



MIDEA BUILDING TECHNOLOGIES 2022



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Note: Product specifications change from time to time as product improvements and developments are released and may vary from those in this document.

GLOBAL REFERENCE PROJECTS

CONTENTS

3-14  Large Venues

43-46  Education

15-20  Transportation

47-52  Offices

21-26  Hotels & Resorts

53-58  Residential Buildings

27-32  Complex

59-64  Industry

33-38  Governmental
Projects

65-70  Hospitals & Healthcare

39-42  Culture Facilities



MIDEA MBT

Midea MBT is a key division of the Midea Group, a leading producer of consumer appliances and provider of heating, ventilation and air conditioning solutions. Midea MBT has continued with the tradition of innovation upon which it was founded, and emerged as a global leader in the HVAC industry. A strong drive for advancement has created a groundbreaking R&D department that has placed Midea MBT at the forefront of a competitive field. Through these independent efforts and joint cooperation with other global enterprises, Midea has supplied thousands of innovative solutions to customers worldwide.

There are five production bases: Shunde, Chongqing and Foshan and Hefei and Italy.

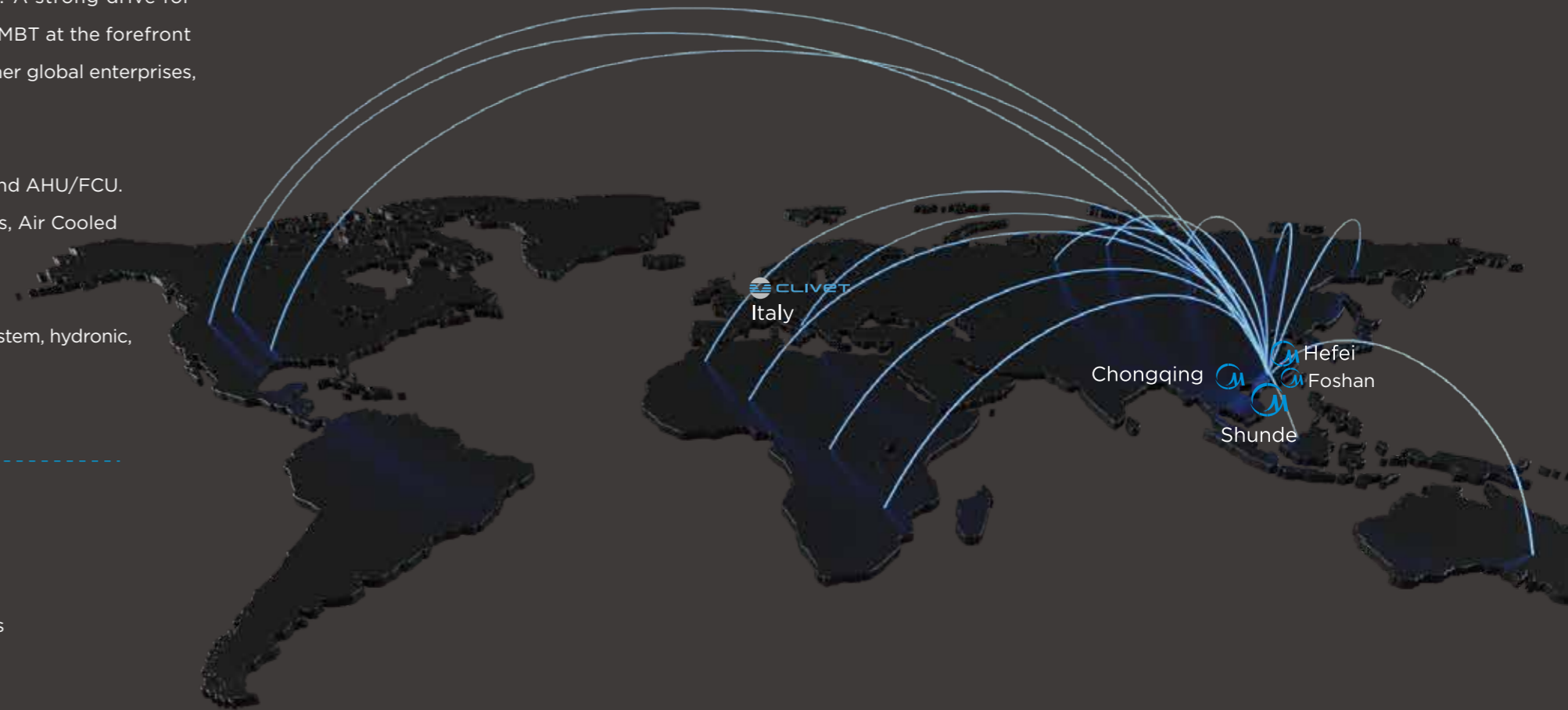
Shunde: 38 product lines focusing on VRF, Split Products, Heat Pump Water Heaters, and AHU/FCU.

Chongqing: 14 product lines focusing on Water Cooled Centrifugal/Screw/Scroll Chillers, Air Cooled Screw/Scroll Chillers, and AHU/FCU.

Hefei: 11 product lines focusing on VRF, Chillers, and Heat Pump Water Heaters.

Clivet S.p.A: 50,000m workshop in Feltre and Verona, covering products such as EL FO system, hydronic, WHL P, packaged, split and close control and so on.

Foshan: 18 lines focusing on full range of elevator and escalator products.



- 2021 Established Building Technology Research Centre
Officially renamed as Midea Building Technologies (MBT)
- 2020 Acquired LINVOL and upgraded business strategies & intelligent solutions
Shanghai Meicon Intelligent Construction Company
- 2016 Acquired European famous HVAC company Clivet
- 2015 JV with Siix in smart control
JV with Bosch in VRF production
- 2010 Hefei production base setup; production capability is over 4 billion RMB
- 2009 Midea lighting business merged into MBT
- 2004 Acquired Chongqing General and entered chiller field
- 1999 MBT established
Introduced Toshiba-Carrier tech. to launch the 1st VRF in China

REFERENCE PROJECTS

LARGE VENUES

- 2022 Beijing Winter Olympics
- Dubai Expo 2020
- 2018 Russia World Cup Stadiums
- 2016 Rio Games Stadiums
- Batumi Sports Palace
- Concrete Forest -Expo Milano 2015
- Cambodian National Stadium
- 2014 FIFA World Cup Brazil Beira Rio Stadium

INDUSTRY REQUIREMENT & SOLUTION



Large population shuttles back and forth within the venue when there is a sports event. Extensive air control is thus required for ensuring the comfort of the crowd. Centrifugal Chiller can provide large cooling and heating capacity for the main venue, which can be adjusted from 10% to 100% according to need. BMS system for these massive areas is necessary for intelligently sending cool or warm air to achieve cost-effective.

The dressing rooms, VIP Lounges, Skyboxes are significant to be considered for the athletes and guests to have a perfect ambient. Precise indoor temperature is significant in ensuring that the comfort level can be autonomously chosen by the athletes or guests in the independent rooms. By using a VRF system solution, it is possible to provide a precise temperature adjustment for ensuring players' performance and well-being. High user satisfaction also matters for the stadium owner.

