

VIKING PUMP

A Unit of IDEX Corporation

PRODUCT SELECTION GUIDE

Leader in Positive Displacement
Pumping Solutions





Behind Every Good Product is a Good Pump

And Engineering Expertise

Most pump companies talk about being innovative, but Viking has been the industry innovator since its initial introduction of the 'gear-within-a-gear' design back in 1911. Here are a few examples of proven industry leading engineering capabilities:

- Product customization to handle virtually any liquid
- Extensive engineering lab capabilities
- Broad range of solutions for most fluid-handling problems
- Strong knowledge of industrial pump applications
- Custom pump solutions for unique applications



We're Familiar with Your Industry

What's Your Application?

Viking has the experience and product options to solve your fluid handling challenges. You have a choice of application specific products and positive displacement technologies including:

- Internal gear
- External gear
- Rotary lobe
- Rotary vane

Accessories including:

- Helical gear reducers
- Power load monitors
- Basket strainers
- Pump systems



Setting World Class Standards

Viking® Pumps Keep the World's Processes Flowing

Multiple manufacturing centers around the globe provide world class solutions for precision fluid handling.

- Viking pumps are found in more than 200 countries.
- More than 245 authorized, stocking distributors
- Multi-million dollar distributor inventories strategically located globally, backed by factory inventory to minimize downtime
- Vertically integrated manufacturing with captive foundries
- ISO9001-2008 certified



Focusing on Your Applications

Put Viking Pump's Experience to Work for You

We have documented experience on thousands of liquids that allow us to deliver proven solutions matched to your application.

- Thin to semi-solid (solvent to caulking compound)
- Cryogenic to molten (liquefied gases to molten sulfur)
- Inert to corrosive (oil to brine)
- Newtonian to non-newtonian (water to latex)
- Lubricating to non-lubricating (grease to hydrogen peroxide)
- Acidic to alkaline (citric acid to caustic soda)
- Clean to abrasive (liquid soaps to filled polymers)
- Low to high vapor pressure (heat transfer oil to ammonia)
- Edible to toxic (chocolate to sodium cyanide)

CHEMICALS

Markets and Applications Served in the Chemical Industry

- Personal Care Products
- Ethyl Alcohol Manufacturing
- Explosives
- Basic Inorganic Chemicals
- Synthetic Dyes & Pigments
- Basic Organic Chemicals
- Plastic & Rubber Products
- Drugs / Pharmaceutical
- Petrochemicals
- Plastics / Resins / Rubbers
- Paint & Applied Products
- Printing Inks
- Agricultural Chemicals
- Polyurethane Foam Products
- Soaps & Cleaning Compounds



Plastics / Resins / Rubbers



Paint & Applied Products



Printing Inks



Agricultural Chemicals



Polyurethane Foam Products



Soaps & Cleaning Compounds

FOOD PROCESSING

Markets and Applications Served in the Food Processing Industry

- Chocolate & Confectionary
- Dairy Products
- Beverages
- Edible Oils
- Sugar
- Animal Food



Chocolate & Confectionary



Dairy Products



Beverages



Edible Oils



Sugar



Animal Food

REFINED PETROLEUM & COAL

Markets and Applications Served in the Refined Petroleum & Coal Industries

- Oil & Gas Extraction
- Petroleum Refining
- Refined Fuel, LPG & CNG Distribution
- Lubricating Oil & Grease Manufacturing
- Asphalt Paving Mixtures
- Roofing Products
- Lubricant & Conditioning
- Coal Tar Pitch & Coke



Refined Fuel, LPG & CNG Distribution



Lubricating Oil & Grease Manufacturing



Petroleum Refining



Asphalt Paving Mixtures



Roofing Products



Coal Tar Pitch & Coke

MACHINERY

Markets and Applications Served in the Machinery Industry

- Engines & Turbines
- Commercial Cooking Machinery
- Semiconductor Machinery
- Farm Machinery
- Packaging Machinery
- Printing Machinery
- Medical Equipment
- Pumps & Compressors
- Construction / Mining / Material Handling Equipment
- Machine Tools



Pumps & Compressors



Construction / Mining / Material Handling Equipment



Commercial Cooking Machinery



Machine Tools



Printing Machinery



Engines & Turbines

TRANSPORTATION

Markets and Applications Served in the Transportation Industry

- Railroads
- Military
- Pipelines
- Automotive
- Trucks
- Aircraft Equipment
- Marine
- Terminals



Railroads



Military



Terminals



Automotive



Trucks

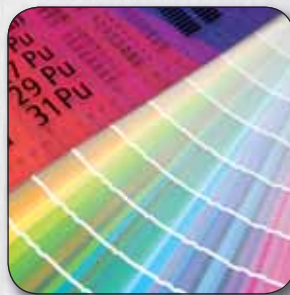


Aircraft
Equipment

OTHER

Markets and Applications Served in Other Industries

- Utilities
- Industrial Refrigeration
- Mining
- Metals
- Water Treatment / Conditioning
- Printing & Publishing
- Electronics / Electrical Equipment
- Wastewater Treatment
- Pulp / Paper / Applied Products
- Heating Equipment
- Textiles



Printing &
Publishing



Electronics /
Electrical Equipment



Wastewater Treatment



Pulp / Paper /
Allied Products



Heating Equipment



Textiles

SPECTRUM OF OPTIONS

There is Nothing Standard About *Your* Application or *Our* Heavy-Duty Pumps

General purpose gear pumps are well-suited for low-pressure transfer of lubricating fluids with moderate viscosities. For everything else, Viking's heavy-duty pumps offer a spectrum of options to match the pump to the application. These options can help reduce life cycle cost by minimizing corrosion and abrasive wear, and by minimizing leakage to reduce downtime, maintenance, and extend pump life.

Viking's heavy-duty gear pumps are versatile and rugged. They can be configured and tuned to the application and the fluid pumped, through use of specific materials of construction, setting of clearances and other optional features.

The table on Page 7 lists some of the constructions and features offered.



SEALING

The single most common cause of downtime is seal leakage. To keep pumps running, Viking offers these sealing options:

- Packing
- Single mechanical seals
- Double mechanical seals
- Triple lip seals
- Cartridge seals
- Sealless Mag Drive

CORROSION

To handle corrosive fluids, Viking offers various alloys, composites, and elastomers, including but not limited to:

- 316 Stainless Steel
- Alloy C
- Alloy 20
- Monel
- Bronze
- ETFE

VISCOSITY

Viking pumps can be configured for optimum performance on thin or thick liquids, or any combination including:

- Models for thin liquids
- Models for thick liquids
- Special designs for multiple viscosities

TEMPERATURE

For extreme temperature applications, Viking offers:

- Metals
- Seals
- Jacketing
- Temperature Probes

STANDARDS

Many Viking products meet industry standards for certifications such as UL, NSF, ANSI, API, ATEX and CE.

ABRASION

To combat the effect of abrasives, Viking offers a variety of hard materials for various parts, including:

- Tungsten carbide
- Silicon carbide
- Ceramic
- Hardened iron, steel, and stainless steel
- Various hard coatings

PORTING

To accommodate various piping systems, Viking's heavy-duty pumps offer a variety of port orientation and configuration options, including:

- 90° and 180° ports
- Threaded ports
- ANSI, DIN and JIS compatible flanges
- Flat and raised face flanges
- Oversized ports
- Top, bottom, or side suction/discharge

ACCESSORIES

- Lid-Ease Strainer (Page 22)
- Gear Reducers - Helical Offset and In-Line (Page 23)
- Duplex Fuel Oil Sets (Page 25)
- Drives (Page 26)

SELECTION GUIDE

PUMPING PRINCIPLE CATEGORY SERIES	INTERNAL GEAR									EXTERNAL GEAR			VANE	LOBE
	Heavy Duty					Special Purpose			General Purpose	Iron	Composite			
	Universal Seal & UMD	Alloy	Motor Speed Mag Drive	Motor Speed	Motor Speed (Metric)	Abrasive Liquids	Thin, Volatile Liquids	Asphalt	General Purpose	Spur Gear	Non-Metallic Mag Drive	VICORR	Rotary Vane	Industrial Lobe
PERFORMANCE														
Maximum Capacity, M ³ /Hr	360	25	114	17	45	36	21	360	102	43	4.5	7.2	36	186
Maximum Capacity, GPM	1,600	110	500	75	200	160	95	1,600	450	190	20	32	160	820
Maximum Capacity, LPM	6,056	6,056	6,056	284	757	606	360	6,056	1,703	719	75	121	606	3,104
Maximum Pressure, BAR	14	14	14	17	17	10	7	14	17	170	10	14	14	27
Maximum Pressure, PSI	200	200	200	250	250	150	100	200	250	2,500	150	200	200	400
Maximum Viscosity, cSt	1,000,000	1,000,000	55,000	5,500	22,000	16,500	N/A	55,000	55,000	440,000	5,000	5,500	500	1,000,000
Maximum Viscosity, SSU	4,500,000	4,500,000	250,000	25,000	100,000	750,000	N/A	250,000	250,000	2,000,000	25,000	25,000	2,300	4,500,000
Maximum Temperature °C *	+371	+260	+107	+177	+150	+232	-40 to +107	+371	+371	+232	+65	+93	+260	+204
Maximum Temperature °F *	+700	+500	+225	+350	+300	+450	-40 to +225	+700	+700	+450	+150	+200	+500	+400
SIZES														
Number of Sizes in Series	17	7	9	6	6	12	11	14	17	29	5	4	6	3
CASING MATERIAL														
Cast Iron														
Ductile Iron														
Steel														
Stainless Steel														
Composite											ETFE	PPS		
Alloy C, Alloy 20 & Others														
SEALING														
Packing														
Lip Seal														
Component Mechanical Seal														
Cartridge Mechanical Seal														
Cartridge Triple Lip Seal														
Sealless Mag Drive														
OPTIONS														
Jacketed (head/bracket)														
Fully Jacketed (casing/head/bracket)														
PORTS														
Opposite (180°)														
Right Angle (90°)														
Same Side (360°)														
Flanged														
Tapped														
MOUNTING														
Foot Mount														
Flange Mount (Close-Coupled)														
Vertical In-Line														
APPLICATIONS														
High Temperature														
Abrasives														
Corrosives														
High Viscosity														
Medium Viscosity														
Low Viscosity														
PAGE	8 & 9	10	11	12	13	14	15	16	17	18	19	20	21	

* Maximum temperature with special construction

UNIVERSAL SEAL SERIES

Industrial-Duty Pumps Offering Design Flexibility and Easy-Maintenance

Viking's flagship series of industrial-duty internal gear pumps, designed to accommodate virtually all seals.

