ESM7-22 Series
Screw Compressors

GD
GARDNER DENVER

Experience Proven Results™

GARDNER DENVER

Absolute Reliability

The growing industrial demand for compressed air requires compressor manufacturers to provide more reliable, economic and versatile compressors within a small footprint. Gardner Denver addresses these requirements, with the introduction of the new ESM 7–22 Series.

Without an efficient, durable air-end, a unique compressor design means nothing. That's why Gardner Denver designs and manufactures this critical component to exacting standards. Tens of thousands of our air-ends are in operation world-wide, proving that the heart of the ESM 7–22 Series can stand the test of time.

➜ Designed and manufactured in accordance with ISO 9001 and ISO 14001 certification, the ESM series meets the industry's expectations of the highest quality standards.

CE

TÜV CERT
DIN ISO 9001/
EN 29001
Certificate: 5168

Proven Results Even In Toughest Conditions

Gardner Denver product development is a balance of technology, efficiency and performance — all focused on meeting your demand for compressed air.

Also in smaller business applications

you can measure efficiency, and see the value of year on year saving!

Advanced Design

The ESM 7-22 fixed speed screw compressors are designed to meet the high requirements which the modern work environment and machine operators place on them. As a result, our belt driven ESM 7–22 compressors are extremely energy efficient, quiet, reliable, easy to use, ensures long operating life and deliver optimal air quality.

The number of special options available makes the ESM 7–22 fixed speed compressors the right choice for producing high-quality compressed air for a wide range of needs.
These compressors continue to further strengthen Gardner Denver's success story as a world leader in compressors.

Customised For Flexibility

The basic ESM 7–22 compressors can be equipped with useful options to meet even the toughest demands for building up a flexible compressor station. As a result you will get a compact air solution, which can be installed quickly and efficiently wherever the need for high quality compressed air exists.

➜ **Complete compressor station**
includes compressor and refrigerant dryer, both mounted on a tank

Reliable Add-on Refrigerant Dryer

- Minimum power consumption
- Digital dewpoint indicator
- Condensate drain incorporated
- Environmentally friendly refrigerant

➜ **Ensuring top performance and reliability with minimum pressure losses**

High Quality Air Receiver

- Built to the highest standard EN 87/404

➜ **With pre dryed high quality air, no condensate collects in the receiver.**

➜ **All components are ready to "Plug & Play"**

➜ **Smaller footprint required**

Your Benefits on a View
Quality from A to Z

➜ For these fixed speed compressors, we have generated easy-to-use and accurate drive systems and greatly invested on developing optimal cooling and ventilation. All these features are of direct benefit to the users. Maintenance of these compressors is facilitated by having an user-friendly enclosure.

➜ Low noise level is ensured.

Very Small Installation Footprint

- Thanks to advanced compressor concept
- Passes through a standard doorway
- Simplifies installation work
- Can be installed where it is needed
- Expensive pipework can be eliminated

Automatic Belt Tensioning

- Maintenance-free
- Provides correct belt tension
- Ensures long belt life

High Efficiency Motor

- **IP 55 motor**

  The drive/motor/compressor combination and the controller are designed to meet the demands of your system at the lowest possible specific power.

High Ambient Temperature As A Standard (45°C)

- Ensures continuous operation even under harshest conditions
- Ensure stress-free operation through efficient heat dissipation

Fully Integrated Airend Design

- Well proven airends

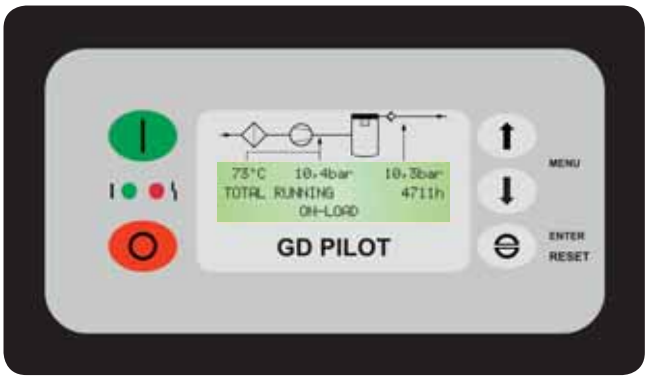
  The innovative integrated design, with oil separation, oil filter, thermostatic bypass valve, reduces the number of external hoses and components resulting in increased reliability.

High Modern Control System

GD PILOT Control System for reliability and simplicity of operation

The new control system ensures reliable operation and protects your investment by continuously monitoring the operational parameters.

The “GD PILOT” controller also has the capability to have programmable inputs and outputs, control additional equipment as well as providing the following features with a clear readable text.



