

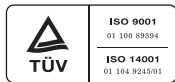
# INSTALLATION REFERENCE

INSTALLATION REFERENCE 2017

**AIRSTAGE™**

## FUJITSU GENERAL LIMITED

3-3-17, Suenaga, Takatsu-ku, Kawasaki 213-8502, Japan  
<http://www.fujitsu-general.com/>



ISO 9001  
Certified number : 01 100 89394  
Fujitsu General (Thailand) Co., Ltd.

ISO 14001  
Certified number : 01 104 9245/01



ISO 9001  
Certified number : 01 100 79269



ISO 14001  
Certified number : 310102-UK  
Fujitsu General (Shanghai) Co., Ltd.



ISO 9001  
Certified number : 0060801106182M  
Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.

ISO 14001  
Certified number : 00609E2045482M



All products specified in this brochure  
comply with the Australian  
Communications Authority's (ACA)  
requirements for Electromagnetic

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FUJITSU GENERAL LIMITED



# CREATION OF COMFORT

FUJITSU GENERAL have been developing and manufacturing high quality and energy efficient products for more than 57 years.

Using the latest Japanese technology and state of the art expertise, our products have been designed in accordance with our policy to "create the most comfortable environment" possible



## Providing the maximum satisfaction to all customers

FUJITSU GENERAL's VRF AIRSTAGE Series was first launched 16 years ago and has been developed the latest in air conditioning technology.

We have offered a series of products from large homes to large scale buildings to meet the various market needs.

Fujitsu General VRF system was developed based on Japan's high technical capabilities and quality.

It acquired the newest performance test, vibration test, severe environment test, high-frequency evaluation, 60m height difference evaluation, and other stringent performance evaluations, and was commercialized. In addition, equipment selection, equipment installation simulation, commissioning and other technical support is also provided from the design stage and it is highly evaluated by the market.

As a result, the VRF system is sold in more than 50 countries around the world. Product line-ups and types matched to the European, Asian, American, Oceanian, Middle Eastern, and Chinese markets are offered. The newest examples of installations are introduced here.

**AIRSTAGE™**

# INDEX

FUJITSU GENERAL VRF System  
Installation Reference



AIRSTAGE™ OUTLINES



OFFICE



SHOP



HOTEL



PUBLIC FACILITY



SCHOOL



HOSPITAL



RESIDENTIAL




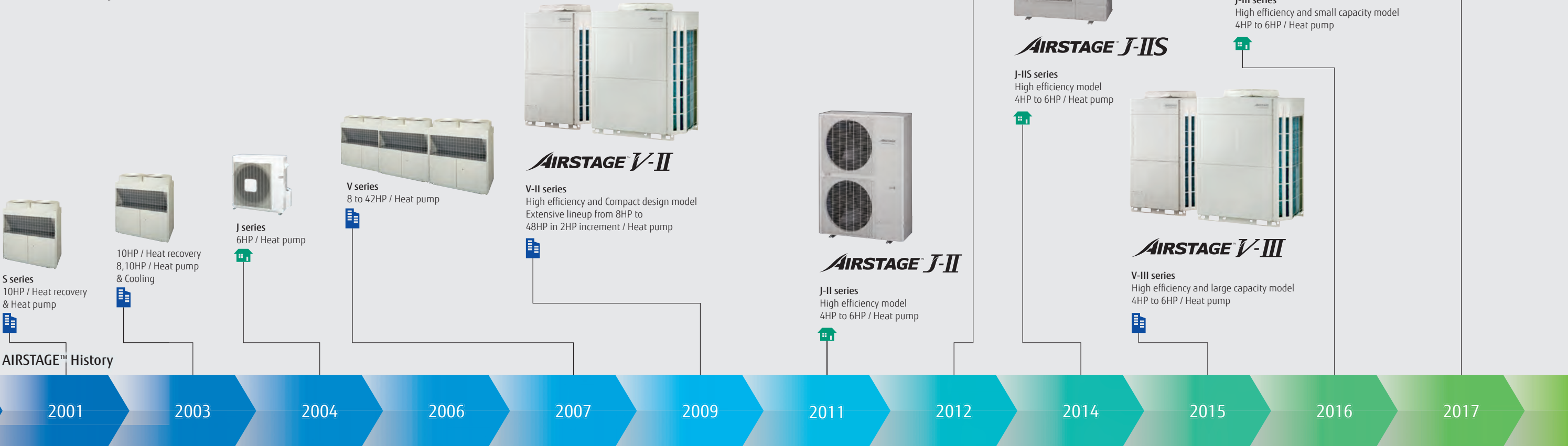
OVERSEAS AIR CONDITIONING BUSINESS SINCE 1971, VRF BUSINESS SINCE 2001

# AIRSTAGE HISTORY

FUJITSU GENERAL's VRF AIRSTAGE™ Series has been developed based on our long-term air-conditioning technology know-how and was first provided 16 years ago. We have offered a series of products from large homes to large-scale buildings to meet the various market needs.

