Engineering Simplicity into Kitchen Ventilation Systems

Hoods | Fire Systems | Pollution Control | Controls | Accessories
Quality doesn’t have to be complicated.

When building out a commercial kitchen you don’t need complexity. You need answers. At Accurex®, we do the hard work for you. Everything we do—from engineering to aftermarket service—is designed to make it easy for you to succeed.

Simplicity in every system.

When it comes to ventilation systems, we never stop improving. Through extensive prototype modeling, we create products that have higher efficiencies with lower installation and operating costs. And everything we create is built to be fully integrated throughout your kitchen. Easy to install, operate and maintain. Now that’s worry-free simplicity, day in and day out.

Select. Design. Done.

No matter if you’re creating an expansive commercial kitchen or starting a small business, Accurex products are designed to fit all your ventilation needs. Our professionals along with our computer-aided product selection program (CAPS) help you select, configure and view real-time drawings. We then build and deliver your entire ventilation system quickly and efficiently, with an eye for exacting quality.

One source. One call.

We are a Greenheck Group Company, the world’s leading manufacturer of commercial air movement and control equipment. You can rest easy knowing you’re sourcing from one trusted provider. Just call or email an Accurex representative and you’re on your way to a complete ventilation system. It’s that easy.

Engineered to work. Built to last.

Long before installation, our products undergo comprehensive testing. This includes structural integrity, aerodynamic performance, sound levels, mechanical operation, vibration, environmental impact and more. Accurex products carry several certifications including AMCA, UL, NSF, and ETL. That not only means a more comfortable environment for workers and customers. It also means ventilation you can rely on now and well into the future.
Accurex Commercial Kitchen Ventilation Systems

**GREASE HOODS TYPE I**
Used over cooking equipment producing grease-laden effluent.  
PAGES 6-14

**HEAT AND CONDENSATE HOODS TYPE II**
Designed to capture heat and/or condensate from non-grease producing appliances such as ovens and dishwashers.  
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**FILTRATION OPTIONS**
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**EXTERNAL SUPPLY PLENUMS**
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**CONTROLS AND ENERGY MANAGEMENT**
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**UTILITY DISTRIBUTION SYSTEMS**
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**RESIDENTIAL RANGE HOODS**
Manual or automatic exhaust, alarm, and fire suppression system—all in one unit.  
PAGES 54-55
EXHAUST HOODS
Removes the heat, grease, smoke and odors produced by commercial cooking surfaces and appliances.

We do the hard work for you.

It takes work to create an effective and efficient commercial kitchen ventilation system. So we make it as simple as possible to select and configure each Accurex product. Our ventilation products are also backed by robust warranties and our certified aftermarket service teams keep you up, running and focused on the business you do best - delighting customers.

Hoods to fit all your ventilation needs.
Styles to fit any kitchen configuration.

**WALL CANOPY HOODS**
One of the most efficient hoods on the market, with performance only Accurex can deliver.

**BACKSHELF HOODS**
Where a traditional canopy hood won’t do – or just won’t fit – we have the solution.

**SINGLE ISLAND CANOPY HOODS**
Efficient canopy hoods for open space applications, including show cooking.

**HEAT & CONDENSATE HOODS**
Efficient removal of heat and odor over non-grease appliances means more comfort for kitchen staff.

**RESIDENTIAL RANGE HOOD**
Pre-engineered for ventilation and fire suppression for use in nursing homes, dormitories, office lunchrooms and more.

**OPTIONS & ACCESSORIES**
From end skirts to switches we have all the accessories to help your team outfit an exhaust hood setup that suits your needs.

**FILTRATION OPTIONS**
Third-party testing proves we lead the industry in grease filtration.

**EXTERNAL SUPPLY PLENUMS**
Provide spot-cooling with these flexible, cost-effective solutions to replacing exhausted air.
Grease Hoods - Type I
GREASE HOODS - TYPE I

ACCUREX GREASE HOODS OFFER THE FOLLOWING BENEFITS:

- Standard construction is a minimum of 18 gauge 430 stainless steel
- Hoods can be built in single section lengths from 3-16 feet
- Flexible lengths, widths and heights
- Hood lengths: Available in 1-inch increments up to 146 inches in a single section
- Hood widths: Available in 3-inch increments up to 84 inches
- Longer hoods are available in multiple sections and can be made to appear as one hood by utilizing our continuous capture option to improve performance and aesthetics
- Standing seam construction for superior strength
- Excellent dimensional tolerances due to highly tooled manufacturing
- UL 710 Listed and bears the National Sanitation Foundation (NSF) seal of approval (Standard 2)
- Rated for medium, heavy and extra heavy duty appliances
- Includes Performance Enhancing Lip (PEL) technology to improve capture efficiency by turning air back into the hood

MODEL OVERVIEW
Type 1 hoods are designed for use above grease-producing equipment and are available in several styles and configurations.

MODEL NUMBER CODE
The Model Number Code is designed to completely identify the unit. The correct code letters must be specified to designate the configurations and size.

- XB - Baffle Filter
- XX - Grease-X-Tractor™
- XG - Grease Grabber™
- XT - Energy Recovery Filter (XTEW, XTDW only)
- XW - Auto Scrubber

- E - Exhaust Only
- D - Exhaust Only - Double-Wall Front
- F - Face Supply
- C - Face and Air Curtain Supply

- E - Wall Style Canopy
- V - Single-Island Style (V-Bank) Canopy
- P - Proximity (Backshelf)
- R - Pizza Hood
WALL CANOPY HOODS

Accurex’s wall canopy hoods are used over cooking equipment that produce heat and grease-laden effluent. Wall canopy hoods are intended to be used when the cooking equipment is placed against a wall. A wide variety of sizing and hood options, along with several accessories, makes Accurex the right choice to meet your varying design requirements.

**Exhaust Only**
- Supply air is introduced through ceiling diffusers or external supply plenums (shown on page 37)
- More dimensional flexibility than other manufacturers
- Available as Single-Wall Front (shown on right) or Double-Wall Front (inset detail)
- Double-Wall provides one-inch of insulation between the two front panels for additional strength and rigidity

**Face Supply**
- Supply air is introduced horizontally through the face of the hood via perforated panels in a manner that does not interfere with the cooking operation beneath the hood(s)
- Perforated panels are located on the face to ensure precise volume control and will limit the throw to within several feet of the hood(s)
- Provides a higher level of dimensional flexibility than other manufacturers

**Face and Air Curtain Supply**
- Supply air is introduced horizontally through the face and vertically through the front perimeter of the hood via perforated panels in a manner that does not interfere with the cooking operation beneath the hood(s)
- Perforated panels ensure precise volume control and will limit the throw to within several feet of the hood(s)
Auto Scrubber

VERSATILE FILTRATION
The Auto Scrubber can be used with any of Accurex’s filters – baffle, Grease-X-Tractor™, Grease Grabber™ or the revolutionary Energy Recovery Filter System.

SUPERIOR CLEANING
The Auto Scrubber cleans not only the inside of the exhaust plenum, but the filters, as well.

EASY MAINTENANCE
Filter and fire system components are easily inspected and serviced via tool-less access panels located within the hood. Large 2-inch drains capture grease with ease.

CONNECTED
The Auto Scrubber can connect to a building automation system via BACnet® MSTP, BACnet® IP, LonWorks® or Modbus®. The Auto Scrubber is also compatible with Accurex XFCC, Vari-Flow and Melink® control systems.
PROXIMITY (BACKSHELF) HOODS
Accurex proximity hoods have an industry-leading five dimensions of adjustment which make them the perfect solution for light and medium duty cooking applications with low ceilings. The Accurex proximity hood sits close to the cooking equipment allowing for lower exhaust rates and smaller hoods.

