

LOBELINE™ Rotary Lobe Pumps





LOBELINE™ is designed for superior pumping capabilities in a wide range of industrial applications. Choose from 8 models, each available in 12 sizes to suit a variety of operating conditions. Both bare pump and complete pump and drive packages are available. With interchangeable seal arrangements and a selection of wet end metallurgies and designs for your specific application, *LOBELINE* offers the perfect engineered pumping solution to meet your needs.

LOBELINE™

Heavy-Duty, Self-Priming Industrial Rotary Lobe Pumps

- Capacities to 2310 GPM (524 m³/hr)
- Pressures to 150 PSIG (10 bar)
- Temperatures to 212° F (100° C)
- Fluid Viscosities up to 1,000,000 cps

LOBELINE™

is a Positive Displacement Pump with the following operational features:

Pump Runs Dry

Non-contacting pumping elements allows periodic use without fluid. Excellent for fluid transfers from tank to tank. Requires no flow indication equipment as used on Screw (Progressive Cavity) pumps that would cease and malfunction if run dry.

Low Shear Action

Smooth tri-lobe geometry provides gentle rolling action enabling shear sensitive fluids to be pumped with minimal damage.

Reversible Flow

Ability to utilize pump in both directions excellent for purging lines or changing pumping system requirements enabling greater process control.

Gas/Air Entrained Fluids

Lobe design can easily handle fluid containing gas/air. Centrifugal pumps are low on efficiency and are prone to losing prime.

Pump Jamming

With LOBELINE simply remove the front cover plate to inspect or clear the pump blockage. Many other pump types such as Screw (Progressive Cavity), Flexible Member (Hose), Plunger, Diaphragm if jammed require substantial disassembly to simple inspect or clear blockages.

Solids Handling

Ability to handle incompressible solids up to 3½" (90mm) suspended within the fluid.

Metering/Controlled Flow

Provides smooth predictable flow with minimal pulsation or surging when faced with varying pressures. Does not require pulsation dampeners like Plunger, Diaphragm type pumps.

Power Consumption Expense

Lobe pumps require less power due to the non-contacting design. Screw (Progressive Cavity) due to their design require higher start up and running horsepower. Centrifugal pumps require increased power on viscosities greater than 300-500 cps.

Pump Installation Space Problem

Lobe pumps require substantially less floor space than traditional Screw (Progressive Cavity and Plunger type pumps).

LOBELINE™ Rotary Lobe Pump

Designed With Features That Provide Maximum Uptime

OPTIONAL SEALED GEARBOX DESIGN

In addition to the front bearing isolator, the timing port plate can be fitted with a labyrinth seal along with sealed expansion caps in place of the traditional vents. These optional features (not shown) allow the gearbox to be fully immersed in flood conditions, or to function in extremely humid environments.

TIMING PORT PLATE

Located at the drive end, it permits easy entry to the taper locking assembly (eliminating the need to remove the gearcase cover), allowing pump to be re-timed in the event of a blockage within the pump casing. No more worries about oil drain-down!

HOOKED SHAFT SLEEVES

Hooked stainless-steel sleeves protect the tool-steel shaft, providing full corrosion protection. Sleeves are hardened for packing applications. O-ring seals keep liquid completely away from the shaft.

LABYRINTH BEARING ISOLATOR

Stainless steel construction eliminates ingress of liquid into the gearbox. Double-lip oil seal retains oil; grease nipple allows grease input to act as barrier within the labyrinth. Functions in static or running state.

AXIALLY-SPLIT STUFFING BOX

Simplifies the removal and replacement of packing and lantern ring.

OPTIONAL REAR WEARPLATES

Upper and lower plates to protect casing. Retained via a series of externally-sealed fasteners.

OPTIONAL RADIAL WEARPLATES

Upper and lower wear plates patented design eliminate casing replacement. Retained via a series of externally-sealed fasteners which allow pump to be serviced in place.

TAPER LOCKING ASSEMBLIES

Used on rotors and gears to simplify removal and refitting.

FRONT-LOADING SEAL AREA

Allows the hardened shaft sleeves or mechanical seals to be removed cartridge style through the front of the casing—without removal of the casing.

