

GARO Liquid Ring Compressors



NASH Liquid Ring Compressor Systems

GARO Compressors

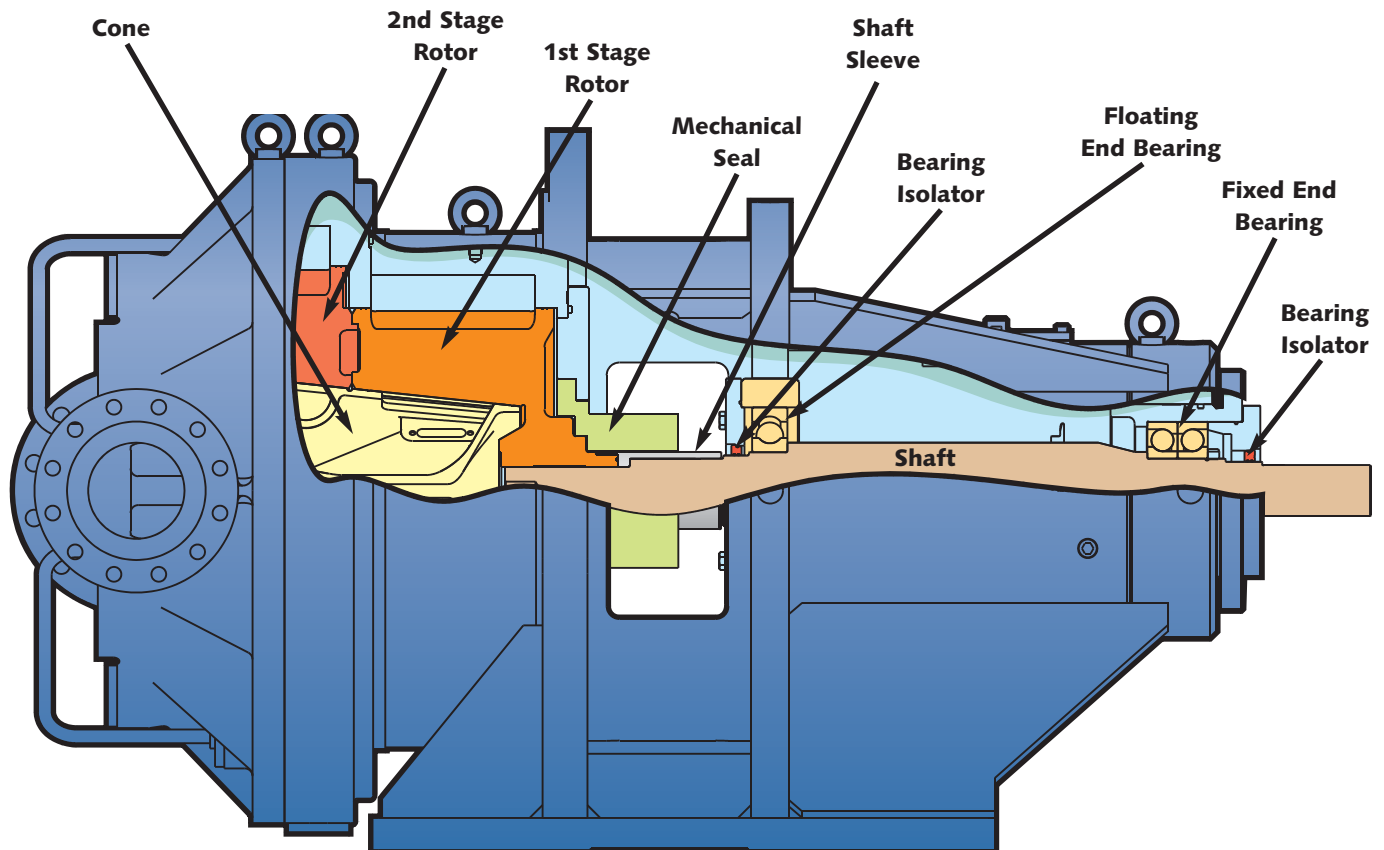
The GARO line is Gardner Denver Nash's newest line of liquid ring compressor products. It expands the capacity and pressure ranges of our previous compressors to meet the ever-growing requirements of our customers.