Type I Proximity hoods are designed for grease- and heat-laden effluent and are shorter in front tapered height and width than a canopy hood. The name “Proximity” refers to the close proximity of the hood with respect to the cooking equipment. In addition, Accurex proximity hoods have an optional plate shelf and/or pass-over enclosure and flue bypass to meet your varying design requirements.

SINGLE-ISLAND (V-BANK) CANOPY HOODS
Accurex’s Type I single-island style canopy hoods are used over cooking equipment that produce heat and grease-laden effluent. Single-island style canopy hoods are used over one row of cooking equipment placed where no walls exist. Single-island hoods can be seen from all directions and have four finished stainless steel sides available in both V-bank and single-bank filter configurations. Accurex offers a variation of the single-island hood for use over pizza ovens.

EXHAUST ONLY - SINGLE-WALL
Supply air is introduced through ceiling diffusers or external supply plenums.

FACE SUPPLY
Make-up air is supplied horizontally through the face via perforated panels in a manner that does not interfere with the cooking operation beneath the hood(s). Perforated panels are located on the face to ensure precise volume control and will limit the throw to within several feet of the hood.

SPECIALTY HOODS
Accurex offers many options for specialty hoods such as radiused corners, heavier gauges and custom cladding.
FILTRATION OPTIONS
A variety of filtration options are available with industry leading grease extraction efficiencies to suit specific needs. See Filtration Options on page 22 for more detail.

EXTERNAL SUPPLY PLENUMS*
Several supply plenum options are available to supply air back to the space evenly. See External Supply Plenums on page 37 for more detail.

MATERIAL OPTIONS*
Standard construction is stainless steel where exposed and galvanized steel in the unexposed plenum. 100% stainless steel construction is available. Either option is available in 300 series or 430 stainless steel.

CONTINUOUS CAPTURE*
Provides a UL Listed bolted connection allowing end to end hoods to be connected and appear as one hood.

LIGHTING OPTIONS*
Multiple lighting options are available. Screw in fixtures for incandescent or CFL lights are standard. For more efficient lighting, recessed LED and 2-, 3-, or 4-foot recessed fluorescents are available. All fixtures are vapor proof and UL Approved. LED lighting provides a bright, warm light for cooking and a significantly longer operating life. LED lights save up to 95% in electrical costs when compared to using standard incandescent lights in a kitchen hood.

TAPERED HOOD*
For low ceiling applications, tapered fronts are available in 18-, 15- or 12-inch heights. 15-and 12-inch tapers require a 12-inch overhang on all exposed sides. Proximity hoods offer lower tapers with 12-or 6-inch options as standard.

*See options chart on page 14 for specific options for Type I Grease Hoods
OPTIONS AND ACCESSORIES

EXHAUST COLLARS

• SHIP LOOSE
Shipping exhaust collars loose provides an exhaust collar to be used, but no exhaust cutout in the hood. This enables the contractor to locate and cut the exhaust opening, where desired, when not known ahead of time.

• SHAPE
To accommodate various ductwork, several sizes of rectangular and round collars are available.

• LOCATION*
Top or back placement for mounted exhaust collars can go anywhere within the plenum area.

SUPPLY COLLARS

• ADDITIONAL COLLARS*
To keep supply airflow velocities around the hood low, additional supply collars can be added for higher supply airflow volumes.

• SHAPE (ROUND OR RECTANGLE)
To accommodate various ductwork, different shaped collars are available on most supply plenums in both round and rectangular forms.

CEILING ENCLOSURE

When the top of the hood is mounted lower than the finished ceiling height, enclosure panels can be provided in series 300 or 430 stainless steel to match your hood. These enclosures create an aesthetically pleasing finish.

BACKSPLASH PANELS/SIDE SPLASH PANELS
Splash panels provide an aesthetically desirable and easily cleanable stainless steel surface behind or on adjacent walls near the hood. Constructed of series 300 or 430 stainless steel to match the hood. Also available with 1-inch zero clearance insulation.

*See options chart on page 14 for specific options for Type I Grease Hoods
SEE OPTIONS CHART ON PAGE 14 FOR SPECIFIC OPTIONS FOR TYPE I GREASE HOODS

END SKIRTS
End skirts are available in both full and mini configurations and are constructed with either series 300 or 430 stainless steel to match the hood. End skirts can lower required exhaust rates as they improve capture.

AIRSPACE/FILLER PANELS
To assist with clearances to combustible surfaces, stainless steel airspaces can be supplied. These panels can also be used to fill in open spaces and/or improve aesthetics.

ZERO CLEARANCE
Our clearance reduction system utilizes a one-inch thick insulating material on the front, back, sides and top of the hood as needed. This provides great value, especially in retrofit building applications, allowing new hoods to be mounted closer to combustible surfaces, such as cabinetry and wood roof trusses, while satisfying both safety standards and codes.

EXHAUST AIR BALANCING BAFFLES
To help balance exhaust airflows between multiple ducts or hood sections being exhausted through one duct line. Air balancing baffles can be mounted at the exhaust collar openings which allow the exhaust opening to be closed up to 50%.

SWITCHES
Switches can be shipped loose for remote mounting, mounted on the hood face, or in the utility cabinet.

FINISHED BACK
With most wall canopy hoods, hanging is done against a wall, making the need for an aesthetically pleasing finished back unnecessary. For instances in which the back is visible, the same finish as the other three sides of the hood can be provided.

INSULATED SUPPLY PLENUM
With some plenums, condensation can occur from bringing in cold air near to where hot air is being exhausted. By insulating these plenums, problems with condensation are alleviated. This also helps prevent cooler incoming air from being heated by warmer exhaust air.

AUTOMATIC FIRE DAMPER
In areas where exhaust fire dampers are required, a UL Listed motorized butterfly damper can be installed in the exhaust collar that closes at 285°F.

UTILITY CABINETS HOOD MOUNT/WALL MOUNT
Utility cabinets for fire system and/or control mounting can be attached to the left or right side of the hood. Remote (wall mount) cabinets are also available.

FILTER REMOVAL TOOL
Filter removal tools enable operators to safely reach and remove filters from the hood while standing on the floor in front of appliances.

TRIM STRIPS
Stainless steel strips to be used anywhere hood sections meet to improve aesthetics.
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*Round supply collars are not available on back supply plenums
Heat and Condensate Hoods - Type II
MODEL OVERVIEW
Type II hoods are designed to capture heat and condensate from non-grease producing appliances such as ovens and dishwashers.

ACCUREX HEAT AND CONDENSATE HOODS OFFER THE FOLLOWING BENEFITS:
- The National Sanitation Foundation (NSF) Seal of Approval (Standard 2)
- Standard construction is a minimum of 18 gauge 430 stainless steel
- Flexible lengths, widths and heights
- Hood length: Available in 1-inch increments up to up to 196 inches in a single section
- Hood widths: Available in 3-inch increments up to 84 inches
- Standing seam construction for superior strength
- Excellent dimensional tolerances due to highly tooled manufacturing

MODEL NUMBER CODE
The Model Number Code is designed to completely identify the unit. The correct code letters must be specified to designate the configurations and size.

XO

HOOD TYPE II
XO - Oven
XD1 - Condensate - No Baffle
XD2 - Condensate - Single Baffle
XD3 - Condensate - Double Baffle
NON-FILTERED HEAT AND FUME HOODS

Accurex’s heat and fume hood is primarily used for ovens or general ventilation applications to capture heat and vapor, creating a more comfortable environment for the cooking staff.

Non-Filtered Heat and Fume Hoods

**MODEL XO**: Primarily used for oven applications. Can be used for other heat and fume removal applications. No gutter or drain. Lighting options available.

Condensate hoods

The following models include a gutter and have an optional drain connection. Condensate baffle options below.

- **MODEL XD1**: No baffles. Most economical and flexible in condensate applications. Lighting options available.

