SPOTLIGHT

**AIR CONDITIONING**

The genesis

and evolution

The Middle East has been a major market for air-conditioners, coolants and refrigerators, chiefly due to the region’s arid climatic conditions

**The History**

**Down Memory Lane**

The Middle East isn’t exactly known for its pleasant summers. But thankfully we can more than cope with the heat thanks to an, often overlooked, invention called the air conditioner. But how did they come into existence and who was the true inventor of the air conditioner? Read on to find out. First and foremost, before we go into the business breakdown of air conditioners, let us explain how it all began and how the modern air con came into existence.

While air conditioning itself is a relatively new invention, the cooling of buildings is not. It is known that wealthy ancient Romans used aqueducts to circulate water through walls to cool their luxurious houses. Even as far back as the 2nd century China there have been records of some form of air conditioning. It is recorded that inventor Ding Huan, of the Han Dynasty, invented a rotary fan for air conditioning, with seven wheels 3m in diameter and was manually powered. In 747, Emperor Xuanzong of the Tang Dynasty had a Cool Hall, called Liang Tian, built in the imperial palace and was said to have water-powered fan wheels for air conditioning as well as a rising jet stream of water from fountains. During the subsequent Song Dynasty, written records mentioned the widespread use of rotary fan as a means of air conditioning.  
  
Even medieval Persia was said to have some sort of cooling system for buildings during hot weather seasons. They used cisterns, which were large open pools in the central courtyards used to collect rain water, in conjunction with impressive wind towers. These wind towers had windows to catch the wind which was then directed, using internal vanes, down into the building, over the cistern and out through a downwind cooling tower. As the cistern water evaporated it cooled the air inside the building. In 1200AD, Abd al-Latif al-Baghda described the use of ventilators in various households in Egypt. He reported that almost every house in Cairo has a ventilator, and that they cost anywhere from 1 to 500 dinars depending on their sizes and shapes. In fact it is said that Ventilators were actually invented in medieval Egypt.  
  
But it was only in 1820 that British scientist and inventor Michael Faraday discovered that compressing and liquefying ammonia could chill air when the liquefied ammonia was allowed to evaporate. In 1842, a Florida physician John Gorrie used compressor technology to create ice, which he used to cool air for his patients in his hospital. He hoped eventually to use his ice-making machine to regulate the temperature of buildings and even envisioned centralised air conditioning that could cool entire cities. Although his prototype leaked and performed irregularly, Gorrie was granted a patent in 1851 for his ice-making machine. Unfortunately, any hopes for its success soon vanished with the death of his chief financial backer; without the money he needed there was no way to develop the machine commercially. According to his biographer, Vivian M. Sherlock, he blamed the “Ice King”, Frederic Tudor, for his failure, suspecting that Tudor had launched a smear campaign against his invention. Dr. Gorrie died impoverished in 1855 and the idea of air conditioning faded with him for the next 50 years.  
In 1902 the first modern electrical air conditioning was invented by Willis Haviland Carrier. Designed to improve manufacturing process control in a printing plant, his invention controlled not only temperature but also humidity. The low heat and humidity were to help maintain consistent paper dimensions and ink alignment. Later Carrier’s technology was applied to increase productivity in the workplace.

This led to the formation of The Carrier Air Conditioning Company of America to meet rising demand. In 1906 Stuart W. Cramer was exploring ways to add moisture to the air in his textile mill. Cramer coined the term “air conditioning”, using it in a patent claim he filed that year. He combined moisture with the ventilation to “condition” (This evaporation of water in air, to provide a cooling effect, is now known as evaporative cooling) and change the air in the factories, controlling the humidity so necessary in textile plants. Willis Carrier adopted the term “air conditioning” and incorporated it into the name of his company. Early commercial applications of air conditioning were primarily to provide cool air for industrial processing rather than personal comfort but over time air conditioning came to be used to improve comfort in homes and later in automobiles. In fact it wasn’t until the 1950s that Residential sales expanded dramatically.  
  
