香港空調及冷凍商會有限公司
THE HONG KONG AIR CONDITIONING AND REFRIGERATION ASSOCIATION LIMITED

SUMMER 2014
Newsletter 會員通訊

商界展關懷 caringcompany 2010-14
Awarded by The Hong Kong Council of Social Service 香港社會服務聯會頒發

Contents

ACRA Office
Room 1801,
Tung Wai Commercial Bldg.,
109-111 Gloucester Road,
Wanchai, Hong Kong.
Tel: (852) 2598 0101
Fax: (852) 2598 0102
E-mail: info@acra.org.hk
Web Site: www.acra.org.hk

Message from the President

Ir Ringo Shea
President

When moving forward in the year 2014, we are heading towards the peaks both in the no. of project executions and also the demand of the human resources in our construction industry. I have mentioned quite a lot in my previous messages regarding the shortage of manpower. Meanwhile it was noted that various schemes such as CCTS and TTS resulted from the collaborative effort by different parties in the industry had already been put in place. Though the enhancements to the schemes may be still required and also their effectiveness are yet to be evaluated, we need to express our high appreciations and thanks to all the involved parties for their great input and support. Of course the task is still far away from being settled, the industry is still having a long way to go. It is no doubt a great challenge lying ahead for us but on the other hand, it would be exactly the time for us to perform, the time for us to demonstrate our professionalism and the unity in the industry. With all stakeholders working along with devotion and commitment, definitely we would build a much better city for us and our next generations.

My great thanks should be addressed to the great devotion and hard work of all the council and subcommittee members. Our membership number has continued to grow and reached a new high. The workload of the association has been substantially increasing in the recent years and different committees and task forces have been formed, aiming to establish or strengthen our liaison with other parties in the industries as well as reflect our views in the industry in various topics. Also I need to express my sincere thanks to the wholehearted support of our members. I am very pleased to share with you that it has been becoming the most annoying but a happy problem for our organizing committee of the annual dinner each year, ie how to satisfy all the requests raised by our members for the seats reservation in our annual dinner due to the limited vacancies available.

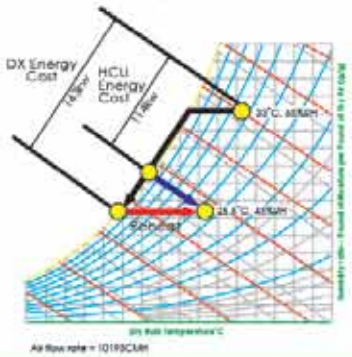
I am also pleased to report that our Caring Committee has been working very well since its establishment two years ago. 3 to 4 charity functions are to be scheduled every year and we did receive excellent support from our members and the same positive feedback from the partnering NGO in the previous functions. The most encouraging was that we had got members succeeded in becoming the Caring Company through their participation in the charity functions organized by ACRA. We are expecting more to come in the shortcoming future. We do have a strong belief - we are not the one who only just know how to build, we also the one who know how to care.

ATAL
Air-Conditioning Solution

Desiccant Dehumidification Solution

An Energy Efficient Way to Remove Humidity

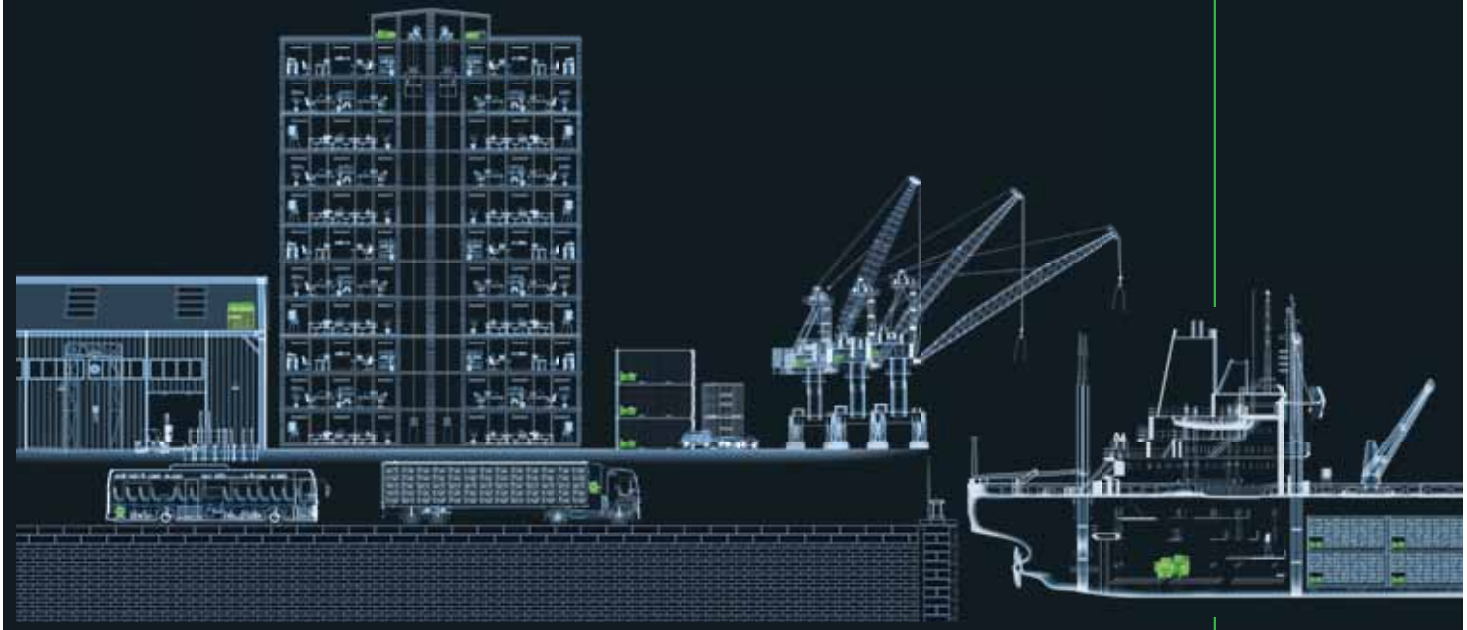
HK hot & humid weather facilitates the formation of mold or mildew particularly in the mid level or coastal residential area. Our Efficient Desiccant Dehumidification Solution can create a clean, healthy and comfortable home environment for the users.



- Cooling COP improved **by 15%**
- Save up to **40%** cooling energy cost
- **Independent** humidity and temperature control
- No reheat required, comply with ASHRAE Standard 90.1
- Low dew point, eliminate wet floors, saturated duct, mold and mildew

13/F, Island Place Tower, No. 510 King's Road, North Point, Hong Kong. Tel: (852) 2565 3399 Fax: (852) 2562 6401
Email: enquiry@atalbs.com.hk Website: www.atalbs.com.hk

YOU CAN'T SEE OUR PRODUCTS ANYWHERE.
BUT YOU CAN FEEL THEM EVERYWHERE.



Reliable refrigeration in your system is very important, especially when the ambient temperature is high and varies. As a leading global manufacturer of refrigeration compressors BITZER has a wide product range, which offers the fitting solution for every application like supermarket, hotel, cold storage, transportation, air-conditioning and marine: reliably, efficiently and to high German quality standards.

Thanks to our good service network you can rapidly access local technical support and BITZER genuine spare parts.

Learn more about our products at www.bitzer.de and www.bitzeravp.com

For more information please contact:

BITZER Refrigeration Asia Limited
Unit 1302, Winsome House
73 Wyndham Street, Central
Hong Kong, China

Tel: +852-28680206
Fax:+852-28680299
Email: tony.cheng@bitzerasia.com

Bitzer
THE HEART OF FRESHNESS

we walk on our way... the name for a professional contractor

CLYNIX TAPPING PROCESS

-tee-off new branch pipe while the MVAC system remains in normal operation
-no need to drain & re-fill the MVAC system
-no need for pipe freezing
-ENVIRONMENTALLY FRIENDLY PROCESS




CLYDEMAN ENGINEERING LIMITED

UNIT 4, 5/F, TOWER 1, HARBOUR CENTRE,
1 HOK CHEUNG ST., HUNGHOM,
KOWLOON, HONGKONG

TEL:(852)2332 3591
FAX:(852)2374 2166
email:info@clydeman.com
www.clydeman.com

WINSTON AIR CONDITIONING & ENGINEERING (HONG KONG) COMPANY LIMITED

UNIT 2A, 1/F, TOWER 1, HARBOUR CENTRE,
1 HOK CHEUNG ST., HUNGHOM,
KOWLOON, HONGKONG

TEL:(852)2764 1200
FAX:(852)2764 0465

www.winston-hk.com

Cold Magic 高美

Integrated AHU

一體式空調風櫃是把常規的空調風櫃, 控制箱以及水路配件整合在一起的風櫃. 櫃身的結構緊湊, 各個部件的分佈均勻合理, 而且便於現場的檢查和維修. 現場安裝時只需要接駁出入水管, 去水管, 電源以及遠程控制信號線即可.

The integrated type air handling unit is the control panel and chiller water pipe accessories build in the AHU. The integrated AHU body is compact, the various parts of the distribution is uniform and reasonable, and it is easy to inspection and maintenance. There are only connect the chilled water pipe, drian pipe, power cable and control cable for install whole AHU unit.

Cold Magic Efatar (HK) Co., Limited

Rm 05-06, 11/F., Fo Tan Industrial Centre, 26-28 Au Pui Wan Street, Fotan, N.T.,H.K. Tel: 852-2606 6922 Fax: 852-2693 1321 Email: coldmagic@cold-magic.com

The Next Generation of HVAC Industry

Recalled the old days when Engineering was one of the keen majors in tertiary education, while HVAC industry is seemed facing the challenge in attracting the new blood in nowadays given lots of opportunities with ongoing and forthcoming projects. How does the current tertiary education system and scheme help in the case, and how does the new entrant young generation view of the HVAC industry?

Vocational Education for Young Generation

There are different channels appealing young people to join the HVAC trade through vocational education and training. Referrals from peer group and introduction by apprenticeship officers are common, but there is no lack of cases where there are no ideas about what to pursue further after leaving or finishing secondary 3, secondary 6 or any secondary school level now called Diploma of Secondary Education (DSE). Vocational education and training is not a short-term placement for school leavers only to spend years without achievement, but it is a spring board to provide secured opportunities to young people essentially to learn and build up skills and knowledge that benefit their career and personal development and deal with life-long challenges and opportunities.

