香港空調及冷凍商會有限公司 ACRA Newsletter Summer 06
THE HONG KONG AIR CONDITIONING AND REFRIGERATION ASSOCIATION LIMITED

MESSAGE FROM THE PRESIDENT

Mr. K. L. Chan
President

Time flies quickly. The term of the current Council will be ended shortly. The next Annual General Meeting (AGM) of the Association will be held in June this year and new Council will be elected and formed. It is my honor to have the opportunity to lead the Council and serve the Association for the past two years. It was an unforgettable experience. Through different activities, seminars and liaison meetings, I knew many new friends and learnt a lot of new knowledge. The most valuables are the friendship and team spirit in the Council. I would like to thank all Council Members for their support to me and tremendous efforts in contributing to the development of the air conditioning and refrigeration industry. In addition, there are also many Sub-Committee Members and helpers to support the Council without considering any rewards. I was impressed by all of them deeply and would also express my whole heartedly appreciation to them too.

As the President of the Association, I am proud of seeing the growth of representation and recognition of the Association in the air conditioning and refrigeration industry. From the old days of an Association for social gatherings only to a local representative of the HVAC industry, there is big change in the roles of the Association. This was the effort of the past Councils and Presidents. I hope the new Council under the leadership of the new President will continue to strive for the best benefits of our industry. Last but not least, I would like to encourage all our Members to join our upcoming AGM and to vote for the new Council Members for yourselves.

Look forward to seeing you at the AGM in June.

Best regards to all of you。

K. L. Chan
President

NEW TECHNOLOGY

"Innovative Chiller Control System at Festival Walk, Kowloon Tong"

The Commercial Complex

Festival Walk is a world-class design of a large commercial complex building in Kowloon, Hong Kong. The total floor area is 1,213,518 sq.ft. The building was completed in 1998.

External view of Festival Walk

The designed cooling load capacity of the building is 6,400 TR. Air cooled condensers were used for heat rejection in the original design but were converted to a more energy efficient water cooled system in 2003. Fan coil system is used for the shops and offices while air handling units are used for the public circulation areas. Like other tropical areas, heating is not necessary in winter.

The Chiller Plant

The chiller plant is a decouple bypass system with a total capacity of 6,400 TR. It consists of five 1,600 TR high-voltage (HV) centrifugal chillers (one for standby) and one 400 TR chiller for night duty.

The original control logic for bringing in additional chiller was determined by:

1. deficit flow exceeding 25% of a 1,600 TR chiller capacity and
2. chillers running at over 95% full load capacity and
3. riser temperature exceeding 8.5°C or 10°C

Rm. 1801, Tung Wai Commercial Bldg., 109-111 Gloucester Road, Wanchai, Hong Kong. Fax:(852)2519 0298 E-mail:info@acra.org.hk Web Site: www.acra.org.hk

Problems of Original Chiller Control Logic

1. Phenomenon observed
   a. temperature built up at chilled water supply risers at times when there was a high flow demand (but not load demand) due to mixing of return water from bypass pipe with primary chilled water;
   b. when riser supply temperature exceeded the 10°C threshold, an additional chiller would be switched on even when it was not a real cooling load demand;
   c. hunting of chillers due to insufficient loadings;
   d. chillers on average, running at relatively low percentage loadings;
   e. relatively low chiller entering temperature.

2. Causes for the problem

   It was believed that the problem was due to mismatch of the demand in chilled water flow and cooling load at different situations. A lot of decouple bypass systems do in various degree, have similar problems.

   There were a number of causes contributing to the problem, but the major causes were:
   a. a relatively large difference between the installed capacity of AHUs/FCUs and the actual space loading;
   b. thermostats were set to a very low temperature by the tenants hence keeping the valves fully open at all times;
   c. capacity of each chiller was relatively large.

3. Effect of the problems on plant efficiency

   The problem caused reductions in plant efficiency as a result of:
   a. a lower average return chilled water temperature and hence lower evaporator temperature;
   b. on average, chillers running at lower percentage loadings;
   c. hunting of chillers.

The New Chiller Control Logic

To minimize the mismatch of cooling load demand and chilled water flow demand after understanding the causes, a new control strategy is developed through a year-round action research. This includes the monitoring of data from the building management system and measurement and verification of findings. It involves the change from a flow demand orientated logic with riser temperature override to a multi criterion one. The new strategy in the chiller plant control under this 'save' mode is summarized as follows:

1. When the deficit flow exceeds the preset limit, only an additional chilled water pump is switched on to satisfy the flow demand.
2. Additional chiller is switched on only when a true load is confirmed by the following criteria:
   i. percentage full load ampere of the running chillers, and
   ii. average leaving chilled water temperature from the chiller, and
   iii. amount of deficit flow at the by-pass, and
   iv. actual building load, and
   v. running average of the building load

The saving of energy consumption is obtained by achieving a better coefficient of performance (COP) by operating the chillers at near full load condition. The energy saving due to the difference in kW/TR between 'save' mode and 'normal' mode operations was verified by a measurement and verification plan. The plan makes reference to the M&V Guidelines for Federal Energy Project - Version 2.2.

