without damage, self prime and run in either 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 making it ideal for applications such as sludge thickening and dewatering feed.



VXQ Series



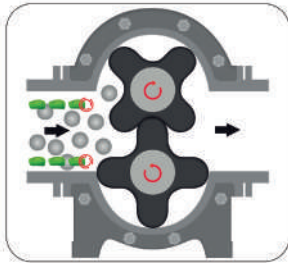
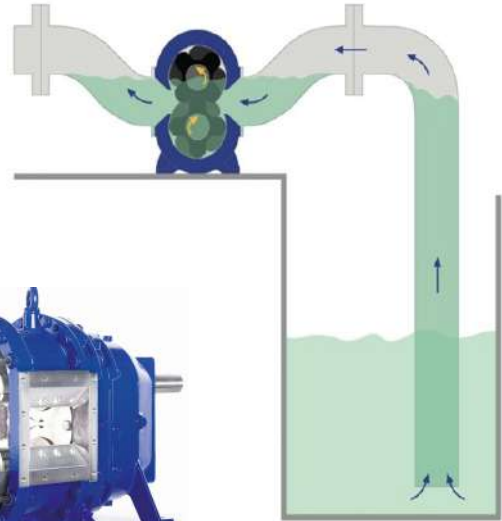
VXQD Series



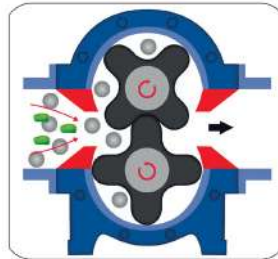
VXQDM2 Series (Two Stage)

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.



Standard Housings



Injection Housings



Radial Liners

Suction Lifts up to 25' (7.62m)

Solids are passed through the pump within the cavities between the lobe and outer housing. Vogelsang offers a true solids passing design with our Dynamic Injection Housings. Featuring two distinct designs allows for solids passing, without damage to the lobes, and extends operation life. The Vogelsang pump can pass most any solid that can fit in the cavity. Maximum compressible solid size varies by pump model up to 2.4" (61mm).

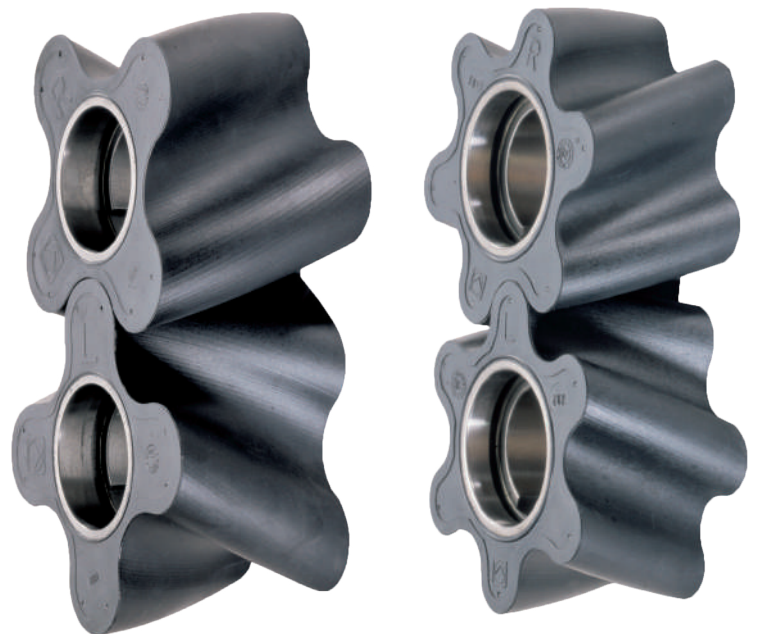
IT'S ALL ABOUT THE LOBES

Pulsation Free, High Abrasives & Low Shear

The HiFlo® Lobe has many different features not found in traditional tri-lobe and bi-lobe designs. With 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 thick and abrasive sludge. This design also makes it possible to achieve a required flow rate 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 like polymer. HiFlo® also excels in applications where large amounts of entrained air is present in the liquid.

We offer six wing lobes in the VX100 Series and four wing lobes for our larger models, the VX136, VX186, VX215, and VX230Series. There are a variety of lobe elastomer options for maximum chemical compatibility, abrasiveness and temperature requirements.





Maintenance is Performed in Place without Disturbing Connected Piping



Quick Removal of the front cover gets you into the pump for maintenance. The front cover contains a wear resistant plate to maximize pump life and reduce downtime.



The VX Series pumps utilize a rear wear resistant wear plate to extend the life of the pump and minimize downtime.



Maintenance friendly robust cartridge mechanical seals provide long lasting seal life. Both single and double mechanical seals are available in a variety of materials and faces. Seals are cooled and lubricated with oil, and can also be water flushed if necessary in the application.