In terms of equipment maintenance, Midea MBT provides superior proposal to the venues for enhancing the long-term goal, including training stadium staff, providing timely support and rapid reaction by the local after-sales team, etc.





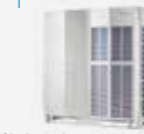
The Mountain Broadcast Center of 2022 Beijing Winter Olympics

- 📍 Country: China
- 📍 City: Zhangjiakou, Hebei
- 🏠 Outdoor Units: AirBoost Air-cooled screw chiller
- 🏠 Indoor Units: Terminals & Precision air conditioning



The Renovation Project of National Stadium for 2022 Beijing Winter Olympics

- 📍 Country: China
- 📍 City: Beijing
- 🏠 Outdoor Units: VRFs
- 🏠 Indoor Units: Precision air conditioning



The National Winter Sports Training Base for 2022 Beijing Winter Olympics

- 📍 Country: China
- 📍 City: Beijing
- 🏠 Outdoor Units: VRFs



National Cross-Country Skiing Center, National Ski Jumping Centre, National Biathlon Center for 2022 Beijing Winter Olympics

- 📍 Country: China
- 📍 City: Zhangjiakou, Hebei
- 🏠 Outdoor Units: VRFs



The Big Air Shougang Park for 2022 Beijing Winter Olympics

- 📍 Country: China
- 📍 City: Beijing
- 🏠 Outdoor Units: ATW heap pump
- 🏠 Indoor Units: AHU & FCU & Fresh air processor & Group control system



The 2022 Beijing Winter Olympic Village

- 📍 Country: China
- 📍 City: Beijing
- 🏠 Outdoor Units: VRFs
- 🏠 Indoor Units: AHU & FCU & Central control system



Taicheng Ice and Snow Town for 2022 Beijing Winter Olympics

- 📍 Country: China
- 📍 City: Zhangjiakou, Hebei
- 🏠 Outdoor Units: Centrifugal chillers & Screw chillers



The Beijing-Zhangjiakou High Speed Railway for 2022 Beijing Winter Olympics

- 📍 Country: China
- 📍 City: Beijing
- 🏠 Outdoor Units: Centrifugal chillers
- 🏠 Indoor Units: Precision air conditioning



Winter Sports Management Center for 2022 Beijing Winter Olympics

- 📍 Country: China
- 📍 City: Beijing



Dubai Expo 2020 Pakistan Pavilion

- 📍 **Country:** United Arab Emirates
- 📍 **City:** Dubai
- 📦 **Outdoor Units:** VC Pro VRFs



Dubai Expo 2020 Italy Pavilion

- 📍 **Country:** United Arab Emirates
- 📍 **City:** Dubai
- 📦 **Outdoor Units:** VC Pro VRFs



Dubai Expo 2020 German Pavilion

- 📍 **Country:** United Arab Emirates
- 📍 **City:** Dubai
- 📦 **Outdoor Units:** VC Pro VRFs



Dubai Expo 2020 Czech Republic Pavilion

- 📍 **Country:** United Arab Emirates
- 📍 **City:** Dubai
- 📦 **Outdoor Units:** VC Pro VRFs





2018 Russia World Cup Stadiums Luzhniki Stadium(Final Match)

- City: Moscow
- Outdoor Units: V5 X series VRF

As the last of tendering processes wrapped up and the final announcement was made, Midea Building Technologies became the biggest winner by supplying HVAC solutions for 7 out of 12 official stadiums. This is the second time that Midea as HVAC solution provider enters World Cup projects, the first time was in Brazil in 2014. The solutions provided at these venues will come as a combination of VRF, Water-cooled screw chillers and Fan coil units.



2018 Russia World Cup Stadiums Volgograd Arena

- City: Volgograd
- Outdoor Units: Water-cooled screw chiller
- Indoor Units: FCU



2018 Russia World Cup Stadiums Krestovsky Stadium

- City: St. Petersburg
- Indoor Units: FCU



2018 Russia World Cup Stadiums Cosmos Arena

- City: Samara
- Outdoor Units: Water-cooled screw chiller
- Indoor Units: FCU



2018 Russia World Cup Stadiums Nizhny Novgorod Stadium

- City: Nizhny Novgorod
- Outdoor Units: Water-cooled screw chiller
- Indoor Units: FCU



2018 Russia World Cup Stadiums Central Stadium

- City: Yekaterinburg
- Outdoor Units: V5 X series VRF
- Indoor Units: FCU



2018 Russia World Cup Stadiums Kaliningrad Stadium

- City: Kaliningrad
- Outdoor Units: V5 X series VRF
- Indoor Units: Split units

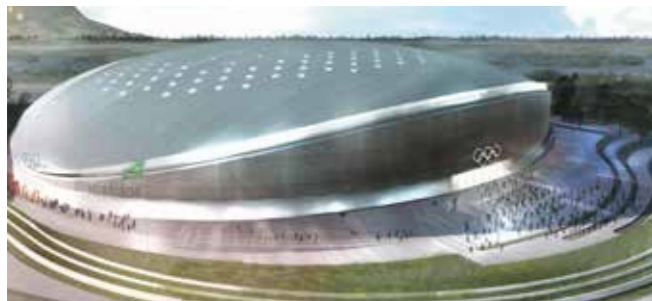




2016 Rio Games Stadiums

- 📍 Country: Brazil
- 📍 City: Rio de Janeiro
- 📦 Outdoor Units: V5 X series VRF & Mini VRF (Midea) & Chiller (Midea-Carrier)

In a prime showing of global prowess, Midea-Carrier JV has announced its winning sweep of the 142 competitions to supply climate control solutions to Brazil's new sporting stadiums in Barra and Deodoro Olympic Parks. Midea Carrier ABC JV won all the new venues in Barra Zone and Deodoro Olympic Parks. The solutions provided at these venues will come as a combination of VRF products and large tonnage chiller units.



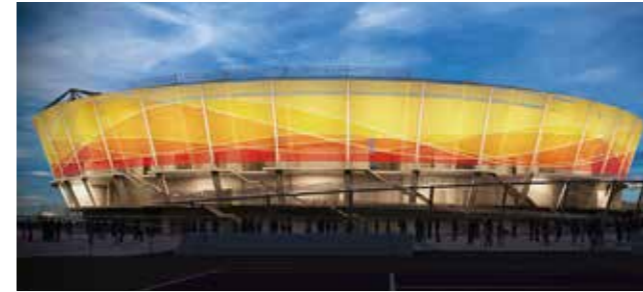
2016 Rio Games Stadiums Velodrome

- 📍 Country: Brazil
- 📍 City: Rio de Janeiro
- 📦 Outdoor Units: V5 X, Mini VRF (Midea) & 30RB Chillers (Midea-Carrier)
- 📊 Total Capacity: 54kW (V5 X, Mini VRF) & 2,901KW (Chillers)



2016 Rio Games Stadiums DEODORO Arena

- 📍 Country: Brazil
- 📍 City: Rio de Janeiro
- 📦 Outdoor Units: V5 X, Mini VRF (Midea) & (13)50TCA Rooftop (Midea-Carrier)
- 📊 Total Capacity: 124kW (V5 X, Mini VRF) & 1,776KW (Rooftop)



