

# GDK Series Oil-flooded Screw Air Compressor

*GDK07-75kW*



*Reliable, Intelligent, Craftsmanship*

National Toll-free Hotline  
400-820-9290  
400-168-8866

**Gardner**  
**Denver**

## Ingersoll Rand

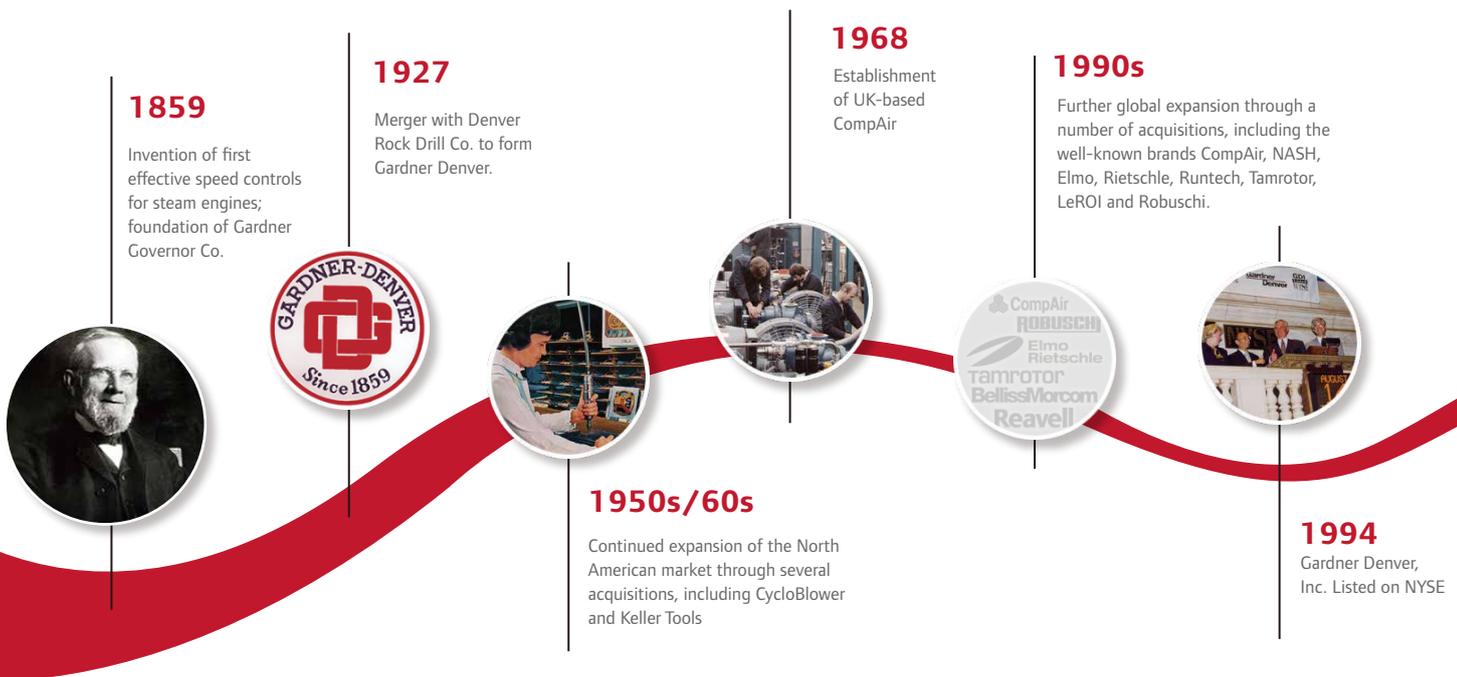
Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to helping make life better for our employees, customers and communities. Customers lean on us for our technology-driven excellence in mission-critical flow creation and industrial solutions across 50+ respected brands where our products and services excel in the most complex and harsh conditions. Our portfolio of products consists of air compressors, pumps, blowers, and systems for fluid management, loading and material handling as well as power tools. With over 18,000 employees globally, our team develops customers for life through their daily commitment to expertise, productivity and efficiency. For more information, visit [www.IRCO.com](http://www.IRCO.com).

