



# DUST COLLECTOR FIRE SUPPRESSION

Pre-Engineered Solutions to help comply with NFPA 652

- DESIGN
- SUPPLY
- INSTALL
- MAINTAIN

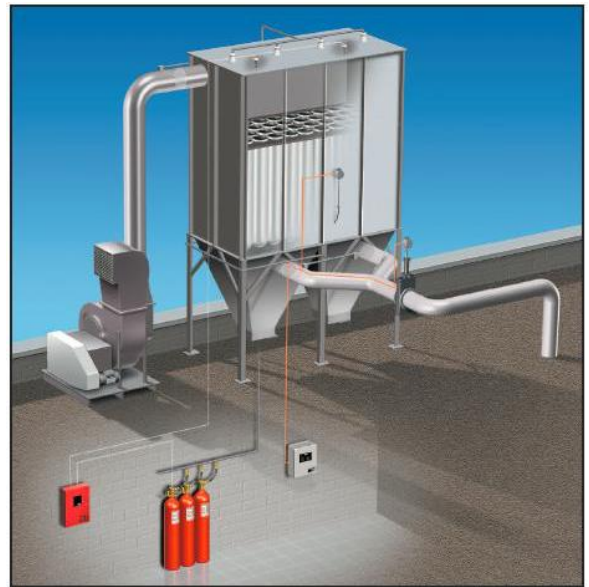
*your **TRUSTED** partner in fire safety*

## 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.

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

CO<sub>2</sub> 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.



## 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.

## 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 our system is pre-engineered, selecting the right solution for your dust collector is easy. Argon is for metal dust hazards, CO<sub>2</sub> for non-metallic flammable dusts. Sizing information is all that is required to have a quotation in your hands in minutes.

Contact a member of our team for more information!

## ***“NFPA 652 and what it means to you...”***

The 2016 edition of The NFPA 652 Standard on the Fundamentals of Combustible Dust provides the minimum general requirements for managing combustible dust hazards. This new standard applies to all facilities that generate, manufacture, process, handle, or repackage combustible dusts.

As with previous standards, NFPA 652 requirements generally do not apply retroactively, with one major exception that relates to the Occupational Safety and Health Administration’s (OSHA) combustible dust National Emphasis Program (NEP). The requirements are retroactive if OSHA or other Authorities Having Jurisdiction (AHJs) deems they are. In addition, certain portions of NFPA 652, including the management of change, housekeeping, training, maintenance, and documentation requirements are retroactive for all existing facilities, while the Chapter 7 Dust Hazard Analysis (DHA) requirements will be phased in over a 3 year period.



In short, Chapter 7 requires the following to be applied retroactively:

- Existing processes and facility compartments undergoing modification are to complete a DHA.
- Existing processes and facility compartments are to schedule and complete a DHA within 3 years of September 2015.
  - Facility owners should be working on this and show progress on mitigation recommendations.
  - The three-year period is intended to allow ample time for completion.

Chapter 8 requires that mitigation and prevention measures address fire suppression as well, specifically mandating that where a fire hazard exists as determined in Chapter 7, a manual or automatic means of fire protection be provided.

The standard prescribes that automatic fire protection systems shall be provided when at least one of the following conditions exist:

- Manual firefighting poses an unacceptable risk to facility personnel or emergency responders.
- Manual firefighting is not expected to be effective for a fire hazard assessed in accordance with Chapter 7.
- Automatic fire protection systems are required by the local building code adopted by the AHJ

We have developed pre-engineered fire protection solutions for dust collection systems up to 5,000 ft<sup>3</sup> to meet the NFPA 652 requirement. Our pre-engineered systems use CO<sub>2</sub> for organic dust and Argon for metal dust hazards. We also have engineered solutions to fit dust collection systems larger than 5,000 ft<sup>3</sup> with CO<sub>2</sub> fire suppression.

## **TRUST**

Phoenix Fire Systems is the trusted, dynamic partner for companies across Canada, providing complete coverage in fire safety.

## **KNOWLEDGE**

For decades we have been bringing together the most knowledgeable staff, best quality equipment and timely solutions to our clients' fire protection needs across every field. We are factory authorized and trained for the world's leading manufacturers of fire suppression equipment.

## **PEACE OF MIND**

We design, supply, install and maintain systems in accordance with the Ontario Fire Code and manufacturer's specifications including;

- ✓ High Pressure Carbon Dioxide (CO<sub>2</sub>) Systems
- ✓ Clean Agent (FM-200®, Novec 1230™) Systems
- ✓ Dry Chemical Industrial Systems
- ✓ Wet Chemical Kitchen Systems
- ✓ WaterMist Systems
- ✓ Video Flame Detection Systems
- ✓ Argon Systems



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