SERIES 127 AND 4127 STAINLESS STEEL CONSTRUCTION

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POSITIVE-LOCK THRUST CONTROL

Series 127 and 4127 pumps are manufactured with positive-lock thrust control for accurate axial positioning of rotor and shaft. Illustration shows bearing and double end cap arrangement.

See specifications, page 161.4, and performance curves. ② Nominal capacities based on handling thin liquids at low pressures.

Metric conversions are based on US measurements and rounded to the nearest whole number.

① Values shown represent minimums or maximums. Some special construction or

consideration may be required before a cataloged pump can be applied to an

application involving maximum pressure or minimum or maximum temperature

and/or viscosity. Certain models have restrictions in pressures and/or viscosities.

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SERIES 127 AND 4127 STAINLESS STEEL CONSTRUCTION

UNMOUNTED PUMPS



SERIES 127 and 4127 Pumps "LS" Size

This series of heavy-duty pumps is available either unmounted or mounted units as shown on following pages. In the Series 4127 the standard seal is a PTFE type with carbon rotating and corrosion resistant stationary faces. High quality type 316 Stainless Steel is provided on wetted parts which come in contact with the pumped product. The integral thrust bearing is designed to handle heavy-duty pumping jobs without problems of end play and distortion. For increased versatility of installation and complete selection of ports, the pump casing is designed so it can be rotated on the bracket to SERIES 127 and 4127 Pumps "Q" and "M" Sizes

any 45° or 90° angle from that shown in the illustrations. See revolvable casing feature on Page 161.1. Overpressure relief valve on head is standard for this series. To permit use of this type pump in a greater range of application, these pumps are available with jacketed heads. For heavy-duty pumps, stainless steel with jacketed bracket and head, see Catalog Section 162.

Dimensions for Unmounted Pumps—See Page 161.8. Performance Data for Unmounted Pumps—See Pages 161.13 through 161.22.

CONSTRUCTION — SERIES 127 AND ⁽⁾ 4127 ("LS", "Q" AND "M" SIZES)

_									Internal		
Pump Construction	Casing	Head	Bracket	Rotor	Idler	Rotor Shaft	ldler Pin	Packed	Mechanical Seal	Relief Valve	
316 Stainless	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Coated Stainless Steel	Standard	Stainless Steel - PTFE with Carbon Graphite and Corrosion-Resistant Material	Stainless Steel	

SPECIFICATIONS — SERIES 127 AND ^① 4127 UNMOUNTED PUMPS

Model Number		150 lb. ANSI Flange Port Size		⑤ Nomina Pump Rating	I	Motor HP At Rated Pum 100 SSU	Required I Speed Ding Liquid	Maximum Hydrostatic Pressure	⑥ Maximum Recommended Discharge Pressure Handling 100 SSU Liquid At Rated Speeds	③ M Recor Tempe Cataloged	laximum nmended erature for Pump °F. (°C.)	Appro Shippin With	oximate g Weight Valve
Packed	① Mech. Seal	② Inches	GPM	(m³/hr)	RPM	50 PSI (3 BAR)	100 PSI (7 BAR)	PSIG (BAR)	PSIG	Packed	④ Mech. Seal	Pounds (KG)	
LS127	LS4127	3	160	(36)	520	71⁄2	15	400 (28)	100	225 (107)	225 (107)	190	(86)
Q127	Q4127	4	200	(45)	350	10	20	400 (28)	100	275 (125)	275 (125)	440	(200)
M127	M4127	4	280	(64)	280	15	25	400 (28)	100	275 (125)	275 (125)	600	(272)

⑦ For mechanical seal pumps on applications with viscosities above 25,000 SSU (5,500 cSt), provide details for recommendation.

② Ports are suitable for use with 150# ANSI stainless steel companion flanges or flanged fittings.

③ Special adjustment or construction may be required for higher temperatures.
 ④ Standard seal can be used from -20°F, to +450°F. With special construction.

Metric conversions are based on US measurements and rounded to the nearest whole number

higher temperatures can be handled with this series pumps.

Sominal rating based on handling thin liquids.