## Gardner Denver

Founded in 1859, Ingersoll Rand, Inc. Gardner Denver focuses on developing innovative products and engineering solutions that solve operational challenges for our customers. With global collaboration, strong customer service and in-depth expertise, we offer reliable, energy-efficient equipment for a wide range of manufacturing and process applications. As of March 1, 2020, The Ingersoll Rand Industrial segment was formally merged with Gardner Denver on March 1, 2020 to form the new Ingersoll Rand.

Now, as a larger and stronger company, we can further provide you with more comprehensive solutions and a broader portfolio of products and services. The new Ingersoll Rand is driven by an entrepreneurial spirit and an ownership mindset to make life better for our employees, customers and those around us.

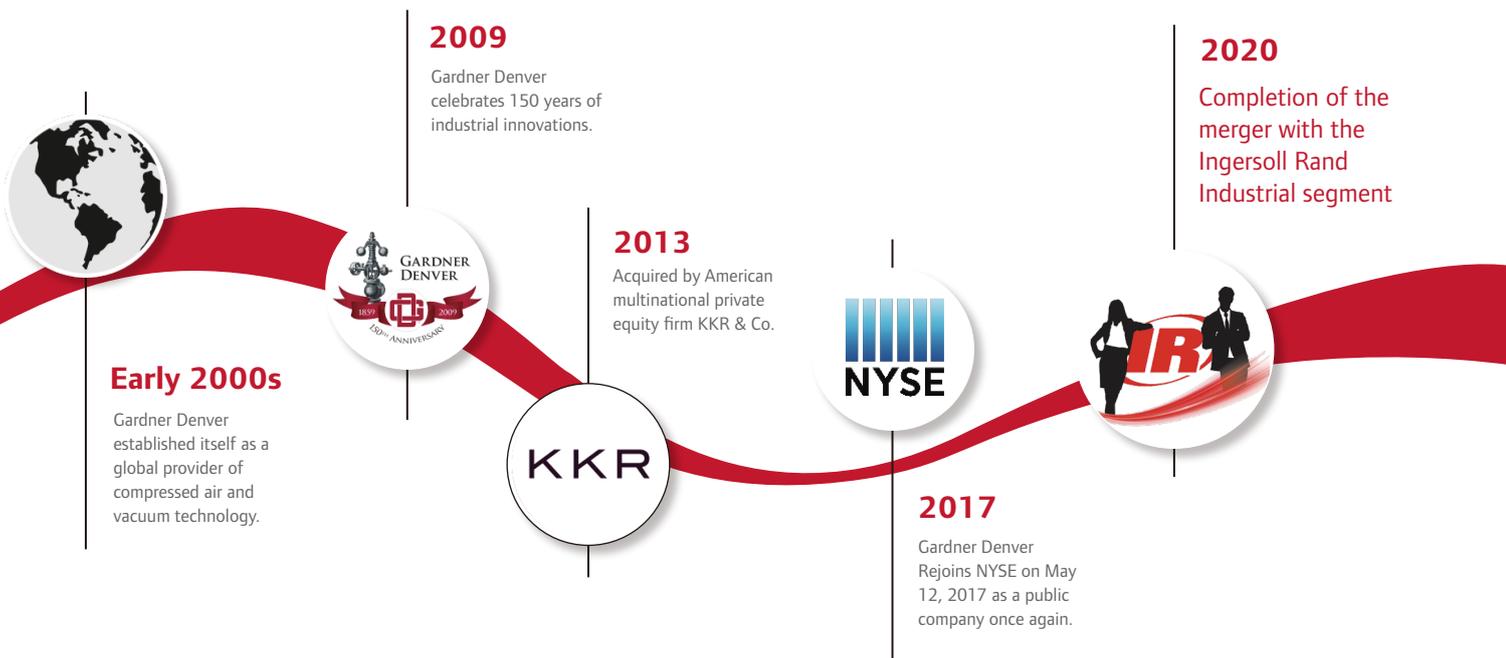
With the establishment of the new company, driven by Ingersoll Rand's new goals and values, and in line with the Company's multi-brand and multi-channel development strategy, we have integrated and upgraded the existing brands and products of Ingersoll Rand, and launched the newly-designed Gardner Denver air compressors, which cover oil screw air compressors, oil-free air compressors and complete compressed air after-processing products. With abundant products, continuous innovation, and high-quality service, Gardner Denver air compressors are believed to be able to help customers achieve greater success.





