VIKING PUMP®

PRODUCT CATALOG

GLOBAL **LEADER** IN POSITIVE DISPLACEMENT **PUMPING** SOLUTIONS

IDEX

GLOBAL LEADER IN POSITIVE DISPLACEMENT PUMPING SOLUTIONS

With over 110 years of expertise, each Viking pump is uniquely designed for the task at hand, from simple solutions to your most advanced and demanding needs.

WORLD HEADQUARTERS | *Cedar Falls, Iowa, United States of America*

VIKING PUMP HYGIENIC
Eastbourne, United Kingdom

VIKING PUMP CANADA
Windsor, Ontario, Canada

IDEX PUMP TECHNOLOGIES
Shannon, Ireland

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QUALITY MANUFACTURING

Viking's vertically integrated production process, from raw materials to finished product, meet ISO 9001:2015 quality standards. Global manufacturing footprint in the Americas, Europe and Asia use Six-Sigma and Lean Kaizen tools.

RELIABILITY, QUALITY & PERFORMANCE

Offering one of the broadest selections of pumping principles, designs, materials and options available, Viking pumps are time and field tested to meet or exceed your expectations.

APPLICATION & INDUSTRY SUPPORT

Channel support group of application, sales and design engineers develops unique pumping solutions for both OEM manufacturers and pump end users with unique requirements.

GLOBAL SALES & SERVICE

Viking pumps are in operation on all 7 continents. Our worldwide network of factory-trained distributors understand your application and service needs.

ROTARY PUMP BENEFITS

OPERATES AT ANY POINT ON THE CURVE

- High efficiency at full range of speeds
- Flow rate largely independent of changes in pressure

LONG SEAL & BEARING LIFE

- Generally operated at speeds from 10 to 1750 RPM, for increased seal and bearing life

LOW SHEAR

- Documented shear rates enable selection of proper pump and speed to protect shear-sensitive liquids

LOW NPSHR

- Enables suction lifts, handling fluids prone to flashing, and pulling from vacuum vessels

FLOW PROPORTIONAL TO SPEED

- Provides easy control of flow rate with a variable speed drive for excellent metering capabilities

HANDLES A WIDE RANGE OF VISCOSITIES

- Capable of handling up to 2,000,000 SSU (440,000 cSt)

SIMPLE MAINTENANCE

- Seal, head and gear replacement can usually be done in place without removing pump from piping

SELF-PRIMING

- Enables priming if pump is above liquid level
- Some Viking pumps are capable of suction lifts up to 20 ft (6 m)

REVERSIBLE DIRECTION OF FLOW

- Use same pump for loading and unloading or line stripping

QUALITY & LAB SERVICES

ANALYTICAL SERVICES FOR OPTIMUM PERFORMANCE

- Enable best possible pump selection for your liquids and process conditions
- Validate pump performance before installation with certified pump tests
- Satisfy engineering specifications and governmental regulations
- Test your pump only, or the complete unit (pump, reducer & drive)
- Guarantee accuracy with NIST-traceable calibration
- Test at your required viscosities

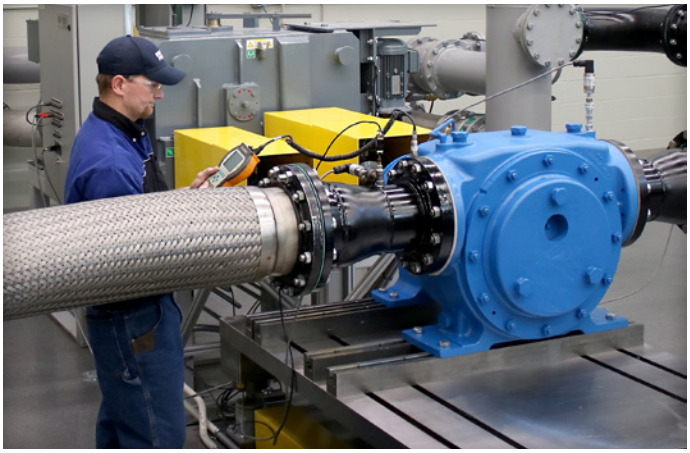
LAB RESOURCES

- Dynamometers
- Data Acquisition Tools
- Viscometer
- Test Liquids from 28 to 25,000 SSU
- Machine Shop

TESTING SERVICES

- Pneumatic Testing
- NPSHr Testing
- Sound & Vibration
- Visual Inspection & Measurements
- Material Testing
- Liquid Sample Analysis
- Positive Material Identification
- Traceability
- Non-Destructive Examination (NDE)

Watch our product engineering lab video



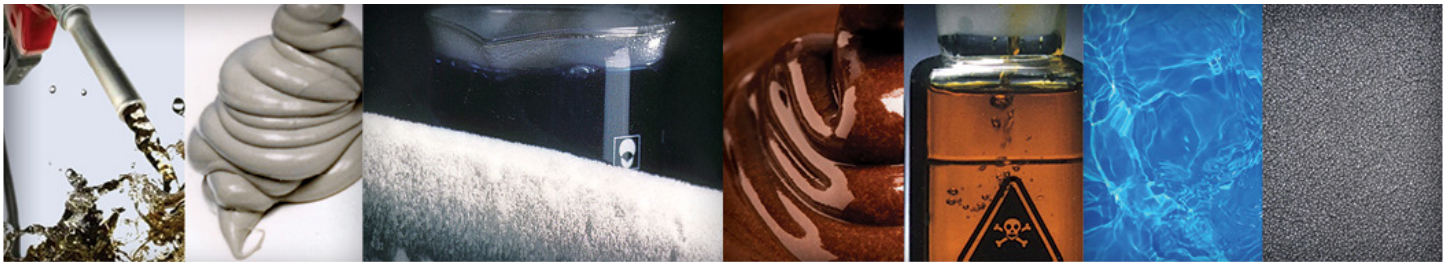
CERTIFIED PERFORMANCE TEST

- Factory testing to ensure your Viking pump meets your performance requirements
- Using state-of-the-art dynamometers and data gathering software, tests can be performed on a variety of liquids to best duplicate your unique conditions of service
- 9 dynamometers through 300 HP
- Oils, solvents, water and other test fluids
- Witnessed testing available

CERTIFIED HYDROSTATIC TEST

- Hydrostatic testing ensures that your pump will not leak at or beyond your application pressure, using petroleum-based or non-petroleum test fluid
- Test condition is at 1.5x the maximum operating pressure or 250 PSI (whichever is greater)
- Pressure and duration may be changed to meet customer specifications
- Pneumatic testing also available

Note: Not all tests are available at all manufacturing locations.



WE HAVE THE PRODUCTS FOR YOUR INDUSTRY

We have experience with thousands of liquids that allow us to deliver proven solutions for your application, whether it is thin / thick, hot / cold, edible / toxic, liquid / solid and much more.

BEVERAGES

- Distillers & Vinters
- Fruit & Vegetable Purees
- Carbonated Drinks

CHEMICALS

- Acids & Bases
- Alcohols & Solvents
- Soaps & Detergents

COATINGS & SEALANTS

- Paints, Dyes & Inks
- Adhesives
- Caulks

DAIRY

- Butter
- Cheese
- Cream

FOODS

- Liquid Sugars
- Chocolate & Confectionery
- Edible Oils

FUELS

- Refined Fuels
- Biofuels
- Liquefied Gases

MACHINERY

- Fuel & Lube
- Heat Transfer Liquids
- Filtration

OILS

- Crude Oils
- Lube Oil & Greases
- Asphalt & Bitumens

PERSONAL CARE

- Lotions & Creams
- Toothpaste
- Hair & Skin Care

PHARMACEUTICAL

- Medicinal Chemicals
- Creams & Ointments
- Blood & Plasma Processing

POLYMERS

- Rubbers & Plastics
- Fibers & Resins
- Polyurethanes

PULP & PAPER

- Coatings
- Starch
- Black Liquor Soap

PRODUCT QUICK VIEW GUIDE

SEGMENT	VIKING PUMP INDUSTRIAL SOLUTIONS							
PRODUCT LINES	Universal				Motor Speed			
EXTERNAL MATERIAL	Ductile Iron	Cast Iron	Steel Externals	Stainless Steel	Ductile Iron	Cast Iron	Steel Externals	Stainless Steel
PERFORMANCE*								
Maximum Flow – GPM	500	1,600	1,600	1,600	190	580	115	75
Maximum Flow – LPM		6,057	6,057	6,057	719	2,196	435	284
Maximum Flow – m^3/h	114	363	363	363	43	132	27	17
Maximum Pressure – PSI	200	200	200	200	500	250	250	200
Maximum Pressure – BAR	14	14	14	14	34	17	17	14
Maximum Viscosity – SSU	2,000,000	2,000,000	2,000,000	2,000,000	1,000,000	25,000	25,000	25,000
Maximum Viscosity – cSt	440,000	440,000	440,000	440,000	250,000	5,500	5,500	5,500
Temperature Range – °F	-60°F to +650°F	-40°F to +450°F	-20°F to +800°F	-120°F to +500°F	-60°F to +450°F	-40°F to +350°F	-20°F to +350°F	-40°F to +350°F
Temperature Range – °C	-50°C to +345°C	-40°C to +230°C	-30°C to +430°C	-85°C to +260°C	-50°C to +230°C	-40°C to +180°C	-30°C to +180°C	-40°C to +180°C
SEALING								
Packing	✓	✓	✓	✓				
Lip Seal					✓	✓		
O-Pro® Seal		✓		✓				
O-Ring Seal								
Behind the Rotor Seal		✓		✓		✓	✓	✓
Component Mechanical Seal	✓	✓	✓	✓	✓			
Cartridge Mechanical Seal	✓	✓	✓	✓				
Cartridge Triple Lip Seal	✓	✓	✓	✓				
API 682 Seal			✓	✓				
Sealless Mag Drive		✓	✓	✓	✓	✓	✓	✓
JACKETING OPTIONS								
Head / Bracket		✓	✓	✓				
Casing / Head / Bracket (Full)		✓	✓	✓				
PORTING								
Right Angle (90º)	✓	✓	✓	✓				
Opposite (180º)	✓	✓	✓	✓	✓	✓	✓	✓
NPT	✓	✓		✓	✓	✓		
Flanged	✓	✓	✓	✓		✓	✓	✓
SAE Flange					✓			
Rectangular Flange								
Threaded								
Hygienic Clamp								
SAE O-Ring					✓			
MOUNTING								
Foot Mount	✓	✓	✓	✓	✓	✓	✓	✓
Motor Mount (Close-Coupled)					✓	✓	✓	✓
Vertical Mount					✓	✓	✓	
PAGE	**18-19**		**20-21**	**22-23**	**24-25**	**26-27**	**28-29**	**30-31**

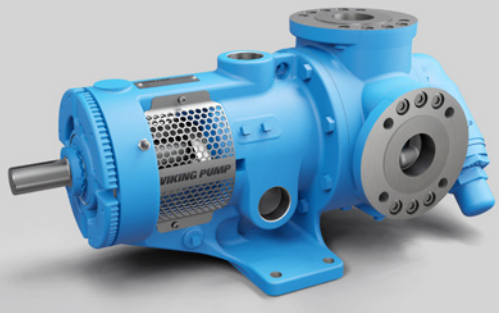
* Maximums and ranges are catalog standard ratings, special construction may be needed or allow for performance exceeding the ratings.

		VIKING PUMP HYGIENIC SOLUTIONS	
Circumferential Piston	Rotary Lobe	Circumferential Piston	Rotary Lobe
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
450	832	450	832
1,703	3,149	1,703	3,149
102	189	102	189
500	218	500	218
34	15	34	15
2,000,000	2,000,000	2,000,000	2,000,000
440,000	440,000	440,000	440,000
to +300°F	to +355°F	to +300°F	to +355°F
to +150°C	to +180°C	to +150°C	to +180°C
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
	✓		✓
32-33	34-35	32-33	34-35

NEW & IMPROVED DESIGN AVAILABLE IN STEEL & STAINLESS STEEL

The **ProPort™ casing** utilizes mounting pads on each port designed to fit a variety of different flange types and sizes, enabling flexibility when connecting pumps to piping.

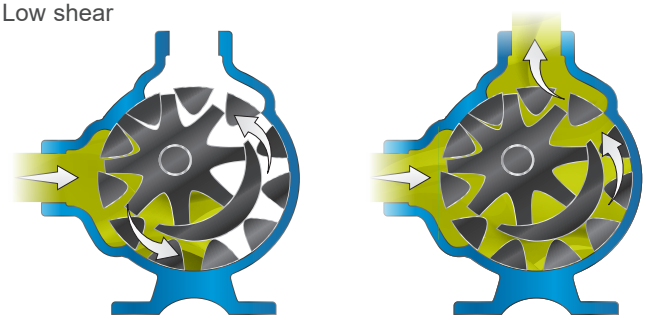
The **U-Plus™ bracket** offers seal location to be in the stuffing box OR behind the rotor, giving more flexibility to make changes down the line.



INTERNAL GEAR PUMPS

WHY? *The internal gear pump is the "workhorse" of countless manufacturing processes.*

- Broadest selection of materials, designs, seals, ports & displacements
- Adjustable clearances enable handling viscosities from 28 to 2,000,000 SSU (1 to 440,000 cSt)
- Low shear



INCLUDED PRODUCTS

- 126A Series™
- 4126A Series™
- 124A Series™
- 124E Series™
- 224A Series™
- 324A Series™
- 324E Series™
- 1124A Series™
- 1224A Series™
- 1324A Series™
- 4124A Series™
- 4224A Series™
- 4324A Series™
- 4124B Series™
- 4224B Series™
- 8124A Series™
- 123C Series™
- 223C Series™
- 323A Series™
- 4123C Series™
- 4223C Series™
- 4323A Series™
- 4223AA Series™
- 4323AA Series™
- 4223AX Series™
- 4323AX Series™
- 4624B Series™
- 4924A Series™
- 8123A Series™
- 127C Series™
- 227C Series™
- 327A Series™
- 1127C Series™
- 1227C Series™
- 1327A Series™
- 4127C Series™
- 4227C Series™
- 4327A Series™
- 4227AA Series™
- 4327AA Series™
- 4227AX Series™
- 4327AX Series™
- 724 Series™
- 4724 Series™
- 8127A Series™
- 495 Series™
- 4195 Series™
- 32 Series™
- 34 Series™
- 75 Series™
- 475 Series™
- 895 Series™
- 493 Series™
- 4193 Series™
- 893 Series™
- 4197 Series™
- 897 Series™

CERTIFICATIONS

Note: Not available for all products in all markets.

KEY PUMPING ELEMENTS

MATERIALS OF CONSTRUCTION & CONFIGURATION OPTIONS

EXTERNALS (HEAD, CASING, BRACKET)

Cast iron, ductile iron, steel, stainless steel, and other alloys

INTERNALS (ROTOR, IDLER)

Cast iron, ductile iron, steel, hardened steel, stainless steel, and other alloys

BUSHINGS (SLEEVE BEARINGS)

Carbon graphite, bronze, hardened cast iron, silicon carbide, tungsten carbide, and other specials materials as needed

SHAFT SEAL

Lip seals, packing, O-Pro® seals, component mechanical seals, industry-standard cartridge mechanical seals, API 682 seals and sealless magnetic couplings

TYPICAL APPLICATIONS

Common internal gear pump applications include, but are not limited to:

- All varieties of refined fuels & lubricants
- Resins & polymers
- Alcohols & solvents
- Asphalt, bitumen & pitch
- Polyurethane foam (isocyanates, polyols & additives)
- Food products such as corn syrup, chocolate & peanut butter
- Paint, inks & pigments
- Soaps & surfactants
- Heat transfer fluids

Learn how internal gear pumps work

ADVANTAGES

Only Two Moving Parts | Reliable & easy to maintain

Adjustable End Clearances | For low or high viscosities, high temperatures, or to compensate for wear over time

Shaft Seal Options | Including packing, lip seal, O-Pro® seals, component seal, cartridge seal and sealless mag drive

Porting Options | Viking's broadest selection of port locations, configurations and types

