

CL Liquid Ring Vacuum Pumps and Compressors



NASH CL Vacuum Pumps & Compressors

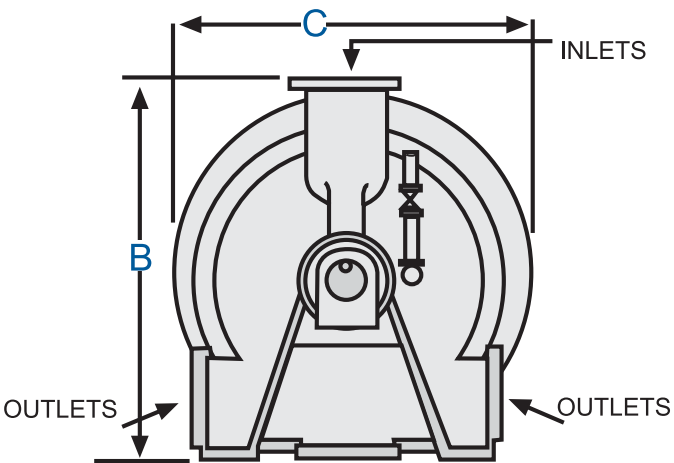
When to select a NASH CL Pump

- when liquid may carry over
- when air carries solid contaminants
- when gas is corrosive
- when vapor is to be reclaimed
- when you want smooth operation
- when you need reliability

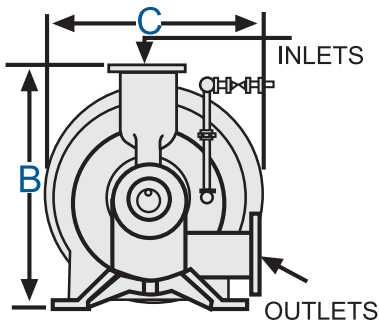
CL Pumps are single stage vacuum pumps ideal for demanding applications in extremely tough conditions. Heavy duty pumps, they are able to service a wide range of applications, which can include dewatering in the paper industry and vacuum filtering in mineral ore processing.

SERIES	Connections		Dimensions in mm			
	Inlet	Outlet	A	B	C	D
CL 9000	355	305	2388	2057	1778	1575
CL 6000	305	254	2261	1702	1473	1448
CL 4000	254	203	1930	1245	1219	1321
CL 3000	203	152	1727	1118	1016	1041
CL 2000	152	127	1524	914.4	838.2	914.4
CL 1000	127	102	1219	660.4	609.6	685.8
CL 700	102	76	1041	584.2	508.0	558.8
CL 400	76	64	914	482.6	431.8	457.2
CL 200	64	5	635	330.2	304.8	304.8

All dimensions are approximate



CL 2000 THROUGH CL 9000



CL 200 THROUGH CL 1000

World Class Design & Performance

Basic specifications

Vacuum range	0-27+ in Hg vac/ to 100 mbar abs.
Differential pressure capability	15 psi/ 1 bar
Compressor pressure	15 psig/ 2 bar abs.
Construction material	Cast iron, Stainless Steel

