BUSINESS REPRESENTITIVE NAME CARD

SILVERSTONE
INDUSTRIAL

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OIL-FREE
AIR COMPRESSOR

E-mail: contact@sind.ltd
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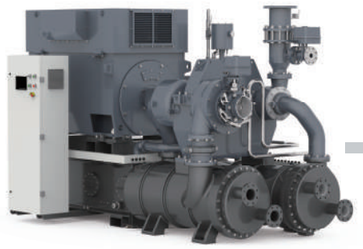
HIGH ENERGY-EFFICIENCY
AIR COMPRESSOR MANUFACTURER

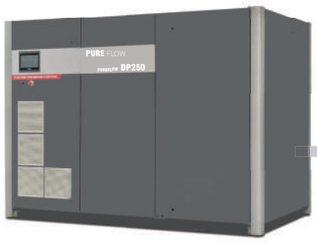
PUREFLOW | SCROLLPURE | MAGFLOAT | AEROMAG | AIRGLIDE | BREEZEGLIDE

SILVERSTONE INDUSTRIAL

COMPRESSED AIR PURIFICATION FLOW CHART



Centrifugal Air Compressor



Oil Free Screw/Scroll Air Compressor

Oil Lubricated Screw Air Compressor

Air/Water Separator

Air Reservoir Tank

Filter Grade V/A (Optional)

Refrigerated Air Dryer

Consumables

Filter Grade V

Filter Grade A

Filter Grade B

Filter Grade A/B

Adsorptive Dryer

Filter Grade AC

Filter Grade AD

Filter Grade B

Adsorptive Dryer

Filter Grade B/AC

1 Architecture
Cleaning
Sand Blasting
Stamping

2 Metalwork
Pressure Forming
Pneumatic Machinery
Parts Drying

3 Precision Machinery
Electronic Industry
Packing
Printing

4 Spraying
Electronics
Textile

5 Medicine
Bioengineering
Chemical Industry

6 Lithium Battery
Pharmacy
Food

Configuration Refers To ISO80753/GB13277.1-2017 Compressed Air Contaminants & Purity Classes

CATALOGUE

ABOUT SIND

Silverstone Industrial, a family-owned industrial alliance, has roots in United Compressor Systems (UCS) and has formed strategic partnerships with AirThink and AST to deliver innovative solutions in industrial air compressor technology.

UCS, Founded in 2002, UCS specialises in developing and manufacturing high-efficiency industrial compressors under the United OSD and United Compressor Systems brands. Since 2013, a strategic partnership with Japan's HITACHI Group has enhanced UCS's capabilities in design, production, and quality control, leading to the launch of innovative and energy-saving products such as two-stage screw compressors and oil-free compressors.

AirThink, a high-tech enterprise headquartered in the same industrial park as UCS in Jiading, Shanghai, offers a comprehensive range of services for compressed air systems, including intelligent equipment R&D, customisation, and air compressor station lifecycle management. With a strong focus on energy efficiency and safe production, Air-Think serves a diverse range of industries across China through its network of over ten subsidiaries.

AST, co-located with AirThink's manufacturing base in Wuxi, focuses on the R&D, manufacturing, and sales of reliable and efficient centrifugal compressors. These products cater to industries such as steel, petrochemical, and automotive, providing high-quality services on a global scale.

The industrial alliance has earned a broad reputation and ranks among the top five in manufacturing output in China's air compressor industry. The alliance offers a comprehensive product series, including stationary and mobile-type screw/scroll compressors, centrifugal compressors, and innovative compressor solutions, to industrial users. By leveraging robust product and technical service support, Silverstone Industrial targets the international market, providing customers with cost-effective air compressor products and compressed air station solutions.

AirThink Joint Production Plant
(Intelligent Skid / Container Air Station)

AST Production Plant
(Centrifugal Compressor)

UCS & Hitachi Joint Production Plant
(Screw & Scroll Compressor)

SILVERSTONE INDUSTRIAL

OIL-FREE
SCREW SERIES

OIL-FREE
SCREW AIR COMPRESSOR

CLASS 0 OIL-FREE

OIL-FREE ROTARY SCREW COMPRESSOR

Oil-free compression principle

Oil-free screw compressor, yin and yang rotors rely on a pair of high-precision synchronous gear drive, screws to maintain a small gap between each other, mutual meshing without contact, the compression chamber is completely oil-free, to provide customers with clean compressed air.

With the growing concern for environmental protection, the pursuit of compressed air purity and safety has gradually become a consensus. Whether it is food and beverage or chemical production, pharmaceuticals and biology or precision electronics, more and more industries are demanding higher quality compressed air in order to meet the increasingly stringent quality and environmental standards.

Our role is to provide our customers with oil-free air compression technology and services. We offer a complete range of oil-free screw compressors with advanced design concepts, as well as pre-engineered standard models and customised products.

PureFlow SP6-150 Series

Single-stage oil-free screw compressors

Pressure range: 2.0bar ≤ P ≤ 3.5bar

- **Energy efficient design**

  Specialised oil-free screw compressor air-end, developed for low pressure applications, are designed with different pressure ratios for different exhaust pressures to avoid over-compression.

- **Circumvision Philosophy**

  Single-stage dry compression can effectively control the size of the whole machine, advanced design concepts give it more stylish appearance and compact internal structure, low noise, ultra-purification, occupies a small area, easy to maintain.

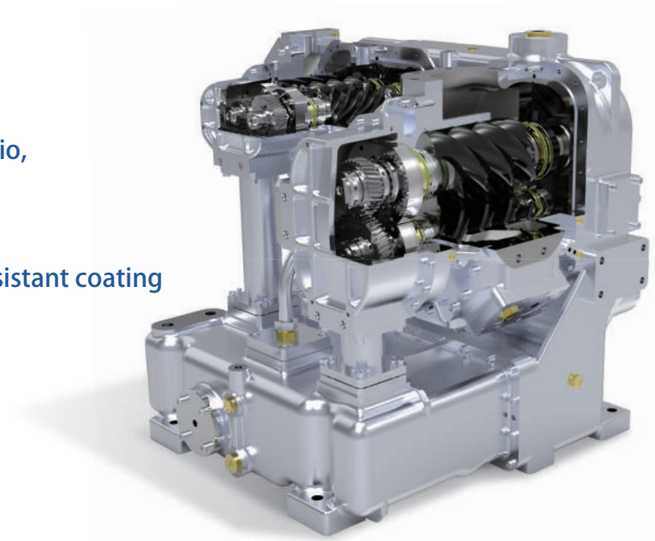
PureFlow DP37-500 Series

Double-stage oil-free screw compressors

Pressure range: 7.5bar ≤ P ≤ 10bar

- Two-stage compression, high compression ratio output, low-pressure stage can be 2-3.5bar, high-pressure stage to reach the user's final required pressure.
- Efficient cooling system with reasonable cooling layout to improve compression efficiency.
- Air-end, drive, cooling, etc. are modular design, reducing the number of spare parts, maintenance is more convenient.

- **Optimum length-to-diameter ratio, high efficiency guaranteed**
- **SKF Heavy Duty Rolling Bearings**
- **Food grade high temperature resistant coating**



OIL-FREE SCREW AIR COMPRESSOR

Systematic modular structure design

- A holistic design concept that combines a number of features and advantages;
- More outstanding efficiency - Special design - Easy maintenance - Simpler components;
- Fully integrated two-stage head, drive gear set, lubrication system and smaller footprint.

High efficiency oil-free compressor air-end

- The primary and secondary materials are made of stainless steel;
- High-speed SKF bearings to ensure high efficiency and long service life of the host;
- Special coating on the inner wall of rotor shell, 270℃ high temperature resistance;
- Oil-cooled jacketed cooling;
- Double vent design, 100% oil-free;
- High precision synchronous gears.

Efficient air intake system

- High-efficiency air intake filter, 99.9% filtration efficiency;
- Drain integrated air intake valve, pneumatic structure, no risk of oil pollution.

Hot and cold zone design

- Air inlet pre-filtering + resistive noise cancellation design;
- Reasonable cooling air channel to ensure rapid discharge of radiant heat;
- Efficient noise reduction treatment box.

