

SUPERIOR
QUALITY
INTELLIGENT
FUTURE

GESO SYSTEMS

Oil-injected Screw

Air Compressors

Installed motor power
7.5 - 400 kW /10- 530 hp



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In the spirit of innovation, the company will continuously optimize its products. Therefore, we reserve the right to modify product specifications without prior notice.
Components may be replaced with no lower than the same grade, and the actual product still prevail.

Shanghai Geso Systems Industrial PLC

GESO SYSTEMS

Shanghai Geso Systems Industrial PLC

Address: No. 15, Lane 38, Cao Li Road, Jinshan District, Shanghai, China

Website: www.gesosystems.com E-mail: online-service@gesosystems.com

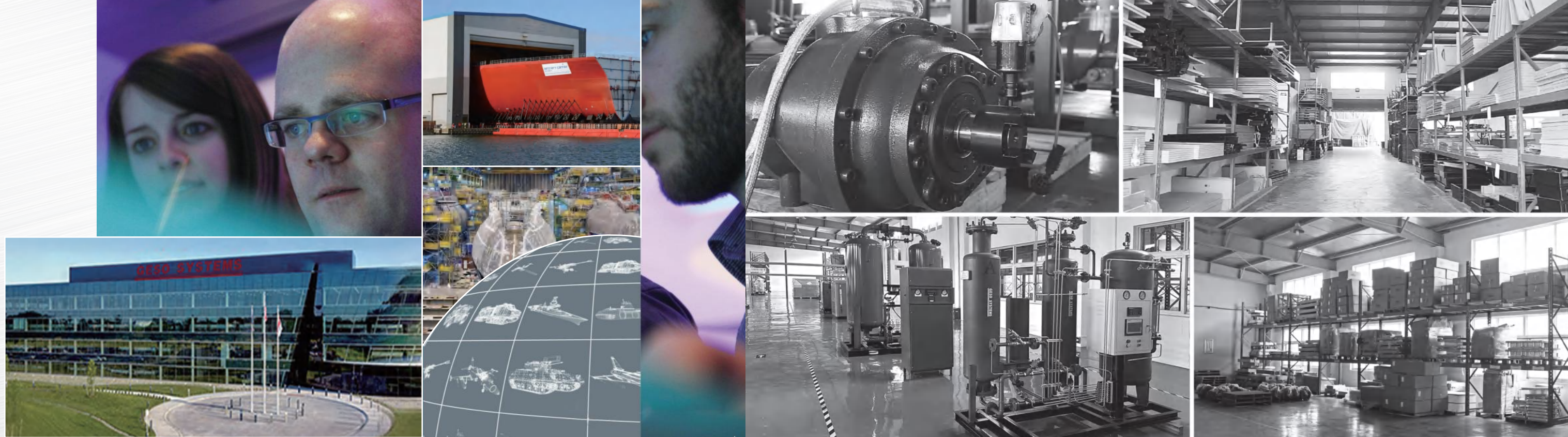
— ***Single stage rotary screw air compressor***

- . Single stage fixed frequency rotary screw air compressor P05
- . Single stage variable frequency rotary screw air compressor P09

— ***Two stage rotary screw air compressor***

- . Ultra efficient energy-saving variable frequency air compressor P14
- . Two stage fixed frequency rotary screw air compressor P15
- . Two stage permanent magnet variable frequency rotary screw air compressor P19





Company Profile

Superior Quality and Intelligent Future

Geso is a global aerodynamic systems group of companies, wholly owned by BAE GESO SYSTEMS, headquartered in London, United Kingdom, and a leader in the European gases sector.

BAE Systems, the parent company of Geso Group, was founded in 1871 and is committed to the research, development and production of industrial gases. In 2002, BAE Systems set up a representative office in China, importing products from the United Kingdom to China and deploying after-sales service offices in China. In 2018, BAE Systems established a wholly-owned company "Shanghai Geso systems Industrial PLC" and invested 11 million U.S. dollars to build an intelligent production and manufacturing center committed to R&D, production and market expansion. Our products include energy-saving screw air compressors, nitrogen/oxygen generators, dry oil-free air compressors, water-injected oil-free air compressors, mobile air compressors, process gas compressors, medium and high pressure screw air compressors, centrifugal air compressors, etc., which are widely used in various industrial production. The group has three companies, "Shanghai Geso systems Industry PLC", "Jiangsu Geso Equipment Co. Ltd.", "Shanghai Geso Energy Equipment Co. Ltd." with over 30 branches and offices and more than 200 distributors nationwide, providing high-quality intelligent and energy-saving air compressor system solutions for various industries energy-saving programs to reduce users' cost to ensure their satisfaction with our energy-saving effect. We have been selected as one of the top ten brands for three consecutive years by third-party organizations such as China Brand Network. As a global aerodynamic system provider, we continue to lead the industry.



