



Single Shaft Shredders

G • X • V • P

Virtus

The Right Machine for
Today's Recycling Requirements



Shredders can be used to process a wide variety of materials, from plastics to wood, paper, and general waste streams. Mostly they are used together with a granulator to achieve a smaller output size.

Powered by German Engineering

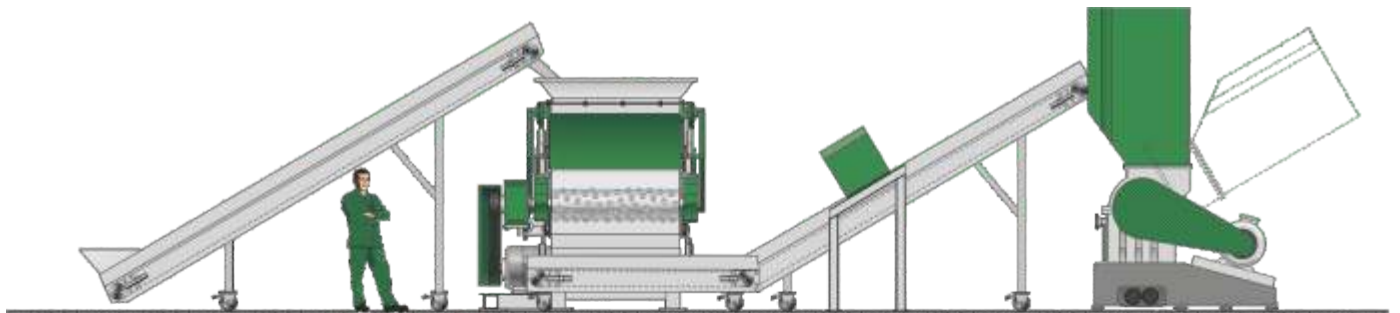
VIRTUS has long been a leading supplier of size reduction equipment for the plastic industry, mainly focusing on in-house and central granulators. Adding single shaft shredders to the portfolio has created the ability to supply a complete range of size reduction machinery to handle any task in plastics recycling. **VIRTUS** has designed a system where each component is matched perfectly to the application and works hand in hand.



Typical applications of single-shaft shr

Applications

VIRTUS single shaft shredders have been designed as dependable machines to be used in a wide variety of applications. They can achieve high outputs while being able to handle larger and stronger input material. Combining a heavy rotor with a slow speed and high torque drive, also helps reduce energy costs by avoiding amperage peaks.

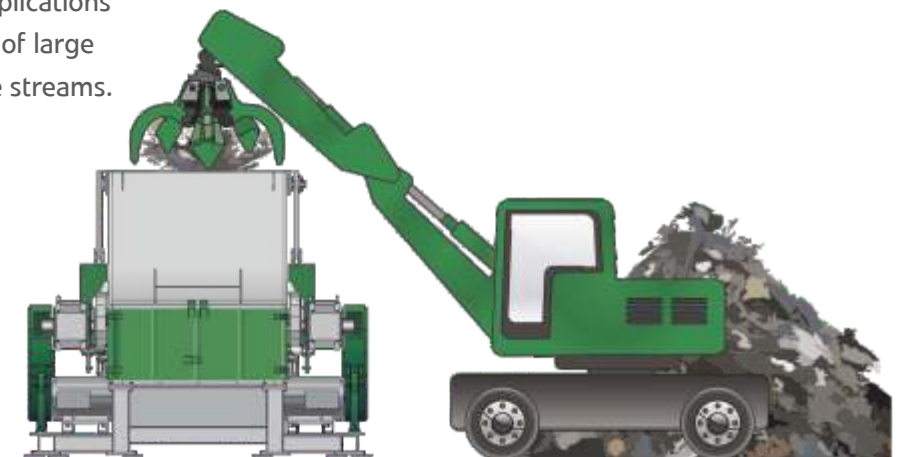


G / V Single Shaft Shredder

The G and V shredders have been designed for a wide variety of applications. Depending on input material and the recycling process, the shredded material can be used directly, or further reduced, for example, in a H granulator.

X Single Shaft Shredder

The X shredders are built for the most demanding and high throughput applications in recycling, ranging from recycling of large petrochemical lumps, to MSW waste streams.



