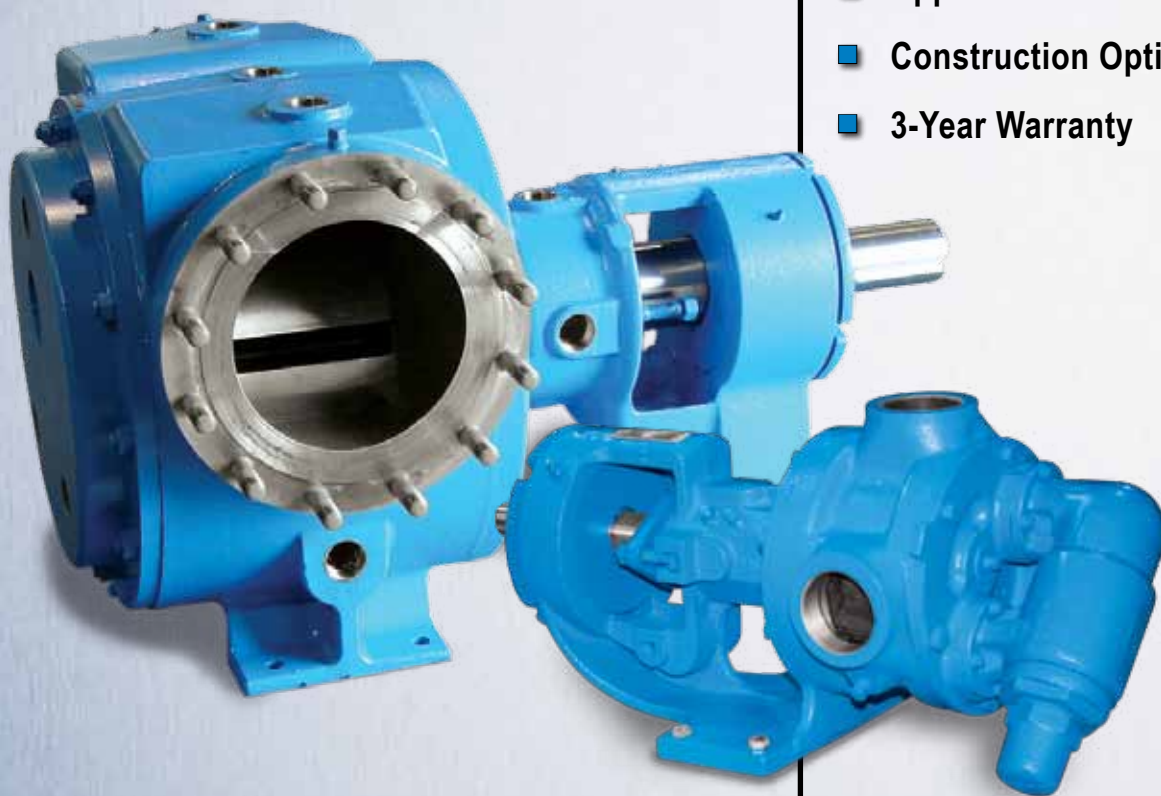


# VIKING PUMP

A Unit of IDEX Corporation

Viking® Universal Seal Pumps

**Industrial-Duty Pumps Offering Design  
Flexibility and Easy-Maintenance**



- Sealing Options
- Application Flexibility
- Construction Options
- 3-Year Warranty

**Sizes in Series: 12**

**Capacity to 365 M<sup>3</sup>/Hr (1,600 GPM)**

**Pressure to 14 Bar (200 PSI)**

**Viscosity 0.1 to 440,000 cSt (28 to 2,000,000 SSU)**

**Temperature -84°C to +427°C (-120°F to +800°F)**

**IDEX**  
IDEX CORPORATION

# Viking® Universal Seal Advantages

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. Viking's flagship series of industrial-duty internal gear pumps are designed to accommodate virtually all seals. Proven two-moving parts internal gear design has an outer drive gear (rotor) which turns the inner, driven gear (idler) to provide superior flexibility to adapt to the most challenging applications.

## The Viking Advantages

### Custom Configurations

- Pump design accepting of virtually all seals
- Materials of construction options like cast iron, ductile iron, steel, stainless steel, Alloy C, Alloy 20 and many others
- Numerous porting positions, configurations and sizes provide enhanced application flexibility (graphic representation from catalog section)
- Drive options: reducer, belt drive, and variable speed

### Application Flexibility

- Pumps accommodate virtually all sealing types and manufacturers
- Industry leading selection of application specific material options to maximize pump life
- 12 sizes offer unmatched hydraulic coverage
- Design adaptability for an unequalled range of viscosities and temperatures

### Easy Maintenance

- Easy clearance adjustment to maintain high efficiency
- Simple design with only two moving parts
- Back pull-out seal design
- No special tools required for service

### Industrial Duty

- One-piece, rigid cast bracket minimizes shaft deflection
- 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



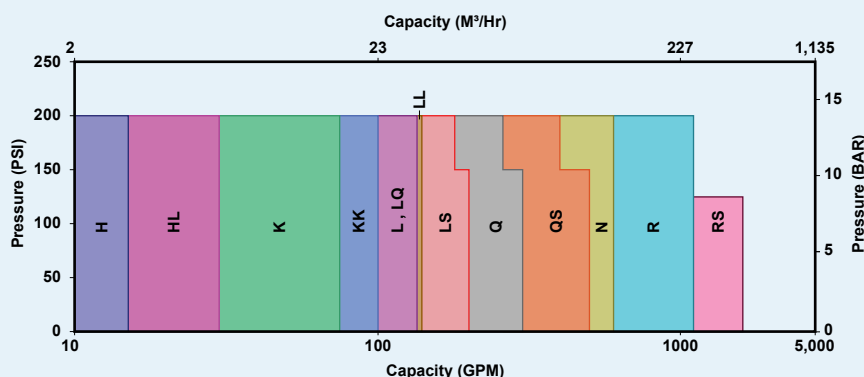
### Back Pullout Seal Design Readily Accepts :

- Packing
- Component seal
- Cartridge mechanical seal
- Cartridge lip seal

### A Variety of Jacketing Options To Easily Handle Fluids That Require Either Heating or Cooling :

- Large jacketing areas allow rapid heating and cooling capabilities for faster startup.
- Jacketing options available for all critical areas of pump include bracket, casing, flanges, head and relief valve
- Standard jacketed pumps feature jacketed head and bracket making them ideal for applications like asphalt and chocolate
- Fully-jacketed pumps add jacketed casing and flange areas providing uniform temperature control for critical processes such as ABS, epoxy, and PET resins
- 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 allows easier piping
- Pump internal clearances optimized for maximum efficiency

## Performance Envelope



# Applications



## Chemicals:

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

## Food Processing:

- Grain and Oilseed
- Chocolate and Confectionery
- Animal Food
- Sugar
- Beverage
- Food Processing
- Dairy Products

## Refined Petroleum & Coal:

- Asphalt Paving Mixtures
- Oil and Gas Extraction
- Lubricating Oil and Grease Manufacturing
- Roofing Products
- Petroleum Refineries
- Petroleum, LPG and CNG Distribution

## 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:

- Railroad Equipment
- Automotive
- Military
- Truck
- Pipelines
- Aircraft Equipment

## Other:

- 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

## Model Number Key

<b>L</b>	<b>Q</b>		<b>1</b>	<b>2</b>	<b>4</b>	<b>A</b>	<b>E</b>
<b>Size:</b>	<b>Shaft Seal:</b>		<b>Basic Series Configuration</b>		<b>Material of Construction:</b>		<b>Primary Shaft Diameter (L, LQ and LL Sizes in Cast Iron Only):</b>
H	4 = Mechanical Seal				3 = Steel Externals		Blank = 1-7/16"
HL	Blank = Packing				4 = Cast Iron		E = 1-5/8"
K					6 = Ductile Iron		(See dimension drawings for shaft diameter at coupling)
KK					7 = Stainless Steel		
L							
LQ							
LL							
LS							
Q							
QS							
N							
R							
RS							
			<b>Jacketing*:</b>			<b>Seal Location:</b>	
			1 = No Jacketing			A = Stuffing Box with Universal Seal Design	
			2 = Jacketed			B = Behind-the-Rotor (Cast Iron Only)	
			3 = Foot Mount Casing w/ Jacketed Bracket				

\* **NOTE** that only the N through RS sizes are the foot mount with jacketed bracket (3). All other sizes are available with either no jacketing (1) or jacketed (2). The N size is standard with a jacketed bracket and non-jacketed head and non-jacketed relief valve, while the R and RS sizes are standard with a jacketed bracket, a jacketed head, and a non-jacketed relief valve.