Gardner Denver air compressor production base - Ingersoll Rand Wujiang Industrial Park

Completed in 2008, Ingersoll Rand Wujiang Industrial Park covers a land area of 230,000m<sup>2</sup> and a gross floor area of 91,000m<sup>2</sup> and has nearly 1,000 employees, making it one of Ingersoll Rand' largest investments in the world. As an integrated enterprise of intelligent manufacturing, it aims to achieve professional manufacturing process, reliable product quality, constant optimization and improvement, and excellent customer experience, so as to provide premium services for different business groups and partners.





Gardner Denver's iConn smart link cloud aims to extend the uptime to a greater extent and realize the real-time data management of the compressed air system for owners. The cutting-edge sensor technologies used in the air compressor regularly sends data to our cloud platform, where it can be accessed from your PC, tablet or smart phone to keep track of the machine's performance. We offer hierarchical service contents, so you can choose the level of data monitoring and analysis according to your specific operational needs.



### Shorten planned downtime

Better unit performance



### Visual maintenance and service plan

Fully monitor the maintenance and service plan



### Online unit status monitoring

Improve productivity and mechanical efficiency



### Reduce the risk of downtime

Minimize unplanned downtime



### Timely maintenance and service

Extend unit service life

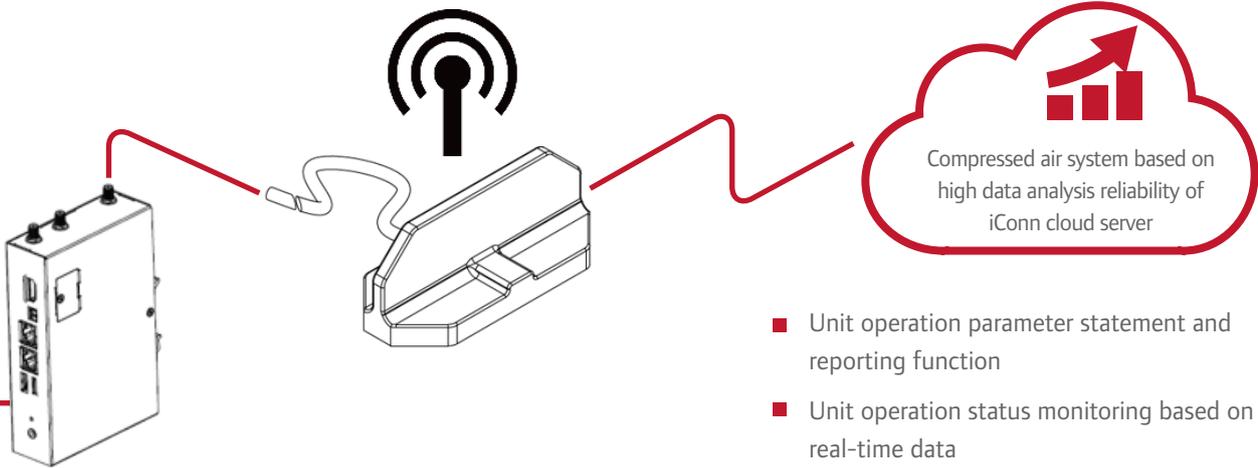


### Contact product experts quickly

Provide better professional insights

## Enjoy multiple benefits

- Real-time operation data can be obtained anytime anywhere
- Powerful data analysis helps the O&M team to maintain the optimal operating performance of the air compressor and reduce the risk of downtime
- Equipment maintenance notification helps ensure equipment reliability and extend service life
- Real-time monitoring provides effective data and facilitates communication to improve productivity and mechanical efficiency
- Send proactive service alarms via email; provide regular data on a regular basis, and provide access to the customer portal
- In case of any abnormalities of the air compressor, your Ingersoll Rand authorized service provider will immediately receive the alarm and pro-actively respond, thus guaranteeing the safety of your assets
- Specific models of new equipment can be used as factory delivery standard, or existing equipment can be upgraded as part of the CARE service contract



- Unit operation parameter statement and reporting function
- Unit operation status monitoring based on real-time data
- Fault alarm and event notification
- Problem diagnosis based on predictive analysis
- Diagnostic analysis of energy consumption and reliability

## Mapping out a strategy of security

### Solve your security problem

**Will Gardner Denver use the iConn Internet platform to access our network?**

No. We don't have access to your company's network. iConn only uses 4G/mobile networks, and cannot access your company's internal network or Wi-Fi.