- **MODEL XD2**: One baffle. Designed for moderate condensation applications. Great for vertical door dishwasher applications. Lighting options available.

- **MODEL XD3**: Two baffles. Designed for heavy condensate applications.

*See options chart on page 20 for specific options for Type II Condensate Hoods*
**MATERIAL OPTIONS**
Standard construction is 18-gauge 100% stainless steel. Available in series 300 or 430 stainless steel, with option of 16-gauge 100% series 300 stainless steel construction.

**LIGHTING OPTIONS**
Depending on the width and baffle quantity in the hood, UL Listed incandescent, fluorescent and LED fixtures are available.

**EXTERNAL SUPPLY PLENUMS**
Several supply plenum options are available to evenly supply air back to the space. See External Supply Plenum page 37 for more detail.

**MESH FILTER**
With most Type II hoods, the exhaust opening is unfiltered. Adding a mesh filter in the exhaust collar helps prevent anything other than heat and moisture from passing through the duct opening.

**TRIM STRIPS**
Stainless steel strips to be used anywhere hood sections meet to improve aesthetics.

**EXHAUST COLLARS**
- **SHIP LOOSE**
  Shipping exhaust collars loose will provide an exhaust collar to be used, but no exhaust cutout in the hood. This enables the contractor to locate and cut the exhaust opening, where desired, when not known ahead of time.
- **SHAPE**
  To accommodate various ductwork, several sizes of rectangular and round collars are available.

**SWITCHES**
Accurex Type II hoods allow for switch mounting in a cabinet attached to the hood or as a remote option.

**CEILING ENCLOSURE**
When the top of the hood is mounted lower than the finished ceiling height, enclosure panels can be provided in series 300 or 430 stainless steel to match your hood. These enclosures create an aesthetically pleasing finish.

*See options chart on page 20 for specific options for Type II Condensate Hoods*
UTILITY CABINETS
HOOD MOUNT/WALL MOUNT
Utility cabinets for fire system and/or control mounting can be attached to the left or right side of the hood. Remote (wall mount) cabinets are also available.

BACKSPASH PANELS/SIDE SPLASH PANELS
Splash panels provide an aesthetically desirable and easily cleanable stainless steel surface behind or on adjacent walls near the hood. Constructed of series 300 or 430 stainless steel to match the hood. Also available with 1-inch zero clearance insulation.

AIRSPACE/FILLER PANELS
To assist with clearances to combustible surfaces, stainless steel airspaces can be supplied. These panels can also be used to fill in open spaces and/or improve aesthetics.

END SKIRTS
End skirts are available in both full and mini configurations and are constructed with either series 300 or 430 stainless steel to match the hood. End skirts can lower required exhaust rates as they improve capture.

EXHAUST AIR
BALANCING BAFFLES
To help balance exhaust airflows between multiple ducts or hood sections being exhausted through one duct line. Air balancing baffles can be mounted at the exhaust collar openings which allow the exhaust opening to be closed up to 50%.
### OPTIONS GUIDE

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<tr>
<td>Trim Strips</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>
Filtration Options
**ACCUREX FILTRATION OFFERS THE FOLLOWING BENEFITS:**
Grease generated by restaurant kitchens pose many problems; frequent duct cleaning, rooftop grease buildup and compliance with tougher air emissions standards. Accurex’s offering of innovative filter designs attack the problem at the source, at a fraction of the cost of other grease removal devices.

**GREASE-X-TRACTOR WITH GREASE GRABBER REMOVES 100% OF THE GREASE PARTICLES AT 5 MICRONS**
- Tested to ASTM F2519-2005
- UL 1046 Listed
- NSF Certified

### FILTER OPTIONS

<table>
<thead>
<tr>
<th>FILTER Description</th>
<th>Suggested Application</th>
<th>Example Appliances</th>
<th>Static Pressure (9 x 4 foot hood at 2050 cfm)</th>
<th>Grease Removal Efficiency* at 8 microns</th>
<th>Grease Removal Efficiency* 3-10 microns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grease Grabber™ Multistage Filtration System</td>
<td>Heavy to Extra Heavy Duty Grease</td>
<td>Solid Fuel Cooking Appliances Upright Broiler Gas, Electric &amp; Lava Rock Char-Broiler Mesquite Infrared Broiler Wok Chain Broiler</td>
<td>11 to 13 in. wg</td>
<td>100%</td>
<td>99%</td>
</tr>
<tr>
<td>Energy Recovery Filter</td>
<td>Medium to Heavy Duty Grease</td>
<td>Combination Ovens Gas &amp; Electric Fryers Griddles Grill Upright Broiler Electric Char-Broiler</td>
<td>0.6 to 0.7 in. wg</td>
<td>88%</td>
<td>60%</td>
</tr>
<tr>
<td>Grease-X-Tractor™ Centrifugal Filtration</td>
<td>Medium to Heavy Duty Grease</td>
<td>Combination Ovens Gas &amp; Electric Fryers Griddles Grill Upright Broiler Electric Char-Broiler</td>
<td>0.7 to 0.8 in. wg</td>
<td>69%</td>
<td>51%</td>
</tr>
<tr>
<td>Baffle</td>
<td>Light Duty Grease</td>
<td>Gas &amp; Electric Ovens/Steamers/Ranges Food Warmers Pizza Ovens</td>
<td>0.5 to 0.6 in. wg</td>
<td>28%</td>
<td>16%</td>
</tr>
</tbody>
</table>

*See Efficiency Chart on page 24

**MODEL OVERVIEW**
Accurex provides filtration options that set the standard for grease removal in kitchen ventilation, offering innovative filter designs at a fraction of the cost.
WHAT IS IN MY KITCHEN EXHAUST?

Kitchen exhaust includes grease particulate in various sizes including grease vapors, smoke, and steam. Grease is the by-product of commercial cooking processes that must be extracted from the effluent airstream via the kitchen ventilation system.

GREASE CAN BE BROKEN DOWN INTO THREE DIFFERENT CATEGORIES:

• VAPOR + SUBMICRON PARTICLES Produced when a drop of grease or water comes in contact with a hot surface and immediately burns off. Particle sizes range from .03 to .55 microns (smoke).

• PARTICULATE Grease covered moisture and air mixture is produced by the long burning of cold or frozen food on a hot cooking surface. Particle sizes range from .55 to 6.2 microns.

• SPATTER Larger, more visible effluent that is produced during the cooking process. Particle sizes range from 6.2 to 150 microns.

Research and testing has determined that a significant concentration of grease particles can be found in the submicron and particulate phases. Most currently applied grease extraction devices remove very large grease particulate that is 10 to 150 microns in size (spatter phase), but are not capable of removing fine particulates that are found in the submicron and steam phases.

TESTING OF GREASE EXTRACTION DEVICES

Older tests, designed to test the efficiency of a grease filter, did not effectively portray the full range of particles produced during the cooking operation. This led to development of a new test standard; ASTM F2519-2005. This test shows the entire spectrum of the filter’s efficiency, from 0.3 to 100 microns. The efficiency is expressed as a graph similar to a fan curve, rather than using one percentage to cover all size particles.

ASTM F2519-2005 Standard Test Method for Grease Particle Capture Efficiency of Commercial Kitchen Filters and Extractors is the first universally accepted test method in the commercial kitchen ventilation industry that covers efficiency testing of both removable filters and fixed extractors, such as water wash hoods.

ASTM F2519-2005 tests generate a controlled quantity of particles in sizes ranging from .3 to 10 microns that are released into a kitchen hood to represent the cooking effluent. The particles are then sampled and counted downstream in the ductwork with an optical particle counter with and without the extractor in place. These are used to calculate the fractional efficiency, which is then graphed versus the particle size.