# Viking® Universal Seal Benefits

## ADVANCED DURABILITY

### ■ Solid, One-Piece Bracket

Solid, one-piece cast bracket and base minimizes shaft reflection. **Provides longer seal life to keep pumps running.**

### ■ Heavy Duty Bearings and Bushings

Proven, rugged pump design equipped with heavy-duty bearings and bushings. **Provides enhanced shaft support extending pump and seal life.**

### ■ 3-Year Warranty

Best in class warranty that covers workmanship and materials. **Warranty is 2 years longer than the competition for greater piece of mind.**

### ■ Double Piloted Bearing Housing

Double piloted bearing housing permits easy axial positioning and adjustment of rotor and shaft. **Maintain maximum pump efficiency through simple reset of clearances.**

### ■ Proven Design

Pump has only two moving parts proven in thousands of tough applications around the world. **Simple design minimizes service requirements while providing unmatched durability and reliability.**

### ■ Seal Maintenance

Enlarged bearing housing and drive end access to seal allows quick, easy replacement without removing pump or rotor. **Minimizes downtime and simplifies access, shortening service time to maximize uptime.**

### ■ Rotatable Casing

Universal Seal pumps are equipped with casings that can be positioned to meet common piping configurations, including opposite porting.\* **Shortens and simplifies installation with no special tools required for quick installation.**

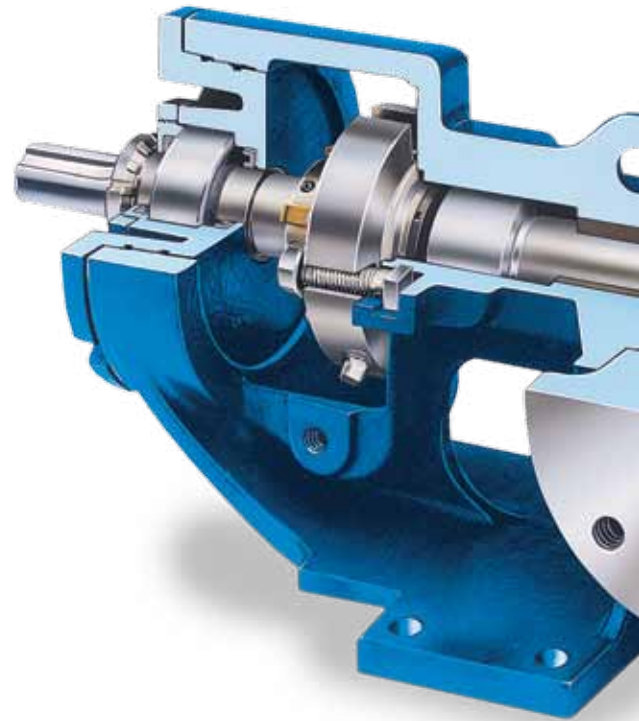
### ■ Drive Options

Multiple drive options are available including reducer, belt drive, and variable speed drive. **Drive configurations provide easy solutions to match customer requirements for quick, easy installation.**

### ■ Multiple Port Configurations

Multiple port sizes, types and ratings are available including threaded, raised, and flat-face flanged (125#, 150#, 250#, 300#). **Porting configurations provide easy solutions to match customer requirements for quick, easy installation.**

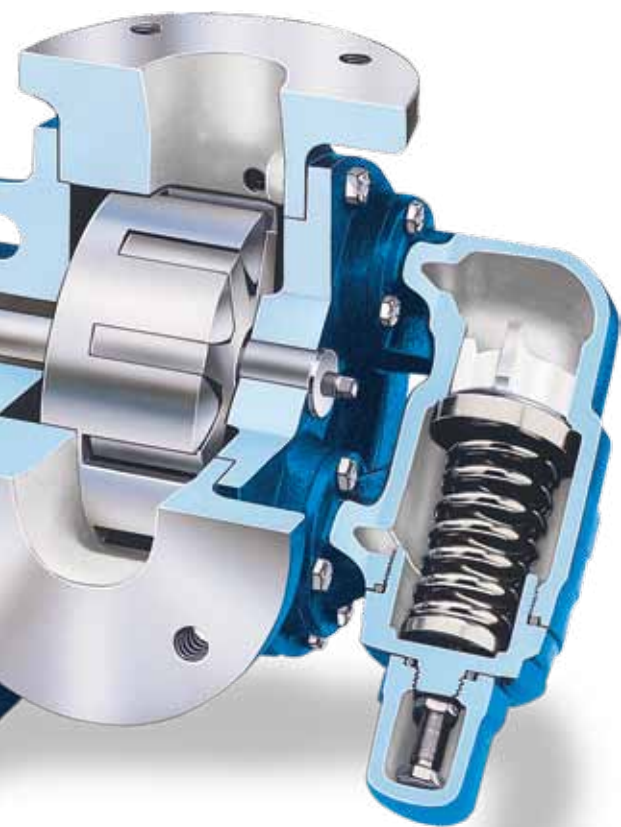
## EASY INSTALLATION



## Fully-Jacketed Pump Solutions

Applications requiring precisely maintained temperatures use steel, or stainless steel models featuring a jacketed casing that provides heat transfer surface area around the perimeters of the rotor, inlet/discharge throat area, and in many cases into the flanges.

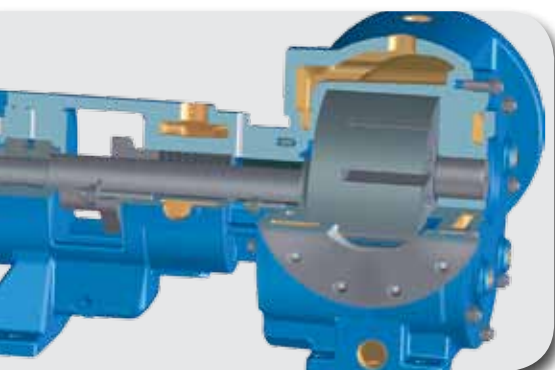
\* N, R and RS pump sizes do not have rotatable casings.



### Standard-Jacketed Pumps

They feature jacketing on the head and bracket only, and are typically used for melting ambient temperature solids.

(Jacketed areas are shown in yellow in the photos.)



### ■ Sealing Flexibility

Seal chamber accommodates virtually all sealing types and manufacturers. **Seal selection permits easy seal change based on application requirements.**

### ■ Jacketing Options Available

Jacketing options available for all critical areas of pump including bracket, seal, casing, flanges, head, and relief valve with a variety of jacket connection types and locations. **A variety of media allows rapid heating and cooling capabilities, providing faster startup and uniform temperature control.**

### ■ Materials of Construction

Wide array of pump construction materials available for internal and external components allow broad chemical and temperature compatibility on lubricating and non-lubricating liquids to match your application need. **Custom configured pumps lengthen life of pump for lower total cost of ownership.**

### ■ End Clearance Adjustment

Threaded housing mounted thrust bearing allows easy clearance adjustment to compensate for wear or handle different viscosities and temperatures. **Single point adjustment maintains and maximizes pump efficiency, extending life.**

### ■ Bi-directional Pump Design

Bi-directional pumping design eliminates cost of second pump, piping, and valving needed for loading or unloading or line stripping. **Provides application flexibility and reduces system costs.**

### ■ In-Line Serviceability

Back pull-out seal design with no special tools required, eliminates removal of pump from system for servicing. **Reduces downtime and provides maximum productivity for a lower total cost of ownership.**

### ■ Optimized Efficiency

Proven, optimized gear and pump geometry maximizes overall efficiency. **Reduces product lost, maximizing process volume for a better bottom line providing a lower total cost of ownership.**

### ■ Gentle Fluid Handling

Low-shear, non-pulsating, cushioned pumping for a wide range of applications. **Protects final product integrity and maximizes process output for a lower total cost of ownership.**

