Industry leaders all over the world have installed *SonicAire® fan systems* to eliminate the dangers of combustible dust and lint . . .

So if you’re serious about preventing combustible dust fires and explosions — why not join them?

*Smart air innovations.*

Manufactured by IES.
SonicAire fan systems have changed how industries deal with combustible dust and fiber. They are the first and only proactive solution to eliminate overhead fugitive dust problems. Using IES’s proprietary BarrierAire™ Technology, only SonicAire fans can robotically prevent fugitive dust from accumulating in the first place. All the fans deliver a full range of clean by providing a vertical cleaning area from 0-140° with a full 360° rotation.

The result? Your plant can now achieve the highest levels of clean that meet or exceed government regulations—and these levels of clean can be maintained continuously. All this can happen with a one-time investment that can pay for itself in a year. You can’t get a better ROI to keep your employees safe.

ESoT is a certified representative for IES to distribute the full line of SonicAire fan systems. These clean fans provide the only proactive way to prevent dust from accumulating on overhead structures in the full spectrum of industries.

Here’s an overview of each type of fan so you can consider which option works best for your needs.

**SonicAire 2.0**

*Controlled clean. Powerful performance.*

This fan is a powerhouse with a 2HP motor that delivers twice the cleaning area of the SonicAire 1.0, so installation costs are cut in half. The SonicAire 2.0 is designed to combat problems with heavier fugitive dust generated in wood, paper, pulp and recycling industries. However, many clients with conventional dust and lint also opt for this fan too, recognizing the smart economics of lowering their installation costs.

The SonicAire 2.0 also boasts a host of new engineering designs that allow for the ultimate in safety, convenience and automation of cleaning overhead structures.

**SonicAire 1.0**

*Dependable workhorse.*

This is the original fan that revolutionized the strategy to control combustible dust. With a 1HP motor, the SonicAire 1.0 was the first to prevent combustible particles from accumulating on steel structures, pipes, ducts and process equipment. With the introduction of the SonicAire 1.0, companies now had a way to stop paying for manual overhead cleaning.

**SonicAire 1.c**

*Small size. Big clean.*

This fan has all the motor strength of the SonicAire 1.0, but the “c” stands for compact. We built this fan to clean cramped spaces.

Often, facilities have places overhead too small to reach. We think of it as a lean, muscular acrobat that can get into seemingly impossible positions to clean these spaces.

SonicAire®

Manufactured by IES
**Mounting Options**

*Here are the most popular options. Ask us about others if you don’t see what you need.*

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**Bottom Support Hub (BSH)**

To assure that the fan discharge is at the highest possible location, the Bottom Support Hub is the option you need. With this, the fan can be mounted upside down or in a trapeze configuration. This mount can also be used to hang the fan, if desired.

**Purlin Mounting Support (PMS)**

Designed for metal buildings, this mount can be hung from two roof purlins.

**Universal Mounting Platform (UMP)**

This option attaches the SonicAire fan to horizontal flanged steel. It comes complete with 2 flange clamps to fasten the mount to the flanged steel member.

**Vertical Mounting Support (VMS)**

This supports a SonicAire fan from a vertical support structure such as a column or wall. It cantilevers the fan away from the structure.

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**Bar Joist Support (BJS)**

Developed for facilities with low ceiling heights, this option maximizes the height at which the SonicAire can be installed. This supports the fan from the top of bar joists. If your bar joist is less than 12 feet from the floor, you should use this.

**Inclined Beam Mount (IBM)**

This mount is customized for surfaces such as inclined roof trusses and metal building support beams.

**Vertical Adjustable Support (VAS)**

This option is designed for facilities with tapered vertical support structures, such as a structural concrete tee or beam roof support. The support mounts on the side of the beam or structure.

**Base Plate Hub (BPH)**

With this option, you can mount the SonicAire fan upside down on top of a wood truss or beam, eliminating the need for lag bolts.
## Safety Option

### Fan Guard Kit (FGK)
This kit protects an employee from accidentally putting a hand or other object directly into the fan. As such, it is a necessity when mounting the fan discharge within 8.5 feet (2.5m) of the floor or other walking surface.

### Safety Cable Kit (SCK)
Now standard on all fans, the Safety Cable Kit provides everything you need to secure the SonicAire fan to the overhead structure.

## Control Options

### Central Options

#### Automatic Control Timer (ACT)
Want to run the fans only when the facility is empty, or for only a few hours per day? With this option, you can choose whatever works for your operation, and implement it with one simple setting. It comes with an ON/OFF/AUTO manual override switch.

#### Emergency/Fire Control (EFC)
If a fire alarm system detects a fire in the facility, this control will automatically turn OFF all the SonicAire fans.

