



## DHLV-Z (DHLV-G) series Low-pressure permanent magnet variable frequency compressor Screw air compressor



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Dream(Shanghai) Compressor Co.,Ltd.

01



DHLV-Z series  
Low-pressure permanent magnet  
dual-frequency variable-speed two-stage compression  
Screw air compressor

02



DHLV-G series  
Low-pressure permanent magnet  
dual-frequency single-stage compression  
Screw air compressor

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## ABOUT DREAM

 **45000** m<sup>2</sup>  
factory area

 **100+**  
Invention patents and honors

 **20+**  
Regional branches/subsidiaries

Dream (Shanghai) Compressor Co., Ltd. which established in Shanghai in 2011. It is a company specialized in designing, manufacturing and marketing of air compressors, is A high-tech enterprise that sells and provides system solutions.

It has won honors such as Shanghai Brand Cultivation Demonstration Enterprise, special new enterprise, energy-saving equipment contribution enterprise, high-tech achievement transformation project, etc. The products are widely used in new energy, chemical industry & chemistry, Electronics, textiles, brewing mill, laser cutting, medicine & food and other fields.

Based on concepts of stable, energy-saving, clean, efficiency, simple operation & maintenance, DREAM insists on developing based on market demand and innovation. The company invests 10%-15% of its profits every year into R&D and the upgrading & optimization of products. Innovation is main driver for DREAM grow up. As manufacturer supplier of Air compressor system solutions, Our service cover client requirement analysis, site investigation, technical solution design, and project cost analysis, non-standard solution customization, solution demonstration and promotion. we provide exclusive compressed gas solutions based on project needs.

After development for 14+ years, Dream has always adhered to the enterprise spirit of "One heart One Dream, striving for excellence", constantly innovating and pursuing excellence. Dream people continue to explore and innovate to meet customer needs and provide users with better products and service. Based in China, Dream's products has exported to worldwide countries successfully, mainly market as South Asia, South East Asia, Europe, Africa, South America, North America, and CIS countries, footprints all over the world. Its excellent product performance and efficient service concept continue to create value for users.

Dream will be always your trust partner. We believe that you will experience our high-quality products and professional services, by working with us. Welcome to pursue dream and create better future with DREAM together!

## DREAM CULTURE



### Vision

To be a global leader in gas compression intelligent equipment and system solutions service provider



### Mission

Make Industry Air More Stable, More Clean, More Efficient



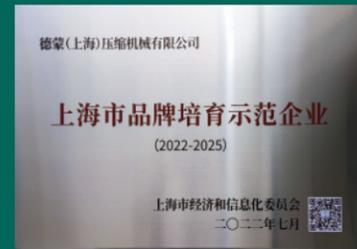
### Value

One Heart. One Dream. Professional. Focus. Innovative. Win-win.

# DREAM

## Enterprise honor

- High-tech enterprise
- Specialized in special new enterprises
- Energy-saving technology and equipment contributing enterprises
- Shanghai brand cultivation model enterprise
- CE Certificates
- EMC Certificates
- TUV Rheinland Class 0 Oil Free Certificates
- Germany TUV product safety certification
- GCCA product quality and safety certification
- ISO 9001,14001,45001



**20+**  
City subsidiary

**34** Provincial sales  
service network

Adhering to the business philosophy of "market-oriented, customer-centric, technical support and service guarantee", Dream is committed to providing customers with high quality products and industry-leading services. With Shanghai as the center and 20 service outlets nationwide as the auxiliary, Dream covers 34 provinces and autonomous regions of China's sales and service network, dedicated to provide customers with better service.

## Global service

Dream is committed to providing quality products and services on a global scale, and has conducted overseas operations in many countries and regions, including Southeast Asia, Europe, and the Americas, and has established strong partnerships in overseas markets. Our overseas agents have rich experience in cross-cultural communication and international vision, and are able to better understand and meet the needs of local customers and markets. In the future, we will continue to strengthen the development of overseas business, expand more overseas markets, and let China intelligent manufacturing shine on the international stage.