Proven design provides superior flexibility to adapt to the most challenging applications.

CUSTOMER BENEFITS

- Pumps accommodate virtually all sealing types and manufacturers
- Industry leading selection of application specific material options to maximize pump life
- 17 sizes offer unmatched hydraulic coverage
- Design adaptability for an unequalled range of viscosities and temperatures
- Easy clearance adjustment to maintain high efficiency
- Simple design with only two moving parts
- Back pull-out seals
- No special tools required for service
- One-piece, rigid cast bracket minimizes shaft deflection and tolerance stackup
- Rugged design with heavy-duty bearings extends pump life
- Proven success beyond catalog ratings with special construction and factory approval
- Industry standard for chemicals, polymers, petroleum, and thousands of other liquids

MATERIALS

- Cast Iron
- Ductile Iron
- Steel
- Stainless Steel
- Alloy C, Alloy 20, and others
- Hard Materials

SEALING

- Packing
- Component Mechanical Seal
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal
- Sealless Mag Drive (See Page 9)

PORTS

- Opposite (180°) (Rotatable Casing)
- Right Angle (90°) (Rotatable Casing)
- NPT / BSP
- Flanged (ANSI or DIN)
- Custom

MOUNTING

- Foot Mount

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- 124A/AE, 4124A/AE/B, 126A, 4126A, 123A, 4123A, 127A, 4127A, 324A, 4324A, 323A, 4323A, 327A, 4327A

CAPACITY

To 360 M³/Hr (To 1,600 GPM)

PRESSURE

To 14 BAR (To 200 PSI) **

VISCOSITY

To > 1,000,000 cSt (To 4,500,000 SSU)*

TEMPERATURE

-84°C to +370°C (-120°F to +700°F)*

* Special construction required.

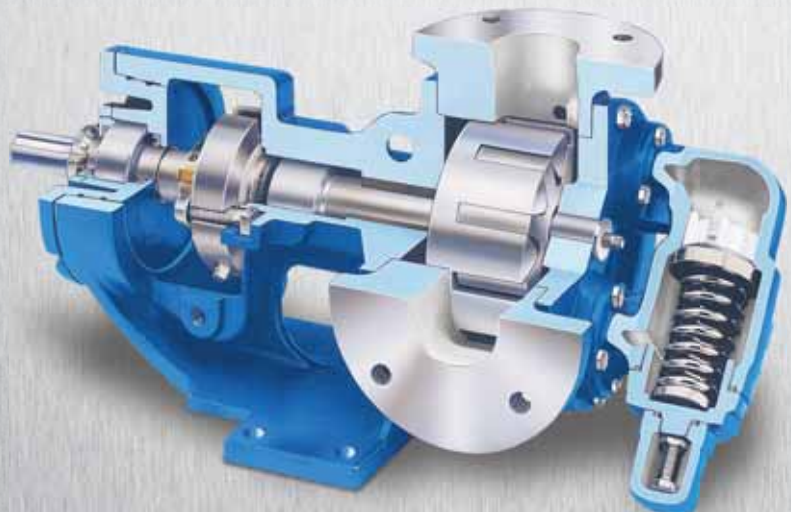
** Higher pressures available with factory approval

PERFORMANCE									
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure **			
		Inches	M ³ /Hr	GPM	RPM	BAR	PSI		
CAST IRON - DUCTILE IRON - STEEL	G ①	1.0	2	8	1,800	14.0	200		
	H ②	1.5	3	15					
	HL ②		7	30					
	AK ①	2.0	11	50	1,200				
	AL ①		17	75					
	K ②		17	100	780				
	KK ②		23						
	L ②	2.5	31	135	640				
	LQ ②		3.0	32	140			520	
	LL ②	45		200	640				
	Q ②	4.0	68	300	520				
	M ①		95	420	420				
	QS ②	6.0	114	500	520				
	N		136	600	350				
R	8.0	250	1,100	280	8.5	125			
RS	10.0	365	1,600	280					
STAINLESS STEEL	H ②	1.5	2	10	1,200	10.0	150		
	HL ②		5	20					
	K ②	2.0	11	50	520				
	KK ②		15	65					
	LQ ②	2.5	21	90	420				
	LL ②		25	110					
	LS ②	3.0	36	160	520				
	Q ②		4.0	45	200			350	
	M ①	64		280	280				
	QS ②	6.0	73	320	350			14.0	200
	N		138	600					
	R	8.0	250	1,110	280			7.0	100
	RS	10.0	365	1,600	280			7.0	100

Integral relief valve is standard on non-jacketed pumps.

① Not a Universal Seal bracket design. Considered Heavy Duty design.

② Available as Universal Mag Drive



SEALLESS - UNIVERSAL MAG DRIVE PUMPS

Dimensionally Interchangeable Pumps for Crucial Liquid Containment Applications

The Universal Mag Drive provides a sealless pump that is dimensionally interchangeable with Universal Seal and Heavy Duty bracketed pumps.

This allows easy upgrade from packing or mechanical seals to sealless, providing the highest level of liquid containment available today.

PERFORMANCE - SEE TABLE ON PAGE 8

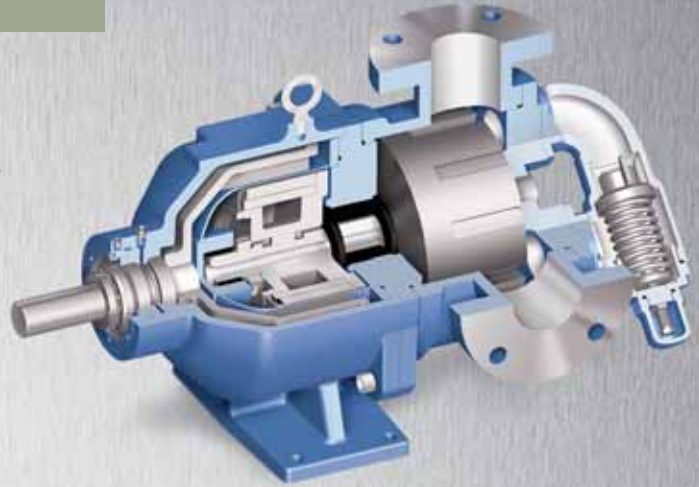
Available in sizes H, HL, K, KK, L, LO, LL, LS, Q & QS

CUSTOMER BENEFITS

- Eliminates maintenance costs associated with shaft seal failure and replacement
- Eliminates environmental costs associated with shaft seal leakage
- Minimize installation costs when upgrading existing Universal Series pumps to sealless with dimensionally interchangeable footprint
- Multiple port sizes, types and ratings are available, providing easy match to requirements for easy installation
- Bi-directional pumping design eliminates cost of second pump for loading or unloading

SERIES

• 8124A, 8123A, 8127A



JACKETED - UNIVERSAL SERIES PUMPS

Temperature Controlled Industrial-Duty Pumps

These pumps offer a variety of jacketing options to easily handle fluids that require either heating or cooling. Jacketed pumps are ideal for applications like asphalt/bitumen, resins and chocolate. Fully jacketed

pumps with jacketed casing and flanges available in steel and Stainless Steel provide uniform temperature control for critical processes like ABS, epoxy and PET resins.

PERFORMANCE - SEE TABLE ON PAGE 8

All Universal Seal sizes are available with jacketing.

CUSTOMER BENEFITS

- Jacketing options available for all critical areas of the provide rapid heating and cooling capabilities for faster startup
- Allows a variety of heating or cooling media including hot oil, steam and water
- Clearances optimized for maximum efficiency
- Numerous porting positions, configurations and sizes provide enhanced application flexibility
- Proven uniform temperature control for improved product consistency

SERIES

• 224A/AE, 4224A/AE/B, 226A, 4226A, 223A, 4223A, 227A, 4227A, 324A, 4324A, 323A, 4323A, 327A, 4327A



HEAVY DUTY ALLOY PUMPS

Extra Value Pumps with Alloy Wetted Parts

Viking Pump offers two major alternatives for internal gear pumps in stainless steel or other alloys.

1. The Universal Seal series (page 8) provides the ultimate in corrosion resistance, with stainless head, casing and bracket.

2. Where external corrosion resistance is not as critical, Viking's 724/4724 series Heavy Duty Alloy pumps offer excellent value by combining stainless wetted components (head and casing) with a cast iron (non-wetted) bracket.

CUSTOMER BENEFITS

- Jacketed bracket standard on H-LL sizes for heating or cooling. Optional jacketed heads available.
- Integral thrust bearing standard for heavy duty applications
- Motor speed operation on smaller sizes – no reducer required
- Integral pressure relief valve standard on sizes G-LL

MATERIALS

- 316 Stainless Steel
- Alloy C, Alloy 20, and others

SEALING

- Packing
- Component mechanical seal in stuffing box (sizes F-HL)
- Component mechanical seal behind-the-rotor (sizes K-LL)

PORTS

- Opposite NPT ports (sizes F - G)
- 90° NPT ports (sizes H-L)
- 90° 150 class ANSI flange ports (sizes LQ & LL)

MOUNTING

- Foot Mount

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- 724, 4724

PERFORMANCE							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M ³ /Hr	GPM	RPM	BAR	PSI
STAINLESS STEEL	F	0.5	0.3	1.5	1,800	14	200
	FH	0.75	0.7	3			
	G	1	1	5			
	H	1.5	2	10	1,200	10	150
	HL		5	20			
	K	2	10	45	520	10	150
	KK		15	65			
	L		20	90			
	LQ	2.5	20	90	420	10	150
	LL	3	25	110			

CAPACITY

To 25 M³/Hr (To 110 GPM)