### ■ Higher Pressure Capabilities

Materials of construction selection permits higher pressure capabilities. **Permits single pump standardization for multiple liquids and applications.**

### ■ Parts Commonality

Better design with fewer parts reduces maintenance and commonality of many parts between frame sizes reduces parts stocking needs. **Parts commonality provides better parts availability and a lower cost of ownership.**

# Viking® Universal Seal Materials of Construction

## Universal Seal Series Construction

Component		Cast Iron Non-Jacketed Series 124A/AE, 4124A/AE, 4124B, Jacketed Series 224A, 4224A, 224AE, 4224AE, 4224B, 324A, 4324A	Ductile Iron Non-Jacketed Series 126A, 4126A Jacketed Series 226A & 4226A	Steel Externals Non-Jacketed Series 123A, 4123A, 323A, 4323A Jacketed Series 223A, 4223A	Stainless Steel Non-Jacketed Series 127A, 4127A, 327A, 4327A Jacketed Series 227A, 4227A
Casing		Cast Iron ASTM A48, Class 35B	Ductile Iron ASTM A536, Grade 60-40-18	Steel ASTM A216, Grade WCB	Stainless Steel ASTM A 743, Grade CF8M
Head		Cast Iron ASTM A48, Class 35B	Ductile Iron ASTM A536, Grade 60-40-18	Steel ASTM A216, Grade WCB	Stainless Steel ASTM A 743, Grade CF8M Case Hardened
Head Plate for Jacketed Models		Cast Iron ASTM A48, Class 35B	Steel ASTM A216, Grade WCB	Steel ASTM A216, Grade WCB	Cast Iron ASTM A48, Class 35B
Bracket		Cast Iron ASTM A48, Class 35B	Ductile Iron ASTM A536, Grade 60-40-18	Steel ASTM A216, Grade WCB	Stainless Steel ASTM A 743, Grade CF8M
Idler		②③ Cast Iron ASTM A48, Class 35B	②③ Cast Iron ASTM A48, Class 35B	②③ Cast Iron ASTM A48, Class 35B	Stainless Steel ASTM A 743, Grade CF8M Case Hardened
Rotor	Standard	① Cast Iron ASTM A48, Class 35B	① Cast Iron ASTM A48, Class 35B	① Cast Iron ASTM A48, Class 35B	Stainless Steel ASTM A 743, Grade CF8M Case Hardened
	Steel Fitted	⑤ Steel ASTM A148, Grade 80-40	⑤ Steel ASTM A148, Grade 80-40	⑤ Steel ASTM A148, Grade 80-40	
Rotor Shaft		Steel ASTM A108, Grade 1045	Steel ASTM A108, Grade 1045	Steel ASTM A108, Grade 1045	Stainless Steel ASTM A276 Type XM-19 or 316 condition B
Idler Pin		Hardened Steel ASTM A108, Grade 1045	Hardened Steel ASTM A108, Grade 1045	Hardened Steel ASTM A108, Grade 1045	Hard Coated Stainless Steel ASTM A276 Type 316 Colmonoy # 6 coated
Idler Bushing	Packed	Bronze ASTM B584 (B505), Alloy C93700	Bronze ASTM B584 (B505), Alloy C93700	Bronze ASTM B584 (B505), Alloy C93700	Carbon Graphite
	Mech. Seal	Carbon Graphite	Carbon Graphite	Carbon Graphite	
Bracket Bushing	Packed	Bronze ASTM B584 (B505), Alloy C93700	Bronze ASTM B584 (B505), Alloy C93700	Bronze ASTM B584 (B505), Alloy C93700	Carbon Graphite
	Mech. Seal	④ Carbon Graphite	Carbon Graphite	Carbon Graphite	
Internal Pressure Relief Valve ⑥		Cast Iron ASTM A48, Class 35B	Steel ASTM A216, Grade WCB	Steel ASTM A216, Grade WCB	Stainless Steel ASTM A 743, Grade CF8M

① KK, LS, QS and N sizes have ductile iron rotor, ASTM A536 Grade 60-40-18.

② Steel fitted Q and QS sizes have steel idler.

③ H and HL sizes have powdered metal idler, MPlF Std 35 FC-0208-50.

④ H-LL 4124B (Behind-the-Rotor) pumps have bronze bracket bushing with Buna N seal, carbon graphite for Viton® or PTFE seals.

⑤ Material specification for HL steel rotor is AISI 8620, LS steel rotor is ASTM A148 80-50.

⑥ RS relief valve not available. Contact factory for jacketing options.

# Specifications

## Specifications - Non-Jacketed Pumps

Model Number			Standard Port Size	Nominal Pump Rating (750 SSU and below)		Maximum Hydrostatic Pressure	① Maximum Discharge Pressure for 100 SSU Liquid at rated speed	② Maximum Recommended Temp. for Standard Pump °C (°F)		Steel Fitted Recommended Above	Approx. Shipping Weight with Valve
Packed	Stuffing Box Seal	Behind the Rotor Seal		mm (Inches)	M³/Hr (GPM)			(RPM)	BAR (PSIG)		
H124A	H4124A	H4124B	③ 38 (1 ½)	2.8 (15)	1450 (1750)	28 (400)	14 (200)	232 (450)	107 (225)	5,500 (25,000)	17 (38)
H126A	H4126A	N/A	⑤ 38 (1 ½)								1.9 (10)
H123A	H4123A			HL124B	③ 38 (1 ½)	5.6 (30)	1450 (1750)	28 (400)	14 (200)	232 (450)	
H127A	H4127A	N/A	⑤ 38 (1 ½)	3.7 (20)	950 (1150)						7 (100)
HL124A	HL4124A					K4124B	③ 50 (2)	17 (75)	780	28 (400)	
HL126A	HL4126A	N/A	⑤ 50 (2)	10 (45)	520	7 (100)	177 (350)				177 (350)
HL123A	HL4123A							KK4124B	③ 50 (2)	23 (100)	
HL127A	HL4127A	N/A	⑤ 50 (2)	15 (65)	520	7 (100)	177 (350)	177 (350)	N/A		59 (130)
K124A	K4124A									L4124B	
K126A	K4126A	N/A	④ 65 (2 ½)	31 (135)	640	28 (400)	14 (200)	232 (450)	107 (225)	5,500 (25,000)	80 (175)
K123A	K4123A	LQ4124B	⑤ 65 (2 ½)								
K127A	K4127A	N/A	④ 75 (3)	32 (140)	520	28 (400)	14 (200)	232 (450)	107 (225)	550 (2,500)	84 (185)
KK124A	KK4124A										
KK126A	KK4126A	N/A	④ 75 (3)	45 (200)	640	28 (400)	10 (150)	232 (450)	107 (225)	16,500 (75,000)	86 (190)
KK123A	KK4123A										
KK127A	KK4127A	N/A	④ 100 (4)	68 (300)	520	28 (400)	10 (150)	232 (450)	107 (225)	1,650 (7,500)	200 (440)
L124A/AE	L4124A/AE										
L126A	L4126A	Q4126A	④ 150 (6)	114 (500)	520	28 (400)	10 (150)	232 (450)	107 (225)	16,500 (75,000)	245 (540)
LQ124A/AE	LQ4124A/AE	Q4123A	⑤ 150 (6)								
LQ126A	LQ4126A	N/A	④ 150 (6)	136 (600)	350	28 (400)	10 (150)	232 (450)	107 (225)	16,500 (75,000)	367 (810)
LQ123A	LQ4123A										
LQ127A	LQ4127A	N4323A	④ 200 (8)	364 (1,600)	280	28 (400)	9 (125)	79 (175)	79 (175)	N/A	718 (1,580)
LL124A/AE	LL4124A/AE	N4327A	⑤ 200 (8)								
LL126A	LL4126A	N/A	④ 254 (10)	364 (1,600)	280	28 (400)	9 (125)	79 (175)	79 (175)	N/A	718 (1,580)
LL123A	LL4123A										
LL127A	LL4127A	RS4324A	④ 200 (8)	254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)	N/A	718 (1,580)
LS124A	LS4124A	RS4323A	⑤ 200 (8)								
LS126A	LS4126A	RS4327A	④ 254 (10)	254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)	N/A	718 (1,580)
LS123A	LS4123A	N/A	④ 254 (10)								
LS127A	LS4127A			RS327A	⑤ 254 (10)	254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
Q124A	Q4124A	RS324A	④ 254 (10)	254 (10)	280						
Q126A	Q4126A	RS323A	⑤ 254 (10)			254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
Q123A	Q4123A	RS327A	④ 254 (10)	254 (10)	280						
Q127A	Q4127A	RS324A	⑤ 254 (10)			254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
QS124A	QS4124A	RS323A	④ 254 (10)	254 (10)	280						
QS126A	QS4126A	RS327A	⑤ 254 (10)			254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
QS123A	QS4123A	RS324A	④ 254 (10)	254 (10)	280						
QS127A	QS4127A	RS323A	⑤ 254 (10)			254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
N324A	N4324A	RS327A	④ 254 (10)	254 (10)	280						
N323A	N4323A	RS324A	⑤ 254 (10)			254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
N327A	N4327A	RS323A	④ 254 (10)	254 (10)	280						
R324A	R4324A	RS327A	⑤ 254 (10)			254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
R323A	R4323A	RS324A	④ 254 (10)	254 (10)	280						
R327A	R4327A	RS323A	⑤ 254 (10)			254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
RS324A	RS4324A	RS327A	④ 254 (10)	254 (10)	280						
RS323A	RS4323A	RS324A	⑤ 254 (10)			254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
RS327A	RS4327A	RS323A	④ 254 (10)	254 (10)	280						
		RS327A	⑤ 254 (10)			254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						
						254 (10)	280	28 (400)	9 (125)	79 (175)	79 (175)
				254 (10)	280						

