



# EA Screw

Plug & play compressor units for industrial cooling and heating



# Future-proof design for your refrigeration & heating systems

Whether in the food, beverage or chemical industry, in offices or laboratories, in logistics or in leisure facilities: Refrigeration and heating are always in demand. GEA offers high-quality screw compressor systems for your individual requirements.

## Industry-leading screw compressor systems

As one of the largest suppliers of process technology, GEA offers state-of-the-art equipment for a wide range of industries. Years of experience in compressor technology have made GEA a leading manufacturer, with a broad portfolio characterized by intelligent design and premium components for maximum quality, efficiency and reliability.

While our screw compressors are suitable for all common refrigerants, GEA focuses on the natural refrigerants ammonia (NH<sub>3</sub>) and CO<sub>2</sub>. Due to its high volumetric efficiency and zero global warming potential, NH<sub>3</sub> is a particularly future-proof choice in line with the F-gas regulation.

Our processes also focus on value, functionality and sustainability – from R & D, design, engineering and quality control to sales, after sales and service. GEA's worldwide network supports you almost everywhere. Use our powerful software tool to configure and compare screw compressor packages and select the ideal solution for you.

## GEA screw packages key characteristics

- **Broad portfolio:** Choose your solution to fit your needs, for high- or low-temperature applications, with single-stage, two-stage or dual-stage packages.
- **Sustainable and future-proof equipment:** Our experience and focus on natural refrigerants help you to build a cost-effective and sustainable facility for years of excellent operation.
- **Energy efficiency:** State-of-the-art components ensure industry-leading efficiency and drastically reduce energy costs.
- **Reliability and longevity:** A sophisticated safety concept, project-specific configurations of bearings and oil supply and minimized weld seams make GEA packages safe, reliable and durable.
- **Economical service:** Reduce your total cost of ownership with low-maintenance and easy-to-service machines.

# Optimum solutions for every application

GEA screw compressors have been established in many industries around the world for decades, serving all applications requiring cooling and heating.



## Food and beverages

A strict temperature control is crucial in the food, dairy and beverage industry to ensure top quality and maintain official standards. GEA's screw compressor packages are designed to offer compact solutions to safely and efficiently maintain the cold chain. A lot of processes require heating, too, where traditionally boilers are used. Heat recovery options and specific heat pump packages can replace fossil fueled systems and reduce operating costs and CO<sub>2</sub> emissions.

- **Every third chicken nugget is made with GEA:** The food industry relies on GEA screw packages for poultry, pork, beef or fish, but also for fruit and vegetables as well as ready meals – both in the production process and in cold storage.
- **Around every third process line for instant coffee has been installed by GEA:** Freeze-drying or spray-drying is an important step in the production of premium instant coffee, familiar even to consumers.
- **Approx. every second liter of beer is brewed with the aid of GEA solutions:** Lager beers and many other popular beer styles require cold storage and other cooled facilities for successful production.



## Cooling and heating of buildings and other facilities

Almost every type of modern facility needs systems to ensure a comfortable air temperature and healthy working and living conditions. GEA packages not only offer reliable and precise cooling, they also include sophisticated safety devices practically excluding the risk of gas emissions.

The trend towards and need of electrified heating with heat pumps perfectly suits GEA equipment, too. Screw compressor packages are able to perform a large temperature lift and provide high supply temperatures for a wide capacity range.



### Leisure activity installations

From ice rinks to indoor skiing halls, GEA screw compressor technology is found in many leisure facilities around the world. 24/7 availability and operation at a very specific and precise temperature level are key requirements. GEA has established itself as a trusted technology provider for efficient and reliable refrigeration solutions for projects of that kind and is constantly expanding its customer base.



### Marine applications

The growing competition, especially in the cruise industry, and the increasing environmental protection urgently require innovative, efficient, economical and sustainable solutions. The GEA screw connections for maritime applications fulfill the specific demands.

- **Every second container ship in the world sails with GEA equipment on board:**  
A long-term partner to the marine sector, GEA provides equipment for merchant and leisure operations as well as for the fishing industry.



### Chemical and pharmaceutical industry

Both the pharmaceutical and chemical industries place high demands on refrigeration and process heat appliances, where availability, redundancy and reliability are the main criteria. Our screw compressor packages meet these standards with a wide range of options, flexible configurations and highly specialized components that provide solutions to the most demanding customer requirements.

- **Every fourth liter of human blood is handled by GEA equipment:**  
Refrigeration is a fundamental requirement in many processes in the pharma industry.
- **More than a third of all polymer producers are using GEA technology:**  
Leading chemical companies rely on our screw compressor technologies.

## SCOPE OF SUPPLY

GEA screw packages come as plug & play units – pre-mounted and wired on a common base frame, including all the following components:

- Screw compressor with complete driveline (electric motor, coupling)
- Oil separator with three sophisticated separation stages, completed with level indication, heater and draining valve
- Oil cooler or refrigerant injection connection
- Complete oil circuit with oil filtering, oil pump if necessary, automatic oil pressure and temperature control and draining and ventilation valves
- Stop, check and service valves at all relevant spots
- Set of pressure and temperature sensors
- Safety devices including a sophisticated 5-step safety chain against excess pressure
- GEA Omni™ control panel

## OPTIONS

We value flexibility to provide you with an optimum solution for your individual requirements. Choose from a wide array of options, including particularly:

- Motor customization: Choose a specific voltage, efficiency and protection class – or provide a motor of your own choice.
- Economizer port: Improve the efficiency through intercooling and implement an economizer.
- Variable speed drive: Increase peak-load capacities and improve (part-load) efficiency through a frequency controlled variable speed drive operation.
- Oil cooling: Choose liquid or refrigeration cooled coolers or a refrigerant injection system – whatever works best for your conditions on site.
- Heat recovery: Utilize available heating capacity from the oil cooler up to supply temperatures of 75°C.
- Dual oil filters and dual safety valves: Increase the availability of the plant without downtime when servicing filters and safety valves.
- Power panel: Complement your control with a complete starter panel.
- ATEX design: Chose explosion-proof components for installations in chemical applications or in other hazardous environments.
- Certifications: All common approvals available.



