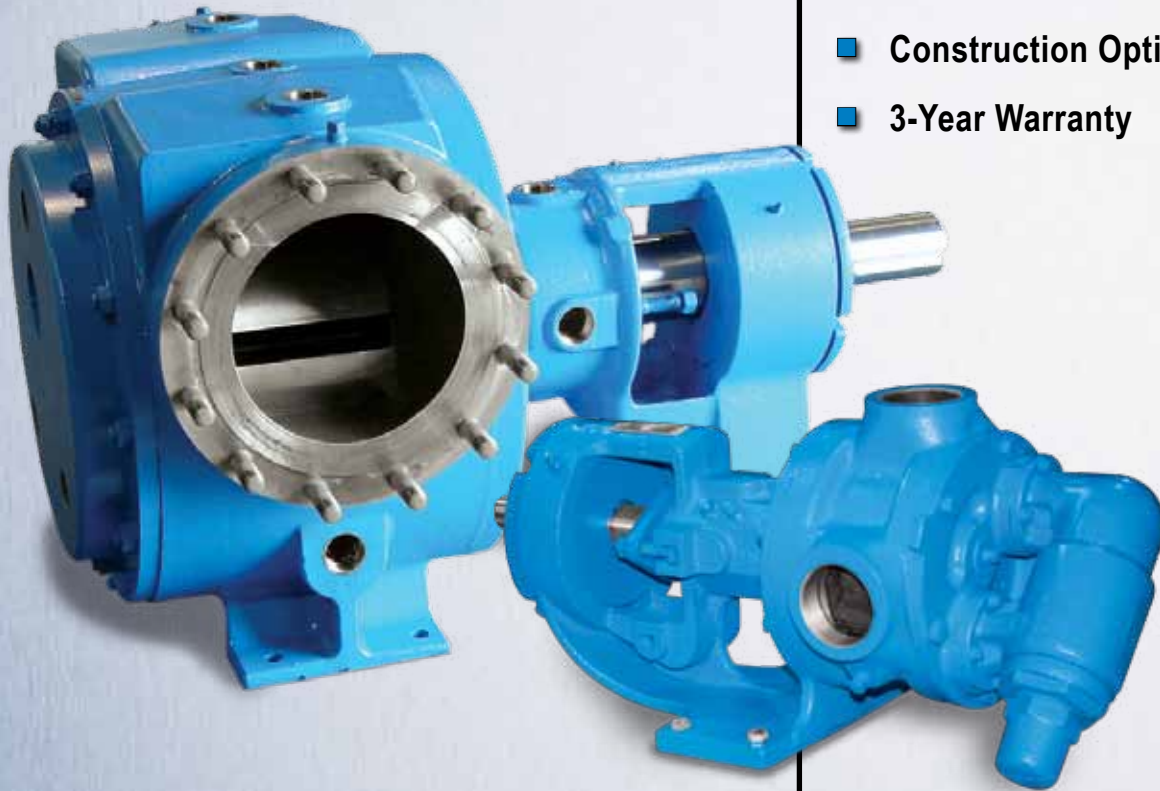
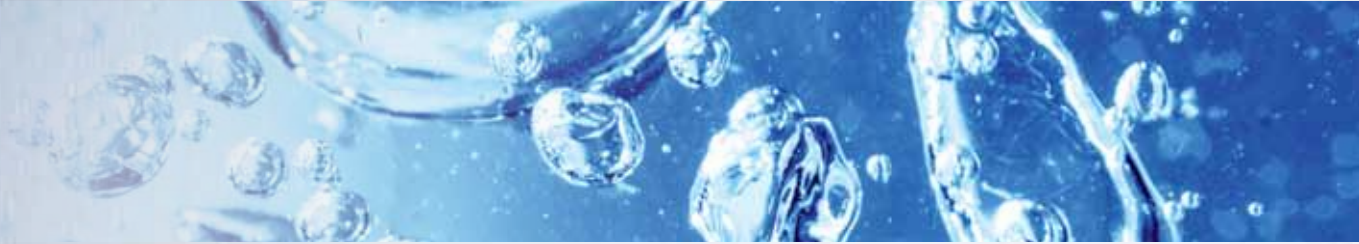


VIKING PUMP

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 M³/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



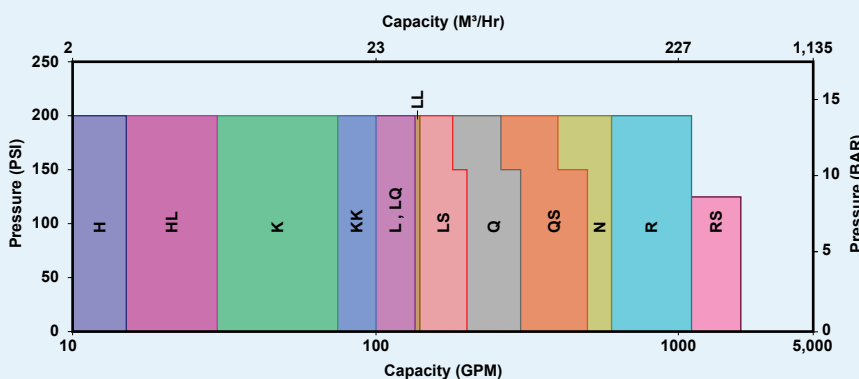
Back Pullout Seal Design Readily Accepts :

