Rapid Granulator – An Overview

Recovery and recycling of materials has never been more important. The use of plastics in our everyday lives is growing rapidly, and with this comes an increasing amount of waste that needs to be recycled. Rapid Granulator are world leaders in granulation technology and offer a range of solutions to meet the needs of the plastics industry.

High quality reground plastic:

- **Consistently smooth and clean cutting action** provides high quality reground plastic over time.
- **Constant Cutting Circle** eliminates friction heat and minimizes dust and fines.
- **Scissors cutting action** provides a clean, smooth and energy saving cutting of any plastic material, free from dust.
- **Minimal energy consumption** is achieved through the configuration of the rotor blades and rotation speed, minimizing energy consumption.
- **Quick knife changing** allows for efficient and easy replacement of blades.

The Rapid MSS (Modular Silencing System) is a concept that can be adapted to any noise generating source in the production plant. MSS can reduce as much as 10 – 20 dB(A).

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Rapid strives to exceed your expectations in recycling plastic waste.

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The heavy-duty Rapid 80 Series is designed for really tough applications and comprises Rapid's biggest granulators. They are primarily intended for high throughput, central or in-line granulation of diverse bulky waste that requires no precutting. Large hollow objects, big solid lumps, long pipe and profiles and thick packages of film pose no problems. The rotating knives are set at a V-angle to provide a powerful scissor-cut action for high-quality reground plastic.

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Regardless of the performance efficiency of a granulator, there will always be a small amount of dust and fines, especially when knives begin to wear. On recycling of reground, very small plastic particles may burn and degrade the quality of products. To solve this problem, Rapid offers complete dust separating systems for all needs.

The most effective way to reduce noise is to capture it at the source and to prevent it from spreading into the working environment. You can then reduce significantly more dB(A) in a very cost efficient way compared to e.g. noise absorbing panel in the ceiling.

The Rapid MSS (Modular Silencing System) is a concept that can be adapted to any noise generating source in the production plant. MSS can reduce as much as 10 – 20 dB(A).

The formula for success – **raPID core feaTures**

- **WorlD leaDers In granulaTIon**
- **Recycling plastic waste directly** offers several advantages. These include cost and material savings, improved flow management, increased competitiveness and environment-friendly manufacturing. This is where you can benefit from Rapid's expertise. Each model in our extensive range of granulators is matched to exacting requirements to give you optimal reground quality, efficient recycling and a long operational life. Our continuous product development and dedicated customer support keep your plastic waste recycling at the cutting edge of granulation technology.

We call it granulistics!
Reusing, reducing, and recycling are key principles in our approach. At Rapid, we are the world leaders in granulation. We develop, manufacture, and market individual granulators and complete recycling solutions tailored to the plastics industry. With a broad range of granulators, from compact units to large machines, we can meet virtually all your granulation needs. Our products are known for their durability, reliability, and high quality, and our excellent service ensures they remain in peak condition.

Rapid strives to exceed your expectations in recycling plastic waste. Our dedication to partnering with you, with over 70 years of experience, a global presence, and more than 100,000 units installed worldwide, offers you our expertise, people, and resources.

The heavy-duty Rapid 80 Series is designed for demanding applications and comprises Rapid's largest granulators. They are primarily intended for high throughput, central, or in-line granulation of diverse bulky waste that requires no precutting. Large hollow objects, big solid lumps, long pipe and profiles, and thick packages of film are no problem. The rotating knives are set at a V-angle to provide a powerful scissor-cut action for high-quality regrind.

The Rapid Granulator™ shredders have been exclusively developed for efficient recycling of all kinds of polymer materials. The line’s unique technology is the result of Rapid's many years of experience with granulators and older types of shredders. The models are optimized to produce clean plastics by truly cutting even the hardest materials smoothly into uniform pieces.

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The most effective way to reduce noise is to capture it at the source and prevent it from spreading into the working environment. You can then reduce significantly more dB(A) in a very cost-efficient way compared to e.g. noise-absorbing panels in the ceiling. The Rapid MSS (Modular Silencing System) is a concept that can be adapted to any noise-generating source in the production plant. MSS can reduce noise by as much as 10–20 dB(A).

Shredders – designed for plastics! Solutions for dust control

High quality regrind

The consistently smooth and clean cutting action provides high-quality regrind over time.

Constant Cutting Circle, CCC

The Rapid Constant Cutting Circle eliminates friction heat and minimizes dust and fines.

Scissors cutting action

The Rapid double scissors cut provide a clean, smooth, and energy-saving cutting of any plastic material, free from dust.

Minimal energy consumption

The configuration of the rotor blades and rotation speed combine to minimize energy consumption.

Quick knife changing

Rapid access to the cutterhouse, rotor design, or pre-adjustable knives make knife changing quick and easy.

The formula for success – rapid core features

WORLD LEADERS IN GRANULATION

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We call it granulistics!
The Rapid 80 Series is designed for really tough applications and comprises Rapid's biggest granulators. They are primarily intended for high throughput, central or in-line granulation of diverse bulky waste that requires no precutting. Large hollow objects, big solid lumps, long pipe and profiles and thick packages of film pose no problems. The rotating knives are set at a V-angle to provide a powerful scissor-cut action for high-quality regrind.

