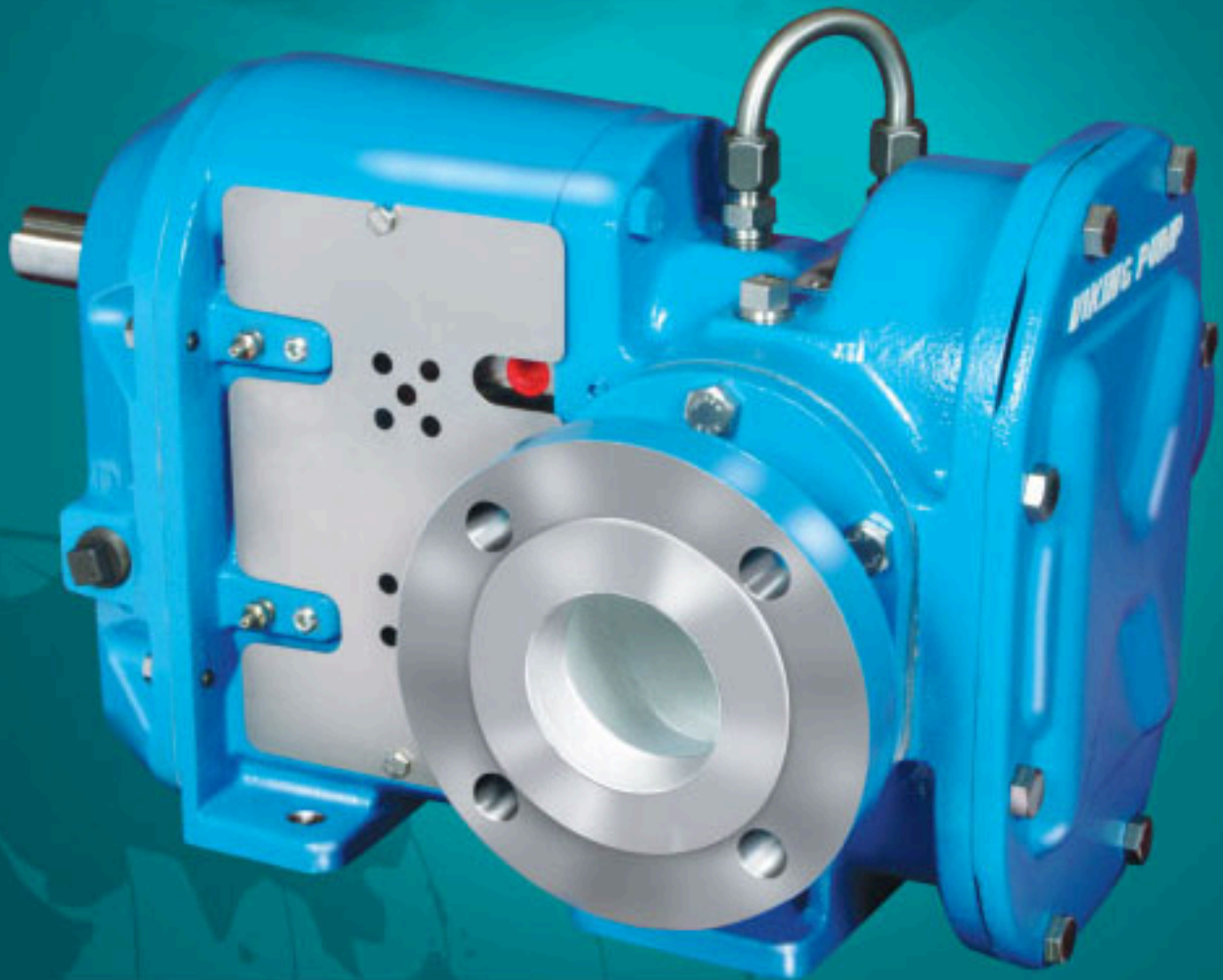


# VIKING

- Shear-Sensitive Fluids
- Low- to Very-High-Viscosity Fluids
- Corrosive Chemicals
- Hard-to-Seal Fluids
- Medium- to High-Pressure Applications
- Loading and Unloading (reversing) Applications
- Fluid Transfer or Process Metering Applications