- 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

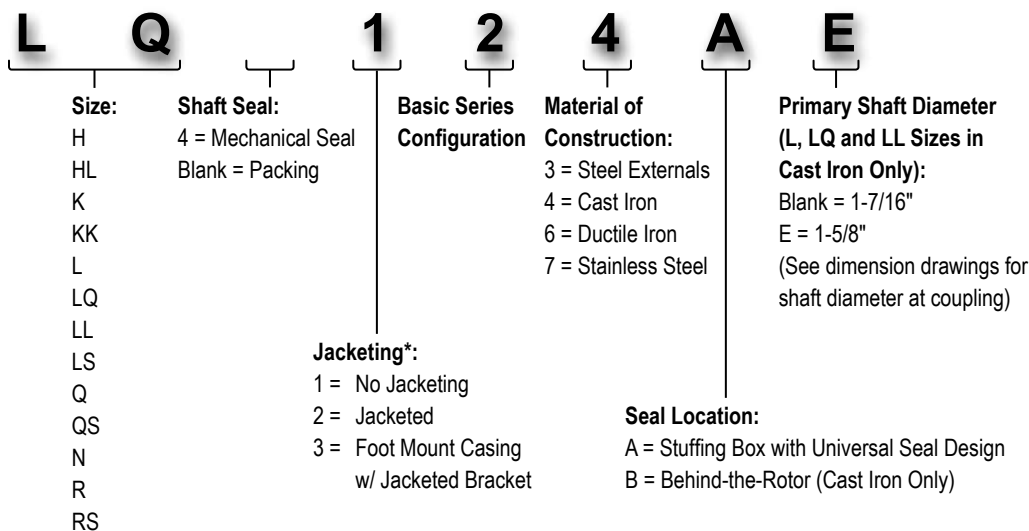
Transportation:

- 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



* **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.**

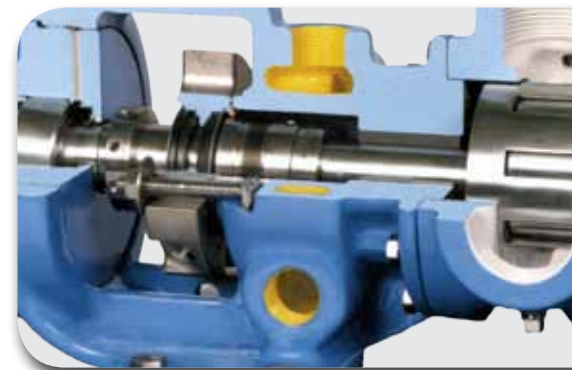
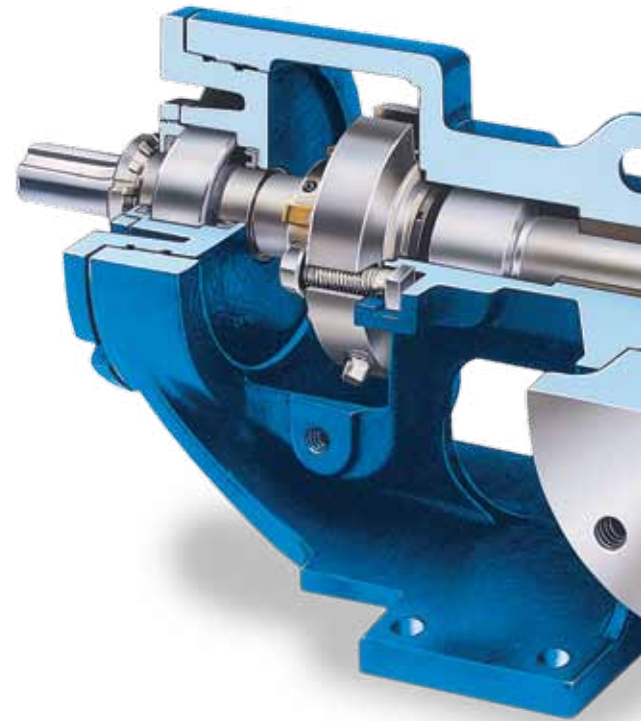
■ Drive Options

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.**

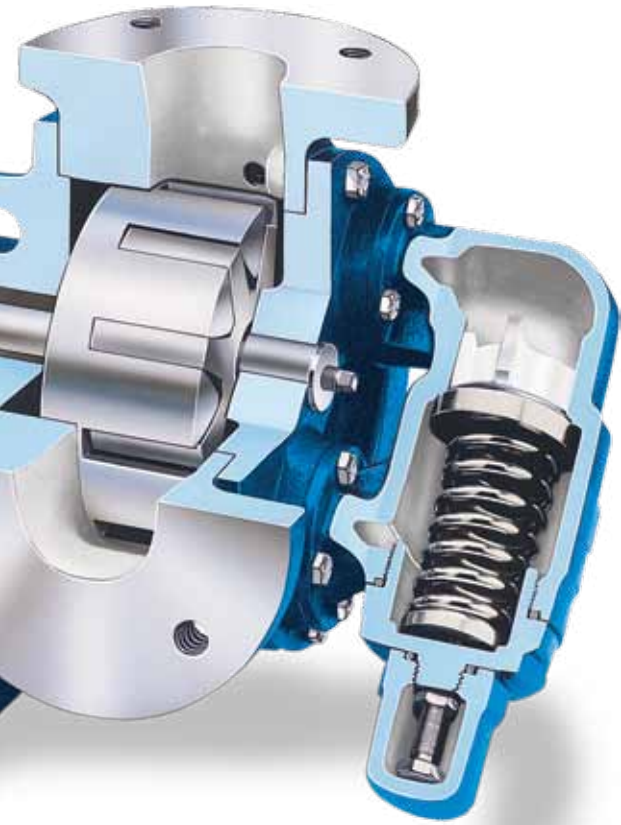
EASY INSTALLATION



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.