 For Commercial Use

 For Residential & Light Commercial Use



## History of Environmental Measures

Green Initiatives  
Fujitsu introduces inverter technology and the use of environmentally friendly R410A refrigerant.



RoHS Compliant  
Restriction of Hazardous Substances is an EU directive intended to protect the environment by forcing manufacturers to use environmentally friendly materials in all consumer electronics.



Green Advancement  
Use of 100% inverter driven DC compressors.

**ALL  
INVERTER**



# GLOBAL NETWORK

Fujitsu General's air conditioning business has acquired a major share of the overseas market. We have many production and sales facilities overseas, and we continue to develop and sell products that are accepted around the world by their "easy-to-use and environmentally-friendly technology".



R&D Center in Fujitsu General (Shanghai)



R&D Center in Fujitsu General Engineering (Thailand)

13

Overseas Sales Companies &

6

Overseas Manufacturing Companies

5

R&D Center

JAPAN Head Office  
R&D Center and 60 m Height Difference  
Testing Tower



- Head Office
- Sales Companies
- Manufacturing Companies
- R&D Center



Fujitsu General (Shanghai) Co., Ltd.



F.G.L.S. Electric Co., Ltd.



Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.



FGA (Thailand) Co., Ltd.



Fujitsu General (Thailand) Co., Ltd.  
Fujitsu General Engineering (Thailand) Co., Ltd.



TCFG Compressor (Thailand) Co., Ltd.







# HIGH QUALITY DEVELOPMENT & PRODUCTION FACILITIES

Fujitsu General is one of Japan's leading manufacturers with an R&D Center in Japan. We provide customers with the highest quality and performance using these facilities.

## Advanced Research Facility and Equipment

### Performance Testing



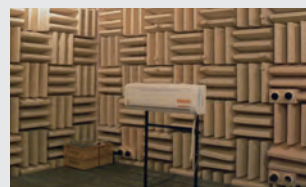
**Air Volume Measurement Room**

Measure air volumes of the air conditioners from compact RAC models to VRF.



**Calorimeter**

Measure the cooling/heating capacity by measuring the inlet and outlet temperatures, humidity, and air volume of the air conditioner.



**Silent Room**

Measure the operating sounds of air conditioners with the sound reflection-proof walls and ceiling.

### Reliability Testing



**Constant Temperature Room**

Check on the product performance in cooling/heating operation under the various temperature and humidity conditions.



**Practical Test Room**

Check on whether the air conditioners performance under the actual house conditions is sustainable.



**Shower Test Room**

Check on whether the electrical box of the outdoor unit is protected by rain waters with typhoon like wind.

### Transportation & Handling



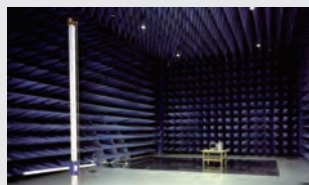
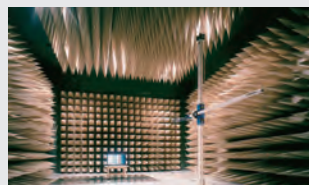
**Compressibility testing**



**Vibration testing**

## Testing Laboratory

Fujitsu General EMC Laboratory Limited



### 60 m Height Difference Testing Tower

Objective is to confirm oil circulation of compressor for reliability



## ACQUISITION OF ISO 9001 AND ISO 14001

Each of overseas production bases (5 companies) has completed the acquisition of ISO 9001 and ISO 14001 individually. In 2012, overseas sales bases (11 companies) acquired the certification of ISO 14001.



