



Breathe easy.

Blue Book

April 2020



A SMARTER KITCHEN
IS IN THE AIR.



Breathe easy.

There's one ingredient that's important in every kitchen: the air. Trust Gaylord, the kitchen air management specialists, to help boost productivity, improve efficiency and enhance your overall working environment—all while lowering your long-term cost of operation.

- **EL Series Ventilation** – Our Eliminator pollution control ventilator and full line of light to extra heavy-duty hoods are designed to boost efficiency, reduce costs and deliver the industry's best air volume performance
- **Demand Control Ventilation** – Our smart read and react technology modulates when needed, as needed –saving energy and money
- **Gaylord Distributor™ Utility Distribution System**
 - An attractive, pre-engineered UDS unit that provides all required services to the cooking equipment
- **Pollution Control Units** – From the manufacturer who's been clearing the air longer than anyone else, the Eliminator pollution control ventilator and both of our ClearAir™ PCUs offer you three options to abate smoke and odor
- **Premier Services** – Everything to ensure that your requirements are always met, including our custom design team, 150+ factory-trained sales professionals and an extensive national network of service agencies to keep you up and running



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THE GREATEST RANGE OF OPTIONS FOR THE LOWEST VOLUMES OF AIR.

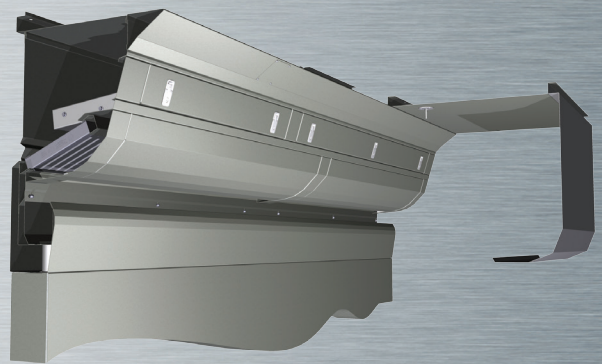
Gaylord's EL Series Ventilation Systems deliver the best air volume performance in the industry. For cooking applications from extra heavy- to light-duty, our ELXC, ELX and EL are all custom designed to boost efficiency, reduce costs and save energy.

ELXC. The ultimate in performance, productivity and value.

The best-in-class ELXC harnesses the power of nature to deliver the absolute lowest air volumes available in any hood, anywhere. Unlike other systems that rely on expensive mechanical devices or excessive canopies, the ELXC utilizes the energy produced naturally during cooking to manage air—saving you energy, boosting efficiency and reducing operating costs.

The ELXC also offers the industry's best grease extraction* with our Clean-In-Place technology that automatically eliminates grease without having to remove, transport, wash and replace filters—increasing productivity and reducing risk.

- Simple, automatic cleaning process yields much more thorough results than manual efforts and means you never have to skip a cleaning
- Uses up to 30% less water than other designs, reducing utility costs and saving energy
- CFM airflow volumes are up to 49% lower than other systems, so you can use smaller HVAC equipment that costs much less to buy and operate
- Noise levels are as much as 27% below others, reducing hearing fatigue and improving staff productivity



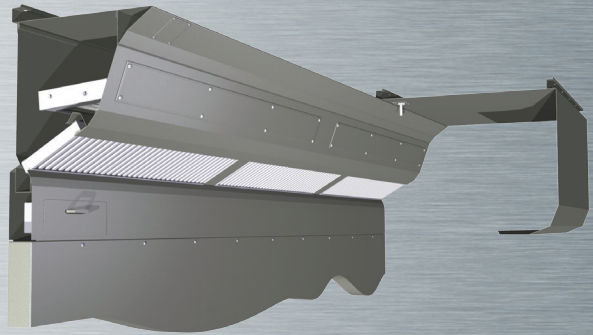
- Static pressure resistance up to 65% below others saves energy by reducing motor size and electrical loads
- Grease extraction collection efficiencies are up to 33% higher than other systems, reducing the time and labor needed to clean ducts
- Ultraviolet option provides additional grease protection in longer duct runs and odor reduction at discharge
- Balancing dampers are standard—fire dampers optional (fusible or thermostatic)

* Per VDI 2052

ELX. Working with nature to achieve the lowest air volumes.

By capturing and containing the natural thermal plume that rises from the cooking process, the ELX is able to achieve the lowest air volumes—without the costly fans, plenums, jets, side curtains and other devices that competing ventilation designs utilize. Plus, it features the best grease extraction* of any dry hood on the market.

- Achieves the most energy savings and efficiency of any ventilation system available
- CFM airflow volumes are up to 31% lower than other systems, so you can use smaller HVAC equipment that costs much less to buy and operate
- Noise levels are as much as 27% below others, reducing hearing fatigue and improving staff productivity
- Static pressure resistance up to 65% below others saves energy by reducing motor size and electrical loads



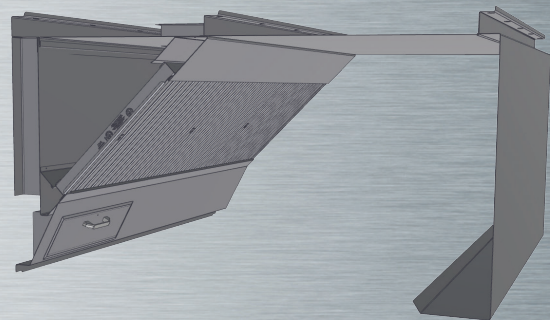
- Grease extraction efficiencies using the optional XGS Extractor are up to 33% higher than other systems, reducing the time and labor needed to clean ducts
- Ultraviolet option provides additional grease protection in longer duct runs and odor reduction at discharge
- Balancing dampers are standard—fire dampers optional (fusible or thermostatic)

* Per VDI 2052

EL. The light-duty hood that's no lightweight.

Offering the best air volumes over ovens and kettles, our new EL Series ventilator is a robust, cost-effective solution that's ideal for a variety of light-duty applications. Based on performance and price, it's simply the best light-duty hood you can buy.

- Super Capture™ lip on the front panel enhances capture and containment
- Optional XGS High Efficiency Grease Extractor significantly reduces duct cleaning and fire hazards
- Compatible with our smart read and react Demand Control Ventilation (DCV) system to deliver additional energy and fan savings, noise reduction, increased occupant comfort and reduced wear on HVAC equipment
- Optional 300 stainless steel construction for added durability, corrosion resistance and cleanliness



- Balancing damper standard
- Can be equipped with incandescent, fluorescent or high-efficiency LED lights



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ENERGY EFFICIENCY IS IN THE AIR.



Designed to enhance indoor air quality, boost efficiency and reduce operational costs



All standard hoods and DCV products meet CA Title 24 requirements



Revolutionizes the way airflow is managed, with unmatched energy savings and user-friendly touch control panel

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SHOW SMOKE AND ODOR WHO'S BOSS.



Meet Gaylord's innovative Eliminator Pollution Control Ventilator. The first ventilator of its kind, the Eliminator is designed to meet the growing need to abate smoke and diminish odor in a small, cost-effective footprint. Its in-hood integration eliminates the need for a stand-alone pollution control unit in a mechanical room or rooftop location, freeing up valuable space and eliminating capital costs. Because of the Eliminator's easy-to-access in-hood placement, cleaning and maintenance are simpler than ever.

Its streamlined construction allows for design flexibility and reduced capital costs. There are additional savings due to the reduced need for hot water, electrical and sewage infrastructure, depending on the size and layout of your operation.

Explore the benefits of Gaylord's revolutionary Eliminator:

- High-efficiency XGS grease extractor, super-charged ultraviolet (UV) and smoke pollution control (ESP) built into one integrated ventilator with an overall height of 30"
- The Eliminator's in-hood integration eliminates the need for remote PCU installation and provides operators with the ability to optimize potential revenue-generating space where larger, traditional units would be housed
- Electrostatic smoke pollution control reduces visual smoke emission to industry-accepted standards
- Odor negation technology improves the quality of air at the point of discharge
- UV technology significantly reduces the potential fire load and need for duct cleanings
- Automatic Clean-In-Place water wash technology ensures cleaning of the XGS grease extractor, UV and ESP sections—reducing the need for regular removal to clean individual parts in the plenum chamber



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**If you're going
to dish it out,
choose the
extractor that
can take it in.**

- Up to 96% efficiency on particulate between 5-7 microns
- Very low resistance, down to 0.13" under minimum operating conditions
- Durable & efficient to operate, the XGS Extractor is constructed with 18-gauge perimeter and 24-gauge interior stainless steel
- The XGS Extractor is tested to VDI 2052 standards
- ETL Listed to UL 710

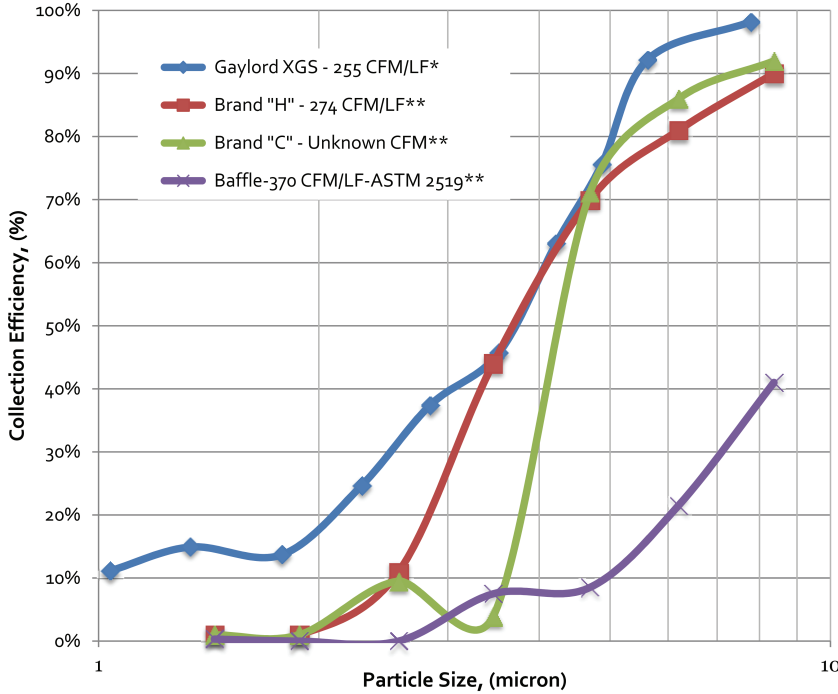
XGS **EXTRACTOR**



Maximizing capture and containment, minimizing fire hazards and creating a safe and productive kitchen environment.

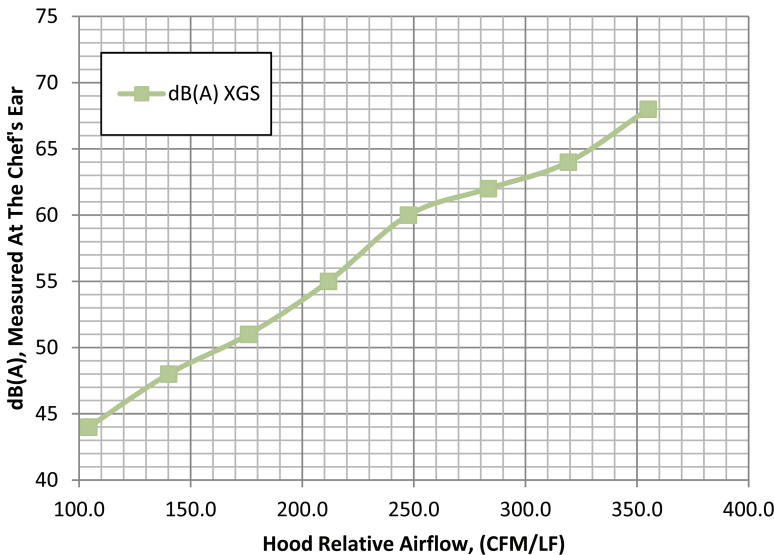
Extractor Remover Tool included - no climbing or ladders required

The XGS Extractor is up to 96% efficient on particulate between 5 and 7 microns!



* XGS Data collected utilizing VDI 2052 Pt1 Sept '99 by DMT GmbH & Co. KG.
 ** Comparison Brands Based on Manufacturer Publications.

Reduced noise levels without sacrificing performance XGS Sound Production, dB(A)...



Typical Annual Duct Cleaning Costs & Savings XGS Extractor vs. Standard Baffle Filter

	Cost Using Standard Baffle Filter*	Cost Using XGS Extractor**	Total Savings Using XGS Extractor
1 st Quarter	\$500	\$100	\$400
2 nd Quarter	\$500	\$100	\$400
3 rd Quarter	\$500	\$100	\$400
4 th Quarter	\$500	\$500	\$0
Total	\$2,000	\$800	\$1,200

* Based on national average cleaning costs for one 10' hood with heavy-duty cooking equipment and 12' of duct.
 ** Based on three inspections and one cleaning per year.

XGS EXTRACTOR

Maximizing capture and containment, minimizing fire hazards and creating a safe and productive kitchen environment.

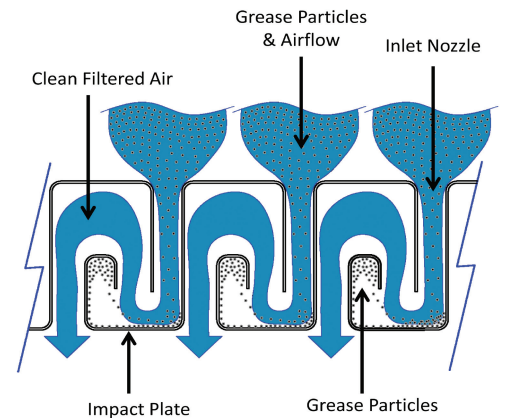
A kitchen that produces a high grease volume can't depend on an overtaxed baffle hood system. But it can depend on the Gaylord XGS High-Efficiency Grease Extractor.

Ordinary conversations range from 60-70dB, standard commercial kitchen hoods vary from 65-75dB making it difficult to hear in a professional kitchen but the XGS hums at 55dB representing almost a 25% reduction in hood noise over the competition.

Grease extraction so efficient, it's patented. The XGS Extractor process delivers the absolute optimum collection efficiency at the lowest possible pressure drop by utilizing what's known as "inertial impaction". The XGS Extractor accelerates the grease-laden vapor and particulate, then "crashes" it into an impact plate. Collected material is moved off the impact plate and into a low pressure zone, where it drains out of the system - Capture and Drain technology automatically isolates extracted grease maintaining consistent airflow and efficient capture and containment.

Because the XG Extractor is so effective at collecting grease and transporting that material out, clogging is prevented and airflow is not disrupted. The XGS Extractor is so efficient we had to increase our grease cup to 64 ounces versus the competitors' standard 8 ounce grease cup.

The XG extractor not only reduces grease, but it also reduces costs. Better grease extraction means less duct cleaning. See figure bottom left.



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 Email: info@gaylordventilation.com
 U.S. Patent N° 8,157,894, B2

AIRFLOW CONTROL ALL OVER YOUR KITCHEN. SAVINGS LIKE NEVER BEFORE.



3D Model Design, Dennis Martinez/RevEquip & 3D Visualization, Deep Sky Studios

Efficient, cost-effective and easy to use, AirVantage revolutionizes the way airflow is managed in your kitchen. AirVantage's sensible heat-based system utilizes resistance temperature detectors (RTDs) mounted in hood canopies to detect heat with improved accuracy and speed. Its flexible design takes our smart read and react Demand Control Ventilation (DCKV) technology to the next level. AirVantage is the perfect energy-saving solution to control airflow and create a more comfortable kitchen environment.

It features a state-of-the-art learning function that auto-calibrates airflow for each hood based on sensible heat temperature readings of kitchen zones—providing airflow when you need it, where you need it. As an industry leader in energy savings technology, Gaylord's AirVantage fulfills multiple energy and green building requirements, including ASHRAE 90.1 and 189, California's Title 24 and International Energy Conservation codes.

Experience the unmatched value of AirVantage with extended equipment life cycle, increased energy savings and decreased operating costs.

With AirVantage's flexible design, Gaylord's kitchen air management specialists have the expertise to determine the best solution for your project requirements. Both systems can reduce airflow to as low as 30% of original design, with fan energy savings of 25–70% and overall airflow savings of 10–50% depending on system design.

AirVantage Options Include:

- Dampered system—Offers optimized savings and efficiencies using modulating dampers for multiple hood/single fan operations (DCV-AV)
- Non-dampered system—Offers great value and performance for single hood/single fan operations (DCV-AVND)

- The AirVantage DCV system allows control of entire kitchen ventilation using one easy-to-read/operate touch screen control panel
- Full color 7"x 4.3" touch screen displays equipment status, energy savings values, troubleshooting and maintenance alerts
- Streamlined programming for easy system startup
- Auto-balancing and commissioning functions implemented during installation manage hood design information
- RS485 BACnet/IP and analog feedback for detailed systems monitoring
- Runtime data for energy and operational savings available on touch screen or for USB download
- Illuminated, programmable hood-mounted 100% Fan Override button allows fan to be adjusted to maximum speed if needed
- Robust and maintenance-friendly RTDs measure the differences in sensible heat—monitoring a zone, not just one piece of equipment
- Advanced learning capability tunes the system automatically based on weekly operation
- Service alerts available on touch screen control panel communicate filter maintenance and technician service when required
- Canopy light management maximizes energy savings
- Precise replacement air control regulates building pressurization
- Presents as a compact wall-mounted control box



AirVantage Damper System Features:

- Unique damper optimization enhances airflow, minimizes exhaust volumes and maintains capture and containment, providing optimal energy savings in multiple zones simultaneously (DCV-AV only)
- System self-calibrates damper airflow for each hood daily (DCV-AV only)



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EVERYTHING YOUR KITCHEN EQUIPMENT NEEDS TO PERFORM.

EXCEPT THE CHEF.

The Gaylord Distributor™ is a cutting-edge Utility Distribution System (UDS) that's superior to a contractor-built wall—in every way. Designed for today's modern kitchen with the operator's needs in mind, the Distributor provides every required service—electrical, gas, hot and cold water, steam, condensate return, compressed air and chilled water—to the cooking equipment, all in an attractive, pre-engineered unit. Available in a variety of configurations including island, wall-mounted and ceiling, the Distributor delivers the ultimate in flexibility, expandability, safety, cleanliness and convenience.

- Each unit is custom designed with 25% extra capacity to assure space, function, service line compatibility and expandability with your cooking equipment line-up
- All electrical and plumbing services can be easily relocated or expanded for rearrangement of the cooking equipment, or adding additional equipment to an existing line-up
- UL, ULC, NSF and CSA listed, and complies with NEC and AGA, assuring acceptance by local authorities
- Single point field connection for all utilities
- Fits perfectly between the ventilator and the risers
- Inspection panels allow easy access to all plumbing and electrical components in both the raceway and the risers
- Quick disconnect fittings with flexible hoses and power cords allow the equipment to be easily moved for cleaning or maintenance
- Optional equipment includes plumbing fixtures, pot fillers and security packages
- Cook/chill housing and controls
- The UDS is classified as an appliance and—unlike a contractor-built wall—can be put on a seven-year depreciation life, improving the rate of return



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NO ONE HAS BEEN CLEARING THE AIR LONGER THAN GAYLORD.



As concern for air quality grows, and environmental regulations require commercial kitchens to incorporate pollution control equipment into their exhaust systems, it simply makes sense to rely on the manufacturer that's been doing it longer than anyone else: Gaylord.

With our ClearAir™ Pollution Control Units (PCUs), we offer you an unmatched experience and technical knowledge in designing the most efficient, cost-effective systems—guaranteed.

ClearAir™ PCU ESP (Electrostatic Precipitator) Series

- Removes smoke particles by high voltage ionization using electrostatic cells—the most reliable and cost-effective method
- Water-wash system automatically washes the electrostatic cells daily using the least amount of water of any equipment on the market
- Custom designed to kitchen exhaust requirements up to 32,000 CFM
- Robust smoke control using ionized collector plates specially designed to protect against cell warpage
- Provided with sprinkler or liquid chemical internal fire protection system
- Optional exhaust fan and odor abatement equipment available

ClearAir™ PCU TPF (Triple Pass Filter) Series

- Utilizes a 95% efficient triple pass filter system—based on stringent DOP test at 0.3 microns—to mechanically remove smoke and odors
- Features standard smoke control, plus optional odor control and exhaust fan sections
- Custom designed to kitchen exhaust requirements up to 32,000 CFM
- Heavy-duty construction is suitable for indoor and outdoor installations
- Provided with sprinkler or liquid chemical internal fire protection system
- Can be shipped in one piece or in sections to facilitate entry and installation



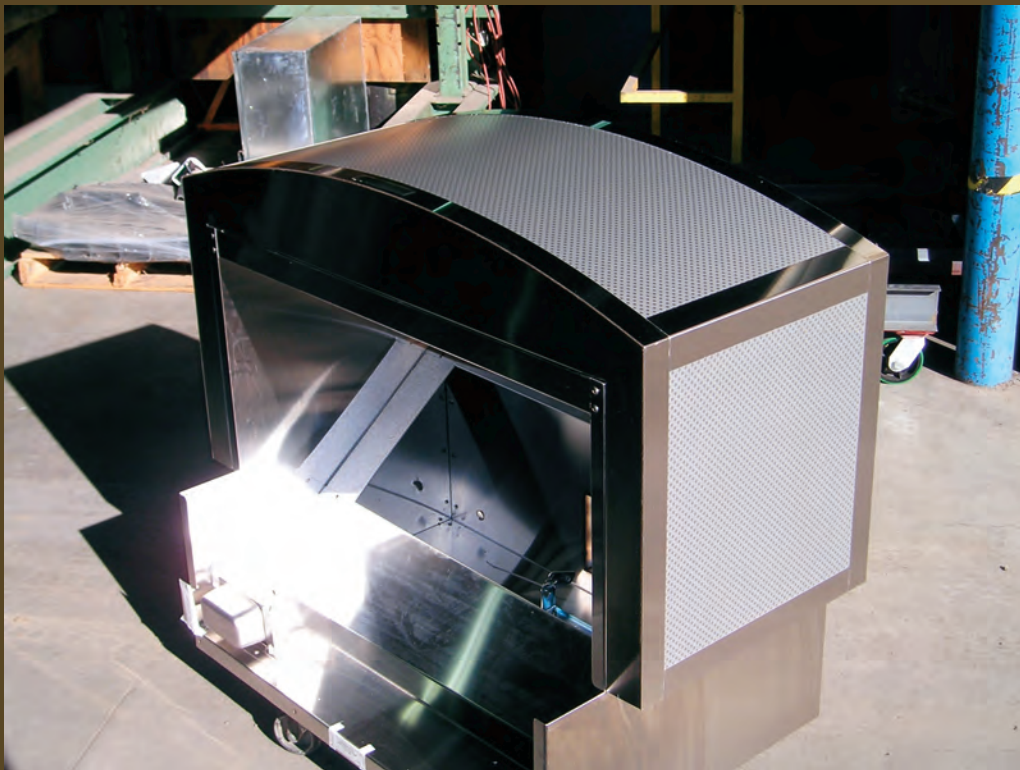
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SUPERIOR, CUSTOM-ENGINEERED
COMMERCIAL KITCHEN EXHAUST SYSTEMS





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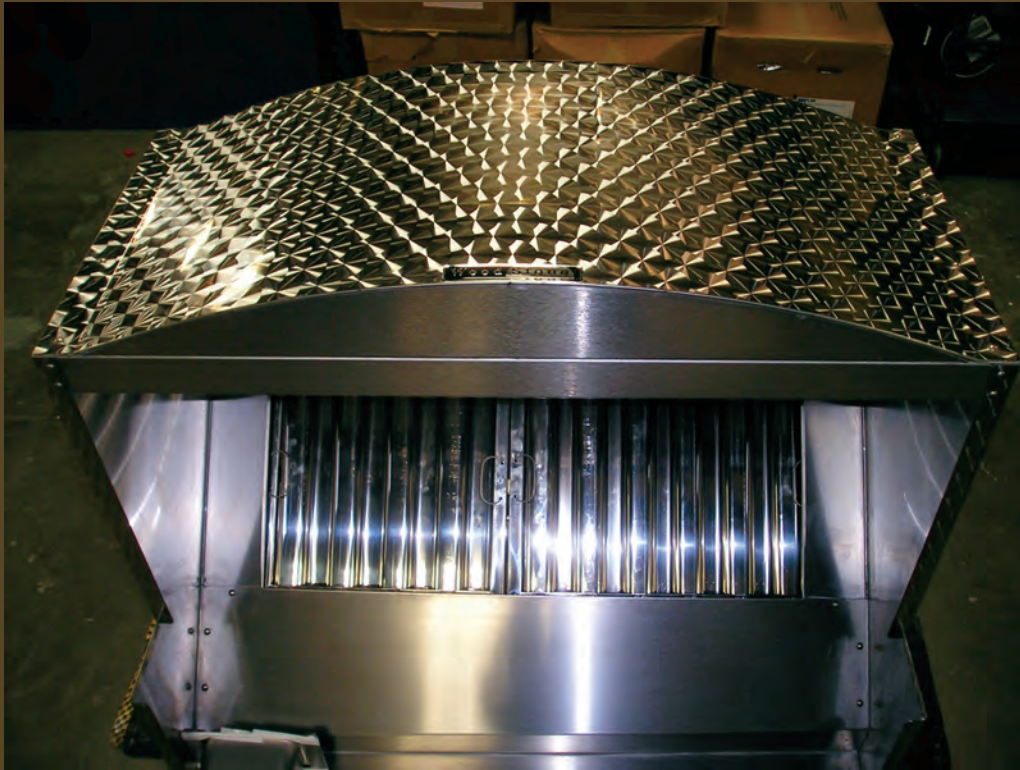


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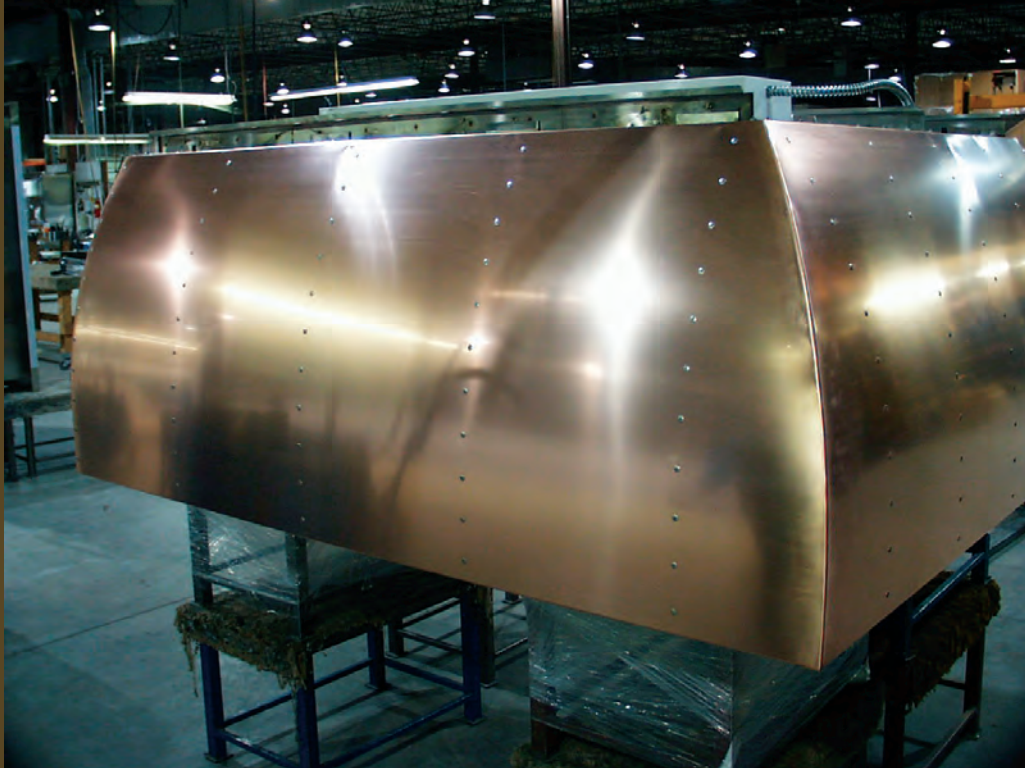


SUPERIOR, CUSTOM-ENGINEERED
COMMERCIAL KITCHEN EXHAUST SYSTEMS





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SUPERIOR, CUSTOM-ENGINEERED
COMMERCIAL KITCHEN EXHAUST SYSTEMS



MODEL "EL"

FILTER HOOD

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "EL-_____" as shown on plans and in accordance with the following specifications:

GENERAL: Each ventilator shall be designed specifically for the cooking equipment being covered. The ventilator shall include a stationary grease collecting gutter at the bottom of the grease filter, sloped to a drain at one end to a built-in stainless steel grease drawer. The sloped gutter shall be concealed by an apron which extends the full length of the hood. Each ventilator shall contain one or more standard aluminum baffle filters. The filters and grease drawer shall be easily removable.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: The minimum airflow rates shall be 3rd party tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

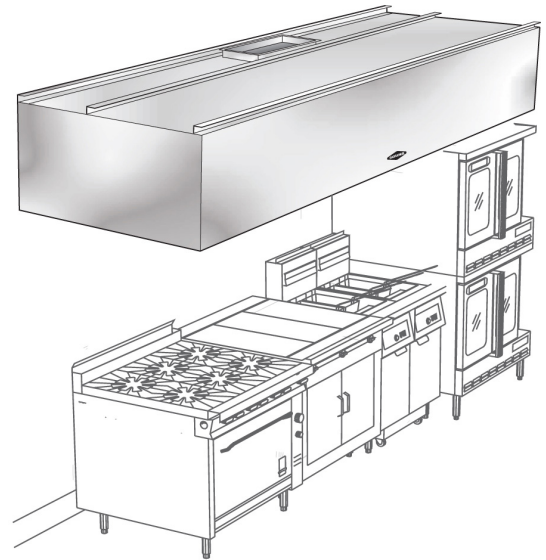
CONSTRUCTION: The ventilator shall be of 430 stainless steel construction with a standard square front, not less than 18 gauge, with a number 4 finish on all exposed surfaces. The ventilator shall include a "Super Capture"™ lip on the front panel for efficient capture and containment. Continuous front and rear mounting brackets shall be provided to facilitate flexible mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Slide Gate Balancing Damper (SD) that adjusts manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

<input type="checkbox"/> Recessed LED	6 Watts/Ft. Min.
<input type="checkbox"/> Recessed fluorescent	12 Watts/Ft. Min.
<input type="checkbox"/> 100 watt surface mounted incandescent	24 Watts/Ft. Min.
<input type="checkbox"/> 150 watt recessed incandescent	36 Watts/Ft. Min.

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 3" air space conforming to NFPA-96 and IMC when mounting against a limited combustible wall. Each ventilator shall be Listed to UL Standard 710, ULCS646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.



APPLICATION

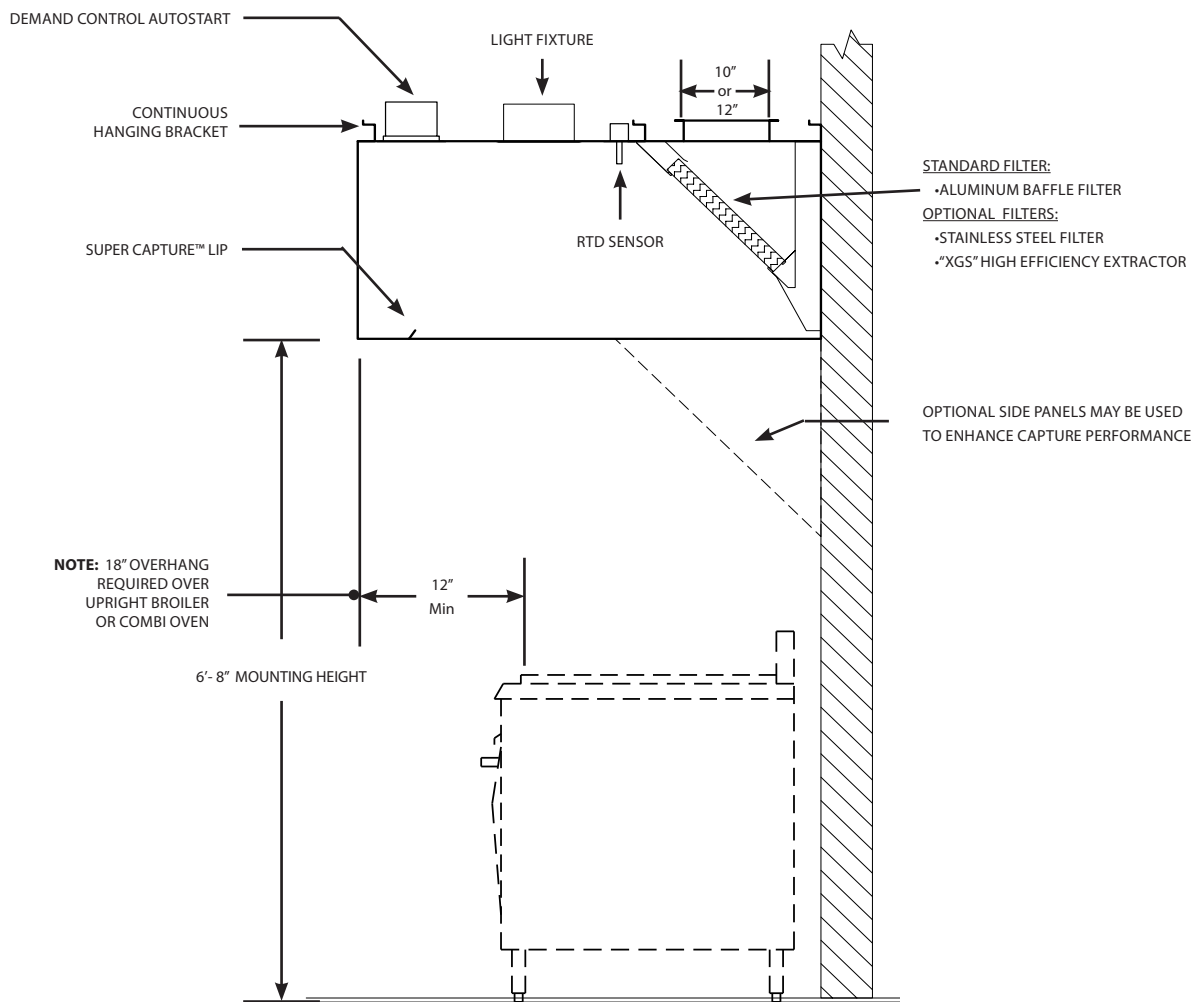
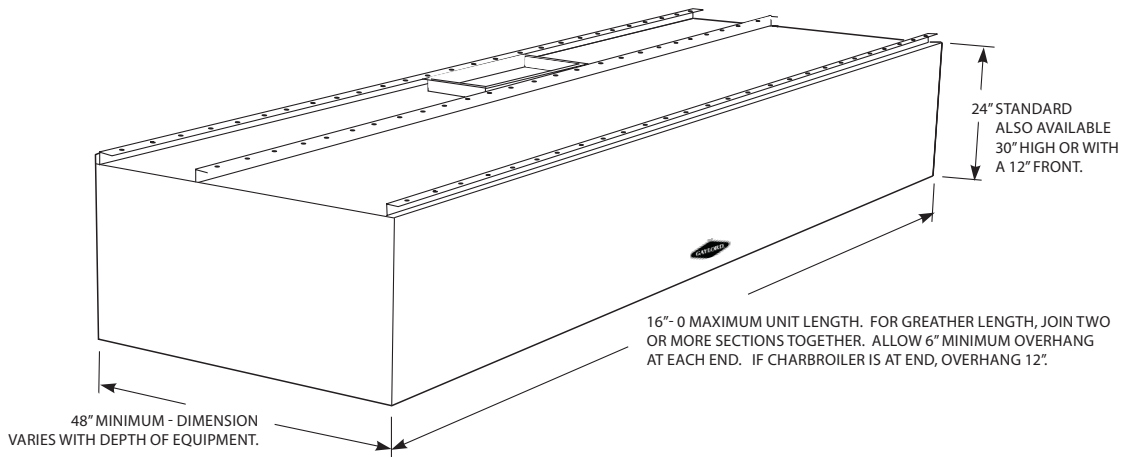
Wall mounted canopy for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Cost Effective CKV Solution
- Low Air Volumes For Light Duty
- Low Profile Design
- Balancing Damper

OPTIONAL EQUIPMENT

- 300 Series Stainless Steel
- Stainless Steel Baffle Filters
- "XGS" High Efficiency Extractors
- Spark Arrestor Baffle Filters
- Faceted Front
- Decorative Facings and Trim
- Demand Control Ventilation
- Fire Extinguishing Systems
- Utility Distribution Systems
- Pollution Control Systems



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

A Gaylord stop/start switch, Model C-150, may be provided as an option for each exhaust fan. Lights to be on separate circuit, 120 volt standard, 220/240 volt optional.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

Hanging Weight

Ventilator Width	48"	54"	60"
Ventilator Wt. / Lineal Ft.	Lbs. 70	75	80

MODEL "EL-BB"

FILTER HOOD

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "EL-BB _____" as shown on plans and in accordance with the following specifications:

GENERAL: Each ventilator shall be designed specifically for the cooking equipment being covered. The ventilator shall include a stationary grease collecting gutter at the bottom of the grease filter, sloped to a drain at one end to a built-in stainless steel grease drawer. The sloped gutter shall be concealed by an apron which extends the full length of the hood. Each ventilator shall contain one or more standard aluminum baffle filters. The filters and grease drawer shall be easily removable.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: The minimum airflow rates shall be 3rd party tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

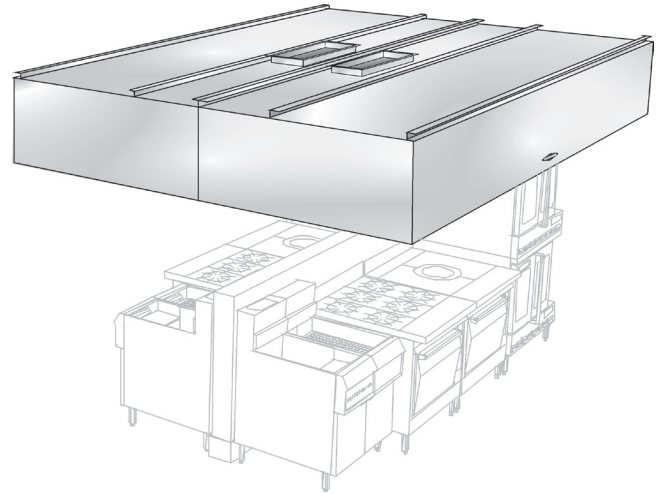
CONSTRUCTION: The ventilator shall be of 430 stainless steel construction with a standard square front, not less than 18 gauge, with a number 4 finish on all exposed surfaces. The ventilator shall be configured with two separate exhaust plenums. The ventilator shall include a "Super Capture"™ lip on the front panel for efficient capture and containment. Continuous front and rear mounting brackets shall be provided to facilitate flexible mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Slide Gate Balancing Damper (SD) that adjusts manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- | | |
|--|-------------------|
| <input type="checkbox"/> Recessed LED | 6 Watts/Ft. Min. |
| <input type="checkbox"/> Recessed fluorescent | 12 Watts/Ft. Min. |
| <input type="checkbox"/> 100 watt surface mounted incandescent | 24 Watts/Ft. Min. |
| <input type="checkbox"/> 150 watt recessed incandescent | 36 Watts/Ft. Min. |

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 3" air space conforming to NFPA-96 and IMC when mounting against a limited combustible wall. Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.



APPLICATION

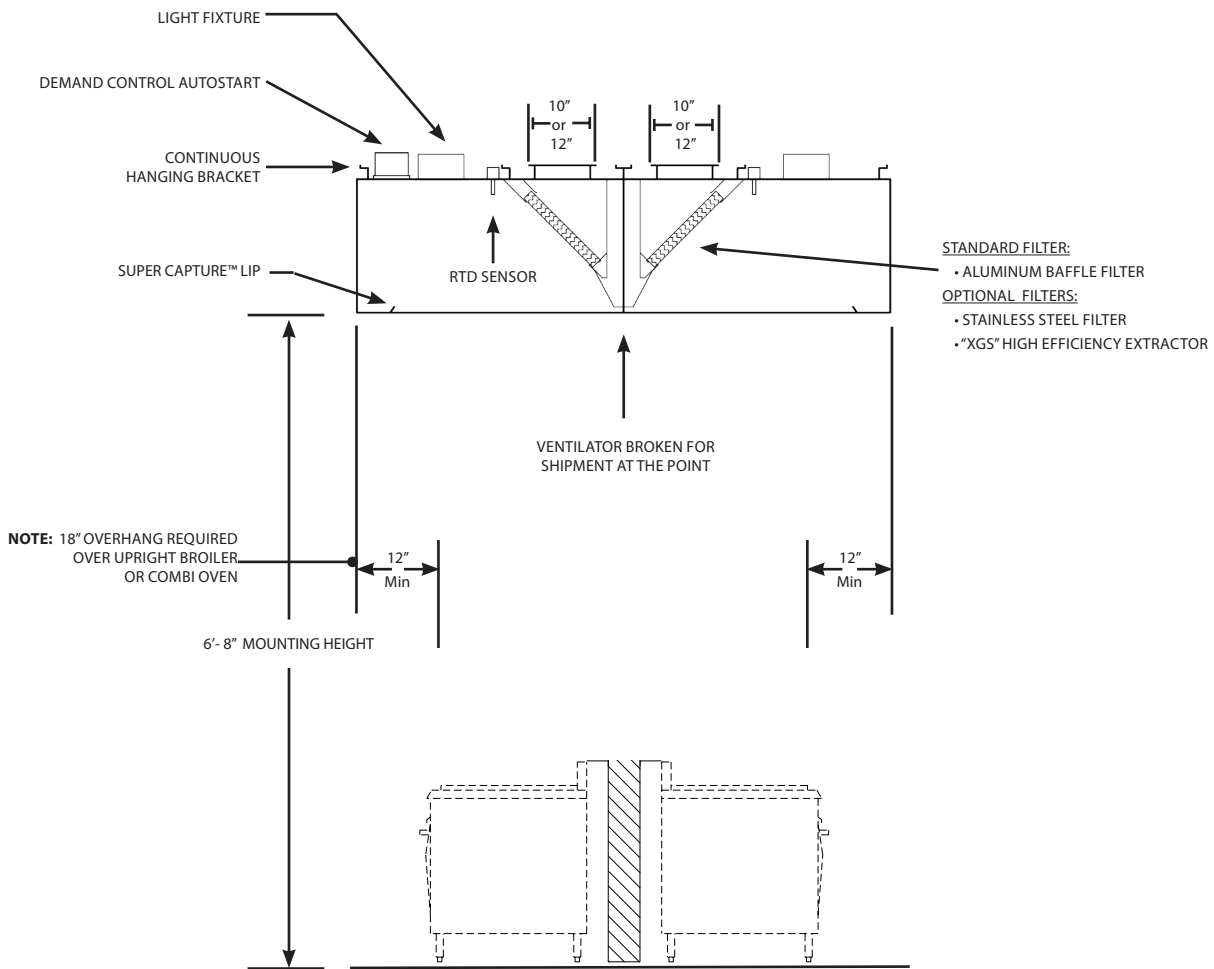
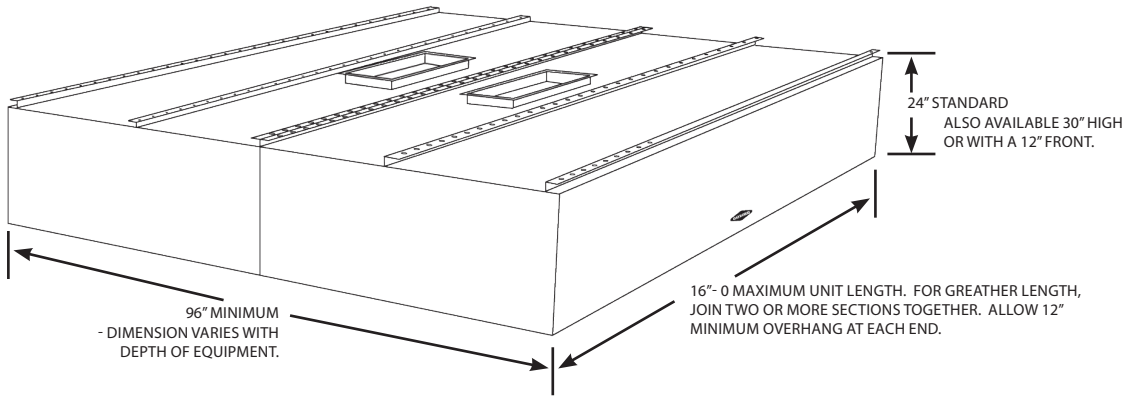
Island style for all double island arrangements.

DESIGN FEATURES

- Demand Control Autostart
- Cost Effective CKV Solution
- Low Air Volumes For Light Duty
- Low Profile Design
- Balancing Damper

OPTIONAL EQUIPMENT

- 300 Series Stainless Steel
- Stainless Steel Baffle Filters
- "XGS" High Efficiency Extractors
- Spark Arrestor Baffle Filters
- Faceted Front
- Decorative Facings and Trim
- Demand Control Ventilation
- Fire Extinguishing Systems
- Utility Distribution Systems
- Pollution Control Systems



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

A Gaylord stop/start switch, Model C-150, may be provided as an option for each exhaust fan. Lights to be on separate circuit, 120 volt standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

Hanging Weight

Ventilator Width	96"	108"	120"
Ventilator Wt. / Lineal Ft.	Lbs. 140	150	160

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "EL-BBC-CL"

FILTER HOOD

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "EL-BBC-CL _____" as shown on plans and in accordance with the following specifications:

GENERAL: Each ventilator shall be designed specifically for the cooking equipment being covered. The ventilator shall include a stationary grease collecting gutter at the bottom of the grease filter, sloped to a drain at one end to a built-in stainless steel grease drawer. The sloped gutter shall be concealed by an apron which extends the full length of the hood. Each ventilator shall contain one or more standard aluminum baffle filters. The filters and grease drawer shall be easily removable.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: The minimum airflow rates shall be 3rd party tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

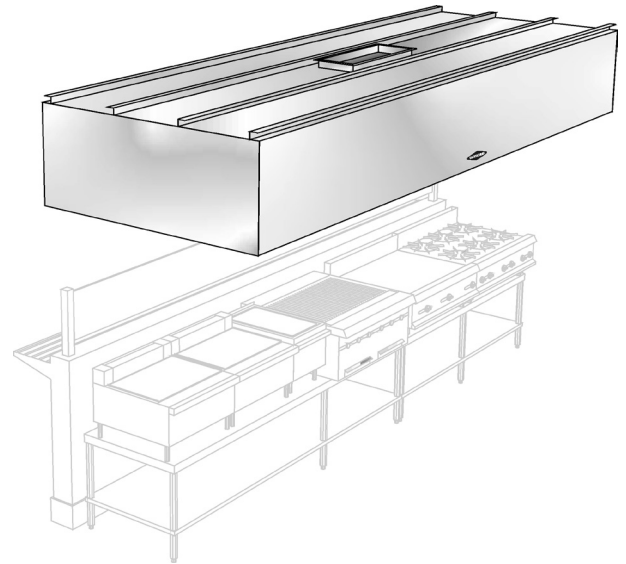
CONSTRUCTION: The ventilator shall be of 430 stainless steel construction with a standard square front, not less than 18 gauge, with a number 4 finish on all exposed surfaces. The ventilator shall be configured with two separate exhaust plenums. The ventilator shall include a "Super Capture"™ lip on the front panel for efficient capture and containment. Continuous front and rear mounting brackets shall be provided to facilitate flexible mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Slide Gate Balancing Damper (SD) that adjusts manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- | | |
|--|-------------------|
| <input type="checkbox"/> Recessed LED | 6 Watts/Ft. Min. |
| <input type="checkbox"/> Recessed fluorescent | 12 Watts/Ft. Min. |
| <input type="checkbox"/> 100 watt surface mounted incandescent | 24 Watts/Ft. Min. |
| <input type="checkbox"/> 150 watt recessed incandescent | 36 Watts/Ft. Min. |

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 3" air space conforming to NFPA-96 and IMC when mounting against a limited combustible wall. Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.



APPLICATION

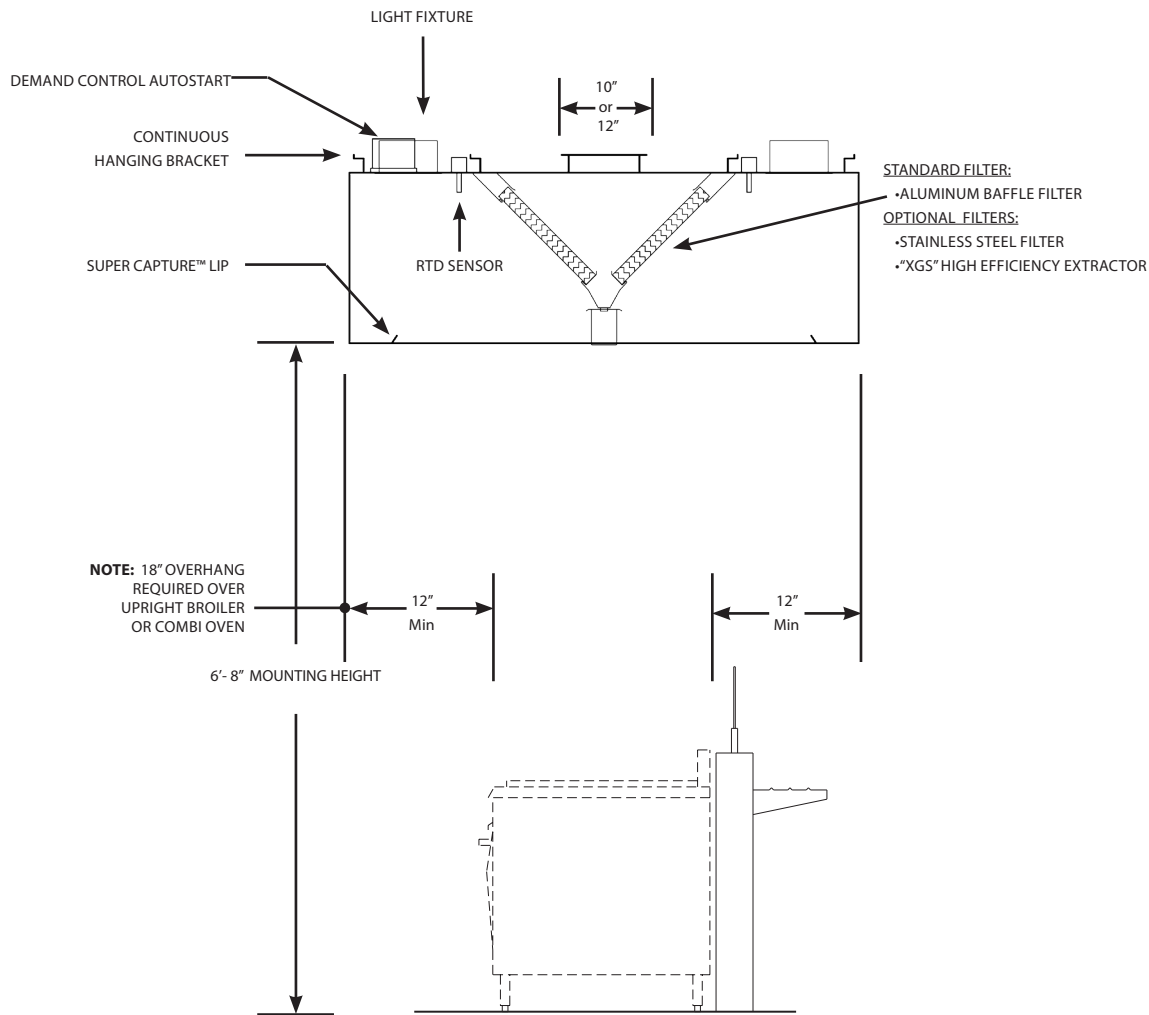
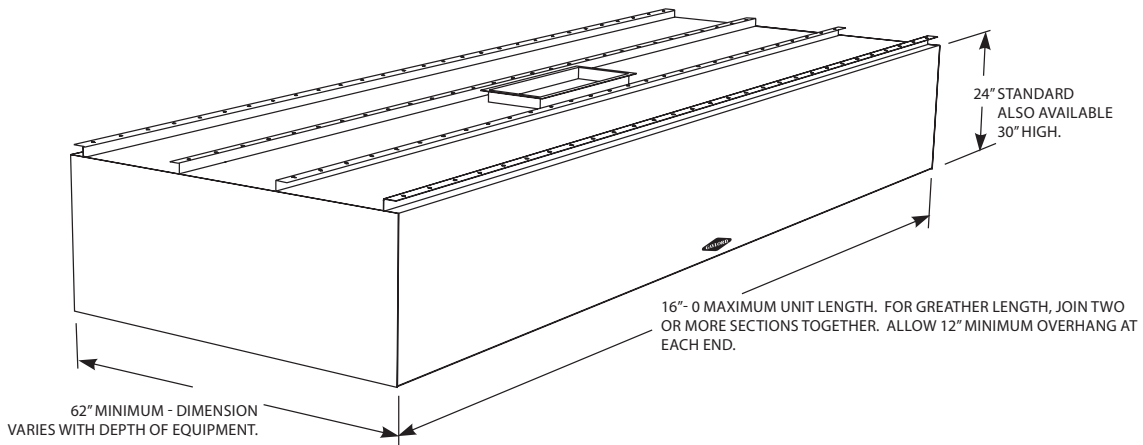
Used for cafeteria lines or single island arrangements for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc..