Simple removal of the lobes can be done without removal of the piping or pump from the installation. Using lobe pullers makes it easy to remove and reduce maintenance. Adjustable housing segments provide a simple and easy way to maximize your overall lobe life without purchasing parts. Radial liners are also available depending on your application requirements.

Component seals and both with and without an air gap are also available depending on your application.

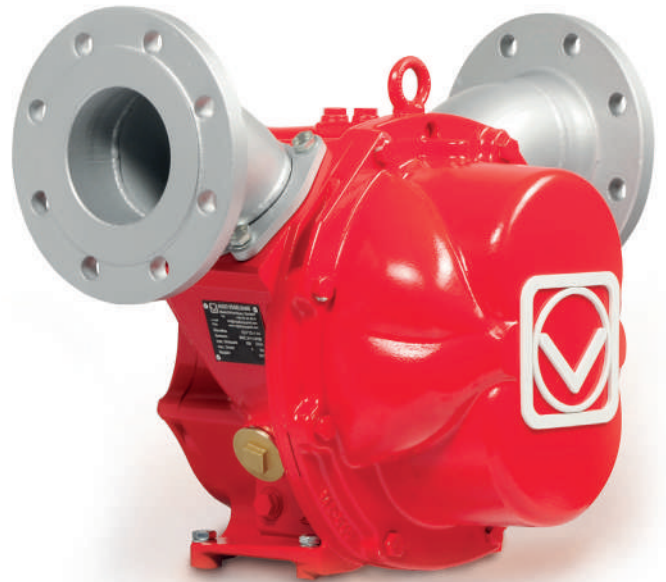
QUICK & EASY INLINE MAINTENANCE

VX Pump Series Performance Specifications:

Model	Capacity		Displacement		Max. Solids		Flange Size		Max Pressure				Max. Speed	
	gpm	m ³ /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

IQ Series Rotary Lobe Pumps

The Next Generation Rotary Lobe Pump



ROBUST, RESILIENT, RELIABLE!

The IQ Rotary Lobe Pump Product Line.

The IQ is the latest addition to the Vogelsang line of Rotary Lobe Pump models. It does everything that our industry leading VX design will but has a one-piece housing that is incredibly easy to work on. The IQ design works well in applications requiring a positive displacement pump up to 339 GPM.

Just like our VX Series, the IQ pumps can run dry without damage, self prime and run in forward or reverse. IQ pumps are great for suction lift applications up to 25' (7.62m). The IQ features our standard 4 wing HiFlo® Lobe design, the pump delivers pulsation free pumping action making it ideal for many applications.

What makes the IQ a great advance in pump design is the simplified wet-end. We've eliminated 50% of the spare parts compared to traditional rotary lobe pumps. This translates into real savings when looking at overall operational costs.

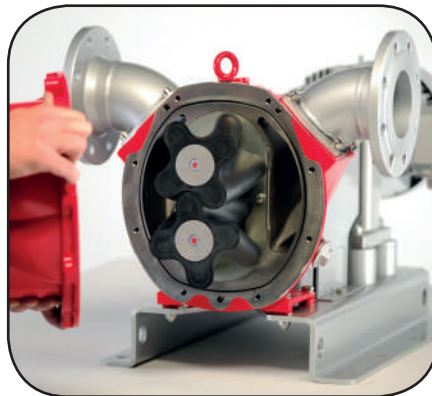




50% Less Wet End Parts Compared to Traditional Rotary Lobe Pumps! Maintenance is Performed in Place without Disturbing Connected Piping



The front cover is easily removed and comes off in one piece. There is no need to remove the pump from the assembly or disturb any connected piping.



After the cover is removed, the entire wet end of the pump is exposed and can easily be serviced.



With access like this, maintaining your rotary lobe pump has never been easier!

QUICK & EASY INLINE MAINTENANCE

IQ Pump Series Performance Specifications:

Model	Capacity		Displacement		Max. Solids		Flange Size		Max Pressure		Max. Speed rpm 1/min
	gpm	m ³ /h	gal/100rev	l/100rev	in	mm	in	mm	Q: psi	bar	
IQ112-81	242	55	26.9	102	1.3	33	4	100	116	8	900
IQ112-114	339	77	38	144	1.3	33	4	100	72	5	900

IQ Series Features Flexible Flange Configurations:



Gooseneck/Straight Flanges



90° Angled Flanges



Gooseneck/Straight w/ 90°
Angled Flanges



PUMP APPLICATIONS

Dewatering Feed Pumps

Our pumps have been widely chosen for to feed dewatering equipment such as Belt Press, Centrifuge, Screw Press, and Gravity Belt Thickeners. This is largely due to the pump's ability to deliver sludge to the equipment evenly with no pulsation. An even flow of sludge to the dewatering equipment helps the equipment run as efficiently as possible and with less polymer.

