



Company Name	Contact Number	Website / Email	Trade	
Electrodrive Engineering Limited	高宜工程設備有限公司	2573 7211	info@electrodrive-eng.com	Supplier
Enviro-Tech Engineering Company Limited	廣達工程有限公司	2827 0688	stevell@envirotech.com.hk	Supplier
Ever Cool Refrigerating & Air-Conditioning Company Limited	嘉穀冷凍空調設備有限公司	2356 8598	info@evercoolhk.com	Supplier & Manufacturing
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 & Maintenance
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	gatewayv@netvigator.com	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
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Getwick Engineers Limited	佳域工程有限公司	2893 3600	getwick@getwick.com	Contracting
Goodways International Limited	協進國際有限公司	2575 8770	josephlam@goodwaysintl.corp.com.hk	Supplier
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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
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
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J&J Network Engineering Company Limited	信卓網絡工程有限公司	3579 5263	daniel@jnetwork.com.hk	Supplier/Building Automation
Keio Engineering Company Limited	京王工程有限公司	2695 8872	info@keio.com.hk	Contracting
Kembla (HK) Limited	金特霸(香港)有限公司	2528 0999	info@kembla.com.hk	Supplier
Kervin Engineering Company Limited	樂信工程有限公司	2422 3110	kervinkm@yahoo.com.hk	Contracting
Kieback&Peter Hong Kong Limited	德國科特貝德(香港)有限公司	2372 9083	www.kieback-peter.hk	Supplier
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Kinden Corporation		2368 6136	kidhx@kinden.imsbiz.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
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Pyrofoe Engineers Limited	衛安工程有限公司	2388 8038	public@pyrofoe.com.hk	Contracting
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Richmax Air-Conditioning Company Limited	萬聯空調有限公司	2698 3423	lawrence@richmaxltd.com.hk	Supplier
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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
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Victory Engineering Service Company Limited	維陞工程有限公司	2979 4068	pamela@ves.hk	Contracting
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Vital Engineering Company Limited	威圖工程有限公司	2571 5382	hongkongvital@yahoo.com.hk	Contracting
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Wardson Engineering Limited	華順工程有限公司	2329 8268	wsengltd@yahoo.com.hk	Contracting
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Mr. Ringo Shea  
President

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Web Site: www.acra.org.hk

## Message From

# The President

## WE BUILD, WE SERVE, WE CARE

After the celebration of our 50th Anniversary last year, ACRA is stepping into another half decade and it is really my great honor to be elected as the President of ACRA this term. Heartfelt thanks should be addressed to all members and also various partnering parties in the industry for their support and encouragement all the years.

Recently some chaos and disputes were noted in the society over various topics, from which it seemed that compromise and harmony were quite remote from us in the society. However, with our core values still uphold, views, stances, values for different groups of people should be appreciated with patience and respected. Any emotional and heated debates should be back to rational discussions, with grounds and on facts. The situation seems quite different in our construction and E&M industry in which a better united harmony atmosphere is noted. After all, our ultimate goal is to build - the systems, buildings, the city and our future. We are pleased to see the recent establishment of Zero Carbon Building (ZCB) in Kowloon Bay. Even though it may still take time for the full application of the green concepts or the energy saving installations found in ZCB to be applied to normal buildings, at least we are on track to the right direction. It is our mission and responsibility to build a better living environment lasting into next generation in terms of green, health, and sustainable development.

ACRA always strives to serve the industry and the members in various aspects. We get involved in government consultations for policy making, take part in various working group or task force with government bodies thus the views of the members can be voiced out. We are glad to see many mega size projects are being launched from the government, public and private sectors. Instead of worrying the lack of job opportunities in the past, we are now facing other challenges on how to handle them in order with the projection of shortage and aging of our manpower resource in the coming future. Lack of new blood entering into the construction industry meanwhile is a major threat to us and collaborative effort in the industry from Government, Associations and Unions are necessary. We should work in all dimensions such as to offer the young people the promising career prospect, to conduct comprehensive training schemes and programmes as well as to improve the working environment on site. Also, site safety is always one of our top concerns and we are sad to see quite a number of accidents including fatal cases occurring in the construction sites recently. Not only further uplift to the safety concerns of the workers and the site management personnel should be done, joint effort from various parties to enhance the site safety measures, as well as to implement a proper and reasonable construction and installation programme should also be focused. It is quite often to note that the construction time on site in a project, especially that for E&M works, is somehow squeezed into unreasonable time schedule in the very last stage of the whole contract. Together with other issues relating to the members' interest including the security of payments, the applications of new regulations & contracts system, the regular liaisons with different government departments and the like, ACRA, as one of the stake-holders in the E&M Industry, is determined to continue our service to industry and our members.