Independent oil pump system

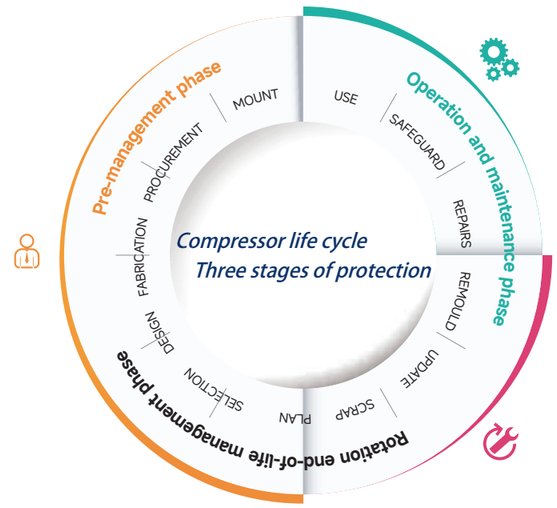
- Independent lubricant pump ensures pre-lubrication before starting and stopping and delayed lubricant supply after stopping, effectively avoiding dry wear. More adaptable to variable frequency use.

High quality cooling system

- All the air lines and pipelines are made of stainless steel, more stable and durable;
- Water-cooled unit: cooler made of stainless steel, no corrosion problems;
- Air-cooled unit: high-efficiency high-flow fan with variable frequency control; smoother air discharge; low-noise design.

Lifetime Service and Technical Support

We have developed a full range of solutions to manage the entire compressor process through a series of measures in order to obtain the desired goal of more economical compressor life cycle costs and higher overall plant capacity.



Frequency conversion energy saving programme

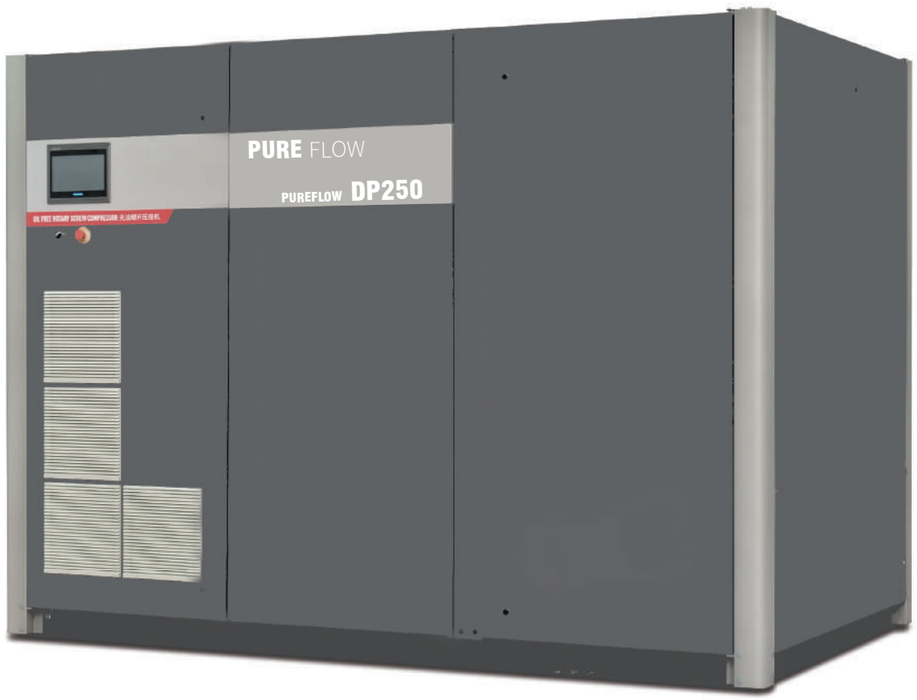
Both single-stage and two-stage oil-free compressors can be supplied with inverter units. High-efficiency inverter adjustment allows for a wide range of adjustment of gas production, and due to the compatibility design of the head, smooth speed regulation can be achieved, effectively avoiding the drive system from being impacted, which not only prolongs the service life of the unit, but also saves more than 25 per cent of energy in a comprehensive manner.

- Specially designed inverter motors
- More reasonable built-in frequency converter structure
- Frequency inverters incorporated into the cooling system

Intelligent HMI control system

- Multi-language selection
- Multiple protection functions
- A variety of editable input and output ports, can provide a variety of options
- Standard communication interface can realise multi-machine joint control.
- Through the special module and protocol to meet the requirements of communication with the host computer connection.
- Various types of protection are more comprehensive, powerful, timed start-stop and other functions to meet a variety of possible application requirements.
- Intelligent IOT function

OIL-FREE SCREW AIR COMPRESSOR



■ Single-stage oil-free screw air compressors

(A for air-cooled, W for water-cooled, VFD for inverter)

Model	Power kW	(FAD) m3/min				Diameter	Weight kg	Dimension L×W×H mm
		2.0 bar	2.5 bar	3.0 bar	3.5 bar			
PureFlow SP6-A/W-VFD	6	19	25	24		DN65	1800	1945×1295×2035
PureFlow SP8-A/W-VFD	8	25	29	32		DN65	1900	
PureFlow SP10-A/W-VFD	10	34	40	45	48	DN80	2000	2300×1490×2000
PureFlow SP16-A/W-VFD	16	52	61	69	71	DN80	2100	
PureFlow SP20-A/W-VFD	20	61	71	80	83	DN80	2200	
PureFlow SP22-A/W-VFD	22	72	84	96	100	DN100	2400	3000×1800×2200
PureFlow SP25-A/W-VFD	25	78	91	104	107	DN100	2500	
PureFlow SP27-A/W-VFD	27	81	94	107	110	DN100	2600	
PureFlow SP30-A/W-VFD	30	88	105	116	120	DN125	4000	3052×1850×2265
PureFlow SP35-A/W-VFD	35	104	121	138	143	DN125	4200	
PureFlow SP42-A/W-VFD	42	130	160	171	180	DN125	4400	
PureFlow SP50-A/W-VFD	50	148	172	197	204	DN150	5000	3582x1994x2367
PureFlow SP54-A/W-VFD	54	166	192	219	227	DN150	5200	
PureFlow SP62-A/W-VFD	62	184	215	245	253	DN150	5400	
PureFlow SP65-W-VFD	65	202	210	279	290	DN200	6000	3582x1994x2367
PureFlow SP70-W-VFD	70	210	245	280	300	DN200	6200	
PureFlow SP80-W-VFD	80	240	297	315	335	DN200	6400	
PureFlow SP100-W-VFD	100	264	320	375		DN250	6500	4000×2200×2550
PureFlow SP110-W-VFD	110	293	355	417		DN250	6600	
PureFlow SP120-W-VFD	120	321	389	456		DN250	6700	
PureFlow SP135-W-VFD	135	365	442	519		DN250	6800	
PureFlow SP150-W-VFD	150	408	494	580		DN250	6900	

■ Double-stage oil-free screw air compressors

(A for air-cooled, W for water-cooled, VFD for inverter)

Model	Power kW	(FAD) m^3/min			Diameter	Weight kg	Dimension L×W×H mm
		7.5 bar	8.5 bar	10 bar			
PureFlow DP37A/W	37	6.0	5.3		DN40	2000	1945×1295×2035
PureFlow DP45A/W-VFD	45	7.6	6.3	5.3	DN40	2100	
PureFlow DP55A/W-VFD	55	9.0	8.4	6.2	DN40	2284	
PureFlow DP55A/W	55	9.6	8.8		DN50	2200	2300×1490×2000
PureFlow DP75A/W-VFD	75	12.6	11.6	10.0	DN50	2600	
PureFlow DP90A/W-VFD	90	15.6	15.0	12.5	DN50	2800	
PureFlow DP110A/W-VFD	110	20.02	18.6	16.1	DN80	3000	3000×1800×2200
PureFlow DP132A/W-VFD	132	24.00	22.15	18.60	DN80	3200	
PureFlow DP160A/W-VFD	160	28.00	26.6	23.60	DN80	4800	
PureFlow DP185A/W-VFD	185	34.60	30.4	25.00	DN80	5900	3052×1850×2265
PureFlow DP200A/W-VFD	200	36.10	35.01	30.20	DN80	5900	
PureFlow DP250A/W-VFD	250	45.00	42.36	39.00	DN80	6000	
PureFlow DP280A/W-VFD	280	50.26	48.30	45.00	DN100	6000	3582×1994×2367
PureFlow DP315A/W-VFD	315	55.20	53.10	48.20	DN100	6500	
PureFlow DP355W-VFD	355	65.20	60.12	53.90	DN100	6500	
PureFlow DP400W-VFD	400	70.30	65.05	60.20	DN100	7000	4000×2200×2550
PureFlow DP450W-VFD	450	75.60	70.20	63.40	DN100	7500	
PureFlow DP500W-VFD	500	83.20	80.60	72.30	DN100	8000	

Remarks:

1. The above parameters are based on the inlet condition at pressure 1.0Bar(A), temperature 20℃, relative humidity 0%, tested according to ISO 1217 4th Edition Annex E standard.
2. The data in the table is applicable to 50 Hz power supply conditions, for 60 Hz power supply parameters, please consult us.
3. For 10 bar inverter models, please consult us.
4. The product is under continuous improvement, please ask for the latest data sheet.

