Hotel Ventilation

Solutions for air quality, comfort, and energy savings

aldes

Unique challenges to ventilating hotels

At American Aldes, we understand the challenges engineers face when designing hotels. You have a myriad of elements to consider. We live and breathe these challenges every day and have designed solutions to satisfy all those involved—from designers, installers and inspectors, to building owners and guests.

Minimize Cross-Contamination Risk

Guests may not notice when indoor air quality is healthy, but they certainly will if it's not. Shared walls, floors, and ceilings make proper ventilation especially critical in preventing unpleasant next-door odors and humidity from seeping into adjacent rooms. Aldes airflow exhaust products remove moisture and odors effectively and efficiently.

Managing Fluctuating Airflow Needs

Maintaing proper airflow can be challenging, and airflow needs fluctuate constantly. Some guest rooms may be occupied and full of activity while others are unoccupied during slower seasons. Activity in shared spaces such as fitness rooms, and lounge areas may fluctuate throughout the day. Managing airflow in these spaces takes careful consideration and planning.

Maximize Energy Efficiency

A recent study revealed Aldes Zone Register Terminals save an average of $200 per year per room in energy costs while providing healthy indoor air quality and protecting the building from mold and mildew. That's just one of the many ways Adles saves on energy costs.

Optimize Space

Space is at a premium, and every inch devoted to equipment is an inch that's not generating revenue. We've worked through the challenges of limited space for ducts and equipment and we've designed ventilation equipment that's compact yet powerful.

Consider Building Envelope Penetration

We understand the importance of each building's curb appeal. In some cases, clean lines along outside walls are important, with as few duct penetrations as possible. Other buildings are designed with features, such as balconies or columns, that make duct penetrations naturally less noticeable. Our research and development engineers have taken this into consideration when designing ventilation solutions.

Simplify Maintenance

We understand that there are maintenance issues to be considered. Do the units need to be easy to access? Via the rooftop? A mechanical room? In the ceiling of each guest room? How frequently will they need maintenance? Will maintenance generally be done by a trade professional or hotel maintenance staff? All of these are factors to consider, and Aldes makes our products as simple as possible to install and maintain.

We're a proud member of the US Green Building Council, the Home Ventilating Institute and are an ENERGY STAR® partner. We are comitted to ensuring all Aldes products are durable and efficient.

Hotel Codes and Regulations

We work with engineers to provide solutions for hundreds of hotels across the country. At Aldes, we understand the difficulty of complying with many levels of regulations and we work with engineers to ensure all requirements are met.

Hotels have unique needs due to the challenges related to variable occupancy rates. We've been involved in ASHRAE since our inception and have kept at the forefront of updates and changes. Energy efficiency can be difficult to achieve in hotels, and we've met these challenges with determination, working with LEED and becoming an ENERGY STAR® partner, providing a lineup of products that will help you achieve energy efficiency and code compliance.

Resources at your Fingertips

Got a question about airflow rates? Energy recovery? Setpoint adjustments in the field? Our experts are on hand to answer your questions and help you select the right products for the job.

We're committed to providing you with the tools and information you need. From brochures, spec sheets and installation manuals to warranties and replacement parts, we stand behind our products from specification to installation and beyond.

All of our product literature and downloads are available on our website at **www.aldes.us**. For even easier access to hotel products in particular, visit **www.aldes.us/hotel_brochure.pdf** for clickable links to every product in this brochure.

If you're looking for specific examples of similar projects that use American Aldes products, check out our Featured Projects Map on our website. It's a clickable map that you can filter by state, product, sales representative, or project type. Simply select "Hotels" under the product category filter to see a sampling of recent projects across the nation.

The most **trusted** brands in hospitalty choose Aldes.

Hilton

JW MARRIOTT.