The efficiency graphs that Accurex uses reflect the test methods used in ASTM F2519-2005.
Grease Extraction Efficiency vs. Particle Size
600 CFM

- Baffle Filter
- Grease-X-Tractor™
- Energy Recovery
- Grease Grabber™
Grease Grabber™
Multistage Filtration System

The Grease Grabber multistage filtration system uses the Grease-X-Tractor along with the Grease Grabber filter to remove 100% of the grease particles, at 5 microns and larger, out of the airstream. The Grease Grabber filter is designed for heavy-duty grease applications.

**HOW IT WORKS:**

- The Grease-X-Tractor is the primary filter that removes large grease particles using centrifugal force.
- The Grease Grabber is the secondary filter that uses a ½-inch packed bead bed to remove the small particles of grease that are not removed by the Grease-X-Tractor filter.
Energy Recovery Filter

The energy recovery filter (ERF) is designed for grease applications with water intensive high heat appliances.

HOW IT WORKS:

- Incoming cold water is directed through a control panel which directs 2-3.5 gpm of water to the hood and the remaining water to your hot water heater.

- The water enters the hood and travels through the heat exchangers built into the ERF.

- As the hot exhaust air passes over the heat exchangers’ coils, the water captures the waste heat from the airstream.

- The pre-heated water exits the hood and is sent to the hot water heater.

Saves Energy

- As the water travels through the hood, it will be pre-heated by the exhaust airstream achieving a 25-40°F temperature rise.

- The preheated water is sent to the hot water heater where it requires less natural gas to heat the water to the required operating temperature.

- Less natural gas required to heat incoming water equals lower monthly utility bills.

Saves Money

- The cooler temperatures at the filters condense more of the grease vapor.

- Higher grease removal by the filters reduces the grease accumulation in the duct and plenum, which means fewer duct cleanings and expenses.
Grease-X-Tractor™ Filter

With high grease capture efficiency, the Grease-X-Tractor filter is ideal for medium grease applications.

**HOW IT WORKS:**

- Exhaust air enters the filter through the angled inlets on the top and bottom of the filter face.
- As a result of the angled inlet, the air undergoes multiple turns as it spins through one of the many hollow columns along the length of the filter.
- The near-constant centrifugal force applied to the grease particles force them out of the airstream and on to the walls of the air column.
- The air exits out the back of the filter, through gaps in the center of the air columns, while the extracted grease drains out the bottom of the filter.

---

**Mass & Grease Extraction Efficiency vs. Particle Size**

Grease-X-Tractor™ Over Griddle with Hamburger

System Efficiency = 73%
27% of particulate is exhausted into duct

**Graph Details:**

- Gas Griddle Hamburger Emissions
- Griddle after Grease Grabber
- 600 cfm Efficiency Grease Grabber
Standard Baffle

The industry standard baffle filter is designed for light-duty grease applications.

**HOW IT WORKS:**

- Exhaust air passes through the aluminum/stainless steel baffles, turning through “s” shaped baffle plates.
- As the air turns, the particle’s momentum throws it out of the airstream. As it changes direction, the particulates impact upon the baffles.
- The grease then runs down the baffle into the grease trough, which drains into a removable grease container.

The baffle filter removes 28% of particles at 8 microns.
Grease Extraction by Cooking Equipment Type

Different appliances and types of food will produce different amounts of grease. There is a need for different levels of grease extraction efficiency. Accurex recommends filters for each type of cooking equipment. If there is a diverse cooking lineup, use a worst-case scenario for the type of filter used.

MODEL COMPARISON

Don't just buy based on initial hood costs. While baffles offer the lowest initial up-front cost, the maintenance cost required to deal with the grease they do not stop can add up over time.

Grease Removal Efficiency

Once the grease makes it past the filters it becomes a maintenance expense to prevent build-up in the duct, on the roof or on surrounding property as well as a safety concern.
Pollution Control
With the increasing size of the urban landscape, the focus on clean air, and multi-use buildings, restaurant odor and grease control play an increasingly important role in commercial kitchen exhaust systems.

No one wants their apartment or hotel room smelling like the restaurant below or their windows smeared from greasy kitchen exhaust air. In addition, restaurants on the ground floor of a high-rise building need a cost-effective way to discharge exhaust air closer to ground level to prevent having to run ductwork for many stories.

Accurex’s Grease Trapper™ and Grease Trapper ESP™ Pollution Control units are specifically designed to eliminate both smoke and grease particles from your kitchen exhaust system, while odor control modules eliminate the remaining odor.

**Grease Trapper™**

The Grease Trapper pollution control unit uses a three-stage mechanical filter arrangement to remove grease and smoke particles from the exhaust air at an economical initial cost. Independent pressure switches signal when any of the three filter stages need replacing, taking the guess work out of maintaining the equipment. The Grease Trapper incorporates activated carbon panels to remove odor molecules prior to discharging the air, reducing the impact of the kitchen exhaust to the surrounding area. The unique construction features of the Grease Trapper allow it to be mounted within twelve inches of combustibles on the top of the unit and six inches on the side and bottom.
1. Factory inlet transition fabricated to match ductwork for ease of installation
2. Metal mesh filters are easily washable with a hose or in a dishwasher and catch the large grease particles
3. MERV 8 pleated filters remove particles from the incoming airstream to protect high efficiency filters and minimize maintenance
4. MERV 15 pleated final filter ensures a minimum overall particulate removal efficiency of 95%
5. Bonded activated carbon filters reduce cooking odors
6. Accurex UL 762 utility set or inline fan with motor and drive mounted outside of the airstream per NFPA 96
7. A pressure switch enclosure is provided to house all of the individual pressure switches for ease of maintenance and wiring on the unit. The pressure switches monitor each individual filter bank and a remote filter status indicator panel advises maintenance staff when each filter stage requires replacement.
8. Modular stainless steel construction

UL/cUL LISTED TO UL 1978 GREASE DUCT STANDARDS

Listed to same standard as factory-built grease duct typically used from exhaust hood to exterior of building.

The first UL 1978 Listed PCU in the industry which has been tested to the rigorous UL factory-built grease duct testing standards to ensure the safety of the building and its occupants.
UNIT LENGTH

*MINIMUM 36 INCHES OF CLEARANCE REQUIRED ON DOOR ACCESS SIDE FOR SERVICE AND REMOVAL OF FILTERS

UTILITY FAN WIDTH

INLINE FAN WIDTH

UNIT WIDTH

HEIGHT

OPTIONAL ITEMS

- Potassium permanganate and other impregnates available for code compliance and/or to deal with specific odors
- Unit can be shipped in multiple sections for field assembly if required
- Complete Ansul UL 300 fire system including installation (fire system prepiped as standard)
- NEMA 4 fire cabinets with internal heaters for outdoor mounting protect your fire system components and saves on installation time
- UL 762 high efficiency inline or utility set fan

<table>
<thead>
<tr>
<th>Model</th>
<th>Maximum CFM</th>
<th>Height (inches)</th>
<th>Width (inches)</th>
<th>Fan Type</th>
<th>Maximum Fan Width (inches)</th>
<th>Overall Length (inches)</th>
<th>Unit Weight (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>4,500</td>
<td>43</td>
<td>27</td>
<td>Utility Fan Set</td>
<td>36</td>
<td>212</td>
<td>1250</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inline Fan</td>
<td>41</td>
<td>201</td>
<td>1325</td>
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<tr>
<td>60</td>
<td>6,000</td>
<td>65</td>
<td>27</td>
<td>Utility Fan Set</td>
<td>42</td>
<td>224</td>
<td>1810</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Inline Fan</td>
<td>46</td>
<td>216</td>
<td>1850</td>
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<tr>
<td>90</td>
<td>9,000</td>
<td>54</td>
<td>50</td>
<td>Utility Fan Set</td>
<td>56</td>
<td>223</td>
<td>2100</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Inline Fan</td>
<td>58</td>
<td>210</td>
<td>215</td>
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<tr>
<td>120</td>
<td>12,000</td>
<td>65</td>
<td>50</td>
<td>Utility Fan Set</td>
<td>59</td>
<td>231</td>
<td>2550</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inline Fan</td>
<td>61</td>
<td>216</td>
<td>2665</td>
</tr>
</tbody>
</table>

Dimensions are subject to change pending final fan selection. Consult unit submittals for exact dimensions. Type and volume of cooking and cooking fuel must be factored in when selecting unit. Consult factory for final selection.
The Grease Trapper ESP™ Pollution Control Unit uses electrostatic precipitator modules and carbon filters to remove grease, smoke and odors from the exhaust airstream. UL Listed to UL 1978 Grease Duct Standards and meeting the requirements of UL 867 Standard for Electrostatic Air Cleaners earns the Grease Trapper ESP recognition as one of the safest pollution control units in the market.