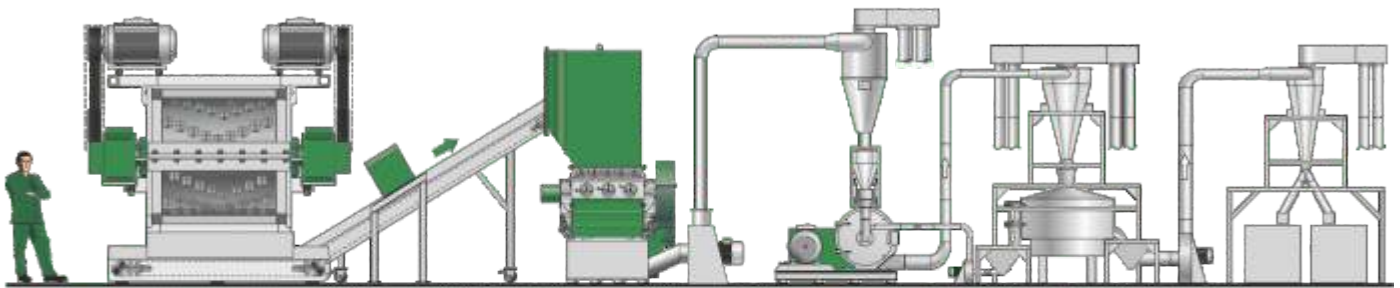
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P - Pipe / Profile Shredders

The main focus of the P shredders lies in the shredding of long lengths of large diameter plastic pipes or bundles of smaller pipes and profiles. The unique design of the machine allows for easy feeding and safe processing of these long pipes.

Adding **VIRTUS** granulators and pulverizers offers a complete recycling system tuned to deliver the best performance.



Advanced engineering – great results

The right machine for today's recyc



G / P Series

X Series

Like all **VIRTUS** machines, the shredders are engineered to handle heavy use and continuous operation. The machines are easy to service, ensure performance, and provide great results.

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Highlights

- Sturdy design
- Low rotor speed – high torque
- Potent hydraulic feeder
- Advanced controls
- Easy integration with other **VIRTUS** equipment

