

# VIKING PUMP

A Unit of IDEX Corporation

## PRODUCT SELECTION GUIDE



Worldwide Leader Since 1911 for Positive Displacement Pumping Solutions for Industrial, OEM, and Sanitary Applications.

**IDEX**  
CORPORATION

# 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.

- Nearly a century of service to industry
- Problem-solving from water to virtually any liquid
- Extensive engineering lab
- Broad range of positive displacement pumps to handle your application
- Pumps that accept industry standard seals
- Pumps with sealless design
- Pumps designed for abrasives
- Pumps with integrally cast jacketing
- Custom pump solutions offered beyond standard offering
- 11 active patents held



## Setting World Class Standards

### Viking® Pumps Keep the World's Processes Flowing

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

- Viking pumps are found in nearly 200 countries
- More than 245 authorized, stocking distributors
- Multi-million dollar point-of-sale inventory strategically located globally, backed by factory inventory
- Vertically integrated manufacturing with captive foundries
- Every pump tested before shipping
- ISO9001 and ISO14001 certified
- Longest warranty program in the industry



# 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 DI water)
- 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)



## 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
- Gerotor

Accessories like:

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

For examples of the industries and applications we are familiar with, refer to pages 4-9.



# Chemicals

## Markets and Applications Served in the Chemical Industry



Plastics / Resins / Rubbers



Petrochemicals



Polyurethane Foam Products



Paint & Applied Products



Personal Care Products



Soaps & Cleaning Compounds



Printing Inks



Drugs / Pharmaceutical

Plastics / Resins / Rubbers

Petrochemicals

Polyurethane Foam Products

Paint and Applied Products

Personal Care Products

Soaps and Cleaning Compounds

Ethyl Alcohol Manufacturing

Other Basic Inorganic Chemicals

Printing Inks

Synthetic Dyes and Pigments

Other Basic Organic Chemicals

Plastic and Rubber Products

Drugs / Pharmaceutical

Chemicals and Allied Products Wholesaling

Explosives

All Other Chemicals

# Food Processing

Markets and Applications Served in the Food Processing Industry



Grain & Oilseed



Animal Food



Sugar



Beverage



Dairy Products

Grain and Oilseed

Other Food

Chocolate and Confectionery

Animal Food

Sugar

Beverage

Animal Slaughtering / Processing

Dairy Products

# Refined Petroleum & Coal

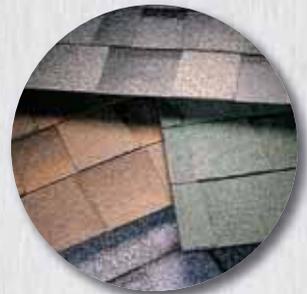
Markets and Applications Served in the Refined Petroleum & Coal Industries



Asphalt Paving Mixtures



Lubricating Oil & Grease Manufacturing



Roofing Products



Petroleum Refineries



Other Petroleum and Coal Products

Asphalt Paving Mixtures

Oil and Gas Extraction

Lubricating Oil and Grease Manufacturing

Roofing Products

Petroleum Refineries

Petroleum, LPG, and CNG Distribution

Other Petroleum and Coal Products

# Machinery

## Markets and Applications Served in the Machinery Industry



Engine & Turbine Manufacturing



Commercial Cooking Machinery



Pumps & Compressor Manufacturers



Construction / Mining / Material Handling Equipment



Construction



Machine Tools



Farm Machinery



Printing Machinery

Engine and Turbine Manufacturing

Commercial Cooking Machinery

Pumps and Compressor Manufacturers

Non-Electrical Machinery

Construction / Mining / Material Handling Equipment

Special Industry Machinery

Construction

Semiconductor Machinery Manufacturing

Machine Tools

Farm Machinery

Packaging Machinery

Printing Machinery

Medical Equipment

Other Machinery

# Transportation

Markets and Applications Served in the Transportation Industry



Railroad Equipment

Automotive

Military

Truck

Pipelines

Aircraft Equipment

Other Transportation



Automotive



Military



Truck



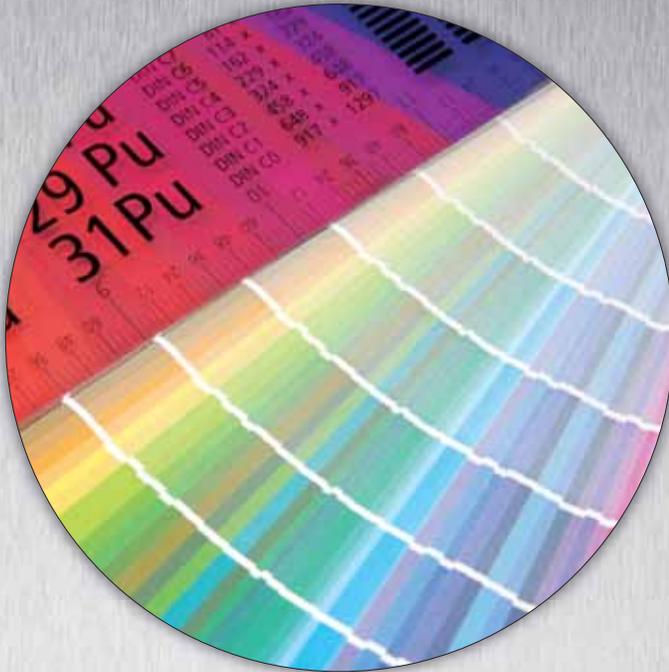
Pipelines



Aircraft Equipment

# Other

## Markets and Applications Served in Other Industries



Pulp / Paper / Allied Products



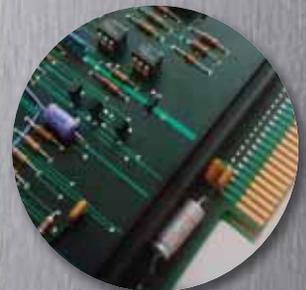
Heating Equipment



Textile Manufacturing



Wastewater Treatment



Electronics / Electrical Equipment

Pulp / Paper / Allied Products

Industrial Equipment and Supply Wholesalers

Utilities

Industrial Refrigeration Equipment

Mining

Heating Equipment

Printing and Publishing

Metals

Fabricated Metal Product

Textile Manufacturing

Other Miscellaneous Manufacturing

Wastewater Treatment

Water Treatment / Conditioning

Measuring and Controlling Devices

Electronics / Electrical Equipment

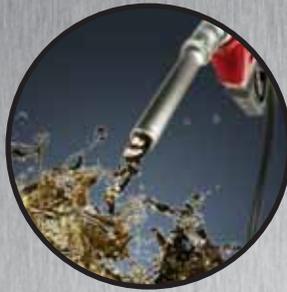
# SPECTRUM OF OPTIONS

## 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, by improving lubrication, and by minimizing leakage at shaft seals; reducing downtime, maintenance, and extending 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 11 lists some of the constructions and features offered.