Measurement and Verification Plan for the New Chiller Control Strategy

The objectives of the measurement plan are:

1. to determine the frequency of the plant operating at 'save' mode;
2. to verify that the efficiency of the chillers is higher when running at higher loadings under various condensing temperatures;
3. to estimate the savings per year;
4. to determine the increase in average percentage loading of operating chillers;
5. to verify the effects of overall heat transfer performance of evaporators with increased chilled water flow rate.

Operating data was taken at 30 minutes interval by the building management system over a 12-month period.

Results and Findings

From the analysis of the data, the following results were observed:

1. The plant was running at 'save' mode for about 14.5% of the time during the 12-month testing period.
2. The part load performance of the chillers was in line with our expectation that the kW/TR drops with the increase in percentage loading.
3. The energy reduction within the period from Jun 2003 to May 2004 was 435,000 kWh
4. There was a significant shift of the mean percentage part load to the right side of the curve indicating an increase in average part load.
5. There was a slight increase in overall heat transfer coefficient of the evaporators at 'save' mode due to increased chilled water flow rate.

Conclusion

The initiative has proved to be a practical and cost effective method to resolve some of the common problems encountered in decouple bypass systems.

This changing of the control strategy resulted in lowering the energy consumption of 435,000 kWh per year and reducing significantly the frequency of chiller hunting.

The reduction of energy also resulted in a corresponding reduction of CO_2 emission of 261,000 kg per year.

This project also demonstrated the potential improvements that can be achieved through action researches carried out in existing plants. This can be done by better understanding of the plant through data analysis, reviewing of control strategy, resetting of various operating parameters such as chilled water supply temperatures, system pressures, etc.

It is hoped that more studies can be carried out by plant engineers and the experience and knowledge can be shared among the industry.

Information provided by Mr. Cary W.H.Chan, Swire Properties Management Ltd.

Remarks:

It is a simplified version due to the limited space in this newsletter. For full version, please refer to the technical paper: 'Innovative Chiller Control System at Festival Walk, Hong Kong'.

PEOPLE **INTERVIEW**

香港冷凍工程行業的從業員，大多數以男性為主。以往的專訪也全是男性受訪者，今次的專訪一反傳統，受訪者是一位女性 — 梅麗英小姐(Polly Mui)。

任職機電工程行業二十多年的Polly在冷凍商會服務已超過六年多，在她眼中冷凍工程行業或機電工程行業在這些時間轉變很大，且聽她一一細數。

第一次接觸機電工程行業在1985年，而第一個工程項目便是香港匯豐銀行總行，回想起來已是二十年前的事了。

記得當時匯豐的造價驚人，整個工程項目花費52億港元，單數空調製冷量已是三千多冷噸，合同造價數以億元。我在想香港的工程生意真巨大，動輒都是以億元計算，這門生意應該是可為的。當時英國人已壟斷市場大部份的生意，但由於當時工程生意蓬勃，亦有很多外商來港投資，其中以法國和日本最為強勁，無論大小企業　忙得不可開交，可算是百花齊放了。無論私營或公營的機構都有極多的工程項目發展，在此同時亦引進了不同類型的機電產品，各產品供應商亦因市場的需求而推出各類新型及先進的機電產品。

二十年前做工程是比較辛苦的，因為有很多文件要處理及跟進，而辦公室設備又沒有那麼現代化，所以要用很多人力資源去完成每個工程項目，而工程產品配套選擇也不多，例如空調機組只得約克、開利和特靈這三大牌子，競爭亦沒有現在的那麼激烈。投標程序更見煩複，因沒有電腦，所有計算和記錄都是全人手操作，每次投標要花費很多人力才能完成。

時代的進步，以前做工程只是按客人的要求去完成，但現在已很不一樣，我們的專業令客人刮目相看，一條龍服務尤為重要和優勝，設計水準更臻完美，同行如能在這方面多下苦工，必定有突破性的發展。

從前機電工程行業對香港的女性是很陌生，而且是一門比較沈悶的行業，所以沒有女性入讀這學系。時至今日，女性地位日漸提高，而且工程不再是男性專利時，有更多女性入讀這學系，工程界亦漸見有女工程師、女建築師等等的出現；女性不單只對工程有興趣，而且在各崗位上有別於男性，因為女性較為細心，所以在某些崗位上比男性發揮得更好。我個人認為現在的工程生意不再像以前的呆板，現在要講求美感，而且在闡釋上要加上包裝，令顧客們更有意慾地詢問、購買和使用。交流會和座談會比前更加重要，因為更多資訊性的資料在此交流推出，女性在這方面比較善長，尤以投標的前期工作和準備，在社交層面上亦起著一些化學作用，男女互補，正是行業的大趨勢，各展所長無論對機構或行業都是有利的。

在行業內如能作出良性競爭，改良及發展更多的產品去提升空調的運作效益，刺激需求，便是提升我們的專業，創造更大的生存空間；如節能、環保及室內空氣質素等都極待改善。如我們能善用人才，培養接班人，配合公司和商會在行內對外的策略及發展，團結一致，我深信光輝燦爛的日子很快便會重現，讓我們一同努力吧！