PRODUCT OVERVIEW

Series	Motor speed	Cooling/heating capacity (kW)															
		0	100	200	300	400	500	600	700	800	900	1,000	2,000	4,000	6,000	8,000	10,000
GEA Grasso M <sup>1</sup> single-stage	at 4,500 rpm 219–879 kW																
GEA Grasso SP1 <sup>1</sup> single-stage	at 3,600 rpm 646–9,423 kW																
GEA Grasso SP1 <sup>1)</sup> horizontal single-stage	at 3,600 rpm 646–2,699 kW																
GEA Grasso SP1 HP <sup>2</sup> single-stage, heating	at 3,600 rpm 634–> 10,000 kW																
GEA Grasso SP1 HP <sup>3</sup> single-stage R744	at 3,600 rpm 270–3,260 kW																
GEA Grasso SP2 <sup>4</sup> two-stage	at 3,600 rpm 118–2,125 kW																
GEA Grasso SPduo <sup>1</sup> parallel-stage	at 3,600 rpm 344–3,928 kW																

1) R717, -10/+35°C 2) R717, +30/+75°C 3) R744, -50/-5°C 4) R717, -40/+35°C



# GEA Grasso M series packages – Total cost of ownership redefined

In the small to medium capacity range, the new state-of-the-art series GEA Grasso M is your top choice. Remarkably compact and economical, the GEA screw compressor package is engineered according to our principle of maximum energy efficiency and reliability. A new component design and high-end package configuration has enabled us to reduce the footprint to a minimum while significantly improving reliability and product life.

The series offers 8 different models and ranges from 140 to 569 kW (R717 | -10/+35 °C | 2,950 rpm). New high-speed motors and the optional frequency converter with a speed range of 1,000–4,500 rpm not only improve the part-load efficiency significantly but also increase the capacity up to 879 kW.

All this adds up to lower investment, energy and maintenance costs. Chose GEA Grasso M packages for the lowest TCO in the industry.

## At a glance

- Reduced Total Cost of Ownership (TCO)
- Maximum efficiency (5 % better than its predecessor)
- Minimized footprint (up to 70 % lower than common units)





## UNIQUE FEATURES AND ADVANTAGES:

### 1. GEA Omni™ control panel

- High-definition 15.6" display (1,366 × 768 pixel)
- Remote access via GEA OmniLink™
- Full data history via GEA OmniHistorian™
- Configurable Modbus TCP Ethernet communication
- Other common communication protocols supported
- Smart sequencer for efficient plant network management

### 2. New screw compressor design

- Highly efficient, compact design
- Significantly improved rotor profile for industry-leading EER (Energy Efficiency Ratio)
- Extended and variable Vi (internal volume ratio) for better part load efficiency
- Variable speed from 1,000 to 4,500 rpm
- Integrated suction filter with gas-operated non-return valve for excellent part load efficiency with every flow rate

### 3. Capacity and Vi control

- Infinite capacity and Vi control for efficient operation in full and part load
- Capacity control via frequency inverter and/or capacity slide
- Optimized economizer operation (option) for larger pressure differences

### 4. High-performance motors

- Optional high-speed motor for increased capacity and part load efficiency
- Flanged motor for more reliability with minimum vibration and noise emission

### 5. 3-stage oil separator

- Maximum 5 ppm oil carry-over
- Reduced operating costs
- Low oil charge

### 6. Oil Management Center (OMC)

- Oil management functions integrated in a compact block providing a central working area
- Reduced leakage risk
- Closable filter for easy service

### Easy servicing

- Easy access to service parts
- Service-friendly working height

# GEA Grasso SP1 – Efficient, reliable, versatile

The single-stage series GEA Grasso SP1 is designed for medium to the largest capacity requirements and, thanks to the flexible set-up, for highly individual needs. Available are 16 models from 229 to 7,722 kW refrigeration capacity (R717 | -10 / +35°C | 2,950 rpm).

With components fitted on a stable base frame, the packages operate at low noise and vibration levels and allow easy and comfortable access and service – a crucial advantage particularly for large capacities and large-sized components. The design also allows a multitude of options so that clients can customize the package to their individual needs, making the GEA Grasso SP1 series particularly attractive for its versatility.

## Compact variant SP1 horizontal

The first 9 models (529 to 2,212 kW) of the SP1 range are also available in a more compact horizontal oil separator design (driveline mounted on top). This version, GEA Grasso SP1 horizontal, is more standardized and offers a 15 to 20% footprint reduction compared with its vertical counterpart. Ideal for R717 standard applications where machine room space is limited.