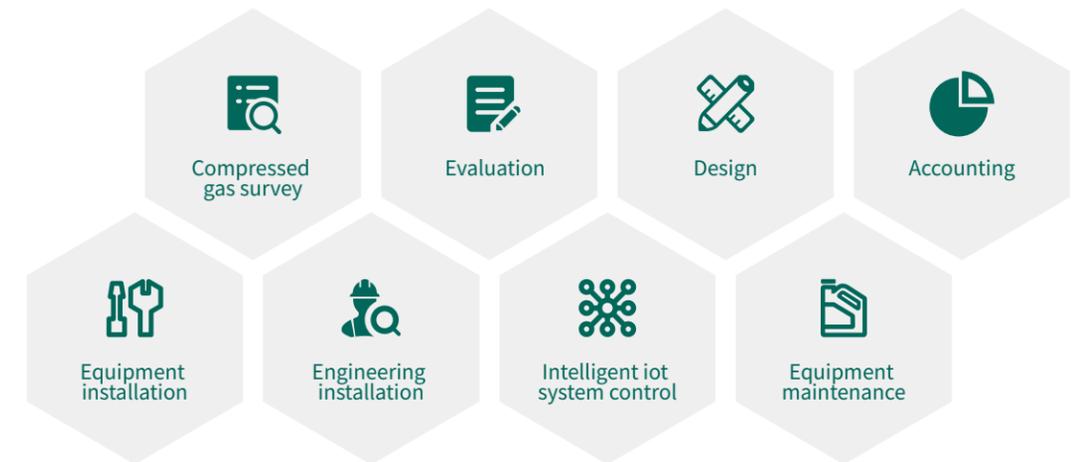
## Dream Intelligent Manufacturing Six core competencies



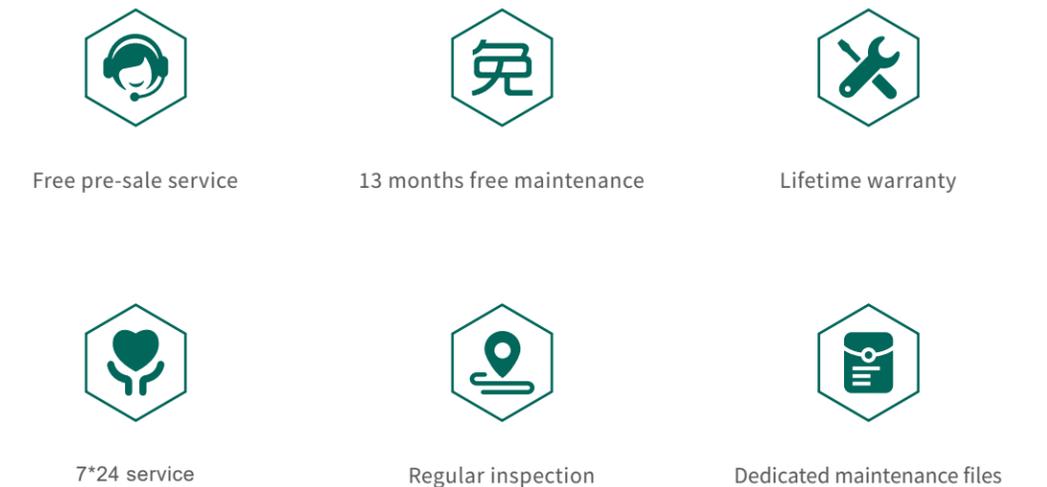
## | Full process cycle and service

We provide the whole process cycle service for customers to build gas stations or upgrade, covering compressed gas system research, evaluation, design, edge calculation, equipment installation, engineering installation, intelligent iot system control, equipment maintenance and so on.