G and V Series – the sturdy all-rounder

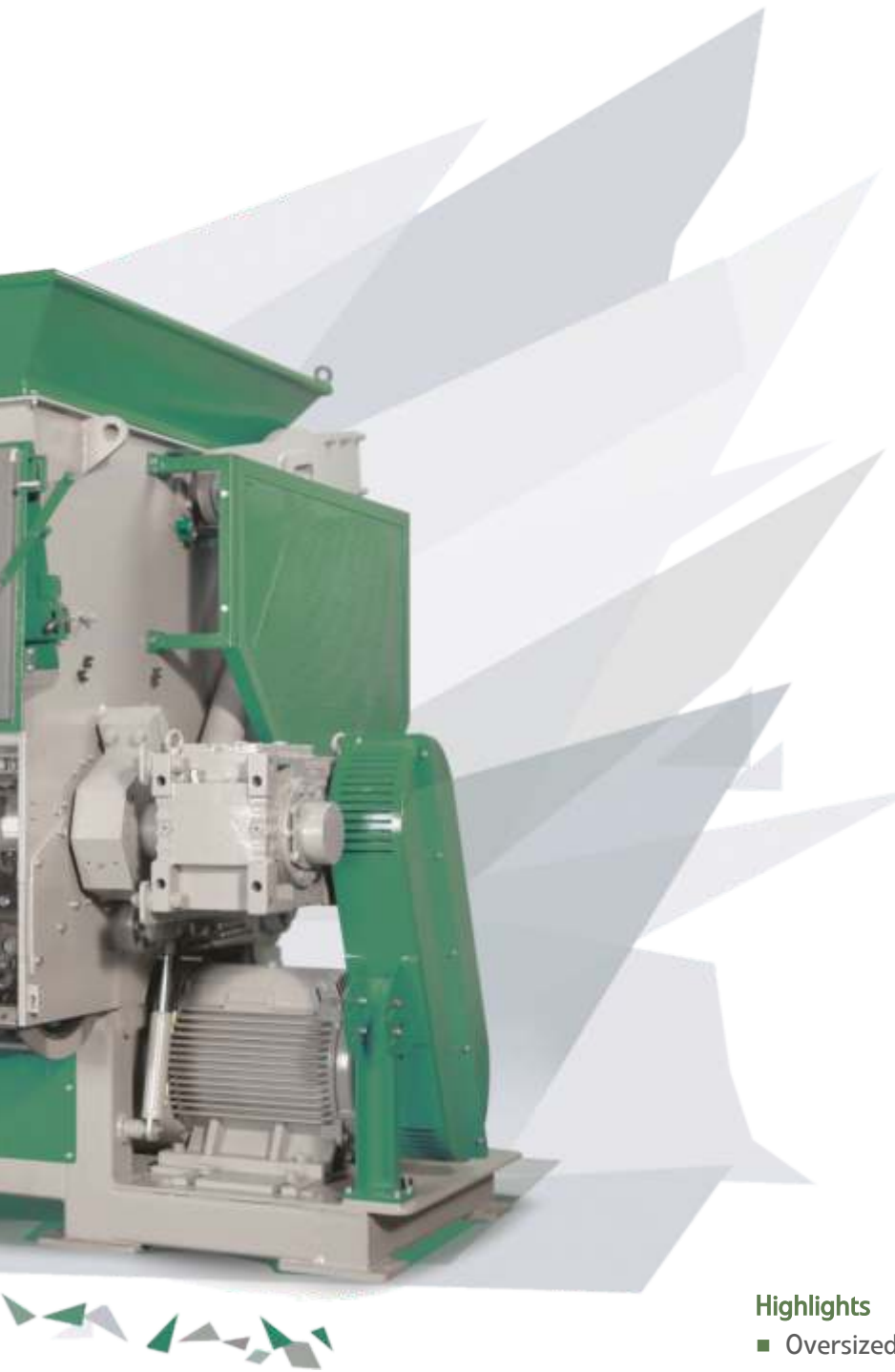
The G shredders feature a powerful two speed swing ram design, eliminating the risk of blocking and wearing out of guide rails.

The large diameter **VIRTUS** rotor, with its unique knife and knife holder design, is able to handle various types of input materials with ease. Oversized outboard bearings and a hydraulic screen cradle are standard and ensure dependable performance and easy maintenance. The shredders can be tailored to specific applications with rotor cooling, hard facing, and other wear options.

The V shredders are designed with a larger internal volume to handle large bulky objects such as IBCs, barrels, and pallets.



der



Highlights

- Oversized gearboxes with high torque
- Sturdy welded steel construction
- Hydraulic feeders without guide rails
- Bolted knife and knife holders
- 35% more space in the cutting chamber than the G series

X-Series – for high throughput applic

The X shredders feature large 750 mm diameter rotors driven by heavy industrial gearboxes. As with all **VIRTUS** shredders, they feature an unique bolted knife and knife holder design to ensure easy maintenance and flexibility. The heavy swing ram combined with 11 kW two speed hydraulic system guarantee high outputs even on the heaviest of materials.

The X-T models come with larger drives and complete wear protection to process multiple tons per hour of waste tires or MSW streams.



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Highlights

- Large diameter rotor (750 mm)
- Low speed, high torque twin gear drive
- Powerful two speed hydraulic ram design
- Heavy welded construction
- Equipped for high throughput rates of very large heavy parts

P-Series – for large pipes and profile



The P shredders are the world's first single shaft shredders specifically designed to handle large diameter pipes without the need for pre-cutting. Since their introduction, the shredders have become the virtual standard for pipe shredding and are used by the leading pipe manufacturers world wide. More than 200 P-Series Shredder installations demonstrate our technological leadership in this industry and continuing innovation based on market demands and customer feedback.