### ACCESSORIES (PAGES 28 - 31)

- Lid-Ease Strainer (Page 28)
- Duplex Fuel Oil Sets (Page 29)
- Gear Reducers - Helical Offset and In-Line (Page 30)
- Drives (Page 31)

### 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:

- 316 Stainless Steel
- 316 L Stainless Steel
- 316 Ti 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 decisions for multiple viscosities

### TEMPERATURE

For extreme temperature applications (hot or cold), Viking offers:

- Metals
- Seals
- Jacketing
- Temperature Probes

### STANDARDS

Many Viking products meet industry standards for certifications such as UL, NSF, ANSI, 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
- Tapped ports
- ANSI, DIN and JIS compatible flanges
- Flat and raised face flanges
- Oversized ports
- Top, bottom, or side suction/discharge

# SELECTION GUIDE

PUMPING PRINCIPLE  CATEGORY  SERIES	INTERNAL GEAR							EXTERNAL GEAR				VANE	LOBE		OEM
	Heavy Duty			Sealless	Special Purpose				Metal	Composite					
	Universal Seal	Motor Speed	Motor Speed (Metric)	Viking Mag Drive	Abrasive Liquids	Thin, Volatile Liquids	Asphalt	General Purpose	Spur Gear	Non-Metallic Mag Drive	VICORR	Rotary Vane	Stainless Steel Lobe	Industrial Lobe	Custom Solutions/
<b>Performance</b>															
Max. Capacity, M <sup>3</sup> /Hr	360	17	45	114	36	21	360	102	7.2	4.5	7.2	36	230	186	360
Max. Capacity, GPM	1,600	75	200	500	160	95	1,600	450	32	20	32	160	1,014	820	1,600
Max. Capacity, LPM	6,056	284	757	1,193	606	360	6,056	1,703	121	75	121	606	3,838	3,104	6,056
Max. Pressure, BAR	14	17	17	14	10	7	14	17	34	10	14	14	15	27	172
Max. Pressure, PSI	200	250	250	200	150	100	200	250	500	150	200	200	215	400	2,500
Max. Viscosity, cSt	1,000,000	5,500	22,000	55,000	16,500	N/A	55,000	55,000	16,500	5,000	5,500	500	110,000	1,000,000	1,000,000
Max. Viscosity, SSU	4,500,000	25,000	100,000	250,000	750,000	N/A	250,000	250,000	75,000	25,000	25,000	2,300	500,000	4,500,000	4,500,000
Max. Temp. °C *	+371	+177	+150	+260	+232	-40 to +107	+371	+371	+232	+65	+93	+260	+149	+204	+371
Max Temp. °F *	+700	+350	+300	+500	+450	-40 to +225	+700	+700	+450	+150	+200	+500	+300	+400	+700
<b>Sizes</b>															
Number of Sizes in Series	16	6	6	15	12	11	14	17	23	5	4	6	15	3	1000+
<b>Casing Material</b>															
Cast Iron															
Ductile Iron															
Steel															
Stainless Steel															
Composite										ETFE	PPS				
Alloy C, Alloy 20 & Others															
<b>Sealing</b>															
Packing															
Lip Seal															
Component Mechanical Seal															
Cartridge Mechanical Seal															
Cartridge Triple Lip Seal															
Sealless Mag Drive															
O-Ring															
<b>Options</b>															
Jacketed (head/bracket)															
Fully Jacketed (casing/head/bracket)															
<b>Ports</b>															
Opposite (180°)															
Right Angle (90°)															
Same Side (360°)															
Flanged															
NPT															
<b>Mounting</b>															
Foot Mount															
Flange Mount (Close-Coupled)															
Vertical In-Line															
<b>APPLICATIONS</b>															
High Temperature															
Abrasives															
Corrosives															
High Viscosity															
Medium Viscosity															
Low Viscosity															
PAGE	12 & 13	14	15	16	17	18	19	20	21	22	23	24	25	26	

\* 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
- 16 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

### PORTS

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

### MOUNTING

- Foot Mount
- Direct Mount

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 360 M<sup>3</sup>/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 +371°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 <sup>3</sup> /Hr	GPM	RPM	BAR	PSI		
CAST IRON - DUCTILE IRON - STEEL	G ①	1.0	2	8	1,750	14.0	200		
	H	1.5	3	15					
	HL		7	30					
	AK ①	2.0	11	50	1,150				
	AL ①		17	75					
	K		17	100	780				
	KK		23						
	L		2.5	31	135			640	
	LQ			32	140			520	
	LL	3.0	45	200	640				
	LS		68	300	520				
	Q	4.0	114	500					
	QS	6.0	136	600	350				
	N		250	1,100	280				
	R		8.0	365	1,600			280	
	RS		10.0						
STAINLESS STEEL	F ①	0.5	0.3	1.5	1800	28	400		
	FH ①	0.75	0.7	3					
	G ①	1	1	5				1200	
	H	1.5	2	10	1,150				
	HL		5	20					
	K	2.0	11	50	520				
	KK		15	65					
	LQ		21	90				420	
	LL	3.0	25	110					
	LS		36	160	520				
	Q	4.0	71	200	350			8.5	125
	QS	310							
	N	6.0	138	600	280			14.0	200
	R	8.0	250	1,110	280			12.0	175
RS	10.0	365	1,600	280	14.0	200			

Integral relief valve is standard.

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



# JACKETED UNIVERSAL SEAL PUMPS

## Temperature Controlled Industrial-Duty Pumps

With all of the features and benefits of the Universal Seal series, these pumps offer a variety of jacketing options to easily handle fluids that require either heating or cooling. Standard jacketed pumps feature a jacketed head and

bracket, ideal for applications like asphalt and chocolate. Fully-jacketed pumps add jacketed casing and flange areas, providing uniform temperature control for critical processes like ABS, epoxy, and PET resins.

### CUSTOMER BENEFITS

- Jacketing options available for all critical areas of pump including bracket, seal, casing, flanges, head and relief valve
- Large available jacketing areas allow rapid heating and cooling capabilities for faster startup
- Allows a variety of heating or cooling media including hot oil, steam, and water
- Variety of jacket connection options including tapped and flange
- Multiple jacket connection locations allow for easier piping
- Clearances optimized for maximum efficiency
- Numerous porting positions, configurations and sizes provide enhanced application flexibility
- Proven uniform temperature control for improved product consistency

### MATERIALS

- Cast Iron
- Ductile Iron
- Steel
- Stainless Steel
- Alloy C, Alloy 20, and others
- Hard material options available for abrasive liquids

### SEALING

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

### PORTS

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

### MOUNTING

- Foot Mount
- Direct Mount

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 360 M<sup>3</sup>/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 +371°C (-120°F to +700°F)

\* Max temperature, special construction, 371°C (700°F)