- ① For maximum recommended discharge pressures when handling other viscosities and/or other speeds, see performance curves. If suction pressure exceeds 50 PSIG, consult factory.
- ② Extra clearances are required above 225°F. Higher temperatures can be handled with special construction, consult factory.
- ③ Ports are tapped for standard (NPT) pipe.
- ④ Ports are suitable for use with 125# ANSI cast iron companion flanges or flanged fittings.
- ⑤ Ports are suitable for 150# ANSI steel or stainless steel companion flanges or flanged fittings.



# Viking® Universal Seal Specifications

## Specifications - Jacketed Pumps

Model Number			Standard Port Size	Nominal Pump Rating (165 cSt and below)			Max. Hydrostatic Pressure	① Max Discharge Pressure for 22 cSt Liquid at rated speed	② Max Recommended Temp. for Standard Pump (°C)		Steel Fitted Construction Recommended Above	Approx. Shipping Weight with Valve
Packed	Stuffing Box Seal	Behind the Rotor Seal										
			mm	M³/hr	RPM	BAR	BAR	Packed	⑥ Mech Seal	cSt	KG	
H224A	H4224A	H4224B	③ 38 (1½)	3.4 (15)	1,450	1,750	28 (400)	14 (200)	232 (450)	232 (450)	5,500 (25,000)	19 (42)
H226A	H4226A	N/A	⑤ 38 (1½)					2.3 (10)	950	1,150	7 (100)	191 (375)
H223A	H4223A			HL4124B	③ 38 (1½)	6.8 (30)					1,450	1,750
H227A	H4227A	N/A	⑤ 38 (1½)	4.5 (20)	950			1,150	7 (100)	191 (375)		
HL224A	HL4224A	K4124B	③ 50 (2)			16 (75)	780		28 (400)	14 (200)	232 (450)	232 (450)
HL226A	HL4226A	N/A	⑤ 50 (2)	9 (40)	520			7 (100)		177 (350)	177 (350)	N/A
HL223A	HL4223A					KK4124B	③ 50 (2)	23 (100)		780	28 (400)	14 (200)
HL227A	HL4227A	N/A	⑤ 50 (2)	15 (65)	520	7 (100)	177 (350)					177 (350)
K224A	K4224A	L4124B	③ 50 (2)			31 (135)	640	28 (400)	14 (200)	232 (450)		232 (450)
K226A	K4226A	N/A	④ 65 (2½)	31 (135)	640				28 (400)	14 (200)		232 (450)
K223A	K4223A	LQ4124B	⑤ 65 (2½)			20 (90)	420			7 (100)	177 (350)	177 (350)
K227A	K4227A	N/A	④ 75 (3)	32 (140)	520					28 (400)	14 (200)	232 (450)
KK224A	KK 4224A	LL4124B	⑤ 75 (3)			25 (110)	420	7 (100)			177 (350)	177 (350)
KK226A	KK4226A	N/A	④ 75 (3)	45 (200)	640			28 (400)	10 (150)		232 (450)	232 (450)
KK223A	KK4223A	LS224A	⑤ 75 (3)			36 (160)	520		7 (100)		163 (325)	163 (325)
KK227A	KK4227A	LS226A	④ 100 (4)	68 (300)	520				28 (400)	10 (150)	232 (450)	232 (450)
L224A/AE	L4224A/AE	LS223A	⑤ 100 (4)			45 (200)	350			7 (100)	121 (250)	121 (250)
L226A	L4226A	LS227A	④ 150 (6)	114 (500)	520			28 (400)		10 (150)	232 (400)	204 (400)
LQ224A/AE	LQ4224A/AE	QS224A	⑤ 150 (6)			73 (320)	350			7 (100)	121 (250)	121 (250)
LQ226A	LQ4226A	QS226A	④ 150 (6)	136 (600)	350				28 (400)	10 (150)	132 (400)	150 (400)
LQ223A	LQ4223A	QS223A	⑤ 150 (6)			250 (1,100)	280			28 (400)	10 (150)	232 (300)
LQ227A	LQ4227A	QS227A	④ 200 (8)	9 (125)	79 (175)			79 (175)			N/A	
LL224A/AE	LL4224A/AE	RS324A	⑤ 200 (8)			364 (1,600)	280	28 (400)			9 (125)	232 (300)
LL226A	LL4226A	RS323A	④ 254 (10)	7 (100)	79 (175)				79 (175)		N/A	
LL223A	LL4223A	RS327A	⑤ 254 (10)									
LL227A	LL4227A											
LS224A	LS4224A											
LS226A	LS4226A											
LS223A	LS4223A											
LS227A	LS4227A											
Q224A	Q4224A											
Q226A	Q4226A											
Q223A	Q4223A											
Q227A	Q4227A											
QS224A	QS4224A											
QS226A	QS4226A											
QS223A	QS4223A											
QS227A	QS4227A											
N324A	N4324A											
N323A	N4323A											
N327A	N4327A											
R324A	R4324A											
R323A	R4323A											
R327A	R4327A											
RS324A	RS4324A											
RS323A	RS4323A											
RS327A	RS4327A											

**NOTE:** The "N" size is standard with a jacketed bracket and non-jacketed head and non-jacketed relief valve, while the "R" size is standard with a jacketed bracket, a jacketed head, and a non-jacketed relief valve. "RS" size contact factory for jacketing options.

① For maximum recommended discharge pressures when handling other viscosities and/or other speeds, see performance curves. If suction pressure exceeds 50 PSIG, consult factory.

② Higher temperatures can be handled with special construction. Consult factory.

③ Ports are tapped for standard (NPT) pipe.

④ Ports are suitable for use with 125# ANSI cast iron flanges or flanged fittings.

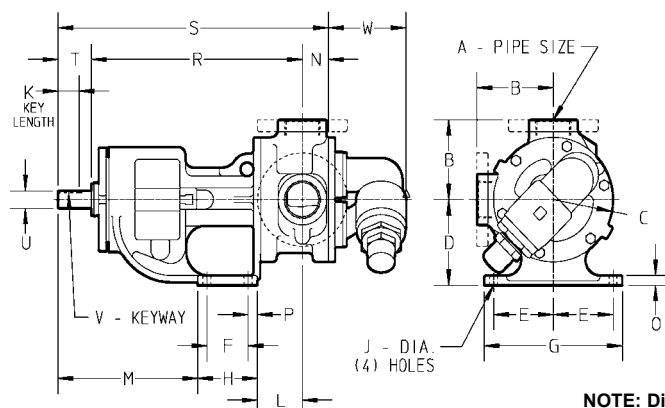
⑤ Ports are suitable for 150# ANSI steel or stainless steel companion flanges or flanged fittings.

⑥ Temperature based on PTFE seal as standard. Lower temperature limits may be required when using other seal elastomers.