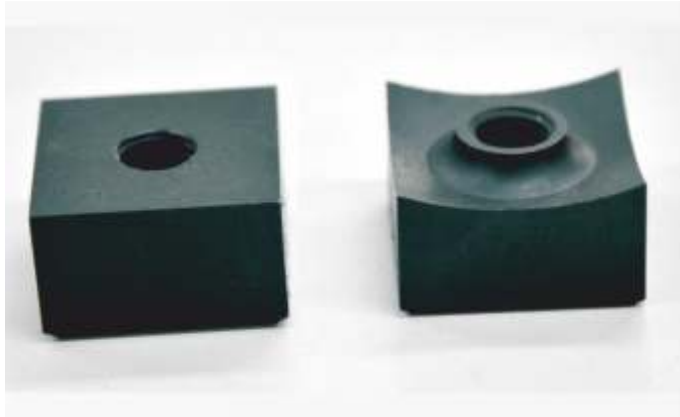
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Highlights

- Large diameter rotor
- Safe feeding of long (6m) pipes
- Ability to process mixed diameter pipes with a wide range of thickness
- Integrates with **VIRTUS** granulator and pulverizer to create a turn key pipe recycling solution

Technical details – well thought out



VIRTUS shredders are available with different knife designs to fit specific applications. All knives are square and can be turned once one side is worn down, multiplying their lifespan.



The shredders are equipped with a flat E style rotor featuring machined pockets for the bolt-in knife holders and knives. The hydraulic lowering screen cradle ensures easy knife maintenance and screen changes.



For heavy wear applications or abrasive materials, weld on hard facing can be applied to the rotors and knife holders. Specially designed Tungsten Carbide blades can be used to extend the knife life when processing tires, MSW, or other contaminated materials.



Rotor shafts and knife holders are bolted into the rotor to ensure easy repair-ability in case of accidents, as well as acting as a safety brake point to prevent further damage to the machine.



and efficient



The G series shredders benefit from the sturdy swing ram. The design works without the need for guide rails, avoiding the risk of clocking and wear. Two powerful hydraulic cylinders, combined with the serrated ram plate, ensure a secure grip and good ingestion of all materials.



The internal ram design on the V series allows the cutting chamber volume to be increased while keeping a small footprint. This makes the V series ideal for shredding big volume parts.



The P pipe shredders are equipped with a special feeding trough sized to take pipes up to 6 m in length. The innovative design of a powerful hydraulic ram forces the pipes into the rotor.



All shredders are equipped with a powerful two-stage hydraulic system. This system ensures maximum pressure when feeding material into the rotor and high speeds on the backstroke.

Advanced engineering – great results

Technical specifications – overview

All shredders have a single row of stator blades. Screens are available with different hole designs in sizes > 25 mm. The model name is composed of rotor width (A)

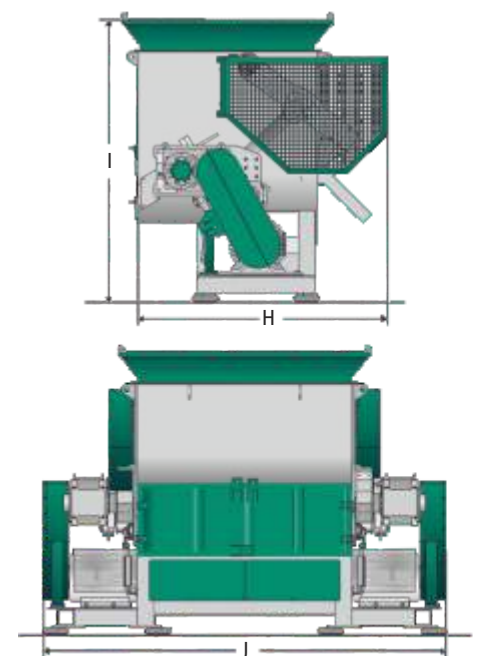
- A** = Rotor width in mm
 - B** = Rotor diameter in mm
 - C** = Drive capacity in kW
 - D** = Rotor knives in pcs
 - E x F** = Effective working area in mm x mm
 - G** = Weight approx. kg
- All Dimensions are in mm
 - H** = length
 - I** = height
 - J** = width

G Series:

A / B	850 / 387	850+ / 457	1200 / 457	1500 / 457	2000 / 457
C	37	55	55	75	2 x 55
D	40 / 60	40 / 60	54 / 81	68 / 102	96 / 144
E x F	690 x 730	800 x 730	800 x 1010	800 x 1290	800 x 1850
G	4200	4800	5500	6600	8200
H	2085	2300	2300	2300	2300
I	2435	2585	2585	2585	2585
J	1940	1985	2265	2590	3710