## At a glance

- Widest temperature and application range
- Refrigeration capacities over 9 MW
- Versatile design from standard to high customization

## UNIQUE FEATURES AND ADVANTAGES:

### 1. Efficient screw compressor

- Highly efficient, compact design
- GEA-specified rotor profile for industry-leading COP
- Sleeve bearings: infinite lifetime and inherently quiet
- Axial bearings: easy to replace, easy access from non-drive end

### 2. Suction filter combination

- Gas-operated check valve for better COP
- No chatter at low flow rate
- Low pressure loss, reduced leakage risk

### 3. GEA Omni™ control panel

- High definition 15.6" display (1,366 × 768 pixel)
- Remote access via GEA OmniLink™
- Full data history via GEA OmniHistorian™
- Configurable Modbus TCP Ethernet communication
- Other common communication protocols supported
- Smart sequencer for efficient plant network management

### 4. Capacity and Vi control

- Capacity control via frequency inverter and/or capacity slide
- Infinite capacity and Vi (internal volume ratio) control for efficient operation in full and part load
- Optimized economizer operation (option) for larger pressure differences

### 5. 3-stage oil separator

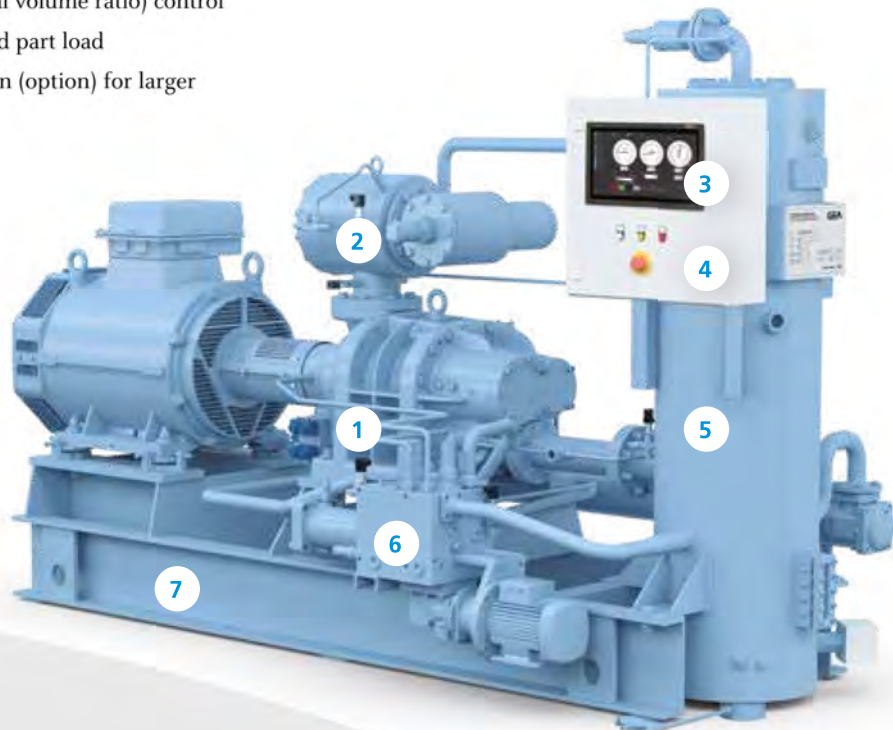
- Low oil charge
- Maximum 5 ppm oil carry-over
- Reduced operating costs

### 6. Oil Management Center (OMC)

- Oil management functions integrated in a compact block providing a central working area
- Reduced leakage risk
- Closable filter for easy service

### 7. Sturdy base frame

- Low noise and vibration level for extended component lifetime
- Service-friendly working height
- Low center of gravity



# GEA Grasso SP1 HP – Efficient NH<sub>3</sub> heating or CO<sub>2</sub> cooling

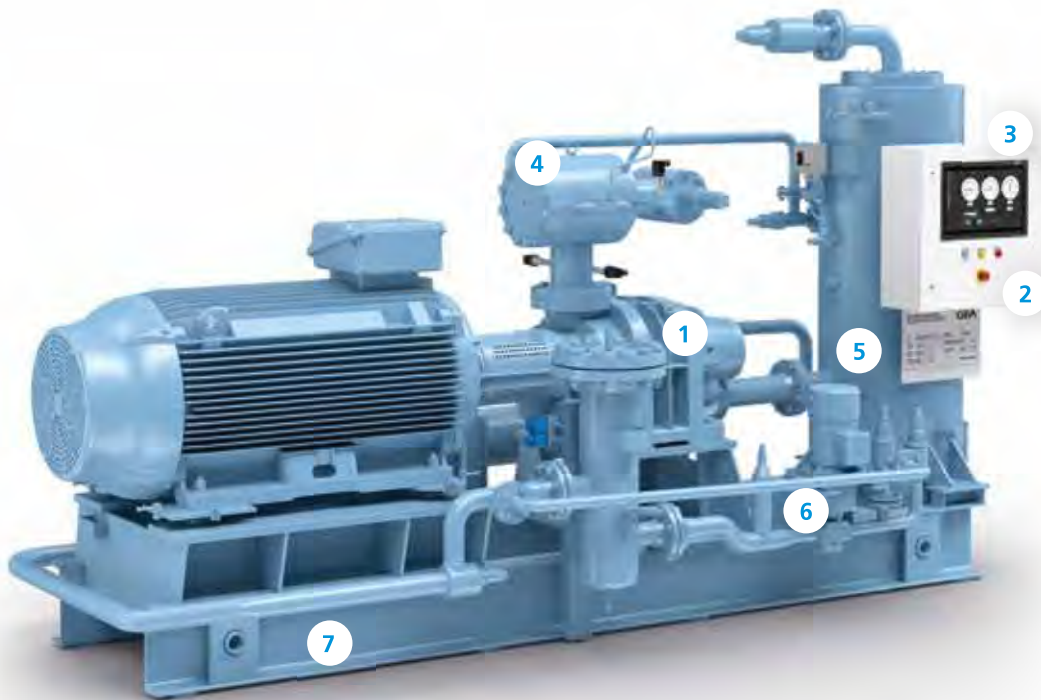
Specifically designed for subcritical cooling applications with CO<sub>2</sub> or heat pumps with NH<sub>3</sub> the new high-pressure series meets the growing demands for natural refrigerants including CO<sub>2</sub> as well as heating applications. The GEA Grasso SP1 HP (high-pressure) design is based on the successful, classic GEA Grasso SP1 line. Specific design elements and features relevant for cooling with CO<sub>2</sub> or when operating as a heat pump with NH<sub>3</sub> makes our product a most efficient and reliable choice for any such applications.