Capacity: to 820 GPM (186 M<sup>3</sup>/Hr)

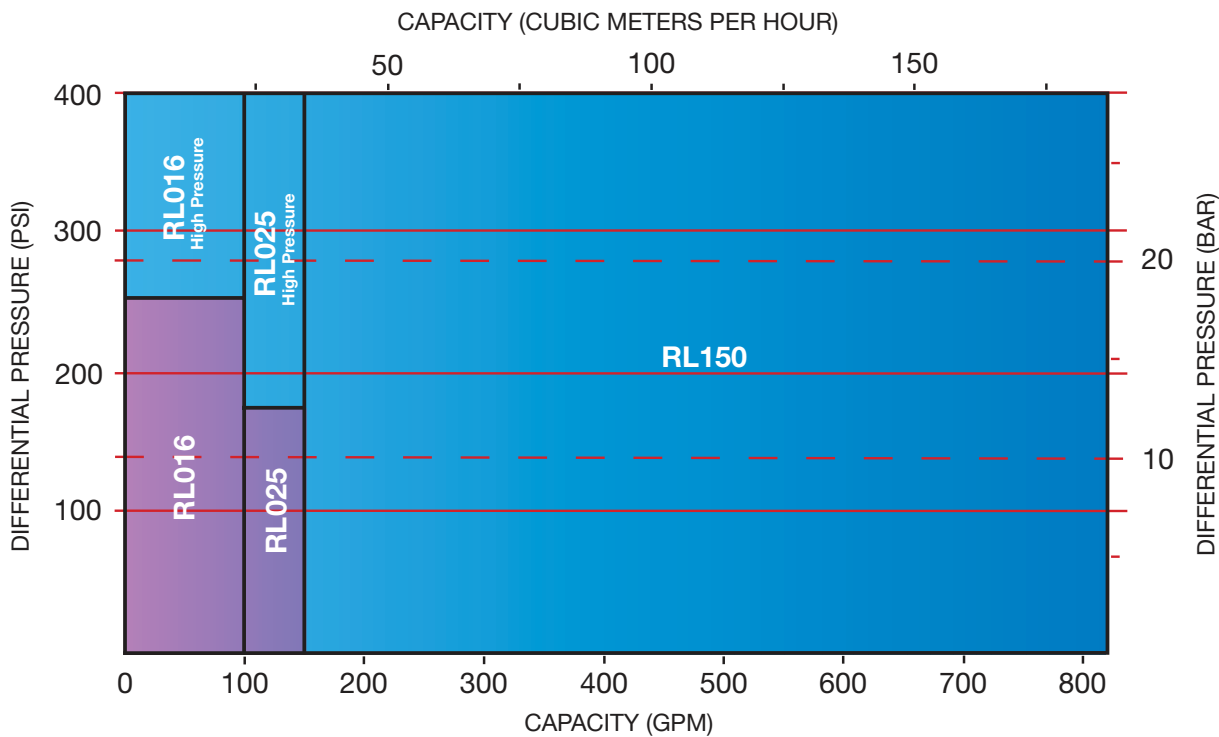
Pressure: to 400 PSI (to 27 Bar)

Viscosity: to 2,000,000 SSU (440,000 cSt)