The Rapid GranuMATIC™ shredders have been exclusively developed for efficient recycling of all kinds of polymer materials. The line's unique technology is the result of Rapid's many years of experience of granulators and older types of shredders. The models are optimized to produce clean plastics by truly cutting even the hardest materials smoothly into uniform pieces.

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### High quality regrind
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The formula for success – RAPID core features:

- **High quality regrind**
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**Rapid Granulator**

**Slow speed granulators – Rapid RG-Series**

The Rapid RG-Series is specifically designed for beside-the-press recycling of hard and brittle materials. The ultra-slow rotor speed and screenless operation provide low noise level and low dust levels even with the most filled and brittle materials.

The Rapid RG Series can also be equipped with the patented Integrated Metal Detection technology (IMD). IMD virtually eliminates the risk of damage to the machine from metal fragments that may enter together with the recycled plastic material. Additionally, it minimizes the possibility of these small metal fragments passing through the machine to damage downstream equipment such as injection feeder screws or even moulding tools.

**150-Series**

The Rapid 150 models provide the widest choice of size, capacity and options needed for customization. Numerous configurations are facilitated with optional hoppers, and various infeed and vacuum discharge systems. Both auger and docking models are now even lower to fit more easily under a press.

If you want a tough machine or an extremely tough one, no problem, we’ve got both – Rapid 150 Delta Tech and Rapid 150 PowerTech. And no matter how your injection moulding machines are configured, we have the right beside-the-press or under-the-press models for you.

<table>
<thead>
<tr>
<th>Model</th>
<th>Cutterhouse opening, mm</th>
<th>Rotor diam., mm</th>
<th>Standard motor, kW</th>
<th>Max. cap. kg/h</th>
</tr>
</thead>
<tbody>
<tr>
<td>RG-Mini 1</td>
<td>114 x 134</td>
<td>N.A.</td>
<td>0.37</td>
<td>1</td>
</tr>
<tr>
<td>RG-Mini 2</td>
<td>174 x 134</td>
<td>N.A.</td>
<td>0.37</td>
<td>2</td>
</tr>
<tr>
<td>RG 1</td>
<td>172 x 228</td>
<td>N.A.</td>
<td>0.75</td>
<td>5</td>
</tr>
<tr>
<td>RG 2</td>
<td>260 x 228</td>
<td>N.A.</td>
<td>0.75</td>
<td>10</td>
</tr>
<tr>
<td>RG 3</td>
<td>360 x 228</td>
<td>N.A.</td>
<td>1.5</td>
<td>20</td>
</tr>
<tr>
<td>RG 4</td>
<td>450 x 228</td>
<td>N.A.</td>
<td>1.5</td>
<td>30</td>
</tr>
<tr>
<td>RG 4 Twin</td>
<td>450 x 110</td>
<td>N.A.</td>
<td>2.2 x 2.3</td>
<td>50</td>
</tr>
</tbody>
</table>

**150-07**

- 150 x 150
- 150 x 150
- 2.2
- 150

**150-21**

- 214 x 150
- 214 x 150
- 2.2
- 40

**150-35**

- 352 x 150
- 352 x 150
- 2.2
- 60

**150-42**

- 420 x 150
- 420 x 150
- 2.2
- 70

**200-Series**

- 240 x 270
- 240 x 270
- 4.0
- 75

**300-Series**

- 300 x 260
- 300 x 260
- 5.5
- 230

**400-Series**

- 450 x 300
- 450 x 300
- 7.5
- 500

**500-Series**

- 600 x 360
- 600 x 360
- 22
- 700

**600-Series**

- 1200 x 360
- 1200 x 360
- 22
- 900

**300- and 400-Series**

**Rapid’s Open-Hearted Engineering concept**

Rapid’s “open-hearted” engineering concept is built into each granulator model of the 300-, 400-, 500- and 600-Series. The big benefit of being open-hearted is that it boosts performance by providing direct and easy access to the heart of the machine to achieve very rapid cleaning and maintenance times for fast production changeovers. Such extremely short pit stops maximize uptime and minimize labor costs. The clear access to core machine parts also allows “visibly clean” inspection and approval, preventing contamination at colour and material changes.

**500- and 600-Series**

**Open-Hearted POWER**

Up to 50 kg/h

Up to 500 kg/h

Up to 900 kg/h

Up to 1200 kg/h

Up to 4000 kg/h

500- and 600-Series are being readily converted for applications covering the complete spectrum of injection moulding, blow moulding and extrusion moulding, with throughputs up to 4,000 kg/h.
Rapid 80-Series

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The Most Trusted Name In Granulators

Rapid is the world leader in granulation. We develop, manufacture and market individual granulators and completely integrated recycling solutions for the plastics industry.

With an extensive granulator range, from table-top units to giant machines, we can satisfy virtually all your granulation needs.

Our products are regarded as the most ruggedly built, most dependable and of the highest quality available on the market. And our excellent spare parts service helps to keep them in top condition.

We are dedicated to partnering with you. With over 70 years of experience, a global presence, and more than 100,000 units installed worldwide, we offer you our expertise, our people, and our resources.

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