

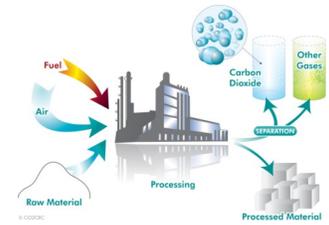


Lobee Pump & Machinery Co.
Industrial Pumps and Accessories

Since 1899...Noted for Highest Quality Pumps and Equipment

Process Pumps for Industry

Proudly made in the USA



2013 PRODUCT CATALOG

Industrial Pumps and Accessories for Stationary and Mobile Applications are available in Bronze, Stainless Steel, Nickel Alloy, and Cast Iron.

HEAVY-DUTY GEAR PUMPS

A broad range of rotary gear pumps are available in Stainless Steel, Bronze and Cast Iron. Sizes from 1/8" to 2" NPT ported and flows to 90 GPM. Working pressures to 150 PSI continuous, 200 PSI intermittent. Shaft seals include mechanical, lip and packing.



Bronze



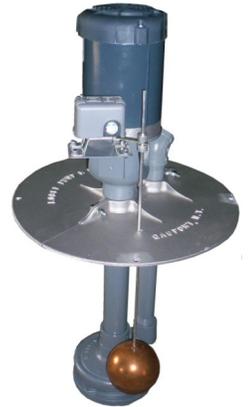
Iron



Stainless Steel

VERTICAL SUMP PUMPS

Floor mounted and cover Suspended models up to 150 GPM, 85' TDH. These are heavy-duty industrial continuous duty closed impeller pumps designed to last. Available in cast iron, stainless steel and bronze 'wetted' construction. Premium Efficient, TEFC, ODP, Washdown, and Explosion-Proof motors available in single or three phase voltage. Control switching includes general purpose, water-tight and explosion-proof.



LIQUID RING PUMPS

A versatile self-priming liquid ring pump design that excels at pumping combination liquid/vapor/gas and foaming solutions in a high vacuum environment. Vertical suction lift to 28 foot, flows to 80 GPM liquid, total dynamic head to 230 feet.



DIRECT AND BASE MOUNTED PUMP/MOTOR UNITS

1/3 to 5 HP, Available with ODP, TEFC, Washdown or Explosion - Proof motors. Single or three phase, 1800 or 1200 RPM and variable speed inverter duty a standard option. Flows to 50 GPM, 150 PSI. Other options include mounted VFD, speed reducer, relief valve, special enclosures and materials.



FLOW RATERS

Our in-line flow indicators are available in 316 Stainless Steel, Brass and PVC. Sight tubes available in Acrylic or Pyrex. Port sizes are 1/2", 3/4" and 1" NPT, flows to 40 GPM





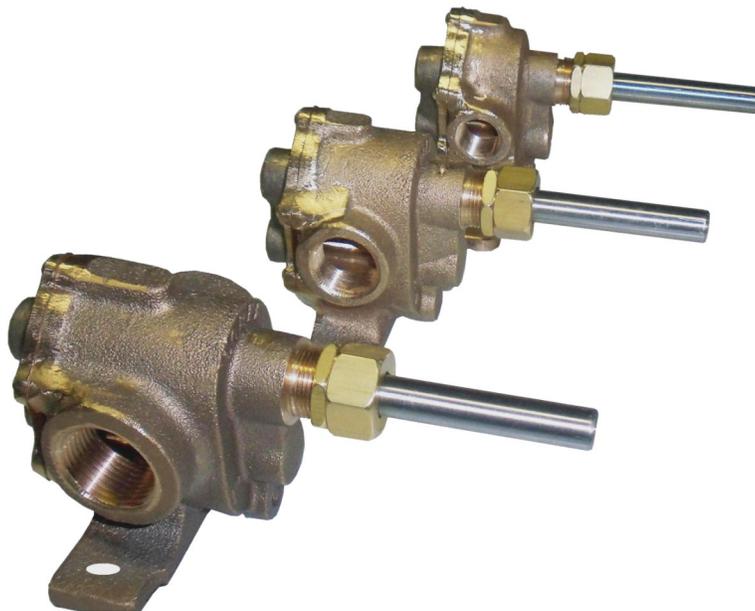
MODEL LOS

Markets

Agriculture-fertilizers, pesticides
Automotive-coolants, lubricants
Book Mfg-adhesives, glue
Construction & Mining-lubricants, fuels, coolants
Filtration System Pumps-portable, stationary
Food & Beverage-syrups, additives, oils
Furniture-adhesives, glue
Institutional (Hospitals, Schools)-Boiler feed pump
Machine Tool-coolant & lubricant circulation
Marine-bilge pump, fresh water
Mills-coolants, lubricants
Municipalities-liquids transfer
Power Plants & Utilities-coolants, lubricants, fuels
Printing-inks, solvents
Processing Plants-speed variable material transfer
Refineries-liquid transfer

Applications

Adhesives, Glue
Alcohols
Ethylene Glycol, Anti-Freeze
Fuels-Petrol, Diesel, Kerosene
Glycerin's
Heating Oils
Inks
Molasses
Salt Brine
Sea Water
Solvents
Syrups
Vegetable/Cooking Oils
Vinegars
Water-Tap, Grey, Soapy
Weed Killers



Standard Features and Benefits

- ✓ All Bronze Federalloy™
- ✓ 3 Sizes - 1/2", 3/4", 1" NPT Port Sizes
- ✓ Acrylic Graphite Packing
- ✓ Flows to 18 GPM
- ✓ Bi-Directional Rotation
- ✓ Temperature to 350 F
- ✓ Pressure to 100 PSI
- ✓ 1/2" Shaft Diameter, 416 SS

Performance and Sizing

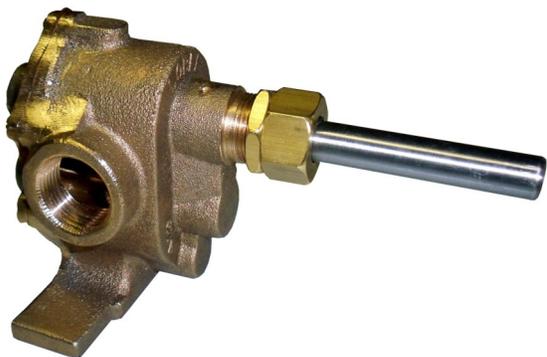
SHAFT SPEED	PUMP MODEL	NPT Ports	GPM/100 RPM	~ CIR	0 PSI		20 PSI		40 PSI		60 PSI		80 PSI		100 PSI	
					GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
1750 RPM	4LOS	1/2"	0.556	1.28	9.7	1/2	9.4	1/2	9	3/4	8.6	1	8.2	1	7.9	1 1/2
	6LOS	3/4"	0.836	1.93	14.6	1/2	14	1/2	13.5	1	13	1	12.4	1 1/2	11.8	1 1/2
	8LOS	1"	1.070	2.47	18.8	1/2	17.7	3/4	17	1	16.6	1 1/2	15.8	2	15	2
1150 RPM	4LOS	1/2"	0.556	1.28	6.6	1/4	6.2	1/4	5.9	1/3	5.6	1/2	5.4	3/4	5.2	3/4
	6LOS	3/4"	0.836	1.93	9.6	1/3	9.2	1/3	8.8	1/2	8.5	1/2	8.2	1	7.7	1
	8LOS	1"	1.070	2.47	12.4	1/3	11.6	1/2	11.1	3/4	10.9	1	10.3	1	9.8	1 1/2
575 RPM	4LOS	1/2"	0.556	1.28	3.2	1/4	3	1/4	2.9	1/3	2.8	1/3	2.7	1/3	2.6	1/2
	6LOS	3/4"	0.836	1.93	4.8	1/4	4.6	1/4	4.4	1/3	4.2	1/3	4	1/2	3.8	1/2
	8LOS	1"	1.07	2.47	6.2	1/4	5.8	1/4	5.5	1/3	5.3	1/2	5.1	1/2	4.9	3/4

* Consult factory for operating temperatures and pressures that may exceed published limits



BRONZE GEAR PUMPS

MODEL LOS

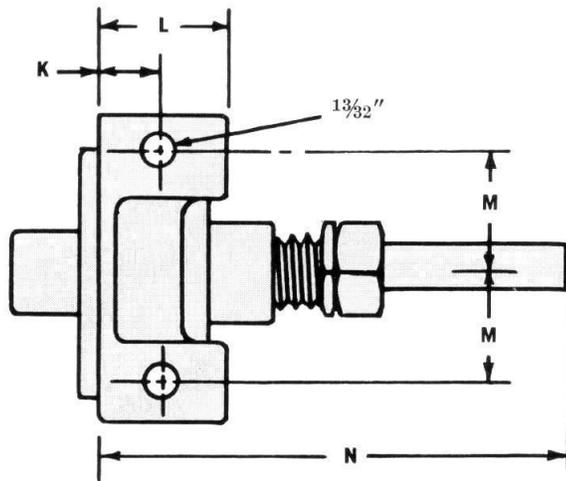


1" NPT with Standard Graphite Packing

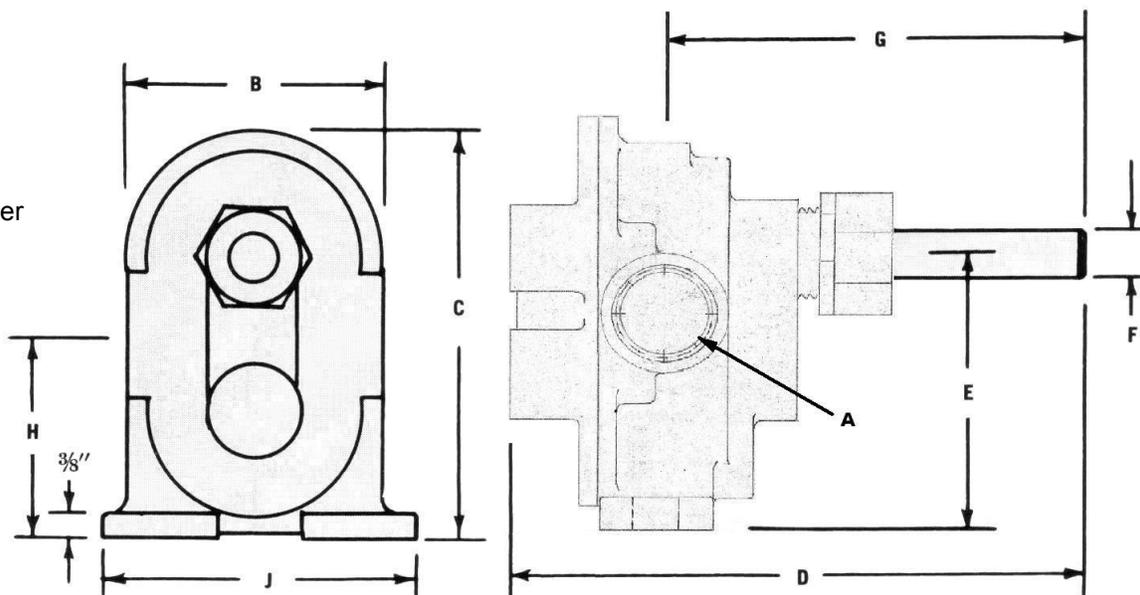
The **Lobee Model LOS Bronze Gear Pump** is recommended for forced feed oil lubrication, machine tool lubrication/cooling, salt water and many other industrial applications where non-abrasive liquids are transferred in and around plant and equipment. The pump shell and cover are bored to an extremely high degree of accuracy. The flange of the shell and surface of the cover are machine tooled to insure perfect alignment. Available with top or bottom single shaft or double shaft, integral relief valve, lip seal or standard carbon graphite packing. The Lobee LOS Bronze Gear pump is available in flows up to 17 gpm and continuous duty pressure to 100 psi. It will outperform the competition while delivering years of dependable service.