DESIGN FEATURES

- Demand Control Autostart
- Cost Effective CKV Solution
- Low Air Volumes For Light Duty
- Low Profile Design
- Balancing Damper

OPTIONAL EQUIPMENT

- 300 Series Stainless Steel
- Stainless Steel Baffle Filters
- "XGS" High Efficiency Extractors
- Spark Arrestor Baffle Filters
- Faceted Front
- Decorative Facings and Trim
- Demand Control Ventilation
- Fire Extinguishing Systems
- Utility Distribution Systems
- Pollution Control Systems



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

A Gaylord stop/start switch, Model C-150, may be provided as an option for each exhaust fan. Lights to be on separate circuit, 120 volt standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

Hanging Weight

Ventilator Width	62"	66"	72"
Ventilator Wt. / Lineal Ft.	Lbs. 105	110	115

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "EL-CL" FILTER HOOD

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "EL-CL _____" as shown on plans and in accordance with the following specifications:

GENERAL: Each ventilator shall be designed specifically for the cooking equipment being covered. The ventilator shall include a stationary grease collecting gutter at the bottom of the grease filter, sloped to a drain at one end to a built-in stainless steel grease drawer. The sloped gutter shall be concealed by an apron which extends the full length of the hood. Each ventilator shall contain one or more standard aluminum baffle filters. The filters and grease drawer shall be easily removable.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: The minimum airflow rates shall be 3rd party tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

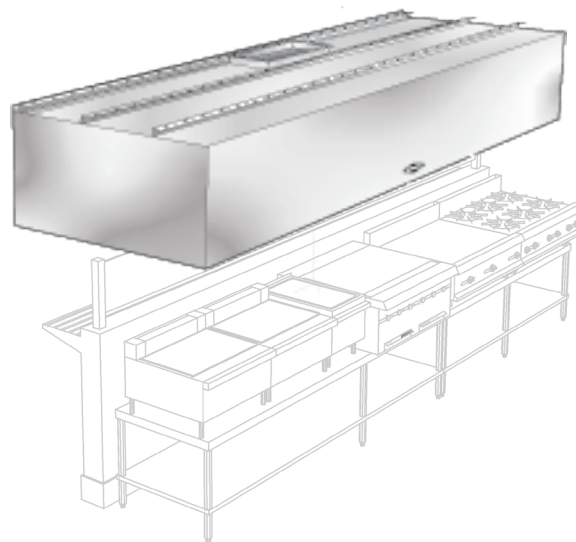
CONSTRUCTION: The ventilator shall be 430 stainless steel construction with a standard square front, not less than 18 gauge, with a number 4 finish on all exposed surfaces. The ventilator shall include a "Super Capture"™ lip on the front panel for efficient capture and containment. Continuous front and rear mounting brackets shall be provided to facilitate flexible mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Slide Gate Balancing Damper (SD) that adjusts manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- | | |
|--|-------------------|
| <input type="checkbox"/> Recessed LED | 6 Watts/Ft. Min. |
| <input type="checkbox"/> Recessed fluorescent | 12 Watts/Ft. Min. |
| <input type="checkbox"/> 100 watt surface mounted incandescent | 24 Watts/Ft. Min. |
| <input type="checkbox"/> 150 watt recessed incandescent | 36 Watts/Ft. Min. |

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 3" air space conforming to NFPA-96 and IMC when mounting against a limited combustible wall. Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards with XGS High Efficiency Extractors tested to ASTM 2519-2005.



APPLICATION

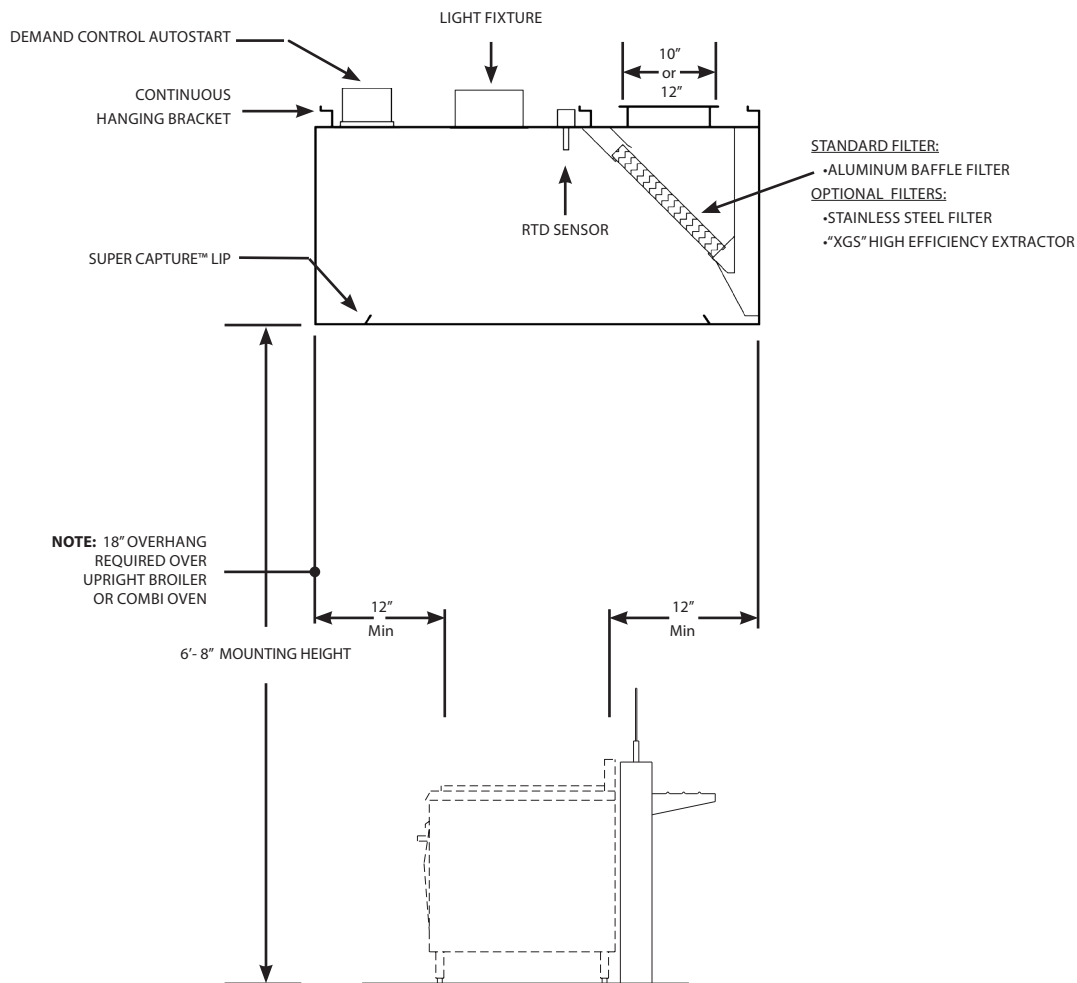
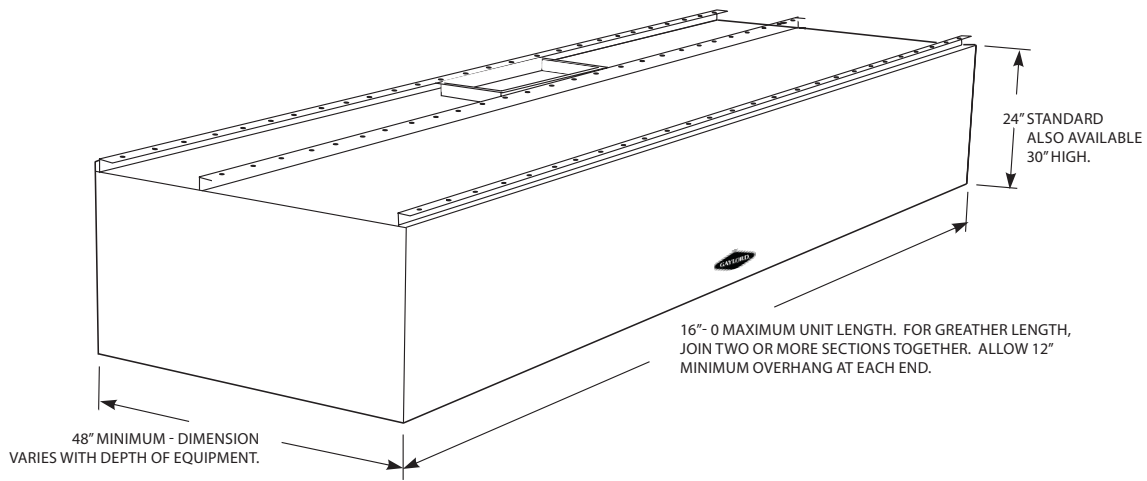
Used for cafeteria lines or single island arrangements when covering light to medium duty cooking equipment. (Note: 400 CFM/Lineal Foot maximum exhaust volume.) Not to be used over heavy duty equipment including woks and gas or solid fuel charbroilers.

DESIGN FEATURES

- Demand Control Autostart
- Cost Effective CKV Solution
- Low Air Volumes For Light Duty
- Low Profile Design
- Balancing Damper

OPTIONAL EQUIPMENT

- 300 Series Stainless Steel
- Stainless Steel Baffle Filters
- "XGS" High Efficiency Extractors
- Spark Arrestor Baffle Filters
- Faceted Front
- Decorative Facings and Trim
- Demand Control Ventilation
- Fire Extinguishing Systems
- Utility Distribution Systems
- Pollution Control Systems



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

A Gaylord stop/start switch, Model C-150, may be provided as an option for each exhaust fan. Lights to be on separate circuit, 120 volt standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'- 0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

Hanging Weight

Ventilator Width	48"	54"	60"
Ventilator Wt. / Lineal Ft.	Lbs. 75	80	85

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "ELX"

HIGH EFFICIENCY EXTRACTOR VENTILATOR

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELX-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The ventilator shall include an integrated capture wall to achieve its airflow rates. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

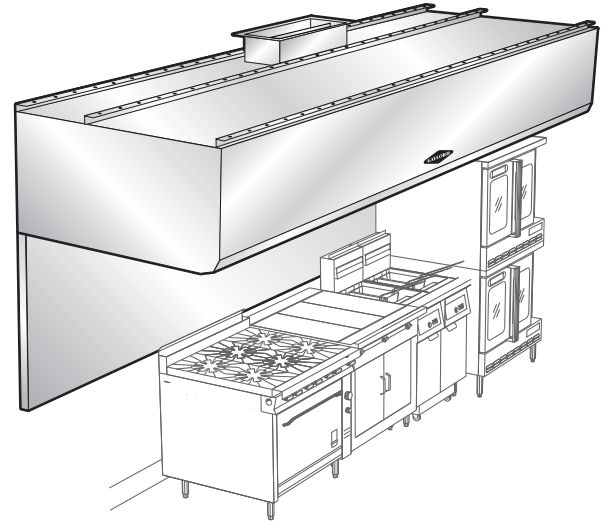
CONSTRUCTION: The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- | | |
|---|-------------------|
| • Recessed LED | 6 Watts/Ft. Min. |
| • Recessed fluorescent | 12 Watts/Ft. Min. |
| • 100 watt surface mounted incandescent | 24 Watts/Ft. Min. |
| • 150 watt recessed incandescent | 36 Watts/Ft. Min. |

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 1" air space at the rear that is Listed for reduced clearance to combustibles, and is NFPA-96 and IMC compliant when mounting against a combustible wall. Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.

**APPLICATION**

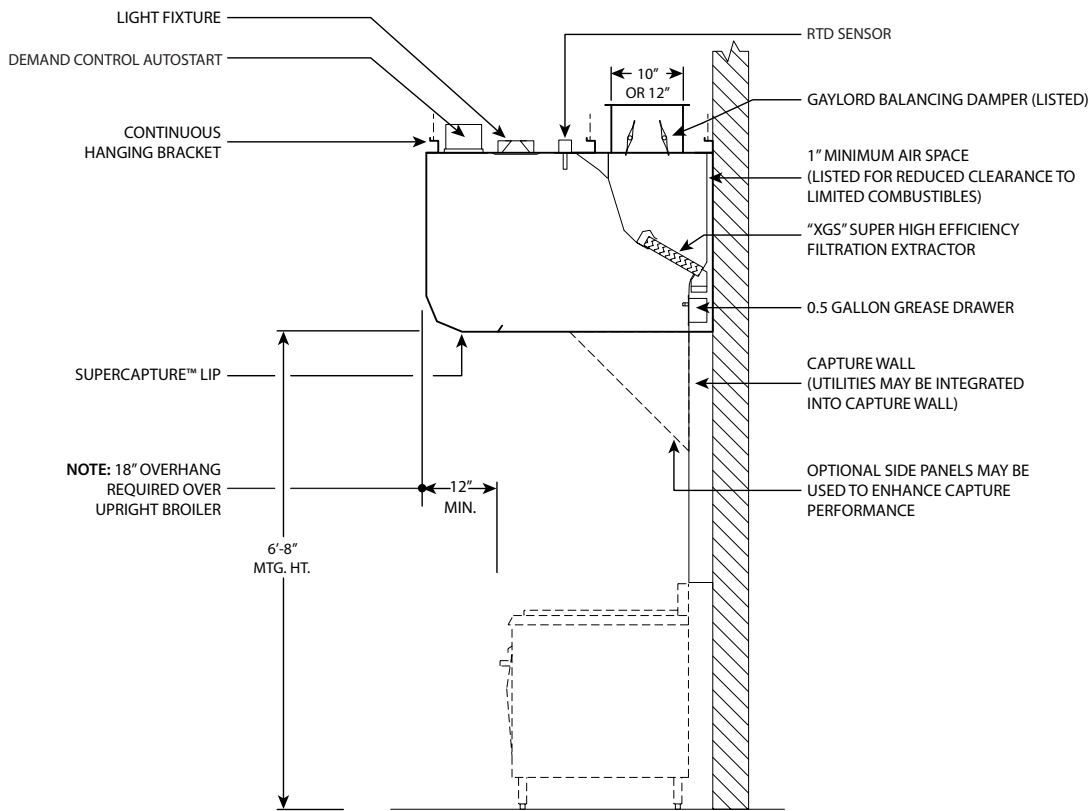
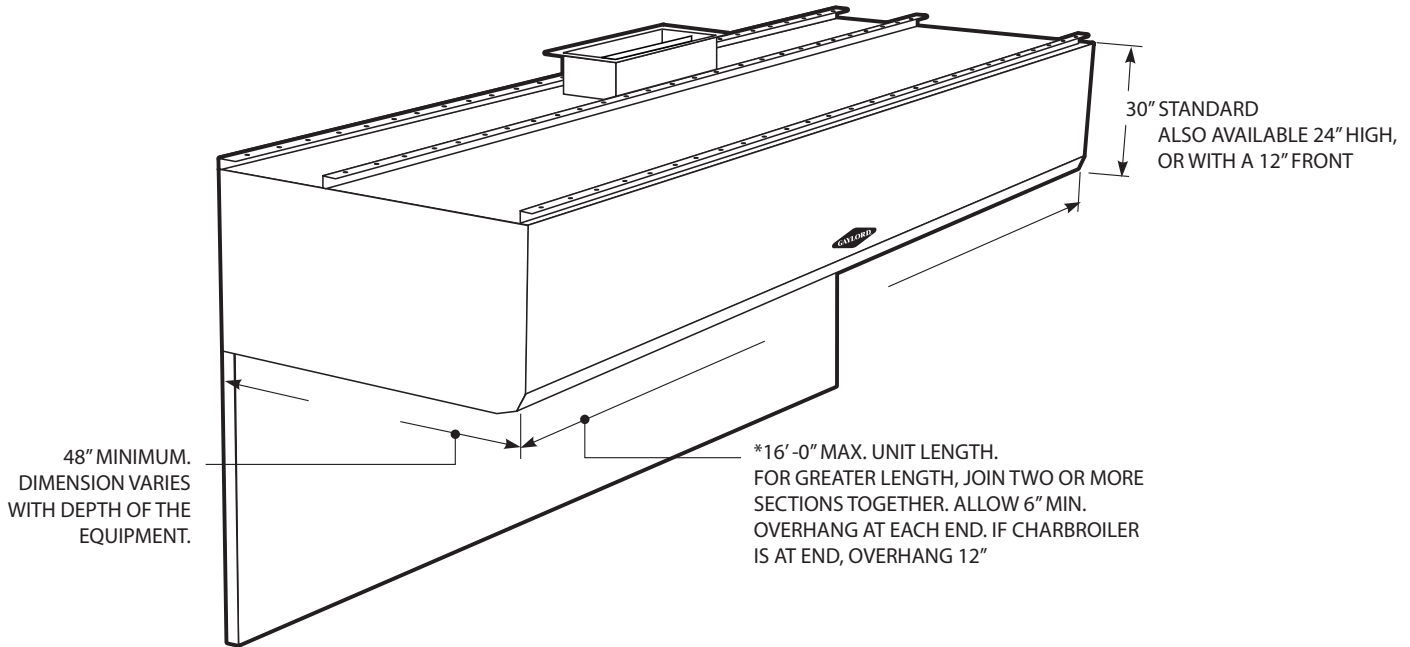
Wall mounted canopy for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip
- Integrated Capture Wall

OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

A Gaylord stop/start switch, Model C-150, may be provided as an option for each exhaust fan. Lights to be on separate circuit, 120 volt standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width		48"	54"	60"
Ventilator Wt. / Lineal Ft.	Lbs.	70	75	80
Capture Wall Wt. / Lineal Ft.	Lbs.	20	20	20

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "ELX-BB"

HIGH EFFICIENCY EXTRACTOR VENTILATOR

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELX-BB-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/applianceports/hoods/>

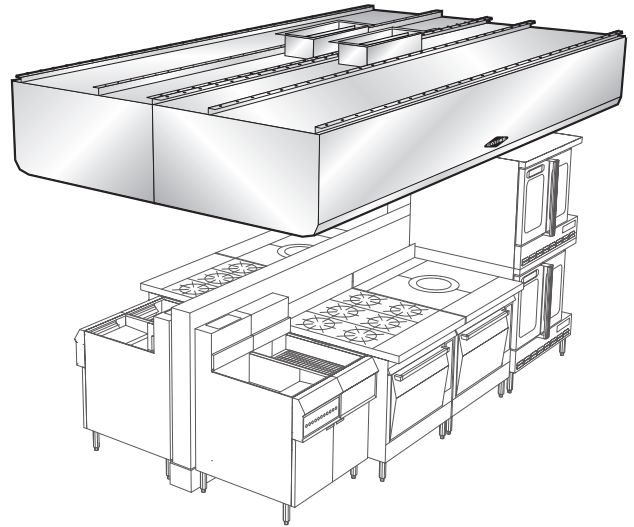
CONSTRUCTION: The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The ventilator shall be configured with two separate exhaust plenums. The ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- Recessed LED 6 Watts/Ft. Min.
- Recessed fluorescent 12 Watts/Ft. Min.
- 100 watt surface mounted incandescent 24 Watts/Ft. Min.
- 150 watt recessed incandescent 36 Watts/Ft. Min.

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.

**APPLICATION**

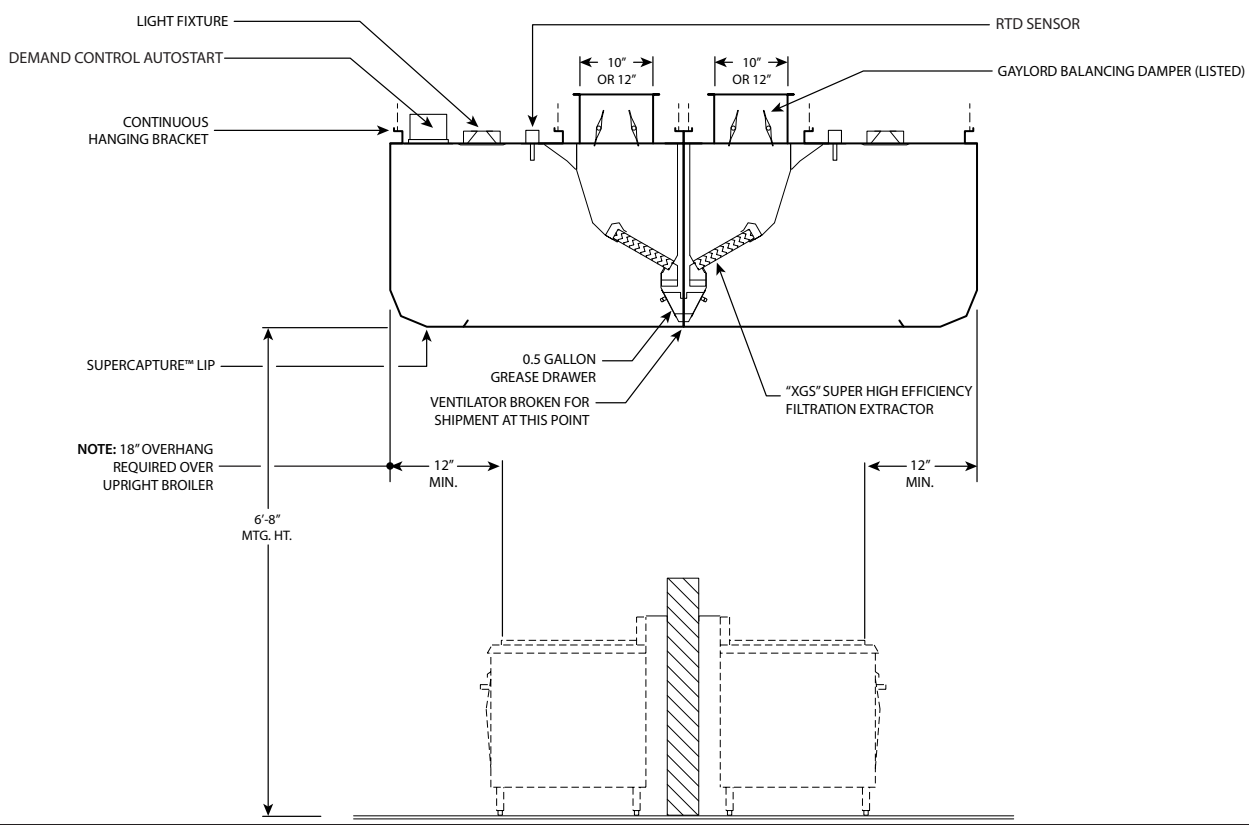
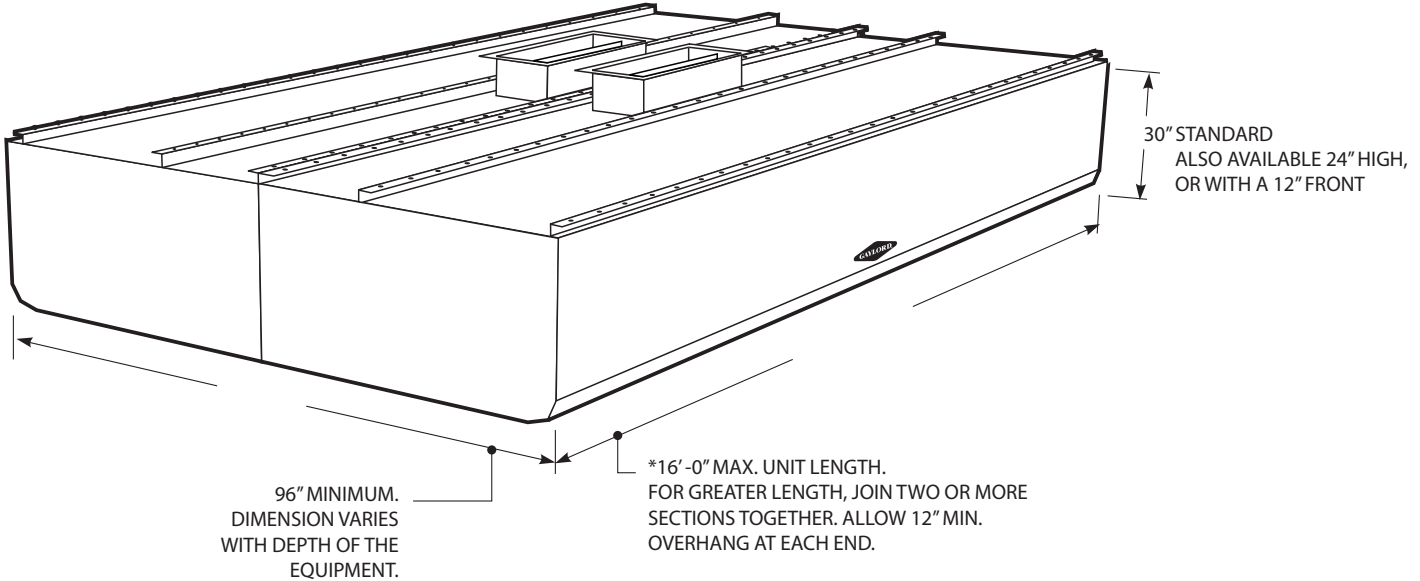
Island style for all double island arrangements

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip

OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

A Gaylord stop/start switch, Model C-150, may be provided as an option for each exhaust fan. Lights to be on separate circuit, 120 volt standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

*Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	96"	108"	120"	132"
Wt. / Lineal Ft.	Lbs. 140	150	160	170

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "ELX-BBC-CL"

HIGH EFFICIENCY EXTRACTOR VENTILATOR

ITEM NO. _____

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELX-BBC-CL _____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

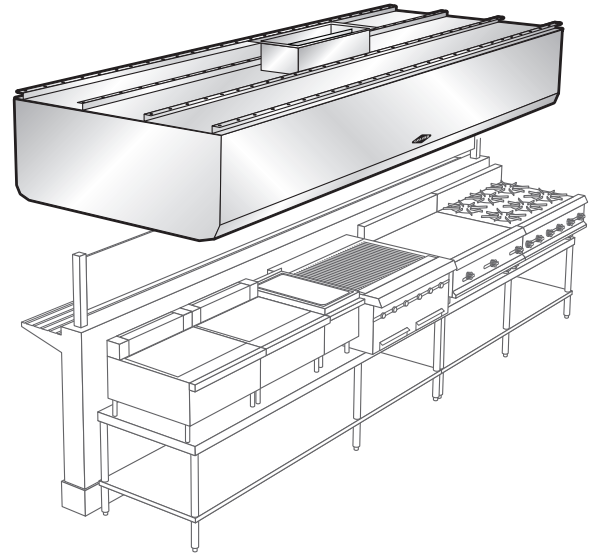
CONSTRUCTION: The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The ventilator shall include a "V" bank arrangement of "XGS" High Efficiency Extractors. The ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- Recessed LED 6 Watts/Ft. Min.
- Recessed fluorescent 12 Watts/Ft. Min.
- 100 watt surface mounted incandescent 24 Watts/Ft. Min.
- 150 watt recessed incandescent 36 Watts/Ft. Min.

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards with XGS High Efficiency Extractors tested to ASTM 2519-2005.

**APPLICATION**

Used for cafeteria lines or single island arrangements for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip

OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

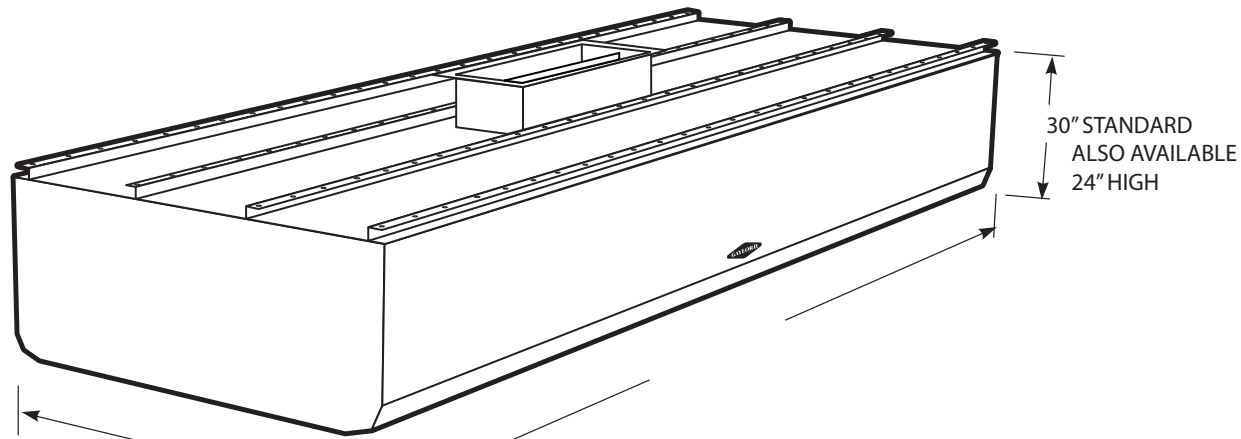


Intertek

Intertek

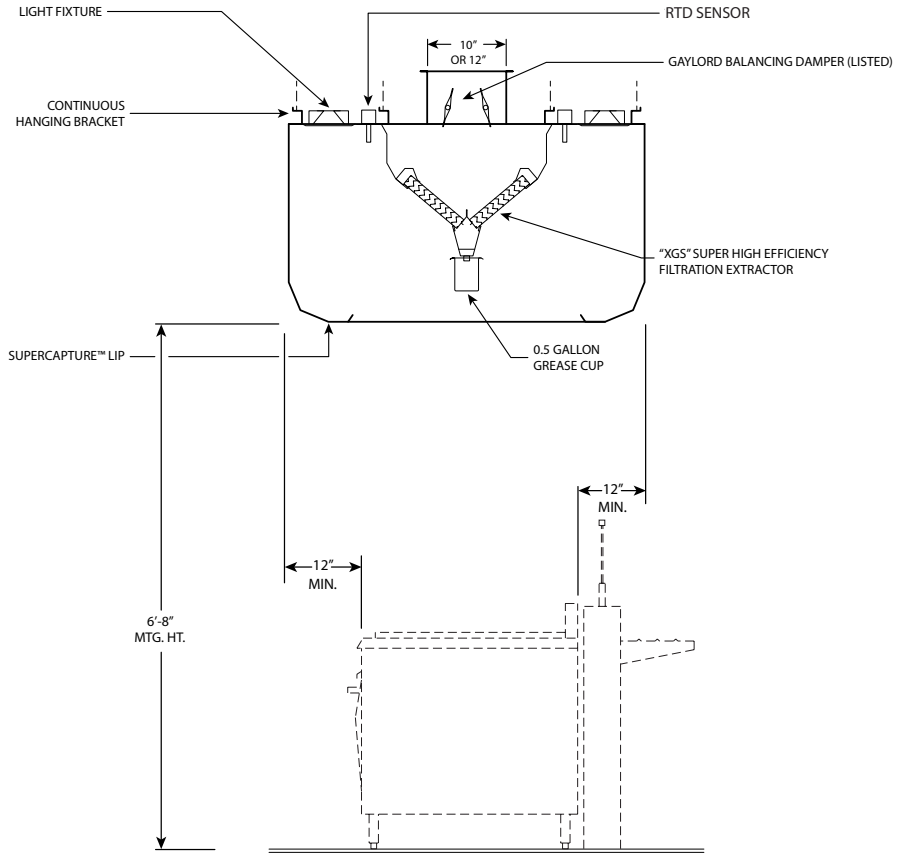
GAYLORD INDUSTRIES

10900 SW AVERY ST • TUALATIN, OREGON 97062 U.S.A.
 PHONE: 800.547.9696 • FAX: 503.692.6048 • email: info@gaylordventilation.com
www.gaylordventilation.com



54" MINIMUM.
DIMENSION VARIES
WITH DEPTH OF THE
EQUIPMENT.

*16'-0" MAX. UNIT LENGTH.
FOR GREATER LENGTH, JOIN TWO OR MORE
SECTIONS TOGETHER. ALLOW 12" MIN.
OVERHANG AT EACH END.



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

A Gaylord stop/start switch, Model C-150, may be provided as an option for each exhaust fan. Lights to be on separate circuit, 120 volt standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

*Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	54"	60"	66"
Wt. / Lineal Ft.	Lbs. 100	105	110

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "ELX-CL"

HIGH EFFICIENCY EXTRACTOR VENTILATOR

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELX-CL _____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

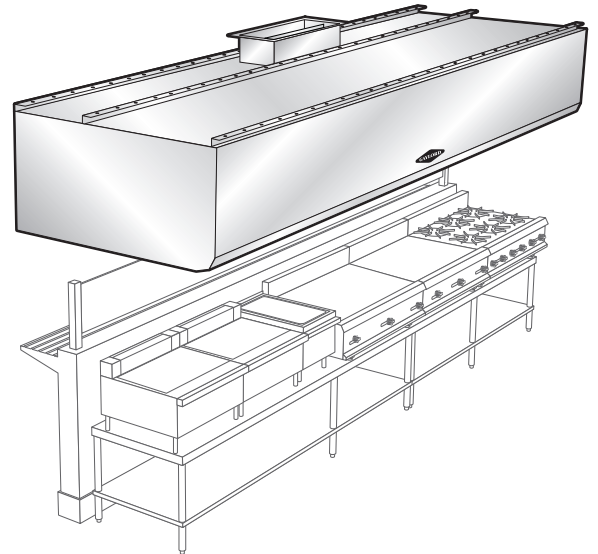
CONSTRUCTION: The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- Recessed LED 6 Watts/Ft. Min.
- Recessed fluorescent 12 Watts/Ft. Min.
- 100 watt surface mounted incandescent 24 Watts/Ft. Min.
- 150 watt recessed incandescent 36 Watts/Ft. Min.

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards with XGS High Efficiency Extractors tested to ASTM 2519-2005.



APPLICATION

Used for cafeteria lines or single island arrangements when covering light or medium duty cooking equipment. (Note: 345 CFM/Lineal Ft. maximum exhaust volume.) Not to be used over heavy duty equipment, including woks and gas or solid fuel char broilers.

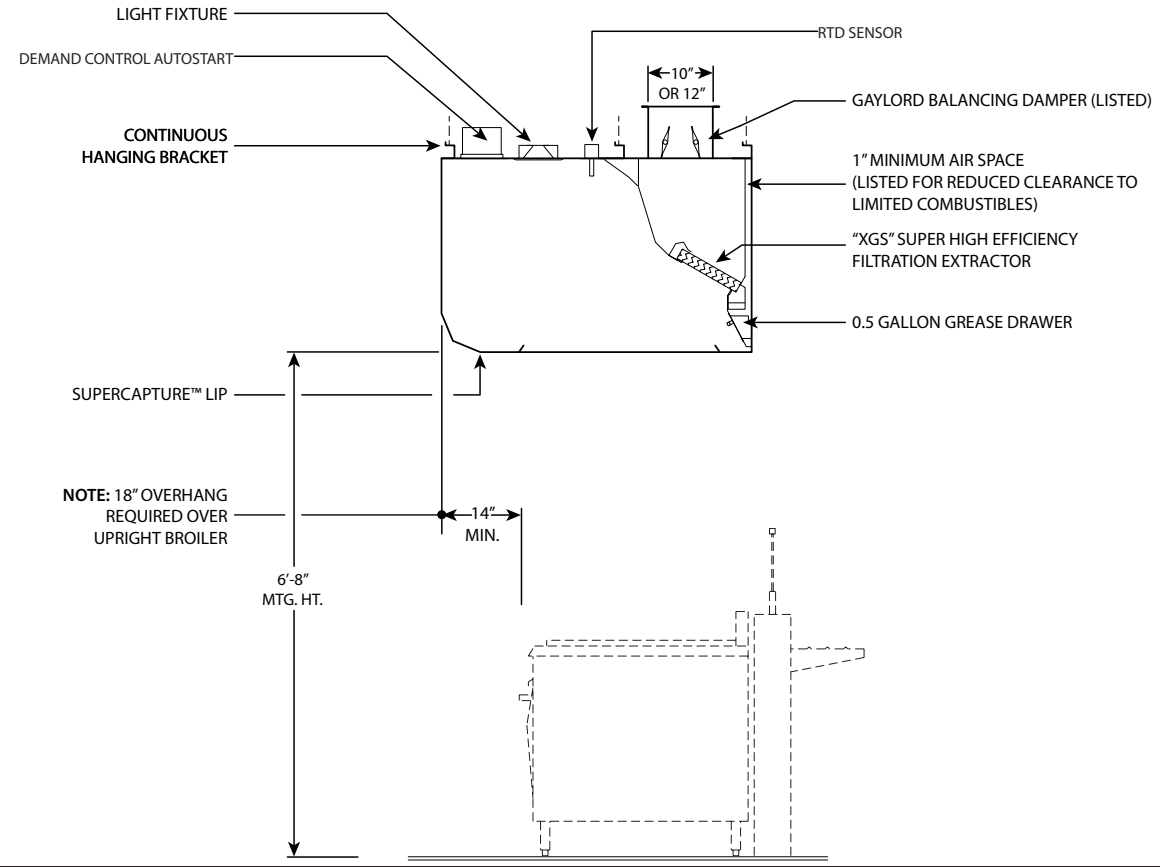
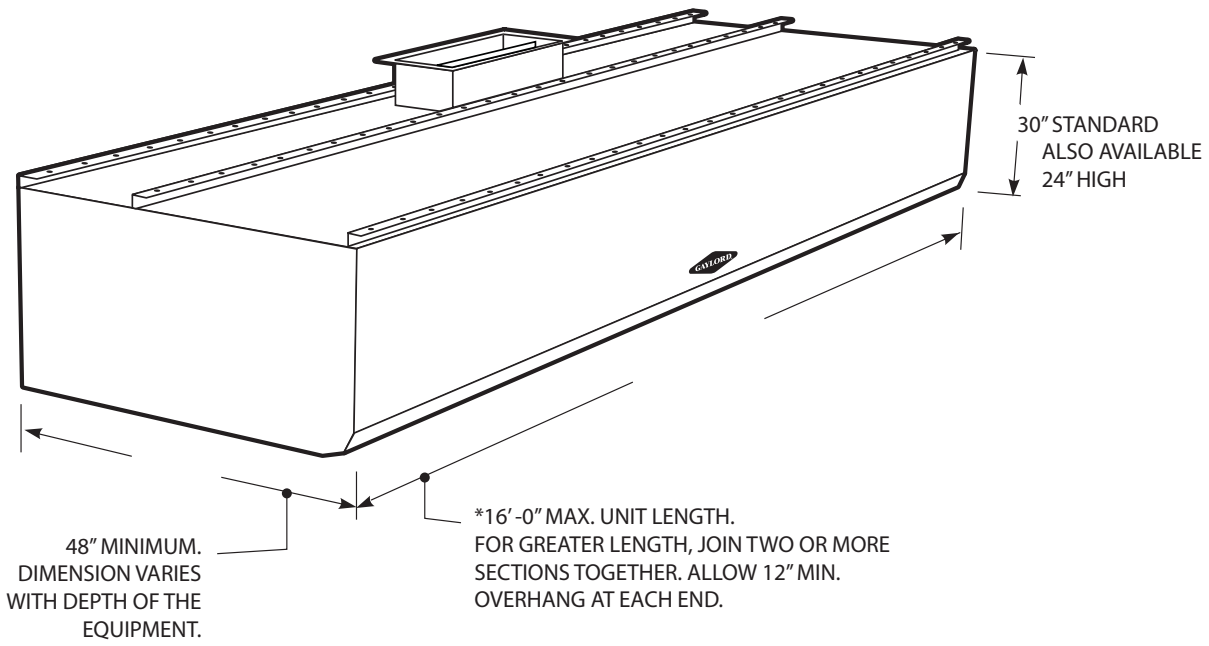
DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip

OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors





ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

A Gaylord stop/start switch, Model C-150, may be provided as an option for each exhaust fan. Lights to be on separate circuit, 120 volt standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

*Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	48"	54"	60"
Wt. / Lineal Ft.	Lbs. 75	80	85

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "ELX-AB"

HIGH EFFICIENCY EXTRACTOR VENTILATOR

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELX-AB-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

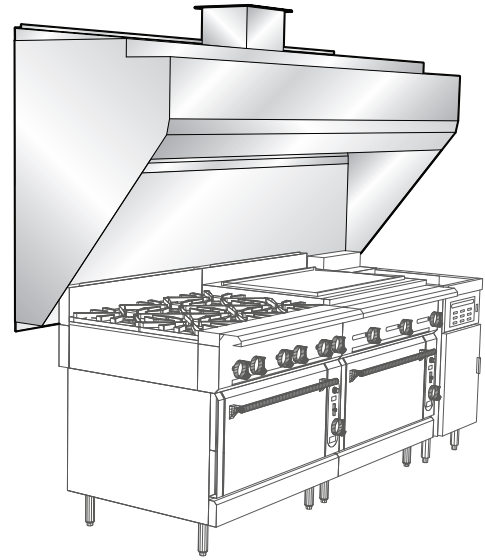
HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The ventilator shall include an integrated capture wall to achieve its airflow rates. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

CONSTRUCTION: The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The ventilator shall be a low proximity style. The ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 3" air space at the rear that is Listed for reduced clearance to combustibles, and is NFPA-96 and IMC compliant when mounting against a combustible wall. Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.

**APPLICATION**

Low proximity style ventilator for use over all types of counter height equipment. Not to be used over any extra heavy duty equipment.

DESIGN FEATURES

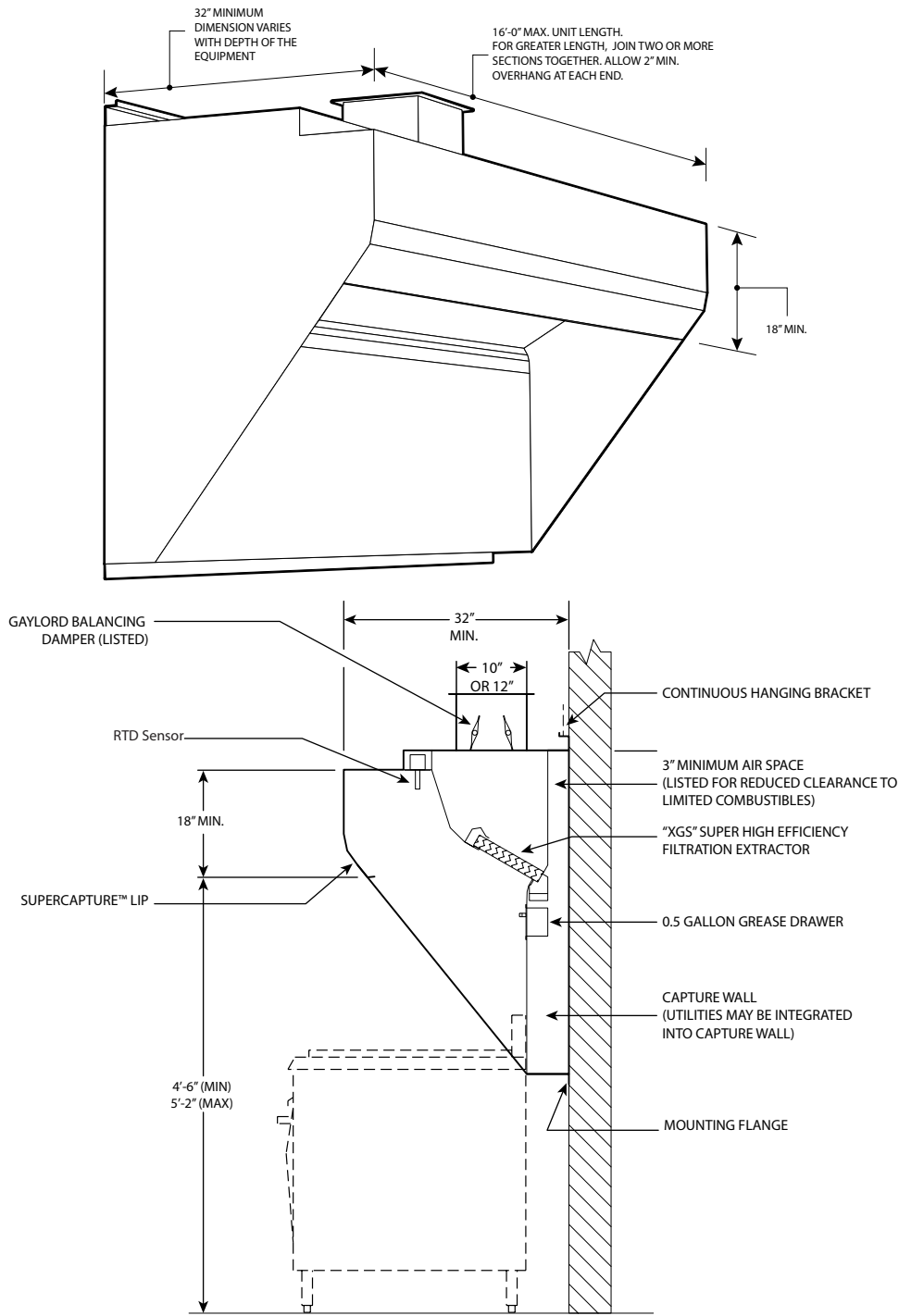
- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip
- Integrated Capture Wall

OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. "XGS" Spark Arrestor Extractors

**GAYLORD INDUSTRIES**

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ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

A Gaylord Autostart is provided as a standard. 120 volt standard, 220/240 volt optional.

A Gaylord stop/start switch, Model C-150, may be provided as an option for each exhaust fan. 120 volt standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

Hanging Weight

60 lbs per lineal foot of ventilator.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "ELX-UVi"

HIGH EFFICIENCY EXTRACTOR VENTILATOR

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELX-UVi-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The ventilator shall include an integrated capture wall to achieve its airflow rates. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

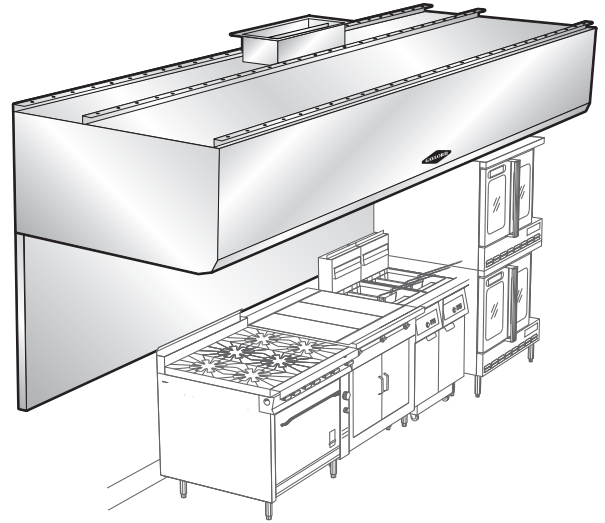
ULTRAVIOLET SYSTEM: The ventilator shall include ultraviolet lamps mounted in modules located in the plenum section. There shall be one or more UVi modules, as dictated by the ventilator length, and each module shall be on a slide track for easy removal. Access to the UVi modules shall be through tooled removable UV module doors. Two pressure switches shall be provided to monitor the airflow and prevent operation of the UVi lamps if the access doors are open, or if any "XGS" Extractor is removed, or if the airflow is inadequate. Mounted on the face of the plenum of each ventilator section shall be status lights to monitor "UVi System On", "UVi Lamp Failure" and "UVi System Stand By." The Gaylord Command Center shall display text that duplicates the ventilator mounted status lights. The lamps shall run for 13,000 hours before they drop below 80% out of UVC on average. The Ballast compartment shall have a high temperature shut off feature to protect the components from Fan failure or air blockage. Lamps shall have a double seal for extra protection from grease or water infiltration. The electrical compartment shall have multiple fans for extra cooling increasing the longevity of the electrical components.

CONSTRUCTION: The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- Recessed LED 6 Watts/Ft. Min.
- Recessed fluorescent 12 Watts/Ft. Min.
- 100 watt surface mounted incandescent 24 Watts/Ft. Min.
- 150 watt recessed incandescent 36 Watts/Ft. Min.

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.



APPLICATION

Wall mounted canopy for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip
- Integrated Capture Wall

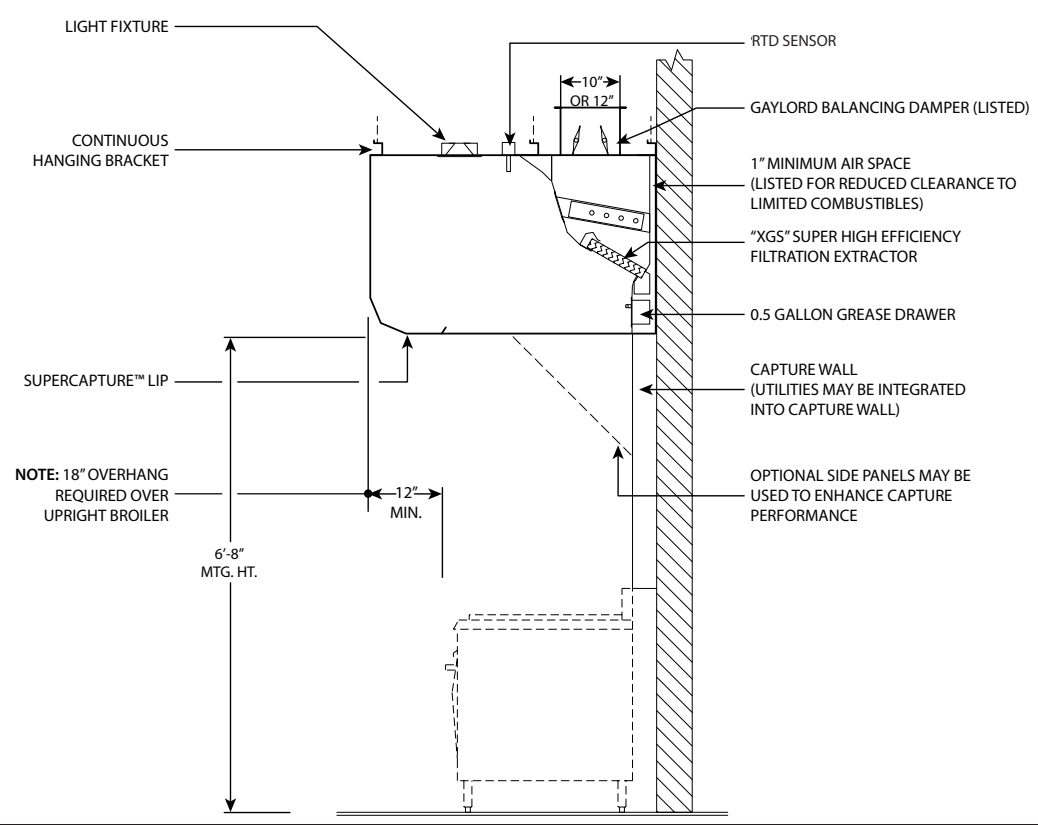
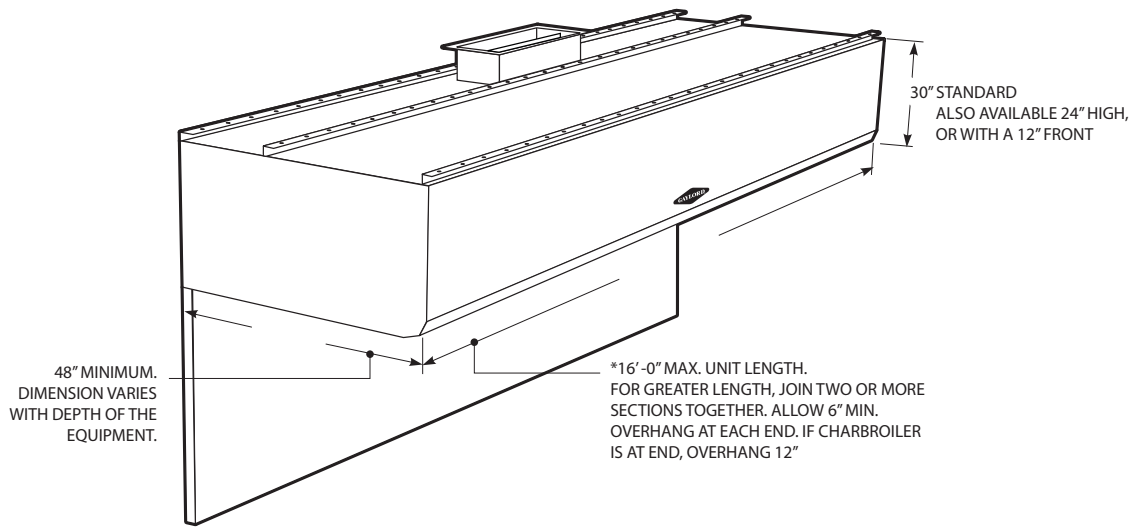
OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 1" air space at the rear that is Listed for reduced clearance to combustibles, and is NFPA-96 and IMC compliant when mounting against a combustible wall. Each ventilator shall be Listed to UL Standard 710 and 710C, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.



