



GEA Chillers

Leading the way in standard and
custom-engineered chilling solutions

GEA North America



GEA chilling solutions — for a world of applications

GEA North America's chiller offerings provide a wide array of high-performance options for leading food, beverage and dairy processors as well as global companies in the oil & gas, power, chemical, petrochemical and pharmaceutical spaces.

BluAstrum, Galaxy and custom-engineered skid-mounted units combine to offer an all-star lineup of GEA chilling systems.

With 18 standard chillers from which to choose, complemented by an almost limitless range of tailor-made solutions, GEA applies decades of experience and proven technologies to meet each customer's precise requirements.

Standard on all GEA chillers is the GEA Omni™ control panel. Omni features a high-definition, multi-touch screen and delivers the ease of use and technical wow factor that industry professionals have come to expect from GEA. We at GEA have the privilege to serve a vast customer base across a multitude of industries. We welcome the opportunity to work with you as well — to understand your needs and to provide the ideal chilling solution for your application.

GEA BluAstrum — ultra-low charge, high efficiency

Featuring a sleek design and requiring minimal maintenance, the BluAstrum ammonia chiller delivers reliable performance and operational advantages.

Having received high accolades from customers in Europe and other global markets, the GEA BluAstrum chiller now makes its way to North America.

Key features and benefits

- Minimal maintenance requirements
- Extremely compact equipment size
- Cooling capacity nominal 100–500 TR
- Chilled process fluid outlet temperature range approximately +5° to 64 °F
- Ultra-low refrigerant charge
- Seven standard model sizes
- Screw compressor w/variable speed control & variable Vi
- GEA Omni control panel
- Environmentally friendly refrigerant will not be phased out
- Designed for indoor, low-noise operation

Compact and low maintenance

Narrow widths of approximately 49–51" (depending on model) and the resulting small footprint allow for simple transport, as well as ease of relocation and installation in space-restricted machine rooms.

A key aspect of the BluAstrum is its low maintenance requirements. This benefit is the result of the latest industrial screw compressor technology and design features such as the elimination of an oil pump and the flanged motor-compressor connection on most models.** Units are safe and reliable with all-welded construction of both piping and heat exchangers.

Optional GEA BluAstrum remote version is provided with a pilot receiver that can be connected to an external condenser (air-cooled or evaporative) supplied by the customer.

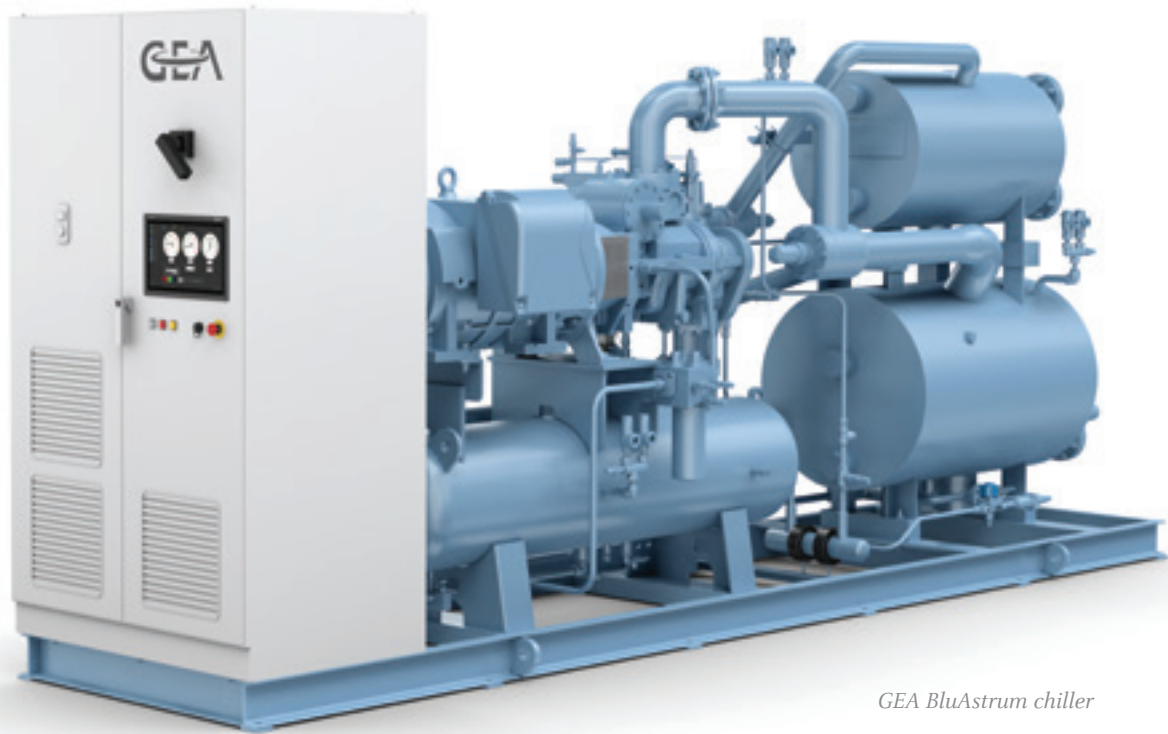
BluAstrum – Nominal sizes and capacities

