



# 香港空調及冷凍商會有限公司

## THE HONG KONG AIR CONDITIONING AND REFRIGERATION ASSOCIATION LIMITED

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Newsletter  
會員通訊

Winter  
05

### MESSAGE FROM THE PRESIDENT



I attended the Opening Ceremony of the Exhibition Gallery at the new EMSD Headquarter on 18 October 2005. EMSD also organized the tour of the Education Path of the building to the guests so as to demonstrate a number of innovative energy efficient features and renewable energy technologies which are designed for making the building more energy efficient. In the Exhibition Gallery at ground floor, it has a lot of interesting and interactive exhibits which aimed to promote awareness and provide education on energy efficiency and renewable energy to the public.

Facing less new projects in Hong Kong, some of our members shifted their focus to Macau and China. For those staying in Hong Kong, we have to explore new opportunities. Energy saving and environmental protection are two major trends in our market. I believe the Exhibition Gallery at the new EMSD Headquarter can give us some insights on energy saving concepts and its practical applications in E&M industry.

I strongly recommend all our members should join coming Technical Visit to the Education Path of the new EMSD Headquarter to learn more on energy efficient methodology to grow your business and protect our environment.

K. L. Chan  
President

### NEW TECHNOLOGY

## Copper Pipe And Fittings For R-410a Refrigerant

### 1. Introduction

HFC-410a is getting widely used on residential air-conditioning units, variable refrigerant flow (VRF) system, and even commercial chillers. This paper is to highlight some technical information of the HFC-410a refrigerant and the selection of the concerned copper pipes.

### 2. Physical Properties

R-410a is a chemically stable, less toxic and non-flammable refrigerant. It is an azeotropic mixture of HFC-32 and HFC-125 in a 50-50 ratio (measured by mass). It behaves as a pure fluid and even when it leaks from the gas phase, the composition remains essentially unchanged. Therefore R-410a can be treated in almost a same manner as a mono-constituent refrigerant like R-22.

Table 1 - Comparison of Physical Properties of R-410 and R-22

	R-410a	R-22
Type of refrigerant	HFC	HCFC
Composition (by mass)	R-32 (50%) R-125 (50%)	R-22 (100%)
Molecular weight	72.6	86.5
Boiling point (°C)	-51.4	-40.8
Vapor pressure (25°C, MPa)	1.56	0.94
Saturated vapor density (25°C, kg/m <sup>3</sup> )	64.0	44.4
Inflammability	Non-flammable	Non-flammable
ANSI/ASHRAE Standard 34-1992 safety group classification	A1	A1
Ozone depletion potential (ODP)	0	0.055

## Contents

- 1 Message from the President  
New Technology
- 2 New Technology (cont'd)
- 4 People Interview -  
Mr. W. K. Lam
- 5 People Interview -  
Mr. W. K. Lam (cont'd)
- 8 Technical Visit of Intelligent  
Buildings in Japan
- 9 Technical Visit of Intelligent  
Buildings in Japan (cont'd)

\* Inserted Page  
ACRA Activities  
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Optimized system testing has shown that R-410a delivers higher system efficiency than R-22. R-410a evaporates with a 35% higher heat transfer coefficient and 28% lower pressure drop compared to R-22. Since R-410a has lower pressure drop, additional system performance gain has been demonstrated by sizing for equal pressure drop through reducing the number of coil circuits to increase the mass flux. The higher density and pressure also allows the use of smaller-diameter piping while maintaining reasonable pressure drops. This, along with reduced refrigerant charge and better cycle performance, make R-410a potentially more cost effective

The operating pressures of a R-410a refrigerant system are about 60% higher than that of R-22. This requires the equipment to have more robust designs and superior control and protection techniques. Equipments using R-410a refrigerant are always designed for heavy-duty operation with a thicker compressor shell and heavy-wall tubing. As a result, the equipment and system reliability would actually be improved, not compromised. However because of the higher operating and service pressure of R-410a system, improper installation / servicing may cause a serious trouble. The following sections will give you the recommended standard, some outlines on the procedures and precautions of installing and servicing the R-410a systems.