Hampton by HILTON

EMBASSY SUITES by HILTON

DOUBLETREE BY HILTON

THE RITZ-CARLTON

HOME2 SUITES BY HILTON

Hilton Garden Inn

Hilton Grand Vacations

HOMEWOOD SUITES BY HILTON

Centralized vs. Unitized Solutions

Choosing between centralized and unitized (also called compartmentalized) ventilation systems depends upon several factors. If it's important to ventilate the entire building or large zones together as a centralized solution, then it's also important to have automated air regulators in place to eliminate stack effect and provide on-demand control of airlfow rates. If a unitized solution fits the needs of your hotel, then it's important to ensure units are compact yet powerful. Either way, Aldes has energy efficient solutions that protect against odors, moisture, mold and mildew, and are easy to install and maintain.

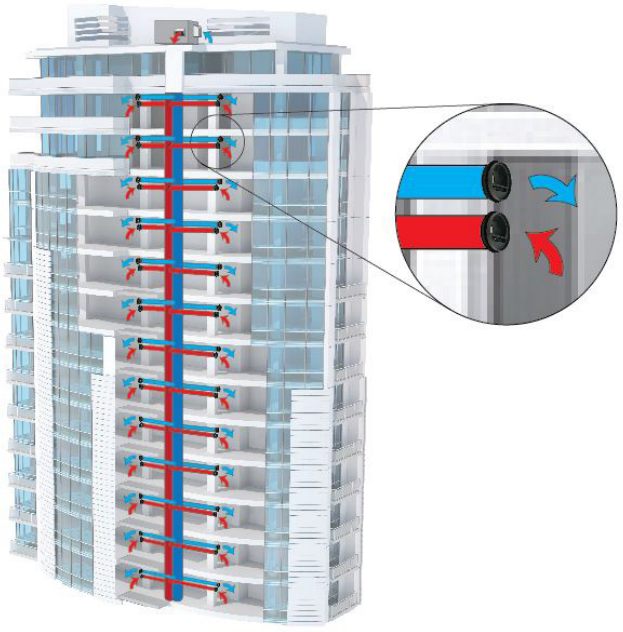
Centralized Systems: airflow control

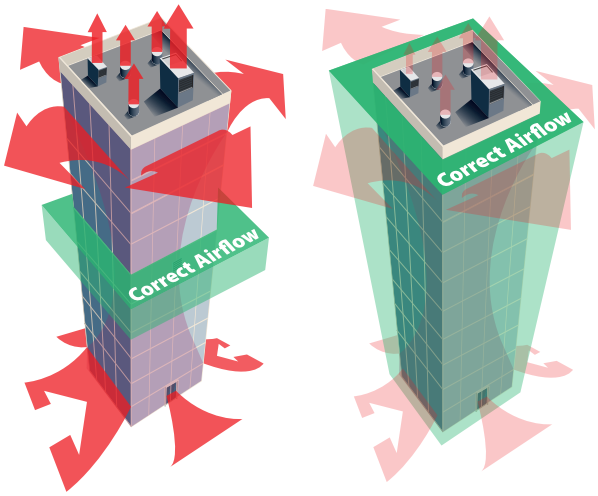
Centralized systems come with their own set of challenges. If not designed correctly, these rooftop systems will have poor overall performance. Some portions of the building can be easily over-ventilated, which uses more energy than necessary, while at the same time other portions of the building can be under-ventilated, causing poor indoor air quality. Balancing these systems can be difficult and costly. American Aldes has solutions.

Constant Airflow Regulators (CAR-II)

CARs correct stack effect. Tall building ventilation systems become severely out of balance due to fluctuations in environmental conditions. Too much air is drawn from some floors, while other floors don't receive enough ventilation. Stack effect can also cause cross-contamination where stale air is drawn from one floor and forced back into another. Aldes Constant Airflow Regulators (CAR-II) can correct stack effect by automatically adjusting to the changes in static pressure so that energy is not wasted and optimum indoor air quality is maintained.