The first air conditioners and refrigerators employed toxic or flammable gases like ammonia, methyl chloride, and propane which could result in fatal accidents when they leaked. Thomas Midgley, Jr. created the first chlorofluorocarbon gas, Freon, in 1928. The refrigerant was much safer for humans but was later found to be harmful to the atmosphere which resulted biological consequences including an increase in skin cancer, damage to plants, and the reduction of ocean plankton. Freon is a trademark name of DuPont (an American chemical company) for any Chlorofluorocarbon (CFC), Hydrogenated CFC (HCFC), or Hydrofluorocarbon (HFC) refrigerant. The blend most used in direct-expansion home and building comfort cooling is an HCFC known as R-22. It is to be completely phased out by 2020. Several non-ozone depleting refrigerants have been developed as alternatives, including R-410A, invented by Honeywell in Buffalo NY and sold under the Genetron AZ-20 name.

**Innovation in air conditioning** technologies continue, with much recent emphasis placed on energy efficiency and improving indoor air quality. As an alternative to conventional refrigerants, natural alternatives like CO2 (R-744) have been proposed. We only have to wait and see what comes of it.  
A whopping market in Middle East   
While globally the air-conditioning market is growing by leaps and bounds, in countries such as the Middle East the segment has witnessed enormous growth. In the GCC for instance, massive construction drives spurring the development of numerous residential and commercial real estate projects and high population growth have fuelled demand for air-conditioners and cooling systems.

The boom in real estate development together with the growing emphasis on greater cooling facilities and the resultant increase in power demand have all contributed to creating huge opportunities for manufactures and distributors in district cooling. This trend has received added impetus in recent years with the lack of sufficient generation, transmission and distribution infrastructure to meet projected power demands.  
  
The Middle East has been a major market for air-conditioners, coolants and refrigerators, chiefly due to the region’s arid climatic conditions. However, in recent times, other factors have been reinforcing the market’s growth in the segment. These include improvements   
in lifestyle, the mushrooming of numerous malls and hypermarkets all over the region and other developmental activities, all of which has spurred demand for   
air-conditioning products. ‘Air conditioners have come a long way from being just a cooling machine. Today we have models that can detect and eliminate deadly disease causing agents like SARS and bird-flu virus and other harmful pathogens this is done through a technology called MPI [Micro Plasma Ion], a world’s first from SAMSUNG,’ says Ajay Ganti, CEO, SARCO distributors for SAMSUNG in Oman.  
He goes on to add that newer models of air-conditioners “incorporate what is called GOOD SLEEP MODE, which senses your body temperature to regulate the room temperature. There is a lot of focus on hygiene and health. There is also a lot of impetus on the design accent to turn the air-conditioner into a piece of art, to make it a part of your interior decor. So basically, the AC is a lifestyle product rather than just a cooling product”.  
  
In Oman, the air-conditioner and refrigerator market account for a whopping 65 to 70 per cent of all business in the white goods market. “The market size of air-conditioning products is around 200 K units a year in Oman. The market size for Refrigerators is around 80 K units a year. Also due to a very fertile commercial / industrial projects scenario, there is also a great business opportunity for different air-conditioning concepts like chiller, ducted type or DVM(digital Variable Multi),” says Ganti. Traditionally, the Sultanate has been a market for window ACs. That trend is rapidly changing as improved standards of living and more sophisticated lifestyles push customer preference to split and ducted air-conditioners. This is in line with global trends. Apart from lifestyle changes and economic development, price reductions in split units have driven demand for these models of air-conditioners. What’s more, the air-conditioner which was earlier regarded as a seasonal product now boasts decent sales figures even during off-season. In Oman extreme temperatures and high levels of humidity have spurred the demand for high quality, energy efficient, environment friendly and reliable cooling solutions. The Omani government, in keeping with these trends and demands, has established the highest standards in setting requirements for all new projects being developed for both the tourism and real estate sectors. In order to meet these requirements and to reduce the demand on the governments for energy the District Cooling solution has been developed and implemented throughout the GCC.