**Can hackers access or interfere with our production through iConn?**

No. iConn only collects data from the compressor controller in a one-way transmission mode. It cannot send data or commands to the compressor.

**Will Gardner Denver use iConn to remotely control our compressors?**

No. There is no remote control.

**Can Gardner Denver collect our sensitive data through iConn?**

No. We can only receive machine data. Error alarms are sent only to the authorized operators whose contact details can be changed or deleted at any time.

# GDK07-75 screw air compressor (Fixed Speed/VSD)

The Grander Denver brand of Ingersoll Rand is committed to providing customers with advanced compressed air systems to improve production efficiency, reduce operating cost and extend equipment life, so as to contribute to customer success. Each oil-flooded screw air compressor of the GDK series adopts innovative design, with reliable quality, leading gas volume and excellent cost performance.

## Excellent airend

- Performance can be fully improved with the Ingersoll Rand airends
- Gear geometry and lubrication are optimized for lower noise and higher reliability
- Dynamic simulation of airend inlet and exhaust channels is optimized to reduce pressure drop and improve efficiency



## Innovative design

- Air inlet: The perfect combination of efficient air inlet filter and ultra-low pressure-loss inlet valve reduces pressure loss and improves efficiency
- Drive: use IEC-compliant high-efficiency motor with direct gear transmission mode and without wearing parts, thus being more efficient
- Exhaust: The convenient top exhaust allows for easy ventilation to remove or recover waste heat

## Multiple detection for security protections

- Airend exhaust temperature detection
- Pressure test before and after oil separation
- Air inlet vacuum test
- Maintenance and service tips

## Intelligent control

- Touch color screen
- Built-in IoT functions
- Multi-machine joint control
- Standard Modbus, remote/local monitoring



## VSD energy conservation

- No starting current peak, completely eliminating the energy consumption during unloading
- The VSD starting current is low and has no impact on the power grid, which is particularly important for users whose plants are located in the areas with unstable power grids. The VSD control keeps the pressure band within 0.1bar, eliminating the need for large gas storage tanks
- The pressure does not exceed the required value, and no energy is wasted
- The motor has low starting torque and small impact on mechanical parts, making the service life of mechanical parts (such as bearings) longer; the torque is transmitted based on actual needs, thus having no excess energy waste

## Safe motor (fixed-speed unit)

- IP55 closed-type motor (Class F insulation, class B temperature rise), having effective dust and water-spray prevention
- Constant and stable operation at 55 °C / 131 °F



## Permanent magnet motor (VSD unit)

- Compared with the AC asynchronous motor, rare-earth permanent magnet motor has simple structure, reliable operation, high power density and wide speed regulation range, becoming an ideal power choice for efficient and energy-saving air compressors
- Efficient
- Small, light
- Low noise
- Large starting torque
- No-shock starting
- Wide speed regulation range
- Equipped with efficient IE5, IP66 oil-cooled permanent magnet VSD motor, achieving Class H insulation and Class B temperature rise



