

October & November 2013

Newsletter Chair Message

DOHA and the ASHRAE Qatar Oryx chapter was honored to host the CHAPETR REGIONAL CONFERENCE (CRC)2013 with a noticeable attendance from different chapters within the RAL.

The conference comprised a full technical day under the theme "Effect of Future Technologies in HVAC Systems on Environment and Energy Conservation"

The event has given an example for a successful story of the team work and dedication. Since the lead was taken by Mr. Hassan Sultan , the CRC general Chair , the chapter BOGs were working hard to achieve the anticipated success that suits Qatar reputation and vision.

We are looking forward to having a coming year with lots of achievements on both the technical and the individual career levels ; and this won't happen without the contribution of all of us , in the Oryx Chapter, entities and individuals. Hence, it is a call for all of the Chapter members to contribute and take part of the mission towards better Knowledge and career achievement.

The photos are available at www.dohaarc.org



Hani Hawamdeh
President 2013-2014
ASHRAE Oryx Chapter

www.ashrae.org

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IMPORTANCE OF ECOLOGY UNIT & SOLVING GREASE DEPOSITION

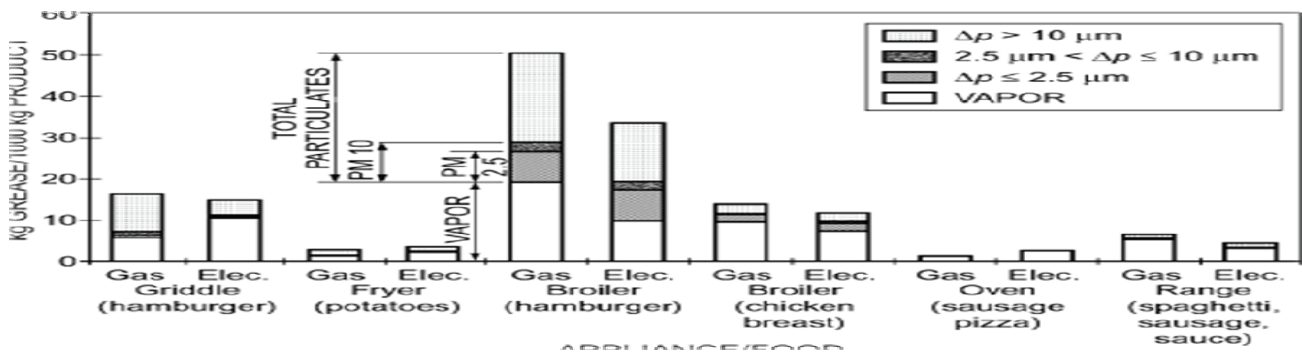
As a designer always think about Kitchen hood but never counted on exhaust part, only an exhaust fan can't control effluent.

What is cooking effluent? When heat applied to food in cooking, effluent is released into the surrounding atmospheres. Kitchen Effluent consists of heat and contaminants.

1. Grease particles from 0.01 to 100 microns
2. Moisture
3. VOC's (Volatile organic compounds).

When these all are exhausted directly from the kitchen hood through an exhaust fan, following are the basic questions we normally faced:

1. Why Grease Deposition on the roof.
2. Why Exhaust Fan bearing completely choked.
3. Duct need to clean frequently.
4. Why Cooking area is too hot.
5. Neighbors always complain about cooking odour.



Grease in particle and vapor phases emitted by selected commercial cooking appliances and food products - 2007 ASHRAE HVAC Application.

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IMPORTANCE OF ECOLOGY UNIT & SOLVING GREASE DEPOSITION (Continued)

The second question is how much we should extract to control Effluent, give comfortable working environment for the Worker to increase the Productivity, Health / Safety as per NFPA norms & the last but not the least Energy / Costs.

