



DP Pulveriser[®]
since 1962



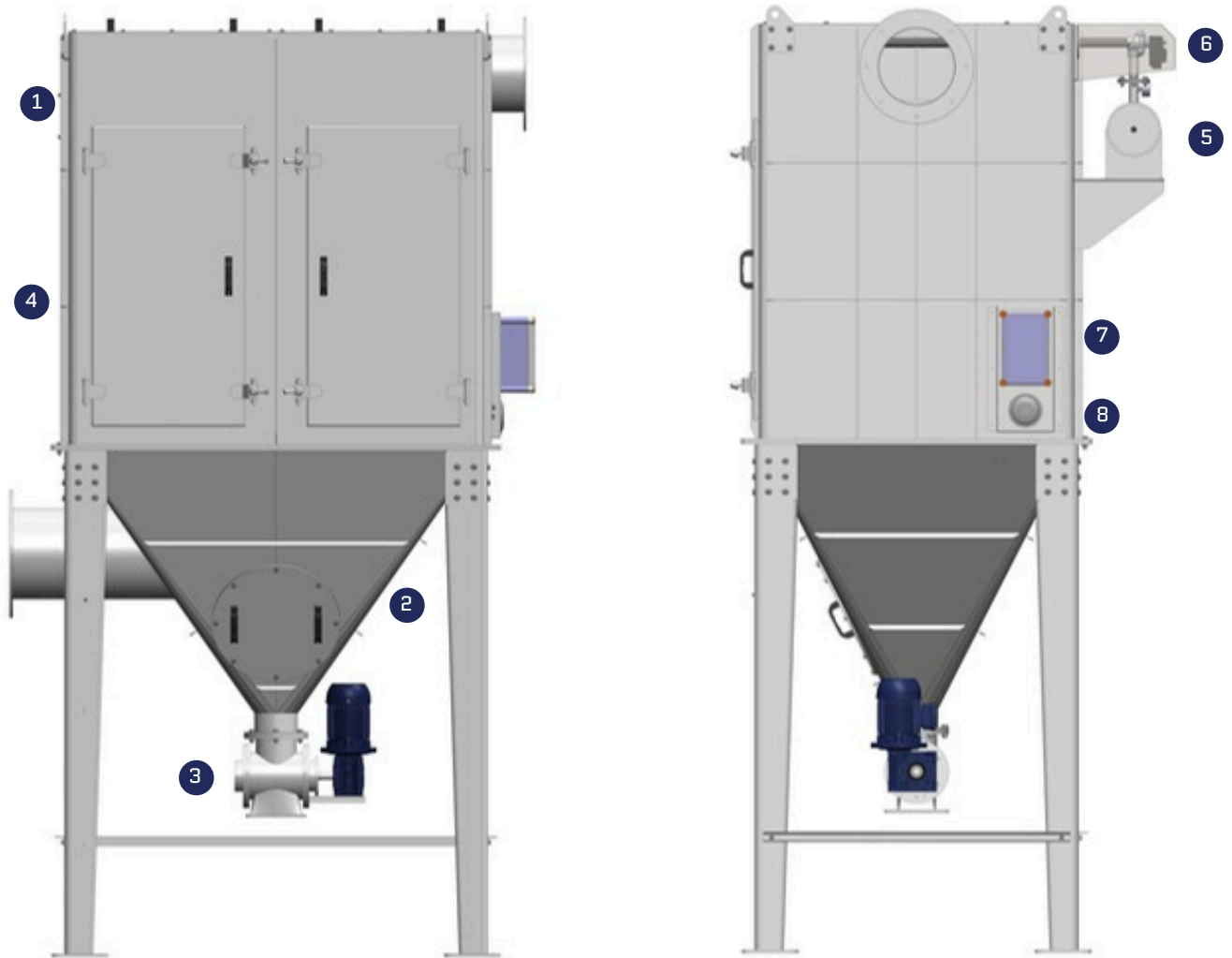
DP[®] Pulse Jet Dust Collector

Pollution Control Equipment

Introduction

The DP® Pulse Jet Dust Collector is a high-efficiency air filtration system engineered to capture fine and ultrafine dust particles from process air streams. It ensures clean air discharge, protects downstream equipment, and supports safe, dust-free operation across grinding, classification, and conveying applications.