Additionally, it's compact and easy to fit or retrofit onto the same skid as the detwatering unit itself.

Primary, Secondary Sludge, FOG

Primary & Secondary Sludge are typically where we find the heaviest concentration of grit and floatable non-organic debris in the wastewater plant. The solids content is usually low; typically 1%-3% solids. In this application, harder construction materials are often chosen for the wet end along with abrasive-friendly elastomers for the lobes.

Typical operation of a lobe pump in Primary Sludge is best if the pump pulls a constant low flow of sludge versus intermittent off-on operation.

FOG is one of the most difficult services for a wastewater plant, and Vogelsang pumps can handle not only the viscosity, but also solids without damage to the pump.

Digested & Thickened Sludge

Digested & Thickened Sludge applications are very common in wastewater plants that use either anaerobic or aerobic digestion. These applications are normally between 3-8% solids and mostly homogeneous in nature. In these applications the operating pump can see light to medium abrasive so choosing the proper lobe material is very critical.

Digested sludge applications require low pulsation in their flow, as they typically feed to dewatering equipment. The lower the pulsation, the more accurate polymer dosage can be applied. Additionally, the pumps can encounter solids like hair and rags that may be difficult to pass by pumps not designed for solids handling.



PUMP APPLICATIONS

WAS & RAS

Waste Activated Sludge requires the ability to pump varying viscosity sludge. Due to our HiFlo lobe design, we give you the most efficient positive displacement pump on the market.

WAS & RAS sludge is typically mild as the majority of the grit has settled out. Some grit will remain but it is usually in lower concentration.

The main challenge in pumping WAS or RAS is that it often contains high amounts of entrained air which can cause cavitation if the wrong flanges are installed. We overcome this using our gooseneck flanges, that keeps the pump primed and able to move the sludge through the pump without air locking. Standard materials of construction are sufficient for most applications including NBR lobes and standard wet end with either cast iron or Astempered Ductile Iron (ADI).

Scum & Septage

Scum is usually saturated with air and loaded with inorganics (floatables). Additionally, pumping high concentrations of floatables without sufficient water to move the solids is difficult due to the lack of conveyance. Even though flows are typically pretty low, we often prefer to oversize the pump and run it slower to allow the pump to pass larger solids.

Septage pumping can sometimes be the most difficult application in a wastewater plant, and normally ranges from .5-1% solids. Due to the way it's collected it can contain grease, hard solids, hair, rags, and other solid wastes. The pumps need to pass the solids without damage. Vogelsang pumps are able to pass large solids due to the large cavities in the lobe design.

DAFT

DAFT applications are difficult not only because of the entrained air, but also the thickness of the sludge. Vogelsang pumps are designed for pumping viscous liquids containing heavy solids. A slower operating pump coupled with a wide range of available elastomers is critical.

These applications require low speed in order to keep the pump from excess cavitation due to air pockets building up in the cavities of the pump. Additionally, you can encounter floating solids, hair and rags that can build up over time.

RotaCut® Inline Macerators

High Performance Maceration
with Easy Maintenance



SOLIDS REDUCTION, SOLIDS SEPARATION, SLUDGE CONDITIONING

High Performance Grinding, Easy Inline Maintenance

The RotaCut® Inline Grinder effectively reduces solids to specific size requirements, and reduces the costs associated with the operation of downstream equipment. Objects and debris suspended in liquid such as plastic fragments, rubber, hair, rags, applicators, plastic pens, string, wood, bones, etc. are drawn through the cutting screen and cut by the self-sharpening rotary blades into an acceptable size for the downstream equipment to pass.

Standard features, not found on other grinders, include AutoReverse, automatic blade tension (or Auto Cut Control, ACC®), self sharpening blades, and reversible cutter screens. RotaCut® is 100% rebuildable inline, which eliminates the need to send out cutter cartridges for reconditioning.

Placed on the suction or discharge side of any manufacturer's pump, RotaCut® will eliminate ragging, reduce solids and protect downstream equipment. It protects pumps and dewatering equipment from clogging, prevent damage to Belt Press Centrifuges, Screw Presses, and Membranes.



RotaCut® RC 3000, RC 5000
& RC 10000 Series



NUMEROUS SIZE & CONFIGURATION OPTIONS

The RotaCut® Product Line

Vogelsang offers a full line of RotaCut® models to suit various applications and operating conditions. The RotaCut® RC Series works well in most wastewater applications suitable for an inline grinder. For increased

solids reduction we offer the Pro, Pro Compact & Cyclone series which features a larger collection basin and horizontal head orientation. For more extreme solids handling, the RCX series is available and offers higher pressure, lower headloss and higher solids reduction at even the highest flows.



