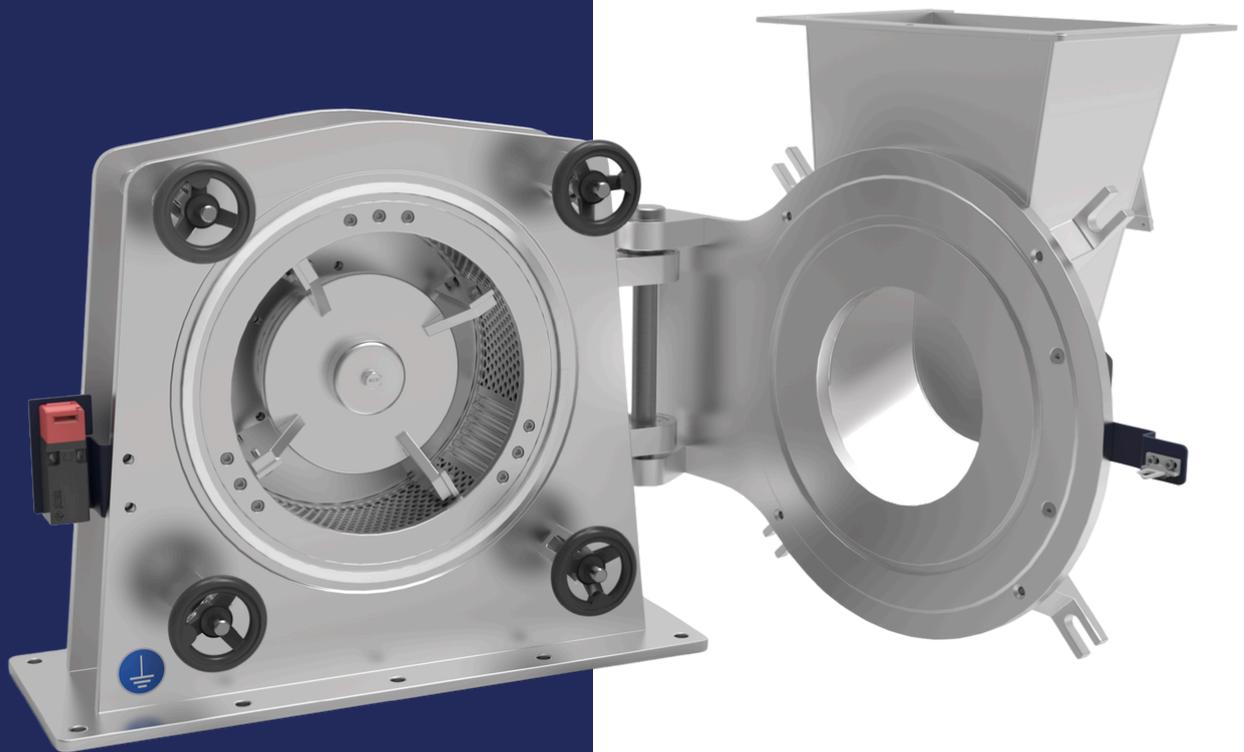




DP Pulveriser[®]
since 1962



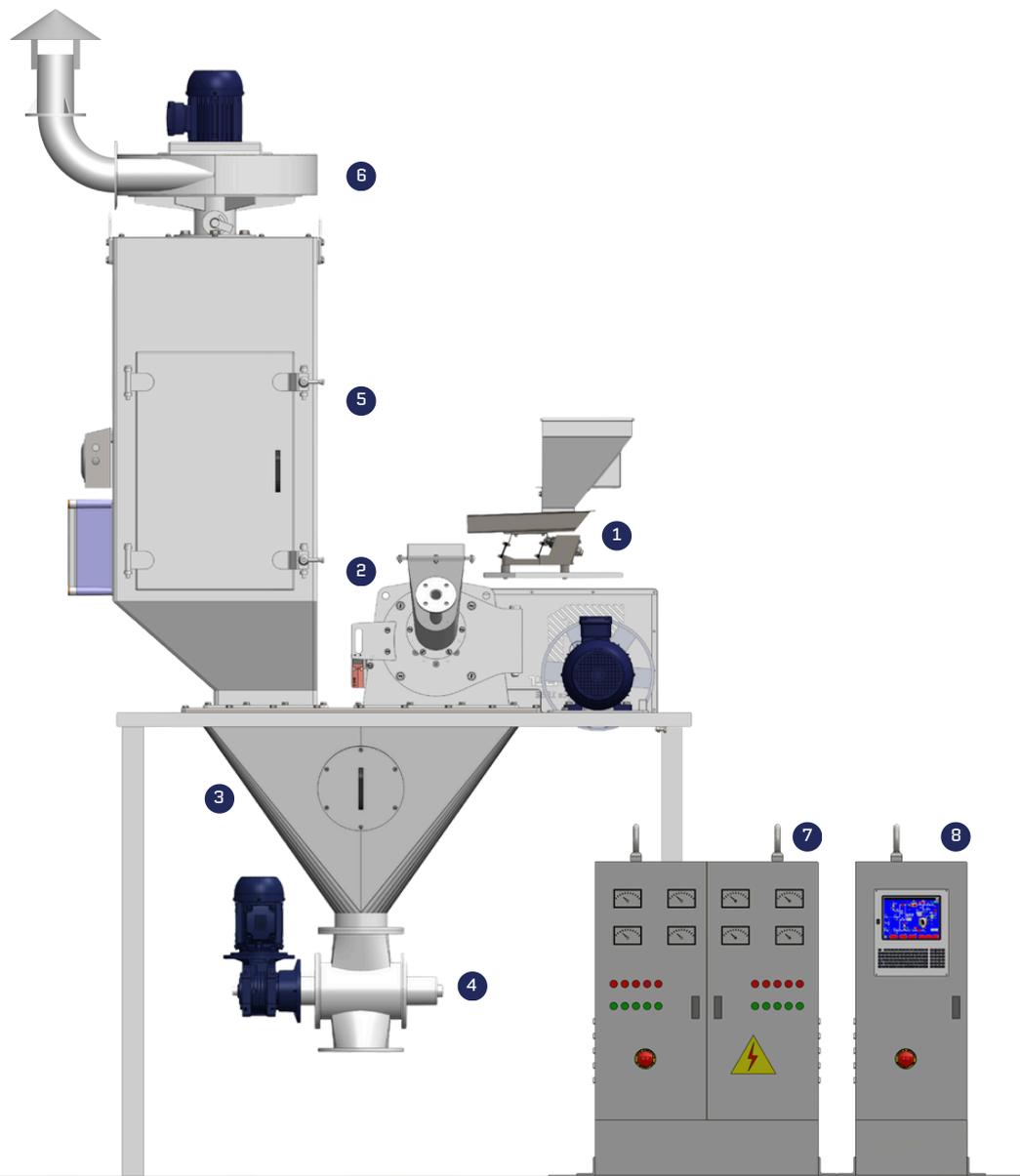
DP® UNIVA Series Plate Beater Mill

Universal Mill

Introduction

The DP® Plate Beater Mill is a high-speed impact mill with durable beater plates designed for efficient size reduction. It handles coarse to medium feed materials, producing controlled particle sizes while maintaining cool operation for heat-sensitive products. Ideal for food, chemical, and mineral applications.

