Oil-flooded Screw Air Compressor

GDK 185-315kW

Gardner Denver

Ingersoll Rand

Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to Making Life Better for our employees, customers, shareholders, and planet. Customers lean on us for exceptional performance and durability in mission-critical flow creation and industrial solutions. Supported by over 80+ respected brands, our products and services excel in very complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity, and efficiency. For more information, visit www.IRCO.com.

1859

Invention of first effective speed controls for steam engines; foundation of Gardner Governor Co.

1927

Merger with Denver Rock Drill Co. to form Gardner Denver.

1950s/60s

Continued expansion of the North American market through several acquisitions, including CycloBlower and Keller Tools

Establishment of UK-based CompAir

1990s

Further global expansion through a number of acquisitions, including the well-known brands CompAir, NASH, Elmo, Rietschle, Runtech, Tamrotor, LeROI and Robuschi.

1994

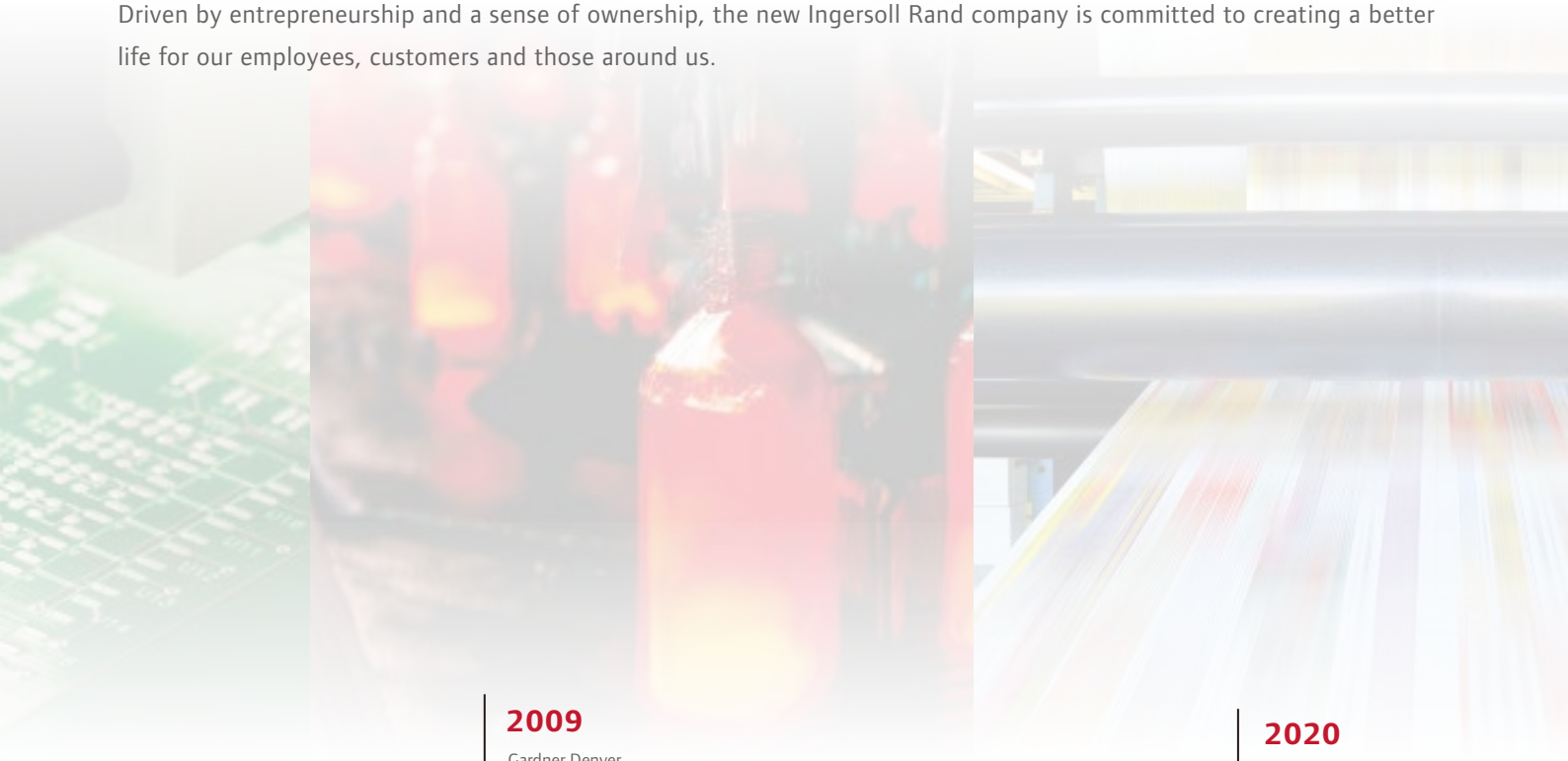
Gardner Denver, Inc. Listed on NYSE

Gardner Denver

Gardner Denver brand of Ingersoll Rand Group, founded in 1859, focuses on the development of innovative products and engineering solutions to solve operational problems for our customers. With global collaboration, strong customer service awareness and profound application expertise, we provide reliable and energy-efficient equipment for a variety of manufacturing and process applications. Since March 1, 2020, Ingersoll Rand Industrial Group and Gardner Denver have formally merged to form a new Ingersoll Rand company.