RotaCut® RCX48 & RCX58



RotaCut® Pro Compact



RotaCut® Cyclone



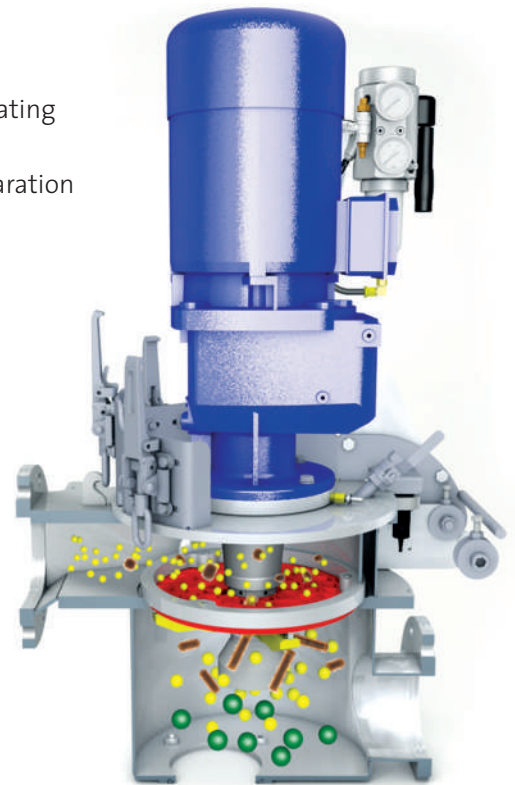
RotaCut® RCQ

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 provides 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.



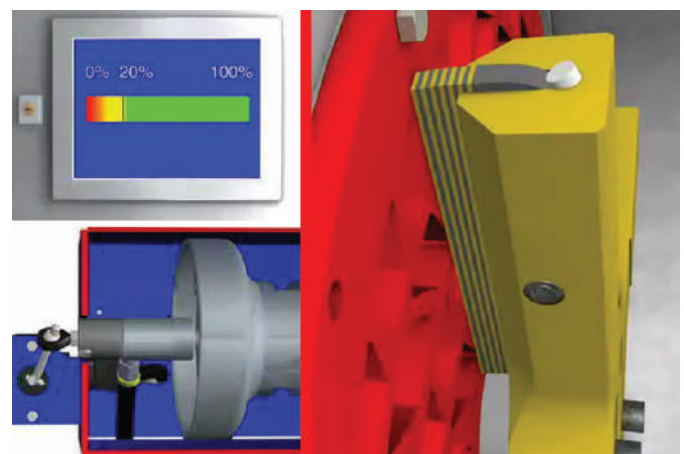
INCREDIBLE SOLIDS HANDLING & MAXIMUM LIFE CYCLE

Quality Performance & Control

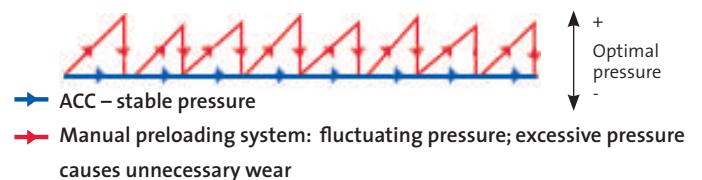
The RotaCut® requires direct contact between the blades and the cutting screen. This is how it achieves the scissor-like cut. The blades are designed to wear over time but must wear evenly to achieve maximum lifecycle between routine replacement. To ensure that the blades last as long as possible, the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

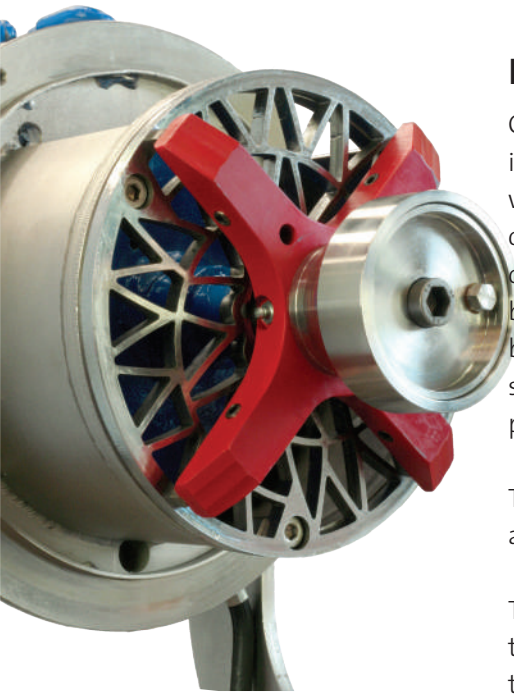
ACC ensures high cutting performance at all times by automatically adjusting the blades as normal wear progresses. ACC completely eliminates manual maintenance of the cutting head tension. The entire process is controlled externally which minimizes the need to open the unit.