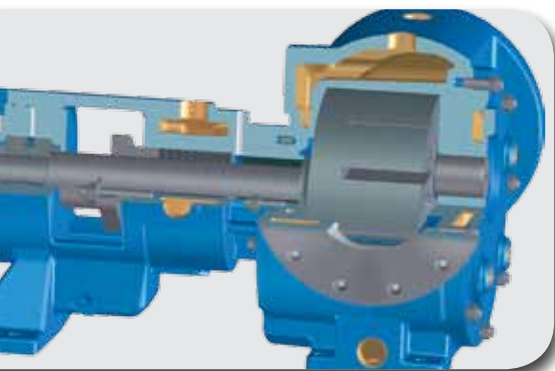
* N, R and RS pump sizes do not have rotatable casings.



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, MPIF 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 | | M ³ /Hr (GPM) | (RPM) | | | BAR (PSIG) | BAR (PSIG) | | |
| H124A | H4124A | H4124B | ③ 38 (1 1/2) | 2.8 (15) | 1450 (1750) | 28 (400) | 14 (200) | 232 (450) | 107 (225) | 5,500 (25,000) | 17 (38) |
| H126A | H4126A | N/A | ③ 38 (1 1/2) | 1.9 (10) | 950 (1150) | 28 (400) | 7 (100) | 191 (375) | 191 (375) | N/A | 20 (43) |
| H123A | H4123A | | | | | | | | | | 22 (48) |
| H127A | H4127A | HL4124B | ③ 38 (1 1/2) | 5.6 (30) | 1450 (1750) | 28 (400) | 14 (200) | 232 (450) | 107 (225) | 1,650 (7,500) | 18 (40) |
| HL124A | HL4124A | N/A | ③ 38 (1 1/2) | 3.7 (20) | 950 (1150) | 28 (400) | 7 (100) | 191 (375) | 191 (375) | N/A | 20 (45) |
| HL126A | HL4126A | | | | | | | | | | 23 (50) |
| HL123A | HL4123A | | | | | | | | | | 23 (50) |
| HL127A | HL4127A | K4124B | ③ 50 (2) | 17 (75) | 780 | 28 (400) | 14 (200) | 232 (450) | 107 (225) | 5,500 (25,000) | 48 (105) |
| K124A | K4124A | N/A | ③ 50 (2) | 10 (45) | 520 | 28 (400) | 7 (100) | 177 (350) | 177 (350) | N/A | 54 (120) |
| K126A | K4126A | | | | | | | | | | 57 (125) |
| K123A | K4123A | | | | | | | | | | 57 (125) |
| K127A | K4127A | KK4124B | ③ 50 (2) | 23 (100) | 780 | 28 (400) | 14 (200) | 232 (450) | 107 (225) | 5,500 (25,000) | 50 (110) |
| KK124A | KK4124A | N/A | ③ 50 (2) | 15 (65) | 520 | 28 (400) | 7 (100) | 177 (350) | 177 (350) | N/A | 57 (125) |
| KK126A | KK4126A | | | | | | | | | | 59 (130) |
| KK123A | KK4123A | | | | | | | | | | 59 (130) |
| KK127A | KK4127A | L4124A/AE | ③ 50 (2) | 31 (135) | 640 | 28 (400) | 14 (200) | 232 (450) | 107 (225) | 5,500 (25,000) | 70 (155) |
| L124A/AE | L4124A/AE | LQ4124B | ④ 65 (2 1/2) | 31 (135) | 640 | 28 (400) | 14 (200) | 232 (450) | 107 (225) | 5,500 (25,000) | 80 (175) |
| L126A | L4126A | | | | | | | | | | 84 (185) |
| LQ124A/AE | LQ4124A/AE | | | | | | | | | | 93 (205) |
| LQ126A | LQ4126A | N/A | ⑤ 65 (2 1/2) | 20 (90) | 420 | 28 (400) | 7 (100) | 177 (350) | 177 (350) | N/A | 84 (185) |
| LQ123A | LQ4123A | | | | | | | | | | 89 (195) |
| LQ127A | LQ4127A | | | | | | | | | | 109 (240) |
| LL124A/AE | LL4124A/AE | LL4124B | ④ 75 (3) | 32 (140) | 520 | 28 (400) | 14 (200) | 232 (450) | 107 (225) | 550 (2,500) | 84 (185) |
| LL126A | LL4126A | N/A | ⑤ 75 (3) | 25 (110) | 420 | 28 (400) | 7 (100) | 177 (350) | 177 (350) | N/A | 89 (195) |
| LL123A | LL4123A | | | | | | | | | | 109 (240) |
| LL127A | LL4127A | | | | | | | | | | 109 (240) |
| LS124A | LS4124A | N/A | ④ 75 (3) | 45 (200) | 640 | 28 (400) | 10 (150) | 232 (450) | 107 (225) | 16,500 (75,000) | 86 (190) |
| LS126A | LS4126A | | | | | | | | | | 91 (200) |
| LS123A | LS4123A | | | | | | | | | | 100 (220) |
| LS127A | LS4127A | | | | | | | | | | 100 (220) |
| Q124A | Q4124A | N/A | ④ 100 (4) | 68 (300) | 520 | 28 (400) | 10 (150) | 232 (450) | 107 (225) | 1,650 (7,500) | 200 (440) |
| Q126A | Q4126A | | | | | | | | | | 204 (450) |
| Q123A | Q4123A | | | | | | | | | | 209 (460) |
| Q127A | Q4127A | | | | | | | | | | 209 (460) |
| QS124A | QS4124A | N/A | ④ 150 (6) | 114 (500) | 520 | 28 (400) | 10 (150) | 232 (450) | 107 (225) | 16,500 (75,000) | 245 (540) |
| QS126A | QS4126A | | | | | | | | | | 250 (550) |
| QS123A | QS4123A | | | | | | | | | | 254 (560) |
| QS127A | QS4127A | | | | | | | | | | 254 (560) |
| N324A | N4324A | N/A | ④ 150 (6) | 136 (600) | 350 | 28 (400) | 10 (150) | 232 (450) | 107 (225) | 16,500 (75,000) | 367 (810) |
| N323A | N4323A | | | | | | | | | | 367 (810) |
| N327A | N4327A | | | | | | | | | | 367 (810) |
| R324A | R4324A | N/A | ④ 200 (8) | 250 (1,100) | 280 | 28 (400) | 10 (150) | 232 (450) | 107 (225) | 5,500 (25,500) | 651 (1,435) |
| R323A | R4323A | | | | | | | | | | 651 (1,435) |
| R327A | R4327A | | | | | | | | | | 651 (1,435) |
| RS324A | RS4324A | N/A | ④ 254 (10) | 364 (1,600) | 280 | 28 (400) | 9 (125) | 232 (450) | 107 (225) | 16,500 (75,000) | 718 (1,580) |
| RS323A | RS4323A | | | | | | | | | | 718 (1,580) |
| RS327A | RS4327A | | | | | | | | | | 718 (1,580) |

