

## Domestic Office Locations in China

Region:	Province:	Address:
Northeast Region	Heilongjiang Province	Intersection of Republican Road and Shijiao Road, Hulan District, Harbin City,
	Liaoning Province	No. 9-3, Lu Guan Er Jie, Tiexi District, Shenyang City, Liaoning Province.
Eastern China	Shanghai	No. 15, Lane 38, Cao Li Road, Jinshan District, Shanghai, China
	Zhejiang Province	Room 8609, 6th Floor, No.3 Building, Jinjulong Mansion, No.9 Gaohu Road, Jiangning District, Nanjing, Jiangsu Province, China
	Jiangsu Province	Room 306, Building 1, No. 58, Huyang Road, Hushuguan Town, Huqiu District, Suzhou City, Jiangsu Province, China
	Anhui Province	No.1, Heping Road, Development Zone, Chizhou City, Anhui Province
	Shandong Province	1912, East Unit, No.4 Building, Lemeng Center, Huaiyin District, Jinan City, Shandong Province
	Jiangxi Province	East China International Industrial Expo City, Guangzhou Road, Qingyunpu District, Nanchang City, Jiangxi Province
	Fujian Province	One Lane, Qianjin Xijing, G324 National Road, Houxi Town, Jimei District, Xiamen City, Fujian Province.
North China	Beijing	Room 1204, Building 10, Junyue International, Daxing District, Beijing, China
	Tianjin	
	Shanxi Province	
	Hebei Province	Room 204, Unit 2, Building No. 11, Yurongguandi, Shahexi Street, Jiuhuan District, Baotou City, Inner Mongolia Autonomous Region
Central China	Henan Province	No. 39, 3F, Greenland Original Sheng International 3C, Jinshui District, Zhengzhou City, Henan Province
	Hubei Province	Room 1304, Unit 1, Building 16, Block B, Vision Cheng, General Road Street, East and West Lake District, Wuhan City, Hubei Province
	Hunan Province	No. 268 Wanjiali Road, Yuhua District, Changsha City, Hunan Province.
South China	Guangdong Province	Room 1504, Tower B, Aoyuan Central Plaza, Jingang Avenue, Nansha District, Guangzhou City, Guangdong Province, China
	Guangxi Province	
	Taiwan Province	
Southwest of China	Chongqing	Building 1801, Line Out City Garden, Yubei District, Chongqing, China
	Tibet	Science and Technology Innovation Park, No.3 Jingkai Road, Jingkai District, Kunming, China
	Yunnan Province	Building 2, Finance Street, Nanming District, Guiyang City, Guizhou Province
	Guizhou Province	
	Sichuan Province	Building 9, Wanjingfeng Phase II, No. 8 Shangya Road, Gaixin West District, Chengdu, China
Northwest of China	Shanxi Province	Room 20707, Building 1, Lijun V Times, Cross of Fengcheng 1st Road and Weiyang Road, Weiyang District,
	Qinghai Province	
	Gansu Province	In the yard of Yongding Center Market, Anding District, Dingxi City, Gansu Province, China
	Ningxia Province	No.4 Building, South District, Helan Red River Valley, Yinchuan, Ningxia, China
	Xinjiang Uygur Autonomous Region	No.556, Beijing South Road, New Downtown, Urumqi, Xinjiang Province

## GESO SYSTEMS

ShangHai Geso systems industrial PLC  
Address: No. 15, Lane 38, Cao Li Road, Jinshan District, Shanghai, China

revision : 202307

Website: [www.gesosystems.net](http://www.gesosystems.net)  
Tel:0086-512-67303589

## GESO SYSTEMS

### GESO BAEL 16 Series

Special Screw air compressor for laser cutting machine



Shanghai Geso Systems Industrial PLC

- Screw air compressor for laser cutting machine P05
- Air compressor installation and maintenance P09







## 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, and in 2018 BAE Systems established a wholly-owned company "Shanghai Geso systems Industrial PLC". In 2018, BAE Systems set up a wholly-owned company "Shanghai Geso systems Industry Co., Ltd." in Shanghai and invested 11 million U.S. dollars to build an intelligent production and manufacturing center. In 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." more than 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 of use to ensure users' satisfaction and 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