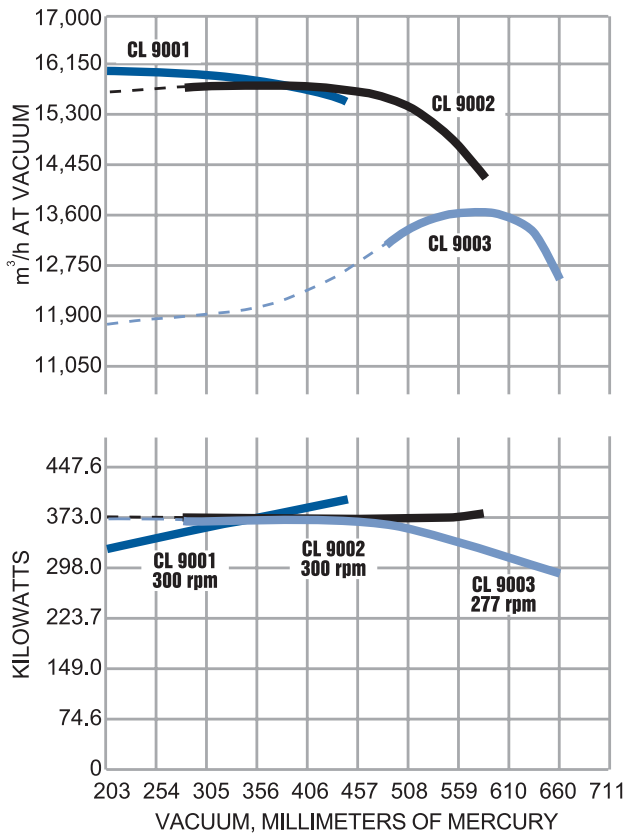
Features

Benefits

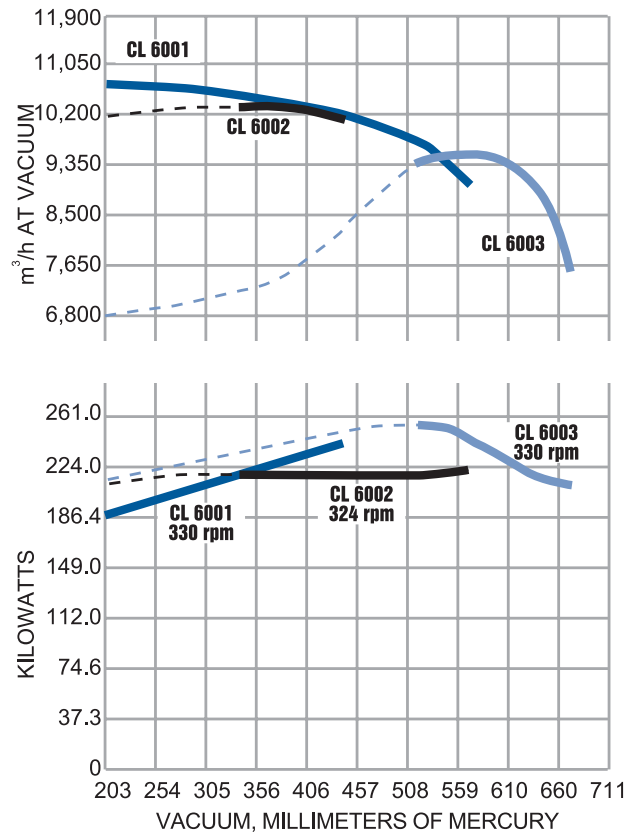
High efficiency design	Lower operating costs
Shrouded rotor design	Strength and durability
Internal Center Shroud	Can draw from two sources with one pump
Conical design	Better ability to handle water/particulate slugs
Lobe purges	Reduce erosion wear
Variable port design	High efficiency
100% performance tested	Trouble-free start-up and operation
Backed by 2 year warranty and over 100 years of vacuum and compressed gas experience	Peace of mind



