



PSG / PSH Series

KITCHEN EMISSION
CONTROL SYSTEMS

Clean air. It's what we do.®



www.uasinc.com

CLARCOR
Industrial Air





Solutions For:

- Multi-story structures
- Environmental standards
- Code compliance
- Limited space available
- Multi-restaurant applications

No More Placement Restrictions.

No More Smoke or Greasy Odor Emissions.

SmogHog Kitchen Emissions

As a retail developer, building owner, tenant, architect or engineer, you know how much a restaurant can add to the value of your venue. But you're also well aware of the environmental issues that can result from annoying smoke and greasy odors emitting from kitchens, as well as the headaches that result from designing them.

Fortunately, these concerns are a thing of the past with the SmogHog PSG / PSH series from CLARCOR Industrial Air. As a world leader in air pollution control, CLARCOR Industrial Air provides proven systems that not only eliminate problems caused by cooking ventilation, but ensure that only clean air is exhausted into the environment.

Casinos, hotels, high-rise buildings, food courts, restaurants, stadiums and theme parks; these are just a few facilities already relying on SmogHog kitchen emission control systems to prevent odor complaints and secure a positive "good neighbor" image in their communities.

No Existing Exhaust System? No Problem

Today, many building owners have occupants who need to add a kitchen to an existing structure—a structure often without an existing exhaust-ventilation system to control grease and odors.

This used to pose a problem, but not anymore. The revolutionary design of the SmogHog emission control system provides the flexibility to install a kitchen in virtually any space, in any building. Instead of one large, all-encompassing system, we build units in modules that can be designed to fit the space available.

Minimum Ducting Maximum Savings

SmogHog is the best value in kitchen emission control, solving fume problems and saving you money in a variety of ways:

- **Minimum ducting is required** with our configurations, saving expensive runs of heavy-gage, welded exhaust ducting
- SmogHog PSG / PSH systems combat the hazardous pollutants resulting from kitchen emissions, therefore, **ongoing operating and maintenance costs are significantly reduced**. Plus, maintenance is minimized because our aluminum collection cells are easy to clean and reuse, eliminating prohibitive costs associated with filter replacement and disposal.
- Our systems assure **compliance with even the strictest federal, state and local environmental standards**, meeting air quality needs up front and eliminating unexpected retrofit costs later.



PSG-22 / PSH-22 With Odor Control

Unmatched Design and Technical Support

At CLARCOR Industrial Air, we've been leading the way as a manufacturer of commercial ventilation systems since 1966. So you know you can always count on us for the most trusted experience and innovation in restaurant air cleaning technology.

We provide complete solutions and play an active role in partnering and supporting your entire project from start to finish, including unit and specifications drawings for your unique applications. Whether your application is a small installation project, or a non-traditional or historical site, you'll find our design and technical support to be unmatched in the industry.

USS Intrepid: Sea-Air-Space Museum



With minimal installation space available, the USS Intrepid Museum in New York City wanted to add a McDonald's Restaurant inside the hull of the ship. CLARCOR Industrial Air provided the solution with a PSG system that eliminated the objection of cooking smoke and unpleasant odors.

Sandia Resort & Casino installation



SmogHog Installations

- Bryant Park Hotel
- Caesar's Palace Las Vegas
- Chipotle
- Fogo de Chao
- Four Seasons Hotel of Boston
- Goldman Sachs Tower
- Google
- Hearst Tower
- Hilton Palacio del Rio, San Antonio River Walk
- Mandarin Oriental Hotel
- McDonald's
- Mohegan Sun
- Montage Beverly Hills
- Rockefeller Center Rainbow Room and Ted's Montana Grille
- Sandia Resort & Casino
- Walt Disney World Rainforest Café and La Brea Bakery
- Yankee Stadium

PSG/PSH Series

More Architectural Freedom

Our wide selection of configurations and sizes, ranging from 825–41,000 CFM, is ideal for virtually any building design parameter and performance requirement. So regardless of kitchen hood size, our emission control systems provide for the ultimate flexibility in location. Feel free to mount our systems through exterior walls, on top of buildings, inside mechanical rooms or above the ceiling.