I am also very proud to inform you that ACRA has set up the 'Caring Committee' this year and thanks to our Past President Mr. Raymond Synn for taking up the Chairman Position. The Caring Committee will be aiming at providing platforms for all ACRA members to participate in the social services. Understanding some of our members do have good heart to serve but are lacking of means and communications network, ACRA would take a proactive role in cooperating with NGOs in organizing various social services, not only encouraging the members to serve but also assisting them to become the Caring Companies soonest. We would also like to take the opportunity to introduce and promote our industry to different classes of people in the districts, especially to the students and the young people who do not have much knowledge about us. Meanwhile only less than 5% of our members are the 'Caring Company' and we look forward for a significant increase in the coming two years.

We are now seeing both opportunities and challenges ahead, it is time for us to settle the differences and move forward in union to work for the best to our industry as well as the whole society. Let us work hand in hand - to build, to serve and to care!



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Ringo Shea



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Honorary Life President  
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The Jardine Engineering  
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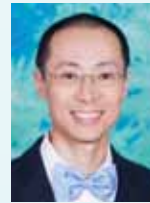
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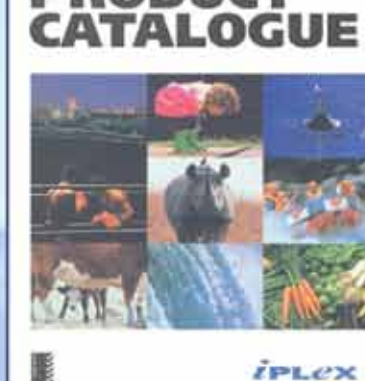
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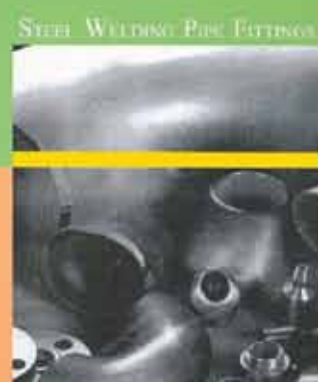
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# Buildings Energy Efficiency Ordinance (BEEO)

Prepared By: **Daniel Chong**  
RPE, FHKIE, MIMech, MCIBSE, MIMarE, CBCP

The Buildings Energy Efficiency Ordinance (BEEO) has been implemented with effect from 21 September 2012. The objectives of BEEO is to regulate the energy efficiency of the 4 key trades of building services installations inside the prescribed buildings including lighting, electrical, air-conditioning as well as lift & escalator, not only to save the electricity but to contribute in reducing greenhouse gas emissions and to improve the air quality for better living environment. The application of which is covered both newly constructed buildings and the existing establishment carrying out major retrofitting works with exemptions on small and special buildings such as those with power supply less than 100A 3-phases, 3 storeys small buildings, monuments and historical buildings etc.

## Scope Of Key Energy Efficiency Requirements

### Lighting Installation

- Lighting Power Density
- Lighting Control



### Electrical Installation

- Motor Efficiency
- Power Distribution Loss
- Total Power Factor
- Total Harmonic Distortion
- Metering & Monitoring Facilities



### Air-Conditioning Installation

- Coefficient of Performance of Chiller
- Air Distribution System Fan Power
- Frictional Loss of Water Piping System
- Thermal Insulation
- Energy Efficiency System Control
- Energy Metering





### Lift & Escalator Installation

- Electrical Power
- Total Power Factor
- Total Harmonic Distortion
- Metering & Monitoring Facilities
- Lift Decoration Load
- Shutting Off MVAC on Idling Lift



In brief, BEEO requires Building Services Installations **MUST** comply with Minimum Energy Efficiency Standards as stipulated in the Buildings Energy Code (BEC) and the Energy Audit Code (EAC). The prescribed buildings, in general, is including buildings with commercial, medical, health care and education activities; common areas of residential or industrial buildings; Government buildings; passenger terminal buildings of airport and railway station.

