

# DemandAire

Demand Control Kitchen Ventilation System



- ✓ Maximize Energy Efficiency
- ✓ Increased Kitchen Comfort
- ✓ Customizable Systems

## » Standard and Code Requirements for Commercial Kitchen Demand Ventilation Systems

National Standard ANSI/ASHRAE/IES 90.1 and the State of California's Title 24 Energy Code are examples of National Standards and/or State Codes that mandate, that Demand Control Kitchen Ventilation (DCKV) or other energy saving strategies be incorporated into the Commercial Kitchen Ventilation System design, whenever a kitchen/dining facility has a total kitchen exhaust airflow rate greater than 5,000 CFM.

### Energy Code Sample

#### 6.5.7 Exhaust Systems

##### 6.5.7.1 Kitchen Exhaust Systems

**6.5.7.1.1** Replacement air introduced directly into the hood cavity of kitchen exhaust hoods shall not exceed 10% of the hood exhaust airflow rate.

**6.5.7.1.2** Conditioned supply air delivered to any space with a kitchen hood shall not exceed the greater of:

- a. the supply flow required to meet the space heating or cooling load
- b. the hood exhaust flow minus the available transfer air from adjacent spaces. Available transfer air is that portion of outdoor ventilation air not required to satisfy other exhaust needs, such as restrooms, and not required to maintain pressurization of adjacent spaces

**6.5.7.1.3** If a kitchen/dining facility has a total kitchen hood exhaust airflow rate greater than 5,000 cfm then each hood shall have an exhaust rate that complies with Table 6.5.7.1.3. If a single hood, or hood section, is installed over appliances with different duty ratings, then the maximum allowable flow rate for the hood or hood section shall not exceed the Table 6.5.7.1.3 values for the highest appliance duty rating under the hood or hood section. Refer to ASHRAE Standard 154 for definitions of hood type, appliance duty, and net exhaust flow rate.

**Exception:** At least 75% of all the replacement air is transfer air that would otherwise be exhausted.

**6.5.7.1.4** If a kitchen/dining facility has a total kitchen hood exhaust airflow rate greater than 5,000 cfm then it shall have one of the following:

- a. At least 50% of all replacement air is transfer air that would otherwise be exhausted.
- b. Demand ventilation system(s) on at least 75% of the exhaust air. Such systems shall be capable of at least 50% reduction in exhaust and replacement air system airflow rates, including controls necessary to modulate airflow in response to appliance operation and to maintain full capture and containment of smoke, effluent and combustion products during cooking and idle.
- c. Listed energy recovery devices with a sensible heat recovery effectiveness of not less than 40% on at least 50% of the total exhaust airflow.

**6.5.7.1.5** Performance Testing: An approved field test method shall be used to evaluate design air flow rates and demonstrate proper capture and containment performance of installed commercial kitchen exhaust systems. Where demand ventilation systems are utilized to meet 6.5.7.1.4, additional performance testing shall be required to demonstrate proper capture and containment at minimum airflow.

TABLE 6.5.7.1.3 Maximum Net Exhaust Flow Rate, CFM per Linear Foot of Hood Length

Type of Hood	Light Duty Equipment	Medium Duty Equipment	Heavy Duty Equipment	Extra Heavy Equipment
Wall-mounted canopy	140	210	280	385
Single island	280	350	400	400
Double island (per side)	175	210	280	385
Eyebrow	175	175	Not allowed	Not allowed
Backshelf/Pass-over	210	210	280	Not allowed

## » Demand Control Kitchen Ventilation

### **Maximum Energy Efficiency**

Demand Control Kitchen Ventilation (DCKV) Systems provide the best option for maximizing energy efficiency in Commercial Kitchen Ventilation (CKV) Systems. To meet the demand of the cooking appliances, Streivor DemandAire Systems have the ability to vary the amount of power supplied to exhaust and supply fan motors from 0% to 100%.

### **24/7 Monitoring and Balancing**

DCKV Systems utilize special monitors to detect the state of the cooking appliances and/or the thermal plume that is generated by the cooking appliances. The data collected from the monitors is instantaneously analyzed by a Programmable Logic Control (PLC). The PLC uses the incoming data and Streivor's proprietary algorithms to make determinations as to how much exhaust airflow is required for each CKV hood. The PLC then sends adjustment signals to Variable Frequency Drives (VFD) powering the exhaust and/or supply fans.

### **DCKV Monitors**

There are many types of monitors that are used in DCKV systems to collect data such as temperature, pressure, infrared and/or optic monitors. The monitors are used to collect data from the cooking appliance, the cooking appliance thermal plume and from multiple areas in and around the CKV system. The types of monitors used will vary from one manufacturer to another and also from one CKV system to another.

To maximize the performance of the DCKV system, it is critical to identify and utilize the monitor(s) that will work best for each CKV system. However, note that the placement and the ability to commission, service and or replace the monitors are equally as important as the monitors utilized.

### **Variable Frequency Drives**

The VFDs receive input signals and make adjustments to the amount of power supplied to the fan motors based on the demand of the cooking appliances. The motor power adjustments increase or decrease the fans' Revolutions Per Minute (RPM) which in turn increases or decreases the amount of airflow being exhausted from the CKV system.

### **Multiple Hoods on a Common Duct — Motorized Balancing Dampers (MBD)**

When multiple hoods are installed on a common duct, MBDs can be added to the DCKV system to make additional energy saving adjustments to the CKV system. The PLC receives input signals from the monitors in each individual hood and determines the state of the cooking appliances and the amount of exhaust air that is required for the current demand of those cooking appliances. The PLC then sends adjustment signals to the VFDs and to each MBD. The VFDs make real time adjustments to increase or decrease the total amount of air that is required by the CKV system. Simultaneously, the MBDs make individual damper adjustments to vary the amount of exhaust airflow through each hood. Each hood can be operated in a range from 10% to 100% of its design exhaust airflow. As a result, a hood installed over cooking appliances that are not in use can have its exhaust airflow reduced by as much as 90%.