REVERSIBLE FRONT COVER

Enables the cover to be reversed when one side is worn, effectively doubling its life. Flush-mounted design has no fastener protrusions to cause premature rotor failure. Hinged on larger models.

LOBELINE™ ...State-of-the-art Rotary Lobe Pumps

For Use in a Wide Variety of Applications

Pulp and Paper

- Paper Coating
- TiO₂ Pigment
- Clay Slurry
- Calcium Carbonate Slurry
- Latex
- Starch Slurry
- Paper Pulp
- Bio Solids Waste Sludge
- Soap Scums
- Resins



Process Maintenance Alternative To

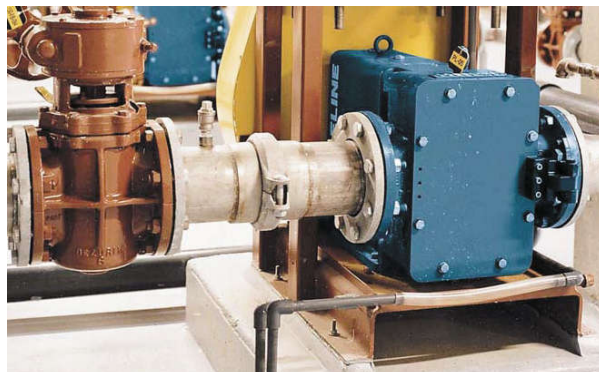
- Conventional Lobe Pumps
- Gear Pumps
- Progressive Cavity Pumps
- Plunger Pumps
- Centrifugal Pumps
- Diaphragm Pumps
- Hose (Peristaltic) Pumps

Typical Processes

- Fluid Transfer/Handling
- Blending/Metering
- Dewatering Feed
- Thickening Feed/Discharge
- Tanker Loading/Unloading

Water & Wastewater Industry

- Grease & Scum
- Primary, Secondary, & Tertiary Sludge Transfer
- Waste Activated Sludge
- Alum Sludge
- Lime Sludge
- Polymer Solution
- Chemical Sludge
- Return Activated Sludge
- Digested Sludge



Chemical Industry

- Polymer Solutions
- Polymer Resins
- Caustic Solutions
- Lime Sludge
- Bio Waste Sludge
- Nylon Waste Sludge
- Gelatin Solution

General Industry

- Paint Industry
 - Waste Sludges
 - Bulk Pigment Transfer
- Cosmetics Industry
 - Raw Materials Handling
 - Soap, Shampoo
 - Waste Sludges
- Metals Industry
 - Coal Tar
 - Waste Sludge
- Mining Industry
 - Concentrate Thickener Underflows
- Food Processing Industry
 - Raw Material Handling
 - Tomato Pastes
 - Concentrated Fruit Juices
 - Meat Processing
 - Waste Products

Sugar Industry

- Calcium Carbonate Slurry
- Masecuites
- Magmas
- Thick Juices
- Molasses
- Crystalline Sugar Syrup
- Sugar Syrups
- Waste Sludge

Petroleum/Oil Industry

- Oily Water
- Waste Oil Sludge
- Heavy Crude Oil
- Refinery Waste
- Waste Lube Oil Sludges