### Implications To Fellow Members

As stipulated in the BEEO, the owner or the responsible person is required to engage a **Registered Energy Assessor** in carrying out the statutory procedures both for New Projects and major retrofitting works on existing buildings. Since significant penalties are imposed on contravenes the requirements and that a considerable amount of additional cost is anticipated both on project management and equipment complied to BEC, fellow members is strongly advised to note the "New Clauses and Terms" set out in the Conditions Of Contract.

Reference: EMSD's papers and pamphlet on BEEO, <http://www.emsd.gov.hk/>



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- ☑ 易清潔
- ☑ 防霉
- ☑ 保溫功能
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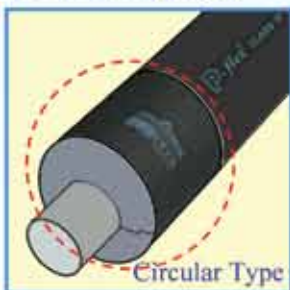
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## PEOPLE INTERVIEW

### People Interview with C K Tsang

初秋午後陽光依然和暖絢麗，遠遠看到曾昭群先生走進咖啡室，份外覺得他精神奕奕。我們就在這樣的閒適下午，聽曾昭群先生娓娓道來他40多年來在機電/空調界走過的輝煌日子，也好讓我們後輩好好借鏡學習。

#### 《良師益友 ■ 事業啟蒙》

對於在中學時期已是尖子學生的曾昭群，幾個熱門且收生門檻很高的大學學科，包括醫科、電子工程、法律等學科已擺在他面前隨他選擇；但最終他選了電子工程學系，且在1967年入讀了香港大學。今天回想起來，曾昭群笑說：「要讀醫科真的不行，我怕血嘛，哈哈！」

進入大學後曾昭群遇上他其中一位重要的良師益友—梁維新教授。梁教授作風十分隨和，歡迎學生課堂後向他討教，所以與好奇心強烈、問題多多的曾昭群特別相處得來；而到大學最後一年，梁教授更担擔任其七人學習小組的導師。曾昭群也笑言：「同學們怕不能畢業，常常都爭著請教授吃飯呢！」

其實在大學二年級時，曾昭群覺得自己好像不太喜歡這個學科，因為對求知慾強的他來說，課堂上學到的知識理論已追趕不上市場急速的變化；而另一方面梁教授也認為相對起工程師，管理工作較適合活潑外向、重視人際關係為甚的曾昭群。於是到畢業時，教授便推薦了他進入信昌機械工程有限公司(China Engineers Limited)，並建議他將來應朝著管理方面發展。

最初曾昭群在電器工程部工作，這時他才驚覺電器工程跟他在書本上所學到的完全不同，就算簡單如光管技術也不懂。曾先生便下定決心加倍努力虛心學習，就算去到地盤也四圍向科文、工友請教。他回憶說：「大學生當時在地盤可說是『異類』，很多時候我還未出糧，都要請科文飲茶！」而曾先生的時間和心血也得到回報，他在首兩、三年已為公司帶來十分可觀的經營利潤。

#### 《與空調行業的緣份》

在1976年，地鐵首條線路建造工程開始投標，而信昌旗下幾間公司獲得幾項工程合約，其中一項就是與American Engineering 合作負責九龍灣車廠的機電設計安裝工程。由於獲得公司的信任，年紀輕輕的曾昭群就被委派為這工程的電器部份之項目經理。可是難題來了- 這個項目規模就算在今天也得有四、五十人的團隊才能



曾昭群先生



應付。但當時只有曾昭群帶著一位工程師便要肩負整個設計，更要想盡辦法控制工程開支；其中得意之作，便是透過精密的計算，成功向地鐵提議並被接納在整個九龍灣車廠用上鋁線，替地鐵省下不少成本。而正因為這次與 American Engineering 合作的機會，曾先生獲得了不少空調設計的經驗，亦豐富了自己的發展道路。

