JAPAN BRAND, DAIKIN

The world’s leading HVACR company – Daikin. Behind its steady growth were conditions unique to Japan: “the diverse climate that gives rise to distinct four seasons” and “limited resources.” Honed in a severe environment known as “Japan,” the pursuit for high-quality compressors that meet various user needs and great attention to detail from developing to manufacturing proudly made Daikin’s compressor technology the world’s top class.
Since 1924, Daikin Industries Ltd is established in Japan to manufacturer air movement equipment. Closed attention to product quality, coupled with advanced production techniques, soon leads to soaring sales figures. Daikin’s expansion into No.1 supplier of comfort cooling and refrigeration in the world.

More than just a major player on the international air conditioning scene, Daikin also represents an unparalleled combination of mechanical, electronic and chemical expertise, backed by robust and imaginative research and development capabilities.

Air conditioning accounts for 75% of Daikin group sales, and with international moves to protect the environment growing steadily, remains the foundation for future success. Daikin’s prime objective therefore is the continuous improvement in personal comfort levels in the home and in the workplace and in this respect, the new “greener” refrigerant such as R410a produced by the chemical division have a key role to play. Oil hydraulics too, as well as advanced multimedia systems, electronics, cryogenics and robotics are all areas in which Daikin is poised to harness potential and create stable long-term growth.
Daikin Industries Co., Ltd is a global leader in the manufacture of commercial- and industrial use air conditioning systems and holds No.1 position of the A/C market share in world. Daikin is also one of the leaders in the fluor chemicals industry and compressors, with an approximately 22% share of the world market. Daikin boasts an unparalleled combination of mechanical, electronic, and chemical expertise as well as robust R & D capabilities.

The company continues to leverage these strengths to create new, innovative products and flexible, highly efficient production systems. Daikin is a dynamic global company with a well-established presence in five major areas: Japan, China, Southeast Asia, Europe, and North America. Thus, Daikin is poised to excel in an increasingly borderless business environment.

Innovative & Efficient Solutions for You
In China, demand for air conditioning is steadily growing as standards of living rise buoyed by the development of the economy. Daikin has established bases in Beijing, Shanghai, Xi'an, Suzhou and other strategic locations to accurately respond to conditions in this vast nation. In addition, because China is a major producer of air-conditioning and compressors, the big market for refrigeration requirement, a complete line of operations, from materials procurement to production and sales, can be carried out.
DAIKIN AC COMPRESSORS –
Perfect Available With:
Split, Cassette, Floor Standing, Ducted,
Chillers, Roof-Tops, Packaged, Heat Pump

It’s set up by Daikin Industries Co. joint venture with Chinese Government, It is located in Xi’an Hi-Tech Industrial Development Zone, with an area of 100 acre. With two workshops and an academy of research. It keeps and develops the techniques of manufacturing compressors of Daikin Industries Co. of Japan

- Daikin providing the most advanced compressor research and development facilities in the world; we manufacturer Non-Inverter and Inverter compressors and with 30 year experiences of manufacturing central, Using DAIKIN technology, we have contrived advanced technology, originality, perfect design and precious manufacturing in world leading position Meanwhile, it keeps track with the advanced techniques in the world, and takes active part in innovations in management and technology. The technology and the quality of our production reaches the international advanced standard. So far, we are exporting high efficiency compressors to over 19 countries at 1.12 million units per year

- Products: R22, R407C, R410A, R404A scroll compressors from 3.0HP to 25HP,
- Investment: 27 million US Dollars;
- Factory area: With total 28,000 sqmrs of building.
- Production ability: 2.0 million units per year;
- Employees: 1270
- Engineers: 192
- Approval: ISO9001, ISO14001, ROHS, CE, TUV, UL
Why Choose Daikin Compressor

- High Reliability
- High Energy-Efficiency
- Wide Operating Range
- Competitive Price
- Quickly Delivery
- Nice Communication
- Technical Support
- Keep Innovation
We are offering you superior compressor technology

- **Research and Development**
  - Taking the responsibility of developing national compressor Industry and devoting to the leading technology research of cooling field, up-to-date, our research directions include:
    - The application research of non-KCFC compressor for air-conditioner
    - The research and development of new structured resident and commercial use compressor for air-conditioner
    - The research and development of digital direct current frequency-changing compressor for air-conditioner
- **Research and Development Capability**
  - The (Group) corporation has a national level technology center which stresses the research and development of advanced refrigerating product.
  - The (Group) corporation has established a long cooperation relationship with famous scholars and professionals as technology advisers.
  - The (Group) corporation owns a young professional team for research and development. Some of them are of master’s degree and of creative minds.
- **Producing Capacity**
  - High precision and high efficiency equipment of world-famous company.
  - The product lines for precise machining are controlled by computer. It enjoys high reliability and accuracy.
  - Assembling line adopts automatic transmitting and manipulator siting. The key point is assembled and corrected automatically. This results in high efficiency and stability.
- **Measurement and Testing**
  - Owning the most advanced testing and noise analyzing system for compressor’s performance and kinds of reliable test measurements.
  - Owning testing, matching and detecting means for air-conditioning system.
  - Owning comparatively complete length, temperature, mechanics and electricity measurement.
Daikin Scroll Compressor Advance Technology