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Hitachi GXG series Centrifugal Chillers

are among the world highest level of efficiency with COP range from 5.6 to 6.1.
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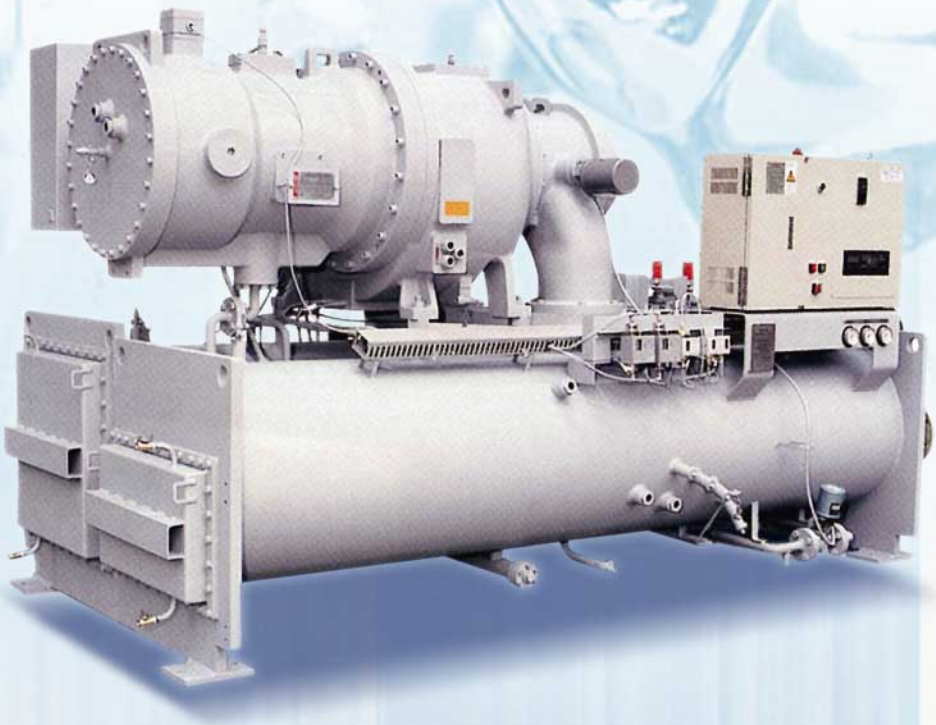
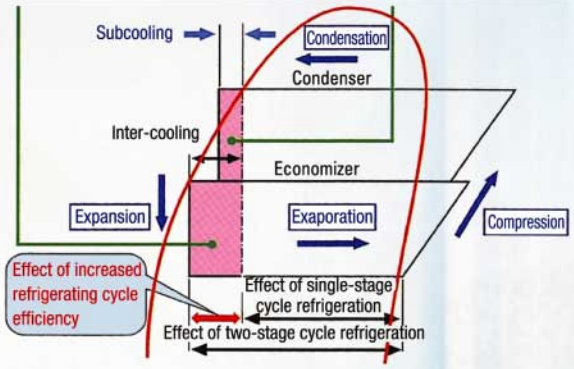
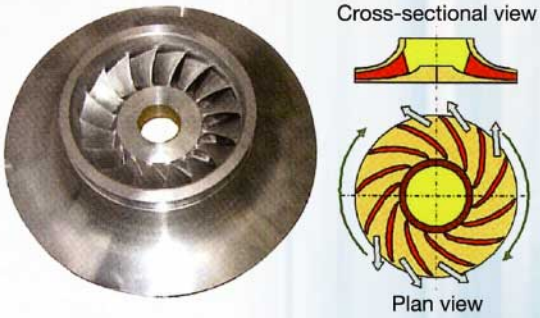


High-efficiency refrigerant cycle



The chillers use R134a refrigerant and employs leading technologies like three-dimensional blade impeller (2 stages), economizer cycle and high performance heat exchanger tubes to improve the efficiency.

High-efficiency compressor



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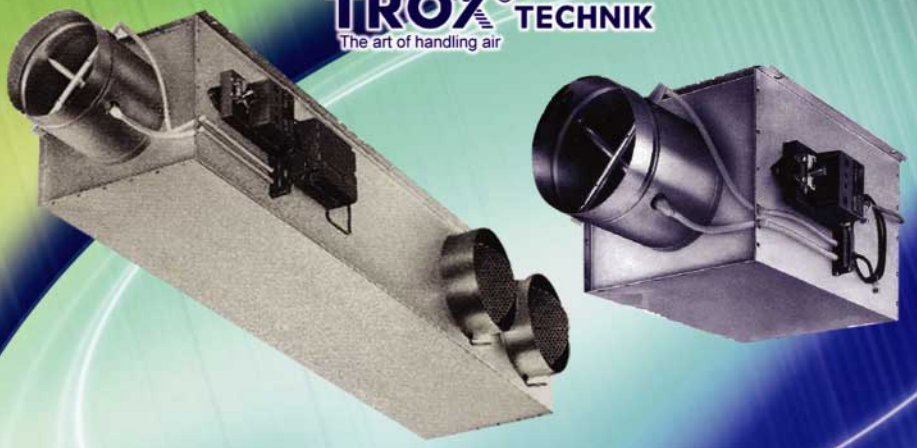