## High Product Quality Assurance

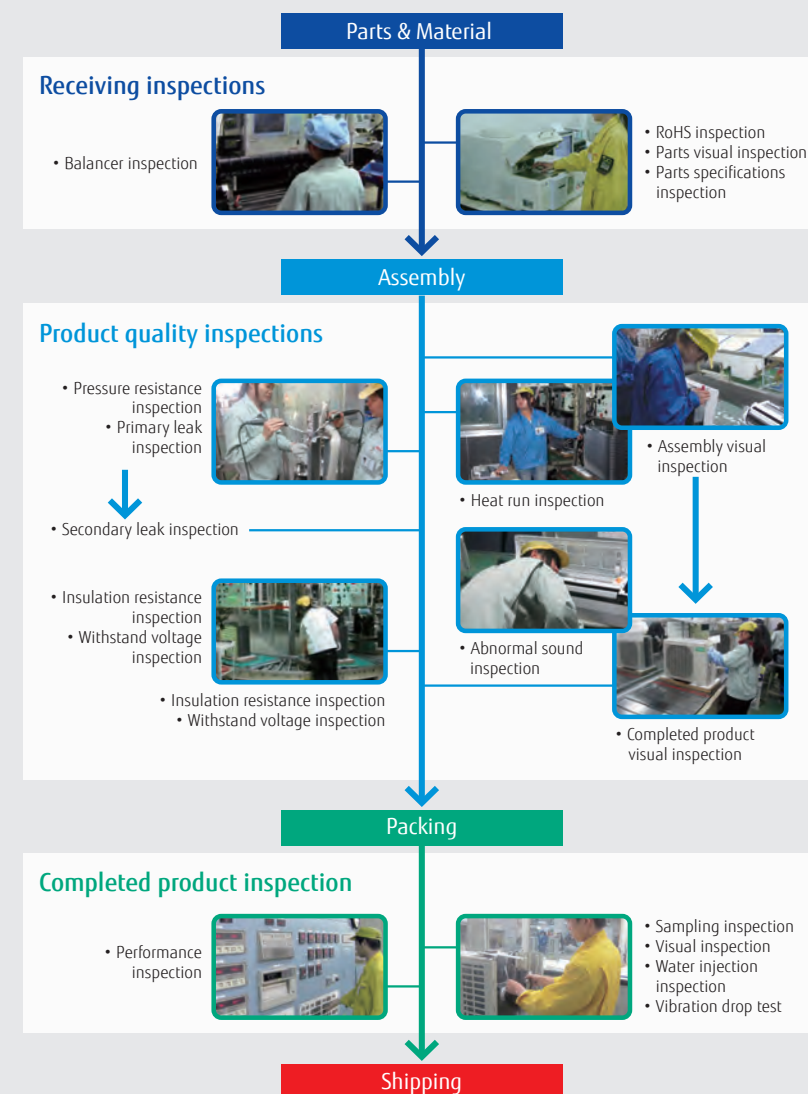
All Fujitsu General factories have acquired ISO 9001, and have built a quality control system common around the world. High quality products are offered to all over the world based on stringent quality inspections.

### Receiving inspection

Parts procurement requires a supplier's test report. European regulation RoHS inspection is also performed by special test department in-house. Total number inspection is performed especially on main parts to remove defectives.

### Stringent product quality inspection

Stringent quality inspection is carried out at all production processes. High quality is maintained by stringent checks by inspectors and repetitive inspection.





# AIRSTAGE™ SUPPORT

## Training

Fujitsu General has many training facilities around the world that regularly conduct specialized product, technical, and service training. These research facilities also support the development of people with high technical capability.

Features

- Designing AIRSTAGE™ Systems
- Control System on-site training

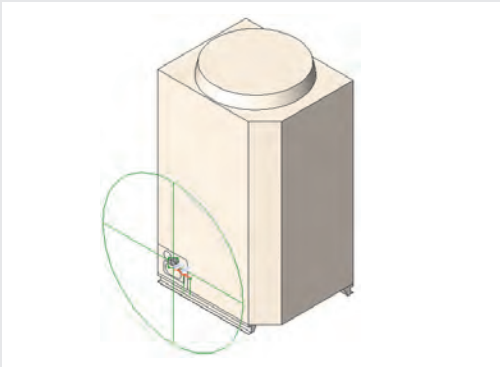


## Technical information

We provide information and tools that are useful for air conditioning system design, such as unit performance data and tools that make model selection and estimation easy.

Features

- Design & Technical Manual
- Model Selection & Estimation
- Certificate Data
- 2D/3D CAD Data



## Product information

New product information is provided in the form of documents and movies for every new model released. These can be downloaded from a private section of our website. To access this website, please contact your Fujitsu representative.

Features

- Product News
- Brochures & All Manuals
- Feature Promotion Movie

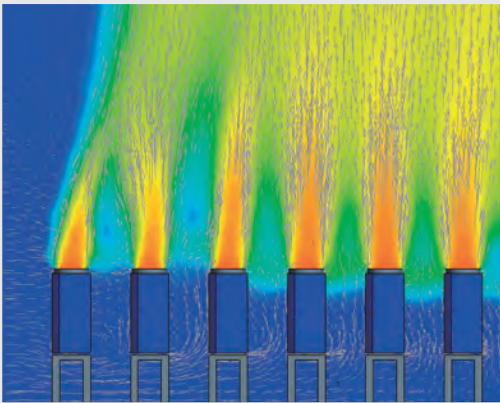


## Technical support

Technical support is provided at every stage from design to installation to assist in providing the most suitable air conditioning solution.

