

UNITM

D U S T

Powder Recovery System Cyclone Technology



The Ultimate Solution
To The Reconciliation
Of Batch Losses

hanningfield



Cyclone Technology

The **Uni-Dust** is the latest major product developed by Hanningfield and offers an exceptional solution to the problem of excess powder caused whilst processing. The **Uni-Dust** incorporates the very latest in cyclone technology, allowing for a filterless design, which increases both functionality and reliability.

The **Uni-Dust** offers many advantages due to its unique and intricate design. With the incorporation of an external HEPA filter, the **Uni-Dust** is able to capture in excess of 99.99% of loose powder. Consequently, waste product can be easily recovered and weighed for reconciliation.

The control of powder results in both a safer working and process environment; eliminating the need for dust collectors in plant rooms and technical areas. This improves site safety standards, helping GMP conformance.



helping to solve powder containment issues

- **Improve the environment**
- **Keep waste product in the process room**
- **Improve GMP and site safety standards**
- **Create a cleaner safer workplace**
- **Reconcile batch losses**
- **Extends Dust Extraction Filter Life**



The Hanningfield **Uni-Dust** powder recovery system is a high efficiency cyclone designed to ensure optimum 'in-process' performance for the successful recovery of excess powders. The internal components of the cyclone are carefully engineered to ensure a smooth transition of the air and particle stream ensuring excellent laminar flow characteristics.

an essential part of dust control for the pharmaceutical industry

Operation

The high efficiency design separates material from the airflow without requiring any internal filtration, eliminating the need to open the cyclone during production runs.

An external HEPA police-filter and pre-filter system ensures any small amounts of 'carry-over' which escape the cyclone are safely captured. The external filter is also entirely safe-change.

Material is collected in the catch pot located below an isolation valve. At the end of each production run or shift, the isolation valve is closed and the collection chamber can be removed and disposed of using the simple safe-change 'bag-in-bag' system. If the safe-change feature is not required, the catch-pot is easily unscrewed for removal.

Once removed from the cyclone, the collected material can be disposed of, or where protocol allows, can be reintroduced to the process; subsequently either reusable or disposable containers can be used.

A further enhancement incorporates a double valve arrangement on the cyclone inlet and outlet, which also has a CIP connection. The extra level of containment allows for the removal of the cyclone without exposing operators to any residual product in the powder conveying lines.



high efficiency filterless
dust recovery cyclone

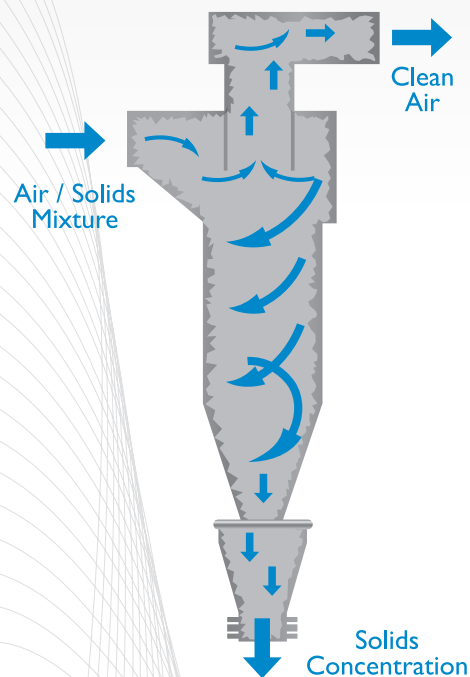
Performance Design

The **Uni-Dust** high-efficiency product recovery cyclone system is specifically designed for each application depending on product type, bulk density, particle size and site conditions.

Our test facility enables us to completely tailor each **Uni-Dust** to meet every customer's specific needs. Through conducting preliminary off-site trials, we can use the test results to optimise the design of each cyclone, ensuring each system operates in the most efficient way given a customer's individual requirements.

The cyclone technology used in the **Uni-Dust** provides excellent separation of powder from the airflow. Any small amount of 'carry-over' particles not captured in the cyclone chamber are arrested externally by a safe change HEPA policing filter.

The overall design of the **Uni-Dust** is very flexible allowing a variety of possible installation options to suit the site parameters and available space.



- **No Moving Parts**
- **New Filterless Design**
- **Full Safe-Change Facility**
- **External HEPA Police Filter**
- **Compact Size Saves Space**
- **Stainless Steel Construction**
- **Hygienic Design For Easy Cleaning**
- **High Efficiency Double-Scroll Cyclone**



Powder Recovery

The Hanningfield **Uni-Dust** high efficiency cyclone is used for the safe interception of excess dust from tablet presses, capsule filling machines and similar powder filling process equipment.

In many cases, dust from these machines is piped away out of the process environment, very often to an unsafe area, such as a service void or plant room. In situations where dust collection is centralised, batch loss reconciliation is impossible.

The new **Uni-Dust** cyclone system is a compact and hygienic solution to safe dust recovery within the process room and now has an all new filterless design and optional full safe-change facility providing increased levels of containment and safety.

Uni-Dust improves the environment by eliminating the need for dust collectors sited in plant rooms and technical areas.

