



DP Pulveriser[®]
since 1962



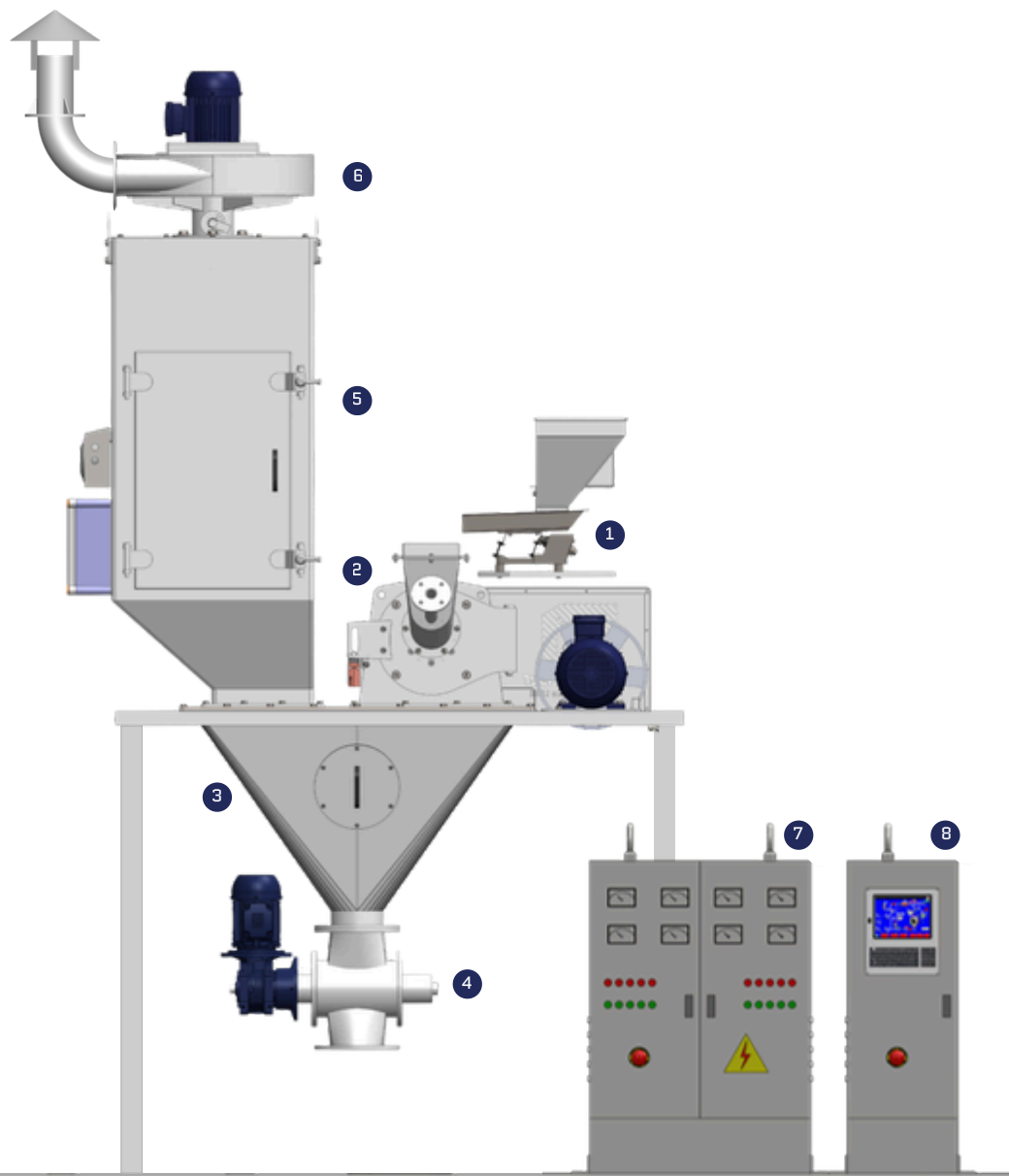
DP® UNIVA Series Beater Disc Mill

Universal Mill

Introduction

The DP® Beater Disc is a high-speed impact grinding system featuring robust disc-mounted beaters for efficient particle size reduction. It processes coarse to medium feed materials, delivering uniform output while ensuring stable, low-heat operation for sensitive products. Suitable for food, chemical, and mineral processing applications.