Now, as a larger and stronger company, we can better provide you with more comprehensive solutions and a wider portfolio of products and services.

Driven by entrepreneurship and a sense of ownership, the new Ingersoll Rand company is committed to creating a better life for our employees, customers and those around us.



Early 2000s

Gardner Denver established itself as a global provider of compressed air and vacuum technology.

2009

Gardner Denver celebrates 150 years of industrial innovations.

2013

Acquired by American multinational private equity firm KKR & Co.

2017

Gardner Denver Rejoins NYSE on May 12, 2017 as a public company once again.

2020

Completion of the merger with the Ingersoll Rand Industrial segment

Optimized Internal Structure Design

Efficient Air Inlet System

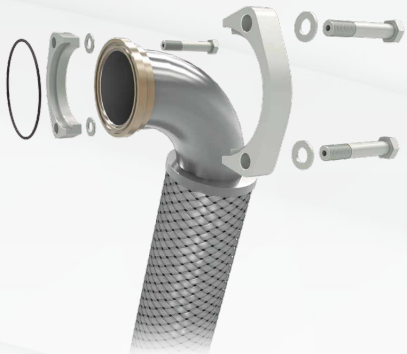
- Choose large-margin intake filters
- Adopt the air filter design with ultra-low pressure drop to improve unit efficiency
- Reduce maintenance frequency and maintenance cost

Intelligent Controller

Luminance-series intelligent controllers can monitor system parameters in real time, with the standard IoT function realizing the monitoring of air compressor status anytime and anywhere as well as the early warning, so as to prevent unnecessary and sudden downtime, which may causes loss.

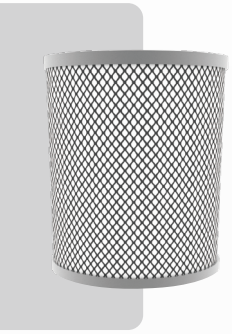
Robust and Durable Motor

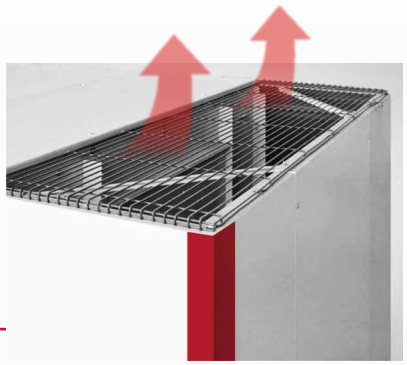
- 46℃ ambient temperature design
- Efficient quadrupole motor
- Adopt imported bearings of international famous brands
- Standard over-temperature protection for front bearing PT100
- Standard over-temperature protection for three-phase stator winding RTD