Reasons for choosing HVAC trade rather than other engineering or industries revealed by young people are mixed but encouraging. Technology in HVAC keeps on having its revolution and development for learning, and its wide scope of coverage are momentum to attract young people. Besides, the apprenticeship scheme which provides both on-the-job training and academic education together is another benefit which only vocational education and training can offer. Secondary school leavers not only choose in between getting a job or going for higher education, but they are given workplace training with combined job employment and further education worked out through apprentice scheme. It is a promising route for life-long career and achievement, and strength in employability through work-based learning.

Hong Kong is claimed as knowledge-based society and financial hub being one of the leading economic power in Pacific Ram, continuing its investment in universities and higher education is seen as necessary for success in life. On the other hand, the society and economy need vocationally skilled workforce to build, maintain and provide services to its infrastructures and hardwares of every kind, people and society at large. Vocational education and training deserves good government initiatives and policy and greatest support from the industry sectors.

Academic education is not necessarily the best fit for everyone to lay their foundation for developing one's life-long career, but the young generation shall be given more choices of career development and achievement. Vocational education and training are viable platform and shall be properly recognized but not misplaced as second tier choice because of its stigma in history and traditional culture. Labour shortage in various industry and servicing sectors is a challenge to Hong Kong economy, the demand for low skilled workforce with low pay is diminishing but being replaced by workforce with higher skills and knowledge and paid good. The myth that vocational education and training seen as inferior and meant for those do poorly in academic education shall be dismissed, but workforce trained through this route shall be recognized and they shall enjoy good prospect in job market and gain recognition.

Vocational Training Council (VTC) is the government funded institute providing technical education and training with the mission of developing a globally competitive workforce to build a stronger economic future of Hong Kong, and importantly to bridge the gap between student's needs and employer's expectations on skills and knowledge acquired by the graduates and students received training there. Education and training provided by VTC in cooperation with industry partners for an integrated programme which trains up young people with improved employability and career opportunities, ending up with tremendous social and economic benefits and competitiveness for Hong Kong.

In the study stream of HVAC, building services, engineering or other industry sectors, students at different secondary school levels can choose among Basic Craft Certificate (BCC), Technician Foundation Certificate (TFC) and Diploma in Vocation Education (DVE) for entry and progress in flexible pathways. Part time DVE is available for students in employment, providing them with an option of joining VTC administered craft apprentice scheme with their employers.

Studying higher diploma through part time mode enjoying employment and academic learning at the same time is a smart step for young people. Students who finished DSE or graduated from DVE are eligible for entering into a technician apprentice scheme administrated by VTC, and work focus on HVAC or more widely coverage in complete building services are offered by their employers. Election of HVAC option out of building services engineering in their final year of higher diploma study can be chosen to suit the interest of individuals. Workplace training and learning in this way is an education with focus on practical application of academic knowledge and on-the-job training for young people who are educated and interested in a particular trade, such that hands-on and real-world experience and knowledge will be gained with genuine understanding and reinforcement in mind for life-long.

The traditional culture draws distinction between university graduates regarded as white-collar professionals and vocational graduates labeled as blue-collar technicians, this pushes young people to purse tertiary programmes without carefully thinking about the career path and relevancy of education to match their commitment and development for life. While tertiary programmes in Hong Kong have been greatly surging in these years, the overflowing graduates holding qualifications of different kinds do not necessarily benefiting the human resources market and economy in search of workforce which is trained to meet the knowledge and skills required for the jobs. Vocational education and training are proven to be viable for win-win situation to young people, employers, industry sectors and at large the sustainable economy and society.

Voice of the Young Generation in HVAC Industry

With the Association booth setup in the recent numerous career fairs organized by different parties supporting young generation to join the engineering industry, it provides a good platform and chance for bi-lateral communication; to understand the young generation concern, career pursue and for them to learn better about the engineering world.

Here below would like to share some of the voice from our HVAC industry young generation, which may give us some insights of attracting new blood and retaining this impactful workforce for our industry future.

Q1: How did you start working in the HVAC industry?

Answers:

- Referral by friends – With most replied
- Through apprentice program
- Referred by friends, then by the Apprenticeship Officer
- Upon graduation from VTC
- Through the placement scheme by the school/ referral by school
- Not sure about the future after graduating Secondary 4. With the referral by the social worker, started to study HVAC in VTC
- Previous working experience as property management, but was looking for more skilled and stable industry, thus decided to move to engineering
- By job recruitment advertisement

Q2: Why did you join the HVAC industry?

Answers:

- Gain a domain skill – With multiple replies
- An industry can apply what I've learnt – With several replies
- HVAC systems keep updating and enhancing day by day, providing me lots of opportunities for learning
- The scope of work is diversified and it is challenging
- High demand of HVAC systems with lots of buildings in Hong Kong, great development potential in this industry
- With bright future and stable income. Everywhere comes with HVAC systems nowadays, thus with better development
- It is easier to get started and there are rooms for development.
- Under the Apprenticeship Scheme with on-the-job training provided by the company
- The high diploma course is included in the Apprenticeship Scheme

Q3: What do you think about the HVAC industry nowadays?

Answers:

- Multiple replies with – "I think there will be opportunities provided constantly"
- It is a job that I am interested in
- There are lots of infrastructure projects in the recent years which bring a lot of HVAC systems opportunities. This provides good learning and practice
- I think there is a chance to learn different aspects such as fire systems, plumbing, etc.
- Good welfare and chance for me to learn more HVAC systems
- Optimistic. It is an industry with hopes

- Rapid development with full of challenge
- HVAC system design is up to quite a mature standard, but room for development would be in controlling system and comfort control

Different view points

- It is a relative stable industry and opportunities in retrofitting and maintenance work. But comparatively, the room of development is relatively steady
- May not be an important industry viewed by external with mainly just industry inside professions
- I think the number of HVAC workers is declining. The tendency leads to less workers wish to learn about HVAC techniques

Q4: What is your opinion on the prospect of the HVAC industry?

Answers:

- Job opportunities will be available at the time as HVAC is indispensable in the society, but more technicians will be required.
- The number of young workers is not enough, leading to labour shortage. But due to the demand of building establishments and energy efficiency enhancement, there is need of attracting young generating joining in supporting the industry to be flourish
- Very good, Optimistic. More development and challenging aspect on energy saving, green, hi-tech automation. The industry development may depend on the economic cycle and investment
- There will be more opportunities, great development and the industry is kept growing
- To gain more HVAC knowledge in the future, especially professional knowledge is required in complex infrastructure job and maintenance with higher requirement, it keeps challenging

Q5: Do you think there is sufficient training provided? Is there any improvement required?

Answers:

- Several replies with – "Sufficient"
- More subsidiaries and trainings should be given, e.g. Automation system as not much practical areas covered in school course, factory visits to learn about the product built, as well as English courses
- Would be better with clearer career development path and goal to enhance both technical and practical training
- More comprehensive seminars to be organized such to learn and understand more about the HVAC industry, trends to prepare for future and be efficient
- Good to have more on-the-job trainings of HVAC techniques.
- More time for studying should be given and trainings of craftsmanship should be enhanced. Trainings of maintenance of more models of HVAC systems should be provided. And for part time workers, it would be good if examination leave can be offered during tests and examinations.

People Interview with KK Li

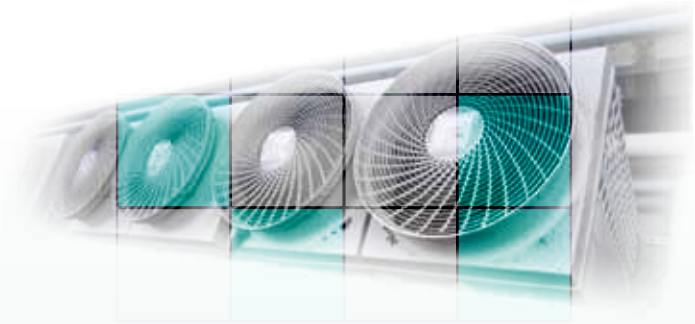
李國強先生(KK Li)的工作生涯可說是與空調界結下不解之緣，曾擔任香港照明學會會長和英國電機工程師學會(香港分會)電力及能源分部的主席，去年亦為香港工程師學會(屋宇裝備分部)的主席，剛從機電工程署正式退休，踏入人生另一階段。我們很感謝李國強先生接受是次訪問，我們亦從他的訪問中獲益良多。

KK於紅磡香港工業學院(即現今的理工大學前身)電子工程系畢業後，憑著優異的成績，獲推薦升讀於香港大學的電機及電子工程系二年級。畢業後成為中華電力有限公司的見習工程師，工作了兩年半。當時香港工程師學會剛成立，還未有Scheme A培訓計劃，全根據一邊工作，一邊學習的模式，大部分時間KK都需要到戶外發電廠或控制中心接受職業培訓，而在辦公室的工作時間相對較少。由於KK的父親任職政府部門多年，及一些師兄轉職到政府部門工作，當時社會剛從股災開始復甦，1978年政府大量招募人才，機緣巧合下，KK投考工務局轄下建築設計處的助理屋宇裝備工程師，本因為所負責的工作都有關於水電及消防工程方面，也跟空調有關，與讀書時所學習的電子電機行業截然不同。因此，KK常常看書及虛心地向前輩請教，以學習何為空調。當時屋宇裝備還未獨立成科，欠缺培訓，大型一點的工程都會以一組同事負責，包括分別擁有空調、機械、及電氣知識的同事一起共事，互相學習，互補長短。KK於政府部門共服務了三十餘年。

參與的工程項目

KK十分感激上司對他的工作安排，一直以來給予他機會參與許多由小型到大型的工程項目，使他能邊學邊做，累積經驗。

KK最深刻的工程項目是25年前興建的尖沙咀文化中心。工程由零開始，從設計到完工，他差不多是全程參與了整個項目的興建。當時他剛升任為工程師，得到上司的信任，把當時香港最大型的表演場地的屋宇裝備項目交給他負責，項目要求達到國際級水平。當時他和幾個同事被編為一組一起工作，KK負責協籌的部分，並與擁有共同目標的建設小組，曾於21日內走訪17個不同國家的城市考察表演場地，包括有澳洲、新西蘭、三藩市、紐約、華盛頓及多倫多等等。因為行程緊迫，有時候要早機去一個城市，晚上又要去另一個城市，十分難忘。市政局的同事主要考察管理的方面，建築師主要參考建築設計的方面，而KK就主要觀察屋宇裝備系統的方面。綜合三方而寫成報告作為參考，以改善尖沙咀文化中心的設計。最辛苦的是要監測工程的進度，當工程完成後進行微調的工作時，問題便產生，但文化中心必須如期開幕，可說是與時間競賽。那時要解決的其中一個問題就是噪音必須要達最低水平，KK的團隊用儀器測試噪音度數時，才發現不完善。為了要確定噪音來源及測試噪音的準確性，他的團隊需於晚上12時後才可開始工作，一直工作到深夜，開關及測試每一把風扇，以準確找出是那一機組發出噪音。最後發現噪音的產生源自軸承出現了缺口，最後都能順利地把問題解決，工程完成後使他充滿滿足感。他認為政府重視培訓人才，鼓勵課餘進修。例如電機出身的，就鼓勵課餘時間進修機械；機械出身的，就鼓勵課餘時間進修電機，以補不足。政府給予不少雇員到外國進修三個月到一年的課程，以取得文憑或碩士資歷。政府亦選拔了一些技術員去修讀學士課程，完成後便可當上工程師，他亦有很多同事都是從英國進修後回來的。KK於負責尖沙咀文化中心期間，亦曾獲政府補送到英國修咸頓大學修讀了一年的聲學碩士課程，回港後，又續繼接手尖沙咀文化中心的工程，直到完工。



