VOGELSANG
ENGINEERED TO WORK

SOLUTIONS FOR PRODUCTION AND DISPOSAL

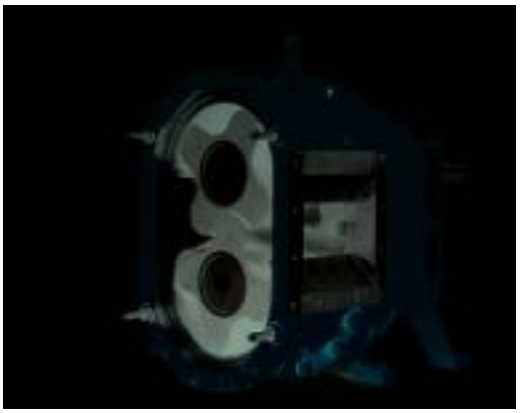
Technology for the Food Industry

Pumps, Shredders, Grinders and Processing Systems

Industry | Waste water | Biogas | Railway | Agriculture

The Specialists for Reliable Shredding, Grinding and Pumping

Sophisticated Technology for Smooth Process Sequences



VX Rotary Lobe Pump

Vogelsang pumps, shredders and grinders guarantee efficient production processes in the food industry. Their designs and functions are well-engineered and sturdy, making them ideal for heavy loads and stresses.

Many different physical and mechanical manufacturing processes are used in industrial food production. Raw and semi-finished products, as well as supplies and additives, need to be pumped and shredded. In addition, waste material has to be treated for disposal and pumped appropriately.

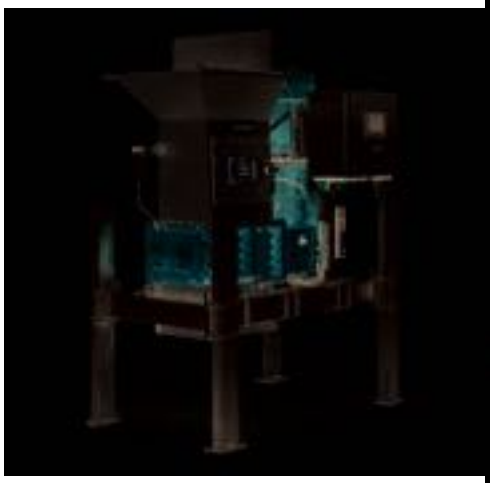
Vogelsang rotary lobe pumps, shredders and grinders are ideally suited to low-cost, trouble-free and low-maintenance pumping. As individual or multi-stage shredding and pump units, they are ideally suited to all abrasive and viscous media, including media with high foreign matter and fiber content.

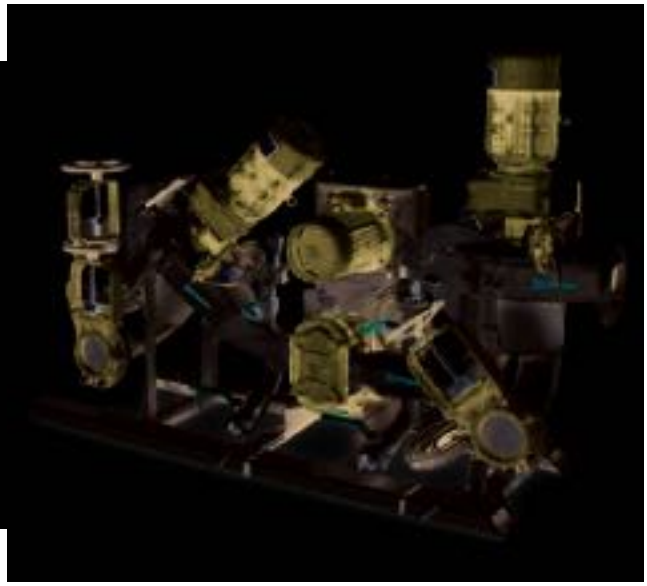
Vogelsang Rotary Lobe Pumps

Vogelsang pumps are positive displacement pumps designed to be especially resistant and easy to maintain. They are ideally suited to filling and draining tanks and transport vehicles. Typical features include good suction capability, robust dry-running characteristics and easy reversal of the flow direction. Capacity: 3 to more than 4400 gpm, pressures up to 232 psi.

Vogelsang RotaCut®

The machines in the RotaCut® series are macerators with integrated heavy material separators. Thanks to direct contact cutting, they cut precisely and are less susceptible to fibrous matter. The maceration process enables good homogenization of the material in use and simplifies pumping. RotaCut®s are suitable for capacities of up to 4490 and have a maximum cut solid of .6 in.





RotaCut® | XRipper® & RedUnit | Cut&Pump®

Vogelsang XRipper®

The XRipper® twin-shaft grinder is a synonym for reliable reduction of solids and easy maintenance. The special, single-piece construction of the rotors reduces possible blockages and makes changing the cutting elements fast and convenient. The XRipper® can be used inline or as a stand-alone device. In combination with our pump technology, the XRipper® is also available as an ultra compact chopper pump.

System Integration

Vogelsang pumping and shredding technology can be grouped together to form complete pumping systems, including intelligent control technology. By combining our particle size reduction technology with our robust pump units, it is possible to process solid matter into pumpable media. This solution is available as standard equipment for abattoirs (Cut&Pump Meat) or as an individual engineering solution.

Typical Applications for Vogelsang Technology

Trouble-free pumping of production, transport and disposal media that contain coarse matter such as pits, bones, stones or fibers.

Food production
- Macerating and pumping raw materials
- Pumping supplies, such as starch or diatomite
- Pumping syrup or liquid sugar
- Macerating and pumping raw production waste
- Draining grease separators

Fruit and vegetable processing
- Pumping fruit and vegetables
- Macerating and pumping raw production waste

Abattoirs
- Waste: stomach and intestines, as well as non-usable body parts
- Combination of macerating and pumping
- Pumping blood

Oil products
- Macerating and pumping raw materials
- Pumping pomace and production waste

Beverage production
- Macerating and pumping pomace and production waste
- Pumping in wine production

Dairies
- Pumping whey slops
- Pumping and macerating procedures in the sewage treatment plant

Manufacturing and using sugar products
- Pumping applications in refineries, e.g., molasses, carbolime
- Crystal-friendly pumping of molasses
- Filling and draining tanks
- Macerating residues

Logistics and disposal
- Filling and draining tanks
- Mobile pumping on tankers
- Macerating and pumping food waste

Original Vogelsang Rotary Lobe Pumps

We invented and perfected them – today, they set the standard for reliable pump technology worldwide. Wherever well-engineered, robust and powerful pump technology is required, you will find Vogelsang rotary lobe pumps from the VX and IQ series.