GAYLORD INDUSTRIES



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 208-250VAC, 50/60 Hz, Single Phase, 20 amp service for every 2 ventilator sections to power UVI lamps. Ventilator lights to be on separate circuit, 120 volt 50/60Hz standard, 220/240 volt optional.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

*Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	48"	54"	60"
Ventilator Wt. / Lineal Ft.	Lbs. 95	100	105
Capture Wall Wt. / Lineal Ft.	Lbs. 20	20	20

MODEL "ELX-UVi-BB"

HIGH EFFICIENCY EXTRACTOR VENTILATOR

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELX-UVi-BB-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

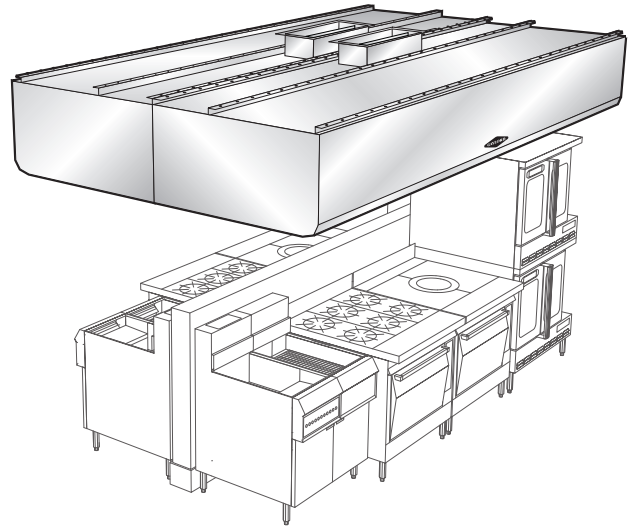
ULTRAVIOLET SYSTEM: The ventilator shall include ultraviolet lamps mounted in modules located in the plenum section. There shall be one or more UVI modules, as dictated by the ventilator length, and each module shall be on a slide track for easy removal. Access to the UVI modules shall be through tooled removable UV module doors. Two pressure switches shall be provided to monitor the airflow and prevent operation of the UVI lamps if the access doors are open, or if any "XGS" Extractor is removed, or if the airflow is inadequate. Mounted on the face of the plenum of each ventilator section shall be status lights to monitor "UVi System On," "UVi Lamp Failure" and "UVi System Stand By." The Gaylord Command Center shall display text that duplicates the ventilator mounted status lights. The lamps shall run for 13,000 hours before they drop below 80% out of UVC on average. The Ballast compartment shall have a high temperature shut off feature to protect the components from Fan failure or air blockage. Lamps shall have a double seal for extra protection from grease or water infiltration. The electrical compartment shall have multiple fans for extra cooling increasing the longevity of the electrical components.

CONSTRUCTION: The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The ventilator shall be configured with two separate exhaust plenums. The ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- Recessed LED 6 Watts/Ft. Min.
- Recessed fluorescent 12 Watts/Ft. Min.
- 100 watt surface mounted incandescent 24 Watts/Ft. Min.
- 150 watt recessed incandescent 36 Watts/Ft. Min.

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.



APPLICATION

Island style for all double island arrangements. For use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip

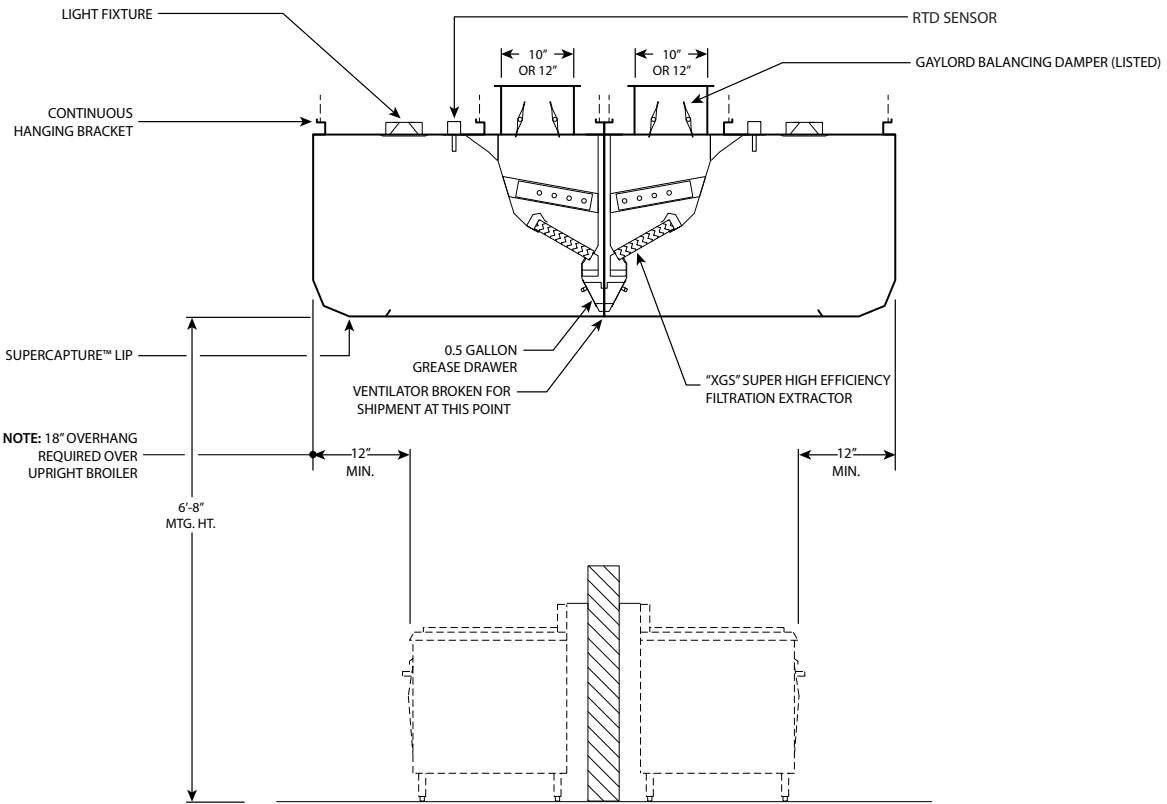
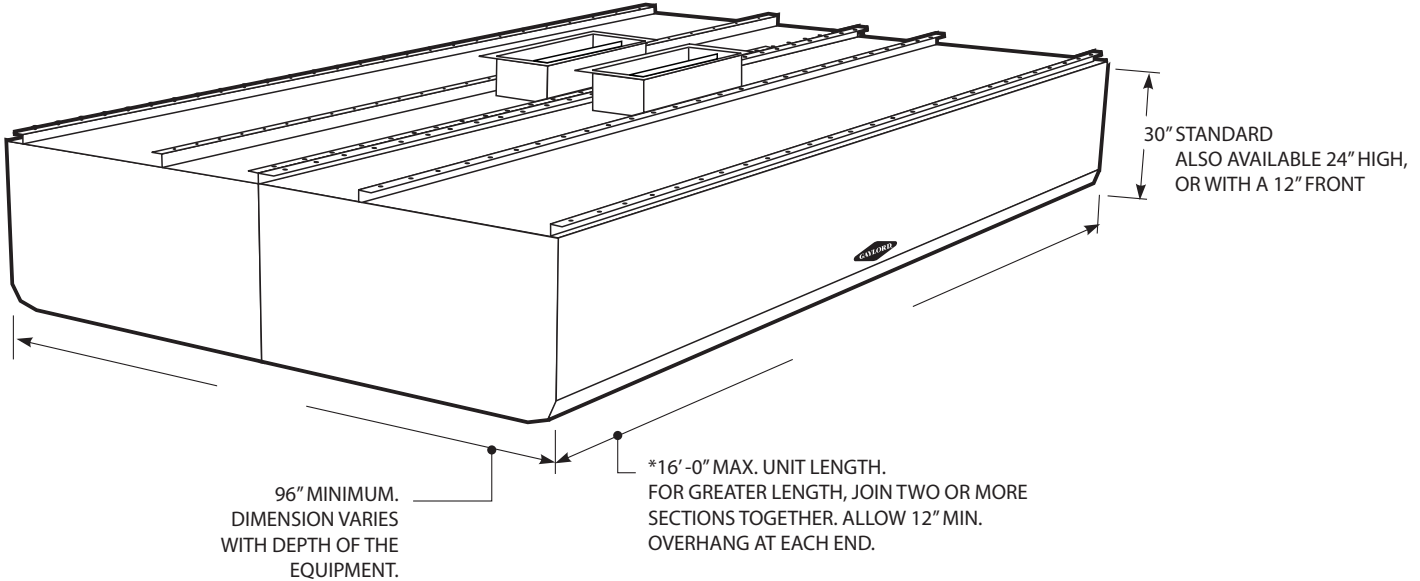
OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall be Listed to UL Standard 710 and 710C, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.



GAYLORD INDUSTRIES



Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 208-250VAC, 50/60 Hz, Single Phase, 20 amp service for every 2 ventilator sections to power UVI lamps. Ventilator lights to be on separate circuit, 120 volt 50/60Hz standard, 220/240 volt optional.

ENGINEERING DATA

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

*Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	96"	108"	120"	132"
Wt. / Lineal Ft.	Lbs. 190	200	210	220

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials



ELX SERIES

ITEM NO. _____

MODEL "ELX-UVi-BBC-CL"

HIGH EFFICIENCY EXTRACTOR VENTILATOR

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELX-UVi-BBC-CL-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

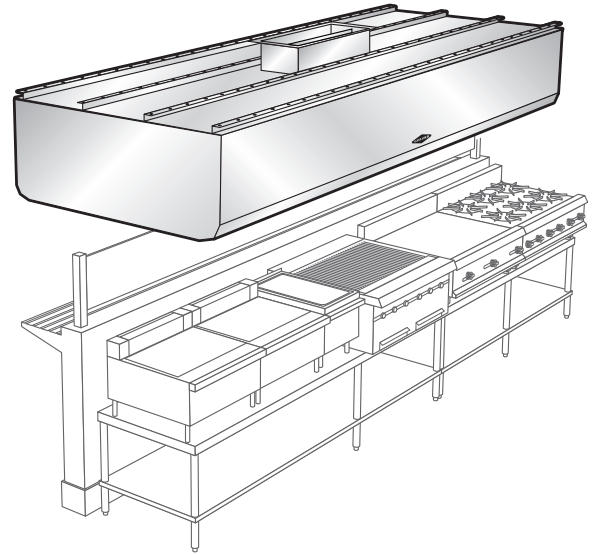
ULTRAVIOLET SYSTEM: The ventilator shall include ultraviolet lamps mounted in modules located in the plenum section. There shall be one or more UVI modules, as dictated by the ventilator length, and each module shall be on a slide track for easy removal. Access to the UVI modules shall be through tooled removable UV module doors. Two pressure switches shall be provided to monitor the airflow and prevent operation of the UVI lamps if the access doors are open, or if any "XGS" Extractor is removed, or if the airflow is inadequate. Mounted on the face of the plenum of each ventilator section shall be status lights to monitor "UVi System On", "UVi Lamp Failure" and "UVi System Stand By". The Gaylord Command Center shall display text that duplicates the ventilator mounted status lights. The lamps shall run for 13,000 hours before they drop below 80% out of UVC on average. The Ballast compartment shall have a high temperature shut off feature to protect the components from Fan failure or air blockage. Lamps shall have a double seal for extra protection from grease or water infiltration. The electrical compartment shall have multiple fans for extra cooling increasing the longevity of the electrical components.

CONSTRUCTION: The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The ventilator shall include a "V" bank arrangement of "XGS" Super High Efficiency Filtration Extractors. The ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- | | |
|--|-------------------|
| <input type="checkbox"/> Recessed LED | 6 Watts/Ft. Min. |
| <input type="checkbox"/> Recessed fluorescent | 12 Watts/Ft. Min. |
| <input type="checkbox"/> 100 watt surface mounted incandescent | 24 Watts/Ft. Min. |
| <input type="checkbox"/> 150 watt recessed incandescent | 36 Watts/Ft. Min. |

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.



APPLICATION

Used for cafeteria lines or single island arrangements for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip

OPTIONAL EQUIPMENT

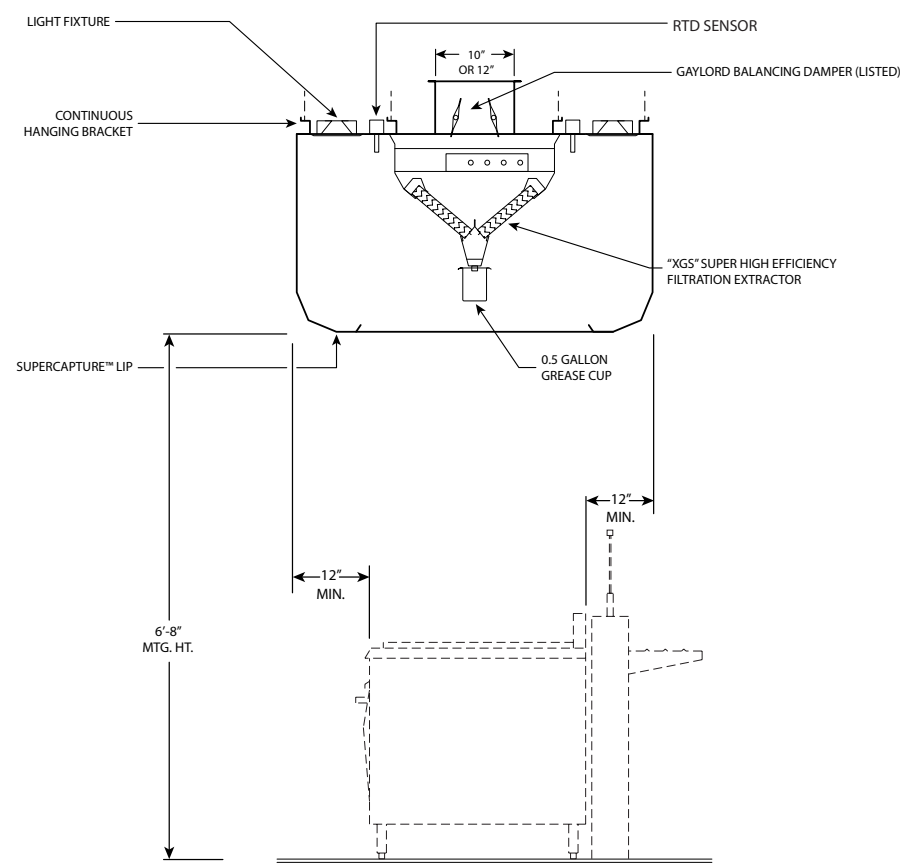
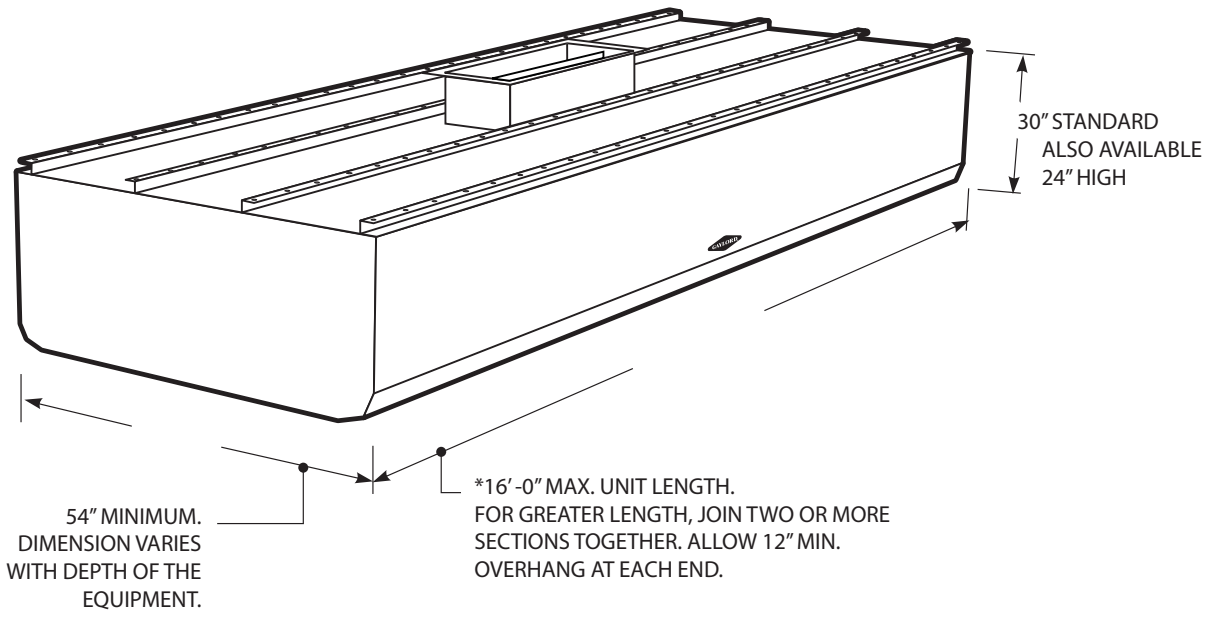
1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall be Listed to UL Standard 710 and 710C, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards with XGS High Efficiency Extractors tested to ASTM 2519-2005.



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www.gaylordventilation.com



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 208-250VAC, 50/60 Hz, Single Phase, 20 amp service for every 2 ventilator sections to power UVi lamps. Ventilator lights to be on separate circuit, 120 volt 50/60Hz standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

***Note:** Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	54"	60"	66"
Wt. / Lineal Ft.	Lbs. 125	130	135

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "ELX-UVi-CL"

HIGH EFFICIENCY EXTRACTOR VENTILATOR

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELX-UVi-CL- _____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

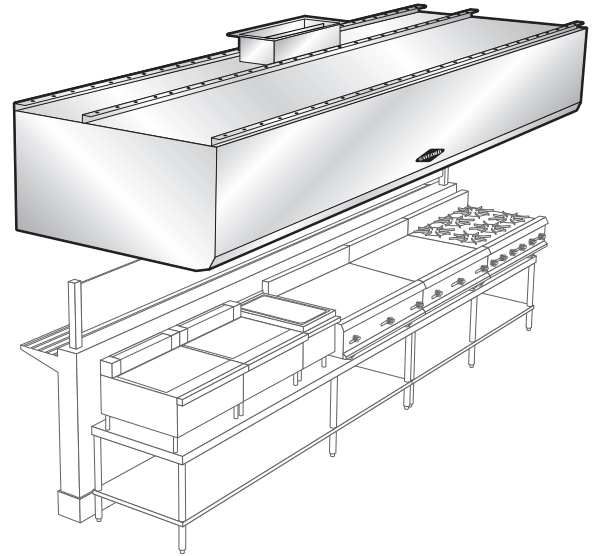
ULTRAVIOLET SYSTEM: The ventilator shall include ultraviolet lamps mounted in modules located in the plenum section. There shall be one or more UVI modules, as dictated by the ventilator length, and each module shall be on a slide track for easy removal. Access to the UVI modules shall be through tooled removable UV module doors. Two pressure switches shall be provided to monitor the airflow and prevent operation of the UVI lamps if the access doors are open, or if any "XGS" Extractor is removed, or if the airflow is inadequate. Mounted on the face of the plenum of each ventilator section shall be status lights to monitor "UVi System On", "UVi Lamp Failure" and "UVi System Stand By." The Gaylord Command Center shall display text that duplicates the ventilator mounted status lights. The lamps shall run for 13,000 hours before they drop below 80% out of UVC on average. The Ballast compartment shall have a high temperature shut off feature to protect the components from Fan failure or air blockage. Lamps shall have a double seal for extra protection from grease or water infiltration. The electrical compartment shall have multiple fans for extra cooling increasing the longevity of the electrical components.

CONSTRUCTION: The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- Recessed LED 6 Watts/Ft. Min.
- Recessed fluorescent 12 Watts/Ft. Min.
- 100 watt surface mounted incandescent 24 Watts/Ft. Min.
- 150 watt recessed incandescent 36 Watts/Ft. Min.

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.



APPLICATION

Used for cafeteria lines or single island arrangements when covering light or medium duty cooking equipment. (Note: 345 CFM / Lineal Ft. maximum exhaust volume.) Not to be used over heavy duty equipment, including woks and gas or solid fuel char broilers.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip

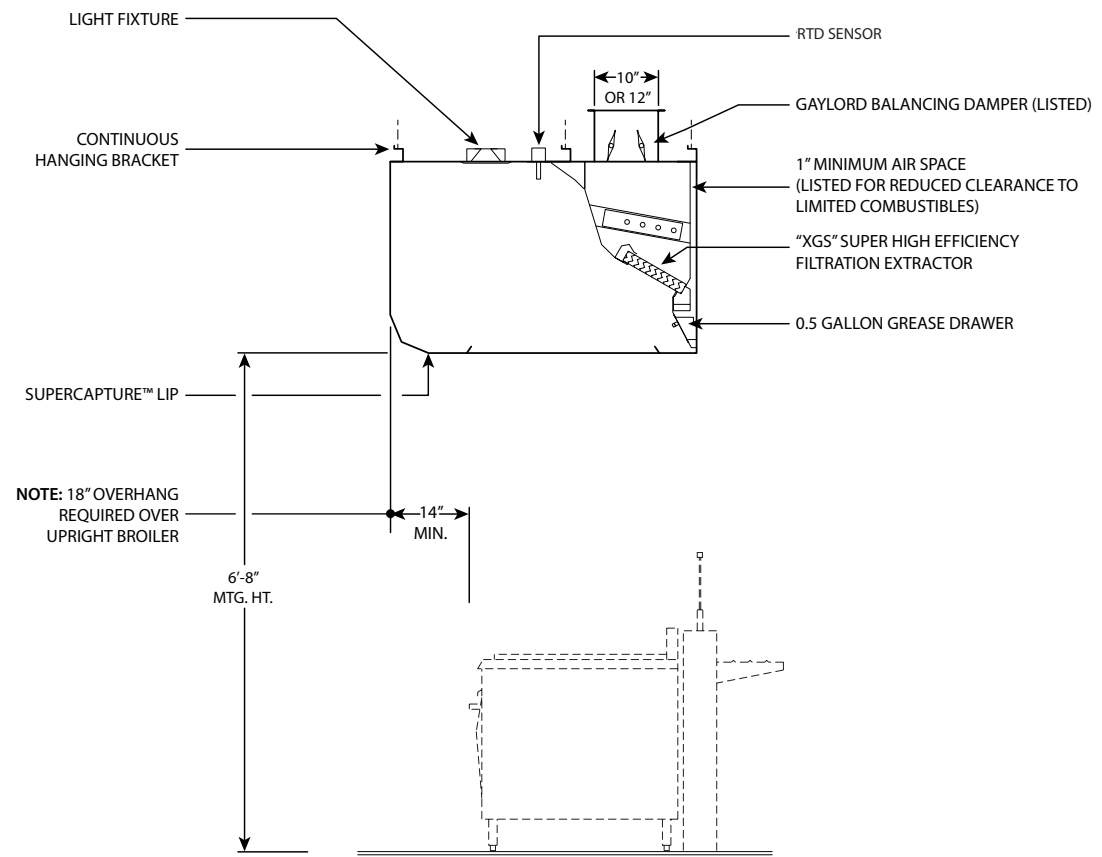
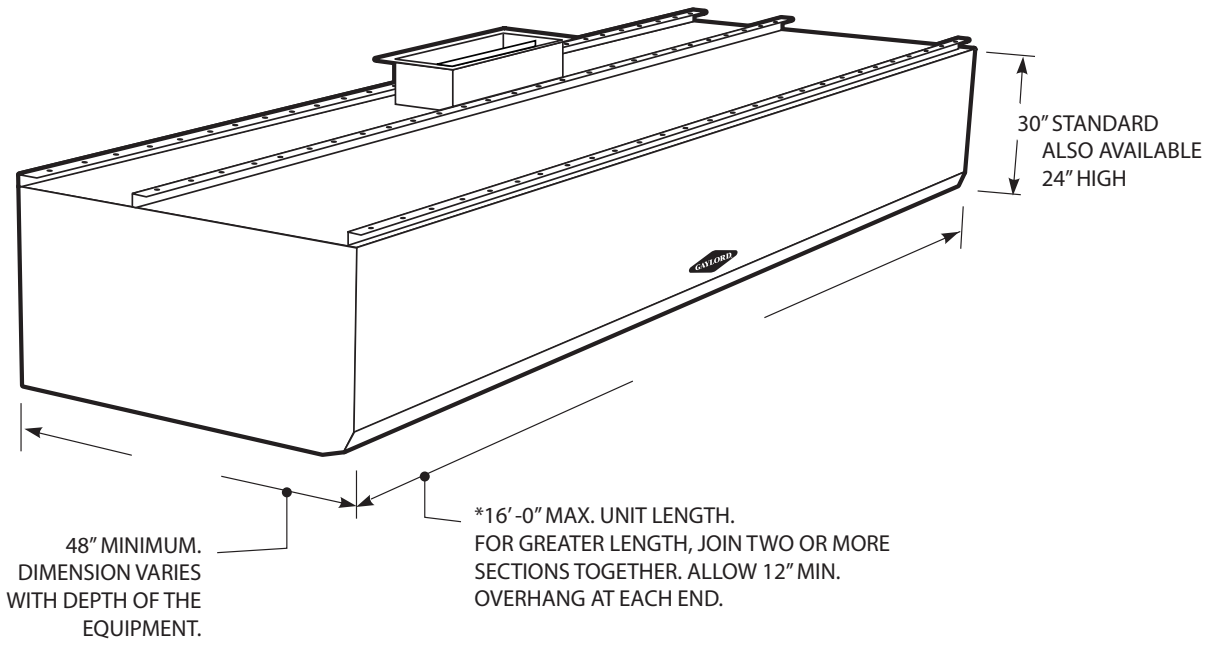
OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 1" air space at the rear that is Listed for reduced clearance to combustibles, and is NFPA-96 and IMC compliant when mounting against a combustible wall. Each ventilator shall be Listed to UL Standard 710 and 710C, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards with XGS High Efficiency Extractors tested to ASTM 2519-2005.



GAYLORD INDUSTRIES



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 208-250VAC, 50/60 Hz, Single Phase, 20 amp service for every 2 ventilator sections to power UVI lamps. Ventilator lights to be on separate circuit, 120 volt 50/60Hz standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

*Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	48"	54"	60"
Wt. / Lineal Ft.	Lbs. 100	105	110

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials



ELXC SERIES

ITEM NO. _____

MODEL "ELXC"

HIGH EFFICIENCY EXTRACTOR VENTILATOR
WITH CLEAN-IN-PLACE TECHNOLOGY

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELXC-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The "capture and drain" principle shall prevent water from entering the plenum and duct areas during "FAN ON" wash cycles, thus providing 24/7 operators the full effect of clean-in-place technology. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The ventilator shall include an integrated capture wall to achieve its airflow rates. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

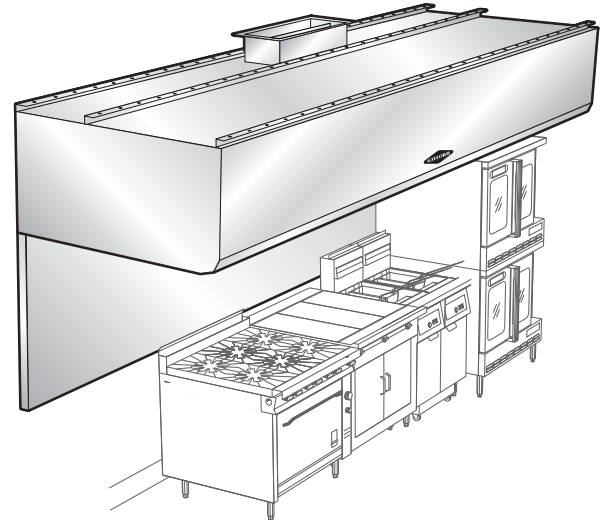
CLEAN-IN-PLACE WASH TECHNOLOGY: Each ventilator shall include two full length stainless steel wash manifolds with brass nozzles; one to power wash the inlet face and internal passages of the extractors during "FAN ON" mode and one to wash the plenum chamber, during the "FAN OFF" mode as programmed by the Gaylord Command Center. Each wash manifold on each ventilator section shall operate independently so wash cycles may be programmed at different frequencies and different durations to reduce water and detergent usage and optimize cleaning efficacy according to load and demand. Each ventilator section shall drain to sloping gutters with 2" outlets.

CONSTRUCTION: Each ventilator shall include full length access panels that are non-tool entry, non-gasketed and non-removable to ease inspection of extractors, plenum and fire extinguishing system. The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The Ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- | | |
|--|-------------------|
| <input type="checkbox"/> Recessed LED | 6 Watts/Ft. Min. |
| <input type="checkbox"/> Recessed fluorescent | 12 Watts/Ft. Min. |
| <input type="checkbox"/> 100 watt surface mounted incandescent | 24 Watts/Ft. Min. |
| <input type="checkbox"/> 150 watt recessed incandescent | 36 Watts/Ft. Min. |

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.



APPLICATION

Wall mounted canopy for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip
- Integrated Capture Wall

OPTIONAL EQUIPMENT

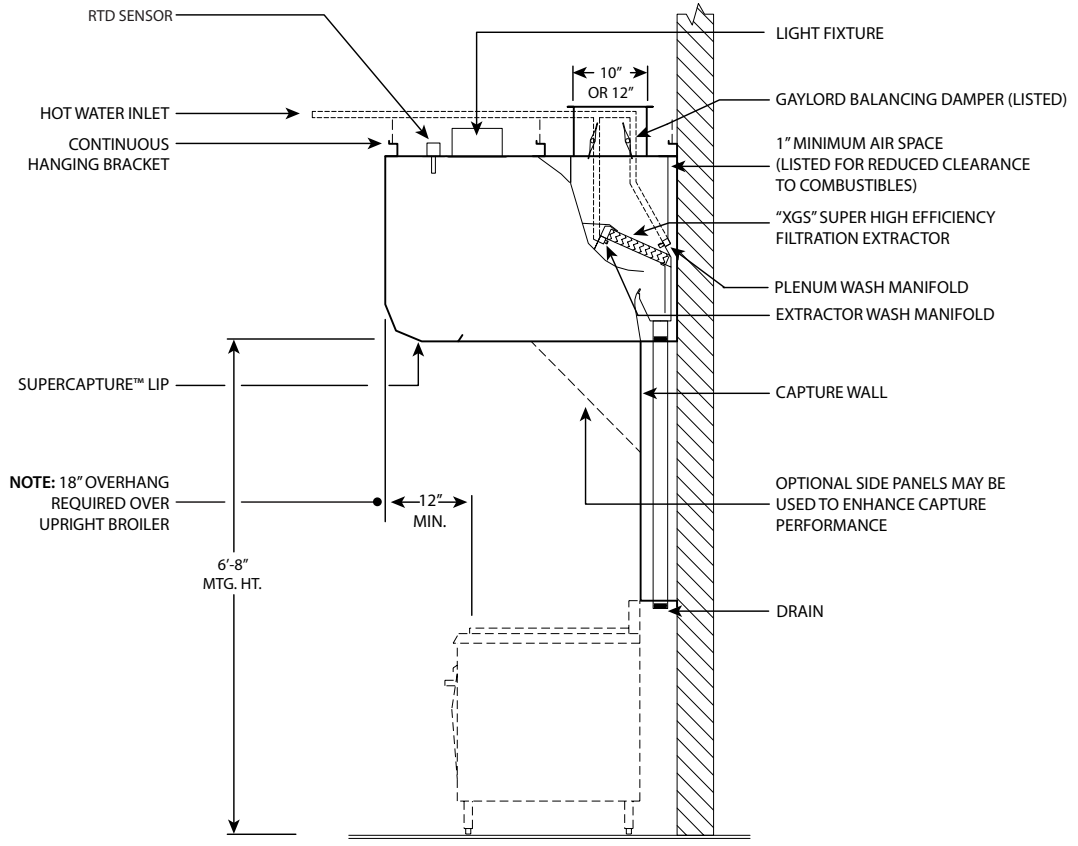
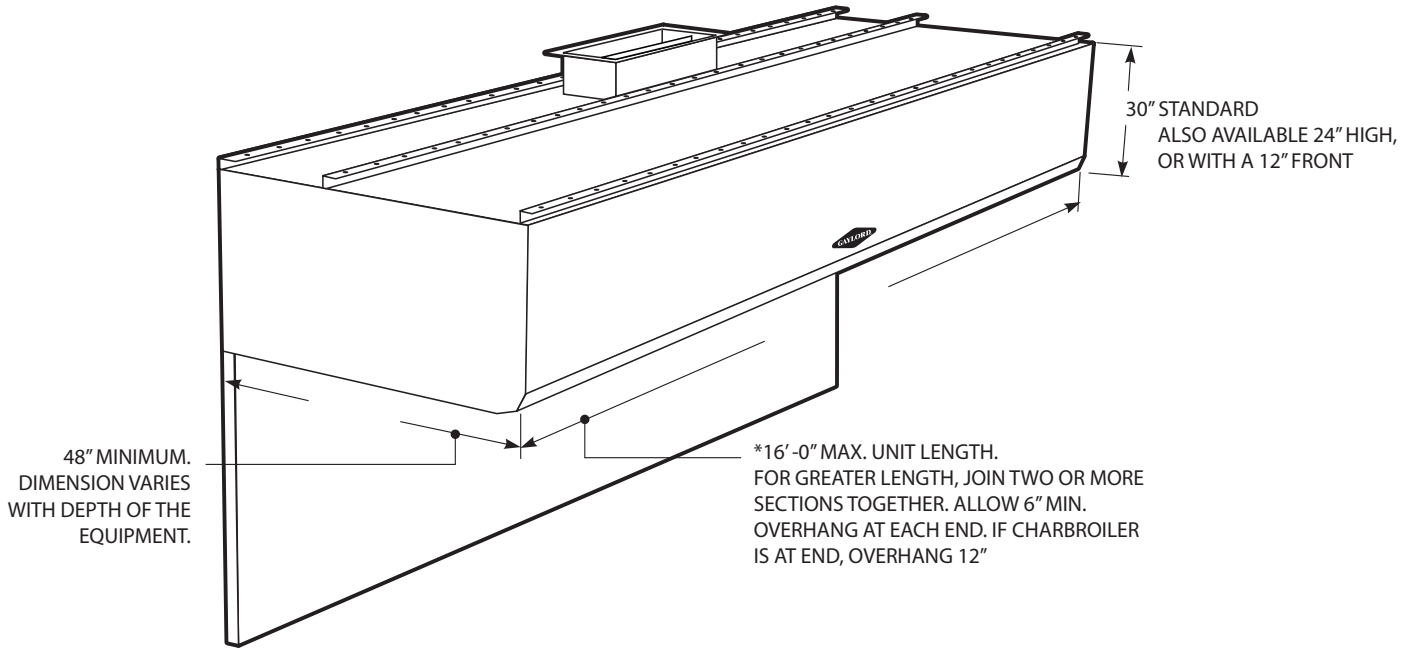
1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 1" air space at the rear that is Listed for reduced clearance to combustibles, and is NFPA-96 and IMC compliant when mounting against a combustible wall. Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.



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www.gaylordventilation.com



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 120 volt 50/60Hz circuit to lights, 220/240 volt optional. Refer to Wash Control Cabinet for its electrical requirements.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

*Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	48"	54"	60"
Ventilator Wt. / Lineal Ft.	Lbs. 85	90	95
Capture Wall Wt. / Lineal Ft.	Lbs. 20	20	20



ELXC SERIES

ITEM NO. _____

MODEL "ELXC-BB"

HIGH EFFICIENCY EXTRACTOR VENTILATOR
WITH CLEAN-IN-PLACE TECHNOLOGY

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELXC-BB-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The "capture and drain" principle shall prevent water from entering the plenum and duct areas during "FAN ON" wash cycles, thus providing 24/7 operators the full effect of clean-in-place technology. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

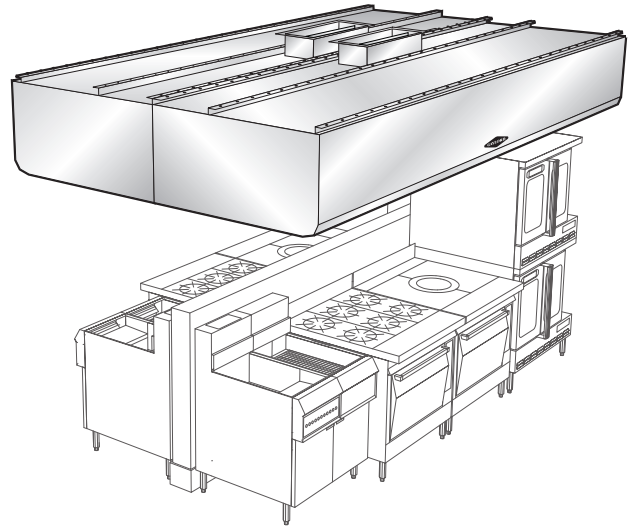
CLEAN-IN-PLACE WASH TECHNOLOGY: Each ventilator shall include two full length stainless steel wash manifolds with brass nozzles; one to power wash the inlet face and internal passages of the extractors during "FAN ON" mode and one to wash the plenum chamber, during the "FAN OFF" mode as programmed by the Gaylord Command Center. Each wash manifold on each ventilator section shall operate independently so wash cycles may be programmed at different frequencies and different durations to reduce water and detergent usage and optimize cleaning efficacy according to load and demand. Each ventilator section shall drain to sloping gutters with 2" outlets.

CONSTRUCTION: Each ventilator shall include full length access panels that are non-tool entry, non-gasketed and non-removable to ease inspection of extractors, plenum and fire extinguishing system. The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The Ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- | | |
|--|-------------------|
| <input type="checkbox"/> Recessed LED | 6 Watts/Ft. Min. |
| <input type="checkbox"/> Recessed fluorescent | 12 Watts/Ft. Min. |
| <input type="checkbox"/> 100 watt surface mounted incandescent | 24 Watts/Ft. Min. |
| <input type="checkbox"/> 150 watt recessed incandescent | 36 Watts/Ft. Min. |

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.



APPLICATION

Island style for all double island arrangements

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip

OPTIONAL EQUIPMENT

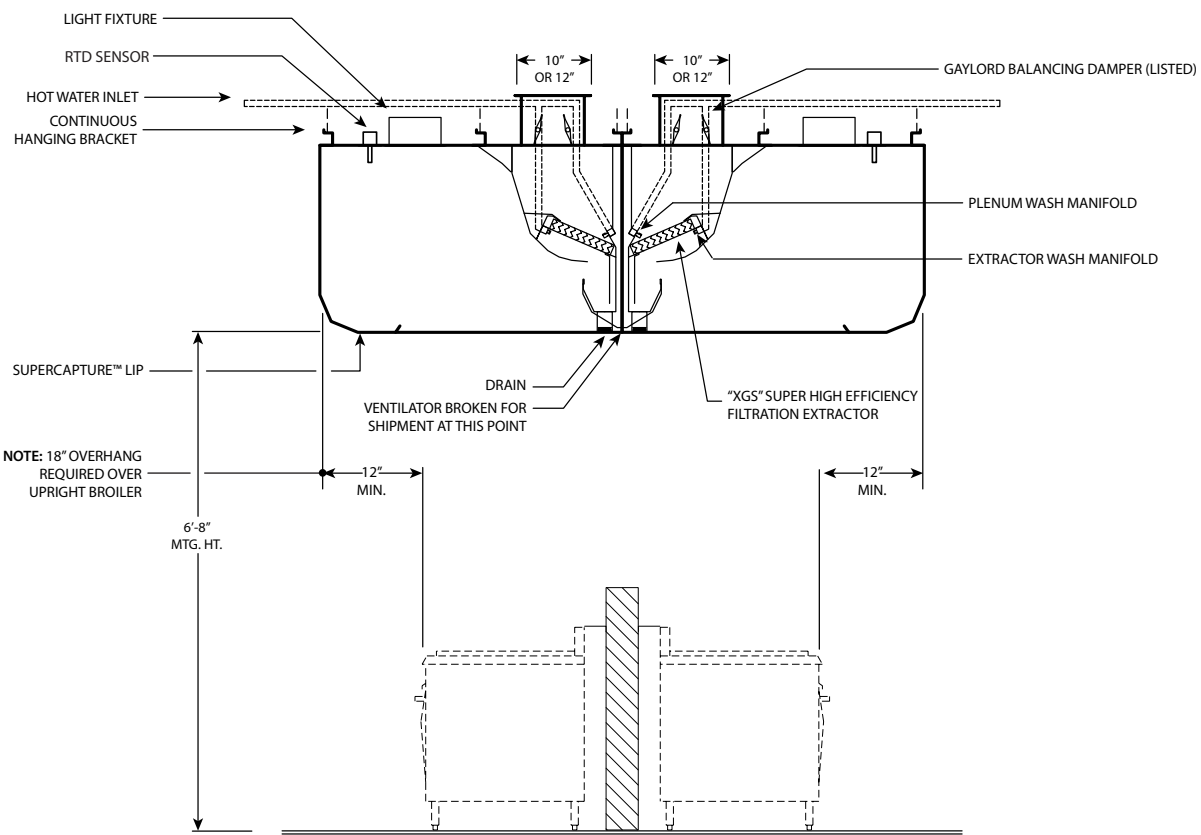
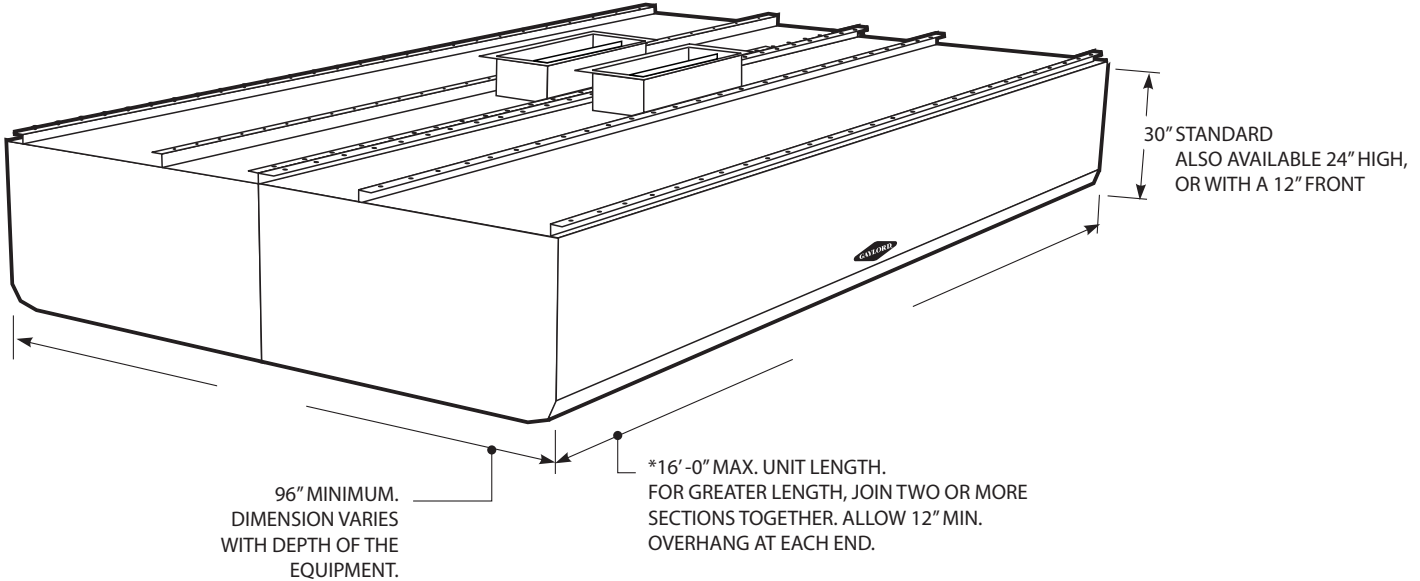
1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards with XGS High Efficiency Extractors tested to ASTM 2519-2005.



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www.gaylordventilation.com



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 120 volt 50/60Hz circuit to lights, 220/240 volt optional. Refer to Wash Control Cabinet for its electrical requirements.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

*Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	96"	108"	120"	132"
Wt. / Lineal Ft.	Lbs. 170	180	190	200

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials



ELXC SERIES

ITEM NO. _____

MODEL "ELXC-BBC-CL"

HIGH EFFICIENCY EXTRACTOR VENTILATOR
WITH CLEAN-IN-PLACE TECHNOLOGY

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELXC-BBC-CL-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The "capture and drain" principle shall prevent water from entering the plenum and duct areas during "FAN ON" wash cycles, thus providing 24/7 operators the full effect of clean-in-place technology. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The ventilator shall include an integrated capture wall to achieve its airflow rates. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

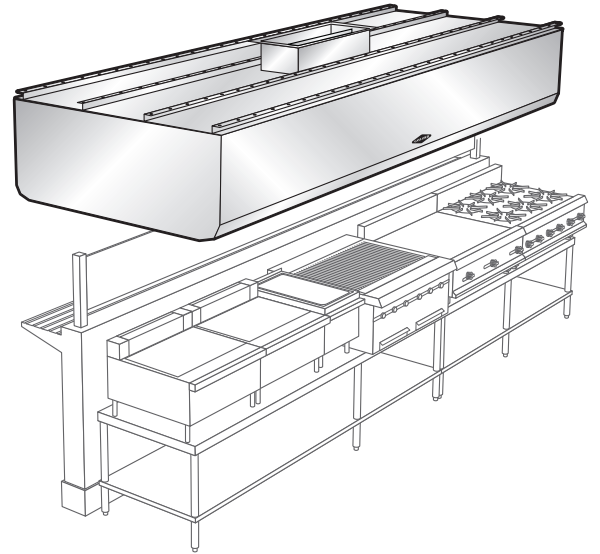
CLEAN-IN-PLACE WASH TECHNOLOGY: Each ventilator shall include two full length stainless steel wash manifolds with brass nozzles; one to power wash the inlet face and internal passages of the extractors during "FAN ON" mode and one to wash the plenum chamber, during the "FAN OFF" mode as programmed by the Gaylord Command Center. Each wash manifold on each ventilator section shall operate independently so wash cycles may be programmed at different frequencies and different durations to reduce water and detergent usage and optimize cleaning efficacy according to load and demand. Each ventilator section shall drain to sloping gutters with 2" outlets.

CONSTRUCTION: Each ventilator shall include full length access panels that are non-tool entry, non-gasketed and non-removable to ease inspection of extractors, plenum and fire extinguishing system. The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The Ventilator shall include a "V" bank arrangement of "XGS" High Efficiency Extractors. The Ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.

LIGHT FIXTURES: The ventilator shall be equipped with:

- | | | |
|--------------------------|---------------------------------------|-------------------|
| <input type="checkbox"/> | Recessed LED | 6 Watts/Ft. Min. |
| <input type="checkbox"/> | Recessed fluorescent | 12 Watts/Ft. Min. |
| <input type="checkbox"/> | 100 watt surface mounted incandescent | 24 Watts/Ft. Min. |
| <input type="checkbox"/> | 150 watt recessed incandescent | 36 Watts/Ft. Min. |

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.



APPLICATION

Wall mounted canopy for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip
- Integrated Capture Wall

OPTIONAL EQUIPMENT

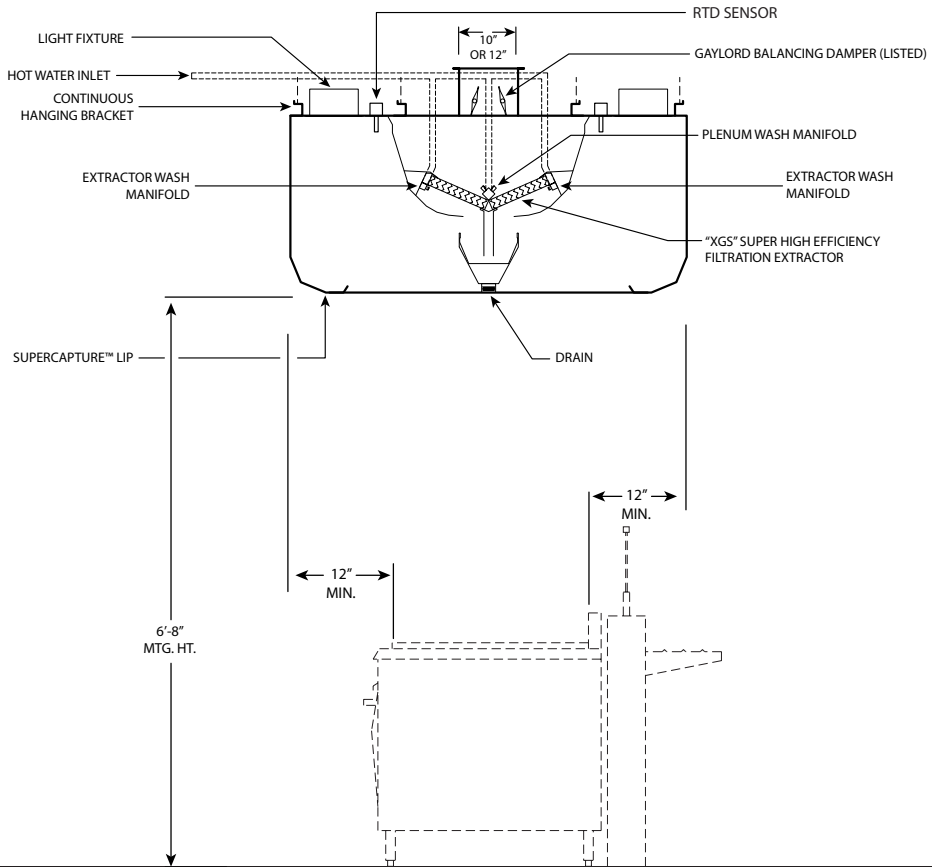
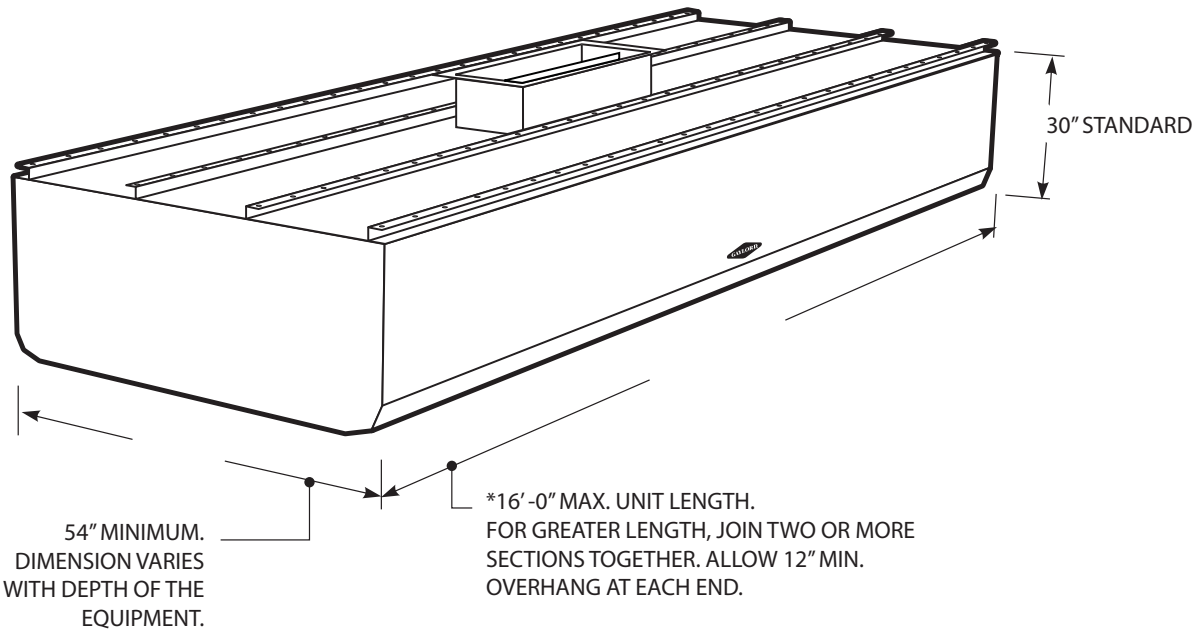
1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall be Listed to UL Standard 710, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards with XGS High Efficiency Extractors tested to ASTM 2519-2005.