### 3. The Standard

The European Standard **BS EN12735-1:2001** or equivalent standard is recommended for copper piping and fittings applied for R-410a refrigerant. In addition, those copper piping and fittings complied to **BS EN1057:1996** may also be used provided that proper degreasing process is being made. Particular care should be taken in the selection of the copper piping and fittings, in particular, the grade of piping material temper to "annealed", "half hard" and "hard" together with the available type i.e "straight length" or "coil".

### 4. Refrigerant Piping Installation

Flare Joints are recommended for copper tube size up to and including 19.05mm (3/4 "). All flare nut joints shall be tightened by calibrated torque wrench.

Silver Brazing copper connection shall be made for copper tubes and fittings with size 22.25mm (7/8") and above.

Table 2 shows the thickness of the copper pipes suggested for 410a refrigerant. As there may be variations on the operating system pressure from different HVAC equipment manufacturers, we strongly suggested to study the operating parameters and to choose the appropriate wall thickness and type of the piping to suit.

**Table 2 - Thicknesses of Pipes Recommended For R-410a Refrigerant**

Nominal Diameter (inch)	Outer Diameter (mm)	Min. Nominal Thickness (mm)
1/4	6.35	0.80
3/8	9.52	0.80
1/2	12.70	0.80
5/8	15.87	1.00
3/4	19.06	1.00
7/8	22.23	1.00
1	25.40	1.10
1-1/8	28.57	1.10
1-3/8	34.92	1.10
1-5/8	41.27	1.25
2-1/8	53.97	1.65
2-5/8	66.67	2.00
3-1/8	79.37	2.50
3-1/2	88.90	2.50
3-5/8	92.07	2.50
4-1/8	104.80	2.50

### 5. Recommendations

Using conventional copper pipes and fittings adopted for R-22, R-134a or R-407C in R-410a refrigerant system would put the installation at risk and may result in disaster. Have a look on the difference in the working pressure of the R-410a refrigerant system and the specific requirements of the copper pipes, fittings and service tools! Consult the R-410a equipment manufacturers if you have any questions on designing or installing the R-410a systems !

# ClyNix Tapping

## Making new branch pipe for in Services Pipeline



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- \* Less time is required.

### The Basic Procedures to perform ClyNix Tapping process for steel pipeline:

1. Install the Tee-off fitting with flange or screw joint to the existing pipeline by welding.
2. Conduct magnetic particles test to ensure that the welding joint is complied with the required standard.
3. Install the permanent valve, tapping machine and ClyNix Tapping fixture.
4. Carry out hydraulic pressure test to 1.5 times of the system working pressure.
5. Cutting the in services pipeline through the open valve and perform drain off process accordingly.
6. Withdraw the boring head and shut off the valves.
7. Remove the tapping machine and the new Tee-off is ready for service.



佳電集團

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**跟** 林維堃先生認識不深但已經久仰大名，透過今次冷氣商會的人物專題訪問，對林先生的做人及處事態度，非常佩服，真是人外有人，天外有天。

## 想當年

從小已經到澳大利亞讀書建立起獨立的性格，1968年畢業後，在澳大利亞工作了三年，於1971年回港後，被招聘到怡和機器有限公司工作，當時的老闆正是人所共識的冼公，更與連金水先生共事。林先生主要負責置地公司的項目，當時的置地公司發展如日方中，有很多不同的項目發展，例如怡東酒店、世界貿易中心、歷山大廈、現在的美國銀行大廈和怡和大廈等等，林先生都曾參予所有建設項目。及後於1976年離開怡和機器，得到蒙先生的賞識，加入信興機電工程有限公司，一直工作到今年8月底方才退休，在信興機電默默耕耘了二十九年。



## 由零開始

加入信興機電的初期，公司在工程方面還未開始，幾乎可以說由零開始。由於林先生在怡和機器累積的經驗及建立的人際網絡，很快在機電工程界中站穩住腳。當年很多商會都是由大公司所壟斷，林先生就連同其他有條件的公司一起爭取加入商會，共同參予及籌謀。機電工程界才可以百花齊放及健康地發展。為了配合工作的需要，除了工程外，林先生還發展了多元化的生意，以適應市場的需要，計有機電設備的銷售，電子零件的供應，裝修及地板的生意，顧客能夠在信興機電找到大部份所需的機電設備及安裝，生意也越做越大，越做越好，奠定公司今天在市場的地位。