The automated wash down sequence allows for the grease buildup on the ESP collector plates to be easily removed with the touch of a button or on an automatic daily schedule.

The unique construction of the Grease Trapper ESP allows for the smallest clearance to combustibles in the industry. It can be mounted within 12-inches of combustibles on the top of the unit and 6-inches on the sides and bottom to easily fit it into tight mechanical rooms or ceiling spaces.

**HOW IT WORKS**

As air enters the ESP module it passes by an ionizer that positively charges the particles in the airstream. Upon entering the charged collector portion of the cell, the positively charged particles are attracted to the negatively charged plates like a magnet, which captures and removes the contaminant from the airstream. This eliminates the need to change out costly filters and lowers overall maintenance requirements.

**DURABLE ESP CELLS**

- Lightweight cells allow for easier handling and removal from unit
- Universal cell size eliminates the possibility of loading cells in the wrong order or position
- Thermoset isolators provide improved reliability and reduced weight, unlike ceramic isolators that can break easily
- Stainless steel spiked blade ionizer improves reliability and will not break easily like tungsten wire systems
- Cells have been third-party tested to ensure the highest performance and efficiency

**UL/cUL LISTED TO UL 1978 GREASE DUCT STANDARDS**

- Listed to the same standard as factory-built grease duct typically used from exhaust hood to exterior of building. Tested to the rigorous UL factory-built grease duct testing standards to ensure the safety of the building and its occupants.
- Only UL 1978 Listed PCU in the industry which has been tested to the rigorous UL factory-built grease duct testing standards to ensure the safety of the building and its occupants.

**UL/cUL LISTED TO UL 867 ELECTROSTATIC AIR CLEANERS STANDARDS**

- UL 867 is a safety standard for the electronics of Electrostatic Air Cleaners and more specific for the Power Supply and ESP Cell assemblies. The Grease Trapper ESP electrical assemblies were tested to UL 867 Standard requirements and meets or exceeds the standard as listed.
KEYPAD OR TOUCHSCREEN CONTROL
1. NEMA-1 indoor mounted control panel
2. Motor starter or variable frequency drive (VFD) for complete motor control and protection
3. Unit status lights allow kitchen personnel to quickly verify unit operation

ADDITIONAL OPTIONS
- For solid fuel applications, three ESP modules and two carbon modules handle the higher grease and smoke loading
- Unit can be constructed in multiple sections for field assembly if required
- NEMA-1 and NEMA-4 fire cabinets with internal heaters are available for indoor or outdoor mounting locations to protect indoor or outdoor mounting locations to protect indoor or outdoor mounting locations to protect your fire system components and save installation time

Factory inlet transition for ease of installation
Impingement filter evenly distributes airflow and stops large particles from entering the system
UL 867 Standard for Electrostatic Air Cleaners ensures power supplies and components are tested for safety
Automatic wash down cleans the entire cell from a 30 gallon detergent tank. Eliminates the need for manual cleaning.
Bonded activated carbon filters reduce cooking odors and are easily removed
Detergent flow detection ensures pump protection (not shown)
Accurex UL 762 utility set or inline fan with motor and drive mounted outside of the airstream per NFPA 96
Modular stainless steel construction
Automatic cell discharge allows cells to be discharged by the control system automatically, eliminating the risk of electrical shock to maintenance personnel (not shown)
Integral mounting rails provide base for unit modules and exhaust fan
Prepiped UL 300 fire system
External Supply Plenums
Make-up air can be introduced several ways, including through-the-hood with an integrated supply plenum or an external supply plenum. External plenums positioned around the perimeter of exhaust only hoods are a great alternative to integral supply plenums. Unlike integral supply plenums, they do not sacrifice valuable hood containment area. They can also be retrofitted to almost any hood and are generally less expensive than integral plenums. Accurex offers the following external supply choices - Air Curtain Supply Plenum (ASP), Split Air Curtain Supply Plenum (Split ASP), Horizontal Supply Plenum (HSP), Variable Supply Plenum (VSP), and the Back Supply Plenum (BSP).

### Plenum Type

<table>
<thead>
<tr>
<th>Plenum Type</th>
<th>Discharge Opening (Inches)</th>
<th>Recommended Supply Rate (cfm/ft)</th>
<th>Recommended Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Curtain Supply (ASP)</td>
<td>12-inch up to 24-inch</td>
<td>12-inch: 10 24-inch: 22</td>
<td>All Conditions To minimize mixing with air in the space by distributing airflow at the hood, downward.</td>
</tr>
<tr>
<td>Split Air Curtain Supply (Split ASP)</td>
<td>12-inch up to 24-inch</td>
<td>12-inch: 10 24-inch: 22</td>
<td>All Conditions To minimize mixing with air in the space by distributing airflow at the hood, downward.</td>
</tr>
<tr>
<td>Horizontal Supply (HSP)</td>
<td>15.5</td>
<td>Up to 150</td>
<td>Tempered Air (Heated and Cooling)* Provides supply air to mix with room air.</td>
</tr>
<tr>
<td>Back Supply (BSP)</td>
<td>6</td>
<td>Up to 145</td>
<td>Non-Tempered or Marginally Tempered Air Is kept near hood to minimize mixing with air in the space.</td>
</tr>
<tr>
<td>Variable Supply (VSP)</td>
<td>Face 8 Curtain 8</td>
<td>Face Up to 160 Curtain Up to 80</td>
<td>Non-Tempered or Marginally-Tempered Air Is kept near hood to minimize mixing with air in the space.</td>
</tr>
</tbody>
</table>

* Climate determines tempering conditions.

### MODEL OVERVIEW

Accurex external supply plenums offer a cost effective and flexible way to bring make-up air back into the kitchen and keep your exhaust system working efficiently.
Air Curtain Supply Plenum (ASP)

Air curtain supply plenums are typically used in non-tempered or heat-only applications, depending upon climate (can be used as an efficient method for spot-cooling).

- Air curtain supply plenums introduce the air near the hood to minimize mixing with air in the space
- A series of perforated panels evenly distribute air at lower discharge velocities which benefit hood capture and containment
- Easy and flexible installation
- Mounted 14-20 inches above the bottom edge of the hood or flush with a drop ceiling
- External plenums can be placed on multiple sides of the hood to create a curtain of air on all exposed sides and increase the volume of air brought in at the hood at low velocities
- The air curtain supply plenum is available in widths of 12 to 24 inches, in one-inch increments.

Horizontal Supply Plenum (HSP)

Horizontal supply plenums are typically used in fully tempered air applications since the air will mix with the air in the surrounding space.

- Make-up air is introduced horizontally through the face of the external supply plenum via perforated panels in a manner that does not interfere with the cooking operations beneath the hood(s)
- Perforated panels are located on the face of the external supply plenum to limit the throw to within several feet of the hood(s) and maintain a low velocity
- Easy and flexible installation
- The HSP is typically mounted flush with the top of the hood
- The HSP is 12 inches wide by 14 inches high

Split Air Curtain Supply Plenum

The optional split air curtain supply plenum (ASP) is an attractive method to provide make-up air and conditioned air through one plenum. Non-tempered make-up air is drawn into the hood, while the cooled conditioned air moves outward to provide spot cooling to the kitchen space.
Variable Supply Plenum (VSP)

The variable supply plenum is a versatile plenum combining the features of the face and air curtain supply plenums.