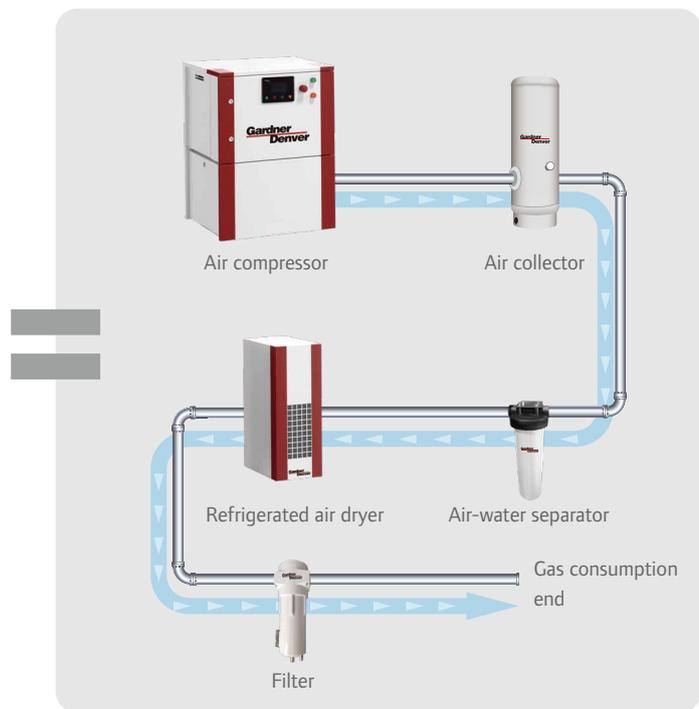
## Motor connection mode of the airend

- GDK07-22 fixed-speed unit uses belt connection
- GDK30-75 fixed-speed unit uses gear direct connection
- GDK07-75 permanent magnet motor uses coaxial connection

# GDK07-22TAS integrated air compressor with built-in refrigerated air dryer (fixed speed)

TAS is short for "Total Air Solution" and can be understood as a "general solution". When you buy a GDK07-22TAS product, you will have a complete unit of compressed air system:

**TAS air compressor = air compressor + air storage tank + air-water separator + refrigerated air dryer + filter**



## Efficient refrigerated air dryer

- Standard environmental refrigerant R134a
- Pressure dew point at 7-10°C, more effective in water removal
- Three-in-one anti-corrosion aluminum alloy condensation purifier design, avoiding internal corrosion and rust of pipes

## High-precision oil removal filter

- Filter particles above 0.01µm, water mist and oil mist, with residual oil content at 0.01ppm@7barg
- Filter element design with stainless steel inner/outer support mesh, enhancing filtration capacity
- The advanced filter design concept makes the filter structure more compact and the volume smaller

## Air collector

- GDK07-11TAS standard 272L gas storage tank
- GDK15-22TAS standard 350L gas storage tank
- Optional 500L/700L gas storage tank