Depending on the condensation temperature level, GEA Grasso SP1 HP packages are executed in 40 or 52 bar design pressure. The series provides 20 models (compressor frame size) for NH<sub>3</sub> heat pumps and 17 models (compressor frame size) for CO<sub>2</sub> applications.

Since the mid-2000s GEA screw compressors and packages have been used for countless CO<sub>2</sub> refrigeration and NH<sub>3</sub> heat pump projects. Plentiful experience that helped with transforming previously customized units into a new standard high-pressure model range.

## At a glance

- Specific high-pressure design based on the successful, well-proven GEA Grasso SP1 series and components and plenty of experience
- NH<sub>3</sub> heat pumps up to a supply temperature of +85°C
- Subcritical CO<sub>2</sub> cooling with optional defrosting mode



## UNIQUE FEATURES AND ADVANTAGES:

### 1. Efficient screw compressors

- Highly efficient, compact, specific 52 bar design
- GEA-specified rotor profile for industry-leading COP
- Sleeve bearings: infinite lifetime and inherently quiet
- Axial bearings: easy to replace, easy access from non-drive end

### 2. GEA Omni™ control panel

- High definition 15.6" display (1,366 × 768 pixel)
- Remote access via GEA OmniLink™
- Full data history via GEA OmniHistorian™
- Configurable Modbus TCP Ethernet communication
- Other common communication protocols supported
- Smart sequencer for efficient plant network management

### 3. Capacity and Vi control

- Capacity control via frequency inverter and/or capacity slide (min. position 30 %)
- Capacity and Vi (internal volume ratio, limited availability for variable execution) control for efficient operation in full and part load

### 4. Suction filter combination

- Mounted at GEA Grasso LT compressor types (GEA Grasso M types equipped with internal filter)
- Gas-operated check valve for better COP
- No chatter at low flow rate
- Low pressure loss

### 5. 3-stage oil separator

- Low oil charge
- Oil carry-over depending on the application
- Reduced operating costs

### 6. Oil management

- Ingenious oil circuit configuration based on the project-specific conditions
- OMC technology available for 40 bar applications (max. oil flow 340 l/min)

### 7. Sturdy base frame

- Low noise and vibration level for extended component lifetime
- Service-friendly working height
- Low center of gravity

# GEA Grasso SP2 – The high performer

Designed for low evaporation temperatures and high temperature increases and high differential pressures, two-stage screw compressor packages GEA Grasso SP2 each include two separate drivelines in serial arrangement: a low-pressure plus high-pressure compression stage facilitating a most efficient and flexible operation.

The separate drivelines offer significant redundancy and flexibility advantages over compound solutions: individual speed regulation ensures maximum efficiency also in varying operating conditions and load requirements. Additional flexibility and availability are provided by the possibility to switch off the low-pressure compression stage - for example when servicing the booster side or when running an A/C cooling mode only.

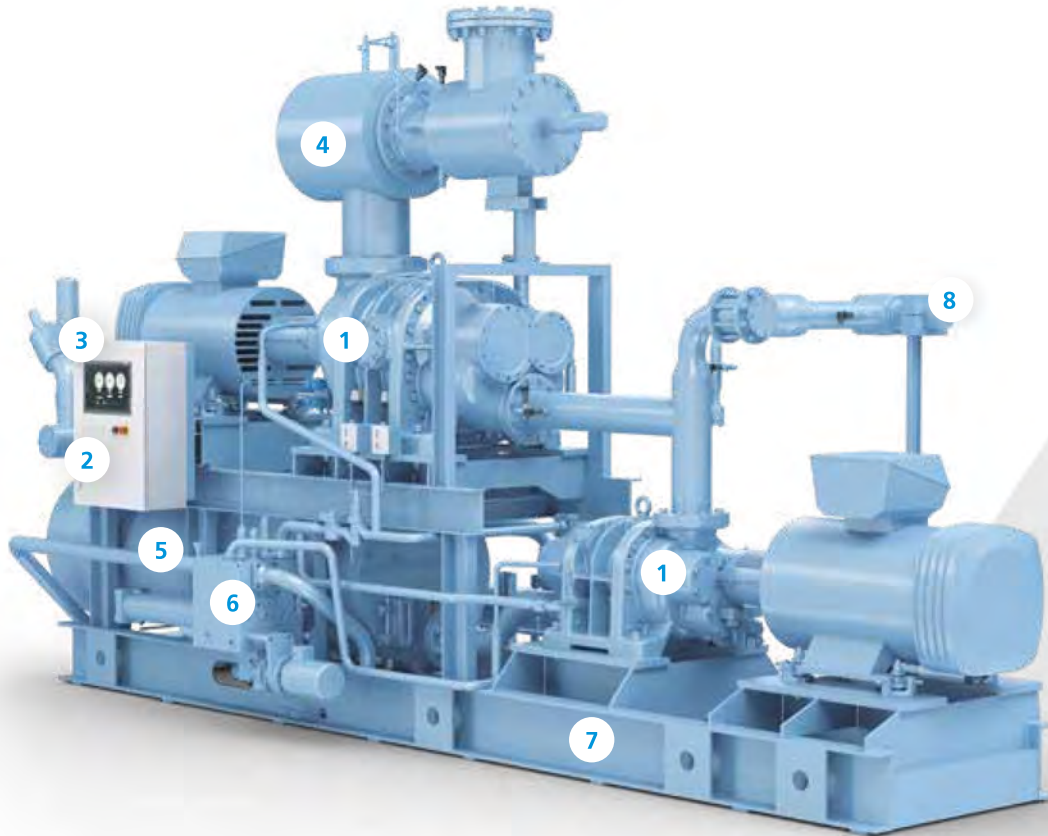
All GEA Grasso SP2 packages can be configured with open flash or DX intercooling, including additional, individual side load capacities.