# Dimensions

## Dimensions - H through Q Sizes - All Materials of Construction - Non-Jacketed



NOTE: Dimensions "N" through "W" on next page

Model Number			A (in)		B	C	D	E	F	G	H	J	K	L	M
Packed	Stuffing Box Seal	Behind the Rotor Seal													
H124A	H4124A	H4124B HL4124B	① 1.5	in	3.00	4.75	3.50	2.75	2.25	6.75	3.50	0.47	0.99	3.38	5.19
HL124A	HL4124A			mm	76.2	120.6	88.9	69.8	57.1	171.4	88.9	11.9	25.1	85.8	131.8
H126A	H4126A		③ 1.5	in	4.00	4.75	3.50	2.75	2.25	6.75	3.50	0.47	0.99	3.38	5.19
HL126A	HL4126A			mm	101.6	120.6	88.9	69.8	57.1	171.4	88.9	11.9	25.1	85.8	131.8
H123A	H4123A	N/A	③ 1.5	in	4.00	4.75	3.50	2.75	2.25	6.75	3.50	0.47	0.99	3.38	5.19
HL123A	HL4123A			mm	101.6	120.6	88.9	69.8	57.1	171.4	88.9	11.9	25.1	85.8	131.8
H127A	H4127A		③ 2	in	5.12	8.00	5.50	4.00	2.75	9.25	4.00	0.53	1.42	3.00	9.38
HL127A	HL4127A			mm	130.0	203.2	139.7	101.6	69.8	234.9	101.6	13.5	36.1	76.2	238.3
K124A	K4124A	K4124B KK4124B	① 2	in	5.12	8.00	5.50	4.00	2.75	9.25	4.00	0.53	1.42	3.00	9.38
KK124A	KK4124A			mm	130.0	203.2	139.7	101.6	69.8	234.9	101.6	13.5	36.1	76.2	238.3
K126A	K4126A		③ 2	in	5.25	8.00	5.50	4.00	2.75	9.25	4.00	0.53	1.42	3.00	9.38
KK126A	KK4126A			mm	133.3	203.2	139.7	101.6	69.8	234.9	101.6	13.5	36.1	76.2	238.3
K123A	K4123A	N/A	③ 2	in	5.25	8.00	5.50	4.00	2.75	9.25	4.00	0.53	1.42	3.00	9.38
KK123A	KK4123A			mm	133.3	203.2	139.7	101.6	69.8	234.9	101.6	13.5	36.1	76.2	238.3
K127A	K4127A		③ 2	in	6.50	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
KK127A	KK4127A			mm	165.1	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
L124A/AE	L4124A/AE	L4124B	② 2	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE124A	AE4124A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
L126A	L4126A		③ 2.5	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE126A	AE4126A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
LQ124A/AE	LQ4124A/AE	LQ4124B	② 2.5	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE124A	AE4124A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
LQ126A	LQ4126A		③ 2.5	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE126A	AE4126A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
LQ123A	LQ4123A	N/A	③ 2.5	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE123A	AE4123A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
LQ127A	LQ4127A		③ 2.5	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE127A	AE4127A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
LL124A/AE	LL4124A/AE	LL4124B	② 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE124A	AE4124A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
LL126A	LL4126A		③ 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE126A	AE4126A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
LL123A	LL4123A	N/A	③ 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE123A	AE4123A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
LL127A	LL4127A		③ 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2	3.38	9.12
AE127A	AE4127A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	50.8	85.9	231.6
LS124A	LS4124A	N/A	② 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.55	4.75	9.12
AE124A	AE4124A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	64.8	120.6	231.6
LS126A	LS4126A		③ 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.55	4.75	9.12
AE126A	AE4126A			mm	182.6	260.3	177.8	111.3	101.6	254.0	136.7	13.5	64.8	120.6	231.6
Q124A	Q4124A	N/A	② 4	in	8.25	14.00	8.75	4.12	4.00	10.00	6.00	0.69	3.58	6.62	11.12
AE124A	AE4124A			mm	209.5	355.6	222.2	104.6	101.6	254.0	152.4	17.5	90.9	168.1	282.4
Q126A	Q4126A		③ 4	in	8.25	14.00	8.75	4.12	4.00	10.00	6.00	0.69	3.58	6.62	11.12
AE126A	AE4126A			mm	209.5	355.6	222.2	104.6	101.6	254.0	152.4	17.5	90.9	168.1	282.4

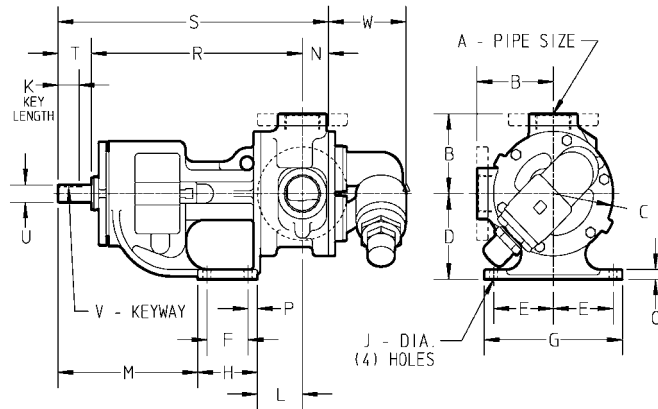
① Ports are tapped for standard (NPT) pipe.

② Ports are suitable for use with 125# ANSI cast iron (cast iron pumps) or 150# ANSI steel companion flanges or flanged fittings (ductile iron pumps).

③ Ports are suitable for 150# ANSI steel or stainless steel companion flanges or flanged fittings.

# Viking® Universal Seal Dimensions

## Dimensions - H through Q Sizes - All Materials of Construction - Non-Jacketed



Model Number												
Packed	Stuffing Box Seal	Behind the Rotor Seal		N	O	P	R	S	④ T	⑤ U	⑥ V	W
H124A	H4124A	H4124B HL4124B	in	1.19	0.56	0.62	10.44	13.25	1.62	0.75	.19 x .09	2.85
HL124A	HL4124A		mm	30.2	14.2	15.7	265.2	336.5	41.1	19.0	4.83 x 2.29	72.4
H126A	H4126A	N/A	in	1.19	0.56	0.62	10.44	13.25	1.62	0.75	.19 x .09	2.85
HL126A	HL4126A		mm	30.2	14	15.7	265.2	336.5	41.1	19.0	4.83 x 2.29	72.4
H123A	H4123A	K4124B KK4124B	in	1.75	0.62	0.62	14.12	18.12	2.25	1.12	.25 x .12	5.25
HL123A	HL4123A		mm	44.4	15.7	15.7	358.6	460.2	57.1	28.4	6.35 x 3.05	133.3
H127A	H4127A	N/A	in	1.75	0.62	0.62	14.12	18.12	2.25	1.12	.25 x .12	5.25
HL127A	HL4127A		mm	44.4	15.7	15.7	358.6	460.2	57.1	28.4	6.35 x 3.05	133.3
K124A	K4124A	L4124B	in	1.75	0.62	0.62	15.62	19.62	2.25	1.12	.25 X .12	5.43
KK124A	KK4124A		mm	44.4	15.7	15.7	396.7	498.3	57.1	28.7	6.35 X 3.05	137.9
K126A	K4126A	LQ4124B	in	1.75	0.62	0.62	15.62	19.62	2.25	1.12	.25 X .12	5.43
KK126A	KK4126A		mm	44.4	15.7	15.7	396.7	498.3	57.1	28.7	6.35 X 3.05	137.9
K123A	K4123A	N/A	in	1.75	0.62	0.62	15.62	19.62	2.25	1.12	.25 X .12	5.43
KK123A	KK4123A		mm	44.4	15.7	15.7	396.7	498.3	57.1	28.7	6.35 X 3.05	137.9
K127A	K4127A	LL4124B	in	2.25	0.62	0.62	15.62	20.12	2.25	1.12	.25 X .12	5.43
KK127A	KK4127A		mm	57.1	15.7	15.7	396.7	511.0	57.1	28.7	6.35 X 3.05	137.9
L124A/AE	L4124A/AE	N/A	in	2.25	0.62	0.62	15.62	20.12	2.25	1.12	.25 X .12	5.43
L126A	L4126A		mm	57.1	15.7	15.7	396.7	511.0	57.1	28.7	6.35 X 3.05	137.9
LQ124A/AE	LQ4124A/AE	N/A	in	2.44	0.62	0.62	15.75	21.69	3.50	1.44	.38 x .19	5.43
LQ126A	LQ4126A		mm	62.0	15.7	15.7	400.0	550.9	88.9	36.6	9.65 x 4.83	137.9
LQ123A	LQ4123A	N/A	in	3.00	0.75	1.00	19.25	26.75	4.50	1.94	.50 x .25	8.25
LQ127A	LQ4127A		mm	76.2	19.0	25.4	488.9	679.4	114.3	49.3	12.70 x 6.35	209.5