Injector-TEE Assembly
Systematically controls detergent use and allows for optimal cleaning while eliminating facility maintenance required to dilute detergent.

Collection Cells
Reusable two-stage Penny Type collection cells for efficient cleaning with low static pressure.

Odor Control Module
“V-bank” odor control design allows for high filtration efficiency of gaseous odors utilizing various media options.



Outlet Plenum
Effectively transitions airstream to blower system.

System Blower
UL 762 listed, energy efficient blower with backward inclined wheels for quiet, efficient operation. (In-line blowers also available.)

Motor Starter
Provides system on/off control.



Detergent Tank
Self-contained tank holds concentrated detergents used to clean kitchen emissions from commercial and industrial applications. (Includes integral mounted pump.)

Inlet Plenum
Effectively transitions airstream to collection cells.

Impingement Baffle Prefilter
Adjustable interlocking “U” channels provide tortuous path for even airflow distribution and protection from large contaminants.

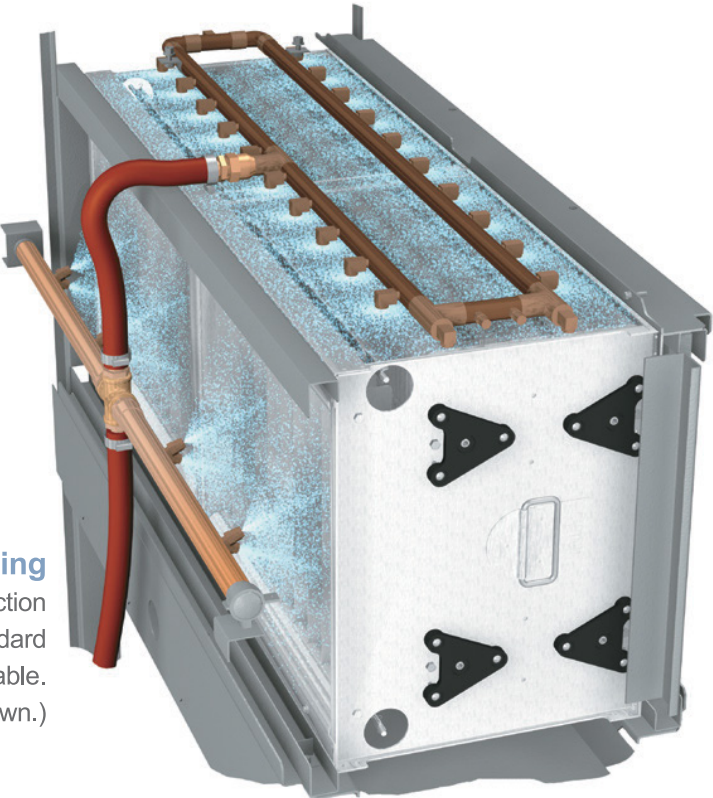


Control Panel
Single or separate panels can operate all equipment functions. Panels can be remote-mounted as required, and entire system can be tied to a building maintenance system.

Transformer Power Packs
UL listed electronic circuitry with self-regulating components provides maximum collection of grease and odor emissions.

Structural Steel Skid
Heavy-duty structural channel base integrates system and facilitates easier installation.

In-place Cleaning
Fixed wash headers clean collection components without removal. Standard and heavy load options available. (Heavy load option shown.)



Proven Technology, Optimum Performance

The SmogHog ESP Advantage

Electrostatic precipitation technology (ESP) is the key to the superior performance of the PSG / PSH SmogHog ESP systems are over 95% efficient on mist, smoke and fume removal to keep factory air clean and your processes running at peak performance. Unlike bag or box filters that remove only the largest particles, ESP electrically charges both large and microscopic contaminants, and then strips them from the air stream collecting on grounded collection plates.

