

Centres of Excellence for Engineering, Procurement & Construction

Turnkey Solutions for EPC Contracts





Gardner Denver. Overview

Gardner Denver, with more than 150 years of experience, is the parent company of CompAir and is headquartered in the USA. A leading global provider of compression, vacuum and associated aftermarket equipment, Gardner Denver has manufacturing facilities in more than 30 countries worldwide.

We have established ourselves as one of the world's most respected high compression technology organisations, and have built our future on total respect, a unique heritage, and by demonstrating our passion for our global brands through technology leadership.

The Gardner Denver Industrials Group designs, manufactures, markets and services rotary screw, reciprocating and sliding vane compressors in addition to multistage, positive displacement and centrifugal compressors, plus blowers and vacuum pumps. The OEM and end-user market sectors served by the Industrials Group are primarily industrial manufacturing, transportation, energy,

mining, construction, environmental, plus food and beverage. Gardner Denver Industrials Group delivers the broadest range of compressors and vacuum products, in a wide array of technologies, to end-user and OEM customers worldwide.

In order to service the Engineering, Procurement and Construction (EPC) market, Gardner Denver has established Centres of Excellence (CoE) for our customers. We have two working teams in Korea and Spain to ensure we are able to deliver our solutions worldwide. Our commitment focuses on delivering successful outcomes, a wide range of compressed air and vacuum machines, industrial engineered solutions and customised projects.



Brands

Tamrotor

ROBUSCH

BellissMorcom

Reavell

© hydrovane

 Elmo Rietschle

 CompAir

**Gardner
Denver**

**Gardner
Denver**

TRANSPORT SOLUTIONS

HIGH PRESSURE SOLUTIONS

Power generation

W

Oil & Gas

Added value

We work with some of the **top global organisations** and have gained their approvals and accreditations

We can provide **machinery** for a **wide range of applications**

We ensure **compliance with the most demanding quality requirements**, ISO regulations included

We have **global experience**

A comprehensive range of oil-free Class 0 certified low, medium and high pressure compressed air solutions; variable speed drive, energy recovery solutions, heat of compression dryers, control and monitoring systems.

Turn-Key Projects

Able to accommodate **the most demanding technical requirements**

Project reports & meetings

Bespoke and customised projects

Extensive experience - over 60 years

Peace of mind for our customers



Water Treatment

Heavy Industry



Solutions

- Oil-lubricated rotary screw compressor packages
- Oil-free compressor packages
- High pressure compressor packages
- Dryer packages
- Positive displacement blower (Pressure / vacuum)
- N2 generator packages
- Compressed air system packages
- Control and instrumentation
- Interconnecting piping design and fabrication
- Complete packages or “skids”
- Closed loop cooling water system

Products

- Air compressors
- Air treatment
- High pressure
- Blowers and vacuum pumps
- Nitrogen gas generators
- Air receivers
- Transport

Disciplines

- Mechanical. Equipment / pneumatic instrumentation
- Electrical
- Instrumentation
- Control
- Quality



What we can do

1. Design

- Basic and detail design engineering
- Compressor modification to customer requirement
- Project integration
- Quality, environmental and safety management
- Feasibility studies, market studies and technical, economic and financial consultancy
- Compressor, blower, vacuum pump design and modification to project specification
- Detailed project scheduling

2. Project management

- Design and manufacturing according to customer specifications
- Documentation to customer requirements (mechanical, electrical, I&C, quality, logistics, etc.)
- Quality documentation to client requirements and country of destination
- Preparation of as built drawings: P&ID, general arrangement, sectional drawings and 3D modelling
- Complete assembly of the compressed air system, including piping and control of the installation (PLC)
- Preparation of installation, operation and maintenance manuals
- Protection against severe ambient conditions
- Purchasing, inspection, expedition and logistics management
- Inspection tests (mechanical, hydrostatic, packing...) and final tests

3. Commissioning and start-up

- Construction, assembly, pre-commissioning, commissioning and start-up
- Shipping
- Marking and packaging of the whole supply
- Customer training



