



**VOGELSANG**  
ENGINEERED TO WORK



PRECISION INLINE GRINDING & SOLIDS SEPARATION

# RotaCut Inline Grinders

True protection of downstream pumps and equipment.





**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 include Auto Reverse, Auto Cut Control, 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, the RotaCut will eliminate ragging, reduce solids and protect downstream equipment. Protect pumps and dewatering equipment from clogging, prevent damage to belt press and plate and frame press applications, and more efficiently balance your centrifuge feed.

**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 is our standard design and 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 maximum 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.



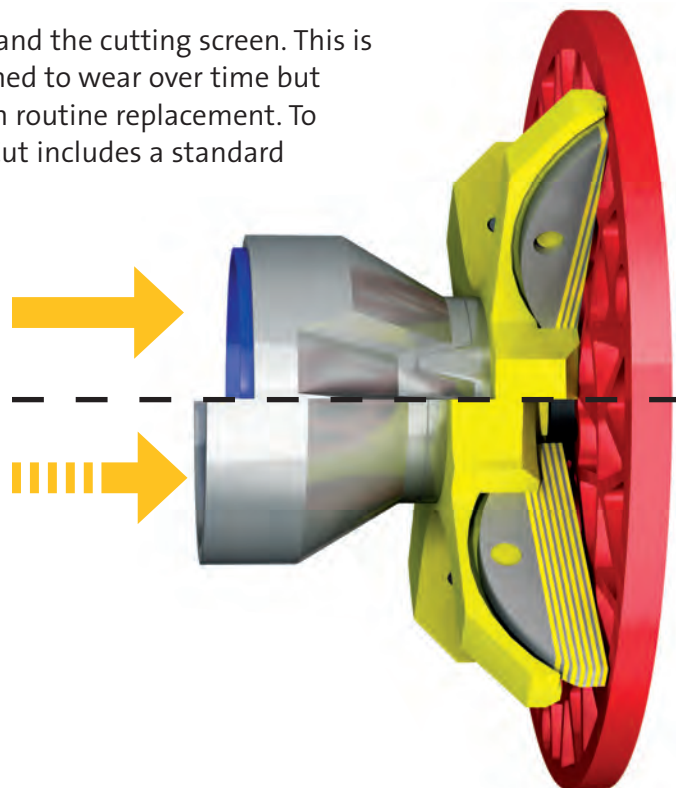
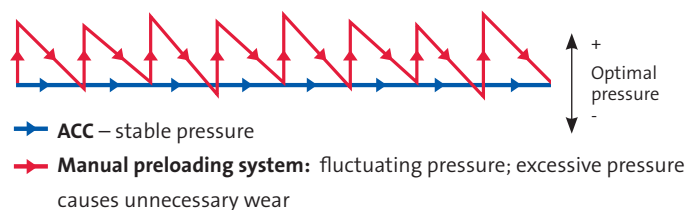
## INCREDIBLE SOLIDS HANDLING & MAXIMUM LIFE CYCLE

### 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.







## Easy Inline Maintenance

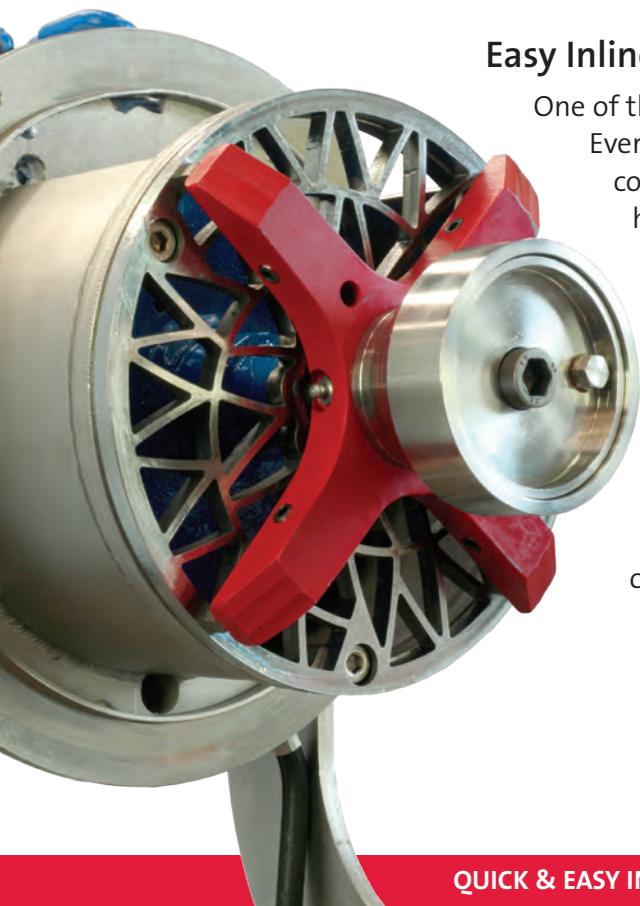
One of the best features of the RotaCut is how easy it is to maintain.

