

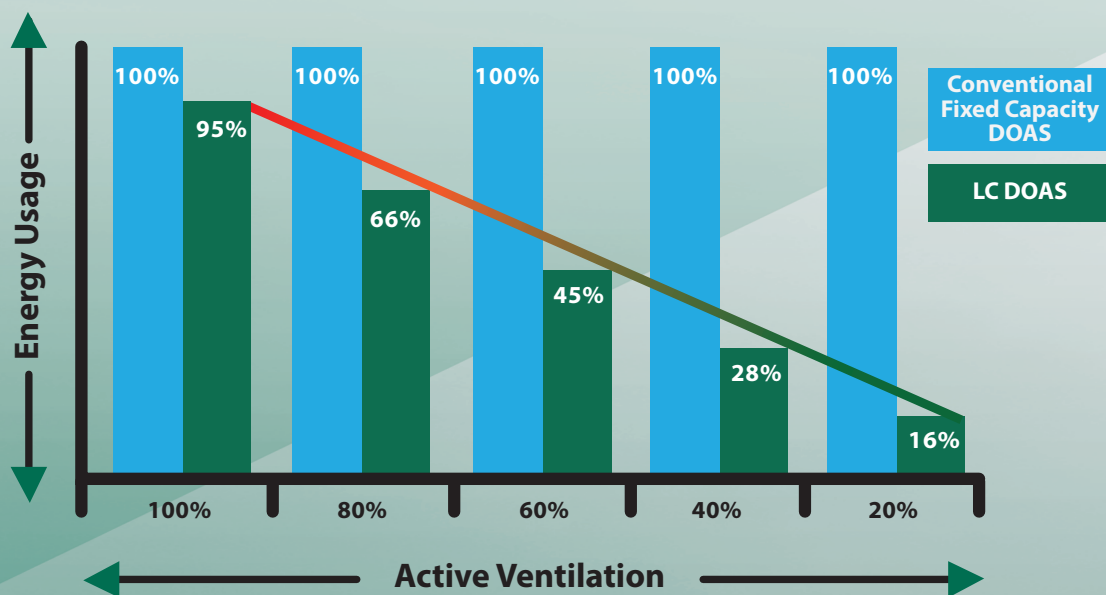
# LC™ Linear Capacity™

## DEDICATED OUTDOOR AIR SYSTEM



Application Range from  
300 - 7,500 CFM of Outdoor Air

### Greater Than 50% Energy Savings\* Versus Conventional Fixed Capacity DOAS



\*Source: Florida Solar Energy Center®, Report FSEC-CR-2044-16.

# ADDISON

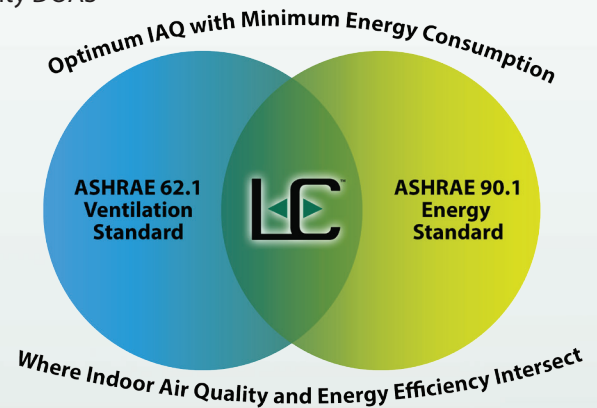
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# Innovative ventilation technology that simultaneously delivers breakthrough energy efficiency, indoor air quality and comfort

Linear Capacity™, equipped with a geometrically varying exposure device (Active Coil Exposure™), allows only the active evaporator coils to be exposed to the air flow path. Ventilation can be scheduled to meet demand in different zones based on occupancy levels throughout the ambient operating range.