# Parameters of GDK07-75 oil-flooded screw air compressors

Model	Motor power kW	Exhaust pressure bar(g)	Volume flow m <sup>3</sup> /min	Size (L x W x H)mm	Weight kg	Interface size BSPT
<b>GDK07-75 fixed-speed unit parameters</b>						
GDK07-7A	7.5	7	1.22	716 x 677 x 1061	222	G3/4
GDK07-8A	7.5	8	1.14	716 x 677 x 1061	222	G3/4
GDK07-10A	7.5	10	1.00	716 x 677 x 1061	222	G3/4
GDK07-12.5A	7.5	12.5	0.81	716 x 677 x 1061	222	G3/4
GDK11-7A	11	7	1.69	716 x 677 x 1061	225	G3/4
GDK11-8A	11	8	1.58	716 x 677 x 1061	225	G3/4
GDK11-10A	11	10	1.41	716 x 677 x 1061	225	G3/4
GDK11-12.5A	11	12.5	1.23	716 x 677 x 1061	225	G3/4
GDK15-7A	15	7	2.50	984 x 1017 x 1065	465	G1
GDK15-8A	15	8	2.40	984 x 1017 x 1065	465	G1
GDK15-10A	15	10	2.07	984 x 1017 x 1065	465	G1
GDK15-12.5A	15	12.5	1.70	984 x 1017 x 1065	465	G1
GDK18-7A	18.5	7	3.10	993 x 1020 x 1118	509	G1
GDK18-8A	18.5	8	3.00	993 x 1020 x 1118	509	G1
GDK18-10A	18.5	10	2.61	993 x 1020 x 1118	509	G1
GDK18-12.5A	18.5	12.5	2.15	993 x 1020 x 1118	509	G1
GDK22-7A	22	7	3.70	993 x 1020 x 1118	524	G1
GDK22-8A	22	8	3.60	993 x 1020 x 1118	524	G1
GDK22-10A	22	10	3.08	993 x 1020 x 1118	524	G1
GDK22-12.5A	22	12.5	2.72	993 x 1020 x 1118	524	G1
GDK30-7A	30	7	5.43	1544 x 884 x 1405	697	G1 1/2
GDK30-8A	30	8	5.21	1544 x 884 x 1405	697	G1 1/2
GDK30-10A	30	10	4.70	1544 x 884 x 1405	697	G1 1/2
GDK37-7A	37	7	6.50	1544 x 884 x 1405	742	G1 1/2
GDK37-8A	37	8	6.00	1544 x 884 x 1405	742	G1 1/2
GDK37-10A	37	10	5.50	1544 x 884 x 1405	742	G1 1/2
GDK45-7A	45	7	8.23	1544 x 884 x 1405	870	G1 1/2
GDK45-8A	45	8	8.00	1544 x 884 x 1405	870	G1 1/2
GDK45-10A	45	10	6.80	1544 x 884 x 1405	870	G1 1/2
GDK55-7A	55	7	10.60	1969 x 1234 x 1605	1472	G2
GDK55-8A	55	8	10.00	1969 x 1234 x 1605	1472	G2
GDK55-10A	55	10	8.80	1969 x 1234 x 1605	1472	G2
GDK75-7A	75	7	13.40	1969 x 1234 x 1605	1482	G2
GDK75-8A	75	8	13.00	1969 x 1234 x 1605	1482	G2
GDK75-10A	75	10	11.30	1969 x 1234 x 1605	1482	G2
<b>GDK07-75HPM Permanent magnet VSD unit parameters</b>						
GDK07HPM-A	7.5	7-12.5	0.15-1.18	840 x 680 x 810	169	G3/4"
GDK11HPM-A	11	7-12.5	0.15-1.65	840 x 680 x 810	182	G3/4"
GDK15HPM-A	15	7-12.5	0.92-2.54	900 x 800 x 1300	325	G1"
GDK18HPM-A	18.5	7-12.5	0.92-3.12	900 x 800 x 1300	340	G1"
GDK22HPM-A	22	7-12.5	0.92-3.66	900 x 800 x 1300	342	G1"
GDK30HPM-A	30	7-10	2.00-5.60	1544 x 884 x 1405	618	G1 1/2
GDK37HPM-A	37	7-10	2.00-6.80	1544 x 884 x 1405	628	G1 1/2
GDK45HPM-A	45	7-10	2.00-8.10	1544 x 884 x 1405	629	G1 1/2
GDK55HPM-A	55	7-10	2.00-10.10	1969 x 1234 x 1605	839	G2
GDK75HPM-A	75	7-10	2.00-12.60	1969 x 1234 x 1605	859	G2

## Parameters of GDK07-22TAS integrated air compressors with built-in refrigerated air dryer

Model	Motor kW	Exhaust pressure bar(g)	Volume flow m <sup>3</sup> /min	Size (L x W x H)mm	Weight kg	Air collector L
GDK07-22TAS fixed-speed unit parameters						
GDK07-7A TAS	7.5	7	1.22	1576×844×1644	457	272
GDK07-8A TAS	7.5	8	1.14			
GDK07-10A TAS	7.5	10	1.00			
GDK07-12.5A TAS	7.5	12.5	0.81			
GDK11-7A TAS	11	7	1.69	1576×844×1644	460	272
GDK11-8A TAS	11	8	1.58			
GDK11-10A TAS	11	10	1.41			
GDK11-12.5A TAS	11	12.5	1.23			
GDK15-7A TAS	15	7	2.50	1596×1246×1805	812	350
GDK15-8A TAS	15	8	2.40			
GDK15-10A TAS	15	10	2.07			
GDK15-12.5A TAS	15	12.5	1.70			
GDK18-7A TAS	18.5	7	3.10	1596×1246×1855	856	350
GDK18-8A TAS	18.5	8	3.00			
GDK18-10A TAS	18.5	10	2.61			
GDK18-12.5A TAS	18.5	12.5	2.15			
GDK22-7A TAS	22	7	3.70	1596×1246×1855	871	350
GDK22-8A TAS	22	8	3.60			
GDK22-10A TAS	22	10	3.08			
GDK22-12.5A TAS	22	12.5	2.72			



**GDK07-11TAS 272L Gas storage tank**



**GDK15-22TAS 350L Gas storage tank**

# Service and Maintenance Kit

According to the maintenance needs of different customers at different operation time, Gardner Denver develops maintenance kits covering the whole operation cycle for customers. Customized maintenance kit can not only effectively cover the wearing parts that need to be replaced regularly, but also provide maintenance components for key parts to ensure the normal and healthy operation of the machine.