對業界的推動

KK雖然不是修讀空調科目出身，但與空調行業的貢獻亦不少。在千禧學校的校舍設計中，因為當時對中學學位需求大，政府需要多建學校，便使用標準校舍設計模式，另外要配合教學電腦化，要求高靈活性的輔助教學課室，因此屋宇裝備的配合是十分重要的。為減低噪音，KK的團隊大膽地選用了分體式冷氣機及鮮風交換器，採用了先進的高效能照明系統，以減低用電量等等，及提高了室內空氣質素。

80年代中，工務局將建築設計處升格為建築署，並且把所有服務於建築設計處的屋宇裝備同事轉調到機電工程署服務，但服務於屋宇裝備部的同事就被借調到建築署工作。

KK任職於機電工程署時曾致力推廣水冷式區域供冷。2004年，KK為機電工程署的總工程師（B組），主要負責水冷式空調裝備，主力推廣能源效益及跟進有關區域性供冷系統的項目。當時香港只有很少區域可以符合應用到水冷式空調裝備，而其實水冷式會較風冷式省電，經過很多推廣和漸進式開放後，直至KK離任機電工程署時，全港已經有超過90%的區域可以符合應用到水冷式空調裝備。

行業前景的看法

香港比起新加坡應更早有區域性供冷系統，但因灣仔填海區的爭議，導致東南九龍發展的修定，推遲了舊啟德機場整個項目的發展，而當中的區域供冷由可行性研究到成功供水，發展共超過10年，由原本應該是領先的東南九龍區域供冷機組，到最後卻落後於新加坡的濱海區發展。區域供冷系統的出現，除了減少能源及消耗，使空調界創造出另一種操作模式，使負責空調運作的公司冒起，負責操作系統的不再只有業主或保養商本身，造就了商機。例如Hong Kong District Cooling DHY Joint Venture（聯營公司）就成為了負責啟德的區域供冷系統的“設計、營造及運作”公司。他亦展望香港的新界東北發展可能會有更多機會使用區域供冷，使更多空調運作的商機出現。

培訓人才

KK認為無論是政府或私人機構，培訓人才是十分重要，因為時代不斷進步，員工從學校所學到的知識不足以應付現今的社會對屋宇裝備更高的需求，老闆肯投放資源及時間於員工身上，而員工又肯努力學習，爭取機會，才是一個好現象。他近年看見很多參與研討會的都是大公司的員工及海外考察機會較以往少，也許因為現時工程投標價低，工程時間緊迫，競爭十分激烈，人手不足，這實在是一個惡性循環，不利行內發展。現時許多承建商都放眼發展中國，容易把人才推到內地，使香港失去人才。推廣任何政策，政府及業界都應該攜手合作。他勸喻老闆要肯投資於員工身上，給員工時間及機會不斷學習。

寄語年青新一代

KK積極參與學會活動，例如海外考察及研討會。他鼓勵年青人應多參與學會活動，以擴闊眼界，多結識同行的朋友交流知識。科技日新月異，他勸喻年青人如果想成功，必須要不怕挑戰，肯投放時間進修及不斷知新。工作時亦必須「用心」，對事物一定要產生興趣，才不會感到辛苦，反為可以產生滿足感。他又認為良好的溝通是極為重要的，溝通得好才可提高協同效應，工程項目越來越複雜，即使是擁有一方面知識的專才，也應該願意學習另一方面的知識，互相溝通，才能融入團隊把工作做好。

後記

KK已經正式退休，現時沒有什麼大計，都是隨遇而安。當前是放假為先，吃喝玩樂，旅行看書，找老友談天說地，享受人生。

Eaxon International Company Limited
恩索有限公司
Eaxon Environmental Technology Co. Ltd.
恩索環保科技有限公司

CosaTron®

Air Purification System

空氣淨化設備

Cleaning the air where you live, work, play and breath

KLINGENBURG

Thermal Wheels

轉輪熱交換器

AAF INTERNATIONAL

Air Filtration Products

空氣過濾器

Your partner for managing IAQ improvement Commercial, Industrial & Hospital applications

SPIROTECH FOR BETTER PERFORMANCE

冷/熱水自動除氣/除污器

Removes circulating air and micro bubbles, dirt effectively

香港辦事處 Hong Kong Office

香港九龍觀塘開源道48號威利廣場808室

Unit 8, 8/F, Westley Square,48 Hoi Yuen Road, Kwun Tong, Kowloon.

電話 Tel: (852) 3590 4656　　**傳真** Fax: (852) 2566 1321

E-mail: info@eaxon.hk

RadiPac EC centrifugal fans
Perfection in air handling units

We have made our RadiPac EC centrifugal fans for air conditioning and ventilation systems even slimmer, even better and even more efficient. GreenTech EC motor technology, high-performance electronics up to 12 kW and intelligent aerodynamics as a complete system in an extremely compact construction. No additional programming effort is necessary during commissioning - in short: "plug-and-play". The only aspect of these fans which is really big is their performance: up to 25,000 m?/h at 1,000 Pa from sizes 400 to 900. Having successfully integrated our advanced electronics into the motor, RadiPac EC centrifugal fans series can be full programmable networking capability for integration with BMS systems using MODBUS and 0 to 10 V by default. The motor efficiency levels for GreenTech EC motors are significantly above efficiency class IE4.
More information can be found at www.ebmpapst.com

ebmpapst

The engineer's choice

ebm-papst Hong Kong Ltd
Address: Room 17E, MG Tower, 133 Hoi Bun Road, Kwun Tong
Tel (852) 2145 8678 info@hk.ebmpapst.com

Trainee Subsidy Scheme

Here, wholeheartedly thanks to members of ACRA who have devoted to support the Trainee Subsidy Scheme (TSS) by offering workplace attachments to students studying Year 1 Full Time Diploma in Vocational Education Programme ("DVE") enrolled by the Vocational Training Council. ("VTC").

Throughout the past decade, the industry has been suffering from scare job opportunities which has resulted in lack of new blood joining the industry. With the increasing workload in the construction industry, scare staff resource is another problem that the industry is facing for the time being. By offering workplace attachment to students of this kind will definitely offer a strong link to have youngsters who would like to retain themselves in our industry.

The main purpose of the TSS with workplace allocation is to offer chances for the students to engage as early as possible in our industry such that they can apply what they have learned from their full time course material. This is considered critical as practical experience is as important as knowledge obtained via course contents.

There have been two semesters of workplace attachment in the TSS. The first semester was implemented between 4 Nov 2013 to 10 January 2014 with a total but non- continuous allocation of 12 days in between. Upon confirmation of the scheme via FEMC, ACRA working team immediately arranged a briefing session to member companies who were interested to offer workplace allocation. With an overwhelming support, students were all allocated to member companies accordingly.

After the first allocation, comments from member companies were collected and reflected to VTC via FEMC in which VTC has adapted most of them and made slightly adjustment for the 2nd semester in particular the Green Card issue to enable students to have a chance participating/visiting site activities which are important to them.

Another adjustment was to have the allocation in 2 Block Release Period rather than non-continuous allocation. With the above two adjustments, the 2nd semester was launched between 10 April 2014 to 17 April 2014 and 19 May 2014 to 26 May 2014. The ratio of students with and without Green Card are nearly 50/50.

There is still room for improvement in particular number of students with green cards and ACRA is still liaising with FEMC/VTC to review the situation. However, the TSS is still considered a very important training opportunity for students of VTC such that more new resources are available to industry stakeholders.

SAIVER
SINCE 1959

EUROVENT CERTIFIED PERFORMANCE
Range: A1

EC AHU

GREEN TECH

Multiple Fan Design

-Space saving with reduce unit footprint
-High reliability
  -L_{10} = 40,000 hours at Full load
  -L_{10} = 60,000 hours at design load
  -Redundancy and stand-by capability
    - If one fan fails, other fans can pick up loss of air flow
-Flexibility
    - Airflow/static pressure can be increased by adding fans
-Produce less low frequency sound
-Maintenance Free
  - No pulley, belt, fan, shaft, fan bearings to maintain
-Operates with cooler temperature
  - Longer life, less heat dissipation

Energy Efficient

-Motor efficiency achieve IE4
-VSD integrated into the fan for optimal efficiency

Our latest Job reference of ECAHU

- Singapore Data Centre
- Hong Kong Baptist Hospital - Main Block
- The Venetian Macao-Resort-Hotel PHASE III

Service is Our Business

WELCOME AIR-TECH LTD. 偉基空調有限公司
11th Trend Centre, 29 Cheung Lee Street, Chai Wan, Hong Kong.
Tel: (852) 2806 8316 E-mail: sales@saiver-welaire.com.hk
Fax: (852) 2806 2426 Website: www.saiver-welaire.com.hk