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ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 120 volt 50/60Hz circuit to lights, 220/240 volt optional. Refer to Wash Control Cabinet for its electrical requirements.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

***Note:** Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	54"	60"	66"
Wt. / Lineal Ft.	Lbs. 100	105	110

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

MODEL "ELXC-UVi"

HIGH EFFICIENCY EXTRACTOR VENTILATOR
WITH CLEAN-IN-PLACE TECHNOLOGY
& ULTRAVIOLET IRRADIATION

ITEM NO. _____

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELXC-UVi _____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The "capture and drain" principle shall prevent water from entering the plenum and duct areas during "FAN ON" wash cycles, thus providing 24/7 operators the full effect of clean-in-place technology. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

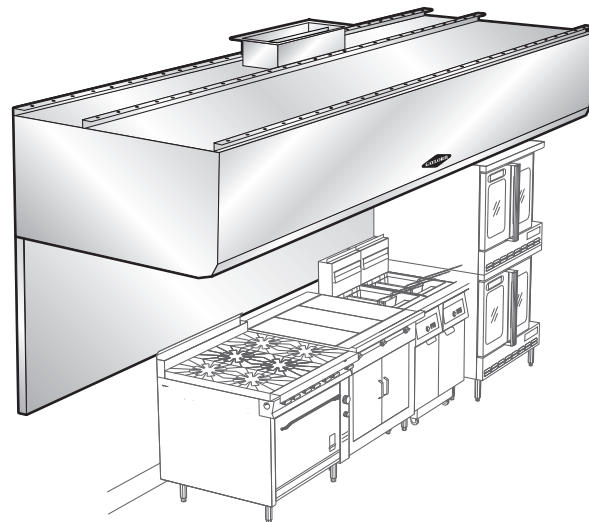
CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The ventilator shall include an integrated capture wall to achieve its airflow rates. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

CLEAN-IN-PLACE WASH TECHNOLOGY: Each ventilator shall include two full length stainless steel wash manifolds with brass nozzles; one to power wash the inlet face and internal passages of the extractors during "FAN ON" mode and one to wash the plenum chamber, during the "FAN OFF" mode as programmed by the Gaylord Command Center. Each wash manifold on each ventilator section shall operate independently so wash cycles may be programmed at different frequencies and different durations to reduce water and detergent usage and optimize cleaning efficacy according to load and demand. Each ventilator section shall drain to sloping gutters with 2" outlets.

ULTRAVIOLET SYSTEM: The ventilator shall include ultraviolet lamps mounted in modules located in the plenum section. There shall be one or more UVi modules, as dictated by the ventilator length, and each module shall be on a slide track for easy removal. Access to the UVi modules shall be through tooled and hinged access doors. Two pressure switches shall be provided to monitor the airflow and prevent operation of the UVi lamps if the access doors are open, or if any "XGS" Extractor is removed, or if the airflow is inadequate. Mounted on the face of the plenum of each ventilator section shall be status lights to monitor "UVi System On", "UVi Lamp Failure" and "UVi System Stand By." The Gaylord Command Center shall display text that duplicates the ventilator mounted status lights. The lamps shall run for 13,000 hours before they drop below 80% out of UVC on average. The Ballast compartment shall have a high temperature shut off feature to protect the components from Fan failure or air blockage. Lamps shall have a double seal for extra protection from grease or water infiltration. The electrical compartment shall have multiple fans for extra cooling increasing the longevity of the electrical components.

CONSTRUCTION: Each ventilator shall include full length access panels that are non-tool entry, non-gasketed and non-removable to ease inspection of extractors, plenum and fire extinguishing system. The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The Ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.



APPLICATION

Wall mounted canopy for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip
- Integrated Capture Wall

OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

LIGHT FIXTURES: The ventilator shall be equipped with:

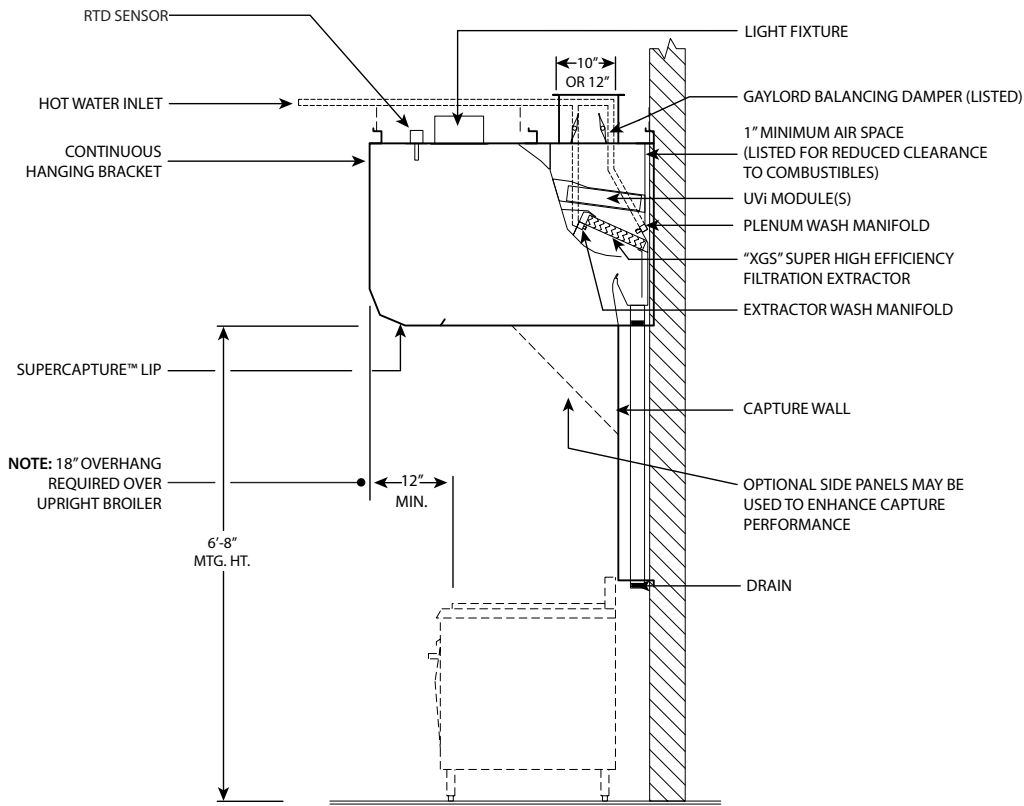
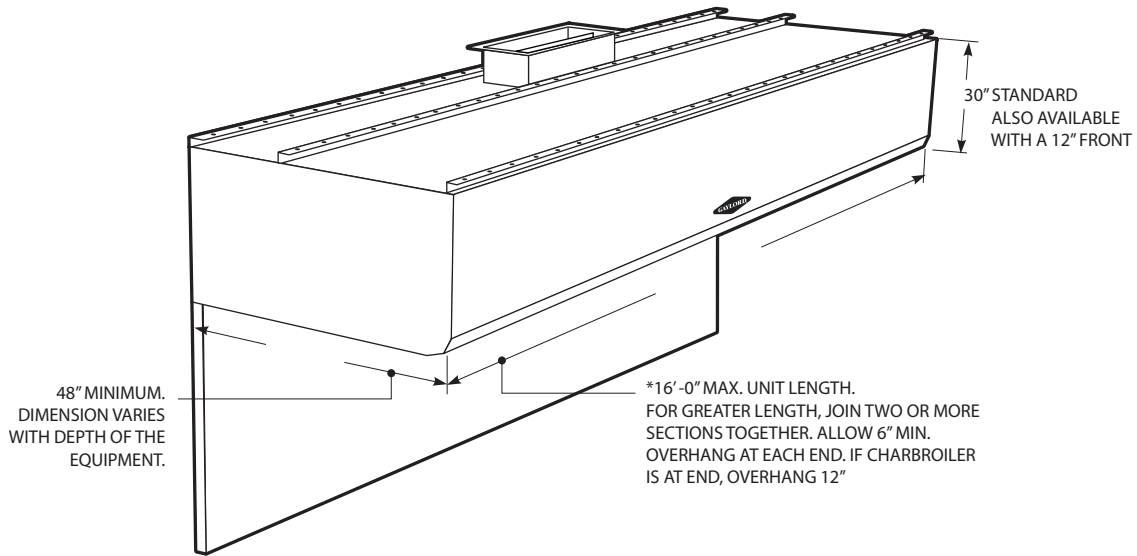
- Recessed LED 6 Watts/Ft. Min.
- Recessed fluorescent 12 Watts/Ft. Min.
- 100 watt surface mounted incandescent 24 Watts/Ft. Min.
- 150 watt recessed incandescent 36 Watts/Ft. Min.

Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall include a built-in 1" air space at the rear that is Listed for reduced clearance to combustibles, and is NFPA-96 and IMC compliant when mounting against a combustible wall. Each ventilator shall be Listed to UL Standard 710 and 710C, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.



GAYLORD INDUSTRIES



ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 208-250VAC, 50/60Hz, Single Phase, 20 amp service for every 2 ventilator sections to power UVI lamps. Ventilator lights to be on separate circuit, 120 volt, 50/60Hz standard, 220/240 volt optional.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

*Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width		48"	54"	60"
Ventilator Wt. / Lineal Ft.	Lbs.	110	115	120
Capture Wall Wt. / Lineal Ft.	Lbs.	20	20	20



ELXC SERIES

MODEL "ELXC-UVi-BB"

HIGH EFFICIENCY EXTRACTOR VENTILATOR
WITH CLEAN-IN-PLACE TECHNOLOGY
& ULTRAVIOLET IRRADIATION

ITEM NO. _____

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Model "ELXC-UVi-BB-_____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures as accepted by ASHRAE TC 5.10 and ASHRAE Standard 154-2011 - 4.7.2. The "capture and drain" principle shall prevent water from entering the plenum and duct areas during "FAN ON" wash cycles, thus providing 24/7 operators the full effect of clean-in-place technology. The High Efficiency Extractors shall not exceed 55 db, on typical cooking lines, as measured at the chef's ear so fatigue is minimized and productivity is optimized.

HOOD CONTROLS: Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a contact closure to react to cooking activity to comply with IMC.

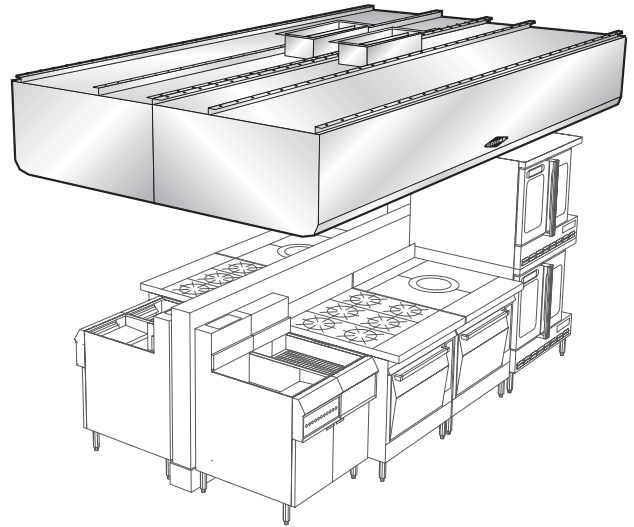
CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates through "passive" versus "active" design features, thus eliminating the wiring or adjustment of internal motors, plenums or jets. The lowest possible airflow rates shall be tested to ASTM 1704-09 by the Food Service Technology Center and published on their website for easy confirmation.

<http://www.fishnick.com/publications/appliancereports/hoods/>

CLEAN-IN-PLACE WASH TECHNOLOGY: Each ventilator shall include two full length stainless steel wash manifolds with brass nozzles; one to power wash the inlet face and internal passages of the extractors during "FAN ON" mode and one to wash the plenum chamber, during the "FAN OFF" mode as programmed by the Gaylord Command Center. Each wash manifold on each ventilator section shall operate independently so wash cycles may be programmed at different frequencies and different durations to reduce water and detergent usage and optimize cleaning efficacy according to load and demand. Each ventilator section shall drain to sloping gutters with 2" outlets.

ULTRAVIOLET SYSTEM: The ventilator shall include ultraviolet lamps mounted in modules located in the plenum section. There shall be one or more UVi modules, as dictated by the ventilator length, and each module shall be on a slide track for easy removal. Access to the UVi modules shall be through tooled and hinged access doors. Two pressure switches shall be provided to monitor the airflow and prevent operation of the UVi lamps if the access doors are open, or if any "XGS" Extractor is removed, or if the airflow is inadequate. Mounted on the face of the plenum of each ventilator section shall be status lights to monitor "UVi System On", "UVi Lamp Failure" and "UVi System Stand By." The Gaylord Command Center shall display text that duplicates the ventilator mounted status lights. The lamps shall run for 13,000 hours before they drop below 80% out of UVC on average. The Ballast compartment shall have a high temperature shut off feature to protect the components from Fan failure or air blockage. Lamps shall have a double seal for extra protection from grease or water infiltration. The electrical compartment shall have multiple fans for extra cooling increasing the longevity of the electrical components.

CONSTRUCTION: Each ventilator shall include full length access panels that are non-tool entry, non-gasketed and non-removable to ease inspection of extractors, plenum and fire extinguishing system. The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The Ventilator shall include a static pressure port in each section to be used in balancing exhaust air volumes. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the overhead building structure. Each duct collar shall include as standard a Gaylord Balancing Damper (GBD) with opposed blades that adjust manually through access from within the canopy. Ventilators built in end-to-end multiple sections shall have as standard "Continuous Capture" from one end to the other to ease cleaning and improve capture and containment.



APPLICATION: Island style for all double island arrangements. For use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Internal Canopy Radius
- Enhanced "XGS" Extractor Angle and Slot Spacing
- Faceted "Super Capture"™ Lip

OPTIONAL EQUIPMENT

1. Decorative Facings and Trim
2. Demand Control Ventilation
3. Fire Extinguishing Systems
4. Pollution Control Systems
5. Utility Distribution Systems
6. "XGS" Spark Arrestor Extractors

LIGHT FIXTURES: The ventilator shall be equipped with:

- | | |
|--|------------------------------|
| <input type="checkbox"/> Recessed LED | 6 Watts / Ft. Min. per side |
| <input type="checkbox"/> Recessed fluorescent | 12 Watts / Ft. Min. per side |
| <input type="checkbox"/> 100 watt surface mounted incandescent | 24 Watts / Ft. Min. per side |
| <input type="checkbox"/> 150 watt recessed incandescent | 36 Watts / Ft. Min. per side |

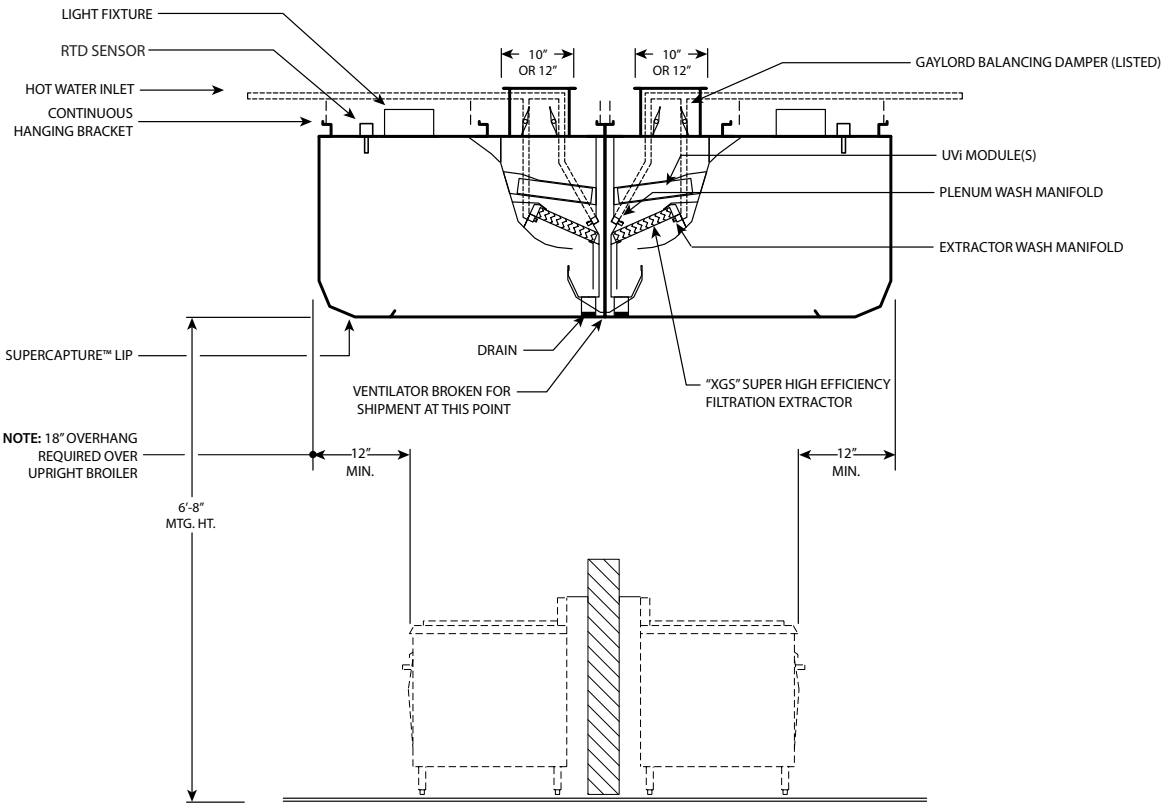
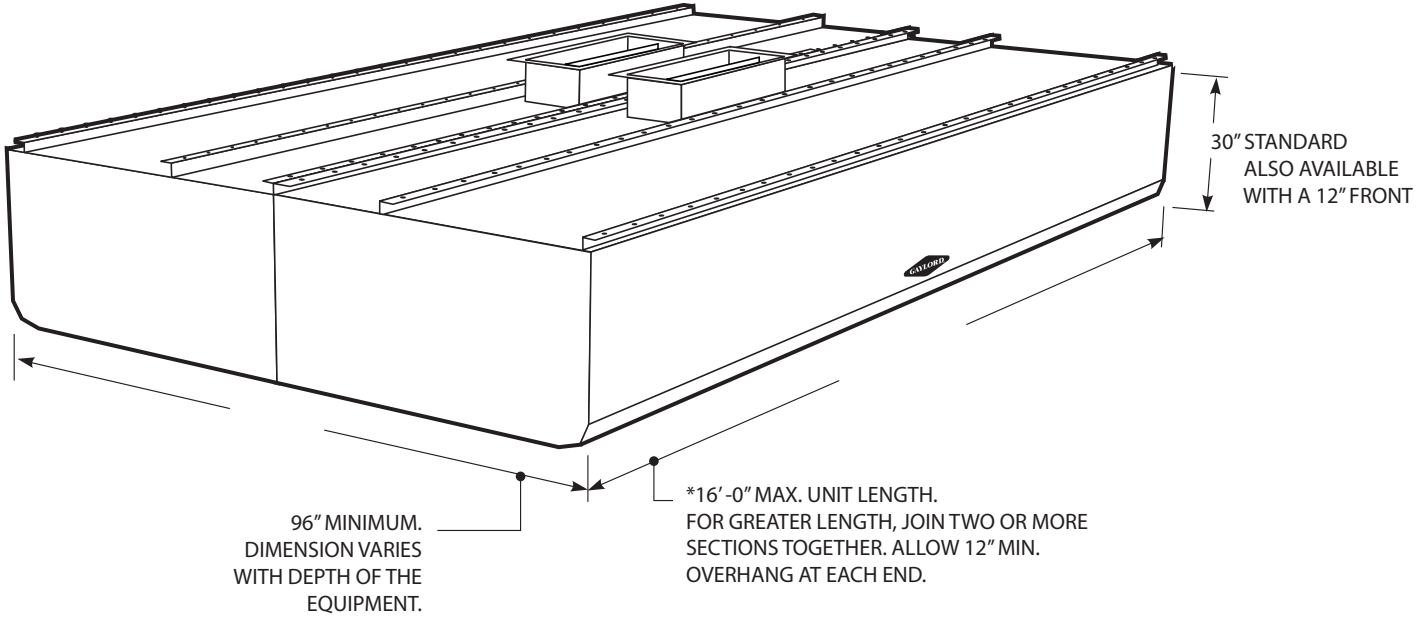
Light fixtures shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include an integral listed Demand Control Autostart fan equipment interlock complying with IMC (optional outside North America). Each ventilator shall be Listed to UL Standard 710 and 710C, ULC S646 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards and be capture tested to ASTM 1704-09 with XGS High Efficiency Extractors tested to ASTM 2519-2005.



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ENGINEERING DATA

Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 208-250VAC, 50/60Hz, Single Phase, 20 amp service for every 2 ventilator sections to power UVi lamps. Ventilator lights to be on separate circuit, 120 volt 50/60Hz standard, 220/240 volt optional.

Ventilator Lengths

Maximum unit length 16'-0". For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area.

Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight

Ventilator Width	96"	108"	120"	132"
Wt. / Lineal Ft.	Lbs. 220	230	240	250

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials



ELXC SERIES

ITEM NO. _____

MODEL "ELXC-SPC-SO"

HIGH EFFICIENCY EXTRACTOR VENTILATOR
WITH CLEAN-IN-PLACE TECHNOLOGY,
ULTRAVIOLET IRRADIATION, ODOR CONTROL
& ELECTROSTATIC PRECIPITATOR FOR SMOKE CONTROL

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Eliminator Model "ELXC-SPC-SO" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures. The "capture and drain" principle shall prevent water from entering the plenum and duct areas during "FAN ON" wash cycles, thus providing 24/7 operators the full effect of Clean-In-Place technology. Each ventilator shall contain secondary filters to enhance performance and optimize efficiency positioned between the XGS High Efficiency Filters and UV Lamps.

HOOD CONTROLS: Each ventilator shall be IMC compliant and incorporates canopy mounted RTD's positioned strategically across the length of the hood.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates and may include an integrated capture wall.

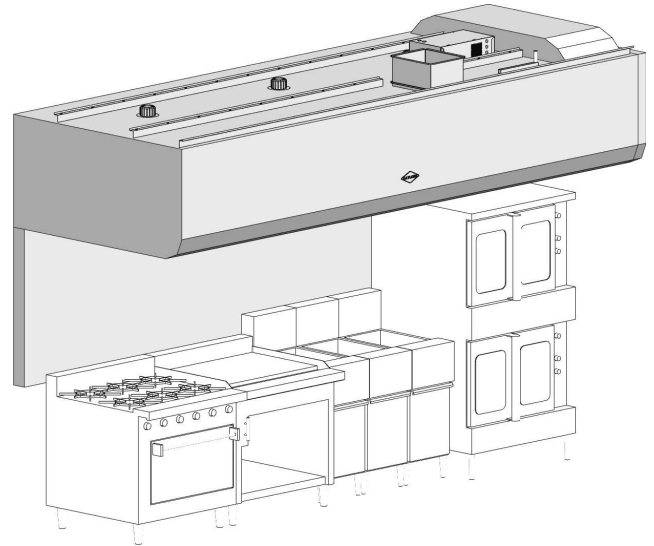
CLEAN-IN-PLACE WASH TECHNOLOGY: Each ventilator shall include two full length stainless steel wash manifolds with brass nozzles; one to wash the inlet face and internal passages of the extractors during "FAN ON" mode and one to wash the plenum chamber during the "FAN OFF" mode as programmed by the Gaylord Command Center. Each wash manifold on each ventilator section shall operate independently so each wash cycle may be programmed at different frequencies and different durations to reduce water and detergent usage and optimize cleaning efficacy according to load and demand. Each ventilator section shall drain to sloping gutters with 2" outlets.

ULTRAVIOLET SYSTEM: The ventilator shall include ultraviolet lamps mounted in modules located in the plenum section(s). The UV module shall be on a slide track for easy removal. Access to the UV modules shall be through keyed and hinged access doors. Two redundant pressure switches shall be provided to monitor the airflow and prevent operation of the UV lamps if the access doors are open, or if any "XGS" Extractor is removed, or if the airflow is inadequate. Mounted on the canopy roof of each ventilator section shall be status lights to monitor "UVi System On", "UVi Lamp Failure", "UVi System Stand By", and cell operational status. The Gaylord Command Center shall display text that duplicates the ventilator mounted status lights. UV system shall incorporate a high temperature shut down set to trigger upon detection of excessive temperatures.

COLD WATER MIST: An optional cold water mist manifold may be installed at the hood inlet for heavy or extra heavy-duty applications.

ODOR NEUTRALIZER: The Ventilator shall contain spray nozzles supplied with water from the building cold water supply system and supplied with an odor catalyst that works in conjunction with the UV Lamps. The volume of odor catalyst will vary based on the system recognizing and adapting to the cooking activity and environment.

SMOKE CONTROL SECTION: The smoke control section shall contain one electrostatic precipitator (ESP) cell to remove smoke particles from the air stream to industry standards or to a level of 95% efficiency in accordance with ASHRAE std 52.2 resulting in no higher than 20% opacity when operated in accordance with the operation and maintenance



APPLICATION

Wall mounted canopy for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Clean-In-Place Technology
- Ultraviolet System
- Smoke and Odor Control

OPTIONAL EQUIPMENT

1. Cold Water Mist
2. Decorative Facings and Trim
3. AirVantage DCKV
4. Smoke Filter & Safety Media Bed Odor Control Module
5. Fire Extinguishing Systems
6. Utility Distribution Systems

guidelines. Each cell shall have 12 tungsten wires run perpendicular to the exhaust air flow which will ionize the air stream. Spike type systems shall not be accepted. The cell shall be positioned on slide tracks so it may be easily removed through a cell access door. For ease of handling, each individual cell shall weigh less than 45lbs. An electrical panel mounted in the unit shall contain the high voltage power pack assembly and safety disconnect switch for safe operation. The safety disconnect switch shall interface with the electrical panel access door such that when opened it will shut off service to the power pack(s) and ground them to drain the residual electrical charge from both the power pack(s) and ESP cell. The high voltage power pack(s) shall be self-limiting type and shall be self-contained. The unit shall contain wash manifold(s) on the top of the cell and the inlet side of the cell with fixed spray nozzles to wash the ESP cell daily with detergent-injected hot water. Required wash pressure is



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SMOKE CONTROL SECTION CONTINUED:

40 to 80 PSI at a minimum of 120°F and a maximum of 140°F. An electric booster heater will be supplied with the GPC-7000SPC control cabinet to increase this to 160°F to 180°F. The booster will require a 230 volt 3-phase 40 amp minimum connection and the electrical requirement varies on model selected. Maximum water flow rate for the ESP section is not to exceed 8 GPM. The ESP cell section shall have a 2" drain with a motorized ball valve that closes when the wash system is off to prevent air bypassing the grease extractors in the hood. This drain shall connect to an approved grease trap prior to entering the sewer system.

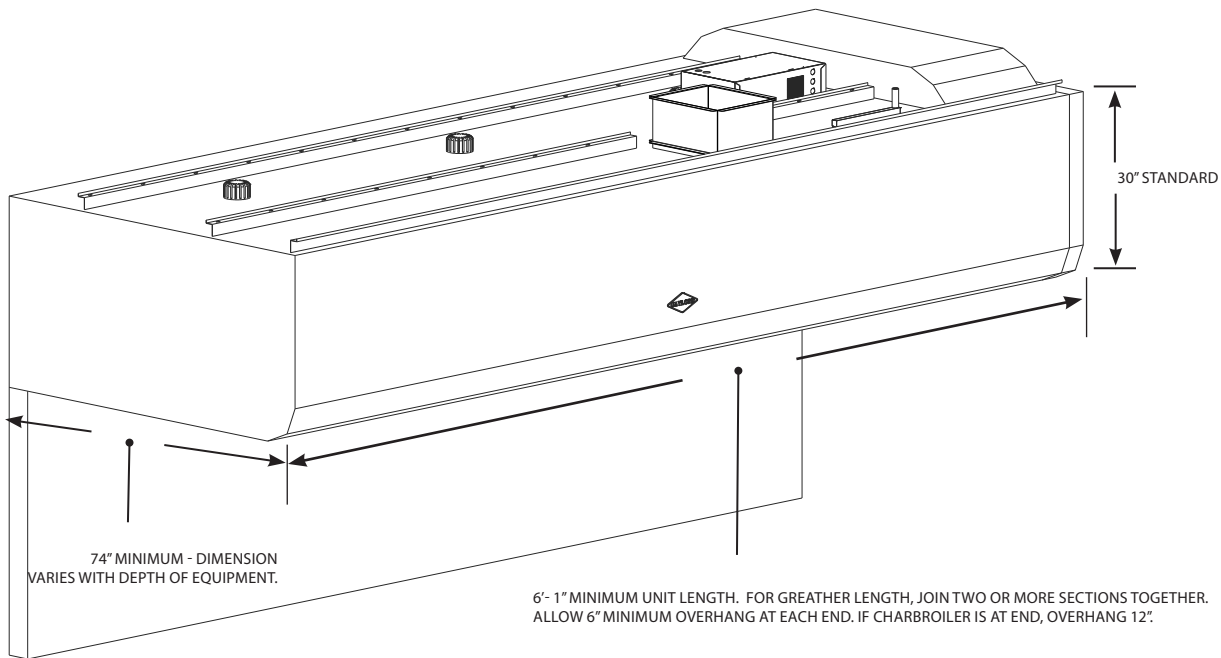
CONSTRUCTION: Each ventilator section shall include non-gasketed and non-removable full length access panels to ease inspection of extractors, secondary filters, UV lamps, plenum and fire extinguishing system. The ESP section shall be mounted, sealed and accessible from inside the hood's canopy by gasketed access panels with keyed lift and turn latches. The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Minimum ventilator length is 6' 1" and can be built in multiple sections for longer applications.

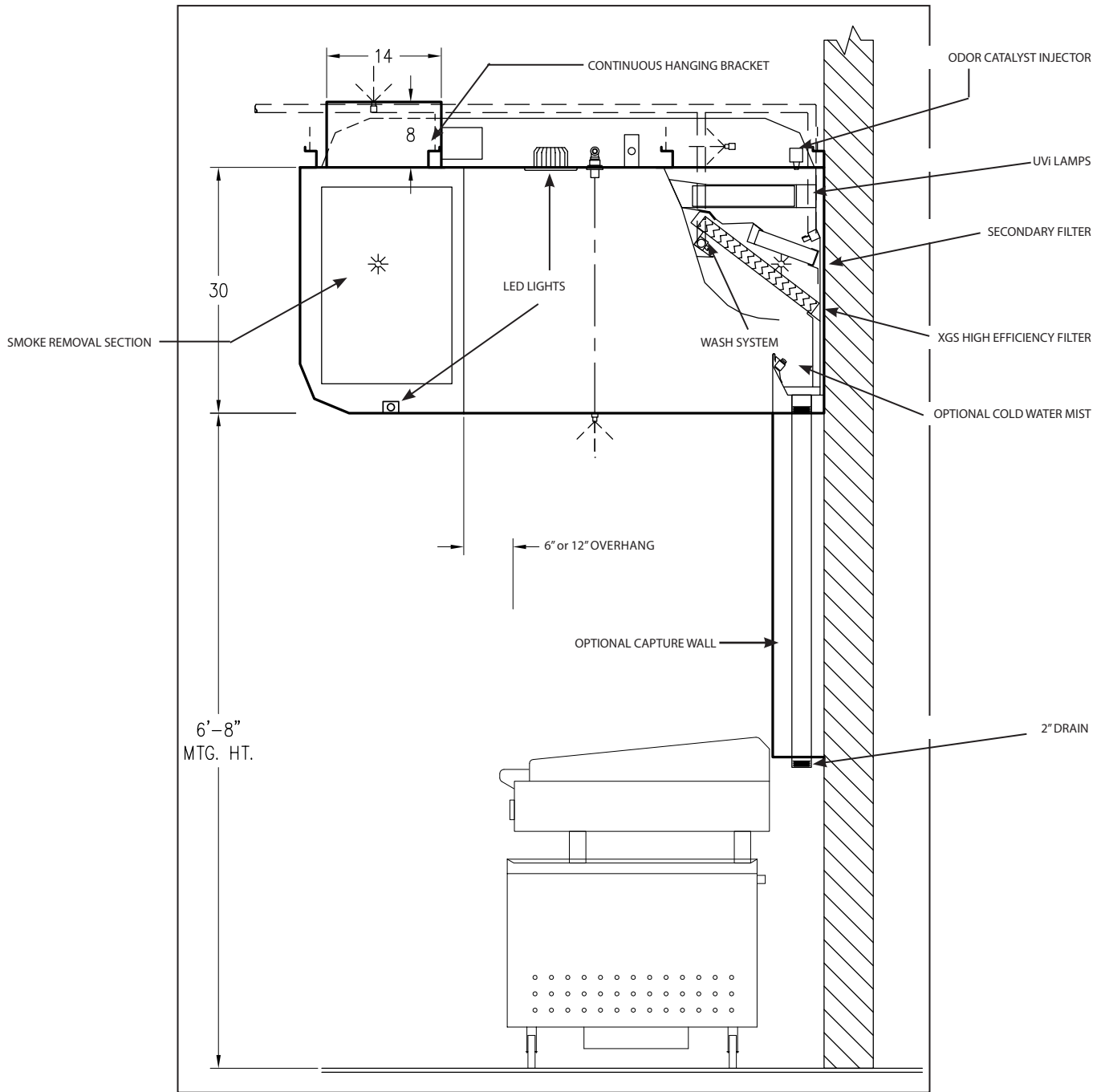
LIGHT FIXTURES: The ventilator shall be equipped with:

- Recessed LED 10 Watts/Ft. Min.

Canopy mounted LED light fixtures provide 50 foot candles at the cooking surface and shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include a listed Demand Control Autostart, fan equipment interlock, complying with IMC (optional outside North America). Each ventilator shall include a built-in 1" air space at the rear that is Listed for reduced clearance to combustibles, and is NFPA-96 and IMC compliant when mounting against a combustible wall. Each ventilator shall be Listed to UL Standard 710 and 710C, ULC S646, UL 867 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards.





Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 120 volt 50/60Hz circuit to lights, 220/240 volt optional. Refer to Wash Control Cabinet for electrical requirements.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

Ventilator Lengths

Minimum 6'-1" length and 14'-0" maximum single section length. For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area. *Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight*

Ventilator Depth (inches)	72"	78"	84"	90"	96"	108"
Ventilator Wt/Linear Ft	lb/ft 160	170	180	190	200	210
Capture Wall	lb/ft 20	20	20	20	20	20

*Add 1000 lbs per duct collar



ELXC SERIES

ITEM NO. _____

MODEL "ELXC-SPC-SO-BB"

HIGH EFFICIENCY EXTRACTOR VENTILATOR
WITH CLEAN-IN-PLACE TECHNOLOGY,
ULTRAVIOLET IRRADIATION, ODOR CONTROL
& ELECTROSTATIC PRECIPITATOR FOR SMOKE CONTROL

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Eliminator Model "ELXC-SPC-SO-BB" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures. The "capture and drain" principle shall prevent water from entering the plenum and duct areas during "FAN ON" wash cycles, thus providing 24/7 operators the full effect of Clean-In-Place technology. Each ventilator shall contain secondary filters to enhance performance and optimize efficiency positioned between the XGS High Efficiency Filters and UV Lamps.

HOOD CONTROLS: Each ventilator shall be IMC compliant and incorporates canopy mounted RTD's positioned strategically across the length of the hood.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates.

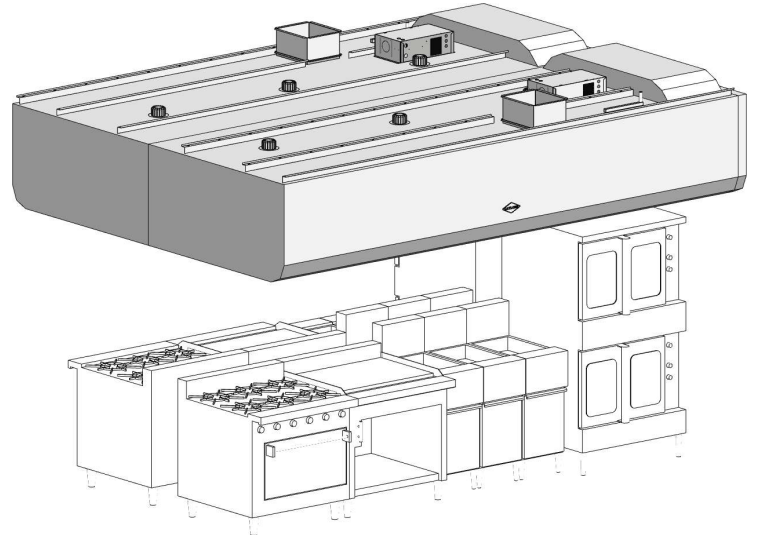
CLEAN-IN-PLACE WASH TECHNOLOGY: Each ventilator shall include two full length stainless steel wash manifolds with brass nozzles; one to wash the inlet face and internal passages of the extractors during "FAN ON" mode and one to wash the plenum chamber during the "FAN OFF" mode as programmed by the Gaylord Command Center. Each wash manifold on each ventilator section shall operate independently so each wash cycle may be programmed at different frequencies and different durations to reduce water and detergent usage and optimize cleaning efficacy according to load and demand. Each ventilator section shall drain to sloping gutters with 2" outlets.

ULTRAVIOLET SYSTEM: The ventilator shall include ultraviolet lamps mounted in modules located in the plenum section(s). The UV module shall be on a slide track for easy removal. Access to the UV modules shall be through keyed and hinged access doors. Two redundant pressure switches shall be provided to monitor the airflow and prevent operation of the UV lamps if the access doors are open, or if any "XGS" Extractor is removed, or if the airflow is inadequate. Mounted on the canopy roof of each ventilator section shall be status lights to monitor "UVi System On", "UVi Lamp Failure", "UVi System Stand By", and cell operational status. The Gaylord Command Center shall display text that duplicates the ventilator mounted status lights. UV system shall incorporate a high temperature shut down set to trigger upon detection of excessive temperatures.

COLD WATER MIST: An optional cold water mist manifold may be installed at the hood inlet for heavy or extra heavy-duty applications.

ODOR NEUTRALIZER: The Ventilator shall contain spray nozzles supplied with water from the building cold water supply system and supplied with an odor catalyst that works in conjunction with the UV Lamps. The volume of odor catalyst will vary based on the system recognizing and adapting to the cooking activity and environment.

SMOKE CONTROL SECTION: The smoke control section shall contain one electrostatic precipitator (ESP) cell to remove smoke particles from the air stream to industry standards or to a level of 95% efficiency in accordance with ASHRAE std 52.2 resulting in no higher than 20% opacity when operated in accordance with the operation and maintenance



APPLICATION

Island style for all double island arrangements for use over all types of equipment; ovens, broilers, griddles, fryers, ranges, steam equipment, etc.

DESIGN FEATURES

- Demand Control Autostart
- Clean-In-Place Technology
- Ultraviolet System
- Smoke and Odor Control

OPTIONAL EQUIPMENT

1. Cold Water Mist
2. Decorative Facings and Trim
3. AirVantage DCKV
4. Smoke Filter & Safety Media Bed Odor Control Module
5. Fire Extinguishing Systems
6. Utility Distribution Systems

guidelines. Each cell shall have 12 tungsten wires run perpendicular to the exhaust air flow which will ionize the air stream. Spike type systems shall not be accepted. The cell shall be positioned on slide tracks so it may be easily removed through a cell access door. For ease of handling, each individual cell shall weigh less than 45lbs. An electrical panel mounted in the unit shall contain the high voltage power pack assembly and safety disconnect switch for safe operation. The safety disconnect switch shall interface with the electrical panel access door such that when opened it will shut off service to the power pack(s) and ground them to drain the residual electrical charge from both the power pack(s) and ESP cell. The high voltage power pack(s) shall be self-limiting type and shall be self-contained. The unit shall contain wash manifold(s) on the top of the cell and the inlet side of the cell with fixed spray nozzles to wash the ESP cell daily with detergent-injected hot water. Required wash pressure is



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SMOKE CONTROL SECTION CONTINUED:

40 to 80 PSI at a minimum of 120°F and a maximum of 140°F. An electric booster heater will be supplied with the GPC-7000SPC control cabinet to increase this to 160°F to 180°F. The booster will require a 230 volt 3-phase 40 amp minimum connection and the electrical requirement varies on model selected. Maximum water flow rate for the ESP section is not to exceed 8 GPM. The ESP cell section shall have a 2" drain with a motorized ball valve that closes when the wash system is off to prevent air bypassing the grease extractors in the hood. This drain shall connect to an approved grease trap prior to entering the sewer system.

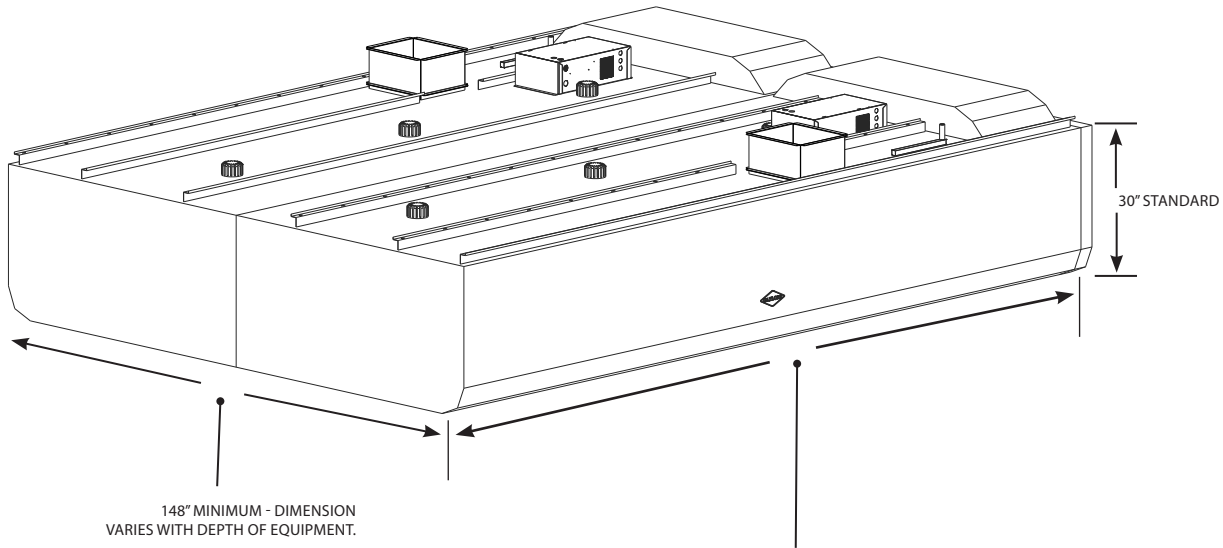
CONSTRUCTION: Each ventilator section shall include non-gasketed and non-removable full length access panels to ease inspection of extractors, secondary filters, UV lamps, plenum and fire extinguishing system. The ESP section shall be mounted, sealed and accessible from inside the hood's canopy by gasketed access panels with keyed lift and turn latches. The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Minimum ventilator length is 6' and can be built in multiple sections for longer applications.

LIGHT FIXTURES: The ventilator shall be equipped with:

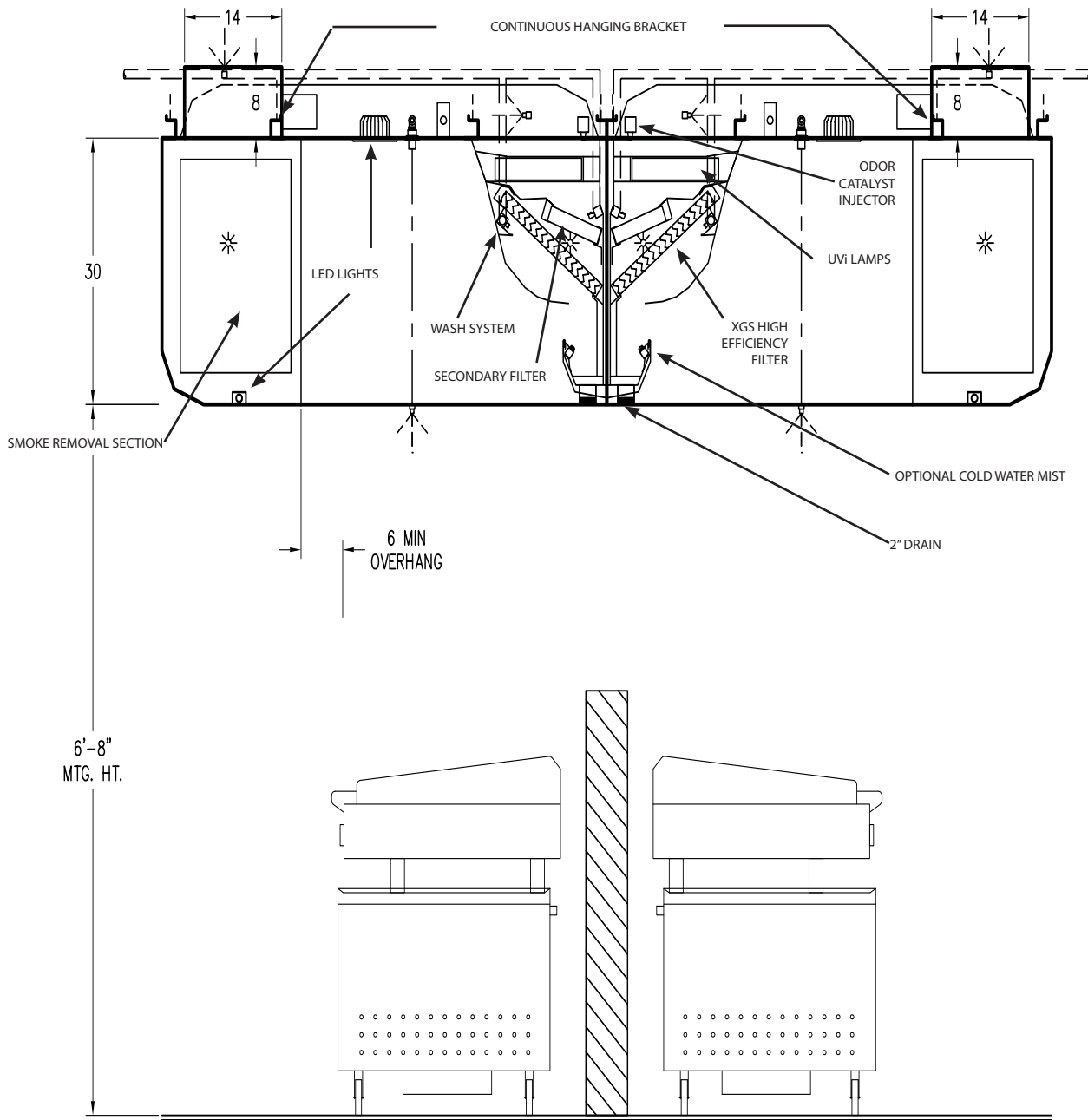
- Recessed LED 10 Watts/Ft. Min.

Canopy mounted LED light fixtures provide 50 foot candles at the cooking surface and shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include a listed Demand Control Autostart, fan equipment interlock, complying with IMC (optional outside North America). Each ventilator shall include a built-in 1" air space at the rear that is Listed for reduced clearance to combustibles, and is NFPA-96 and IMC compliant when mounting against a combustible wall. Each ventilator shall be Listed to UL Standard 710 and 710C, ULC S646, UL 867 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards.



6'- 1" MINIMUM UNIT LENGTH. FOR GREATER LENGTH, JOIN TWO OR MORE SECTIONS TOGETHER. ALLOW 6" MINIMUM OVERHANG AT EACH END. IF CHARBROILER IS AT END, OVERHANG 12".



Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 120 volt 50/60Hz circuit to lights, 220/240 volt optional. Refer to Wash Control Cabinet for electrical requirements.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

Ventilator Lengths

Minimum 6'1" length and 14'0" maximum single section length. For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area. *Note: Ventilators manufactured outside North America; maximum unit length 10'-0".

Hanging Weight*

Ventilator Depth (inches)	72"	78"	84"	90"	96"	108"
Ventilator Wt/Linear Ft	lb/ft 320	340	360	380	400	420
Capture Wall	lb/ft 20	20	20	20	20	20

*Add 1000 lbs per duct collar



ELXC SERIES

ITEM NO. _____

MODEL "ELXC-SPC-SO-CL"

HIGH EFFICIENCY EXTRACTOR VENTILATOR
WITH CLEAN-IN-PLACE TECHNOLOGY,
ULTRAVIOLET IRRADIATION, ODOR CONTROL
& ELECTROSTATIC PRECIPITATOR FOR SMOKE CONTROL

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Ventilator Eliminator Model "ELXC-SPC-SO-CL _____" as shown on plans and in accordance with the following specifications:

HIGH EFFICIENCY EXTRACTION: Each ventilator shall contain "XGS" High Efficiency Extractors utilizing the "capture and drain" principle. Extractor efficiencies shall be determined using ASTM F2519-2005 testing procedures. The "capture and drain" principle shall prevent water from entering the plenum and duct areas during "FAN ON" wash cycles, thus providing 24/7 operators the full effect of Clean-In-Place technology. Each ventilator shall contain secondary filters to enhance performance and optimize efficiency positioned between the XGS High Efficiency Filters and UV Lamps.

HOODCONTROLS: Each ventilator shall come demand control ventilation ready allowing your hood to comply with IMC while being upgradable to Gaylord's patent pending Smart Read and React DCKV technology. Ventilator incorporates canopy mounted RTD's positioned strategically across the length of the hood to produce a variable 0-10 or 4-20 mA fan speed signal and contact closure to react to cooking activity.

CAPTURE AND CONTAINMENT: Each ventilator shall achieve capture and containment using the lowest possible airflow rates.