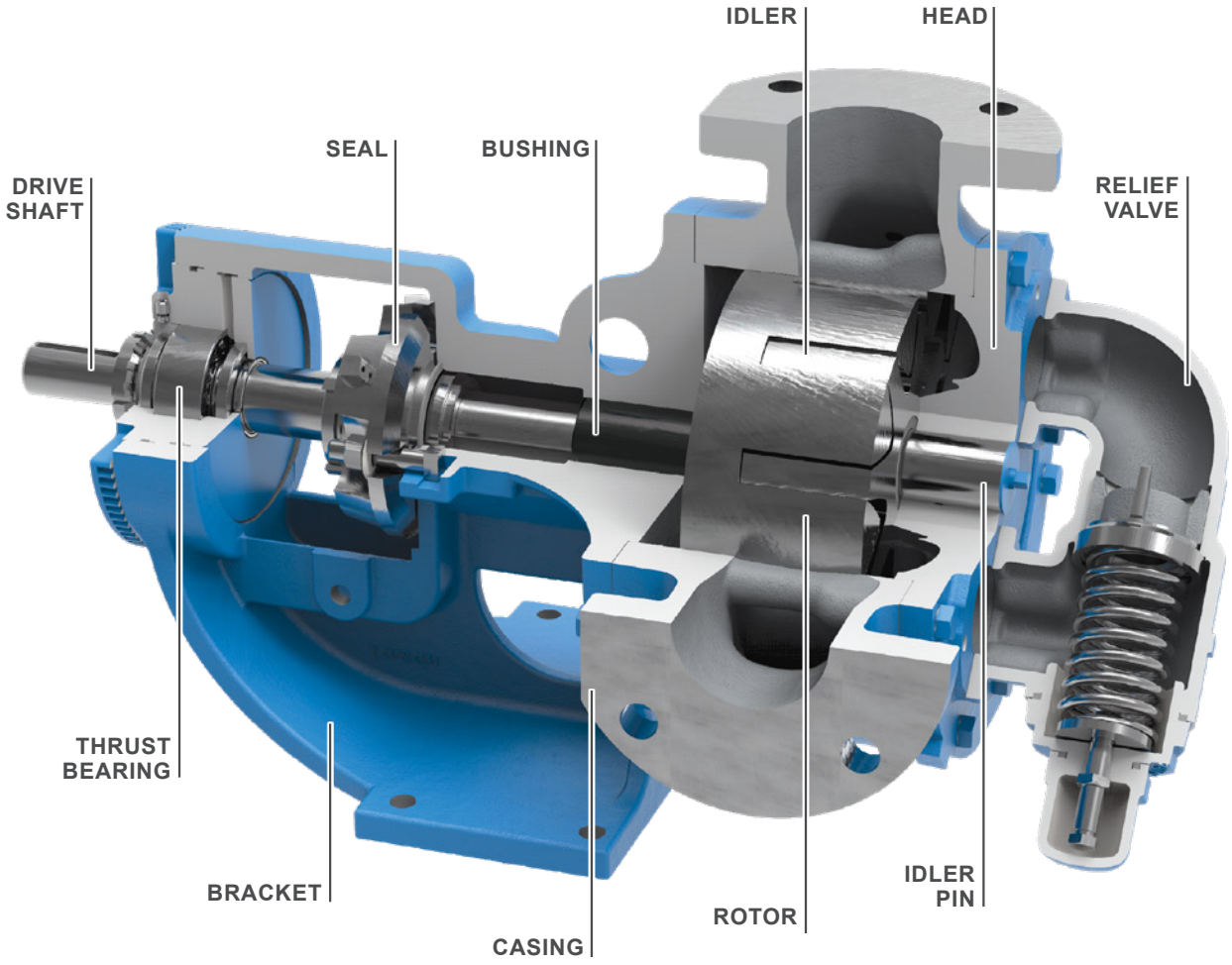
Smooth, Non-Pulsing Flow | For accurate flow measurement

One Shaft Seal | More reliable and lower cost than two or four seals used on timed lobe and screw pumps

Compact, Close-Coupled Options | For motor speed operation or with gearmotors

U-Plus™ Bracket | Seal chamber accepts a variety of seal types, such as mechanical seal, cartridge seal, behind the rotor seal, O-Pro® seal, etc.

ProPort™ Casing | Adaptable port design offers a variety of port sizes and types, enabling flexibility when connecting pumps to piping



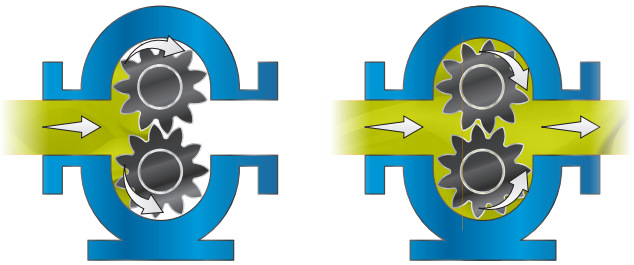
* With special construction

CAPACITY	PRESSURE	VISCOSITY*	TEMPERATURE*
to 1,600 GPM (363 m^3/h)	to 250 PSI (17 BAR)	to 2,000,000 SSU (440,000 cSt)	-120°F to +800°F (-85°C to +430°C)

EXTERNAL GEAR PUMPS

WHY? *The external gear pump is the ultimate solution for high pressure, low flow pumping.*

- Bearing support on both sides of the gears enables differential pressures to 500 PSI (34 BAR), or Intermittent to 2,500 PSI (170 BAR)
- Motor speed operation eliminates cost of speed reducer
- Eliminates lubrication – no external axial or radial bearing required in most applications



INCLUDED PRODUCTS

- SG-04 Series™
- SG-05 Series™
- SG-405 Series™
- SG-805 Series™
- SG-07 Series™
- SG-407 Series™
- SG-807 Series™
- SG-10 Series™
- SG-410 Series™
- SG-14 Series™
- SG-414 Series™
- CMD Series™

CERTIFICATIONS

Note: Not available for all products in all markets.

Learn how external gear pumps work

MATERIALS OF CONSTRUCTION & CONFIGURATION OPTIONS

EXTERNALS (HEAD, CASING, BRACKET*)

Ductile iron, carbon-filled PVDF (CMD Series™ only)

*** SG-10 Series™ and SG-14 Series™ brackets are Cast Iron**

INTERNALS (SHAFTS)

Steel, alumina ceramic (CMD Series™ only)

INTERNALS (GEARS)

Steel, carbon filled PTFE (CMD Series™ only)

BUSHINGS (SLEEVE BEARINGS)

Carbon, silicon carbide, needle bearings

SHAFT SEAL

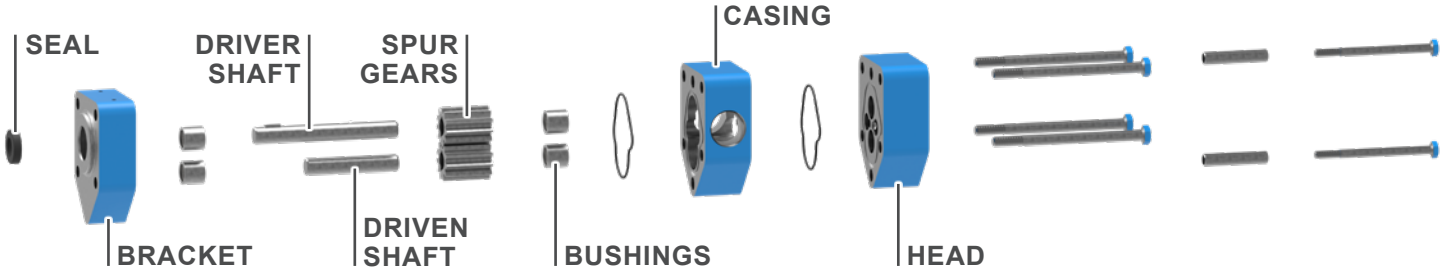
Lip seal, component mechanical seal, sealless magnetic couplings

TYPICAL APPLICATIONS

Common external gear pump applications include, but are not limited to:

- Various fuel oils & lube oils
- Chemical additive & polymer metering
- Cooking oil filtration / reclamation
- Isocyanates & polyols
- Industrial & mobile hydraulic applications
- Low volume transfer or application

KEY PUMPING ELEMENTS



ADVANTAGES

Higher Pressure Capabilities | With continuous differential pressures to 500 PSI (34 BAR)

Shaft Extension Options | Include keyed, tang and spline

Shaft Seal Options | Including lip seal, component mechanical seal and sealless mag drive options

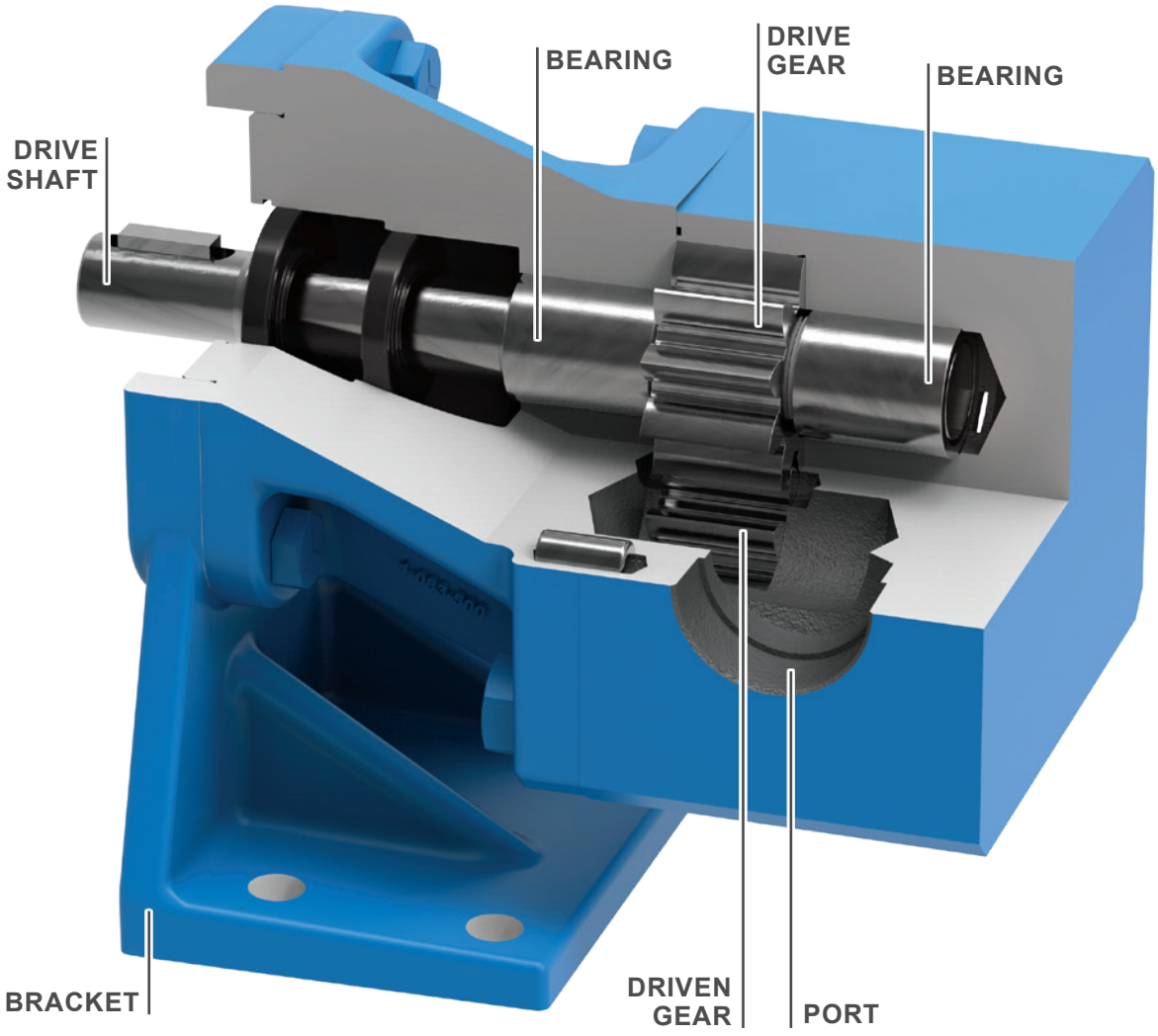
Compact, Close-Coupled Options | For motor speed operation or with gearmotors

Smooth, Non-Pulsing Flow | For accurate flow measurement

Reliable & Easy to Maintain | With only two moving parts

One Shaft Seal | More reliable and lower cost than two used on timed lobe and screw pumps

Precision Clearances | For low flow metering and dosing applications down to 0.06 GPM (0.23 LPM)



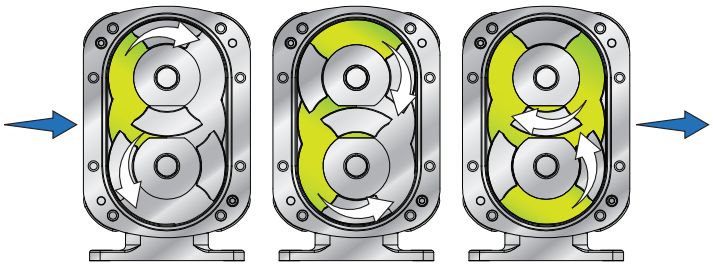
* With special construction

CAPACITY	PRESSURE	VISCOSITY*	TEMPERATURE*
to 190 GPM (719 LPM)	to 500 PSI (34 BAR) *Intermittent to 2,500 PSI (170 BAR)*	to 1,000,000 SSU (250,000 cSt)	-40°F to +450°F (-40°C to +230°C)

CIRCUMFERENTIAL PISTON PUMPS

WHY? *Gentle handling of high value shear sensitive liquids across hygienic and industrial applications.*

- Wide range of displacements with high pressure capabilities
- Excellent at solids handling
- Low shear characteristics across a wide range of product viscosities



INCLUDED PRODUCTS

- Revolution® Series
- TRA®20 Series
- TRA®10 Series

CERTIFICATIONS

Learn how circumferential piston pumps work

MATERIALS OF CONSTRUCTION & CONFIGURATION OPTIONS

PRODUCT WETTED

Rotorcase, Rotor Retainers, Front Cover:
316 / 316L stainless steel

Rotors:
Alloy 808 & 316 / 316L stainless steel

GEARBOX (GEARBOX, MOUNTING FEET & BACK PLATES)

Stainless Steel & cast iron, dependent on pump series & size

SHAFT SEALS

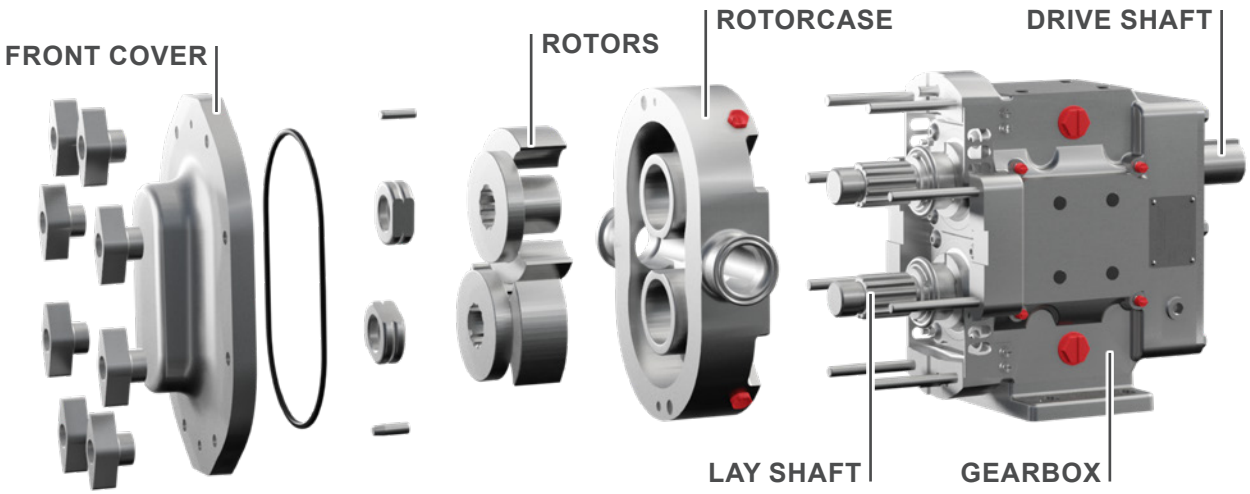
Single & double mechanical seals, single & double O-ring seals

TYPICAL APPLICATIONS

Common circumferential piston pump applications include, but are not limited to:

- Food products: processed meats, vegetables, sauces & condiments
- Confectionary: chocolate, fondants
- Beverages: alcoholic, soft
- Dairy products: milk, cheese, yogurts
- Personal care products: shampoo, soaps, deodorants, cosmetics
- Pet foods
- Pulp & paper
- Chemicals: lubricants, paints & pigments, polymers

KEY PUMPING ELEMENTS



Circumferential Piston Pumps are widely used in many hygienic and industrial fluid handling applications where gentle handling, cleanability and efficiency are paramount.