## 成功之道

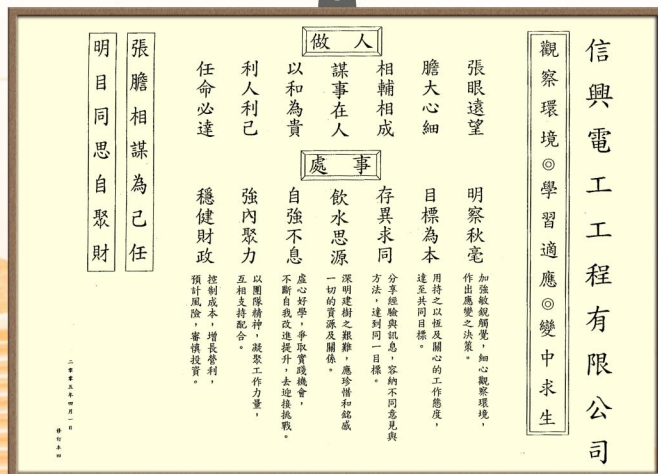
**膽大心細** — 不斷拓展新的生意領域，配合公司發展需要及路向，增強在市場的競爭力。

**明察秋毫** — 每做一件事都把所有的風險一一計算妥當，並有足夠的數據支持。沒有把握的事情最好不要去做。

**相輔相成** — 適當的權力下放，並要求下屬自己承擔責任。

**利人利己** — 做每件事都要顧及後果，盡力而為，把它做到最好，避免日後有機會受攻擊或被拖累。

**強內聚力** — 身邊全是猛人，大家衷誠合作，各就各位。把功勞歸於團隊，自己做把關及承擔責任。



## 難忘的歲月

一般機電工程公司經常擔當分判商的角色，受制於承建商。信興機電工程公司卻有幸成為地鐵公司之將軍澳交匯處及國際金融中心地下停車場項目的總承建商，負責整個項目的工程策劃工作，一改一般建築商作主的局面，證明機電工程公司也可以在某些項目上當家作主。

## 寄語年青人

做事沒有難或易，全是心理影響，只要肯動腦筋，一定找到出路，更不要怕蝕底及樣樣事斤斤計較，這樣身邊才會有更多朋友，把功勞留給幫助你的人，要負責所有的錯失。



## 退休計劃

談到退休計劃，林先生說有特定的計劃便不算退休，現時非常享受家庭樂趣，有空便到澳大利亞探望女兒及孫兒。其實林先生是一個運動高手，游泳、高爾夫球樣樣皆能，大家閒時不妨聯絡林先生一較高下。就連對中國文學，飲酒及食物都非常有研究。從林先生飲檸檬茶只用檸檬皮作料，就知一二。

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### BALL TECHNIC

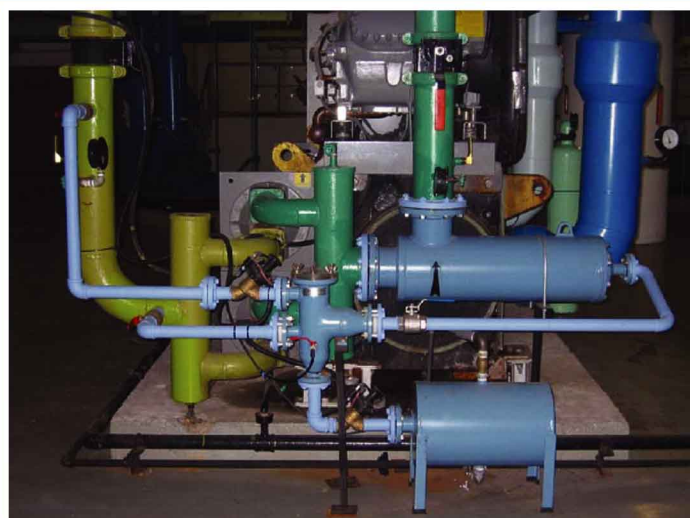
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# Technical Visit of Intelligent Buildings in Japan

