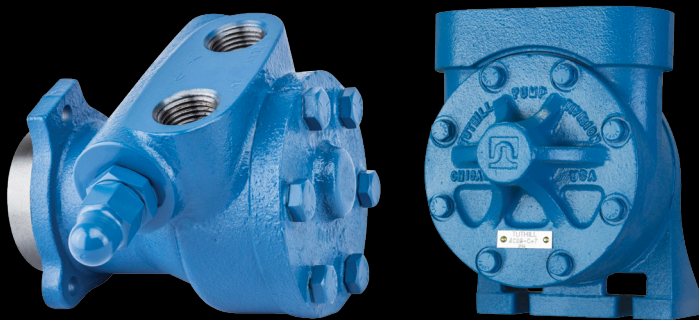


L & C SERIES



Lubrication &
Circulation Pumps

Pump Your Heart Into It



»» LEGENDARY SUCCESS

The L & C Series cast iron positive displacement pumps have been the industry standard for Lubrication & Circulation for over 75 years. They were originally designed under James B. Tuthill, the company's founder. Tuthill has continuously worked to improve these pumps to fit an ever-growing range of lubrication applications. The result is a family of reliable internal gear pumps that are ideal for custom OEM lubrication, low pressure hydraulics, transfer, circulating, burner oil feed, and many other industrial pump applications.

PERFORMANCE RANGES

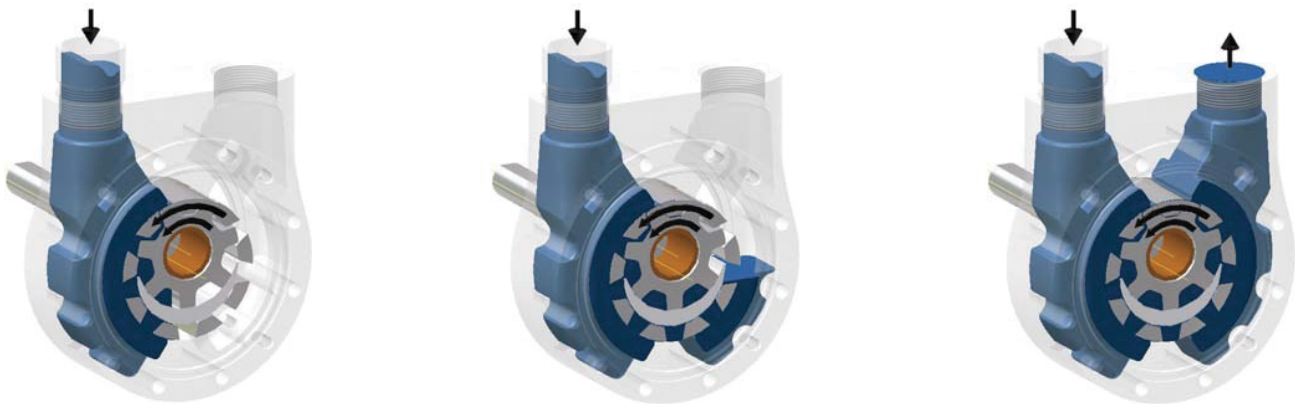
- Flow Range 0.9 to 84 GPM (3.4 to 318 LPM)
- Differential Pressure to 300 PSI (20.7 BAR)
- Viscosity 40 to 25000 ssu (4 to 5394 cst)
- Temperature to 375 °F (190 °C)

»» SIMPLE, COMPACT DESIGN OFFERS HIGH EFFICIENCY, LONGER LIFE, FLEXIBILITY, AND RELIABILITY

THE PUMPING PRINCIPLE

Precisely machined and assembled with only two moving parts, Tuthill L & C series pumps achieve and retain their reliability over a wider range of viscosities than alternative pump designs. L & C series pumps have mounting, driving, and sealing options to suit all your applications needs. Pumping action is based on a rotor, idler gear, and a cover cast with a crescent-shaped partition.

This design allows the pump to handle a wide range of viscosities while sustaining a constant flow regardless of pressure. The non-pulsating flow also runs substantially quieter than other pump designs. With minimal to moderate wear, our internal gear pumps outperform other pumping technologies.