Innovation that Pays Off

The Cost-effective Solution for a Wide Range of Pumping Tasks

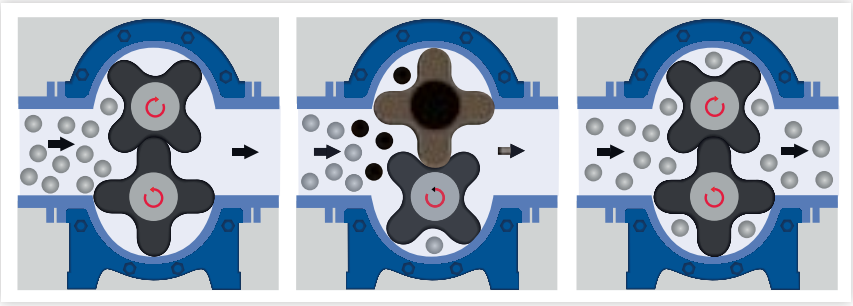
As non-contacting, rotating positive displacement pumps, they are suitable for a wide range of applications. Thanks to pulsation-free running HiFlo® rotary lobes, a speed-proportional delivery rate and high resistance to both foreign matter and dry running, the pumps offer the optimum solution for very different pumping tasks. They are also incredibly easy to maintain.

The Advantage of Expertise

Vogelsang rotary lobe pumps are used all around the world, proving their quality in a wide variety of applications. We are constantly developing the technology for Vogelsang rotary lobe pumps, expanding the range of applications and improving ease of maintenance. The patented InjectionSystem and Cartridge mechanical seal technologies and the unique HiFlo lobes are just a few of many examples. Constant innovation for maximum efficiency and cost-effectiveness is what you can expect from Vogelsang.

The Pump with Extra Service

A pump not only has to work efficiently, it also has to be accessible, easy to handle and trouble-free when it comes to service and maintenance. Since we are familiar with your everyday needs, we integrated all of this into our QuickService concepts – on-site service and maintenance – in next to no time. From your first contact, we provide comprehensive consulting and supervision throughout the entire life-time of your Vogelsang rotary lobe pump. This guarantees maximum efficiency; up to 75% less time is required compared to other positive displacement pumps.



The Principle

The rotary lobe pump is a positive displacement pump. The principle is ingeniously simple: the rotating lobe seals the medium on the suction side in a chamber between the housing and lobe. It pumps it at the top and bottom of the pumping chamber through the pump to the discharge side. This enables a particularly compact type of construction with gentle pumping, good priming and dry-running characteristics, as well as easy access to the pumping elements.

LifeGuard

Several factors make Vogelsang pumps exceptionally productive and cost-effective.

Downtime leads to added costs. This is why Vogelsang rotary lobe pumps are specifically designed for long service times and maximum ease of maintenance. LifeGuard guarantees a maximum lifetime for the pump. The following specific factors contribute to this.

LifeGuard factors

Maximum shaft diameter
The shafts of all Vogelsang pumps have maximized diameters. This prevents shaft deflection successive lobe wear and performance reduction.

Shafts without cranks
The shafts are not weakened by cranks and recesses. This provides ultimate security even at maximum operating pressure. This is why we provide a lifetime warranty for shaft breakage in pumps used under normal conditions of use.

QuickService bearing cover (option)
Supported shafts ensure minimal wear on the lobes.

Wear-resistant materials and coatings
For example ceramic and tungsten carbide ensure long lifetimes even when abrasive media are used.

Wear plate system made of hardened steel
The pump's interior can be clad entirely in wear plates made of hardened steel. This prolongs the pump's lifetime considerably.

InjectionSystem
The innovative housing design ensures optimum flow of foreign matter through the pump. This prevents collisions with the lobe tips and reduces wear. In field trials, the service time was increased by up to 150%.

Multi-wing lobes
Lobes with multiple sealing lines increase the volumetric efficiency (multi-stage pressure increase).

V-interlocked lobes
This provides compensation of the axial forces. The load on the bearings is minimized, maximizing the lifetime.

Lobe material
The high-quality connection to the casting core and seamless rubber coating with special elastomers increases the lifetime of the rotary lobes.

HiFlo® technology
Pulsation-free pumping achieves impressively quiet operation and results in longer lifetimes for the drive, coupling and connected pipes.

Marathon style multi-stage pumps
The service time is prolonged dramatically thanks to multiple pressure stages.

Quality Cartridge mechanical seal
A complete unit for simple and quick replacement of all shaft seal components provides secure protection against failure of the seals and against damage to the pump and gearbox.

QUALITY CARTRIDGE

Service and Maintenance Have Never Been so Easy

Innovative pump technology includes rapid maintenance, cost-saving service and maximum availability. This is why we developed a completely new service concept for all pumps in the VX and IQ series. It ensures significantly reduced labor, considerably fewer spare parts and lower operating costs.

Maximum Availability Thanks to Minimum Servicing Requirements

1. Open the Pumping Chamber: simply loosen a few screws, remove the pump housing and you have free access to the rotary lobes. This makes it quick and easy to inspect the lobes and pump housing. If necessary, you can also replace the wear plate in the pump housing.

2. Change the Rotary Lobes: loosen the strain bolts, remove the pressure disks on the lobes, place the puller on the lobes and dismount them.

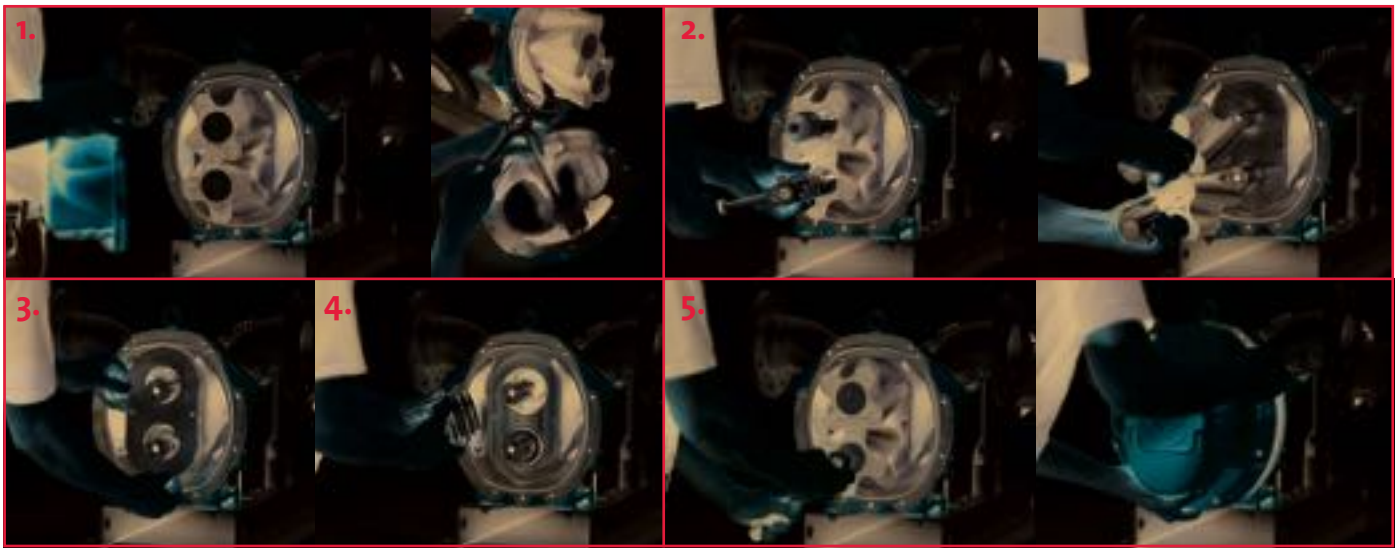
3. Remove the Wear Plates: after you have removed the lobes, all you have to do is loosen two screws and you can remove the wear plate at the gearbox side.