Features

- CFD Simulation
- Guide line
- Commissioning Support



CFD Simulation



Commissioning Support





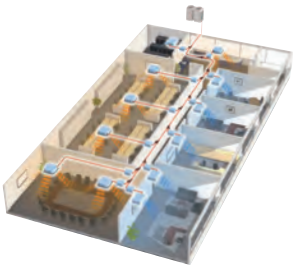

## AIRSTAGE™ OUTLINES

### AIRSTAGE™ series

Wide product lineup for various market needs

#### Modular types

**AIRSTAGE VR-II**





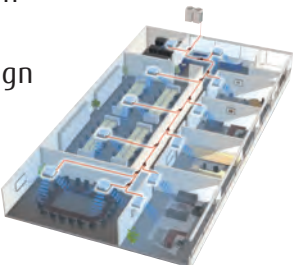

- Simultaneous cooling and heating operation using 1 refrigerant system
- Annual cooling operation
- Handles changes in the temperature difference

**AIRSTAGE V-II / AIRSTAGE V-III**



- Excellent energy savings
- High design flexibility for various building air conditioning
- Easy installation and maintenance

**AIRSTAGE V-II**  **AIRSTAGE V-III** 



- High ambient operation design
- Powerful cooling capacity design
- Anti-corrosion treatment design



#### Unit types

**AIRSTAGE J-IIS**





- Space saving and low sound level design
- Flexible systems for homes, shops, small-size buildings air conditioning

**AIRSTAGE J-III**



- High Energy Efficiency
- Flexible systems for small- and medium-size buildings air conditioning

**AIRSTAGE J-III L**



- Compact Outdoor unit
- Small room application
- Quiet design

**AIRSTAGE J-III** 



- High Energy Efficiency
- Flexible systems for small- and medium-size buildings air conditioning





OFFICE

2016

Fujitsu Services



AIRSTAGE VR-II



Outdoor unit

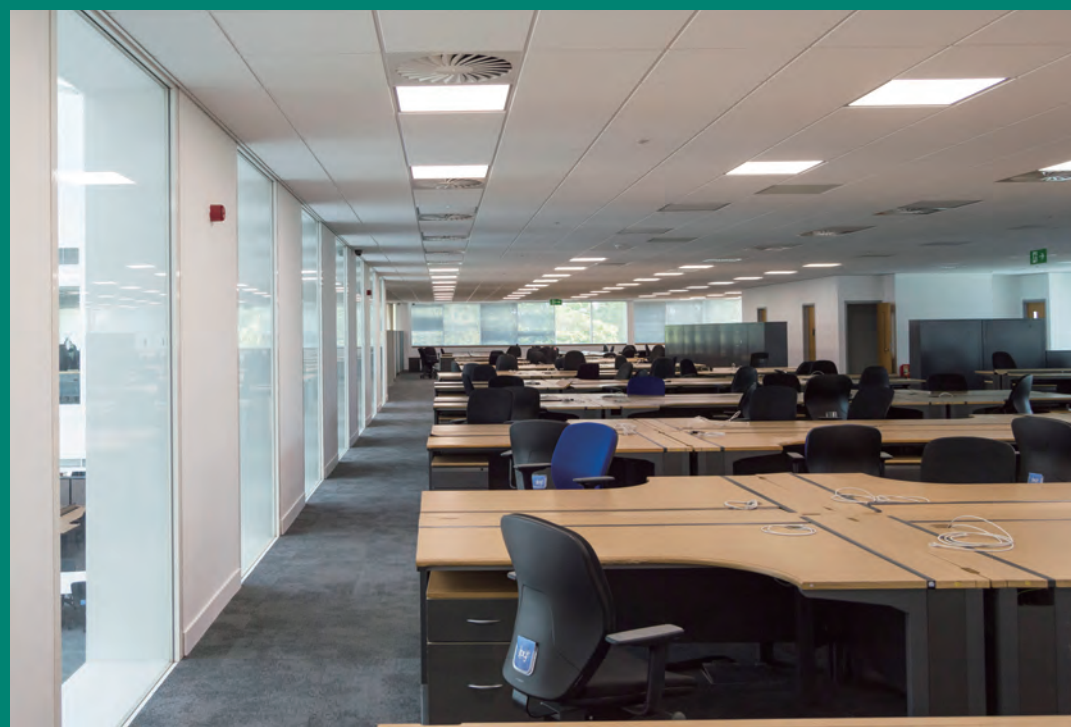
27

Indoor unit

120

### Project summary

The R22 replacement project. 145,000 square foot building, from warehousing and repairs through to light engineering. The entire two-storey building. Open plan working areas, multiple meeting rooms, small privacy rooms, a cafeteria, a data center and various kitchen areas.







