H Series

Heavy Duty Granulators
H Series

Virtus
The Right Machine for Today’s Recycling Requirements
VIRTUS H Series Heavy Duty granulators are sturdy machines built for the ever-changing demands of modern recycling operations. They can be adapted to process a wide variety of material.
VIRTUS is a leading supplier to the plastics industry. With a strong focus on post-consumer and post-industrial recycling, the H Series series heavy duty granulators can be adapted to various requirements. They can be customized to withstand high levels of contamination or integrated into washing lines. In combination with VIRTUS single shaft shredders and accessories, we can custom-build size reduction systems for high capacities and challenging materials.

The H Series series - A cut above
**Typical applications of H granulators**

**VIRTUS** H Series heavy duty granulators are designed to perform as dependable, sturdy machines in high throughput or demanding applications. They can be used as single stage central granulators for large in-house scrap, or as post-consumer and post-industrial recycling. In combination with a **VIRTUS** G or X single shaft shredder, these granulators ensure constant, high throughput with minimal downtime.

**H Series granulator with special hopper for pipes.**

**H Series granulator used for in-house grinding of blow molding scrap and rejected parts. Machine is in a fully soundproofed cabin with fine separation system and central filter.**
Virtus H Series heavy duty granulators are designed to be dependable sturdy machines in high throughput or demanding applications. They can be used as single stage central granulators for large in house scrap as well as post-consumer and post-industrial recycling.

In combination with a G or X single shaft shredder these granulators will ensure constant high through-put with minimal downtime.

Typical applications of H granulators:

- Advanced engineering – great results

Two-stage size reduction system consisting of Virtus single shaft shredder and H Series granulator.

Advanced engineering – great results
The right machine for today’s recycling requirements

VIRTUS H Series granulators span a wide range of sizes. Starting from 350 mm diameter up to 1100 mm, in widths ranging from 500 to 2400 mm. All sizes are engineered to deliver constant, high quality results with minimal downtime for service and maintenance.
Typical Applications

- Sturdy recycling focused design
- Various rotor options
- Replaceable wear plates
- Easy knife change/adjustment
H 35 and 50 series – compact and sturdy

The heavy duty granulators of the H 35 and 50 series feature rotors in widths ranging from 500 mm to 1000 mm with a diameter of 350 or 500 mm.

Different rotor and hopper styles allow the granulators to be customized for different applications in the plastic recycling field. The machines in the H 35 and 50 series are mainly used as central granulators for in-house recycling applications to process thick walled parts in one step, or as a second step granulator after a shredder to reach higher throughput rates.
Typical Applications
- Central granulator for in-house scrap
- Small thick walled parts such as pre-forms
- Secondary grinder after a shredder
The heavy duty granulators of the H 60 and 70 series offer different rotor designs in widths ranging from 800 mm to 1600 mm with diameters of 600 and 700 mm.

These medium sized machines are used as central granulators for heavy applications. They process materials such as thick walled pipe, injected parts, crates, cold parisons, and in blow molding settings.

As a secondary granulator after a shredder, they can achieve output of more than 1 ton per hour consistently.
The heavy duty granulators of the H 60 and 70 series offer different rotor designs in widths ranging from 800 mm to 1600 mm with diameters of 600 and 700 mm. These medium sized machines are used as central grinders for heavy applications such as thick walled pipe, injected parts such as crates, in blow molding settings to handle parts as well as cold parisons. As a secondary grinder after a shredder they can achieve output of more than 1 ton per hour consistently.

Typical Applications
- Central granulator for large volume parts
- Wash granulator for post-consumer waste
- Thick walled pipe
The large H 80 and 110 series machines are available with rotors of 800 and 1100 mm diameter and ranging in width from 1200 - 2400 mm.

These heavy duty machines are designed to withstand the toughest applications and deliver consistent high quality regrind at rates exceeding 5 tons per hour. From light materials, like bottles and barrels, to pallets and purgings, these H Series granulators can handle almost any application.