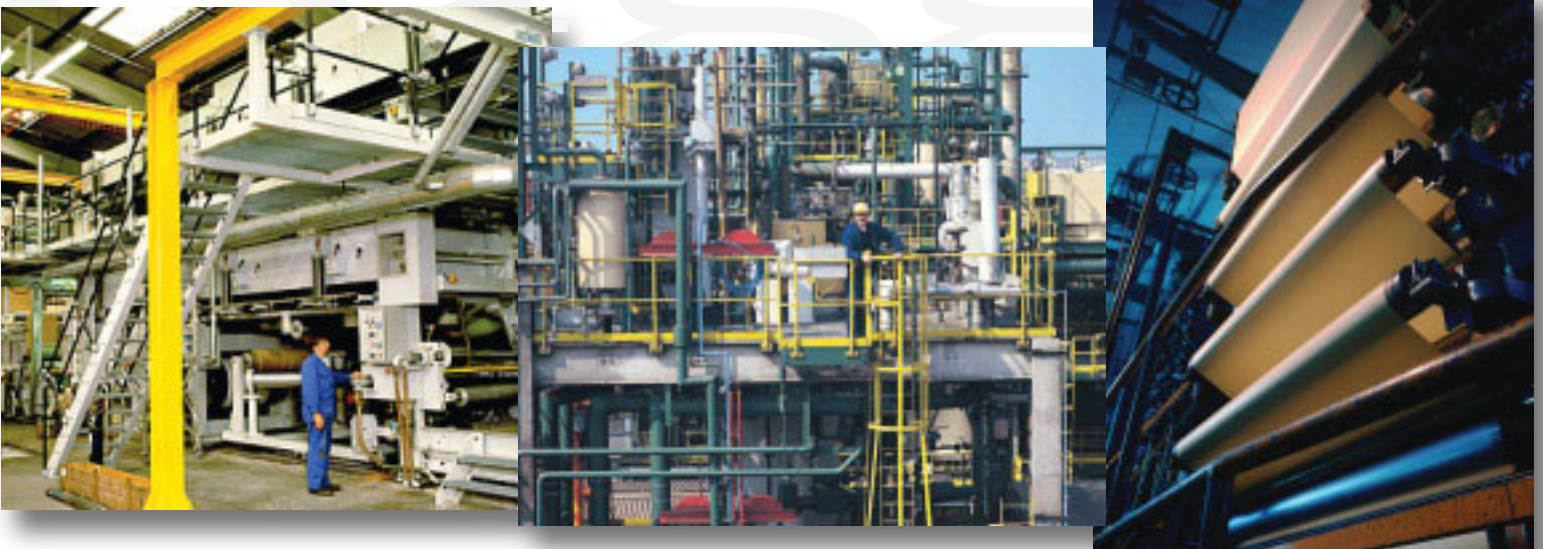
Temperature: -40°F to 400°F (-40°C to 204°C)

# Big Capacity, Plenty of Pressure, Low Shear, Flexible Sealing & Porting.

## Hydraulic Coverage



## Typical Applications



Serving Applications For:

- Paper Coatings
- Automotive Paint
- Sugars and Starches
- Polymers & Chemicals
- Dyes, Resins & Coatings

# A Special Pump For Special Applications

## Solving Problem Applications

- Designed to pump liquids that challenge other pumps, including shear-sensitive liquids, liquids with solids, low lubricity liquids, and high viscosity liquids.
- Pump materials available to accommodate corrosive, abrasive, or high temperature liquids.
- Excellent for self-priming and suction lift applications.

## The Pumping Principle

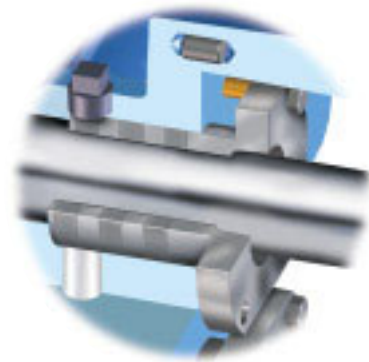
- Pumping elements are bi-wing rotary lobes that provide a gentle, non-shearing, low pulsation pumping action.
- Liquid feeds the lobes from three sides to provide excellent suction performance on viscous liquids.
- The lobes of the pump are of a non-contacting design that allows long, trouble-free operation where other pumping principles falter.