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



Auto Cut Control (ACC) Monitor your blade life and get alerts



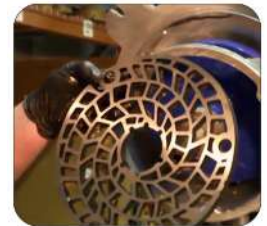


Easy Inline Maintenance

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 is 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.

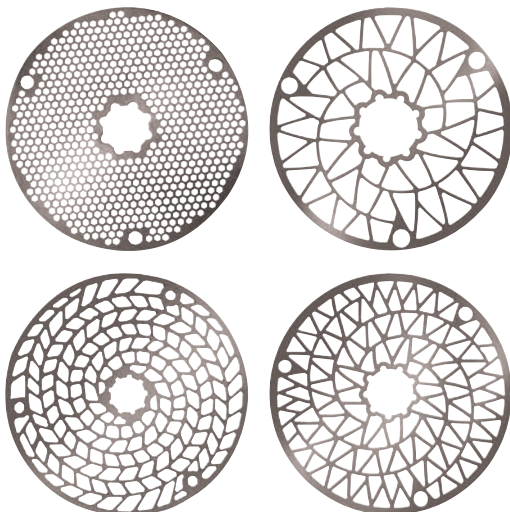
Typical routine service such as changing blades or flipping the reversible cutting screen takes only a fraction of the time required to service a typical twin-shaft grinder. In addition there are no cartridge style parts that require factory refurbishment.



QUICK & EASY INLINE MAINTENANCE

RotaCut® Grinder Performance Specifications:

Model		Capacity		Motor Power		Cut Solids		Flange Size		Max Pressure		Motor		Speed rpm 1/min
		gpm	m3/h	hp	kW	in	mm	in	mm	psi	bar	Gear	Hyd	
RCQ 20	Inline	396	90	3.0	1.1-2.2	.39-0.78	9-20	4	100	30	2	Yes	No	195
RC 3000	Inline	792	180	3.0	1.5-4.0	.31-1.10	8-28	6	150	30	2	Yes	Yes	220
RC 5000	Inline	1321	300	3.0	1.5-7.5	.15-1.18	4-30	6	150	30	2	Yes	Yes	220
RC 10000	Inline	2642	600	7.5	2.2-7.5	.15-1.50	4-38	8	200	30	2	Yes	Yes	210
RCX 48	Inline	2640	600	15.0	5.5-11.0	.15-1.50	4-38	8	200	87	6	Yes	No	205
RCX 58	Inline	3434	780	20.0	7.5-15.0	.15-1.33	4-34	10	250	87	6	Yes	Yes	190
RCQ 33	Inline	300	68	7.5	2.2-7.5	.15-1.50	4-38	6	150	30	6	Yes	Yes	311
RCQ 43	Inline	600	136	7.5	2.2-7.5	.15-1050	4-38	8	200	87	6	Yes	Yes	292



Specify a Required Cut Size Using One of Several Pattern Cutting Screens

Screens come in 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 different solid sizes 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.

XRipper™ Twin-Shaft Grinders

Effectively Reduce Large Solids to a Manageable Size for Further Reduction or for Downstream Processing Equipment

SOLIDS REDUCTION

Twin-Shaft 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 spacers. The main disadvantage 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 solid ripper rotors that are precision machined out of high quality hardened alloy. They are not built up out of several smaller pieces like typical twin-shaft grinders but as a single monolithic ripper pack. Our Ripper Rotors provide longer lasting grinding performance and are easy to replace without sending back to the factory for reconditioning.



