

Vectra XL
Liquid Ring Vacuum Pumps and Compressors



NASH Vectra XL Vacuum Pumps & Compressors

Industry Workhorses

NASH liquid ring vacuum pumps produced by Gardner Denver Nash have been known for more than 100 years as tireless workhorses, designed to stand up to the rigorous, nonstop demands of the harshest industrial environments. Built better than industry standards, NASH pumps are known for their reliability.

Vectra XL vacuum pumps and compressors, created specifically for the chemical process industry, combine the highest standard of this reliability with a new level of ingenuity. Gardner Denver Nash employs advanced design technologies to achieve optimum performance and unprecedented production efficiencies. As a result, Vectra XL pumps are economical and provide great value to our customers.

Designed from the ground up based on customer defined market requirements; and the input from R&D, manufacturing, marketing, and most importantly, process engineers, Vectra XL pumps are a revolutionary line of pumps tough enough to be branded NASH.

These pumps include technological advancements such as a patented cone design and rotor configuration. These machines have been specifically designed to excel in applications that require discharging against a positive back pressure. Vectra XL pumps meet high combustible range standards and are ATEX certified. These vacuum pumps and compressors are in accordance with guideline 94/9/EG, category 1 and 2 and were also designed with API 681 specifications in mind.

| Features | Benefits |
|--|--|
| Compact design | Less floor space required |
| External mechanical seals | Flexibility & ease of maintenance |
| Universal stuffing box | Accepts variety of mech. seals |
| Global product design | Direct drive speeds for 60 Hz & 50 Hz motors |
| Extended pressure ratings | Ability to handle tough applications where back pressure is required |
| Conical design | Better ability to handle water/particulate slugs |
| One moving part | Long term reliability |
| Variable port design | High efficiency |
| Lobe purges | Reduce erosion wear |
| NASH patented Gas Scavenging | Increased performance at high vacuum levels |
| Redesigned cone angle | Reduced pump length |
| Optimum design using finite element analysis | Improved efficiency, performance and value |
| 100% performance tested | Trouble-free start-up and operation |

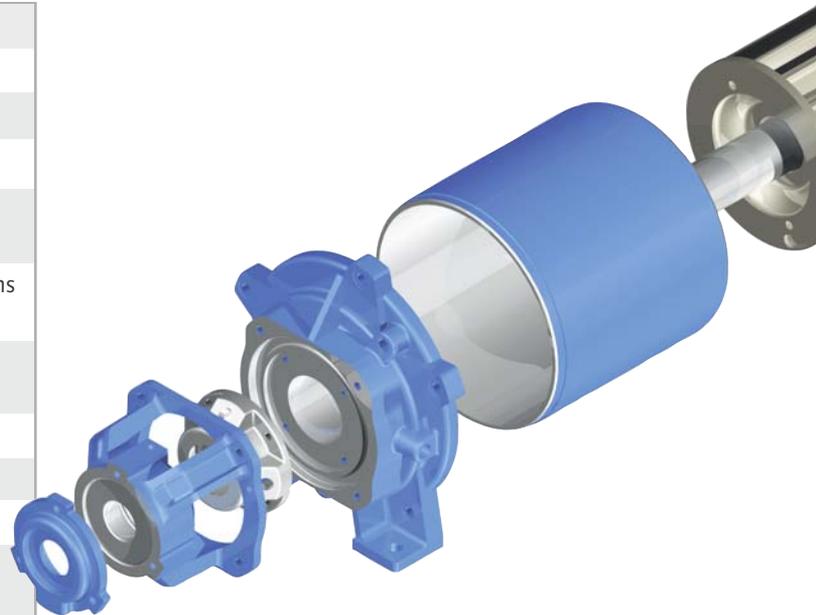
Vacuum technology for chemical processing

Vectra XL pumps are designed to stand up to the harsh environments found in the chemical process industry. They are available in both ductile iron and stainless steel. and can accommodate a variety of mechanical seals. Key elements of the design are the improved cone angles, which decrease the size of the pump, and NASH patented Gas Scavenging Technology, which dramatically improves pump performance at high vacuum levels.