 For maximum recommended discharge pressures when handling other viscosities and/or other speeds, see performance curves. Performance curves also show preferred constructions. If suction pressure exceeds 50 PSIG (3 BAR), consult factory.

SERIES 127 AND 4127 STAINLESS STEEL CONSTRUCTION

VIKING HELICAL GEAR REDUCTION UNITS ("R" DRIVE)



Viking's heavy-duty pump Series 127 and 4127 are available with helical gear reducers that have been specifically developed for efficient operation with Viking heavy-duty pumps. These gear reducers are rugged, compact and exceptionally quiet.

The medium size "B" helical gear reducer is available with six gear ratios from 2.76 to 1 to 7.65 to 1. This size normally is used with the "LS" pump size. The "B" reducer is bracket mounted and requires couplings on both the input and the output shafts. With the "B" reducer, "LS" pumps driven by 1200 or 1800 RPM motors can be used to cover a capacity range from 41 to 165 GPM. The large "C" size reducer also is available with six gear ratios from 2.80 to 1 to 7.95 to 1. It is normally used with the "Q" or "M" size pumps. Like the "B" reducer, the "C" reducer is bracket mounted and requires flexible couplings both for the input and output shafts. With the "C" reducer, "LS", "Q" and "M" size pumps, driven by 1200 or 1800 RPM motors, can cover a capacity range from 37 to 257 GPM.

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Dimensions for "R" Drive Units— See Pages 161.8 and 161.9. Performance Data for "R" Drive Units—See Pages 161.13 through 161.22.

SPECIFICATIONS — "R" DRIVE UNITS

Model Number		150 lb. ANSI Flange Port Size). (§) I Nominal e Pump ize Rating		Motor HP Required At Rated Speed Pumping 100 SSU Liquid		Maximum Hydrostatic Pressure	⑥ Maximum Recommended Discharge Pressure Handling 100 SSU Liquid At Rated Speeds	③ Maximum Recommended Temperature for Cataloged Pump °F. (°C.).		Approximate Shipping Weight With Valve (Less Power) Pounds (KG)			
Packed	① Mech. Seal	② Inches	GPM ((m³/hr)	RPM	50 PSI (3 BAR)	100 PSI (7 BAR)	PSIG (BAR)	PSIG	Packed	④ Mech. Seal	"B" Reducer	"B" "C" Reducer Reducer	
LS127R	LS4127R	3	160	(36)	520	71/2	15	400 (28)	100	225 (107)	225 (107)	490 (222)	700	(86)
Q127R	Q4127R	4	200	(45)	350	10	20	400 (28)	100	275 (125)	275 (125)		1000	(200)
M127R	M4127R	4	280	(64)	280	15	25	400 (28)	100	275 (125)	275 (125)		1140	(272)

 For mechanical seal pumps on applications with viscosities above 25,000 SSU (5,500 cSt), provide details for recommendation.

② Ports are suitable for use with 150# ANSI stainless steel companion flanges or flanged fittings.

Special adjustment or construction may be required for higher temperatures.
 Standard seal can be used from -20°F. to +450°F. With special construction,

Metric conversions are based on US measurements and rounded to the nearest whole number.

higher temperatures can be handled with this series pumps.

Sominal rating based on handling thin liquids.

(e) For maximum recommended discharge pressures when handling other viscosities and/or other speeds, see performance curves. Performance curves also show preferred constructions. If suction pressure exceeds 50 PSIG (3 BAR), consult factory.

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VIKING[®] HEAVY DUTY PUMPS

SERIES 127 AND 4127

STAINLESS STEEL CONSTRUCTION

VIKING HELICAL GEAR REDUCER UNITS ("R" DRIVE)

HELICAL REDUCER

SPECIFICATIONS AND PUMP CAPACITY TABLE - "B" SIZE

Motor	Reducer	① Maximum Motor	Pump	Pump Models and Capacity GPM ② with Size "B" Reducer LS127R or LS4127R
RPM	Ratio	HP	RPM	50 PSI (3 BAR)
	3.40 to 1	10	520	165
	4.19 to 1	10	420	132
1800	5.06 to 1	71/2	350	109
	6.27 to 1	71/2	280	85
	7.65 to 1	5	230	65
	2.76 to 1	10	420	132
	3.40 to 1	10	350	109
1200	4.19 to 1	71/2	280	85
1200	5.06 to 1	71/2	230	65
	6.27 to 1	5	190	51
	7.65 to 1	5	155	41