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



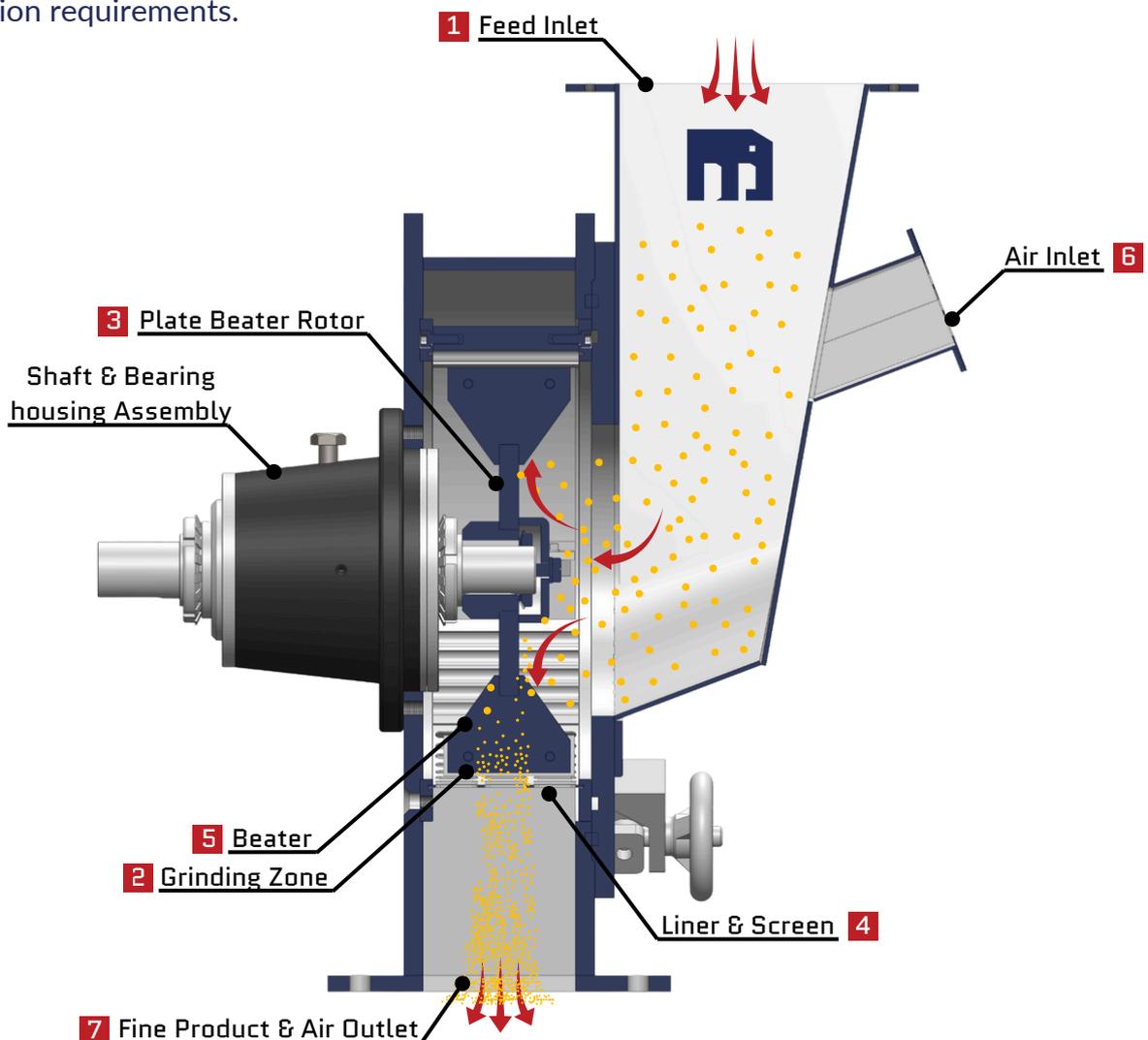
► Typical process flow diagram of a standard Plate Beater Mill

Working Principle

The DP® UNIVA Series Plate Beater Mill operates on the principle of high-speed impact and shearing between rotating beaters and a fixed liner. Material enters through the **feed inlet (1)** and is directed into the **grinding zone (2)** by gravity or controlled feeding systems such as a screw or vibratory feeder. Air can be introduced via the **air inlet (6)** to support material transport, cooling, and fluidization during milling.

Inside the grinding chamber, the **plate beater rotor (3)** is equipped with multiple **beaters (5)** that strike and propel the material against the **liner and screen (4)**. The material is initially fractured on impact, then further reduced through repeated collisions and compression between the beaters and liner. The screen ensures that only particles of the desired size pass through.