GESO SYSTEMS

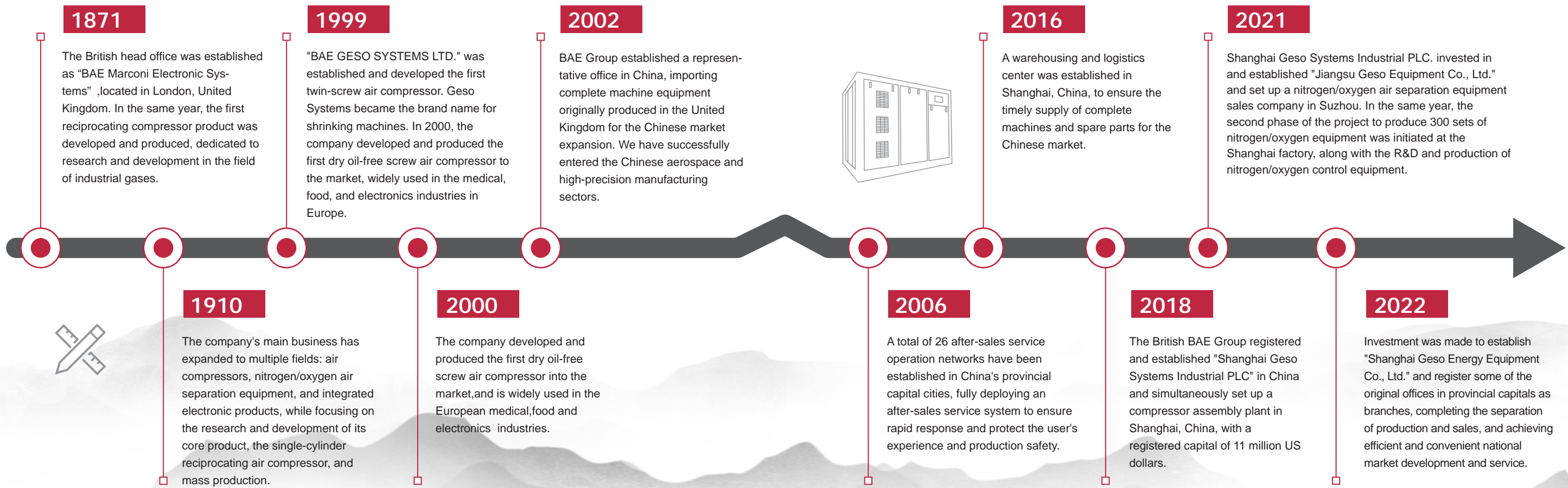
Inheriting the advanced technology and production management mode of BAE Systems and combining the demands of the Chinese market to ensure users' production safety, Geso Group strictly adheres to the group's product development process, with each new product undergoing 40 test projects and 3,000 hours of durability test to ensure quality from the source. Selecting IE5 energy-saving motors, ABB electronic control system, and three-stage frequency conversion energy-saving system to reduce energy consumption and CO2 emissions, meanwhile, through the optimized design and lowering the speed of the machine, it saves the cost for the customers and realizes small investment and big power. Self-developed intelligent technology (IoT) enables convenient interconnection and management of air compressors via computers, smartphones, and iPads, achieving automatic precise supply and meeting the demand for an unattended automation experience.

As a wholly foreign-owned enterprise, it is also the base authorized by British BAE Systems to produce and assemble screw compressors. We have obtained ISO9001 quality system certification, ISO45001 occupational health and safety management system certification, ISO14001 environmental management system certification, certificate of oil-free certification, EU CE certification, energy efficiency certification of air compressors, 3A integrity system certification and other certificates, which fully guarantee the safety of users.

Through years of high-speed development, Geso Group has service outlets in more than 200 cities across the country, 24-hour service hotline response and internet warranty service, and thirteen direct spare parts warehouses to provide customers with repair services in a more rapid and timely manner. After-sales service is not limited to the product itself, but also includes compressed air system testing and optimization, air compressor intelligent air supply control, waste heat recovery, frequency conversion, energy-saving piping, cables, construction of turnkey projects and a series of complete set of systematic services. Based on our service concept, we promise lifelong exemption from labor charges, providing free training services for customers, regularly testing the data of users' energy efficiency reports, and developing energy-saving plans to reduce users' costs. As a group of companies, we carry the mission of innovation, quality, and service. Whether it is energy saving and environmental protection or intelligence, we always adhere to customer experience and the recognition of hardworking individuals as our core focus. Geso aims to build a globally recognized brand of fluid machinery and continue to be the industry leader in high-end energy-saving products.



Milestones



Certificates

CE certiate-EMC

CERT IND-PC-C2108017

CE certfiate-MD

CERTIFICATES

CERTIFICATES

CERTIFICATES

Single Stage Screw Air Compressor

SINGLE-STAGE FIXED FREQUENCY Screw Air Compressor

Exquisite design and manufacturing reduce the workload of routine.



Product Features

- Adopting 1:1 direct drive, low noise, low loss, more effective protection of the motor torque.
- New high-quality sound insulation materials and soundproof boxes ensure working noise is within the ideal range, creating a quiet and comfortable working environment for users.
- Reduced transmission components, stable equipment performance, low maintenance costs.
- Compact design, simple and generous appearance, low space occupation.
- Removable air guide for easy maintenance.
- Intelligent control system for easy operation.

Core Technology

01 Air Compressor Element

- Geso air compressor elements are made from 40CrA high-quality alloy steel, offering excellent wear resistance and corrosion resistance.
- The design adopts the BAES rotor profile developed by BAE Group, featuring the third-generation 5:6 asymmetric tooth rotor. This design ensures balanced force during high-speed operation, with a rotor tangential speed of ≤ 35 m/s and a rotor clearance maintained at 0.003 inches. The same power section compressor element can save 10-15% energy.
- CNC 5-axis rotor grinding machines are used for the production of Geso rotors, enabling high-precision automated machining of polyhedra and curved surfaces.



02 Asynchronous Motors

- Motor stator uses die-cast silicon steel plates, with a casting length in the motor of 20%-40%, significantly improving motor performance.
- Motor windings have F-class insulation rated at 155 °C, with a B-class temperature rise assessment, and utilize IP55 or higher protection levels.
- Customized imported SKF bearings are used to reduce noise and heat, ensuring product reliability.



03 Air Filtration System

- Custom U.S. filter media made from a cellulose-synthetic blend.
- Extremely fine fiber filter media prepared by an electrostatic spinning process using the latest technology to achieve continuous, elastic synthetic fibers of 0.2-0.3 microns.
- Achieves up to 99.99% filtration and keeps dust on the surface rather than inside with very fine fiber technology, increasing life and reducing energy requirements.