2016 Rio Games Stadiums Tennis Center

- 📍 Country: Brazil
- 📍 City: Rio de Janeiro
- 📦 Outdoor Units: 30RB Chillers (Midea-Carrier)
- 📊 Total Capacity: 844kW (Chillers)



2016 Rio Games Stadiums MPC

- 📍 Country: Brazil
- 📍 City: Rio de Janeiro
- 📦 Outdoor Units: V5 X (Midea) & 30RB Chillers (Midea-Carrier)
- 📊 Total Capacity: 316kW (V5 X) & 4,748kW (Chillers)



2016 Rio Games Stadiums IBC

- 📍 Country: Brazil
- 📍 City: Rio de Janeiro
- 📦 Outdoor Units: 30RB Chillers (Midea-Carrier)
- 📊 Total Capacity: 25,111kW (Chillers)



2016 Rio Games Stadiums Handball Arena

- 📍 Country: Brazil
- 📍 City: Rio de Janeiro
- 📦 Outdoor Units: Mini VRF (Midea) & 30RB Chillers (Midea-Carrier)
- 📊 Total Capacity: 4,220kW (Chillers)



2016 Rio Games Stadiums OBS

- 📍 Country: Brazil
- 📍 City: Rio de Janeiro
- 📦 Outdoor Units: V5 X (Midea)
- 📊 Total Capacity: 546kW (V5 X)



2016 Rio Games Stadiums COT1,2,3

- 📍 Country: Brazil
- 📍 City: Rio de Janeiro
- 📦 Outdoor Units: V5 X & V4+ VRF (Midea) & 30RB Chillers (Midea-Carrier)
- 📊 Total Capacity: 209kW (V5 X, V4+VRF) & 10,639kW (Chillers)





Batumi Sports Palace

- 🌍 **Country:** Georgia
- 📍 **City:** Batumi
- 🏢 **Outdoor Units:** Air-cooled screw chiller
- 🏠 **Indoor Units:** FCU
- 📊 **Total Capacity:** 2,160kW



Batumi Sports Palace is a new football stadium for Black Sea coastal Batumi and also part of a larger state program aiming to develop sports infrastructure in Georgia. The sports complex will consist of two indoor arenas capable of hosting various sporting events. It is also the second time that Midea provides comprehensive HVAC solutions for Georgian sports stadiums after 2015 European Youth Olympic Games.

Midea supplied three air-cooled screw chillers and FCU for the sports palace. Total capacity was 2,160kW. Midea air-cooled screw chillers are designed to meet current and future requirements in terms of reliability, energy efficiency and intelligent control, fully meeting all the requirements of large venues.



Concrete Forest - Expo Milano 2015

- 🌍 **Country:** Italy
- 📍 **City:** Milano
- 🏢 **Outdoor Units:** Heat Pump



Cambodian National Stadium

- 🌍 **Country:** Cambodia
- 📍 **City:** Phnom Penh
- 🏢 **Outdoor Units:** VC Pro VRFs
- 📊 **Total Capacity:** 3,503kW



2014 FIFA World Cup Brazil Beira Rio Stadium

- 🌍 **Country:** Brazil
- 📍 **City:** Porto Alegre
- 🏢 **Outdoor Units:** 3-pipe heat recovery VRF
- 🏠 **Indoor Units:** Duct & Cassette type
- 📊 **Total Capacity:** 758kW



Riverbank Stadium, the biggest one in the south of Brazil, held six group matches and two elimination matches in the 2014 World Cup. The air conditioning equipment has to adjust to the different operating and time requirements of each zone in the stadium. In addition, flexible control is needed to avoid energy waste for the large cooling load, short-term dense population and high mobility in the stadium. Midea has helped a lot in Beira Rio's winning of LEED silver certification by providing high efficiency heat recovery VRF system to the venue. V4 plus R series VRF, features top cooling and heating effect. It can achieve simultaneous cooling and heating which greatly reduces the energy consumption and help cut the running cost. Besides, it is friendlier to the environment as it emits less carbon dioxide and makes the place more cozy and comfortable for the fanatic fans. In Brazil, less than 1% of the buildings have certification of sustainability, not to say the higher level of certification LEED Silver. And the obtaining of LEED silver certification further demonstrates the excellent quality of Midea air conditioning equipment that applied in Beira Rio Stadium.

REFERENCE PROJECTS

TRANSPORTATION

- Guangzhou Baiyun International Airport T2 Terminal
- Beijing Daxing International Airport
- China-Laos Railway Project (from Boten to Vientiane)
- Beijing Capital Airport T3 Terminal
- Jakarta International Airport
- Singapore Changi Airport
- Ercan International Airport
- Don Mueang International Airport

INDUSTRY REQUIREMENT & SOLUTION

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There are data rooms, control rooms, etc. in the transportation facility, where each part of these areas runs 24/7 to remain normal operation. Precision AC is required in this case to cool down and remain the equipment at the appropriate temperature.

In the circulation area, hundreds of people remain in the same indoor spot. It is necessary to have a big capacity system. Thus, extensive air supply for a densely populated area and unnoticed cooling and heating is necessary.

Not only the HVAC products but also the support of the service and maintenance matter a lot for the transportation facility. Sustainability is one of the key points to emit less carbon dioxide and make the place comfortable for the passengers. Throughout the year, Midea MBT has been dedicated to innovative green products and has attained great achievement in energy-saving and green technology.

”



Guangzhou Baiyun International Airport T2 Terminal

- 🌐 **Country:** China
- 📍 **City:** Guangzhou
- 🏢 **Outdoor Units:** Centrifugal chiller
- 🏢 **Indoor Units:** FCU & AHU
- 📊 **Total Capacity:** 125,486kW



Midea MBT provided 30 high efficiency centrifugal chillers and 10 inverter direct-drive centrifugal chillers in the renovated project. Midea inverter direct-drive centrifugal chiller has less refrigerant charge and lower noise, COP is up to 6.399, and owns more than 20 technology patents. Full ranges of Midea centrifugal chillers have been certified by AHRI and adopt full falling film technology which can save refrigerant charging volume by 40%.