4. Remove the Quality Cartridge Mechanical Seal: using a simple rotor puller, you can now remove the Quality Cartridge mechanical seal as a complete cartridge, including the gear seal, and then replace it just as easily.

5. Assembly: insert the wear plate at the gearbox side, fasten it with two screws, install the lobes and fasten them on the shaft with pressure disks, fit the pump housing and screw it in place.

For all VX and IQ series pumps we can safely say: complex and time-consuming servicing is now a thing of the past.

Example of lobe change in an IQ series pump



Unique Lobes

The Right Lobe for Every Application

Optimized for the Application: The Lobes for the VX and IQ Series Pumps

If the focus is on high volumetric efficiency and pulsation-free running, the patented HiFlo® and HiFlo® plus lobes are the ideal choice. Thanks to their helical coiling, they enable constant pumping and a large sealing line. If sturdy operation is your priority, classic two-wing-lobes are perfect. Both lobe types are also available with replaceable lobe tips on request.

The material used for the lobe is just as important as its design: from classic elastomeric coating to solid material lobes made of stainless steel or polyurethane, we can provide just the right, long-lasting lobe material for your medium.

Coated lobes
NBR: wastewater, greases, salt water
NBR white: food
EPDM-SL: water, acids, lyes
EPDM-AL: drinking water
EPDM white: food
CSM: oil, acids, lyes
FPM: chemicals, acids, lyes, salt water

Solid material lobes
PUR: fine-grained abrasive media
PU: abrasive media
Stainless steel: aggressive media, food, higher temperatures
Steel, nitrided: abrasive media, higher temperatures

Pumps that Adapt to all Requirements:

Our rotary lobe pumps are compact and flexible. For example, pumps in the IQ series can be installed in almost any position, thanks to a rotating flange and built-in liquid buffer. The option of flow direction reversal and strong resistance to dry running provide the ideal starting point for easy charging and discharging, as well as filling and transfer processes.

Vogelsang pumps take up very little space – often just a quarter of that needed for a comparable progressive cavity pump. They can be driven by a geared motor, by a belt with an articulated electric motor or by a hydraulic motor. Due to their construction and the variety of their drive and expansion options, they can adapt to almost any condition.

Depending on the application, pumps are equipped with gray cast iron, stainless steel or special, highly wear-resistant metal alloys. This makes them suitable for countless applications – from highly abrasive ones, to those containing foreign matter, to chemically aggressive applications.

Vogelsang rotary lobe pumps can also be used to manufacture chocolate or apple juice when equipped with a Quality Cartridge mechanical seal and operated with food-grade lubricants. If a dry-running gasket is necessary, we also offer a reliable solution.

Technology that Pays Off

Vogelsang VX Series

The Complete Range for Varied Applications and Simple Servicing

The VX Series

Rotary lobe pumps in the VX series have an impressive range of sizes and designs, numerous equipment and material variants, and many drive possibilities and installation options. All models have two things in common: a compact design and easy maintenance.

With five series and up to eight sizes per series, a VX rotary lobe pump can be adapted to almost any delivery rate and pressure range.

Series	Max Pressure*	Max. Delivery Rate	Max. Speed
VX100	145 psi [10 bar]	220 gpm [38 m3/h]	1,000 rpm
VX136	232 psi [16 bar]	1602 gpm [280 m3/h]	800 rpm
VX186	232 psi [16 bar]	4513 gpm [800 m3/h]	600 rpm
VX215	102 psi [7 bar]	6239 gpm [1417 m3/h]	540 rpm
VX230	174 psi [12 bar]	5433 gpm [1233 m3/h]	540 rpm

* Maximum pressure varies according to model

Advantages of the VX Series at a Glance

- **Fast access to the pumping chamber by disassembling the cover**
- **On-site service and maintenance**
- **Self-priming and dry-running resistant up to 30 min.)**
- **Shaft warranty**
- **Free passage up to max. 2.4" [21mm]**
- **Pressure up to 232 psi [16 bar]**
- **Optional: 100% stainless steel wet end**

Break-Proof Shafts

VX pumps have sturdy, break-proof, bend-resistant shafts with a large cross section and without cranks and recesses to weaken them. This minimizes shaft deflection and start-up wear. We provide a warranty* against internal shaft breakage on all VX rotary lobe pumps.

* Under normal conditions of use in accordance with our terms of guarantee

Wear Plates

The wear plates can be replaced without dismounting the pump from the pipe and without disassembling the pump housing segments. This makes maintenance easier and minimizes downtime.

QuickService Design

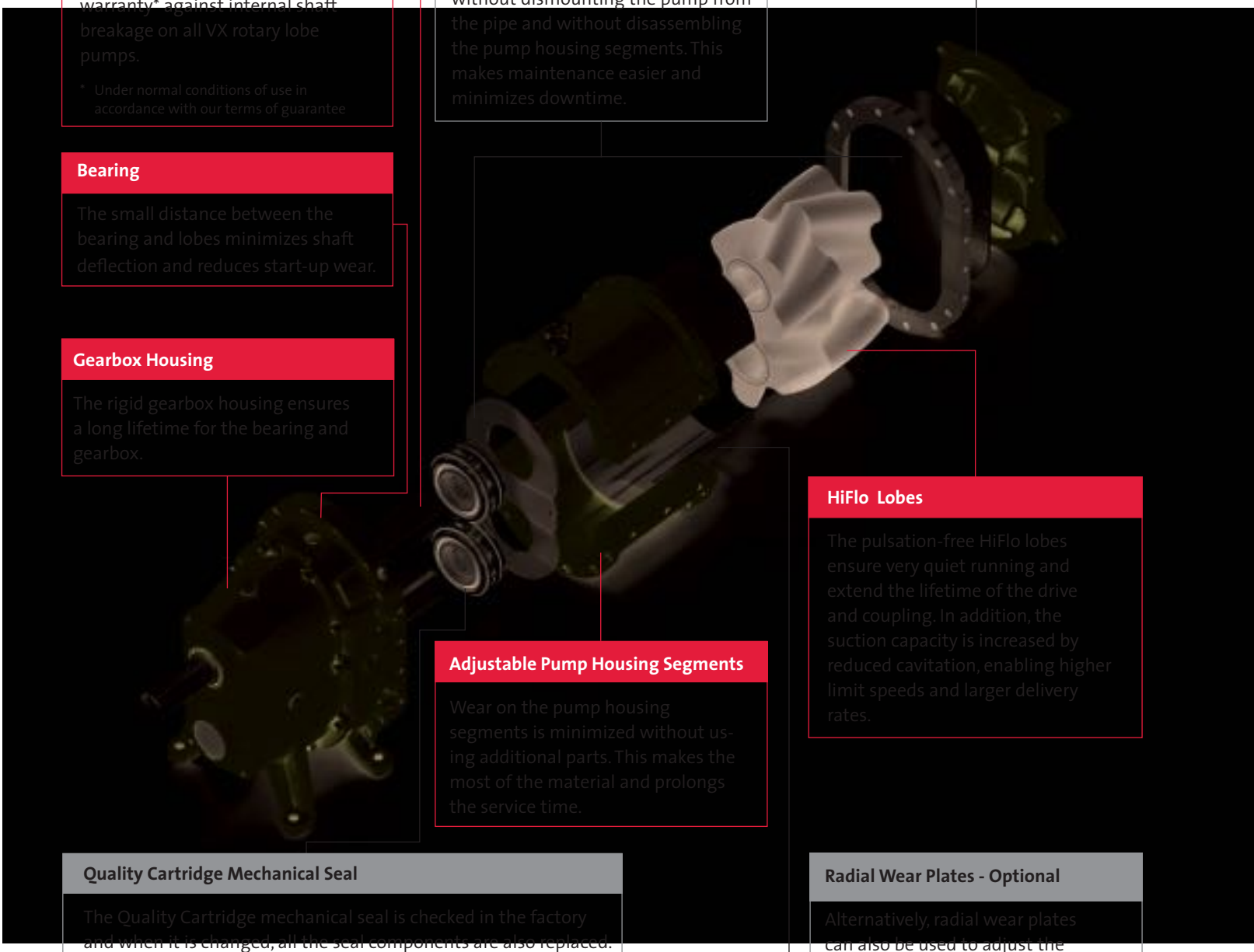
The rotary lobes, gasket, and wear plates can be replaced on-site without dismounting the pump. This saves money and ensures the highest possible level of system availability.