## ADVANTAGES

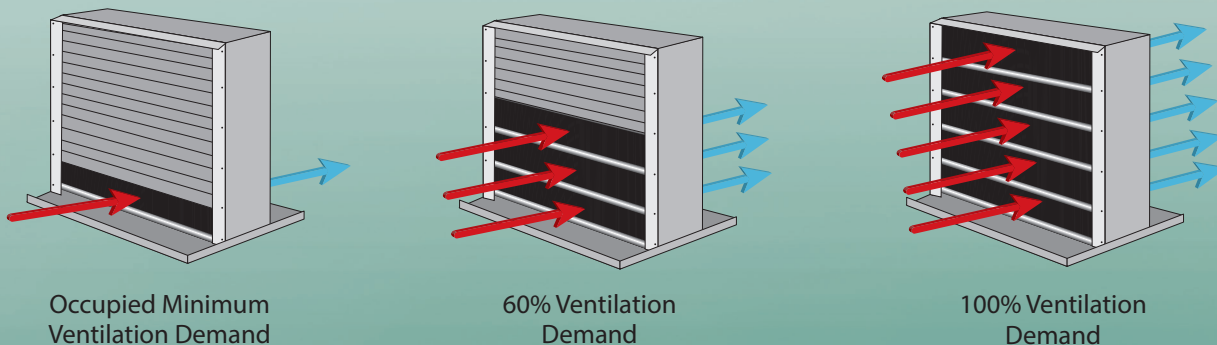
- ▶ Greater than 50% reduction in energy cost versus conventional fixed capacity DOAS
- ▶ Optimized linear performance from 100% down to 20% of ventilation load
- ▶ Active ventilation is adaptable for IAQA flush-out per LEED EQc4
- ▶ Enhanced IAQ by managing moisture content of the outdoor air throughout the ventilation range
- ▶ Demand based ventilation through Active Coil Exposure™, variable refrigerant capacity and air flow modulation
- ▶ Optimal for both retrofit and new construction
  - ▶ Based on building occupancy, activity and/or desired VOC levels
  - ▶ Configurable for current or future tenant build out



## LINEAR CAPACITY™ OPERATION

- ▶ During Occupied Mode supply fan modulates to meet the ventilation demand
- ▶ Active Coil Exposure™ positions to maintain designed leaving dew point
- ▶ Based on cooling demand, brushless permanent magnet variable speed scroll compressor modulates to meet required refrigerant mass flow
- ▶ Modulating condenser fans maintain precise head pressure control throughout the entire operating range
- ▶ Integrated controls platform provides demand based ventilation through Active Coil Exposure™, variable refrigerant capacity and air flow modulation

## ACTIVE COIL EXPOSURE™ MAINTAINS LEAVING DEWPOINT



# PHYSICAL DATA

| MODEL | NOMINAL CAPACITY (TON) | NOMINAL AIRFLOW CFM (MIN-MAX) <sup>1</sup> |                      | DIMENSIONS (L X W X H) <sup>2</sup>   |
|-------|------------------------|--|----------------------|---|
|       |                        | OA Condition 95°/78°                       | OA Condition 90°/74° |   |
| 120   | 10                     | 300 - 1,500                                | 500 - 2,500          | 126 <sup>5</sup> / <sub>8</sub> " x 77 <sup>3</sup> / <sub>8</sub> " x 66 <sup>3</sup> / <sub>8</sub> " |
| 180   | 15                     | 460 - 2,300                                | 750 - 3,750          | 180 <sup>7</sup> / <sub>8</sub> " x 87 <sup>1</sup> / <sub>8</sub> " x 80 <sup>3</sup> / <sub>4</sub> " |
| 240   | 20                     | 660 - 3,300                                | 1,000 - 5,000        | 180 <sup>7</sup> / <sub>8</sub> " x 87 <sup>1</sup> / <sub>8</sub> " x 80 <sup>3</sup> / <sub>4</sub> " |
| 300   | 25                     | 800 - 4,000                                | 1,250 - 6,250        | 254 <sup>1</sup> / <sub>8</sub> " x 89 <sup>5</sup> / <sub>8</sub> " x 91"                              |
| 360   | 30                     | 1,000 - 5,000                              | 1,500 - 7,500        | 254 <sup>1</sup> / <sub>8</sub> " x 89 <sup>5</sup> / <sub>8</sub> " x 91"                              |

<sup>1</sup> Maximum airflow at 95°/78° design, with 52° leaving dew point or lower and maximum airflow at 90°/74° design, with 52° leaving dew point or lower.