V Series:

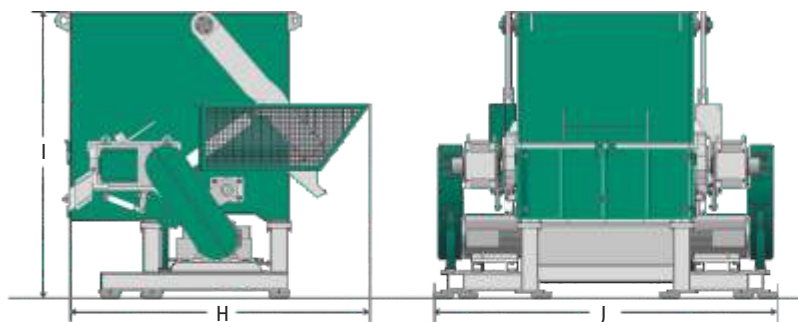
A / B	1200 / 457	1500 / 457	2000 / 457
C	55	75	2 x 55
D	54 / 81	68 / 102	96 / 144
E x F	1400 x 1010	1400 x 1290	1400 x 1850
G	5000	6400	8800
H	2070	2070	2070
I	2600	2600	2600
J	2320	2635	3710





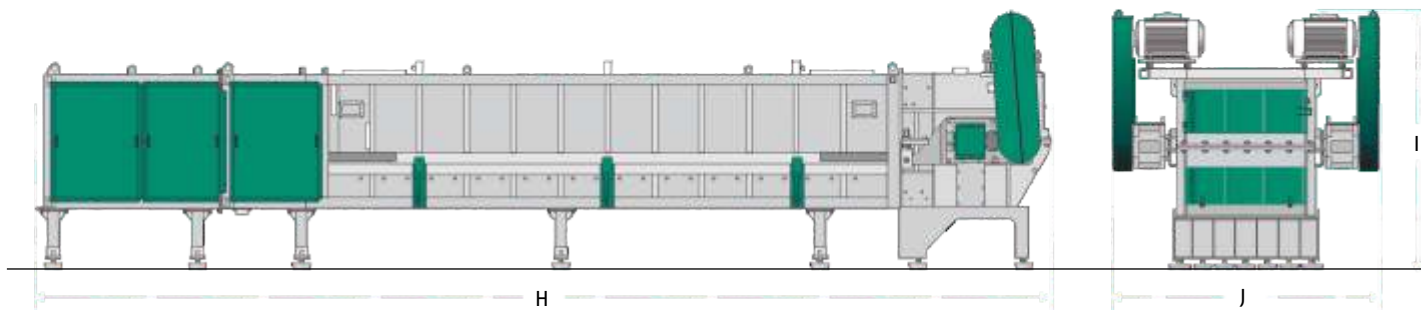
X Series:

A / B	1500 / 750	2000 / 750	3000 / 750
C	2 x 75	2 x 90	2 x 132
D	76	96	136
E x F	1500 x 1490	1500 x 1900	1500 x 2600
G	17500	20200	25000
H	3580	3580	3580
I	3420	3420	3500
J	3560	4190	5070



P Series:

A / B	800 / 850	1000 / 1050	1500 / 1450
C	2 x 37	2 x 45	2 x 55
D	60	81	136
G	12500	17500	26500
Biggest Pipe	3500 x 630	6500 x 850	6500 x 1200
H	7695	11940	12180
I	2565	2660	3160
J	2545	2965	3250



