



DP Pulveriser[®]
since 1962

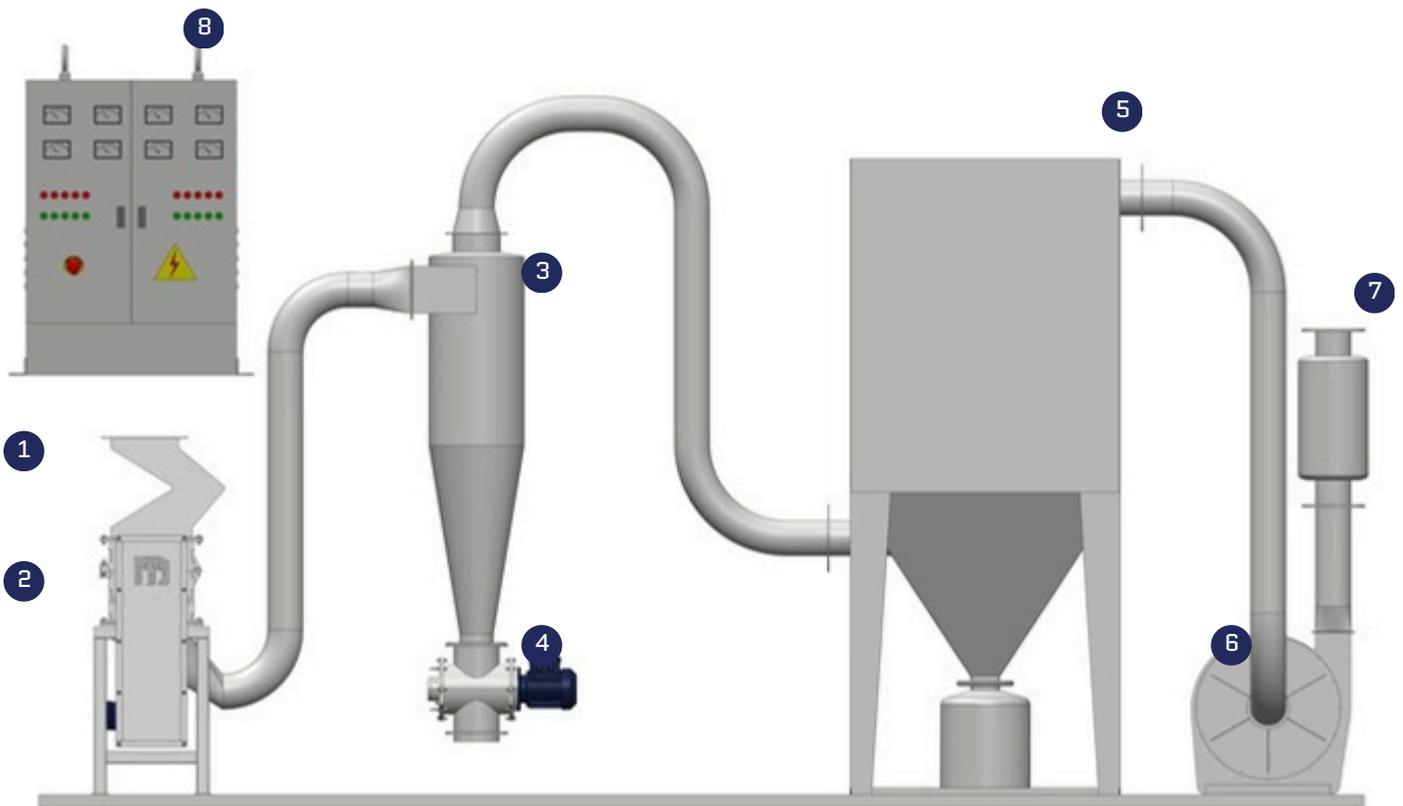


DP® KNIVA Knife Granulator
Crushers & Lump Breakers

Introduction

The DP® KNIVA Knife Granulator is a high-performance cutting mill engineered for precise granulation of plastics, rubber, fibers, and wood. Its robust knife design ensures efficient size reduction, consistent particle quality, and low maintenance—making it ideal for recycling, polymer processing, and industrial waste applications.