1" NPT 8LOS Bottom Shaft



With 0-100 PSI Relief Valve Cover



Dimensional Specifications

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N
4LOS	1/2"	2-13/16"	3-7/8"	6-1/4"	2-21/32"	1/2"	4-29/32"	2-1/16"	4"	17/32"	1-1/32"	1-1/2"	5-1/2"
6LOS	3/4"	2-3/4"	3-7/8"	6-3/4"	2-21/32"	1/2"	5-1/4"	2-1/16"	4"	17/32"	1-1/32"	1-1/2"	6"
8LOS	1"	2-3/4"	3-7/8"	7-1/4"	2-21/32"	1/2"	5-7/16"	2-1/16"	4"	3/4"	1-5/16"	1-1/2"	6-1/2"



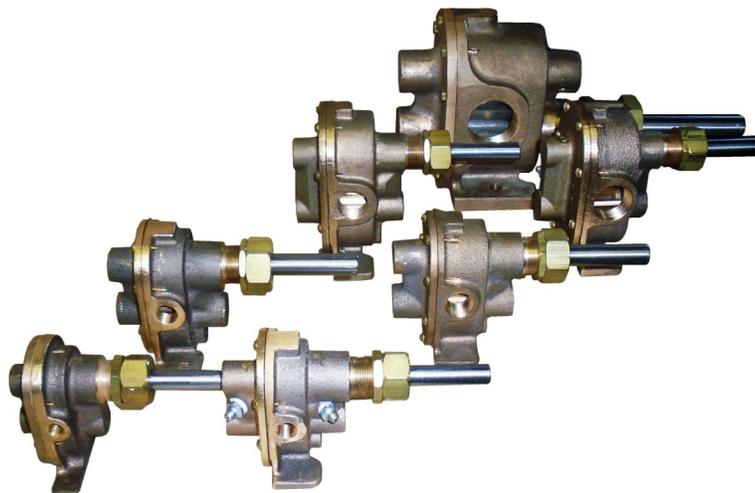
MODEL LOL - HEAVY DUTY

Markets

Agriculture-fertilizers, pesticides
 Construction & Mining-lubricants, fuels, coolants
 Food & Beverage-syrups, additives
 Machine Tool-coolant & lubricant circulation
 Marine-bilge pump, fresh water
 Mills-coolants, lubricants
 Municipalities-liquids transfer
 Power Plants & Utilities-coolants, lubricants, fuels
 Printing-inks, solvents
 Refineries-liquid transfer
 Filtration System Pumps

Applications

Adhesives, Glue
 Alcohols
 Ethylene Glycol, Anti-Freeze
 Fuels-Petrol, Diesel, Kerosene
 Glycerin's
 Heating Oils
 Inks
 Molasses
 Salt Brine
 Sea Water
 Solvents
 Syrups
 Vegetable/Cooking Oils
 Vinegars
 Water-Tap, Grey, Soapy
 Weed Killers



Standard Features and Benefits

- 1) Federalloy™ Bronze Body and Gears
- 2) 416 Stainless Steel Drive and Idler Shaft
- 3) High Durability for Severe Service
- 4) Std Carbon Graphite Packing
- 5) Mechanical Shaft Seal is Standard Option
- 6) 0-1800 RPM Range of Operation, Flows to 90 GPM
- 7) Bi-Directional Shaft Rotation
- 8) Operating Temperatures to 400 F
- 9) Continuous Working Pressure to 150 PSI
- 10) 1/2", 5/8" & 1" Shaft Diameters

Performance and Sizing

SHAFT SPEED	PUMP MODEL	NPT Ports	GPM/100 RPM																
				~ CIR	0 PSI	20 PSI	40 PSI	60 PSI	80 PSI	100 PSI	HP	GPM	HP	GPM	HP	GPM	HP		
1750 RPM	1LOL	1/8"	0.13	0.30	2.3	1/4	2.1	1/4	1.9	1/2	1.7	1/4	1.6	1/3	1.4	1/3			
	2LOL	1/4"	0.268	0.62	4.7	1/4	4.6	1/4	4.4	1/3	4.2	1/2	4	1/2	3.8	3/4			
	3LOL	3/8"	0.451	1.04	7.9	1/2	7.6	1/2	7.4	3/4	7.2	1	7	1	6.8	1 1/2			
	4LOL	1/2"	0.622	1.44	10.9	1/2	10.5	3/4	10.2	1	9.7	1	9.5	1 1/2	9	2			
	6LOL	3/4"	1.075	2.48	18.8	1	18	1 1/2	16.5	2	15.5	2	14.5	2 1/2	13	3			
	8LOL	1"	1.266	2.92	22.1	1 1/2	21	2	20	2	19	3	18	3	16.5	5			
1150 RPM	1LOL	1/8"	0.13	0.30	1.5	1/4	1.3	1/4	1.1	1/4	0.9	1/4	0.7	1/4	0.5	1/4			
	2LOL	1/4"	0.268	0.62	3.1	1/4	2.9	1/4	2.7	1/4	2.5	1/4	2.3	1/3	2.1	1/2			
	3LOL	3/8"	0.451	1.04	5.2	1/4	4.8	1/4	4.5	1/3	4.1	1/2	3.8	3/4	3.5	1			
	4LOL	1/2"	0.622	1.44	7.2	1/4	6.8	1/3	6.4	1/2	6	3/4	5.6	1	5.2	1			
	6LOL	3/4"	1.075	2.48	12.3	1/3	11.8	1/2	11.3	3/4	10.8	1	10.3	1 1/2	9.8	2			
	8LOL	1"	1.266	2.92	14.5	1/2	14	3/4	13.5	1	13		12.5	2	12	3			
575 RPM	1LOL	1/8"	0.13	0.30	0.75	1/4	0.7	1/4	0.6	1/4	0.5	1/4	0.4	1/4	0.3	1/4			
	2LOL	1/4"	0.268	0.62	1.54	1/4	1.2	1/4	0.9	1/4	0.7	1/4	0.6	1/4	0.5	1/4			
	3LOL	3/8"	0.452	1.04	2.6	1/4	1.8	1/4	1.2	1/4	0.9	1/3	0.8	1/3	0.7	1/2			
	4LOL	1/2"	0.622	1.44	3.6	1/4	3.2	1/4	2.8	1/3	2.4	1/3	2	1/2	1.6	1/2			
	6LOL	3/4"	1.075	2.48	6.2	1/4	5.9	1/3	5.6	1/2	5.3	3/4	5.1	1	4.9	1			
	8LOL	1"	1.266	2.92	7.4	1/3	7	1/2	6.6	3/4	6.2	1	5.8	1	5.4	1			
	10LOL	1-1/4"	3.44	7.95	19.8	1/2	17.9	3/4	15.8	1	13.8	1 1/2	11	2	9.1	3			
12LOL	1-1/2"	5.01	11.57	28.8	1	25.7	2	23	3	20	3	17.2	5	14	5				

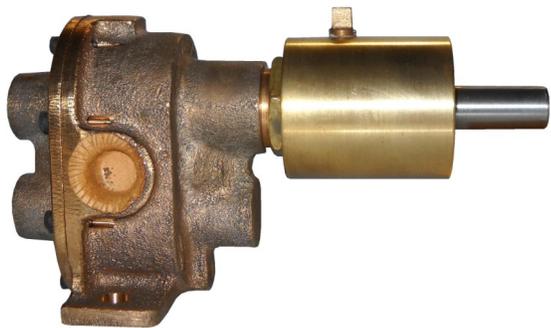
* Consult factory for operating temperatures and pressures that may exceed published limits



BRONZE GEAR PUMPS

MODEL LOL - HEAVY DUTY

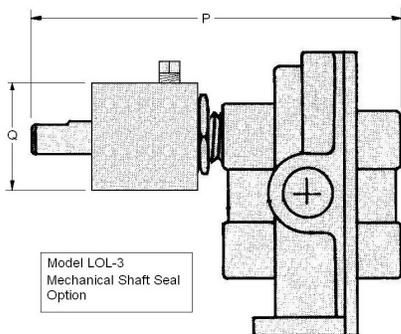
The **Lobee Model LOL Bronze Gear Pump** is designed for extra heavy duty performance in forced feed lubrication/cooling, fuel/solvent transfer, salt water, ink, glue pumping as well as many other industrial applications where non-abrasive liquids are transferred in and around plant and equipment. The Lobee Model LOL is designed for severe service where standard pumps will not do the job. Available with top or bottom single shaft or double shaft, integral relief valve, lip or mechanical seal and standard carbon graphite packing. Made completely of bronze, and to the most exacting standards of workmanship, the Model LOL pump is larger and heavier than standard pumps of equal intake diameters and has greater capacities...flows to 90 gpm and continuous duty pressures to 150 psi.



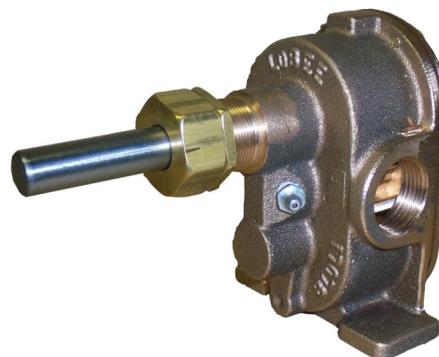
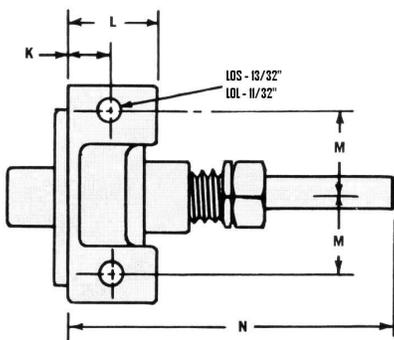
6LOL with Mechanical Seal



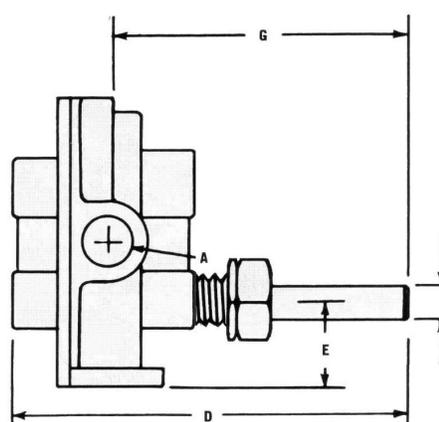
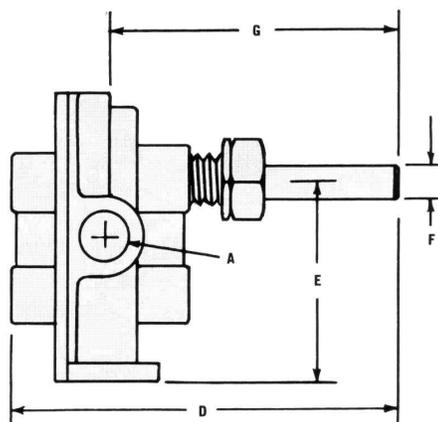
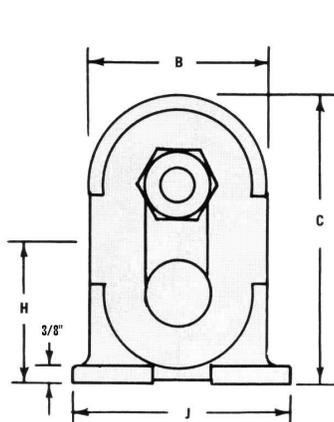
6LOL with Relief Valve Cover



Model LOL-3
Mechanical Shaft Seal
Option



3/4" NPT with Graphite Packing



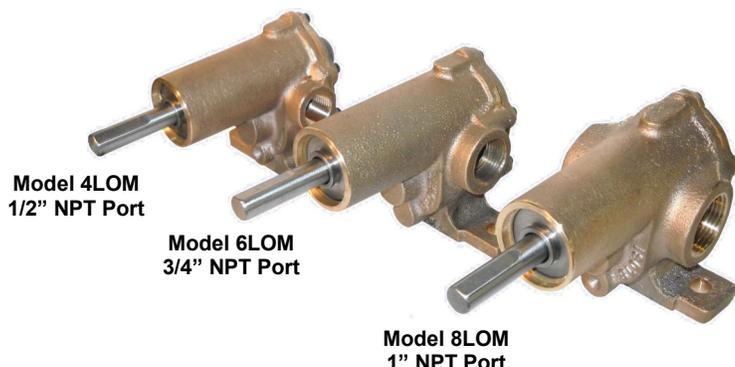
Dimensional Specifications

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N
1LOL	1/8"	2-3/16"	3-9/16"	5"	2-7/16"	1/2"	3-29/32"	1-27/32"	3"	11/32"	21/32"	1-1/8"	4-1/8"
2LOL	1/4"	2-3/8"	3-5/8"	6-7/16"	2-13/32"	1/2"	4-15/16"	1-3/4"	2-7/8"	3/4"	1-1/4"	1-1/8"	5-3/8"
3LOL	3/8"	2-5/8"	4"	7"	2-11/16"	5/8"	5-3/8"	1-15/16"	3-1/2"	5/8"	1-15/16"	1-3/8"	5-7/8"
4LOL	1/2"	2-5/8"	4"	7-3/8"	2-11/16"	5/8"	5-5/8"	1-15/16"	3-1/2"	5/8"	1-15/16"	1-3/8"	6-1/4"
6LOL	3/4"	3-3/8"	5-5/16"	7-3/8"	3-5/8"	5/8"	5-1/2"	2-5/8"	4-1/8"	3/4"	1-3/8"	1-1/2"	6-1/4"
8LOL	1"	3-3/8"	5-5/16"	7-5/8"	3-5/8"	5/8"	5-5/8"	2-5/8"	4-1/8"	34/64"	1-1/2"	1-1/2"	6-1/2"
10LOL	1-1/4"	4-5/8"	6-3/4"	12-13/16"	4-7/16"	1"	9-3/4"	3-5/16"	5-1/4"	1-1/4"	2-1/4"	1-7/8"	10-5/16"
12LOL	1-1/2"	4-5/8"	6-3/4"	13-7/8"	4-7/16"	1"	10-5/8"	3-5/16"	5-1/4"	1-5/16"	3-1/4"	2-1/16"	12"



New Model LOM Gear Pump

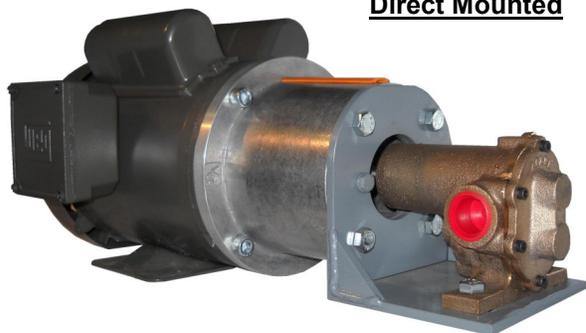
Our newest Bronze Gear Pump incorporates state of the art technology into the 'tried and true' performance of the industry standard all bronze Model LOS positive displacement gear pump. The new Model LOM includes environmentally friendly Federalloy™ cast bronze, an integral mechanical shaft seal, sleeve bearings and a keyed drive gear.