PRESSURE

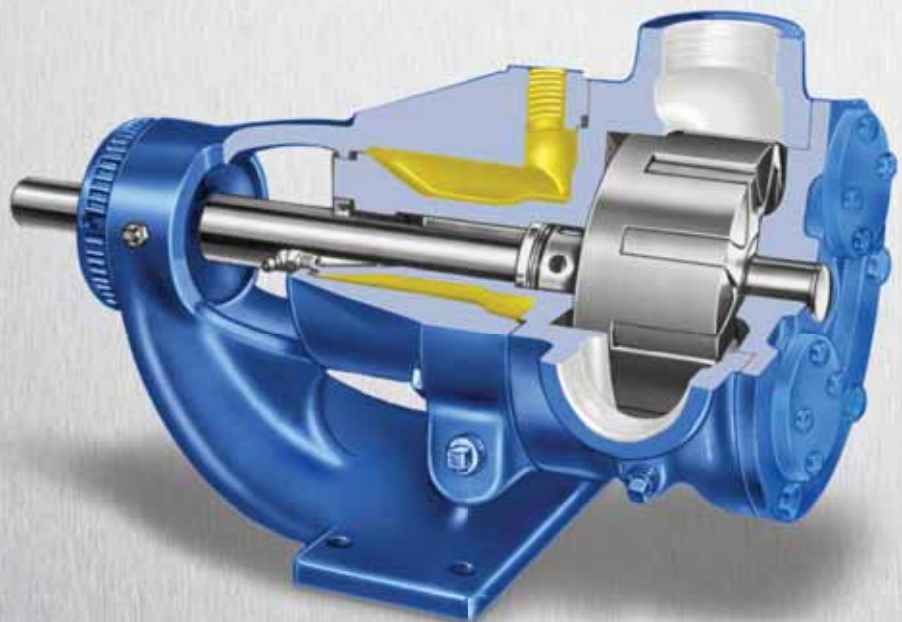
To 14 BAR (To 200 PSI)

VISCOSITY

To > 1,000,000 cSt (To 4,500,000 SSU)

TEMPERATURE

-84°C to +260°C (-120°F to +500°F)



MOTOR SPEED PUMPS - MAG DRIVE

Sealless Pumps for Crucial Liquid Containment Applications

Magnetically driven pumps eliminate the need for mechanical shaft seals. Designed for transferring hazardous, hard-to-seal, or expensive liquids, these pumps eliminate the high cost

associated with complex seals and auxiliary equipment. These pumps are ideal for applications like caustics, isocyanates, adhesives, solvents, and mercaptans.

CUSTOMER BENEFITS

- Proven internal gear design provides superior flexibility to the most challenging applications where shaft sealing is crucial
- Wide flow range to better match application requirements
- Pump design offers ANSI or DIN flanges, and IEC or NEMA motor mounts conform to international standards for enhanced application flexibility
- Short-term run-dry capabilities provide for line clearing or empty tank situations without damaging pump
- Robust design includes optimized bearing placement to extend pressure capabilities (14 BAR/200 PSI)
- Innovative thrust control design provides superior pump performance
- Space-saving mounting configurations available to better match your installation needs:
 - Close coupled to NEMA or IEC flange for motor speed operation
 - Bearing carrier design available for applications requiring speed reducers
- Casing and canister drains facilitate liquid capture during servicing
- ATEX conformity

MATERIALS

- Cast Iron
- Steel
- Stainless Steel

SEALING

- Sealless Mag Drive

PORTS

- Opposite (180°)
- Right Angle (90°)
- Flanged ANSI or DIN compatible
- NPT

MOUNTING

- Foot Mount
- Motor Mount (close-coupled)

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- 855, 893, 895, 897

CAPACITY

To 38 M³/Hr (To 130 GPM)

PRESSURE

To 14 BAR (To 200 PSI)

VISCOSITY

To 55,000 cSt (To 250,000 SSU)

TEMPERATURE *

-51°C to +107°C (-60°F to +225°F)

* Max temperature, special construction, +260°C (+500°F)

PERFORMANCE								
	Size	Ports *	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure		
			M ³ /Hr	GPM		RPM	BAR	PSI
SERIES 855 CAST IRON	GS	1.0 (25)	1.1	5	1,800	14.0	200	
	GG		2.2	10				
	HJ	1.5 (40)	4.5	20		1,500	10.3	150
	HL		6.8	30				
	AS	3.0 (65)	12.5	42	1,200			
	AK		19.0	66				
	AL	3.0 (80)	25.0	88				
	KE		28.0	94				
KKE		38.0	130					
SERIES 893, 895, 897 STEEL, CAST IRON, STAINLESS STEEL	GG	1.0 **	2.3	10	1,800	8.5	125	
	HJ	1.5 **	4.5	20				
	HL		6.8	30	1,200			
	AS	3.0 **	8.0	35				
	AK		11.0	50				
	AL	17.0	75					

* ANSI = Inches / DIN = MM

** Cast Iron models have NPT ports, AS & AK models are 2.5"



MOTOR SPEED PUMPS

Compact, Heavy-Duty Pumps for Clean, Less Viscous Liquids

Higher speed operation allows use of smaller pumps. Direct drive design eliminates need for speed reduction, resulting in a more compact footprint.

Delivers higher pressures on thin liquids like solvents, fuels, and lube oils. Component mechanical seals are standard.

CUSTOMER BENEFITS

- Motor speed operation reduces total cost of ownership by eliminating speed reduction equipment
- Heavy-Duty antifriction bearing shaft support for higher pressure and extended pump life
- Pressure lubrication system automatically lubricates the idler bushing, increasing pump life
- Space-saving, mounting configurations available to better match your installation needs:
 - Foot Mount
 - Motor Mount (Close-Coupled NEMA and IEC)
 - Vertical or Horizontal Inline Mount
- Precision thrust control mechanism allows adjustments for accurate rotor positioning, optimizing pump efficiency throughout life cycle

MATERIALS

- Cast Iron
- Steel
- Stainless Steel
- Alloy C, Alloy 20, and others

SEALING

- Packing
- Component Mechanical Seal

PORTS

- Opposite (180°)
- Flanged
- NPT

MOUNTING

- Foot Mount
- Motor Mount (Close-Coupled)
- Vertical or Horizontal Inline Mount

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- 495, 4195, 493, 4193, 4197

CAPACITY

To 21 M³/Hr (To 95 GPM)

PRESSURE

To 17 BAR (To 250 PSI) *

VISCOSITY

0.1 to 5,500 cSt (28 to 25,000 SSU)

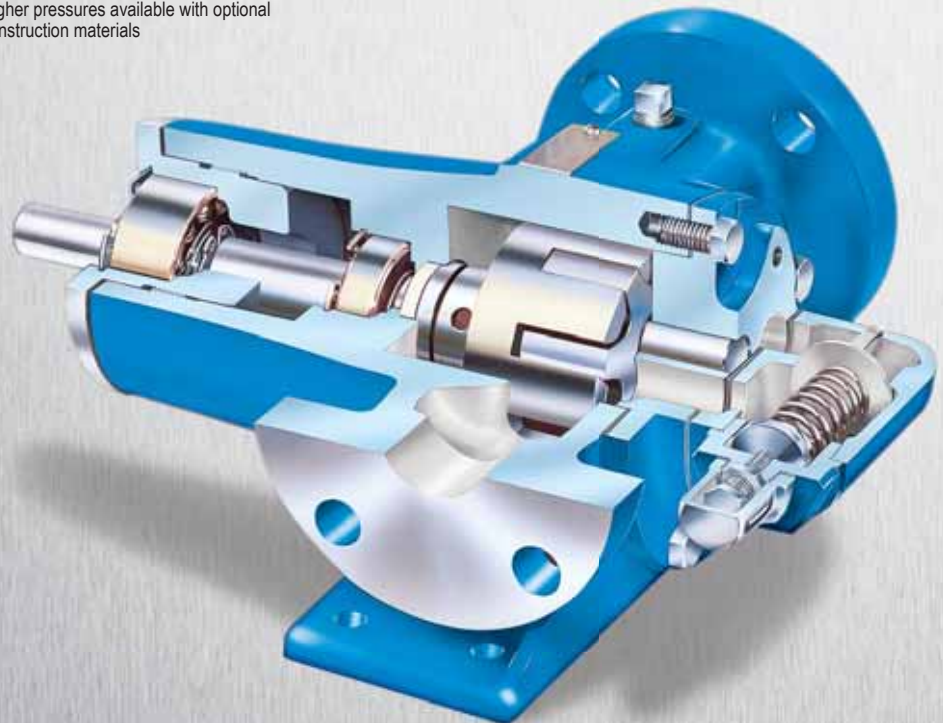
TEMPERATURE

-40°C to +177°C (-40°F to +350°F)

* Higher pressures available with optional construction materials

PERFORMANCE							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M ³ /Hr	GPM	RPM	BAR	PSI
ALL MATERIALS	G*	1.0	1.8	8	1,800	17	250
	GG		2	10			
	H*	1.5	3.5	15			
	HJ		4.5	20			
	HL		7	30			
	AS	2.5	10	45	1,500		
	AK		16	70			
	AL		3.0	21			

* Cast Iron only.



MOTOR SPEED PUMPS - METRIC

Compact, Metric Heavy-Duty Pump for Clean, Less Viscous Liquids

Metric design pump available with close-coupled IEC motor mount or foot mount. It offers motor speed operation to eliminate the speed reducer, which reduces overall system cost and space

required, while offering relatively high-viscosity capabilities. A wide variety of component mechanical seals are available.

