Pump Your Heart Into It

Lubrication & Transfer Pumps
1000 SERIES PUMPS

1000 Series pumps are based on the proven internal gear principal, and have been enhanced in response to demands from our OEM customers for a pump that offers advanced features which make installation easier. These side-ported pumps have the option to bolt SAE/DIN flanges onto them ensuring maximum flexibility on the porting arrangements. Our goal was to design a pump that meets your technical requirements and is easily fitted into your system. The 1000 Series pumps are mechanical seal fitted and have a Carbon Bushing Idler as standard. Options are available for lip seals on direct mounted pumps and a choice of ball bearing or carbon bearings in the body.

FEATURES
- Preset integral adjustable bolt-on relief valve
- Sintered metal or steel Idler gear
- Can be vertically mounted
- Carbon steel rotor
- Self priming
- Non-pulsating flow
- EN1561 EN GiS-250 body
- Modular design for ports
- Flange has an o-ring seal
- Modular design for bushings

EASE OF MAINTENANCE
- No labour to line up motor
- Unique seal flush system for prolonged life
- Pumps can be removed from the system without having to unthread any pipework, ensuring quick and leak free installation

PERFORMANCE RANGE
- Flow Range 2.3 to 190 GPM (8.7 to 720 LPM)
- Differential Pressure to 261PSI (18 BAR)
  for Higher Pressure Consult Factory
- Viscosity to 9400 ssu (2000 cst)
- Temperature to 392 °F (200 ºC)
- Max Speed
  - Model 1010 up to 3600 RPM
  - Model 1012-1024 up to 1750 RPM
- Max Inlet Pressure 870 PSI (60 BAR)
  Dependent on type of mechanical seal fitted

ENGINEERED TO IMPRESS
Our manufacturing expertise and knowledge of applications enable us to not only provide you with an engineered solution, but we ensure your satisfaction with post-sales service. We pride ourselves on properly servicing you with specification, installation, operation, and troubleshooting. The pump was originally designed to meet and exceed the exacting requirements of the refrigeration compressor market. The design has so many inherent features and benefits that our traditional customers are also seeing the advantages. The excellent performance of the 1000 series pumps are solving problems in many industries and varying applications.
The 1000 Series pumps are fitted with SAE/DIN flanged ports, which enable Tuthill to offer various port options. We have the ability to build your pump with threaded, butt weld, socket weld ports, or a blank flange. The blank flange can be tapped to your specific requirement.

**PORTING**

**BUTT WELD**

**SOCKET WELD**

**THREADED**

**MOUNTING**

The 1000 series is designed to be close coupled directly to IEC or NEMA motors. This compact mounting process enables a smaller footprint, but also automatic shaft alignment when changing pumpheads.

Vertical mounting optimizes the fit of the pump into smaller footprints. This is a highly requested configuration whenever floor space is limited. It is recommended that if the pumps are to be mounted in this manner, it is indicated at the inquiry stage of the buying process.

All the adapters can be supplied with a tapped port to facilitate fitting of a clear bottle. The bottle is used as a sight glass to determine seal status.

The 1000 series symmetrical design provides added flexibility. The pumphead can be rotated in 90° increments, creating the ability to change port alignment from horizontal to vertical or reversing suction and discharge ports.
### 1000 SERIES SPECIFICATION DATA

**FLOW RATE AT 50HZ**
ISO 32 at 104 °F (40 °C) 50 PSI (3.45 BAR)

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<th>MODEL</th>
<th>720 RPM GPM</th>
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**FLOW RATE AT 60HZ**
ISO 32 at 104 °F (40 °C) 50 PSI (3.45 BAR)

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*4" Ports

### ASSEMBLY 1012 TO 1017

1. Cover
2. O-Ring
3. Idler Gear
4. Body
5. Bearing
6. Mechanical Seal
7. Bearing
8. Rotor
9. Seal Housing
10. Gasket
11. Gasket
12. Idler Pin
Tuthill's 1000 Series pump is a time-honoured pump for lubrication and circulation in cooling and refrigeration applications.

### 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, & Printing Inks
- Blending
- Lubrication
- Transfer

#### Heavy Machinery & Equipment
- Barrier Fluid for Seals
- Crane/Hoists
- Light Hydraulics
- Lubrication
- 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
- Heavy Automotive
- Marine
- Pre-Lubrication
- Turbine
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.