Beijing Daxing International Airport

- 🌐 **Country:** China
- 📍 **City:** Beijing
- 🏢 **Outdoor Units:** Full falling film centrifugal chiller & Water-cooled screw chiller & M-BMS
- 📊 **Total Capacity:** 49,238kW



China-Laos Railway Project (from Boten to Vientiane)

- 🌐 **Country:** China / Laos
- 📍 **City:** From Boten to Vientiane
- 🏢 **Outdoor Units:** 5 Air-cooled screw heat pump chillers & 1 Air-cooled scroll heat pump chiller & 64 VRF ODUs
- 📊 **Total Capacity:** 49,238kW





Beijing Capital Airport T3 Terminal

- 📍 Country: China
- 📍 City: Beijing
- 📦 Outdoor Units: Centrifugal chiller & Water-cooled
- 📦 Indoor Units: FCU
- 📊 Total Capacity: 33,600kW



Jakarta International Airport

- 📍 Country: Indonesia
- 📍 City: Jakarta
- 📦 Outdoor Units: Air-cooled screw chiller
- 📦 Indoor Units: FCU & AHU
- 📊 Total Capacity: 1,400kW



Singapore Changi Airport

- 📍 Country: Singapore
- 📍 City: Changi
- 📦 Outdoor Units: VRF & Water-cooled packaged units
- 📦 Indoor Units: Duct & Cassette
- 📊 Total Capacity: 2,084kW



Ercan International Airport

- 📍 Country: Northern Cyprus
- 📍 City: Nicosia
- 📦 Outdoor Units: High efficiency inverter direct-drive centrifugal chiller
- 📊 Total Capacity: 11,606kW



Don Mueang International Airport

- 📍 Country: Thailand
- 📍 City: Bangkok
- 📦 Outdoor Units: VFD direct-drive centrifugal chillers
- 📊 Total Capacity: 14,068kW



REFERENCE PROJECTS

HOTELS & RESORTS

- Alan Xafira Deluxe Resort & Spa(Five Star)
- Atlantis Hotel(Five Star)
- Sheraton Bandara Resort Hotel(Five Star)
- San Juan Marriott Resort
- Pullman Hotel & Resort Mandalika
- Grand Mercure Hotel(Five Star)
- Marriott Hotel(Five Star)
- Hotel Marriott Porto Maravilha
- Corfu Apartment in Cyprus

INDUSTRY REQUIREMENT & SOLUTION



Visitors stay in the different independent small rooms in the hotel. Thus, it is necessary to have a big capacity system and the guests should be able to autonomously choose the indoor comfort level. In this case, the key is an integrated VRF system and its automation to provide the right amount of air in different independent rooms. Visitors can precisely adjust the indoor temperature by 0.5 degrees through the Midea VRF system.

Many visitors intensively stay within the hotel and resort areas, which require an extensive hot water supply. To offer stable hot water for all guests, commercial ATW Heat Pumps for the large zone are highly required. Sanitary hot water supply can be satisfied by the Midea HVAC comprehensive solutions.

Also, visitors might intensively stay within the lobby or meeting room, which require a large-scale of cooling and ventilation. To offer comfort feeling for all guests, strong warm/cool air flow provided by Chiller and AHU for the large zone is highly required. Fresh Air Processor provides abundant fresh air toward indoor space contributing to healthy breath.

To reduce the long-term cost, easy installation and maintenance are required. Midea MBT provides on-site professional engineers and advanced diagnosis software to support.





Sheraton Bandara Resort Hotel (Five Star)

- 📍 Country: Indonesia
- 📍 City: Jakarta
- 📦 Outdoor Units: Air-cooled screw chiller
- 📦 Indoor Units: FCU
- 📊 Total Capacity: 3,693kW



Alan Xafira Deluxe Resort & Spa (Five Star)

- 📍 Country: Turkey
- 📍 City: Alanya
- 📦 Outdoor Units: V4+ series VRF
- 📦 Indoor Units: Cassette & Duct & Wall-mounted
- 📊 Total Capacity: 1,029kW



Atlantis Hotel (Five Star)

- 📍 Country: UAE
- 📍 City: Dubai
- 📦 Indoor Units: FCU & AHU



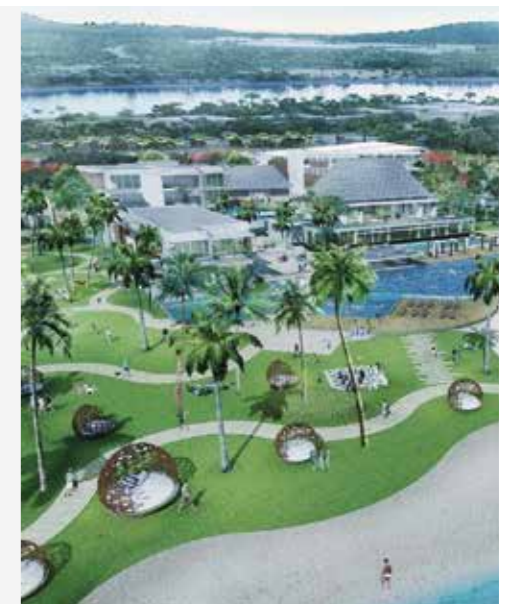
San Juan Marriott Resort

- 📍 Country: Puerto Rico
- 📍 City: San Juan
- 📦 Outdoor Units: V5 X series VRF
- 📦 Indoor Units: Cassette & Duct



Pullman Hotel & Resort Mandalika

- 📍 Country: Indonesia
- 📍 City: Lombok
- 📦 Outdoor Units: 3 Inverter water-cooled anti-corrosion screw chillers for coastal area+airsides





Grand Mercure Hotel(Five Star)

- 📍 **Country:** Indonesia
- 📍 **City:** Jakarta
- 📦 **Outdoor Units:** Inverter direct-drive centrifugal chiller
- 📊 **Total Capacity:** 4,220kW
- 📅 **Completion Year:** 2016



As we all know that hotels have high requirements on energy-saving, mature successful experience in the industry and stable performance of the products. Midea inverter direct-drive centrifugal chiller has less refrigerant charge and lower noise, COP is up to 6.399, and owns more than 20 technology patents. Midea MBT will install 3 inverter direct-drive chillers with the total capacity of 1,200RT.



Marriott Hotel(Five Star)

- 📍 **Country:** China
- 📍 **City:** Foshan
- 📦 **Outdoor Units:** Centrifugal chiller
- 📦 **Indoor Units:** FCU & AHU
- 📊 **Total Capacity:** 6,682kW



Hotel Marriott Porto Maravilha

- 📍 **Country:** Brazil
- 📍 **City:** Rio de Janeiro
- 📦 **Outdoor Units:** V5 X series VRF
- 📦 **Indoor Units:** Duct & Cassette
- 📊 **Total Capacity:** 252kW



Corfu Apartment in Cyprus

- 📍 **Country:** Cyprus
- 📍 **City:** Ayia Napa
- 📦 **Outdoor Units:** V4 + series VRF & V5 X series VRF
- 📦 **Indoor Units:** Duct & Cassette



REFERENCE PROJECTS

COMPLEX

- Sarab Community Market
- Nest One Shopping Mall
- Salalah Grand Mall
- Egypt Salam Towers Ultra-large Complex Project
- Prince International Plaza
- Al Rajhi Tower
- UG-IPCO in Dhaka
- Machtetazo Supermarkets in Panama

INDUSTRY REQUIREMENT & SOLUTION

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High-Efficiency Machine Room supports a total solution for the comprehensive comfort of large visitor flow volume in the large-scale complex. Both the shopping center and office require quick and extensive cooling. Chiller provides extensive air supply for densely populated areas.

Considering various cooling demands in different rooms in the office building, the VRF system allows the billing system to be divided into different rooms based on the specific cooling and heating consumption.

Centralized control and management of the HVAC solution can save labor costs and improve operation efficiency in managing the large-scale complex.