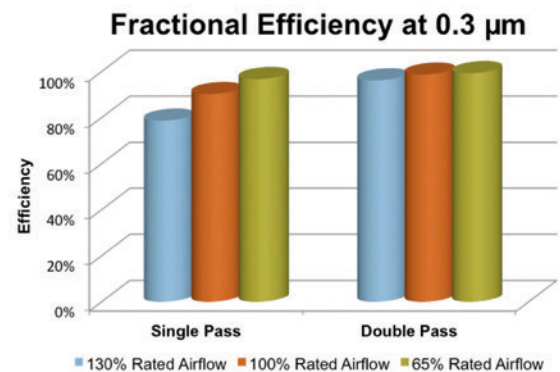
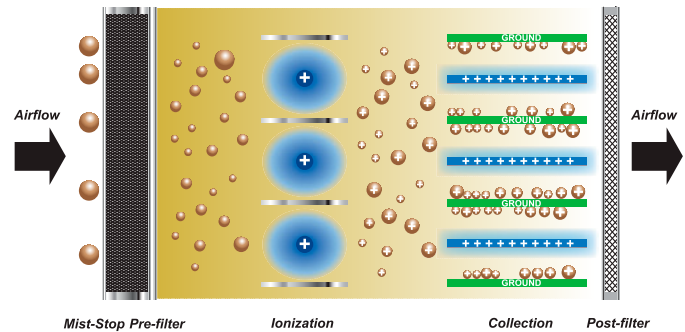
The resulting discharged air leaves virtually no oil mist, grease or hazardous particle untouched, releasing only clean air from the system to help you comply with even the strictest federal, state and local environmental standards and keep your workers safe. The SmogHog ESP technology ensures constant airflow, unlike barrier filters that can plug and become ineffective. Since the ESP cells are washable, reusing the collection cells eliminates costly filter replacements and disposal which allows for a greener environment and increased operational savings.



Electrostatic (ESP)
Filter Module



Mist-Stop Filter



*95% efficiency has been independently verified in accordance with EN-1822-5 standards.

Superior ESP Efficiency

SmogHog ESP technology offers proven performance as a superior solution for challenging industrial air pollution control applications. SmogHog ESP technology provides high levels of particle removal efficiency on submicronic particulate (less than 1 micron) which is common in smoke, fume and mist applications. A single pass SmogHog ESP unit removes up to 95%* of 0.3 micron particles while a double pass SmogHog ESP configuration increases the overall removal efficiency to over 97%.

Unsurpassed Collection Technology

It's not just the SmogHog ESP technology that provides superior cleaning. Unlike competitive ESP cells, the SmogHog collection cell plates are aligned more closely to improve collection efficiency. For routine maintenance, the PSG's 40 lb. collection cells are much easier to handle than competitive cells that weigh 80 lbs. or more!

Reliable Power

Only SmogHog includes a self-regulating power pack. This provides continually high collection-efficiency over a variable range of cooking conditions. In the unlikely event of a power pack failure, SmogHog also provides multiple power packs so that the entire system need not be shut down.