<sup>2</sup> Dimensions do not include the OA hoods

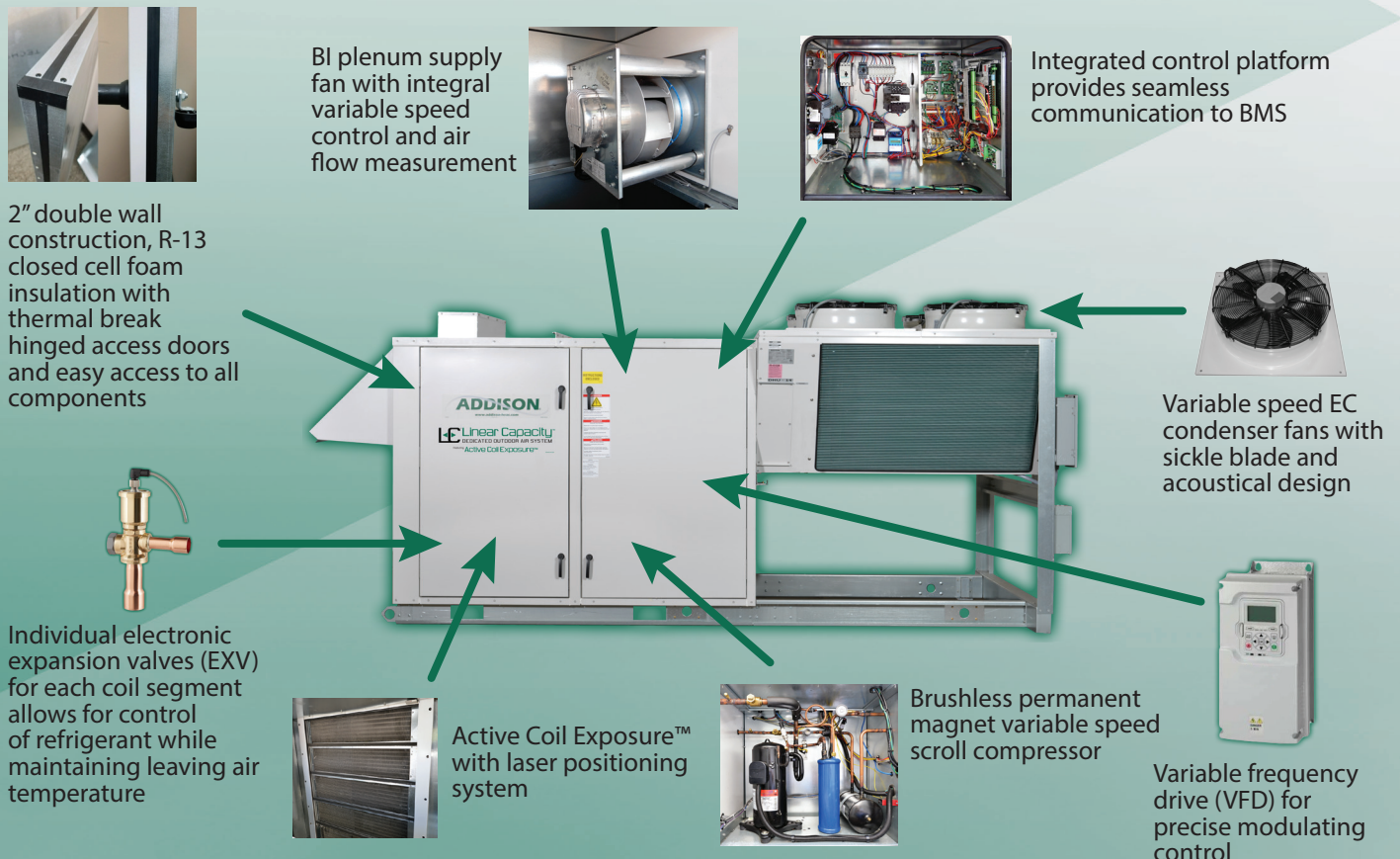
## CONTROL STRATEGIES

- ▶ Unit controller allows multiple functions based on zone and building occupancy
- ▶ Schedule-based DCV
- ▶ Zone ventilation based on occupancy with CO2 level override
- ▶ Combination schedule & CO2 DCV
- ▶ Volatile Organic Compounds (VOC) DCV
  - ▶ Paints and Coating
  - ▶ Carpets
  - ▶ Cleaning Agents
  - ▶ Formaldehyde
- ▶ DPT controlled DCV
- ▶ Communication interface with BACnet, Modbus, N2 and LonWorks

## OPTIONS

- ▶ Horizontal airflow configuration
- ▶ Liquid sub-cooling coil, switchable
- ▶ Modulating gas or electric heat
- ▶ Plenum supply fan with EC motor
- ▶ Corrosion protection for entire cabinet, components and coils
- ▶ Convenience outlet
- ▶ Disconnects
- ▶ Filters
  - ▶ 2", 4" or 2" + 4" MERV 8, 11 or 14
  - ▶ 2" Metal mesh

## FEATURES AND BENEFITS





# MARKET APPLICATIONS

## EDUCATION



## THEATERS



## OFFICES



## LABS



## HEALTH CARE



## FITNESS CENTERS



## HOSPITALITY



## MUSEUMS



... AND MANY MORE



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