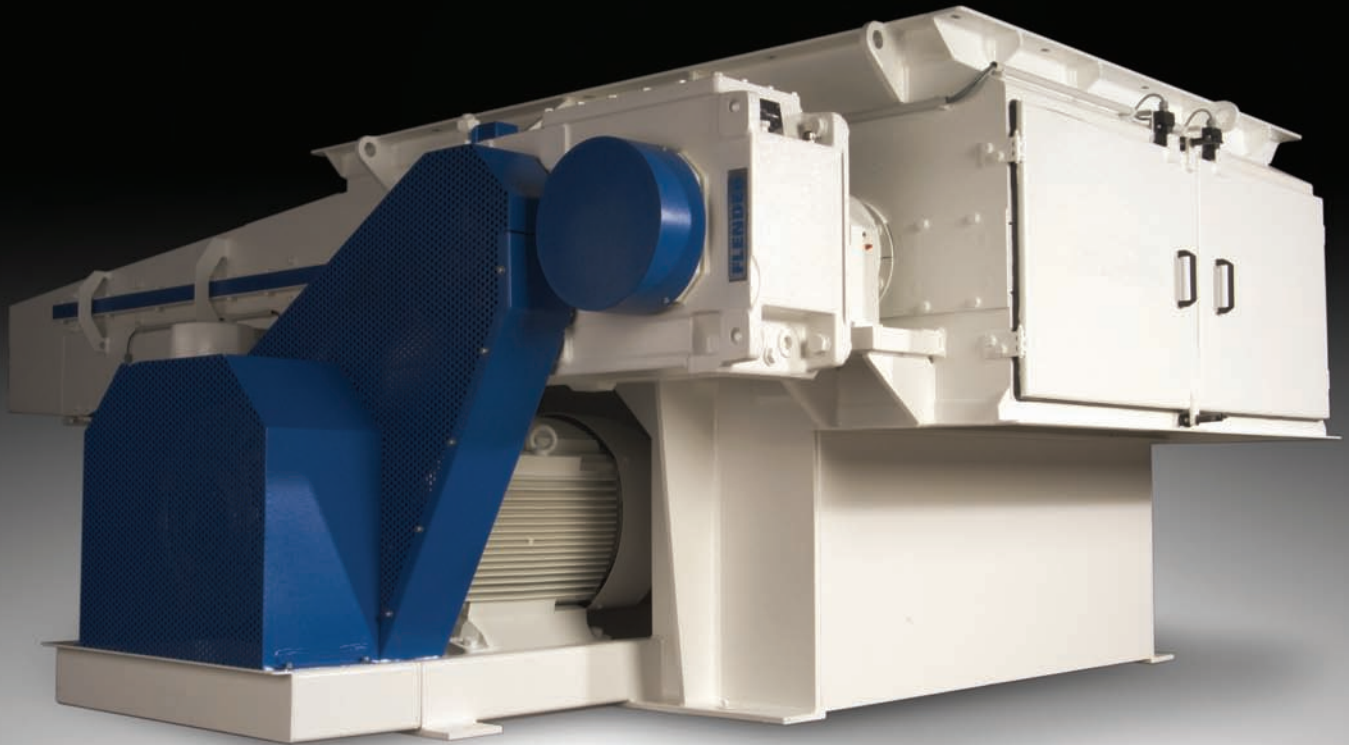


TECHNOLOGY FOR A SUSTAINABLE TOMORROW



Shredding



TECHNOLOGY FOR A SUSTAINABLE TOMORROW

INDUSTRIAL SINGLE-SHAFT SHREDDERS

Vecoplan[®]

VECOPLAN

A History Of Growth Through Innovation

Headquartered in Bad Marienberg, Germany, Vecoplan was founded in 1969 as a manufacturer of innovative, high quality wood chippers. Throughout the 1970s sales grew, the business grew and Vecoplan engineers continued to innovate in size-reduction machinery for the wood industry. Vecoplan's facilities and product line have grown exponentially since then, but two things remain the same, Vecoplan continues to innovate and still manufactures the highest quality wood chippers in the world.