”



Sarab Community Market

- 📍 **Country:** Abu Dhabi
- 📍 **City:** Baniyas East
- 📦 **Outdoor Units:** Air-cooled screw chillers
- 📦 **Indoor Units:** Modular AHU & Standards AHU
- 🕒 **Total Capacity:** 3,999kW



Nest One Shopping Mall

- 📍 **Country:** Uzbekistan
- 📍 **City:** Toshkent
- 📦 **Outdoor Units:** 3 Inverter Direct-drive centrifugal chillers & 2 Water-cooled screw chillers
- 🕒 **Total Capacity:** 7,512kW



Salalah Grand Mall

- 📍 **Country:** Oman
- 📦 **Outdoor Units:** Air-cooled screw chiller
- 🕒 **Completion Year:** 2018

Salalah Grand Mall which is a new mall in Oman is being developed by Oman's Ministry of Defense Pension Fund as part of a joint venture with Al Madina Real Estate Company, according to a report in the Times of Oman. Foundation stone of Salalah Grand Mall was laid in July 2017, after it is finished, the project will spread across 70,000sqm of land with multiple floors, which will be the largest mixed-use development in Oman. Clivet followed the project since 2016. Recently, as the last tender was settled and final announcement was made, Clivet was designated to provide 6 air-cooled screw chillers for the project, each one was 1,450kW.



Egypt Salam Towers Ultra-large Complex Project

- 🌍 **Country:** Egypt
- 📍 **City:** Cairo
- 📦 **Outdoor Units:** V6 series VRF
- 🔋 **Total Capacity:** 18,007kW



Al Rajhi Tower

- 🌍 **Country:** Saudi Arabia
- 📍 **City:** Riyadh
- 📦 **Outdoor Units:** V6 series VRF(T3)
- 📦 **Indoor Units:** Duct & Cassette



Prince International Plaza

- 🌍 **Country:** Cambodia
- 📍 **City:** Phnom Penh
- 📦 **Outdoor Units:** 2 Centrifugal chillers & 1 Water cooled screw chiller & 176 VX series VRFs
- 📦 **Indoor Units:** 24 AHUs & 311 FCUs & 1,362 VRF IDUs duct
- 🔋 **Total Capacity:** 17,207kW



UG-IPCO in Dhaka

- 🌍 **Country:** Bangladesh
- 📍 **City:** Dhaka
- 📦 **Outdoor Units:** Oil-free & Green solution with low Operating cost: 3*1,000RT magnetic centrifugal chillers
- 📦 **Indoor Units:** FCU
- 🔋 **Total Capacity:** 10,551kW



Machetazo Supermarkets in Panama

- 🌍 **Country:** Panama
- 📦 **Outdoor Units:** 7 Air cooled screw chillers
- 📦 **Indoor Units:** 35 Air handling units



REFERENCE PROJECTS

GOVERNMENTAL PROJECTS

- The Conference Center of African Union
- Main Building of the Chinese Embassy in Jakarta
- Cambodian Ministry of National Defense
- Prime Minister's Office in New Delhi
- Federal Security Service
- Opole Public Services Center in Poland
- Mozambique Presidential Palace
- Chile Ministry of Foreign Affairs

INDUSTRY REQUIREMENT & SOLUTION

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Due to the distinctiveness of the government project, the confidentiality of the office areas and meeting rooms are strongly required. They require one control system to manage the air supply of each room. Thus, a concentrated control system to avoid external persons entering the confidential zone is necessary.

In the working zone, the ambient temperature and air quality play a prominent role in supporting the efficiency of conferees and employees. Precisely controlling indoor temperature and quiet indoor units are necessary to ensure a dedicated working environment.

In the further restoration and development of the government, it might need to remove the old equipment and fit the new solutions under remaining the original building structures, which is usually an installation challenge for the retrofitted projects. Midea MBT offers reliable and flexible installation and maintenance solutions to feasibly install within the limited area, and to maintain with less unnecessary time.

”



Main Building of the Chinese Embassy in Jakarta

- 📍 **Country:** Indonesia
- 📍 **City:** Jakarta
- 📦 **Outdoor Units:** 23 Units of air cooled scroll chiller
- 📊 **Total Capacity:** 990kW



Cambodian Ministry of National Defense

- 📍 **Country:** Cambodia
- 📍 **City:** Phnom Penh
- 📦 **Outdoor Units:** VC Pro VRF
- 📦 **Indoor Units:** AHU & DUCT
- 📊 **Total Capacity:** 4,680kW



The Conference Center of African Union

- 📍 **Country:** Ethiopia
- 📍 **City:** Addis Ababa
- 📦 **Outdoor Units:** V4+ series VRF
- 📦 **Indoor Units:** Duct & Cassette
- 📊 **Total Capacity:** 835kW

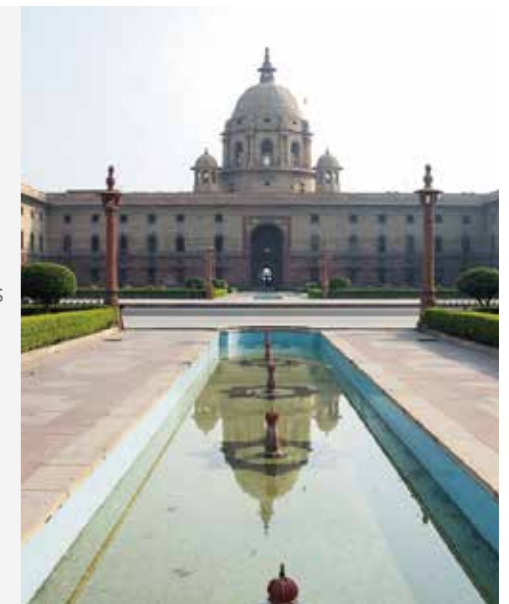


The Conference Center of African Union is the largest project supported by China after Tanzania Zambia Railway in Africa. It is not only a new paradigm for friendly cooperation between China and Africa, but also the new symbol of the rise of Africa. Midea MBT gained recognition from African government and won the bid for the air conditioner project of the Conference Center of African Union because of the world-leading products and perfect after-sales service systems. Considering the desert climate and strict requirement for air conditioners, Midea MBT learned from the successful experience of the previous projects, adopted V4+ series VRF in Phase I and Phase II projects and won unanimous praises from the local government.



Prime Minister's Office in New Delhi

- 📍 **Country:** India
- 📍 **City:** New Delhi
- 📦 **Outdoor Units:** 4 Inverter Direct-drive centrifugal chillers
- 📊 **Total Capacity:** 4,680kW





Federal Security Service

- 🌐 **Country:** Russia
- 📍 **City:** Moscow
- 🏢 **Outdoor Units:** Centrifugal chiller
- 🏠 **Indoor Units:** 17,585kW
- 🕒 **Total Capacity:** 2015



Federal Security Service is located in Moscow, mainly responsible for the safety stuff in Russia. It grew out of KGB. After the disintegration of the Soviet Union in 1991, it was named Federal Security Service. Midea MBT provided centrifugal chillers for the project after close negotiation and finally accomplished the project in 2015.