In the early morning of 25th September, 2005, when 28 participants including myself from AIB & HKAE gathered at HK International Airport, ready to depart Hong Kong to Japan for a 4 days Technical Visit of intelligent and energy efficient buildings, was typhoon signal number 3 hoisted. After we all were stuffed into a Boeing 767 airplane with no empty seats, the airplane was set motionless at ground for almost two hours due to the unstable weather at Narita Airport in Japan. The atmosphere inside the airplane was riddled with impatience. I thought this trip would be spoilt by bad weather. Surprisingly, it was a cloudless evening upon our arrival of Tokyo. Nevertheless, each of us ended the day by sleeping inside a small hotel room of no more than 16 square meters at Sunshine City Prince Hotel.

The second day of the visit was full of sunshine in a clear sky. A perfect day to visit Roppongi Hills that is also called "Artelligent City", a phrase describing the "art" and "intelligence". A well-designed complex, embraced by many low-rises adjacent to Metro Hat at Tokyo, is the largest ever private sector urban re-development project in Japan. It comprises mainly a first class 54-storey building called Roppongi Hills Mori Tower, two residential towers and a group of auxiliary low-rises with a total floor space of approximate 759,000 square meters on a site, encompassing some 11.6 hectares. The complex is air-conditioned by thermal energy systems with saving up to 20% compared with standard systems. While we walked through one of the rooftops where we thought was a greenery garden, we discovered later it is the roof of an earthquake-resistance device called Green Mass Damper which will be used to absorb seismic vibration at earthquake.



Roppongi Hills Arena - The Artelligent City

After lunch, the second stop of the visit was Shiodome District Heating & Cooling Plant, a re-development project of a railroad station from Shiodome Urban Energy Corporation. The plant is supplying 'chilled water', 'steam' and 'hot water' to the buildings within 9.4 hectares in Shiodome North District. A main plant built in District A was introduced before a backup plant was built in District C where is also used as a broadcasting station in case of disaster. We walked through the plant rooms where cogeneration systems and large-scale thermal energy storage equipment were located. It was quite an interesting experience when we, dozen of people were offered to walk through over a huge ice storage tank.



Shiodome City District Heating and Cooling Plant

Before the sunset, we arrived at Johnson Controls' Remote Operation Center where we were shown with the latest technology of Remote Facility Management System that is being linked up remotely to many intelligent buildings in Japan. The center is providing services to the users for applications including data analysis, anticipative reports and proactive measures.

The third day started at Shiodome City Center, where is a masterpiece of modern building art to combine functionality and attractive design by restoring the former Shinbashi Railway Station built next to a 42-storey tower with wavy exterior shape. The heat-absorbing/ heat-reflecting capacities of the double-glazing glass and other technology used for the exterior curtain wall enhance building's energy-conservation capacity. The vertical cavity in the center of each side of the tower, housing the air conditioning intake and exhaust, accentuates the form, effectively integrating function with design.

The next stop after lunch was The Prudential Tower, a 38-storey complex that caters offices, service apartments and shopping arcade into one single tower. Air-conditioning for each floor individually controlled zones, with air vents for each zone further divided into four sub-zones. The result is flexible office space offering fine-tuned climate settings.