04 Control And Electrical Systems

- RS485 communication mode for transmission communication allows data collection for integration into the user's central console for monitoring.
- The intelligent controller calculates dynamic adjustments for control accuracy to achieve precise torque control.
- Real-time display of operating parameters, maintenance reminders, energy management, data analysis, etc., on cell phones and computers.
- Uses Siemens/ABB and other brands of electrical systems.



05 Oil And Gas Separation System

- Customized enlargement coefficient of oil and gas barrels ensures minimal pipeline pressure loss, enhancing heat dissipation for stable equipment operation.
- Imported filter materials ensure oil content at the compressor outlet is ≤ 2 PPM.



Single Stage
Screw Air Compressor

Technical Parameter

Model	Power (kW)	Working Pressure (Mpa)	Volume flow (m³/min)	Dimensions (mm)	Outlet Pipe Diameter	Weight (kg)
BAE-7A	7.5	0.8	1.1	950*700*900	G1/2"	190
		1.0	0.9			
		1.3	0.7			
BAE-11A	11	0.8	1.7	1200*800*1000	G3/4"	320
		1.0	1.3			
		1.3	1.0			
BAE-15A	15	0.8	2.3	1200*800*1000	G3/4"	340
		1.0	2.0			
		1.3	1.6			
BAE-18A	18.5	0.8	2.9	1400*900*1150	G1"	390
		1.0	2.7			
		1.3	2.2			
BAE-22A	22	0.8	3.5	1400*900*1150	G1"	425
		1.0	3.2			
		1.3	2.4			
BAE-30A	30	0.8	5.2	1400*900*1150	G1"	470
		1.0	4.0			
		1.3	3.1			
BAE-37A	37	0.8	6.3	1550*1050*1400	G1 1/2"	650
		1.0	5.3			
		1.3	4.8			
BAE-45A	45	0.8	7.5	1550*1050*1400	G1 1/2"	720
		1.0	6.2			
		1.3	5.8			
BAE-55A	55	0.8	10.0	1650*1170*1600	G2 1/2"	1100
		1.0	7.5			
		1.3	7.0			
BAE-75A/W	75	0.8	12.5	1750*1200*1570	G2 1/2"	1200
		1.0	10.8			
		1.3	9.2			
BAE-90A/W	90	0.8	15.7	1850*1400*1750	G2"	1890
		1.0	12.1			
		1.3	12.5			

Note: A:Air-cooled W:Water-cooled

The Company Has The Right To Change The Design For The Continuous Improvement Of The Products,and The Parameters Will Be Changed Without Prior Notice.

Technical Parameter

Model	Power (kW)	Working Pressure (Mpa)	Volume flow (m³/min)	Dimensions (mm)	Outlet Pipe Diameter	Weight (kg)
BAE-110A/W	110	0.8	20.0	2250*1550*1800	DN80	2400
		1.0	17.0			
		1.3	12.0			
BAE-132A/W	132	0.8	23.5	2250*1550*1800	DN80	2400
		1.0	20.6			
		1.3	16.5			
BAE-160A/W	160	0.8	28.0	3000*1750*1950	DN80	3400
		1.0	23.5			
		1.3	21.5			
BAE-185A/W	185	0.8	32.8	3000*1750*1950	DN80	4100
		1.0	28.2			
		1.3	23.5			
BAE-200A/W	200	0.8	34.5	3000*1750*1950	DN80	4450
		1.0	30.5			
		1.3	27.5			
BAE-220A/W	220	0.8	36.3	3000*1750*1950	DN100	4800
		1.0	32.4			
		1.3	28.5			
BAE-250A/W	250	0.8	44.0	3350*1900*1950	DN100	5500
		1.0	41.2			
		1.3	32.5			
BAE-280A/W	280	0.8	44.2	4070*2150*2250 (3770*2150*2250)	DN125	6500 (6000)
		1.0	40.0			
		1.3	34.0			
BAE-315A/W	315	0.8	49.6	4070*2150*2250 (3770*2150*2250)	DN125	7200 (6900)
		1.0	44.0			
		1.3	38.0			
BAE-355W	355	0.8	59.9	4370*2250*2250	DN125	9500
		1.0	48.5			
		1.3	43.9			
BAE-400W	400	0.8	70.6	4370*2250*2250	DN150	11000
		1.0	59.0			
		1.3	52.0			

Note: A:Air-cooled W:Water-cooled

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Single Stage Screw Air Compressor

Single Stage VARIABLE FREQUENCY Air Compressor

Product Features:

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>01 Developed by UK based BAE BAES Rotor Profile</p> <p>02 Motor energy efficiency exceeds national class 1,energy efficiency class IE5</p> <p>03 Adopting IP65 oil cooled permanent magnet motor,no fan energy consumption,ultra high protection level</p> | <p>04 Customized SKF bearings with a design life of over 50,000 hoursand ceramic plating for highpower motors</p> <p>05 Permanent magnet motor permanent magnet model:38UH</p> <p>06 Tubular water-cooled cooler with high external film heat transfer coefficient and strong anti pollution ability</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



- 07** Centrifugal cooling fan,using frequency conversion fan,to provide users with energy-saving and efficient cooling system
- 08** Geso independently designed air intake control combination valve,with air intake,tolerance,drain, stop check function
- 09** Aluminum plate-fin heat exchange air-cooled cooler,the material is corrosion-resistant aluminum alloy,the cooler material to add a special alloy material to ensure the hardness of the cooler,Geso customized cooler heat transfer efficiency is greater than the general cooler to 35%, ensure the normal use in the hot weather