The Few guidelines as follows:

- ◆ Net Exhaust volume must be greater than the thermal updraft.
- ◆ Decide the type of HOOD.
- ◆ Decide the cooking equipment, so that contaminated air generated by the cooking equipment can be establish correctly.
- ◆ Cross drafts and turbulence.

| Type of Hood | Minimum Exhaust Flow Rate, cfm Per Linear Foot of Hood | | | |
|--|--|-------------|-------------|------------------|
| | Light Duty | Medium Duty | Heavy Duty | Extra-Heavy Duty |
| Wall-Mounted Canopy, Unlisted | 200 | 300 | 400 | 550 |
| Listed | 150 to 200 | 200 to 300 | 200 to 400 | 350+ |
| Single-Island, Unlisted | 400 | 500 | 600 | 700 |
| Listed | 250 to 300 | 300 to 400 | 300 to 600 | 550+ |
| Double-Island (Per Side), Unlisted | 250 | 300 | 400 | 550 |
| Listed | 150 to 200 | 200 to 300 | 250 to 400 | 500+ |
| Eyebrow, Unlisted | 250 | 250 | Not Allowed | Not Allowed |
| Listed | 150 to 250 | 150 to 250 | — | — |
| Back Shelf/Proximity/Pass-Over, Unlisted | 300 | 300 | 400 | Not Allowed |
| Listed | 100 to 200 | 200 to 300 | 300 to 400 | Not Recommended |

Source: 2011 ASHRAE Handbook—HVAC Applications

Now a day all over GCC air quality have emphasized the need for higher efficiency grease & bad odour control from the exhaust air stream, cleaner exhaust discharge to outdoors may be required by increasingly stringent air quality regulations or where the exhaust is such that grease or odour in the discharge could create a nuisance.

Ecology system has an efficient & economical solution to exhaust contaminated air from kitchen hood.

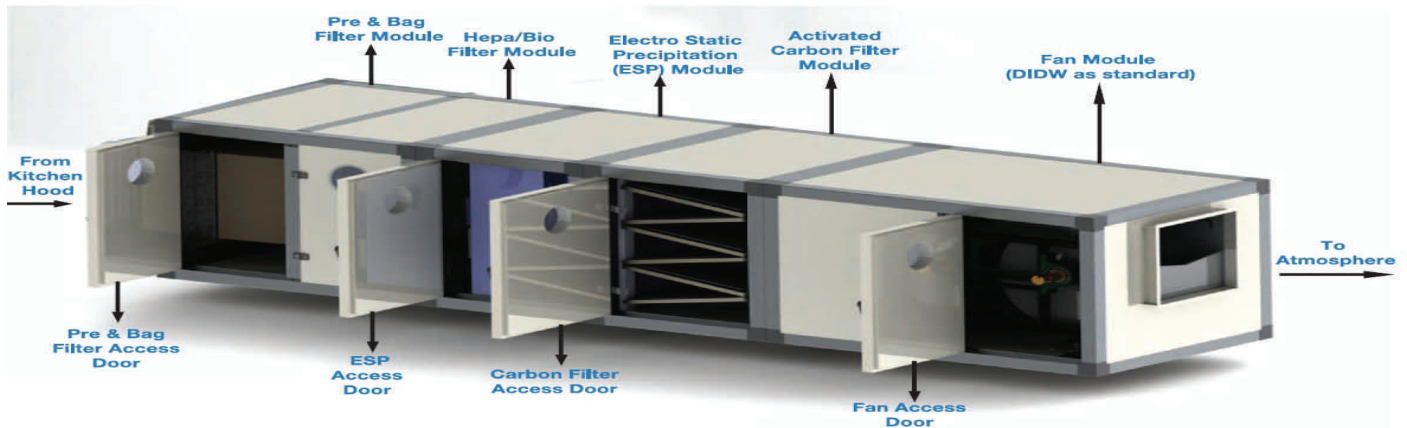


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Commercial Kitchen Exhaust System



WORKING PRINCIPLE:

FIRST STAGE, FILTRATION SECTION TO REMOVE GREASE FROM THE AIRSTREAM WITH FOLLOWING COMBINATION OF MODULE:

Stage 1: Washable Aluminum Pleated Filter:

EN 779 : G2/G4

Stage 2: Synthetic Bag Filter:

EN 779 : F9

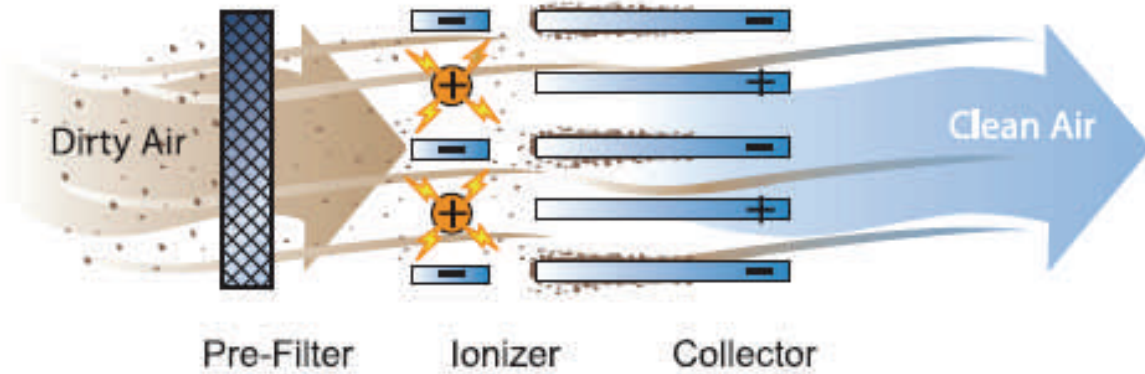
Stage 3: Electrostatic Precipitation:

Air is drawn by the blower through a washable metal mesh pre-filter & Bag Filter which traps large dust particles. The remaining particles, some as small as 0.01 microns, pass into a strong electrical field (ionizing section) where the particulate receives an electrical charge.

The charged particles then pass into a collector plate section made up of a series of equally spaced parallel plates. Each alternate plate is charged with the same polarity as the particles, which repel, while the interleaving plates are grounded, which attract and collect.

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Stage 4: Bio-Hepa Filter:

EN 779 : H10

SECOND STAGE, WHICH REMOVES BAD ODOUR FROM THE AIRSTREAM WITH FOLLOWING COMBINATION OF MODULE

Durable non-woven polyester base media, impregnated with activated carbon. The unique combination of high quality activated carbon and polyester affords odour and particulate trapping efficiency while maintaining excellent airflow properties.

Buildings in Balance:
IEQ and Energy Efficiency
 Online Archive April 18, 2014 — May 2, 2014

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Mohamad Mokdad
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ASHRAE 2014 Winter Conference Jan. 18-22, 2014 New York City, New York



New York City's iconic skyline serves as the perfect backdrop for the 2014 Winter Conference. In one of the world's top cities for most skyscrapers—nearly 600—it's only appropriate that the Conference puts a special focus on the design, development and operation of tall buildings. And they say if you can make it in New York City you can make it *anywhere*, so ASHRAE is also taking a look at new and innovative *international* design strategies for meeting environmental, geographical and cultural factors. Join the Society—along with the ASHRAE co-sponsored AHR Expo—as it returns to the Big Apple for the 2014 Winter Conference.

First Student Branch in Doha (By: Eng. Fady Abu Jamra –Student Activity Chair)



"As part of our expansion, the Oryx chapter is pleased to announce that it has formed, this past August, the first student branch in Doha Qatar at the Qatar University. The branch has named itself the QU Palm branch. It's advisor is Dr. Mohamad Kharseh and the Branch President is Abdul-Rahman Al Zaeem.

The chapter has already done several introductory seminars to students at the university. It has gathered more than 40 students as a first registration. Also the QU Palm student branch in return, has presented one project study on the use of Geothermal Energy to the Oryx's ASHRAE members.

