T-Series Pumps
High Performance
Air Driven Liquid Pumps
T-Series
High Performance Air Driven Liquid Pumps

High Pressure Equipment’s new T-Series pneumatically operated liquid pumps have been engineered to provide an extremely safe, reliable and durable hydraulic power source for applications up to 68,000 psi (4,688 bar). Combining HiP’s high pressure expertise with Graco’s extensive pump engineering background, T-Series pumps address many of the shortcomings commonly found in today’s air driven liquid pumps. Premium T-Series pumps are built to run at their maximum rated pressure and feature a robust motor and seal design that delivers a long service life. In addition, these pumps do not require a lubricated air source and incorporate several features to facilitate easy installation and service.

HiP T-Series pumps achieve a “bubble tight” pressure stall that can be used for high pressure applications such as bolt tensioning, pressure testing, power pressing, jacking, lifting, hydraulic power units, proof testing components, valve actuation and many more.

Why a T-Series Pump?
Merkur Air Motor from Graco
- One of the highest technology air motors on the market
- Low air consumption for increased efficiency
- Proven technology with over 10 years in the market
- Heavy duty muffler provides low operating sound levels
- External valve access allows for easy servicing to help minimize downtime

Heavy Duty Operation
- Pump can achieve the maximum working pressure time and time again unlike intermittent duty rated pumps
- No need for additional mufflers
- Severe duty plunger seal for less downtime

Easy to Service
- Can service air motor shuttle valve without disassembling the pump
- Quick and easy access to plunger seals
- Minimal tools required

Robust Design
- Separated pump air section helps prevent fluid leaks into air motor
- Inlet/outlet connections match pipe connections
- Bubble tight checks

Approvals
- CE
- II 2 G Ex h IIA T6 Gb

NOTE: “h”, Type of protection applied is Constructional Safety “c”.

HIGH PRESSURE EQUIPMENT COMPANY
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T-Series Pump Features

**GRACO MERKUR AIR MOTOR**
Proven design with low air consumption for increased efficiency

**AIR VALVE**
Does not require a lubricated air source and allows for a smooth and rapid changeover

**SEVERE DUTY PLUNGER SEAL**
Robust design delivers extended seal life significantly outlasting competitive o-rings

**GRACO DATATRAK COMPATIBLE**
Accessory providing several benefits, (see below)

**EASY ACCESS CHANGE-OVER POPPETS**
Cartridge design allows for quick repair

**PUMP ASSEMBLY**
Retaining ring allows for 360° rotation for easy installation and service

**CHROMEX COATED PLUNGER**
Provides for a longer service life

**SAFETY**
Pump is cycle tested at maximum rated pressure for life expectancy

**SEPARATED FLUID SECTION**
Increases safety and life by helping prevent fluid leaks into air motor

**Optional T-Series Accessory**
Graco Datatrak Electronic Monitoring System
- Stroke counter
- Cycle rate display
- Runaway protection

**CHECK VALVES**
Range of connection sizes and pressures to match pump rating, including HP coned and threaded outlet connections
## Performance & Applications

### Applications
- Bolt Tensioning
- Pressure testing
- Work holding and clamping
- Jacking and lifting
- Power pressing
- Hydraulic power units
- Valve actuation
- Proof testing components
- Hydraulic cylinder actuation
- Chromatography
- Lubrication and spraying
- Liquefied gas transfer

## T-Series Pump Maximum Pressure & Flow Ratings

<table>
<thead>
<tr>
<th>Maximum Working Pressure - psi (Bar)</th>
<th>Maximum Flow Rate at 80 CPM - in³/min (LPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 (3.3)</td>
<td>T6003 7505</td>
</tr>
<tr>
<td>180 (3.0)</td>
<td>T6010 7516</td>
</tr>
<tr>
<td>160 (2.6)</td>
<td>T6012 7516</td>
</tr>
<tr>
<td>140 (2.3)</td>
<td>T6016 7520</td>
</tr>
<tr>
<td>120 (2.0)</td>
<td>T6025 1200</td>
</tr>
<tr>
<td>100 (1.6)</td>
<td>T6029 1000</td>
</tr>
<tr>
<td>80 (1.3)</td>
<td>T6035 800</td>
</tr>
<tr>
<td>60 (1.0)</td>
<td>T7500 6000</td>
</tr>
<tr>
<td>40 (0.7)</td>
<td>T7510 4000</td>
</tr>
<tr>
<td>20 (0.3)</td>
<td>T7520 2000</td>
</tr>
</tbody>
</table>

### Typical Installation

![Typical Installation Diagram](image)

Note: T-Series Pump is the only item supplied by HiP with order of pump. All other components are available from HiP to be ordered separately.
**Features**

- 6 inch air cylinder
- Available in 9 different pump ratios
- 2.5 inch pump stroke
- Maximum operating pressure of 58,000 psi (4000 bar)
- Maximum flow rate of 177 in³/min (2.9 lpm) at 80 CPM
- Inlet air pressure 15 psi to 100 psi (1 to 7 bar)
- Four different plunger seal materials