CAR-II





Before CAR-II installation

After CAR-II installation

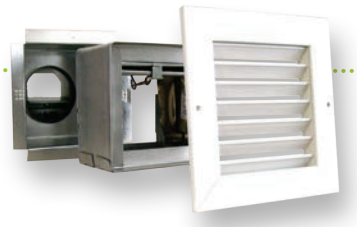
CER-R

Constant Exhaust Registers (CER) and Constant Supply Registers (CSR)

Combine the afore-mentioned Constant Airflow Regulators with an exhaust or supply grille constructed of heavy-gauge extruded aluminum to prevent rust in moist environments. The regulating element (CAR-II) is integral to the grille, and is secured in an air-tight mounting plate. The entire assembly is designed to be attached directly to the duct (available for square or round duct).

Constant Exhaust & Supply Registers with Fire Damper (CER-FEA-II or CSR-FEA-II)

CER-FEA-II or CSR-FEA-II combine the Constant Airflow Regulator with a grille, steel sleeve and fire damper. The fire damper is tested and listed per UL555 for use in a wall or shaft application and is rated for two-hour protection. Three-hour fire dampers can also be used. Each sleeve is welded to provide durability. The assembly is sized to fit inside standard duct riser openings and chases.

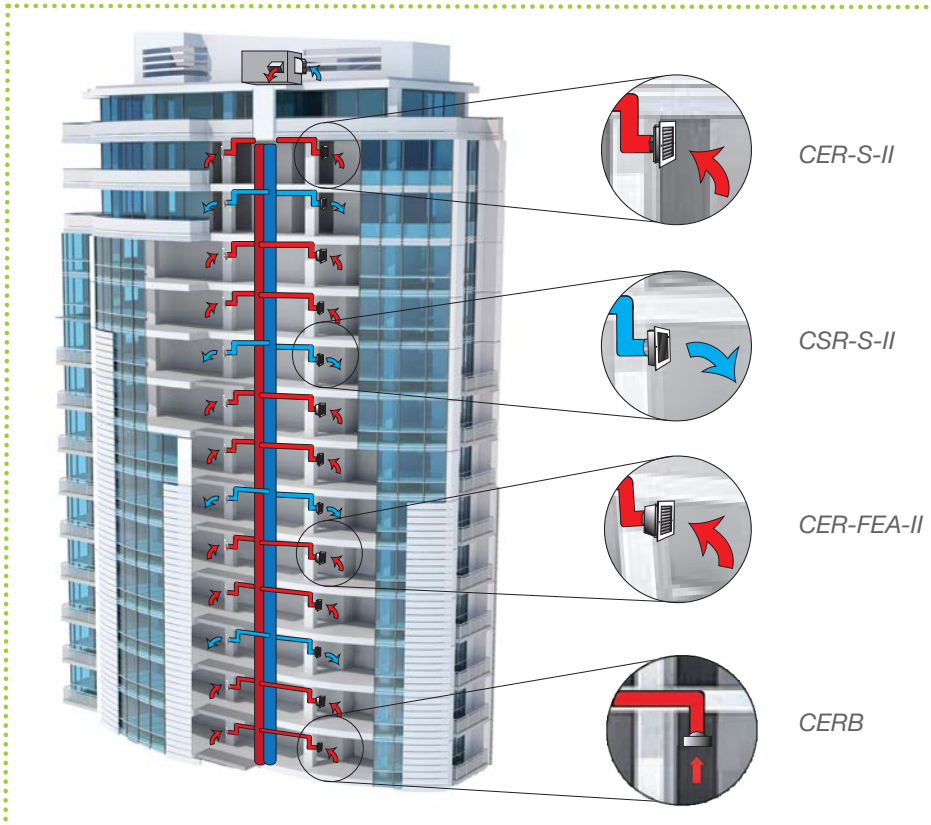


CER-FEA

Constant Exhaust and Supply Register Boxs (CERB or CSRB)

CERB

CERBs incorporate a Constant Airflow Regulator (CAR-II) that automatically regulates airflows in duct systems to constant levels. The CAR-II respongs to duct pressure and requires no electric or penuamtic sensors or controls. The register box and the CAR-II combination provides a low-cost solution to balancing ventilation and exhaust systems, essentially eliminating the need for on-site balancing.