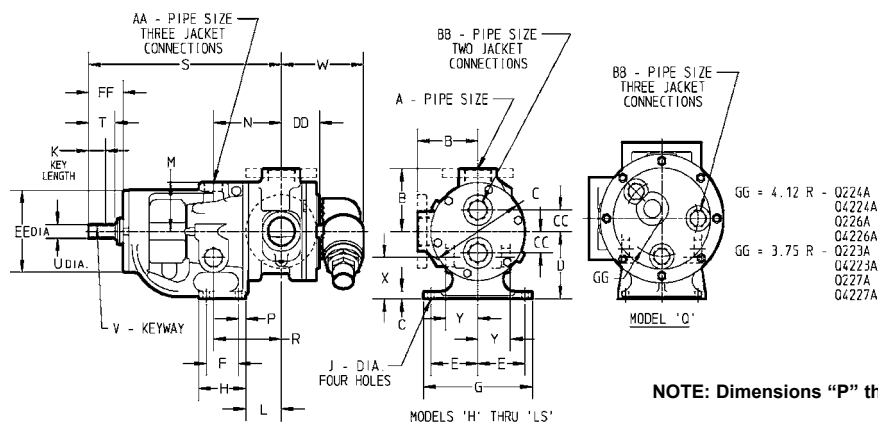
④ "T" dimension shown for Cast Iron sizes L, LQ and LL is for "A" models. "T" dimension for L, LQ and LL size 124AE, 4124AE and 4124B pumps is 2.35" (59.7 mm).

⑤ "U" dimension shown for Cast Iron sizes L, LQ and LL is for "A" models. "U" dimension for L, LQ and LL size 124AE, 4124AE and 4124B pumps is 1.44" (36.6 mm).

⑥ "V" dimension shown for Cast Iron sizes L, LQ and LL is for "A" models. "V" dimension for L, LQ and LL size 124AE, 4124AE and 4124B pumps is 0.38 X 0.19" (9.65 X 4.83 mm).

# Dimensions

## Dimensions - H through Q Sizes - All Materials of Construction - Jacketed



Model Number			A (in)		B	C	D	E	F	G	H	J	④ K	L	M	N	O
Packed	Stuffing Box Seal	Behind the Rotor Seal															
H224A	H4224A	H4224B HL4224B	① 1.5	in	3.00	4.75	3.50	2.75	2.25	6.75	3.50	0.47	0.99	3.38	2.38	4.00	0.56
HL224A	HL4224A			mm	76.2	120.6	88.9	69.8	57.1	171.4	88.9	11.9	25.1	85.8	60.5	101.6	14.2
H226A	H4226A	N/A	③ 1.5	in	4.00	4.75	3.50	2.75	2.25	6.75	3.50	0.47	0.99	3.38	2.38	4.00	0.56
HL226A	HL4226A			mm	101.6	120.6	88.9	69.8	57.1	171.4	88.9	11.9	25.1	85.8	60.5	101.6	14.2
H223A	H4223A	K4224B KK4224B	① 2	in	5.12	8.00	5.50	4.00	2.75	9.25	4.00	0.53	1.42	3.00	4.00	5.75	0.62
HL223A	HL4223A			mm	130.0	203.2	139.7	101.6	69.8	234.9	101.6	13.5	36.1	76.2	101.6	146.0	15.7
H227A	H4227A	N/A	③ 2	in	5.25	8.00	5.50	4.00	2.75	9.25	4.00	0.53	1.42	3.00	4.00	5.75	0.62
HL227A	HL4227A			mm	133.3	203.2	139.7	101.6	69.8	234.9	101.6	13.5	36.1	76.2	101.6	146.0	15.7
K224A	K4224A	L4224B	① 2	in	6.50	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.00	3.38	5.12	6.56	0.62
KK224A	KK4224A			mm	165.1	260.3	177.8	111.3	101.6	254	136.7	13.5	50.8	85.9	130.0	166.6	15.7
K226A	K4226A	LQ4224B	② 2.5	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.00	3.38	5.12	6.56	0.62
KK226A	KK4226A			mm	182.6	260.3	177.8	111.3	101.6	254	136.7	13.5	50.8	85.9	130.0	166.6	15.7
K223A	K4223A	N/A	③ 2.5	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.00	3.38	5.12	6.56	0.62
KK223A	KK4223A			mm	182.6	260.3	177.8	111.3	101.6	254	136.7	13.5	50.8	85.9	130.0	166.6	15.7
K227A	K4227A	LL4224B	② 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.00	3.38	5.12	6.56	0.62
KK227A	KK4227A			mm	182.6	260.3	177.8	111.3	101.6	254	136.7	13.5	50.8	85.9	130.0	166.6	15.7
LL224A/AE	LL4224A/AE	N/A	③ 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.00	3.38	5.12	6.56	0.62
LL226A	LL4226A			mm	182.6	260.3	177.8	111.3	101.6	254	136.7	13.5	50.8	85.9	130.0	166.6	15.7
LL223A	LL4223A	N/A	③ 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.00	3.38	5.12	6.56	0.62
LL227A	LL4227A			mm	182.6	260.3	177.8	111.3	101.6	254	136.7	13.5	50.8	85.9	130.0	166.6	15.7
LS224A	LS4224A	N/A	② 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.55	4.75	5.12	7.40	0.62
LS226A	LS4226A			mm	182.6	260.3	177.8	111.3	101.6	254	136.7	13.5	64.8	120.6	130.0	188.0	15.7
LS223A	LS4223A	N/A	③ 3	in	7.19	10.25	7.00	4.38	4.00	10.00	5.38	0.53	2.55	4.75	5.12	7.40	0.62
LS227A	LS4227A			mm	182.6	260.3	177.8	111.3	101.6	254	136.7	13.5	64.8	120.6	130.0	188.0	15.7
Q224A	Q4224A	N/A	② 4	in	8.25	14.00	8.75	4.12	4.00	10.00	6.00	0.69	3.58	6.62	7.00	7.62	0.75
Q226A	Q4226A			mm	209.5	355.6	222.2	104.6	101.6	254	152.4	17.5	90.9	168.1	177.8	193.5	19.0
Q223A	Q4223A	N/A	③ 4	in	8.25	14.00	8.75	4.12	4.00	10.00	6.00	0.69	3.58	6.62	7.00	7.62	0.75
Q227A	Q4227A			mm	209.5	355.6	222.2	104.6	101.6	254	152.4	17.5	90.9	168.1	177.8	193.5	19.0

① Ports tapped for standard (NPT) pipe.

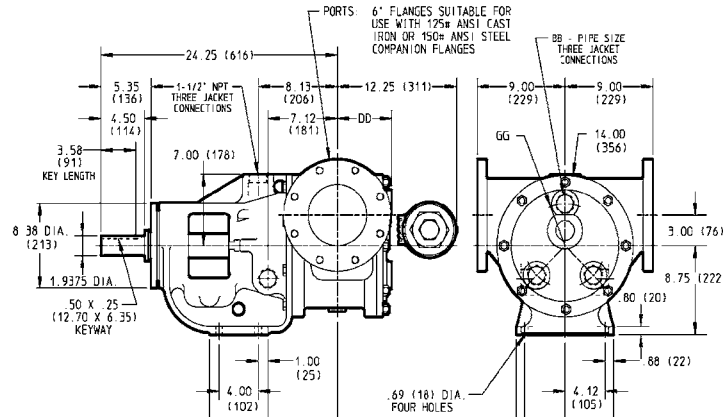
② Ports are suitable for use with 125# ANSI cast iron (cast iron pumps) or 150# ANSI steel companion flanges or flanged fittings (ductile iron pumps).