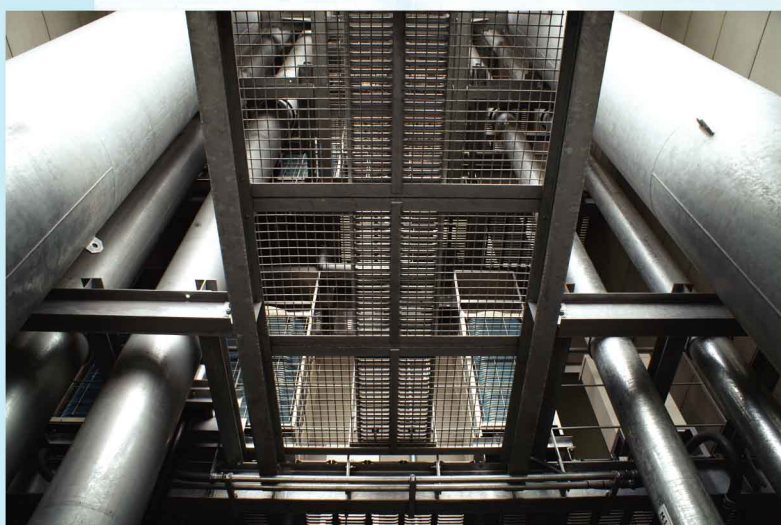


Ice Storage Tank in Shiodome City

Second stop in the afternoon was IIDABASHI First Building where Daikin water cooled VRV system with heat recovery function was installed. The benefit is to provide more comfort zones sub-divided for flexible office/living space arrangement. We spent about one and a half hour to walk through the plant rooms and computerized monitoring system.

In the evening, we met Honorable Michael Suen and officials from Hong Kong at the cocktail reception of the 2005 World Sustainable Building Conference in Tokyo(SB05) which was specially hosted by HKSAR for Hong Kong delegates. Their hospitality extended our enjoyable stay at the event throughout the night.

The last day of the trip started at the visit of Dai Building Akihabara, an office building with each floor area of 4,800 square meters, which is claimed to be one of the largest office spaces per floor available in Japan. Separate air conditioning is installed for interior zone and perimeter zone, allowing setting of a free air conditioning range for the tenant zone, achieving more precise zoning control. Also, by making the humidity and airflow volume range to 50 square meters, the system also handles ubiquitous generation of heat load. The system also assures space for additional air conditioning. Each is handled individually in 24 hours a day.



External Air & Pipe Duct Zone in Dai Building Akihabara

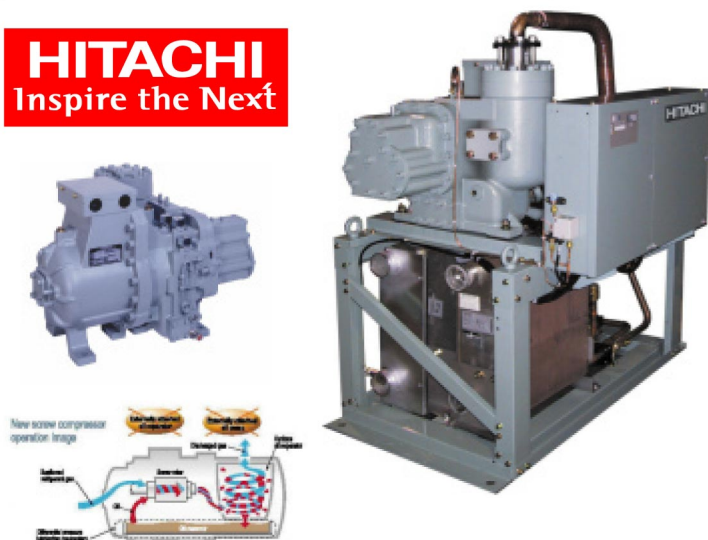
In the afternoon, we returned to Narita Airport ready to leave Japan back to Hong Kong. The only free time available in the whole trip to each of us was about two hours before the flight take-off. I then rushed to shop around at the airport for the Japan-made items that I promised my daughter to bring back home.

Conclusively, the trip was very successful and enjoyable. It gave us an opportunity to explore building standards, code of practices and applications beyond Hong Kong. ◉

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### Mini-Soccer

5 to 21 July 2005

Mini-Soccer Competition has been organized from 5 to 21 July 2005 with 12 teams participation. The results of the competition are as follows:  
 Champion : Jardine Engineering Corporation  
 1st Runner-up : Shinryo (HK) Ltd.  
 2nd Runner-up : Hang Shun Engineering Co.

Shinryo (HK) Ltd.

1st Runner-up

Jardine Engineering Corporation

Champion

Hang Shun Engineering Co.