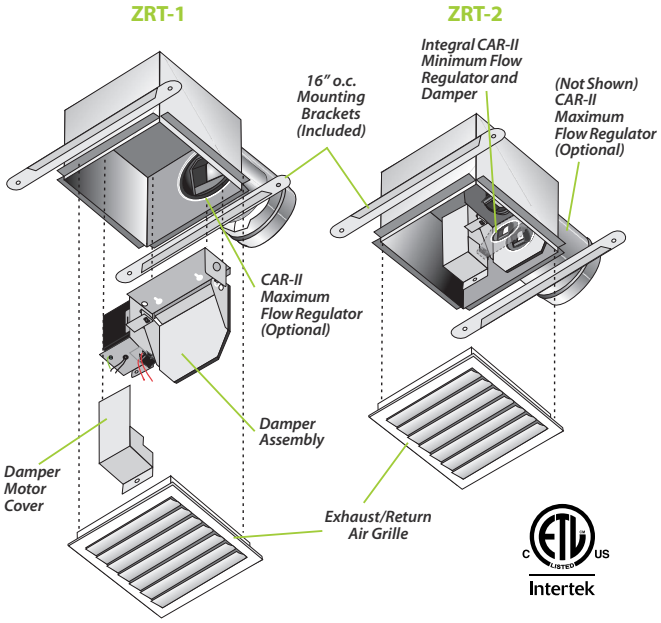


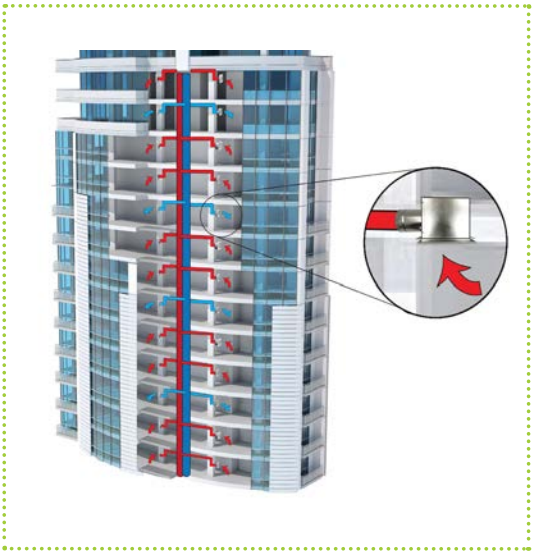
Centralized Systems: demand-controlled ventilation

Zone Register Terminals ® (ZRT) available in exhaust or supply models

ZRTs regulate ventilation without the need for individual fans. Each ZRT is a combination grille, register box, control damper, and optional flow regulator(s). This unique combination provides up to four different control schemes without the need for expensive pneumatic, electronic, or DDC control systems.

ZRT-2





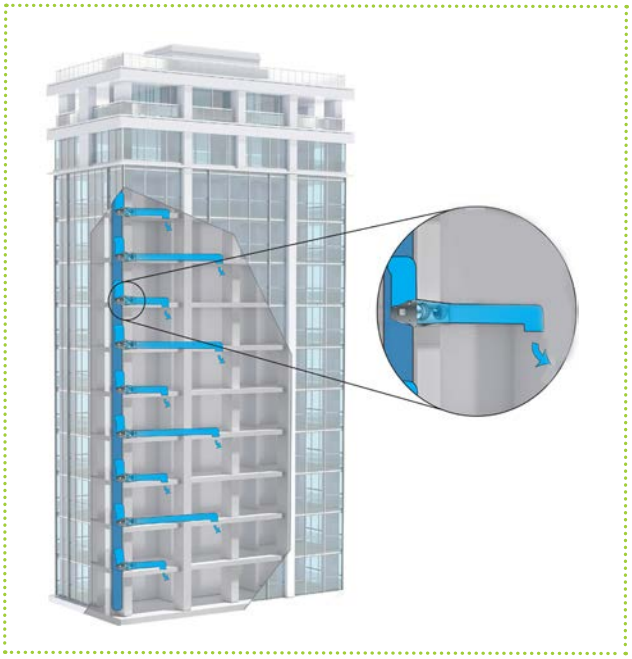
ZRT-PDIL

Parallel Damper In-Line Zone Register Terminals® (ZRT-PDIL)