V-shield™ Protection Technology

- Use O-ring end sealing connectors made of fluorine rubber for all connectors at key positions.
- Almost eliminate the possibility of leakage completely.
- Repeated connection indefinitely
- Eliminate the axial clearance required for typical sealed connections
- Resistance to chemical corrosion



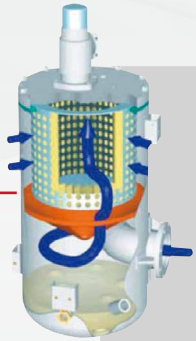


Cooling and Exhaust System

- The CTD of the large-margin after-cooler is between 10-11.5℃, which ensures a better cooling effect.
- The water cooler uses the pipe bundles made of 304 stainless steel, which is resistant to corrosion and scaling and has better performance.
- The top exhaust design conforms to the thermodynamic principle and provides convenience for installing the air shield.

Innovative Airend

Newly-designed efficient airend, with efficiency increasing by up to 16% and gas volume increasing by up to 14%, thus achieving long-term reliable operation.



Unique Oil-gas Separation System

- Unique two-stage buffer, and three-stage separator
- This separator reduces the oil content of the exhaust gas and reduces the number of times for coolant recharge
- Effectively reduce the impact of too much or too little oil in the separator on the oil content of compressed air.

Newly-designed Efficient Airend

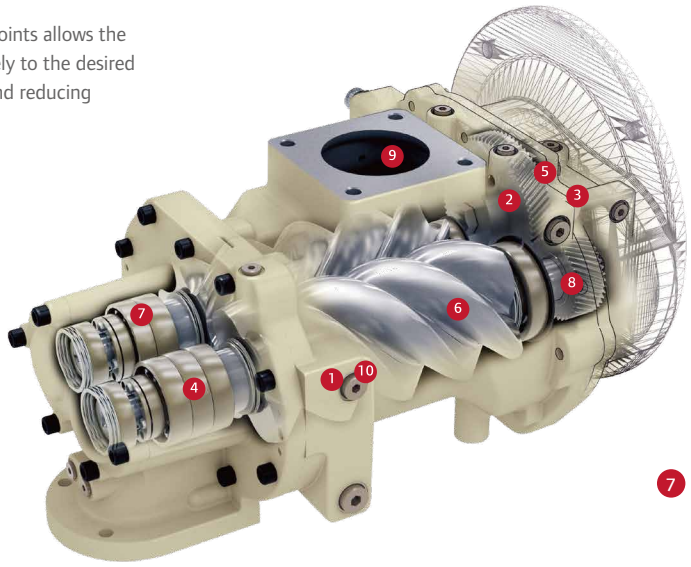
The energy consumption of air compressor accounts for a large proportion of your company's energy cost. Our engineers and designers use advanced computer-aided simulation technology to optimize the airend, which increases the efficiency by 12%. In addition, the airend has the outstanding gas production in the industry, with lower operation noise, longer service life and more reliable performance: Multiple advantages help your company further increase profits.

1. Careful arrangement of lubrication points allows the lubricating oil to be delivered precisely to the desired location, thus increasing reliability and reducing energy consumption.

2. Advanced gear design enables more efficient and reliable transmission of driving energy.

3. Integrated gearbox reduces wind drag loss and drivetrain length, making performance more efficient and maintenance easier.

4. Enhanced bearing arrangements help reduce drag and improve energy management, thus increasing reliability and performance.



5. Maintenance-free sealed drive system requires no regular maintenance and protects it from dust and moisture.

6. Optimized screw rotor profile increases energy efficiency by 16%, increase displacement by 14%, and also reduce energy costs.

7. Low-friction bearing arrangement helps improve energy efficiency.

8. Optimized gear lubrication increases operational reliability and reduces energy consumption by skillfully injecting lubricating oil into gear engaging positions.