## | Service process



## | Performance pledge



## Product features



### Industry-leading two-stage main engine

1. The unique intercooling liquid spray curtain design reduces the air temperature, and the compression process approaches the most energy-saving isothermal compression. In principle, two-stage compression saves 5%-8% energy than single-stage compression;
2. Two-stage compression, small compression ratio, less leakage, small bearing load, greatly improved bearing life;
3. Adopting the design concept of "large rotor, large bearing, low speed", reducing noise and vibration, and increasing the life and stability of the main engine
4. The rotor tooth surface is processed by a grinder to create a high-precision rotor, which is the first guarantee for the high efficiency and stability of the main engine;
5. Adopting a new asymmetric rotor tooth shape, high-precision three-coordinate measuring machine comprehensive measurement, excellent quality.

### Special valve block

1. Screw compressor special intake valve, the unit is easy to start, with automatic adjustment function, low flow rate, low pressure loss, reduce energy consumption, low intake noise;
2. Reliable minimum pressure maintenance valve, low pressure loss, accurate control, super fast return seat, to ensure that the user does not return the gas;
3. Temperature control valve (part) : mixed-flow temperature control valve: The unit is configured with mixed-flow temperature control valve to ensure that the unit is more convenient to start in a low temperature environment, and ensure the oil supply of the unit at any time; By controlling the oil supply temperature of the main engine, the unit is guaranteed to be in the best performance state.



### High-efficiency permanent magnet synchronous motor

1. IP54 protection level, more stable and reliable than IP23 in harsh environments;
2. Low temperature rise design, higher efficiency, and extended motor service life;
3. Use ceramic-plated bearings to completely eliminate the impact of shaft current on bearings;
4. Made of rare earth permanent magnet materials, it has large torque during startup and operation, and small current during startup and operation;
5. Reasonable magnetic field design and magnetic density distribution, energy-saving motors have a wider working frequency range and low operating noise;
6. Soft start of variable frequency is achieved in conjunction with the inverter operation, avoiding strong mechanical impact of machinery and equipment when the motor is started at full voltage, which is conducive to protecting mechanical equipment, reducing equipment maintenance, and improving equipment reliability.



### Advanced and reliable electronic control system

1. Large color LCD touch screen, with good man-machine interface, touch screen with anti-miscontact and sleep function;
2. Customized vector inverter, perfectly matched with the motor, low frequency and high torque;
3. Fully monitor the parameters of the machine, including voltage detection, three-phase imbalance detection, overpressure, overtemperature, etc., without special care;
4. Configure the Internet of Things, you can view the unit running status on the mobile phone;
5. Independent air duct design, suitable for various working conditions.



### Good quality three filter

1. The filtration area of the air filter exceeds 150% of the normal need, the inlet pressure loss is low, and the energy efficiency is good;
2. The oil filter is made of imported glass fiber material, and the rated capacity of the oil filter is  $\geq 1.3$  times the circulating oil volume, with high filtration accuracy and good durability;
3. Imported glass fiber oil core, good filtering effect, low pressure loss of oil core;
4. Three filter position design is reasonable, easy maintenance, reduce downtime.