- 1 Feed Hopper With Vibratory Feeder
- 2 DP® Beater Disc Mill
- 3 Material Discharge
- 4 Rotary Air Valve
- 5 Dust Collector
- 6 Blower
- 7 Control Panel
- 8 PLC Panel



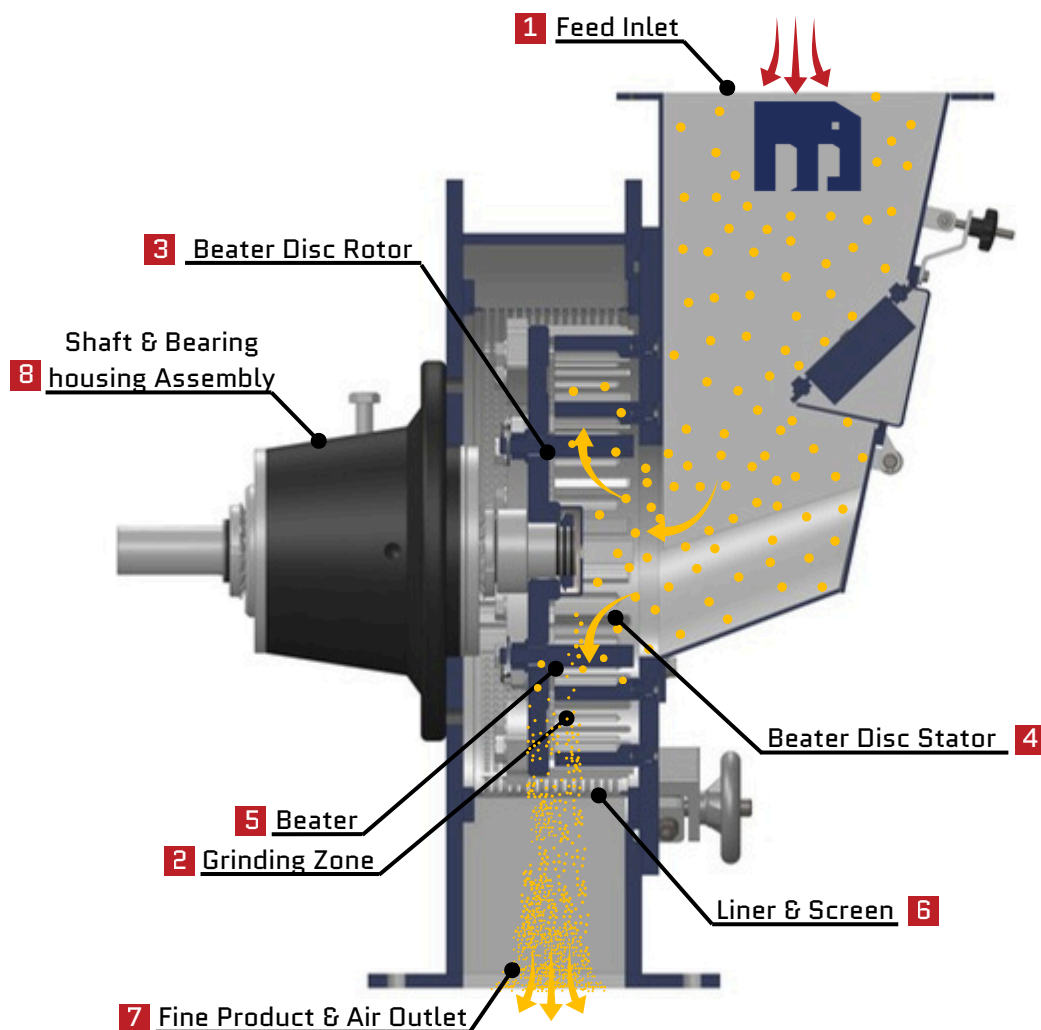
► Typical process flow diagram of a standard Beater Disc Mill

Working Principle

The DP® Beater Disc Mill operates on the principle of high-speed impact and attrition between a rotating beater disc and a stationary grinding assembly. Material enters through the **feed inlet (1)** and flows into the **grinding zone (2)** by gravity or controlled feeding. The design ensures uniform distribution of feed into the active grinding area for efficient processing.

Within the chamber, the **beater disc rotor (3)** fitted with **multiple beaters (5)** rotates at high speed, striking and accelerating the material against the **beater disc stator (4)** and surrounding **liner & screen (6)**. The particles are reduced through repeated impact, collision, and shearing until they reach the desired size. The screen section controls the final particle size by allowing only sufficiently fine particles to pass.

The finely ground material, along with conveying air, discharges through the **fine product & air outlet (7)** for collection or downstream handling. Product fineness can be adjusted by selecting suitable screen size, rotor speed, and feed rate, enabling consistent performance across a wide range of materials and applications.



► A cross-sectional view of the Beater Disc Mill

Features & Benefits

- ▶ Suitable for coarse to fine grinding using high-speed impact forces for efficient size reduction.
- ▶ Handles a wide range of dry materials across food, chemical, and mineral applications.
- ▶ Adjustable rotor speed and screen selection enable precise control of product fineness.
- ▶ Variable speed rotor drive for precise control of fineness and throughput.