## The Options

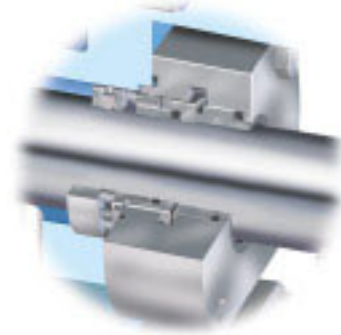
- Four bushing design available for applications to 400 psi.
- Accommodates a range of sealing options.
- Special pumping element materials and clearances for low viscosity liquids.
- Hardened shafts, bushings and seal options are available for abrasive liquids.

## The Benefits

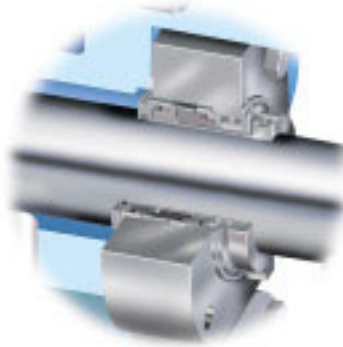
- Won't degrade the special properties of your liquid.
- Stands up to applications that cause premature failure in other pumps.
- Simple design is easy to maintain – no time-consuming shimming.
- Design can be readily flushed/cleaned with steam, hot water, or solvents between batches.



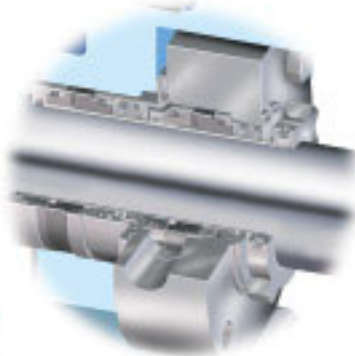
Packed Gland  
(RL016 & 025)



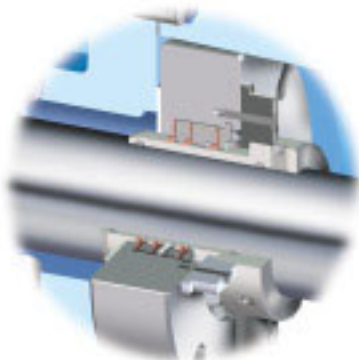
Component Single Mechanical Seal  
(RL016 & 025)