Standard Features and Benefits

- ✓ Keyed Drive Gear -Operating Pressure to 150 PSI, Higher Continuous Torque for High Viscosity Materials
- ✓ Ertalyte™ Sleeve Bearings -Long Life, Broad Material Compatibility, FDA Compliant
- ✓ Federalloy™ Bronze Cast Body and Cover is Lead-Free and meets NSF Regulations for Leaching Copper and Bismuth
- ✓ 416 Stainless Steel Drive, Idler Shaft and Seal Retainer
- ✓ John Crane™ Type 2106 Viton™ Mechanical Seal -No Leak Operation
- ✓ Plated Steel Socket Head Cover Screws -No Stretching for Higher Pressure Applications
- ✓ 200-1800 RPM Operating Range for Accurate Control of Pumped Material

Direct Mounted



Relief Valve Option



Application and Operation

- ✓ 3 Sizes- 1/2", 3/4" and 1" NPT Ports
- ✓ Flows to 18 GPM
- ✓ Bi-Directional Operation
- ✓ Temperature to 350 F
- ✓ 1/2" Shaft Diameter
- ✓ Two Hole Base Mount

Options

- ✓ 25-150 PSI Adjustable Relief Valve
- ✓ Rulon™ 641 Sleeve Bearings for Temperatures above 180 F
- ✓ Base and Direct Mounted Pump Systems

Uses

Adhesives, Glue
Alcohols
Ethylene Glycol, Anti-Freeze
Fuels-Petrol, Diesel, Kerosene
Glycerines
Heating Oils
Inks
Molasses
Salt Brine
Sea Water
Solvents
Syrups
Vegetable/Cooking Oils
Vinegars
Water-Tap, Grey, Soapy
Weed Killers

Markets

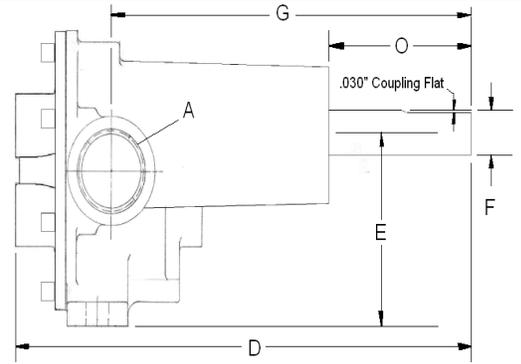
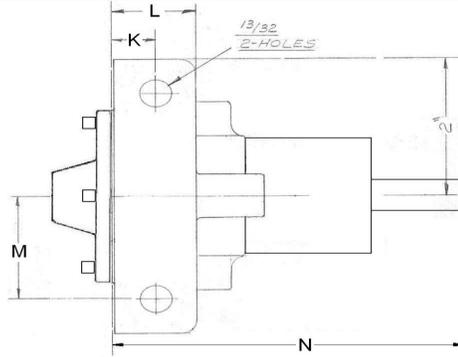
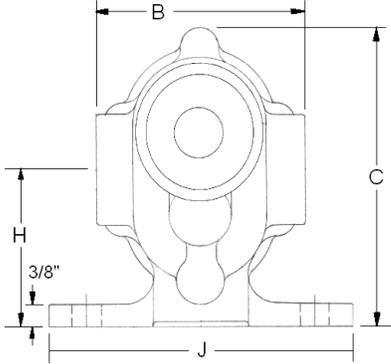
Agriculture-fertilizers, pesticides
Automotive-coolants, lubricants
Book Mfg-adhesives, glue
Construction & Mining-lubricants, fuels, coolants
Filtration System Pumps-portable, stationary
Food & Beverage-syrups, additives, oils
Furniture-adhesives, glue
Institutional (Hospitals, Schools)-Boiler feed pump
Machine Tool-coolant & lubricant circulation
Marine-bilge pump, fresh water
Mills-coolants, lubricants
Municipalities-liquids transfer
Power Plants & Utilities-coolants, lubricants, fuels
Printing-inks, solvents
Processing Plants-speed variable material transfer
Refineries-liquid transfer



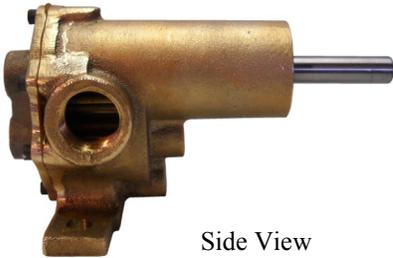
LOM Performance and Sizing Data

Dimensions

MODEL	Port	Body Width	Body Height	Overall Length	Mount to Shaft CL	Shaft Dia	Port CL to Shaft End	Mount to Port CL	Base Mount Width	Mount Hole Position	Base Mount Depth	Foot Mount Holes	Base Mount Rear to Shaft End	Shaft Extension
	A	B	C	D	E	F	G	H	J	K	L	M	N	O
4LOM	1/2"	2-7/8"	4-1/16"	6-5/16"	2-21/32"	1/2"	4-29/32"	2-1/16"	4-1/8"	17/32"	1-1/32"	1-1/2"	5-1/2"	1-7/8"
6LOM	3/4"	2-7/8"	4-1/16"	6-3/4"	2-21/32"	1/2"	5-1/4"	2-1/16"	4-1/8"	17/32"	1-1/32"	1-1/2"	6"	1-7/8"
8LOM	1"	3"	4-1/16"	7-1/4"	2-21/32"	1/2"	5-7/16"	2-1/16"	4-1/8"	3/4"	1-5/16"	1-1/2"	6-1/4"	1-7/8"



Performance tested with 70 F Water. The viscosity and specific gravity of other fluids will vary results. Please contact factory for applications with estimated pressure above those listed. Our positive displacement gear pumps have excellent suction characteristics and are self priming when wetted, with up to 20' lift dependent on vapor point of volatile liquids. For vertical suction lift, should pump run dry between uses, re-wet pump or use foot valve. Pump flow can be varied by varying input speed with pulleys, a gear reducer, or electric motor inverter (VFD). Never side load pump drive shaft, use a jackshaft/bearing arrangement.

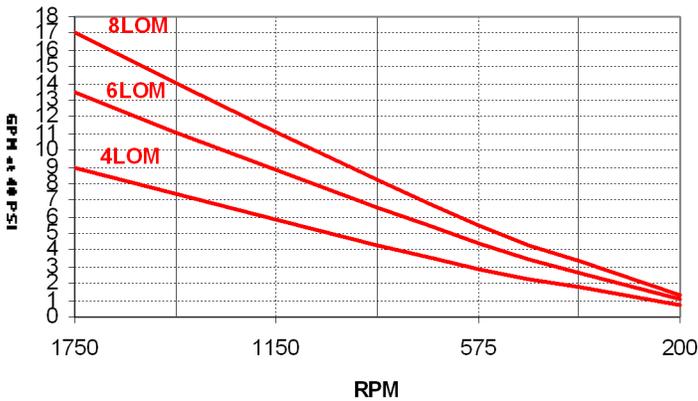


Side View

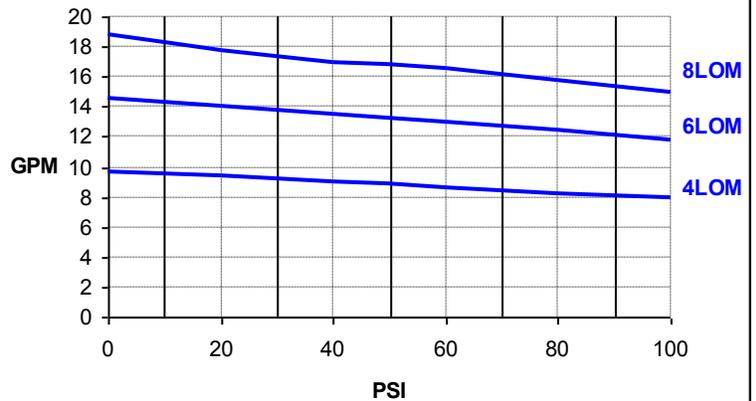


Front View

LOM RPM Operating Range



LOM Pump Flow Curve - 1750 RPM



SHAFT SPEED	PUMP MODEL	NPT Ports	GPM/100 RPM	0 PSI															
				~ CIR	20 PSI		40 PSI		60 PSI		80 PSI		100 PSI						
				GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP		
1750 RPM	4LOM	1/2"	0.556	1.28	9.7	1/2	9.4	1/2	9	3/4	8.6	1	8.2	1	7.9	1 1/2			
	6LOM	3/4"	0.836	1.93	14.6	1/2	14	1/2	13.5	1	13	1	12.4	1 1/2	11.8	1 1/2			
	8LOM	1"	1.070	2.47	18.8	1/2	17.7	3/4	17	1	16.6	1 1/2	15.8	2	15	2			
1150 RPM	4LOM	1/2"	0.556	1.28	6.6	1/4	6.2	1/4	5.9	1/3	5.6	1/2	5.4	3/4	5.2	3/4			
	6LOM	3/4"	0.836	1.93	9.6	1/3	9.2	1/3	8.8	1/2	8.5	1/2	8.2	1	7.7	1			
	8LOM	1"	1.070	2.47	12.4	1/3	11.6	1/2	11.1	3/4	10.9	1	10.3	1	9.8	1 1/2			
575 RPM	4LOM	1/2"	0.556	1.28	3.2	1/4	3	1/4	2.9	1/3	2.8	1/3	2.7	1/3	2.6	1/2			
	6LOM	3/4"	0.836	1.93	4.8	1/4	4.6	1/4	4.4	1/3	4.2	1/3	4	1/2	3.8	1/2			
	8LOM	1"	1.07	2.47	6.2	1/4	5.8	1/4	5.5	1/3	5.3	1/2	5.1	1/2	4.9	3/4			



MODEL LOI

Markets

Construction & Mining-lubricants, fuel oils
 Power Plants & Utilities-lubricants, fuel oils
 Refineries-liquid transfer
 Industrial Plant Maintenance-liquid transfer and filter

Uses

Fuels-diesel, kerosene
 Heating, Lubricating and Hydraulic Oils
 Closed or open loop circulation systems
 Mobile or stationary filtration systems
 Machine tool lubrication and cooling
 Low pressure hydraulics



3/4" NPT Port with Mechanical Seal

Features and Benefits

- ✓ Iron Body and Gears
- ✓ 416 Stainless Steel Drive and Idler Shaft
- ✓ Sleeve Bearings - Greased Iron or Optional Bronze
- ✓ High Durability for Severe Service
- ✓ 5/8" Shaft Diameter
- ✓ 4 Sizes -3/8", 1/2", 3/4" and 1" NPT Ports
- ✓ Std Carbon Graphite Packing
- ✓ Mechanical or Lip Shaft Seal Available
- ✓ 0-1800 RPM Range of Operation, Flows to 16 GPM
- ✓ Bi-Directional Shaft Rotation
- ✓ Operating Temperatures to 300° F
- ✓ Continuous Working Pressure to 150 PSI

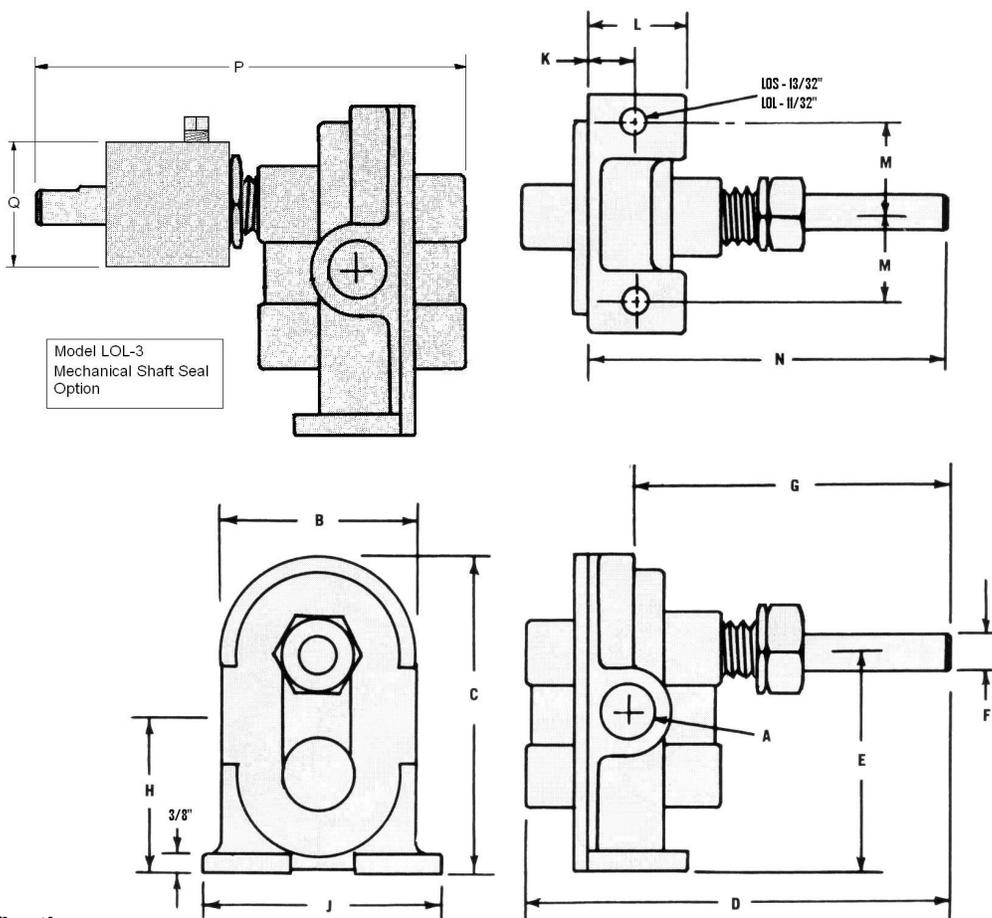
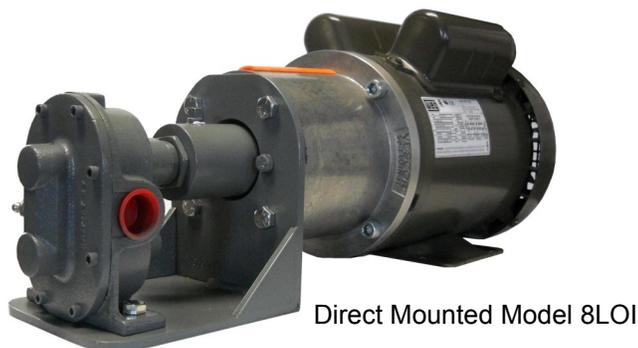
Performance and Sizing