Out of these strong wood industry roots Vecoplan branched into other market segments. By the early 1980s an increasing number of industries were discovering Vecoplan and finding new applications for Vecoplan technologies. Inspired by this success, Vecoplan engineers invented the first single-shaft rotary shredder. This invention revolutionized Vecoplan as a company, size-reduction as a technology, and the processing of waste materials for recycling or repurposing as a whole.

In 1989 Vecoplan was awarded an European patent for the single-shaft shredder and its unique "U-rotor". This rotor design continues to be the most advanced cutting geometry for the universal size-reduction of a comprehensive range of waste materials. Today, Vecoplan shredders are used not only to process Wood scrap, but also Plastics, Paper, Domestic & Commercial Waste, Biomass, Alternative Fuel Feedstocks, and in a broad spectrum of other Special Applications.

Vecoplan received its ISO 9001 certification in 1994. This, the highest standard set for quality systems, confirms Vecoplan's dedication to innovative product development, design engineering, quality manufacturing, and overall quality control standards. Ensuring the absolute best in customer service has been, and remains Vecoplan's top priority.

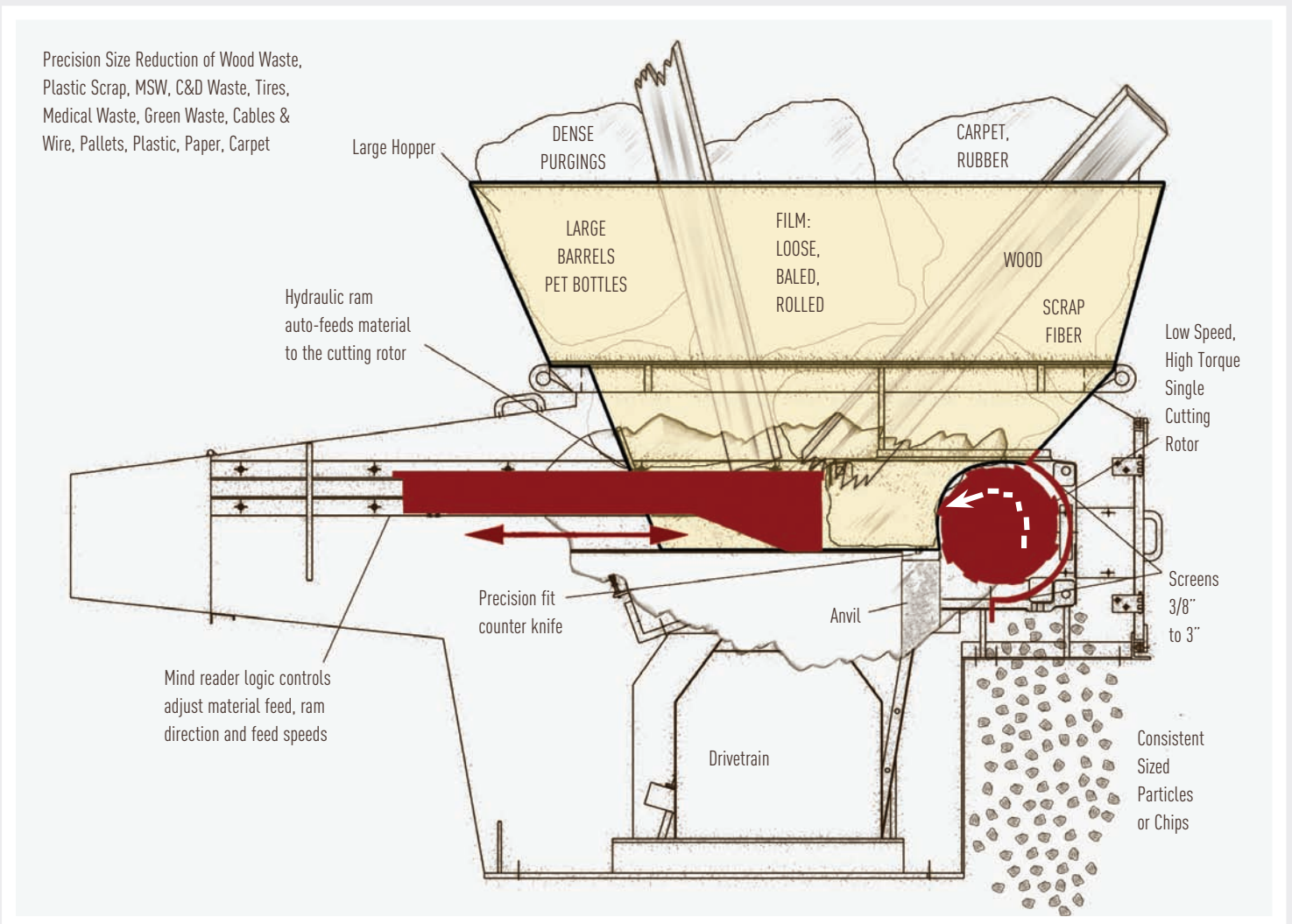
By the end of the twentieth century, Vecoplan had established itself as the leader in size-reduction technologies throughout Europe and most of the world. But in America, single-shaft grinders from ReTech Industries had become the most widely used line of size-reduction equipment. In 2000, the two companies combined forces to form Vecoplan, LLC – solidifying Vecoplan as the undisputed global leader in size-reduction machines and complete systems for the processing of waste materials.