Found primarily in petroleum refineries and chemical plants, these rugged and reliable compressors handle highly toxic, explosive and corrosive gases in applications such as flare-gas, chlorine and Vinyl Chloride Monomer (VCM) recovery. The GARO line, available in single and two stage designs, is available in cast iron, stainless steel, carbon steel, spheroidal cast iron, 316 stainless steel and duplex stainless steel. Hastelloy or titanium is also available on select models.

Together with the NASH HP-9, the fourteen new GARO models form our core compressor product line, which provides compression greater than 200 psig (15 bar abs). Low pressure compressors are available to 30 psig (3 bar abs) and 20,000 cfm (34,000 m3/h). As a result, Nash offers the widest pressure and capacity ranges of liquid ring compressors available worldwide.

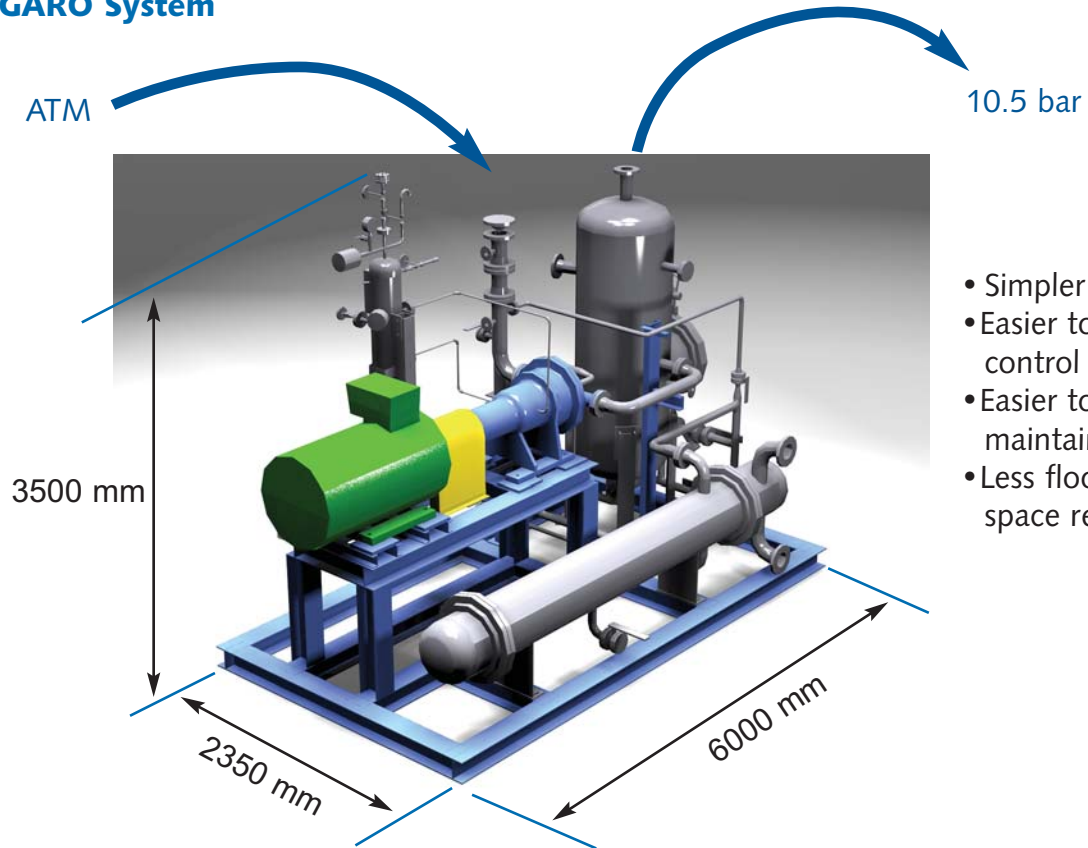
Gardner Denver Nash carries the GARO line exclusively for the Americas, China, and most of Western Europe - excluding Italy, Portugal and Spain - under an agreement with GARO.