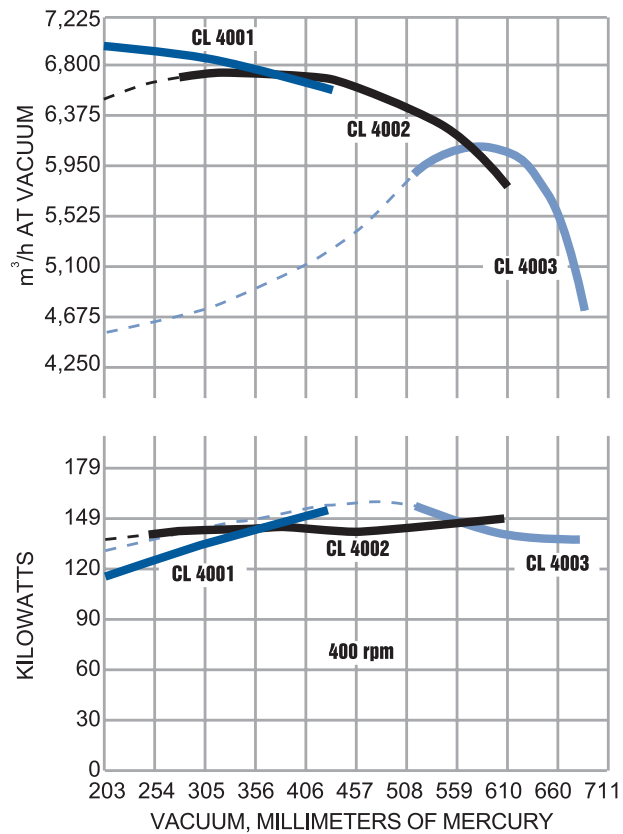
Series CL 9000



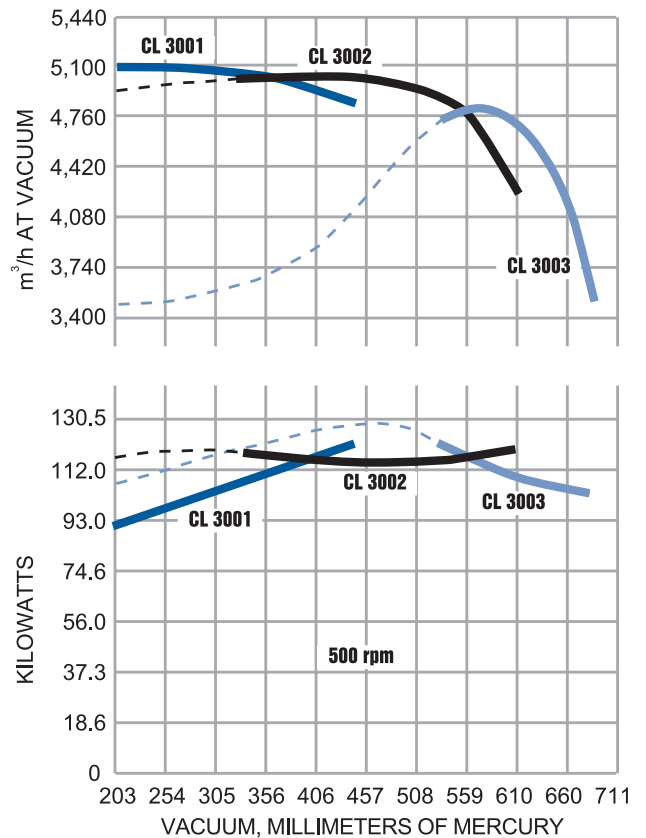
Series CL 6000



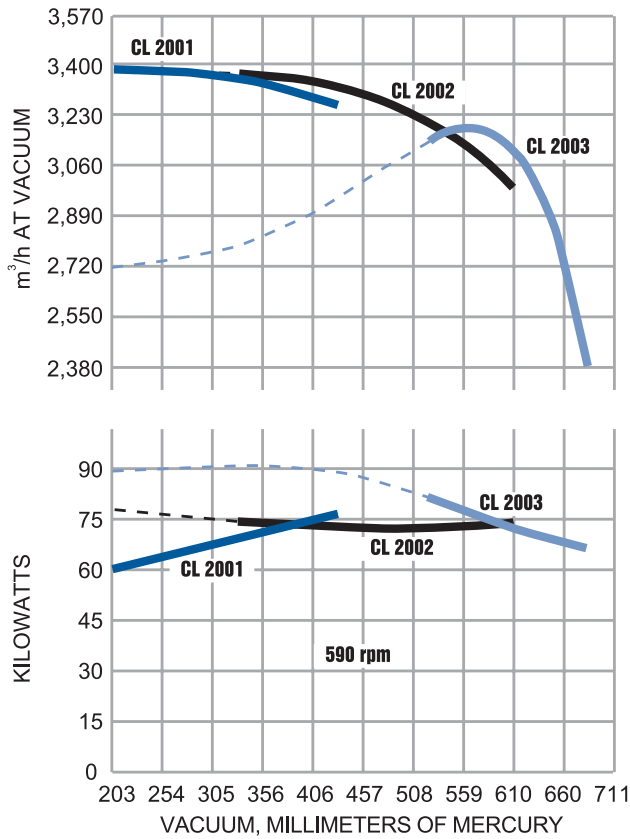
Series CL 4000