\*\* Higher pressures available with factory approval

### PERFORMANCE - UNIVERSAL SEAL

	Size	Standard Port Inches	Nominal Capacity At Maximum Speed		Maximum Speed RPM	Maximum Pressure **	
			M <sup>3</sup> /Hr	GPM		BAR	PSI
CAST IRON - DUCTILE IRON - STEEL	H	1.5	3	15	1,750	14.0	200
	HL		7	30			
	K	2.0	17	75	780		
	KK		23	100			
	L	2.5	31	135	640		
	LQ		32	140			
	LL	3.0	46	200	520		
	LS		46	200			
	Q	4.0	68	300	520		
	QS		114	500			
N	6.0	138	600	350			
R		250	1,100				
RS	10.0	365	1,600	280			
STAINLESS STEEL	H	1.5	2	10	1,150	10.0	150
	HL		5	20			
	K	2.0	11	50	520		
	KK		15	65			
	LQ	2.5	21	90	420		
	LL		25	110			
	LS	3.0	36	160	520		
	Q		4.0	200			
	QS	6.0	71	310	350		
	N		138	600			
R	8.0	250	1,100	280			
RS		10.0	365		1,600		

### PERFORMANCE - HEAVY DUTY WITH IRON JACKET

STAINLESS STEEL	Size	Standard Port Inches	Nominal Capacity At Maximum Speed M <sup>3</sup> /Hr	Nominal Capacity At Maximum Speed GPM	Maximum Speed RPM	Maximum Pressure BAR	Maximum Pressure PSI
H ⊕	1.5	1.5	2	10	1200	28	400
HL ⊕	1.5	1.5	5	20	1200	28	400
K ⊕	2	2	10	45	520	28	400
KK ⊕	2	2	15	65	520	28	400
L ⊕	2	2	20	90	420	28	400
LQ ⊕	2.5	2.5	20	90	420	28	400
LL ⊕	3	3	25	110	420	28	400

Integral relief valve is standard.

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



# 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

- Component Mechanical Seal

### PORTS

- Opposite (180°)
- Flanged

### MOUNTING

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

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 17 M<sup>3</sup>/Hr (To 75 GPM)

### PRESSURE

To 17 BAR (To 250 PSI) \*

### VISCOSITY

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

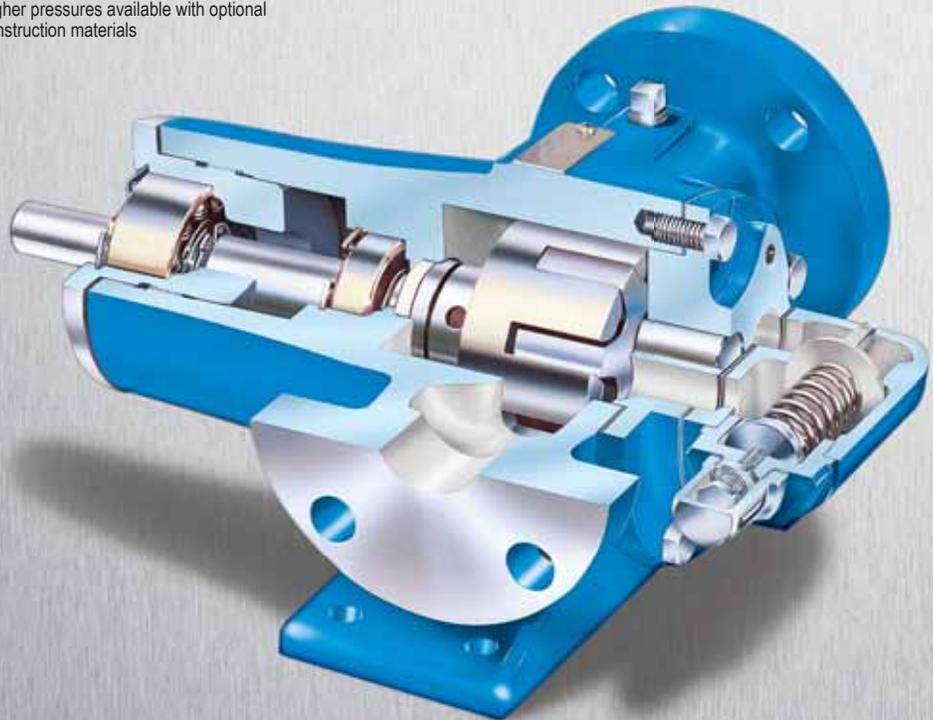
### TEMPERATURE

-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 <sup>3</sup> /Hr	GPM	RPM	BAR	PSI
ALL MATERIALS	GG	1.0	2	10	1,800	17	250
	HJ	1.5	5	20			
	HL		7	30			
	AS	2.5	8	35	1,200		
	AK		11	50			
	AL		3.0	17			

Integral relief valve is standard.



# 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

PERFORMANCE							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		mm	M <sup>3</sup> /Hr	GPM	RPM	BAR	PSI
DUCTILE IRON	HLE	40	6	26	1,450	17	250
	ATE	65	12	54			
	ALE		21	94			
	KE	80	29	126	12	215	
	KKE		38	170			
	LQE	100	45	200	970		

Integral relief valve is standard.

### MATERIALS

- Ductile Iron

### SEALING

- Component Mechanical Seal

### PORTS

- Opposite (180°)
- Flanged

### MOUNTING

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

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 45 M<sup>3</sup>/Hr (To 200 GPM)

### PRESSURE

To 17 BAR (To 250 PSI) \*

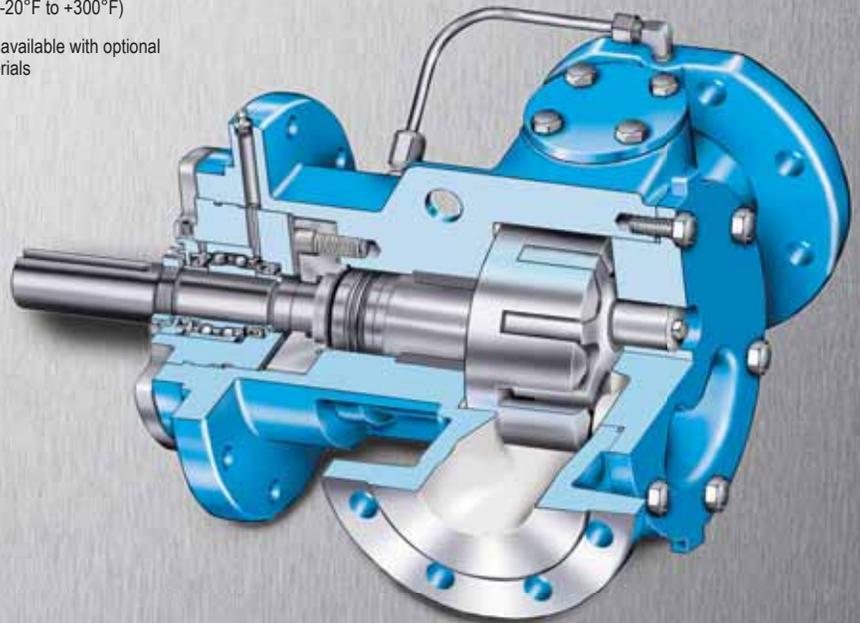
### VISCOSITY

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



# VIKING MAG DRIVE® PUMPS

## 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

### OPTIONS

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

### PORTS

- Opposite (180°)
- Right Angle (90°)
- Flanged
- (ANSI B16.5-compatible or DIN 2501-compatible)
- NPT

