

GEA Grasso screw compressors

Screw compressors for the industrial refrigeration and air conditioning

Whether it's in the food industry, chemical industry, in offices or in shipping, they all need refrigeration. GEA Refrigeration Technologies has the optimal cooling and air conditioning solutions for your requirements. We place particular value on energy efficiency, reliability, cost efficiency and sustainability.

First class work based on proven developments

GEA Refrigeration Technologies, part of the global GEA Group, is synonymous with industrial refrigeration technology. We have been in the business of cooling processes and products for decades. The first class quality of our screw compressors is the product of years of experience in compressor technology. Everything is focused on value and functionality from development in our research labs to the production processes and quality assurance.

Both our products and our customer service are first class. With a global sales and service network we can be on site almost anywhere in the world where you need us. Our software tools also support you in selecting the optimal compressor as well as in the search for the right spare parts.



Special highlights

Energy efficiency

- Stepless capacity control
- Vi control for high efficiency in part and full load
- Patented rotor profile, designed for efficient operation and smooth running
- Economizer operation

Reliability & safety

- Anti gas pulsation system for safe part load operation and high pressure ratios
- High performance bearings for a long product lifetime
- Hydraulic relief of axial bearings
- Hermetic position indicating for capacity and Vi control

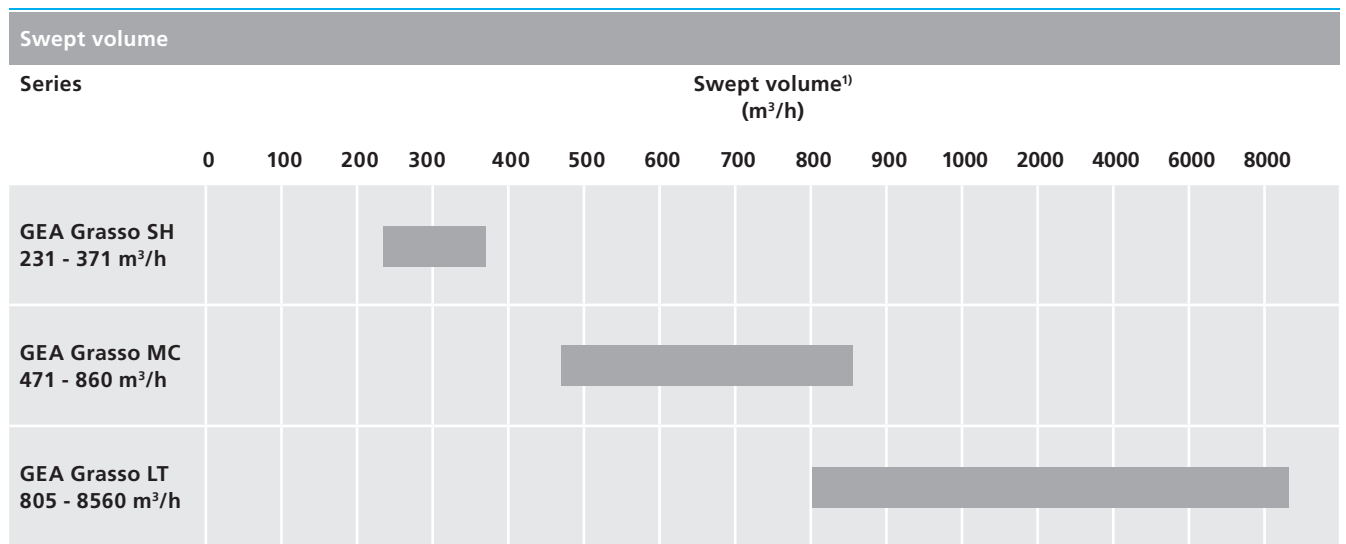
Easy maintenance

- Easy replacement of axial bearings
- Measuring faces for vibration monitoring

Options

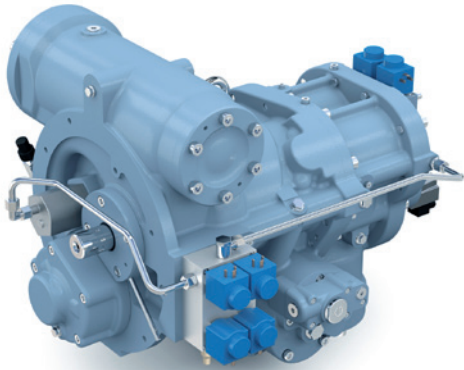
- Pressure ratings: 28 bar and 52 bar, other design pressure upon request
- Particular design for high pressure compressors: Housing material (e.g. nodular cast iron), customized rotor geometry, reinforced thrust bearing (TRIAX design), high performance shaft seal, stronger driving shaft end, etc.
- Rotor position system
- Explosion proof design upon request
- Approvals according API 619 or ISO 10440 (for GEA Grasso LT series)
- Further approvals upon request

Product overview



1) at 2940 min⁻¹

GEA Grasso SH



The GEA Grasso SH series comes in four sizes with a swept volume ranging from 231 to 372 m³/h. The simple design is owed by the integration of the complete oil management system with only one oil connection and important package elements in the compressor. The screw compressors come equipped with connections for monitoring pressure and temperature, position displays on the control screen, and controlling the integrated solenoid valve assembly for combined Vi and capacity adjustment. The direct assignment of the solenoid valves to Vi and capacity regulation and the connection of pressure and temperature sensors on the compressor ease assembly and service work on the package. The parallel slide system allows for Vi optimization and part load adaption to take place simultaneously and independently of one another. It means that even in part load operations a low-loss work process is possible for the screw compressor.

Technical data

- Integration of package components
- Integration of oil management system
- Compact design
- Rotors completely equipped with roller bearings
- Capacity and Vi control by parallel slide system
- Suitable for all standard DIN-flange motors

Technical data										
Series	Compressor type ¹⁾	Swept volume ²⁾ (m ³ /h)	Swept volume ³⁾ (cfm)	Max. design pressure (bar)	Dimensions (mm)			DN1 ⁴⁾ (mm)	DN2 ⁵⁾ (mm)	Weight ⁶⁾ (kg)
					L ⁶⁾	W	H			
GEA Grasso SH	C	231	164	28 / 52	888	585	560	80	50	313
	D	265	188	28 / 52	918	585	560	80	50	324
	E	321	228	28 / 52	975	675	670	100	65	460
	G	372	264	28 / 52	1004	675	670	100	65	471

1) regarding swept volume, 2) at 2940 min⁻¹, 3) at 3550 min⁻¹, 4) suction connection, 5) discharge connection, 6) length and weight depending on motor

Capacity					
Series	Compressor type ¹⁾	28 bar compressor ²⁾ (kW)		52 bar compressor ²⁾ (kW)	
		Cooling capacity ³⁾ NH ₃ -35/+35 °C	Cooling capacity NH ₃ 0/+35 °C	Cooling capacity CO ₂ -50/-5 °C	Heating capacity NH ₃ +35/+80 °C
GEA Grasso SH	C	50	194	226	587
	D	60	230	268	-
	E	72	279	312	839
	G	85	330	369	-

1) regarding swept volume, 2) at 2940 min⁻¹ with 5 K superheat and 0 K subcooling, stated temperature values: evaporation/condensation, 3) with economizer



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

GEA Refrigeration Technologies

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