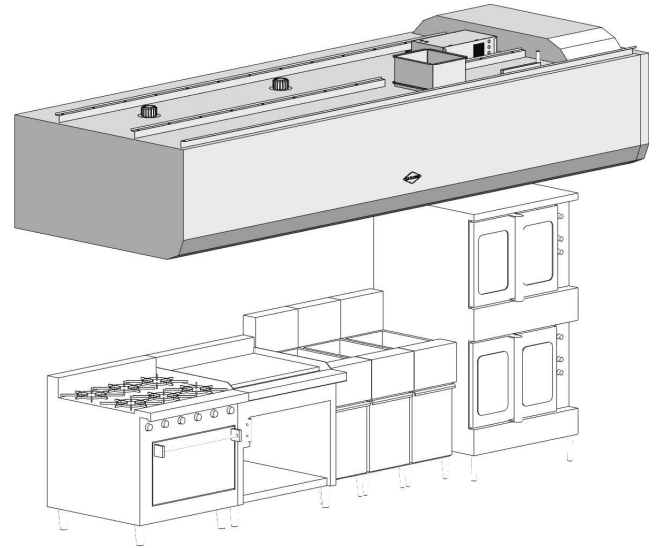
CLEAN-IN-PLACE WASH TECHNOLOGY: Each ventilator shall include two full length stainless steel wash manifolds with brass nozzles; one to wash the inlet face and internal passages of the extractors during "FAN ON" mode and one to wash the plenum chamber during the "FAN OFF" mode as programmed by the Gaylord Command Center. Each wash manifold on each ventilator section shall operate independently so each wash cycles may be programmed at different frequencies and different durations to reduce water and detergent usage and optimize cleaning efficacy according to load and demand. Each ventilator section shall drain to sloping gutters with 2" outlets.

ULTRAVIOLET SYSTEM: The ventilator shall include ultraviolet lamps mounted in modules located in the plenum section(s). The UV module shall be on a slide track for easy removal. Access to the UV modules shall be through keyed and hinged access doors. Two redundant pressure switches shall be provided to monitor the airflow and prevent operation of the UV lamps if the access doors are open, or if any "XGS" Extractor is removed, or if the airflow is inadequate. Mounted on the canopy roof of each ventilator section shall be status lights to monitor "UVi System On", "UVi Lamp Failure", "UVi System Stand By", and cell operational status. The Gaylord Command Center shall display text that duplicates the ventilator mounted status lights. UV system shall incorporate a high temperature shut down set to trigger upon detection of excessive temperatures.

COLD WATERMIST: An optional cold water mist manifold may be installed at the hood inlet for heavy or extra heavy-duty applications.

ODOR NEUTRALIZER: The Ventilator shall contain spray nozzles supplied with water from the building cold water supply system and supplied with an odor catalyst that works in conjunction with the UV Lamps. The volume of odor catalyst will vary based on the system recognizing and adapting to the cooking activity and environment.

SMOKE CONTROL SECTION: The smoke control section shall contain one electrostatic precipitator (ESP) cell to remove smoke particles from the air stream to industry standards or to a level of 95% efficiency in accordance with ASHRAE std 52.2 resulting in no higher than 20% opacity when operated in accordance with the operation and maintenance



APPLICATION

Used for cafeteria lines or single island arrangements when covering light or medium duty cooking equipment.

DESIGN FEATURES

- Demand Control Autostart
- Clean-In-Place Technology
- Ultraviolet System
- Smoke and Odor Control

OPTIONAL EQUIPMENT

1. Cold Water Mist
2. Decorative Facings and Trim
3. AirVantage DCKV
4. Smoke Filter & Safety Media Bed Odor Control Module
5. Fire Extinguishing Systems
6. Utility Distribution Systems

guidelines. Each cell shall have 12 tungsten wires run perpendicular to the exhaust air flow which will ionize the air stream. Spike type systems shall not be accepted. The cell shall be positioned on slide tracks so it may be easily removed through a cell access door. For ease of handling, each individual cell shall weigh less than 45lbs. An electrical panel mounted in the unit shall contain the high voltage power pack assembly and safety disconnect switch for safe operation. The safety disconnect switch shall interface with the electrical panel access door such that when opened it will shut off service to the power pack(s) and ground them to drain the residual electrical charge from both the power pack(s) and ESP cell. The high voltage power pack(s) shall be self-limiting type and shall be self-contained. The unit shall contain wash manifold(s) on the top of the cell and the inlet side of the cell with fixed spray nozzles to wash the ESP cell daily with detergent-injected hot water. Required wash pressure is



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SMOKE CONTROL SECTION CONTINUED:

40 to 80 PSI at a minimum of 120°F and a maximum of 140°F. An electric booster heater will be supplied with the GPC-7000SPC control cabinet to increase this to 160°F to 180°F. The booster will require a 230 volt 3-phase 40 amp minimum connection and the electrical requirement varies on model selected. Maximum water flow rate for the ESP section is not to exceed 8 GPM. The ESP cell section shall have a 2" drain with a motorized ball valve that closes when the wash system is off to prevent air bypassing the grease extractors in the hood. This drain shall connect to an approved grease trap prior to entering the sewer system.

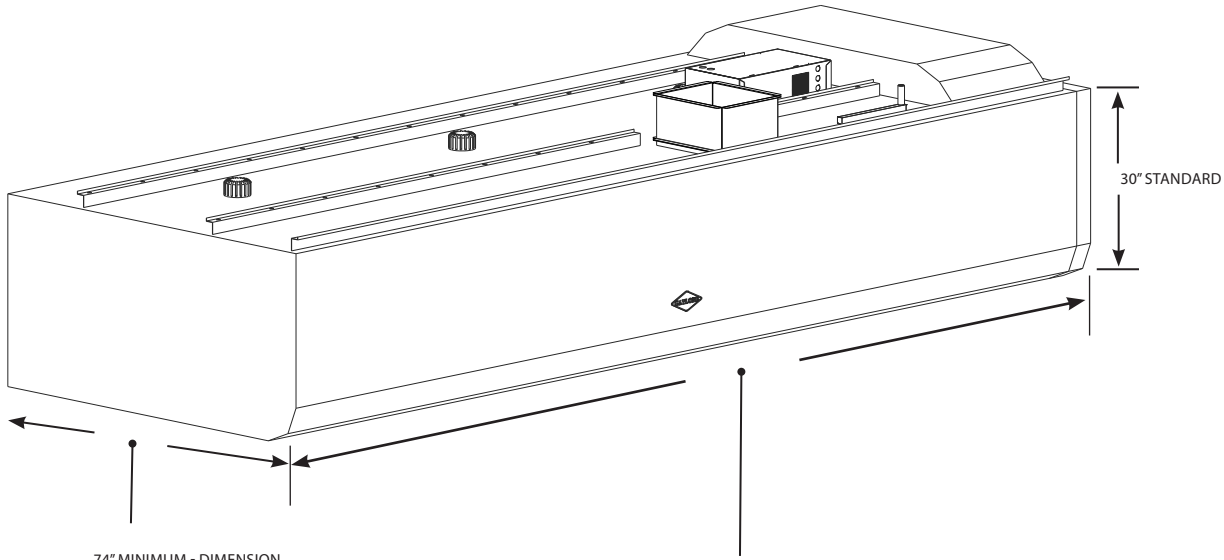
CONSTRUCTION: Each ventilator section shall include non-gasketed and non-removable full length access panels to ease inspection of extractors, secondary filters, UV lamps, plenum and fire extinguishing system. The ESP section shall be mounted, sealed and accessible from inside the hood's canopy by gasketed access panels with keyed lift and turn latches. The ventilator shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. Continuous front and rear mounting brackets shall be provided to facilitate mounting to the wall and hanging from the overhead building structure. Minimum ventilator length is 6' and can be built in multiple sections for longer applications.

LIGHT FIXTURES: The ventilator shall be equipped with:

- Recessed LED 10 Watts/Ft. Min.

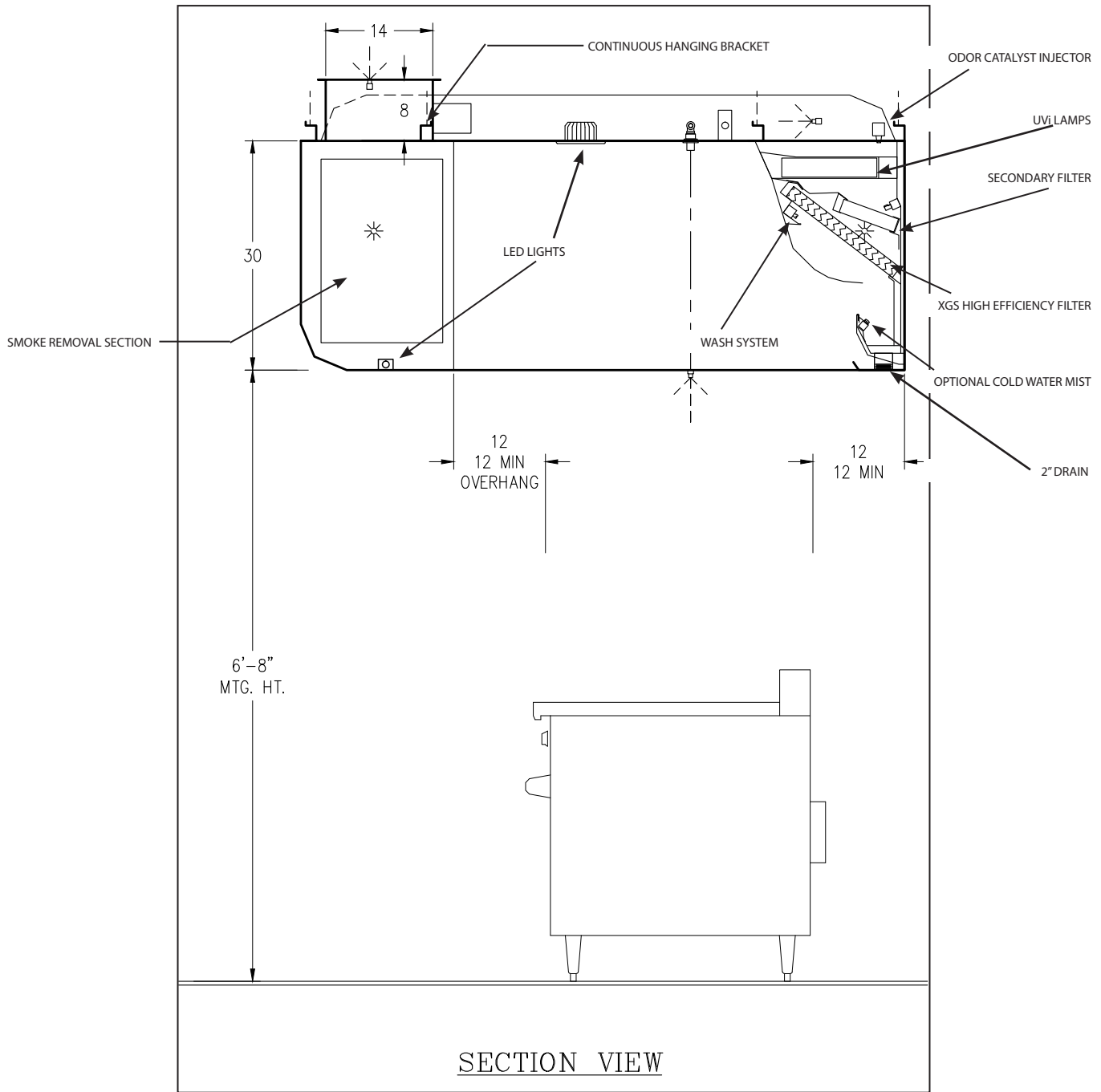
Canopy mounted LED light fixtures provide 50 foot candles at the cooking surface and shall be factory pre-wired to a single connection point. Ventilators built in multiple sections shall be furnished with coiled flex conduit for interconnecting sections.

ACCEPTANCE & APPROVALS: Each ventilator shall include a listed Demand Control Autostart, fan equipment interlock, complying with IMC (optional outside North America). Each ventilator shall include a built-in 1" air space at the rear that is Listed for reduced clearance to combustibles, and is NFPA-96 and IMC compliant when mounting against a combustible wall. Each ventilator shall be Listed to UL Standard 710 and 710C, ULC S646, UL 867 and NSF/ANSI 2, comply with all requirements of NFPA-96, IMC, UMC, BOCA, and SBCCI standards.



74" MINIMUM - DIMENSION VARIES WITH DEPTH OF EQUIPMENT.

6'- 1" MINIMUM UNIT LENGTH. FOR GREATER LENGTH, JOIN TWO OR MORE SECTIONS TOGETHER. ALLOW 6" MINIMUM OVERHANG AT EACH END. IF CHARBROILER IS AT END, OVERHANG 12".



Mechanical Requirements

The amount of exhaust volume required is dependent upon the type of cooking equipment and the type and volume of cooking. Contact factory for exhaust volumes, duct sizes, and static pressures.

Electrical

Provide 120 volt 50/60Hz circuit to lights, 220/240 volt optional. Refer to Wash Control Cabinet for electrical requirements.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

Ventilator Lengths

Minimum 6'- 1" length and 14'-0" maximum single section length . For greater lengths, join two or more sections together. Check to ensure that there is adequate access into building and kitchen area. *Note: Ventilators manufactured outside North America; maximum unit length 10'- 0".

Hanging Weight*

Ventilator Depth (inches)	72"	78"	84"	90"	96"	108"
Ventilator Wt/Linear Ft	lb/ft 160	170	180	190	200	210
Capture Wall	lb/ft 20	20	20	20	20	20

*Add 1000 lbs per duct collar



XGS Extractor

ITEM NO. _____

MODEL XGS EXTRACTOR GREASE FILTER

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Model XGS Extractor as shown on plans and in accordance with the following specifications:

XGS EXTRACTOR:

Gaylord Industries patented Model XGS Extractor is a recognized component to the Gaylord EL Series Ventilators and is constructed with 18-gauge perimeter and 24-gauge interior stainless steel.

GREASE EXTRACTION:

Ventilators with Listed Grease Filters are designated EL Series and with Gaylord XGS Extractors they are designated ELX Series. The Gaylord Industries patented Model XGS Extractor is designed to deliver the absolute optimum in collection efficiency at the lowest possible pressure drop.

DAILY CLEANING AND MAINTENANCE:

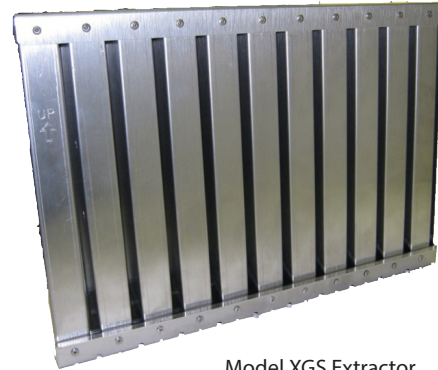
At the end of the each cooking day, or at periodic intervals, depending upon the type of cooking, the XGS Extractors and Grease Drawer must be removed and cleaned. The Grease Gutter should also be wiped out. CAUTION: Before proceeding with cleaning, check to see that the exhaust fan is shut off and the cooking equipment is cool.

To clean proceed as follows:

1. Remove Extractors: CAUTION: Care should be taken when removing the Extractors, especially over fryers. It is recommended that the cooking equipment be cooled down and the fryers be covered prior to removing the Extractors. They may be removed by hand or by use of an optional Extractor Removal Tool. To remove, lift up slightly on the Extractor and pull out from the bottom, then straight down.
2. The Extractors may be cleaned either by using a dishwasher or by soaking in a deep well sink using hot water with a degreasing detergent, then scrubbed and rinsed. Gaylord Formula G-510EF detergent is highly recommended for this application.

ACCEPTANCE & APPROVALS:

The XGS Extractor shall be listed to UL STD 710 and shall be compliant with NSF Standard No. 2. U.S. Patent No 8,157,894, B2. XGS data collected utilizing ASTM2519 and VDI 2052 Pt1 Sept '99 by DMT GmbH & Co. KG.



Model XGS Extractor



Model XGS-SPA Spark Arrestor Extractor

XGS Sizes:

Standard Size:	11" H x 16" W = .75 sq. ft. effective area
ENL Size:	18" H x 16" W = 1.25 sq. ft. effective area

Features:

- 100 to 450 CFM per filter
- Up to 96% efficiency on particulate between 5 - 7 microns as tested to VDI 2052 standards
- Down to 0.13" minimum static pressure
- Spark arrestor extractors are required for solid fuel



The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials.

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GBD Balancing Damper

MODEL "GBD" SERIES BALANCING DAMPER FOR COMMERCIAL RESTAURANT EXHAUST HOODS

GENERAL SPECIFICATIONS

Furnish Gaylord Damper Model "GBD"-_____, or "GEBD"-_____ in accordance with the following specifications:

GENERAL: Each balancing damper shall be of dual opposing blade construction fabricated from stainless steel and built to meet the duct sizing requirements of the commercial cooking hood it serves. Each damper blade shall be composed of two interlocking stainless-steel skins. The blades are to be assembled in such a manner as to create low impact surfaces that will reduce or even eliminate the accumulation of grease from normal cooking operations.

OPERATION OPTIONS:

- **Model GBD-IS Series** - The balancing damper shall have an **Internal Set** to allow the damper to be adjusted and secured, by tightening a self-locking nut from within the hood plenum. The damper setting and locking mechanism shall not interfere with any duct wrap. This model is intended for use as a duct-collar replacement.
- **Model GBD-ES Series** - The balancing damper shall have an **External Set** to allow the damper to be adjusted and secured by tightening a self-locking nut mounted on the outside of the damper housing. Access to the damper adjustment and locking mechanism shall be made through the duct shaft, fire wrap or any other obstructions in accordance with the IMC and NFPA-96.
- **Model GEBD Series** - The balancing damper shall have an electric motor to control the damper and shall be adjusted by a variable 2 to 10 VDC input from a potentiometer provided with the damper. The potentiometer shall be in a junction box mounted external to the hood, as shown on the plans, and wired to the **Balancing Damper** by the electrical contractor. Access to the damper motor shall be made through the duct shaft, fire wrap or any other obstructions in accordance with the IMC and NFPA-96.

APPLICATION: The GBD and GEBD Series dampers are to be used downstream of a listed Type I commercial cooking hood. Typically, they are mounted directly to the hood duct collar but can be located downstream of the hood. (refer to Figure 3 for proper installation) They are intended to balance the exhaust flows of two or more hoods on the same exhaust system. The GBD and GEBD Series Dampers have been tested and are listed as an Exhaust System Accessory under UL 710 and ULC S646, and are constructed under the guidelines specified in NFPA-96.

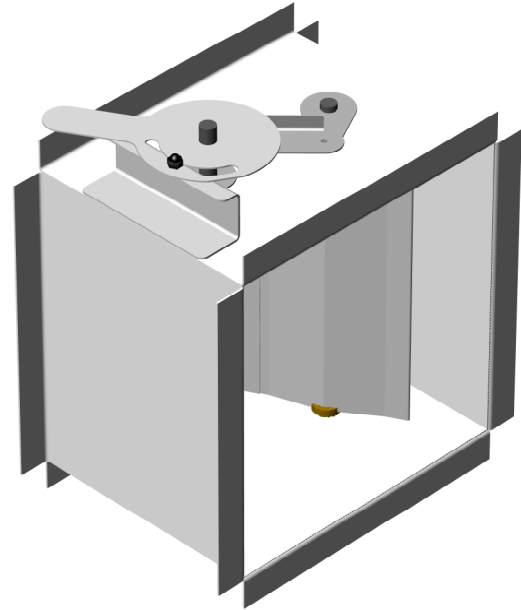


Figure 1. GBD-ES Series Balancing Damper
See figure 3 for proper installation.

DAMPER OPERATION: Each damper is field adjustable to allow your commercial cooking ventilation system to be perfectly optimized. GBD-IS and GBD-ES dampers are manually adjusted and secured in place by use of a self-locking nut. The GEBD electric damper series is adjusted by a variable 2 to 10VDC input which will allow for easy adjustment and balancing by use of a provided potentiometer or as part of a larger control system designed to reduce air volumes based on equipment and cooking requirements. The damper may be wired to the exhaust fan so that it closes upon fan deactivation to preventing cold air from drafting into the kitchen once cooking operations have halted. The electric damper may also be used to reduce or even shut down particular hood sections when cooking lines are at idle or not in operation. The electric damper may be interfaced with a variable air volume system, possibly achieving U.S. Green Building Council LEED™ credits in the area of Energy Efficiency.



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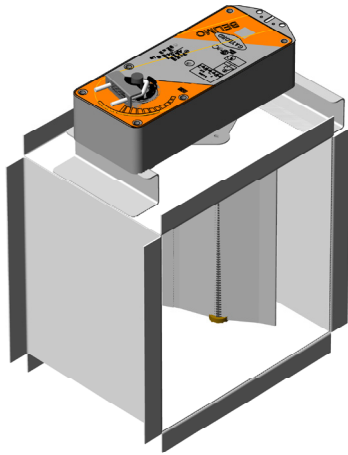


Figure 2. *GEGBD Series Damper
See figure 3 for proper installation.

Model Number Nomenclature			
1. _____	2. _____	3. _____	4. _____
Damper Series Type	Setting Type	Depth	Width
	(Leave blank for electric)	(As shown in the hood section view)	(As shown in the hood elevation view)

ACCESSIBILITY AND INSPECTION: The Gaylord Balancing Damper will require maintenance consistent with duct cleaning and quarterly and/or yearly inspections. Access to the damper must always be available to maintain easy routine inspections. In the event that grease build-up is evident, use NFPA-96 guidelines for containment accumulation to schedule cleaning cycles. It is recommended that cleanings be done regularly by a licensed cleaner acceptable to the authority having jurisdiction. For a list of recommended Certified Service Agents in your area please go to www.gaylordventilation.com.

CONSTRUCTION

The damper housing shall be of all stainless-steel construction, not less than 18 gauge, type 300 series, and continuously welded. Damper blade construction shall be of not less than 20 gauge, type 300 series stainless steel. The use of aluminized steel or galvanized steel is not acceptable.

ACCEPTANCE AND APPROVALS

The balancing damper shall be listed to UL 710 / ULC S646 as a hood accessory and meet all requirements of IMC and NFPA 96.

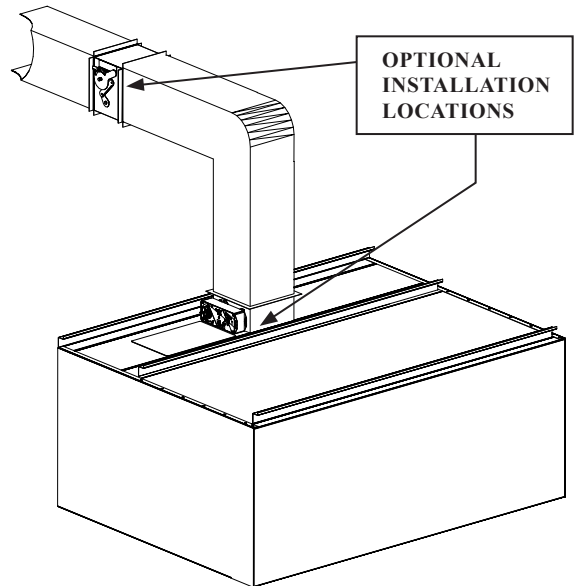


Figure 3. Location Options



DCV-AV AirVantage

ITEM NO. _____

MODEL AirVantage (DCV-AV) DEMAND CONTROL VENTILATION WITH SMART READ AND REACT TECHNOLOGY FOR MULTIPLE HOOD SINGLE FAN EXHAUST SYSTEMS

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Demand Control Ventilation (DCV) with smart read and react technology Model "DCV-AV" (AirVantage) as shown on plans and in accordance with the following specifications:

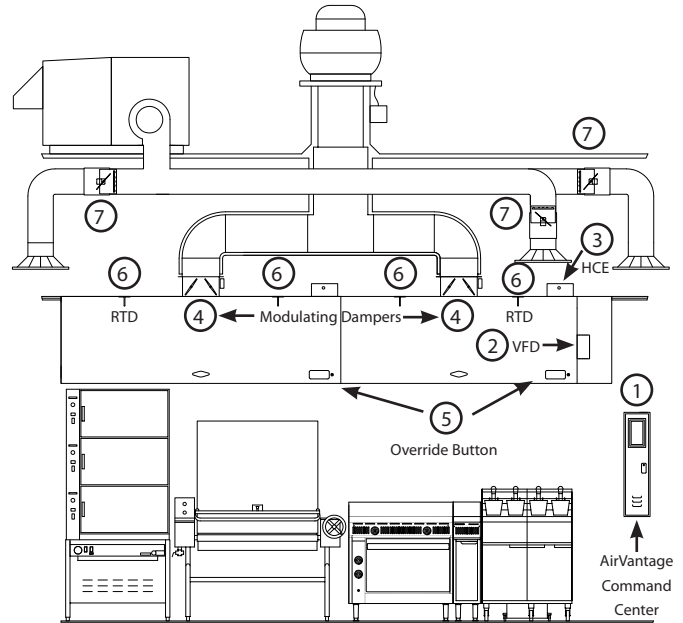
DCV-AV AIRVANTAGE SYSTEM DESCRIPTION: The purpose of the DCV-AV (AirVantage) system is to reduce kitchen operational and utility costs by conserving energy through the reduction of exhaust and makeup air for the commercial kitchen ventilation (CKV) system while effectively communicating with the Building Management System (BMS).

DEMAND CONTROL VENTILATION (DCV-AV) SYSTEM:

- Shall have an AirVantage Command Center enclosure including: 7 inch x 4.3 inch color touchscreen HMI digital control, room ambient temperature sensor, fire suppression integration controls, and VFD interface terminals.
- The AirVantage Command Center housing shall be constructed of 300 series stainless steel with a #4 finish complying with NSF/ANSI 2-2010.
- Shall utilize listed, programmable stainless steel resistance temperature detectors (RTDs) mounted inside the hood canopy to accurately read sensible heat from the cooking equipment and vary the speed of the exhaust and makeup air fans accordingly.
- Shall be able to control multiple hood sections, exhaust fan, and makeup air fan on one system. Additional systems may be required based on specific kitchen configurations.
- Upon hood activation, the controller(s) will turn on the DCV system to its minimum exhaust rate; a 4-20 mA signal will modulate the exhaust rate between the minimum and maximum set points.
- Shall have multiple programmable algorithms that can be selected per hood.
- Shall have an Override Button on each kitchen exhaust hood that ramps the exhaust to 100%.
- Variable frequency drive (VFD) options:
 - VFD(s) supplied by DCV manufacturer:
 - VFD shall be a NEMA 1 rated enclosure design allowing the VFD to be mounted as a stand-alone unit up to 75 HP.
 - Shall allow full system modulation with a maximum allowable 70% reduction in airflow.
 - Type NEMA 1 or NEMA 3R rated forced air or vented enclosures available upon request.
 - VFD provided by others:
 - DCV Manufacturer will provide the recommended programming specification with the DCV output information to the VFD.
- Complies with IMC 507.2.1.1
- Shall be UL 508A, UL 710, UL 873 listed. Only Listed demand control ventilation systems shall be accepted.

DCV-AV COMPONENTS:

- Individual Hood Section Components:
 - Hood process controller (accessed from inside the canopy)
 - Shall utilize strategically placed canopy mounted RTD(s) inside the hood canopy to determine equipment activity levels and calculate the required airflow and damper position. Optics or Infrared sensors shall not be allowed.
 - Shall have individual hood-mounted pressure transducer sized to the hood it monitors. The requirement for airflow is processed and assessed for risk resulting in a flow reference for the damper and a call for fan to be sent out to the fan controller.



1. AirVantage Command Center
2. Variable Frequency Drives shown mounted in an optional Hood End Cabinet
3. Hood Control Enclosure (HCE)
4. Modulating Dampers
5. Override Button
6. Resistance Temperature Detector (RTD)
7. SmartAir Variable Air Volume Terminal Unit (optional)

- Shall have time-programmable individual Override button on the front of each hood section that will override that section's exhaust rate to 100% when required.
- Lighting on each hood section is automatically controlled by the hood controller.

- Shall have Listed hood exhaust collar-installed dual blade modulating damper powered by an analog controlled 24 VAC actuator.

AIRVANTAGE COMMAND CENTER:

- Shall have wall or hood-mounted control enclosure housing a 7 inch tall by 4.3 inch wide color touch screen displaying equipment status, energy savings values, troubleshooting, and communications options.
- Control enclosure shall incorporate: room ambient temperature sensor, fire suppression integration controls, VFD connection terminals, and Wi-Fi and USB download data connections.

DCV-AV COMMUNICATIONS:

- The AirVantage Command Center shall be equipped with:
 - BACnet over IP communication.
 - USB port will provide quick downloading of runtime data and system configuration backup or upload.

VARIABLE FREQUENCY DRIVE(S):

- NEMA 1 enclosed VFD(s) up to 75 HP, shall be installed to allow full system modulation up to a 70% reduction in airflow from design.
 - Optional: Engineered enclosures available for outdoor use.*
- All related low voltage communication cabling shall be provided by the electrical contractor.

SCOPE OF WORK / AREAS OF RESPONSIBILITIES:

- Responsibility of Mechanical Engineer of record and/or the Mechanical contractor:
 - Shall provide DCV Manufacturer with the following information, prior to the start of the project submittal drafting process to support a successful installation of the DCV System.
 - Kitchen exhaust fan details including exhaust and makeup air fan schedules that list fan motor voltage and horsepower and identify which exhaust hoods are associated with each fan.
 - Details of the Makeup Air Unit type and operational airflow range.
 - Mechanical ductwork details of kitchen exhaust and MUA system
 - Confirm that the kitchen exhaust hood makeup air unit can modulate to as low as 30% of design air flow.
 - Location of the VFDs for the makeup air and exhaust fan associated with the kitchen exhaust hoods.
 - Shall for systems specified with SmartAir VAV determine VAV unit sizing, VAV placement, and installation.

SCOPE OF WORK PERFORMED BY DCV MANUFACTURER:

- Supply the DCV System in accordance with approved drawings.
- Provide all individual hood section dampers and controller(s) as part of the hood assembly.
- Provide all appropriate sensors in the hood canopy as part of the hood assembly.
 - Optional*
 - Provide AirVantage Command Center mounted onto a hood section.

SCOPE OF WORK PERFORMED BY KITCHEN EQUIPMENT CONTRACTOR (KEC):

- Install AirVantage Command Center per specified drawing location(s) and DCV installation manual guidelines.
- Coordination of the high and low voltage wiring connections, VFD cabling, any conduit, and ceiling or wall penetrations.

SCOPE OF WORK PERFORMED BY ELECTRICAL CONTRACTOR, COORDINATED BY KEC:

- The wall mounted AirVantage Command Center will require:
 - 120V, single-phase dedicated circuit to AirVantage Command Center.
 - (1) RJ45 cable interfacing the controller with the individual hood sections
 - Provide (1) or more 3-phase service(s) for supply and exhaust motors as dictated by the system design.
- Each Gaylord hood provided with the AirVantage Command Center will require:
 - (1) 120/240 VAC single-phase input to be shared with the hood canopy lighting.
 - (1) RJ45 cable to transmit runtime data and the hood's requirement for air to the AirVantage Command Center.
- Connect low voltage wire between hood sections per wiring schematics.
- Connect 120VAC single-phase wiring between hood sections per wiring schematics.
- Provide all wiring needed to connect hood fire protection system to AirVantage Command Center per wiring schematics.

- Provide all low voltage cabling from AirVantage Command Center to the associated VFD(s) per wiring schematics.
- Provide all 3-phase wiring to VFD per local AHJ and code requirements.
- Upon completion of wiring the DCV-AV system, the electrician must verify proper fan rotation of each fan motor with the VFD drive ON and operating to ensure proper fan rotation.

SCOPE OF WORK PERFORMED BY BUILDING CONTROLS CONTRACTOR, COORDINATED BY KEC:

- (If project requires DCV system to connect to a Building Management System)*
- Install low voltage wiring from BACnet connections on the AirVantage Command Center to the BMS panel for system operations, motor speed data, and additional information.

SCOPE OF WORK PERFORMED BY DCV CERTIFIED TECHNICIAN:

- Shall verify that all final cable connections to the AirVantage Command Center are properly installed prior to the DCV startup process.
- Shall verify any control wiring to BMS, if required, is properly installed prior to the DCV startup process.
- Shall perform the complete startup and commissioning process of the DCV system per the Technical Manual once all installation of the equipment and wiring is confirmed complete by KEC.
 - Set all hood sections to design air flow
 - Adjust the VFD set points if the VFD(s) were provided by DCV System manufacturer; or coordinate the adjustments with the contractor providing the VFD(s).
 - Verify complete DCV system functionality per Sequence of Operations and maximize system optimization and provide a written report of the functionality of the system.
 - Optional*
 - DCV Certified Technician to oversee the installation of the system through up to 3 site visits, in addition to the commissioning visits, to explain the system, answer questions for all trades involved with the install of the DCV system, and assure proper installation and coordination.

SCOPE OF WORK PERFORMED BY PROJECT SUPERINTENDENT/MANAGER:

- Coordinate system balancing with qualified TAB contractor once DCV Certified Technician sets hood or hood and SmartAir VAV design airflow rates when equipped.
- Coordinate any required fan and/or SmartAir VAV adjustments.

GENERAL NOTES:

1. No substitution of Gaylord components allowed except cables.
2. All motors must be 3-phase inverter duty rated as specified in NEMA Std. 1, part 31.
3. Minimum airflows are to be set for a maximum turndown with the Test Balance Technician responsible for any necessary field adjustments to fan sheaves.
4. Gaylord Operations and Maintenance Manuals (O&Ms) are available online at www.gaylordventilation.com.

CAPTURE AND CONTAINMENT: Shall be per ASHRAE STD 154.

ACCEPTANCE & APPROVALS: DCV System will comply with current IMC 507.2.1.1. The AirVantage Command Center shall be listed to UL 508A, UL 710 and UL 873. The AirVantage Command Center enclosure shall be compliant with NSF Standard No. 2.



The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials.

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GAYLORD® DCV-AVND AirVantage

ITEM NO. _____

MODEL "DCV-AVND" DEMAND CONTROL VENTILATION WITH SMART READ AND REACT TECHNOLOGY MULTIPLE HOOD MULTIPLE FAN EXHAUST SYSTEM

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Demand Control Ventilation (DCV) with smart read and react technology Model "DCV-AVND" (AirVantage No Damper) as shown on plans and in accordance with the following specifications:

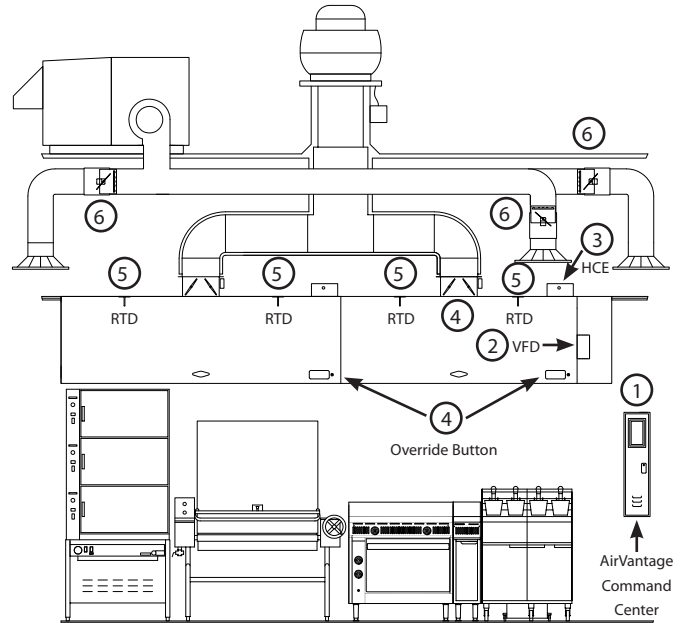
DCV-AVND SYSTEM DESCRIPTION: The purpose of the DCV-AVND (AirVantage No Damper) system is to reduce kitchen operational and utility costs by conserving energy through the reduction of exhaust and makeup air for the commercial kitchen ventilation (CKV) system while effectively communicating with the Building Management System (BMS).

DEMAND CONTROL VENTILATION (DCV-AVND) SYSTEM:

- Shall have an AirVantage Command Center enclosure including: 7-inch x 4.3-inch color touchscreen HMI digital control, room ambient temperature sensor, fire suppression integration controls, and VFD/BMS/VAV interface terminals.
- The AirVantage Command Center housing shall be constructed of 300 series stainless steel with a #4 finish complying with NSF/ANSI 2-2010.
- Shall utilize listed, programmable stainless steel resistance temperature detectors (RTDs) mounted inside the hood canopy to accurately read sensible heat from the cooking equipment and vary the speed of the exhaust and makeup air fans accordingly.
- Shall be able to control multiple hood sections, multiple exhaust fans, and multiple makeup air fans on one system. Additional systems may be required based on specific kitchen configurations.
- Upon hood activation, the controller(s) will turn on the DCV system to its minimum exhaust rate; a 4-20mA or 2-10Vdc signal will modulate the exhaust rate between the minimum and maximum set points.
- Shall have multiple programmable algorithms that can be selected per hood.
- Shall have an Override Button on each kitchen exhaust hood that ramps the exhaust to 100%.
- Variable frequency drive (VFD) options:
 - o VFD provided by others (Standard):
 - DCV manufacturer will provide the recommended programming specification with the DCV output information to the VFD.
 - o VFD(s) supplied by DCV manufacturer (Optional):
 - VFD shall be a NEMA 1 rated enclosure design allowing the VFD to be mounted as a stand-alone unit up to 75 HP.
 - Shall allow full system modulation with a maximum allowable 70% reduction in airflow.
 - Type NEMA 1 or NEMA 3R rated forced air or vented enclosures available upon request.
- Complies with IMC.
- Shall be UL 508A, UL 710, UL 873 listed. Only Listed demand control ventilation systems shall be accepted.

DCV-AVND COMPONENTS:

- Individual Hood Section Components:
 - o Hood process controller (accessed from inside the canopy)
 - Shall utilize strategically placed canopy RTD(s) inside the hood canopy to determine equipment activity levels and calculate the required airflow.



1. AirVantage Command Center
2. Variable Frequency Drives shown mounted in an optional Hood End Cabinet
3. Hood Control Enclosure (HCE)
4. Override Button
5. Resistance Temperature Detector (RTD)
6. SmartAir Variable Air Volume Terminal Unit (optional)

- Shall have an individual time programmable Override button on the front of each hood section that will override that section's exhaust rate to 100% when required.
- Lighting on each hood section is automatically controlled by the hood controller.

AIRVANTAGE COMMAND CENTER:

- Shall have wall or hood-mounted control enclosure housing a 7-inch tall by 4.3-inch wide color touchscreen displaying equipment status, energy savings values, troubleshooting, and communications options.
- Control enclosure shall incorporate: room ambient temperature sensor, fire suppression integration controls, VFD/BMS/VAV connection terminals, and Wi-Fi and USB download data connections.

DCV-AVND COMMUNICATIONS:

- The AirVantage Command Center shall be equipped with:
 - o BACnet over IP communication.
 - o USB port will provide quick downloading of runtime data and system configuration backup or upload.

VARIABLE FREQUENCY DRIVE(S):

- NEMA 1 enclosed VFD(s) up to 75 HP, shall be installed to allow full system modulation up to a 70% reduction in airflow from design.
 - o *Optional: Engineered enclosures available for outdoor use.*
 - All related low voltage communication cabling shall be provided by the electrical contractor.

SCOPE OF WORK / AREAS OF RESPONSIBILITIES:

- Responsibility of Mechanical Engineer of record and/or the Mechanical contractor:
 - o Shall provide DCV manufacturer with the following information, prior to the start of the project submittal drafting process to support a successful installation of the DCV System.
 - Kitchen exhaust fan details including exhaust and makeup air fan schedules that list fan motor voltage and horsepower and identify which exhaust hoods are associated with each fan.
 - Details of the the Makeup Air Unit type and operational airflow range.
 - Mechanical ductwork details of kitchen exhaust and MUA system
 - Confirm that the kitchen exhaust hood makeup air can modulate to as low as 30% of design air flow.
 - Location of the VFDs for the makeup air and exhaust fan associated with the kitchen exhaust hoods.
 - Shall for systems specified with VAV determine VAV unit sizing, VAV placement, and installation.

SCOPE OF WORK PERFORMED BY DCV MANUFACTURER:

- Supply the DCV System in accordance with approved drawings.
- Provide all individual hood section controllers as part of the hood assembly.
- Provide all appropriate sensors in the hood canopy as part of the hood assembly.
 - o *Optional*
 - Provide AirVantage Command Center mounted onto a hood section.

SCOPE OF WORK PERFORMED BY KITCHEN EQUIPMENT CONTRACTOR (KEC):

- Install AirVantage Command Center per specified drawing location and DCV installation manual guidelines.
- Coordination of the high and low voltage wiring connections, VFD cabling, any conduit, and ceiling or wall penetrations.

SCOPE OF WORK PERFORMED BY ELECTRICAL CONTRACTOR, COORDINATED BY KEC:

- The wall mounted AirVantage Command Center will require:
 - o 120V, single-phase dedicated circuit to AirVantage Command Center.
 - o (1) RJ45 cable interfacing the controller with the individual hood sections
 - o Provide (1) or more 3-phase service(s) for supply and exhaust motors as dictated by the system design.
- Each Gaylord hood provided with the AirVantage Command Center will require:
 - o (1) 120/240 VAC single-phase input to be shared with the hood canopy lighting.
 - o (1) RJ45 cable to transmit runtime data and the hood's requirement for air to the AirVantage Command Center.
- Connect low voltage wire between hood sections per wiring schematics.
- Connect 120VAC single-phase wiring between hood sections per wiring schematics.
- Provide all wiring needed to connect hood fire protection system to AirVantage Command Center per wiring schematics.

- Provide all low voltage cabling from AirVantage Command Center to the associated VFD/BMS/VAV(s) per wiring schematics.
- Provide all 3-phase wiring to VFD per local AHJ and code requirements.
- Upon completion of wiring the DCV-AVND system, the electrician must verify proper fan rotation of each fan motor with the VFD drive ON and operating to ensure proper fan rotation.

SCOPE OF WORK PERFORMED BY BUILDING CONTROLS CONTRACTOR, COORDINATED BY KEC:

(If project requires DCV system to connect to a Building Management System)

- Install low voltage wiring from BACnet/BMS connections on the AirVantage Command Center to the BMS panel for system operation for motor speed data, and additional information.

SCOPE OF WORK PERFORMED BY DCV CERTIFIED TECHNICIAN:

- Shall verify that all final cable connections to the AirVantage Command Center are properly installed prior to the DCV startup process.
- Shall verify any control wiring to BMS, if required, is properly installed prior to the DCV startup process.
- Shall perform the complete startup and commissioning process of the DCV system per the Technical Manual once all installation of the equipment and wiring is confirmed complete by KEC.
 - o Set all hood sections to design air flow
 - o Adjust the VFD set points if the VFD(s) were provided by DCV System manufacturer; or coordinate the adjustments with the contractor providing the VFD(s).
 - o Verify complete DCV system functionality per Sequence of Operations and maximize system optimization and provide a written report of the functionality of the system.
 - o *Optional*
 - DCV Certified Technician to oversee the installation of the system through up to 3 site visits, in addition to the commissioning visits, to explain the system, answer questions for all trades involved with the install of the DCV system, and assure proper installation and coordination.

SCOPE OF WORK PERFORMED BY PROJECT SUPERINTENDENT/MANAGER:

- Coordinate system balancing with qualified TAB contractor once DCV Certified Technician sets hood or hood and VAV design airflow rates when equipped.
- Coordinate any required fan and/or VAV adjustments.

GENERAL NOTES:

1. No substitution of Gaylord components allowed except cables.
2. All motors must be 3-phase inverter duty rated as specified in NEMA Std. 1, part 31.
3. Minimum airflows are to be set for a maximum turndown with the Test & Balance Technician responsible for any necessary field adjustments to fan sheaves.
4. Gaylord Operations and Maintenance Manuals (O&Ms) are available online at www.gaylordventilation.com.

CAPTURE AND CONTAINMENT: Shall be per ASHRAE STD 154.

ACCEPTANCE & APPROVALS: DCV System will comply with current IMC. The AirVantage Command Center shall be listed to UL 508A, UL 710 and UL 873. The AirVantage Command Center enclosure shall be compliant with NSF Standard No. 2.



The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials.

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MODEL DCA DEMAND CONTROL AUTOSTART WITH SMART READ AND REACT TECHNOLOGY

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Demand Control Autostart Fan/Equipment interlock model "DCA" as shown on plans and in accordance with the following specifications:

DEMAND CONTROL AUTOSTART DESCRIPTION: The purpose of the DCA system is to automatically detect and provide an activation signal to start exhaust fans in response to cooking activity beneath the Gaylord hood system. The system features a hood mounted controller and canopy mounted resistance temperature detectors (RTDs).

DEMAND CONTROL AUTOSTART (DCA) SYSTEM:

Each Demand Control Autostart Fan/Equipment Interlock shall include:

- RTD based Fan/Equipment Interlock complying with IMC
- Multiple canopy-mounted stainless steel housed Resistance Temperature Device (RTDs)
- Programmable RTD activation temperature set points and exhaust fan shutdown timer.
- Factory set for a 90°F activation.
- Provided standard with 120VAC fan activation signal

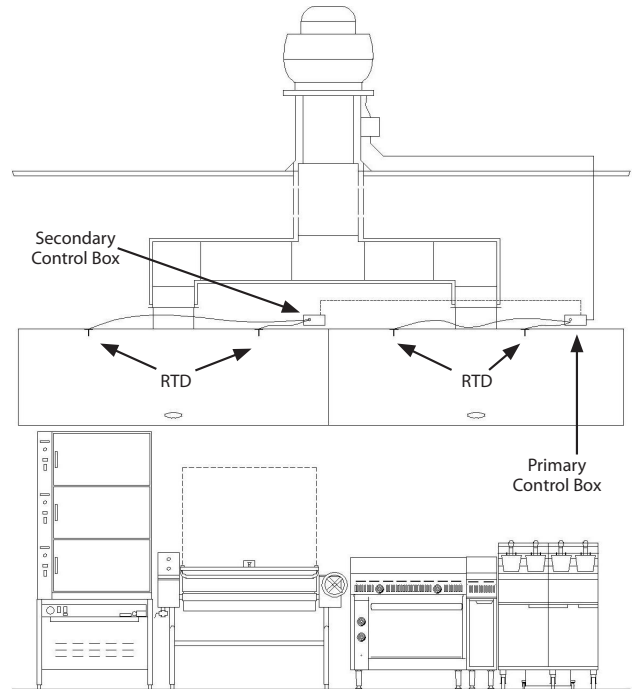
Each DCA System Control shall **EXCLUDE**:

- Wiring connections and installation.
- Plans and permits.

GENERAL NOTES:

1. Gaylord Operations and Maintenance Manuals (O&Ms) are available online at www.gaylordventilation.com.

ACCEPTANCE & APPROVALS: Where installed each DCA controller shall comply with UL 873, CSA C22.2#24, UL 508, and be compliant with UL 710 and ULC S646 as a recognized component when installed on a listed commercial kitchen exhaust hood.



Components of Demand Control Autostart System



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Autostart

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MODEL "VH2" SERIES

TYPE II VAPOR HOOD

GENERAL SPECIFICATIONS

Furnish Gaylord model "VH2-____" Type II vapor hood as shown on the plans and in accordance with the following specifications.

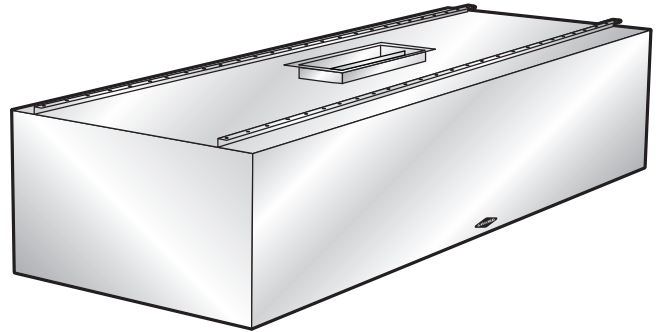
The hood shall be constructed of minimum 18 gauge stainless steel type 300 series, number 4 finish and contain a baffle for collecting condensed moisture from the hood. The hood shall incorporate a perimeter gutter with a ½" drain stub out. The hood shall include two full length hanging brackets with holes pre-punched 12" on centers. The exhaust volume and duct size shall be as indicated on the plans.

The hood shall meet all requirements of the IMC (International Mechanical Code) and constructed in strict compliance with NSF standard number 2.

- **Optional Incandescent Light:** The hood shall include 100 watt incandescent light fixture(s) pre-wired to a single connection point. The light shall be UL Listed for commercial hoods and wired in accordance with the latest edition of the NEC (National Electrical Code).
- **Optional LED Light:** The hood shall include a recessed LED Puck Light(s) pre-wired to a single connection point. The light shall be UL Listed for commercial hoods and wired in accordance with the latest edition of the NEC (National Electrical Code).
- **Optional Balancing Damper:** The hood shall include a stainless steel slide type balancing damper located at the duct collar.

DESCRIPTION

The Gaylord Model "VH2" Series Vapor Hood is a Type II hood designed specifically for collecting moisture generated by equipment such as dishwashers, steam tables, bain maries, etc. The hood is constructed of 18 gauge type 300 series stainless steel number 4 finish. The hood includes a condensing baffle that drains off the extracted moisture, and a full perimeter gutter with drain. Also included are two full length brackets with pre-punched holes on 12" centers providing multiple hanging points for easy installation. The units are available in standard lengths from 3'-0" to 12'-0" and depths from 36" to 60" in 6" increments. For lengths longer than 12'-0", two or more units of equal length are joined together. A slide type balancing damper located at the duct collar is available as an option.

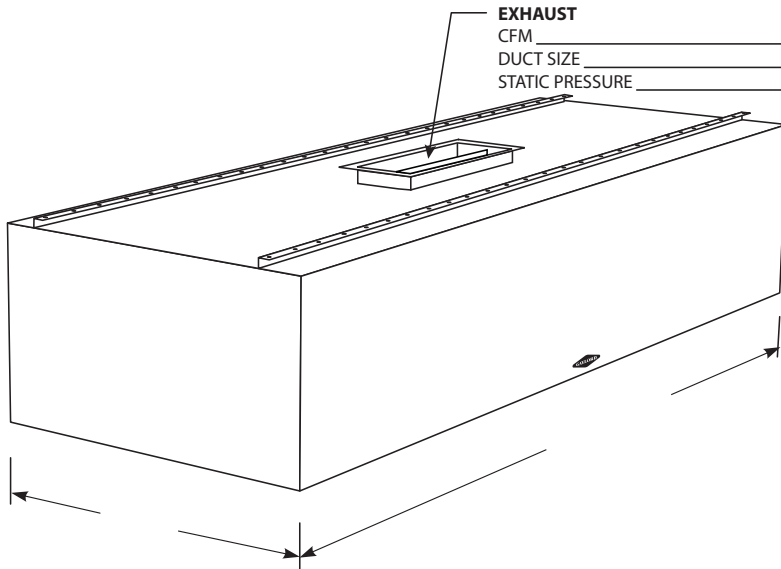


FEATURES:

- All stainless steel construction
- Condensate baffle
- Perimeter gutter with drain
- Meets International Mechanical Code
- Meets NSF Standard No. 2
- Optional balancing damper
- Optional light fixtures

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PROJECT NAME: _____

ITEM NO.: _____

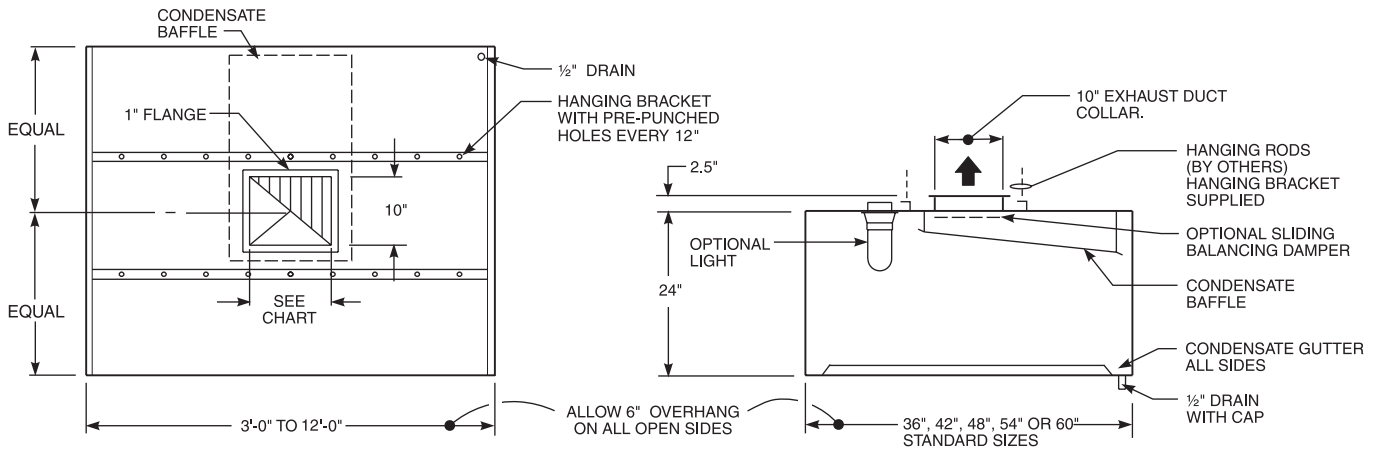
MODEL "VH2" SERIES

TYPE II VAPOR HOOD

- MODEL VH2-W (WALL MOUNT)
- MODEL VH2-I (ISLAND STYLE)

OPTIONS

- 100 WATT INCANDESCENT LIGHT
- LED PUCK LIGHT
- SLIDING BALANCING DAMPER



The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials

Model "VH2"

Determining Exhaust Volumes

To Calculate Exhaust Duct Length (In)

Example:

Exhaust CFM: 765 and Duct Depth 10" STD

Length = $\frac{CFM}{104}$ (inches) Length = $\frac{765 CFM}{104}$ (inches)

Length = X inches Length = 7.35 inches

Duct Depth = X Duct Depth = 7.4 then round up to the nearest inch

Final Duct Size 10" x 8"

Hanging Weight

Ventilator Width	36"	42"	48"	54"	60"
Wt. lineal ft. Lbs.	40	45	50	55	60

APPLICATION	WALL/ ISLAND	CFM/ Lin. Ft	STATIC PRESSURE (" W.G.)
Dishwasher	Wall	200	0.25
Dishwasher	Island	400	0.25
Light Duty Cooking	Wall	200	0.25
Light Duty Cooking	Island	400	0.25

The above Exhaust Volumes are based upon International Mechanical Code 2006.