### MOUNTING

- Foot Mount
- Motor Mount (close-coupled)

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 114 M<sup>3</sup>/Hr (To 500 GPM)

### PRESSURE

To 14 BAR (To 200 PSI)

### VISCOSITY

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

### TEMPERATURE \*

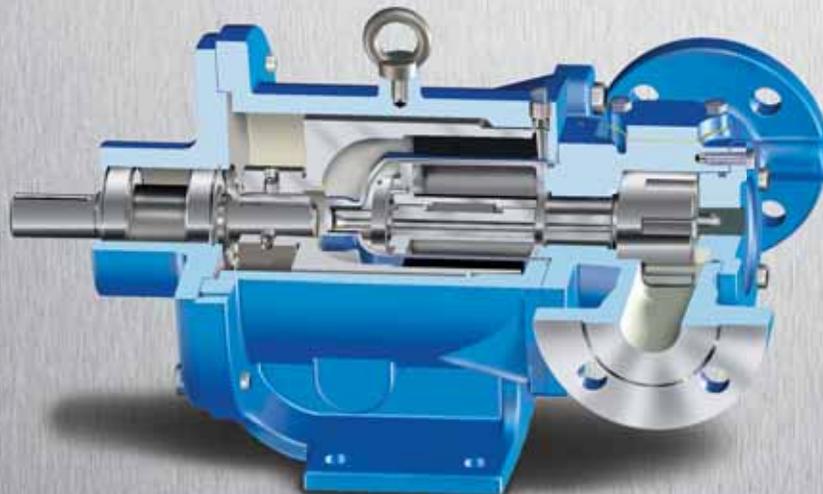
-51°C to +107°C (-60°F to +225°F)

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

PERFORMANCE							
	Size	Ports *	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
			M <sup>3</sup> /Hr	GPM	RPM	BAR	PSI
SERIES 855 CAST IRON	GS	1.0 (25)	1.1	5	1,750	14.0	200
	GG		2.2	10			
	HJ	1.5 (40)	4.5	20			
	HL		6.8	30			
	AS	3.0 (65)	12.5	42	1,450	10.3	150
	AK		19.0	66			
	AL		25.0	88			
	KE	3.0 (80)	28.0	94	1,150		
	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			
	AS	3.0 **	8.0	35	1,200		
	AK		11.0	50			
	AL		17.0	75			
SERIES 823, 825, 827 STEEL, CAST IRON, STAINLESS STEEL	K	2.0 **	18.0	80	780	8.5	125
	KK		22.0	100			
	LQ	2.5	31.0	135	640		
	LS	3.0	45.0	200			
	Q	4.0	68.0	300	520		
	QS	6.0	114.0	500			

\* ANSI = Inches / DIN = MM

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



# 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
  - Standard, 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 bracket)
- Fully-Jacketed (casing, head and bracket)

### PORTS

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

### MOUNTING

- Foot Mount

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 36 M<sup>3</sup>/Hr (To 160 GPM)

### PRESSURE

To 10 BAR (To 150 PSI)

### VISCOSITY

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

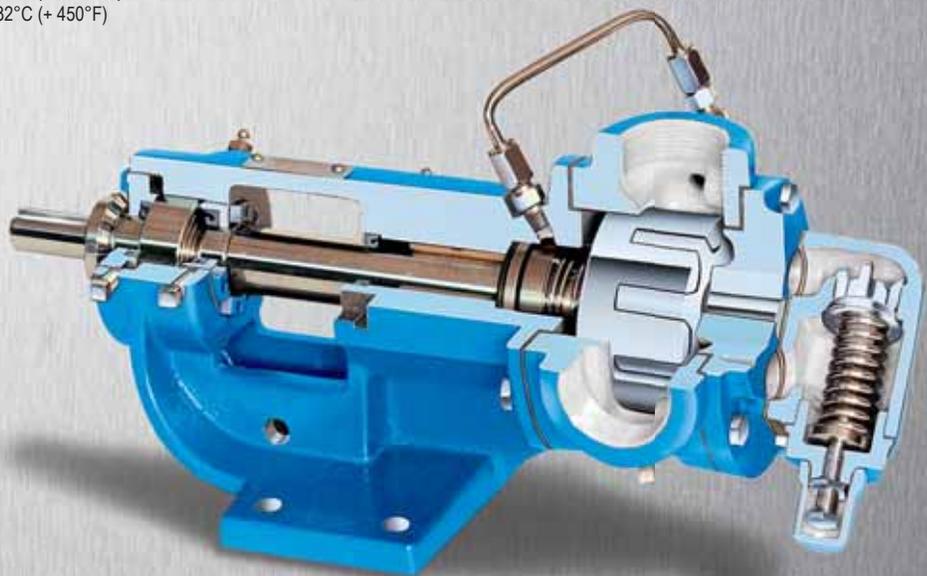
### TEMPERATURE \*

-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 <sup>3</sup> /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	1.10	5.0	640	10.0	150
	HL		2.30	10.0			
	K	2.0	5.60	25.0	280	10.0	150
	KK		7.90	35.0			
	L		11.30	50.0			
	LQ	2.5	11.30	50.0	230	8.5	125
	LL	3.0	14.80	65.0	190		
	Q		25.00	110.0			
	M	4.0	32.00	140.0	155	8.5	125
	QS	6.0	36.00	160.0	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

### CAPACITY

To 14 M<sup>3</sup>/Hr (To 60 GPM)

### PRESSURE

To 3.5 BAR (To 50 PSI)

### TEMPERATURE

-40 to +107°C (-40 to +225°F)

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

PERFORMANCE - AMMONIA PUMPS							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M <sup>3</sup> /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

### CAPACITY

To 21 M<sup>3</sup>/Hr (To 95 GPM)

### PRESSURE

To 7 BAR (To 100 PSI)

### TEMPERATURE

To -40°C (-40°F)

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.