Samsung - A silent operator

SAMSUNG Commercial Air conditioner has been developed for the Middle East market to bring optimum solutions to customers based on aerodynamically optimised design

A leading manufacturer in the Split and Window air conditioner segment, Samsung offers wide range of commercial air conditioners in Ducted Split and Cassette type units. In Ducted Split type segment, Samsung offers 18k~72k Btu/h Capacity which is consisting of Side and Top discharge unit and in Cassette type, 18k to 48k Btu/h capacity 4 way type.

Among all these products, Samsung Top discharge outdoor unit provides more flexibility for installation with longest piping of maximum 50 meters between indoor and outdoor unit. Further, it occupies the lowest installation space.

Samsung’s ducted split air conditioners are equipped with static pressure control to ensure efficiency and silent operation. All Samsung ducted split air conditioners are equipped with anti-bacteria filter system to provide cleaner and healthier air. The anti bacteria filter traps dust particles and suppress proliferation of molds and bacteria.

The Samsung Digital Variable Multi system has been developed since year 2000, with its latest technology the DVM plus III Tropical (Digital Variable Multi system :(website - www.dvmsystem.com) is a module multi system air conditioner that has the world’s largest capacity ( 8 ~ 36HP ) with the application of Digital compressor and can connect up to maximum 36 indoor units regardless of type of indoor unit.

The Samsung DVM plus III offers the largest capacity in the industry with 36HP in tropical module and boasts the highest COP levels, more compact size with larger capacity, more flexibility for installation with the longest piping of up to 1000 metres between the indoor and the outdoor unit.

The Samsung DVM plus III innovative control system is the most convenient system in the industry. A variety of controllers have been developed to control the system air conditioner more simply and easily. Samsung integrated management system provides perfect solutions for different applications for large and medium size buildings through its DMS data management server 2 and S-Net3 which can manage each building and provides flexible and complete control for a variety of applications.

Samsung BMS (Building Management System) makes it possible to control and monitor the air conditioner network using remote control and monitoring function. Optimum control with BMS related interface modules keeps the air conditioning system efficient, saves energy, reduces maintenance costs and extends the life cycle of the units.

Al Seeb Technical Est. (SARCO) is the distributor of Samsung products in Oman. SARCO’s passion of excellence guarantees quality for every product and service offered to their customers. With its diverse activities, SARCO provides the customer a one-stop source for their requirements in Electronics / Home Appliances / Air conditioning / Mobile phones, I T, Watches and Office Automation. Equipped with the latest computerised technology, SARCO is well geared to provide their customers quality services and products at competitive prices.

SARCO has opened Showrooms in all the major cities in Oman like Muscat, Sohar, and Salalah which are fully equipped with services and installation team.

Viessmann - A vital player

Viessmann achieved a strong market position based on the trust of customers in its products

**V**

iessmann Kältetechnik AG is the European market leader and a principal manufacturer of temperature-controlled rooms for trade and industry.

Viessmann offers trend-setting solutions for even the most personalised applications, thus substantiating the company’s high technological standards. This is augmented well by clever innovations which has revolutionised the refrigeration technology market.

With over 400 employees currently at the Hof (Upper Franconia) site, Viessman ensures that it manufactures products destined for application areas that require the highest standards, such as gastronomy, the hotel industry or food production and processing. Hygiene primarily plays an essential role in this. As one of the five largest companies of its sector, Viessmann has broken the mould regarding hygiene and developed a unique antimicrobial powder coating (SilverProtec®), used for the first time as standard for all Viessmann chiller rooms, cold rooms and deep-freezing rooms, offering long-term protection from harmful micro-organisms.

Viessman’s strong market position is achieved through the trust of valued customers in its products. Viessman’s philosophy reiterates that work doesn’t end with the delivery of products. Viessmann continues to remain by the customer’s side for the long-term, and on a customised basis. This is achieved by a superbly structured distribution network.