BluAstrum Model #	Compressor Model #	Water +45°F			Glycol +20°F			R-717 Charge (lbs.)	Length (inches)	Width (inches)	Height (inches)
		Capacity (TR)	Motor Size* (HP)	Line kW/TR (water)	Capacity (TR)	Motor Size* (HP)	Line kW/TR (30% EG)				
400	60GMX	127	150	0.77	75	150	1.13	86	200	49	94
500	85GMX	180	200	0.70	105	200	1.14	86	200	49	94
800	110GMX	227	250	0.69	132	250	1.11	92	205	49	94
900	125GMX	267	350	0.87	155	300	1.08	120	208	49	94
1000	160GMX	347	350	0.65	201	350	1.06	135	228	49	94
1500	195GMX	433	400	0.64	253	400	1.04	226	263	49	94
1800	230GLX	506	500	0.64	301	450	1.04	269	283	51	97

Notes: Contact your GEA sales representative for access to RTSelect and a software demonstration.

*Motor HP may change for actual design conditions. Assumes 85°F cooling water supply.

**Except BluAstrum model 1800.



GEA BluAstrum chiller

GEA Omni control panel

- High definition 15.6" color display (1,366 × 768 pixel)
- Remote access via GEA OmniLink
- Full data history via GEA OmniHistorian
- Configurable Ethernet communication
- Optional multiple chiller sequencing

Power panel with infinitely variable capacity

- Capacity control via frequency inverter
- Variable speed range of 1,000 – 4,500 rpm for superior part-load efficiency and turn down
- Single-point power connection (460V)

Highly efficient screw compressor

- GEA designed rotor profile for industry-leading EER
- Variable internal volume ratio (Vi) for better part-load efficiency
- Industrial bearings with long service life and inherently quiet operation
- Proven, rebuildable compressor design
- Extended product life of all moving parts due to inverter operation

Water-cooled condenser

- Fully welded plate heat exchanger
- Utilizes water or glycol
- Low design approach temperatures

Combined evaporator-liquid separator

- Fully welded plate heat exchanger
- Integrated liquid separator for liquid-free suction gas
- Low approach temperatures for reduced energy costs
- Suitable for all common secondary fluids
- Flooded design, safe drain operation
- Simple connections with detachable ASME flanged connections on the fluid side

GEA Galaxy — versatility for a wide range of operating conditions

Offered in 12 models, this high-performance ammonia chiller series integrates plate-and-frame heat exchangers, allowing for a low refrigerant charge within the chiller.

GEA is recognized around the world as a leader and innovator in the industrial refrigeration industry. The GEA Galaxy Series high-efficiency chiller packages are designed for smooth installation, ease of service and reliable operation.

Low refrigerant charge

Using plate-and-frame heat exchangers allows for a low refrigerant charge chiller. In addition, rather than pumping large amounts of ammonia, various heat transfer fluids are used to keep ammonia in the engine room and away from processing and storage areas.

Reduced installation costs

With the GEA Galaxy Series chiller there is less ammonia field piping required. This simplified piping requirement and time-saving electrical connections keep installation costs significantly lower.

GEA Omni control panel

All GEA Galaxy Series ammonia chillers feature the GEA Omni control panel. Designed based on feedback from industrial refrigeration engineers and technicians, GEA Omni control panel is lauded for its intuitive interface and abundance of advanced features.

Plate-and-frame heat exchangers

Plate-and-frame heat exchangers offer big performance in a small package. Type 316 stainless steel is the standard heat transfer material. Titanium is also available for heat transfer fluids with high-chloride content. Gasket material — Neoprene, NBR, EPDM, Viton — is selected to match the application. These laser-welded, plate-and-frame heat exchangers offer maintenance and service benefits unavailable with other types of heat exchangers.