SILVERSTONE INDUSTRIAL

OIL-FREE
SCROLL TYPE AIR COMPRESSOR SERIES

TECHNOLOGICAL SUPERIORITY

TECHNIQUES OF OPTIMIZATIONS

• Reliable and stable

The vortex disc of the scroll compressor works at high temperature due to lack of lubricating oil during operation. The Neo involute tooth profile technology developed by Hitachi has well solved the problem of vortex disk thermal deformation at high temperature and virtually ensured the reliability of the scroll compressor.

Bearings with High-reliability surface treatment.

• Low vibration and low noise

Optimized scroll compressor cabinet design, low noise close to the library environment. (3.7KW model, noise value is only 47dB[A])

• Easy maintenance

Medium-term maintenance cycle extended to five years or 12500 hours from the original four years or 10000 hours.

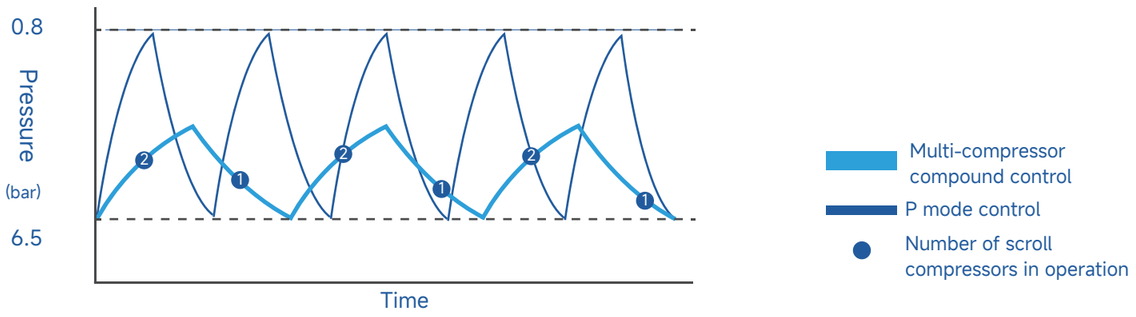
The maintenance cycle for the 1.0MPa pressure compressor is still four years or 10,000 hours.

By increasing oiling port, can fill up oil grease without removing the scroll disk of the scroll compressor. Simplified the maintenance process.

▲ **High-effciency motor** ▲ **Oil-free air compression** ▲ **Ultra-quiet** ▲ **Intelligent control**

OIL-FREE SCROLL AIR COMPRESSOR

Based on the P mode control, added multi-compressor compound control, which can switch between two units by simple operation on the control panel.
Under the multi-compressor compound control mode, it automatically controls the number of compressors running according to the intake air consumption, while the required air pressure guaranteed the compressor operation is optimized.



P mode control

Same as the pressure switch control mode, if the pressure reaches the maximum pressure, the compressor stops running. When the pressure reaches the restored pressure, the compressor starts again.

Multi-compressor compound control

Compressor exhaust pressure automatically controlled around the required pressure (control pressure). Avoid power consumption required for the pressure to reach the maximum pressure, thus achieving energy-saving operation.

FUNCTION BEHIND

Several scroll compressors linked together if one of the compressors fails the rest of the compressors still can guarantee the continuous air supply.

- The air displacement will be smaller than the standard specification.

OPTIMIZED CABINET DESIGN

Save installation area

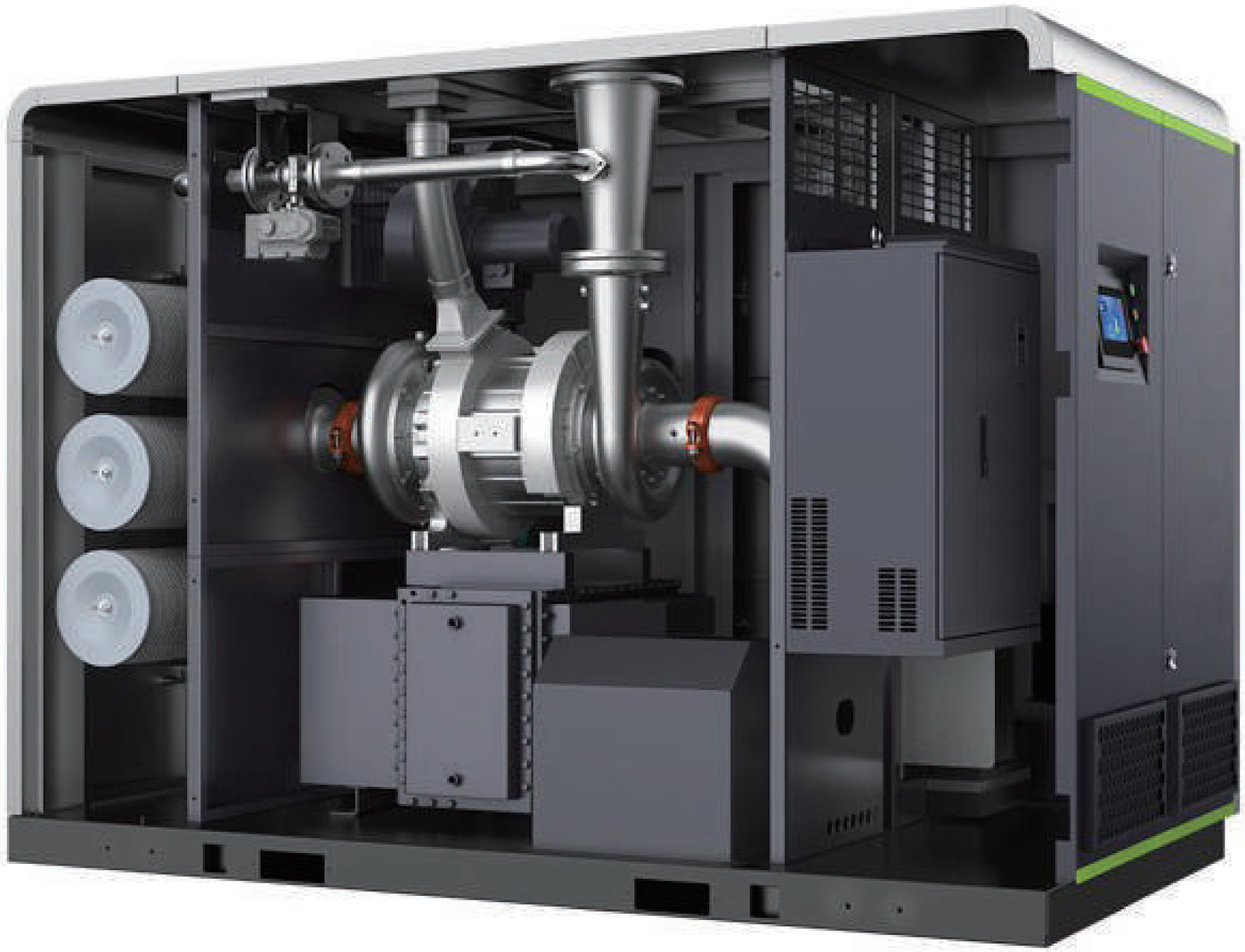
Low vibration and low noise

SCROLLPURE Series oil - free scroll air compressor model parameters

Model	Power (kW)	Work pressure/ maximum work pressure (bar)	FAD (m^3/min)	Outlet dimension	Scroll Qty	Weight (KG)	Dimension (mm)
ScrollPure SS2.2-8	2.2	8	0.25	G1/2	1	240	800*700*1250
ScrollPure SS2.2-10		10	0.20				
ScrollPure SS3.7-8	3.7	8	0.40	G1/2	1	270	800*700*1250
ScrollPure SS5.5-8	5.5	8	0.60	G1/2	1	300	800*700*1250
ScrollPure SS5.5-10		10	0.50				
ScrollPure SS7.7-8	7.7	8	0.88	Rp1	2	470	1350*850*1320
ScrollPure SS7.7-10		10	0.70				
ScrollPure SS11-8	11	8	1.20	Rp1	2	500	1350*850*1320
ScrollPure SS11-10		10	1.00				
ScrollPure SS16.5-8	16.5	8	1.80	Rp1	3	650	1350*850*1800
ScrollPure SS16.5-10		10	1.50				
ScrollPure SS18.7-8	18.7	8	2.00	Rp1-1/4	4	800	1450*1700*1780
ScrollPure SS18.7-10		10	1.80				
ScrollPure SS22-8	22	8	2.50	Rp1-1/4	4	800	1450*1700*1780
ScrollPure SS22-10		10	2.20				
ScrollPure SS30-8	29.7	8	3.25	Rp1-1/4	6	900	1450*1700*1780
ScrollPure SS30-10		10	2.70				
ScrollPure SS33-8	33	8	3.60	Rp1-1/4	6	900	1450*1700*1780
ScrollPure SS33-10		10	3.00				