### Local Options

#### Emergency Stop Button (LDS-E)

#### Lock Out Tag Out Rotary Switch (LDS-L)

#### Lock Out Tag Out Disconnect (LOTO-L)

### Local Disconnect Switch
Three types, sized to fit specific fans, use NEMA 12 enclosures and can be mounted to any flat surface.

### Lock Out/Tag Out (LOTO)
This locks out and tags out a group of fans for maintenance.

### Variable Speed Control (VSC)
SonicAire fans can clean or cool with this option. Change the speed of the fan to suit your needs—lower speed to provide good air circulation for employees. Run fans at full speed for cleaning.

### Reverse Control Kit (RCK)
To prevent the fan from cleaning in a certain area, this control can set cleaning parameters from 5° to 355° of rotation. Two types, developed for specific fans, are streamlined and easy to retrofit.
The core of every SonicAire fan is its BarrierAire™ Technology, our unique engineering platform. This technology uses dynamic air patterns to block fugitive dust buildup.

Here’s how it works. High velocity and high mass airflow from a robotic clean fan create an overhead barrier. This barrier essentially controls dust like an air curtain, preventing accumulation of fugitive dust on steel structures, pipes, ducts, walls, and process equipment. The outcome is that you can automatically maintain OSHA compliance throughout your plant—at all times. Only with BarrierAire Technology can you achieve and maintain the highest levels of clean for your overhead structures.

BarrierAire Technology controls the direction of the dust and forces it to the floor by preventing upward currents and stagnant air that keeps dust in suspension. With BarrierAire Technology no new dust is ever allowed to accumulate again. Only with BarrierAire Technology can you automatically maintain OSHA compliance throughout the plant at all times. Your employees have never been safer from the risks of combustible dust.

Our clients appreciate that they no longer have to pay for expensive cleaning services. They also don’t have to shut down production to allow the cleaning services to work. Even more important is that they also don’t have to put personnel at risk using scissor lifts to reach the overhead areas.

But that’s not all.

The BarrierAire Technology also allows you to transform your Class 2 Division 1 areas into unclassified areas. You have the ability to declassify your plant overhead area because BarrierAire Technology has the power to build an air barrier that cleans the overhead area—including the joists and beams, lights and the air itself—and prevents the combustible dust from ever accumulating again. Consider it robotic housekeeping, which ensures that the dust falls to the floor where it can be conveniently collected and contained.

Now, consider one of the recommendations in NFPA 499 (A.6.3.2), the standard for classification of Class 2: “...good housekeeping can determine the difference between . . . a classification of Division 2 and unclassified.” This is exactly what BarrierAire Technology achieves with a one-time investment.
The U.S. Congress has recently introduced Bill HR691: *Worker Protection against Combustible Dust Explosions and Fires Act of 2013*. The renewed interest in this issue is the direct result of numerous lethal explosions and fires ignited by fugitive dust. The purpose of the bill is to revitalize OSHA’s directive to inspect plants for compliance to the National Fire Protection Association (NFPA) standards. There is already an increase in attention OSHA is paying to combustible dust. Fines are being levied. But lives are being saved.

Everyone is taking this issue seriously because combustible dust is so dangerous. You should too.

OSHA’s regulations are based on standards developed by the NFPA. The standards for combustible dust are identified in a number of industry-specific catalogues, but the umbrella standard is NFPA 654: *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids*.

Consider these two highlights:

- A specific requirement for the level of combustible dust accumulation is noted in Chapter 6.1.3.1: The layer depth criterion is 1/32” (0.8mm). Keep in mind that this is about the size of a diameter of a paper clip wire.

- In Chapter 8.2.1.1 it states that the housekeeping frequency shall be established to ensure that the accumulated dust levels on beams and above suspended ceilings does not exceed the threshold dust mass/accumulation.

**What does this mean to you?**

OSHA is systematically enforcing these standards. In fact, OSHA is required to look at combustible dust and fiber issues even if the inspection concerns another unrelated issue.

The practical reality is that there is now basically a zero-tolerance approach to dust and fiber buildup in a plant. You have to take action.

**How can you avoid fines and keep your employees safe?**

SonicAire fans are the most cost-efficient way to do just that. But don’t take our word for it. Here’s what the NFPA Committee Chairman has said about the SonicAire fan systems:

> “I like the fans . . . because they can control dust in hard-to-access areas. The fans provide an option for controlling dust accumulations without the risks to worker safety that would result from the use of ladders or scissor lifts to reach those difficult places.”

**Walter Frank**  
President  
Frank Risk Solutions, Inc.  
wlf@frankrisk.com

As the global leader, we are grateful to have satisfied clients not only in the United States, but also all around the world. Our leadership is marked by continuous innovation of engineering designs to provide our clients with the smartest systems and solutions that meet or exceed OSHA regulations and NFPA standards. This level of clean assures compliance with government regulations in other countries as well.