

STABLE | ENERGY-SAVING | CLEAN | AND EFFICIENT



DH(V)-Z Series
Two-Stage Direct-Drive /
Permanent Magnet Rotary
Screw Air Compressor

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Dream(Shanghai) Compressor Co.,Ltd.



# Catalogue/

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# **ABOUT DREAM**







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 wordwide 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























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

### Solution

Air compressor energy saving expansion
Digital station house
Intelligent control
Whole station energy saving

# Product Oil-free air compressor Oil-Injected screw air compressor Portable Air Compressor Air Treatment Equipment Technology Air compressor development technology Automatic digital technology Specialized application technology

# Engineering

Gas station renewal capacity Project management capability Engineering design capability Detail implementation ability

### Guarantee

Product quality assurance
Production cycle support
Product after-sales support
System engineering capability
assurance
Capacity supporting measures

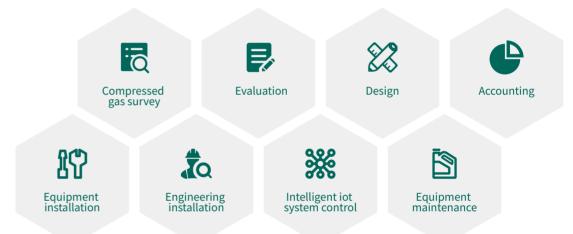
# Service

Full life cycle service
Performance pledge
19 national service outlets
Global delivery

# I 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



Free pre-sale service



13 months free maintenance



Lifetime warranty



7\*24 service



Regular inspection



Dedicated maintenance files

### 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 ≥ 1.3 times the circulating oil volume, with high
- 3. Imported glass fiber oil core, good filtering effect, low pressure loss of oil core;

filtration accuracy and good durability;

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.



# DH-Z series

# Power frequency two-stage compression screw air compressor

The whole machine has super energy efficiency, more energy saving secondary compressor, YE3 high efficiency motor, silent centrifugal fan configuration, increasing the suction top row design of the cooler side, cold and hot zone design, man-machine AC interface touch screen microcomputer controller to monitor the running status in real time.



Primary energy efficiency of whole machine



energy-efficient secondary compression host



YE3 high-efficiency motor



Silent centrifugal fan configuration



Increase the design of the side suction and top discharge of the cooler



Cold and hot partition design



Real time monitoring of operational status



Imported brand contactor

### Working Dimensions(mm) capacity Airoutlet net weight DH-Z pressure pipe series 12.8 DH-55Z 10.4 75 65±3 G2' 8.8 16.5 13.5 DH-75Z 75 100 68±3 G2" 12.2 20.1 DH-90Z 17.3 120 70±3 DN65 15.9 23.5 DH-110Z 19.8 110 150 72±3 DN80 17.6 27.8 DH-132Z 132 175 74±3 DN80 33.3 DH-160Z 160 215 75±3 DN100 28.2 38.6 34.4 DH-185Z 185 250 76±3 DN100 31.8 42.5 DH-200Z 40.2 200 270 76±3 DN100 47.1 DH-220Z 42.5 220 300 78±3 DN100 37.2 52.5 DH-250Z 48.2 250 350 78±3 DN100 52.3 DH-280ZW 280 375 80±3 DN125 47.8 DH-315ZW 57.9 315 422 82±3 DN125 50.5 DH-355ZW 355 476 82±3 DN125 54.8 DH-400ZW 540 82±3 DN150 95.9 DH-450ZW 10 84.1 600 82±3 DN150 DH-500ZW 95.5 670 85±3 DN200 77.8 DH-560ZW 10 103.1 560 750 85±3 DN200

Note: DH-280ZW and above are water-cooled types, and there are no other unconventional air-cooled types, and the whole series can be customized water-cooled types.



# **DHV-Z** series

# Permanent magnet double frequency two-stage compression screw air compressor

The whole machine has super first-level energy efficiency, second-level compression energy-saving host, permanent magnet synchronous motor efficiency Reach IE5 level、silent centrifugal fan configuration, Dual frequency conversion design of the host fan, enlarged cooler side ceiling row design, hot and cold zone design, human-machine communication interface touch screen microcomputer. The controller monitors the operating status in real time.