SILVERSTONE INDUSTRIAL

OIL-FREE MAGNETIC FLOATING AIR COMPRESSOR/BLOWER



ELECTROMAGNETIC BEARING TECHNOLOGY

• Magnetic bearing

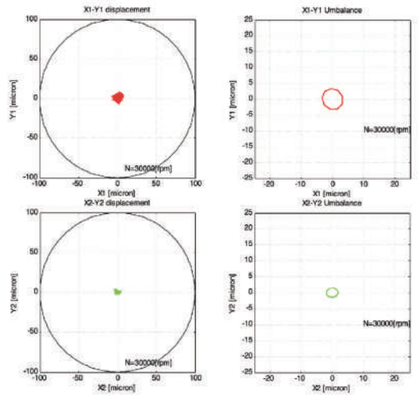
Using Swiss MECOS, the leader in the field of magnetic bearing control, to effectuate automatic calibration and automatic identification with its high reliability and stability;

• Magnetic levitation controller

complete potting ensures long life; The proprietary dynamic self-tuning and reset control algorithm has ultra-high stability compared with other similar products;

• Displacement sensor

This technology has been into many scenarios and cases in the field of magnetic high-speed industrial equipment in the developed countries, which has higher stability and higher application limit than eddy current sensor.



AVIATION ALUMINIUNM ALLOY IMPELLER

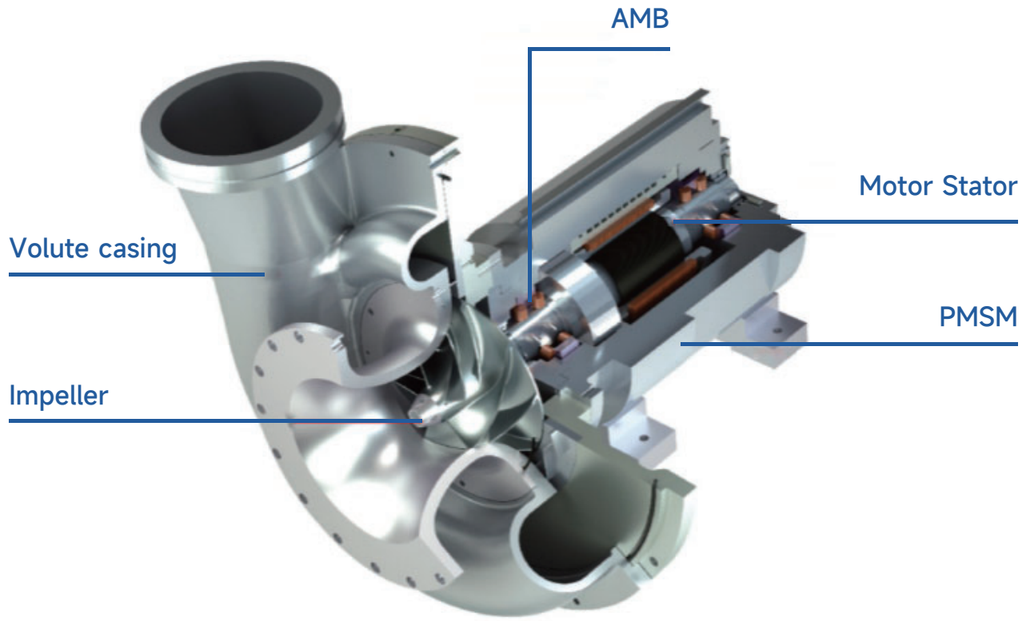
High strength and high precision aviation aluminum alloy;

3-D flow impeller manufactured by high-speed 5-axis linkage milling;

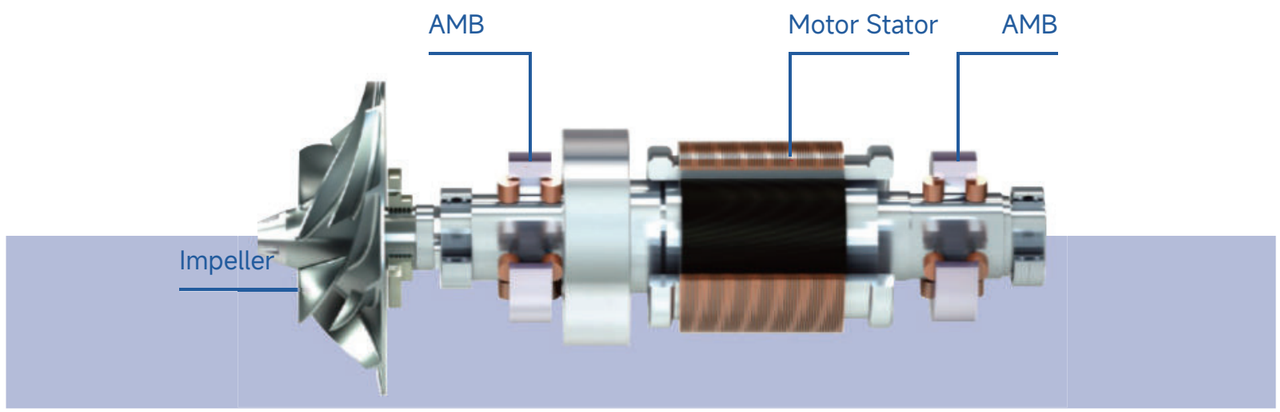
Passing 115% overspeed test

Able to achieve flow adjustment (40%-105%)
With high efficiency and good flow property

TESREONIC



CORE BEARING



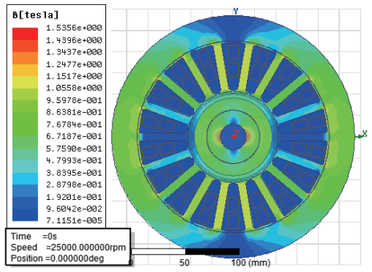
TECHNOLOGICAL SUPERIORITY

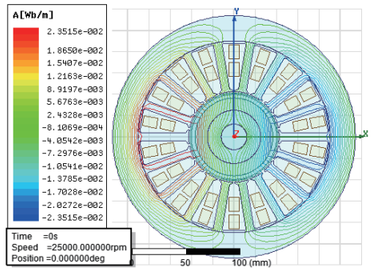
ULTRA-HIGH SPEED PERMANENT MAGNET MOTOR TECHNOLOGY

Permanent magnet synchronous Motor (PM Motor) has an efficiency of over 97%.

The high speed motor is directly coupled to drive, and the power transmission efficiency is 98%.

Special air duct design, the motor has a good cooling effect.



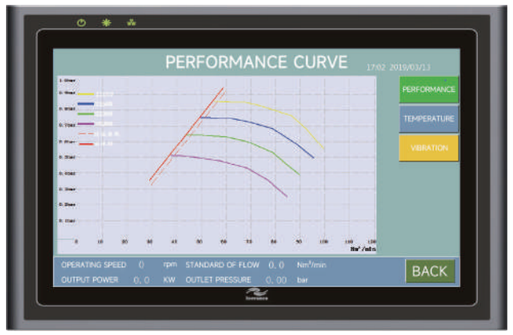


INTELLIGENT CONTROL SYSTEM

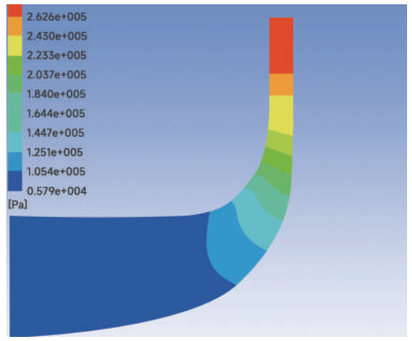
According to different application conditions, the speed is converted and adjusted to effectuate the adaptive pressure and flow;

Accurate prediction of the unit surge and effective avoidance, automatic anti-surge correction, ensure the safe and stable operation of the blower;

Digital remote control, parameter monitoring, fault alarm and other functions ensure that the unit operates in the best efficiency range, saving more power for users.