ADVANTAGES

Shaft Sealing Options | Include single & double mechanical seals, single & double O-ring seals

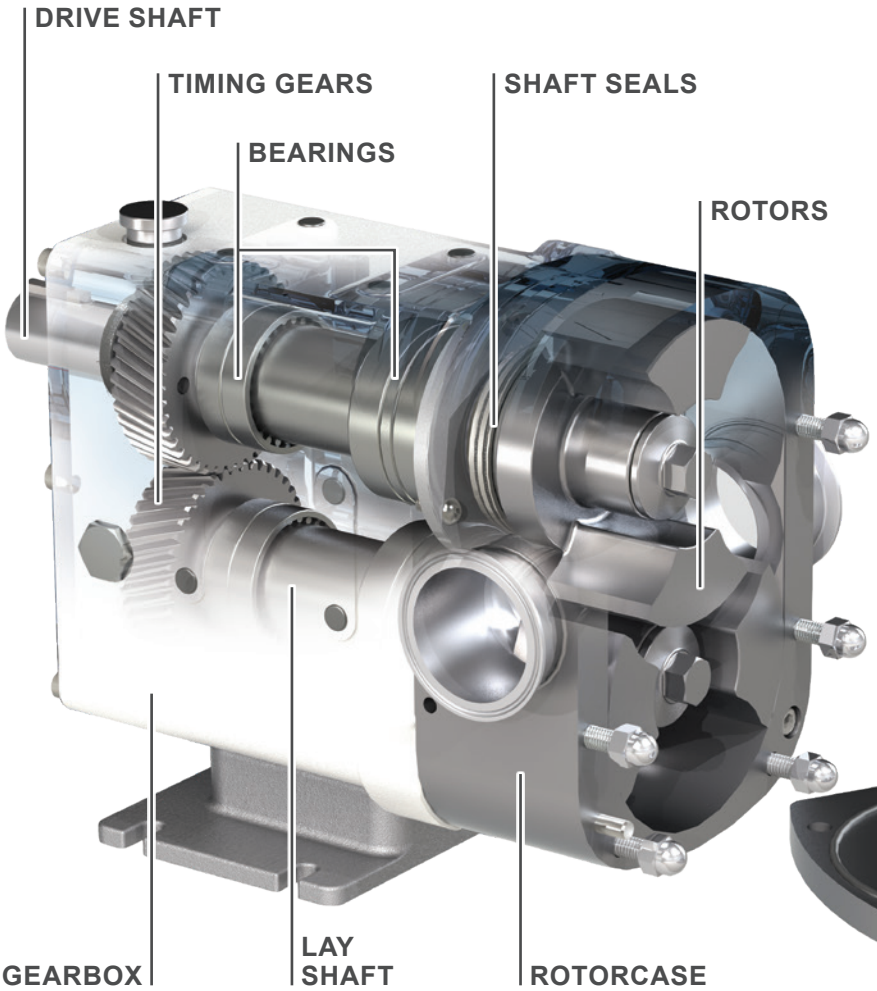
Porting Options | Multiple porting options cover hygienic and industrial threaded, clamp and flanges arrangements

Low Shear Pump Design | Gentle handling of delicate and shear sensitive products

Solids Handling | Will handle a wide range of products including suspended solids

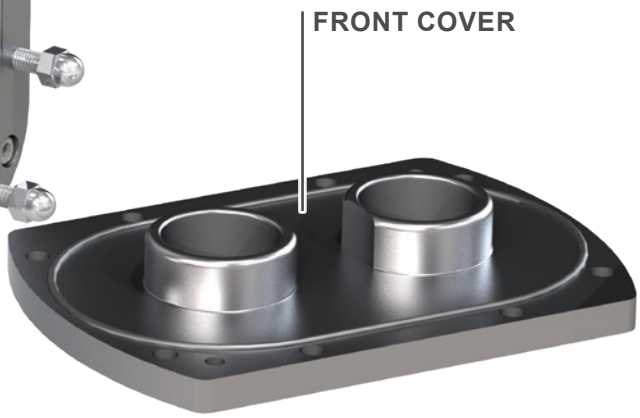
Efficiency | High volumetric efficiency on low viscosity products

Hygienic Designs | Used in a wide range of hygienic industries where cleanliness is important



REMANUFACTURE & SAVE!

Check out "Why Remanufacture?" on page 40 to learn more.

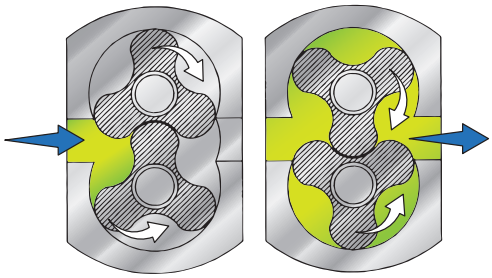


CAPACITY	PRESSURE	VISCOSITY	TEMPERATURE
to 450 GPM (102 m^3/h)	to 500 PSI (34 BAR)	to 2,000,000 SSU (440,000 cSt)	to +300°F (+150°C)

ROTARY LOBE PUMPS

WHY? *Gentle handling of high value shear sensitive liquids across hygienic and industrial applications.*

- Wide range of displacements
- Good solids handling capabilities
- Low shear characteristics across a wide range of product viscosities



INCLUDED PRODUCTS

- SteriLobe® Series
- RTP® Series
- Classic+ Series™ / MultiPump® Series

CERTIFICATIONS

Learn how rotary lobe pumps work

MATERIALS OF CONSTRUCTION & CONFIGURATION OPTIONS

PRODUCT WETTED (ROTORCASE, ROTORS, ROTOR RETAINERS, FRONT COVER)

316L stainless steel, other alloys also available

GEARBOX (GEARBOX, MOUNTING FEET & BACK PLATES)

Cast iron & stainless steel, dependent on pump series & size

SHAFT SEALS

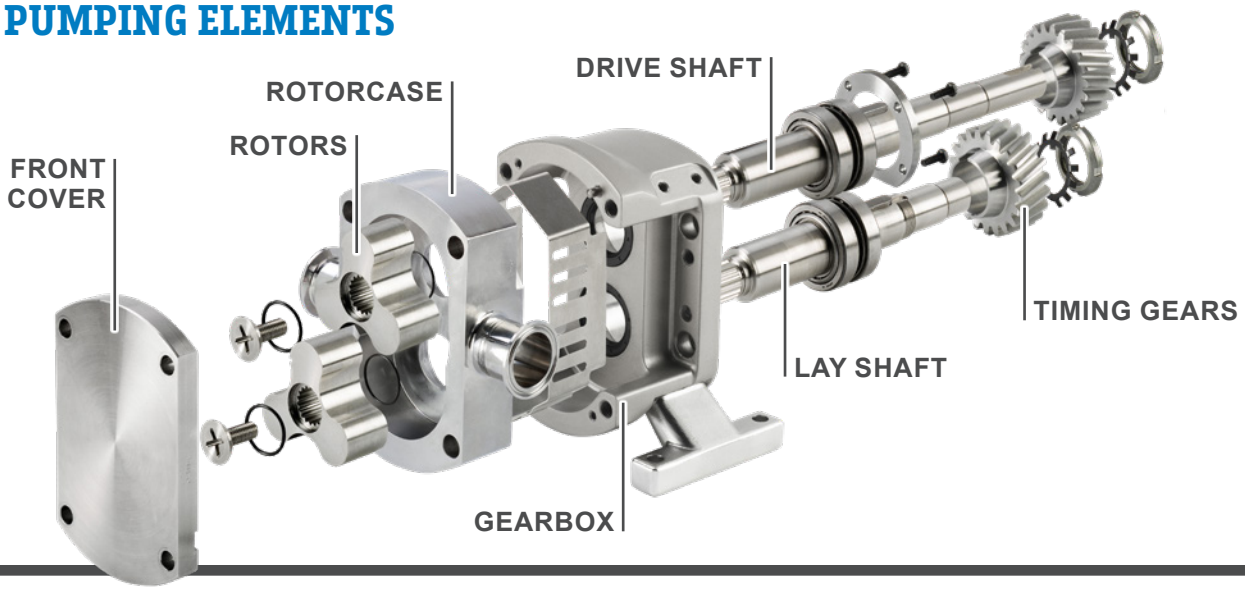
Single, single flushed & double mechanical seals; single & double O-ring seals; composite seals, all dependent on pump series

TYPICAL APPLICATIONS

Common rotary lobe pump applications include, but are not limited to:

- Pharmaceutical & biotech, including vaccines
- Food products: processed meats, vegetables, sauces & condiments
- Confectionary: chocolate, fondants
- Beverages: alcoholic, soft
- Dairy products: milk, cheese, yogurts
- Personal care products: shampoo, soaps, deodorants, cosmetics
- Pet foods
- Pulp & paper
- Chemicals: lubricants, paints & pigments, polymers

KEY PUMPING ELEMENTS



ADVANTAGES

Non Contacting Pumping Principle | No metal on metal contact, avoiding pump wear regardless of product viscosity

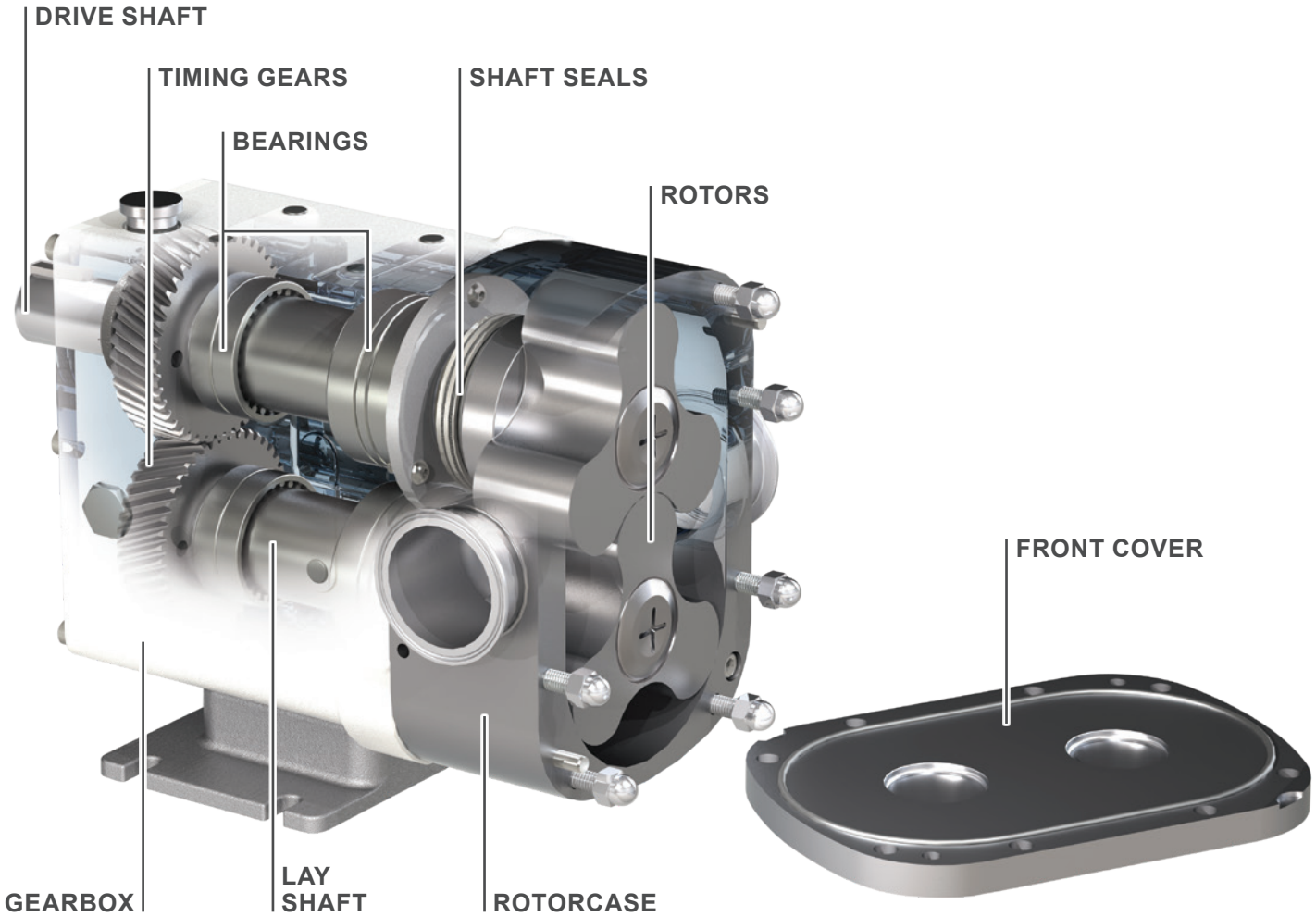
Shaft Sealing Options | Include single, single flushed and double mechanical seals, single and double O-ring Seals and packed glands

Porting Options | Multiple porting options cover hygienic and industrial threaded, clamp and flanges arrangements

Low Shear Pump Design | Gentle handling of delicate and shear sensitive products

Solids Handling | Will handle a wide range of products including suspended solids

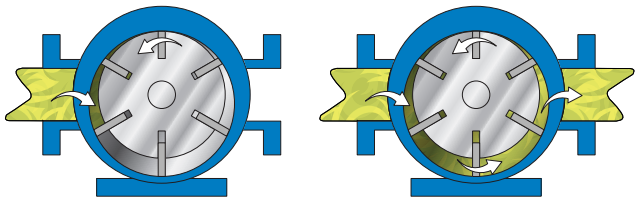
Hygienic Designs | Used in a wide range of hygienic industries where cleanliness is important



CAPACITY	PRESSURE	VISCOSITY	TEMPERATURE
to 832 GPM (189 m^3/h)	to 218 PSI (15 BAR)	to 2,000,000 SSU (440,000 cSt)	to +300°F (+150°C)

VANE PUMPS

WHY? *The vane pump is the ideal solution for high pressure, thin liquid applications.*



INCLUDED PRODUCTS

- LVP Series™

MATERIALS OF CONSTRUCTION & CONFIGURATION OPTIONS

EXTERNALS (HEAD & CASING)

316 stainless steel

INTERNALS (ROTOR & SHAFT)

316 stainless steel

INTERNALS (VANES & PUSH RODS)

PEEK

BUSHINGS

Silicon carbide

SHAFT SEAL

Component mechanical seal, cartridge mechanical seal, cartridge triple lip seal

TYPICAL APPLICATIONS

Common vane pump applications include, but are not limited to:

- Acids & alkalis
- Alcohols & solvents
- Aqueous solutions
- Monomers
- Hexane, pentane
- Refined fuels
- Reactor vessel ingredient metering
- Vacuum vessel service
- Suction lift applications
- Long suction or discharge line applications

Learn how vane pumps work

ADVANTAGES

Opposite Porting | For easy in-line mounting

Seal Chamber | Accommodates the use of component and cartridge seals

Hardened 316SS Housing with Non-Metallic Pumping Elements | Offer broad chemical compatibility and enhanced application flexibility

Rated to 200 PSI | Even on the thinnest liquids

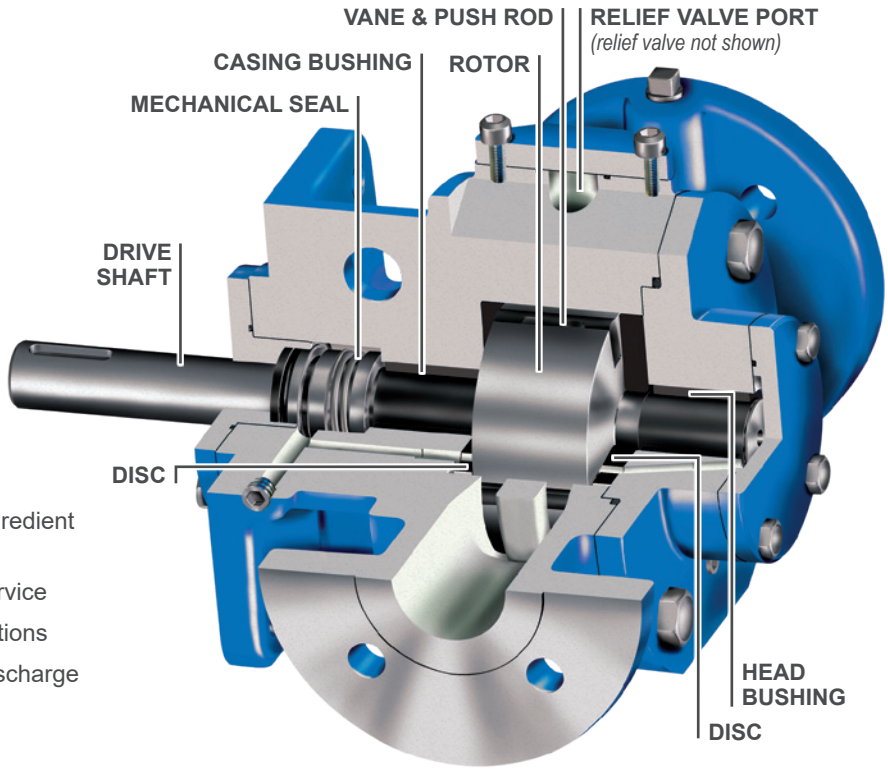
Self-Priming Capabilities | Simplify start-up process

Sliding Vane Design | Self-adjusts for wear to maintain consistent performance

Superior Volumetric & Mechanical Efficiency | For low energy consumption

Internal Relief Valve | Provides over pressure protection

Gauge Ports | Allow simple addition of local or remote monitoring systems



CAPACITY to 160 GPM (36 m^3/h)

PRESSURE to 200 PSI (14 BAR)

VISCOSITY to 2,300 SSU (to 500 cSt)

TEMPERATURE -60°F to +350°F (-50°C to +175°C)

PUMP PRINCIPLE COMPARISON

CHARACTERISTICS		 INTERNAL GEAR	 EXTERNAL GEAR	 CIRCUMFERENTIAL PISTON	 ROTARY LOBE	 SLIDING VANE
Self-Priming / Pulls Suction Lift		Yes	Yes	Yes	Yes	Yes
Reversible Flow		Yes	No	Yes	Yes	No
Run-Dry Capability		Yes, for a short time, if fluid film in pump	Yes, for a short time, if fluid film in pump	Yes, indefinitely with seal flush	Yes, indefinitely with seal flush	Yes, for a short time, if fluid film in pump
Pulsation		Low	Low	Moderate	Moderate	Moderate
Flow Independent of Pressure		Yes	Yes	Yes	Yes	Yes
Soft Solids Handling		Small	No	Yes	Yes	No
Abrasives Handling		Yes (with hardened parts)	No	No	No	No
Non-Lubricating Fluid Capabilities		Good	Good	Excellent	Excellent	Excellent
Max. Viscosity Limits (cPs)		1,000,000	1,000,000	1,000,000	1,000,000	25,000
Multi-Phase Flow Capability		Yes	Yes	No	No	No
Min Flow	(GPM)	0.1	0.001	0.1	0.1	5
	(m^3/h)	0.02	0.0002	0.02	0.02	1.1
Max Flow	(GPM)	1,500	1,500	3,000	3,000	2,000
	(m^3/h)	341	341	681	681	454
Max Pressure	(PSI)	250	3,000	500	500	150
	(BAR)	17	207	34	34	10
Max Temperature	(°F)	800	500	300	400	225
	(°C)	425	260	150	205	105
Efficiency		High	High	High	High	High
Shear Rate		Low (at low RPMs)	Medium	Low	Low	High
Metering Accuracy		High	High	High	High	Medium
Noise level		Medium	Medium	Medium	Medium	Medium
Sealless		Yes (with optional mag drive)	Yes (with optional mag drive)	No	No	No
Number of Shaft Seals		1	1	2 or 4	2 or 4	1
Sanitary Designs		No	No	Yes	Yes	No
Other Advantages		Simple, two-moving part design, easy to repair Only one or two bearings run in pumpage	Runs at motor speeds Low flow, high pressure	Clean-in-place capabilities	Clean-in-place and sterilize-in-place capabilities	Vanes compensate for wear to maintain efficiency
Other Disadvantages		May require reduced speeds Overhung load on rotor shaft	Four bushings run in pumpage	Requires timing gears Overhung load on shafts	Requires timing gears Overhung load on shafts	Vane wear
Relative Initial Cost		Moderate	Moderate	High	High	Moderate