商界展關懷 caringcompany

HKQAA
ISO 9001 : 2008
Certificate No.: CC 5615

SAIVER
Integrated AHU
ITPAC, Chiller & FCU

WELAIRE
Ventilating Fan & Filter

GEOCLIMA
Oil Free Chiller

Panasonic
FSV / FS MULTI

MITSUBISHI ELECTRIC

Changes for the Better

三菱電機 Mr.SLIM CITY MULTI

天花板埋入式金屬型空調

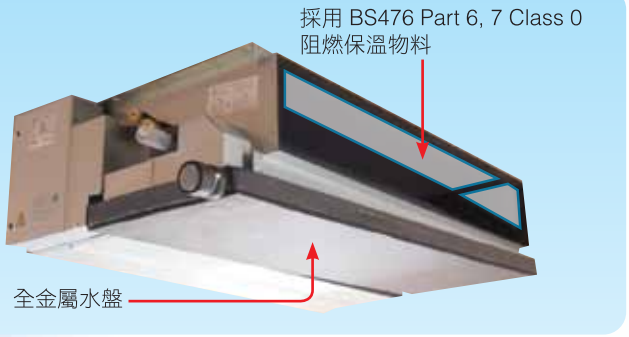
機件及物料　符合香港消防條例

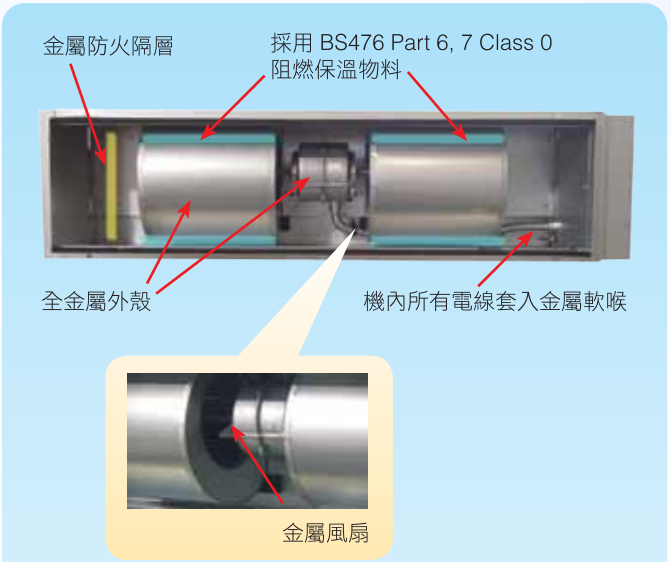
for a greener tomorrow

於公共場所安裝天花板埋入式空調，必須符合香港消防條例。因此，選用市面上大部份天花板埋入式空調，均需自行更換相關配件或保溫物料；此舉不但浪費人力物力，更大大影響空調的機能可靠性及耐用程度。

符合香港消防條例　原廠品質保証

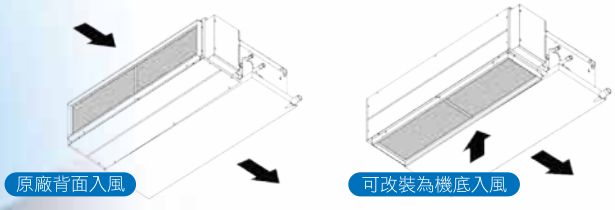
一向注重空調安全與效能的三菱電機，推出最新天花板埋入式金屬型空調，包括 Mr.SLIM (一拖一)系列及 CITY MULTI (變頻多聯式)系列，機件及物料均符合香港消防條例，讓工程人員可簡單直接地進行安裝，省時又可靠。





簡易改動入風位置　靈活方便

入風位置可供隨意改動（機背或機底），以配合現場環境，令安裝更為靈活，更富彈性。



定頻、變頻、多聯機款　信心之選

三菱電機天花板埋入式金屬型空調配有淨冷定頻、冷暖變頻及變頻多聯等機種，製冷量由 1.5 匹至 6 匹不等，是酒樓、餐廳、辦公室、學校、酒店、住宅大堂等公共場所的信心安全之選！

製冷量 1.5~6 匹 HP

Mr.SLIM

系列 \ 製冷量	2HP	3HP	5HP	6HP
Mr. Slim 淨冷定頻系列	PE-RP50EA-SH	PE-RP71EA-SH	PE-RP125EA-SH	PE-RP140EA-SH
Mr. Slim 冷暖變頻系列	PEA-RP50EA-SH	PEA-RP71EA-SH	PEA-RP125EA-SH	PEA-RP140EA-SH

CITY MULTI

系列 \ 製冷量	1.5HP	2HP	2.5HP	3HP	4HP	5HP
City Multi 變頻多聯式系列	PEFY-P32VMM-E1-SH	PEFY-P50VMM-E1-SH	PEFY-P63VMM-E1-SH	PEFY-P80VMM-E1-SH	PEFY-P100VMM-E1-SH	PEFY-P125VMM-E1-SH

三菱電機菱電空調・影像設備(香港)有限公司

辦事處及陳列室：香港九龍九龍灣宏光道 39 號宏天廣場 9 樓　**電話**：(852) 2510 1505
維修服務中心：　香港九龍九龍灣臨樂街 8 號商業廣場 7 樓　**電話**：(852) 2427 8484 | **網址**：www.mitsubishi-ryoden.com.hk

PHENOTHERM™

CFCs & HCFCs Free Phenolic Foam Insulation (Zero ODP)

聚溫® 環保泡酚

ISO 9001 Certified

Proudly Be Part of, supplied Phenotherm™ Class '0' CFCs & HCFCs Free Rigid Phenolic Foam Pipe & Board Insulation

FM APPROVED

Sheet Metal Ductwork Insulation

Central Mail Centre
Kowloon Bay, KLN.
Year of Completion : Mid 2013

2013

EASY JOB

Phenotherm™ Rigid Phenolic Foam Insulation is the PROFESSIONAL'S CHOICE for Pipework & Ductwork in HVAC/R System

- ★ Rigid insulation ensure the final performance, **NO COMPROMISE ON WALL THICKNESS** as other flexible insulation materials.
- ★ Pipe insulation wall thickness in **SINGLE LAYER** from 15 ~ 150mm.
- ★ **NO AIR-GAP** after proper installation, insulation ID cut to top-fit pipe OD.
- ★ **PERFECT HARMONY** with pipe support in same materials.
- ★ **EASY & FAST INSTALLATION (As Easy As ABC)**
  - **A. Apply adhesive.**
  - **B. Snap-on Pipe Support / Pipe Insulation.**
  - **C. Seal with Aluminium Tape.**

1994

General Cancer Centre,
Prince of Wales Hospital
Shatin, N.T.
Year of Completion : 1994

International Financial Centre
Phase I - (IFC-I)
South West Tower at
Hong Kong Station, HONG KONG
Year of Completion : 1998

The New Medical Complex
The University of Hong Kong
HONG KONG
Year of Completion : 2002

Nina Tower
Tsuen Wan, N.T.
Year of Completion : 2007

SOLE AGENT :

福隆(香港)有限公司
Fook Loong (HK) Ltd.
香港九龍旺角塘尾道18號嘉禮大廈19字樓
19/Fl., Skyline Tower, 18 Tong Mi Road, Kln., HONG KONG.
Email : flhk@flhk.com.hk ✆ 2393-7773
www.flhk.com.hk FAX : (852) 2390-6377

JEC

Indoor Air Quality

Energy Efficiency

PM2.5 Solution

For HVAC Application

- Ease of installation
- Solid-state, self-regulating power supply, overload protection
- Auto-compensation
- Low resistance
- High dust collection efficiency
- Saw-tooth ionization
- Ceramic insulating blocks

Features

Jardine Engineering Corporation

A member of the Jardine Matheson Group

Hong Kong Headquarters
5/F Tower A Manulife Financial Centre
223-231 Wai Yip Street Kwun Tong Kowloon
Hong Kong
Tel 852 2807 1717
Fax 852 2887 9090
Email jec@jec.com
www.jec.com

Update Trend on Air Handling Units in the Hong Kong Market

The construction and HVAC industry have undergone tremendous change in recent years due to labor shortages, environmental concerns, energy saving regulations, etc. This has developed new trends from project management, procurement strategy to individual HVAC equipment. Air handling unit is one of those equipment that has developed some new trends:

1. Prefabricated AHU

Prefabricated AHU employs a plug and play concept. All the necessary controls, LMCP panels, DDC panels, and valves are housed inside the AHU. This allows the user to save time and cost during the construction process. Higher quality control can be ensured because most of the fabrication works are done under a controlled environment in factory plant.

Since most of the components are prefabricated in the factory, the coordination needed on the construction site is reduced. The material wastage is also minimized during installation.

Benefits

- All materials can be prepared, install at factory; less site work.
- Reduce a lot of wastage and co-ordination; less waste.
- Reduce on-site logistic arrangement; less logistic cost.
- Reduce on-site fabrication time; less labor cost.
- Reduce the affection on public; less other construction time.
- Full function test can be done in factory; less T&C cost on site.

For Integrated AHU, piping will be on the top which will not block the maintenance space at the lower side.

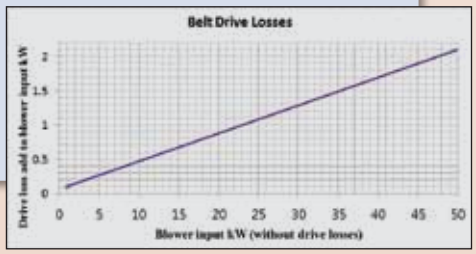
Construction time is greatly reduced with the use of prefabricated AHU because the controls, LMCP panels, DDC panels, and valves are housed inside the AHU. The logistic are simplified on site with less materials and parts to be transported to the construction site. The reduced installation time would lessen the noise nuisance to surrounding area near the construction site. There is space saving with the LMCP panels and DDC panels inside the same housing. All the connections and piping are done at the high level to provide extra spaces on ground level for access. The client enjoys greater flexibility in labor cost and plant room space requirement as a result.

2. Direct driven plug fan

Plug fan has become increasingly popular as the fan of choice by consultants, contractors, and end users in recent years. The use of VSD has broadened the application range.

There are several benefits including better acoustic performance. There is no need to use silencer hence the system static pressure drop is reduced and fan motor power is saved. Energy is further saved by eliminating motor horse power loss of belt drives.

The use of plug fan in the AHU eliminates much maintenance for the unit. The plug fan is direct driven and don't have pulley, belt, bearings, and shaft to maintain. There are less moving parts in the fan to generate less wear and tear on the system.



3. EC plug fan

EC (Electronically commutated) Plug Fan has gain popularity in HVAC application due to its energy efficiency, high reliability, and compact design. These fans are more energy efficient as they can achieve higher than IE4 for their motor.

Permanent magnet motors running on high voltage direct current (DC) electricity with built in AC to DC conversion allowing them to run direct from single phase or three phase mains supplies. This means that EC Fans gives you high performance, silent speed control and long life expectancy in a product which is the same size as the old, power hungry AC Fan it replaces. We have made our EC centrifugal fans for air conditioning and ventilation systems even slimmer, even better.

The new EC Fans significantly surpass the minimum efficiency requirements of the Eco-design Directive for fans that comes into effect in 2015 in Europe. The motor efficiency levels for EC motors are significantly above efficiency class IE4.