PERFORMANCE - LP GAS PUMPS							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M <sup>3</sup> /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	1,800	7.0	100
	AK		10	45			
	AL	3.0	15	65	420		
	K	2.0	7	30			
	KK		9	40			
	L	3.0	17	75			
	LQ		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 keeps bitumen from solidifying in 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
- Jacketed heating options available
- 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

### OPTIONS

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

### PORTS

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

### MOUNTING

- Foot Mount

### DRIVES

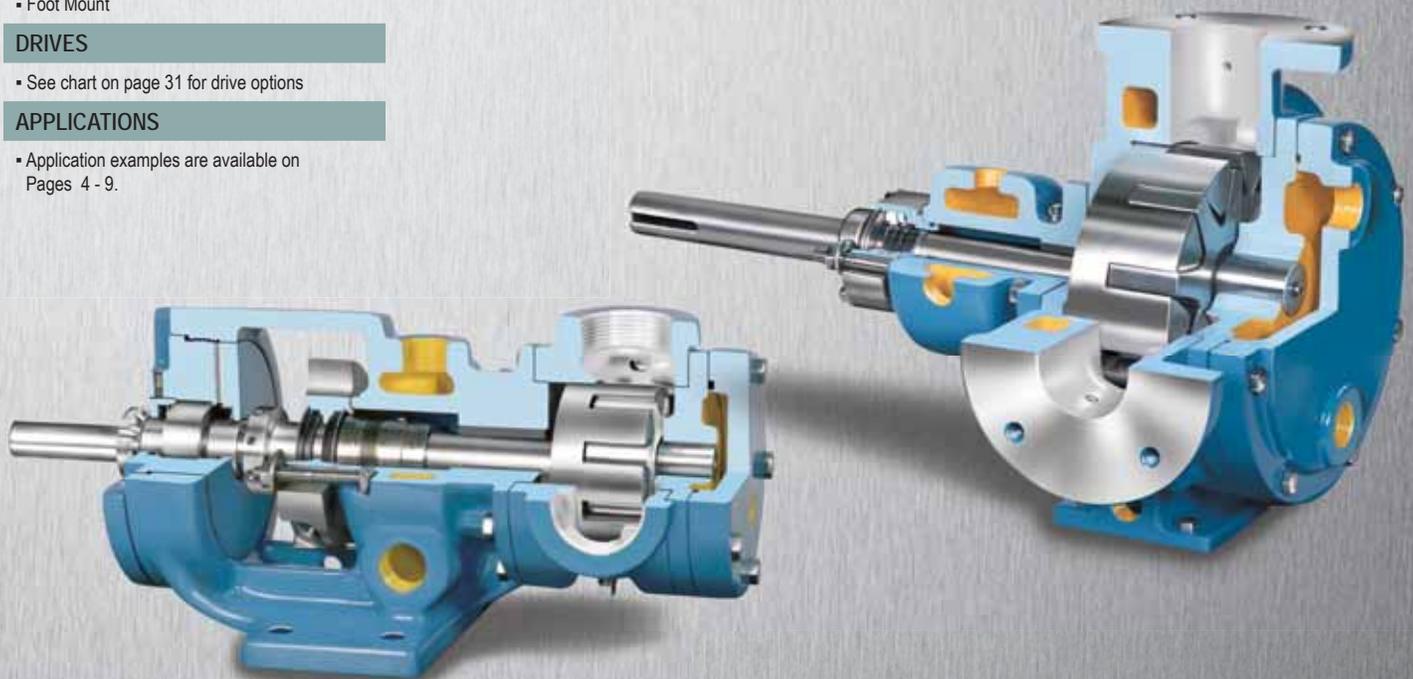
- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

PERFORMANCE - General Purpose							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M <sup>3</sup> /Hr	GPM	RPM	BAR	PSI
CAST IRON	HL	1.5	4.5	20	1,200	7.0	100
	KK	2.0	10.0	50	420		
	LQ	2.5	20.0	90			
	Q	3.0	45.0	200	350	5.2	75
	M	4.0	64.0	280	280		
	N	5.0	102.0	450			

PERFORMANCE - Heavy Duty							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M <sup>3</sup> /Hr	GPM	RPM	BAR	PSI
CAST IRON	H	1.5	3	15	1,750	14.0	200
	HL		7	30			
	K	2.0	17	75	780		
	KK		23	100			
	L		31	135			
	LQ	2.5	32	140	520		
	LL	3.0	45	200	640		
	LS		68	300	520		
	Q	4.0	114	500	350		
	QS	6.0	136	600			
	N		250	1,100	280		
	R	8.0	365	1,600			
	RS						



# 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
- Temperature control available through jacketing option
- 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
- Cartridge Triple Lip Seal

### PORTS

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

### MOUNTING

- Foot Mount
- Flange Mount (Closed-Coupled)

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 102 M<sup>3</sup>/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	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M <sup>3</sup> /Hr	GPM	RPM	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		2.0	8.0		35.0	
	K			11.4		50.0	
	L	2.5	20.5	90.0	520	5	75
	LQ		32.0	140.0			
	LL	3.0	46.0	200.0	350		
	Q		64.0	280.0			
	M	4.0	64.0	280.0	280		
	N	5.0	102.0	450.0			

Integral pressure relief valve is standard.

SERIES 475 Pump  
"GG" Size



SERIES 32 Pump  
"HL" Size



# SPUR GEAR PUMPS

## High Pressure, Precise Flow

Viking's Spur Gear series pumps are ideal for low-capacity, high-pressure applications running at motor speeds. Used in both industrial and mobile environments for applications such as metering, filtering, fuel supply 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

- Evenly incremented displacements provide a pump within 20% of your capacity needs
- Precision machined components afford precise metering and flow control for increased process accuracy
- Variety of sealing options including Mag Drive (sealless) to cost-effectively meet your application needs
- 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 your space or motor requirements
- Static O-ring seals with dynamic lip or mechanical shaft seals provides sealing reliability and integrity
- Heat treated gears and hardened shafts offer long-life performance
- Needle bearings provide high pressure capabilities with excellent efficiency
- UL or NSF listing available on select models

### MATERIALS

- Cast Iron
- Ductile Iron

### SEALING

- Lip Seal
- Mechanical Seal
- Sealless Mag Drive

### PORTS

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

### MOUNTING

- Foot Mount
- Flange Mount (close-coupled)

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 7.2 M<sup>3</sup>/Hr (To 32 GPM)

### PRESSURE \*

To 34 BAR (To 500 PSI)

### VISCOSITY

To 16,500 cSt (To 75,000 SSU)

### TEMPERATURE \*\*

-40°C to +107°C (-40°F to +225°F)

\* Fluid power models to 2,500 PSI

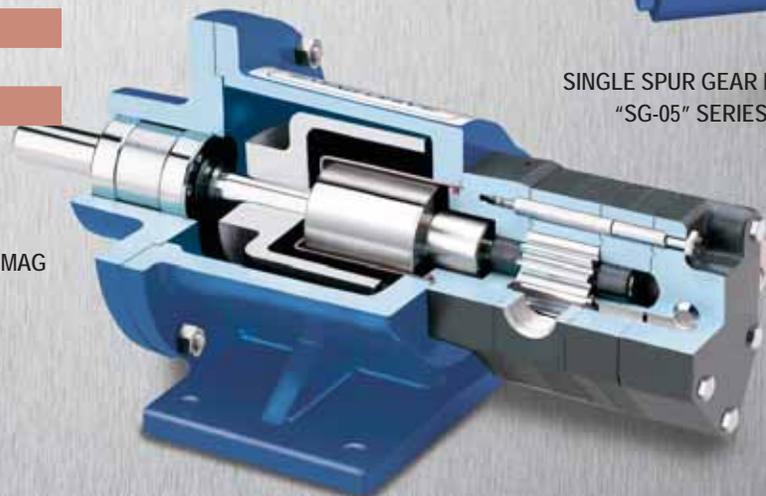
\*\* Max temperature, special construction, 232°C (450°F)