Mozambique Presidential Palace

- 🌐 **Country:** Mozambique
- 📍 **City:** Maputo
- 🏢 **Outdoor Units:** V4 + series VRF
- 🏠 **Indoor Units:** Duct & Cassette
- 🕒 **Total Capacity:** 644kW



Opole Public Services Center in Poland

- 🌐 **Country:** Poland
- 📍 **City:** Opole
- 🏢 **Outdoor Units:** 27 V6i & 40 Mini VRFs
- 🕒 **Total Capacity:** 1,400kW



Chile Ministry of Foreign Affairs

- 🌐 **Country:** Chile
- 📍 **City:** Santiago
- 🏢 **Outdoor Units:** Inverter direct-drive centrifugal chiller
- 🏠 **Indoor Units:** FCU & AHU
- 🕒 **Total Capacity:** 2,110kW





REFERENCE PROJECTS

CULTURE FACILITIES

- Winter Palace
- NTP Novi Sad Scientific and Technological Centre in Serbia
- National Theatre

INDUSTRY REQUIREMENT & SOLUTION

“

As the appearance and structure of many culture facilities are specially designed involving traditional ethnic culture, the installation of HVAC equipment must comply with the layout of the facilities.

The silent environment is significant to ensure a relaxing indoor visiting experience. Midea HVAC solution offers the silent technologies of outdoor units and quiet indoor units to create an environment with less ambient noise environment and increase comfort for all the visitors. The pleasing air needs to deliver to every corner within the hall for providing a comfortable environment to every visitor. High user satisfaction also matters.

The compact size and installation flexibility of the outdoor units might be required to ensure compliance with the space design of the facility's roof. The easy-manageable control and the energy-efficient solution are effective tools to maintain comfort environment in the facility.

”



Winter Palace

- 📍 **Country:** Russia
- 📍 **City:** Saint Petersburg
- 📦 **Outdoor Units:** Digital scroll VRF
- 📦 **Indoor Units:** Duct & Cassette
- 📊 **Total Capacity:** 735kW



Winter Palace is one of the four museums in the world with 2.7 million artworks, including paintings created by Leonardo da Vinci and Raphael in Italian Renaissance period. Since 2014, Winter Palace has been maintained and renovated. Midea MBT provided Digital Scroll VRF with total capacity of 735kW. To ensure the outstanding reliability, strict temperature control and humidity and the best airflow management, designers conduct early simulation analysis and strict control on construction process. Meanwhile, the easy installation of Digital Scroll VRF can maximize the protection of the original appearance of Winter Palace.



NTP Novi Sad Scientific and Technological Centre in Serbia

- 📍 **Country:** Serbia
- 📍 **City:** Novi Sad
- 📦 **Outdoor Units:** 6 CE-certified Air-cooled scroll chillers
- 📊 **Total Capacity:** 2,040kW



National Theatre

- 📍 **Country:** Russia
- 📍 **City:** Moscow
- 📦 **Outdoor Units:** Spinchiller units with free cooling





REFERENCE PROJECTS

EDUCATION

- Perth Campus
- Harran University
- The University of Georgia
- Komar University

INDUSTRY REQUIREMENT & SOLUTION

“

The education project is a highly diversified place containing dining rooms, teaching areas, leisure rooms, office buildings, etc. Thus, the optimal comfort for every area is the principal purpose.

In the teaching areas, it requires silent technology of outdoor units and quiet indoor units ensuring a dedicated learning environment for the students. Precise indoor temperature is important in ensuring that the comfort level can be autonomously chosen by the teachers or students in the classroom or meeting room.

”



Perth Campus

- 📍 Country: Australia
- 📍 City: Perth
- 📦 Outdoor Units: V4+W series VRF
- 📦 Indoor Units: Duct & Cassette
- 📅 Completion Year: 2018



The Perth Campus is achieved by converting the existing building and the new use for the building is to be Purpose Built Student Accommodation (PBSA). Midea supplied water-cooled V4+ Series VRF for Campus Perth which was the first project in Perth that was installed with Midea water-cooled VRF. What's more, this project was also the largest water-cooled VRF project in Perth. Midea water-cooled V4+ Series VRF has no outdoor fan, which means a more compact design and lower noise. Besides, there is less limitation for installation space compared with the air-cooled system.



The University of Georgia

- 📍 Country: Georgia
- 📍 City: Tbilisi
- 📦 Outdoor Units: Water-cooled screw chiller
- 📦 Indoor Units: FCU
- 📅 Total Capacity: 1,200kW



Harran University

- 📍 Country: Turkey
- 📍 City: Sanliurfa
- 📦 Outdoor Units: Centrifugal chiller
- 📦 Indoor Units: FCU & AHU
- 📅 Total Capacity: 10,551kW



Komar University

- 📍 Country: Iraq
- 📍 City: Sulaymaniyah
- 📦 Outdoor Units: Air-cooled screw & scroll chiller
- 📦 Indoor Units: FCU & AHU
- 📅 Total Capacity: 2,350kW



REFERENCE PROJECTS

OFFICES

- Midea Headquarter Building
- Commercial Bank of Ethiopia Headquarters
- World Trade Center
- ALDAR Headquarter
- Deloitte HQ Building in Wellington
- King Road Tower
- PwC Tower in South Africa
- Konya Conference Center

INDUSTRY REQUIREMENT & SOLUTION

“

As the interior areas of independent office rooms and meeting rooms are relatively smaller, precise comfort is significant in delivering a concentrated working environment. Operation cost and water consumption are also greatly concerned by the owner. A new eco-friendly solution is highly needed.

It is important to offer precise indoor temperature for the dedicated working environment in the office, which requires reaching efficiency standards and satisfying comfort requests. At the same time, chillers are utilized in the large-scale office building to offer an economic, low-carbon, efficient solution. Commercial ATW Heat Pump Water Heater supports hot water consumption. Comfort working environment also matters to the working efficiency.

”



Midea Headquarter Building

- 📍 **Country:** China
- 📍 **City:** Foshan
- 📦 **Outdoor Units:** V4+ series VRF & Centrifugal chiller & Water-cooled screw chiller
- 🕒 **Total Capacity:** 13,012kW
- 📅 **Completion Year:** 2010



Commercial Bank of Ethiopia Headquarters

- 📍 **Country:** Ethiopia
- 📍 **City:** Addis Ababa
- 📦 **Outdoor Units:** V5 X series VRF
- 📦 **Indoor Units:** Cassette
- 🕒 **Total Capacity:** 3,918kW



World Trade Center

- 📍 **Country:** Paraguay
- 📍 **City:** Asuncion
- 📦 **Outdoor Units:** Condensing units
- 📦 **Indoor Units:** AHU
- 🕒 **Total Capacity:** 6,577kW



ALDAR Headquarter

- 📍 **Country:** UAE
- 📍 **City:** Abu Dhabi
- 📦 **Indoor Units:** Air handling units



Aldar Headquarters is the first round building in Middle East. Known as "The Big Seashell", it will host the headquarters of the biggest real estate company in Abu-Dhabi and of other very important multinational companies operating in the area. Aldar Headquarters is included in the Al Raha Beach Development, the development project of over 14 billion dollars of the new urban district of Abu Dhabi. The whole building looks like a large glass lens exposed to the Abu Dhabi desert climate with summer day temperature that can exceed 40°C. These challenging conditions and the high internal loads, make necessary the use of high performance and reliability air conditioning systems.