Viessmann constructs chiller rooms, cold rooms or deep-freezing rooms appropriate to the space requirements and ensures absolute perfection through its precisely tailored manufacturing and modular design. This is custom-made refrigeration, completely without compromise.

Viessmann has partnered with Khimji Ramdas to bring the most advanced refrigeration solutions to the Omani market. For over thirty years, Khimji Ramdas Air-Conditioning division has been providing customers with flexible, efficient and superior Air- Conditioning solutions. Khimji Ramdas Air-conditioning division boasts of having successfully executed numerous prestigious projects to exacting standards within the challenging and stipulated time frames.

This commitment has helped KR-ACD to emerge as one of the largest Air-Conditioning players in the Sultanate. KR-ACD announces it’s foray into the commercial refrigeration segment with the launch of VIESSMANN brand in the Oman market. The commercial refrigeration segment will cater to the constant requirements of the discerning customers in this very demanding sector. Needless to say that this too will   
be backed by the dependable and efficient after-sales   
service of KR.

Panasonic launches ECONAVI series of ACs

New Range of ACs Incorporate Advance+Plus e-Ion Air Purifying System

Panasonic, the global leader in innovation and technology, recently launched new range of ECONAVI dual sensor ACs for the Middle East market.

Panasonic who are on course to be the “No.1 Green Innovation electronics Company” has upgraded the company’s existing range of air conditioners by introducing ECONAVI technology, which in simple terms senses the presence of user in the room and auto adjusts the set temperature to an energy efficient level in case of low activity detection.

The new ACs use 30 pe rcent less energy when cooling, and up to 40 percent less energy when heating. ECONAVI concept applies high precision Human Sensor and Control Program technologies to optimize air conditioner operation according to room conditions. The units utilize this technology to detect where energy is normally wasted and self-adjusts cooling and heating power.

The ECONAVI concept reduces waste in three simple steps. It examines the level of activity and human presence in a room. It then evaluates changes in location, activity and then adjusts the level of airflow needed.

“Going green by saving energy shouldn’t compromise your comfortable lifestyle. With a Panasonic air conditioner, individuals get to enjoy cleaner air provided by the Advanced+Plus e-ion Air Purifying System featuring the ECONAVI Sensor. The result is a better quality of life,” comments Shoaib Senior Manager, Panasonic Marketing Middle East.

Advance+Plus e-ion technology is designed to monitor changes in the degree of air cleanliness. It activates the air purifying function when necessary to maintain clean and healthier air.

AUTOCOMFORT is another feature incorporated into the new range of ECONAVI Series of ACs. AUTOCOMFORT enables consumers to enjoy the same functions as ECONAVI with lower energy saving mode when additional cooling/heating is not required. With one touch of a button, the air conditioner detects activity rate in the room and optimizes comfort, while still maintaining lower energy-saving operations. The user gets to enjoy optimal comfort, all at the touch of one button same as the ECONAV function.

Panasonic air conditioners also come with an in-built air purifying system. Whether the air conditioner is switched on or off, one touch of a button activates the function. As soon as the Patrol Sensor detects the level of dust particles in the air has reached an unhealthy level, e-ions are released to clean the air from dust and harmful micro-organisms.

The new range of ECONAVI ACs have been developed and launched considering the requirements of the Middle East region. Keeping in mind the region’s climatic conditions and space restrictions with a rise in the apartment lifestyle, the new range of ACs retains the best features of both spilt and window – stronger air throw with reduced noise levels, quick cooling, sleek and stylish looks, can be mounted on the wall and most importantly, is an economical option.

ECONAVI by Panasonic is smart, intelligent & innovative technology. It scans the area for Human presence, activity rate and directs air flow to the area which is occupied for effective and efficient cooling.

Hitachi - Transforming lives

GENETCO has consistently delivered excellence in both products and services to its varied customers in the Omani market

GENETCO is one of the largest and most diversified trade and engineering companies in the Sultanate carrying the distribution rights of many international brands. Over the last 40 years, it has gained significant reputation and market share in Retail and Distribution, MEP Projects, Engineering Services, Cold Rooms, Laundry Equipment, Industrial Kitchens, Water Treatment Plants, Thermal Insulation and Water Proofing, Medical Supplies and Office Automation.