SHAFT SPEED	PUMP MODEL	NPT Ports	GPM/100 RPM	~ CIR	0 PSI		20 PSI		40 PSI		60 PSI		80 PSI		100 PSI	
					GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
1750 RPM	3LOI	3/8"	0.451	1.04	7.9	1/2	7.6	1/2	7.4	3/4	7.2	1	7	1	6.8	1 1/2
	4LOI	1/2"	0.622	1.44	10.9	1/2	10.5	3/4	10.2	1	9.7	1	9.5	1 1/2	9	2
	6LOI	3/4"	1.075	2.48	18.8	1	18	1 1/2	16.5	2	15.5	2	14.5	2 1/2	13	3
	8LOI	1"	1.266	2.92	22.1	1 1/2	21	2	20	2	19	3	18	3	16.5	5
1150 RPM	3LOI	3/8"	0.451	1.04	5.2	1/4	4.8	1/4	4.5	1/3	4.1	1/2	3.8	3/4	3.5	1
	4LOI	1/2"	0.622	1.44	7.2	1/4	6.8	1/3	6.4	1/2	6	3/4	5.6	1	5.2	1
	6LOI	3/4"	1.075	2.48	12.3	1/3	11.8	1/2	11.3	3/4	10.8	1	10.3	1 1/2	9.8	2
	8LOI	1"	1.266	2.92	14.5	1/2	14	3/4	13.5	1	13		12.5	2	12	3
575 RPM	3LOI	3/8"	0.452	1.04	2.6	1/4	1.8	1/4	1.2	1/4	0.9	1/3	0.8	1/3	0.7	1/2
	4LOI	1/2"	0.622	1.44	3.6	1/4	3.2	1/4	2.8	1/3	2.4	1/3	2	1/2	1.6	1/2
	6LOI	3/4"	1.075	2.48	6.2	1/4	5.9	1/3	5.6	1/2	5.3	3/4	5.1	1	4.9	1
	8LOI	1"	1.266	2.92	7.4	1/3	7	1/2	6.6	3/4	6.2	1	5.8	1	5.4	1



MODEL LOI

The **Lobee Model LOI Cast Iron Gear Pump** is designed for extra heavy duty performance in forced feed lubrication/cooling, fuel/solvent transfer as well as many other industrial applications where non-abrasive liquids are transferred in and around plant and equipment. The Lobee Model LOI is designed for severe service where standard pumps will not do the job. Available with top or bottom single shaft or double shaft, integral relief valve, lip seal, standard carbon graphite packing or mechanical seal. The Model LOI pump is larger and heavier than standard pumps of equal intake diameters and has greater capacities...flows to 22 gpm and continuous duty pressures to 150 psi.



Dimensional Specifications

MODEL	Port	Body Width	Body Height	Overall Length	Mount to Shaft CL	Shaft Dia	Port CL to Shaft End	Mount to Port CL	Base Mount Width	Mount Hole Position	Base Mount Depth	Foot Mount Holes	Base Mount Rear to Shaft End	Overall Length with Mech Seal	Mechanical Seal housing
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
3LOI	3/8"	2-5/8"	4"	7"	2-11/16"	5/8"	5-3/8"	1-15/16"	3-1/2"	5/8"	1-15/16"	1-3/8"	5-7/8"	8-1/16"	2"
4LOI	1/2"	2-5/8"	4"	7-3/8"	2-11/16"	5/8"	5-5/8"	1-15/16"	3-1/2"	5/8"	1-15/16"	1-3/8"	6-1/4"	8-3/4"	2"
6LOI	3/4"	3-3/8"	5-5/16"	7-3/8"	3-5/8"	5/8"	5-1/2"	2-5/8"	4-1/8"	3/4"	1-3/8"	1-1/2"	6-1/4"	8-3/4"	2"
8LOI	1"	3-3/8"	5-5/16"	7-5/8"	3-5/8"	5/8"	5-5/8"	2-5/8"	4-1/8"	3/4"	1-1/2"	1-1/2"	6-1/2"	8-3/4"	2"



STAINLESS STEEL GEAR PUMPS

MODELS LOE, LOX, MOE, MOX

Our newly expanded line of **Stainless Steel Gear Pumps** now covers the broadest range of applications ever. We offer as standard 316 Stainless Steel construction materials with Alloy-20(Carpenter 20™) and C276 (Hastelloy™) optionally available. A variety of gear, bearing sleeve and shaft seal materials are available as standard to fit applications where high heat, corrosive fluids and higher pressure demand. Flow rates range from 1 to 18 GPM and pressures to 150 PSI.

Markets

- Adhesives, Coatings - solvents, plasticizers
- Chemical Processing - acids, corrosives
- Construction & Mining - knockout fluids
- Energy/Biofuel - ethanol, deionized water, urea
- Food/Beverage- additives, oils
- OEM/Manufacturing - resins, coatings, soaps
- Pharmaceutical - mixing chemicals, alcohols
- Pulp/Paper - binders, distillates

Applications

- High Temperature
- Acids
- Corrosives
- Harsh Chemicals
- Foods, Beverages
- Hot Oils
- Metal Finishing
- Laboratory Testing
- Solvents
- Polymers
- Viscous
- Fertilizers



STANDARD OPERATING AND CONSTRUCTION MATRIX

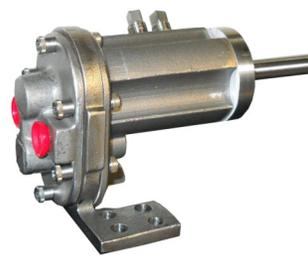
		Δ PSI			Construction Material			Gear Housing Design	Journal Bearings	Shaft Seal
		Con- tinuous	Inter- mittent	Max Oper. Temp.	Body/Shaft	Drive Gear	Idler Gear			
	LOE	75	100	450° F	316 SS	316 SS	Glass Filled PTFE	Glass Laminated PTFE Liner and Washers for Drive Gear	Caged Rulon LR 'T' Strip	PTFE Braided Packing
					Alloy 20	Alloy 20				
	LOX	75	100	450° F	316 SS	316 SS	Glass Filled PTFE	Glass Laminated PTFE Liner and Washers for Drive Gear	Caged Rulon LR 'T' Strip	Mechanical Seal
					Alloy 20	Alloy 20				
	MOE	125	150	300° F	316 SS	WM88 High-Nickel	PEEK HPV	Close Tolerance Machined	Solid Sleeve PEEK HPV	PTFE Braided Packing
							PEEK 1000			
	MOX	125	150	300° F	316 SS	WM88 High-Nickel	PEEK HPV	Close Tolerance Machined	Solid Sleeve PEEK HPV	Mechanical Seal
							PEEK 1000			



Common Features and Benefits

- 1) All 316 Stainless Steel Construction Standard
- 2) 6 Flow Range Sizes- 1/4" Rear Port, 1/4", 3/8", 1/2", 3/4", 1" NPT Side Ports
- 3) Flows to 18 GPM
- 4) Bi-Directional Shaft Rotation
- 5) 200-1800 RPM Standard Operating Range, 0-600 RPM for High Viscosity Fluids
- 6) Viscosity to 15,000 Centipoises'
- 7) Operating Temperatures to 450 F+
- 8) Continuous Working Pressure to 125 PSI, Intermittent to 150 PSI
- 9) 1/2" Shaft Diameter with 1/32" Flat
- 10) 2 or 4 Bolt Foot Mount

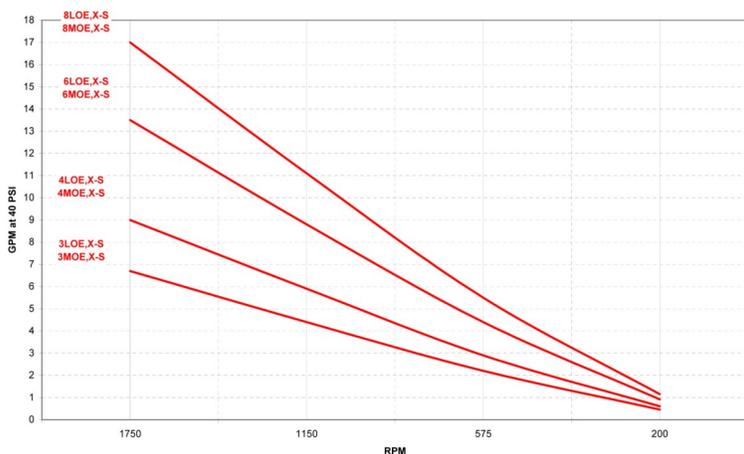
Model 1MOX 1/4" NPT Rear Ported



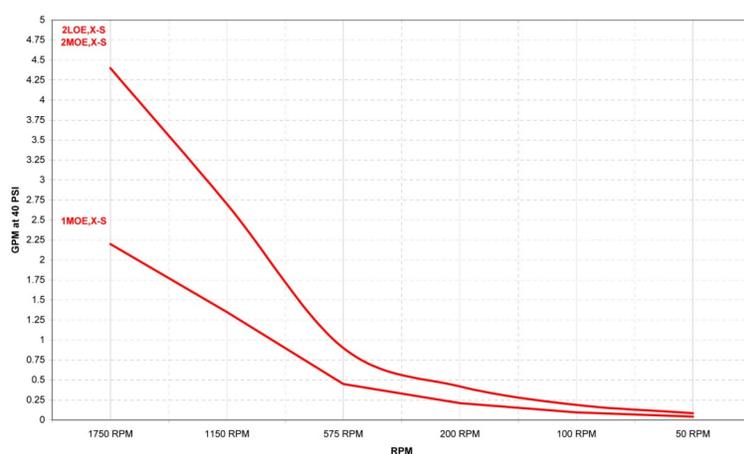
Models LOE/LOX/MOE/MOX NPSHR @ Maximum Speed

Size	1	2	3	4	6	8
RPM	1750	1750	1750	1750	1750	1750
GPM	2.3	4.7	7.3	9.7	14.6	18.8
NPSHR	2	4	4.9	4.9	4	4

3-4-6-8LOE, X and MOE, X Shaft Speed Operating Range



1-2LOE, X and MOE, X Shaft Speed Operating Range



SHAFT SPEED	PUMP MODEL	NPT Ports	GPM/100 RPM	0 PSI		20 PSI		40 PSI		60 PSI		80 PSI		100 PSI		125 PSI *		150 PSI *	
				GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
1750 RPM	1MOE,X-S	1/4"	0.134	2.35	1/4	2.3	1/4	2.2	1/4	2.1	1/4	2	1/3	1.9	1/2	1.8	1/2	1.7	1/2
	2(XXX)-S	1/4"	0.268	4.7	1/3	4.6	1/3	4.4	1/3	4.2	1/2	4	1/2	3.8	3/4	3.7	3/4	3.6	3/4
	3(XXX)-S	3/8"	0.418	7.3	1/3	7	1/3	6.7	1/3	6.2	1/2	6	1/2	5.5	3/4	5.4	1	5.3	1
	4(XXX)-S	1/2"	0.556	9.7	1/2	9.4	1/2	9	3/4	8.6	1	8.2	1	7.9	1 1/2	7.8	1 1/2	7.7	1 1/2
	6(XXX)-S	3/4"	0.836	14.6	1/2	14	1/2	13.5	1	13	1	12.4	1 1/2	11.8	1 1/2	11.6	2	11.4	2
	8(XXX)-S	1"	1.07	18.8	1/2	17.7	3/4	17	1	16.6	1 1/2	15.8	2	15	2	14.8	3	14.5	3
1150 RPM	1MOE,X-S	1/4"	0.134	1.6	1/4	1.45	1/4	1.35	1/4	1.25	1/4	1.15	1/4	1.05	1/3	0.9	1/3	0.8	1/3
	2(XXX)-S	1/4"	0.268	3.1	1/4	2.9	1/4	2.7	1/4	2.5	1/3	2.3	1/3	2.1	1/2	1.9	1/2	1.7	1/2
	3(XXX)-S	3/8"	0.418	4.8	1/4	4.6	1/4	4.4	1/3	4.1	1/3	4	1/3	3.6	1/2	3.2	3/4	2.8	3/4
	4(XXX)-S	1/2"	0.556	6.6	1/4	6.2	1/4	5.9	1/3	5.6	1/2	5.4	3/4	5.2	3/4	4.9	3/4	4.6	1
	6(XXX)-S	3/4"	0.836	9.6	1/3	9.2	1/3	8.8	1/2	8.5	1/2	8.2	1	7.7	1	7.4	1 1/2	7.1	1 1/2
	8(XXX)-S	1"	1.07	12.4	1/3	11.6	1/2	11.1	3/4	10.9	1	10.3	1	9.8	1 1/2	9.4	1 1/2	9	2
575 RPM	1MOE,X-S	1/4"	0.134	0.76	1/4	0.6	1/4	0.45	1/4	0.35	1/4	0.3	1/4	0.25	1/4	0.18	1/4	0.1	1/3
	2(XXX)-S	1/4"	0.268	1.54	1/4	1.2	1/4	0.9	1/4	0.7	1/4	0.6	1/4	0.5	1/4	0.4	1/4	0.3	1/3
	3(XXX)-S	3/8"	0.418	2.2	1/4	2.3	1/4	2.2	1/4	2.1	1/4	2	1/4	1.8	1/4	1.6	1/3	1.3	1/3
	4(XXX)-S	1/2"	0.556	3.2	1/4	3	1/4	2.9	1/3	2.8	1/3	2.7	1/3	2.6	1/2	2.4	1/2	2	1/2
	6(XXX)-S	3/4"	0.836	4.8	1/4	4.6	1/4	4.4	1/3	4.2	1/3	4	1/2	3.8	1/2	3.5	3/4	3.1	3/4
	8(XXX)-S	1"	1.07	6.2	1/4	5.8	1/4	5.5	1/2	5.3	1/2	5.1	1/2	4.9	3/4	4.5	3/4	4.1	1

(XXX) covers Models LOE, LOX, MOE and MOX. Size '1' available in MOE/MOX configurations only.