### **DCKV Design & Customization**

There are several key factors to consider when designing a DCKV system: the desired amount of energy efficiency, (BMS) integration, as well as cost and return on investment. DCKV systems can vary significantly in design and cost from basic systems which may include one cooking appliance, hood and fan, to more advanced systems which may include multiple cooking appliances, hoods and fans along with multiple additional features such as Human Machine Interface (HMI) controls, (BMS) Communication and/or Integration, CKV Fire Suppression System Monitoring and Integration, Calendars and Programmable Time Clocks. It is important to choose a DCKV System that is customizable and able to meet the individual needs of each project's energy efficiency and control requirements while staying within budget.

## » DemandAire Standard Features

### ZONE MONITORING

#### Resistance Temperature Detectors (RTD) Exhaust Collar Mounted (ECM)

Zone Monitoring can be used to monitor multiple cooking appliances under a common hood. RTD ECMs provide reliable temperature monitoring for the DemandAire System to make fan power adjustments and provide compliance with NFPA 96 11.1.1 automatic fan start.

### ZONAL MONITORING

#### Resistance Temperature Detectors (RTD) Hood Canopy Mounted (HCM)

Zonal Monitoring can be used to monitor individual cooking appliances under a common hood. HCM RTDs are installed in the optimum location for monitoring individual appliance demand and they provide faster response times and increased energy efficiency when compared to ECM RTDs. HCM RTDs can be used to comply with NFPA 96 11.1.1 automatic fan start.

#### Ambient Temperature Monitor (ATM)

DemandAire Systems are engineered with an ATM working in conjunction with Streivor's proprietary algorithm so that a comparison can be made between the temperature of the air surrounding the hood canopy and the temperature inside the hood canopy and/or duct zones above the cooking appliances. The inclusion of the ATM and algorithm increases the efficiency of the DemandAire System and assures that the hoods will not needlessly operate at an elevated rate of power due to an elevated general surrounding air temperature.

#### Digital Outputs

DemandAire Systems use Digital Outputs originating from the PLC to control power to multiple circuits such as lights, fans, internal hood fans, MBDs and other accessories. Digital Outputs can also be used to provide communication, alarm and system status, and/or on/off control of DemandAire System accessories.

#### Digital Inputs

DemandAire Systems are capable of accepting Digital Inputs to the PLC from multiple DemandAire accessories such as fire suppression system switches, motor overload status, and other sources.

#### Analog Inputs

DemandAire Systems are capable of accepting Analog Inputs to the PLC from multiple DemandAire accessories such as RTDs, MBDs, VFDs, BMS and other sources.

#### Analog Outputs

DemandAire Systems use Analog Outputs originating from the PLC to provide variable control signals to DemandAire accessories such as VFDs, MBDs, and electronically commutated motors. Analog Outputs can also be used to communicate system status and/or variable control of DemandAire System accessories.

#### Fan Switch

DemandAire Systems are engineered with a manual switch to provide power to the fan motor circuits.

#### Light Switch

DemandAire Systems are engineered with a manual switch to provide power to the hood light circuits.

#### 100% Manual Full Power Override

DemandAire Systems are engineered with a manual full power switch. When the full power switch is activated, power to the exhaust fan(s) is increased to 100% for 30 minutes regardless of the resistance temperature detector readings.

#### Automatic Exhaust Fan Start

DemandAire Systems are engineered for power to be automatically provided to the exhaust fan if an RTD detects a predetermined temperature rise above the ambient temperature monitor.

**NFPA 96 11.1.1** "Exhaust systems shall be operated whenever cooking equipment is turned on."

#### Building Management System Communication

DemandAire Systems communicate real time system status such as hood and ambient temperature data, system faults, fan power operating status and other DemandAire information via Modbus TCP or BACnet over Ethernet (CAT 5).

#### Alarms

DemandAire Systems are engineered to provide audible and/or visual alarms such as fire suppression system actuation, high temperature alarm, temperature monitor fault, motor overload, and PLC faults.

## » DemandAire Standard Features (cont.)

### FIRE SUPPRESSION SYSTEM INTEGRATION

#### Make Up Air (MUA) Power Shunt

DemandAire Systems are engineered to automatically shunt power to fans supplying make up air internally to a hood in the event of a fire suppression system actuation.

**NFPA 96 8.3.2** “When its fire extinguishing system discharges, make up air supplied internally to a hood shall be shut off.”

#### Electric Gas Valve Integration/Electrical Shunt Trip Breaker

DemandAire Systems are engineered with a gas valve relay that will shunt the power being supplied to the gas valve upon fire suppression system actuation.

DemandAire Systems are engineered to shunt power to cooking appliances below the hood(s) by activating the shunt trip breaker (shunt trip breaker(s) not provided by Streivor) upon fire suppression system actuation.

**NFPA 96 10.4.1** “Upon activation of any fire-extinguishing system for a cooking operation, all sources of fuel and electrical power that produce heat to all of the equipment requiring protection by that system shall automatically shut off.”

#### Electric Gas Valve Reset Relay

DemandAire Systems are engineered so that the gas valve relay remains in the shunt position after the fire suppression system actuation. The relay must be manually reset to restore power to each electric gas valve.

**NFPA 96 10.4.4** “The fire suppression system shutoff devices require manual reset.”

#### Fire Suppression Alarm Signaling/Auto Exhaust Fan Start

DemandAire Systems are engineered to have audible and/or visual alarm indicators. DemandAire Systems are engineered so that power is supplied to the exhaust fans upon a fire suppression system actuation.

**NFPA 96 10.6.1** “Upon activation of an automatic fire-extinguishing system, an audible alarm or visual indicator shall be provided to show that the system has activated.”

## » DemandAire Optional Features

### Programmable Time Clock

A Programmable Time Clock can be used to provide weekly 24/7 automatic start up or shut down of DemandAire accessories such as lights, fans and/or other components.

### AREA & ZONAL MONITORING

#### Motorized Balancing Damper (MBD)

DemandAire Systems can monitor individual Hood Areas and Zones to make MBD and fan power adjustments to individual hoods that are installed on a common duct system. When Hood Area and Zonal Monitoring are incorporated into the design of the DemandAire System, the airflow of each individual hood can be adjusted to meet the individual demand of the cooking appliances associated with it. In addition to temperature monitors, the DemandAire System utilizes an algorithm to calculate each individual hood’s exhaust airflow requirement and then makes automatic adjustments to the MBDs and fan power to achieve the highest amount of energy efficiency possible. Each individual hood can be turned “off” when the cooking appliances associated with it are not in use.