Bearing

The small distance between the bearing and lobes minimizes shaft deflection and reduces start-up wear.

Gearbox Housing

The rigid gearbox housing ensures a long lifetime for the bearing and gearbox.



HiFlo Lobes

The pulsation-free HiFlo lobes ensure very quiet running and extend the lifetime of the drive and coupling. In addition, the suction capacity is increased by reduced cavitation, enabling higher limit speeds and larger delivery rates.

Adjustable Pump Housing Segments

Wear on the pump housing segments is minimized without using additional parts. This makes the most of the material and prolongs the service time.

Quality Cartridge Mechanical Seal

The Quality Cartridge mechanical seal is checked in the factory and when it is changed, all the seal components are also replaced. This protects against sudden failures of the gasket and potentially fatal damage. The complete unit is easy to change, and the replacement process takes significantly less time.

Radial Wear Plates - Optional

Alternatively, radial wear plates can also be used to adjust the pump housing segments. The wear plates are made of hardened special steel.

Conclusion on using the VX pumps: all the wear parts in the pump chamber can be changed on-site without dismounting the unit from the pipe. After the lobes, wear plates and radial wear plates have been replaced, the pump returns to its full capacity.

Vogelsang IQ Series

Greater Cost-Effectiveness Thanks to Reduced Maintenance and Service

The most modern pump technology: compact dimensions, flexible installation options, quicker and more cost-effective servicing make the IQ series rotary lobe pumps unique.

IQ Series – A New Concept

The pump housing is a complete unit. The pumping elements can be accessed freely in a few easy steps while the pump remains firmly screwed into the pipe.

IQ Series – Easy to Integrate

The connecting parts used for the variable series allow the majority of installation circumstances to be met. This means that the IQ series pumps can be quickly and easily attached or installed in a wide range of positions, including to tank vehicles and mobile units, without the need for special connections.

IQ Series – For Low Operating Costs

The number of central spare parts has been halved in comparison to the conventional design. The costs for replacement parts are reduced accordingly. The concept of the IQ series allows further cost savings as the time required for cleaning and replacing parts has been significantly reduced. IQ pumps are designed so that less than half the time is required to replace all wear parts – including rotary lobes, wear plates, pump housing and gaskets – compared to rotary lobe pumps that are commonly found on the market.

IQ Series – For Special Applications

The nominal delivery rate of IQ pumps is up to 339 gpm [77 m3/h] at pressures of up to max. 116 psi [8 bar]. The IQ series is perfectly suited to demanding applications with abrasive media, for example in disposal processes.

Series	Max. Pressure Range	Max. Delivery Rate	Max. Speed
IQ112-81Q	116 psi	242 gpm	900 rpm
IQ112-114Q	73 psi	339 gpm	900 rpm

Advantages of the IQ Series at a Glance

- **Quicker, optimum access to the pumping elements**
- **Pump always remains firmly screwed into the pipe during service and maintenance work**
- **Integrated dry-running protection**
- **Self-priming, good suction capacity**
- **Easy and flexible integration**

Dry-running Protection and Optimum Suction

Thanks to the innovative design of the gearbox housing with its built-in liquid buffer, the IQ series has excellent dry-running protection and a high suction capacity.

Pump Chamber

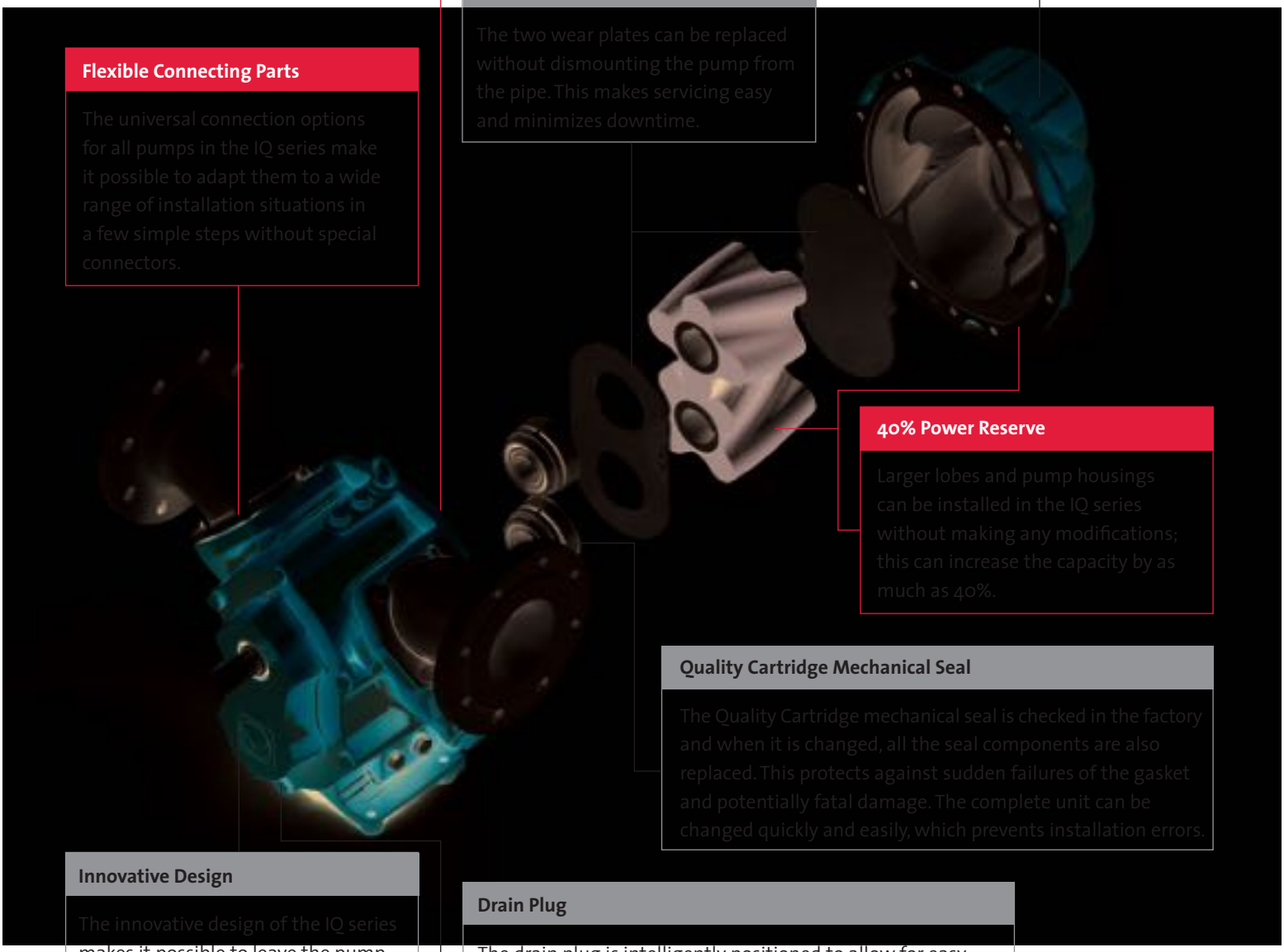
The pump housing can be dismounted in a few simple steps and it can be replaced if necessary. The pumping elements are easily accessible for servicing and maintenance.