In addition to Vecoplan AG, in Germany, Vecoplan LLC, in North America, and Vecoplan UK, in the United Kingdom, Vecoplan has a vast array of agencies in countries around the world, maintaining a substantial presence on every developed continent. Currently there are over 10,000 Vecoplan machines and systems in operation throughout the world. If you are involved in recycling, processing alternative fuel feedstocks, or any type of waste processing, Vecoplan is your best source for cutting-edge technologies to do it better and a partner to grow with.



THE VERTICAL FEED ROTARY SHREDDER CONCEPT

Low Speed, High Torque, Low Noise, Ram Feed, Single-Shaft Rotary Operation



STATE OF THE ART DESIGN ENGINEERING AND PRODUCTION



Vecoplan takes great pride in offering our customers over 40 years of experience in innovative product design, engineering and production. Vecoplan's 200,000 square foot facility manufactures standard machines as well as custom systems. The efficiencies gained from our customized integrated manufacturing systems, which assign the proper resources to accommodate demanding schedules, assure our customers of the highest quality product, system compatibility and on-time delivery. The engineering staff at Vecoplan is segregated into teams responsible for certain "families" of products and see projects through from inception to start-up. Computerized planning and inventory systems automatically select components and sub-assemblies. In addition to constantly striving to align itself with the highest quality vendors, Vecoplan is the only single-shaft rotary shredder manufacturer to have earned ISO 9001 certification, the most stringent quality standards program there is. Vecoplan's quality assurance program begins with sales activities and continues through design and production following the ISO 9001 licensed quality program.

VECOPLAN'S COMMITMENT TO SERVICE

Vecoplan machines are manufactured for durability and designed for ease of maintenance, but when you need assistance, Vecoplan delivers the best. The industry's finest support staff is at your disposal and consists of, second-to-none, factory trained service technicians.

- Vecoplan maintains an extensive parts inventory
- Corporate Parts Discounts and Scheduled Service Agreements Available
- Control panels featuring Remote Electronic Interfaces (modems) for immediate trouble-shooting are available
- In stock parts engineered specifically for Vecoplan products
- Many machine components utilize easy-to-find standard domestic parts