#### Remote Damper Adjustment

DemandAire Systems with MBDs have the capability of making damper blade adjustments from the HMI touch screen, thus eliminating the need to physically access the damper blades to make hood air balancing adjustments. The MBD can be positioned from 100% open to 90% closed.

#### Motor Starters with Overload Protection

DemandAire Systems can be engineered to include motor starters with overload protection from 1/2 HP to 100 HP.

#### Variable Frequency Drives (VFD)

DemandAire Systems can be engineered to include VFDs from 1/2 HP to 20 HP. The VFDs (provided by Streivor or others) can be located within a DemandAire cabinet or remotely mounted. DemandAire Systems can also communicate with external VFDs (provided by Streivor or others) by means of analog control signals such as 4-20 mA or 0-10 VDC.

# DemandAire

## Bronze

### Demand Control Kitchen Ventilation (DCKV)

- Constant Speed Fan Control
- Duct Temperature Monitoring
- HMI – 3.7" Monochrome Touch Screen
- PLC – Building Management Communication
- Optional Motor Starters with Overload Protection



#### Standard Features

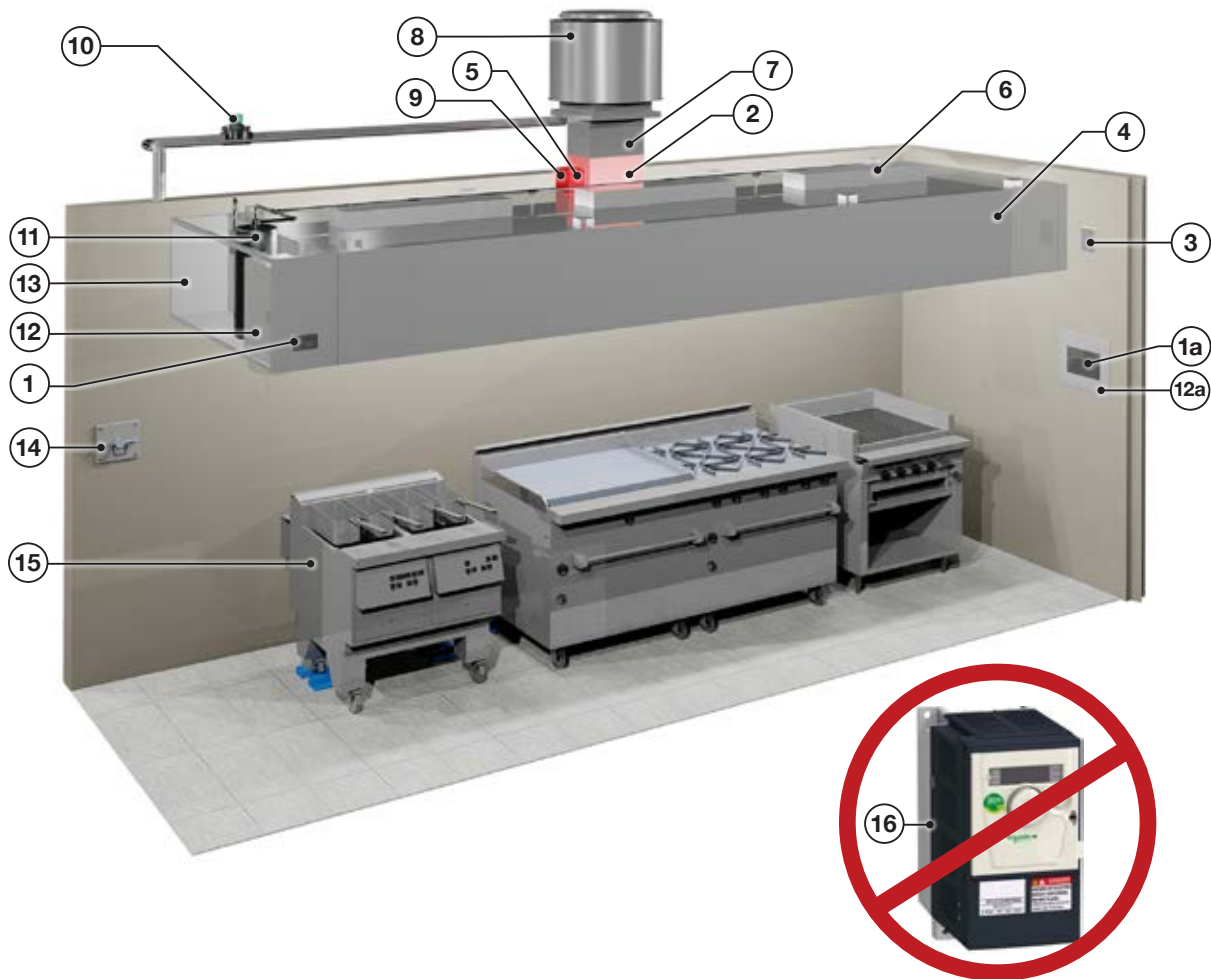
#### Description

<b>Human Machine Interface</b>	3.7" Touch Screen, Monochrome, 240 x 100 pixels
<b>Programmable Logic Control</b>	PLC provides advanced control logic and system communication
<b>BMS Communication</b>	Modbus TCP via Ethernet
<b>Hood Temperature Monitors</b>	Resistance Temperature Detectors, Exhaust Collar Mounted
<b>Ambient Temperature Monitor</b>	Room Ambient Temperature Monitor
<b>Digital Outputs</b>	Exhaust and/or MUA Fans, Light Circuit, Electric Gas Valve Circuit
<b>FSS Integration</b>	Upon Fire Suppression System actuation, automatically shunts power to MUA fans and Electric Gas Valve, powers the Exhaust Fan. Provides system Alarm Signal and Manual Reset Relay for Gas Valve
<b>Auto Exhaust Fan Control</b>	Automatically powers the Exhaust Fan circuit when the RTDs detect elevated temperatures inside of a hood
<b>Fan Control</b>	Hood Fans, Off/On 100%
<b>Light Control</b>	Hood Lights, Off/On
<b>Enclosure</b>	Type I Stainless Steel Enclosure
<b>Alarms</b>	Local and BMS Alarm Notification



