AIRCLEAR

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CANNABIS ODOR CONTROL (COCs)

FOR USE IN THE COMMERCIAL HEMP & MARIJUANA INDUSTRY

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As the marijuana industry continues to grow, the need for effective air pollution control devices has become increasingly important. Marijuana and hemp plants release their most pungent odor during the flowering stage, but also retain a strong smell during the drying and curing process. Cannabis's distinct aroma can not only be unpleasant and disruptive to those working in the vicinity, but it also presents a clear challenge for growers. Regulations require that commercial grow operations implement an odor control plan to address this issue. Air Clear's Cannabis Odor Control Unit (COC) is the perfect standalone air pollution control device custom-designed for use in the marijuana industry.

Air Clear's COCs are custom-engineered to remove odor from hemp and marijuana drying/curing processes. The company's Research & Development department has spent considerable time and resources identifying the ideal media for the newly designed COCs. These units remove 99.9% of all sticky particulate from the air while trapping powerful odors before they are released into the atmosphere, reducing the likelihood of receiving gratuitous odor complaints at your workplace.

At Air Clear, the team understands how challenging it can be to deal with odor issues because of their subjective nature. Beauty may be in the eye of the beholder, but fragrance is in the nose of your neighbors. With over 30 years of experience helping companies across various industries address various odor issues, the company's expertise and experience can help your marijuana, hemp, or CBD business thrive and grow.

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Marijuana and hemp have gained increasing attention and legalization over the years due to their potential therapeutic and recreational benefits. However, the quality of the end product depends heavily on the drying and curing process.

Why is it important to dry and cure marijuana and hemp?

Drying and curing are two critical steps in the post-harvesting process of marijuana and hemp. These steps ensure the plant material is free of moisture and undesirable substances that may affect the product's potency, flavor, aroma, and overall quality.

Drying:

The drying process involves removing moisture from the freshly harvested plant material. If not dried properly, excess moisture in the buds and leaves can lead to mold/mildew growth, which can cause health problems and reduce the product's potency.

Curing:

Curing stores the dried buds in a controlled environment with the appropriate temperature, humidity, and airflow to allow the plant's natural enzymes to break down chlorophyll, starches, and other unwanted compounds. Proper curing also helps enhance the final product's flavor, aroma, and potency. In other words, it's like aging wine or cheese to enhance the taste.

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How do large grow operations commercially dry their marijuana and hemp plants?

Large grow operations typically use one of three methods to dry their marijuana and hemp plants:

1. Hang drying:

This method involves hanging the harvested plants upside down on a line or drying rack in a controlled temperature and humidity room. The plants are left to dry for 1 to 2 weeks or until the stems snap, indicating that the buds are dry. Hang drying is the most commonly used method for small to medium-scale operations.

2. Rack Drying:

Rack drying involves placing the harvested plants on a drying rack or screen in a room with controlled temperature and humidity. The racks have perforations to allow air to circulate the buds, promoting even drying. This method is often used for more sophisticated/high-end grow operations.

3. Machine Drying:

Machine drying is a more modern method of drying marijuana and hemp plants, using specialized equipment such as commercial dehydrators or drying rooms that circulate hot air to dry the buds quickly. This method is efficient and reduces the drying time to 3-4 days, but it can also lead to lower-quality buds if not monitored closely or if the wrong type of equipment is used. Machine drying is a relatively new method of drying marijuana and hemp plants that are gaining popularity in large grow operations. Some of the most popular types of dryers used in machine drying include:

A. Convection dryers: These dryers use heated air to dry the buds. Highly efficient at drying large amounts of bud fast.

B. Vacuum dryers: Vacuums are a gentle approach to removing moisture from buds. Aroma and flavor are preserved by reducing air pressure and forcing water to evaporate.

C. Microwave dryers: The faster nut more harsh method of dryers uses microwaves to heat the buds and remove moisture.

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The biggest issue with drying/curing marijuana and hemp is the pungent odor that comes from the process. This is due to the presence of terpenes, which are aromatic and beneficial compounds found in the plant. While these compounds are responsible for the plant's distinct aroma and flavor, they can also be overpowering and difficult to contain. It is important to note that drying and curing are two different but equally essential steps in the post-harvest process of marijuana and hemp. Drying is the process of removing moisture from the plant material. At the same time, curing allows the buds to age and break down certain compounds, enhancing the final product's flavor, aroma, and potency. The temperature, humidity, and airflow must be controlled/monitored during both processes to promote even drying and avoid mold and mildew growth.