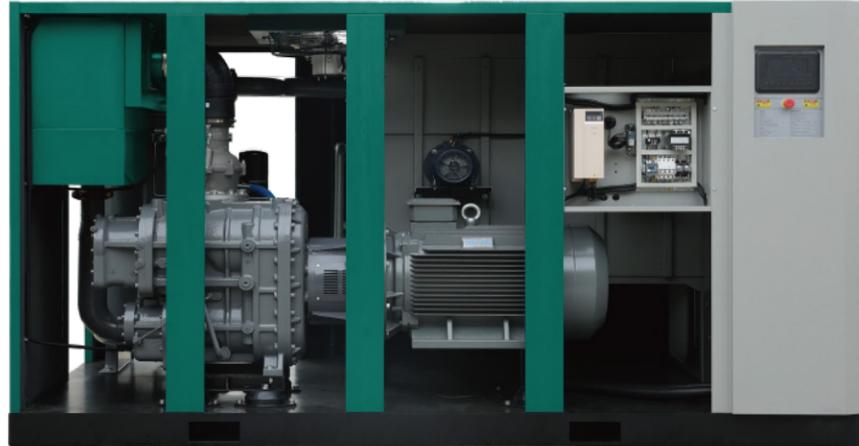
### Silent centrifugal fan

1. Adopt centrifugal fan, brand-new separated radial cooling fan design, with special cooler, better cooling effect and more energy-saving;
2. Compared with axial flow fan, centrifugal fan has higher wind pressure and lower noise;
3. Adopt variable frequency fan control, oil temperature is constant, and the service life of lubricating oil is extended;
4. Due to high wind pressure, cooler and filter are less likely to be blocked.



### High quality and efficient coupling

1. The coupling is a torsional elastic coupling with fail-safe function. It can effectively damp and reduce the vibration and shock generated during operation.
2. The elastomer is only subject to pressure and can withstand greater load, and the drum teeth of the elastomer can avoid stress concentration.



## DHLV-Z series

### Low pressure permanent magnet double frequency two-stage compression screw air compressor

Custom-designed secondary compression and low pressure special host, permanent magnet synchronous motor efficiency reached IE5 level, low pressure special oil and gas separation system design, lower oil content, silent centrifugal fan configuration, host fan double frequency design, increase the cooler side suction top row design, cold and hot partition design, man-machine AC interface touch screen microcomputer controller real-time monitoring operation status.



Customized secondary compression low-voltage dedicated host



Permanent magnet synchronous motor efficiency Reach IE5 level



Design of low-pressure special oil and air separation system



Silent centrifugal fan design



Host fan dual frequency conversion design



Enlarged cooler side ceiling row design



Hot and cold zone design



Monitor operating status in real time



DHLV-Z series	Working pressure		Capacity		power		noise	Airoutlet pipe diameter	net weight	Dimensions(mm)			efficiency	
	bar	psig	(m³/min)	cfm	kW	hp	dB		kg	length	width	height	rotating speed	note
DHLV-55Z	4.0-5.0	58-73	4.3-14.5	152-512	55	75	65±3	DN65	3500	2420	1530	1720	1500	Energy-saving type
DHLV-75Z	4.0-5.0	58-73	5.8-19.5	205-689	75	100	68±3	DN65	3750	2420	1530	1720	1500	Energy-saving type
DHLV-90Z	4.0-5.0	58-73	7.2-24.2	254-855	90	120	70±3	DN80	3800	2800	1700	1950	1500	Energy-saving type
DHLV-110Z	4.0-5.0	58-73	8.2-27.5	290-971	110	150	72±3	DN80	4200	2820	1730	2100	1500	Energy-saving type
DHLV-132Z	4.0-5.0	58-73	10.2-34.5	360-1218	132	175	74±3	DN125	5000	2820	1730	2100	1500	Energy-saving type
DHLV-160Z	4.0-5.0	58-73	12.6-42.2	445-1490	160	215	75±3	DN125	5900	3450	2000	2050	1500	Energy-saving type
DHLV-200Z	4.0-5.0	58-73	15.7-52.5	554-1854	200	270	76±3	DN150	7800	3800	2250	2350	1500	Energy-saving type
DHLV-220Z	4.0-5.0	58-73	17.3-58	611-2048	220	300	78±3	DN150	8000	3800	2250	2350	1500	Energy-saving type
DHLV-250Z	4.0-5.0	58-73	18.8-63.1	664-2228	250	350	78±3	DN150	8100	3800	2250	2350	1500	Energy-saving type
DHLV-280Z	4.0-5.0	58-73	22.3-74.8	788-2642	280	375	80±3	DN150	8500	4600	2350	2650	1500	Energy-saving type



## DHLV-G series

### Low pressure permanent magnet double frequency single stage compression screw air compressor

Large rotor low speed and low voltage special host, permanent magnet synchronous motor efficiency reaches IE5 level, low pressure special oil and gas separation system design, lower oil content, silent centrifugal fan configuration, host fan double frequency conversion design, increase the cooler side suction top row design, hot and cold partition design, man-machine AC interface touch screen microcomputer controller real-time monitoring operation status.