# DemandAire *Bronze*

## Duct Temperature Monitoring



Does Not Support VFDs

- |  |  |
|--|--|
| 1. HMI Cabinet Mounted   | 10. Electric Gas Valve   |
| 1a. HMI Wall Mounted<br>(Recessed or Surface Mounted Optional) | 11. Fire Suppression System  |
| 2. Duct Temperature Monitoring                                 | 12. DemandAire Control Panel   |
| 3. Ambient Temperature Monitoring                              | 12a. DemandAire Control Panel Wall Mounted<br>(Recessed or Surface Mounted Optional)   |
| 4. Wall Canopy Hood  | 13. Hood Utility Cabinet   |
| 5. Resistance Temperature Detector                             | 14. Fire Suppression System Pull Station   |
| 6. Light Fixtures  | 15. Cooking Appliances   |
| 7. Exhaust Duct  | 16. Variable Frequency Drives (VFDs) not supported<br>by DemandAire Bronze DCKV System. Motor<br>Starters with overload protection optional. |
| 8. Exhaust Fan   |  |
| 9. Exhaust Collar Access Enclosure                             |  |

DemandAire Bronze

# DemandAire *Silver*

## Demand Control Kitchen Ventilation (DCKV)

- Variable Speed Fan Motor Control
- Zone Temperature Monitoring
- HMI – 3.8" Color Touch Screen
- PLC – Building Management Communication
- Optional Variable Frequency Drives



### Standard Features

### Description

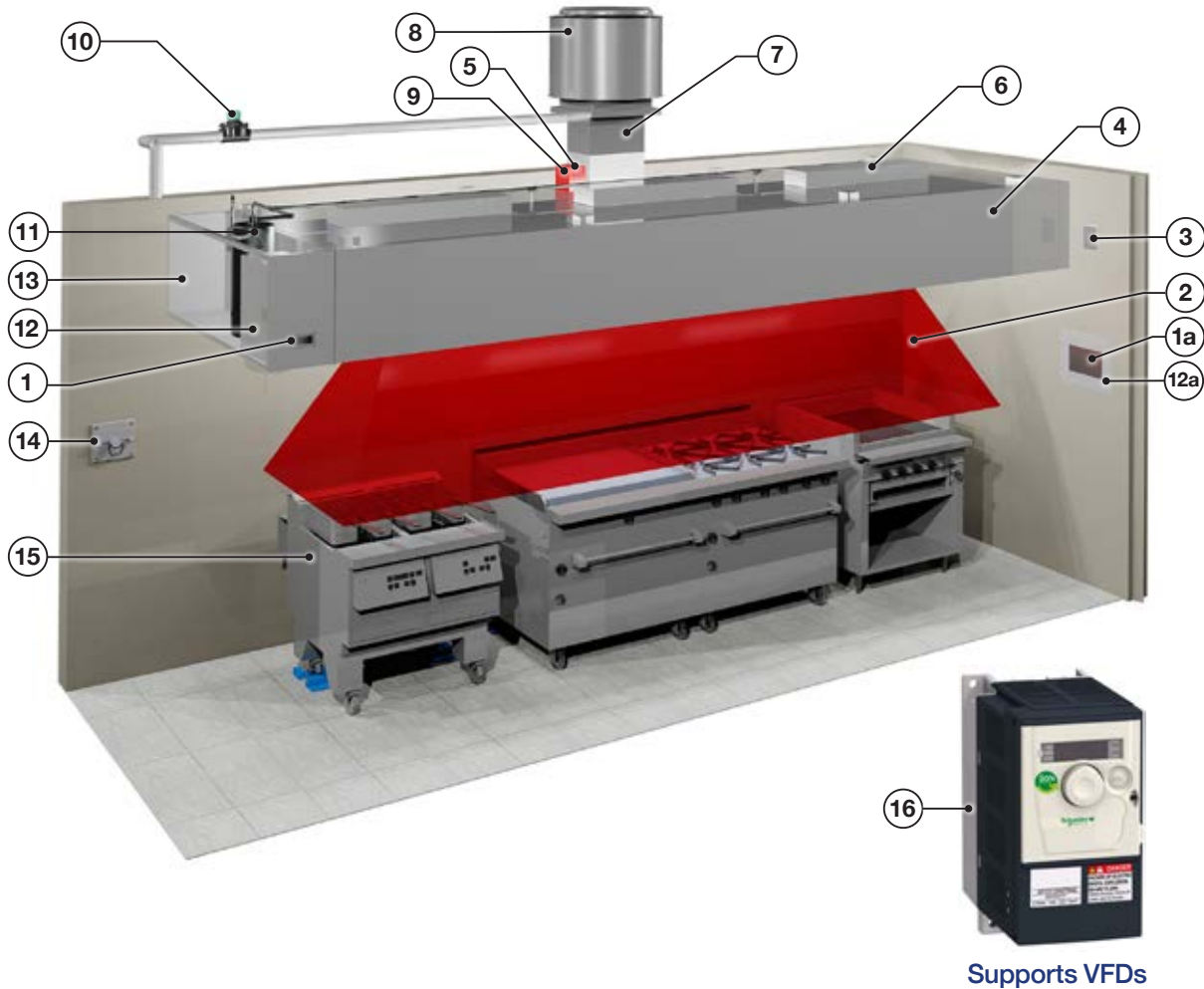
<b>Human Machine Interface</b>	3.8" Touch Screen, Color, 240 x 100 pixels
<b>Programmable Logic Control</b>	PLC provides advanced control logic and system communication
<b>BMS Communication</b>	Modbus TCP via Ethernet
<b>Hood Temperature Monitors</b>	Resistance Temperature Detectors, Exhaust Collar Mounted
<b>Ambient Temperature Monitor</b>	Room Ambient Temperature Monitor
<b>Digital Outputs</b>	Exhaust and/or MUA Fans, Light Circuit, Electric Gas Valve Circuit
<b>Analog Outputs</b>	4-20 mA or 0-10 VDC signals for Variable Speed Motor Control
<b>FSS Integration</b>	Upon Fire Suppression System actuation, automatically shunts power to MUA fans and Electric Gas Valve, powers the Exhaust Fan at 100%. Provides system Alarm Signal and Manual Reset Relay for Gas Valve
<b>Auto Exhaust Fan Control</b>	Automatically powers the Exhaust Fan circuit when the RTDs detect elevated temperatures inside a hood
<b>Fan Control</b>	Hood Fans, Off/On 0-100% Variable
<b>Light Control</b>	Hood Lights, Off/On
<b>Enclosure</b>	Type I Stainless Steel Enclosure
<b>Alarms</b>	Local and BMS Alarm Notification