It has consistently delivered excellence in both products and services to its varied customers in the Omani market. The company has developed a very strong infrastructure, systems, policies, procedures and training programs to accommodate growth and to ensure the delivery of consistent top quality operations and service.

SANYO has been associated with GENETCO from the last 40 years and has grown from strength to strength in this market. SANYO’s diverse range of products and services, which include consumer electronics, home appliances, photovoltaic systems, HVAC/R equipment, digital imaging devices, personal navigation systems, home appliances, and electronic components, among others, are divided into the three domains of energy, ecology and electronics

Sanyo is known for the state of the art products in appliances and electronics segments. Though the presence of the brand is more in the appliances segment, Sanyo has gained significantly in the electronics also keeping pace with the competition with the latest trends in the LCD and LEDs.

Genetco has added the new HITACHI range of Electronics & Appliances. In line with Hitachi’s philosophy of creating richer lives and transforming society by providing innovative products based on latest technology and better value. Genetco has introduced the HITACHI Gold line range of Air conditioners and Refrigerators in Oman. These HITACHI Air conditioners have the world’s first “Nano Titanium Filter” which eliminates virtually all bacteria and fungi to create healthy air which refreshes and energizes the user. The HITACHI air conditioners also come with high energy efficient compressors which ensure high cooling at even 55 Degrees Centigrade. Also the Hitachi air conditioners have DC power system for energy conservation and ultra silent operations.

In continuation with the policy of providing the country new brands, GENETCO introduces for the first time in the GCC a European brand - FINLUX .

The Finlux brand has been available in Europe since 1964 when Iskumetalli, a subsidiary of the Finnish Lohja conglomerate, started manufacturing televisions in Finland. Finlux has been a leading expert in digital technology in Finland.

Vestel, part of the Turkish Zorlu Group and Europe’s largest TV manufacturer, bought the Finlux brand. Vestel, is Europe’s largest and the world’s third largest television manufacturer with a research and development unit of 500 employees and its plants manufacture 12 million television sets each year.

Cutting edge technology, research, development and the Scandinavian heritage of Finlux create the foundations for Finlux brand. Finlux is synonymous with Scandinavian living - healthy, simple and functional. The products range includes LCDs, LEDs, Refrigerators, Front Loaded Washing Machines and Dish Washers

What matters most

It is important to know the basics about air conditioners before purchasing one. Here are a few tips to understand the differences between the various choices available

O

ne of the most common type of air conditioner that we come across on a day-to-day basis is the room air conditioner. This is an enclosed cooling unit that can be mounted in a window, through a wall or in a portable cabinet on a floor near a window. Its job is to cool the air in a small, confined area as directed by the unit’s controls. Some window air conditioners have other functions as well. For example, reverse intake air conditioners also work as heaters, making them a home appliance that is useful nearly year-round, not that it would be of much use here.  
  
Window air conditioners work similarly to central air conditioning systems, but are contained in one compact unit. When the room air conditioner unit is on, the condenser pulls in the refrigerant gas and pressurises it, raising the temperature of the gas. The heated high-pressure gas then travels to the condenser coils on the outdoor side of the unit where fins distribute the collected heat. The cooled gas then condenses into a liquid that moves indoor to the evaporator coils where it absorbs heat from the room. A fan moves the air through the unit and expels the cooled air into the room.   
  
For the most part split-unit air conditioners are almost the same as window air conditioners, their primary difference being that the cold side, consisting of the expansion valve and the cold coil, is split from the hot side of the system, which is placed outside the building. These are more effective   
at cooling larger rooms that basic   
window ACs.  
  
A thermostat controls the unit’s operation. Many units now have advanced electronic controls that can adjust one degree at a time, rather than the primitive “cool” or “cooler” dial settings that were once common. The electronic controls also may regulate the fan speed, operation mode, timer and other settings. In addition, many room air conditioners at a variety of price points even include a remote. Split-unit air conditioners are even more advanced, offering a number of features, some even including bacterial control systems.   
  