PSG-22 / PSH-22 with Odor

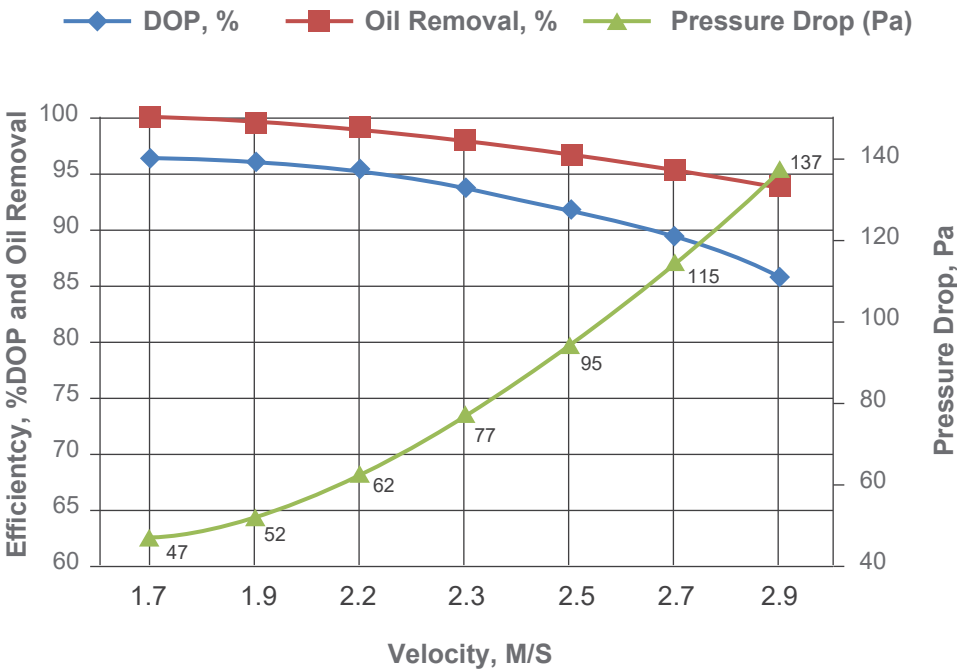


| Carbon filter Specification for Model | | PSH-11 | PSH-12 | PSH-13 | PSH-14 | PSH-22 | PSH-23 | PSH-24 | PSH-32 | PSH-33 | PSH-34 | PSH-42 | PSH-43 | PSH-44 | PSH-52 | PSH-53 | PSH-54 | PSH-62 | PSH-63 | PSH-64 | |
|---------------------------------------|--------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| Dimension (Outside Face) | (W)idth (mm) | 533 | 991 | 1,445 | 1,883 | 991 | 1,445 | 1,883 | 991 | 1,445 | 1,883 | 991 | 1,445 | 1,883 | 991 | 1,445 | 1,883 | 991 | 1,445 | 1,883 | |
| | (H)eight (mm) | 578 | 578 | 578 | 578 | 1,181 | 1,181 | 1,181 | 1,784 | 1,784 | 1,784 | 2,388 | 2,388 | 2,388 | 2,991 | 2,991 | 2,991 | 3,594 | 3,594 | 3,594 | |
| | (L)ength (mm) | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | 622 | |
| Carbon Tray Dimension(mm) | | 455 mm(W) x 465 mm(L) x 50 mm(D) / 1 Tray | | | | | | | | | | | | | | | | | | | |
| Est. Carbon Tray Weight(Kgs) | | 4.3 Kg. / 1 Tray | | | | | | | | | | | | | | | | | | | |
| No. of Carbon Tray (pcs) | @4pcs / Cell units | 4 | 8 | 12 | 16 | 16 | 24 | 32 | 24 | 36 | 48 | 32 | 48 | 64 | 40 | 60 | 80 | 48 | 72 | 96 | |
| | @6pcs / Cell units | 6 | 12 | 18 | 24 | 24 | 36 | 48 | 36 | 54 | 72 | 48 | 72 | 96 | 60 | 90 | 120 | 72 | 108 | 144 | |
| Est. Pressure Drop @2.5m/s | | ≤ 130 Pa | | | | | | | | | | | | | | | | | | | |