碰巧菱電在1988年改組，將工程部成立為一獨立公司 Ryoden Engineering Co., Ltd.，並透過獵頭公司向曾昭群招手。其實曾昭群早已在 EMCA與菱電的老板胡法光先生共事(其時胡先生擔任EMCA會長)，所以胡先生一直都很賞識他的能力。曾昭群當時想著自己才四十歲，還有很多事情想嘗試，所以最終接受了菱電的邀請出任新公司的掌舵人，負責機電和空調業務。但在上任初期，曾有聲音質疑他沒有太多空調經驗，怎去管理好整盤生意。但曾昭群卻堅定認為公司已擁有很多出色的空調人才，而他的價值則是在於最有效地管理、帶領及調配這些人才，令公司持續發展。隨後他為公司帶來的業務增長正好印證了他的管理功力。

### 《難忘的歲月》

縱橫工程界多年，曾昭群自是有不少得意之作。其中最令他難忘的並不是高難度設計要求，而是與“人”有關。在1991年菱電取得時代廣場的工程合約，但當時大家都覺得業主的要求甚高所以會面對非常大的挑戰，工程推進方面也碰了不少釘子，曾昭群卻認為問題是雙方溝通不足引致。他不單處處為業主排解疑問，更成功游說了業主一個有關“System Integrity”的新概念——就是由指定承判商，以劃一的工序/物件價格承辦所有辦公大樓及商場租戶的機電及空調裝修或改裝工程，以避免影響物業的主系統。結果這當然亦為其他的原系統安裝承判服務的公司帶來非常好的商機。

另一個令曾先生印象深刻的項目就是青衣城地鐵站工程。當時菱電的工程隊發現顧問的機電設計與實際情況不太相符，但他們與地鐵公司的代表卻無法共識解決方法。眼見完工期迫在眉睫，其時身為EMCA會長的曾昭群便聯同HKCA以商會的名義向全線有關之項目代表，再一起與地鐵高層作詳細的分析及商討。最終業主了解整個情況及認同問題所在，並同意進行審檢，最後發出VO更正設計漏洞，令工程如期完工。

曾先生特別深深感受到行業團結及商會組織有時能適時成就 Collective Bargaining，為行業與政府或業主爭取更多商議條件，這亦是各商會成立的原因和使命。

### 《薪火相傳》

於多個商會及學會擔任要職的曾昭群，多年來一直很關心培育新一代機電及空調人才，而他也在1991-1997年期間擔任了香港理工大學 Advisory Board of Building Services Engineering 的主席。當時的機電工程學系主任 John Burnett 與業界關係十分密切，也了解業界對新一代培訓的需求。雖想開辦兼讀制學位課程，但苦無政府資助，擔心因學費高昂令報讀人數不足。於是曾昭群便與John Burnett約了當時理大校長潘宗光會面，希望他支持曾先生向游說業界資助公司員工報進修。最終在他的推動下，業界表示會支持超過百名從業員報讀，而這課程也得以順利開辦。時至今日，共有過千名從業員順利畢業，這亦令曾昭群深感欣慰自己可為業界發展盡了一分力。



### 《技術以外》

曾昭群提醒後輩在追求技術進步之餘，人際關係也對事業發展很重要。就以他本人為例，曾昭群從學生時代已是學生領袖，到今日除了擔任行業商會/學會要職外，也參加了不少慈善及社區組織，如扶輪會及論政團體。認識到不同背景的朋友，自己眼光也得以擴闊；而你往往亦想不到不同的人在將來有機會交錯，說不定可在適時幫到自己。

曾昭群還強調年青的工程師要考慮清楚自己的路向——技術還是管理方面，因兩者所需要的準備大有不同。而曾昭群也深切體會要更上一層樓，管理技巧是十分重要的。現在的工程分工變得仔細，而每個大型項目最少也需要十人以上團隊負責。所以作為項目經理或管理層要精於分配工作、運用人才和排難解紛。同時也要留意政府政策和政治消息，這往往會影響行業發展甚至公司業務的協商談判。

### 《展望未來》

曾昭群認為機電/空調行業現在發展很健康，但有時仍會出現一些惡性競爭，所以希望同業可團結一致，維持良好的營商環境。他也期望政府能帶頭繙動行業發展，確切落實十年計劃，令我們受惠於更多工程項目。