Cartridge Single Mechanical Seal



Cartridge Double Mechanical Seal



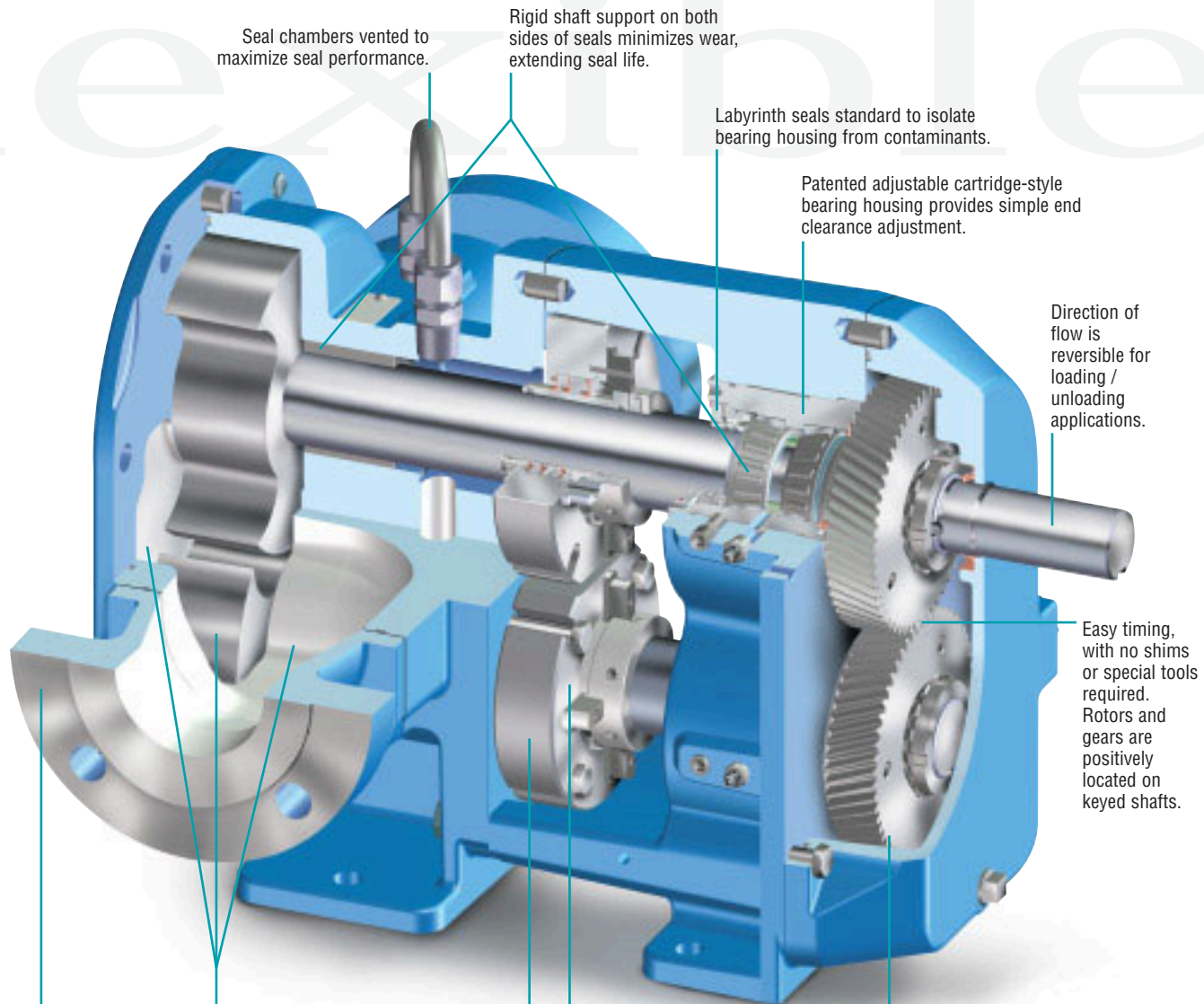
Cartridge Triple Lip Seal

With  
**MAXIMUM  
SEALING**  
Flexibility

stai

# VIKING reliability

## in an industrial lobe series



Seal chambers vented to maximize seal performance.

Rigid shaft support on both sides of seals minimizes wear, extending seal life.

Labyrinth seals standard to isolate bearing housing from contaminants.

Patented adjustable cartridge-style bearing housing provides simple end clearance adjustment.

Direction of flow is reversible for loading / unloading applications.

Easy timing, with no shims or special tools required. Rotors and gears are positively located on keyed shafts.

Fluid access on three sides of lobes enhances filling with highly viscous fluids.

A variety of port sizes, flange ratings, and styles are available to match the ports to the system requirements.

#### Seal Availability

- Uses standard shaft sizes.
- Accepts standard, off-the-shelf seals from John Crane®, FlowServe®, FluidTec®, and many others

Helical timing gears help to minimize backlash, reduce wear, and reduce noise.

#### Sealing Options

- Cartridge triple lip seals (shown)
- Cartridge single or double mechanical seals
- Packing (RL016 & 025)
- Component single mechanical seals (RL016 & 025)

# Specifications and Dimensions

## SPECIFICATIONS

Size	Nominal Capacity (at Max. Speed)		Max. Speed	Rated Pressure				Standard Ports	Optional Ports	Shipping Weight	
				Standard 2-Bushing Design		High Pressure 4-Bushing Design					
	GPM	M <sup>3</sup> /HR	RPM	PSI	BAR	PSI	BAR	INCH	INCH	LBS	KG
RL016	105	23.8	640	250	17	400	27	3	4	281	128
RL025	160	36.3	640	175	12	400	27	3	4	297	135
RL150	820	186	600	N/A	N/A	400	27	6	8 & 10	1160	530