ZRT-PDILs are designed to introduce flexibility and dynamic control to central supply or exhaust ventilation systems. Used in both large and small systems, the ZRT-PDIL regulates ventilation without the need for individual fans or traditional variable air volume terminal units.

Each ZRT-PDIL is a two-position pressure-independent terminal with a control damper to regulate high limit on-demand airflow control and integral passive regulators for automatic air balancing of the minimum and maximum setpoints. This unique combination provides flexible control schemes without the need for expensive pneumatic, electronic, or direct digital control systems.

The ZRT-PDIL is primarily used for combination low-flow indoor air quality ventilation or make-up air—such as in unoccupied apartments—and on-demand high-flow spot ventilation—such as occupied apartment or even bathroom exhaust fans—using the same central exhaust or supply fan system.



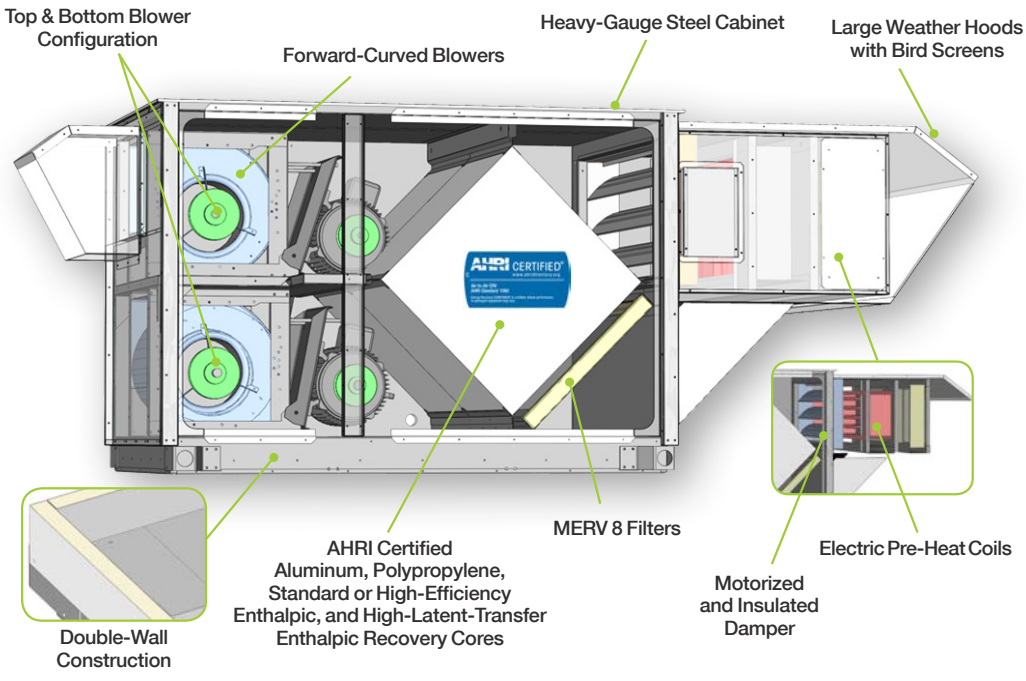
v (HRV/ERV)

HRVs and ERVs maximize energy efficiency. Bringing in fresh air and then heating or cooling that air to make it comfortable for occupants can be costly. Our commercial line of HRV/ERVs reduce the costs of heating ventilated air in the winter by transferring heat from the warm inside air being exhausted to the fresh (but cold) supply air. In the summer, the inside air cools the warmer supply air to reduce ventilation cooling costs. Aldes wide range of commercial HRV/ERV solutions makes it easy to align the scope of your project with the perfect unit.