# DemandAire Silver

## Exhaust Collar Mounted (ECM) Resistance Temperature Detector (RTD)



- |  |  |
|--|--|
| 1. HMI Cabinet Mounted   | 10. Electric Gas Valve   |
| 1a. HMI Wall Mounted<br>(Recessed or Surface Mounted Optional) | 11. Fire Suppression System  |
| 2. Zone Temperature Monitoring                                 | 12. DemandAire Control Panel   |
| 3. Ambient Temperature Monitoring                              | 12a. DemandAire Control Panel Wall Mounted<br>(Recessed or Surface Mounted Optional)   |
| 4. Wall Canopy Hood  | 13. Hood Utility Cabinet   |
| 5. Resistance Temperature Detector(s)                          | 14. Fire Suppression System Pull Station   |
| 6. Light Fixtures  | 15. Cooking Appliances   |
| 7. Exhaust Duct  | 16. Variable Frequency Drives (VFDs). DemandAire<br>Silver DCKV Systems require VFDs. The VFDs<br>can be supplied by Streivor or purchased<br>separately. VFDs must be remotely installed. |
| 8. Exhaust Fan   |  |
| 9. Exhaust Collar Access Enclosure                             |  |

# DemandAire Gold

## Demand Control Kitchen Ventilation (DCKV)

- Variable Speed Fan Motor Control
- Zonal Hood Canopy Temperature Monitoring
- HMI – 5.7" Color Touch Screen
- PLC – Building Management Communication
- Optional Programmable Time Clock
- Optional Variable Frequency Drives



### Standard Features

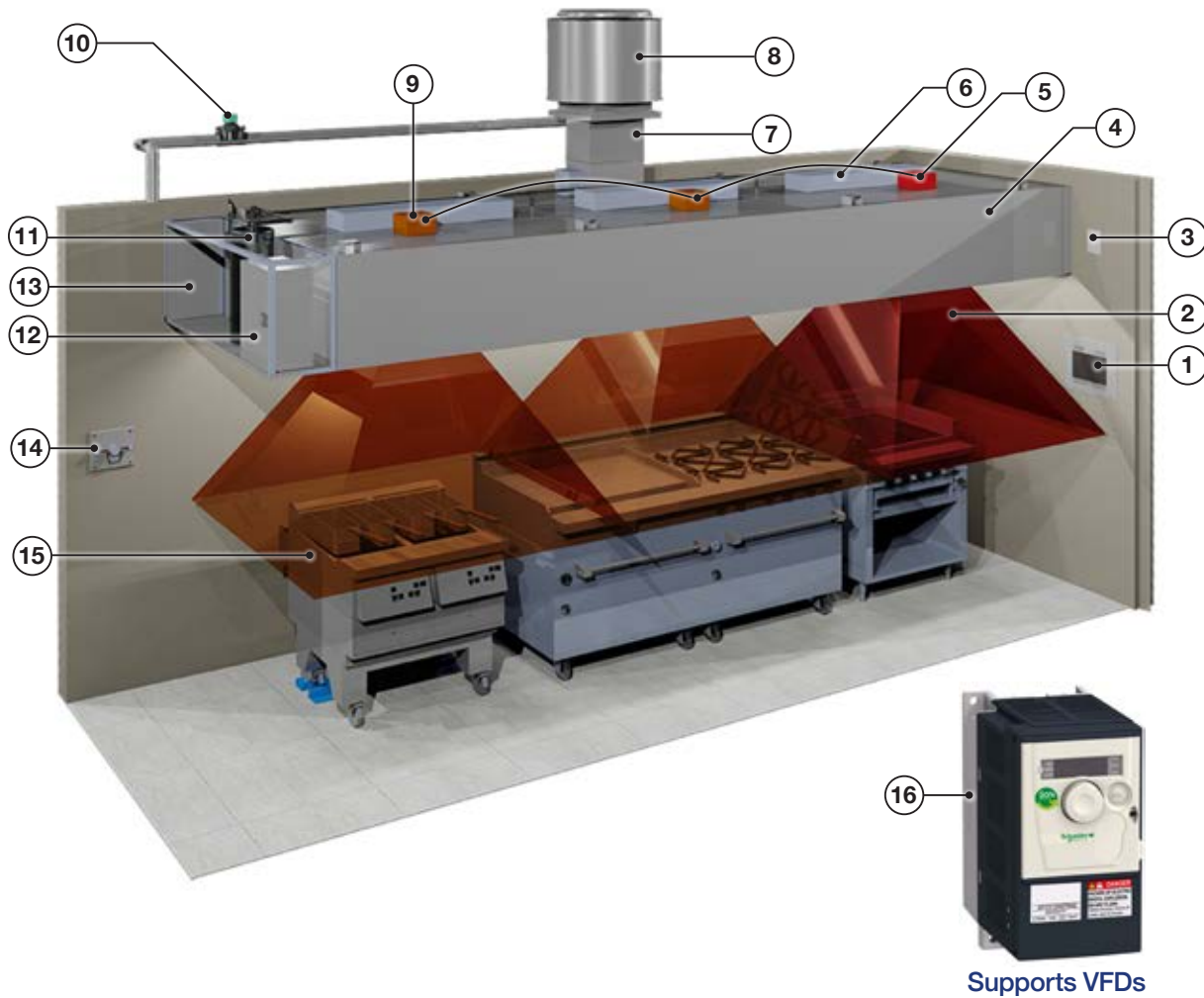
### Description

<b>Human Machine Interface</b>	5.7" Touch Screen(s), Color, 640 x 480 pixels, PDF Storage/Data Logging (32 GB SD Card)
<b>Programmable Logic Control</b>	PLC provides advanced control logic and system communication
<b>BMS Communication</b>	Modbus TCP via Ethernet
<b>Hood Temperature Monitors</b>	Resistance Temperature Detectors, Hood Canopy and Exhaust Collar Mounted
<b>Ambient Temperature Monitors</b>	Room Ambient Temperature Monitor(s)
<b>Digital Outputs</b>	Exhaust and/or MUA Fans, Light Circuit(s), Electrical Gas Valve Circuit(s)
<b>Analog Outputs</b>	4-20 mA or 0-10 VDC signals for Variable Speed Motor Control
<b>FSS Integration</b>	Upon Fire Suppression System actuation, automatically shunts power to MUA Fans and Electric Gas Valve, powers the Exhaust Fan(s) at 100%. Provides system Alarm Signal and Manual Reset Relay for Gas Valve
<b>Energy Analysis</b>	24/7 DCKV Energy Usage and Cost Savings Analysis
<b>Auto Exhaust Fan Control</b>	Automatically powers the Exhaust Fan circuit(s) when the RTDs detect elevated temperatures inside of a hood
<b>Fan Control</b>	Hood Fans, Off/On 0-100% Variable
<b>Light Control</b>	Hood Lights, Off/On
<b>Enclosure</b>	Type I Stainless Steel Enclosure(s)
<b>Alarms</b>	Local and BMS Alarm Notification with Alarm Logging