- 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 | | M ³ /hr | RPM | | | | BAR | BAR | | |
| 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) | | | | | | | | | |
| H223A | H4223A | | | | | | | | | | | |
| H227A | H4227A | HL4124B | ③ 38 (1½) | 6.8 (30) | 1,450 | 1,750 | 28 (400) | 14 (200) | 232 (450) | 232 (450) | 1,650 (7,500) | 20 (45) |
| HL224A | HL4224A | | | | | | | | | | | |
| HL226A | HL4226A | | | | | | | | | | | |
| HL223A | HL4223A | N/A | ⑤ 38 (1½) | 4.5 (20) | 950 | 1,150 | 28 (400) | 7 (100) | 191 (375) | 191 (375) | N/A | 24 (52) |
| HL227A | HL4227A | | | | | | | | | | | |
| K224A | K4224A | K4124B | ③ 50 (2) | 16 (75) | 780 | 28 (400) | 14 (200) | 232 (450) | 232 (450) | 5,500 (25,000) | 54 (120) | |
| K226A | K4226A | N/A | ⑤ 50 (2) | | | | | | | | | |
| K223A | K4223A | | | | | | | | | | | |
| K227A | K4227A | KK4124B | ③ 50 (2) | 23 (100) | 780 | 28 (400) | 14 (200) | 232 (450) | 232 (450) | 5,500 (25,000) | 57 (125) | |
| KK224A | KK 4224A | | | | | | | | | | | |
| KK226A | KK4226A | | | | | | | | | | | |
| KK223A | KK4223A | N/A | ⑤ 50 (2) | 15 (65) | 520 | 28 (400) | 7 (100) | 177 (350) | 177 (350) | N/A | 59 (130) | |
| KK227A | KK4227A | | | | | | | | | | | |
| L224A/AE | L4224A/AE | L4124B | ③ 50 (2) | 31 (135) | 640 | 28 (400) | 14 (200) | 232 (450) | 232 (450) | 5,500 (25,000) | 79 (175) | |
| L226A | L4226A | N/A | ⑤ 50 (2) | | | | | | | | | |
| LQ224A/AE | LQ4224A/AE | | | | | | | | | | | |
| LQ226A | LQ4226A | LQ4124B | ④ 65 (2½) | 31 (135) | 640 | 28 (400) | 14 (200) | 232 (450) | 232 (450) | 5,500 (25,000) | 86 (190) | |
| LQ223A | LQ4223A | N/A | ⑤ 65 (2½) | | | | | | | | | |
| LQ227A | LQ4227A | | | | | | | | | | | |
| LL224A/AE | LL4224A/AE | LL4124B | ④ 75 (3) | 32 (140) | 520 | 28 (400) | 14 (200) | 232 (450) | 232 (450) | 550 (2,500) | 91 (200) | |
| LL226A | LL4226A | N/A | ⑤ 75 (3) | | | | | | | | | |
| LL223A | LL4223A | | | | | | | | | | | |
| LL227A | LL4227A | N/A | ④ 75 (3) | 45 (200) | 640 | 28 (400) | 10 (150) | 232 (450) | 232 (450) | 16,500 (75,000) | 95 (210) | |
| LS224A | LS4224A | | | | | | | | | | | |
| LS226A | LS4226A | | | | | | | | | | | |
| LS223A | LS4223A | N/A | ⑤ 75 (3) | 36 (160) | 520 | 28 (400) | 7 (100) | 163 (325) | 163 (325) | N/A | 104 (230) | |
| LS227A | LS4227A | | | | | | | | | | | |
| Q224A | Q4224A | N/A | ④ 100 (4) | 68 (300) | 520 | 28 (400) | 10 (150) | 232 (450) | 232 (450) | 1,650 (7,500) | 218 (480) | |
| Q226A | Q4226A | | | | | | | | | | | |
| Q223A | Q4223A | | | | | | | | | | | |
| Q227A | Q4227A | N/A | ⑤ 100 (4) | 45 (200) | 350 | 28 (400) | 7 (100) | 121 (250) | 121 (250) | N/A | 222 (490) | |
| QS224A | QS4224A | | | | | | | | | | | |
| QS226A | QS4226A | | | | | | | | | | | |
| QS223A | QS4223A | N/A | ④ 150 (6) | 114 (500) | 520 | 28 (400) | 10 (150) | 232 (400) | 204 (400) | 16,500 (75,000) | 265 (580) | |
| QS227A | QS4227A | | | | | | | | | | | |
| N324A | N4324A | N/A | ⑤ 150 (6) | 73 (320) | 350 | 28 (400) | 7 (100) | 121 (250) | 121 (250) | N/A | 272 (600) | |
| N323A | N4323A | | | | | | | | | | | |
| N327A | N4327A | | | | | | | | | | | |
| R324A | R4324A | N/A | ④ 200 (8) | 250 (1,100) | 280 | 28 (400) | 10 (150) | 232 (300) | 107 (300) | 5,500 (25,500) | 651 (1,435) | |
| R323A | R4323A | | | | | | | | | | | |
| R327A | R4327A | | | | | | | | | | | |
| RS324A | RS4324A | N/A | ④ 254 (10) | 364 (1,600) | 280 | 28 (400) | 9 (125) | 232 (300) | 107 (300) | 16,500 (75,000) | 718 (1,580) | |
| 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.