In-pipe Applications
XRipper XRP

In-Channel or Inlet
XRipper XRC

Monolithic
Rotor Ripper



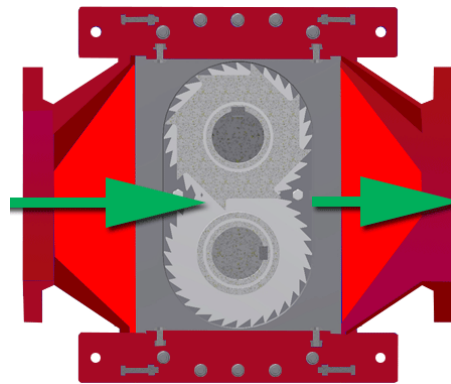


How the XRipper™ Works

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

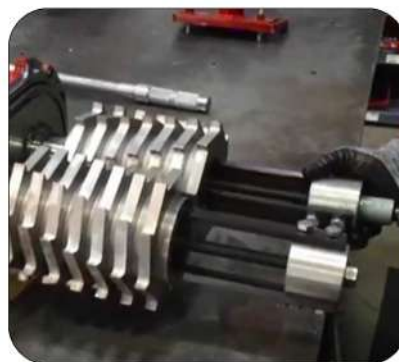
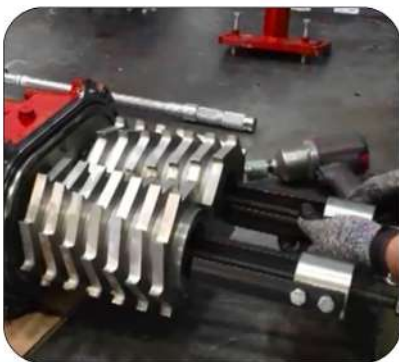
To enhance the grinding effect, one of the cutting elements is rotating faster than the other.

The difference in rotational speed enhances the overall ripping effect of the device.



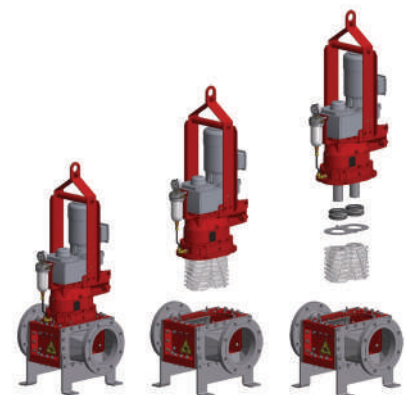
INCREDIBLE SOLIDS HANDLING & MAXIMUM LIFE CYCLE

Easy On-Site Maintenance



Unlike single-blade systems that may require factory rebuilds, XRipper is easy to service onsite. Everything can be done inline without shipping anything back to the factory for repair. Simply remove a few retaining hex nuts and the unit can be lifted vertically, via the lifting bail, while the flanges and housing remain connected to the piping.

The XRipper's ripper blades are both removed at the same time and come off in solid sections versus individual pieces like ordinary twin shaft grinders. Typical routine service such as changing Ripper Rotors 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.

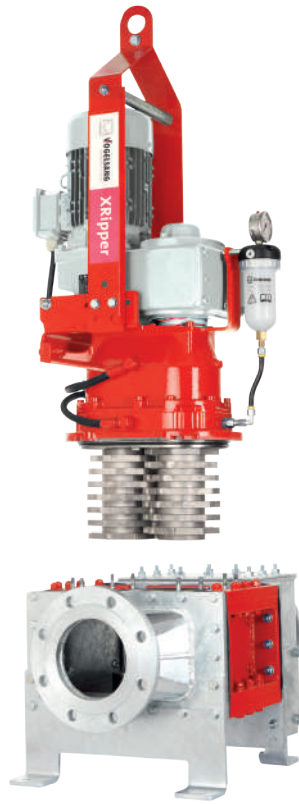


XRipper™ XRP

For In-Pipe or Inline Applications

- Drop-in Replacement
- Heavy-duty, high torque
- Easy, Onsite Maintenance

Standard, 2-year warranty including wear parts and labor



Unlike single-blades systems, XRipper's one-piece rotor rippers won't loosen overtime.

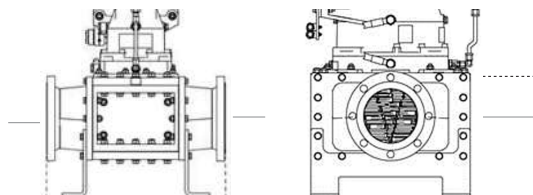


TWIN-SHAFT GRINDING FOR TOUGH APPLICATIONS



XRipper™ is designed to be a drop-in replacement for many common grinders in the market.

Designed to Fit Common Flange sizes, Centerlines & Flange-to-Flange Measurements





XRIPPER IS A DROP-IN REPLACEMENT FOR COMMON GRINDERS

Your low-maintenance, drop-in alternative to JWC™* and other common inline twin-shaft grinders.

Vogelsang XRipper™ XRP Models

XRP-Q(D)	Flange size	Flange to Flange	Flow*
	Ø inch (mm)	inch (mm)	gpm (m³/h)
XRP100-90Q	4" (100)	16" (406)	375 (85)
XRP136-140Q	4" (100)	16" (406)	725 (165)
	6" (150)	19" (483)	830 (190)
XRP136-200Q	4" (100)	19.25" (488)	1170 (265)
	6" (150)	21.25" (540)	1230 (280)
	8" (200)	23.25" (590)	1320 (300)
XRP186-260Q	10" (250)	27.25" (692)	2150 (490)
	12" (300)	31.25" (794)	2420 (550)
XRP186-520QD	12" (300)	35.25" (895)	4315 (980)
	16" (400)	43.25" (1099)	4670 (1060)
	18" (450)	47.25" (1200)	5020 (1140)

*Based on water and a max. pressure loss of 2.18psi (0.15bar). Testing conducted at Vogelsang's testing facility. Contact Vogelsang for other testing documentation.