ENVIRONMENTAL PROTECTION TECHNOLOGY



LOW NOISE

No mechanical contact

Built-in muffler

No equipment foundation

OIL FREE

Magnetic bearing

No lubricating oil

The wind without oil

ENERGY

High quality centrifugal impeller

High efficiency permanent magnet machine

Intelligent control system

OPERABILITY

Set frequency converter motor in one

Touch screen adjusts air volume as required

Automatically open and close the vent valve

E-MAINTENANCE

No mechanical maintenance

Only replace the filter during routine maintenance

Managed remote monitoring system

ENVIRONMENTAL PROTECTION

Multiple technical support

The Concept of environmental protection

To make machines that are more environmentally friendly

INDUSTRY APPLICATION

1 AQUACULTURE

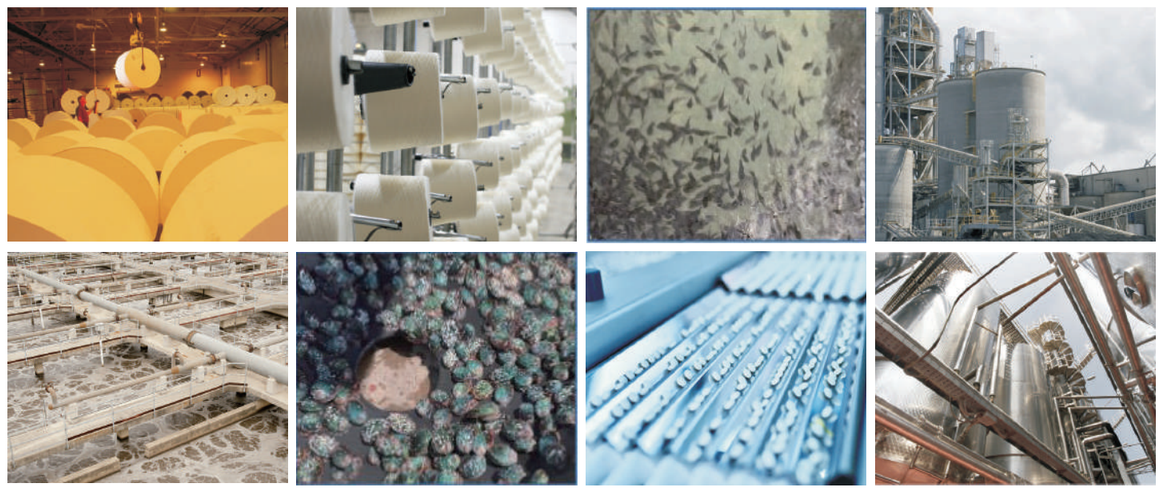
2 SEWAGE TREATMENT

3 DESULFURIZATION IS OUT OF STOCK

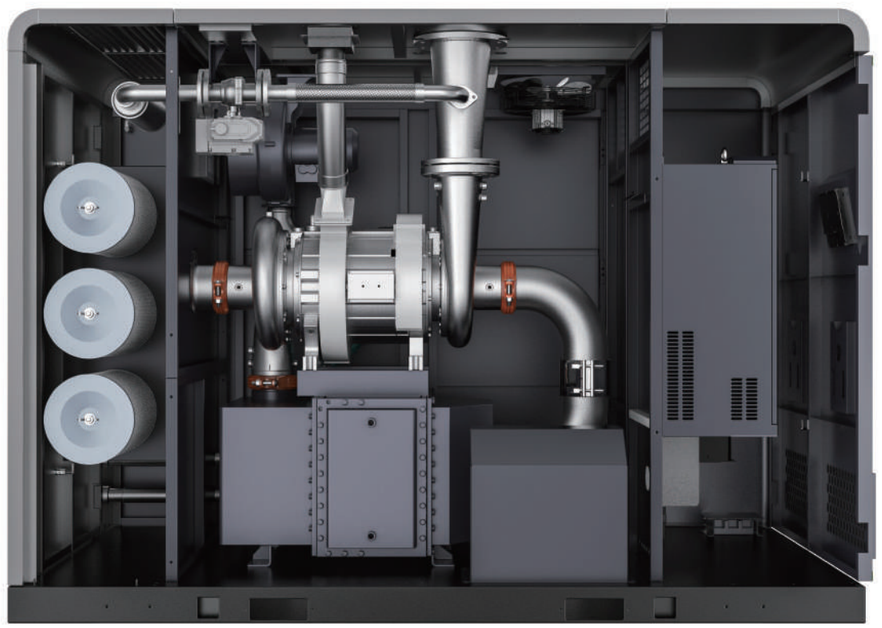
4 FOOD INDUSTRY

5 TEXTILE AND PLAY

6 BIOLOGICAL FERMENTATION



MAGNETIC FLOATING COMPRESSOR



Magnetic Centrifugal Compressor Series

Model	Design Flow (m^3/min)	Maximum flow (m^3/min)	Pressure range (bar)	Power (kW)
MagFloat MC110M-2	47	60	1.0-2.0	110
MagFloat MC160M-2	60	75	1.0-2.0	160
MagFloat MC200M-3	60	74	1.5-3.0	200

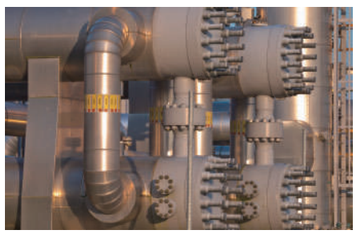
Water Treatment Plant

Glass Manufacturing

Textile Printing And Dyeing

Iron And Steel Metallurgy

Yeast Fermentation



Pneumatic Powder Transfer

Food Industry

Pulp And Paper Industry

Aquaculture Industry

Gas Cleaning Desulphurisation

Cement Industry

Other Gas Consuming Industries

MAGNETIC FLOATING BLOWER

Magnetic floating blower series

Pressure (bar)	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3
Model	Rated power (kW)									
AeroMag AB55	61	50	43	37	33	30				
AeroMag AB75	91	74	64	55	49	44				
AeroMag AB110	121	100	85	73	66	60	53			
AeroMag AB150	182	150	128	110	95	85	75			
AeroMag AB200	235	195	165	143	128	115	108	99	93	
AeroMag AB250		245	209	180	158	144	131	121	113	93
AeroMag AB300		290	245	210	185	170	155	143	133	112

Remarks:

Working conditions: 20°C, 1.033 kgf/cm2, 65%RH

Margin of error: +5%

According to the actual situation, the above data is subject to change without prior notice, please contact the manufacturer for consultation.

SILVERSTONE INDUSTRIAL

OIL-FREE AIR FLOATING COMPRESSOR/BLOWER

AIR FLOATING CENTRIFUGAL COMPRESSOR/BLOWER

Compared with the traditional roots blower/multi-stage low-speed blower, the energy saving is about