③ Ports are suitable for 150# ANSI steel or stainless steel companion flanges or flanged fittings.

④ "K" dimension for Cast Iron L, LQ and LL sizes is for "A" models. "K" dimension for L, LQ and LL size 224AE, 224AE and 224B pumps is 1.44" (36.6mm).

# Viking® Universal Seal Dimensions

## Dimensions - H through Q Sizes - All Materials of Construction - Jacketed



Model Number				P	R	S	⑥ T	⑦ U	⑧ V	W	X	Y	⑤ AA	⑤⑨ BB	CC	DD	EE	FF
Packed	Stuffing Box Seal	Behind the Rotor Seal																
H224A	H4224A	H4224B HL4224B	in	0.62	4.00	12.06	1.62	0.75	.19 X .09	4.04	1.80	1.83	0.75	0.50	0.94	2.41	5.75	2.30
HL224A	HL4224A		mm	15.7	101.6	306.3	41.1	19.0	4.83 X 2.29	102.6	45.7	46.5	19.0	12.7	23.9	61.2	146.0	58.4
H226A	H4226A	N/A	in	0.62	4.00	12.06	1.62	0.75	.19 X .09	4.04	1.80	1.83	0.75	0.50	0.94	2.41	5.75	2.30
HL226A	HL4226A		mm	15.7	101.6	306.3	41.1	19.0	4.83 X .29	102.6	45.7	46.5	19.0	12.7	23.9	61.2	146.0	58.4
H223A	H4223A	K4224B KK4224B	in	0.62	5.75	16.38	2.25	1.12	.25 X .12	7.00	3.38	2.75	1.25	1.25	1.75	3.25	6.75	2.92
HL223A	HL4223A		mm	15.7	146.0	416.0	57.1	28.4	6.35 X .05	177.8	85.9	69.8	31.7	31.7	44.4	82.5	171.4	74.2
H227A	H4227A	N/A	in	0.62	5.75	16.38	2.25	1.12	.25 X .12	7.00	3.38	2.75	1.25	1.25	1.75	3.25	6.75	2.92
HL227A	HL4227A		mm	15.7	146.0	416.0	57.1	28.4	6.35 X 3.05	177.8	85.9	69.8	31.7	31.7	44.4	82.5	171.4	74.2
L224A/AE	L4224A/AE	L4224B	in	0.62	6.56	17.88	2.25	1.12	.25 X .12	7.18	4.62	3.25	1.25	1	3.00	3.81	6.75	2.93
L226A	L4226A		mm	15.7	166.6	454.2	57.1	28.4	6.35 X 3.05	182.4	117.3	82.5	31.7	25.4	76.2	96.8	171.4	74.4
LQ224A/AE	LQ4224A/AE	LQ4224B	in	0.62	6.56	17.88	2.25	1.12	.25 X .12	7.18	4.62	3.25	1.25	1	3.00	3.81	6.75	2.93
LQ226A	LQ4226A		mm	15.7	166.6	454.2	57.1	28.4	6.35 X 3.05	182.4	117.3	82.5	31.7	25.4	76.2	96.8	171.4	74.4
LQ223A	LQ4223A	N/A	in	0.62	6.56	17.88	2.25	1.12	.25 X .12	7.18	4.62	3.25	1.25	1	3.00	3.81	6.75	2.93
LQ227A	LQ4227A		mm	15.7	166.6	454.2	57.1	28.4	6.35 X 3.05	182.4	117.3	82.5	31.7	25.4	76.2	96.8	171.4	74.4
LL224A/AE	LL4224A/AE	LL4224B	in	0.62	6.56	17.88	2.25	1.12	.25 X .12	7.18	4.62	3.25	1.25	1	3.00	4.31	6.75	2.93
LL226A	LL4226A		mm	15.7	166.6	454.2	57.1	28.4	6.35 X 3.05	182.4	117.3	82.5	31.7	25.4	76.2	109.5	171.4	74.4
LL223A	LL4223A	N/A	in	0.62	6.56	17.88	2.25	1.13	.25 X .12	7.18	4.62	3.25	1.25	1	3.00	4.31	6.75	2.93
LL227A	LL4227A		mm	15.7	166.6	454.2	57.1	28.4	6.35 X 3.05	182.4	117.3	82.5	31.7	25.4	76.2	109.5	171.4	74.4
LS224A	LS4224A	N/A	in	0.62	7.00	19.25	3.50	1.44	.38 X .19	7.72	4.40	3.30	1.25	1	3.00	4.50	7.00	4.03
LS226A	LS4226A		mm	15.7	177.8	488.9	88.9	36.58	9.65 X .83	196.1	111.8	83.8	31.7	25.4	76.2	114.3	177.8	102.4
LS223A	LS4223A	N/A	in	1.00	6.62	23.75	4.50	1.94	.50 X .25	11.25	5.50	4.50	1.5	1.25	---	4.57	8.38	5.35
LS227A	LS4227A		mm	25.4	168.1	603.2	114.3	49.3	12.70 X .35	285.7	139.7	114.3	38.1	31.7	---	116.1	212.8	135.9

⑤ Ports for steam or hot oil jacketing are inch standard NPT threads. Metric (mm) equivalents are for information only, and do not indicate a metric thread size.

⑥ "T" dimension show for Cast Iron sizes L, LQ and LL is for "A" models. Dimension for L, LQ and LL size 224AE, 4224AE and 4224B pumps is 2.35" (59.7 mm).

⑦ "U" dimension shown for Cast Iron sizes L, LQ and LL is for "A" models. "U" dimension for L, LQ and LL size 224AE, 4224AE and 4224B pumps is 1.44" (36.6 mm).

⑧ "V" dimension shown for Cast Iron sizes L, LQ and LL is for "A" models. "V" dimension for L, LQ and LL size 224AE, 4224AE and 4224B pumps is 0.38 X 0.19" (9.65 X 4.83 mm).

⑨ "BB" Dimension for Q223A and Q227A is 1" (25.4 mm).