The unusual architecture, a strong constraint since the project phase, has made impossible to use outdoor spaces for the equipment. For aesthetic and visual integration, just very small internal spaces have been dedicated to the service rooms. The contractor required also total quality of the air and maximum acoustic comfort. The big flexibility in the distribution of internal spaces would have been an awarding factor when selling the available surfaces.

Aldar Headquarters uses very big hydronic air handling units for the air conditioning of all central and perimeter areas. All machines are placed in two separated areas on the first twenty-second floor. Each unit can handle up to 80,000 cubic meters of air, filtering, cooling and dehumidifying the fresh and return air according to the different area needs. The variable airflow type (VAV) distribution system is controlled by a supervision system through inverter. The remaining back-of-house areas are served by over 80 hydronic fan coil units installed in the ceiling. The whole system is predisposed to provide supplementary chilled water, fresh air and exhaust system in order to be adapted to further individual needs. Thanks to the design choices, the air conditioning system is invisible from the outside and fully integrated into the architecture. Despite the high performance requested to the air handling units and their consequent large size, the air handling units perfectly fitted to the small technical available spaces. Their modularity and to the technical and the constructive solutions adopted for a proper maintenance made it possible.



Deloitte HQ Building in Wellington

- 📍 Country: New Zealand
- 🏢 Outdoor Units: Air-cooled & Water-cooled chiller
- 📅 Completion Year: 2017

Deloitte is a UK-incorporated multinational professional services network and is also one of the "Big Four" accounting organizations and the largest professional services network in the world by revenue and number of professionals. Clivet supplied air-cooled and water-cooled chiller solutions for Deloitte HQ building in Wellington, New Zealand. Air-cooled multifunctional chillers provided simultaneous and independent heating and cooling and the water-cooled chillers provided cooling function. Total capacity is 2,560kW.



PwC Tower in South Africa

- 📍 Country: South Africa
- 🏢 Outdoor Units: SPINchiller Air-cooled modular chillers
- 📅 Completion Year: 2017



The new PwC Tower was developed in a prime location overlooking the Waterfall City Park and Mall of Africa, our exclusive distributor for Midea and Clivet in South Africa won the project and supplied 4 Clivet SPINchiller3 air-cooled modular chillers, also 3 chillers were multi-functional type. Total capacity was up to 950kW. The PwC Tower was designed by LYT Architecture. Guy Steenekamp, a director at LYT Architecture explained: "The brief for the PwC Tower at Waterfall City called for an iconic building form that would be unique to the development and which would mark the property as a new top tier destination for business."



King Road Tower

- 📍 Country: Saudi Arabia
- 📍 City: Jeddah
- 🏢 Outdoor Units: Centrifugal chiller
- 📊 Total Capacity: 3,869kW
- 📅 Completion Year: 2017



King Road Tower is a 34-storey office tower that is located in Jeddah, Saudi Arabia. It is the most famous office building in Jeddah. As a landmark in Saudi Arabia, King Road Tower has put high requirements on energy efficiency and stable operation status. Midea centrifugal chiller was delivered in 2011 and has been kept for 6 years in our client warehouse. On April 2017, it has been put into commissioning and until now, there are no errors or problems indicated and Midea centrifugal chiller won a great reputation from the owner.



Konya Conference Center

- 📍 Country: Turkey
- 📍 City: Konya
- 🏢 Outdoor Units: Centrifugal chiller & Air-cooled screw chiller
- 📊 Total Capacity: 3,869kW



REFERENCE PROJECTS

RESIDENTIAL BUILDINGS

- Al Ain Fayda Emirati Housing Development-5000 Villas
- KOY Project
- Saraya Aqaba Project
- Beverly Hills
- Ciputra World 2 Apartment
- Lalave Towers in Iraq, Iraq Gate Project

INDUSTRY REQUIREMENT & SOLUTION

“

As thousands of villas, townhouses and penthouses in the residential area need to install HVAC equipment, a one-stop solution is convenient for the owners.

The ATW Heat Pump provides a one-stop solution for heating, cooling, domestic hot water and floor heating. Not only being able to connect to solar panels, but it also has much lower noise for the indoor environment. It also has good performance in environmental-friendly and energy-saving, which is the peace of mind for the owners and users. What's more, its user-friendly control system enables users to administrate energy utilization.

The compact size and installation flexibility of the Mini VRF ensure compliance with the space availability. Rooftop is designed and manufactured to offer the all-in-one solution with wide application and cost-effectiveness. To achieve easy installation and maintenance, the structure of the rooftop package units is flexible for the installation on the rooftop and ground.

”



Al Ain Fayda Emirati Housing Development-5000 Villas

- 🌍 **Country:** UAE
- 📍 **City:** Al Ain
- 🏠 **Outdoor Units:** Tropical digital scroll VRF
- 🏠 **Indoor Units:** Wall-mounted & Cassette
- 🔊 **Total Capacity:** 5,968kW



Located in the hottest place with the high temperature of 48°C (118.4°F), Al Ain Fayda villas have terrible climate conditions. In order to establish a comfortable indoor climate, Midea MBT provided digital scroll VRF for the air conditioner project. The VRF system operates stably under extreme conditions, ranging from minus 15°C to 54°C in cooling mode and minus 15°C to 24°C in heating mode.



KOY Project

- 🌍 **Country:** Turkey
- 📍 **City:** Istanbul
- 🏠 **Outdoor Units:** Mini VRF & V4+K series VRF
- 🏠 **Indoor Units:** Duct & Cassette
- 🔊 **Total Capacity:** 8,000kW



Saraya Aqaba Project

- 🌍 **Country:** Jordan
- 📍 **City:** Aqaba
- 🏠 **Outdoor Units:** Tropical V4+S series VRF
- 🏠 **Indoor Units:** Duct & Cassette
- 🔊 **Total Capacity:** 557kW



Saraya Aqaba is a premier hospitality and leisure destination comprised of approximately 634,000 m² of master planned development to be built around a 1.5 kilometer lagoon with world-class hotels, signature retail shops, international restaurants, a water park, beach club and amphitheater. Midea MBT is proud to provide advanced systems and legacy of innovation to this exciting project. We're pleased to support Saraya Aqaba with our strong record and proven technologies. The project is located along the shores of the Red Sea, where the temperature remains high all the year round. Besides, it has a high requirement on anticorrosion. Midea MBT certainly solved all the problems by providing our tropical V4+S series VRF.





Beverly Hills

- 📍 **Country:** Qatar
- 📍 **City:** Doha
- 🏢 **Outdoor Units:** V5 X series VRF
- 🏢 **ODU Qty:** 44
- 🏢 **Indoor Units:** Duct & Wall-mounted

- 📦 **IDU Qty:** 391
- 🔋 **Total Capacity:** 2,800kW
- 📅 **Completion Year:** 2018



Beverly Hills Rayyan is a luxury residence compound located in Al Rayyan area, Doha, Qatar that features both villas and apartments. Midea MBT local distributor in Qatar won the air conditioning project during the bids and set to provide V5 X series VRF. Qatar has a stable policy as well as promising economy situation with abundant natural resources and complete infrastructure. All of these guarantee the development of "Belt and Road" initiative between China and Qatar.