- Make-up air is supplied horizontally through the face and vertically through the front perimeter via perforated panels in a manner that does not interfere with the cooking operations beneath the hood(s)
- Easy and flexible installation
- Manual damper is included in the plenum to modulate airflow between the face and air curtain allowing 0 to 50% through the air curtain and 50 to 100% through the face
- Best suited for cooler climates where outside air can be used to cool the kitchen (although either tempered or non-tempered air can be used depending on climate and comfort goals)
- The VSP is 12 inches wide by 18 inches high

Back Supply Plenum (BSP)

Back supply plenums are typically used in non-tempered or marginally tempered applications, and these plenums are also ideal for heating air during the colder months since hot air will rise from its low discharge position.

- An effective way to introduce make-up air into the kitchen is from the rear of the hood through a back supply plenum (double layer of perforated panels allow for well-distributed low-velocity airflow at discharge behind and below the cooking battery)
- Back supply plenums also function as a backsplash panel and provide the proper clearance to limited combustibles needed in many installations to meet NFPA 96 standards
- Easy and flexible installation
- This plenum directs airflow through perforated panels behind and below the cooking equipment without affecting capture and containment, cooking surface temperature, or pilot lights
- When using non-tempered air, utilizing low air velocities will keep the air near the hood
- These plenums are 6 inches deep, stretch the entire length of the hood and discharge at 31.25 inches above the finished floor
Fire Suppression Systems
The first line of defense against fire in a commercial kitchen is the fire protection system installed in the exhaust hood. Accurex has a variety of factory prepiped fire protection systems available from the two leading manufacturers, Amerex® and Ansul®.

**ADDED VALUE IN CHOOSING AN ACCUREX FACTORY-INSTALLED FIRE SUPPRESSION SYSTEM:**
- Convenience — Accurex coordinates all of the fieldwork saving you valuable time
- Factory prepiped systems require less jobsite installation time, freeing up factory space for other work to be completed
- Includes application for permits and performing puff tests
- Factory-installed systems are much more aesthetically pleasing
- Allows for a streamlined setup that will not interfere with the kitchen workflow
- Factory systems look finished and professionally done
- No unsightly holes or pipes that create an eyesore

**FIRE SUPPRESSION MODEL CODE**
The Model Code below is designed as a brief overview of the options that Accurex provides for Fire Suppression Systems.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>FIRE SUPPRESSION CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEREX® KP</td>
<td>Appliance Specific</td>
</tr>
<tr>
<td>AMEREX® ZONE DEFENSE</td>
<td>Overlapping Coverage</td>
</tr>
<tr>
<td>ANSUL® R-102™</td>
<td>Appliance Specific</td>
</tr>
<tr>
<td>ANSUL® R-102™ OVERLAPPING</td>
<td>Overlapping Coverage</td>
</tr>
<tr>
<td>ANSUL® PIRANHA™</td>
<td>Dual Agent</td>
</tr>
</tbody>
</table>

**OVERVIEW**
Accurex supplies a range of factory prepiped fire protection systems that meet the real world challenges of kitchens, improve installation time and provide enhanced quality.
Amerex Fire Suppression

Restaurant fires can be devastating. A fire can begin on an appliance, in the hood or ductwork, and quickly spread throughout the building. A pre-engineered fire suppression system is the first line of defense against a restaurant kitchen fire. Amerex has been in the fire protection industry since 1971 and has a reputation for excellence, customer service and innovation unsurpassed in the industry.

AMEREX KP FIRE SUPPRESSION SYSTEMS

Appliance specific fire suppression is a wet chemical system to be used when the equipment placement is known and expect few, if any, changes. Nozzles are selected and aimed at specific hazards on each appliance. The chemical agent itself is a low pH that’s non-corrosive to stainless steel which can be safely cleaned up with water and a sponge.

AMEREX ZONE DEFENSE FIRE SUPPRESSION SYSTEMS

The full flood/overlapping restaurant fire suppression systems were developed to solve problem of protecting a kitchen where the appliances are moved around, rolled in and out for cleaning, or replaced with different appliances to accommodate changing menus. These systems are also cost-effective with medium and heavy duty cooking lines requiring greater protection.

FEATURES AND BENEFITS

- Stainless agent tank enclosures – provide a professional look
- Fusible link or pneumatic tubing detection – flexibility to suit design requirements
- Additional switches (two SPDT is standard) – for additional equipment shutdown as required
- Additional pull stations (one is standard) – for large rooms with multiple exits
- Metal blow off caps – for high heat applications
- Horn strobes – for visual and audible emergency notification
- Low pressure alarm – helps prevent a false discharge due to pressure loss
- K-Class handheld extinguishers – to meet NFPA 96 standard requirements

THE RESTAURANT FIRE SUPPRESSION SYSTEM IS CONSTRUCTED IN COMPLIANCE WITH THE FOLLOWING:

- UL/cUL Listed per UL 300 fire test specifications
- New York City Department of Buildings (MEA)
- Meets requirements of NFPA 96 (Standard for the Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment)
- Meets requirements of NFPA 17A (Standard for Wet Chemical Extinguishing Systems)
Ansul Fire Suppression

Ansul has been protecting restaurants since 1962 and is one of the industry leaders in fire suppression systems. Ansul led the industry at a time when kitchen fires were a leading cause of restaurant loss, and their continued advancements in technology and design have made Ansul the number one food-service fire protection solution in the world.

ANSUL PIRANHA
FIRE SUPPRESSION SYSTEM

Dual agent fire suppression systems combine water and chemical agent to suppress the fire. The agent is discharged first, suppressing the fire, and water follows to cool the hazard and prevent reflash. Dual agent systems can be either appliance specific or full flood.

ANSUL R-102
FIRE SUPPRESSION SYSTEM

In an appliance specific fire system, the nozzles and placement are chosen for the type of cooking equipment it needs to protect. This is the most cost-effective system, as only the appliances that need protection are covered.

ANSUL R-102 OVERLAPPING
FIRE SUPPRESSION SYSTEM

In an overlapping fire system, the nozzles are placed every couple feet along the length of the hood. The nozzles form overlapping cones of protection over your appliances, ensuring an effective, yet flexible, fire suppression package that makes it easy to change your kitchen configuration.

OPTIONS AND ACCESSORIES

- Stainless agent tank enclosures – provide a professional look
- Flexible agent distribution hose so appliances can be rolled out for cleaning
- Additional switches (two SPDT is standard) – for additional equipment shutdown as required
- Additional pull stations (one is standard) – for large rooms with multiple exits
- Metal blow off caps – for high heat applications
- Horn strobes – for visual and audible emergency notification
- K-Class handheld extinguishers – to meet NFPA 96 code requirements

THE RESTAURANT FIRE SUPPRESSION SYSTEM IS CONSTRUCTED IN COMPLIANCE WITH THE FOLLOWING:

- UL/cUL Listed per UL 300 fire test specifications
- New York City Department of Buildings (MEA)
- Meets requirements of NFPA 96 (Standard for the Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment)
- Meets requirements of NFPA 17A (Standard for Wet Chemical Extinguishing Systems)
- ABS – American Bureau of Shipping
- UL Standard 2092 Listed (Piranha®)
Controls/Energy Management
Accurex understands the importance of managing the various relationships between your kitchen systems. It is because we understand your needs, that we provide many options to match your systems requirements.

Fan Control Center
Accurex’s fan control center manages all of the various power connections and relationships between the hoods, fans, make-up air and lighting from a single source. This makes controlling your kitchen systems much easier through one-stop control.