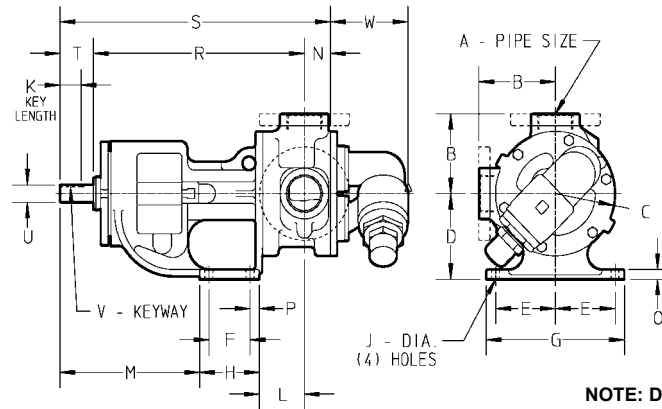
④ Ports are suitable for use with 125# ANSI cast iron flanges or flanged fittings.

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 | 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 |
| 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 |
| 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 | 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 |
| 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 | 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 |
| KK127A | KK4127A | | | mm | 133.3 | 203.2 | 139.7 | 101.6 | 69.8 | 234.9 | 101.6 | 13.5 | 36.1 | 76.2 | 238.3 |
| L124A/AE | L4124A/AE | L4124B | ① 2 | in | 6.50 | 10.25 | 7.00 | 4.38 | 4.00 | 10.00 | 5.38 | 0.53 | 2 | 3.38 | 9.12 |
| L126A | L4126A | | | mm | 165.1 | 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 |
| LQ126A | LQ4126A | | | 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 |
| LQ127A | LQ4127A | | | 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 |
| LL126A | LL4126A | | | 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 |
| LL127A | LL4127A | | | 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 |
| LS126A | LS4126A | | | mm | 182.6 | 260.3 | 177.8 | 111.3 | 101.6 | 254.0 | 136.7 | 13.5 | 64.8 | 120.6 | 231.6 |
| LS123A | LS4123A | 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 |
| LS127A | LS4127A | | | mm | 182.6 | 260.3 | 177.8 | 111.3 | 101.6 | 254.0 | 136.7 | 13.5 | 50.8 | 85.9 | 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 |
| Q126A | Q4126A | | | mm | 209.5 | 355.6 | 222.2 | 104.6 | 101.6 | 254.0 | 152.4 | 17.5 | 90.9 | 168.1 | 282.4 |
| Q123A | Q4123A | 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 | 11.12 |
| Q127A | Q4127A | | | mm | 209.5 | 355.6 | 222.2 | 104.6 | 101.6 | 254.0 | 152.4 | 17.5 | 90.9 | 168.1 | 282.4 |

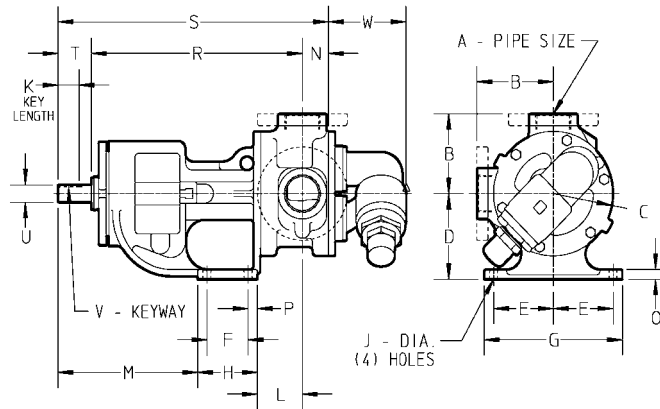
① Ports are tapped for standard (NPT) pipe.