LOBELINE™ the Maintenance Friendly Pump



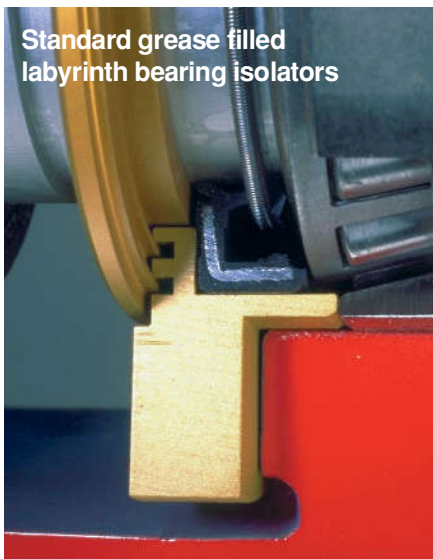
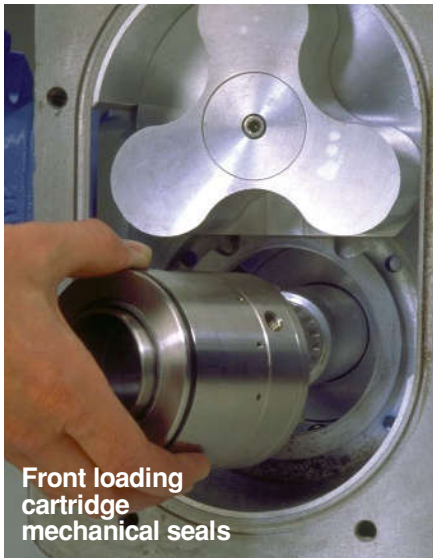
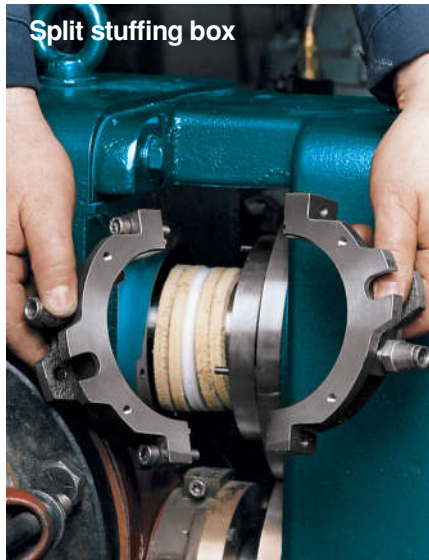
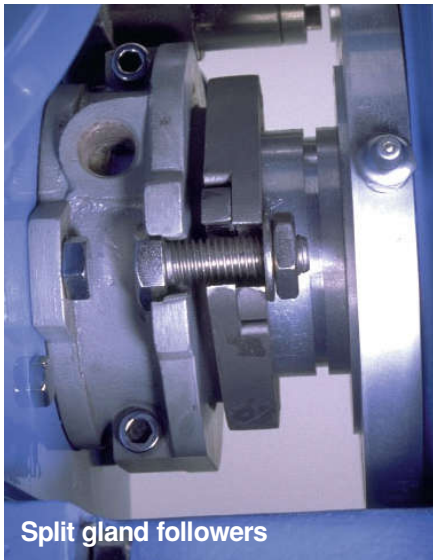
Optional upper and lower rear wearplates



Optional upper and lower radial wearplates

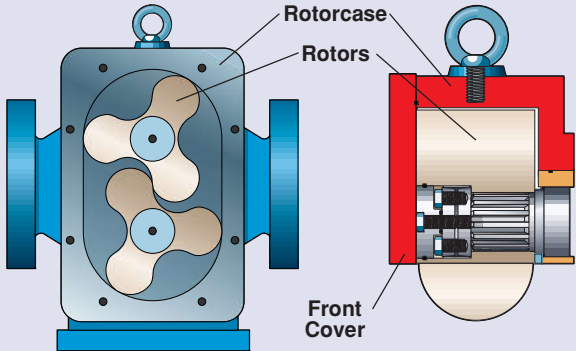
Simple rotor replacement





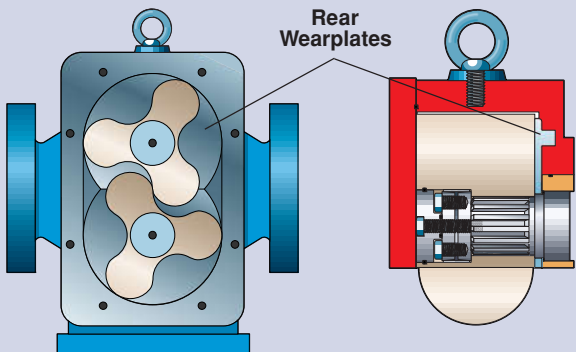
Construction and Materials to Suit Your Application

For Pumping Viscous Fluids with:
 Shear Sensitivity • Low Lubricating Properties • Require Dry Running, Non-contacting Pumping Action