PERFORMANCE							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Max. Speed	Maximum Pressure	
		Inches	M <sup>3</sup> /Hr	GPM	RPM	BAR	PSI
CAST IRON	SG-0417	0.375	0.01	0.06	1,750	34	500
	SG-0418		0.03	0.14			
	SG-0425		0.04	0.18			
	SG-0435		0.06	0.27			
	SG-0450		0.08	0.36			
	SG-0470		0.11	0.50			
CAST - DUCTILE IRON	SG-0518 ①	0.5	0.16	0.7	1,750	34	500
	SG-0525 ①		0.23	1.0			
	SG-0535 ①		0.32	1.4			
	SG-0550 ①		0.45	2.0			
	SG-0570 ①		0.64	2.8			
	SG-0510 ①		0.91	4.0			
	SG-0514 ①	0.75	1.3	5.6		28	400
	SG-0519 ①		1.7	7.6			
	SG-0528 ①		2.5	11.2			
	SG-0729		0.6	2.8			
	SG-0741	1.0	0.91	4.0		14	200
	SG-0758		1.3	5.6			
	SG-0782		1.8	8.0			
	SG-0711		2.5	11.2			
	SG-0716		3.6	16.0			
	SG-0722		1.50 X 1.25	5.0			
SG-0732	1.50 X 1.25	7.3	32.0	34	500		

Integral pressure relief valve (standard single pump).  
 ① SG-05 models available with UL listing for fuel oil.



SINGLE SPUR GEAR PUMP  
"SG-05" SERIES



SINGLE SPUR GEAR MAG  
DRIVE PUMP

# COMPOSITE MAG DRIVE 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
- Wide flow range to better match application requirements
- 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)
- Variety of drive options (VI-CORR)
- Internal relief valve standard (VI-CORR)

### MATERIALS

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

### SEALING

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

### PORTS

- NPT
- NPT (ISO 7-1) (CMD)
- Flanged (ANSI or DIN)

### MOUNTING

- Motor Mount
- Foot Mount (CMD)

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 75 LPM (To 20 GPM) (CMD)  
To 121 LPM (To 32 GPM) (VI-CORR)

### PRESSURE

To 10 BAR (To 150 PSI) (CMD)  
To 14 BAR (To 200 PSI) (VI-CORR)

### VISCOSITY

To 5,500 cSt (To 25,000 SSU)

### TEMPERATURE

-40°C to +65°C (-40°F to +150°F) (CMD)  
-40°C to +93°C (-40°F to +200°F) (VI-CORR)

PERFORMANCE - CMD SERIES							
Size	Standard Port Inches	Nominal Capacity At Maximum Speed				Maximum Pressure	
		1450 RPM		1750 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		

In-line valve sold separately.

PERFORMANCE - VI-CORR							
Size	Standard Port Inches	Nominal Capacity At Maximum Speed				Maximum Pressure	
		1450 RPM		1750 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

# LVP SERIES VANE PUMPS

## Vane Pumps for Corrosive, Thin Liquids at Higher Pressures

A stainless steel vane pump designed to handle liquid transfer applications for thin liquids at pressures up to 14 Bar (200 PSI). Rugged, industrial-duty pump 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 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 001/002 only)
- Foot Mount

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 36 M<sup>3</sup>/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)

PERFORMANCE							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M <sup>3</sup> /Hr	GPM	RPM	BAR	PSI
STAINLESS STEEL	LVP40017 LVP41017	40 (1.5)	4	20	1,750	14	200
	LVP40027 LVP41027		9	40			
	LVP41057	50 (2.0)	15	80	1,150		
	LVP41087		23	100	950		
	LVP41197	80 (3.0)	29	125	520		
	LVP41237		36	160			

Integral pressure relief valve is standard.



# STAINLESS STEEL LOBE PUMPS

## Gentle, Low Shear Pumping Action With In-line Cleanability

SL and CP series lobe pumps ensure integrity of pumped liquids by minimizing shear, through use of large fluid cavities and no metal-to-metal contact. Elimination of dead spaces enhances

in-line cleanability. Typical applications include liquids with suspended solids and processes that require cleaning between batches.

### CUSTOMER BENEFITS

- Timed rotors to eliminate metal-to-metal contact and protect product integrity
- Front loading mechanical seals for ease of maintenance
- Large fluid cavities for superior solids handling
- Solvent or steam-flushable for in-line cleaning between batches to prevent product cross-contamination
- Vertical or horizontal porting for installation flexibility
- Optional seal flush allows run-dry capabilities

### MATERIALS

- 316 Stainless Steel

### SEALING

- Single or Double Mechanical Seal
- O-Ring Shaft Seal

### PORTS

- Opposite (180°)
- Flanged
- NPT

### MOUNTING

- Foot Mount

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 230 M<sup>3</sup>/Hr (To 1,014 GPM) (SL Series)  
To 147 M<sup>3</sup>/Hr (To 650 GPM) (CP Series)

### PRESSURE

To 15 BAR (To 215 PSI) (SL Series)  
To 12 BAR (To 175 PSI) (CP Series)

### VISCOSITY

To 110,000 cSt (To 500,000 SSU)

### TEMPERATURE

-20°C to +149°C (-4°F to +300°F)

PERFORMANCE - SL SERIES						
Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	M <sup>3</sup> /Hr		GPM	BAR
SLAS	.75	3	12	1,200	15	215
SLAL	1	4	19		10	145
SLBS		6	25		15	215
SLBL	1.5	9	38		10	145
SLCS		12	53		15	215
SLCL	2	18	80	10	145	
SLDS	1.5	21	93	1,000	15	215
SLDL	2	31	139		10	145
SLES		3	35	155	800	15
SLEL	53		232	10		145
SLFS	4		55	241	600	15
SLFL		82	362	10		145
SLGS		114	502	15		215
SLGL	6	171	753	10	145	
SLHS		230	1,014	15	215	

PERFORMANCE - CLASSIC+						
Size	Standard Port	Nominal Capacity At Maximum Speed		Max. Speed	Maximum Pressure	
		Inches	LPM		GPM	BAR
CP10S	1.0	53	14	1,150	12	175
CP10M	1.5	95	26			
CP10L		128	34			
CP20S	2.0	190	48	950		
CP20L		297	74			
CP30S		3.0	541	136		
CP30L	877		217			
CP40S	4.0	1,079	285	640		
CP40L		1,495	395			
CP50S		2,249	535			
CP50L	6.0	2,730	650	520		

"SL" SERIES PUMP



CLASSIC+ SERIES PUMP

# 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 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 186 M<sup>3</sup>/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 Inches	Nominal Capacity At Maximum Speed		Maximum Speed RPM	Maximum Pressure		
		M <sup>3</sup> /Hr	GPM		BAR	PSI	
RL016	3	23.8	105	640	27	400	
RL025		36.3	160				
RL150	6	186.0	820	600			