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技術探訪

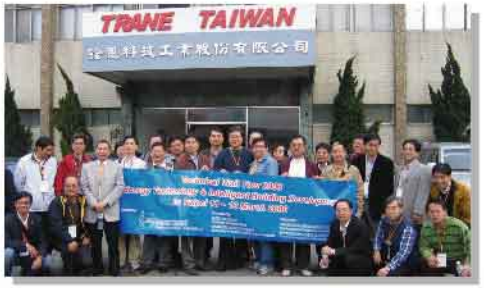
台北之行

二零零六年三月十五日早上，香港國際機場內出現了三十三名來自香港五個機電行業學會及商會的代表，準備出發到台灣台北市進行技術探訪。五個學會及商會包括—香港能源工程師學會(HKAEE)、香港空調及冷凍商會(ACRA)、亞洲智能建築學會(AIIB)、香港註冊通風系統承建商協會(HKRVC)及屋宇設備運行及維修行政人員學會(BSOMES)。整個行程共四天，會在台灣中國工程師學會的協助及安排下，參觀台北市當地關於空調生產，智能大廈及再生能源的應用。

經過一小時的飛行時間，到達台北桃園中正國際機場。在提取行李後，馬上跟當地的導遊聯絡及集合。隨即駕車前往參觀位於桃園的"揚帆興業股份有限公司"，"詮恩科技工業股份有限公司"(特靈)及"復盛股份有限公司"。

"復盛"是主要生產螺杆式壓縮機，"揚帆"及"特靈"是以組裝冷水機組為主。"揚帆"更安排非常豐富的晚宴招待參觀團，大家可以一嚐地道台灣菜。晚飯後入住大會安排的酒店。

第二天早上，早餐過後，馬上前往參觀現時全世界最高大廈—台北金融大樓。大樓樓高508公呎共101層。在89樓設有觀景台，觀光電梯於37秒內，從地下直達89樓，可以俯瞰整個台北市的風景，參觀團除了參觀大樓的不同機電系統，並經過特別安排去到大樓的中央管理系統及冷水機房參觀，可謂大開眼界。不經不覺之間，半天時間已經過去，大家帶著依依不捨的心情，離開101大樓出發到台北縣貢寮台電核四廠繼續參觀。從台北市到貢寮鄉要一個多小時的車程，沿途風景非常美麗，可以看到沿岸的景色及奇石。



經過核電廠的詳細介紹後，大家對核電的製造及應用都有一個基本認識。在核電廠對開的山頭旁邊，還安裝了數台風力發電機組。參觀團那會放過這個大好機會，馬上安排參加者近距離觀賞風力發電機組的樣貌。其實，風力發電機組的維修費用相當昂貴，效能也非常低，但台灣政府還是要大力推動再生能源的應用及普及性，可說是有長遠計劃及用心良苦。

回程時途經九份，大家都爭取時間及機會去品嚐一下九份不同的美食及購買手信。越南菜現時在台灣也相當流行，"特靈"特別安排了一餐豐富的越南菜招待大家，可謂別出心裁。

第三天早上往新竹工業技術研究院出發，參觀工業技術研究院能源與資源研究所的發展及現狀，順道拜訪台北國立交通大學，下午出發到三峽鎮垃圾掩埋場沼氣發電廠參觀。晚上宴請中國工程師學會要員一同共膳。大顆兒還一起到台北市最著名的士林夜市觀光去，品嚐著名的台北地道小食。

第四天早上，大會安排了市內觀光及自由活動，有參加者自行安排高爾夫球活動、購物及其他活動。往機場途中，大會還把握機會到"漢鐘"精機股份有限公司參觀。當大家看到"漢鐘"的自動化生產設備，對台灣的工業都另眼相看。

所有會員都能於指定時間內，到達桃園中正國際機場集合及辦理回港登機手續。參觀團於當晚安全抵達香港，所有行程及安排，都順利完成。

ACTIVITIES

Annual Dinner 2005 - November 28, 2005

Annual Dinner was held on Nov 28, 2005 in JW Marriott Hotel. It was our honor to have Mr. K.K. Kwok, JP Director of Environmental Protection Department, to act as our officiating guest.

First Extensive Pearl River Delta Refrigerating Air-condition Technique Exchange and Equipment Exhibition (Guangzhou) - December 21-23, 2005

Being invited by the Guangdong Province Refrigeration Association, ACRA were glad to be the co-organizer of the First Extensive Pearl River Delta Refrigerating Air-condition Technique Exchange and Equipment Exhibition (Guangzhou). Our President, Mr. K.L. Chan, represented ACRA to join the Opening Ceremony.