Core Technology

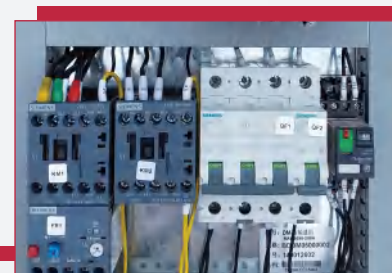
01 High Quality Air Compressor Element

- Geso air end selection of 40CrA high-quality alloy steel, with wearresistant and corrosion-resistant and other high-quality performance.
- Adoption of BAE Group R&D BAES rotor profile,using the third generation of 5:6 asymmetric tooth rotor,highspeed operation of balanced force,the rotor tangential speed of≤35m/s,rotor clearance to maintain the gap between 0.003INCH, the same power section of the element can be energy-saving 10-15%.
- The rotor adopts CNC 5-axis rotor grinding machine,polyhedral and curved surface machining realizes high precision automated production.



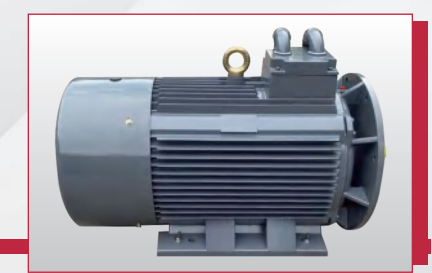
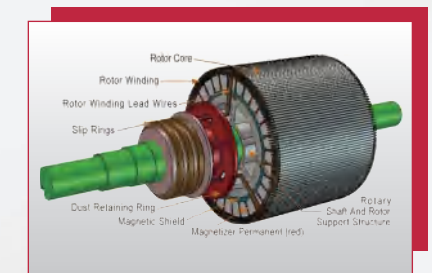
02 Intelligent Control System

- Data Detection and Visualization with AI Intelligent Control:Real-time data monitoring and comprehensive diagnostic reports.Multiple equipment joint control with AI intelligent calculation and matching to achieve cost reduction and increased efficiency.
- Cell phones and computers can show the dynamic screen in real time, easy to operate, creating a digital and intelligent air compressor station room for users.



03 Permanent Magnet Synchronous Motor

- Due to the different characteristics of the voltage in China and Europe, technical staff of the Geso Group visited domestic high-end motor manufacturers that meet the Group's production requirements and standards.
- Ultra-low temperature rise design, the air compressor element can operate stably under long-term low frequency. The permanent magnet is made of 38UH material, with a maximum working temperature of 180°C and an IE5 energy efficiency grade. Under the set pressure, the unit can be adjusted by frequency conversion to keep the pressure difference within 0.1Mpa, which makes the unit run more smoothly and efficiently during long-term use.



Single Stage Screw Air Compressor

04 Oil and Gas Separation System

- Customized enlargement coefficient of oil and gas barrels, to ensure that the pipeline pressure loss in the minimum degree.
- Increase the space so that the equipment to play a good heat dissipation effect,stable operation of the equipment.
- Imported filter material makes the oil content at the outlet of the compressors ≤2PPM.



05 Air Filtration System

- Custom U.S. filter media made from a cellulose synthetic blend Extremely fine fiber filter.
- Media prepared by electrostatic spinning process using the latest technology to achieve continuous, elastic synthetic fibers of 0.2-0.3micron.
- Up to 99.99% filtration efficiency can be achieved, and the extremely fine fiber technology keeps dust on the surface rather than inside, increasing the life span and reducing the required energy consumption.



06 Frequency Converter

- Customized high-performance vector control inverter of Huichuan/ABB brand.
- Speed control can start at zero speed and adjust the acceleration curve evenly according to the user's needs.
- Option of linear acceleration, S-shaped acceleration, or automatic acceleration.

Comparison of power-saving effect between a 75kW screw compressor and Geso high-efficiency frequency conversion screw compressor:
(based on an average of 8,000 hours of operation per year):

Screw Compressor	Screw Compressor With External Inverter	Ordinary Permanent Magnet Frequency Conversion Screw Air Compressor	Geso BAE permanent magnet frequency conversion screw air compressor
570,000 kW	480,000 kW	412,000kW	390,000kW

BAE high-efficiency frequency conversion screw air compressor and general external frequency converter air compressor compared to the annual electricity Savings: 480,000kW - 390,000kW = **90,000kW**



Technical Parameter

Model	Power (kW)	Working Pressure (Mpa)	Volume flow (m³/min)	Dimensions (mm)	Outlet Pipe Diameter	Weight (kg)
BAE-7PM	7.5	0.8	0.4-1.2	700*600*860	G1/2"	180
		1.0	0.3-1.0			
		1.3	0.2-0.8			
BAE-11PM	11	0.8	0.7-1.9	1000*750*1070	G3/4"	300
		1.0	0.6-1.6			
		1.3	0.3-1.2			
BAE-15PM	15	0.8	0.7-2.4	1000*750*1070	G3/4"	330
		1.0	0.9-2.2			
		1.3	0.7-1.8			
BAE-22PM	22	0.8	1.8-3.8	1100*850*1110	G1"	430
		1.0	1.5-3.2			
		1.3	1.2-2.5			
BAE-30PM	30	0.8	2.4-5.3	1100*850*1110	G1"	460
		1.0	2.0-4.4			
		1.3	1.9-3.5			
BAE-37PM	37	0.8	3.4-6.5	1200*970*1350	G1 1/2"	610
		1.0	2.9-5.8			
		1.3	2.2-4.8			
BAE-45PM	45	0.8	4.0-8.0	1200*970*1350	G1 1/2"	720
		1.0	3.5-7.0			
		1.3	3.0-5.5			
BAE-55 (W)PM	55	0.8	5.0-10.5	1500*1200*1550PM 2150*1450*1700WPM	G2 1/2(PM) DN50(WPM)	850PM 1300WPM
		1.0	4.5-9.0			
		1.3	3.6-7.8			
BAE-75 (W)PM	75	0.8	7.0-13.5	1500*1200*1550PM 2150*1450*1700WPM	G21/2(PM) DN50(WPM)	950PM 1500WPM
		1.0	6.2-12.5			
		1.3	5.2-10.2			
BAE-90 (W)PM	90	0.8	6.6-16.5	1800*1350*1750	DN65	1880
		1.0	6.0-14.5			
		1.3	5.5-12.8			