For contaminated materials such as post consumer waste, the rotor and cutting chamber can be protected with special steel to ensure a long service life.
The large H 80 and 110 series machines are available with rotors of 800 and 1100 mm diameter ranging in width from 1200 - 2400 mm. These heavy duty machines are designed to withstand the toughest applications and deliver consistent high quality regrind at rates exceeding 5 tons per hour. From light materials like bottles and barrels to pallets and purgings, these H Series granulators can handle almost any application. For contaminated materials such as post consumer waste, the rotor and cutting chamber can be protected with special steel to ensure long service life.

**Typical Applications**
- High throughput applications
- Single stage processing of heavy parts
- Integrated into washing lines for contaminated materials
- Inline granulation for high speed extrusion lines (BOPP)
Rotor and cutting chamber – details

**S5-Rotor**
This rotor is suitable for light materials as well as thick rigid pieces like tanks or crates. The semi-closed design reduces the aggressiveness of the rotor.

**S7-Rotor**
The closed, 7 blade rotor is used for heavy, thick walled products. It is very closed, thus will avoid overloading, even on heavy materials such as solid lumps or thick walled pipe.

**H9-Rotor**
Similar to the S7 Rotor, the H9 Rotor is a very closed rotor and is mainly used in heavy applications. The design allows for the knife support to be constructed from high test wear-resistant steel when used with contaminated materials.

**L7-Rotor**
The L7 Rotor features a single cross-cut design which is used in high temperature applications, such as car tanks.
ensure consistent results

**Rotor and cutting chamber – details**

The heavy duty bearings are separated from the cutting chamber to avoid lubricants from entering the cutting chamber and failure of the bearings due to material contamination.

**With Deflection Wedge**
The removable deflection wedge houses a third stator knife. It allows easy and fast adjustments of the machines aggressivity.

**Without Deflection Wedge**
The infeed is very strong and aggressive, with the first cut at the 4 o’clock position. Well suited for bulky materials, such as canisters or pales, the deflection wedge alters the infeed of the machine and moves the first cut to the 2 o’clock position. This makes it applicable for heavy, thick walled parts such as lumps or pipe. Due to the added stator knife, which increases the number of cuts per revolution, the output on light material, such as film, is increased.

**Knife adjustment**
Rotor and stator knives are preset outside the machine prior to installation in a supplied fixture. This makes awkward adjustment inside the machine unnecessary.

**Cutting chamber**
The heavy duty bearings are separated from the cutting chamber to avoid lubricants from entering the cutting chamber and failure of the bearings due to material contamination.

Advanced engineering – great results
### Technical specifications – overview

Applies to all models: screen size is > 6 mm or > 8 mm and each machine has 2 or 3 rows of stator blades. The model name is composed of the rotor diameter and rotor width (A/B)

- **A** = Rotor diameter in mm
- **B** = Rotor width in mm
- **C** = Drive capacity in kW
- **D** = Rotor knives in pcs
- **E** = Effective working area in mm

**All Dimensions are in mm**

- **F** = length
- **G** = height
- **H** = width

### H Series:

<table>
<thead>
<tr>
<th>A / B</th>
<th>A = Rotor diameter in mm</th>
<th>B = Rotor width in mm</th>
<th>C = Drive capacity in kW</th>
<th>D = Rotor knives in pcs</th>
<th>E = Effective working area in mm</th>
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<td></td>
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### Diagrams
- **H 35 and 50 series**
- **H 60 and 70 series**
H Series:

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<tr>
<th>A / B</th>
<th>800 / 1200</th>
<th>800 / 1600</th>
<th>800 / 2000</th>
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<tr>
<td>D</td>
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H 80 and 110 series
The product range – the right solution

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 Series heavy duty granulators, our product lines also include small, compact granulators with integrated blower and soundproofing. Specialized machines are available like the H pipe 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 to 200 kW, and cover the whole spectrum of plastic size reduction applications.
The product range – the right solution for any application

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