2nd Runner-up

## 2005 Mainland and Hong Kong Conference

"Construction Economics, Real Estate and Urban Disaster Prevention"

Mr. Raymond Lin and Mr. Victor Law of ACRA Council members joined the Conference jointly organized by The Environment, Transport and Works Bureau of Hong Kong and the Ministry of Construction of China which was held from 20 to 22 Sept 2005 in Xian (西安). A Study Mission to Yinchuan (銀川) was also arranged following the Conference.



### National Day Dinner

27 September 2005



ACRA council members joined the National Day Dinner of Hong Kong construction industry on 27 September 2005.

### Basketball



Basketball Competition has been taken at Shun Lee Tsuen Sport Centre on 27 October 2005. The results of the competition are as follows:

Champion : Winston Air Conditioning & Engineering (HK) Co Ltd  
 1st Runner-up : Raising Engineering Ltd  
 2nd Runner-up : Clydeman Engineering Ltd



### Golf Day

16 November 2005

Golf Day was held at Mission Hills Golf Club in Shenzhen.



The results are as follows:

Champion : Denny Mak (Technicon Engineering Ltd.)  
 1st Runner-up : K. K. Leung (Trane Hong Kong)  
 2nd Runner-up : Daniel Chong (Clydeman Engineering Ltd.)

## New Fellow Members

Welcome our 3 new Fellow Members :

Shinryo ( Hong Kong ) Ltd.

Southa Co., Ltd.

York International ( Northern Asia ) Ltd.



## MEMBER LIST

### Company Name

### Contact No.

### Trade

### ACRA Fellow Members

ATAL Engineering Ltd.	安樂工程有限公司	2565 3339	2561 8278	E&M Contracting
Carrier Hong Kong Ltd.	開利 (香港) 有限公司	2694 5336		Air-Conditioning Equipment Supplier
Krueger Engineering (Asia) Ltd.	高雅機電工程有限公司	2860 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 System
Ryoden Engineering Co., Ltd.	菱電工程有限公司	2619 8811		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
Southa Co., Ltd.	南龍有限公司	2963 7225		Supplier of A/C Equipment
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 4764		Air-Conditioning Equipment Supplier
Winston Air Conditioning & Engineering (HK) Co., Ltd.	溫通冷氣工程 (香港) 有限公司	2764 1200		Contracting
Young's Engineering Co., Ltd.	景福工程有限公司	2235 1803	2235 1177	Supply & Installation of Electrical & Mechanical Services, Routine Maintenance Work
York International (Northern Asia) Ltd.	約克國際 (比亞) 有限公司	2331 9286		Manufacture of Air-Conditioning equipment

### Company Name

### Contact No.

### Trade

### ACRA Corporate Members

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	2565 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
Efatar Engineering Co., Ltd.	怡輝冷凍工程有限公司	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 8238		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.	樂信工程有限公司	2422 3110		HVAC Contracting E & M Engineering
K-Thorn Engineering Co. Ltd.	旗鋒工程有限公司	2481 2918		Air-Conditioning & Electrical Installation
Lee Tack Engineering Co., Ltd.	李德工程有限公司	2305 3111		Contracting
Linkforce Ltd.	靈力有限公司	2116 5528		E & M Contracting
Lucky Engineering Co., Ltd.	連通冷氣電業有限公司	2780 5285		E & M Contractor
Meco Engineering Ltd.	德寶工程有限公司	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 1620		Building Services Installation
Standard Refrigeration & Engineering Co., Ltd.	立德工程有限公司	2388 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.	得力耀工程有限公司	3193 1300		Building Services Design, Installation and Maintenance
Wang & Lee Contracting Ltd.	宏利營造有限公司	2889 1313		Air-conditioning and Electrical Installation
Westco Air Conditioning Ltd.	威高冷氣工程有限公司	2426 3123		Contracting