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 | | | | N | O | P | R | S | ④ T | ⑤ U | ⑥ V | W |
|--------------|-------------------|-----------------------|----|------|------|------|-------|-------|-------|------|--------------|-------|
| Packed | Stuffing Box Seal | Behind the Rotor Seal | | | | | | | | | | |
| 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 | N/A | in | 1.19 | 0.56 | 0.62 | 10.44 | 13.25 | 1.62 | 0.75 | .19 x .09 | 2.85 |
| HL123A | HL4123A | | mm | 30.2 | 14 | 15.7 | 265.2 | 336.5 | 41.1 | 19.0 | 4.83 x 2.29 | 72.4 |
| H127A | H4127A | N/A | in | 1.19 | 0.56 | 0.62 | 10.44 | 13.25 | 1.62 | 0.75 | .19 x .09 | 2.85 |
| HL127A | HL4127A | | mm | 30.2 | 14 | 15.7 | 265.2 | 336.5 | 41.1 | 19.0 | 4.83 x 2.29 | 72.4 |
| K124A | K4124A | K4124B KK4124B | in | 1.75 | 0.62 | 0.62 | 14.12 | 18.12 | 2.25 | 1.12 | .25 x .12 | 5.25 |
| KK124A | KK4124A | | mm | 44.4 | 15.7 | 15.7 | 358.6 | 460.2 | 57.1 | 28.4 | 6.35 x 3.05 | 133.3 |
| K126A | K4126A | N/A | in | 1.75 | 0.62 | 0.62 | 14.12 | 18.12 | 2.25 | 1.12 | .25 x .12 | 5.25 |
| KK126A | KK4126A | | mm | 44.4 | 15.7 | 15.7 | 358.6 | 460.2 | 57.1 | 28.4 | 6.35 x 3.05 | 133.3 |
| K123A | K4123A | N/A | in | 1.75 | 0.62 | 0.62 | 14.12 | 18.12 | 2.25 | 1.12 | .25 x .12 | 5.25 |
| KK123A | KK4123A | | mm | 44.4 | 15.7 | 15.7 | 358.6 | 460.2 | 57.1 | 28.4 | 6.35 x 3.05 | 133.3 |
| K127A | K4127A | N/A | in | 1.75 | 0.62 | 0.62 | 14.12 | 18.12 | 2.25 | 1.12 | .25 x .12 | 5.25 |
| KK127A | KK4127A | | mm | 44.4 | 15.7 | 15.7 | 358.6 | 460.2 | 57.1 | 28.4 | 6.35 x 3.05 | 133.3 |
| L124A/AE | L4124A/AE | L4124B | in | 1.75 | 0.62 | 0.62 | 15.62 | 19.62 | 2.25 | 1.12 | .25 X .12 | 5.43 |
| L126A | L4126A | | mm | 44.4 | 15.7 | 15.7 | 396.7 | 498.3 | 57.1 | 28.7 | 6.35 X 3.05 | 137.9 |
| LQ124A/AE | LQ4124A/AE | LQ4124B | in | 1.75 | 0.62 | 0.62 | 15.62 | 19.62 | 2.25 | 1.12 | .25 X .12 | 5.43 |
| LQ126A | LQ4126A | | mm | 44.4 | 15.7 | 15.7 | 396.7 | 498.3 | 57.1 | 28.7 | 6.35 X 3.05 | 137.9 |
| LQ123A | LQ4123A | N/A | in | 1.75 | 0.62 | 0.62 | 15.62 | 19.62 | 2.25 | 1.12 | .25 X .12 | 5.43 |
| LQ127A | LQ4127A | | mm | 44.4 | 15.7 | 15.7 | 396.7 | 498.3 | 57.1 | 28.7 | 6.35 X 3.05 | 137.9 |
| LL124A/AE | LL4124A/AE | LL4124B | in | 2.25 | 0.62 | 0.62 | 15.62 | 20.12 | 2.25 | 1.12 | .25 X .12 | 5.43 |
| LL126A | LL4126A | | mm | 57.1 | 15.7 | 15.7 | 396.7 | 511.0 | 57.1 | 28.7 | 6.35 X 3.05 | 137.9 |
| LL123A | LL4123A | N/A | in | 2.25 | 0.62 | 0.62 | 15.62 | 20.12 | 2.25 | 1.12 | .25 X .12 | 5.43 |
| LL127A | LL4127A | | mm | 57.1 | 15.7 | 15.7 | 396.7 | 511.0 | 57.1 | 28.7 | 6.35 X 3.05 | 137.9 |
| LS124A | LS4124A | N/A | in | 2.44 | 0.62 | 0.62 | 15.75 | 21.69 | 3.50 | 1.44 | .38 x .19 | 5.43 |
| LS126A | LS4126A | | mm | 62.0 | 15.7 | 15.7 | 400.0 | 550.9 | 88.9 | 36.6 | 9.65 x 4.83 | 137.9 |
| LS123A | LS4123A | N/A | in | 2.44 | 0.62 | 0.62 | 15.75 | 21.69 | 3.50 | 1.44 | .38 x .19 | 5.43 |
| LS127A | LS4127A | | mm | 62.0 | 15.7 | 15.7 | 400.0 | 550.9 | 88.9 | 36.6 | 9.65 x 4.83 | 137.9 |
| Q124A | Q4124A | N/A | in | 3.00 | 0.75 | 1.00 | 19.25 | 26.75 | 4.50 | 1.94 | .50 x .25 | 8.25 |
| Q126A | Q4126A | | mm | 76.2 | 19.0 | 25.4 | 488.9 | 679.4 | 114.3 | 49.3 | 12.70 x 6.35 | 209.5 |
| Q123A | Q4123A | | in | 3.00 | 0.75 | 1.00 | 19.25 | 26.75 | 4.50 | 1.94 | .50 x .25 | 8.25 |
| Q127A | Q4127A | | mm | 76.2 | 19.0 | 25.4 | 488.9 | 679.4 | 114.3 | 49.3 | 12.70 x 6.35 | 209.5 |

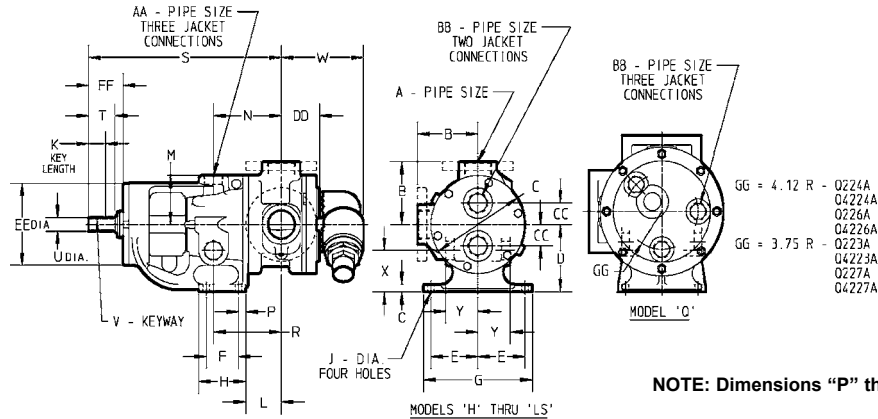
④ "T" dimension shown for Cast Iron sizes L, LQ and LL is for "A" models. "T" dimension for L, LQ and LL size 124AE, 4124AE and 4124B pumps is 2.35" (59.7 mm).