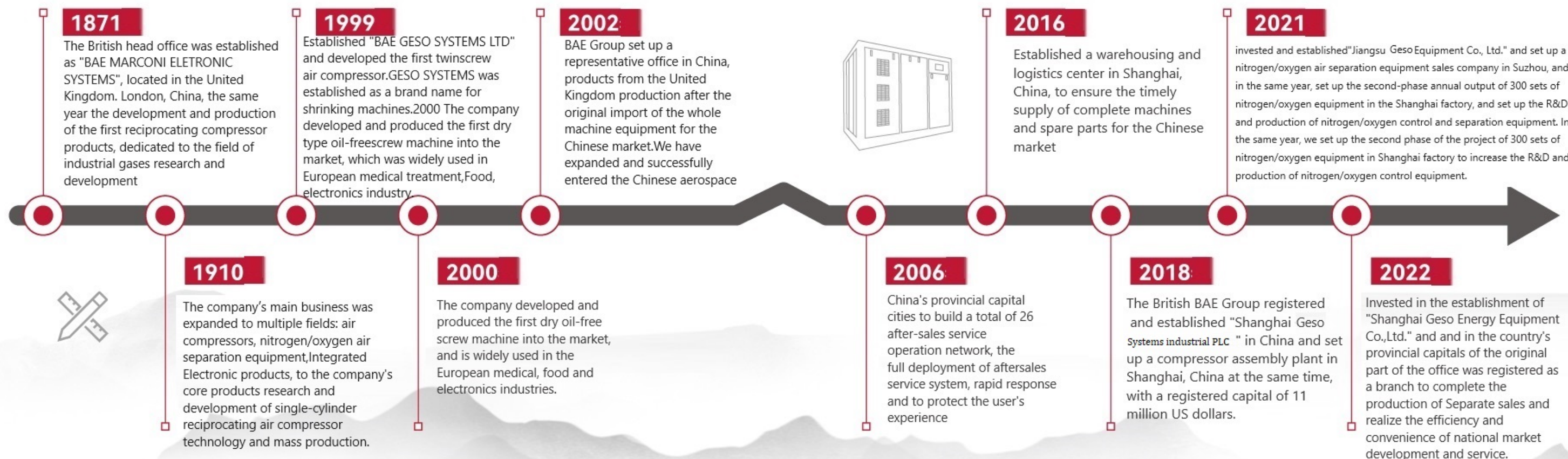
# GESO SYSTEMS

Inheriting the advanced technology and production management mode of BAE Systems and combining it with China's market demand in order to ensure the production safety of users, Geso Group strictly follows the product development process of the Group, and each new product undergoes 40 test items and 3,000 hours of durability test to ensure the quality of the products 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 Internet of Things (IoT) technology realizes convenient interconnected management with air compressors through computers, cell phones and iPads to realize automatic and precise supply and meet the experience of unattended automation. As a wholly foreign-owned enterprise, it is also the authorized production and assembly base of screw compressors for BAE Systems in UK. We have obtained ISO9001 quality system certification, ISO45001 occupational health and safety management system certification, ISO14001 environmental management system certification, certificate 0 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. We are exempt from labor charges, provide free training services for customers, regularly test the data of users' energy efficiency reports, and develop group of companies, we carry the mission of innovation, quality and service. Whether it is energy saving and environmental protection or intelligent, always adhere to the praise of customer experience as the center of the hard working people. Geso, to build a globally recognized brand of fluid machinery, and continue to be the industry leader in high-end energysaving products.





## Milestones



## Certificates



CE certificate-EMC CERT IND-PC-C2108017 Geso CE certificate-MD



Certificates



# Special screw air compressor for laser cutting machine

From the 1970s, laser technology has gradually entered the field of industrial cutting, at the current time the entire processing manufacturing industry is being transformed and upgraded, enterprises need to improve the process, efficiency, research and development and upgrading of the production process to reduce the cost of production, and increase the production of more value-added.

- Laser cutting machine for compressed air quality has certain requirements: to ensure that the air dryness of **99%**, the water content of **less than 1/100**.
- Geso customizes reliable, energy-saving and efficient air compressor system solutions for the laser cutting machine industry.



