Gardner Denver

GARDNER DENVER | COMPRESSED AIR TECHNOLOGIES

Screw Compressors

GDK 7 - 22 & GDK 7 - 22 HPM Air Stations

The GDK Series from 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.

GDK series product line is the first product line designed by integrating the advantages of the product lines of Ingersoll Rand Industrial Group and Gardner Denver Industrial Group in Asia-Pacific after their merger.

The stringent engineering design and quality control of the GDK Series of compressors incorporates world class technology and global resource to deliver some of the lowest lifetime operating costs, presenting as one of the best value compressors in the market.

Efficiency Airend

Precision manufactured using industry leading CNC and laser measurement technology the high output compression, element coupled with highly efficient bearings and seals, make the GDK series by Gardner Denver one of the most reliable and best value performers in the market.

Everything under Control
- Le-120 Intelligent Controller

The Le-120 Controller ensures safe, reliable operation. Efficiently monitoring system pressure and all critical components of your compressor. Providing a simple to use touch screen interface along with intelligent control to ensure operation is optimised to suit your compressed air needs.

- Colour Touch Screen
- Embedded IoT functionality
- All-round protection for motors, maximum prevention of damage caused by short circuit, blocking, phase loss, overload, unbalance, etc.
- Control of motor start/stop and operation
- Anti-reversal protection for air compressor
- Protection of temperature detection and control

- Automatic adjustment of load rate and control of pressure balance
- Multi-level fault alarm
- Support MODBUS RTU communication protocol, flexible choice of remote/local control
- RS-485 communication function allows for the outputting of remote signal to the host computer
- Multi-unit sequent control enables air compressors to operate in different combinations
- Local or Remote control functionality

Pressure Range

7.5 to 12.5 bar

Volume Flow

0.81 to 3.7 m³/min

Motor Power

7.5 to 22 kW

Advanced Design

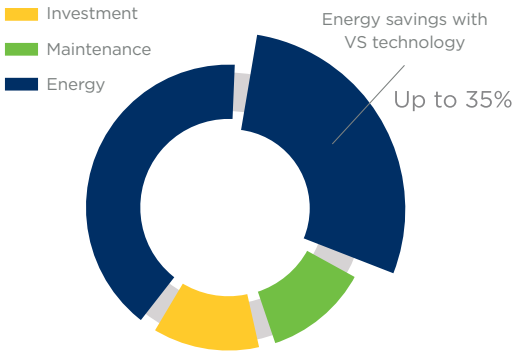
- **Low noise levels**
  Allows the compressor to be placed at the point of use
- **High efficiency cooling system**
  Reliable operation, even in challenging environments
- **Self tensioning belt drive**
  Eliminate the risk of belt slip or loosening. Evenly distributing drive forces to provide balanced bearing load and belt wear. Ensuring peak performance and extending the life of the motor and air end

Reliability. Performance. Value.

The Gardner Denver variable speed drive/motor/compressor combination and the controller, are designed to meet the varying demands of your system at the lowest possible specific power, which benefits you in the form of energy cost savings.

Direct energy savings of up to 35%

The precise pressure control of the HPM compressor allows for a tighter pressure band and a lower average working pressure, resulting in reduced energy consumption.



Indirect energy savings

The lower system pressure obtained by GDK - HPM results in up to 10% additional yearly savings:

- Lower energy consumption of (other) base load machines
- Leakage loss is significantly reduced: e.g. leakage at 6 bar is 13% lower than at 7 bar
- Most compressed air applications consume less air at a reduced pressure

Hybrid Permanent Magnet Motor

A major feature of the hybrid permanent magnetic motor is its detachable motor stator winding, allowing it to be replaced on site.

The second feature is its small size and high power, the volume is only 33% of the conventional variable frequency motor , allowing it to be directly connected with the male rotor of the air end for driving.

Finally, the unique layout eliminates the use of wear parts and motor bearings in the motor.

- High efficiency of up to 96%, while an asynchronous motor of the same power only operates with an efficiency of up to 93%.
- Efficiency difference increases as the load decreases, and the rotor does not need to be electrically excited, resulting in small inductive resistance and high power factor.

The Air Station

Complete air stations to meet the air quality requirements of your project or site.