Vari-Flow Demand Controlled Ventilation
We realize that cooking loads vary throughout the day. Rather than having a fan and make-up air run constantly, all day long at full speed, we offer a variable volume ventilation system that tracks the cooking load and varies the exhaust and supply rate based on need. Thus, reducing operating costs primarily through decreasing fan speeds and energy required to move air.

Temperature Interlock
Accurex’s temperature interlock is designed and installed to automatically activate the exhaust fan(s), if not manually started, whenever cooking operations occur. The temperature interlock activates the fan(s) when cooking exhaust reaches the preset temperature. This control satisfies IMC code 507.1.1. It is also an option on our fan control center and standard on variable volume controls.

Accurex Variable Volume Systems are UL Listed to Standard 891
Accurex XFCC is UL Listed to Standard 891.

OVERVIEW
Accurex provides engineered custom controls for you to effectively manage your energy usage throughout the day and provide comfort and safety for everyone in your building.
Digital Temperature Interlock

Temp interlock is designed to automatically start the kitchen hood exhaust fans and keep them running while heat is being generated from the cooking appliances. The digital temperature interlock will override the switch and start the fans once heat is detected in the event an operator fails to turn on the fans manually—ensuring safety and code compliance. These systems are available as a stand-alone control or as an integrated option in our other pre-engineered controls.

• EASILY ADJUSTABLE Adjust the temperature set point through an accessible digital display or a set dial screw on the back of the temp sensor to adjust the temperature. This can be advantageous when trying to control several sensors, as they can be connected in parallel back to one small control.
• VERSATILE Use with both Type I and Type II hoods
• AUTOMATIC ACTIVATION Exhaust fans start when cooking equipment generates heat
• QUICK INSTALLATION Pre-installed or shipped ready for installation
• CYCLING PREVENTION Prevents fan from cycling on and off during variable cooking periods by use of temperature delay control, which keeps exhaust fans running until temperature drops below and remains below a given set point for a set time
• AUTOMATIC SHUT DOWN Turns off exhaust fans automatically once the temperature has dropped below the safety set point and remains there
• EFFICIENT Maximize efficiency by using one temperature interlock package per hood system (each temperature interlock activates all fans linked to system simultaneously)

Temperature Interlock

Accurex’s temperature interlock is designed and installed to automatically activate the exhaust fan, if not manually started, whenever cooking operations occur. The activation of the exhaust fan occurs through a temperature probe that detects an increased temperature and activates the fans. Accurex offers a stand-alone package as well as an option on our fan control center XFCC.

STAND-ALONE PACKAGE FEATURES:
• Temperature probe with adjustable temperature setting is factory-mounted in the exhaust collar
• Shipped loose for field installations for ship loose collars and J-box with open back and cover
• 8 in. x 8 in. relay box
• Single-Pole Double-Throw (SPDT) relay 1-100 minute time delay
• Terminal strip

TYPICAL MOUNTING LOCATIONS:
• Hood top
• Utility cabinet (hood or remote)
• Utility distribution system (UDS)
• Remote
Fan Control Center

Fan control centers manage the challenges of the various power connections and relationships to other equipment. The Accurex fan control center (XFCC) allows you to manage them from one location, with well-labeled connections and a variety of options to reduce installation and coordination time at the jobsite. The XFCC is prewired, meaning minimal field wiring is required for the main power and connection to fans and lighting. This eliminates, the often complex, field wiring that can lead to mistakes and job delays resulting in failed inspections. The XFCC offers clean, safe, and dependable control for the kitchen fans and hood lights. A variety of options are available.

STANDARD CONSTRUCTION FEATURES:
- Prewired
- UL Listed to Standard 891
- Magnetic motor starters
- Light and fan switch mounted on door (wall mounted only)
- Numbered terminal strip
- Color coded wiring with diagram mounted inside door
- Exhaust on in fire mode
- Thermal overloads in cabinet

FAN CONTROL CENTER OPTIONS:
- TRIM RING
  Cosmetic feature designed to trim out the XFCC when recessed into the wall
- REMOVAL OF STARTER WHEN SUPPLIED IN UNIT
  Option used when the starter for the fan is already supplied
- STATUS LIGHTS
  Lights that indicate a specific function is on. These lights can be either 24 or 120 Volt.
- EXTRA FIRE RELAYS
  Two optional fire relays to hook-up to other features as needed
- LIGHTS OUT IN FIRE
  Shuts connected lights off in the event of a fire
- SUPPLY FAN FAILURE INDICATOR LIGHT
  Lights up when the supply fan fails
- EXHAUST FAN FAILURE INDICATOR LIGHT
  Lights up when the exhaust fan fails
- SINGLE LIGHT/FAN SWITCH
  One switch that turns on all lights and fans
- POWER FOR SHUNT TRIP
  Prewired at the factory to provide power to the shunt trip. This option eliminates the need for field hook-up.
- AUTOMATIC DAMPER SWITCH
  Reset switch that opens the damper up again after fire triggered the damper to close
- TEMPERATURE INTERLOCK
  Designed and installed to automatically activate the exhaust fan, if not manually started whenever cooking operations occur. (See temperature interlock page 46 for details). Typically required by code.
Vari-Flow Demand Controlled Ventilation

Saving energy is as simple as recognizing that cooking loads vary throughout the day. Accurex’s Vari-Flow controls detect these changes in cooking activity and modulate the exhaust and supply air based on demand, thereby saving energy and reducing operating costs.

The Accurex Vari-Flow Air Management System utilizes strategically placed heat sensors to effectively monitor the cooking operation and quickly adjust airflow to meet the demand. Reducing energy during slower periods of the day reduces electrical energy consumption and decreases heating and cooling loads—all significantly reducing operating costs. See Figures 1-3 on page 50.

**EXCEPTIONAL TURNDOWN**

Industry-leading turndown capabilities on both exhaust and make-up air of up to 50%, resulting in up to 90% electrical savings and heating and cooling savings.

**CAPTURE TANK MOUNTED TEMPERATURE SENSOR**

Responds up to five times faster than duct mounted temperature sensors when sensing temperature change for excellent control and more efficient operation.

**SPACE PRESSURE CONTROL**

Control the supply air unit by sensing static pressure in the space, independent of the exhaust fan speed, to ensure proper room pressurization at all times.

**USER INTERFACE KEYPAD**

Membrane keypad to control hoods (fans), lights, manual override conditions and identify system events.

**USER INTERFACE TOUCHSCREEN WITH DIGITAL DISPLAYS**

- An intuitive, high-resolution touchscreen user interface with a simple tablet-based navigation.
- Independent fan and light control to consolidate systems and maximize both first cost and operating cost savings.
- Live system operation dashboard to monitor energy savings throughout the day as well as historical trending.
Melink® Intelli-Hood®

The Melink® Intelli-Hood® uses both heat sensors optic sensors to monitor the cooking operation and modulate the airflow. The optic sensors provide additional control, especially in large cooking batteries containing steamers, kettles and other similar appliances that produce a lot of smoke or steam.

PRODUCT FEATURES & ADVANTAGES:

• OPTIC SENSORS In addition to a primary temperature sensor in the duct collar, the Intelli-Hood system includes optic sensors to sense steam and/or smoke being generated from the cooking process. When as little as seven percent of the optics infrared beam is blocked, the exhaust fans are sent to full speed to capture the effluent.

• PROFESSIONAL SERVICE Melink includes a factory start-up with the purchase of their system. This start-up includes a site visit from a Melink field technician to ensure that the system is installed correctly and programmed based on the application. The technician will also provide basic training to operators present during the start-up.

• CONTROL LARGE SYSTEMS The system is designed to easily handle larger systems and can be easily programmed and monitored from its keypad control.