最後曾昭群寄語年青的工程師應把握機會進修學習，也要爭取表達自己的想法去勇於發言，好好為自己及行業打拚！

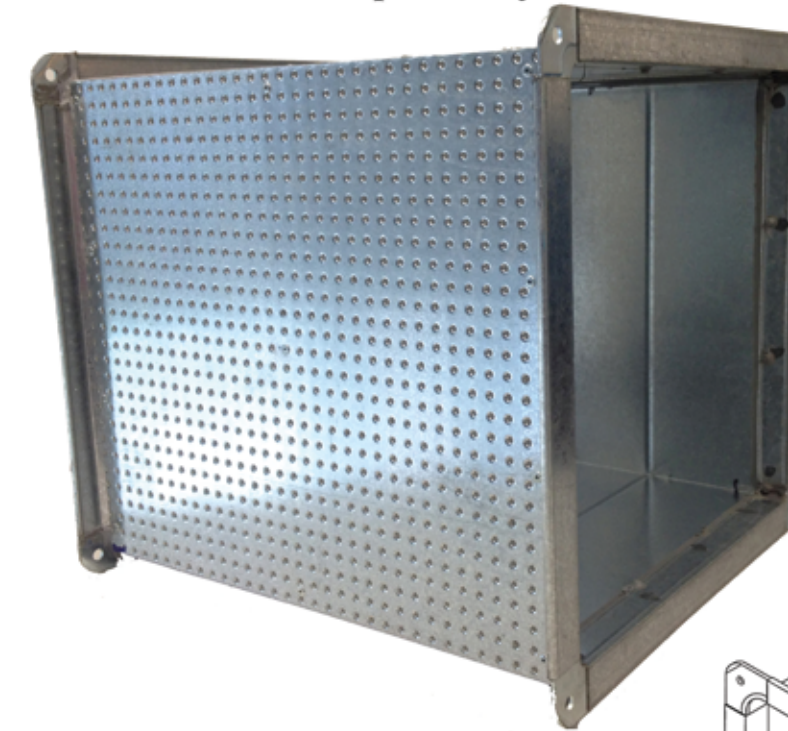


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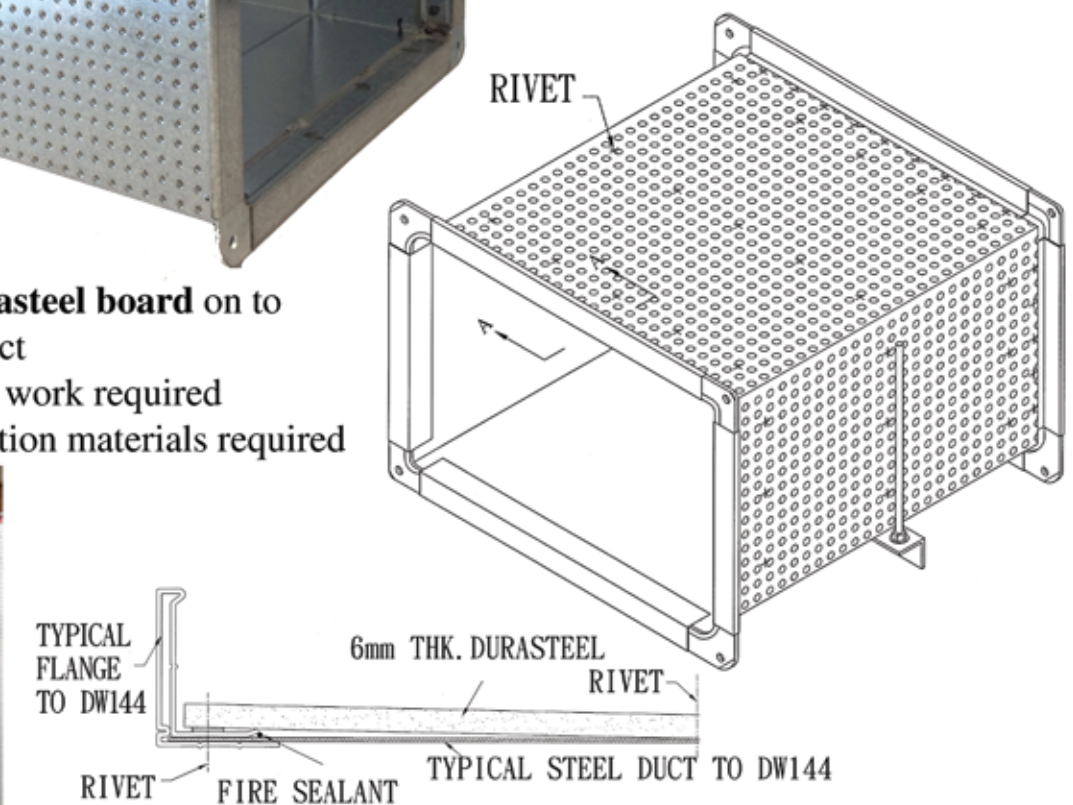