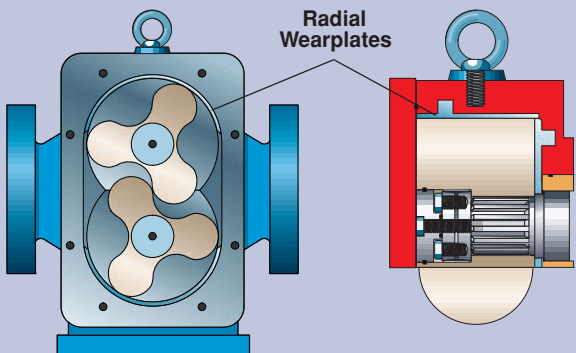
None – Low Abrasive Applications

| | |
|---|--|
| <p>M Model Non-corrosive Services</p> <p>Rotorcase: Ductile Iron Rotors: Elastomer Covered, Solid Ductile Iron Front Cover: Carbon Steel</p> | <p>A Model Corrosive Services</p> <p>Rotorcase: 316 Stainless Steel Rotors: Elastomer Covered, Solid 316 Stainless Steel Front Cover: 316 Stainless Steel</p> |
|---|--|



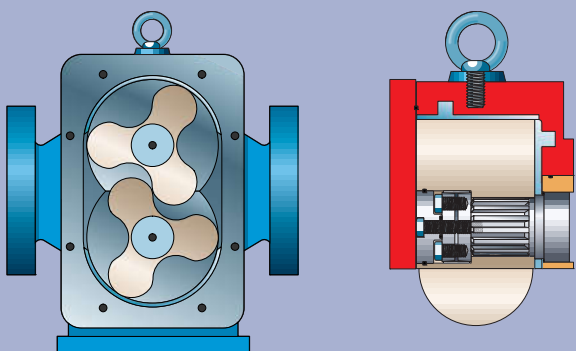
Moderate Abrasive Applications

| | |
|--|--|
| <p>MH Model Non-corrosive Services</p> <p>Rotorcase: Ductile Iron Rotors: Elastomer Covered, Solid Ductile Iron Front Cover: Reversible Hardened Carbon Steel Rear Wearplates: Hardened Carbon Steel</p> | <p>AH Model Corrosive Services</p> <p>Rotorcase: 316 Stainless Steel Rotors: Elastomer Covered, Solid 316 Stainless Steel Front Cover: Reversible Duplex Stainless Steel Rear Wearplates: Duplex Stainless Steel</p> |
|--|--|



Severe Abrasive Applications

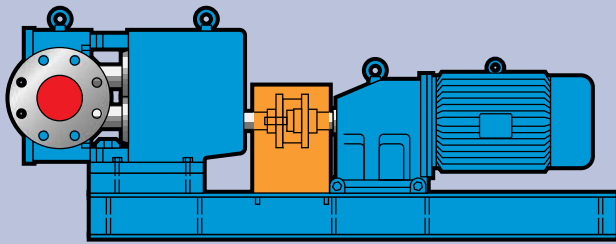
| | |
|--|---|
| <p>MR Model Non-corrosive Services</p> <p>Rotorcase: Ductile Iron Rotors: Elastomer Covered, Solid Ductile Iron Front Cover: Reversible Hardened Carbon Steel Rear Wearplates: Hardened Carbon Steel Radial Wearplates: Hardened Carbon Steel</p> | <p>AR Model Corrosive Services</p> <p>Rotorcase: 316 Stainless Steel Rotors: Elastomer Covered, Solid 316 Stainless Steel Front Cover: Reversible Duplex Stainless Steel Rear Wearplates: Duplex Stainless Steel Radial Wearplates: Duplex Stainless Steel</p> |
|--|---|