OFFICE

2016

## C200 Office

Poland

AIRSTAGE™ VR-II



AIRSTAGE™ V-III



Outdoor unit

58

Indoor unit

405

### Project summary

24692 m<sup>2</sup> seven floors 632HP

The building functions for business space, conference rooms and fitness club. All Office premises are air-conditioned and heated (the only source of heating in the building).







OFFICE

2014-2016

# Targowa 35 Office

Poland

AIRSTAGE V-II

AIRSTAGE V-III



Outdoor unit

40

Indoor unit

260

## Project summary

8500 m<sup>2</sup> five floors

Very interesting factory revitalization.

The building functions for business space and conference rooms.







OFFICE  
RESIDENTIAL

2016

# Nowe Orłowo Office / Apartments

Poland

AIRSTAGE™ J-IIS



AIRSTAGE™ J-II



AIRSTAGE™ V-II



Outdoor unit

52

Indoor unit

136

## Project summary

Residential complex with some offices and shops, 4 four-storey buildings, Fujitsu was chosen due to compact size design and flexible piping design J-IIS series.







OFFICE

2016

## Piotr i Paweł Office

Poland

AIRSTAGE VR-II



Outdoor unit

11

Indoor unit

92

### Project summary

4100 m<sup>2</sup> four floors

Piotr and Paweł is one of the largest chain of supermarkets in Poland

The building functions for business space and conference rooms. All Office premises are air-conditioned and heated (the only source of heating in the building).







OFFICE

2016

## Business Center "DOROHOF" (Moscow)



Russian Federation

AIRSTAGE™ V-II



Outdoor unit

10

Indoor unit

119

### Project summary

Business Center (One of the Office Buildings).







OFFICE

2015

# Business Center "SENATOR" (Saint-Petersburg) Building 1

Russian Federation

AIRSTAGE V-II



Outdoor unit

65

Indoor unit

461

## Project summary

Business Center (One of the Office Buildings).







OFFICE

2015

# Chengdu Dangjian Journal Building

China

AIRSTAGE™ V-III



Outdoor unit

51

Indoor unit

260

## Project summary

Chengdu dangjian journal building is 12-story building and air conditioned area is 13000 square meter, 560HP.

The building has a studio hall and control room on the 1st and 2nd floors, an office room on the 7th to 11th floors, a dining room and rest area on the 12th floor.

The outdoor unit is installed on the rooftop.







OFFICE

2016

# Emergency Rescue Drills and Test Platform Construction Projects

China

AIRSTAGE™ V-II



Outdoor unit

19

Indoor unit

127

## Project summary

Emergency rescue drills and test platform construction projects is air conditioned area is 8345.18 square meter, 356HP.

This building is height of 23.5m five floors the building functions for the laboratory, business space, information room.







OFFICE

2015

# Yixing East China Photoelectron Industrial Park



AIRSTAGE™ V-II



Outdoor unit

72

Indoor unit

249

## Project summary

Yixing East China photoelectron Industrial Park is 5-story building and air conditioned area is 16000 square meter, 1100HP.

This building is the core project of Science Park, has factory exhibition area, work area, office area, rest area.

The outdoor unit is installed on the rooftop.







Outdoor unit	Indoor unit
2	19

### Project summary

Hair and beauty salon.the salon has shops on both sides and apartments above.







SHOP

2017

# Shopping Center EUROPE (Ufa)



AIRSTAGE™ V-II



Outdoor unit

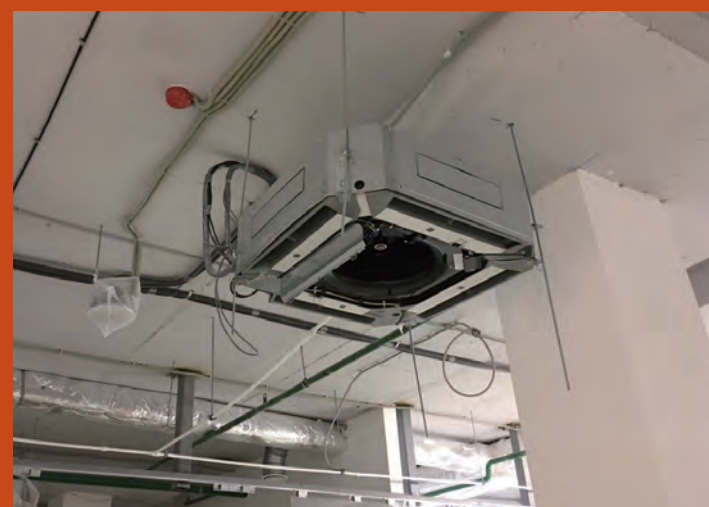
10

Indoor unit

64

## Project summary

Shopping mall with office.