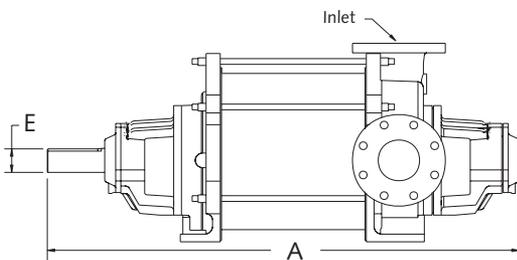
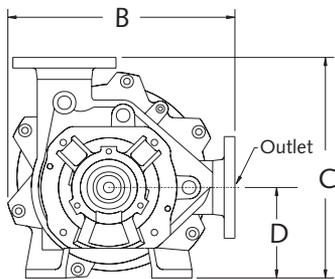
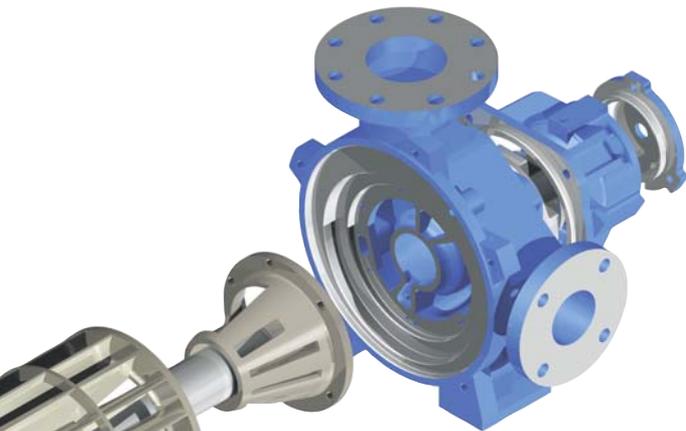
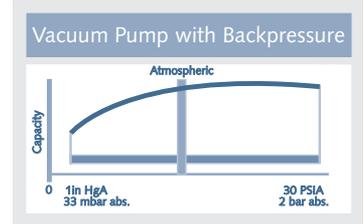
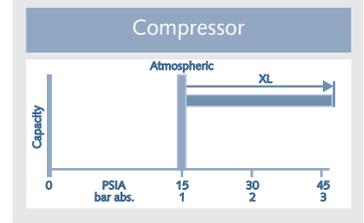
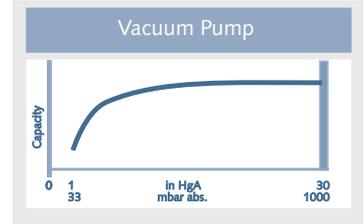
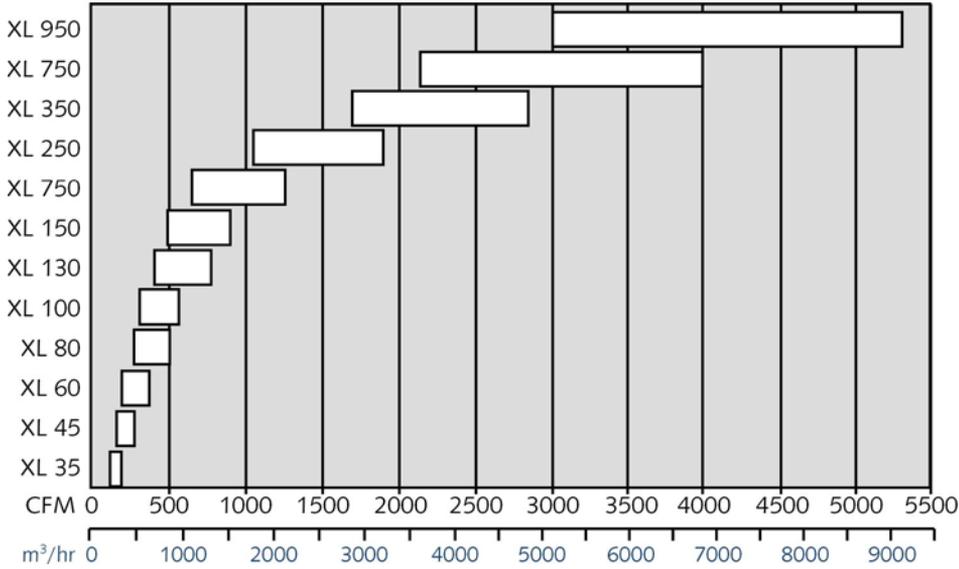
| Basic specifications | |
|----------------------------------|--|
| Vacuum range | 0-29 in Hg vac/ to 33 mbar abs. |
| Mechanical seals* | Single, double and cartridge |
| Differential pressure capability | 30 psi/ 2 bar |
| Compressor pressure | 30 psig/ 3 bar abs. |
| Hydrotest pressure | 150 psig/ 11 bar abs. standard (225 psig/ 16 bar abs. optional) |
| Construction material | Ductile iron, stainless steel |