# DemandAire *Gold*

## Zonal Temperature Monitoring



- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. HMI Wall Mounted (Recessed Shown)</li> <li>2. Zonal Temperature Monitoring</li> <li>3. Ambient Temperature Monitoring</li> <li>4. Wall Canopy Hood</li> <li>5. Resistance Temperature Detectors</li> <li>6. Light Fixtures</li> <li>7. Exhaust Duct</li> <li>8. Exhaust Fan</li> <li>9. Access Enclosure</li> <li>10. Electric Gas Valve</li> </ol> | <ol style="list-style-type: none"> <li>11. Fire Suppression System</li> <li>12. DemandAire Control Panel (Cabinet Mounted Shown)</li> <li>13. Hood Utility Cabinet</li> <li>14. Fire Suppression System Pull Station</li> <li>15. Cooking Appliances</li> <li>16. Variable Frequency Drives (VFDs). DemandAire Gold DCKV Systems require VFDs. The VFDs can be supplied by Streivor or purchased separately. VFDs can be installed inside of the DemandAire control panel or installed in a remote enclosure.</li> </ol> |
|---|--|

# DemandAire

## Platinum

### Demand Control Kitchen Ventilation (DCKV)

- Enhanced Variable Speed Fan Motor Control
- Hood Specific Air Flow Control
- Hood Area Temperature Monitoring
- Zonal Temperature Monitoring
- Motorized Balancing Dampers
- HMI – 8.4" Color Touch Screen with Audio & Video
- PLC – Building Management Communication
- Programmable Time Clock
- Optional Variable Frequency Drives



