

APPLICATION PROFILE

DUST COLLECTOR FIRE SUPPRESSION SYSTEMS

Dust collectors represent a potentially devastating fire hazard in industrial and commercial environments. New regulations require that fire suppression systems be installed on all dust collectors that pose a fire risk.

Fike's pre-engineered fire suppression systems for dust collectors provide an effective, convenient way to comply with NFPA 652 and protect your plant and people.

CO₂ is used in dust collectors processing non-metallic flammable dusts, and Argon is used to protect metal dust hazards. Both systems allow for manual and automatic actuation, and because they are pre-engineered, neither system requires the running of flow calculations to select the right components and design the system.



Simply determine the dimensions of your hazard and follow the design guidelines in the Fike Dust Collector Fire Suppression User's Manual. Each system can protect dust collectors up to 2,500 ft³.

THE NEED FOR FIRE SUPPRESSION IN DUST COLLECTORS

The NFPA 652 Standard on the Fundamentals of Combustible Dust, now mandates that where a dust fire hazard exists, a fire protection system must be provided. This means most industrial and commercial dust collectors need to be fitted with a manual or automatic fire suppression system.

This requirement is retroactive when and where OSHA or local authorities deem it to be. Failure to comply can result in fines or business disruption following a mandate to cease operations until a facility comes into compliance.

In addition to NFPA 652's new requirements, mitigating fire risk in dust collectors is a sound business and life-safety practice. Any dust collector processing flammable material must have some sort of explosion protection device installed. Adding an automatic fire suppression system further mitigates the risk of a catastrophic event, not only by reducing fire risk, but reducing explosion risk, as many explosions are ultimately preceded by a smoldering fire.

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GASEOUS SYSTEMS VS. WATER

Sprinklers are sometimes used to protect dust collectors from fire, but they present their own unique challenges and risks:

- 1) Limited to use in areas not prone to freezing, i.e. indoors.
- 2) Potential rust hazard for various dust collector components.
- 3) Greater potential for collateral damage from caking of dust in collector and filters.

THE PRE-ENGINEERED DIFFERENCE

Because the Fike system is pre-engineered, selecting the right solution for your dust collector is easy:

- 1) Choose your agent Select Argon for metal dust hazards or CO₂ for non-metallic flammable dusts.
- 2) Size your system Using the tables in Fike's design manual, select the kit that corresponds to the volume of the dust collector you are protecting. Kits include gas cylinders, actuators, heat detectors and manifold components.
- 3) Select an actuation kit Actuation kits include a releasing panel, horn/strobe and battery.

CALL YOUR SSI REPRESENTATIVE TODAY

Contact your SSI representative today at 1-800-360-0687 to learn more about how Fike's Dust Collector Fire Suppression System can:

- 1) Reduce risk to workers, plant and equipment.
- 2) Eliminate the risks associated with manual fire-fighting.
- 3) Help you comply with NFPA 652.

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