GARO	Other compressors
Overhung impeller	Impeller between bearings
One (1) mechanical seal	Two (2) sets of mechanical seals, 4 seals total
Single, stationery double-stage execution in one compressor	Two compressors in series required
Conical design - high efficiency	Port plate design - low efficiency
Over 50 years of experience	Less experienced
API 681 compliant	Not API 681 compliant



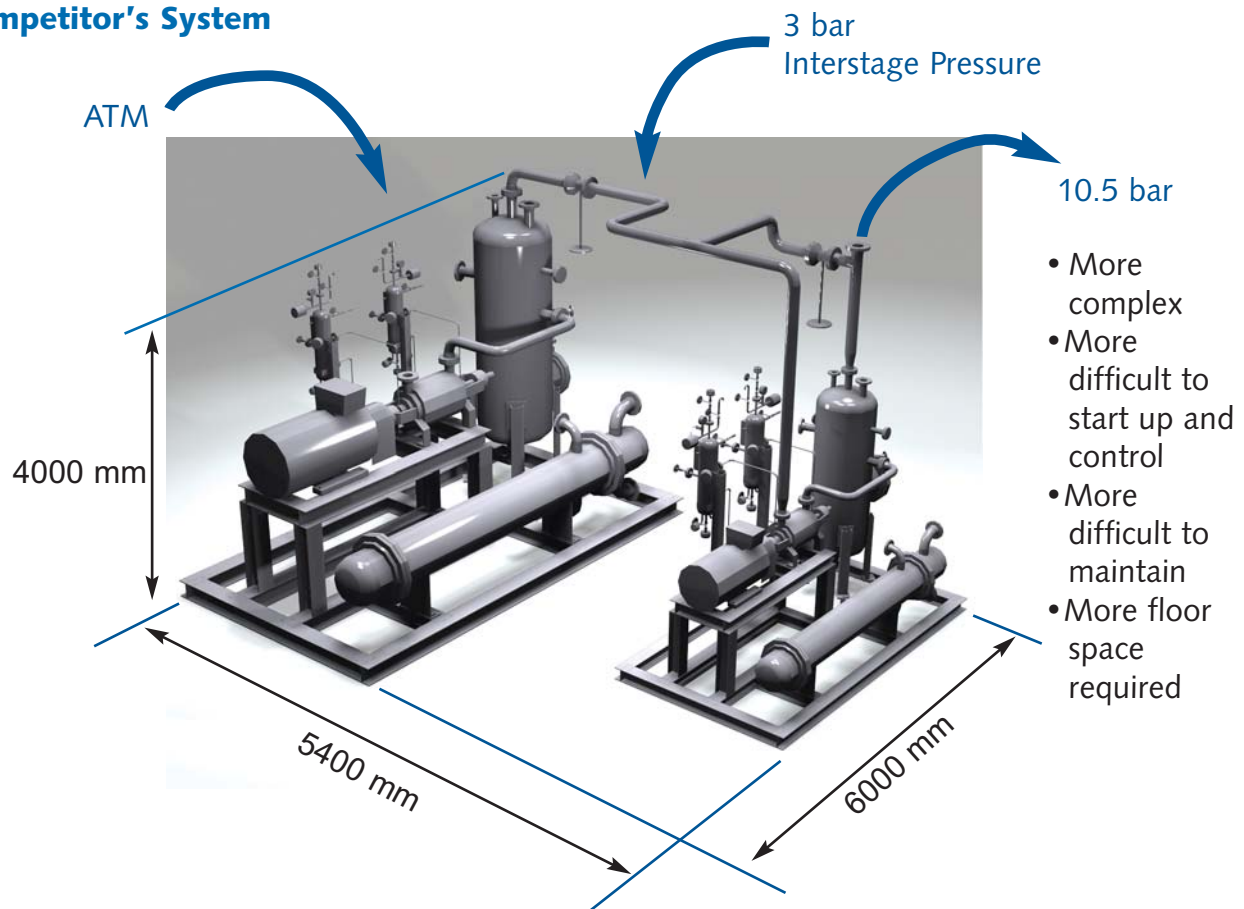
NASH Liquid Ring Compressor Systems

NASH GARO System



- Simpler design
- Easier to control
- Easier to maintain
- Less floor space required

Competitor's System

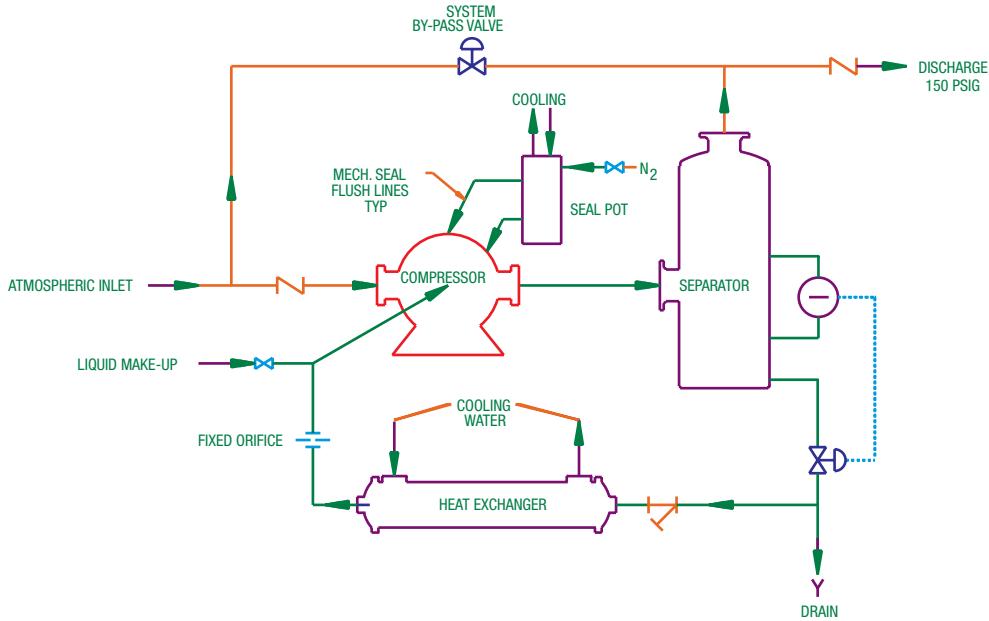


- More complex
- More difficult to start up and control
- More difficult to maintain
- More floor space required