The series contains 18 package sizes (18 different low-stage screw compressors in combination with various high-stage compressors) and ranges from 96 to 1,742 kW refrigeration capacity (R717 | -40/+35 °C | 2950 rpm).

A GEA Grasso SP2 package is the most efficient and flexible solution for high differential pressure operation. At the same time the package, based on a common base frame, oil circuit and common control, comes in one piece allowing easy handling and operation. Thanks to the smart GEA design it requires not only less space than two separate single-stage packages, but it is also more compact than typical two-stage compound solutions.

## At a glance

- Optimized for low temperatures and high differential pressure operations
- Flexible and individual operation of low-stage and high-stage compressors as well as intermediate load connection
- Common base frame, oil circuit and control for easy operation and minimized footprint



## UNIQUE FEATURES AND ADVANTAGES:

### 1. Efficient screw compressors

- Highly efficient, compact design
- Proprietary rotor profile for industry-leading COP
- Sleeve bearings: infinite lifetime and inherently quiet
- Axial bearings: easy to replace, easy access from non-drive end

### 2. Capacity and Vi control

- Capacity control via frequency inverter and / or capacity slide
- Infinite capacity and Vi (internal volume ratio) control for efficient operation in full and part load
- Individual speed regulation for both drivelines possible

### 3. GEA Omni™ control panel

- High-definition 15.6" display (1,366 × 768 pixel)
- Remote access via GEA OmniLink™
- Full data history via GEA OmniHistorian™
- Configurable Modbus TCP Ethernet communication
- Other common communication protocols supported
- Smart sequencer for efficient plant network management

### 4. Suction filter combination

- Gas-operated check valve for better COP
- No chatter at low flow rate
- Low pressure loss

### 5. 3-stage oil separator

- Low oil charge
- Maximum 5 ppm oil carry-over
- Reduced operating costs

### 6. Oil Management Center (OMC)

- Oil management functions integrated in a compact block providing a central working area
- Reduced leakage risk
- Closable filter for easy service

### 7. Common base frame

- Low noise and vibration level
- Service-friendly working height
- Low center of gravity
- Reduced package footprint and maintenance costs in comparison with single-stage packages

### 8. Intermediate connections

- Increased efficiency with intercooling options
- Additional intermediate side load possible
- Additional connection for single high-stage cooling mode (option) when the booster stage is switched off

# GEA Grasso SPduo – Best efficiency with all loads

The packages of the GEA Grasso SPduo series feature two parallel-mounted screw compressor drivelines. This solution is especially suited for part-load efficiency, flexible (part-load) operation and all applications where demands for machine availability and redundancy are most important.

Both screw compressors in the unit can be operated independently or simultaneously at full load to achieve top-level loads.

Configure one or both drivelines with a variable speed drive motor and frequency converter to achieve part-loads down to 12 % without significant efficiency losses!

The SPduo series consist of 15 models with a capacity range from 279 to 3,220 kW (R717 | -10/+35°C | 2950 rpm).

Compared to two separate single-stage packages, the GEA Grasso SPduo series does not provide the same, fullest redundancy but returns a lower TCO thanks to reduced investment and service expenses. Thanks to the common base frame, oil circuit and control, SPduo packages come in one piece and are easy to handle and operate.

## At a glance

- Optimized for highest efficiency in all load conditions
- Maximum machine availability, flexibility and redundancy – parallel or independent single compressor operation possible
- Common base frame, oil circuit and control for easy operation and minimized footprint



## UNIQUE FEATURES AND ADVANTAGES:

### 1. Efficient screw compressors

- Highly efficient, compact design
- Proprietary rotor profile for industry-leading COP
- Sleeve bearings: infinite lifetime and inherently quiet
- Axial bearings: easy to replace, easy access from non-drive end

### 2. GEA Omni™ control panel

- High-definition 15.6" display (1,366 × 768 pixel)
- Remote access via GEA OmniLink™
- Full data history via GEA OmniHistorian™
- Configurable Modbus TCP Ethernet communication
- Other common communication protocols supported
- Smart sequencer for efficient plant network management

### 3. Capacity and Vi control

- Infinite capacity and Vi (internal volume ratio) control for efficient operation in full and part load
- Capacity control via frequency inverter and/or capacity slide
- Optimized economizer operation (option) for larger pressure differences