Of course this would not have been possible hadn't been for the full fledged support of the Mechanical Engineering Dean, Dr. Saoud, who has opened the doors for ASHRAE, to whom we are very thankful.

Many More activities to come this year as we discuss them with the Students themselves, stay posted on our next edition... Meanwhile, congratulations to Qatar University's Palm Student Branch!"

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Closing Out Statement - Doha CRC

Greetings from Qatar,

On behalf of ASHRAE Oryx Chapter, I would like to announce our sincere appreciation to all those who have participated in the Region at Large CRC conference through their active participation or attendance which was held in Doha, Qatar during the period of 26th to 28th September

Over and above, the enlightenment that has been brought forward to those of us who are now becoming more aware of the importance of such endeavors, CRC has become a leader in advanced scientific knowledge, sustainability and green concepts which wouldn't have materialized without the efforts and dedication of all of ASHRAE members and associates.

It is imperative to thank all of you for making this conference a success and it is my personal utmost pleasure to quote some of the proactive comments I received from several colleagues which makes all of us at ASHRAE Oryx Chapter honored to have had hosted the RAL-CRC conference;

“Great Work within a short time”-**Mr. Bahnfleth – ASHRAE President**

“The Oryx Chapter did a great job taking over the organization of the RAL-CRC 2013 with a very short notice”-**Mr. Bjarne W. Olesen – ASHRAE Vice President**

“Congratulations” – **Mr. Jeff Littleton - ASHRAE USA Vice President**

“Your dedication and commitment towards ASHRAE was visible throughout the CRC” – **Mr. Ashok Virmani – RAL,DRC - India**

“You have raised the bar even higher in conducting CRC, very good job in deed” – **Mr. Walid Chakaroun – Former RAL,DRC – Kuwait**

“It was the Best CRC we attended in all respect” – **Mr. Farooq Mehboob –Chair society CTT - Pakistan**

“Excellent organization for a memorable CRC” – **Prof. Essam Khalil – RAL-SRC-A- Cairo**

“I highly appreciate the high level of professionalism and devotion you showed during the CRC function and I congratulate all of you for the impeccable organization and hospitality you provided, you have conducted one of the best and successful CRC” –**Mr. Nohad Boudani – RAL – ARC - Lebanon**

“Despite the packed agenda I think that most of the necessary work was completed as well as having a splendid gastronomic treat, it was a joy to be there”- **Mr. Tim Dwyer – United Kingdom**

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“The event was organized exceedingly well” – **Mr. Anuray Pareek – Mumbai**

“We had indeed impressed by your work, commitment and planning” – **Mr. Sardar Sheikh – Pune**

“You and your team have demonstrated that you are capable to do this and much more”- **Mr. Enrique Yotti – Spain**

“Wonderful CRC” – **Mr. Mohammad Abbas Sajed – RAL, SRC, C – Pakistan**

“It was a very well organized and it will remembered for a long time” – **Mr. Bassil Anbari – RAL Nomination Committee Chair – UAE**

“It was a successful event” - **Mr. Fahed Hasan – RAL CCTC, RVC – Pakistan**

“Tremendous efforts, thank you” – **Dr. Ahmad Eldin Mohmed – RAL, RVC – UAE**

“I would like to send you the last roses from my garden to congratulate you for such successful CRC” – **Miss Irene Reichert – RAL – Nomination Committee Alternate – Germany**

“Thanks for a very successful CRC, we carried home your hospitality, humbleness, exemplary commitment to help, great deal of detailing and overall a very fruitful CRC in terms of outcome and punctuality” – **Mr. Sudair Sinha – RAL, RP, RVC - India**

To all of you I convey my gratitude and thank you for being part of our CRC conference and we all at ASHRAE Oryx Chapter look forward to more and more successful events to come.



Hassan Sultan
ASHRAE RAL, SA RVC
Doha, CRC General Chair

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Doha CRC Photos Gallery



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