FEATURES & BENEFITS

- Rugged and reliable, yet economical
- Widest range of sizes and options available to suit almost any non-corrosive application
- Tightest clearances for high efficiency and excellent priming capability
- Universal stuffing box that accepts packing, O-Pro® seals, component seals or cartridge mechanical seals

TYPICAL APPLICATIONS

- Adhesives
- Asphalt & Bitumens
- Paints & Inks
- Polymers
- Resins
- Chocolate
- Peanut Butter
- Molasses
- Refined Fuels
- Edible Oils
- Non-Corrosive Chemicals

PERFORMANCE

INTERNAL GEAR MODELS									SPECIFICATIONS				
Non-Jacketed					Jacketed				Performance			Standard Ports	
Packing	O-Pro® Seal	Mechanical Seal	Behind the Rotor Seal	Mag Drive	Packing	O-Pro® Seal	Mechanical Seal	Behind the Rotor Seal	Max Speed, RPM	GPM	m^3/h	Size, Inches	Type
G124A	—	G4124A	G4124B	—	—	—	—	—	1750	8	1.8	1	NPT
H124A	H1124A	H4124A	H4124B	H8124A	H224A	H1224A	H4224A	H4224B	1750	15	3.4	1.5	NPT
HL124A	HL1124A	HL4124A	HL4124B	HL8124A	HL224A	HL1224A	HL4224A	HL4224B	1750	30	6.8	1.5	NPT
AK124A	—	AK4124A	AK4124B	—	—	—	—	—	1450	65	15	2	NPT
AL124A	—	AL4124A	—	—	—	—	—	—	1450	90	20	2	NPT
K124A	K1124A	K4124A	K4124B	K8124A	K224A	K1224A	K4224A	K4224B	780	80	18	2	NPT
KK124A	KK1124A	KK4124A	KK4124B	KK8124A	KK224A	KK1224A	KK4224A	KK4224B	780	100	23	2	NPT
L124A	L1124A	L4124A	L4124B	L8124A	L224A	L1224A	L4224A	L4224B	640	135	31	2	NPT
LQ124A	LQ1124A	LQ4124A	LQ4124B	LQ8124A	LQ224A	LQ1224A	LQ4224A	LQ4224B	640	135	31	2.5	Flange
LL124A	LL1124A	LL4124A	LL4124B	LL8124A	LL224A	LL1224A	LL4224A	LL4224B	640	170	39	3	Flange
LS124A	LS1124A	LS4124A	LS4124B	LS8124A	LS224A	LS1224A	LS4224A	LS4224B	640	200	45	3	Flange
Q124A	Q1124A	Q4124A	Q4124B	Q8124A	Q224A	Q1224A	Q4224A	Q4224B	520	300	68	4	Flange
QS124A	QS1124A	QS4124A	QS4124B	QS8124A	QS224A	QS1224A	QS4224A	QS4224B	520	500	114	6	Flange
M124A	—	M4124A	—	—	M224A	—	M4224A	—	420	420	95	4	Flange
—	—	—	—	—	N324A	N1324A	N4324A	—	350	600	136	6	Flange
—	—	—	—	—	R324A	R1324A	R4324A	—	280	1,100	250	8	Flange
—	—	—	—	—	RS324A	RS1324A	RS4324A	—	280	1,600	363	10	Flange

NOTE: Refer to the catalog section of a particular product series for specific performance details.

PORTING

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

SEALING

- Packing
- O-Pro® Seal
- Behind the Rotor Seal
- Component Mechanical Seal
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal
- Sealless Mag Drive

MOUNTING

- Foot Mount

OPTIONS

- Jacketing
- Ductile Iron (126A Series™, 4126A Series™)

DRIVES

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Refer to "Appendix A" on page 42 for more information on drives.

Refer to "Appendix B" on page 43 for more information on seals and porting.

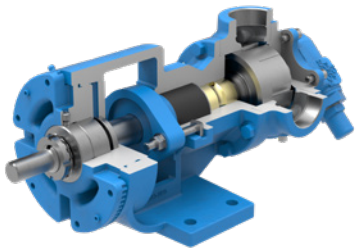
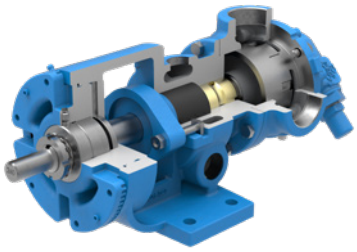
CAPACITY to 1,600 GPM (363 m^3/h)

PRESSURE to 200 PSI (14 BAR)

VISCOSITY to 2,000,000 SSU (to 440,000 cSt)

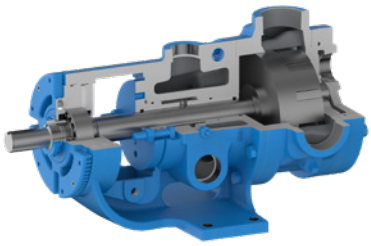
TEMPERATURE -60°F to +450°F (-50°C to +230°C)



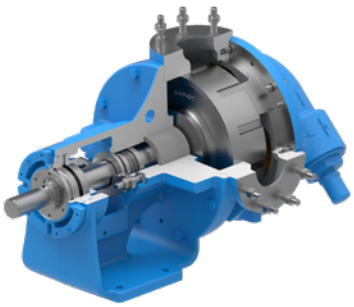
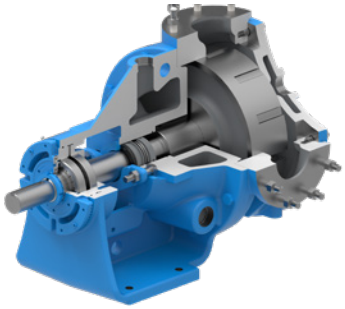
124A *(non-jacketed, packing)*
224A *(jacketed, packing)*
324A *(jacketed, packing)*

- Handle the highest viscosity liquids, up to 2,000,000 SSU
- Packing requires some minimal leakage for cooling and lubrication

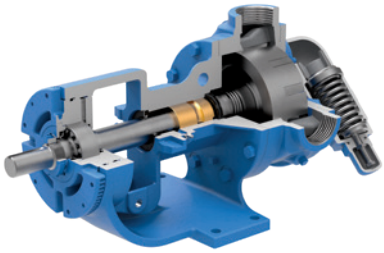
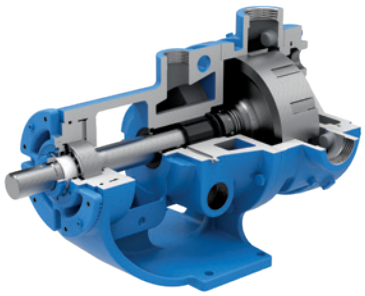
1124A *(non-jacketed, O-Pro® Barrier seal)*
1224A *(jacketed, O-Pro® Barrier seal)*
1324A *(jacketed, O-Pro® Barrier seal)*

- O-Pro® Barrier is a single piece seal that replaces both the shaft bushing and seal, provides easy maintenance for high viscosity and hard to seal liquids

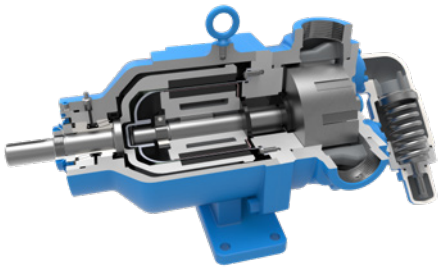
4124A *(non-jacketed, mechanical seal)*
4224A *(jacketed, mechanical seal)*
4324A *(jacketed, mechanical seal)*

- Component and cartridge mechanical seals handle lower viscosity liquids with minimal leakage
- The bearing housing opening enables seal maintenance or replacement without removing the pump

4124B *(non-jacketed, behind the rotor seal)*
4224B *(jacketed, behind the rotor seal)*

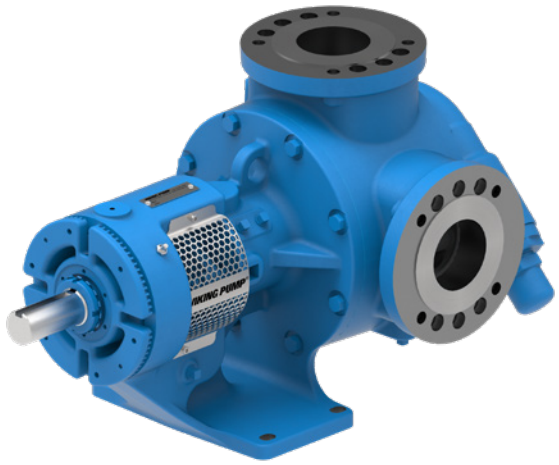
- Value-oriented pumps, with a mechanical seal located directly behind the rotor, and a greased bracket bushing not contacting the process liquid, allowing for long life
- Optional hard-faced, pin driven mechanical seals enable operation on abrasive liquids and on viscosities up to 250,000 SSU (55,000 cSt)



8124A *(sealless mag drive)*

- Eliminates the shaft seal to provide the highest level of liquid and vapor containment
- All liquid and vapor is hermetically sealed in the pump
- Used especially for hazardous and difficult-to-seal liquids

Note: Product images may not reflect standard construction.



FEATURES & BENEFITS

- For refinery and petrochemical applications
- Recommended for extremely high temperatures
- Widest range of sealing options available

TYPICAL APPLICATIONS

- Crude Oil
- Fuels
- Lube Oil
- Basic Petrochemicals
- Asphalts & Bitumens
- Heat Transfer Fluids

U-Plus™ Bracket | Seal chamber accepts a variety of seal types, such as mechanical seals, cartridge seals, behind the rotor seals, O-Pro® seals, etc.

ProPort™ Casing | Adaptable port design offers a variety of port sizes and types, enabling flexibility when connecting pumps to piping

PERFORMANCE

INTERNAL GEAR MODELS							SPECIFICATIONS				
Non-Jacketed			Jacketed				Performance			Standard Ports	
U-Plus™ Bracket & ProPort™ Casing			U-Plus™ Bracket & ProPort™ Casing *								
Packing	Mechanical Seal	Mag Drive	Packing	Mechanical Seal	API 682 Seal		Max Speed, RPM	GPM	m^3/h	Size, Inches	Type
H123C	H4123C	H8123A	H223C	H4223C	H4223AA	—	1750	15	3.4	1.5	Flange
HL123C	HL4123C	HL8123A	HL223C	HL4223C	HL4223AA	HL4223AX	1750	30	7	1.5	Flange
K123C	K4123C	K8123A	K223C	K4223C	K4223AA	—	780	80	18	2	Flange
KK123C	KK4123C	KK8123A	KK223C	KK4223C	KK4223AA	KK4223AX	780	100	23	2	Flange
L123C	L4123C	LQ8123A	L223C	L4223C	LQ4223AA	—	640	135	30	2.5	Flange
LL123C	LL4123C	LL8123A	LL223C	LL4223C	LL4223AA	—	640	170	39	3	Flange
LS123C	LS4123C	LS8123A	LS223C	LS4223C	LS4223AA	LS4223AX	640	200	45	3	Flange
Q123C	Q4123C	Q8123A	Q223C	Q4223C	Q4223AA	Q4223AX	520	300	68	4	Flange
QS123C	QS4123C	QS8123A	QS223C	QS4223C	QS4223AA	QS4223AX	520	500	114	6	Flange
—	—	—	N323A	N4323A	N4323AA	N4323AX	350	600	136	6	Flange
—	—	—	R323A	R4323A	R4323AA	R4323AX	280	1,100	250	8	Flange
—	—	—	RS323A	RS4323A	R4323AA	—	280	1,600	363	10	Flange

NOTE: Refer to the catalog section of a particular product series for specific performance details.

*** U-Plus™ Bracket and ProPort™ Casing do not apply to N, R and RS size pumps.**

PORTING

- Right Angle (90°) (Rotatable Casing)
- Opposite (180°) (Rotatable Casing)
- Flanged (ANSI/ASME or DIN Compatible)

SEALING

- Packing
- Component Mechanical Seal
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal
- API 682 Seal
- Sealless Mag Drive

MOUNTING

- Foot Mount

OPTIONS

- Jacketing
- Low temperature carbon steel down to -50°F (-45°C)

DRIVES

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Refer to "Appendix A" on page 42 for more information on drives.

Refer to "Appendix B" on page 43 for more information on seals and porting.

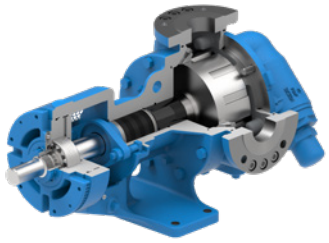
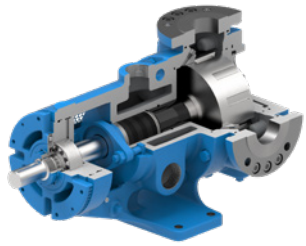
CAPACITY to 1,600 GPM (363 m^3/h)

PRESSURE to 200 PSI (14 BAR)

VISCOSITY to 2,000,000 SSU (to 440,000 cSt)

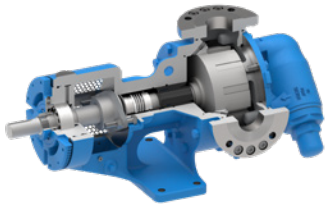
TEMPERATURE -20°F to +800°F (-30°C to +430°C)



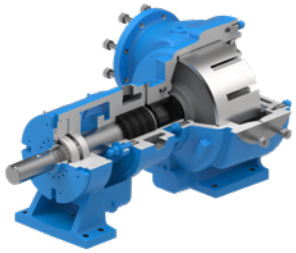
123C *(non-jacketed, packing)*
223C *(jacketed, packing)*

- Handle the highest viscosity liquids, up to 2,000,000 SSU
- Packing requires some minimal leakage for cooling and lubrication
- U-Plus™ bracket accepts various sealing options / ProPort™ casing accommodates a variety of port sizes and types



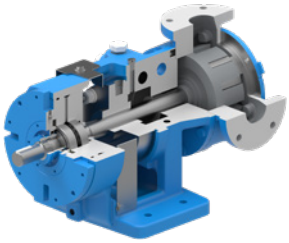
4123C *(non-jacketed, mechanical seal)*
4223C *(jacketed, cartridge seal)*

- Component and cartridge mechanical seals handle lower viscosity liquids with minimal leakage
- The bearing housing opening enables seal maintenance or replacement without removing the pump
- U-Plus™ bracket accepts various sealing options / ProPort™ casing accommodates a variety of port sizes and types



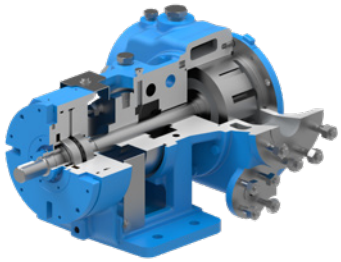
323A *(foot mount casing w/ jacketed bracket, packing)*
4323A *(foot mount casing w/ jacketed bracket, mechanical seal)*

- For refinery and petrochemical applications
- Recommended for extremely high temperatures
- Widest range of sealing options available



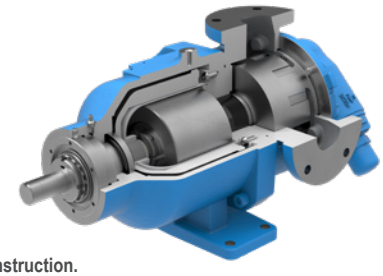

4223AA *(API 682 Seal, API 676 Compliant w/ minor Exceptions)*
4323AA *(API 682 Seal, API 676 Compliant w/ minor Exceptions)*

- Bracket features enlarged bearing housing to fit API 682 Cat. 1, 2 or 3 cartridge seals with seal plans
- Conforms to API 676 4th Edition, with exceptions
- NDE and performance testing required by API 676 is optional



4223AX *(API 682 Seal, API 676 Full Compliance)*
4323AX *(API 682 Seal, API 676 Full Compliance)*

- Conforms fully to API 676 4th Edition, no exceptions
- API 682 Cat. 1, 2 or 3 cartridge seals with seal plans
- All NDE and performance testing required by API 676 is included, as standard



8123A *(sealless mag drive)*

- Eliminates the shaft seal to provide the highest level of liquid and vapor containment
- All liquid and vapor is hermetically sealed in the pump
- Used especially for hazardous and difficult-to-seal liquids

Note: Product images may not reflect standard construction.