- 1 Dust Collector Housing
- 2 Discharge Trough
- 3 Rotary Air Lock Valve
- 4 Front Access Door
- 5 Compressed Air Tank
- 6 Solenoid Valve
- 7 Timer Box
- 8 Magnehalic Gauge



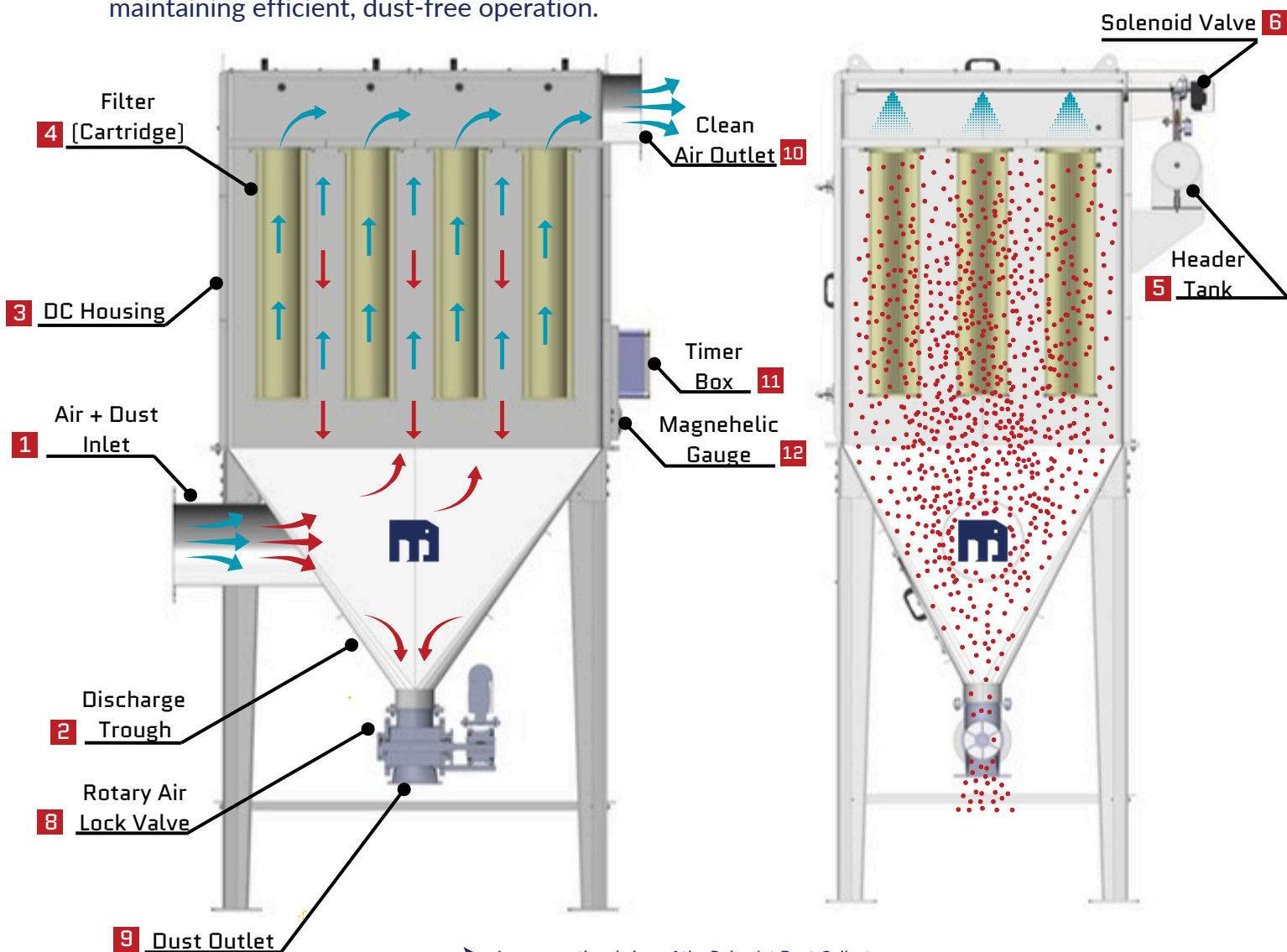
► Typical process flow diagram of a standard Pulse Jet Dust Collector

Working Principle

The DP® Pulse Jet Dust Collector operates on the principle of pulse-jet filtration under negative pressure. Dust-laden air enters through the **air + dust inlet (1)** and flows into the **DC housing (3)**. A blower installed at the **clean air outlet (10)** creates negative pressure inside the system, drawing air upward through the **filter cartridges (4)**. Due to this suction effect, dust particles are retained on the outer surface of the filters while clean air passes through and exits via the **clean air outlet (10)**.