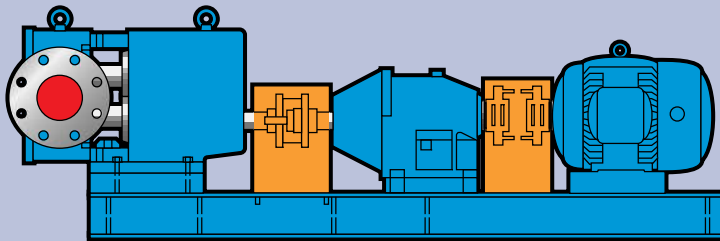
Extreme Abrasive Applications

| | |
|--|--|
| <p>MX Model Non-corrosive Services</p> <p>Rotorcase: Consult Factory Rotors: Consult Factory Front Cover: Consult Factory Rear Wearplates: Consult Factory Radial Wearplates: Consult Factory</p> | <p>AX Model Corrosive Services</p> <p>Rotorcase: Consult Factory Rotors: Consult Factory Front Cover: Consult Factory Rear Wearplates: Consult Factory Radial Wearplates: Consult Factory</p> |
|--|--|

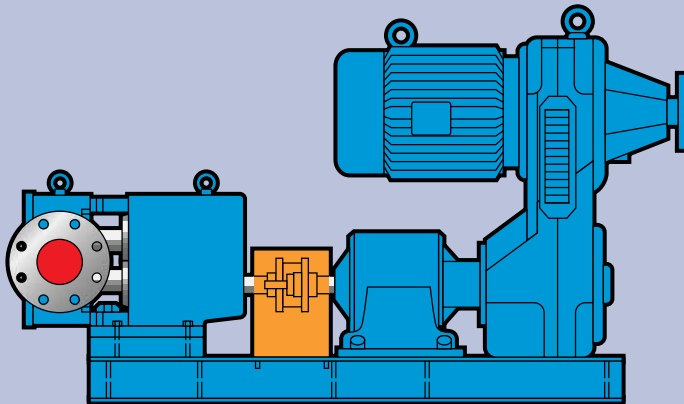
Drive Arrangement Possibilities *LOBELINE™*



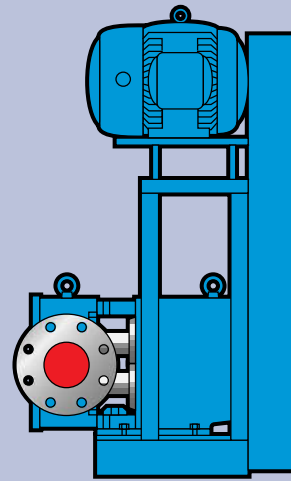
Horizontal Inline Integral Gearmotor



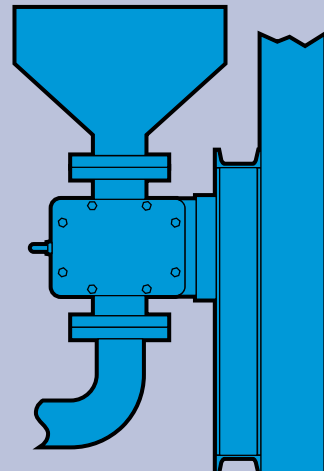
Horizontal Inline Separate Gear Reducer and Electric Motor



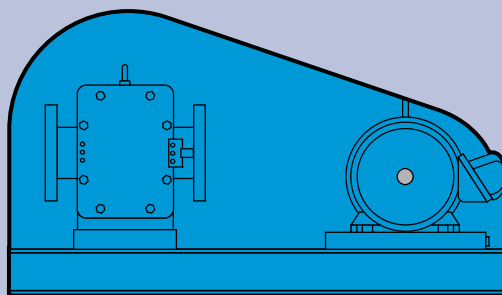
Horizontal Inline Mechanical Variable Speed