SHOP

2016

## AUDI SHOWROOM



AIRSTAGE™ V-II



Outdoor unit

7

Indoor unit

166

### Project summary

Jahnvi Motor Private Limited group was diversified into Automobile industry in 2012 as exclusive dealers in Tamil Nadu.

The 8000 sq.ft showroom is situated on Madurai-Dindigul NH Road, Samayanallur. The showroom is built with Audi's global terminal concept.

It houses eight cars display inside the showroom and has set a benchmark for luxury car showroom in the region.







SHOP

2014

## Box Park Al wasl / PK Gulf

UAE

AIRSTAGE™ V-II



Outdoor unit

84

Indoor unit

166

### Project summary

BOXPARK is a distinctive retail and hospitality destination set in the heart of Jumeirah on Al Wasl Road. The development features 44 niche, high-end, retail, leisure and entertainment brands.







HOTEL

2015

# MERCURE HOTEL

AUS

AIRSTAGE VR-II



Outdoor unit

6

Indoor unit

102

## Project summary

MERCURE HOTEL is 4-story, 4-star hotel. 95 guest rooms as well as restaurant, bars, gymnasium and four conference rooms.







HOTEL

2015

# HAGL MYANMAR CENTER

Myanmar

AIRSTAGE V-II



Outdoor unit

Indoor unit

567 1909

## Project summary

Residential & Commercial project

Office tower: 85701 m<sup>2</sup>, 22storeys

5 star hotel: 37757m<sup>2</sup>, 24storeys, 400rooms







HOTEL

2014

## HYCINTH HOTEL



AIRSTAGE V-II



Outdoor unit

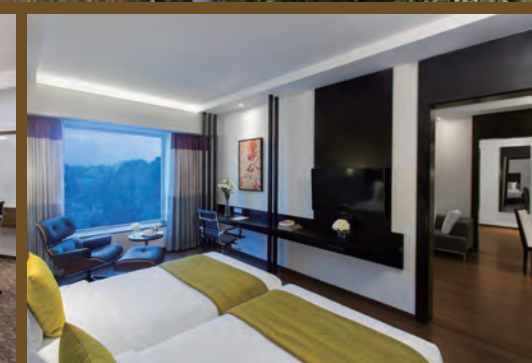
24

Indoor unit

166

### Project summary

HYCINTH is a premium boutique hotel that offers a distinct and refined hospitality experience. The aims to revolutionise conventional notions of hospitality with innovative design choices.







HOTEL

2015

# Al Marian Double Tree Hilton Hotel

UAE

AIRSTAGE™ V-II



Outdoor unit

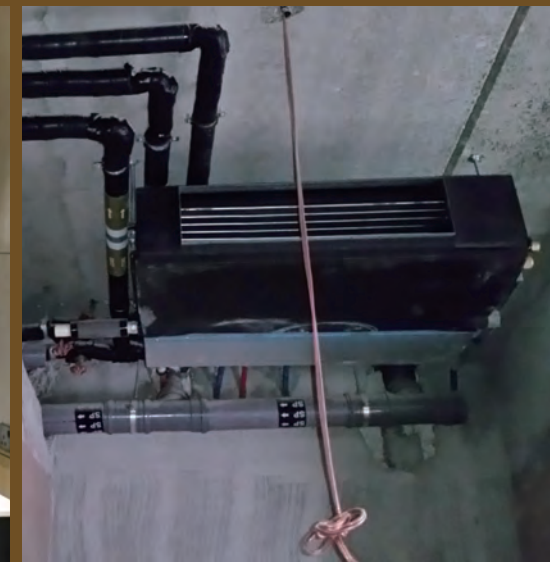
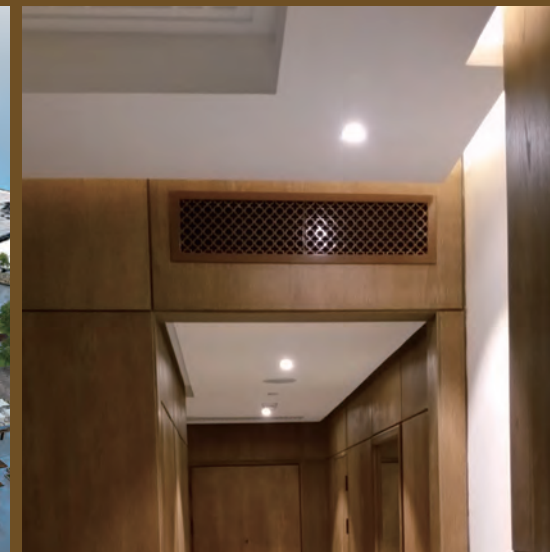
50

