

# COLORADO PRODUCT SERVICES MARIJUANA GROW FACILITY RIFLE, COLORADO

## KEY PARAMETERS

- Type of Installation – New Construction (NC)
- Function - Agri / Grow Facility
- Area – 41,500 sq. ft.
- Project Completion – 2015

A comprehensive renovation of two adjoining commercial properties to an indoor marijuana grow facility involved extensive renovations to the facility including the addition of state-of-the-art lighting and HVAC systems complete with dehumidification, DDC temperature control, air filtration odor control, water reclamation, and security systems.



**Challenges:** Local building ordinances required the mitigation of odors from exhaust air used in the ventilation of the growing operations. At different times during the growing cycle, when plants are flowering, odors can be very strong. Strong odors could potentially be a nuisance to neighbors as well as posing potential security concerns.

**Solution:** Dynamic 2" Polarized Media Air Cleaners were installed on the air intake side. Dynamic V8® Air Cleaning Systems and Dynamic

Activated Carbon Matrix (ACM) systems were installed in the duct systems on the exhaust air side. Dynamic Air Cleaners were selected based on their ability to remove harmful spores and bacteria that can affect plant yield and quality. And Dynamic Air Cleaners offer low static pressure resistance compared to passive filters for improved energy savings. Dynamic V8 and Dynamic ACM systems were selected for odor removal because of advantages over traditional pellet-based carbon systems including their long

service life and a 60% lower resistance to airflow for lower energy consumption. In addition, Dynamic ACM systems do not shed carbon dust which means no additional filters downstream that further restrict airflow. Most importantly, for humid agricultural operations, the ceramic carbon in Dynamic ACM systems is moisture resistant compared to conventional pellet-based systems.

**Results:** The owners had evaluated several filtration and odor removal systems and the Dynamic approach was compatible with their goals and expectations. Several months after opening, the owners report that city officials are very satisfied as there are no discernable odors reported at the exhaust or site perimeter.



## TEAM

- Owner – Colorado Product Services
- Design – Cannabis Construction Consultants
- Construction – Rock Leonard Construction Co.
- Facility Manager – Forest Worely, Master Grower

## MECHANICAL

- HVAC / IAQ – JTheuer LLC

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