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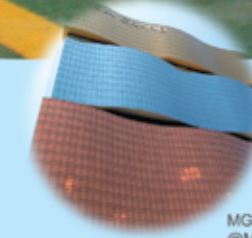
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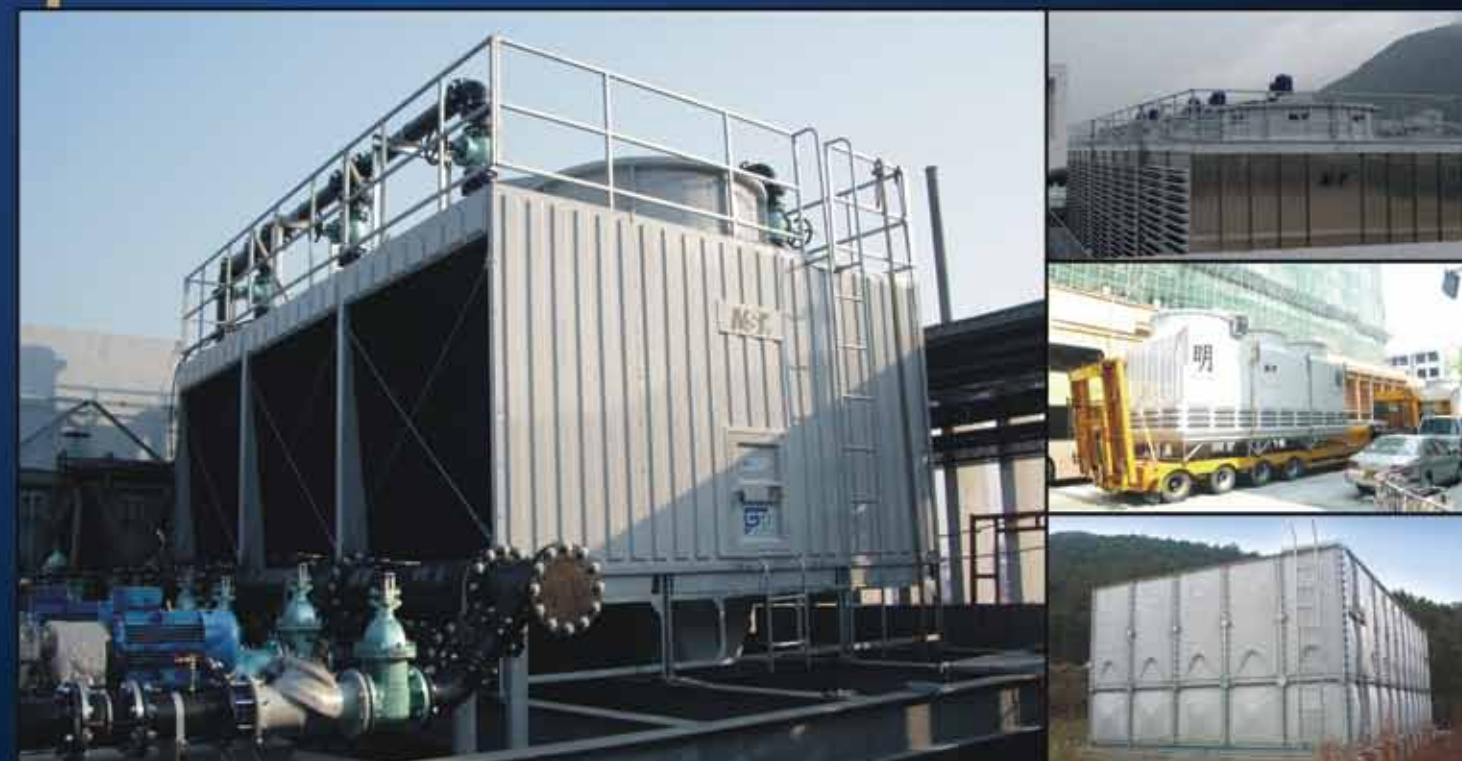
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