Indoor unit

250

## Project summary

DoubleTree by Hilton Resort & Spa Marjan Island is a 701-room hotel and leisure destination which enjoys a prime location on the trunk of Marjan Island, a cluster of five man-made islands in the upscale area of Al Hamra, Ras Al Khaimah.







PUBLIC FACILITY

2015

# Norwegian Christian Home and Health Center

USA

AIRSTAGE™ V-II



Outdoor unit

6

Indoor unit

122

## Project summary

The Norwegian Home first opened for service over a century ago (1903) in the Bay Ridge area in Brooklyn, NY. It started out caring for a small group of elderly women and carried on by a small dedicated group of Norwegian immigrants from Bay Ridge. Their name changed in 1911 to the Norwegian Christian Home for the Aged, when the charter broadened to admit men. When a skilled nursing facility was added in 1973 they adopted the present name "Norwegian Christian Home and Health Center".







PUBLIC FACILITY

2015

# St. Patrick's Catholic Church

USA

AIRSTAGE™ V-II



Outdoor unit

2

Indoor unit

14

## Project summary

The Grand Romanesque/Byzantine, St. Patrick's Church on Main Street in Bay Shore, NY has been a South Shore landmark for nearly a century. The building was dedicated in 1919.







PUBLIC FACILITY

2016

# Sichuan Gongmei Environmental Art Design Engineering Co., Ltd

China

AIRSTAGE V-II



Outdoor unit

11

Indoor unit

41

## Project summary

Sichuan Gongmei Environmental Art Design Engineering Co., Ltd is 2-story building and air conditioned area is 3202 square meter, 120HP. This building has the exhibition hall, overview of the history exhibition hall.







PUBLIC FACILITY

2015

# Changsha City People's Court

China

AIRSTAGE V-II



Outdoor unit

18

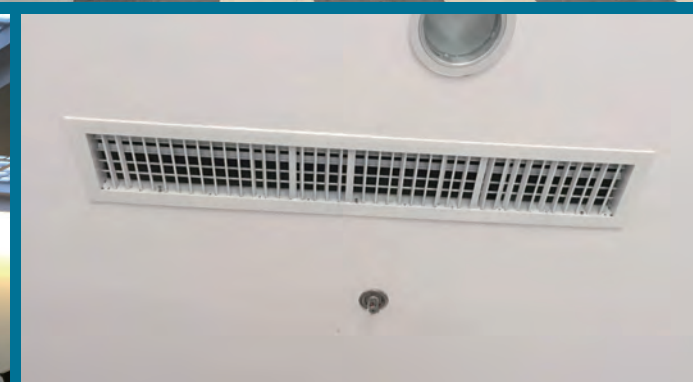
Indoor unit

270

## Project summary

Changsha City People's Court is a court that is a 7-story building and air conditioned 30000 square meter, 760HP.

The outdoor unit is installed on the rooftop.







SCHOOL

2016

# Ramsey High School

USA

AIRSTAGE™ V-II



Outdoor unit

4

Indoor unit

25

## Project summary

Three-story public high school built in 1937.







SCHOOL

2015

# HIGH SCHOOL SOUTH WESTERN SYDNEY

AUS

AIRSTAGE™ V-II



Outdoor unit

3

Indoor unit

15

## Project summary

New building including 10 classrooms, new refurbishment of class rooms for science, visual arts and intensive English.







SCHOOL

2015

# AL MUROOJ PRIVATE SCHOOL

UAE

AIRSTAGE™ V-II



Outdoor unit

50

Indoor unit

99

## Project summary

Abu Dhabi is an established private school located in Mohammed Bin Zayed City. The School is recognized and approved by ADEC. It has 44 classrooms and 1115 students.