## 01. High-quality Air compressor element

- Utilizes a 1.6 MPA air compressor element designed for the BAES laser cutting industry.
- The BAES line optimizes the screw compression efficiency to a large extent and achieves energy saving.
- High machining precision of element, low noise, high stiffness rotor, prolonged service life.



When using air as an auxiliary gas in the laser cutting process, its cutting effect is between nitrogen cutting and oxygen cutting, and its low cost of cutting is the power consumption caused by the air compressor to provide compressed air, as well as the consumption of the filter element in the air pipeline. And reduce the use of laser cutting equipment cost, choose energy efficient air compressor is particularly important. (Comparison of data shown in the table)

## SUS304 Laser Cutting Cost Comparison

auxiliary gas	processing speed (mm/min)	pneumatic (MPa)	Auxiliary gas flow (NL/min)	Processing time per meter	electricity (\$/H)	Electricity for air compressor (\$/H)	Auxiliary gas costs (\$/H)	add up the total (\$/H)
Air	35,000	0.8	296.7	1.7	14.675	12.25	0	26.925
nitrogen	35,000	0.8	296.7	1.7	14.675	5.25	15.347	35.347

Remarks: 1. In the above cost analysis, the crop rate of the machine tool is calculated at 70%, the electricity cost is calculated at RMB 1/KWH, and the cost of nitrogen is calculated at RMB 1.5/KG for liquid nitrogen.  
2. air cutting, air compressor power consumption cost is calculated according to 1.6MPa, 2.6m³ /min specifications of the screw air compressor.  
3. When using air or nitrogen as an auxiliary gas for cutting, it is necessary to supply air to the cutting machine, so it will incur the cost of electricity.

Geso customizes reliable, energy-saving and efficient air compression system solutions.

## 02. Intelligent control systems

- Chinese/English bilingual can be set, the interface is simple and intuitive, easy to operate.
- All-round protection function: Greatly prevent the failure caused by short-circuit, phase loss, overload, etc.



## 03. Triple filtration system

- Following the industry standard, specially designed for the laser cutting industry, the front pre-filtration prevents particles and debris from entering into the air compressor, ensures clean air source and improves compressed air quality.
- Selected nano air filter, dust removal filtration accuracy of 3um, two-stage filtration of the guide spinning and paper fiber, can be applied to a variety of environments such as heavy dust production.
- Adopting one-piece design, it is easy to disassemble and replace, and the maintenance is faster.



## 04. Electrical systems

- Two-way pressure monitoring: oil and gas drum internal pressure, unit exhaust
- better protect the unit.
- Temperature monitoring: real-time monitoring of the unit exhaust temperature to ensure normal operation of the unit.
- Modbus Rtu protocol, RS485 interface, can be connected to the user's upper monitoring.





Special screw air compressor for laser cutting machine

Laser cutting air compressor technical parameters

Model	working pressure (bar)	Air delivery (m³/min)	Power (KW)	Dimensions (mm)			weight (kg)	Outlet pipe Diameter
				L	W	H		
BAE-7A16	16	0.5	8	710	700	950	205	G3/4
BAE-11A16	16	0.9	11	710	700	950	225	G3/4
BAE-15A16	16	1.4	15	900	850	1200	260	G1 1/4
BAE-18A16	16	1.9	19	900	850	1200	335	G1 1/4
BAE-22A16	16	2.3	22	900	850	1200	350	G1 1/4
BAE-30A16	16	3.2	30	1100	1000	1350	700	G1 1/4
BAE-37A16	16	3.8	37	1100	1000	1350	720	G1 1/4

Model	working pressure (bar)	Air delivery (m³/min)	Power (KW)	Dimensions (mm)			weight (kg)	Outlet pipe diameter	Drying machine handling capacity (m³/min)	
				(L)	(W)	(H)				
BAE-7A16TD	1.60	0.5	7.5	420	1800	800	1550	500	G1	1.35
BAE-11A16TD	1.60	0.9	11	420	1800	800	1550	520	G1	1.35
BAE-15A16TD	1.60	1.4	15	420	1800	900	1800	620	G1	2.7
BAE-18A16TD	1.60	1.9	18.5	420	1800	900	1800	680	G1	2.7
BAE-22A16TD	1.60	2.3	22	420	1800	900	1800	700	G1 1/2 / G1	4.3

Remarks: 1. D/TD series: gas tank volume 420L.  
2. TD series filtration precision: 0.01 μm/ppm;  
transmission mode: belt drive.