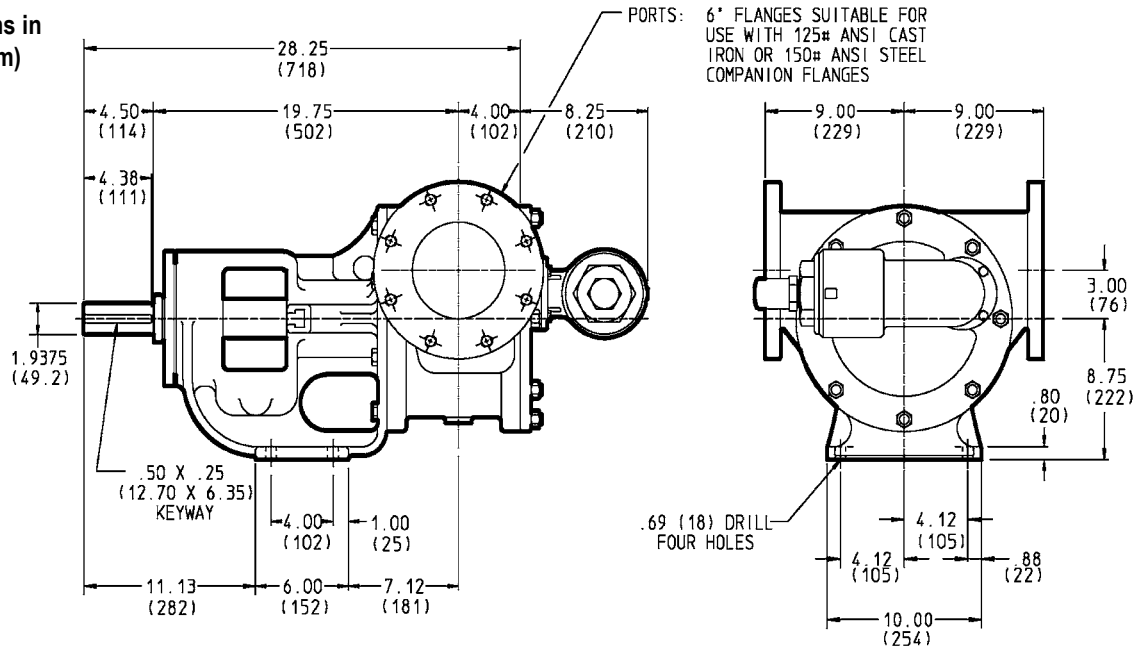


# Dimensions

## Dimensions - QS Size - All Materials of Construction - Non-Jacketed

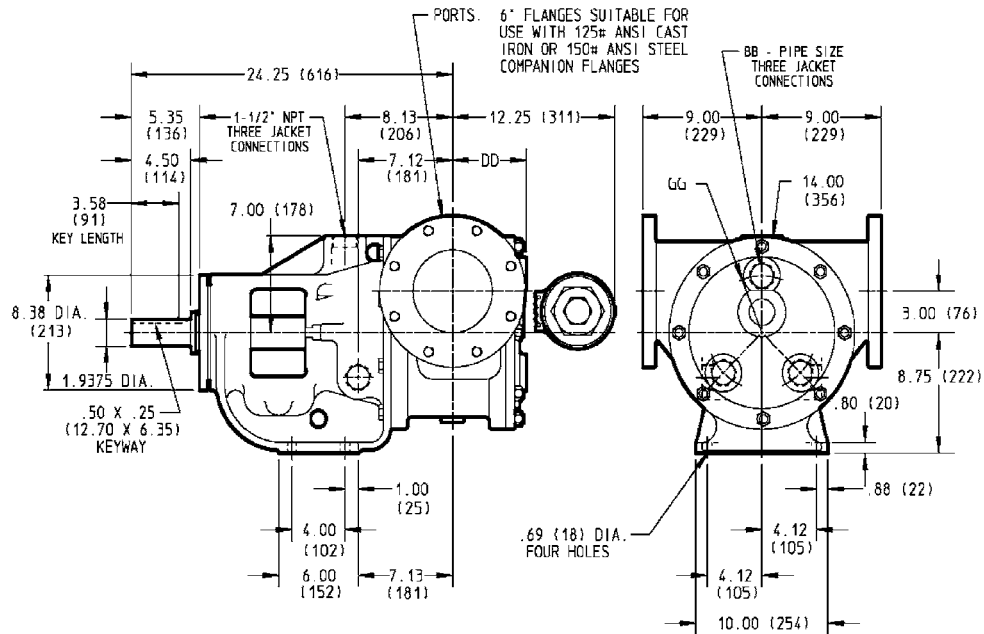
Series 124A, 4124A, 126A, 4126A, 123A, 4123A, 127A & 4127A

Dimensions in  
inches (mm)



## Dimensions - QS Size - All Materials of Construction - Jacketed

Series 224A, 4224A, 226A, 4226A, 223A, 4223A, 227A & 4227A

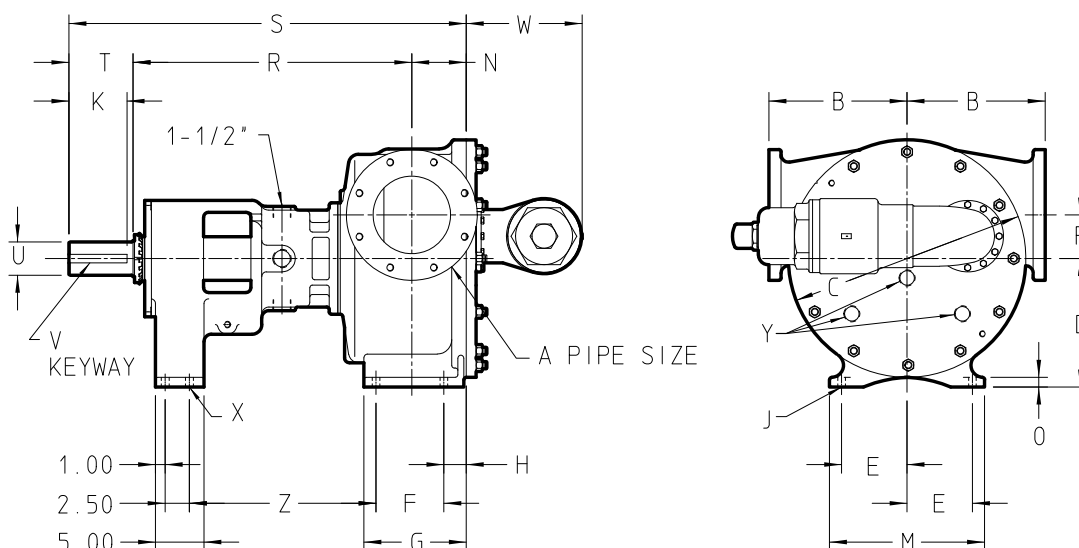


Model Number		BB*	DD	GG
Packed	Mechanical Seal	IN (mm)	IN (mm)	IN (mm)
QS224A	QS4224A	1.25 (31.75)	5.57 (141.48)	4.12 (105)
QS226A	QS4226A			
QS223A	QS4223A	1 (25.4)	6.06 (152.93)	3.75 (95.25)
QS227A	QS4227A			

# Viking® Universal Seal Dimensions

## Dimensions - N, R and RS Sizes - All Materials of Construction - Jacketed

Series 324A, 4324A, 323A, 4323A, 327A, & 4327A



Model Number		A (in)		B	C	D	E	F	G	H	J	K	M	N
Packed	Stuffing Box Seal													
N324A	N4324A	① 6	in	9.75	17.25	9.50	5.00	6.25	8.69	1.62	0.69	4.50	12.00	4.50
N323A	N4323A		mm	247.7	438.1	241.3	127.0	158.7	220.7	41.1	17.5	114.3	304.8	114.3
N327A	N4327A													
R324A	R4324A	① 8	in	14.25	24.50	13.25	6.75	7.00	10.56	2.31	0.78	6.00	16.00	5.62
R323A	R4323A		mm	361.9	622.3	336.5	171.4	177.8	268.2	58.7	19.8	152.4	406.4	142.7
R327A	R4327A													
RS324A	RS4324A	① 10	in	14.25	24.5	13.25	6.75	7.00	13.12	4.81	0.88	6.00	16.46	8.12
RS323A	RS4323A		mm	361.9	622.30	336.5	171.4	177.8	333.24	122.17	22.35	152.4	418.08	206.24
RS327A	RS4327A													

Model Number		A (in)		O	P	R	S	T	U	V	W	X	Y	Z
Packed	Stuffing Box Seal													
N324A	N4324A	① 6	in	1.00	3.00	26.00	36.50	6.00	2.44	.62 x .31	8.63	0.69	N/A	18.94
N323A	N4323A		mm	25.4	76.2	660.4	927.1	152.4	62.0	15.74 x 7.87	219.2	17.5	N/A	481.0
N327A	N4327A													
R324A	R4324A	① 8	in	1.00	4.50	28.75	41.00	6.62	3.44	.88 x .44	12.00	0.69	1.25	19.25
R323A	R4323A		mm	25.4	114.3	730.2	1041	168.1	87.4	22.35 x 11.18	304.8	17.5	31.7	488.9
R327A	R4327A													
RS324A	RS4324A	① 10	in	1.30	4.50	28.55	43.49	6.62	3.44	.88 x .44	12.00	0.88	1.25	19.25
RS323A	RS4323A		mm	33.02	114.3	725.17	1104.64	168.1	87.4	22.35 x 11.18	304.8	22.35	31.7	488.9
RS327A	RS4327A													

**NOTE:** The "N" size is standard with a jacketed bracket and non-jacketed head and non-jacketed relief valve, while the "R" size is standard with a jacketed bracket, a jacketed head, and a non-jacketed relief valve. "RS" size contact factory for jacketing options.

① Ports are suitable for use with 125# ANSI cast iron (324A/4324A) or 150# ANSI steel or stainless steel companion flanges or flanged fittings (323A/4323A & 327A/4327A).

# Typical Product Configuration by Size

Note: Ports shown are not necessarily the standard configuration.



H & HL (H4124A shown)



K & KK (K123 shown)



L (L124A shown)



LQ (LQ4124A shown)



LL (LL4126A shown)



LS (LS124A shown)



Q (Q124A shown)



QS (QS4124A shown)



N (N4324A shown)



R (R324A shown)



RS (RS324A shown)

### **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 M<sup>3</sup>/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 ISO9001-2000, 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:**

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