Large rotor low speed and low pressure special host



The efficiency of permanent magnet synchronous motor reaches IE5 level



Design of low-pressure special oil and air separation system



Silent centrifugal fan design



Host fan dual frequency conversion design



Enlarged cooler side ceiling row design



Hot and cold zone design



Monitor operating status in real time

DM/HLV-G series	Working pressure		Capacity		power		noise	Air outlet pipe diameter	net weight kg	dimensions(mm)			Energy efficiency	
	bar	psig	(m³/min)	cfm	kW	hp	dB			length	width	height	Rotational speed	note
DMLV-22G	2.1-3	30-44	1.8-6.5	64-230	22	30	59±3	DN50	1150	1415	1030	1330	3300	Standard
DHLV-37G	2.1-3	30-44	3.4-11.6	120-410	37	50	62±3	DN65	1200	1900	1200	1650	3100	Energy-saving models
DHLV-55G	2.1-3	30-44	5.1-17.2	180-607	55	75	65±3	DN80	2100	2160	1450	1750	1500	Energy-saving models
DMLV-55G	2.1-3	30-44	4.6-15.8	162-558	55	75	65±3	DN80	1900	2160	1450	1750	2700	Standard
DHLV-75G	2.1-3	30-44	7.2-24.2	253-855	75	100	68±3	DN125	2830	2900	1830	2000	2100	Energy-saving models
DMLV-75G	2.1-3	30-44	6-20.5	212-724	75	100	68±3	DN125	2700	2900	1830	2000	3000	Standard
DHLV-90G	2.1-3	30-44	8.9-30	314-1059	90	120	70±3	DN125	4000	2900	1830	2000	1500	Energy-saving models
DMLV-90G	2.1-3	30-44	7.2-24.2	254-855	90	120	70±3	DN125	3800	2900	1830	2000	3000	Standard
DHLV-110G	2.1-3	30-44	10.9-36.5	385-1289	110	150	72±3	DN125	4600	2900	1830	2000	1800	Energy-saving models
DMLV-110G	2.1-3	30-44	9.6-32.4	339-1144	110	150	72±3	DN125	4000	2900	1830	2000	3000	Standard
DHLV-132G	2.1-3	30-44	14.2-47.6	501-1681	132	175	74±3	DN150	5000	3400	2050	2250	1500	Energy-saving models
DMLV-132G	2.1-3	30-44	11.3-37.9	399-1338	132	175	74±3	DN125	4800	2900	1830	2000	2700	Standard
DMLV-160G	2.1-3	30-44	12.8-42.8	452-1511	160	215	75±3	DN150	4800	3500	2030	2230	3000	Standard
DHLV-160G	2.1-3	30-44	15.7-52.7	554-1861	160	215	75±3	DN200	6200	4250	2280	2550	1650	Energy-saving models
DHLV-185G	2.1-3	30-44	19.1-63.8	645-2253	185	250	76±3	DN200	7000	4250	2280	2550	2000	Energy-saving models
DHLV-200G	2.1-3	30-44	21-70.2	742-2479	200	270	76±3	DN200	8000	4250	2280	2550	2300	Energy-saving models
DHLV-250G	2.1-3	30-44	27.5-80	972-2830	250	350	77±3	DN200	8200	4400	2300	2200	2000	Energy-saving models