Spring Dinner 2006 - February 24, 2006

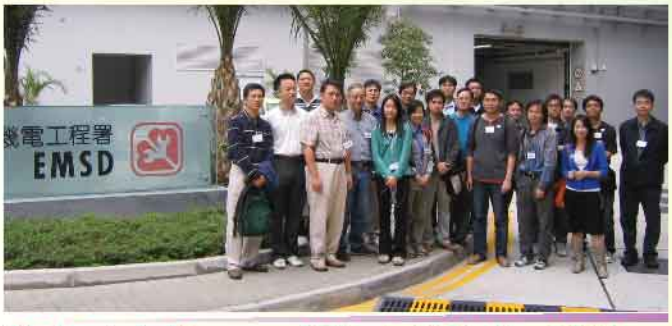
Spring Dinner 2006, with a Karaoke Competition annexed, was held on Feb 24, 2006 at World Trade Centre Club in Causeway Bay. Over 100 members joined the dinner and Mr. Derek Geung from Crownlin had struck to be the Champion out of the 12 candidates. The 1st runner was Mr. Lin Kam Tong from Hang Shun and the 2nd runner up was Mr. Conson Yu from Gether-Force.

Technical Visit Tour 2006 - Energy Technology & Intelligent Building Development in Taipei - March 15-18, 2006

ACRA has co-organized a technical visit tour to Taipei with Hong Kong Association of Energy Engineers (HKAEE) to encourage overseas interflow of expertise on energy and intelligent building development. 9 ACRA members have joined the event.

Technical Visit to EMSD Headquarter - March 18, & April 1, 2006

2 local visit tours to EMSD Headquarter, which is located at Kowloon Bay, had been successfully held on Mar 18 and Apr 1, 2006. About a total of 40 members had taken part in the 2 visit tours.



ACRA Basketball Tournament 2006 - April 25, to May 4, 2006

Our basketball tournament in 2006 has been launched from Apr 24 - May 4 in Kowloon Bay Sports centre and To Kwa Wan Sports Centre.

Champion	Winston Air Conditioning & Engineering (HK) Co., Ltd.
1st Runner up	Trane Hong Kong
2nd Runner up	Raising Engineering Ltd.

Construction Workers Registration Forum - May 9, 2006

A forum will be co-organized with Hong Kong Registered Ventilation Contractors Association by inviting speakers from Construction Workers Registration Authority. The purpose of the forum was to clarify the queries, confusion and concerns arisen from the implementation of Mandatory Construction Workers Registration.

Pre - Announcement
AGM 2006 - June 9, 2006

AGM of 2006 will be held at 18/F., Tung Wai Commercial Building on Jun 9, 2006. All members are welcome to attend the meeting.

ACRA Annual Dinner 2006 - November 27, 2006

ACRA Annual Dinner 2006 will be held on 27 November 2006 (Monday) at JW Marriott Hotel. All members are encouraged to join this important annual event. Registration details will be posted to all members in later stage.

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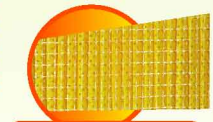
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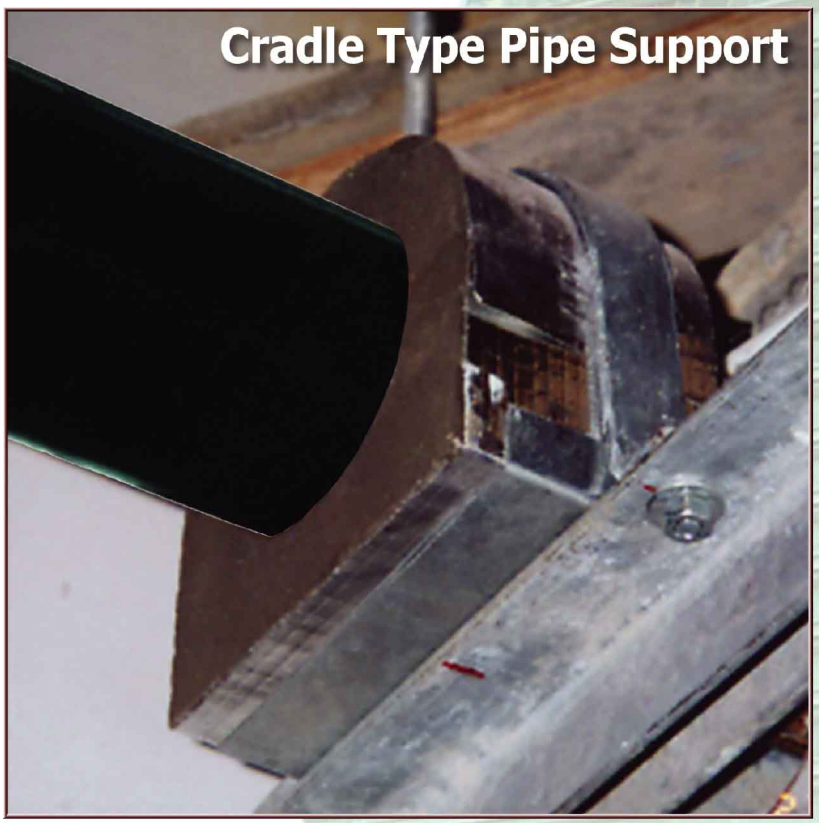

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Pipe Support in same materials.