9. Streamlined inlet and outlet channels reduce pressure drop.

10. Optimized fuel injection process reduces the temperature and improves the efficiency in the compression process.

Advantage of VSD

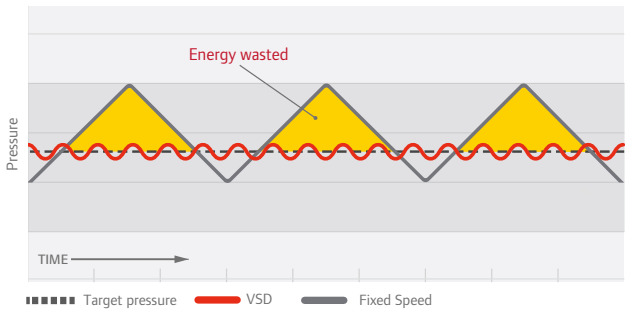
VSD air compressor improves its efficiency and reliability to a greater extent. GD air compressor can not only achieve a wide range of adjustment, but also allow the air compressor to enter the standby mode at ultra-low speed, without no-load operation. VSD air compressor can maximize energy savings, while reliably delivering clean compressed air.

Save

Energy by 35%

On the basis of traditional fixed-frequency compressor

Fixed-frequency compressor usually requires a larger control range of pressure, while variable-frequency compressor is closer to the target pressure. For every 1bar (14.5psi) above the required pressure, an additional energy consumption by 7% is required!



GDK200/250HPM permanent magnet variable speed air compressor, equipped with rare-earth permanent magnet motor, this compressor offers a simpler structure, higher reliability, and superior power density compared to traditional AC asynchronous motors. It also features a wide speed regulation range for enhanced performance and efficiency.

Performance Parameters of GDK185-315VSD Variable-speed Units

Unit model	Pressure range barg	Rated power kW	Gas displacement (FAD) m^3/min	Size (L x W x H) mm	Weight kg
GDK185VSD_A	7-10	185	12.1-37.0	4076 X 1930 X 2102	4998
GDK185VSD_W	7-10	185	12.1-37.0	3626 X 1930 X 2102	4900
GDK220VSD_A	7-10	225	16.8-46.0	4000 X 1930 X 2146	6255
GDK220VSD_W	7-10	225	16.8-46.0	3517 X 1930 X 2147	6255
GDK275VSD-A	7-10	275	17.6-56.5	3850 X 2150 X 2240	6570
GDK275VSD-W	7-10	275	17.6-56.5	3140 X 2150 X 2005	5520
GDK315VSD-A	7-10	315	20.1-64.0	3850 X 2150 X 2240	7160
GDK315VSD-W	7-10	315	20.3-64.0	3140 X 2150 X 2005	5520

Performance Parameters of GDK200/250HPM Permanent Magnet Variable-speed Units

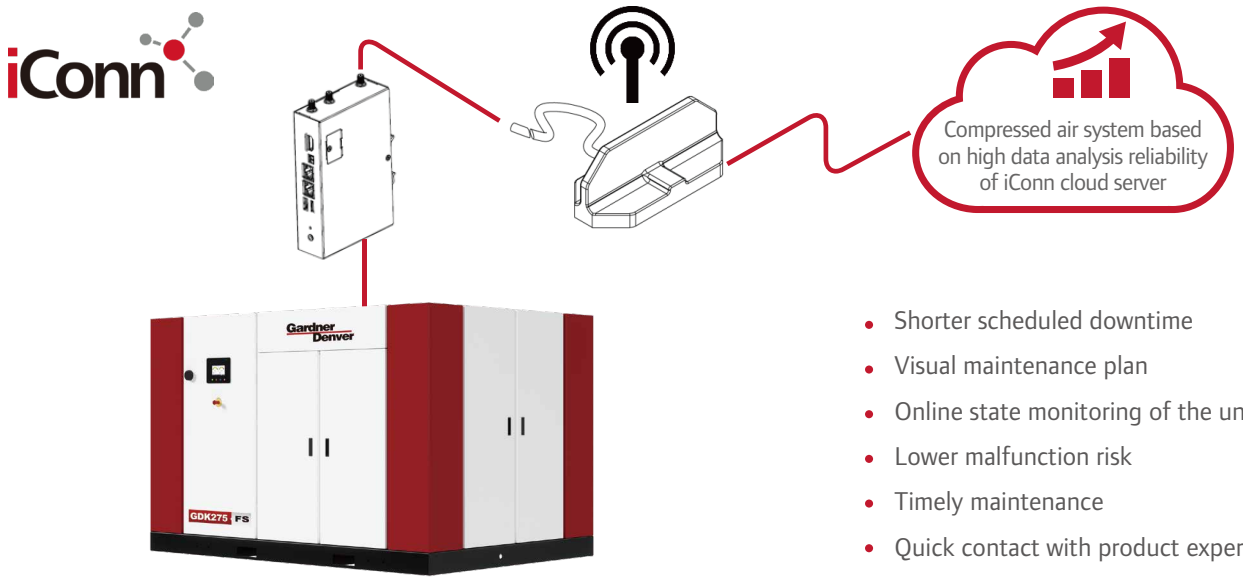
Unit model	Pressure range barg	Rated power kW	Gas displacement (FAD) m^3/min	Size (L x W x H) mm	Weight kg
GDK200HPM-A	7-10	200	10.4-42.5	3350 X 2150 X 2320	4213
GDK200HPM-W	7-10	200	10.4-42.5	3350 X 2150 X 2320	3900
GDK250HPM-A	7-10	250	10.4-51.0	3350 X 2150 X 2320	4213
GDK250HPM-W	7-10	250	10.4-51.0	3350 X 2150 X 2320	3900