Vogelsang XRipper™ XRP / JWC™ Grinders*

Vogelsang	Flange size	JWC™(E)
XRP100-90Q	4"	10000-0804-DI
XRP136-140Q	6"	10000-0806-DI
XRP136-200Q	4"	30001-1204 30004T-1204
	6"	30001-1206 30004T-1206
XRP136-200Q	8"	30001-1208 30004T-1208
	10"	30001-2410 30004T-2410
XRP186-260Q	12"	30001-2412 30004T-2412
	12"	40002-1812
XRP186-520QD	12"	40002-2412
	16"	40002-2416
	16"	40002-2416
	18"	40002-2418

*JWC™ is a trademark of JWC Environmental, Inc. Costa Mesa, CA, USA. Vogelsang is not affiliated with JWC Environmental in any way. Dimensions of the JWC Environmental, Inc. grinder are from the JWC Environmental, Inc. publication *Muffin Monster Family Brochure, 2016*.

XRipper™ XRC Twin-Shaft Grinder

Efficient Grinding of Coarse Materials in
Wastewater Channels, Intake & Feed Facilities

- Perfect for Wet Well/ Lift Stations
- Heavy-duty, high torque
- Easy, Onsite Maintenance

Standard, 2-year warranty
including wear parts and labor

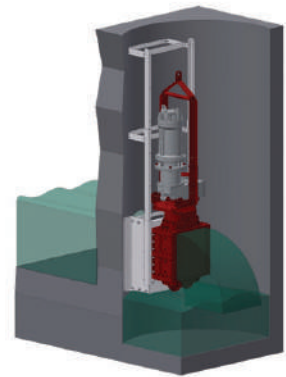


TWIN SHAFTED GRINDING FOR OPEN CHANNEL FLOW

XRipper™ XRC for Wastewater Channel & Intake Applications

The heavy concentration of hair, rags, textiles, wood, wipes, diapers, plastic bags, and floatable non-organic debris creates the need for a grinder that can perform and last in harsh operating conditions. In lift stations and channels, XRipper XRC is recommended due to its high flow range, low head loss and overall robust construction.

The XRipper XRC has a very large cutting area for its footprint and can retrofit into an existing system in a variety of ways. Today's lift stations have a large problem with flushable wipes that plug up pumps. With the XRipper XRC you can take them down to manageable sizes before passing through pumps or other downstream process equipment.

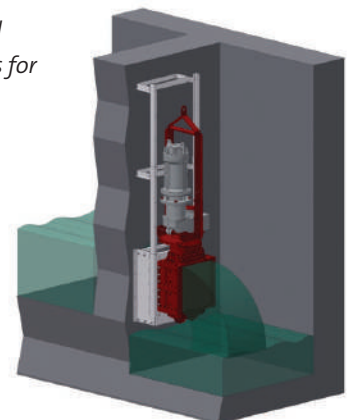
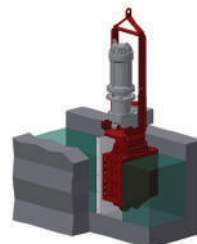


Mounting & Sewer Integration

The XRipper XRC has three common mounting options which use brackets, rail systems, and overflow boxes to accommodate an installation in any channel or lift station—round or flat walls.

In addition, the XRipper is designed with multiple motor options for these applications such as explosion proof, hydraulic, submersible, and immersible. The XRipper XRC is capable of being hoisted out of the sewer for maintenance using the standard integral guide rails.