CUSTOMER BENEFITS

- Compact, close-couple design reduces total cost of ownership by eliminating speed reduction equipment
- Patented root feed groove and advanced gear geometry optimizes high speed operation
- Precision thrust control mechanism allows adjustments for accurate rotor positioning, optimizing pump efficiency throughout life cycle
- Robust, large diameter shaft design minimizes shaft deflection, extending mechanical seal life
- Space-saving mounting configurations available to better match your installation needs:
 - Foot Mount
 - IEC Motor Mount (Close-Coupled)
- DIN seal chamber accepts a wide range of seal options to better match your application requirements

MATERIALS

- Ductile Iron

SEALING

- Component Mechanical Seal

PORTS

- Opposite (180°)
- Flanged

MOUNTING

- Foot Mount
- IEC Motor Mount (Close-Coupled)

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- 4076, 4176

CAPACITY

To 45 M³/Hr (To 200 GPM)

PRESSURE

To 17 BAR (To 250 PSI) *

VISCOSITY

To 22,000 cSt (To 100,000 SSU)

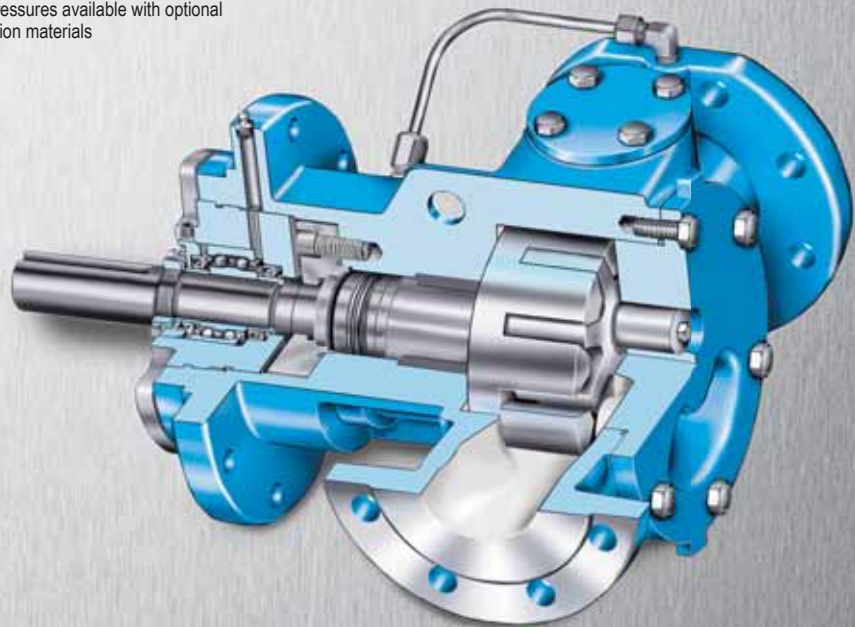
TEMPERATURE *

-29°C to +150°C (-20°F to +300°F)

* Higher pressures available with optional construction materials

PERFORMANCE							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		mm	M ³ /Hr	GPM	RPM	BAR	PSI
DUCTILE IRON	HLE	40	6	26	1,500	17	250
	ATE	65	12	54			
	ALE		21	94			
	KE	80	29	126			
	KKE		38	170			
	LQE	100	45	200	1,000	12	175

Integral relief valve is standard.



ABRASIVE LIQUID PUMPS

Industrial-Duty Pumps for Abrasive Liquids

This pump is equipped with tungsten carbide wear parts and silicon carbide mechanical seal faces, extending service life and reducing total cost

of ownership. A proven design for handling slurries, paints, inks, filled asphalts, and other abrasive liquids.

CUSTOMER BENEFITS

- Extended service life and lower overall cost of ownership provided by:
 - Solid, tungsten carbide components in critical wear areas of pump
 - Other hardened component options available
 - Solid, silicon carbide mechanical seal faces
 - Positive seal flush to keep fresh supply of liquid at seal faces
 - Behind the rotor seal placement eliminates abrasive wear on shaft bushing
 - Reduced speed operation
 - Easy clearance adjustment capabilities
- Pin drive mechanical seal increases viscosity range
- Numerous porting positions, configurations and sizes provide enhanced application flexibility
- Simple design with only two moving parts for easy maintenance
- A number of drive options available to match customer preference

MATERIALS

- Cast Iron

SEALING

- Component Mechanical Seal

OPTIONS

- Jacketed (head and casing)

PORTS

- Opposite (180°)
- Right Angle (90°)
- Same Side (360°) (F and FH sizes)
- Flanged
- NPT

MOUNTING

- Foot Mount

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- 4625

CAPACITY

To 36 M³/Hr (To 160 GPM)

PRESSURE

To 10 BAR (To 150 PSI)

VISCOSITY

To 16,500 cSt (To 750,000 SSU)

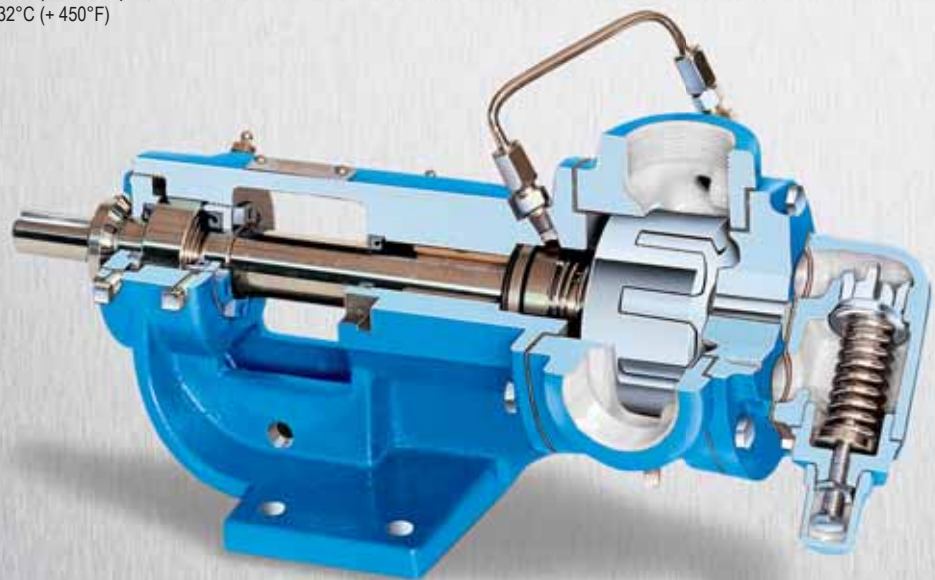
TEMPERATURE *

-51°C to +121°C (-60°F to +250°F)

* Max temperature, special construction, +232°C (+ 450°F)

PERFORMANCE							
	Size	Standard Port Inches	Nominal Capacity At Maximum Speed		Maximum Speed RPM	Maximum Pressure	
			M ³ /Hr	GPM		BAR	PSI
CAST IRON	F	0.5	0.17	0.75	870	7.0	100
	FH		0.34	1.5			
	H	1.5	1.1	5	640	10.0	150
	HL		2.3	10			
	K	2.0	5.6	25	280	8.5	125
	KK		7.9	35			
	L		11.3	50			
	LQ	2.5	11.3	50	230	8.5	125
	LL	3.0	14.8	65			
	Q		25	110	190		
	M	4.0	32	140	155	8.5	125
	QS	6.0	36	160	190		

Abrasion resistant components also available in other series and sizes.



SPECIAL LIQUID PUMPS - AMMONIA

Heavy-Duty Pumps for Thin, Volatile Liquids

Designed exclusively to handle ammonia and other high-vapor pressure fluids in both refrigeration

and transfer applications, these pumps are operated at low speeds to minimize flashing.

CUSTOMER BENEFITS

- Reduced speed operation for extended pump life
- Double mechanical seals with pressurized seal chamber and oil reservoir
- Pressure-lubricated idler bushing maximizes bushing life
- Adjustable return-to-tank pressure relief valve

MATERIALS

- Cast Iron

SEALING

- Double Mechanical Seal

PORTS

- Opposite (180°)
- Right Angle (90°)
- NPT
- Flanged

MOUNTING

- Foot Mount

DRIVES

- See chart on page 26 for drive options

CAPACITY

To 14 M³/Hr (To 60 GPM)

PRESSURE

To 3.5 BAR (To 50 PSI)

TEMPERATURE

Down to -40°C (-40°F)

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- 4925

PERFORMANCE - AMMONIA PUMPS							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M ³ /Hr	GPM	RPM	BAR	PSI
CAST IRON	HL	1.5	2	10	780	3.5	50
	K	2.0	5	20	280		
	KK		7	30			
	LQ	2.5	11	50			
	LL	3.0	14	60			



SPECIAL LIQUID PUMPS - LP GAS

Heavy-Duty Pumps for Thin, Volatile Liquids

Designed exclusively to handle LPG and other high-vapor pressure liquids in both filling and intermittent transfer

applications. These pumps are UL listed for LPG service.

CUSTOMER BENEFITS

- Motor speed operation eliminates need for speed reduction for easy installation
- Heavy-duty anti-friction bearings extend service life
- Pressure-lubricated idler bushing maximizes bushing life
- Adjustable return-to-tank pressure relief valve

MATERIALS

- Cast Iron
- Ductile Iron

SEALING

- Mechanical Seal

PORTS

- Opposite (180°)
- Right Angle (90°)
- NPT
- Flanged

MOUNTING

- Foot Mount

DRIVES

- See chart on page 26 for drive options

CAPACITY

To 21 M³/Hr (To 95 GPM)

PRESSURE

To 7 BAR (To 100 PSI)

TEMPERATURE

Down to -40°C (-40°F)

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- 4195G, 4205G



PERFORMANCE - LP GAS PUMPS							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M ³ /Hr	GPM	RPM	BAR	PSI
CAST IRON	GG	1.0	2	8	1,800	7.0	100
	HJ	1.5	4	17			
	HL		6	25			
	AS	2.5	7	30	1,200		
	AK		10	45			
	AL		15	65			
	K	2.0	7	30	420		
	KK		9	40			
	L	3.0	17	75			
	LQ		21	95			
	LL		21	95			

LP Gas pumps are UL listed for propane or butane liquid transfer applications.

ASPHALT PUMPS

Jacketed Pumps Designed Specifically for Asphalt Applications

The Asphalt Pumps with temperature control options provide quick time to temperature to melt asphalt that has solidified in the pump prior to startup.

Jacketing available in bracket, head, and bearing area melts bitumen that has solidified in the pump.

CUSTOMER BENEFITS

- Economical, general purpose and superior performance heavy-duty pumps available
- Universal seal capability: packing or cartridge seals
- Durable, cast iron construction
- Hard materials available for filled asphalt
- Jacketing suitable for hot oil or steam for enhanced application flexibility
- Variety of jacket connection options including tapped and flange

MATERIALS

- Cast Iron

SEALING

- Packing
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal
- Component Mechanical Seal

OPTIONS

- Jacketed (head and bracket)
- Fully-Jacketed (casing, head, and bracket)
- Jacketed Relief Valve

PORTS

- Opposite (180°)
- Right Angle (90°)
- Flanged
- NPT

MOUNTING

- Foot Mount

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

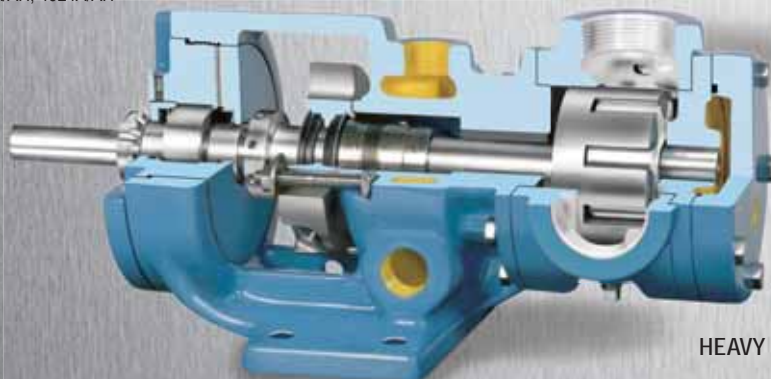
- Application examples are available on Pages 3 - 5.