Note: Including standard version + energy-saving version

## Product characteristics



### The industry's leading dual-stage mainframe

1. The unique design of the intermediate coolant spray curtain reduces the temperature of the air, and the compression process is close to the most energy-saving isothermal compression. In principle, the two-stage compression saves 5%-8% of energy than the single-stage compression;
2. Two-stage compression, small compression ratio, less leakage, bearing load is small, bearing life is greatly improved;
3. Adopt the design idea of "big rotor, big bearing, low speed", reduce noise and vibration, increase the life and stability of the main engine;
4. The rotor tooth surface is processed by grinding machine to create a high-precision rotor, which is the first guarantee of high efficiency and stability of the main machine;
5. The use of new asymmetric rotor tooth type, high-precision coordinate measuring machine comprehensive measurement, excellent quality.

### Special valve block

1. Screw compressor special intake valve, the unit is easy to start, with automatic adjustment function, low flow rate, low pressure loss, reduce energy consumption, low intake noise;
2. Reliable minimum pressure maintenance valve, low pressure loss, accurate control, super fast return seat, to ensure that the user does not return the gas;
3. Temperature control valve (part) : mixed-flow temperature control valve: The unit is configured with mixed-flow temperature control valve to ensure that the unit is more convenient to start in a low temperature environment, and ensure the oil supply of the unit at any time; By controlling the oil supply temperature of the main engine, the unit is guaranteed to be in the best performance state.



### High efficiency permanent magnet synchronous motor

1. IP54 protection grade, more stable and reliable than IP23 in harsh environments;
2. Low temperature rise design, higher efficiency, extend the service life of the motor;
3. Use ceramic plated bearings to completely eliminate the influence of shaft current on bearings;
4. Made of rare earth permanent magnet material, the torque is large when starting and running, and the current is small when starting and running;
5. Reasonable magnetic field design, magnetic density distribution, energy-saving motor operating frequency range is wider, low running noise;
6. With the operation of the frequency converter, the frequency conversion soft start is realized, which avoids the strong mechanical impact of the machine and equipment when the motor is started at full pressure, which is conducive to protecting the mechanical equipment, reducing equipment maintenance and improving the reliability of the equipment.



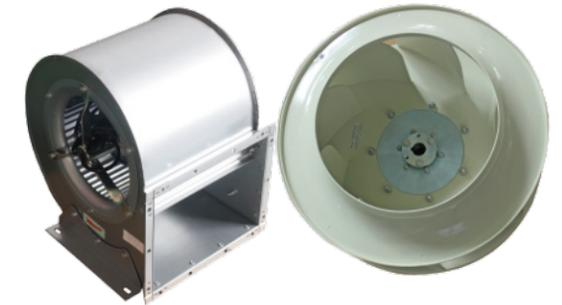
### Advanced and reliable electronic control system

1. Large color LCD touch screen, with good man-machine interface, touch screen with anti-miscontact and sleep function;
2. Customized vector inverter, perfectly matched with the motor, low frequency and high torque;
3. Fully monitor the parameters of the machine, including voltage detection, three-phase imbalance detection, overpressure, overtemperature, etc., without special care;
4. Configure the Internet of Things, you can view the unit running status on the mobile phone;
5. Independent air duct design, suitable for various working conditions.



### Good quality three filter

1. The filtration area of the air filter exceeds 150% of the normal need, the inlet pressure loss is low, and the energy efficiency is good;
2. The oil filter is made of imported glass fiber material, and the rated capacity of the oil filter is  $\geq 1.3$  times the circulating oil volume, with high filtration accuracy and good durability;
3. Imported glass fiber oil core, good filtering effect, low pressure loss of oil core;
4. Three filter position design is reasonable, easy maintenance, reduce downtime.



### Silent centrifugal fan

1. Adopt centrifugal fan, new separate flow cooling fan design, with special cooler, cooling effect is better, more energy saving;
2. Compared with axial fans, centrifugal fans have higher wind pressure and lower noise;
3. Frequency conversion fan control, constant oil temperature, prolong the service life of lubricating oil;
4. Due to high wind pressure, the cooler and filter are less likely to be blocked.