Wear Plates

The two wear plates can be replaced without dismounting the pump from the pipe. This makes servicing easy and minimizes downtime.

Flexible Connecting Parts

The universal connection options for all pumps in the IQ series make it possible to adapt them to a wide range of installation situations in a few simple steps without special connectors.



40% Power Reserve

Larger lobes and pump housings can be installed in the IQ series without making any modifications; this can increase the capacity by as much as 40%.

Quality Cartridge Mechanical Seal

The Quality Cartridge mechanical seal is checked in the factory and when it is changed, all the seal components are also replaced. This protects against sudden failures of the gasket and potentially fatal damage. The complete unit can be changed quickly and easily, which prevents installation errors.

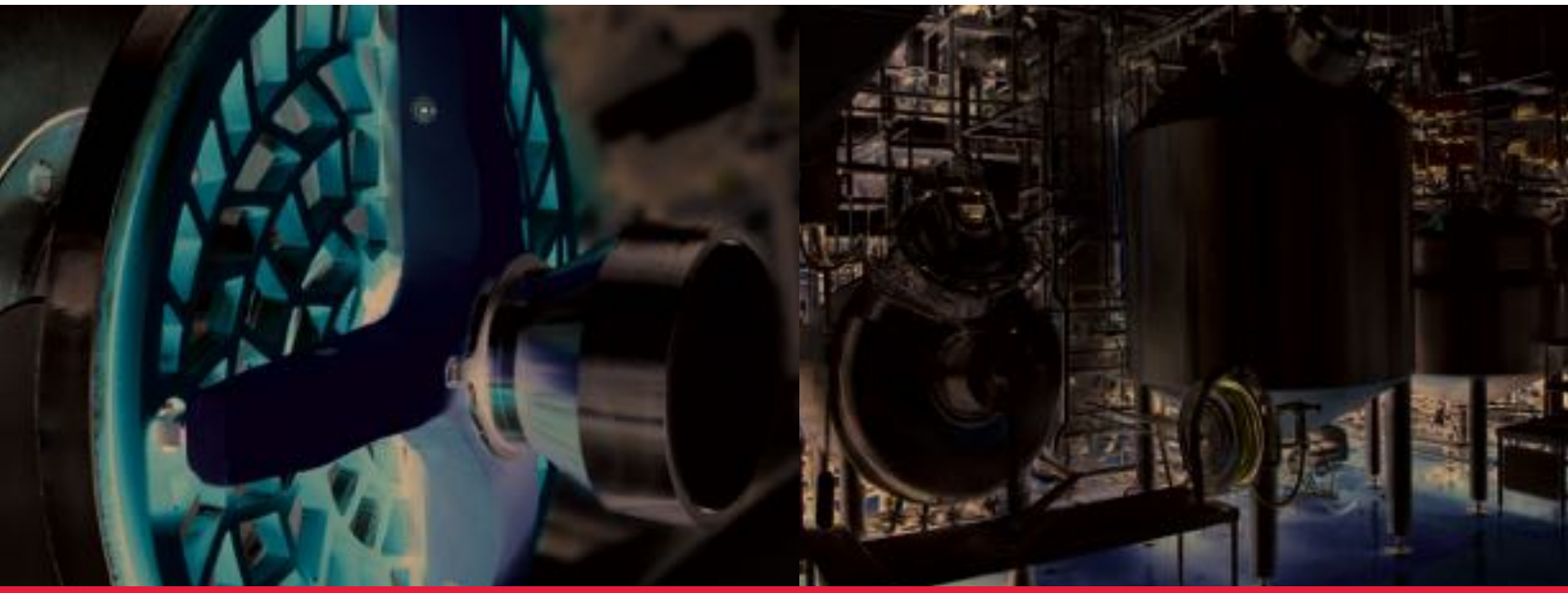
Innovative Design

The innovative design of the IQ series makes it possible to leave the pump firmly screwed into the pipe during service and maintenance work.

Drain Plug

The drain plug is intelligently positioned to allow for easy and clean draining of the pump chamber for service and maintenance work.

Conclusion on the IQ Pump Technology: Compact construction, flexible connectors, excellent dry-running protection and the option of increasing capacity by up to 40% make it easier to install and handle during operation. This saves significant time and money each and every day.



Sturdy, Solid and Responsible for Initial Treatment of the Substrate

RotaCut®

The Perfect Solution for Secure Processes

How it Works

The RotaCut® combines two functions: separating and shredding. While the medium flows continuously through the RotaCut®, heavy material such as stones or metal parts are separated out by gravity and then effortlessly disposed through a cleaning port. In addition, floating and suspended substances within the medium that are only coarsely shredded (fibers, hair, bones, wood, entangled material) are transported to the cutting screen by the liquid current and shredded by rotating, self-sharpening cutting blades.

Variety of uses

Not all waste materials from food production are suitable for pumping after just one grinding or shredding step. In particular, fish, meat and vegetable waste often contain coarse matter, including particles of plastic or metal. This can lead to malfunctions or failures in downstream pumping elements, which can be prevented by using a RotaCut®.

Depending on the application, it may be possible to adjust the unit individually to the medium to be pumped and the desired size-reduction ratio by selecting suitable rotor types, cutting screens and separators.

ACC® – Automatic Cut Control

Automatic Cut Control ensures consistently excellent cutting in the RotaCut®. During cutting, it is important for the cutting blades to press against the cutting screen at a constant pressure. This prevents fibers and other coarse matter from slipping under the cutting blades and causing blockage; as a result, ACC automatically adjusts the cutting blades and keeps the necessary contact pressure constant – as high as necessary and as low as possible. This significantly increases the lifetime of the cutting blades and eliminates the need for manual adjustment.

In the ACC plus version, the system also provides information about the condition of the cutting blades. Information about the cutting blades' remaining lifetime is displayed on the unit or it can be transferred to the central control system.