* Pressures above 100 PSI are recommended for Models MOE and MOX only. For continuous pressures above recommended please contact factory. Wear factor versus pressure is strongly influenced by type of material being pumped. E.G. , Water causes greater wear on pump internals than does oils.

Horsepower (HP) ratings are conservative estimates and will vary based on viscosity, temperature and other factors. For power usage concerns please call factory for specific application recommendations.

Performance tested with 70° F Water. The viscosity and specific gravity of other fluids will vary results. Positive displacement gear pumps have excellent suction lift characteristics and are self priming when wetted. For vertical suction lift should pump run dry between uses, re-'wet' pump or use foot valve. Pump flow can be varied by varying input speed with pulleys, a gear reducer, or electric motor inverter (VFD). Never side load pump drive shaft, use a jackshaft/bearing arrangement.

STAINLESS STEEL GEAR PUMPS



Lobee Pump & Machinery Co.
Industrial Pumps and Accessories

Since 1899...Noted for Highest Quality Pumps and Equipment

WETTED MATERIALS

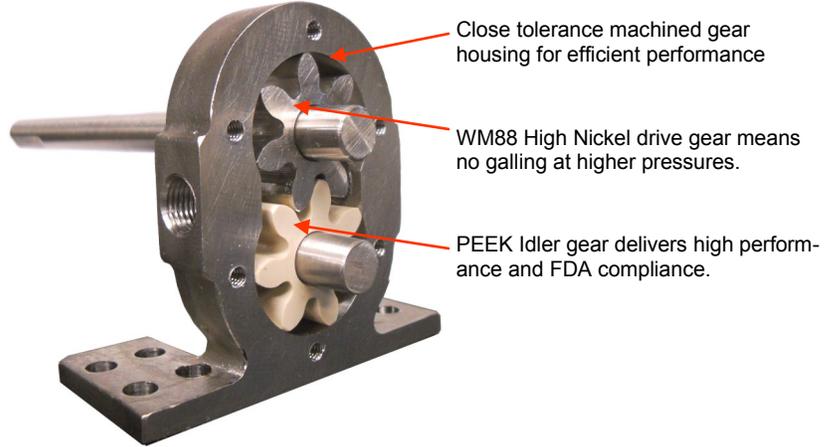
PUMP INTERNALS

<u>LOE</u>	316 Stainless Steel Composite Glass/PTFE Rulon™ Glass Filled PTFE Glass Laminated PTFE Gasket
<u>LOX</u>	316 Stainless Steel Composite Glass/PTFE Rulon™ Glass Filled PTFE Glass Laminated PTFE Gasket
<u>MOE</u>	316 Stainless Steel WM88 Stainless Steel Ketron™ PEEK HPV, 1000 Glass Laminated PTFE Gasket
<u>MOX</u>	316 Stainless Steel WM88 Stainless Steel Ketron™ PEEK HPV, 1000 Glass Laminated PTFE Gasket
<u>Optional:</u>	316L Carpenter™ 20 Hastelloy™ C

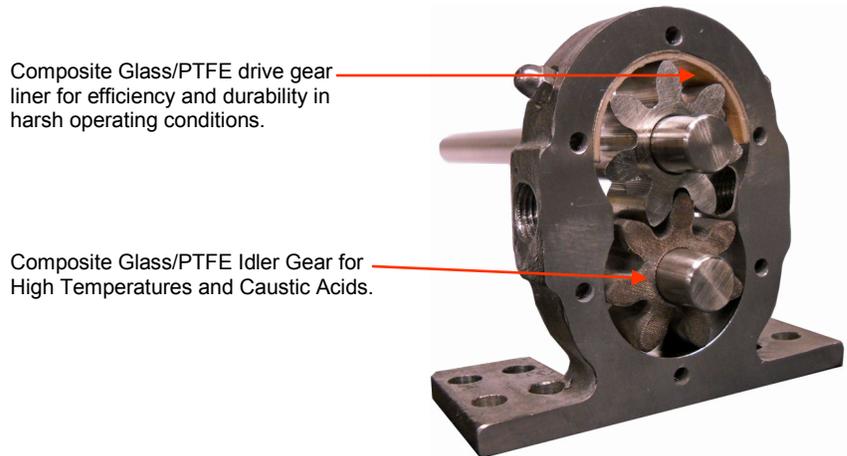
SHAFT SEALS

<u>PACKING</u>	Braided PTFE
<u>MECHANICAL</u>	316 Stainless Steel Composite Glass/PTFE Carbon Ceramic Viton™ Rulon™
<u>Optional:</u>	Tungsten Carbide Silicon Carbide Titanium 304 Stainless Steel Carpenter™ 20 Hastelloy™ C Monel™ Aflas™ Ethylene Propylene Chloroprene

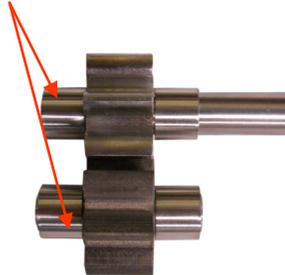
Model MOE/MOX Features:



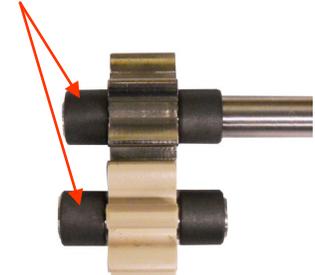
Model LOE/LOX Features:



Caged Rulon™ journal bearings for high temperature and durability.



PEEK journal bearings for higher pressures and broad spectrum of chemical resistance.



Electric Motor Mounted Pump Units



Direct Mount to XP Motor



Base Mounted



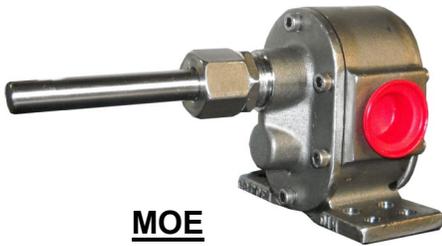
Direct Mount to 1 Ph Motor



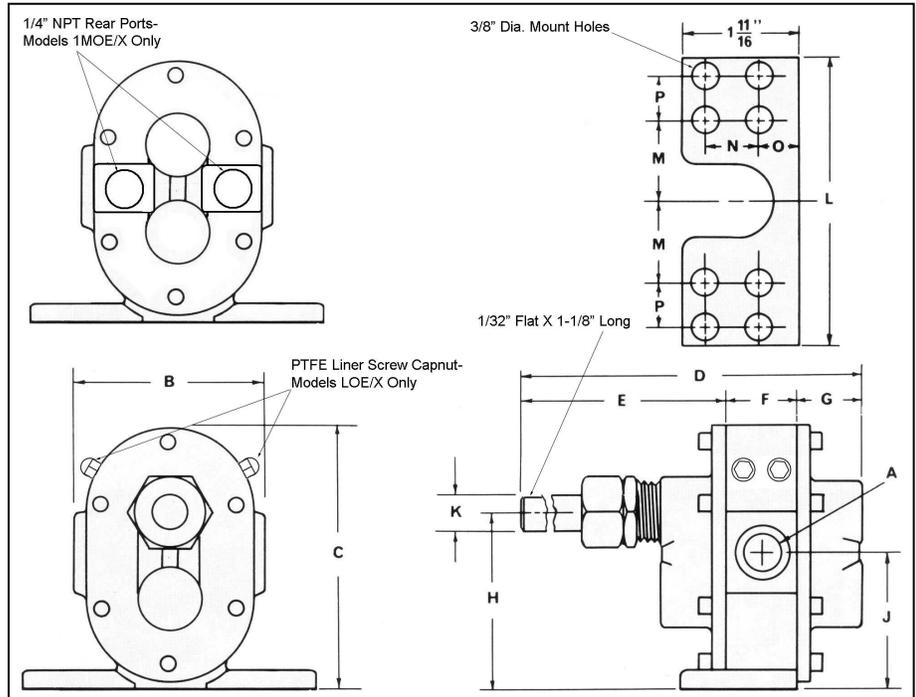
STAINLESS STEEL GEAR PUMPS



LOE

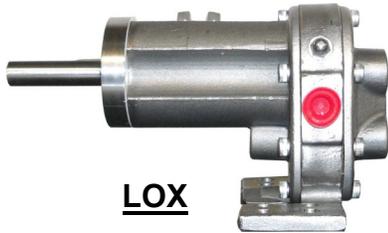


MOE



Dimensions- Model LOE, MOE

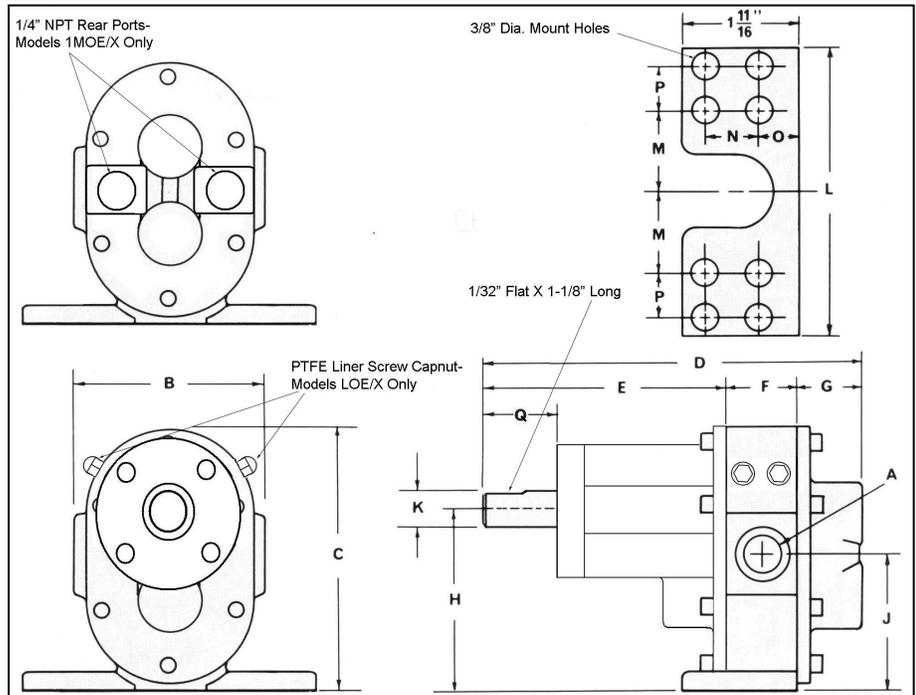
MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
1***-S	1/4"	2-9/16"	3-7/8"	7-13/32"	5-7/8"	11/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	1-11/16"
2***-S	1/4"	2-9/16"	3-7/8"	7-23/32"	6-3/16"	21/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	1-11/16"
3***-S	3/8"	2-9/16"	3-7/8"	7-25/32"	6-3/16"	23/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	1-11/16"
4***-S	1/2"	2-13/16"	3-7/8"	7-13/16"	5-31/32"	31/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	1-11/16"
6***-S	3/4"	2-13/16"	3-7/8"	7-27/32"	5-1/2"	1-15/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	1-11/16"
8***-S	1"	3-1/16"	3-7/8"	8-1/2"	5-5/8"	2"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	1-11/16"



LOX



MOX



Dimensions- Models LOX, MOX

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
1***-S	1/4"	2-9/16"	3-7/8"	7-13/32"	5-7/8"	11/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	2-3/4"
2***-S	1/4"	2-9/16"	3-7/8"	7-23/32"	6-3/16"	21/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	2-3/4"
3***-S	3/8"	2-9/16"	3-7/8"	7-25/32"	6-3/16"	23/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	2-3/4"
4***-S	1/2"	2-13/16"	3-7/8"	7-13/16"	5-31/32"	31/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	2-13/32"
6***-S	3/4"	2-13/16"	3-7/8"	7-27/32"	5-1/2"	1-15/32"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	2-1/8"
8***-S	1"	3-1/16"	3-7/8"	8-1/2"	5-5/8"	2"	7/8"	2-15/32"	1-7/8"	1/2"	4"	1-1/8"	3/4"	9/16"	9/16"	2-1/4"



POSITIVE DISPLACEMENT PUMP UNITS - 1/3 TO 5 HP

Lobee Positive Displacement Pump Units are now available in a range of sizes and configurations. Standard built to order pump units come in 1/3, 1/2, 3/4, 1, 1-1/2, 2, 3 and 5 HP ratings. Each unit is assembled to customer specification including pump type, flow and pressure rating, with or without relief valve, direct or base mounted, and coupled to ODP, TEFC(NV), Wash-Down or Explosion-Proof motor. Designed for pumping viscosities from water to molasses. Speed control options include 1200 RPM Motors, Mechanical Gear Reducers and VFD (Variable Frequency Drive).