MODEL "PBW"

WHISPER AIR™ SERIES PLENUM BOX

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Gaylord Whisper Air™ Series Plenum Box Model "PBW-_____" as shown on the plans and in accordance with the following specifications:

GENERAL: The plenum box distributes low velocity make-up air down, immediately in front of the ventilator and shall be capable of delivering up to 150 CFM per lineal ft. of air at a low velocity.

The plenum box shall be designed to fit in front of the ventilator, either flush with the ceiling or dropped down in front of the ventilator. Plenum Box shall be 8" high by the length of the ventilator, as detailed on the drawings.

CAPTURE AND CONTAINMENT: Properly introduced make-up air into the kitchen space is a key factor in the capture and containment performance of the exhaust ventilator.

Make-up air introduced improperly, such as through 4-way diffusers located near the ventilator, or registers with high velocity discharge, typically results in cross drafts causing smoke loss into the kitchen.

As a general rule, make-up air should be delivered into the space at a low velocity, an average of 80 FPM or less, to allow the ventilator to pull the air to itself. Any method of introducing make-up air that is forced to the ventilator typically results in smoke loss.

The use of engineered plenum boxes, also referred to as perforated perimeter supply, is an ideal method of introducing make-up air as it assures the correct air volume, the proper discharge velocity at the proper distance from the ventilator.

The plenum box is usually preferred over a front face discharge design as it allows ventilators to be located close to walls, soffit walls, other ventilators or any other obstruction that would interfere with discharged air.

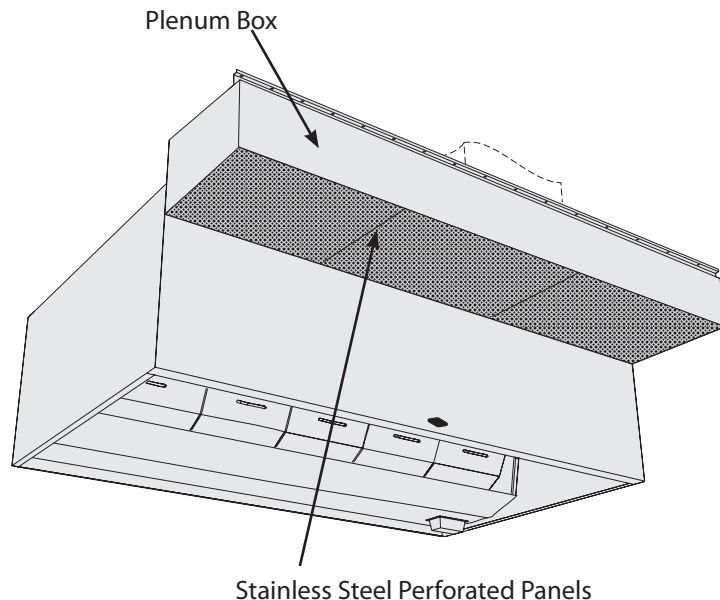
CONSTRUCTION: Plenum Box shall be of all stainless steel construction, not less than 20 gauge. All exposed surfaces shall be a number 4 finish. The box shall have bottom discharge through removable stainless steel perforated panels and shall include internal baffling to provide even air distribution along the entire length of the unit. One or more flanged duct collars shall be provided as shown on the plans. The box shall have two full length mounting brackets with 5/8" holes on 12" centers to accommodate hanging from the overhead.

INSULATION: Insulation is necessary to prevent condensation from forming on the exposed surfaces of the box. It is recommended when the sides of the Plenum Box are exposed and with the following conditions:

- 1) The make-up air is cooled
- 2) the make-up air is not heated and outside temperatures are cool.

Matte faced is the standard insulation. Foil faced is required in some jurisdictions to meet indoor air quality requirements. Consult local jurisdictions.

- Option 1 MFI:* The plenum box shall include 1/2" matte faced insulation on all solid interior surfaces.
- Option 2 FBI:* The plenum box shall include 1/2" foil backed insulation on all solid interior sides.



APPLICATION

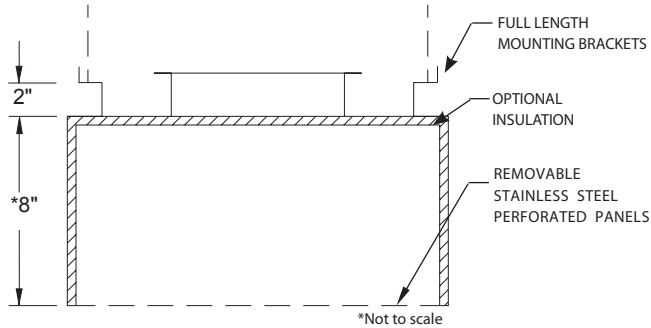
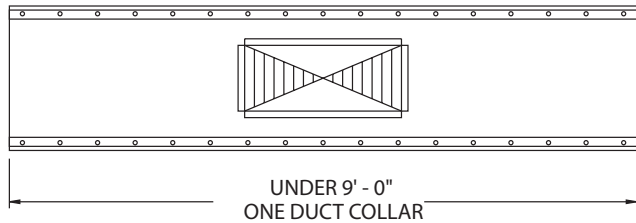
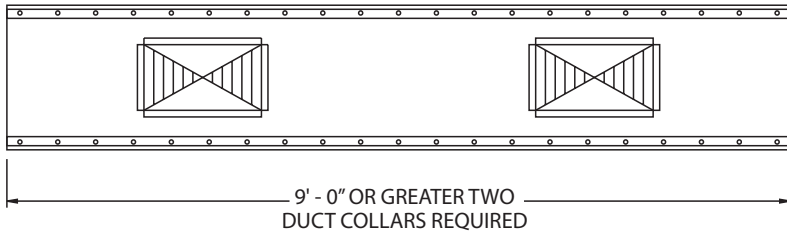
Plenum boxes are located immediately in front of the ventilator, at a minimum of 18" above the lower front edge.

On back to back cooking island applications a plenum box would be located on both sides and in some situations on all four sides.

On single island applications a plenum box would typically be located on both sides.

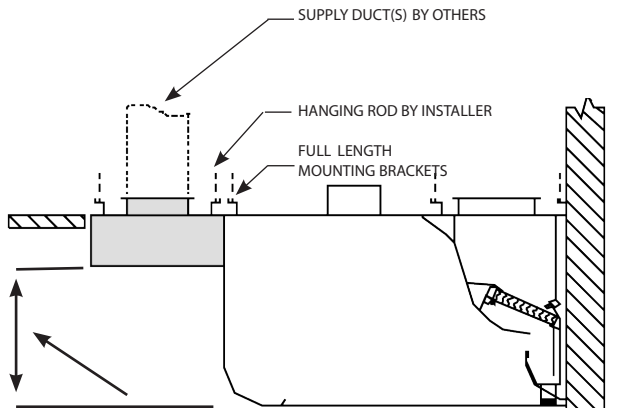
DESIGN FEATURES

- Whisper Air™ low velocity supply air
- 20 gauge stainless steel for exposed surfaces
- Air Volume - Delivers up to 150 CFM per lineal/ft

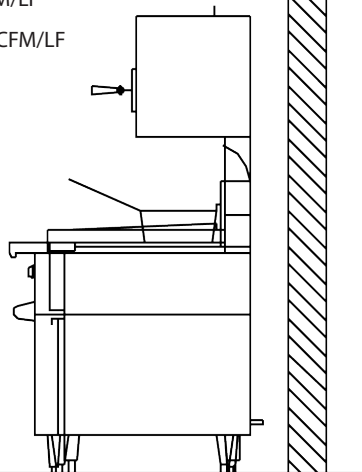


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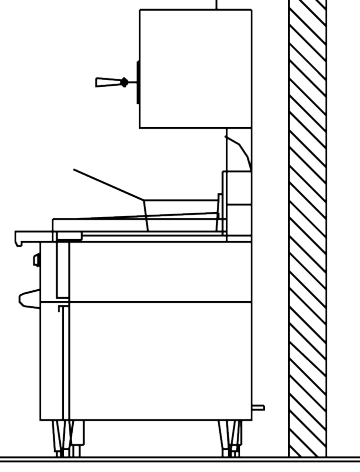
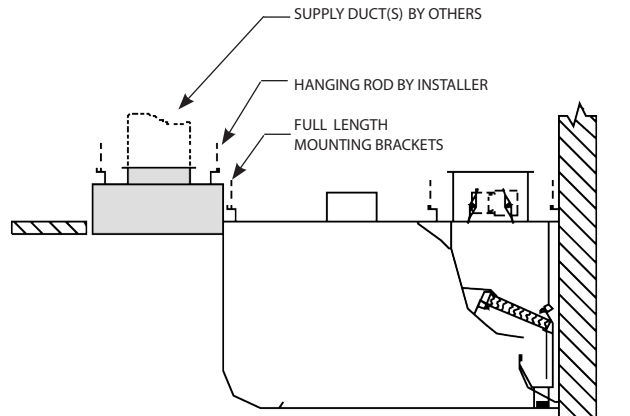
OPTIONAL INSULATION
ENTER MFI OR FBI



18" MIN. FOR UP TO 150 CFM/LF
24" MIN. FROM 150 TO 275 CFM/LF



DROP DOWN INSTALLATION



FLUSH TO CEILING INSTALLATION



CUV-1000

MODEL "CUV-1000" CONTROL CABINET FOR VENTILATORS

ITEM NO. _____

GENERAL SPECIFICATIONS

DESCRIPTION: Control cabinet Model CUV-1000-_____ shall be furnished to house electrical components for operation of the ventilator(s) and UV system. The cabinet shall be constructed of 18 gauge stainless steel, type 300 series, number 4 finish, with welded corners and a hinged door. Cabinet shall be watertight to protect against direct hose spray. The electrical controls shall include a programmable logic controller (PLC) for controlling all functions of the exhaust and supply fans, UV lamps, "Autostart" and electric dampers (if applicable). The control shall include a programmable digital interface module (Command Center) that includes "Start Fan" and "Stop Fan" buttons and a digital display that shows current operating mode. The control shall continuously monitor the UV lamps, access doors and exhaust volume with visual and audible indicators. It shall also include volt-free contacts for supply and exhaust fans for interfacing with building management system or other control circuits, and volt-free contacts for the fire cycle for interconnection to the building fire alarm or monitoring systems. The control shall include contacts to remotely Start and Stop the exhaust and supply fan(s) when interfacing with a building management system. It shall monitor "Autostart" sensors, mounted in the ventilator(s), if equipped, and automatically start the exhaust and supply fan(s) if cooking occurs when the fans are off. All components shall be pre-wired for field hook-up by applicable trades. Control cabinet shall be listed.

OPTIONAL EQUIPMENT:

Light Switch

The control cabinet shall include a built-in light switch for interconnection to the ventilator lighting circuit.

Trim Ring

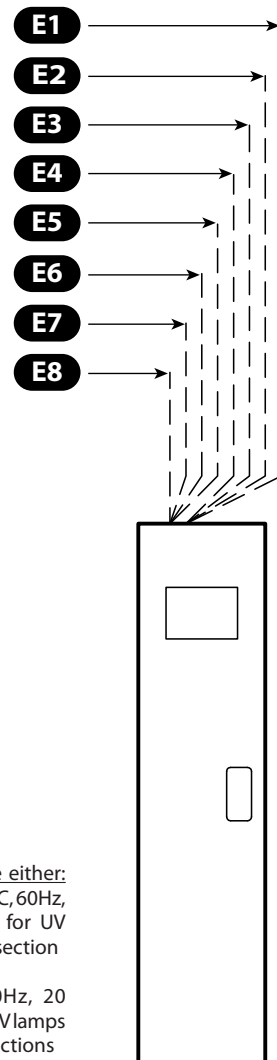
The control cabinet shall include a full perimeter one piece adjustable trim ring.

Security Access

Control cabinet door shall be equipped with keyed latch to prevent unauthorized access to the controls.

ELECTRICAL LEGEND

- E1 120VAC 50/60Hz Non-Interrupted Service or
- 220VAC 50/60Hz Non-Interrupted Service
- E2 Two Wires to Magnetic Starter(s) For Exhaust and Supply Fans
- E3 Two Wires to Fire Suppression System
- E4 Five wires and ground, for UV System to Ventilator(s)
- E5 Two wires and ground, for "Autostart" to Ventilator(s)
- E6 Four wires and ground, for Electric Dampers to Ventilator(s) (If Specified)
- E7 Optional - Two Wires and ground, from Light Switch to Supply voltage service.
- E8 Optional - Two Wires and ground, from Light Switch to Lights in Ventilator.
- E9 Optional - Two Wires From Volt Free Contacts To Building Management System (BMS) to Control Exhaust Fan(s) (If Specified, E2 Not Used.)
- E10 Optional - Two Wires From Volt Free Contacts To BMS to Control Supply Fan(s) (If Specified, E2 Not Used.)
- E11 Optional - Two Wires to BMS To Monitor Fire Cycle If Specified.



UV Ventilators require either:

- Separate 120VAC, 60Hz, 20 Amp circuit for UV lamps for each section

OR

- 220VAC, 50/60Hz, 20 Amp circuit for UV lamps for every two sections

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CUV-1000

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MODEL "GPC-7000"

WASH CONTROL CABINET for
CLEAN-IN-PLACE VENTILATORS,
POLLUTION CONTROL UNITS, and
DUCT SUMPS

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Wash Control Cabinet Model "GPC-7000-_____" to house electrical and plumbing components for operation of the Clean-in-Place Ventilator(s), Pollution Control Unit(s) and/or Duct Sump(s), if specified.

CONTROLS: The Wash Control Cabinet shall include a built-in Gaylord Command Center to control all functions of the exhaust and supply fans, the Extractor and Plenum Wash cycles, UVI Lamps, Pollution Control Units and/or Ducts Sumps, if specified. The control shall be a programmable logic controller (PLC) based unit with a touch screen display interface. The touch screen shall include the "START FAN" and "STOP FAN" buttons and a "MENU" button to easily access all programming functions. The display shall show all current operating modes such as "FAN ON", "FAN OFF", "EXTRACTOR WASH ON", etc.

Programming features shall include:

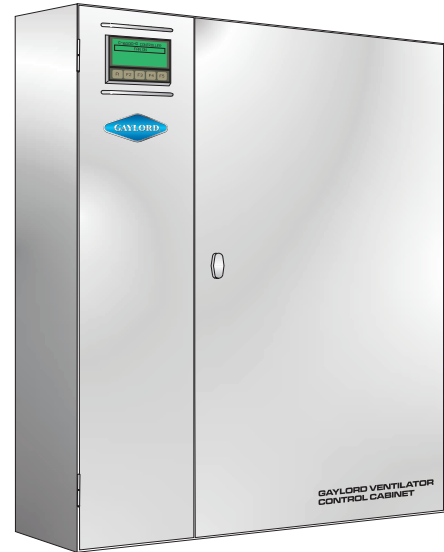
1. Setting the duration and frequency of each Extractor (Face and Internal Passages of Extractors) and Plenum Wash Cycle for each Ventilator section independently, based upon type and duration of cooking.
2. Setting the duration of each ESP Cell Wash Cycle based upon type and duration of cooking.
3. Optional setting to automatically "START FAN" and "STOP FAN" at specific times for each day of operation.
4. Setting lockout of all operations for days not operating.

The Gaylord Command Center shall include volt-free contacts for optional; 1) interfacing the exhaust and supply fans with a building management system or other control circuits to monitor the system and/or to allow remote START and STOP OF exhaust fans, and 2) for interfacing with a fire extinguishing system to send a signal to the building fire alarm system and/or notify the building management system of a fire extinguishing system discharge. The Gaylord Command Center shall also monitor and display status of; 1) "UVI System On", "UVI Lamp Failure", "UVI Safety Interlock Activated", 2) Total hours of UVI Lamp operation, 3) "ESP FAULT", "ESP OK" 4) Low Detergent notification, if option is specified. In addition, the control shall monitor the "AutoStart" sensors mounted in the Ventilator(s), if equipped, and automatically start the exhaust and supply fan(s) if cooking occurs when the fans are off and if the temperature is above the sensor's set point. The Gaylord Command Center shall be equipped with a battery back-up to hold the clock and memory for programming functions.

PLUMBING: Plumbing components shall consist of a line strainer, shut-off valve, reduced pressure principle device backflow preventer, pressure/temperature gauge, detergent pump, and a detergent container. Required water solenoid valves are provided by Gaylord and are mounted at each Ventilator section and/or remote pollution control unit, if specified.

INTERCONNECTIONS: All plumbing and electrical interconnections between the Wash Control Cabinet, the building services and the Ventilators shall be the responsibility of the applicable trades. Backflow certification by field plumber.

CONSTRUCTION: The Wash Control Cabinet shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The Wash Control Cabinet shall have welded corners and hinged doors to the plumbing and electrical compartments. Electrical compartment shall be watertight to protect against direct hose spray.

**APPLICATION**

For use with Clean-in-Place Ventilators with or without UVI, Gaylord Pollution Control Units (RSPC), and Gaylord Duct Sumps (GDS).

NUMBER REQUIRED

One control cabinet can be used for up to eight (8) Ventilator sections. Any number of exhaust fans and supply fans can be connected to the Wash Control Cabinet, if simultaneous operation is desired. If there are two or more groups of ventilators, each with their own exhaust fan, and independent operation of the fans is desired, consult factory for options.

FEATURES

- Touch Screen Operation, Programming and Display
- Individual Wash Settings for each Ventilator Section, Extractor (Face and Internal Passages of Extractors) and Plenum, based upon Cooking Type
- Autostart Capable to Meet International Mechanical Code (IMC)
- Remotely Start/Stop Fans from Building Management System
- Monitor Fire Extinguishing System Discharge
- Built-in Time Clock
- Built-in Back Flow Preventer

OPTIONAL EQUIPMENT:

Low Detergent Monitor - The Wash Control Cabinet shall include a detergent flow switch to monitor detergent levels and display a message on the Gaylord Command Center to notify of low detergent.

Light Switch - The Wash Control Cabinet shall include a built-in light switch for interconnection to the ventilator lighting circuit.

Security Access - The Wash Control Cabinet door shall be equipped with keyed latch to prevent unauthorized access to the controls.

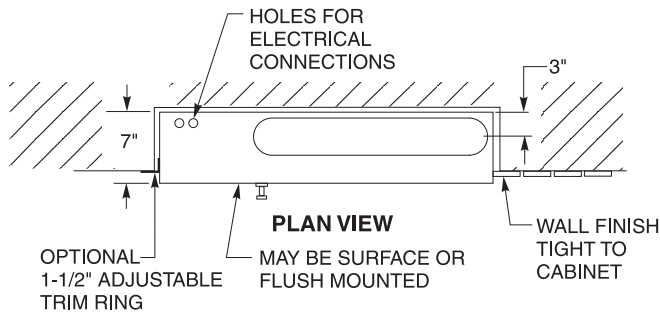
Trim Ring - The Wash Control Cabinet shall include a full perimeter one piece adjustable trim ring.

ACCEPTANCE & APPROVALS: The Wash Control Cabinet shall be UL Listed and comply with all requirements of the International Plumbing Code (IPC), Uniform Plumbing Code (UPC), and the National Electrical Code (NEC).



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HOT WATER REQUIREMENTS: Provide a hot water supply to the H.W. Inlet on the Wash Control Cabinet. Water pressure at the inlet of the Wash Control Cabinet: 40psi min. – 80psi max. Water temperature: 140°F min - 180°F max.

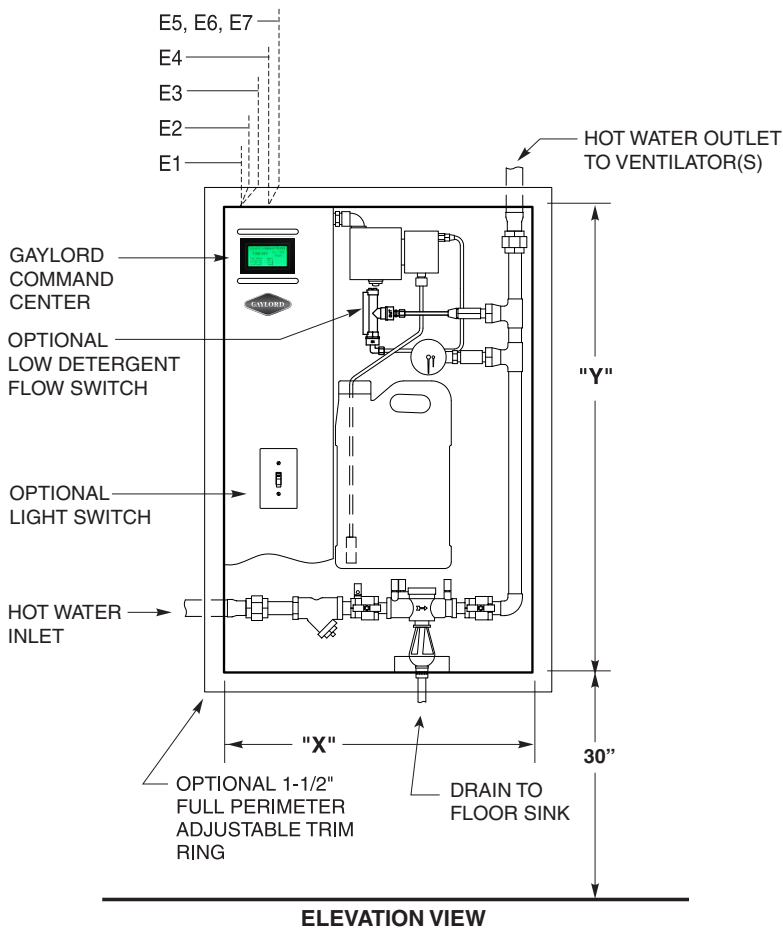
PIPE SIZE

The Inlet pipe size may be from 3/4" to 1-1/4" depending upon equipment being served by this control cabinet. Consult factory for pipe sizes.

ELECTRICAL REQUIREMENTS

120 volt, 60Hz, 20 amp or
220 volt, 50Hz, 20 amp

Cabinet Size Chart		
Equipment	"X" (Inches)	"Y" (Inches)
ELXC Clean In Place Ventilator	24	36
Pollution Control Units	34	48
Gaylord Duct Sumps		



ELECTRICAL LEGEND

- E1** 120VAC 50/60Hz Service or 220VAC 50/60Hz Service
- E2** Two Wires to Magnetic Starter(s) For Exhaust and Supply Fans
- E3** Two Wires to Fire Suppression System
- E4** Up to Fifteen Wires and ground to Wash Solenoids at Ventilators
- E5** Three Wires and ground, for DCA Control to Ventilator(s)
- E6** Optional - Five Wires and ground, for UV System to Ventilator(s)
- E7** Optional - Up to Thirteen Wires and ground, for Pollution Control Unit(s)
- E8** Optional - Two Wires and ground, from Light Switch to Supply voltage service.
- E9** Optional - Two Wires and ground, from Light Switch to Lights in Ventilator.
- E10** Optional - Two Wires From Volt Free Contacts To Building Management System (BMS) to Control Exhaust Fan(s) (If Specified, E2 Not Used.)
- E11** Optional - Two Wires From Volt Free Contacts To BMS to Control Supply Fan(s) (If Specified, E2 Not Used.)
- E12** Optional - Two Wires to BMS To Monitor Fire Cycle If Specified.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials.



GPC-7000-SPC-SO

MODEL "GPC-7000-SPC-SO"

COMBINED WASH CONTROL and SPRAY ODOR CABINET
for POLLUTION CONTROL CLEAN-IN-PLACE VENTILATORS

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Wash Control Cabinet Model "GPC-7000-SPC-SO _____" to house electrical and plumbing components for operation of the Eliminator Pollution Control Clean-In-Place Ventilator(s) and Duct Sump(s), if specified.

CONTROLS: The Wash Control Cabinet shall include a built-in Gaylord Command Center to control all functions of the exhaust and supply fans, the Extractor and Plenum Wash cycles, UVi Lamps, Pollution Control Ventilator, Spray Odor Control and Ducts Sumps, if specified. The control shall be a programmable logic controller (PLC) based unit with a touch screen display interface. The touch screen shall include the "START FAN" and "STOP FAN" buttons and a "MENU" button to easily access all programming functions. The display shall show all current operating modes such as "FAN ON", "FAN OFF", "EXTRACTOR WASH ON", etc.

Programming features shall include:

1. Setting the duration and frequency of each Extractor (Face and Internal Passages of Extractors) and Plenum Wash Cycle for each Ventilator section independently, based upon type and duration of cooking.
2. Setting the duration of each ESP Cell Wash Cycle for each Ventilator section independently, based upon type and duration of cooking.
3. Optional setting to automatically "START FAN" and "STOP FAN" at specific times for each day of operation.
4. Optional lockout of all operations for days not operating.

The Gaylord Command Center shall include volt-free contacts for optional; 1) interfacing the exhaust and supply fans with a building management system or other control circuits to monitor the system and/or to allow remote START and STOP OF exhaust fans, and 2) for interfacing with a fire extinguishing system to send a signal to the building fire alarm system and/or notify the building management system of a fire extinguishing system discharge. The Gaylord Command Center shall also monitor and display status of; 1) "UVi System On", "UVi Lamp Failure", "UVi Standby"; 2) Total Hours of UVi Lamp Operation, 3) "ESP Fault", "ESP OK"; 4) Low Detergent notification, if option is specified. In addition, the control shall monitor the "Autostart" sensors mounted in the Ventilator(s), if equipped, and automatically start the exhaust and supply fan(s) when cooking occurs when the fans are off and if the temperature is above the sensor's set point. The Gaylord Command Center shall be equipped with a battery back-up to hold the clock and memory for programming functions.

PLUMBING: Plumbing components shall consist of a line strainer, shut-off valve, reduced pressure principle device backflow preventer, pressure/temperature gauge, detergent pump, a detergent container, spray odor catalyst pump, and a spray odor catalyst drum. Required water solenoid valves are provided by Gaylord and are mounted at each Ventilator section.

INTERCONNECTIONS: All plumbing and electrical interconnections between the Wash Control Cabinet, the building services and the Ventilators shall be the responsibility of the applicable trades. Backflow certification by field plumber.

CONSTRUCTION: The Wash Control Cabinet shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The Wash Control Cabinet shall have welded corners and hinged doors to the plumbing and electrical compartments. Electrical compartment shall be watertight to protect against direct hose spray.



APPLICATION

For use with Eliminator Pollution Control Clean-in-Place Ventilators with or without UVi and Gaylord Duct Sumps (GDS).

NUMBER REQUIRED

One control cabinet can be used for up to five (5) Ventilator sections. Any number of exhaust fans and supply fans can be connected to the Wash Control Cabinet, if simultaneous operation is desired. If there are two or more groups of ventilators, each with their own exhaust fan, and independent operation of the fans is desired, consult factory for options.

FEATURES

- Touch Screen Operation, Programming and Display
- Individual Wash Settings for each Ventilator Section, Extractor (Face and Internal Passages of Extractors) and Plenum, based upon Cooking Type
- Autostart Capable to Meet International Mechanical Code (IMC)
- Remote Fan Start/Stop from Building Management System
- Monitor Fire Extinguishing System Discharge
- Built-in Time Clock
- Built-in Back Flow Preventer

OPTIONAL EQUIPMENT:

Low Detergent Monitor - The Wash Control Cabinet shall include a detergent flow switch to monitor detergent levels and display a message on the Gaylord Command Center to notify of low detergent.

Light Switch - The Wash Control Cabinet shall include a built-in light switch for interconnection to the ventilator lighting circuit.

Security Access - The Wash Control Cabinet door shall be equipped with keyed latch to prevent unauthorized access to the controls.

Trim Ring - The Wash Control Cabinet shall include a full perimeter one piece adjustable trim ring.

ACCEPTANCE & APPROVALS: The Wash Control Cabinet shall be ETL Listed and comply with all requirements of the International Plumbing Code (IPC), Uniform Plumbing Code (UPC), and the National Electrical Code (NEC).



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Cabinet Size Chart

Equipment	"X" (Inches)	"Y" (Inches)
GPC-7000-SPC-SO	40	36

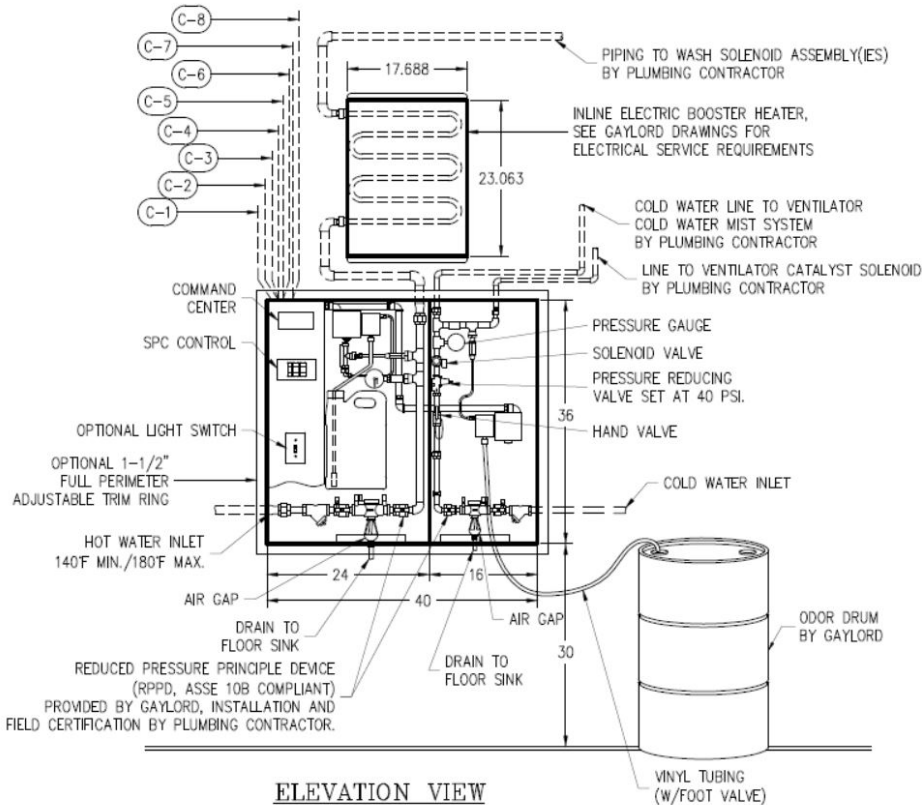
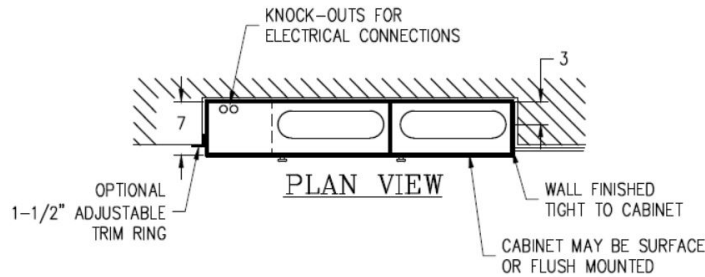
HOT WATER REQUIREMENTS: Provide a hot water supply to the H.W. Inlet on the Wash Control Cabinet. Water pressure at the inlet of the Wash Control Cabinet: 40psi min. – 80psi max. Water temperature: 140°F min, - 180°F max.

PIPE SIZE

The Inlet pipe size may be from 1" to 1-1/4" depending upon equipment being served by this control cabinet. Consult factory for pipe sizes.

ELECTRICAL REQUIREMENTS

120 volt, 60Hz, 20 amp



ESP WASH CONTROL CABINET WIRING NOTES

- (C-1) (2) WIRES AND GROUND FROM WASH CONTROL CABINET TO SUPPLY VOLTAGE SERVICE BY ELECTRICAL CONTRACTOR. (120V/20AMP)
- (C-2) (2) WIRES FROM WASH CONTROL CABINET TO EXHAUST FAN MAGNETIC STARTER. (2) WIRES FROM CONTROL CABINET TO SUPPLY FAN MAGNETIC STARTER. WIRES BY ELECTRICAL CONTRACTOR.
- (C-3) (2) WIRES TO FIRE SUPPRESSION SYSTEM MICRO SWITCHES BY ELECTRICAL CONTRACTOR.
- (C-4) (3) WIRES AND GROUND, FOR EACH REMOTE SOLENOID ASSEMBLY, FROM WASH CONTROL CABINET UP TO (5) WASH SOLENOID ASSEMBLIES, MAY BE PROVIDED. WIRES BY ELECTRICAL CONTRACTOR.
- (C-5) (3) WIRES AND GROUND, FOR DCA CONTROLS, FROM WASH CONTROL CABINET TO VENTILATOR(S) BY ELECTRICAL CONTRACTOR.
- (C-6) (8) WIRES AND GROUND, FOR UVI AND SPC SYSTEM, FROM WASH CONTROL CABINET TO VENTILATOR(S) BY ELECTRICAL CONTRACTOR.
- (C-7) (2) WIRES AND GROUND FROM EACH LIGHT SWITCH TO SUPPLY VOLTAGE SERVICE BY ELECTRICAL CONTRACTOR.
- (C-8) (2) WIRES FROM EACH LIGHT SWITCH TO LIGHTS IN VENTILATOR BY ELECTRICAL CONTRACTOR.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials.



GPC-7000-SPC-SO-R

MODEL "GPC-7000-SPC-SO-R"

COMBINED WASH CONTROL

and REMOTE SPRAY ODOR CABINET for

POLLUTION CONTROL CLEAN-IN-PLACE VENTILATORS

GENERAL SPECIFICATIONS AND DESCRIPTION

Furnish Combined Wash Control Cabinet and Remote Spray Odor Cabinet Model "GPC-7000-SPC-SO-R _____" to house electrical and plumbing components for operation of the Eliminator Pollution Control Clean-In-Place Ventilator(s) and Duct Sump(s), if specified.

CONTROLS: The Remote Wash Control Cabinet shall include a built-in Gaylord Command Center to control all functions of the exhaust and supply fans, the Extractor and Plenum Wash cycles, UVi Lamps, Pollution Control Ventilator, Spray Odor Control and Ducts Sumps, if specified. The control shall be a programmable logic controller (PLC) based unit with a touch screen display interface. The touch screen shall include the "START FAN" and "STOP FAN" buttons and a "MENU" button to easily access all programming functions. The display shall show all current operating modes such as "FAN ON", "FAN OFF", "EXTRACTOR WASH ON", etc.

Programming features shall include:

1. Setting the duration and frequency of each Extractor (Face and Internal Passages of Extractors) and Plenum Wash Cycle for each Ventilator section independently, based upon type and duration of cooking.
2. Setting the duration of each ESP Cell Wash Cycle for each Ventilator section independently, based upon type and duration of cooking.
3. Optional setting to automatically "START FAN" and "STOP FAN" at specific times for each day of operation.
4. Optional lockout of all operations for days not operating.

The Gaylord Command Center shall include volt-free contacts for optional; 1) interfacing the exhaust and supply fans with a building management system or other control circuits to monitor the system and/or to allow remote START and STOP OF exhaust fans, and 2) for interfacing with a fire extinguishing system to send a signal to the building fire alarm system and/or notify the building management system of a fire extinguishing system discharge. The Gaylord Command Center shall also monitor and display status of; 1) "UVi System On", "UVi Lamp Failure", "UVi Standby"; 2) Total Hours of UVi Lamp Operation, 3) "ESP Fault", "ESP OK"; 4) Low Detergent notification, if option is specified. In addition, the control shall monitor the "Autostart" sensors mounted in the Ventilator(s), if equipped, and automatically start the exhaust and supply fan(s) when cooking occurs when the fans are off and if the temperature is above the sensor's set point. The Gaylord Command Center shall be equipped with a battery back-up to hold the clock and memory for programming functions.

PLUMBING: Plumbing components shall consist of a line strainer, shut-off valve, reduced pressure principle device backflow preventer, pressure/temperature gauge, detergent pump, a detergent container, spray odor catalyst pump, and a spray odor catalyst drum. Required water solenoid valves are provided by Gaylord and are mounted at each Ventilator section.

INTERCONNECTIONS: All plumbing and electrical interconnections between the Wash Control Cabinet, the building services and the Ventilators shall be the responsibility of the applicable trades. Backflow certification by field plumber.

CONSTRUCTION: The Wash Control Cabinet shall be of all stainless steel construction, not less than 18 gauge, type 300 series. All exposed surfaces shall be a number 4 finish. The use of aluminized steel or galvanized steel is not acceptable. The Wash Control Cabinet shall have welded corners and hinged doors to the plumbing and electrical compartments. Electrical compartment shall be watertight to protect against direct hose spray.



Remote Cabinet

APPLICATION

For use with Eliminator Pollution Control Clean-in-Place Ventilators with or without UVi and Gaylord Duct Sumps (GDS).

NUMBER REQUIRED

One control cabinet can be used for up to five (5) Ventilator sections. Any number of exhaust fans and supply fans can be connected to the Wash Control Cabinet, if simultaneous operation is desired. If there are two or more groups of ventilators, each with their own exhaust fan, and independent operation of the fans is desired, consult factory for options.

FEATURES

- Touch Screen Operation, Programming and Display
- Individual Wash Settings for each Ventilator Section, Extractor (Face and Internal Passages of Extractors) and Plenum, based upon Cooking Type
- Autostart to Meet International Mechanical Code (IMC)
- Remote Fan Start/Stop from Building Management System
- Monitor Fire Extinguishing System Discharge
- Built-in Time Clock
- Built-in Back Flow Preventer

OPTIONAL EQUIPMENT:

Backflow Field Connection Detergent Monitor - The Wash Control Cabinet shall include a detergent flow switch to monitor detergent levels and display a message on the Gaylord Command Center to notify of low detergent.

Low Detergent Monitor - The Wash Control Cabinet shall include a detergent flow switch to monitor detergent levels and display a message on the Gaylord Command Center to notify of low detergent.

Light Switch - The Wash Control Cabinet shall include a built-in light switch for interconnection to the ventilator lighting circuit.

Security Access - The Wash Control Cabinet door shall be equipped with keyed latch to prevent unauthorized access to the controls.

Trim Ring - The Wash Control Cabinet shall include a full perimeter one piece adjustable trim ring.

ACCEPTANCE & APPROVALS: The Wash Control Cabinet and Remote Cabinet shall be ETL Listed and comply with all requirements of the International Plumbing Code (IPC), Uniform Plumbing Code (UPC), and the National Electrical Code (NEC).



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Cabinet Size Chart

Equipment	"X" (Inches)	"Y" (Inches)
GPC-7000-SPC-SO-R	24	36
Remote Odor Control Cabinet	16	36

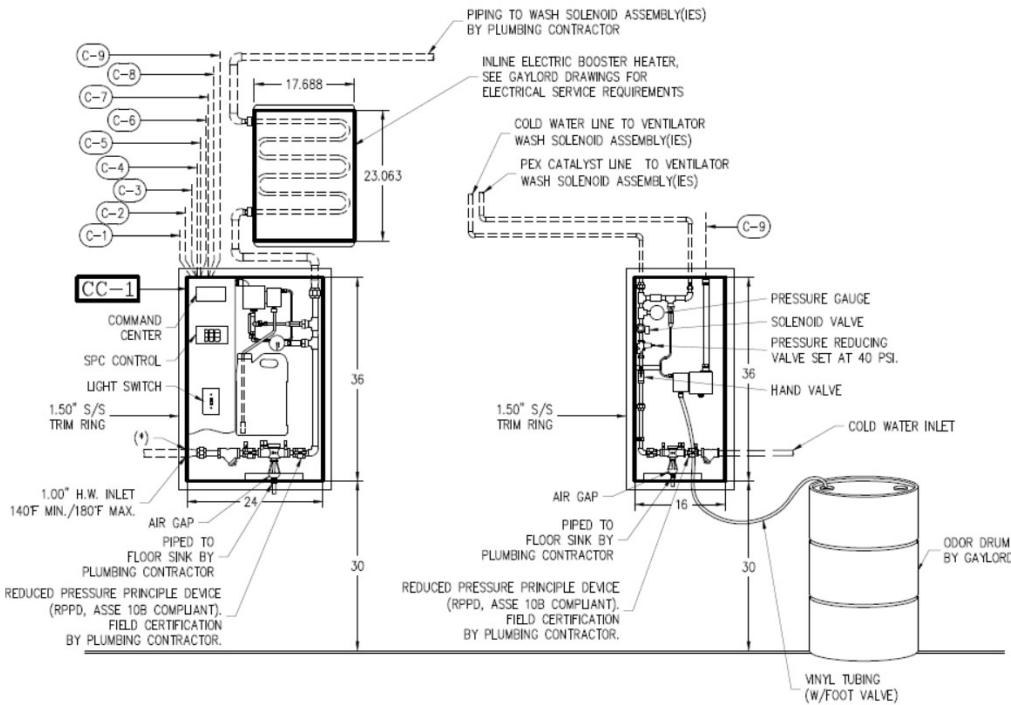
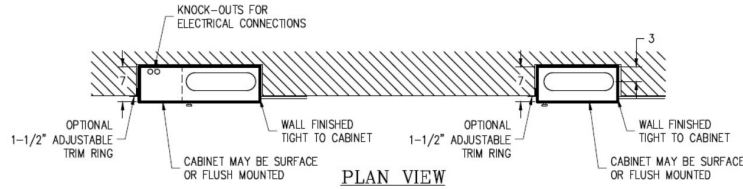
HOT WATER REQUIREMENTS: Provide a hot water supply to the H.W. Inlet on the Wash Control Cabinet. Water pressure at the inlet of the Wash Control Cabinet: 40psi min. – 80psi max. Water temperature: 140°F min, - 180°F max.

PIPE SIZE

The Inlet pipe size may be from 1" to 1-1/4" depending upon equipment being served by this control cabinet. Consult factory for pipe sizes.

ELECTRICAL REQUIREMENTS

120 volt, 60Hz, 20 amp



WASH CONTROL ELEVATION VIEW

ODOR CATALYST ELEVATION VIEW

**SPC WASH CONTROL CABINET
WIRING NOTES**

- (C-1) (2) WIRES AND GROUND FROM WASH CONTROL CABINET TO SUPPLY VOLTAGE SERVICE BY ELECTRICAL CONTRACTOR. (120V/20AMP)
- (C-2) (2) WIRES FROM WASH CONTROL CABINET TO EXHAUST FAN MAGNETIC STARTER. (2) WIRES FROM CONTROL CABINET TO SUPPLY FAN MAGNETIC STARTER. WIRES BY ELECTRICAL CONTRACTOR.
- (C-3) (2) WIRES TO FIRE SUPPRESSION SYSTEM MICRO SWITCHES BY ELECTRICAL CONTRACTOR.
- (C-4) (3) WIRES AND GROUND, FOR EACH REMOTE SOLENOID ASSEMBLY, FROM WASH CONTROL CABINET. UP TO (5) WASH SOLENOID ASSEMBLIES, MAY BE PROVIDED. WIRES BY ELECTRICAL CONTRACTOR.
- (C-5) (3) WIRES AND GROUND, FOR DCA CONTROLS, FROM WASH CONTROL CABINET TO VENTILATOR(S) BY ELECTRICAL CONTRACTOR.
- (C-6) (8) WIRES AND GROUND, FOR UVI AND SPC SYSTEM, FROM WASH CONTROL CABINET TO VENTILATOR(S) BY ELECTRICAL CONTRACTOR.
- (C-7) (2) WIRES AND GROUND FROM EACH LIGHT SWITCH TO SUPPLY VOLTAGE SERVICE BY ELECTRICAL CONTRACTOR.
- (C-8) (2) WIRES FROM EACH LIGHT SWITCH TO LIGHTS IN VENTILATOR BY ELECTRICAL CONTRACTOR.
- (C-9) (3) WIRES AND GROUND, FOR CHEMICAL PUMP, FROM WASH CONTROL CABINET TO ODOR CATALYST CABINET, BY ELECTRICAL CONTRACTOR.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials.

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RSPC-ESP

MODEL "RSPC-ESP"

POLLUTION CONTROL UNIT

GENERAL SPECIFICATIONS AND DESCRIPTION

GENERAL: Furnish one (1) Gaylord ClearAir™ Pollution Control Unit model number RSPC-ESP-_____ as manufactured by Gaylord Industries in accordance with the following:

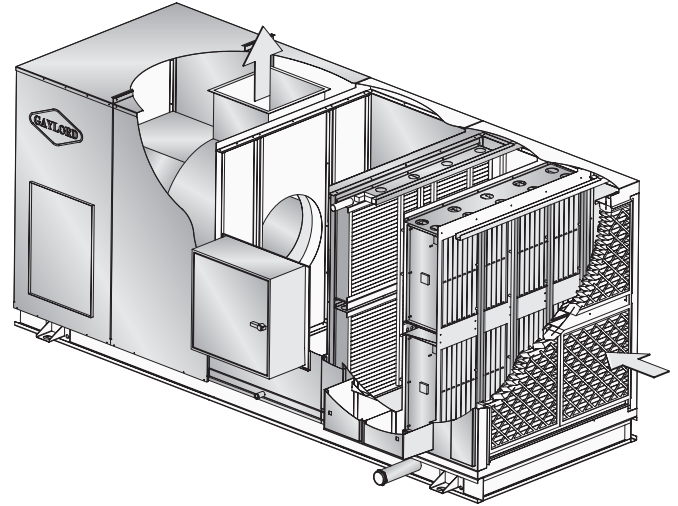
The pollution control unit shall consist of a smoke control section, odor control section (optional) and exhaust fan section (optional) all built into a common base as an integral unit. Smoke control shall be accomplished by electrostatic precipitation (ESP). The unit shall be ETL listed to UL 867 and UL710 and labeled.

SMOKE CONTROL SECTION: The smoke control section shall contain one or more electrostatic precipitator (ESP) cells to remove smoke particles from the air stream to a level no higher than 20% opacity when operated in accordance with the operation and maintenance guidelines. The ESP cells shall be of a floating plate design to eliminate plate warpage during high heat operation. Each cell shall have nine (9) tungsten wires run perpendicular to the air flow which will ionize the air stream. Spike type systems shall not be accepted. The cells shall be positioned on slide tracks so that they may be easily removed through a hinged cell access door(s). For ease of handling, individual cells shall weigh less than 54 lbs. There shall be removable, cleanable debris screens located immediately upstream of the ESP cells and a moisture separator immediately downstream. An electrical panel mounted on the unit shall contain the high voltage power pack assembly, safety disconnect switch, main disconnect switch, fuses and a magnetic starter for the exhaust fan when fan is included. The safety disconnect switch shall interface with the electrical panel access door such that when opened it will shut off service to the power pack(s) and ground them to drain the residual electrical charge from both the power pack(s) and ESP cells. The ESP cell access door shall interface with the electrical panel access door so that it cannot be opened without first opening the electrical panel access door. The high voltage power pack(s) shall be self-limiting type and shall be self-contained. The electrical panel shall include indicating lights to monitor cell and transformer voltage. The main disconnect switch for the exhaust fan and control circuits shall lock the electrical panel access door closed when in the "on" position. The unit shall contain one or more oscillating wash manifold(s) with "Conserva-Clean" spray nozzles to wash the ESP cells with hot detergent injected water each time the exhaust fan is shut off. Maximum required wash pressure is not to exceed 30 PSI at 140°F. Maximum water flow rate per cell is not to exceed 2.3 GPM.

CONTROL CABINETS: EXPLANATORY NOTE REGARDING CONTROL CABINETS: There are multiple arrangements of controls for the operation of exhaust hoods and the ClearAir™ Unit. In the one arrangement, the Control Cabinet in the kitchen serves both the exhaust hood and the ClearAir™ Unit. In an alternate arrangement, there is a Control Cabinet for the exhaust hood electrically interfaced with a Sub Panel that serves the ClearAir™ Unit. In both arrangements the Exhaust Fan, ESP, Wash Cycles and Fire Cycle functions are controlled by the main control cabinet. The difference between the two is the location of the plumbing components.

1. Main Control Cabinet Only - This arrangement is typically used when the ClearAir™ Unit is located on the roof or mechanical room immediately above or within 50' of the control cabinet.

2. Main Control Cabinet and Sub Panel Combination - This arrangement is typically used in the following situations: (a) when the ClearAir™ Unit is located in a mechanical room away from the exhaust hood or (b) when it is impractical to inter-connect the hot water lines between the main control cabinet and the ClearAir™ Unit or (c) when there is insufficient space in the kitchen area to store the detergent required for the wash system of the ClearAir™ Unit.



APPLICATION

Specifically designed for the removal of smoke particles by electrostatic precipitation for the removal of smoke and odor from the airstream of commercial kitchen exhaust systems.

FEATURES

- Removes smoke particles by high voltage ionization using electrostatic cells
- Water-wash system automatically washes the electrostatic cells daily using the least amount of water of any equipment on the market
- Robust smoke control using ionized collector plates specially designed to protect against cell warpage
- Custom designed to kitchen exhaust requirements up to 32,000 CFM

OPTIONS

- Optional exhaust fan and odor abatement equipment available
- Manufacturer designed and approved sprinkler or liquid chemical internal fire protection available
- Optional variable speed control available

CONTROL CABINET (WHEN SUB PANEL IS NOT USED): The controls and plumbing components, including the backflow preventer and line strainer, for the operation of the Exhaust Fan, ESP, Wash System and Fire Cycle of the Pollution Control Unit shall be an integral part of the Kitchen Exhaust Hood Control Cabinet as specified in Division 11 or provided with the RSPC. All interconnecting wiring and piping shall be the responsibility of the appropriate trades.

