

DUST COLLECTOR

FUNCTIONALITY

A dust collector (bag house) is typically a low strength enclosure that separates dust from a gas stream by passing the gas through a media filter. The dust is collected on either the inside or the outside of the filter. A pulse of air or mechanical vibration removes the layer of dust from the filter. This type of filter is typically efficient when particle sizes are in the 0.01 to 20 micron range.

EXPLOSION HISTORY

- Loss history shows that dust collectors are by far the leading piece of equipment to experience explosions.¹
- Loss history for the past ten years due to dust explosions from FM Global Data Sheet 7-76:
 - Fifty-eight in dust collectors for a loss off \$15,094,000.

SOURCES OF IGNITION

- Because dust collectors are designed to handle material produced elsewhere, the ignition source does not have to come from within the dust collector. It may come from other equipment downstream of the dust collector.
- Sparks, flame, or smoldering embers, from dust production areas, are potential ignition sources that can ignite an explosion in the dust collector.

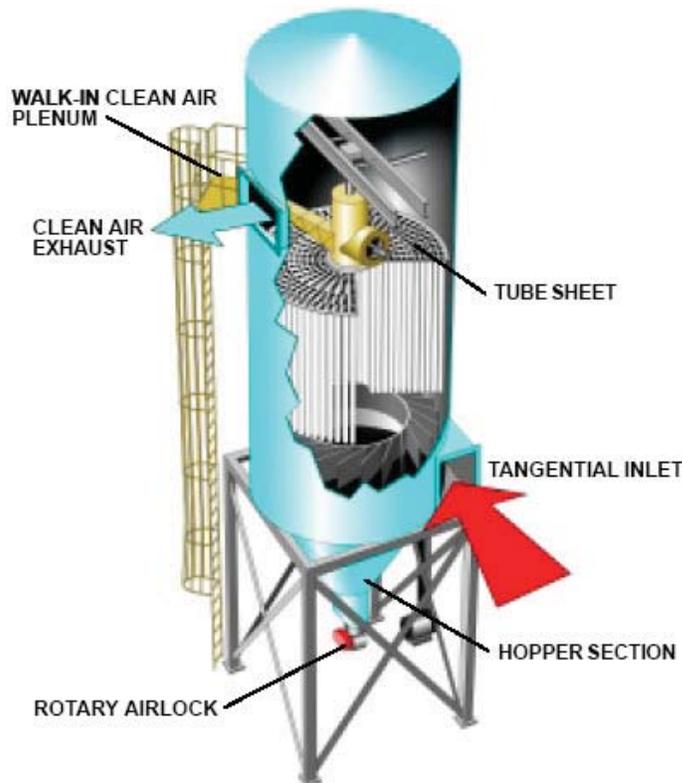


Figure 1: Sectional View of a Dust Collector

Form No. EAP 1010

1. FM Global Property Loss Prevention Data Sheet 6/24/13-21 "Coal Pulverizers and Pulverizing Systems", January 2000