FEATURES & BENEFITS

- For corrosion resistance over a wider pH range
- Non-galling gear materials available for handling thin liquid applications

TYPICAL APPLICATIONS

- Soaps, Detergents & Surfactants
- Acids & Caustics
- Water-Based Liquids
- Vegetable Oil
- General Chemicals

U-Plus™ Bracket | Seal chamber accepts a variety of seal types, such as mechanical seals, cartridge seals, behind the rotor seals, O-Pro® seals, etc.

ProPort™ Casing | Adaptable port design offers a variety of port sizes and types, enabling flexibility when connecting pumps to piping

PERFORMANCE

INTERNAL GEAR MODELS									SPECIFICATIONS				
Non-Jacketed				Jacketed					Performance			Standard Ports	
U-Plus™ Bracket & ProPort™ Casing			Mag Drive	U-Plus™ Bracket & ProPort™ Casing			API 682 Seal		Max Speed, RPM	GPM	m³/h	Size, Inches	Type
Packing	O-Pro® Seal	Mechanical Seal		Packing	O-Pro® Seal	Mechanical Seal							
F724	—	F4724*	—	—	—	—	—	—	1750	1.5	0.3	0.5	NPT
FH724	—	FH4724*	—	—	—	—	—	—	1750	3	0.7	0.75	NPT
G724	—	G4724*	—	—	—	—	—	—	1150	5	1	1	NPT
H127C	H1127C	H4127C	H8127A	H227C	H1227C	H4227C	H4227AA	—	1750	15	3.4	1.5	Flange
HL127C	HL1127C	HL4127C	HL8127A	HL227C	HL1227C	HL4227C	HL4227AA	HL4227AX	1750	30	6.8	1.5	Flange
K127C	K1127C	K4127C	K8127A	K227C	K1227C	K4227C	K4227AA	—	780	80	18	2	Flange
KK127C	KK1127C	KK4127C	KK8127A	KK227C	KK1227C	KK4227C	KK4227AA	KK4227AX	780	100	23	2	Flange
L127C	L1127C	L4127C	LQ8127A	L227C	L1227C	L4227C	LQ4227AA	—	640	135	30	2.5	Flange
LL127C	LL1127C	LL4127C	LL8127A	LL227C	LL1227C	LL4227C	LL4227AA	—	640	170	39	3	Flange
LS127C	LS1127C	LS4127C	LS8127A	LS227C	LS1227C	LS4227C	LS4227AA	LS4227AX	640	200	45	3	Flange
Q127C	Q1127C	Q4127C	Q8127A	Q227C	Q1227C	Q4227C	Q4227AA	Q4227AX	520	300	68	4	Flange
QS127C	QS1127C	QS4127C	QS8127A	QS227C	QS1227C	QS4227C	QS4227AA	QS4227AX	520	500	114	6	Flange
—	—	—	—	N327A*	N1327A*	N4327A*	N4327AA	N4327AX	350	600	136	6	Flange
—	—	—	—	R327A*	R1327A*	R4327A*	R4327AA	R4327AX	280	1,100	250	8	Flange
—	—	—	—	RS327A*	RS1327A*	RS4327A*	—	—	280	1,600	363	10	Flange

NOTE: Refer to the catalog section of a particular product series for specific performance details.

*** U-Plus™ Bracket and ProPort™ Casing do not apply to these models.**

PORTING

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

SEALING

- Packing
- O-Pro® Seal
- Behind the Rotor Seal
- Component Mechanical Seal
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal
- API 682 Seal
- Sealless Mag Drive

MOUNTING

- Foot Mount

OPTIONS

- Jacketing

DRIVES

Ⓡ Ⓟ Ⓓ Ⓥ

Refer to "Appendix A" on page 42 for more information on drives.

Refer to "Appendix B" on page 43 for more information on seals and porting.

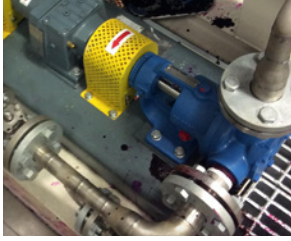
CAPACITY to 1,600 GPM (363 m³/h)

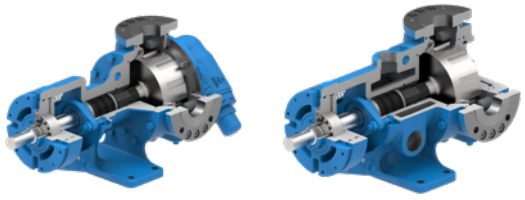
PRESSURE to 200 PSI (14 BAR)

VISCOSITY to 2,000,000 SSU (to 440,000 cSt)

TEMPERATURE -120°F to +500°F (-85°C to +260°C)

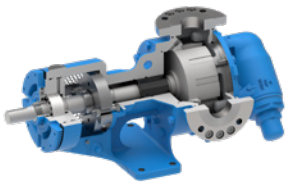






127C *(non-jacketed, packing)*
227C *(jacketed, packing)*

- Handle the highest viscosity liquids, up to 2,000,000 SSU
- Packing require some minimal leakage for cooling and lubrication



1127C *(non-jacketed, O-Pro® Guard seal)*
1227C *(jacketed, O-Pro® Guard seal)*
1327A *(jacketed, O-Pro® Guard seal)*

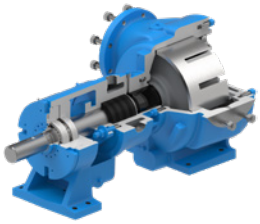
- O-Pro® Guard provides a robust sealing solution for high viscosity / hard to seal liquids
- O-Pro® Guard rebuildable design offers minimal downtime and low cost

4127C *(non-jacketed, mechanical seal)*
4227C *(jacketed, cartridge seal)*

- Component and cartridge mechanical seals handle lower viscosity liquids with minimal leakage
- The bearing housing opening enables seal maintenance or replacement without removing the pump

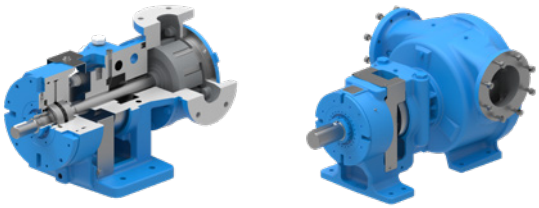
724 *(non-jacketed, packing)*
4724 *(non-jacketed, mechanical seal)*

- Non-wetted cast iron mounting bracket
- Behind the rotor mechanical seal
- Economical stainless steel series for low flow applications



327A *(foot mount casing w/ jacketed bracket, packing)*
4327A *(foot mount casing w/ jacketed bracket, mechanical seal)*

- All stainless steel construction for corrosion resistance over a wider pH range
- Non-galling gear materials available for handling thin liquid applications
- Enhanced bearing housing allows easy installation of packing, component and most cartridge mechanical seals without modification



4227AA *(API 682 Seal, API 676 Compliant w/ minor Exceptions)*
4327AA *(API 682 Seal, API 676 Compliant w/ minor Exceptions)*

- Bracket features enlarged bearing housing to fit API 682 Cat. 1, 2 or 3 cartridge seals with seal plans
- Conforms to API 676 4th Edition, with exceptions
- NDE and performance testing required by API 676 is optional

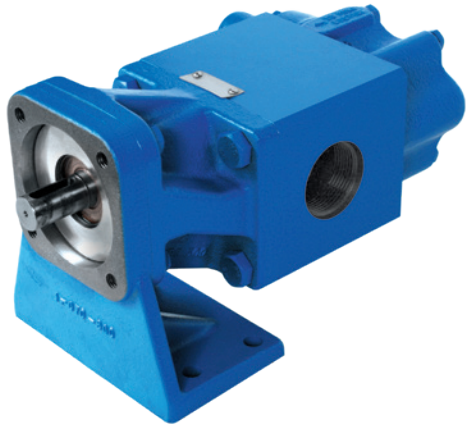
4227AX *(API 682 Seal, API 676 Full Compliance)*
4327AX *(API 682 Seal, API 676 Full Compliance)*

- Conforms fully to API 676 4th Edition, no exceptions
- API 682 Cat. 1, 2 or 3 cartridge seals with seal plans
- All NDE and performance testing required by API 676 is included, as standard

8127A *(sealless mag drive)*

- Eliminates the shaft seal to provide the highest level of liquid and vapor containment
- All liquid and vapor is hermetically sealed in the pump
- Used especially for hazardous, corrosive and difficult-to-seal liquids

Note: Product images may not reflect standard construction.



FEATURES & BENEFITS

- Needle bearings provide high pressure capabilities, sleeve bearing options available
- Close-coupled motor mount or foot bracket options to match space or motor requirements
- Double pump configurations offer two flow rates operating from a single power source, reducing equipment costs

TYPICAL APPLICATIONS

- Pipeline Injection
- Pipeline Sampling
- Oil Polishing
- High Pressure Lubrication
- Hydraulics

PERFORMANCE

EXTERNAL GEAR MODELS			SPECIFICATIONS						
			Nominal Flow Range At 1750 RPM		Continuous Pressure		Intermittent Pressure		Standard Ports
Lip Seal	Mechanical Seal	Mag Drive	GPM	LPM	PSI	BAR	PSI	BAR	Size, Inches
SG-0417	—	—	0.06	0.23	500	34	750	52	0.375
SG-0418	—	—	0.14	0.53	500	34	1,250	86	0.375
SG-0425	—	—	0.18	0.68	500	34	1,500	103	0.375
SG-0470	—	—	0.5	1.89	500	34	1,500	103	0.375
SG-0518 ①	SG-40518	SG-80518	0.7	2.6	500	34	1,500	103	0.5
SG-0525 ①	SG-40525	SG-80525	1	3.8	500	34	2,500	172	0.5
SG-0535 ①	SG-40535	SG-80535	1.4	5.3	500	34	2,500	172	0.5
SG-0550 ①	SG-40550	SG-80550	2	7.6	500	34	2,500	172	0.5
SG-0570 ①	SG-40570	SG-80570	2.8	10.6	500	34	1,800	124	0.5
SG-0510 ①	SG-40510	SG-80510	4	15.1	500	34	1,250	86	0.5
SG-0514 ①	SG-40514	SG-80514	5.6	21.2	500	34	900	62	0.75
SG-0519 ①	SG-40519	SG-80519	7.6	28.8	200	14	400	28	0.75
SG-0528 ①	SG-40528	SG-80528	11.2	42.4	100	7	200	14	0.75
SG-0729	SG-40729	—	2.8	10.6	500	34	2,500	172	1
SG-0741	SG-40741	SG-80741	4	15.1	500	34	2,500	172	1
SG-0758	SG-40758	SG-80758	5.6	21.2	500	34	2,500	172	1
SG-0782	SG-40782	SG-80782	8	30.3	500	34	2,250	155	1
SG-0711	SG-40711	SG-80711	11.2	42.4	500	34	1,600	110	1
SG-0716	SG-40716	SG-80716	16	61	500	34	1,100	75	1
SG-0722	SG-40722	SG-80722	22	83	500	34	1,600	110	1.50 X 1.25
SG-0732	SG-40732	SG-80732	32	121	500	34	1,100	75	1.50 X 1.25
SG-1013	SG-41013	—	25	95	500	34	1,900	131	1.5
SG-1026	SG-41026	—	50	189	500	34	1,000	69	2
SG-1420	SG-41420	—	70	265	500	34	1,100	76	2
SG-1436	SG-41436	—	125	473	290	20	580	40	3
SG-1456	SG-41456	—	190	719	190	13	380	26	4

Integral pressure relief valve standard (single pump).
① SG-05 models available with UL 343 listing for fuel oil.

NOTE: Refer to the catalog section of a particular product series for specific performance details.

PORTING

- Opposite (180°)
- NPT
- SAE O-Ring
- SAE Flange

SEALING

- Lip Seal
- Component Mechanical Seal
- Sealless Mag Drive

MOUNTING

- Foot Mount (with Footed Bracket)
- Motor Mount Bracket to IEC & NEMA Motors (Close-Coupled)
- Vertical Mount

OPTIONS

- Double Pump

DRIVES

Ⓓ Ⓑ Ⓜ Ⓜ4

Refer to "Appendix A" on page 42 for more information on drives.

Refer to "Appendix B" on page 43 for more information on seals and porting.

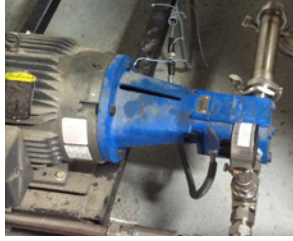
CAPACITY to 190 GPM (719 LPM)

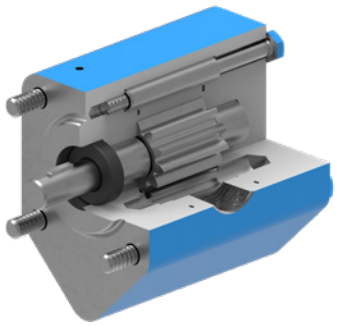
PRESSURE to 500 PSI (34 BAR)

VISCOSITY to 1,000,000 SSU (to 250,000 cSt)

TEMPERATURE -40°F to +450°F (-40°C to +230°C)

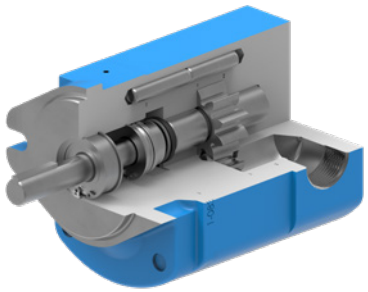






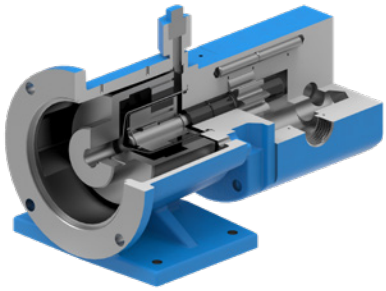
SG-05 *(lip seal)*

- Wide range of viscosities
- Economical option for clean lubricating liquids
- Needle bearings as standard



SG-407 *(mechanical seal)*

- Used for thin liquids
- Carbon graphite bearings as standard



SG-807 *(sealless mag drive)*

- Sealless technology to eliminate seal leakage at pressures to 500 PSI (34 Bar)

ALSO AVAILABLE:

CMD Series™ Composite Mag Drive

- Non-metallic external gear design for corrosive and difficult to seal liquids.

MODELS	SPECIFICATIONS							
	Nominal Flow At 1450 RPM		Nominal Flow At 1750 RPM		Pressure		Standard Ports	
Sealless Mag Drive	GPM	LPM	GPM	LPM	PSI	BAR	Size, Inches	Type
CMD-E02	0.34	1.3	0.4	1.5	150	10	¼	NPT
CMD-E05	1.3	4.9	1.5	5.8	150	10	⅜	NPT
CMD-E12	2.6	10	3.2	12.1	150	10	¾	NPT
CMD-E25	0.5	21	6.5	24.6	150	10	1	Flange
CMD-E75	16.5	62.5	20	75	150	10	1½	Flange

In-line valve sold separately.

Note: Product images may not reflect standard construction.

FEATURES & BENEFITS

- The most compact gear pump series available to fit tight space constraints
- Vertical mounting options to further reduce the unit footprint
- High speed operation for the most economical pump option for thin to moderate viscosity applications

TYPICAL APPLICATIONS

- Refined Fuels
- Lube Oils
- Rotating Equipment Lubrication
- Mobile Pump Carts
- Glycols
- Pipeline Sampling
- Isocyanates

PERFORMANCE

INTERNAL GEAR MODELS							SPECIFICATIONS				
Motor Mount		Foot Mount			Bracket Mount		Performance			Standard Ports	
Lip Seal	Mechanical Seal	Mechanical Seal		Packing	Mechanical Seal	Mag Drive	Max Speed, RPM	GPM	m^3/h	Size, Inches	Type
—	—	—	C432	C32	—	—	1800	0.5	0.11	0.25	NPT
—	—	—	F432	F32	—	—	1800	1.5	0.34	0.5	NPT
—	—	—	FH432	FH32	—	—	1800	3	0.68	0.5	NPT
G75	G475	G4195	G432	G32	G495	—	1750	8	1.8	1	NPT
GG75	GG475	GG4195	GG432	—	GG495	GG895	1750	10	2	1	NPT
H75	H475	H4195	H432	H32	H495	—	1750	15	3	1.5	NPT
HJ75	HJ475	HJ4195		—	HJ495	HJ895	1750	20	5	1.5	NPT
HL75	HL475	HL4195	HL432	HL32	HL495	HL895	1750	30	7	1.5	NPT
—	—	AS4195	—	—	AS495	AS895	1750	55	12	2.5	NPT
—	—	AK4195	—	—	AK495	AK895	1750	85	19	2.5	NPT
—	—	AL4195	—	—	AL495	AL895	1750	115	26	3	NPT
—	—	KE4195*	—	K32	—	—	1750	150	34	4	Flange
—	—	KKE4195*	—	KK32	—	—	1750	205	47	4	Flange
—	—	—	—	L32	—	—	420	90	20	2	Flange
—	—	LQE4195*	—	LQ32	—	—	1150	235	53	4	Flange
—	—	—	—	LL32	—	—	520	140	32	3	Flange
—	—	LSE4195*	—	—	—	—	1150	350	80	4	Flange
—	—	Q4195	—	Q32	—	—	750	460	104	6	Flange
—	—	QS4195	—	—	—	—	640	580	132	6	Flange
—	—	—	—	M32	—	—	280	280	63	4	Flange
—	—	—	—	N32	—	—	280	450	102	5	Flange

*** KE, KKE, LQE and LSE sizes have a foot mount and flange for M-Drive Bracket.**
NOTE: Refer to the catalog section of a particular product series for specific performance details.