RL40167 SERIES



41507 SERIES

# 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
- ISO9000:2001 and ISO14001 documented quality manufacturing processes

### MATERIALS

- Cast Iron
- Ductile Iron
- Steel
- Stainless Steel
- Composite (PPS)

### SEALING

- Packing
- Lip Seal
- Component Mechanical Seal
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal
- Sealless Mag Drive
- O-Ring

### OPTIONS

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

### PORTS

- Opposite (180°)
- Right Angle (90°)
- Same Side (360°)
- Flanged
- NPT
- Customer Specific Internal or External Ports

### MOUNTING

- Foot Mount
- Flange Mount (Close-Coupled)
- Vertical In-Line
- Customer Specific Mounting Arrangement

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 360 M<sup>3</sup>/Hr (0.06 to 1,600 GPM)

### PRESSURE

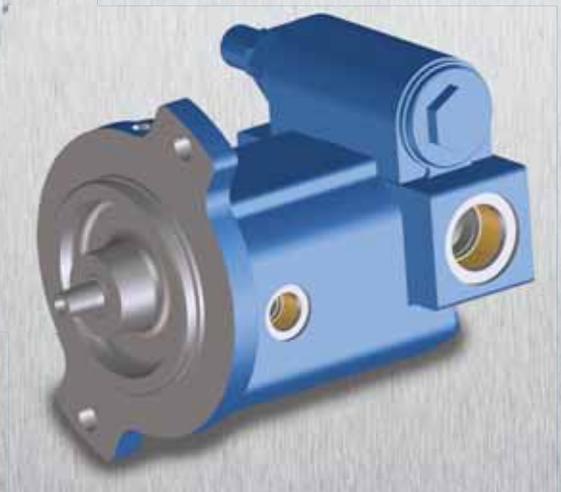
To 172 BAR (0 to 2,500 PSI)

### VISCOSITY

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

### TEMPERATURE

to +371°C (-90°F to +700°F)



# GEROTOR PUMPS

## Cost Effective, Simple Design

Economical pumps for clean, low-pressure applications like lube and filtration systems. They are available in various mounting configurations.

### CUSTOMER BENEFITS

- Customizable mounting and porting to interface with your equipment
- Lip seal standard, mechanical seal optional
- Cartridge pump design also available

### MATERIALS

- Cast Iron

### SEALING

- Lip Seal
- Mechanical Seal

### PORTS

- Opposite (180°)
- NPT
- SAE
- BSP
- Customer Specific Internal Ports

### MOUNTING

- Foot Mount
- Flange Mount (Closed-Coupled)
- Cartridge Pump
- Customer Specific Mounting Arrangement

### DRIVES

- See chart on page 31 for drive options

### APPLICATIONS

- Application examples are available on Pages 4 - 9.

### CAPACITY

To 36 LPM or 2.16 M<sup>3</sup>/Hr (To 9.7 GPM)

### PRESSURE

To 7 BAR (To 100 PSI)

### VISCOSITY

To 5,000 cSt (To 25,000 SSU)

### TEMPERATURE \*

To +232°C (To +450°F)

PERFORMANCE							
	Size	Standard Port	Nominal Capacity At Maximum Speed		Maximum Speed	Maximum Pressure	
		Inches	LPM	GPM	RPM	BAR	PSI
CAST IRON	GR-0920	0.5	7	2	1,750	7	100
	GR-0941		14	4			
	GR-0955		18	5			
	GR-0996		31	8			
	GR-0912		37	10			

Optional, adjustable pressure relief valve available.



# LID-EASE STRAINER

## 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
- Tapped, 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

### CAPACITY

To 250 M<sup>3</sup>/Hr (To 1,100 GPM)

### PRESSURE

To 14 BAR (To 200 PSI)

### OPTIONS

- Magnetic Inserts
- Differential Pressure Indicators

### VISCOSITY

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

### PORTS

- Flanged
- NPT
- Grooved

### 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 <sup>3</sup> /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	8.5	125	8.5	125
	F-1030	3.0	45	200				
	F-1040	4.0	91	400			5.0	75
	F-1060	6.0	182	800				
F-1080	8.0	340	1,500	3.4	50			
DUCTILE	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				
	F-1060	6.0	182	800	5.0	75		
STAINLESS STEEL	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	8.5	125	8.5	125
	F-1030	3.0	45	200				
	F-1040	4.0	91	400			5.0	75
	F-1060	6.0	182	800				

# 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 sets built custom to your order
- UL-CSA electrical control panels
- Easy sizing with 8-Step Selection Program (CD available)
- Available with standard or UL rated pumps
- Quick access comparison sheets, specification sheets and illustration drawings
- Easily requested CAD submittal drawings
- Over 25 years experience engineering and manufacturing duplex fuel oil sets

### STANDARD EQUIPMENT

- 2 - Viking heavy duty positive displacement rotary gear or spur gear pumps
- 2 - Flexible couplings with orange peel OSHA guards
- 2 - Motors, totally enclosed fan cooled, foot mounted, NEMA, UL, CSA certified
- 1 - Common heavy gauge steel baseplate with drip lip and NPT drain

### SUCTION LINE

- 2 - Viking cast iron Lid-Ease basket strainers with 40 mesh stainless steel basket
- 2 - Ball valves rated to 600 PSI, full port, two piece bronze body with PTFE seat
- 2 - Compound gauges 30" Hg-0-30 PSI 2.5" dial, bronze internals, stainless steel case, liquid filled
- 2 - Gauge Valves - bronze ball valves, 600 PSI rated

### DISCHARGE LINE

- 3 - Spring Check Valves, 400 PSI pressure rated, bronze body, Teflon poppet
- 2 - Ball valves, 600 PSI pressure rated, full port, two piece bronze body, PTFE seat
- 2 - Relief Valves - continuous bypass type, cast iron body, stainless steel spring
- 2 - Pressure Gauges, 0-200 PSI, 2.5" dial, bronze internals, stainless steel case, liquid filled
- 2 - Gauge Valves - bronze ball valves, 600 PSI rated

### SUCTION/DISCHARGE PIPING

- Schedule 40 carbon steel piping and nipples, 150 PSI malleable iron screwed fittings
- Duplex pump set to be leak tested with 100 PSI air and soap water
- Unit to be coated with Vinyl Toluene Alkyd, quick dry enamel, Viking Blue



### OPTIONS

- Pressure switches
- Pressure control valves
- Flow switches
- Thermometers
- Flexible connectors
- Water removal filters
- Galvanized base plates
- Flow meters and totalizers

### 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

### CAPACITY

0.2 to 284 M<sup>3</sup>/Hr (1 to 75 GPM)

### PRESSURE

0.3 to 17 BAR (5 to 250 PSI)

### VISCOSITY

38 to 2,500 cSt (38 to 500 SSU)

### TEMPERATURE

-20°C to +82°C (-4°F to +180°F)

- ① Based on Fuel Oil at 100 SSU and 50 PSI. For other conditions, consult factory or your local Viking Distributor.
- ② Capacities based on direct drive motor speeds of 1150 or 1750 RPM. For reduced speed drives, consult factory.
- ③ For higher pressures, consult factory. For actual pressure limits, consult curves, selector, or factory.
- ④ UL Rated Pumps.
- ⑤ Available in Canada only.
- ⑥ Inline mounted units. For side-by-side mounting, change model to "BF-" and "BFH".
- ⑦ Inline mounted units. For Side-by-Side mounting, change model to "BXF" and "BXH".