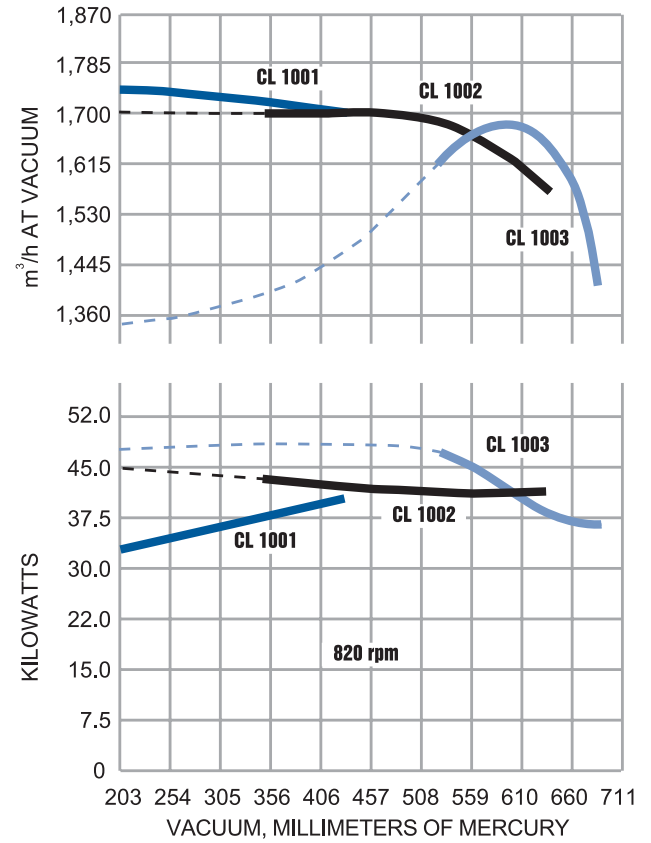
Series CL 3000



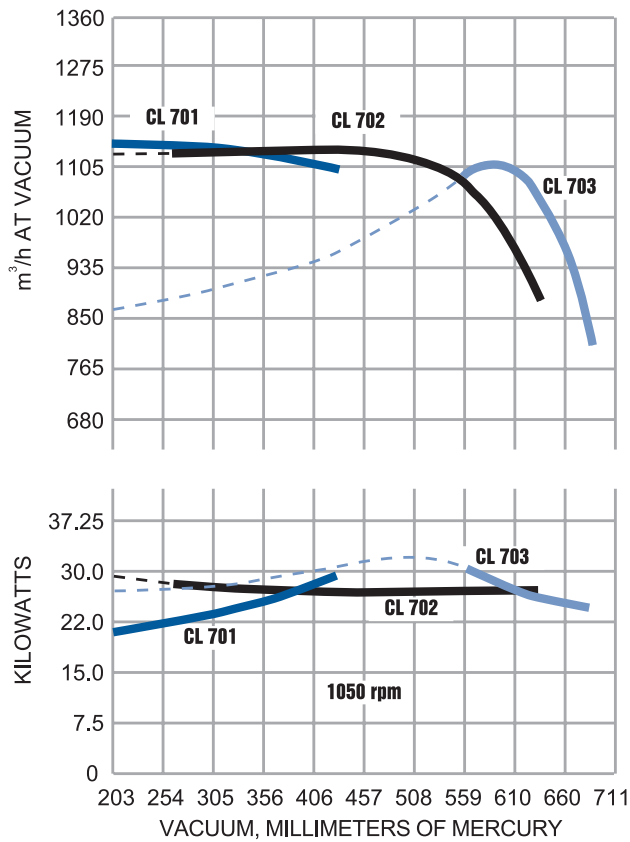
Series CL 2000



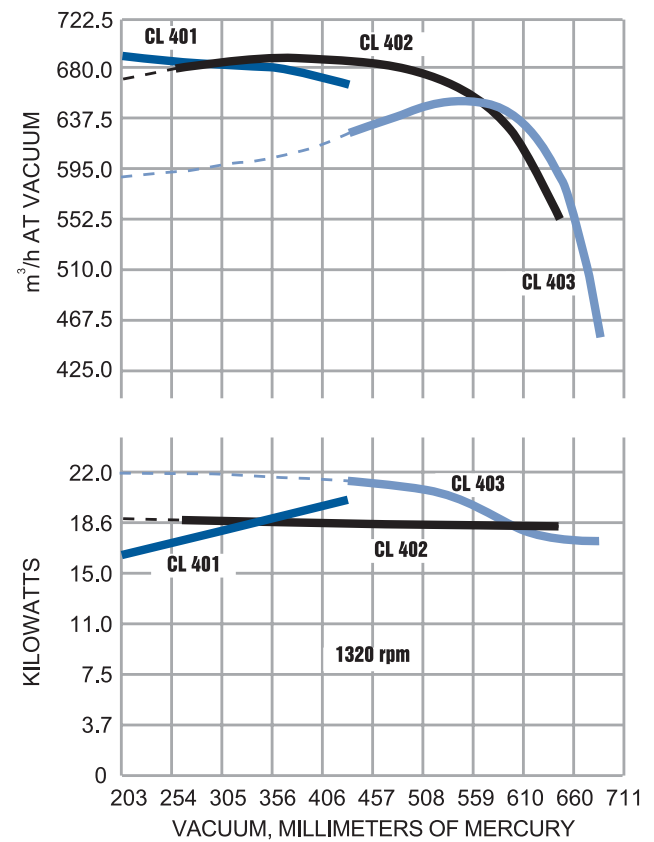