SE-1100E (shown)

CE-8000i (shown)

Standard Series



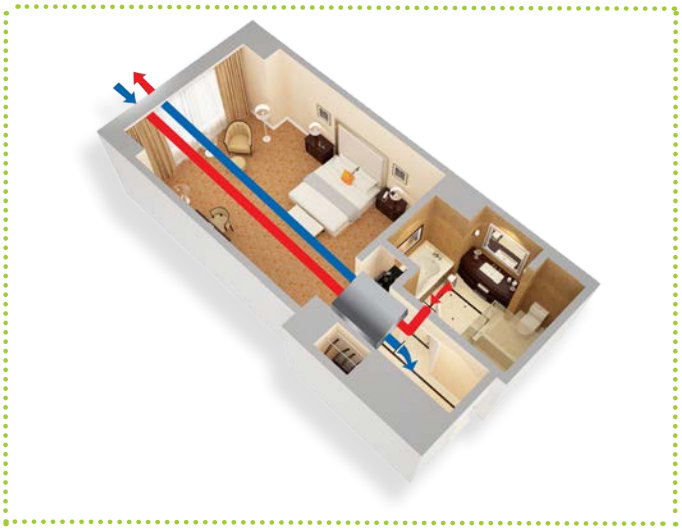
Unitized Systems: heat and energy recovery

Unitized systems, also called compartmentalized systems, have the distinct advantage of giving occupants control over their own indoor air quality, energy usage, and metering. If maintenance is ever needed, only one living space is impacted. Combine centralized system with demand controlled ventilation such as Zone Register Terminals for even more energy savings and greater control over boost and low-flow ventilation. From compact-sized heat and energy recovery ventilators to single and multi-port fans to airlets, Aldes has a solution for virtually any size guest room or suite.

ERV model
E80-HRG

InspirAIR® Compact Heat and Energy Recovery Ventilators (HRV/ERV)

InspirAIR® Compact Heat or Energy Recovery units maximize energy efficiency. American Aldes multi-family line of HRV/ERV—InspirAIR™ Compact—are sized just right for smaller living spaces like condos, apartments, or dorms, and, deliver between 80 and 130 CFM of fresh, filtered air for all occupants to enjoy. Our E80-HRG unit includes the first in-suite air exchanger to offer an automatic free cooling economizer function feature that saves energy by using cool outdoor air to help reduce the demand for air conditioning during spring and fall. The slim height of just 9" easily fits above suspended ceilings.