PORTING

- Opposite (180°)
- NPT
- Flanged (ANSI/ASME or DIN Compatible)
- High Pressure Flanges (ANSI 250# or DIN PN25)

SEALING

- Lip Seal
- Behind the Rotor Seal
- Balanced Seal
- Sealless Mag Drive

MOUNTING

- Motor Mount
- Foot Mount
- Vertical Mount

DRIVES

Ⓜ Ⓓ Ⓡ Ⓟ

Refer to "Appendix A" on page 42 for more information on drives.

Refer to "Appendix B" on page 43 for more information on seals and porting.

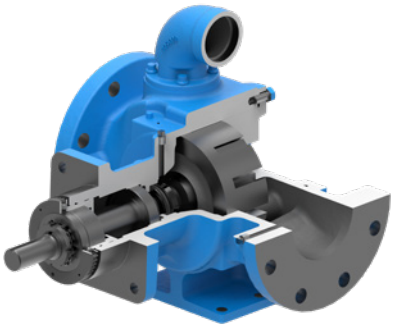
CAPACITY to 580 GPM (132 m^3/h)

PRESSURE to 250 PSI (17 BAR)

VISCOSITY to 25,000 SSU (to 5,500 cSt)

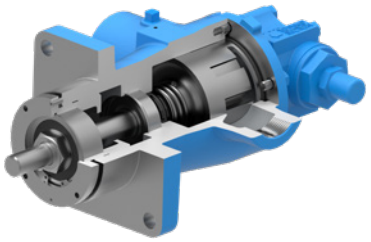
TEMPERATURE -40°F to +350°F (-40°C to +180°C)



4195 *(foot mount, behind the rotor seal)*

- Behind the rotor mechanical seal with antifriction bracket bearing for motor speed operation
- Optional balanced seal for high inlet pressures
- NPT or Class 125 flange ports with optional Class 250 or DIN PN-25/40 flanges

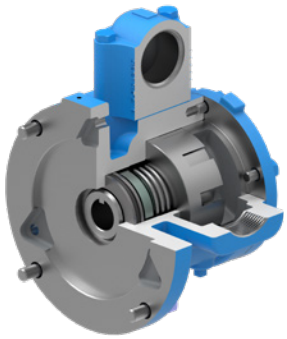
(Pump shown mounted to a motor)

495 *(bracket mount, behind the rotor seal)*

- Flanged bracket for bell housing to close couple NEMA C or IEC B-14 motors
- Eliminates shaft alignment, easy mounting on equipment frames
- KE, KKE, LQE, LSE 4195 models have both foot for long-couple and bracket flange for close coupling


32 *(foot mount, packed)*
432 *(foot mount, mechanical seal)*

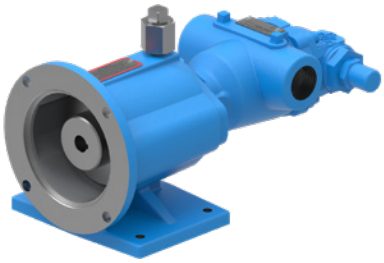
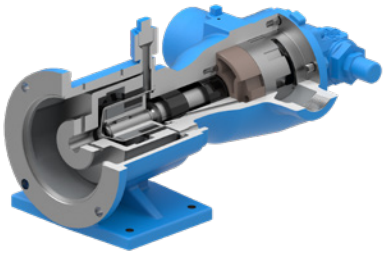
- Relief valve on casing or head
- Steam jacketed head
- Upright, opposite & right angle ports

(Pump shown mounted to a motor)

475 *(motor mount, behind the rotor seal)*
75 *(motor mount, lip seal)*

- NEMA C-face mount for easy installation and a small footprint
- Simplified rotor retention system, economical for medium duty applications
- IEC mount option available

895 *(sealless mag drive)*

- Eliminates the shaft seal to provide the highest level of liquid and vapor containment
- All liquid and vapor is hermetically sealed in the pump
- Used especially for hazardous and difficult-to-seal liquids
- Optional high pressure canister for inlet pressures up to 1,500 PSI (103 BAR)

Note: Product images may not reflect standard construction.

FEATURES & BENEFITS

- Close coupled to fit tight space constraints with vertical mount options for reduced unit footprint
- High speed operation for economical steel pump offering
- High working pressures for compressor lubrication and pipeline sampling applications
- Class 300 flanges standard on all sizes and models

TYPICAL APPLICATIONS

- Pipeline Sampling
- Compressor Lubrication
- Fuels
- Lube Oils

PERFORMANCE

INTERNAL GEAR MODELS			SPECIFICATIONS				
Foot Mount	Bracket Mount		Performance			Standard Ports	
Mechanical Seal	Mechanical Seal	Mag Drive	Max Speed, RPM	GPM	m^3/h	Size, Inches	Type
GG4193	GG493	GG893	1750	10	2.3	1	Flange
HJ4193	HJ493	HJ893	1750	20	4.5	1.5	Flange
HL4193	HL493	HL893	1750	30	6.8	1.5	Flange
AS4193	AS493	AS893	1750	55	12	3	Flange
AK4193	AK493	AK893	1750	85	19	3	Flange
AL4193	AL493	AL893	1750	115	26	3	Flange

NOTE: Refer to the catalog section of a particular product series for specific performance details.

PORTING

- Opposite (180°)
- Flanged (ANSI/ASME or DIN Compatible)

SEALING

- Behind the Rotor Seal
- Balanced Seal
- Sealless Mag Drive

MOUNTING

- Motor Mount
- Foot Mount
- Vertical Mount

DRIVES

Ⓜ Ⓓ Ⓡ Ⓟ Ⓘⓜ

Refer to "Appendix A" on page 42 for more information on drives.

Refer to "Appendix B" on page 43 for more information on seals and porting.

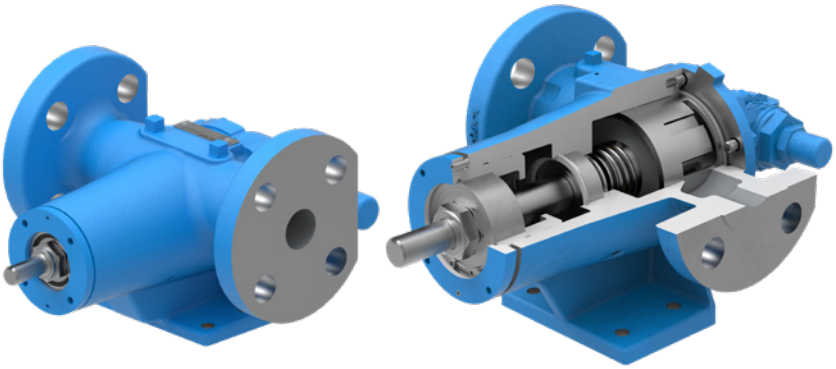
CAPACITY to 115 GPM (27 m^3/h)

PRESSURE to 250 PSI (17 BAR)

VISCOSITY to 25,000 SSU (to 5,500 cSt)

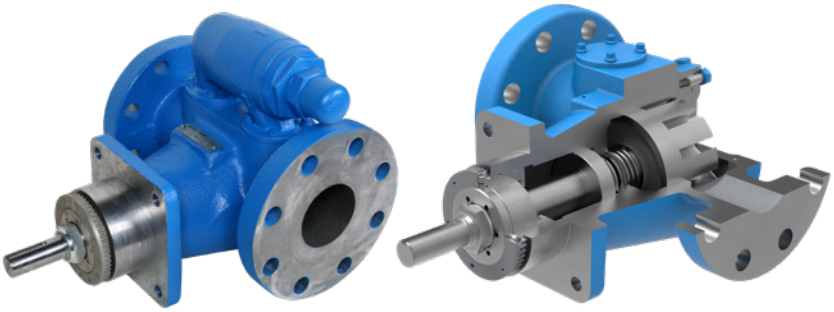
TEMPERATURE -20°F to +350°F (-30°C to +180°C)





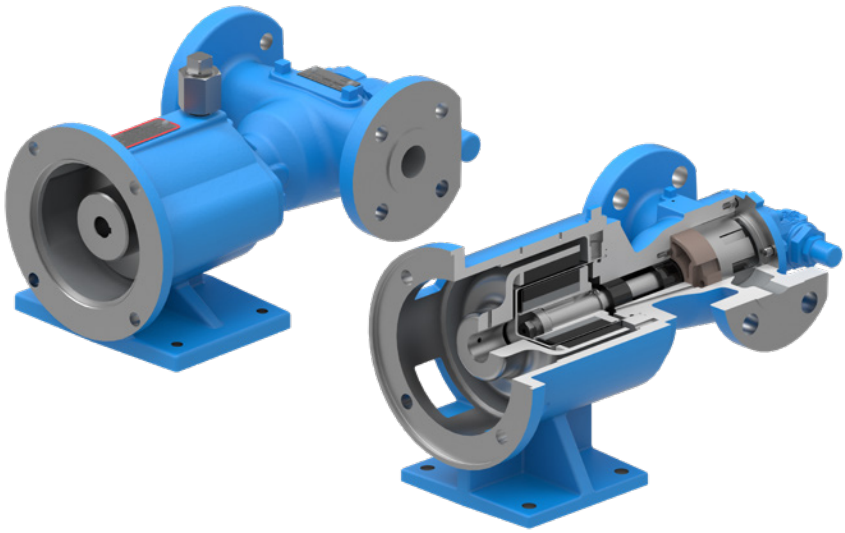
4193 *(foot mount, behind the rotor seal)*

- Behind the rotor mechanical seal with antifriction bracket bearing for motor speed operation
- Optional balanced seal for high inlet pressures
- Class 300 flange ports
- Conforms to API 676, with exceptions



493 *(bracket mount, behind the rotor seal)*

- Flanged bracket for bell housing to close couple NEMA C or IEC B-14 motors
- Eliminates shaft alignment, easy mounting on equipment frames



893 *(sealless mag drive)*

- Eliminates the shaft seal to provide the highest level of liquid and vapor containment
- All liquid and vapor is hermetically sealed in the pump
- Used especially for hazardous and difficult-to-seal liquids
- Optional high pressure canister for inlet pressures up to 1,500 PSI (103 BAR)

Note: Product images may not reflect standard construction.

FEATURES & BENEFITS

- For corrosion resistance over a wider pH range
- Compact gear pump series to fit tight space constraints
- Non-galling gear materials standard for handling thin liquid applications

TYPICAL APPLICATIONS

- Water-Based Liquids
- Acids & Caustics
- Additives
- General Chemical

PERFORMANCE

INTERNAL GEAR MODELS		SPECIFICATIONS				
Foot Mount	Bracket Mount	Performance			Standard Ports	
Mechanical Seal	Mag Drive	Max Speed, RPM	GPM	m^3/h	Size, Inches	Type
GG4197	GG897	1750	10	2.3	1	Flange
HJ4197	HJ897	1750	20	4.5	1.5	Flange
HL4197	HL897	1750	30	6.8	1.5	Flange
AS4197	AS897	1150	35	8	3	Flange
AK4197	AK897	1150	50	11	3	Flange
AL4197	AL897	1150	75	17	3	Flange

NOTE: Refer to the catalog section of a particular product series for specific performance details.

VANE MODELS		SPECIFICATIONS				
Foot Mount	Bracket Mount	Performance			Standard Ports	
Mechanical Seal	Mechanical Seal	Max Speed, RPM	GPM	m^3/h	Size, Inches	Type
—	LVP40017	1750	20	4.5	1.5	Flange
—	LVP41017	1750	20	4.5	1.5	Flange
—	LVP40027	1750	40	9	1.5	Flange
—	LVP41027	1750	40	9	1.5	Flange
LVP41057	—	1150	80	18	2	Flange
LVP41087	—	950	100	23	2	Flange
LVP41197	—	520	125	28	3	Flange
LVP41237	—	520	160	36	3	Flange

Integral pressure relief valve is standard.
NOTE: Refer to the catalog section of a particular product series for specific performance details.

PORTING

- Opposite (180°)
- Flanged (ANSI/ASME or DIN Compatible)

SEALING

- Behind the Rotor Seal
- Component Mechanical Seal (LVP)
- Cartridge Mechanical Seal (LVP)
- Cartridge Triple Lip Seal (LVP)
- Sealless Mag Drive

MOUNTING

- Motor Mount
- Foot Mount

DRIVES

Ⓓ Ⓡ Ⓟ Ⓜ

M = LVP40017 & LVP 40027 only

Refer to "Appendix A" on page 42 for more information on drives.

Refer to "Appendix B" on page 43 for more information on seals and porting.

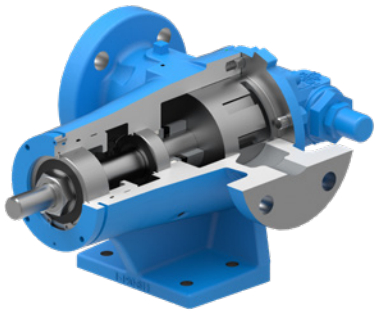
CAPACITY to 160 GPM (36 m^3/h)

PRESSURE to 200 PSI (14 BAR)

VISCOSITY to 25,000 SSU (to 5,500 cSt)

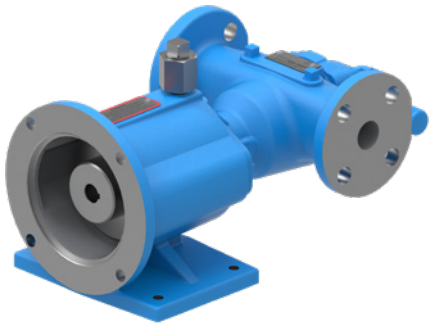
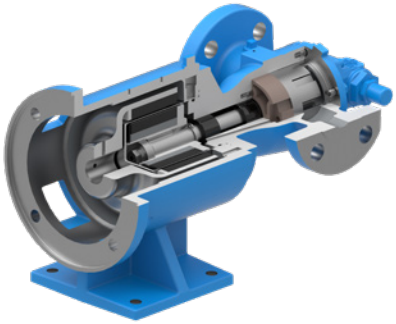
TEMPERATURE -40°F to +350°F (-40°C to +180°C)



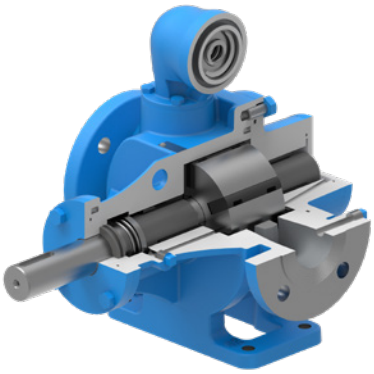
4197 *(foot mount, behind the rotor seal)*

- Behind the rotor mechanical seal with antifriction bracket bearing for motor speed operation
- PTFE wedge-type mechanical seal standard for corrosive liquids
- Class 150 flange ports

897 *(sealless mag drive)*

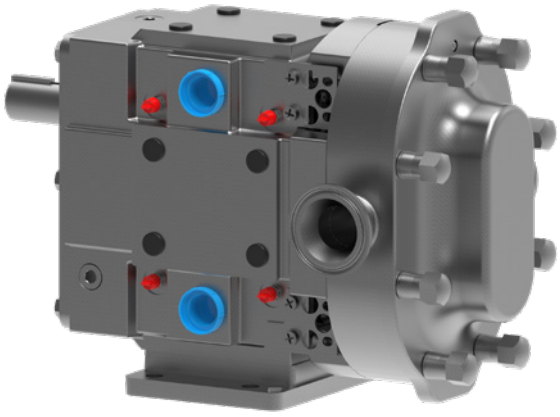
- Eliminates the shaft seal to provide the highest level of liquid and vapor containment
- All liquid and vapor is hermetically sealed in the pump
- Used especially for hazardous, corrosive and difficult-to-seal liquids
- Optional high pressure canister for inlet pressures up to 1,500 PSI (103 BAR)

LVP *(mechanical seal)*

- Vane pump design offers ANSI/ASME or DIN flanges, and IEC or NEMA motor mounts to conform to international standards for enhanced application flexibility
- High pressure and high efficiency with thin liquids
- 20 minute inline vane replacement reduces scheduled downtime
- Harder components than other vane pumps extend pump life
  - 62 Rockwell C surface-hardened one-piece, 316 stainless steel casing
  - Silicon carbide sleeve bearings
  - Chrome oxide shaft coating

Note: Product images may not reflect standard construction.