★ **ENSURE THE FINAL INSULATION VALUE**
Rigid Insulation, no compromise on wall thickness as other flexible elastomeric materials.

★ **NO AIR-GAP after proper installation**
Cut to top-fit pipe OD.

Easy & Fast Installation

1. Apply adhesive.
2. Snap-on Pipe Support / Pipe Insulation.
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Labour cost + Installation Period

SAVE UPTO 30%

Manufacturer

Phenotherm Asia Ltd.
P.O.BOX 79583,Mongkok,Kln.,
HONG KONG
website : www.phenotherm.com
Email : info@phenotherm.com

ISO 9001
FM 40753

Sole Agent

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

SANYO

ECO i DC Inverter

R410A

DC-Inverter VRF Air Conditioners

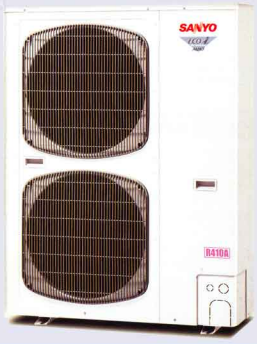
Made in Japan

Heat Recovery Available

MINI ECO i

Type for residential / light commercial use

- *4, 5, 6 Hp*
- *Top class COP : 4.06 (4 Hp)*
- *Max. 9 indoor units connectable (6 Hp)*
- *Single phase power supply*
- *Total piping length up to 200 m*



NEW 2 WAY ECO i 5 SERIES

Type with selection of cooling or heating operation

- *8 to 48 Hp outdoor unit available*
- *Top class COP : 3.90 (8 Hp)*
- *Space saving outdoor unit NEW 14 & 16 Hp*
- *Extended compressor life by uniform compressor operation timer*
- *Max. 40 indoor units connectable (24 - 48 Hp)*
- *Total piping length up to 300 m*

INDOOR UNIT LINE-UP

Welcome Air-Tech Ltd.
Tel.: (852) 2806 8316 Fax: (852) 2806 2426
Website : www.welcomegroup.com.hk
E-mail : sales@welcomegroup.com.hk

MEMBER LIST

ACRA Fellow Members

COMPANY NAME		CONTACT NO.		TRADE
ATAL Engineering Ltd.	安業工程有限公司	2565 3339	2561 8278	E&M Contracting
Carrier Hong Kong Ltd.	開利 (香港) 有限公司	2594 5336		Air-Conditioning Equipment Supplie
Kruegar Engineering (Asia) Ltd.	高雅機電工程有限公司	2880 7333		Air-Conditioning, Electrical, Fire Services, Plumbing & Drainage Installation
Newland Engineering Ltd.	新陸工程有限公司	2967 8620		Supply & Installation, Operation & Maintenance of HVAC & Electrical
Ryoden Engineering Co.,Ltd.	菱電工程有限公司	2619 6811		E&M Contracting
Shinryo (Hong Kong) Ltd.	新菱工程香港有限公司	2519 3383		Building Services, E&M Contractor
Shun Hing Electric Works & Engineering Co.,Ltd.	信興電工工程有限公司	2419 5608	2419 8282	Trading and Engineering Contracting
The Jardine Engineering Corporation Ltd.	怡和機器有限公司	2807 4550	2807 1717	Contracting / Supplier /Building Automation /Energy Service
Trane Hong Kong	特靈香港	3128 4784		Air-Conditioning Equipment Supplier
Winston Air Conditioning & Engineering (HK) Co.,Ltd.	永基冷氣工程 (香港) 有限公司	2784 1200		Contracting
York International (Northern Asia) Ltd.	約克國際 (北亞) 有限公司	2331 9286		Manufacture of Air-Conditioning equipment
Young's Engineering Co.,Ltd.	易通工程有限公司	2235 1803	2235 1177	Supply & Installation of Electrical & Mechanical