PSG Series



PSG-11



PSG Technical Information

| Model | | PSG-11 | PSG-12 | PSG-13 | PSG-14 | PSG-22 | PSG-23 | PSG-24 | PSG-32 | PSG-33 | PSG-34 | PSG-42 | PSG-43 | PSG-44 | PSG-52 | PSG-53 | PSG-54 | PSG-62 | PSG-63 | PSG-64 |
|------------------------------|-----------------|--|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Specification | | | | | | | | | | | | | | | | | | | | |
| Input Voltage (Volts) | | 220V/380V 50Hz | | | | | | | | | | | | | | | | | | |
| Est. Power Consumption (W) | | 75 | | | 150 | | | 300 | 225 | | 450 | 300 | | 600 | 375 | | 750 | 450 | | 900 |
| Est. Volume (95% DOP) (CFM) | | 1,250 | 2,490 | 3,720 | 4,920 | 5,480 | 8,210 | 10,850 | 8,480 | 12,690 | 16,780 | 11,470 | 17,180 | 22,710 | 14,470 | 21,660 | 28,640 | 17,460 | 26,140 | 34,560 |
| Est. Volume (90% DOP) (CFM) | | 1,480 | 2,950 | 4,420 | 5,840 | 6,500 | 9,730 | 12,870 | 10,050 | 15,050 | 19,900 | 13,600 | 20,360 | 26,920 | 17,150 | 25,680 | 33,950 | 20,710 | 31,000 | 40,980 |
| Est. Pressure Drop (Pa) | | ≤ 65 | | | | | | | | | | | | | | | | | | |
| Est. Duct Opening (WxH) (mm) | | 533x501 | 1060x501 | 1587x501 | 2098x501 | 1060x1104 | 1587x1104 | 2098x1104 | 1060x1708 | 1587x1708 | 2098x1708 | 1060x2311 | 1587x2311 | 2098x2311 | 1060x2914 | 1587x2914 | 2098x2914 | 1060x3518 | 1587x3518 | 2098x3518 |
| Dimentions | | See Submitted Datasheet | | | | | | | | | | | | | | | | | | |
| Est. Weight (Kgs) | | 70 | 105 | 140 | 190 | 185 | 235 | 360 | 265 | 360 | 525 | 345 | 415 | 690 | 430 | 510 | 860 | 510 | 600 | 1030 |
| Materials | Filter | Aluminum Mesh Pre-Filter | | | | | | | | | | | | | | | | | | |
| | Electronic Cell | 10 no of Ionizer Wires with Tungsten Material and High Quality of Aluminum Plate | | | | | | | | | | | | | | | | | | |
| | No. of Cells | 1 | 2 | 3 | 4 | 4 | 6 | 8 | 6 | 9 | 12 | 8 | 12 | 16 | 10 | 15 | 20 | 12 | 18 | 24 |
| | Filter | Aluminum Mesh Post-Filter | | | | | | | | | | | | | | | | | | |
| | Cabinet | 16 Gauge Welded steel cabinet with Powder coat finished | | | | | | | | | | | | | | | | | | |
| | Odor Filter | Options Required | | | | | | | | | | | | | | | | | | |
| | Cleaning | In-Place Cleaning systems and Detergent Tank Option Required | | | | | | | | | | | | | | | | | | |
| Safety system | | Interlock switch with Self-Regulation supply | | | | | | | | | | | | | | | | | | |
| Standard Listing | | UL867 Standard for Electronic Air Cleaner | | | | | | | | | | | | | | | | | | |
| | | UL710 Standard for Exhaust Hoods for Commercial Cooking | | | | | | | | | | | | | | | | | | |
| | | New York City, NY Listing : SMOG-HOG Approvals by MEA 88-88-E and BEC43671 | | | | | | | | | | | | | | | | | | |
| | | Los Angeles, CA Listing : SMOG-HOG Approvals by The city of Los Angeles, CA | | | | | | | | | | | | | | | | | | |
| | | According to DOP% Fractional Efficiency ; @0.3-1.0 Micron | | | | | | | | | | | | | | | | | | |



DOP Test (Dispersed Oil Particulate)