GEA Galaxy chiller

Galaxy – range and nominal sizes

Galaxy Model #	Compressor Model #	Glycol +20°F		Water +42°F	
		Capacity (TR)	Motor Size (HP)	Capacity (TR)	Motor Size (HP)
G110	110GMX	109	150	176	150
G125	125GMX	125	200	203	200
G160	160GMX	166	250	268	250
G195	195GMX	204	300	330	300
G230	230GLX	246	350	391	350
G290	290GLX	310	400	492	400
G340	340GLX	347	450	551	450
G400	400GLX	418	600	663	600
G475	475GLX	477	600	757	600
G565	565GLX	577	700	917	700
G675	675GLX	671	800	1065	800
G800	800GLX	791	1000	1256	1000

Notes: Capacities based on cooling water at 85°F. Approach assumed as 2.5°F for both evaporator and condenser with 10°F range on tubeside fluid. Suction pressure drop of 0.5 psi and discharge pressure drop of 1.0 psi. 0°F suction superheat; 0°F liquid subcooling on condenser. Non-economized, 3,550 rpm fixed speed, fixed optimum Vi.

Custom-engineered chilling systems — tailor made to meet your most demanding requirements

GEA North America's process refrigeration and gas compression solutions include sophisticated chilling systems specially designed to meet the specifications of complex, process-critical applications including:

- Water/glycol and heat transfer fluid (HTF) chilling at chemical & petrochemical plants and refineries
- Gas turbine inlet air chilling at LNG plants and power generation plants
- HTF and low-temperature chilling at pharmaceutical facilities
- Process gas chilling at offshore production, storage and offloading facilities
- Vent gas condensing and separation for environmental systems
- Nitrogen, air and process gas chilling at industrial gas sites
- Chilling and dew point control at natural gas processing plants

At the heart of GEA custom-engineered chilling systems is a GEA-designed and -manufactured, oil-injected, rotary, twin-screw compressor. GEA's series of screw compressors comprise 24 models ranging from 231 – 8,150 CFM.



*GEA XH screw compressor;
swept volume 8,150 CFM*

With tens of thousands of compressor installations worldwide, leading companies around the globe rely on GEA's engineering expertise and reliable products for use in their critical applications. It is a privilege to be entrusted with our customers' capital investments and to play a role in contributing to their success.