- Packaged with high quality refrigerated air dryer and world class filtration.
- Mounted on certified pressure vessels, sized for optimal performance, minimizing costly starts per hour.
- Compact solutions to minimize installation foot print and cost.
- Easily accessible components to make servicing simple

Gardner Denver Genuine Spare Parts

Filtering system
Efficient, high-quality, micro-oil quality

- With nanometer filter materials, filter accuracy of up to 1µ
- Improve air quality, oil content less than 2 ppm
- New pre-filtration system reduces the air filter load
- Increase the operating life of the overall unit under complex conditions

Compressed Air Purification

A modern production system and process demands increasing levels of air quality. A Gardner Denver compressed air system utilizing the latest technology provides an energy efficient solution at lowest life cycle costs.

Water Cyclone Separator

Designed for efficient removal of bulk liquid contamination from compressed air.

Compressed Air Filter

Efficient design for water, dust and particle removal.

Condensate Drain Bekomat System

To drain compressed air condensate without loss of compressed air.

Compressed Air Refrigerant Dryer

Gardner Denver offer a full range of energy efficient and environmentally friendly stand alone refrigerant dryers.

Heatless Desiccant Dryers

Heat Regenerative Desiccant Dryer

Nitrogen Generator

Designed to achieve maximum efficiency and gas quality.

GD Connect 12 Multi Compressor Controller

Sequencers for up to 12 units.

iConn
by Gardner Denver

iConn Industry 4.0 Solution

The GDK Series are able to be equipped with iConn as an option. iConn is the smart, proactive real-time monitoring service that delivers in-depth and real-time knowledge on the system to our compressed air users. It enables accurate production planning and total peace-of-mind protection, generating insight and statistics that keep users informed on performance, at the same time highlighting potential issues before they become a problem.

- Condition based monitoring
- Predictive maintenance required
- Full Air Manufacturing Control Optimization
- External data pattern integration

Technical Data

GDK7 - GDK22 Fixed Speed Screw Compressors

Model Number	Pressure (Bar)	Power (kW)	Output (m^3/min)	Connection	Weight (kg)	Dimensions L x W x H (mm)
GDK07 - 7A GDK07 - 8A GDK07 - 10A GDK07 - 12.5A	7 8 10 12.5	7.5	1.22 1.14 1.00 0.81	G3/4	222	716x677x1061
GDK11 - 7A GDK11 - 8A GDK11 - 10A GDK11 - 12.5A	7 8 10 12.5	11	1.69 1.58 1.41 1.23	G3/4	225	716x677x1061
GDK15 - 7A GDK15 - 8A GDK15 - 10A GDK15 - 12.5A	7 8 10 12.5	15	2.5 2.4 2.07 1.7	G1	465	984x1017x1065
GDK18 - 7A GDK18 - 8A GDK18 - 10A GDK18 - 12.5A	7 8 10 13	18.5	3.1 3.00 2.61 2.15	G1	509	993x1020x1118
GDK22 - 7A GDK22 - 8A GDK22 - 10A GDK22 - 12.5A	7 8 10 13	22	3.7 3.41 3.08 2.72	G1	524	993x1020x1118

GDK7 HPM - GDK22 HPM Regulated Speed Screw Compressors

Model Number	Pressure (Bar)	Power (kW)	Output (m^3/min)	Noise Level dB(A)	Weight (kg)	Dimensions L x W x H (mm)
GDK7 HPM	7 8 10 12.5	7	0.28 - 1.18 0.26 - 1.09 0.22 - 0.95 0.15 - 0.80	69	169	840x680x810
GDK11 HPM	7 8 10 12.5	11	0.28 - 1.65 0.26 - 1.55 0.22 - 1.39 0.15 - 1.20	69	169	840x680x810
GDK15 HPM	7 8 10 12.5	15	1.01 - 2.54 0.99 - 2.40 0.96 - 2.07 0.92 - 1.77	69	325	900x800x1300
GDK18 HPM	7 8 10 12.5	18.5	1.01 - 3.12 0.99 - 3.00 0.96 - 2.61 0.92 - 2.25	66	340	900x800x1300
GDK22 HPM	7 8 10 12.5	22	1.01 - 3.66 0.99 - 3.50 0.96 - 3.22 0.92 - 2.72	66	342	900x800x1300



As a global manufacturer of air compressors, blowers, pumps and other equipment, Gardner Denver produces one of the industries largest ranges of high performance industrial screw, reciprocating, centrifugal and vane compressors and compressed air equipment. Complimented by high quality radial, side channel, liquid ring, rotary vane, rotary lobe, claw, screw, multi stage centrifugal blowers and vacuum pumps.

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www.gardnerdenver.com