OUR TEST LAB

Application Analysis and Product Development

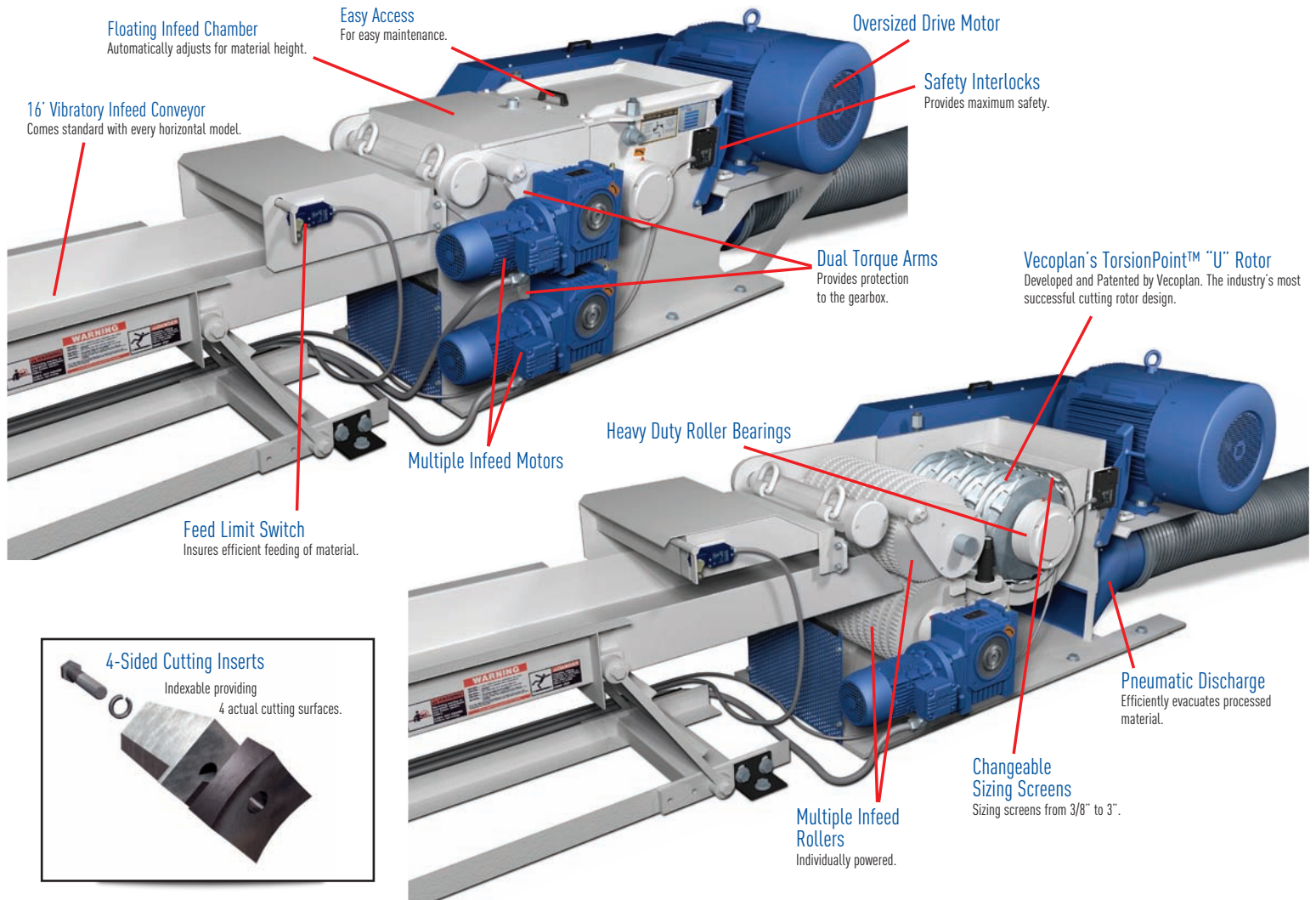


In its continuing efforts to remain on the cutting edge of size-reduction technology, Vecoplan, LLC offers comprehensive viability testing of your materials. Vecoplan's complete in-house test lab and size-reduction facility is a typical layout representing actual processing environments. It allows you and Vecoplan engineers to perform throughput, consistency and feasibility studies by conducting trial runs of your materials under production conditions. All data, along with technical analysis, remains confidential between Vecoplan and the customer. For additional information or to schedule a test run, call: 336-861-6070 or email info@vecoplanllc.com.