Note: **PM**:Permanent Magnet Frequency Conversion

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Single Stage
Screw Air Compressor

Technical Parameter

Model	Power (kW)	Working Pressure (Mpa)	Volume flow (m³/min)	Dimensions (mm)	Outlet Pipe Diameter	Weight (kg)
BAE-110 (W)PM	110	0.8	9.0-20.8	2580*1750*1800	DN80	2185
		1.0	6.8-17.2			
		1.3	5.5-14.8			
BAE-132 (W)PM	132	0.8	9.6-24.0	2580*1750*1800	DN80	2900
		1.0	9.2-21.2			
		1.3	6.7-17.5			
BAE-160 (W)PM	160	0.8	12.0-28.8	2980*1700*1900	DN80	3200
		1.0	10.5-23.8			
		1.3	9.0-21.0			
BAE-185 (W)PM	185	0.8	13.5-33.0	2980*1700*1900	DN80	4000
		1.0	13.0-28.8			
		1.3	11.0-24.0			
BAE-200 (W)PM	200	0.8	13.8-35.5	2980*1700*1900	DN80	4300
		1.0	14.0-30.0			
		1.3	12.0-28.0			
BAE-220 (W)PM	220	0.8	16.3-40.0	2980*1700*1900	DN100	4900
		1.0	15.2-33.9			
		1.3	14.5-29.5			
BAE-250 (W)PM	250	0.8	18.0-45.0	3300*1900*1900	DN100	5200
		1.0	16.0-38.5			
		1.3	13.0-34.0			
BAE-280(W)PM	280	0.8	18.0-47.6	4070*2150*2250 (3770*2150*2250)	DN125	6500 (6000)
		1.0	16.3-43.1			
		1.3	14.36-37.8			
BAE-315(W)PM	315	0.8	19.9-52.2	4070*2150*2250 (3770*2150*2250)	DN125	7200 (6900)
		1.0	17.9-47.0			
		1.3	15.6-41.0			
BAE-355WPM	355	0.8	24.0-63.3	3770*2150*2250	DN125	8000
		1.0	19.6-51.57			
		1.3	17.6-46.3			
BAE-400WPM	400	0.8	28.0-74.6	3770*2150*2250	DN150	9000
		1.0	23.8-62.6			
		1.3	21.0-55.3			

Note:PM:permanent Magnet Frequency Conversion

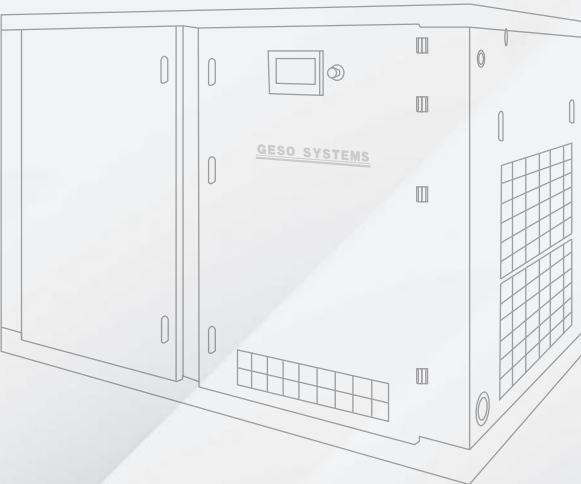
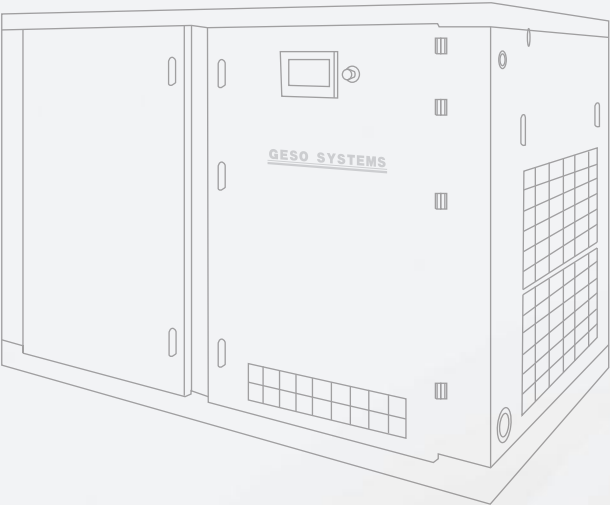
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Technical Parameter

Model	Power (kW)	Working Pressure (Mpa)	Volume flow (m³/min)	Dimensions (mm)	Outlet Pipe Diameter	Weight (kg)
BAE-15PMS	15	0.8-1.0	0.6-2.7	1100*690*915	G1"	300
BAE-22PMS	22	0.8-1.0	0.9-3.8	1300*900*1080	G1 1/4"	370
BAE-37PMS	37	0.8-1.0	1.7-6.8	1600*1150*1230	G1 1/2"	560
BAE-55PMS	55	0.8-1.0	2.6-10.5	1850*1350*1750	G2"	1050
BAE-75PMS	75	0.8-1.0	5.2-13.0	1850*1350*1750	G2"	1200