SERIES

- General Purpose: 34, 434
- Heavy Duty: 224A/AH/AE, 4224A/AH/AE/B, 324A/AH, 4324A/AH

PERFORMANCE - General Purpose							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M ³ /Hr	GPM	RPM	BAR	PSI
CAST IRON	HL	1.5	5	20	1,200	7	100
	KK	2.0	10	50	420		
	LQ	2.5	20	90	350		
	Q	3.0	45	200	280	5	75
	M	4.0	64	280			
	N	5.0	102	450			

PERFORMANCE - Heavy Duty									
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure			
		Inches	M ³ /Hr	GPM	RPM	BAR	PSI		
CAST IRON	H	1.5	3	15	1,800	14	200		
	HL		7	30					
	K	2.0	17	75	780				
	KK		23	100					
	L		30	135					
	LQ	2.5	30	140	520				
	LL	3.0						45	200
	LS	3.0	68	300	520				
	Q		4.0	114				500	
	QS	6.0	136	600	350				
	N		8.0	250				1,100	
	R	8.0	250	1,100	280			9	125
	RS								



HEAVY DUTY



GENERAL PURPOSE

GENERAL PURPOSE PUMPS

Economical, Simple Design Pumps for Medium-Duty Applications

The General Purpose pump uses a simplified rotor retention system that is well-suited to many medium-duty applications. Some models are

available with UL listing for use in power operated oil burners or for use as fuel oil transfer pumps.

CUSTOMER BENEFITS

- Proven, simple pump design with only two moving parts provides maximum application flexibility
- Self-priming pump for applications with suction lift
- Choice of shaft seals to match application requirements
- UL listing available on selected models
- Motor mount option for ease of installation on selected models
- Durable, cast iron construction

MATERIALS

- Cast Iron

SEALING

- Packing
- Lip Seal
- Mechanical Seal

PORTS

- Opposite (180°)
- Right Angle (90°)
- Same Side (360°)
- Flanged
- NPT

MOUNTING

- Foot Mount
- Flange Mount (Closed-Coupled)

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- 32, 432, 56, 456, 75, 475

CAPACITY

To 102 M³/Hr (To 450 GPM)

PRESSURE

To 17 BAR (To 250 PSI)

VISCOSITY

To 55,000 cSt (To 250,000 SSU)

TEMPERATURE *

-51°C to +107°C (-60°F to +225°F) (Mech. Seal)
 -51°C to +149°C (-60°F to +300°F) (Packed)

* With special construction, temperatures to 260°C (500°F) can be handled with seal pumps and to 343°C (650°F) with packed pumps.

PERFORMANCE							
	Size	Standard Port Inches	Nominal Capacity At Maximum Speed		Maximum Speed RPM	Maximum Pressure	
			M ³ /Hr	GPM		BAR	PSI
C-FLANGE MOUNTED	C	0.25	0.11	0.5	1,800	17	250
	F	0.5	0.34	1.5			
	FH		0.68	3.0			
	G	1.0	1.5	7.0		7	100
	GG		2.0	10.0			
	H	1.5	3.5	15.0			
	HJ		4.5	20.0			
HL	7.0		30.0				
FOOT-MOUNTED	C	0.25	0.11	0.5	1,800	17	250
	F	0.5	0.34	1.5			
	FH		0.68	3.0			
	G	1.0	1.1	5.0	1,200	7	100
	H		2.3	10.0			
	HL	1.5	4.5	20.0	420		
	J	1.25					
	K	1.5	8.0	35.0	280	5	75
	KK	2.0	11.4	50.0			
	L		20.5	90.0			
	LQ	2.5	32.0	140.0	520		
	LL	3.0					
	Q	4.0	46.0	200.0	350		
M	64.0		280.0				
N	5.0	102.0	450.0				

Integral pressure relief valve is standard.



SERIES 32 Pump
"HL" Size



SERIES 475 Pump
"HL" Size

IRON EXTERNAL GEAR PUMPS

High Pressure, Precise Flow

Viking's External Gear pumps are ideal for high-pressure applications running at motor speeds. Used in industrial applications such as chemical transfer and metering, filtering, packaging and lubrication. Mag drive configurations

are ideal for handling volatile, odorous, or hazardous additives into processes and pipelines. Its compact, rugged design provides an excellent value with industry leading versatility.

CUSTOMER BENEFITS

- Precision machined components afford precise metering and flow control for increased process accuracy
- Variety of sealing options including sealless Viking Mag Drive® to prevent leakage
- Double pump configurations offer two flow rates operating from single power source, reducing equipment costs
- Close-coupled motor mount, foot bracket, and base-mounting options available to match space or motor requirements
- Hardened gears and shafts offer long-life performance
- Needle bearings provide high pressure capabilities, other bearing options available.
- UL or NSF listing available on select models

MATERIALS

- Cast Iron
- Ductile Iron (SG-05 & SG-07 only)

SEALING

- Lip Seal
- Mechanical Seal (Component or Cartridge)
- Sealless Viking Mag Drive®

PORTS

- NPT
- BSP
- SAE O-Ring
- SAE Flange

MOUNTING

- Foot Mount
- Motor Mount (close-coupled) for IEC & NEMA Motors

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- SG

PERFORMANCE						
	Size	Standard Port	Nominal Capacity At 1450 RPM		Nominal Capacity At 1750 RPM	
			LPM	GPM	LPM	GPM
SG-04	SG-0417	0.375"	0.19	0.05	0.23	0.06
	SG-0418		0.44	0.12	0.53	0.14
	SG-0425		0.56	0.15	0.68	0.18
	SG-0435		0.85	0.22	1.02	0.27
	SG-0450		1.13	0.30	1.36	0.36
	SG-0470		1.57	0.41	1.89	0.50
SG-05	SG-0518 ①	0.5"	2.2	0.58	2.6	0.7
	SG-0525 ①		3.1	0.83	3.8	1.0
	SG-0535 ①		4.4	1.16	5.3	1.4
	SG-0550 ①		6.3	1.66	7.6	2.0
	SG-0570 ①		8.8	2.32	10.6	2.8
	SG-0510 ①		12.5	3.31	15.1	4.0
	0.75"	SG-0514 ①	17.6	4.64	21.2	5.6
		SG-0519 ①	23.8	6.30	28.8	7.6
		SG-0528 ①	35.1	9.28	42.4	11.2
SG-07	SG-0729	1.0"	8.8	2.3	10.6	2.8
	SG-0741		12.5	3.3	15.1	4.0
	SG-0758		17.6	4.6	21.2	5.6
	SG-0782		25.1	6.6	30.3	8.0
	SG-0711		35.1	9.3	42.4	11.2
	SG-0716		50.0	13.0	61.0	16.0
	1.50" X 1.25"	SG-0722	69.0	18.0	83.0	22.0
		SG-0732	100.0	26.0	121.0	32.0
SG-10	SG-1009	1.0"	50.0	13.0	61.0	16.0
	SG-1013	1.5"	78.0	21.0	95.0	25.0
	SG-1026	2.0"	157.0	41.0	189.0	50.0
SG-14	SG-1420	2.0"	220.0	58.0	265.0	70.0
	SG-1436	3.0"	392.0	104.0	473.0	125.0
	SG-1456	4.0"	598.0	158.0	719.0	190.0

Integral pressure relief valve (standard single pump).

① SG-05 models available with UL listing for fuel oil.



"SG-10" SERIES



"SG-05" SERIES



VIKING MAG DRIVE®

COMPOSITE EXTERNAL GEAR PUMPS

Composite Pumps for Crucial Liquid Containment

Magnetically driven pumps eliminate the need for mechanical shaft seals. Designed for transferring hazardous, hard-to-seal, or expensive liquids, these pumps eliminate the high cost

associated with complex seals and auxiliary equipment. These pumps are ideal for applications like acids, bases, halides, volatile organic chemicals and flammable liquids.

CUSTOMER BENEFITS

- Sealless, non-metallic all wetted component construction eliminates mechanical seal and eddy current energy loss for lower cost of ownership
- Robust design includes heavy-duty, self lubricating materials and patent pending geometry for run-dry capabilities (CMD)
- Front pullout design provides simplified in-line servicing (CMD)
- Patent pending liner protects casing from wear, extending pump life (CMD)
- Regain 100% performance with recommended spare parts kit, for optimal productivity (CMD)
- Universal flanges with PTFE inserts mate to both ANSI and DIN flange systems for ease of installation and retrofit (CMD)
- Universal motor adapters mate to multiple NEMA and IEC motors for ease of installation
- Variety of seal options (VI-CORR)
- NPT or ANSI flange available
- Higher pressure capability - VI-CORR: 14 BAR (200 PSI), CMD: 10 BAR (150 PSI)
- Internal relief valve standard (VI-CORR)

MATERIALS

- Carbon Reinforced ETFE (CMD)
- PPS (VI-CORR)

SEALING

- O-Ring (VI-CORR)
- Lip Seal (VI-CORR)
- Sealless Mag Drive

PORTS

- NPT
- Flanged (ANSI or DIN)

MOUNTING

- Motor Mount
- Foot Mount (CMD)

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- Composite Mag Drive: CMD
- VI-CORR: RP

PERFORMANCE - CMD SERIES								
Size	Standard Port Inches	Nominal Capacity At Maximum Speed				Maximum Pressure		
		1,500 RPM		1,800 RPM		BAR	PSI	
		GPM	LPM	GPM	LPM			
02	1/4	0.34	1.3	0.4	1.5	10	150	
05	3/8	1.3	4.9	1.5	5.8			
12	3/4	2.6	10.0	3.2	12.1			
25	1	5.5	21.0	6.5	24.6			
75	1-1/2	16.5	62.5	20.0	75.0			
125	1-1/2	27	104	33	125			

In-line valve sold separately.

PERFORMANCE - VI-CORR RP SERIES								
Size	Standard Port Inches	Nominal Capacity At Maximum Speed				Maximum Pressure		
		1,500 RPM		1,800 RPM		BAR	PSI	
		GPM	LPM	GPM	LPM			
RP-0782	2	6.6	25.1	8.0	30.3	14	200	
RP-0716	2	13.3	50.2	16.0	60.6			
RP-0724	2	19.9	75.3	24.0	90.8			
RP-0732	2	26.5	100.4	32.0	121.1			

Integral relief valve is standard.