#### Standard Features

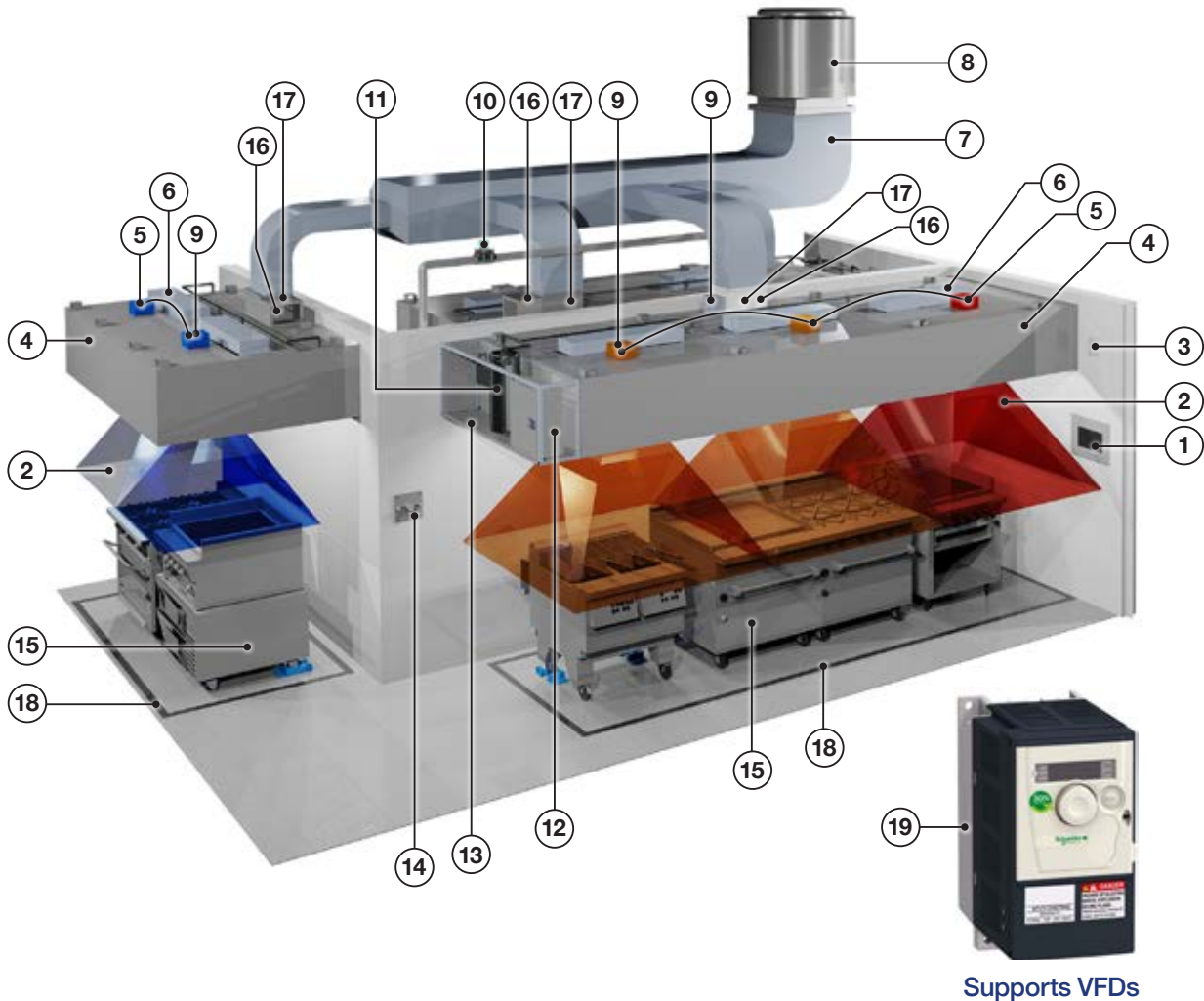
#### Description

<b>Human Machine Interface</b>	8.4" Touch Screen(s), Color, 800 x 600 pixels, PDF Storage/Data Logging (32 GB SD Card), Video (MP4), Audio
<b>Programmable Logic Control</b>	PLC provides advanced control logic and system communication
<b>BMS Communication</b>	Modbus TCP via Ethernet
<b>32 RTD's Monitors</b>	Resistance Temperature Detectors, Hood Canopy and/or Duct Collar Mounted
<b>Ambient Temperature Monitor</b>	Room Ambient Temperature Monitor(s)
<b>Digital Outputs</b>	Exhaust and/or MUA Fans, Light Circuit(s), Electrical Gas Valve Circuit(s), Motorized Balancing Damper Circuit(s)
<b>Analog Outputs</b>	4-20 mA or 0-10 VDC signals for Variable Speed Motor Control for fans or Motorized Balancing Dampers
<b>Motorized Dampers</b>	Pre-programmed Motorized Balancing Damper Control
<b>FSS Integration</b>	Upon Fire Suppression System actuation, automatically shunts power to MUA Fans and Electric Gas Valve, powers the Exhaust Fan Circuit(s), opens Motorized Balancing Dampers, provides system Alarm Signal and Manual Reset Relay for Gas Valve
<b>Programmable Time Clock</b>	24/7 Scheduling of CKV System, Fans, Lights and other DemandAire accessories
<b>Energy Analysis</b>	24/7 DCKV Energy Usage and Cost Savings Analysis
<b>Auto Exhaust Fan Control</b>	Automatically powers the Exhaust Fan circuit(s) when the RTDs detect elevated temperatures inside of a hood
<b>Fan Control</b>	Hood Fans, Off/On 0-100% Variable
<b>Light Control</b>	Hood Lights, Off/On
<b>Enclosure</b>	Type I Stainless Steel Enclosure(s)
<b>Alarms</b>	Local and BMS Alarm Notification with Alarm Logging



# DemandAire *Platinum*

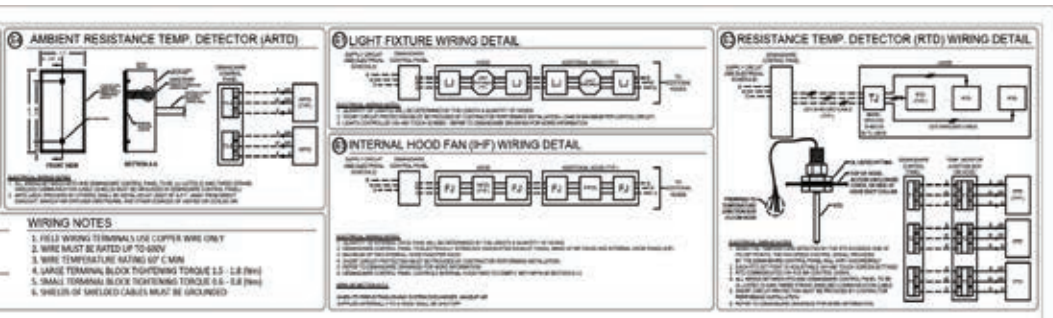
Zonal Temperature Monitoring  
Area Temperature Monitoring



1. HMI Wall Mounted (Recessed Shown)
2. Zonal Temperature Monitoring
3. Ambient Temperature Monitoring
4. Wall Canopy Hood
5. Resistance Temperature Detectors
6. Light Fixtures
7. Exhaust Duct
8. Exhaust Fan
9. Access Enclosure
10. Electric Gas Valve
11. Fire Suppression System
12. DemandAire Control Panel
13. Hood Utility Cabinet
14. Fire Suppression System Pull Station
15. Cooking Appliances
16. Motorized Balancing Dampers
17. Hood Specific Air Flow Control
18. Area Temperature Monitoring
19. Variable Frequency Drives (VFDs). DemandAire Platinum DCKV Systems require VFDs. The VFDs can be supplied by Streivor or purchased separately. VFDs can be installed inside of the DemandAire control panel or installed in a remote enclosure.

DemandAire Platinum



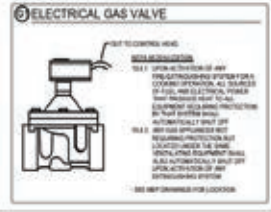
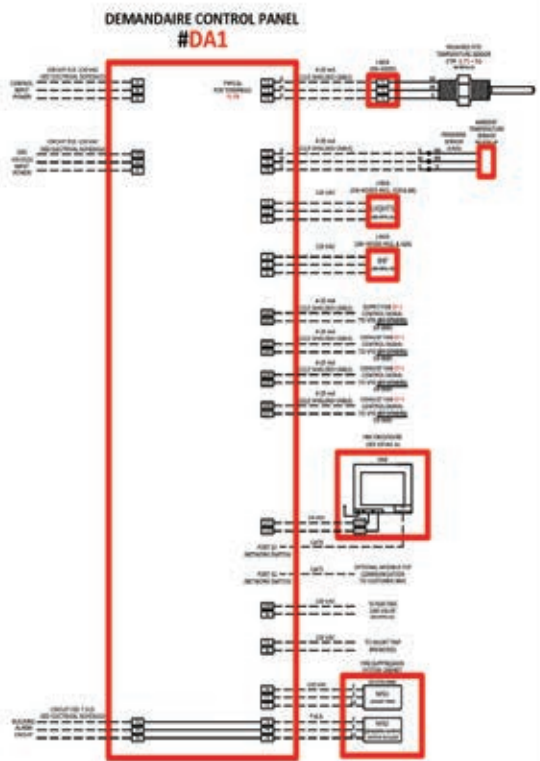


**AMBIENT TEMPERATURE #TO**  
(SEE DETAILS A AND E4)

**ISLAND HOOD**  
(TYPE I)

**DEMANDAIRE CONTROL PANEL #DA1**  
CIRCUIT E10: 120 VAC / 20 AMPS  
(SEE DETAIL A)

**HUMAN MACHINE INTERFACE (HMI) TOUCH SCREEN**  
POWER: 24 VDC  
(SEE DETAIL A)



**CUSTOMER APPROVAL**

THIS DRAWING MUST BE REVIEWED, SIGNED & RETURNED TO STREIVOR AIR SYSTEMS PRIOR TO THE START OF FABRICATION.