### 4. 3-stage oil separator

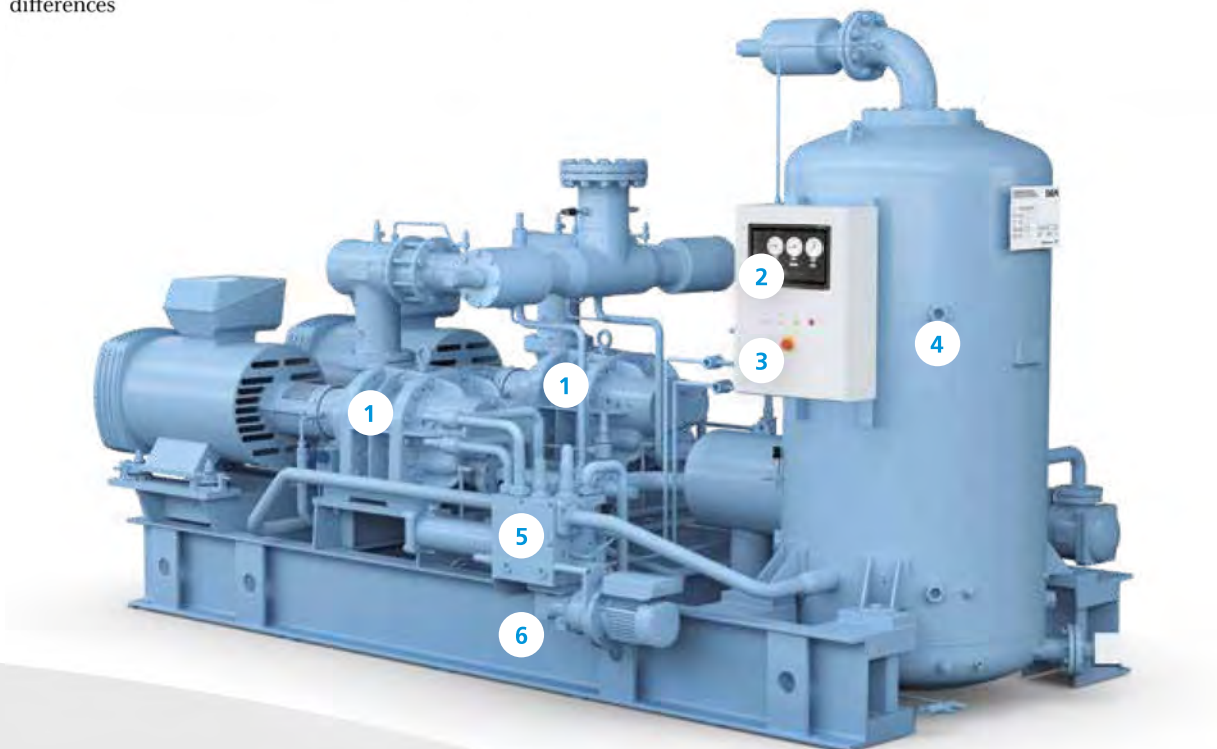
- Low oil charge
- Maximum 5 ppm oil carry-over
- Reduced operating costs

### 5. Oil Management Center (OMC)

- Oil management functions integrated in a compact block providing a central working area
- Reduced leakage risk
- Closable filter for easy service

### 6. Common base frame

- Reduced package footprint and maintenance costs in comparison with single packages
- Low noise and vibration level
- Service-friendly working height
- Low center of gravity



# Technical data

## GEA Grasso M and GEA Grasso SP1

GEA Grasso M	Motor speed (rpm)	Cooling capacity (kW)			Dimensions* (mm)			Weight* (kg) without motor
		R717 -10/+35 °C	R717 -40/-10 °C	R290 -10/+35 °C	L	W	H	
GEA Grasso M-C	3,600 4,500	172 219	54 68	143 181	2,200	1,225	1,950	1,350
GEA Grasso M-D	3,600 4,500	206 262	64 81	171 217	2,200	1,225	1,950	1,450
GEA Grasso M-E	3,600 4,500	247 313	76 96	205 259	2,200	1,225	1,975	1,550
GEA Grasso M-G	3,600 4,500	293 372	88 111	243 308	2,300	1,225	1,975	1,650
GEA Grasso M-H	3,600 4,500	374 471	116 147	308 389	2,550	1,225	1,950	1,725
GEA Grasso M-L	3,600 4,500	432 544	134 169	356 449	2,550	1,225	1,950	1,800
GEA Grasso M-M	3,600 4,500	568 715	176 222	468 590	2,600	1,225	2,025	1,875
GEA Grasso M-N	3,600 4,500	698 879	220 274	576 725	2,600 2,950	1,225 1,325	2,075 2,175	1,925 2,125

\* Dimensions and weights are based on standard exemplary applications. Values can differ depending on the specific operating conditions.

GEA Grasso SP1	Motor speed (rpm)	Cooling capacity <sup>1</sup> (kW)			Dimensions* (mm)			Weight* (kg) without motor
		R717 -10/+35 °C	R717 -40/-10 °C	R290 -10/+35 °C	L	W	H	
GEA Grasso SP1-P	3,600	646	197	507	3,200	1,400	2,050	2,500
GEA Grasso SP1-R	3,600 4,500	835 1,064	255 318	655 835	3,500	1,400	2,050	2,750
GEA Grasso SP1-S	3,600 4,500	1,056 1,320	322 403	829 1,036	3,500	1,400	2,050	2,750
GEA Grasso SP1-T	3,600 4,500	1,183 1,479	361 451	929 1,161	3,550	1,450	2,100	2,900
GEA Grasso SP1-V	3,600	1,388	428	1,091	4,050	1,800	2,100	3,400
GEA Grasso SP1-W	3,600	1,619	499	1,273	4,050	1,800	2,100	3,400
GEA Grasso SP1-Y	3,600	1,964	606	1,549	4,100	1,800	2,150	3,500
GEA Grasso SP1-Z	3,600	2,282	703	1,795	4,450	1,800	2,190	4,000
GEA Grasso SP1-XA	3,600	2,699	832	2,122	4,450	1,800	2,190	4,100
GEA Grasso SP1-XB	3,600	3,415	1,028	2,685	5,550	1,820	2,775	7,500
GEA Grasso SP1-XC	3,600	4,029	1,242	3,168	5,650	1,820	2,975	7,900
GEA Grasso SP1-XD	3,600	4,768	1,470	3,749	6,050	1,820	2,975	8,900
GEA Grasso SP1-XE	3,600	5,891	1,816	4,633	7,700	1,820	3,150	10,400
GEA Grasso SP1-XF	3,600	7,034	2,168	5,531	7,700	1,820	3,150	11,400
GEA Grasso SP1-XG	3,600	8,058	2,502	6,337	8,100	1,820	3,250	12,750
GEA Grasso SP1-XH	3,600	9,423	2,926	7,410	9,100	2,020	3,450	14,750

1) The variant GEA Grasso SP1 horizontal provides identical performance data but slightly reduced length and width.