CMD SERIES PUMP



VI-CORR SERIES PUMP

VANE PUMPS

Vane Pumps for Corrosive, Thin Liquids at Higher Pressures

A stainless steel vane pump designed for thin liquids at pressures up to 14 Bar (200 PSI). Rugged, industrial-duty pump to handle liquid transfer

applications ranging from harsh chemicals to liquefied gases to deionized water.

CUSTOMER BENEFITS

- Harder components than other vane pumps extend pump life
 - 62 Rockwell C surface-hardened one-piece, 316 stainless steel casing
 - Silicon Carbide sleeve bearings
 - Chrome oxide shaft coating
- Superior suction lift capability for enhanced self-priming ability
- Non-metallic vanes and push rods extend pump life
- Short-term dry-run-capability tolerates process upsets without pump damage
- 20 minute in-line vane replacement reduces scheduled downtime for lower cost of ownership
- Smooth, non-pulsing flow with reversible direction of flow for application flexibility
- Tailored sealing solutions for application flexibility
- Pump design offers ANSI or DIN flanges, and IEC or NEMA motor mounts to conform to international standards for enhanced application flexibility

MATERIALS

- Stainless Steel

SEALING

- Component Mechanical Seal
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal

PORTS

- Opposite (180°)
- Flanged (ANSI or DIN)

MOUNTING

- Motor Mount (Size 017/027 only)
- Foot Mount

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- LVP

PERFORMANCE							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M ³ /Hr	GPM	RPM	BAR	PSI
STAINLESS STEEL	LVP40017 LVP41017	40 (1.5)	4	20	1,800	14	200
	LVP40027 LVP41027		9	40			
	LVP41057	50 (2.0)	15	80	1,200		
	LVP41087		23	100	1,000		
	LVP41197	80 (3.0)	29	125	520		
	LVP41237		36	160			

Integral pressure relief valve is standard.

CAPACITY

To 36 M³/Hr (To 160 GPM)

PRESSURE

To 14 BAR (To 200 PSI)

VISCOSITY

To 500 cSt (To 2,300 SSU)

TEMPERATURE *

-29°C to +107°C (-15°F to +225°F)

* Temperature range, special construction, -51°C to 260°C (-60°F to 500°F)



INDUSTRIAL LOBE PUMPS

High Pressure Performance With Superior Sealing Flexibility

Proven design of the RL series handles a broad range of fluid viscosities where higher pressures are required. Unique, patented design emphasizes flexibility

in sealing, porting, and lobe clearance adjustment to optimize the pump for each application.

CUSTOMER BENEFITS

- Accepts industry standard cartridge seals for maximum flexibility
- Port sizes from 3 to 10 inches to handle a broad range of fluid viscosities
- Rugged rotor shaft support for longer life and higher pressure capabilities
- Shimless design for ease of maintenance
- Bi-directional design for easy loading and unloading applications
- Proven success beyond catalog ratings with special construction and factory approval

MATERIALS

- 316 Stainless Steel

SEALING

- Packing
- Component Mechanical Seal
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal

PORTS

- Opposite (180°)
- Flanged

MOUNTING

- Foot Mount

DRIVES

- See chart on page 26 for drive options

APPLICATIONS

- Application examples are available on Pages 3 - 5.

SERIES

- RL

CAPACITY

To 186 M³/Hr (To 820 GPM)

PRESSURE

To 27 BAR (To 400 PSI)

VISCOSITY

To 440,000 cSt (To 2,000,000 SSU)

TEMPERATURE *

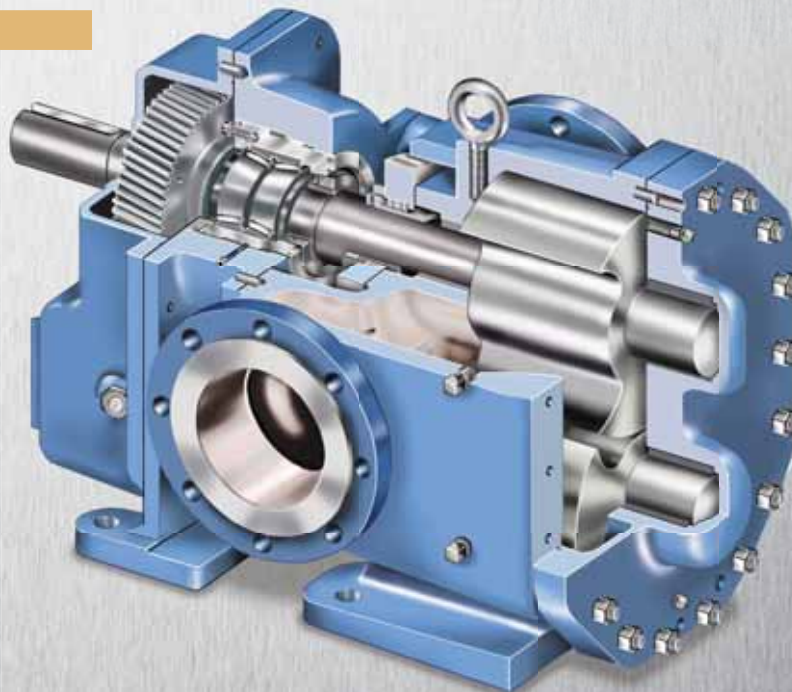
-40°C to +204°C (-40°F to +400°F)

* Special sealing or materials of construction may be required.

PERFORMANCE							
Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure		
	Inches	M ³ /Hr	GPM	RPM	BAR	PSI	
RL016	3	23.8	105	640	27	400	
RL025		36.3	160				
RL150	6	186.0	820	600			



RL40167 SERIES



RL41507 SERIES

LID-EASE STRAINERS

Protection for Pumps and Downstream Systems

The Viking Lid-Ease® strainers provide protection for the pump by preventing solids or foreign materials from entering. Inexpensive insurance

for the pump and downstream system components to maximize life for a lower overall cost of ownership.

CUSTOMER BENEFITS

- Inclined basket position provides low pressure drop for higher system efficiency
- Quarter-turn, easy opening breech-lock lid simplifies routine cleaning
- Top basket removal eliminates the need to drain the strainer and minimizes product loss
- Weatherseal lid design protects against exterior elements and air infiltration
- Threaded, flanged or grooved end ports available
- Optional magnetic inserts are available for trapping ferrous particles
- Optional differential pressure indicators optimize cleaning intervals



BASKET MESH OPTIONS

Mesh	3/16" Holes	10	20	40	60	80	100
Opening (microns)	-	1,910	860	380	230	190	140
Opening (in.)	-	0.075	0.034	0.015	0.0092	0.007	0.0055

MATERIALS

- Aluminum
- Cast Iron
- Ductile Iron
- Stainless Steel

OPTIONS

- Magnetic Inserts
- Differential Pressure Indicators

PORTS

- Flanged
- Threaded
- Grooved

CAPACITY

To 250 M³/Hr (To 1,100 GPM)

PRESSURE

To 14 BAR (To 200 PSI)

VISCOSITY

To 55,000 cSt (To 250,000 SSU)

TEMPERATURE

-51°C to +260°C (-60°F to +500°F)



PERFORMANCE

	Size	Standard Port Inches	Nominal Capacity		Rated System Pressure		Maximum Basket Differential Pressure	
			M ³ /Hr	GPM	BAR	PSI	BAR	PSI
ALUM	F-1020	2.0	23	100	14.0	200	10.0	150
	F-1030	3.0	45	200	8.5	125	8.5	125
	F-1040	4.0	91	400				
CAST IRON	F-1007	0.75	5	20	14.0	200	10.0	150
	F-1010	1.0	7	30				
	F-1013	1.25	9	40				
	F-1015	1.5	11	50				
	F-1020	2.0	23	100				
	F-1030	3.0	45	200	8.5	125	8.5	125
	F-1040	4.0	91	400				
	F-1060	6.0	182	800			5.0	75
	F-1080	8.0	340	1,500				
DUCTILE	F-1020	2.0	23	100	8.5	125	10.0	150
	F-1030	3.0	45	200				
	F-1040	4.0	91	400				
	F-1060	6.0	182	800			5.0	75
STAINLESS STEEL	F-1007	0.75	5	20	14.0	200		
	F-1010	1.0	7	30				
	F-1013	1.25	9	40				
	F-1015	1.5	11	50				
	F-1020	2.0	23	100				
	F-1030	3.0	45	200	8.5	125	8.5	125
	F-1040	4.0	91	400				
	F-1060	6.0	182	800				

GEAR REDUCERS

Offset or In-Line Shaft Designs Specifically Matched to Pump Requirements

Viking offers two styles of helical gear reducers to reduce standard driver speeds to match pump or other driven equipment. Viking offset reducers allow the input shaft to swivel to match driver shaft height, while output (slow speed)

shaft height corresponds to typical Viking Pump shaft heights. The in-line reducers offer a larger range of sizes, ratios, and power capabilities, with the option of IEC or NEMA motor adapters on sizes 11 through 61.