Typical Applications:

- Food oils, syrups, coatings and additive transfer
- Water, glycol and oil based coolant and heating systems
- Laboratory chemical and solution testing
- Marine fresh water systems
- Caustic and corrosive fluid transfer
- Liquids mixing systems
- Filtration and circulation systems



Features and Benefits

- ✓ Base or Direct Mounted Units
- ✓ Motors up to 5 HP, 256 Frame, Single and Three Phase
 - Enclosures - ODP, TEFC(NV), Wash-Down, Explosion Proof
 - Available in Standard, High and Premium Efficient
 - Optional inverter duty, 10:1 turndown ratio
- ✓ Variable Frequency Drives for precise pump speed control
- ✓ Flows to 40 GPM
- ✓ Viscosity to 100,000 SSU(17,000 CPs)
- ✓ Choose from any Lobee Gear Pump—Stainless Steel, Bronze, Cast Iron
- ✓ Port sizes from 1/8" to 1-1/2" NPT
- ✓ Multiple Shaft Seal Options - Mechanical, Lip, Packing
- ✓ 0-1800 RPM Range of Operation
- ✓ Bi-Directional Shaft Rotation
- ✓ Operating Temperatures to 450° F
- ✓ Continuous Working Pressure up to 150 PSI
- ✓ Integral In-Pump or Externally Plumbed Adjustable Relief Valves
- ✓ Suction Screens Available for Particulate Removal

Direct Mounted Pump Units



Model 4LOL with 3 Phase TEFC Motor



Model 2LOX 316 SS with Exp Proof Motor



Model 6LOM with 1 Phase TEFC Motor

Base Mounted Pump Units

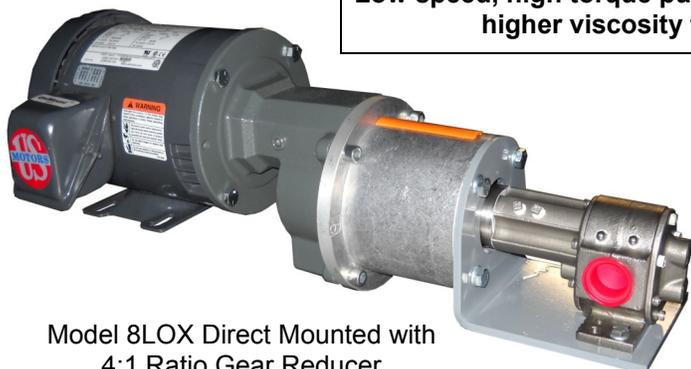


Model 8LOL with Gear Reducer/TEFC Motor



Model 8LOX, 304 SS Base with Air Motor

Low speed, high torque pump systems for higher viscosity fluids



Model 8LOX Direct Mounted with 4:1 Ratio Gear Reducer



POSITIVE DISPLACEMENT PUMP UNITS - 1/3 TO 5 HP

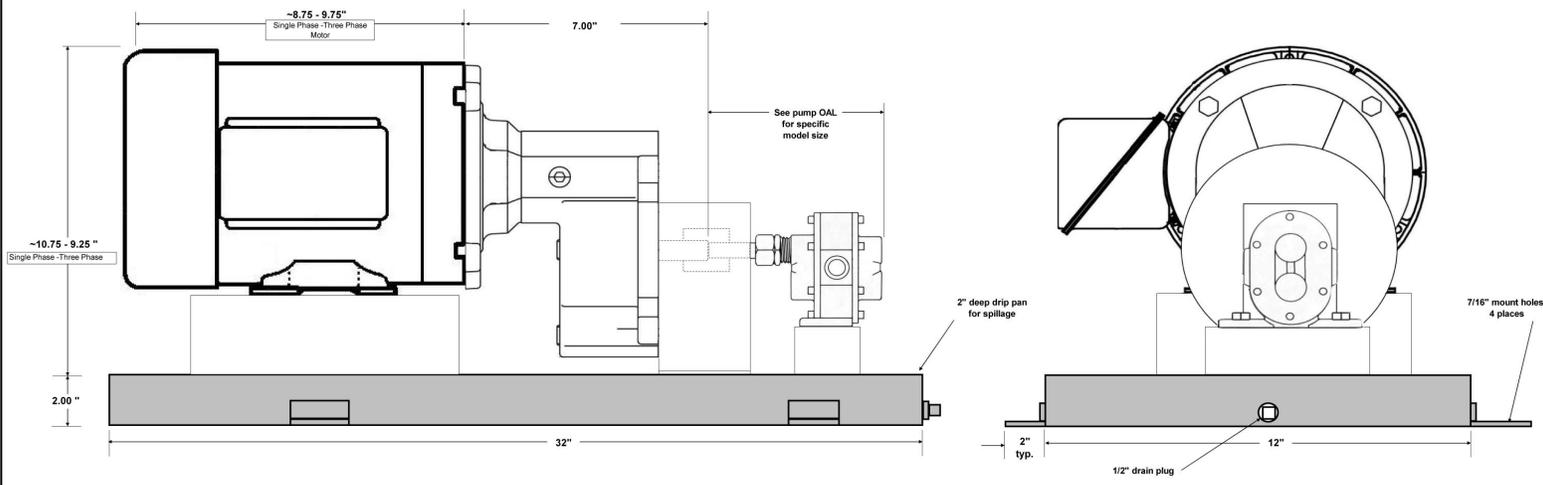
Variable Speed Motor Drives



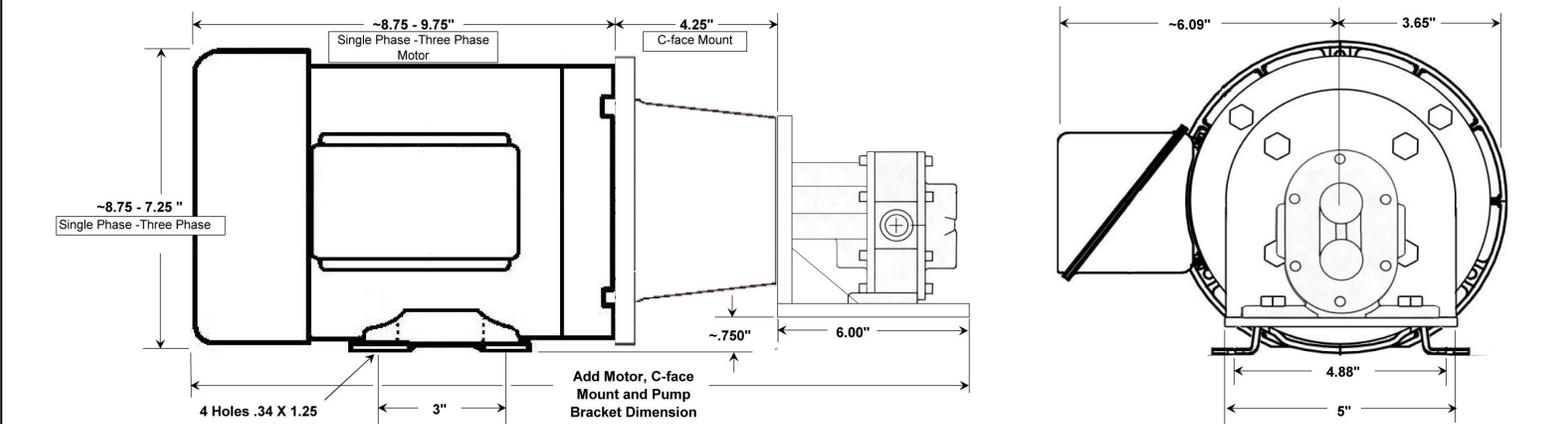
Speed Reducers for Viscous Liquids



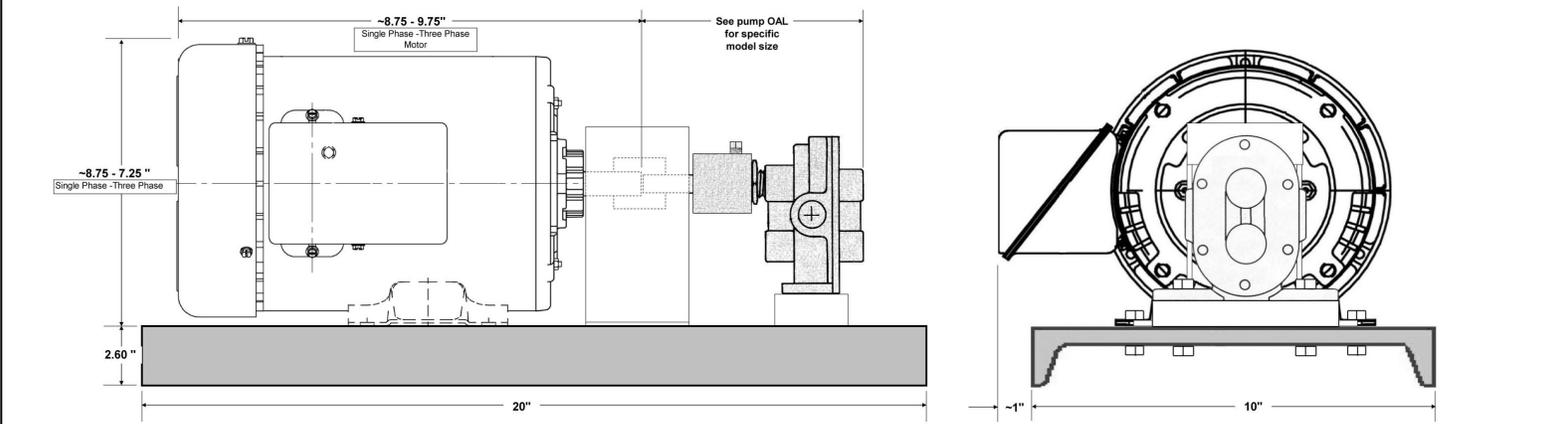
Base Mount Pump Units with Gear Reducer—Typical Dimensional Layout



Direct Mount Pump Units—Typical Dimensional Layout



Base Mount Pump Units—Typical Dimensional Layout



Actual dimensions will vary based on specific motor and pump combination used. Go to our website at www.Lobee.com for detail dimensions.



Standard Features and Benefits

- 1) Heavy Duty Industrial, Continuous Operation Design
- 2) 1/3, 1/2, 3/4, 1 1/2, 2 and 3 HP Models, Special Application up to 5 HP
- 3) 1800 and 3600 RPM Motors, Up to 150 GPM
- 4) Total Dynamic Head to 85' Vertical
- 5) Column Lengths to 10'6", Special Lengths Upon Request
- 6) Floor Mount or Suspended-From-Cover Models; Standard and Custom Suspended Cover Designs Available.
- 7) Cast Iron, 316 Stainless Steel, and Bronze Construction Materials Available as Standard
- 8) Bronze or Rulon™ Bearings for High Temp or Corrosive Applications
- 9) Motors include: Premium/Energy Efficient, TEFC, Washdown, Explosion Proof, Single or Three Phase
- 10) Water Tight and Explosion Proof Float Switches
- 11) Duplex Pump Systems for 100% Redundancy