We always maintain No.1 energy-efficient in the industry, Daikin is providing to you through the use of advanced scroll technology, through the smooth transfer to achieve a strong power and quiet operation and further improve the reliability of the new scroll compressor

● Compressor Structure

Low Pressure Cavity
Refrigerant has been compressed directly in low pressure cavity (scrolls area) before entering the high pressure cavity (motor's area), which inhibit the second expansion of the refrigerant, reducing energy loss, and improves efficiency

High Pressure Cavity

High pressure oil injection conducted reaction force reduces the friction of when orbiting scroll rotate, improves efficiency

Proprietary Technology

★ Oil Level Control Technology

In Low Pressure Cavity:
Using pressure difference in compressor internal low pressure area and installation balance tubing to stabilize oil level

In High Pressure Cavity:
By controlling compressor oil volume to stabilize the oil level, oil surface rises oil increased, oil surface decreases oil to reduce

★ Refrigerant Control Technology

General Scroll Compressor Problem: When large amounts of liquid refrigerant back to the small capacity of the compressor cavity, easily lead to liquid attack so as to cause compressor scrolls broken, and sleeve burned fault

Daikin’s Scroll Compressor Solution:
Technology to escape sleeve burned fault: High strength rare earth alloy sleeve
Technology to escape liquid attack: Pressure relief valve axial flexible structure
**Advantages**

- **High Energy Efficiency**
  - Highly efficient motor: adopting peculiar designs of rare earth iron core and winding, thus realizing the high efficiency of motors
  - Optimal inter space: optimal designs of the inter space between components and parts in motion, thus realizing the high efficiency of pumps
  - Best matching of motors and pumps: adopting analog techniques of computers, thus realizing best matching of motors and pumps, and improving the efficiency of compressors in an all-around way

- **Low Noise**
  - Optimal design of noise reduction: adopting Helmholtz noise reduction equipments and complex noise reduction hood, thus reducing the noise of the specific frequency
  - Reducing the noise of exhausts: optimizing the designs of the exhaust valves, thus reducing the noise of exhausts
  - Weakening the noise of air-breathing: optimizing designs of air-breathing system, thus reducing the noise of air-breathing.
  - Raising precision of processing and assembling: raising precision of processing and assembling, ameliorating the noises of compressors.

- **Low Vibration**
  - Pumps with high rigidity: improving the high rigidity, and reducing machinery vibration and noises.
  - Precise dynamic balance: precise design of dynamic balance ensures the small vibration of the compressors.

- **High Reliability**
  - Daikin’s priority technology: unique high and low pressure cavities design with advanced oil level and refrigerant control technology ensure the compressor with lower liquid attack rate and better full load work resistance in tropical area.
  - Reasonable design: optimizing structure parameter, selecting protective equipments, adopting raw materials of high quality, and thus guaranteeing the reliability.
  - Strict experiments on reliability: adopting advanced foreign experimental standards, and carrying out overall check on experiments in order to ensure the high reliability of operation of compressors.
  - Advanced techniques of producing: importing processing and assembling equipments of famous factories in the world, adopting advanced techniques to guarantee the integrity of precision of parts, function of compressors, and products.
  - The complete system of quality guaranteeing: setting up the complete system of quality guaranteeing, and being identified through ISO9001 system

- **Wide Application**
  - Diversified outlines: the entire triangular chassis divided from the middle, or triangular base not divided from the middle can fulfill the users’ requirements on different outlines of compressors
  - Diversified power-supply patterns: able to supply the whole world with compressors of different power-supply patterns.
Daikin’s unique position as a manufacturer of air conditioning equipment, compressor and refrigerants had led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of environmental friendly productions. This challenge demands the eco design and development of a wide range of products and energy management systems, which involves energy conservation and reduction of waste, thus for this purpose Daikin staff is trying the best to developing more and more advance HVAC technology with lower energy conservation, lower pollution productions to assures an effective environmental management system in order to help and protect human health and the environment from the potential impact of our activities, products and service and the assist in maintaining and improving the quality of the environment. Therefore all of our productions were identified by Eurovent certification and all of them have obtained the certificate of ROHS. The whole system of machining, assembling and debugging is established by the gaze of ISO14001.
Main Process of Manufacturing Compressor

1. Quality components
2. Body hot-pressing
3. Shaft fixing
4. SCR M C machining
5. 3D measure testing
6. Moment testing
7. Airproof testing
8. Running testing
9. Final testing
10. Packing