HELICAL REDUCER SPECIFICATIONS AND PUMP CAPACITY TABLE — "C" SIZE

				Pump Mo	Pump Models and Capacity GPM ② with Size "C" Reducer							
		() Maximum		LS127R or LS4127R	Q127 Q41	7R or 27R	M127 M41	7R or 27R				
Motor RPM	A Reducer Motor Ratio HP		Pump RPM	100 PSI (7 BAR)	50 PSI (3 BAR)	100 PSI (7 BAR)	50 PSI (3 BAR)	75 PSI (5 BAR)				
	3.31 to 1	35	520	162								
	4.21 to 1	30	420	129								
1800	5.08 to 1	25	350	106	190	188						
	6.24 to 1	20	280	83	145	140	257	250				
	7.95 to 1	15	230	64	115	110	205	200				
	2.80 to 1	30	420	129								
	3.31 to 1	25	350	106	190	188						
1200	4.21 to 1	20	280	83	145	140	257	250				
1200	5.08 to 1	15	230	64	115	110	205	200				
	6.24 to 1	10	190	50	89	84	160	153				
	7.95 to 1	10	155	37	64	60	122	115				

① Recommended maximum motor horsepower based on 8-10 hour per day service (Service Factor of 1.0). For other time length of service per day, see Service Factor table and Reducer Horsepower tables in General Catalog Section 610 or Technical Service Manual (TSM-610) to determine reducer capabilities.

② Capacities are based on handling 100 SSU liquid.

Metric conversions are based on US measurements and rounded to the nearest whole number.

OUTSTANDING FEATURES

- 1. Mounts NEMA standard motors, 1200 or 1800 RPM. 10 HP, 1800 RPM maximum with "B" reducer, and 40 HP, 1800 RPM maximum with "C" reducer.
- 2. Complete reducers within a size may be interchanged on a Viking pump unit to obtain desired pump speeds and capacities. Thus the six gear ratios within the "B" size reducer may be interchanged within the size by selecting the proper pinion and gear of a common ratio. Similarly, all six "C" reducers are interchangeable on each respective series of "C" reducer units.
- 3. Quiet operation. High hardness helical gears run in a bath of oil.
- 4. Compact, narrow and low to fit in small space and low overhead.
- 5. Pump, motor or reducer can be removed without disturbing the other two components.
- 6. Units with "B" and "C" reducers have standard flexible coupling with guard between power and reducer as well as between reducer and pump.
- 7. Oil and weather tight for outdoor service.
- 8. Ball bearings throughout.
- 9. Reducers easily adjustable to different motor center heights.
- 10. Self-supported. Not hung on pump or motor shafts. No radial load on pump or motor shafts.
- "B" reducers have 1" dia., ¼" key input shaft and 1½" dia., ¼" key output shaft and "C" reducers have 1¾" dia., ⁵/₁₆" key input and output shafts.

SERIES 127 AND 4127 STAINLESS STEEL CONSTRUCTION

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GEAR REDUCER UNITS ("P" DRIVE)



Viking's Heavy-Duty Series 127 and 4127 packed and mechanical seal pumps in "LS", "Q" and "M" sizes (160 to 280 GPM) are available in the "P" drive arrangement.

These Heavy-Duty units are mounted on formed steel bases ("LS" size) and structural or formed steel bases ("Q" and "M" sizes) as illustrated above.

All mount separate heavy-duty reducers with flexible

couplings between pump, reducer and motor. Coupling guards as illustrated are standard construction. See below for specifications and motor horsepower range. *Dimensions for "P" Drive Units — Consult Factory.*

Performance Data for "P" Drive Units — See Pages 161.13 through 161.22.