Please send test samples prepaid to the following address:
Vecoplan, LLC • 5708 Uwharrie Rd. • Archdale, NC 27263 • Attn: Sales Manager

VECOPLAN HORIZONTAL MODELS

Available with Low Speed U-Rotor OR Knife Chipper / Plastic Granulator Rotor



OUR UNIQUE GUARANTEES

Vecoplan's goal is to earn and keep our customers' respect... we back it in writing.



Vecoplan realizes that a relationship with customers is what makes a company successful. We are proud of our equipment - and we show that pride in writing with an array of warranties and guarantees. All units are automatically backed with a full 1 year warranty.

OUR MODELS

Vertical Feed Shredders

| Model | HP | Rotor Dia. | Hopper Opening |
|----------|-----------|------------|----------------|
| VAZ 800 | 20 | 10 inch | 32" x 42" |
| VAZ 1100 | 30 | 10 inch | 42" x 48" |
| VAZ 1300 | 60 - 150 | 15 inch | 52" x 58" |
| VAZ 1600 | 75 - 150 | 15 inch | 63" x 80" |
| VAZ 1800 | 150 - 200 | 20 inch | 70" x 82" |

Many other models and auxiliaries are available, including:

- drum chippers
- double-shaft shredders
- conveying technologies
- screening machines
- metal detection and separation equipment
- full turn-key system design and manufacturing



Horizontal Feed Shredders

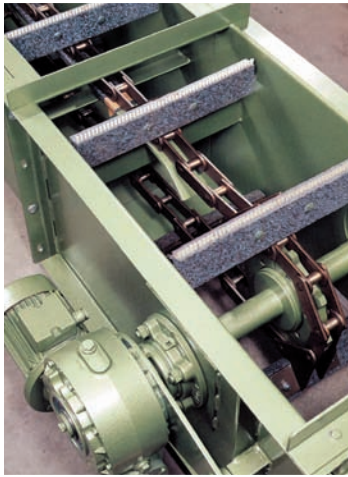
| Model | HP | Rotor Dia. | Hopper Opening |
|-------------|----------|------------|----------------|
| VTH 35/8/2 | 40 | 12 inch | 14" x 3.5" |
| VTH 45/12/2 | 50 - 60 | 16 inch | 18" x 5" |
| VTH 55/15/2 | 60 - 100 | 20 inch | 22" x 6" |
| VTH 65/12/2 | 60 - 75 | 16 inch | 25" x 5" |
| VTH 85/12/2 | 75 - 125 | 16 inch | 34" x 5" |
| VTH 45/12/2 | 50 - 60 | 16 inch | 18" x 5" |

VECOPLAN - YOUR TOTAL SYSTEM SOLUTION

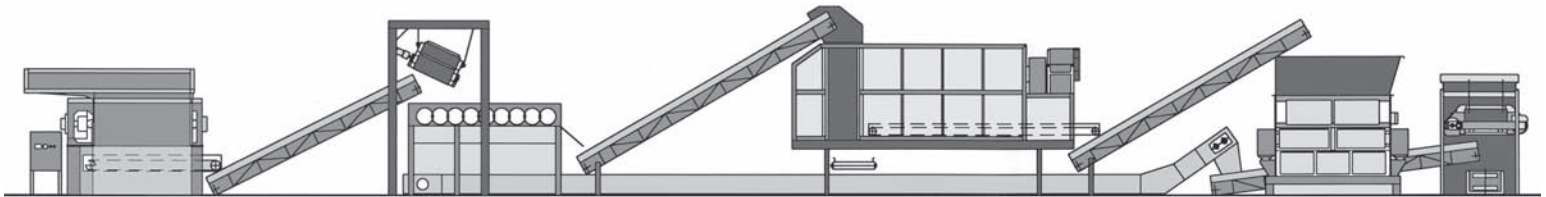
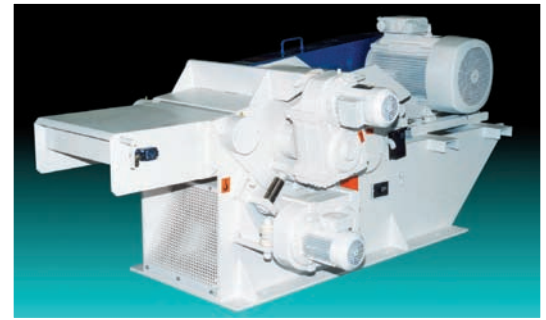
Vecoplan is known for providing complete turn-key solutions.