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



NOTE: Dimensions "P" through "FF" on next page

| Model Number | | | A (in) | | B | C | D | E | F | G | H | J | 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 | 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 | 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 | 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 |
| L224A/AE | L4224A/AE | N/A | 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 |
| L226A | L4226A | | | 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 |
| LQ224A/AE | LQ4224A/AE | N/A | 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 |
| LQ226A | LQ4226A | | | 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 |
| LQ223A | LQ4223A | N/A | 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 |
| LQ227A | LQ4227A | | | 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 |
| LL224A/AE | LL4224A/AE | N/A | 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 |
| LL226A | LL4226A | | | 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 |
| LL223A | LL4223A | N/A | 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 |
| LL227A | LL4227A | | | 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 |
| LS224A | LS4224A | N/A | ② | 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 | 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 | 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 | 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 |
| Q227A | Q4227A | | | 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 |

① Ports tapped for standard (NPT) pipe.

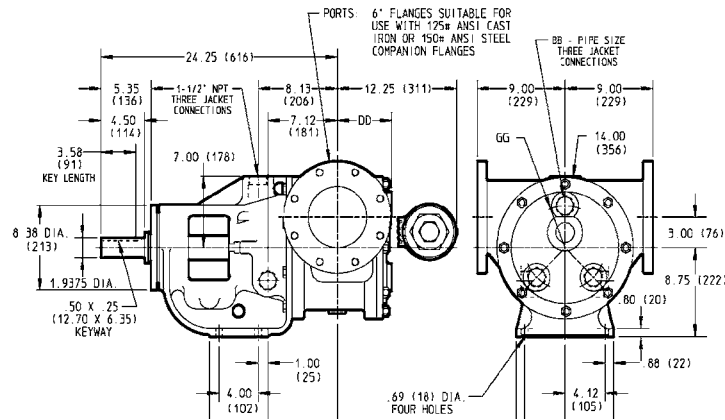
② Ports are suitable for use with 125# ANSI cast iron (cast iron pumps) or 150# ANSI steel companion flanges or flanged fittings (ductile iron pumps).

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, 2224AE and 2224B 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 | Ⓓ T | Ⓔ U | Ⓕ V | W | X | Y | Ⓔ AA | Ⓕ 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 |
| K224A | K4224A | 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 |
| KK224A | KK4224A | | 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 |
| K226A | K4226A | 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 |
| KK226A | KK4226A | | 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 |
| K223A | K4223A | 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 |
| KK223A | KK4223A | | 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 |
| K227A | K4227A | 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 |
| KK227A | KK4227A | | 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 |
| L224A/AE | L4224A/AE | 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 | 4.31 | 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 | 109.5 | 171.4 | 74.4 |
| LQ224A/AE | LQ4224A/AE | 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 | 4.31 | 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 | 109.5 | 171.4 | 74.4 |
| LL224A/AE | LL4224A/AE | 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 | 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 |
| 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 |

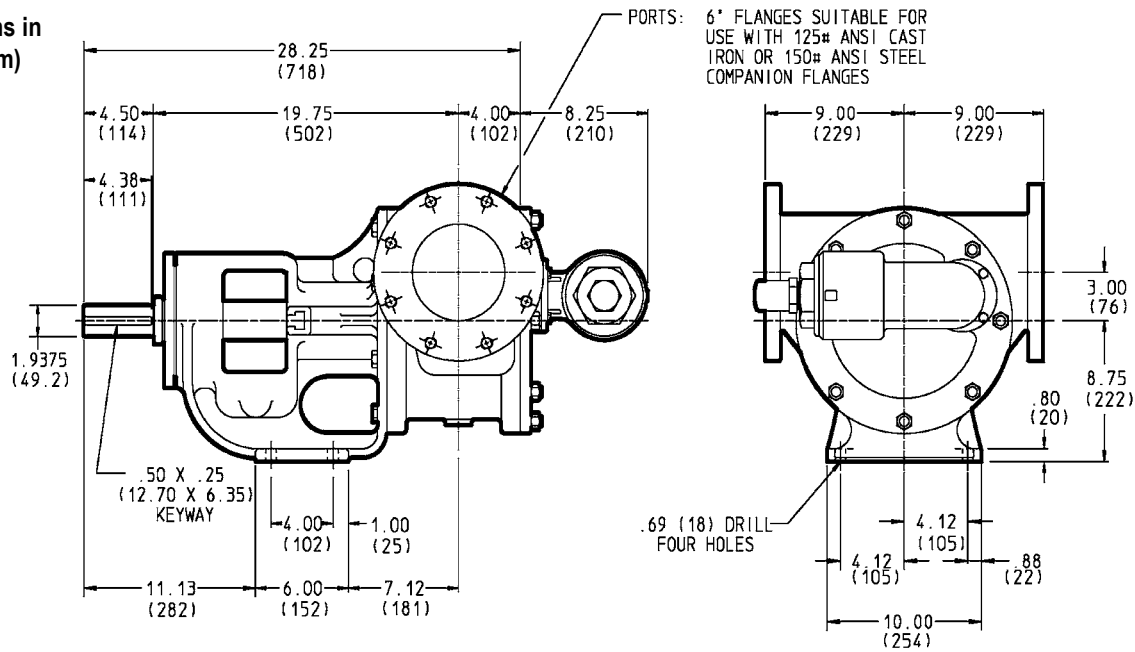
- Ⓓ Ports for steam or hot oil jacketing are inch standard NPT threads. Metric (mm) equivalents are for information only, and do not indicate a metric thread size.
- Ⓓ "T" dimension show for Cast Iron sizes L, LQ and LL is for "A" models. Dimension for L, LQ and LL size 224AE, 4224AE and 4224B pumps is 2.35" (59.7 mm).
- Ⓔ "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).
- Ⓕ "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).
- Ⓓ "BB" Dimension for Q223A and Q227A is 1" (25.4 mm).