Performance Parameters of GDK185-315FS Fixed-speed Units

Unit model	Maximum working pressure barg	Rated power kW	Gas displacement (FAD) m3/min	Voltage V	Size (LxWxH) mm		Weight(kg)	
					Air-cooled	Water-cooled	Air-cooled	Water-cooled
GDK185_A/W7.5	7.5	185	37.0	400V	4076 x 1930 x 2102	3626 x 1930 x 2102	4805	4725
GDK185_A/W8.5	8.5	185	35.7	400V	4076 x 1930 x 2102	3626 x 1930 x 2102	4805	4725
GDK185_A/W10	10.0	185	32.4	400V	4076 x 1930 x 2102	3626 x 1930 x 2102	4805	4725
GDK200FS-7A/W	7.5	200	41.8	400V	3350 X 2150 X 2320	3350 X 2150 X 2320	6010	5713
				6kV/10kV	3350 X 2150 X 2320	3350 X 2150 X 2320	6220	5800
GDK200FS-8A/W	8.5	200	40.2	400V	3350 X 2150 X 2320	3350 X 2150 X 2320	6010	5713
				6kV/10kV	3350 X 2150 X 2320	3350 X 2150 X 2320	6220	5800
GDK200FS-10A/W	10.0	200	36.2	400V	3350 X 2150 X 2320	3350 X 2150 X 2320	6010	5713
				6kV/10kV	3350 X 2150 X 2320	3350 X 2150 X 2320	6220	5800
GDK220_A/W7.5	7.5	225	45.6	400V	4000 X 1930 X 2146	3517 X 1930 X 2147	5584	5584
				6kV/10kV	4650 X 1930 X 2146	4168 X 1930 X 2147	6707	6707
GDK220_A/W8.5	8.5	225	43.2	400V	4000 X 1930 X 2146	3517 X 1930 X 2147	5584	5584
				6kV/10kV	4650 X 1930 X 2146	4168 X 1930 X 2147	6707	6707
GDK220_A/W10	10.0	225	38.8	400V	4000 X 1930 X 2146	3517 X 1930 X 2147	5584	5584
				6kV/10kV	4650 X 1930 X 2146	4168 X 1930 X 2147	6707	6707
GDK250FS-7A/W	7.5	250	51.0	400V	3350 X 2150 X 2320	3350 X 2150 X 2320	6010	5713
				6kV/10kV	3350 X 2150 X 2320	3350 X 2150 X 2320	6220	5800
GDK250FS-8A/W	8.5	250	47.4	400V	3350 X 2150 X 2320	3350 X 2150 X 2320	6010	5713
				6kV/10kV	3350 X 2150 X 2320	3350 X 2150 X 2320	6220	5800
GDK250FS-10A/W	10.0	250	44.0	400V	3350 X 2150 X 2320	3350 X 2150 X 2320	6010	5713
				6kV/10kV	3350 X 2150 X 2320	3350 X 2150 X 2320	6220	5800
GDK275FS-7A/W	7.5	275	56.5	400V	3850 X 2150 X 2240	3140 X 2150 X 2005	6020	5020
				6kV/10kV	3850 X 2150 X 2240	3140 X 2150 X 2005	6470	6000
GDK275FS-8A/W	8.5	275	53.0	400V	3850 X 2150 X 2240	3140 X 2150 X 2005	6020	5020
				6kV/10kV	3850 X 2150 X 2240	3140 X 2150 X 2005	6470	6000
GDK275FS-10A/W	10.0	275	48.0	400V	3850 X 2150 X 2240	3140 X 2150 X 2005	6020	5020
				6kV/10kV	3850 X 2150 X 2240	3140 X 2150 X 2005	6470	6000
GDK315FS-7A/W	7.5	315	64.0	400V	3850 X 2150 X 2240	3140 X 2150 X 2005	6600	5580
				6kV/10kV	3850 X 2150 X 2240	3140 X 2150 X 2005	6660	6075
GDK315FS-8A/W	8.5	315	60.8	400V	3850 X 2150 X 2240	3140 X 2150 X 2005	6600	5580
				6kV/10kV	3850 X 2150 X 2240	3140 X 2150 X 2005	6660	6075
GDK315FS-10A/W	10.0	315	55.0	400V	3850 X 2150 X 2240	3140 X 2150 X 2005	6600	5580
				6kV/10kV	3850 X 2150 X 2240	3140 X 2150 X 2005	6660	6075