Installation types

Shelter

- Equipment installed in a shelter except for receivers. Interconnecting piping between equipment and receivers is disassembled for transport
- Easy transportation of the whole station
- Connection points with customer: compressed air outlet, cooling water drains and electrical supply
- Ambient conditions inside the shelter controlled
- Compact design
- Evacuation ducts for cooling air outlet



Skid

- Equipment installed in a common skid except for receivers. Interconnecting piping between equipment and receivers is disassembled for transport
- Easy transportation
- Connection points with customer: compressed air outlet, cooling water drains and electrical supply
- Compact design



Supply of system components

- Whole installation mounted in our facilities
- Before transportation all piping and wiring is disassembled
- Connection points with customer: compressed air outlet, cooling water drains and electrical supply





Oil & Gas

Our experience in Oil & Gas provides you with a solid and committed partner for your compressed air requirements across a range of diverse applications. Currently, our systems can be found working on oil platforms miles from shore, in the remotest of locations, in the most extreme of temperatures found across the globe.

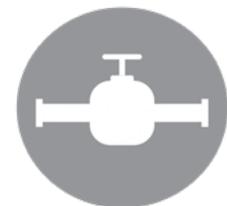
Around the world, operators rely on Gardner Denver’s flow control products and application expertise for safe oil and gas production. We engineer solutions from the rig to the refinery, helping to increase equipment reliability while reducing maintenance and life-cycle costs.

- Coiled tube drilling
- Recovery of cleaning liquids
- Sand oil fields recovery
- Extraction (offshore & onshore)
- Storage
- Refining
- Marine Loading and Unloading
- Connection

Solutions across different fields



Oil & Gas Upstream



Oil & Gas Midstream



Oil & Gas Downstream



Unrivalled application know-how

The Gardner Denver ranges are also available as **complete packages** that include all essential ancillary items such as starter control panels with PLC logic systems, energy efficient motors, air dryers, air receivers, filters and optional cooling systems to suite all site conditions and application requirements.