- 1 Feed Hopper
- 2 DP® KNIVA Knife Granulator
- 3 Cyclonic Separator
- 4 Rotary Air Valve
- 5 Pulse Jet Dust Collector
- 6 External Conveying Fan
- 7 Silencer
- 8 Control Panel



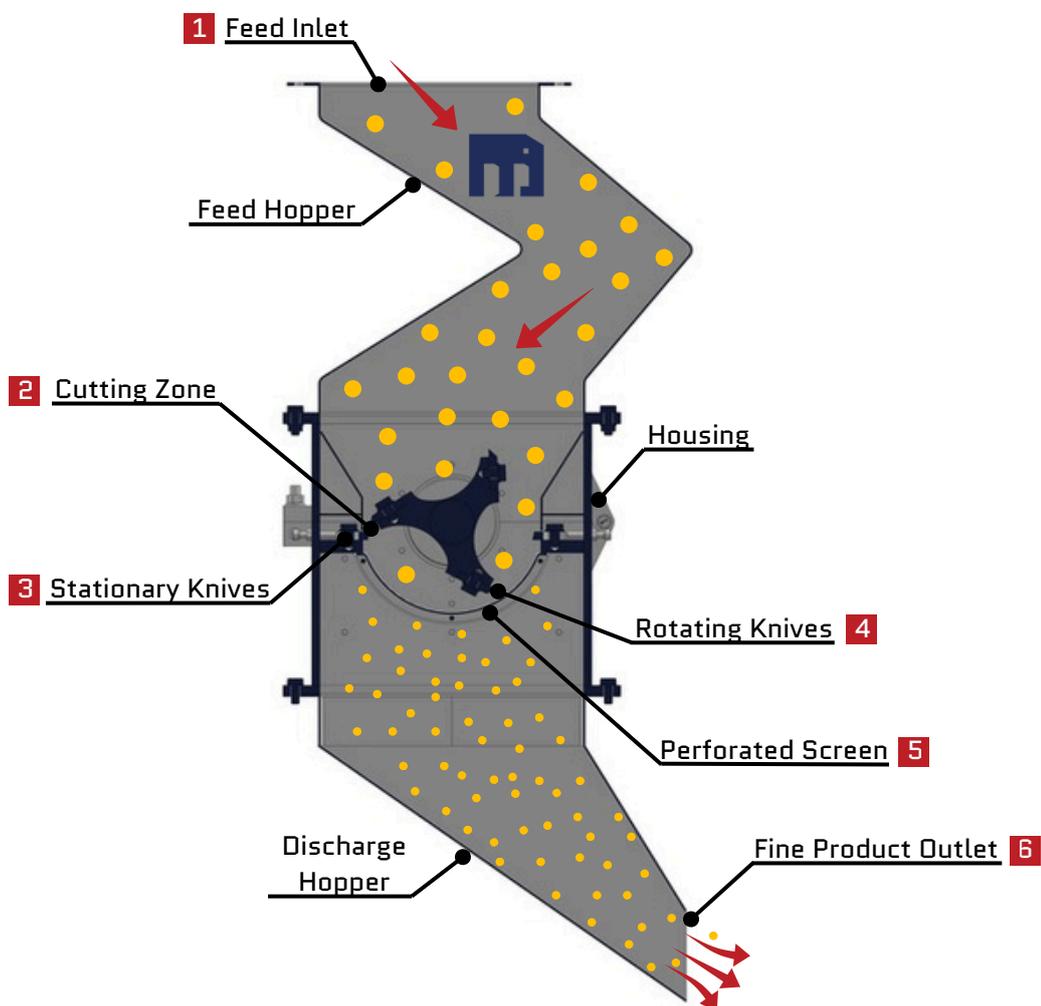
► Typical schematic diagram of a standard KNIVA Knife Granulator

Working Principle

The DP® KNIVA Knife Granulator operates on the principle of controlled cutting and granulation using rotating and stationary knives. Material enters through the **feed inlet (1)** and flows into the **cutting zone (2)** via the feed hopper, guided by gravity or auxiliary feeding systems.