RotaCut® Advantages at a Glance

- **Reliable shredding of fibrous and coarse matter**
- **Foreign matter protection for all downstream components**
- **Secure protection of downstream pumping devices**

RCQ-20 **RC5000 Compact** **RC10000 Compact XL** **RCX-58G**

Performance Control Unit (PCU): Security Through Intelligence

If multiple pumps and grinders are grouped together into one unit, the PCU monitors processes in each unit, as well as other parameters. It ensures optimum communication between the machines and continuously monitors their loads. All the components are controlled to ensure optimum results. Malfunctions are identified and rectified promptly in a completely automatic process. Any risk of blockage to the RotaCut® is eliminated by automatically switching the cutting direction. All the parameters are transferred to the central control system via Profibus connection.

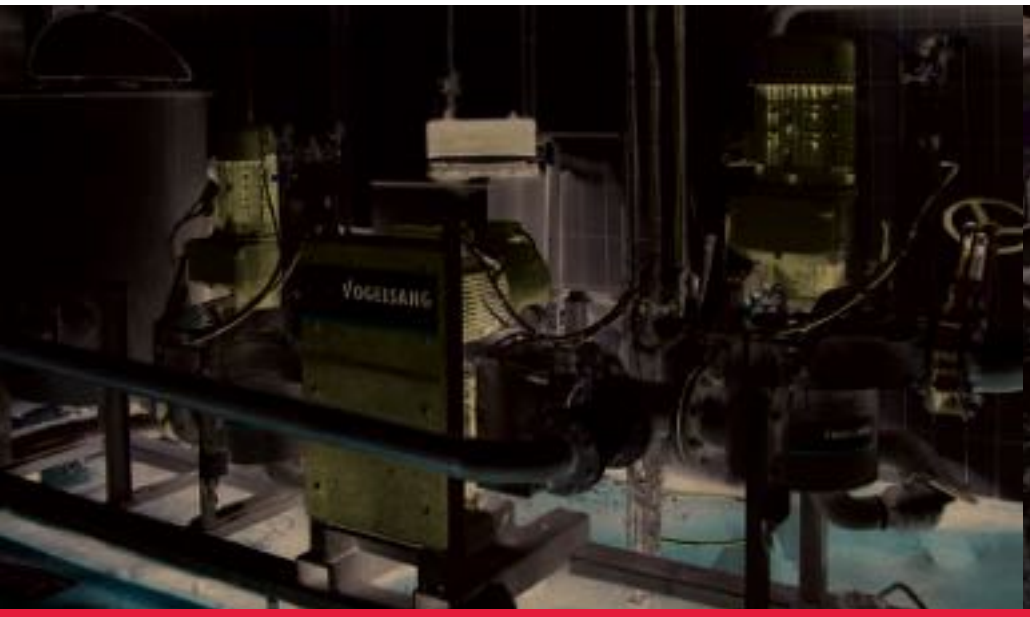
ACC Advantages at a Glance

- **No need for manual cutting blade adjustment, operation is fully automatic and free of interruptions**
- **Contact pressure can be readily adjusted to the medium without interrupting operation**
- **Minimum wear and low current consumption reduce operating costs**
- **Consistently excellent cutting and constant size-reduction ratio provide optimum results**

PCU Avantages at a Glance

- **Autonomous operation reduces maintenance**
- **Fully automatic and situation-dependent control of operating parameters ensure efficient operation**
- **Longer lifetime lowers operating costs**
- **Automatic fault elimination**

Type designation		RCQ-20	RC3000	RCQ-26	RC5000	RCQ-33	RC10000	RCX-48	RCX-58
Motor type									
Geared motor		✓	✓	✓	✓	✓	✓	✓	✓
Hydraulic motor			✓		✓		✓		✓
Optional speeds	rpm	87 - 320	76 - 326	72 - 326	66 - 330	72 - 326	66 - 319	114 - 311	94 - 276
Optional motor output	hp	3.0	3.0-5.0	3.0-5.0	3.0-10.0	3.0-10.0	3.0-10.0	7.5-15.0	10.0-20.0
Maximum flow rate	gpm	396	792	792	1320	1320	2640	2640	3300
Type overview		Inline	Inline	Inline	Inline	Inline	Inline	RCX	RCX
Design of separator container			Cyclone MXL	Cyclone	Cyclone MXL MX Compact Compact XL	Cyclone	Cyclone MXL Compact Compact XL		MXL



Cut&Pump

The effective combination of a Vogelsang rotary lobe pump, RotaCut® and XRipper® is specifically designed for applications in the food industry and can be customized to individual needs.

Performance

Defined cutting parameters are needed for production and disposal of residue in vegetable, meat or fish production. By combining grinders with different cutting properties, Cut&Pump system solutions make it possible to comply with production-specific or legal requirements. Thanks to the built-in rotary lobe pump, the shredded material can be pumped directly.

Design

Cut&Pump systems generally consist of three components:

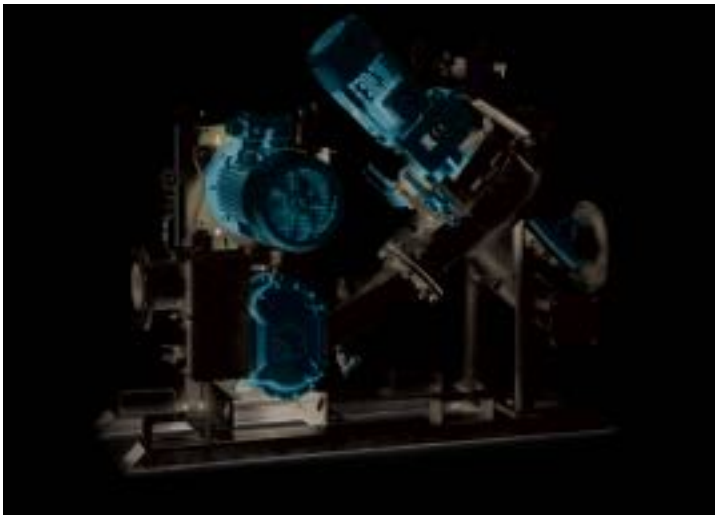
- A self-priming rotary lobe pump, e.g. VX 136-70Q
- One or more RotaCut® units, e.g. RC5000pro
- Buffer container and connecting pipe system

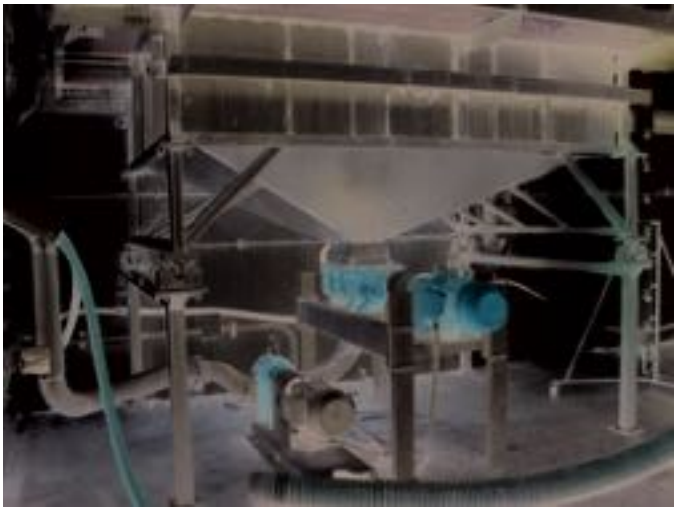
Depending on the material and the desired cutting, it is possible to combine multiple RotaCut® units on the pressure or suction side. In a typical system with two RotaCut® units, the particle size after shredding can be between .78 and .2 in., depending on which cutting screen is chosen. The throughput is between 22 and 132 gpm. A third RotaCut® improves the throughput and size-reduction ratio. The recommended operating pressure is up to 29 psi.