### Company Name

### Contact No.

### Trade

### ACRA Associate Members

A&R Engineering Co., Ltd.	奇樂工程有限公司	2408 2960		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
Air Trade Centre Ltd.	裕風先達有限公司	2887 7000		Trading & Engineering
Alpha Appliances Ltd.	第一電業有限公司	2529 7555		Supply and Installation of Window Type and Split Type Air-Conditioners
Armaceil 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
Brisky Limited	穿梭科技有限公司	2511 3161		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.	惠生電業有限公司	2799 9797		Supplier of air-conditioning products - Daikin-Japan, Kimukoh-Japan, Inaba-Japan, Taco-USA, etc.
Clean Air Services	堅毅服務	2425 5033		Environmental Protection Services, Indoor Air Quality, Duct Cleaning System
Clydean Engineering Ltd.	佳電工程有限公司	2332 3591		E & M Contracting
Crownin Limited	冠殿有限公司	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	2836 0301		Contracting
Delta Pyramax Co., Ltd.	佳澤科技有限公司	2511 2118		Trading
Dura Duct International Ltd.	都得國際有限公司	2605 6606		Supply and Installation of Ductworks and Accessories
Enviro-Tech Engineering Co., Ltd.	鷹達工程有限公司	2827 0688		Trading
Extensive Trading Co., Ltd.	精基貿易有限公司	2889 1681		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
Gate Way Airconditioning Ltd.	基法空調有限公司	2688 2666		Supplier (Authorized Dealer of AC Products - Daikin, Toyo, Valmatic, Honeywell-MNG)
GELEC (HK) Ltd.	香港通用電器有限公司	2919 8383		Supplier
Gether-Force Air-Conditioning Engineering Co., Ltd.	群力冷氣工程有限公司	2890 2622		Contracting
Getwick Engineers Limited.	佳域工程有限公司	2893 3600		Contracting
Goodway Electrical Engineering Ltd.	佳濤電業有限公司	2405 0888		Authorized Distributors
Goodways International Ltd.	協進國際有限公司	2575 8770	2863 9405	Manufacturer's Representative
Gotop Engineering (HK) Ltd.	高陞工程 (香港) 有限公司	2459 3038		Electrical & Mechanical / MVAC Engineering
Grand Luck Engineering Ltd.	運高工程有限公司	2389 1517		Building Services Contracting
GTECH Services (Hong Kong) Ltd.	英國通用工程 (香港) 有限公司	2123 0888		Contracting
Hang Shun Engineering Co.	恒信工程公司	2428 8640		Aluminum Cladding for Air-Conditioning
Honest Air Conditioning Ltd.	明發冷氣有限公司	2396 8108		Contracting & Supplier
H.W. International Air-Conditioning Ltd.	豪華國際空調有限公司	2796 8888		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.	建寶工業空調 (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 Airconditioning 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 7800		Supply of Cold Meter, Chilled Water Energy Meter
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 6261		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 & Manufacturer of '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
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.	必德信工程有限公司	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	2385 5121		Trading of 'SINRO' Cooling Tower, Fan Coil, AHU & Control
Sanby Trading Co., Ltd.	聖備貿易有限公司	2573 4219	2572 0271	Specializing in trading Construction Insulation Materials, such as Phenolic Foam, Fibreglass
Shun Hing Ref. A/C Engineering Ltd.	順興雪種冷氣工程有限公司	2387 2882		Design, Supply & Installation of Air-Conditioning
Sing Kin Ltd.	陸建有限公司	2333 1518		Contracting
Southa Engineering Limited	南龍工程有限公司	2963 7241		Air-Conditioning & Refrigeration Installation
Thermtech Building Products Ltd.	泛達建築材料有限公司	2756 3837		Contracting / Supplier for Weatherproof / Fire Resistant Materials to E & M Services
Tom's Equipment Co., Ltd.	義隆設備有限公司	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 2168		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 5382		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	2456 0198		Supply & Manufacturing of full range of Ventilation Fans
Wysermann Co., Ltd.	威士文有限公司	2614 2213		Trading & Manufacturing Air Conditioning Accessories
Yordland Engineering Ltd.	日島工程有限公司	2362 2186		Design, Supply, Installation and Maintenance of HVAC, Electrical and Fire Services System