*Available with channel
mounts, or rail systems for
round and flat walls*

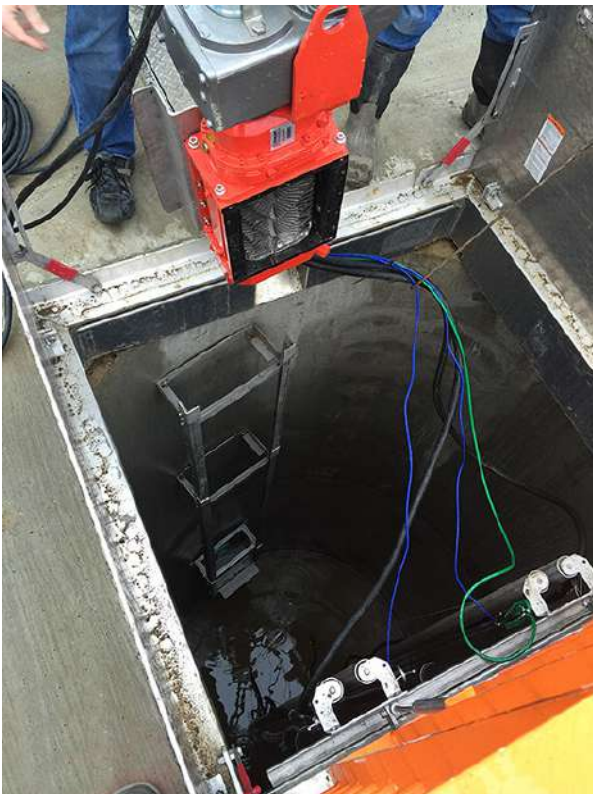




XRG models are for large, high-flow channels

TWIN SHAFTED GRINDING FOR OPEN CHANNEL & LIFT STATIONS

Easy Onsite Maintenance



Twin-Shaft Solids Reduction for Multiple Applications

All XRC twin shaft grinders are equipped with HighFlow rail systems on the side of the grinder as you can see above. This design diverts the solids to the center of the grinder to be ground up, while allowing the cleaner liquid to bypass the cutting area in the grinder. HighFlow rails provide increased efficiency and higher flow rates.

How the XRipper XRC Works

The XRipper grinds and reduces solids by means of two counter rotating ripper rotors. Each rotates in the opposite direction towards the center of the device. This draws solids between the ripper rotors which effectively grinds the solids as they pass through.

To enhance the grinding effect, one of the cutting elements is rotating slightly faster than the other. The difference in rotational speed enhances the overall ripping and grinding effect of the device. Typically, the XRipper XRC is placed either in front of pumps or in applications where solids need to be cut down to size to make solids easier to dispose, transport or process in downstream equipment.



APPLICATIONS

Pump & Lift Stations

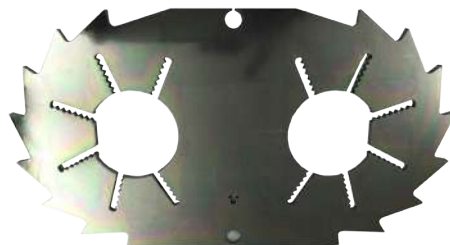
Collection systems in wastewater can have a multitude of solids that come down a sewer system. These solids normally range from plastics, bags, hair, and wood. With the introduction of the flushable wipes to the consumer, this has gotten a lot more difficult.

Due to the wipe's reinforced material, it causes them to build up inside of pumps and valves, and creates constant plugs that need to be manually cleaned by operations and maintenance staff.

The XRipper comes standard with our exclusive counter blade wear plates to shred flushable wipes and plastics to a small particulate.

Counter blades provide stationary cutting teeth that grab onto solids while passing and allow them to more efficiently get ripped apart by the Ripper Rotors.

This gives much smaller particle sizes that will not plug and rag up pumps and equipment downstream.





APPLICATIONS

Dewatering Feed

Adding an XRipper or RotaCut® in front of a Belt Press, Centrifuge, Gravity Belt Thickener or most any other dewatering device protects it from harmful solids, excess grit and floatables.

Additionally, the rotating action of the cutting head conditions the sludge into homogenous suspension that flows evenly into the device. Combined with the pulsation free flow provided by our rotary lobe pumps, the dewatering equipment is fed fully conditioned sludge free of potentially damaging elements.

Digester Feed

Much like feeding dewatering equipment, the RotaCut® and XRipper are well suited to prevent heavy objects from entering the digester. In the process, the sludge is also conditioned to a homogenous suspension ready for digestion.

The RotaCut® offers a distinct advantage in feeding applications. The scissor-like cutting action reduces rags, hair and other fibrous objects into fine particles.

The XRipper offers twin shaft grinding with high torque and ripping solids down to size. The unique monolithic design give the ability to cut solids down to size without the high maintenance found in other twin shaft grinders.

Digester Cleaning

Digester cleaning is a particularly harsh application. Depending on the solids handling performed on the inbound sludge stream, evacuating heavy residual sludge can be a high-wear application for most inline grinders.

As with primary sludge, we often recommend our RCX Series RotaCut® due to its powerful design and robust construction. The RCX powers through thick sludge containing high amounts of heavy solids, grit and other debris that is known to settle in the bottom of digesters.

Digesters can include large amounts of solids where the XRipper can cut them down to size before going to further processing. The XRipper is designed to shred even the toughest solids with ease.

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

7966 State Route 44 • P.O. Box 751
Ravenna, Ohio 44266, USA

Toll Free: 800.984.9400

Tel: 330.296.3820

Fax: 330.296.4113

www.vogelsangusa.com

sales@vogelsangusa.com



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

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



Rotary Lobe Pumps

Designed to handle viscous liquids and tough solids.



RotaCut® RCX

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



XRipper XRC

Efficient shredding of coarse matter in wastewater channel applications.