This system is well-suited for coarse to medium feed materials, including fibrous, and crystalline products. The final product, along with process air, exits via the **fine product & air outlet (7)** for gravity discharge collection or pneumatic conveying. Particle size can be controlled by selecting the appropriate screen opening, rotor speed, and feed rate to meet application requirements.



► A cross-sectional view of the Plate Beater Mill

Features & Benefits

- ▶ Suitable for grinding material with fibre content
- ▶ Wide flexibility in feed materials – suitable for dry, slightly moist, and low-oil products.
- ▶ Capable of processing materials up to approx. Mohs hardness 3.
- ▶ Variable speed rotor drive for precise control of fineness and throughput.



▶ Gravity bunker discharge arrangement



▶ Pneumatic conveying discharge arrangement

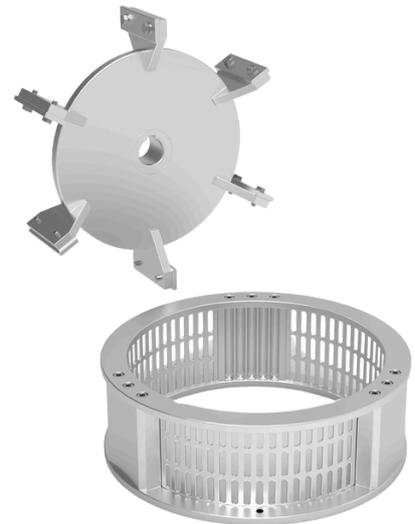
- ▶ Operates efficiently with low energy consumption and reduced operating costs.
- ▶ Delivers uninterrupted grinding with a screen-free design, ensuring consistent output and minimal downtime.
- ▶ Grinding chamber and components designed for easy access and quick cleaning.

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-320PB-EX in Explosion Resistant design upto PSR 11 bar



▶ Plate Beater 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	15000	-	0.06
180	5.5	12000	-	0.25
255	11	8300	1050	0.5
320	18.5	7100	1500	1
510	37	4500	3200	2
640	75	3500	5200	3.6
805	90	2800	7500	4.5
1020	110	2400	10000	6.3
1280	250	1850	12500	9



► DP® UNV-610PB UNIVA Series Plate Beater Mill System



▶ DP® UNV-320PB Plate Beater Mill ready for dispatch



▶ DP® UNV-255PB Plate Beater Mill ready for dispatch



▶ DP® UNV-255PB Plate Beater Mill ready for dispatch



▶ DP® UNV-320PB Plate Beater Mill pneumatic conveying type ready for dispatch



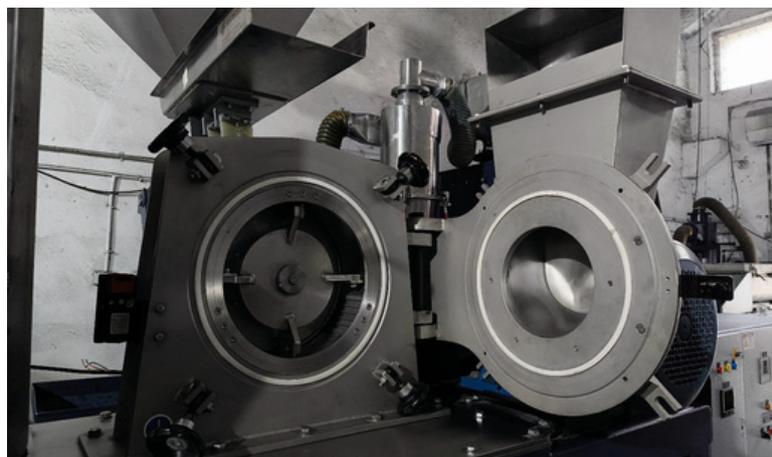
▶ Typical control panel of schematic of our UNIVA series mills



▶ DP® UNV-255PB Plate Beater Mill ready for dispatch



▶ DP® UNV-255PB Plate Beater Mill ready for dispatch to Guatemala, Central America



▶ Internal view of grinding chamber in a DP® UNV-255PB

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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