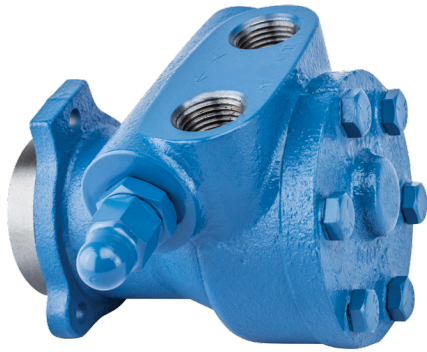
As the pump starts, the teeth come out of mesh, increasing the volume. This creates a partial vacuum, drawing the liquid into the pump through the suction port.

The liquid fills the spaces between the idler and rotor teeth and is carried past the crescent partition through the pressure side of the pump.

When the teeth mesh on the pressure side, the liquid is forced from the spaces and out through the discharge port.

»» PUMP FEATURES

L PUMPS



- Internal Gear Design
- Cast Iron Construction
- Standard Single Mechanical Seal
- Compact and Flexible Drive Options
- Top Porting

- Options Available
 - Tuthill's Reversing Feature
 - Internal Relief Valve Available
 - Adapter Kit for NEMA C-Face Mounting
 - Shaft Modification for Close Coupled Mounting
 - Carbon Idler, Carbon Bushings, and Outboard Bearing

C PUMPS

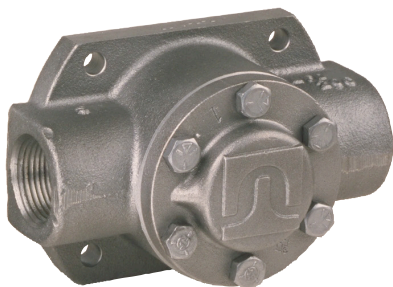


- Internal Gear Design
- Cast Iron Construction
- Flexible Mounting, Sealing, and Driving Options
- Standard with O-Ring Case Seals
- Top Porting

- Options Available
 - Tuthill's Reversing Feature
 - Internal Relief Valve Available
 - Flange and Foot Mount Configurable
 - Carbon Idler, Carbon Bushings, and Outboard Bearing

»» RELATED OEM SOLUTIONS

CARTRIDGE PUMPS



- Internal Gear Cartridge Design
- Cast Iron Construction
- Flow Range to 6 GPM (22.7 LPM)
- Differential Pressures to 150 PSI (10.3 BAR)
- Compact Design Mounts Directly into OEM Equipment
- Multiple Porting and Driving Options

STRIPPED PUMPS



- Internal Gear Design
- Cast Iron Construction
- Flow Range to 84 GPM (318 LPM)
- Differential Pressures to 150 PSI (10.3 BAR)
- Partial Pump Assemblies Built Directly into OEM Equipment
- Available with Tuthill's Reversing Feature

»» L SERIES SPECIFICATION DATA

NOMINAL FLOW RATE
BASED ON 200 SSU @ 100 PSI

MODEL	GPM			LPM		
00LE	0.9	@	1750 RPM	3.4	@	1750 RPM
0LE	1.6	@	1750 RPM	6.1	@	1750 RPM
1LE	2.8	@	1750 RPM	10.6	@	1750 RPM
2LE	5.0	@	1750 RPM	18.9	@	1750 RPM
5LE	13.0	@	1750 RPM	49.2	@	1750 RPM

- Differential Pressures to 300 PSI (20.7 BAR)
- Temperatures to 375 °F (190 °C)
- Viscosities 40 to 5000 ssu (4 to 1078 cst)

Note: For speeds above 1800 RPM and/or viscosities above 5000 ssu (1078 cst) consult factory

»» C SERIES SPECIFICATION DATA

NOMINAL FLOW RATE
BASED ON 200 SSU @ 50 PSI

MODEL	GPM			LPM		
2C	8	@	1750 RPM	30	@	1750 RPM
3C	17	@	1750 RPM	64	@	1750 RPM
4C	36	@	1750 RPM	136.	@	1750 RPM
5C	61	@	1750 RPM	231	@	1750 RPM
6C	84	@	1750 RPM	318	@	1750 RPM