- Discharge/line pressure display
- Air/Oil temperature display
- Total hours run and loaded hours
- Service due indicator
- Enhanced fault log monitor
- Real time clock
- Timer controlled stop/start
- Remote stop start
- Auto restart on power failure
- Second pressure setting
- Status indication
- RS485 – Modbus RTU

More Benefits

- Three line LCD interface
- Dryer control
- Programmable input and outputs

Dual Position Ability

- Flexibility for tank mounted version
- User-friendly design

Easy Servicing

The design of these packages assures the service points are readily accessible. The enclosure side doors are hinged and removable to allow complete access to all service points. The reduced number of moving parts also lowers maintenance costs.

Gardner Denver carries a full line of after sales products to meet all your requirements. By using original spare parts, you will save both time and money in the long term.

Service Friendly Design

- Short servicing times
- Long service intervals
- Reduced service costs

Minimum Space Requirements

- Small footprint saves space, allowing installation even in restricted areas

First Class Accessibility

- Panels and covers easily removable with quick-release catches

Easy Service Items

- Spin on/off separator cartridge gives residual oil carryover of less than 3mg/m³
- Quick oil change via external drain
- Easy access suction filter element

Combined Air/Oil Cooler

- Low air discharge temperature
- No unnecessary wear or condensate in the system

TECHNICAL DATA

ESM 7–22 – Stand alone compressors

SCREW COMPRESSOR	TYPE	ESM 7			ESM 11			ESM 15			ESM 18			ESM 22		
Nominal pressure	bar g	7.5	10	13	7.5	10	13	7.5	10	13	7.5	10	13	7.5	10	13
FAD[1]	m³/min	1.30	1.06	0.85	1.82	1.61	1.32	2.70	2.26	1.80	3.25	2.74	2.34	3.65	3.21	2.61
Drive Motor	kW	7.5			11			15			18.5			22		
Voltage	V/Hz/Ph	400 / 50 / 3														
Noise Level[2]	db (A)	70			70			70			71			71		
Length x Width x Height	mm	667 x 630 x 1050									787 x 698 x 1202					
Weight	kg	205			219			335			361			367		

ESM 7–22TK – TurnKey compressor solution (incl. add-on dryer and tankmounted)

SCREW COMPRESSOR	TYPE	ESM 7TK		ESM 11TK		ESM 15TK		ESM 18TK		ESM 22TK	
Nominal pressure	bar g	7.5	10	7.5	10	7.5	10	7.5	10	7.5	10
FAD[1]	m³/min	1.30	1.06	1.82	1.61	2.70	2.26	3.25	2.74	3.65	3.21
Drive Motor	kW	7.5		11		15		18.5		22	
Voltage	V / Hz	400 / 50 / 3									
Noise Level[2]	db (A)	70		70		70		71		71	
REFRIGERATION DRYER[3]	**TYPE**	**GDD 11**		**GDD 16**		**GDD 26**		**GDD 36**		**GDD 36**	
Voltage	V / Hz	230 / 50 / 1									
Refrigerant	Type	R134a									
AIR RECEIVER	**VOLUME**	**270 Litres**				**500 Litres**					
Length x Width x Height	mm	1541 x 808 x 1577				1883 x 867 x 1825					
Weight	kg	356		371		560		615		620	

[1] Data measured and stated in accordance with ISO 1217 Ed. 4, Annex C and Pneurop / Cagi PN2CPTC2 and the following conditions:
Air Intake Pressure 1 bar a
Air Intake Temperature 20° C
Humidity 0 % (dry)

[2] Measured in free field conditions in accordance with ISO 2151 and ISO 9614-2, tolerance ± 3 dB(A).

[3] The refrigerant dryer requires a separate electric supply. Data refer to DIN ISO 7183, 8573-1:2001 (class 4, pressure dew point 3° C).

ESM 7–22 – Stand alone compressors

ESM 7–22TK – TurnKey compressor solution

Whatever the Application – All from One

Gardner Denver is a recognised leader providing compressed air and gas, vacuum and fluid transfer technologies to industries throughout the world. With more than 150 years of manufacturing experience, we have earned the trust of our customers.

Our products and engineered solutions are sold through multi-channel, worldwide distribution systems and are used for applications in virtually every market sector, including industrial manufacturing, transportation, to environmental processes, to healthcare applications, and to energy production.

Other Innovative Products

High Quality Variable Speed Compressors

Designed from the ground up as a variable speed solution, the VS Series produces one of the widest turndown range in the industry.

Coupled with an extremely high efficiency and maximum reliability the VS Series provides a flexible solution in the market with convincing features and controls.

- Maximum output
- Variable speed
- Extremely low noise levels
- Wide turndown range
- Advanced microprocessor control system

For additional information please contact Gardner Denver or your local representative.

GARDNER DENVER

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