**VERIFY THE FOLLOWING:**

- ALL DIMENSIONS, INFORMATION, MOUNTING LOCATIONS & CLEARANCES
- FAN HORSEPOWER, VOLTAGE & PHASE

**APPROVED FOR FABRICATION:**

APPROVED  APPROVED AS NOTED

REUSE & REWORK

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**NOTES TO REVIEWER:**

**GENERAL NOTES:**

**STREIVOR™ AIR SYSTEMS**

**"STRIVING FOR EXCELLENCE"**

2150 KITTY HAWK ROAD, LIVERMORE, CA 94551  
PHONE: (925) 960-9090 FAX: (925) 960-9055  
WWW.STREIVOR.COM

PROJECT: **SAMPLE PROJECT**

SHORT CIRCUIT CURRENT: 642.16A SYMMETRICAL, 1.00V MAX.

SHEET NO.	DA-00
CONTROL PANEL NO.	
CONTROL PANEL ENCLOSURE NO.	
WIRE ENCLOSURE NO.	
ITEM #	DATE
MODEL	REV
SCALE	N.T.S.
DRAWN BY	
CHECKED BY	
CONV. UNIT	

DESCRIPTION	DATE	INT

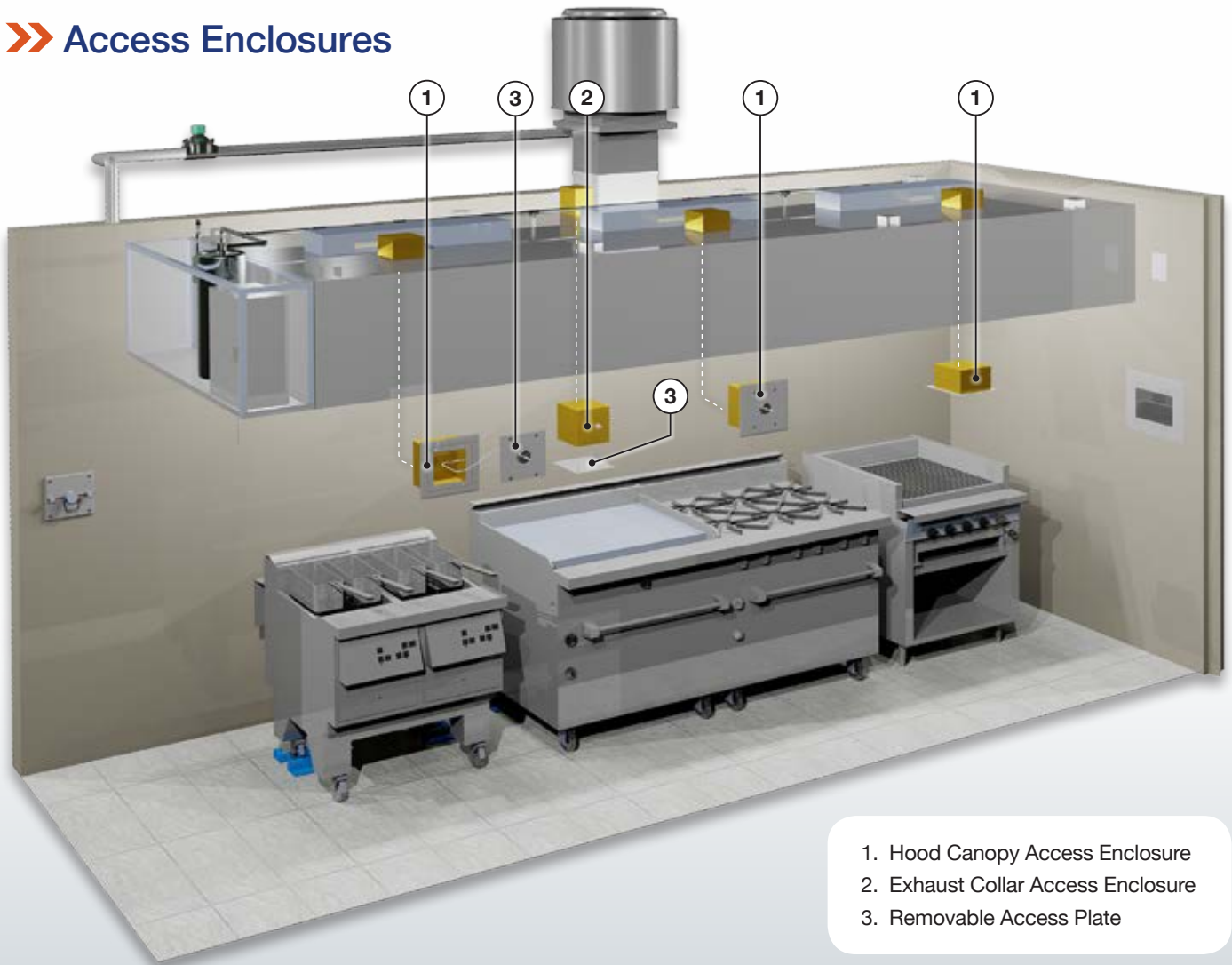
SHEET: **DA-00**  
PAGE 02 OF 02

**Streivor DemandAire**

# DemandAire Systems

Streivor's Patent Pending UL 710 Listed Access Enclosures allow easy access to all of the DemandAire monitoring components from under the hood, thus eliminating the need to access the top of the hood, for commissioning, servicing, or replacement.

## » Access Enclosures



1. Hood Canopy Access Enclosure
2. Exhaust Collar Access Enclosure
3. Removable Access Plate

## Demand Control Kitchen Ventilation Systems for:

- ✓ Individual Hood
- ✓ Multiple Hoods
- ✓ Custom Designs
- ✓ New Construction
- ✓ Retrofit
- ✓ Installation

The importance of having a qualified team of designers, engineers and contractors cannot be overstated. In order to obtain the best results and greatest amount of energy savings a DemandAire System must be installed and commissioned as designed. A regular service plan to verify that the system is operating at peak performance should also be implemented.

[www.streivor.com](http://www.streivor.com)

2150 Kitty Hawk Road, Livermore, CA 94551

Phone: (925) 960-9090 Fax: (925) 960-9055

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