Dimensions

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

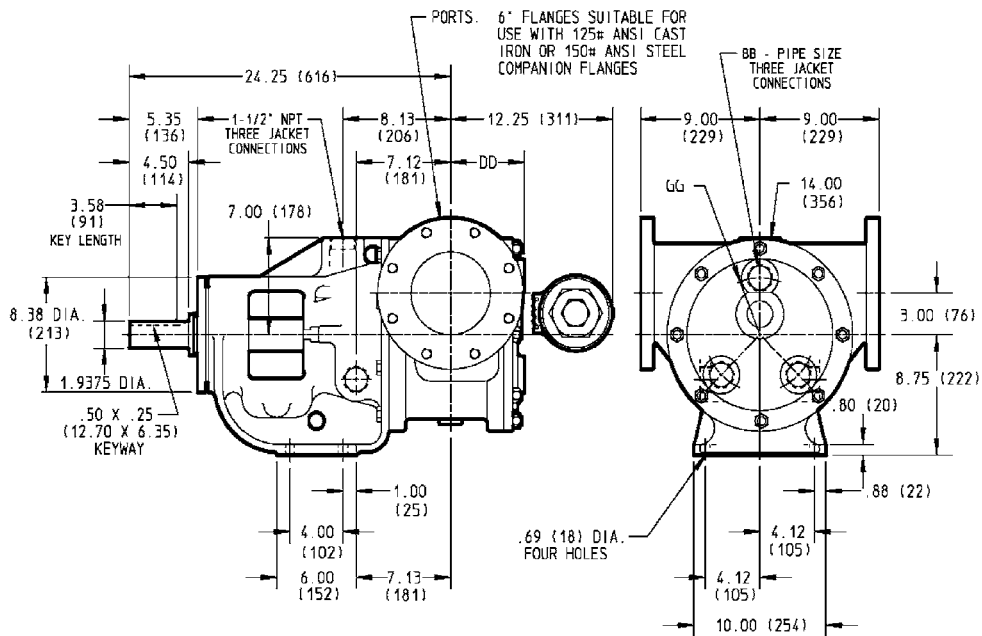
Series 124A, 4124A, 126A, 4126A, 123A, 4123A, 127A & 4127A

Dimensions in inches (mm)



Dimensions - QS Size - All Materials of Construction - Jacketed

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

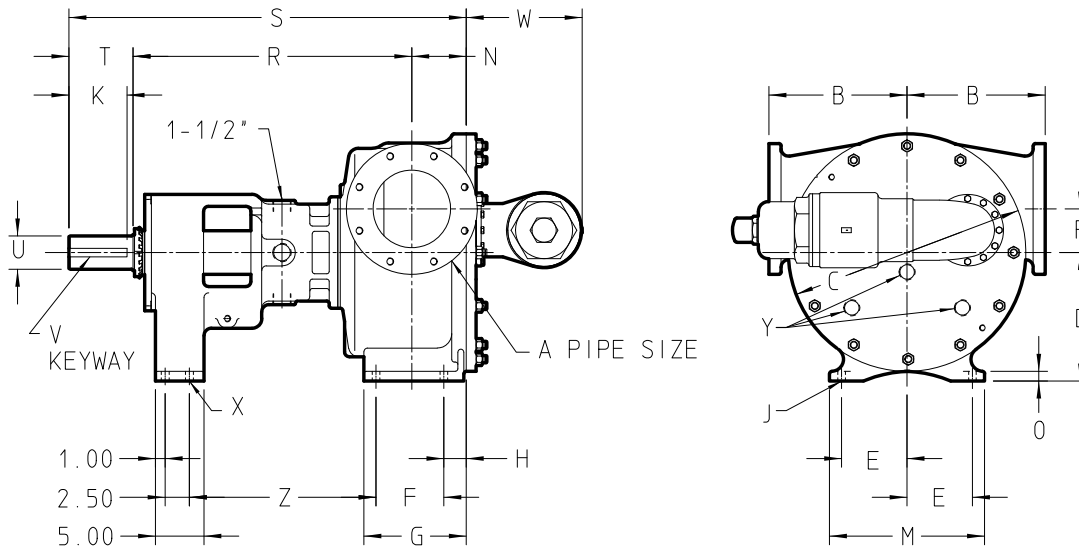


| Model Number | | BB* | DD | GG |
|--------------|-----------------|--------------|---------------|--------------|
| Packed | Mechanical Seal | IN (mm) | IN (mm) | IN (mm) |
| QS224A | QS4224A | 1.25 (31.75) | 5.57 (141.48) | 4.12 (105) |
| QS226A | QS4226A | | | |
| QS223A | QS4223A | 1 (25.4) | 6.06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



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

Broad Performance Range

Capacity:

0.5 to 360 M³/Hr (0.1 to 1,600 GPM)

Pressure:

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

Temperature:

-84°C to 370°C (-120°F to 700°F)

Viscosity:

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

Ultimate in Sealing Solutions

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

Material Options Matched to Application

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

Liquid Integrity Protection

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

Local Applications and Engineering Support

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

Quality Manufacturing

Viking uses ISO9001-2000, 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.



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