## CONSTRUCTION

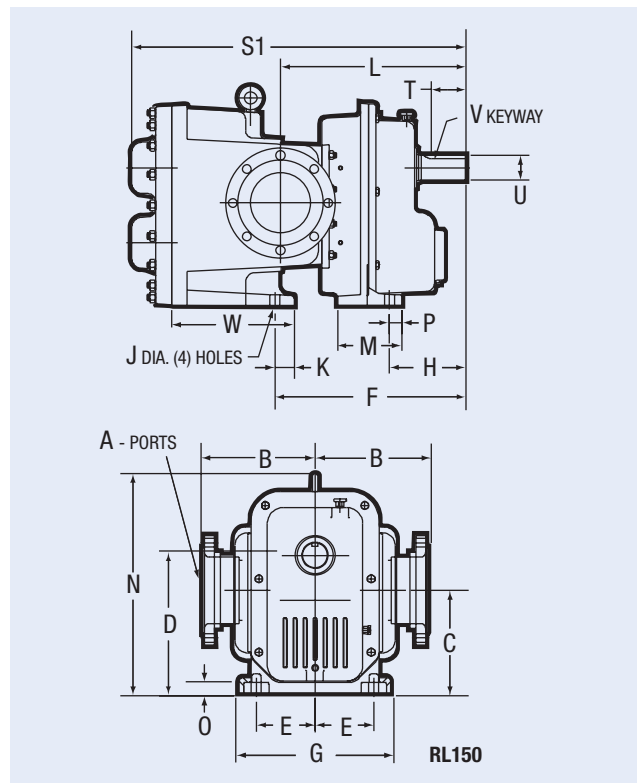
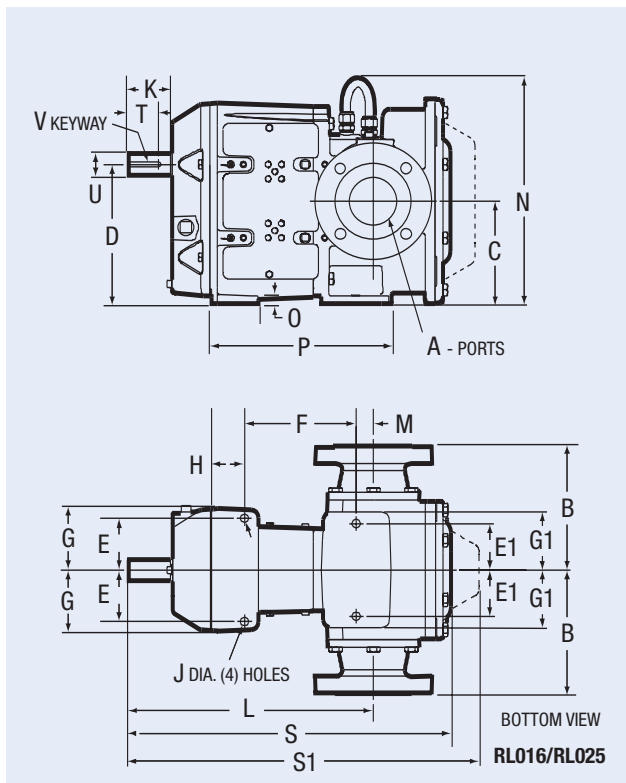
Size	Casing and Head	Lobes	Shafts	Bushings*	O-Rings**	Bracket	Bearing Housing	Gear Case Cover
RL016 / RL025 / RL150	316 Stainless Steel	316 Stainless Steel	17-4 PH Steel	PEEK®	Viton®	Cast Iron	Steel	Aluminum

\* Options: Tungsten Carbide

\*\* Options: Kalrez®

Viton® and Kalrez® are registered trademarks of the DuPont Dow Elastomers, L.L.C.  
PEEK® is a registered trademark of Victrex PLC