CONTROL CABINET AND SUB PANEL COMBINATION: The controls for the operation of the Exhaust Fan, ESP, Wash System and Fire Cycle of the Pollution Control Unit shall be an integral part of the Kitchen Exhaust Hood Control Cabinet as specified in Division 11. All plumbing components, including the backflow preventer and line strainer, for the ClearAir™ unit, shall be housed in the Sub Panel or provided with the RSPC. All interconnecting wiring shall be the responsibility of the appropriate trades.

A Sub Panel shall be furnished with the pollution control unit. The Sub Panel shall be constructed of 18 gauge stainless steel, number 4 finish, with welded corners and hinged doors to the plumbing and electrical compartments. The plumbing compartment or RSPC unit shall be pre-plumbed with a reduced pressure principle device backflow preventer, shut off valve, pressure/temperature gauge, one or more slow close solenoid valves, detergent pump and a detergent flow switch. The electrical compartment shall have a terminal



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block for single point connection of all electrical components. The detergent container shall be located next to the Sub Panel and shall be provided by the detergent supplier. The Sub Panel shall be shipped loose for field installation by the appropriate trades.

ODOR CONTROL OPTIONS:

Media Bed of 50/50 Blend Potassium Permanganate & Carbon Blend - The unit shall be provided with odor control utilizing a media bed of 50% potassium permanganate/50% carbon blend complying with UL 900 Type 1 classification. The odor removal media shall be housed in slide out reusable steel modules. There shall be a rack to accept 30% pleated media after filter located immediately downstream of the odor control media. Optional replaceable filters shall be mounted in filter slide tracks to prevent air bypass around the ends of the installed filter bank. The odor control media and after filters shall be removable through side access doors with lift and turn latches.

Spray Odor Control - The unit shall be provided with a spray odor control system utilizing an odor neutralizer chemical. The odor spray control cabinet shall be mounted on the side of the unit and shall contain a liquid spray compressor piped to the spray nozzle in the fan plenum, adjustable delay timers with fuse protected circuitry factory wired to the unit electrical panel. The cabinet shall include one (1) five gallon container of Gaylord Formula GS-710 Odor Neutralizer. The cabinet shall contain a heater to prevent freezing of the odor neutralizer.

EXHAUST FAN OPTIONS:

Exhaust Fan (Standard Centrifugal Fan): The unit shall include a centrifugal exhaust fan listed to UL 762. The exhaust fan shall be an SWSI upblast arrangement #9 with a non-overloading BI, AF or FB wheel. The motor, drives, bearings and fan mounting base shall be located out of the exhaust air stream as required by the International Mechanical Code and NFPA-96. The fan shall be AMCA certified and bear the AMCA seal for performance. The fan housing shall be constructed of heavy gauge steel. The fan bearings shall be heavy duty self-aligning pillow block type rigidly mounted on heavy structural steel supports. The motor shall be PE, inverter-ready ODP three-phase mounted on a common base with the fan and shall be pre-wired to the electrical cabinet located on the unit. The electrical cabinet shall include a disconnect switch, motor starter, overloads and fuses. The factory provided drive assembly shall be adjustable pitch on 5 HP and smaller, fixed pitch on 7.5 HP and larger. It shall also be sized for a minimum 1.5 service factor. After final system balancing, fixed pitch sheaves shall be provided and installed by the air balancing contractor to provide proper flow at actual installed conditions.

Exhaust Fan (Optional Tubular Fan): The unit shall include a tubular centrifugal exhaust fan listed to UL 762. The motor, drives, bearings and fan mounting base shall be located out of the exhaust air stream as required by the International Mechanical Code and NFPA-96. The fan shall be AMCA certified and bear the AMCA seal for performance. The fan housing shall be constructed of heavy gauge steel. The fan bearings shall be heavy duty rigidly mounted on heavy structural steel supports. The motor shall be PE, inverter-ready ODP three-phase mounted on a common base with the fan and shall be pre-wired to the electrical cabinet located on the unit. The electrical cabinet shall include a disconnect switch, motor starter, overloads and fuses. The factory provided drive assembly shall be adjustable pitch on 5 HP and smaller and fixed pitch on 7.5 HP and larger. It shall also be sized for a minimum 1.5 service factor. After final system balancing, fixed pitch sheaves shall be provided and installed by the air balancing contractor to provide proper flow at actual installed conditions.

SPRING ISOLATION: The exhaust fan shall be installed with spring isolation with 1" deflection and a flex connection to properly isolate the fan from the duct work. If isolation is provided the fan shall be housed to provide a fire barrier for the flex connections and to comply with NFPA 96.

INTERNAL FIRE DETECTION: The unit shall be equipped with a thermostat(s), set at 250°F, located in the smoke control section of the unit. The thermostat shall be interfaced with the kitchen exhaust hood Main Control Cabinet such that in the event of a fire condition, when the thermostat reaches its set point of 250°F, the system control goes into a fire mode. The fire mode shall shut off the exhaust fan, and turn on the wash sprays in the pollution control unit.

UNIT CONSTRUCTION: The unit housing shall be constructed of a minimum of 16 gauge G90 bright galvanized steel. The perimeter base shall be 12 gauge formed channel with lifting lugs at each corner and along the length as required. The internal housing shall be externally welded liquid tight for compliance to the International Mechanical Code and NFPA-96 grease duct construction requirements.

ACCESSORIES OPTIONS:

Spare ESP Cells - The unit shall be supplied with a minimum of one extra ESP cell of each cell type and one soak tank. The soak tank shall be constructed of 18 gauge stainless steel and shall be mounted on heavy-duty casters. There shall be a hose bib at the bottom of the tank for draining.

Detergent - Provide 30 gallon drum of Gaylord Formula G-510EF Detergent.

FIRE EXTINGUISHING SYSTEM OPTIONS: Specifier Note: NFPA-96 requires a fire extinguishing system for protection of the smoke and odor control sections and protection of the duct downstream of any filters or dampers. Not all authorities having jurisdiction require protection. Check with your AHJ. If required, specify one of the following systems.

WET CHEMICAL SYSTEM: Provide a complete factory mounted Ansul wet chemical fire extinguishing system, including nozzles piping and detection runs. Pipe penetrating the unit cabinet shall use a UL listed fitting. System shall be installed in accordance with the systems listing and NFPA-96. The supplier shall provide a letter from Ansul verifying that the system design is acceptable to Ansul for this application. The Ansul Automan cabinet may be mounted on the side of the unit for easy access, certification and service. If the unit is exposed to freezing conditions, the Ansul Automan cabinet shall be mounted in an insulated thermostatically-controlled heated cabinet.

WATER SPRAY SPRINKLER FIRE SYSTEM: Specifier Note: Units that are located indoors may be factory pre-piped for a wet pipe building sprinkler system. Provide a pre-piped water spray fire system installed in accordance with NFPA-96. The unit shall be piped with one pendent type sprinkler nozzle located in the smoke control section, one in the odor control section, if equipped with 50/50 media bed, and one in the exhaust fan section for interconnection to the building sprinkler system by the appropriate trades. Pipe penetrating the unit cabinet shall use a UL listed fitting. Nozzles shall be the bulb type rated at 325°F.

CHECK OUT AND DEMONSTRATION: Upon completion of installation, the entire pollution control system, including the kitchen exhaust hoods, shall be commissioned by a factory certified service technician. Start-up shall include checking all ESP cells, filters, high voltage components, exhaust fan, control cabinets and sub panels as well as running the system through wash and fire cycle. The appropriate maintenance personnel shall be given a technical manual and a complete demonstration of the system, including operation and maintenance procedures. Upon completion of the commissioning, a detailed start-up report shall be made available to the architect and owner certifying proper system operation. Changes required in fan drive components shall be performed by the air balancing contractor per instruction of the Gaylord start-up representative.

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials.

MODEL "RSPC-TPF"

POLLUTION CONTROL UNIT

GENERAL SPECIFICATIONS AND DESCRIPTION

GENERAL: Furnish one (1) Gaylord ClearAir™ Pollution Control Unit model RSPC-TPF series as manufactured by Gaylord Industries in accordance with the following:

The pollution control unit shall consist of a smoke control section, odor control section (optional) and an exhaust fan section (optional) all built on a common base as an integral unit. Smoke control shall be accomplished by a three stage high-efficiency filter section (TPF). The unit shall be ETL listed and labeled.

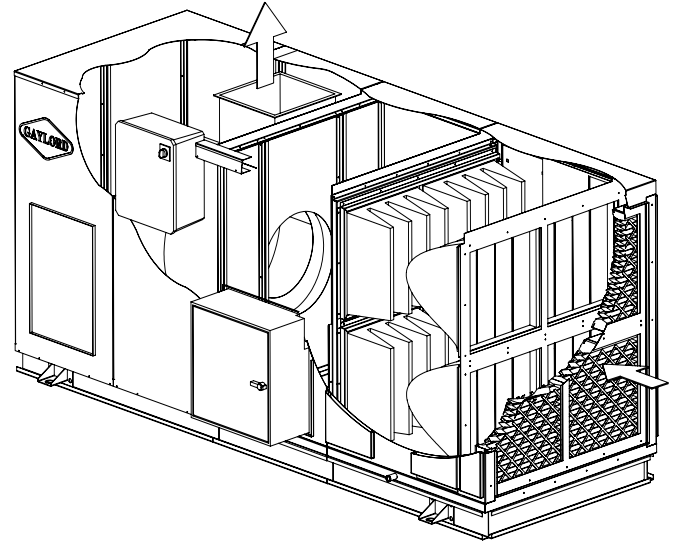
SMOKE CONTROL SECTION: The smoke control section shall have three phases of filters. The filters shall consist of replaceable 30% pre-filter, 95% bag filter and a replaceable 95% DOP final filter. Replaceable filters shall be mounted in filter slide tracks to prevent air bypass around the ends of the installed filter bank. Filters shall be accessed through removable side access panels with lift and turn latches. A thermostat, set at 250°F, shall also be located in the filter section to shut down the exhaust fan in the event of a fire.

Phase one filters shall have an average efficiency of 25% to 30% and an average arrestance of 90% to 92% in accordance with ASHRAE test standard 52.1-1992. Media support grid shall be on 1" centers with an open area 96%. Filter enclosing frame shall be a rigid, high wet strength beverage board with diagonal support members 4" deep.

Phase two filters shall have an average efficiency of 90% to 95% in accordance with ASHRAE test standard 52.1-1992. Sealing surface and pocket retainers shall be configured to provide 84% open area. Seams in bag filters shall be sealed with foamseal adhesive to completely eliminate air leakage through stitch holes.

Phase three filters shall be 95% efficient on 0.3 micron particles (DOP smoke test), 97% efficient on nebulized staphylococcus aerosols, 99+% efficient on atmospheric test dust (ASHRAE standard 52.1-92). The casing shall be 16-gauge steel with corrugated aluminum separators to ensure media stability. Media shall be fine-fiber, high strength micro-fiberglass paper. Media end cuts shall be encapsulated in urethane potting adhesive. *Optional Fire Damper for use in Canada: The unit shall include a UL listed fire damper, with a 280°F fusible link, located downstream of the filters to prevent passage of fire to the duct downstream of the unit.*

FILTER MONITORING PANEL (FM-1000): A monitor panel, for remote location, shall be supplied for the operation and monitoring of the unit. The panel shall be constructed of 18-gauge stainless steel, number 4 finish, and be suitable for surface or recessed mounting. The panel face shall be a hinged door with a lift and turn flush latch. The panel shall include an air proving time delay, and a PLC with display screen to continuously monitor the unit. The display shall indicate "Fan On", "Normal Air", "Low Air", "Replace Pre-Filters", "Replace Bag Filters", "Replace Final Filter", "Missing Filter", and "Fire In Unit". The display screen capable of indicating an alarm status, shall be included and shall activate whenever the unit status is low air, replace filters, missing filters or fire in the unit. Status other than "Fire In Unit" shall not shut down the exhaust fan.



APPLICATION

Specifically designed for use with high-efficiency water wash or cartridge ventilators for the removal of smoke and odor from the airstream of commercial kitchen exhaust systems.

FEATURES

- Utilizes three stage high-efficiency filter sections (TPF)
- Pre-engineered for efficient and cost-effective smoke and odor control
- Custom designed up to 32,000 CFM
- Includes Filter Monitoring Station (FM-1000)
- One year parts warranty

OPTIONS

- Sprinkler or liquid chemical internal fire protection available
- Optional Centrifugal or Tubular exhaust fan
- Media bed control available
- Wet chemical or water spray fire extinguishing systems
- Optional variable speed control available

Specifier Note: If the ClearAir™ unit is used in conjunction with a water wash ventilator, the monitor panel is built into the main water wash control cabinet model GPC-7000 series.

ODOR CONTROL OPTIONS:

Media Bed of 50/50 Blend Potassium Permanganate & Carbon Blend - The unit shall be provided with odor control utilizing a media bed of 50% potassium permanganate/50% carbon blend complying with UL 900 Type 1 classification. The odor removal media shall be housed in slide out reusable steel modules. There shall be a rack to accept 30% pleated media after filter located immediately downstream of the odor control media. Optional replaceable filters shall be mounted in filter slide tracks to prevent air bypass around the ends of the installed filter bank. The odor control media and after filters shall be removable through side access doors with lift and turn latches.



Intertek

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EXHAUST FAN OPTIONS:

Exhaust Fan (Standard Centrifugal Fan)

The unit shall include a centrifugal exhaust fan listed to UL 762. The exhaust fan shall be an SWSI upblast arrangement #9 with a non-overloading BI, AF or FB wheel. The motor, drives, bearings and fan mounting base shall be located out of the exhaust air stream as required by the International Mechanical Code and NFPA-96. The fan shall be AMCA certified and bear the AMCA seal for performance. The fan housing shall be constructed of heavy gauge steel. The fan bearings shall be heavy-duty self-aligning pillow block type rigidly mounted on heavy structural steel supports. The motor shall be PE, inverter-ready ODP three-phase mounted on a common base with the fan and shall be pre-wired to the electrical cabinet located on the unit. The electrical cabinet shall include a disconnect switch, motor starter, overloads and fuses. The factory provided drive assembly shall be adjustable pitch on 5 HP and smaller, fixed pitch on 7.5 HP and larger. It shall also be sized for a minimum 1.5 service factor. After final system balancing, fixed pitch sheaves shall be provided and installed by the air balancing contractor to provide proper flow at actual installed conditions.

Exhaust Fan (Optional Tubular Fan)

The unit shall include a tubular centrifugal exhaust fan. The motor, drives, bearings and fan mounting base shall be located out of the exhaust air stream as required by the International Mechanical Code and NFPA-96. The fan shall be AMCA certified and bear the AMCA seal for performance. The fan housing shall be constructed of heavy gauge steel. The fan bearings shall be heavy-duty rigidly mounted on heavy structural steel supports. The motor shall be PE, inverter-ready ODP three-phase mounted on a common base with the fan and shall be pre-wired to the electrical cabinet located on the unit. The electrical cabinet shall include a disconnect switch, motor starter, overloads and fuses. The factory provided drive assembly shall be adjustable pitch on 5 HP and smaller and fixed pitch on 7.5 HP and larger. It shall also be sized for a minimum 1.5 service factor. After final system balancing, fixed pitch sheaves shall be provided and installed by the air balancing contractor to provide proper flow at actual installed conditions.

EXHAUST FAN HOUSING: The exhaust fan section of the unit shall be enclosed with the same material as the smoke control section. There shall be a hinged panel for access to the fan.

UNIT CONSTRUCTION: The unit housing shall be constructed of a minimum 16-gauge G90 bright galvanized steel. The perimeter base shall be 12-gauge formed channel with lifting lugs at each corner and along the length as required. The internal housing shall be externally welded liquid tight for compliance to the International Mechanical Code and NFPA-96 grease duct construction requirements.

FIRE EXTINGUISHING SYSTEM OPTIONS:

Specifier Note: NFPA-96 requires a fire extinguishing system for protection of the smoke and odor control sections and protection of the duct downstream of any filters or dampers. Not all authorities having jurisdiction require protection. Check with your AHJ. If required, specify one of the following systems.

WET CHEMICAL SYSTEM: Provide a complete factory mounted Ansul wet chemical fire extinguishing system, including nozzles piping and detection runs. Pipe penetrating the unit cabinet shall use a UL listed fitting. System shall be installed in accordance with the systems listing and NFPA-96. The Ansul Automan cabinet shall be mounted on the side of the unit for easy access, certification and service if space allows. If there is not space for the FP cabinet it will be shipped loose and be mounted in the field by the FP installer. If the unit is exposed to freezing conditions, the Ansul Automan cabinet shall be mounted in an insulated thermostatically controlled heated cabinet.

WATER SPRAY SPRINKLER FIRE SYSTEM:

Specifier Note: Units that are located indoors may be factory pre-piped for a wet pipe building sprinkler system.

Provide a pre-piped water spray fire system installed in accordance with NFPA-96. The unit shall be piped with one pendent type sprinkler nozzle located in the smoke control section, one in the odor control section, if equipped with 50/50 media bed, and one in the exhaust fan section for interconnection to the building sprinkler system by the appropriate trades. Pipe penetrating the unit cabinet shall use a UL listed fitting. Nozzles shall be the bulb type rated at 325°F.

CHECK OUT AND DEMONSTRATION:

Upon completion of installation, the entire pollution control system, including the kitchen exhaust hoods, shall be commissioned by a factory certified service technician. Start-up shall include checking all filters, filter monitoring station, odor control and exhaust fan. The appropriate maintenance personnel shall be given a technical manual and a complete demonstration of the system, including operation and maintenance procedures. Upon completion of the commissioning, a detailed start-up report shall be made available to the architect and owner certifying proper system operation. Changes required in fan drive components shall be performed by the air balancing contractor per instruction of the Gaylord start-up representative.

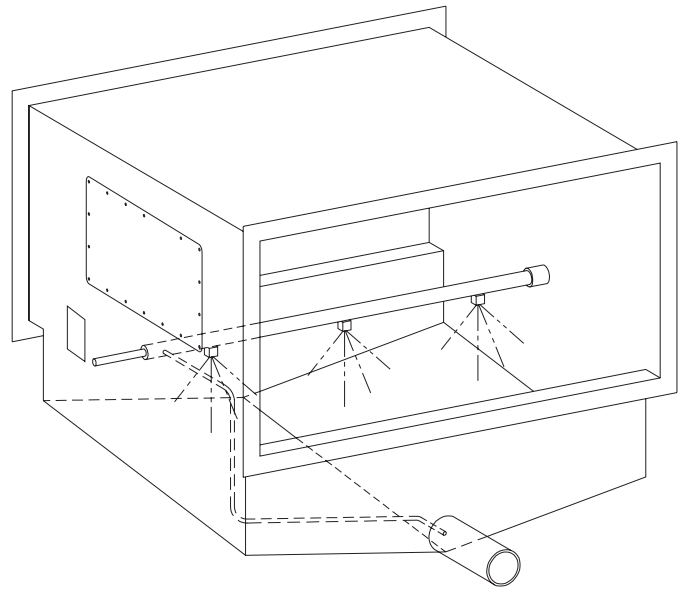
The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials.



DUCT SUMP MODEL GDS SERIES

GENERAL SPECIFICATION

Furnish Model GDS - _____ x _____ x 24" L duct sump as manufactured by Gaylord Industries, Tualatin, Oregon. The sump shall be constructed of 16 gauge stainless steel and shall include 1" flanges at the inlet and outlet collars for welding to the duct system. All corners and seams shall be continuously welded. The duct sump shall include a stainless steel spray manifold with brass spray nozzles, a 1-1/2" drain with pre-flush line. The sump shall also include an access panel, with 1500°F gasketing, secured by weld studs with wing nuts for easy removal without tools. If the sump is larger than 36" wide, there shall be an access panel on each side. The access panel shall meet all requirements of NFPA-96. The sump shall be interconnected with the water-wash ventilator control cabinet and wash simultaneously with the ventilator. (Note: If the system does not include a water-wash ventilator, a control cabinet must be specified. Refer to "GPC" Series Control Cabinet specification sheet for details.) Duct sump shall be approved by the City of Los Angeles, Department of Building & Safety, Mechanical Testing Laboratories (Research Report Number RR7657).



APPLICATION

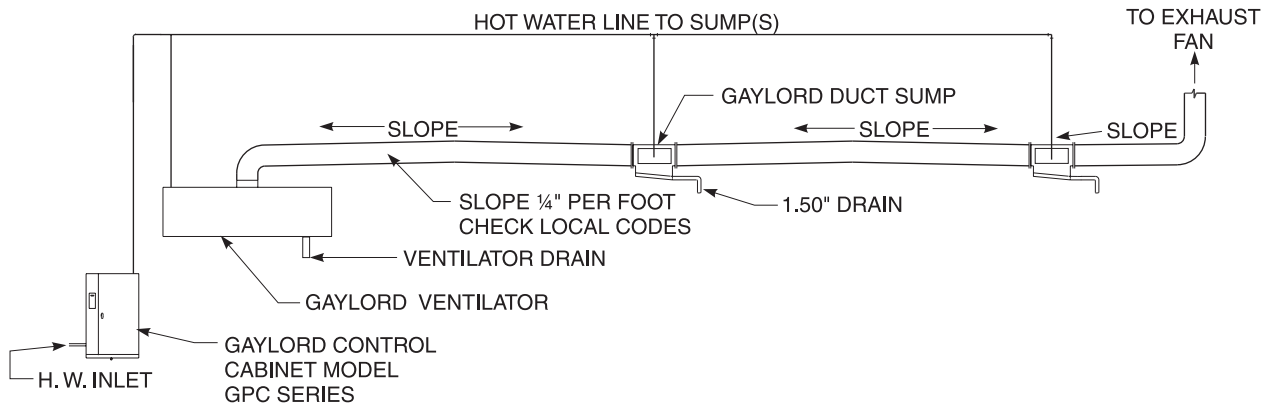
The Gaylord Duct Sump is designed to be installed at the low point(s) of long horizontal duct runs to collect and drain off moisture, liquefied grease, etc. The International Mechanical Code (IMC) specifies that ducts must slope not less than 2% towards a hood or a grease reservoir (duct sump) and that duct runs over 75 ft. must slope not less than 8.3%. The installation of one or more duct sumps allows a 2% slope on duct runs exceeding 75 ft. by zig zagging the duct up and down as illustrated on the back of this specification sheet.

ESTABLISHING MODEL NUMBERS

The model number is determined by the size of the sump. Specify the model number as follows:

GDS - _____ W x _____ H x 24" L
 Width Height Length

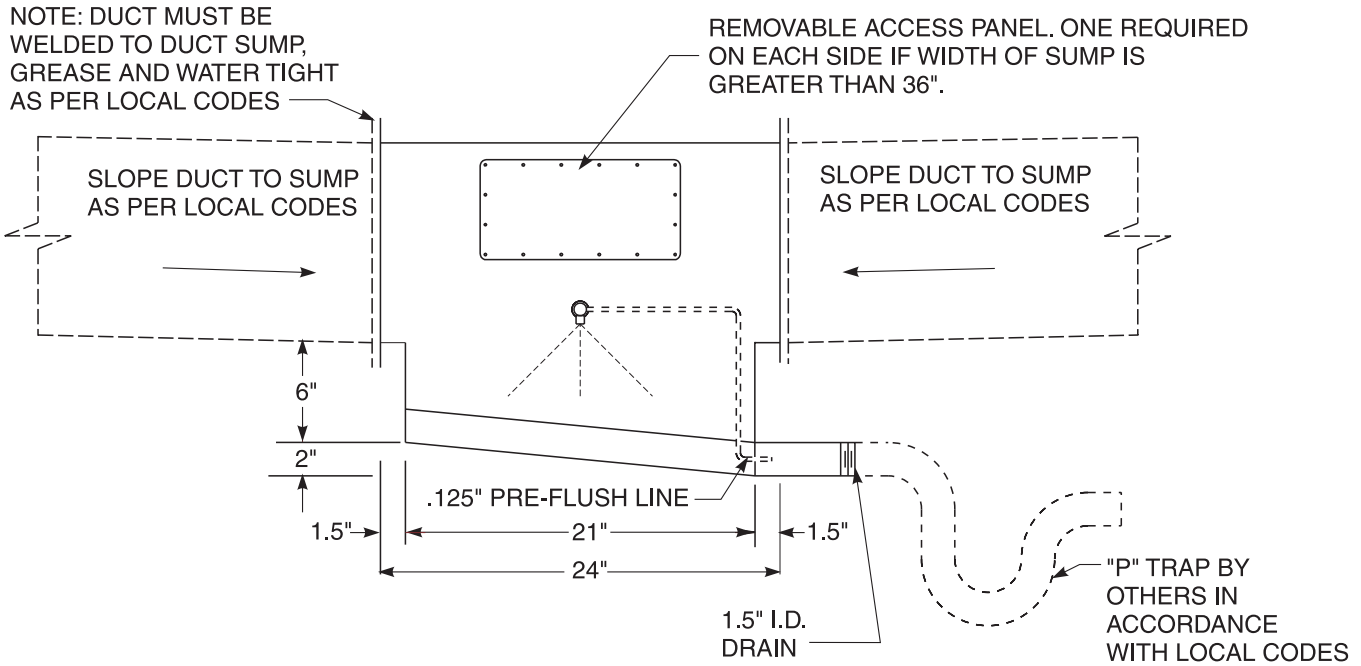
TYPICAL DUCT SUMP ARRANGEMENT



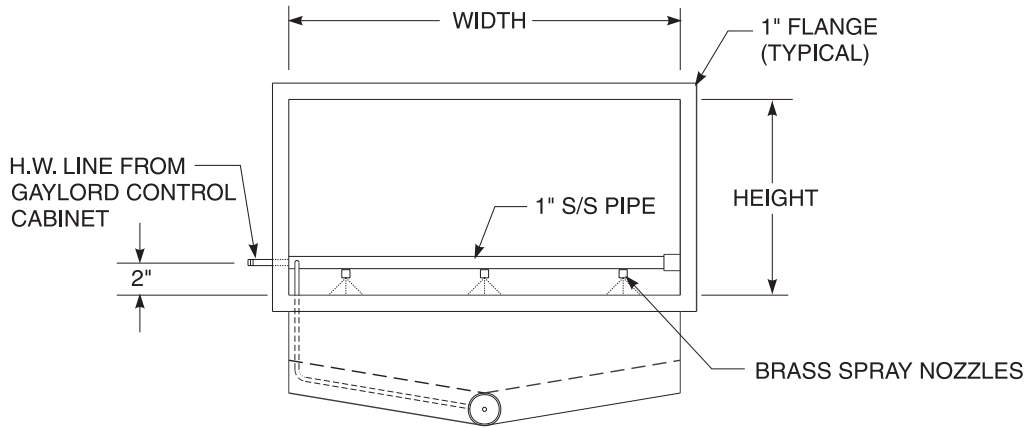
GAYLORD INDUSTRIES

10900 SW AVERY STREET • TUALATIN, OREGON 97062 U.S.A.
 PHONE: 800-547-9696 • FAX: 503-692-6048 • email: info@gaylordventilation.com

SIDE VIEW



END VIEW



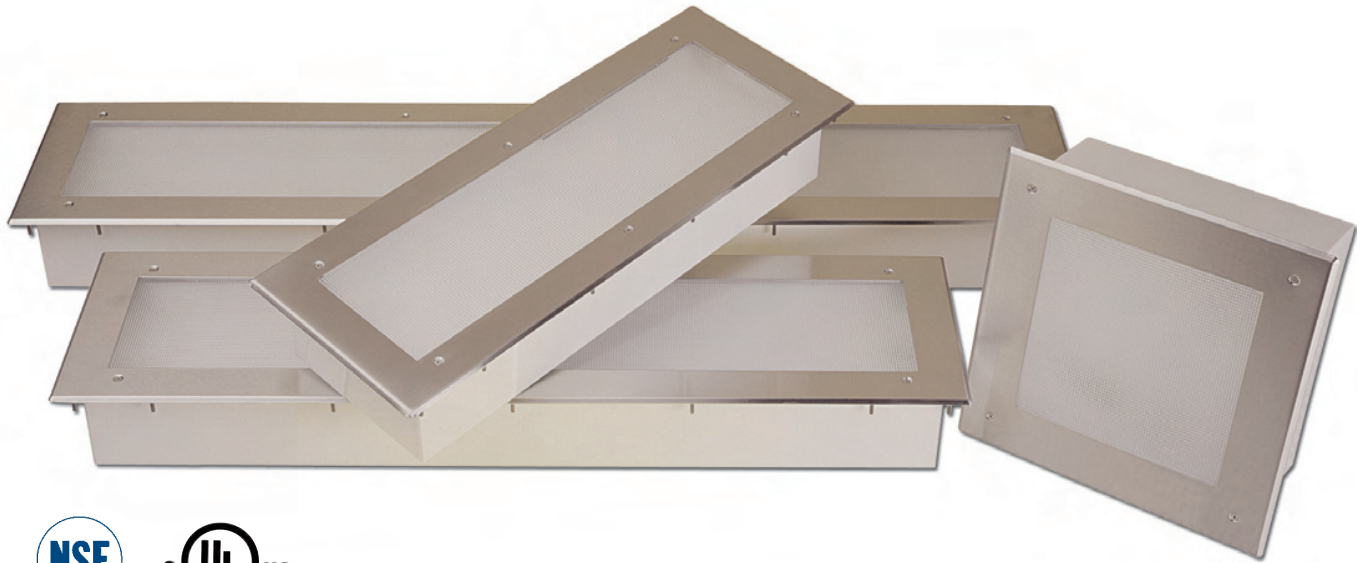
Pipe Size Chart

- 1/2" : Up to 36" Wide
- 3/4" : Up to 80" Wide

Water Requirements

1. H.W. TEMP AT CONTROL CABINET - 140° F MIN. - 180° F MAX.
2. WATER PRESSURE AT CONTROL CABINET - 40 PSI MIN. - 80 PSI MAX.
3. WATER CONSUMPTION 1.5 GPM AT 40 PSI FOR EVERY 12" OF WIDTH

The manufacturer reserves the right to modify the materials and specifications resulting from a continuing program of product improvement or the availability of new materials.



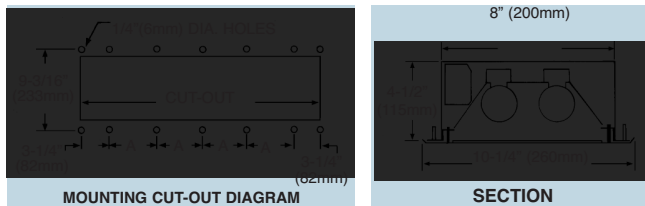
CANOPY HOOD LIGHT FIXTURES

RECESSED FLUORESCENT...LOW PROFILE

- NSF LISTED, UL LISTED E250943 FOR USE IN COMMERCIAL COOKING HOODS
- MEETS ALL REQUIREMENTS FOR N.F.P.A. AND N.E.C. 410
- ONLY 4-1/2" (115mm) HIGH...FOR LIMITED OVERHEAD CLEARANCE APPLICATIONS
- TEMPERED, PRISMATIC GLASS DIFFUSER WITH ONE PIECE SATIN FINISHED STAINLESS STEEL FACE FRAME TO MATCH HOOD INTERIOR

RECESSED FLUORESCENT CANOPY HOOD LIGHT FIXTURES

MODEL NO.	LAMPS REQUIRED	OVERALL TRIM SIZE	CUT-OUT SIZE	HOLES REQ'D	"A" DIM.
L82-1020	(2) F17T8	10-1/4" X 26-1/4" (260mm x 660mm)	8-1/2" X 24-1/2" (215mm x 620mm)	12	6" (150mm)
L82-1030	(2) F25T8	10-1/4" X 38-1/4" (260mm x 970mm)	8-1/2" X 36-1/2" (215mm x 930mm)	14	7-1/2" (190mm)
L82-1040	(2) F32T8	10-1/4" X 50-1/4" (267mm x 1270mm)	8-1/2" X 48-1/2" (215mm x 1230mm)	14	10-1/2" (265mm)



SPECIFICATIONS

BALLAST: Universal 120-277v, 50 or 60 Hz, T8, UL Listed
LAMPS: T8 Fluorescent lamps (not furnished)
BODY: Steel with baked white enamel finish
MOUNTING: #10-32 x 3/4" (20 mm) long threaded studs
REFLECTOR: Baked white enamel finish...providing a minimum of 87% diffused reflection
DIFFUSER: Crystal 73 tempered prismatic glass with prisms on inside of fixture, mounted into a stainless steel face frame with special sealing gasketing. Secured to fixture body with stainless steel screws for easy servicing.

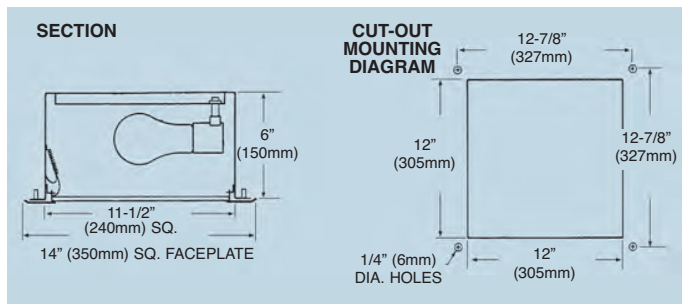
RECESSED INCANDESCENT

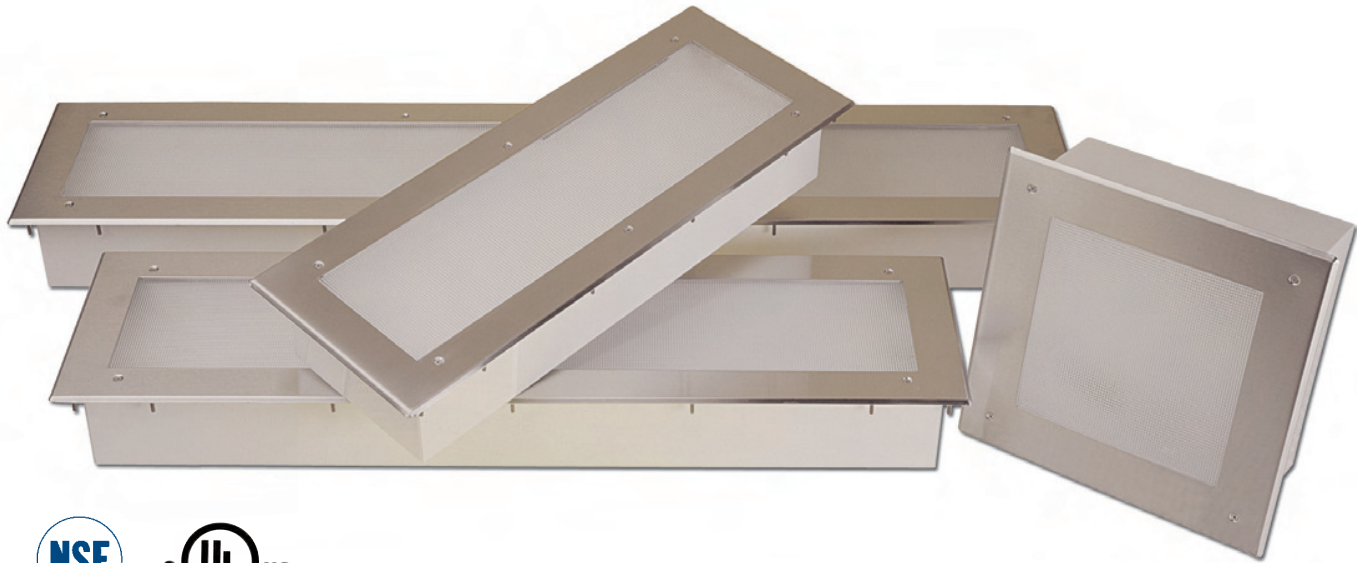
- UL LISTED E253411 AND CERTIFIED FOR CANADA FOR USE IN COMMERCIAL COOKING HOODS
- MEETS ALL REQUIREMENTS FOR NFPA AND NEC 410
- NSF LISTING
- SATIN FINISHED STAINLESS STEEL FACEPLATE TO MATCH HOOD INTERIORS
- TEMPERED, PRISMATIC GLASS DIFFUSER

RECESSED INCANDESCENT CANOPY HOOD LIGHT FIXTURE MODEL NO. L87-1004

SPECIFICATIONS

- SOCKET:** Side mounted porcelain medium base
WATTAGE: Accepts standard 150 Watt A23 bulb maximum(not furnished)
VOLTAGE: Rated up to 120 Volts
DIFFUSER: Crystal 73 tempered prismatic glass with prisms on inside of fixture
FACEPLATE: One piece, stainless steel with smooth satin finish
LOCKUP: (4) captive stainless steel screws
RETAINER: Twin spring and cable for faceplate and frame
REFLECTOR: Die formed aluminum with satin finish
WIRING: Connections to socket are made in the interior removable thermal insulated wiring chamber
BODY: Steel recessed housing with baked white enamel finish
MOUNTING: (4) #10-24 x 3/4" (20mm) long threaded studs





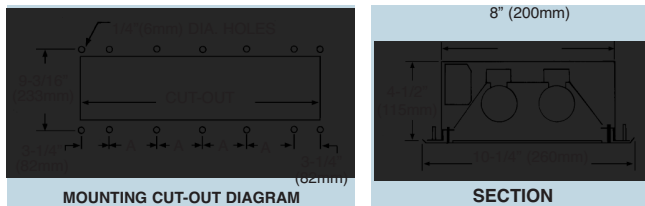
CANOPY HOOD LIGHT FIXTURES

RECESSED FLUORESCENT...LOW PROFILE

- NSF LISTED, UL LISTED E250943 FOR USE IN COMMERCIAL COOKING HOODS
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RECESSED FLUORESCENT CANOPY HOOD LIGHT FIXTURES

MODEL NO.	LAMPS REQUIRED	OVERALL TRIM SIZE	CUT-OUT SIZE	HOLES REQ'D	"A" DIM.
L82-1020	(2) F17T8	10-1/4" X 26-1/4" (260mm x 660mm)	8-1/2" X 24-1/2" (215mm x 620mm)	12	6" (150mm)
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SPECIFICATIONS
BALLAST: Universal 120-277v, 50 or 60 Hz, T8, UL Listed
LAMPS: T8 Fluorescent lamps (not furnished)
BODY: Steel with baked white enamel finish
MOUNTING: #10-32 x 3/4" (20 mm) long threaded studs
REFLECTOR: Baked white enamel finish...providing a minimum of 87% diffused reflection
DIFFUSER: Crystal 73 tempered prismatic glass with prisms on inside of fixture, mounted into a stainless steel face frame with special sealing gasketing. Secured to fixture body with stainless steel screws for easy servicing.

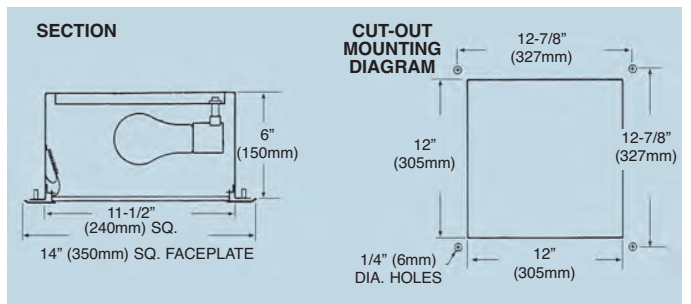
RECESSED INCANDESCENT

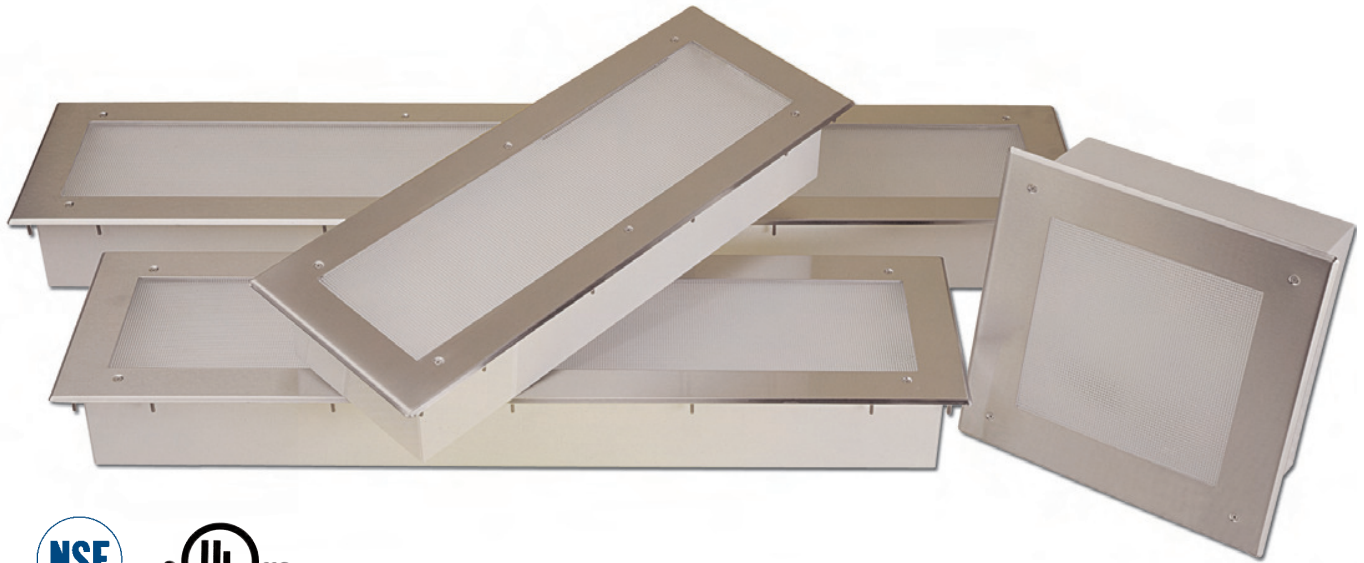
- UL LISTED E253411 AND CERTIFIED FOR CANADA FOR USE IN COMMERCIAL COOKING HOODS
- MEETS ALL REQUIREMENTS FOR NFPA AND NEC 410
- NSF LISTING
- SATIN FINISHED STAINLESS STEEL FACEPLATE TO MATCH HOOD INTERIORS
- TEMPERED, PRISMATIC GLASS DIFFUSER

RECESSED INCANDESCENT CANOPY HOOD LIGHT FIXTURE MODEL NO. L87-1004

SPECIFICATIONS

- SOCKET:** Side mounted porcelain medium base
WATTAGE: Accepts standard 150 Watt A23 bulb maximum(not furnished)
VOLTAGE: Rated up to 120 Volts
DIFFUSER: Crystal 73 tempered prismatic glass with prisms on inside of fixture
FACEPLATE: One piece, stainless steel with smooth satin finish
LOCKUP: (4) captive stainless steel screws
RETAINER: Twin spring and cable for faceplate and frame
REFLECTOR: Die formed aluminum with satin finish
WIRING: Connections to socket are made in the interior removable thermal insulated wiring chamber
BODY: Steel recessed housing with baked white enamel finish
MOUNTING: (4) #10-24 x 3/4" (20mm) long threaded studs





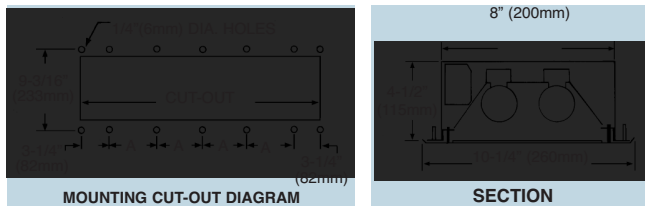
CANOPY HOOD LIGHT FIXTURES

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- TEMPERED, PRISMATIC GLASS DIFFUSER WITH ONE PIECE SATIN FINISHED STAINLESS STEEL FACE FRAME TO MATCH HOOD INTERIOR

RECESSED FLUORESCENT CANOPY HOOD LIGHT FIXTURES

MODEL NO.	LAMPS REQUIRED	OVERALL TRIM SIZE	CUT-OUT SIZE	HOLES REQ'D	"A" DIM.
L82-1020	(2) F17T8	10-1/4" X 26-1/4" (260mm x 660mm)	8-1/2" X 24-1/2" (215mm x 620mm)	12	6" (150mm)
L82-1030	(2) F25T8	10-1/4" X 38-1/4" (260mm x 970mm)	8-1/2" X 36-1/2" (215mm x 930mm)	14	7-1/2" (190mm)
L82-1040	(2) F32T8	10-1/4" X 50-1/4" (267mm x 1270mm)	8-1/2" X 48-1/2" (215mm x 1230mm)	14	10-1/2" (265mm)



SPECIFICATIONS
BALLAST: Universal 120-277v, 50 or 60 Hz, T8, UL Listed
LAMPS: T8 Fluorescent lamps (not furnished)
BODY: Steel with baked white enamel finish
MOUNTING: #10-32 x 3/4" (20 mm) long threaded studs
REFLECTOR: Baked white enamel finish...providing a minimum of 87% diffused reflection
DIFFUSER: Crystal 73 tempered prismatic glass with prisms on inside of fixture, mounted into a stainless steel face frame with special sealing gasketing. Secured to fixture body with stainless steel screws for easy servicing.

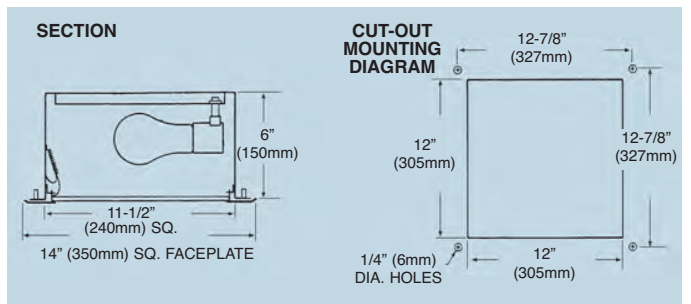
RECESSED INCANDESCENT

- UL LISTED E253411 AND CERTIFIED FOR CANADA FOR USE IN COMMERCIAL COOKING HOODS
- MEETS ALL REQUIREMENTS FOR NFPA AND NEC 410
- NSF LISTING
- SATIN FINISHED STAINLESS STEEL FACEPLATE TO MATCH HOOD INTERIORS
- TEMPERED, PRISMATIC GLASS DIFFUSER

RECESSED INCANDESCENT CANOPY HOOD LIGHT FIXTURE MODEL NO. L87-1004

SPECIFICATIONS

- SOCKET:** Side mounted porcelain medium base
WATTAGE: Accepts standard 150 Watt A23 bulb maximum(not furnished)
VOLTAGE: Rated up to 120 Volts
DIFFUSER: Crystal 73 tempered prismatic glass with prisms on inside of fixture
FACEPLATE: One piece, stainless steel with smooth satin finish
LOCKUP: (4) captive stainless steel screws
RETAINER: Twin spring and cable for faceplate and frame
REFLECTOR: Die formed aluminum with satin finish
WIRING: Connections to socket are made in the interior removable thermal insulated wiring chamber
BODY: Steel recessed housing with baked white enamel finish
MOUNTING: (4) #10-24 x 3/4" (20mm) long threaded studs



E-Z mount incandescent canopy lighting fixtures

E-Z MOUNT CANOPY LIGHTING FIXTURES FOR COMMERCIAL COOKING HOODS



SPECIFICATIONS

- FIXTURE BODY:** Die cast aluminum with brushed finish
SOCKET: Porcelain body with copper shell
WIRE LEADS: 16 AWG, 6"(150mm) long
GROUND LEAD: 6"(150mm) long green colored 18 AWG wire
WATTAGE: Accepts standard 100 watt A19 bulb (not furnished).
VOLTAGE: Rated up to 120 volts
GASKETS: Silicone
GLOBE: Silicone* or clear, thermal and shock resistant tempered glass
WIRE GUARD: Plated steel
OVERALL SIZE: 5-1/2"(140mm) diameter
 8-3/4"(220mm) long with wire guard
JUNCTION BOX: Not furnished. Fixture is designed to accept any standard 1/2"(90mm) or 4"(100mm) junction box

- E-Z MOUNT FEATURE ALLOWS FOR QUICK INSTALLATION
- GASKETS PERMANENTLY AFFIXED SAVE INSTALLATION TIME
- U.L. LISTED AND C.S.A. CERTIFIED FOR USE IN COMMERCIAL COOKING HOODS
- MEETS ALL REQUIREMENTS FOR N.F.P.A. AND N.E.C. 410
- DESIGNED FOR CONVENIENT INSTALLATION TO PREWIRED HOODS
- GREASEPROOF, WATERPROOF AND HEATPROOF CONSTRUCTION
- ALUMINUM FIXTURES ARE FURNISHED WITH A BRUSHED FINISH TO MATCH STAINLESS STEEL HOOD INTERIORS



E-Z MOUNT CANOPY LIGHTING FIXTURES

U.L. MODEL NO.	CSA MODEL NO.	DESCRIPTION
A L55-1004 *L55-1004-HT	L55-1004-CSA	FURNISHED WITH TUFF-SKIN COATED** THERMAL AND SHOCK RESISTANT TEMPERED GLASS GLOBE
B L55-1024 *L55-1024-HT	L55-1024-CSA	FURNISHED WITH TUFF-SKIN COATED** THERMAL AND SHOCK RESISTANT TEMPERED GLASS GLOBE AND WIRE GUARD
C L55-2004 *L55-2004-HT	L55-2004-CSA	FURNISHED WITH THERMAL, SHOCK RESISTANT TEMPERED GLASS GLOBE
D L55-2024 *L55-2004-HT	L55-2024-CSA	FURNISHED WITH THERMAL, SHOCK RESISTANT TEMPERED GLASS GLOBE AND WIRE GUARD

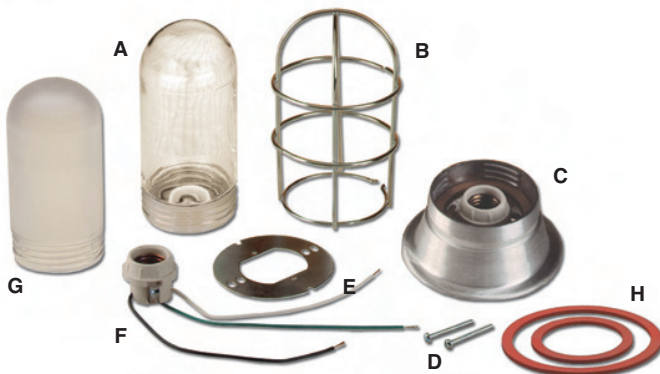
NOTE: **SILICONE COATED GLOBES PROVIDED WITH "TUFF-SKIN" COATING WHICH ELIMINATES HOT SPOT BROWNING / DISCOLORATION OF GLOBE...PREVENTS GLASS SHATTER FROM IMPACT, DROPPING, UNUSUAL STRESSES AND THERMAL SHOCK. SCRATCH RESISTANT...U.S.D.A. APPROVED... IMPROVES LIGHT SOURCE BY PROVIDING BETTER DIFFUSION.

UNDERWRITERS LABORATORIES STANDARD #1571 REQUIRES THAT FIXTURES IN COMMERCIAL COOKING HOODS MUST BE MOUNTED A MINIMUM OF 4 FEET (1200mm) ABOVE THE COOKING SURFACE.