An air conditioner unit’s cooling power is measured in British Thermal Units or Btu per hour. One Btu can raise or lower the temperature of one pound of water one degree Fahrenheit. All window air conditioners are rated by the maximum Btu/hr. Keep in mind that even the smallest window air conditioners may have thousands of Btu per hour. To   
keep these numbers is the proper perspective; remember to compare the Btu between systems. Generally, the more Btu, the larger an area the air conditioner can cool.   
  
Another important factor is quietness. A window air conditioner in a bedroom, for example, should be extremely quiet so that it does not interfere with sleep cycles. The quieter air conditioners are well insulated to minimize rattling when the fan is running. A window air conditioner that has little support – or that is not installed correctly -- also can rattle within a window frame.  
  
Warranties also vary by a fair degree on all air conditioners. Many manufacturers offer a 1-year full warranty, while some offer a 5-year warrant to cover the air conditioner’s sealed system or major components such as the condenser, evaporator, fan and controls. Many have a 5-year limited warranty on the condenser (no moving parts) and 1-year warranty on everything else. A few models have in-home warranties, which mean the manufacturer will send a service person to your home if there are problems with your air conditioner, but these warranties are not common.  
  
To summarise, there are four key questions you have to answer before purchasing an air conditioner:   
  
**How big is the area you want to cool and where to place the air conditioner?**   
Air conditioners are rated in Btu capacity. For a small room (100 to 300 square feet), select an air conditioner of 5,000 to 6,000 Btu/hr. For a medium-size room (300 to 600 square feet) choose a unit of 8,000 to 9,000 Btu/hr. For larger rooms (600 to 1,000 square feet) the best choice is an air conditioner of 10,000 to 15,000 Btu/hr. These are guidelines. If the insulation in your home is minimal or the air conditioner sits in a window facing the sun for most of the day, opt for a unit with higher Btu.

Also remember that these calculations are for standard room heights; if the room you are cooling has a taller ceiling, you’ll need about 10 percent more Btu to adequately cool the air in the room. If possible, avoid installing the cooling unit in a window that gets lots of sunlight as it reduces the unit’s efficiency. The same goes for split-units as well. Keeping the outdoor unit in mostly shaded areas improves their efficiency. Keep in mind that if you buy an air conditioner with a higher Btu rating than you really need, it will cycle on and off too quickly. This means it will use more energy, cost more to operate and remove less humidity from the air, which is a key factor here in Oman. Alternatively, if you use an air conditioner with a low Btu to cool a too-large room, it will run continuously and cost more to operate.  
  
**Can an air conditioner do more than just cool a room?**   
Yes, some also act as dehumidifiers and some do double-duty as heaters. Depending on where you live, humidity may be a problem or a necessity. For arid summer climates, an air conditioner with a built-in humidifier can add moisture to the air to make the room more comfortable. For other areas, hot days are exacerbated by humidity. An air conditioner with built-in dehumidifier can remove moisture from the air. Some models can also serve as heaters to warm the air if needed. This means that they can stay in place year-round and serve multiple purposes. Keep in mind what you require and purchase one that adequately serves your purpose.  
  
**How important are controls?**   
Older window air conditioners were controlled by a single dial that was set based on an estimate of the result: Set it most of the way to the left, for example, to keep the room at as cool as possible. Today’s air conditioners are much smarter; you can set the temperature accurately and it will maintain the air temperature within one degree of that point. For convenience, many window air conditioners and nearly all split-units now have wireless remote controls that let you change settings -- even the direction of the airflow -- from across the room. Many units even have timers to program the unit to start or shut off, so you can set the AC to turn on just before you get home or turn off when you go to sleep. Another important feature of most air conditioners is the filtration system. Nearly all units have a cleanable foam filter. Some use electronic air filtration to remove dust and pollens from the air. Make sure that the filtration system is adequate and easy to maintain. It’s important to check that extra features, such as a heater or dehumidifier, have adequate and easy-to-use controls.   
  