Series CL 1000



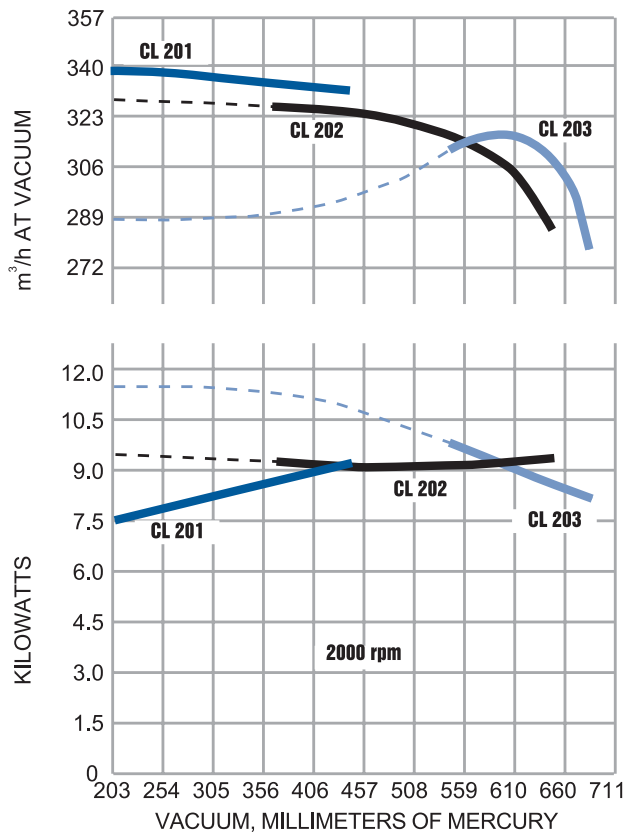
Series CL 700



Series CL 400

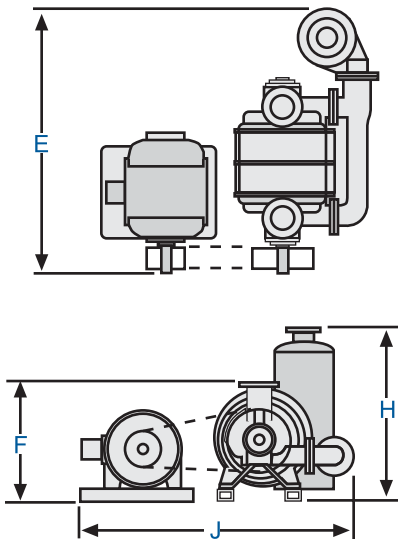
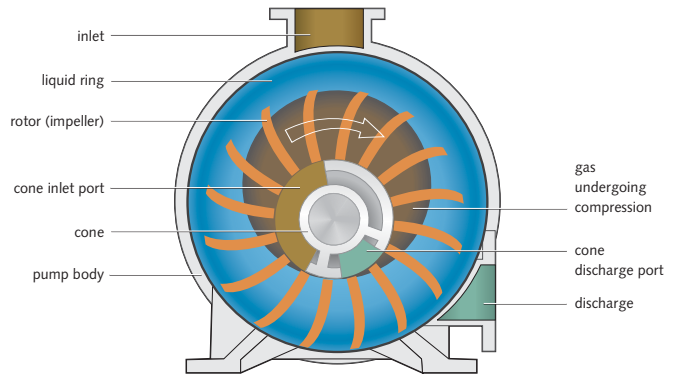