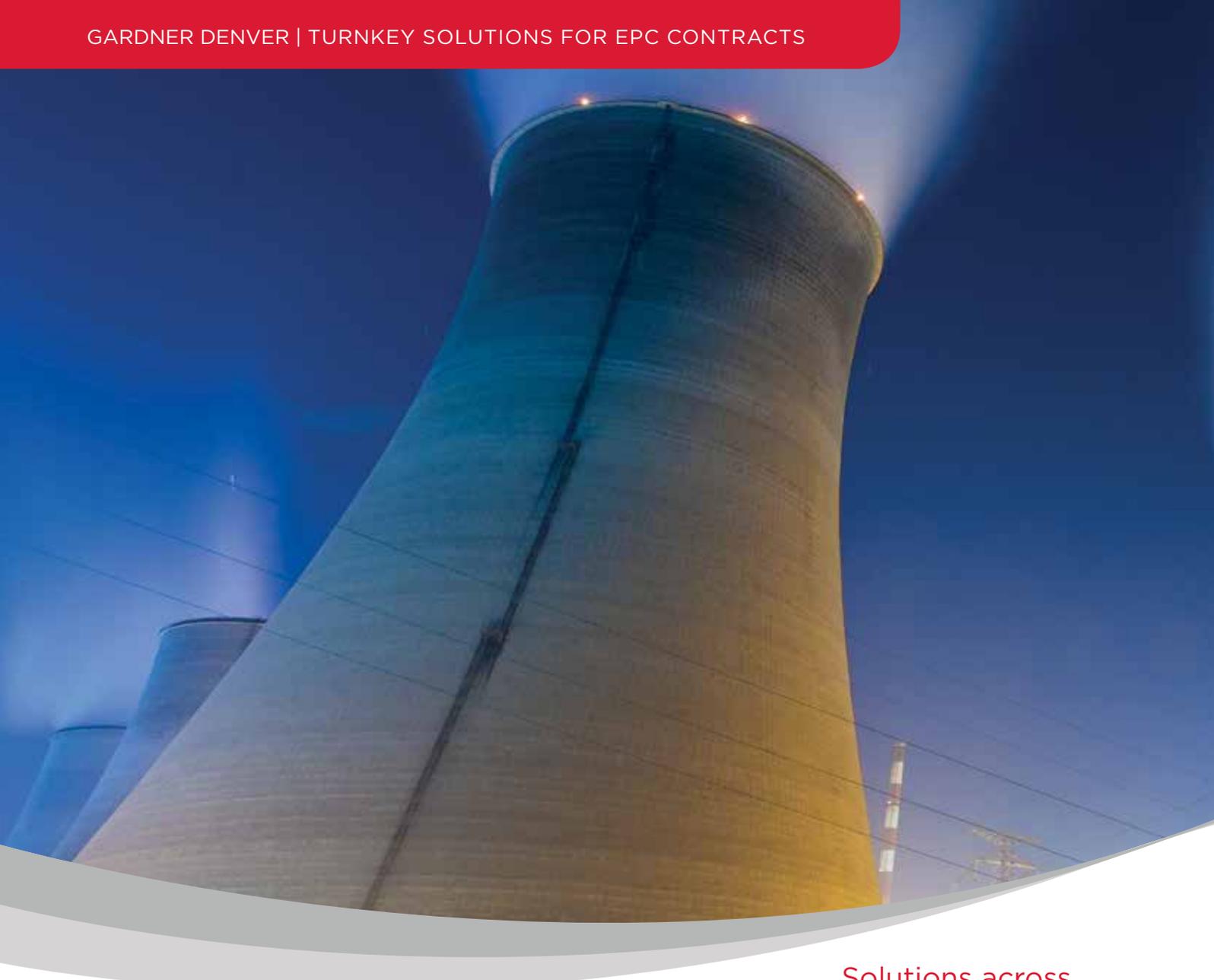
The quality and engineering excellence built into each and every one of our high compression units is able to stand up to even the harshest and most hostile environments.

Performance. Reliability. Durability

Gardner Denver understands our customers and delivers **intelligent solutions** that meet your ultimate needs for high pressure applications.

With our direct drive high efficiency motors or with belt driven alternatives, and the latest extended life materials technology, the Gardner Denver product range offers unrivalled high performance.

Our technologies are suitable for a **wide range of oil & gas applications**. Rely on our expertise to select the right compressor for your needs.



Solutions across different fields

Power Generation

Gardner Denver’s extensive experience within the power generation sector delivers a complete project life cycle know-how.

Gardner Denver’s vast experience ensures that power stations are able to adapt quickly to changing market and environmental requirements. We provide proven application expertise and the latest pumping and flow control technologies to lead plants through changing grid demands, implement complex system upgrades, improve energy efficiency and meet the planet’s growing need for smarter power generation.

- Control valves
- Conveying
- Filtration cleaning
- Raw material handling
- Bed combustion fluidisation
- Evacuation condenser
- Flue gas desulphurisation
- Nitrogen
- Condenser air, removal and exhaustion
- Air and gas handling
- Fly ash conveying



Power Generation



Biofuel Plant



Geothermal Energy



Solar Energy



Coal



Advanced Aftermarket Programme

Compressed air users can rely on Gardner Denver to keep their systems running at optimum performance and efficiency throughout their life cycle. Gardner Denver takes customer service very seriously and we have developed our aftermarket capabilities year on year. Today Gardner Denver is known for its **excellent service and support on a global scale**.

Gardner Denver understands the challenges faced by our global clients in today's ever changing environment, and we take pride in offering an **exemplary global aftermarket programme** covering spare parts, service and support. Our global teams cater for all service requirements throughout the life cycle of your equipment.