GEA HTF chilling system

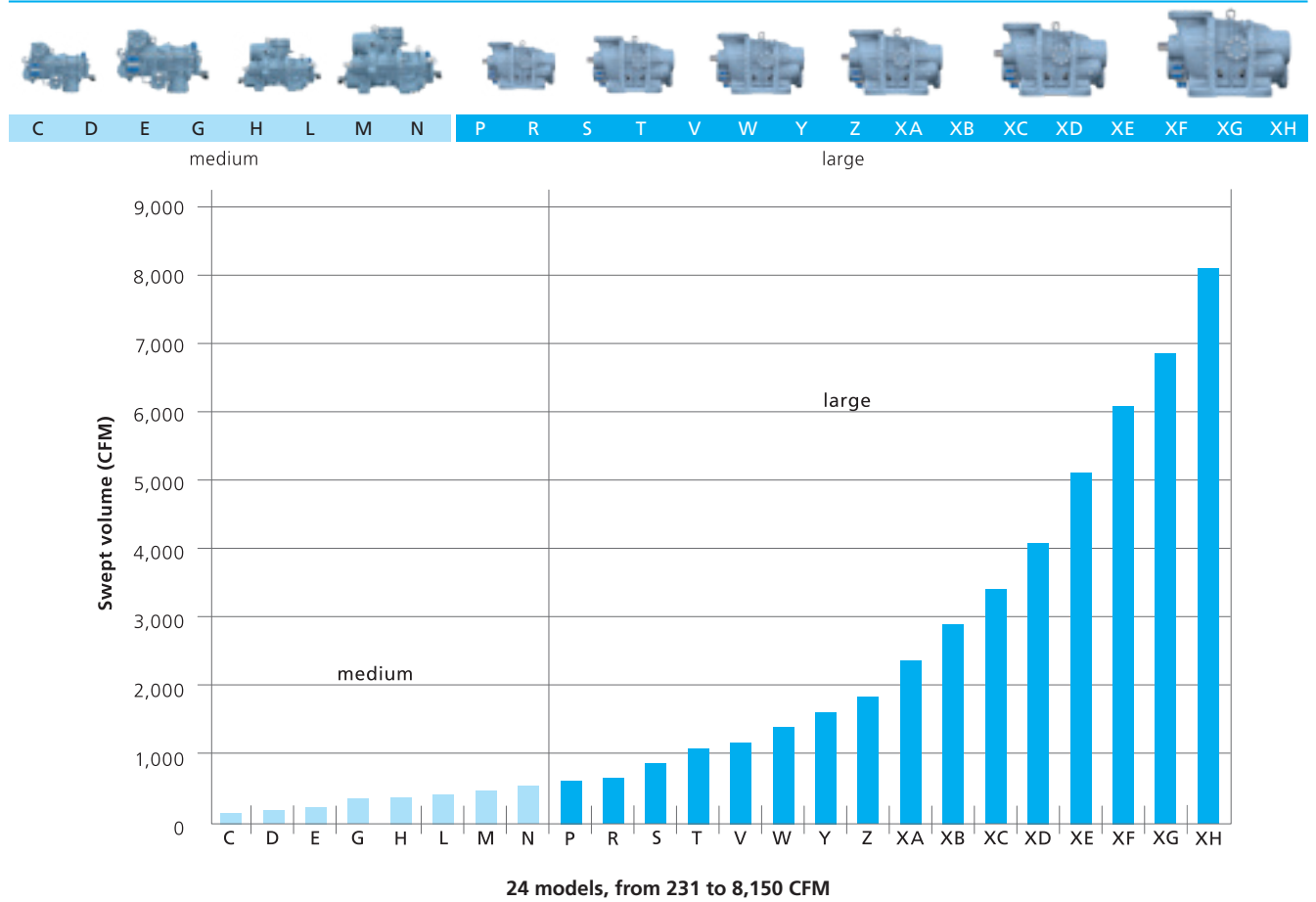


GEA glycol chiller



GEA glycol chilling system

GEA screw compressor range



GEA Service — for your continued success

Reduce the life cycle cost of your plant and equipment.

We team with refrigeration contractors in North America to support customers throughout the full life cycle of their plant and equipment.

Getting you started

As a supportive and committed partner for life, we plan and build around individual needs, sharing process knowledge, training employees and supporting operators to get our customers up and running and ensure smooth, seamless on-going operation.

Keeping it running

To ensure our customers benefit from continuous production processes for minimal downtime, we provide fast support, efficient maintenance and top-quality spare parts, whenever and wherever needed.

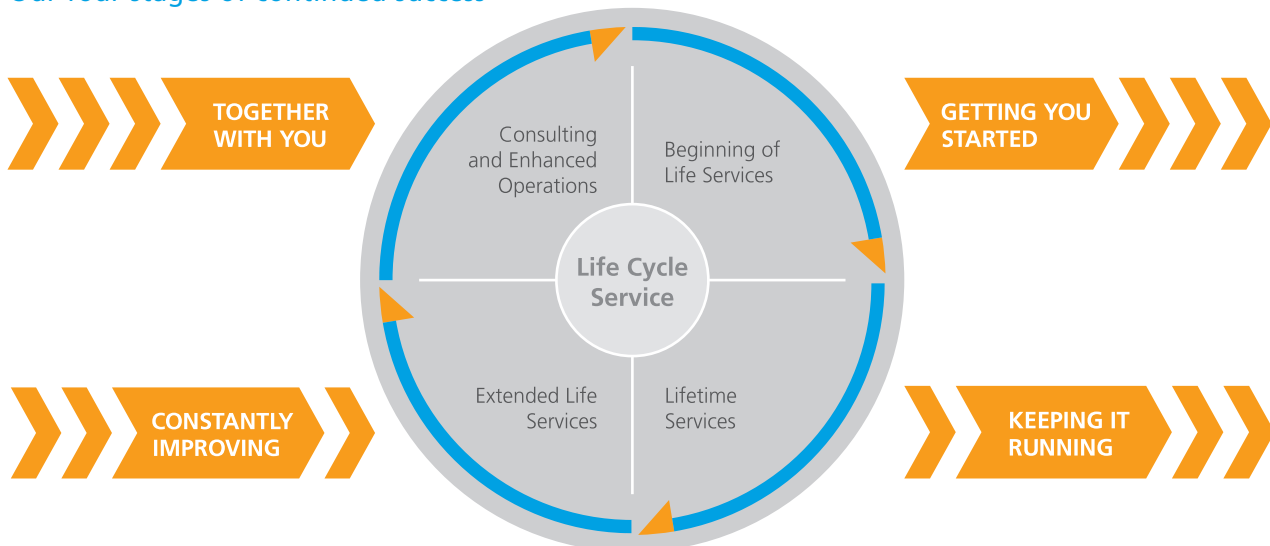
Constantly improving

We safeguard our customers' investments by constantly looking ahead through modernizing or upgrading of equipment and optimizing of processes to meet changing needs and new market demands. We are always working to increase production efficiency and ensure peak performance.

Together with you

Commitment to our customers means investing in their objectives, their risks and their success. We work in ever-closer collaboration, providing on-going system audits and on-site support through innovative new service models in order to generate improved performance.

Our four stages of continued success



Keeping it cool,
with GEA Service



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is one of the largest technology suppliers for food processing and a wide range of other industries. The global group focuses on technologies, components and sustainable solutions for sophisticated production processes in diverse end-user markets. The company is listed on the German MDAX (G1A, WKN 660 200), the STOXX® Europe 600 Index and selected MSCI Global Sustainability Indexes.

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