*Mechanical seals are standard on stainless steel Vectra XL 35 - 150 models.

Optional on others.



Performance



Dimensions - in (mm)

| Pump | A | B | C | D | E | Inlet | Outlet |
|--------|--------------|--------------|--------------|-------------|------------|--------------------------|--------------------------|
| XL 35 | 30 762 | 13.4 340 | 14 356 | 6 152 | 1.5 38 | 3 in. FLG 80 mm FLG | 3 in. FLG 80 mm FLG |
| XL 45 | 33 838 | 13.4 340 | 14 356 | 6 152 | 1.5 38 | 3 in. FLG 80 mm FLG | 2 in. FLG 50 mm FLG |
| XL 60 | 36 914 | 17 432 | 16 406 | 6.8 173 | 1.9 48 | 4 in. FLG 100 mm FLG | 3 in. FLG 80 mm FLG |
| XL 80 | 39 991 | 17 432 | 16 406 | 6.8 173 | 1.9 48 | 4 in. FLG 100 mm FLG | 3 in. FLG 80 mm FLG |
| XL 100 | 42 1067 | 19 483 | 20 508 | 8 203 | 2.4 61 | 4 in. FLG 100 mm FLG | 4 in. FLG 100 mm FLG |
| XL 130 | 46 1168 | 19 483 | 20 508 | 8 203 | 2.4 61 | 4 in. FLG 100 mm FLG | 4 in. FLG 100 mm FLG |
| XL 150 | 48 1219 | 21 533 | 21 533 | 9.3 236 | 2.5 64 | 6 in. FLG 150 mm FLG | 4 in. FLG 100 mm FLG |
| XL 250 | 55 1397 | 26 660 | 25 635 | 11.5 292 | 3 76 | 6 in. FLG 150 mm FLG | 6 in. FLG 150 mm FLG |
| XL 350 | 64 1626 | 29 737 | 31 787 | 13 380 | 3.4 86 | 8 in. FLG 200 mm FLG | 6 in. FLG 150 mm FLG |
| XL 500 | 81 2057 | 39 991 | 41 1041 | 18 457 | 3.5 89 | 10 in. FLG 250 mm FLG | 8 in. FLG 200 mm FLG |
| XL 750 | 81.5 2070 | 49 1244 | 47.3 1200 | 20.5 520 | 5.1 130 | 10 in. FLG 250 mm FLG | 8 in. FLG 200 mm FLG |
| XL 950 | 89.5 2273 | 55.4 1407 | 53.5 1360 | 23.2 590 | 5.9 150 | 12 in. FLG 300 mm FLG | 10 in. FLG 250 mm FLG |

All dimensions are approximate

Other NASH Products

2BV Compact liquid ring vacuum pumps built for serious cost savings
Use up to 50 percent less water than other liquid ring pumps
Monoblock and pedestal designs available
Capacity of 4 to 350 CFM with vacuum to 29+” HgV
Capacity of 7 to 595 m³/h with vacuum to 31 mbar abs



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



2BE3/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



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



Compressors Wide range of liquid ring compressors designed for many applications. Rugged and reliable, they can handle highly toxic, explosive and corrosive gases
Specifically developed for applications such as flare-gas, Chlorine and Vinyl Chlorine Monomer (VCM) recovery
Capacity of 60 to 2,200 SCFM with pressure to 200 PSIG
Capacity of 100 to 3,740 m³/h with pressure to 15 bar abs
Single and two stage models available



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A Gardner Denver Product