Refurbish & Recycle

When your compressor reaches the end of its serviceable life, it does not mean you need to replace it. Even the best engineered high pressure compressed air equipment has a limited life expectancy and after many years of faultless service can become inefficient - costing you valuable time and money.

Gardner Denver offers **advanced research and development facilities**, a dedicated and experienced team, a class leading manufacturing centre and a passion for high quality engineering excellence.

Gardner Denver can offer your business a **full diagnostic evaluation and recommend a programme of refurbishment** which will bring your existing high pressure system back to optimum operating specification.



Water Treatment

Gardner Denver partners with our customers to provide appropriate and innovative compressed air solutions for diverse industrial and municipal water treatment applications.

- WWT
- Back washing sand filtration
- Compressed air in waste water treatment plant
- Desalination
- Slurry liquid pumping
- Suction vehicles for waste water
- Waste water disposal
- Waste water purification/ oxygenation of activated sludge tanks
- Aeration process in waste water treatment plants



Solutions across different fields



Waste Water Treatment Plants



Municipal Waste Water Treatment Plants



Desalination Plants



Innovative Technology

In a competitive and evolving global market, our long history of supplying aeration equipment in water treatment plants that best meets customer specific requirements, makes Gardner Denver a **trusted and reliable partner for the water treatment industry**. Cost-effective solutions for new plants or refurbishments of existing installations are a major focus of our product excellence and application expertise.

Robuschi (a brand of Gardner Denver), has been a leading partner for the waste water industry for many decades. Its rotary lobe blowers, screw compressors and centrifugal pumps offer energy-efficient and sustainable solutions for a variety of applications in this field, such as primary sedimentation, aeration, slurry liquid pumping and back washing sand filtration. Waste water treatment uses the following technologies: rotary lobe blowers, screw compressors and centrifugal pumps.



Elmo Riestchle is another Gardner Denver brand focused on vacuum and pressure solutions, offering an outstanding choice of side channel blowers, radial fans, dry running and oil-lubricated rotary vane vacuum pumps and compressors, and screw vacuum pumps, in addition to liquid ring, rotary lobe and claw vacuum pumps and compressors. With the use of central vacuum systems, the disposal of waste water can be optimised. The waste water can be collected, drained and disposed of in entire housing areas at the same time. With the use of vacuum, up to 97% of the waste water can be transported uphill.



Other Industries

All customers, distributors and operators across a wide range of industries, rely on Gardner Denver's flow control products and application expertise.

- Automotive
- Food and beverage
- General manufacturing
- Glass
- Paper & printing
- Petrochemical
- Pharmaceutical
- Aerospace
- Agriculture
- Environmental
- Mining
- Medical
- Packaging
- Plastics
- Transportation



Solutions across different fields

- Air operated robots
- Air tools
- Paint shop applications
- Bottle filling
- Nitrogen generation
- Packaging
- Humidification
- Pneumatic conveying
- Glass manufacturing
- Air grinders
- Blasting
- Printing
- Product drying
- Plastic film
- Liquid transfer



Nitrogen Gas Generation

Gardner Denver's comprehensive range of cost effective nitrogen generation systems from compressed air, enable users to take control of on-demand nitrogen gas production, in-house, on their own premises.