Model Number		150 lb. ANSI Flange Port Size	َق Nominal Pump Rating		Motor HP Required At Rated Speed Pumping 100 SSU Liquid		Maximum Hydrostatic Pressure	⑥ Maximum Recommended Discharge Pressure Handling 100 SSU Liquid At Rated Speeds	③ Maximum Recommended Temperature for Cataloged Pump °F. (°C.)		Approximate Shipping Weight With Valve (Less Power)	
Packed	① Mech. Seal	② Inches	GPM (m ³ /hr)	RPM	50 PSI (3 BAR)	100 PSI (7 BAR)	PSIG (BAR)	PSIG	Packed	④ Mech. Seal	Pounds (KG)	
LS127P	LS4127P	3	160 (36	520	71/2	15	400 (28)	100	225 (107)	225 (107)	483	(219)
Q127P	Q4127P	4	200 (45	350	10	20	400 (28)	100	275 (125)	275 (125)	830	(377)
M127P	M4127P	4	280 (64	280	15	25	400 (28)	100	275 (125)	275 (125)	966	(439)

SPECIFICATIONS — "P" DRIVE UNITS

 For mechanical seal pumps on applications with viscosities above 25,000 SSU (5,500 cSt), provide details for recommendation.

② Ports are suitable for use with 150# ANSI stainless steel companion flanges or flanged fittings.

Special adjustment or construction may be required for higher temperatures.
 Standard seal can be used from -20°F. to +450°F. With special construction,

. Metric conversions are based on US measurements and rounded to the nearest whole number. higher temperatures can be handled with this series pumps.

⑤ Nominal rating based on handling thin liquids.

⑤ For maximum recommended discharge pressures when handling other viscosities and/or other speeds, see performance curves. Performance curves also show preferred constructions. If suction pressure exceeds 50 (3 BAR) PSIG, consult factory.

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VIKING[®] HEAVY DUTY PUMPS

SERIES 127 AND 4127 STAINLESS STEEL CONSTRUCTION

DIRECT DRIVE UNITS ("D" DRIVE)



The Direct Drive "D" mounting is specifically designed for compactness and quietness of operation. They save space, installation and operating costs. In this type assembly the pump is mounted on one end of a rectangular formed steel base and connected to a gearhead motor by means of a flexible coupling with guard.

Dimensions for "D" Drive Units—See Page 161.9. Performance Data for "D" Drive Units—See Pages 161.13 through 161.22. SERIES 127 and 4127 Pumps with "D" Drive "LS", "Q" and "M" Sizes ("LS" size shown)

SPECIFICATIONS — "D" DRIVE UNITS

Model Number		150 lb. ANSI Flange Port Size	ق Nominal Pump Rating		Motor HP Required At Rated Speed Pumping 100 SSU Liquid		Maximum Hydrostatic Pressure	⑥ Maximum Recommended Discharge Pressure Handling 100 SSU Liquid At Rated Speeds	③ Maximum Recommended Temperature for Cataloged Pump °F. (°C.)		Approximate Shipping Weight With Valve (Less Power)	
Packed	① Mech. Seal	② Inches	GPM (m ³ /hr)	RPM	50 PSI (3 BAR)	100 PSI (7 BAR)	PSIG (BAR)	PSIG	Packed	④ Mech. Seal	Pound	is (KG)
LS127D	LS4127D	3	160 (36)	520	71⁄2	15	400 (28)	100	225 (107)	225 (107)	415	(188)
Q127D	Q4127D	4	200 (45)	350	10	20	400 (28)	100	275 (125)	275 (125)	820	(372)
M127D	M4127D	4	280 (64)	280	15	25	400 (28)	100	275 (125)	275 (125)	980	(445)

 For mechanical seal pumps on applications with viscosities above 25,000 SSU (5,500 cSt), provide details for recommendation.

② Ports are suitable for use with 150# ANSI stainless steel companion flanges or flanged fittings.

③ Special adjustment or construction may be required for higher temperatures.
 ④ Standard seal can be used from -20°F. to +450°F. With special construction,

Metric conversions are based on US measurements and rounded to the nearest whole number.

higher temperatures can be handled with this series pumps.

⑤ Nominal rating based on handling thin liquids.

⑤ For maximum recommended discharge pressures when handling other viscosities and/or other speeds, see performance curves. Performance curves also show preferred constructions. If suction pressure exceeds 50 PSIG (3 BAR), consult factory.