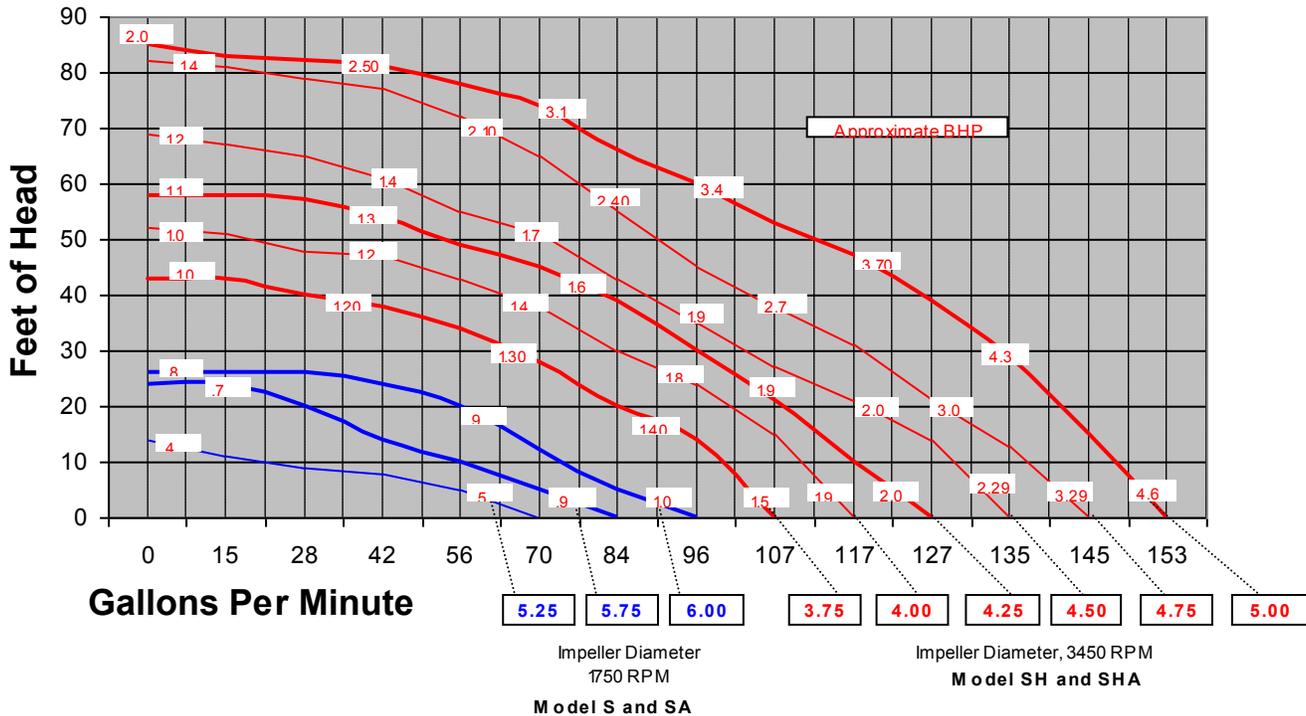
Model S/SH Floor Mounted



Model SA/SHA Cover Suspended



Model Range Sump Pump Performance



Feet of Head performance based on clean water, ~70 Deg F. The head capacity and efficiency curves apply only for liquids having a viscosity less than 40 SSU. Horsepower curves are approximates based on a specific gravity of 1.00. To determine the HP for other liquids multiply these values by the specific gravity.



Dependable performance is what you expect and get when you install a Lobee Sump Pump. The overall design as well as each individual part has been engineered, tested and proven for trouble-free service and long life. The strainer eliminates the possibility of pump stoppage from trashy material often present in drainage or flood waters. Extra strength pump casing and motor mount castings plus heavy duty bearings reduce vibration and wear even in pumps with extra long columns for deep sumps. Model S/SH pump for open pits has a pedestal base permitting unit to rest directly on the pit floor. Model SA/SHA pump is suspended from a cover plate which is placed over the sump opening. Standard units are available in column lengths up to ten feet six inches; special longer lengths are available upon request. Cover plates are available for mounting two units together when a duplex installation is required.

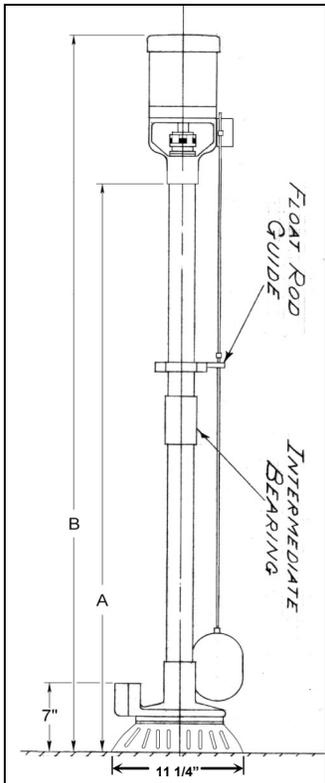
Explosion Proof Motor & Water Tight Switch



Optional Materials
Bronze and 316 Stainless Steel

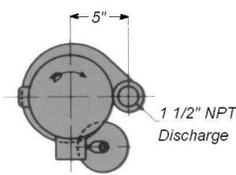


Model S/SH, Floor Mounted

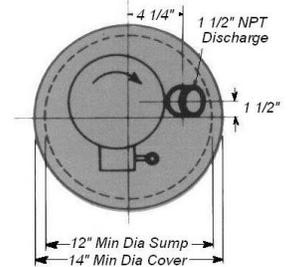


Model SA/SHA, Suspended

Pump Head

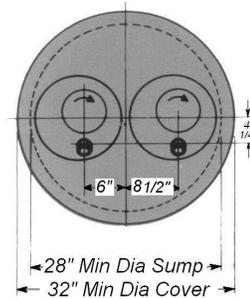
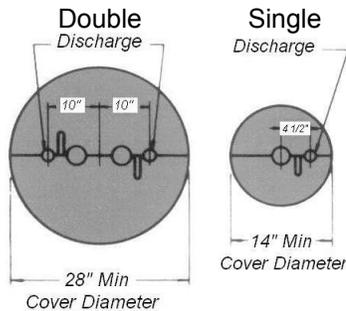


Sump Cover Single



Minimum Sump Cover Diameter

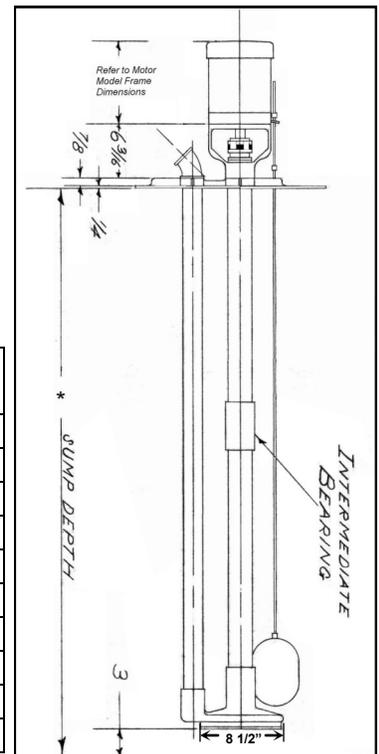
Sump Cover Double



General Dimensions [^]Horsepower Model (3,5,7,15,20,30)

Floor Mount	A	B [^]	Suspended	Sump Depth
S/SH(*)-2	24 1/2	39	SA/SHA(*)-2	24
S/SH(*)-3	36 1/2	51	SA/SHA(*)-3	36
S/SH(*)-4	48 1/2	63	SA/SHA(*)-4	48
S/SH(*)-5	60 1/2	75	SA/SHA(*)-5	60
S/SH(*)-6	72 1/2	87	SA/SHA(*)-6	72
S/SH(*)-7	84 1/2	99	SA/SHA(*)-7	84
S/SH(*)-8	96 1/2	111	SA/SHA(*)-8	96
S/SH(*)-9	108 1/2	123	SA/SHA(*)-9	108
S/SH(*)-10	120 1/2	135	SA/SHA(*)-10	120

[^]For SH models add 1" for 1 1/2 HP, 1.50" for 2 HP, 2.50" for 3 HP





Lobee Liquid Ring Pumps operate opposite how typical liquid rings pumps do. We do not compete with the volumetric output and efficiencies of dedicated air/gas liquid ring pumps. The Lobee liquid ring pump is designed to handle a higher liquid flow and a minor air/gas flow against a negative pressure environment. As compared to other designs which can flow a large volume of air/gas at various vacuum levels, our liquid ring pumps of comparable HP will pump only 15-20% air/gas volume in the same vacuum environment...but will pump 1,000% more volume of lower viscosity liquids (40 SSU or less).

Conventional design liquid ring pumps typically deliver a higher ACFM air/gas volume with a minimal liquid flow capability, whereas the Lobee LR/CLR/CHLR pumps deliver minimal air/gas volume with a higher fluid flow. Historically our pumps have been used to augment processes in which a stand alone vacuum pump cannot handle the amount of fluid that needs to be evacuated. The dedicated vacuum pump evacuates the air/gas mass at what ever requirement and our liquid ring handles or evacuates the liquids. An example would be vacuum chamber processing during extrusion in the plastics industry.

On applications where the air/gas evacuation demand is low, say < 20 ACFM, but fluid evacuation is relatively higher, our liquid ring works very well, stand alone, because it handles the low air/gas, high liquid ratio very efficiently.

MODEL CLR



MODEL CHLR



MODEL LR



Features and Benefits

- (1) Self Priming, Up to 28' Lift, Vacuum to 28" Hg
- (2) Flows to 80 GPM, 15 SCFM
- (3) 1800-3600 RPM motor with 10:1 turndown ratio for VFD control
- (4) Performance Capability to 230 TDH, 100+ PSIG
- (5) Up to 20 Horsepower
- (6) 1", 1-1/2" and 2" NPT Port sizes
- (7) Available with Single or Three Phase Motors in Premium Efficient, High Efficient, Explosion Proof, Washdown, TEFC and ODP
- (8) Shaft Seal Systems include Acrylic/Graphite or PTFE Packing for 'Dry Running' and John Crane™ Type 1, 9 or 2106 Mechanical
- (9) Most API Flush Plans are Available for High Temperature, Corrosive or Crystallizing Applications
- (10) Standard Cast Iron, Bronze or 316 Stainless Steel Construction Materials are Available
- (11) Excellent wear characteristics in harsh applications—Where cavitation may occur and the NPSHR not met, pump performance will be minimally affected over the long run. No threat of catastrophic failure due to cavitation erosion

The **Lobee Model LR** is a stand alone liquid ring pump designed for special application electric motors and alternate power drive sources for mobile and stationary applications such as PTO, hydraulic motor, pulley, etc.

Models LR and CLR come standard with an 1800 RPM motor for applications up to 160' head with low NPSH. **Our New CHLR Series** expands the liquid ring product range to accommodate up to 230' total dynamic head. This new series uses a 3600 RPM motor and high speed balanced impeller. Overall efficiency has been improved by over 50% with Total Dynamic Head capability up over 30% as compared to the standard CLR.

A single pump can be used for many pumping tasks, reducing costs and providing increased versatility. Application performance can also be greatly enhanced with the addition of a motor inverter (VFD). All motors have a minimum 10:1 turndown ratio which will enable a fully adjustable air/gas/liquid flow and pressure (head) range that takes full advantage of the CHLR's capabilities.

Applications

- Priming systems for centrifugal pumps
- High suction lift
- Vacuum heating systems
- Condensate service
- Residential/basement water pumps
- Oil transfer service
- Sanitary drinking water supply
- Volatile non-hazardous liquids
- Foaming liquids, entrained gases or air

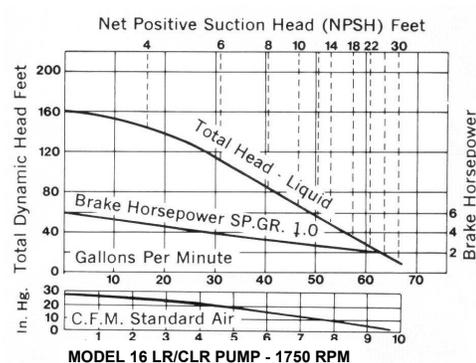
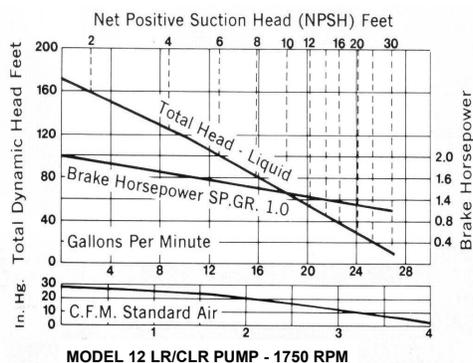
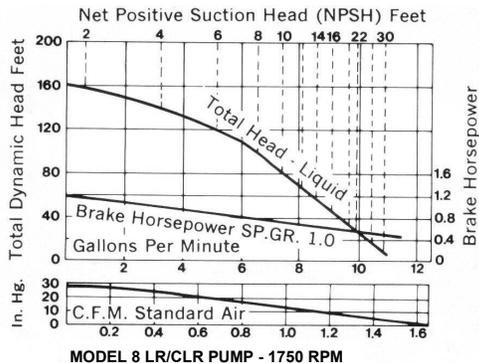


Markets

- Refineries-fluid transfer
- Machine Tool-coolant & lubricant circulation
- Marine-bilge pump, fresh water
- Agriculture-water, fertilizer
- Plastics-vacuum holding, forming
- Manufacturing Facilities-fluid transfer, portable or stationary filtration pump systems
- Power Plants & Utilities-fluid transfer
- Chemical Processing
- Food and Beverage

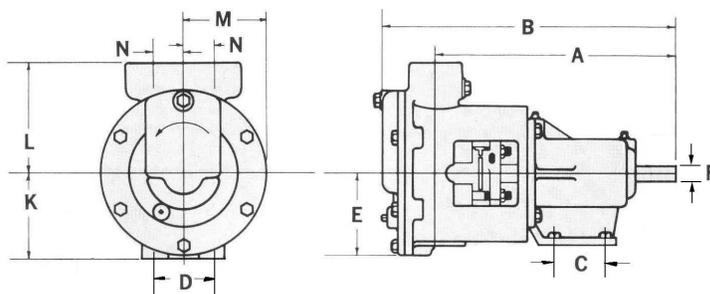


Lobe Liquid Ring pumps combine the advantages of the centrifugal and positive displacement type of pump. This is a favorite with engineers for all phases of small capacity, high-head liquid handling. Advanced hydraulic and mechanical design, combined with high quality materials and precision workmanship assures long life and trouble free operation.