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.

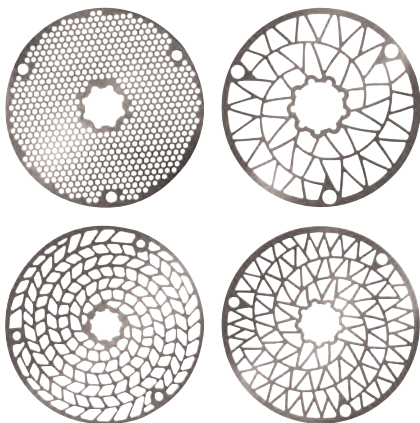
Typical routine service such as changing blades or flipping the reversible cutting screen takes only a fraction of the time required to service a typical twin shaft grinder. In addition there are no cartridge style parts that require factory refurbishment.



### QUICK & EASY INLINE MAINTENANCE

## RotaCut Grinder Performance Specifications:

Model		Capacity gpm	m3/h	Motor Power hp      kW		Cut Solids in      mm		Flange Size in      mm		Max Pressure psi      bar		Motor Gear   Hyd		Speed Options 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	6	.5	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	6	.5	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	6	.5	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.



## APPLICATIONS

Our grinders have been widely chosen for handling solids and conditioning liquids in a variety of applications across several markets and industries.

RotaCuts are generally placed in front of pumps and process equipment that are vulnerable to damage by liquids containing hard solids, fragments and debris commonly found in wastewater sludge streams.

In many cases, optimum solids reduction and separation is achieved through a combination of the RotaCut and our X-Ripper twin shaft grinder. X-Ripper provides high volume coarse solids reduction while the RotaCut produces a finer consistent cut to a desired size.

### Wastewater Treatment

Wastewater Treatment is the most common process requiring an inline solids handling device. The RotaCut is perfect for many applications in the wastewater process such as: Primary & Secondary Sludge, Sludge Transfer, Dewatering Feed.

The RotaCut reduces floatable solids commonly found in sludge such as rags, hair, wood and plastic objects. It also removes hard objects such as stones and metal objects from the liquid stream.

Easy Inline maintenance and inexpensive spare parts are very attractive features to wastewater plants. A RotaCut is maintained inline without sending anything to the factory for repairs.

### Food Waste & Disposal

The RotaCut and X-Ripper are great for handling food waste and reducing it to a size suitable for pumps and dewatering devices to handle. It also maximizes the efficiency of waste handling containers and related processes.

The RotaCut is the ideal choice for solids reduction in a liquid stream. It reduces solids containing skins, rinds, bones and other waste matter.

The X-Ripper can operate wet or dry and is available in both an inline or horizontal dry feed configuration. The X-Ripper reduces large volumes of heavy solids such as whole waste fruit or vegetables, whole carcasses or even waste products still in packaging.





### Meat & Poultry Waste

Meat & Poultry requires the handling and disposal of waste materials quickly and efficiently. We often combine an X-Ripper, a RotaCut and VX Pump in one package to reduce solids in stages and to prevent clogging and overall process efficiency.

Multiple RotaCuts using decreasing screen patterns can be staged inline to reduce large solids down to a fraction of an inch.

The X-Ripper can reduce entire animal carcasses quickly without clogging. The XRL features an optional scraper that keeps the cutting elements free of build-up for efficient operation.

### Biogas

Much like wastewater, biogas requires an inline grinder in various locations throughout the slurry conditioning process.

Our Cyclone and Pro series RotaCut offers better grinding of long fibrous solids commonly found in animal and agricultural waste. The RotaCut separates out large rocks, horseshoes and other heavy objects that commonly end up in a slurry pit.

The RotaCut RCX is commonly placed behind our QuickMix slurry mixing product. The high capacity RCX grinds and homogenizes the slurry making it ideal for efficient digestion.

### Digester Cleanout

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 used for municipal, industrial or agricultural wastewater.



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#### **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:

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