### High quality and efficient coupling

1. The coupling is a torsional elastic coupling with fail-safe function. It can effectively damp and reduce the vibration and shock generated during operation.
2. The elastomer is only subject to pressure and can withstand greater load, and the drum teeth of the elastomer can avoid stress concentration.

## Application scenarios

**Incinerator:** There are some pneumatic diaphragm valves and pneumatic instruments between the valve and instrument system equipment. The actions are all driven by the air compressor. The combustion produces a lot of dust attached to the inner wall of the boiler. Long-term accumulation causes the heat transfer efficiency to decrease and the fuel cost to increase. Therefore, the air compressor also plays the role of blowing away the dust.

**Grinder:** Provide compressed air so that the material entering the machine cavity is closely rubbed and strongly impacted on the inner edge of the turbine blade in the rotating airflow, and is ground again in the gap between the blade and the grinding block. While crushing and grinding the material, the turbine sucks in a lot of air, which plays the role of cooling the machine, grinding the material and conveying fine material.



## Product Cases

A glass factory was established in March 1976, covering an area of 34,668 square meters. It can produce various specifications of colored and white glass bottles, with an annual output of more than 200 million pieces and an annual output value of 30 million yuan. For processing companies, time is money, and gas users purchase energy-saving and stable air compressors in the form of open bidding. After business and technical docking, DREAM finally won the bid with a high cost-effectiveness.



A certain technology company purchased the Demon DMLV-90A low-pressure series air compressor for the "microbial fermentation" project, mainly engaged in bioengineering technology, research and development, sales, technical services and other related chemical industries.



## Energy Conservation

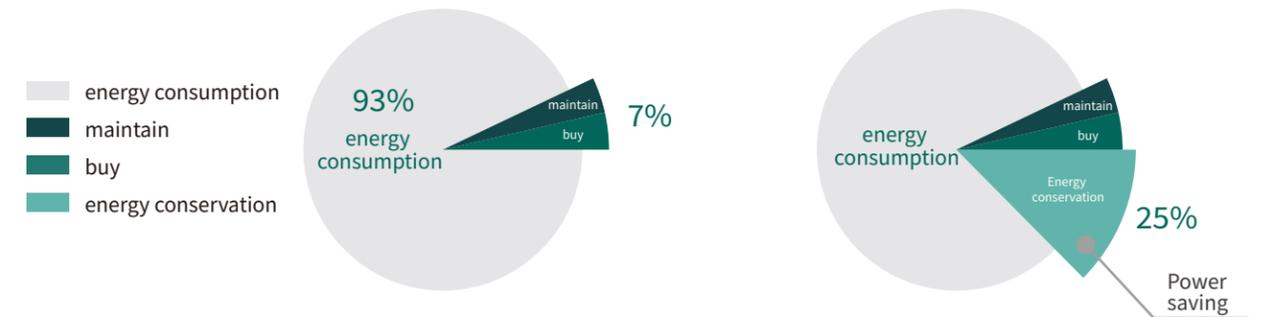
Air compressors are the "electric tigers" in industrial electricity consumption, with an average power consumption of 20%. We have made a series of efforts and research on how to use the same electricity to create more air to help users save energy, and have made important breakthroughs. The permanent magnet variable frequency screw machine developed by the company can save users about 25-35% of electricity while ensuring the original work efficiency.



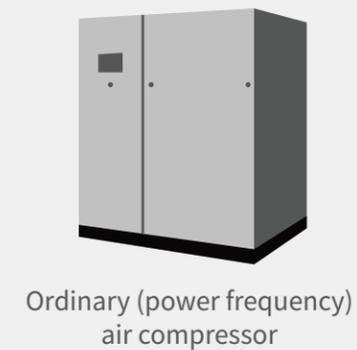
## Energy saving and cost reduction

When purchasing an air compressor, the traditional cost (i.e. purchase cost+maintenance cost) only accounts for 7% of the total cost, while energy consumption accounts for 93%. The two-stage compression direct connection/permanent magnet screw air compressor saves 25-30% energy compared to ordinary (power frequency) air compressors.