Series CL 200



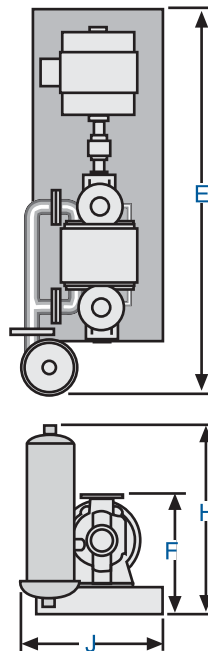
A NASH liquid ring system:

- is more economical over its life cycle
- will last longer
- requires significantly less maintenance
- provides more uptime for your plant
- is safer. The isothermal compression allows it to:
 - run cooler
 - condense hydrocarbons for sale or reuse
 - eliminate auto-ignition concerns
 - keep the discharge gas cool
 - increase bearing life
 - reduce mechanical wear
- does not require many of the complicated instrumentation safeties and ancillary accessories that add complexity to hot-running compressors



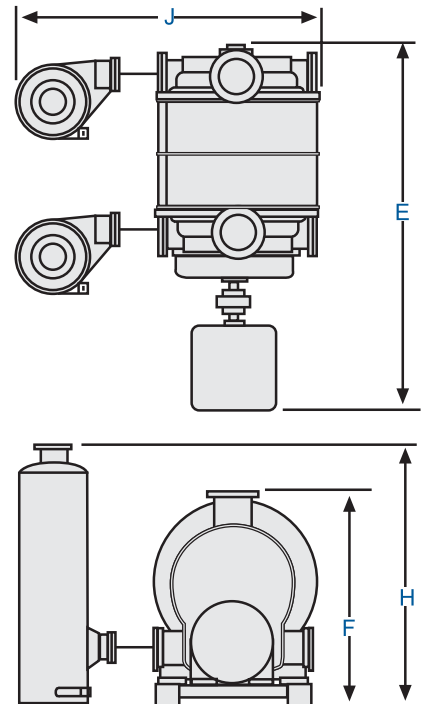
V-BELT DRIVE

With discharge manifold and one water-trap silencer



DIRECT DRIVE

With discharge manifold and one water-trap silencer



INTEGRAL GEAR DRIVE

With two water-trap silencers

Dimensions in mm

SERIES		E	F	H	J
CL 4000		3073	1422	2642	3073
CL 3000		2565	1219	2642	2794
CL 2000		2210	1016	2311	2413
CL 1000		1930	737	1524	1880
CL 700		1499	584	1194	1651
CL 400		1295	483	1168	1422
CL 200		965	432	864	1092

Dimensions in mm

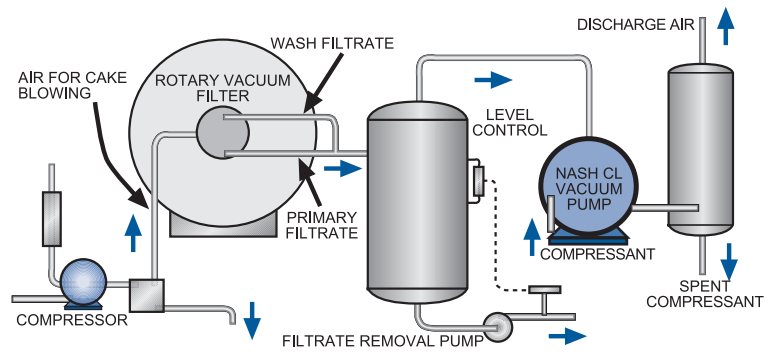
SERIES		E	F	H	J
CL 400		2134	483	1168	787
CL 200		1524	432	864	559

Dimensions in mm

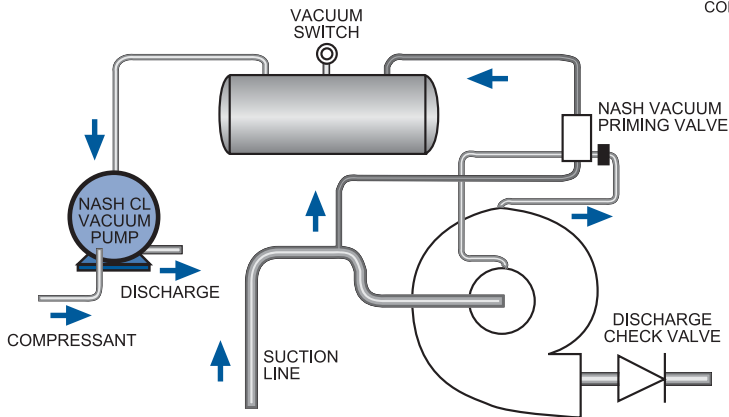
SERIES		E	F	H	J
CL 9000		4064	2337	2642	2896
CL 6000		3505	1981	2311	2540