\* Dimensions and weights are based on standard exemplary applications. Values can differ depending on the specific operating conditions.

# Technical data

## GEA Grasso SP1 HP (R717)

GEA Grasso SP1 HP (R717)	Motor speed (rpm)	Heating capacity (kW)		Cooling capacity (kW)		Dimensions** (mm)			Weight** (kg) without motor
		R717 +30/+75 °C 10 K sub-cool.	R717 -10/+60 °C 10 K sub-cool.	R717 +30/+75 °C 10 K sub-cool.	R717 +30/+75 °C 10 K sub-cool.	L	W	H	
GEA Grasso SP1 HP-C	3,600	634	240	489	143	3,050	1,400	2,000	2,075
GEA Grasso SP1 HP-D	3,600	752	276	581	170	3,050	1,400	2,000	2,075
GEA Grasso SP1 HP-E	3,600	943	332	731	207	3,050	1,400	2,000	2,075
GEA Grasso SP1 HP-G	3,600	1,117	386	874	248	3,250	1,400	2,000	2,100
GEA Grasso SP1 HP-H	3,600	1,455	491	1,145	314	3,650	1,400	2,000	2,300
GEA Grasso SP1 HP-L	3,600	1,680	565	1,322	362	3,750	1,450	2,010	2,500
GEA Grasso SP1 HP-M	3,300	2,071	674	1,646	436	3,900	1,450	2,010	2,750
GEA Grasso SP1 HP-N	3,300	2,542	828	2,024	534	3,900	1,450	2,090	2,800
GEA Grasso SP1 HP-P	3,300	2,373	786	1,883	518	3,200	1,400	2,050	2,500
GEA Grasso SP1 HP-R	3,300	3,031	1,016	2,409	669	3,500	1,400	2,050	2,750
GEA Grasso SP1 HP-S	3,300	3,764	1,276	2,987	846	3,500	1,400	2,050	2,750
GEA Grasso SP1 HP-T	3,300	4,252	1,425	3,379	948	3,550	1,450	2,100	2,900
GEA Grasso SP1 HP-V	3,300	4,988	1,659	4,009	1,116	4,050	1,800	2,100	3,400
GEA Grasso SP1 HP-W	3,300	5,776	1,922	4,677	1,302	4,050	1,800	2,100	3,400
GEA Grasso SP1 HP-Y	3,300	6,947	2,325	5,612	1,579	4,100	1,800	2,150	3,500
GEA Grasso SP1 HP-Z	3,300	7,970	2,692	6,462	1,835	4,450	1,800	2,190	4,000
GEA Grasso SP1 HP-XA	3,300	9,454	3,184	7,642	2,170	4,450	1,800	2,190	4,100
GEA Grasso SP1 HP-XB	3,300	–	4,063	–	2,743	5,550	1,820	2,775	7,500
GEA Grasso SP1 HP-XC	3,300	–	4,783	–	3,239	5,650	1,820	2,975	7,900
GEA Grasso SP1 HP-XD	3,300	–	5,642	–	3,833	6,050	1,820	2,975	8,900

\* Depending on the project specific conditions the compressor frame size can differ from the swept volume size (heavy-duty operation with shortened rotors)

\*\* Dimensions and weights are based on standard exemplary applications. Values can differ depending on the specific operating conditions.

# Technical data

## GEA Grasso SP1 HP (R744)

GEA Grasso SP1 HP (R744)	Motor speed (rpm)	Cooling capacity (kW) Freezing mode		Cooling capacity (kW) Defrosting mode		Dimensions** (mm)			Weight** (kg) without motor		
		Swept volume size*		R744	R744	R744	R744	L		W	H
		-50/-5 °C	-50/+10 °C	-40/+10 °C	-50/+10 °C						
GEA Grasso SP1 HP-C	3,600	399	270	302	205	3,050	1,400	2,000	2,075		
GEA Grasso SP1 HP-D	3,600	474	321	359	243	3,050	1,400	2,000	2,075		
GEA Grasso SP1 HP-E	3,600	582	390	451	303	3,050	1,400	2,000	2,075		
GEA Grasso SP1 HP-G	3,600	682	448	529	348	3,250	1,400	2,000	2,100		
GEA Grasso SP1 HP-H	3,600	922	618	716	481	3,650	1,400	2,000	2,300		
GEA Grasso SP1 HP-L	3,600	1,065	714	827	555	3,750	1,450	2,010	2,500		
GEA Grasso SP1 HP-M	3,300	1,240	829	999	678	3,900	1,450	2,010	2,750		
GEA Grasso SP1 HP-N	3,300	1,525	1,032	1,229	834	3,900	1,450	2,090	2,800		
GEA Grasso SP1 HP-P	3,300	1,363	921	1,115	733	3,200	1,400	2,050	2,500		
GEA Grasso SP1 HP-R	3,300	1,761	1,190	1,427	966	3,500	1,400	2,050	2,750		
GEA Grasso SP1 HP-S	3,300	2,228	1,505	1,769	1,198	3,500	1,400	2,050	2,750		
GEA Grasso SP1 HP-T	3,300	2,521	1,704	2,002	1,356	3,550	1,450	2,100	2,900		
GEA Grasso SP1 HP-V	3,300	2,963	1,983	2,353	1,593	4,050	1,800	2,100	3,400		
GEA Grasso SP1 HP-W	3,300	3,457	2,313	2,745	1,859	4,050	1,800	2,100	3,400		
GEA Grasso SP1 HP-Y	3,300	4,153	2,806	3,297	2,233	4,100	1,800	2,150	3,500		
GEA Grasso SP1 HP-Z	3,300	-	3,260	-	-	4,450	1,800	2,190	4,000		
GEA Grasso SP1 HP-XA	3,300	-	-	-	-	4,450	1,800	2,190	4,100		
GEA Grasso SP1 HP-XB	-	-	-	-	-	-	-	-	-		
GEA Grasso SP1 HP-XC	-	-	-	-	-	-	-	-	-		
GEA Grasso SP1 HP-XD	-	-	-	-	-	-	-	-	-		