Other options include bypass pipes and a recirculation pump, as well as a powerful XRipper® twin-shaft grinder for a previous process step.

All Cut&Pump units are sold with a complete control unit. The specific equipment includes measuring and control technology, such as ultrasonic sensors, pressure and temperature measurement, and is customized for the specific requirements.

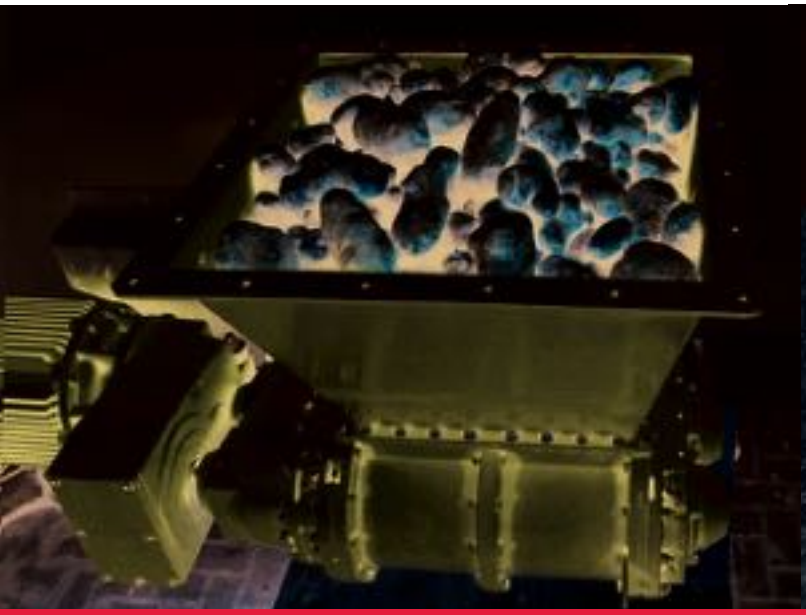
Every Cut&Pump system is individually assembled, installed, tested and delivered on a mount, keeping preparation work and installation time to a minimum at the customer's site. Designed as a central pump station, a Cut&Pump system can also take on other pumping tasks in the system – such as feeding a remote external storage facility.





Advantages of the Cut&Pump System at a Glance

- **Individually planned unit consisting of pumping and shredding technology**
- **Combination of multiple shredding provides precise particle size reduction**
- **Sturdy components specially developed for high foreign matter and fiber content**
- **Complete package, including measuring and control technology**
- **Easy and rapid maintenance thanks to the QuickService concept**
- **Can be used as a central pump station**



Easy Particle Size Reduction of Vegetables, Fruit and Biowaste

XRipper®

The Sturdy Twin Shaft Grinder

The All-Rounder

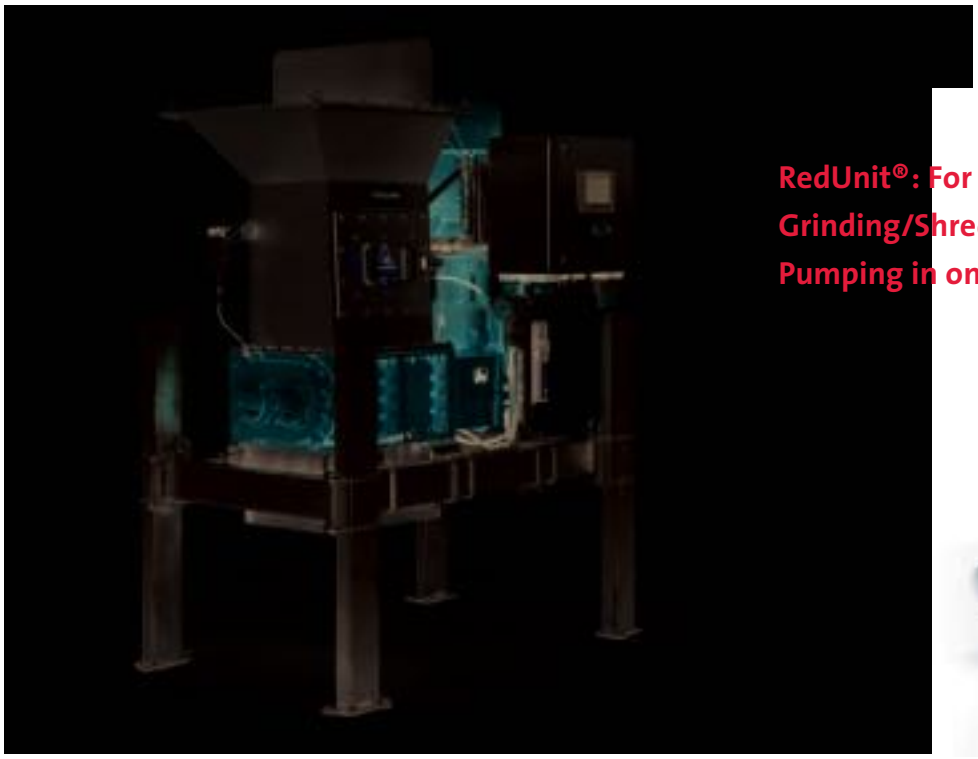
The XRipper® in the tried-and-tested twin-shaft design shreds large-volume solid matter such as fruit and vegetables, but also food leftovers and waste from the food industry. Complete structures – including coarse matter made of metal or plastic – are easily shredded in media or bulk goods.

XRipper® Advantages at a Glance

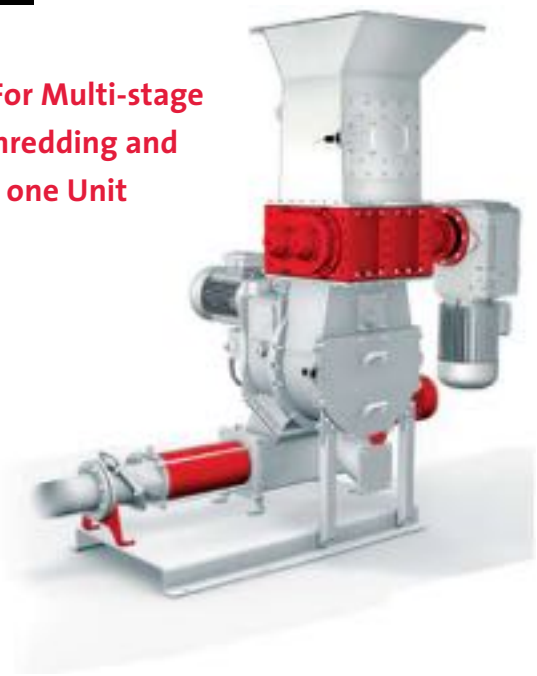
- **Multiple applications in preliminary shredding: vegetables, meat, offal, complete structures or even packaging units**
- **Rugged design ensures long service times**
- **Single-piece rotors provide secure and reliable cutting**
- **High availability due to quick and easy service and maintenance**
- **Can be combined with RotaCut® for optimized results**