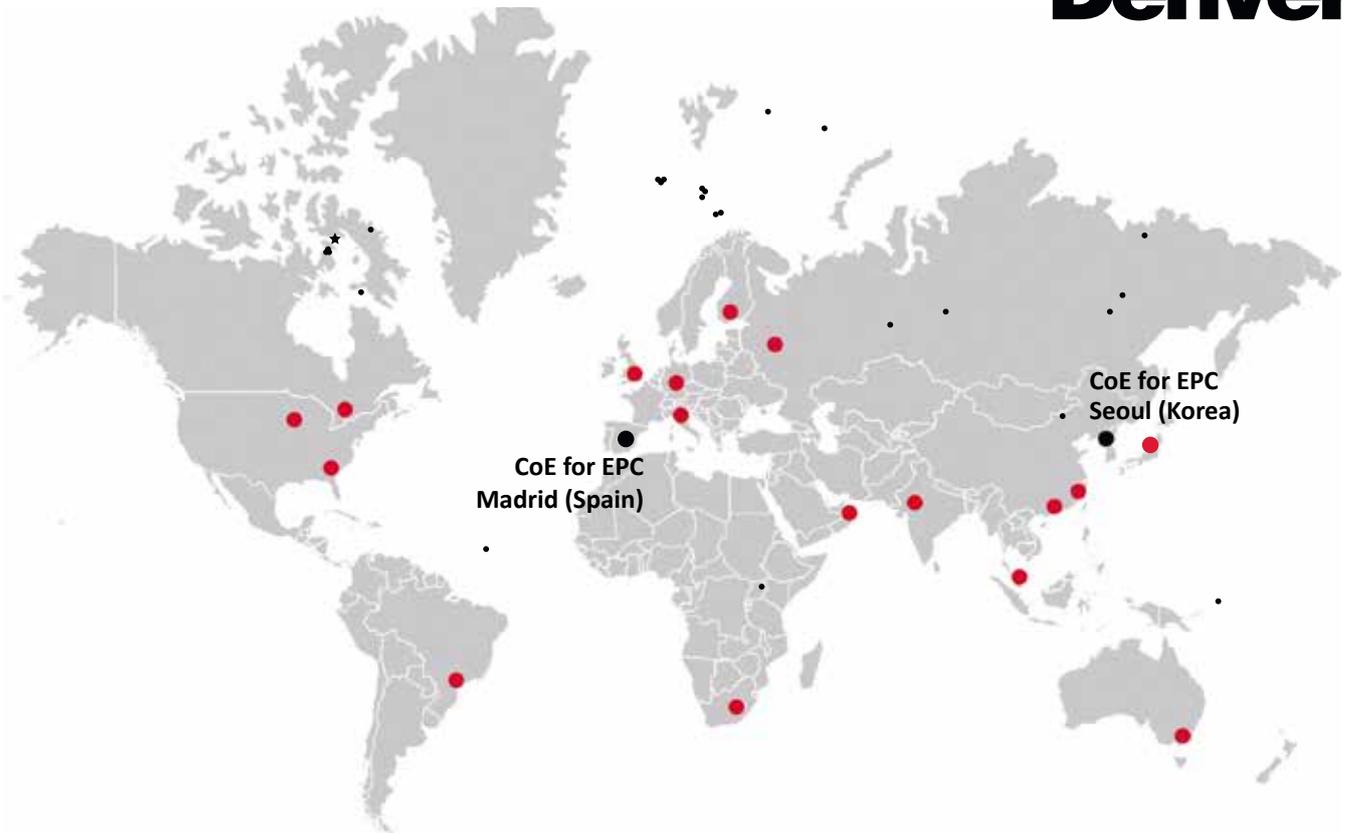
The system can be installed simply within a compressor house or production area with standard piping, without any special requirements. Nitrogen gas is produced at low pressure, eliminating safety hazards usually associated with high pressure cylinder gas. Potential manual handling concerns are also removed.

The nitrogen generation plant can also utilise a Pressure Swing Adsorption (PSA) system, consisting of two adsorption towers filled with a carbon molecular sieve. Compressed and purified air is passed through the towers with oxygen being adsorbed to leave a nitrogen enriched gas – oxygen concentration can be reduced to the client's own purity level requirements.

In addition, Gardner Denver deliver high quality nitrogen generation packages and bespoke solutions for the recovery of high purity nitrogen from air. With on-site nitrogen production, there are no dependencies on suppliers or supply shortages. This is particularly advantageous in remote areas.

Global Expertise

Gardner Denver



Through our intense customer focus and disciplined performance culture, we have positioned ourselves as the industry's first choice for innovative and application critical flow control products, services and solutions.

For more information about Gardner Denver, please, contact your local Gardner Denver Sales & Service Centre, or visit our website.

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