30%~40%

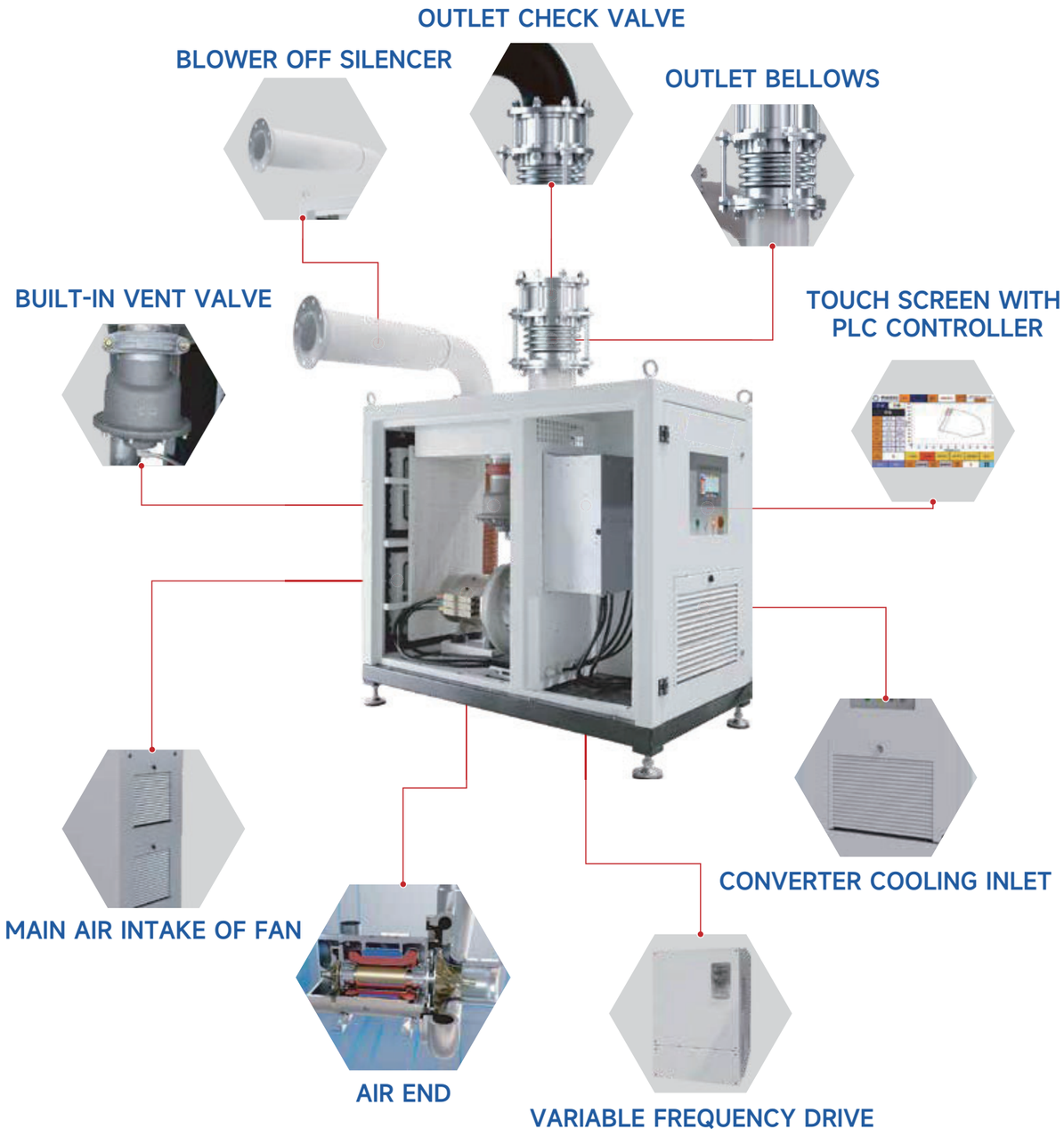
Energy-saving and efficient

High reliability

Cloud intelligent monitoring

100% Oil-free

Easy installation and maintenance



CORE COMPONENT

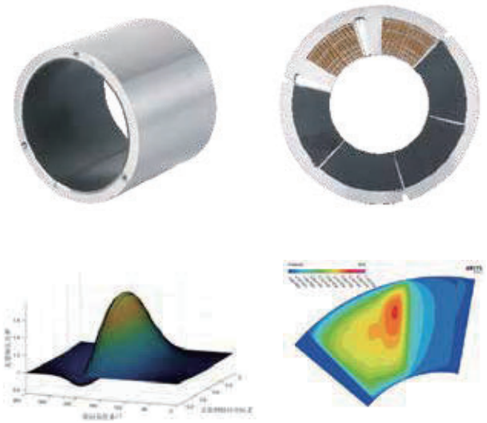
1 DYNAMIC PRESSURE AIR BEARING

- Dynamic Pressure Air Bearings utilize the surrounding air to form a wedge-shaped hydrodynamic pressure film. This film is crucial in supporting the high-speed rotating rotor against a flexible foil structure. The design of these bearings allows the rotating shaft to operate in a suspended state, eliminating contact and friction. They are 100% oil-free and do not depend on external air supply components, making them highly efficient and environmentally friendly.

- Key features of Dynamic Pressure Air Bearings include:

  Minimal Maintenance: These bearings are designed to require only minimal maintenance, offering a semi-permanent lifespan.
  High Load Capacity: They incorporate advanced foil structural design and manufacturing techniques, informed by fluid-solid thermal coupling analysis, to handle substantial loads.
  Superior Wear Resistance: Equipped with proprietary self-lubricating coatings, these bearings exhibit exceptional resistance to wear and tear.
  Broad Speed Range: Capable of operating at an impressive speed range from 15,000 RPM to 120,000 RPM, these bearings are suitable for high-performance applications.
  Reliability: Tested for endurance with over 50,000 start and stop cycles, demonstrating their robustness and dependability.

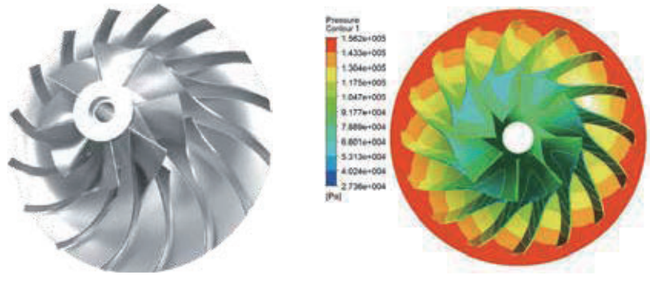
- Dynamic Pressure Air Bearings represent a significant advancement in bearing technology, providing high efficiency, reduced maintenance, and a wide range of operational capabilities, making them ideal for various industrial applications.



2 HIGH EFFICIENCY AVIATION CENTRIFUGAL IMPELLER

- The High Efficiency Aviation Centrifugal Impeller is designed with advanced ternary flow theory and validated through CFD analysis, ensuring optimal aerodynamics and up to 95% efficiency. Its standout features include:

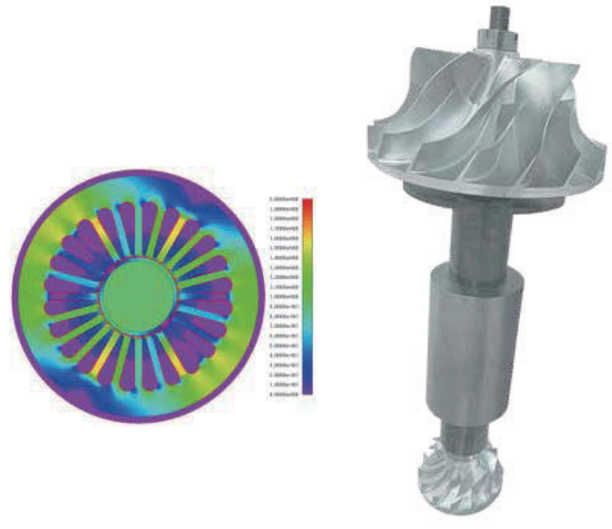
- Aerodynamic Design: A blend of large and small, backward-curved blades that enhance airflow and reduce energy loss.
  Robust Materials: Made from high-strength aviation aluminum (AL7075-T651) or titanium, adaptable to various conditions.
  Precision Engineering: Blades crafted with five-axis CNC machines for superior accuracy.
  Durable Finish: Hard anodized to resist high temperatures and corrosion, prolonging its lifespan.



3 PERMANENT MAGNET SYNCHRONOUS HIGH SPEED MOTOR

- The Permanent Magnet Synchronous High-Speed Motor offers exceptional performance with its high-speed capabilities and efficiency:

- High-Speed Operation: Efficiently runs at speeds ranging from 15,000 RPM to 120,000 RPM.
  Synchronous Design: Ensures precise speed control with a design that utilizes permanent magnets.
  High Efficiency: Delivers over 97% efficiency, minimizing energy loss.
  Self-Cooling System: Features a coaxial self-cooling solution, eliminating the need for additional cooling accessories and keeping temperature rise below 80K.
  Direct Coupling: As an ultra-high-speed direct-coupled motor, it ensures no power transmission loss.