• INCREASED SAVINGS Reduces airflow by 50% or more during idle cooking periods generating more electrical, heating and cooling savings.
Variable Volume

The charts below are an example of how the cooking load in a typical restaurant varies throughout the day and how the temperature only variable volume system can work with the load and save money.

**FIGURE 1**
**TYPICAL DAILY COOKING LOAD**
**CONSTANT VOLUME CONTROLS**

The cooking load throughout the day varies significantly. The ventilation requirements of the kitchen operation must be sized based on the worst case (i.e. Dinner). The orange line shows fan operation at 100% as it would run in a constant volume control application.

**FIGURE 2**
**VARIABLE VOLUME SYSTEM**
**MATCHING AIRFLOW TO COOKING LOAD**

A variable volume system will track the cooking load (orange line) and vary the exhaust and supply ventilation. The area above the orange line represents the energy saved.
Utility Distribution Systems
OVERVIEW
With a unique spacing of gas and water connections, it’s easy to make changes or to simply rearrange cooking equipment.

Water

**MAIN BALL VALVES**
On incoming service to provide a main shutoff at the unit

**GAUGES**
Available for either pressure/temperature or pressure only

**FILL FAUCET**
With 60-inch hose

**WATER HOSES**
Available in lengths of 48-, 60- or 72-inches

**WATER FILTERS**
Available in single appliance and multiple appliance styles

**HOT AND COLD WATER DROPS**
3/4-inch diameter and placed every 24 inches

**SHOCK ARRESTORS**
To prevent water hammering that typically occurs when the water is shut off

**PRESSURE REDUCING VALVE**
Is used when the water pressure entering the UDS is too high. The reducer valve reduces the pressure to an appropriate level (typically 40-60 psi).

**HAND SINK**
Available mounted on the riser. Sink is 12 inches wide.

**HOSE REEL ASSEMBLY**
Mounted on one of the risers and is available for auxiliary hoses

**BALL VALVES**
Available from 1/4-, 3/8-, 1/2- and 3/4-inch for shutoff at each connection along the chase

Gas

**MAIN BALL VALVES**
On incoming service to provide a main shutoff at the unit

**EMERGENCY SHUTOFF VALVES**
Mechanical or electrical valves to cut off gas in case of alarm

**ALTERNATING GAS DROPS**
3/4- and 1¼-inch drops every 12 inches along the length of the unit

**GAS HOSES**
Available in 48-, 60- or 72-inch lengths

**BALL VALVES**
Available in 1/2, 3/4, 1, and 1¼ inches for shutoff at each connection along the chase.

**GAS TYPES**
Single or looped for additional capacity for larger systems

**SUPERSWIVEL CONNECTIONS**
Prevent kinks and gas hose twisting

**GAS RESTRINGING**
Prevent accidental strain on gas lines by preventing excessive appliance motion
**Electrical**

**PRIMARY ELECTRICAL SERVICE**
Choose from panel board or point-of-use breakers. Main breaker and branch breakers are provided with primary electrical service. See table below for available sizes.

<table>
<thead>
<tr>
<th>Breaker</th>
<th>Voltage</th>
<th>Phase</th>
<th>Min Size (Amp)</th>
<th>Max Size (Amp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
<td>480 or 208</td>
<td>3</td>
<td>40</td>
<td>400</td>
</tr>
<tr>
<td>Branch</td>
<td>120</td>
<td>1</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>Branch</td>
<td>208</td>
<td>1</td>
<td>20</td>
<td>70</td>
</tr>
<tr>
<td>Branch</td>
<td>208</td>
<td>3</td>
<td>20</td>
<td>125</td>
</tr>
<tr>
<td>Branch</td>
<td>480</td>
<td>3</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

**ELECTRICAL RECEPTACLES**
120 or 208 Volt based on need and the receptacles. NEMA configuration is straight blade with an available twist lock option in 120/1-20A GFCI (GFCI not available with twist lock). Optional cordset is available.

**CONTROLS**
For the primary electrical service option that includes optional status lights, fire system connection, optional light or fan switches, gas solenoid control panel (with a solenoid gas valve), optional emergency shutdown and prewired tempering switch, if required.

**SECONDARY ELECTRICAL SERVICE**
Choose from panel board or point-of-use breakers. Main breaker and branch breakers are provided with secondary electrical service. See table below for available sizes.

<table>
<thead>
<tr>
<th>Breaker</th>
<th>Voltage</th>
<th>Phase</th>
<th>Min Size (Amp)</th>
<th>Max Size (Amp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
<td>120 or 208</td>
<td>1</td>
<td>40</td>
<td>400</td>
</tr>
<tr>
<td>Branch</td>
<td>120</td>
<td>1</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>Branch</td>
<td>208</td>
<td>1</td>
<td>20</td>
<td>70</td>
</tr>
<tr>
<td>Branch</td>
<td>208</td>
<td>3</td>
<td>20</td>
<td>125</td>
</tr>
</tbody>
</table>

**ADDITIONAL UTILITIES AND OPTIONS**
- Steam / condensate system
- Chilled water line with insulation
- Compressed air line
- Gasketed construction
- Weatherproof receptacle / switch covers
- While-in-use receptacle covers
- 12 x 12-inch viewing window in riser
- Hinged access doors on risers
- Water filter bracket on chase
- 10 foot conduit for wiring to hood lights
- Ground fault equipment protection
- XFCC mounted in riser
- Variable volume system mounted in riser
- Temperature interlock mounted in riser
Residential Range Hood
Cooking is the leading cause of residential building fires. An estimated average of 165,000 cooking fires occur annually, resulting in property loss, injuries and even death.

Residential buildings typically rely on portable fire extinguishers and sprinkler systems to protect property and occupants. Portable extinguishers require early use and manual intervention to contain fires, while sprinkler systems act as a final measure of protection.

The Residential Range Hood is a dual purpose device. It is a both a ventilation hood and a self-contained fire suppression system. The hood is designed for use above residential style appliances in commercial settings, such as:

- Assisted living facilities
- Office lunchrooms
- Churches
- Military housing
- Extended stay hotels

**HOW DOES IT WORK?**

The Accurex Residential Range Hood, model XRRS, monitors the hood temperature through integrated temperature sensors. In the event of rising temperatures, the hood will:

- De-energize appliance using supplied disconnect
- Signal an audible alarm
- Engage auxiliary building alarm contacts

If the hood temperature continues to climb or a fire starts, a fusible link will melt. This will release a wet chemical suppression agent through nozzles, suppressing the cooking fire.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fusible Link</td>
<td>Reliable mechanical fire detection</td>
</tr>
<tr>
<td>Appliance Disconnect</td>
<td>De-energizes appliance if hood temperature climbs too high</td>
</tr>
<tr>
<td>Amerex® 660 Wet Chemical Agent</td>
<td>Quickly suppresses flames - cleans up with soap and water</td>
</tr>
<tr>
<td>Audible Alarm</td>
<td>Alerts occupants of fire danger</td>
</tr>
<tr>
<td>ECM Fan Motor</td>
<td>Adjustable fan speed for odor and sound control</td>
</tr>
</tbody>
</table>

Dimensional data shown is for standard top discharge hood. NFPA 101 compliant accessories may change hood height, depending on configuration.

The ETL Listed Mark is accepted as a product’s mark of compliance to applicable electrical, gas and other safety standards. Intertek is an OSHA recognized NRTL (National Recognized Testing Laboratory) and accredited as a Testing Organization and Certification Body by the Standards Council of Canada.
Can simplicity in kitchen ventilation be taken too far?

We’ll let you know.

At Accurex®, we believe working with kitchen ventilation systems should be one of the easiest parts of designing and building commercial kitchens. So we do more than engineer and manufacture advanced, energy-efficient systems. We make it easy for you to specify Accurex products, by simplifying the process, being responsive and getting you information quickly. Discover how simple works, at ACCUREX.COM