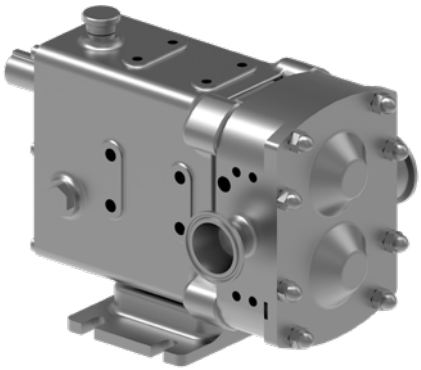


FEATURES & BENEFITS

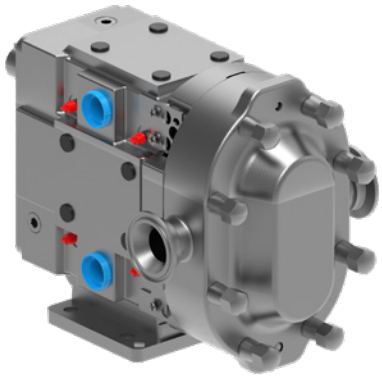
- Low shear pump design for gentle handling of delicate and shear sensitive products
- Handles a wide range of products including suspended solids
- High volumetric efficiency on low viscosity products
- Used in a wide range of hygienic industries where cleanliness is important

TYPICAL APPLICATIONS

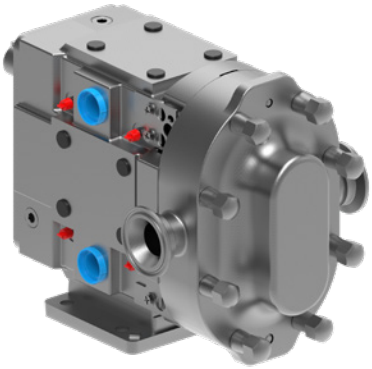
- Dairy
- Bakery
- Meat Processing
- Foods
- Beverage
- Confectionary
- Personal Care
- Pharmaceutical
- Paints
- Chemical



Revolution® Series



TRA®20 Series



TRA®10 Series

PORTING

- Hygienic port options: Tri-clamp, DIN 11864, DIN 11851 Male, SMS Male (Revolution®)
- Industrial port options: ASA/ANSI 150 lb. or 300 lb. RF, DIN 2633, BSP Male, NPT Male (Revolution®)
- Complete range of hygienic clamp, screw, flange & industrial screw connections (TRA)
- Tri-clamp, flanged, DIN, IMDA, NPT, BSP, etc. (TRA)
- Rectangular flange/hopper inlet available on select sizes

SEALING

- Single mechanical
- Double mechanical w/ flush
- Single O-ring (Revolution®, TRA®10)
- Double O-ring w/ flush (Revolution®, TRA®10)

ROTORS

- Non-galling WFT 808® nickel alloy standard
- Optional clearances: front face, hot, high temperature/ high viscosity (chocolate)
- Twin wing rotors standard, single wing rotors optional (TRA)

GEAR BOX

- Stainless steel

Refer to "Appendix B" on page 43 for more information on seals and porting.

CAPACITY	PRESSURE	VISCOSITY	TEMPERATURE
to 450 GPM (102 m^3/h)	to 500 PSI (34 BAR)	to 2,000,000 SSU (440,000 cSt)	to +300°F (to +150°C)



PERFORMANCE

REVOLUTION® MODELS

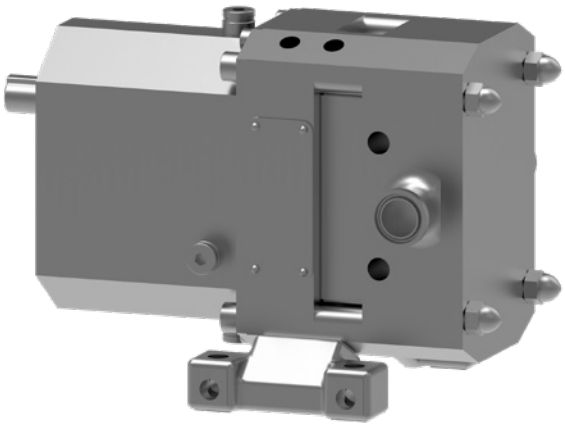
Size	Model	Max Capacity		Displacement		Max Pressure		Max Speed	Standard Ports	
		GPM	m³/h	USG/rev.	l/rev.	PSI	BAR	RPM	In	mm
2	R0150X	11	2.6	0.014	0.055	305	21	800	1.5	38.1
2	R0180P	23	5.3	0.029	0.11	203	14	800	1.5	38.1
3	R0200X	34	8	0.04	0.16	305	21	800	1.5	38.1
3	R0300X	48	11	0.06	0.23	247	17	800	1.5	38.1
3	R0400X	62	14	0.08	0.29	203	14	800	2	50.8
4	R0450X	67	15	0.1	0.42	450	31	600	2	50.8
4	R0600P	92	21	0.2	0.58	305	21	600	2.5	63.5
4	R0800X	122	28	0.2	0.77	247	17	600	2.5	63.5
4	R1300X	159	36	0.3	1	203	14	600	3	76.2
5	R1800X	231	53	0.4	1.46	450	31	600	3	76.2
5	R2200X	313	71	0.5	1.98	305	21	600	4	101.6
5	R2600P	399	91	0.7	2.52	203	14	600	4	101.6

TRA®20 & TRA®10 MODELS

Series	Model	Max Capacity		Displacement		Max Pressure		Max Speed	Standard Ports	
		GPM	m³/h	USG/rev.	l/rev.	PSI	BAR	RPM	In	mm
TRA®20	0060	8	1.8	0.008	0.03	300	21	1000	1	25.4
TRA®20	0150	11	2.5	0.014	0.052	250	17	800	1.5	38
TRA®20	0180	20	4.5	0.029	0.108	200	14	700	1.5	38
TRA®20	0300	36	8.2	0.06	0.227	250	17	600	1.5	38
TRA®20	0450	58	13.2	0.096	0.366	450	31	600	2	51
TRA®20	0600	90	20.4	0.15	0.568	300	21	600	2.5	64
TRA®20	1300	150	34.1	0.25	0.946	200	14	600	3	76
TRA®20	1800	230	52.2	0.383	1.45	450	31	600	3	76
TRA®20	2100	300	68.1	0.5	1.89	500	34	600	4	102
TRA®20	2200	310	70.4	0.516	1.95	300	21	600	4	102
TRA®20	3200	450	102	0.75	2.85	300	21	600	6	152
TRA®10	0060	6	1.3	0.008	0.03	200	14	800	1.5	38
TRA®10	0150	9	2	0.014	0.052	200	14	700	1.5	38
TRA®10	0180	17	3.8	0.03	0.11	200	14	600	1.5	38
TRA®10	0300	36	8.2	0.06	0.23	200	14	600	1.5	38
TRA®10	0450	59	13.3	0.1	0.38	400	27	600	2	51
TRA®10	0600	90	20.4	0.15	0.58	200	14	600	2.5	64
TRA®10	1300	150	34.1	0.25	0.96	200	14	600	3	76
TRA®10	2200	310	70.4	0.52	1.98	200	14	600	4	102
TRA®10	3200	450	102	0.75	2.85	200	14	600	6	152

RECTANGULAR FLANGE MODELS

Series	Model	Max Capacity		Displacement		Max Pressure		Max Speed	Inlet (W x L)		Outlet	
		GPM	m³/h	USG/rev.	l/rev.	PSI	BAR	RPM	In	mm	In	mm
TRA®20	0340	24	5.4	0.06	0.23	200	14	400	1.75 x 6.75	44.50 x 171.45	1.5	38.1
TRA®20	0640	60	13.6	0.15	0.57	200	14	400	2.24 x 8.82	56.90 x 224.03	2.5	57.15
TRA®20	1340	100	22.7	0.25	0.95	200	14	400	2.97 x 9.25	75.44 x 234.95	3	76.2
TRA®20	2240	200	45.4	0.52	1.95	200	14	400	3.87 x 11.00	98.30 x 279.40	4	101.6
TRA®10	0340	24	5.4	0.06	0.22	200	14	400	1.75 x 6.75	44.50 x 171.45	2	50.8
TRA®10	0640	60	13.6	0.15	0.57	200	14	400	2.24 x 8.82	56.90 x 224.03	2.5	57.2
TRA®10	1340	100	22.7	0.25	0.96	200	14	400	2.97 x 9.25	75.44 x 234.95	3	76.2
TRA®10	2240	200	45.4	0.52	1.97	200	14	400	3.87 x 11.00	98.30 x 279.40	4	101.6

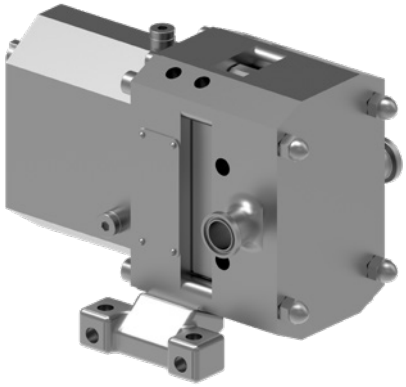


FEATURES & BENEFITS

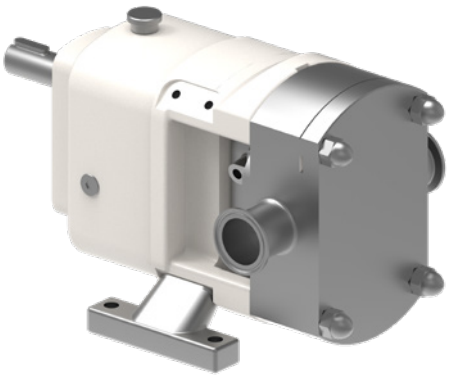
- Low shear pump design for gentle handling of delicate and shear sensitive products
- Handles a wide range of products including suspended solids
- High volumetric efficiency on low viscosity products
- Used in a wide range of hygienic industries where cleanliness is important

TYPICAL APPLICATIONS

- Pharmaceutical
- Personal Care
- Foods
- Beverage
- Dairy
- Confectionary
- Chemical
- High Fructose Corn Syrup
- Vinegar
- Vegetable Oils



SteriLobe® Series



Classic+ / MultiPump® Series

RTP® Series

PORTING

- Complete range of hygienic clamp, screw, flange & industrial screw connections (C+/MP)
- Tri-clamp, flanged, DIN, IMDA, NPT, BSP, etc. (C+/MP)
- Camlock, ACME & DIN 11851 ports available (RTP®)

SEALING

- Single O-ring (C+/MP, RTP®)
- Single mechanical (C+/MP)
- Single mechanical with flush or quench (C+/MP)
- Double O-ring (RTP®)
- Double mechanical with flush (C+/MP)
- Mechanical Seals (RTP®)

ROTORS

- 316L standard
- Optional clearances: Different temperature clearance bands available dependent on application and cleaning requirements

GEAR BOX

- Stainless Steel, Powder coated or painted cast Iron dependent on series and model
- Ingress protected and sealed lightweight aluminum gearbox (RTP®)

Refer to "Appendix B" on page 43 for more information on seals and porting.

CAPACITY	PRESSURE	VISCOSITY	TEMPERATURE
to 832 GPM (189 m^3/h)	to 218 PSI (15 BAR)	to 2,000,000 SSU (440,000 cSt)	to +300°F (+150°C)



PERFORMANCE

ROTARY LOBE MODELS

Series	Model	Max Capacity		Displacement		Max Pressure		Max Speed	Standard Ports	
		GPM	m^3/h	USG/rev.	l/rev.	PSI	BAR	RPM	In	mm
SteriLobe®	SLAS	14	3.18	0.0103	0.039	218	15	1400	.75	19
SteriLobe®	SLAL	22	5	0.0156	0.059	145	10	1400	1	25
SteriLobe®	SLBS	25.7	5.8	0.0214	0.081	218	15	1200	1	25
SteriLobe®	SLBL	38.7	8.8	0.0322	0.122	145	10	1200	1.5	38
SteriLobe®	SLCS	53.6	12.2	0.0446	0.169	218	15	1200	1.5	38
SteriLobe®	SLCL	80.5	18.3	0.0671	0.254	145	10	1200	2	50
SteriLobe®	SLDS	93	20.5	0.093	0.352	218	15	1000	1.5	38
SteriLobe®	SLDL	139.5	31.7	0.1395	0.528	145	10	1000	2	50
SteriLobe®	SLES	154.7	35.1	0.1934	0.732	218	15	800	2	50
SteriLobe®	SLEL	232.3	52.8	0.2903	1.099	145	10	800	3	76
SteriLobe®	SLFS	241.5	54.8	0.4026	1.524	218	15	600	3	76
SteriLobe®	SLFL	362.2	82.3	0.6036	2.285	145	10	600	4	101
SteriLobe®	SLGS	502.5	114.1	0.8374	3.17	218	15	600	4	101
SteriLobe®	SLGL	753.5	171.1	1.2559	4.754	145	10	600	6	152
Classic+ / MultiPump®	10/0005/12	17.1	3.9	0.0122	0.046	174	12	1400	1	25
Classic+ / MultiPump®	10/0008/08	30.7	7	0.0219	0.083	115	8	1400	1 1/2	38
Classic+ / MultiPump®	10/0011/05	41	9.3	0.0293	0.111	70	5	1400	1 1/2	38
Classic+ / MultiPump®	20/0020/12	53.4	12.1	0.0534	0.202	174	12	1000	1 1/2	38
Classic+ / MultiPump®	20/0031/07	82.7	18.8	0.0827	0.313	100	7	1000	2	50
Classic+ / MultiPump®	30/0069/12	137.6	31.2	0.1834	0.694	174	12	750	2	50
Classic+ / MultiPump®	30/0113/07	222.9	50.6	0.2972	1.125	100	7	750	3	76
Classic+ / MultiPump®	40/0180/12	332.9	75.6	0.4756	1.8	174	12	700	3	76
Classic+ / MultiPump®	40/0250/07	462.4	105	0.6605	2.5	100	7	700	4	101
Classic+ / MultiPump®	50/0351/12	603.5	137	0.9284	3.514	174	12	650	4	101
Classic+ / MultiPump®	50/0525/08	832.2	189	1.387	5.25	115	8	600	6	150
RTP®	RTP20	264	60	0.264	1	145	10	1000	2 or 3	50 or 75
RTP®	RTP30	338	76.8	0.338	1.28	174	12	1000	3 or 4	75 or 100

Through 110+ years of pumping experience, our engineers have developed uniquely designed products with a specific application in mind. These products focus on solving targeted challenges that exist within that liquid application.

From speed to viscosity, sealing or shear, these products provide additional security that the product is right for the applications they are built for.

ABRASIVE LIQUID

4624B Series™

FEATURES & BENEFITS

- Extended service life provided by:
  - Tungsten carbide components in critical wear areas of pump
  - Other hardened component options available
  - Silicon carbide mechanical seal faces
  - Positive seal flush to keep fresh supply of liquid at seal faces
  - Behind the rotor seal placement eliminates abrasive wear on shaft bushing
  - Pin drive mechanical seal increases viscosity range
- For abrasive liquids such as paints, inks and waste oil

MODELS	SPECIFICATIONS				
Non-Jacketed	Performance			Standard Ports	
Behind the Rotor Seal	Max Speed, RPM	GPM	m³/h	Size, Inches	Type
F4624B	870	0.75	0.2	0.5	NPT
FH4624B	870	1.5	0.3	0.5	NPT
H4624B	640	5	1.1	1.5	NPT
HL4624B	640	10	2.3	1.5	NPT
K4624B	280	25	5.7	2	NPT
KK4624B	280	35	8	2	NPT
L4624B	230	50	11	2	NPT
LQ4624B	230	50	11	2.5	Flange
LL4624B	230	65	15	3	Flange
LS4624B	230	72	16	3	Flange
Q4624B	190	110	25	3	Flange
QS4624B	190	182	41	6	Flange

Integral pressure relief valve is standard.

Abrasion resistant components also available in other series and sizes.

AMMONIA (REFRIGERATION)

4924A Series™

FEATURES & BENEFITS

- Double mechanical seal with pressurized seal chamber and oil reservoir pressurized by ammonia, no external flush system required
- Adjustable return-to-tank pressure relief valve
- Pressure-lubricated idler bushing maximizes bushing life
- Designed for liquid overfeed ammonia refrigeration systems
- New bearing housing design simplifies end clearance adjustment and maintenance

MODELS	SPECIFICATIONS				
	Performance			Standard Ports	
Mechanical Seal	Max Speed, RPM	GPM	m³/h	Size, Inches	Type
HL4924A	780	10	2.3	1.5	NPT
K4924A	280	20	4.5	2	NPT
KK4924A	280	30	6.8	2	NPT
LQ4924A	280	45	10	2.5	Flange
LL4924A	280	60	14	3	Flange

Return-to-tank relief valve standard.

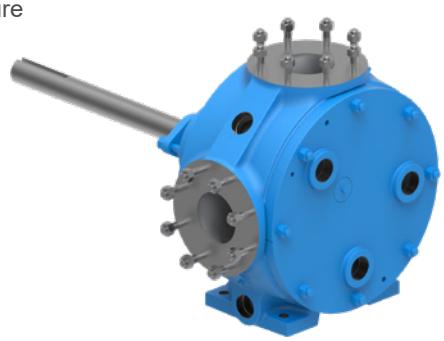
Note: Product images may not reflect standard construction. Refer to "Appendix B" on page 43 for more information on seals and porting.