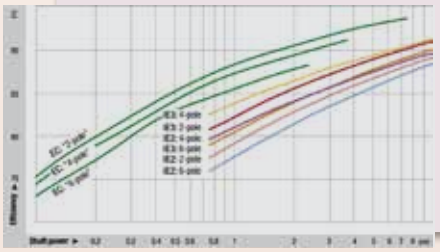
Having successfully integrated an advanced electronics into the motor, the large motors have full programmable networking capability for integration with BMS systems. Constant volume or constant pressure functionality is easily achieved with the connection of one simple sensor. Silent, infinitely adjustable speed control can be as simple as connecting a potentiometer to the motor.

Advantages of EC technology

- Tremendous energy savings of 30 % on average
- Intelligent electronics for numerous control functions
- Easy 1:1 replacement from AC technology to EC technology
- Future-proof and ready for ErP2015
- Hardware and software from a single source

Protective build-in features:

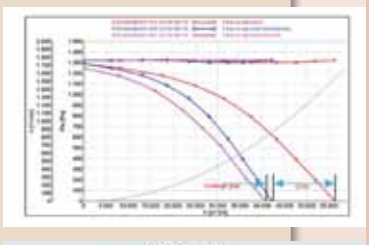
- Alarm relay with zero-potential change-over contacts (250 V AC/2 A, $\cos\varphi = 1$)
- Locked-rotor protection
- Soft start of motors
- Over-temperature protection of electronics and motor
- Phase failure detection
- Mains under-voltage detection
- Short-circuit protection

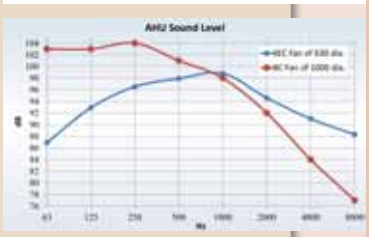


The VSD is integrated into the fan for optimal efficiency. Because the motor and electronics in the system are already perfectly matched, additional electronic filters and shielded cables are unnecessary, as is an external motor protecting switch. There'll be less cost-intensive adjustments before putting in to service and no need for grounding and shielding measures. This would save installation cost as a plug and play system and space saving as there is not compartment needed for those.

4. Multiple-Fan Design on AHU application

The benefits of using Multiple-fan design is quite obvious and can be summarized :-





A. Redundancy

The use of multiple EC plug fan design offers redundancy capability. If one of the fans failed during operation, the other fans can pick up part of the load as emergency to allow facility management to investigate.

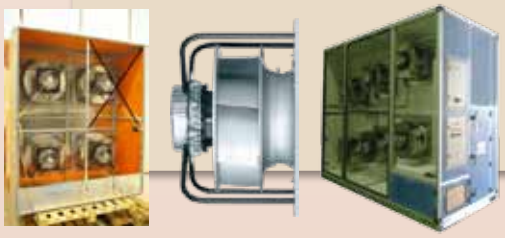
Some user may worry about the leakage when one of the failed. However, according to one of the fan manufacturer, the leakage is not so much; only few percent and depends on static pressure across the fans.

B. Lower in noise

The low frequency noise generated by a large DIDW centrifugal is much larger 6 multiple-fan design. Low frequency noise is always very difficult to treat.

Though the high frequency noise generated by multiple-fan may be higher, high frequency noise can removed easily by small silencer.

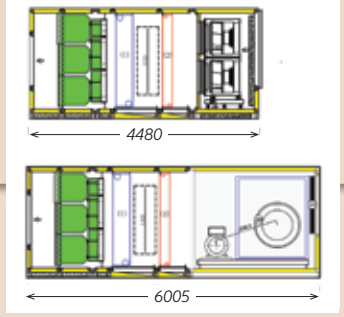
Here is an example:-



C. Shorten the AHU length

By using the multiple-fan design, the length of large airflow AHU can be reduced.

Here is an example:-



Kai Tak Cruise Terminal Building

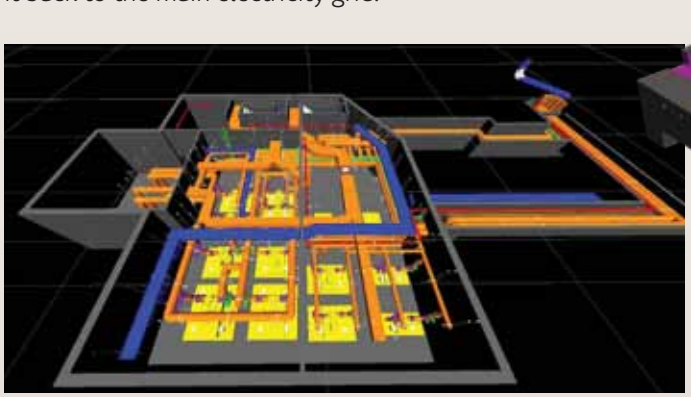
By: Brice Vivies

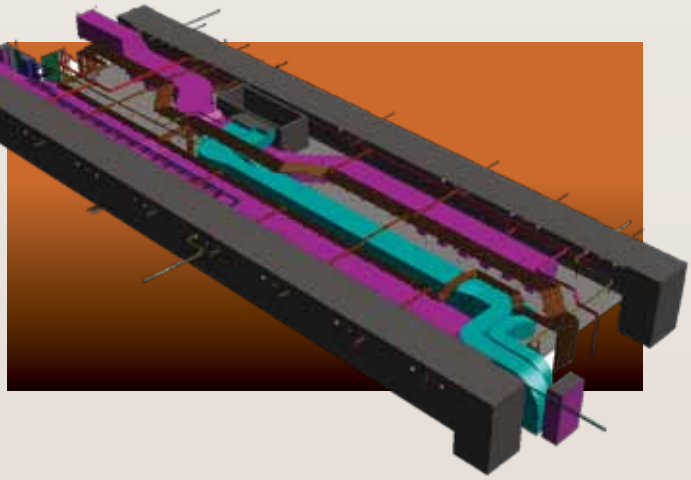
Project Name	**: Design and Build of Kai Tak Cruise Terminal Building and Ancillary Facilities**
Member's Role in the Project	**: Design and Build of all E&M Services**
Completion Year	**: 2013**
Member/Company Name	**: BYME Engineering (HK) Limited**

This project involved the design and construction of the Kai Tak Cruise Terminal Building to accommodate cruise operation facilities including customs, immigration, quarantine and police (CIQP) as well as other supporting facilities such as security screening, baggage handling, ticketing, check-in, passenger waiting and queuing, heliport, public transport interchange, etc. Designed by Foster + Partners and located at the former runway of Kai Tak Airport, the majestic building offers a vision for Hong Kong's future as a water gateway to the city, as well as being a symbol of its dynamic and innovative character. The facility is able to accommodate the world's largest cruise vessels and welcomes visitors by providing them with an enjoyable and inspirational environment.

The Cruise Terminal Building consists of a 3-storey single tower with underground plant rooms and a landscaped roof top, with a total CFA of approximately 176,230 m^2 and a total GFA of 72,140 m^2. The project adopted a sustainable construction approach that extends beyond low energy consumption to the overall long term sustainability performance of the building. The design comprises a series of connective green landscaped decks open to the public from the first level to the roof. The total green area of the site is equivalent to 36% of the total site area, therefore eliminating the heat island effect. The 42-metre wide column-free layout allows for maximum flexibility in the utilization of space, which can be configured in various layouts. Thus, the operation area can be converted into other uses during non-peak season, maximizing the usage of the building.

The main chilled water circulation system utilizes the Kai Tak District Cooling System (DCS) available on the site. Consumer sub-stations cater for the air-conditioning required for Berth 1 and 2 terminal facilities, CIQP accommodations and commercial areas. The project comprised 33 nos. of AHUs, 14 nos. of PAUs and 500 nos. of FCUs. The car park areas on the ground and mezzanine floors are naturally ventilated with wind flows assisted by 500 ceiling mounted extraction jet fans. CO and NO2 sensors have been provided to regulate the operation of the fans and optimize their energy use. The main heating plant for the air-conditioning is provided by water-to-water heat pumps in an energy efficient manner. Solar panels installed on the roof provide hot water for the use in showers in the building as well as pre-heat for the space heating in winter. The building also employs photovoltaic panels to generate zero carbon electricity on site and to export it back to the main electricity grid.





The electrical installation mainly consists of 10 nos. of transformers with a total capacity of 15MVA. In addition, diesel generators with a total capacity of 6MVA have been installed together with 8,200l fuel tanks. The lighting system adopted by the development, using energy efficient light bulbs and lighting sensors extensively, consumes 75% less electricity than the BEAM Plus baseline system.

A 10, 000-point Central Control and Monitoring System and a Building Energy Management System have been provided for the building services installation, together with 600 energy meters for major BS equipment in order to allow separate monitoring of electricity and power consumption. Besides, a Power Quality Monitoring System has also been implemented for the facility.

The fire protection system consists of 25,000 sprinkler heads, 800 drencher nozzles and 3,800 automatic fire alarm devices.

Water efficient devices have been installed to reduce consumption by at least 30% compared to the BEAM Plus baseline, and rainwater and A/C condensate water recycling will assist in reducing the potable water demand for irrigation purposes.

The project has achieved a BEAM Plus Platinum rating and is certified IAQ Excellent Class. In addition, it received a Green Building Award from the Hong Kong Green Building Council in 2012.

The Cruise Terminal Building project was a very fast-track and technically complex project. In order to optimize the space available within the building, the box beams forming the primary structure have been used for the circulation of the main building services, resulting in very congested areas. Building Information Modeling (BIM) technology has been widely utilized by BYME's project team to fine-tune coordination between the design of the structure and the different electrical and mechanical services. BYME also used on-site and off-site prefabrication and modularization extensively in order to shorten construction time, better control quality and relieve site congestion, resulting in enhanced safety.

The iconic Cruise Terminal Building is set to become an attractive destination for both local residents and tourists, consolidating Hong Kong's position as a premier cruise hub in the region and globally.

SOUTHA 南龍集團 GROUP

Certificate No.: CC192 (HKCAS Accredited)
ISO 9001 & ISO 14001:2004
Certificate No.: CC193
OHSAS 18001:2007
Certificate No.: CC373
ISO 50001:2011


Hong Kong Film Archive

North Lantau Hospital


Customs Headquarters


Immigration Tower


Shek Kip Mei Estate


Dr Sun Yat Sen Museum


North Point Government Office


Wah Shun Garden

Specialist Contractor for

- HVAC
- Industrial Refrigeration
- Incinerator and Cremator
- Boiler and Steam Plant
- Plumbing and Drainage
- Electrical Installation
- Cold Store & Ice Rink
- Mechanical Plant
- Commercial Catering
- Environmental Engineering
- Fire Services Installation
- BMS & Security
- Laundry
- Air Treatment
- Automatic Refuse Collection

香港柴灣嘉業街十二號百樂門大廈七樓
7/F Paramount Building, 12 Ka Yip Street, Chai Wan, Hong Kong
Tel: (852) 29637122 Fax: (852) 2963 7101 Email: main@southa.com Website: http://www.southa.com

YORK
BY JOHNSON CONTROLS

A YORK® For Every Need.