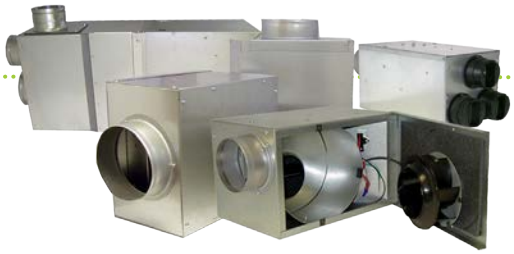
VFC with ERV

Vertical Fan Coil unit with Integrated HRV or ERV

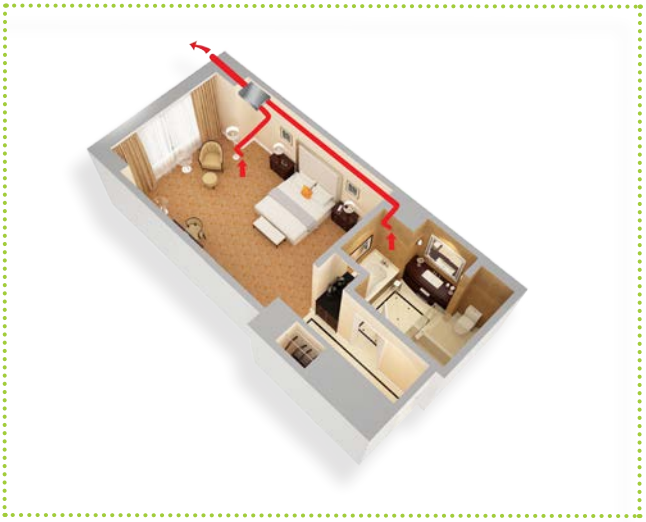
Discover Aldes' unique vertical stacked fan coil with integrated heat or energy recovery. Use in individual condos, apartments, barracks or senior living for lower initial cost compared to central systems. This unit provides better occupant control, meets demand-control ventilation requirements, and saves space by combining heating and mechanical ventilation in one compact unit. Integrated HRV or ERV fan coils meet or exceed the industry standards for performance, sound and quality. With 6 unit capacities for efficient control, automatic coil freeze protection, 2-way or 3-way valve operation, efficient EC motors for lower electricity costs and automatic fresh air balancing, it is one of the most cost-effective and versatile in-suite units available.

Ventergy® Series Fans

Ventergy Series Fans ®deliver performance, efficiency and flexibility. American Aldes range of ENERGY STAR® rated ventilators, are smart choices for individual apartments and condos. Small enough to fit in tight spaces, these versatile fans can be used for whole house IAQ or for spot ventilation in bathrooms, laundry rooms and kitchens. Ventergy® fans are available as in-line exhaust, multi-port exhaust, distributing supply, filtering supply, and blending-filtering supply. These ventilators are designed for low-rise buildings and residential applications only.



Ventergy Series Fans



AIRLETS™

Airlets™ introduce controlled amounts of fresh air through a wall without the use of a duct system. American Aldes has the most borad range of window- and wall-mounted fresh air inlet devices on the market. AIRLETS™ are designed compliment exhaust systems by introducing controlled amounts of fresh air and are easily adjustable for walls of varying thickness. Airlets™ are designed to be used in low-rise buildings and are not for use with forced air heating and cooling systems.

Airlet 100

Airlet TL-98

Hotel Products Quick-Reference Chart

Whether the building is low-rise or high-rise, and uses central or unitized systems, American Aldes has a variety of solutions.

✓✓✓ = *Commonly used*

✓ = *Sometimes used*

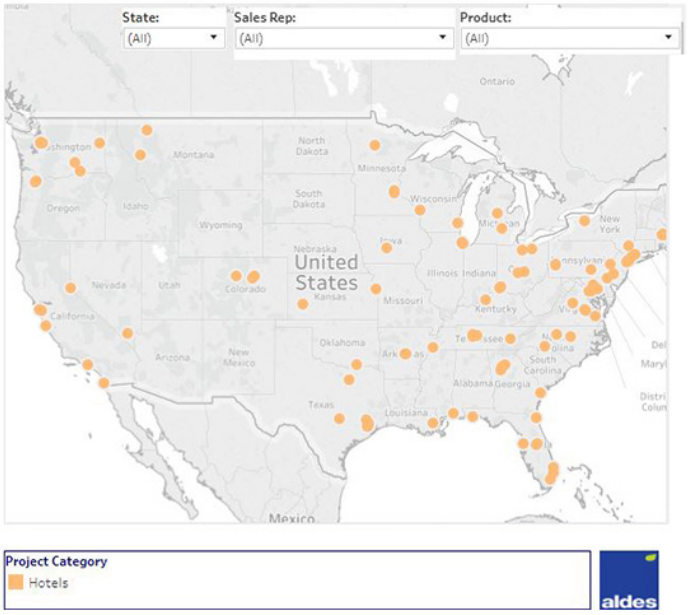
	ACCESSORY		LOW-RISE (3 stories or less)	HIGH-RISE (4 stories or more)
Centralized Solutions		Constant Airflow Regulators (CAR-II)	✓✓✓	✓✓✓
		Constant Exhaust Registers/ Constant Supply Registers (CER & CSR)	✓✓✓	✓✓✓
		Constant Exhaust & Constant Supply Registers with Fire Dampers (CER-FEA-II & CSR-FEA-II)	✓✓✓	✓✓✓
		Occupancy-Sensing Grilles (OSG)	✓✓✓	✓✓✓
		Zoned ventilation for exhaust and supply applications (ZRT)	✓✓✓	✓✓✓
		Parallel Damper In-Line Zone Register Terminals (ZRT-PDIL)	✓	✓✓✓
		Commercial heat and energy recovery	✓✓✓	✓✓✓
Unitized Solutions		Multi-family heat and energy recovery (InspirAIR® Compact)	✓✓✓	✓✓✓
		Vertical fan coil unit with HRV or ERV (VFU)	✓	✓✓✓
		ENERGY STAR® Rated Single Port Fans (Ventergy® Series)	✓✓✓	✓
		Multi-Port Fans (Ventergy® Series)	✓✓✓	✓✓✓