Terpenes and Cannabis Plant Odors

The terpene profile is what determines the strength of the aromatic fragrance that a cannabis plant produces. When a cannabis plant contains a high amount of terpenes, the odor/fragrance is significantly more robust. Created in the trichomes of a cannabis plant and is mainly released from the bud of the cannabis plants. The plants with the most pungent terpenes typically have the most medical benefits. Protecting them during processing/cultivation is essential.

Air Clear's Cannabis Odor Control Units are custom designed to remove the pungent odors of cannabis plants while at the same time protecting the beneficial terpene profiles within the plant. This makes COCs the perfect solution for hemp and marijuana cultivation/processing facilities looking to protect their product while eliminating odor.

3 Main Types of Terpenes in Cannabis

Beta- Pinene Terpenes: Lower anxiety, improve memory function/retention

Myrcene Terpenes: Anti-inflammatory properties

Limonene Terpenes: Produce an elevated mood

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To protect terpenes and remove the smell of cannabis, Air Clear's Cannabis Odor Control Units are custom designed to remove odor from the hemp and marijuana cultivation/processing industry. Their innovative and powerful odor control systems are designed to remove odors and other airborne contaminants safely. Air Clear's odor control solutions are designed to the highest efficiency level and customized to your facility's size and complexity.

What applications will they work on?

In any indoor facility where cannabis is grown or processed, Air Clear's COC Units will successfully abate odors. Common examples include.

Drying / Extraction Facilities: Your odor is eliminated at the source of your exhaust points

Greenhouses: regardless of pressure or exhaust fan placement, Air Clear's COCs units eliminate odor on contact

Distribution or Warehousing: Cannabis odors are abated regardless of your indoor facility's size

Air Clear's Cannabis Odor Control Units (COCs) are the perfect solution for commercial processing and cultivation facilities that need to minimize the pungent odors from working with hemp and marijuana. The aromas from these facilities can be overwhelming, not to mention potentially violating local and federal regulations. However, these issues can be quickly addressed with Air Clear's custom-designed COCs.

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How do Air Clear's Cannabis Odor Control Units (COCs) work?

Air Clear's Cannabis Odor Control Units (COCs) are designed to eliminate the odor and emissions that result from the commercial processing and cultivation of cannabis plants. These units capture, collect, and remove oil and liquid mists, tacky aerosols, and submicron particles that cause opacity, odor, and mild emissions in the process stream. Unlike other devices, such as carbon filters, Air Clear's COCs are custom-designed for large-scale commercial and industrial applications. They don't get overwhelmed by sticky oil mists and cannabis particulate.

One remarkable feature of Air Clear's COCs is that they require minimal monitoring and maintenance. A large roll of specialized prefilter media constantly indexes based on the system's pressure drop. The unit indexes until a clean area of media is present when the media fills up with aerosols and oil mists. This process continues until the roll of media is completed.

Before the development of Air Clear's COCs, primary grow operations relied on carbon filters or scrubbers to deal with the odors from the drying and curing process. However, these devices could have been more successful in removing the odor-causing compounds consistently. Therefore, Air Clear's COC Units were designed to address and minimize the odors adequately.

Why Control Cannabis Odor?

A critical key to operating a proper cannabis company involves eliminating odors to remain compliant. Due to the robust nature of the smell of cannabis, producers need to mitigate their crop's odors to avoid environmental fines, neighboring complaints, and even potential costly shutdowns.

Industrial cannabis production facilities should always take odor control seriously. If the smell of cannabis escapes a facility in most places, producers, growers, and manufacturers of cannabis-related products risk incurring heavy fines or getting shut down.

In conclusion, due to legalization and decriminalization, the cannabis industry is growing at an unbelievable pace. To meet demand, growers have begun to industrialize into large-scale operations but need help to maintain effective odor control. In some cases, they jeopardize good community relations with those around their facility. The result is that many companies

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need help to maintain effective odor control. A top priority has been implementing odor abatement technology to avoid harsh penalties, such as strict fines or even the loss of grow licenses. **Air Clear's Cannabis Odor Control Units** are custom-engineered to eliminate the strong odors and emissions associated with cannabis processing and cultivation, designed to remove the pungent aroma of cannabis processing while protecting the beneficial terpene profiles within the plant. COC Units are also highly efficient and require minimal monitoring and maintenance, making them an excellent investment for any cannabis facility looking to comply with regulations while maintaining a pleasant and productive working environment. For more information, visit www dot airclear dot net.

Let Air Clear Help You Find the Right Odor Control Solution

If getting cannabis odor under control is essential to your business, then reach out to an Air Clear representative today so we can help.

A better future starts here at Air Clear!

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