* 80 CPM recommended for optimal pump seal life

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Model</th>
<th>Ratio</th>
<th>Seal Material</th>
<th>Maximum Working Pressure psi (Mpa, bar)</th>
<th>Maximum Pneumatic Inlet Pressure psi (Mpa, bar)</th>
<th>Displacement per Stroke in³ (ml)</th>
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</thead>
<tbody>
<tr>
<td>T6058-576-NBR-00</td>
<td>T6058</td>
<td>576:1</td>
<td>NBR</td>
<td>58,000 (400, 4000)</td>
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<td>T6036</td>
<td>365:1</td>
<td>NBR</td>
<td>36,500 (252, 2520)</td>
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<td>T6058-576-NBR-00</td>
<td>T6025</td>
<td>254:1</td>
<td>NBR</td>
<td>25,250 (175, 1750)</td>
<td></td>
<td>0.28 (4.5)</td>
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<tr>
<td>T6058-576-EPR-00</td>
<td>T6016</td>
<td>163:1</td>
<td>NBR</td>
<td>16,250 (113, 1130)</td>
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<td>0.43 (7.1)</td>
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<td>T6012</td>
<td>125:1</td>
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<td>12,500 (87, 870)</td>
<td>100 (0.69, 6.9)</td>
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<td>101:1</td>
<td>NBR</td>
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<td>NBR</td>
<td>3,200 (23, 230)</td>
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<td>2.20 (36.0)</td>
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</table>
## T7500 Series Pumps

### Features
- 7.5 inch air cylinder
- Available in 9 different pump ratios
- 2.5 inch pump stroke
- Maximum operating pressure of 68,000 psi (4690 bar)
- Maximum flow rate of 177 in³/min (2.9 lpm) at 80 CPM
- Inlet air pressure 15 psi to 100 psi (1 to 7 bar)
- Four different plunger seal materials

*80 CPM recommended for optimal pump seal life*

### Parts Table

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<thead>
<tr>
<th>Part Number</th>
<th>Model</th>
<th>Ratio</th>
<th>Seal Material</th>
<th>Maximum Working Pressure psi (Mpa, bar)</th>
<th>Maximum Pneumatic Inlet Pressure psi (Mpa, bar)</th>
<th>Displacement per Stroke in³ (ml)</th>
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<td>571:1</td>
<td>EPR</td>
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<td>T7505-50-NBR-00</td>
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<td>0.12 (2.0)</td>
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<tr>
<td>T7505-50-FFKM-00</td>
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<td>T7505-50-EPR-00</td>
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<td></td>
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</tr>
</tbody>
</table>
T-Series Pump Packaged Systems

HiP packaged hydraulic power systems using our new T-Series pumps are an excellent method to deliver high pressure hydraulic power to your field location. These turn-key systems only require a non-lubricated air supply to generate hydraulic power up to 68,000 psi and are designed for plain water or oil service. We offer several standard systems as well as custom power systems to satisfy your specific requirements. All HiP power packs are factory pressure tested prior to shipping.

Optional Power Pack Extras

- Pressure isolation valve
- Circular chart pressure recorder
- Auxiliary pressure port
- Stroke counter with readout
- Stainless steel framework & hose tray
- ATEX approvals

NOTE: For custom power units and optional pump materials contact our factory with your requirements.

Bolt-Tensioning Power Packs

HiP air operated bolt-tensioning power packs are compact and robust self-contained units designed for applications in offshore oil and gas industry, heavy construction, ship-building, wind farms and renewable energy, where reliable sources of hydraulic power are required.

Each power pack contains the pump complete with air filter, regulator, air gauge, on/off valve, hydraulic pressure gauge and gauge protective cover, outlet pressure connection block, release valve and interconnecting pipework.

Standard power packs are typically in-stock or available with a short lead-time. Custom power packs are available to meet your specific needs. Typical applications include hydrostatic testing, operation of hydraulic valve actuators, clamping and tensioning tools.
PT2020 Automated Pump Controller System

High Pressure Equipment Company introduces the first-of-its-kind Automated Controller System for air driven high pressure hydraulic pumps. The PT2020 controller is designed to provide automated pressure control for a wide range of hydrostatic testing. Operators simply setup their test, press start and walk away… the PT2020 will automatically run the test, give a pass/fail reading and generate a test certification report.

Features

- Industry-first automated controller for manual air driven hydraulic pumps
- Automated pressure control for hydrostatic testing
- Plug’n play upgrade for any manufacture pneumatic intensifier pump
- Five pressure classes: 10,000 psi • 25,000 psi, 40,000 psi • 60,000 psi • 75,000 psi
- Generates test certification reports
- Easy-to-use touch screen interface
- Simply setup test, hit start and walk away
- Highly accurate