ASPHALT

34 Series™

FEATURES & BENEFITS:
JACKETED, PACKING

- Jacketing suitable for hot oil or steam for enhanced application flexibility
- Belt drive or reducer drive options available
- Economical option for clean asphalt at low to moderate pressure



MODELS	SPECIFICATIONS				
	Performance			Standard Ports	
	Max Speed, RPM	GPM	m^3/h	Size, Inches	Type
LQ34	420	90	20	2.5	Flange
Q34	350	200	45	3	Flange
M34	280	280	64	4	Flange
N34	280	450	102	5	Flange

124E Series™, 324E Series™

FEATURES & BENEFITS:
ELECTRICALLY HEATED, PACKING

- Lower installation costs in remote locations when steam or hot oil is not available or long piping runs are required
- Reduced environmental costs by eliminating hot oil leaks
- Reduced energy costs with heat source in pump vs. external heat tracing
- Simplified service by eliminating hot oil or steam pipe connections
- Optional closed loop PID control system maintains tight control

MODELS	SPECIFICATIONS				
	Performance			Standard Ports	
	Max Speed, RPM	GPM	m^3/h	Size, Inches	Type
H124E*	1750	15	3.4	1.5	NPT
HL124E*	2900	50	11	1.5	NPT
K124E*	950	90	20	2	NPT
KK124E*	950	120	27	2	NPT
L124E*	950	210	48	2	NPT
LQ124E*	950	210	48	2.5	Flange
LL124E*	520	140	32	3	Flange
LS124E*	720	230	52	3	Flange
Q124E*	520	300	68	4	Flange
QS124E*	520	500	114	6	Flange
N324E*	420	685	156	6	Flange

*** Total Watts by Size: H-HL = 275, K-KK = 690, L-LS = 1,200, Q-QS = 2,200, N = 2,500**

Note: Product images may not reflect standard construction. Refer to "Appendix B" on page 43 for more information on seals and porting.

CHEMICAL TANKER

RTPe Series™

CLEANABILITY

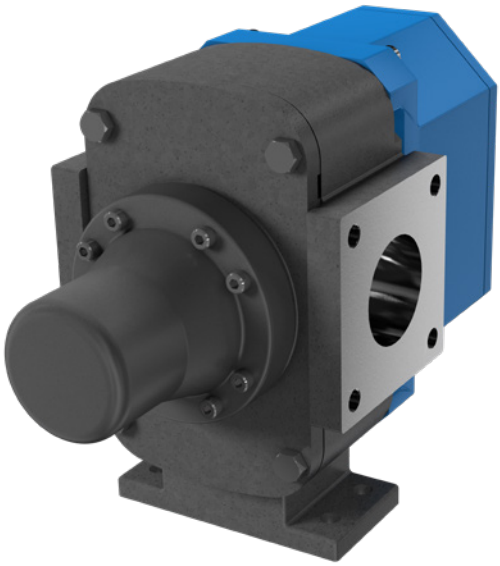
- The simple design behind the rotor makes strip cleaning easy and fast
- Choose the cleaning process that fits your needs: COP (Clean Out of Place) or CIP (Clean In Place)

EASE OF MAINTENANCE

- Innovative front loading seal design enables quick inspection and easy servicing
- Sealed gearcase with long-life lubrication eliminates oil inspection and filling
- Easy to service design requires no special tools for disassembly and eliminates need for end clearance adjustments

PERFORMANCE

- Wide range of chemical compatibility
- Efficiently handles both low and high viscosity liquids with improved pressure capabilities for faster loading and unloading
- Excellent displacement/weight ratios, which means more in the tank and less in the cabinet (1 l/rev. / 0.264 USG/rev.)
- Precision helical gears, rotors and shaft design, with optimized bearing position, minimize overhung load – extending seal & bearing life



CHOCOLATE

1224A-CHC Series™, 1227A-CHC Series™

FEATURES & BENEFITS

- EC1935 Compliant constructions
- Internal O-rings create a sealed lubrication chamber for the bracket bushing, increasing bushing life
- Trusted and proven with world leading chocolate manufacturers
- Low shear design protects delicate chocolate suspensions
- Hardened materials provide long life on abrasive liquors and chocolates

CHC1			CHC2			PORTS	
O-Pro® Seal	GPM	Max Speed, RPM	O-Pro® Seal	GPM	Max Speed, RPM	Size, Inches	Type
H1224A-CHC1	2	280	H1224A-CHC2	8	1000	1.5	NPT
H1224A-CHC1	2	280	H1224A-CHC2	8	1000	2	Flange
HL1224A-CHC1	4.6	280	HL1224A-CHC2	17	1000	1.5	NPT
HL1224A-CHC1	4.6	280	HL1224A-CHC2	17	1000	2	Flange
K1224A-CHC1	17	190	K1224A-CHC2	80	780	2	NPT
K1224A-CHC1	17	190	K1224A-CHC2	80	780	2 / 3	Flange
KK1224A-CHC1	23	190	KK1224A-CHC2	100	780	2	NPT
KK1224A-CHC1	23	190	KK1224A-CHC2	100	780	2 / 3	Flange
LQ1224A-CHC1	25	125	LQ1224A-CHC2	135	640	2.5 / 3 / 4	Flange
LL1224A-CHC1	31	125	LL1224A-CHC2	140	520	3 / 4	Flange
LS1224A-CHC1	38	125	LS1224A-CHC2	200	640	3 / 4	Flange
Q1224A-CHC1	57	100	Q1224A-CHC2	275	470	4	Flange
QS1224A-CHC1	88	100	QS1224A-CHC2	400	470	6	Flange

CHC1 Models for Cocoa Liquor, All Chocolates, Pastes (≈5,000 to 200,000 cPs)

CHC2 Models for Cocoa Butter, Oils, Lecithin (≈1 to 5,000 cPs)

Note: Product images may not reflect standard construction. Refer to "Appendix B" on page 43 for more information on seals and porting.

FUEL OIL

432-X Series™, SG-X Series™

FEATURES & BENEFITS

- UL343 listed for the handling of various fuel oils
- Intended for use in the assembly of power-operated, oil-burning appliances in accordance with ANSI/NFPA 31
- Products achieved UL certification through testing at the UL laboratory
- Capacities range from 0.5 to 20 GPM, with lip seal or mechanical seal options

HL432-X

SG-0514-X

STARCH ADHESIVE & HOT WAX

1124A-BXB Series™, 1224A-BXB Series™

FEATURES & BENEFITS

- Proven design provides superior performance in starch adhesive and liquid wax applications
- Specifically designed to meet process conditions of boxboard (BXB) applications
- O-Pro® Barrier combines reliable sealing with minimal maintenance
- O-Pro® Barrier seal can withstand pressure spikes that damage mechanical and lip seal components, resulting in reduced downtime and repair costs

MODELS		SPECIFICATIONS					
Starch Adhesive	Hot Wax	Performance			Standard Ports		
Non-Jacketed	Jacketed						
O-Pro® Barrier Seal	O-Pro® Barrier Seal	Max Speed, RPM	GPM	m^3/h	Size, Inches	Type	Orientation
H1124A-BXB	H1224A-BXB	1000	8	1.8	1.5	NPT	Right Angle
HL1124A-BXB	HL1224A-BXB	1000	18	4	1.5	NPT	Right Angle
K1124A-BXB	K1224A-BXB	780	80	18	2	NPT	Right Angle
KK1124A-BXB	KK1224A-BXB	780	100	23	2	NPT	Right Angle
L1124A-BXB	L1224A-BXB	640	135	31	2	NPT	Right Angle
LQ1124A-BXB	LQ1224A-BXB	640	135	31	2.5	Flange	Right Angle
LL1124A-BXB	LL1224A-BXB	520	140	32	3	Flange	Right Angle
LS1124A-BXB	LS1224A-BXB	640	200	45	3	Flange	Right Angle

Note: Product images may not reflect standard construction. Refer to "Appendix B" on page 43 for more information on seals and porting.

PARTS & ACCESSORIES

There are millions of Viking pumps installed throughout the world. Our parts and accessories are built to keep them running efficiently and make repairs easy.

Not all parts are created equal. Viking Genuine Parts come with a guarantee to dimensionally fit Viking products, as well as having consistent construction, including material grade and quality.

Whether purchasing an individual part, ordering a full repair kit, or choosing an accessory to make your systems work smoothly, ensure that you are maintaining your Viking pumps with the same quality of parts that it left the factory with. Choose Viking Genuine Parts when servicing your pumps. Reach out to your local stocking distributor to get parts on your shelves for proactive operational management.

PARTS & KITS

Viking Pump parts kits provide customers with the ability to do a complete repair at once vs. each time a part wears. Everything needed is included in the kit, ready before you open the pump. Both seal kits and repair kits are available. Reduce your downtime by contacting your local stocking distributor to have a kit on your shelf ready to go when it is needed.

DESIGN

- Only Viking Genuine Parts are specifically designed to meet performance requirements for Viking pumps

QUALITY

- Viking Genuine Parts are tested to ensure optimum reliability

SUPPORT

- Viking backs all Genuine Parts with its own warranty and stocking distributor network

PARTS KITS VS. PARTIAL REPAIR

- Everything you need in one place
- Save time & money
- Increase uptime
- Increase service life
- Reduce frequency of repairs

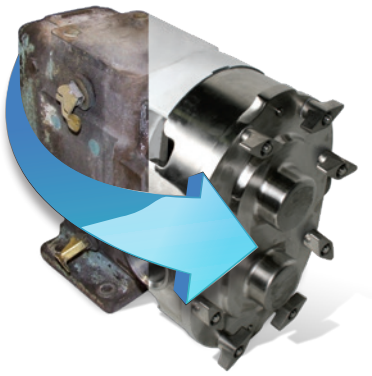
WHY REMANUFACTURE?

(Unique to circumferential piston products)

- Worn pump is returned to like-new condition & performance
- Your remanufactured pump carries a full 1 year factory warranty
- All remanufactured pumps are tested & certified
- Save big compared to purchasing an entirely new pump
- Pumps can be remanufactured up to four times, depending on model & wear

WHAT YOU GET

- NEW Rotors
- NEW Bearings
- NEW Seal Components
- NEW Shafts
- NEW Gears



REBUILD VS. REPLACE

- Hygienic parts kits are designed to save time and money, making preventive maintenance and rebuilding easier and more cost-effective
- Hygienic pumps are designed and built to the highest standards, for long life and to be rebuilt instead of replaced when applicable
- Tool kits also available



REDUCERS

OFFSET

- Fully interchangeable ratios in each gearbox
- Gearbox is rotatable on mounting bracket to enable multiple mounting brackets enable output shaft to match Viking shaft heights

Learn about Reducers

IN-LINE

- Available in multiple sizes and a variety of ratios to 200 HP / 160 kW
- Universal mounting - solid input shaft or motor mount option (IEC or NEMA)

STRAINERS

LID-EASE STRAINERS

- Quarter-turn, easy opening breech-lock lid simplifies routine cleaning
- Inclined basket design provides low pressure drop for high system efficiency
- Top basket removal eliminates the need to drain the strainer and minimizes product loss

Learn about Strainers

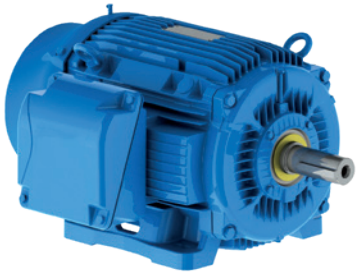
BOLTED-LID STRAINERS

- High quality, easy to clean simplex strainers
- Low pressure drop
- Gauge ports standard (plugged)
- Lid vent standard (plugged)
- Bottom drain (plugged)

MOTORS

DRIVE MOTORS

- Ease of ordering to get pump and motor from one supplier
- Competitive pricing direct through Viking Pump
- All major brands and types available
- Energy efficient, compliant with EISA and EC640/2009 standards



Note: Product images may not reflect standard construction.

MATERIALS

CAST IRON

For most non-corrosive applications. Least cost, best resistance to galling. *(Various coating options for hardness)*

DUCTILE IRON

Alternative to steel for refinery and petrochem applications, used on some rotors for higher viscosity. *(Grades range from pearlitic to ferritic)*

STEEL

For refinery and petrochem applications or extremely high temperatures. Optional rotor material for highest viscosities. *(Grades range from cast low alloy to various types of carbon steel)*

STAINLESS STEEL

For corrosion resistance over a wider pH range. *(Grades range from 316L, 317, 347 and 770, to duplex and martensitic)*

ALLOY 20

Austenitic stainless steel for sulfuric acid.

EXCLUSIVE FROM VIKING PUMP

ProPort™ CASING

Adaptable Viking Pump port design that offers a variety of port sizes and types, enabling flexibility when connecting pumps to piping.

U-Plus™ BRACKET

A Viking Pump bracket engineered to accommodate various seal options and offers seal location to be in the stuffing box or behind the rotor.

It also includes stainless steel window guards for protection from rotating parts.

DRIVES

"B" DRIVE

Pump is mounted to a bracket (32 Series) or foot (SG Series).

"D" DRIVE

Pump is direct connected to a motor or gear motor.

"IM" DRIVE

Vertically inline mounted motor speed product line steel pumps.

"M" DRIVE

Pump is mounted to a bell housing which accepts a C-face NEMA or IEC motor. A flexible coupling connects pump shaft to drive shaft.

"M4" DRIVE

Tang shaft spur gear product line pumps mounted directly to tang drive motors.

"P" DRIVE

Pump unit (pump, gear reducer, motor, base, couplings and guards) using a non-standard "purchased" gear reducer.

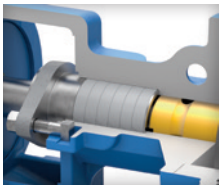
"R" DRIVE

Pump unit (pump, gear reducer, motor, base, couplings and guards) using a Viking offset gear reducer.

"V" DRIVE

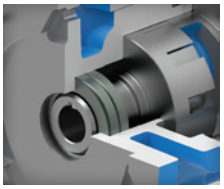
Pump unit (pump, motor, base, sheaves, belts and guard) using v-belts for speed reduction.

SEALS



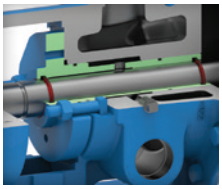
PACKING

For highest temperatures and a wide range of viscosities.



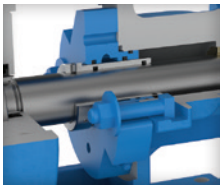
LIP SEAL

Dynamic elastomeric seals energized with a spring, for very high viscosity capabilities.



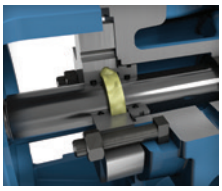
O-PRO® BARRIER SEAL

Prevents leakage on hard to seal, viscous liquids. Incorporates shaft bushing protection from pumped liquid.



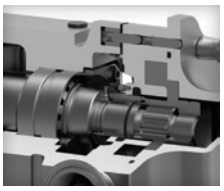
O-PRO® GUARD SEAL

Prevents leakage on hard to seal, viscous liquids. Sleeved design avoids shaft wear concerns.



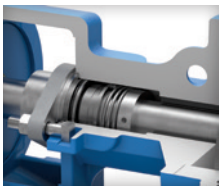
O-PRO® CARTRIDGE SEAL

Prevents leakage on hard to seal, viscous liquids. Available with FFKM elastomers for high temperature or corrosive service.



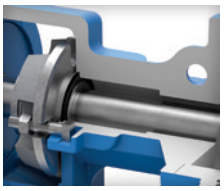
O-RING SEAL

A simple low cost seal design with a wide range of application areas.



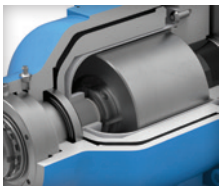
COMPONENT MECHANICAL SEAL

Located in stuffing box or behind the rotor, component seals are an economical means of limiting leakage.



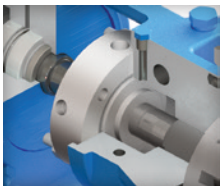
CARTRIDGE SEAL

Single or double mechanical, or triple lip seals; back pull-out design simplifies replacement.



SEALLESS MAG DRIVE

Eliminates shaft seals altogether, the ultimate solution to preventing seal leakage.



API 682 SEAL

Category 1, 2 or 3, with API seal plans for petroleum and petrochemicals.

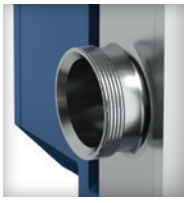
NOTE: O-Pro® seals are patented.

PORTING

RIGHT ANGLE (90°) FLANGED (ANSI/ASME & DIN)

TOP PORT

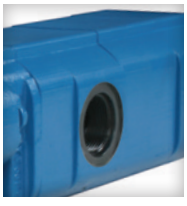
SAE FLANGE



THREADED

OPPOSITE (180°)

NPT



SAE O-RING

SANITARY CLAMP

SALES TOOLS

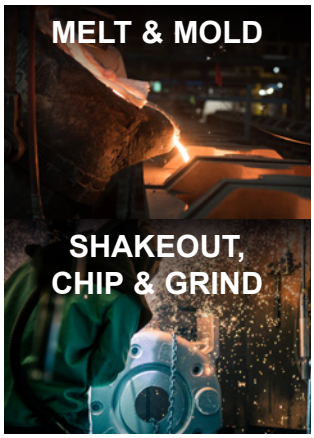
WEBSITE
VIKINGPUMP.COM

LITERATURE
VIKINGPUMP.COM/DOWNLOADS

VIDEOS
VIKINGPUMP.COM/TV

VERTICAL INTEGRATION

Viking Pump operates a foundry, a 250,000+ sq. ft. machining, assembly and testing center, and an extensive product engineering and testing lab in its world headquarters in Cedar Falls, Iowa, USA. This level of vertical integration ensures maximum quality, ability to satisfy special needs, and to meet project schedules.



CONTACT YOUR STOCKING DISTRIBUTOR TODAY

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A Unit of IDEX Corporation
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Cedar Falls, Iowa 50613 U.S.A.
vikingpump.com

 | Form No. 5000-F