AIR FLOATING CENTRIFUGAL COMPRESSOR/BLOWER

■ AIRGLIDE Air Floating Centrifugal Compressor Parameters

Model	Power (kW)	Work Pressure (bar)	FAD (m^3/min)	Dimension (L x W x H mm)	Discharge
AirGlide AC75	75	20-50	25-18	1800*900*1750	DN100/DN150
AirGlide AC90	90		32~24		
AirGlide AC110	110	20-50	42~27	2000*110*2000	DN150
AirGlide AC150	150		54~36		
AirGlide AC185	185	20-50	66~45	2500*1300*2200	DN200/DN150
AirGlide AC220	220		78~55		
AirGlide AC300	300	20-50	107~74	2700*1500*2400	DN200/DN250

▲Standard working conditions: 1atm, 20°C, relative humidity 65%, density 1.2kg/m^3

■ BREEZEGLIDE Air Floating Centrifugal Blower Parameters

Model	Power (kW)	Work Pressure (bar)	FAD (m^3/min)	Dimension (L x W x H mm)	Discharge
BreezeGlide BB15	15	4-8	16~11	1400*700*1100	DN125
BreezeGlide BB22	22	4~8	31~17		DN125/DN150
BreezeGlide BB37	37	4~12	48-19		DN150
BreezeGlide BB55	55	4~12	74-29	1600*850*1400	DN150/DN200
BreezeGlide BB75	75		100-37		DN200/DN250
BreezeGlide BB90	90		120-48		DN200/DN300
BreezeGlide BB110	110	4~12	147-58	2100*1100*1650	DN200/DN250/DN300
BreezeGlide BB150	150		201-78		DN250/DN300
BreezeGlide BB185	185		220-96		DN250/DN300
BreezeGlide BB220	220	4~12	260-114	2600*1450*1700	DN250/DN300/DN400/DN500
BreezeGlide BB300	300		330-145		DN300/DN400/DN500

▲Standard working conditions: 1atm, 20°C, relative humidity 65%, density 1.2kg/m^3

SINGLE STAGE HIGH SPEED CENTRIFUGAL BLOWER

Compared with traditional roots blower/multi-stage low-speed blower, the energy saving is about

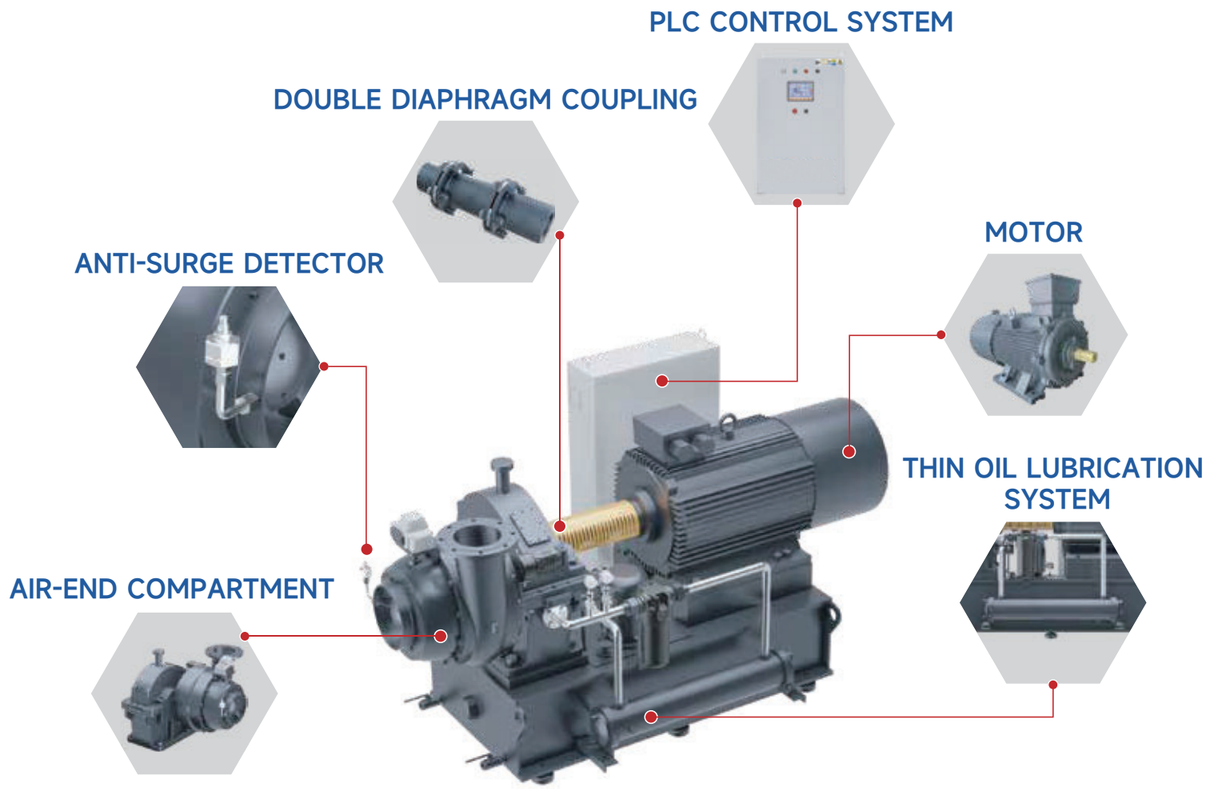
25%~35%

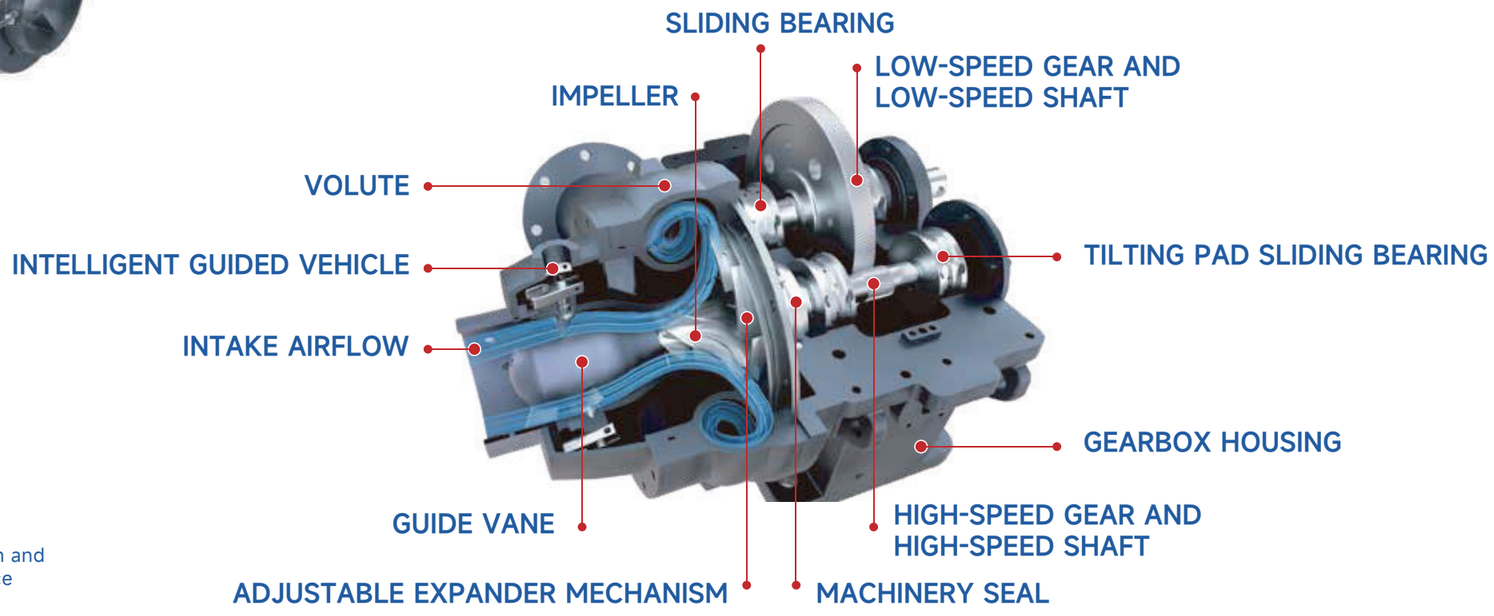
Energy-saving and efficient

High reliability

Cloud intelligent monitoring

Easy installation and maintenance



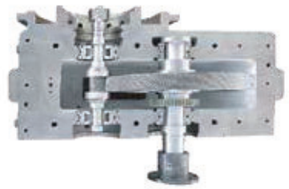


CORE COMPONENT

1 INTELLIGENT GUIDED VEHICLE AND ADJUSTABLE DIFFUSER MECHANISM

- Intelligent Guided Vehicle and adjustable diffusers are used in combination to improve operating efficiency under a wide range of operating conditions and obtain the best surge safety protection line.
- It can adjust the air supply volume of the blower from 40% to 110%.

2 GEARBOX



- The gears adopt the parallel axis helical gear type, and the gears and gear shafts are all made of forged alloy steel;
- Double labyrinth seal ensures that there is no oil in the gas at the blower outlet;
- The gearbox is made of cast iron and has a horizontally split structure, making it easy to disassemble, assemble, and maintain.

