

The Dangers of Dust

Health Hazards Associated with Dust



Eye Irritation



Nasal Dryness



Headaches



Eczema



Occupational Asthma

Combustible dust is defined by NFPA 654 as: "Any finely divided solid material that is 420 microns or smaller in diameter and presents a fire or explosion hazard when dispersed and ignited in air."

5 to 10 MICRONS

- Talcum powder
- Fine silt
- Red blood cells
- Cocoa

44 to 74 MICRONS

- Pollen
- Milled flour
- Course silt

297 to 1000 MICRONS

- Course Sand

105 to 149 MICRONS

- Table salt

Typical Combustible Dusts

Natural Materials

Wood
Sugar
Paper
Starch
Flour



Synthetic Materials

Dye Stuffs
Plastics
Hexamine
Carbon Compounds



Inorganic Materials

Sulfur
Iron
Magnesium
Aluminum
Titanium



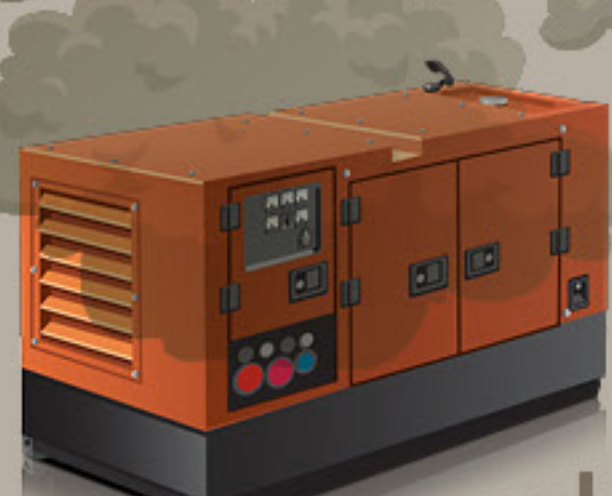
Dust explosions in American factories are more common than you think.



350
EXPLOSIONS
Since 1980

133
PEOPLE
Killed

HUNDREDS MORE
Injured



Dust also affects quality control because it collects in motors and electrical cabinets that aren't airtight.

K_{st} Values for Different Types of Dust

Any combustible dust with a K_{st} value greater than zero can be subject to dust deflagration. Even weak explosions can cause significant damage, injury and death.

NO Explosion

Dust Explosion Class: St 0
 K_{st} (bar.m/s): 0
Material: Silica

WEAK Explosion

Dust Explosion Class: St 1
 K_{st} (bar.m/s): >0 and =200
Material: Powdered Milk

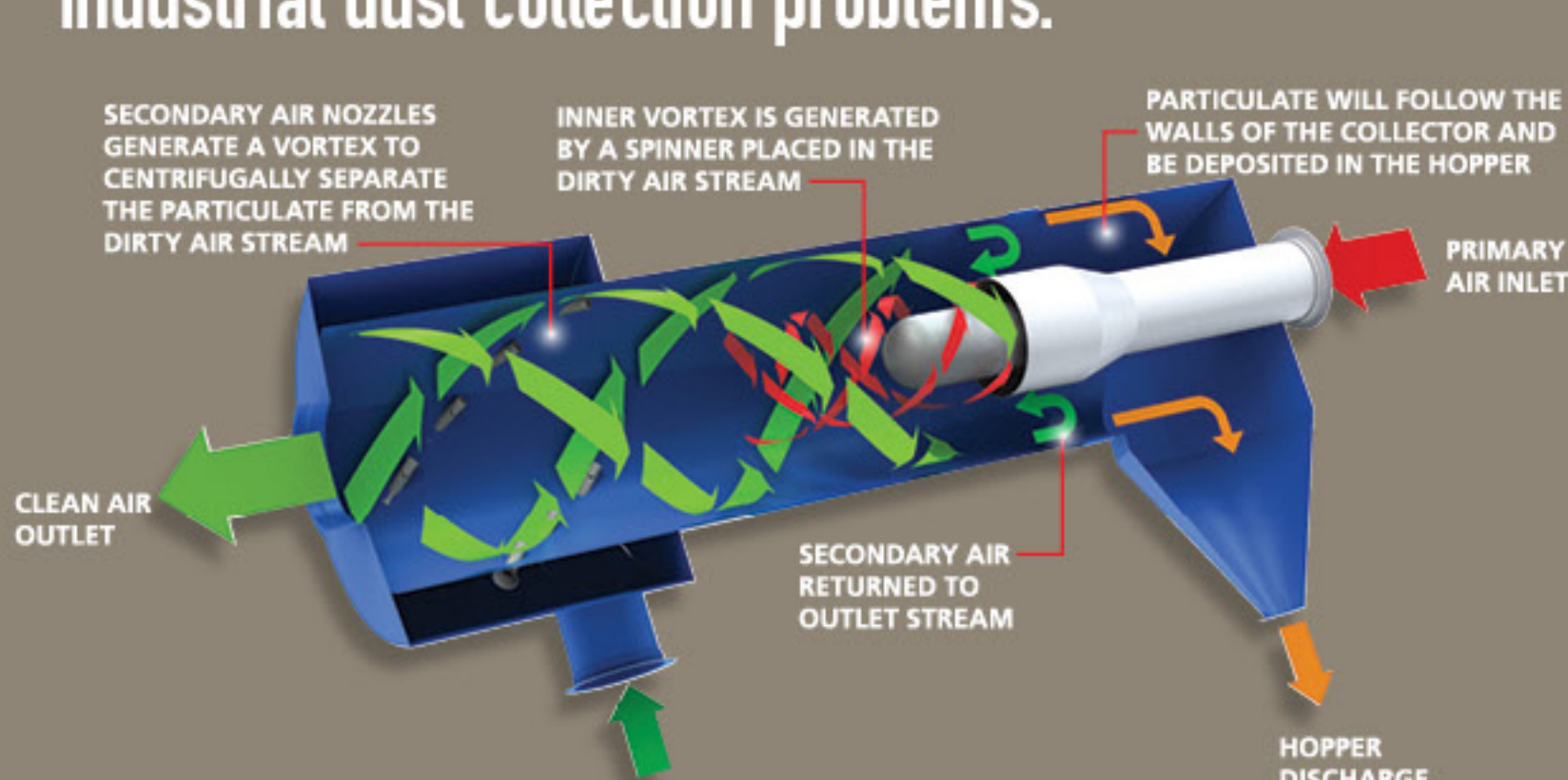
STRONG Explosion

Dust Explosion Class: St 2
 K_{st} (bar.m/s): >200 and =300
Material: Cellulose

VERY STRONG Explosion

Dust Explosion Class: St 3
 K_{st} (bar.m/s): >300
Material: Magnesium

Got Dust? Aerodyne dust collectors solve industrial dust collection problems.



See an  Animated Demo

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www.dustcollectorhq.com