SCHOOL

2015

# LAKSHYA INTERNATIONAL SCHOOL (YOGESHWAR EDUCATION FOUNDATION)

India

AIRSTAGE™ V-III



Outdoor unit

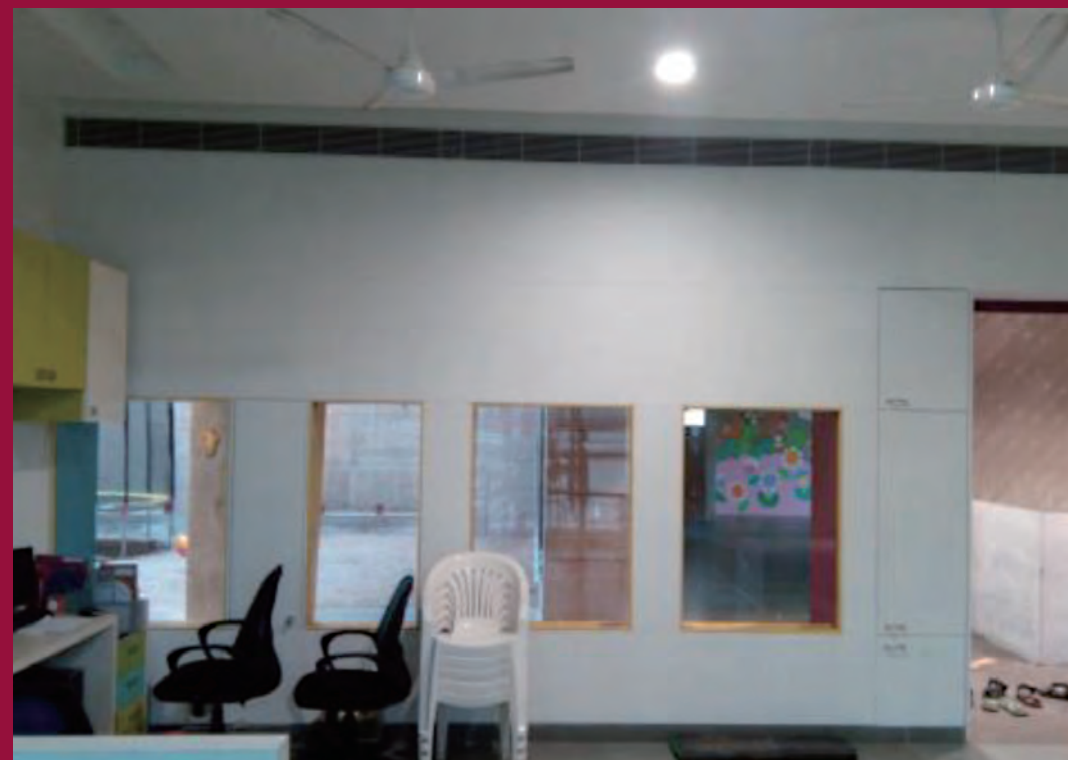
5

Indoor unit

16

## Project summary

This is a biggest international school in Ahmedabad city. This is a self-financing school with current enrolment of more than 700 in classes Nursery to IX standard.







SCHOOL

2015

# Changzhou City, the twenty-fourth middle school

China

AIRSTAGE™ V-II



Outdoor unit

5

Indoor unit

35

## Project summary

Changzhou City, the twenty-fourth middle school is air conditioned area is 2000 square.







HOSPITAL

2016

## RATAN JYOTI NETRALAYA - APOLLO SPECTRA



AIRSTAGE™ V-II



Outdoor unit

19

Indoor unit

79

### Project summary

With 12 centres across 9 cities – Bengaluru, Chennai, Delhi, Jaipur, Kanpur, Mumbai, Hyderabad, Gwalior and Pune, over 50,000 successful surgeries outcomes, with excellent clinical and over 700 leading doctors, Apollo Spectra Hospitals continue to set new standards in healthcare services.







HOSPITAL

2015

# Wuxi Dongbei Tong Community Hospital

China

AIRSTAGE™ V-II



Outdoor unit

27

Indoor unit

187

## Project summary

Wuxi Dongbei Tong Community Hospital is air conditioned area 6000 square meter, 366HP. This building has become a redevelopment project property of a community hospital, there are a consultation room, a hospital room and a dining room.







RESIDENTIAL

2015

# ALEX PERRY HOTEL & APARTMENTS

AUS

AIRSTAGE™ J-IIS



Outdoor unit

44

Indoor unit

132

## Project summary

Hotel and residential apartment complex building 143 apartment across 11 levels, Studio hotel rooms and one and two bedroom apartment.







RESIDENTIAL

2014

## Emirates Flight Staff Accommodation Project

UAE

AIRSTAGE™ V-II



Outdoor unit

81

Indoor unit

521

### Project summary

Emirates Air has evolved into a globally influential travel and tourism conglomerate known the world over for our commitment to the highest standards of quality in every aspect of our business. This building construction consist of Ground floor, 3 typical floors & roof used as staff accomudation.