Driving innovation for more than 100 years

YORK® Variable Refrigerant Flow (VRF)

Doesn't matter where you are or what you're doing, there is a YORK® VRF air-conditioner to keep you cool. YORK® air-conditioners, with patented VRF technology, offer you smart features for your added comfort.

Energy Efficient

Save power and money with our highly energy efficient VRF units.

Wide Ambient Range

Stay in a comfortable and productive environment even when temperatures hit 52°C or drops to -20°C.

**48°C to 52°C cooling or -15°C to -20°C heating will be running at intervals.

Greater Comfort

Our inverter VRF air-conditioners feature DC inverter compressors, BLDC fan motor with adjustable speeds, anti-vibration and sound-insulation technology, providing you with superior comfort wherever you may be.

Smart Control

Step into the future with our comprehensive suite of control solutions which include: 3 types of touch screen controllers, smart home connection and building automation systems featuring our Metasys® software.

Versatility

From installation to commissioning to product software selection, YORK® YES Series offers unparalleled flexibility.

For more information please contact:

Johnson Controls Hong Kong Limited
12/F, Octa Tower, 8 Lam Chak Street,
Kowloon Bay, Kowloon, Hong Kong
Tel: +852 2590 0012 Fax: +852 2516 5648
www.johnsoncontrols.com

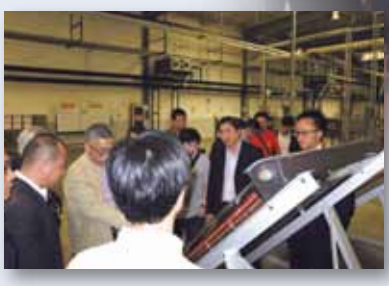
Johnson Controls

中國制冷展2014

轉眼間，中國國際製冷、空調、供暖、通風及食品冷凍加工展覽會已踏入第二十五屆。今年這個城中盛事移施回到北京國際展覽中心舉行，香港空調及冷凍商會已經是第十年組織參觀團前去支持和觀摩，一如過往受到中國制冷學會的熱情歡迎和接待。

參觀團於4月8日上午一行二十三人從香港國際機場出發到北京。這次參觀團陣容非常鼎盛，計有會長佘達志、主席陳志雄、永遠名譽會長連金水、前會長陳家龍、上屆會長葉啟賢、副會長胡志輝、司庫劉自威、理事魯少達及其他會員。

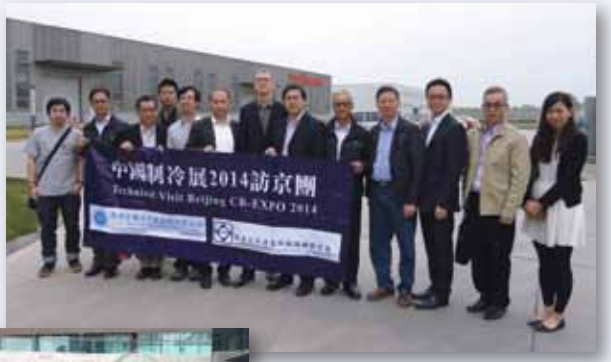
參觀團到達後，於晚上出席了中國製冷展國際組織招待晚宴，一班老朋友及國際友人聚頭，場面非常熱鬧及開心。第二天早上，我們的領導層出席中國製冷展開幕典禮暨主題論壇後，大家各自進場參觀，大隊並逐一探訪香港展商為他們打氣。

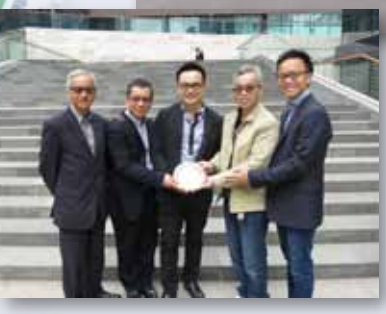


今年，中國製冷學會要求與參觀團代表於午飯後作交流，希望能擴大合作和提供改善意見，大家談了差不多一個小時，氣氛非常融洽。晚上，大家出席了中國製冷展開幕招待會，享受了一頓豐富的自助晚餐。

其後兩天，參觀團參觀了北京航天中心醫院，菲斯曼太陽能集熱器有限公司位於湖北的工廠，北京三里屯太古里。在這裏，很多謝特靈、菲斯曼太陽能集熱器有限公司及太古地產管理有限公司的接待和安排。

大家對整個行程的安排都非常滿意。





Annual Dinner 2013

The 52nd Anniversary Dinner took place on 25th November 2013 at JW Marriott Hotel and it was a huge success. The event brought together our members and professionals across fields of HVAC engineering, building services, government scene and academia.

Mr Ringo Shea, President of ACRA, gave an opening speech to start off the event.

Mr KK Leung, JP, Director of ArchSD of HKSAR, gave an inspiring speech at the event.

Council members gave a toast and wished all good luck and health in 2014!

Mr Leung Koon Kee,JP, Director of Architectural Services Department, as our guest-of-honor was also invited to join the most important event of ACRA in the year. Seated dinner for over 600 guests, highlight of the evening was the wonderful singing performance of Ms Mimi Lo and lucky draw. All the guests had an enjoyable evening.

Ms Mimi Lo's wonderful singing performance was the highlight of the evening.

Can Mr Dave Chan, Chairman of ACRA, tell us who's the prize winner?

What a great dancing performance by ACRA leadership team! From left to right: Mr Antonio Chan – Vice President, Mr KY Ip – Immediate Past President, Ms Mimi Lo, Mr Ringo Shea – President, Mr Dave Chan - Chairman

「機電夢飛翔」啓播禮

由機電工程署與香港電台聯合製作之「機電夢飛翔」，此乃是一系列單元劇集，配合訪問帶出各電子機械工程在日常生活中的作用，同時表達出一群相關技術人員在專業理性以外的熱誠與夢想。其中一集「愛在海水冷卻時」便是透過劇集主人翁，帶領觀眾認識位於啟德新發展區的「區域供冷系統」這項既規模龐大，又設計複雜的暖通空調工程。在此感謝相關會員公司提供協助，讓拍攝順利完成。而在今年1月17日，ACRA會長及一眾會員亦有出席啓播禮，分享拍攝成果。

Spring Dinner 2014

As the kick-off event for the year of Horse, ACRA Spring Dinner was held successfully on 21st February 2014. Thanks to the support of all members and key players in the industry, we were happy to have more than 200 guests joining this event. The dinner was filled with fun, laughter and fine wine. Hope to see you all again next year!

機電業博覽2014

「機電業博覽－人才大招募」於2014年2月28日至3月1日在職業訓練局葵涌大樓舉行，一站式提供有關機電工程職位空缺、進修和培訓途徑、就業前景和晉升機會等最新資訊。作為暖通空調行業的一分子，ACRA亦設有展覽攤位，向年青人介紹更多有關我們行業的資訊，為他們升學或就業選擇提供參考。

機電工程署署長陳帆先生蒞臨參觀 ACRA的展覽攤位

Revision Course of Training for Workers in Handling HFC & Blend Type Refrigerants for Architectural Services Department Contracts

In March, ACRA organized a training course to registered workers who successfully completed the courses previously held for workers for handling HFC and blend type refrigerants for ArchSD projects. In this revision course, an update on current refrigerant development and refreshment on training materials were conducted. We received overwhelming response and had 76 technicians attended.

Badminton Tournament 2014 (IES Cup)

'The ACRA Badminton Tournament, 2014 - IES Cup rounded off on 12th April 2014 at Club House of PARC PALAIS 君頤峰會所, result as below.

盃組賽

Champion : Tinwood Pacific Limited
1st Runner-up : Young's Engineering Company Limited
2nd Runner-up : Kembla (HK) Limited

碟組賽

Champion : Honeywell Limited
1st Runner-up : Southa Company Limited
2nd Runner-up : Jardine Engineering Corporation Ltd.

碗組賽

Champion : Winston Air Conditioning & Engineering (HK) Co., Ltd.
1st Runner-up : Shinryo (Hong Kong) Limited
2nd Runner-up : IES (Hong Kong) Limited

香港空調及冷凍商會有限公司
商界展關懷的發展

商界展關懷 caringcompany 2010-14
Awarded by The Hong Kong Council of Social Service 香港社會服務聯會頒發

香港空調及冷凍商會一直以來參與社會服務不遺餘力，本會於2010年3月獲香港社會服務聯會頒發“商界展關懷”的企業社會責任標誌，這是對本會的成員在參與有關慈善活動的認同。同時，本會亦致力推動各會員積極參與社區服務，藉參與多項慈善活動，多個會員亦獲得開心社區服務提名，成功成為“商界展關懷”企業的一員，其中包括：偉基空調有限公司、高雅機電工程有限公司、福隆（香港）有限公司、彬記（國際）有限公司及南龍機電工程有限公司，一同以實際行動積極回饋社會。會員公司除了慷慨捐款外，還積極招募公司員工支持參與各項活動。

在過去一年，本會曾聯同開心社區服務和多個會員公司籌辦多項社區服務活動，其中包括：在2013年7月舉行的“挪亞方舟一天遊”，商會及會員公司合共派出23名義工為12歲以下來自低收入家庭的兒童提供親子聯繫機會及於假期出外活動，帶給他們一個難忘的周日。

此外，在2013年10月亦參與協助關懷社區行動2013—“粒粒開心贈街坊”的派米行動，該活動是為長者及基層家庭提供協助。當日商會總共有107名義工，到訪150個家庭，長者除了獲贈絲苗白米之外，亦獲得義工的一份關懷，大家閒話家常，分享生活點滴。

另外，於2013年12月在德田商場彩明酒樓舉行的“耆英萬歲晚宴”，當晚共筵開28席，長者出席人數多達330名，商會共派出義工超過80名，創下最多出席活動人數。當晚的節目相當精彩，包括粵曲表演和遊戲。最後壓軸抽獎的活動令在坐的長者十分興奮，氣氛非常熾熱。

我們將繼續貫徹關愛理念，致力將社會及環境的長遠利益納入營運決策中，締造更和諧、美好的社會環境。展望未來，本會繼續與開心社區攜手合辦及資助不同類型的公益及義工活動，協助更多會員公司成為「商界展關懷」企業。我們深信履行企業社會責任不單能惠澤社群，亦能建立正面的公司形象，為社區和公司帶來雙贏的局面。我們作為良好企業公民，多年來一直實踐出「商界展關懷」的各項評審準則，包括鼓勵義務工作、關心員工家庭、推動環境保護及樂於捐助社群等。

Joyful Dinner
耆英萬歲晚宴

Mr Raymond Synn, Chairman of ACRA Caring Committee, presented the gift to the elderlies.