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.

Model	working pressure (bar)	Air delivery (m³/min)	Power (KW)	Dimensions (mm)			weight (kg)	Outlet pipe Diameter
				L	W	H		
BAE-7PM16	16	0.1-0.5	7.5	710	700	950	230	G3/4
BAE-11PM16	16	0.2-0.9	11	710	700	950	250	G3/4
BAE-15PM16	16	0.6-1.6	15	900	850	1200	300	G3/4
BAE-18PM16	16	0.9-2.1	18.5	900	850	1200	360	G1 1/4
BAE-22PM16	16	1.0-2.4	22	900	850	1200	400	G1 1/4

Model	working pressure (bar)	Air delivery (m³/min)	Power (KW)	Dimensions (mm)			weight (kg)	Outlet pipe diameter	Drying machine handling capacity (m³/min)
				(L)	(W)	(H)			
BAE-7PM16TD	16	0.1-0.5	7.5	1800	800	1550	500	G1	1.34
BAE-11PM16TD	16	0.2-0.9	11	1800	800	1550	520	G1	1.34
BAE-15PM16TD	16	0.6-1.6	15	1800	900	1800	620	G1	2.69
BAE-18PM16TD	16	0.9-2.1	18.5	1800	900	1800	680	G1	2.69
BAE-22PM16TD	16	1.0-2.4	22	1800	900	1800	700	G1 1/2 / G1	4.26

Remarks: 1. D/TD series: gas tank volume 420L.  
2. TD series filtration precision: 0.01 μm/ppm;  
transmission mode: belt drive.

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.



Air compressor installation and maintenance

01 Air compressor installation requirements

Low dust, no harmful gases, and maintain a well ventilated environment.

If the air compressor room is not well ventilated, the following situations may occur:

- High temperatures

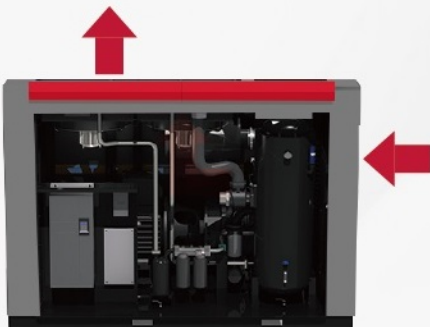
1 in air compressor rooms
- High temperature

2 of air compressor unit
- Frequent jumps of

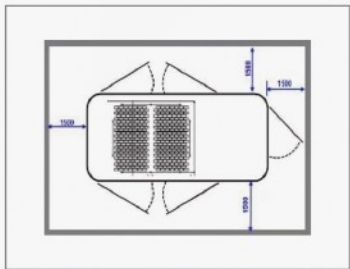
3 air compressor
- High temperature

4 coking of lubricating oil
- Affects the main engine, which leads to the degradation of air compressor performance