### PERFORMANCE ① ②

Duplex Package Model	Viking Pump Model	Suction Header	Discharge Header	Relief To Tank	① ② Nominal Pump Rating			③ Max. Recomm. Discharge Pressure						
					Pipe Size (NPT)			PSI	kPa					
					GPM	LPM	RPM							
Ⓞ DF-	F432	1"	1/2"	1/2"	1.2	4.4	1200	250	1724					
Ⓞ DFH	FH432				1.8	7.0	1800							
					2.1	7.9	1200							
					3.3	12.5	1800							
GGD	GG4195	1"	1"	3/4"	7.1	27.0	1200							
					11.1	42.1	1800							
HJD	HJ4195	1-1/2"	1-1/2"	1"	14.7	55.8	1200	150	1034					
					22.7	85.9	1800							
					21.2	80.2	1200							
HLD	HL4195				32.6	123.3	1800							
ASD	AS4195	2-1/2"	2-1/2"	1-1/2"	37.0	140.2	1200	150	1034					
AKD	AK4195				56.0	212.0	1200							
ALD	AL4195				75.2	284.7								
518	SG-40518	1"	1/2"	1/2"	0.5	1.7	1200	500	3448					
					0.7	2.6	1800							
					0.7	2.5	1200							
525	SG-40525									1.0	3.8	1800		
										0.9	3.4	1200		
535	SG-40535									1.4	5.3	1800		
										1.3	4.8	1200		
550	SG-40550									2.0	7.5	1800		
										1.8	6.9	1200		
570	SG-40570									2.8	10.6	1800		
										2.5	9.6	1200		
510	SG-40510									3.9	14.8	1800		
514	SG-40514				3.5	13.2	1200							
					5.4	20.6	1800							
519	SG-40519				4.7	17.7	1200	400	2759					
					7.4	27.8	1800							
528	SG-40528				6.8	25.6	1200	200	1379					
					10.7	40.4	1800							
729	SG-40729	1-1/2"	1-1/4"	1"	1.9	7.1	1200	500	3448					
					2.8	10.6	1800							
					2.6	9.9	1200							
741	SG-40741									4.1	15.5	1800		
										7.4	28.0	1200		
711	SG-40711									11.4	43.1	1800		
										10.5	39.6	1200		
716	SG-40716									16.2	61.1	1800		
										14.8	56.1	1200		
722	SG-40722									22.8	86.4	1800		
										20.2	76.5	1200		
732	SG-40732									31.3	118.4	1800		
Ⓞ XDF	F432X	1"	1/2"	1/2"	1.2	4.4	1200	250	1724					
					1.8	7.0	1800							
					2.1	7.9	1200							
Ⓞ XFH	FH432X				3.3	12.5	1800							
Ⓞ XDG	G432X	1"	1"	1/2"	5.9	22.4	1200	100	690					
Ⓞ XDH	H432X			3/4"	10.3	39.0	1200							
Ⓞ XHL	HL432X			1"	20.6	77.9	1200							
Ⓞ X18	SG-0518X	1-1/2"	1-1/2"	1"	0.5	1.7	1200	500	3448					
					0.7	2.6	1800							
					0.7	2.5	1200							
Ⓞ X25	SG-0525X									1.0	3.8	1800		
										0.9	3.4	1200		
Ⓞ X35	SG-0535X									1.4	5.3	1800		
										1.3	4.8	1200		
Ⓞ X55	SG-0550X									2.0	7.5	1800	500	3448
										1.8	6.9	1200		
Ⓞ X70	SG-0570X									2.8	10.6	1800		
										2.5	9.6	1200		
Ⓞ X10	SG-0510X									3.9	14.8	1800		
					3.5	13.2	1200							
Ⓞ X14	SG-0514X				5.4	20.6	1800							
					4.7	17.7	1200							
Ⓞ X19	SG-0519X				7.4	27.8	1800	400	2759					
					6.8	25.6	1200							
Ⓞ X28	SG-0528X				10.7	40.4	1800	200	1379					
					7.1	27.0	1200							
Ⓞ DGG	GG-190	1"	1"	3/4"	11.1	42.1	1800							
					14.7	55.8	1200							
Ⓞ DHJ	HJ-190	1-1/2"	1-1/2"	1"	22.7	85.9	1800	150	1034					
					21.2	80.2	1200							
					32.6	123.3	1800							
Ⓞ DHL	HL-190				37.0	140.2	1200							
Ⓞ DAS	AS-190	2-1/2"	2-1/2"	1-1/2"	56.0	212.0	1200	150	1034					
Ⓞ DAK	AK-190				56.0	212.0								

# 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
- All ratios are fully interchangeable in each gearbox
- Multiple mounting brackets to match Viking shaft heights

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	

# 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
<b>INTERNAL GEAR Industrial-Duty Pumps</b>						
Universal Seal	■	■	■	■		
Jacketed Universal Seal	■	■	■	■		
Motor Speed (Metric)			■			■
Motor Speed	■	■	■	■		■
<b>General Purpose Pumps</b>						
General Purpose	■	■	■	■	■	■
Gerotor			■		■	■
<b>Sealless</b>						
Viking Mag Drive®	■	■	■	■	■	■
<b>Special Purpose</b>						
Abrasive Liquids	■	■	■	■		
Ammonia	■	■	■	■		
Asphalt	■	■	■	■		
LP Gas	■	■	■	■		
<b>EXTERNAL GEAR Sealed</b>						
Spur Gear			■		■	■
<b>Sealless</b>						
Mag Drive Spur Gear	■	■	■	■	■	■

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.



A Unit of IDEX Corporation

# Worldwide Leader Since 1911 for Positive Displacement Pumping Solutions for Industrial, OEM, and Sanitary Applications.

## 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 many thousands of customers who use millions of Viking® pumps in some of the world's toughest applications.

## Broad Performance Range

### Capacity:

0.5 to 360 M<sup>3</sup>/Hr (0.1 to 1600 GPM)

### Pressure:

0 to 172 Bar (0 to 2500 PSI)

### Temperature:

-40°C to 370°C (-40°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 pump life significantly, while reducing maintenance and unplanned downtime, which enables 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, backed by Viking Application Engineers and Viking Region Managers strategically located around the world.

## Quality Manufacturing

Viking uses ISO9001-2000, ISO14001, Six-Sigma, and Lean/Kaizen in its worldwide manufacturing and assembly processes to remove waste, reduce development costs, and deliver superior products on schedule. 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 Viking designs, or pumps 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.



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

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Web site: [www.vikingpump.com](http://www.vikingpump.com)

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