We provide complete material handling systems and design engineering including conveyors, pneumatics, metal detection and separation. American electrical control panels and components are available and may be fabricated to your specifications.

Vecoplan understands that installing new equipment can disrupt production operations. New equipment can create new demands on your present electrical system. That's why we include a review and analysis of your present electrical components.



Vecoplan will help you plan for the additional equipment and prepare your present system to minimize any disruption to your operation.



OUR COMPLETE RANGE OF PRODUCTS

- Single and Multiple Rotor Shredders
- Conveying Technologies
- Air Classification Systems
- Refiners
- Rotary Trommels
- Vibratory Feeders
- Oscillating, Roller and Star Screeners
- Ferrous and Non-Ferrous Detection and Separation
- Bulk Material Handling, Metering and Loading
- Turn-key Recycling and Waste Processing Systems

Vecoplan®

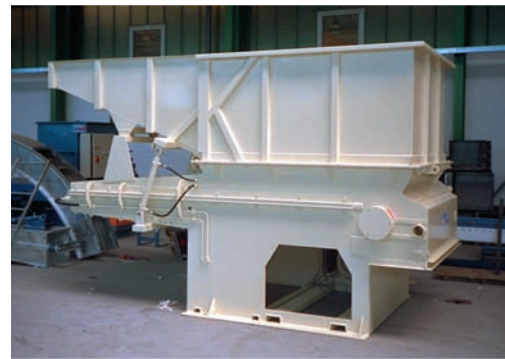
P.O. Box 7224 • High Point, NC 27264
Phone: (336) 861-6070 • Fax: (336) 861-4329



www.vecoplanllc.com

WHAT'S INSIDE?

Pre-wired control panel with programmable logic controls optimizes machine speed and safety functions by monitoring amperage, temperatures, pressures, directions, speeds and safety switches.



★ VECOPLAN'S "U" ROTOR

Developed and Patented by Vecoplan
The industry's most successful cutting rotor design.

The cutting rotor has been engineered for durability and carries a Limited Lifetime Warranty. Cutting inserts are precision fit for easy maintenance.

Rotors are available in several diameters dependent on throughput requirements.



A variety of cutters is available for our line of shredders.

Precision 4-sided cutting inserts are rotated to offer longer cutting life and are easily accessed for fast replacement.

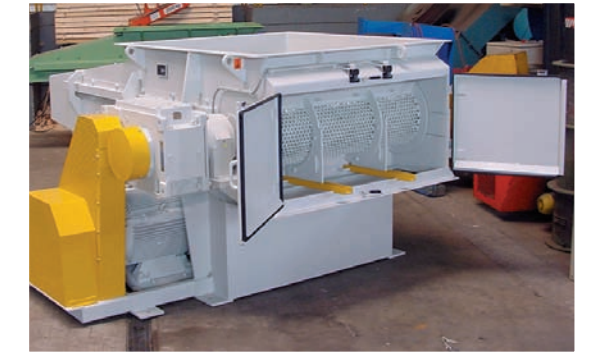
The 4-sided cutters are precision fit on the rotor surface to provide a close .010 to .030 cutting tolerance.

AVAILABLE HITORC™ DRIVE (patented)

Increase Throughput Significantly & Reduce Power Consumption Dramatically!