— taking 75KW as an example



- intelligent control
- Rust proof shell
- Efficient and energy-saving
- Constant current and stable voltage
- Easy to use and worry free
- reduce the noise



## Intelligent control technology

cloud intelligent control three functions and value



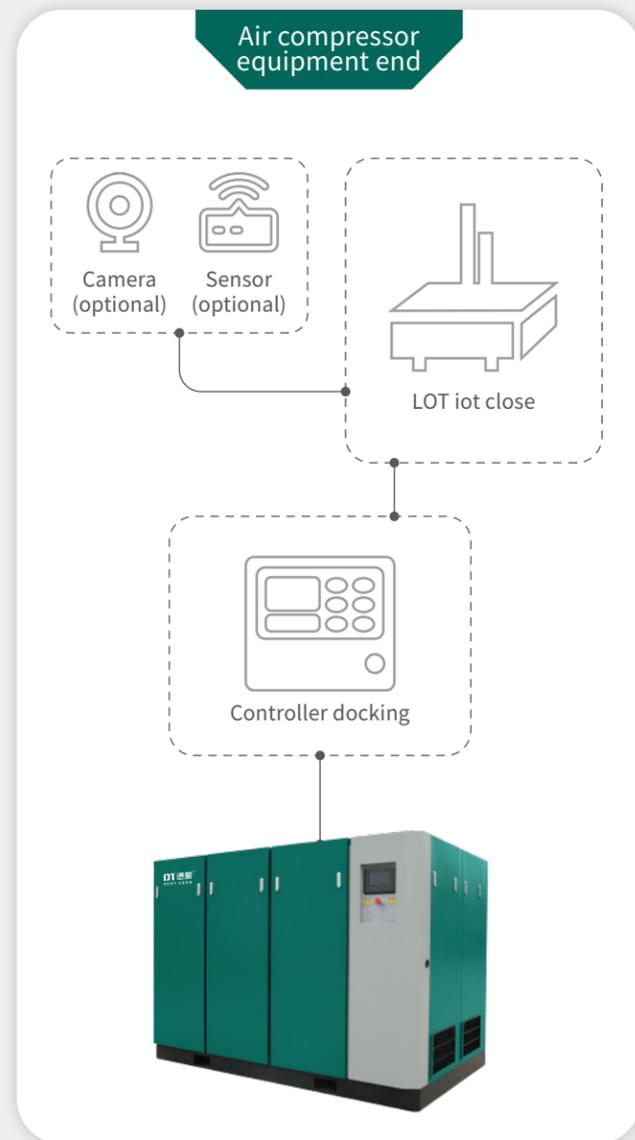
- Digital station intelligent control**  
 reduce operation and maintenance costs by 10-30%
- 3D virtual air compressor station
  - data Min monitoring
  - workshop diagnosis report
  - fault online prezi
  - maintenance cycle reminder



- Intelligent control Intelligent tuning**  
 reduce manual labor time by 50%
- automatic control of air compressor
  - AI algorithm autonomous tuning
  - dynamic decision-making of equipment priority
  - intelligent control of auxiliary equipment



- Whole station energy saving Whole station energy saving**  
 save the power consumption of 5-30%
- edge computing technology
  - narrow band constant voltage technology
  - multi-parameter and multi constraint control algorithm
  - big data visualization technology



### Digital station house

Station monitoring + control (computer) air compressor, cold dryer, suction dryer, water, fan, waste heat recovery machine, flow meter, electricity meter, etc Intelligent monitoring technology Based on the "Internet of Things"

### Intelligent monitoring technology

Based on the "Internet of Things" intelligent control technology, the product has the ability to transport parameters through cloud technology, and our users can achieve it through computers or mobile phone apps.