Interlek eTL Listing

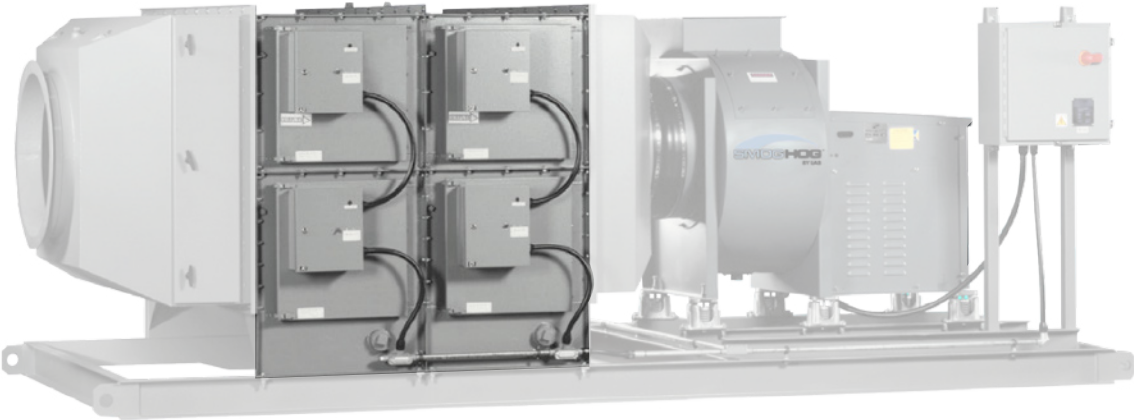


City of New York Approval

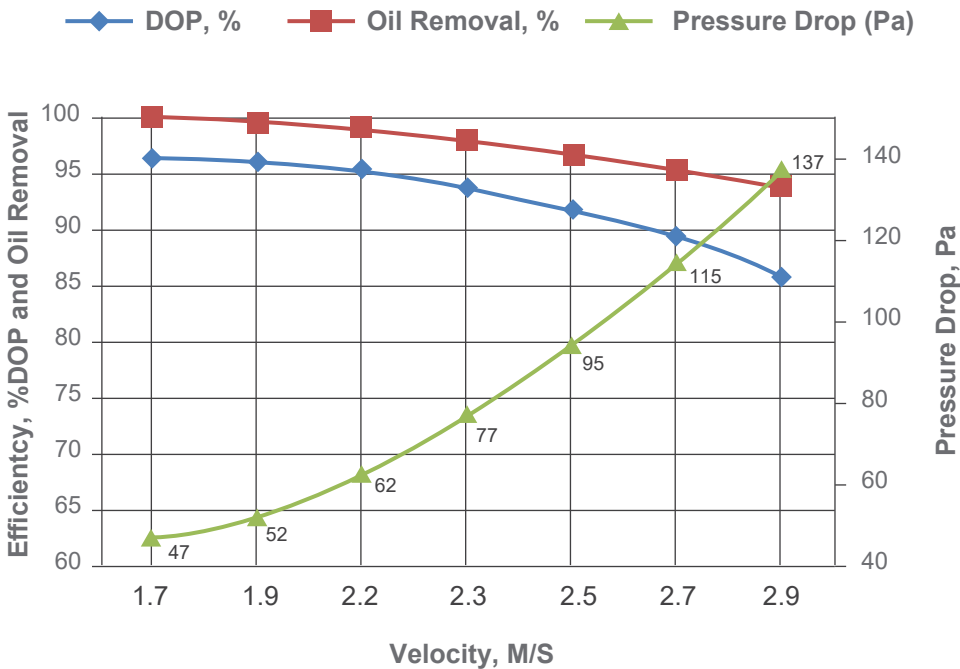


City of Los Angeles Approval

PSH Series



PSH-22 (Double Pass)