**What is your cooling budget?**   
How much can you invest in cooling a room? If the selected room only gets hot during a couple of weeks in the summer, you probably want to invest in a less expensive model. If the cooling season is long and the room is frequently populated, you should invest in a more expensive and more powerful unit. For the most part though, considering our climate, investing in a good air conditioner is never a bad idea.

Redefining air-conditioning comfort

Toshiba air- conditioners are state-of-the-art products offering year round comfort with high energy savings

Toshiba is one of the oldest Japanese brands of airconditioners being distributed in the Oman market. The brand has been present in Oman since the late 60s and is the acknowledged leader in residential and light commercial airconditioning. Year after year, thousands of Toshiba airconditioners are installed in homes and offices all across the Sultanate, bringing cool relief and comfort to their users. Most Toshiba customers stay loyal to the brand all their life, and are also the best brand ambassadors, as they invariably recommend Toshiba airconditioners to friends and relatives. These rugged and durable airconditioners, backed by the superlative after sales service from Bahwan Electronics, the authorised Toshiba distributors in Oman, ensure that the trust and faith of these customers are not misplaced.

Toshiba airconditioners are state-of-the-art products that offer year round comfort with high energy savings. Available in both window and split type, Toshiba airconditioners use the most advanced lightweight rotary compressors that offer whisper quiet operation, with virtually zero defect operation. The new IAQ filters provide double filtration protection against harmful bacteria and viruses. They also absorb smoke and other odours. Combined with the self cleaning function that inhibits the growth of mould and fungi, Toshiba redefines airconditioning comfort. They also offer the highest value in terms of durability and reliability. Bahwan Electronics, a part of the Suhail Bahwan Group, has a widespread distribution network all across the Sultanate, with service centres and mobile workshops in all major towns, providing quality service and ensuring the least down-time for customers.

Daikin introduces Rooftop Package units

Daikin Japan’s new UATYQ series features efficient and reliable scroll compressors which provides high Energy Efficiency Ratio

Helping customers to breathe pure, clean air and to enhance the equipment efficiency, Daikin Japan has launched its new premium range rooftop packaged air conditioning units with R410A. These units have been developed to suit commercial applications and are designed for high ambient conditions.

The new UATYQ series features efficient and reliable scroll compressors which provides high EER ( Energy Efficiency Ratio).Other features include:

Coils with Anti corrosion treatment   
Electronic expansion valve.  
Field convertible Supply and Return connections   
Compatible with Intelligent Manager, BMS system.

“We’re excited to provide our customers with a simple, but unique offering which combines energy efficiency and minimal environmental impact,” says Mr Geeju Paul, who is spearheading the operations of the Air conditioning Division at Muscat Electronics, which has over the years earned the trust of people of the Sultanate of Oman in the fields of entertainment electronics, air-conditioning, office automation, home appliances and their associated services.

“Muscat Electronics is determined to be a major player in the air conditioning market and we believe we’ll achieve this position by putting our customers’ needs first. Already in 2010, we have had a significant increase in market share and we’re confident the introductions of the UATYQ-BY1 Rooftop packaged units with R-410A will help increase our presence further,” says Mr Geeju Paul.

ME has already installed its VRV systems with R410A refrigerant which are working satisfactorily for the past 8 years. The total installed capacity of R410 A

VRV in Oman is above 25,000 TR. This gives an edge to ME as their expertise in handling the new refrigerant in Oman is unparalleled. Although up to now R-22 used to be the most commonly used refrigerant in the air conditioning market, R-410A has been adopted as replacement for R22 by leading equipment manufacturers in the past years in compliance with the international commitment to fall in line with the Montreal Protocol. The Montreal Protocol is the worldwide agreement designed to protect human health and the environment against the adverse effects of the depletion of the stratospheric ozone layer.