World Class Design & Performance

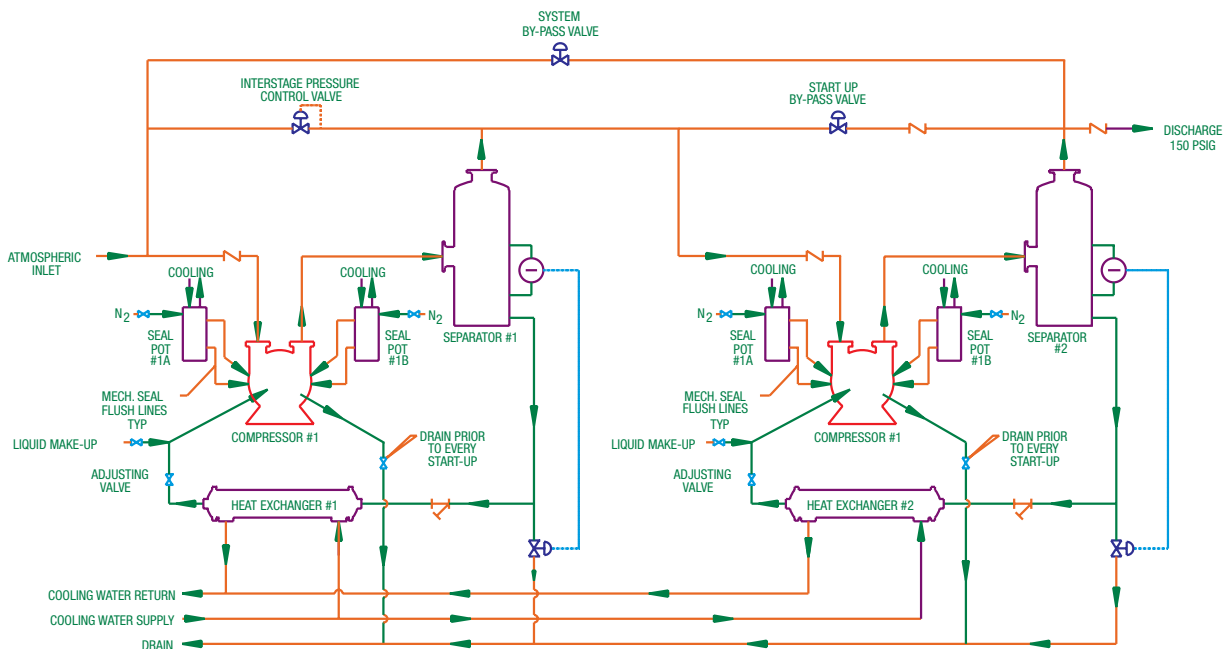
NASH GARO System

- Simpler, easier to control system

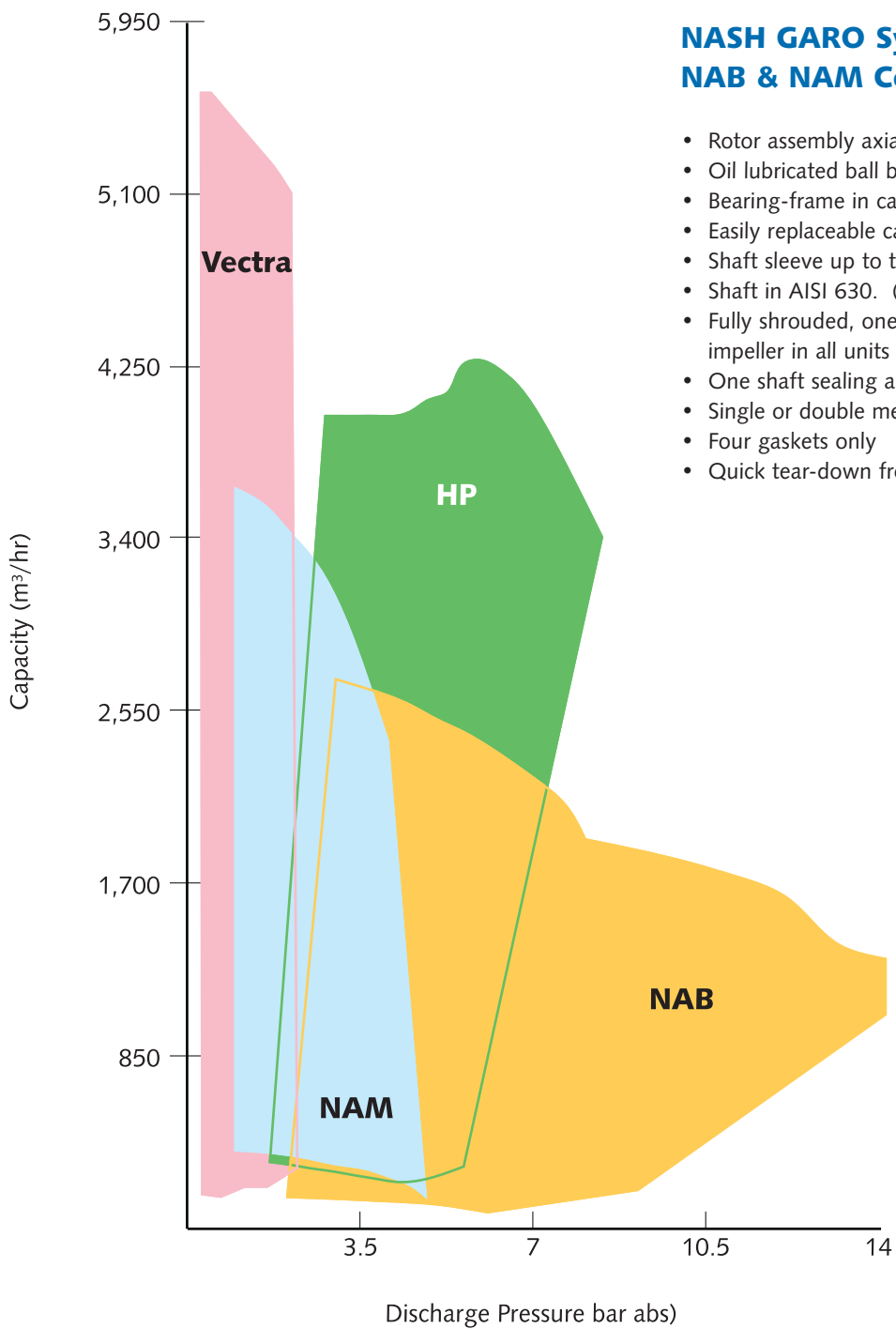


Competitor's System

- More complex
- More difficult to start up and control



NASH Liquid Ring Compressor Systems



NASH GARO System NAB & NAM Compressors

- Rotor assembly axially removable
- Oil lubricated ball bearings
- Bearing-frame in carbon steel
- Easily replaceable casing
- Shaft sleeve up to the bearing frame
- Shaft in AISI 630. (DIN 1.4542 EN10088)
- Fully shrouded, one piece, overhung impeller in all units
- One shaft sealing area only
- Single or double mechanical seal
- Four gaskets only
- Quick tear-down front cover

Other NASH Products

TC/TCM

Integral 2 stage liquid ring pumps with improved performance at vacuum levels down to 0.8" HgA (27 mbar)
Designed to handle large amounts of liquid carryover without difficulty
Capacity of 100 to 2,240 CFM with vacuum to 0.8" HgA
Capacity of 170 to 3,740 m³/h with vacuum to 27 mbar abs



Steam Jet Ejectors

Sizes range from one-inch (25mm) to 78-inch (2 meters) inlets
Capacities range from 20 to 20,000 CFM