PSH Technical Information

| Model | | PSH-11 | PSH-12 | PSH-13 | PSH-14 | PSH-22 | PSH-23 | PSH-24 | PSH-32 | PSH-33 | PSH-34 | PSH-42 | PSH-43 | PSH-44 | PSH-52 | PSH-53 | PSH-54 | PSH-62 | PSH-63 | PSH-64 | | | | | |
|------------------------------|-----------------|---|---------|----------|----------|----------|-----------|-----------|----------|-----------|-----------|----------|-----------|-----------|----------|-----------|-----------|----------|-----------|-----------|--|-----|--|-----|--|
| Specification | | | | | | | | | | | | | | | | | | | | | | | | | |
| Input Voltage (Volts) | | 220V/380V 50Hz | | | | | | | | | | | | | | | | | | | | | | | |
| Est. Power Consumption (W) | | 75 | | | 150 | | | 300 | | 225 | | 450 | | 300 | | 600 | | 375 | | 750 | | 450 | | 900 | |
| Est. Volume (95% DOP) (CFM) | | 1,070 | 2,140 | 3,210 | 4,240 | 4,730 | 7,070 | 9,340 | 7,310 | 10,940 | 14,440 | 9,890 | 14,810 | 19,550 | 12,470 | 18,670 | 24,650 | 14,980 | 22,420 | 29,610 | | | | | |
| Est. Volume (90% DOP) (CFM) | | 1,270 | 2,540 | 3,810 | 5,030 | 5,600 | 8,390 | 11,080 | 8,670 | 12,970 | 17,130 | 11,730 | 17,550 | 23,180 | 14,790 | 22,140 | 29,230 | 17,840 | 26,700 | 35,270 | | | | | |
| Est. Pressure Drop (Pa) | | ≤ 65 | | | | | | | | | | | | | | | | | | | | | | | |
| Est. Duct Opening (WxH) (mm) | | 456x502 | 914x502 | 1368x502 | 1807x502 | 914x1105 | 1368x1105 | 1807x1105 | 914x1708 | 1368x1708 | 1807x1708 | 914x2312 | 1368x2312 | 1807x2312 | 914x2915 | 1368x2915 | 1807x2915 | 914x3518 | 1368x3518 | 1807x3518 | | | | | |
| Dimentions | | See Submitted Datasheet | | | | | | | | | | | | | | | | | | | | | | | |
| Est. Weight (Kgs) | | 65 | 95 | 130 | 175 | 170 | 215 | 330 | 245 | 335 | 485 | 320 | 385 | 640 | 395 | 470 | 795 | 470 | 555 | 950 | | | | | |
| Materials | Filter | Aluminum Mesh Pre-Filter | | | | | | | | | | | | | | | | | | | | | | | |
| | Electronic Cell | 9 no of Ionizer Wires with Tungsten Material and High Quality of Aluminum Plate | | | | | | | | | | | | | | | | | | | | | | | |
| | No. of Cells | 1 | 2 | 3 | 4 | 4 | 6 | 8 | 6 | 9 | 12 | 8 | 12 | 16 | 10 | 15 | 20 | 12 | 18 | 24 | | | | | |
| | Filter | Aluminum Mesh Post-Filter | | | | | | | | | | | | | | | | | | | | | | | |
| | Cabinet | 16 Gauge Welded steel cabinet with Powder coat finished | | | | | | | | | | | | | | | | | | | | | | | |
| | Odor Filter | Options Required | | | | | | | | | | | | | | | | | | | | | | | |
| | Cleaning | In-Place Cleaning systems and Detergent Tank Option Required | | | | | | | | | | | | | | | | | | | | | | | |
| Safety system | | Interlock switch with Self-Regulation supply | | | | | | | | | | | | | | | | | | | | | | | |
| Standard Listing | | UL867 Standard for Electronic Air Cleaner | | | | | | | | | | | | | | | | | | | | | | | |
| | | UL710 Standard for Exhaust Hoods for Commercial Cooking | | | | | | | | | | | | | | | | | | | | | | | |
| | | New York City, NY Listing : SMOG-HOG Approvals by MEA 88-88-E and BEC43671 | | | | | | | | | | | | | | | | | | | | | | | |
| | | Los Angeles, CA Listing : SMOG-HOG Approvals by The city of Los Angeles, CA | | | | | | | | | | | | | | | | | | | | | | | |
| | | According to DOP% Fractional Efficiency ; @0.3-1.0 Micron | | | | | | | | | | | | | | | | | | | | | | | |



DOP Test (Dispersed Oil Particulate)



Interlek eTL Listing



City of New York Approval



City of Los Angeles Approval



CLARCOR Industrial Air is committed to providing clean air solutions that protect your employees, improve plant performance and enable you to realize your operating goals.

Our commitment is backed by continuous investment in research, leading-edge technology and product development, our people whom are the most knowledgeable in the industry, and a product portfolio that is proven to deliver results. We have been solving problems for you, our customers across the globe for over 50 years. Clean Air. It's What We Do®.

CLARCOR Industrial Air

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CLARCOR
Industrial Air