3 HIGH EFFICIENCY AVIATION CENTRIFUGAL IMPELLER

- Designed based on the most advanced ternary flow theory and CFD fluid mechanics analysis;
- Adopting large and small blades and a backward-curved aerodynamic layout, it has the best aerodynamic performance and an efficiency of up to 95%;
- Made of high-strength aviation aluminum alloy (AL7075-T651), stainless steel or aviation-grade titanium alloy to meet the needs of different media and occasions;
- The blades are machined by precision five-axis CNC machines.

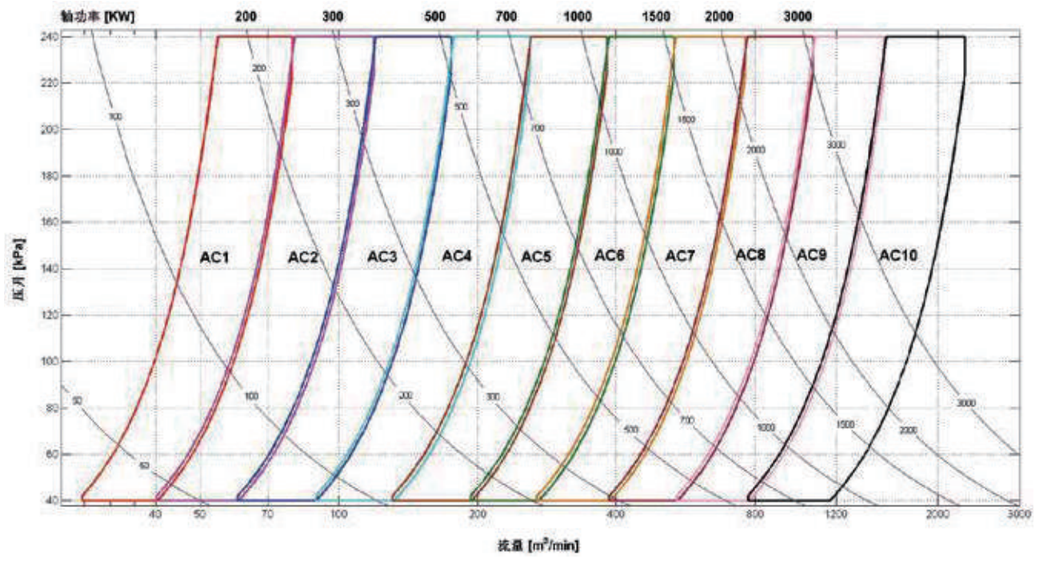
4 VOLUTE

- The profile of the volute wall is designed as a logarithmic spiral, and a circular cross-section is used to improve the internal flow efficiency of the volute;
- The volute is integrally cast from precision cast iron, with a design pressure of 10bar;
- Axial air intake, circumferential exhaust.

5 CONTROL SYSTEM

- Fully automated operation
- Local/remote communication
- Digital control system
- Automatically record operating data
- Real-time monitoring of blower operation
- Using touch screen as human-machine interface of control panel

The single-stage high-speed centrifugal blower is customized and designed according to the air volume and pressure requirements required for the user's process operation to ensure that the blower works in optimal operating conditions and has the highest working efficiency. Our company has a variety of models for users to choose from.



PERFORMANCE RANGE

- Flow: 40mm³/min ~ 1000m³/min
- Pressure: 0.3bar ~ 2.5bar
- Adjustment range: 40% ~ 110%

KEY TECHNOLOGIES

- High-speed centrifugal blower aerodynamic design technology
- Design and manufacturing technology of high-speed gearbox with large transmission ratio
- Anti-surge system design technology

MAIN FEATURE

- Imported guide vanes and adjustable diffuser are used for linkage adjustment.
- The high-speed bearings use tilting pad sliding bearings, and the low-speed bearings use elliptical pad sliding bearings.
- Ternary flow theory design, the whole stage multi-variable efficiency is 83% ~ 88%, the impeller has undergone super-rotation experiments and high-precision balance, and has high reliability

APPLICABLE INDUSTRIES

- Sewage treatment, metallurgy, papermaking, desulfurization and denitrification, pharmaceutical and bioengineering, seawater desalination and gas transportation and other industries.

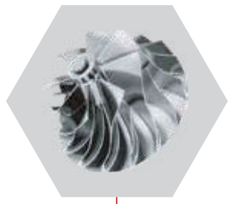
CORE COMPONENT

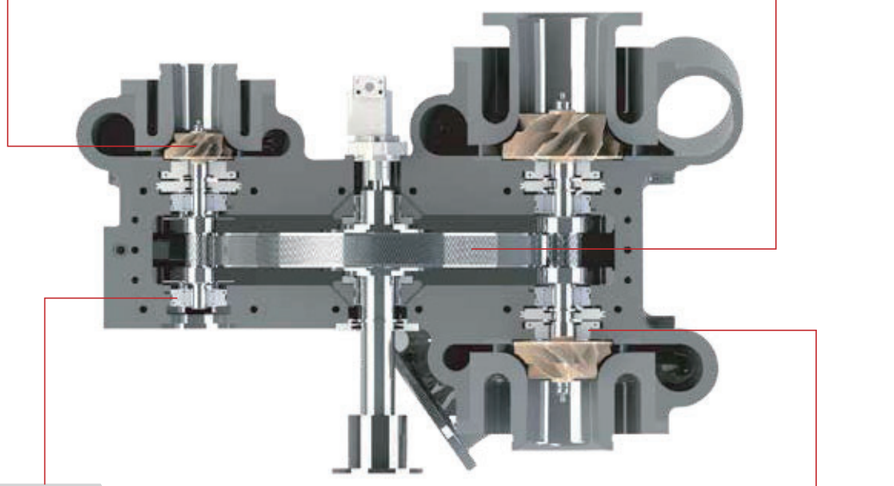
HIGH EFFICIENCY AVIATION CENTRIFUGAL IMPELLER

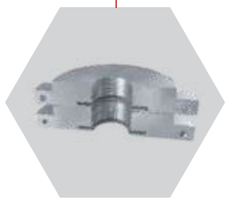
- Designed based on the most advanced ternary flow theory and CFD fluid mechanics analysis;
- Adopting large and small blades and a backward-curved aerodynamic layout, it has the best aerodynamic performance and an efficiency of up to 95%;
- Made of aviation grade titanium alloy or stainless steel;
- The blades are machined by precision five-axis CNC machines.

GEAR ASSEMBLY

- The gear adopts parallel axis helical gear, which has smooth transmission and low noise;
- The gears and shafts are made of forged alloy steel, and the gear precision is designed and manufac-tured according to AGMA13 standards.







TILT PAD BEARING

- The high-speed bearing adopts tilting pad sliding bearing, and the pads are removable for easy maintenance;
- Low-speed bearings use elliptical tile sliding bearings to ensure the stability of the lubricating oil film between rotating parts, low power loss and long life.

NON-CONTACT LABYRINTH SEAL

- 100% Oil free;
- The non-contact design of aluminum alloy seals and rotating parts ensures longer service life and safer and more reliable work;
- Horizontally split, easy to maintain.

PERFORMANCE RANGE

Standard machine performance

- Flow: 40m³/min~400m³/min
- Pressure: 2bar-16bar
- Adjustment range: 65%~105%

Non-standard can be customized

- The maximum flow rate can reach 1200m³/min
- The maximum pressure can reach35bar

KEY TECHNOLOGIES

- Optimized design of ternary flow impeller and multi-stage aerodynamic matching technology
- High efficiency and high transmission ratio gearbox design technology
- Anti-surge system design technology
- Efficient cooling system design technology

MAIN FEATURE

- High efficiency: pneumatic optimization design, optimized interstage cooler housing, pipes and core groups to ensure efficient heat transfer and low pressure drop, improving compressor performance
- High reliability: high transmission ratio, single helical gear, thrust ring design, AGMA13 gear accuracy, smooth and reliable transmission
- Easy installation and maintenance: the speed-increasing box has an upper and lower split struc-ture for easy maintenance.
- Intelligent monitoring: PLC operating system combined with 5G IoT intelligent control to achieve unattended operation

APPLICABLE INDUSTRIES

- Electronics, textiles, steel, chemicals, biological fermentation, papermaking, power generation, cement and other industries

AFTER SERVICE

'BE OF SERVICE' ATTITUDE

- LEARN CUSTOMER'S NEEDS
- CAREFULLY DIAGNOSE FAULTS
- TROUBLESHOOTING BY HEART