Jointly organized by ACRA Caring Committee and Open Door Ministries (開心社區服務中心), the Joyful Dinner was successfully held on 8th December 2013. Over 80 volunteers from the 2 organizations attended the dinner to celebrate Winter Solstice Festival with 330 elderlies in Lam Tin. Other than great food, the volunteers also arranged a few entertainment performances for love and fun. Mr Ringo Shea, President of ACRA, said 'This is the fourth consecutive year we join hands with Open Door Ministry to help and serve. ACRA assure the continuous support in the future as a way of contribution to the community.' Special thanks again to our members who sponsored the dinner and exquisite gifts.

Wow! Professional Chinese Opera performance by the volunteers.

Smiles and laughter are the best reward to us.

Member List

	Company Name		Contact Number	Website / Email	Trade			
					Contracting	Manufacturing	Servicing	Supplier
ACRA Fellow Members	ATAL Engineering Limited	安樂工程有限公司	2565 3399	www.atal.com.hk	●		●	●
	Carrier Hong Kong Limited	開利 (香港) 有限公司	2694 5618	www.carrier.com.hk				●
	Krueger Engineering (Asia) Limited	高雅機電工程有限公司	2860 7333	www.krueger.com.hk	●			
	Newland Engineering Limited	新陸工程有限公司	2967 8620	moshiu@newland.com.hk	●			
	REC Engineering Company Limited	盈電工程有限公司	2619 8888	www.yaulee.com	●			
	Shinryo (Hong Kong) Limited	新菱工程香港有限公司	2237 8624	victorcheung@shinryo.com.hk	●			
	Shun Hing Engineering Contracting Company Limited	信興機電工程有限公司	2419 8282	www.shecon.com	●			
	The Jardine Engineering Corporation Limited	怡和機器有限公司	2807 4511	www.jec.com	●		●	●
	Trane Hong Kong	特靈香港	3128 4756	www.tranehk.com				●
	Winston Air Conditioning & Engineering (Hong Kong) Company Limited	永通冷氣工程 (香港) 有限公司	2764 1200	winhk@winston-hk.com	●		●	
	York International (Northern Asia) Limited	約克國際 (北亞) 有限公司	2590 0012	www.johnsoncontrols.com	●	●	●	●
	Young's Engineering Company Limited	景福工程有限公司	2235 0900	www.youngs.com.hk	●			
ACRA Corporate Members	Alliance Contracting Company Limited	聯和承造有限公司	2891 9083	enquiry@alcc.com.hk	●			
	Analogue Technical Agencies Limited	安樂科技有限公司	2565 3399	www.atalbs.com.hk				●
	Bun Kee (International) Limited	彬記 (國際) 有限公司	2748 9319	hvac@bunkeeintl.com.hk				●
	BYME Engineering (Hong Kong) Limited	嘉福機電工程有限公司	2881 6690	www.bymehk.com	●		●	
	Chevalier (Hong Kong) Limited - A/C Division	其士 (香港) 有限公司 - 冷氣部	2111 4811	aircondi@chevalier.com	●			
	China State Mechanical & Electrical Engineering Limited	中國建築機電工程有限公司	2823 7888	applelau@cohl.com	●			
	Chun Wo E & M Engineering Limited	俊和機電工程有限公司	3758 8007	bs@chunwo.com	●			
	Cold Magic Efatar (Hong Kong) Company Limited	高美怡輝 (香港) 有限公司	2606 6922	www.coldmagicefatar.com.hk		●		
	Daikin Airconditioning (Hong Kong) Limited	大金冷氣 (香港) 有限公司	2570 2786	miky@daikin.com.hk				●
	Efatar Environmental Protection Equipment Limited	怡輝環保器材工程有限公司	2606 6922	efatar@efatar.com.hk		●		
	Fook Loong (HK) Limited	福隆 (香港) 有限公司	2393 7773	www.flhk.com.hk				●
	Gammon E&M Limited	金門機電工程有限公司	2516 8823	www.gammonconstruction.com	●			
	Honeywell Limited	霍尼韋爾 (香港) 有限公司	2331 9133	www.honeywell.com			●	●
	Hsin Chong Aster Building Services Limited	新昌亞仕達屋宇設備有限公司	2579 8238	josephfung@hcg.com.hk	●			
	Johnson Controls Hong Kong Limited	江森自控香港有限公司	2590 0012	www.johnsoncontrols.com	●	●	●	●
	K-Thorn Engineering Company Limited	旗鋒工程有限公司	2481 2918	main@k-thorn.com.hk	●			
	Lik Kai Engineering Company Limited	力佳工程有限公司	2611 4501	ericyung@likkai.com.hk	●			
	Lucky Engineering Company Limited	運通冷氣電業有限公司	2780 5285	general@luckyeng.com.hk	●			
	McQuay Air-Conditioning Limited	麥克維爾空調有限公司	2893 6261	custdept@mcquay.com.hk				●
	Meco Engineering Limited	德寶工程有限公司	2891 8722	wg_chu@meco-group.com	●			
	Quad-Tech Engineering (Hong Kong) Company Limited	高得工程有限公司	2573 1832	quadtech@hkstar.com	●			
	Raising Engineering Limited	威信工程有限公司	2395 6081	raising@netvigator.com	●			●
	Ryowo (Holding) Limited	菱和 (集團) 有限公司	2391 8381	ryinfo@ryowo.com		●		
	Siemens Limited	西門子有限公司	2107 6506	andy.wong@siemens.com				●
	Skyforce Engineering Limited	天科工程有限公司	2885 1620	info@skyforce.com.hk	●			
	Southa Company Limited	南龍有限公司	2963 7175	www.southa.com				●
	Standard Refrigeration & Engineering Company Limited	立德工程有限公司	2781 0871	SRE@hklpg.com.hk	●		●	●
	Takasago Thermal Engineering (Hong Kong) Co., Ltd.	高砂熱學工業 (香港) 有限公司	2520 2403	sales@takasago.com.hk	●		●	
	Technicon Engineering Limited	得力確工程有限公司	3193 1300	technic@technicon.com.hk	●			
	Welcome Oncho Denki Limited	偉基溫調電機有限公司	2806 8316	www.welcomegroup.com.hk		●		●
	Westco Air Conditioning Limited	威高冷氣工程有限公司	2426 3123	mandylo@scee.com.hk	●			
ACRA Associate Members	A & R Engineering Company Limited	奇樂工程有限公司	2408 2960	arengco@netvigator.com	●			
	AGILE 8 Consulting Limited		2185 7679	kevin.moore@coolnomix.com		●	●	
	Air Master International Limited	雅士 (國際) 空調有限公司	2764 0307	winston@airmaster.com.hk		●		
	Air Trade Centre Limited	裕風先達有限公司	2887 7000	anthony@atc.hk	●			●
	Alison M & E Engineering Limited	雅訊機電工程有限公司	2595 1199	contacts@alison.com.hk	●			
	Alpha Appliances Limited	第一電業有限公司	2529 7555	hkwat@alpha-general.com				●
	Alstern Technologies (Hong Kong) Limited	奧思 (香港) 有限公司	2647 8163	www.alstern-technologies.com	●			
	Anway Engineering Company Limited	正隹工程有限公司	2598 4228	www.anway.com.hk				●
	Armacell Asia Limited	阿樂斯亞洲有限公司	2574 8376	sam.s.yeung@armacell.com		●		
	Arnhold Trading Limited		2807 9400	patricklai@arnhold.com.hk				●
	A Shing Engineering Company Limited	亞成冷氣工程有限公司	2537 1818	wilkiengan@ashing.com.hk	●			●
	BELIMO Actuators Ltd.	搏力謀執行器有限公司	2687 1716	www.belimo.com		●		
	Biocline Healthcare Services Ltd.	新康醫療器材工程有限公司	2672 1111	bio@biocline.com	●			●
	BioZone Scientific International Ltd.	陽光環科國際有限公司	2372 0218	www.biozonescientific.hk		●		●
	Bitzer Refrigeration Asia Limited	比澤爾制冷亞洲區有限公司	2868 0206	www.bitzer.de				●
	Boca International Limited	寶加國際有限公司	3176 6028	dr.richardchan@gmail.com		●		●
	Brisky Limited	穿梭科技有限公司	2511 3161	tkwan@briskyltd.com				●
	CDBM Engineering Consultant Company Limited	新雄力工程顧問有限公司	2598 1088	mail@cdbm.asia	●			
	Charming Leader Building Material Limited	創利民建材有限公司	2110 3966	warrenyu@charmingleader.com				●
	Chi Yip Engineering Company	志業工程公司	3078 9984	canny@acmv-cy.com	●			●
	Chit Tat Electrical Engineering Limited	捷達機電工程有限公司	2499 0688	chittat@yahoo.com.hk		●	●	
	Chong Kin Air-Condition Trading Engineering Co., Ltd.	創建冷氣貿易工程有限公司	2307 5159	www.chongkinaircon.biz.com.hk	●			●
	C.J. Wishing International Limited	惠生電業有限公司	2799 9797	cjwish@cjwish.com.hk				●
	Clydeman Engineering Limited	佳電工程有限公司	2332 3591	daniel@clydeman.com	●		●	●
	Crowntin Limited	冠殿有限公司	8202 0830	clchoy@crowntingrp.com.hk	●			●
	Dah Chong Hong (Engineering) Limited	大昌貿易行工程有限公司	2768 3595	www.dch.com.hk	●			
	Delta Pyramax Company Limited	佳澤科技有限公司	2511 2118	www.dds.hk				●
	Dextra Pacific Limited	德士達太平洋有限公司	2511 8236	www.dextragroup.com				●
	Dynamic Success Company Limited	勁技有限公司	2116 9021	amok@dsuccess.com.hk				●
	Earth Products China Limited	歐美大地儀器設備中國有限公司	2665 4848	www.epc.com.hk				●
	Eaxon International Company Limited	恩索有限公司	3590 4656	gamescheung@eaxon-group.com				●
	ebm-papst Hong Kong Limited	依必安派特香港有限公司	2145 8678	info@hk.ebmpapst.com		●		●
	Electrodrive Engineering Limited	高宜工程設備有限公司	2573 7211	info@electrodrive-eng.com				●
	Enviro-Tech Engineering Company Limited	鷹達工程有限公司	2827 0688	steveli@envirotech.com.hk				●
	Ever Cool Refrigerating & Air-Conditioning Co., Ltd.	嘉毅冷凍空調設備有限公司	2356 8598	info@evercoolhk.com		●		●