▶ Gravity bunker discharge arrangement

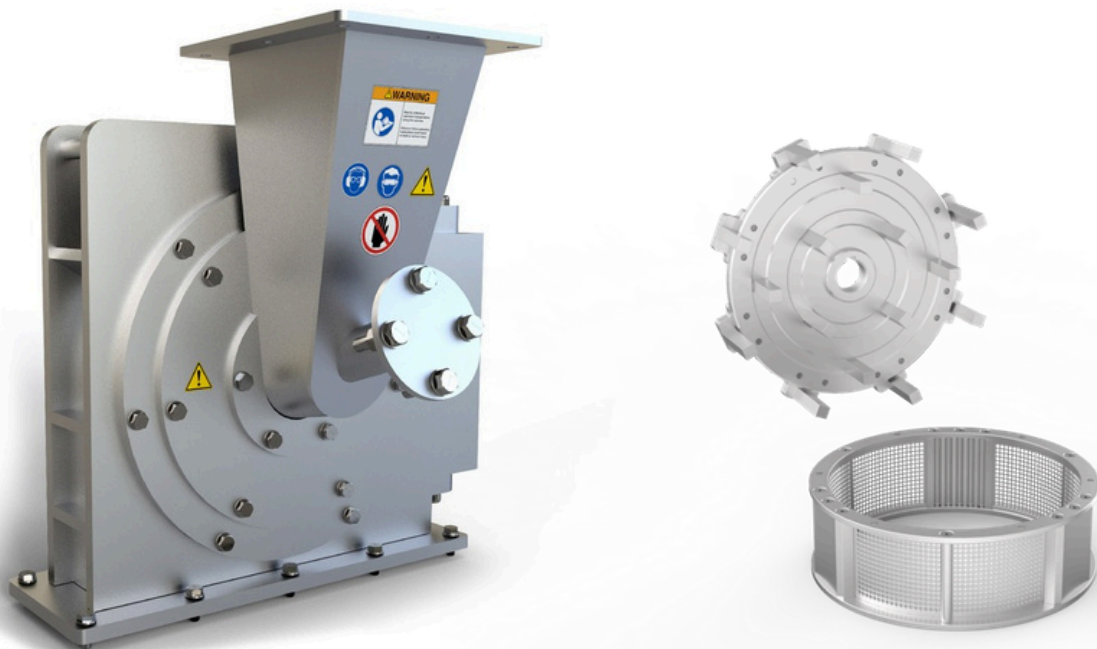


▶ Pneumatic conveying discharge arrangement

- ▶ Operates efficiently with low energy consumption and reduced operating costs.
- ▶ Compact design with easy maintenance and quick access components.
- ▶ Robust construction ensures durability and long service life.

Options and Accessories

- ▶ **Explosion Protection:** Can be engineered with pressure shock-resistant housing to comply with dust explosion safety standards, supporting overpressure resistance up to 10 bar.
- ▶ **Metal Separation:** Can be fitted with inline magnetic separators or metal detectors to maintain product purity and protect equipment.
- ▶ **Screen Variants:** Available with multiple screen sizes and designs to achieve accurate particle size distribution across diverse applications.
- ▶ **Feeding & Discharge Systems:** Compatible with screw feeders, vibratory feeders, gravity feed hoppers, pneumatic conveying and gravity discharge systems.
- ▶ **Instrumentation & Monitoring:** Can be equipped with temperature probes, vibration sensors, and safety interlocks for process control and equipment protection.
- ▶ **Variable Speed Drive:** Optional frequency-controlled drive system for precise adjustment of rotor speed and particle size.



▶ DP® UNV-320BD-EX in Explosion Resistant design upto PSR 11 bar

▶ Beater Disc and Screen & Liner assembly

Machine size

Model	Rotor drive	Mill speed [Max.]	Max. air flow rate	Scale-up factor
UNV	kW	rpm	m ³ /h	-
105	1.5	8500	-	0.06
180	5.5	7500	-	0.25
255	11	6400	1050	0.5
320	18.5	5000	1500	1
510	37	3100	3200	2
640	75	2400	5200	3.6
805	90	2000	7500	4.5
1020	110	1400	10000	6.3
1280	250	1300	12500	9



▶ DP® UNV-320BD UNIVA Series Beater Disc Mill



▶ DP® UNV-320BD Beater Disc Mill ready for dispatch



▶ Internal view of DP® UNV-320BD Beater Disc Mill



▶ DP® UNV-5100BD Beater Disc Mill ready for dispatch



▶ DP® UNV-255BD Beater Disc Mill ready for dispatch



▶ Square type pins mounted on the rotor of DP® UNV-320BD Beater Disc Mill



▶ DP® UNV-320BD Beater Disc Mill ready for dispatch

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

 www.dppulveriser.com

 +91 7208938154
+91 7715005495
[available on whatsapp]

 sales@dppulveriser.com



Head Office

DP Pulveriser Industries
501, KL Accolade,
Road No. 6, Near RK Hospital,
Santacruz East
Mumbai
Maharashtra 400055
India

Factory - I

DP Pulveriser Industries
4/6, Godavari Industrial Estate
Ambe Mata Road, Bhayandar
West
Thane District,
Maharashtra 401101
India

R&D Centre

DP Pulveriser Industries
403-4, IIT Gandhinagar Research
Park,
IIT Gandhinagar, Palaj
Gandhinagar District
Gujarat 382355
India

Factory - II

DP Pulveriser Industries
26, Radhe Krishna Industrial Park
Jalundra Mota PO
Dehgam Taluka
Gandhinagar District
Gujarat 382305
India