ACRA Corporate Members

COMPANY NAME		CONTACT NO.	TRADE
Alliance Contracting Co., Ltd.	聯和承造有限公司	2891 9083	Contracting
Analogue Technical Agencies Ltd.	安樂科技有限公司	2585 3390	Air-Conditioning Equipment Supplier 'Hitachi', 'Evapco', etc.
Chevalier (HK) Ltd -A/C Division	其士(香港)有限公司 - 冷氣部	2111 4811	Contracting
Daikin Airconditioning (Hong Kong) Ltd.	大金冷氣(香港)有限公司	2570 2786	Air-Conditioning Equipment Supplier
Efstar Engineering Co., Ltd.	怡銀冷凍工程有限公司	2606 6922	Trading and Contracting
Hong Kong Thermo Industries Ltd.	香港冷凍器材有限公司	2674 6876	Trading and Contracting
Hsin Chong Aster Building Services Ltd.	新昌亞仕達屋宇設備有限公司	2579 8236	E & M Contracting
Johnson Controls Hong Kong Ltd.	江森自控香港有限公司	2590 0012	Supply, Install & Maintenance of HVAC, Fire Services, E&M, Security & Extra Low Voltage System
Kervin Engineering Co., Ltd.	錦信工程有限公司	2422 3110	HVAC Contracting, E & M Engineering
K-Therm Engineering Co. Ltd.	旋鉄工程有限公司	2481 2918	Air-Conditioning & Electrical Installation
Linkforce Ltd.	聯力有限公司	2116 5528	E & M Contracting
Lucky Engineering Co., Ltd.	惠源冷氣電業有限公司	2780 6285	E & M Contractor
Meco Engineering Ltd.	德實工程有限公司	2891 8722	Engineering Contractor
Quad-Tech Engineering (HK)Co., Ltd.	高得工程有限公司	2573 1832	Contracting
Siemens Ltd.	西門子有限公司	2856 3813	Building Automation AFA, Security, CCTV & ELV System
Skyforce Engineering Ltd.	天科工程有限公司	2885 1820	Building Services Installation
Southe Co., Ltd.	南德有限公司	2963 7225	Supplier of A/C Equipment
Standard Refrigeration & Engineering Co., Ltd.	立標工程有限公司	2366 1213	Design, Supply, Installation and Maintenance of HVAC System
Takasago Thermal Engineering Co., Ltd.	高砂熱學工業株式會社	2520 2403	Contracting
Technicon Engineering Ltd.	得力建工程有限公司	3193 1300	Building Services Design, Installation and Maintenance
Wang & Lee Contracting Ltd.	宏利營造有限公司	2589 1313	Air-conditioning and Electrical Installation
Wesico Air Conditioning Ltd.	威高冷氣工程有限公司	2426 3123	Contracting