The product range – the right solution



A-Series - Slow speed granulators

E-Series - Economical granulators

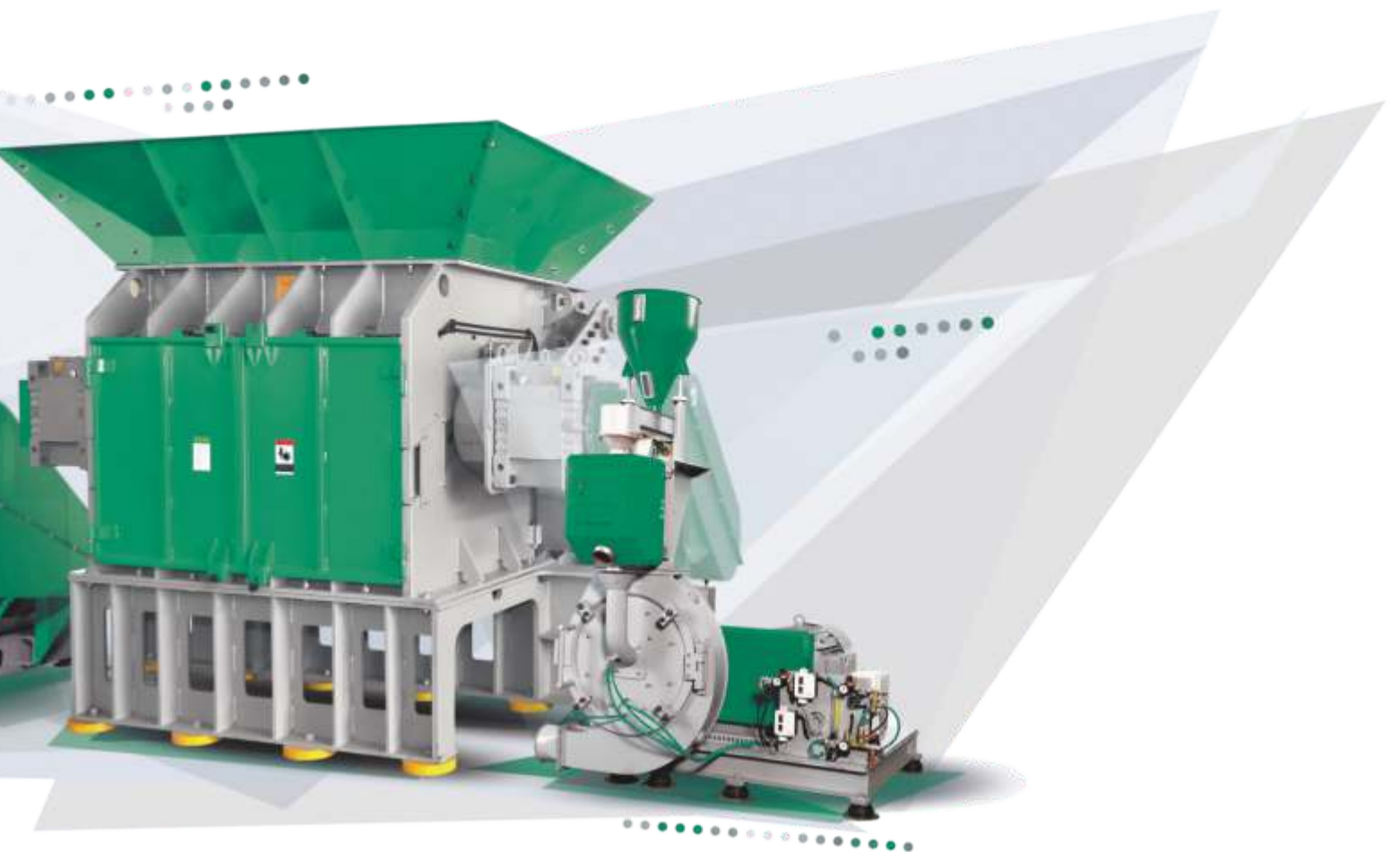
C-Series - Compact soundproofed granulators

H-Series - Heavy duty granulators

With more than 75 years of experience, **VIRTUS** is one of the leading manufacturers of high quality size reduction machinery. From the small A slow speed granulators to the versatile H heavy duty granulators, our product lines also include small, compact granulators with integrated blower and soundproofing.

Specialized machines are available like the H pipe and profile granulators and the **VIRTUS** PM disc pulverizer systems for fine grinding applications. Adding a complete line of shredders, starting with light shredders up to large heavy-duty shredders, **VIRTUS** recycling machines range in drive power from 2.2 kW up 200 kW and cover the whole spectrum of size reduction applications.

on for any application



X-T-Series - Heavy duty shredders

PM-Series - Pulverizer

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