CUSTOMER BENEFITS

In-Line Reducers

- Available in eleven sizes and a variety of ratios
- Universal mounting - solid input shaft or motor mount option
- High efficiency and low noise levels

Offset Reducers

- Available in three sizes and a variety of ratios
- Ratios are fully interchangeable in each gearbox
- Multiple mounting brackets to match Viking shaft heights



IN-LINE REDUCERS



OFFSET REDUCER

PERFORMANCE				50 Hz				60 Hz			
	Series	No. of Ratios	Ratio Range	With 1450 RPM Input		With 950 RPM Input		With 1750 RPM Input		With 1150 RPM Input	
				kW Range	Output RPM Range	kW Range	Output RPM Range	HP Range	Output RPM Range	HP Range	Output RPM Range
OFFSET	A	4	2.24:1 to 4.17:1	3.9 to 2.0	640 to 350	2.7 to 1.3	420 to 230	6.1 to 3.1	780 to 420	4.3 to 2.2	520 to 280
	B	8	1.87:1 to 7.65:1	12.9 to 4.0	780 to 190	11.6 to 2.8	520 to 125	19.0 to 6.4	950 to 230	16.5 to 4.4	640 to 155
	C	7	2.21:1 to 7.95:1	33.8 to 11.3	640 to 180	21.7 to 7.8	420 to 120	49.8 to 18.0	780 to 220	40.1 to 12.6	520 to 145
IN-LINE	11	15	2.77:1 to 22.90:1	2.2 to .62	523 to 63	1.4 to .39	343 to 41	3.4 to .96	632 to 76	2.5 to .70	415 to 50
	21	15	2.72:1 to 21.90:1	5.0 to 1.4	533 to 66	3.2 to .82	349 to 43	7.7 to 2.4	643 to 80	5.7 to 1.5	423 to 52
	31	15	2.88:1 to 22.60:1	7.4 to 2.1	503 to 64	4.7 to 1.2	330 to 47	11.6 to 3.4	608 to 77	8.4 to 2.2	399 to 57
	35	14	2.69:1 to 19.00:1	10.3 to 3.1	539 to 76	6.4 to 1.8	353 to 50	16.2 to 5.2	651 to 92	11.4 to 3.2	427 to 60
	41	18	2.69:1 to 31.40:1	14.2 to 2.5	539 to 46	8.2 to 1.4	353 to 30	23.5 to 4.1	651 to 56	14.8 to 2.6	427 to 37
	51	18	2.63:1 to 33.00:1	24.1 to 3.8	551 to 44	14.0 to 2.2	361 to 29	39.8 to 6.2	665 to 53	25.0 to 3.9	437 to 35
	61	20	2.82:1 to 38.00:1	31.2 to 5.6	514 to 38	18.3 to 3.2	337 to 25	50.8 to 9.2	621 to 46	32.8 to 5.8	408 to 30
	70	16	4.57:1 to 34.70:1	59.2 to 9.5	317 to 42	35.5 to 5.5	208 to 27	95.3 to 15.7	383 to 50	63.5 to 9.8	252 to 33
	80	17	5.64:1 to 31.30:1	91.0 to 18.5	257 to 46	56.9 to 10.7	168 to 30	143 to 30.5	310 to 56	101 to 19.2	204 to 37
	90	19	5.17:1 to 35.10:1	137 to 24.1	280 to 41	85.8 to 14.0	184 to 27	214 to 39.8	338 to 50	153 to 25.0	222 to 33
100	17	4.92:1 to 29.60:1	230 to 46.3	295 to 49	144 to 27.9	193 to 32	359 to 74	356 to 59	259 to 50.0	234 to 39	

CUSTOM SOLUTIONS

Customer Specific Designs to Solve Unique Challenges

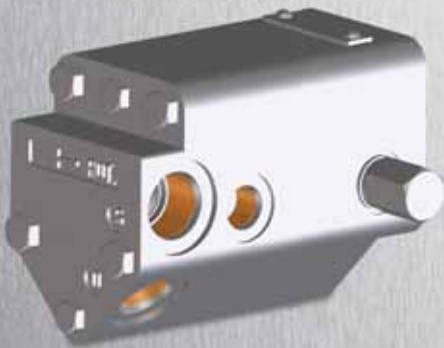
Viking® has provided custom designed pumps to end-users and OEMs since its first pump in 1911, when Viking invented the gear-within-a-gear pumping principle to remove water from a rock quarry. Today, enabled by Viking's engineering staff, extensive applications experience, and in-house foundries, more than 20%

of Viking's sales are new Viking designs, or pump designs derived from more than 1000 Viking catalog pumps with more than 40,000 active configurations. So, whether you are an end-user or an OEM, Viking can provide custom designed pumping solutions to meet your specific needs.



CUSTOMER BENEFITS

- Pump principle or system customized to match application need
- Built to your specifications
- Advanced testing/lab capabilities
- Vertically integrated foundries (Alloy and Iron)
- Machine shop
- Global manufacturing and sourcing
- Vertically integrated from casting to machining to final assembly
- Application and design engineering
- ISO9001:2008 documented quality manufacturing processes



DUPLEX FUEL OIL SETS

Factory Built and Tested Solutions for Smooth, Reliable Startup and Operation

Factory engineered and built to order duplex fuel oil sets and control panels for oil transfer

applications like fueling diesel generators and oil filtration / recirculation.

CUSTOMER BENEFITS

- Proven, factory manufactured fuel sets built custom to your order
- UL-CSA electrical control panels
- Easy sizing with 8-Step Selection Program, available on CD
- Available with standard or UL-listed rated pumps
- Quick access comparison sheets, specification sheets, illustration drawings and P&ID drawings
- Over 25 years experience engineering and manufacturing duplex fuel oil sets

STANDARD EQUIPMENT

- 2 - Viking heavy duty positive displacement gear pumps
- 2 - TEFC Motors
- 1 - Heavy gauge steel baseplate with drip lip and drain

SUCTION LINE

- 2 - Viking Lid-Ease basket strainers
- 2 - Ball valves
- 2 - Compound gauges with gauge valves

DISCHARGE LINE

- 3 - Check valves
- 2 - Ball valves
- 2 - Relief valves
- 2 - Pressure gauges with gauge valves

SUCTION/DISCHARGE PIPING

- Schedule 40 carbon steel piping
- Leak tested with 100 PSI air and soap water
- Coated with Vinyl Toluene Alkyd, quick dry enamel

APPLICATIONS

- Fueling diesel generators for backup electrical power generation
- Fuel oil transfer from storage to day tank
- Boosting low pressure fuel oil on oil-fired boilers and oil-fired furnaces
- Oil filtration recirculation to ensure clean and/or water-free oil

OPTIONS

- Pressure switches
- Pressure control valves
- Flow switches
- Thermometers
- Flexible connectors
- Water removal filters
- Galvanized base plates
- Flow meters and totalizers
- Control panels
- In-line or side-by-side mounting

CAPACITY

0.2 to 284 LPM (1 to 75 GPM)
Larger capacities available, consult factory.

PRESSURE

0.3 to 34 BAR (5 to 500 PSI)

VISCOSITY

3 to 2,500 cSt (38 to 25,000 SSU)

TEMPERATURE

-20°C to +82°C (-4°F to +180°F)



PERFORMANCE									
Duplex Package Model	Viking Pump Model	Suction Header	Discharge Header	Relief To Tank	Nominal Pump Rating			Max. Recomm. Discharge Pressure	
					Pipe Size (NPT)	GPM	LPM	RPM	PSI
DF-	F432	1"	1/2"	1/2"	1.2	4.4	1,200	250	17
	1.8				7.0	1,800			
DFH	FH432				2.1	7.9	1,200		
					3.3	12.5	1,800		
GGD	GG4195	1"	1"	3/4"	7.1	27.0	1,200	150	10
					11.1	42.1	1,800		
HJD	HJ4195	1-1/2"	1-1/2"	1"	14.7	55.8	1,200		
					22.7	85.9	1,800		
HLD	HL4195				21.2	80.2	1,200		
					32.6	123.3	1,800		
ASD	AS4195	2-1/2"	2-1/2"	1-1/2"	37.0	140.2	1,200	150	10
AKD	AK4195				56.0	212.0			
ALD	AL4195				75.2	284.7			
518	SG-40518	1"	1/2"	1/2"	0.5	1.7	1,200	500	34
					0.7	2.6	1,800		
					0.7	2.5	1,200		
525	SG-40525				1.0	3.8	1,800		
					0.9	3.4	1,200		
535	SG-40535				1.4	5.3	1,800		
					1.3	4.8	1,200		
550	SG-40550				2.0	7.5	1,800		
					1.8	6.9	1,200		
570	SG-40570				2.8	10.6	1,800		
		2.5	9.6	1,200					
510	SG-40510	3.9	14.8	1,800					
514	SG-40514	1"	1/2"	1/2"	3.5	13.2	1,200	400	27
					5.4	20.6	1,800		
					4.7	17.7	1,200		
519	SG-40519				7.4	27.8	1,800		
					6.8	25.6	1,200		
528	SG-40528				10.7	40.4	1,800		
					1.9	7.1	1,200		
729	SG-40729				2.8	10.6	1,800		
					2.6	9.9	1,200		
741	SG-40741				4.1	15.5	1,800		
		7.4	28.0	1,200					
711	SG-40711	11.4	43.1	1,800					
		10.5	39.6	1,200					
716	SG-40716	16.2	61.1	1,800					
		14.8	56.1	1,200					
722	SG-40722	1-1/2"	1-1/4"	1"	22.8	86.4	1,800	500	34
					20.2	76.5	1,200		
					31.3	118.4	1,800		
XDF	F432X	1"	1/2"	1/2"	1.2	4.4	1,200	250	17
					1.8	7.0	1,800		
XFH	FH432X				2.1	7.9	1,200		
					3.3	12.5	1,800		
XDG	G432X	1"	1"	1/2"	5.9	22.4	1,200	100	7
XDH	H432X				10.3	39.0			
XHL	HL432X	1-1/2"	1-1/2"	1"	20.6	77.9	1,200		
X18	SG-0518X	1"	1/2"	1/2"	0.5	1.7	1,200	500	34
					0.7	2.6	1,800		
					0.7	2.5	1,200		
X25	SG-0525X				1.0	3.8	1,800		
					0.9	3.4	1,200		
X35	SG-0535X				1.4	5.3	1,800		
					1.3	4.8	1,200		
X55	SG-0550X				2.0	7.5	1,800		
					1.8	6.9	1,200		
X70	SG-0570X				2.8	10.6	1,800		
		2.5	9.6	1,200					
X10	SG-0510X	3.9	14.8	1,800					
		3.5	13.2	1,200					
X14	SG-0514X	1"	3/4"	1"	5.4	20.6	1,800	400	27
					4.7	17.7	1,200		
X19	SG-0519X				7.4	27.8	1,800		
		6.8	25.6	1,200					
X28	SG-0528X	10.7	40.4	1,800					
		7.1	27.0	1,200					
DGG	GG-190	1"	1"	3/4"	11.1	42.1	1,800	150	10
					14.7	55.8	1,200		
DHJ	HJ-190	1-1/2"	1-1/2"	1"	22.7	85.9	1,800		
					21.2	80.2	1,200		
DHL	HL-190				32.6	123.3	1,800		
DAS	AS-190	2-1/2"	2-1/2"	1-1/2"	37.0	140.2	1,200	150	10
DAK	AK-190				56.0	212.0			

DRIVES

System Integration, Simplified Installation

Viking offers a variety of factory-assembled skid-, bracket- or motor-mount options to help

simplify installation, alignment, and commissioning.

