#### **Dust Collector Filter Bags and Cages: Types and Applications**



# DUST COLLECTOR FILTER BAGS AND CAGES: TYPES AND APPLICATIONS

Maintaining air quality for many industries is essential for efficiency of the system and environmental purity. Dust collector filter bags and cages by mmp plays an essential role in providing cleaner and safer air. Products by mmp are manufactured in such a way that it captures and contains dust particles, which provides a healthier environment. Here we will look into the different types of filter bags and cages, their applications, and the industries that need them based on their usages.

#### What are the Different Types of Filter Bags & Cages?

• Filter bags and cages manufactured by mmp comes in various shapes, sizes, and materials, each customised to specific industrial needs.

#### **1. Pleated Filter Bags**

• Pleatex - Pleated filter bags by mmp offers a larger surface area as compared to conventional bags, which improves dust-holding capacity and efficiency. Made from different materials like spun bonded polyester or meta-aramid, among others, these bags are ideal for high filtration performance. They can handle fine dust particles and offer lower pressure drop, making them energy-efficient options for dust collection systems. Explore Pleated Filter Bags

#### 2. Conventional Filter Bags

 Conventional filter bags are a standard choice for many industries. These bags are typically made from woven or non-woven fabrics such as polyester, meta-aramid, polyphenyl sulphide, or fiberglass among other materials. They are versatile and can be used in a wide range of dust collection applications. The fabric type depends on the operating temperature, chemical compatibility, and the nature and type of dust to be filtered. These bags are customised according the application. Discover Conventional Filter Bags

### **3. Dust Collector Filter Cages**

Filter cages by mmp are the main components that support the conventional filter bags. This is necessary to maintain the shape and maximize filtration efficiency. These cages are commonly made from stainless steel or galvanised iron. Mostly, these cages are cylindrical in shape. The material selection depends on the requirements of the dust collector system and the industrial environment in which they are used. The venturis' can be made of either mild steel, galvanised iron, stainless steel, cast iron, and aluminium, depending on the customer's requirement and the application. mmp's filter cages are automatically welded, ensuring longevity. The cages are free from burrs, so the filter bags do not get damaged during pulsing.

Learn More About: **Dust Collector Filter Cages** 

#### **Uses and Applications**

• Filter bags and cages are employed in various industries to manage and control dust emissions. Some of the industries that use them are mentioned below:

#### **1. Mineral Industries**

• Dust collector filter bags used in mineral industries collects fine particles which are produced during the processes like crushing, grinding and material handling. Pleated filter bags are often used here due to their high dust-holding capacity and durability.

### 2. Metal Industries

• For metal industry, dust collector bags which are typically made from high temperature resistant materials like meta-aramid and polyphenyl sulphide are used. This ensures proper collection of metal dust and fumes which are produced during different processes.

#### **3. Chemical Industries**

 Chemical industry generates a wide range of dust types, from fine powders to sticky or corrosive substances. Dust collector bags in this industry often require customized filter bags and cages made from chemically resistant materials to ensure longevity and efficiency.

Related guide: The Expert's Guide to Oil and Gas Filtration Processes

# 4. Food and Beverage Industries

• In the food and beverage industry, to maintain the purity and comply with the health regulations as dust control is essential. Dust collector filter bags used here must be food-grade and capable of handling fine, often combustible dusts. mmp provides quality dust collector bags which can be used in F&B industry.

### **5.** Pharmaceutical Industries

 Pharmaceutical industry utilizes extensive and precise regulations which makes them one of the most highly controlled industries. Pharmaceutical industries use dust collector filter bags as drug contamination can be worst thing which also leads them to a devastating loss of money and reputation. Filtration bags will keep purity of medications and also customers safe.

# **6. Asphalt and Cement Plants:**

These plants require frequent filter replacements because they rapidly produce hydrocarbons which quickly build up on the bag filter restricting the air flow and lowering the output of the plant. Cement plants use a variety of dust filter bags such as pleated dust bags or conventional filter bags to overcome the issues.

### Maintenance and Replacement

Regular maintenance and timely replacement of filter bags and cages are crucial to ensure the dust collector system operates efficiently. Clogged or damaged bags and cages can reduce filtration efficiency and increase energy consumption. It is essential to follow the manufacturer's recommendations for maintenance and replacement intervals to keep the system running smoothly.



#### HAVE QUESTIONS ABOUT DUST COLLECTOR FILTER BAGS AND CAGES?





#### Conclusion

- By now we have a better understanding of dust filter bags and cages and how they benefit in improving operational efficiency and safety or manpower in different industries.By choosing the right type of filter bags and cages, industries can effectively manage dust emissions, enhance air quality, and ensure compliance with health and safety regulations.
- mmp has 3 decades of experience in manufacturing of dust collector filter bags and cages. For more information on dust collector filter bags and cages, visit MMP Filter.