Inside the cutting zone, the material is sheared between **fixed stationary knives (3)** and high-speed **rotating knives (4)** mounted on the rotor. This scissor-like cutting action ensures efficient size reduction with minimal dust generation. The granulate material then passes through the **perforated screen (5)**, which determines the final particle size. Oversized pieces are retained in the cutting chamber until they are reduced sufficiently to pass through the screen.

Finally, the uniformly sized granules are discharged through the **fine product outlet (6)** for collection, conveying, or downstream processing. By selecting different screen sizes and knife configurations, the granulator can deliver precise particle size control tailored to various recycling, polymer, and industrial applications.



► A cross-sectional view of the KNIVA Knife Granulator

Features & Benefits

- ▶ Stationary and rotating knives deliver efficient, scissor-like cutting for uniform granulation.
- ▶ Interchangeable perforated screens ensure accurate and repeatable product sizing.
- ▶ Robust rotor design with replaceable blades extends service life and minimizes downtime.
- ▶ Hinged housing and accessible cutting chamber allow fast cleaning and knife replacement.
- ▶ Optimized cutting chamber reduces fines generation and improves workplace environment.
- ▶ Easy access of internal components for cleaning and maintenance



▶ Internal view of Knife Granulator

Options and Accessories

- ▶ **Construction Materials:** Available in carbon steel, stainless steel (SS304, SS316, SS316L), or custom-engineered materials to meet specific product, hygiene, or regulatory requirements.
- ▶ **Screen Configurations:** Interchangeable perforated screen options with customizable hole sizes, enabling precise control of final granule size for different applications.
- ▶ **Safety Mechanisms:** Can be equipped with safety interlocks, vibration monitoring, and temperature sensors for enhanced operational safety and equipment protection.
- ▶ **Inline and Standalone Configurations:** The DP® KNIVA Knife Granulator is offered in two configuration options to suit different processing needs:
 - **Standalone Configuration** – Delivered as a self-contained unit for independent operation, ideal for dedicated granulation tasks or pre-processing applications.
 - **Inline Configuration** – Compact design easily integrated into existing processing lines, typically installed before fine grinding or downstream processing equipment to ensure continuous and seamless material flow.



▶ Standalone KNIVA Knife Granulator

Machine size

Model	Motor	Rotor Speed	Throughput
LBK	HP	RPM	kg/h
20/20	5	1200	80-300
20/40	10	1200	150-800
30/40	15	1000	300-1100
30/60	25	1000	500-1500



► DP® KNIVA Knife Granulator - open view

Who are WE?

We are DP Pulveriser Industries and have been designing and building size reduction equipment in India since 1962. We believe in using the materials of the highest grade to build our equipment because we understand your need for a machine that will perform - without breakdown - day in and day out. 60+ years, 7500 installations and 32 countries later we now hold the reputation of being one of India's finest manufacturers of size reduction equipment. Regardless of the industry you operate in, DP can optimize, innovate and automate your entire process with tailor made solutions and expertise that is backed by 60+ years of experience. We are a young bunch of passionate engineers excited to work on your next challenging project.

What do we DO?

DP Pulveriser Industries' offerings are broadly classified under 3 segments:



Powder Processing Equipment

Built for durability and low maintenance even after years of service, Our core strength lies in Size Reduction and Air Classification. We offer a wide range of machines to meet all your particle size requirements.

Testing and Other Services

We offer various services such as material trials of our equipment, grinding and air classification of your material on a contract basis and even particle testing and analysis at a fully equipped laboratory on the campus of our partner IIT Gandhinagar.



Turnkey Systems & Plant Automation

Thanks to our decades of experience, we understand what processing technologies and equipment are best suited for your application and industry. This means we can be your one stop solution for setting up complete powder processing plants carefully tailored to your needs.



Our Global Footprint

- Australia
- Bahrain
- Germany
- Mexico
- New Zealand
- South Africa
- Qatar
- Canada
- United Arab Emirates
- Bangladesh
- Ghana
- Hongkong
- Iran
- Nepal
- Singapore
- Nigeria
- Bhutan
- China
- Tanzania
- Oman
- Philippines
- Switzerland
- Uruguay
- Zambia
- Kenya
- Estonia
- Egypt
- Mauritius
- Madagascar
- Guatemala
- Indonesia
- Sri Lanka
- Bremen

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