Note: **PM**: Permanent Magnet Frequency Conversion
S: Ultra Efficient And Energy-saving

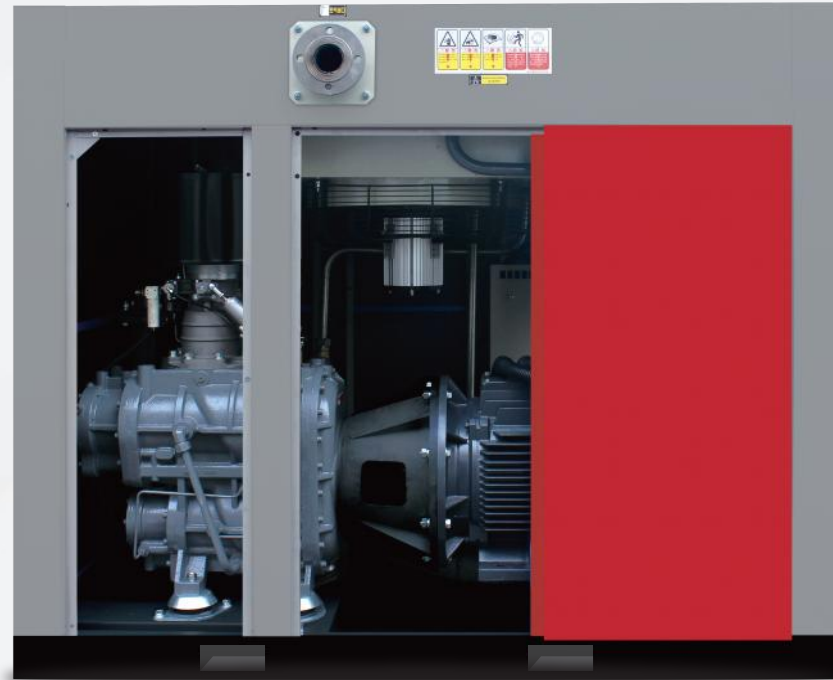
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Two Stage Rotary screw air compressor

TWO-STAGE FIXED

Frequency Rotary Screw Air Compressor



Geso two-stage compression mainframe adopts two sets of screw rotors of different sizes, and uses reasonable pressure distribution to reduce the compression ratio at each working time.

Low compression ratio has two advantages

It reduces the internal leakage of the air compressor and improves volumetric efficiency.

+

It greatly reduces the load on bearings, improves the life of bearings, and prolongs the life of the main machine.

Two-stage compression screw air compressor operation process:

Initial step

Nature's air enters through the air compressor air filter into the first stage rotor for compression. In the compression chamber, it mixes with a small amount of lubricating oil, and the mixed gas is compressed to the pressure of the first stage.



Second step

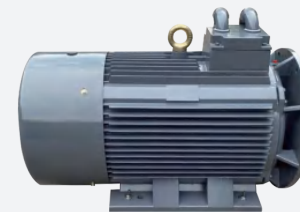
The compressed air enters the cold channel and comes into contact with a large amount of oil mist, greatly reducing its temperature. The cooled compressed air then enters the second stage rotor, is compressed to the exhaust pressure, and then discharged through the exhaust outlet to complete the whole compression process.



DESCRIPTION

01 Two Stage Air Compressor Element

The material of the air compressor element is 40CrA high-quality alloy steel, which has the high performance of wear-resistance and corrosion-resistance. Adopting the BAES rotor profile developed by BAE Group and the third-generation 5:6 asymmetric tooth rotor, it balances forces at high speeds. The rotor tangential speed is $\leq 35\text{m/s}$, and the gap between the rotors is maintained at 0.003 inches. The same power section air end can save energy by 10-15%. The self-developed isothermal curve design improves isometric compression performance, achieves interstage cooling for different oil paths, and enhances adiabatic efficiency. By reducing the compression ratio, it reduces the amount of leakage, approaching isothermal compression, and increases efficiency by 13-15% compared to single-stage compression.



02 High-efficiency Motor

YE3 energy efficiency grade motor stator uses die-casting silicon steel plates, with the die-casting length being 20%-40% of the motor. This significantly improves motor performance. The motor winding uses F-class insulation (155°C) and B-class temperature rise assessment, with protection levels of IP55 or higher. Customized SKF bearings reduce noise and heat generation, ensuring product reliability.

03 High-efficiency Intake Valves

The self-designed air inlet control combination valve has air inlet, tolerance adjustment, discharge, and stop functions with accurate flow rate calculation to ensure minimal air inlet pressure loss. It loads when power is gained and unloads when power is lost, using a normally closed valve to prevent air from entering the air end during startup, allowing for smooth low current startup. The inlet valve is equipped with an inlet bypass valve to prevent a high degree of vacuum in the air end when the compressor is starting up and unloaded, which can affect the atomization of lubricating oil.



04 Smart Control Systems

Data detection and visualization reduce operating costs. Real-time data monitoring and comprehensive diagnostic reports can control multiple devices jointly. It realizes AI intelligent calculation and matching. Cell phones and computers can show the dynamic screen in real time. The operation is simple, creating a digital, intelligent air compressor station for users, thus realizing cost reduction and efficiency increase.

05 Cooling System

Customized aluminum plate-fin heat exchanger air-cooled cooler, made of corrosion-resistant aluminum alloy. The cooler material includes special alloy materials to ensure its hardness. The customized tube water-cooled cooler has a heat transfer efficiency 35% higher than general coolers, ensuring normal use in high-temperature weather. The outer membrane heat transfer coefficient is high, with strong anti-pollution capacity. A centrifugal frequency conversion fan provides an energy-saving and efficient cooling system for users.