SERIES 127 AND 4127 STAINLESS STEEL CONSTRUCTION

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V-BELT DRIVE UNITS ("V" DRIVE)



Viking's V-belt driven line of Heavy-Duty Series 127 and 4127 pumps are all mounted on formed welded steel bases. Pumps mount on pads to accept totally enclosed V-belt drive. All units in this series feature standard pump shaft extension with totally guarded sheave mounted on end of heavy-duty pump shaft.

Dimensions for "V" Drive Units—See Page 161.10. Performance Data for "V" Drive Units—See Pages 161.13 through 161.22.

SPECIFICATIONS — "V" DRIVE UNITS

Model Number		150 lb. ANSI Flange Port Size	ق Nominal Pump Rating			Motor HP Required At Rated Speed Pumping 100 SSU Liquid		Maximum Hydrostatic Pressure	 Maximum Recommended Discharge Pressure Handling 100 SSU Liquid At Rated Speeds 	③ Maximum Recommended Temperature for Cataloged Pump °F. (°C.)		Approximate Shipping Weight With Valve (Less Power)	
Packed	① Mech. Seal	② Inches	GPM	(m³/hr)	RPM	50 PSI (3 BAR)	100 PSI (7 BAR)	PSIG (BAR)	PSIG	Packed	④ Mech. Seal	Pounds (KG)	
LS127V	LS4127V	3	160	(36)	520	71/2	15	400 (28)	100	225 (107)	225 (107)	375	(170)
Q127V	Q4127V	4	200	(45)	350	10	20	400 (28)	100	275 (125)	275 (125)	986	(448)
M127V	M4127V	4	280	(64)	280	15	25	400 (28)	100	275 (125)	275 (125)	1138	(517)

 For mechanical seal pumps on applications with viscosities above 25,000 SSU (5,500 cSt), provide details for recommendation.

② Ports are suitable for use with 150# ANSI stainless steel companion flanges or flanged fittings.

Special adjustment or construction may be required for higher temperatures.
 Standard seal can be used from -20°F. to +450°F. With special construction,

Metric conversions are based on US measurements and rounded to the nearest whole number.

higher temperatures can be handled with this series pumps.

⑤ Nominal rating based on handling thin liquids.

⑤ For maximum recommended discharge pressures when handling other viscosities and/or other speeds, see performance curves. Performance curves also show preferred constructions. If suction pressure exceeds 50 PSIG (3 BAR), consult factory.

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VIKING[®] HEAVY DUTY PUMPS SERIES 127 AND 4127

STAINLESS STEEL CONSTRUCTION

DIMENSIONS

These dimensions are average and not for construction purposes. Certified prints on request.





For specifications, see pages 161.3. and 161.4.

DIMENSIONS — SERIES 127 AND 4127 ("R" DRIVE) "LS" SIZE PUMP "B" SIZE REDUCER UNITS

⑦ Ports are suitable for use with 150# ANSI stainless steel companion flanges or flanged fittings.

NOTE: Units available to accept 10 HP, 1200 RPM maximum motor.

NOTE: Motor rails 2" high are required on "LS" size units with 184-T or $4\frac{1}{2}$ " center height motors.

VIKING[®] HEAVY DUTY PUMPS SERIES 127 AND 4127 STAINLESS STEEL CONSTRUCTION

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DIMENSIONS

These dimensions are average and not for construction purposes. Certified prints on request.

For specifications, see pages 161.3 through 161.4.

DIMENSIONS — SERIES 127 AND 4127 ("R" DRIVE) "LS", "Q" AND "M" SIZE PUMPS "C" SIZE REDUCER UNITS



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

For specifications, see page 161.6.

DIMENSIONS — SERIES 127 AND 4127 ("D" DRIVE) "LS", "Q" AND "M" SIZE PUMPS DIRECT CONNECTED UNITS



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

Varies with gearmotor used.

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VIKING[®] HEAVY DUTY PUMPS SERIES 127 AND 4127 STAINLESS STEEL CONSTRUCTION

DIMENSIONS

These dimensions are average and not for construction purposes. Certified prints on request.