5

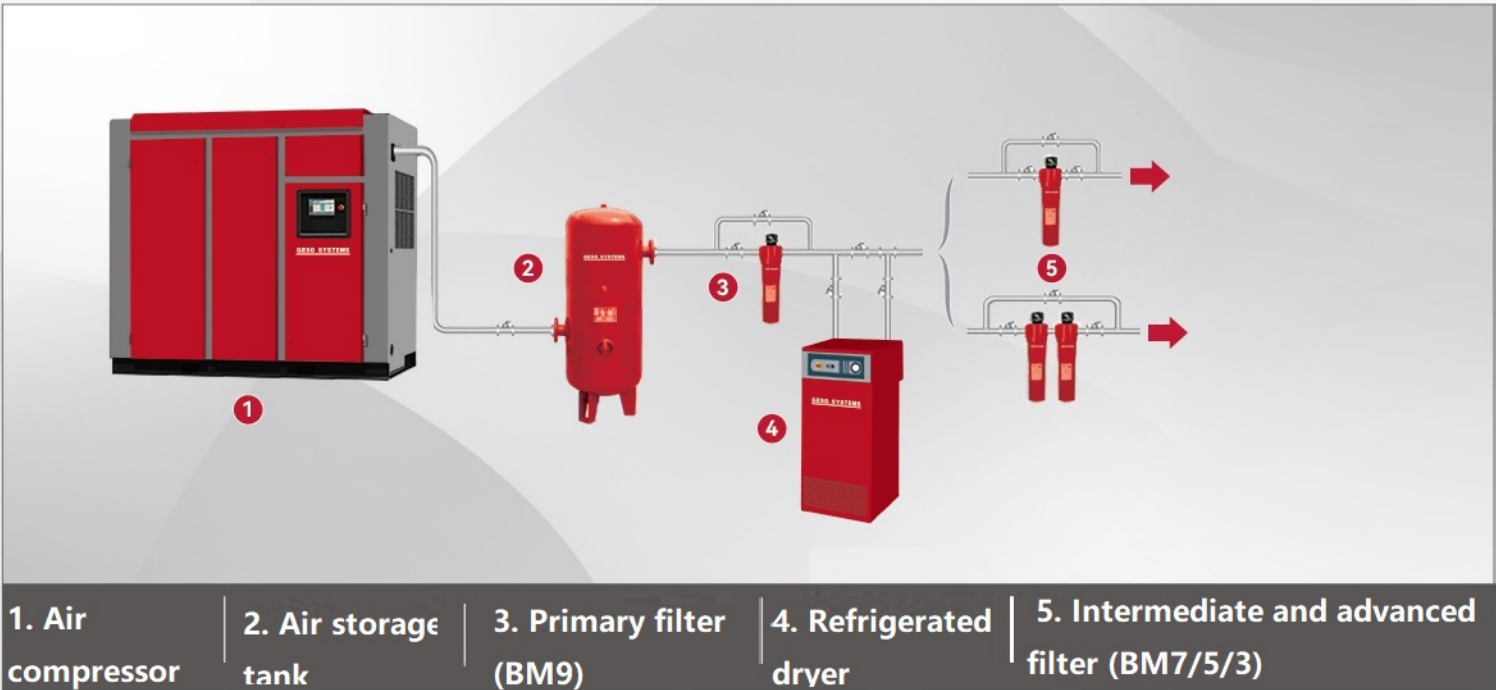


Leave enough space for easy inspection and maintenance (distance between air compressor and wall or other equipment ≥1~1.5m)



02 Layout of the air compressor system

Air compressor → gas storage tank → primary filter (BM9) → cold dryer → intermediate and advanced filters (BM7/5/3)



03 Air compressor maintenance/safety

- > Attentive

Comprehensive and caring equipment quality commitment to protect your production safety and experience. (Commitment to the whole machine warranty of one year, the element warranty of five years or 20,000 hours)(whichever comes first) and lifetime maintenance).
- > Be spared worry

Provide professional after-sales service personnel, regular safety inspection and maintenance, using high-quality original genuine parts, so that the equipment to use the heart.
- > Feel relieved

To improve the stability of air compressor operation, ensure the safe operation of the equipment, so that your equipment with peace of mind, Gesuit provides regular preventive maintenance services.



Air compressor parts routine maintenance cycle

No.	Maintenance content	Maintenance cycle
1	Measurement Temperature / Condition Monitoring	2,000-3,000 hours or six months
2	Replacement of air and oil filters	
3	Replacement of rotor lubricant	
4	Add motor grease	
5	Adjusting belt tension	3,000-4,000 hours or one year
6	Replacement of oil separator	
7	Cleaning the outside of the cooler	
8	Check pressure temperature display	
9	High-temperature shutdown function of the test host	7,000-8,000 hours or two years
10	Testing Safety Valves	
11	Intake valve overhaul	
12	Check Valve Maintenance (3)	
13	Oil stop valve overhaul (3)	12,000 hours or three years
14	Minimum Pressure Valve Maintenance	
15	Replace Thermal Oil Bypass Valve (3)	
16	Replacement of belts (1)	
17	Clean inside cooler (1)	20,000 hours or five years
18	Replacement of coupling elastomers	
19	Motor Maintenance	
20	Mainframe overhaul and inspection (1)	

Remarks: (1) is mandatory and (3) is optional.