L55 SERIES LIGHTING FIXTURE REPLACEMENT PARTS

REF.	DESC.	MODEL NO.
A	GLOBE, TEMPERED GLASS Thermal and Shock Resistant	L55-X022
B	WIRE GUARD	L10-X020
C	LAMP HOUSING ASSEMBLY Complete with Porcelain Socket and required Silicone Gasket	L55-Y001 *L55-Y001-HT
D	SCREW	L55-X006
E	ADAPTER PLATE	L50-X009
F	PORCELAIN SOCKET	L55-X003 *L55-X003-HT
G	GLOBE, TEMPERED GLASS Silicone Coated, Thermal and Shock Resistant	L50-X011
H	GASKET SET	L50-Y001

*AVAILABLE AS HIGH TEMP MODELS RATED TO 392°F (200°C), 600V, LEADS: 14 AWG, 6" LONG STRIPPED END. INSULATION: SILICONE RUBBER WITH TREATED GLASS BEAD SLEEVING

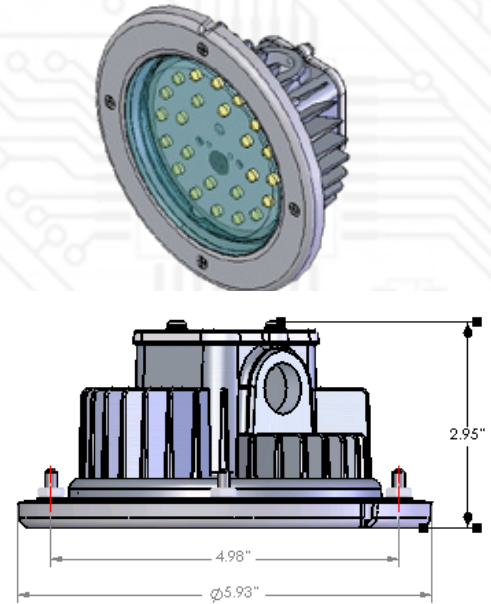


ALF16-120V-WW

Description	Lamp Type /Catalog #
Complete Fixture	(ALF16-120V-WW-R) + (54-262-02-ALT)
Fixture Base Only	54-262-02-ALT
LED Lamp Replacement	ALF16-120V-WW-R

Specifications

Typical Application:	Commercial Cooking Hoods
Input Voltage:	120VAC, 60HZ
Input Current:	140mA
Power Consumption:	17W
Color Temperature:	Warm White 3500°K
Mounting Distance:	Min. 1.2M (4ft) above cooking surface
Typical Brightness (lumens/fixture):	1250 lumens
Location:	Suitable for Dry & Wet locations IP67
Operating Temperature:	-40° C to +75° C
Fixture Junction Box:	Die cast aluminum with 1/2" NPT
Lamp Body:	Stainless steel
Gasket:	Silicone
Overall Size:	5.93" Dia. x 2.95" H
Fitting:	Junction box accepts standard 1/2" NPT fitting
Warranty:	1 year
Certifications:	UL Listed, CSA Approved, NSF and CE



**PATENT
PENDING**

No need for external power supply.
120VAC direct input.



Allanson
LIGHTING TECHNOLOGIES

33 Cranfield Road, Toronto, ON M4B 3H2

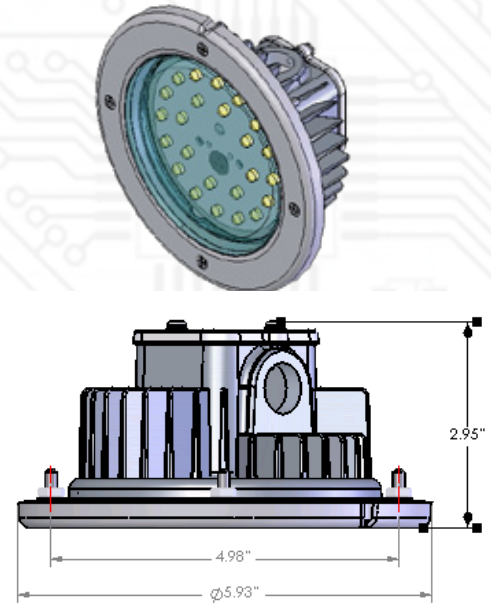
www.allanson.com | cservice@allanson.com | T: 1.800.661.7251 | F: 416.752.6717

ALF16-220V-WW

Description	Lamp Type /Catalog #
Complete Fixture	(ALF16-220V-WW-R) + (54-262-02-ALT)
Fixture Base Only	54-262-02-ALT
LED Lamp Replacement	ALF16-220V-WW-R

Specifications

Typical Application:	Commercial Cooking Hoods
Input Voltage:	220VAC, 50HZ
Input Current:	77mA
Power Consumption:	17W
Color Temperature:	Warm White 3500°K
Mounting Distance:	Min. 1.2M (4ft) above cooking surface
Typical Brightness (lumens/fixture):	1250 lumens
Location:	Suitable for Dry & Wet locations IP67
Operating Temperature:	-40° C to +75° C
Fixture Junction Box:	Die cast aluminum with 1/2" NPT
Lamp Body:	Stainless steel
Gasket:	Silicone
Overall Size:	5.93" Dia. x 2.95" H
Fitting:	Junction box accepts standard 1/2" NPT fitting
Warranty:	1 year
Certifications:	UL Listed, CSA Approved, NSF and CE



**PATENT
PENDING**

**No need for external power supply.
220VAC direct input.**



Allanson
LIGHTING TECHNOLOGIES



1890 Swarthmore Avenue, PO Box 2020, Lakewood, NJ 08701
 Phone: 800-526-3694, 732-363-4700, Fax: 732-364-8110
 www.flamegard.com • www.componenthardware.com

PROJECT NAME: _____

LOCATION: _____

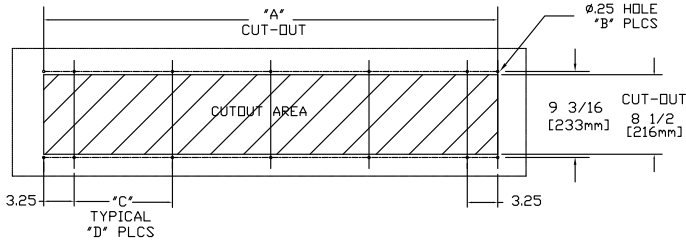
SPECIFIER ITEM NO. _____ **QTY:** _____

FLAME GARD PART NO. _____

Flame Gard® LED Recessed Light Fixtures for Exhaust Canopy Hoods

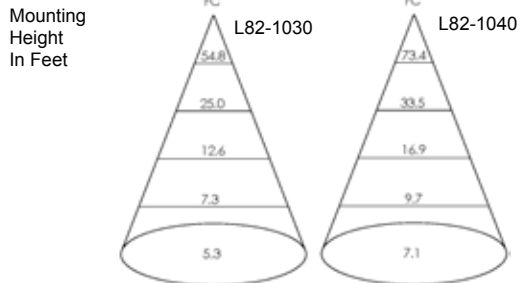
L82-10x0-Lxxx Series

- L82-1030-L13W 36" 2700K to 3500K
- L82-1030-L13N 36" 4500K to 5500K
- L82-1030-L13C 36" 5500K to 6500K
- L82-1040-L22W 48" 2700K to 3500K
- L82-1040-L22N 48" 4500K to 5500K
- L82-1040-L22C 48" 5500K to 6500K



Dimensions shown in inches (mm) are for reference only and are subject to change.

Beam Angle



120V, T8 LED
 120 - 240 VAC

Approximate shipping weight - 10 lbs
 Warranty - 1 year parts

Low profile, high output, energy efficient LED lights

Specifically designed for commercial cooking hoods

- Listed for up to 75°C (167°F) operation
- Meets all requirements of NFPA 96 and NEC 410
- NSF Listed

Environmentally friendly, energy efficient

- LED lamps contain no mercury or other hazardous materials
- Lamps consume less than 5.5 watts per foot
- Contributes to LEED® energy use reduction credits
- 50,000 hour lamp life

Bright, focused light

- Highest lumen output per watt available
- Instant on, no ballast to warm up

Low profile

- Recess mount installation
- Only 4-1/2" high for limited clearance applications

Attractive design

- One piece satin finish stainless steel frame
- Tempered, prismatic glass diffuser

Model	Watts	Lumens
L82-1030-L13W	26	2360
L82-1030-L13N	26	2500
L82-1030-L13C	26	2600
L82-1040-L22W	44	3560
L82-1040-L22N	44	3800
L82-1040-L22C	44	4000

Model	Overall Trim Size	"A" Cut Out	"B" Holes	"C" Spacing	"D" Each Side
L82-1030-L13	10-1/4" x 38-1/4" (260mm x 972mm)	36-1/2" (927mm)	14 total	7-1/2" (191mm)	4 plcs
L82-1040-L22	10-1/4" x 50-1/4" (260mm x 61276mm)	48-1/2" (1232mm)	14 total	10-1/2" (267mm)	4 plcs

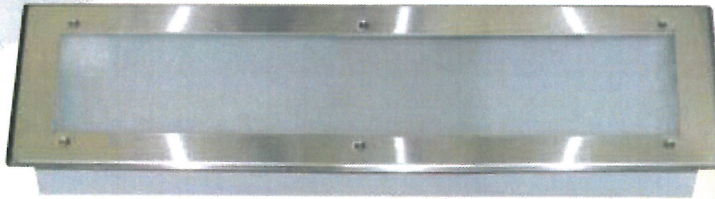


File No. E339654

**THE FIRST RECESSED LED IN THE INDUSTRY
TO BE TEMPERATURE RATED TO 80°C (176°F)**



- LOW PROFILE
- NSF LISTED, UL LISTED FOR USE IN COMMERCIAL COOKING HOODS
- MEETS ALL REQUIREMENTS FOR NFPA 96 AND N.E.C. 410
- ONLY 4-1/2" (114mm) HIGH...FOR LIMITED OVERHEAD CLEARANCE APPLICATIONS
- TEMPERED, PRISMATIC GLASS DIFFUSER WITH ONE PIECE SATIN FINISHED STAINLESS STEEL FACE FRAME TO MATCH HOOD INTERIOR

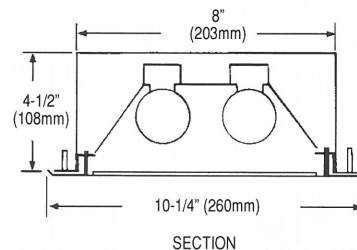
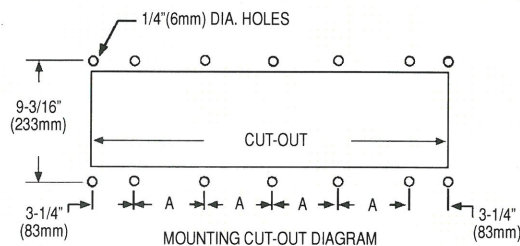


**HIGHEST
LUMEN/WATT
IN THE INDUSTRY**

MODEL NO.	LED LAMP	LAMPS REQ'D	TOTAL LUMENS	OPERATING TEMP	OVERALL TRIM SIZE	CUT-OUT SIZE	HOLES REQ'D	DIM. A
L82-1040-L22	L82-312022 22WATT 85-265 VOLT AC	(2) EACH	4000	-40°F-176°F -40°C-80°C	10-1/4" x 50-1/4" (260mm x 1276mm)	8-1/2" x 48-1/2" (216mm x 1232mm)	14	10-1/2" (267mm)

SPECIFICATIONS (120 VOLT)

- LAMP:** Universal 85-265V, T8 LED
BODY: Steel with baked white enamel finish
MOUNTING: #10-32 x 3/4" (19mm) long threaded studs
REFLECTOR: Baked white enamel finish
DIFFUSER: Crystal 73 tempered prismatic glass with prisms on inside of fixture, mounted into a stainless Secured to fixture body with stainless steel screws for easy servicing.



R-102 Restaurant Fire Suppression Systems

Features

- Low pH Agent
- Proven Design
- Reliable Gas Cartridge Operation
- Aesthetically Appealing
- UL Listed – Meets Requirements of UL 300
- ULC Listed – Meets Requirements of ULC/ORD-C1254.6
- CE Marked

Application

The ANSUL® R-102 Restaurant Fire Suppression System is an automatic, pre-engineered, fire suppression system designed to protect areas associated with ventilating equipment including hoods, ducts, plenums, and filters. The system also protects auxiliary grease extraction equipment and cooking equipment such as fryers; griddles and range tops; upright, natural charcoal, or chain-type broilers; electric, lava rock, mesquite, or gas-radiant char-broilers; and woks.

The system is ideally suitable for use in restaurants, hospitals, nursing homes, hotels, schools, airports, and other similar facilities.

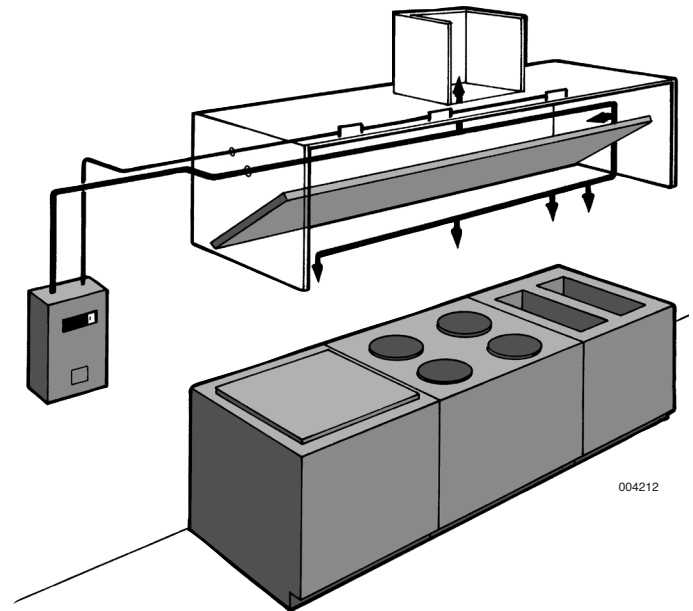
Use of the R-102 system is limited to indoor applications or locations that provide weatherproof protection within tested temperature limitations. The regulated release and tank assemblies must be mounted in an area where the air temperature will not fall below 32 °F (0 °C) or exceed 130 °F (54 °C). The system must be designed and installed within the guidelines of the UL/ULC Listed Design, Installation, Recharge, and Maintenance Manual.

System Description

The restaurant fire suppression system is a pre-engineered, wet chemical, cartridge-operated, regulated pressure type with a fixed nozzle agent distribution network. It is listed with Underwriters Laboratories (UL/ULC).



004215



004212

The system is capable of automatic detection and actuation as well as remote manual actuation. Additional equipment is available for building fire alarm panel connections, electrical shut-down and/or interface, and mechanical or electrical gas line shut-off applications.

The detection portion of the fire suppression system allows for automatic detection by means of specific temperature-rated alloy type fusible links, which separate when the temperature exceeds the rating of the link, allowing the regulated release to actuate.

A system owner's guide is available containing basic information pertaining to system operation and maintenance. A detailed technical manual, including system description, design, installation, recharge and resetting instructions, and maintenance procedures, is available to qualified individuals.

The system is installed and serviced by authorized distributors that are trained by the manufacturer.

The basic system consists of an AUTOMAN regulated release assembly which includes a regulated release mechanism and a wet chemical storage tank housed within a single enclosure. Nozzles with blow-off caps, detectors, cartridges, agent, and pulley elbows are supplied in separate packages in the quantities needed for fire suppression system arrangements.

Additional equipment includes a remote manual pull station(s), mechanical and electrical gas valves, and electrical switches for automatic equipment and gas line shut-off. Accessories can be added such as alarms, warning lights, etc., to installations where required.

Additional tanks and corresponding equipment can be used in multiple arrangements to allow for larger hazard coverage. Each tank is limited to a listed maximum amount of flow numbers.



009368

Component Description

Wet Chemical Agent – The extinguishing agent is a mixture of organic salts designed for rapid flame knockdown and foam securement of grease related fires. It is available in plastic containers with instructions for wet chemical handling and usage.

Agent Tank – The agent tank is installed in a stainless steel enclosure or wall bracket. The tank is constructed of stainless steel.

Tanks are available in two sizes: 1.5 gallon (5.7 L) and 3.0 gallon (11.4 L). The tanks have a working pressure of 110 psi (7.6 bar), a test pressure of 330 psi (22.8 bar), and a minimum burst pressure of 660 psi (45.5 bar).

The tank includes an adaptor/tube assembly. The adaptor assembly includes a chrome-plated steel adaptor with a 1/4 in. NPT female gas inlet, a 3/8 in. NPT female agent outlet, and a stainless steel agent pick-up tube. The adaptor also contains a bursting disc seal which helps to prevent the siphoning of agent up the pipe during extreme temperature variations.

Regulated Release Mechanism – The regulated release mechanism is a spring-loaded, mechanical/pneumatic type capable of providing the expellant gas supply to one, two, or three agent tanks depending on the capacity of the gas cartridge used. It contains a factory installed regulator deadset at 110 psi (7.6 bar) with an external relief of approximately 180 psi (12.4 bar). It has automatic actuation capabilities by a fusible link detection system and remote manual actuation by a mechanical pull station.

The regulated release mechanism contains a release assembly, regulator, expellant gas hose, and agent storage tank housed in a stainless steel enclosure with cover. The enclosure contains knock-outs for 1/2 in. conduit. The cover contains an opening for a visual status indicator.

It is compatible with mechanical gas shut-off devices; or, when equipped with a field or factory-installed switch and manual reset relay, it is compatible with electric gas line or appliance shut-off devices.

Regulated Actuator Assembly – When more than two agent tanks (or three 3.0 gallon (11.4 L) tanks in certain applications) are required, the regulated actuator is available to provide expellant gas for additional tanks. It is connected to the cartridge receiver outlet of the regulated release mechanism providing simultaneous agent discharge. It contains a regulator deadset at 110 psi (7.6 bar) with an external relief of approximately 180 psi (12.4 bar). It has automatic actuation capabilities using pressure from the regulated release mechanism cartridge.

The regulated actuator assembly contains an actuator, regulator, expellant gas hose, and agent tank housed in a stainless steel enclosure with cover. The enclosure contains knockouts to permit installation of the expellant gas line.

Discharge Nozzles – Each discharge nozzle is tested and listed with the R-102 system for a specific application. Nozzle tips are stamped with the flow number designation (1/2, 1, 2, or 3). Each nozzle must have a metal or rubber blow-off cap to keep the nozzle tip orifice free of cooking grease build-up.

Agent Distribution Hose – Kitchen appliances manufactured with or resting on casters (wheels/rollers) may include an agent distribution hose as a component of the suppression system. This allows the appliance to be moved for cleaning purposes without disconnecting the appliance fire suppression protection. The hose assembly includes a restraining cable kit to limit the appliance movement within the range (length) of the flexible hose.

Flexible Conduit – Flexible conduit allows for quicker installations and the convenience of being able to route the cable over, under and around obstacles. Flexible conduit can be used as a substitute for standard EMT conduit or can be used with EMT conduit. Flexible conduit can be used only with the Molded Remote Manual Pull Station and with the Mechanical Gas Valve Assembly.

Pull Station Assembly – The remote manual pull station is made out of a molded red composite material. The red color makes the pull station more readily identifiable as the manual means for fire suppression system operation. The pull station is compatible with the ANSUL Flexible Conduit and with 1/2 in. EMT conduit.

Approvals

- UL/ULC Listed
- CE Marked
- New York City Department of Buildings — COA #5663
- LPCB
- TFRI
- Marine Equipment Directive (MED)
- DNV
- ABS
- Lloyd's Register
- 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 on Wet Chemical Extinguishing Systems)

Ordering Information

Order all system components through your local authorized ANSUL Distributor.

Specifications

An ANSUL R-102 Fire Suppression System shall be furnished. The system shall be capable of protecting all hazard areas associated with cooking equipment.

1.0 GENERAL

1.1 References

- 1.1.1 Underwriters Laboratories (UL)
 - 1.1.1.1 UL Standard 1254
 - 1.1.1.2 UL Standard 300
- 1.1.2 Underwriters Laboratories of Canada (ULC)
 - 1.1.2.1 ULC/ORD-C 1254.6
- 1.1.3 National Fire Protection Association (NFPA)
 - 1.1.3.1 NFPA 96
 - 1.1.3.2 NFPA 17A

1.2 Submittals

- 1.2.1 Submit two sets of manufacturer's data sheets
- 1.2.2 Submit two sets of piping design drawings

1.3 System Description

- 1.3.1 The system shall be an automatic fire suppression system using a wet chemical agent for cooking grease related fires.
- 1.3.2 The system shall be capable of suppressing fires in the areas associated with ventilating equipment including hoods, ducts, plenums, and filters as well as auxiliary grease extraction equipment. The system shall also be capable of suppressing fires in areas associated with cooking equipment, such as fryers; griddles and range tops; upright, natural charcoal, or chain-type broilers; electric, lava rock, mesquite or gas-radiant char-broilers; and woks.
- 1.3.3 The system shall be the pre-engineered type having minimum and maximum guidelines established by the manufacturer and listed by Underwriters Laboratories (UL/ULC).
- 1.3.4 The system shall be installed and serviced by personnel trained by the manufacturer.
- 1.3.5 The system shall be capable of protecting cooking appliances by utilizing either dedicated appliance protection and/or overlapping appliance protection.

1.4 Quality Control

- 1.4.1 Manufacturer: The R-102 Restaurant Fire Suppression System shall be manufactured by a company with at least forty years experience in the design and manufacture of pre-engineered fire suppression systems. The manufacturer shall be ISO 9001 registered.
- 1.4.2 Certificates: The wet agent shall be a specially formulated, aqueous solution of organic salts with a pH range between 7.7 – 8.7, designed for flame knockdown and foam securement of grease-related fires.

1.5 Warranty, Disclaimer, and Limitations

- 1.5.1 The pre-engineered restaurant fire suppression system components shall be warranted for five years from date of delivery against defects in workmanship and material.

1.6 Delivery

- 1.6.1 Packaging: All system components shall be securely packaged to provide protection during shipment.

1.7 Environmental Conditions

- 1.7.1 The R-102 system shall be capable of operating within a temperature range of 32 °F to 130 °F (0 °C to 54 °C).

2.0 PRODUCT

2.1 Manufacturer

- 2.1.1 Johnson Controls, One Stanton Street, Marinette, Wisconsin 54143-2542, Telephone (715) 735-7411.

2.2 Components

- 2.2.1 The basic system shall consist of an AUTOMAN regulated release assembly which includes a regulated release mechanism and a wet chemical storage tank housed within a single enclosure. Nozzles, blow-off caps, detectors, cartridges, agent, fusible links, and pulley elbows shall be supplied in separate packages in the quantities needed for fire suppression system arrangements. Additional equipment shall include remote manual pull station, mechanical and electrical gas valves, and electrical switches for automatic equipment and gas line shut-off, and building fire alarm control panel interface.
- 2.2.2 Wet Chemical Agent: The extinguishing agent shall be a specially formulated, aqueous solution of organic salts with a pH range between 7.7 – 8.7, designed for flame knockdown and foam securement of grease related fires.
- 2.2.3 Agent Tank: The agent tank shall be installed in a stainless steel enclosure or wall bracket. The tank shall be constructed of stainless steel. Tanks shall be available in two sizes; 1.5 gallon (5.7 L) and 3.0 gal (11.4 L). The tank shall have a working pressure of 110 psi (7.6 bar), a test pressure of 330 psi (22.8 bar), and a minimum burst pressure of 660 psi (45.5 bar). The tank shall include an adaptor/tube assembly containing a burst disc union.

Specifications (Continued)

- 2.2.4 Regulated Release Mechanism: The regulated release mechanism shall be a spring-loaded, mechanical/pneumatic type capable of providing the expellant gas supply to one or two agent tanks depending on the capacity of the gas cartridge used or three 3.0 gallon (11.4 L) agent storage tanks in certain applications. It shall contain a factory installed regulator deadset at 110 psi (7.6 bar) with an external relief of approximately 180 psi (12.4 bar).
- It shall have the following actuation capabilities: automatic actuation by a fusible link detection system and remote manual actuation by a mechanical pull station.
- The regulated release mechanism shall contain a release assembly, regulator, expellant gas hose, and agent storage tank housed in a stainless steel enclosure with cover. The enclosure shall contain knock-outs for 1/2 in. conduit. The cover shall contain an opening for a visual status indicator.
- It shall be compatible with mechanical gas shut-off devices; or, when equipped with a field or factory-installed switch(es), it shall be compatible with electric gas line or appliance shut-off devices, or connections to a building fire alarm control panel.
- 2.2.5 Regulated Actuator Assembly: When more than two agent tanks or three agent tanks in certain applications are required, the regulated actuator shall be available to provide expellant gas for additional tanks. It shall be connected to the cartridge receiver outlet of the regulated release mechanism providing simultaneous agent discharge. The regulator shall be deadset at 110 psi (7.6 bar) with an external relief of approximately 180 psi (12.4 bar). The regulated actuator assembly shall contain an actuator, regulator, expellant gas hose, and agent tank housed in a stainless steel enclosure with cover. The enclosure shall contain knockouts to permit installation of the expellant gas line.
- 2.2.6 Discharge Nozzles: Each discharge nozzle shall be tested and listed with the R-102 system for a specific application. Nozzles tips shall be stamped with the flow number designation (1/2, 1, 2, or 3). Each nozzle shall have a metal or rubber blow-off cap to keep the nozzle tip orifice free of cooking grease build-up.
- 2.2.7 Distribution Piping: Distribution piping shall be Schedule 40 black iron, chrome-plated, or stainless steel conforming to ASTM A120, A53, or A106.
- 2.2.8 Detectors: The detectors shall be the fusible link style designed to separate at a specific temperature, or shall be electric thermal detectors designed to operate at a factory preset temperature.
- 2.2.9 Cartridges: The cartridge shall be a sealed steel pressure vessel containing either carbon dioxide or nitrogen gas. The cartridge seal shall be designed to be punctured by the releasing device supplying the required pressure to expel wet chemical agent from the storage tank.

- 2.2.10 Agent Distribution Hose: An optional agent distribution hose shall be available for kitchen appliances manufactured with or resting on casters (wheels/rollers). This shall allow the appliance to be moved for cleaning purposes without disconnecting the appliance fire suppression protection. Hose assembly shall include a restraining cable kit to limit the appliance movement within the range (length) of the flexible hose.
- 2.2.11 Flexible Conduit: The manufacturer supplying the Restaurant Fire Suppression System shall offer flexible conduit as an option to rigid EMT conduit for the installation of pull stations and/or mechanical gas valves. The flexible conduit shall be UL Listed and include all approved components for proper installation.
- 2.2.12 Pull Station Assembly: The Fire Suppression System shall include a remote pull station for manual system actuation. The pull station shall be designed to include a built-in guard to protect the pull handle. The pull station shall also be designed with a pull handle to allow for three finger operation and shall be red in color for quick visibility.

3.0 IMPLEMENTATION

3.1 Installation

- 3.1.1 The R-102 fire suppression system shall be designed, installed, inspected, maintained, and recharged in accordance with the manufacturer's listed instruction manual.

3.2 Training

- 3.2.1 Training shall be conducted by representatives of the manufacturer.

Note: The converted values in this document are for dimensional reference only and do not reflect an actual measurement.

ANSUL, R-102, and the product names listed in this material are marks and/or registered marks. Unauthorized use is strictly prohibited.

PIRANHA Restaurant Fire Suppression Systems

Features

- UL and ULC Listed – Meets requirements of UL 300
- Overlapping appliance protection
- Four nozzle styles cover all hazards
- Dual agents
- Rapid flame knockdown
- Proprietary agent with increased performance
- Fifteen times faster than single wet agent systems in reducing the temperature of the grease below the reflash point
- Reliable cartridge operation
- Aesthetically appealing
- CE Marked

Application

The ANSUL® PIRANHA Restaurant Fire Suppression System is an automatic, pre-engineered, fixed, fire suppression system designed to protect cooking equipment and ventilation equipment including:

Ventilation Equipment

- Hoods
- Ducts
- Plenums
- Filters

Cooking Equipment

- Fryers
- Range Tops
- Griddles
- Broilers: Natural Charcoal Or Chain-Type
- Char-broilers: Electric, Lava Rock, Mesquite Or Gas-Radiant
- Upright
- Woks

The system is ideally suited for use in restaurants, hospitals, nursing homes, hotels, schools, airports, and other similar facilities.

Use of the PIRANHA Restaurant System is limited to interior applications only, or locations that provide weather proof protection to the PIRANHA equipment within tested temperature limitations. The regulated release and tank assemblies must be mounted in an area where the air temperature will not fall below 32 °F (0 °C) or exceed 130 °F (54 °C). The system must be designed and installed within the guidelines of the UL Listed Design, Installation, Recharge, and Maintenance Manual.

System Description

The PIRANHA Restaurant Wet Agent Fire Suppression System is a dual-agent, pre-engineered, fixed, automatic fire suppressing system developed specifically for improved fire protection of commercial restaurant cooking appliances, exhaust hoods and ducts.



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The PIRANHA system is available in three sizes:

- PIRANHA-7 (1.5 gal (5.7 L), 7 nozzle capacity)
- PIRANHA-10 (2.25 gal (8.5 L), 10 nozzle capacity)
- PIRANHA-13 (3.0 gal (11.4 L), 13 nozzle capacity)

When actuated, the system discharges a fixed amount of proprietary wet chemical agent followed by water through the same nozzles. Water is provided by a connection to the domestic or sprinkler water supply. Advantages of the dual system over single wet agent systems include: (1) more robust suppression of hostile fires in protected restaurant hazards; (2) greater hazard area protection with less wet agent; (3) faster flame knockdown and securement of hot fuels such as cooking shortening; (4) overlapping protection of cooking appliances from fixed nozzle spacings, allowing most appliances to be interchanged freely without changing nozzles; (5) more rapid cooling of hot fuels and appliances to prevent re-ignition; (6) simplicity of design and installation; (7) higher nozzle placement for aesthetics.

The addition of the water discharge significantly aids in increasing and prolonging the foam blanket generated by the wet chemical agent. The longer retention of the foam blanket helps the hot grease to cool below the auto-ignition temperature.

The system design for appliance protection under the hood allows the nozzles to be positioned uniformly from one end of the appliance line to the other. Most appliances under the hood can be protected in this overlapping manner; therefore, it is not necessary to protect each appliance individually. Appliances are free to be shifted around under the hood. The only exceptions to this overlapping type coverage are upright broilers, salamanders, and chain broilers. These types of appliances require dedicated nozzle protection.

The system is capable of automatic detection and actuation and/or remote manual actuation. Additional equipment is available for mechanical or electrical power shut-off applications.

The detection portion of the fire suppression system allows for automatic detection by means of specific alloy rated fusible link detectors or electric thermal detectors which, when the temperature exceeds the rating of the link, separate, allowing the regulated release to actuate.

System Description (Continued)

A system owner's guide is available containing basic information pertaining to system operation and maintenance. A detailed technical manual is also available including system description, design, installation, recharge, and maintenance procedures, plus additional equipment installation and resetting instructions.

The system is installed and serviced by authorized ANSUL distributors that are trained by the manufacturer.

The basic system consists of an AUTOMAN regulated release assembly which includes a regulated release mechanism and a wet chemical storage tank housed within a single enclosure. The tank valve is designed to allow the wet chemical agent to discharge onto the hazard area first.

Immediately following the agent discharge, the valve will automatically allow the water to flow through the piping and out the system nozzles. Nozzle blow-off caps, detectors, cartridges, agent, fusible links, and pulley elbows are supplied in separate packages in the quantities needed for the fire suppression system arrangement.

Additional equipment includes remote manual pull station, mechanical and electrical gas valves, and electrical switches for automatic equipment and gas line shut-off. Accessories can be added such as warning lights, etc., to install where required.

The water supply piping includes a lockable valve (for domestic and sprinkler water supply only).

Each tank is limited to a listed maximum number of nozzles.

Component Description

Wet Chemical Agent

The PRX agent is a specially-formulated, aqueous solution of inorganic salts designed for rapid flame knockdown and foam securement of grease-related fires. It is available in 5.0 gal (18.9 L) plastic containers with instructions for wet chemical handling and usage.

Agent Tank

The agent tank is constructed of stainless steel and is installed in a stainless steel enclosure.

Tanks are available in three sizes:

PIRANHA-7:	1.5 gal (5.7 L) capacity
PIRANHA-10:	2.25 gal (8.5 L) capacity
PIRANHA-13:	3.0 gal (11.4 L) capacity

Each tank has a working pressure of 150 psi (10.3 bar), a test pressure of 450 psi (31.0 bar), and a minimum burst pressure of 900 psi (62.1 bar).

The tank includes an adaptor/tube assembly. The adaptor is chrome-plated steel with 1/4 in. NPT female low pressure gas inlet port and a 3/8 in. NPT female agent outlet port. The adaptor also contains a bursting disc seal which prevents the siphoning of agent up the pipe during extreme temperature variations.

Connected to the adaptor/tube assembly is the water flow valve. This valve is designed to allow the wet chemical agent to flow first, and then the valve will automatically switch internally to allow the water to start flowing, thus increasing the foam blanket and providing additional cooling.

AUTOMAN Regulated Release Mechanism

The regulated release mechanism is a spring-loaded, mechanical/pneumatic type capable of providing the expellant gas supply to the agent tank. It contains a factory installed regulator deadset at 150 psi (10.3 bar) with an internal relief of approximately 190 psi (13.1 bar). It has automatic actuation capabilities

by a fusible link detection system and remote manual actuation by a mechanical pull station.

The regulated release mechanism contains a release assembly, regulator, and expellant gas hose in a stainless steel enclosure with cover. The enclosure contains knock-outs for 1/2 in. conduit. The cover contains an opening for a visual status indicator. The regulated release assembly also contains an anti-siphon vacuum breaker which is designed to prevent back-siphonage of possible contaminated water into a potable water supply.

The regulated release mechanism is compatible with mechanical gas shut-off devices or, when equipped with a field or factory installed switch, compatible with electric gas valve appliance shut-off devices.

Regulated Actuator Assembly

When more than one tank(s) is required for the application, a regulated actuator(s) is available to provide expellant gas for the additional tank(s). It contains a regulator dead set at 150 psi (10.3 bar) with an external relief of approximately 180 psi (12.4 bar). It has automatic actuation capabilities using pressure from the regulated release mechanism cartridge.

The regulated actuator assembly contains an actuator, regulator, expellant gas hose, and agent tank housed in a stainless steel enclosure with cover. The enclosure contains knockouts to permit installation of the expellant gas line.

Discharge Nozzles

Four types of discharge nozzles are tested with the PIRANHA system for all applications. The P34 and P41 nozzle types are used for overlapping, high proximity appliance protection. The AP type is used for medium proximity appliance and plenum protection, and the DL type is used for all duct protection and low proximity appliance protection. Each nozzle has a metal blow-off cap to keep the nozzle tip orifice free of cooking grease build-up.

Water Shutdown Device

The water shutdown device is an optional component which can be field installed in the AUTOMAN release. With the device installed, the water flow to the discharge nozzles will automatically shut down approximately 10 minutes after system actuation.

Agent Distribution Hose

Kitchen appliances manufactured with or resting on casters (wheels/rollers) may include an agent distribution hose as a component of the suppression system. This allows the appliance to be moved for cleaning purposes without disconnecting the appliance fire suppression protection. The hose assembly includes a restraining cable kit to limit the appliance movement within the range (length) of the flexible hose.

Flexible Conduit

Flexible conduit allows for quicker pull station and/or mechanical gas valve installations and the convenience of being able to route the cable over, under, and around obstacles. Flexible conduit can be used as a substitute for standard EMT conduit or can be used with EMT conduit.

Flexible conduit can be used only with the Molded Remote Manual Pull Station.

Pull Station Assembly

The remote manual pull station is made of a molded red composite material. The red color makes the pull station more readily identifiable as the manual means for fire suppression system operation. The pull station is designed with a pull handle to allow for three-finger operation, and includes a built-in guard to protect the pull handle.

The pull station is compatible with the ANSUL Flexible Conduit and 1/2 in. EMT conduit.

Codes and Standards

The PIRANHA hybrid wet agent system and its components meet the following codes, standards and recommended practices:

- UL/ULC Listed
- CE Marked
- LPCB
- ASSE
- IAPMO
- Meets requirements of NFPA 17A (Standard on Wet Chemical Extinguishing Systems)
- Meets requirements of NFPA 96 (Standard for Ventilation Control and Fire Protection of Commercial Cooking Equipment)

Ordering Information

Order all system components through your local authorized ANSUL Distributor.

Specifications

An ANSUL PIRANHA Fire Suppression System shall be furnished. The system shall be capable of protecting hazard areas associated with cooking equipment.

1.0 GENERAL

1.1 References

- 1.1.1 Underwriters Laboratories, Inc. (UL)
 - 1.1.1.1 UL Standard 300
- 1.1.2 Underwriters Laboratories of Canada (ULC)
- 1.1.3 National Fire Protection Association (NFPA)
 - 1.1.3.1 NFPA 96
 - 1.1.3.2 NFPA 17A
- 1.1.4 International Association of Plumbing and Mechanical Officials (IAPMO)
 - 1.1.4.1 PS 108-98

1.2 Submittals

- 1.2.1 Submit two sets of manufacturer's data sheets.
- 1.2.2 Submit two sets of piping design drawings

1.3 System Description

- 1.3.1 The system shall be an automatic fire suppression system using a dual agent concept; wet chemical agent and water for grease-related fires.
- 1.3.2 The system shall be approved for uniform, overlapping appliance protection.
- 1.3.3 The system shall be capable of suppressing fires in the following areas associated with cooking equipment: ventilating equipment including hoods, ducts, plenums, and filters; fryers, griddles and range tops; upright, natural charcoal, or chain-type broilers; electric, lava rock, mesquite or gas-radiant char-broilers; woks.
- 1.3.4 The system shall be the pre-engineered type having minimum and maximum guidelines established by the manufacturer and listed by Underwriters Laboratories, Inc. (UL) and Underwriters Laboratories of Canada (ULC).
- 1.3.5 The system shall be installed and serviced by personnel trained by the manufacturer.

1.4 Quality Control

- 1.4.1 **Manufacturer:** The Restaurant Fire Suppression System shall be manufactured by a company with over fifty years experience in the design and manufacture of pre-engineered fire suppression systems. The manufacturer shall be ISO 9001 registered.
- 1.4.2 **Certificates:** The wet agent shall be a specially formulated, aqueous solution of inorganic salts with a pH range between 9.5 – 10.5, designed for rapid flame knockdown and securement of grease-related fires, and specifically constituted to provide continuous evolution of foam when sprayed with water.

1.5 Warranty, Disclaimer, and Limitations

- 1.5.1 The pre-engineered restaurant fire suppression system components shall be warranted for five years from date of delivery against defects in workmanship and materials. Any purchased components, such as electric gas valves, reset relays, solenoids, pressure relief valves, regulators, electric switches, etc. shall be warranted for one year from date of purchase.

1.6 Delivery

- 1.6.1 **Packaging:** All system components shall be securely packaged to provide protection during shipment.

1.7 Environmental Conditions

- 1.7.1 The system shall be capable of operating in a temperature range of 32 °F to 130 °F (0 °C to 54 °C).

2.0 PRODUCT

2.1 Manufacturer

- 2.1.1 Johnson Controls, One Stanton Street, Marinette, Wisconsin 54143-2542, Telephone (715) 735-7411

2.2 Components

- 2.2.1 The basic system shall consist of a regulated release assembly which includes a regulated release mechanism, stainless steel enclosure, anti-siphon vacuum breaker (domestic and sprinkler water supply option only), and water flow valve (domestic and sprinkler water supply option only). The agent storage tank is purchased separately and shall be mounted within the enclosure.

Nozzles, blow-off caps, detectors, cartridges, agent, fusible links, and pulley elbows shall be supplied in separate packages in quantities needed for fire suppression system arrangements. Additional equipment shall include remote manual pull station, mechanical and electrical gas valves and electrical switches for automatic equipment and gas line shut-off.

- 2.2.2 **Wet Chemical Agent:** The fire suppressant shall be a specially formulated, aqueous solution of inorganic salts with a pH range between 9.5 – 10.5, designed for rapid flame knockdown and securement of grease-related fires.
- 2.2.3 **Agent Tank:** The agent tank shall be installed in a stainless steel enclosure. The tank shall be constructed of stainless steel. Tanks shall be available in three sizes; 1.5 gal (5.7 L), 2.25 gal (8.5 L), and 3.0 gal (11.4 L). The tanks shall have a working pressure of 150 psi (10.3 bar), a test pressure of 450 psi (31.0 bar), and a minimum burst pressure of 900 psi (62.1 bar). The tank shall include an adaptor/tube assembly containing a burst disc union.

Specifications (Continued)

- 2.2.4 Tank Valve: The tank valve shall be designed to discharge dual agent onto the hazards being protected. The valve shall automatically shuttle to switch from wet chemical agent discharge to water discharge.
- 2.2.5 Regulated Release Mechanism: The regulated release mechanism shall be a spring-loaded, mechanical/pneumatic type capable of providing the expellant gas supply via a pressurized cartridge to a single agent tank. It shall contain a factory installed regulator deadset at 150 psi (10.3 bar) with an internal relief of approximately 190 psi (13.1 bar).
- It shall have automatic actuation by a fusible link or electric detection system and remote manual actuation by a mechanical pull station.
- The regulated release mechanism shall contain a release assembly, regulator, expellant gas hose, anti-siphon vacuum breaker, and agent storage tank housed in a stainless steel enclosure with cover. The enclosure shall contain knock-outs for 1/2 in. conduit. The cover shall contain an opening for a visual status indicator.
- It shall be compatible with mechanical gas shut-off devices or, when equipped with a field or factory-installed switch, compatible with electric gas line or appliance shut-off devices.
- 2.2.6 Discharge Nozzles: Four types of discharge nozzles shall be tested and listed with the system for all applications. Discharge Nozzles are available for low, medium, or high proximity applications. When using high proximity nozzles, nozzle drop piping can be kept to a minimum. In some applications, nozzles may be installed above the cooking appliance line directly in hood seals penetrating top of the hood. The P34 and P41 types shall be used for high proximity appliance protection, nozzle height ranges from 54 in. (1,371 mm) to 84 in. (2,133 mm). The AP type shall be used for medium proximity appliance and plenum protection, nozzle height ranges from 40 in. (1,016 mm) to 48 in. (1,219 mm), and the DL type shall be used for all duct and low proximity appliance protection, nozzle height ranges from 13 in. (330 mm) to 24 in. (610 mm). Each nozzle shall have a metal blow-off cap to keep the nozzle tip orifice free of cooking grease build-up.
- 2.2.7 Distribution Piping: Distribution piping shall be Schedule 40 black iron, chrome-plated, or stainless steel pipe conforming to ASTM A120, A53, or A106.
- 2.2.8 Detectors: The detectors shall be the fusible link or electric thermal type designed to separate at a specific temperature.
- 2.2.9 Cartridges: The cartridge shall be a sealed steel pressure vessel containing nitrogen gas. The cartridge seal shall be designed to be punctured by the releasing device supplying the required pressure to expel the wet chemical agent from the storage tank.
- 2.2.10 Water supply piping: The water supply piping portion of the dual agent system shall contain a lockable ball valve. The lockable ball valve shall be installed in the water supply piping to allow authorized personnel to close the valve after a system actuation and stop the flow of water into the hazard area.
- 2.2.11 Water shutdown device: With the approval of the AHJ, a water shutdown device shall be installed. This device shall automatically shutdown the flow of water to the discharge nozzles approximately 10 minutes after system actuation.

- 2.2.12 Agent Distribution Hose: Kitchen appliances manufactured with or resting on casters (wheels/rollers) which have the fire suppression system hard piped, shall include a UL Listed agent distribution hose as a component of the suppression system. This option shall allow the appliance to be moved for cleaning purposes without disconnecting the appliance fire suppression protection. Hose assembly shall include a restraining cable kit to limit the appliance movement within the range (length) of the flexible hose.
- 2.2.13 Flexible Conduit: The manufacturer supplying the restaurant fire suppression system shall offer flexible conduit as an option to rigid EMT conduit for the installation of pull stations and/or mechanical gas valves. The flexible conduit shall be UL Listed and include all approved components for proper installation.
- 2.2.14 Pull Station Assembly: The fire suppression system shall include a remote pull station for manual system actuation. The pull station shall include a built-in guard to protect the pull handle. The pull station shall also be designed with a pull handle to allow for three finger operation and shall be red in color for quick visibility.



009601

Standard AUTOMAN Release

Size: 20 1/2 in. x 23 1/2 in. x 7 1/2 in.
(521 mm x 597 mm x 191 mm)

Weight: Approximately 70 lb (32 kg) including charged tank

3.0 IMPLEMENTATION

3.1 Installation

- 3.1.1 The fire suppression system shall be designed, installed, inspected, maintained, and recharged in accordance with the manufacturer's listed instruction manual.

3.2 Training

- 3.2.1 Employees shall be instructed in personal safety and the operation of the system by authorized ANSUL distributors who are trained by the manufacturer.

Note: The converted metric values in this document are provided for dimensional reference only and do not reflect an actual measurement.

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G-510EF
LOW FOAM & EARTH FRIENDLY

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CLEANER/DEGREASER

FORMULA FOR ALL

WATER-WASH EXHAUST HOOD SYSTEMS

G-510EF

Specially designed to work with most automatic water-wash exhaust ventilator systems, **G-510EF** breaks down grease and oil, washes away clean.

G-510EF formula keeps water-wash exhaust hood systems grease-free, and helps maintain systems as required by NFPA-96.

Just add **G-510EF** to your detergent injection system, and let its unique formula go to work.

To find out how you can use **G-510EF** in your commercial kitchen, talk to your 20/10 distributor or call 1.800.286.2010 for more information



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Salem, OR 97303
1-800-286-2010
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Cleans and degreases!

Add G-510EF to your automatic water-wash exhaust ventilators for super cleaning! The unique formula breaks down stubborn grease and oil, washes away clean.

Works with all makes of water-wash grease exhaust duct systems.

Ask your distributor or service agent about proper use, dilution and wash duration for your specific operation.

Prevents build-up

Regular use and maintenance according to manufacturer's specification will prevent grease buildup within the plenum chambers and downspouts of water wash exhaust hood systems, in compliance with the standards prescribed in NFPA 96.

Our Guarantee

G-510EF is guaranteed when used according to manufacturer's recommendations. See your manufacturer's product manual for specific applications, dilutions and warranty information.

For complete SDS information, visit www.2010products.com

USAGE

- Light cooking
- Medium cooking
- Heavy cooking
- Heavy cooking/charbroiling
- Solid fuel cooking

DILUTION

1 part G-510: 1 part water
Use concentrate
Use concentrate
Use concentrate
Use concentrate



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G-510 ESP

G-510ESP is a concentrated professional strength formula for cleaning/soaking Electrostatic Precipitators. Using **G-510ESP** will decrease the amount of soak time and extend the time periods between soaking. **G-510ESP** formula contains a flocculent/sequester in the blend, to not only eliminate all likelihood of scale buildup, but will also remove pre-existing Silica scale in wash down systems.

G-510ESP contains no:

Nonylphenols - Phosphates - Nitrates

Just add **G-510ESP** to your detergent injection system, and let its unique formula go to work.

To find out how you can use **G-510 ESP** in your commercial kitchen, talk to your 20/10 distributor or call 1.800.286.2010 for more information.



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WATER-WASH EXHAUST HOOD SYSTEMS

G-510 ESP

Cleans and degreases!

Add **G-510ESP** to your automatic water-wash exhaust ventilators for super cleaning! The unique formula breaks down stubborn grease and oil, washes away clean.

Works with all makes of water-wash grease exhaust duct systems.

Ask your 20/10 distributor or service agent about proper use, dilution and wash duration for your specific operation.

Prevents build-up

Regular use and maintenance according to manufacturer's specification will prevent grease build-up within the plenum chambers and downspouts of water wash exhaust hood systems, in compliance with the standards prescribed in NFPA 96.

Our Guarantee

G-510ESP is guaranteed when used according to manufacturer's recommendations. See your manufacturer's product manual for specific applications, dilutions and warranty information.

For complete SDS information, visit www.2010products.com

USAGE

- Light cooking
- Medium cooking
- Heavy cooking
- Heavy cooking/charbroiling
- Solid fuel cooking

DILUTION

1 part G-510: 1 part water
Use concentrate
Use concentrate
Use concentrate
Use concentrate



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FORMULA GS-710E READY-TO-USE



- ODORS NEUTRALIZED BY ABSORPTION
- INSTANTLY NEUTRALIZES OFFENSIVE ODORS FROM COOKING OPERATIONS
- NON TOXIC BIODEGRADABLE
- WORKS ON MALODOROUS SMELLS INCLUDING GARBAGE WASTE, SMOKE, PETS, ETC.
- MITIGATES ODORS
- ECONOMICAL AND EFFICIENT



Our Guarantee: GS-710E is guaranteed when used according to Manufacturer's recommendations. See your manufacturer's product manual for specific applications, dilutions and warranty information.

Sean White
National Sales Manager
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Email: swhite@2010products.com



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Metric Conversions

DIMENSIONS (Feet and Inches)		
TO CONVERT	TO	MULTIPLY BY
in	mm	25.4
in	cm	2.54
mm	in	0.03937
cm	in	0.3937
ft	cm	30.48
ft	m	0.3048
cm	ft	0.0328
m	ft	3.2808
STANDARD CONVERSIONS		
One meter =	10 dm	one in. = 25.40 mm
One meter =	100 cm	one ft. = 304.80 mm
One meter =	1000 mm	
AIR VELOCITY		
TO CONVERT	TO	MULTIPLY BY
FPM	m/s	0.00508
m/s	FPM	196.85
AIR VOLUME		
TO CONVERT	TO	MULTIPLY BY
CFM	m ³ /sec	0.000472
CFM	m ³ /min	0.02832
CFM	m ³ /hr	1.70
CFM	Ltrs/sec	0.472
m ³ /sec	CFM	2118.88
m ³ /min	CFM	35.31
m ³ /hr	CFM	0.5886
STATIC PRESSURE		
TO CONVERT	TO	MULTIPLY BY
in. W.G.	N/m ²	248.84
N/m ²	in. W.G.	0.004
STANDARD CONVERSIONS		
1.00" W.G.	= 248.84 N/m ²	
	or 248.84 Pascals (Pa)	
	or 2.49 Millibars	
1.33" W.G.	= 331 N/m ² or 331 Pa	
1.50" W.G.	= 373 N/m ² or 373 Pa	
1.65" W.G.	= 411 N/m ² or 411 Pa	
1.70" W.G.	= 423 N/m ² or 423 Pa	

WATER FLOW/VOLUME		
TO CONVERT	TO	MULTIPLY BY
U.S. ounce	Liters	0.2958
U.S. gal	Liters	3.785
Liters	U.S. gal	0.2642
GPM	L/s	0.0631
L/s	GPM	15.850
STANDARD CONVERSIONS		
one U.S. gal.	=	3.785 Liters
one Liter	=	0.2642 U.S. Gal.
one GPM/ft.	=	0.063 L/s/ft.
	or	0.207 L/s/m
one U.S. gal.	=	0.833 Imperial Gal.
one Imperial Gal.	=	4.546 Liters
WATER PRESSURE		
TO CONVERT	TO	MULTIPLY BY
psi	kg/m ²	703.1
psi	kg/cm ²	0.0703
kg/m ²	psi	0.0014
kg/cm ²	psi	14.223
STANDARD CONVERSIONS		
40 psi =	2.8 kg/cm ²	80 psi = 5.6 kg/cm ²
	= 275.8 Kpa	= 551.6 Kpa
	= 2.758 BAR	= 5.516 BAR
TEMPERATURE		
TO CONVERT	TO	USE FORMULA
°C	°F	°F = (°C • 1.8) + 32
°F	°C	°C = (°F - 32) / 1.8
STANDARD CONVERSIONS		
140°F to 180°F = 60°C to 82°C		
WEIGHT		
TO CONVERT	TO	MULTIPLY BY
lbs	N	4.448
lbs	kg	0.4536
N	lbs	0.2248
kg	lbs	2.2046
PIPE SIZE		
U.S. STANDARD PIPE SIZES	STANDARD METRIC EQUIVALENT PIPE SIZE	
1/2"	=	15 mm
3/4"	=	20 mm
1"	=	25 mm
1-1/4"	=	32 mm
1-1/2"	=	40 mm
2"	=	50 mm

LEGEND					
in.	=	inches	Pa.	=	Pascals
ft.	=	feet	U.S. gal.	=	U.S. gallon
mm	=	millimeters	GPM	=	gallons per minute
cm	=	centimeters	L/s	=	liters per second
dm	=	decimeters	Kpa	=	1000 Pascals
CFM	=	cubic feet per minute	psi	=	pounds per square inch
m ³ /s	=	cubic meters per second	kg/m ²	=	kilograms per square meter
L	=	Liters	°F	=	degrees Fahrenheit
FPM	=	feet per minute			
m/s	=	meters per second			
in. W.G.	=	inches water gauge			
N	=	Newtons			
N/m ²	=	Newtons per square meter			
°C	=	degrees Celsius			
BAR	=	one atmospheric pressure meter			
					(1000 millibars = 14.7 psi)

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Metric Conversions

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