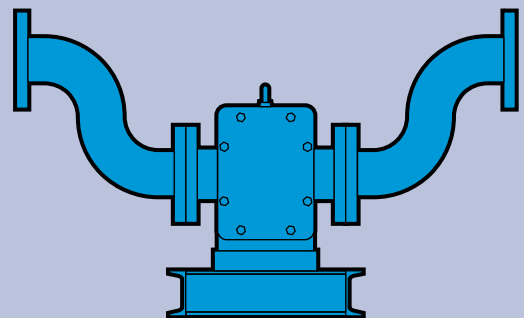
Horizontal Overhead



Vertical Feed Arrangement



Horizontal Side by Side

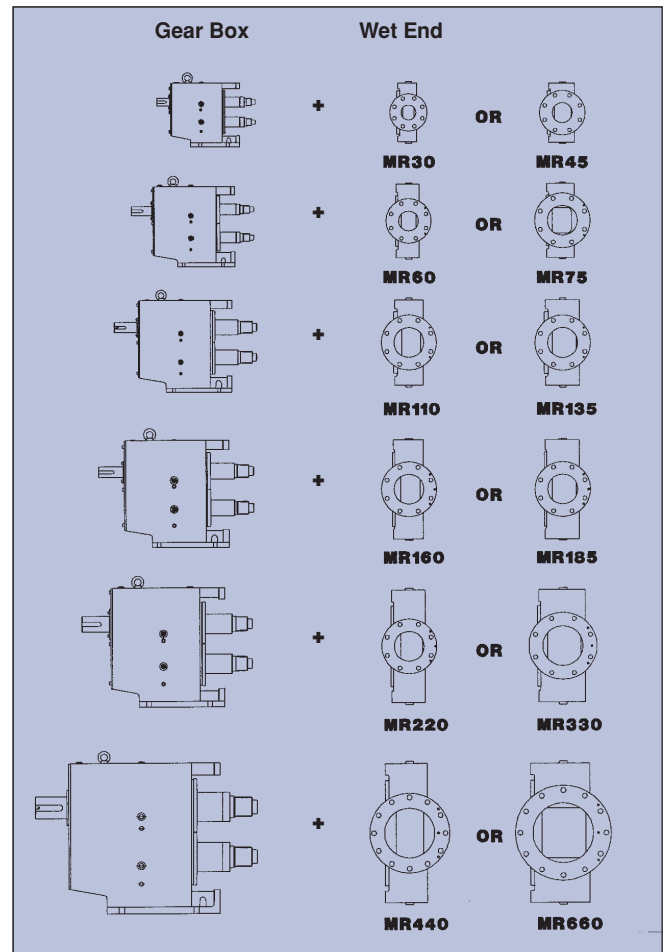


Self Priming Arrangement
(For Suction Lift Applications)

Selection Chart

| Size | Displacement | | Max. Differential Pressure Water | | Suction/Discharge Connection | | Max Speed Water RPM |
|------|------------------|------------------|----------------------------------|-----|------------------------------|-----|---------------------|
| | US gal / 100 rev | Litres / 100 rev | psi | bar | inches | mm | |
| 30 | 30 | 114 | 150 | 10 | 3 | 75 | 750 |
| 45 | 45 | 170 | 75 | 5 | 4 | 100 | 500 |
| 60 | 60 | 227 | 150 | 10 | 4 | 100 | 500 |
| 75 | 75 | 284 | 75 | 5 | 6 | 150 | 500 |
| 110 | 110 | 416 | 150 | 10 | 6 | 150 | 500 |
| 135 | 135 | 511 | 75 | 5 | 6 | 150 | 500 |
| 160 | 160 | 606 | 150 | 10 | 6 | 150 | 500 |
| 185 | 185 | 700 | 75 | 5 | 6 | 150 | 500 |
| 220 | 220 | 833 | 150 | 10 | 6 | 150 | 500 |
| 330 | 330 | 1250 | 75 | 5 | 8 | 200 | 500 |
| 440 | 440 | 1665 | 150 | 10 | 10 | 250 | 500 |
| 660 | 660 | 2498 | 75 | 5 | 12 | 300 | 350 |

Wet End Interchangeability



LOBELINE™ Industrial Pumps offer:

- Flow rates up to 2310 GPM (524 m³/hr)
- Differential pressures up to 150 psi (10 bar)
- Fluid viscosities up to 1,000,000 cps
- Fluid temperatures up to 212°F (100°C)
- 8 models with a selection of wet end metallurgies and designs
- 12 sizes to suit a wide range of operating conditions
- Interchangeable seal arrangements
- Bare pump or complete pump-and-drive packages available
- Options and accessories



Plant:

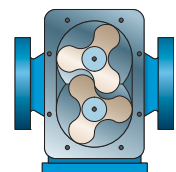
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LOBELINE™

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