**Reliability:** Original professional parts constantly guarantee air quality

**Planning:** Perform regular maintenance according to plans to reduce the probability of failure and improve operation stability

**High efficiency:** One chart number replaces the individual parts list to improve the efficiency of procurement and management

**Comprehensiveness:** Covering all parts required for one-time maintenance or service, with shorter delivery time than individual parts

**Economical efficiency:** Visualized budget for maintenance service costs, and more competitive prices than buying separate parts



	<b>2000-hour service kit</b>	<b>4000-hour service kit</b>	<b>8000-hour service kit</b>
Content and cycle of replacement / maintenance	<ul style="list-style-type: none"> <li>• Air filter element</li> <li>• Oil filter element</li> </ul>	<ul style="list-style-type: none"> <li>• Air filter element</li> <li>• Oil filter element</li> <li>• Oil separator element</li> </ul>	<ul style="list-style-type: none"> <li>• Air filter element</li> <li>• Oil filter element</li> <li>• Oil separator element</li> <li>• Parts kit - Minimum pressure valve</li> <li>• Temperature-control valve maintenance kit</li> <li>• Intake valve maintenance kit</li> <li>• Water cooler seal maintenance kit</li> </ul>

## Comprehensive and thoughtful after-sales service

As a professional system service provider, we have professional technical service modes and technical quality management, a strong technical service team and sufficient parts inventory, always ready for providing service for domestic and foreign customers.

- Technical guidance on newly-built air compressor stations
- Site commissioning by professional technicians
- Training of customer's equipment management personnel
- Regular visit to customers and free pre-inspection of equipment
- 24-hour free hot-line for receiving feedbacks and customer needs
- Genuine parts for quality assurance
- Multiple options for extended warranty service to meet different needs of customers
- Timing service kit for easier maintenance; by ordering the service kit, customers can have and use the right parts quickly and easily
- GD air compressor provides a variety of customization options to meet the needs of different industries and different processes
- Overall assessment of air compressor system: No matter what brand of air compressor and post-processing equipment customers use, we have a professional team and equipment to collect and analyze the data of the entire system, track system performance, and provide professional solutions to improve system efficiency, reduce leakage and reduce operation cost

# Gardner Denver Manages Your System with Heart and Soul

Gardner Denver has been manufacturing air compressors, blowers, vacuum pumps and related accessories for over 160 years. We are committed to helping customers achieve greater success by constantly improving the quality of our products and services through self-iteration and continuous innovation.

Gardner Denver is always ready to provide you with efficient, reliable and energy-saving compressed air and system solutions.

## Oil-flooded Fixed Speed Air Compressor

- Single-state air compressor  
0.81-53.2m<sup>3</sup>/min/7~14barg
- Two-state air compressor  
29.6-70.1m<sup>3</sup>/min/7~14barg
- Integrated air compressor with built-in refrigerated air dryers  
0.81-3.7m<sup>3</sup>/min/7-12.5bar



## Oil-flooded Permanent Magnetic VSD Air Compressor

0.15-31.0m<sup>3</sup>/min/7~10barg



## Oil-free Air Compressor

- Oil-free scroll air compressor  
0.21-3.78m<sup>3</sup>/min/8~10barg



## Water lubricating oil-free permanent magnetic VSD air compressor

- Normal-pressure model  
0.3-27m<sup>3</sup>/min/7~10barg



## Water lubricating oil-free permanent magnetic VSD air compressor

- Low-pressure model  
0.6-70m<sup>3</sup>/min/3-4barg
- Medium-pressure model  
1.4-40m<sup>3</sup>/min/20-40barg



## Compressed Air Purification System

- Pipelined filter
- Refrigerated dryer
- Desiccant dryer



## After-sales Services for Peace of Mind

- 24-hour toll-free service hotline
- Genuine spare parts
- Customized services



## System Solutions

- Heat recovery system
- iConn intelligent connected platform



**Gardner  
Denver**