XRipper® – Specifications

Type	Max. Perm. Pressure, psi	Available Cut Solids, in	Max. Perm. Operating Torque, In. lbs.	Max. Throughput gpm	Throughput Refers to Medium
XRS100-90Q	131	.32	2655	242	Water
XRS136-140Q	174	.47	10620	484	Water
XRS136-140QD	174	.47	10620	484	Water
XRS186-130Q	174	.59	21240	748	Water
XRS186-130QD	174	.59	21240	748	Water
XRS186-260QD	145	.59	21240	1584	Water
XRS186-520QD	87	.59	21240	2994	Water
XRS186-780QD	43	.59	21240	4491	Water
XRL186-260QD	29	.59	21240	333	Easily shredded solid matter
XRL186-520QD	29	.59	21240	666	Easily shredded solid matter
XRL186-780QD	29	.59	21240	1000	Easily shredded solid matter



RedUnit®: For Multi-stage Grinding/Shredding and Pumping in one Unit



XRipper® XRL with Preassembled Feed Shaft

How it Works

The ripper rotors are generously dimensioned and made of special steel. They are fitted so they interlock on the shafts, which do not come into contact with the medium. Sharp tips and edges shred solid matter and long-fibered materials and crush coarse and brittle components. The size-reduction ratio can be adjusted by altering the width and contours of the ripper blades.

Single-Piece Ripper Rotors

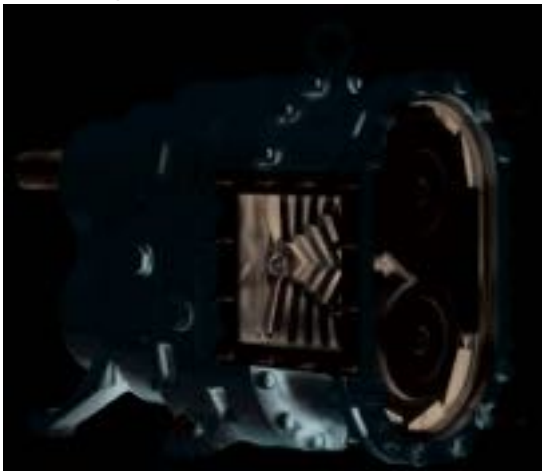
The rotors are not made of individual blades, but a single part. This significantly reduces the risk of blockage and wear. The single-piece design also means that less time is needed to change the rotors.

The Space-Saving Chopper Pump

The XRipper® Combi shreds and pumps in the smallest of spaces. The combination of a twin-shaft cutter and rotary lobe pump makes it possible to shred and treat coarse and large-volume solid matter in liquid media and to pump the resultant suspension – all this with just one drive and in just one step. This protects downstream components and units against damage and repairs. The liquid suspension passes through the XRipper® chamber largely uninhibited. It flows between the XRipper® rotors and the housing. The medium is then directed into the pump chamber and pumped to its intended destination.

Easy-to-Maintain Design

The XRipper®'s sturdy QD type of construction with bearings on both sides guarantees excellent stability. The QuickService concept allows for fast, on-site service and maintenance without having to remove and disassemble the XRipper®. This guarantees high availability.



XRipper® Combi – Specifications

Type	Rated Capacity gpm	Max. Pressure psi	Nominal Speed rpm	Max. Perm. Operating Torque in. lbs.	Cut Solids in.
XRS100-45/64Q	42-92	43	200-450	2655	.32

We Leave Nothing to Chance in the Service Area

Whether you require commissioning, training, or full service with a maintenance agreement and wearing parts service package, we are always available with our individual all-around service and we guarantee smooth operation from the start.

Comprehensive Services for Smooth Operation and a Long Service Life

Support and Supply from A to Z

Because we are aware that close customer proximity is essential for our joint success, we design our services to best meet your needs. In Germany and in countries in which we have subsidiaries, Vogelsang service centers and contractual partners generate an active dialogue with our customers and provide reliable support.

That means: you always get the precise support you need in every phase of our partnership. Our highly qualified staff makes it possible – experts such as consultants and technicians who know your Vogelsang machines inside and out.

We Think Ahead

Thinking ahead in your best interest begins with our extensive and detailed product documentation. Spare parts are available within a short time due to our high degree of vertical integration in production. In addition, you will always find an authorized service partner in your area who can help with repairs and wearing parts replacement. The Vogelsang ServicePack completes
the offer. Whether you need start-up, on-site training, training at the Vogelsang facility, or full-service support with a maintenance contract and a wearing parts service package – we offer a support program tailored specifically to your needs.

LifeGuard – Leading via Innovation

Maintenance generally results in down-time and expenditures for personnel and spare parts. We have, therefore, developed a concept to keep service and repair times to a minimum: LifeGuard – a maximum service life guarantee for our products.

The service life of a Vogelsang machine is determined by specific LifeGuard factors. We take these factors into consideration and offer you features that are relevant for maximum productivity and service life.

Many years of experience in the use of our machines and equipment in the food industry has shown that when they used in combination with our performance control units (PCU), LifeGuard can produce optimal results while ensuring a long and trouble-free service life for your machine.

VOGELSANG
ENGINEERED TO WORK

Our Company
Innovation and progress have been hallmarks of Vogelsang for over 80 years and have made us a leading global plant engineering company. Time and time again we have achieved significant milestones of progress. Today, we develop, manufacture and distribute some of the most innovative and reliable machines and systems for agriculture, municipalities and industry.

With our overseas subsidiaries and service centers, we are world-renowned for advanced engineering and customer-friendly solutions.

Our Product Range
We offer solutions for the following areas:
- Industrial markets
- Waste water treatment
- Biogas
- Railway waste water disposal
- Agriculture

We Offer a Broad Range of Products:
- Rotary lobe pumps
- Maceration technology
- Distributors
- Spreading technology
- Supply and disposal systems
- Complete solutions

We also offer customized solutions for your specialized applications.

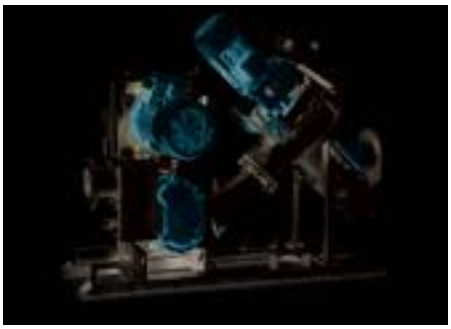
How to Reach Us
Vogelsang is present worldwide. Visit us online for more information about our company and wide range of services:
vogelsangusa.com

We are here to assist you and look forward to speaking with you.

Vogelsang USA
PO Box 751
9766 State Route 44
Ravenna, Ohio 44266
Toll Free: (800) 984-9400
Phone: (330) 296-3820
sales@vogelsangusa.com

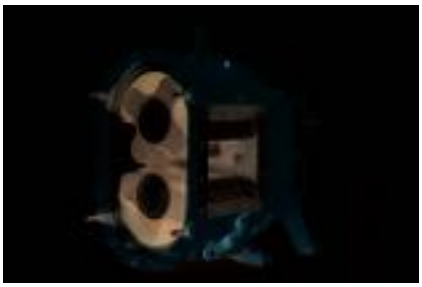
vogelsang.info

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®
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.

REDUnit®
Grind, cut and pump in one unit. Get a turnkey system for solids reduction.