Donaldson Torit (DCE) Dry Scrubbing / Powder Dosing Chalking Units

Stock No	EV1459-D
Manufacturer	Donaldson Torit (DCE)
Model	Dry scrubbing units
Year of Manufacture	2014
Serial	various
Approx Duty CFM / M³/Hr	N/A
Filter Area ft² / m²	N/A
Other Info	Multiple units available from stock
Location	Our Central Warehouse, Aldridge, UK
Weight (kgs)	175
External Dimensions (WxDxH mm)	800 x 850 x 1600

Description

What are dry scrubbing systems?:

Dry scrubbing is a technique used for removing the vapour components of raw gas flow, using ‘absorption’ onto an inert dry powder (sorbent). It works especially well with vapours which have a dew point close to the operating, or in-duct temperature, in a dust or fume extraction system.

For instance VOC’s & acid gases from various plastic extrusion processes, foundry hot wax casting processes, oven & furnace processes producing large amounts of VOC / acid gases etc.

The powder is usually injected into the ductwork upstream of a bag-house or cartridge filter dust collector, to allow thorough mixing with the gas stream, prior to hitting the filtration media / system. The unwanted ‘volatile/pollutant’ fume reacts & combines with the injected powder, enabling resultant product / powder to be successfully removed by the dust extraction system.

Without dry powder absorption the volatile components of the gas stream can quickly blind the filter media, even with efficient reverse pulse jet or compressed air cleaning wing, filter cleaning systems.

The use of chemically inert limestone (calcium carbonate) is the most common as it maximises efficiency of dust collection (including fly ash) via the formation of a coating on the surface of the filter media. Other common absorbents are, sodium bicarbonate NaHCO3. Hot gas processes can also use dry-scrubbing, with the fume / dust laden air captured with high temperature ceramic elements.

Donaldson Torit manufacture dry powder injection & metering systems, for a range of volatile fumes & gas streams..

The MBF Micro-Batch Feeder is at the heart of the system, designed for continuous volumetric feeding of powdery or granular materials, consisting of a steel-reinforced SINT engineering polymer body, a horizontally mounted rotating agitator tool, a feeder screw beneath the agitator tool, a feeder pipe enclosing the protruding feeder screw, one drive unit each for agitator and feeder screw. Externally the unit is also supplied with the media feed hopper with vibratory fluidiser, and low level control.

Other possible uses would include any process that requires a metered injection of powdered or granular materials for dosing or mixing purposes.

Examples of:

- Polishing compounds to mass finishing processes
- Chemical additives to process solutions
- Batch mixing systems
- Floculation powders to waste water systems
- Metered injection of raw materials to moulds and injection machines.
- etc

Photographs taken prior refurbishment. Our refurbishment service is not available on all machines.