Two Stage Rotary
screw air compressor

Technical Parameter

Model	Moter Power (kW)	Working Pressure (Mpa)	Volume flow (m³/min)	Dimensions (mm)	Outlet Pipe Diameter	Weight (kg)
BAE-30A+	30	0.8	6.1	1600*1150*1400	G1 1/2"	737
BAE-37A+	37	0.8	8.2	1600*1150*1400	G1 1/2"	780
		1.0	6.2			
BAE-45A+	45	0.8	9.6	1800*1200*1700	DN50	1160
		1.0	7.6			
		1.3	6.1			
BAE-55A/W+	55	0.8	12.2	2100*1300*1700	DN50	1700
		1.0	9.6			
		1.3	9.6			
BAE-75A/W+	75	0.8	16.4	2350*1500*1850	DN65	2120
		1.0	13.0			
		1.3	12.3			
BAE-90A/W+	90	0.8	20.2	2350*1500*1850	DN65	2900
		1.0	16.3			
		1.3	15.0			
BAE-110A/W+	110	0.8	23.4	2575*1700*1800	DN80	3500
		1.0	20.1			
		1.3	17.0			
BAE-132A/W+	132	0.8	28.2	2575*1700*1800	DN80	3800
		1.0	23.6			
		1.3	20.0			
BAE-160A/W+	160	0.8	33.5	2970*1700*1900	DN100	5500
		1.0	30.0			
		1.3	27.0			

Note:A: air-cooled W:Water-cooled +:two-stage compression

The Company Has The Right To Change The Design For The Continuous Improvement Of The Products,and The Parameters Will Be Changed Without Prior Notice.

Technical Parameter

Model	Moter Power (kW)	Working Pressure (Mpa)	Volume flow (m³/min)	Dimensions (mm)	Outlet Pipe Diameter	Weight (kg)
BAE-185A/W+	185	0.8	37.5	2970*1700*1900	DN100	6100
		1.0	33.9			
		1.3	30.0			
BAE-200A/W+	200	0.8	42.8	3370*2150*2250	DN100	6600
		1.0	38.0			
		1.3	33.0			
BAE-220A/W+	220	0.8	47.6	3370*2150*2250	DN125	6800
		1.0	42.3			
		1.3	36.0			
BAE-250A/W+	250	0.8	52.8	3770*2150*2250	DN125	7000
		1.0	46.0			
		1.3	41.0			
BAE-280A/W+	280	0.8	58.1	3770*2150*2250	DN125	6800
		1.0	52.4			
		1.3	48.0			
BAE-315A/W+	315	0.8	66.2	3800*2300*2300	DN125	7000
		1.0	58.0			
		1.3	50.8			
BAE-355A/W+	355	0.8	73.2	3800*2300*2300	DN125	8500
		1.0	65.4			
		1.3	55.0			
BAE-400A/W+	400	0.8	84.0	3800*2300*2300	DN125	9000
		1.0	72.0			
		1.3	63.0			

Note:A: air-cooled W:Water-cooled +:two-stage compression

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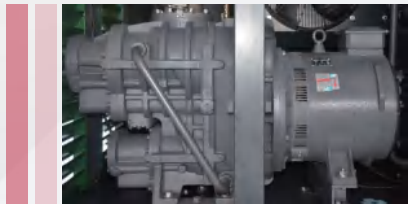
Two Stage Rotary screw air compressor

TWO-STAGE PERMANENT MAGNET Frequency Conversion Rotary Screw Air Compressor

Product features

Two-Stage Rotary Screw Air End

- The material of the air compressor element is 40CrA high-quality alloy steel, which has high performance in wear-resistance and corrosion-resistance.
- Adopting the third generation of BAES 5:6 asymmetric tooth rotor profile developed by the Group, it balances force during high-speed operation. The rotor tangential speed is $\leq 35\text{m/s}$, and the rotor clearance is maintained at 0.003 inches. The same power section air end can save energy by 10-15%.
- CNC 5-axis rotor grinding machines are used in the production of Geso rotors, automating the machining of polyhedra and curved surfaces with high precision.
- The self-developed isothermal curve design improves isometric compression performance. For different oil paths, it achieves interstage cooling and improves adiabatic efficiency. By reducing the compression ratio, it reduces leakage, approaches isothermal compression, and provides a 13-15% efficiency improvement over single-stage compression.



Permanent Magnet Variable Frequency Motor

- Due to the different voltage characteristics in China and Europe, Geso Group's technicians have selected domestic high-end motor manufacturers that meet the Group's production requirements and standards to customize their products.
- The ultra-low temperature rise design allows the air end to operate stably at lower frequencies over the long term. The permanent magnet selection of 38UH material has a maximum working temperature of up to 180°C , with an IE5 energy efficiency level. At the set pressure, the unit maintains the pressure difference within 0.1 MPA through frequency adjustment, ensuring smoother operation and greater energy efficiency over long-term use.

Energy Saving With Dual Inverter

- The motor and fan are controlled by frequency conversion regulation, keeping the oil temperature of the air end constant, lowering the running speed, and enhancing the service life of the mainframe.
- A customized high-performance vector control frequency converter of Huichuan/ABB brand is used. The constant temperature of the unit is set at about 82°C , with a constant pressure accuracy controlled at 0.01 MPA.
- Customized frequency conversion speed control can be started at zero speed and adjusted uniformly according to user needs. Linear acceleration, S-acceleration, or automatic acceleration can be selected.

Cooling Fans

- Adopting a frequency conversion centrifugal cooling fan, the noise is much lower than that of an axial fan, providing users with an energy-saving and environmentally friendly high-efficiency cooling system.
- Unique design: Utilizing the high-speed impeller to accelerate, decelerate, and change the flow direction of the gas to achieve the cooling effect.
- Intelligent frequency conversion design: It can adjust the speed according to the temperature of the cooler to realize energy saving and emission reduction.