## DIMENSIONS



	A <sup>①</sup>	B	C	D	E	E1	F	G	G1	H	J	K	L	M	N	O	P	S <sup>②</sup>	S1 <sup>③</sup>	T	U	V
RL016	3.00	8.00	6.63	9.00	3.34	3.00	7.22	3.96	3.74	2.11	0.56	2.75	15.86	1.12	14.50	0.50	11.58	19.96	21.90	2.00	1.37	0.31
	<b>76</b>	<b>203</b>	<b>168</b>	<b>229</b>	<b>85</b>	<b>76</b>	<b>183</b>	<b>101</b>	<b>95</b>	<b>54</b>	<b>14</b>	<b>70</b>	<b>403</b>	<b>28</b>	<b>368</b>	<b>13</b>	<b>294</b>	<b>507</b>	<b>556</b>	<b>51</b>	<b>35</b>	<b>8</b>
RL025	3.00	8.00	6.63	9.00	3.34	3.00	7.22	3.96	3.74	2.11	0.56	2.75	15.86	1.12	14.50	0.50	11.58	20.86	22.80	2.00	1.37	0.31
	<b>76</b>	<b>203</b>	<b>168</b>	<b>229</b>	<b>85</b>	<b>76</b>	<b>183</b>	<b>101</b>	<b>95</b>	<b>54</b>	<b>14</b>	<b>70</b>	<b>403</b>	<b>28</b>	<b>368</b>	<b>13</b>	<b>294</b>	<b>530</b>	<b>579</b>	<b>51</b>	<b>35</b>	<b>8</b>
RL150	6	11.25	10.25	13.75	5.88		19.12	15.17		7.68	1	1.95	18.56	6.42	21.93	1.06	1.25	N/A	33.41	3.5	2.5	0.62
	<b>152</b>	<b>286</b>	<b>260</b>	<b>349</b>	<b>149</b>		<b>486</b>	<b>385</b>		<b>195</b>	<b>25</b>	<b>50</b>	<b>471</b>	<b>163</b>	<b>557</b>	<b>27</b>	<b>32</b>	<b>N/A</b>	<b>849</b>	<b>89</b>	<b>63</b>	<b>15.88</b>

① Ports are suitable for use with 150# ANSI stainless steel companion flanges or flanged fittings.

② Dimension for the standard pump (2-bushing).

③ Dimension for the high-pressure option (4-bushing).

NOTE: Dimensions shown in bold are millimeters, others are inches.

**Viking Pump,  
worldwide producers  
of internal gear,  
external gear, and lobe  
pump products.**

**For more information, contact your local Authorized Viking Pump Distributor.**

**VIKING  
PUMP**

*An ISO-9001 and 14001 System-Certified Company*

**WORLD HEADQUARTERS**

VIKING PUMP, INC.

A Unit of IDEX Corporation

Cedar Falls, Iowa 50613-0008 U.S.A.

Telephone: +1 (319) 266-1741

Fax: +1 (319) 273-8157

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

**IDEX**  
IDEX CORPORATION

**Canada**  
Viking Pump of Canada, Inc.  
Windsor, Ontario  
Phone: +1 (519) 256-5438  
Fax: +1 (519) 256-5070  
[www.vikingpumpcanada.com](http://www.vikingpumpcanada.com)

**Latin America**  
Viking Pump (Latin America)  
D.F. Mexico C.F.  
Phone: +52 (5) 5255-1357  
Fax: +52 (5) 5255-1356

**Europe**  
Viking Pump (Europe) Ltd.  
Shannon, Ireland  
Phone: +353 (61) 471933  
Fax: +353 (61) 475046  
[www.vikingpumpeurope.com](http://www.vikingpumpeurope.com)

**Asia**  
Viking Pump, Inc.  
Singapore  
Phone: +65 6763-6633  
Fax: +65 6764-4020  
[www.idexapg.com](http://www.idexapg.com)