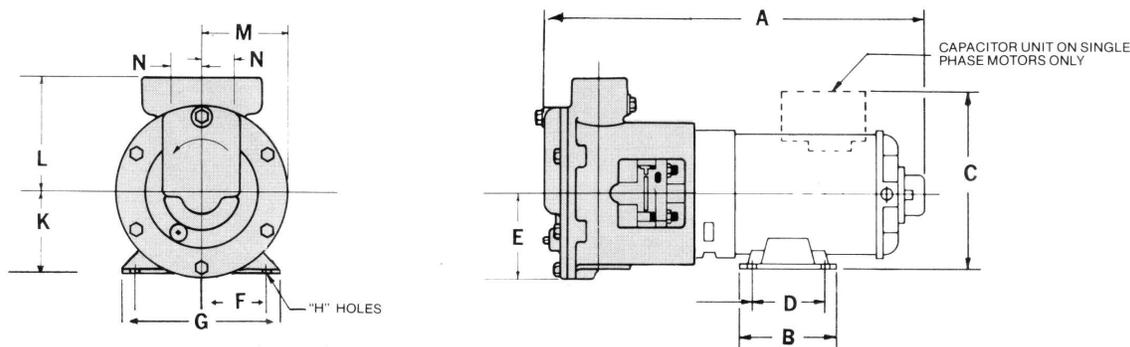
Total dynamic head in feet based on clean, cold water and 1750 rpm motor. The head capacity and efficiency curves apply only for liquids having a viscosity less than 40 SSU. The brake horsepower (BHP) curves are based on a specific gravity of 1.0. To determine the BHP for other liquids multiply these values by the specific gravity.

LR Dimensional Specifications



Model	Suction Port	Discharge Port	A	B	C	D	E	F	K	L	M	N
8LR	1" NPT	1" NPT	11.688	14.313	2.500	3.000	4.000	0.750	3.500	5.375	4.000	1.500
12LR	1 1/2" NPT	1 1/2" NPT	11.688	14.313	2.500	3.000	4.000	0.750	3.500	5.375	4.000	1.500
16LR	2" NPT	2" NPT	11.812	15.063	2.500	3.000	4.125	0.750	3.500	5.375	4.125	1.500

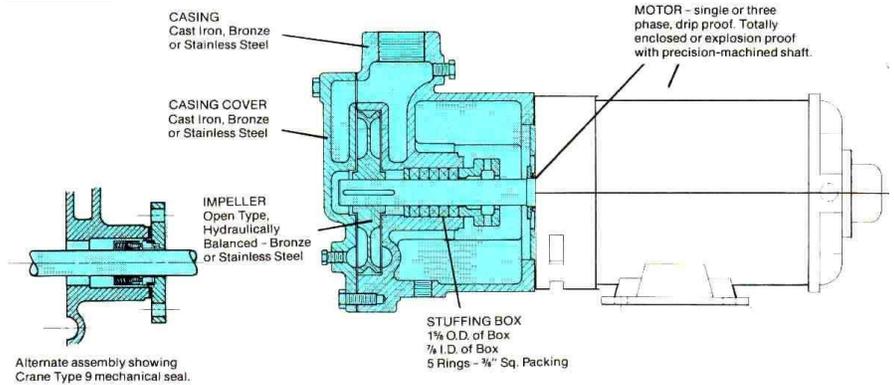
CLR Dimensional Specifications



Base Model	Suction/Discharge	HP	Motor Frame	A	B	C	D	E	F	G	H	K	L	M	N
8CLR10P	1	1	143JP	19	5	6 3/4	2	4	2 3/4	6 1/2	11/32	3 1/2	5 3/8	4	1 1/2
8CLR15P	1	1.5	145JP	20	6	6 3/4	2 1/2	4	2 3/4	6 1/2	11/32	3 1/2	5 3/8	4	1 1/2
12CLR10P	1 1/2	1	143JP	19 1/4	5	6 3/4	2	4	2 3/4	6 1/2	11/32	3 1/2	5 3/8	4	1 1/2
12CLR15P	1 1/2	1.5	145JP	20 1/4	6	6 3/4	2 1/2	4	2 3/4	6 1/2	11/32	3 1/2	5 3/8	4	1 1/2
12CLR20P	1 1/2	2	145JP	20 1/4	6	6 3/4	2 1/2	4	2 3/4	6 1/2	11/32	3 1/2	5 3/8	4	1 1/2
12CLR30P	1 1/2	3	182JP	21 3/8	5 3/4	9 1/4	2 1/4	4	3 3/4	8 1/2	13/32	4 1/2	5 3/8	4	1 1/2
16CLR20P	2	2	145JP	20 3/4	6	6 3/4	2 1/2	4 1/8	2 3/4	6 1/2	11/32	3 1/2	5 3/8	4 1/8	1 1/2
16CLR30P	2	3	182JP	21 3/4	5 3/4	9 1/4	2 1/4	4 1/8	3 3/4	8 1/2	13/32	4 1/2	5 3/8	4 1/8	1 1/2
16CLR50P	2	5	182JP	22 3/4	6 3/4	9 1/4	2 1/4	4 1/8	3 3/4	8 1/2	13/32	4 1/2	5 3/8	4 1/8	1 1/2



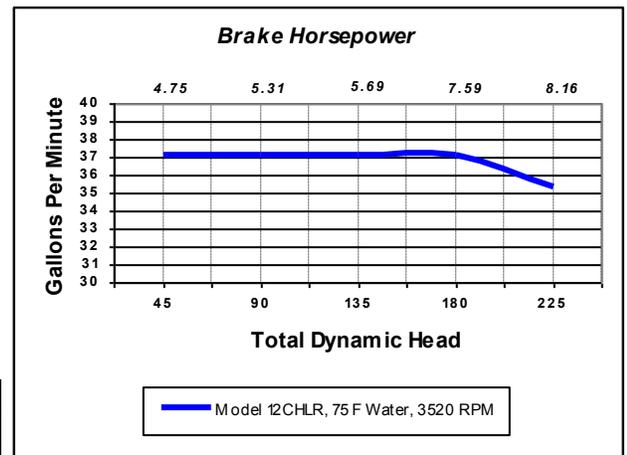
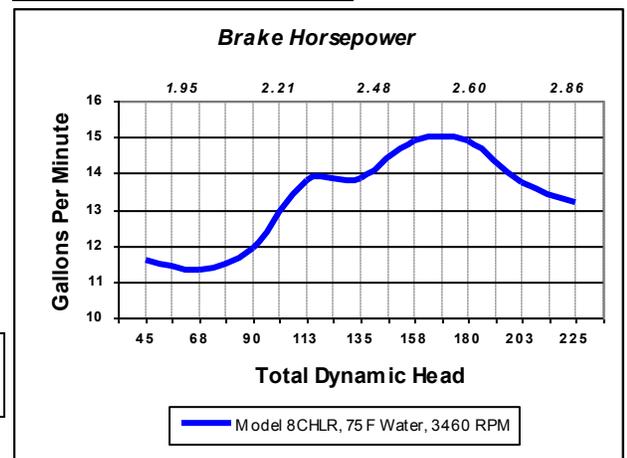
Cutaway



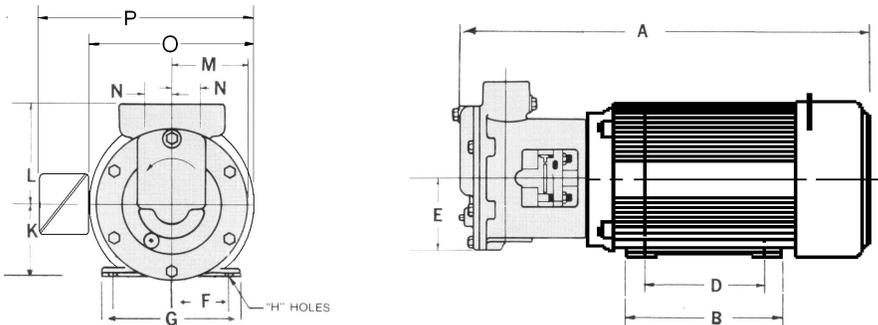
Total dynamic head in feet based on clean, cold water and 3600 rpm motor. The head capacity and efficiency curves apply only for liquids having a viscosity less than 40 SSU. The brake horsepower (BHP) curves are based on a specific gravity of 1.00. To determine the BHP for other liquids multiply these values by the specific gravity. NPSHR (Net Positive Suction Head Required) data for new CHLR Liquid Ring Pumps is forth coming as testing is in process. Based on a higher motor speed NPSHR will be slightly higher than published CLR numbers. For additional performance data please contact factory.

High Horsepower and Special Application configurations available. Additional performance characteristic information available by contacting factory.

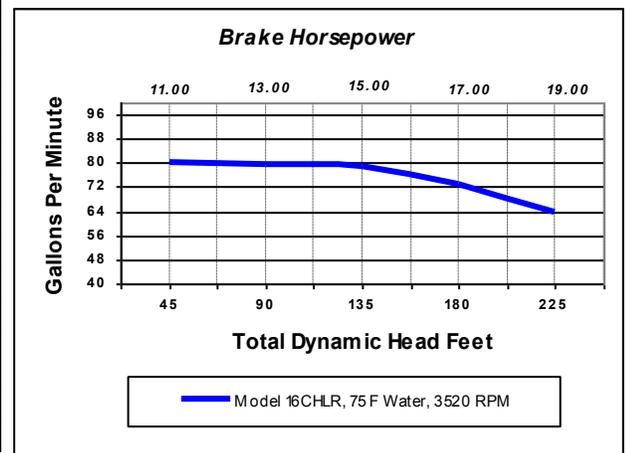
CHLR Performance Curves



CHLR Dimensional Specifications



Base Model	8CHLR30PT	12CHLR50PT	12CHLR75PT	16CHLR100PT	16CHLR150PT
Port Size NPT	1"	1 1/2"	1 1/2"	2"	2"
HP	3	5	7.5	10	15
Motor Frame	145JP	184JP	184JP	215JP	215JP
A	19 3/8	21 3/4	21 3/4	26 1/2	26 1/2
B	6	6 3/8	6 3/8	8 7/8	8 7/8
D	5 1/2	5 1/2	5 1/2	7	7
E	4	4	4	4 1/8	4 1/8
F	2 3/4	3 3/4	3 3/4	4 1/4	4 1/4
G	6 1/2	8 3/8	8 3/8	9 1/2	9 1/2
H	11/32	13/32	13/32	13/32	13/32
K	3 1/2	4 1/2	4 1/2	4 1/2	4 1/2
L	5 3/8	5 3/8	5 3/8	5 3/8	5 3/8
M	4	4	4	4 1/8	4 1/8
N	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
O	9 1/2	9 1/2	9 1/2	11 1/4	11 1/4
P	12 1/4	12 1/4	12 1/4	13 7/8	13 7/8





For handling industrial liquids where a continuous rate of flow is an operating aid or necessity, it is desirable to know at a glance the rate of flow in GALLONS PER MINUTE. With the **LOBEE GPM RATER**, which has a clear tube entirely around the body and an indicator just inside the tube for easy reading, the rate of flow in GALLONS PER MINUTE is observable at all times. The flange of the float deflects the liquid against the wall of the tube and helps keep it clean so the indicator remains visible even in liquids of high sediment content. The small size of the flow rater permits easy installation.



Operation and Application

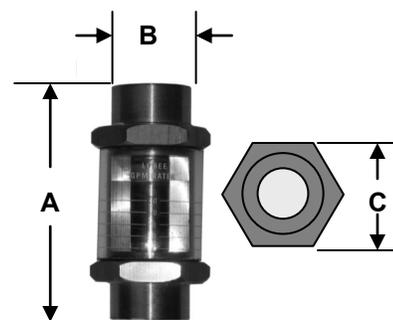
The GPM Rater is a virtually trouble-free unit. It must be installed vertically to insure accuracy and prevent sticking or hang-up of the float. If the float does stick or hang-up for reasons of poor installation alignment, simply tap the pipe above the rater. This will not damage the rater. No lubrication is necessary, but cleanliness is necessary for smooth accurate operation. If sludge or residue builds up inside the unit, remove and clean periodically. Standard calibration is for water at 31.5 SSU. Accuracy is +/- 5% of maximum scale reading. All sizes available in Brass, PVC or 316 Stainless Steel.



Dimensions and Specifications

Base Model	NPT Port Size	Flow Range <i>As indicated on sight glass</i>	A	B	C
RA(F) 404-(*)	1/2"	1-4 GPM	4"	1-3/32"	1-1/2"
RA(F) 412-(*)	1/2"	3-12 GPM	4"	1-3/32"	1-1/2"
RA(F) 608-(*)	3/4"	2-8 GPM	4-1/2"	1-3/8"	2"
RA(F) 620-(*)	3/4"	5-20 GPM	4-1/2"	1-3/8"	2"
RA(F) 812-(*)	1"	3-12 GPM	5"	1-1/2"	2"
RA(F) 840-(*)	1"	10-40 GPM	5"	1-1/2"	2"

(*) Indicates Base Model construction, see below



Construction	Tube	Spring	O-Ring	Maximum Operating Pressure	Maximum Operating Temperature
Brass (B)	Plastic	316 SS	Buna-N	125 psi	125° F
PVC (P)	Pyrex	316 SS	Viton	125 psi	125° F
316 Stainless Steel (S)	Pyrex	316 SS	Viton	125 psi	200° F

() Indicates Base Model construction