\* Depending on the project specific conditions the compressor frame size can differ from the swept volume size (heavy-duty operation with shortened rotors)

\*\* Dimensions and weights are based on standard exemplary applications. Values can differ depending on the specific operating conditions.

# Technical data

## GEA Grasso SP2

GEA Grasso SP2	Motor speed (rpm)	Cooling capacity <sup>1</sup> (kW)		Dimensions* (mm)			Weight* (kg) without motor
		R717 -40/+35 °C	R717 -40/+35 °C	L	W	H	
GEA Grasso SP2-H	3,600 4,500	118 148	69 87	3,600	1,500	2,000	3,000
GEA Grasso SP2-L	3,600 4,500	134 170	79 99	3,600	1,500	2,000	3,200
GEA Grasso SP2-M	3,600 4,500	175 221	103 130	4,050	1,500	2,450	3,800
GEA Grasso SP2-N	3,600 4,500	215 271	126 159	4,050	1,500	2,450	4,000
GEA Grasso SP2-P	3,600	198	116	4,500	1,600	2,350	4,300
GEA Grasso SP2-R	3,600 4,500	252 322	149 189	4,700	1,600	2,350	4,600
GEA Grasso SP2-S	3,600 4,500	319 399	188 235	4,700	1,700	2,400	6,000
GEA Grasso SP2-T	3,600 4,500	359 449	211 264	5,800	1,700	2,400	6,500
GEA Grasso SP2-V	3,600	429	256	5,800	1,700	2,670	7,000
GEA Grasso SP2-W	3,600	503	300	5,900	1,800	2,800	7,500
GEA Grasso SP2-Y	3,600	599	357	5,900	2,000	2,800	8,000
GEA Grasso SP2-Z	3,600	699	417	6,100	2,000	2,800	8,500
GEA Grasso SP2-XA	3,600	832	496	6,400	2,000	2,800	9,600
GEA Grasso SP2-XB	3,600	1,068	651	6,850	2,100	3,350	13,200
GEA Grasso SP2-XC	3,600	1,226	731	6,900	2,100	3,350	13,700
GEA Grasso SP2-XD	3,600	1,448	863	6,900	2,100	3,350	14,600
GEA Grasso SP2-XE	3,600	1,786	1,065	7,000	2,400	3,500	15,000
GEA Grasso SP2-XF	3,600	2,125	1,267	7,100	2,400	3,500	16,500

1) With open flash intercooler

\* Dimensions and weights are based on standard exemplary applications. Values can differ depending on the specific operating conditions.

# Technical data

## GEA Grasso SPduo

GEA Grasso SPduo	Motor speed (rpm)	Cooling capacity (kW)			Dimensions* (mm)			Weight* (kg) without motor
		R717 -10/+35 °C	R717 -40/-10 °C	R290 -10/+35 °C	L	W	H	
GEA Grasso SPduo-C	3,600	344	108	286	3,600	1,500	2,280	2,250
	4,500	438	136	362				
GEA Grasso SPduo-D	3,600	412	128	342	3,600	1,550	2,350	2,250
	4,500	524	162	434				
GEA Grasso SPduo-E	3,600	494	152	410	3,600	1,600	2,360	2,400
	4,500	626	192	518				
GEA Grasso SPduo-G	3,600	586	176	486	3,600	1,950	2,430	2,550
	4,500	744	222	616				
GEA Grasso SPduo-H	3,600	748	232	616	3,850	2,250	2,500	2,900
	4,500	942	294	778				
GEA Grasso SPduo-L	3,600	864	268	712	3,850	2,250	2,500	3,100
	4,500	1,088	338	898				
GEA Grasso SPduo-M	3,600	1,136	352	936	3,750	2,350	2,580	4,100
	4,500	1,430	444	1,180				
GEA Grasso SPduo-N	3,600	1,396	440	1,152	3,750	2,350	2,590	4,300
	4,500	1,758	548	1,450				
GEA Grasso SPduo-P	3,600	1,292	394	1,014	3,750	2,370	2,500	4,600
GEA Grasso SPduo-R	3,600	1,670	510	1,310	3,750	2,370	2,500	5,050
	4,500	2,128	636	1,670				
GEA Grasso SPduo-S	3,600	2,112	644	1,658	3,950	2,370	2,600	5,150
	4,500	2,640	806	2,072				
GEA Grasso SPduo-T	3,600	2,366	722	1,858	3,950	2,370	2,600	5,300
	4,500	2,958	902	2,322				
GEA Grasso SPduo-V	3,600	2,776	856	2,182	4,550	2,750	2,600	6,550
GEA Grasso SPduo-W	3,600	3,238	998	2,546	4,550	2,750	2,600	6,800
GEA Grasso SPduo-Y	3,600	3,928	1,212	3,098	4,550	2,900	2,600	7,250

\* Dimensions and weights are based on standard exemplary applications. Values can differ depending on the specific operating conditions.



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