High Quality Filtration Systems

- A European standard customized oil/gas separator reduces exhaust gas oil content to $\leq 2\text{PPM}$ and reduces differential pressure.
- The air filter is made of a cellulose synthetic mixture, using the latest technology through the electrostatic spinning process to prepare very fine fiber media. This achieves 0.2-0.3 micron continuous elasticity of synthetic fibers. The filter media is uniform, with more orifices than cellulose filter media, thus improving filtration efficiency and dirt-holding capacity.
- The use of two-component fibers provides strong bonding capabilities. The resin-free filter media developed by Geso offers lower resistance to fluids and a longer life.

High-efficiency Intake Valve

- The self-designed air intake control valve combination has air intake, capacity adjustment, discharge, and stopping functions. Precise flow rate calculation ensures low pressure loss of air intake.
- Adopting a normally closed type valve to prevent air from entering the air end during startup allows for a smooth low-current startup.
- The air inlet valve is equipped with an air inlet bypass valve to prevent high vacuum inside the compressor during startup and no-load conditions, which can affect the atomization of lubricating oil.

Intelligent Control - Remote Start-stop System

- Data detection and visualization reduce operating costs.
- Real-time data monitoring and comprehensive diagnostic reports enable joint control of multiple devices, AI intelligent calculation, and matching, thus realizing cost reduction and increased efficiency.
- Cell phones and computers can display dynamic images, making operation simple and creating a digital, intelligent air compressor station for users.



Two Stage Rotary
screw air compressor



Technical Parameter

Model	Moter Power (kW)	Working Pressure (Mpa)	Volume flow (m³/min)	Dimensions (mm)	Outlet Pipe Diameter	Weight (kg)
BAE-15FC+	15	0.8	1.0-3.1	1300*900*1080	G1 1/4"	380
		1.0	1.0-2.5			
		1.3	0.8-2.1			
BAE-18FC+	18.5	0.8	1.4-3.6	1300*900*1080	G1 1/4"	390
		1.0	1.0-3.1			
		1.3	1.0-2.8			
BAE-22FC+	22	0.8	1.5-4.7	1300*900*1080	G1 1/4"	430
		1.0	1.3-3.8			
		1.3	/			
BAE-30FC+	30	0.8	2.0-6.5	1600*1150*1400	G1 1/2"	737
		1.0	1.8-6.0			
		1.3	1.6-5.1			
BAE-37FC+	37	0.8	2.9-8.5	1600*1150*1400	G1 1/2"	780
		1.0	2.5-7.3			
		1.3	2.2-6.7			
BAE-45FC+	45	0.8	3.3-10.4	1800*1200*1700	DN50	1160
		1.0	2.9-8.4			
		1.3	2.2-6.6			

Note: FC: Frequency Conversion +: Two-stage Compression

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Technical Parameter

Model	Moter Power (kW)	Working Pressure (Mpa)	Volume flow (m³/min)	Dimensions (mm)	Outlet Pipe Diameter	Weight (kg)
BAE-55(W)FC+	55	0.8	4.0-13.2	2165*1300*1700	G2"	1700
		1.0	3.0-10.5			
		1.3	2.5-8.8			
BAE-75(W)FC+	75	0.8	5.3-16.5	2350*1500*1850	DN65	2120
		1.0	3.7-13.9			
		1.3	3.6-11.4			
BAE-90(W)FC+	90	0.8	6.0-20.2	2350*1500*1850	DN65	2800
		1.0	5.1-17.3			
		1.3	4.7-15.8			
BAE-110(W)FC+	110	0.8	7.5-24.0	2575*1700*1800	DN80	3500
		1.0	6.0-20.0			
		1.3	5.9-17.8			
BAE-132(W)FC+	132	0.8	9.1-28.2	2575*1700*1800	DN80	4200
		1.0	8.5-24.6			
		1.3	6.9-20.3			
BAE-160(W)FC+	160	0.8	11.4-33.7	2970*1700*1900	DN100	5500
		1.0	11.3-30.0			
		1.3	9.2-26.0			
BAE-185(W)FC+	185	0.8	13.5-38.5	2970*1700*1900	DN100	6100
		1.0	11.7-34.1			
		1.3	10.2-28.5			
BAE-200(W)FC+	200	0.8	14.8-42.6	3370*2150*2250	DN100	6600
		1.0	13.0-38.5			
		1.3	11.2-33.0			
BAE-220(W)FC+	220	0.8	16.2-47.6	3370*2150*2250	DN100	6800
		1.0	14.9-42.3			
		1.3	13.2-36.5			
BAE-250(W)FC+	250	0.8	19.0-52.7	3770*2150*2250	DN125	7800
		1.0	15.2-46.0			
		1.3	14.6-41.0			
BAE-280(W)FC+	280	0.8	22.8-57.0	3800*2300*2300	DN125	6700
		1.0	19.6-49.0			
		1.3	18.8-47.0			
BAE-315(W)FC+	315	0.8	24.8-62.0	3800*2300*2300	DN125	7000
		1.0	21.6-54.0			
		1.3	20.2-50.5			
BAE-355(W)FC+	355	0.8	27.68-73.0	3800*2300*2300	DN125	8500
		1.0	24.0-65.0			
		1.3	21.92-54.8			
BAE-400(W)FC+	400	0.8	32.0-84.0	3800*2300*2300	DN125	9000
		1.0	27.2-73.0			
		1.3	24.4-61.0			

Note: FC: Frequency Conversion +: Two-stage Compression

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