Recent Hotel Projects

American Aldes products are in use in hundreds of hotels across the country. Our products save building owners money on energy and maintenance costs while providing healthy indoor air for hotel guests, but don't just take our word for it. Our growing list of satisfied customers is a testament not only to the products themselves but also to our dedication, high quality customer service, and follow through.

Take a look at a **sampling** of the hotels that have installed Aldes products recently.

American Aldes Featured Projects



If you're looking for specific examples of projects that use American Aldes products, check out our **Featured Projects Map** on our website. You can filter by state, product, sales representative, or project type. Simply select "Hotels" under the product category filter to see a sampling of recent projects across the nation.

- Hilton Garden Inn Downtown Dallas
- The Logan Philadelphia, Curio Collection by Hilton
- Hilton Garden Inn Chicago/North Loop
- Hilton Grand Vacations on the Las Vegas Strip
- Hilton Grand Vacations at the Flamingo
- Hilton Garden Inn New York/Central Park South-Midtown West
- Hilton Garden Inn Rochester Downtown
- Hilton Garden Inn Nashville/Franklin Cool Springs
- Homewood Suites by Hilton Charlottesville
- Home2 Suites by Hilton Little Rock West
- Hilton Orlando Lake Buena Vista
- Hilton Atlanta
- Embassy Suites by Hilton Sacramento Riverfront Promenade
- Embassy Suites Atlanta Airport
- Embassy Suites Minneapolis
- Embassy Suites by Hilton Pittsburgh Downtown
- Embassy Suites by Hilton the Woodlands at Hughes Landing
- Hampton Inn & Suites Hartsville
- Hampton Inn & Suites Manchester
- DoubleTree by Hilton Hotel Washington D.C. - Crystal City
- Hampton Inn Richand/Tri-Cities
- DoubleTree by Hilton Hotel Nashville Downtown
- Richmond Marriott West
- JW Marriott Minneapolis Mall of America
- The Miami Beach EDITION
- Courtyard Williamsburg Busch Gardens Area
- Courtyard West Palm Beach
- Courtyard Macon
- Courtyard Norwalk
- JW Marriott Chicago
- Newark Liberty International Airport Marriott
- Marriott Annapolis Waterfront
- The Ritz-Carlton, Amelia Island
- Buffalo Marriott Niagara
- JW Marriott Houston
- JW Marriott Austin
- Marriott Chicago
- Marriott Seattle
- Houston Airport Marriott at George Bush Intercontinental
- Houston Marriott Medical Center
- New York Marriott Downtown
- Little Rock Marriott
- Santa Clara Marriott
- The Ritz-Carlton, St. Thomas
- Denver Marriott Westminster
- New York Marriott at the Brooklyn Bridge

www.aldes.us

To find out more about other related products visit
www.aldes.us
or find us on

Sign-up for weekly updates sent straight to your inbox.

Distributed By:

American ALDES Ventilation Corporation
4521 19th Street Court East, Suite 104 - Bradenton, FL 34203 USA
Tel: 941.351.3441 - Fax: 941.351.3442 - Toll-Free: 1.800.255.7749

aldes

0817