As dust accumulates on the filter surface, the pressure differential is monitored by the magnehelic gauge. Based on preset intervals controlled by the timer box, the **solenoid valve (6)** releases a short pulse of compressed air from the **header tank (5)**. This pulse-jet action dislodges the accumulated dust from the filter surface.

The released dust particles fall downward into the hopper section and are discharged through the **rotary air lock valve (8)** at the **dust outlet (9)**, ensuring continuous and airtight removal. The cleaned air continues to flow through the filters and is safely discharged, maintaining efficient, dust-free operation.



▶ A cross-sectional view of the Pulse Jet Dust Collector

Features & Benefits

- ▶ High-efficiency pulse-jet filtration for effective separation of fine and ultrafine dust particles.
- ▶ Designed for continuous operation under negative pressure for stable system performance.
- ▶ Suitable for integration with grinding, classification, and pneumatic conveying systems.
- ▶ Cartridge-type filters ensure high filtration area within a compact footprint.



▶ DP® 9MB Pulse Jet Dust Collector



▶ DP® 6MB Pulse Jet Dust Collector

- ▶ Automatic pulse cleaning system reduces manual maintenance and downtime.
- ▶ Energy-efficient design with optimized airflow and low pressure drop.
- ▶ Dust-free discharge through rotary air lock valve for airtight operation.
- ▶ Differential pressure monitoring via magnehelic gauge for reliable filter condition control.

Options and Accessories

- ▶ **Explosion Protection:** Can be engineered with pressure shock-resistant housing or explosion vent panels to meet dust explosion safety standards.
- ▶ **Safety Door Interlock:** Optional safety limit switches on access doors to prevent operation during maintenance.
- ▶ **Access Platform & Ladder:** Optional maintenance platform with ladder for safe and easy access to filters and header tank.
- ▶ **Filter Media Options:** Cartridge filters available in various media types (polyester, antistatic, PTFE-coated) depending on dust characteristics.
- ▶ **Instrumentation & Control Panel:** Can be supplied with integrated electrical control panel for blower, pneumatic knocker and pulse system operation.
- ▶ **Construction Material Options:** Available in carbon steel, stainless steel (SS304 / SS316), or special coated designs for corrosive applications.
- ▶ **Automatic Pulse Control:** Programmable timer-based or differential pressure-based pulse cleaning system.



▶ DP® 24MB Pulse Jet Dust Collector with maintenance platform & Explosion vent

Machine size

Filter Size	Number Filters																
	2	3	4	6	8	9	10	12	14	16	20	24	28	30	32	36	40
SA	3	4.5	6	9	12	13.5	15	18	21	24	30	36	42	45	48	54	60
SB	5	7.5	10	15	20	22.5	25	30	35	40	50	60	70	75	80	90	100
SC	6	9	12	18	24	27	30	36	42	48	60	72	84	90	96	108	120
MA	6	9	12	18	24	27	30	36	42	48	60	72	84	90	96	108	120
MB	10	15	20	30	40	45	50	60	70	80	100	120	140	150	160	180	200
MC	12	18	24	36	48	54	60	72	84	96	120	144	168	180	192	216	240
LA	12	18	24	36	48	54	60	72	84	96	120	144	168	180	192	216	240
LB	20	30	40	60	80	90	100	120	140	160	200	240	280	300	320	360	400
LC	24	36	48	72	96	108	120	144	168	192	240	288	336	360	384	432	480



► DP® 24MB Pulse Jet Dust Collector with maintenance platform



▶ DP® 12LB PJDC in MS



▶ DP® 9MB PJDC in SS304



▶ DP® 9MB PJDC in SS304



▶ DP® 12MB PJDC in MS



▶ DP® 9LB PJDC in MS



▶ DP® 6LB PJDC in MS



▶ DP® 9MB PJDC in MS



▶ DP® 9MB PJDC in SS304

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
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