ACRA Associate Members

COMPANY NAME		CONTACT NO.		TRADE
A&R Engineering Co., Ltd.	奇銳工程有限公司	2406 2980		Contracting
ABB (Hong Kong) Ltd.	ABB (香港)有限公司	2929 3838		E&M Contracting, HVAC Building Services, Power & Control Products
Air Master International Ltd.	雅士 (國際) 空調有限公司	2764 0307		Manufacturing of Air Conditioning Equipment & Component
Alpha Appliances Ltd.	第一電業有限公司	2529 7555		Supply and Installation of Window Type and Split Type Air-Conditioners
Armacell Asia Ltd.	阿樂斯亞洲有限公司	2574 8376		Insulation Material Supplier
Arnhold & Co., Ltd.	安利有限公司	2807 9400		To Market and Distribute A/C and Engineering Equipment for Building Construction Industry of Hk & China Market
Brightwell Air-Conditioning Ltd.	冠昇空調有限公司	2331 8559		Trading of HVAC Equipment
Briskv Limited	穿梭科技有限公司	2511 3181		Supply & Install Window/Split Type & Packaged VRV Systems
Bun Kee (International) Ltd.	彬記 (國際) 有限公司	2748 9319		Wholesale
C.J. Wishing International Ltd.	嘉生電業有限公司	2799 9797		Supplier of air-conditioning products - Daikin-Japan, Kimuken-Japan, Insba-Japan, Teco-USA, etc.
Clean Air Services	堅毅服務	2425 6033		Environental Protection Services, Indoor Air Quality, Duct Cleaning System
Clydeman Engineering Ltd.	佳電工程有限公司	2332 3691		E & M Contracting
Crowntin Limited	冠頓有限公司	2416 8066		Contracting / Supplier / Building Automation
Dah Chong Hong(Engineering) Ltd.	大昌貿易行工程有限公司	2768 3388		HVAC Installation, E&M Packaged Installation
Dah Fung Service	大豐空調服務	2838 0301		Contracting
Delta Pyramax Co., Ltd.	佳達科技有限公司	2511 2118		Trading
Dura Duct International Ltd.	多得國際有限公司	2605 6806		Supply and Installation of Ductworks and Accessories
Enviro-Tech Engineering Co., Ltd.	康達工程有限公司	2827 0688		Trading
Extensive Trading Co., Ltd.	精基貿易有限公司	2869 1881		Trading - Mechanical Equipment, Building Materials, Environmental Products
Fook Loong (HK) Ltd.	福隆 (香港) 有限公司	2393 7773		Insulation Material Supplier
Fungs E & M Engineering Co., Ltd.	馮氏機電工程有限公司	2682 7200		E & M Contracting
Euro Airconditioning Ltd.	歐諾空調有限公司	2329 0809		Supplier (Authorized Dealer of AC Products -Daikin, Toyo, Valmatic, Honeywell-MNG)
GTECH Services (Hong Kong) Ltd.	英國通用工程(香港)有限公司	2129 0886		Contracting
GELEC (HK) Ltd.	香港通用電業有限公司.	2919 8383		Supplier
Gether-Force Air-Conditioning Engineering Co., Ltd.	耕力冷氣工程有限公司	2690 2822		Contracting
Getwick Engineers Limited.	佳域工程有限公司	2893 3800		Contracting
Goodway Electrical Engineering Ltd.	佳潤電業有限公司	2405 0888		Authorized Distributors
Goodways International Ltd.	恆進國際有限公司	2575 8770	2863 9405	Manufacturer's Representative
Gotop Engineering (HK) Ltd.	高陞工程(香港)有限公司	2459 3088		Electrical & Mechanical, MVAC Engineering
Grand Luck Engineering Ltd.	建高工程有限公司	2389 1517		Building Services Contracting
Hang Shun Engineering Co.	恒信工程公司	2428 8840		Aluminum Cladding for Air-Conditioning
Honest Air Conditioning Ltd.	明發冷氣有限公司	2396 6138		Contracting & Supplier
H.W. International Air-Conditioning Ltd.	豪華國際空調有限公司	2796 8688		Manufacturer of Air-Conditioning Equipment
IES (Hong Kong) Limited	恒豐工程(香港)有限公司	2992 0830		Supply & Install Central Hot Water Plant and Seawater Plant, Supply of Equipment.
Key Industrial and Air-Conditioning (HK) Ltd.	鈺實工業空調(香港)有限公司	2775 0099		Manufacturer and Distributor of "Key" HVAC Equipment
Kinden Corporation		2368 6136		Building Services - E & M Works
Kings View Airconditiiong Engineering Co. Ltd.	景匯空調工程修有限公司	2796 2417		HVAC Contracting & Maintenance
Landis & Gyr Ltd.	蘭吉爾有限公司	2960 7900		Supply of Cold Meter, Chilled Water Energy Meter
Lee Tack Engineering Co., Ltd.	李德工程有限公司	2305 3111		Contracting
Link The Best Company Ltd.	必發(香港)有限公司	2568 4092		Supply Pre-Insulated Pipe, Air Filter, Butterfly Valve, Electrostatic Precipitator, UV Sterilizer & Other Building Material
McQuay Air-Conditioning Ltd.	麥克維爾空調有限公司	2893 6281		Split type A/C, Chilled Water Fan Coil Unit, Water Cooled Package & Split Type Water Source, Heat Pump Chiller Supplier
Midea Electric (HK) Ltd.	美的電器(香港) 有限公司	2376 1229		Supplier & Manufacturerof 'MD' product
NAP Acoustics (Far East) Ltd.	NAP 聲學工程(遠東)有限公司	2866 2886		Design, Supply & Installation of Acoustic Treatment and Vibration Control Products
No. 1 Engineering & Material Supply Ltd.	第一工程及物料供應有限公司	2334 3871		Contracting Supplier
Oxprime (International) Ltd.	鑫輝(國際)有限公司	2590 8088		Pump, Cooling Tower, VAV Box, Vibration Isolators, Dura Duct, Liquid-Solids Separation Systems, Fibreglass Supplier
Peterson Engineering Ltd.	必德倫工程有限公司	2365 0372		Contracting
Practical Engineering (HK) Co., Ltd.	百利高工程(香港)有限公司	2402 2772		Contracting / Supplier
Raising Engineering Ltd.	威信工程有限公司	2395 6081		Air Conditioning Contracting
Royalson Asia Ltd.	和信亞洲有限公司	2365 5121		Trading of "SINRO" Cooling Tower, Fan Coil, AHU & Control
Sanby Trading Co., Ltd.	聖標貿易有限公司	2573 4219	2572 0271	Specializing in trading Construction Insulation Materials, such as Phenolic Foam, Fibreglass
Shun Hing Ref. A/C Engineering Ltd.	順興雪櫃冷氣工程有限公司	2367 2882		Design, Supply & Installation of Air-Conditioning
Sing Kin Ltd.	陞建有限公司	2333 1618		Contracting
Southa Engineering Limited	南鑫工程有限公司	2963 7241		Air-Conditioning & Refrigeration Installation
Thermtech Building Products Ltd	泛建經濟材料有限公司	2756 3837		Contracting / Supplier for Weatherproof / Fire Resistant Materials to E & M Services
Tom's Equipment Co., Ltd.	泰鑑設備有限公司	2757 5539		Insulation Material Supplier
TUL Asia Ltd.	啟聯亞洲有限公司	2904 2837		Contracting
Union Manor Ltd.	聯明有限公司	2797 2188		Contracting
Viewco Building Services & Eng. Co., Ltd.	偉保工程有限公司	2543 0610		Contracting
Vital Engineering Co., Ltd.	威圖工程有限公司	2571 6382		Contracting
Wai Luen Air Conditioning Ltd.	偉聯空調設備有限公司	2890 9321		Contracting
Welcome Oncho Denki Ltd.	偉基溫調電機有限公司	2806 8316		Trading of HVAC Equipments
Wo Kee Hong Ltd.	和記電業有限公司	2522 3128		Supplier of Electric Appliances (Brand Name : Mitsubishi Daiya, LG, GREE, TCL & Body Sonic, etc)
Wolter Asia Ltd.	華德亞洲有限公司	2458 0198		Supply & Manufacturing of full range of Ventilation Fans
Wyssmann Co., Ltd.	威士文有限公司	2614 2213		Trading & Manufacturing Air Conditioning Accessories
Yordland Engineering Ltd.	日昌工程有限公司	2362 2186		Design, Supply, Installation and Maintenance of HVAC, Electrical and Fire Services System