Capacities range from 34 to 34,000 m³/h
Multi-stage system pressures as low as 0.001 mm HgA



2BE4/P2620

Large liquid ring vacuum pumps with superior corrosion resistance
Top discharge capability which eliminates need for trench
Self-recirculating seal water, reducing need for external seal water source
Capacity of 4,000 to 23,000 CFM with vacuum to 24" HgV
Capacity of 6,800 to 39,000 m³/h with vacuum to 200 mbar abs



Vectra

Liquid ring vacuum pumps and compressors
Available in feature rich budget designs (SX, XL or GL)
Designed to handle high back pressure requirements
Capacity of 20 to 4,000 CFM with vacuum to 29+ HgV
Capacity of 34 to 6,796 m³/h with vacuum to 33 mbar abs



Service

We have the know-how, the expertise and the specialists. We provide professional service to make your pumps run for decades. Our service centers are located in:

- Australia
- Korea
- Africa
- Brazil
- Netherlands
- Sweden
- China
- Singapore
- UK
- Germany
- South
- USA



NASH

Div. of Gardner Denver

9 Trefoil Drive
Trumbull, CT 06611 U.S.A.

phone: 800 553 NASH
+1 203 459 3900

fax: +1 203 459 3988

nash@gardnerdenver.com

www.GDNash.com



A Gardner Denver Product