All dimensions are approximate

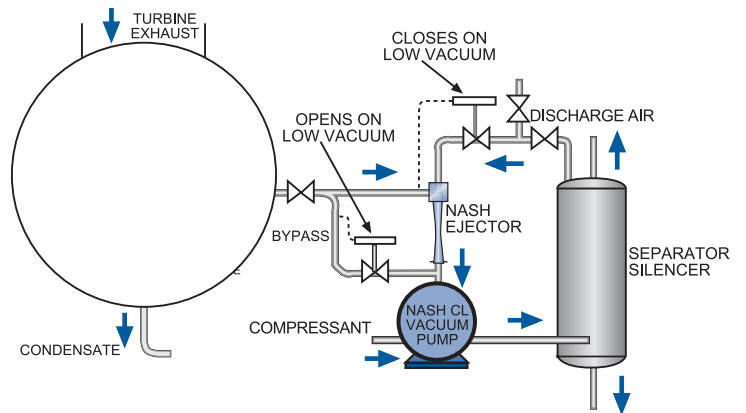
Some Typical CL Pump Installations



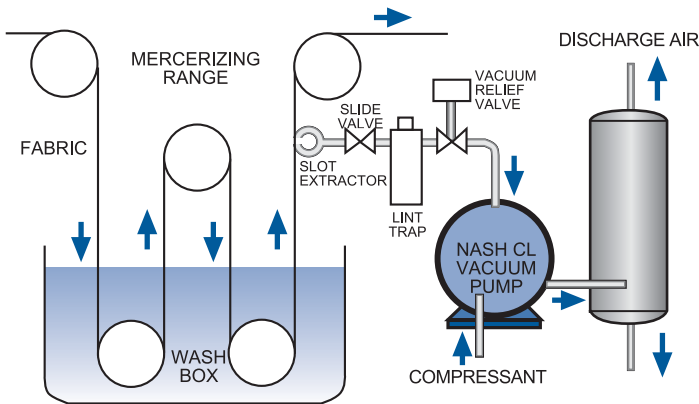
Filtration



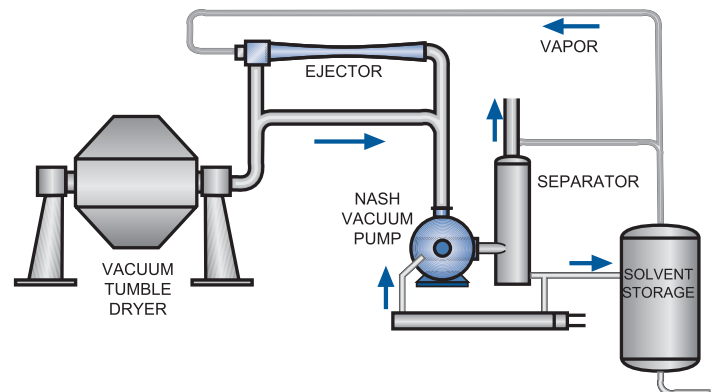
Priming



Condenser Exhausting



Moisture Extraction



Solvent Recovery

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 7 to 595 m³/h with vacuum to 31 mbar abs.



Vectra Liquid ring vacuum pumps and compressors
Available in feature rich budget designs (XL or GL)
Designed to handle high back pressure requirements
Capacity of 195 to 4 860 m³/h with vacuum to 31 mbar abs.



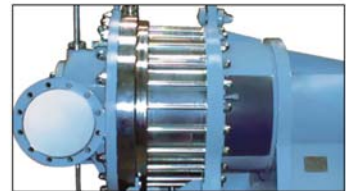
2BE3/P2620 Large liquid ring vacuum pumps with superior corrosion resistance
Top discharge capability which eliminates need for trench
Self-recirculating seal water, reducing need for external seal water source
Capacity of 6 800 to 39 000 m³/h with vacuum to 31 mbar abs.



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 170 to 3 740 m³/h with vacuum to 27 mbar



Garo Compressors Highly rugged and reliable compressors that 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 100 to 3 740 m³/h with pressure to 15 bar abs.
Single and two stage models available



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