Ciputra World 2 Apartment

- 📍 **Country:** Indonesia
- 📍 **City:** Jakarta
- 🏢 **Outdoor Units:** V4+K series VRF & Mini VRF
- 🏢 **Indoor Units:** Duct & Cassette
- 🔋 **Total Capacity:** 7,210kW



Lalave Towers in Iraq, Iraq Gate Project

- 📍 **Country:** Iraq
- 📍 **City:** Erbil
- 🏢 **Outdoor Units:** Mini C VRF
- 🔋 **Total Capacity:** 10,551kW



REFERENCE PROJECTS

INDUSTRY

- Tesla Gigafactory Shanghai
- JA Solar Vietnam Factory
- Sistema Plastic Factory
- Baladna Milk Factory
- WVN Factory in Vietnam
- Seraphim Solar Plant in S.A.
- KUKA Robotics in Hungary

INDUSTRY REQUIREMENT & SOLUTION

“

In the process of production, the industry requires a large number of Chillers to strongly cool down the production equipment and production material. It ensures normal operation and improve production efficiency. High-Efficiency Machine Room ensures the system running with cost-effectiveness and low maintenance cost.

Not only the HVAC products but also the support of service and maintenance matter a lot for the industry project. Due to the industry requiring much equipment to retain the normal production operation, frequent technical assistance is demanded. Midea engineer teams provide on-site debugging during installation and remote after-sale assistance. Local after-sale teams provide timely support and rapid reaction for equipment maintenance.

”



Tesla Gigafactory Shanghai

- 📍 Country: China
- 📍 City: Shanghai
- 📦 Outdoor Units: MDV VRF



JA Solar Vietnam Factory

- 📍 Country: Vietnam
- 📍 City: Bac Giang Province



3.5GW Battery Factory Project

- 📦 Outdoor Units: Super high efficiency High-voltage (10KV) inverter centrifugal chillers with full heat recovery application
- 🕒 Total Capacity: 56,272kW

1.5GW PV Factory Project

- 📦 Outdoor Units: 3 Super high efficiency centrifugal chillers
- 🕒 Total Capacity: 12,661kW



Sistema Plastic Factory

- 📍 Country: New Zealand
- 📍 City: Auckland
- 📦 Product: SPINchiller air-cooled modular chillers
- 🕒 Completion Year: 2016



Sistema is a New Zealand based manufacturing company that sells a range of plastic storage containers in over 90 countries. It has offices in Australia, UK, France, Scandinavia, and USA along with an extensive worldwide distribution network. Besides, it opened a world-class 52,000sqm manufacturing plant in Auckland and has over 700 employees. Clivet is a preferred supplier of the air-cooled process chillers for Sistema Plastics in Auckland, NZ for the last 7 years. In 2016, Sistema built a new factory in Auckland and added two new Clivet air cooled modular chillers to their existing Clivet air cooled chiller package. Total capacity of Clivet units used for Sistema process cooling is above 2,000kW.



Baladna Milk Factory

- 🌐 **Country:** Qatar
- 📍 **City:** Doha
- 🏢 **Outdoor Units:** V5 X series VRF & Rooftop packaged units
- 📦 **ODU Qty:** 61
- 🏠 **Indoor Units:** Duct & Wall-mounted
- 📦 **IDU Qty:** 234
- 📅 **Completion Year:** 2018



WVN Factory in Vietnam

- 🌐 **Country:** Vietnam
- 📍 **City:** Tỉnh Hà Nam
- 🏢 **Solution:** M-BMS system, 7 VFD Direct-drive centrifugal chillers & 2 VFD screw chillers
- 📅 **Total Capacity:** 34,467kW



Seraphim Solar Plant in S.A

- 🌐 **Country:** South Africa
- 📍 **City:** East London
- 🏢 **Outdoor Units:** Full falling film water cooled screw chiller
- 📅 **Total Capacity:** 3,306kW



KUKA Robotics in Hungary

- 🌐 **Country:** Hungary
- 📍 **City:** Füzesgyarmat
- 🏢 **Outdoor Units:** Air-cooled scroll chiller
- 🏠 **Indoor Units:** FCU & AHU
- 📅 **Total Capacity:** 715kW



REFERENCE PROJECTS

HOSPITALS & HEALTHCARE

- Osmaniye 600 Bed State Hospital in Turkey
- Mahosot Hospital in Lao PDR
- Autism Academy of Jordan
- Khorfakkan Hospital in UAE
- Taiwan Taoyuan Hospital
- Indriyati Hospital

INDUSTRY REQUIREMENT & SOLUTION

“

Many patients would stay over in the hospital for further medical inspection. It is significant to consider a perfect ambient for the patient rooms. Low-noise and appropriate temperature are the key indicators. Besides, the patients could be able to autonomously adjust the indoor comfort level in different independent rooms for their best indoor feeling.

Air Purification Product and Fresh Air Processor bring high-quality air to health-oriented indoor areas. They ensure the patient rooms with purified air, constant temperature, and required humidity on relatively concentrated cooling area.

”



Osmaniye 600 Bed State Hospital in Turkey

- 📍 **Country:** Turkey
- 📍 **City:** Osmaniye
- 📦 **Outdoor Units:** 5 Inverter Direct-drive centrifugal chillers
- 📊 **Total Capacity:** 13,000kW



Autism Academy of Jordan

- 📍 **Country:** Jordan
- 📍 **City:** Amman
- 📦 **Outdoor Units:** V5 X series VRF
- 📦 **Indoor Units:** Ceiling & Floor
- 📊 **Total Capacity:** 164kW



Mahosot Hospital in Lao PDR

- 📍 **Country:** Lao PDR
- 📍 **City:** Vientiane
- 📦 **Outdoor Units:** V5 X series VRF & Air-cooled screw chiller
- 📦 **Indoor Units:** Wall-mounted & Duct & Cassette
- 📊 **Total Capacity:** 6,140kW



Khorfakkan Hospital in UAE

- 📍 **Country:** UAE
- 📍 **City:** Sharjah
- 📦 **Outdoor Units:** 7 Air-cooled screw chillers
- 📊 **Total Capacity:** 8,400kW





Taiwan Taoyuan Hospital

- 🌐 **Country:** China
- 📍 **City:** Taiwan
- 🏢 **Outdoor Units:** Inverter direct-drive centrifugal chiller
- 🏠 **Indoor Units:** FCU & AHU
- 📊 **Total Capacity:** 1,759kW



Through building an internationalized R&D team, Midea MBT has overcome various technical bottlenecks and integrated the industrial top technologies and international-advanced sophisticated technologies such as the horizontally back-to-back uniaxial direct-drive centrifugal compression and full falling film evaporation. The inverter direct-drive centrifugal chiller boasts substantial benefits such as less refrigerant charge and lower noise. Also, the operation range is wider with a more compact size. Besides, COP is up to 6.399 and IPLV is up to 10.7 and all the types are under AHRI certification.



Indriyati Hospital

- 🌐 **Country:** Indonesia
- 📍 **City:** Solo
- 🏢 **Outdoor Units:** Super high efficiency centrifugal chiller
- 🏠 **Indoor Units:** FCU & AHU & MAHU
- 📊 **Total Capacity:** 9,848kW