Primary energy efficiency of whole machine



Energy saving II Compression host



Permanent magnet synchronous motor efficiency Reach IE5 level



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

DHV-Z	Exhaust pressure		exhaust volume		power		noise	Air outlet pipe	aircrew net weight	dimensions(mm)		
series	bar	psig	(m³/min)	cfm	kW	hp	dB	diameter	kg	length	width	height
DHV-37Zi	8	116	2.3-7.7	81-272	37	50	65±3	G2"	900	1476	1080	1360
	10	145	1.9-6.9	67-244	51	50	05 ± 5	OZ.	300	1470	1000	1300
	13	189	/	/	/	/	/	/	/	/	/	/
DHV-45Zi	8	116	3.2-10.5	113-371	45	60	65±3	G2"	950	1476	1080	1360
	10	145	2.2-7.8	78-275								
	13	189	2.5-6.1	88-215								
DHV-55Z	8	116	3.9-13.2	138-466	55	75	65±3	G2"	1600	2160	1350	1750
	10	145	3.1-10.7	109-378								
	13	189	2.6-8.8	92-311								
DHV-75Z	8	116	5-16.8	177-593	75	100	68±3	G2"	1850	2160	1350	1750
	10	145	4.1-13.8	145-487								
	13	189	3.6-12.3	127-434								
DHV-90Z	8	116	6-20.1	212-710	90	120	70±3	DN65	2100	2420	1530	1720
	10	145	5.2-17.3	184-611								
	13	189	4.8-15.9	170-562								
DHV-110Z	8	116	7.1-23.5	251-830	110	150	72±3	DN80	2800	2650	1600	1850
	10	145	5.9-19.8	210-699								
	13	189	5.3-17.8	187-629								
DHV-132Z	8	116	8-28.1	283-992	132	175	74±3	DN80	2850	2650	1600	1850
	10 13	145	7.3-24.3 6.1-20.2	257-858 214-713								
	8	189 116	10.1-33.6	356-1187								
DHV-160Z	10	145	9.2-30.5	323-1077	160	215	75±3	DN100	4000	3350	1900	1950
	13	189	8.4-28	297-989								
DHV-185Z	8	116	12.4-38.7	438-1367	185	250	76±3	DN100	4300	3350	1900	1950
	10	145	10.4-34.8	369-1229								
	13	189	9.7-32.3	342-1141								
DHV-200Z	8	116	12.8-42.6	451-1504	200	270	76±3	DN100	4500	3350	1900	1950
	10	145	12.2-40.5	431-1430								
	13	189	10.6-35.1	374-1240								
DHV-220Z	8	116	14.2-47.3	501-1670	220	300	78±3	DN100	5200	3700	2060	2150
	10	145	12.8-42.5	450-1501								
	13	189	12-37.4	424-1321								
DHV-250Z	8	116	18.5-52.8	653-1865	250	350	78±3	DN100	5900	3700	2060	2150
	10	145	15.1-48.3	533-1706								
	13	189	13.3-43	470-1518								
DHV-280Z	8	116	17.46-58.2	616-2053	280	375	80±3	DN100	6600	3700	2060	2150
	10	145	15.75-52.5	557-1856								
	13	189	14.4-48	509-1696								
DHV-315Z	8	116	19.86-66.2	705-2350	315	422	82±3	DN125	7000	4200	2300	2400
	10	145	17.43-58.1	618-2060								
	13	189	15.21-50.7	540-1800								
DHV-355Z	8	116	21.96-73.2	778-2592	355	476	82±3	DN125	7200	4200	2300	2400
	10	145	19.56-65.2	690-2299								
	13	189	16.5-55	584-1945								

# Application scenarios

Drilling machine - diesel mobile: Air slag removal for rock drilling and drilling, providing driving force for pneumatic tools. Dust removal equipment: The dust collector utilizes high-voltage electricity to generate electrostatic attraction and the resistance of the filter bag itself, adsorbing dust particles in the flue gas into the interior of the filter bag. Then, through the vibration force generated when the bag folds unfold, the collected particulate dust is dropped into the hopper by the force of gravity, thus removing the dust. The air compressor provides the air source for reverse blowing to the dust collector. Realize the pulse back-blowing function of the equipment to ensure its normal operation. Injection molding machine: In the injection molding process, oil-free screw air compressors have a technology that makes the role of compressed air very important, which is gas-assisted injection molding.









# **Product Cases**

A certain automotive industry purchased the Demeng DH-315Z machine, which is mainly used for air in blow molding and plastic molding. The main body of this project is "environmental protection technology". The customer initially used a certain joint venture brand. Considering energy conservation, the customer finally decided to replace it with a more energy-efficient and stable air compressor. Through technical communication over the phone in the early stage, we learned the required air compressor production capacity and pressure. After multiple technical exchanges with the customer later, the customer was very interested in the two-stage compression series air compressor recommended by our company. After conducting on-site investigations of the usage of Demeng's previous energy-saving renovation customers, it was learned that the energy-saving effect and stability were much higher than those of other brands. Eventually, it was decided to phase out the previous high-energy-consuming air compressor. From on-site installation, commissioning to trial operation, the air compressor has received high praise from the customer: Demeng products are cost-effective, have a grand appearance, reliable and stable quality, and can provide one-stop service.









# **DREAM**

# **Energy Conservation**

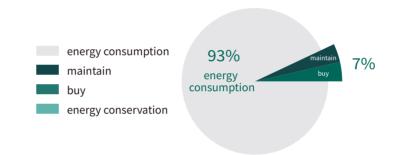
Air compressors are the "electric tigers" in industrial electricity consumption, with an average power consumption of 20%. We have made a series of efforts and research on how to use the same electricity to create more air to help users save energy, and have made important breakthroughs. The permanent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

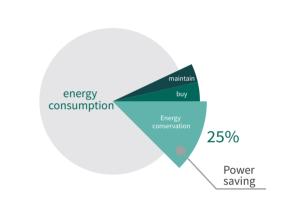


# Energy saving and cost reduction

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.

## — aking 75KW as an example











# 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%

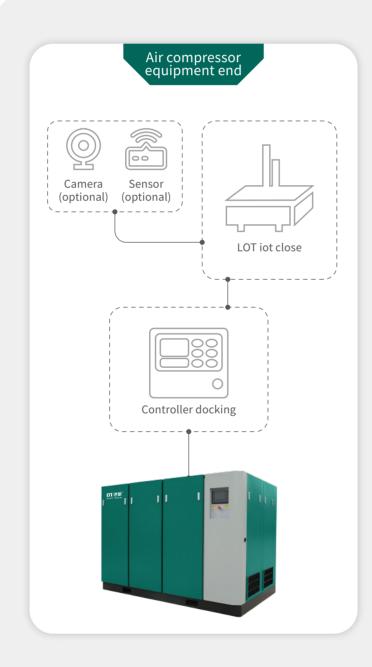
- -- automatic control of air compressor-- Al algorithm autonomous tuning
- -- dynamic decision-making of
- equipment priority
- -- intelligent control of auxiliary equipment



# 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.

Distributor

APP

Client

APP