Member List

ACRA Associate Members

Company Name		Contact Number	Website / Email	Trade
Evergreen Environmental Technology Company Limited	冬青環保科技有限公司	2562 3331	www.evergreen-environmental.com	Supplier
Extensive Trading Company Limited	精基貿易有限公司	2889 1681	med@extensive.com.hk	Supplier
Far East Engineering Services Limited	遠東工程服務有限公司	2898 7331	fareast@fareast.com.hk	Contracting
Fungs E & M Engineering Company Limited	馮氏機電工程有限公司	2682 7200	fungscww@netvigator.com	Contracting
Gate Way Valve & Fitting Limited	基法水管配件有限公司	2688 2666	www.gatewayv.com.hk	Supplier
GTECH Services (Hong Kong) Limited	英國通用工程 (香港) 有限公司	2123 0888	admin@gecs.com.hk	Contracting
GELEC (HK) Limited	香港通用電器有限公司	2919 8383	hq@gelec.com.hk	Supplier
Gether-Force Air-Conditioning Engineering Co., Ltd.	群力冷氣工程有限公司	2890 2622	geforce@hknet.com	Contracting
Getwick Engineers Limited	佳域工程有限公司	2893 3600	getwick@getwick.com	Contracting
Gotop Engineering (HK) Limited	高陞工程 (香港) 有限公司	2459 3038	gotopco@yahoo.com.hk	Contracting
Great Top Engineering Limited	宏鋒工程有限公司	2345 2219	general@greattop.com.hk	Contracting
Hensen System Engineering Limited	豪信系統工程有限公司	2884 9001	cecil@hensen.com.hk	Supplier
Hilti (HK) Limited	喜利得 (香港) 有限公司	2773 4705	www.hilti.com.hk	Manufacturing
Honest Air Conditioning Limited	明發冷氣有限公司	2396 8108	aircond@netvigator.com	Contracting, Supplier
H.W. International Air-Conditioning Limited	豪華國際空調有限公司	2796 8888	info@hooair.com	Manufacturing
IES (Hong Kong) Limited	恒豐工程 (香港) 有限公司	2992 0830	weston@ieshk.com.hk	Supplier
Intelligent Technologies Limited	毅智科技發展有限公司	2301 4868	info@intelligent-net.com	Supplier
J & J Network Engineering Company Limited	信卓網絡工程有限公司	3579 5263	daniel@jjnetwork.com.hk	Supplier
Jinchat Engineering (HK) Company Limited	正卓工程 (香港) 有限公司	2687 1755	jyin@jinchat.com	Supplier
Keio Engineering Company Limited	京王工程有限公司	2695 8872	info@keio.com.hk	Contracting
Kembla (Hong Kong) Limited	金特霸 (香港) 有限公司	2528 0999	www.kembla.com.hk	Supplier
Kieback&Peter Hong Kong Limited	德國科特貝德 (香港) 有限公司	2372 9901	info@kieback-peter.hk	Supplier
Kin Wo A/C Engineering Limited	健和冷氣工程有限公司	2398 0157	kw@kinwo.com.hk	Contracting
Kinetics Noise Control (Asia) Limited	建力聲震控制 (亞洲) 有限公司	2191 2488	www.kineticsnoise.com	Supplier
Kings View Airconditioning Engineering Co., Ltd.	景匯空調工程維修有限公司	2796 2417	admin@kingsview.com.hk	Contracting
Laser Resources (Asia) Company Limited	全美 (亞洲) 有限公司	2516 7500	laasiahh@netvigator.com	Manufacturing, Supplier
LeBlanc Water Treatment & Chemicals Limited	利邦化工水處理有限公司	2408 2000	www.leblanc.com.hk	Servicing
Lee Tack Engineering Company Limited	李德工程有限公司	2305 3111	ltec@leetack.com.hk	Contracting
Legend Engineering Company Limited	卓越聲控工程有限公司	2815 0928	info@legendjt.com.hk	Contracting, Manufacturing, Supplier
Life Air IAQ Limited	活力空氣品質科技有限公司	3527 0106	winston@lifeairiaq.com	Manufacturing, Supplier
Link The Best Company Limited	必發 (香港) 有限公司	2568 4092	sales@linkthebest.com.hk	Supplier
Mason Industries (HK) Limited	梅森實業有限公司	2967 9639	www.mason-hk.com	Supplier
Mesan Fiberglass Engineering (International) Limited	明新玻璃纖維工程 (國際) 有限公司	2787 5717	www.mesanct.com	Manufacturing
Midea Electric (Hong Kong) Limited	美的電器(香港)有限公司	3669 4888	www.mideahk.com	Manufacturing, Supplier
Mitsubishi Electric Ryoden Air-Conditioning & Visual Information Systems (Hong Kong) Limited	三菱電機菱電空調.影像設備 (香港) 有限公司	2510 1505	www.mitsubishi-ryoden.com.hk	Supplier
NAP Acoustics (Far East) Limited	NAP 聲學工程 (遠東) 有限公司	2866 2886	www.napacoustics.com.hk	Contracting, Supplier
New Way Engineering Company Limited	新法機械有限公司	2325 6892	www.newway.com.hk	Supplier
Oxprime (International) Limited	鑫輝 (國際) 有限公司	2590 8088	info@oxprime.com	Supplier
Pacific Sense Enterprises Limited	栢昇企業有限公司	3549 5372	info@pacificsense.com.hk	Contracting, Supplier
Peterson Engineering Limited	必德信工程有限公司	2365 0372	stso@peterson.com.hk	Contracting
Powers Technical Services Limited	寶華技術服務有限公司	2770 2110	powers.pts@gmail.com	Contracting
Practical Engineering (Hong Kong) Company Limited	百利高工程 (香港) 有限公司	2402 2772	practical@practical.hk	Contracting, Supplier
Pyrofoe Engineers Limited	衛安工程有限公司	2388 8038	public@pyrofoe.com.hk	Contracting
Ready Electrical Metal Work Limited	全達電器金屬製品有限公司	2898 8623	kw_leung@ready-group.com	Contracting, Manufacturing
REC Green Technologies Company Limited	盈電環保科技有限公司	2619 8817	rgt@rec-eng.com	Servicing, Supplier
Regin Controls Hong Kong Limited	瑞晶溫控香港有限公司	2407 0281	henric.fong@regin.se	Supplier
Richmax Air-Conditioning Company Limited	萬聯空調有限公司	2698 3423	richmaxltd@imsbiznetvigator.com	Supplier
Sanby Trading Company Limited	聖備貿易有限公司	2573 4219	sanby@netvigator.com	Supplier
Savills Engineering Limited	第一太平戴維斯設備工程有限公司	2534 1688	pwong@savills.com.hk	Contracting, Servicing
Shun Hing E & M Engineering Limited	順興機電工程有限公司	2387 2882	project@shunhingeng.com	Contracting, Supplier
Sing Kin Limited	陞建有限公司	2333 1518	singkin@gmail.com	Contracting
Smartech HVAC & Engineering Limited	智能空調工程有限公司	2521 9768	info@smartech-hvac.com.hk	Supplier
Stars (Hong Kong) A/C & R Company Limited	恆星 (香港) 冷熱設備有限公司	6116 7832	stanley_yuen@hstars.com.cn	Manufacturing
Southa Engineering Limited	南龍工程有限公司	2963 7241	www.southa.com	Contracting
Super Mark (H.K.) Engineering Company Limited	高達 (香港) 工程有限公司	2595 1122	www.supermark.com.hk	Contracting, Supplier
Superpower Pumping Engineering Company Limited	力霸水泵機電工程有限公司	2745 3562	www.sppump.com	Supplier
Sustainable Energy Limited	恆澤節能有限公司	2332 3077	www.sustaine.com.hk	Manufacturing, Servicing
Target Energy Solutions Limited	達標能源管理有限公司	2155 9882	www.targetensol.com	Servicing
Teembase Development Limited	天基發展有限公司	2554 6263	info@teembase.com	Supplier
Thermtech Building Products Limited	泛達建築材料有限公司	2756 3837	thermbpl@netvigator.com	Contracting, Supplier
Tinwood Pacific Limited	天匯太平洋有限公司	6325 1197	www.sinro.com	Manufacturing
Tom's Equipment Company Limited	義隆設備有限公司	2757 5539	tom@toms-equipment.com	Supplier
TROX Hong Kong Limited	妥思香港有限公司	2861 2261	www.troxapo.com	Supplier
United Controls Limited	統一儀器有限公司	2556 1001	www.ucl668.com	Servicing, Supplier
United Regent International Limited	友益國際有限公司	2527 8003	unitedregent@unitedregent.com	Manufacturing, Supplier
Union Manor Limited	聯明有限公司	2797 2168	www.luenming.com	Contracting
Victory Engineering Service Company Limited	維陞工程有限公司	2979 4068	pamela@ves.hk	Supplier
Viewco Building Services & Engineering Company Limited	偉保工程有限公司	2543 0610	engineering@viewco.com.hk	Contracting
Wai Luen Air Conditioning Limited	偉聯空調設備有限公司	2890 9321	garychan@wailuenhk.com	Contracting
Wardson Engineering Limited	華順工程有限公司	2329 8268	wsengltd@yahoo.com.hk	Contracting
Wing Shing Air-Flow Company Limited	永盛風咀製品廠有限公司	2792 6331	contact@wingshing-hvac.com	Manufacturing, Supplier
Wolter Asia Limited	華德亞洲有限公司	2456 0198	info@wolter.com.hk	Manufacturing, Supplier
Wysermann Company Limited	威士文有限公司	2614 2213	wysermann@wysermann.com.hk	Manufacturing, Supplier
Yin On Trading Limited	賢安建材貿易有限公司	2572 7110	office@yinon.com.hk	Supplier
Yordland Engineering Limited	日島工程有限公司	2362 2186	info@yordland.com	Contracting, Supplier
York Choi Industrial Limited	旭彩實業有限公司	2795 8286	www.yorkchoi.com	Manufacturing, Supplier
Zion Engineering Limited	錫安工程有限公司	3481 6007	kennycmwong@gmail.com	Contracting, Supplier