CUSTOMER BENEFITS

- Factory assembled systems including base plate, motor, couplings, guards, pumps, and speed reduction if needed
- Pre-alignment from factory minimizes final alignment at installation
- Single source responsibility
- Drawings available to facilitate piping layout
- Viking will provide any customer specified motors, gear reducers, or other components
- Custom engineered bases to fit customer specifications
- Custom engineered systems with day tanks and process equipment available



"B" DRIVE
Bracket Mounted



"D" DRIVE
Direct Connected to Standard Motor,
Variable Speed Drive, or Gear Head Motor



"M" DRIVE
Motor Mounted



"P" DRIVE
Purchased Gear Reducer



"R" DRIVE
Viking Offset Gear Reducer



"V" DRIVE
V-Belt

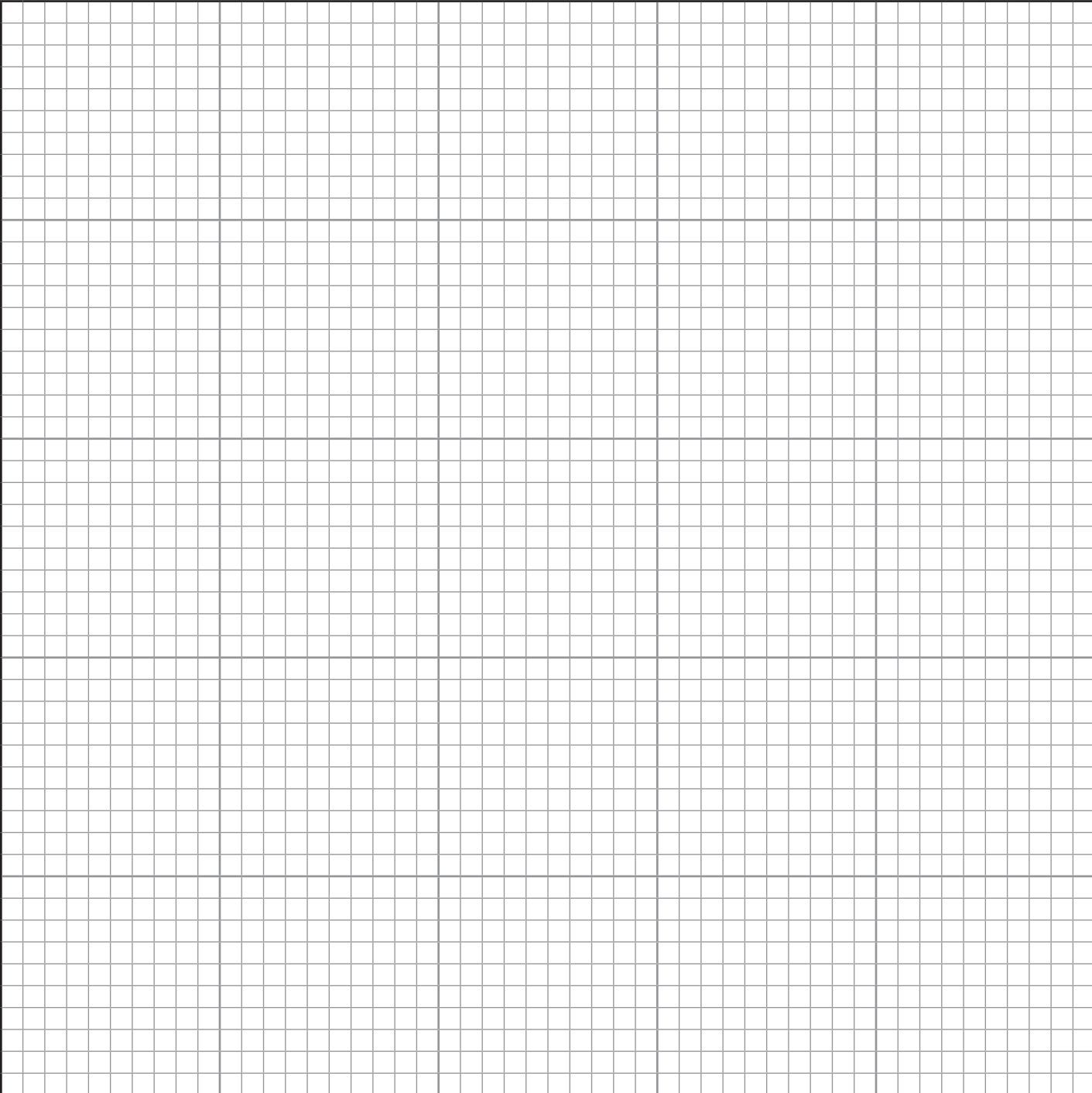


"IM" DRIVE
Vertical Inline Mounted

PERFORMANCE						
PUMP SERIES	Drive Style					
	R	P	D	V	B	M
INTERNAL GEAR Industrial-Duty Pumps						
Universal Seal & UMD	■	■	■	■		
Jacketed Universal Seal	■	■	■	■		
Motor Speed (Metric)	■	■	■	■		■
Motor Speed	■	■	■	■		■
General Purpose Pumps						
General Purpose	■	■	■	■	■	■
Special Purpose						
Abrasive Liquids	■	■	■	■		
Ammonia	■	■	■	■		
Asphalt	■	■	■	■		
LP Gas	■	■	■	■		
EXTERNAL GEAR Sealed						
Spur Gear	■	■	■	■		■
Sealless						
Mag Drive Spur Gear	■	■	■	■		■
VANE						
LVP Vane	■	■	■			■
LOBE						
Industrial Lobe	■	■		■		

Specific pumps within each pumping principle may or may not be compatible with a specific drive arrangement. Please contact your Authorized Viking® Distributor to make sure your particular pump is compatible with the desired drive arrangement.

NOTES





A Unit of IDEX Corporation

Leader in Positive Displacement Pumping Solutions.

Innovation and Experience

Viking Pump has been a pump industry leader and innovator since its founding in 1911. We continue to build on our ever growing experience delivering innovative new pumping solutions, including custom designs, to thousands of customers who use Viking pumps in some of the world's toughest applications.

Broad Performance Range

Capacity:

0.5 to 360 M³/Hr (0.1 to 1,600 GPM)

Pressure:

0 to 172 Bar (0 to 2,500 PSI)

Temperature:

-84°C to 370°C (-120°F to 700°F)

Viscosity:

0.5 to 1,000,000 cSt (28 to 4,500,000 SSU)

Ultimate in Sealing Solutions

Viking's offering of packing, component mechanical seals, cartridge seals and sealless Mag Drive technology provides the best choices for sealing flexibility needed to provide your application a customized sealing solution every time - saving you money, time and unplanned downtime.

Material Options Matched to Application

Viking's dedicated iron and alloys foundries provide pump construction materials from cast iron to Alloy C. Application-specific materials of construction extend a pump's life significantly, while reducing maintenance and unplanned downtime, enabling increased production and a better bottom line.

Liquid Integrity Protection

Viking has developed multiple positive displacement pump principles to protect shear-sensitive liquids, and low-shear options to prevent damage to fibers, polymers and solids. Full-jacketing options provide precise temperature control throughout the pump. The Viking Mag Drive[®] and other seal options prevent fluid contact with air, assuring liquid integrity.

Local Applications and Engineering Support

Over 245 Authorized Viking Pump Distributors in 68 countries provide local application support and service. They are backed by Viking Application Engineers and Viking Region Managers strategically located around the world.

Quality Manufacturing

Viking uses ISO9001-2008, Six-Sigma, and Lean/Kaizen in its worldwide manufacturing and assembly processes to remove waste, reduce development costs, and deliver superior products. Dedicated Viking foundries and manufacturing facilities utilize state-of-the-art CNC equipment to assure unmatched quality is built into every pump.

Custom Designed Solutions

Viking has provided custom designed pumps to end-users and OEMs since its first pump in 1911, when Viking invented the gear-within-a-gear pumping principle to remove water from a rock quarry. Today, enabled by Viking's engineering staff, extensive applications experience and in-house foundries, more than 20% of Viking's sales are new designs or pump designs derived from one of our 40,000 active configurations. Whether you are an end-user or an OEM, Viking can provide custom designed pumping solutions to meet your specific needs.



For more information, contact your local Authorized Viking Pump Distributor or contact Viking at:

VIKING PUMP, INC.

A Unit of IDEX Corporation
406 State Street
Cedar Falls, Iowa 50613-0008 U.S.A.
Telephone: (319) 266-1741
Fax: (319) 273-8157
E-mail: info.viking@idexcorp.com
Web site: www.vikingpump.com

CANADA

Windsor, Ontario
Phone: (519) 256-5438
Fax: (519) 256-5070
www.vikingpumpcanada.com

EUROPE

Shannon, Ireland
Phone: +353 (61) 471933
Fax: +353 (61) 475046
www.vikingpumpeurope.co.uk

LATIN AMERICA

Mexico D.F., C.P.
Phone: +52 (55) 5255-1357
Fax: +52 (55) 5255-1356
Brazil - Sao Paulo
Phone: +55 (19) 3871-3500
Fax: +55 (19) 3871-6400

ASIA-PACIFIC GROUP

Singapore
Phone: +65-6763-6633
Fax: +65-6764-4020
www.idexfmt-asia.com

China - Shanghai

Phone: +86-21-5241-5599
Fax: +86-21-5241-8339
www.idexfmt-asia.com

China - Beijing

Phone: +86-10-6566-9090
Fax: +86-10-6567-5152
www.idexfmt-asia.com

China - Guangzhou

Phone: +86-20-3886-6156
Fax: +86-20-3886-2776
www.idexfmt-asia.com

India - Mumbai

Phone: +91-22-66976634
Fax: +91-9820334270
www.idexfmt-asia.com

ASIA-PACIFIC GROUP

China - Chengdu
Phone: +86-28-86767458
Fax: +86-28-86767468
www.idexfmt-asia.com

China - Suzhou

Phone: +86-512-62833000
Fax: +86-512-62833010
www.idexfmt-asia.com

Korea - Seoul

Phone: +82-2-501-3302
Fax: +82-2-556-0788
www.idexfmt-asia.com

Australia & New Zealand

Phone: +61 2 4577 4534
Fax: +61 2 4577 5987
www.idexfmt-asia.com

MIDDLE EAST

IDEX Middle East FZE
Dubai, UAE
Phone: +971-4-299-1095/1097
Fax: +971-4-299-1069
www.idexfmt-asia.com