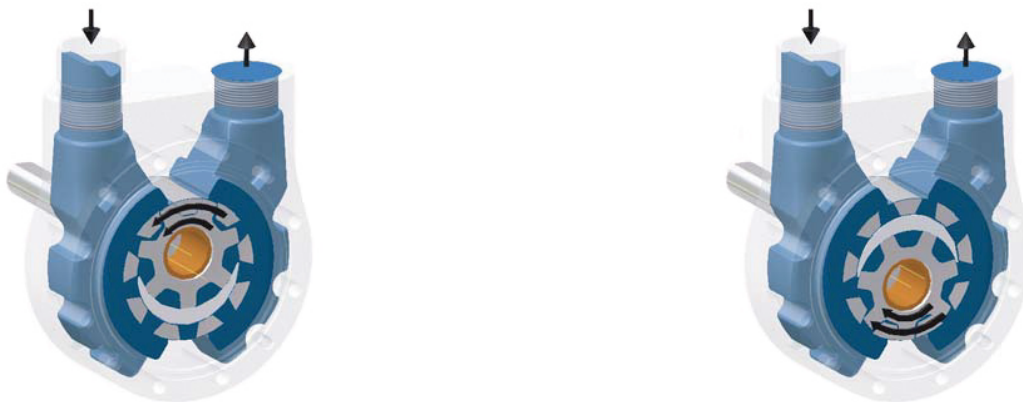
- Differential Pressures to 150 PSI (10.3 BAR)
- Temperatures to 375 °F (190 °C)
- Viscosities 40 ssu to 25000 ssu (4 to 5394 cst)

Note: For speeds above 1800 RPM and/or viscosities above 25000 ssu (5394 cst) consult factory

»» UNIQUE REVERSING FEATURE

This Tuthill innovation allows positive reversing action without the use of valves. Port positions remain constant regardless of the direction of shaft rotation. It is ideal for use in power transmission applications where the drive shaft direction changes, but the direction of flow must remain constant. Other applications where shaft rotation is unknown, the reversing feature allows the customer to specify the suction and discharge ports.

When shaft rotation changes from counter-clockwise to clockwise, the idler carrier (including the idler gear and crescent) automatically rotates 180° through the suction zone to the position shown in the drawing below. This changes the direction of the flow within the pump without changing port positions. On resumption of counter-clockwise rotation, the crescent will swing back to the original position.





Tuthill L & C Series pumps continue to be an integral part of producing countless perfect shades of paint.

» INDUSTRIES AND APPLICATIONS

HEATING, COOLING, & REFRIGERATION

- AIR & GAS COMPRESSORS
 - BEARING LUBRICATION
 - FORCED LUBRICATION
 - PRE-LUBRICATION
- BOILER FEED
- TRANSFER FEED

CHEMICAL TRANSFER

- ADDITIVES
- GLYCOL
- POLYMERS
- RESIN DOSING FOR FOUNDRIES
- SPECIALTY CHEMICALS

OIL & GAS

- ADDITIVES
- DIESEL
- FUEL OIL
- KEROSENE
- OIL TANK CIRCULATION
- SAMPLING

PAINTS & COATINGS

- BLENDING
- LUBRICATION
- TRANSFER

HEAVY MACHINERY & EQUIPMENT

- BARRIER FLUID FOR SEALS
- ENGINE LUBRICATION
- FARM MACHINERY
- FUEL SUPPLY
- GEARBOX LUBRICATION
- LARGE DIESEL ENGINE
- LIGHT HYDRAULICS
- LUBRICATION
- MACHINE TOOLS
 - FILTRATION
 - INJECTION
 - TRANSFER
- MACHINERY AND SPINDLE
- PRE-LUBRICATION
- PULP & PAPER
 - FORCED LUBRICATION
- RAILROAD EQUIPMENT
- TRANSMISSIONS

ENERGY & POWER

- BIODIESEL
 - FUELS
 - RAW MATERIAL FATS & OIL
- CIRCULATION OF COOLANT
- FORCED LUBRICATION
- GLYCERIN
- PRE-LUBRICATION
- STANDARD INDUSTRIAL
- TURBINE

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- The story about Tuthill, our culture, and our products will be available at any time

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phone: 86.21.6917.1999



THE HEART IS THE ORIGINAL PUMP

All of us are born with a pump inside – our hearts. At Tuthill, we don't just make pumps, blowers, and vacuum systems & blowers, we make an invitation for the original pump – the heart – to come alive.

We've always been a company with heart. From our beginnings as a brick maker, we made the bricks that made Chicago. As the horses hauled clay from the quarry, it was too much for their hearts to bear. So Tuthill created an oil pump to power a truck, an innovation that saved horses and led to our first manufactured pump – made from the heart.

Today, we pump our hearts into everything we do: every cut, drill, and cycle, and everything we bring to you. We invite you to join us and find what makes your heart beat a little faster. Because when we all come alive, the world comes along.