- Up to 100% Increase in Throughput vs. Conventional Drives
- Up to 85% Reduction in Power Consumption / Energy Usage
- Maximum Torque Across a Wide Speed Range
- Full Speed Control with Wide Speed Range
- Quickest Possible Reversing Action
- Controlled Stop Function
- No Gearbox, Fluid Coupling or Belts to Adjust or Replace



Large infeed hopper to accommodate large parts and dense purgings without manually reducing scrap size.

Flared infeed opening to accommodate standard and custom extension infeed chutes.

Heavy shelf over ram cavity to protect against impact with heavy parts.

★ Hinged cover provides protection to ram drive cylinders and allows easy access for routine cleaning.

Heavy dual cushioned hydraulic cylinders to advance process ram. Cylinders are secured with reinforced, vibration dampening clamps.

★ Quick change oversized ram guide rails are removable from the exterior of the machine.

"Process ram" provides precision feed of material to cutting rotor. Ram quickly adjusts to different load variables to maximize processing efficiency.

★ Heavy duty, 2 speed hydraulic pump package reacts quickly to high shock loads. The hydraulic system includes a two-stage pump, oversized cooling capacity and large reservoir.

★ Torque arm with disc springs to "shock absorb" gearbox. Equipped with a "shut down" switch to limit damage from tramp metal.

Heavy side walls, braces and reinforcements. Robotically welded for stress-free construction.

High quality, premium efficiency drive motors with thermocouple interlocks.

Banded belt drive provides positive transmission and protection of drive train.

Fluid coupling absorbs micro vibrations and converts torque under load.

Anvil has a replaceable counter knife plate with close tolerance profile. The anvil stabilizes and anchors the shredding process.

★ Hinged clean-out access doors with safety switches to access screen and cutting rotor for routine maintenance.

High quality, double row, self-aligning spherical pendulum roller bearings mounted outboard for ease of maintenance and prevention of contamination

Oversized, shaft-mounted reduction gearbox rated with very high service and safety factors.

Flanged discharge to accommodate an assortment of pneumatic and mechanical conveyance systems.

Sizing screens from 3/8" to 3" add economical production of consistent sized particles in one pass.

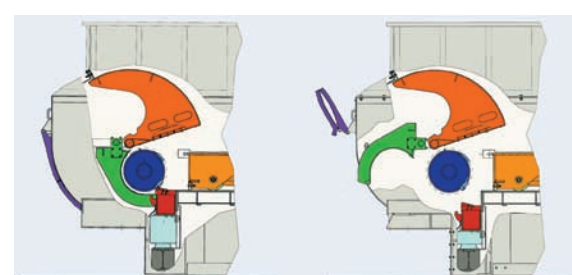
★ DENOTES A VECOPLAN EXCLUSIVE

AVAILABLE FILM / FIBER ROTOR

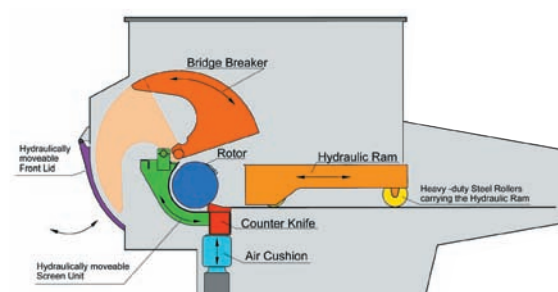
For Shredding Of Most Flexible, High-Tenacity Materials That Tend To "Self-Feed"



- **SURECUT™** (patented) cutting system with built-in 2-stage auxiliary reduction
- Special reinforced, close tolerance screen
- Special "wedge" fixed counter knife



Airspring Counterknife



Hydraulic "BridgeBreaker"

OPTIONS:

- Quick Disconnect & Quick Clean Screens
- Multiple Rotor Configurations
- Multiple Cutter Insert Sizes
- Special Purpose Screens
- Hydraulic "BridgeBreaker" Vertical Feed Ram
- Airspring Counterknife for High Tramp Metal Content