Intelligent Connectivity Platform

The data system in GD air compressor aims to maximize the uptime and facilitate safe management of the owner's operating data. The system regularly sends data to cloud data platform, which can be accessed by customers through laptop, tablet PC or intelligent mobile phone to keep up with the running status at all times. We offer layered services for customers to select the required monitoring and analysis services according to their specific operating needs.



- Shorter scheduled downtime
- Visual maintenance plan
- Online state monitoring of the unit
- Lower malfunction risk
- Timely maintenance
- Quick contact with product experts

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

Content and cycle of replacement / maintenance

2000-hour service kit

- Air filter element
- Oil filter element

4000-hour service kit

- Air filter element
- Oil filter element
- Oil separator element

8000-hour service kit

- Air filter element
- Oil filter element
- Oil separator element
- Parts kit - Minimum pressure valve
- Temperature-control valve maintenance kit
- Intake valve maintenance kit
- Water cooler seal maintenance kit

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-stage air compressor
0.81-64.00m³/min
7~14barg

Two-stage air compressor
29.60-70.10m³/min
7~14barg

Integrated Air compressor with inbuilt refrigerated dryer
0.81-3.70m³/min
7~12.5barg

Oil-flooded PM VSD Air Compressor

0.15-31.00m³/min
7~10barg

Oil-flooded General VSD Air Compressor (Non-permanent Magnet)

12.10-70.10m³/min
7~14barg

Oil-flooded Low Pressure Air Compressor

Low pressure 5barg
50.4-61.5m³/min
4.5-5.5barg

Oil-free Air Compressor

Oil-free scroll air compressor
0.21-3.78m³/min
8～10barg

Water Lubricating Oil-free Permanent Magnetic VSD Air Compressor

Low-pressure model
0.60-70.00m³/min
3~4barg

Normal-pressure model
0.30-27.00m³/min
7～10barg

Medium-pressure model
1.40-40.00m³/min
20~40barg

Compressed Air Purification System

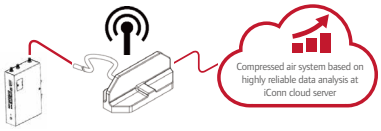
Pipelined filter
Refrigerated dryer
Desiccant dryer

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 website

Gardner Denver LinkedIn

Zalo

Scan QR code to follow account

Gardner Denver