Chigo - An affordable luxury in your home

With its All-in-one production strategy Chigo is able to meet the ever growing and changing demands of its customers.

Chigo is one of the largest Chinese Air-conditioner manufacturers, exporting to over 160 countries and with a designed annual output of 10,000,000 sets. As a leading enterprise in Chinese AC industry, CHIGO engages constantly in R&D to offer customers affordable high-quality and energy efficient air-conditioners.   
  
Chigo Air Conditioner upholds the business principle of “quality is the basis of enterprise’s existence, science and technology is the guaranty of enterprise’s benefits and the brands are the power of enterprise’s development”, emphasises the science and innovation, and is honoured with the title of “National High-Tech Industry Demonstration Enterprise ”.

Chigo’s pursuit for high-quality and environment friendly products have been globally recognised and led Chigo to be awarded over 200 certifications , including the ISO9001 Quality System Authentication, the ISO14000 Environmental Management System Authentication, China Inspection-free Product Certificate, China Energy-saving Product Certificate, China Compulsory Certificate (CCC), UL certificate of the USA, CE certificate of EU, GS certificate of German, SAA safety certificate of Australia, Chigo has also won the award of “Global Green Environment-Protection Energy-Saving Air-conditioning” from United Nations, to mention a few.

Muscat Electronics LLC (ME) the sole distributor of the Chigo brand of air-conditioners has over the years earned the trust of people of the Sultanate of Oman in energy-efficient and affordable high-quality air-conditioners and for excellence in customer support services amongst others.

ME offers a wide range of air-conditioners including window, wall split, floor-standing, portable ACs and dehumidifiers. ME has a wide-network of sales and after sales support to cater to the growing need for affordable quality air-conditioner across Oman. In addition, ME has a highly trained installation team and very sophisticated service centre.

How to make your A/C energy efficient

A few handy tips to increase the life and improve the efficiency of your air-conditioner.

The maintenance of an AC is an area that most consumers and commercial clients need to learn about. It is not always necessary to order dealer service when a little bit of care and maintenance on your part will go a long way in improving the working life of your air conditioner. Simple things such as regular cleaning of the filters, helps increase the life of your AC. However, it is more prudent for you to enter into an annual maintenance contract with the authorised service centre of your brand of AC, so that the units are maintained at a nominal cost with little hassle. The following few tips will help one maintain an air-conditioner in an easy simple way:

Understand that an air conditioner, apart from cooling, also conditions the air inside your room like humidity, dust, order, fungus, bacteria, etc. All good quality ACs have cooling, humidity control, dust removal, anti fungal and anti-bacterial functions and these need to be used properly. Split ACs are now affordable, very quiet and energy saving as compared to window ACs. They are also more hygienic and prevent birds from making their nests in air gaps, rodents creeping in and air from leaking.

Clean the filter of your AC once a fortnight, or when the indicator lamp on the front panel lights up. Dirty air filters force your system to work harder to push cool air through your home. This uses more energy and places extra strain on the air conditioning system. Take the filter(s) out and hold it to the light. If the dust on the filter is so think that you can’t see much light shining through the filter, it’s time for new filters. A clean air filter, unobstructed by the dirt and other debris, will save you money on energy costs and prolong the life of your air conditioner. If you do not know where your air filters are or how to replace them, ask your HVAC technician to show you during an inspection.

Keep the doors of your rooms open for a few minutes every day to allow some fresh air to enter. Do not spray any type of deodorant or perfume into your split ACs. Doing so will result in foul smell, necessitating a cleaning of the indoor unit. Avoid smoking in an AC room as indirect smoke can harm other family members and it is very difficult to remove the odour even by servicing.

For safety, always turn the thermostat and outdoor unit’s   
breaker off before doing any work around that outdoor unit. The coil can be cleaned using a soft-bristle brush to gently sweep the fins. Always brush in line with the fins, and be gentle because the fins can bend easily. Because the fan pulls air through these fins, you can expect to find dust clinging to the fins. Removing this dust and other debris will reduce resistance and increase efficiency.